

The imperatives of TVET in countries of sub-Saharan Africa

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Background

The Second International Congress on Technical and Vocational Education in Seoul, South Korea made recommendations that were clustered around the following six themes for launching "a new global strategy for Technical and Vocational Education" (UNESCO, 1999):

1. *The changing demands of the twenty-first century: Challenges to technical and vocational education.* This theme drew attention to the fact that the changes taking place in the twenty-first century will bring a radically different economy and society with profound implications for technical and vocational education. TVET systems, as a result will have to adapt to the age of globalisation, the constant pace of social change, the demands of knowledge-based societies, and the revolution in information and communication technology.
2. *Improving systems providing education and training throughout life.* Increasingly all educational systems, including TVET systems are expected to emphasize life-long learning with cultural and environmental aspects in addition to the social and economic dimensions. To make life-long learning possible, TVET systems must be flexible, open, and learner-oriented. Furthermore, TVET systems should develop close interfaces with all other education sectors to construct bridges and facilitate seamless pathways for learners. Consequently there needs to be a greater emphasis on articulation, accreditation, and recognition of prior learning.
3. *Innovation in the education and training process.* One of the imperatives of the twenty-first century is the use of innovative techniques and methodologies, including the use of technology, the need for sustainable development, an understanding of foreign languages, entrepreneurship, and the requirements of rapidly growing services industries such as leisure, tourism, and hospitality. New technologies must be harnessed to increase access to TVET in all countries.
4. *TVE for All.* As the movement of Education for All (EFA) became more widespread, the term TVET for All also became more commonly used. It was clear that TVET systems should be designed as comprehensive and inclusive systems in order to accommodate the needs of all categories of learners, including previously marginalized groups, women using diverse delivery modes accessible to the unemployed, early school leavers, and out-of-school youth, rural populations, and disadvantaged groups.

5. *Changing roles of Government and other stakeholders.* Though it is recognised that governments have primary responsibility for TVET, policies must emphasize a new partnership among government, industry, and society, within a comprehensive and coherent legislative framework to support a national strategy for change. As funding of TVET is an investment, the funding of TVET must be shared among government, industry, the community, and the learner, with the involvement and contribution of volunteers and NGOs.
6. *Enhancing international co-operation in TVET.* It was accepted that developing countries needed more financial and technical support from international agencies, through an increased co-operation between the North and the South, between UNESCO and its international partnerships such as the ILO, World Bank, Commonwealth, and the European Training Foundation to enhance TVET.

Following deliberations among 122 technical experts from Member States, intergovernmental and non-governmental organizations and industry who met in Bonn, Germany, from 25 to 28 October 2004, on the threshold of the United Nations Decade of Education for Sustainable Development, to assess progress since the Second International Congress on Technical and Vocational Education, held in Seoul, Republic of Korea, in April 1999, it was agreed that, 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.

The Bonn Declaration (October 2004) affirmed that the appropriate development of TVET was central to the attainment of those agreed goals. Recognizing that the vast majority of the worldwide labour force, including knowledge workers, require technical and vocational knowledge and skills throughout life, it was agreed that skills development leading to age-appropriate TVET should be integral to education at all levels, and could no longer be regarded as optional or marginal. It was especially important to integrate skills development in Education for All (EFA) programmes and to satisfy TVET demand created by learners completing basic education. It also affirmed that preparation for work should equip people with the knowledge, competencies, skills, values and attitudes to become productive and responsible citizens who appreciate the dignity of work and contribute to sustainable societies.

The experts in Bonn, considering the UNESCO TVET Survey of 2004 that has revealed that progress has been uneven stressed the need for renewed effort to modernize TVET and ensure its enhanced status and sustainability.

Accordingly, they invited the Director-General of UNESCO to urge Member States, the concerned agencies of the United Nations system and other relevant stakeholders, both public and private, to build partnerships and to revitalize efforts to implement the recommendations that have not yet received sufficient attention or resources. Given the scale of the task and the complexity of the conditions in which action must be taken, the experts expressed the hope that particular priority be given to TVET initiatives that alleviate poverty, promote equity, especially in relation to gender, arrest the spread of the HIV/AIDS epidemic, support youth in crisis, support rural communities and people in excluded groups, encourage north-south and south-south cooperation and assist the development of countries in transition and those in and emerging from crisis and conflict.

It was against this background that 4 countries (namely Ghana, Tanzania, Mauritius and Zimbabwe) were asked to prepare a case study on the development of TVET with a long term perspective. Though these 4 countries have inherited Anglophone systems of formal education they have evolved differently as expressed in the introduction of each study. TVET generally suffers relative neglect in all 4 countries. On the positive side, the 4 TVET systems have certain strengths which can be cited as examples. For example, in West Africa there is a vibrant apprenticeship system in the informal sector which can be strengthened and modernised. In Mauritius the funding through a levy has been systematically adopted by most countries of sub-Saharan Africa.

A comparative analysis of all 4 cases shows the desire in all 4 countries to deal with some of the common problems of TVET, namely how to raise the poor status of TVET and promote its image nationally, the need to build capacity for policy formulation and analysis and strategic planning, the need to streamline institutional arrangement for TVET management in a comprehensive national policy framework, the necessity to improve the quality and relevance of TVET, ways and means to improve access and participation in the country, how to improve the trainability of the TVET workforce, how to promote linkages with the TVET system, how to establish sustainable funding sources, how to ensure the development of national manpower policy and how to encourage international cooperation and partnerships, among others. Other issues identified but not in all 4 countries are the need for co-ordination and identification of roles and responsibilities among government ministries and private providers, the multiplicity of testing and certification standards, the weak links between TVET and industry or the work of work, poor articulation within the TVET system itself, the lack of inclusion in TVET and low participation of persons with disabilities, poor quality of instruction due to inadequate instructor training, instructor support, remuneration and conditions of service for TVET instructors and the

lack of guidance and counselling and placement and follow-up services for TVET students

National framework and HRD strategy

Tanzania proposes the need for creating a framework for harmonizing a HRD strategy to enable translate different policies and priorities into a common national plan and strategy which will guide the different actors to work towards a common goal and a national skills development strategy cutting across all sectors and levels, and considering all areas of skills supply. There is need for creating a framework for harmonizing a HRD planning strategy to enable translate different policies and priorities into a common national plan and strategy which will guide the different actors to work towards a common goal and priority areas.

The historical role of the IVTB in Mauritius over the past 15 years has been a key vehicle for this scope of TVET delivery. This institution has provided an all-encompassing role of policy implementation and policy regulation. As a partnership between government and the private sector, the role of the IVTB has been strongly geared to delivery that entails high capital costs, which the private sector cannot afford. This had resulted in specific areas of specialised technical training to support industrial expansion. Mauritius thus recommends the establishment of a high-level Human Resource Development Authority or Council to guide policy development and implementation. Other essential features include the development of mechanisms to

- monitor performance in workplaces;
- measure the impact of training;
- ensure greater linkages between education and training; and
- create linkages within clusters of enterprises.

The main institutional structure recommended for Ghana is an apex body - a Council for Technical and Vocational Education and Training (COTVET) with its semi-autonomous organs, namely:

- a Ghana National Qualification Authority,
- an Industrial Training Advisory Board (ITAB), and
- a Training Quality Assurance Board.

It is also suggested to set up a national Council for Technical and Vocational Education and Training (NCTVET) under the office of the President to co-ordinate pre-tertiary TVET in the country since there are several ministries and private sector organizations which provide TVET independently of each other.

Zimbabwe recommends that central government should provide leadership and vision, facilitation and coordination of policy evaluation in 2005. However, consistent with ILO Recommendations (2004), TVET policy design should be achieved through partnerships between government, industry and commerce, employers, professional bodies and other non-governmental organisations or bodies in a modern market economy, although no specific structure is suggested in the study.

Funding

Without proposing any specific way of providing funds to TVET Ghana suggests that Government should show commitment by allocating adequate resources for TVET funding. This is not fully elaborated and in addition, all stakeholders including employers and beneficiary trainees are asked to contribute to the funding of TVET. It is also proposed that TVET should be supported by the GETfund and that other options be explored to find sources for adequate funding for TVET.

Tanzania also talks about the need to establish a unified TVET funding mechanism, without clearly mentioning the mechanism that should take care of this funding. To avoid conflict of interest, it is proposed that TVET funding should be independent from the TVET regulatory or promoting authority. The concept of cost sharing whereby employers, trainees and other meet the cost is seen as necessary. However, a transparent disbursement to support priority areas in accordance with the pre determined strategic focus should also be indicated. It is proposed that the source of funding be a unitary levy system, the advantage being that a unitary system for a developing country like Tanzania is its broadness and flexibility with which different priority areas can be supported.

Presently companies in Zimbabwe pay 1% of their annual salary wage bill as levy to the Zimbabwe Manpower Development Fund (ZIMDEF) to support TVET programmes and they don't seem to be willing to pay more until the utilisation of these funds becomes more transparent. In the meantime, ZIMDEF is expected to capitalise TVET, pay for all consumables, books and maintenance of equipment in all public institutions in addition to paying fees for apprentices and stipends for students on industrial attachment. The recommendation concerning funding of TVET in Zimbabwe is that the bulk of funding for TVET should come from the government and ZIMDEF though the scope of ZIMDEF funding is not very clear and seems to have changed from what it was at its inception in 1984. The present funding scheme seems to be ineffectual in meeting all its obligations. However, the heavy reliance on these two sources of funding is certainly inconsistent with the 2002 UNESCO

and ILO Recommendations on TVET for the Twenty-first Century which stresses that TVET funding should be a shared responsibility between government, the private sector, voluntary organisations, and the students themselves. In the schools sector, there is no sustainable funding mechanism for TVET since the introduction of the SSF which is by far inadequate and whose apportionment depends on the school head. Even though individual schools collect practical subjects fees under GPF to augment the SSF, this fails to fully support TVET in the schools sector. A way has to be found to rationalise the financing of TVET operations in the country.

In Mauritius, the financing of training is based on the principle of partnership between the public and private sectors. Industry is one of the principal partners in the financing of training activities. Employers contribute a compulsory levy at a flat rate of 1% of the total basic salary of their employees though the overall responsibility for TVET has been the responsibility of Government. It is largely recognized to be desirable that the private sector (private training institutions and enterprise-based training) participates actively in the development of human capital. The growing number of private training institutions and in-house training centres, largely facilitated by the provision and incentives of the levy-grant scheme, helps to reduce the burden of government in ensuring greater access to training opportunities. As a result of this funding there is a relatively high level training infrastructure: the public training institutions are fairly well equipped. In the case of IVTB, this has been enabled through continuous investment in state of the art technology and the enlistment of services from international partners, made possible by the fact that the levy constituted until recently a strong and stable source of financing.

However the major weakness of the Mauritian funding scheme is the relative inflexibility of the publicly-funded training system. A good training system is characterized by the degree of flexibility and responsiveness to changing demand. The status that staff in the public training institutions enjoys with the employment security does not allow for timely adjustment in the wake of falling demand for specific programmes. The result is that some degree of inefficiency is almost inevitable.

Since TVET is expensive, all 4 countries accept that government alone cannot fund TVET all alone and that some cost sharing mechanism needs to be introduced. The difficulty is finding the right mechanism that allows for flexibility and sustainability. Other sources for which funding could be derived to support the TVET sub-sector include the generation of income through the establishment of production units (as in the case of Mauritius) provision of services consultancies and sales of special courses to industry and the public by training institutions. However, the danger is that the training can be reduced to achieve production per se in specific fields that are on demand in

order to raise funds, rather than provide proper training that the institutions are mandated for.

Increasingly, all 4 countries are in favour of parents and students contribution through payment of fees. Other ideas concern community contribution to infrastructural development for TVET Institutes through self-help programmes. Overall it is believed that the private sector should share with government in contributing to the cost of training through introduction of industrial training levy (as all 4 countries have recommended) and similar incentives. The difficulty with this is that Africa (all the 4 countries) has a strong informal economy that needs an "informal manpower" requiring a training that must be different from the formal training provided for the formal economy in formal institutions. The challenge of all sub-Saharan Africa is to find the right type of training that is both relevant and sustainable in the long run. Enterprise based training within the informal sector and industrial sponsored training should also become more popularised in all countries.

It is recognised that sustainable funding is the key to the success of TVET in all countries. Generally speaking, funding TVET is more expensive than general academic education due to cost of equipment, tools and consumables required for practical skills training. Given the present state of facilities and the huge investment required to rehabilitate and establish additional training institutions, it is generally believed that it may be necessary to seek external funding to supplement local funding. It is, however, necessary for governments to see external funding as a short term measure that requires proper coordination through a commonly agreed agency and judiciously used for maximum efficiency and impact.

Quality and Relevance

The 4 studies do not discuss this question at length, though all 4 studies do mention the need to improving the quality and relevance of all TVET programmes, especially with reference to linkages with industry. In the case of Ghana, it is recommended to forge and strengthen the links between TVET institutions and Business/Industry. TVET institutions should take the initiative in this regard. The difficulty with this recommendation, leaving the onus for strengthened links on the institutions, is the difficulty of its implementation, especially since it is not grounded in national policy. If it is up to institutions to decide on the links then it is possible that some institutions may decide not to institute these linkages, thereby preventing the learners from knowing the real world of work. However, if Industry is seen as an indispensable partner in the national training policy and implementation then it should have a major decision in the design of modules of skills to be taught.

The recommendations in the case of Tanzania are more comprehensive, with the following strategies and framework for aligning TVET to skills demand areas:

- *Centralization and availability of labor market needs, economic sector performance and potentials.* Such information should readily be available for use by TVET providers. Proposed employment services/labour exchange centers could provide a reliable source of this information. This, however, is not easy to achieve, as it has been the most difficult element to properly gauge the market needs and forecast the demands of labour, especially in informal economies. The economy of sub-Saharan countries, especially at a time when globalization is sweeping across the world, has not yet sufficiently reacted to adequate manpower planning. No acceptable survey has yet allowed any government or for that matter the private sector to anticipate what is likely to be manpower needs in the foreseeable 10 – 15 years.
- *Evolvement of flexible, demand driven system,* which readily addressed both short term and long-term employable skill, demands.
- *Training courses provided are structured to respond to those requiring short courses with high impact on employment* e.g. the emerging demands in tourism, mining and service sectors such as retail, banking, and insurance. As long as this is not limited to the short term and is sustainable as it requires a dynamic response to the market, this recommendation can be applied.
- *Training courses meets the demands for creating future workforce.* These require longer courses because of the position of supply, e.g. young persons who need to grow and acquire competencies before entering the world of work

All 4 countries propose to offer "demand-driven" programmes as against the present "supply-driven" programmes by relating training outputs to labour market demands, based on development of new technologies and trades in industry and commerce through labour market information system. Though this is what is ideally aimed at, it is not easy to achieve, as long as the synergies between industry, government and curriculum specialists are not well grounded. It is also advisable to undertake regular interaction between TVET Institutions and industry and commerce through attachment of instructors and students for practical exposure; and undertake staff exchange where industrial practitioners may be seconded to teach special topics in the TVET institutions. It would also be good to integrate entrepreneurship training with TVET programmes to encourage self-employment for the growth of the private sector.

Increasingly countries are getting to develop and adopt the competency

based training approach where the competence of the learner is most important. This is likely to promote the modular approach to training and create flexibility of training delivery in the TVET system. However, such an approach takes time and needs careful planning, as many countries in the West have done (especially in Canada, Belgium and France).

National Qualification Framework

The development of National Qualification Frameworks is a policy trend in many developed and developing countries, especially in countries of southern Africa. Such Frameworks are necessary for encouraging lifelong learning in TVET. In Tanzania, it is proposed to create a harmonized qualifications framework with clarity on how to determine equivalencies of qualifications both within Tanzania and outside Tanzania. Thus it would be possible to obtain standardized qualifications with clear levels and progression paths, coupled with a harmonized accreditation mechanism to enable credible evaluation of certificates by both employers and further training institutions. Learning guides and curriculum also need to be synchronized so that they enable the leavers to meet the qualifications standards for certification. It is necessary to develop TVET tutor standards for different levels and align tutor training content and certification based on the standards. A clear career structure for the tutors should be developed, guided by a policy which should attract and enable retention of tutors in TVET. National Qualification Frameworks have certain characteristics that make them attractive in the organization and delivery of TVET. They are based on industry-determined training needs, competencies specified by industry rather than by institutions, and they stress the attainment of standards that industry wants.

While the bill to establish Zimbabwe Qualification Authority that will drive the Zimbabwe Qualification Framework is already before Parliament, the establishment of the Certification standards is not yet complete. The 1990 policy merely attempted to facilitate movement by TVET learners to universities. It was left to the discretion of individual departments to determine the level where the learners would join the degree programme in the University. The result is that many are forced to join at first year level even if they possess HND's. This raises serious questions about recognition of prior learning and that of TVET qualifications by the academic sector. Qualifications below these levels are also not yet recognised and therefore learners who are not planning to go to University seem to believe that they do not need qualifications.

In Mauritius, The Education and Training Act has been amended in July 2005 so that henceforth, the accreditation of post-secondary education institutions is ensured by the Tertiary Education Commission (TEC) instead of the

Mauritius Qualifications Authority (MQA). This has resulted in some elements of confusion amongst some of the training institutions which provide education and training at both the secondary and post-secondary levels.

They are required to seek accreditation with both the MQA and the TEC. This separation of responsibilities may also have implications for the burgeoning National Qualifications Framework, which is for the time being essentially a concept and needs to be operationalised, especially in relation to the TVET sector, which is very challenging and would imply major reforms in curriculum design and development and assessments.

Normally there should be flexibility in entry and exit modes in that a trainee should not be bound to undertake the whole program but should be able to get a module s/he can use incrementally and all courses would still count in the total certification. Such an approach requires a proper certification and national qualification framework to become operational. Additionally, recognition of prior learning should also be considered as an important factor so that persons from informal or formal sectors are able to test for competencies and the acquire credit and/or training needed to reach given performance standards. Finally training taking place in different places should be accredited provided that the learners are assessed for competencies in case certification is required

For the realisation of quality in TVET, there is a need for instructional quality improvement through instructor training initiatives both pre-service and in-service. Unfortunately the training of technical instructors has not been given adequate attention. There is the need to expand and improve upon existing national Technical Teacher Training facilities, and to create avenues for the training of instructors for both formal and non-formal sectors. There would be the need to establish a framework for Technical Instructor Qualifications. The conditions of service and remuneration of TVET instructors need to be looked at differently from those teachers in the general education track and improved. This is because the TVET system competes directly with industry for its most experienced teachers.

Policy Options for TVET as Preparation for Specific Occupations

All 4 countries show the utility of TVET as preparation for specific occupations. This phase of TVET corresponds to a level of education that is generally called post-basic, namely after almost 9-10 years of study. The preparation of youth for initial employment may be considered the most critical and fundamental function of TVET. Even if there is no pre-vocational or pre-technical education at the basic education level and a solid foundation has been laid what is now called "generic skills" necessary for employability and in the basic academic skills, pupils can easily acquire skills for earning a

living. In fact success in learning skills is not dependent on how early skill training begins but more importantly on how ready the learner is to receive that training. Those who have the basic generic skills learn the skills faster and that makes TVET delivery more effective. In some countries like Ghana, for example, they have gone for what is a vocationalisation of secondary education.

Vocationalisation of secondary education has long been a matter of interest and debate in many countries. Many countries have tried vocationalising their education and many have abandoned the attempt (See Lauglo, J & Maclean, R (2005) *Vocationalisation of secondary education revisited*. Springer). As Lauglo and Maclean (2005) mention, vocationalisation is a complex issue which inescapably will be a matter of judgement. They conclude that it is hard to see a strong case for putting vocational subjects high up on the priority list for the development of mainstream secondary schools in sub-Saharan countries. The main reasons for scepticism are:

- Economic relevance has been the driving political rationale. But findings show that a light dosage of vocational skills as typically taught under vocationalisation policies, will not give labour market advantage, let alone serve as a basis for self-employment.
- If justified on other grounds, vocational subjects (e.g., at lower secondary level) must be weighed against the urgent need to improve the quality of language and mathematics.
- Vocational subjects are costly and complex. They tend to get dropped when donors disengage, in developing countries.
- The teaching of vocational skills that are demanded in the labour market can more easily be organized in specialized institutions which have vocational education and training as their main purpose.

Any programme that prepares people directly for work must include generic work skills or what are referred to as *employability skills*. These skills emphasize work attitudes, work values, work ethic, work habits, interpersonal skills, entrepreneurship skills, team spirit, communication in work environments, and customer service. Without these employability skills, the specialized production skills acquired are not always effectively utilized.

Policies for TVET as Lifelong Continuing Education

TVET systems must have policies for the provision of lifelong education and training to people who are already employed. Continuing education enables workers to keep pace with changing technology, update their skills and knowledge, acquire higher qualifications, and develop in their chosen careers. In all 4 countries, many workers take advantage of continuing education opportunities provided mainly by private and public institutions, especially in open learning systems. However, the TVET system has not developed a vibrant system of continuing education. The institutions, especially the public

ones are focused mainly on meeting the needs of the full-time student.

One of the factors constraining the provision of continuing education in TVET is the lack of articulation between TVET and general education. For most skilled workers, further education and training does not seem attractive because the rewards are not clear and the dead-end that TVET seems to represent discourage people from striving to higher levels. For example, those who choose the TVET track and desire to move up have to change subject offerings and start learning new subjects because they cannot progress in their trades or professions. That is the main reason that countries are starting to develop a National Qualification Framework that will provide recognition of training and relevant experience and articulation between such experiential learning and formal systems of qualification.

Conclusion

All 4 case studies try to manage these issues their own way. However, a quick look at the 4 countries highlights the short-termist nature of the current TVET system, which is geared to meeting the immediate needs of employers, and therefore lacking in a long-term strategic vision of how to combat rising unemployment. The major challenges facing the TVET system of all 4 countries in the new century is increasing unemployment, which is a grave concern. The countries also do not seem to have a sufficient skills base to support the strategic growth areas of their economy. It is clear that the Ministries concerned need to provide the necessary training that is required to develop the human resource pool required for their economic growth.

There is also a real need for an integrated national training strategy that would support the strategic development of skilled and qualified personnel for the new economy that all 4 countries are gearing up to. The implication of this is that the 4 countries should restructure their training system to ensure the necessary institutional capacity to identify and develop the skills required. In all 4 cases the following three key objectives need to be pursued:

- Balancing economic demand and human resource supply;
- Maximising employability and human resource mobilisation; and
- Coordinating linkages between public and private education and training.

There is no doubt that TVET is one of the major keys to national development not only in these 4 countries but in the whole of sub-Saharan Africa. There must be attitudinal changes and operational shift and commitment in the African countries of sub-Sahara so as to reform and promote the TVET system for national development. And for this to be realised, TVET must be considered as an integral part of the entire educational system for human resource development and not a separate

entity from the general education system. Too often, however, policy makers have a tendency to “think within their box”, without looking at the other parts of the system. Often TVET is seen as segregated against in the provision of resources. Because of the low image of TVET, resources, through investment and funding, is not always forthcoming. Funding is not always managed in a co-ordinated manner and made accessible to all sections of the population including the marginalised, women and girls, people living in rural areas, people with special needs like refugees, for personal and national development. Resources of industry and commerce and private enterprise including the informal sector should be harnessed in partnership with national Governments for the development and delivery of the countries' TVET systems.

The TVET Sector in Africa generally, will only survive and grow if Industry and Commerce are strong enough to attract graduates from the TVET system. A vibrant and strong industrial and commercial environment will promote the opportunities, avenues and resources to facilitate the provision of a well trained, competent and productive workforce which in turn will strengthen industry and commerce for increase productivity. In this regard, it is very important that every effort must be made by African Governments to encourage the expansion and strengthening of industry at all levels (including small scale industries) in order to improve their TVET systems for socio-economic development