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International Institute for
Capacity Building in Africa

The Role of Teacher Training in Technical and Vocational Education and Training (TVET) in Africa

According to a recent study of UNESCO, in most of African countries, primary enrollment has significantly increased, but general secondary education does not have enough space nor provide education to guarantee employment. Therefore, the only way to respond to the growing demand for relevant education is to devise new TVET strategies for the youth to access the world of work. Such strategies should take into account the multi-sectoral aspects and different forms of education and training, formal, non-formal and informal.

In this context, UNEVOC, UNESCO's Center specializing in TVET, is promoting the role of TVET teachers and trainers in the vocationalization of secondary education to assist the transition of young people from school to the world of work. The African Union (AU) has developed a strategy based on a much wider perspective, linking TVET not only to secondary education, but also to higher education. The AU recognizes that TVET is an essential part of general education, and provides a means for building capacity for national development, including post conflict situations.

However, TVET is still underserved in most African countries. In this connection, one of the most challenging tasks is to change attitudes toward TVET among stakeholders, including policymakers and service providers, as well as parents, teachers and the public. The current tracking system tends to reinforce the perception of inferiority of the vocational track, where teachers are also separated

in two different systems. Another challenge is physical and financial constraint. Even if programs exist, often modern technologies have not been utilized to upgrade facilities and programmes. In this regard, TVET needs to respond to the demands of the labor market in close partnership with employers.

UNESCO International Institute for Capacity Building in Africa (IICBA) is exploring a way to strengthen the TVET policies and practices in Africa, and this issue of our newsletter presents some articles that engage with key issues, emerging questions, and good practices related to policies and practice on "the role of teacher training in technical and vocational education and training (TVET) in Africa."

The first article, contributed by the head of UNEVOC, presents an overview of the recent trend in TVET. The article highlights new challenges in TVET teacher education in the context of the emerging knowledge society, focusing on three key issues: globalization and sustainability, advances in ICT, and rapid technology obsolesces and generic skills. Examination of these issues could provide some basic foundations for shaping teacher education and refining the role of teachers and learners. The author argues that teachers of the 21st century should have the ability to flexibly learn new key issues quickly, as well as ICT skills and generic skills that increase employability and mobility of graduates.



The second article is a case of Mozambique on the TVET reform from an institutional perspective. The reform started with the assistance of the World Bank and other bilateral donors in 2006, aiming to facilitate the transition of the existing TVET system to a *demand-driven* one in view of improved access, quality and relevance of TVET and to encourage flexibility to adapt to the needs of the globalized economy. The project piloted the competency-based training (CBT) curricula in major occupational areas, such as industrial maintenance, agro-industry, tourism and hospitality, and management and administration. Although the reform effort brought some institutional changes, the qualifications required to teach the practical subjects remain a contentious issue in the reform process. Based on the estimate of teacher needs by reviewing the current teacher profiles, the author asserts the need for upgrading of teacher qualifications by training new teachers, as well as upgrading of the pedagogical, theoretical and practical skills of the teachers, including in-service upgrading. However, due to the shortage of government funding, teacher training has been sporadic and dependent on availability of donor funding. Although the “dual technical teacher model” has advantages both in terms of the costs of teacher training and quality of practical instruction, with a strong resistance within

the TVET sub-sector, no alternatives to address the cost and quality have been put in place. The lesson above suggests that the government needs to come up with a viable solution, by compromising, and softening the resistance to implement the practical solution instead of revising strategies, which are unlikely to be implemented.

The third article addresses challenges for TVET in Ethiopia. The author reviews the Ethiopian government’s strategic plan, Education Sector Development Plan (ESDP) IV, and analyzes the progress of TVET in the country against this document. The article examines the policy issues of access, equity, finance, awareness and attitude toward TVET, and planning. Although the TVET system has been expanding rapidly in the past decade, it is not keeping the pace of the nation’s need for skilled labour. The diversification in the program and development of occupational standards are remarkable achievements, but quality still remains an issue. In terms of equity, gender and inclusive education are the core pillars of the policy, but female participation has in fact declined in recent years. The policy should also include other marginalized population. Finance is always a challenge at all levels of education, but TVET’s budget share is very low compared to

the other levels. This may be related to the issue of awareness about the important role of TVET as support from the industry is still low. General attitude to perceive TVET as a second choice as opposed to other high regarded professions, is another challenge that we must tackle. The current government plan is very ambitious, and the author recommends that the plan needs more articulation of each activity and reflect the gap between the target and the reality. This suggests that it may require more modest incremental changes. Finally, the author suggests that trainers and trainees’ voice must be heard in developing TVET programs so as to consider practical aspects, such as inclusion of IT courses and supply of training materials in major local languages.

The final article is a proposal for teacher training in Africa. It highlights the recent trends of economic growth in Africa and its favorable demography with high fertility rates, both of which can further contribute to the development of the region. However, the author argues that the efforts in human resource development have been skewed toward primary education, which may limit the potential of the youth, who can help the continent get out of poverty. The renewed policy trend is to include more emphasis on skills development of the youth and adults, responding to the new labor market requirements. To achieve this, the author explains the critical role of teacher development that ensures quality teaching in competencies development, including knowledge, skills and attitude relevant to the rapidly changing labor market. Teacher development for TVET requires quite different approaches from teacher development for primary and secondary education. The article describes the necessary scope of TVET to meet a wide range of education needs in diverse systems in Africa. Finally the article explores the kinds of teacher training strategies for TVET that should be developed in Africa in the coming years and propose some actions for UNESCO-IICBA can undertake.

I hope these articles provide some useful ideas for developing new programs and revising existing TVET policies in Africa.

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New Challenges in TVET Teacher Education

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1.0 Introduction

The twenty first century presents a radically different economy and society, which is likely to have profound implications on Technical Vocational Education and Training (TVET). The TVET system must adapt to these key features which include *Globalization & Sustainability*, *ICT Revolution*, *Emergence of Knowledge Society* and *Rapid Knowledge Obsolesces*. Globalization generates new demands, structures and systems requiring new skills and knowledge. In today's global economy driven by knowledge, the foremost wealth of a firm is its human capital or knowledge assets. The Organization for Economic Co-operation and Development (OCED) estimates that already more than half the wealth of the advanced industrial society is derived from knowledge capital.

The Second International Congress on TVET organized by UNESCO points out that from economic growth to human development the bridge has to be built through the teachers who are well trained. The most important 'agent of change' in 'Knowledge Society' is the teacher. This has been highlighted by many development organizations such as CPSC and UNESCO-UNEVOC, arising from discussions on the need for innovations and quality improvement in training of TVET teachers to meet the challenges in a knowledge society.

Emerging paradigms in teacher education with focus on TVET surround three issues which this paper will focus on: Globalization and Sustainability, Advances in ICT and Rapid Technology Obsolesces and generic skills.

While these issues are not conclusive, they provide timely, if not new, eye-openers on what could be considered as necessary foundations for shaping teacher education and refining the role of teachers and learners in the new, independent and engaging

environment that has been created for them. The familiar scenarios that have been existing for a few years now are looked into more closely in this paper in the context of their link with international mobility, sustainable development and financial crisis, as cornerstones of the new teacher education models arising in the knowledge-based society.

In the end, the expectation of knowledge economy and changing views about the nature of knowledge must be integrated in education and training, particularly in TVET, to be relevant for learners of the twenty-first century. Many of the 21st century scenarios mentioned in this paper are intended to provide logical shift in focus, content and response as part of the progressive pattern of teacher education development, and adaptation to the changing requirements.

Under this circumstance, an entirely new package of educational content, new set of skills and new methodologies for delivery are emerging as among the greatest shifts in paradigm in teacher education.

2.0 Globalization & Sustainability

Globalization generates new demands, structures and systems requiring new skills and knowledge. It has created an enormous demand for skilled workers who can meet emerging market needs. The region's favorable demographics, with a relatively young labor force, have often been cited as a key factor contributing to its accelerating growth, and as a major strength of the economy in the coming years. However, the labor market today faces an emerging shortage of skilled workers, particularly in semi-skilled labor-intensive sectors as well as new and emerging sectors that are coming up in support of the global advocacies to reverse the impact of environmental degradation and ensure sustainable development (SD).

Similarly, globalization has created a greater need to understand other people, their culture and circumstances. Education in the global world must capture the uniqueness of things by recognizing local context within a global outlook. To solve most of the major problems facing our planet today, from sustainable development to poverty alleviation, will require every person to learn more about other regions, cultures, languages. Base level of understanding, or advanced approaches in appreciating new pedagogical system to impart globalization and sustainability can transform teaching paradigms in diverse ways.

Internationalization of Education for Global Citizenship

Internationalizing education becomes a key strength of institutions in the new context of learning, and internationally-oriented curricula become powerful tools for teachers to shift from community or nationalistic concepts in education to borderless perspectives. International education gives students a global orientation, which helps them understand how local issues (such as rising energy costs and the need for environmental sustainability) are shaped by world events. It develops their global citizenship skills and enhances their understanding and respect for other cultures and their own national identity.

Creating 'Global Citizens' allows the assimilation of the optimum social and economic skills and knowledge requirements which need to be possessed to understand the changing patterns of work and culture. This also provides the tools for acquiring life-long learning and identifying social, economic and environmental responsibilities attached to the possession of essential life skills. Part of building the foundation for global citizenship is cross-cultural understanding which lays the foundation for diversifying the knowledge and skills potential in the 21st century.

2.1 Integrating Sustainable Development in Education

While addressing acute skills gaps, more and more efforts are likewise being directed to align education and training to emerging sustainable principles. Green economy, green-collar jobs, green society and even green technology have become more than just buzz words. They are maintained as major considerations in meeting skills needs within the dynamic process of mitigating environmental concerns and adapting social and economic orientation.

The growing concern about sustainable development has led present day policy makers, administrators and educators to call for a more holistic approach in integrating sustainable development in the curricula or allowing the rise of new study or research areas or skills training areas within the educational system in response to the new economy or SD-oriented technologies in the workplace.

Environmental, social and economic sustainability are pillars of sustainable development. These have generated serious attention to the approaches in using natural resources, minimizing waste, adopting non-hazardous workplace, practices, environmental auditing system, sustainable production and consumption, to name but a few, which are becoming imperatives in the process of awareness, skills, values and technical knowledge formation of the new generation of learners.

The curriculum in TVET is not spared from responding to the up and coming theories and concepts that lead to sustainable practices in the industries and the workplace that will absorb TVET graduates. However, the process of re-orienting TVET towards sustainable development is broader and more pervasive than that of revising syllabi and devising new teaching and learning materials that incorporate principles and examples of global citizenship and sustainability. In fact, it gives emphasis on the new role of teachers that also open up new ways of thinking and further shifts in paradigms.

The changing role of teachers therefore must be parallel with the changing contents, knowledge structure and skills components envisaged from the above scenarios.

3.0 Emergence of Knowledge Society and ICT Revolution

3.1 The 21st Century Teachers and Learners

There is at least one generation gap between the Learners and the Teachers!

It is also important to recognize that the 21st century learners are indeed very different from what we were as students. Most of them have never wound a watch, touched a typewriter, played a record album, calculated with a slide rule, travelled in a steam engine, hand-written a letter, known a world without computers. “Today’s school-age generation knows more about technology than do their teachers. Young kids get bored if they are doing only one function at a time; they need multiple stimuli. For example, new generation of learners watch their computer screens, listen to music through headphones, and carry on conversation; all at the same time. Today’s learners have short attention spans, and have the attitude of take-it-all-at-once. They experience a technologically-saturated childhood. Unlike adults, they are not surprised by new technology -- they simply integrate it into their lives. They want and expect to collaborate with their teachers (and bosses), not take orders from them”.

There are major differences between four recent generations: the Matures (1900 – 1946); the Baby Boomers (1946 – 1964); Generation X (1964 – 1982); and Generation Y or Generation Net (1982 – Present). Over a period of a century, the *teaching* style has undergone a transformation from lecture, primarily verbal, and rote, for Matures, to interactive, even in large classes, and problem-based with feedback via clickers and online software, for Generation Y; and the *Learning* style from memorize, try again and again, for Matures, to simulations, frequent interaction with faculty and peers, and open-ended, for Generation Y.

3.2 Changes in the New Teaching and Learning Environment

During the last three decades, the changes in educational environment have been phenomenal. The model, focus, role of the learner and technology have been changed drastically from traditional instruction to virtual learning environment as depicted below.

Table 1. Changes in Teaching-Learning Environment

Model	Focus	Role of learner	Technology
Traditional	Teachers	Passive	Chalk & talk
Information	Learners	Active	Personal computer
Knowledge	Group	Adaptive	Pc+ network

Shifting the emphasis from teaching to learning can create a more interactive and engaging learning environment for teachers and learners. This new environment also involves a change in the roles of both teachers and learners. The role of the teachers will change from knowledge transmitter to that of facilitator, knowledge navigator and sometime as co-learner. The new role of teachers demands a new way of thinking and understanding of the new vision of the learning process. Learners will have more responsibilities of their own learning as they seek out, find, synthesize, and share their knowledge with others.

ICT provides powerful tools to support the shift from teacher-centered to learner-centered paradigm and new roles of teacher, learner, curricula and new media. The major shifts have been described in the table below.

Table 2. Changes in Teachers’ Roles

From	To
Transmitter of Knowledge	Guide & Facilitator of Knowledge
Controller of Learning	Creator of Learning Environment
Always Expert	Collaborator & Co-learner
Learning to use ICT	Using ICT to Enhance Learning
Didactic/Expository	Interactive/Experiential/Exploratory

Table 3. Changes in Learners’ Roles

From	To
Passive Learner	Active Learner
Reproducer of Knowledge	Producer of Knowledge
Dependent Learner	Autonomous Learner
Solitary Learner	Collaborative Learner
Solely Learning Content	Learning to Learn/Think/Create & Communicate

In order to develop effective curriculum, teachers must be curriculum leaders. Ensuring that teachers are central to the reformation of curriculum will enable the development of pedagogy that provides the most favourable condition of learning and the highest quality learning outcomes for all students. The major changes in curricula are as follows:

Table 4. Changes in Curricula & Delivery

From	To
Memorizing Facts	Inquiry Based
Artificial Teaching Exercises	Authentic Learning
Rigid Delivery (Fixed Time & Space)	Open & Flexible Delivery (Any Time & Anywhere)
Single Path Progression	Multi Path Progression
Traditional Based	Competency Based

Teachers are expected to create a new, flexible and open learning environment in the ICT era with interactive, experiential and multimedia based delivery system. Today, interactive technologies enable learners to enjoy the experience of acting as citizens in a borderless world, acquiring local and global knowledge without leaving the classroom. The major changes in media application are as follows:

Table 5. Changes in Media Applications

From	To
Single Sense Stimulation	Multi Sensory Stimulation
Single Media Application	Multimedia Application
Delivery of Information	Exchange of Information
Monologue Communication	Dialogue & Collaborative
Analogue Resources	Digital Resources

All these changes taking place in learning and teaching demand a new learning environment to effectively harness the power of technology to improve learning. ICT has the potential to transform the nature of education: where, when, how and the way learning takes place. It will

facilitate the emergence of a responsible knowledge society emphasizing life long learning with meaningful and enjoyable learning experiences.

The integration of technology into teaching and learning always places pedagogy over technology. Mastering ICT skills is not the only concern, but rather it involves using ICT to improve teaching and learning. The major emphasis of ICT infusion in pedagogy should be such that it tends to improve learning, motivate and engage learners, promote collaboration, foster enquiry and exploration, and create a new learner centered learning culture: a bold response to knowledge explosion that has taken place and described above. It permits the move from reproductive model of teaching and learning to an independent, autonomous learning model that promotes initiation, creativity and critical thinking with independent research. Learners are expected to collect, select, analyze, organize, extend, transform and present knowledge using ICT in authentic and active learning paradigm. Teachers are expected to create a new flexible and open learning environment with interactive, experiential and multimedia based delivery system. ICT should help teachers and learners to communicate and collaborate without boundaries, make learners autonomous and allow teachers to bring the whole world into the classroom. It is ultimately important to understand the role of ICT in promoting educational changes. The basic principle is that the use of ICT changes the distribution and ownership of information resources in the space of teaching and learning and thus changes the relationship among educational participants. While designing any innovative teaching and learning environment using ICT, the teacher should always keep learning at the center of all activities and pedagogy should be at the heart, and integration of pedagogy-technology should be the central focus.

4.0 Technological Obsolesces and Generic Skills

A teacher requires many educational and didactical skills to deal with new situations. In concrete terms, this concerns matters that teachers need to know, and matters that need to be transferred to the next generation. These are

- Knowing subject matter deeply
- Learning to learn Skills
- A large knowledge of digital educational tools.
- How to be a facilitator and motivator of learning environment

The new learning environment differs from the one we are familiar with; the teacher has to cope with many more uncertainties. A curriculum in which lessons and content are fixed no longer exists. It requires Generic Soft Skills like:

- Cognitive
- Interpersonal
- Adaptability
- Values and attitudinal
- Cross cultural understanding
- Sustainable development

The teachers of the 21st century require the ability to jump between fields of technical specialization and capture the key issues quickly. A base-level of familiarity with scientific concepts and processes reduces the time taken to master new areas where emerging tasks and work processes occur. Generic skills are not just restricted to their usefulness in the workplace, but are equally required across the spectrum of living experience in today's world.

Emerging workplace demands a new set of generic skills for the learners. In addition to job-specific technical competencies, there is a requirement of a set of generic skills, which are generic to a cluster of occupations in order to perform competently as a knowledge worker. Generic skills are required by all learners. However, the extent to which these skills need to be possessed varies from one occupational grouping to another. The varying levels of generic skills use needs to be determined to further guide the development of educational content rich in job-specific and generic skills formation.

For this purpose, desirable shift required in each of the pedagogical dimensions in teacher education are presented below:

Table 6. Shifts in the Pedagogical Dimensions of Teacher Education

Dimensions	Undesirable	Desirable
Pedagogical Base	Instructive Model	Eclectic Model based on Constructivism
Learning Focus	Content	Learning to Learn
Learning Strategies	Solely Interactive	Collaborative & Interactive
Learning Goal	External Controlled	Autonomous
Curricula	Traditional	Competency Based
Teacher Role	Didactic	Facilitative
Delivery Modes	Fixed	Open
Learning Approaches	Surface	Deep
Learning Structures	Rigid	Flexible/ Modular
Instructional Models	Instructor Centered	Learning Team Centered
Learning Methods	Passive	Active

5.0 Conclusion

The major paradigm shifts presented above, namely globalization and sustainability, emergence of knowledge society and ICT revolution as well as technological obsolescence, paint a big picture of the emerging roles of teachers and learners in an equally emerging learning and work environment. Similarly, it magnifies the growing requirements for building the foundation for ICT skills, without compromising generic skills that increase employability and mobility of the workforce from one task or job to another.

Obviously, movements in the economy, emergence of new technologies and increasing models of international education vis-à-vis student requirements and orientation necessitate adequate strategies for goal-setting, which may lead to enhancing the benefits of cross-border knowledge and skills building, create new innovations and expand the scope of opportunities for cultivating 'global students' for the 'global world'. Essential to this is creating the foundation for understanding present sustainability issues, trends and integration in the teaching and learning curriculum.

Knowledge explosion, on the other hand, has set a completely new role that was not earlier described in the transmission model of teaching. Technology and teacher professional development in its use are best introduced in the context of broader educational reform which embraces a shift away from teacher-centred, lecture oriented towards learner centred, interactive and constructive learning environment. ICT can play the role of catalyst for such educational reforms.

Technological obsolescence, on the other hand, have been underscored as principal movers for launching the set of generic skills that need to be possessed by teachers to impart desirable generic skills according to various pedagogical dimensions in teacher education. These skills are expected to strengthen the workforce employability and chances for mobility within the new patterns of work with job-specific skills.

The emerging paradigm shifts in teacher education discussed above demand for a new way of thinking among those in the field to work for the benefit of expanding knowledge potentials, skills formation and survival in the 21st century workplace.

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TVET Reform In Sub-Saharan Africa – An Institutional Perspective: The case of Mozambique¹

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With technical and financial support from the World Bank and a number of bilateral donors, the Government of Mozambique embarked on a major reform of the existing TVET system in 2006. In short, the stated goals of the reform process was:

- to facilitate the transition of the existing TVET system to a *demand-led training system* and to provide beneficiaries with more market-relevant skills and improved economic opportunities
- to expand access for all citizens to TVET, and improve its quality and relevance, and
- to create a TVET system that is flexible and adaptable to current market needs in a globalizing economy, and one that would recognize that training provision comes from a variety of sources including training in the enterprise.

The emphasis on aligning the TVET system to the skills demand in the labour market has been toned down in the recently approved second phase

of the World Bank credit where the new development objective has been changed “to improve the *quality and relevance* of technical and vocational training in Mozambique with a focus on selected key TVET institutions and programmes”².

Four occupational areas were selected for piloting the new competency-based training (CBT)-based curricula: Industrial maintenance, agro-industry, tourism & hospitality, and management & administration. Sixteen TVET institutions were initially selected for upgrading to offer the new courses. However, shortage of financial resources, primarily caused by higher than expected costs of refurbishment of facilities and of new equipment, has lowered the level of ambition. The number of institutions to pilot the new CBT approach has been reduced substantially as has the number of TVET institutions to be refurbished and provided with equipment. Only nine of the planned 16 TVET institutions will be empowered to pilot the new CBT courses; three of these are skills training centres under the Ministry of Labour. Due

to a combination of delays, poor planning and resource limitations, only five of the pilot institutions were fully re-habilitated, and merely one has been fully equipped during the first five-year phase that ended on Oct. 31, 2011, while new equipment is in the process of being installed at four more pilot institutions.

The TVET reform, phase 1

In spite of the implementation constraints, the TVET landscape has undergone significant changes since the start of the reforms. While the academic teachers are supposed to have a university degree in the subject they teach, technical teachers are supposed to have an education related to the subject they teach. All teachers are supposed to have completed the level of education one level above the level they teach.

The TVET Reform Programme, with funding from different sources, has commissioned several studies of the profile of existing TVET teachers/instructors in order to identify the pedagogical and technical upgrading requirement and to get an indication of the future need for technical teachers.

¹ I highly appreciate the comments to this note by Alastair Machin, GIZ advisor. He is not of course responsible for the views expressed.

² Project Paper on a Proposed Additional Credit to the Republic of Mozambique for a TVE Project, June, 2011.



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The Ministry of Education of Mozambique now operates 10 so-called *escolas profissionais*³ (these are vocational schools that require completion of Grade 7, but unlike the *escolas básicas*, -junior secondary technical schools - they do not immediately qualify for further education), 25-30 *escolas básicas* approximately 18 *institutos médio* (senior secondary technical schools) and 4 *politécnicos* (tertiary technical education centres). The main structural changes are that (i) formal skills training at primary level is in a process of being phased out; (ii) a number of junior secondary technical schools have been partially upgraded to senior secondary technical schools⁴; and (iii) the concept of polytechnics has been introduced. The Ministry is presently in charge of approximately 50 post-primary TVET institutions.

Another important development is the establishment of the so-called Competencies Development Community Centres. These are very basic community-oriented skills training centres. At present, it is reported that there are 40 such centres, established mostly with funding from the World Bank. The centres are part of the Government's policy to ease access to skills training in rural areas.

Profile of technical teachers and future demand

Although there are signs of progress regarding upgrading of technical teachers for the pilot courses, teacher training has remained a contentious and unsettled issue during most of the reform process. The TVET institutions engage two categories of teachers, those teaching academic subjects, and those teaching technical subjects and organise practical training in the workshops and laboratories. The debate has particularly centred on the qualifications required to teach the practical subjects.

In order to get a picture of the need for upgrading of the existing teaching staff and for additional technical teachers to replace those leaving, and to fill the positions at the newly established TVET institutions, a needs assessment of the

TVET sub-sector was made in 2008⁵. In summary, the assessment, which is rather conservative, reached the following conclusion:

- training centres managed by Ministry of Labour probably will need 40-50 new instructors holding a *nível técnico médio* (senior secondary education) certificate.
- *Escolas profissionais*: Typically, a school has a teaching staff of 20-25. The predominant level of education is *nível médio*, i.e. one level higher than the courses offered, or above. However, a considerable number have completed *nível básico* only. Due to the novelty of most *escolas profissionais*, the average age of the instructors is relatively low, i.e. around 40. There seems to be need for a limited number of new teachers/instructors, probably in the magnitude of 70-100, during the coming few years. Most of these are supposed to hold a *nível técnico médio* certificate.
- *Escolas básicas* (junior secondary technical schools): Official statistics set the number of teaching staff in the region of 800. Women account for 14% of these. On the average, the schools have 30 teachers, including part-time teachers. More than 90% of the teachers have completed higher secondary education or above; the rest are graduates from *escolas básicas*, i.e. the same level as they teach. Slightly less than 50% have attended some sort of pedagogical education. As no increase of *escolas básicas* is envisaged, new teachers will only be contracted to replace those leaving. Approximately 25 new technical teachers are required each year for this purpose.
- An *instituto médio* (higher secondary technical school) has on the average 43 teachers/instructors. Large *institutos* employ 60-70 teachers, whereas smaller ones have as few as 15-20. As is the case with *escolas básicas*, part-time teachers are extensively used by institutes offering the commercial courses. In terms of level of education, the picture varies considerably across the *institutos médios*. An estimated 65% of the teachers have completed *nível médio*, i.e. teach students at their own level of education (of which one-quarter has done further pedagogical training), while those in urban locations have

a relatively higher share of teachers holding a master's degree (25-30%). However, the master's degree is not necessarily related to the subject taught.

Exactly this phenomenon is one of the biggest challenges faced by the TVET schools (and other government institutions). The fact that salaries in the public sector are solely based on the level of formal education and not related to merit means that thousands of civil servants – and thus teachers – attend degree-giving courses that are totally irrelevant for their present work, whereas those who invest in relevant upgrading of their professional competencies have no chance of enjoying a salary increase unless the acquired new competence has a recognised academic equivalent.

The need for additional teachers for the *institutos médios* widely depends on the government's plans. It is reasonable to assume that new *institutos médios* will come into existence primarily through conversion of *escolas básicas*, although a smaller number of new *institutos* may be established as well. Furthermore, the introduction of new courses at existing institutions will impact on the demand need for additional teachers. A very provisional estimate sets the need for additional technical teachers for the *institutos médios* at 50-75 each year, covering a wide area of specialisations.

In summary, in order to keep up with the present capacity and future expansion plans, the government-operated TVET system will need not less than 150 new technical teachers every year. In addition, there is a massive need for upgrading of the pedagogical, theoretical and, not least, practical skills of the existing technical teachers and instructors. With the assistance of the development partners, a considerable number of teachers at pilot schools has already been offered upgrading. However, there are at least another 800-1,000 teachers in dire need of pedagogical and practical in-service upgrading.

The Ministry will also have to tackle the reality that with the shift to the new CBT-based curricula, the academic teachers in the technical schools will become surplus to requirement due to the fact that general subjects are being dropped. Had more *escolas básicas* been converted to general secondary schools instead of upgraded to senior secondary technical schools, the need for additional technical teacher training would have

³ In addition there are 23 semi-public *escolas profissionais*.

⁴ In most cases the upgrading has taken place without any further training of teachers or change of facilities.

⁵ Note on Estratégia de Formação de Formadores da Educação Profissional by Jorgen Billetoft and Hans-Peter Kreuchau, September 2008.

been less dramatic and therefore more manageable. This would probably have been better in line with the local labour market demand.

State of teacher training

Teacher training has been one of the challenges of the reform project. The amount set aside in the budget for this purpose fell markedly short of the need, and there has not been a technical teacher training facility in Mozambique since the late 1980s. As a result, no coordinated and systematic in-service upgrading of the teachers' competencies has taken place for more than 20 years. Instead, the in-service training which has actually occurred has been project-related and sporadic. There are, however, some signs of encouraging improvements. For instance, with financial support from the EU, Dom Bosco has established a teacher training institute offering a combination of in-service distance pedagogical training and pre-service technical teacher education in some of the occupational areas being piloted by the TVET project. Approximately 100 *escola básica* teachers are presently attending a four-year in-service distance pedagogical teacher bachelor programme at the Dom Bosco College. In addition, InWent (now part of GIZ) has financed a welding and other industrial course for teachers in Germany; Portugal has provided some upgrading courses for teachers at *escolas profissionais*, and Italy for teachers at *escolas básicas*.

In spite of these encouraging developments, huge challenges remain. Firstly, the in-service that has taken place has primarily been targeted at the small number of TVET institutions selected to offer the new CBT pilot courses. More than two-third of the existing technical teachers have not benefitted from these initiatives. Secondly, there is still no

university or college providing pre-service training for future technical teachers and instructors. Thirdly, all in-service and pre-service training for technical teachers is heavily dependent on availability of donor funding. And lastly, both the Dom Bosco College and Universidade Pedagógica are short of adequate facilities for exposing the teachers to the practical dimension of the subjects they teach.

Towards a sustainable teacher training strategy

With a view to tackle these challenges, the TVET reform project launched work on the development of a technical teacher education strategy for Mozambique. As part of this exercise, a consultancy was commissioned in order to get a view on different models for pre- and in-service technical teacher training⁶. The consultancy raised the issue whether in the future there will be need for only one type of technical teacher who undergoes practical as well as theoretical training, or whether two categories of teachers would be more appropriate, one theoretically oriented classroom and lab teacher (holding a bachelor's or master's degree) and one more practically-oriented instructor-type teacher with a strong hands-on knowledge of the trade for practical instruction. Concerning the "theoretically-oriented" teachers, it was recommended that these either attend a regular study programme, including occupational theory and practice, pedagogy, subject didactics/methodology or, for those already holding a bachelor's or master's degree, a short-term programme (about two semesters) comprising practical and technology upgrading. In addition, it was recommended that tailor-

⁶ Note on Estratégia de Formação de Formadores da Educação Profissional by Jorgen Billetoft and Hans-Peter Kreuchau, September 2008.

made pedagogical and subject-related upgrading courses are offered for the existing TVET teachers.

Although the "dual technical teacher model" has advantages both in terms of the cost of producing new teachers and probably also in terms of the quality of practical instruction of TVET institutions, it met severe resistance with the TVET sub-sector. Two arguments against the model were put forward: (i) it would create a hierarchy among TVET teachers dividing the teachers into an A-class and a B-class; and (ii) it would jeopardize the existing education-based government pay-scale, thereby discouraging the teachers from seeking to raise their level of formal education. The quality and cost advantages of introducing a category of practically oriented instructors were widely ignored in the debate.

As a consequence of the resistance, the TVET reform project launched additional work on the formulation of a technical teacher training strategy. The strategy was adopted by the national TVET Reform Council overseeing the reform process. The strategy does not mention the two-teacher model, but is based on a conventional academic model.

Another concern is the lack of responsibility for technical teacher training. The Directorate for TVET within the Ministry of Education does not see it as its problem; the Teacher Training Directorate in the Ministry excluded technical teachers from their strategy in 2005; and the Higher Education Directorate has not treated it with any priority. As it is not on anyone's agenda, nobody is taking responsibility for implementing the strategy. And there is no provision in the budget for phase 2 of TVET reform for this.



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Challenges for Technical and Vocational Education and Training (TVET) in Ethiopia

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Technical and Vocational Education and Training (TVET) is among the three educational sub-sectors (general education, TVET and higher education) the government of Ethiopia has given high attention. Its primary goal is to produce skilled middle-level manpower. Trainees admitted to TVET colleges are 10th Graders whose national general school leaving exam results fall under the cut off points for entrance to preparatory education.

TVET has demonstrated significant expansion in the Ethiopian education sector over the last decade. The reform made in 2008 envisaged that it would transform TVET delivery from input-oriented to an outcome-based one (ESDP IV 2010). Education Sector Development Plan (ESDP) IV (2010: 52) celebrated the results obtained after the reform. These include: (1) the development of frameworks for TVET and the forthcoming TVET Leaders and Trainers Qualifications; (2) the completion of 250 occupational standards and 211 assessment tools; (3) the provision of training of trainers; (4) the start of co-operative and in company training; (5) the creation of a “clear system for technology capabilities’ accumulation and transfer”; and (6) “the identification, development and transfer of 180 demanded technologies to users on the basis of value chain analysis.” Despite these achievements and the government’s commitment and efforts, several challenges await the sub-sector calling for the cooperation and common understanding of the various stakeholders.

ESDP IV listed out that low awareness about the benefit of TVET, inadequate stakeholders’ participation in the management and delivery of TVET, lack of capacity and competence of trainers and experts to train and implement the new TVET strategy, inadequate monitoring and evaluation systems, low capacity to adopt and transfer technology, inadequate labor market information system to assess labor market demand, weak information sharing and coordination system, shortage of teaching materials, and inefficient utilization of

resources and equipment, are among the challenges facing TVET in Ethiopia. To overcome these challenges and enable the delivery to meet TVET’s goal (creating “competent, motivated, adaptable and innovative workforce”), a set of strategies have been developed (ESDP IV 2010: 7). The series of activities and their accomplishment periods are documented in ESDP IV. This paper attempts to analyze the progress of TVET against this governing document. Focusing on the gaps observed in the sub-sector, it pinpoints concerns that need immediate deliberations for future improvement.

Access

TVET has shown significant expansion and diversification. Sharing with teacher education, it is supposed to accommodate 80% of the 10th grade leavers. By 2014/15, it is expected to make its intake capacity 50% (ESDP IV 2010) with more than 1.1 million trainees. This calls for careful planning and preparation. Table 1 shows the trend in enrollment, trainers and institutions of TVET in Ethiopia over the last ten years.

Table 1. Enrollment, institutions and trainers’ trend of TVET in Ethiopia (2001-2011)

Year	Enrollment	Institution	Trainer
1994EC (2001/02)	38,176	141	2,214
1995EC (2002/03)	72,162	153	2936
1996EC (2003/04)	87,158	158	4,038
1997EC (2004/05)	106,336	199	4,957
1998EC (2005/06)	123,557	264	6,134
AAGR	34.1%	17.0%	29.0%
1999EC (2006/07)	191,151	388	7,083
2000EC (2007/08)	229,252	458	9,010
2001EC (2008/09)	308,501	458	9,052
2002EC (2009/10)	353,420	448	11,716
2003EC (2010/11)	371,347	505	12,890
AAGR	17.6%	6.8%	16.1%
Target in 2010/11	723,062	888	16,186

Source: MoE 2007, 2011, ESDP IV 2010 (compiled by author) AAGR = average annual growth rate

As can be seen in the Table 1, TVET has a long way to go to meet the nation’s aspirations for skilled labor. Its enrollment is still low. Although the 2010/11 enrollment increased by 4.8% from the previous academic year at 371,347 (MoE 2011), it was only a little higher than half of the target 723,062 (ESDP IV 2010). The target and achievement demonstrated a very significant gap in the growth of training institutions and trainers, too. While the plan was to raise the number of TVET institutions from 448 in 2009/10 to 888 in 2010/11 (ESDP IV 2010), it ended up with 505 institutions during the plan period (MoE 2011). In a similar vein, the number of trainers increased by a little more than a quarter of the target (MoE 2011). Meeting the target set for 2014/15 might face a challenge if progress continues with the same pace.

The sub-sector has shown remarkable diversification in its programs, focusing on hard sciences, which the country is in dire need of. Having developed Ethiopian Occupational Standard (EOS) for 250 occupations (ESDP IV 2010), most of which are in the hard sciences, the sub-sector hopes to produce graduates that could stimulate the market through innovation and creativity. Quality, however, remains an issue requiring rigorous and in-depth studies.

Gender Equity

Equity is among the areas of concern for TVET in Ethiopia. Though encouraging in overall enrollment, female student enrollment has witnessed a decline from its status ten years ago (the percentage of female students was 47% in 2001/02 and 50% in 2005/06 (MoE 2007: 31) and 46.2% in 2009/10 (MoE 2011). Of course, there is a plan to raise it to 50% (ESDP IV 2010). The enrollment is not encouraging in the areas the country needs most (hard sciences). Most of the female students joined training areas which are, for cultural or social reasons, considered to belong to females (ESDP IV 2010). Their participation in hard skills is still below expectation.

Finance

Compared to the huge responsibility the sub-sector has shouldered, TVET's budget share is low (see Table 2).

Table 2. Budget allocation of sub-sectors and programs in cost of ESDP IV (in billion birr)

Sub-sector	Total ESDP IV	% of total education budget
Advisory & Support Services	10,125	7.2
General education	80,298	57.1
Primary	52,032	37.0
Secondary	15,750	11.2
Adult education and other programs	12,375	8.8
TVET	11,250	8.0
Higher Education	30,516	21.7
Colleges of Teacher Education	2,672	1.9
Special Needs	281	0.2
Gender Program	2,813	2
HIV/AIDS	2,813	2
Total	140,627	100

Source: ESDP IV (2010: 99)

This 8% (ESDP IV) of the total education sector budget shows more than 4% decline from its share in 2001/02 (MoE 2007). The document justified that this low budget allocation assumes what it called "the important share of students expected to enroll in non-government schools" (ESDP IV 2010: 9), which constitutes less than a quarter of the enrollment nationwide (MoE 2011). Despite the plan to increase the enrollment in the private sector from 24% in 2009/10 to 41% in 2014/15 (ESDP IV 2010), the current enrollment may either remain constant or diminish as most of the private institutions focuses are on soft sciences such as accounting, marketing, and the stringent admission criteria being set every year. Institutions are highly pushed to make immediate shift of their focus to the hard sciences in line with the 80/20 directive of the Addis Ababa TVET Agency. However, this might take the private sector long time.

It looks imperative to pay attention to the following concerns in order to ensure the success of the sub-sector. Given the fact that no student is assigned to these institutions, is the ground that fertile for them to engage in such capital-intensive investment? Whereas government institutions get students allocated for them every year, private institutions admit students who visit them on their choices. Students' choices of fields of specializations are more respected in private institutions. The entrance cut off points vary from time to time thus making their admission unpredictable. Another relevant question here is how affordable would the services be in a situation where the private sector spends the lion's share of its tuition-based income on renting buildings, which is skyrocketing.

Awareness and attitude

There is high aspiration for higher education, which is believed to offer better job opportunities. However, only 14.7% of the grade 10 graduates have been joining the higher education (HE) preparatory schools for the last five years. The great majority of the remaining percentage joins TVET, which is considered a second choice. One basic reason could explain why students make TVET their second choice: low financial and social return. Contrary to their high spending for their training, graduates receive very low pay. The civil servant's

salary of a TVET graduate is half less than the salary of a degree graduate. Although the Ethiopian government introduced a 35-39% salary increment a year ago, the pay gap among positions still remains wider. Table 3 shows the salary scale which was in effect before the adjustment made last January (an increase by 35-39%). It, however, may be a very good indication of this fact.⁷

According to Addis Ababa City Government Civil Service Agency, a sub-profession TVET graduate with no experience shall be paid a monthly salary of Birr 957.00.

The positions categorized under PS and AS require a university degree or equivalent while the rest require under this qualification or none.

In addition, the social status given to TVET is another challenge. No matter how good income one may generate being a plumber or electrician, the society gives better regard for such professionals as doctors, engineers, etc. The desire to secure a white collar job is abundant. Therefore, most trainees use TVET as conduit for their higher education studies.

The transition from TVET to higher education is not that easy. Students can continue higher education after completing their training if they fulfill the following requirements: (1) getting certified by a TVET Agency that they are competent at least at level III, (2) having a 2-year work experience in his/her field of specialization, and (3) passing the national higher education entrance exam whose cut off points are to be decided by MoE (MoE 2010). No credit transfer system exists in the transition. These requirements serve admission purposes only.

The awareness problem prevails at various levels. Cooperative training is one of the major parts of the TVET contents. This is believed to expose students to the real life at work place. Cooperative training, if done as stipulated in the guidelines set by the TVET Agency, would enable trainees to become well-equipped professionals at the end of the training both theoretically and practically. This also allows trainees to be conscious of practical problems at work places and be innovative to solve them. To this

⁷ There is no consistent or fixed salary scale in the private sector. It all depends on the individual institution's will, financial strength and the supply and demand of the human resource in the market.

Table 3. Ethiopian government civil servants' monthly salary scale in birr (As of July 1999 E.C./2006-2007 G.C.)

Job Grades	Service Types						Salary Ranks										
	MC	TC	CF	SP	AS	PS	Starting Salary	1	2	3	4	5	6	7	8	9	Maximum Salary
I	1						320	338	357	376	397	419	441	464	488	513	539
II	2	1	1				357	376	397	419	441	464	488	513	539	567	595
III	3	2	2	1			397	419	441	464	488	513	539	567	595	626	658
IV	4	3	3	2			441	464	488	513	539	567	595	626	658	692	727
V	5	4	4	3			513	539	567	595	626	658	692	727	763	801	841
VI		5	5	4			595	626	658	692	727	763	801	841	884	928	973
VII		6	6	5			692	727	763	801	841	884	928	973	1019	1068	1119
VIII		7	7	6	1		801	841	884	928	973	1019	1068	1119	1172	1228	1287
IX		8	8	7	2		928	973	1019	1068	1119	1172	1228	1287	1347	1410	1476
X		9	9	8	3	1	1068	1119	1172	1228	1287	1347	1410	1476	1545	1617	1692
XI		10	10	9	4	2	1228	1287	1347	1410	1476	1545	1617	1692	1770	1851	1935
XII			11	10	5	3	1410	1476	1545	1617	1692	1770	1851	1935	2023	2115	2211
XIII			12	11	6	4	1617	1692	1770	1851	1935	2023	2115	2211	2312	2417	2527
XIV				12	7	5	1851	1935	2023	2115	2211	2312	2417	2527	2642	2762	2886
XV					8	6	2115	2211	2312	2417	2527	2642	2762	2886	3016	3152	3294
XVI					9	7	2417	2527	2642	2762	2886	3016	3152	3294	3442	3597	3752
XVII						8	2762	2886	3016	3152	3294	3442	3597	3752	3913	4081	4250
XVIII						9	3152	3294	3442	3597	3752	3913	4081	4250	4426	4610	4801

Note: MC= Manual and Custodial Services; TC= Trade and Craft Services; CF=Clerical and Financial Services; SP= Sub-Profession Services; AS= Administrative Services; and PS= Professional Services.

E.C. = Ethiopian Calendar

G.C. = Gregorian Calendar

Source: http://www.adama_university.net/fileadmin/user-upload/Teaching/Position_Classification_Services.

effect, both the industry and institutions should be well aware. However, the fact on the ground is different. The industry is not giving the sector the kind of services and support it is expected to (ESDP IV 2010). Trainees assigned to organizations for cooperative training receive low follow up. At times, they are asked to perform tasks that have no relation with their training areas. Trainees, too, often show reluctance to conduct company visits to deliberate on trainees progress with mentors assigned by companies. This is mainly because of low awareness as stated in ESDP IV.

Planning

Effective implementation of any strategy heavily depends on the quality of its plan. A plan should be smart and clearly documented so that implementers take it to the level it is expected.

ESDP IV, which is the last phase of the 20-year plan of the education sector, was designed to implement, among other things, the revised TVET Strategy. This plan presents the detailed activities to be done between 2010/11 and 2014/15. Outlining the achievements obtained through ESDP III and the challenges lying ahead, ESDP IV presents the five-

year strategic move of TVET in “8 major strategies and component activities” under which more than 30 specific activities are set to be accomplished within the time frame. Each specific “strategy and component activity” has its own indicator(s).

This seemingly ambitious plan, however, lacks good indicators in certain issues. Some of the indicators appear inconsistent while others lack clarity. Still others are not quantified as a result of which follow up, monitoring and evaluation might be a challenge for implementers. More than a quarter of the activities have either non-quantified or undated targets. Redundancy looks the main characteristics of this document. Let us have a look at some of the activities that might negatively affect the target.

Table 4. Gaps in TVET enrollment, staff and institution

Strategies and component activities	Projected baseline in 2009/10	Actual number in 2010/11	Indicator/target in 2014/15
TVET enrollment	713,603	371,347	1,127,330
TVET trainers	14,596	12,890	22,547
TVET institutions	814	505	1,127

Source: ESDP IV 2010 and MoE 2011, compiled by author.

As can be seen in Table 4, there is significant mismatch between the projected base line and the actual achievement in 2010/11. Enrollment shows that the actual number is almost half less than the projected baseline of the previous year. Similarly, the difference between the projected baseline and the actual number shows a 38% difference. There is more than 10% difference observed between the baseline and the actual figure. In all cases, the baseline was higher. This might affect the target set for 2014/15.

Predictability

The sub-sector is making a lot of turns and twists in response to the market demand and the country's strategic move towards joining the middle income countries in the coming 15 years. This seems to have exposed the system for lack of predictability.

The shock private institutions were in a year ago when they were informed of the decision to “integrate” English and mathematics in and exclude IT courses from the main modules of the TVET programs is a case in point. This puzzled many educators because it defies the norm that courses are offered better by professionals trained in it. In addition, all resources available for both trainers and trainees are written in English. This seems to go against TVET’s goal of transferring knowledge as language is the key to transfer one’s knowledge to others. How can a carpenter make a table without measuring, which requires mathematical knowledge? While the time calls for IT awareness and skills, how can avoiding it be justified? These issues are waiting for resolutions.

Recommendations

To turn the challenges TVET is currently facing into opportunities, it is imperative that all stakeholders join hands without taking time. The dynamism and flexibility of the system need to be handled with utmost care so that it would not open room for compromising the quality of the training. Strengthening the monitoring and evaluation mechanisms, building the capacity of the regulatory bodies, ensuring predictable system and building trust among stakeholders are urgently needed. The 80/20 program-mix which favours hard sciences should be further digested whether it refers to student admission in the TVET institutions across the country or student admission within a particular institution. As experience tells, focusing

on specialized areas allows greater concentration and quality of work. The awareness raising efforts being undertaken should further be strengthened. The more people get aware of the benefits of the sub-sector, the better the cooperation will be to implement the strategy.

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The Role of Teacher Training in Technical and Vocational Education and Training (TVET) in Africa

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“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” - Strategy to revitalize technical and vocational education and training (TVET) in Africa, African Union, 2007, p. 18.

Introduction

Technical and vocational education and training (TVET) has been neglected in the national and international education policy agenda for many years in Africa, for a variety of reasons, including: the mismatch between training and labor market needs, high training cost, and poor quality of training. These factors have resulted in a policy shift away from school-based TVET. Recently, however, this trend has been changing and TVET has been included in the human resource development and technology transfer agenda as a high priority activity in Africa. Policymakers in many African countries and the donor community have been acknowledging the critical role that TVET can play in national development. This emphasis is also reflected in the recent Poverty Reduction Strategy Papers (PRSPs) that many African governments have developed with the World Bank (African Union, 2007).

In this article, it is intended to: first, briefly describe the economic context and demographic trends in Africa, which explain the need for TVET, particularly for the youth; secondly review the education sector's recent efforts, focusing on Millennium Development Goals (MDGs), the status of TVET in Africa and the scope and strategies of major players; and finally, explore the kinds of teacher training strategies for TVET that should be developed in Africa in the coming years and propose some actions for IICBA can undertake.

I. Context

What is happening in African economies?

Africa's economies are growing faster than those of almost any other region of the world. During the past decade, six of the world's ten fastest-growing economies have been in Africa. The International Monetary Fund (IMF) expects that Africa will grow by 6 percent in 2012, about the same as Asia. Africa's economic growth was previously dependent upon commodity exports, with the main revenues resulting from the sale of oil and other minerals. But according to *the Economist*, recent trends demonstrate that there are two significant factors, which account for Africa's growth even though they do not involve the export of commodities. The first factor is the growing application of technology. One relevant example is the increased use of mobile phones, which serve 600 million Africans allowing them to make payments and receive information on crop prices so that they can engage in their business more efficiently. Technology also assists in the health sector by reducing malaria-caused death rates with mosquito nets and increasing access to treatment for AIDS, both of which were previously major killers of productive workers in Africa. The second non-commodity economic driver is political stability resulting from the end of apartheid, more frequent elections, and end of the Cold War (The Economist, 2011a, 2011b).

Young population in Africa is growing the fastest in the world: They need jobs and the skills to get one

Favorable demographic trend is another cause of the African economic growth. Half of the world's population increase over the next 40 years will occur in Africa (United Nations, 2010). Africa has a fast-growing middle class and the

rate of foreign investment has increased around tenfold in the past decade (The Economist, 2011a).

However, the African Union argues that impoverished people without employable skills cannot benefit from the economic growth, and to help them, it is imperative to raise their skills through the acquisition of job-specific competencies (African Union, 2007). The same is true on a national level, for any country to develop and prosper, it also needs a productive workforce.

The education sector has the greatest responsibility to contribute to the development and training of a skilled workforce, and thereby contribute to national development. Poor countries cannot continue to depend on external aid to improve their education and training systems. Many foreign aid modalities, such as the payment of teacher salaries by external sources, are simply unsustainable, and ultimately tend to perpetuate the “poverty” or “dependency” mentality. Africa is a wealthy continent both in terms of human and natural resources. The internal wealth of human resources has a great potential to contribute to nation building and make each national educational system self-sustaining. The motivated young people of Africa are hungry for good educational and professional opportunities and are ready to act proactively to achieve those ends.

What has the Education Sector done so far to contribute to national development?

Globally, governments and the international community have embraced the Millennium Development Goals (MDGs) that prioritized the development agenda and set eight time-bound goals to be achieved by 2015. Although all the goals may be intertwined and the

achievement of one goal may contribute to the achievement of the others, two goals are normally recognized as being education-related, i.e., Goal 2: Achieve universal primary education and Goal 3: Promote gender equality and empower women. Unlike the Education for All (EFA) goals, which address the needs of all levels and all forms of education, the major problem of the education goals of MDGs is their narrow focus on universal primary enrollment, which resulted in neglecting other levels of education. Moreover, progress towards universal primary education is creating new pressures in terms of sustaining and improving quality, building an effective teaching force, and meeting the growing demand for secondary and technical and vocational education and training.

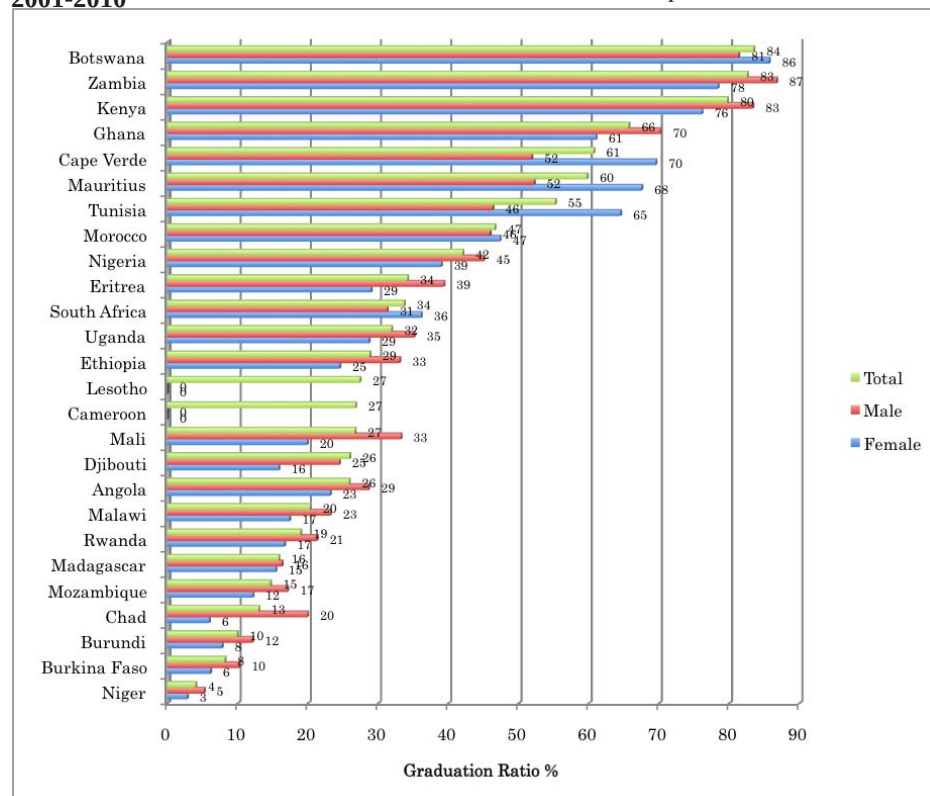
As the international community reflects on what must be done to reach the MDGs, there is the need to seize this opportunity to advocate vigorously for a more inclusive approach. Policymakers should take into account that well-educated and well-trained people can contribute indirectly to other MDGs, such as poverty reduction, and the education sector should more explicitly involve in other goals as well, and other levels of education in its developmental agenda.

Although participation in primary education has increased particularly in sub-Saharan Africa, where the net enrollment rate (NER) was less than 60 percent in 1999, but expanded to 77 percent in 2009 (UNESCO Institute for Statistics, 2011), the majority of students in Africa still do not graduate from lower secondary school. Graph 1 shows lower secondary graduation ratio in Africa, which is the typical cohort eligible for enrolling in TVET institutions that prepare students for middle level skills employment. Only in Botswana, Zambia, Kenya, Ghana, Cape Verde, Mauritius and Tunisia do more than half the relevant population graduate from lower secondary school. Generally, the male graduation rate is perceived to be higher than the female, but in countries, such as Botswana, Cape Verde, Mauritius, and Tunisia, more female students graduate from lower secondary than male students. Burundi, Burkina Faso and Niger have less than a 10 percent graduation rate

at the lower secondary level. This indicates that more efforts are required: (1) to improve secondary education participation, by considering both male and female students' socio-cultural conditions and motivation to continue with their education, and (2) to provide various forms of education and training opportunities for skills development, including those outside of the traditional formal education system, in order to reach the underserved population.

Graph 1. Gross Lower Secondary Graduation Ratio⁸, All Programs in Africa⁹

2011 or most recent data between 2001-2010



Source: UNESCO Institute for Statistics, Data Center, retrieved in January 2012.

⁸ Definition of "gross graduation ratio": Number of graduates regardless of age in a given level or programme expressed as a percentage of the population at the theoretical graduation age for that level or programme. Source: UNESCO Institute for Statistics. Available at: <http://glossary.uis.unesco.org/glossary/en/home>

⁹ Among 54 African countries, data are available only for 26 countries.

II. TVET and Teacher Development

The previous section highlights the recent trends of rapid economic growth in Africa, and its favorable demography with high fertility rates, both of which can further contribute to the development of the region. However, the efforts in human resource development have been skewed toward primary education, which may limit the potential of the untapped, unskilled youth, who can help the continent get out of poverty. The renewed policy trend is to include more emphasis on skills development of the youth and adults, responding to the new labor market requirements. To achieve

this, teacher development for TVET has a critical role to ensure quality teaching in competencies development, which includes knowledge, skills and attitude relevant to the rapidly changing labor market. Teacher development for TVET requires quite different approaches from teacher development for primary and secondary education. This section describes the necessary scope of TVET to meet a wide range of education needs in diverse systems in Africa, and proposes some areas of cooperation with UNESCO International Institute for Capacity Building in Africa (IICBA) to respond to the priority areas identified by experts in TVET.

Scope: What is TVET?

The systems, models, and modes of delivery of TVET are different from country to country, and we may not be able to reflect the realities of all countries accurately, but we use UNESCO's definition here to allow international comparison and facilitate possible cooperation. Broadly, TVET "*refers to an entire range of relevant learning experiences in the world of work that may also take place in a variety of learning contexts*" (UNESCO BRED, 2009a, p. 16). Furthermore, UNESCO's "revised recommendation concerning Technical and Vocational Education" (2001) defined TVET as "*those aspects of educational process involving – in addition to general education – the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupation in various sectors of economic life*" whereas "*VT (vocational training) is often used to describe short-term training in specific occupationally related skills*" (UNESCO, 2010, p. 5). UNESCO has identified some of the key common parameters in TVET as including the following:

- **Multi-sectoral:** Responsibilities may come under several ministries and/or national institutions.
- **Theory-Practice link:** Specialized knowledge and skills are acquired in schools, training centers and/or at the workplace.
- **Multi-levels of schools:** May be available at secondary, post-secondary and higher education levels.
- **Basic to professional levels:** May include basic training at the beginning level and training through professional life. Can open doors to post-secondary and higher education.
- **Formal, non-formal and informal:** May be in the formal education and training system, but can also be offered in an informal manner at work or through non-formal methods (UNESCO-BRED, 2009a, p. 16).

The terms formal, informal, and non-formal, are also interpreted differently depending on the context and the country. For example, some countries may refer to "qualifications" instead of "certifications," or "learning outcomes" may be more important than "learning time." Non-formal education and training can be well planned and organized and may not include informal learning. However for the purpose of understanding general ideas, broadly UNESCO defines them as follows:

- **Formal TVET:** Training typically provided by an education or training institution, which is structured (in terms of learning objectives, learning time or learning support) and leading to certification. Formal learning is intentional from the learner's perspective.
- **Non-formal education and training:** Education and training which takes place outside the formal system either on a regular or intermittent basis.
- **Informal learning:** Learning resulting from daily life activities related to work, family or leisure. Informal learning is part of non-formal learning. It is often referred to as experience based learning and can to a certain degree be understood as accidental learning (UNESCO, 2010, p. 6).

Overview of TVET in Africa

TVET systems in Africa are diverse and if we try to generalize them, they may not exactly reflect the accurate realities of each country. However, to understand some common issues and the general overview of the TVET systems in Africa, we refer to the African Union's situational analysis here. Over all in many countries in Africa, TVET in Africa is delivered at different levels and institutions, including technical and vocational schools, polytechnics, enterprises, and apprenticeship training centers. In many African countries, students enter the vocational education track at the end of primary school (6 to 8 years of education) or at the end of lower or junior secondary school (9 to 12 years of education). The duration of the formal TVET program is between three and six years, though in some countries basic vocational skills training is incorporated in the lower secondary school curriculum. TVET programs in Africa are delivered both publicly and privately, including by for-profit and non-profit organizations, non-governmental organizations (NGOs), and religious-based institutions, and private sector providers are increasing in all countries. Oversight responsibilities may be shared in ministries of education, labor and employment, and for some specific technical fields, other ministries, such as agriculture, health and transport supervise TVET programs. The African Union's strategy paper has identified multiple general challenges to TVET programs in the continent, including: "weak national economies; high population growth and a growing labor 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 organizational structures" (African Union, 2007, pp. 6-7).

Based on the broader international experience, the key issues to reform the sector in the African context were identified as: establishment of national training bodies; enactment of laws to strengthen national vocational training programs; and linking training to employment. Selected existing examples to promote the realization of these goals include: the South African National Qualifications Framework that provides a mechanism to award qualifications based on the achievement of specified learning outcomes, accumulation of credits and recognition of prior learning, which promotes life-long learning. Beyond the African context, the centralized Singaporean model, which ensures relevance of training to the needs of the labor market, and the dual system in Germany, which allows theoretical study in a vocational school and practical application in an enterprise concurrently, have been mentioned as useful examples for Africa to consider (African Union, 2007). Ethiopia in fact adopted this German approach 7 years ago. More recently, we can observe some dynamic changes in policies as well. One such example is the major shift from a system based on input to outcome orientation in Ethiopia (Ethiopian Ministry of Education, 2010).

Teacher Training for TVET

UNESCO-IICBA supports teacher development policies at all levels of education including TVET and adult and continuing education, both formal and non-formal for its 54 Member States. It works closely with UNESCO-BRED, based in Dakar, Senegal, which is seeking to broaden the scope of staff development programmes in TVET, including non-formal vocational learning opportunities, management of public-private partnerships, and assessment and certification of non-formal and informal learning achievements. UNESCO-BRED is acting in the framework of the UNESCO TVET Strategy and its 3 main areas of action to support TVET in the Member States in the next three biennia (2010-2015) and proposes seven

concrete fields of action for the TVET programs in Sub-Saharan Africa, which include: (1) data collection, management, processing, analysis and dissemination; (2) developing evidence-based coherent policy and governance frameworks; (3) mobilization of partners for more targeted financing; (4) access, equity and quality; (5) curricula relevant for transition to the world of work; (6) personnel for teaching, for management and for career counseling; and (7) assessment, certification, articulation, qualifications framework (UNESCO-BREDA, 2009b, p. 3, p. 22). IICBA also works with major partners and experts in the field to implement some of the areas that are identified as priorities by the AU, African governments and major development partners (UNESCO-IICBA, 2011). IICBA's support modality is through UNESCO's five established functions: (i) laboratory of ideas; (ii) standard-setter; (iii) clearing house; (iv) capacity-builder; and (v) catalyst for international cooperation.

The African Union set a goal for TVET in its Second Decade of Education for Africa (2006-2015) Plan of Action, which aims “to ensure that education systems in Member States are better able to provide the young generation with quality education that imparts key generic competencies, skills and attitudes that lead to a culture of lifelong learning and entrepreneurship in order to fit them into an ever-changing world of work (African Union, 2006, p. 10). Capacity building for TVET teachers is one of its high priority intervention areas as the AU recognizes that the quality of TVET delivery depends on the competence of the teacher. Based on the key strategic focus to improve teacher's competence and priority action areas identified by the African Union and TVET experts, IICBA can assist Member States in the following areas:

Selected areas of work related to teacher education

- **Instructor training:** support capacity building in the areas of competence development, measured in terms of theoretical knowledge, technical and pedagogical skills as well as skills in new technologies in the workplace.
- **Linkage between vocational and general education:** facilitate policy dialogue in creating pathways between vocational education and general education and articulate teachers' role.
- **Linkage between formal and non-formal TVET:** facilitate expert consultation in the development of

teachers in the non-formal sector to serve school dropouts and those who wish to re-enter the formal vocational school system to upgrade their skills, as well as regular vocational school students to acquire relevant practical skills in the non-formal sector.

- **Linkage of TVET to the labor market:** facilitate consultation among stakeholders of TVET, labor and employment, including teacher/trainer development experts to enhance the socio-economic relevance of TVET.
- **Traditional skills, business management and entrepreneurial training:** promote pilot projects in teacher training for TVET that help develop indigenous skills associated with the manufacture of traditional artifacts and crafts, including the acquisition of business management and entrepreneurial skills for self-employment.
- **Harmonization of TVET programmes and qualifications:** contribute to the technical inputs for teacher development in the effort to achieve a harmonized and coherent system of mutual recognition of competencies and ensure portability and integration of TVET qualifications across national frontiers in Africa (African Union, 2007, p. 9).

III. Conclusions

The article argues that the educational efforts in human resource development in Africa have been concentrated on primary education, which may limit the potential of the youth, who can help the region get out of poverty or further develop. However, with the recent advancement of the universal primary education goal and a rapidly growing economy and population in Africa, the renewed policy trends are to include more emphasis on competencies development, which include knowledge, skills, and attitude of the youth and adults, responding to the new labor market requirements. Teacher development for TVET has a critical role to ensure quality teaching in developing these competencies.

UNESCO-IICBA is currently exploring the best ways to assist its Member States to assess the needs of teacher training for TVET program involving leading TVET expert organizations and government. IICBA's approach to capacity building is not to train limited number of teachers, but to assist Member States in establishing a system to build capacity to develop

teachers of the country, which will be self-sustained. The major proposal for IICBA in the coming years will be to support *capacity building* in instructor training, but IICBA can also facilitate TVET development through other functions, including: *standard setting* for quality assurance of teachers and harmonization of the programs and qualification in sub-regional level; *international cooperation* in policy dialogues and consultations to ensure coherence of TVET teacher training considering different levels of education, different modes of delivery and relevance of training for the labor market; *clearing house* to share good practices around the world and within Africa; and promote *new ideas* to explore ways to reach under-served population in such areas as entrepreneurial skills development. As mentioned above, Ethiopia for example has already implemented these priority actions proposed by the AU and can share its experiences with other countries. Further comments and advice from experts and a wide range of stakeholders are most welcome.

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News in Brief

Teacher Policy Development and Implementation Workshop held in Accra

Date: 4-7, July 2011.

Venue: Alisa Hotel, Accra, Ghana.

Responsible person: Awol Endris



IICBA conducted a four-day Consultative and Training Workshop on Teacher Policy Development and Implementation. The workshop was organized for the countries of the Economic Community of West African States (ECOWAS), in the Alisa Hotel, Accra, Ghana, from 4 to 7, July 2011. The workshop brought together high level teacher education and development personnel from fourteen of the fifteen ECOWAS countries. The four-day workshop was intended to create a forum for the discussion of teacher issues in the sub-region, and to introduce the TTISSA Methodological Guide that UNESCO developed, in cooperation with its partners, to diagnose teacher issues in sub-Saharan Africa.

IICBA at the 2nd Dujiangyan International Forum

Date: 7-8 August, 2011

Venue: Dujiangyan city, Chengdu, People's Republic of China

Responsible person: Awol Endris

IICBA participated in the Second Dujiangyan International Forum — UNESCO Chengdu Conference, held in Dujiangyan city, Chengdu, People's Republic of China on 7-8 August 2011 under the theme, Quality Education for Inclusive Human Development. The Forum was comprised of three sub-themes: Quality Education, Skills Development for Rural Transformation, and Internationalization of Education. IICBA made a presentation under the title, "Rural Transformation through Inclusive Education: Experiences from Africa". The paper highlighted the efforts being put by African Member States to mainstream the ideas of inclusive education, and based its discussion on the situation of inclusive education in six African countries, namely Botswana, Kenya, Ethiopia, Ghana, Nigeria and South Africa. The Institute also served as one of the rapporteurs of the session that deliberated on Education for Rural Transformation in Inclusive Development.

UNESCO-IICBA and Microsoft-Ethiopia Co-organized a Training Workshop on ICT in Education for Teachers of Menelik II Secondary School

Date: 1-9, September 2011

Venue: Menelik II Secondary School, Addis Ababa, Ethiopia

Responsible person: Temechehn Engida



IICBA partnered with the Microsoft Office in Ethiopia to offer a pilot phase workshop for Menelik II Secondary School teachers. The training had two components, namely Microsoft's Digital Literacy Standard Curriculum, and IICBA's ICT-enhanced Teacher Development. The first component consists of computer basics, the Internet and the World Wide Web, productivity programs, computer security and privacy, and digital lifestyles. This first phase was launched on 1 September and ended on 9 September 2011 in the premises of Menelik II Secondary School. The second component consists of ICT integration in teaching school subjects, layout design for instructional purposes, and digital content development and use. The second phase will be implemented during the next break-time of the School.

UNESCO-IICBA at the International National Qualification Framework (NQF) Symposium on 9 September 2011 in Hatfield, South Africa

Date: 9, September 2011

Venue: Hatfield, South Africa

Responsible person: Akemi Yonemura

UNESCO-IICBA attended the International National Qualification Framework (NQF) Symposium on 9 September 2011 organized by the South African Qualifications Authority (SAQA). The purpose of the symposium was to explore the potential of qualifications frameworks as tools for enhancing communication, coordination and collaboration towards a systemic integration and quality of education.

The symposium was a forum to provide an opportunity to senior policy makers and government officials, as well as senior representatives for labor and business in the Southern Africa Development Community, to reflect on the development of NQFs in the international context. IICBA is exploring cooperation opportunities in such areas as development of standards, qualifications, assessment methods, and Recognition of Prior Learning (RPL) as well as collaboration between training authorities and quality assurance bodies.

UNESCO-IICBA at 11th UKFIET International Conference on Education and Development held on 13 – 15 September 2011 in New College, Oxford, UK

Date: 13 – 15, September 2011

Venue: New College, Oxford, UK

Responsible person: Akemi Yonemura

As a follow up to the Sixth Commonwealth Research Symposium on Teacher Mobility, Recruitment and Migration, which IICBA hosted in Addis Ababa on June 8-9, 2011, the Commonwealth Secretariat and UNESCO-IICBA presented a paper entitled, "Next steps in managing teacher migration; the role and status of migrant teachers in emergencies", at the 11th UKFIET International Conference on Education and Development held on 13 – 15 September 2011 in New College, Oxford, UK (<http://www.cfbt.com/UKFIET/default.aspx>).

UKFIET International Conference on Education and Development is a biannual event, and this year's theme was Global Challenges for Education: Economics, Environment and Emergency. Among the emerging thematic sessions, IICBA is exploring partnership in teacher education, in such areas as: skills for work in changing macro-economic environments; education and labor mobility; post-crisis capacity development; the role of education and training in peace-building; and the role of teacher education in good governance and sustainability.

Workshop on Analysis of Teacher Education Programmes for Primary Level

Date: 26-29, September 2011

Venue: Lomé, Togo

Responsible person: Abdoulaye Barry and Awol Endris

A four-day workshop that deliberated on the analysis of teacher education programmes for primary level in the ECOWAS sub-region, organised by IICBA in cooperation with the African Network for Teacher Education in Africa (REFORMA) and the Ministry of Education of the Republic of Togo, concluded in Lomé, Togo, on Thursday, 29 September 2011.

The eight countries represented in the workshop were Benin, Burkina Faso, Gambia, Ghana, Guinea, Niger, Senegal and Togo. The workshop was a follow up of a previous one held in Ouagadougou, Burkina Faso, in November 2010. The Ouagadougou workshop decided to commission studies in order to analyse the teacher education programmes in nine countries in the sub-region.



The Lome workshop deliberated on the synthesis report of the studies conducted and charted out a way forward for the countries to continue discussions and come up with a national qualifications framework (NQF) that will set minimum standards for teacher education for primary level in the respective countries.

ICT – enhanced Teacher Standards for Africa Validation workshop

Date: 29 - 30, September 2011
Venue: Addis Ababa
Responsible person: Temechegn Engida



UNESCO-IICBA conducted a workshop from September 29 to 30, 2011, to validate the drafted ICT-enhanced teacher standards for Africa (ICTeTSA). Experts from Cote d'Ivoire, Ethiopia, Mali, Niger, Tanzania, Ghana, and Mozambique were invited in the two-day workshop held in Addis Ababa.

It is to be noted that UNESCO-IICBA conducted three workshops on the Development of ICTeTSA for the following regional economic communities (RECs): ECOWAS in July 2009 in Ouagadougou, SADC in December 2009 in Harare, and EAC/ECCAS/IGAD in October 2010 in Brazzaville. The participants from the different countries within a REC have developed the regional standards and IICBA synthesized a draft ICTeTSA for the experts from the seven countries mentioned above to validate it.

The ICT in education experts reviewed the different aspects of the draft standard and also discussed on the way forward. The final ICTeTSA will soon be published by IICBA.

Teacher Education Policies from Gender Perspective

Date: 4 - 7, October 2011.
Venue: UNESCO Regional Bureau for Education in Africa (BREDA), Dakar, Senegal
Responsible person: Emebet Mulugeta



IICBA organized a four-day training workshop on Gender Mainstreaming in Teacher Education Policy. The training was based on the outcome of the assessment of teacher education policy conducted in Ghana, Nigeria and Senegal. The workshop took place in the premises of the UNESCO Regional Bureau for Education in Africa (BREDA), Dakar, Senegal, from October 4- 7, 2011. The major objectives of the workshop were to create awareness among participants on the need for gender mainstreaming, and equip them with the knowledge and procedures of gender mainstreaming in teacher education policies.

Seventeen participants from Burkina Faso, Gambia, Ghana, Nigeria, and Senegal attended the workshop.

Workshop on Indigenous ECCE Curriculum Framework and Module Design, 12-14 October, 2011

Date: 12-14, October 2011
Venue: Addis Ababa, Ethiopia
Responsible person: Patience Awopegba

UNESCO-IICBA initiated the design of a curriculum framework and module outlines for indigenous model of early childhood care and education (ECCE) for Africa. This workshop, held in Addis Ababa from 12 to 14, October 2011, was in response to expanding the ECCE service to the vulnerable and disadvantaged children in local and indigenous communities in Africa in the spirit of EFA goal1 which aims at expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children. This programme of intervention believes that the most vulnerable and disadvantaged groups are essentially found among the local and indigenous communities in Africa.. The workshop targeted rural and local communities because they are the most likely to be excluded from the conventional ECCE models already in existence in Africa.

A total of 23 participants from 9 African countries (Cameroon, Ethiopia, Ghana, Kenya, Lesotho, Mauritius, Nigeria, Senegal and Uganda) and 2 representatives from 2 partner international organizations (ADEA and UNICEF) attended the curriculum drafting workshop.

An Induction Workshop for a Study on In-service Teacher Education in Sub-Saharan Africa

Date: 17-18 OCTOBER 2011
Venue: ECA, Addis Ababa
Responsible person: Arnaldo Nhavoto and Patience Awopegba



In order to address the issues of teacher education and training, IICBA is partnering with TTISSA programme in BREDA; Teacher Education Section (ED/PDE/TED) at HQ; ADEA, and Commonwealth Secretariat to carry out country case studies on the practices of in-service training in nine confirmed countries from SSA namely - Central African Republic, Gambia, Ghana, Madagascar, Mozambique, Niger, Nigeria, Senegal, Zambia. The scope of the studies covers the approaches for preparing both primary and secondary school teachers in the selected countries. IICBA accepted to collaborate with the study by ensuring that it was reorganized to include the deliverables for an initial IICBA study on *Research on the Effectiveness of Short-Term Teacher Training Programme in Supplying the Required Trained Teachers and their Retention in Primary Schools in Selected Countries in Sub-Saharan Africa*. Part of the reorganization of the INSET study to accommodate the interest of the previous study on effectiveness of short term teachers training include: Existing Strategy for teacher training and their characteristics; approaches to teacher training, Issues of effectiveness and quality of teachers from each of the approaches adopted (INSET Programmes that have worked and those that have not worked); Profile of the beneficiaries of In-service training; and existing attrition data by approach adopted for teacher training where available.

The study shall have the following stages from inception to completion: Completion of country reports; Finalization of a synthesis report; Publication and dissemination of the synthesis report; and Advocacy of the findings among African Member States for policy reforms.

Training workshop on skills development for enhanced girls' participation in Science, Maths & Technology Education (SMTE)

Date: 19 – 23, September 2011
Venue: Cape Town, South Africa
Responsible person: Rita Onwu



UNESCO – IICBA organized training workshop on Skills Development for Enhanced girls' participation in SMTE in Cape Town South Africa, from 19 – 23 September 2011. The Cape Town workshop was one of the series of workshops mapped out as IICBA's intervention at school level to assist with the elimination of gender disparity at all levels with particular focus on SMTE in order to reach the millennium development goals of achieving gender equality and women's empowerment by 2015. The five-day workshop was conducted in collaboration with the University of Pretoria Science expert and the support of the South African Democratic Teachers Union (SADTU).

IICBA at the African Economic Conference, 2011

Date: 26 - 28 October, 2011
Venue: ECA Compound, Addis Ababa, Ethiopia
Responsible person: Akemi Yonemura



IICBA participated in the sixth annual African Economic Conference held from 26 to 28 October, 2011, in Addis Ababa. The theme of this year's conference was "Green Economy and Structural Transformation in Africa." The Conference was co-organised by the African Development Bank, the United Nations Development Programme (UNDP) and the United Nations Economic Commission for Africa (UNECA). IICBA participated in the exhibition for the Conference in collaboration with the Brookings Institution, whose new publication, "A Global Compact on Learning: Taking Action on Education in Developing Countries," was displayed and distributed along with IICBA's publications.

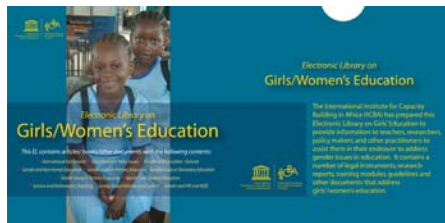
Twelfth Session of the Regional Coordination Mechanism (RCM) of United Nations

Date: 21-22 November 2011
Venue: ECA, Addis Ababa, Ethiopia
Responsible person: Arnaldo Nhavoto, Patience Awopegba

IICBA participated in the 12th Session of the RCM of the United Nations Agencies and Organizations working in Africa in support of the African Union and its NEPAD Programme (RCM-Afrida) Social and Human Development Cluster (SHDC) of the African Union. The Institute's contributions were mainly in the Education & Human Resource; and Employments and Labour sub-clusters. IICBA was able to partner with other members of the clusters such as AUC/ Human Resources Science and Technology (HRST), AUC/Directorate of Women, Gender and Development (GWDD), UNHCR, WHO, UNAIDS, UNFPA, FAO, UNICEF, UNESCO, IOM, UNWOMEN, UNDP, UNOCHR, and WFP to achieve the planned cluster activities. In 2011 cluster membership was extended to RECs (i.e. ECOWAS, SADC, COMESA, IGAD, EAC and ECCAS) as recommended by the 11th RCM meeting. Several key achievements of the SHDC include the mapping of youth employment interventions in Africa as well as several joint capacity building activity initiatives like the Pan African conference on Teacher Development in Africa (PACTED) in April 2011 and the Conference of Ministers of Education to AU in May 2011 where the Pan African University was launched; as well as the institutional capacity strengthening of two institutions in Tanzania -Tanzania Institute of Education and the Open University of Tanzania (TIE and OUT) to offer post-Graduate diploma for curriculum developers and Teacher trainers.

Electronic Library on Girls' Education

Date: 25, November, 2011
Venue: Addis Ababa, Ethiopia
Responsible person: Emebet Mulugeta



IICBA published an electronic library on girls' education. The objective of the library is to create a resource base on girls' education by compiling research reports, statistics, conventions, and other relevant documents to make them easily accessible to teachers, school principals, researchers, policy makers and other practitioners.

13th Session of the Governing Board of IICBA Held

Date: 25-26, November, 2011
Venue: Addis Ababa, Ethiopia
Responsible person: Mr. Arnaldo Nhavoto



IICBA's Governing Board held its 13th Annual Meeting in Addis Ababa, on 25- 26, November 2011. Mme Lalla Aitcha Ben Barka, Assistant Director General for Africa (ADG/AFR) of UNESCO attended the Board Meeting on behalf of the Director General and gave a keynote address. The Governing Board listened to the reports of activities and finance in 2011. It also was briefed on planned activities and budget for the next two years. The Board was updated on the office building that the Ethiopian Government has graciously agreed to construct for the Institute. The meeting ended with suggestions and recommendations on the alignment of activities and raising of extra-budgetary resources for programme implementation.

IICBA's Governing Board Meeting was attended by two colleagues from the UNESCO International Centre for Research and Training in Rural Education (INRULED) Dr. Zhao Yuchi and Dr. Zeng Haijun, who were on a visit to IICBA to discuss areas of cooperation between the two institutions.

IICBA Conducted a Workshop on Mapping and Planning for National ICT in Education Strategies for SADC and PALOP Countries

Date: 12-15, December 2011
Venue: Maputo, Mozambique
Responsible person: Tmechegn Engida

As part of its 2011/12 capacity building initiatives, UNESCO-IICBA conducted a workshop on enhancing the capacity of teacher education policy makers in mapping and planning for national ICT in education strategies. The workshop was conducted in Maputo, Mozambique, 12-15 December 2011. The major issues addressed in the workshop include, but were not limited to, policy makers' knowledge and skills in systematically mapping the present situation of ICT for teacher education (ICT4TED), development of ICT-enhanced teacher education programmes, planning for implementation of ICT4TED, empowering women in ICT4TED decision making, planning for implementation of IICBA's ICT-enhanced teacher standards for Africa (ICTeTSA) and ICT-enhanced teacher development (ICTeTD) model.