

COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CTSD)

Sixteenth Session

Geneva, 3 to 7 June 2013

**Submissions from entities in the United Nations system and elsewhere on their efforts in
2012 to implement the outcome of the WSIS**

Submission by

United Nations Economic Commission for Africa

This submission was prepared as an input to the report of the UN Secretary-General on “Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels” (to the 16th session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

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**ECONOMIC COMMISSION
FOR AFRICA**

**COMMISSION ECONOMIQUE
POUR L'AFRIQUE**

Implementing the WSIS outcomes in Africa - Tunis + 7

December 2012

1. Executive summary

As the rest of the world is speeding up with technological advancement, Africa is sure not to get left behind in the ICT race. The ICT infrastructure is getting a lot better in recent years. Africa constitutes over 10 percent of the number of mobile subscriptions worldwide which has almost tripled to 6 billion¹. Innovations in mobile applications have shown significant impact in socio-economic development enabled by m-commerce, m-health, m-learning, and m-agriculture, among others. At the beginning of 2012, Africa's internet penetration was 12.8% although the region's internet user penetration increased by an average 31% between 2006 and 2011 which is high compared to other regions of the world. Given the 45% of world's internet users are youth below the age of 25 and that youth represent more than 60 percent of Africa's population, internet use is growing faster which is demonstrated by increasing number of users of social media platforms such as Facebook, Twitter, YouTube, etc. in the continent. For example, with the current facebook penetration level in Africa of 3% it is growing much faster than any other region. Building on the need for more bandwidth, between 2009 and 2011, nine undersea optical fiber cables landed in the African costs with a cumulative capacity of 21.36 terabits where additional 19.2 terabits expected in 2012-2013.

Recognising the increasing contribution of ICTs to GDP, a number of countries are moving into positioning themselves to increase the export of ICT goods and services. This is evident in that seven countries, namely, Egypt, Tunisia, Ghana, Senegal, Mauritius, Morocco and South Africa made it to the top 50 destinations in the offshore business in the world according to A.T. Kearney's Global Services Location Index (2011).

To this end, countries are putting in place the enabling legal and regulatory environment. In this regard, after a series of review workshops involving all Regional Economic Communities, the draft convention on cyber-security prepared by ECA in collaboration with the African Union Commission has been approved by the Conference of Ministers in charge of ICTs in September 2012 which will go through its final adoption by the Heads of States and Government summit of the African Union next year.

¹ http://www.itu.int/ITU-D/ict/statistics/at_glance/KeyTelecom.html

2. Analytical overview

This document concentrates on the key activities in relation to ECA's direct involvement and participation with other stakeholders in selected follow up activities and WSIS action lines at regional level.

2.1 Development and implementation of ICT Policies, Plans and Strategies

By 2012, over 86% of the countries in Africa have national e-strategies in place where 45 countries adopted ICT policies and at different stages of implementation and 2 countries in the development process. With support from ECA, a number of countries have undertaken a review of their policies and refocused their strategies towards major development priorities. In Ghana a baseline study has been undertaken and a methodology framework for NICI/ICT4D impact assessment, measurement and analysis has been developed.

2.1.1 Assessing ICT Policy Development and Implementation Process - studies in selected African countries

Recognizing the recent growth in access and use of ICTs for the continent's socio-economic development, ECA instituted a study in five selected African countries of Ethiopia, Cameroon, The Gambia, Morocco and Mozambique, with the main aim of assessing the ICT policy development and implementation processes including in the context of WSIS.

As a result of several years of policy actions by governments in the five countries, the results of studies identified opportunities that informed policy directions where in Ethiopia the investment in ICT infrastructure in the last few years presents need for greater investment in applications and introducing the associated legal and regulatory frameworks where State monopoly inhibits steady growth and benefits from ICT uptake. Given that the study revealed that Morocco's challenges of not implementing its strategies as planned in previous phases and the eMaroc strategy of 2009 to 2013 being partially a success, Morocco's third phase Maroc-Numeric 2013 is expected to focus on its strategic advantages such as Morocco's multilingual society, its proximity to Europe including the free trade agreements with powerful countries such as US, EU and the GCC which presents opportunities for the country to position itself for global offshoring and outsourcing opportunities. With the need to enhance ICT infrastructure in the Gambia including connecting to submarine fibre optic cable networks by end of 2012 to enhance connectivity as a priority, the government also recognized the need to enhance investment in human resource development and putting in place the enabling environment. Mozambique is preparing for a new ICT policy for the coming years to which the study will help to refocus on future priorities in the light of the country's development needs and priorities. Cameroon acknowledged the ten years of effective regulation of telecommunications that resulted in citizens' enjoying the diversity of telecom services offered with increasingly dropping rates while the introduction of competition in the telecom sector resulted in improved access in both urban and rural population to telecom and ICT services. The studies have been reviewed and validated on a series of national stakeholder workshops where over 100 stakeholders across the five countries involving ministries in charge of ICTs, parliamentarians, academia, the private sector and development partners attended and have received the outcomes of the studies.

Some challenges observed from the surveys and reviews of policy implementation include the need for improving the capacity of policy makers on legal and regulatory issues not only in expanding the infrastructure to enhance access and use but also in ensuring the exploitation of the opportunities that telecom and ICT services can offer on top of the infrastructure. Furthermore it is realized that countries need to develop systematic mechanisms for maintaining ICT data and statistics for policy analysis and informed decision-making. Also lack of emphasis on the development geoinformation strategies was observed.

3. Innovative policies, programmes and projects

During 2012 a number of countries have been provided with technical assistance support and engaged in introducing new policies and strategies and reviewing existing to refocus priority areas as evidenced from the following country cases: - Ethiopia completed the development of national Information Technology Audit framework as part of its cybersecurity strategy; - Ghana completed the review of its national ICT4D strategy and developed a geographic urban service infrastructure; - Mauritius successfully organised a regional forum on Business Process Outsourcing (BPO) in Africa as part of positioning itself as preferred destination for global offshore markets and co-organised with ECA, the event also brought regional dimension to enable Africa benefit from the global BPO market; Rwanda established a Rwanda Science, Technology and Innovation Endowment Fund (RSTIEF) to support innovation in the country as part of implementing its national STI strategy; and Zimbabwe has completed reviewing its national ICT policy and plan. Tanzania has also reviewed its ICT policies through broad-based multi-stakeholders consultation in relation to the country's current national development plans and priorities and resulted in refocusing the policy targets to four priority areas, namely, Information infrastructure and management, Research, innovation and industry development, Policy streamlining, regulatory framework and institutional mechanisms, and Capacity building and content development. In 2012, ECA has provided support to the Government of Seychelles to develop and draft national cyber security policy and model laws.

SADC eCommerce strategy - SADC Ministers responsible for Telecommunications, Postal and Information and Communication Technologies (ICT) approved the SADC eCommerce Strategic framework for the SADC region in Balaclava, Mauritius on the 8th of November 2012. The sub-regional e-commerce strategy was launched in the framework of ECA-SADC Multi-year programme and is aimed at increasing trade amongst member States through e-commerce, not as a new form of trade, but as a new medium for conducting trade in goods and services. The ICT Ministers urged member States to implement the pillars as provided in the SADC e-Commerce strategy and Action Plan.

The Innovation Prize for Africa (IPA) – an initiative of ECA and the African Innovation Foundation (AIF) which aims to support inventors and innovators entrepreneur's vision and mission. The prize also promotes the efforts of young African men and women pursuing science, technology and engineering careers as well as business opportunities that aim to contribute to sustainable development in Africa. The 2012 Prize saw 485 applications received from 38 countries in various sectors such as ICTs, health, agriculture and food security and green technologies. The applications were reviewed by a technical team of experts. Two winners (from Egypt and Algeria) with a Prize worth USD 100,000 for the winner and USD 50,000 for the

runner-up were identified and profiled. Numerous applications/inventions that could stand to any competition worldwide were revealed. IPA 2012 demonstrated that Africa has numerous dormant assets of international standards in ICTs, green and clean technologies/energies, health, and agriculture and food security. IPA winners, nominees and pre-selected candidates are attracting international manufacturers, venture capitals, specialised R&D centres, etc. In addition, the winners' innovations details are disseminated around the world at a very high rate.

CREATIC4AFRICA: ECA and the Technology Centre for ICTs (CTIC) of Spain have a joint programme called CREATIC4AFRICA that aims to spur innovation among Africa's youth by enabling them develop ideas into viable and solution-based applications, working in CTIC's innovation laboratory in Spain. In 2012, five young innovators from Ethiopia and Senegal have spent nine months of hard work at the CREATIC4AFRICA innovation lab in Spain. They presented their ICT-based innovations in areas such as mobile-based application for decision support to improve child health, telephone-based vehicle security system, mobile money, building a social network of communities and tracking community prices on cell phones which were presented at a special event organized by the ECA and CTIC in June 2012 in Addis Ababa, Ethiopia.

Transforming community ICT access points:- ECA supported the establishment of the Knowledge Network of African Community Telecentres (KNACT) in which over 18 community telecentres and 8 national and sub-regional telecentre networks participated from eight countries, namely, Burundi, Ethiopia, Kenya, Tanzania, Uganda, Zambia and Zimbabwe. In 2012, ECA with support from government of Finland continued to support this network through capacity building, creating platforms for knowledge sharing and networking, and supporting innovative ideas to transform the role of community telecentre into tele-innovation centres. To this end, three projects from Kenya, Tanzania and Uganda have been selected to be supported through competitive selection criteria. In Kenya, Ugunja Community Resource Centre (UCRC) has been supported to develop a participatory village mapping using OpenStreetMap open source application which enabled them to develop an online map of the Ugunja district. In Uganda, Nakasake Community Telecentre has been supported to develop a mobile application, called MFarmer, using FrontlineSMS open source application and launched a mobile-based service on agricultural market information and weather updates to farmers. In Tanzania, Sengerema Community Telecentre has been supported to develop and launch a mobile and web-based agriculture information service.

Tele-innovation centres:- Countries like Rwanda and Ghana have been working in transforming their community telecentres so that to they provide among others small business support to low income communities, agricultural support services, e-government and e-health services, community based multi-media training and production opportunities etc. As a result, this activity triggered the transfer of over 30 community centres initially run by the Rwanda Development Board (RDB) into private ownership. In Ghana, through the consultations and strategic business plan developed for transforming the over 100 Community Information Centres (CICs), the project helped in identifying the focus areas of the tele-innovation centres, namely, identification of the potential areas for business development, e-government and e-governance, and community development in general. Two pilot CICs in Wheta and Salaga districts of Ghana were selected for implementation with training of 30 centre staff and selected community members including consultations with over 32 stakeholders from various sectors. The Ministry of ICT is keen to replicate the transformation process to the rest of the centres across the country.

eLearning Africa 2012 - The 7th eLearning Africa (eLA) Conference on ICT for Development, Education and Training was held from 23-25 May 2012, at the Palais des Congrès de Cotonou of Benin. eLearning Africa 2012 attracted close to 1500 participants from 66 countries, representing high-level policy makers, representatives from international and regional organizations, education and training practitioners, experts, researchers, representatives from private sector, youth, civil society and media. During the three days, over 300 speakers from Africa and beyond talked about how eLearning might be a vehicle for sustainable development in Africa and how the public sector, private enterprises, education and society as a whole can benefit from learning innovations. As a pre-event in partnership with the Government of Benin, ICWE and ECA ISTD organised the fifth ministerial round table on “*Education and Sustainable Financing in Africa*” which examined innovative strategies including financing and coordination mechanisms for the development and implementation of policies and programs for distant learning, and created a platform to share lessons learnt on the role of ICT in supporting the sustainable provision of education and learning opportunities in Africa. The ECA ERELA research programme on promoting computer enhanced learning and teaching of local languages in Cameroon primary schools and the policy and strategy for Pan-African Electronic Rural School in Local Languages were also presented.

3.1 First African Internet Governance Forum (AfIGF)

Following the successful hosting of the five sub-regional Internet Governance Forums or IGFs by the respective five sub-regions, the inaugural Africa Internet Governance Forum (AfIGF) was organized from 3 – 4 October 2012 in Cairo, Egypt amidst calls for increased partnership and collaboration to curb cyber crime and enhance online security in the continent. The event drew participants from across the continent to define Africa’s collective common position on Internet Governance and share best practices based on the results of national and sub-regional consultations. The conference was preceded by pre-conference workshops in the afternoon of 2 October 2012. Supported by ECA and African Union Commission (AUC), the African Internet Governance Forum (AfIGF) (<http://afigf.uneca.org/>) - was launched in 2011 to support and promote the consolidation of the on-going regional initiatives and reach out to continental and global stakeholders and guide in their engagement in continental, regional and national initiatives. The seventh global IGF took place from 6 – 9 November 2012, in Baku, Azerbaijan under the theme: “*Internet Governance for Sustainable Human, Economic and Social Development*”. The outcomes of the AfIGF were very useful in shaping the African IG agenda and Africa’s participation in the global IGF in Baku.

ECA has also provided financial and technical assistance to FOSSFA for the support of two sub-regional Internet Governance Forums: Central Africa IGF and West Africa IGF in 2012.

3.2 Promoting local language and open source

Electronic Rural Schools in African Languages (ERELA) programme successfully implemented in 5 rural primary schools in Cameroon with hundreds of students using a computer system that integrates local languages. In 2012, a policy, strategy and action plan for promoting rural electronic school in local languages was released. A comprehensive methodology of mainstreaming computer-based teaching and learning local language in the country’s educational system with the involvement of key actors was highlighted in the policy document.

ECA has also provided support to FOSSFA for the organization of Idlelo 5 – The Fifth African Conference on FOSS and the Digital Commons at Yar'Adua Centre, Abuja, Nigeria. The conference was held from 19 – 23 March, 2012 with the support from the Nigerian government. Idlelo 5 conference aimed at bringing ICT experts to share their experiences working toward the Millennium Development Goals. Under the general theme of “*Open Source Solutions for Achieving Millennium Development Goals*” Idlelo seeks to promote and provide a platform for Africans to discuss and strategies to the promotion and adoption of open source models. It is hoped that this will lead to the some significant use, development and deployment of open source solutions on the continent while developing the skills needed for Africans to solve their own ICT problem.

4. Trends and Experiences in Implementing the WSIS at National and Regional level

Through the on-going Scan-ICT initiative of ECA and under the Partnership for Measuring ICT for Development, ECA has been supporting member States to build their capacities to compile and utilise ICT data based on internationally agreed and comparable ICT indicators. Within the framework of the Partnership for measuring ICT4D, ECA has sent out a meta-data questionnaire survey to member States to take stock of data availability in African countries that will help monitor progress on the WSIS targets in preparation for the data collection that will be conducted in 2013 to collect data for each of the indicators in the statistical framework document for the ten-year review of WSIS outcomes report which is scheduled for 2014/15.

Building on their knowledge economy, a number of countries have recognised the need for harmonising their policies and strategies at sub-regional and regional level. To this end, 2012 saw the adoption of the draft convention on cyber-security by the Ministers in charge of ICTs which is expected to be adopted by the Heads of States and Governments Summit of the African Union next year. The Convention covers four main areas, namely, e-transaction, data protection, cyber-security and combating cyber-crime which will enable for widespread adoption and harmonisation of policies by countries and sub-regions in the continent.

While e-government remains the widely implemented sector in many countries, ICT adoption and application development in other sectors increasingly growing with the ICT in education sector being the next widely implemented and the growing interest in e-agriculture with the successful mobile-based applications for providing farmers with agricultural market price widely implemented in many countries in Africa. With the intention to increase citizens' access to public information and within the framework of implementing e-government there is a growing interest in open government in a number of countries.