



United Nations
Economic Commission for Africa

**Regional Review Meeting on
“WSIS+10 and Beyond: Outcomes and
Perspectives for Africa”**

14-16 April 2015

United Nations Conference Centre, Addis Ababa

Recommendations for policy makers

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I. Introduction

The United Nations Economic Commission for Africa (ECA) organized an Africa regional ten-year review of the implementation of the outcomes of the World Summit on the Information Society (WSIS+10) on the theme “WSIS+10 and beyond: Outcomes and perspectives for Africa”. The review, which took place in Addis Ababa, from 14 to 16 April 2015, was attended by over 70 participants drawn from 27 member States (Algeria, Burundi, Cameroon, Comoros, Cote d’Ivoire, Democratic Republic of the Congo, Djibouti, Ethiopia, Egypt, Gabon, Gambia, Ghana, Kenya, Madagascar, Malawi, Mauritius, Morocco, Mozambique, Niger, Nigeria, Senegal, South Africa, South Sudan, Sudan, Tunisia, Uganda and Zimbabwe); African regional economic communities, including the Common Market for Eastern and Southern Africa (COMESA), the Economic Community of Central African States (ECCAS) and the Southern African Development Community (SADC); civil society; academic institutions; and international organizations including the Internet Corporation for Assigned Names and Numbers (ICANN), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Telecommunication Union (ITU), Internet Society and the Arab Telecommunications Union (ATU).

The participants discussed the report prepared by ECA on the ten-year review of the implementation of the outcomes of the World Summit on the Information Society in Africa. They also discussed the findings of country studies commissioned by ECA in four African countries, namely, Cameroon, Ghana, South Africa and Tunisia. In addition, presentations were given by a number of countries (Egypt, Mauritius, Nigeria, Senegal, South Africa, Uganda and Zimbabwe); regional economic communities (COMESA, ECCAS and SADC); United Nations bodies (ECA, ITU and UNESCO); and other international organizations (ATU and ICANN). Panelists included delegates and representatives from member States (Ghana, Mauritius, Nigeria, Senegal, South Africa and Tunisia) and international organizations (ECA, ITU, UNESCO and ICANN).

II. Background

Close to ten years ago, the international community met in Tunis, from 16 to 18 November 2005, at the World Summit on the Information Society and adopted a set of documents, or outcomes, that today form the basis of national and global policies on the information society in general and on Internet policy and governance in particular. The World Summit on the Information Society was the culmination of a process that began in Geneva in 2003. As a result of the Summit, the global community adopted a common set of principles and a vision of the information society, identified its key principles, and outlined the main challenges towards achieving an information society for all based on shared knowledge. The idea of holding a world summit to address these and other issues related to the information society began as an initiative of the 1998 ITU Plenipotentiary Conference and was subsequently endorsed by resolution 56/183, adopted in December 2001.

III. Mandate

The mandate for a WSIS+10 review stems from a number of sources, including the Tunis Commitment and the Tunis Agenda, and resolutions 68/198 of 20 December 2013 and 68/302 of 31 July 2014. The Tunis Agenda called upon the General Assembly to undertake an overall review of the implementation of the outcomes of the World Summit on the Information Society in 2015. Pursuant to this, the Assembly adopted resolutions 68/198 and 68/302, which set out the modalities for undertaking the review.

IV. Objectives

The main objectives of the review are drawn from resolution 68/198. In addition to assessing progress in Africa on the implementation of the action lines and targets, the meeting was intended to address potential information and communications technology (ICT) gaps, identify areas for continued focus beyond 2015, and highlight challenges faced by member States, including bridging the digital divide and harnessing ICT development.

V. Summary of discussions

The full report of the meeting is under finalization. This note presents a summary of the discussions action line-by-action line, the challenges identified and the recommendations made. The review restricted itself to assessing progress on the Geneva Action Lines.

Participants agreed, based on the evidence, that African countries have made and continue to make progress toward the Geneva Action Lines and the Tunis Agenda. Most have put in place dynamic information society policies, and there has been considerable growth and expansion of ICT skills, expertise and markets. Nonetheless, a lot remains to be done on the continent to speed up progress.

Participants at the review agreed that most of the WSIS action lines and targets remain relevant today and should be retained in a post-2015 WSIS framework. Based on the imperatives of Africa, the review proposed that a post-2015 information society framework should include four additional action lines drawn from Africa's experience (action lines C12 to C15). In the paragraphs that follow, the salient points emerging from the review of each action line is summarized along with the challenges and priorities that should be addressed going beyond 2015.

VI. Priorities to be addressed in the implementation of WSIS beyond 2015

Participants exhaustively discussed each of the action lines. The discussion was guided by an analytical progress report prepared by ECA, four country background studies and presentations by a cross section of member States. The discussion and recommendations relating to the action lines are presented below in the order in which they appear in the Geneva Agenda.

Action Line C1: Role of public governance authorities and all stakeholders in the promotion of ICT for development

Governments play the leading role in the formulation of ICT policies and strategies, as well as in regulating the sector. It is the responsibility of Governments to ensure that national ICT strategies are consistent with and mainstreamed into national development plans and strategies. Non-governmental actors play an important role alongside Governments. They invest in the national strategies, arrived at through a participatory process with credibility.

Africa as a region has made enormous progress on this Action Line. Most countries have put in place national information and communication infrastructure policies, strategies and plans and formulated sectoral strategies as an integral part of their national development plans. As a result, for a large number of countries in the region, ICT has become an important contributor to gross domestic product and job creation, and over 43 countries have adopted national ICT policies.

Challenges

- The public sector remains dominant in the governance and promotion of ICT for development. The private sector, civil society organizations and other stakeholders play a very limited and insufficient role. This derives in part from a lack of clarity on the role of stakeholders, the technical nature of the issues, in which many stakeholders have limited capacity, and the absence of enabling legislation on stakeholder (private sector and civil society organizations) participation;
- Insufficient participation by international agencies concerned with human development (as opposed to technology/technical);
- The changing nature of private sector participation (in particular, the growing dominance of a small number of transnational enterprises in the Internet and ICT sector).

Recommendations

The post-2015 information society framework should:

- Re-emphasize the necessity of the commitment of all stakeholders, including private sector and civil society organizations, to the multi-stakeholder model, at the global, regional, subregional and national levels;
- Re-enforce the participatory approach involving the Government, the private sector, civil society, academia and international development partners in building an inclusive, people-centred information society;
- Re-enforce South-South cooperation in addition to North-South cooperation through the exchange of best practices in the process of developing the information society.

Action Line C2: Information and communication infrastructure

During the period under review, African countries have built considerable information and communication infrastructure. This has resulted in high mobile telephony penetration (over 70 per cent) and a significant increase in the proportion of Africans with access to the Internet. There has also been an increase in the provision of broadband infrastructure – fixed and wireless. But growth has been most rapid in mobile broadband infrastructure, resulting in mobile broadband penetration rates increasing from 2 per cent in 2010 to almost 20 per cent in 2014. Although almost all countries are now connected to submarine fibre-optic cables, fixed broadband access remains low, below 1 per cent penetration, while mobile broadband is quickly bridging the gap and displaying two-fold growth, from 10.9 per cent in 2013 to almost 20 per cent in 2014.

Challenges

- Broadband infrastructure divide, which is widening the gap in infrastructure provision between developed countries and Africa, and between urban and rural Africa;
- Inadequate national terrestrial fibre network, which is limiting access within countries;
- Inadequate and low-scale inter-country terrestrial fibre network among African countries, making inter-regional fibre connectivity problematic;
- High cost of access to ICT infrastructure (submarine cables) and services;
- Access can be improved if a large capacity (in terms of fibre-optic cables for international connectivity) of great terabit capacity can be harnessed to make universal broadband service a reality on the continent.

Recommendations

- Countries that do not already have a national broadband plan and strategy in place should ensure that they have one as soon possible. The policy should include specific quantifiable targets in terms of coverage, speed, socioeconomic outcomes, and so forth, and regulatory environments that provide for open access to infrastructure;
- Countries should include in their national ICT plans and strategies the development of inter-country connectivity to enhance interconnection with bordering countries, as this is critical for promoting African regional integration in the context of the Abuja treaty on the African Economic Community;

- Governments and all stakeholders should encourage open access to ICT infrastructure. Multi-stakeholder partnership at the national level is essential to advance infrastructure development;
- Governments and stakeholders should put in place a regulatory mechanism that will promote affordable pricing for broadband access and broadband infrastructure and service;
- Governments and stakeholders should improve infrastructure with the aim of providing universal service and ensuring broadband access.

Action Line C3: Access to information and knowledge

African countries have made significant efforts to increase access to information and knowledge and progress has been good. Smart phones are widely available and most mobile telephone handsets have AM/FM radios, while some smart phones have capability for viewing programmes similar to televisions. However the cost of acquiring and/or accessing up-to-date information resources remains very high. For instance, in 2013, Africa was the region with the lowest levels of households with Internet access, with 7 per cent; Europe had the highest, with 77 per cent. Furthermore, the quality of access is poor in many countries, reflecting the poor quality or inadequacy of ICT infrastructure. An important variable in the high cost of access is that many African countries are landlocked and terrestrial connections between countries remain undeveloped.

Challenges

- While the price of access to ICT, and in particular the Internet, is falling, it remains far too high in many countries to enable equitable access for citizens and to enable African businesses to compete effectively in the global economy;
- Limited capacity to accelerate the development and hosting of African content.

Recommendations

- Governments and stakeholders should continue with efforts to reduce the cost of Internet access as a gateway to knowledge and provide special attention and consideration to the needs of landlocked countries in terms of access to international connectivity;
- Governments and stakeholders should increase the availability of content in local African languages as a means of improving access to information to the entire population;
- Governments and stakeholders should build the capacity of people and institutions to increasingly and effectively take advantage of the possibilities provided by free and open source software as a means to improve access to information and knowledge;
- Governments and stakeholders should promote the development of repositories for content developed through open source solutions;
- Governments and stakeholders should re-enforce content development with regard to local social and cultural knowledge in Africa and develop resource centres to this effect;
- Governments and stakeholders should promote the development of local content and services and the hosting of African content in Africa.

Action Line C4: Capacity-building

The capacity of African countries in ICT has grown tremendously since 2005. Many countries have built up their capacity to initiate and formulate ICT policies and strategies. The capacity to regulate the ICT sector and maintain (and, to a limited extent, manufacture, assemble or repair) ICT equipment has grown. There has also been considerable growth in ICT institution building. To reinforce efforts to build ICT capacity, almost all African countries reviewed have developed policies on ICT in education and have integrated ICT education into their schools at different levels. Examples include Nigeria, Burkina Faso, Burundi, the Democratic Republic of the Congo, the Gambia and Senegal. In many countries, schools have been connected to Internet, allowing them to provide online registra-

tion for exams, teacher training, ICT education and distance learning. However, to fully adopt ICT in education (all primary and secondary school curricula) and meet the challenges of the information society, taking into account national circumstances, Africa still faces a number of challenges.

Challenges

- Use of ICT is still very low in schools at all levels. This is a challenge for creating twenty-first century citizens;
- Education and capacity-building systems are antiquated and in some cases do not define a role for ICT in achieving a knowledge-based economy;
- A very small proportion of children have access to digital literacy skills from an early age, and there is a lack of institutional mechanisms that enhance skills among children on how to use the Internet safely.

Recommendations

With respect to this Action Line, the review recommended that in the post-2015 environment, in relation to the information society, Governments and all stakeholders need to:

- Reform the education and capacity-building system to ensure that ICT has a central role to play in the drive towards a knowledge economy;
- Increase the provision of ICT in African schools, as without this it will be difficult to build a future workforce with twenty-first century skills;
- Enhance efforts to build the skills necessary to develop applications and solutions, including technology application, development and design;
- Ensure a secure and trusted online environment (in particular, service providers in Africa must build own capacity to keep platforms and services secure; users must also acquire the capacity to be able to check and hold service providers and themselves accountable);
- Increase understanding about the relationship between access and use of the Internet and the promotion, respect and defence of human rights, which is key, as well as the role of Governments to set conditions for the full enjoyment of human rights;
- Encourage peer-to-peer learning and offer specialized capacity-building opportunities to enrich the experience and understanding of policymakers and regulators;
- Include ICT in the education system at all levels and use it as a means of development and as one of the important elements of the economy.

Action Line C5: Building confidence and security in the use of ICT

Trust and confidence are important determinants of the uptake of ICT and are critical for exploiting to the fullest the potential contribution of ICT to development. E-commerce will not expand rapidly in very low trust environments. Similarly, ICT will be marginally relied upon if data stored are insecure and if ICT becomes an instrument for identity theft and invasion of privacy. Therefore, it is essential for countries to take measures to build confidence and ensure security in the use of ICT. This is especially important in the context of the use of the Internet by terrorist groups not only to recruit members but also to plan and launch attacks on countries and territories.

African Governments have made commendable progress on this front. A number of e-commerce platforms (for instance, Konga, Wakanow and Jumia in Nigeria) have emerged. Online banking has expanded. Social media, a technology that did not exist in 2003, has grown. Most Governments have enacted cybersecurity laws, many with the help of ECA. At the subregional level, several regional economic communities have established cybersecurity frameworks and efforts are underway to harmonize cybersecurity legislation across members. Furthermore, the African Union Assembly of Heads of State and Governments adopted the African Union Convention on Cybersecurity and Personal Data Protection at its Summit in June 2014. These efforts are the fruit of cooperation among all stakeholders to “enhance user confidence, build trust, and protect data and network integrity”.

Challenges

- Rising threats, incidence and sophistication of cybercrime, many coming from beyond Africa's shores. Owing to a lack of finance and awareness, most African countries have not been able to put in place the necessary security measures and institutions to protect users in cyberspace. Another challenge relates to legal jurisdiction for trials of identified cyber-criminals: most African countries lack the resources and skills to seek legal prosecution of alleged cyber-criminals beyond their shores;
- Very limited research and development in the field of cybersecurity on the continent;
- Weak understanding and enforcement of laws and other regulations on information and data protection and data security;
- Weak intellectual property regime, which creates a disincentive for innovations in Africa on instruments and technologies to build confidence and security in the use of ICT resources.

Recommendations

- Ensure a balance on the protection of individual citizens with the protection of ICT and Internet access and services for society as a whole;
- Make cybersecurity a priority of African ICT programmes;
- Encourage Governments to develop and implement mechanisms to improve cybersecurity in the use of the Internet and portals where personal data are shared. Such mechanisms should also cover social media;
- Encourage international organizations and development partners to assist African countries to develop strong cybersecurity infrastructure in Africa;
- Harmonize cybersecurity legislation between countries, including in the areas of personal data protection legislation within the framework of the African Union Convention on Cybersecurity and Personal Data Protection;
- Ensure that security is not just limited to security of networks against attacks and protecting personal data from hackers, but also includes binding rules preventing the hosting entities from using or sharing the data stored in their data centres or cloud infrastructure;
- Encourage replicating best practices to address cybersecurity challenges;
- Engage Governments in the transposition of the African Union Convention on Cybersecurity and Personal Data Protection into national law;
- Ensure the establishment of computer emergency readiness teams at the national and subregional levels and coordinate efforts to counter cybercrime.

Action Line C6: Enabling environment

Significant progress has been made by African countries in creating an enabling policy, legal and regulatory environment for the growth of ICT sector through the liberalization of the ICT and telecommunications market. About 57 per cent of countries in Africa have partially or totally privatized their incumbent operator. Market liberalization has been accompanied by improvements in the policy, legal and regulatory framework. The domain name system, which was a pressing matter between 2003 and 2005, has been resolved except in a few countries. In a number of countries, special ministries for ICT or communications technology have been created to facilitate the creation of a conducive enabling environment for the advancement of the information society initiatives and programmes.

At the subregional level, through the regional economic communities, progress was made on the harmonization of policy, legal and regulatory environment and formulation and implementation of subregional e-strategies.

However, in most African countries, the legal and regulatory framework remains weak in spite of discernible progress. A large number of countries don't have any Internet-specific laws such as on governance issues. Capacity to legislate for the sector and regulate the sector remains low and thus, the impact of legislation and regulation on the ICT industry sector remains less than optimal.

Challenges

- Limited harmonization of subregional policies to create an enabling regional environment: It is recognized that various regional economic communities have developed programmes to deploy ICT infrastructure and services, including developing policy and legal/regulatory mechanisms. However, regional economic communities have also harmonized their ICT activities (laws and regulation, connectivity, and so forth). This has resulted in standalone activities without much interaction between regional economic communities in Africa. This situation will lead to duplication of activities. Also, it does not ensure harmonization of ICT programmes at the regional level;
- Market failure and increasing government ownership of ICT infrastructure: A significant number of African Governments have re-entered the infrastructure market by establishing government-financed or government-owned broadband networks. This has been prompted by the unwillingness of the private sector to invest in broadband infrastructure. While this has been beneficial in extending network provision, care must be taken to ensure that it does not reinstate government-controlled monopolies over critical infrastructure, which could jeopardize both future network deployment and freedom of expression.

Recommendations

- Governments and stakeholders must continue to promote an enabling environment for the development of the information society and the growth of the ICT sector;
- Governments and stakeholders should discourage the re-emergence of government monopolies in the ICT and telecommunication sector by encouraging public-private partnerships and diluted government-ownership of broadband networks;
- Governments and stakeholders should enhance the legislative and regulatory capacity of relevant institutions and agencies;
- Governments and stakeholders should promote greater collaboration among Africa's regional economic communities to better harmonize their policies to promote a continent-wide enabling environment for the growth of the information society;
- Governments and stakeholders should engage communities in the implementation and effective translation at the national level of legal and regulatory mechanisms agreed upon at the regional level.

Action Line C7: ICT applications: benefits in all aspects of life

During the period under review, there has been very rapid growth in ICT applications and services. This has brought enormous benefits to citizens and Governments. Notable areas where there has been phenomenal growth relative to 2005 are e-government, e-commerce and, to a lesser extent, e-education. There is increased use of ICT in the financial sector (e-finance), which is leading to much lower costs and greater competition in financial services, providing customers with increased access to better services (such as online banking, ATM services and mobile banking). However, integration of ICT in other development sectors is less advanced and Africa is faced with several challenges in developing ICT applications and services.

Challenges

- Retention of human capital or scarce talents/skills in the public sector, which impacts the development of improved e-services;
- The diversity of communities and languages posing application development challenges;
- Inadequate skills and education to promote critical mass of users for e-applications.

Recommendations

On e-government, participants recommended that Governments and stakeholders need to:

- Ensure the maintenance of open standards and innovation in the ICT sector and the Internet, alongside coordinated multi-stakeholder activity to ensure protection of Internet security and integrity;
- Ensure the adoption of inter-operability standard for applications;
- Promote the culture of e-service provisions within the public;
- Promote public access centres for enhancing e-service access;
- Promote e-government service usage among the citizens;
- Encourage countries to dematerialize the procedures;
- Promote awareness among the public of the e-government structure and services.

On e-business, the meeting recommended the following actions:

- Extend transparency by making information freely available for allegations of fraud and use by all citizens as an automatic process rather than on request;
- Promote open data and open government data policy and strategy development and implementation.

On e-learning (see also Action Line C4), the meeting recommended:

- Encourage peer-to-peer learning and offer specialized capacity-building opportunities to enrich the experience and understanding of policymakers and regulators.

On e-health, the meeting emphasized that developments in this area can help to improve health outcomes on the continent. With this in view, the meeting recommended that Governments and stakeholders must:

- Ensure broadband in the remote areas to improve e-health;
- Promote mobile-based e-health applications to reach population in rural and remote areas.

On e-employment, the meeting recommended the following measures:

- Create the legal and regulatory environment for the development of e-employment through offshore services such as information technology enabled services and business process outsourcing;
- Undertake research on the impact of ICT and the Internet on employment opportunities, including jobs that are being lost as well as jobs that are being created through information technology.

On e-environment, recommendations include:

- Reduce the growth in waste and carbon emissions resulting from ICT use;
- Leverage the potential for carbon savings in other industrial sectors that may be available through ICT. This cannot be achieved by technology alone but requires full engagement by those concerned with social and economic processes, including utilities and manufacturing industries outside the ICT sector;
- Encourage e-waste management policy and implementation at the national level;
- Promote the deployment of smart technologies to achieve such as energy efficiency and promote the role of ICT in climate change in other sectors.

On e-agriculture, the meeting's recommendation was that Governments and stakeholders should:

- Promote mobile-based applications in enhancing agricultural services to rural and remote areas.

On e-science, the meeting recommended the:

- Promotion of access to enhanced broadband infrastructure and services in scientific and research institutions;
- Promotion of improved broadband connectivity to enhance national research and educational networks at the national and regional levels.

Action Line C8: Cultural diversity and identity, linguistic diversity and local content

Africa is a very diverse continent. Despite several initiatives to respect cultural identity, promote linguistic and other diversities, and local content through national ICT policies, progress on this Action Line and its targets remains very low. There has been a gradual erosion of cultural heritage and values. While software giants have made commendable progress in providing local language capabilities, their use in creating online content remains low because of poor command of these languages by educated Africans, since these languages are not properly taught in schools. Many Governments do not have explicit programmes to support the creation of online content in local languages, and where they exist, they are poorly funded. There is also very little deliberate policy to use ICT to preserve Africa's cultural heritage and languages. But there is progress in so-called old media (radio, television, newspaper), where the number of programmes in local languages is increasing.

Challenges

- Inadequate promotion and use of local languages to reduce exclusivity from the information society;
- Limited and uncoordinated use of ICT to promote and preserve African culture and heritage;
- Limited use of ICT to promote social inclusion and eliminate social exclusion;
- Absence of direct policy for local content in several countries.

Recommendations

- Deliberate and proactive policy measures should be taken to reduce social exclusion or its reinforcement arising as a consequence of information society technologies and policies;
- Create incentives for the private sector to produce local content;
- Teach African languages in schools to build creative competency in them.

Action Line C9: Media

The role the media plays is critical for building the information society. The media can be a force for good and for bad. It can amplify divisive issues and disseminate incorrect or inaccurate information. The media in Africa has expanded during the period under review. Radio and television continue to dominate in Africa. However, with the widespread availability of radio video capabilities on mobile telephone handsets, the reach of the media has expanded. New forms of media, including social media, have emerged in the intervening years. In many instances, new forms of media are raising political and sectarian tensions, leading to government clampdowns and restrictions on media freedom.

Challenges

- Weak capacity of the media to report on the information society in general and information society activities and initiatives in particular;
- Inadequate and in many cases antiquated media laws that are out of sync with the times;
- Tension between national security and media freedom, resulting in suspicion of the media and surveillance by some Governments.

Recommendations

- Governments and stakeholders should build and reinforce capacity in Africa's media and among media practitioners;
- Governments and stakeholders should build trust between the media and Governments;
- Governments and stakeholders should revise national media laws and enact new media laws that respond to the new media environment;

- Governments and stakeholders should undertake research to understand the contribution of the media to the promotion of information society objectives in Africa;
- Governments and stakeholders should ensure that all rights applicable in the offline environment are respected in the online environment;
- Governments and stakeholders should establish an international platform for sharing experiences.

Action Line C10: Ethical dimensions of the information society

The national ICT policies of most African countries put emphasis on the ethical dimensions of the use of ICT. However, the evidence is patchy. There have been instances of ICT being used to promote hate and instigate inter-ethnic and sectarian violence, terrorism and xenophobia. Piracy and other violations of intellectual property rights are rampant in a number of countries. Computers and the Internet have been used to spread different forms of child abuse, including child pornography, and to facilitate human and sex trafficking. However, the magnitude of non-compliance with or lack of promotion of the ethical dimensions of the information society is poorly understood.

Challenges

- The provision of safe and positive online experiences: children and young people need to have a safer online experience in order to build citizens who are prepared for twenty-first century challenges;
- The limited scope for international cooperation to establish globally binding ethical standards due to differences in world views and laws across countries.

Recommendations

- Encourage research and development in the area of the ethical dimensions of the information society among research and academia to inform policy action;
- Governments and stakeholders to take aggressive action within existing laws to promote the ethical dimensions of the information society;
- Enact global child online protection policies to ensure a safe and conducive online environment and experience for children, especially girls;
- Governments and stakeholders to build capacity through outreach and advocacy on the ethical dimensions of the information society.

Action Line C11: International and regional cooperation

International and regional cooperation have been important drivers of progress on the information society in Africa. A number of ICT4D initiatives in member States involve a range of international and regional partners, from Governments, to the private sector, the African Union and African regional economic communities (CEMAC, COMESA, EAC, ECCAS, ECOWAS, WAMU).

However, the main challenge that needs to be addressed is harmonization of policies across countries. Regional cooperation is essential in this regard. Africa's regional economic communities in order to advance the information society agenda among their member States, need to scale up efforts to harmonize the policy, legal and regulatory environment in a range of areas from infrastructure development to application of ICT in socioeconomic development.

Recommendations

- Follow-up, re-enforce and re-emphasize the central role of international collaboration and regional cooperation with regional institutions in the development of ICT and the telecom industry;
- Establish an Africa regional ICT observatory to track actions and policies toward the goal of achieving information society objectives;
- Encourage the establishment of national and regional Internet exchange points.

Proposed new Action Lines: C12-C15 for WSIS beyond 2015

The ICT and policy landscape in Africa was very different ten years ago. The continent's economic growth rate and human development indicators were poor. The information society imperatives were also different. At that time, the New Partnership for Africa's Development (NEPAD) was the principal anchor of the continent's development agenda, while the Millennium Development Goals constituted the international development framework.

The landscape has changed considerably since then. There has been a general improvement in economic and social conditions in Africa over the ten-year period. Today, the continent is focused not on recovery but on structural transformation. It has set out its goals and objectives in two important framework documents: *Common African Position on the Post-2015 Development Agenda* and *The Africa We Want: African Union Agenda 2063 for the structural transformation of Africa*. Both documents affirm the acceleration of Africa's infrastructure development, including ICT as a pivot. With that in view, technology and innovation are identified as a key means of achieving Africa's transformation agenda. To succeed, the transformation effort will rely on ICT to address and overcome emerging issues and challenges and collect, analyse and deploy data and information.

Flowing from the above, the meeting proposed that a post-2015 information framework should include the following additional Action Lines:

Proposed new Action Line C12: Technology and innovation

Technology and innovation have been identified as a means of implementation of the outcomes of the Rio+20 agenda, the International Conference on Financing for Development, the sustainable development goals and the upcoming 2015 Paris climate summit. They are also a means of implementation of the Istanbul Programme of Action for Least Developed Countries, a grouping to which a majority of African countries belong. As noted above, the African Union also identified science, technology and innovation as a means of implementation of the common African position and Agenda 2063, both of which aim to make Africa a knowledge society by 2030.

ICT can play an important role in this regard. But there remain many structural problems and challenges including the domain name system industry, which is still in the hands of countries of the North. The cost of new generic top-level domain applications remains very high.

The following are also key priorities in this action line (C12):

- Promoting the transfer of information society technology to developing countries through, for example, the creation of an information society technology bank for developing countries;
- Building technology capacity in research and development at the national, subregional and continental levels;
- Intellectual property rights;
- Promoting indigenous technological knowledge as an integral component of information society knowledge;
- Promoting and encouraging innovation through young people as the most reliable vehicle for the transfer of information society technology to poor countries.

Proposed new Action Line C13: Financing and resource mobilization

The rapid pace of technological change and the associated rapid pace technological obsolescence in the sector is very costly and imposes additional costs on resource-poor countries. Enormous resources that would otherwise have been directly expended on improving health and education are spent on ICT infrastructure. Participants acknowledged the positive knock-on effect of ICT infrastructure on

development, as well the additional pressure on national budgets that the need to keep up with new technologies imposes.

With this in view, participants recommended that:

- Inadequate financial resources should not be a barrier to poor countries' access to new information society technologies;
- Countries and stakeholders should mobilize additional resources to finance their ICT infrastructure projects;
- Development finance institutions should create a special technology lending instrument to enable poor countries to obtain loans to finance their ICT infrastructure at concessional rates.

Proposed new Action Line C14: Statistics and measuring of ICT4D

Participants emphasized the necessity of an elaborate and all-inclusive monitoring and evaluation framework and the role that timely and complete statistics can play in this regard. One weakness of the 2003 and 2005 WSIS framework was that it did not place due emphasis on data and the methodologies for measuring progress towards the information society. In the context of on-going discussions on the data revolution and the availability of big data (including open government data), participants recommended that countries and stakeholders should:

- Promote and implement the data revolution and enhance the capacity of States to collect information at all levels, namely, national, subregional, continental and global;
- Promote big data and open government data and the availability of relevant associated technologies to African countries;
- Build capacity in data analytics, to analyse and use ICT data for the timely measurement of ICT for development;
- Build data storage capacity of countries in view of the jurisdictional and property rights issues associated with cloud storage;
- Promote the establishment of an ICT observatory at the regional level.

Proposed new Action Line C15: Peace and security

Participants acknowledged the tension between information society objectives and peace and security. The Internet has been used for activities that threaten national peace and security in a number of African countries. Security threats also make the construction of inter-country terrestrial fibre-optic cable infrastructure unattractive to Governments and the private sector.

VII. Recommendations

The participants recommended that a post-2015 information society framework should:

- Explicitly recognize and acknowledge the sovereign right of Governments to take necessary measures within the law and consistent with their international obligations, including temporary restrictions on access to information society infrastructure to protect their national security and ensure peace;
- Explore the creation of infrastructure security funds to protect inter-country terrestrial fibre-optic cables since they are critical for expanding access and making services affordable, particularly in the context of regional integration.

VIII. Conclusion

The participants commended ECA for having organized the "African Regional Review of WSIS+10 and beyond". They called upon ECA to convey the recommendations of the Review to the relevant organs of the United Nations.

