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**ECONOMIC COMMISSION FOR AFRICA**

Second Session of the Committee on  
Development Information, Science and Technology (CODIST-II)

Addis Ababa, Ethiopia  
3 - 5 May 2011

**Draft Report of the Second Meeting of the Committee on Development  
Information Science and Technology  
(CODIST-II)**

**(Summary, resolutions and recommendations)**

## **INTRODUCTION**

The Second Meeting of the Committee on Development Information, Science and Technology (CODIST) on the theme “*Innovation for Africa’s industrial development*”, was held in the United Nations Conference Centre (UNCC) at the Headquarters of the Economic Commission for Africa (ECA) in Addis Ababa, from 2 to 5 May 2011, with pre-meeting events on 1<sup>st</sup> May 2011. The format of the meeting comprised plenary sessions and three subcommittee sessions on Information and Communication Technologies, Science & Technology and Geoinformation, respectively.

CODIST is one of the seven subsidiary bodies of ECA composed of senior officials and experts from member States who meet on a biennial basis. The role of CODIST is to review challenges and issues pertaining to the information and communications technologies (ICTs), geoinformation, and science and technology sectors; formulate policies and strategies to address Africa’s development challenges; and determine priorities to be reflected in the work programme of the ICT, Science and Technology Division (ISTD) of ECA. The ISTD is responsible for implementing the sub-programme, covering ICTs, science and technology, and geoinformation.

The overall theme of CODIST-2 was “Innovation for Africa’s industrial development” with the sub-themes on “Innovation strategies and industrial development plans” and “Enabling environment, innovation and industrial development”, which were mainly addressed by the CODIST sub-committees. The keynote speaker, Prof Farouk Kamoun delivered a paper entitled “Innovation for Africa’s Industrial Development” This was responded to by Science and Technology, Geospatial Technology, and Library and Information Services perspective respondents, Prof. Francis Gudyanga of Zimbabwe, Prof. Sias Mostert of South Africa and Dr. Edda Tandi Lwoga of Tanzania.

## **ATTENDANCE**

The meeting was attended by more than 600 policy and decision-makers, parliamentarians, scientists, lawyers, journalists and librarians. These delegates and observers represented African countries, national, international, regional and subregional organizations and development partners.

## **ELECTION OF THE BUREAU**

CODIST-II elected the following Bureau:

President:	Ghana
1 <sup>st</sup> Vice- President:	Malawi
2 <sup>nd</sup> Vice-President:	Equatorial Guinea
1 <sup>st</sup> Rapporteur:	Equatorial Guinea
2 <sup>nd</sup> Rapporteur:	Egypt

## PLENARY RESOLUTIONS

### Innovation for Africa's industrial development

#### **Noting:**

The importance of political will as well as developing local human resources/talents and regional integration as key ingredients to innovation,

The role of geospatial science and technology in the sustainable development of Africa,

That Science, Technology, Innovation is largely based in a geospatial context

The role of regional integration bodies in promoting ICT and Science and technology for development,

The importance of industrial technology transfer on Africa's development,

The role of youth as early adopter and promoter of Science and Technology for development activities,

The role of Parliament in promoting enabling environment for ICT, Science, Technology and Innovation for development,

The role of native language to enhance innovations,

#### **Recommends to:**

African Governments to:

- Reaffirm their commitments to Science Technology Innovation (STI) and demonstrate commitments through budget allocations as per previous African Union recommendations of 1% of GDP,
- Work very closely with the private sector and financial institutions in enforcing National system of Innovations and Industrial development in Africa,
- Undertake capacity building activities for technology transfer and adaptation.

ECA to:

- Document and disseminate the African success stories in innovation and industrial development,
- Open up a dialogue of cultures by bringing stakeholders together through one single platform with diverse voices,
- Provide a platform for a think tank of leaders and developers in the world of business, localization and social entrepreneurship,

- Reaffirm and commit its support to the African Regional Spatial Data Infrastructure (ARSDI),
- Involve the Regional Economic Communities (RECs) in facilitating the implementation of CODIST resolutions.

## **SUB-COMMITTEES RESOLUTIONS**

### **ICT SUBCOMMITTEE**

The sub-committee meeting, held from 3-4 May 2011, was attended by over 100 delegates and observers from member States including representatives from non-African countries and regional and international organizations. Pre-CODIST-2 workshops were held on 2 May 2011. The sub-committee adopted the Agenda and organization of Work and elected the bureau for the Sub-Committee as follows: Chair: The Gambia, Vice Chair: Rwanda, First Rapporteur: Angola, Second Rapporteur: Sudan.

The Sub-committee adopted the following resolutions:

#### **Report on ECA's activities in the area of Information and Communication Technologies, follow up to CODIST-I recommendations and work programme for 2012-2013**

##### **Noting:**

- The report presented by ECA on its activities in ICTs from 2009 to 2011 and its work programme for the period 2012-2013;
- The first and second meeting of the sixth African Technical Advisory Committee (ATAC VI);
- That the Subcommittee on Knowledge, Libraries and Information Services (KLIS) was discontinued after CODI V meeting due to the restructuring of the ECA and CODIST-I recommended that the activities of the KLIS sub-committee be resumed and subsumed under the activities of the ICT sub-committee. This would allow specialists in the fields of libraries and information/knowledge services to continue to play their role and accord them a Forum to promote and develop their activities; E/ECA/CODIST/1;

**Considering** that the recent restructuring of the ECA has resulted in Knowledge, Library and Information Services being re-integrated back into the ICT, Science and Technology Division and has been welcomed by the ECA Management as noted in the welcome address to CODIST II by the ECA Executive Secretary and in the speech by the ISTD Director during the launch of the ECA Institutional Repository both on 2<sup>nd</sup> May 2011,

##### **Recommends**

The re-establishment of the Sub-Committee on “Knowledge, Libraries and Information Services for Development” (a separate motion was adopted regarding this recommendation).

**Member States to:**

- Exploit the use of open source as a low cost stimulus to innovation in the ICT industry in Africa, especially to enhance rural connectivity on the continent;
- Identify champions of ICT development in the highest offices in African governments as has been the case with countries like Rwanda and other African countries, where the Head of State and Government leads the ICT development issues;
- Devise mechanisms for scaling up pilot projects and making them sustainable in the long run by designing or adopting successful business models to ensure their sustainability;
- Put emphasis on research and innovative ideas without replicating what others have already done by putting emphasis on African countries potentials and a competitive advantages especially in ICT industrialization be it in computers or mobile assembly plants.

**ECA should:**

- develop guidelines for the development and establishment of an e-learning platform for African countries to adopt and enhance access to education and support member States in reviewing university curriculums in the field of ICTs;
- in collaboration with partners, support capacity building and sharing of best practices and expertise between countries with the aim of reducing costs;
- support the establishment of youth specific ICT frameworks to enhance the integration of the youth into the knowledge economy since they are our future leaders;
- continue supporting member States in capacity building on ICT measurement;

**Enabling Environment - Technical and Policy Issues**

## Noting

- That African countries urgently need to formulate and enact cyber legislations in order to provide confidence and trust in electronic transactions, e-government services as well as other ICT based applications,
- That Regional Economic Communities (RECs) need to promote a harmonized legal and regulatory framework for the knowledge economy in the areas of e-transactions, protection of personal data, cyber security/ cybercrimes, interconnection and intellectual property rights;
- That Africa is yet to fully establish Internet exchange points (including regional exchange points) and the continuing need to improve national and regional interconnection in order to reduce the high cost of interconnection as well as the cost of doing business;

- That enhanced regional and international collaboration to articulate and provide a coherent framework for cyber legislation harmonization is needed.

#### Recognising

- That continued reviewing, evaluation and updating of NICI policies and plan is necessary to respond to the emerging knowledge economy legal and regulatory requirements;
- That Africa should seek to advance cost-effective, robust, and efficient Internet interconnections at the national, regional, and international levels;
- That gaps exist in national and regional policy and regulatory frameworks, particularly at the cross-border level;
- That African countries have progressed in implementing the WSIS Action Lines particularly in putting in place national ICT policies and starting to implement although a lot still needs to be done in terms of the adoption and utilization of ICTs in all sectors of the economy.
- That capacity building is necessary to promote ICT industrialization in Africa as technology transfer presupposes the capacity of absorbing this technology.

#### Recommends:

##### **Member States to:**

- collaborate closely with their respective Regional Economic Communities (RECs) for the adoption and validation of sub regional guidelines on cyber legislations;
- encourage the development of the legal and regulatory frameworks at the national level and ensure the transposition of regional guidelines for e-transactions, protection of personal data as well as cyber-security in the respective countries;
- Should promote access to information as a human right, while formulating cyber-legislations, which set out ways of ensuring the security of states without degrading the right of citizens to access information;
- Encourage proactive law enforcement and legal re-engineering to meet the dynamics of cyberspace;

- Create a pool of expertise in ICT law drafting and develop a new breed of ICT savvy law enforcement officers as well as reflect the subject of ICT security in curricula across all levels of education.
- Ensure that all relevant stakeholders be afforded reasonable and early opportunities to contribute to the development of policies and legal frameworks concerning Internet and Intellectual Property Rights;
- Set up certification and authentication authorities as a mechanism to ensure validation of electronic data;
- Implement policy and regulatory frameworks that support and facilitate national and cross-border Internet interconnection and advance the harmonization of cross-border interconnection and licensing regimes at the regional level, including through the RECs;
- Support the development of Internet Exchange Points to facilitate efficient and cost-effective Internet traffic exchange and improve the business case for the development of local content industries;
- Advance the redundancy and reliability of national information infrastructures by diversifying international Internet connections and encouraging the participation of government networks, commercial ISPs, university networks, and other data carriers in Internet Exchange Points;
- Deepen the implementation of policy and regulatory approaches that encourage competition in the development of national and regional Internet infrastructure, including through public-private partnerships;
- Actively promote Public-Private (add Peoples’) Partnerships for the development of the local software industry;
- Develop and strengthen ICT skills in all education sectors and promote capacity building at the grassroots level;
- Sensitise mobile operators to contribute to ICT industrialization and innovation through economic and financial incentives to be initiated by the regulatory bodies;
- Use to the extent possible post offices in order to promote the use of ICT based services by rural and disadvantaged communities;
- Involve all stakeholders to develop a continental multi-stakeholder framework for knowledge sharing and policy development with regard to Internet and IPR in Africa.
- Set up parliamentary committees on ICTs in order to participate fully in decisions

related to legislation budgets and evaluation of national policies.

- Regulate and encourage network access and interconnection of added value service providers platforms to telephony operators networks in order to promote the development and provision of local content.

**ECA to:**

- work in collaboration with the AUC and the RECs and in close collaboration with organizations such as the UNCTAD, ITU and UNCITRAL and ensure the endorsement of regional guidelines on e-transaction, cybersecurity/ cyber criminality and personal data protection;
- In collaboration with other partners, raise awareness on the need to set up an African Inter-parliamentary forum on ICTs;
- support member States to transpose these regional guidelines on cyber legislations in the context of their national environments so as to promote trust and confidence in the cyberspace;
- As per the request made by African Ministers in charge of ICT in Abuja in August 2010, work in collaboration with the AUC to finalize the draft of the convention on cyber security and raise awareness for the need of its adoption by member states before end of 2012;
- Support RECs in their efforts to put in place a harmonized framework for cyber legislation as well as to facilitate cross-border interconnection and regional licensing regimes;
- continue to undertake the WSIS monitoring and follow up by incorporating new and emerging indicators and disseminate the state of best practices among member States;
- facilitate the setting up of an online repository on cyber legislations in Africa;
- Promote awareness-creation with respect to the relationship between developing richly interconnected Internet infrastructure on the continent and the African innovation, industrial, and knowledge economy agenda;
- Collaborate with development partners on capacity building activities that assist stakeholders (including government, industry, legal practitioners, parliamentarians, the

business community, the academic sector and the public in general) in implementing technical and policy approaches for improving the existing legal and regulatory frameworks for the knowledge economy as well as for setting up a conducive environment for a national, regional, and international Internet interconnection;

- Encourage and support initiatives that advance research, data collection, and information dissemination regarding cybersecurity, e-transactions, intellectual property rights, protection of personal data and African Internet interconnection related issues;
- continue support the development, formulation, implementation and evaluation of the National Information and Communication Infrastructure (NICI) policies and plans in member States and encourage the formulation of new generation NICIs that integrate STI and Geo information in order to offer increased employment opportunities
- Develop new indicators that would be used in the baseline data collection as well as in the monitoring and evaluation process of policy implementation and its impact measurement;
- disseminate best practices within and outside Africa on the institutional mechanisms and arrangements for developing and promoting innovation and ICT industrialization in Africa;
- encourage networks and create a platform for the ICT industry and the research community to bridge the research and innovation gap;
- In collaboration with ICANN and AfriNIC to raise awareness and build capacity among member States on issues related to Internet Governance and management of critical Internet resources particularly in the participation of Africa in the new generic Top-Level Domain name programme.

Work in collaboration with AU to ensure that the .Africa. is owned by the African Union

## **New trends**

### **Noting:**

- The importance of open innovation and social media networking to support socio-economic development in Africa;
- Social networking tools are opportunities for better governance and more innovation in Africa as Africa has 110 million Internet users, 10.9% penetration rate, numerous African web and mobile applications, uptake and use of ICTs among fastest in the world, more shift from fixed to mobile telephony, and several success stories in using ICTs for positive social change;

- The importance of FOSS applications to support development and opening up opportunities for local talents to innovate and support industrialization;
- Mobile applications providing new opportunities in supporting socio-economic development.

**Recognising:**

- The Internet has become a fundamental tool and enabler for advancing scientific collaboration and innovation, facilitating industrial research and development, promoting access to government services, and accelerating the development of skilled human capital;
- Improvement in ICT infrastructure and greater interconnectivity between countries have been positively linked to growth in regional and international trade;
- New trends in ICT applications such as mobile applications particularly in health and businesses are contributing to overall socio-economic development of African countries as a result of increased mobile penetration in the continent.

**Recommends:**

**Member States to:**

- work together to implement FOSS recommendations emanating from CODI IV, including raising awareness about FOSS and building capacity in FOSS, encouraging the participation of FOSS communities in NICI formulation and implementation;
- collect and analyse accurate and complete data on government expenditure on proprietary and non-proprietary software with a view toward determining trends in expenditure, value for money, and involvement of local software companies in government procurement;
- develop ICT policies on Open Standards in general, and Free and Open Source Software (FOSS) in particular, with a view to ensuring that procurement and promotion of ICTs provide a level playing field for proprietary and FOSS software;
- encourage local ICT industries and talents of the youth and women in addressing new trends in ICT innovation including mobile applications for business and health, social networking media in support of creating open and democratic societies.

**ECA to:**

- facilitate better inter-connectivity among African civil society activists and start-up businesses striving to promote an open society model;
- raise awareness at the level of governments of the necessity to promote bottom-up approaches to innovation;
- In collaboration with regional and international partners, raise awareness of member States on exploring the economic opportunities of open government data;
- Create awareness on social media among decision makers, medical personnel, practitioners, students, women, in schools, etc.;
- develop capacity in FOSS and develop strong, fruitful partnerships with FOSS advocacy groups such as the Free Software and Open Source Foundation for Africa (FOSSFA), as well as UNESCO and other UN agencies.
- Continue to provide support to member states in setting up multimedia tele innovation centers
- Collaborate with the NEPAD on ICT projects such as the Algiers-Abuja initiative for the benefit of isolated countries

**Promoting Innovation Development and Diffusion in Africa through Open Access Publishing****Recognizing:**

- a) The benefit to Africa in using new emerging technologies such as Open Access and Web 2.0 for information management, dissemination and sharing;
- b) The need for coherence in information management and dissemination initiatives existing in Africa;

**Noting:**

- a) The absence of the necessary technical, legal and governance frameworks to support the adoption of technologies such as Open Access model, and Web 2.0 technologies);

**Further noting:**

- a) The studies indicating that most stakeholders in institutions in Africa are not familiar or aware of the benefits of technologies such as Open Access and Web 2.0 technologies

## **Recommends**

### **ECA to:**

- spearhead with assistance from member states the development of an action framework to facilitate the adoption of Open Access model in member states. The framework should consider both technical infrastructure, legal and governance issues.
- clarify the relationship between African Virtual Library and Information Network (AVLIN) and Access to Scientific Knowledge in Africa (ASKIA) in order to ensure the proper and effective implementation of the two initiatives
- provide a forum for the development partners, international organizations and member states to deliberate on the integration of their initiatives to avoid duplication and to leverage on the sharing of resources

### **Member States:**

- should develop information policies that should incorporate management and dissemination of content in digital formats;
- should align Open Access model and national knowledge development traditions in order to take advantage of either system.
- should build the technical and legal infrastructure and develop the necessary capacities of the institutions and information professionals to enable them to participate and contribute to information initiatives at national, regional and global level.
- should provide a platform for convergence of the different information professions (Libraries, Archives, Museums etc.) to facilitate collaboration and cooperation.
- should invest in information for development.

### **To Librarians should:**

- create awareness on the benefits and importance of Open Access in order to have buy-in from the senior management and create confidence in faculty, academia, researchers, students and community to disseminate their research and scholarly works using the Open Access model;
- be innovative and aim to provide information services that address socio-economic challenges facing the Member states;
- integrate Web 2.0 applications into their work to enhance provision of innovative information services and the engagement with their communities.

# **SUB-COMMITTEE ON SCIENCE AND TECHNOLOGY**

## **Introduction**

### **The sessions of the Subcommittee on Science and Technology were held from 3-4 May 2011, with pre-meeting events held on 2 May 2011**

The sub-committee meeting, held from 3-4 May 2011, was attended by over 100 delegates and observers from member States including representatives from non-African countries and regional and international organizations. Pre-CODIST-2 workshops were held on 2 May 2011. The sub-committee adopted the Agenda and organization of Work and elected the bureau for the Sub-Committee as follows: Chair: Zimbabwe, Vice Chair: Algeria, First Rapporteur: Kenya, Second Rapporteur: Mali.

### **The subcommittee adopted the following resolutions**

#### **Science, Technology and Innovation for Industrial Development**

##### **The Subcommittee,**

Noting:

- The crucial role of nationally relevant science, technology and innovation policies play in facilitating the emergence of an ecosystem within which innovation and entrepreneurship flourish;
- The importance of leadership provided by national Parliaments in facilitating and establishing the necessary administrative, legal and regulatory institutions needed to apply science, technology and innovation to social and economic development challenges;
- The key role of soft and hard science, technology and innovation infrastructure and resources in the performance of R&D institutions;

##### **Recommends:**

That member States should:

- Develop specific and clearly defined STI policies that are linked to development goals in priority sectors such as, education, agriculture, health, energy and water, through grand projects that exploit domestic resources and attract foreign direct investment (FDI).
- Support and actively participate in the African Inter-Parliamentary Forum on Science, Technology and Innovation (STI)

- Facilitate the formation and establishment of Information and Communication Technology (ICT) and STI Committees in national Parliaments.
- Support the Africa Science Technology and Innovation Endowment Fund (ASTIEF), the African Technology Development and Transfer Network (TDTNet) and the African Network for Drugs and Diagnostic Innovations (ANDI) as platforms for stimulating innovative business development in Africa and facilitating formation of collaboration, industrial alliances and open innovation.
- Support the African Regional Center for Technology as a platform to develop and implement collaborative technology framework.
- Create world class R&D centres, colleges, polytechnic and universities at local, national and regional level.
- Develop innovation-based industrial program in clearly defined areas of comparative advantages and technological niches such as pharmaceutical, petro-chemistry, manufacturing, services and agro industries.
- Work with the African Academy of Science to create and strengthen national academies of science to provide STI policy advice on new and emerging areas.
- Make efforts to increase their investment in R&D to reach the level of 1% of GDP that was set in the Lagos Plan of Action by the Summit of African Heads of State and Government in 2007.
- Encourage their R&D institutions to join World Association of Industrial and Technological Research Organizations (WAITRO) to promote networking, South-South collaborations and promote industrial development
- Encourage African scientists to publish in indexed journals (ISI) with high impact factors and promote African journals to attain that status.
- Assess the student to lecturer ratio and the qualifications of lecturers at universities to ensure quality and standards of education are maintained.
- Encourage and fund high level training (PhDs) for meaningful R&D

**That ECA should:**

- Help member States to put in place science, technology and innovation strategies to meet their development aspirations.

- Undertake a survey of best practices in technical vocational training and recommend to member States ways in which they can improve the quality and appeal of technical and vocation training.
- Help interested governments to setup Innovation Funds based on best practices and its Africa Science, Technology and Innovation Endowment Fund model.
- Provide guidelines for the disbursement of the 1% allocation of GDP for maximum measurable impact.
- Promote sciences dialogues and diplomacy in African countries for the consolidation of national and regional innovation systems.
- Promote the creation of R&D centers and collaborations in material sciences, including nanotechnology, in Africa.
- Involve the African Regional Centre for Technology (ARCT) in the implementation of agreed regional STI framework.
- Continue to undertake policy research work in the areas of intellectual property rights, technology transfer and performance of national innovation systems
- Seeks ways to develop regional and national platforms that promote industry-government-academia interactions and partnerships for industrial development
- Work with other organization to help define STI indicators and develop cost-effectives ways to collect, analyse and disseminate STI data for policy making.
- Compile and analyse successful experience learned in some African countries and advise member States how they could be emulated or shared to ensure no country is left behind.
- Help R&D institutions put in place intellectual property policies and establish technology transfer offices.
- Assist member States in putting up world-class research infrastructure especially laboratories.
- Support the development of “Green science, technology and innovation awards” in Africa.
- Continue to organize the biennium Science with Africa Conference which is a foremost forum for promoting the importance of science, technology and innovation in improving the quality of life, creating employment, industrial development and regional integration in Africa.

- Strengthen collaboration with all UN Institutions and other partners in assisting member States in STI policy formulation and implementation.
- Establish sustainable mechanism for CODIST resolutions implementation and involve financial institutions and industries in CODIST meetings.
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### **Enabling environment – technical and policy issues**

#### **The Subcommittee,**

##### **Noting that:**

- The governance of technology and innovation, especially the legal and regulatory mechanisms, creating an enabling environment for innovation;
- Research and development resources such as funding, technology, human capital and facilities play a key role in the development of knowledge and its application to industrial and development challenges;
- The lack of appropriate fiscal and non-fiscal incentives to encourage technology acquisition, adaptation, diffusion, upgrade transfer by institutions and firm in Africa.

##### **Recommends:**

##### **Member States should:**

- Create National Technology and Innovation Committees, chaired by a senior government leader, such as the President or Prime Minister, to ensure STI is integrated in all other sectoral development policies and should comprise all ministers and selected public and industrial leaders that will meet at least once every two months.
- Promote the development specialized institute in key areas such as quality standards and metrology to support innovation and industrial development.
- Promote national Intellectual Property (IP) policy and system that take into account local indigenous knowledge, national science, innovation systems and economic development plans.
- Ensure that their investment, fiscal, trade, competition and procurement policies facilitate innovation and domestic industrial upgrading.

- Put in place incentives and other mechanisms to promote innovation in academia, industry and government through innovation and technology leadership awards, profiling of successful innovators and entrepreneurs, offer of fiscal incentives for patenting and publication in top journals, among others.
- Create platforms that facilitate collaboration between industry and academia as well as with government.
- Put in place special measures to encourage the participation of specific target groups such as women, youth, persons with disabilities, diaspora and elderly in STI.
- Eliminated barriers to innovation including unfair taxation barriers and unfavourable intellectual property regimes.

**That ECA should:**

- Build platforms for promoting innovation through collaborations and exchange of information in clearly defined priority R&D areas such as agriculture, health, education, energy and water resources.
- Help governments and their institutions to undertake national technology assessments to set technology transfer priorities for climate change adaptation and mitigation
- Advise governments on best practices in setting, coordinating, supporting and implementing priority areas for the application of STI to meet national and regional development agenda
- Help member States to strengthen or establish national and or regional STI Policy Research Institutes and help develop their policy research capacity to specifically offer an alternative development path based on science and technology.

**Science, technology and innovation for industrial development: New trends**

The Subcommittee,

Noting:

- The importance of innovation a key driver for economic development and industrial leadership and competitiveness.
- The lack of clear industrial development strategies that take into consideration the role of science and technology as well as innovation strategies for achieving fast economic growth.

- The growing importance of international industrial alliances and research and development collaboration arrangements in technological learning and development especially in complex and multidisciplinary field such as biotechnology, information technology and manufacturing.
- The urgent need to align STI with national economic development ambitions of African countries.

**Recommends:**

**That Member States should:**

- Identify priority sectors and technologies that could be used to build a sound technological and industrial base.
- Identify interested technology partners and seek to develop formal international collaborations with more advanced countries in specific areas of interest to the parties.
- Develop innovation strategies that clearly define the contribution of science and technology investment in industrial and social-economic development.
- Put in place measures to empower specific target groups such as researcher, youths, women, persons with disabilities and diaspora to drive economic transformation through innovation
- Ensure close partnerships, including business and technology linkages, between foreign invested firms and domestic firms, and between large small and large firms to facilitate technology transfer, upgrade and innovation

**That ECA should:**

- Develop and support training in building business and technology linkages between large and small firms, and between R&D centres and the private sector.
- Support women and youth innovation programs and mainstreaming gender in science, technology and innovation systems.
- Develop indicators for tracking and monitoring the contribution of STI in national economic development as well as the performance of S&T institutions and STI governance structure
- Compile, analyse and disseminate best practices in promoting innovation in government institutions and in industry including ways to motivate politicians, workers, researchers and student to participate in innovation.



## **Sub-committee on Geoinformation**

### **Introduction**

The sub-committee meeting, held from 3-4 May 2011, was attended by over 100 delegates and observers from member States including representatives from non-African countries and regional and international organizations active on geospatial activities. Pre-CODIST-2 workshops were held on 2 May 2011. The sub-committee adopted the Agenda and organization of Work and elected the bureau for the Sub-Committee as follows: Chair: South Africa, Vice Chair: Cameroon, First Rapporteur: Egypt, Second Raporteur : Burundi, Regional representative: Guinea

The Sub-committee adopted the following resolutions:

### **NSDI and Geospatially enabled Government Services**

The Subcommittee,

Noting that the success of NSDI is dependent upon delivering products and services that are acceptable and desirable by the end users, within Government, the private sector, citizens and NGOs.

Considering that this key objective will only be achieved if the requirements are clearly understood,

Taking note of the African-European Geo-resources Observation System (AEGOS) being developed in Africa,

#### **Recommends:**

#### **That member States should:**

- start developing Geospatially-enabled government services for end user needs and ensure that appropriate products and services are provided,
- develop transparent, shared, and interoperable systems of public geoscientific information for decision makers, investors, education, research, national and international institutions,
- Exploit the appropriate use of global geospatial data sets for the production of fundamental data sets.

**That ECA should:**

- continue providing assistance to Member States to develop their geoinformation policies, standards and dissemination legislation,
- undertake assessment of current Africa country performance and trends in adopting cooperative, multi-stakeholder approach to production, management, and dissemination of spatially enabled data, including interoperability and standardization problem, institutional arrangement and delivering of streamline online services,

**That Development Partners should:**

- support the operationalization of systems such as AEGOS, in synergy with comparable platforms for public data and geo-resources information sharing.

**Global Geospatial Information Management**

Recognizing the advantages of Spatial Data Infrastructure (SDI) to provide the spatial information needs for integrated economic and development planning,

Noting the need for a coordinated global framework for the sharing of information to avoid the risk that information sharing will develop in fragmented and inefficient ways,

Taking into account the proposed United Nations Committee of Experts on Global Geospatial Information Management Initiative which was launched by United Nations Secretariat,

**Requests:**

**ECA:**

- To take the role of leading our continent's effort in providing the African regional focus to the GGIM initiative;
- To organize in prelude to the GGIM Forum in Korea, an African preparatory committee (GGIM PreCom Africa) in order to establish a clear plan of action towards an active participation of African government ministers, other officials and stakeholders in the GGIM initiative;

**Member States to:**

- Ensure an active participation in the GGIM process.

## **Community Mapping**

Recognising that Africa is still not adequately mapped as needed for local and national development process,

Considering that Local and Participatory GIS are useful to provide context to scientific, high level discussions in practice,

### **Recommends ECA,**

To develop knowledge, skills and capacity in order to properly advise member States on vounteer geographic information for fundamental geoinformation resources.

## **African Geodetic Infrastructure**

Recognizing the great progress made in establishing the AFREF geodetic framework,

Noting that there are several GNSS-based projects relevant to AFREF,

Considering the need to develop strategies for incorporating additional permanent stations in the AFREF network,

Considering the need to process free and openly GNSS data to publish a set of co-ordinates fully consistent with the ITRF,

### **Recommends ECA:**

- To continue assisting in promotion, establishment and realization of the African Reference France (AFREF),
- To assist in the elaboration of a data policy which will enable member States to provide GNSS data for use by the geospatial information community at large.

### **Recommends Member States (NMA or any other mandated agency):**

- To commit to put national geodetic datums together, so that all spatial information from individual countries can be readily assembled into a unified regional geodetic reference frame.

Recommends the AFREF Steering Committee

- To publish a Call for Participation (CfP) for the processing of GNSS data from the African Reference Frame project.

Recommends the African Union Commission:

- To facilitate the policy support translated into funding of the AFREF activities.

## MOTION TO RE-ESTABLISH THE KNOWLEDGE, LIBRARY AND INFORMATION SERVICES (KLIS) SUB-COMMITTEE

- Presented at the ICT SubCommittee Session-

**Recalling** that the Committee of Experts of the Conference of African Ministers of Finance, Planning and Economic Development in its document ECA/COE/26/10, dated 1<sup>st</sup> March 2007, paragraph 21, page 4, under the heading Committee on Development Information, Science and Technology (CODIST) recommended that members of CODIST will include “experts from such fields as ICT, geo-information systems, Libraries and Science and Technology” to guide the work of subprogramme 4.”

**Further recalling** the decision of CODI IV (ECA Document E/ECA/CODI/4/9) to create a new Sub-Committee on “Knowledge, Libraries and Information Services for development” (CODI-KLIS), with the membership of Member States to be in charge of:

- Proposing regional and sub-regional policy directions, in the field of Knowledge, Libraries and Information Services;
- Assist Member States in identifying national objectives and evaluating the progress at the national level, in the field of Libraries and Information Services.

**Noting** that the first meeting of CODI-KLIS was held during CODI V (ECA Document E/ECA/CODIST/2/11) and was attended by 120 participants, including delegates from 23 ECA Member States, and observers from African Union, inter-governmental organizations, and diverse African national institutions and the civil society.

**Further noting** that the Subcommittee on Libraries and Knowledge Services (KLIS) was discontinued after CODI V meeting due to the restructuring of the ECA and CODIST-I recommended that the activities of the KLIS sub-committee be resumes and subsumed under the activities of the ICT sub-committee. This would allow specialists in the fields of libraries and information/knowledge services to continue to play their role and accord them a Forum to promote and develop their activities; E/ECA/CODIST/1/

**Considering** that the recent restructuring of the ECA has resulted in Knowledge, Library and Information Services being re-integrated back into the ICT, Science and Technology Division and has been welcomed by the ECA Management as noted in the welcome address to CODIST II by the ECA Executive Secretary and in the speech by the ISTD Director during the launch of the ECA Institutional Repository both on 2<sup>nd</sup> May 2011,

**Recognizing** the importance and value of library and information services in development as outlined in the ECA Document EC/ECA/DISD/CODI.3/16

**Realizing** that the mandate of CODI-KLIS as outlined in ECA Document E/ECA/CODI/4/9 is still valid and relevant.

Delegates recommend the re-establishment of the Sub-Committee on “Knowledge, Libraries and Information Services for Development”