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Fifth Session of the Committee on
Development Information (CODI-V)

Addis Ababa, Ethiopia
29 April – 4 May 2007

REPORT OF THE FIFTH SESSION
OF THE COMMITTEE ON DEVELOPMENT INFORMATION
(CODI-V)

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Abbreviations and acronyms

AISI	African Information Society Initiative
ATAC	African Technical Advisory Committee on AISI
AVLIN	African Virtual Library and Information Network
BoP	Bottom of the Pyramid
BPO	Business Process Outsourcing
CMC	Community Multipurpose Centre
CODI	Committee on Development Information
CODI-KLIS	Sub-committee on Knowledge, Libraries and Information Services
CODIST	Committee on Development Information, Science and Technology
EAC	East African Community
ECA	Economic Commission for Africa
ECOWAS	Economic Community of West African States
FAO	Food and Agriculture Organization of the United Nations
FOSS	Free and Open Source Software
GDP	Gross Domestic Product
GK3	Third Global Knowledge Conference
ICT	Information and Communications Technology
ICT4D	Information and Communications Technology for Development
IFLA	International Federation of Library Associations and Institutions
ILO	International Labour Organization
ILRI	International Livestock Research Institute
ISTD	ICT, Science and Technology Division
ITCA	Information Technology Centre for Africa
ITES	Information Technology-Enabled Services
ITU	International Telecommunications Union
KCA	Kenya Communications Act
KCR	Kenya Communications Regulations
KE	Knowledge Economy
KEBS	Kenya Bureau of Standards
KLIS	Knowledge, Libraries and Information Services
KR	Knowledge Resources
MDG	Millennium Development Goal
MICI/MICTI	Mozambique ICT Institute
NGO	Non-Governmental Organization
NICI	National Information and Communications Infrastructure
PRSPs	Poverty Reduction Strategy Papers
R&D	Research and Development
RECs	Regional Economic Communities
S&T	Science and Technology
SIM	Subscriber Identity Module
SME	Small and Medium Enterprises
SMME	Small, Medium and Micro Enterprises
TIGA	Technology in Government in Africa
UNCC	United Nations Conference Centre
UNISA	University of South Africa
WAMU	West African Monetary Union
WFP	World Food Programme
WSIS	World Summit on the Information Society

Introduction

1. The Fifth Session of the Committee on Development Information (CODI-V) took place in Addis Ababa from 29 April to 4 May 2007. CODI sessions are organized every two years in accordance with resolution 826 (XXXII), adopted by the ECA Conference of Ministers of Finance, Planning and Economic Development at its twenty-third session in May 1997. As a subsidiary body of the United Nations Economic Commission for Africa, CODI provides policy and technical guidance to the United Nations sub-programme entitled “Harnessing Information for Development”. This Session started with workshops and special events held on 29 and 30 April 2007, during which several emerging issues on the areas falling under the purview of CODI and the specific theme of the session were reviewed. Related side events and exhibitions of technical materials and services also took place during the Session.

2. The theme of CODI-V was “Employment and the Knowledge Economy.” Various plenary and sub-committee meetings were devoted to examining the various aspects of the theme, including information society and knowledge economy policies and strategies in support of enterprise development and employment creation; access to and management of information and knowledge to enhance innovation and productivity; and measuring and mapping employment in the knowledge economy.

Attendance

Member States

3. The meeting was attended by delegates from the following member States of the Commission: Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, the Comoros, Côte d’Ivoire, Democratic Republic of Congo, Djibouti, Egypt, Ethiopia, Gabon, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of Congo, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, South Africa, the Sudan, Swaziland, Tanzania, the Gambia, Togo, Tunisia, Uganda, Zambia and Zimbabwe.

Observers

4. The meeting was also attended by observers from several non-African States and international, national, regional and subregional organizations and institutions.

5. Non-African States: Canada, Finland, France, the Netherlands, United Arab Emirates, United Kingdom, and United States of America.

6. International, regional and subregional organizations: African Capacity-Building Foundation (ACBF); African Development Bank (AfDB); African Organization for Cartography and Remote Sensing (AOCRS); African Union Commission (AUC); East African Community Secretariat; Economic Community of West African States (ECOWAS); European Umbrella Organization for Geographic Information (EUROGI); Food and Agricultural Organization of the United Nations (FAO); Food and Agriculture Organization of the United Nations Somalia Water and Land Information Management project (FAO-SWALIM); International Federation of Library Associations and Institutions (IFLA); International Institute for Geoinformation Science and Earth Observation (ITC); International Labour Organization (ILO); International Livestock Research

Institute (ILRI); International Society for Photogrammetry and Remote Sensing (ISPRS); International Telecommunications Union (ITU); Economic and Statistical observatory of Sub-Saharan Africa (AFRISTAT); Partnership in Statistics for Development in the 21st Century (PARIS 21); Nile Basin Initiative, Ethiopia; OPTRON Geomatics (Pty) Ltd, South Africa; Regional Centre for Mapping of Resources for Development (RCMRD), Kenya; Regional Centre for Training in Aerospace Surveys (RECTAS), Nigeria; Southern Africa Development Community (SADC); Statistical, Economic and Social Research and Training Centre for the Islamic Countries (SESRTCIC); United Nations Fund for Population Activities Country Support Teams (UNFPA/CST); UN Habitat, Kenya; UNEP Ethiopia; UNEP/DEWA, Kenya; United Nations Statistics Division (UNSD); World Food Programme (WFP); and World Health Organization (WHO).

7. National institutions and associations: Addis Ababa University, Ethiopia; Ahmadu Bello University Teaching Hospital, Nigeria; Association des bibliothécaires, Senegal; Bayero University, Nigeria; British Council, Ethiopia; Burkina Faso Library Association; Centre for Remote Sensing and Geographic Information Systems (CERGIS), Ghana; Centre d'Etude, de recherche et de production en information pour l'environnement et de développement durable (CERPINEDD), Burkina Faso; Centre SIGET-A, Burkina Faso; Council of Scientific and Industrial Research (CSIR), South Africa; Directorate of Technical Cooperation in Africa, Nigeria; EIS-AFRICA, South Africa; ESRI, USA; Eastern Africa Statistical Training Centre in Dar-es-Salaam (EASTC); Egerton University, Kenya; Ethiopian Civil Service College; Ethiopian Development Research Institute; Ethiopian Economic Association; Ethiopian Management Institute; Financial and Fiscal Commission, South Africa; GeoQinetiq Ltd, Nigeria; Geo-Tech Systems Limited, Ghana; Highway Engineers and Consultants, Ethiopia; Human Sciences Research Council (HSRC), South Africa; Institut national sciences appliquées et technologie, Département génie informatique et mathématique, Tunisia; International Cartographic Association; Institute of Statistics and Applied Economics (ISEA-Makerere University); Institut Supérieure de statistique et d'économie appliqué de Yaoundé (ISSEA); Japan International Cooperation Agency (JICA); Landscape, Lands Surveyors Consultants, Kenya; Jimma University, Ethiopia; Kenya Bureau of Standards (KEBS); Kenya Library Association; Kwame Nkrumah University of Science and Technology, Ghana; MAPS Geosystems, United Arab Emirates; Midlands State University, Zimbabwe; Ministry of Labour and Social Welfare, Morocco; Ministry of Higher Education and Scientific Research, Morocco; National Bureau of Statistics, Tanzania; National Centre for Research, Sudan; National Framework for Geo-Spatial Information Management (NAFGIM) / Environmental Protection Agency (EPA), Ghana; National Planning Commission, Nigeria; Natural Resources Canada, Earth Sciences Sector (ESS); National University of Lesotho; National University of Science and Technology, Zimbabwe; Network Geomatics, Nigeria; Niger Library Association; Nigerian Library Association; Salam Nurse's College, Ethiopia; School of Surveying Education, IAV Hassan II, Morocco; State National Geospatial-Intelligence Agency (NGA), USA; Sustainable Development Facilitation, South Africa; TIGER Africa, Kenya; Togo Library Association; University College London, United Kingdom; University of Botswana; University of Buea, Cameroon; University of Ghana; University of Jos, Nigeria; University of Nairobi, Kenya; University of Sierra Leone; University of South Africa (UNISA); University of Swaziland; University of the Western Cape, South Africa; University of Witwatersrand, South Africa; University of Yaounde I, Cameroon; University of Zambia; and Zambia Library Association.

Plenary I

Opening of the session (agenda item 1)

8. The outgoing Chairperson of CODI-IV, Tunisia, represented by Mr. Guellouz Ridha, Adviser to the Minister of Information and Communications Technology, opened the Session. Mr. Abdoulie Janneh, Executive Secretary of the United Nations Economic Commission for Africa (UNECA) delivered the welcome address. Opening remarks were made by Mr. Brahim Sanou, International Telecommunications Union (ITU) Regional Representative for Africa; Mrs. Alice Ouedraogo, Director of the International Labour Organization (ILO) Subregional Office for Eastern Africa; and Professor S. Yunkap Kwankam, Coordinator of e-Health, World Health Organization (WHO). Following the opening speeches, Ms. Aida Opoku-Mensah, Director of the ICT, Science and Technology Division of the Economic Commission for Africa (ECA), presented the goals and objectives of CODI.

Opening address by Mr. Abdoulie Janneh, Executive Secretary, ECA

9. Mr. Abdoulie Janneh, Executive Secretary of ECA, thanked the member States, the development partners and the Governments of Canada, Finland, Korea, and the Netherlands, for their invaluable and timely assistance in organizing the workshops and other events of the meeting. He also thanked sister agencies for their collaboration, particularly the International Telecommunications Union (ITU), the World Health Organization (WHO) and the International Labour Organization (ILO). The Executive Secretary also thanked the outgoing Chairperson of CODI-IV, Mr. Ridha Guellouz of Tunisia, whose leadership in directing the CODI affairs had helped member States to step up their commitment to this intergovernmental machinery, as evidenced by the large number of self-sponsored participants.

10. The Executive Secretary said that ECA had recently changed its programme orientation, and that the current programme was based on two major pillars: promoting regional integration in support of the vision and priorities of the African Union; and meeting Africa's special needs and emerging global challenges. The repositioning had resulted in the creation of a new intergovernmental machinery to replace the Committee on Development Information (CODI). The new body, known as the Committee on Development Information, Science and Technology (CODIST), was under the ICT, Science and Technology Division (ISTD), which replaced the Development Information Services Division (DISD). CODIST would focus on information society and science and technology issues, including an enhanced role for ICT in development and the knowledge economy, and improved research and innovation capacity of African institutions and centers of excellence in science and technology through effective regional and international networking. Another new body created was the Committee on Statistics (StatCom-Africa), which was under the new African Centre for Statistics. It would focus on enhancing the statistical capacity of member States, to enable them to plan adequately to achieve the Millennium Development Goals (MDGs) and to monitor development trends.

11. The theme of CODI-V, "*Employment and the Knowledge Economy*", was in line with the outcomes of the World Summit on the Information Society (WSIS). Indeed, in the current global information-driven society characterized by knowledge-intensive industries and services, comparative advantage and economic success were increasingly based on the effective utilization of intangible assets such as knowledge, skills and innovative potential. Africa stood to lose a high percentage of its high-skill workforce through brain drain to countries with advanced knowledge industries. Consequently, African countries needed to create the enabling environment for

knowledge-intensive economies that would attract a skilled workforce that can adapt rapidly to meet new global capacity challenges. To that end, innovative strategies had to be adopted to increase decent employment and expand opportunities.

12. He urged CODI to address all the relevant dimensions of the challenge, including:

(a) Employment statistics, the lack of which constitute a serious impediment to sound evidence-based development of national macroeconomic policies and strategies, and the achievement of the MDGs.

(b) Wide availability of usable geoinformation required to support critical location decisions, and the creation of incentives to develop the geomatics industry, which in itself is an important employment engine in the knowledge economy.

(c) Expansion of access to ICT and knowledge resources that enhance continuous capacity development and employability through the use of libraries and multipurpose information access centres. That was a major challenge as the majority of libraries and information centres in Africa could not play their role effectively as reliable sources of information and knowledge, due to inadequate funding, limited technology application, stunted training and development programmes, and poor or no physical infrastructure.

13. Finally, the Executive Secretary said that CODI was the right forum for addressing the challenges identified, especially that of determining how African governments could fashion out conducive policy and legal environments for knowledge economies that would benefit the youth and women. The participants should come up with concrete recommendations that ECA could incorporate in its programmes and activities, including those that would enable it to schematize the implementation of the African Regional Action Plan on the Knowledge Economy, within the framework of the African Information Society Initiative.

Remarks by Mr. Brahim Sanou, ITU Regional Representative for Africa

14. Mr. Brahim Sanou informed the meeting about the joint study by ITU, ILO and ECA on “ICTs and Employment for Poverty Alleviation”, which had been the subject of a pre-conference review workshop. He said that ICT had become the backbone of modern economic activity, but the lack of infrastructure continued to impede its development in Africa, especially in the rural areas. An ITU study had concluded that Africa needed an open, secure and reliable telecommunications network. Finally, he said that ITU had scheduled a meeting on telecommunications regulation in Africa in July 2007 to address infrastructure deployment issues.

Remarks by Mrs. Alice Ouedraogo, ILO Africa Subregional Director, Representative of the International Labour Organization (ILO)

15. Mrs. Alice Ouedraogo stated that employment promotion had been at the core of the mandate of ILO since its inception in 1919, and its advocacy for fair globalization had that benefited the world community. It had decent work a global goal by placing decent employment at the heart of socio-economic policies. ILO would support all initiatives and efforts linked to employment and decent work.

16. Growth in the ICT sector in the recent past had been driven largely by globalization and as noted in the ILO 2001 World Employment Report, it was extremely important and urgent for all countries to develop the ICT sector, lest they should risk marginalization. ICTs were fast

becoming an all-pervasive “meta technology” and were driving productivity and economic growth, as well as patterns and organization of production and exchanges. Although the knowledge economy was skills- and gender-biased and tended to generate income inequalities and unbalanced access to opportunities, if well harnessed, ICTs could generate jobs, although they could also lead to job losses in certain occupations. As noted during the Eleventh ILO African Regional Conference on the theme of “The Decent Work Agenda in Africa, 2007-2015”, it was important to encourage the use of new information and communications technologies to bridge the digital divide within African countries and between African and other countries. She concluded by calling on all participants to help make the decent work agenda in Africa a reality.

Remarks by Professor S. Yunkap Kwankam-Coordinator of e-Health, World Health Organization

17. Professor S. Yunkap Kwankam’s presentation was entitled, "The Knowledge Economy, Health and Employment: Opportunities for employment in e-Health". He said that developments in ICT had ushered in an era of many opportunities and potential for worldwide advancement in improving health, especially for the poor. As with all other forms of ICT-enabled systems, the future of e-Health lay with mobile computing platforms.

18. Employment opportunities in the e-Health sector of the knowledge economy were in the following areas: development of the health workforce, health promotion, service delivery and use of health information systems, outsourcing, software development, medical transcription services, teleconsultation and partnerships. The opportunities for developing new markets and creating new job opportunities through e-Health were considerable, as health was at the centre of all human development, and its future was inevitably tied to ICT.

Election of officers, adoption of the agenda and organization of work (agenda item 2)

19. Election of officers of a new Bureau comprising of a Chairperson, two Vice-Chairpersons and two Rapporteurs was conducted. The following officers were elected by acclamation to make up the new Bureau:

Chairperson:	Senegal
First Vice-Chairperson:	Cameroon
Second Vice-Chairperson:	Swaziland
First Rapporteur:	Kenya
Second Rapporteur:	Morocco

20. The draft agenda and organization of work were adopted. The agenda is attached as Annex 2.

Presentation of the goals and objectives of CODI-V by Ms. Aida Opoku-Mensah, Director, ISTD/ECA

21. Ms. Aida Opoku-Mensah said that CODI was one of the seven subsidiary bodies of ECA established in 1997 by the twenty-third Conference of African Ministers. It was an intergovernmental structure providing policy and technical guidance for the United Nations sub-programme “*Harnessing Information for Development*”. CODI members were government officials of ECA member States, usually statisticians, ICT specialists geoinformation specialists and librarians, and observers usually attended to provide technical and stakeholder input to the debates.

22. The specific objectives of CODI-V were to:

(a) Assess the status of the knowledge economy (KE) in Africa represented by four interconnected and interdependent pillars, namely, education, innovation, information infrastructure, and economic and institutional regimes.

(b) Analyse issues and strategies for employment and growth in the knowledge economy; and

(c) Provide recommendations of policies and strategies for boosting employment opportunities in the knowledge economy.

23. Finally, ECA expected the conference to provide it with:

(a) Guidance on strategies that ECA and its partners should adopt to improve the impact of its work on employment and the knowledge-based economy, including the implications for Africa;

(b) Options for the development of the ECA two-year programme on ICT, science and technology for development.

Keynote speech: "Employment and the knowledge economy in Africa, by Professor Yaw Nyarko (agenda item 3.1)

24. Professor Yaw Nyarko (University of New York, United States) discussed the knowledge economy within the context of a search for policies to enhance employment and poverty reduction. He focused on the service sector and in particular those parts of the sector that require skilled labour, such as ICT and the Internet, with emphasis on small-scale enterprises.

25. He said that education played a major role in the knowledge economy, and that the priority accorded to education by African governments, which devoted a higher percentage of their budgets to education compared to the rest of the world, would foster the development of the knowledge economy in Africa. The impressive growth of private universities in Africa, especially as many of them focused on ICT, was also a positive sign. However, it had become of paramount importance to ensure that the quality of education was not being sacrificed for quantity.

26. One major untapped asset of Africa was the Diaspora community. The continent had high outflows of highly educated human capital. While many lamented the brain drain in Africa as a loss of human capital, he preferred to see it as "brain circulation", as many of those who left their countries did return, and many of those who returned had been at the forefront of creation of the knowledge economy in Africa.

27. The following strategies would be useful for Africa's participation in the knowledge economy:

(a) Place emphasis on applied research - how to apply existing fundamental research results and basic knowledge to the current production challenges;

(b) Encourage the development of the private sector, especially in the areas of ICT deployment and exploitation;

(c) Focus the role of governmental and intergovernmental institutions on expanding the physical ICT broadband backbone, which constitutes the roads and highways of the knowledge economy;

(d) Promote wider availability and use of computers in Africa;

(e) Create an enabling and transparent institutional investment environment with the financial and business conditions that are prerequisites for the knowledge economy, e.g., venture capital, sale of frequencies and licenses.

28. There was anxiety that the development of the knowledge economy in Africa could be stunted by the dynamism of the emerging Asian knowledge powers, such as China, India, Singapore, Malaysia and Indonesia. However, these countries could themselves provide markets for Africa as they matured. Furthermore, the knowledge economy could fuel activities within domestic economies and in inter-African trade.

29. Although many African Governments' public expenditures were subsidized significantly by foreign aid, it was important that the development of the knowledge economy in Africa be spearheaded by African entities, using the creativity and ingenuity of Africans.

30. In the African knowledge economy, libraries and documentation centres should be the link for broad-based access to the Internet and information. They should be an important medium for extending access to ICT to the vast majority of Africans, particularly those in the rural areas. They could also serve as critical nodes on the national grid of ICT access and coverage, and thus could be an integral part of the education process required for the knowledge economy.

31. Geoinformation played a critical role in the knowledge economy, and one that is expected to increase with the use of global positioning systems. It was also important for improving the African ICT infrastructure.

32. Professor Yaw Nyarko concluded with a quote from Professor F.K.A. Allotey¹:

“We paid the price of not taking part in the Industrial Revolution of the late eighteenth century because we did not have the opportunity to see what was taking place in Europe. Now we see that information and communication technology has become an indispensable tool. This time, we should not miss out on this technological revolution.”

Perspective of the Sub-Committee on Knowledge, Libraries and Information Services (KLIS):

The critical role of libraries and information services in ensuring continuous employability and entrepreneurship in the knowledge economy, by John Tsebe (agenda item 3.2)

33. In his response to the keynote speech, Mr. John Tsebe, Chief Executive Officer/National Librarian of the National Library of South Africa, stated that libraries and information services were vital in the knowledge economy for storage and dissemination of information; provision of information literacy skills training; provision of access to information resources, and contributing to regeneration, communication and social inclusion.

*The full report of the Sub-committee's proceedings was issued as document E/ECA/CODI/5/291/Annex 1.

34. They also provided services that helped to ensure the employability of people, including job information services, career information resource materials, job advertisements, online access to job sites, and books on how to prepare curriculum vitae. Libraries also provided learning and skills training as well as access to technology and knowledge resources.

35. The current environment in Africa was conducive to the development of the knowledge economy, in that political leaders understood the critical role that libraries played in the knowledge economy. That was reflected in the African Union mission and vision, NEPAD, WSIS and the MDGs, to which all African leaders were committed as instruments to be used to create a people-centred information society.

36. In conclusion Mr. Tsebe made the following recommendations:

(a) Governments should invest in knowledge, library and information services as critical agents in advancing the knowledge economy;

(b) Governments should use information literacy and lifelong learning as a strategy for good governance and citizenship;

(c) Governments should put knowledge, library and information services on their development agendas; and

(d) Library and information services should develop and sustain strong associations as powerful advocacy instruments.

Perspective of the Sub-Committee on Geoinformation: ICT, geomatics and employment, by Dr. Sami Faiz (agenda item 3.3)

37. Dr. Sami Faiz of the National Institute of Applied Sciences and Technology of the University of 7 November in Tunis gave an overview of the challenges and the main dimensions of employment, and underlined the significant contribution that geoinformation could make in that regard.

38. He said that geospatial technology could enhance employment, as illustrated by two examples drawn from studies undertaken in France and in Canada, on the nature and structure of geoinformation industry. That sector had become an intrinsic factor of development, creating sustainable jobs in the economy. Geoinformation could be used in numerous and various domains, especially as geoinformation crossed several economic sectors. In particular, it could be used in creating, establishing and searching data; location-based applications and software development; services in support of e-government initiatives; and capacity-building and scientific research. The jobs generated by the geoinformation sector required high technical skills, and revenue of the geoinformation industry was growing a high rate, averaging about 16 per cent per annum in developed countries.

39. Mr. Faiz concluded by presenting possible strategies for the exploitation of the potential of the geoinformation industry, including the building of a critical mass of human resources and working closely with the ICT sector to increase value creation for emerging services such as geolocation and geovisualization.

Perspective of the Sub-Committee on Statistics: Statistics in the knowledge economy, by Mr. Moubarak Lo (agenda item 3.4)

40. Mr. Moubarak Lo, Director General of Emergence Consultancy, Senegal, said that the first challenge posed by the knowledge economy was the definition of the concept and its dimension. A knowledge economy was one that considered knowledge as a strategic resource and as a key factor of competitiveness, even more important than natural resources. There was a link between knowledge and economic growth, and the directions for future research should take into account important variables such as analysis of ICT as well as investment in education. Several research studies had concluded that education had a real and significant impact on growth. However, there was no consensus on the source of the impact, although the human capital stock seemed to be generally accepted as the main factor.

41. African countries should use ICT so as to derive the same benefits currently enjoyed by Asian emerging countries, and should invest in secondary education as a priority as only less than 10 per cent of students attended university. There were many barriers to measuring the impact of the knowledge economy on employment, including difficulty in obtaining appropriate statistics on many issues, including: statistics on the Diaspora, statistics on telecommunications and statistics on computer acquisition and usage.

Plenary II**Information society and knowledge economy policies and strategies: support to enterprise development and employment creation (agenda item 4)**

42. Ms. Helena Tapper, Information for Development, Science and Technology Counsellor at the Embassy of Finland in South Africa, delivered the lead paper of the Second plenary. The discussants were Dr. Justin Chisenga, Information Management Specialist, FAO Regional Office for Africa, Accra; and Dr. Olusola Atilola, Managing Director, Network Geomatics Limited, Nigeria. This plenary was chaired by Mr. Tidiane Seck, Director General of the Government Information Systems of Senegal.

43. Ms. Helena Tapper delivered the lead paper bearing the name of the Second plenary. She indicated that a knowledge-based economy, was one where knowledge was seen as a key resource and a factor of production in the national economy, and where knowledge was the main engine of economic growth. It was built on four main pillars: innovation, research and development (R&D), human capital development, and incentives and legislation. The key components of the knowledge society were knowledge services, knowledge industry and knowledge embedded in other sectors of the information society with intensive usage of ICT as a tool.

44. The pre-requisites for sound policy included the mainstreaming of policy in all development agendas, including the peer review strategy papers (PRSPs), the MDGs and other development programmes, and adopting a multi-stakeholder participation approach to ensure buy-in and success, and promoting an adequate legislative and regulatory environment for policy development and implementation. Key strategies for policy intervention included promoting innovation; encouraging the creation of companies that foster the production, dissemination and use of new knowledge; investing in human capital by improving education and skills; and building a dynamic enterprise environment where companies could grow and innovate, and where they were supported by risk capital and an effective innovation and research policy. There was also a need to increase and improve investment in research and innovation, especially in the private sector – including through public-private partnerships (PPPs), small and medium-sized

enterprises (SMEs), and cooperation among companies – and facilitate effective access by enterprises to regional and global markets.

45. Ms. Helena Tapper presented a Finland case study based on the country's *Information Society Strategy, 2007-2015*, which consisted of seven sub-sectors: telecommunications infrastructure and digital television; citizens' ability to use the information society and security; training, working life, research and development; utilization of ICT in public administration; electronic commerce and digital contents; legislative measures; and international dimension. She explained that Finland's economy was increasingly driven by knowledge and information processing activities, as revealed by the following metrics: 3.5 per cent of GDP was invested in R&D; 60 per cent of R&D investment came from the private sector; 24 per cent of all exports were ICT-related (mainly Nokia); the ICT industry was growing at 5 per cent per annum; there were 1.3 million broadband connections (out of 5.1 million people); 62 per cent of households had broadband access; 75 per cent used online banking; and more than 80 per cent of salaried employees used IT in their daily work activities. Such positive achievements stemmed from several enabling factors, including Finland's strong innovation system, free education system, commitment to growing business opportunities, and high levels of competitiveness. Yet, even more progress could be achieved if the country could overcome its remaining hurdles, including weak commercialization of innovation, lack of entrepreneurship, the transfer of production to other countries, and slow growth of the service sector.

46. In response to the issues raised in Ms. Tapper's paper, Dr. Justin Chisenga explained that policies and strategies were needed for enterprise development in KE, in order to increase the capacity of individuals, families, groups and organizations to supply goods and services to the market and to create jobs. SMEs accounted for the majority of employment in most African countries and contributed to poverty reduction. Many governments in Africa had developed policies that targeted SMEs and liberalized their economies to encourage private enterprise and competition. However, there were still a few impediments to enterprise development, such as State control and subsidization of certain enterprises in the telecommunications sector, and outdated laws. Finally, it was important to raise awareness of knowledge as a key resource in KE, especially among small enterprises. It was also crucial to initiate programmes to promote the exploitation of knowledge in small economies; support entrepreneurship; enhance access to credit; invest in human capital through professional training and lifelong learning; and invest in science and technology and innovation systems.

47. Dr. Olusola Atilola followed by explaining that meaningful development took place within spatial contexts, hence the importance of geoinformatics. He said that tools supporting geoinformatics included geographic information systems (GIS), remote sensing, current topographic base map databases, and spatial data infrastructures (SDIs). Furthermore, poverty reduction and economic development depended on good governance, which in turn depended on sound policy. As policy was implemented on the ground in the "real" world, geoinformation became a key resource. Unfortunately, however, the status of geoinformation in Africa was not encouraging, with many national mapping databases failing to keep abreast of developments in the post-colonial era.

48. In conclusion, he said that a way forward would be to adopt a multi-faceted approach that included the continued evolution of geoinformation policies, the establishment of parliamentary committees on geoinformation to inform the legislative and regulatory process, and more autonomy for national mapping agencies with secure budgets.

49. In the discussions that followed, participants contributed the following issues:

(a) There was a need to rethink start-up funding strategies for SMEs, because of the heavy capital investment involved in setting up businesses in a competitive environment.

(b) The potential of geoinformation to move the development agenda forward depended on three important kinds of registries: population registries (census data), business registries and property registries.

(c) Indigenous knowledge, which had the potential to change agricultural systems, was important for improving the lot of farmers, creating employment in rural areas, and ending rural-to-urban exodus. However, it was important to pay attention to intellectual property rights and to compensate people who had helped to develop commercialized products through the provision of indigenous knowledge.

(d) While donor aid was sometimes tied to overseas procurement, the public sector could better support SMEs through local procurement.

Plenary III:

Access to and management of information to enhance innovation and productivity (agenda item 5)

50. Dr. M. Sola Afolabi, Director, Community Computer Centre of the Economic Community of West African States (ECOWAS), delivered the lead paper bearing the title of the third plenary session. The discussants were Mrs. Kay Raseroka, Librarian at the University of Botswana and former President of IFLA, and Ms. Juliet Ezechie, CEO of GeoQuinetiq, Nigeria.

51. Dr. M. Sola Afolabi said that information should be available, viable, relevant, affordable and prompt. Africa was well poised for innovation and productivity growth, because of access to fairly educated human capital, low labour costs, virgin legislative and institutional structures, and access to the Internet, television and print media. There was also a need for concerted development of basic infrastructure for innovation and productivity, such as telecommunication networks, Internet access, and industries for content development, software and cultural specialties. He concluded by recommending the following:

(a) Use appropriate technology for economic, cultural, gender and age groups;

(b) Create deliberate redundancy in infrastructure, staffing and procedures (fall-back scenarios); and

(c) Use existing technologies and procedures for innovation.

52. In her paper entitled "Access to information and knowledge enabled by KLIS for the majority in Africa", Mrs. Kay Raseroka said that KLIS referred to knowledge, library and information services, including archives and museums. Indigenous communities in Africa generate knowledge and should therefore be central to the creation of local content. The domains of indigenous knowledge included agriculture, flora and fauna, and environmental management. Orality was important in Africa as a central source of knowledge and transmission of information. Access to African indigenous knowledge was a challenge, because the continent had poorly developed institutions, scant KLIS coverage in rural areas, and limited human resources capacity.

Finally, she recommended that knowledge and information resources be used extensively at all levels, and that capacity-building programmes be established for KLIS professionals.

53. In her presentation entitled “Re-tooling the geoinformation profession to re-vamp the economy – the GeoQinetiq experience,” Ms. Juliet Ezechie reported a case study on how GeoQinetiq in Nigeria was building the capacities of the local institutions and individuals in the area of geoinformatics education to enable them to participate in the Nigerian economy. She stated that though Nigeria had the largest university system in sub-Saharan Africa, it had few technical facilities for geoinformatics, and few qualified teaching staff. The result was production of ill-prepared university graduates who remained unemployed because of their poor skills and knowledge. In response GeoQinetiq had proposed a five-year plan to establish geoinformation centres of excellence in academic departments with properly trained educators. The long-term goal of the project was to work with the selected institutions to maximize their teaching and learning potential.

54. In the discussions that followed, participants noted the following challenges and issues:

(a) The need for wider availability and use of traditional and local knowledge, with universities, especially their libraries, being actively involved in the processing and dissemination of local knowledge.

(b) The challenge of making access to development information available to all, and the need to employ a variety of channels for disseminating information, including the creation of neighbourhood resource centres in urban and rural areas. In that regard, it was deemed essential to strengthen the capacity of library and information professionals so that they could provide innovative information services suited to the local culture.

(c) The need for governments to increase funding for KLIS, in order to strengthen efforts to reach the rural areas.

(d) The need for appropriate protection of intellectual property rights of all owners.

Part B - Sub-committee sessions

Subcommittee on Information and Communications Technologies (CODI-ICT)*

55. The following Bureau was elected:

- (i) Chair: Mr. Aziz Rabba, Morocco
- (ii) Vice-Chair: Mr. Jean Marie Noah, Cameroon
- (iii) Rapporteur: Ms. Esperance Niyonzima, Burundi.

56. Dr. Moses Ubaru, Technical Director of the Nigeria Information Technology Development Agency (NITDA) and ECA consultant, presented a report on a study he had conducted in a number of African countries on ICTs and employment. He highlighted the enabling conditions for ICT to generate more employment and have more impact on poverty reduction. He then recommended that African countries should position themselves for outsourcing in the ICT sector, in order to take advantages of its low wages, multilingual

* The full report of the Sub-committee's proceedings was issued as document E/ECA/CODI/5/299/Annex 1.

environment, favourable time zone, large pool of ICT graduates, Diaspora awareness, and improved ICT infrastructure.

57. In a report on the implementation of the recommendations of CODI-IV, the ECA secretariat informed the meeting that although questionnaires had been sent out to all member States, only 10 replies had been received, hence the information obtained was rather thin. Participants recommended the creation of national CODI committees in member States as was the case in Nigeria, to enable experts to meet regularly throughout the year at the country level and explore issues related to CODI. The recommendation was expected to be implemented during the Committee on Development Information, Science and Technology (CODIST) process.

58. Professor Clement Dzidonu, Chairperson of the African Technical Advisory Committee (ATAC) on the African Information Society Initiative (AISI), presented the report of the fourth meeting of the committee. He reminded participants that the ATAC had been constituted following a resolution adopted by the 1996 ECA Council of Ministers, requesting the Executive Secretary to establish an advisory committee on the implementation of the AISI.

59. The ECA secretariat reported on its activities during 2005-2007 work programme highlighting the following:

- Development of National Information and Communication Infrastructure (NICI) policies and plans;
- Support for the harmonization of subregional policies and regulations in the Regional Economic Communities (RECs);
- Raising awareness of the challenges and opportunities of e-commerce;
- Facilitating the involvement of the private sector in information society issues;
- Follow-up and evaluation of the World Summit on the Information Society (WSIS);
- Building the capacity of Government officials and other stakeholders in several areas, including measurement of the information society, development of Free and Opens Source Software (FOSS), and gender mainstreaming in ICT.

60. The secretariat also presented the programme of work, for the biennium 2008-2009. The objectives of the programme were to strengthen and sustain an African information society and knowledge economy, and to develop capacity for the formulation, adaptation and implementation of appropriate ICT, science and technology policies and programmes.

61. During the ensuing discussions, participants noted with satisfaction the importance of the work carried out during the last biennium, but stressed the need for ECA to continue providing support to member States and to be proactive in order to obtain additional sources of funding of the various ICT-for-development activities in Africa. On provision of support to subregions, it was recommended to assign experts to the various RECs to enable them to work directly with countries in coordinating the implementation of national e-strategies and ICT frameworks. It was further recommended that in order to facilitate ongoing dialogue and exchanges between members of the Sub-committee, ECA secretariat should establish an online discussion list through which the various members of the sub-committee could maintain contact with one another.

62. In presenting the Terms of CODIST, the Secretariat said that the Committee would be acting within the framework of the policies and procedures of the United Nations, under the general supervision of the ECA Conference of Ministers. Participants then recommended that follow-up meetings should be held with the RECs to develop work programmes for the coordination of national CODIST activities in each subregion.

63. Mr. Guellouz Ridha, Adviser to the Minister of ICT of Tunisia, made a presentation in which he outlined the relationship between ICTs and employment creation, highlighting important policy considerations required to enhance the use of ICTs to create new jobs.. He said that the ICT sector was becoming the key economic sector in a number of countries, covering various fields and requiring a wide variety of skills.

64. In his presentation entitled: “Enabling subregional regulatory frameworks: the case of ECOWAS”, Professor Abdoullah Cisse, Director of the Regional University of Bambey (Senegal) and ECA consultant, outlined the interim results of a study commissioned by ECA with financial support from the Canada Fund for Africa on the harmonization of ICT legal frameworks in the ECOWAS subregion, as well as the key challenges and opportunities for ECOWAS member States.

65. In his presentation, Mr. Constantino Sotomane, Director of the ICT Institute of the Eduardo Mondlane University of Mozambique, outlined the experience of Mozambique in developing a national science and technology and innovation strategy and in creating institutions to support its implementation. In particular, he noted the efforts of Mozambique ICT Institute (MICTI) to incubate ICT entrepreneurs. Finally, science and technology and innovation affected the degree of job-creation by enhancing competition in the demand for labour.

66. The secretariat presented a report of the Expert Review Workshop on “ICTs for Employment and Poverty Alleviation in Africa”, which was held in Addis Ababa on 30 April 2007. The workshop was organized jointly by ECA, ILO and ITU with financial support from the Government of Finland. Its objectives were to examine the ICT sector as a contributor to employment generation and productivity growth in other sectors of the economy. The discussions and recommendations focused on data accuracy, methodology, sector liberalization, viewpoint of trade unions, the ICT informal sector, the need for a template to present country findings, and the need for a model to represent the link between ICT and employment.

67. Mr. Aziz Rabbah, Adviser at the Office of the Prime Minister of Morocco, shared the Moroccan experience in information and technology (IT) off-shoring based on the e-Morocco strategy developed in 2001. He said the project had created over 20,000 jobs and had helped boost the sector. Finally, Mr. Aziz Rabbah highlighted the importance of capacity-building and infrastructure development in the promotion of off-shoring.

68. Mr. Newrajlall Burton, Chairperson of the Mauritius Computer Board, said that business process outsourcing was one of the fastest-growing segments of the ICT industry in Mauritius. The country was progressing thanks to its legal framework, skilled and bilingual manpower, state-of-the-art infrastructure, business-friendly environment and favourable time zone. Nevertheless, creativity from stakeholders, quality education and training and partnerships were necessary for the country to advance even more.

69. Dr. Meoli Kashorda of the University of Nairobi and ECA consultant outlined the objectives and some of the findings of the study commissioned by ECA and the Canada Fund for

Africa on ICTs, trade and economic growth in Kenya, including the trends in the ICT regulatory and policy framework in the country.

70. Dr. Assefa Admassie of Addis Ababa University presented his finding of an Ethiopian study on the policy, legal and regulatory framework, and private sector ICT readiness in trade. He said that enabling policies, infrastructures, and skills development were important for mainstreaming ICT, in all sectors of the economy.

71. Mr. Muroro Dziruni from Zimbabwe presented the findings of a study on ICT employment creation for the youth, focusing on how ICTs could be used for positive intervention in various youth issues. He then presented a partnership project targeting bottom-of-the-pyramid (BoP) youths, with innovative “unaccredited training” in ICT employment options.

Sub-Committee on Geoinformation (CODI-Geo)*

72. The outgoing Chair, the Representative of the Sudan, presented a consolidated report on the activities of the working groups on the African Geodetic Reference Frame (AFREF), fundamental data sets, standards, and capacity-building.

73. The following Bureau was elected:

Chair: Dr. Felix Elongo, Republic of Congo
Vice-Chair: Dr. Derek Clarke, South Africa
Rapporteur: Mr. Bernard J. Mukwezi, Uganda

74. The secretariat made a brief presentation on restructuring at ECA and its impact on the Committee, noting that the ECA Conference of Ministers had, at its fortieth session held in April 2007, approved a new Committee on Development Information, Science and Technology (CODIST) to replace the current Committee on Development Information (CODI). The terms of reference of the reconstituted Sub-Committee on Geoinformation drafted by the secretariat to reflect the directives of the Conference of Ministers was adopted.

75. The secretariat presented the activities of ECA in the area of geoinformation since CODI-IV, including a joint working session for representatives of national information and communications (NICI) and Science and development information (SDI) initiatives in six countries; a symposium on land management information systems organized jointly with Natural Resources Canada; continuing work on the Second Administrative Level Boundaries and development of an MDG visualization tool for the 40th session of the ECA Conference of Ministers. Status report received from member States on selected aspects of geoinformation development and management were presented, along with brief reports by specialized regional centres and partner organizations, including RECTAS, RCMRD and AOCRS.

76. The sub-committee endorsed the suggestion that projects funded by overseas agencies should support the establishment of SDIs, and that geographical information should be included in projects and programmes funded from these sources.

* The full report of the Sub-committee’s proceedings was issued as document E/ECA/CODI/5/299/Annex 3.

Technical issues

77. The Chair of the Working Group on Standards presented the report of the pre-CODI workshop on developing an African metadata profile, which focussed on ISO geospatial metadata standard no. 19115. The workshop was co-organized by EIS-AFRICA and ECA, and was facilitated by Antony Cooper of CSIR and Dave Danko of ESRI. The recommendations of the workshop were accepted by the sub-committee and were included in the resolutions of the meeting.

78. The Chair of the Working Group on AFREF reported that the meeting had recommended that countries should set up stakeholder committees and organize forums to sensitize the public and create awareness. It had also been agreed that three- to four-year activity plans should be developed for implementing AFREF. To that end, each country had been requested to present to the steering committee its proposed plan of action on the Continuous Operation GNSS System and GPS network.

79. South Africa reported on two studies on fundamental data sets. The first study produced a consistent definition and identified the components of fundamental geospatial data sets for Africa, as no standard definition existed. The second study produced a catalogue of available fundamental geospatial data sets and metadata covering Africa, as well as a gap analysis for each member State. The committee approved the nine recommendations in the presentation.

80. The secretariat reported on an ongoing project to create a database to support transport infrastructure planning in Africa, with particular reference to a joint ECA/AU project based on data obtained from various sources, including a digital chart of the world, ESRI and CIA gazetteers, the World Bank airports database, and the United Nations Joint Logistics Centre.

81. The secretariat tabled a proposal to set up an African regional spatial data infrastructure (ARSDI) data base, which will consist of a geodetic framework (incorporating AFREF), a metadata clearinghouse (incorporating the inventory of fundamental data sets) and a series of federated geospatial and attribute databases. This will involve negotiating coordination, interoperability and data-sharing arrangements with partners, including nodes at national level, which ECA and its partners will help develop.

82. The coordinator of the TIGER Executive Bureau made a presentation on the TIGER Africa Initiative, which was launched in 2003 in response to the recommendations of the World Summit on Sustainable Development (WSSD) to use space observation for the management of water and land resources. The goal is to assist African countries to overcome problems faced in the collection, analysis and dissemination of water-related geoinformation using Earth observation technology. He called on African countries to strengthen their involvement in the TIGER Africa Initiative so as to be able to achieve the WSSD goals.

83. The secretariat made a presentation on an ECA-developed tool, MDG Mapper, for visualizing and analysing member States' progress towards the Millennium Development Goals (MDGs). MDG Mapper includes functionalities to thematically map MDG progress: view raw and derived data; chart and sort the indicators; download the data; and produce a rich set of summary statistics and metrics of spatial association.

Policy issues

84. It was reported that ECA and Natural Resources Canada (NRCan) were preparing a publication on land management information systems in the knowledge economy. As part of the process, a symposium had been organized in December 2006 and NRCan had prepared a 16-point framework of principles stemming from the symposium.

85. Representatives of the AU-ECA-ADB Land Policy Initiative and UN Habitat presented a work in progress on developing a framework for land policy in Africa. The main features of the framework include providing a basis for political commitment by African nations; setting up programmes of common action and sound land policies; developing clear guidelines and good-practice benchmarks for land policy, land reforms and land institutions; promoting constructive treatment of land issues within the Comprehensive Africa Agricultural Development Programme (CAADP) framework to facilitate agricultural transformation; promoting programmes for securing urban land rights to support urban growth and development of peri-urban fringe areas; and making land policies and the performance of land institutions subject to the African Peer Review Mechanism.

86. The Vice-Chair of the United Nations Group of Experts on Geographical Names (UNGEGN) made a presentation on the standardization of geographical names, highlighting the importance of geographical names and their impact on economic and social development. He recalled the mission and objectives of UNGEGN and the need for African countries to participate in the work of the group. To that end, the desirability of having Africa host the twenty-fifth session of UNGEGN had been discussed at the twenty-third session in Vienna.

87. The representatives of FAO/SWALIM and UNEP/DEWA gave a joint presentation on United Nations experiences in implementing SDI in Eastern Africa, which focused on activities of the SWALIM project, the implementation of SDI principles in Somalia, and the implementation of an SDI initiative for East Africa. They explained how a common approach to data, information and services sharing through the use of enabling technologies and organizational collaboration could facilitate information exchange.

88. The representative of ESRI made a presentation on the role of geoinformation in the provision of e-government services, noting that it generated the following benefits: convenience, better accessibility of public services, internal efficiency, better delivery of public services, collaboration, visual communication of information, and job enhancement.

New trends

89. A representative of ESRI demonstrated the new ArcGIS Explorer online service, which provides free two-dimensional maps, images and three-dimensional globe applications that enable the visualization of geospatial data. It gives users the ability to define custom globes with their own data sets, and presents a more realistic view of the world than ordinary maps.

90. The FAO/SWALIM representative presented Tracks4Africa (T4A), a community-based approach for collecting data about roads, tracks and features with GPS receivers. The data are reviewed and a spatial averaging approach is used to ensure consistency before the data are posted on the database for the community of users. The data can also be integrated into the online Google Earth interface.

Special topics on geoinformation

91. Presentations were made and discussions were held on: (i) the African Geo Information Research Network (AGIRN); (ii) establishment of a geospatial information knowledge portal (ISPRS); (iii) the Regional Centre for Mapping of Resources for Development (RCMRD); (iv) the Regional Centre for Training in Aerospace Surveys (RECTAS); (v) Japan's support to geoinformation in Africa; (vi) proposal on the establishment of an African university consortium for LIS; (vii) NRCan/ESS public-private partnership model in the knowledge economy; (viii) SDI-Africa newsletter as a key geospatial knowledge resource.

Other business

92. Africans were urged to participate in the upcoming meeting of the International Cartographic Association and to seek positions in the various commissions and working Groups of the association. In recognition of the dual role of CODI as both a parliamentary process and a forum for intellectual exchange, selected papers proposed by participants were accommodated for presentation during the last day of the session. The presentations included the following: AfricaGIS 2007 conference updates; Treating geospatial as sector; GEO technology and e-governance; geospatial data - make it work; GIS & RS implications on LIS; trends and GEO for employment; AARSE 2008 conference updates; Lake Victoria water level fluctuation study using radar data; and an example of JICA activities in the field of geoinformation.

93. The report of the sub-committee was discussed and adopted for submission to the main Committee.

Sub-Committee on Statistics (CODI-Stat)*

94. The full report of the sub-committee's proceedings was issued as document E/ECA/CODI/5/29a/ Annex 2.

95. The following Bureau was elected:

Chairperson:	Senegal
First Vice-Chair:	Cameroon
Second Vice-Chair:	Mozambique
First Rapporteur:	Malawi
Second Rapporteur:	Morocco

96. Mr. Dimitri Sanga, the officer-in-charge (OIC) of the African Centre for Statistics (ACS), explained the repositioning exercise undertaken by ECA, particularly in relation to statistical activities, where positive steps had been taken to implement the recommendation from countries that the Statistical Division should be fully re-established. He urged members to consider and approve the terms of reference of the new subsidiary organ on statistics named the African Statistical Commission (STATCOM - Africa).

* The full report of the sub-committee's proceedings was issued as document E/ECA/CODI/5/29a/Annex 2.

Report of the programme of work on statistics

97. The secretariat reported on the implementation of the 2006–2007 work programme with its 17 deliverable outputs, and on the work programme for 2008-2009. The implementation rate of the statistics work programme was 55 per cent as at May 2007, but that the secretariat was well on track to implement the remaining part of the work programme. However, due to budget cuts, the field project on national account could not start.

98. The secretariat also made a presentation on the creation of the African Centre for Statistics, its strategic direction, and its programme of work for the biennium 2008-2009. The sub-committee noted with satisfaction the creation of the ACS, endorsed the 2008-2009 programme of work, and called upon regional (AUC, AfDB), subregional and other development partners to support ECA in carrying out the programme of work.

99. During discussions that followed, the meeting commended ECA for creating the African Centre for Statistics, but reiterated its concern over the staffing situation, which needed to be improved in order for the ACS to effectively contribute to the development of statistics in Africa.

100. The terms of reference of StatCom Africa were considered and Statcom-Africa was endorsed as a platform for statistical development in Africa and a link to the global statistical system. ECA was requested to convene the meeting of the African Statistical Commission (STATCOM-Africa) on an annual basis, to set up relevant sub-committees, and to commission working groups and city groups to undertake various studies. It was recommended that ECA and its partners should consider the possibility of rationalizing statistical meetings, as well as the relevance of ABSA, in particular.

101. The sub-committee was informed about the RRSF website, the role of ECA as coordinating secretary of the RRSF, and the status of NSDS design and implementation in Africa. The sub-committee noted the lack of progress and information on the implementation of RRSF, including the various links in the RRSF website and the accuracy of information on country status, and suggested the urgent appointment of RRSF coordinators at ECA and AfDB. The appointment of a coordinator at subregional level and at country level was discussed, with one possibility being one coordinator for both ICP and RRSF and involving the subregional organizations contributing to ICP.

102. The sub-committee reiterated the deep concern expressed during the previous meeting over the 1993 SNA implementation, noting specifically that the majority of countries only compiled the GDP by expenditure and by industry at current and constant prices. There was a persistent lack of financial and human resources to enable effective actions for the implementation of the 1993 SNA, and the level of assistance provided by ECA was inadequate to increase the capabilities of countries for the compilation of accounts. There was little collaboration between ECA and other partners such as AfDB, AFRISTAT and COMESA during the International Comparison Programme (ICP). The sub-committee requested ECA to scale up its country assistance, with special emphasis on capacity-building activities, including workshops, training and provision of materials and technical assistance, in collaboration with other subregional organizations and the RECs.

Emerging issues: the African Charter on Statistics

103. The sub-committee was informed about the development of the African Charter on Statistics by the AUC, which should be endorsed by the Summit of African Heads of State and Government the following July. Given the time constraints, the process of information, approval and endorsement of the charter represented a serious concern, as well as the participation of countries, AfDB and ECA.

104. The consistency of the charter and the various mandates of regional organizations should be ensured in order to avoid conflict of responsibilities at the country level. The AUC should distribute the draft of the charter to various forums and meetings organized by ECA to allow interested parties to verify its coherence with various other instruments.

105. The theme for African Statistical Day 2007 should be consistent with the theme on employment and the MDGs of the 2006 and 2007 Conference of Ministers, and advocacy materials developed by ECA should be sent to countries preferably six weeks before the celebration of the 2007 ASD.

106. The sub-committee adopted report and recommendations of the meeting for submission to the main committee.

Sub-committee on Knowledge, Libraries and Information Services (CODI-KLIS) (agenda item 7.4)*

107. Ms. Aida Opoku-Mensah, Director of the ICT and Science and Technology Division (ISTD) at ECA, said that ECA was committed to KLIS as a programme component of ECA, and to the continued existence of the sub-committee. Librarians and information specialists should work hard to fill the big gap in access to knowledge and information services for development in Africa, which hampers development programmes in almost all African countries.

108. The Bureau was elected as follows:

Chairperson:	Mrs. Kay Raseroka, Botswana
First Vice-Chair:	Mrs. Helena Asamoah-Hassan, Ghana
Second Vice-Chair:	Mrs. Rafea Ashamalla Ghobrial, Sudan
First Rapporteur:	Mr. Tengeneza Baguma Desire Didier, Democratic Republic of Congo
Second Rapporteur:	Mrs. Sarah Kagoda-Batuwa, Tanzania

109. On the suggestion of South Africa, seconded by Nigeria, the proposed repositioning of ECA and its effect on the KLIS Sub-Committee was added to the agenda for discussion.

Report of the secretariat

110. Mr. Abraham Azubuike, Chief Librarian of ECA, presented the secretariat's report of its KLIS activities since CODI-IV. He said that ECA had made a strong impact in the area and its activities were designed to enhance access to knowledge, libraries and information for

* The full report of the proceedings of the Sub-committee was issued as document E/ECA/CODI/5/29a/Annex 4.

development in member States, under the United Nations 2006/2007 sub-programme *Harnessing Information for Development*. The strategies deployed included:

- (a) Promoting networking and knowledge sharing on digital and virtual library services and networks, including the development of the African Virtual Library and Information Network (AVLIN).
- (b) Developing, maintaining and providing access to online databases and content to enhance global accessibility of African development information.
- (c) Promoting the application of relevant international standards and best practices.
- (d) Advocating for broad-based information and knowledge policies and strategies, especially in relation the achievement of the Millennium Development Goals.
- (e) Establishing and maintaining strategic alliances and partnerships with regional and international development organizations promoting the role of libraries and similar information services in development.
- (f) Providing capacity-building and advisory services to member States.

111. The sub-committee had helped prepare, Africa's position on libraries at the World Summit on Information Society (WSIS), and the post-WSIS action programme on access to information and knowledge in support of the Millennium Development Goals. It had also provided e-strategies inputs to the second phase of WSIS in Tunis, had participated in the pre-WSIS-2 conference entitled "Libraries: Information Society in Action", held in Bibliotheca Alexandrina in Egypt, and had helped service WSIS-related workshops and meetings organized by ECA in Tunis. It had provided technical support to African member States at the PrepCom-3 negotiations held from 13 to 15 November 2005, and collected inputs based on concerns expressed by delegates and on status reports. The sub-committee had worked with partners to enhance programme planning and implementation, especially with those relevant to libraries and information and knowledge management for development. It had also participated in the activities of the International Federation of Library Associations and Institutions and other relevant organizations at the WSIS.

112. ECA had organized the WSIS Follow-up Conference on Access to Information and Knowledge for Development in Addis Ababa, Ethiopia, from 27 to 30 March 2006, which had dealt with issues and methodologies for the development of an action framework for implementing the recommendations of the World Summit on the Information Society (WSIS) in Africa, especially those related to information and knowledge for development. Over 80 librarians and information specialists, including national librarians and library association presidents from 18 countries and 10 regional organizations, had attended the conference. Eighteen presentations had been made on topics such as: WSIS outcomes related to libraries, and access to information and knowledge; access to information in development strategies; advocacy for effective information policies and strategies; African libraries as access centres for information and communications technologies (ICTs); local content in physical, digital, hybrid and virtual formats; freedom of access to government and intergovernmental information; and institutional digital repositories and open access to e-content. At the end of the conference, a consensus had been reached on the relevant elements of an action framework for local, national and pan-African strategies and activities; the development of a model resolution for introducing KLIS issues at various national political forums; and the formation of the Access to Information

Network - Africa (ATINA), which had developed a programme for the August 2007 IFLA conference in Durban, South Africa. Papers delivered at the conference were accessible from: <http://www.uneca.un.org/disd/events/2006/wsis-library/index.html>.

The African Virtual Library and Information Network (AVLIN)

113. Mr. Azubuike reported that ECA had continued to maintain the AVLIN portal to provide development tools and information for African libraries to be able to establish digital and virtual libraries. The portal included links to open source software, training materials, manuals, and information on AVLIN and other related materials, and was organized under the following major categories:

- (a) AVLIN: A brief introduction to AVLIN and a link to all AVLIN documents;
- (b) Copyright and other intellectual property issues – providing links to major resources and institutions that support information policies and regulations on intellectual property with regard to digital resources;
- (c) Digital libraries – listing major initiatives and projects on digital libraries, document depositories and online journals;
- (d) Training resources – providing links to major training resources on digital and virtual libraries such as those provided by UNESCO and PERI;
- (e) Policies and strategies – compiling resources on formulation, approval, implementation and operation of policies and strategies for digital libraries;
- (f) Project management – providing links to a host of websites on the management of digital libraries and digital library projects;
- (g) Software for digital library development – listing suitable open source programmes for building and distributing digital library collections and generalized systems for information storage and retrieval.

114. The sub-committee had made contributions to the publication entitled: “Role of Development Information in the Economy”, and to an ad hoc expert group meeting organized by the ECA Subregional Office in Southern Africa (SRO-SA) in Lusaka, Zambia from 12 to 13 March 2007 to review the publication. The meeting had been attended by 14 experts from national and regional organizations located in nine African countries: Botswana, Malawi, Namibia, Nigeria, Senegal, South Africa, Swaziland, Zambia and Zimbabwe. The chief Librarian had made a presentation on issues related to access to knowledge, libraries and information services that had been widely reported in the media, including blogs. One of the news agency reports carried by several African newspapers, was entitled: “UN calls for development of libraries in Africa”, and could be found at: (http://english.people.com.cn/200703/13/eng20070313_356827.html)

115. The following KLIS-related technical and policy papers and presentations had also been produced during the period:

- (a) *Accessibility to Government Information as a Determinant of Inward Foreign Direct Investment in Africa* presented at the Seoul IFLA Conference had been used by IFLA in its “Libraries and the WSIS Action Lines” {<http://www.ifla.org/III/wsis.html>}, starting that: "A

recent study made on Africa argues, that the negative investor perception and the consequent low capital inflows could be linked to inadequate information (including public information) available for investors" <http://www.ifla.org/III/wsis/WSIS-Action-Lines.pdf>

(b) “*Libraries and the Information Society in Africa*” with which the secretariat had developed the policy input-impact framework for libraries had been issued in October 2005, and had been used for advocacy work.

116. Mr. Azubuike said that three major strategies that would define the future KLIS activities would be the following: capacity-building and outreach; development information and knowledge management; and enhanced of partnerships for putting access to knowledge through libraries on the African development agenda. Partnering with the Africa section and other groups of the International Federation of Library Associations and Institutions (IFLA), and with relevant UNESCO arms would continue to anchor the KLIS advocacy work of ECA.

Policy issues and trends

117. For the next biennium, CODI-KLIS resolved to focus on activities that would make the most impact on the availability of development information in Africa. Hence, the Sub-Committee came up with an action plan for the development of strategies and programmes in member States, which requires ECA, member States and related stakeholders to take initiatives in their respective areas to:

(a) Create and strengthen national and public libraries, information services and networks as critical links in the knowledge economy;

(b) Collaborate with national libraries in member States on studies to assess the state of public libraries in their countries;

(c) Develop digital libraries and information services to enhance efficiency in access to information, knowledge and economic opportunities;

(d) Collaborate with stakeholders to facilitate the dissemination of development information to the grassroots.

118. A report was presented on the Regional Workshop on Information and Knowledge Management for Development, and the Sub-Saharan Africa Colloquium on Information Literacy and Lifelong Learning for Meeting the Millennium Development Goals, held from 29 to 30 April 2007. The workshop had focused on learning as a means of empowerment for achieving the MDGs. Experts on economic development, education, health, agriculture, library services, information management, gender, governance and citizenship had made presentations dealing with action learning, action research, information literacy and lifelong learning imperatives in these development areas. The report issued as ECA/ISTD/2007/06 is on AVLIN website at www.uneca.org/avlin

CODI-KLIS in the repositioning of ECA

119. The sub-committee discussed the position of KLIS in the new structure and programme of ECA, and noted that library and information services professionals in Africa had reacted to the creation of the KLIS sub-committee with excitement and hope. The large number of participants at CODI-V was linked to the fact that KLIS was on its own, as opposed to the past when it was part of the ICT Sub-Committee.

120. There were two over-arching terms of reference of the Sub-Committee in the ECA document E/ECA/CODI/4/9 entitled “Report of the Fourth Meeting of CODI” dated 28 April 2005, pages 2 and 3 namely, that CODI-KLIS would be in charge of:

(a) “Proposing regional and subregional policy directions in the field of libraries and information services”; and

(b) “Assisting member States in identifying national objectives and evaluating progress at the national level in the field of libraries and information services”.

121. 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 March 2007, paragraph 21, page 4, under the heading “Committee on Development Information, Science and Technology (CODIST)” had stated that members of CODIST would include “experts from such fields as ICT, geoinformation systems, libraries and science and technology” to guide the work of sub-programme 4.”

122. ECA was to be commended for recognizing the value of libraries and information services in development, as indicated in “*The Value of Library Services in Development*,” (EC/ECA/DISD/CODI.3/16).

123. Under the proposed CODIST document entitled: “Review of the Intergovernmental Machinery of the Economic Commission of Africa for E/ECA/COE/26/10, dated 1 March 2007, that: “the committee would also address issues related to knowledge and information services that are key to moving forward the African development agenda.”

124. Furthermore, in his opening address at CODI-V on 1 May 2007, the Executive Secretary of ECA had stated that: “Unfortunately the majority of libraries and information centres in Africa cannot effectively play their role as veritable and reliable sources of information due to inadequate funding, limited technology application, stunted training and development programmes and poor or no physical infrastructure.”

125. Libraries and information services had played a central role in the economic growth of developed nations by providing access to information. Developed nations acknowledged that important role by continuing to support the enhancement of library and information services. For Africa to grow holistically desired by ECA, African leaders must embrace that fact, and develop their countries’ libraries and library networks to serve all levels of their communities.

126. Given the evidence from the time when libraries and information services were under ICT from CODI-I in 1999 through CODI-IV in 2005, inclusion of the new Sub-Committee on KLIS, the ICT Sub-Committee under the proposed CODIST would not offer library and information services a good framework to develop.

127. Finally, the name of the proposed committee - CODIST - put emphasis on development information, which was covered by geoinformation services, libraries and information services, and science and technology research. That made those three sub-committees very necessary, and their activities could be disseminated via ICTs, among other modes.

128. In view of these observations, the KLIS Sub-Committee recommended that the Sub-Committee on Knowledge, Libraries and Information Services (KLIS) should continue to exist as a distinct sub-committee of CODIST. It urged the Economic Commission for Africa (ECA) to put in place the necessary administrative and managerial structure to continue to support the activities of the Sub-Committee on Knowledge, Libraries and Information Services (KLIS) as a separate sub-committee under CODIST.

129. It further asked ECA to use AVLIN, as a matter of urgency, to initiate appropriate capacity-building activities for the development of national repositories of information resources (content) generated in member States.

130. Following a proposal by Malawi, seconded by Nigeria, the sub-committee report was adopted for submission to the main Committee.

Part C - Recommendations of CODI-V

131. CODI-V adopted the following main recommendations together with the reports and recommendations of the four sub-committees. The full sub-committee reports were produced as annexes of this report.

Considering that:

132. Information and knowledge have emerged as fundamental economic resources and a factor of global competitiveness;

133. Lack of access to information and knowledge is a source of poverty;

134. The only way out of Africa's development predicament is to quickly achieve the goal of becoming a key player in the information and knowledge society;

135. Availability and access to actionable information and knowledge - including good indicators on ICTs, reliable statistical data, research findings and geographical indicators - are important for sound policy formulation on the knowledge economy and indeed for every development initiative;

136. Effective science, technology and innovation systems are important bases for a knowledge economy;

137. Fundamental geo-spatial data sets are required for informed decision-making and planning;

138. Land management information systems (LMIS) are a key component of the knowledge economy;

139. ECA and international partners of African States have a vital role to play in implementing LMIS in African countries;

140. Knowledge, library and information services and networks play a strategic role in the fulfillment of the mandate of ECA to harness and disseminate information for development;

Noting that:

141. The adoption of the African Information Society Initiative (AISI) in 1996 offers African countries the necessary framework to chart their various paths towards the information and knowledge society;

142. The ECA Conference of Ministers has endorsed the creation of the Statistical Commission for Africa (STATCOM-Africa) as the subsidiary organ of ECA on statistics, and that the terms of reference of the body need to be developed;

143. The development of national policies and strategic frameworks in the various sectors of Information for development, such as spatial data infrastructure (SDI) and national library and information infrastructure, has been undertaken independently of the overall national information policies;

144. The African Union has incorporated the development of information and ICTs as a key component of its strategic plan, especially in the context of the New Partnership for Africa's Development (NEPAD);

145. Fundamental geo-spatial data sets are crucial components of spatial data infrastructures (SDI);

146. A uniform geodetic reference frame is essential for seamless mapping of features and resources necessary to achieve regional integration;

147. ISO 19115:2003 geographic information – metadata is important for the development of African spatial data infrastructures;

148. The 2010 Round of Population and Housing Censuses programme is important, in particular for post-conflict countries, and that there is an urgent need for data for monitoring nationally and internationally agreed development goals, including the MDGs and PRSs;

149. The 2007 ASSD and 2007 Conference of Ministers recommended that urgent and appropriate steps should be taken on the continent to address the gap in quality statistics for monitoring of the African development agenda;

150. Access to various forms of information and knowledge, including Web content, is important for Africa's economic development;

151. ECA has undertaken a repositioning exercise, which involved a review and restructuring of the secretariat and the intergovernmental formwork of the Commission, and has resulted in the creation of the Committee on Development Information, Science and Technology (CODIST) and the Statistical Commission for Africa (STATCOM-Africa);

152. Reiterating all resolutions, decisions and recommendations made at CODI III and CODI-IV;

153. Recalling the terms of reference of CODI;

CODI-V recommends that:

On the new intergovernmental machinery of ECA:

Members States should:

154. Ensure that national statistical organizations (NSOs) are represented at the annual meeting of the joint AU/ECA Conference of Ministers of Finance, Planning and Economic Development, the modality of such representation being subject to consultations with member States;

155. Put in place national CODIST committees to work closely with STATCOM-Africa.

156. Ensure that the various institutions acting as national focal points follow up and coordinate activities related to ICTs, science and technology, knowledge and library services, geoinformation and statistics.

ECA should:

157. Organize follow-up meetings with the Regional Economic Communities (RECs) to develop subregional CODIST work programmes in coordination with national CODIST groups.

158. Ensure the continued existence of the Sub-Committee on Knowledge, Libraries and Information Services (KLIS) as a distinct sub-committee of CODIST.

159. Put in place the necessary administrative and managerial structure to continue to support the activities of the Sub-Committee on Knowledge, Libraries and Information Services (KLIS) under CODIST, as a separate sub-committee.

160. Use the CODIST to follow up and evaluate implementation of the recommendations of the World Summit on the Information Society (WSIS) in Africa.

161. Endorse the terms of reference of the subsidiary organ in charge of statistics, the Statistical Commission for Africa (STATCOM-Africa), as a platform for statistical development in Africa and a key part of the global statistical system.

162. Convene meetings of the Statistical Commission for Africa (STATCOM-Africa) on an annual basis, establish relevant sub-committees and related work programmes, and undertake sound technical activities on emerging issues in the area of statistics. The meeting of STATCOM-Africa should be linked to the meetings of the United Nations Statistical Commission. Coordination with the United Nations Statistics Division is required in this regard.

163. In the context of the new STATCOM-Africa, encourage partners to consider the rationalization of statistical forums in Africa.

On employment and the knowledge economy:

Members States should:

164. Make employment creation an explicit and central objective of their economic and social policies.
165. Strengthen policies to create sustainable SMEs and promote an entrepreneurship culture.
166. Take coordinated actions to ensure the buy-in by all members of society and, in particular, workers and employers who are at the centre of the structural changes resulting from the diffusion and application of ICTs. Tripartite social dialogue involving workers' and employers' organizations and governments, forms a critical component of this buy-in.
167. Accord special attention to SMEs, working youth, women, vulnerable groups, people with disabilities, and workers in the informal economy.
168. Establish sustainable business development services that include collective access to ICTs.
169. Promote the celebration of 17 May as the World Telecommunication and Information Society Day, as adopted by the Tunis phase of WSIS, and use the opportunities offered by this year's celebration on the theme "ICTs and opportunities for youth" to promote ICT employment for youth.
170. Make efforts to improve the quality and coverage of education and skills enhancement systems that respond to the needs of rapidly changing economies.
171. Develop life-long learning services and enhance transferable competency certification.
172. Promote productive clusters that enhance good practices and strengthen tacit learning systems.
173. Develop systems to enhance the entrepreneurship culture and to improve managerial capacities.
174. Adopt innovation systems that strengthen public-private partnerships, develop links between research institutions, universities and enterprises, and create market-driven venture capital firms.
175. Promote and adopt Free and Open Source Software (FOSS) for building an inclusive knowledge society and economy.
176. Provide national statistical offices with adequate financial and human resources to produce indicators on ICTs, geo-spatial activities and resources, library and information services and the knowledge economy, and when necessary, request, ECA, AfDB, AUC and development partners to support countries in this endeavour.
177. Invest in knowledge, library and geoinformation service providers, who are critical agents for the provision of resources and services that ensure continuous employability and entrepreneurship for all, and also vital components of the knowledge economy.

ECA should:

178. Review the process of undertaking the study on ICTs and employment to ensure that it is multidisciplinary and includes major stakeholders.

179. Consider a suggestion that the 2007 theme of the African Statistics Day be on employment, in line with the recommendations of the 2006 and 2007 ECA Conferences of Ministers of Finance, Planning and Economic Development, and provide advocacy materials as early as possible preferably one month in advance, for better celebration at country level.

On policy, services and programmes:

General:

180. Put in place the appropriate and necessary legal and technical framework to support the development of national information repositories.

181. Actively participate in the Third Global Knowledge Conference (GK3) to be held in Kuala Lumpur, Malaysia from 11 to 13 December 2007.

Specific recommendations on information and communication technologies

Considering that:

182. ICTs are indispensable tools for innovation and productivity that are as effective as the people that use them;

183. The dissemination of ICTs leads to important structural changes with their concomitant social consequences;

Recognizing that:

184. Poverty eradication can be achieved with the generation of full and productive employment and decent work in the knowledge economy;

185. Decent work in the knowledge economy is created by productive, competitive and innovative enterprises;

186. ICT-skilled and motivated workers and managers constitute the backbone of competitive enterprises and a knowledge economy;

Recommends that:

Member States should:

187. Make efforts to improve the quality and coverage of education and skills enhancement systems that respond to the needs of the knowledge economy.
188. Develop ICT dissemination policies that ensure economic sustainability, taking into account relatively weak budgetary resources and feeble buying power of consumers for the acquisition of information goods and services.
189. Adopt innovation systems that strengthen public-private partnerships, develop links between research institutions, universities and enterprises, and that allow for the selection of appropriate niches for innovation based on the local potential.
190. Implement sustainable business development services that include collective access to ICTs.
191. Develop strong trust systems that enhance quality control procedures, provide for enforceable dispute resolution procedures and guarantee property rights, including intellectual property.
192. Accelerate the diffusion of ICTs as an engine of growth and competitiveness.

ECA should:

193. Promote the celebration of 17 May as the World Telecommunication and Information Society Day, as adopted by the Tunis phase of WSIS, and use the opportunities offered by this year's celebration on the theme "ICTs and opportunities for youth" to promote ICT employment for youth.
194. Review and exploit the ITU Doha Action Plan for Development of Telecommunications in order to identify African-related regional initiatives for promoting employment in the field of ICTs.
195. Provide technical and financial support to RECs to enable them to harmonize ICT policies and strategies at subregional level in order to enhance regional integration, thereby contributing to economic growth in their countries.
196. Document and showcase ICT best practices at the regional, subregional and national levels, in order to enhance knowledge sharing and avoid duplication of efforts, taking into account the Technology in Government Awards (TIGA) process.
197. Undertake an in-depth study on the role of ICTs in regional integration in Africa, in order to supplement the ECA publication on regional integration.
198. Review the process of undertaking the study on ICTs and employment to ensure that it is multidisciplinary and includes major stakeholders.

199. Set up an online discussion list for the ICT Sub-Committee in order to strengthen information and knowledge sharing

200. Participate actively in the activities of the United Nations Global Alliance on ICT and Development (GAID), coordinate its African Regional Node, and promote its activities in the continent, taking into account the multi-stakeholder nature of GAID.

Specific recommendations on statistics

201. Recalling the resolutions of CODI-III and CODI-IV;

202. Recalling the terms of reference of CODI;

203. *Appreciative of* the reestablishment of a Division for Statistics at ECA as the African Centre for Statistics (ACS), to better serve Africa and enhance the place of statistics in this process;

204. *Having examined* the documents: (i) follow-up report on the resolutions of the fourth meeting of CODI (E/ECA/CODI/5/10), (ii) report on ECA statistical activities 2006-2007 and work programme 2008-2009 (E/ECA/CODI/5/6); (iii) report on the implementation of the Reference Regional Strategic Framework for Statistical Capacity-building in Africa (E/ECA/CODI/5/8); (iv) report on the implementation of the 1993 System of National Accounts (E/ECA/CODI/5/7); (v) Terms of Reference of the Statistical Commission for Africa (StatCom-Africa) (E/ECA/CODI/5/15); (vi) a series of information notes on the first results on the International Comparison Programme for Africa; the Africa Symposia on Statistical Development in Africa; the drafting of the African Statistical Charter; the theme for the 2007 African Statistics Day and potential activities for its celebration;

205. *Aware of* the importance of the ECA activities in statistics and statistical capacity-building, including the compilation of statistical yearbooks and the celebration of the African Statistics Day;

206. *Aware of* the endorsement of the creation of the subsidiary organ of ECA in charge of statistics, and the need to develop the terms of reference of the African Statistical Commission;

207. *Bearing in mind* the critical role of the forums organized by ECA for effective statistical coordination to create synergies to forge partnerships, to avoid duplication of efforts and to advocate for statistics;

208. *Appreciative of* the initiative to nominate a number of African countries as Friends of ECA and of their role in advocating for an effective statistical function at ECA, including the organization of the annual meetings of the African Symposia on Statistical Development (ASSD);

209. *Appreciative of* the AfDB's successful work on ICP-Africa with the first results released;

210. *Informed about* the OECD global project on measuring the progress of societies and the importance of this work for Africa;

211. *Informed about* recommendations made during the meeting on statistical training in Africa held in March 2007 in Kampala, Uganda;

212. *Concerned* with the slow progress in the implementation of the 1993 SNA, as most countries only compile the GDP by expenditure and by industry;

213. *Aware* of the recommendations of the 2007 Conference of Ministers and the 2007 ASSD, including the endorsement of the RRSF and the urgent need to implement it;

214. *Aware* of the importance of the 2010 Round of Population and Housing Censuses programme, in particular for post-conflict countries, and the urgent need of data for monitoring nationally and internationally agreed development goals, including the MDGs and PRSs;

215. *Convinced* in accordance with the 2007 ASSD and 2007 Conference of Ministers recommendations that urgent and appropriate steps should be taken on the continent to address the gap in quality statistics for monitoring the African development agenda;

216. *Considering* the importance of good indicators on ICTs and the knowledge economy for sound policy formulation.

The Sub-Committee on Statistics therefore makes the following recommendations:

Statistical activities at ECA

217. While commending ECA for reestablishing the Statistics Division as the African Centre for Statistics (ACS), calls for the provision of adequate human and financial resources to the ACS to enable it to deliver its programme in accordance with its strategic and business plans.

218. Endorses the 2008-2009 statistical programme of work of ECA and calls upon regional, subregional and other development partners to collaborate with ECA in its implementation.

219. Calls upon African countries to collaborate with ECA in the implementation of the ACS work programme, with special emphasis on South-South cooperation and the provision of timely country data and reports to ECA.

220. Calls for a review of the status of STATCOM-Africa's African observers so as to recognize their specificity and encourage their active participation in statistics and statistical capacity-building in Africa.

Statistical Commission for Africa (STATCOM-Africa)

221. Endorses the terms of reference of the subsidiary organ of ECA in charge of statistics, the Statistical Commission for Africa (STATCOM-Africa), as a platform for statistical development in Africa, a key part of the global statistical system.

222. Recommends that the ACS should conduct a study on the composition and interrelation with members of the African statistical system, underlining the links with the global statistical system.

223. Recommends that ECA should convene meetings of the Statistical Commission for Africa (STATCOM-Africa) on an annual basis, and that relevant sub-committees should be established and by-laws should be put in place to make a sound technical contribution on emerging issues in the area of statistics. STATCOM-Africa should strive to link its meetings with the United Nations Statistical Commission and coordinate with the United Nations Statistics Division in this regard.

224. Recommends that ECA should review the status of STATCOM-Africa's African observers so as to recognize their specificity and encourage their active participation in statistics and statistical capacity-building in Africa.

225. Recommends that national statistical officers (NSOs) should be represented at the annual meeting of the joint AUC/ECA Conference of Ministers of Finance, Planning and Economic Development, the modality of such representation being subject to consultation with member States.

226. Recommends that ECA and its partners should consider the rationalization of statistical forums.

Coordination of statistical activities in Africa

227. Calls upon ECA to take a coordination role and to set up with its regional and subregional partners an effective statistical programme so as to avoid duplication of efforts and effectively tap into existing forums and seminars, including ABSA, StatCom-Africa, ASSD and FASDEV.

228. Recommends the implementation of the RRSF endorsed by the ECA Conference of Ministers of Finance, Planning and Economic Development.

229. Encourages partners to provide technical assistance to African countries, to advocate for the conduct of censuses and the mobilization of resources, especially within the platform of ASSD, in order to increase the participation of African countries in the 2010 RPHC, with special focus on post-conflict countries, including DRC, Angola, Somalia, Liberia, Guinea-Bissau, CAR and the Sudan.

National accounts and international comparison programme

230. Calls upon countries to provide adequate human and financial resources to NSOs for the compilation of national accounts, and to increase the collaboration between the NSOs, central banks, revenue departments and other major data sources.

231. Requests ECA, in collaboration with international, regional and subregional organizations, to provide adequate backing and technical assistance for statistics, including the provision of training, software and manuals related to the 1993 SNA, the GFS and balance of payments.

232. Requests ECA and AfDB to set up a national accounts programme at the regional level, building on existing successful initiatives such as the work by AFRISTAT, and to ensure that the ICP programme supports the compilation of quality national accounts.

233. Calls upon AfDB to continue to reinforce its statistical capacity-building support to member States, building on ICP-Africa.

234. Calls upon countries to continue ICP as a regular activity of NSOs with special emphasis on dissemination and quality improvement.

The 2010 round of population and housing censuses

235. Requests ECA and its partners to provide technical assistance to African countries, to advocate for the conduct of censuses and the mobilization of resources, especially within the platform of ASSD, in order to increase the participation of African countries in the 2010 RPHC, with special focus on post-conflict countries, including DRC, Angola, Somalia, Liberia, Guinea-Bissau, CAR and the Sudan.

Celebration of the African Statistics Day

236. Recommends that the 2007 theme of the ASD should be on employment, in line with the recommendations of the 2006 and 2007 ECA Conferences of Ministers of Finance, Planning and Economic Development, and that ECA should provide advocacy materials as early as possible preferably one month in advance, for better celebration at country level.

The African Statistical Charter

237. Commends the AUC for initiating the development of an African Statistical Charter, and recommends that the charter be in line with other statistical development initiatives, including the RRSF and the StatCom-Africa, to avoid wasteful overlaps in the implementation of various statistical development efforts on the continent. The AUC should ensure political advocacy and backstopping for statistical development efforts on the continent at the highest level.

238. Recommends that the AUC ensure the full participation of heads of NSOs and integration of legal opinion in considering the Charter before submission to Heads of State, and further recommends that the draft document be submitted in time before the validation meeting.

Statistical training

239. Reiterates the ABSA recommendations on statistical training activities, including harmonization of curricula, involvement of the STCs in ECA training programmes, advocacy for scholarship, networking of STCs and establishment of a lusophone STC, and creating new ones where appropriate.

240. Calls upon ECA to set up and coordinate an African forum on statistical training.

Specific recommendations on geoinformation

On standardizing geographic names:

Noting:

241. The absence of United Nations regional conferences on the standardization of geographic names;

Recognizing:

242. The importance of the standardization of geographic names from both a cultural and a social point of view, and for purposes of the international cooperation;

243. That there cannot be regional and international standardization without national standardization.

The Sub-Committee

244. Recommends that member States should develop national standards on geographical names, taking into consideration national socio-cultural contexts.

245. Urges ECA in collaboration with ECOSOC and the United Nations Expert Group on Geographical Names (UNGEGN) to organize the next UNGEGN meeting in Africa.

On land information management systems:

Recognizing that:

246. Land management information systems (LMIS) are key components of the knowledge economy;

247. ECA and international partners have a vital role to play in implementing LMIS in African countries;

248. LMIS need not necessarily be computer based;

249. Information must be geo-referenced and physical descriptions must be unambiguous;

250. National mapping organizations should be involved in the development of LMIS;

251. The development of LMIS involves partnerships between the public and private sectors, educational institutions and civil society;

252. LMIS must address indigenous, cultural and gender issues.

The Sub-Committee recommends that:

ECA member States should:

253. Consider and adopt the different principles of LMIS developed by ECA and partners.

254. Provide for LMIS in their land policies.

255. Allocate more funds for LMIS for the benefit of the economy, as well as all other social and political activities.

256. Consider and adopt the different principles of LMIS developed by ECA and its partners.

On spatial data infrastructures (SDIs) and fundamental data sets

Noting that:

257. Fundamental geospatial data sets are crucial components of spatial data infrastructures (SDI);
258. Fundamental geospatial data sets are required for informed decision-making and planning;
259. All mapping should be based on a consistent geodetic reference frame;
260. A uniform geodetic reference frame is essential for seamless mapping of features and resources necessary to achieve regional integration;
261. GNSS provides a means to realize such a uniform reference frame for Africa;
262. The fundamental data sets are not always available in many African countries.

The Sub-Committee

263. Reiterates its support for the African Geodetic Reference Frame (AFREF) initiative to develop a uniform geodetic reference frame based on GNSS technology.
264. Urges each member State to establish at least one permanent Continuous Operating Reference Station (CORS) based on Global Navigational Satellite Systems (GNSS) in accordance with the AFREF initiative and in consultation with all stakeholders.

Requests ECA to:

265. Organize training workshops at the subregional level on the implementation of CORS.
266. Negotiate with providers of space imagery to make satellite images affordable to member States.
267. Leverage funding for SDI development activities for member States with special attention to Mapping Africa for Africa (MAFA).

On metadata profiles for Africa:

Recognizing:

268. The importance of ISO 19115:2003, *Geographic information – Metadata* for the development of African spatial data infrastructures;
269. The need for each African country to incorporate ISO 19115 into their spatial data collection processes;
270. The lack of a free metadata capture tool that supports an African profile of ISO 19115;

271. The lack of such a stand-alone metadata tool that can upload metadata to an SDI;
272. The importance of the standards being developed by ISO/TC 211, *Geographic information/ Geomatics*;
273. The importance for African countries to contribute to the development of these standards to ensure that they meet the needs of Africa.

The Sub-Committee

274. Endorses the development of the African profile of ISO 19115, to support the realization of the objectives of the Mapping Africa for Africa (MAFA) initiative.
275. Requests ECA, supported by experts from the geographical information community, to identify a suitable metadata tool that can be adapted and developed further to support the African profile of ISO 19115.
276. Requests ECA to leverage funding for SDI development activities for member States with special attention to Mapping Africa for Africa (MAFA).
277. Encourages ECA and specialized institutions to participate actively in ISO/TC 211 meetings and activities, and to create a mechanism to disseminate the relevant standards to the geographical information community in Africa.
278. Supports the African Geodetic Reference Frame (AFREF) initiative to develop a uniform geodetic reference frame based on GNSS technology.

Specific recommendations on knowledge, libraries and information services (CODI-KLIS)

Recognizing:

279. The difficulties experienced in locating and accessing economic development knowledge and information sources generated in Africa;

Reiterating:

280. That libraries and information services have played a central role in the economic growth of developed nations by providing access to information and knowledge, and considering that for Africa to develop holistically as per the objective of ECA the development of libraries and information services should be actively supported;

Noting:

281. The important role that information literacy and lifelong learning can play in the development of appropriate skills for knowledge acquisition and exploitation;

Further noting:

282. The importance of integrating indigenous knowledge systems into the knowledge economy in Africa;

The Sub-Committee recommends that:

Member States should:

283. Promote innovation and encourage the creation of enterprises with the objective of promoting the production, dissemination and use of new knowledge.
284. Invest in human capital through education and skills enhancement.
285. Raise awareness of the value of libraries, knowledge and information in economic growth and human development.
286. Identify and raise awareness of priority issues in information and knowledge policies and institutions.
287. Examine and provide principles, regulations and rules regarding ownership, access, custodial responsibilities and commercial aspects of knowledge and information for the promotion of transparency and innovation, and the production and exchange of goods and services.
288. Establish national councils on library and information services to advise governments on the development of libraries and information services in member countries.
289. Exploit the potential of public libraries in bridging the digital divide and building social inclusion by providing full and free Internet access to the community.
290. Develop policies that holistically deal with the strategic and day-to-day information needs of all residents through integrated community resource centres, libraries and information services.
291. Develop knowledge, libraries and information services in rural areas and provide them with required ICT infrastructure and adequately trained information professionals.
292. Use the opportunity of the MDGs to set up mechanisms and provide resources necessary for the establishment of information literacy and life-long learning policies.

ECA should:

293. Ensure that the Sub-Committee on Knowledge, Libraries and Information Services (KLIS) continues to exist as a distinct sub-committee of CODIST; with the following terms of reference:
 - (a) Facilitate capacity-building with regard to the development of KLIS-related systems and services for the information society and knowledge economy;
 - (b) Promote the development of knowledge systems in member States;
 - (c) Review recent and proven technical trends and status of knowledge and information practices in the global context;
 - (d) Recommend strategies for the utilization of new and proven technologies and methodologies to improve data collection, processing and use for decision-making;
 - (e) Promote the development of best practices and standards in these fields;

(f) Develop and support the establishment of national, regional and global networks and partnerships with the aim of facilitating integration and optimizing the use of resources;

(g) Identify, promote and support regional projects;

(h) Promote networking among institutions and practitioners in KLIS and generate synergy at the national level to facilitate the management and best use of KLIS;

(i) Promote the development and improvement of KLIS national legislative frameworks in ECA member States.

294. Examine and review progress made by member States in the area.

295. Use the African Virtual Library and Information Network (AVLIN) initiative, as a matter of urgency, to embark on appropriate capacity-building activities for the development of national information repositories (local content) generated in member States, and to provide technical assistance to member States to enable them to embark on capacity-building for the use of online technical information sources and services in academic and research institutions.

Part D - Special events and exhibitions

296. Ten special events which included workshops, conferences, colloquiums and awards were organized in partnership with a variety of groups. The reports of the individual events have been covered in the relevant sub-committee reports and in most cases summarized in this report.

297. The CODI-V exhibit featured international and local companies, organizations and government offices specializing in a variety of services. It provided participants and exhibitors with excellent opportunities to network and exchange ideas on products, services and best practices in the various subjects of the session.

Part E - Annexes

298. Annex 1: Report of the Sub-Committee on Information and Communications Technologies (CODI-ICT)

299. Annex 2: Report of the Sub-Committee on Statistics (CODI-stat)

300. Annex 3: Report of the Sub-Committee on Geoinformation (CODI-Geo)

301. Annex 4: Report of the Sub-committee on Knowledge, Libraries, and Information Services (CODI-KLIS)

302. Annex 5: Agenda of the session