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ECONOMIC COMMISSION FOR AFRICA

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

Addis Ababa, Ethiopia

29 April to 4 May 2007

CONCEPT AND INFORMATION NOTE

Theme: Employment and the Knowledge Economy in Africa

I. The Rationale

1. The challenge of employment creation in Africa has been the focus of high-level political attention in the recent past. For example, the African Union Extraordinary Assembly of Heads of States and Governments adopted the Ouagadougou Declaration on Employment and Poverty Alleviation in September 2004. More recently in May 2006, the Economic Commission for Africa's (ECA) 39th Conference of African Ministers of Finance Planning and Economic Development, was convened on the theme: *The Challenge of Employment and Poverty Alleviation in Africa*.

2. Therefore, in line with this high-level attention on employment issues, the theme for this Session of the Committee on Development Information (CODI-V) is: *Employment and the Knowledge Economy in Africa*. The theme also acknowledges the fact that advances in information and communications technologies (ICTs) are rapidly increasing the rate and efficiency of knowledge creation and dissemination. With increased affordability, the usage of computers and electronic networking has also risen.

3. ICTs consequently enable researchers in different locations to work together, enhancing productivity and often resulting in rapid advances in research and development. This phenomenon is generating new knowledge and technologies, fuelling the development of the global knowledge economy. However, it is clear that the knowledge economy, with its rising skills and technological intensity, is effectively not generating opportunities for all, and instead, is widening the gap between 'knowledge-haves' and 'knowledge-have-nots' in the labour market, the economy and society. CODI-V will deliberate on and develop appropriate policy options for closing this gap and expanding knowledge-centric employment in African economies.

II. Conceptual framework

4. A knowledge economy is one in which knowledge acts as the main engine of growth. The production of knowledge offers economic benefits, mainly as a result of 'knowledge workers' or the 'knowledge workforce' involved in this production process. Consequently, employment in the knowledge economy is a vital issue. Africa should therefore consider the human resource requirements for employment in the knowledge economy, alongside sustained investments in education, innovation, and ICTs.

5. Research has identified the following four preconditions of the knowledge economy:

- a) An *economic and institutional regime* that provides incentives for the efficient use of existing and new knowledge, and the flourishing of entrepreneurship.
- b) An *educated and skilled population*, which creates, shares and uses knowledge to innovate and create economic value;
- c) A *dynamic information infrastructure* to facilitate effective communication, dissemination, and processing of information; and
- d) An efficient *innovation system* of firms, research centres, universities, and other organizations capable of tapping into the growing stock of global knowledge; assimilating and adapting it to local needs; and creating new technologies.

6. The Committee will take a variety of macroeconomic and strategic approaches to analyze the contributions of information, knowledge and communication, and ICTs to employment creation in the knowledge economy using the continuum framework of:

“Access to Information → Knowledge and Capacity → Innovation → Productivity → Growth → Employment → Poverty Reduction.”

7. Knowledge creates potential for innovation in all sectors, impacting on industries and markets, including the private and public sectors. Such changes in the economy and amongst employers in turn impacts on the division of labour - namely, what jobs people do (occupations), what sectors they work in (industries) and where they carry out their work (locations). Importantly, while the state of knowledge in the economy is partly determined by investments in research and development (R&D) and formal education and training, economists believe that the greater dynamic in knowledge production comes from informal learning, such as learning on the job, learning through interacting or learning by doing.

8. Approaches to measuring developments in the knowledge economy have concentrated on the growing importance of:

Knowledge-based sectors - high technology industries (ICTs, aerospace, pharmaceuticals, etc) and financial and business services

Knowledge-based functions in all sectors – knowledge creation (R&D and design), economic coordination (marketing, distribution, administration) and internal transfer of knowledge (training)

Knowledge workers – professional, managerial and scientific and technical occupations in all sectors

Knowledge-related investments – R&D, public/private education and ICT hardware, software and services

Intangible capital – production and dissemination of knowledge (education, training, R&D, information and coordination) and investment geared to sustaining the physical state of human capital (health expenditure).

9. Consequently, the emergence of the knowledge economy can have a far-reaching impact on the quality of life of workers in African countries. The right policies and institutions could serve as an important spur to development and job growth. In some cases, the high mobility of knowledge-based products can allow countries to *leapfrog* certain stages in traditional economic development, via investments in human resources.

III. Sub-themes

10. The session will explore the institutional foundations and policy dimensions of employment in the knowledge economy, and illuminate fundamental policy choices that Member States have to make in developing or enhancing knowledge-centric employment in African economies. Reports and discussions will focus on the following sub-themes:

- a) ICT and the knowledge economy: innovation, productivity and expansion of opportunities for entrepreneurship and employment.

- b) Enhancement of employability through access to information and knowledge in libraries and other information services.
- c) Geo-information dimensions of employment policy-making in the knowledge economy.
- d) Employment and the knowledge economy: definitions, indicators, and measurement challenges; and
- e) Employment in the information sectors, including ICT industries, geomatics and information services.

III.1. ICT and the knowledge economy: innovation, productivity and expansion of opportunities for entrepreneurship and employment

11. The information and communication technology sector provides a large potential for generating employment in Africa as demand for ICT products and services is increasing. Given the digital gap between Africa and the rest of the world, the catch-up requires momentous manpower. Further, ICT has the capacity to augment production possibilities. Mobile telephony and Internet services are creating new employment opportunities for Africans even in rural areas through telecentres. Furthermore, the introduction of ICTs throughout the economy allows each industry to develop new functions, improve product-related services and supply customized products and services. ICT also offers a high potential for the transfer of, *inter alia*, technical, managerial, and online learning skills. Finally, ICTs offer several applications that ease business operations such as in accounting and management. Notably, in some countries in Africa the percentage of jobs requiring ICT skills has increased from under two percent in the 1980s to over 40 percent in 2000.

12. However, not all countries have taken steps to strengthen their ICT sectors and in most cases very little has been done to harness the potential of ICTs in employment creation and poverty alleviation. ICTs replace old tasks and occupations through automation, such as telephone switchboard operators. But the technologies also create new tasks and occupations, such as Webpage designers, call-centre workers and a variety of new intermediaries. This necessitates action to address relevant issues at the policy level, and elaborate on how ICTs can be used to spark innovation and enhance employment creation in various economic sectors including financial services, agriculture, education, health, trade, and government administrations.

13. Governments must support investment initiatives in the sector. For instance, venture/risk capital is required for innovation and business development, as well as investments and project financing for the ICT industries, particularly the software and IT-enabled services sector. Some major challenges for strengthening and sustaining the ICT sector for employment opportunities include the need for investment in human resources, capital, infrastructure, and science and research.

14. Areas to be covered under this sub-theme include: the impact of ICTs on employment levels in Africa, and what the ICT-induced changes in the labour processes are; the creation of an enabling policy environment for employment-friendly ICT innovation and business development; schemes for the promotion of access to ICT skills and competencies; support to ICT-based and ICT-enabled small and medium-scale enterprises; bridging the various employment divides (gender, urban-rural, age) through universal access to ICTs; mainstreaming ICTs in poverty reduction strategies; and the development of competitiveness.

III.2. Enhancement of employability through access to information and knowledge enabled by libraries and information services

15. Access to information and knowledge enhances information literacy and ICT skills required for employability in the knowledge economy. Libraries and information centres ensure this access by: transforming and harnessing ideas, knowledge and other primary intellectual resources through professional processing, storage and dissemination; contributing to the effectiveness of the education process and continuing development of a country's human capital by providing resources for the deepening of learning and knowledge in emerging technologies and social issues; providing the catalyst for economic development and employment at the local and national levels by providing access to new ideas and knowledge; bringing about improved productivity and good decision-making of organizations by providing the right information; bridging the digital divide by providing access to ICTs to disadvantaged populations such as the poor, the elderly, the physically disabled, and the unemployed, as well as small businesses who cannot afford it otherwise.

16. Consequently, this unique knowledge base of libraries offers *platforms* for improving skills and learning. Furthermore, libraries and other information processing centres also provide knowledge-centric employment in the knowledge economy, by providing knowledge-based services related to skills enhancement, learning, enterprise and economic well-being, which in turn helps community growth, competitiveness and employment.

17. Since the advent of the information revolution, libraries have become partners in new infrastructure investment (ICT networks, and virtual and digital libraries) that is improving the economic vitality of universities, cities and communities. Therefore, modernizing the library infrastructure could create leverage for economic regeneration. This ultimately makes libraries the platforms for becoming key players in building community-driven knowledge economies

18. Areas to be covered under this sub-theme include: how libraries can contribute to socio-economic vitality in African countries and become the agents for local knowledge economies; policies for enhancing employability through access to information and knowledge; information literacy and lifelong learning; status of national implementation of WSIS action lines related to libraries and promotion of community access points; libraries as economic development centres and vehicles for inclusive information society.

III.3. Geo-information dimensions of employment in the knowledge economy

19. Information takes add-value dimensions only if it can be represented spatially in order to determine joint effects. Geo-information helps people to visualize complex social indicators in map formats. It provides quantitative results to *what if* planning scenarios that allows developers, planners and community groups to feel greater comfort in formulating policies and programmes for the benefit of greater numbers of stakeholders.

20. Planned interventions for employment creation require governments and businesses to target their operations and resources. In addition to providing the tools for efficient and effective planning by reducing transaction costs, efforts in planned interventions has resulted in an industry providing and maintaining the data and information resources for geographical targeting. Geomatics or geo-information industry is now an important employment engine, creating durable jobs in the knowledge economy. The industry extends from field data collection, through several processing and preparation phases to final dissemination of the information and knowledge.

21. Areas to be covered under this sub-theme include: policies for enhancing geographically-oriented development interventions, the value of land information in enterprise development and employment creation, and national and regional geo-information policies for the information economy.

III.4. Employment in the knowledge economy: definitions, indicators and measurement challenges

22. Statistical monitoring and coverage of the knowledge economy will become a new challenge for African countries and statisticians. Lack of data, in particular data relating to employment, is a serious impediment to sound evidence-based development of national macroeconomic policies and strategies. In addition, progress towards achieving internationally agreed development goals, including the MDGs and the Poverty Reduction Strategies (PRSs), cannot be accurately measured.

23. The specific challenge for statistics in relation to employment in the knowledge economy is to reexamine the existing indicators and develop new ones to better assess impact. It also includes the clear identification of actors and description of the new business models in quantitative ways, with an emphasis on the African context. There is also a need to make cost benefit analyses of these new business models in order to highlight how much they could impact unemployment.

24. Areas to be covered under this sub-theme include: statistics and employment: theoretical foundations, measurement and evaluation; and policy dimensions, determinants, indicators, measurement strategies, and benchmarking of employment and unemployment; contributions of economic policies to employment, and of economic growth to employment, including the informal economy in the knowledge economy.

III.5. Employment in the information sectors

25. A knowledge economy is dominated by knowledge-based occupations. For African economies to become knowledge-based and globally competitive, they must be restructured to become technology and service oriented.

26. This sub-theme will therefore deal with job creation opportunities in the various information and knowledge sectors, and the relevant strategies for creating the requisite workforce for the knowledge economy, as well as investment goals in communication and information industries.

IV. Objectives

27. The main objectives of CODI-V are:

- a) To clarify the inter-relationship between the above-mentioned information concepts and provide the analysis of issues and strategies related to employment and growth in the knowledge economy.
- b) To elaborate the policy implications and recommend possible policy and advocacy steps Member States, the Commission and other stakeholders could take to boost employment opportunities in the emerging information society and the knowledge economy;
- c) To review the progress made in the implementation of the recommendations of CODI-IV; and
- d) To provide a forum for Member States to share knowledge and information on policies and strategies for increasing the rate of employment in the global knowledge economy.

V. Format

28. The programme is structured to emphasize the synergies between the various fields and groups, while providing for in-depth treatment of the very technical issues at the level of the subcommittee. There will therefore be a mix of plenary meetings involving all participants, and parallel sub-

committee meetings devoted to discipline-specific topics. The meetings of the session will run from Tuesday to Thursday (1 – 4 May) and the associated pre-session workshops and seminars will take place on 29 and 30 April.

29. A keynote paper on the theme will set the tone for the meeting. The paper will concisely review all the topical dimensions of employment and the knowledge economy, pose pertinent questions, outline the main challenges and proffer policy directions. Four discipline-specific panellists will then respond to the address and present the technical and strategic issues their corresponding subcommittees should deal with to enable effective policy formation and implementation at the national and regional levels in the various dimensions of the theme.

VI. Participation

30. Every Member State is expected to send an official government delegation comprised of high level and technically sound statisticians, geo-information specialists, ICT specialists, knowledge and information specialists, employment and productivity specialists, librarians and economic planners. In the past, members of delegations and their advisers came from National Statistics Offices, Ministries of Economic Planning, Population Agencies, National and University Libraries, National Archives and Documentation Centres, Information and Communications Agencies, National Mapping Agencies and other relevant organizations. Also expected are observers representing relevant national institutions, non-African States interested in the theme, development partners, United Nations agencies; sub-regional, regional and international inter-governmental and non-governmental organizations, multinational corporations, small and medium enterprises, civil society organizations, and independent development practitioners. The workshop and seminars are open to invited stakeholders from various related sectors in Africa, and other attendees of the main CODI meetings.

VII. Funding for participation

31. As statutory activities of ECA, CODI meetings are, in principle, official delegates meetings of Member States of the Commission, hence delegates, advisers and observers are expected to cover the cost of their travel and subsistence for the duration of their stay in Addis Ababa. The funds for organizing and supporting the main meeting come from the regular budget of ECA. The workshops are usually organized in collaboration with development partners, who may fund the costs associated with making experts and facilitators available, and sometimes the travel and subsistence of certain invited workshop participants.

VIII. Exhibitions and poster opportunity

32. The United Nations Conference Centre has a large exhibition space, which will be made available for displays of information material, products, services and posters for a small fee. Exhibits could be on display throughout the duration of the meeting. About 500 delegates and observers representing government officials, non-governmental organizations, civil society organizations, academicians and private practitioners in the fields of ICT, libraries, geo-information and statistics are expected to attend.

IX. General information on CODI

33. The Committee on Development Information (CODI) is one of the seven statutory committees established by the Economic Commission for Africa (ECA)'s Conference of Ministers in May 1997. CODI is a successor committee, which took over the functions of the joint Conference of African

Planners, Statisticians, Population and Information specialists, and of the United Nations Regional Cartographic Conference for Africa, and make policy input towards the implementation of the African Information Society Initiative (AISII). Its terms of reference include:

- a) To promote the growth of an information society in Africa;
- b) To advise on measures to improve all aspects of statistical development of Member States;
- c) To advise on the building, maintenance and dissemination of regional development databases, including bibliographic, textual and spatial databases.

34. The Committee meets every two years in accordance with Resolution 826 (XXXII), adopted at the aforementioned ministerial conference. CODI-V will conduct its technical deliberations under four subcommittees, namely:

- a) Sub-Committee on Information and Communications Technologies (CODI-ICT),
- b) Sub-Committee on Geo-information (CODI-CEO),
- c) Sub-Committee on Knowledge, Libraries and Information Services in Development (CODI-KLIS), and
- d) Sub-Committee on Statistics (CODI-STAT).

35. For the papers and reports of the previous sessions of CODI, please visit www.uneca.org/CODI

X. Contact information

36. For more specific information contact the following:

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