

REPORT OF THE SUB-COMMITTEE ON GEOINFORMATION

A. ATTENDANCE AND ORGANIZATION

1. The Second Meeting of the sub-committee on Geoinformation was held at Headquarters of the Economic Commission for Africa (ECA) in Addis Ababa, Ethiopia, from 4 to 7 September 2001.

2. Representatives from the following member countries attended the sub-committee meeting: Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Côte d'Ivoire, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Ethiopia, Gabon, Kenya, Lesotho, Mali, Madagascar, Mozambique, Namibia, Nigeria, Republic of Congo, Rwanda, Sao Tome e Principe, Senegal, and Swaziland

3. Observers from the following international, regional and sub-regional institutions were represented at the Meeting: the African Organization for Cartography and Remote Sensing (AOCRS), the Regional Centre for Mapping of Resources for Development (RCMRD), the Regional Centre for Training in Aerospace Surveys (RECTAS), the Southern and Eastern Africa Mineral Centre (SEAMIC), EIS-AFRICA, the US Federal Geographic Data Committee (US-FGDC), the US geological Survey (USGS) and EROS Data Centre, the Global Spatial Data Infrastructure (GSDI), the Committee on Earth Observation Satellites (CEOS) Working Group on Information Systems and Services, the International Cartographic Association (ICA), the International Society for Photogrammetry and Remote Sensing (ISPRS), the International Federation of Surveyors (FIG), the United Nations Environment Program (UNEP), AFRICOVER (FAO), and the UN Geographic Information Working Group (UNGIWG).

4. Also present were observers from the following national and international organizations, and the private sector: University of Hanover, German Society for Technical Co-operation (GTZ), International Institute for Aerospace Surveys and Earth

Sciences (ITC Information Systems Services (ISS-Ethiopia), Defence Geographic Centre (DFG(UK)); Institut Géographique National- France (IGN-France), Dutch National Cadaster - Netherlands; Ethio-Italian Development Co-operation

5. The sub-committee elected the following officers:

Chairman:	Botswana
Vice-Chairman:	Algeria
Rapporteur:	Benin

6. The subcommittee elected a technical working group for the preparation of resolutions. The working group consisted of the following members: Congo, Ethiopia, Ghana, Tanzania, RECTAS, AOCRS, and ECA.

B. AGENDA

7. The Meeting adopted the following agenda:

1. Opening of the meeting
2. Election of officers
3. Adoption of the agenda and organization of work
4. Report on progress made since last conference and follow-up on the recommendations of CODI
5. Policy issues with regard special reference to future orientation of GI activities in Africa and economics of Geoinformation
6. Technical issues: New means for data collection and management with special reference to “new trends and developments on GI” and “National and Regional Spatial Data Infrastructure (NSDIs)”
7. Applications: Case studies
8. Report on the ECA activities on Geoinformation during 2000-2001 and work programme for the biennium 2002-2003.

9. Any other business
10. Seminar on SIDS
11. Adoption of Report

C. ACCOUNT OF THE PROCEEDINGS

8. Mr. Marcel Djamat-Dubois, Côte d'Ivoire, Chairman of the First Meeting of the Subcommittee opened the meeting. In his opening remarks, he highlighted the objectives and importance of the Sub-committee, as well as the work done by the Standing Preparatory Working Committee of CODI-Geo under his chairmanship. He expressed appreciation to the members of the Working Group and its scientific committee for their effective contribution and to ECA for giving the necessary support.

Country and progress reports made since last Conference (agenda item 9.3)

9. Under this agenda item ECA presented some preliminary results on questionnaires received from member countries. The secretariat informed the meeting that the results as they were now were not adequate as the number of member countries that responded was relatively low.

10. The meeting discussed the various chapters of the presentation in which some suggestions were made, noting that the exercise initiated by ECA was timely and relevant for improving the overall national capacities in the area of Geoinformation. In this regard the countries were asked to submit their responses as soon as possible.

11. In addition to the summary submitted by ECA, delegates from member countries and observers presented their progress reports complementing the above exercise. These reports comprised the various tasks undertaken in cartography, geodesy, remote sensing geographic information systems and capacity building. Participants informed the Meeting

on their achievements and problems encountered such as the issues of funding and maintenance of equipment.

Policy Issues: (Agenda Item 9.4)

12. In this agenda item, four papers were presented, namely: the future orientation of GI activities in Africa; a geographic data facility for Africa; economics of Geoinformation; and economics of Environmental Information systems.

13. In the ensuing discussion the following questions were raised and responded to:

- The role of private sector and
- where and what they should be involved in:
- The issue of moving from paper to digital – There was a need to understand the power of maps even in digital form;
- As priorities lie somewhere else there was a need to bring up proper arguments to governments and policy makers in order to make Geoinformation a central issue;
- How could senior government officials (technocrats) convince policy makers. It was noted that sensitisation was essential at the highest level of governments.
- There was need to co-ordinate development projects at country level and to integrate geographic information components.

14. Participants expressed the following concerns:

- Information provided at regional level is not sufficient enough to satisfy the needs at national and local levels. Therefore, it is important to improve the existing institutions instead of creating new ones;
- Though there is a need for some regional settings, concerns were voiced on their appropriate management as countries are already facing enormous problems. Moreover, national and community based information was necessary;

- The pricing policy and cost recovery aspects were crucial for institutions involved in Geoinformation in Africa and should be explored within the framework of spatial data infrastructure development.

15. The following recommendations were made:

- As ECA has accessibility to policy makers, the issue of proper funding for Geoinformation institutions should be advocated through the Commission;
- There is an urgent need for building a sustainable spatial data infrastructure;
- National mapping agencies should be allowed to compete with a private sector for value added products if fair competition is guaranteed.

Technical Issues (Agenda Item 9.5)

New Trends and Developments (Agenda Item 9.5.1)

16. Three papers were presented namely:

- New Trends and Development in Cartography, by ICA
- Developments in the Acquisition of Spatial Data from imagery, by ISPRS
- Interactive approaches to timely data provision, by USGS.

17. A question was raised regarding the participation of African countries in ICA activities. It was reported that ICA sponsors African students to participate in its activities and training. It was also hoped that by convening the ICA Conference in Durban, many African countries and experts would participate.

18. The key discussion issues centered on:

- Justification of high investment in mapping activities . It was agreed that the awareness on the importance of mapping data should be created at the highest level in Government. Also Geoinformation should be elevated to the level of a national infrastructure.
- The issue of mapping activities by international agencies in Africa was raised and discussed. It was noted that their activities were not known or

co-ordinated. It was recommended that ECA should co-ordinate and disseminate their activities.

Spatial Data Infrastructures (Agenda Item 9.5.2)

19. Five presentations were made:

- Evolution of National Spatial Data Infrastructure (NSDI) and Global Spatial Data Infrastructure (GSDI), by the GSDI/FGDC Steering Committee.
- Growth and evolution of the Permanent Committee on Spatial Data Infrastructure for the Americans (PCIDEA), by the PCIDEA Steering Committee.
- Africover by FAO.
- The UNEP.dot.NET and the United Nations Geographic Information Working Group (UNGIWG), by UNEP.

Applications: Case Studies (Agenda Item 9.6)

20. Under this agenda item the following papers were presented:

- An example of Geoinformation development within an operational institutional framework, by Côte d'Ivoire
- Application and interpretation of participatory approaches and GIS in Land use planning, by LUPO/Ethiopia
- African – German Cupertino, by GTZ

21. Concern was raised on the appropriateness of use of the names “Cartography” and “Remote Sensing”, vs. the name “Geoinformation”. It was noted that the first two refer to concrete disciplines, whereas the latter has a holistic meaning embracing all the disciplines of Geoinformation..

22. After the presentation on African-German Cupertino, the meeting has informed of a workshop on the North African Reference Frame NAFREF held early this year in Algeria and the status of implementation of the project.

Report of ECA on activities of Geoinformation during the period 1999-2001 and programme of work for the biennium 2002-2003 (Agenda Item 9.7)

23. After receiving the report by ECA, questions were raised concerning:

- communication problems between ECA and national and regional institutions:
- access to ECA data bases
- the replacement of the United Nations Regional Cartographic Conference for Africa by the Sub-committee on Geoinformation of CODI. Several delegates expressed their wish to see the Regional Cartographic Conference reinstated.

24. The required clarifications were provided. On communication problems, it was found convenient that the national institutions designate a focal point for ECA Geoinformation activities.

Any Other Business (Agenda item 9.8)

25. The new Permanent Preparatory Working Group for CODI-Geo was constituted as follows:

Chairman:	Botswana (Southern Africa)
Algeria	North Africa
Kenya	East Africa
Benin	West Africa
Republic of Congo	Central Africa

Permanent members

AOCRS, RECTAS, RCMRD, EIS-AFRICA

D CLOSING

Adoption of the report and closing of the meeting (agenda item 9.9)

26. The meeting adopted its report with amendments. Three resolutions were adopted on: (i) Spatial Data infrastructures, (ii) Geoinformation policy, and (iii) Capacity building, appended to this report.

27. The Chairman closed the meeting on 6 September at 20:00, with a vote of thanks to the delegates, observers, resource persons, interpreters and the secretariat for ensuring a successful meeting.

RESOLUTIONS OF THE SUB-COMMITTEE ON GEOINFORMATION

1. On Spatial Data Infrastructures (SDIs)

Recognizing the importance of Geoinformation (GI) as backbone for planning, decision making and sustainable development, as well as the need for food security, poverty alleviation, environmental monitoring and control, and natural resources management;

Noting the low progress made since CODI-1 on the recommendation for the establishment of SDI in African countries;

Further noting the progress made by other regions in the implementation of National Spatial Data Infrastructure (NSDI) through the establishment of regional permanent committees, and the need to promote rapid implementation of NSDI in African countries and at regional level;

Recommends that

Member States give priority to establish their NSDIs with all the necessary components (national standards, metadata, clearing house, national database). The content of the core datasets should be defined by a collective effort of all GI stakeholders in the country;

For regional applications, Regional Spatial Data Infrastructure (RSDI) be established with an African Regional Database as a component, based on a unified African Reference System;

A permanent committee on Spatial Data Infrastructure for Africa be established to:

- promote the coordinated establishment of SDIs in African countries,
- facilitate the establishment of RSDI and the African Regional Database.

The permanent committee should follow the model of the Permanent Committees for the Americas (PC-IDEA) and for Asia and Pacific.

And urges

Member states to participate in the work of the proposed permanent committee and in the work of appropriate technical committees of the International Standards Organization, notably Technical Committee 211 (ISO/TC 211);

African countries to participate fully in the Global Mapping project, under any of the three categories that is found most suitable to each country.

2. On Policy

Recognizing Geoinformation as an essential component of the knowledge base for the development of any country;

Noting the lack of national policies on GI backed by legislation to guide its acquisition, dissemination and use;

Observing that land administration organizations play a growing role in the provision of foundation data (property data and large scale maps);

Aware that governments are urging National Mapping Agencies (NMAs) to strive for cost recovery;

While endorsing the findings and recommendations of ECA's ad hoc experts' group meeting on future orientation of GI in Africa;

Recommends that

Mechanisms be immediately set in motion by African countries to develop the national GI policy as an integral part of the National Information and Communication Policies;

African countries should develop appropriate institutional, legal and technical framework to integrate land administration and topographic programmes within the context of a wider national strategy for spatial data infrastructure;

African countries should follow, properly adapted, the model policy guidelines presented in ECA's position paper on Future of GI activities in Africa;

Further investigation be done on the regulatory conditions under which NMA's are eligible for competitive valued-added production and on the concept of cost recovery in various accounting and financial regimes.

3. On Capacity Building

Realizing the need for continuing education and professional development to keep pace with advances in GI technology;

Recognizing the need for the design and implementation of geo-spatial solutions for specific problems related to sustainable land use management and natural resource administration, and the well-being of the people of Africa;

Noting the need for institutional capacity building, especially for the implementation, management and maintenance of spatial data infrastructures at local, sub-national and national levels;

Bearing in mind that low cost technology is now available to facilitate most of the procedures to build the fundamental data sets;

Recommends that:

The existing specialized regional centers involved in GI training and education (e.g. RECTAS, RCMRD, SEAMIC, CRTEAN) be strengthened to cope with the training and retraining of the required personnel at the levels of technicians, technologists and professionals;

International Organizations be urged to give support to these regional centers of excellence to enable them to be proactive to the training needs of African countries in GI technology;

Educational and training institutions be encouraged to modernize their curricula to keep pace with modern technology and SDI issues; the curricula should be modular, to give room for short term training and retraining, and where possible, web-based distance learning should be introduced;

An African network of GI education be established to coordinate the standardization of GI education and training programmes and share resources;

A network of African Organizations, Centers and Institutions involved in GI, such as AOCRS, EIS-AFRICA, AARSE, RECTAS, RCMRD, in cooperation with international organizations such as the International Federation of Surveyors (FIG), the International Association of Cartography (ICA), the International Society for Photogrammetry and Remote Sensing (ISPRS), the International Association of Geodesy (IAG) and EuroGeographics, be established under the secretariat to coordinate conferences and seminars such that conference themes, timing, venues, etc can be harmonized to enable better planning and wider participation.