



**Economic Commission for Africa**  
**United Nations Global Geospatial Information Management**  
Forth meeting  
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## **United Nations Initiative on Global Geospatial Information Management**

### **Report on activities in Africa**

#### **I. Introduction and background**

1. The Regional Committee of United Nations Global Geospatial Information Management for Africa was set up to address the issues of developing the capacities of African nations in the generation and dissemination of authoritative, accurate and maintained geospatial information on the continent. It focuses on the following key pillars:

(a) African Regional Spatial Data Infrastructure as a framework with policies and structures to facilitate the availability of and access to spatial data, promoting data-sharing among data producers and users;

(b) African Geodetic Reference Frame, a project aligned with the Global Geodetic Reference Frame, to enable the direct and seamless applications of all geospatial information on the continent;

(c) Second Administrative-level Boundaries, a project to build authoritative and accurate second administrative-level boundary databases with validated data sets from member States that will be used in a number of applications, including census data analysis and disaster management;

(d) GeoNyms, a programme to create an African gazetteer populated with member State data and input through the United Nations Group of Experts on Geographical Names;

(e) Fundamental Geospatial Data Sets to develop a well-structured and comprehensive data foundation that will be consistent, comparable and compatible at the local, national, regional and global levels;

(f) Integration of geospatial information and statistics to mainstream geospatial information applicability into the various sectors and subnational constituents of statistics;

(g) 2030 Agenda for Sustainable Development, used to develop common tools and data for the applications of geospatial technologies to monitor and track progress in achieving the Sustainable Development Goals.

2. The present report provides an outline of activities carried out by the Africa region with regard to geospatial information management since the sixth session of the Committee of Experts on Global Geospatial Information Management. It includes action taken as a follow-up to resolutions adopted by

the Committee and other activities considered to be of interest to member States and partners.

## **II. Objectives**

3. The main objective of the Regional Committee is to leverage the enabling capabilities of geospatial information technology to meet Africa's development agenda in support of emerging global challenges. This will be achieved primarily through the following:

(a) Promoting and supporting technical activities in the development of standards, interoperability and streamlined electronic services delivery in such a way that they anticipate the future potential use of geospatial information resources on the continent;

(b) Strengthening and aligning the specific needs and interests of Africa through international mechanisms;

(c) Encouraging and facilitating the integration of statistics with geospatial information efforts to attain viable and meaningful outcomes, analysis and visualization of data in supporting and tracking progress in achieving the Sustainable Development Goals.

## **III. Activities, areas of work and achievements**

### **A. Second meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa**

4. The region organized the second meeting of the Regional Committee as a back-to-back event with the meeting of the Statistical Commission for Africa, held in Grand-Bassam, Côte d'Ivoire, from 28 November to 2 December 2016. The meeting was attended by more than 30 participants comprising delegates from 10 African countries, as well as observers from international organizations, including the United Nations Secretariat, the African Union, academia, regional organizations and networks and the private sector.

5. The participants reviewed the progress made in implementing the recommendations and action that had emerged from the previous meetings of the Regional Committee; shared knowledge and best practices on the development of geospatial information on the continent; raised awareness of the benefits to be derived through the utilization of geospatial information for sustainable development; and looked at policies, measures and steps that African countries could take to ensure a successful implementation of the United Nations Initiative on Global Geospatial Information Management in the region. The meeting outcomes contributed to consolidating consensus and advancing the political will needed to leverage the enabling capabilities of geospatial information technology to meet Africa's development agenda in support of the emerging global challenges.

6. In addition, the participants reviewed the following critical areas for the implementation of the Regional Committee's activities:

(a) Defining the modalities of engaging the working groups to take the role of drawing from the African action plan on global geospatial information management some concrete actions that they could convert into fundable projects with priority action, milestones and related costs;

(b) Outlining the strategy for resource mobilization to ensure, among other things, the funding of some key activities such as the African Geodetic Reference Frame, GeoNyms, African Regional Spatial Data Infrastructure and the Mapping Africa for Africa initiative;

(c) Assessing the status of developing national data infrastructure in Africa and the related issues and challenges;

(d) Highlighting the role and place of geospatial information in the achievement and monitoring of the Sustainable Development Goals;

(e) Addressing relevant issues that emerged from the sixth session of the Committee of Experts on Global Geospatial Information Management: African countries' participation in the work of various expert and working groups;

(f) Reviewing the African action plan on global geospatial information management for its final adoption.

7. The participants also stressed the need for the African action plan to be more ambitious regarding the overarching aspect of geospatial information policy and governance in Africa. A continental-level policy must be developed and aligned with the Africa space policy and strategy recently adopted by the Heads of State and Government of the African Union. It was decided that there should be the development of a position paper on geospatial information (provided for in the logical framework), followed by advocacy targeted at policymakers in Africa in order to turn geospatial information into a real sustainable development enabler. It was further acknowledged at the meeting that there was little participation from African government officials. Without the support of the Economic Commission for Africa (ECA), most of the countries found it difficult to attend. It was therefore suggested that ECA should consider undertaking an awareness-raising campaign to have all African countries fully involved in the initiative.

## **B. African action plan on global geospatial information management**

8. The continental action plan, now branded the "African action plan on geospatial information for sustainable development", was developed and aligned with global agendas and programmes (i.e., the 2030 Agenda and Agenda 2063: The Africa We Want) to foster and support the development of technical activities, strengthen and align the specific needs and interests of Africa and encourage and facilitate the integration of statistics with geospatial information. The action plan was formally endorsed by the Regional Committee. The process of geospatial and statistical information integration should also begin immediately in order to anticipate the urgent information needs ahead in the context of the 2030 Agenda and Agenda 2063.

## **C. Development of an African statistical and spatial framework for the integration of geospatial and statistical information**

9. The Regional Committee initiated the development of a global strategic framework for the integration of statistical and geospatial information. The strategy outlines some of the policy principles on how to mainstream geospatial technology into the work of national statistical offices by way of training, data and processes. An expert group meeting was subsequently organized to review the framework, consolidate the consensus and advance the political will that would steer the development and management of geospatial information in support of the emerging global challenges in Africa. The next step will be to

develop sectoral priority action with a logical framework of objectives, results, activities, a chronogram and related costs.

#### **D. Identification of geospatial data sets for Sustainable Development Goal indicators**

10. In its effort to support the achievement of and reporting on the Sustainable Development Goals, the Regional Committee developed a matrix identifying the geospatial data sets that are labelled on the basis of their criticality for the monitoring and achievement of the targets and indicators of each Goal. This work is ongoing and will be aligned with the activities of the working group on geospatial information of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators.

#### **E. Geospatial information resources for regional initiatives**

11. Several regional geospatial databases are being developed and incrementally updated to support regional initiatives. These databases form the core of the African Regional Spatial Data Infrastructure and include the following:

(a) Continuous updating of the African component of the Second Administrative-level Boundaries geodatabases is an ongoing effort. The Regional Committee is part of the global effort to move into a new procedure of an annual updating mode of collection, editing, validation and dissemination and a full coverage of administrative units within countries. Various activities were carried out in some countries to upgrade the African status (e.g., Botswana, Ethiopia and Mauritius) to the same comparative level as in other regions;

(b) Sourcing, collecting, processing, validating and building the African infrastructure (Programme for Infrastructure Development in Africa) geodatabases;

(c) Collection of digital terrain model data at 30 m resolution that covers the entire continent;

(d) Continuous support to the regional steering committee of the African Geodetic Reference Frame programme to complete the roll-out of 10 global navigation satellite system reference stations in the following countries: Burundi, Chad, Côte d'Ivoire, Ghana, Kenya, Namibia, Zambia, and Zimbabwe. The installation of the stations was completed with the assistance of Trimble Inc., and the first set of the parameters of the reference frame has been computed.

12. The Regional Committee would like to revamp its work on developing guidelines of best practice for the acquisition, storage, maintenance and dissemination of fundamental geospatial data sets as part of the Mapping Africa for Africa initiative. These guidelines are intended to serve as a valuable tool for national mapping agencies and others in providing the fundamental geospatial information.

#### **F. Contribution to global geospatial information management activities**

13. The Africa region participated in the following events and activities relating to global geospatial information management:

(a) Participation in and contribution to the sixth session of the Committee of Experts and its side events, held in New York from 1 to 5 August 2016. The session offered a good opportunity for many formal and informal

contacts with various interlocutors on common interests in order to continue to strengthen the Regional Committee's interaction with public/private organizations, institutions and individuals that are involved in the development of geospatial information to effectively support the African geospatial community by raising awareness, funds and learning from the experience of other regions;

(b) Contribution to the work of the Expert Group on the Integration of Statistical and Geospatial Information;

(c) Contribution to the work of the working group on fundamental data in providing the initial thematic descriptions on water, biosphere and land cover/land use;

(d) Participation in and contribution to the expanded United Nations Initiative on Global Geospatial Information Management Bureau meeting that was held in New York from 7 to 9 December 2016;

(e) Participation and contribution in the second and third meetings of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators working group on geospatial information held, respectively, in Mexico City from 12 to 14 December 2016 and in Kunming, China, from 8 to 10 May 2017.

## **G. Capacity development**

14. Capacity development is essential to fulfil the sustainable development endeavour in Africa. It is now recognized that geospatial information plays a critical role in ensuring sustainable development. To fully leverage the "enabling" capabilities of geospatial information for sustainable development, capacity-building therefore requires immediate attention so as to ensure that no one is left behind in this regard. In the developing countries of Africa, however, it is recognized that the geospatial information divide is growing and that urgent intervention is required to reverse this trend and enable the continent to reap the benefit of this critical development infrastructure. The Regional Committee has made efforts to garner technical support in this connection from public and private sector development partners on a bilateral and/or multilateral basis. In this regard, the support that Ethiopia received from Esri and the support of the European Union (i.e., African Monitoring of the Environment for Sustainable Development and Monitoring for Environment and Security in Africa) and China (i.e., land cover mapping using Globeland 30), as well as Trimble (CORS GPS), offered to a number of African countries are worth mentioning. There is still more to be done, however, and the support of United Nations Initiative on Global Geospatial Information Management secretariat therefore remains essential to realize this goal.

## **H. Publicity and outreach**

15. The Regional Committee participated in several geo-related events, taking those opportunities to interact with a broad range of decision makers, users and service providers from various countries. The participation at such meetings is important, given that the Regional Committee takes advantage of them to deliver keynotes and express the continent's vision and strategy for geospatial science and technology development in Africa. The various conferences also offered opportunities to keep abreast of current trends in geospatial services and products.

16. Furthermore, during the reporting cycle, the Regional Committee organized an awareness-raising workshop for local media in Ethiopia in order to establish and consolidate a collaboration platform between media professionals, researchers and geospatial professionals and decision makers. The workshop participants outlined the need for intensive regional awareness-

raising and online media campaigns through various channels such as social media, websites and e-discussions on the role of geospatial information science and technology in socioeconomic transformation in Africa.

## **I. Partnerships and regional and international collaboration**

17. The Regional Committee continued its efforts to build partnership with regional and international organizations to voice the continental perspective on the global arena of geospatial information management. The aim is to ensure cooperation in the development and use of African geospatial information to monitor, analyse and assist decision-making with regard to global and African challenges.

18. As a member of the coordination team of the Global Monitoring for Environment and Security programme, along with ad hoc constituencies from the European Commission, the African Union Commission and member States, the Regional Committee continues to be fully involved in the design and implementation of the programme to ensure that all conditions for the application of space observation are for the benefit of the continent.

19. The Regional Committee is working to ensure that the Group on Earth Observations work plan adequately reflects African issues and encourages African countries to participate in it. The Regional Committee is actively involved in defining the African Earth Observation (AfriGEOSS) implementation plan, the subset of Group on Earth Observations for Africa.

## **J. Priority issues and challenges**

20. The associated challenges in implementing the global geospatial information management mechanism include an inadequate response and lack of political will to implement geospatial initiatives by countries and a lack of financial resources to assist member States.

21. With regard to technical assistance, including developing the various databases and applications, it became obvious that the data required were not always available, which underscored the importance of including data collection, management, dissemination and access policies to develop information strategies and plans.

## **K. Perspectives/outlook and future plans**

### **1. Third meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa**

22. The Regional Committee plans to organize the third meeting of the Regional Committee in conjunction with the AfricaGIS 2017 Conference, a premium geoinformation event on the continent. The meeting is tentatively scheduled to be held from 21 to 25 November 2017.

### **2. Overarching geospatial information policy for Africa**

23. Even though more than one decade's work has been done with regard to the development of spatial data infrastructure in Africa, it still reflects an incoherent piece-meal approach characterized by loose networks and informal relationships. There is no evidence of one model; rather, there is evidence of a complete lack of national geospatial information policy on the continent. In that regard, the Regional Committee has taken the steps to develop an African geospatial information policy as an overarching framework for formulating national policies for geospatial information on the continent. It is expected that

the framework will assist in harmonizing the efforts and in attracting the funding required to drive the efforts, maintain support and gather momentum.

### **3. Geospatial information standards for Africa**

24. While African countries and their partners collect and manage large amounts of geospatial data, these data are often not easily accessible nor well documented and organized in a standardized way. The Regional Committee embarked on the preparation of a guideline document on geospatial standards, which will be used by national mapping agencies as a reference for strengthening the harmonization of fundamental geospatial data sets in Africa, including the common standards and metadata that would make statistical and geospatial information more useable and more relevant to a wider range of stakeholders. The document will include some best practices and experiences and contain an outline of the guiding principles for adopting common standards in mapping practices in Africa. This will help the continent to develop common regional standards, in line with international policy and standards.

## **L. Matters/issues for consideration**

25. The Regional Committee has made substantive progress in terms of gaining some momentum and assuring the global community that Africa is serious about contributing. The Regional Committee has strengthened its efforts to be among the leaders in the integration of geospatial information and statistics. There is strong recognition and determination of the two disciplines to collaborate to achieve better results for both, as recognized in the revamped Strategy for the Harmonization of Statistics in Africa.

26. On the other hand, the Regional Committee acknowledges that there has been little participation from African government officials in its deliberations. In order to overcome this challenge, it is required that strong advocacy be pursued at policymakers in Africa in order to turn geospatial information into a real sustainable development enabler.

27. In line with “leaving no one behind”, the support of the Regional Committee’s secretariat therefore remains critical to enhance capacity-building efforts in our region, along with strengthened advocacy and public outreach.

28. There is a communication gap that the Regional Committee needs to address. It must establish an information, knowledge and awareness-raising platform, in the form of a dedicated website, that provides updates on its activities regarding all documents, presentations, resources and guidelines made available online; monitors, identifies and disseminates best practices on geospatial information resources, applications, and services; moderates online discussion on emerging issues, trends and challenges relating to geospatial information science and technology systems and development; and promotes national and regional collaboration frameworks with other institutions and initiatives.