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**Committee of Experts on Global Geospatial Information Management**

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Item 4 of the provisional agenda\*

**Contribution of regional committees to the global geospatial information agenda****Economic Commission for Africa****Regional Committee of United Nations Global Geospatial Information Management for Africa**

Ninth meeting

Cape Town, 14–18 August 2023

Item 3 of the provisional agenda\*\*

**Presentation of reports****United Nations Global Geospatial Information Management****Report on regional activities in Africa****I. Introduction**

1. As part of the global efforts to achieve the goals of integrated geospatial information management, the Regional Committee of United Nations Global Geospatial Information Management for Africa was established to leverage the enabling capability of geospatial information technology to fulfil the African development agenda and to support responses to emerging global challenges.

2. The work programme of the Regional Committee is designed and articulated: (a) to promote and support technical activities for the development of standards, interoperability and streamlined electronic services delivery, in such a way as to anticipate the potential use of geospatial information resources on the continent; (b) to strengthen and align the specific needs and interests of Africa with international mechanisms; and (c) to encourage and facilitate the integration of statistics with geographies to help to monitor and track progress towards the attainment of the Sustainable Development Goals.

3. The Economic Commission for Africa (ECA), as the secretariat of the Regional Committee, is pleased to submit for consideration the report on the activities carried out by the Regional Committee since the twelfth session of the Committee of Experts on Global Geospatial Information Management. The report includes a description of actions taken in response to the decisions adopted at the twelfth session, and other activities considered to be of interest to States Members of the United Nations and other partners. The report is articulated around policy and technical issues, capacity and outreach, and international cooperation and liaison.

\* E/C.20/2023/1.

\*\* E/ECA/GGIM-A/9/1.



## II. Objectives

4. The main objective of the Regional Committee is to examine the policies, measures and steps that African countries could use or take to strengthen, sustain or amplify:

(a) The legal and regulatory frameworks required to guide the efforts of its members to achieve a better coordination mechanism for cooperative geospatial information management at the national level;

(b) The technological and innovation infrastructure with the necessary tools, applications and solutions to source, capture, curate and build purpose-oriented data sets and spatially-enabled services for informed decision-making;

(c) The holistic and long-term transformative development of capacity in Africa, with spatially-aware citizens who are empowered with the essential technological skills and ability to participate and contribute critically to the digital transformation and an information society;

(d) The mechanism for partnership and collaboration within the geospatial information community worldwide.

## III. Integrated Geospatial Information Framework

5. In its decision 10/103, the Committee of Experts adopted the Implementation Guide of the Integrated Geospatial Information Framework as a means of strengthening national geospatial information management arrangements.

6. The vision of the Integrated Framework recognizes the responsibility of Governments to use geospatial information in effectively measuring, monitoring and achieving sustainable social, economic and environmental development, with a view to leaving no one behind. The goal of the Integrated Framework is to bridge the geographical digital gap and support countries in developing country-level action plans.

7. African countries have continued to steadily develop their national action plans while establishing national data hubs within the SDG Data Alliance project. The project has been implemented in 10 African countries: Burkina Faso, Cameroon, Eswatini, Ethiopia, Morocco, Mozambique, Rwanda, Senegal, South Africa and Tunisia.

8. Burkina Faso and Ethiopia have made substantive progress and are in the final stages of the development of their country-led action plans. The other eight countries are still in the early stages and are collecting information, assessing gaps and seeking options and solutions that are tailored to their national circumstances.

## IV. Integration of geospatial and statistical information

9. Statistical and geospatial information cannot be examined independently. They complement one another and may function better when used together. Investment in the integration of statistical and geospatial information across national boundaries and the monitoring of the implementation of the 2030 Agenda for Sustainable Development require comparable and harmonized data at many geographic levels. The data will aid policymakers in making choices, identifying development issues, implementing effective solutions and monitoring and evaluating those processes. Similarly, statistical and geospatial data are essential for the development of local investment and planning. Such needs for integrated data are particularly acute in the African context.

10. Although the integration of geospatial and statistical information is a critical issue in African countries, efforts are being made to raise awareness of, interest in and capacity to use geospatial data for practical purposes.

11. The Regional Committee, through ECA, has provided technical support to several countries including Burundi, Cameroon and Zimbabwe in the management of geospatial data and the development of a geocoding scheme for the geospatial analysis of the data from their population and housing censuses. Various capacity-building workshops have been held to enhance the knowledge, skills and capacity of census officials, cartographers, geospatial analysts and stakeholders involved in census cartography in cartographic methods, geospatial data capture and compilation, and the creation of accurate enumeration areas. The aim of the workshops was to facilitate the production of high-quality geospatial data in preparation for the upcoming censuses in Africa.

12. With ECA support, the Regional Committee has finalized a manual on geocoding for the modernization of geospatial information and statistical processes in Africa. The manual provides a step-by-step approach to geocoding and addresses common challenges, such as the lack of standardized address formats and poor data quality. It highlights the importance of geocoding for a wide range of applications, including emergency response, public health and urban planning. The manual is intended to be a resource for African countries and organizations looking to improve their geospatial data infrastructure, and it is aimed at supporting the development of a modern, accurate and comprehensive geospatial information system for Africa.

## **V. Policy and legal frameworks**

13. The Regional Committee has completed the collaborative production of a comprehensive strategy for the modernization of geospatial information in Africa, with a particular emphasis on the integration of geospatial and statistical information. Aligned to the integrated geospatial information framework, the document includes an investigation of the various pathways that can better help countries to realize the value of investing in geospatial information through opportunities for information-sharing, partnerships to pool resources, the communication of best practice, soundness in implementing activities harmoniously, the fostering of collaborative educational opportunities and outreach, and the identification of secure funding sources to support the ongoing geospatial programmes of national mapping agencies.

14. When implemented, the strategy is expected to help to strengthen national mapping agencies, to make them more agile and more responsive to technological and societal needs, and to ensure their continued relevance and success. It will also help to guide policy and decision-making on the continent, with a view to ensuring that national and regional spatial data and technology are available to as many potential users as possible and are developed, managed, procured and coordinated in line with best practice.

## **VI. Knowledge generation, outreach and capacity-building**

15. In collaboration with the Geospatial Information Section of United Nations Headquarters, continuous assistance was given to several countries, including the Central African Republic, the Democratic Republic of the Congo, Lesotho, Malawi, Tunisia and Zimbabwe, to edit, update and validate national geodatabases on second administrative level boundaries.

16. Support was provided to a number of countries to build census cartography geodatabases. In Burundi, the collection and processing of geospatial data relating to 1.4 million building footprints and pre-enumeration areas involved various techniques, such as satellite imagery, and the generation of global positioning system coordinates. The building footprints and pre-enumeration areas that were created were stored as digital data in the geodatabase of Burundi, with a view to integrating geospatial information with the statistical information to be collected during the 2024 census in the country and, ultimately, to disseminating geospatial data. The same support can be replicated in other countries as the need arises.

17. The Regional Committee has continued to foster the streamlined electronic delivery of products and services for evidence-based analysis and planning in order to achieve more informed decision-making. The Africa Geoportal has been enhanced to allow users to find, browse and utilize the geospatial data and services made available by national mapping agencies, international and development partners, and the private sector.<sup>1</sup> Similarly, national mapping authorities and other data custodians can utilize the geoportal to make their geographic resources discoverable, observable and accessible.

18. In recognition of the educational remit of the United Nations Global Geospatial Information Management, efforts have been maintained in the African region to develop training courses that are focused on business, in order to address the capacity development gap in the African geospatial sector. While technical training is well catered for, training on the commercial and financial aspects of geospatial information, including the nature and importance of business models, financing options and the approaches to funding taken by various countries, is not widely available. In collaboration with various partners, including ConsultingWhere and Enumation, the Regional Committee is offering a series of online courses and events for African geospatial professionals that are focused on the commercial rather than the technical aspects of geospatial information and systems. The courses comprise fully scalable online e-learning modules on business-model options for sustainably financing national spatial data infrastructure agencies, a learning management system that tracks course completion, and supporting content that is developed and customized with an interactive interface.<sup>2</sup> The courses can be delivered in English or French.

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

19. The Regional Committee has continued to collaborate and coordinate its activities with various stakeholders in the United Nations system, international and regional associations and programmes, and other development partners, in order to mobilize financial resources and technical know-how in support of the African geospatial agenda. During the reporting period, the Regional Committee provided advisory and technical services to the African Space Agency, to the African caucus of the Group on Earth Observations, and to Global Monitoring for Environment and Security and Africa, a joint initiative of the European Commission and the African Union Commission.

20. The Regional Committee participated in or contributed to the following events and activities:

(a) The twelfth session of the United Nations Committee of Experts on Global Geospatial Information Management and its side events, which took

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<sup>1</sup> The portal can be accessed at <https://uneca-powered-by-esri-africa.hub.arcgis.com/>.

<sup>2</sup> An early version of one of the courses is available at:

<https://360.articulate.com/review/content/f0d7ba70-8c54-4dfc-bfda-7aa6e8289807/review>

place from 3 to 5 August 2022 in New York, in which participants had a good opportunity to make contact with various interlocutors on common interests and to learn from the experience of representatives of other regions;

(b) The work and meetings of various expert groups and working groups, including the Expert Group on the Integration of Statistical and Geospatial Information, the working group on geospatial information and services for disasters and the Inter-Agency and Expert Group on Disaster-related Statistics;

(c) The work of the High-level Group of the Integrated Geospatial Information Framework; the Africa region contributes to the High-Level Group as the Chair of Working Group 4 on Sustainable Funding;

(d) The work of the Subcommittee on Geodesy, with the election of Côte d'Ivoire to the International Advisory Committee of the United Nations Global Geodetic Centre of Excellence;

(e) The work of the International Advisory Committee of the United Nations Global Geospatial Knowledge and Innovation Centre (UN-GGKIC);

(f) The meeting of the expanded Bureau of the Committee of Experts.

21. The participation of the Regional Committee in those various programmes and initiatives helped to build a consensus in several ways. The keynote speech, on partnership and international collaboration for space development in Africa, delivered by a representative of the Regional Committee during the 2022 NewSpace Africa Conference inspired attendees to consider collaboration on similar projects. Furthermore, by sharing perspectives and experience, the Regional Committee highlighted the common goals and challenges, which could encourage consensus-building. In addition, participating in a panel discussion on optimizing regional blocs for innovation and development in the African space industry facilitated the exchange of ideas and experiences among experts in the field. Such exchange could help to identify areas of agreement and disagreement, leading to a better understanding of shared interests, goals and challenges for integrated geospatial information management.

## VIII. Eighth meeting of the Regional Committee

22. The Regional Committee organized its eighth meeting to coincide with the eighth session of the Statistical Commission for Africa, which was held in-person from 24 to 28 October 2022 at the United Nations Conference Centre in Addis Ababa. The meeting was attended by over 100 participants, one quarter of whom were women, and comprised delegates from 38 African countries and observers from international organizations, including the African Union Commission, the secretariat of the United Nations Initiative on Global Geospatial Information Management, academia, industry organizations and the private sector.

23. The meeting proceeded to the election of the Executive Board of UN-GGIM: Africa to steer the eighth meeting and facilitate the discussions. After elections the composition of the Executive Board is as follow:

Position	Elected Members
Chair	South Africa
1 <sup>st</sup> Vice-Chair	Cameroon
2 <sup>nd</sup> Vice-Chair	Morocco
1 <sup>st</sup> Rapporteur	Uganda
2 <sup>nd</sup> Rapporteur	Burkina Faso
Ex-Officio Member	Ethiopia
Secretariat	United Nations Economic Commission for Africa

24. In recognition of the dual role of the meetings of the Regional Committee as a parliamentary process and a forum for intellectual exchange, the meeting was organized with several parallel events, including an expert group meeting on the integration of geospatial and statistical information, a workshop on geospatial knowledge infrastructure and a workshop on geospatial data availability for the Sustainable Development Goals.

25. The participants in the meeting resolved to request a thorough review of the composition, operation and mandates of the executive working groups of the Regional Committee, so as to propose a new structure for the working groups with new terms of reference.

26. Recognizing that the goals of geospatial information infrastructure and national development include raising awareness of geospatial knowledge infrastructure, the participants in the meeting urged ECA to lead the conversation on how to operationalize geospatial knowledge infrastructure, with a view to promoting preparedness and national development and to gaining a comprehensive understanding of the evolving geospatial ecosystem and its convergence with the larger digital ecosystem.

27. Participants encouraged countries to embark on the operationalization of the Integrated Geospatial Information Framework through the development and implementation of their respective country-level action plans, in such a way that transformational change is enabled, visible and sustainable.

28. Participants in the meeting welcomed the establishment of the SDG Data Alliance initiative as a mechanism to mobilize resources to assist African countries in accelerating the achievement of the Sustainable Development Goals. The initiative was made possible by advancing and implementing plans and data hubs at the individual country level within the Integrated Geospatial Information Framework.

## **IX. Perspectives, outlook and future plans**

29. As part of its role in providing a regional focus and leadership in the development of geospatial information techniques and methodologies, the Regional Committee conducts studies as needed on emerging concepts and disseminates knowledge to members. The Regional Committee will participate in the following activities during the upcoming reporting period:

(a) The ninth meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa, to be held in conjunction with the thirty-first International Cartographic Conference. The meeting is scheduled to take place from 14 to 18 August 2023, in Cape Town, South Africa. The scheduling of the meetings of the Regional Committee to coincide with other relevant geospatial events on the African continent helps to increase attendance and the sharing of knowledge and experience, which results in more effective meeting inputs and outputs. Participants in the ninth meeting will review the progress made in implementing the programmes and initiatives of the Regional Committee. The meeting will also provide participants with an opportunity to share their experience and identify the ground-level geospatial infrastructure that will be required at the national level for transformational change to be enabled, visible and sustainable.

(b) The 2024 conference of the African Association of Remote Sensing of the Environment. The biennial international conferences are held across Africa and have grown in stature and size, increasingly attracting hundreds of participants from Africa and abroad, to become the premier event in remote sensing in Africa. The next conference will take place in 2024, and

the Regional Committee will be a key partner, through sponsorship grants and the organization of technical side-event workshops.

(c) The 2023 edition of Geospatial Week, sponsored by the International Society for Photogrammetry and Remote Sensing, to be held in Cairo. During Geospatial Week, a combination of workshops will be convened by some 30 working groups of the International Society. The event will provide a platform for international scholars, graduate students, future scientists and representatives of industrial sectors to learn and exchange knowledge and experience of using geospatial technology for sustainable development and a better quality of life for people around the world.

(d) Advisory and technical assistance to strengthen the capacity of members in census mapping, geospatial data management and the development of geocoding schemes for the geospatial analysis of census data. With capacity in those areas, African nations may build the capability that is necessary to apply the Global Statistical Geospatial Framework in all pertinent domains, in particular in the 2020 round of population and housing censuses.

## **X. Conclusion**

30. The Regional Committee continues to participate actively and contribute to the global effort on geospatial information management. There are several impediments in the African context in that regard, however. The current priority issues of the region include: the creation of effective national leadership and institutional arrangements for operationalizing an integrated and coherent approach for implementing activities at the national level; strengthening the capability of members to undertake reform that increasingly ensures operational effectiveness to support the timely delivery of geospatial data, products and services for national planning and decision-making; and the mobilization of the resources needed to enhance the use of geospatial technology on the continent.

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