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**Economic Commission for Africa
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Twelfth meeting**

Addis Ababa (hybrid), 19–23 October 2026

**Economic Commission for Africa
Statistical Commission for Africa
Tenth session**

Addis Ababa (hybrid), 21–23 October 2026

Item 3 of the provisional agenda*

**Statistical programme of the Economic
Commission for Africa: statutory issues****Report on the status of integration of geospatial and
statistical information in Africa****I. Introduction**

1. Implementation of the Global Statistical Geospatial Framework in Africa has been vital for monitoring progress towards the Sustainable Development and Agenda 2063: The Africa We Want, of the African Union. The Framework has also supported policymaking and decision-making by facilitating the targeting of interventions at the national, subnational and local levels. African countries continue to face challenges in the integration of geospatial and statistical information, including limited technical capacity, inadequate infrastructure, fragmented institutional arrangements, resource constraints, inadequate data, legal barriers, limited partnerships and issues related to standard setting and compliance. Notwithstanding those challenges, new technologies, cloud-based platforms and emerging data ecosystems provide opportunities to accelerate the integration process.

2. The Global Statistical Geospatial Framework supports regional integration, economic and social development and international cooperation. This is consistent with the mandate of the Economic Commission for Africa (ECA) to strengthen the capacity of its members to integrate geospatial and statistical information. In carrying out this work, ECA draws on several frameworks and initiatives including the Global Statistical Geospatial Framework, the United Nations Integrated Geospatial Information Framework, the African Geodetic Reference Frame and the second Strategy for the Harmonization of Statistics in Africa, for the period 2017–2026. ECA also serves as the secretariat of the Regional Committee of United Nations Global Geospatial Information Management for Africa, which coordinates geospatial information management activities on the continent.

3. At the eleventh meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa, held in Accra in 2025, ECA, in its capacity as secretariat of the Regional Committee, reported on its survey of the availability of geospatial datasets for monitoring the Sustainable Development Goals in African countries. ECA also organized an expert group

* E/ECA/STATCOM/10/2026/1.



meeting on the integration of geospatial and statistical information, which was held back to back with the eleventh meeting.

4. ECA also provided technical support to several members, including Eritrea, Kenya, Uganda and the United Republic of Tanzania, to strengthen methodologies for the integration of geospatial and statistical information. In addition, ECA organized a capacity-building workshop in Namibia for national experts from Burundi and Namibia on the collection of climate and environmental geospatial data using cloud-based platforms.

5. ECA conducted a comprehensive five-week capacity-building programme for technical staff of the Ministry of Land, Water and Environment of Eritrea to address gaps in knowledge and skills in geographic information systems and remote sensing and foster the integration of geospatial and statistical information. The Ministry had identified those gaps as significant obstacles to effective land administration, water resource management and environmental monitoring. The training, which was provided to some 25 staff members, was designed to strengthen their knowledge and practical skills in the use of geographic information systems and remote sensing technologies through intensive hands-on training and applied exercises.

6. Participants at the eleventh meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa reiterated the important role of ECA as the secretariat of both the Regional Committee and the Statistical Commission for Africa, which allowed it to place its work on geospatial information and official statistics under a single institutional framework. As part of the recommendations of the meeting, the participants called for strengthened coordination between national statistical and geospatial agencies, along with enhanced capacity-building and policy coherence.

7. The present report provides an overview of progress in the integration of geospatial and statistical information in Africa and describes the work of ECA to advance implementation of the Global Statistical Geospatial Framework and support its members in using integrated information for sustainable development.

II. Frameworks for the integration of geospatial and statistical information

A. Global Statistical Geospatial Framework

8. The Global Statistical Geospatial Framework was adopted by the Committee of Experts on Global Geospatial Information Management in 2019. The Framework is centred on five principles that promote a harmonized approach to the integration of geospatial and statistical information in support of evidence-based decision-making. It emphasizes the importance of institutional arrangements, methodologies for geospatial and statistical data integration, partnerships, geocoding, communication, standards and interoperability and capacity-building as enablers of effective integration.

9. Implementation of the Framework has varied among African countries. Some countries have established dedicated coordination mechanisms between national statistics offices and geospatial agencies, while others continue to lack effective institutional coordination between the two. ECA has supported implementation of the Framework through technical assistance, information dissemination and pilot projects.

B. Regional Committee of United Nations Global Geospatial Information Management for Africa

10. The Regional Committee of United Nations Global Geospatial Information Management for Africa was established in 2011 to coordinate geospatial information management activities across the continent. ECA serves as its secretariat, and 11 meetings of the Regional Committee have been held to date. Four working groups operate under the Regional Committee, addressing issues and opportunities related to geospatial information management in Africa. The working groups meet annually to review progress, share good practices and provide strategic direction for geospatial development. At the eleventh meeting, held in Accra in 2025, participants reviewed progress since the tenth meeting, held in 2024, including progress in the integration of geospatial and statistical information in support of the Sustainable Development Goals and other development agendas.

C. 2030 Agenda for Sustainable Development and Agenda 2063

11. Achieving the 17 Sustainable Development Goals and their 169 targets, set out in the 2030 Agenda for Sustainable Development, requires robust data systems that generate accurate, geographically disaggregated data for measuring progress at different geographical levels. Integrated geospatial and statistical information is similarly important for the effective implementation and monitoring of Agenda 2063, a strategic framework for the socioeconomic development of Africa. Alignment between the 2030 Agenda and Agenda 2063 provides an opportunity to develop standardized systems for data collection, analysis and reporting that can serve both frameworks.

D. Sendai Framework for Disaster Risk Reduction 2015–2030

12. Geospatial information plays an important role in the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030, including in understanding disaster risk, monitoring hazards and supporting disaster preparedness and response. The seven global targets of the Sendai Framework and their 38 associated indicators require a range of geospatial and statistical data to monitor disaster risk and progress in disaster risk reduction at the national and subnational levels. In that context, ECA has developed a compendium of disaster risk-related indicators and provides support to its members on disaster data collection. ECA also organized a capacity-building workshop in Windhoek on the use of integrated geospatial and statistical data and cloud-based platforms for disaster risk reduction.

III. Selected aspects of the integration of geospatial and statistical information

A. Pseudonymization of geographic coordinates

13. At an expert group meeting on the integration of geospatial and statistical information, held in conjunction with the eleventh meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa, ECA presented its work on the pseudonymization of geographic coordinates. Participants emphasized the importance of pseudonymization in integrating geospatial and statistical datasets. Precise geographic coordinates associated with individual households, collective households, workplaces or movement patterns can create risks of re-identification and breaches of privacy,

including when data from censuses and surveys are used. Replacing or perturbing exact coordinates can protect confidentiality while preserving the spatial structure needed for analysis, mapping and modelling, including in relation to public health, survey and mobility data. ECA is currently developing a technical manual on the pseudonymization of geographic coordinates in Africa.

B. National-level survey on geospatial dataset availability

14. ECA has been conducting a comprehensive survey of the fundamental geospatial datasets needed to monitor progress on the Sustainable Development Goals in Africa. The survey is meant to examine the availability, timeliness, accessibility and quality of datasets on administrative boundaries, population size and distribution, land cover and land use, transport networks, water resources, health and educational facilities, ports and other infrastructure needed to calculate geographically disaggregated Sustainable Development Goal indicators.

15. For the survey, it uses structured questionnaires administered to national statistics offices, national mapping agencies and other relevant government entities responsible for producing and disseminating geospatial and statistical data. The survey is based on the Framework for Effective Land Administration and the 14 Global Fundamental Geospatial Data Themes identified by the Committee of Experts on Global Geospatial Information Management.

16. The survey results have revealed significant differences in the availability of geospatial datasets within and among African countries, along with substantial gaps in data coverage and challenges related to data quality and accessibility. While most countries have basic administrative boundary datasets, many need to be updated, and access to high-resolution population distribution data and current land cover and land use data remains limited. The findings highlight the need for increased investment in geospatial data development, better coordination between data producers and users and more effective data exchange and access arrangements. A detailed report summarizing the survey results, including country-specific assessments and a regional synthesis, was prepared and presented at the eleventh meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa.

IV. Eleventh meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa

A. Organization of the meeting

17. More than 80 participants attended the eleventh meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa, organized by ECA and held in Accra from 17 to 21 November 2025. As the secretariat of the Regional Committee, ECA was responsible for planning and organizing the meeting, including coordinating with the host Government and other public and private institutions, preparing meeting documents and facilitating participant registration and logistical arrangements. Representatives of African countries, regional and international organizations, the private sector, academic institutions and civil society reviewed progress in geospatial information management and its integration with statistical information across Africa and provided strategic guidance for future activities.

B. Expert group meeting on the integration of geospatial and statistical information

18. An expert group meeting on the integration of geospatial and statistical information in Africa was held on 21 November 2025 in conjunction with the eleventh meeting of the Regional Committee. The meeting provided a platform for technical experts from national statistics offices, mapping agencies and geospatial institutions to review implementation of the Global Statistical Geospatial Framework, share experiences, discuss approaches to addressing challenges and identify practical solutions for advancing the integration of geospatial and statistical information in African countries.

19. The expert group meeting also featured presentations on national and international experiences in implementing the Global Statistical Geospatial Framework, case studies on integration initiatives and the challenges encountered in that regard, and demonstrations of innovative technologies and methodologies. The presentations prompted discussions on institutional arrangements, data, partnerships, communication, legislation, technical standards and capacity-building requirements. The recommendations and conclusions of the meeting included a series of proposals to strengthen the integration of geospatial and statistical information at the national and regional levels. The proposals were subsequently submitted for approval to the plenary of the eleventh meeting of the Regional Committee.

C. Statutory reports

20. ECA prepared and presented a number of statutory reports to the plenary of the eleventh meeting of the Regional Committee. In a report entitled “Status of Integration of Geospatial and Statistical Information in Africa”, an assessment was made of progress, challenges and opportunities related to the integration of geospatial and statistical information in members of ECA during the preceding year, and case studies, good practices and recommendations for further action were provided. Information on capacity-building activities, technical support missions, research, knowledge management and other related activities was provided in a report on regional geospatial activities in Africa. The findings of the survey on the availability of geospatial datasets discussed above were presented in a report on geospatial datasets for monitoring the Sustainable Development Goals in Africa. The reports provided an evidence base for discussions at the meeting and informed several resolutions adopted by the Regional Committee.

D. Outcomes and resolutions

21. The eleventh meeting of the Regional Committee adopted a number of resolutions and recommendations on the integration of geospatial and statistical information, in which the Regional Committee called on countries to strengthen institutional coordination between their statistical and geospatial agencies, invest in fundamental geospatial datasets for monitoring progress on the Sustainable Development Goals, adopt international standards for data integration and interoperability, incorporate the pseudonymization of geographic coordinates into integration processes and strengthen capacity-building programmes. The Regional Committee also reaffirmed the role of ECA as its secretariat and requested it to continue providing technical assistance to countries in implementing the Global Statistical Geospatial Framework and other relevant frameworks.

V. Activities undertaken by the Economic Commission for Africa

A. Development of geospatial and statistical applications and geoportals

22. During the reporting period, ECA developed and launched several online mapping applications and geoportals to improve the accessibility and usability of integrated geospatial and statistical data in Africa. The applications are based on modern online mapping technologies and provide user-friendly interfaces for data exploration, downloading, analysis and visualization. It developed a rapid mapping application which facilitates the production of standardized maps. It also developed a census dissemination dashboard in partnership with the Uganda Bureau of Statistics for the 2024 population and housing census, which facilitates the dissemination and interactive visualization of census indicators at different geographical levels. A web mapping application for geospatial and statistical integration was also developed to support capacity development and knowledge-sharing among African countries, along with a web mapping application for monitoring climate change indicators, which facilitates the visualization and analysis of indicators across Africa and supports climate policy analysis and reporting on the climate-related Sustainable Development Goals. ECA also developed an interactive geodatabase, including a geoportal and interactive atlas, as part of its work with the World Food Programme on the water-energy-food nexus in Madagascar.

B. Disaster risk management and environmental monitoring

23. In 2025, ECA developed a compendium of disaster risk-related indicators aligned with the Sendai Framework for Disaster Risk Reduction 2015–2030, the 2030 Agenda and Agenda 2063. The compendium provides a systematic framework for monitoring disaster risk, hazards, exposure, vulnerability and disaster impacts in African countries. The process involved a review of disaster risk-related frameworks, indicators and monitoring systems at the global, regional and national levels, including the Sendai Framework indicators, the Sustainable Development Goal indicators and national risk monitoring systems. A gap analysis was undertaken to identify gaps and overlaps in existing indicator systems, with particular attention to disaster risks specific to Africa and constraints on data availability. The indicators were harmonized to ensure their suitability for African contexts, with consideration given to comprehensiveness, data feasibility and policy relevance. Metadata were developed for each indicator, including definitions, calculation methodologies, data sources, spatial and temporal coverage and compliance with international standards. The compendium is intended to support African countries in establishing disaster risk monitoring systems, strengthening data collection and reporting and promoting evidence-based disaster risk reduction policies and investment.

24. ECA organized a capacity-building workshop for specialists from Burundi and Namibia on the use of climate and environmental geospatial data and disaster-related indicators. The workshop, attended by more than 25 participants, was held in Windhoek from 2 to 5 December 2025 and brought together representatives of national statistics offices, mapping agencies, meteorological agencies, disaster management authorities and environmental agencies.

25. The workshop provided practical training in the use of cloud-based geospatial tools, such as Google Earth Engine, for environmental monitoring and disaster risk analysis. The training covered data collection methodologies, including mobile geospatial data collection, web scripting, crowdsourcing and the integration of authoritative and volunteered geographic information. Discussions focused on strengthening institutional coordination among disaster risk management, statistics and geospatial agencies. Participants learned how to acquire and analyse satellite imagery relating to disasters, conduct time-series analyses of environmental variables, calculate disaster risk indicators and integrate geospatial and statistical data for disaster risk assessment.

C. Water resources monitoring and earth observation

26. ECA conducted a time-series study of Lake Chad to quantify variations in surface water extent over several years and assess the implications of fluctuations in the size of the lake for water security, livelihoods and ecosystems in the Lake Chad basin. The study included an analysis of satellite imagery from multiple sources and time periods using cloud-based geospatial analysis platforms such as Google Earth Engine. Multi-temporal satellite imagery of the Lake Chad basin was obtained from the Landsat and Sentinel missions. Data were also obtained from the Moderate Resolution Imaging Spectroradiometer (MODIS). Water detection methods, including spectral indices and machine-learning classifiers, were applied to determine the extent of surface water. Analysis of the time series revealed substantial changes in the surface water extent of Lake Chad, with implications for water availability, agriculture, fisheries and human security in the Lake Chad basin.

27. ECA also initiated a study using satellite remote sensing and geospatial analysis to assess the effects of mining activities on water quality and aquatic ecosystems in Lake Victoria. In a separate assessment, it examined long-term environmental change in the Lake Tana basin in Ethiopia using K-means clustering of earth observation data for the period 1984–2025 and machine-learning techniques to classify land cover and land use. The research is intended to contribute to knowledge on environmental monitoring and provide practical tools and methods that can be applied in African countries.

D. Technical support and capacity-building

28. In 2025, ECA undertook a technical assistance mission to the Uganda Bureau of Statistics to support the development of a geoportal for disseminating the results of the 2024 population and housing census. ECA consulted technical experts from the Bureau on requirements for integrating geographic information systems into census processes, including related challenges and priorities, and developed an approach for integrating geospatial and statistical information in the geoportal. Training was provided to cartography professionals from the Bureau on practical aspects of census operations, including enumeration area boundary management, field mapping support and data visualization. ECA also documented methods and good practices for the continued maintenance of the geoportal and the preservation of institutional knowledge.

29. ECA conducted a capacity-building programme for technical staff of the Ministry of Lands, Water and Environment of Eritrea to address knowledge and skills gaps and support the integration of statistical and geospatial information. The intensive programme comprised 25 full training days organized into thematic weekly modules, with approximately eight hours of training per day. Some 25 participants from various departments of the Ministry, ranging from holders of diplomas to holders of master's degrees and with varying levels of

prior experience in geographic information systems, from beginner to intermediate, took part in the programme. ECA also prepared a report for the Ministry on the domestication of the Integrated Geospatial Information Framework. The Ministry is currently reviewing the report.

E. Participation in regional and global meetings

30. During the reporting period, ECA participated in a number of regional and global meetings to promote knowledge exchange, coordination and capacity-building in the geospatial and statistical fields. At the fifty-ninth meeting of the Governing Council of the Regional Centre for Mapping of Resources for Development, held in Nairobi in November 2025, ECA presented its activities in geospatial information management and discussed ways to strengthen collaboration between the two organizations. ECA also participated in the fifty-sixth meeting of the Governing Council of the African Regional Institute for Geospatial Science and Technology, where it presented its activities in geospatial information management and discussed ways to strengthen collaboration between the two organizations. ECA also contributed to the organization of the fifth Global Expert Forum for Producers and Users of Disaster-related Statistics and facilitated members' participation in the Forum, thus helping to ensure that African perspectives were reflected in global discussions on disaster-related statistics.

VI. Conclusion

31. Progress was made in integrating geospatial and statistical information in Africa during the 2025–2026 period, with ECA supporting its members, coordinating regional activities and contributing to the advancement of the global agenda for the integration of geospatial and statistical information. The activities outlined in the present report demonstrate continued efforts by ECA to strengthen its technical capacity, promote innovation and respond to the needs of its members.

32. Major achievements include the organization of the eleventh meeting of the Regional Committee of United Nations Global Geospatial Information Management for Africa, the convening of an expert group meeting on the integration of geospatial and statistical information and the conduct of a survey on the availability of geospatial datasets for monitoring the Sustainable Development Goals.

33. ECA continued to promote disaster risk management and environmental monitoring in African countries, including through the development of a compendium of disaster risk-related indicators and the provision of capacity-building support. Research on water resources included a time-series study of changes in the surface water extent of Lake Chad and studies of environmental change in the Lake Victoria and Lake Tana basins.

34. ECA continued to provide practical technical assistance in response to the needs of its members. This included support to the Uganda Bureau of Statistics in developing a geoportal for disseminating the results of the 2024 population and housing census and capacity-building for the Ministry of Lands, Water and Environment of Eritrea in geographic information systems and remote sensing.

35. The integration of geospatial and statistical information provides an important basis for evidence-based decision-making by adding a geographical dimension to statistical data and enabling more targeted interventions, efficient resource allocation and effective monitoring of development progress. Continued collaboration among ECA, its members and the wider geospatial and statistical community will, moreover, accelerate progress towards achieving the Sustainable Development Goals and the goals of Agenda 2063.
