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**Statistical programme of the Economic Commission
for Africa: statutory issues**

Report on statistical capacity development in Africa

I. Introduction

1. Following the impact of the coronavirus disease (COVID-19) pandemic on national statistical systems in Africa, which has revealed their vulnerability in responding to demands for statistical data and information in times of crisis, African countries have resolutely begun transforming and modernizing official statistics on the continent. To guide and support the process, the Economic Commission for Africa (ECA) has produced a road map for the transformation and modernization of official statistics in Africa for the period 2023–2030. At the eighth session of the Statistical Commission for Africa, which was held in October 2022, the principles and priorities proposed in the road map were endorsed, and stakeholders were requested to support its implementation. African statistical system stakeholders were called upon to integrate the road map's principles and priorities into national and regional planning relating to the development of official statistics. Those requests show that, since 2022, the focus of statistical development in Africa has moved to the transformation and modernization of statistical systems. The present report, therefore, includes highlights of the support provided to that process by the members of the African statistical system and its partners and the progress made by countries in 2023 and 2024.

2. The report is structured according to the priorities of the road map. After section I, an introduction, sections II and III are focused on the institutional development of national statistical systems and their organizational development, respectively. Section IV is focused on progress in advancing statistical processes. The subject of section V is harnessing technology. Sections VI and VII concern human capital and capacity development, and organizational capital development, respectively. In section VIII, the conclusion, the Statistical Commission is requested to express its views and guidance on the conclusions and points for discussion.

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II. Institutional development of national statistical systems

3. Institutional development addresses the challenges of the political economy or environment in which official statistics are funded, produced and used. The challenges usually prevent ongoing data initiatives from fully achieving their goals. Action taken as part of institutional development is focused on: promoting a culture in which data and their use are valued across society; strengthening stakeholder engagements; creating an enabling legal framework for statistics; ensuring data relevance; and increasing investment in the production and development of statistics.

4. ECA, the African Development Bank (AfDB), the Common Market for Eastern and Southern Africa and the Partnership in Statistics for Development in the 21st Century have continued to support the design, implementation and evaluation of national strategies for the development of statistics, which remain the main framework and process for transforming and modernizing national statistical systems. Those organizations supported the Gambia, Kenya, Madagascar, Nigeria, Senegal, Somalia, South Sudan and Togo in 2023 and 2024 with the development of new national strategies. The Partnership updated the strategy guidelines to respond to the emerging needs of national statistical offices, including those concerning transformation and modernization. It also supported Madagascar, the Niger, Senegal and Somalia in integrating a gender dimension into their national strategies, while ECA supported Burundi, Mozambique and South Sudan in pursuing that objective. The Partnership and the United Nations Children's Fund (UNICEF), with substantial support from ECA, developed a toolkit for mainstreaming the rights of the child into strategic planning for official statistics.

5. ECA has created an integrated strategic toolkit for the transformation and modernization of official statistics. The toolkit is aimed at helping users to understand the current level of data maturity of national statistical systems, in terms of their capability and performance, and is a guide to: setting priorities; scheduling developments; making the right choices for learning and capacity development; identifying the appropriate desired state of a national statistical system and its organizational capital; planning for the strategic use of digital technology to accelerate the transformation and modernization process; and developing and scaling up solutions to unlock the data potential of a country and reach the desired state of its national statistical system. Furthermore, the toolkit can be used in designing a national road map for taking a national statistical system through the various maturity levels and for updating or designing a new national strategy for the development of statistics as the main national framework for building statistical capacity across the national statistical system and for driving transformation and modernization.

6. The strengthening of collaboration between and the engagement of stakeholders of the African statistical system has been evident at several levels. First, meetings of the African Statistical Coordination Committee resumed during the period under review, with five meetings held online and in person. Second, joint activities were carried out, including a workshop on the design of national strategies for the development of statistics, which was organized under the leadership of the African Union Commission with support from ECA and the Partnership in Statistics for Development in the 21st Century and was held in Cairo in 2023, and the support provided to Cameroon by ECA, the Economic and Statistical Observatory for Sub-Saharan Africa (AFRISTAT) and the National Institute of Statistics and Economic Studies of France in order to introduce innovative changes to the methodology used to produce the turnover index, moving from a survey approach to the use of administrative data sources.

7. With the support of ECA and the Partnership in Statistics for Development in the 21st Century, several African countries, including Benin, Burundi and Lesotho, reviewed, amended and modernized their national statistics law and regulatory framework, with a view to building agile and resilient national statistical systems. The Partnership updated its statistical law navigator in 2023 to improve accessibility to and knowledge of statistical legislation in order to facilitate improvements to statistical legal frameworks and inform the global debate on the modernization of national statistical systems. In addition, the Partnership provided bilateral support to countries, including Burkina Faso, Burundi and Mali, in relation to policies on human resources and the development of the national statistical system.

8. Countries have been helped to improve the communication of statistics. In 2023, Madagascar and Sierra Leone developed communications strategies with assistance from the Partnership in Statistics for Development in the 21st Century, and ECA and Statistics Norway delivered training on communication and advocacy of official statistics to Ethiopia.

9. An initiative on the power of data was launched in several African countries in 2023 and 2024, with a view to unlocking the data dividend for the 2030 Agenda for Sustainable Development and Agenda 2063: The Africa We Want, of the African Union. Events were organized in the region by core partners of the initiative – the United Nations Development Programme, UNICEF, the United Nations Population Fund, the Department of Economic and Social Affairs and the World Bank – to raise awareness of the initiative, identify the data gaps and devise mechanisms for mobilizing resources to support national partnerships, including at the tenth session of the Africa Regional Forum for Sustainable Development, which was held in Addis Ababa from 23 to 25 April 2024.

10. Regarding investment in statistical production, in May 2023 the World Bank approved \$460 million in credits and grants from the International Development Association to improve and harmonize data systems in the African Union, the Economic Community of West African States, the West African Economic and Monetary Union and eight countries in West Africa: Benin, Gambia, Guinea, Guinea-Bissau, Mali, Mauritania, Niger and Senegal. The Central African Republic and Chad received grants of \$60 million and \$105 million, respectively, and Cameroon received a credit of \$105 million in 2023. ECA mobilized additional resources from partners to implement specific capacity-building programmes and projects, such as the Africa Programme on Accelerated Improvement of Civil Registration and Vital Statistics Systems, in collaboration with Vital Strategies, through its data for health initiative, and the Bloomberg Family Foundation, and a project with the World Trade Organization on trade in value added and supply and use tables in Africa.

11. At the national level, some countries have increased government funding for official statistics. In Chad, the allocation to the Statistics Fund was increased following advocacy by stakeholders of the national statistical system under the leadership of the national statistical office. Various forms of support were provided to countries to increase domestic resource mobilization, including revamping donor coordination groups, in-depth studies on financing statistical activities and advocacy undertaken in some countries by partners, such as AFRISTAT and the Partnership in Statistics for Development in the 21st Century.

III. Organizational development of national statistical systems

12. In the period under review, there was a systematic and planned effort to improve the overall effectiveness, efficiency and well-being of organizations. The effort has enhanced the ability of organizations to not only adapt to and manage change but also to fulfil their missions adequately. The actions undertaken during the period, such as engaging with new stakeholders, ensuring good data governance and improving data quality management and statistical coordination and collaboration, have all contributed to the progress in organizational development and statistical practices.

13. The Partnership in Statistics for Development in the 21st Century continued providing crucial support to countries in their pursuit of more effective and inclusive statistical practices. The support included efforts to leverage civil society data, with a view to improving monitoring in relation to the Sustainable Development Goals, and to encourage participatory models of collaboration with external stakeholders in the data environment. For instance, the Kenya National Bureau of Statistics was supported in operationalizing its citizen generated data initiative, which has since inspired other countries to engage civil society in the data value chain for official statistics. In addition, support from the Partnership was extended to the Bureau of Statistics in Lesotho, where efforts were made to scope the landscape of civil society organizations working with data.

14. ECA and the Statistics Division of the United Nations have organized events to strengthen data governance, including webinars and conferences to discuss data stewardship and its implications in the African context and the governance and institutional mechanisms sustaining resilient and agile national statistical systems in which the national regulatory framework may contribute to the transformation of official statistics.

15. ECA developed partnerships with the regional hub for big data and data science in Rwanda to build the capacity of young statisticians and national statistical systems, and enhanced its partnership with the Office for National Statistics of the United Kingdom of Great Britain and Northern Ireland to support capacity development in various topics, including data science, big data, transformation leadership and digital censuses. Partnerships were established with regional statistics training centres for capacity development and fundamental training in agricultural statistics, big data and data science. In addition, project partnerships were established for specific subjects. For instance, the Bank of Italy, the National Institute of Statistics of Rwanda, the Office for National Statistics of the United Kingdom and Statistics Poland joined together to facilitate knowledge exchange and build skills across borders in relation to web scraping for consumer price indices.

16. The quality of statistics has been enhanced in Africa. Equatorial Guinea, Gabon and Togo, for instance, benefited from support from ECA and AFRISTAT for the development of their national quality assurance frameworks. In Togo, a component of administrative data is being incorporated into the framework. The United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) developed a toolkit for assessing the quality of administrative data. The toolkit has been used to build national capacities for administrative data quality in various countries. Ethiopia, Kenya, Lesotho, Namibia and Uganda are among the countries that have been supported by ECA, the Statistics Division of the United Nations and UN-Women in building national capacity in this area.

IV. Advancing statistical processes

17. This priority enabler of transformation and modernization is aimed at making statistical processes more efficient and effective in meeting user needs. It is achieved by strengthening physical and technical infrastructure for statistical production, implementing data process automation and standardization, fostering data innovation, exploiting nontraditional data sources, promoting data interoperability and conducting data analytics.

18. ECA addresses data innovation through its data science programme. It has conducted research and has initiated and implemented various data science projects, including in collaboration with the regional hub on big data and data science in Kigali, using innovative approaches and new data sources to fill data gaps and enhance existing methodologies. The projects have concerned: machine learning and deep learning approaches for predicting socioeconomic indicators; Earth observations to support the production of agricultural statistics; mobile phone data for official statistics; and automated occupation classification coding.

19. In 2023, AfDB launched a data innovation lab, which originates from the Bank's Africa Information Highway. The mission of the lab is to accelerate the sustainable socioeconomic development of Africa by unleashing the power of data and statistics. The goal is to create an environment that is conducive to innovation in support of economic growth and the achievement of better development outcomes. The work involves supporting the establishment of national data innovation labs, developing policies and frameworks that enable data innovation, promoting the use of new and emerging data sources, creating a road map for the integration of new methodologies, enhancing relevant skills and preparing the tools and infrastructure necessary for various partners, such as national statistical offices, innovation hubs, policymakers, decision makers and the academic community. Another aim is to initiate a dialogue at the regional, national and local levels on reducing the duplication of efforts in initiatives and activities undertaken by various entities, the improvement in official statistics driven by data science and the capacity-strengthening of major stakeholders.

20. ECA and several partners, including the Statistics Division, UN-Women, the Southern African Development Community and Statistics Denmark, are implementing programmes to modernize administrative data for statistical purposes. Their work is coordinated with the collaborative initiative of the Statistics Division on the use of administrative data for statistical purposes, a multi-stakeholder platform for countries and regional and international agencies that is aimed at strengthening the capacity of countries to use administrative data sources for statistical purposes. Through the platform, various materials have been made accessible to countries and organizations, such as a guide and template for improving coordination and cooperation within national statistical systems and increasing access to administrative data for statistics production, a self-assessment tool to understand the ways in which current statistical legislation facilitates access to and use of administrative data, and a quality assessment toolkit for administrative data sources.

21. Data integration has been strengthened in countries, in particular regarding geospatial data and statistics, for which ECA has developed guidelines.

22. ECA has strengthened the physical and technical infrastructure for digital population and housing or agricultural censuses in Malawi, Namibia and Togo, procuring and deploying tablets for census data collection and developing the in-house digital applications required to undertake a digital census, including for census provisioning and fieldwork monitoring.

V. Harnessing technology

23. Technology is a critical and multifaceted aspect of statistical development throughout the statistical production life cycle, from data collection to analysis, security, visualization and communication. It enhances the efficiency, accuracy and accessibility of statistical information, ultimately supporting evidence-based decision-making across various sectors.

24. ECA has supported the establishment of the regional hub for big data and data science in Rwanda and, in partnership with the Office for National Statistics of the United Kingdom, has collaborated with the hub to harness new methods, data sources and technologies to meet the challenge of providing richer and more real-time statistics to inform decision makers and benefit from innovative solutions in data science, big data and other emerging domains. The collaboration has encompassed awareness-raising webinars, research projects, capacity-building on using data science and big data in official statistics, and the education of staff about emerging and strategic areas of data science, including artificial intelligence and machine learning.

25. Open data platforms have been strengthened, including by AfDB, which has supported the integration of Statistical Data and Metadata Exchange into the Africa Information Highway framework, in order to enable the automated sharing of data and metadata. Burkina Faso, Guinea-Bissau, Kenya, Mali, Rwanda, Senegal and the United Republic of Tanzania received technical and capacity-development assistance in 2024. In 2023 and 2024, with the support of the United Nations Statistics Division and in the framework of the European Union grant to ECA for monitoring the achievement of the Sustainable Development Goals, ECA built the capacity of selected countries on Statistical Data and Metadata Exchange.

26. With a view to harnessing the opportunities offered by technological innovations in statistical production, ECA has undertaken various research projects, including on availability and accessibility through a data and metadata retrieval system powered by artificial intelligence, which resulted in the development of a chatbot using large language models that answers user queries about data availability in relation to the Sustainable Development Goals and African countries. ECA trained the African statistical community on the tools used.

VI. Human capital and capacity development

27. Human capital – the knowledge, skills, abilities, experience and other intangible assets that individuals possess and bring to the workplace – is a crucial aspect of economic and organizational development. The capabilities and expertise of people are valuable resources. Strong statistical capacity is one of the prerequisites for effective production, management and dissemination of good-quality statistics to meet user needs.

28. In 2023, ECA launched a monthly webinar series – StatsTalk-Africa – to provide a space for a dialogue with data experts and users on data, statistics and innovative tools. The series is aimed at sharing knowledge, demystifying important statistical concepts and promoting a greater understanding of alternative data sources that could be harnessed in the African context. In addition, ECA launched a separate webinar series on administrative data in order to share experiences on modernizing administrative data for statistical purposes and discuss issues faced by countries in that process.

29. In 2023, the Partnership in Statistics for Development in the 21st Century, in collaboration with ECA, AFRISTAT and the National Institute of Statistics and Economic Studies of France, continued a joint project on

strengthening peer learning among national statistical offices in French-speaking countries in Africa, in order to support the constructive exchange of experiences among the offices and subject experts on common issues. Two webinars were held in 2023, the themes of which were statistical dissemination and literacy using social media, and the role of national statistical institutes in producing environmental and climate change statistics. A third webinar was held in 2024, the subject of which was the use of geospatial tools for official statistics.

30. Several training sessions have been implemented on various topics, including the following:

(a) Workshop on an introduction to R¹ for young statisticians to enhance their ability to use data effectively in their work, research, analytics and reporting, delivered by ECA in collaboration with the Office for National Statistics of the United Kingdom;

(b) Training on small area estimation techniques to equip participants from selected States with practical skills for estimating results for relevant Sustainable Development Goal indicators at the lowest administrative level, delivered by the African Centre for Statistics in partnership with the East African Community;

(c) Online training on the central framework of the System of Environmental-Economic Accounting, through the online training platform of the Statistical Institute for Asia and the Pacific.

31. ECA and the Office for National Statistics of the United Kingdom have developed online leadership training, with support from the African Institute for Economic Development and Planning, to ensure sustainable leadership training for national statistical systems. The training, which is free of charge, is tailored to national statistical offices, and it, therefore, is focused on the unique experiences and challenges faced by statistical leaders in Africa today. An online classroom approach is used, and the remote learning is enhanced by facilitated real-time seminars in which participants can share experiences and ask questions of trainers from leading statistical institutions. Five cohorts, comprising more than 280 participants, were trained in 2023 and 2024.

32. In 2024, ECA concluded the implementation of the second phase of the Global Strategy to Improve Agricultural and Rural Statistics, the objective of which was to ensure the coordination of activities and initiatives supporting statistical training, capacity-building and the development of human resources in Africa. The coordination took place on three levels: ongoing activities and initiatives; project planning; and alignment of support from technical and financial partners for statistical training in Africa.

33. In 2023, the Partnership in Statistics for Development in the 21st Century continued to build its expertise in statistical communication for national statistical offices through work in such thematic areas as gender and agricultural statistical communications and census data communications. In addition, training sessions were carried out to improve communication with policymakers and civil society.

34. ECA supported the capacity development of public officials, including parliamentarians and ambassadors, on digital technology, as part of which training courses were held, including in collaboration with the African Institute for Economic Development and Planning, on data analysis powered by artificial intelligence for social development and on integrating artificial intelligence with statistics and business intelligence for advanced data analysis and reporting in relation to tourism.

¹ R is a domain-specific statistical programming language.

35. The regional hub on big data and data science for Africa hosted UN Datathon 2023, a competition to foster collaboration and innovation in data science and in which participants developed data-driven applications, tools and statistical models, combining geospatial data with other data sources to help to advance the attainment of the Sustainable Development Goals. The National Institute of Statistics of Rwanda played a pivotal role as one of the satellite locations for the event. The hub hosted four teams: three were sponsored by ECA and one was a self-sponsored data science team from the Ghana Statistical Service. Participants attended from nine countries, representing Cameroon, the Comoros, the Democratic Republic of the Congo, Egypt, Ethiopia, Ghana, Namibia, the Kingdom of the Netherlands and the United Republic of Tanzania. The team from the Ghana Statistical Service won the competition. Two teams that were sponsored and mentored by ECA produced two big data solutions that are relevant to the production of data for the Sustainable Development Goals. They concerned the identification of nutritional needs at the individual level in a spatially distributed way to inform food production, importation and transportation policies; and the mapping of the climatic environment of sub-Saharan Africa and the use of data science models to predict the impact of climate events on maize yields to inform mitigation policies.

36. In collaboration with the National Institute of Statistics of Rwanda and the Office for National Statistics of the United Kingdom, ECA launched the website of the United Nations regional hub for big data and data science on 24 August 2023. The platform provides a central hub for the African statistics and data science community and facilitates cross-border collaboration on projects that leverage big data and data science for the benefit of national statistical systems.

VII. Organizational capital development

37. Organizational capital encompasses various elements that enhance an organization's ability to innovate, adapt to changes and achieve its goals. Enhancing organizational capital involves improving and leveraging the intangible assets and capabilities of the organization, in order to achieve better performance, innovation and competitiveness. Investment is required in leadership development programmes, the creation of a positive and inclusive organizational culture that aligns with the organization's values and goals, employee development, the instillation of a sense of belonging and pride among employees, the promotion of knowledge-sharing and a learning culture as part of the overall organizational culture, an innovation mindset, the continuous review and optimization of organizational processes for efficiency and the establishment of key performance indicators.

38. Capacity-building programmes on statistical leadership were implemented under the direction of ECA, the Partnership in Statistics for Development in the 21st Century and the Office for National Statistics of the United Kingdom. ECA and the Office for National Statistics reviewed their statistical leadership training programme for the African statistical system, with a view to aligning it with the priorities set out in the road map for the transformation and modernization of official statistics in Africa. The aim of the new programme is to equip leaders of African national statistical offices with the skills required to lead their organizations in a programme of statistical modernization. Botswana, Cameroon, Madagascar, Nigeria, the United Republic of Tanzania and Zimbabwe benefited from training in their countries on the use of the new programme in 2023 and 2024.

39. In addition, ECA and the Office for National Statistics of the United Kingdom are continuing efforts to implement a training programme entitled "Women into Leadership", the aim of which is to equip women within the African statistical system, in particular in national statistical offices, with the

skills required for them to develop themselves and lead their organizations on a process of statistical modernization. Training of that sort took place in Botswana in 2023.

40. ECA, the African Union Commission, the National Institute of Statistics of Rwanda and the Partnership in Statistics for Development in the 21st Century co-organized in 2023 leadership training for directors of the national statistical offices of 21 African countries.

41. As part of the Takwimu Young African Statisticians Programme, ECA has launched a mentorship programme to support capacity-building and training. The main objective of the Takwimu Programme for Young African Statisticians is to empower a new generation of qualified young Africans to engage actively with and contribute to the continental statistical discourse and, thus, the African development agenda. The mentorship programme is aimed at helping interested mentors – senior African statisticians – and mentees – young African statisticians in the early or middle stages of their careers – to connect and work collaboratively and facilitate interactions with more senior statisticians. Mentors will be matched with mentees when individuals from each group express interest in participating. Together, participants will:

(a) Guide, advise and impart knowledge to foster research, knowledge and information management capacity;

(b) Help to expand the networks of African statisticians;

(c) Demonstrate commitment to the development of young African statisticians and lifelong learning;

(d) Leverage expertise to promote the skills of young African statisticians in finding, securing, including through interviews, and retaining jobs.

VIII. Points for decision by the Statistical Commission for Africa

42. The Statistical Commission for Africa is requested:

(a) To take note of the continuing progress made by African countries, pan-African institutions and other development partners in support of statistical development through the transformation and modernization of national statistical systems in Africa;

(b) To call upon development partners to scale up their support for the African statistical system, with a view to accelerating its transformation and modernization.