**NET Africa**

**Natural Environment Technology in Africa**

Working Groups on Good Statistical Governance in Africa

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SUBMISSION FROM THE WORKING GROUPS ON GOOD STATISTICAL GOVERNANCE AT

NATURAL ENVIRONMENT TECHNOLOGY IN AFRICA (NET AFRICA)

To the Standing Committee on Finance

as stakeholders involved in Climate Finance

**Abstract**

Over the last decade, the capacity of statisticians nationally and regionally across sub-Saharan to report on the weather, water, and climate is hindered by the lack of meteorological weather, water, and climate observation stations which is further exacerbated by the scarcity of financial and human resources. Statisticians in sub-Saharan Africa lack access to [[1]](#endnote-1)large-scale refined climate scenarios or detailed global climate models that advance the scientific knowledge and understanding of variabilities and changes in large-scale climate variables. The output from existing sub-Saharan African climate models is too unrefined to be used in environmental impact assessment studies, climate adaptation planning, and climate decision-making processes on a local or regional scale. In this policy paper, we are calling for climate adaptation finance to urgently address the need for more meteorological weather monitoring stations to improve climate change scenarios as well as improve early warning systems to prevent climate challenges such as droughts and floods.

The majority of African countries remain largely unable to gather adequate climate data and climatic information promptly to address critical problems such as droughts and floods. Such communications are critical to support local and regional small, medium and large enterprises, particularly those who are dependent on natural resources such as farmers. Satellite data collected over decades is largely restricted to mapping and short-term climate predictions. Sub-Saharan Africa needs effective climate information systems and an increase in climate meteorological weather monitoring stations. According to the World Bank, $1.5 billion USD is needed to modernize meteorological climate weather monitoring stations within this region.

The working group on good statistical governance was created to support timely, reliable, and harmonized statistical climate information and data in Sub-Saharan Africa, covering all aspects of political, economic, social, and cultural integration. Our research and practice are anchored on four strategic pillars (i) to promote the mobilization of climate funds to improve statistical good governance; (ii) to support the coordination and production of quality statistics for Africa; (iii) to support sustainable institutional capacity in the African Statistical System; and (iv) to promote a culture of quality decision-making. The first set of meetings by the working group was conducted over three days during the 77th UNGA Science Summit in September 2022 and included contributions made from Nigeria, Kenya, Uganda, Mauritius, Zambia, France, Switzerland, Belgium, Netherlands, and Germany. The outcome of these sessions recommended the following to achieve comparable international good-quality climate statistics in Africa by 2030. Firstly, climate adaptation finance in micro, small and medium-sized enterprises (MSMEs). Secondly, climate finance and investment in climate adaptation in agriculture, water, and disaster prevention and preparedness through increasing meteorological weather observation networks. Thirdly, climate finance and investment in positive energy districts in Africa, and finally, climate finance and investment in small islands such as Mauritius.

**Keywords:** Data, Africa, Weather, Climate, Statistical, Finance

**bACKGROUND**

[[2]](#endnote-2)The question of the reliability of the African statistical system has resulted in two survey investigations by the African Development Bank carried out in March 2013 followed by a more detailed survey in August 2013. The outcome of the surveys revealed that the technological methodologies and general approach of the African statistical system in comparison with the OECD countries were similar but what differed was the OECD countries had a richer supply of basic data to draw from as well as higher accessibility to computer technology to exploit data.

According to the [[3]](#endnote-3)World Bank Africa has the world’s least developed meteorological weather, water, and climate observation network, with less than 300 of its meteorological weather stations meeting the World Meteorological Organization’s (WMO’s) observation standards. As much as 54 percent of its surface meteorological weather stations, and 71 percent of its upper-air weather stations, do not report accurate data. Budgets to maintain key meteorological weather, water, and climate observation infrastructure fall short each year. The cost of the modernization investment amounts to more than US$1.5 billion.

**Working Group Outcomes**

The outcome of the working group’s first set of meetings was conducted over three days during the 77th UNGA Science Summit in September 2022 and included contributions made from Nigeria, Kenya, Uganda, Mauritius, Zambia, France, Switzerland, Belgium, Netherlands, and Germany. Four clear recommendations for climate adaptation finance need to be addressed to achieve comparable international good-quality climate statistics in Africa by 2030.

**Firstly, climate adaptation finance in micro, small and medium-sized enterprises (MSMEs)** is critical since they make up most of the private sector in sub-Saharan Africa and are integral in addressing climate change. Many of these organizations struggle to compile, refine and verify statistical climate data promptly. Countries across Sub-Saharan Africa, have scattered climate statistical initiatives and standards that increase complexity and result in a lack of comparability of disclosures across organizations. We are calling for adaptation finance to inform and educate the climate statistical data issues within MSMEs to include correcting data inconsistencies, data gaps, and comparability issues. we are calling for climate adaptation finance to urgently address the need for more meteorological weather monitoring stations to compile, refine and verify statistical climate data promptly, and improve corporate climate change disclosures and reports.

**Secondly, climate finance and investment in climate adaptation in agriculture, water, and disaster prevention and preparedness through increasing meteorological weather observation networks.** Africa has the world’s least developed land-based weather observation network, which is 1/8th of the minimum density recommended by the World Meteorological Organisation. The number of meteorological weather observation stations is not adequate in many parts of Africa and declining. Most stations are located along main roads limiting climate information and services and excluding rural areas. There are serious gaps in observations because of missing data and questionable data quality. Satellite data that has been collected for decades is largely restricted to mapping and short-term climate predictions. Africa needs effective information systems and monitoring. Therefore, we are calling for investments in weather stations across Africa for intensive monitoring to improve data reliability. Urgent call to intensify the density of monitoring stations to improve climate change scenarios. The heterogeneity of ground records in Africa imposes serious limitations in constructing future scenarios of water resources. Secondly, climate finance and investment in making weather and climate services more gender-sensitive. For smallholder farmers in Kenya and Zambia, accessing weather information is essential, especially as the weather becomes harder to predict using traditional methods. For example, evidence from Zambia on climate change risks experienced by women smallholders include the frequency and severity of seasonal droughts, occasional dry spells, increased temperatures in valleys, flash floods, and changes in the growing season. Climate change impacts on agriculture in Zambia include less predictable growing seasons, increased pests, weeds, and pathogens, and increased soil erosion. Decreased productivity and crop failure. Women smallholders, in particular, face several constraints when accessing weather information. Financial limitations often prevent women from critical information and communication technologies (ICTs), such as cell phones or radios, making it difficult for climate weather information to reach them. Gender-based differences in education levels and household duties may make it difficult for women to access, interpret, and make use of climate information. Extension services and other interventions may also miss women due to their exclusion from decision-making processes or social norms concerning their mobility and interactions in male-dominated spaces. Therefore, investing in making weather and climate services more gender-sensitive is critical.

**Thirdly, climate finance and investment in positive energy districts in Africa.**

Sub-Saharan Africa’s urban population is set to expand by 235 million people by 2030. Most of this population increase will take place in Africa and Asia. Positive Energy Districts could be a solution to address Africa’s lack of access to electricity. A Positive Energy District couples a built environment, sustainable production and consumption, and mobility to reduce energy use and greenhouse gas emissions and to create added value and incentives for the consumer. The social targets include energy poverty reduction, participation of vulnerable groups, and citizen engagement. Therefore, as stated earlier, investing in meteorological weather stations for local climate condition monitoring will help lay the foundation for positive energy districts in Africa.

**Finally,** **climate finance and investment in small islands** (Mauritius, Cape Verde, Madagascar, Seychelles, Comoros, Tome, and Principe). Small islands are the lowest emitters, for example, Mauritius emits less than 0.01% of the carbon dioxide of the whole world. Yet, Mauritius is now ranked 51 in terms of the riskiest countries in the world. The cost of coastal restoration and protection associated with climate change for small islands is not in proportion to the economic worth and size of their economies. These small islands need climate adaptation finance in meteorological weather stations as a component of disaster risk prevention as well as improve climate change scenarios.

**Future Direction and Recommendations**

We need financial adaptation finance to invest in meteorological weather, water, and climate observation stations to (i) support quality climate statistics for Africa; (ii) coordinate and support through capacity building the production of quality statistics for Africa; (iii) to support sustainable institutional capacity in the African Statistical System; and (iv) to promote a culture of quality decision-making.

1. Solomon H. Gebrechorkos, Stephan Hülsmann & Christian Bernhofer (2019), Statistically downscaled climate dataset for East Africa. [↑](#endnote-ref-1)
2. African Statistical Journal (2015) Volume 18 p. 12-52 [↑](#endnote-ref-2)
3. World Bank (2017), Improving Weather Forecasts Can Reduce Losses to Development in Africa. [↑](#endnote-ref-3)