



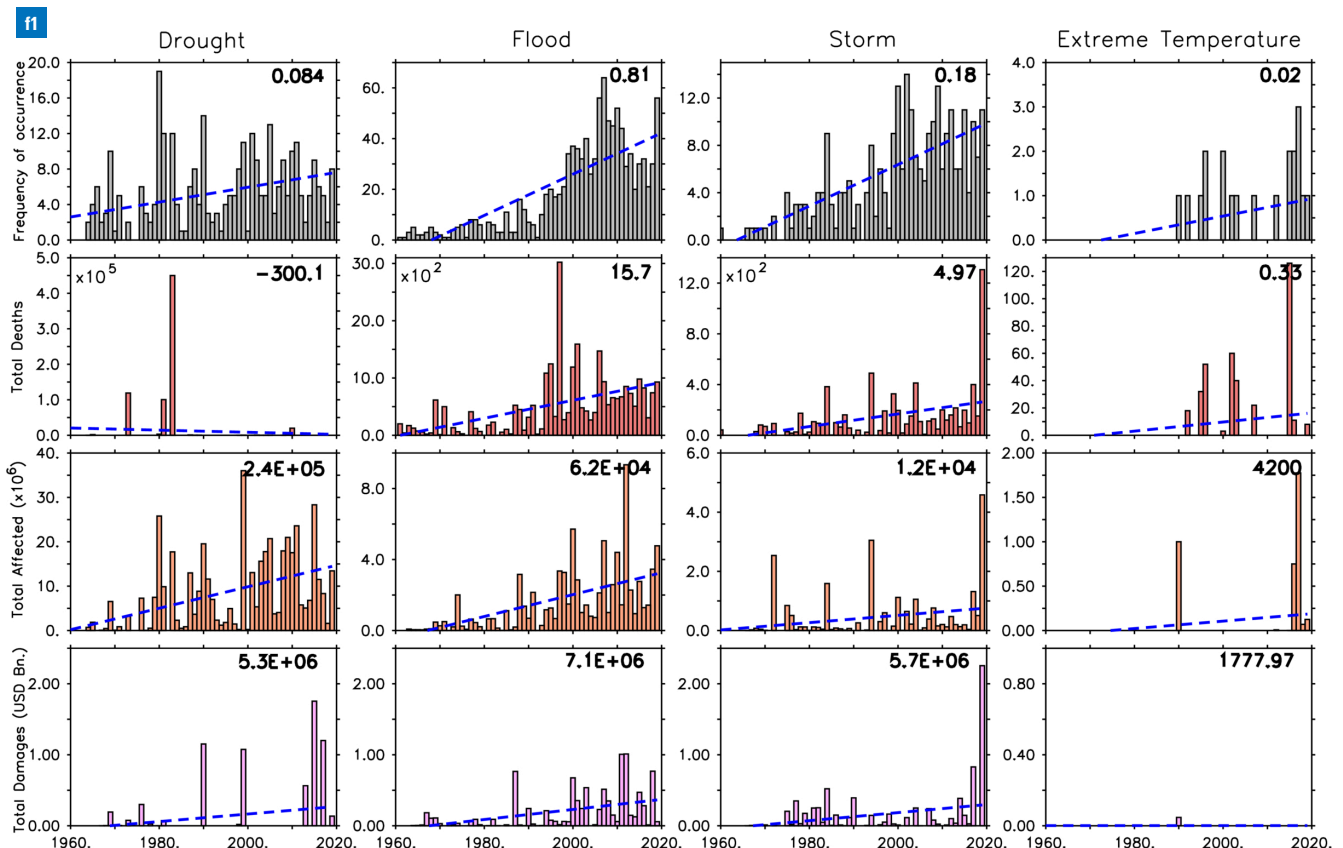
MAINSTREAMING CLIMATE INFORMATION INTO POLICY FORMULATION IN AFRICA

FOCUS AREA

Climate information is essential for policy, decision-making, and climate action to promote global development agendas like the Paris Agreement, Sendai Framework of Disaster Risk Reduction, Sustainable Development Goals (SDGs), and New Urban Agenda. Over 45% Africa is dominated by arid or semi-arid climate with high rainfall variability and frequent episodes of weather/climate extremes 1-2. Yet, the use of climate information in policy formulation is still embryonic in most African countries. There is a general increasing trend in weather/climate extremes across Africa 3-8. These observed increases would in the future continue with more frequent and severe extremes as the climate system is forced with increasing concentration of anthropogenic greenhouse gases. There is, therefore, a need to integrate climate information into decision-making processes and policy formulation of most African countries, because their economy mostly relies on climate-dependent sectors. For example, agriculture contributes an average of 15% (ranging from 3% to 50%) to the GDP of sub-Saharan Africa, engaging more than half of the continent's labour force 9. Also, the agricultural sector in sub-Saharan

Africa is mostly rain-fed, making it a highly vulnerable sector to climate change and climate variability. This portends severe implications for human health and security over the continent. These, coupled with the low adaptive capabilities of communities living in sub-Saharan Africa, will increase their exposure to climate-related disasters, which often lead to humanitarian crises, jeopardising decades of socio-economic progress and increasing the risk for food and water insecurity 10.

Hydrometeorological information can provide early warnings and alerts to help mitigate the impact of weather/climate hazards on communities. Accurate prediction of hydrometeorological extremes and relevant knowledge generated from climate data would, therefore, contribute to building communities that are resilient to climate risk, losses, and damages arising from such disasters. Although there exist several climate information platforms provided by the research community, these are strongly science-driven and mostly useful to scientists rather than to the non-climate experts who are the main actors designing and formulating climate policies and strategies. Also, the available information



is often inadequate for the purpose of providing substantive support to policy and decision-making in most parts of Africa.

Providing policymakers with adequate climate information is, therefore, imperative to building more resilient communities in Africa in the face of climate change. This would, subsequently, influence policies and help maintain best practices over the continent. Unfortunately, policy formulation and decision-making processes have, often, failed to incorporate climate information into their procedures. This is partly due to the communication gap existing between climate researchers, project developers, and policymakers. Thus, the need for concerted efforts to make hydrometeorological information available and accessible in a format that creates knowledge and enhances understanding of the intended users. Such a process will, therefore, help to identify suitable approaches to integrate climate information into climate policies and projects.

The aim here is to give an overview of factors contributing to such gaps in the formulation of policy and sustainable development strategies in Africa with a major focus on the use of hydrometeorological information in the decision-making process.

CHALLENGES

Africa is among the most vulnerable regions of the world to climate change impacts because of its low adaptive capacity. To effectively address this high-level vulnerability of the continent to climate change impacts, it is essential to mainstream climate information into development planning. This would contribute to improving the limited capacity of Africa to assess climate risk and subsequently mainstream adaptation into development plans.

Given the cross-cutting nature of climate change impacts it is essential that climate change-related policies or strategies are formulated as part of broader policies for sustainable development.

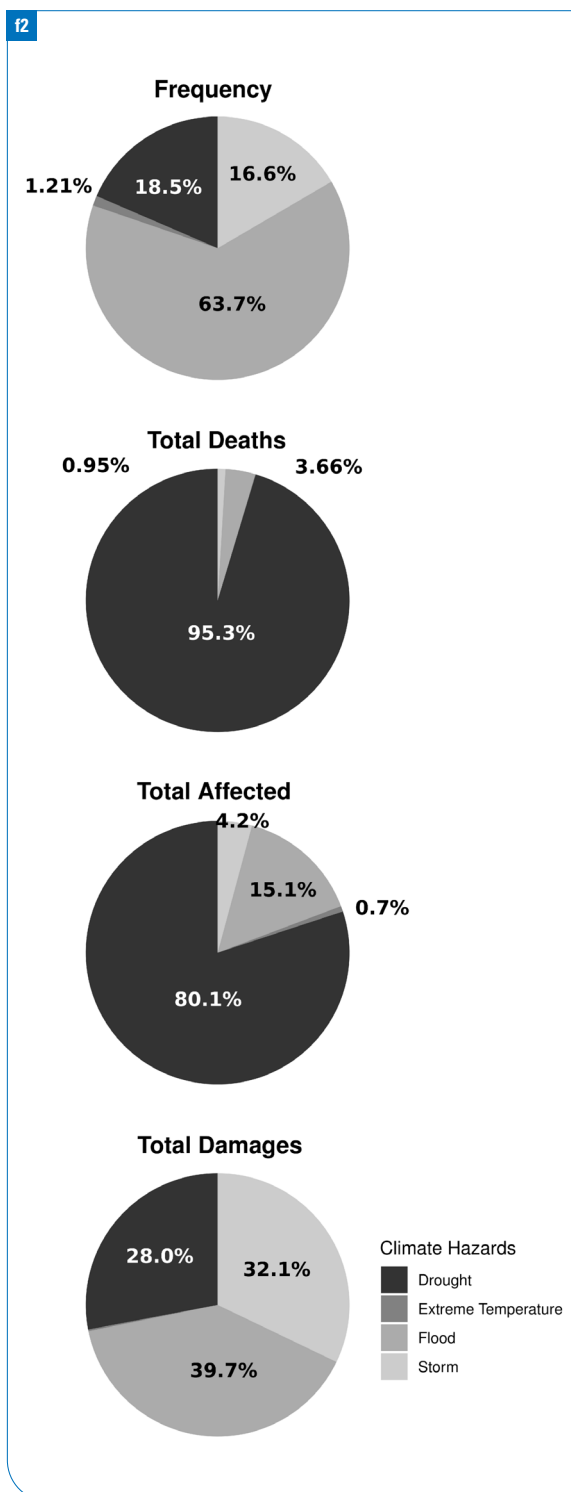
Increasingly, countries have realized the need to 'mainstream' climate information into national development planning and sectoral strategies and policies to address risks emanating from climate extremes and slow onset events. To better contribute to climate disaster risk reduction and management, hydro-meteorological information has to be integrated into decision-making processes at local, national, regional scales and in a range of different sectors, including agriculture, health, forestry, fisheries, transport, tourism, water resources management and energy.

FACTS AND FIGURES

Brief overview of current conditions (see figure 1-4)

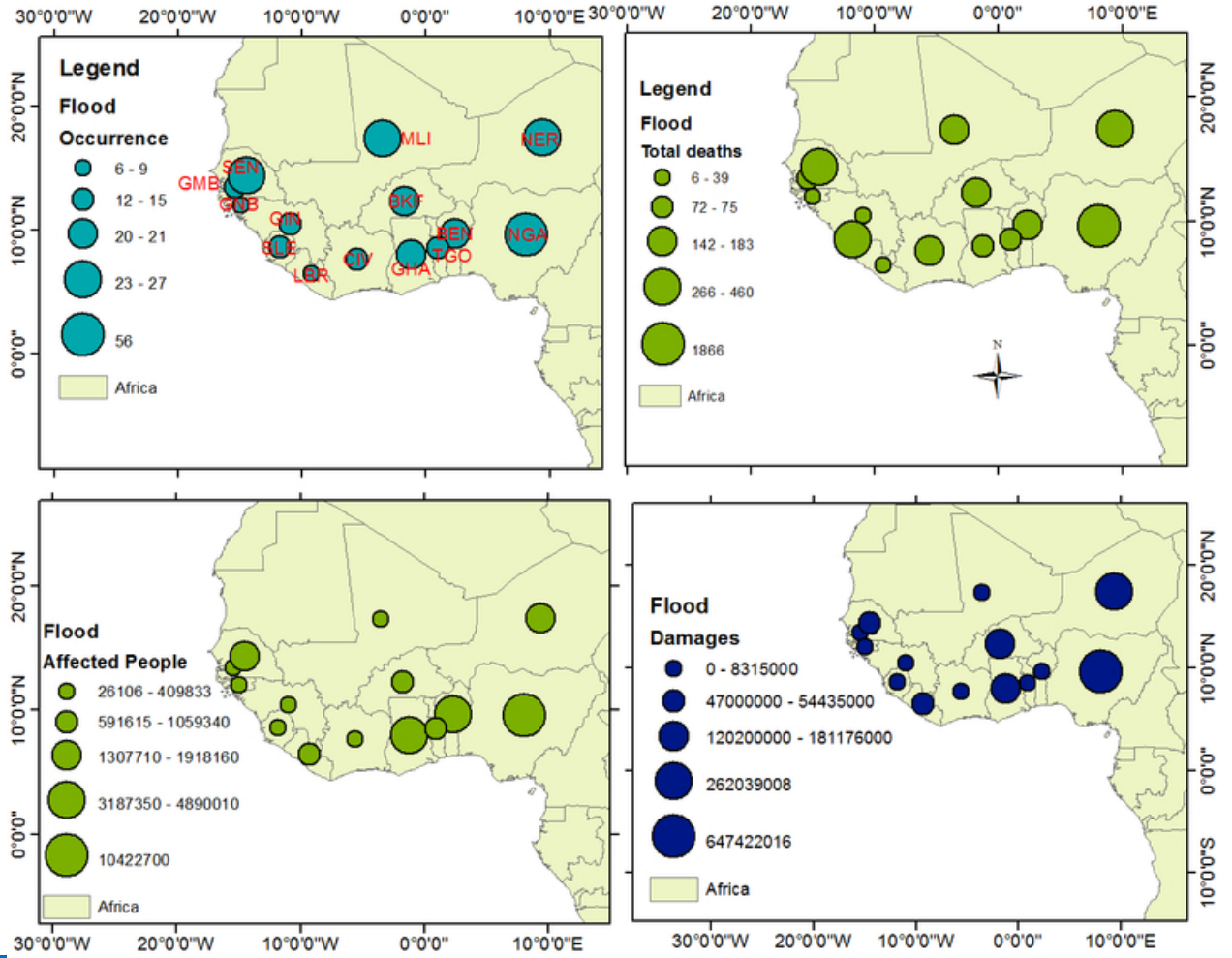
SOLUTION

Climate services should enable decision-makers and user communities to assess, and prevent or prepare for,



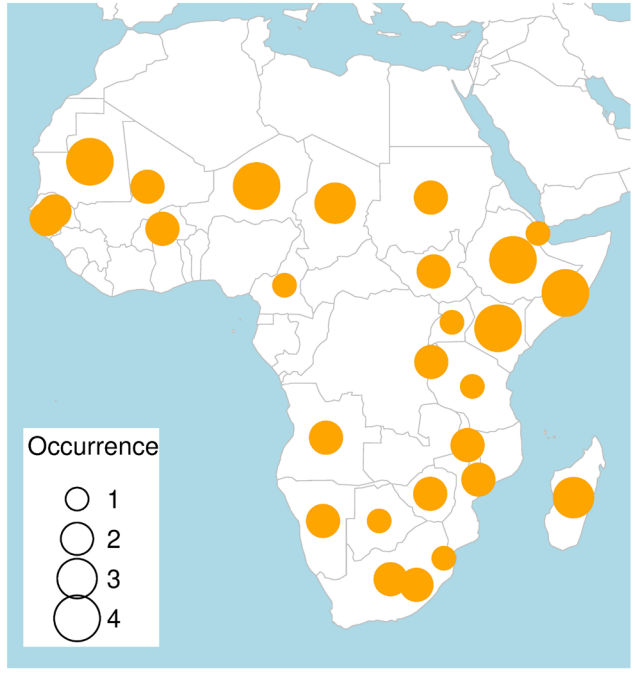
potential impactful weather, climate and hydrological events. It should consist of the following compounds:

- Relevant Product: identifying, generating, and making available a set of user-relevant and user-friendly products concerning information about the impact of climate variability and change on society.
- Skill support: providing assistance in interpreting those products and, in collaboration with relevant stakeholders, helping to identify a sensible set of decision options.
- Feedback loop: constant communication between climate information users and providers for improved product delivery and support.

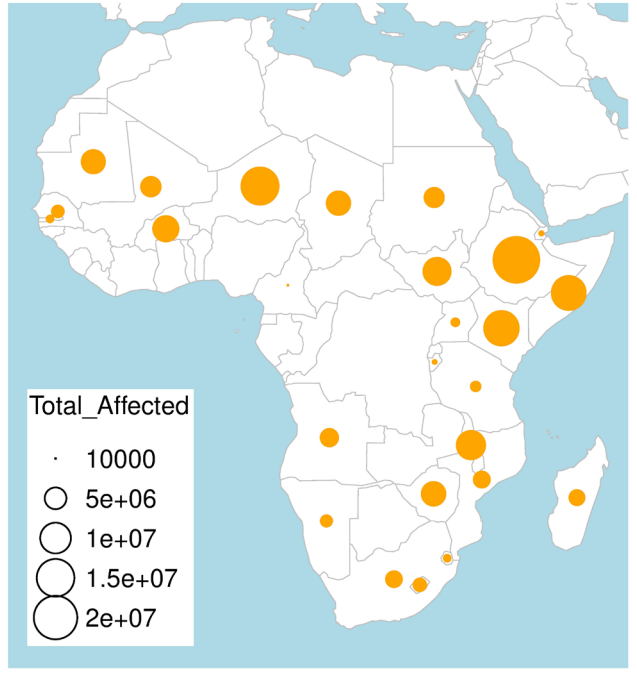


f3

Drought occurrence between 2009-2018



Drought total affected people between 2009-2018



f4

HOW CAN THE CLIMAPAFRICA PROGRAM CONTRIBUTE TO ADDRESS THE CHALLENGE?

ClimapAfrica program aims to promote application-oriented research to tackle climate change in Africa through:

- Capacity building to analyse, produce, interpret, and disseminate user-relevant climate information.
- Dialogues to encourage the incorporation of climate information into national/regional development planning or in disaster reduction strategies.
- Establishing and strengthening networks of multi-disciplinary climate scientists that will enhance the access and sharing of climate information amongst African countries.
- Assist decision-makers to make informed decisions such as determining specific needs of sectors and users.
- Research on new tools and methods required for improving the quality of climate information to meet user's diversity.

The thematic working groups are composed of postdoctoral fellows and African alumni of German funding initiatives with expertise in the field of climate research. [LINK to climapAfrica working group: Climate change and Meteorology](#)

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[LINK to profiles of all climapAfrica postdocs fellows of this working group](#)

[LINK to profiles of all climapAfrica alumni experts of this working group](#)

PHOTOS AND GRAPHICS

f1: Time-series of the reported number of climate-related natural disasters in Africa during the period 1960-2019 and associated impacts (total deaths, total affected, and total damages). The disasters considered are (from left- to right-hand column) drought, flood, storm, and extreme temperature (warm and cold extremes). The dash blue line is the trend line and the bold number in the top right-hand corner is the value of the trend slope. Data are from 'EM-DAT, CRED / UCLouvain, Brussels, Belgium - www.emdat.be (D. Guha-Sapir) | f2: Contribution of each climate-related disaster to all disasters reported during the period 1960-2019. Data are from 'EM-DAT, CRED / UCLouvain, Brussels, Belgium - www.emdat.be (D. Guha-Sapir) | f3: Country-based statistics of floods in West Africa during 1966-2017 11. (Source of Figure 3: Badou, F. D., Hounkpe, J., Yira, Y., Ibrahim, M. & Bossa, A. Y. (2019) Increasing Devastating Flood Events in West Africa: Who is to Blame? In: Regional Climate Change Series: Floods (B. Y. J. Adegoke, M. B. Sylla, A. Y. Bossa, K. Ogunjobi & J. Adoukpe, eds.), 84–90. Accra, Ghana. doi:10.33183/2019.rccs.p84) | f4: <https://www.daad.de/en/the-daad/what-we-do/sustainable-development/funding-programmes/climapafrica/wg/4/alumni-expert-members-cc-and-meteorology/>