



ICPAC

IGAD Climate Prediction & Applications Centre

STATEMENT FROM THE FIFTY-FIRST GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF51) FOR MARCH TO MAY 2019 RAINFALL SEASON: 11-12 FEBRUARY 2019, IMPERIAL GOLF VIEW HOTEL, ENTEBBE, UGANDA

Consensus Climate Outlook for March to May 2019

The March to May (MAM) season constitutes an important rainfall season over the equatorial sector of the Greater Horn of Africa (GHA) region. The regional consensus climate outlook for the MAM 2019 season indicates increased likelihood of near normal rainfall over much of the GHA region. Increased likelihood of wetter conditions is indicated over central and north-western Tanzania, Burundi, Rwanda, much of Uganda, western and northern Kenya, as well as southern and south-eastern Ethiopia. In the extreme southern Tanzania and central coastal parts of Somalia, the consensus indicates suppressed rainfall (Figure 1). There is also increased likelihood of warmer than normal mean temperatures over much of the GHA, while cooler to near normal temperatures are indicated over the central parts of GHA (Figure 2). The outlook also indicates earlier than normal start of the rains over most parts of the equatorial region. However, there is a high chance of earlier than normal withdrawal of rainfall over south-eastern Ethiopia, central and southern Somalia, and eastern Kenya, south-eastern Uganda, and northern Tanzania.

The outlook is relevant for seasonal time scales and relatively large areas. Local and month-to-month variations will occur as the March to May 2019 season progresses. It is likely that dry spells may occur in areas with increased likelihood of above to near normal rainfall. WMO in collaboration with Global Climate Centres will continue to provide updates of the global climate and the ENSO status. ICPAC will also provide regular regional climate updates at 10-day and monthly timescales while the National Meteorological and Hydrological Services (NMHSs) will provide downscaled and detailed national and sub-national forecast updates.

The Climate Outlook Forum

The Fifty-first Greater Horn of Africa Climate Outlook Forum (GHACOF51) was convened from 11-12 February 2019 by the IGAD Climate Prediction and Applications Centre (ICPAC) in collaboration with the Uganda National Meteorological Authority (UNMA) to formulate a consensus regional climate outlook for the March to May 2019 rainfall season over the GHA region. The GHA region comprises of 11 countries namely: Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, Tanzania, and Uganda. The Forum was preceded by a capacity building training workshop from 4 to 9 February 2019 in Nairobi, Kenya. During this workshop, national climate scientists from 10 Member States as well as regional and international scientists modelled and reviewed implications of regionally downscaled products and outputs from Global Producing Centres, including Sea Surface Temperature (SST) anomalies over the tropical Oceans to develop national and regional climate outlooks for the season.

The Forum brought together climate information providers and users from key socio-economic sectors, governmental and non-governmental organisations, UN Agencies, decision-makers, climate scientists, and civil society stakeholders

among others. It reviewed the implications of the factors expected to influence the evolution of the regional climate during the MAM 2019 rainfall season and formulated mitigation measures to be taken by various climate sensitive sectors in the region.

Methodology

The forum examined the prevailing and expected ocean-atmosphere processes as well as evolving large scale and regional scale circulation systems that are anticipated to have significant implications on GHA climate during March to May 2019. Key among the inputs considered were statistically downscaled rainfall and temperature forecasts from seven global models, including dynamically downscaled regional products, global forecasts from World Meteorological Organization (WMO) Global Producing Centres (GPCs), and assessments of current and evolving Sea Surface Temperature (SST) anomalies over the global oceans. While the workshop recognised that rainfall variability in MAM is less strongly related to tropical Pacific SST than is the case for the Short Rains (OND) season, it noted that the combined output of climate models suggests the positive SST anomalies currently present in the tropical Pacific Ocean are expected to remain positive but weaken slightly through the forecast period. The Indian Ocean Dipole index is expected to remain neutral through the March to May 2019 period. Implications of these systems on regional rainfall were integrated during a Pre-COF 51 Capacity Building Training Workshop (CBTW).

Graphical representation of the consensus Climate Outlook for March to May 2019

The consensus rainfall and temperature outlooks for the GHA region are given in Figures 1 and 2 below.

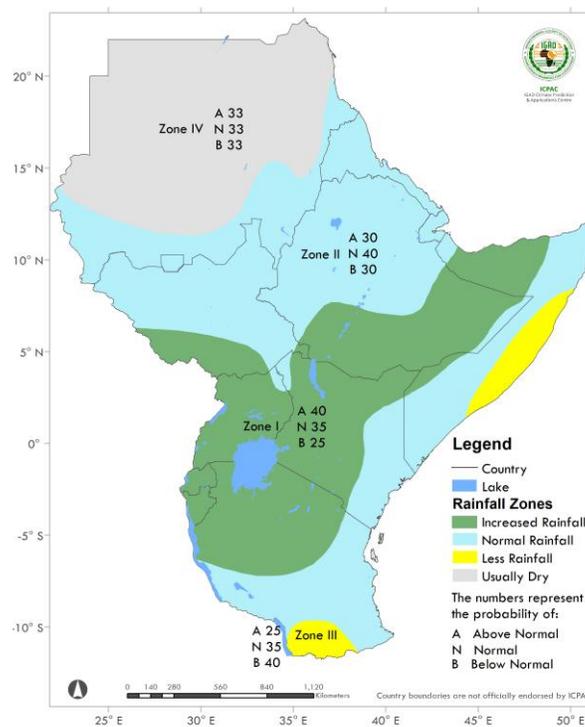


Figure 1: Greater Horn of Africa Consensus rainfall Outlook for the March to May 2019 rainfall season

- Zone I:** Increased likelihood of above to near normal rainfall
- Zone II:** Increased likelihood of near normal rainfall
- Zone III:** Increased likelihood of near to below normal rainfall
- Zone IV:** Usually dry

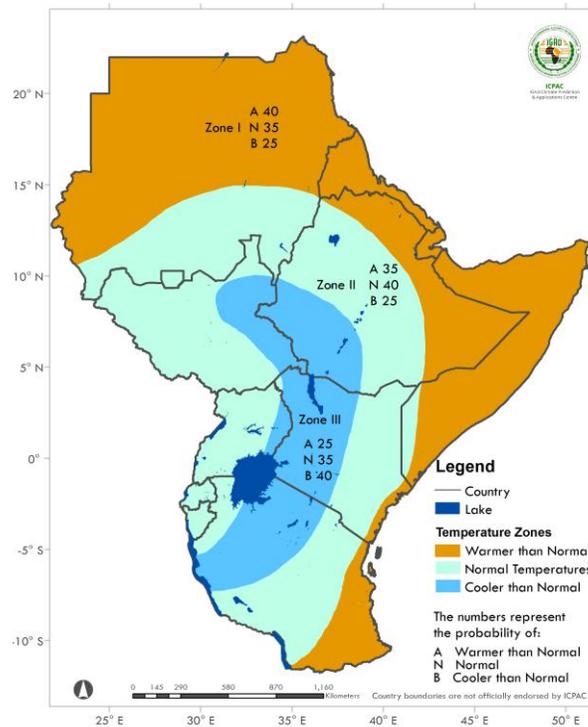


Figure 2: GHA Consensus Mean Surface Temperature Outlook for March to May 2019

Zone I: Increased likelihood of above (i.e. warmer) to near normal mean temperatures.

Zone II: Increased likelihood of near normal mean temperatures.

Zone III: Increased likelihood of below (i.e. cooler) to near normal mean temperatures.

Note:

The numbers for each zone indicate the probabilities of rainfall and mean temperature in each of the three categories, above-, near-, and below-normal. For example, in Zone II, Figure 1, there is a 40% probability of rainfall occurring in the near-normal category; a 30% probability of rainfall occurring in the above-normal category; and a 30% probability of rainfall occurring in the below-normal category. In Zone I, Figure 2, there is a 40% probability of mean temperature occurring in the above-normal (i.e. warmer) category; a 35% probability of mean temperature occurring in the near-normal category; and a 25% probability of mean temperature occurring in the below-normal (i.e. cooler) category. The boundaries between zones should be considered as transition areas.

Contributors

The Fifty-First Greater Horn of Africa Climate Outlook Forum (GHACOF 51) was supported by ACP-EU/World Bank, WISER, EU/AfDB and USAID. Contributors to the GHACOF 51 consensus regional climate outlook included representatives of the National Meteorological and Hydrological Services from the GHA countries (Insitut Geographique du Burundi; Meteorologie Nationale de Djibouti; National Meteorological Agency of Ethiopia; Kenya Meteorological Department; Rwanda Meteorological Agency; South Sudan Meteorological Service; Sudan Meteorological Authority; Somalia Meteorological Service, Tanzania Meteorological Agency and Uganda National Meteorological Authority) and climate scientists as well as other experts from national, regional and international institutions and organizations, including ICPAC, UK Met Office, ForPac, SWIFT and the WMO Global Producing Centres (GPCs).