

STATEMENT FROM THE THIRTY THIRD GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF 33): 18-20 FEBRUARY 2013, BUJUMBURA, BURUNDI

Summary

March to May (MAM) constitutes an important rainfall season over the equatorial parts of the Greater Horn of Africa (GHA) region. The regional consensus climate outlook for the March to May 2013 rainfall season indicates increased likelihood of near normal to above normal rainfall over southwestern parts of the northern sector as well as the western parts of both the equatorial and southern sectors of the sub-region. Increased likelihood of near normal to below normal rainfall is indicated over the rest of the region. Key among the processes considered in this outlook were the sea surface temperature anomalies over the tropical global oceans with special reference to the Indian Ocean including the Indian Ocean Dipole (IOD), the Atlantic Ocean, monsoonal wind systems and tropical cyclone activities over Indian Ocean sub region, among others.

The outlook is relevant only for seasonal time scales and relatively large areas. Local and month-to-month variations might occur as the season progresses. For example episodic heavy rainfall events leading to flash floods might occur in areas with increased likelihood of near normal to below normal seasonal rainfall. Additionally dry spells may occur in areas with increased likelihood of near normal to above normal seasonal rainfall. Some of these dry and wet spells are linked to random weather events and cyclones that might evolve suddenly during March and April with indirect impacts in the region. **Regional forecast updates will be provided by ICPAC while National Meteorological and Hydrological Services will provide detailed National Updates.**

The Climate Outlook Forum

The Thirty Third Greater Horn of Africa Climate Outlook Forum (GHACOF 33) was convened from 18th to 20th February 2013, at Hotel Club du Lac Tanganyika, Bujumbura, Burundi by the IGAD Climate Prediction and Applications Centre (ICPAC) and partners to formulate a consensus climate outlook for the March to May 2013 rainfall season over the GHA region. The GHA region comprises Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, Tanzania and Uganda. Users from sectors such as health, disaster risk management, Gender, Civil society, agriculture and food security, water resources, marine and oceanographic resources and the media, as well as other Non- Governmental Organisations and development partners actively participated in the formulation of the potential impacts of the climate outlook on their respective sectors. The Forum reviewed the state of the evolving global climate system and implications for GHA climatic conditions, including the influence of emerging cooler than average sea surface temperatures over much of the western Indian Ocean together with the Indian Ocean Dipole (IOD), neutral ENSO conditions over the tropical Pacific Ocean and prevailing low and medium level atmospheric circulation and monsoonal wind systems with moisture distribution impacts in the whole GHA region during March – May 2013 season. Additional guidance and valuable forecast inputs were also drawn from various centres worldwide including the World Meteorological Organisation's Global Producing Centres (WMO GPCs), operational research, expert opinion and interpretation of evolving processes to provide the regional rainfall forecast for the period March to May 2013.

Methodology

The Forum examined the prevailing and expected ocean-atmospheric processes which will be driving the regional climate during the March to May 2013 period. Key among these processes are the sea surface temperature anomalies over the Western Indian Ocean and eastern tropical Atlantic Ocean as well as neutral ENSO conditions in the Tropical Pacific, all of which have rainfall implications during March to May season. Implications of these processes on regional rainfall were modelled using statistical-probabilistic techniques. The regional consensus forecast also included inputs from National Climate Scientists who participated in the pre-COF 33 capacity building and regional modelling workshop that was hosted by ICPAC from 4th to 17th February 2013 in Nairobi, Kenya. In addition other prediction tools employed included interpretation of outputs from coupled and uncoupled dynamical models, generation of multi-model ensemble (MME) forecast scenarios, process identification and impact-tracking to pin-point the most likely rainfall evolution during March to May 2013 over the GHA.

Rainfall Outlook for March to May 2013

The rainfall outlook for various zones within the GHA region is given in figure 1 below.

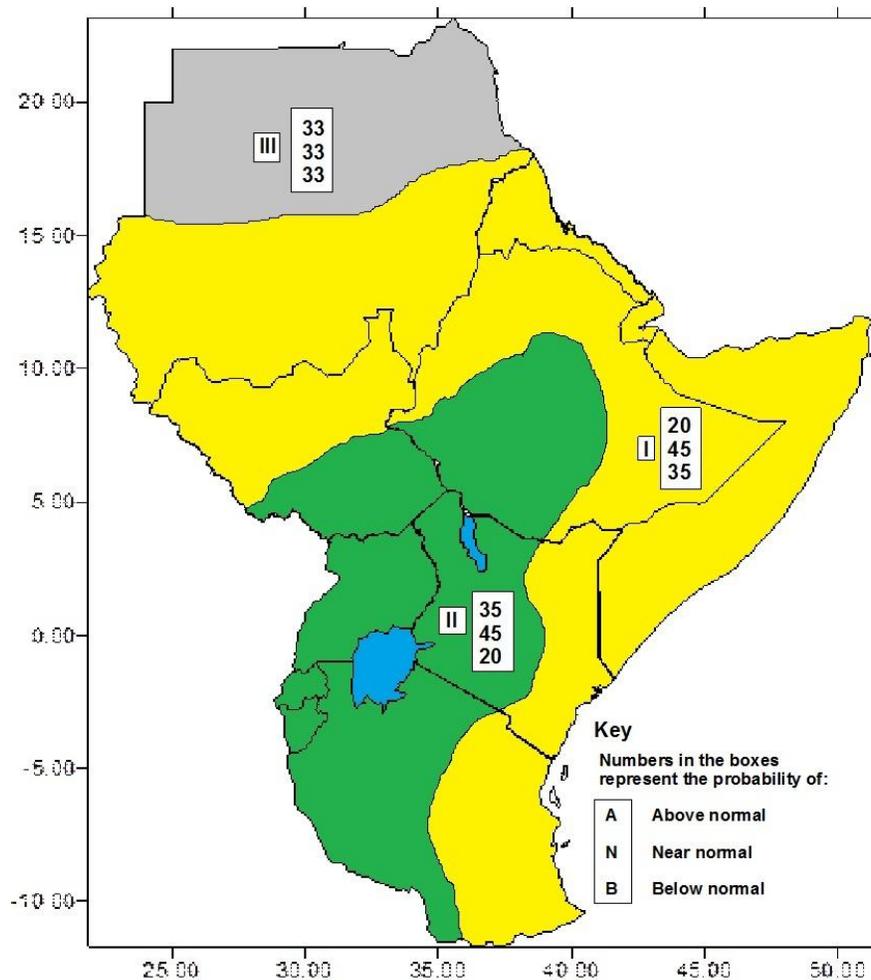


Figure 1: Greater Horn of Africa Consensus Climate Outlook for the March to May 2013

- Zone I:** Near normal to below normal rainfall is indicated over much of northern parts of South Sudan; southern Sudan; northern and eastern Ethiopia; Eritrea; Djibouti; eastern half of Kenya; Somalia and eastern parts of Tanzania.
- Zone II:** Increased likelihood of normal to above normal rainfall is indicated over Burundi; Rwanda; Uganda; southern parts of South Sudan; southwestern and central Ethiopia; western and central Kenya as well as western half of Tanzania.
- Zone III:** Climatology is indicated over northern parts of Sudan.

Note:

The numbers for each zone indicate the probabilities of rainfall in each of the three categories, above-, near-, and below-normal. The top number indicates the probability of rainfall occurring in the above-normal category; the middle number is for near-normal and the bottom number for the below-normal category. For example, in zone II covering western parts of the GHA sub region, there is 35% probability of rainfall occurring in the above-normal category; 45% probability of rainfall occurring in the near-normal category; and 20% probability of rainfall occurring in the below-normal category. It is emphasised that boundaries between zones should be considered as transition areas.

Contributors

The Thirty Third Greater Horn of Africa Climate Outlook Forum (GHACOF 33) was organised jointly by the IGAD Climate Prediction and Applications Centre (ICPAC) and National Meteorological and Hydrological Services (NMHSs) of ICPAC member countries within the framework of Institutional Support to African Climate Institutions project (ISACIP) funded by AfDB. It was hosted by the Burundi Meteorological Service. Partial support for the Forum was also provided by WMO while World bank/GFDRR provided support to Red Cross/Red Crescent societies, civil societies, gender and disaster management experts.

Contributors to the GHACOF33 regional consensus climate outlook included representatives of the Meteorological Services from GHA countries (Insitutut Geographique du Burundi; Meteorologie Nationale de Djibouti; National Meteorological Agency of Ethiopia; Kenya Meteorological Department; Rwanda Meteorological Agency; South Sudan Meteorological Services; Sudan Meteorological Authority; Tanzania Meteorological Agency and Uganda Meteorological Agency) and climate scientists as well as other experts from national, regional and international institutions and organizations: IGAD Climate Prediction and Applications Centre (ICPAC); United Kingdom Meteorological Office and Hadley Centre (UK MOHC); World Meteorological Organization (WMO) and WMO Global Producing Centres (GPCs); Korea Meteorological Administration (KMA); African Centre of Meteorological Applications for Development (ACMAD); University of Nairobi; North Carolina State University, University of Connecticut, NOAA National Weather Services, International Research Institute for Climate and Society (IRI) and Florida State University.