



STATEMENT FROM THE FORTY FOURTH GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF44) FOR OCTOBER TO DECEMBER 2016 RAINFALL SEASON: 29-30 AUGUST 2016; SPEKE RESORT MUNYONYO, KAMPALA, UGANDA

Summary

October to December (OND) constitutes an important rainfall season over the equatorial sector of the Greater Horn of Africa (GHA) region. The regional consensus climate outlook for the October to December 2016 season indicates increased likelihood of below normal rainfall over most of the equatorial parts of the GHA. Increased likelihood of above normal rainfall is indicated over the western parts of the equatorial and northern sectors. There is also increased likelihood of warmer than average mean temperatures over much of the GHA. Key factors expected to influence the regional climate during the OND 2016 season include the evolution of Sea Surface Temperature (SST) anomalies over the tropical Oceans. Specifically, a likely negative phase of the Indian Ocean Dipole (IOD) mode and likely weak to moderate La Niña conditions over the tropical Pacific Ocean during the forecast period. The influence of these ocean processes will be modulated by regional circulation systems, topography and large inland water bodies.

The outlook is relevant for seasonal time scales and relatively large areas. Local and month-to-month variations might occur as the October to December 2016 season progresses. It is likely that episodic rainfall events leading to flash floods might occur in even areas with increased likelihood of below normal rainfall. Also dry spells may occur in areas with increased likelihood of above normal rainfall. The WMO in collaboration with Global Climate Centres will continue to provide status of global climate including La Niña updates. ICPAC will also provide regular regional climate updates while the National Meteorological and Hydrological Services (NMHSs) will provide downscaled and detailed national and sub-national updates.

The Climate Outlook Forum

The Forty Fourth Greater Horn of Africa Climate Outlook Forum (GHACOF44) was convened from 29-30 August 2016 at the Speke Resort Conference Centre Munyonyo, Kampala, Uganda by the IGAD Climate Prediction and Applications Centre (ICPAC) in collaboration with WMO, UNDP, USAID, DFID and other partners to formulate a consensus regional climate outlook for the October to December 2016 rainfall season over the GHA region. The GHA region comprises Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, Tanzania and Uganda. GHACOF44 was preceded by capacity building training workshop (CBTW) for the National climate scientists that was held from 15 to 26 August 2016 at ICPAC to develop national and regional climate outlooks for the season. The capacity building workshop for climate scientists was conducted alongside a workshop for regional oceanographic experts conducted at the Institute for Meteorological Training and Research (IMTR), Nairobi, Kenya.

Guidance and valuable forecast inputs were drawn from a wide range of sources including the World Meteorological Organisation's Global Producing Centres (WMO-GPCs), Met Office, International Research Institute for Climate and Society (IRI), US Geological Survey (USGS) and the National Meteorological and Hydrological Services (NMHSs) of the Greater Horn of Africa. Inputs were also provided by the UNESCO, Western Indian Ocean Marine Sciences Association (WIOMSA) as well as expert interpretation and opinion by regional and international climate scientists.

The Forum brought together climate information users from key socio-economic sectors, governmental and non-governmental organisations, decision-makers, climate scientists, civil society stakeholders among others. It reviewed the implications of the factors expected to influence the evolution of the regional climate during the OND 2016 rainfall season including Sea Surface Temperature (SST) anomalies over the tropical Oceans: specifically predicted negative phase of the Indian Ocean Dipole (IOD) mode, and weak to moderate La Niña conditions

over the equatorial Pacific Ocean - predicted to be present over the October to December period. The influence of these large-scale processes will be modulated by regional circulation systems, topography and large inland water bodies.

Users of climate services who participated in GHACOF 44 were drawn from various sectors including agriculture and food security, disaster risk management, livestock, water resources, health and media as well as non-governmental organisations and development partners. The participants provided sector specific assessment of the usefulness of the previous regional consensus climate outlook and formulated sector specific mitigation strategies based on the consensus regional climate outlook for the October to December 2016 rainfall season.

Methodology

The forum examined the prevailing and expected ocean-atmosphere processes as well as evolving large scale and regional scale circulation systems with significant implications on GHA climate during October to December 2016. Key among these processes were current and evolving Sea Surface Temperature (SST) anomalies over global oceans, specifically the 50 to 60% probability for development of La Niña and continuation of a negative phase of Indian Ocean Dipole (IOD) coupled with the modulation of these processes by regional circulation systems. Implications of these on regional rainfall were integrated during a Pre-COF 44 Capacity Building Training Workshop (CBTW) that was organised by ICPAC from 15 to 26 August 2016 in Nairobi, Kenya. The Pre-COF 44 workshop also considered the global forecasts from the twelve World Meteorological Organization / Global Producing Centres (WMO/ GPCs) to generate the consensus regional climate outlook for the October to December 2016 season.

Consensus Climate Outlook for October to December 2016

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

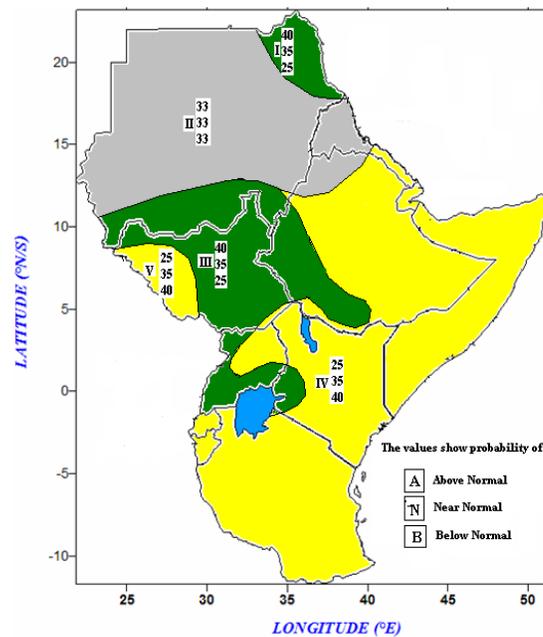


Figure 1: Greater Horn of Africa Consensus rainfall Outlook for the October to December 2016 rainfall season

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

Zone V: Increased likelihood of below normal rainfall

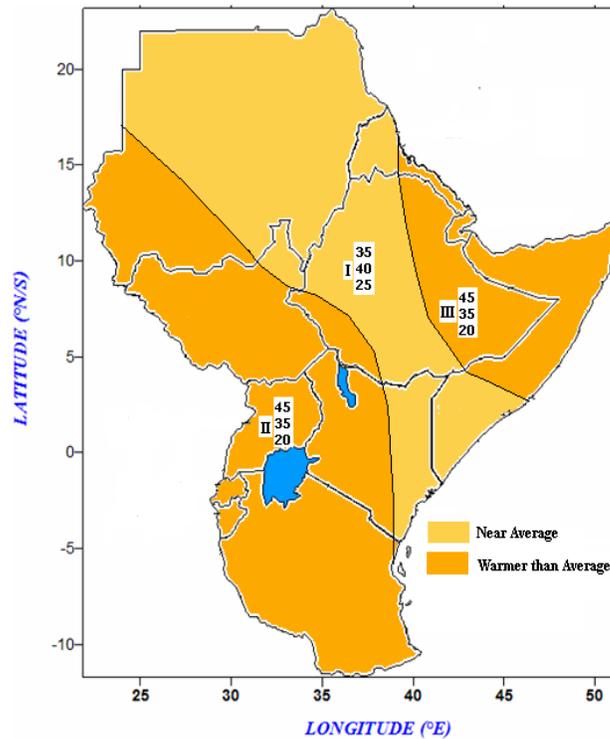


Figure 2: Greater Horn of Africa Consensus Mean Temperature Outlook for October to December 2016

Zone I: Increased likelihood of average to warmer than average mean temperatures.

Zone II: Increased likelihood of warmer than average mean temperatures.

Zone III: Increased likelihood of warmer than average 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 III, Figure 1, there is a 40% probability of rainfall occurring in the above-normal category; a 35% probability of rainfall occurring in the near-normal category; and a 25% probability of rainfall occurring in the below-normal category. In Zone III, Figure 2, there is a 45% probability of mean temperature occurring in the above-normal category; a 35% probability of mean temperature occurring in the near-normal category; and a 20% probability of mean temperature occurring in the below-normal category. The boundaries between zones should be considered as transition areas.

Contributors

The Forty Fourth Greater Horn of Africa Climate Outlook Forum (GHACOF 44) was supported by UNDP, USAID, UNISDR and DFID. Contributors to the GHACOF 44 consensus regional climate outlook included representatives of the National Meteorological Services from the GHA countries (Insitutut 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: ICPAC; USGS; Met Office; WMO Global Producing Centres (GPCs) and the International Research Centre for Climate and Society (IRI).