

# **STATEMENT FROM THE TWENTY EIGHTH GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF 28): 17 JUNE 2011, NAIROBI, KENYA**

## **SUMMARY**

July to September constitutes an important rainfall season for the northern sector of the Greater Horn of Africa (GHA), as well as the western parts of the equatorial sector (Figure 1). ICPAC Regional Climate Centre (RCC) consensus climate outlook for the July to September 2011 season (Figure 3) indicates enhanced probabilities for above normal rainfall over central Sudan and western Ethiopia. Enhanced probabilities for above to near normal rainfall are indicated over Eritrea; Djibouti; Uganda; Rwanda; northern Burundi; northwestern Tanzania; Western Kenya; northwestern Somalia; southwestern, central and northeastern Ethiopia as well as southern and parts of northeastern Sudan. The rest of the GHA is likely to remain dry during the July to September 2011 rainfall season. It should be noted that cold conditions are common over the southern and eastern highlands during July to September 2011 season.

The outlook is relevant only for seasonal time scales and relatively large areas. Local and month-to-month variations may occur. Forecast updates will be provided by ICPAC and the respective National Meteorological and Hydrological Services. The users are therefore strongly advised to contact their National Meteorological Services for interpretation of this outlook, finer details, regular updates and additional guidance.

## **The Climate Outlook Forum**

The Twenty Eighth Greater Horn of Africa Climate Outlook Forum (GHACOF 28) was convened on 17 June 2011 in Nairobi, Kenya by the IGAD Climate Prediction and Applications Centre (ICPAC) and partners to formulate a consensus climate outlook for the July to September 2011 rainfall season over the GHA region. The GHA region comprises Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania and Uganda. Users from sectors such as health, disaster risk management, agriculture and food security, water resources and the media, as well as 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 global climate system and its implications for the GHA, including the influence of sea surface temperature anomalies over the tropical Pacific, Atlantic and Indian Oceans on the evolution of rainfall in the GHA region. Guidance products from the World Meteorological Organisation's Global Producing Climate Centres and other seasonal climate prediction centres were also assessed. These inputs were combined using expert analysis and interpretation to obtain forecast probabilities for the evolution of regional rainfall during July to September 2011.

## **METHODOLOGY**

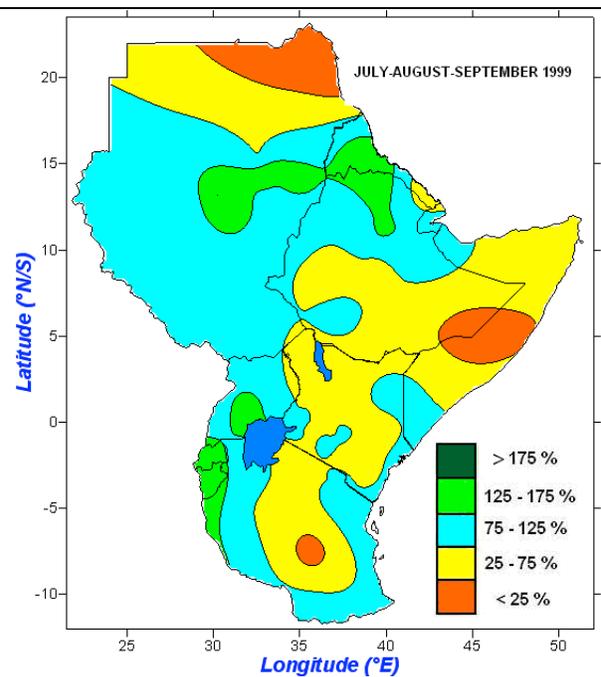
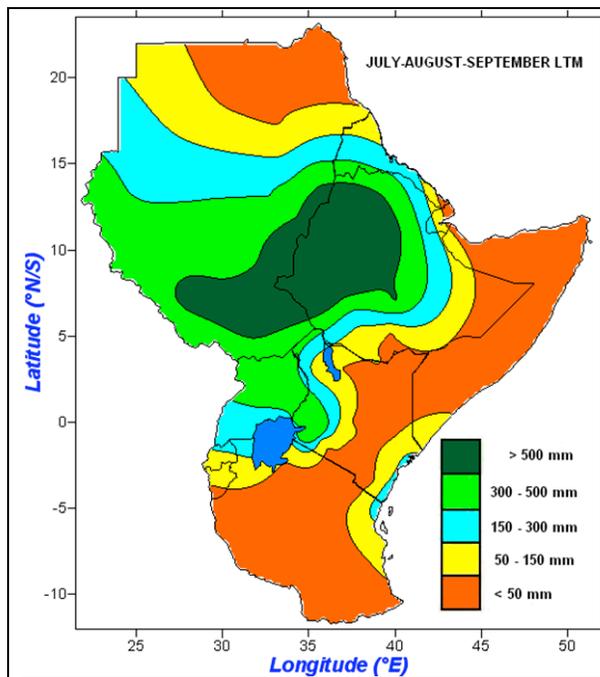
The forum examined the prevailing and expected sea surface temperature anomalies over the Pacific, Indian and Atlantic Oceans as well as other factors that affect the climate of the GHA

region, including the Indian Ocean Dipole. These factors were assessed using ocean-atmosphere models, statistical models and expert interpretation. The forum noted the shifting from La Niña conditions to neutral conditions during the forecast period. Figure 2 provides maps for some past analogue years. The current status of seasonal to inter-annual forecasting allows prediction of large spatial and temporal averages and may not fully account for all the physical and dynamical factors that influence regional and national climate variability.

The experts established probability distributions to indicate the likelihood of above-, near-, or below-normal rainfall for each zone (see figure 1). Above-normal rainfall is defined as within the wettest third of long term recorded rainfall amounts in each zone; near-normal is defined as the third of the recorded rainfall amounts centred around the climatological median; below-normal rainfall as within the driest third of the recorded rainfall amounts. Climatology refers to a situation where any of the three categories have equal chances of occurring.

## OUTLOOK

July to September constitutes a major rainfall season over much of the northern sector as well as the western parts of the equatorial sector of the GHA (Figure 1). The rainfall outlook for the various zones in accordance with the likelihood of the rainfall performance during July to September 2011 is provided in Figure 3 while rainfall anomalies during analogue years are provided in Figure 2.



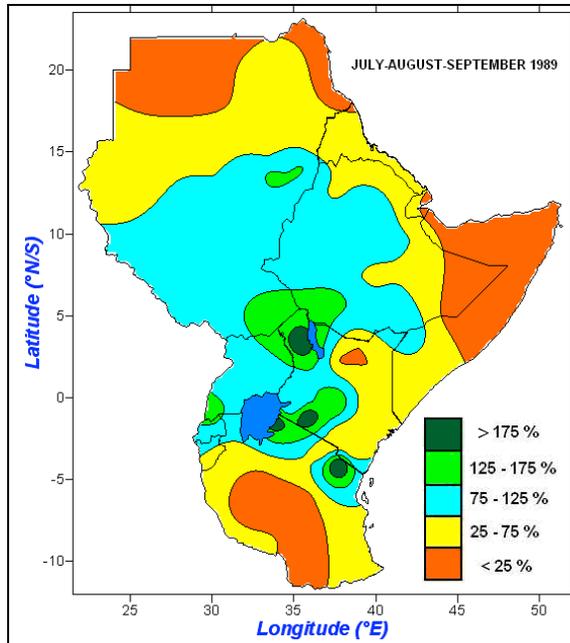


Figure 2b: Rainfall Anomalies during July to September 1989

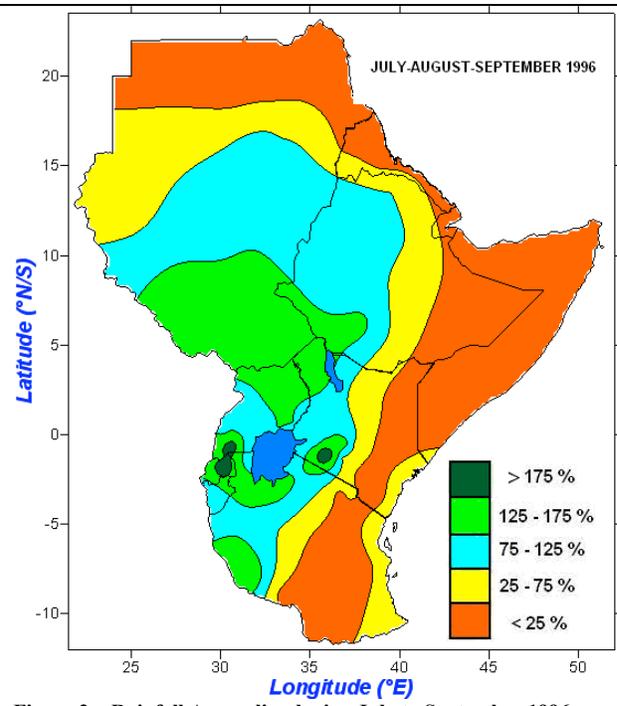


Figure 2c: Rainfall Anomalies during July to September 1996

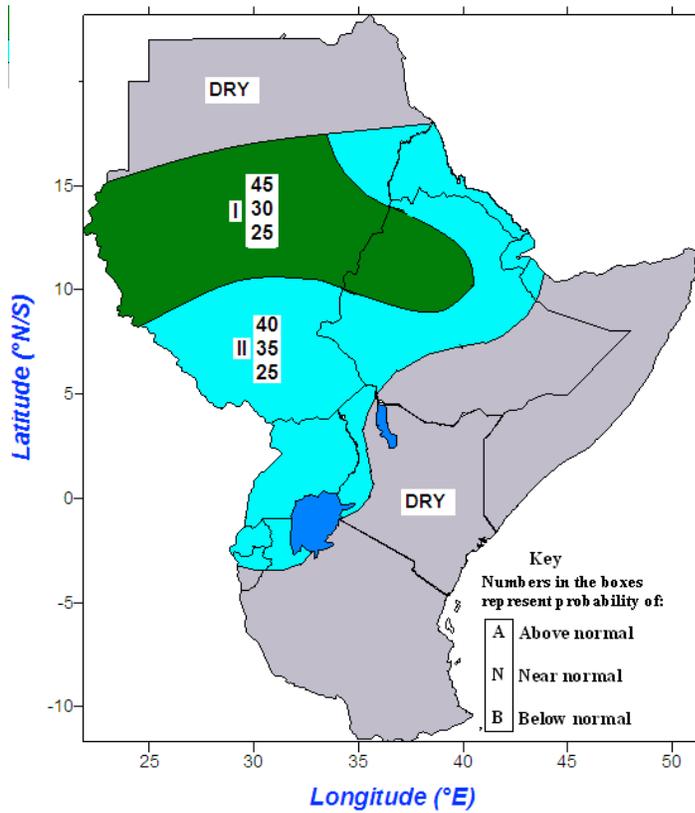


Figure 3: Greater Horn of Africa Consensus Climate Outlook for July to September 2011

**Zone I:** Increased likelihood of above normal rainfall over Central Sudan and western Ethiopia.

**Zone II:** Increased likelihood of above to near normal rainfall over Eritrea; Djibouti; Uganda; Rwanda; northern Burundi; northwestern Tanzania; Western Kenya; extreme northwestern Somalia; southwestern, central and northeastern Ethiopia as well as southern and parts of northeastern Sudan.

The rest of the GHA region is likely to remain generally dry.

**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 I, there is 45% probability of rainfall occurring in the above-normal category; 30% probability of rainfall occurring in the near-normal category; and 25% probability of rainfall occurring in the below-normal category. It is emphasized that boundaries between zones should be considered as transition areas.*

**Contributors**

*The Twenty Eighth Greater Horn of Africa Climate Outlook Forum (GHACOF 28) was organised jointly by the IGAD Climate Prediction and Applications Centre (ICPAC); National Meteorological and Hydrological Services (NMHSs); the World Meteorological Organisation (WMO); United Kingdom Met Office and other partners.*

Contributors to this regional consensus climate outlook included representatives of the Meteorological Services from GHA countries (Insitut Geographique du Burundi; Meteorologie Nationale de Djibouti; Eritrea Meteorological Services; National Meteorological Agency of Ethiopia; Kenya Meteorological Department; Rwanda Meteorological Services; Sudan Meteorological Authority; Tanzania Meteorological Agency and Uganda Department of Meteorology) 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 Met Office Hadley Centre; World Meteorological Organisation (WMO); International Research Institute for climate and society (IRI); North Carolina State University; University of Connecticut and University of Nairobi.