

STATEMENT FROM THE TWENTY THIRD GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF 23) 2 – 4 MARCH 2009, MOMBASA, KENYA

Summary

March to May constitutes an important rainfall season over the equatorial parts of the Greater Horn of Africa (GHA) sub-region. The regional consensus climate outlook for the March to May 2009 rainfall season indicates increased likelihood of below normal rainfall over the eastern parts of the Greater Horn of Africa (GHA). Increased likelihood of above normal rainfall is indicated over the western and southern parts of the GHA sub-region.

It should be noted that parts of the GHA sub-region have been under rainfall stress over the last several seasons. The predicted below normal rainfall over the eastern parts of the sub-region is therefore likely to have severe negative impacts. The outlook is relevant only for seasonal time scales and relatively large areas. Local and month-to-month variations may occur. For example episodic flash floods can be observed even in areas that are expected to receive below normal rainfall and poor rainfall distribution can be experienced in areas expected to receive above normal rainfall. Forecast updates for the sub-region 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

From 2 to 4 March 2009, the Twenty Third Greater Horn of Africa Climate Outlook Forum (GHACOF 23) was convened at the Travellers Beach Hotel, Mombasa, Kenya by the IGAD Climate Prediction and Applications Centre (ICPAC) and other partners to formulate consensus guidance for the March to May 2009 rainfall season over the GHA sub region comprising of Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania and Uganda. Users from health, disaster risk management, agriculture and food security, water resources and media sectors as well as Non Governmental Organisations and development partners among others were active participants in the forum. They 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 sub-region. Among the principal factors considered included the slightly colder than average Sea Surface Temperatures (SSTs) observed over the equatorial Pacific Ocean and the prevailing above average SSTs over the southwestern parts of the Indian Ocean as well as the observed neutral Indian Ocean Dipole.

Methodology

The forum examined the prevailing and expected Sea Surface Temperature (SST) anomalies over the Pacific, Indian and Atlantic Oceans as well as other factors that affect the climate of the GHA sub-region including the Indian Ocean Dipole. These factors were assessed using ocean-atmosphere models, statistical models and expert interpretation. 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.

Rainfall Outlook

The rainfall outlook for various zones within the sub-region is given below.

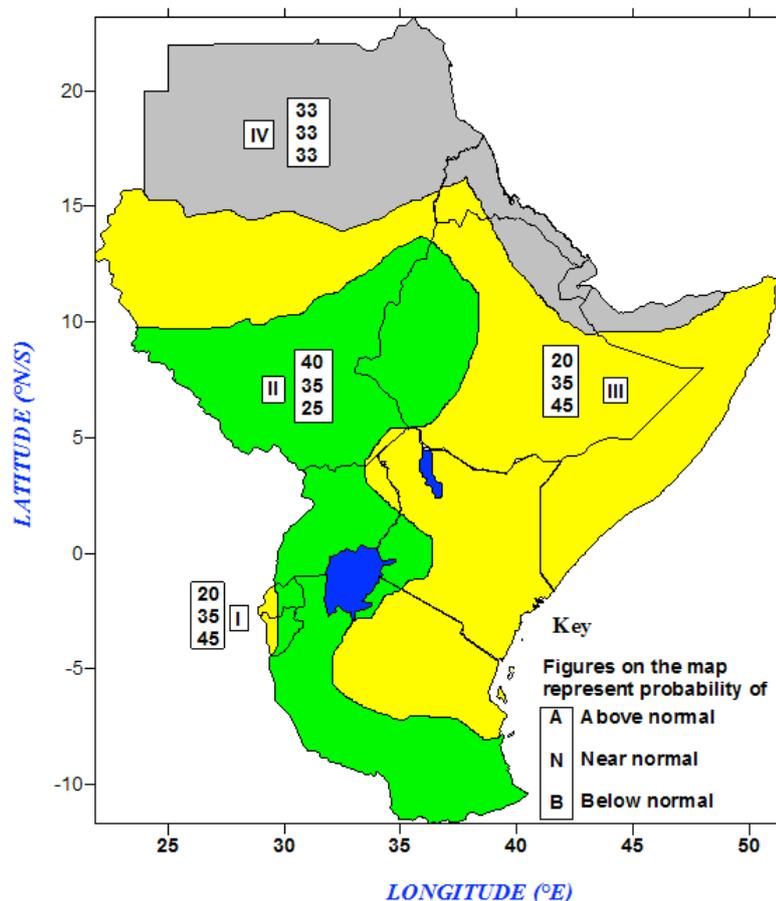


Figure 1: Greater Horn of Africa Consensus Climate Outlook for the March to May 2009

- Zone I:** Increased likelihood of below normal to near normal rainfall over western Burundi and western Rwanda.
- Zone II:** Increased likelihood of above normal to near normal rainfall over southern, western and parts of northern Tanzania; eastern Burundi; eastern Rwanda; much of Uganda; western Kenya; southern Sudan and western Ethiopia.
- Zone III:** Increased likelihood of below normal to near normal rainfall over central and northeastern Tanzania; much of Kenya; northeastern Uganda; southern, eastern, central, and parts of northern Ethiopia; much of Somalia; southwestern Eritrea and central Sudan.
- Zone IV:** Climatology is indicated over northern Sudan; much of Eritrea; Djibouti; northeastern Ethiopia and extreme northwestern Somalia.

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 case of western Burundi and western Rwanda (zone I), there is 20% probability of rainfall occurring in the above-normal category; 35% probability of rainfall occurring in the near-normal category; and 45% probability of rainfall occurring in the below-normal category. It is emphasised that boundaries between zones should be considered as transition areas.

Contributors

The Twenty Third Greater Horn of Africa Climate Outlook Forum (GHACOF 23) was organised jointly by the IGAD Climate Prediction and Applications Centre (ICPAC); National Meteorological and Hydrological Services (NMHSs) and the World Meteorological Organisation (WMO).

Contributors to this regional consensus climate outlook included representatives of the Meteorological Services from GHA countries (Insitut Geographique du Burundi; Meteorologie Nationale de Djibouti; National Meteorological Services 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 organisations (IGAD Climate Prediction and Applications Centre (ICPAC); International Research Institute for climate and society (IRI); United Kingdom Met Office; World Meteorological Organisation (WMO); USGS/FEWS-NET, University of Nairobi and Universite de Bourgogne Dijon. Additional input was supplied by the National Centres for Environmental Prediction/Climate Prediction Centre (NCEP/CPC); Southern Africa Development Community/Drought Monitoring Centre (SADC/DMC); European Centre for Medium Range Weather Forecasts (ECMRWF) and ACMAD.