STATEMENT FROM THE TWENTY FIFTH GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF 25) 25 – 26 FEBRUARY 2010, NAIROBI, KENYA

Summary

March to May 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 2010 rainfall season indicates increased likelihood of near normal tending towards below normal rainfall over much of the Greater Horn of Africa (GHA). Increased likelihood of near normal to above normal rainfall is indicated over the western parts of southern sector as well as parts of the equatorial sector and the far northeast.

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 may occur locally in areas expected to receive above normal rainfall. 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 Fifth Greater Horn of Africa Climate Outlook Forum (GHACOF 25) was convened from 25 to 26 February 2010, at the Nairobi Safari Club, Nairobi, Kenya by the IGAD Climate Prediction and Applications Centre (ICPAC) and other partners to formulate a consensus climate outlook for the March to May 2010 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 temperatures over the tropical oceans on the evolution of rainfall in the region. Guidance products from World Meteorological Organisation Global Producing Centres and other seasonal climate prediction systems were also assessed. These inputs were combined using expert analysis to obtain forecast probabilities for the evolution of regional rainfall during the period March to May 2010.

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 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 for March to May 2010

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

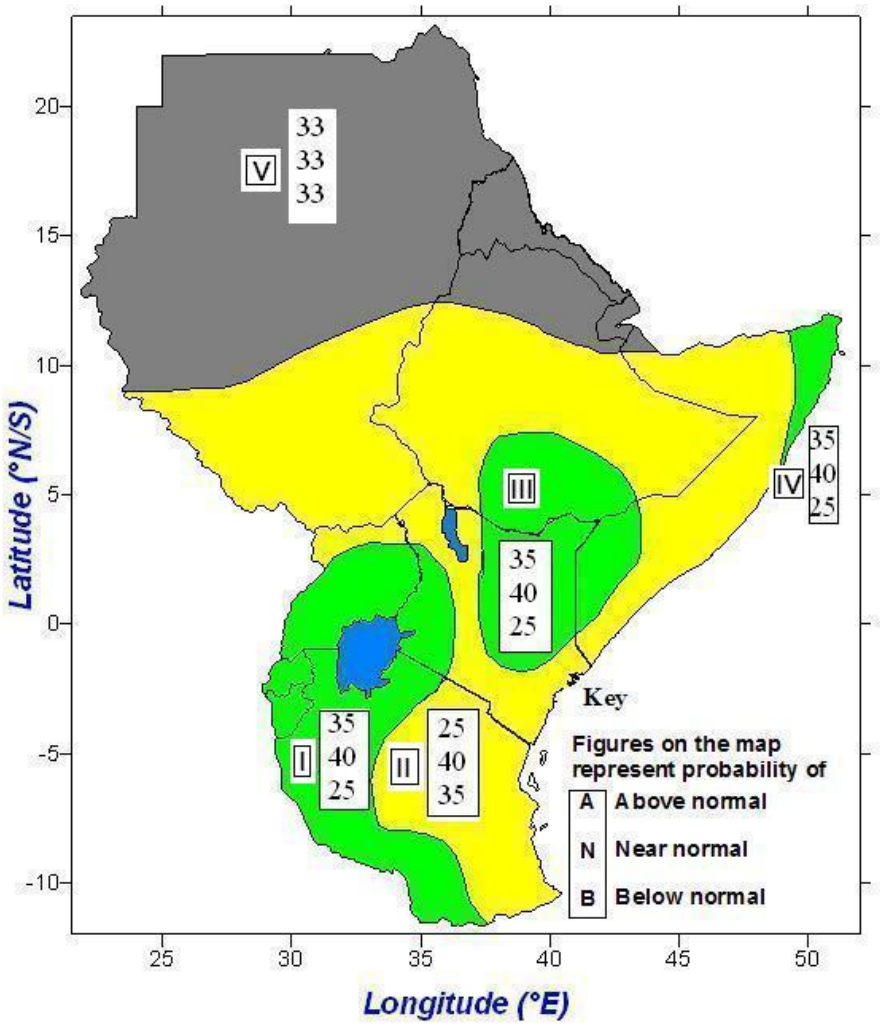

Figure 1: Greater Horn of Africa Consensus Climate Outlook for the March to May 2010

Zone I: Increased likelihood of near normal to above normal rainfall over the Lake Victoria Basin, much of Uganda, Rwanda, Burundi, and Western Tanzania.

Zone II: Increased likelihood of near normal to below normal rainfall over central and eastern Tanzania, southeastern and parts of Central Kenya; southern Sudan; much of Ethiopia and Somalia.

Zone III: Increased likelihood of near normal to above normal rainfall over northeastern Kenya; southern Ethiopia and southwestern Somalia.

Zone IV: Increased likelihood of near normal to above normal rainfall over the northeastern tip of Somalia.

Zone V: Climatology is indicated over northern Ethiopia, central and northern Sudan; Eritrea; and Djibouti.

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 north-eastern tip of Somalia, (zone IV), there is 35% probability of rainfall occurring in the above-normal category; 40% probability of rainfall occurring in the near-normal category; and 25% 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 Fifth Greater Horn of Africa Climate Outlook Forum (GHACOF 25) 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 (Insititut 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 organizations: IGAD Climate Prediction and Applications Centre (ICPAC); International Research Institute for climate and society (IRI); United Kingdom Meteorological Office and Hadley Centre; World Meteorological Organisation (WMO); USGS/FEWS-NET, and University of Nairobi. Additional input was supplied by the National Centres for Environmental Prediction/Climate Prediction Centre (NCEP/CPC); European Centre for Medium Range Weather Forecasts (ECMWF) and ACMAD.