

STATEMENT FROM THE THIRTY SECOND GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF 32): 29-31 AUGUST 2012, ZANZIBAR BEACH RESORT, ZANZIBAR, TANZANIA

Summary

September to December constitutes an important rainfall season over the equatorial and southern sectors as well as the southern parts of the northern sector of the Greater Horn of Africa (GHA) region. The regional consensus climate outlook for the September to December 2012 rainfall season indicates increased likelihood of above to near normal rainfall over much of the GHA during this period.

The major global and regional scale drivers of climate with implications on rainfall performance over the GHA during September to December 2012 include the evolution of a weak positive Indian Ocean dipole (IOD) mode, characterised by warmer than average sea surface temperatures over Western Indian Ocean and Arabian sea, likelihood of a weak El Niño event developing during the last quarter of 2012. The predicted evolution of these and other indicators and their impact on rainfall over the region has been examined using dynamical model ensemble runs, statistical-probabilistic models and expert analysis and results synthesised to determine the regional consensus climate forecast for the September to December 2012 season.

This climate outlook is relevant for seasonal timescale and covers relatively large areas. Local and month-to-month variations in rainfall occurrence might occur during the season. For example interaction between local scale mechanisms and large scale circulation might lead to dry spells during the season. Regional scale forecast updates and performance evaluation will be provided by ICPAC while the respective National Meteorological and Hydrological Services will provide details at national level to help Risk Reduction Decision makers to adapt their strategies. The users are therefore strongly advised to contact their National Meteorological and Hydrological Services for national and local details.

The Climate Outlook Forum

The Thirty second Greater Horn of Africa Climate Outlook Forum (GHACOF32) was convened from 29th to 31st August 2012 at Zanzibar Beach Resort, Zanzibar, United Republic of Tanzania by the IGAD Climate Prediction and Applications Centre (ICPAC) in collaboration with the World Meteorological Organization (WMO), and partners to formulate a consensus regional climate outlook for the September to December 2012 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; agriculture and food security; water resources; disaster risk management; gender, civil society and media as well as Non-Governmental Organisations and development partners actively participated in the formulation of applications and impacts of the climate forecast in their specific sectors.

The forum reviewed the current and evolving implications of global and regional climate driving mechanisms including the positive sea surface temperature (SST) anomalies over Western Indian Ocean/Arabian sea with a mild positive Indian Ocean Dipole mode, potential likelihood of a weak El Niño event developing during last quarter of 2012 and atmospheric circulation evolution with moist air advection implications over GHA during September to December 2012 season.

Guidance and valuable forecast inputs were drawn from a wide range of sources including the World Meteorological Organisation's Global Producing Centres (WMO-GPCs), the International Research Institute for climate and Society (IRI), APEC Climate Center, Met Office Hadley Centre (MOHC); Euro-Mediterranean Centre for Climate Change (CMCC) and the National Meteorological and Hydrological Services (NMHSs) of IGAD and East Africa community states.

The forum was also an opportunity to identify appropriate climate knowledge through dialogue between climate service providers and users to inform risk reduction programme as well as to build climate resilience network in support of change in decision making processes for long term risk reduction planning.

Methodology

GHACOF32 examined the prevailing and expected ocean-atmospheric drivers and indicators of regional climate including evolving Indian Ocean dipole, likelihood of mild El Niño conditions developing over the tropical Pacific Ocean and atmospheric circulation dynamics influencing the region including weaker summer monsoons over Western Indian Ocean with potential for early transition to northeast monsoons. Deterministic products provided by WMO - GPCs for real-time climate prediction alongside statistical-probabilistic modelling using linear and non-linear approaches were used. Additional techniques used included use of pattern identification and projection for September to December 2012 season in addition to calibrated multi-model ensembles (MME) to generate a probabilistic rainfall forecast for the season.

Rainfall Outlook for September to December 2012

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

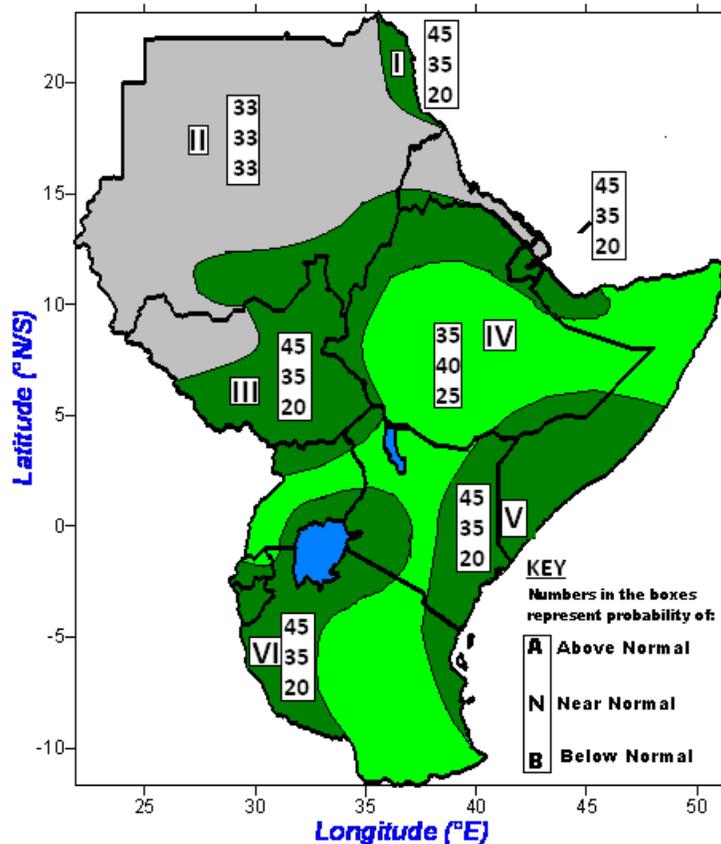


Figure 1: Greater Horn of Africa Consensus Climate Outlook for the September to December 2012 rainfall season

Zone I, III, V, VI: Increased likelihood of above normal to near normal rainfall

Zone II: Climatology (Usually dry)

Zone IV: Increased likelihood of near normal to above normal rainfall.

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 below-normal category. For example, in zone VI, 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 Thirty Second Greater Horn of Africa Climate Outlook Forum (GHACOF32) was organised jointly by the IGAD Climate Prediction and Applications Centre (ICPAC), World Meteorological Organization (WMO) and the National Meteorological and Hydrological Services (NMHSs) of ICPAC member countries), as well as the Intergovernmental Oceanographic Commission of UNESCO's Sub Commission for Africa and the Adjacent Island States (IOC-Africa), the Western Indian Ocean Marine Sciences Association (WIOMSA). It was hosted by the Tanzania Meteorological Agency (TMA). Much of the support was from the ClimDev-Africa project funded by African Development Bank (AfDB). Partial support was provided by WMO through a project funded by the Korea International Cooperation Agency (KOICA), World Bank/GFDR provided support to Red Cross societies and disaster risk management experts. United Nations International Strategy for Disaster Reduction (UNISDR) supported the participation of the disaster risk reduction focal points from the region.

Contributors to the GHACOF32 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 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); SADC Climate Services Centre; United Kingdom Met Office Hadley Centre (MOHC); CMCC; World Meteorological Organization (WMO) and WMO Global Producing Centres (GPCs); APEC Climate Center and University of Nairobi.