



Statement from the Forty Fifth Greater Horn of Africa Climate Outlook Forum (GHACOF 45) for March to May 2017 season: 6 -7 February 2017; Intercontinental Hotel, Addis Ababa, Ethiopia

Summary

The March to May months constitute 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 2017 season indicates an increased likelihood of below normal to near normal rainfall over northern and eastern Tanzania, much of Kenya, southern and northwestern Somalia, much of Djibouti, southeastern Eritrea, northeastern, eastern and southern Ethiopia, southeastern parts of South Sudan, northeastern Uganda and southern parts of Sudan. Central and western Tanzania, much of Burundi and Rwanda, western Uganda and southwestern parts of South Sudan have increased probability for above to near normal rainfall. Increased probabilities of near to above normal rainfall are indicated over southern Tanzania, south western, parts of South Rift and central Kenya, much of central Uganda, northern parts of South Sudan, extreme southern parts of Sudan, western Ethiopia, much of Eritrea and parts of central and northeastern Somalia. The major processes considered as key drivers of the regional climate during March-May 2017 season included the predicted neutral phase of Indian Ocean Dipole and neutral El-Niño / Southern Oscillation (ENSO) conditions in the Pacific Ocean. The outlook is relevant for the March-May 2017 season as a whole and for relatively large areas. Local and month-to-month variations might occur as the season progresses. It is likely that episodic heavy rainfall events leading to flash floods might occur even in areas with an increased likelihood of below normal to near normal rainfall. Also, dry spells may occur in areas with an increased likelihood of above normal to near normal rainfall. It should be noted that parts of the region have been experiencing drought conditions and persistence of depressed rainfall in these areas would have far reaching implications. ICPAC will provide regional updates on regular basis while the National Meteorological and Hydrological Services (NMHSs) will provide detailed national and subnational updates.

The Climate Outlook Forum

The Forty Fifth Greater Horn of Africa Climate Outlook Forum (GHACOF 45) was convened from 6 to 7 February 2017 at the Intercontinental Hotel, Addis Ababa, Ethiopia by the IGAD Climate Prediction and Applications Centre (ICPAC), the Ethiopia Meteorological Agency (NMA) and partners to develop a regional consensus climate outlook for the March to May 2017 season over the GHA region. The GHA region comprises Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, Tanzania and Uganda. The forum reviewed the state of the global and regional climate systems and their implications on the March to May seasonal rainfall over the region. Among the principal factors taken into account were the observed and predicted sea surface temperatures (SSTs) in the global Oceans. Users from agriculture and food security, livestock, water resources, disaster risk management, Non-Governmental Organizations and development partners discussed the potential implications of the consensus climate outlook, and developed mitigation strategies for their respective countries and sectors.

Methodology

The forum examined the prevailing and predicted SSTs over the Pacific, Indian and Atlantic Oceans and other global, regional and local climate factors that influence the GHA rainfall during the March to May season. These factors were assessed using dynamical and statistical models as well as expert interpretation. The regional consensus climate outlook also included inputs from National Climate Scientists who participated in the pre-COF 45 capacity building workshop that was hosted by ICPAC from 30th January to 4th February 2017. Additional inputs were obtained from various global climate Centres including the World Meteorological Organization’s Global Producing Centres (WMO GPCs), and the International Research Institute for Climate and Society (IRI). The current capability of seasonal to inter-annual climate forecasting allows prediction of departures from mean conditions. The climate experts established probability distributions to indicate the likelihood of above-, near-, or below-normal rainfall and grouped areas with similar outlook into zones. Above-normal rainfall is defined as within the wettest third of recorded rainfall amounts in each zone; near-normal is defined as the third of the recorded rainfall amounts centered around the climatological median; below-normal rainfall is defined as within the driest third of the rainfall amounts. Climatology refers to a situation where any of the three categories have equal chances of occurring. Probability distributions for temperature were also established. The rainfall and temperature outlooks for March to May 2017 for various zones within the GHA region are given in Figure 1 and Figure 2 respectively.

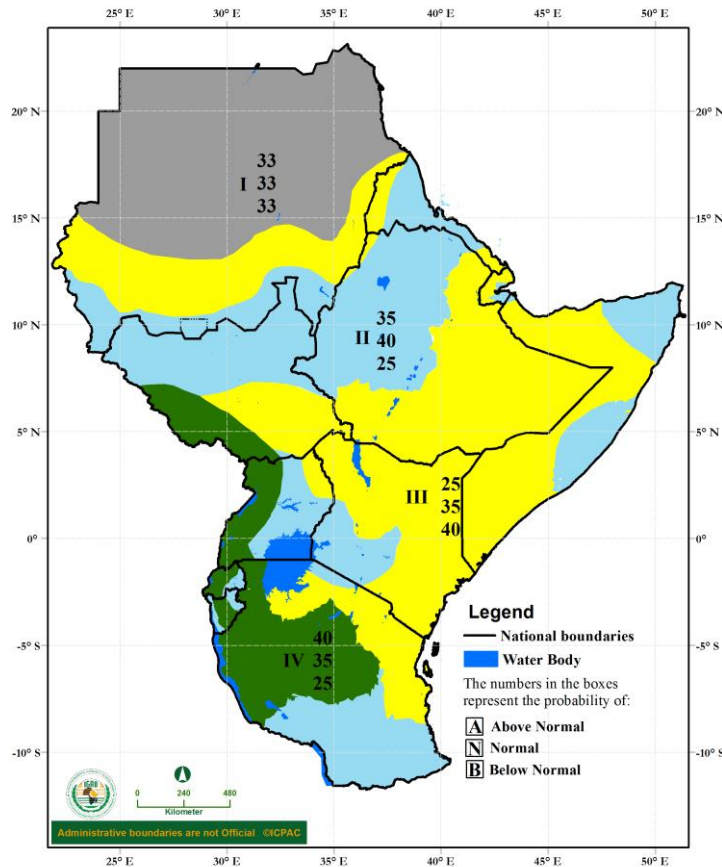


Figure 1: Greater Horn of Africa Consensus Rainfall Outlook for the March to May 2017 season

- Zone I:** Usually dry during March to May.
- Zone II:** Increased likelihood of near normal to above normal rainfall.
- Zone III:** Increased likelihood of below normal to near normal rainfall.
- Zone IV:** Increased likelihood of above normal to near normal rainfall.

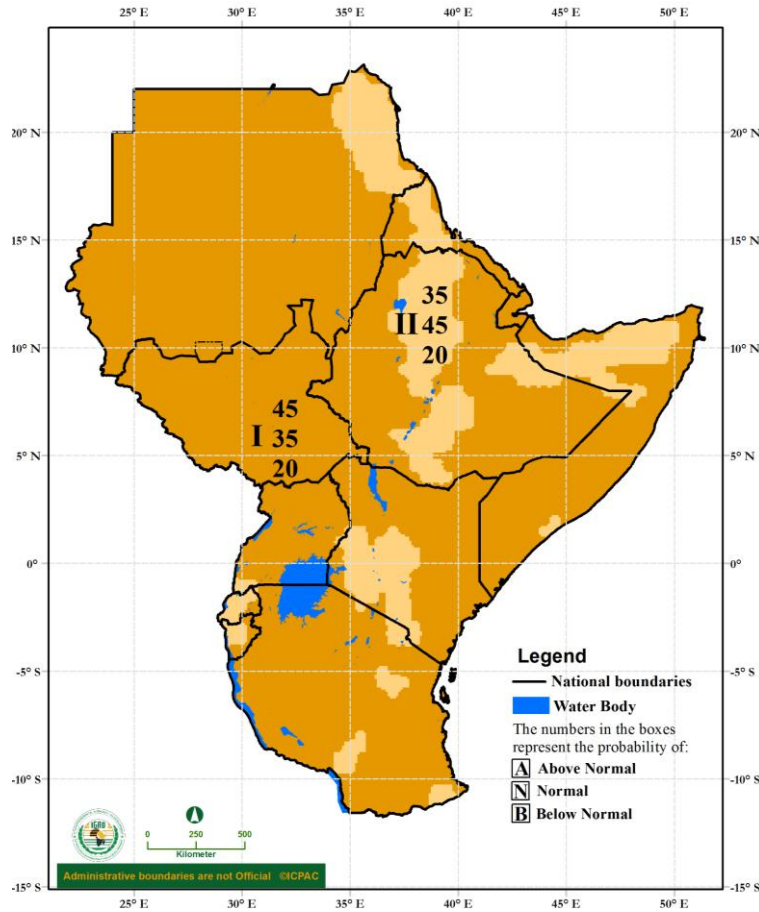


Figure 2: Greater Horn of Africa Consensus Mean Temperature Outlook for March to May 2017season

- Zone I:** Increased likelihood of above normal to near normal mean temperatures.
- Zone II:** Increased likelihood of near normal to above normal 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. The top number indicates the probability of rainfall and mean temperature 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 III, Figure 1, there is 25% probability of rainfall occurring in the above-normal category; 35% probability of rainfall occurring in the near-normal category; and 40% probability of rainfall occurring in the below-normal category. In zone I, Figure 2, there is 45% probability of mean temperature occurring in the above-normal category; 35% probability of mean temperature occurring in the near-normal category; and 20% probability of mean temperature occurring in the below-normal category. The boundaries between zones should be considered as transition areas.

Contributors

GHACOF 45 was organized jointly by ICPAC and National Meteorological and Hydrological Services (NMHSs) of ICPAC member countries. The financial resources for the forum were provided by the USAID, UNDP, UNISDR, DFID and World Bank. Contributors to the GHACOF 45 regional consensus climate outlook included representatives of the National Meteorological Services from GHA countries (Institut Geographique du Burundi; Agence Nationale de la Meteorologie de Djibouti; National Meteorological Agency of Ethiopia; Kenya Meteorological Department; Rwanda Meteorology 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; Met Office; IRI; NCEP; NORCAP; HELIX Project and WMO GPCs, SADC/CSC and US Geological Surveys.