**STATEMENT FROM THE THIRTY SEVENTH GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF 37): 25-26 MAY 2014, GRAND HOLIDAY VILLA HOTEL & SUITES, KHARTOUM, SUDAN**


## Summary

June to August constitutes an important rainfall season over the northern sector and the western parts of the equatorial sector of the Greater Horn of Africa (GHA) region. The regional consensus climate outlook for the June to August 2014 rainfall season indicates increased likelihood of near normal to below normal rainfall over most parts of the northern and equatorial sectors except for parts of north western Ethiopia; south-eastern Uganda and much of South Sudan which have increased likelihood of receiving near normal to above normal rainfall. The rest of the region is expected to remain dry as usual at this time of the year.

The processes and systems which are expected to influence the regional climate during June to August 2014 season include sea surface temperatures over western Indian Ocean especially the influence of the Indian Ocean Dipole circulation, together with the atmospheric and oceanic conditions collectively associated with El Niño phenomena . Most of the models indicate that El Nino - neutral conditions will persist through part of the remainder of the Northern Hemisphere spring 2014 season ( March-May) and most likely transitioning to El Niño during June-August months (CPC, NOAA Figures 3 and 4 and WMO press release[‡]). Past records show depressed rainfall in Northern sector of GHA during strong El Nino years. It should be noted that many parts of the eastern sectors of the GHA received low rainfall during March to May 2014 season. Drought occurrence during the months of June-August would have far reaching consequences.

Although temperatures forecasts indicates warming of minimum temperatures during June-August months, mean average temperature forecasts indicate cooler temperatures in many equatorial areas especially in the highlands during June-August 2014 (Figure 2).

The global processes are expected to be modulated by regional and local scale features including large inland lakes and the complex topographical features in the region. The regional climate outlook is relevant at seasonal timescale and covers relatively large areas with local and month-to-month rainfall variations including episodic weather events. The IGAD Climate Prediction and Application Centre (ICPAC) in collaboration with the World Meteorological Organization (WMO), and other Climate Centres will issue regular regional climate updates during the course of the June to August 2014 season, while the National Meteorological and Hydrological Services (NMHSs) will provide detailed forecasts and updates at National levels. For detailed updates during the season, all climate information users are strongly advised to contact the respective National Meteorological and Hydrological Services for country details.


## The Climate Outlook Forum

The Thirty Seventh Greater Horn of Africa Climate Outlook Forum (GHACOF37) was convened on 25th and 26th May 2014 at the Grand Holiday Villa Hotel and Suites, Khartoum, Sudan by the IGAD Climate

[‡] http://www.wmo.int/pages/mediacentre/press_releases/pr_990_en.html

Prediction and Applications Centre (ICPAC) and partners to formulate a consensus regional climate outlook for the June to August 2014 rainfall season over the GHA region. The GHA countries are; Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, Tanzania and Uganda. The theme of the forum was *"The role of regional climate outlook forums in support of disaster risk reduction and resilience building in the GHA".* The forum reviewed the evolving status of the global and regional systems which are expected to influence regional climate during June to August 2014 rainfall season in the region.

Scientists drawn from the national meteorological and hydrological services participated in Pre-COF37 regional climate modelling and capacity building training workshop in Nairobi, organised by ICPAC from 19th to 24th May 2014, to generate the regional consensus forecast. Additional guidance to the forecast was obtained from World Meteorological Organisation's Global Producing Centres (WMO GPCs), National Oceanic and Atmospheric Administration (NOAA), UK Met Office and others. These inputs were considered in developing the consensus regional rainfall forecast for the region during June to August 2014 season.

Users of climate information who participated in the forum were drawn from health, disaster risk reduction, gender, civil society, agriculture and food security, water resources and media sectors as well as non-governmental organisations and development partners. They provided sector specific assessment of the skill and usefulness of the GHACOF36 regional consensus climate outlook. The sectors formulated the potential implications of the consensus climate outlook and developed mitigation strategies for their respective sectors.

**Methodology**

GHACOF 37 examined the prevailing and expected oceanic-atmospheric processes as well as evolving large scale and regional scale circulation mechanisms that have impact over the GHA during June to August 2014. Key among them were the sea surface temperature anomalies over the Indian, Atlantic and Pacific Oceans coupled with the evolving El Niño event.

Implications of these processes on regional rainfall were modelled using dynamical regional climate model, multi-model ensembles provided by the World Meteorological Organization (WMO) with the Korean Meteorological Administration (KMA) as lead centre for standardisation of global producing centres (GPCs) models. In addition, dynamical downscaling was also done by regional model running at ICPAC and major indicators modelled using statistical-probabilistic techniques during the pre-COF37 capacity building and training workshop that was hosted by ICPAC from 19th to 24th May 2014 in Nairobi, Kenya. These techniques were used to develop the consensus regional climate outlook for the June to August 2014 rainfall season.

**Rainfall Outlook for June to August 2014**

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

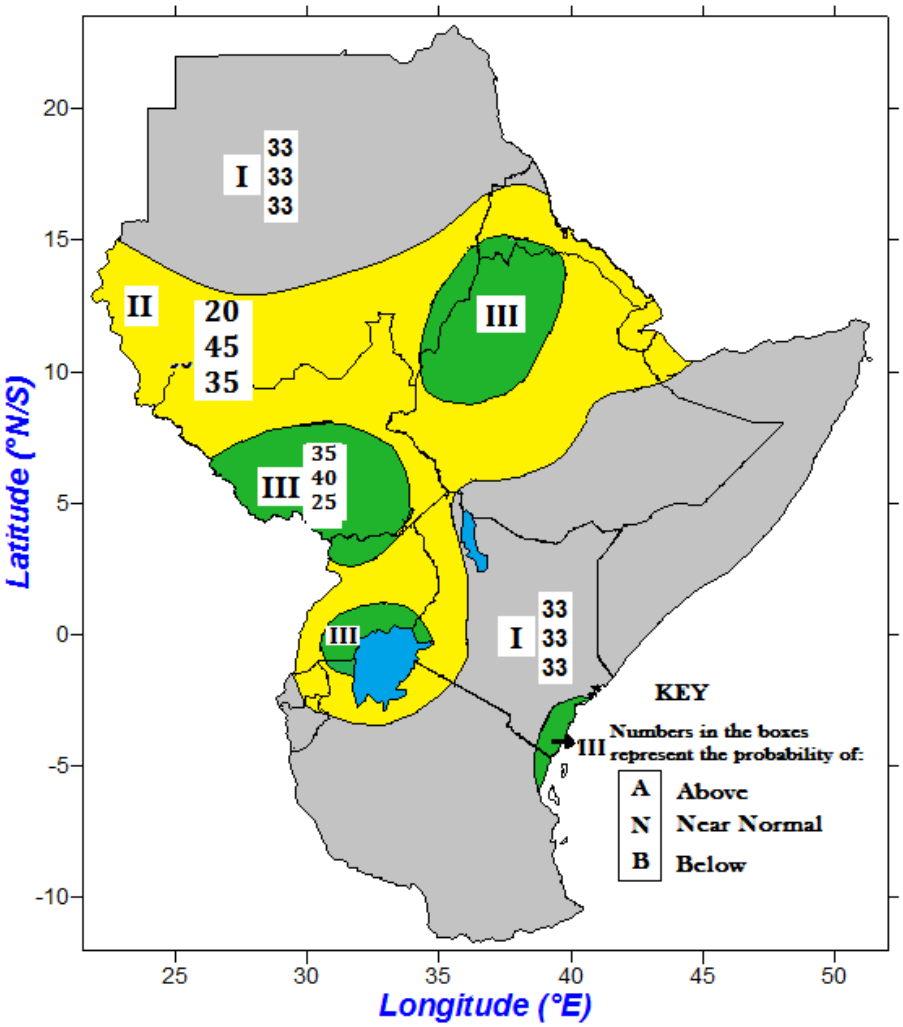


***Figure 1: Greater Horn of Africa Consensus Climate Outlook for the June to August 2014 rainfall season***

**Zone I:** Climatology

**Zone II:** Increased likelihood of near normal to below normal rainfall

**Zone III:** 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 II there is 20% probability of rainfall occurring in the above-normal category; 45% probability of rainfall occurring in the near-normal category;**

**and 35% 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 Seventh Greater Horn of Africa Climate Outlook Forum (GHACOF 37) was organised jointly by the IGAD Climate Prediction and Applications Centre (ICPAC) and National Meteorological and Hydrological Services (NMHSs) of ICPAC member countries within the framework of Institutional Support to African Climate Institutions Project (ISACIP) funded by the African Development Bank (AfDB). It was hosted by the Sudan Meteorological Authority.

Contributors to the GHACOF 37 regional consensus climate outlook included representatives of the Meteorological Services from GHA countries (Insititut Geographique du Burundi; Meteorologie Nationale de Djibouti; National Meteorological Agency of Ethiopia; Kenya Meteorological Service; Rwanda Meteorological Services; South Sudan Meteorological Services; Sudan Meteorological Authority; 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); University of Nairobi; Korean Meteorological Administration (KMA); Finish Meteorological Institute (FMI); World Meteorological Organization (WMO), UNISDR and FEWS NET. Additional inputs were provided by National Oceanic and Atmospheric Administration (NOAA), United Kingdom Met Office; and WMO Global Producing Centres (GPCs).

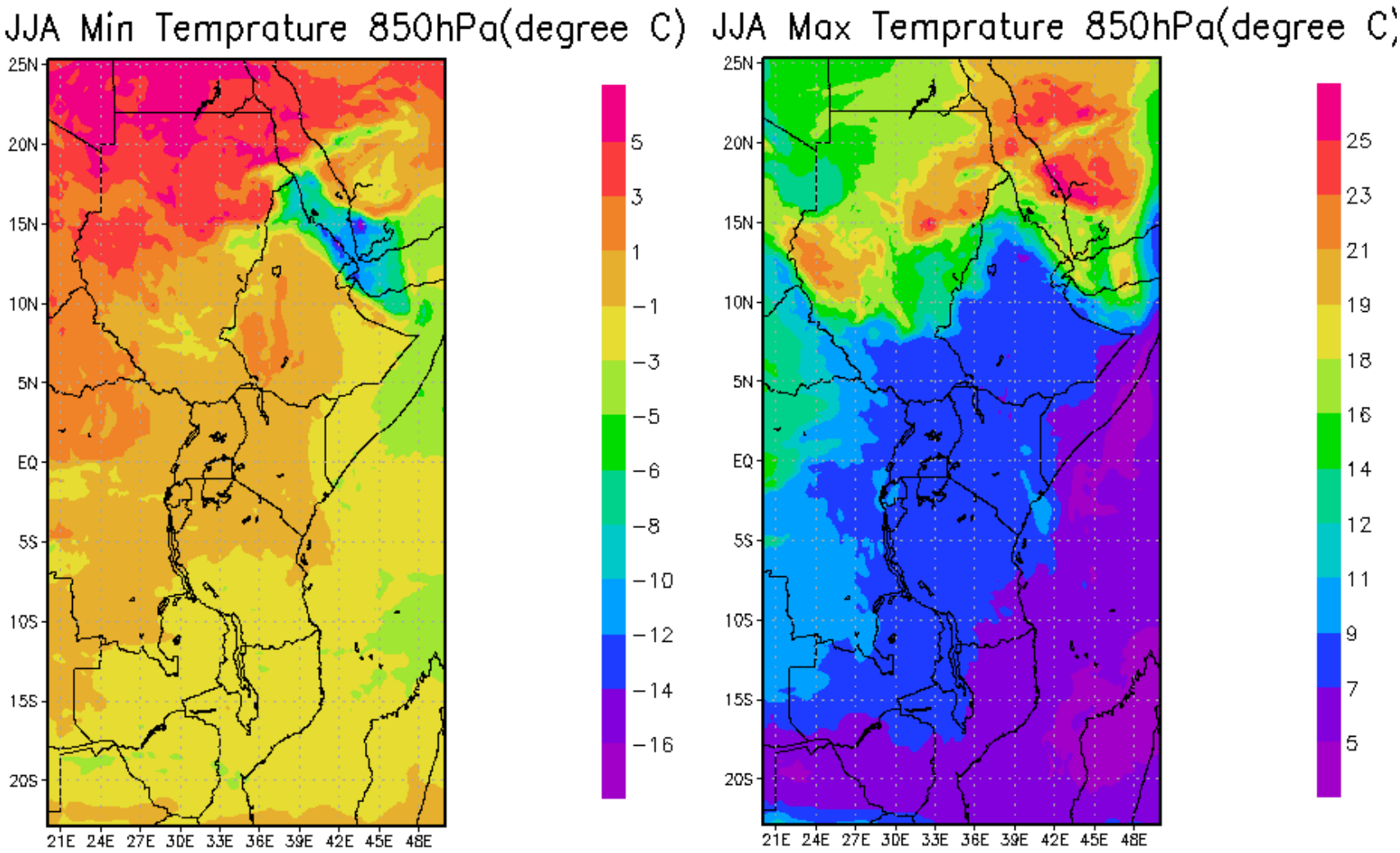


***Figure 2: JJA 2014 Minimum and Maximum temperature outlooks for the Greater Horn of Africa***

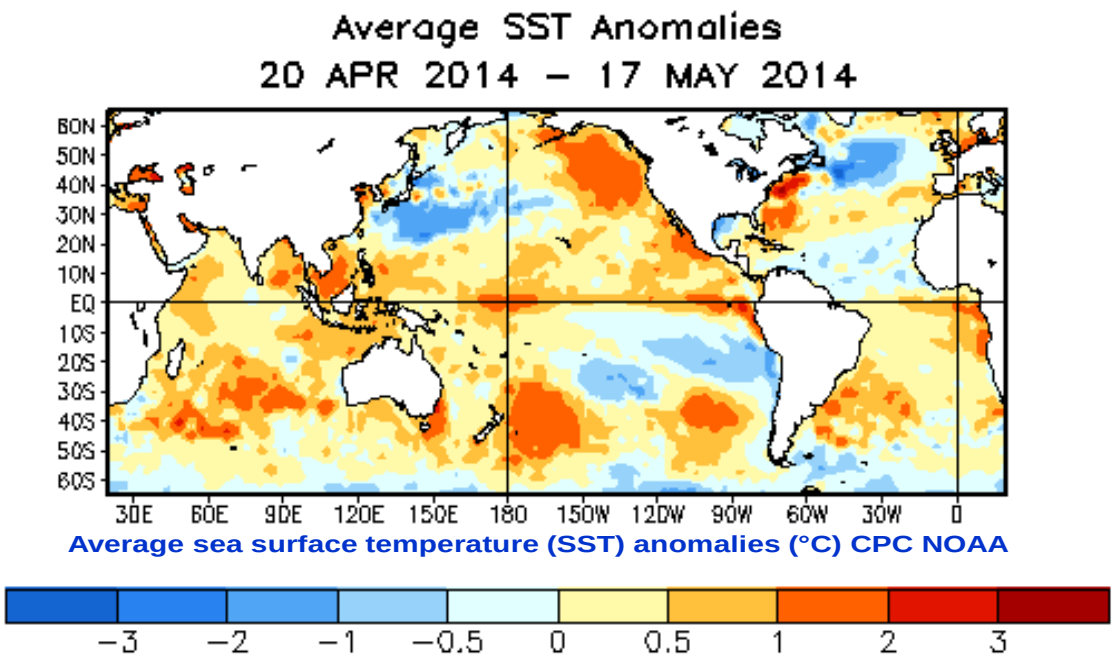


***Figure 3: Global Average Sea Surface Temperature anomalies (CPC/NOAA)***

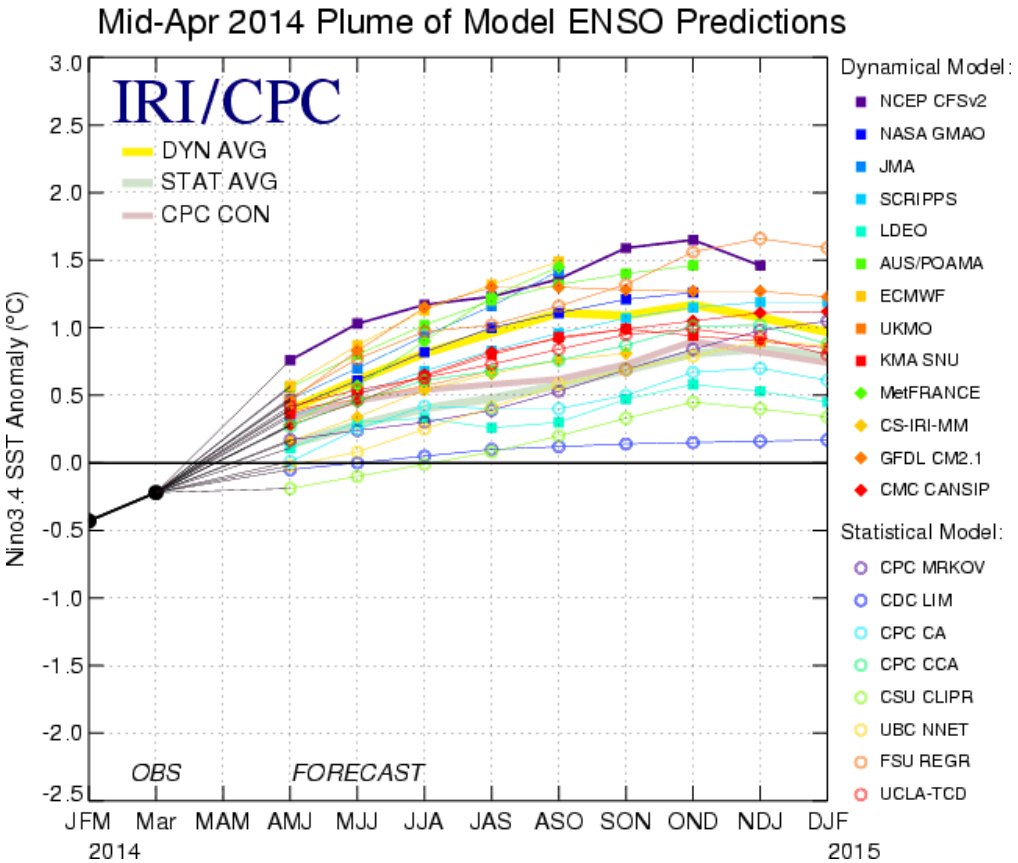


***Figure 4: Forecasts of sea surface temperature (SST) anomalies for the Niño 3.4 region (5°N-5°S, 120°W-170°W) updated on 16 April 2014.***