IGAD
CLIMATE
PREDICTION AND
APPLICATIONS
CENTRE

ICPAC

Bulletin for Dekad 03 of 2017
Issue Number: ICPAC/01/908

10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE SECOND DEKAD (11-20 JANUARY) OF 2017 AND CLIMATE OUTLOOK FOR THE FOURTH DEKAD (1–10 FEBRUARY) OF 2017

1.0 Introduction

In this bulletin, the climatic conditions observed during the second dekad (11-20 January) of 2017 over the Greater Horn of Africa (GHA) are reviewed and the associated impacts highlighted. The climate outlook for the fourth dekad (1-10 February) of 2017 is also provided.

For referencing within this bulletin, the Greater Horn of Africa (GHA) is generally subdivided into three sub-sectors: The equatorial sector lying approximately between -5º and 5º latitude, with the northern and southern sectors occupying the rest of the northern and southern parts of the region respectively

2.0 Highlights

Most of the Greater Horn of Africa (GHA) region has experienced near normal to below normal rainfall during the second dekad of 2017. Rainfall was mainly observed in the southern and western parts of the southern sector as well as south west of the equatorial sector of GHA region during the second dekad (10-20 January) of 2017.

Most of the western part of the GHA experienced warmer than average maximum temperature. Lower than average minimum temperatures was observed in eastern and south eastern part of the northern sector as well as in central and north eastern part of the equatorial sector of the GHA. Warmer than average minimum temperature was experienced in western part of the northern sector as well as central part of the equatorial and southern sector of the GHA.

The outlook for the fourth dekad (1-10 February) of 2017 shows significant rainfall is likely to be experienced in the southern sector as well as in areas south and wester of the equatorial sector of the Greater Horn of Africa. Average temperature exceeding 24°C is likely to be experienced in the areas around south western part of the northern sector extending into the north western and eastern part of the equatorial sector and to the eastern part of the southern sector of the GHA during the third dekad of 2017.

3.0 Observed rainfall situation during the second Dekad (10-20 January) of 2017

Figure 1 shows the total rainfall distribution, Figure 2a shows the percent of the average rainfall, and Figure 2b shows the standardized precipitation index (SPI) over the GHA region during the second dekad (10-20 January) of 2017.

Rainfall Distribution and Severity

During the second dekad of 2017, much of the GHA region recorded less than 10mm of rainfall except for western Rwanda, much of Burundi, and western, central and south western Tanzania, which recorded more than 10mm to 100mm of rainfall (Figure 1).

Less than 75% of the long term average rainfall was recorded in central and south western part of Ethiopia, southern part of South Sudan, over much of Uganda, much of Kenya except for the north eastern part, over eastern Rwanda, eastern Burundi, and over much of Tanzania except for south western part (Figure 2a) during the second dekad of 2017. These areas experienced near normal to extremely dry rainfall conditions (Figure 2b). Much of the rest of the GHA recorded between 75% and 125% of the long term average rainfall amounts which translated into near normal or generally dry rainfall conditions during the second dekad of 2017.

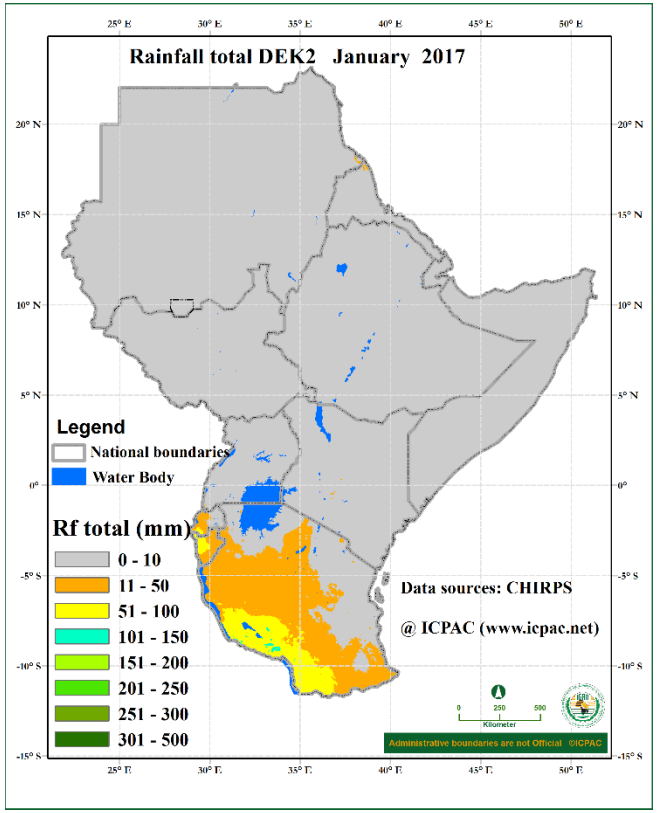

Figure 1: Rainfall distribution during the second dekad (11–20 January) of 2017. *(Source: CHIRPS)*

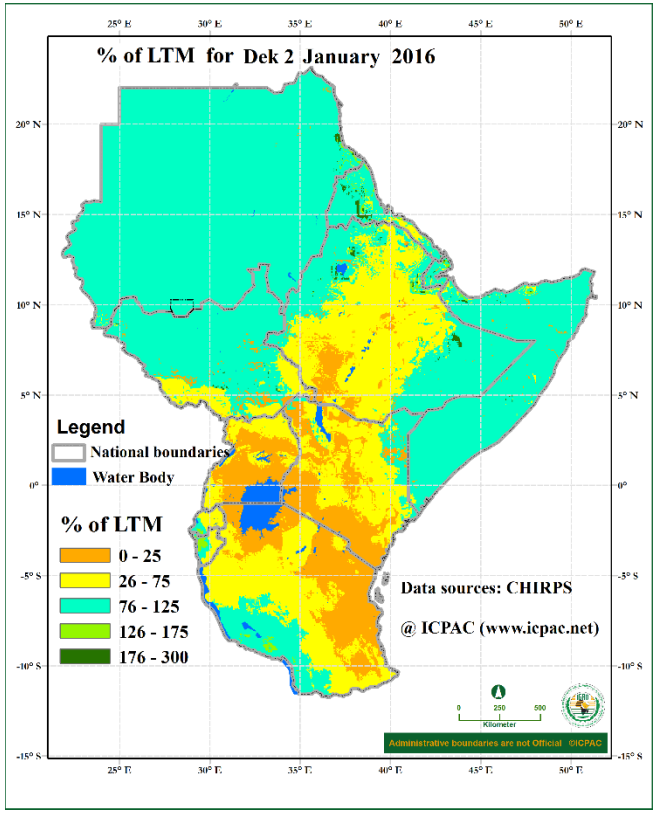

Figure 2a: Percent of long term average rainfall for the second dekad (1–10 January) of 2017 *(Source CHIRPS)*

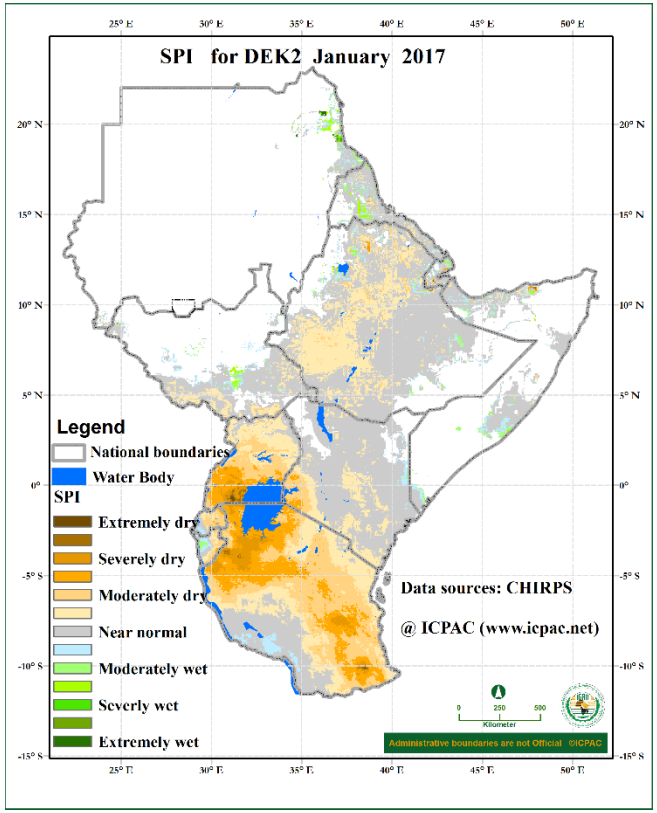

Figure 2b: Standardized Precipitation Index (SPI) for second dekad (1–10 January) of 2017 *(Source CHIRPPS)*

Maximum and Minimum Temperature Anomaly

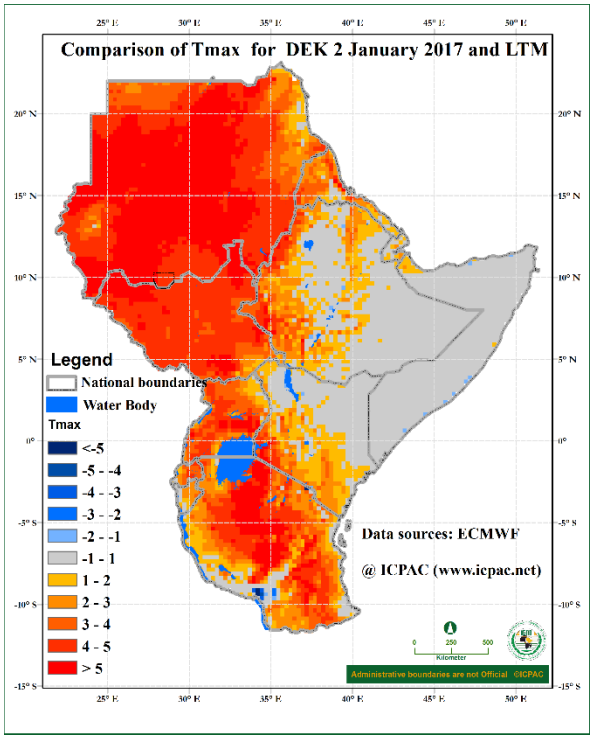

Figure 3a: Maximum temperature anomaly for the second dekad (21–31 November) of 2017*(Source blended ECMWF)*

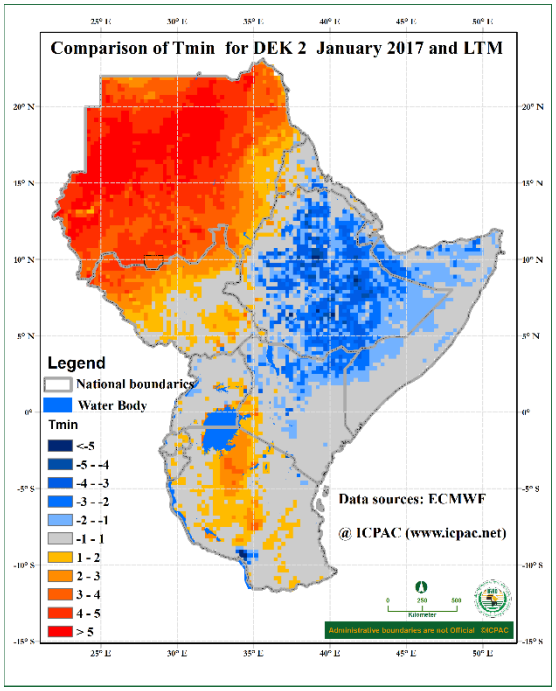

Figure 3b:Average Minimum temperature for the second dekad (21–31 December) of 2017*(Source blended ECMWF)*

Much of Sudan, South Sudan, Uganda, Tanzania; and over parts of Eritrea, Djibouti, western Ethiopia, and over western, central and southern Kenya warmer than average maximum temperatures was experienced during the second dekad of 2017 (Figure 3a).

Warmer than average minimum temperature was experienced over much of Sudan, northern part of South Sudan, and over western Kenya extending to central Tanzania during the second dekad of January of 2017. Much of Ethiopia, part of northern Somalia, and parts of northern and central Kenya cooler than average minimum temperature was experienced during the second dekad of 2017 (Figure 3b).

4.0 Impacts on socio-economic sectors

The socio-economic impacts associated with the observed rainfall and temperature conditions are highlighted below:

4.1 Vegetation condition indicators

Normalized Difference Vegetation Index Anomaly

The Normalized Difference Vegetation Index (NDVI) anomaly for the period between 16th and 21st January 2017 (Figure 4) indicates deterioration in vegetation conditions in south western Ethiopia, over south eastern South Sudan; over much of Uganda; western, central and eastern Kenya; southern Somalia; over much of southern Rwanda, parts of Burundi; and over much of northern, eastern and southern Tanzania. Improvement in vegetative condition is indicated in a few areas in west of Sudan, western and north eastern South Sudan, and over western Tanzania. The rest of the GHA showed little or no change in vegetation conditions compared to the long-term average of the same period.

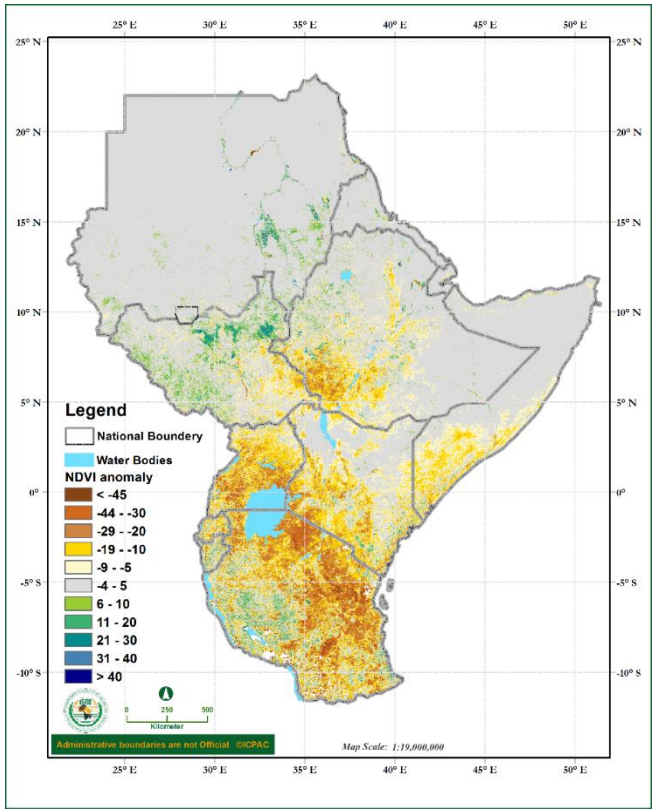

Figure 4: NDVI anomaly for the period between 16th and 21st January 2017

4.2 Impacts associated with observed climate conditions

During the second dekad (21-31 November) of 2017 dry conditions have continued to be experienced and these have resulted into drought related impacts such as persistence in deterioration in water and pasture conditions, and poor prospects of crop and livestock performance, loss of crop and livestock, water scarcity, increase in food insecurity, migration of pastoralist, and human wildlife conflict.

5.0 Climate outlook

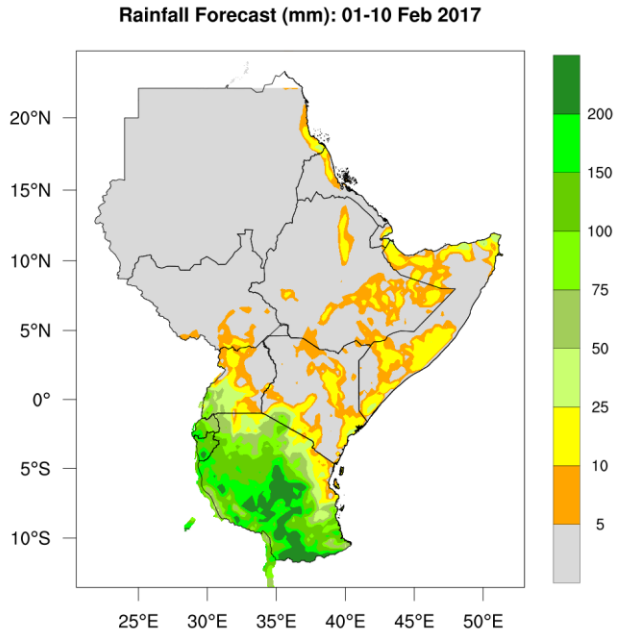

Figure 5: Precipitation outlook for the fourth dekad (1 –10 February) of 2017

Rainfall outlook

The rainfall outlook for the fourth dekad (1-10 January) of 2017 in Figure 5 indicates that rainfall is likely to be concentrated over much of the southern sector as well as over a few areas in western and southern western part of the equatorial sector. The rest of the Greater Horn of Africa Region is likely to experience generally dry conditions.

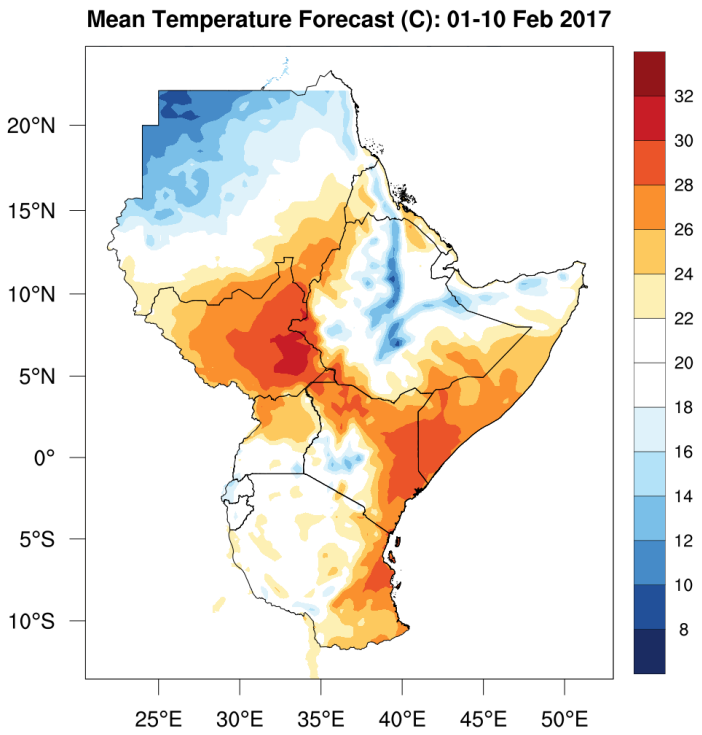

Figure 6: Average temperature outlook for the fouth dekad (1 –10 February) of 2017

Temperature outlook

The average temperature outlook for fourth dekad (1-10 February) of 2017 (Figure 6) indicates the likelihood of mean temperature below 18°C over northern Sudan; central parts of Ethiopia; northern Somalia, central Kenya; north western Rwanda, and central Burundi. Much of the rest of the GHA is likely to record average temperature of greater than 22°C during this period.

For more information contact
ICPAC P.O. Box 10304, 00100 Nairobi,
KENYA;
Tel: +254-020-3514426
E-mail: director@icpac.net

Website: www.icpac.net