



10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE FIRST DEKAD (01-10 JANUARY) OF 2017 AND CLIMATE OUTLOOK FOR THE THIRD DEKAD (21-31 JANUARY) OF 2017

1.0 Introduction

In this bulletin, the climatic conditions observed during the first dekad (01-10 January) of 2017 over the Greater Horn of Africa (GHA) are reviewed and the associated impacts highlighted. The climate outlook for the third dekad (21-31 January) 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 -5° and 5° 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 first 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 first dekad (01-10 January) of 2017.

Most of the western part of the GHA experienced warmer than average maximum temperature, while a few areas in the north western Sudan and in the Ethiopian highlands

experienced lower than average minimum temperatures. 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., while cooler than average minimum temperatures was experienced in eastern parts of the northern sector of the GHA.

The outlook for the third dekad (21-31 January) of 2017 shows significant rainfall is likely to be experienced in the southern sector as well as in areas south of the equatorial

sector of the Greater Horn of Africa. Average temperature exceeding 26°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 first Dekad (01–10 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 first dekad (01-10 January) of 2017.

Rainfall Distribution and Severity

During the first dekad of 2017, rainfall was of between 10mm and 100mm was recorded over areas in the south west of Rwanda, over much of Burundi and Tanzania excluding the northern and north eastern part of Tanzania. The rest of the GHA region recorded less than 10mm of rainfall during the first dekad of 2017 (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, Kenya, Rwanda, Burundi and Tanzania, and over southern part of Somalia (Figure 2a) during the first dekad of 2017. These areas experienced moderately dry 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 first dekad of 2017.

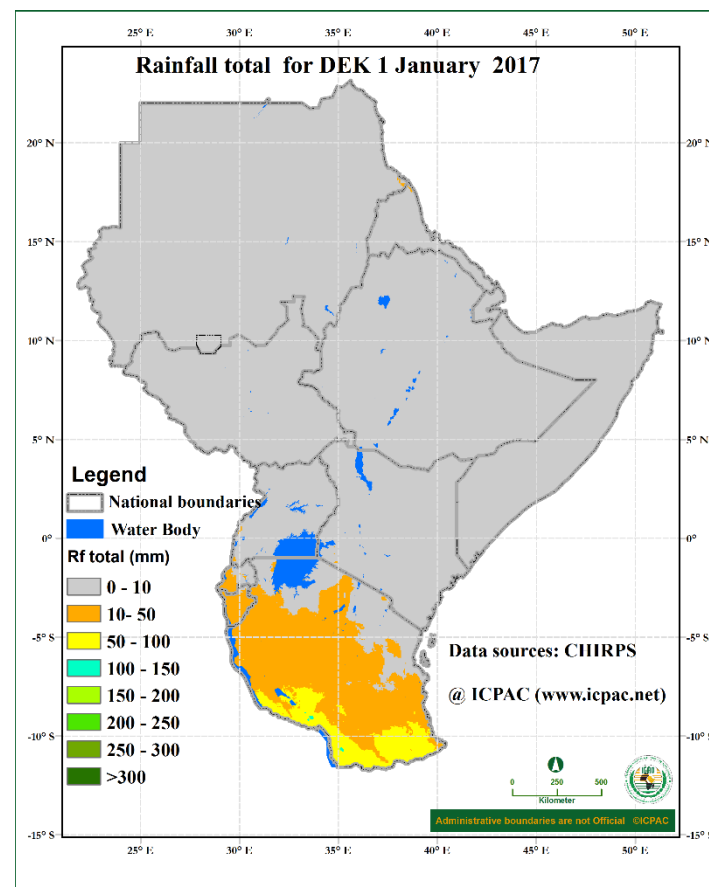


Figure 1: Rainfall distribution during the first dekad (1–10 January) of 2017. (Source: CHIRPS)

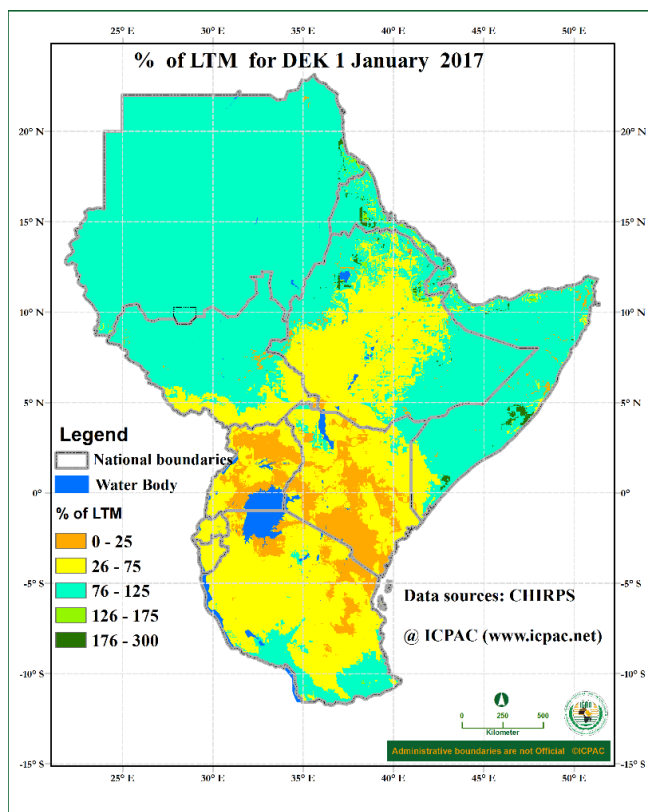


Figure 2a: Percent of long term average rainfall for the first dekade (1–10 January) of 2017 (Source CHIRPS)

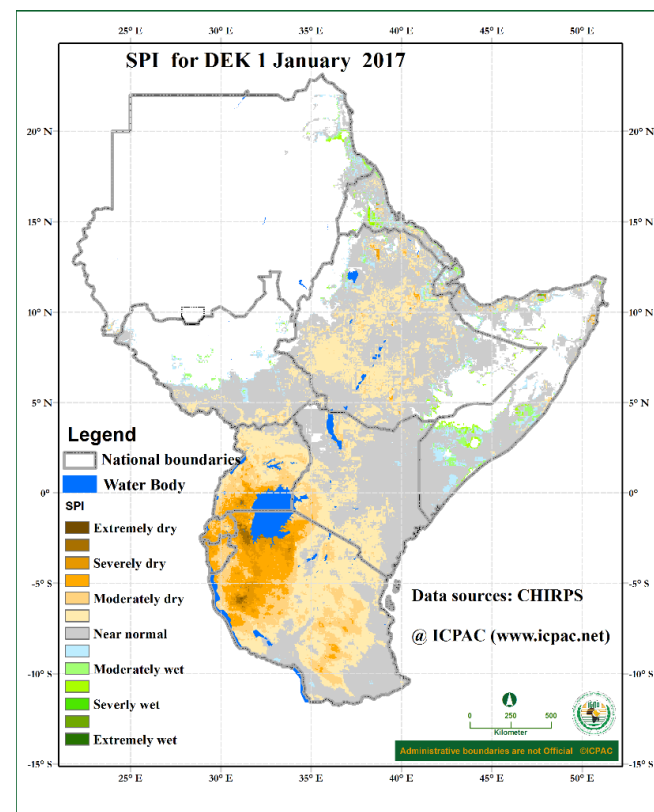


Figure 2b: Standardized Precipitation Index (SPI) for first dekade (1–10 January) of 2017 (Source CHIRPS)

Maximum and Minimum Temperature Anomaly

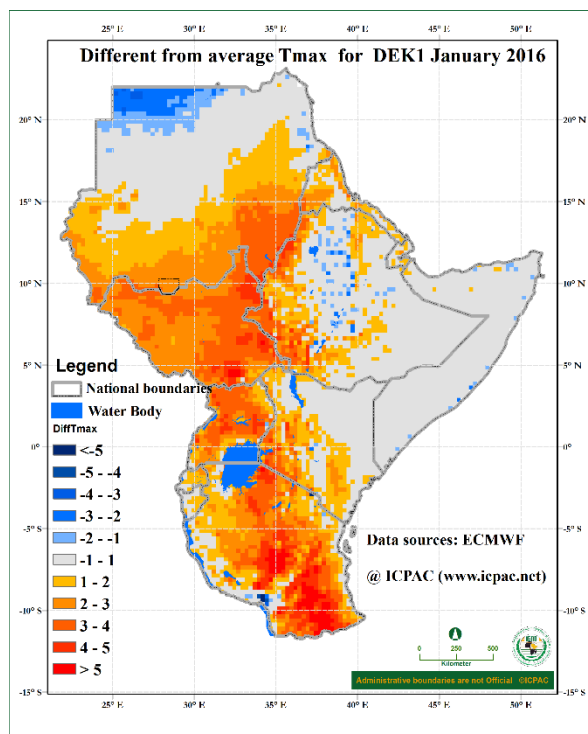


Figure 3a: Maximum temperature anomaly for the first dekad (21–31 November) of 2017(Source blended ECMWF)

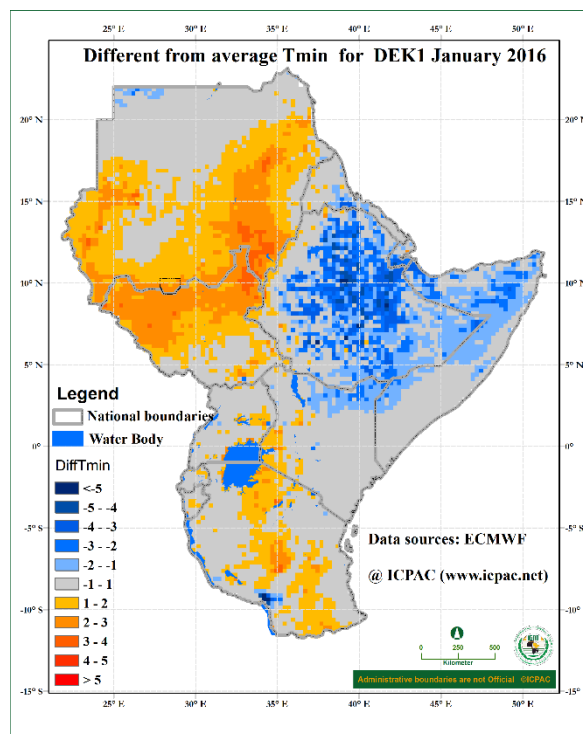


Figure 3b: Average Minimum temperature for the first dekad (21–31 December) of 2017(Source blended ECMWF)

Areas around the southern Sudan; over much of South Sudan, Uganda, Rwanda, Bufundi, and Tanzania; over parts of Eritrea, western Ethiopia, and over western, central and eastern Kenya experienced warmer than average maximum temperatures during the first dekad of 2017. Cooler than average maximum temperature was experienced in the north western Sudan and in isolated parts of central Ethiopia during the same period (Figure 3a).

Warmer than average minimum temperature was recorded in the Southern, eastern and south western Sudan extending to northern South Sudan, as well as western Kenya, and central part of Tanzania. Cooler than average minimum temperature was experienced in much of Ethiopia extending to northern Somalia and north eastern Kenya, during the first 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 8th and 15th January 2017 (Figure 4) indicates deterioration in vegetation conditions in south western Ethiopia extending to south eastern South Sudan; over much of Uganda; western, central and eastern Kenya; southern Somalia; over much of southern Rwanda and western Bufundi; and over much of eastern and northern Tanzania. Improvement in vegetative condition is indicated in parts of South Sudan and a few areas in 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.

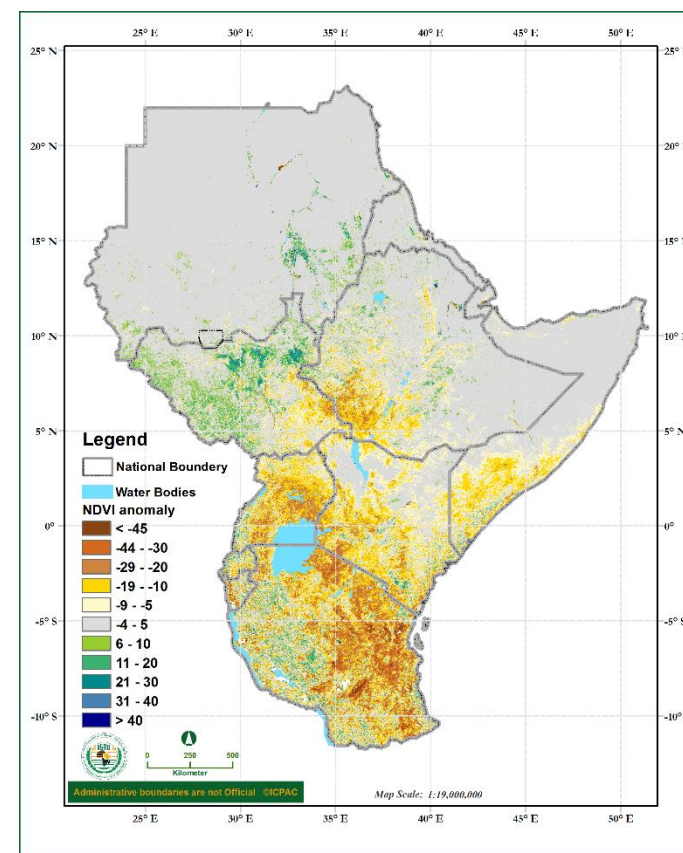


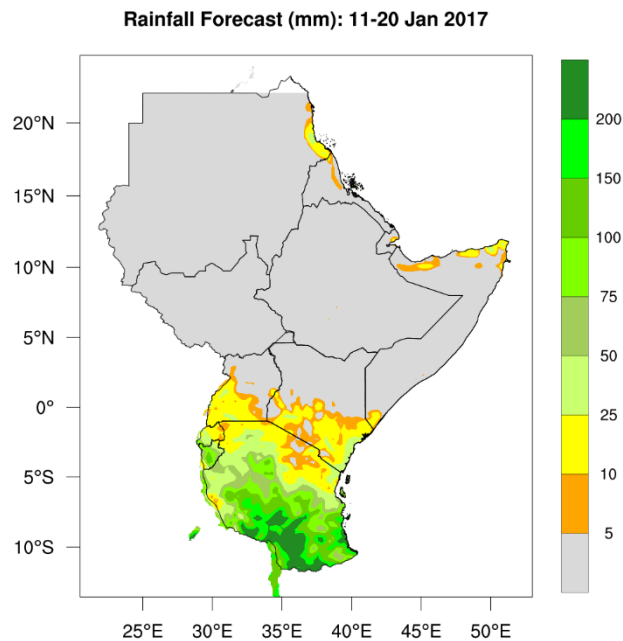
Figure 4: NDVI anomaly for the period between 25thDecember and 2017 1st January 2017

4.2 Impacts associated with observed climate conditions

The observed rainfall conditions over GHA during the first dekad (21-31 November) of 2017 were associated with the following impacts:

- Several areas experienced dry conditions leading to persistence in deterioration in water and pasture conditions, and poor prospects of crop and livestock performance.
- Some areas have had increase in the prevalence of water related diseases.
- Increase in food prices
- Migration of pastoralists and human wildlife conflict

5.0 Climate outlook



Rainfall outlook

The rainfall outlook for the third dekad (21-31 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 southern part of the equatorial sector. The rest of the Greater Horn of Africa Region is likely to experience generally dry conditions.

Figure 5: Climate outlook for the third dekad(11 –20 January) of 2017

Temperature outlook

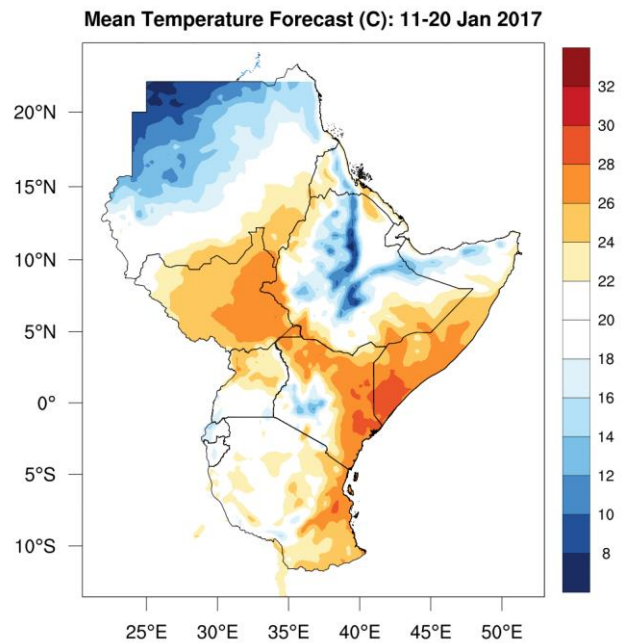


Figure 6: Climate outlook for the third dekad (11 –20 January) of 2017

The average temperature outlook for third dekad (21-31 January) of 2017 (Figure 6) indicates the likelihood of mean temperature below 18°C over north western Sudan; central parts of Ethiopia; northern Somalia, central Kenya; north western Rwanda, and central Burundi. The rest of the GHA is likely to record average temperature of greater than 22°C during this period.

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