



10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE THIRD DEKAD (21-28) OF FEBRUARY 2017 AND CLIMATE OUTLOOK FOR THE SECOND DEKAD (11-20) OF MARCH 2017

1.0 Introduction

In this bulletin, the climatic conditions observed during the third dekad (21-28) of February 2017 over the Greater Horn of Africa (GHA) are reviewed and the associated impacts highlighted. The climate outlook for the second dekad (11-20) of March 2017 is also highlighted.

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

A much of the southern sector, western and central equatorial sector, and also south central parts of the northern sector of the GHA experienced moderately wet to severely wet rainfall conditions during the third dekad (21-28) of February 2017 which created a relief from the previously prevail depressed rainfall condition.

Rainfall was concentrated in much of the southern sector, over south western, central and southern part of the equatorial sector as well as in the south central eastern part of the northern sector of the GHA region during the third dekad of 2017.

During the same period, northwest and central part of the northern sector, western part of the equatorial sector and central part of the southern sector of the GHA region experienced cooler than average maximum temperature. Warmer than average maximum temperatures was observed over a few parts much of the southern sector as well as south central parts of the equatorial sector of the GHA region.

The outlook for the second dekad (11-20) of March 2017 shows that rainfall is likely to be concentrated over much of the southern sector and over southern part 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 northwest, north and eastern part of the equatorial sector and to the eastern part of the southern sector of the GHA during the second dekad of March 2017.

3.0 Observed rainfall situation during the third Dekad (21-28) of February 2017

Figure 1 shows the total rainfall distribution, Figure 2 shows the percent of the average rainfall, and Figure 2b shows the standardized precipitation index (SPI) over the GHA region during the third dekad of February 2017.

Rainfall Distribution and Severity

During the third dekad (21-28) of February) of 2017, much of Tanzania, Burundi, Rwanda, Uganda; parts of western and southern Kenya, southern South Sudan, and south western and central Ethiopia, recorded between 6mm and 200mm of rainfall, with rainfall exceeding 25mm being recorded in south western part of Ethiopia, central and south western Uganda, western and central parts of Kenya, southwest of Rwanda, southern Burundi, and over much of Tanzania. The rest of the GHA region which include much of Sudan, Eritrea, Djibouti, Somalia, northwest and east of Ethiopia, northern South Sudan, and north eastern and eastern Kenya recorded less than 6mm of rainfall(Figure 1).

Much of Tanzania, north, central and southern Uganda, southern Burundi, north western, western and southern part of Kenya, south eastern and eastern parts of South Sudan, south western and western parts of Ethiopia and southern part of Eritrea indicated more than 125 % of the long term average rainfall (Figure 2a) resulting to moderately wet to severely wet rainfall conditions (Figure 2b) during the third dekad of February 2017. Areas west of South Sudan, east and south eastern parts of Ethiopia, north eastern Kenya, as well as central Somalia recorded less than 75% of the long term average rainfall (Figure 2a) which translated into near normal to moderately wet rainfall condition (Figure 2b). The rest of the GHA region recorded between 75% and 125% of the long term average rainfall resulting to near normal rainfall condition or climatologically dry conditions, during the third dekad of February 2017

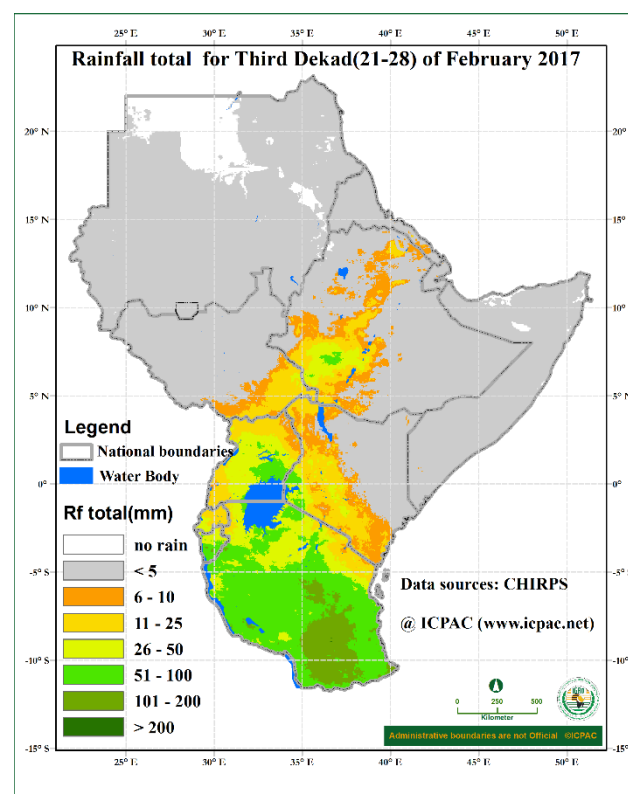


Figure 1: Rainfall distribution during the third dekad (21-28) of February 2017. (Data Source: USGS CHIRPS)

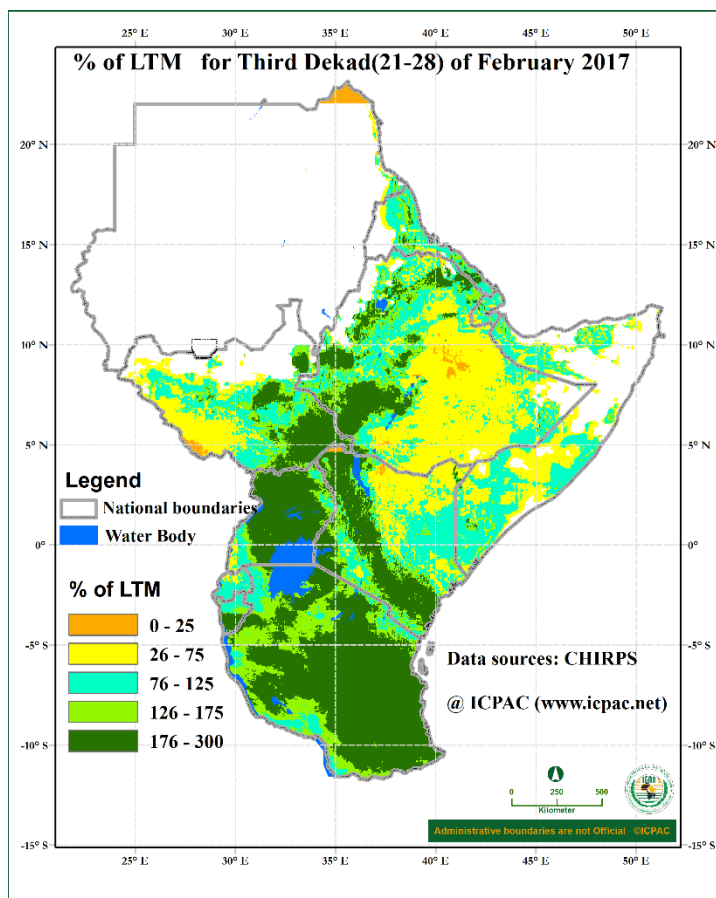


Figure 2a: % of LTM rainfall for the third dekad (21-28) of February 2017 (Data Source: USGS CHIRPS)

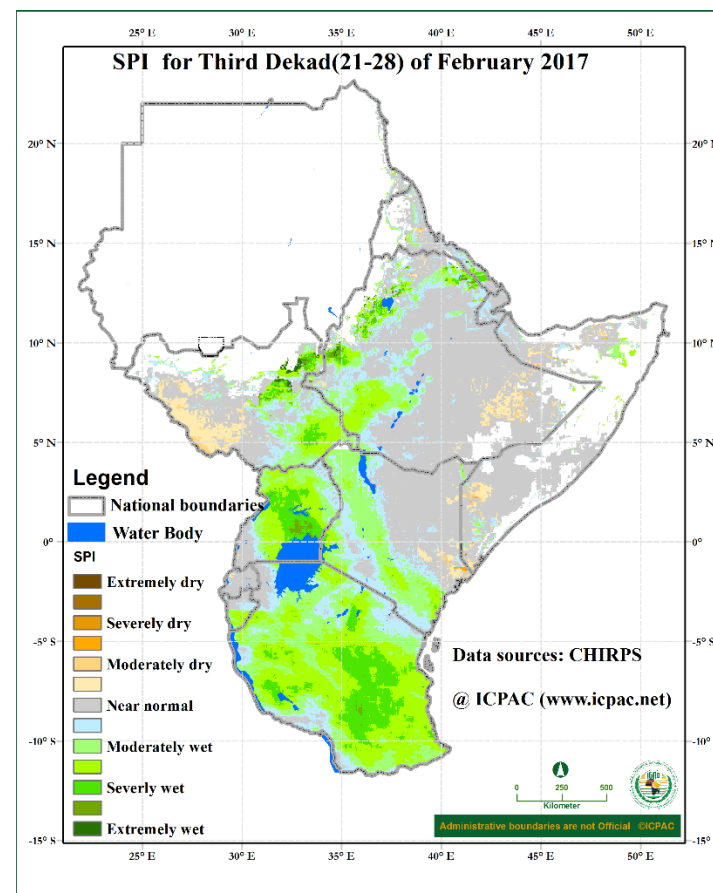


Figure 2b: Standardized Precipitation Index (SPI) for sixth dekad (21-28 February) of 2017 (Data Source: USGS CHIRPS)

Maximum and Minimum Temperature Anomaly

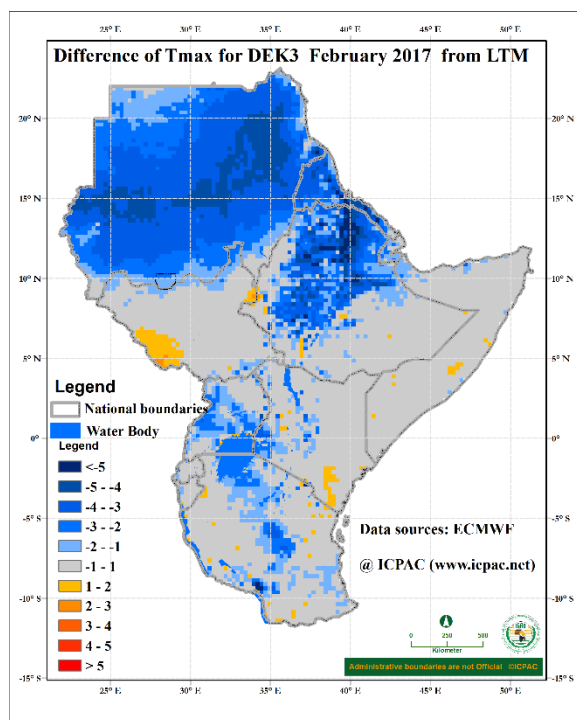


Figure 3a: Maximum temperature difference from the average (2008-2015) for the third dekad (21-28) of February 2017 (Data Source: ECMWF)

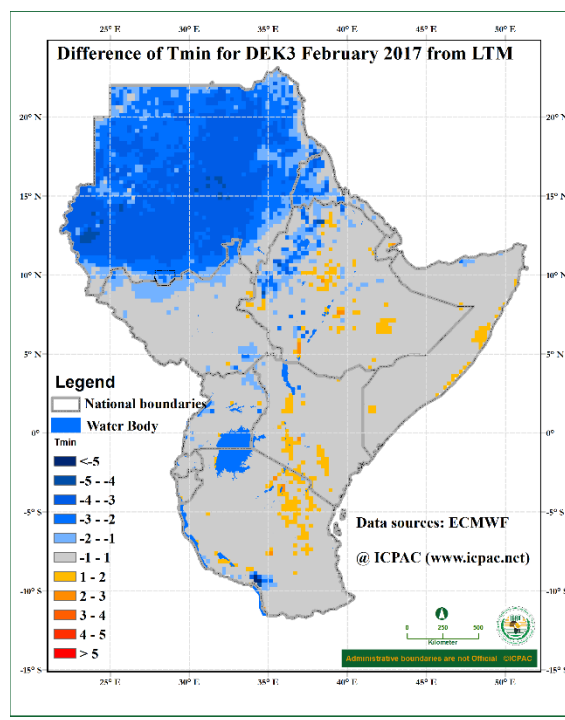


Figure 3b: Minimum temperature difference from the average (2008-2015) for the third dekad (21-28) of February 2017 (Data Source: ECMWF)

Cooler than average maximum temperatures was experienced over much of Sudan, and Eritrea; in parts of north, and central Ethiopia; around western, central and south eastern Uganda, western and central Kenya, and over northern, central and southern Tanzania during the third dekad of 2017. Warmer than average Maximum temperature was recorded in a few isolated areas such as in the south western part of South Sudan, southwestern part of Ethiopia, central part of Somalia, southeastern part of Kenya, and in the west north east and southern part of Tanzania. The rest of the GHA region experienced near average maximum temperatures (Figure 3a) during the same period. Cooler than average minimum temperature was mainly recorded over much of Sudan, extending to western part of Eritrea, north western Ethiopia and northern part of South Sudan. Warmer than average minimum temperature was experienced over isolated areas in central and eastern Ethiopia, central Somalia, central Kenya and north eastern Tanzania While the rest of the GHA recorded near average minimum temperatures during the third dekad of February 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 25th February and 4th March 2017 (Figure 4) indicates deterioration in vegetation conditions in southwest part of Ethiopia; over much of northern and central Uganda; over parts of central, south and coast of Kenya; in south eastern coast of Somalia; over western part of Rwanda; western Burundi; and over much of north and north eastern Tanzania. Improvement in vegetative conditions is indicated in a few areas in southeast of Sudan, western, northeastern and southeastern parts of South Sudan; in areas around west and northern Ethiopia; in parts of Southern Uganda, western and central Kenya; over eastern Rwanda, eastern Burundi; and in the areas west, south and northeast of Tanzania. The rest of the GHA showed little or no change in vegetation conditions compared to the long-term average of the same period.

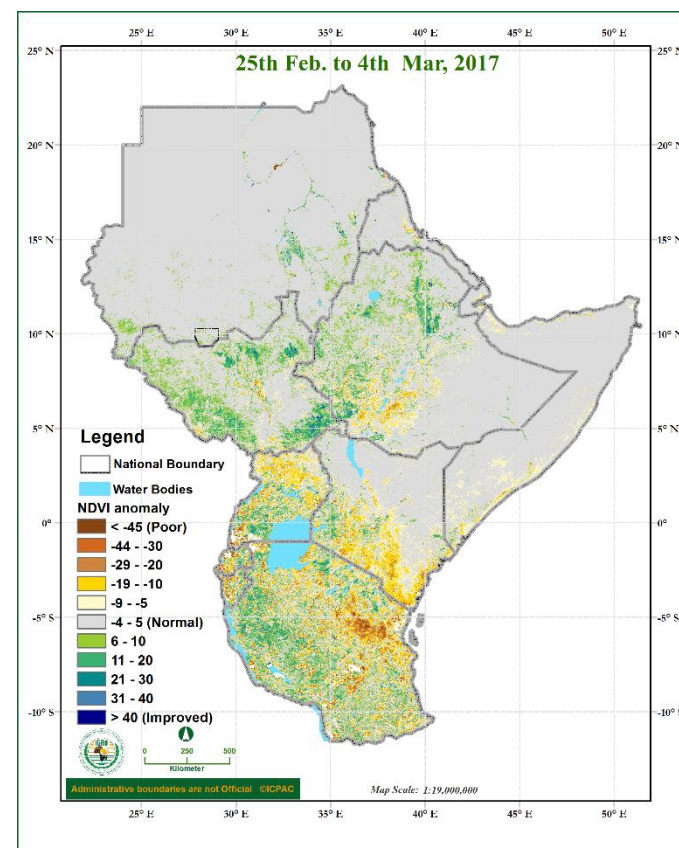


Figure 4: NDVI anomaly for the period between 25th February and 4th March 2017 (Data Source: USGS NASA)

4.2 Impacts associated with observed climate conditions

During the third dekad (21-28) of February 2017 dry conditions continued to be experienced in some areas especially in the equatorial sector, and these have resulted into extended drought related impacts such as persistence in deterioration in water and pasture conditions leading to poor prospects of crop and livestock performance, loss of crop and livestock, water scarcity, increase in food prices, migration of pastoralist, and human wildlife conflict. A few areas in the southern sector have shown improvement in water and vegetative conditions which have eased water stress and improved pasture availability.

From the climate outlook some places in the southern sector as well as western and southern parts of the equatorial sector of the GHA are likely to have an improvement in water, and pasture resources. This is likely to create an improve prospects of crop and livestock production, and possible beginning of cropping season.

5.0 Climate outlook

Rainfall outlook	Temperature outlook
The rainfall outlook for the second dekad (11-20) of March 2017 in Figure 5 indicates that rainfall is likely to be concentrated over much of Tanzania, Rwanda, Burundi, southwest part of Uganda, and southern western and coastal Kenya; and in a few areas in southwest part of South Sudan, south and western Ethiopia, southern and central Somalia, northern and central Uganda, and central and eastern parts of	The average temperature outlook for second dekad (11-20) of March 2017 (Figure 6) indicates the likelihood of mean temperature below 18°C over northern part of Sudan; central parts of Ethiopia; western part of Rwanda; and central Kenya. Much of the rest of the GHA is likely to record average temperature of greater than 22°C during this period.

Kenya. Much of the rest of the Greater Horn of Africa Region which include much of Sudan, Eritrea, Djibouti, northern South Sudan, north, west, and eastern Ethiopia, northern Somalia, and north western Kenya, is likely to experience little rainfall or remain generally dry during the second dekad of March 2017.

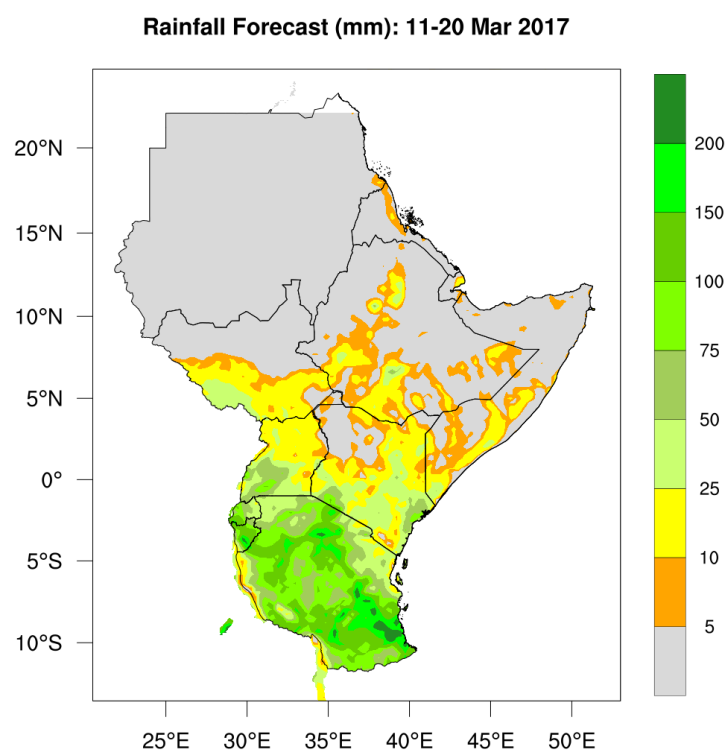


Figure 5: Precipitation outlook for the Second dekad (11-20) of March 2017

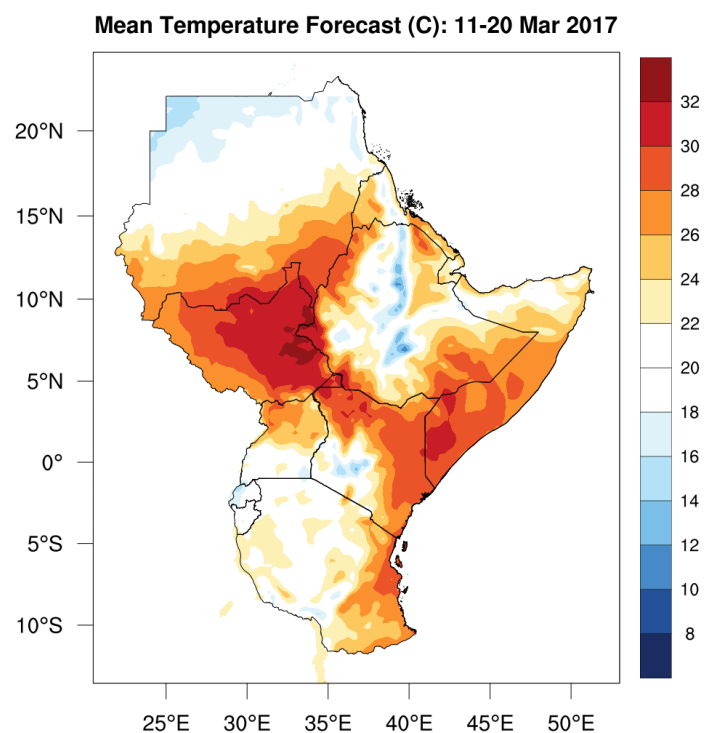


Figure 6: Average temperature outlook for the second dekad (11-20) of March 2017

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