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10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE FIRST DEKAD (1-10) OF JUNE 2017 AND FORECAST FOR THE THIRD DEKAD (21-30) OFJUNE 2017

1.0 Introduction

In this bulletin, the climatic conditions observed during the first dekad (01-10) of June 2017 over the Greater Horn of Africa (GHA) are reviewed and the associated impacts highlighted. The climate forecast for the third dekad (21-30) of June 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 -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

During the first dekad (01-10) of June 2017 rainfall activity was mainly experienced over southwestern and central parts of the northern sector, in northwestern, western and extreme eastern parts of the equatorial sector, and in the northeastern parts of the southern sector of the Greater Horn of Africa (GHA). Much of the northern and eastern parts of the northern sector, central and eastern part of the equatorial sector, and the southern sector of the GHA recorded little or no rainfall.

Much of the GHA region exhibited near average to below average rainfall except for a few areas in southern part of Sudan, northwestern and western South Sudan, central part of Somalia, and in western and southern areas around Lake Victoria, during the first dekad (01-10) of June 2017.

Maximum temperature warmer than the average maximum temperature conditions was experienced mainly in southwestern and southeastern parts of the northern sector, in much of western and central parts of the equatorial sector, as well as in northwest part of the southern sector of the GHA region during the same period. Much of the rest of GHA region recorded near the average maximum temperature except for the parts of southwestern Eritrea and north and central Ethiopia which recorded maximum temperature cooler than the average.

Much of the GHA recorded near average minimum temperature conditions except for a few areas in northwest of Sudan, parts of Djibouti, South Sudan, and in isolated areas north of Uganda, west and central Kenya, southwest Ethiopia and in western and southern Tanzania..

The forecast for the Third dekad (21-30) of June 2017shows that rainfall is likelyto be concentrated over much of the southwestern and central areas of the northern sector, and in northwestern and eastern parts of the equatorial sector the GHA.

3.0 Observed rainfall situation during the first dekad (01-10) of June 2017

Figure 1a shows the total rainfall distribution, Figure 1b shows the percent of the long-term average rainfall, and Figure 1c shows the standardized precipitation index (SPI) over the GHA region during the first dekad of June 2017.

Rainfall Distribution and Severity

During the first dekad (01-10) of June 2017, the total rainfall plot in Figure 1a shows that rainfall amounts greater than 5mm was experienced over southern part of Sudan, much of South Sudan, western and central Ethiopia, southwest of Eritrea, much of Uganda, western and southeastern Kenya, southern Somalia and in northeastern Tanzania. Rainfall amounts greater than 50mm but not exceeding 100m was recorded around southwestern Sudan; in western and northeastern South Sudan; over western Ethiopia; and around western parts of Kenya. The rest of the GHA recorded less than 5mm of rainfall.

During the same period depressed rainfall conditions greater than 125% of the long term average rainfall was observed mainly over southern part of Sudan; in areas northwest and west of South Sudan; in isolated in the southwest of Ethiopia; central Somalia; around western Kenya; and over northern Tanzania. much of the rest of the GHA recorded of less than 75% of the long term average rainfall except for much of northern Sudan, parts of northeast and southwest Ethiopia, Djibouti, central South Sudan, northeastern Kenya and central and southwestern Tanzania which recorded between 75% and 125% of the long term average rainfall (Figure 1b), during the first dekad of June 2017. Some areas in southern Ethiopia, in northwestern and south west parts of Somalia, north and central parts of Kenya and southwestern Tanzania have showed reduction in rainfall performance as compared with the previous dekad (Figure 1b).

During the first dekad of June 2017 moderately wet to severely wet rainfall condition was observed over southern part of Sudan, northwestern parts of South Sudan, in central parts of Somalia, and in a few areas west and south of Lake Victoria (Figure 1c). Areas covering much of northern Ethiopia, northern and southeastern Somalia, western parts of South Sudan, in several parts of Uganda, several parts of north, central and southeastern Kenya, over much of Rwanda and Burundi, and in western, eastern, and southern part of Tanzania experienced moderately dry to extremely dry rainfall conditions (Figure 1c). While the rest of the GHA recorded near normal or generally dry rainfall conditions.

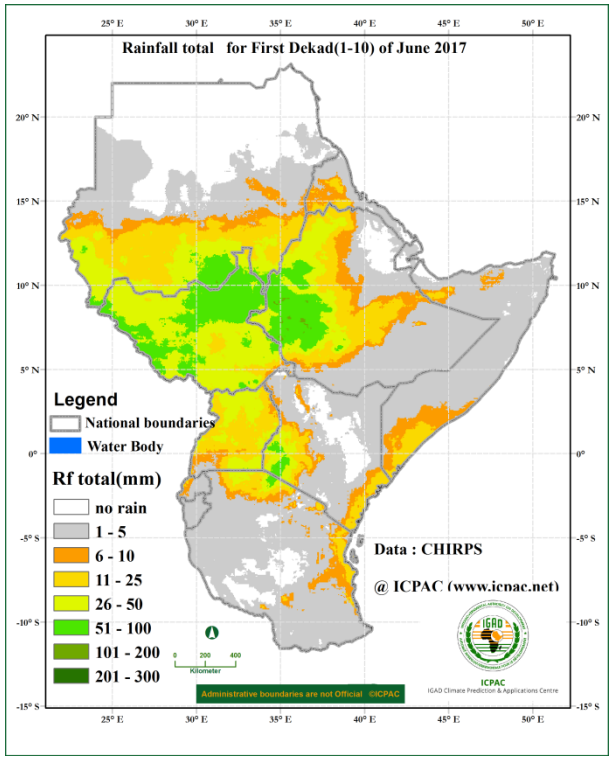

Figure 1a: Rainfall distribution during the first dekad (01-10) of June 2017. *(Data: Blended CHIRPsatellite estimate and observed stations)*

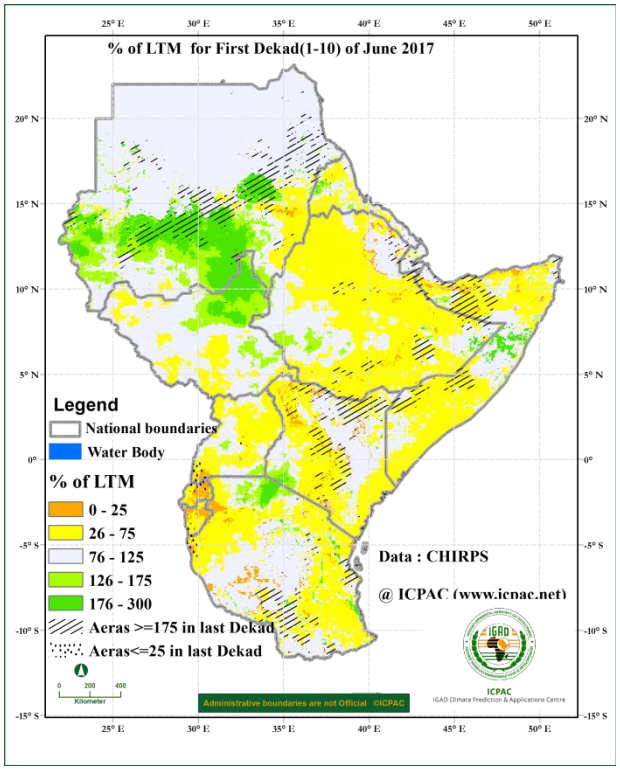

Figure 1b: Percent of long term average rainfall for the first dekad (01-10) of June 2017 *(Data: Blended CHIRPsatellite estimate and observed stations)*

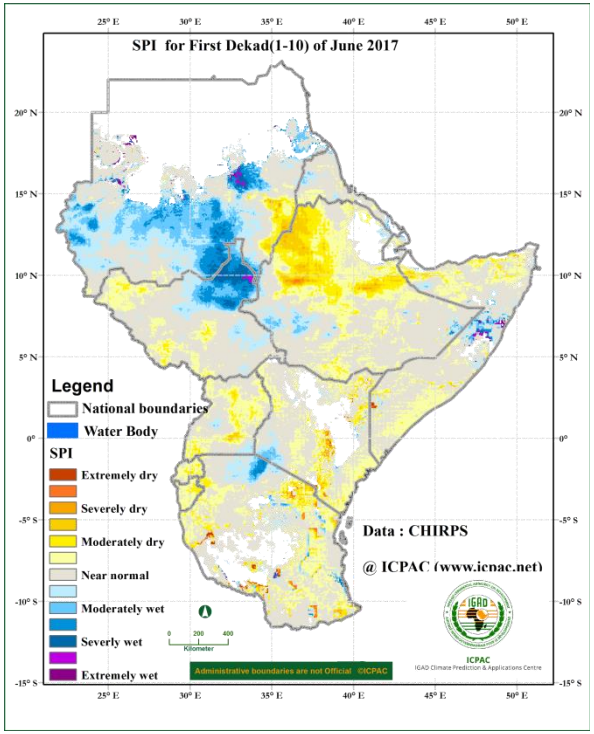

Figure 1c: Standardized Precipitation Index (SPI) for first dekad (01-10) of June 2017 *(Data: Blended CHIRPsatellite estimate and observed stations)*

Maximum and Minimum Temperature Anomaly

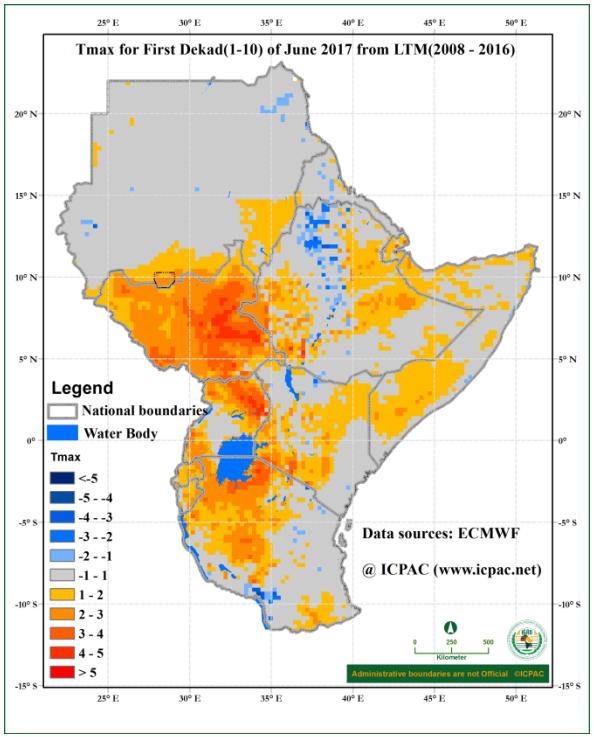

Figure 2: Maximum temperature difference from the average (2008-2015) for the first dekad (01-10) ofJune 2017*(Data Source: ECMWF)*

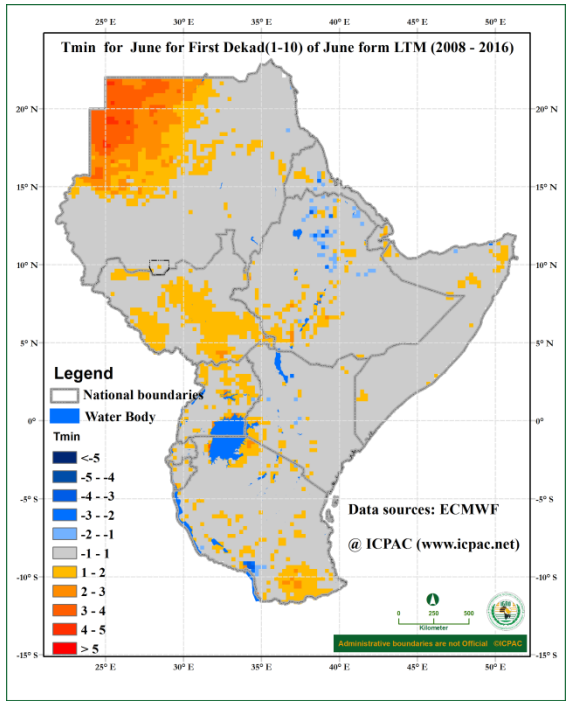

Figure 3:Minimum temperature difference from the average (2008-2015) for thefirst dekad(01-10) ofJune 2017*((Data Source: ECMWF)*

Warmer than average conditions for maximum temperature was mainly observed over much of South Sudan; in the southern parts of Sudan; western and northeastern Ethiopia extending to Djibouti and northern parts of Somalia; in southern parts of Somalia, north, east and southwestern parts of Uganda; around western, central and northeastern parts of Kenya; in much of Rwanda and Burundi; and northwest and southern Tanzania during the first dekad of June 2017. Cooler than average conditions for maximum temperature was recorded mainly in a few areas around eastern Sudan; western Eritrea; in north and central parts of Ethiopia and in south western Tanzania (Figure 2).

Much of the GHA region recorded minimum temperature near the average conditions except for areas in northwestern Sudan, western, central and southeastern South Sudan, in parts of western Eritrea, southwestern Ethiopia, eastern Djibouti, northeastern part of Somalia, northern and western Uganda, western and isolated parts of central Kenya, in isolated parts of Rwanda and Burundi, and in western and southern Tanzania which recorded minimum temperatures warmer the average (Figure 3). Minimum temperature cooler than the average conditions was observed in few areas north of Ethiopia and in central parts Kenya.

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 1st and 8th June 2017 (Figure 4) indicates that vegetative conditions showed improvement as compared to the long term average vegetative conditions in southern part of Sudan; in north, northeastern parts of South Sudan; northwestern, central and eastern parts of Ethiopia; central and southwestern Kenya; over a few places; and over eastern, southern and isolated parts of western Tanzania. Deterioration in vegetative conditions as compared to the long term average vegetative conditions was observed in several parts of southern South Sudan, southern Ethiopia, southern and central Somalia, n western, central and eastern Kenya, in several areas of Uganda, and in northern part 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.

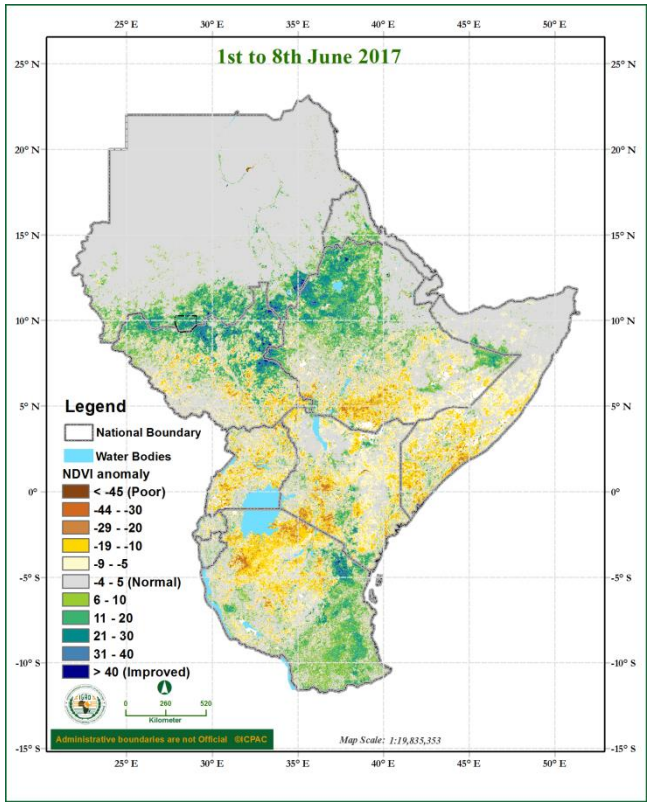

Figure 4: NDVI anomaly for the period between 1st and 8th June 2017 (Data Source: USGS NASA)

4.2 Impacts associated with observed climate conditions

During the first dekad (01-10) of June 2017 the rainfall activities in some areas in the northern and southern sector have been associated with improvement in water and vegetative conditions which have eased water stress, improved pasture availability, and improved prospects of good crop and livestock performance. However effects of the dry conditions continue to be felt in several areas in the equatorial sector, and southeastern parts of the northern sector of the GHA, and these have led to, water stress, poor prospects of crop and livestock productivity, continued high food prices, migration of pastoralist, and increase in climate related diseases.

From the climate outlook for the third dekad of June much of the northernwestern parts of the equatorial sector as well as much of the western and central parts of the northern sector of the GHA are likely to have sufficient rainfall performance, which will lead to improved water and pasture resources, some areas are also likely to experience flooding conditions especially in some areas of Sudan and South Sudan.

5.0 Climate Forecast

Rainfall Forecast	Temperature Forecast
The rainfall forecast for the third dekad (21-30) of June 2017 in Figure 5 indicates that rainfall is likely to be concentrated over much southern part of Sudan; South Sudan; western and central Ethiopia; over parts of central and southern Somalia; in the northern and western parts of Uganda; over western, central and northeastern Kenya; and in parts of eastern and southern Tanzania. The rest of the GHA region likely to experience little rainfall or remain generally dry during the third	The average temperature forecast for third dekad (21-30) of June 2017 (Figure 6) indicates the likelihood of warm average temperature greater than 22°C over much of the GHA except for western and central parts of Ethiopia, southern part of Uganda, western and central Kenya, over much of Rwanda, Burundi, and northern and western Tanzania.

dekad (21-30) of June 2017.

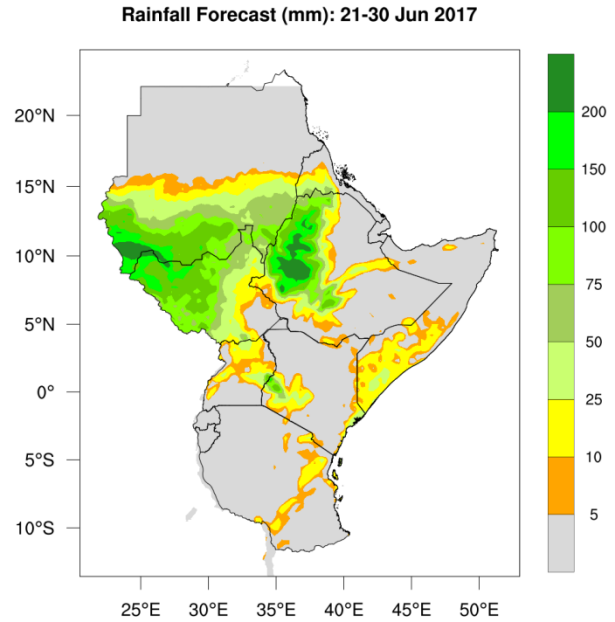

Figure 5: Precipitation forecast for the third dekad (21-30) of June 2017 (Source: WRF-ICPAC)

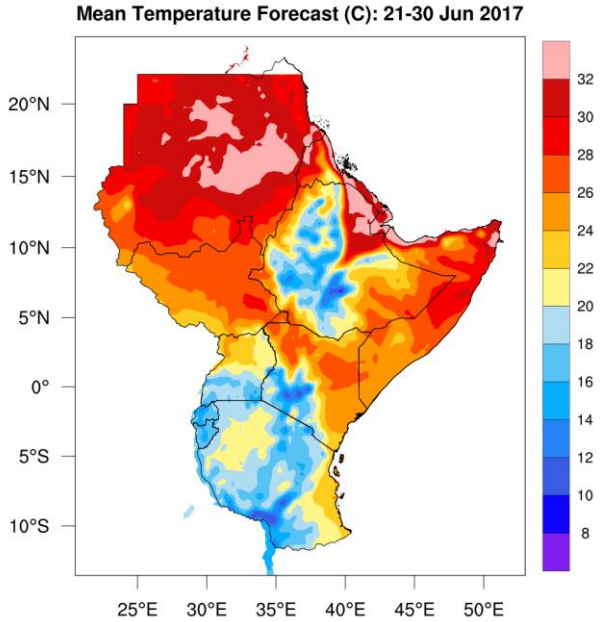

Figure 6: Forecast for average temperature for the third dekad (21-30) of June 2017 (Source: WRF-ICPAC)

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