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10 DAYS CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE SECOND DEKAD (11-20) OF SEPTEMBER 2019 AND FORECAST FOR THE FIRST DEKAD (01-10) OF OCTOBER 2019

1. Introduction

This bulletin reviews the climatic conditions observed during the second dekad (11-20) of September 2019 and gives the climate forecast for the first dekad (01-10) of October 2019 with the associated climate impacts over the Greater Horn of Africa (GHA) region. The observed conditions are compared to the average of the climatological period of 1981-2010 for rainfall and mean surface temperature.

For referencing within this bulletin, the Greater Horn of Africa (GHA) region is generally subdivided into three sub-sectors: The equatorial sector lying approximately between 5^{o} S and 5^{o} N, with the northern and southern sectors occupying the rest of the northern and southern parts of the region respectively while average is computed based on the period 1981 - 2010.

2. Climate Brief

During the second dekad of September 2019, most parts of South Sudan, southern part of Sudan, several parts of west, central and northern Ethiopia, northern Somalia, Djibouti, Uganda, Burundi, western Rwanda, and western parts of Kenya recorded between 10 mm and 100mm of rainfall. Parts of central Ethiopia recorded rainfall that exceeds 100mm. Much of the rest of the GHA recorded light rains of less than 10mm or remained generally dry. A few places in central and western Sudan, southern Ethiopia, northwest and southeastern South Sudan, several parts of Uganda, Rwanda, and western and coastal Kenya recorded rainfall that was drier than the climatological average. A few places in eastern Sudan, western Eritrea, northern Somalia, northern Ethiopia, and over several parts of Djibouti and Burundi recorded rainfall that was wetter than the climatological average. Much of the rest of the southern part of the northern sector and western, central and coastal parts of the equatorial sector of the GHA recorded rainfall that was near climatological

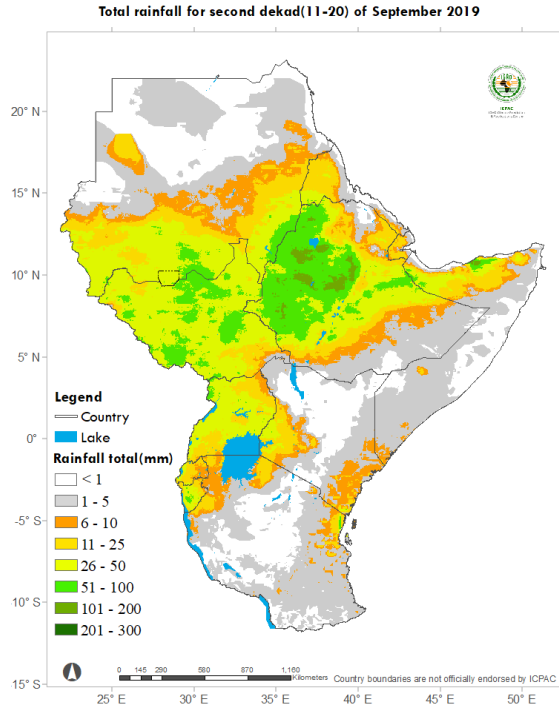

Figure 1a: heavy to very heavy rainfall was recorded in southern parts of Sudan, central and western Ethiopia, several parts of South Sudan, Uganda, Burundi, and western parts of Kenya. *(Data: ICPAC Blended CHIRP)*

average. Some areas in northern parts of Sudan, central Somalia, northern and eastern Kenya, and central and western parts of Tanzania remained generally dry during the second dekad of September 2019 (Figure 1a, Figure 1b and Figure 1c).

Maximum and minimum temperature was warmer than the climatological average over most parts of the equatorial sector, and southern sector, and southeastern parts of the northern sector of the GHA. Maximum and minimum temperature that was cooler than the climatological average was observed in western and central parts of the northern sector and over northeastern parts of the equatorial sector of the GHA. Much of the rest of the northern sector recorded maximum and minimum temperature that was near the climatological mean during the second dekad of September 2019 (Figure 2 and Figure 3).

Rainfall above 150mm is forecasted in parts of south-western Sudan, western & central Ethiopia and northern & central Somalia. Moderate rainfall of between 25-150mm is forecasted over most of southern Sudan, South Sudan, Ethiopia, Somalia, Uganda, Rwanda, Burundi, western, central, coastal & eastern Kenya, and coastal, southern & western Tanzania. Areas of northern Sudan, north-western to south-eastern Kenya and central Tanzania are forecasted to receive less than 25mm, or relatively dry conditions are forecasted during the first dekad (01-10) of October 2019.

Mean temperatures above 30 ^{o}C expected in northwestern Kenya, northeastern Ethiopia, much of Eritrea and central & northern Sudan. Moderate conditions in the range of 20-30 ^{o}C expected in Uganda, South Sudan, southern & eastern Ethiopia, much of Somalia, eastern & southern Kenya and much of Tanzania. Regions in central Ethiopia, parts of central & western Kenya, and isolated places in Tanzania, Rwanda, Burundi and Uganda are forecasted to experience mean temperatures less than 20 ^{o}C .

3. Observed rainfall during the second dekad (11-20) of September 2019

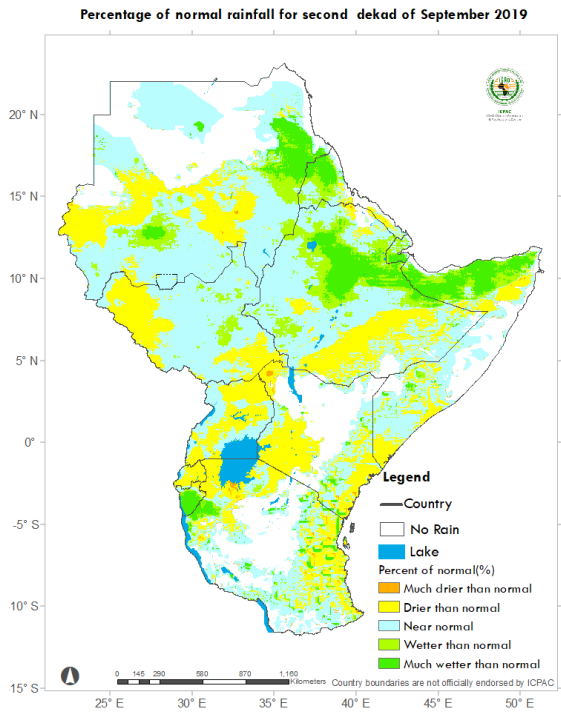

Figure 1b

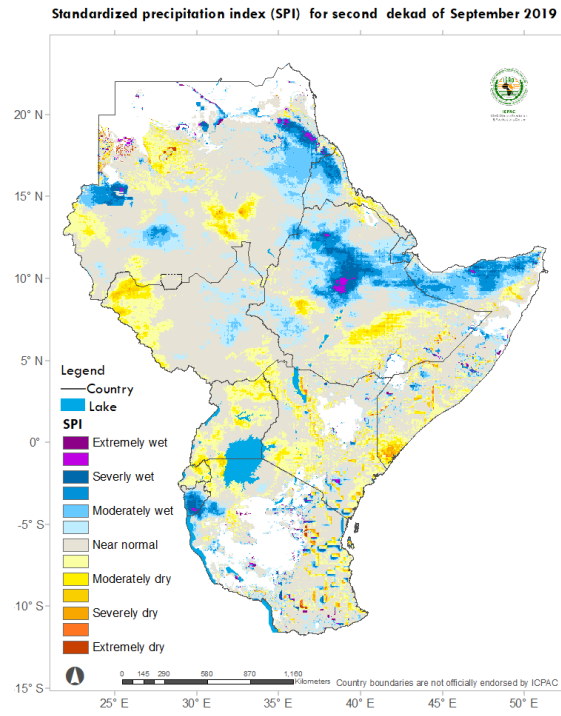

Figure 1c

The rainfall was drier than the climatological average over parts of western and central Sudan, northwest and southeastern parts of South Sudan, southern Ethiopia, over several parts of Uganda, Rwanda, western, central and coastal Kenya, southeastern Somalia, and north and eastern parts of Tanzania. Eastern parts of Sudan, western Eritrea, parts of Djibouti, north and eastern Ethiopia extending to northern Somalia, and in much of Burundi rainfall recorded was wetter than the climatological average, however some areas in northern parts of Sudan, central Somalia, north and eastern Kenya, and central and western Tanzania remained generally dry *(Data: ICPAC Blended CHIRP)*

4. Maximum and Minimum Temperature during the second dekad (11-20) of September 2019

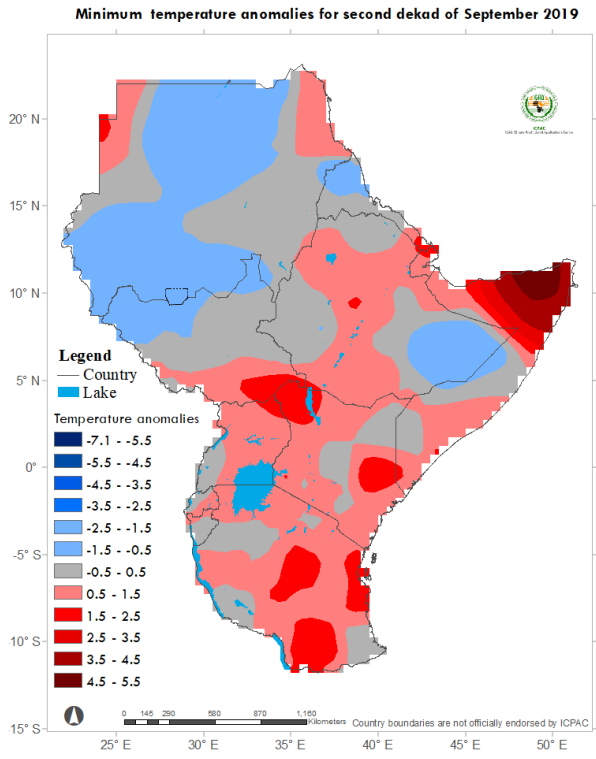

Figure 2: several parts of Sudan, western Eritrea, northern parts of South Sudan, eastern Ethiopia, and central Somalia recorded maximum temperature that was cooler than or near the climatological mean. Much of the rest of the GHA recorded maximum temperature that was warmer than or near the climatological mean *(Data Sourced from: the NOAA-NCEP CPC. GTS gridded data)*

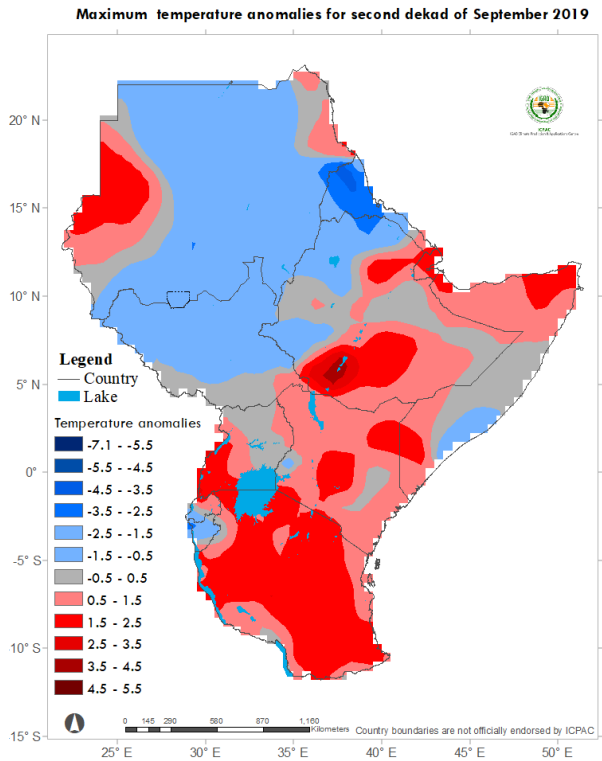

Figure 3: Most Sudan, South Sudan Eritrea, western Ethiopia, Burundi, southwest Rwanda and central Somalia recorded minimum temperature that was cooler than the climatological average. Much of the rest of the GHA especially the equatorial and southern sectors of the GHA recorded minimum temperature that was warmer than the climatological mean. *(Data Source: Data Sourced from: the NOAA-NCEP CPC. GTS gridded data)*

5. Climate Forecast
Rainfall and Temperature Forecast

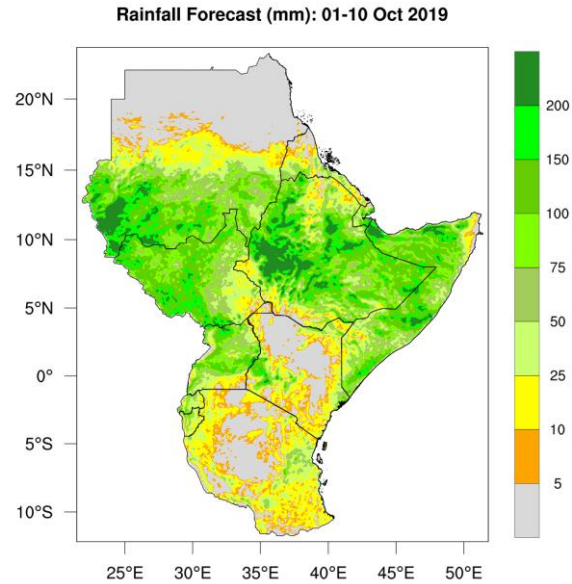

Figure 4: most of southern parts of Sudan, Ethiopia, Djibouti, South Sudan, Uganda, Rwanda, Burundi, and several parts of western, central and coastal Kenya, and southern Eritrea are expected to receive moderate to very heavy rainfall. Most of the rest of the region is expected to record light rainfall conditions or remain generally dry (Source: WRF-ICPAC**).**

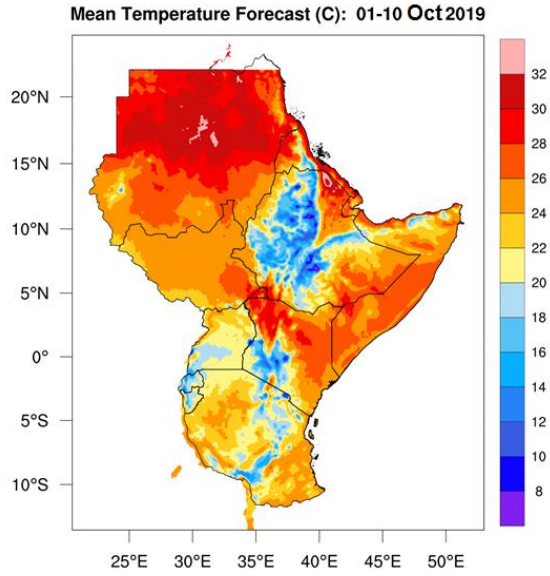

Figure 5: Most parts of Sudan, Eritrea, Djibouti, several parts of central and southern Somalia, northern and eastern Kenya, northeast and southeast Ethiopia, South Sudan, and northern and eastern Kenya, are expected to record very warm to hot weather. Cooler weather is expected in western and central highlands of Ethiopia, southwestern parts of Uganda, western and central Kenya, several parts of Rwanda and Burundi, and northeast, central and southwestern parts of Tanzania (Source: WRF-ICPAC**).**

Reference terminology

Rainfall categories	
Range	**Category**
<10 mm	Light
10 - 25mm	Moderate
20 - 50mm	Heavy
>50mm	Very heavy

Rainfall coverage	
Coverage	**Range**
Most Places	Between 66% and 100%
Several Places	Between 33% and 66%
Few Places	Below 33%

DISCLAIMER: *The designations employed and the maps do not imply the expression of any opinion whatsoever on the part of IGAD or cooperating agencies concerning the legal status of any region, area of its authorities, or the delineation of its frontiers or boundaries. ICPAC does not claim responsibility for the use of the product by another, however due reference should be accorded.*

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