IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE

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# 10 DAYS CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE FIRST DEKAD (01-10) OF JULY 2019 AND FORECAST FOR THE THIRD DEKAD (11-31) OF JULY 2019

## 1. Introduction

This bulletin reviews the climatic conditions observed during the first dekad (01-10) of July 2019 and gives the climate forecast for the third dekad (21-31) of July 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° S and 5° 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. Highlights

During the first dekad of July 2019, several parts of the of the northern sector and western and central parts of the equatorial sector of the GHA recorded rainfall that exceeded the expected amount for the period. A few places in the eastern part of Ethiopia, northern Somalia, coastal Kenya, and coastal Tanzania recorded rainfall that was less than the expected amount.

Many areas in the GHA recorded maximum and minimum temperature that was warmer than or near the usual levels. However, a some places in northwest and south west part of South Sudan, eastern Ethiopia recorded minimum temperature cooler than the usual condition for the first dekad of July.

Several parts of South Sudan, southern parts of Sudan, southwest Eritrea, western and central Ethiopia, northern Uganda and western parts of Kenya are expected to record heavy to very heavy rainfall that exceeds 25mm. Much of the rest the GHA is forecasted to receive less than 5mm of rainfall or remain generally dry during the third dekad of July 2019.The temperature is forecasted to remain generally warm over much of the northern sector and northern and eastern part of the equatorial sector of the GHA except for western and central highlands of Ethiopia, which are expected to be generally cool. Average temperature is forecasted to be generally cool over

several parts of the southern sector, and southwest and central parts of the equatorial sector of the GHA during the third dekad of July 2019.

### 3. Observed rainfall during the first dekad (01-10) of July 2019

Figure 1a, 1b and 1c shows the distribution of total rainfall, percentage of the long-term average rainfall, and the standardized precipitation index (SPI), respectively.

## Rainfall Distribution and Severity

Distribution of rainfall total for the first dekad (01-10) of July 2019 over Greater Horn of Africa, revealed that the southern parts of Sudan, over much of South Sudan, western and central Ethiopia, Uganda, and western parts of Kenya recorded rainfall exceeding 25mm but less than 200mm. Much of the northern parts of Sudan, central and southern Eritrea, Djibouti, Somalia, southeast Ethiopia, northern and eastern Kenya, Rwanda, Burundi, and much of Tanzania recorded rainfall amounts less than 10 mm or remained generally dry. Much of the rest of the GHA recorded rainfall between 10 mm and 25mm.

The first dekad of July indicates that most of northern and equatorial sector of the GHA recorded near normal or wetter than normal rainfall conditions with a few places in southern parts of South Sudan, northern Uganda, northwest, central and coastal Kenya and southeast Somalia recording drier than the usual rainfall conditions. (Figure 1b and Figure 1c).

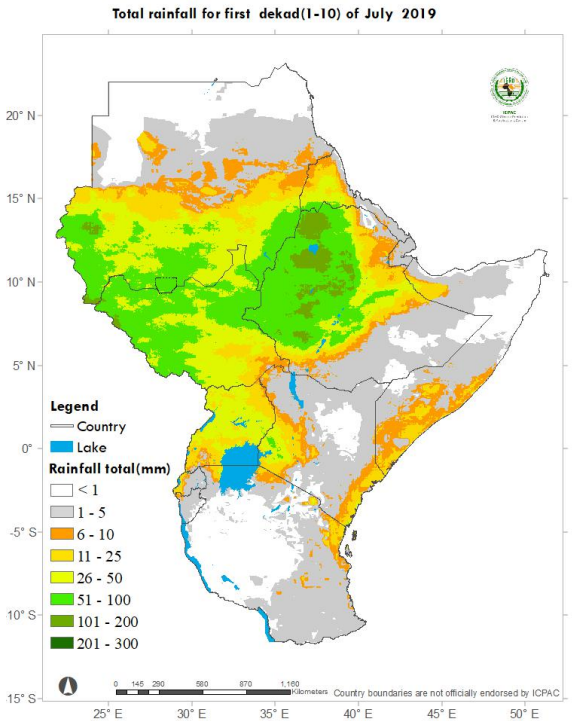


**Figure 1a:** **moderate to very heavy rainfall was recorded mainly in southern parts of Sudan, most of South Sudan, western, northern and central Ethiopia, much of Uganda, and western parts of Kenya.** *(Data: ICPAC Blended CHIRP)*

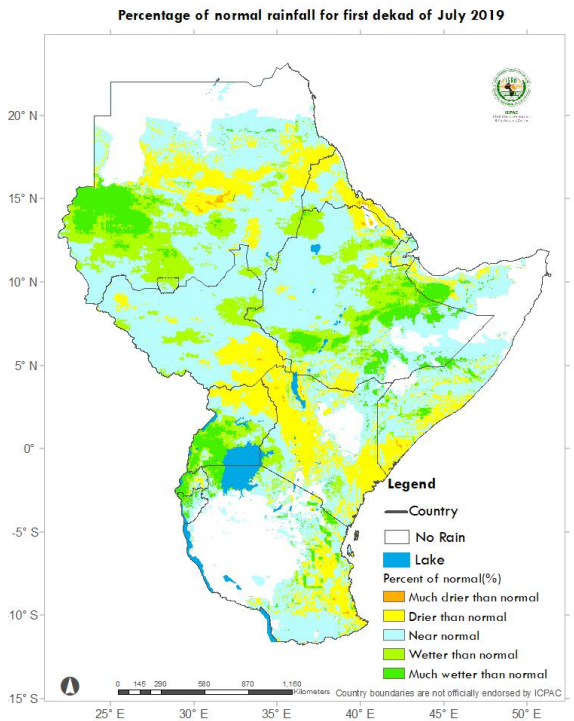


**Figure 1b:** **Most parts of the northern sector and equatorial sector recorded near average or above average rainfall, except for southeastern South Sudan, and northern, northern Uganda, northwest, central and eastern Kenya and southeastern Somalia, which recorded below average rainfall** *(Data: ICPAC Blended CHIRP)*

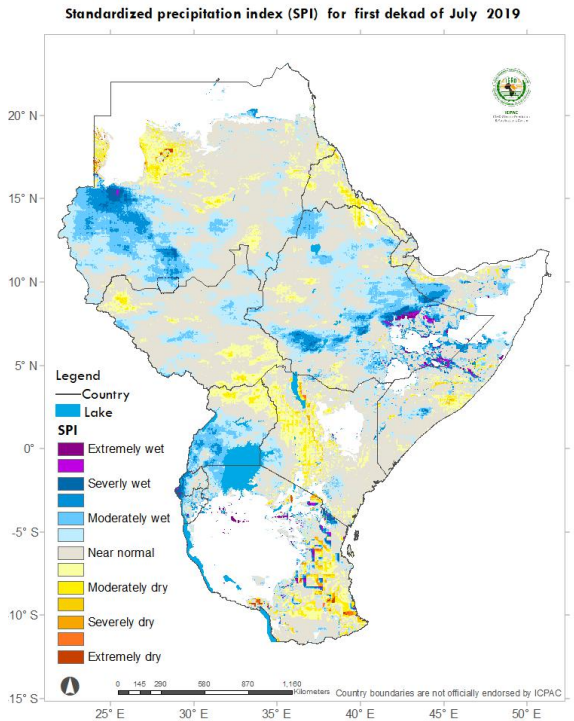


**Figure 1c:** **A few places in southern part of South Sudan, northern Uganda, northwest and central Kenya, were moderately dry. Much of the rest of the northern and equatorial sectors of the GHA recorded near normal or moderately wet to severely wet rainfall condition** *(Data: ICPAC Blended CHIRP)*

## Maximum and Minimum Temperature Anomaly

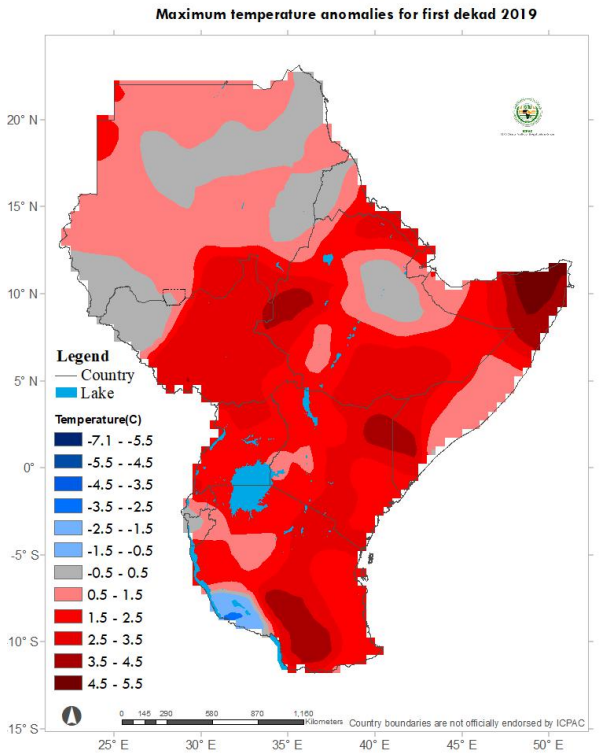


**Figure 2: Most areas of the GHA was warmer than or near the mean condition for maximum temperatures except for western part of Tanzania which recorded maximum temperatures cooler than the mean** *(Data Sourced from: the* NOAA-*NCEP CPC. GTS gridded data)*

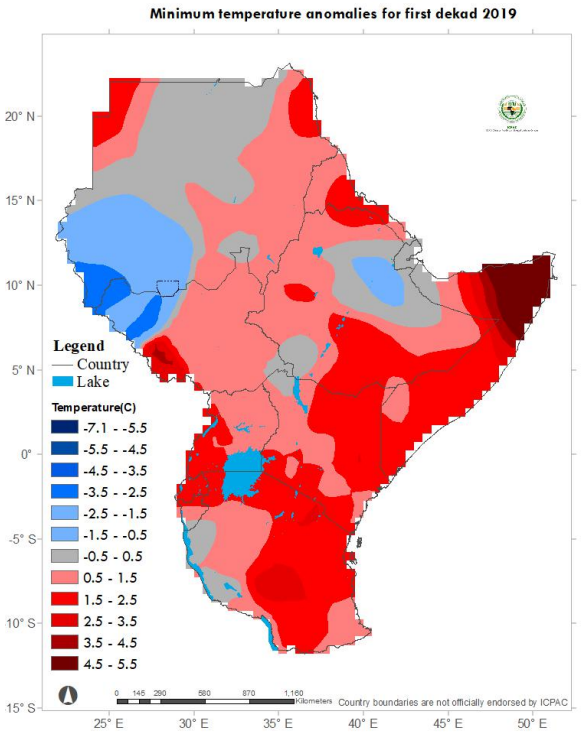


**Figure 3: Most areas in the GHA recorded minimum temperature that was warmer than or near the climatological mean, except for areas in southwest Sudan, northwest south Sudan, and eastern Ethiopia which recorded minimum temperatures cooler than the mean** *(Data Source: Data Sourced from: the NOAA-NCEP CPC. GTS gridded data)*

### Maximum and Minimum Temperature

During the first dekad of July 2019 most areas in the GHA recorded maximum and minimum temperature that was warmer than or near the climatological mean. However some places in western Tanzania recorded maximum temperature that was cooler than the mean, while southwest Sudan and northwest South Sudan recorded minimum temperature that was cooler than the climatological mean.

## 4. Climate Forecast

### Rainfall Forecast

Forecast for the third dekad (21-31) of the July indicates that heavy to very heavy rainfall is expected in southern parts of Sudan, most parts of South Sudan, southwestern Eritrea, western and central Ethiopia, northeast Uganda, and northwestern parts of Kenya. Moderate rainfall is expected in central parts of Uganda, and western and central parts of Kenya

## Temperature forecast

The western and central highlands of Ethiopia, southern parts of Uganda, western and central Kenya, and over much of Rwanda, Burundi and Tanzania, average temperature are expected to be cool with average temperature less than 20ºC. Much of the rest of Sudan, Eritrea, northeast Ethiopia, Djibouti, northwest Kenya ,and north and central Somalia are expected to record average temperature exceeding 30ºC. Much of the rest of the GHA is expected to record average temperatures of between 30ºC and 20ºC during the third dekad of July 2019.

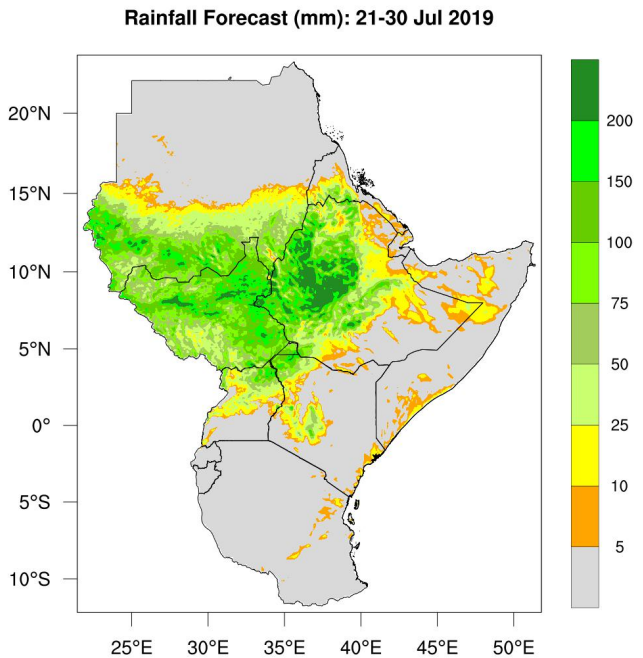


**Figure 4: Western and central parts of Ethiopia, most of South Sudan, southern parts of Sudan, northern Uganda, and northwest and central parts of Kenya are expected to receive moderate to heavy rainfall The rest of the region is expected to record light rainfall conditions or remain generally dry (**Source: WRF-ICPAC**)**

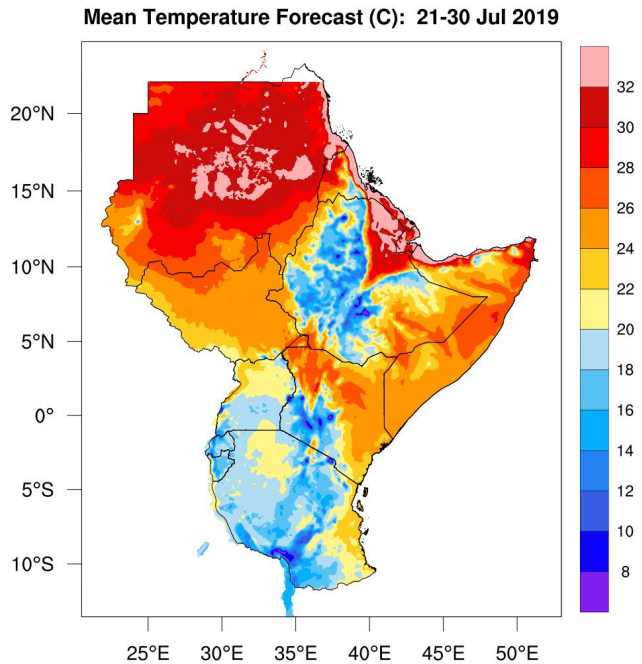


**Figure 5: Most parts of Sudan, Eritrea, Djibouti, South Sudan, northeast and southeast Ethiopia, northern and eastern Kenya, and most of Somalia are expected to record very warm to hot weather. Cooler weather is expected in southwest and central parts of equatorial sector and much of the southern sector of the GHA (**Source: WRF-ICPAC**)**

## 5. Impacts on socio-economic sectors

The socio-economic impacts associated with the observed and forecasted climate conditions are highlighted below:

### Impacts of the climate conditions

From the forecast for the third dekad of July is it is expected that areas in the western and central parts of the northern sector are likely to experience improvement in water resources. High rainfall and related impacts may be experienced in some areas in southwest Sudan or north western parts of Ethiopia.

### Reference terminology

| Rainfall categories | |
|---|---|
| Range | Category |
| <5 mm | Light |
| 5 - 20mm | 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% |

**For more information:**
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