

## IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

### 10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE EIGHTEENTH DEKAD (21 – 30 JUNE) OF 2016 AND CLIMATE OUTLOOK FOR THE TWENTIETH DEKAD (11 – 20 JULY) OF 2016

#### 1.0 Highlights

- Wet conditions were mainly observed over western, south western and central parts of the northern sector as well as north western and central parts of the equatorial sector of the Greater Horn of Africa (GHA) during the eighteenth dekad (21-30 June) of 2016;
- Wet conditions are likely to be experienced in regions covering the western and central parts of the northern sector of Greater Horn of Africa (GHA) during the twentieth dekad (11-20 July) of 2016;
- The observed rainfall conditions during the eighteenth dekad (21-30 June) of 2016 over the western and central parts of the northern sector of the Greater Horn of Africa (GHA) resulted in improved pasture and foliage, and crop conditions; replenishment of water resources; and increase in water related diseases.

#### 2.0 Introduction

In this bulletin, the rainfall conditions observed during the eighteenth dekad (21-30 June) of 2016 over GHA are reviewed and the associated impacts highlighted. The rainfall outlook for the twentieth dekad (11-20 July) of 2016 is also provided.

#### 3.0 Observed rainfall situation during the eighteenth dekad (21–30 June) of 2016

Figure 1 shows the spatial pattern of observed rainfall over the Greater Horn of Africa (GHA) during the eighteenth dekad (21-30 June) of 2016 while Figure 2 shows the rainfall severity index for the same period.

##### 3.1 Northern sector and equatorial sector

During the eighteenth dekad (21-30 June) of 2016, southern parts of Sudan; much of South Sudan; much of western and north western Ethiopia, western parts of Kenya; and much of northern and south eastern Uganda recorded rainfall amounts of ranging from 30 mm to more than 100 mm (Figure 1). This resulted into near normal to wet rainfall conditions (Figure 2). Some parts of south western Ethiopia; coastal Kenya; and southern Uganda recorded between 10mm to 30mm of rainfall (Figure 1), which resulted into near normal to dry rainfall conditions (Figure 2).

##### 3.2 Southern Sector

During the eighteenth dekad (21-30 June) of 2016, much of the southern sector recorded less than 10mm of rainfall (Figure 1). This resulted to dry or generally dry rainfall conditions (Figure 2). However near normal to dry rainfall conditions were recorded over a small portion of the eastern Tanzania which recorded rainfall amounts between 10 mm and 30 mm.

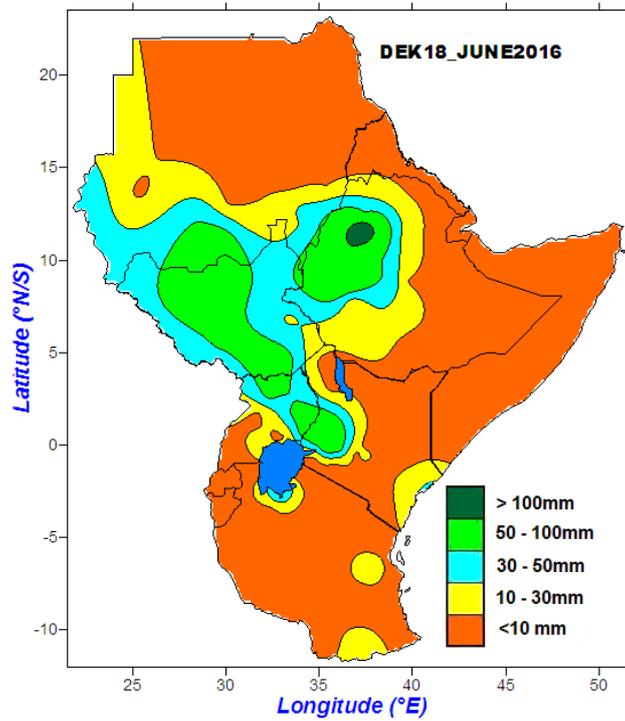


Figure 1: Spatial distribution of observed rainfall during the Eighteenth (21–30) June of 2016

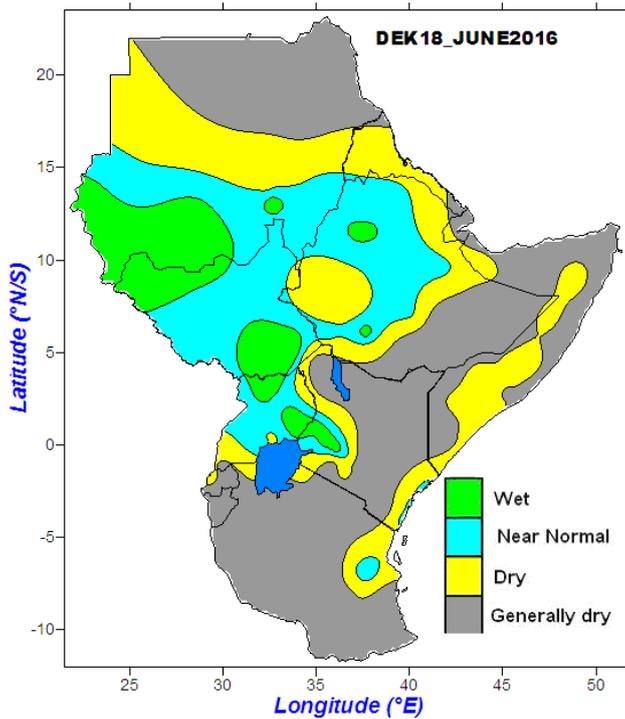


Figure 2: Rainfall Stress Severity Index for the Seventeenth (21–30) June of 2016

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#### 4.0 Assessment of current rainfall performance

Figure 3 shows the cumulative dekadal rainfall performance since May 2016 over some selected rainfall stations over the GHA. Near normal to above normal rainfall conditions have been observed over central parts of the northern sector as well as some parts of western equatorial region of the GHA (Figure 3a and 3c), south western parts of the northern sector of the GHA have however indicated below normal to near normal rainfall (Figure 3b).

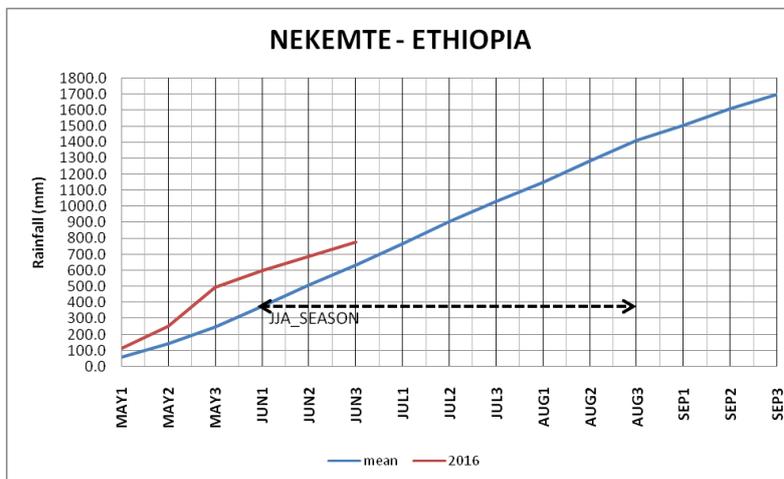


Figure 3a: Cumulative rainfall series for Nekemte

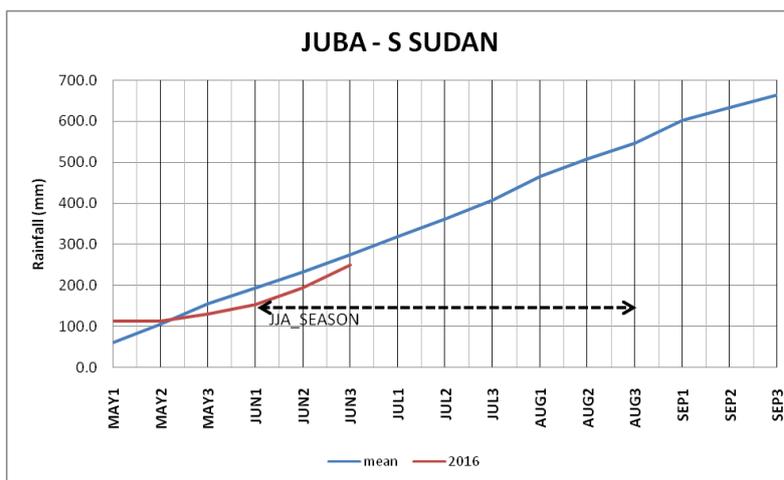


Figure 3b: Cumulative rainfall series for Juba

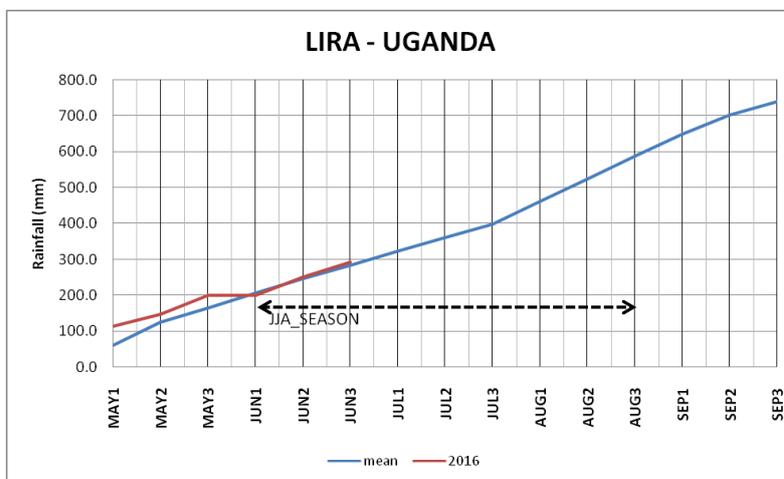


Figure 3c: Cumulative rainfall series Lira

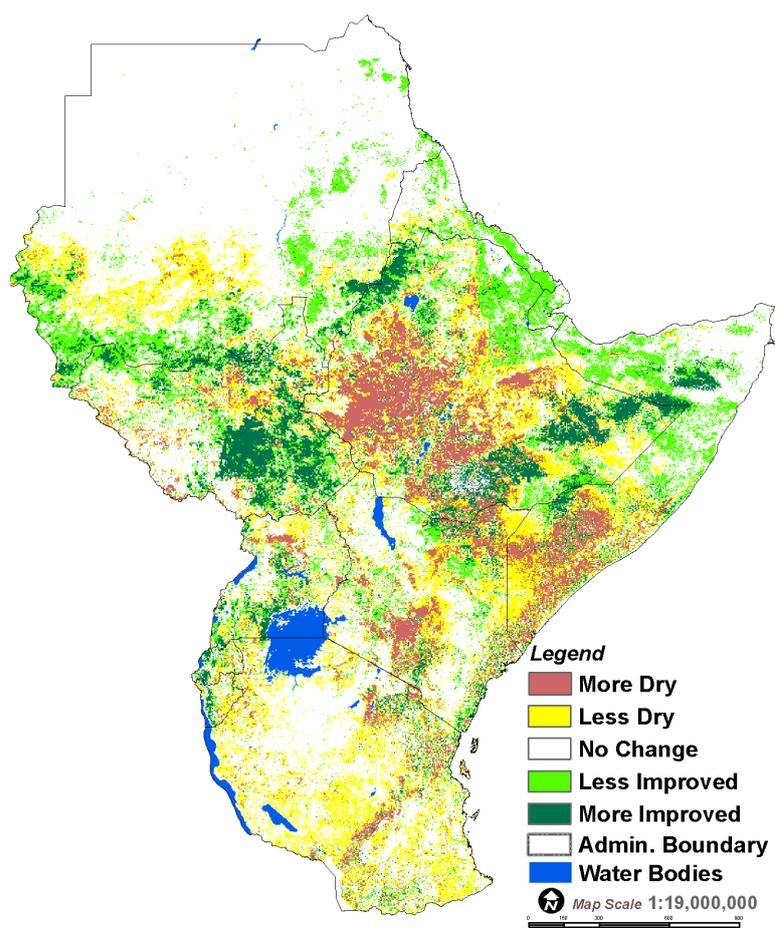
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## 5.0 Impacts on socio-economic sectors

The socio-economic impacts associated with the observed rainfall conditions are highlighted below:

### 5.1 Vegetation condition indicators

The comparison of the Normalized Difference Vegetation Index (NDVI) between the 18<sup>th</sup> (21-30 June) and the 17<sup>th</sup> dekad (11-20 June) of 2016 in Figure 4 indicates more improved vegetation conditions over eastern and northern parts of South Sudan extending to the southern region of Sudan; over north and south eastern Ethiopia; southern parts of Eritrea; parts of Djibouti; northern parts of Somalia; and few parts in the south and south western Uganda. Deteriorating vegetative conditions was observed over south western parts of Sudan; over parts of western and north eastern South Sudan; central, eastern, and south western Ethiopia; southern parts of Somalia; north eastern, and central parts of Kenya; parts of northern Uganda; eastern parts of Rwanda and Burundi; as well as over much of Tanzania. The rest of the GHA region recorded little or no change in vegetative conditions.



**Figure 4: NDVI difference between the eighteenth (21-30 June) and the seventeenth dekad (11-20 June) of 2016**

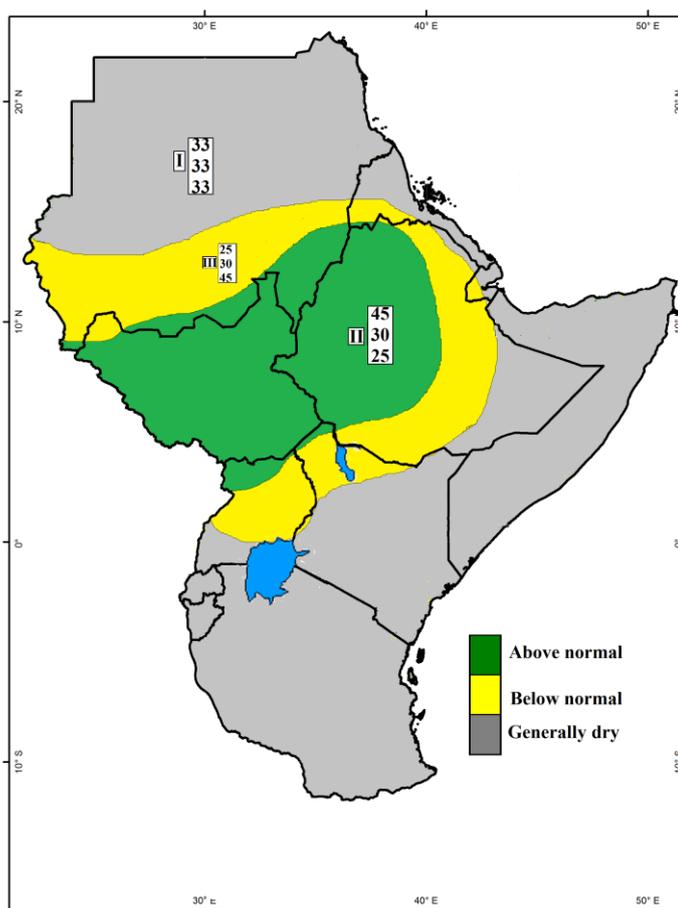
## 5.2 Impacts associated with observed climate conditions

The observed rainfall conditions over GHA during the eighteenth dekad (11-30 June) of 2016 were associated with the following impacts:

- Improved water availability leading to replenishment of reservoirs and water pans.
- Improved pasture and foliage across parts of the northern sector of GHA leading to good prospects for livestock performance over some regions.

## 6.0 Climate outlook

The rainfall outlook for the twentieth dekad (01-20 July) of 2016 in Figure 5 indicates the likelihood of near normal to above normal rainfall conditions in regions indicated by Zone II covering central Ethiopia and the larger South Sudan. Zone III covering the southern portions of Sudan, eastern and southern Ethiopia, north western Kenya and central Ethiopia have likelihood to experience normal to below normal conditions. The rest of the GHA marked by falling under Zone I will experience generally dry conditions during the 20<sup>th</sup> dekad.



**Figure 5: Climate outlook for the twentieth dekad (11 –20 July) of 2016**