

## IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

### 10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE NINETEENTH DEKAD (1 – 10 JULY) OF 2016 AND CLIMATE OUTLOOK FOR THE TWENTY FIRST DEKAD (21 – 31 JULY) OF 2016

#### 1.0 Highlights

- Wet conditions were mainly observed over much of western, south, western and central parts of the northern sector, as well as north-western parts of the equatorial sector of the Greater Horn of Africa (GHA) during the nineteenth dekad (1-10 July) of 2016;
- Wet conditions are likely to be experienced in regions covering the western and central of the northern sector of Greater Horn of Africa (GHA) during the twenty first dekad (21-31 July) of 2016;
- The observed rainfall conditions during the nineteenth dekad (1-10 July) of 2016 resulted in improved pasture and foliage, and crop conditions; replenishment of water resources; flooding and increase in water related diseases over the western and central parts of the northern sector of the Greater Horn of Africa (GHA).

#### 2.0 Introduction

In this bulletin, the climatic conditions observed during the nineteenth dekad (1-10 July) of 2016 over GHA are reviewed and the associated impacts highlighted. The climate outlook for the twenty first dekad (21-31 July) of 2016 is also provided.

#### 3.0 Observed rainfall situation during the Nineteenth dekad (1–10 July) of 2016

Figure 1 shows the spatial pattern of observed rainfall over the Greater Horn of Africa (GHA) during the nineteenth dekad (1-10 July) of 2016 while Figure 2 shows the rainfall severity index for the same period.

##### 3.1 Northern sector and equatorial sector

During the nineteenth dekad (1-10 July) of 2016, southern parts of Sudan; much of western and central Ethiopia, northern and eastern parts of Uganda and western parts of Kenya recorded rainfall amounts of between 30 mm to more than 100 mm (Figure 1). This resulted into near normal to wet rainfall conditions (Figure 2). Much of the rest of the northern and equatorial sector of the GHA recorded less than 10 mm of rainfall with few places recording between 10 mm and 30 mm of rainfall (Figure 1), which resulted into dry or generally dry rainfall conditions (Figure 2).

##### 3.2 Southern Sector

During the nineteenth dekad (1-10 July) 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).

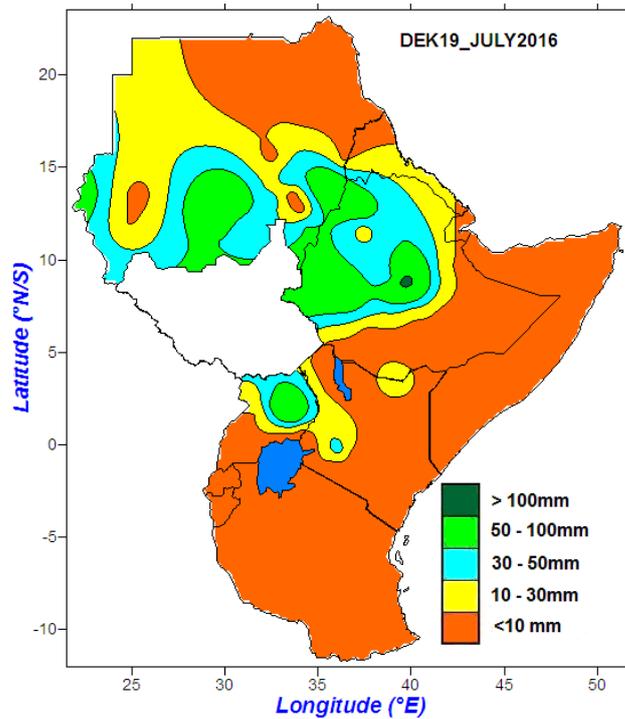


Figure 1: Spatial distribution of observed rainfall during the Nineteenth (1–10) July of 2016

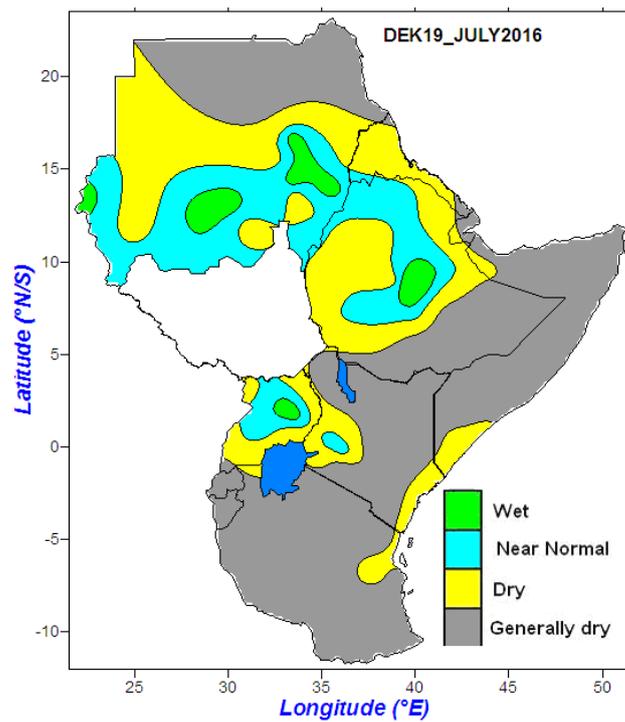


Figure 2: Rainfall Stress Severity Index for the Nineteenth (1–10) July of 2016

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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 western and central parts of the northern sector of the GHA (Figure 3a and 3b) while near normal to below normal rainfall has been recorded over western equatorial sector (Figure 3c).

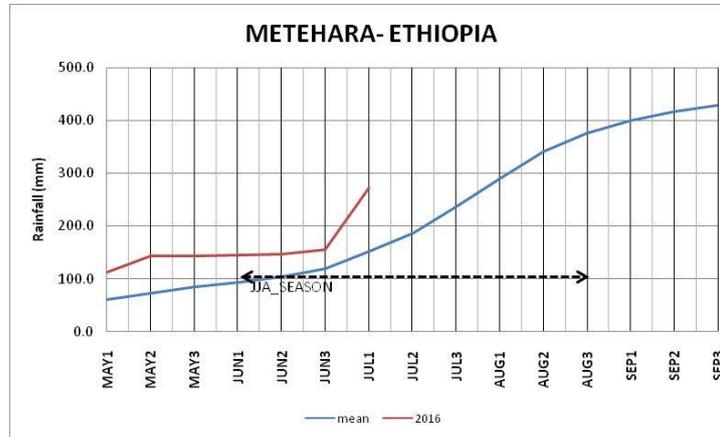


Figure 3a: Cumulative rainfall series for Metehara

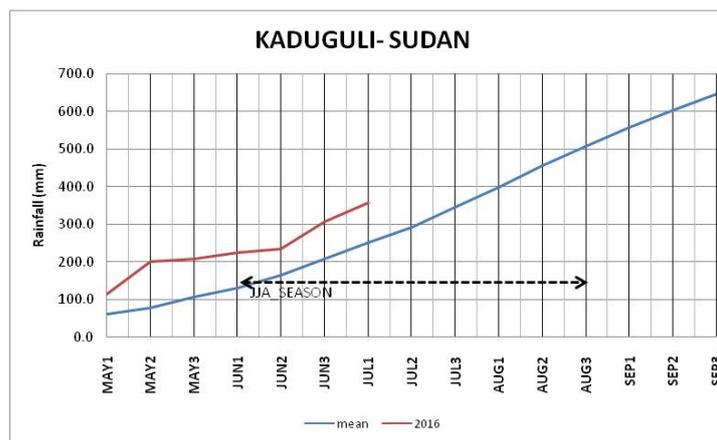


Figure 3b: Cumulative rainfall series for Kadugli

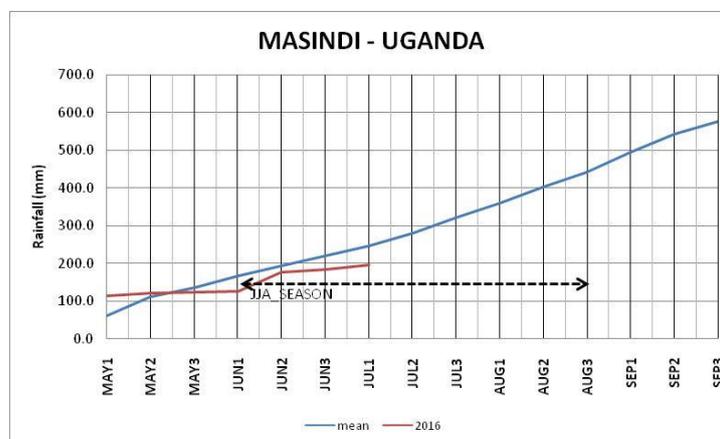


Figure 3c: Cumulative rainfall series Masindi

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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 19<sup>th</sup> (1-10 July) and the 18<sup>th</sup> dekad (21-30 June) of 2016 in Figure 4 indicates improvement in vegetation conditions over southern parts of Sudan extending to the north and eastern parts of South Sudan; northwestern and central parts of Ethiopia; over few parts in central and coastal Kenya; and southern parts of Somalia. Deterioration in vegetative conditions was recorded over south eastern parts of Sudan; over southern Eritrea; northern Djibouti; over south western parts of South Sudan; southwestern and eastern parts of Ethiopia; southern Uganda; parts of western and coastal Kenya; over much of Rwanda; much of Burundi; and over northern, east and southern Tanzania. The rest of the GHA experienced little or no change in vegetation conditions.

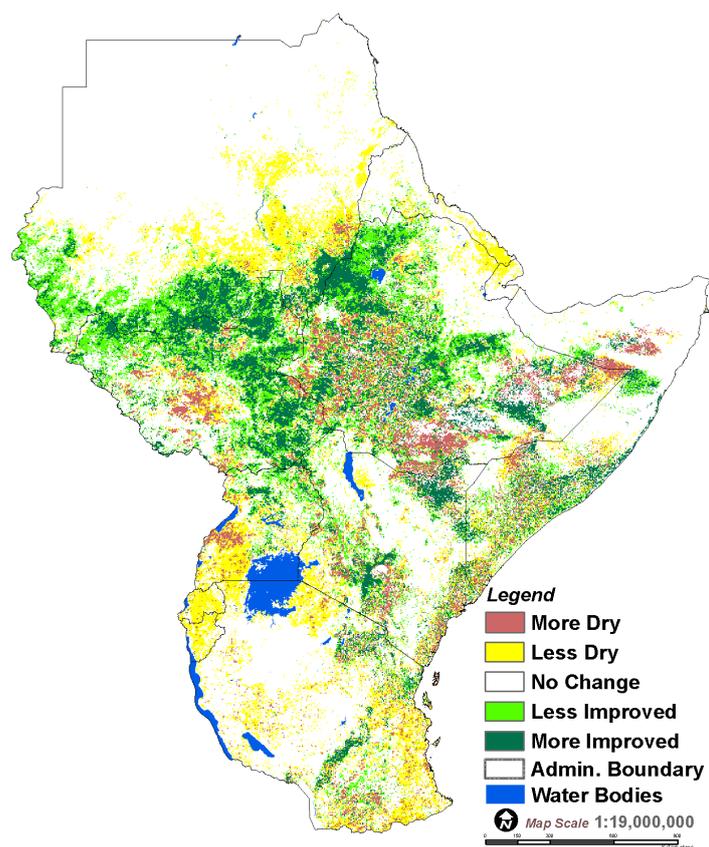


Figure 4: NDVI difference between the nineteenth (1-10 July) and the eighteenth dekad (21-30 June) of 2016

### 5.2 Impacts associated with observed climate conditions

The observed rainfall conditions over GHA during the nineteenth dekad (1-10 July) of 2016 were associated with the following impacts:

- Improved water availability leading to replenishment of reservoirs and water pans.
- Improved pasture and foliage across several regions of GHA leading to good prospects

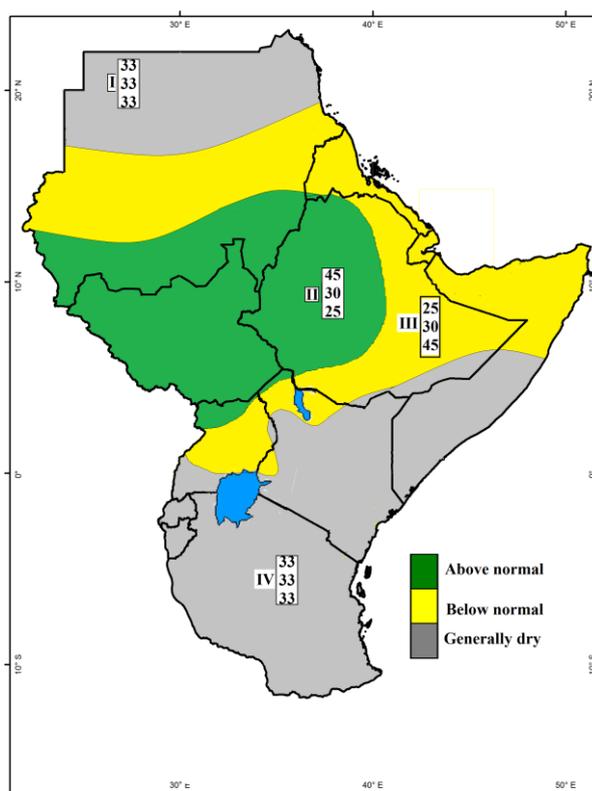
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for livestock and crop performance over some regions.

- Flooding in some parts leading to disruption of livelihoods and destruction of property.
- Increase in water related diseases.

## 6.0 Climate outlook

The rainfall outlook for the twenty first dekad (21-31 July) of 2016 in Figure 5 indicates the likelihood of near normal to above normal rainfall conditions in regions indicated by Zone II covering southern parts of Sudan; western and central Ethiopia; and the larger South Sudan. Zone III covering much of Eritrea; much of Djibouti; central portion of Sudan, eastern parts of Ethiopia, north western Kenya and central and eastern Uganda have likelihood to experience near normal to below normal rainfall conditions. The Zones I and IV are likely to remain generally dry during the 21<sup>st</sup> dekad of 2016.



**Figure 5: Climate outlook for the twenty first dekad (21 –31 July) of 2016**