



## 10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE TWENTY FIFTH DEKAD (1 – 10 SEPTEMBER) OF 2016 AND CLIMATE OUTLOOK FOR THE TWENTY SEVENTH DEKAD (21 – 30 SEPTEMBER) OF 2016

### 1.0 Introduction

In this bulletin, the climatic conditions observed during the twenty fifth dekad (1-10 September) of 2016 over GHA are reviewed and the associated impacts highlighted. The climate outlook for the twenty seventh dekad (21-30 September) of 2016 is also provided.

### 2.0 Highlights

**Rainfall** was recorded in areas around western, south western and central parts of the northern sector, as well as western and north-western parts of the equatorial sector of the Greater Horn of Africa (GHA) during the twenty fifth dekad (1-10 September) of 2016;

The observed rainfall conditions during the twenty fifth dekad (1-10 September) of 2016 is associated with **depressed rainfall** conditions which has likely effect of reduction in water, pasture and foliage and crop conditions. While a few places indicated improvement in water, and pasture conditions

The twenty seventh dekad (21-30 September) of 2016 is **likely to present** wet conditions in regions covering the southern part of western and central parts of the northern sector and also western part of the equatorial sector of Greater Horn of Africa (GHA);

### 3.0 Observed rainfall situation during the twenty fifth dekad (1-10 September) of 2016

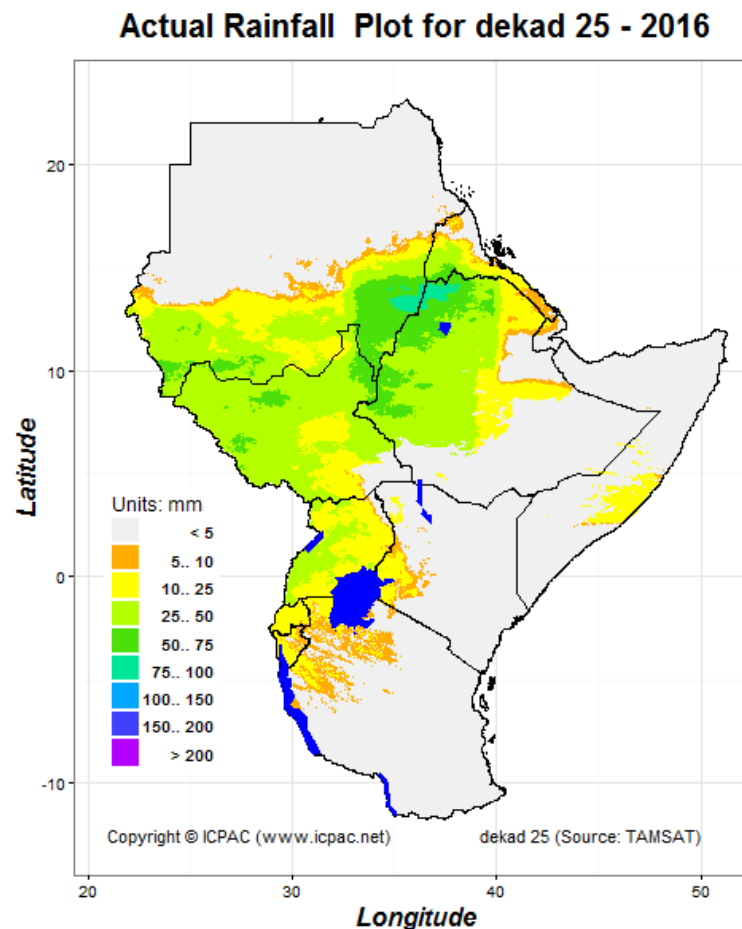
Figure 1 shows the rainfall distribution, Figure 2a shows the percent of the average rainfall, and Figure 2b shows the difference from the average rainfall over the Greater Horn of Africa (GHA) during the twenty fifth dekad (1-10 September) of 2016.

## Rainfall Distribution and Severity

During the twenty fifth dekad (1-10 September) of 2016, rainfall amounts of between 50mm and 150mm was recorded over south eastern part of Sudan; south western Eritrea; north western and western Ethiopia; and over a few isolated parts of south western Sudan, and western part and central part of north of South Sudan. Much of southern parts of Sudan; southern Eritrea; northern Djibouti; South Sudan; west of central Somalia; north western and central Uganda; Rwanda Burundi; western part of Kenya; and north western Tanzania recorded rainfall amounts of between 5 mm and 150 mm (Figure 1).

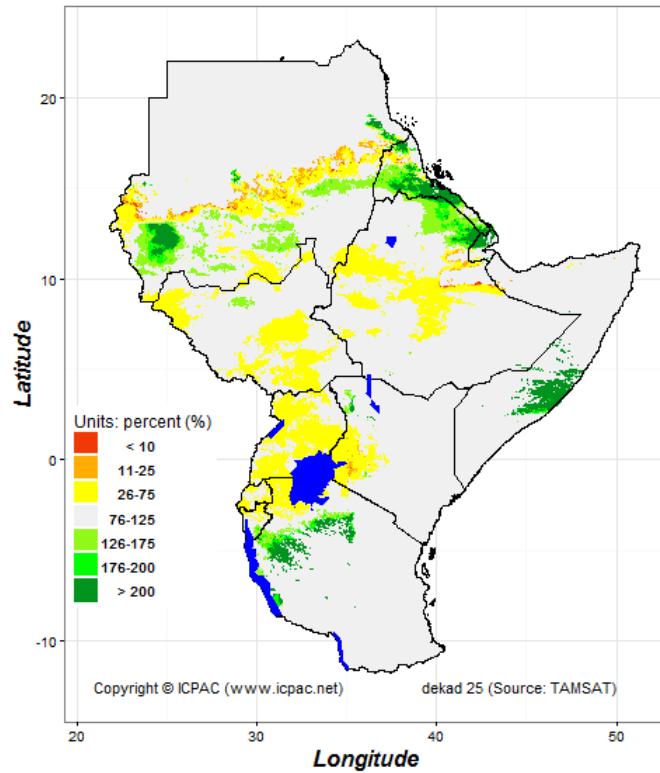
The rainfall received translated to average or below average rainfall performance for most of these areas except in parts of southern Sudan; central and southern Eritrea; northern part of Ethiopia; northern parts of Djibouti; central area of northern South Sudan; western parts of central Somalia; and north western Tanzania which indicated above average rainfall performance (Figure 2a and 2b).

Much of the rest of the GHA recorded less than 5 mm of rainfall (Figure 1), which resulted into average or generally dry rainfall conditions (Figure 2a and 2b).



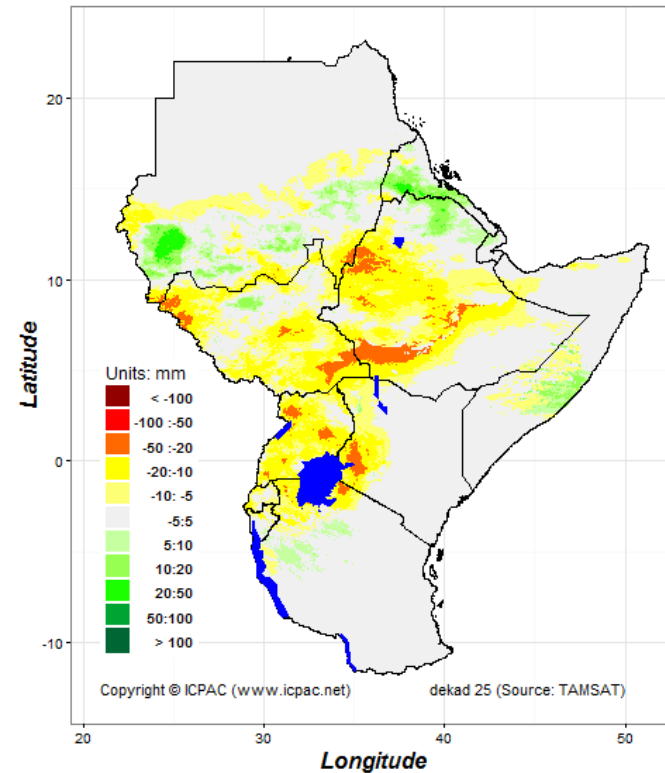
**Figure 1: Rainfall distribution during the twenty fifth dekad (1–10 September) of 2016. (Source TAMSAT)**

**Percent Average Plot for dekad 25 - 2016**



**Figure 2a: Percent of average rainfall for the twenty fifth dekad (1–10 September) of 2016 (Source TAMSAT)**

**Difference Anomaly Plot for dekad 25 - 2016**



**Figure 2b: Difference from average rainfall for the twenty fifth dekad (1–10 September) of 2016 (Source TAMSAT)**

## 4.0 Impacts on socio-economic sectors

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

### 4.1 Vegetation condition indicators

#### Normalized Difference Vegetation Index Anomaly

The Normalized Difference Vegetation Index (NDVI) anomaly from the average for the period between 4<sup>th</sup> and 11<sup>th</sup> September 2016 in Figure 3 indicates improvement in vegetation conditions over upper part of the southern regions of Sudan; over western, northern and north eastern parts of South Sudan; over much of central and northern Ethiopia; central parts of Kenya; much of Burundi; and over areas around western, central and south eastern Tanzania. Southern and south eastern parts of Sudan; southern margins of central Ethiopia; south eastern parts of South Sudan; over much of central and southern Uganda; Rwanda; western and coastal Kenya; and round north western and coastal parts of Tanzania indicated deterioration in vegetative conditions. The rest of the GHA showed little or no change in vegetation conditions.

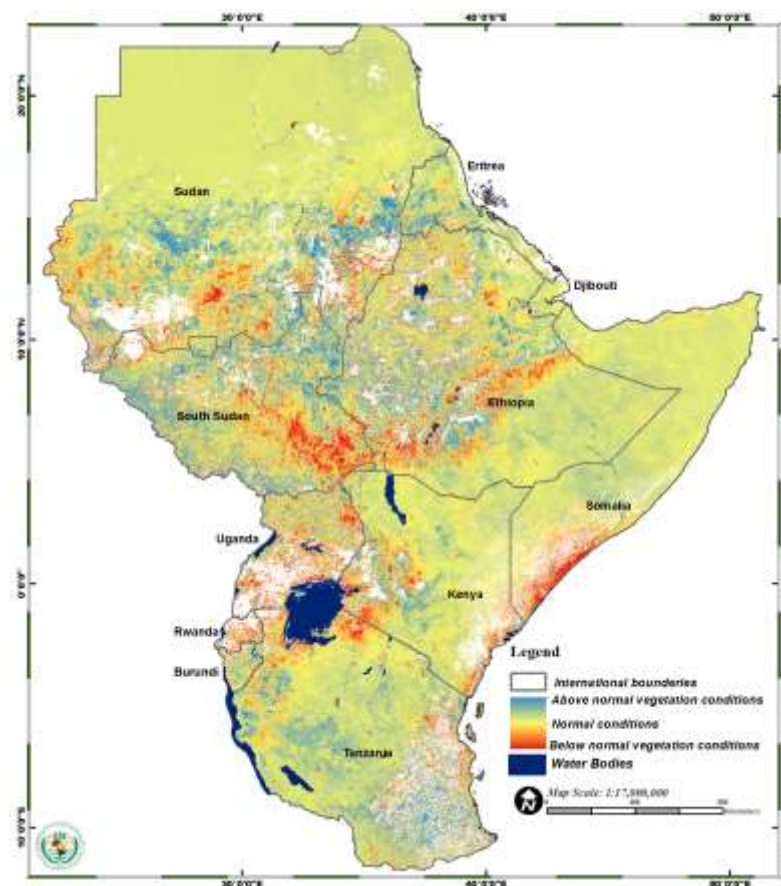


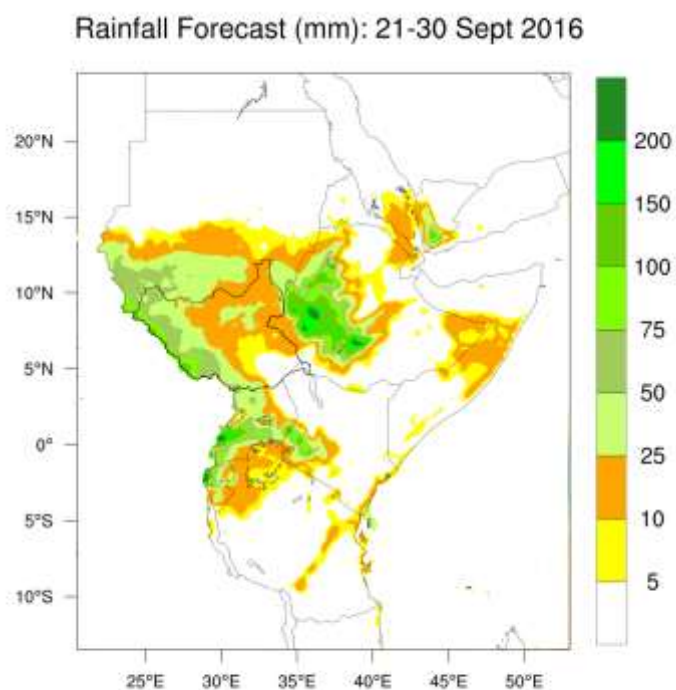
Figure 3: NDVI anomaly for the period 4<sup>th</sup> and 11<sup>th</sup> September 2016

## 4.2 Impacts associated with observed climate conditions

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

- Increase in water related diseases.
- Some areas are experiencing dry conditions leading to deterioration in water and pasture conditions.
- A few areas have experienced improved water availability leading to replenishment of reservoirs and water pans.
- Improved pasture and foliage across several regions of GHA leading to good prospects for livestock and crop performance over some regions.

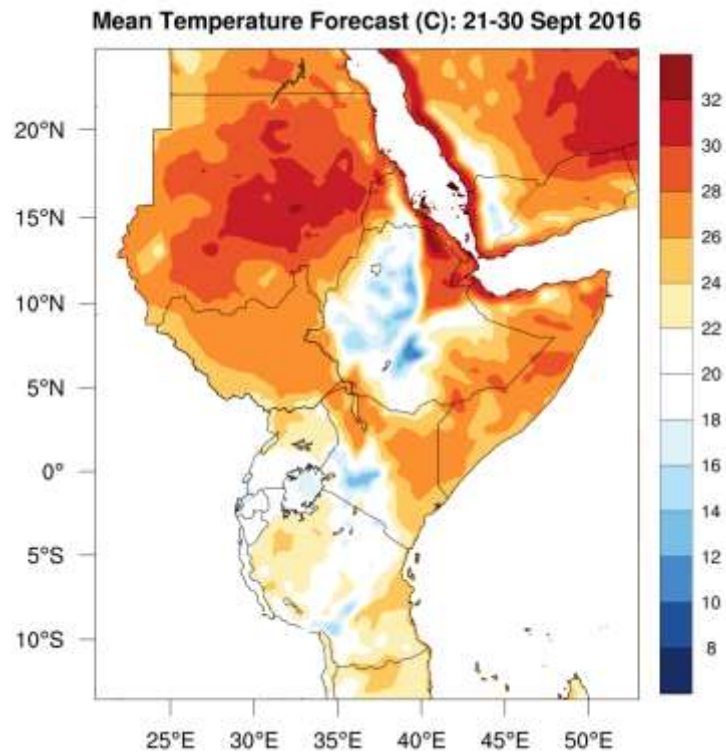
## 5.0 Climate outlook



### Rainfall outlook

The rainfall outlook for the twenty seventh dekad (21-30 September) of 2016 in Figure 4 indicates that rainfall is likely to be experienced in southern parts of Sudan; southern Eritrea; northern Djibouti; western and central Ethiopia; western and northern South Sudan; central Somalia; over parts of western and central Uganda; over western Kenya; much of Rwanda; northern part of Burundi; and over north western and eastern parts of Tanzania. The rest of the Greater Horn of Africa Region is likely to experience generally dry conditions.

**Figure 4: Climate outlook for the twenty seventh dekad (21 –30 September) of 2016**



**Figure 5: Climate outlook for the twenty seventh dekad (21 –30 September) of 2016**

### Temperature outlook

The average temperature outlook for the twenty seventh dekad (21-30 September) of 2016 in Figure 5 indicates the likelihood of cooler temperature in central and western Ethiopia; over southern Uganda; Rwanda; Burundi; western, central and southern Kenya; and central and south western Tanzania. Warm conditions are expected over much of Sudan; north-eastern Ethiopia; north western and southern Eritrea; over north eastern Ethiopia; much of Djibouti; over parts of South Sudan; much of Somali; and northern and eastern parts of Kenya.

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