

## IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

### 10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE SEVENTH DEKAD (1 – 10) OF MARCH 2016 AND CLIMATE OUTLOOK FOR THE NINTH DEKAD (21 – 31) MARCH) OF 2016

#### 1.0 Highlights

- Wet conditions were mainly observed over the western, central and coastal parts of the southern sector; as well as western and central parts of equatorial sector of the Greater Horn of Africa (GHA) during the seventh dekad (1-10 March) of 2016;
- Wet conditions are likely to be experienced over western, central and coastal parts of the southern sector, and western and central parts of the equatorial sector of Greater Horn of Africa (GHA), during the ninth dekad (21-31 March) of 2016;
- The observed rainfall conditions during the seventh dekad (1-10 March) of 2016 resulted in improved pasture and foliage, and crop conditions; replenishment of water resources; increase in water related diseases; and localized flooding.

#### 2.0 Introduction

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

#### 3.0 Observed rainfall situation during the seventh dekad (1–10 March) of 2016

Figure 1 shows the spatial pattern of observed rainfall over the GHA during the seventh dekad (1 –10 March) of 2016 while Figure 2 shows the rainfall severity index for the same period.

#### 3.1 Northern sector

During the seventh dekad (1 –10 March) of 2016 much of the northern sector received less than 10mm of rainfall (Figure 1) which resulted into generally dry conditions (Figure 2). However south western and south central parts of Ethiopia, and south western parts of South Sudan received between 10mm and 50mm of rainfall resulting near-normal to wet rainfall conditions during the same period.

#### 3.2 Equatorial and Southern sectors

During the seventh dekad (1 –10 March) of 2016, much of Uganda; western, central and north eastern parts of Kenya; much of Rwanda; much of Burundi; and western, central and coastal parts of Tanzania recorded near normal to wet conditions (Figure 2). These areas received between 30mm and more than 100mm of rainfall (Figure 1). Eastern and north eastern parts of Kenya; southern parts of Somalia; as well as north eastern, eastern and south western parts of Tanzania recorded less than 30mm of rainfall (Figure 1) resulting to dry or generally dry conditions (Figure 2).

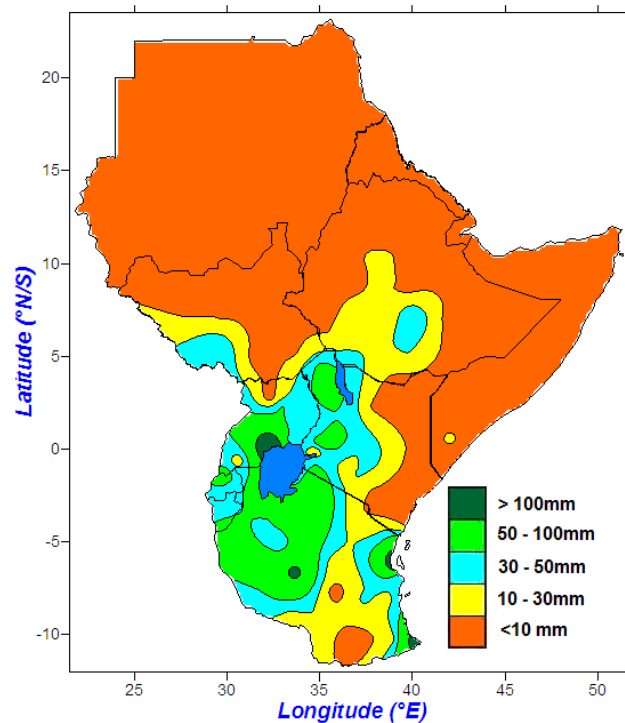


Figure 1: Spatial distribution of observed rainfall during the seventh dekad (1–10 March) of 2016

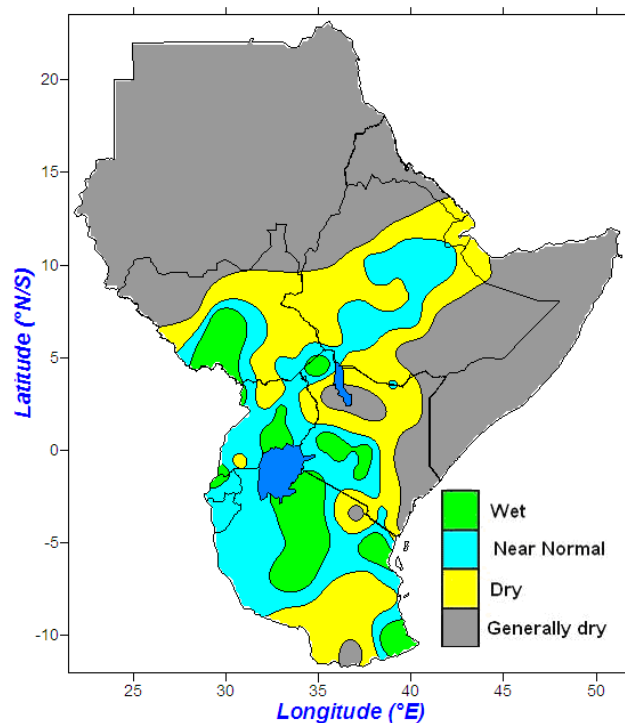


Figure 2: Rainfall Stress Severity Index for the seventh dekad (1–10 March) of 2016

#### 4.0 Assessment of current rainfall performance

Figure 3 shows the cumulative dekadal rainfall performance since January 2016. Near normal to above normal rainfall conditions was observed over western parts of the equatorial sector as well as western and central parts of the southern sector (Figure 3a, 3b and 3c).

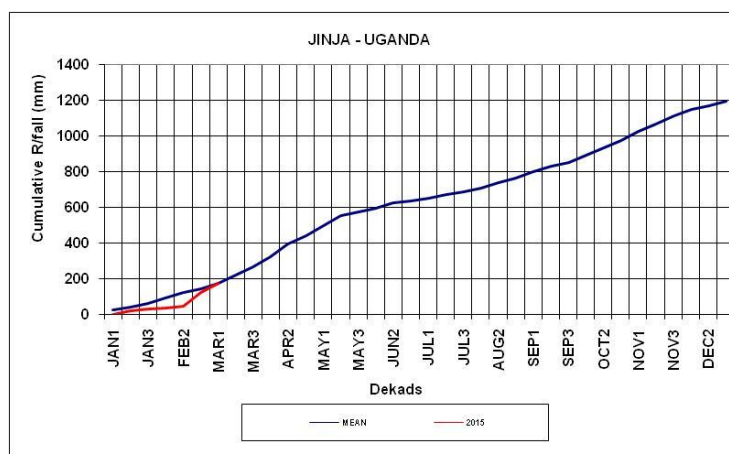


Figure 3a: Cumulative rainfall series for Jinja

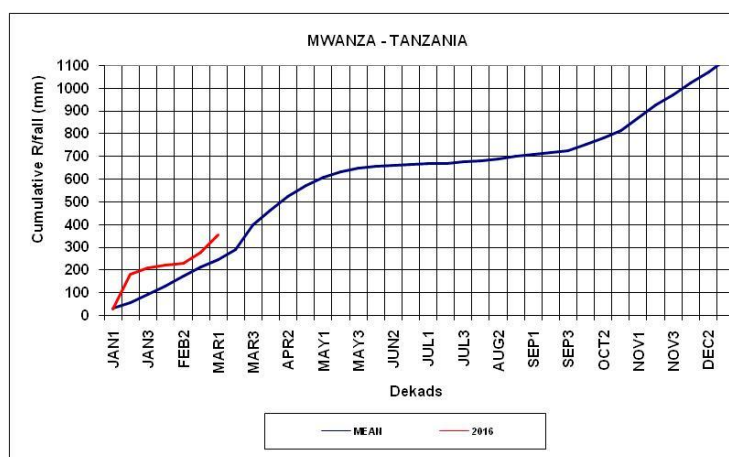


Figure 3b: Cumulative rainfall series Mwanza

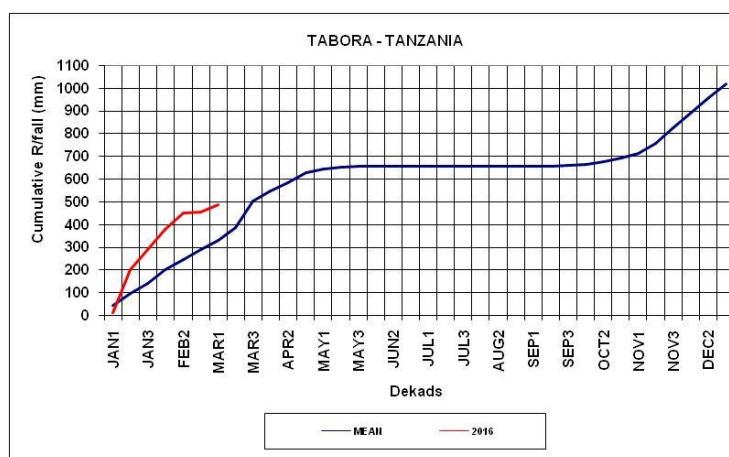


Figure 3c: Cumulative rainfall series for Tabora

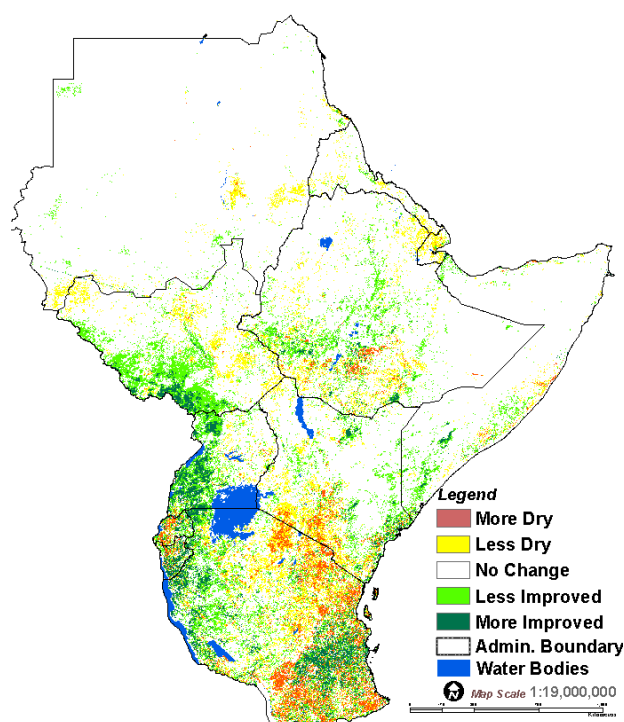
#### 5.0 Impacts on socio-economic sectors

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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 seventh dekad (1-10 March) and the sixth dekad (21-29 February) of 2016 indicates improvement in vegetative conditions over western and south western South Sudan, parts of western and central Ethiopia, western parts of Uganda, eastern parts of Rwanda, parts of Burundi, and western and south eastern parts of Tanzania. Deteriorated vegetative conditions was observed parts of eastern and south western Sudan; northern parts of Djibouti; eastern parts of South Sudan; southern parts of Ethiopia; western, central and south central parts of Kenya; western parts of Rwanda; as well as north eastern and southern parts of Tanzania (Figure 4). The rest of the GHA indicated little or no change in vegetative conditions (Figure 4).



**Figure 4: NDVI difference between the seventh dekad (1-10 March) and the sixth dekad (21-29 February) of 2016**

### 5.2 Impacts associated with observed climate conditions

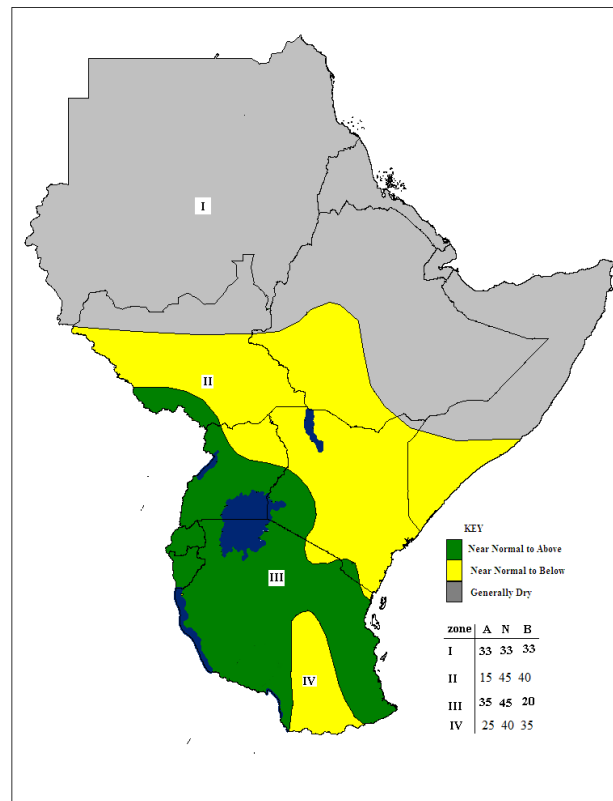
The observed rainfall conditions over GHA during the seventh dekad (1-10 March) of 2016 were associated with the following impacts:

- Improved water availability leading to replenishment of reservoirs and water pans.
- Improved pasture and foliage across parts of the southern sectors of GHA leading to good prospects for livestock performance.

- Increase in water related diseases
- Flooding over few places leading to displacement of people and loss of livelihood.

## 6.0 Climate outlook

The rainfall outlook for the ninth dekad (21-31 March) of 2016 indicates near normal to above normal rainfall conditions are likely to be received in zone III (Figure 5) which covers south western parts of South Sudan; western and southern parts of Uganda; western and central parts of Kenya; much of Rwanda; much of Burundi; and western, central and coastal Tanzania;. Near normal to below normal rainfall conditions are likely to be received in zone II and IV which covers central and southern parts of South Sudan; western and south western Ethiopia; north eastern Uganda; much of northern, coast and eastern Kenya; southern Somalia; and southern and eastern parts of Tanzania (Figure 4), while the rest of the GHA region are likely to remain dry (Figure 4).



**Figure 5: Climate outlook for the ninth dekad (21 – 31 March) of 2016**