

## IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

### 10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE SECOND DEKAD (11 – 20 JANUARY) OF 2016 AND CLIMATE OUTLOOK FOR THE FOURTH DEKAD (1 – 10 FEBRUARY) OF 2016

#### 1.0 Highlights

- Wet conditions were mainly observed over much of the southern sector as well as central, southern and south-western parts of equatorial sector of the Greater Horn of Africa (GHA) during the second dekad (11-20 January) of 2016;
- Wet conditions are likely to be experienced over much of the southern sector of Greater Horn of Africa (GHA) during the fourth dekad (1-10 February) of 2016;
- The observed rainfall conditions during the second dekad (11-20 January) of 2016 resulted in improved pasture and foliage 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 second dekad (11-20 January) of 2016 over GHA are reviewed and the associated impacts highlighted. The climate outlook for the fourth dekad (1-10 February) of 2016 is also provided.

#### 3.0 Observed rainfall situation during the second dekad (11–20 January) of 2016

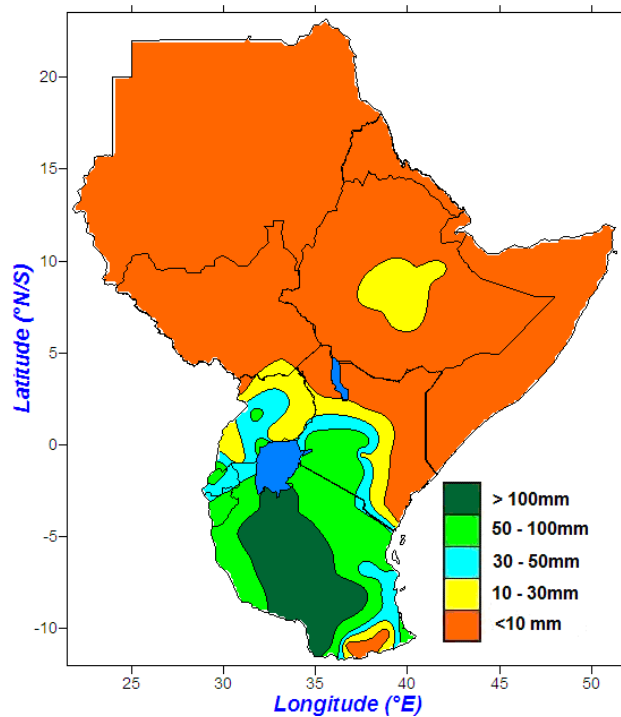
Figure 1 shows the spatial pattern of observed rainfall over the GHA during the second dekad (11 –20 January) of 2016 while Figure 2 shows that of rainfall severity index for the same period.

##### 3.1 Northern sector

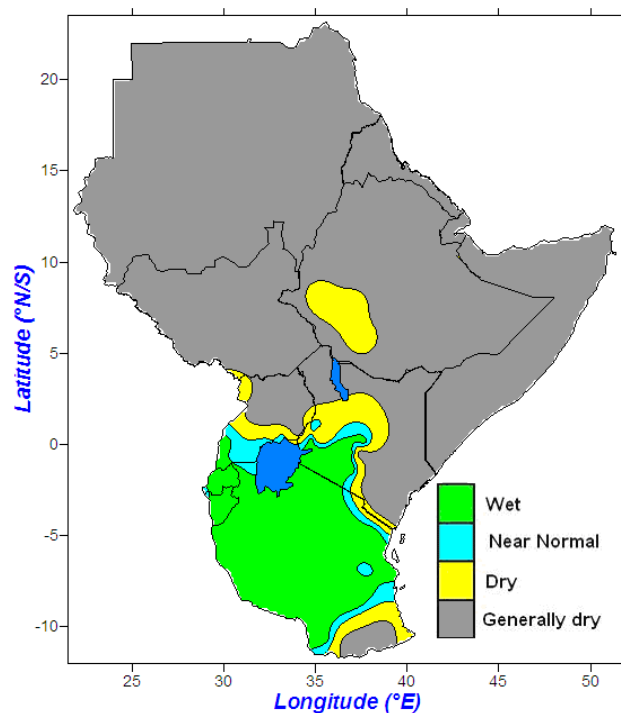
Much of the northern sector received less than 10mm of rainfall during the second dekad (11 –20 January) of 2016 (Figure 1). However some part of Ethiopia received between 10mm to 30mm (Figure 1) which resulted into dry conditions (Figure 2).

##### 3.2 Equatorial and Southern sectors

During the second dekad (11 –20 January) of 2016, most parts of southern sector as well as central, southern and south-western equatorial sector recorded wet conditions (Figure 2). These areas received between 50mm and more than 100mm of rainfall (Figure 1). Southern tip of Tanzania; eastern and northern Kenya; most parts of Uganda and Rwanda received less than 30mm of rainfall (Figure 1) resulting to near normal to dry conditions (Figure 2).



**Figure 1: Spatial distribution of observed rainfall during the second dekad (11–20 January) of 2016**



**Figure 2: Rainfall Stress Severity Index for the second dekad (11–20 January) of 2016**

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#### 4.0 Assessment of current rainfall performance

The cumulative dekadal rainfall was used to evaluate the rain water stress over GHA region. Figure 3 shows the cumulative dekadal rainfall performance since June 2015. Near normal to above normal rainfall conditions was observed over western and central parts of southern sector (Figure 3b, 3c) while the eastern part of the equatorial sector received below normal rainfall (Figure 3a).

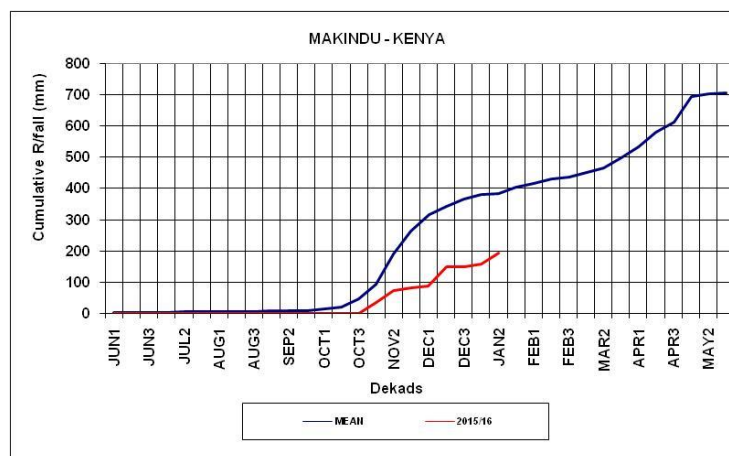


Figure 3a: Cumulative rainfall series for Makindu

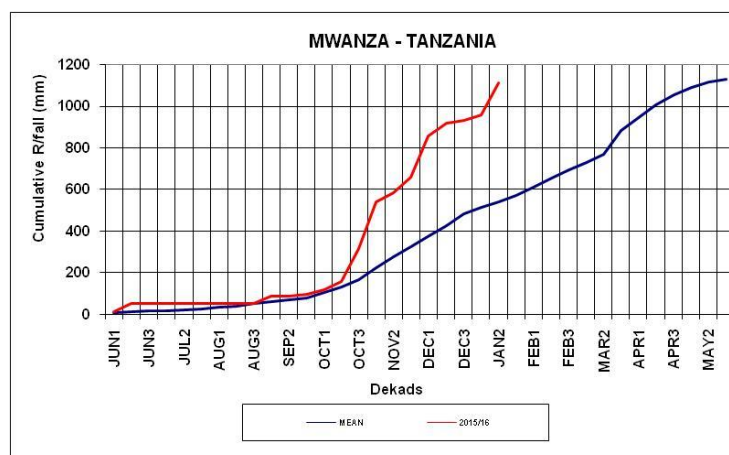


Figure 3b: Cumulative rainfall series Mwanza

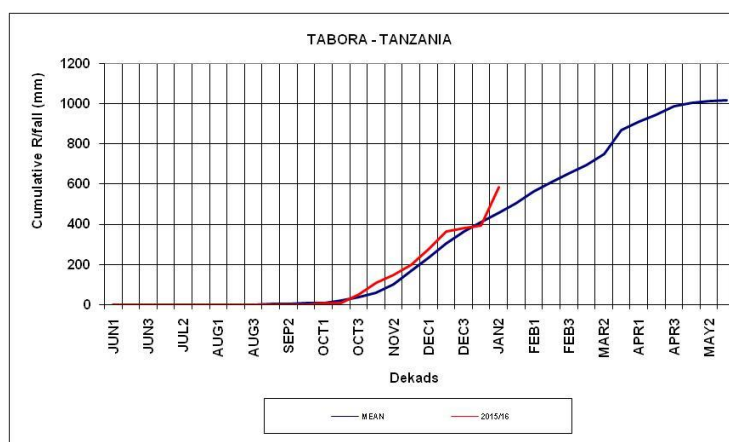


Figure 3c: Cumulative rainfall series for Tabora

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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 second dekad (11-20 January) of 2016) and the first dekad (1-10 January 2016) indicates deteriorated or little change in vegetative conditions over much of the GHA except for central and western Tanzania that showed improvement in vegetative conditions (Figure 4).

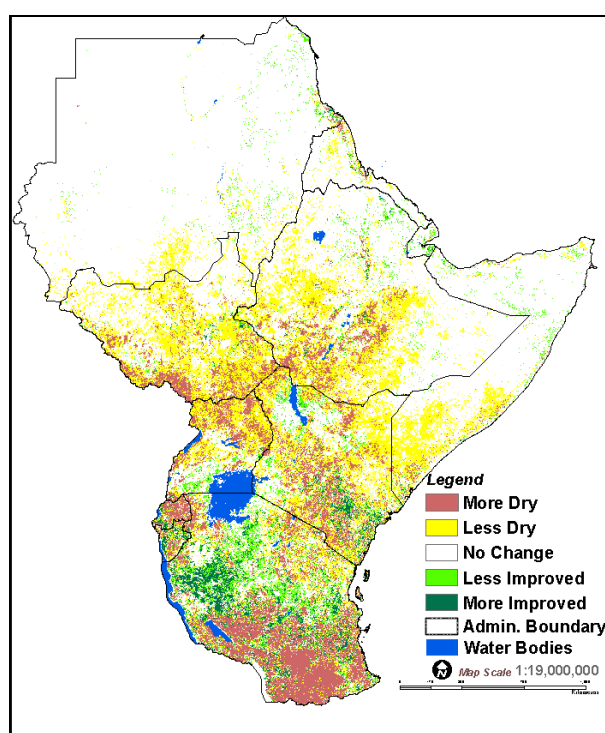


Figure 4: NDVI difference between the second dekad (11-20 January) and the first dekad (1-10 January) of 2016

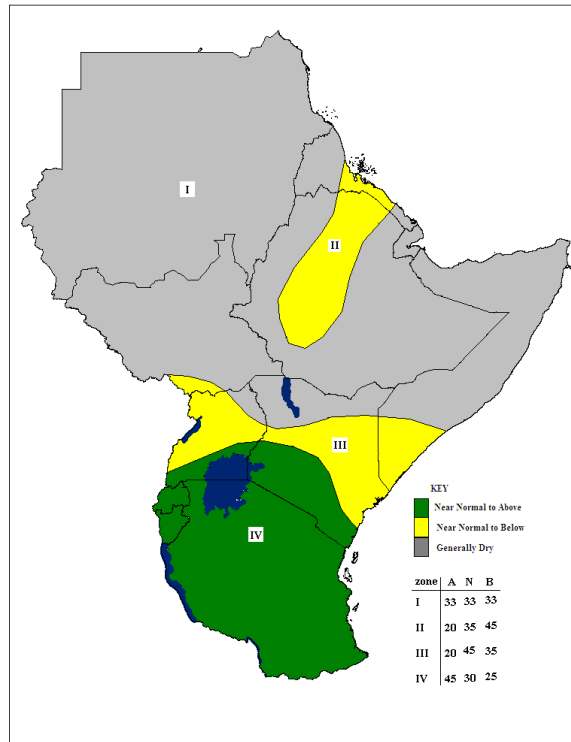
### 5.2 Impacts associated with observed climate conditions

The observed rainfall conditions over GHA during the second dekad (11-20 January) of 2016 were associated with the following impacts:

- Improved pasture and foliage across parts of the southern sectors of GHA leading to good prospects for livestock performance.
- Improved water availability leading to replenishment of reservoirs and water pans.
- Increase in water related diseases
- Water stress for pasture and crop especially in some parts of eastern equatorial sector and parts of northern sector.

## 6.0 Climate outlook

The rainfall outlook for the fourth dekad (1-10 February) of 2016 indicates near normal to above normal rainfall conditions are likely to be received in zone IV (Figure 5) which covers much of Tanzania; Rwanda; Burundi; southern parts of Uganda; and western, central, and southern coast of Kenya. Near normal to below normal rainfall conditions are likely to be received in zone II and III which covers central and western Uganda; eastern and northern coast of Kenya; southern Somalia; central Eritrea; and central and northern parts of Ethiopia; (Figure 4), while the rest of the GHA region are likely to remain dry (Figure 4).



**Figure 5: Climate outlook for the fourth dekad (1 – 10 February) of 2016**