

## IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

### 10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE FIFTH DEKAD (11 – 20) OF 2016 AND CLIMATE OUTLOOK FOR THE SEVENTH DEKAD (01 – 10) MARCH) OF 2016

#### 1.0 Highlights

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

#### 3.0 Observed rainfall situation during the Fifth dekad (11–20 February) of 2016

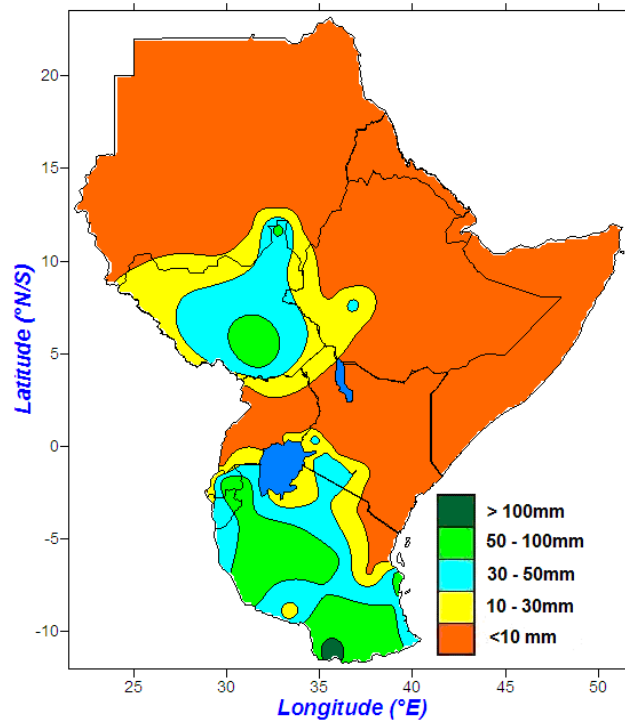
Figure 1 shows the spatial pattern of observed rainfall over the GHA during the fifth dekad (11 – 20 January) of 2016 while Figure 2 shows the rainfall severity index for the same period.

#### 3.1 Northern sector

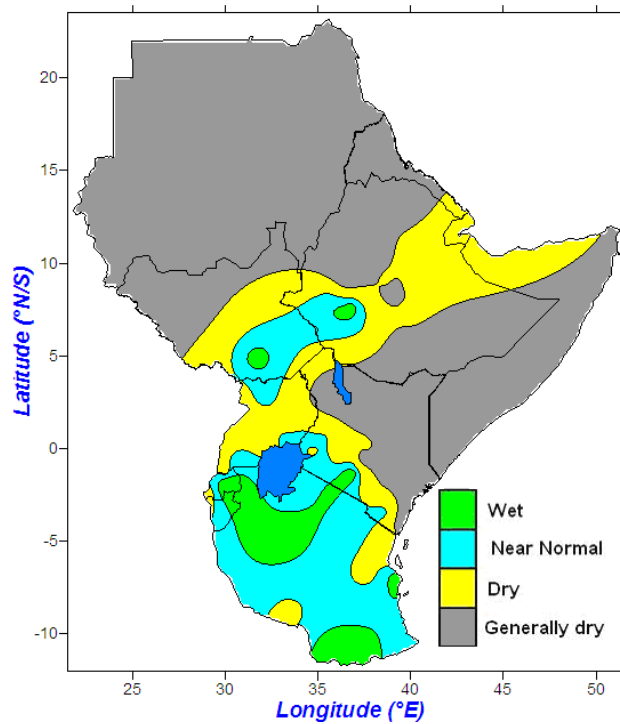
Much of the northern sector received less than 10mm of rainfall during the fifth dekad (11 –20 February) of 2016 (Figure 1) which resulted into generally dry conditions (Figure 2) except for parts of south western Ethiopia; and southern South Sudan which received between 30mm and 100mm of rainfall resulting near-normal to wet rainfall conditions. Dry conditions were observed over central parts of Ethiopia; over much of Djibouti; northern parts of Somalia and Southern parts of Eritrea during the same period.

#### 3.2 Equatorial and Southern sectors

During the fifth dekad (11 –20 February) 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 30mm and more than 100mm of rainfall (Figure 1). Most parts of Uganda; parts of western, central and south eastern Kenya; and parts of north eastern Tanzania, and south western Tanzania received 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 Fifth dekad (11–20 February) of 2016**



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

For more information contact  
 ICPAC P.O. Box 10304, 00100 Nairobi, KENYA; Tel: +254-020-3514426  
 E-mail: [director@icpac.net](mailto:director@icpac.net); Website: [www.icpac.net](http://www.icpac.net)

#### 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 January 2015. Below normal rainfall conditions was observed over eastern parts of the equatorial sector (Figure 3a). The western and south western parts of the southern sector received near normal to above normal rainfall (Figure 3b and 3c).

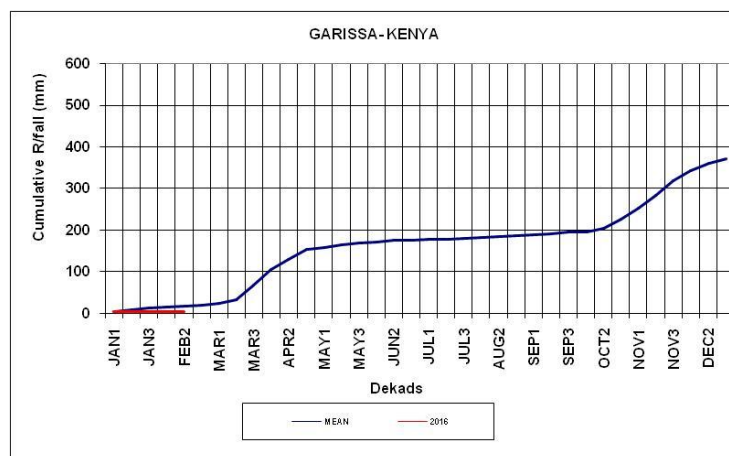


Figure 3a: Cumulative rainfall series for Garissa

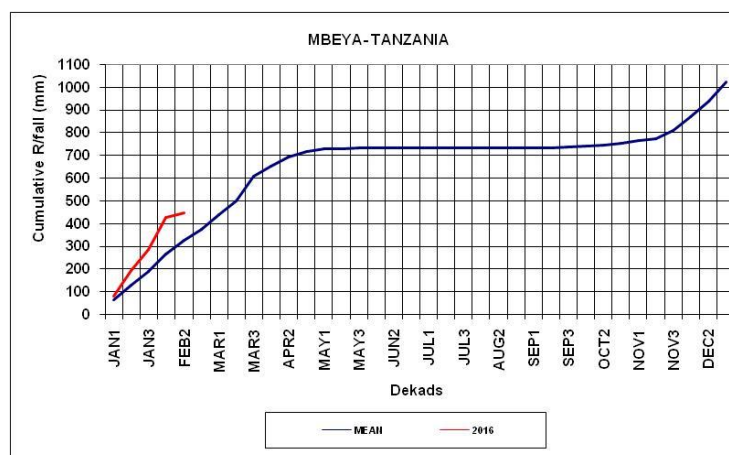


Figure 3b: Cumulative rainfall series Mbeya

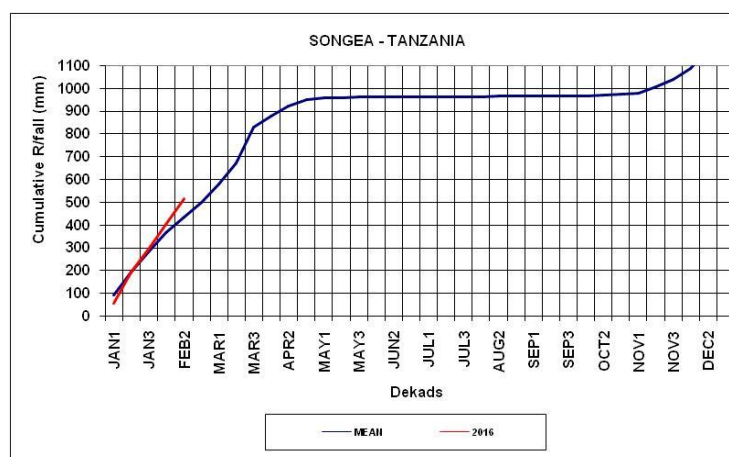


Figure 3c: Cumulative rainfall series for Songea

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 E-mail: [director@icpac.net](mailto:director@icpac.net); Website: [www.icpac.net](http://www.icpac.net)

## 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 fifth dekad (1-20 February) and the fourth dekad (1-10 February) of 2016 indicates deteriorated or little change in vegetative conditions over much of the GHA. However, much of Rwanda, parts of western and central parts of Tanzania showed improvement in vegetative conditions (Figure 4).

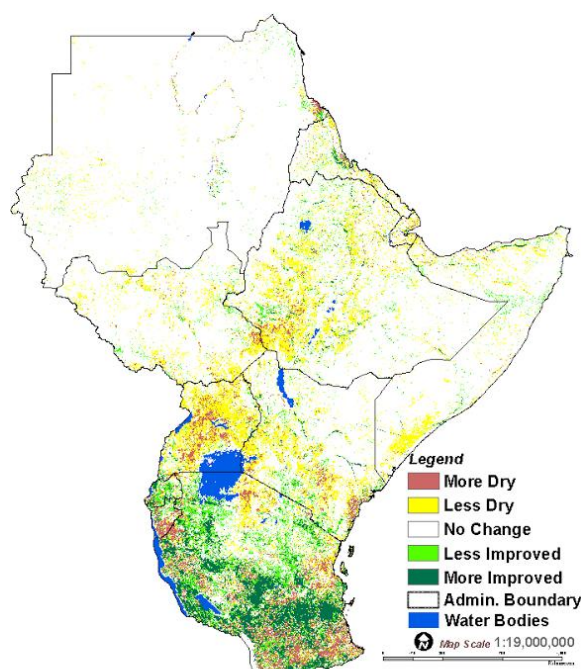


Figure 4: NDVI difference between the fifth dekad (11-20 February) and the third dekad (1-10 February) of 2016

### 5.2 Impacts associated with observed climate conditions

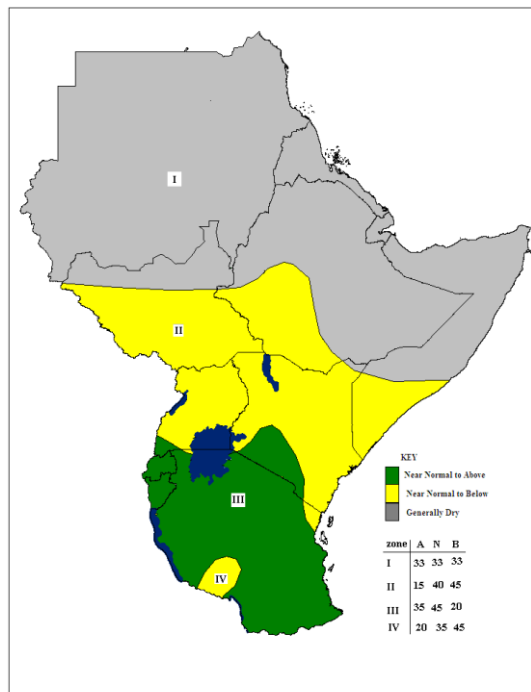
The observed rainfall conditions over GHA during the fifth dekad (11-20 February) of 2016 were associated with the following impacts:

- 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

## 6.0 Climate outlook

The rainfall outlook for the seventh dekad (1-10 March) of 2016 indicates near normal to above normal rainfall conditions are likely to be received in zone III (Figure 5) which covers much of Tanzania; Rwanda; Burundi; southern western parts of Uganda; and western, and central Kenya.

Near normal to below normal rainfall conditions are likely to be received in zone II and IV which covers much of Uganda; northern coast and eastern Kenya; southern Somalia; southern parts of Ethiopia; southern parts of South Sudan; and south western 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 seventh dekad (1 – 10 March) of 2016**