

## IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

### 10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR DEKAD 31 (1 – 10 NOVEMBER) 2015 AND CLIMATE OUTLOOK FOR DEKAD 33 (21– 30 NOVEMBER) 2015

#### 1.0 Highlights

- Wet conditions were observed over southern and south western parts of the northern sector as well as western and central parts of the equatorial and southern sectors of the Greater Horn of Africa (GHA) during the thirty first dekad (1-10 November 2015);
- Wet conditions are likely to be experienced over most parts of the equatorial sector, southern parts of the northern sector as well as the northern parts of the southern sector of Greater Horn of Africa (GHA) during dekad 33 (21-30 November) 2015;
- The observed rainfall conditions during dekad 31 (1 –10 November) of 2015 resulted in improved pasture and foliage conditions, replenishment of water resources, increase in water related diseases, and flooding in some of the places.

#### 2.0 Introduction

In this bulletin, the climatic conditions observed during the thirty first (1-10 November) of 2015 over GHA are reviewed and the associated impacts highlighted. The climate outlook for the thirty third dekad (21-30 November) of 2015 is also provided.

#### 3.0 Observed rainfall situation during the Thirty-first (1 –10 November) of 2015

Figure 1 shows the spatial pattern of observed rainfall over the GHA during the thirty first dekad (1 –10 November) of 2015 while Figure 2 shows that of rainfall severity index for the same period.

#### 3.1 Northern sector

During the thirty first dekad (1 –10 November of 2015) rainfall was mainly distributed within the southern parts of the northern sector. southern parts of South Sudan; southern and south western parts of Ethiopia; parts of Djibouti and north western and central parts of Somalia received that between 30mm to more than 100 mm of rainfall with south western parts of Ethiopia and southern parts of South Sudan receiving more than 100 mm of rainfall (Figure 1), resulting to near normal to wet conditions (Figure 2). The rest of the region received rainfall amounts of between 10mm to 30mm or less than 10 mm (Figure 1) resulting into dry or generally dry conditions (Figure 2).

#### 3.2 Equatorial Sector and Southern Sector

During the thirty first (1 –10 November of 2015) most parts of these regions received between 30mm to more than 100mm of rainfall (Figure 1) leading to near normal to wet conditions (Figure 2), except for eastern and north western parts of Kenya, south eastern Somalia, and eastern and south eastern Tanzania which received between 10mm to 30mm or less than 10mm of rainfall (Figure 1) resulting to dry or generally dry conditions. Most parts of Uganda; western and central Kenya; western and northern Tanzania; most parts of Burundi and parts of Rwanda; and southern parts of Somalia received rainfall amounts of between 30mm to more than 100mm

with north western Tanzania; western and central Kenya; northern and south eastern parts of Uganda receiving more than 100mm of rainfall (Figure 1) results to near normal to wet (Figure 2).

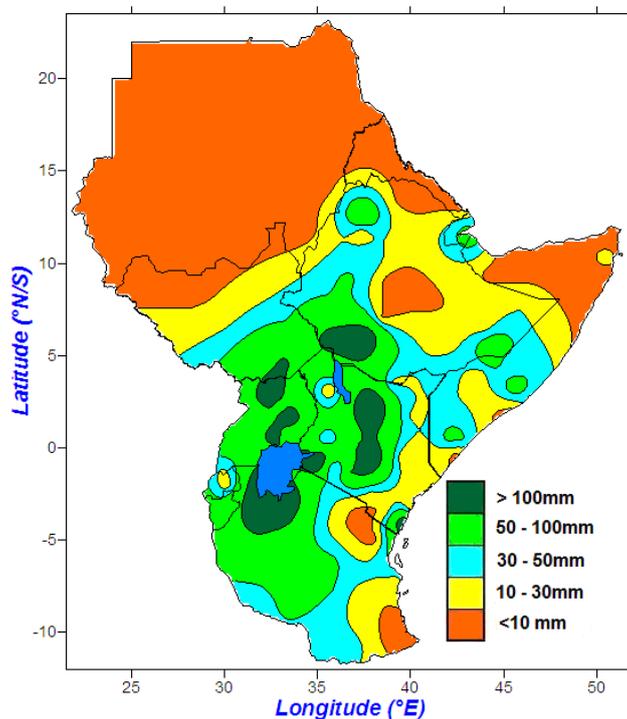


Figure 1: Spatial distribution of observed rainfall during dekad 31(1– 10 November) of 2015

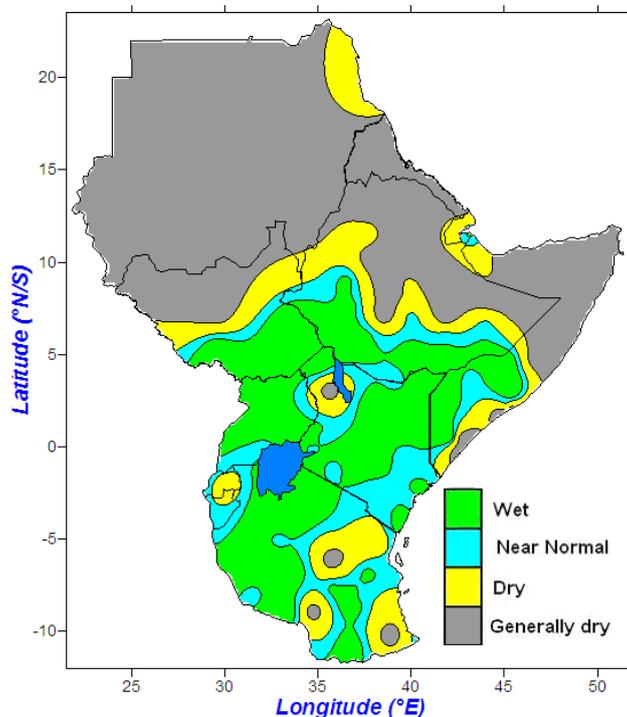
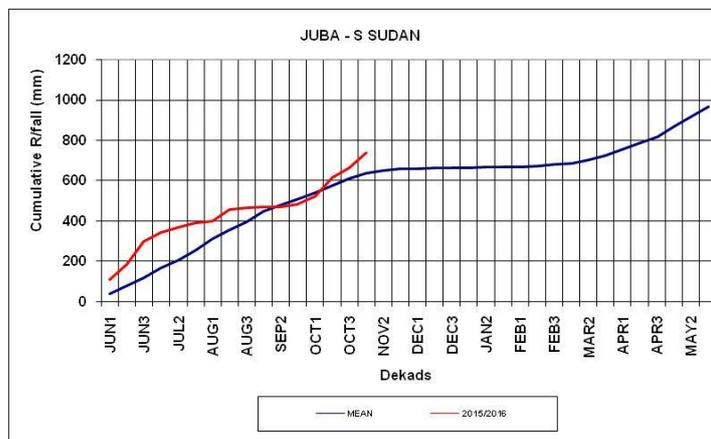


Figure 2: Rainfall Stress Severity Index for dekad 31 (1 –30 November) of 2015

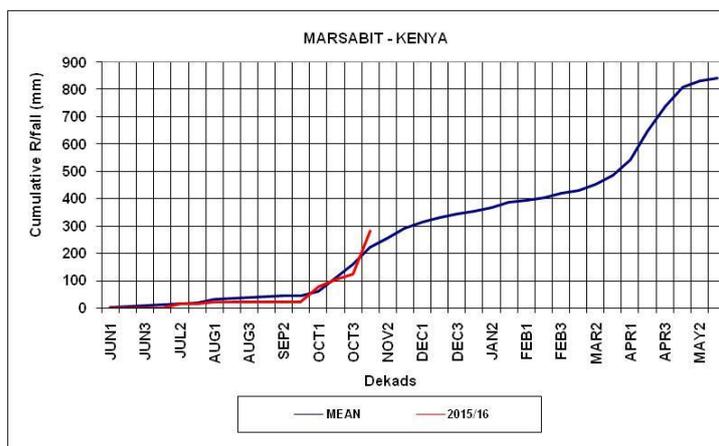
For more information contact  
 ICPAC P.O. Box 10304, 00100 Nairobi, KENYA; Tel: +254-020-3514426  
 E-mail: [director@icpac.net](mailto:director@icpac.net); Website: [www.icpac.net](http://www.icpac.net)

#### 4.0 Assessment of current rainfall performance

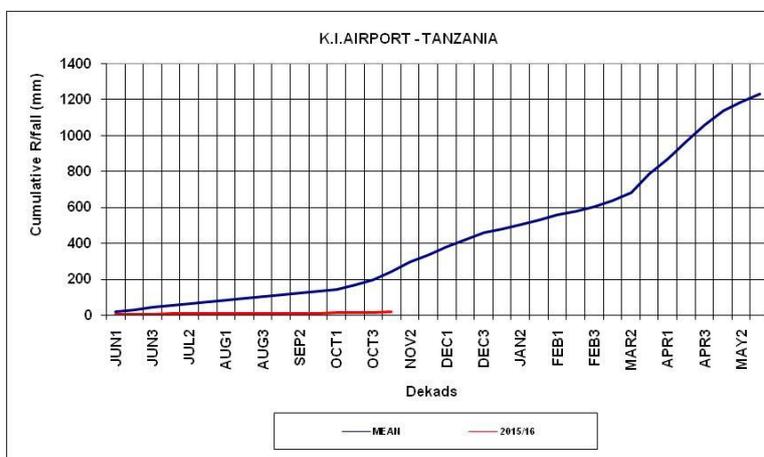
The cumulative dekadal rainfall was used to evaluate the rain water stress over GHA region. Figure 3 shows the cumulative dekadal rainfall performance since June 2015. Near normal to above normal rainfall conditions was observed over south western parts of the northern sector and western and central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



**Figure 3a: Cumulative rainfall series for Juba**



**Figure 3b: Cumulative rainfall series for Marsabit**



**Figure 3c: Cumulative rainfall series for Kilimanjaro.I.Airport**

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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 dekad 31 (1 – 30 November) and dekad 30 (21-31) October 2015 indicates improvement in vegetative conditions mostly over southern parts of South Sudan; southern and eastern parts of Ethiopia; central Somalia; western and central parts of Kenya; north eastern and southern parts of Uganda; and western, northern and southern parts of Tanzania (Figure 4). Deteriorated vegetative conditions was indicated over northern parts of South Sudan; southern parts of Sudan; northern and central parts of Ethiopia; south western and central parts of Uganda; parts of Rwanda and Burundi; and southern parts of Somalia (Figure 4). The rest of the region indicated little or no change in vegetative condition (Figure 4).

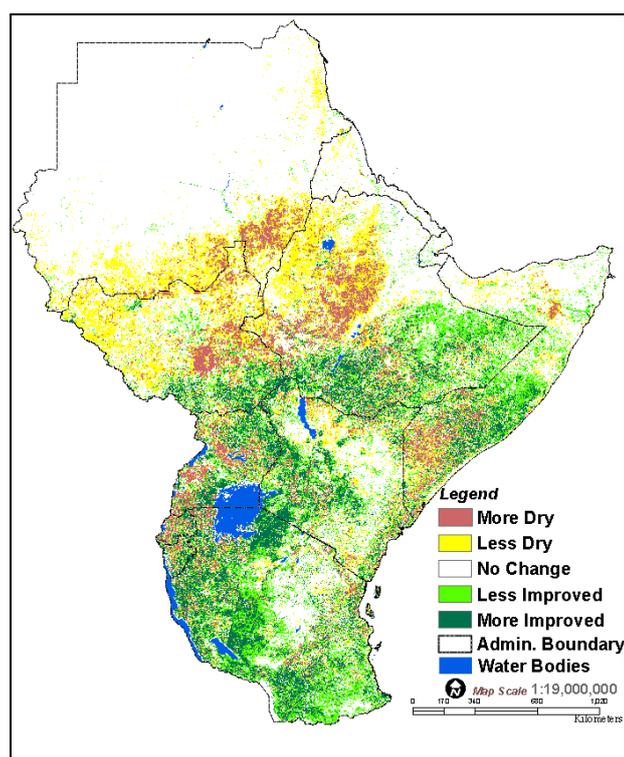


Figure 4: NDVI difference between dekad 31 (1 –30 November) and dekad 30 (21-31) October 2015

### 5.2 Impacts associated with observed climate conditions

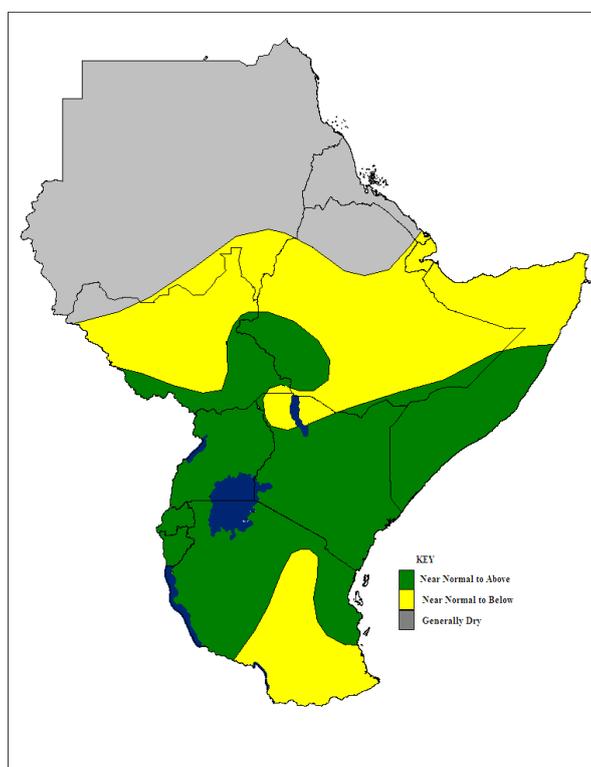
The observed rainfall conditions over GHA during dekad 31 (1 – 10 November) 2015 were associated with the following impacts:

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

- Improved pasture and foliage across southern parts of the northern sector and parts of equatorial and southern sectors of GHA leading to good prospects for livestock performance.
- Good water availability leading to replenishment of reservoirs and water pans.
- Increase in water related diseases
- Flooding was also reported over several parts which led to disruption of livelihoods.
- Water stress for pasture and crop especially in the eastern parts of the northern sector and parts of the equatorial sector.

## 6.0 Climate outlook

The rainfall outlook for dekad 33 (21-30 November) 2015 indicates near to above normal rainfall conditions are likely to be experienced over southern parts of South Sudan; south western and southern parts of Ethiopia; most parts of Uganda, Kenya, Rwanda; Burundi; southern and central parts of Somalia; and western, northern and eastern parts of Tanzania. North eastern parts of South Sudan, most parts of Sudan and most parts of Eritrea are likely to remain generally dry, while the rest of the region is likely to receive near normal to below normal rainfall (Figure 4).



**Figure 4: Climate outlook for dekad 33 (21 – 30 November) 2015**