

IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR DEKAD 29(11 – 20 OCTOBER) 2015 AND CLIMATE OUTLOOK FOR DEKAD 31 (1– 10 NOVEBER) 2015

1.0 Highlights

- Wet conditions were mainly observed over south western and south-central parts of the northern sector as well western central and north eastern parts of the equatorial sector of the Greater Horn of Africa (GHA) during the twenty ninth dekad (11-20 October 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 31 (1-10 October) 2015;
- The observed rainfall conditions during dekad 29 (11 –20 October) of 2015 resulted in improved pasture and foliage conditions, replenishment of water resources, and increase in water related diseases.

2.0 Introduction

In this bulletin, the climatic conditions observed during the twenty ninth (11-20 October) of 2015 over GHA are reviewed and the associated impacts highlighted. The climate outlook for the thirty first dekad (1-10 November) of 2015 is also provided.

3.0 Observed rainfall situation during the Twenty-ninth (11 –20 October) of 2015

Figure 1 shows the spatial pattern of observed rainfall over the GHA during the twenty ninth dekad (11 –20 October) of 2015 while Figure 2 shows that of rainfall severity index for the same period.

3.1 Northern sector and Equatorial Sector

During the twenty ninth dekad (11 –20 October of 2015) southern parts of Sudan; southern and central parts of South Sudan; southern parts of Ethiopia; southern parts of Somalia; most parts of Uganda; western, central and north eastern part of Kenya; western parts of Rwanda and Burundi; and north western parts of Tanzania between 30mm to more than 100mm of rainfall (Figure 1), with parts of central Kenya and southern Somalia receiving more than 100 mm of rainfall, 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 Southern Sector

During the twenty ninth (11 –20 October of 2015) most parts of Tanzania received rainfall amounts of less than 10mm (Figure 1) results to generally dry conditions (Figure 2) except the southern and north western parts which received between 10mm and 30mm of rainfall resulting into dry conditions(Figure 2).

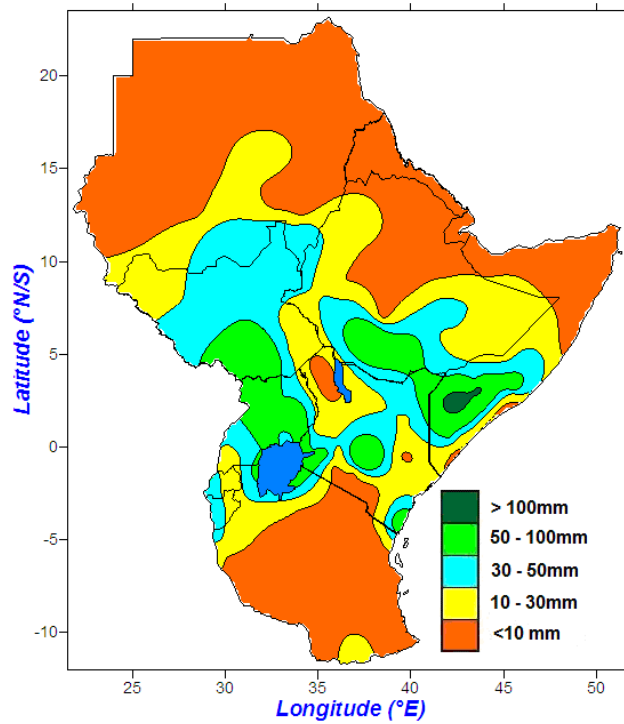


Figure 1: Spatial distribution of observed rainfall during dekad 29 (11– 20 October) of 2015

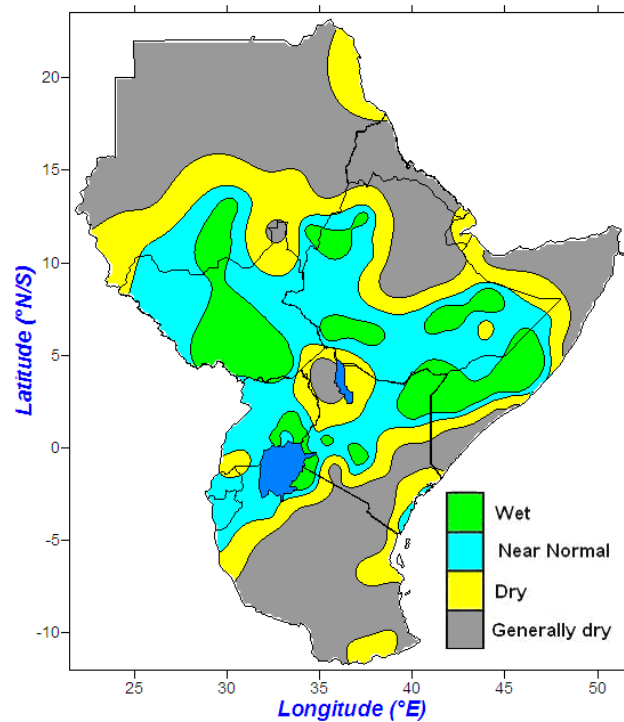


Figure 2: Rainfall Stress Severity Index for dekad 29 (11 –20 October) of 2015

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 central parts of the northern sector of the GHA (Figure 3a) while near normal and below normal rainfall was observed over western parts and the central parts of the equatorial sector of the GHA (Figure 3b and 3c).

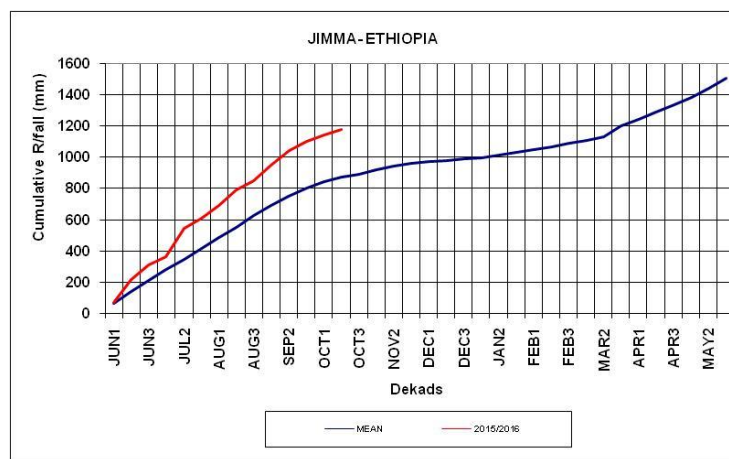


Figure 3a: Cumulative rainfall series for Jimma

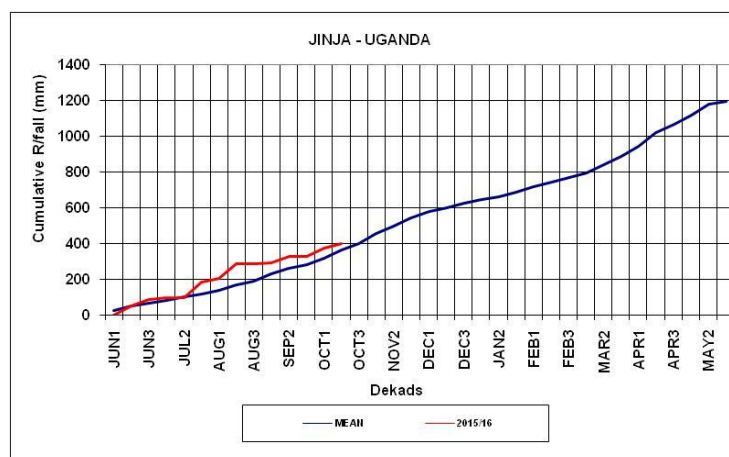


Figure 3b: Cumulative rainfall series for Jinja

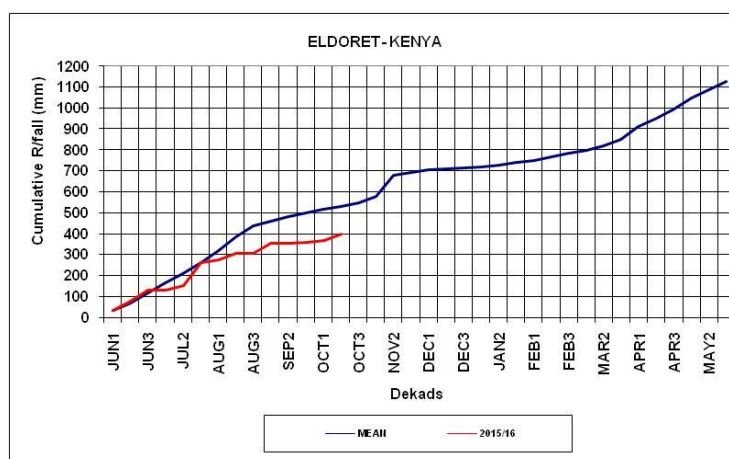


Figure 3c: Cumulative rainfall series for Eldoret

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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 29 (11-20 October 2015) and dekad 28 (1-10 October 2015) indicates deteriorated vegetative conditions over most parts of South Sudan; southern parts of Sudan; northern and central Ethiopia; south western and north eastern Uganda parts of western Kenya; parts of Rwanda and Burundi; and north western Tanzania (Figure 4). Improvement in vegetative conditions was mainly observed over southern and eastern Ethiopia; central and southern Somalia; north eastern, costal and parts of central Kenya; and parts of western, southern and coastal Tanzania (Figure 4). The rest of the region indicated little or no change in vegetative condition (Figure 4).

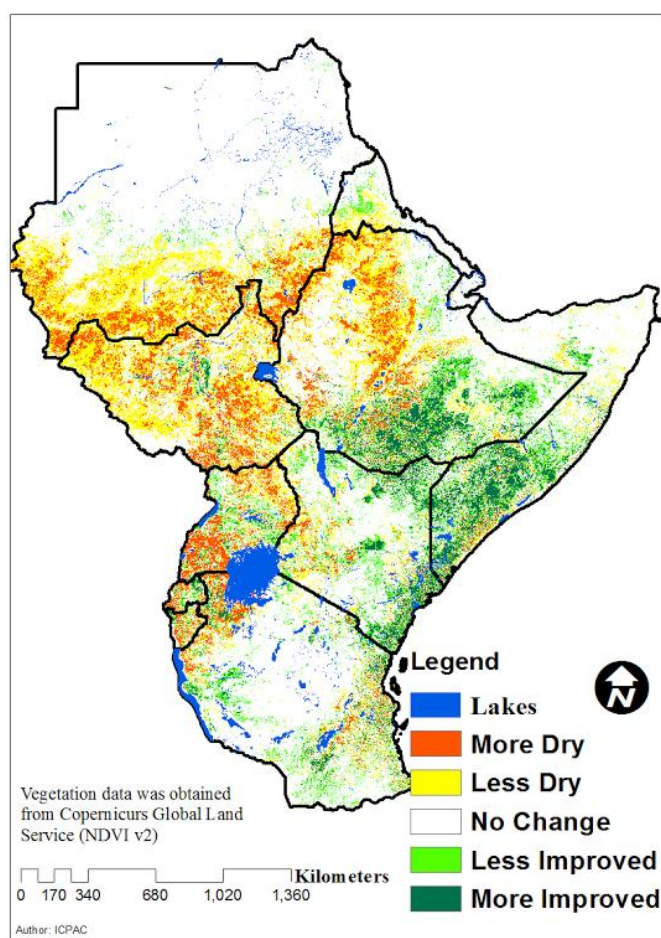


Figure 4: NDVI difference between dekad 25 (1-10) September and dekad 24 (21-31) August 2015

5.2 Impacts associated with observed climate conditions

The observed rainfall conditions over GHA during dekad 29 (11 – 20 October) 2015 were associated with the following impacts:

- Improved pasture and foliage across south central parts of the northern sector 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
- 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 31 (1-10 November) 2015 indicates near to above normal rainfall conditions are likely to be experienced over southern parts of South Sudan; western and southern parts of Ethiopia; most parts of Uganda, Kenya, Rwanda and Burundi; southern parts of Somalia; and northern parts of Tanzania. Northern parts of Sudan; most parts of Eritrea and Djibouti are likely to remain generally dry. The rest of the region is likely to receive near normal to below normal rainfall (Figure 4).

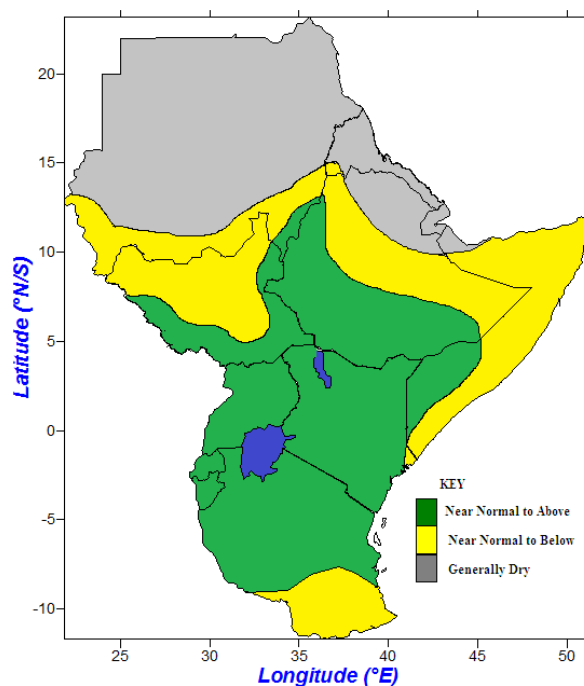


Figure 4: Climate outlook for dekad 31 (1 – 10 November) 2015