IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR DEKAD 33 (21 – 30) NOVEMBER) 2015 AND CLIMATE OUTLOOK FOR DEKAD 35 (11 – 20 DECEBER) 2015

1.0 Highlights

- Wet conditions were observed western and central parts of the equatorial sector, south western parts of the northern sector as well as western and southern parts of the southern sector the thirty third dekad (21-30 November 2015);
- Wet conditions are likely to be experienced over most parts of the southern sector as well as western and southern parts of the equatorial sector of Greater Horn of Africa (GHA) during dekad 35 (11-20 December) 2015;
- The observed rainfall conditions during dekad 33 (11 –30 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 third (21-30 November) of 2015 over GHA are reviewed and the associated impacts highlighted. The climate outlook for the thirty fifth dekad (11-20 December) of 2015 is also provided.

3.0 Observed rainfall situation during the Thirty-third (21–30 November) of 2015

Figure 1 shows the spatial pattern of observed rainfall over the GHA during the thirty third dekad (21 –30 November) of 2015 while Figure 2 shows that of rainfall severity index for the same period.

3.1 Northern sector

During the thirty third dekad (21 –30 November of 2015) received less than 10mm of rainfall (Figure 1), resulting to dry or generally dry conditions (Figure 2), except for the south western parts of South Sudan and south western parts of Ethiopia which recorded rainfall amounts ob between 30mm to 100mm (Figure 1) resulting into near normal to wet conditions (Figure 2).

3.2 Equatorial Sector and Southern Sector

During the thirty third dekad (21 –30 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), with western Uganda and central parts of Kenya receiving more than 100mm of rainfall. However eastern and south eastern parts of Kenya; north eastern, central and south eastern parts of Tanzania; parts of southern Somalia, and northern parts of Uganda received between 10mm to 30mm or less than 10mm of rainfall (Figure 1) resulting to dry or generally dry conditions (Figure 2).

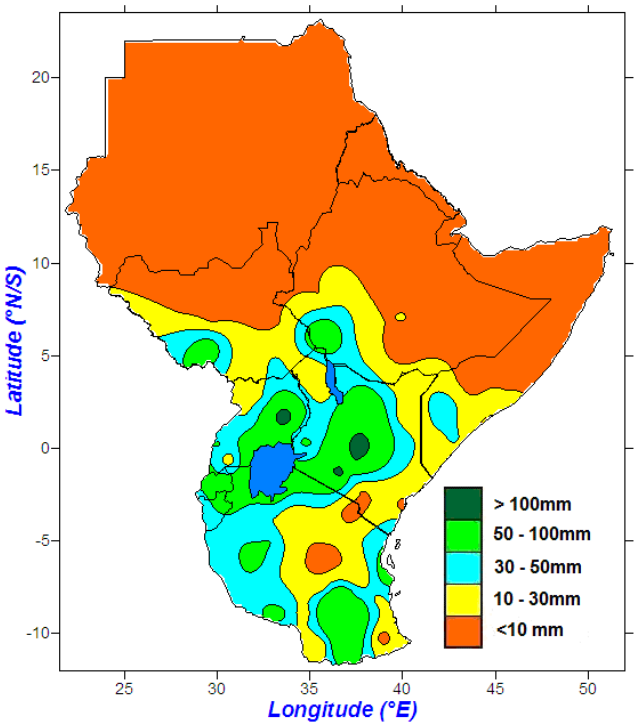

Figure 1: Spatial distribution of observed rainfall during dekad 33 (21–30 November) of 2015

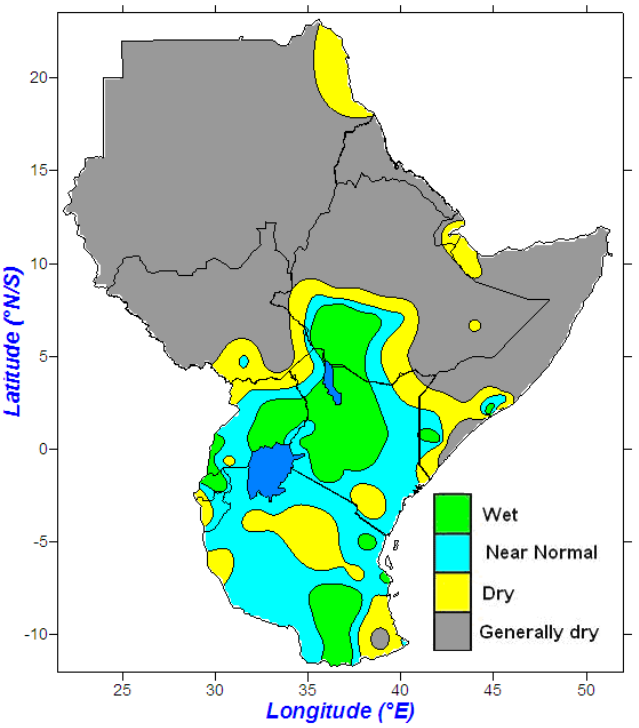

Figure 2: Rainfall Stress Severity Index for dekad 33 (21–30 November) of 2015

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 western parts of the equatorial sector as well as western parts of the southern sector of the GHA (Figure 3a, 3b and 3c)

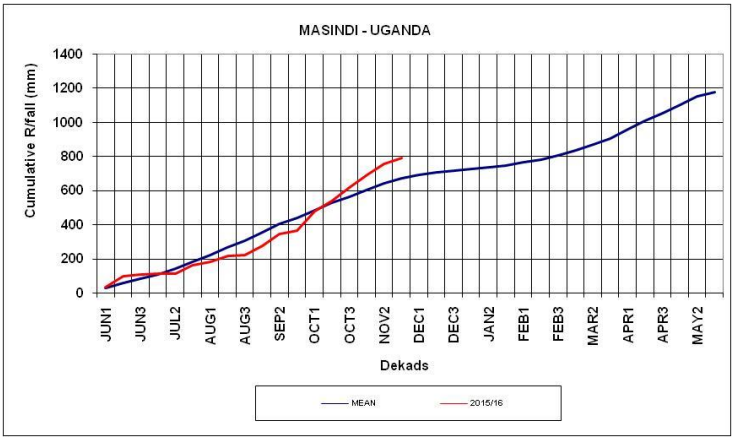

Figure 3a: Cumulative rainfall series for Masindi

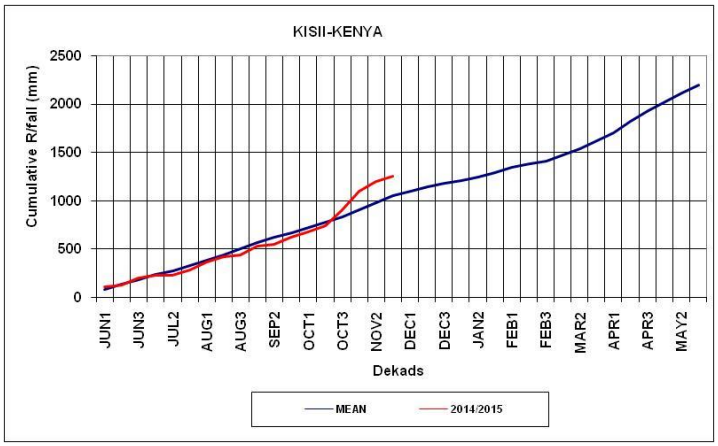

Figure 3b: Cumulative rainfall series for Kisii

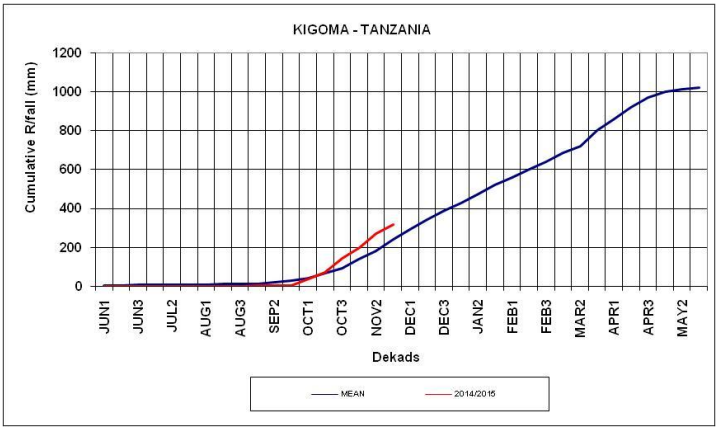

Figure 3c: Cumulative rainfall series for Kigoma

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 33(21-30) and dekad 32 (11-20) November 2015 indicates deteriorated vegetative condition over southern parts of Sudan; western, eastern and north western Ethiopia; northern, most parts of South Sudan; some parts of south western Uganda; some parts of western Kenya; parts of western Tanzania; parts of central Kenya; and some part of central Somalia. Improvement in vegetative conditions was mostly indicated over, most parts of Tanzania, most parts of Uganda; south eastern parts of South Sudan; and southern parts of Somalia (Figure 4). The rest of the GHA indicated little or no change in vegetative condition.

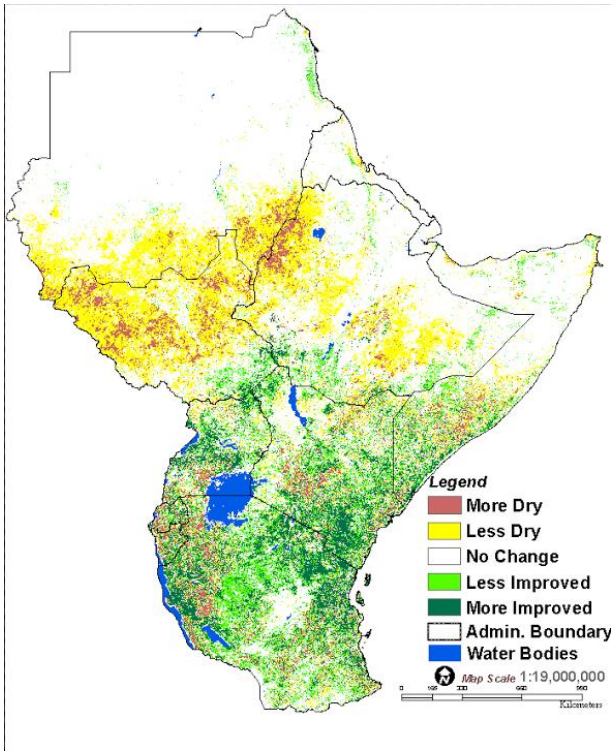

Figure 4: NDVI difference between dekad 33(21-30 November) and dekad 32 (11 –20 November) 2015

5.2 Impacts associated with observed climate conditions

The observed rainfall conditions over GHA during dekad 33 (21 – 30 November) 2015 were associated with the following impacts:

- 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 which led to disruption of livelihoods was also reported over some parts of the region.
- Water stress for pasture and crop was experienced especially in the eastern parts of the northern sector.

6.0 Climate outlook

The rainfall outlook for dekad 35 (11-2 December) 2015 indicates near to above normal rainfall conditions are likely to be experienced over most parts of Tanzania; most parts of Rwanda; most parts of Burundi; over southern and central parts of Uganda; western, southern and coastal parts of Kenya; and southern parts of Somalia. Most parts of Sudan; northern parts of South Sudan; north western and eastern parts of Ethiopia; most parts of Djibouti, and south western and eastern 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).

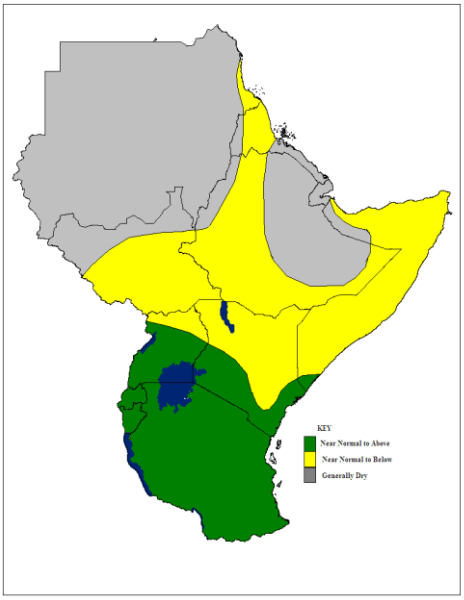

Figure 4: Climate outlook for dekad 35 (11 – 20 December) 2015