

IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE ELEVENTH DEKAD (11 – 20 APRIL) OF 2016 AND CLIMATE OUTLOOK FOR THE THIRTEENTH DEKAD (1 – 10 MAY) OF 2016

1.0 Highlights

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

3.0 Observed rainfall situation during the Eleventh dekad (11–20 April) of 2016

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

3.1 Northern sector

During the eleventh dekad (11 –20 April) of 2016 much of western, central, and southern parts of South Sudan; western, southern, central and north eastern parts of Ethiopia received rainfall amounts of between 30mm to more than 100mm (Figure 1) which resulted into near normal to wet rainfall conditions (Figure 2). The rest of the northern sector recorded less than 30mm with the rest of the region recording less than 10mm of rainfall (Figure 1) which resulted into dry or generally dry rainfall conditions.

3.2 Equatorial and Southern sectors

During the eleventh dekad (11 –20 April) of 2016, much of Uganda, western, central, northern, and southern coast of Kenya; southern parts of Somalia; western parts of Rwanda; as well as eastern, southern and northern parts of Tanzania recorded between 30mm to more than 100mm of rainfall (Figure 1) which resulted into near normal to wet rainfall conditions (Figure 2). Parts of northwestern, and eastern Kenya, central and southeastern Somalia; south eastern Rwanda; eastern and southern Burundi; and much of western and central parts of Tanzania received less than 30mm of rainfall (Figure 1) resulting to dry rainfall conditions (Figure 2).

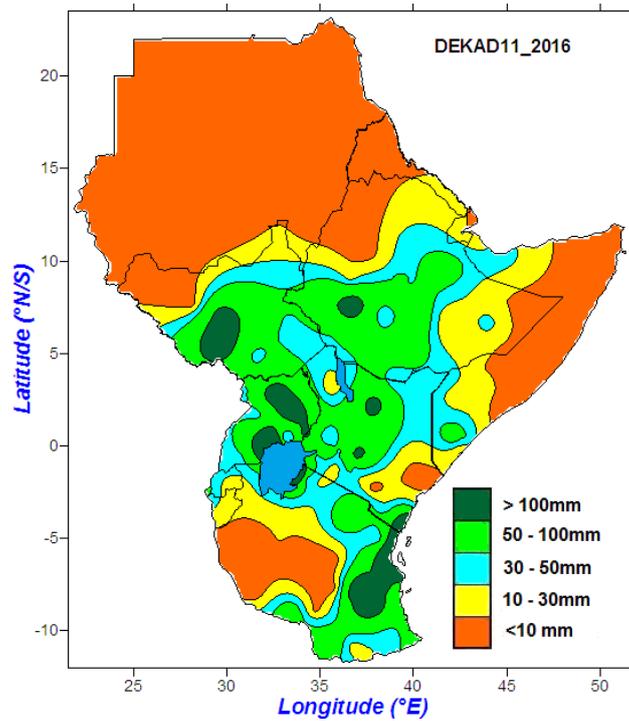


Figure 1: Spatial distribution of observed rainfall during the Eleventh (11–20 April) of 2016

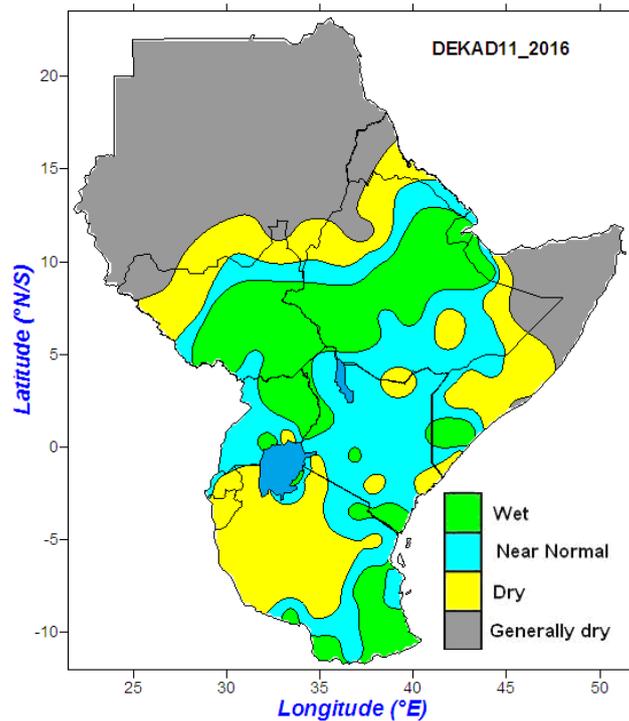


Figure 2: Rainfall Stress Severity Index for the Eleventh dekad (11–20 April) of 2016

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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 January 2015. Near normal to above normal rainfall conditions was observed over western and central parts of the equatorial sector as well as western parts of the southern sector of the GHA (Figure 3a, 3b, and 3c).

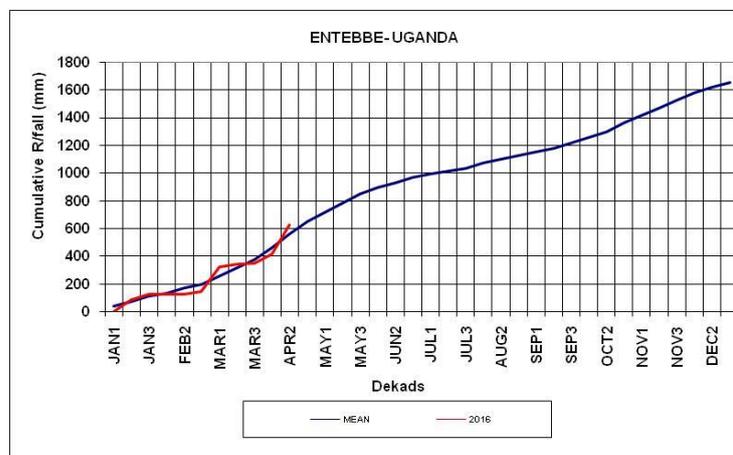


Figure 3a: Cumulative rainfall series for Entebbe

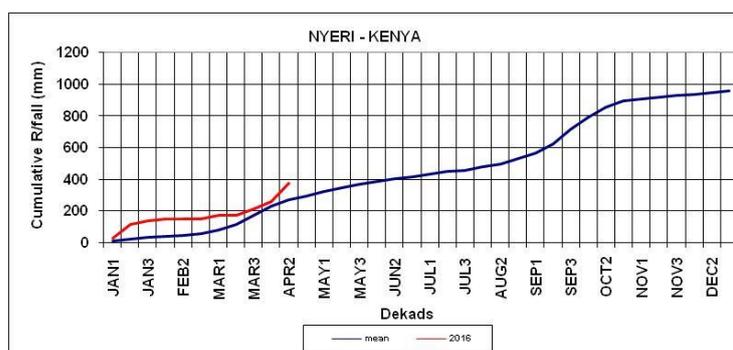


Figure 3b: Cumulative rainfall series Nyeri

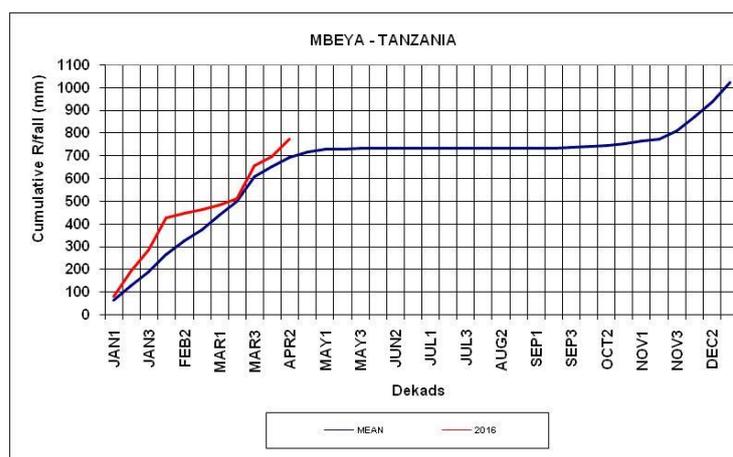


Figure 3c: Cumulative rainfall series for Mbeya

5.0 Impacts on socio-economic sectors

The socio-economic impacts associated with the observed rainfall conditions are highlighted

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below:

5.1 Vegetation condition indicators

The comparison of the Normalized Difference Vegetation Index (NDVI) between the eleventh dekad (11-20 April) and the tenth dekad (1-10 April) of 2016 indicates improved vegetative conditions over western parts of South Sudan; southern, central and eastern parts of Ethiopia; south western parts of Somalia; much of Uganda, Rwanda and Burundi; western, central, northeastern and coastal parts of Kenya; and northwestern, western, and southern parts of Tanzania. Deteriorated vegetative conditions was observed over southern parts of Sudan; southern parts of Eritrea, much of Djibouti; eastern parts of South Sudan; north eastern parts of Ethiopia; northern parts of Somalia; central and north western parts of Kenya; and much of of central and north eastern Tanzania. The rest of the GHA indicated little or no change in vegetative conditions (Figure 4).

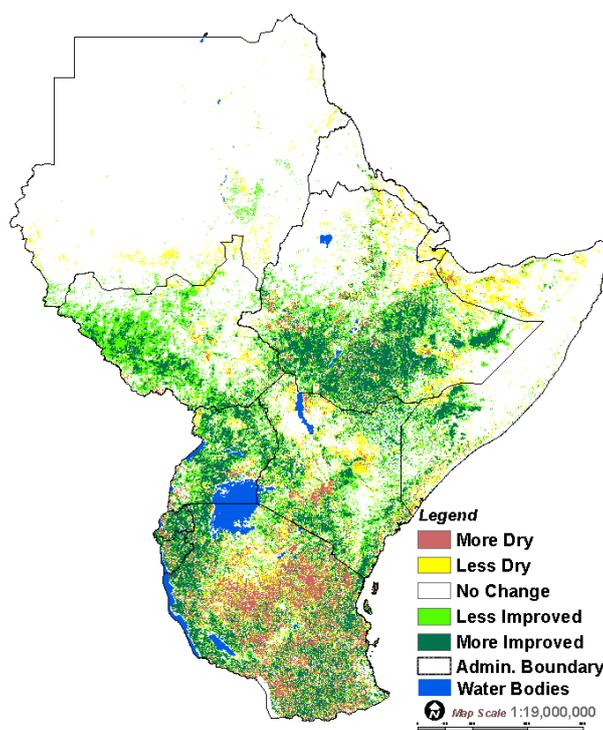


Figure 4: NDVI difference between the eleventh dekad (11-20 April) and the tenth dekad (1-10 April) of 2016

5.2 Impacts associated with observed climate conditions

The observed rainfall conditions over GHA during the eleventh dekad (11-20 April) 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

- Localised flooding over some areas leading to loss of livelihood and displacement of people

6.0 Climate outlook

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

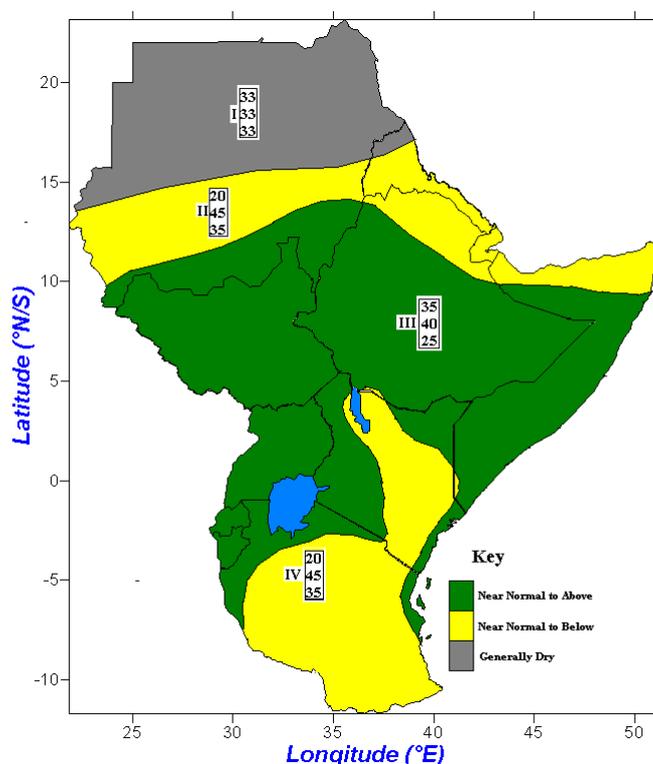


Figure 5: Climate outlook for the thirteenth dekad (1 – 10 May) of 2016