

IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

10 DAY CLIMATOLOGICAL SUMMARY AND IMPACTS FOR THE TWELFTH DEKAD (21 – 30 APRIL) OF 2016 AND CLIMATE OUTLOOK FOR THE FOURTEENTH DEKAD (11 – 20 MAY) OF 2016

1.0 Highlights

- Wet conditions were observed over much of south-western, south-central and eastern parts of the northern sector; over much of the equatorial sector; as well as northern, central and eastern parts of the southern sector of the Greater Horn of Africa (GHA) during the twelfth dekad (21-30 April) of 2016;
- Wet conditions are likely to be experienced over western and central parts of the equatorial sector as well as south western and south central parts of the northern sector of Greater Horn of Africa (GHA), during the fourteenth dekad (11-20 May) of 2016;
- The observed rainfall conditions during the twelfth 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 flooding over several places leading to displacement of people and loss of livelihood.

2.0 Introduction

In this bulletin, the climatic conditions observed during the twelfth dekad (21-30 April) of 2016 over GHA are reviewed and the associated impacts highlighted. The climate outlook for the fourteenth dekad (11-20 May) of 2016 is also provided.

3.0 Observed rainfall situation during the Twelfth dekad (21–30 April) of 2016

Figure 1 shows the spatial pattern of observed rainfall over the GHA during the twelfth dekad (21 –30 April) of 2016 while Figure 2 shows the rainfall severity index for the same period.

3.1 Northern sector

During the twelfth dekad (21 –30 April) of 2016 much of southern and central South Sudan; south western and eastern parts of Ethiopia; and central parts of Somalia recorded rainfall amounts of between 30mm to more than 100mm (Figure 1). This resulted into near normal to wet rainfall conditions (Figure 2). The rest of the northern sector recorded less than 10mm of rainfall (Figure 1) which resulted into dry or generally dry rainfall conditions.

3.2 Equatorial sector

During the twelfth dekad (21 –30 April) of 2016, much of Uganda, Rwanda, Burundi, western, central, northern, and coastal of Kenya; and some parts of Somalia; recorded between 30mm to more than 100mm of rainfall (Figure 1) which resulted into near normal to wet rainfall conditions (Figure 2). Some parts of southern Somalia and eastern Kenya recorded less than 30mm of rainfall (Figure 1) resulting to near normal to dry rainfall conditions (Figure 2).

3.3 Southern sectors

During the twelfth dekad (21 –30 April) of 2016, much of northern, western, and eastern parts of Tanzania recorded between 30mm to more than 100mm of rainfall (Figure 1) which resulted to near normal to wet rainfall conditions (Figure 2). Parts of eastern and southern Tanzania

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recorded less than 30mm of rainfall (Figure 1), which resulted to dry or generally dry rainfall conditions (Figure 2).

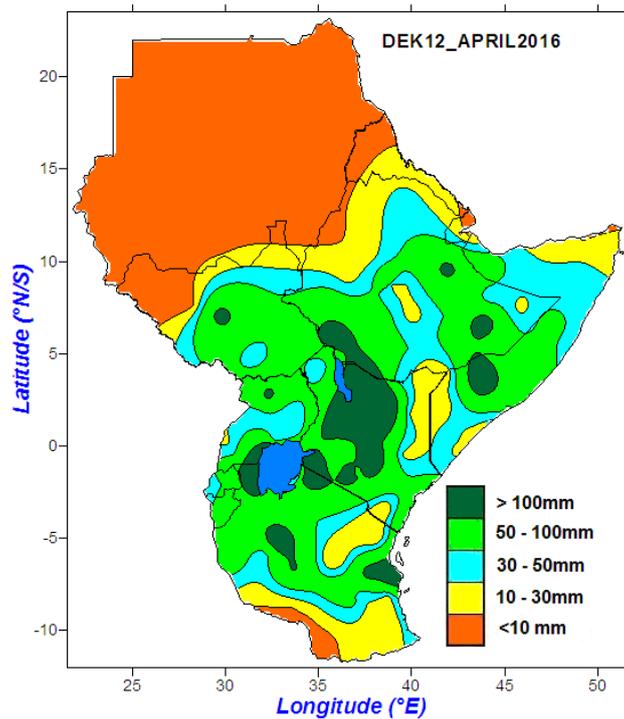


Figure 1: Spatial distribution of observed rainfall during the Eleventh (21–30 April) of 2016

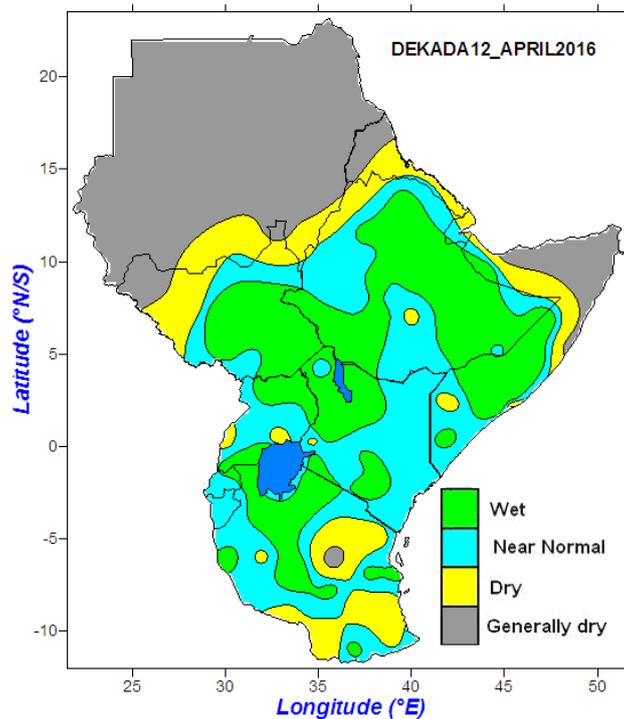


Figure 2: Rainfall Stress Severity Index for the Twelfth dekad (31–20 April) of 2016

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4.0 Assessment of current rainfall performance

Figure 3 shows the cumulative dekadal rainfall performance since January 2015. Near normal to above normal rainfall conditions has been observed over western and central parts of the equatorial sector as well as eastern parts of the southern sector of the GHA (Figure 3a, 3b, and 3c).

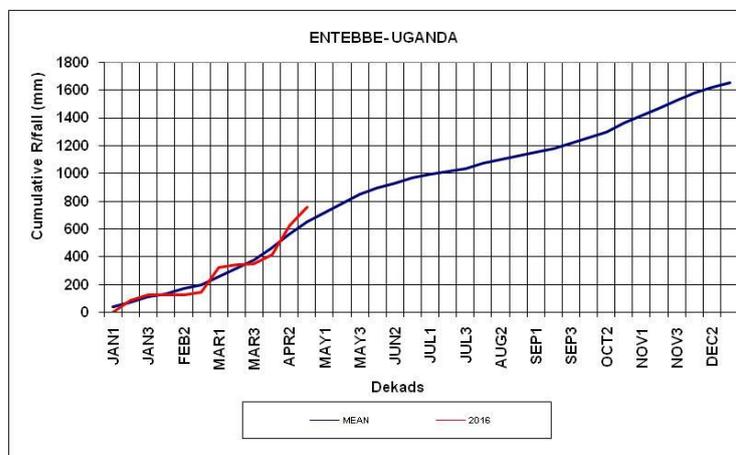


Figure 3a: Cumulative rainfall series for Entebbe

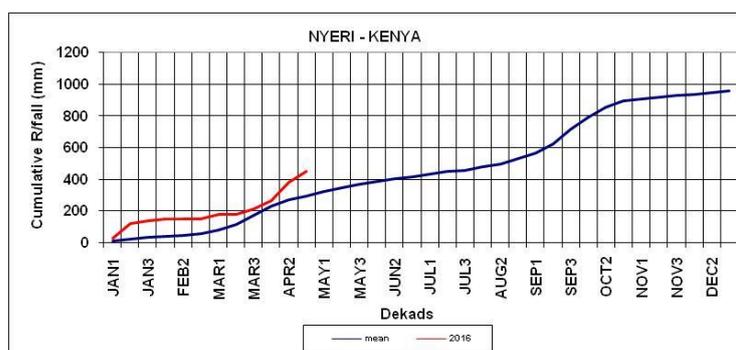


Figure 3b: Cumulative rainfall series Nyeri

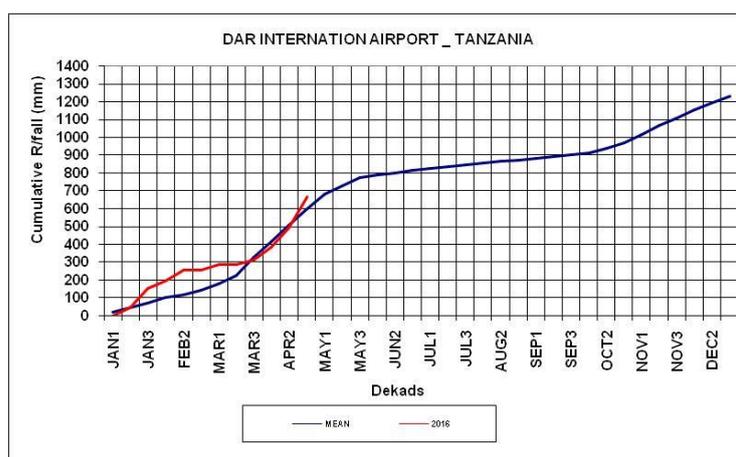


Figure 3c: Cumulative rainfall series for DAR. I. AIRPORT

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 twelfth dekad (21-30 April) and eleventh dekad (11-20 April) of 2016 indicates improved vegetative conditions over western, south western and eastern parts of South Sudan; parts of central, eastern and north eastern Ethiopia; parts of central, eastern and north eastern Uganda; western, central, north eastern, and eastern parts of Kenya; southern parts of Somalia; and central, eastern and southern parts of Tanzania. Deteriorated vegetative conditions was mainly observed over north eastern, and south western parts of Ethiopia; over northern parts of Somalia; south eastern parts of Uganda; over much of Rwanda and Burundi; and over north western Tanzania. The rest of the GHA indicated little or no change in vegetative conditions (Figure 4).

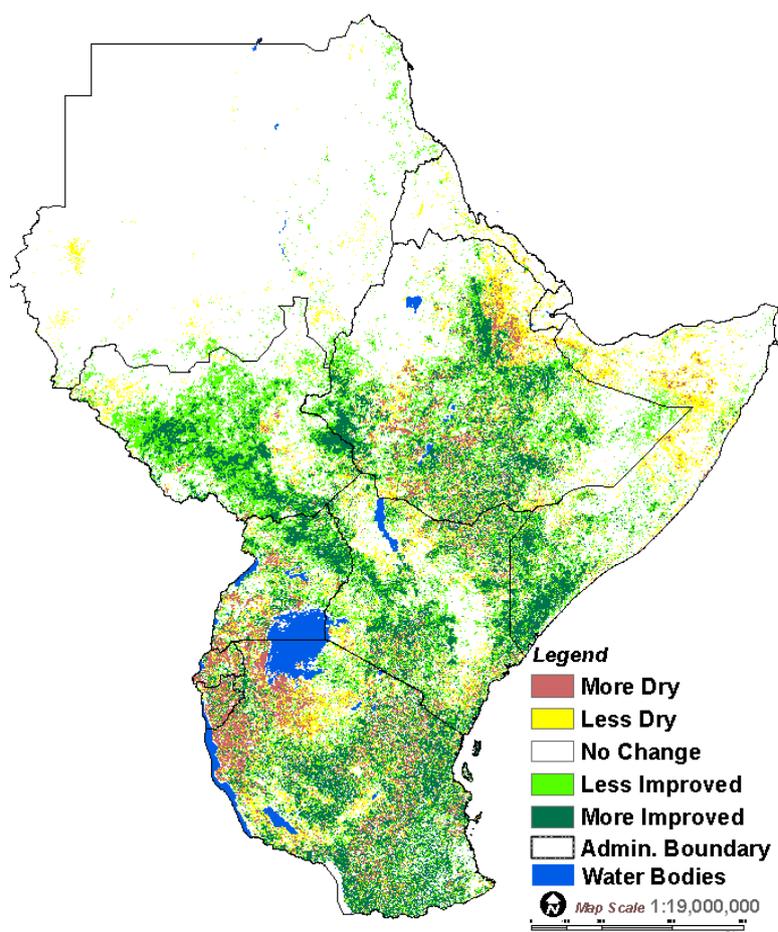


Figure 4: NDVI difference between the twelfth dekad (21-30 April) and the eleventh dekad (11-20 April) of 2016

5.2 Impacts associated with observed climate conditions

The observed rainfall conditions over GHA during the twelfth dekad (21-30 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 several regions 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 fourteenth dekad (11-20 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 and central parts of Ethiopia; much of Uganda, Rwanda and Burundi; western and central parts of Kenya; and north western of Tanzania. Near normal to below normal rainfall conditions are likely to be received in zone II which covers much of Eritrea, Djibouti and Somalia; eastern parts of Ethiopia; northern 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).

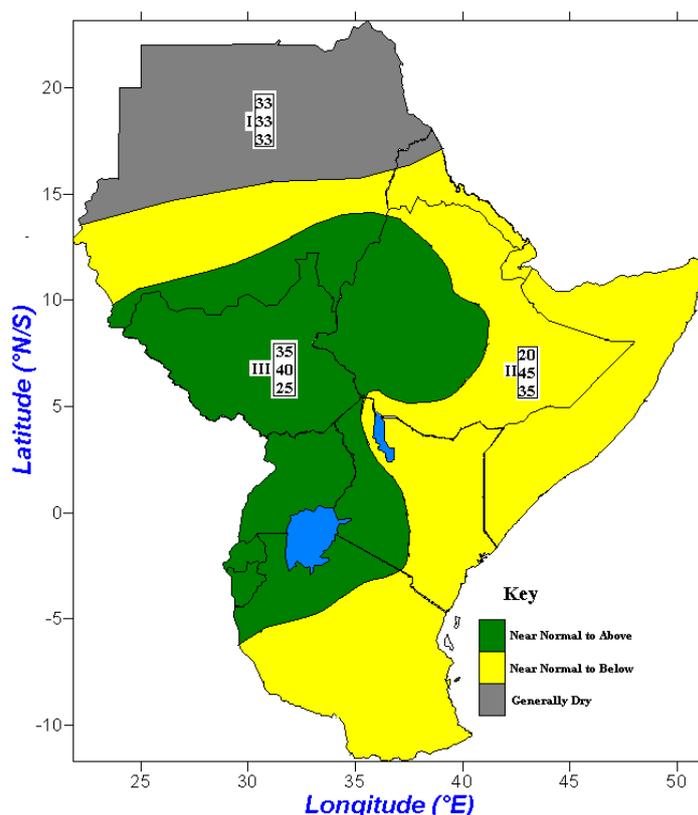


Figure 5: Climate outlook for the thirteenth dekad (1 – 10 May) of 2016