

## Moderate seasonal rainfall deficits in parts of Ethiopia, South Sudan, Uganda, and Kenya

### KEY MESSAGES

- The June to September main rainy season in northern areas of East Africa has so far been average to above average in most areas, supporting regeneration of pasture and favorable crop development. However, areas of central and southwestern Ethiopia, northeastern Uganda, and southwestern Kenya received below-average rainfall in June.
- In the Eastern Horn, vegetation conditions in June were poorer than normal in most areas due to the well below-average March to May rainfall and the current dry season. Exceptions to this are isolated areas of southern Somalia where above-average *Hagaa* rainfall is improving pasture and water availability.
- Crop losses due to Fall Armyworm (FAW) remain a concern across the region. In Ethiopia, the Ministry of Agriculture and FAO reported that FAW has infested crops in six regions during the ongoing season.
- Rainfall in July in northern regions is forecast to be average to above average. Areas forecast to receive heavy rainfall are at an increased risk of flooding, especially in flood prone areas of western Ethiopia and eastern Sudan.

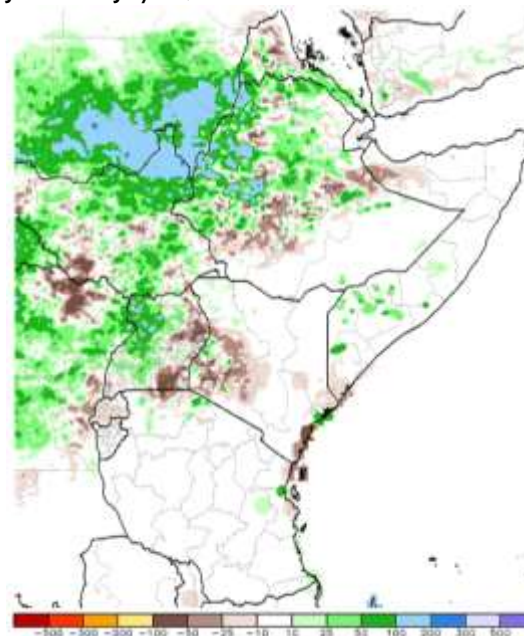
### SEASONAL PROGRESS

In the northern sector of the region, the June to September main rainy season is ongoing and rainfall has been moderate to heavy. In Sudan, northern South Sudan, and western Ethiopia, rainfall amounts were 25 to 200 millimeters (mm) above average in June. In Sudan, persistent above-average rainfall has led to flooding in south Darfur. Conversely, in central and southwestern Ethiopia, northeastern Uganda, and southwestern Kenya, rainfall was 25 to 100 mm below normal (Figure 1).

Vegetation in northern regions, as depicted by the eModis Normalized Difference Vegetation Index (NDVI), are mixed (Figure 2). Above-average vegetation is observed in northeastern Ethiopia and in most areas of South Sudan and southern Sudan, in response to the average to above-average rainfall in these areas. However, localized areas of drier-than-normal vegetation conditions exist in central and southwestern areas of Ethiopia and northeastern Uganda due to below-average rainfall in June.

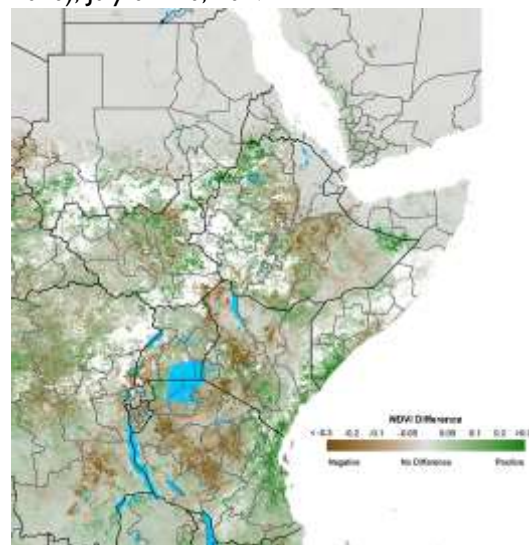
The *Gu* rainy season in the Horn of Africa ended in May and these areas have remained typically dry and hot in June. Vegetation conditions remain drier-than-normal in most of these areas, and are deteriorating faster than

**Figure 1.** ARC2 seasonal rainfall estimate anomalies, difference from normal (1983-2009), June 01 – July 05, 2017



Source: [NOAA/NWS/CPC](#)

**Figure 2.** eMODIS/NDVI anomalies (2001-2010), July 01- 10, 2017



Source: [USGS/FEWS NET](#)

Please see [NOAA CPC](#) and [USGS](#) for more information on remote sensing.

normal, as a result of well below-average *Gu* rainfall and the ongoing dry season. Below-average vegetation can be observed in northwestern Kenya, southeastern Ethiopia, and central Somalia. Recent field information from Dollo (formerly Warder) Zone of Ethiopia indicates very poor pasture conditions, despite late-season rainfall, and widespread over-grazing has been reported as livestock migrate in search of pasture and water. Satellite-based surface water monitoring products show water resources declining over eastern and southern Ethiopia and parts of northern and eastern Kenya. Conversely, rangeland conditions in southern Somalia have improved slightly in the past month due to above-average *Hagaa* rainfall, which is typically received in some southern regions during this time.

Crop losses from Fall Armyworms (FAW) remain a concern across the region. In Ethiopia, the Ministry of Agriculture and FAO reported that FAW has infested crops in six regions. Interventions to prevent the further spread are ongoing by the Ethiopian Government. In Kenya, the Ministry of Agriculture has reported an expected 25 percent decrease of maize production compared to normal due to both below-average rainfall and FAW. In Uganda, FAW has been reported in 70 of 116 districts, but the full impact of FAW is not yet known. FEWS NET estimates 10-30 percent reduction in cereal production compared to normal, also due to below-average rainfall and FAW.

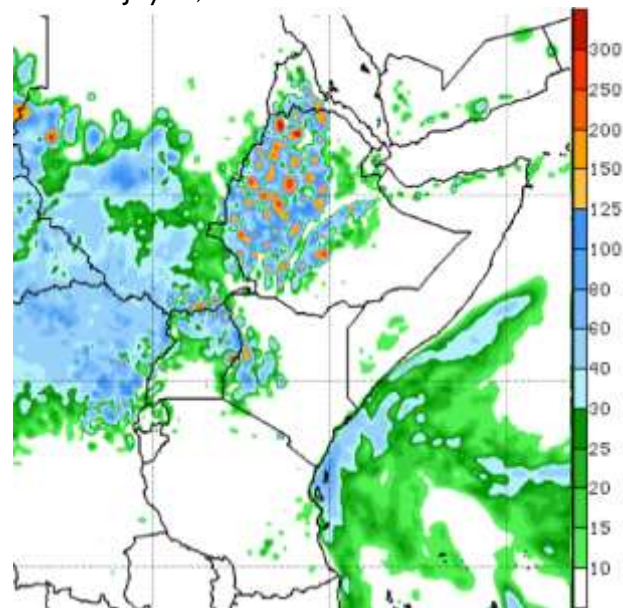
The following is a country-by-country update on recent seasonal progress to date:

- In **Ethiopia**, the June to September *Kiremt* rainfall has been favorable in most northern and central regions, although localized areas of Oromia, northern SNNPR, and Amhara have received below-average rainfall. Crops are in the early vegetative stage and currently susceptible to a FAW infestation, which has been reported in six regions of Ethiopia and has reportedly infested large areas of planted maize.
- In **Sudan**, ongoing, well above-average seasonal rainfall across many cropping zones of the country has supported favorable crop development. However, above-average rainfall has led to flooding in areas of south Darfur. The weekly forecasts indicate continued average to above-average rainfall, with increased likelihood for further flooding in flood-prone regions of eastern Sudan.
- In **South Sudan**, despite the current average to above-average seasonal rainfall, conflict continues to limit households' capacity to cultivate and migrate livestock. Rainfall has been below average in some areas of central South Sudan, but moderate to heavy rainfall is forecast in the coming weeks.
- In **Uganda**, first season production is expected to be below average due to poor rainfall in some areas and crop losses from FAW; however, crop prospects are improving slightly in northern areas due to rainfall in June. In Karamoja, the ongoing April to September rainy season has so far been below average.
- In **Yemen**, rainfall in June was slightly below average in western coastal and highland regions. Ongoing conflict continues to limit farming activities.
- In **Somalia**, isolated above-average rainfall was received in southern Somalia and has improved rangeland, water resources, and crop conditions in southern Bay and coastal districts. Continued average to above-average *Hagaa* rainfall is forecast in July and August. In central regions, conversely, pasture and water resources are well below average.
- In **Kenya**, pasture and water resources are rapidly deteriorating in northern, eastern, and southern pastoral regions where poor rainfall in the preceding season only partially restored vegetation. National maize production is estimated to be 25 percent below average due to poor seasonal rainfall and FAW crop losses.
- In **Djibouti**, the dry season is ongoing. Pasture and water resources are at normal levels throughout the country, though, due to average to above-average rainfall during the March to May *Diraac/Sugum* season. A normal onset of the July to September *Karaan/Karma* rainy season is expected.
- In **Rwanda, Burundi, and eastern DRC**, atypical moderate to heavy rainfall was received along the eastern border of DRC in June. Vegetation conditions have declined slightly in June and July in all other areas, as is typical during the dry season.

## FORECAST

The one to two week GFS rainfall forecast indicates continued moderate to very heavy rainfall (25 – 125 mm) across Sudan, South Sudan, DRC, northern Uganda, and eastern Kenya. Heavy rainfall (100-200 mm) is forecast for western and central Ethiopia. Continued heavy rains in the Ethiopian highlands and downstream in eastern Sudan may cause flooding in flood-prone areas during the peak of the seasonal rains in mid-July into August. Rainfall is also expected in isolated areas of southern and northern Somalia, eastern Rwanda, Yemen, and eastern Tanzania (Figure 3). With the exception of isolated rainfall in Somalia, the Horn of Africa is expected to remain typically dry, with little to no rainfall forecast in July.

**Figure 3.** 2<sup>nd</sup> Week GFS-Rainfall forecast (mm), valid until July 26, 2017



Source: [NOAA/CPC](#)