

Rainfall improves regionwide, but localized deficits and flooding remain a concern

KEY MESSAGES

- Although the ongoing El Niño would typically be associated with above-average rainfall at this time of the year, especially in the Eastern Horn, unfavorable Indian Ocean Sea Surface Temperatures (SSTs) resulted in reduced circulation of maritime moisture from the neighboring Indian Ocean, and therefore less rainfall, over parts of the region during March and early April.
- Widespread, above-average rainfall during the last 30 days over *Belg*-cropping areas of Ethiopia have helped to reduce cumulative seasonal rainfall deficits, which had persisted since late February. Similarly, for Kenya, southern Somalia, and parts of northwestern Uganda, the intensification of the seasonal rains in late April and early May has eased cumulative rainfall deficits.
- However, above-average torrential rains in the past week have also caused flooding, leading to the loss of lives and property in many parts of Kenya and elevated river levels in southeastern Ethiopia and southern Somalia. Although rainfall will subside during the next few days, heavier rainfall is forecast to continue in the coming weeks over the eastern Horn.

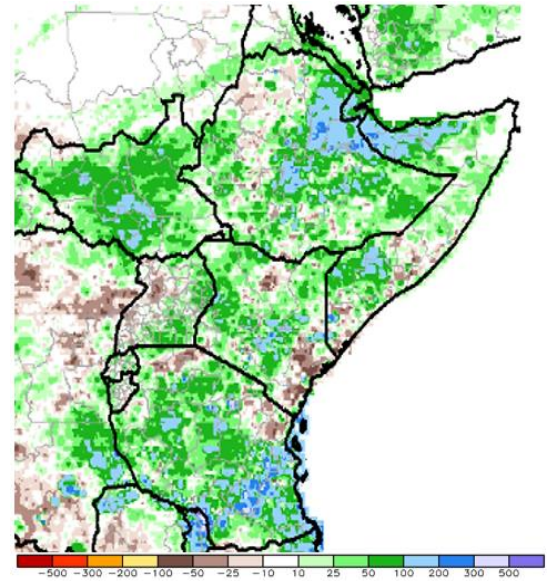
SEASONAL PROGRESS

Rainfall performance from April to early May was characterized by widespread above-average rains across the region, despite the poor and slow onset of the seasonal rains in March (Figure 1). These on-going rains have helped ease significant cumulative rainfall deficits, especially over Kenya, Uganda, northern Tanzania, and southern Somalia. Meanwhile, the Ethiopian *Belg* (February – May) seasonal rains, which were also significantly delayed in some cropping zones, have also increased in the past month, improving both cropping and rangeland conditions.

- In **Ethiopia**, field reports indicate that area planted is near average for most *Belg*-cropping areas. However, there are localized areas where planting will be below average in Tigray, East and West Haraghe and in extreme southern parts of SNNPR, due to insufficient soil moisture to allow land preparation and planting. Rangeland resources (water and pasture) are also expected to gradually improve in the coming weeks with the current rains.
- In northern and southern pastoral areas of **Ethiopia**, *Gu/Diraac/Sugum* rainfall was below average in April, but recent above-average rains have helped ease the cumulative seasonal deficits. In **Somalia**, *Gu* season (April to June) rainfall has been above average in most northern areas

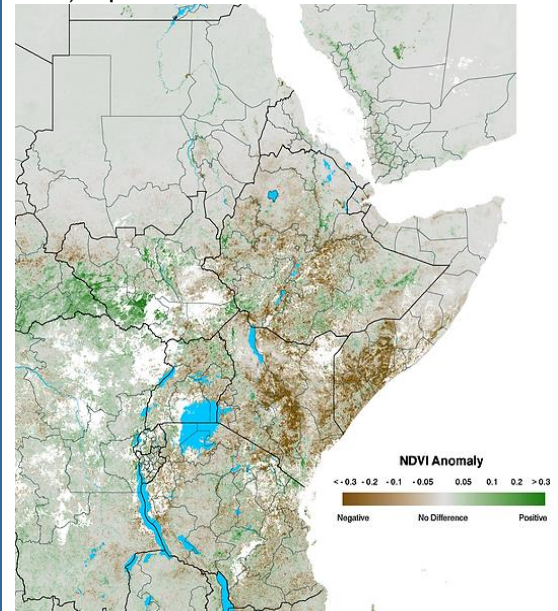
Please see http://www.cpc.ncep.noaa.gov/products/african_desk/cpc_intl/ and <http://earlywarning.usgs.gov/?l=en> for more information on remote sensing.

Figure 1. ARC2 30-day rainfall estimate anomaly (mm), April 3 – May 2, 2016



Source: NOAA/NWS/CPC

Figure 2. eMODIS/NDVI anomaly (2001-2010), April 30, 2016



Source: USGS/FEWS.NET

since early April and more mixed in southern areas, where there are localized areas of above-average and below-average rainfall. Seasonal rainfall deficits of between 25 and 100 mm remain in a few southern areas of Somalia bordering Kenya.

- In **Kenya**, recent above-average torrential rains across the country have triggered floods that damaged property, displaced households, and caused fatalities in many parts of Kenya, especially in the central districts and Nairobi. Meanwhile, the long rains in western Kenya and the Rift Valley have been mostly above average since the start of April, except in localized areas. In eastern and northern areas, the current rains have been generally beneficial and are likely to result in improved cropping and rangeland resources. However, improvements may be too late in parts of southeastern Kenya, where the maize crop is at very early stage, and the rains are forecast to end normally in May. Currently, some eastern coastal areas are still experiencing rainfall deficits.
- In **South Sudan**, rainfall has been above average across most areas of the country since the start of April.
- In **Uganda**, first season (March to June) rainfall in bimodal areas has been average to above average since early April, with surpluses reaching 50 to 100 mm in eastern areas including the Karamoja region. Rainfall amounts have been average or slightly below average in western areas near the border with the DRC.
- In **Tanzania**, *Msimu* (February to April) rainfall in unimodal areas has been well above average since early April, with surpluses reaching 50 to 100 mm in many areas, and local surpluses reaching 200 to 300 mm. In bi-modal areas, *Masika* (March to May) rainfall has been near average since early April, with localized areas receiving both slightly above and slightly below-average rainfall.
- Main season (February to April) rainfall in **Burundi**, and Season B (February to May) rainfall in **Rwanda** has been near to slightly above average since early April.

Vegetation conditions remain below average across much of East Africa, according to the eMODIS/NDVI (Figure 2), due to the cumulative impacts of poor rains and abnormally hotter-than-average temperatures during the months of February - March. According to the Kenya Meteorological Department (KMD), March was the hottest month on record since the 1960s. However, vegetation conditions are expected to respond favorably to the ongoing rains across the region.

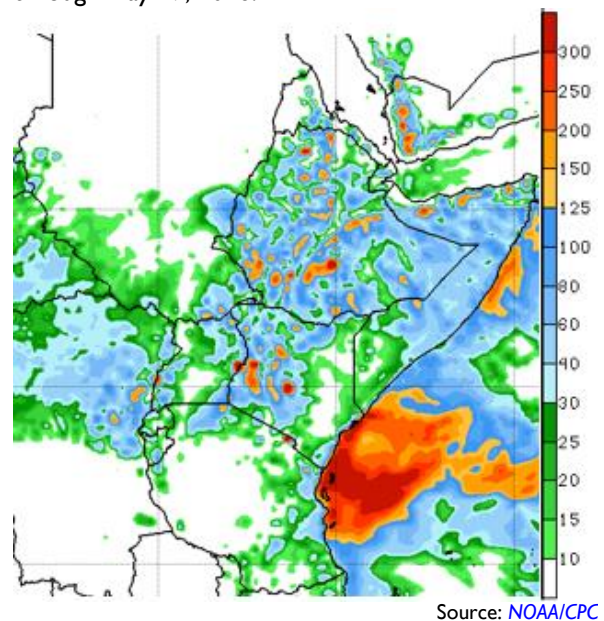
FORECAST

The short-term NOAA/GFS rainfall forecast (Figure 3) through May 17, 2016 indicates continued widespread heavy to very heavy rainfall (60 to 250 mm) in Ethiopia, Uganda, Rwanda, Burundi, Tanzania, western and central Kenya, with the Indian Ocean remaining active in terms of tropical depressions/cyclones.

In parts of eastern Kenya and southern Somalia, rainfall is likely to be light to heavy, but unevenly distributed in the coming weeks, increasing concerns that localized seasonal rainfall deficits may remain. In pastoral zones in the eastern Horn, the forecast rains are only expected to provide short-term relief. In cropping areas, the delayed onset of the season and the forecast end of seasonal rainfall in May has reduced the length of the growing period. In combination with poorly distributed rainfall to date, this may result in reduced yields for this cropping season.

Meanwhile, for much of the agriculturally productive areas of western Kenya, Uganda, Rwanda, and Burundi, the March to May seasonal rains are expected to remain generally favorable for cropping, but with the usual risk of flooding in flood-prone areas around the mountainous areas, Lake Victoria Basin, and surrounding areas. There is also an increased risk of additional flooding over East Africa coastal strip and the Juba and Shabelle rivers of southeastern Ethiopia and southern Somalia, based on currently elevated river levels and forecast moderate to heavy rains for the coming weeks.

Figure 3. 2-Week GFS rainfall forecast (mm), valid through May 17, 2016.



Source: [NOAA/CPC](#)