

More floods affect lake and riverine areas as end of the March to May rainy season approaches

KEY MESSAGES

- Devastating flooding continued around the Lake Victoria basin in Uganda and Kenya as well as in Rwanda, Burundi, and parts of southern Somalia.
- Outside of flood-affected areas, rainfall significantly subsided, marking an early to timely cessation of the long rains season in parts of the eastern Horn and much of Tanzania.
- Cropping and rangeland conditions remain favorable across most of the region, despite the recent devastating floods which negatively impacted some agricultural areas in the central and western sectors.
- According to the rainfall forecast, there is an increased likelihood of moderate to locally very heavy rain in the western sector and parts of the northern sector through the end of May, signaling an early to timely onset of the main June to September rainfall season in western Ethiopia, South Sudan, and Sudan.

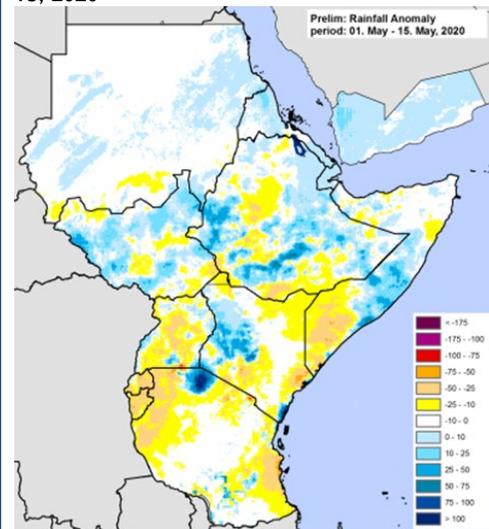
SEASONAL PROGRESS

Continued heavy rainfall in May, with anomalies in excess of 25 mm, led to additional floods in the East Africa region. Floods during the March to May rainfall season have killed nearly 369 people and [displaced over 480,000 people](#) across the region. The floods also caused extensive infrastructure, property, and crop damage in some of the most highly populated western and central regions of East Africa. The unprecedented rise of Lake Victoria’s water levels to a record 13.42 meters and backflow caused massive inundation of islands and low-lying populated areas within its environs in Kenya and Uganda. Affected, flood-prone areas include: southern Somalia, eastern Ethiopia, central and eastern Kenya, Uganda, Rwanda, and Burundi, and parts of northeastern coastal Tanzania into lower Tana River areas of Kenya.

In other parts of the region, however, the rains subsided from torrentially heavy rainfall to mostly light to moderate rainfall. Below-average rainfall anomalies of 25-75 mm were observed from May 1st to 15th (Figure 1). For the much of the eastern Horn, including eastern and northern Kenya and parts of eastern Ethiopia, this period marks a timely cessation of the March to May seasonal rains. Conversely, in southern Somalia and along the coastal strip of northeastern Tanzania and Kenya, the rainfall deficit occurred at a time when the seasonal rains typically reach their peak.

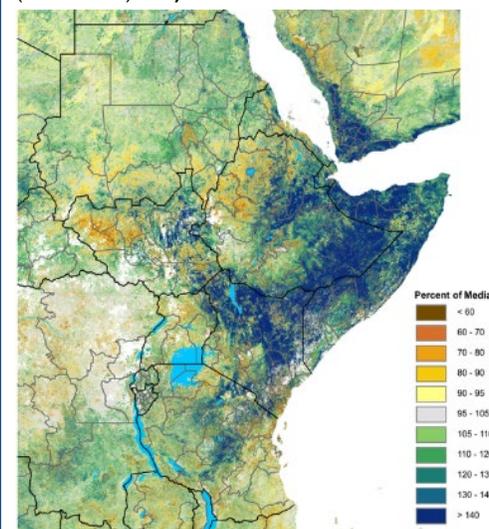
Vegetation conditions based on the eMODIS/Normalized Difference Vegetation Index show extensive areas of exceptionally above-normal conditions across East Africa in mid-May, despite a few localized areas of below-normal conditions (Figure 2). These exceptional conditions are in response to well above-average rainfall from late 2019 into mid-May 2020. However, recent floods and desert locust have likely contributed to some of the localized, poor vegetation conditions observed via remote sensing imagery. Fortunately, key informants continue to report that damage from desert locusts remains localized

Figure 1. CHIRPS preliminary rainfall anomaly in mm compared to the 1981-2010 average, May 1-15, 2020



Source: FEWS NET/USGS

Figure 2. eMODIS/NDVI percent of normal (2007-2016), May 11-20, 2020



Source: FEWS NET/USGS

in scale in both cropping and pastoral areas, due to regular monitoring and control operations, prevailing wind patterns, and rapid regeneration of rangeland vegetation by the ongoing rains.

Currently, there are few to no reliable crop field assessments available to confirm the extent of damage to on-going floods and waterlogging in worst-affected areas, due to travel restrictions because of the COVID-19 pandemic. Damage is anticipated to be significant in flood-affected areas, although a decline in net national production totals for the March to May season may be offset by favorable rainfall and cropping conditions in other areas that boost crop yields.

Other major seasonal concerns affecting crop and livestock production include the expected resurgence of third generation desert locusts in June, which are forecast to migrate northwards with the prevailing surface winds. In addition, the recent floods are expected to raise the risk of waterborne disease and malaria for livestock and humans across the region. ICPALD/FAO issued a statement in May alerting countries to the increasing risk of a Rift Valley Fever outbreak among livestock and humans due to prevailing environmental and meteorological conditions.

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

- **In Somalia**, crops planted earlier than normal in late March into early April in southern agropastoral regions are currently in the vegetative stage and have favorable prospects. However, recent floods likely damaged crops in riverine areas of Lower and Middle Juba and in Lower and Middle Shabelle. A forecast of moderate to heavy rain in southern Somalia is likely to be favorable for crop conditions in most agropastoral areas, but may sustain a heightened risk of flooding in riverine areas. Rainfall in the rest of the country is expected to maintain exceptionally favorable rangeland conditions, especially in the north, despite the prevailing desert locust infestation.
- **In Ethiopia**, *belg* rainfall has been generally favorable. As of mid-May, however, area planted for *belg* crops was below average, in part due to the delays in agricultural input distribution associated with COVID-19 restrictions and in part due to a slow start of the rainfall season. *Belg* production is expected to be below average due to below-average area planted and damage from desert locust swarms in the south and southwest. Looking forward to the *meher* production season, current and forecast seasonal rains over southern, western, and central regions are likely to mark an earlier-than-normal onset of the main June to September *kiremt* rains. The rainfall forecast is favorable, with the forecast enhanced and well distributed seasonal rains. However, there is heightened risk of widespread flooding. Further, environmental and wind patterns are likely to favor a resurgence of desert locusts and favor their migration to northern areas.
- **In Kenya**, above-average rainfall in western Kenya continued to cause flooding over extensive areas around the Lake Victoria basin and parts of the Rift Valley, including along major rivers such as Nzoia, Lusumu, Yala, Kipsangui, Malakisi, Budalangi, Sio, and Malabar. Central and lower Tana River regions in the east were also affected. Heavy rains, floods, or landslides in 37 counties since March have caused the death of at least 285 people and affected at least 810,655 people, including 161,000 who have been displaced. In high and medium maize production areas of western Kenya and the Rift Valley, there are reports of crop damage due to floods or waterlogging. However, the rains have now begun to subside, especially in northern and eastern Kenya. Cropping, rangeland, and water resources conditions are largely favorable outside of riverine and basin areas, with most early-planted maize crops in good condition in the reproductive to maturity stages. Conversely, late-planted crops (early to mid-April) in parts of the eastern and southeastern lowlands are likely to be water-stressed in coming weeks, given the likelihood of the cessation of rainfall in May.
- **In Sudan**, the earlier-than-normal northward progression of the tropical rainfall system into southern Sudan, has resulted in above-average rainfall so far in May. The rest of the country remains seasonally sunny and hot. The June to September seasonal rainfall forecast shows an increased likelihood of above-average rainfall and near-normal land surface temperatures. The short-term forecast is indicative of an early to timely establishment of the seasonal rains. As a result, there is an enhanced flood risk along the flood-prone River Nile, in eastern Sudan, and in the western Darfur regions. Desert locust migration to summer breeding areas also presents a resurging threat to Sudan's agricultural production.
- **In South Sudan**, seasonal rains are gradually intensifying and are likely to be fully established by June. Current cropping and rangeland conditions are significantly better than normal in the east; however, there is rising concern for the impact of desert locust on crop production. Damage is anticipated to bimodal crops in the southeast, while the migration of desert locusts to Sudan in late May and June could result in damage to rangeland in agropastoral areas. The June to September seasonal rainfall forecast shows a high likelihood of above-average rainfall. Coupled with rising River Nile water levels due to rainfall in upstream areas of Uganda, there is an earlier-than-normal and elevated risk of floods during the main rainy season in riverine and low-lying, flood-prone areas.

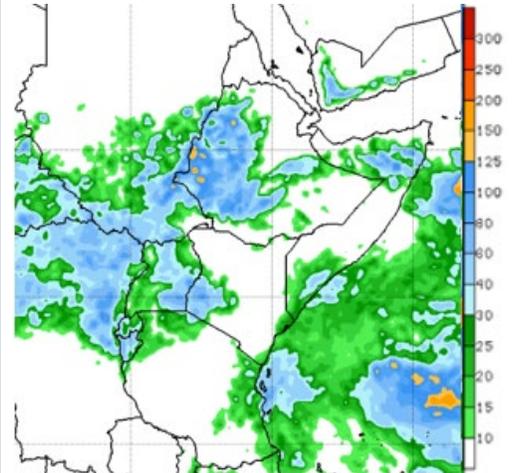
- In Uganda,** recent floods around the Lake Victoria basin and in western and eastern regions resulted in loss of human lives, displacement, and destruction of property and damage to crops. According to latest reports (UNIEWS, May 2020), at least 176,620 people have been affected while 24,335 have been displaced. Maize crops are in the reproductive and maturity stages in western and southern Uganda. Maize crops in central and northern Uganda are mostly in the late vegetative stages. Crops are generally in good condition, except for areas that experienced long-dry spells in April or in areas that experienced floods and waterlogging. Crop production prospects in central to northern Uganda will depend on rainfall performance in June. The forecast currently calls for continued above-average seasonal rains from June to September.
- In Rwanda and Burundi,** rainfall continued to be broadly above average, resulting in good agricultural production conditions overall. However, floods in some areas have had varied adverse impacts. In Burundi, approximately 50,000 people were displaced due to the River Rusizi repeatedly bursting its banks in late April. Around 1,500 hectares (ha) of season B crops were destroyed. 10,000 people have been displaced in Rumonge province along Tanganyika Lac, due to rising lake water levels and the overflow of the Murembwe and Dama rivers which flow in the lake. Some crops were damaged, especially in Gatakwa area where 70 ha of rice, beans, cassava and oil palm trees have been destroyed. In Rwanda, 70 people lost their lives and about 11,000 people have been affected by heavy rain this year. According to various independent sources, approximately 1,000 ha of crops have been flooded, mostly potatoes, maize, bananas, tea and sugar. The worst-affected areas include Gakenke, Musanze, Nyabihu, Muganga, Ruhango, Rubavu, and Ngororero districts.
- In Yemen,** remote sensing imagery indicates significant improvement in vegetation conditions in response to above-average rainfall in recent weeks. The short-term rainfall forecast for the next 1-2 weeks is for continued moderate to heavy rains, mostly along western coastal areas and surroundings. The rest of the country is expected to be generally sunny and dry during the forecast period. According to the FAO, desert locust breeding continues in interior areas where hopper bands and mature swarms have formed.

FORECAST

The rainfall forecast through May 28th is indicative of continued moderate to locally very heavy rains in Burundi, Rwanda, and Uganda into the bordering counties of western and central Kenya (Figure 3), as well as western Yemen, showing a continuation of seasonal rains in these areas. In contrast, rainfall is expected to be low to none in most bimodal areas of the Horn apart from parts of southern and northeastern Somalia. Meanwhile, moderate to heavy rainfall is forecast in South Sudan, southern Sudan, and western and central Ethiopia, likely marking a timely to early onset of the June to September main season rains in the northern sector. Based on the seasonal forecast and current river water levels, these areas will face a heightened risk of flooding as the June to September rains become established. The short-term rainfall outlook also depicts moderate to heavy rains along the East Africa coastal strip into southern Somalia. According to the GEF's weekly forecasts, these seasonal rains are forecast to persist into the following week, valid up to 2 June.

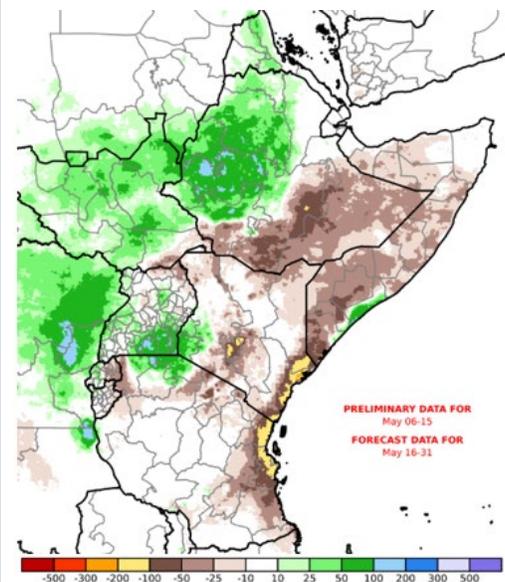
Overall, May seasonal rainfall performance is likely to remain above average over the Lake Victoria basin and in South Sudan, southern Sudan, western and central Ethiopia, and parts of southern Somalia's coastal areas (Figure 4). However, subsiding rainfall in late May is likely to strengthen deficits in eastern Ethiopia, much of Somalia, parts of central Kenya, and northeastern Tanzania. The Kenyan-Tanzanian coastal strip is likely to observe the most significant rainfall deficits.

Figure 3. Week I GFS rainfall forecast in mm, valid through May 28, 2020



Source: NOAA/CPC

Figure 4. CHC Early Estimate for May 6-31, 2020, expressed as the difference from the 1981-2018 average in mm. Based on CHIRPS preliminary data for May 6-15 and unbiased GFS forecast for May 16-31



Source: UCSB Climate Hazards Center