EAST AFRICA Seasonal Monitor

January 04, 2019

Below-average Deyr/short rains season concludes with enhanced December rainfall

KEY MESSAGES

- At the conclusion of the *Deyr*/short rains season, there remain large areas of drier-than-normal conditions across Somalia, in parts of eastern and southern Ethiopia, in eastern Kenya, and along the Kenya-Uganda border. However, December rainfall alleviated cumulative deficits in parts of the eastern Horn, bringing short-term but significant relief to pasture and water resources.

- Late seasonal rainfall in December resulted in better cropping conditions during the final weeks of the growing season in much of Uganda, Rwanda, and Burundi, as well as western, central, and eastern Kenya and parts of northern Tanzania.

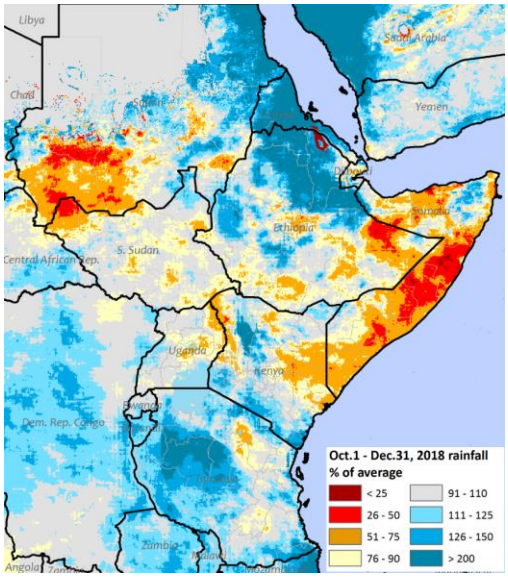
- The short-term rainfall outlook through mid-January is indicative of dry conditions across most of East Africa, aside from moderate to locally very heavy rains in Tanzania and Burundi. With little or no rainfall expected across the rest of the region, this marks the southward shift of the seasonal rains toward southern Africa.

SEASONAL PROGRESS

Total cumulative rainfall in December was generally above average to average in most of Kenya, Uganda, Tanzania, Rwanda, and Burundi, with surplus amounts of 25 to 100 mm. However, parts of Marsabit in Kenya, Borena in southern Ethiopia, and the coastal strip of southern Somalia recorded slight rainfall deficits, ranging from -25 to -50 mm below average. December marks the end of the October to December *Deyr*/short rains season across much of equatorial East Africa, though the rains are likely to subside in January in some areas. The increase in late seasonal rainfall is expected to provide short-term relief for parts of the eastern Horn that accumulated substantial rainfall deficits earlier in the season.

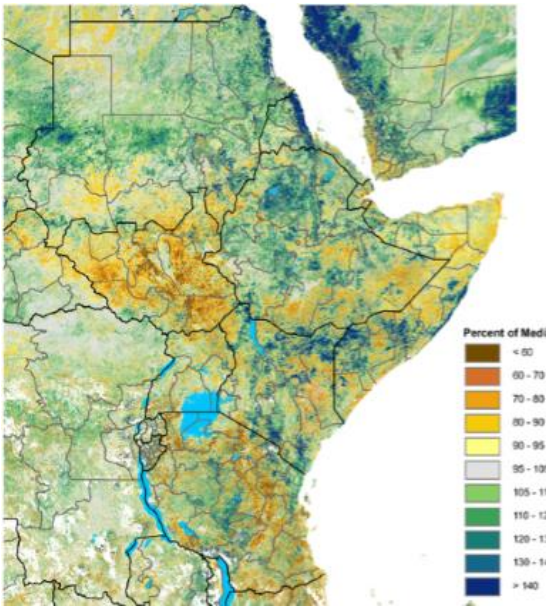
At the conclusion of the season, total *Deyr*/short rains seasonal performance from October to December was less than 75 percent of average across most of Somalia, eastern Kenya, and parts of eastern and southern Ethiopia, as well as localized areas in southeastern South Sudan and northwestern areas of Bahr Ghazal region, along the Kenya-Uganda border, and in northeastern Tanzania (Figure 1). Rainfall throughout the season was also often characterized by erratic distribution. The areas worst-affected by rainfall deficits (shaded in red) include central Somalia and Somalia's Bay and Lower Shabelle regions, which received less than 50 percent of average total seasonal rainfall. Although Sudan does not typically receive seasonal rainfall during this period, it is noteworthy that parts of western and central

Figure 1. CHIRPS-Preliminary seasonal rainfall accumulation anomalies, October 1 - December 31, 2018, compared to 1981-2010 average



Source: *USGS/FEWS NET*

Figure 2. eMODIS/NDVI percent of normal (2007-2016), December 21- 31, 2018



Source: *USGS/FEWS NET*

FEWS NET East Africa
fewsinquiry.east@fews.net
www.fews.net/east-africa

Darfur regions in Sudan also had significantly below average rainfall performance.

Current vegetation condition anomalies compared to the short-term average indicate gradual improvement in vegetation conditions as a result of the December rainfall in parts of the eastern Horn, according to the eMODIS/Normalized Difference Vegetation Index (NDVI) (Figure 2). However, there are localized areas of persistent drier-than-normal vegetation conditions in parts of Garissa, Marsabit, and Isiolo counties in Kenya, southern and central Somalia, and Afder, Warder, and Borena regions in Ethiopia. Similarly, much of South Sudan, Karamoja region in Uganda, and western Turkana county in Kenya also continue to experience significantly drier-than-normal vegetation conditions due to cumulative below-average rainfall, worsened by hotter-than-normal land surface temperatures that are more than 2°C above average. In Tanzania, the recent establishment of the *Msimu* November to January seasonal rains have led to gradual improvement in rangeland resources and cropping conditions. However, there still localized areas of drier-than-normal vegetation conditions in Manyara and Dodoma regions in central Tanzania.

Maize production for the September to December season is expected to be below average to failed in southern Somalia. In Kenya, near average maize yields are likely in the high and medium potential western, central, and eastern highlands of Kenya, while marginal agricultural areas in the southeastern lowlands are expected to be below average. Across most of the western sector of East Africa, maize production is expected to be average, but there is an increased likelihood of slight production shortfalls in parts of eastern Burundi, northern Rwanda, and southwestern and eastern Uganda.

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

- **In Somalia,** below-average *Deyr* rainfall performance has reduced agricultural production prospects and conditions for livestock production. There is an increased likelihood of cereal yield shortfalls ranging from 30 to 40 percent of the long-term average for rainfed crops in southern Somalia. In marginal agropastoral regions, the cereal yield forecast is anticipated to be significantly below average to failed (less than 50 percent of average). According to recent field reports, livestock body conditions, reproduction, and milk production are below average to poor in northeastern, central, and localized southern areas of Somalia, primarily in areas that received less than 50 percent of average total rainfall.

- **In Ethiopia**, *Deyr/Hagaya* rainfall was below average in parts of southern and eastern Ethiopia's pastoral zones. Recurrent poor rainfall performance since the 2016 drought, with no significant recovery periods, continues to adversely impact livestock production. *Meher* harvests have been completed, with slight damage to the quality of major crops (teff and wheat) due to unseasonal rainfall in late November and early December.

- **In Kenya**, the performance of the short rains improved significantly in early to mid-December, easing large seasonal rainfall deficits that had accumulated by November. Current field reports indicate favorable rangeland conditions across much of the country due to the December rains. However, there are still few counties experiencing poor vegetation conditions that require close monitoring, notably Wajir, Isiolo, Garissa and northwestern Turkana counties. Although rainfall improved maize cropping conditions, late planted crops are expected to be moisture stressed given that rainfall is forecast to subside in early January. Maize yield prospects in marginal agricultural areas in the southeastern lowlands will be below average, while near-average maize yields are expected in the central and eastern highlands.

- **In Sudan,** the main season millet and sorghum harvest is almost complete and expected to be average, due to above average June to September rainfall performance. However, underlying macroeconomic factors over the past year may have adversely impacted planted acreage and could reduce total crop harvesting prospects. The impacts of below-average rainfall (October – December) over southwestern Sudan are gradually resulting into slightly drier-than-normal vegetation conditions in parts of southern Darfur and western Kordofan, which may trigger livestock migration into parts of South Sudan that have relatively better pasture conditions.

- **In South Sudan**, rainfall performance since mid-July has been generally below average and erratic, especially over south-eastern South Sudan and northern Raga and Aweil counties. From late October to December, land surface temperatures have been significantly warmer-than-normal, causing rapid deterioration in rangeland resources. Coupled with protracted civil unrest, these agro-climatic conditions are expected to lead to reductions in agricultural production to below pre-crisis levels, similar to recent years.

- **In Uganda**, below-average first season rainfall performance (September to December) in parts of eastern, central, and southwestern Uganda is likely to result into slight crop yield shortfalls in bimodal areas. However, recent heavy rains in late November and December have improved cropping conditions in the rest of the country, with an increased likelihood

for near-average yield prospects. Karamoja region of northeastern Uganda has remained much drier than normal, and field reports are indicative of continued decline in livestock body conditions and overall production in the coming months.

- **In Rwanda and Burundi,** the intensification of season A rainfall in mid-November and December have eased early season crop moisture stress, leading to favorable indications of average to above-average production prospects except for a few very localized areas in northwestern Rwanda and eastern Burundi. More rainfall is forecast in January at critical crop production stages.

- **In Yemen**, the western coastal and central highlands regions observed average rainfall amounts in December and resulted in better-than-normal vegetation conditions. However, the rest of the country experienced near-normal vegetation conditions. Little to no rainfall is expected through mid-January. Overall, it remains challenging to assess ground conditions in the country due to protracted conflict and this assessment based on remote observations.

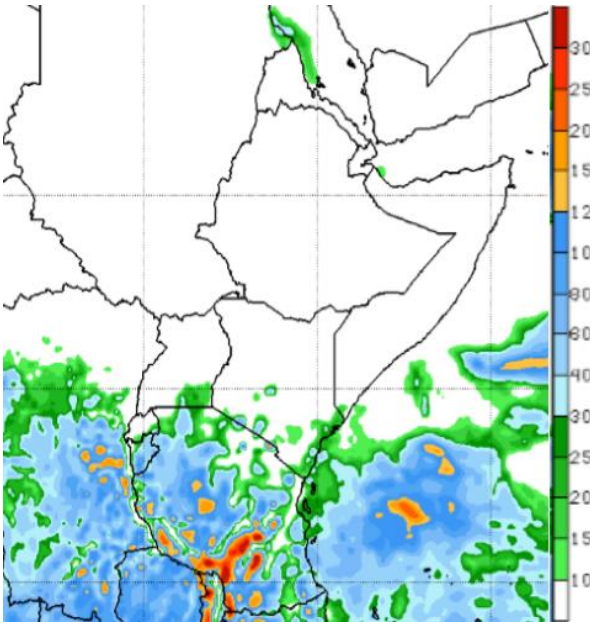
FORECAST

The short-term rainfall forecast for January 8 to January 15 depicts an increased likelihood for continued moderate to locally very heavy rains across much of Tanzania and Burundi (Figure 3). There is an elevated risk of flooding over southwestern Tanzania. Meanwhile, little to no rainfall is expected in Uganda, Rwanda, Kenya, Somalia, Ethiopia, Sudan, and South Sudan. This is indicative of an early to timely southward shift of the tropical rainfall systems into Tanzania and southern Africa countries. East Africa coastal areas are forecast to receive occasional light to moderate rains, due to increased tropical storm/cyclone activity in the neighboring Indian Ocean.

Hotter-than-normal land surface temperatures are forecast in January as the dry season begins over the eastern Horn. These conditions are expected to have a gradual negative impact on current favorable water and pasture conditions in most areas. In the southeastern lowlands of Kenya and parts of southern Somalia, late planted crops in rainfed marginal agricultural areas are expected to experience crop moisture stress.

Despite the fact that most climate forecast centers continue to forecast El Niño-like conditions early this year, its atmospheric impacts are unlikely to be fully realized in East Africa. Typical sunny and dry conditions are forecast in January and February across much of the region.

Figure 3. Week 2 GFS rainfall forecast in mm, valid January 08 - 15, 2019



Source: *USGS/FEWS NET*