

October to December rains are forecast to be fully established by late October over eastern Horn

KEY MESSAGES

- The June to September seasonal rains concluded with average to above-average cumulative totals in most areas, leading to near-average to slightly above-average crop production in most *Kiremt*-dependent areas in Ethiopia and unimodal production areas in Sudan. The rains also supported significant recovery of unimodal crops in Karamoja in Uganda and in western Kenya. In South Sudan, crop production is likely similar or slightly better than last year in most areas.
- There is evidence of rapid southward progression of the tropical rainfall system into equatorial East Africa, signaling a timely onset of the October to December rains in Ethiopia, Somalia, Kenya, and Tanzania.
- Due to heavy rainfall, there is high flood risk in eastern Sudan, northwestern Ethiopia, and Eritrea through October 20th.
- Although dryness persists in portions of northeastern Ethiopia, some atypical rainfall in late September and early October has relatively eased its severity.
- Overall, the October to December *Deyr*/short rains season is expected to be average to above average, largely due to the forecast of a positive Indian Ocean Dipole, associated with abnormal warming of the sea surface waters off the coast.

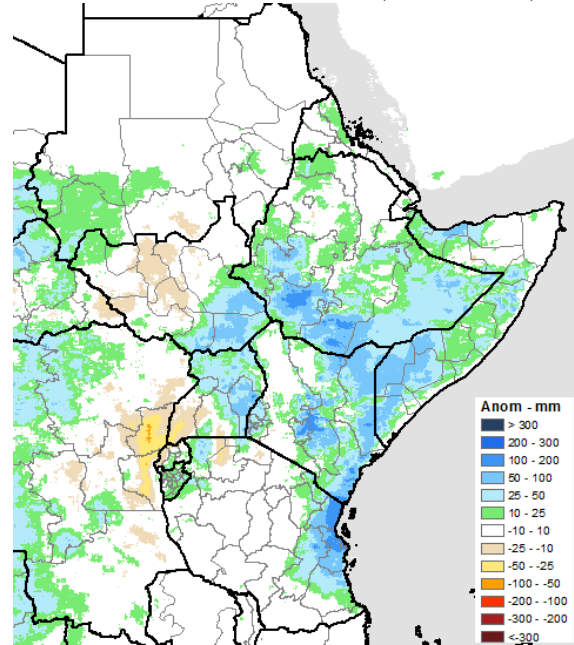
SEASONAL PROGRESS

September rainfall performance was consistently average to above average across most of Sudan, South Sudan, Ethiopia, northwestern Somalia, western Kenya, and Uganda. This concluded a strong season of average to above average June to September rainfall in these areas. However, cumulative *Hagaa* rainfall in Somalia’s southern coastal areas and *Kiremt* rainfall in northeastern Ethiopia remained below average.

Early October brought average to above-average rainfall to most of the eastern sector, signaling a timely shift of the tropical rainfall system into bimodal areas of Ethiopia, Somalia, Kenya, Tanzania, Rwanda, Burundi, and Uganda (Figure 1). The rainfall belt is expected to gradually intensify and become established by mid- to late-October, permitting a timely onset of planting activities. This season is especially critical to the eastern Horn.

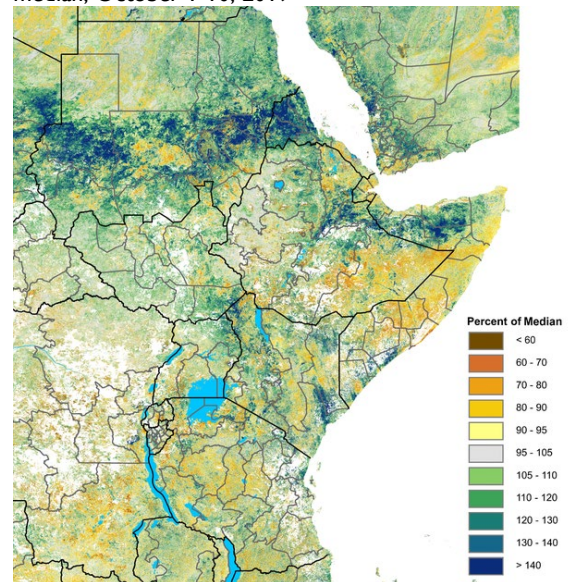
Recent in-country crop field assessments in western Kenya, *Meher* cropping areas of Ethiopia, northwestern agropastoral areas in Somalia, and Karamoja in Uganda, as well as remote-sensing

Figure 1. CHIRPS preliminary rainfall anomaly in millimeters from the 1981-2010 mean, October 1-10, 2019



Source: FEWS NET/USGS

Figure 2. eMODIS/NDVI as a percent of the 2007-2016 median, October 1-10, 2019



Source: FEWS NET/USGS

imagery and simulated crop model outputs are all indicative of significantly improved agricultural production prospects compared to the start of season. Harvests will range from moderately below average to above average in most areas. Remote-sensing products also indicate favorable production prospects in Sudan and South Sudan, though production in South Sudan has been limited by poor access to agricultural inputs and some flooding events. In Kenya and Uganda, crop recovery has been driven by well-distributed rainfall amounts from mid-May/June through September. In Karamoja, sorghum crop production prospects have improved to somewhat below to near average, based on a joint FEWS NET and USDA crop assessment conducted. In contrast, Somalia's southern coastal areas continued to be adversely impacted by poor rainfall, resulting in below average to failed late *Gu* crop production.

Pastoral areas of the eastern Horn are still experiencing rangeland deterioration, given the poor performance of the March to June *Gu* and long rains seasons. Areas of concern include parts of Somali region in Ethiopia, central Somalia, and parts of eastern Kenya. Coupled with off-season rainfall in other pastoral areas, vegetation conditions are highly mixed and range from below average to average (Figure 2). Rangeland conditions are expected to improve as the October to December rains are gradually established across the eastern Horn, especially in coastal regions. Meanwhile, the unimodal northern sector is expected to remain greener-than-normal, including Sudan and the Great Rift Valley regions due to the impact of recent above-average rainfall. Although cloud cover in Ethiopia, eastern South Sudan, and southwestern Uganda has obscured vegetation visibility by remote-sensing imagery, vegetation and water availability is generally good.

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

- **In Somalia**, the *Deyr* rainfall season has started in the South with episodic storms reported in the past week. Based on the latest FAO/SWALIM reports, rainfall stations recorded significant amounts during this period: Mataban (120mm), Beletweyne (60mm), Mogadishu (46mm), Dollow (136mm) and Luuq (67mm). Flash floods and river flooding were also reported in parts of Gedo region, leading to inundation of some croplands in Luuq district and reports of displacement along the Juba River in Dollow district. The *Deyr* rains are forecast to become established over southern and central Somalia by late October. October to mid-November is the peak rainfall period for *Deyr* rainfed sorghum production, and the forecast is indicative of good agricultural production prospects. However, there is an imminent risk of localized flooding along riverine areas that could cause delays or damage to main season crop production.
- **In Ethiopia**, favorable cropping and rangeland conditions are observed across western and central Ethiopia, including SNNP region which had experienced a poor start of the June to September *Kiremt* rains. However, the impacts of recent localized flooding on crop production and livelihoods are yet to be fully assessed. In contrast, localized areas along the Abay, Tekeze, and Beshlo river valleys in western and northwestern Ethiopia continued to experience dryness, which has negatively impacted crop production. Poor *Kiremt* rainfall has also negatively affected crop production in eastern Amhara and Tigray regions on the border with Afar. As the tropical rainfall system shifts southward, the harvest period for *Meher* crops will continue from October to December. In bimodal southern and eastern regions, rangeland conditions are currently generally fair, except in parts of Somali region where surface water points are drier than normal. However, moderate to heavy *Deyr/Hageya* rains from October to December are expected to drive seasonal recovery.
- **In Kenya**, exceptionally strong easterly winds and episodic storms in October marked the onset of the short rains season in portions of coastal, eastern, and northeastern Kenya, bringing early relief from the dry season. Off-season rainfall in southern Kenya in August and September has also benefited pastoral areas. In many bimodal areas, short-rains crop planting activities have begun on time. In unimodal western Kenya, harvesting of early-planted long-rains crops is ongoing. The main maize harvest in Rift Valley areas will start mid- to late-October and continue through December. However, a forecast of continued late-season rainfall in these unimodal areas may constrain harvesting and drying.
- **In Sudan**, the main rainfall season is expected to gradually come to an end across northern and eastern regions in coming weeks. However, the forecast shows continued rainfall in the west and south. Overall, the good performance of the June to September rains will result in average to slightly above average agricultural yields, apart from localized areas that were adversely impacted by flooding at the peak of the rainfall season in August and September.
- **In South Sudan**, crop and vegetation conditions are indicative of a similar or slightly better harvest than last year, apart from areas that experienced flood-induced crop loss. More moderate to heavy rains are forecast in coming weeks, but with reduced intensity and risk of flooding. Currently, there are no harvest estimates to determine and quantify potential crop production prospects in the country in comparison to the short-term or pre-crisis average.
- **In Uganda**, the main sorghum crop in Karamoja will be harvested October into mid-November. Sorghum and bulrush millet could likely reach near-average production. Substantial yields have been observed in response to favorable rainfall despite reduced area planted, though the harvest is extremely late given the delayed start of season. Rangeland

conditions are currently much better than normal, resulting in very good livestock body conditions. In bimodal regions, most early-planted, second season crops are in early vegetative stages, while main planting is still on-going.

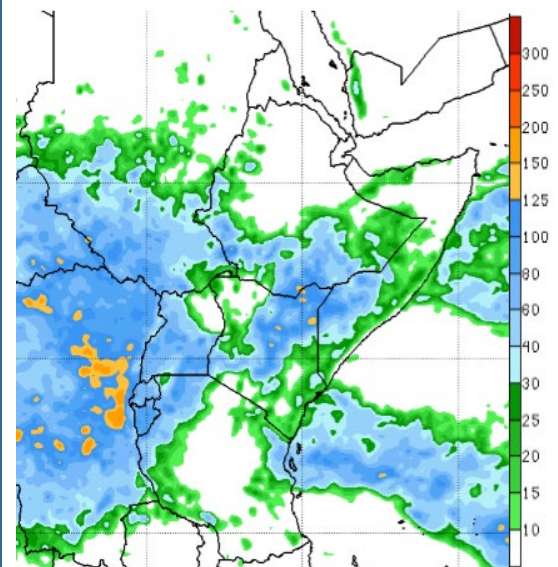
- **In Rwanda and Burundi**, vegetation and surface water conditions are near average. The shift of the tropical rainfall system is bringing a timely onset of the September/October to December rains, and should support favorable season A crop production.
- **In Tanzania**, the northeastern coast as well as northwestern and Lake Victoria bimodal regions have recently experienced moderate to very heavy rains. The forecast indicates this is likely to continue, driving continued improvement of vegetation conditions in northern and coastal bimodal areas. However, southern and central areas are likely to remain seasonally sunny and dry until December.
- **In Yemen**, cropping and vegetation conditions are generally better-than-average in western and coastal regions, due to ongoing rainfall. The rest of the country is generally experiencing near-average vegetation conditions. Sunny and hotter-than-normal land surface conditions are forecast beginning with the start of the dry season in November.

FORECAST

The two-week rainfall outlook through October 20th indicates an increased likelihood that rainfall will gradually intensify and spread across areas dependent on the *Deyr/Hageya*/short-rains seasons in the eastern Horn (Figure 3). This forecast is largely influenced by the positive Indian Ocean Dipole event and is likely to be characterized by episodic storms and localized flooding, punctuated by long dry spells. Heavy to very heavy rains over coastal areas of southern and northeastern Kenya pose a flood risk and require close monitoring. Meanwhile, Burundi, Rwanda, western Tanzania, Uganda, South Sudan, and southern Sudan are expected to receive moderate to heavy rainfall. The exceptions are Karamoja in Uganda, central Tanzania, northern Ethiopia and Somalia, which are expected to remain seasonally sunny and dry.

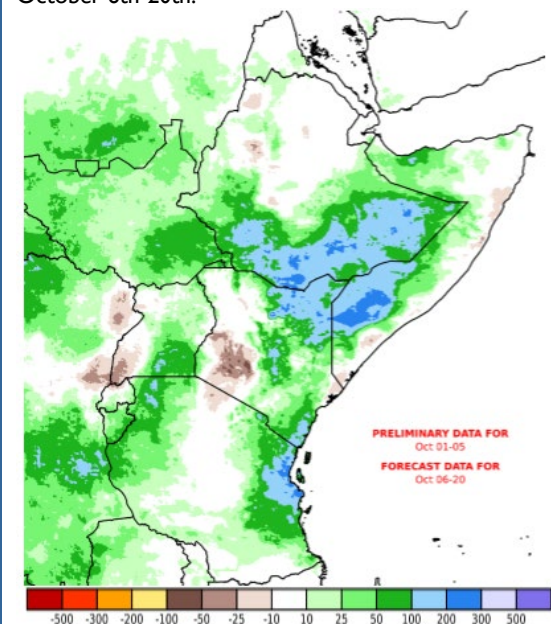
According to current cumulative rainfall totals coupled with the two-week forecast, positive rainfall anomalies are expected in many bimodal areas of the eastern Horn. However, localized rainfall deficits are likely in southern rift valley regions of Kenya and southwestern Uganda. Southern Ethiopia and southern Somalia, as well as coastal northeastern Tanzania and southern Kenya, require close monitoring for flash floods and river flooding.

Figure 3. Week 1 GFS rainfall forecast in mm, valid through October 20, 2019



Source: NOAA/CPC

Figure 4. CHC Early Estimate for October 1-20, 2019, expressed as the difference from the 1981-2018 average in mm. Based on CHIRPS preliminary data for October 1st-5th and the unbiased GEFS forecast for October 6th-20th.



Source: FEWS NET/Climate Hazards Center