

Eastern Horn remains abnormally dry at the peak of the October – December seasonal rains

KEY MESSAGES

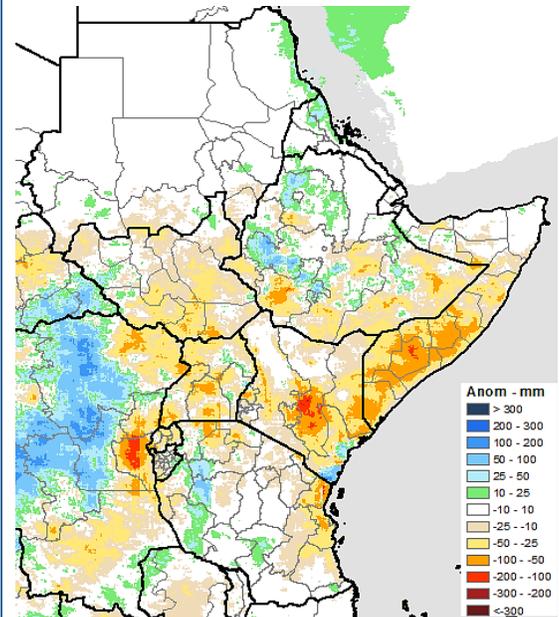
- Significant rainfall deficits continue to accumulate in the eastern half of the Horn of Africa as the *Deyr* season progresses. Deficits are -25 to -100 mm or worse in southern and central Somalia, central and eastern Kenya, and southeastern and other localized parts of Ethiopia.
- Favorable cropping conditions have been maintained in the western sector of the East Africa region, despite an erratic onset of the rainy season and poorly distributed, below-average rainfall amounts in parts of Uganda, Rwanda, Burundi, and western Kenya.
- Rangeland resources have continued to deteriorate in many areas. In much of the eastern Horn, poor rainfall performance is driving an expansion of drier-than-normal conditions, and is expected to lead to an increase in herd migration in search of better water and pasture.
- The rainfall forecast indicates an increased likelihood of uneven, moderate to heavy rains across eastern Horn through mid-November, followed by a decline in precipitation by the end of the month. Below-average rainfall amounts are likely at the end of November in most parts of eastern Horn.

SEASONAL PROGRESS

Over the past month, seasonal rainfall has remained uncharacteristically erratic and significantly below average across most of central and southern Somalia, the southeastern Somali region of Ethiopia, and the northern and eastern regions of Kenya (Figure 1). However, several areas along the East Africa coastal strip and in the Somali region of Ethiopia received well above average rainfall amounts during this period. The *Deyr*/short-rains seasons are important for agricultural production and pasture and water regeneration. In marginal agricultural areas in southeastern Kenya, representing more than 50 percent of annual rainfall. Additionally, this season is generally more dependable for overall crop production in marginal agricultural areas. Significantly below-average rainfall during this period would have a substantial impact on food and income sources available to most households reliant on agriculture and pastoralism.

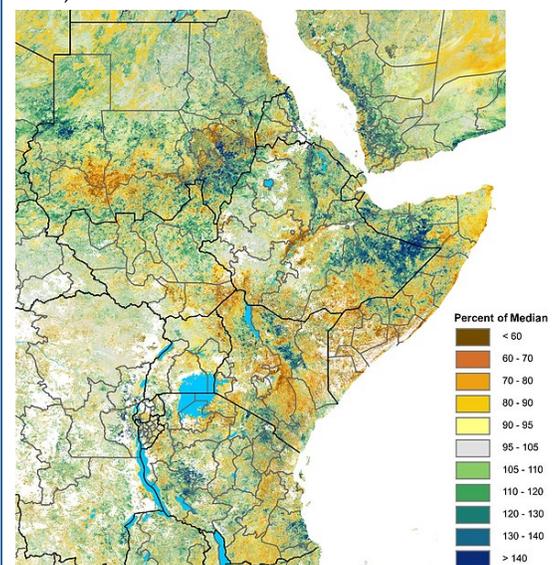
Meanwhile, the western sector of the East Africa region also continued to experience erratic and below average rainfall amounts. Yet the quantity of rainfall has generally been sufficient and favorable for early season crop growth in most of Uganda, Rwanda, Burundi and western

Figure 1. CHIRPS Preliminary seasonal rainfall accumulation anomalies in comparison to average (1981-2010), November 1-10, 2018



Source: USGS/FEWS NET

Figure 2. eMODIS/NDVI percent of normal (2007-2016), November 1- 10, 2018



Source: USGS/FEWS NET

Kenya. However, there are localized areas of moisture stress in cropping zones that experienced a significantly delayed onset of the season and high cumulative rainfall deficits.

So far, seasonal rainfall performance has been generally poor over the eastern Horn, especially in agropastoral regions of southern Somalia. Typically, peak rainfall occurs in late October, but this year the period was marked by cumulative rainfall deficits. This was coupled with a delayed onset of the rainfall and long dry spells. If current poor rainfall conditions persist, then significant yield reduction would be likely over much of the rainfed crop growing areas of southern Somalia. Rangeland conditions also remain precarious, with deterioration of pasture and depletion of water. However, highly localized areas are expected to benefit from the recent episodic rainfall events.

Rangeland conditions over eastern Ethiopia have remained mixed. Vegetation measured by NDVI is better-than-normal in some areas, while surface water conditions have improved in northeastern and parts of the southern regions of Ethiopia, due to the recent intensification of the seasonal rains (Figure 2). However much of southeastern Ethiopia into southern Somalia and the neighboring districts of northern and eastern Kenya have experienced deteriorating rangeland conditions due not only to poor rainfall performance but also hotter-than-normal land surface conditions. In the southeastern regions of South Sudan, Turkana county of Kenya, and the eastern Karamoja sub-region of Uganda, conditions have also been significantly drier-than-normal. This follows a poor season of below average June to September seasonal rains.

In Sudan, which is currently in the dry season, parts of eastern Darfur and Kordofan regions are similarly experiencing drier-than-normal conditions, and these areas are unlikely to receive any significant rainfall until mid-next year. In contrast, the rest of Sudan, northern and western South Sudan, and western Ethiopia have remained largely greener-than-normal, due to the lasting impact of the recent above-average to average June to September seasonal rains.

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

- **In Somalia**, the onset of Deyr seasonal rains was significantly delayed by a month over the Bay and Shabelle sorghum growing zones and by 10 to 20 days along the Juba River and southern coastal rainfed agricultural areas. Rainfall in southern Somalia has generally been erratic and well below average, but there is an increased likelihood for short-lived moderate to heavy rains in the coming week. The forecast rains are likely to provide short-term relief for pastoral livelihoods in central and southern Somalia, but rangeland conditions are likely to remain mixed in response to the uneven rainfall performance. However, current crop conditions and end-of-season WRSI crop simulation models are indicative of significantly reduced crop yields for rainfed agricultural areas. Cowpea crops that were planted on time in central Somalia have already failed.
- **In Ethiopia**, the performance of the seasonal rains has been mixed. Parts of pastoral northern and southern Ethiopia have received average to above-average rainfall, while the southeastern regions bordering Somalia have remained atypically dry. The rainfall outlook for November forecasts widespread moderate to heavy rains across southern and central Ethiopia, which should improve rangeland conditions. However, atypically heavy rainfall may damage crops that are currently being harvested in Ethiopia's central and northern regions. In contrast, eastern Somali region is likely to remain generally dry as the seasonal rains subside and shift southwards.
- **Sudan** is expected to remain seasonally sunny and dry until the onset of the next seasonal rains May/June. Current cropping conditions are mostly favorable with average yield prospects for the rainfed cropping zones. However, there are localized areas that may harvest below-average yields due to significant rainfall deficits and subsequent crop water stress at critical phenological stages during the June to September growing season. Additionally, macroeconomic challenges including fuel shortages are likely to adversely impact harvesting in mechanized areas.
- **In South Sudan**, seasonal rainfall over southern and south-eastern South Sudan have been generally erratic, marked by a delayed onset and significant rainfall deficits. Rangeland conditions have generally deteriorated and are significantly drier-than-normal. Cropping conditions are unfavorable for vegetative stages due to insufficient crop moisture. In much of Eastern Equatoria and southern Jonglei, where pastoralism is the primary livelihood, pasture and water resources are expected to be below average. However, moderate to heavy rains are forecast in coming weeks over south-eastern South Sudan, and these rains are likely to reduce crop water stress and improve crop conditions.
- **In Kenya**, the short-rains (October – December) season has so far been characterized by uneven, significantly delayed onsets and significant cumulative rainfall deficits, especially in the short rains-dependent marginal agricultural areas in eastern and southeastern Kenya. According to field information, seasonal rains have remained inconsistent and limited planting has occurred in parts of the marginal agricultural zones. The rainfall outlook for November, which is usually

the peak of the season, is generally poor, though there is an increased likelihood of localized light to moderate rains over parts of northeastern pastoral counties and the mixed agricultural zones in the eastern and southeastern lowlands of Kenya. As a result, much of these agricultural areas are likely to produce below average yields. The rest of the country is also receiving poor rainfall, resulting in widespread deterioration of rangeland resources, except along the coastal strip and in western Kenya, where rainfall has been average to well above average.

- **In Uganda**, most crops planted early in September are in favorable vegetative to reproductive stages, despite recent erratic and slightly below average rainfall. The rainfall outlook is for continued moderate to heavy rain through the end of November, which will be beneficial to current cropping and rangeland conditions.
- **In Rwanda and Burundi**, season A (September – December) rainfall has been slightly below average and erratic. However, current cropping conditions are generally favorable due to adequate soil moisture and this is expected to be sustained in the coming weeks due to forecast moderate to localized very heavy rains. There is an elevated risk of flash floods over western Rwanda and in the eastern borderlands of Burundi, due to the forecast of persistent very heavy rains.
- **In Yemen**, average to slightly above average rainfall amounts were observed from October into early November. More light to moderate coastal rains are forecast in the western part of the country. However, most areas are expected to remain seasonally dry. Vegetation conditions as assessed using latest eMODIS/NDVI images are indicative of average to greener-than-normal conditions across much of the western coastal and highland regions of Yemen.

FORECAST

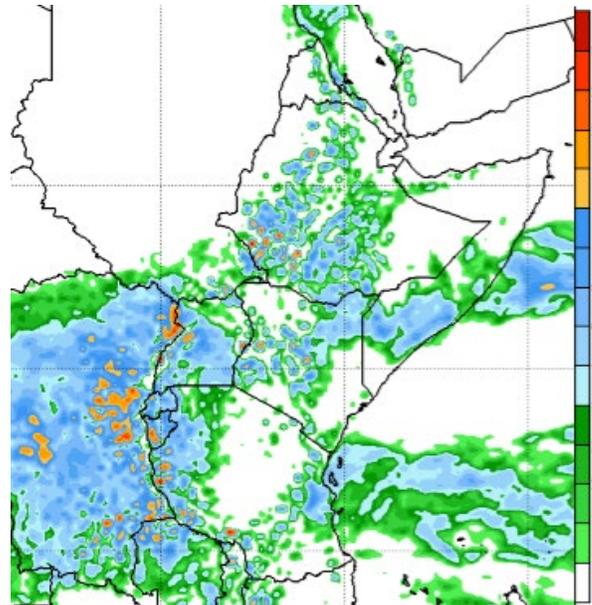
The rainfall performance for the remainder of the season -- from mid-November into December -- will be very critical for food production systems in the eastern Horn of Africa. There is an increased likelihood for short-lived moderate to locally very heavy rains across most parts of Ethiopia, parts of southern Somalia, and northern and central Kenya, according to the GFS rainfall forecast valid until 21 November (Figure 3). Flash floods are likely over localized areas of southern Somalia and northeastern Kenya, in the event the forecast rains are intense and occur within a few hours. However, these rains are expected to subside considerably by late November, resulting in below-average total cumulative rainfall performance in November.

Overall, the forecast rains are generally expected to be beneficial for rangeland resources, but are unlikely to be favorable for cropping zones due to the shortened length of the current growing period and sustained crop water stress in the past month. According to FEWS NET's WRSI simulation models, there is an increased likelihood that southern Somalia's agropastoral zones may experience a yield reduction of 30 percent or more by the end of the *Deyr* cropping season.

There is also a significantly increased likelihood for a delayed onset, below-average rainfall, and shortened length of the growing season over southeastern marginal agricultural zones of Kenya and northeastern Tanzania. This could potentially lead to reduced crop yield or, at worst, crop failure in parts of these cropping zones if these rains are not sustained into early 2019.

Meanwhile, much of the western sector of the East African region is forecast to receive widespread, moderate to very heavy rainfall amounts. There is also a continued risk of flooding over the lowlands in western Burundi and Rwanda by the mid- to late-November.

Figure 3. Week I GFS Rainfall forecast (mm), valid through November 21, 2018



Source: USGS/FEWS NET