

*Rainfall expected to increase, signaling the full onset of the October to December seasonal rains*

**KEY MESSAGES**

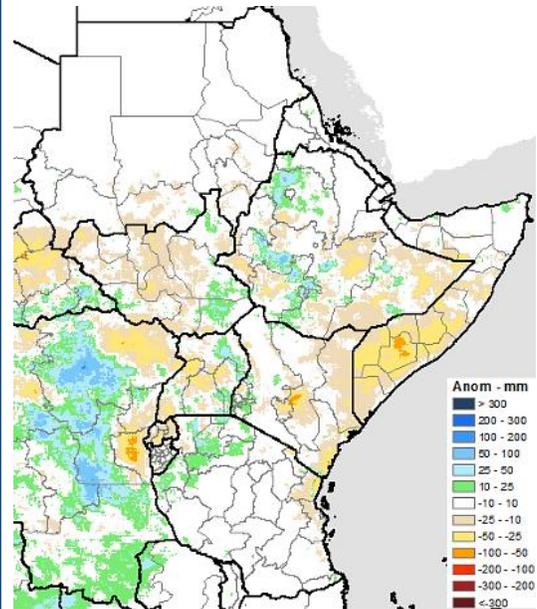
- The onset of the October to December seasonal rains during the first three weeks of October was generally erratic in terms of intensity and spatial and temporal distribution across East Africa. The start of the *Deyr* was delayed one to three weeks in Somalia and parts of Ethiopia, most notably in the agropastoral livelihood zones of southern Somalia.
- Early season rainfall is generally favorable for agricultural production in Uganda, western Kenya, Rwanda, Burundi and eastern DRC. However, there are localized areas that had a significantly delayed or erratic onset.
- Overall, rangeland resources remained above average in pastoral areas of eastern Horn. However, the Karamoja sub-region in Uganda, southeastern Ectoria in South Sudan, Turkana in Kenya, and southern Ethiopia have experienced significantly drier-than-normal conditions over the past month.
- According to the 1- and 2-week rainfall forecasts, there is an increased likelihood for widespread moderate rainfall and localized very heavy rainfall across much of equatorial East Africa, due to the influence of a mild El Niño. This would mark the full establishment of the seasonal rains by the end of October and would increase seasonal flood risk.

**SEASONAL PROGRESS**

The start of the October – December seasonal rains has generally been characterized by below-average rainfall quantity and an uneven distribution, especially over Uganda, Rwanda, Burundi and eastern DRC (Figure 1.) The onset of the rains began in September to early October, depending on the location. In Uganda, most regions saw a timely onset of the seasonal rains in mid- to late September, but some eastern and southern districts saw significant onset delays of up to one month. In Rwanda, northeastern Burundi, and western Kenya, the seasonal rains were delayed by 20 to 30 days to early or mid-October. In cropping zones where the seasonal rains were timely, planted crops are presently in good early vegetative stages, despite some localized short-term dry spells in September.

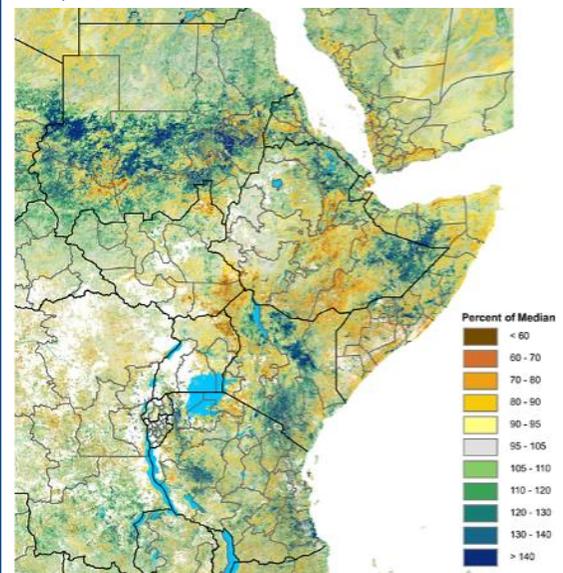
The delayed onset and uneven rainfall performance were caused by a “slower-than-expected” southward shift of main tropical rainfall system (Inter Tropical Convergence Zone or ITCZ) into the western sector of the region, coupled with a lack of sufficient moisture from the Atlantic Ocean. This prevented conducive conditions for widespread

**Figure 1.** CHIRPS Prelim estimated seasonal rainfall accumulation anomalies compared to average (1981-2010), October 1 - 20, 2018



Source: USGS/FEWS NET

**Figure 2.** eMODIS/NDVI percent of normal (2007-2016), October 11- 20, 2018



Source: USGS/FEWS NET

and consistent rainfall in these countries. However, the ITCZ has gradually retreated southward and the full establishment of the seasonal rains is expected looking forward.

In agricultural and agropastoral areas of eastern Kenya, northeastern Tanzania, and southern Somalia, the seasonal “short-rains” or *Deyr* rains are yet to be fully established. The onset is not yet considered late in Tanzania or the short-rains dependent areas of the marginal agricultural zones of eastern and southeastern Kenya. In Somalia, however, the onset of the rains is 10 to 20 days delayed over the sorghum growing agropastoral regions in the South. Rainfall in the coming weeks will be critical for southern Somalia, where the *Deyr* seasonal rains often subside by early December.

In the Horn of Africa more broadly, pastoral regions have also experienced unevenly distributed low to moderate rainfall amounts since early October. Cumulative rainfall was below average for much of the Somali region of Ethiopia, central Somalia, and northeastern and eastern Kenya. Parts of the East Africa coastal strip received light to moderate rainfall amounts, but these were generally below average, except for northern coastal areas of Somalia and Djibouti, which received near-average rainfall.

The impact of these early seasonal rainfall deficits has been minimal in most of Uganda, Rwanda, Burundi and eastern DRC. Relatively drier-than-normal conditions are present in these countries, but conditions are expected to gradually improve with current and forecast rains. However, parts of eastern Uganda, southeastern South Sudan, and northern Turkana county in Kenya are exhibiting significantly drier-than-normal vegetation conditions, as measured by eMODIS/NDVI (Figure 2). Current vegetation conditions in these specific areas are also relatively worse than the same period last year. In addition, southern and parts of northeastern Ethiopia, northeastern and parts of southern Somalia, the northeastern and southern rift valley counties of Kenya, and the Serengeti region of northern Tanzania currently have expansive areas of significantly drier-than-normal vegetation conditions.

Despite the presence of negative anomalies, many areas in the eastern and northern sectors of the East Africa region have remained largely “greener-than-normal,” especially Sudan, portions of northern South Sudan, and northern and central Ethiopia. Central, eastern, and parts of northern Kenya have also maintained favorable pastoral conditions, as well as the northeastern Somali region of Ethiopia and some areas of central Somalia.

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

- **In Somalia**, the full onset of *Deyr* rainfall is expected to be established in the coming weeks, following a delayed onset of 10 to 20 days in southern Somalia’s sorghum-growing zones. Although November-December rainfall may compensate for early deficits, the delayed onset is likely to result in a shortened growing season. Meanwhile, there is increased flood risk over the southern and northeastern coastal regions of Somalia due to tropical cyclone activities over the neighboring Indian Ocean. Anticipated weak El Niño and neutral Indian Ocean Dipole conditions are expected to augment remaining rainfall during this season, supporting agricultural production.
- **In Ethiopia**, the uneven but largely beneficial October rains across eastern and southern regions have helped maintain generally average to above-average pasture conditions. However, the extreme southern and central rift regions have continued to experience significantly drier-than-normal vegetation conditions. The short-term rainfall outlook for the coming weeks predicts widespread rains across much of the *Karan* rainfall-dependent areas.
- **In Sudan**, no significant rainfall is forecast in most the country as the dry season has begun. Early season harvest activities have commenced in parts of the country, and overall production is expected to be near average. Although below-average cultivation occurred in some areas, above-average June to September rainfall resulted in higher yields. In South Kordofan and East and Central Darfur, however, production is still expected to be below average.
- **In South Sudan**, June to September seasonal rainfall performance was generally average to above-average. However, much of Eastern Equatoria state and southern Jonglei received below-average cumulative rainfall amounts, resulting in current significantly drier-than-normal conditions. Since then, rainfall has improved and is expected to help ease earlier adverse impacts in the worst-affected areas.
- **In Kenya**, the October to December short rains are expected to be timely but have not yet been fully established. The short-term rainfall forecasts are indicative of widespread moderate to heavy rains across much of the country, marking a timely onset and planting period. There is also an increased likelihood of flooding along the southern coastal strip of Kenya and parts of northeastern and eastern Kenya (Tana, Ewaso Nyiro and Athi River basins) at the peak of the rains in late October into November, due to the influence of a weak El Niño.

- **In Uganda**, the onset of the short rains was generally timely across the country, but localized areas experienced a delayed onset of 20 to 30 days in Eastern region, resulting in delayed planting. Rainfall performance to-date has been characterized by dry spells and early season rainfall deficits. However, this is expected to improve given the forecast of moderate to heavy rainfall, which will benefit on-going second season agricultural activities. The risk of flooding and landslides remains high over the slopes of Mt. Elgon and on the western border with the DRC, due to anticipated above-average rainfall predicted in the short-term forecast.
- **In Rwanda, Burundi, and eastern DRC**, the September to December seasonal rains are currently well established, despite some early season rainfall deficits. The short-term rainfall outlook is favorable for continued widespread moderate to localized very heavy rains that are beneficial for cropping but also raise the risk of flooding in lowland regions.
- **In Yemen**, October rainfall has been above average over western and central parts of the country. The rainfall forecast predicts localized moderate rains along its western coastal areas. However, vegetation conditions appear drier-than-normal along the western coastal strip areas, and average in the rest of the country. There is little to no field information from Yemen to provide detailed analysis on current agricultural conditions and production prospects.

## FORECAST

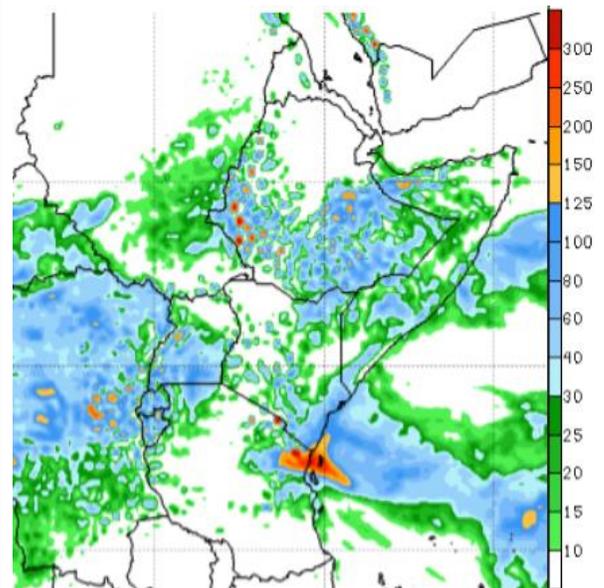
The next 1 to 2 weeks are often critical for the timely onset of the *Deyr* seasonal rains over eastern Horn. The consensus rainfall outlook from various global forecasting centers are indicative of moderate to localized heavy rainfall over much of eastern and southern Ethiopia, Somalia, and Kenya as well as the East Africa coastal strip, signaling the full onset of the seasonal rains.

Meanwhile, much of the western sector of the East African region is forecast to receive widespread rainfall, with an increased likelihood of very heavy rainfall and an elevated risk of flooding over parts of eastern DRC and the lowlands in western Burundi and Rwanda by the end of the October. Heightened flood risks are also imminent over parts of northeastern Tanzania and the southern coastal areas of Kenya.

The uneven characteristics of the forecast rains poses a concern, particularly over parts of eastern and southwestern Kenya and northern Tanzania. These areas are likely to receive little or no rainfall in the coming 2 weeks, resulting in either delayed and/or early season rainfall deficits.

November is the peak month for the October to December seasonal rains. Close monitoring of the development of the weak El Niño is required, which may cause brief episodes of intense rains and elevate the flood risk over the eastern Horn of Africa and in flood-prone lowland areas in the greater East Africa region.

**Figure 3.** Week I GFS-Rainfall forecast (mm), valid through October 23 - 30, 2018



Source: USGS/FEWS NET