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EAST AFRICA Seasonal Monitor

September 27, 2017

Late season rainfall above average across most northern areas of East Africa

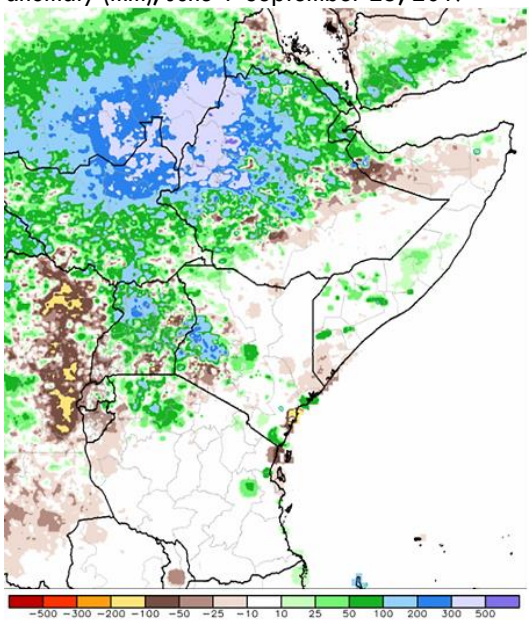
KEY MESSAGES

- Rainfall was above average during September over much of Sudan, northeastern South Sudan, and the western and central highlands of Ethiopia, which has generally been the case since the start of the season in June. In Sudan, localized areas are expected to face below average production due to mid-season dryness and severe flooding, while Fall Armyworm remains a concern in some areas of Ethiopia.

- Rainfall has also been persistently heavy over the past month in western and central Yemen, Uganda, and western Kenya, and the start of season A has been reported in Burundi and Rwanda. Field reports indicate heavy rainfall has led to flooding and mudslides in parts of eastern Uganda.

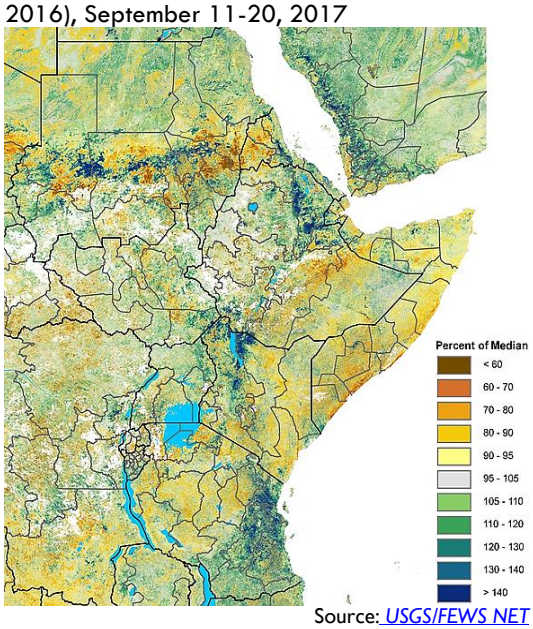
- During the next two weeks, much of western and central Ethiopia, southern Sudan, South Sudan, and Uganda are expected to continue receiving widespread moderate to very heavy rainfall. Pastoral and agropastoral areas of the Horn of Africa affected by drought in 2016 and 2017 are expected to remain mostly dry, though rainfall is for parts of northern Somalia.

Figure 1. ARC2 seasonal rainfall estimate anomaly (mm), June 1-September 25, 2017



Source: NOAA/NWS/CPC

Figure 2. eMODIS/NDVI anomaly (2007-2016), September 11-20, 2017



Source: USGS/FEWS NET

SEASONAL PROGRESS

Rainfall was above average during September over much of Sudan, northeastern South Sudan, and the western and central highlands of Ethiopia, which has generally been the case since the start of the season in June. Cumulative seasonal rainfall to date has been well above average in many of these areas (Figure 1) has resulted in the severe flooding over parts of eastern Sudan lowlands, including along the Blue Nile and Atbara river basins.

Rainfall has also been persistently heavy over the past month in western and central Yemen, Uganda, and western Kenya. There are also recent field reports of floods and mudslides over Mt. Elgon region in eastern Uganda, more specifically in Nyundo, Bukimbiri, Harugale, Masaba, and Bumayoka districts where there were reports of property damage, human and livestock displacements in the past weeks. However, over the past month, rainfall has been below average (-25 to -100 mm) over some localized areas of western Karamoja regions and southern Uganda.

The timely to early onset of season A rains (late September to December) in Rwanda, Burundi and parts of eastern DRC are also likely to gradual improve the current rangeland resources and mark the crop planting season. A few areas over northern and southern Somalia also experienced unseasonal light to moderate rains during this time.

Please see http://www.cpc.ncep.noaa.gov/products/african_desk/cpc_intl/ and http://earlywarning.usgs.gov/?l=en for more information on remote sensing.

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The Normalized Difference Vegetation Index (NDVI) indicates near to slightly above average vegetation conditions in much of western Ethiopia, South Sudan, western Kenya and Karamoja in Uganda (Figure 2). Persistent cloud cover has remained and limited comprehensive monitoring of the current vegetation conditions in parts of western Ethiopia, southern Sudan and northeastern South Sudan. Nevertheless, cropping conditions in many high-producing rainfed agricultural areas of Sudan appear to be average tending to above average, following very favorable performance of main season rainfall. However, NDVI suggests there are significant areas of Kassala, northern Gadaref, and southern North Darfur where seasonal vegetation growth was delayed and vegetation conditions remain below average.

Field reports further suggest cropping, particularly in Kassala and northern Gadaref, was significantly impacted by early season dry spells and that area planted in those areas was below normal. Moreover, excessive and persistent rainfall over eastern Sudan has caused crop damage and loss due to waterlogging and reported flash floods in Sennar and surrounding states. In Ethiopia, although seasonal rainfall has been average or above average in most western areas, crops planted during the *Belg* but harvested during the *Meher* are likely to suffer from reduced yields, particularly in SNNPR, where a late start of season reduced the length of the growing season for long-cycle crops. Cropping prospects are also poorer than usual in western Kenya due to the erratic but early onset of its seasonal rains in late Feb/early March, coupled with the extensive Fall Armyworm (FAW) infestation of the young maize crop in Uasin-Gishu and Trans-Nzoia counties.

Meanwhile, much of the Horn of Africa has remained seasonally dry with very low levels of pasture and water following consecutive seasons of drought, particularly in southeastern Ethiopia, most of Somalia, and northern Kenya. Recent off-season rainfall in western areas of Kenya have led to significantly improved water and forage availability.

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

- In **Sudan**, main season rainfall has continued to be average tending to above average over most parts of Sudan during the month of September, which has been mostly favorable for crop production in most high-producing areas. Field reports suggest extensive flooding has occurred, including in eastern and western Sudan, which has resulted in damage to crops and property. Presently, five of the worst flood affected areas in Sudan are El Fashir, Nyala, Delgo, Singa, Halafaya El Gezira, and Atbara.

- In **Ethiopia**, *Kiremt* rainfall has been largely average or above average, since the start of the cropping season in early June and is forecast to continue into the end of September. However, *Belg* crops harvested in the *Meher* were also affected by an erratic start of season and could suffer from reduced yields. The infestation FAW on an estimated 22 percent of the maize area planted is likely to reduce maize production in some areas.

- In **Kenya,** unseasonal rains between July and mid-September in northwestern counties of Turkana, West Pokot, Baringo, and northwestern portions of Marsabit have been generally beneficial in replenishment of rangeland resources and led to improvements in livestock body conditions. However, due to the prolonged drought in other pastoral areas over northeastern and southern regions of Kenya, rangeland conditions have continued to deteriorate in the past month.

- In **Somalia**, conditions remain drier than normal. However, there is an increased likelihood for moderate to heavy rains in the coming two weeks over northern Somalia as indicated in GFS rainfall forecasts.

- In **Uganda**, rainfall in Karamoja in September was above average tending to average and total cumulative rainfall for the June – September season is expected to be above average. The September to November second rainy season in bimodal regions started earlier than usual in many areas and rainfall totals have been above average since August.

- In **South Sudan**, the first season harvest is ongoing in Greater Equatoria and the green harvest is available in Greater Bahr el Ghazal and Greater Upper Nile. Despite average to above-average seasonal rainfall, production is expected to be well below average as a result of widespread civil insecurity. Crop damage due to Fall Army Worm (FAW) is also likely to have adverse impacts in regions worst affected by the pest, especially in Torit, Magwi, Budi, Juba, and Aweil.

- In **Yemen**, the second season (July to September) rainfall performance has been generally above average over its southwestern highlands and into parts of central and eastern pastoral areas. However, conflict continues to disrupt agricultural activities in worst-affected areas.

- In **DRC**, seasonal rainfall during the month of September below average (-50 to -100mm) over northeastern, east-central and southeastern areas bordering Uganda, Rwanda, and Burundi.

- In **Burundi** and **Rwanda**, the September to December 2017 rainy season has begun, and eastern areas of Rwanda have received above-average rainfall. Land preparation efforts for Season A are underway in both countries.

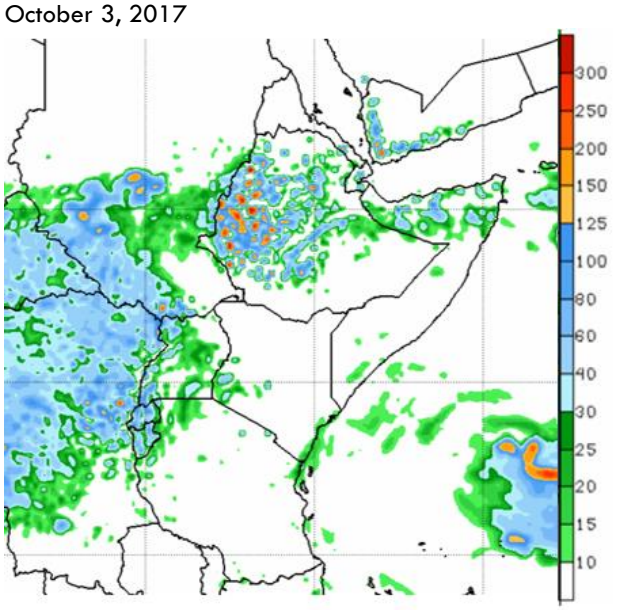
- In **Tanzania**, the northwestern and Lake Victoria regions bordering Uganda, Rwanda, and Burundi received above-average rainfall amounts in September. The rest of the country was typically sunny and dry, apart from northeastern highlands and coastal areas which received light to moderate rains this month.

FORECAST

During the next two weeks, the tropical rainfall system should start to gradually shift southward, resulting in seasonal reductions in rainfall over northern Sudan and northeastern Ethiopia. During this time, much of western and central Ethiopia, southern Sudan, South Sudan, and Uganda are expected to continue receiving widespread moderate to very heavy rains (20mm to 300mm) (Figure 3). The forecast abnormally heavy rains over western Ethiopia are likely to maintain a high risk of flooding in both western Ethiopia and flooded areas of eastern Sudan.

In eastern Uganda, the risk of flooding and landslides has decreased slightly near Mt. Elgon, as the rains are forecast to subside slightly in the coming week. The forecast also indicates some rainfall is likely in northern Somalia. Recent off-season heavy rains along Kenya's coastal strip are expected to subside and remain light to moderate, with a decreased likelihood for continued flooding. The rest of the Horn of Africa is expected to remain normally sunny and dry with localized light to moderate rains over Kenya's central and northern Tanzania highlands during the next 1-2 weeks. Moderate to heavy rainfall is also forecast across DRC, Rwanda, and Burundi as their season A becomes established in the coming weeks.

Figure 3. 1-Week GFS-Rainfall forecast (mm), valid until October 3, 2017



Source: NOAA/CPC