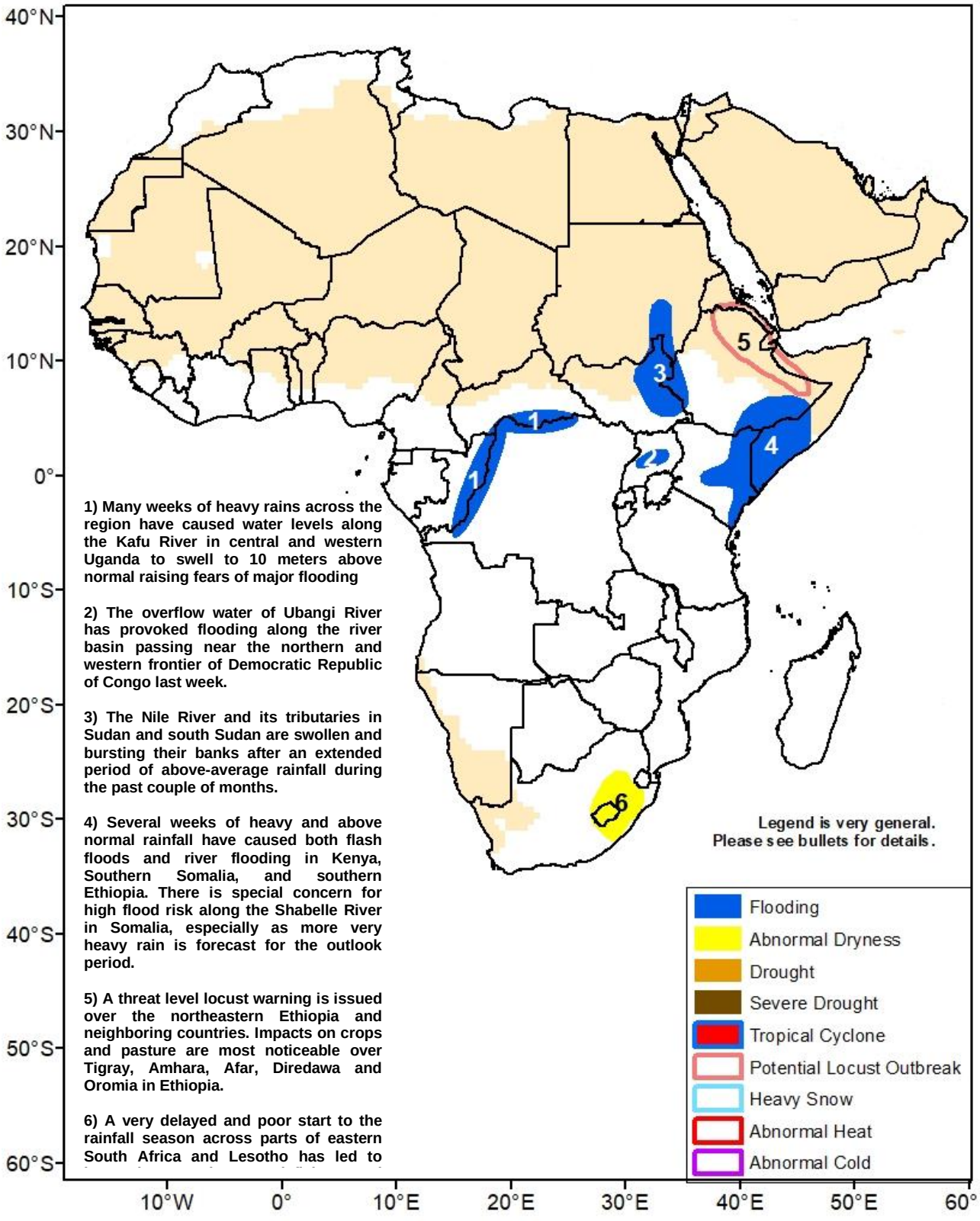
Climate Prediction Center's Africa Hazards Outlook
November 15 – November 21, 2019

- **Observed wetness and forecast heavy rains keeps high risks for flooding over East Africa.**
- **A delayed start to rains has been observed over parts of Southern Africa.**



1) Many weeks of heavy rains across the region have caused water levels along the Kafu River in central and western Uganda to swell to 10 meters above normal raising fears of major flooding

2) The overflow water of Ubangi River has provoked flooding along the river basin passing near the northern and western frontier of Democratic Republic of Congo last week.

3) The Nile River and its tributaries in Sudan and south Sudan are swollen and bursting their banks after an extended period of above-average rainfall during the past couple of months.

4) Several weeks of heavy and above normal rainfall have caused both flash floods and river flooding in Kenya, Southern Somalia, and southern Ethiopia. There is special concern for high flood risk along the Shabelle River in Somalia, especially as more very heavy rain is forecast for the outlook period.

5) A threat level locust warning is issued over the northeastern Ethiopia and neighboring countries. Impacts on crops and pasture are most noticeable over Tigray, Amhara, Afar, Diredawa and Oromia in Ethiopia.

6) A very delayed and poor start to the rainfall season across parts of eastern South Africa and Lesotho has led to

Heavy rainfall continued into the past week across several portions of East Africa.

Monsoonal rainfall was enhanced across many parts of the region yet again this past week. 7-day rainfall totals of 25-75mm were observed over Somalia and central/southern Ethiopia according to satellite estimates (**Figure 1**). Heavier rainfall amounts greater than 50mm were observed in central Kenya and eastern Tanzania. Some other areas received light and below average rainfall, including southern Kenya, Uganda, eastern DRC, and western Tanzania.

Many consecutive weeks of heavy rain, dating back to early October, over saturated soils and led to rising river levels. There have been many reports of flooding in the region over recent weeks. Currently, concern is greatest along the Shabelle in southern Somalia and the Nile River and its tributaries in Sudan and South Sudan for high water levels. Flooding is also expected along the banks of the Kafu river in Central and western Uganda. Analysis of 30-day rainfall anomalies (**Figure 2**) reveals large surpluses greater than 100mm, especially in southern Ethiopia, southern Somalia, Kenya, and parts of South Sudan. Many of these areas have seen 4-6 weeks straight of above-normal rainfall. Several point locations in Kenya and southern Somalia received 2-3 times the normal rain for the time period.

During the outlook period, wet weather conditions are expected to persist in East Africa, though some decrease may be seen in Somalia. Totals for the week are likely to 25mm and 75mm for much of the region. Even more elevated totals (100mm+) are likely in eastern DRC. The continuation of wet conditions will keep flooding risks elevated.

Increased rains this past week has brought partial relief to South Africa.

An increase in rainfall was observed in eastern South Africa and Eswatini. Rainfall totals of more than 25mm was observed according to satellite estimates with similar totals in many parts of Angola and northern Madagascar (**Figure 1**). Areas receiving only light rains led to 7-day deficits in parts of Angola and Zambia. Cumulative rainfall over the past 30 days reveals larger deficits. Two areas show prominently in eastern South Africa and Angola, exhibiting 50-100mm deficits (**Figure 2**). While Angola has a very wet climatology and these deficits are not yet concerning, South Africa and Lesotho are much more sensitive. However moisture conditions have improved since last week. Negative impacts to vegetation health can already be observed in vegetation indices. In addition, warmer-than-average temperatures in South Africa and Mozambique are exacerbating the situation. Only a few local areas, including parts of Madagascar and western Angola, exhibit moisture surpluses for the period.

During the outlook period, model rainfall forecasts suggest heavier rains will continue in eastern South Africa. Heavy rain is also likely in western Angola. Significant monsoonal moisture is expected to expand in coverage over the region.

7-Day Satellite-Estimated Rainfall Totals (mm)
Valid: November 5 – November 11, 2019

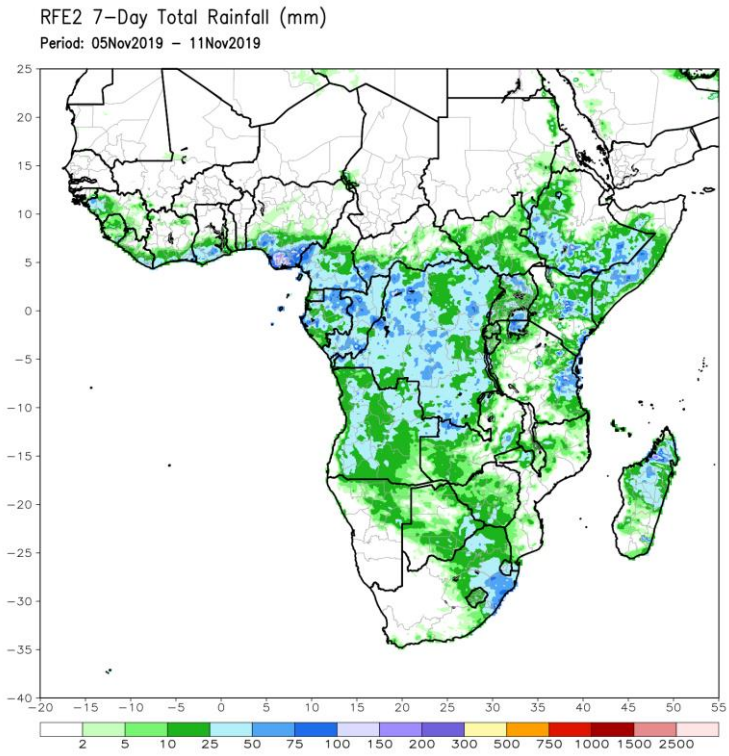


Figure 1: NOAA/CPC

30-Day Satellite-Estimated Rainfall Anomaly (mm)
Valid: October 13 – November 11, 2019

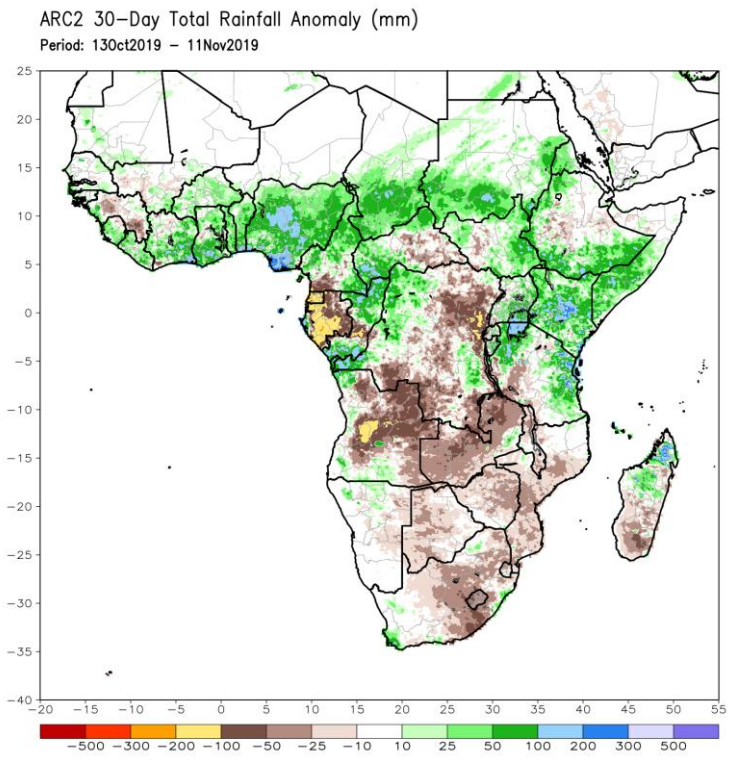


Figure 2: NOAA/CPC

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.

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