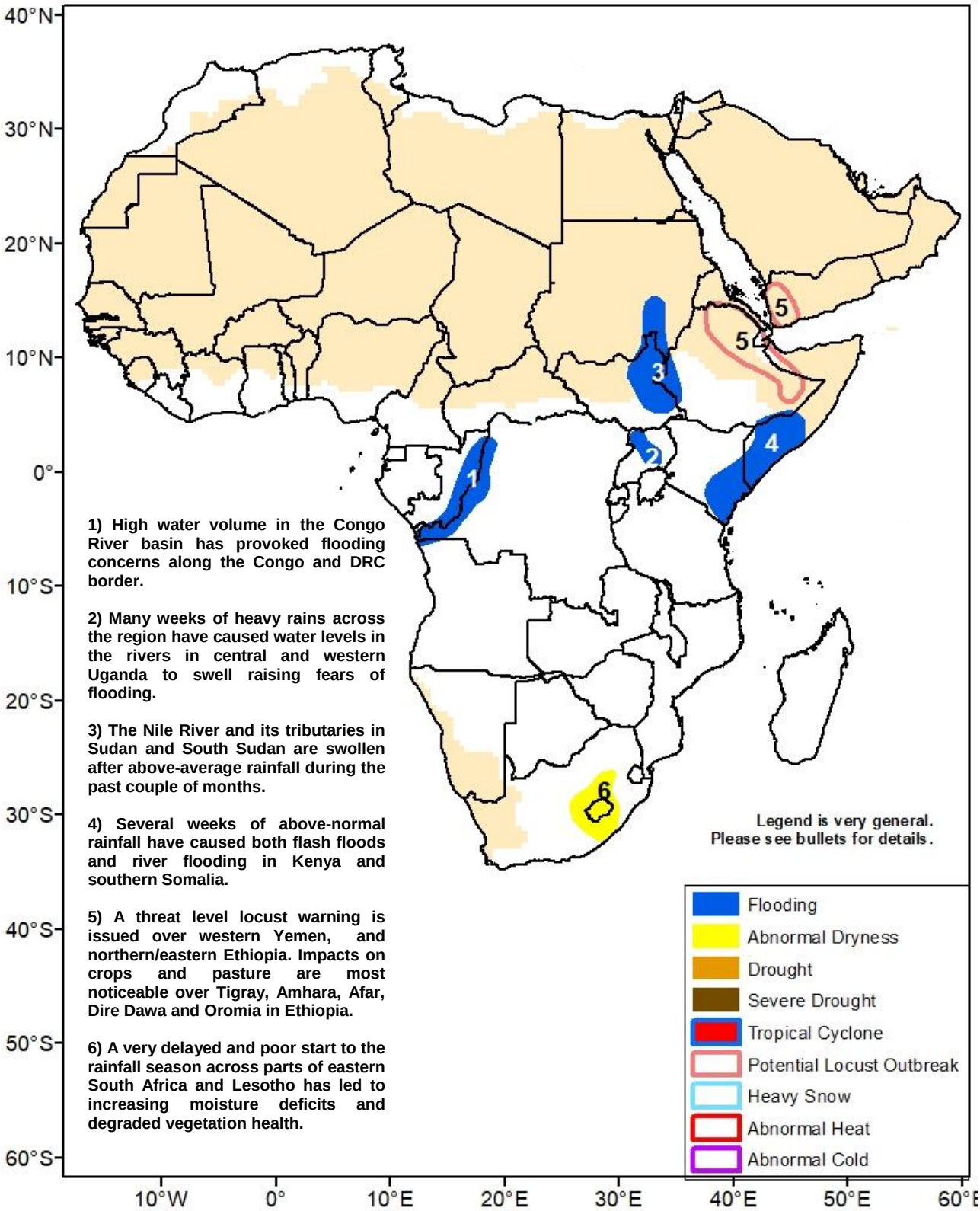
Climate Prediction Center's Africa Hazards Outlook
November 21 – November 27, 2019

- River flooding continues to be a major concern after extended heavy rains in many parts of Africa.
- Moisture deficits are leading to poor ground conditions in Angola, South Africa, and Lesotho.



1) High water volume in the Congo River basin has provoked flooding concerns along the Congo and DRC border.

2) Many weeks of heavy rains across the region have caused water levels in the rivers in central and western Uganda to swell raising fears of flooding.

3) The Nile River and its tributaries in Sudan and South Sudan are swollen after above-average rainfall during the past couple of months.

4) Several weeks of above-normal rainfall have caused both flash floods and river flooding in Kenya and southern Somalia.

5) A threat level locust warning is issued over western Yemen, and northern/eastern Ethiopia. Impacts on crops and pasture are most noticeable over Tigray, Amhara, Afar, Dire Dawa 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 increasing moisture deficits and degraded vegetation health.

The band of heaviest monsoonal rain shifted south this past week.

The heaviest rainfall concentrated farther south this past week. Portions of southern Somalia and southern Kenya received large 7-day totals exceeding 50mm according to satellite estimates (Figure 1). These were significantly higher than normal for mid-November yielding anomalies of as much as 50mm. Moderate to heavy rainfall was also widespread in western Tanzania, Rwanda, Burundi, southern Uganda, and neighboring portions of northeast DRC. The SNNPR region of Ethiopia received unusually heavy late-season rainfall as well. Flash flooding was reported around Mombasa, Kenya. Meanwhile, southern Ethiopia and central Somalia dried out.

The OND season has been one of the wettest on record. Multiple weeks of heavy rain, dating back to early October, have saturated soils and led to rising river levels throughout the region. There are many reports of flooding in the region during recent weeks. Flooding can be expected along the Kafu River in Central and western Uganda. And the Juba and Shabelle in Somalia. Analysis of 2-month rainfall anomalies (Figure 2) reveals much of the region exhibiting surpluses greater than 100mm or 2-3 times the normal rain for the time period. Many of these areas have seen above-normal rainfall for 4-6 weeks. Besides flooding, the season has contributed extremely healthy and lush vegetation conditions as evidenced by both NDVI and VHI.

During the outlook period, enhanced rains are expected to continue across southwestern Ethiopia, Kenya Uganda, southern South Sudan, Rwanda, Burundi and northern Tanzania. 7-day totals of more than 75mm are forecast for these regions by weather models. Rain is likely to continue in Somalia and coastal Kenya but be closer to average. The continuation of wet conditions will keep flooding risks elevated across the region.

After a poor start to the season, rainfall coverage is improving in southern Africa

An increase in rainfall was observed throughout most of the Southern Africa region. Many areas including most of Zambia and Zimbabwe, parts of eastern South Africa, Eswatini, and central Mozambique, received at least 25mm of rainfall according to satellite estimates (Figure 1). Significant rainfall (50-100+mm) occurred throughout Madagascar. In contrast, lighter rains and significant 7-day deficits (25-50mm) were observed in Angola.

Cumulative rainfall since October 1st reveals the largest and increasing deficits in Angola. Negative anomalies now widely exceed 100mm (Figure 2). Detrimental deficits still exist in South Africa, but some improvement has occurred recently. While Angola has a very wet climatology and these deficits are only starting to be concerning, South Africa and Lesotho are more sensitive. Negative impacts to vegetation health are already observed in vegetation indices. Only a few local areas, including parts of Madagascar and western Angola exhibit moisture surpluses for the period.

During the outlook period, enhanced rains are expected in southern Mozambique, southern Zimbabwe, eastern South Africa, and Eswatini. Model forecasts suggest more than 50mm of rainfall is likely. Southern Angola, northern Namibia, northwestern Botswana, and northern Mozambique can all expect suppressed rains.

Satellite Estimated Total Rainfall (mm)
Valid: November 13 – November 19, 2019

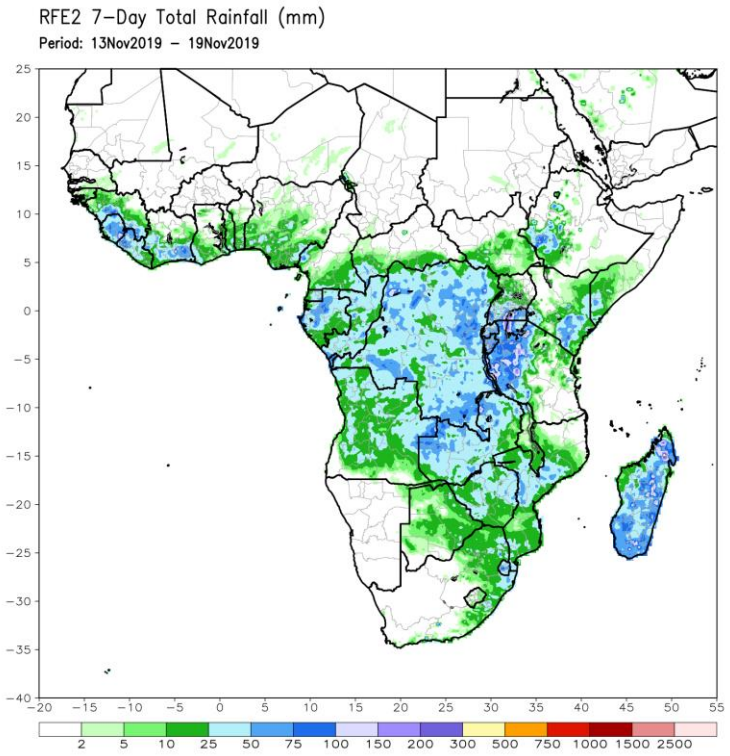


Figure 1: NOAA/CPC

Satellite Estimated Cumulative Rainfall Anomaly (mm)
Valid: October 1 – November 19, 2018

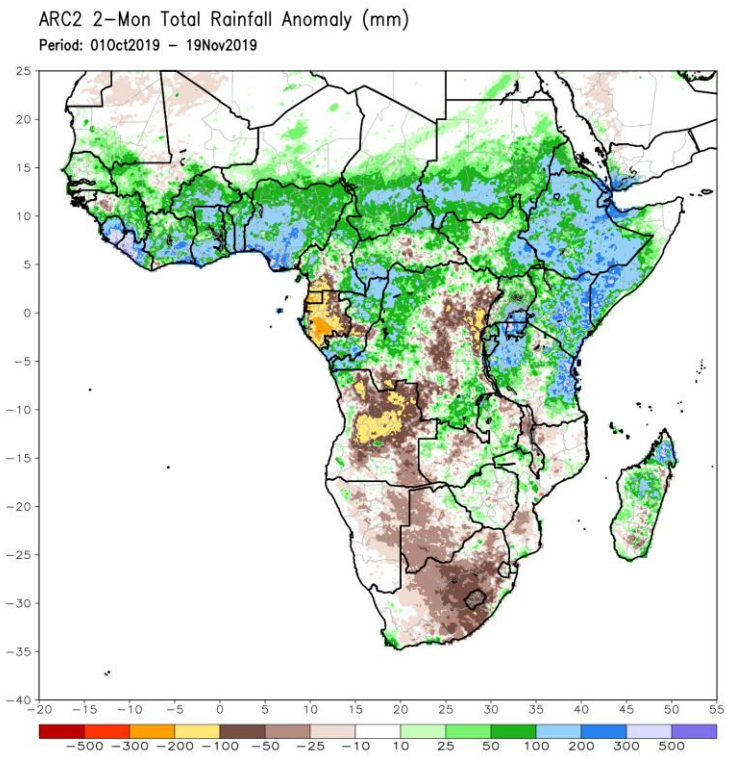


Figure 2: NOAA/CPC

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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