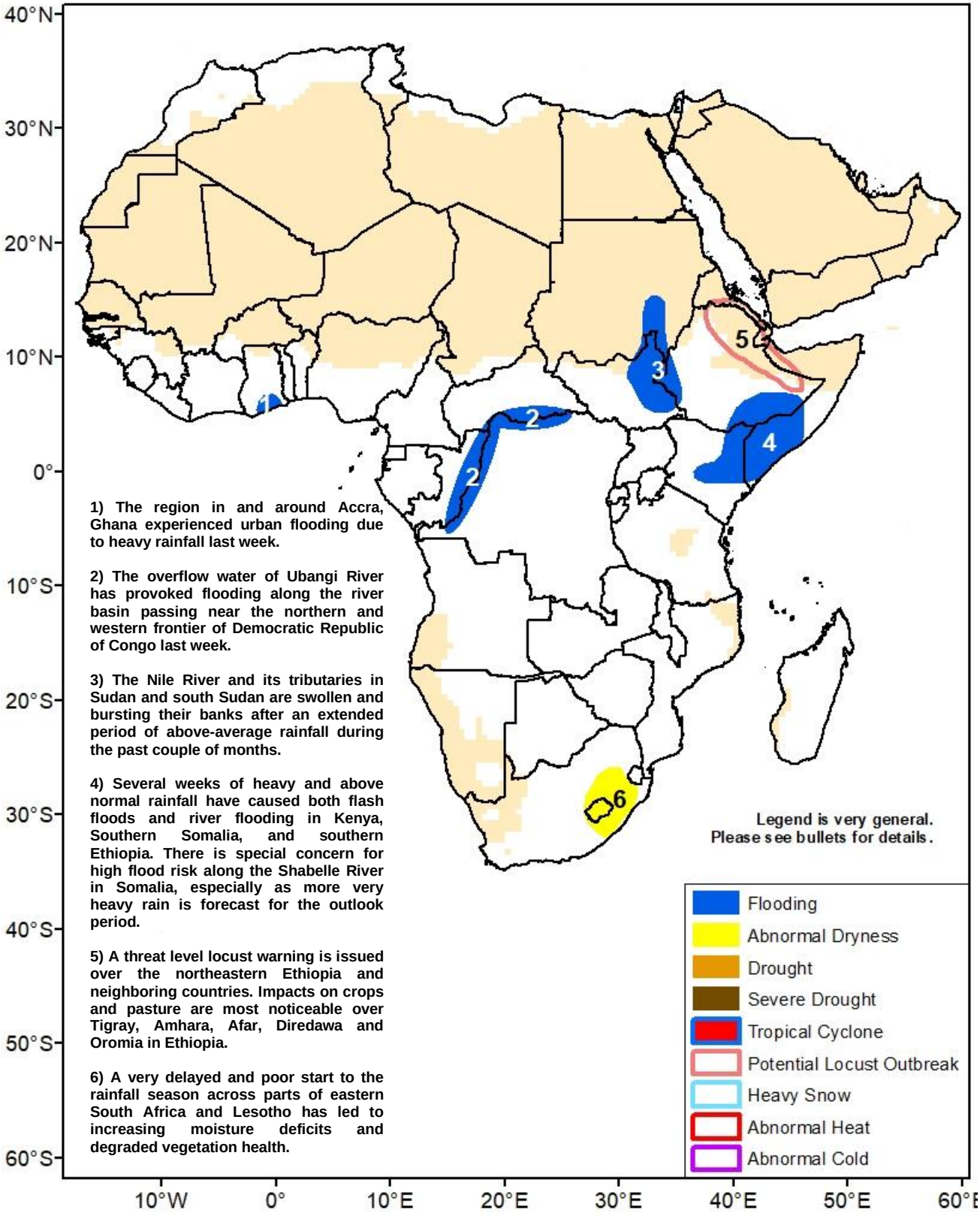
Climate Prediction Center's Africa Hazards Outlook
November 7 – November 14, 2019

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



1) The region in and around Accra, Ghana experienced urban flooding due to heavy rainfall last week.

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 increasing moisture deficits and degraded vegetation health.

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

The band of monsoonal rainfall focused farther south this past week with moderate to heavy rain stretching from DRC eastward through Somalia, while Sudan and northern South Sudan dried out. The heaviest 7-day rainfall was observed around Lake Victoria along with parts of Somalia and southern Ethiopia having totals exceeding 50mm according to satellite estimates. Much of northeastern DRC and Uganda received 25-75mm of rain while local portions of Central Kenya and much of central Somalia received at least 25mm (**Figure 1**). Near or slightly above-normal rains persisted across the southern tier of Ethiopia. Eastern Tanzania received little rainfall after heavy rains had previously affected the region.

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 banks being overtopped. 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 Ethiopia and Somalia. Totals for the week are likely to exceed 50mm or even 100mm locally. This will enhance flooding risks. Meanwhile, rains should also become more widespread again in Tanzania.

The rainfall season has started sluggishly for most of Southern Africa.

Early-season rains were generally light and poorly distributed through southern Africa. A few areas, including north-central South Africa, northern Angola, parts of Zimbabwe and central Madagascar picked up over 25mm according to satellite estimates (**Figure 1**). Other areas receiving only light rains led to 7-day deficits in South Africa and Zambia, with larger deficits of 25-50mm in Angola and southern DRC. Cumulative rainfall over the past 30 days only 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. Negative impacts to vegetation health can already be observed in vegetation indices. In addition, warmer- than-average temperatures in South Africa, Zimbabwe, 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 increased rainfall over South Africa, Lesotho, and Eswatini. More than 25 or 50mm of rain is possible. Eastern Angola is also forecast to receive moderate to heavy rain. Conversely, dry conditions are likely to persist in Zimbabwe, southern Zambia, Mozambique, and Madagascar.

7-Day Satellite-Estimated Rainfall Totals (mm)
Valid: October 30 – November 5, 2019

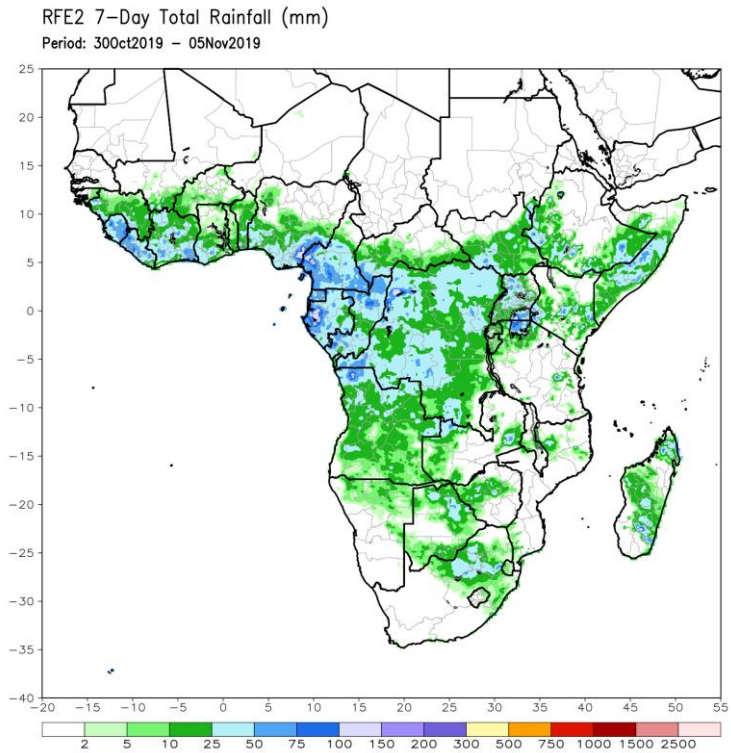


Figure 1: NOAA/CPC

30-Day Satellite-Estimated Rainfall Anomaly (mm)
Valid: October 7 – November 5, 2019

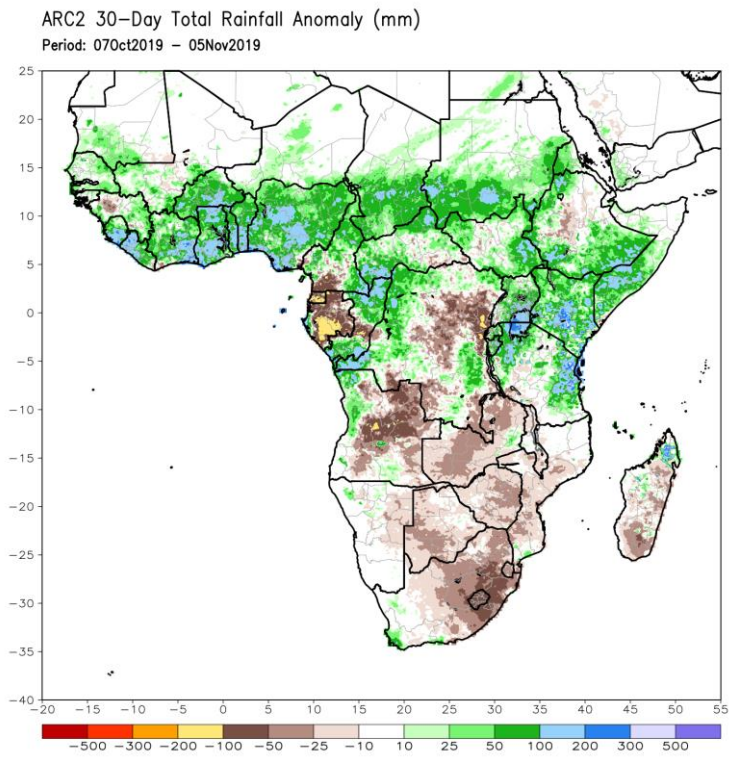


Figure 2: NOAA/CPC

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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