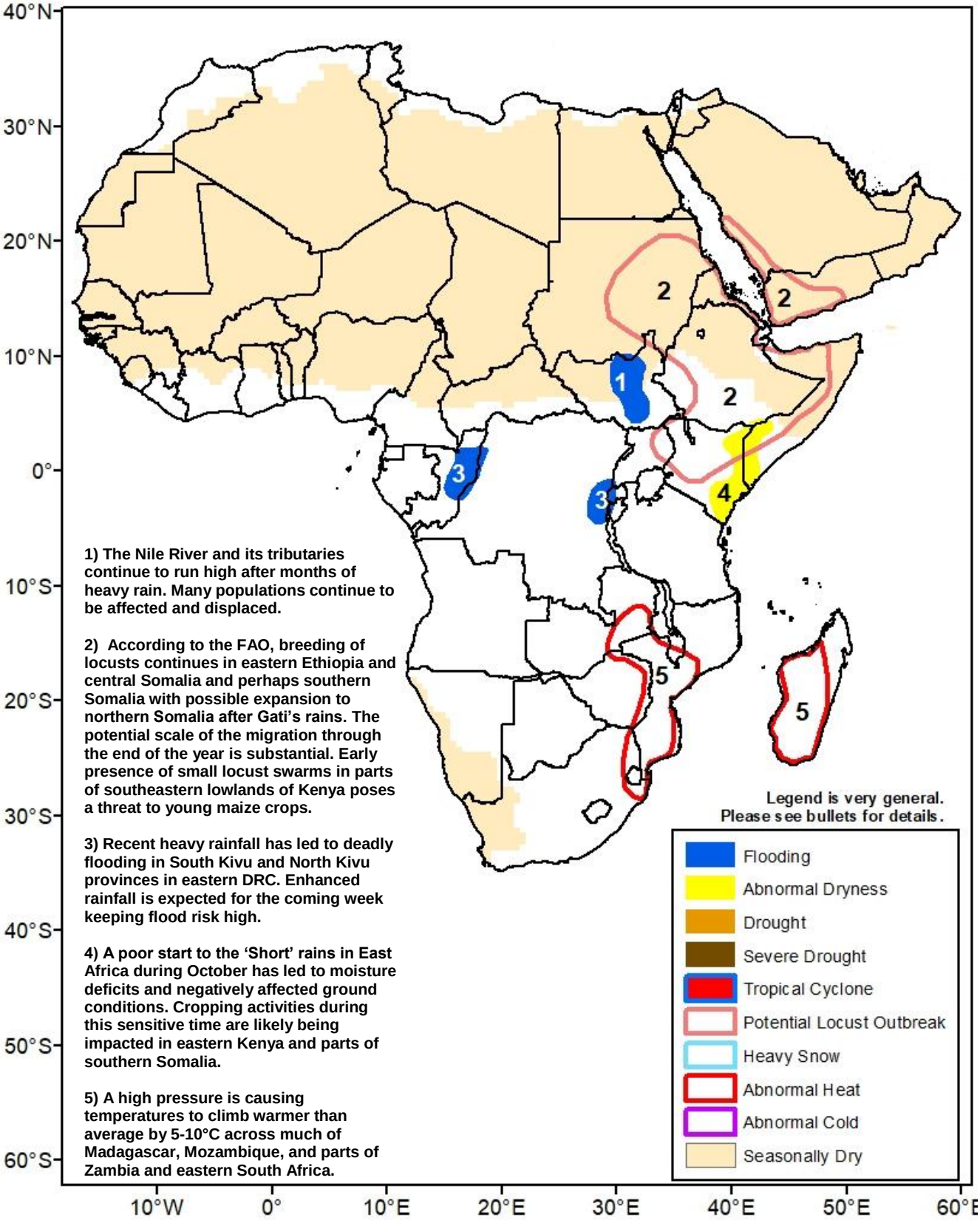
Climate Prediction Center's Africa Hazards Outlook
November 26 – December 2, 2020

- **Tropical cyclone Gati severely impacted northern Somalia this past week.**



1) The Nile River and its tributaries continue to run high after months of heavy rain. Many populations continue to be affected and displaced.

2) According to the FAO, breeding of locusts continues in eastern Ethiopia and central Somalia and perhaps southern Somalia with possible expansion to northern Somalia after Gati's rains. The potential scale of the migration through the end of the year is substantial. Early presence of small locust swarms in parts of southeastern lowlands of Kenya poses a threat to young maize crops.

3) Recent heavy rainfall has led to deadly flooding in South Kivu and North Kivu provinces in eastern DRC. Enhanced rainfall is expected for the coming week keeping flood risk high.

4) A poor start to the 'Short' rains in East Africa during October has led to moisture deficits and negatively affected ground conditions. Cropping activities during this sensitive time are likely being impacted in eastern Kenya and parts of southern Somalia.

5) A high pressure is causing temperatures to climb warmer than average by 5-10°C across much of Madagascar, Mozambique, and parts of Zambia and eastern South Africa.

Along with regions affected by Gati, Tanzania and southern Kenya received heavy rainfall this past week.

On November 20, tropical cyclone Gati made landfall in northern Somalia. It was the strongest ever to do so with winds estimated at 105mph (170kph). It came ashore near the city of Hafun killing 8 and affecting an estimated 70,000 people in the area. It brought torrential rains (1-2 years' worth) to northern Somalia and southern Yemen. Heavy rains continued in northern Tanzania. Many local areas received 7-day totals of 50-100mm (**Figure 1**). Heavy rains (75mm+) were also observed in southern Kenya, while northern portions of the country were dry. Heavy rains in northern and southern Kivu provinces of DRC led to deadly flooding. Meanwhile, little rainfall was observed in central Somalia and southern Ethiopia where rains were suppressed below normal. Despite a period of heavier rains in southern Somalia and eastern Kenya that improved seasonal moisture conditions, there are many other areas, including Somali region, Ethiopia and southern Kenya, which have not seen improvement and show 30-day deficits of 50-100mm or more (**Figure 2**). Negative ground impacts are evident from analysis of NDVI in the sensitive regions of southern Somalia and southern Kenya. Based on the most recent Food and Agriculture Organization (FAO) update, desert locusts continue to pose a serious threat in the Horn of Africa. Breeding continues in eastern Ethiopia and central and perhaps southern Somalia with possible expansion to northern Somalia. Potential affects from Gati include shifting locust location and rapid maturation and egg laying because of increased moisture.

During the outlook period, heavy or above-normal rainfall is forecast over Kenya, northern Tanzania, Uganda, Rwanda, Burundi, and southern Ethiopia. 50mm to 100mm of rain is forecast. Heavy rains totaling more than 100mm are possible in eastern DRC.

7-Day Satellite Estimated Total Rainfall (mm)
Valid: November 18 – November 24, 2020

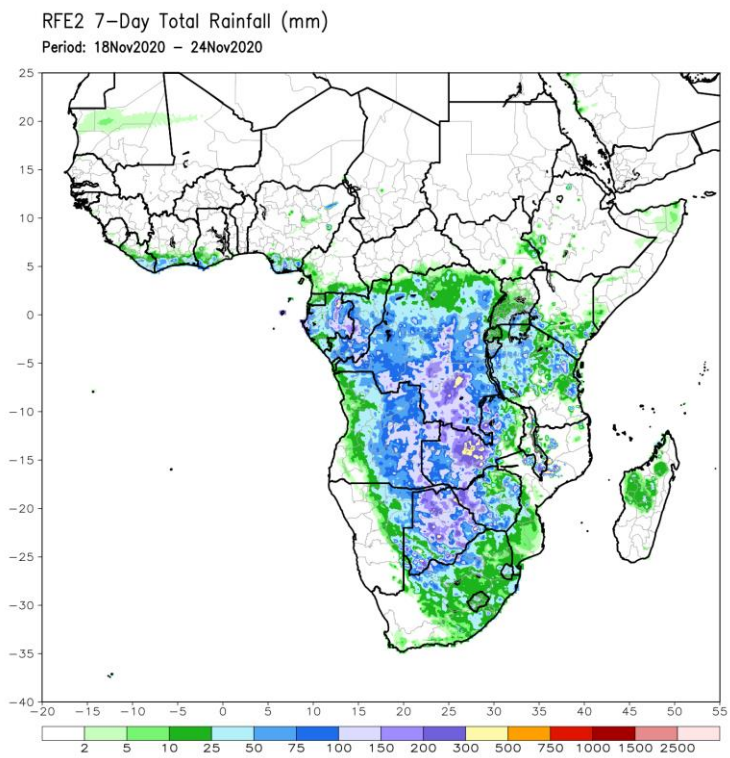


Figure 1: NOAA/CPC

Heavy rain impacted Botswana and parts of Zambia for a third week in a row.

During the past week, above-normal rains were observed over Botswana, western Zimbabwe, and Zambia. Rainfall totals exceeded 100mm in some cases according to satellite estimates (**Figure 1**). These totals have resulted in moisture surpluses. Rains diminished again in Madagascar with scattered showers in the north. Southern and eastern parts of the country observed little rain, adding to a substandard start of the season. Eastern Angola received copious rainfall sometimes totaling more than 100mm. Rainfall was suppressed in western Angola where rainfall is lagging behind climatology by 50-100mm early in the season (**Figure 2)**. In South Africa, moderate rains (25-50mm) were present in the southeast, heavy rain was present in the north-central region, and early-season rainfall performance has been largely good. However, in eastern South Africa, Mozambique, and Eswatini 30-day deficits maintained or increased at 25-100mm. Vegetation health is stressed based upon NDVI in southern Madagascar and Mozambique as expected from rainfall analysis. Vegetation indices are improving in Zambia and Botswana, but should decrease along the South Africa/Mozambique border as the mid-October rainy period fades into the past.

For next week, above-normal rainfall is likely in Angola and DRC. Widespread 50-100mm totals are expected. Above-normal rainfall is also expected for eastern South Africa, Zimbabwe and eastern parts of Botswana. Meanwhile, drier conditions are expected in western Botswana, Malawi, northern Mozambique, and Madagascar.

30-day Satellite Estimated Rainfall Anomaly (mm)
Valid: October 26 – November 24, 2020

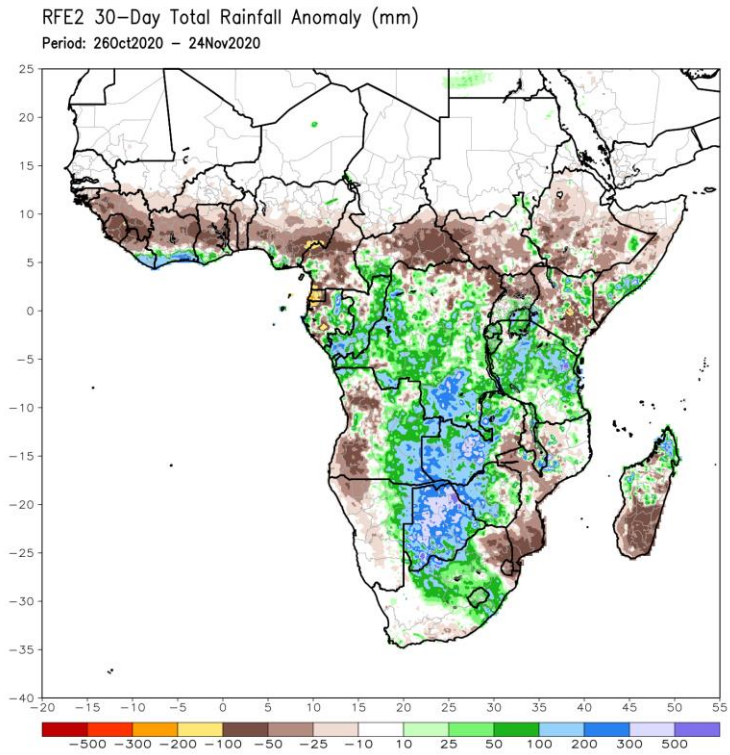


Figure 2: NOAA/CPC

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.

Questions or comments about this product may be directed to Wassila.Thiaw@noaa.gov or 1-301-683-3424.