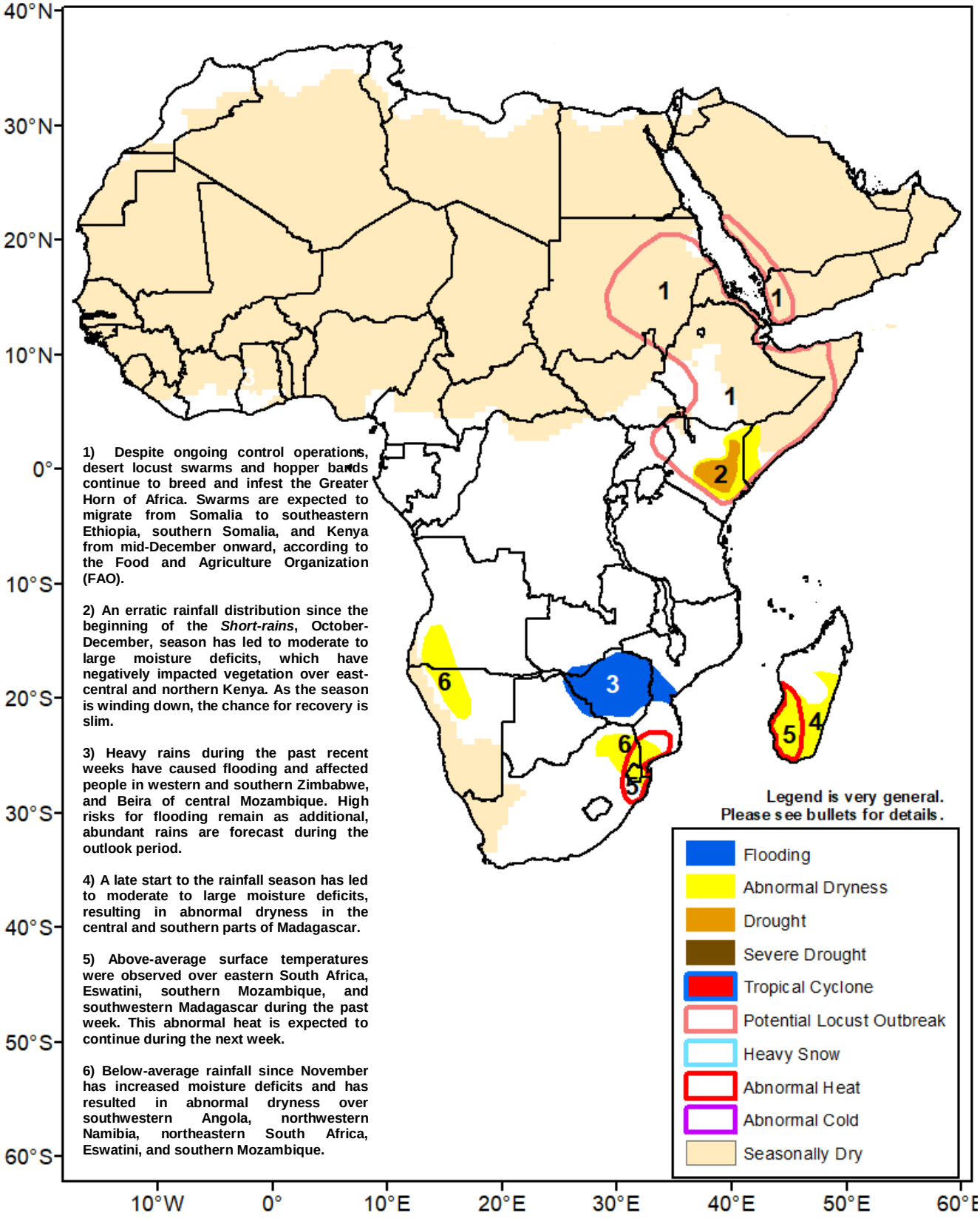
# Climate Prediction Center's Africa Hazards Outlook
## December 17 – 23, 2020

- **Desert locust outbreak and drought continue in eastern Africa, while rainfall is erratic in southern Africa.**




1) Despite ongoing control operations, desert locust swarms and hopper bands continue to breed and infest the Greater Horn of Africa. Swarms are expected to migrate from Somalia to southeastern Ethiopia, southern Somalia, and Kenya from mid-December onward, according to the Food and Agriculture Organization (FAO).

2) An erratic rainfall distribution since the beginning of the *Short-rains*, October-December, season has led to moderate to large moisture deficits, which have negatively impacted vegetation over east-central and northern Kenya. As the season is winding down, the chance for recovery is slim.

3) Heavy rains during the past recent weeks have caused flooding and affected people in western and southern Zimbabwe, and Beira of central Mozambique. High risks for flooding remain as additional, abundant rains are forecast during the outlook period.

4) A late start to the rainfall season has led to moderate to large moisture deficits, resulting in abnormal dryness in the central and southern parts of Madagascar.

5) Above-average surface temperatures were observed over eastern South Africa, Eswatini, southern Mozambique, and southwestern Madagascar during the past week. This abnormal heat is expected to continue during the next week.

6) Below-average rainfall since November has increased moisture deficits and has resulted in abnormal dryness over southwestern Angola, northwestern Namibia, northeastern South Africa, Eswatini, and southern Mozambique.

## Reduced rains observed in eastern Africa during early to mid-December

During the past seven days, much of the Horn of Africa experienced suppressed rainfall. Most parts of Ethiopia, Kenya, Somalia, and eastern Tanzania did not record measurable rainfall (**Figure 1**). Though, small (< 10 mm) amounts were registered over some localized areas. Areas that should have continued to receive seasonal rainfall included parts of southern Ethiopia, eastern Kenya, southern Somalia, and northern Tanzania. As a result, seven-day rainfall anomalies indicated near to below-average rainfall over the region.

An erratic distribution in rainfall since the beginning of October has led to mixed seasonal anomalies over eastern Africa. While positive anomalies were registered over western Ethiopia, western Kenya, and central Somalia, negative anomalies were observed elsewhere. The largest (> 100 mm) deficits were located over east-central Kenya, southern Somalia, and parts of southern Ethiopia. The poor performance of the October-December season was primarily associated with a delayed onset of rainfall during October, which was followed by an uneven rainfall distribution in November, and an early cessation of rainfall since December. The resulting moisture deficits and ongoing locust outbreak have deteriorated vegetation conditions further over some local areas.

For next week, little to light rains are forecast over central and eastern Kenya, northern Tanzania, and coastal areas of Somalia, which are likely to maintain drier-than-average conditions in the region.

**7-Day Satellite Estimated Total Rainfall (mm)**
**Valid: December 09 – December 15, 2020**

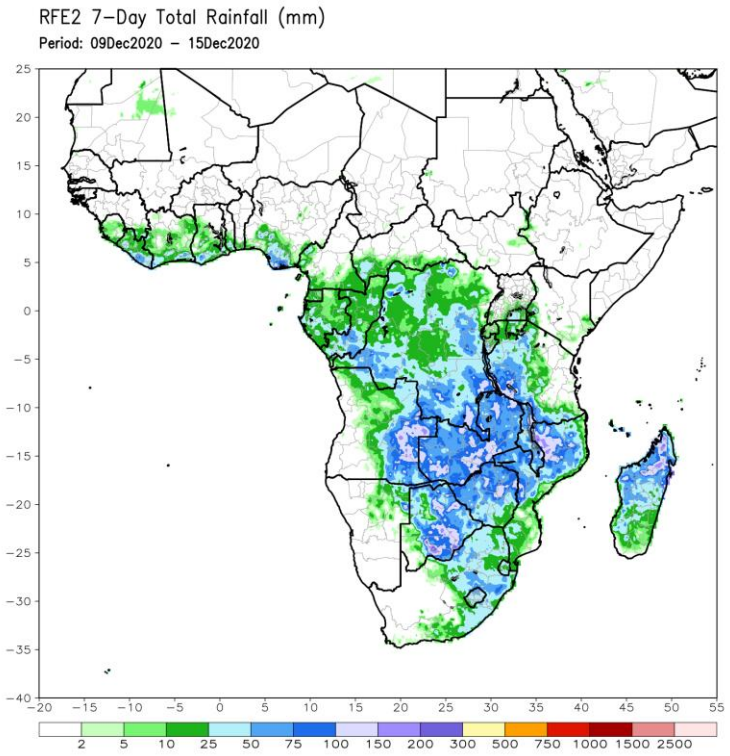



**Figure 1: NOAA/CPC**

## Southern African monsoon characterized by an uneven rainfall distribution

A comparison of cumulative rainfall since October and corresponding long-term average has indicated that well above-average rainfall was received over central southern Africa, while below-average rainfall was recorded over the western and eastern portions of the sub-region. Large (> 200 mm) surpluses spread across eastern Angola, Zambia, southern DRC, Botswana, Zimbabwe, southern Malawi, and central Mozambique (**Figure 2**). This wetness has already caused flooding and many affected people over local areas of Zimbabwe and Mozambique over the recent weeks, based on reports. In contrast, large (> 100 mm) seasonal deficits were registered in western Angola and southern Madagascar. This dryness was due to a delayed onset to the season and an uneven spatial and temporal distribution in rainfall. During the past week, heavy downpours continued over northern and central southern Africa and northern Madagascar.

An analysis of recent vegetation products has shown that poor and below-average conditions were observed in southwestern Angola, localized areas of Namibia, eastern South Africa, southern Mozambique, and southern Madagascar, whereas above-average conditions spread over eastern Botswana, Lesotho, and much of South Africa.

For next week, torrential rains are forecast over Zambia, northeastern Botswana, Zimbabwe, and central Mozambique. Hence, high risks for flooding remain in the region. In contrast, limited rains are expected in western Angola, southwestern Madagascar, northeastern Mozambique, and southeastern Tanzania, which could strengthen short-term moisture deficits over local areas.

**3-Month Satellite Estimated Rainfall Anomaly (mm)**
**Valid: October 01 – December 15, 2020**

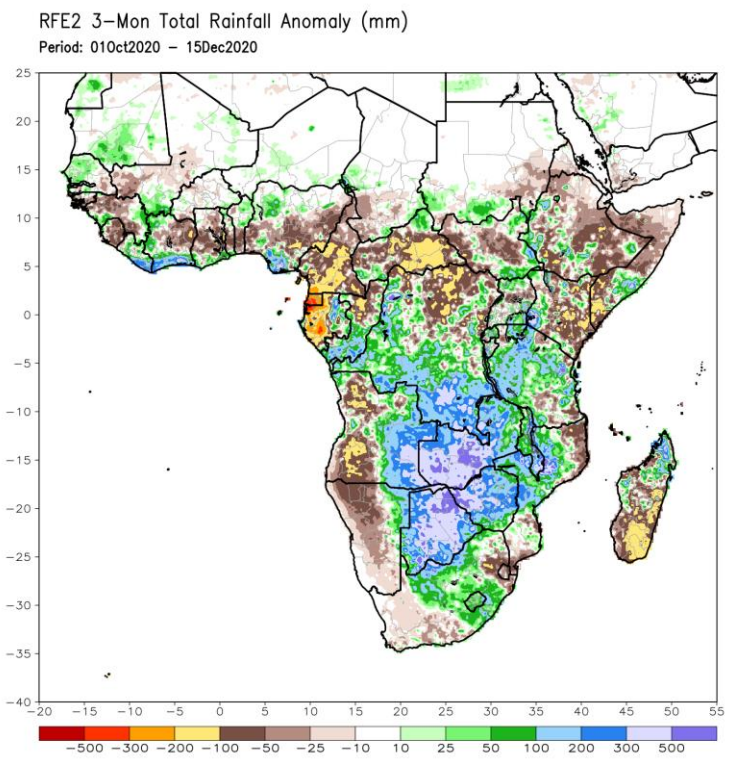



**Figure 2: NOAA/CPC**

**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.