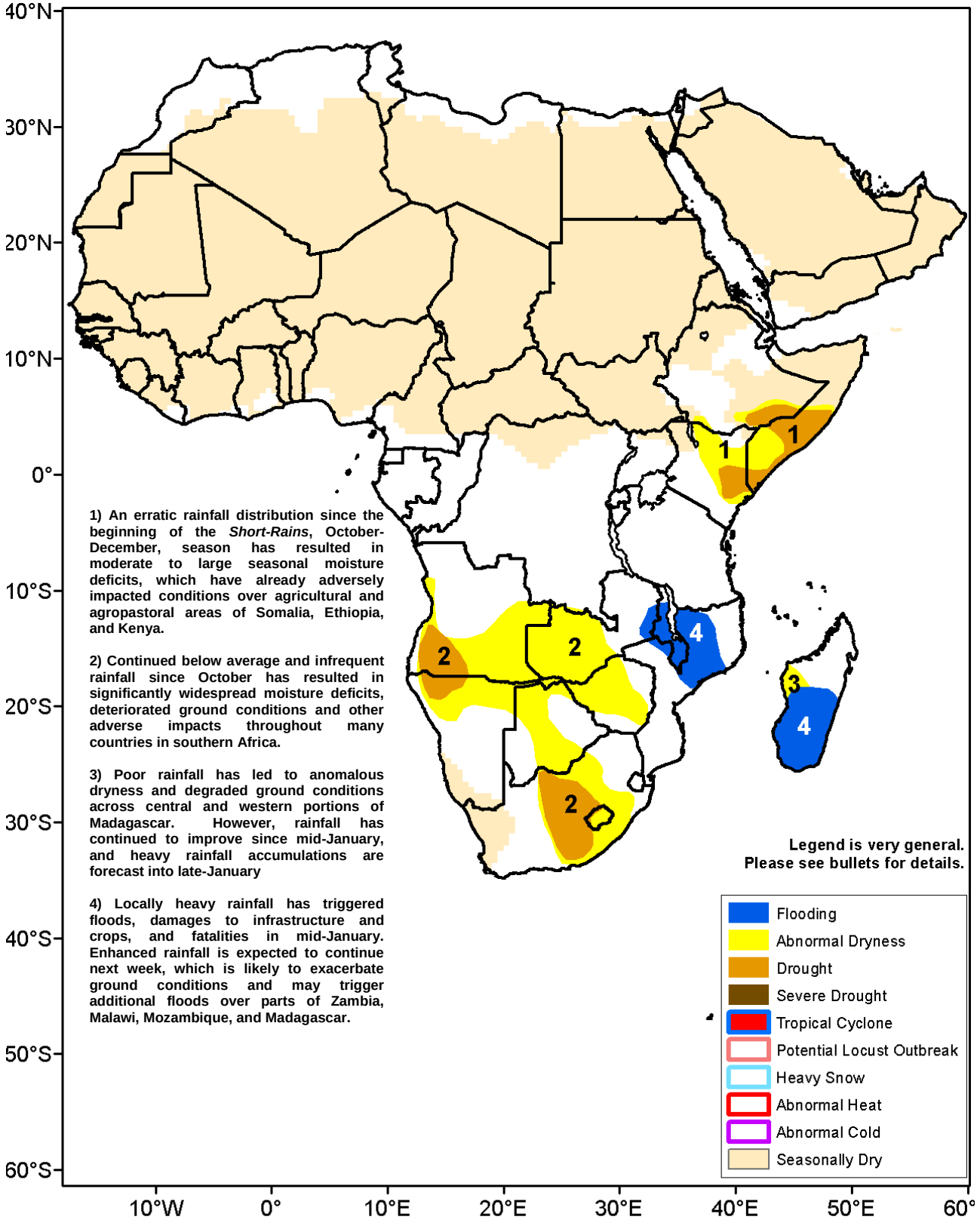
Climate Prediction Center's Africa Hazards Outlook
January 17 – 23, 2019

- **A broad area of enhanced seasonal rainfall is forecast to help continue to alleviate dryness for several areas in southern Africa.**



1) An erratic rainfall distribution since the beginning of the *Short-Rains*, October-December, season has resulted in moderate to large seasonal moisture deficits, which have already adversely impacted conditions over agricultural and agropastoral areas of Somalia, Ethiopia, and Kenya.

2) Continued below average and infrequent rainfall since October has resulted in significantly widespread moisture deficits, deteriorated ground conditions and other adverse impacts throughout many countries in southern Africa.

3) Poor rainfall has led to anomalous dryness and degraded ground conditions across central and western portions of Madagascar. However, rainfall has continued to improve since mid-January, and heavy rainfall accumulations are forecast into late-January

4) Locally heavy rainfall has triggered floods, damages to infrastructure and crops, and fatalities in mid-January. Enhanced rainfall is expected to continue next week, which is likely to exacerbate ground conditions and may trigger additional floods over parts of Zambia, Malawi, Mozambique, and Madagascar.

Enhanced monsoon rainfall expected to shift back towards the south.

During the last seven days, a broad areas of enhanced, widespread weekly rainfall (>50mm) was received across Zambia, Malawi, Tanzania, Mozambique and Madagascar, with several local areas registering amounts in excess of 100mm according to satellite rainfall estimates (**Figure 1**). The locally heavy precipitation amounts reportedly resulted in floods, damages to infrastructure and fatalities over many regions during the last week. While heavy rainfall was observed last week across the Caprivi Strip, Botswana, Zimbabwe, southern Mozambique, and northern South Africa, seasonal rainfall was generally lighter, with weekly amounts ranging between 10-50mm throughout the region. However, several drought affected areas further west in southwestern Angola, northwestern Namibia, and central South Africa have continued to experience limited rainfall amounts into mid-January.

The heavy rainfall observed during mid-January is associated with a period of moisture recovery that has persisted since the beginning of the year. This has greatly helped to mitigate both short term and long term rainfall deficits throughout southern Africa. While the spatial extent of the recovery pattern has varied over the past several weeks, many areas are expected to benefit from the recent increase in seasonal rainfall that had been absent, delayed or insufficient since last October. The poor rainfall performance had already resulted in adverse ground impacts and increased concerns for crop production.

Since late December, widespread short term moisture deficits have largely been mitigated, with many regions now experiencing average to above-average moisture conditions over the past 30 days. Portions of the southeastern Angola, the Caprivi Strip, northeastern Botswana, Zambia, southwestern Zimbabwe, Mozambique and South Africa are registering moisture surpluses ranging between 10-100mm over the last 30 days (**Figure 2**), as these areas had been well below average two weeks ago. Latest remotely sensed vegetation health indices also reflect moisture recovery with much needed positive changes over several southern Africa countries.

However, the latest moisture recovery has failed to reach other regions in southern Africa which has led to some strengthening in both short term and long term moisture deficits. Namely, portions of southwest Angola, western and central South Africa, and southeastern Zimbabwe have not benefitted from the enhanced rains, as these regions continue to experience less than half of their normal rainfall accumulation since both early December and since early October.

For the upcoming outlook period, models suggest a southward shift of the monsoon convergence with widespread, heavy rainfall accumulations (>75mm) returning over southeastern Angola, Zambia, Zimbabwe, Mozambique, Malawi, central Tanzania, and Madagascar. The widespread moderate to heavy rainfall amounts is expected to provide relief for additional areas affected by seasonal dryness, except for parts of southwestern Angola, Namibia, and central South Africa. Additionally, there is a slight potential for the development of a tropical cyclone in the Mozambique Channel. Regardless of any cyclone formation, locally heavy rains are likely over Mozambique and Madagascar during the next week.

7-Day Satellite-Estimated Rainfall Total (mm)
Valid: January 9 – January 15, 2019

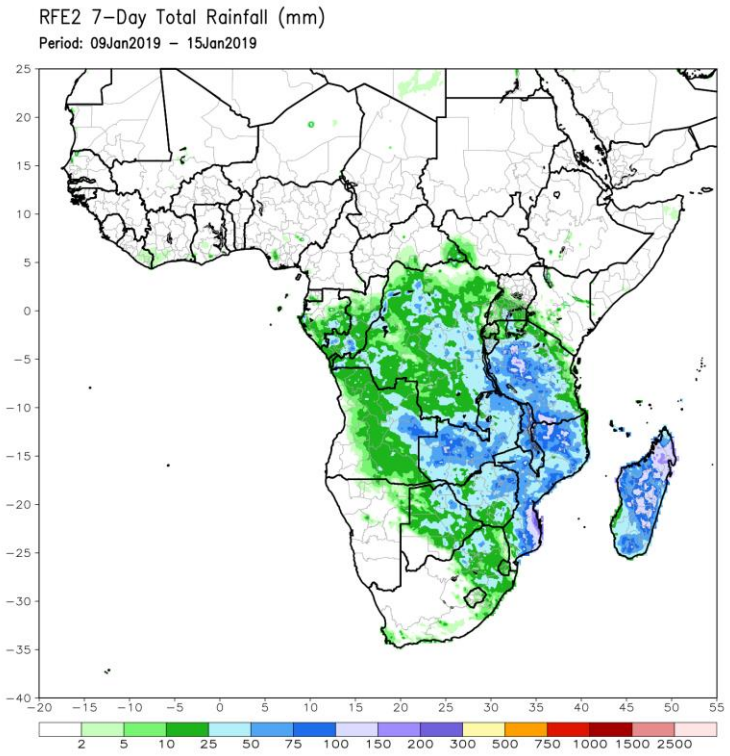


Figure 1: NOAA/CPC

30-Day Satellite-Estimated Percent of Normal Rainfall (%)
Valid: December 15, 2018 – January 13, 2019

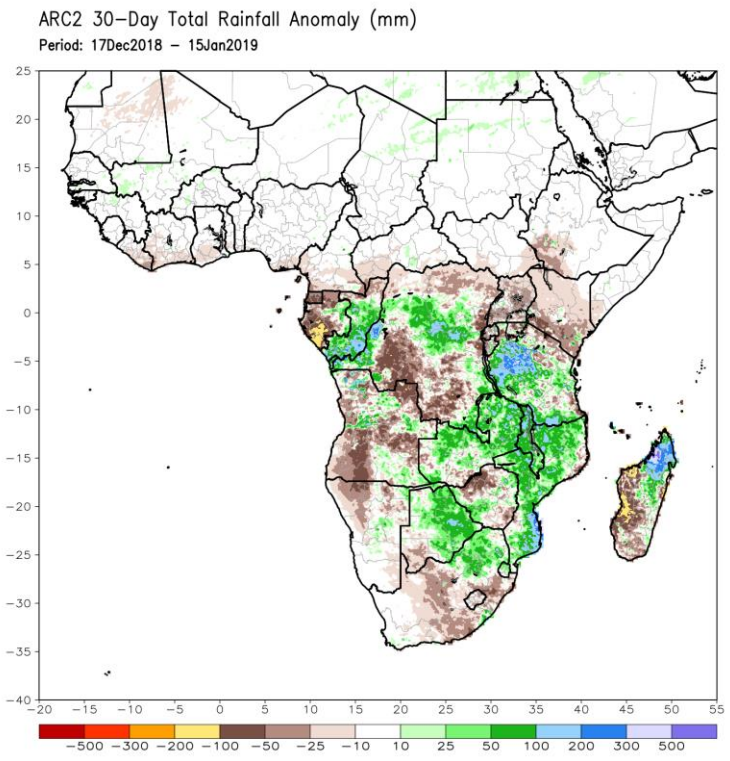


Figure 2: NOAA/CPC

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.

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