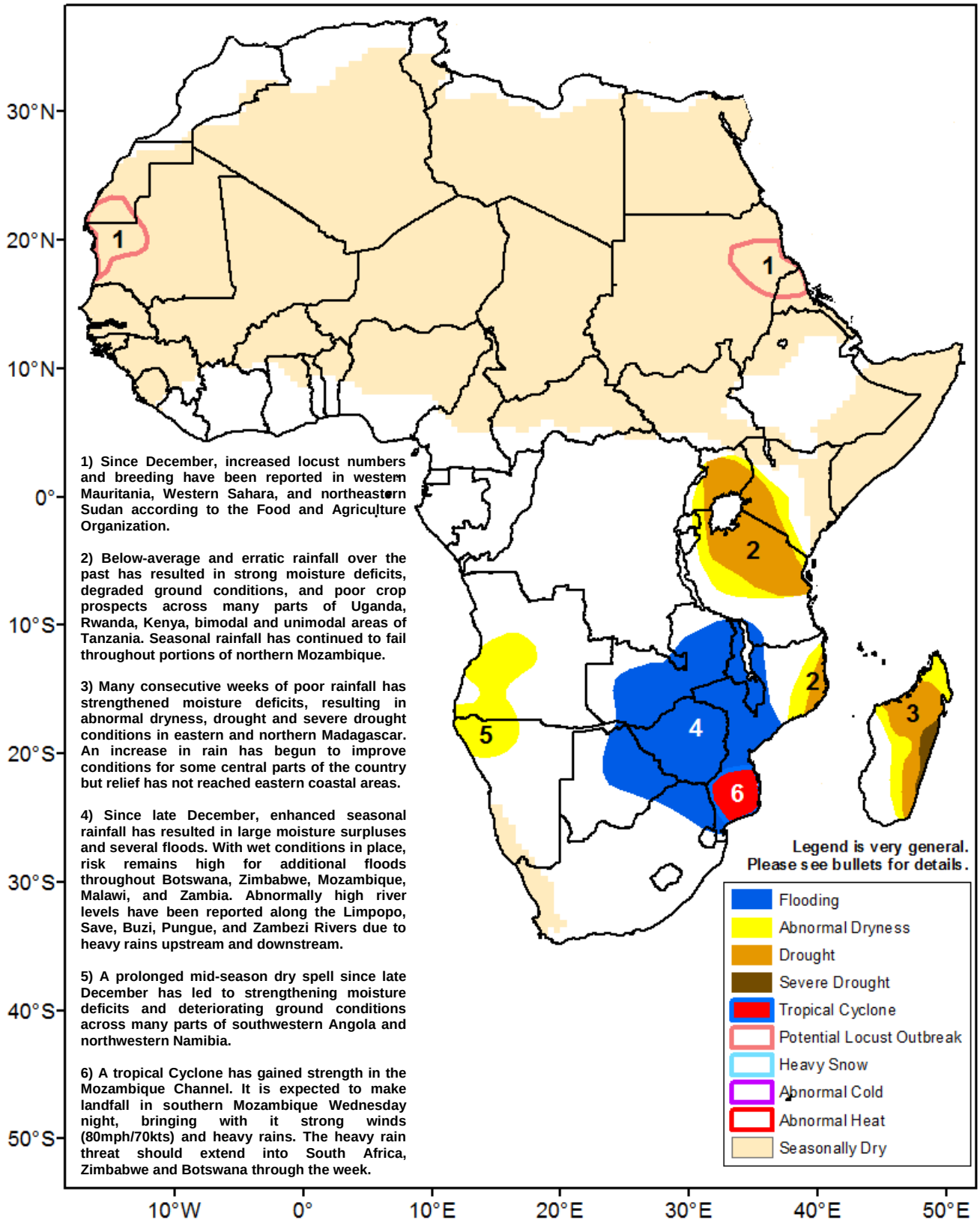
Climate Prediction Center's Africa Hazards Outlook
February 16 – February 22, 2017

- **Tropical Cyclone Dineo to strike southern Mozambique Wednesday night bringing winds and very heavy rain**



1) Since December, increased locust numbers and breeding have been reported in western Mauritania, Western Sahara, and northeastern Sudan according to the Food and Agriculture Organization.

2) Below-average and erratic rainfall over the past has resulted in strong moisture deficits, degraded ground conditions, and poor crop prospects across many parts of Uganda, Rwanda, Kenya, bimodal and unimodal areas of Tanzania. Seasonal rainfall has continued to fail throughout portions of northern Mozambique.

3) Many consecutive weeks of poor rainfall has strengthened moisture deficits, resulting in abnormal dryness, drought and severe drought conditions in eastern and northern Madagascar. An increase in rain has begun to improve conditions for some central parts of the country but relief has not reached eastern coastal areas.

4) Since late December, enhanced seasonal rainfall has resulted in large moisture surpluses and several floods. With wet conditions in place, risk remains high for additional floods throughout Botswana, Zimbabwe, Mozambique, Malawi, and Zambia. Abnormally high river levels have been reported along the Limpopo, Save, Buzi, Pungue, and Zambezi Rivers due to heavy rains upstream and downstream.

5) A prolonged mid-season dry spell since late December has led to strengthening moisture deficits and deteriorating ground conditions across many parts of southwestern Angola and northwestern Namibia.

6) A tropical Cyclone has gained strength in the Mozambique Channel. It is expected to make landfall in southern Mozambique Wednesday night, bringing with it strong winds (80mph/70kts) and heavy rains. The heavy rain threat should extend into South Africa, Zimbabwe and Botswana through the week.

While rains were still well distributed, torrential rainfall was more confined this past week.

During the last week, the region experiencing torrential rains contracted to encompass eastern Zambia, Malawi southern Tanzania and Northern Mozambique. The greatest rain totals embedded in this region were more than 100mm according to satellite rainfall estimates (**Figure 1).** Several flooding reports came out of Malawi. Similar amounts of rain were observed over parts of Madagascar. Lesser, but still well-distributed, precipitation was observed throughout Zambia, Namibia and central South Africa. Very little rain was observed in southern Mozambique and neighboring parts of South Africa. As seasonal rains are expected to begin waning during middle and late February in these areas, resultant negative anomalies were small. The largest positive anomalies for the week are observed in Malawi and surrounding areas. Though significant rains fell in Madagascar, negative anomalies are observed because climatology is extremely wet in February.

Dating to late last year, large portions of southern Africa have received persistent above-average rains. Cumulative totals more than twice the average for parts of Botswana, Zimbabwe, and Mozambique have led to many reports of flooding and adverse ground impacts. An increase in rains during the beginning of February for parts of Zambia and Malawi Have triggered flooding in those areas as well. Conversely, many parts of Tanzania, northeastern Mozambique, and Madagascar have seen persistent suppression of rains leading to drought-like conditions.

Over the course of the monsoon season, two historically significant extremes have developed over the region. Persistent enhancement of rainfall has led to cumulative totals that rank in the wettest 3% of seasons for many parts Botswana, Zimbabwe, South Africa and southern Mozambique (**Figure 2**). Conversely, areas of persistent suppression of rainfall in northern Mozambique and Madagascar have resulted in rainfall performance that falls in the driest 3 percent of seasons. These large moisture deficits are likely to have many adverse impacts on cropping activities and water availability. Another area of dryness has been slowly developing in northern Namibia and western Angola. There, percent of normal precipitation is not as poor, but the period still ranks in the driest 10 percent.

For the upcoming outlook period, models suggest that enhanced rainfall should continue from southern Mozambique and eastern South Africa through Zimbabwe and Zambia. Total rainfall accumulations could exceed 150mm locally (**Figure 3**). Much of this rainfall enhancement is the result of a tropical cyclone forming in the Mozambique Channel. Tropical Cyclone Dineo has sustained 70kt (80mph) winds and should make landfall just north of Inhambane Mozambique on Wednesday evening as the equivalent of US Cat 1 strength. In addition to widespread heavy rainfall, on already saturated soil, strong winds will be a threat along the coast. Farther north, little rainfall is expected yet again for northern Mozambique Tanzania and northern Madagascar, reinforcing dryness.

Satellite-Estimated Rainfall (mm)
Valid: February 8 – February 14, 2017

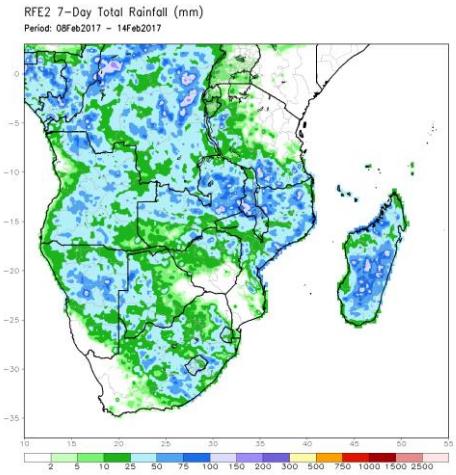


Figure 1: NOAA/CPC

ARC2 90-Day Rainfall Percentile (%)
Valid: November, 17 – February 14, 2017

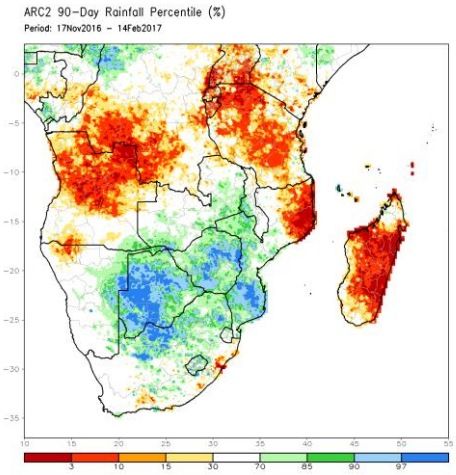


Figure 2: NOAA/CPC

GFS Ensemble Mean Precipitation Forecast (mm)
Valid: February 16 – February 22, 2017

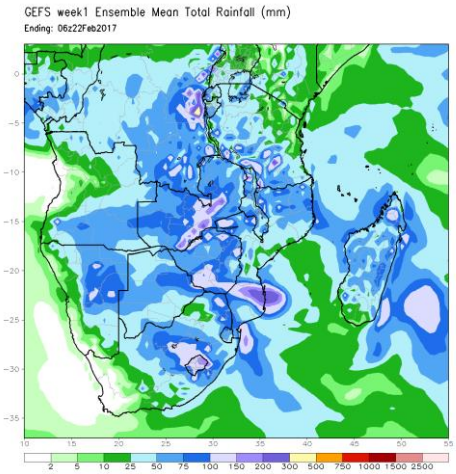


Figure 3: NOAA/CPC

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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