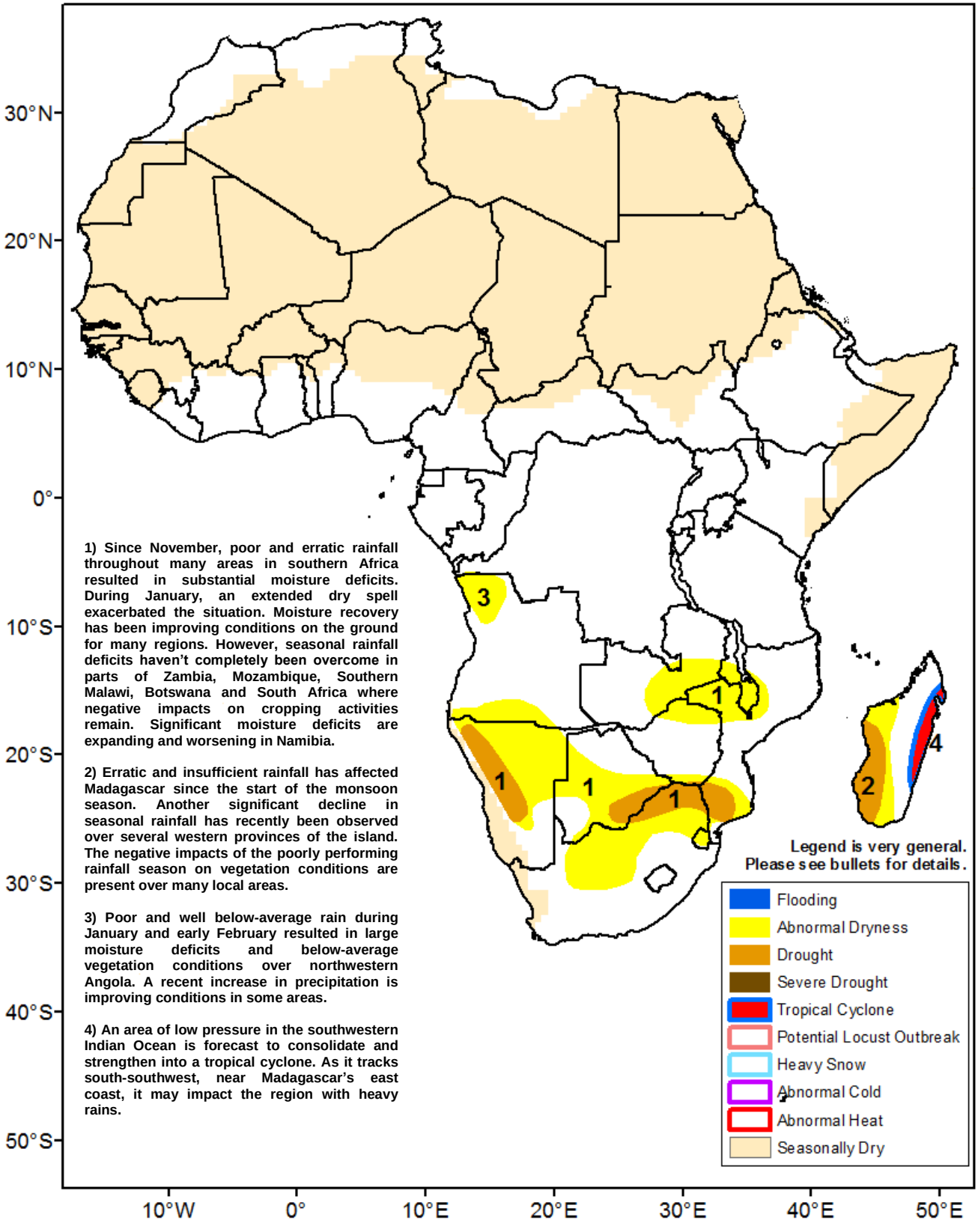
Climate Prediction Center's Africa Hazards Outlook
March 1 – March 7, 2018

- **Expanded coverage of above-normal rainfall leads to further improving ground conditions in southern Africa.**
- **An extended dry spell continues to impact ground conditions in Namibia.**



1) Since November, poor and erratic rainfall throughout many areas in southern Africa resulted in substantial moisture deficits. During January, an extended dry spell exacerbated the situation. Moisture recovery has been improving conditions on the ground for many regions. However, seasonal rainfall deficits haven't completely been overcome in parts of Zambia, Mozambique, Southern Malawi, Botswana and South Africa where negative impacts on cropping activities remain. Significant moisture deficits are expanding and worsening in Namibia.

2) Erratic and insufficient rainfall has affected Madagascar since the start of the monsoon season. Another significant decline in seasonal rainfall has recently been observed over several western provinces of the island. The negative impacts of the poorly performing rainfall season on vegetation conditions are present over many local areas.

3) Poor and well below-average rain during January and early February resulted in large moisture deficits and below-average vegetation conditions over northwestern Angola. A recent increase in precipitation is improving conditions in some areas.

4) An area of low pressure in the southwestern Indian Ocean is forecast to consolidate and strengthen into a tropical cyclone. As it tracks south-southwest, near Madagascar's east coast, it may impact the region with heavy rains.

Abundant rains are forecast through much of southern Africa. Beneficial Belg season rain forecasted to persist.

A pattern of copious rainfall was observed in southern Africa during the last 7 days. The core of heavy (and above average) rains was observed in southern Mozambique, Zimbabwe, South Africa's Limpopo province, and eastern Botswana. Widespread 7-day totals exceeding 100mm were observed in these areas by satellite rainfall estimates (**Figure 1**). Similarly heavy rainfall fell in western Tanzania. Lighter, but still widespread, rainfall was observed through many areas of Zambia and Angola. Southwestern Angola missed the increase in moisture. Rain was nearly absent across most of Namibia. Drought-affected areas of Madagascar continued to experience suppressed rains.

Major pattern change is apparent since the start of February. During January, much of southern Africa had been under the influence of a suppressed convective pattern, which resulted in a period with significantly low totals and an anomalously low rainfall frequency. During February, widespread soaking rains have been present in many of these same areas. Consequently, significant changes are observed in short-term anomalies. While large 30-day deficits had been widespread 3 weeks ago, surpluses are now more prevalent than deficits. In contrast, the largest 30-day deficits are now present in eastern Tanzania, and northern Mozambique (**Figure 2**). To the west, rains are still erratic in Namibia, approaching 5 weeks without significant rainfall. Impacts from this past January are still evident in some areas when long-term moisture anomalies are examined. Regions in Zambia, Malawi, Mozambique, Namibia, Botswana, northern South Africa, and northwestern Angola are still experiencing less than 80 percent of their normal rainfall accumulation since late November. Southwestern Madagascar has been extremely dry since the monsoon season began, receiving very infrequent rainfall.

February's shift in monsoon pattern and associated heavy rains has led to rapid improvement of moisture conditions for large swaths of southern Africa. Analysis of remotely sensed vegetation health indices reflects this improvement, as do other indicators of soil moisture. Reports indicate that improved rains positively impacted crops in central South Africa and northern Zimbabwe, but may have come too late in areas of southern Zimbabwe and southern Mozambique. Degraded ground conditions are evident in Namibia, and parts of Madagascar where rains remained erratic during February.

During the outlook period, weather models suggest that above-average rainfall will likely be widespread throughout southern Africa. Very heavy rainfall, widely exceeding 100mm, is likely in Zambia, Malawi, northern Mozambique and Zimbabwe. Above-average rainfall is also expected in eastern Angola, southeastern DRC, and Tanzania. A developing tropical cyclone passing offshore may impact Madagascar's east coast.

For a second week, above-average rain was widely observed in Ethiopia. Further enhancement of rains is forecasted through the outlook period. The prevalent rainfall already observed and expected to come heading into March will be beneficial for moistening ground that is dry from the poor previous season.

7-Day Satellite Estimated Rainfall (mm)
Valid: February 21 – February 27, 2018

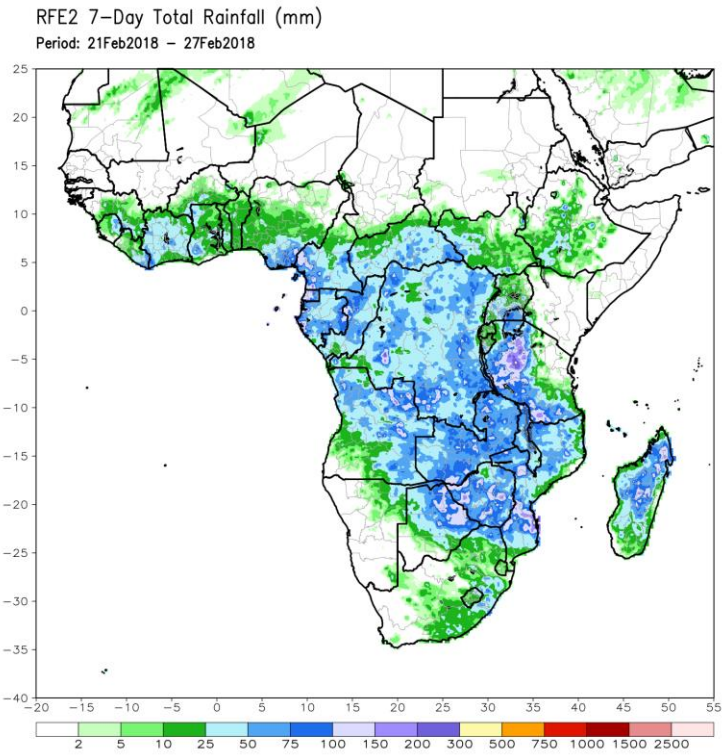


Figure 1: NOAA/CPC

Satellite Estimated Rainfall Anomaly (mm)
Valid: January 29, 2018 – February 27, 2018

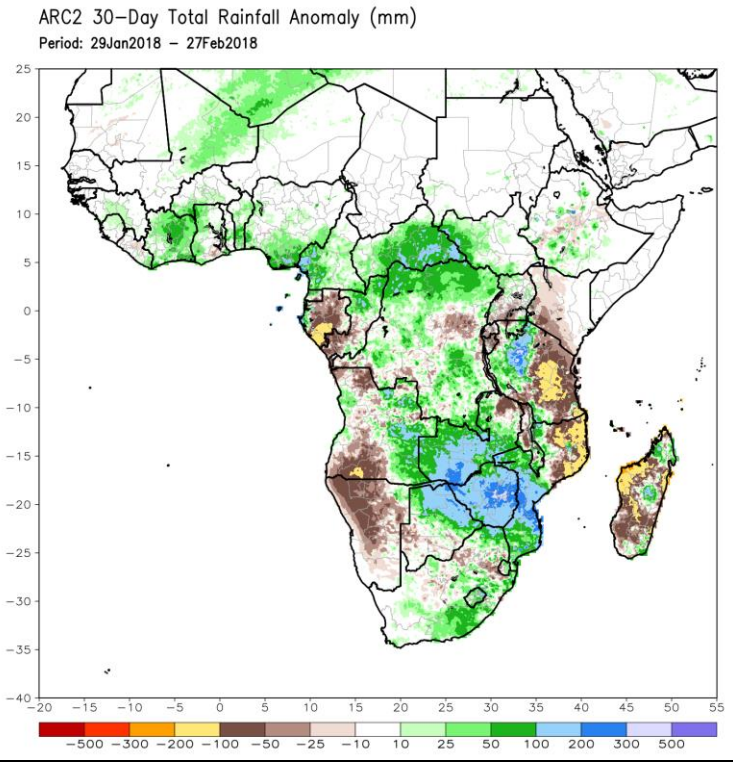


Figure 2: NOAA/CPC

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.