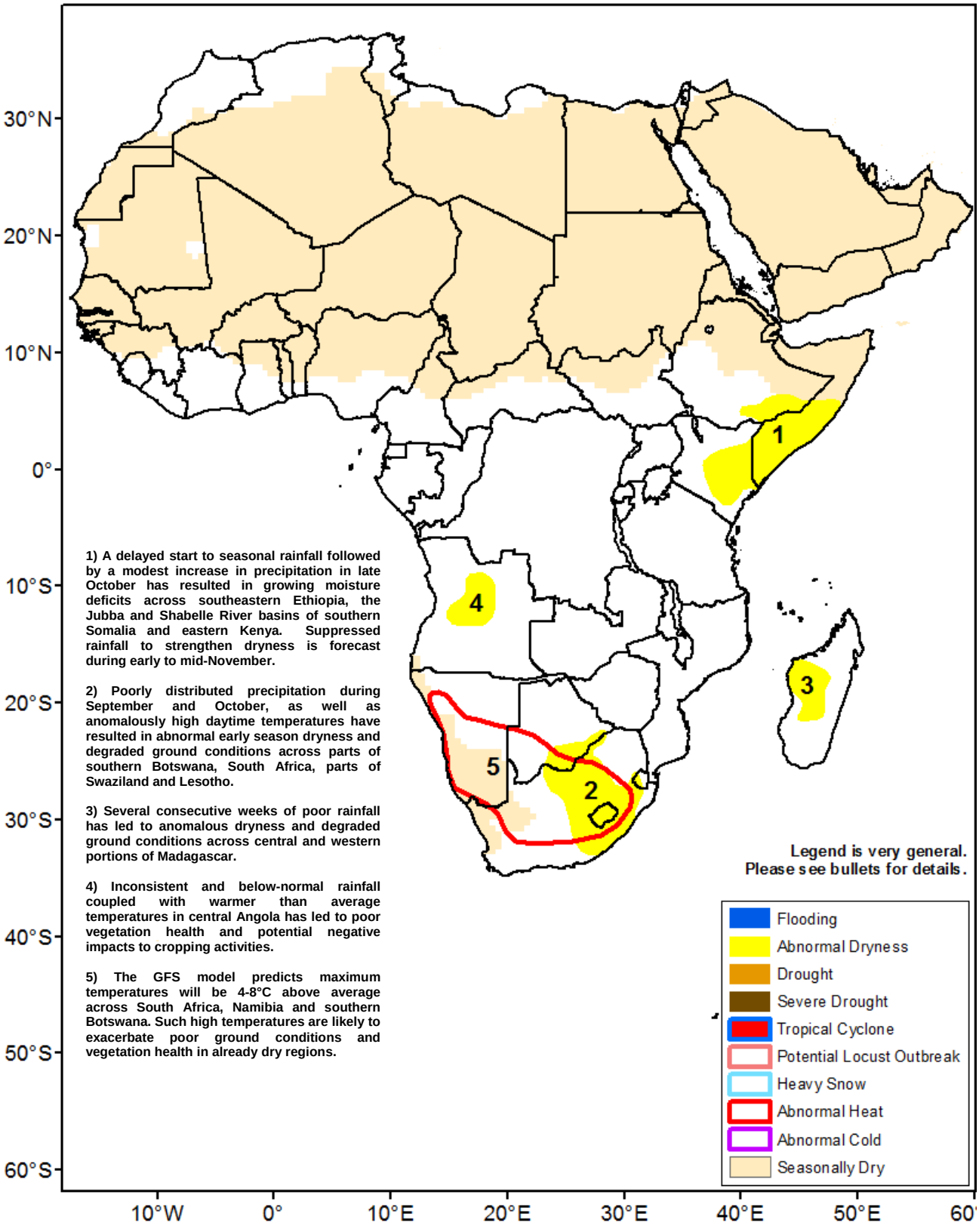
Climate Prediction Center's Africa Hazards Outlook
November 15 – 21, 2018

- **Poorly distributed seasonal rainfall has led to anomalous dryness in the Greater Horn.**
- **Moisture deficits and ground conditions have worsened across parts of Angola.**



1) A delayed start to seasonal rainfall followed by a modest increase in precipitation in late October has resulted in growing moisture deficits across southeastern Ethiopia, the Jubba and Shabelle River basins of southern Somalia and eastern Kenya. Suppressed rainfall to strengthen dryness is forecast during early to mid-November.

2) Poorly distributed precipitation during September and October, as well as anomalously high daytime temperatures have resulted in abnormal early season dryness and degraded ground conditions across parts of southern Botswana, South Africa, parts of Swaziland and Lesotho.

3) Several consecutive weeks of poor rainfall has led to anomalous dryness and degraded ground conditions across central and western portions of Madagascar.

4) Inconsistent and below-normal rainfall coupled with warmer than average temperatures in central Angola has led to poor vegetation health and potential negative impacts to cropping activities.

5) The GFS model predicts maximum temperatures will be 4-8°C above average across South Africa, Namibia and southern Botswana. Such high temperatures are likely to exacerbate poor ground conditions and vegetation health in already dry regions.

Dryness worsens throughout the greater Horn after yet another poor week of rainfall.

During the last week, rains remained poorly distributed and light across the Greater Horn. According to satellite rainfall estimates, a few light showers were received across the Somali region of eastern Ethiopia, northern Somalia, and in eastern Kenya. Light to moderate showers were received over the Jubba and Shabelle river basins of southern Somalia (**Figure 1**). Further west, seasonal rainfall also remained relatively less in amount (5-50mm) across many areas in southwestern Kenya, South Sudan, Uganda, Rwanda, Burundi and northern Tanzania. A few scattered locally heavier showers were observed across central Ethiopia.

Following increased precipitation in late October, the return towards drier conditions during early November has resulted in a considerable strengthening of anomalous dryness since the beginning of October. This most recent suppression of rainfall has occurred at time where seasonal rainfall typically reaches its peak in intensity and spatial extent, as the opportunity for moisture recovery is expected to lessen over the next couple of weeks. Moderate to strong moisture deficits remain concentrated across the Shabelle and Jubba River basins of southern Somalia, and the southern Somali region of eastern Ethiopia, with a noted deepening and expansion of anomalous dryness in central and eastern Kenya during the last week (**Figure 2**). Much of the anomalous dryness is associated with either a delayed onset or an infrequent distribution of rains. Given the brevity of seasonal rainfall in the region, the persistence of anomalous dryness into mid to late November is likely to adversely impact many pastoral and agro-pastoral areas and cause concern for water availability. Newly apparent 30-day deficits are present in South Sudan and northeastern DRC.

During the next outlook period, models suggest an expansion of rains through southern Ethiopia, southern Somalia, and northern Kenya. Reduced rainfall is expected to remain in place over southern Kenya and northern Tanzania. The amounts forecast are likely to strengthen moisture deficits into mid-November over much of southern Kenya. Portions of central and southern Ethiopia are likely to see above-average rainfall amounts during the next week.

Weekly Satellite Estimated Total Rainfall (mm)
Valid: November 7 – November 13, 2018

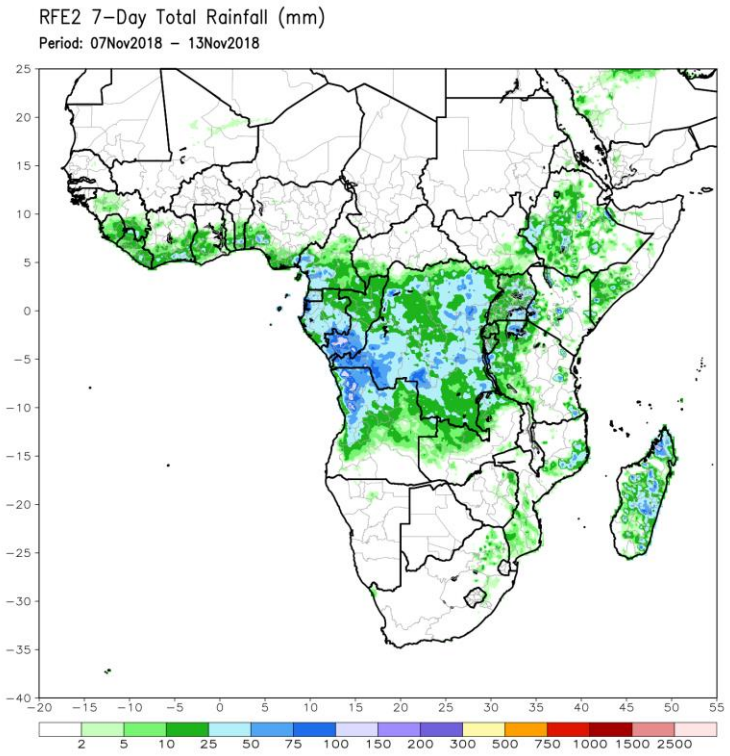


Figure 1: NOAA/CPC

Poor October and November rainfall has led to expanding early season moisture deficits for several southern Africa countries.

Throughout southern Africa, rainfall was widely suppressed during the last week. Deficits were generally small; however, the largest deficits (25-50mm) were located in Angola. Rains were scattered and light across regions of eastern South Africa, Swaziland, southern Mozambique, and eastern Zimbabwe. Conversely, localized heavier rains were observed in northern Mozambique, Madagascar, and especially northwestern Angola (**Figure 1**).

Over the past several weeks, periods of favorably average to enhanced seasonal rainfall throughout much of southern Africa have been short-lived. The inconsistency in seasonal rainfall has led to early season abnormal dryness throughout much of South Africa, Angola, with moisture deficits (25-50mm) rapidly developing across southeastern Africa in parts of Botswana, Zimbabwe, Zambia and Mozambique (**Figure 2**). The erratic rainfall has also resulted in degraded ground conditions according to remotely sensed vegetation health indices. In addition, daytime maximum temperatures have been above average throughout Angola and South Africa during late October, where moisture stress and increased evapotranspiration is likely to adversely impact early season cropping activities.

For the next seven days, precipitation models suggest a stark lack of substantial rains across much of the Southern African region. Some light to moderate rains are expected in eastern South Africa, northern Angola, northern Mozambique and Madagascar, while the remaining areas should expect little rain. Maximum temperatures are also forecast to remain above average over Namibia, Botswana, and many anomalously dry regions in South Africa.

30-Day Satellite Estimated Rainfall Anomaly (mm)
Valid: October 15 – November 13, 2018

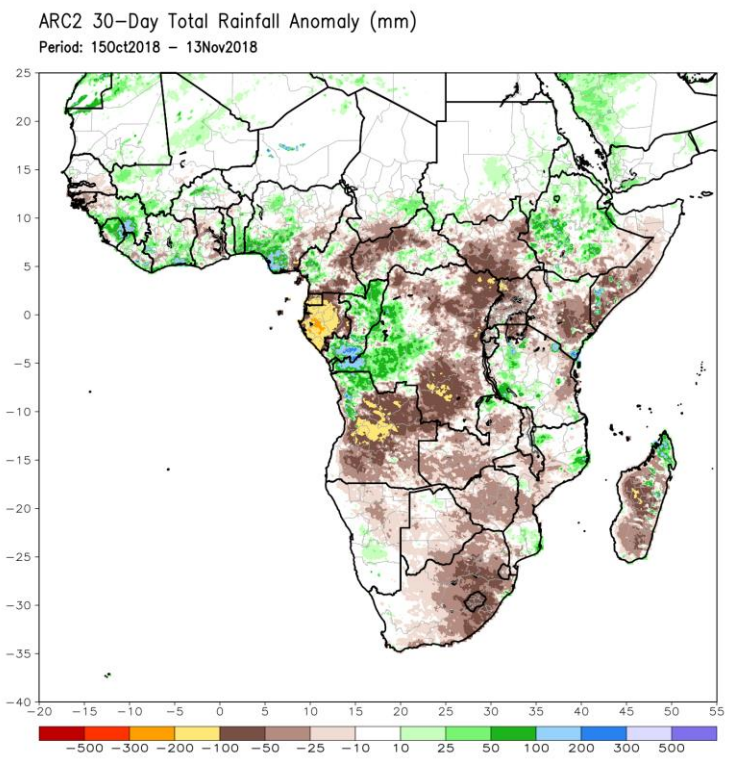


Figure 2: NOAA/CPC

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.

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