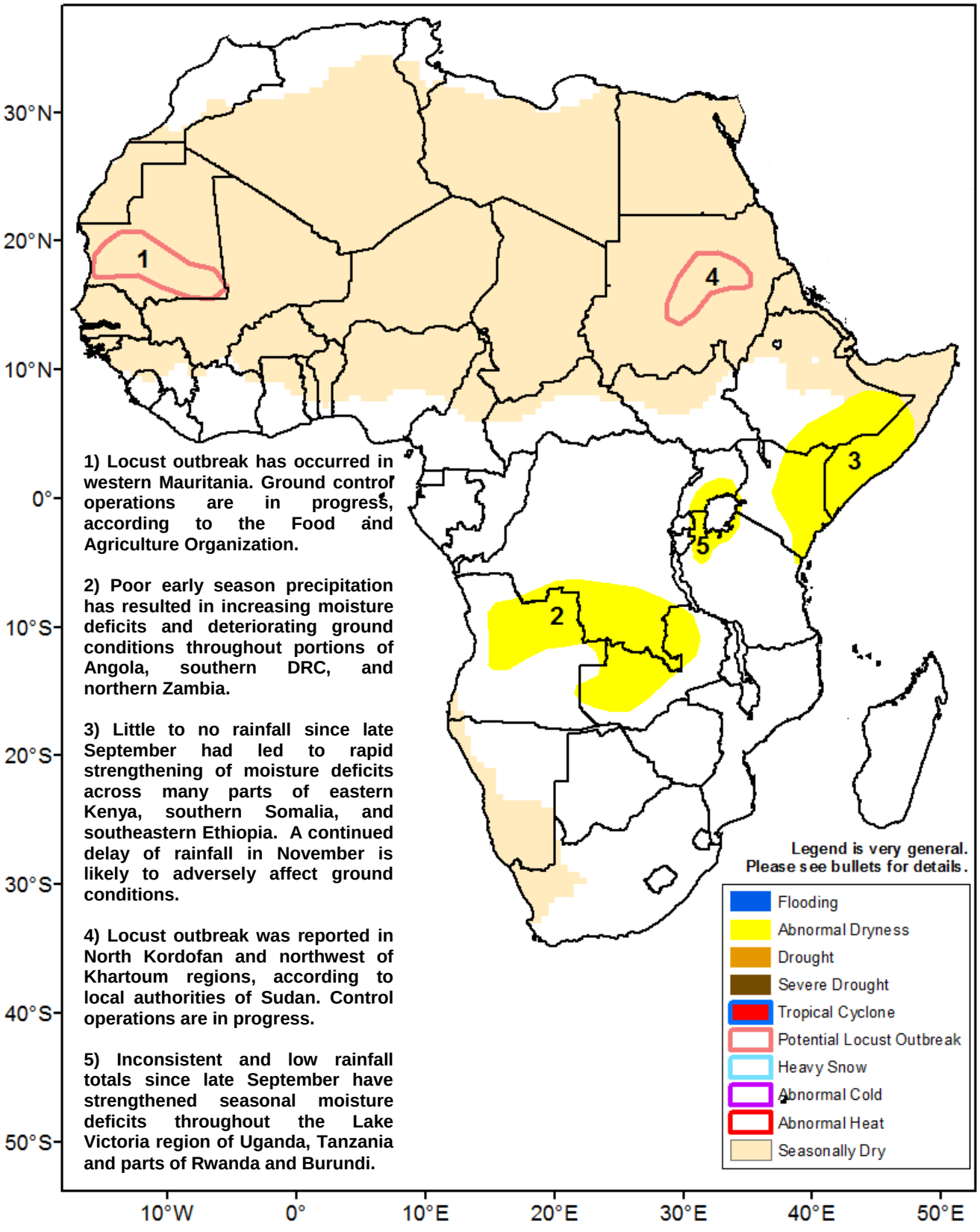
Climate Prediction Center's Africa Hazards Outlook
November 10 – November 16, 2016

- **Very poor rainfall has led to strengthening seasonal dryness in parts of Kenya, Somalia and Ethiopia.**
- **Increase seasonal moisture deficits observed in northern Angola, northern Zambia and southern DRC.**



1) Locust outbreak has occurred in western Mauritania. Ground control operations are in progress, according to the Food and Agriculture Organization.

2) Poor early season precipitation has resulted in increasing moisture deficits and deteriorating ground conditions throughout portions of Angola, southern DRC, and northern Zambia.

3) Little to no rainfall since late September had led to rapid strengthening of moisture deficits across many parts of eastern Kenya, southern Somalia, and southeastern Ethiopia. A continued delay of rainfall in November is likely to adversely affect ground conditions.

4) Locust outbreak was reported in North Kordofan and northwest of Khartoum regions, according to local authorities of Sudan. Control operations are in progress.

5) Inconsistent and low rainfall totals since late September have strengthened seasonal moisture deficits throughout the Lake Victoria region of Uganda, Tanzania and parts of Rwanda and Burundi.

Increased rains received in eastern Kenya, southern Somalia.

In early November, an increase in rainfall activity was observed across many anomalously dry parts of eastern Kenya and southern Somalia. However, the spatial distribution of increased rainfall remained poor, still leaving many local areas without the first sign of seasonal rainfall. According to satellite estimates, the highest weekly rainfall accumulations (>50mm) were isolated across eastern Kenya, and along the Jubba River basin of southern Somalia (**Figure 1**). In southern and eastern Ethiopia, seasonal rains were uncharacteristically absent. Further west, seasonal rainfall was well-distributed over eastern DRC, Uganda, and northwestern Tanzania, however weekly totals were not as heavy as climatologically expected during early November.

Due to both a poor frequency and quantity of rainfall totals, moisture deficits for the Oct-Dec season have considerably strengthened over the Greater Horn. Over many parts of Kenya, Ethiopia and Somalia, weekly rainfall activity has been quite irregular, leading to moderate to strong negative rainfall anomalies ranging between 50-200mm since early October (**Figure 2**). Historically, an October with little to no rainfall has not fared well for the overall performance of the Oct-Dec rains season in East Africa, as there is a lesser opportunity for moisture recovery in subsequent months. Further west, developing dryness has also been observed recently across portions of South Sudan, DRC, Uganda, Tanzania, Rwanda, and Burundi. While the anomaly analysis indicates seasonal deficits of similar magnitude, rainfall has been more frequent across this region compared to the dryness towards the east.

For the upcoming outlook period, precipitation models suggest a continuation of light to moderate rainfall across Kenya and Somalia, with higher and better distributed amounts over the Lake Victoria basin. While this rainfall is expected to help mitigate dryness, much more rainfall is needed in the next several weeks to overcome a poor October performance throughout much of Greater Horn.

Dryness strengthens and pushes southward into central Angola and northern Zambia.

Over the past several weeks, there has been little change in the distribution of seasonal rainfall across the northern portion of southern Africa. While most areas have been receiving rainfall, several consecutive weeks of below-average totals have led to strenghtening dryness since the beginning of the season. Over the past 30 days, the largest moisture deficits (>100mm) remain concentrated acorss central and northeastern Angola, as more moderate deifficts (25-50mm) are now beginning to develop southward into northern and western Zambia during early November (**Figure 3**). For next week, models suggest a continuation of light to moderate rainfall totals which is likely to sustain the abnormal dryness into mid November.

Satellite-Estimated Rainfall (mm)
Valid: October 31 – November 6, 2016

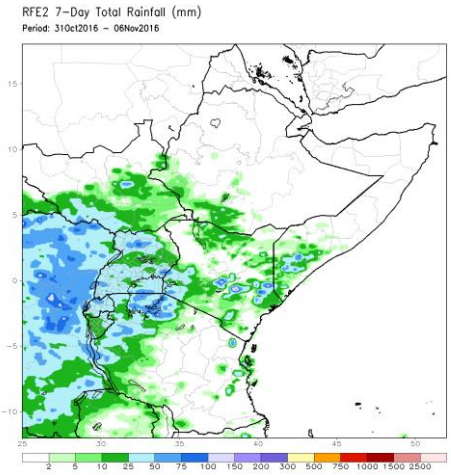


Figure 1: NOAA/CPC

Satellite-Estimated 30-Day Rainfall Anomaly (mm)
Valid: October 8 – November 6, 2016

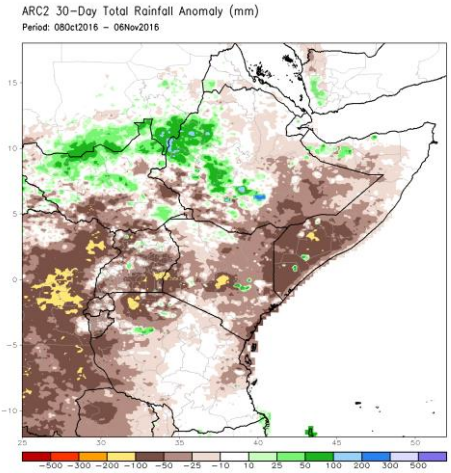


Figure 2: NOAA/CPC

Satellite-Estimated Rainfall Anomaly (mm)
Valid: October 8 – November 6, 2016

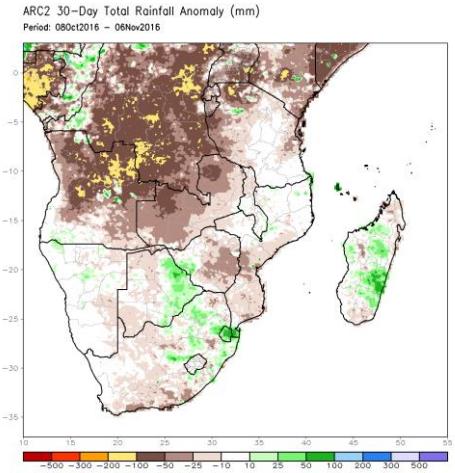


Figure 3: NOAA/CPC

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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