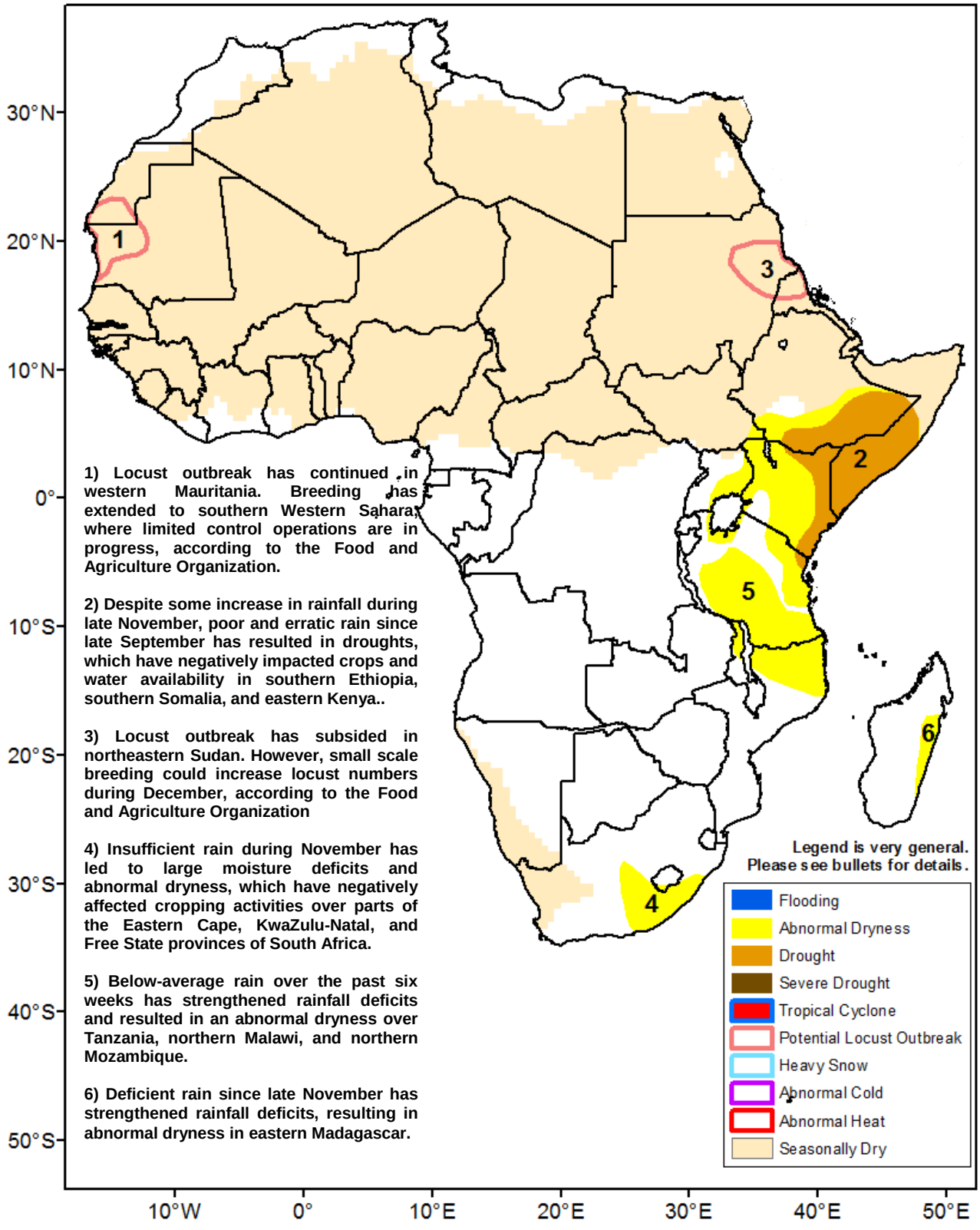
Climate Prediction Center's Africa Hazards Outlook
December 29, 2016 – January 4, 2017

- **Suppressed rain observed in the eastern portions of Southern Africa during the past week.**



1) Locust outbreak has continued in western Mauritania. Breeding has extended to southern Western Sahara, where limited control operations are in progress, according to the Food and Agriculture Organization.

2) Despite some increase in rainfall during late November, poor and erratic rain since late September has resulted in droughts, which have negatively impacted crops and water availability in southern Ethiopia, southern Somalia, and eastern Kenya..

3) Locust outbreak has subsided in northeastern Sudan. However, small scale breeding could increase locust numbers during December, according to the Food and Agriculture Organization

4) Insufficient rain during November has led to large moisture deficits and abnormal dryness, which have negatively affected cropping activities over parts of the Eastern Cape, KwaZulu-Natal, and Free State provinces of South Africa.

5) Below-average rain over the past six weeks has strengthened rainfall deficits and resulted in an abnormal dryness over Tanzania, northern Malawi, and northern Mozambique.

6) Deficient rain since late November has strengthened rainfall deficits, resulting in abnormal dryness in eastern Madagascar.

Insufficient rain received in many parts of Southern Africa.

During the past observation period, widespread, moderate to heavy rain fell across Angola, DRC, Zambia, northern Zimbabwe, central and southern Mozambique, eastern Namibia, portions of Botswana, central South Africa, and western Madagascar (**Figure 1**). In contrast, suppressed rain was recorded farther east in Tanzania and eastern Madagascar. While the consistent, enhanced rain over the past few weeks helped maintain positive rainfall anomalies over the eastern portions of Southern Africa such as Zimbabwe, northern South Africa, central and southern Mozambique, continued, poor rain strengthened negative rainfall anomalies in Tanzania, northern Mozambique and southeastern South Africa.

Since the beginning of the Southern African monsoon season, below-average rain was accumulated throughout northern Angola, DRC, Zambia, Tanzania, Malawi, northern Mozambique, Madagascar, western Zimbabwe, southern and eastern South Africa (**Figure 2**). The seasonal deficits were partially attributable to a delayed onset of the season and an uneven distribution of rainfall over many locations. In contrast, above-average rain was received across portions of Angola, Namibia, Botswana, Zimbabwe, South Africa, and Mozambique, with rainfall surpluses exceeding 100 mm in some areas. This wetness was associated with a recent increase in rainfall due to a stronger than normal low-level wind and moisture convergence onto the region. An analysis of recent vegetation indices indicated below-average conditions, remnants of the poor season during the last year, which were exacerbated by ongoing dryness over areas of southern and eastern South Africa, Tanzania, northern Mozambique, and localized areas of Madagascar. During the next outlook period, a return to a wet weather pattern is forecast across the central portions of Southern Africa, with abundant rain over Angola, Zambia, southern DRC, central Tanzania, northern Botswana, Zimbabwe, northern South Africa, northern and southernmost Mozambique. The forecast heavy rain could trigger localized flooding over many local areas. Farther east, light to locally moderate rain is expected in eastern Tanzania, central South Africa, central Mozambique, and eastern Madagascar.

Satellite-Estimated Rainfall (mm)
Valid: December 21 – December 27, 2016

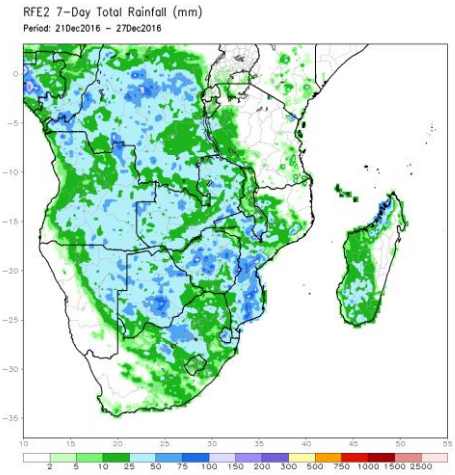


Figure 1: NOAA/CPC

Satellite-Estimated Rainfall Anomaly (mm)
Valid: October 01 – December 27, 2016

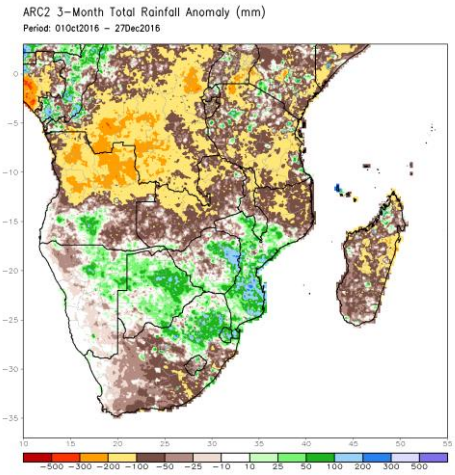


Figure 2: NOAA/CPC

Seasonal deficits prevailed in East Africa.

Accumulated rain since the beginning of October to date was below-average throughout a wide portion of East Africa. Seasonal rainfall deficits between 100-200 mm were observed across southeastern Ethiopia, southern Somalia, eastern Kenya, and northeastern Tanzania (**Figure 3**). The onset of rainfall season was delayed over many areas. This was also followed by a poor and only sporadic rainfall distribution throughout the season. The persistent and deficient rain resulted in drought, which negatively impacted pastoral and agricultural activities in the region. During the past observation period, suppressed rain was recorded over East Africa. During the next outlook period, a dry weather pattern is expected to continue over the Greater Horn of Africa.

Satellite Estimated Rainfall Anomaly (mm)
Valid: October 01 – December 27, 2016

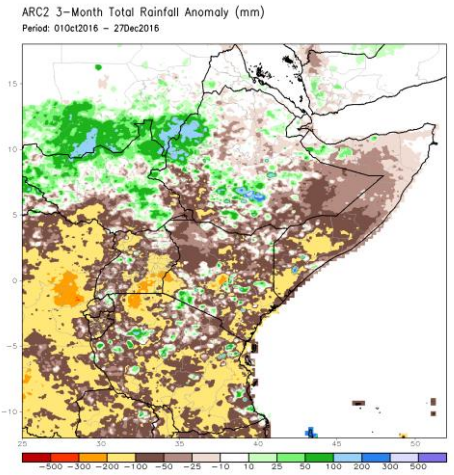


Figure 3: NOAA/CPC

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.

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