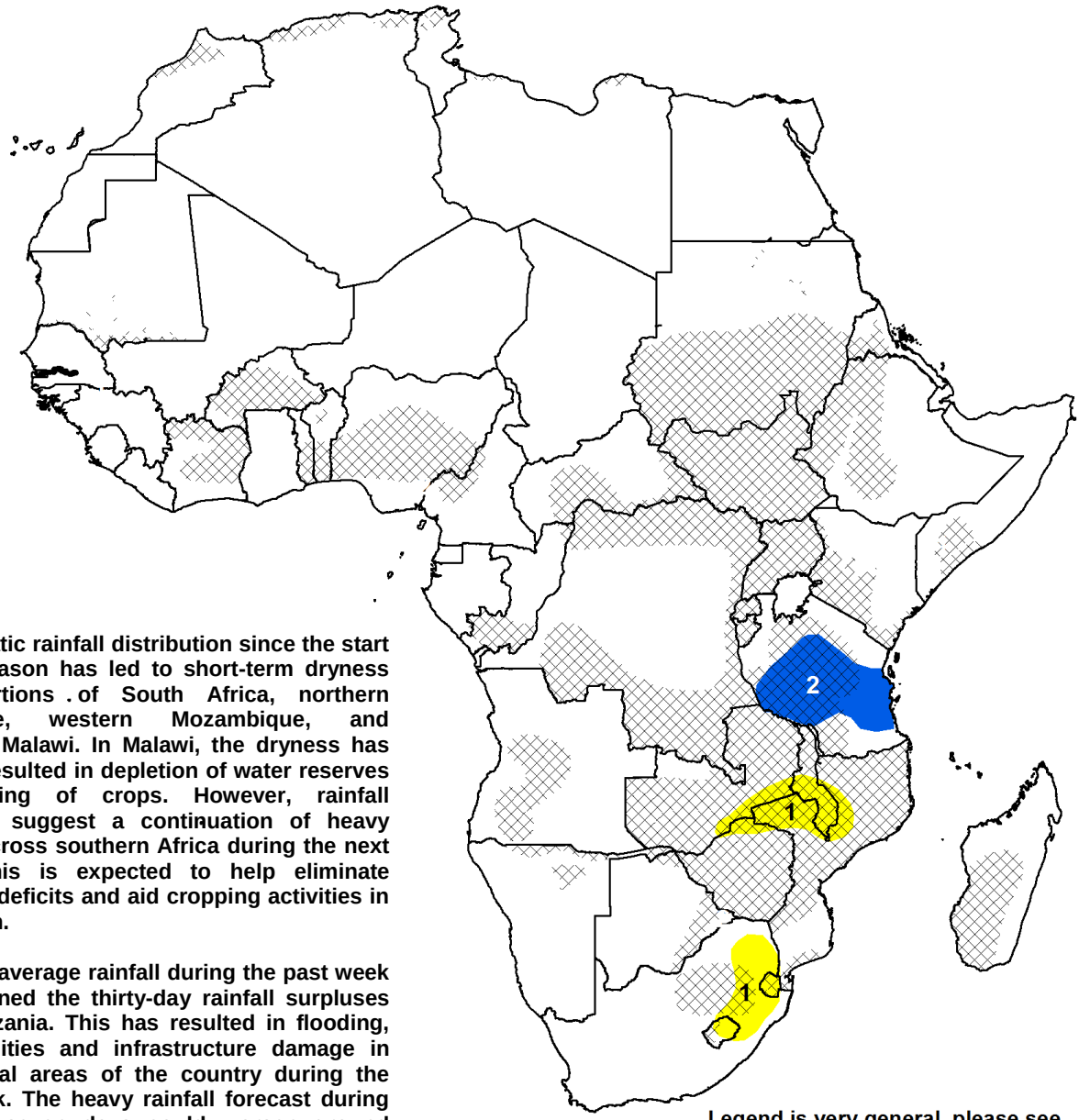
Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
December 29, 2011 – January 4, 2012

- **Heavy rainfall is forecast to continue over southern Africa and is expected to help relieve dryness over the dry portions of the region; but it also increases the risk for flooding over Tanzania.**



1) An erratic rainfall distribution since the start of the season has led to short-term dryness over portions . of South Africa, northern Zimbabwe, western Mozambique, and southern Malawi. In Malawi, the dryness has already resulted in depletion of water reserves and wilting of crops. However, rainfall forecasts suggest a continuation of heavy rainfall across southern Africa during the next week. This is expected to help eliminate moisture deficits and aid cropping activities in the region.

2) Above-average rainfall during the past week strengthened the thirty-day rainfall surpluses over Tanzania. This has resulted in flooding, with fatalities and infrastructure damage in many local areas of the country during the past week. The heavy rainfall forecast during the next seven days could worsen ground conditions or trigger new flooding in the region.

Poor rainfall distribution has maintained dryness over southern Africa.

An analysis of the cumulative rainfall anomaly during the past thirty days shows drier than average conditions over portions of South Africa, eastern Zambia, northern Zimbabwe, Malawi, the western and northern parts of Mozambique, and Madagascar (**Figure 1**). This has resulted from an erratic distribution of rainfall since the start of the season. The delay to the onset of the seasonal rainfall has already affected the dry portions of southern Africa, with delayed planting and wilting of crops in some locations. In contrast, wetter than average conditions were observed over eastern Angola, northern Namibia, western Zambia, and Tanzania during the past thirty days. For instance, in Zambia, the adequate accumulated rainfall amounts have benefited crops, which are currently in their vegetative stages.

During the past week, while heavy (> 50 mm) rainfall continued over eastern Angola, western Zambia, and much of Tanzania, moderate to locally heavy (30 – 50 mm) rainfall fell over the eastern half of South Africa, eastern Zimbabwe, and southern Mozambique (**Figure 2**). In Tanzania, the heavy rainfall caused flooding, resulting in fatalities and infrastructure damage in many local areas, including the Dar es Salaam, Mbeya, Iringa, Rukwa, Dodome, Singida, Kigoma, and Tabora regions. Although the heavy rainfall during the past week helped to eliminate accumulated rainfall deficits over local areas of the dry portions of southern Africa, it was not sufficient to fully relieve the dryness, which has already affected wide areas of the region.

During the next observation period, model forecasts suggest a continuation of seasonal, heavy rainfall across southern Africa, with the heaviest (> 150 mm) rainfall over southern Zambia, northern Zimbabwe, southern Malawi, and eastern Madagascar. In Mozambique, the combined increased level of the Zambezi River due to discharges of the Kariba and Cahora Bassa dams and the heavy rainfall forecast over northern Mozambique raises concerns for flooding along downstream locations. Meanwhile, the KwaZulu-Natal and Eastern Cape regions of South Africa are expected to receive localized heavy rainfall during the next week. This should help to partially relieve the dryness and aid cropping activities over local areas of the region.

Satellite Estimated Rainfall Anomaly (mm)
Valid: November 27th – December 26th, 2011

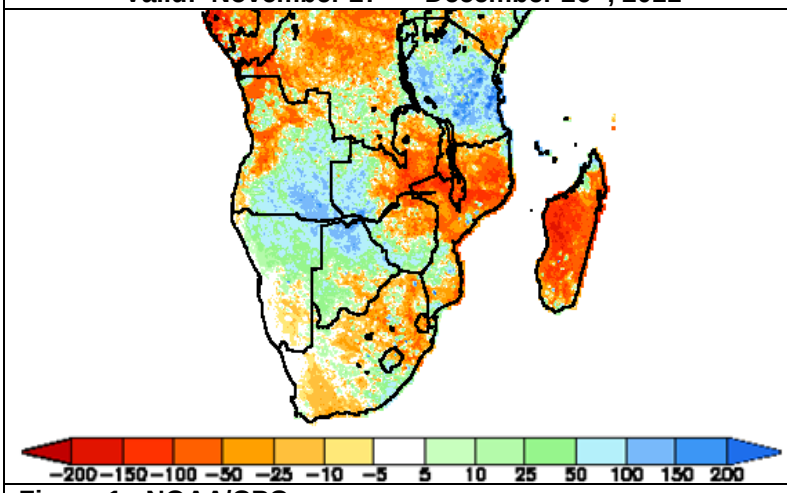


Figure 1: NOAA/CPC

Satellite Estimated Rainfall (mm)
Valid: December 20th – December 26th, 2011

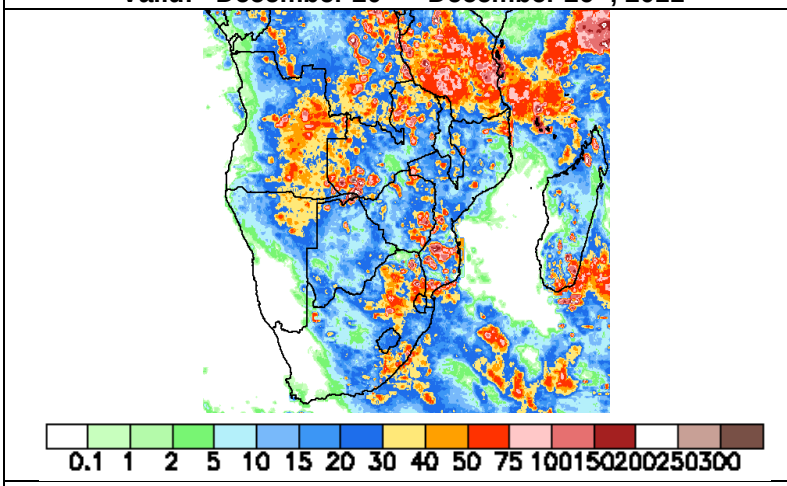


Figure 2: NOAA/CPC

Above-average rainfall observed over eastern Africa during the October – December rainfall season.

An analysis of the standardized precipitation (SPI) index during the past three months indicates a well above-average (SPI > 2.5) rainfall across regions of eastern Africa, including southern Ethiopia, the western and northern parts of Kenya, and southern Somalia (**Figure 3**). This has resulted from unseasonably wet spells during October and November. While the wetness has improved conditions over areas that were stricken by drought previously, the excessive water amounts have also caused flooding, damaged crops, and population displacement in many local areas of eastern Africa. As the October – December rainfall season is ending; a suppression of rainfall is expected over much of the Greater Horn of Africa during the next seven days. However, the central and southern parts of Kenya could receive light (< 10 mm) rainfall during the next week.

Standardized Precipitation Index
Valid: As of 2nd Dekad of December, 2011

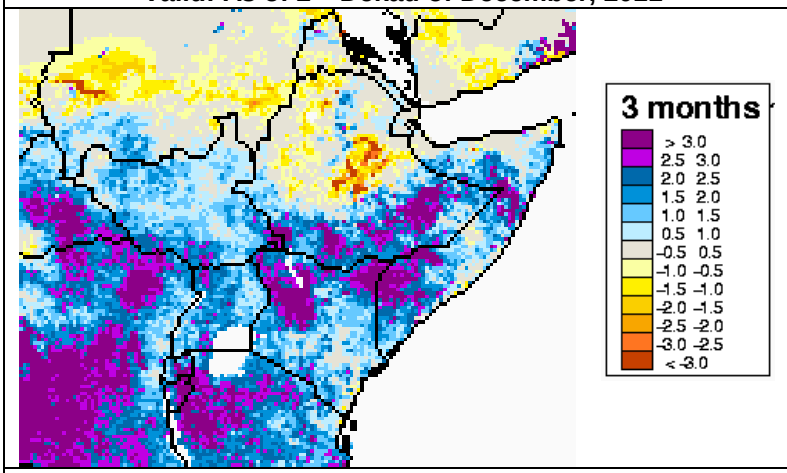


Figure 3: USGS/EROS

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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