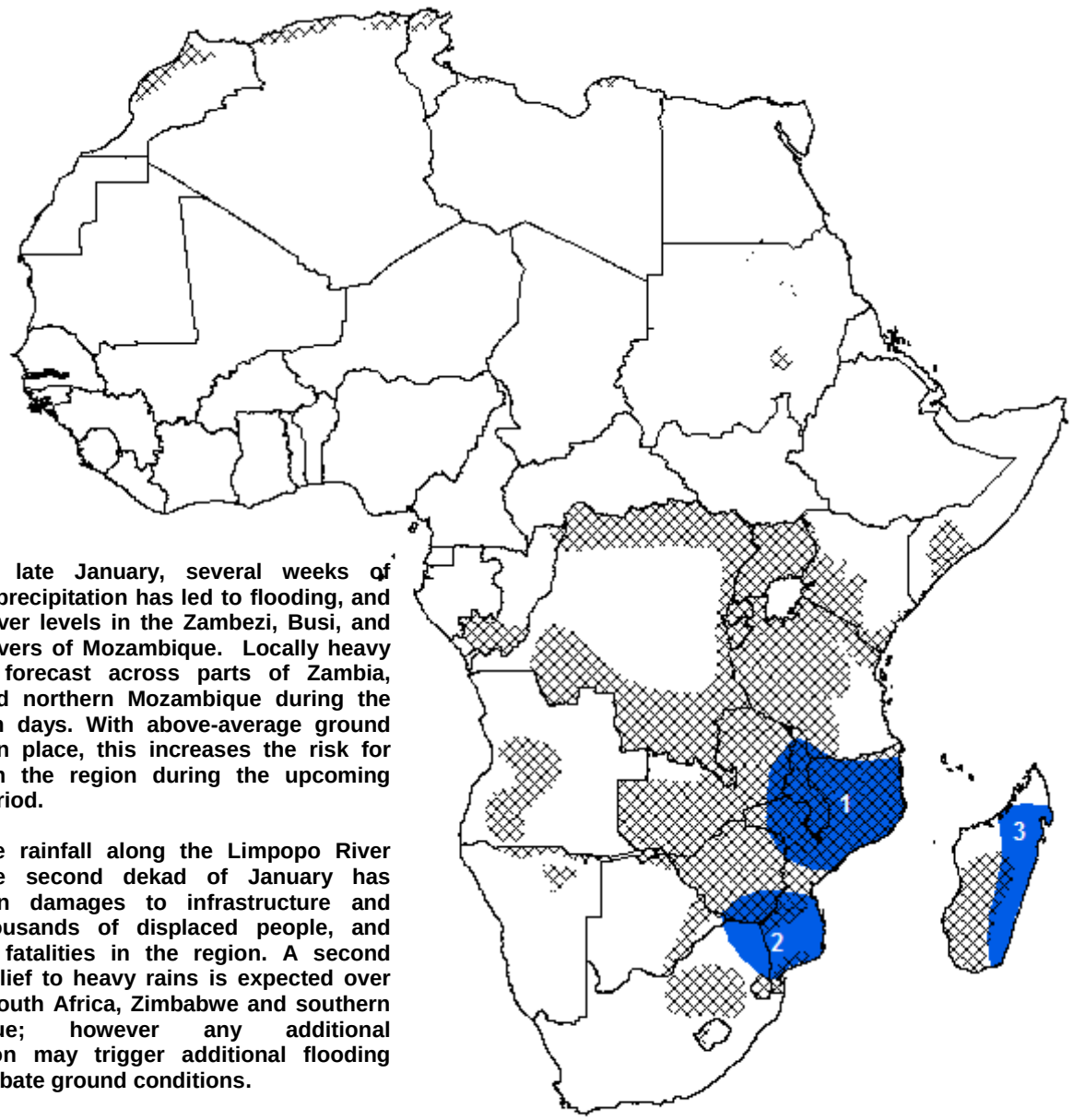
Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
February 7 – February 13, 2013

- **Light rains across southern Mozambique provide relief to extremely saturated and flood-affected regions.**
- **Torrential rains across northern Mozambique and eastern Madagascar cause flooding.**



1) During late January, several weeks of enhanced precipitation has led to flooding, and elevated river levels in the Zambezi, Busi, and Pungue Rivers of Mozambique. Locally heavy rains are forecast across parts of Zambia, Malawi and northern Mozambique during the next seven days. With above-average ground moisture in place, this increases the risk for flooding in the region during the upcoming outlook period.

2) Extreme rainfall along the Limpopo River during the second dekad of January has resulted in damages to infrastructure and crops, thousands of displaced people, and numerous fatalities in the region. A second week of relief to heavy rains is expected over much of South Africa, Zimbabwe and southern Mozambique; however any additional precipitation may trigger additional flooding and exacerbate ground conditions.

3) As a result of the passage of Tropical Cyclone Felleng, flooding and weekly rainfall accumulations greater than 200mm have caused very saturated conditions across eastern Madagascar. Forecasts for the next week indicate a second week of above-average and heavy rains for eastern and central Madagascar which will keep flooding risks elevated.

Torrential rains increase flood risk in northern Mozambique.

During the past seven days, heavy rains were observed in Madagascar and northern southern Africa. The highest weekly rainfall accumulations (>70mm) were received from the Nampula, Cabo Delgado, and Zambezia provinces of northern Mozambique to across the Mozambique Channel in Madagascar. The torrential rains (>150mm) along the eastern coast of Madagascar were associated with the nearby passage of Tropical Cyclone Felleng. While localized flooding resulted, damages were kept to a minimum. The copious amounts of rain in northern Mozambique marked the second straight week where the axis of heavy rains shifted to the north. Elsewhere, moderate to heavy rains (40-75mm) were observed in Tanzania, Angola, and localized areas in southeastern South Africa. In contrast, light rain (<15mm) was observed in Botswana, Zimbabwe, northern South Africa and southern Mozambique, where rains have been extreme during the past several weeks. Below-average, light to moderate rain (<30mm) also was recorded in Zambia and northern Namibia (**Figure 1**).

Even with little rain over the past 7-10 days in southern Mozambique, Zimbabwe, northern South Africa, southern Zambia and eastern Botswana, thirty-day total rainfall is in the 80th percentile. In fact, for much of the Limpopo River basin in southern Mozambique, northern South Africa and southern Zimbabwe, thirty-day rainfall has been in the >99th percentile. Combined with heavy rains to the north, flooding in Mozambique has resulted in nearly 70 fatalities and the displacement of almost 170,000 people. The torrential rain in southeastern Africa has sapped moisture from areas farther to the west in Namibia, Angola, southern Botswana and South Africa, resulting in thirty-day rainfall accumulations in the 10th-30th percentile (**Figure 2**). Poor rains around Gaborone, Botswana and the NorthWest province of South Africa have led to low reservoir levels, water use restrictions and delayed planting.

With a second consecutive week of rainfall exceeding 75mm, flood risks are quickly expanding across the Nampula, Cabo Delgado, Niassa, and Zambezia provinces of northern Mozambique, as evident in an analysis of basin excess rainfall for the third dekad of January (**Figure 3**). Resources are currently stretched thin across the country as previous flooding, which has been focused across the Limpopo River in southern Mozambique, has already caused a state of emergency, crop and livestock losses and major damages to infrastructure.

For the next seven days, rains are forecast to continue to be heavy across central/northern Mozambique and Madagascar, which will continue flooding concerns. Elsewhere, moderate to heavy rain (>20mm) is expected in Zambia, northern Zimbabwe, Angola and central South Africa. In contrast, below-average and light rains (<15mm) are forecast for Tanzania and extremely saturated and flooded areas in southern Mozambique. The lack of rains expected in southern Mozambique will allow for additional relief to flooded conditions.

Satellite Estimated Rainfall (mm)
Valid: January 29th – February 4th, 2013

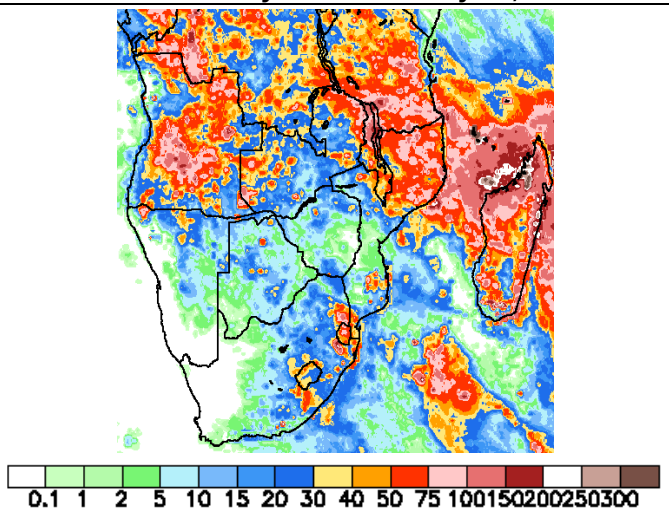


Figure 1: NOAA/CPC

Satellite Estimated Rainfall Percentile (%)
Valid: January 6th – February 4th, 2013

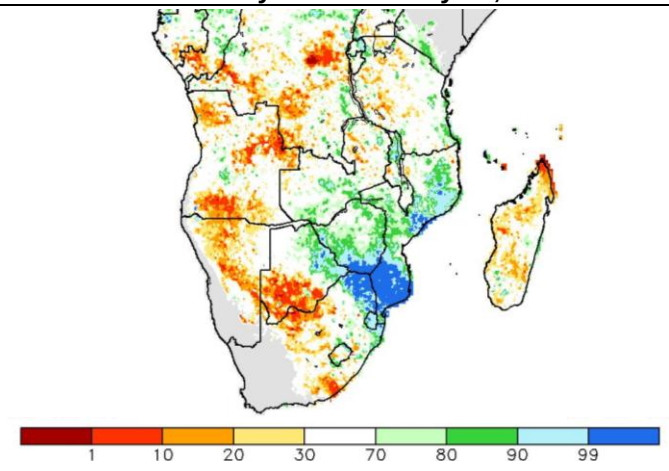


Figure 2: NOAA/CPC

Basin Excess Rainfall Map - Catchments
Valid: As of the 3rd dekad of January, 2013

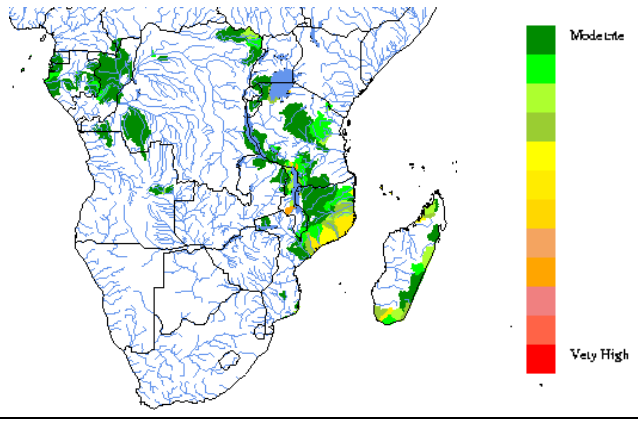


Figure 3: USGS/EROS

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.