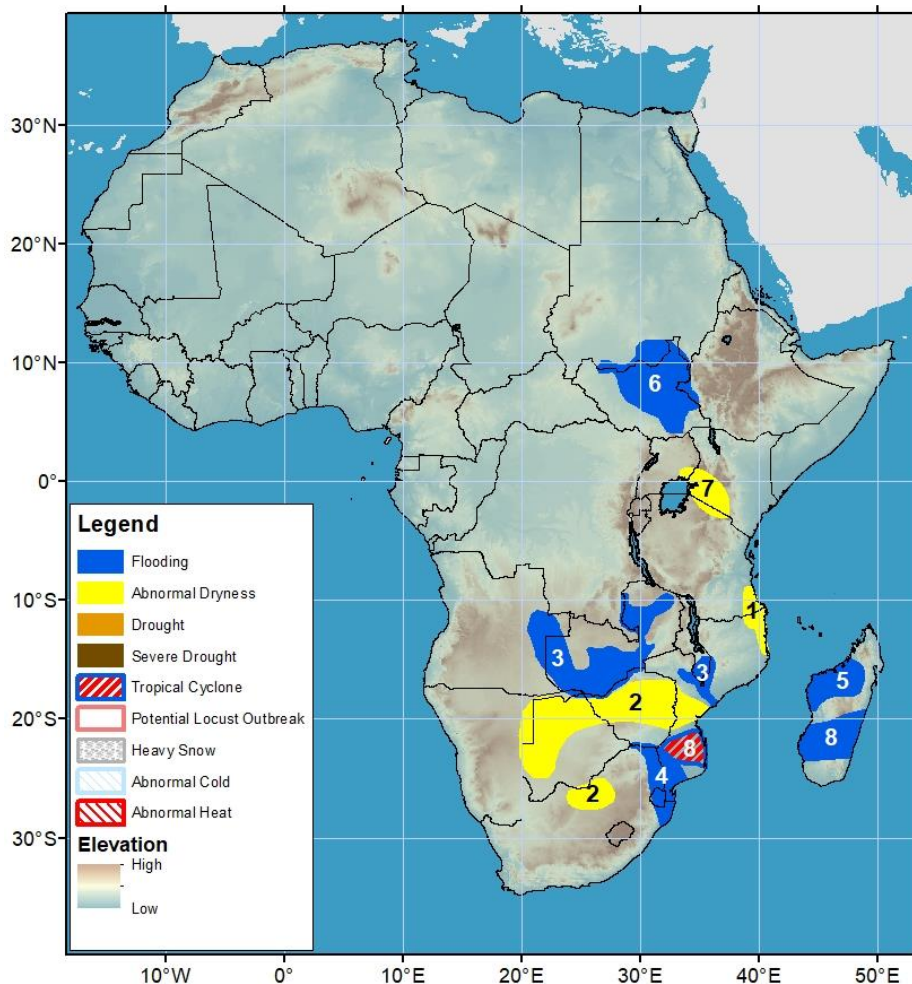


Climate Prediction Center's Africa Hazards Outlook For USAID / FEWS-NET 23 February – 1 March, 2023

- It has been a dry start to 2023 in East Africa so far, with abnormal dryness appearing already.
- Tropical Cyclone Freddy made landfall in southeastern Madagascar on Tuesday with 100kt winds.



- 1) Suppressed rainfall since November last year and corresponding soil moisture ranking less than the 30th percentile have led to abnormal dryness in southeastern Tanzania and northeastern Mozambique.
- 2) An uneven rainfall distribution since November has resulted in abnormal dryness in much of Botswana, central parts of Zimbabwe, central Mozambique, and north-central parts of South Africa.
- 3) Flooding is present along the Zambezi River in western Zambia and around Lusaka along the Kafue River. Elevated flows in rivers in southern Malawi and central Mozambique are leading to additional flooding in those areas.
- 4) Heavy rains, more than 400mm according to the Gauge in Maputo, caused deadly river flooding. 6 fatalities have been reported.
- 5) Tropical Storm Cheneso plus additional heavy rains impacted Madagascar, has led to persistent flooding in the northwest.
- 6) The extent of Inundation remained unchanged in South Sudan.
- 7) Little rain since 1 January has led to growing deficits of more than 50mm and abnormal dryness in western Kenya.
- 8) Tropical Cyclone Freddy made landfall in southeastern Madagascar on 21 February with 100kt winds. It brought strong winds and torrential rains as it crossed Madagascar. 4 fatalities, 16,600 affected people are already reported. It is likely to regain some strength before impacting southern Mozambique.

Note: The Hazards outlook map is based on current weather/climate information, short and medium-range weather forecasts (up to 1 week), sub-seasonal forecasts up to 4 weeks, and assesses the potential impact of extreme events on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed and predicted to continue during the outlook period. The boundaries of these polygons are only approximate at the spatial scale of the map. This product considers long-range seasonal climate forecasts but does not reflect current or projected food security conditions. FEWS NET is a USAID-funded activity whose purpose is to provide objective information about food security conditions. Its views are not necessarily reflective of those of USAID or the U.S. Government. The FEWS NET weather hazards outlook process and products include participation by FEWS NET field and home offices, NOAA-CPC, USGS, USDA, NASA, and several other national and regional organizations in the countries concerned.

Questions or comments about the hazard's outlooks may be directed to Dr. Wassila Thiaw, Head, International Desks/NOAA, wassila.thiaw@noaa.gov.
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Flooding conditions are present in Zambia, Mozambique, South Africa and Madagascar.

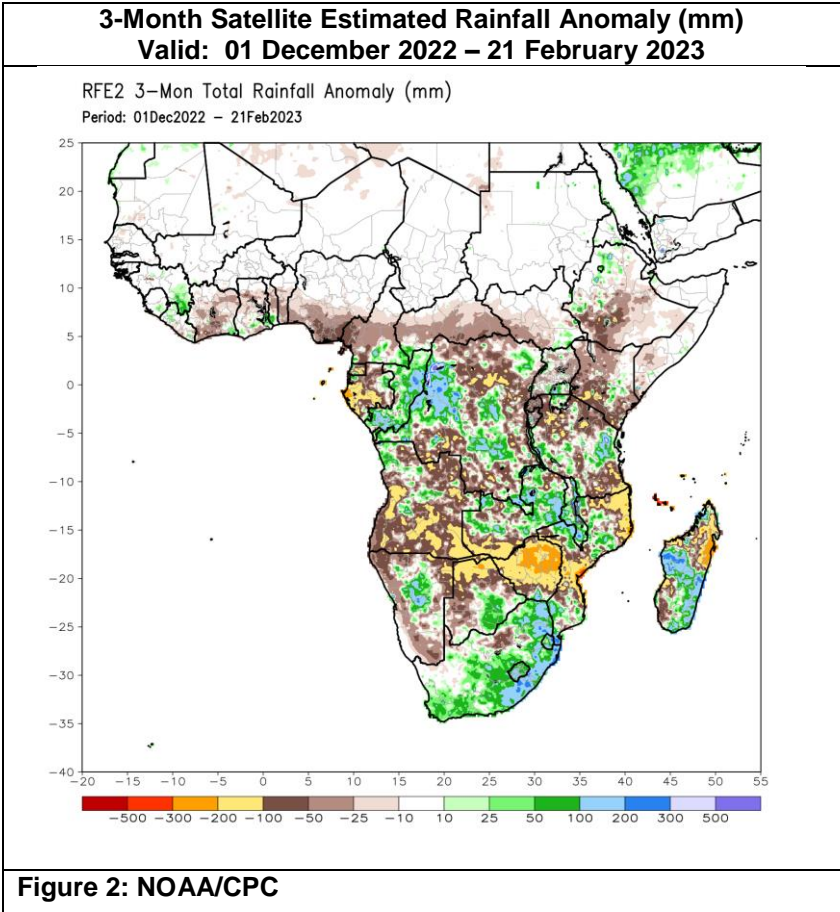
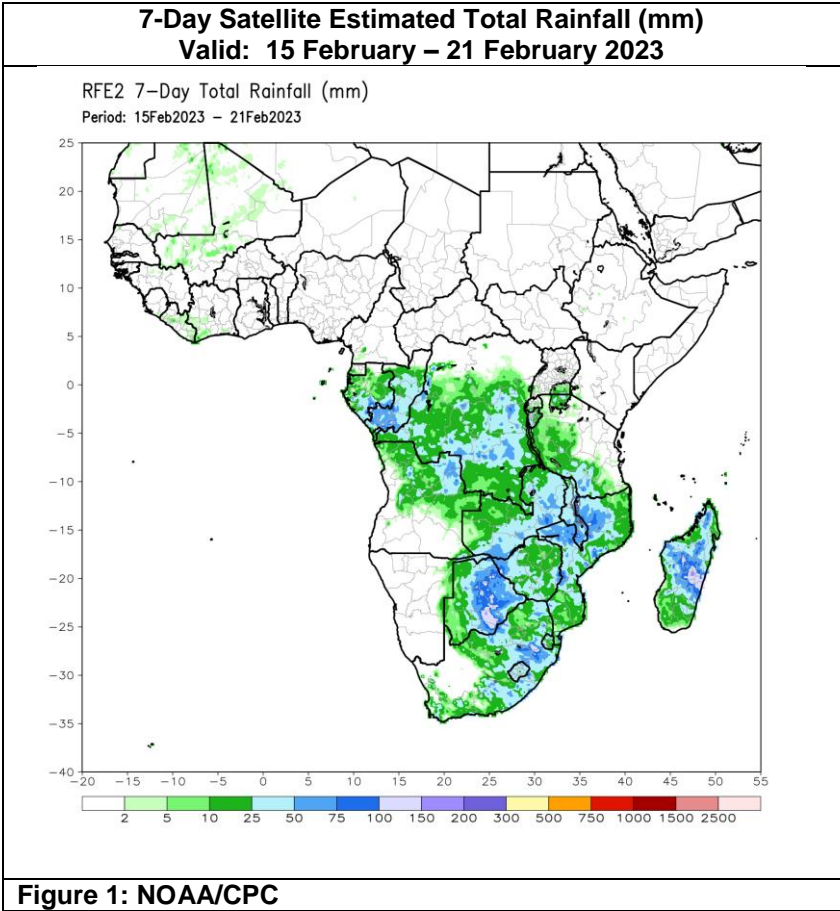
Since early December, the accumulated rain in many parts of southern Africa’s northern sectors has been below average. Seasonal rainfall deficits were between 100-300mm over southeastern Angola, northeastern Namibia, northern Botswana, Zimbabwe, and central Mozambique (**Figure 2**). More recently, larger deficits are expanding in coverage throughout Angola. Rains have increased over southeastern Zambia, Malawi, and southern Mozambique. Malawi and Zambia exhibit 50-100mm 30-day surpluses, but deficits have not improved in northern Mozambique. It is reported that flooding is identified along the rivers in eastern Angola and in Zambia. In Zambia, wide areas of southern and central provinces are reportedly underwater after long-term rainfall caused rivers to overflow. Heavier rains have overspread eastern South Africa, Botswana, southern Zimbabwe, and southern Mozambique. More than 100mm has been reported in these areas over the past couple of weeks leading to flood reports in Maputo Mozambique as well as many eastern South Africa states. However, this has helped to erode long-term moisture deficits in Botswana and central South Africa. Heavy rainfall persisted this past week in northwestern Madagascar maintaining flooding hazards. A new threat emerged late in the period as a strong tropical cyclone, Freddy, has impacted the country further to the south. It caused deadly impacts including heavy rain and strong winds before crossing the channel and impacting Mozambique. More than 200mm of rain is likely from the storm.

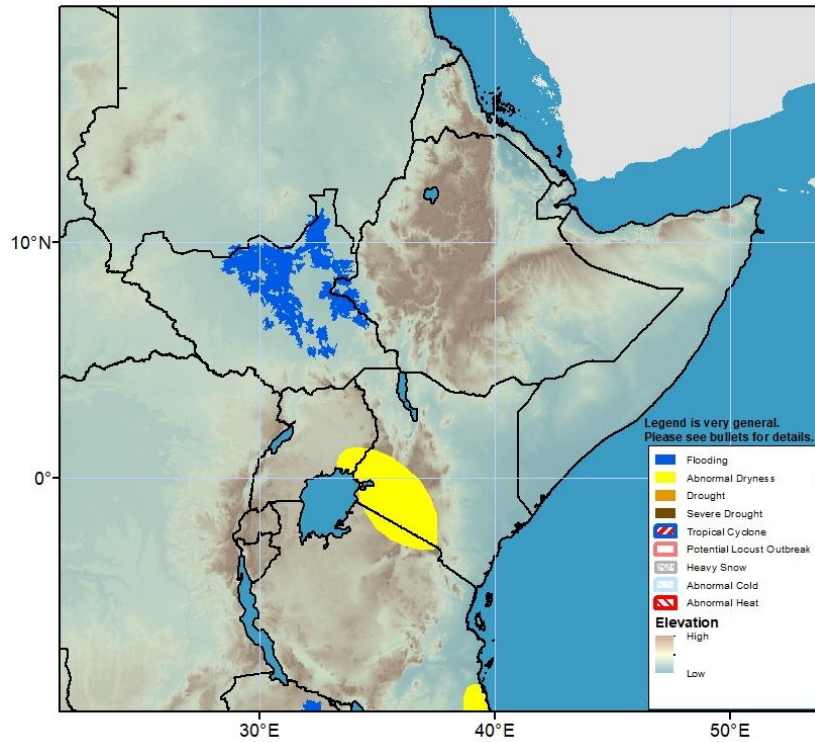
During the next week, more enhanced rainfall is expected over eastern portions of Southern Africa. 7-day totals are likely to be larger than 100mm in many places and be well-above normal values. Conversely, rain is expected to be well-suppressed in Namibia, Botswana, and central South Africa where little rainfall will accumulate.

Most of Eastern Africa remained dry.

For the third week of February, most places remained dry, including Ethiopia, Kenya, and Uganda (**Figure 1**). Northern and eastern Tanzania also received little rainfall this week. Over the past 30 days, below average rain, with deficits ranging between 10-100mm, persisted across southwestern and central Ethiopia, western Kenya, Uganda, and most of Tanzania. As dry spells are present since the start of the year and deficits are increasing above 50mm, abnormal dryness is placed in southwestern Kenya. Last year’s OND rainfall season was very poor in the region. This trend continues as the area remains moisture starved while the ‘Belg’ rainfall season approaches. This will likely reinforce the already negatively impacted vegetation conditions and water availability that’s been present during the dry season over much of the Horn.

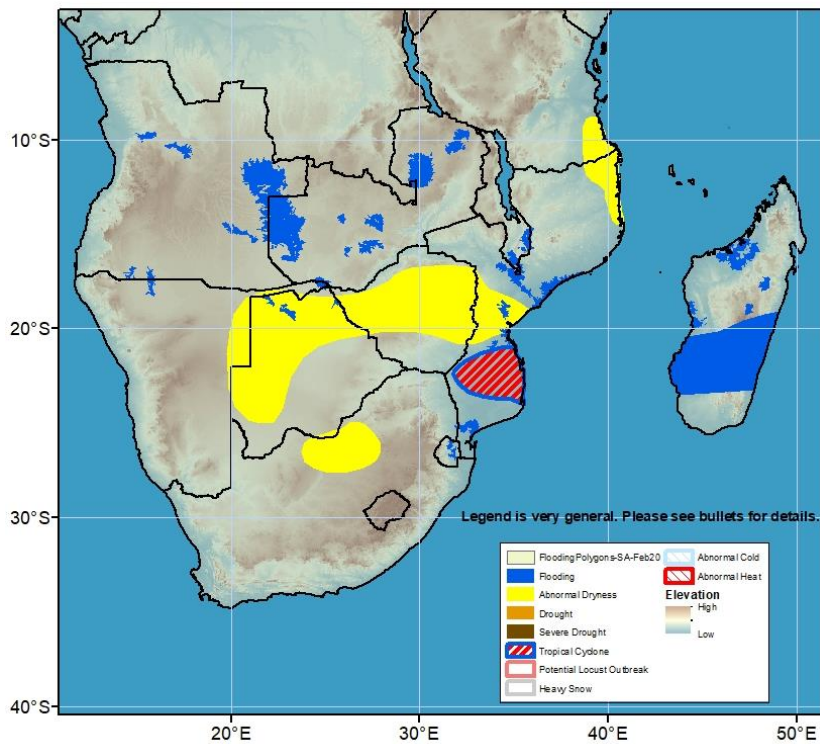
For next week, some light rain showers are possible in central rift valley regions of Ethiopia. However, the overall pattern is still for near or below-normal rains across the region.





Inundation extent remained unchanged in South Sudan.

Figure 3: Hazards, focused over Eastern Africa



Flooding along the Kafue River with rising water levels has resulted in floods in Zambia. Flooding in areas of southern Angola and across the border in Namibia have led to fatalities in the municipality of Cuvelai and the city of Ondjiva. Extreme rainfall in Maputo, Mozambique has led to deadly river flooding. Continuing rains starting with Tropical Storm Cheneso on the northeastern coast of Madagascar is flooding areas including Sambava, Nosy Boraha, and Antsohihy. Tropical Cyclone Freddy is bringing further rain and wind to Madagascar.

Figure 4: Hazards, focused over southern Africa