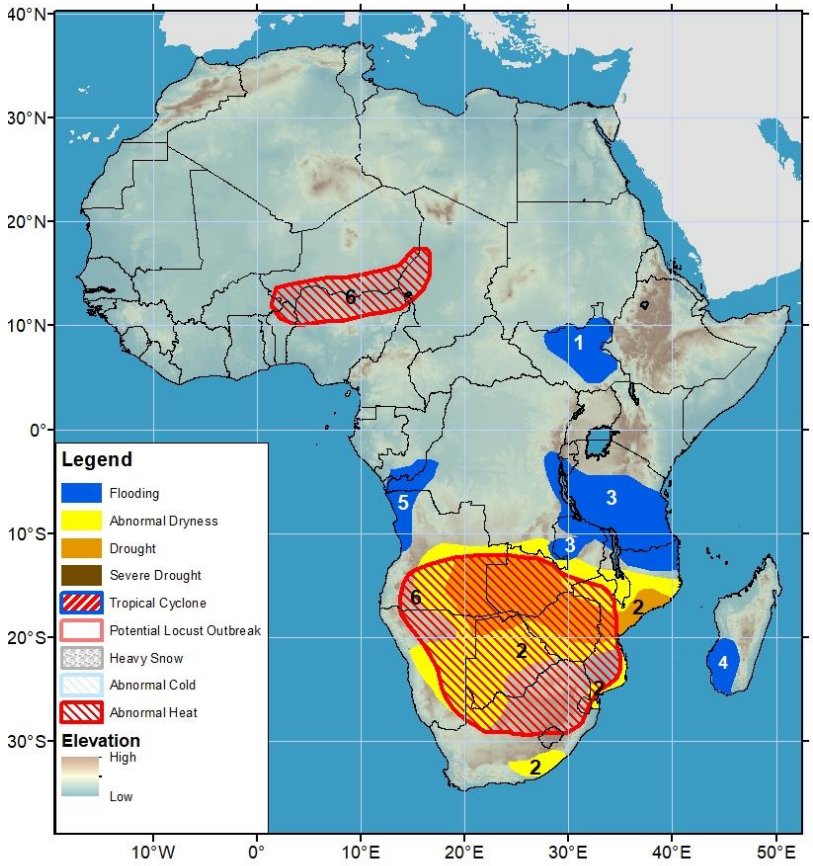
Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
07 March – 13 March 2024

- **Drought conditions are expanding across Zambia, Zimbabwe and Mozambique.**
- **Flooding in Tanzania and Zambia persists due to continuous heavy rainfall.**



1) **Flooding conditions continue in the Sudd wetlands in South Sudan.**
2) **Due to a delayed start in the rainfall season, followed by insufficient rainfall and extended dry spells, abnormal dryness is placed across central and southern Angola, eastern Namibia, southeastern Zambia, most of Botswana, Zimbabwe, parts of South Africa, and parts of Mozambique, where rainfall deficits have exceeded 50 - 100 mm over the past 30 days. Large deficits over the last two months have led to drought expanding in western and southern Zambia, southeastern Angola, northeastern Namibia, northern Zimbabwe and central Mozambique.**
3) **Floods persist in western and eastern DR Congo and Burundi. Heavy rainfall and thunderstorms have hit southern Tanzania most recently, which has caused flooding and landslides in Bariadi District, Simiyu Region, and Dar as Salaam City, leading to casualties and damage. Also, the overflow of the Ngerengere River caused fatalities in Morogoro Region in Tanzania. The flood situation is maintained in the northern region of Zambia due to heavy and above-average rainfall that has led to casualties and damage. Further heavy rainfall during the outlook period could exacerbate the situation.**
4) **Heavy rain during the past 3 weeks and further rainfall expected during the outlook period has led to report of widespread flooding issues throughout the country with over 1.2 million people living in flooded areas. As such, a flood hazard has been maintained over southern portions of Madagascar.**
5) **Heavy rainfall continuing across northwestern Angola is resulting in rising river levels.**
6) **An abnormal Heat hazard is posted for many parts of southern Niger, northern Nigeria, and Southern Africa due to expected average maximum temperatures running 4-10°C above average.**

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.
Questions about the USAID FEWS NET activity may be directed to Dr. James Verdin, Program Manager, FEWS NET/USAID, jverdin@usaid.gov

Dry conditions continue to worsen quickly in central and eastern portions of Southern Africa.

Rainfall showed a marginal revival in South Africa, Namibia, parts of Botswana, and Zimbabwe (**Figure 1**), with weekly deficits becoming less severe and limited to 10-25 below average in parts of Namibia, Botswana, and Zimbabwe compared to last weeks' larger deficits of 25-50mm. Southern parts of South Africa recorded weekly excess of up to 25 mm. However, it was widely greatly suppressed across southern Africa, continuing a pattern that has been entrenched for many weeks. Deficits of 25 to 50 mm still persisted in large areas of Zimbabwe, Zambia, Angola, Namibia, and central Mozambique. Parts of Angola, Gabon, DRC, and Congo-Brazzaville received higher totals between 50-150 mm. The heaviest rainfall totals between 150-200 mm were recorded in northern Mozambique, northern Malawi, southern Tanzania, and northern half of Madagascar. Since 1 January 2024, significant portions of Southern Africa, particularly in the North, have experienced increasingly dry conditions. The areas affected include central and eastern Angola, much of Zambia, northeastern Namibia, Botswana, Zimbabwe, southern Malawi, and central Mozambique (**Figure 2**). Many areas now exhibit deficits of more than 200 and even 300 mm for the period. Dry conditions are rapidly worsening in Zambia, Zimbabwe, northern Botswana, parts of Angola, northeastern Namibia, and central Mozambique, where the Drought hazard's coverage is expanded. 90-day deficits are most significant in western Zambia, northern Zimbabwe, eastern Angola, and Mozambique. Effects of long-standing significant deficits are being exacerbated by much hotter than normal temperatures. The extended dry spells have already resulted in permanent wilting of crops in Malawi, Zambia, and Zimbabwe, according to SADC AGROMET.

7-Day Satellite Estimated Total Rainfall (mm)
Valid: 28 February 2024 – 05 March 2024

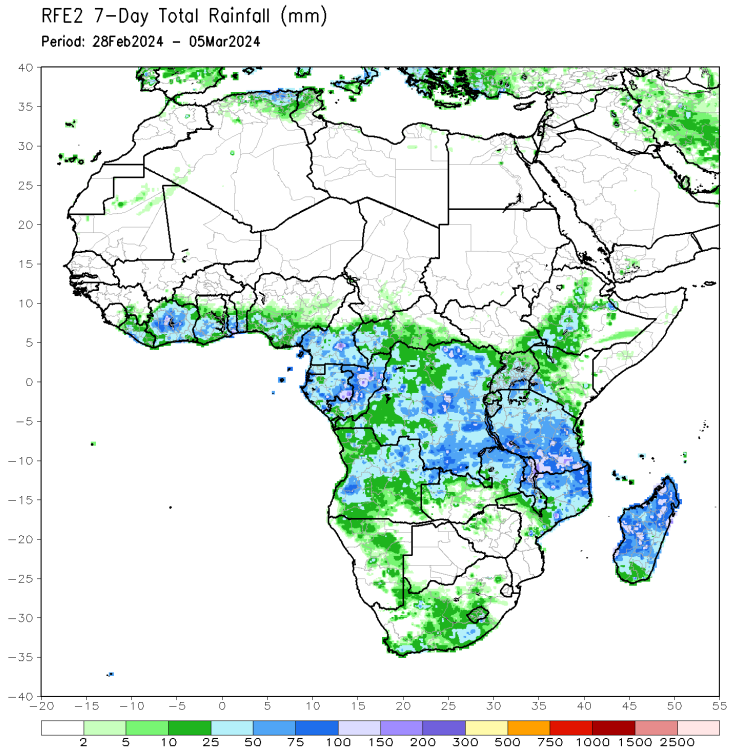


Figure 1: NOAA/CPC

The pattern is unchanged during the outlook period, with suppressed rain being favored for most of Southern Africa. Models forecast light rainfall resulting in large deficits between 20-40mm for the period in southeastern Angola, southern Zambia, parts of Zimbabwe, northern Malawi, and southern Tanzania. Larger deficits exceeding 50mm is indicated in northwestern Madagascar. Light to moderate rainfall (10-30 mm) is forecasted for northern/western Angola, southern Malawi, and central Mozambique. In southwestern Madagascar, 30 – 50 mm is likely. Dry conditions will combine with much hotter than average temperatures to rapidly degrade ground conditions. Seven-day mean maximum temperature anomalies will likely exceed 4°C.

3-Month Satellite Estimated Total Rainfall Anomaly (mm)
Valid: 01 January 2024 – 05 March 2024

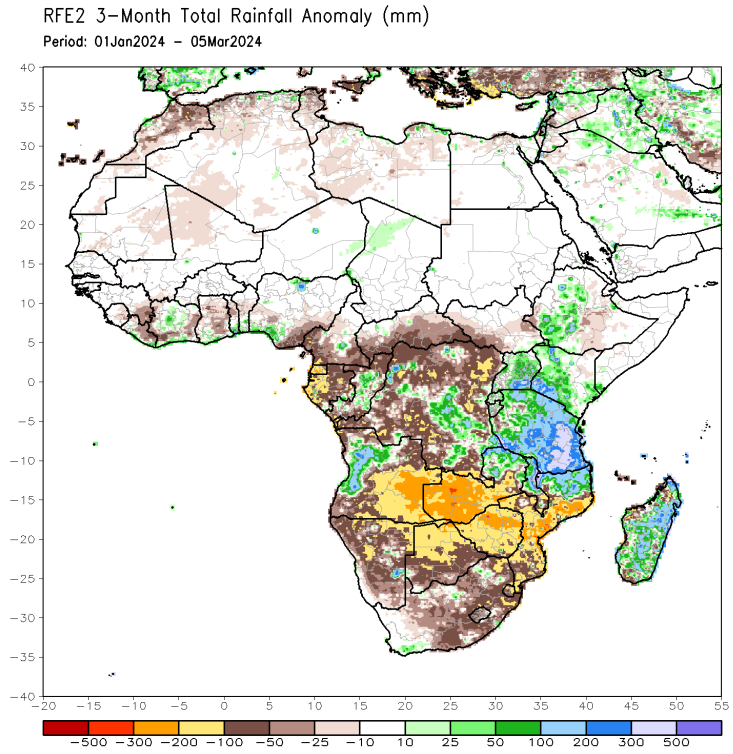
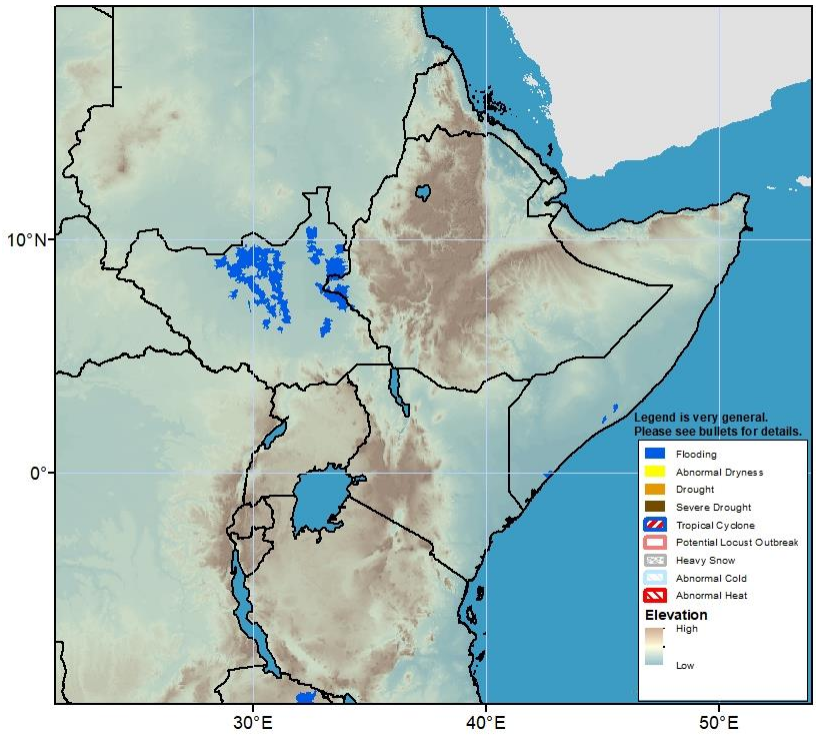


Figure 2: NOAA/CPC

Above average rainfall is expected in Tanzania Uganda, Kenya, and parts of Ethiopia.

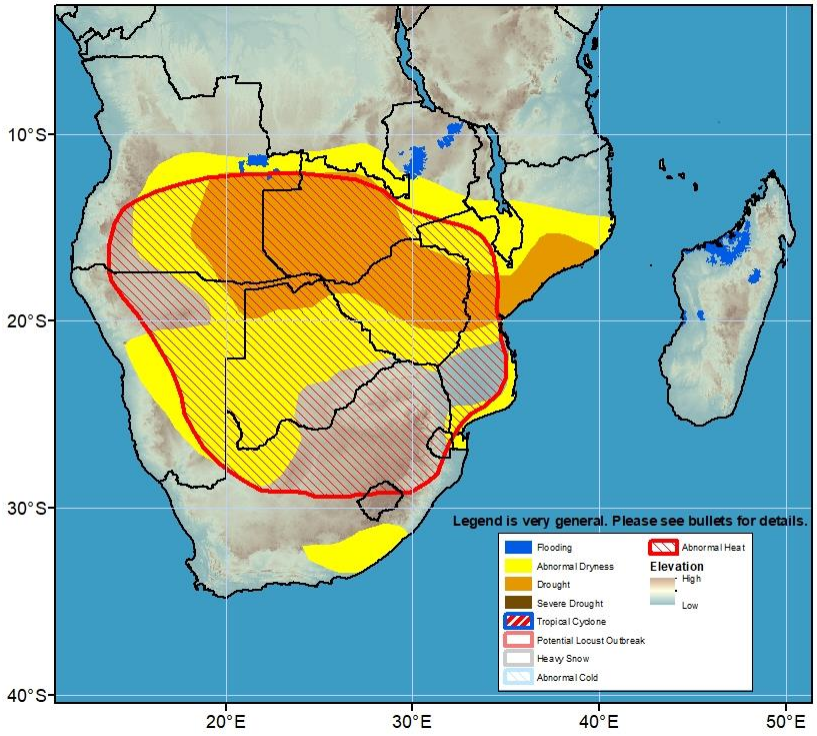
Rainfall has substantially increased in much of eastern Africa during the past 7 days. Scattered and locally moderate to heavy rain showers (locally up to 75 mm) were present in parts of Uganda, Rwanda, Burundi, southwestern Ethiopia and the western half of Kenya (**Figure 1**). Bimodal Tanzania recorded 50-75 mm of rainfall. Seven-day rainfall excesses of up to 75 mm were reported in parts of eastern Africa, with highest anomalies recorded in isolated places in western Kenya and southern and central Tanzania. Rainfall performance for the last 30 days has become mixed in Tanzania with above average and below average regions. The Lake Victoria region experienced above average rainfall and early-season rainfall has also been above average in western Ethiopia. In contrast, below-average rainfall totals (25 -100 mm anomalies) are cropping up in Rwanda, Burundi, and western and eastern Tanzania.

In the upcoming week, moderate rainfall (25-50 mm) is forecasted for southwestern to northeastern Rift Valley regions of Ethiopia, parts of Uganda, southern Kenya, Rwanda, Burundi, and northern Tanzania. Forecast rainfall totals are likely to be wetter than average for Ethiopia, but will remain largely within the normal range elsewhere in the region.



Inundated areas are on the rise again especially in the Akobo and Pibor catchments in South Sudan.
Flooding is lingering a bit along downstream of the
Juba and Shabelle Rivers in southern Somalia.
(Please note that the flood risk shape files are sourced from NOAA VIIRS).

Figure 3: Hazards, focused over Eastern Africa



Marginal improvement in flooding conditions in northeastern Zambia along the Chambeshi River and around Lake Bangweulu.
Flooding also remains in the headwaters of the Zambezi River eastern Angola.
Heavy reains caused widespread inundation affecting at least 1.2 million people in Madagascar.
Marginal improvement in flooding conditions in northern Madagascar
(Please note that the flood risk shape files are sourced from NOAA VIIRS).

Figure 4: Hazards, focused over Southern Africa