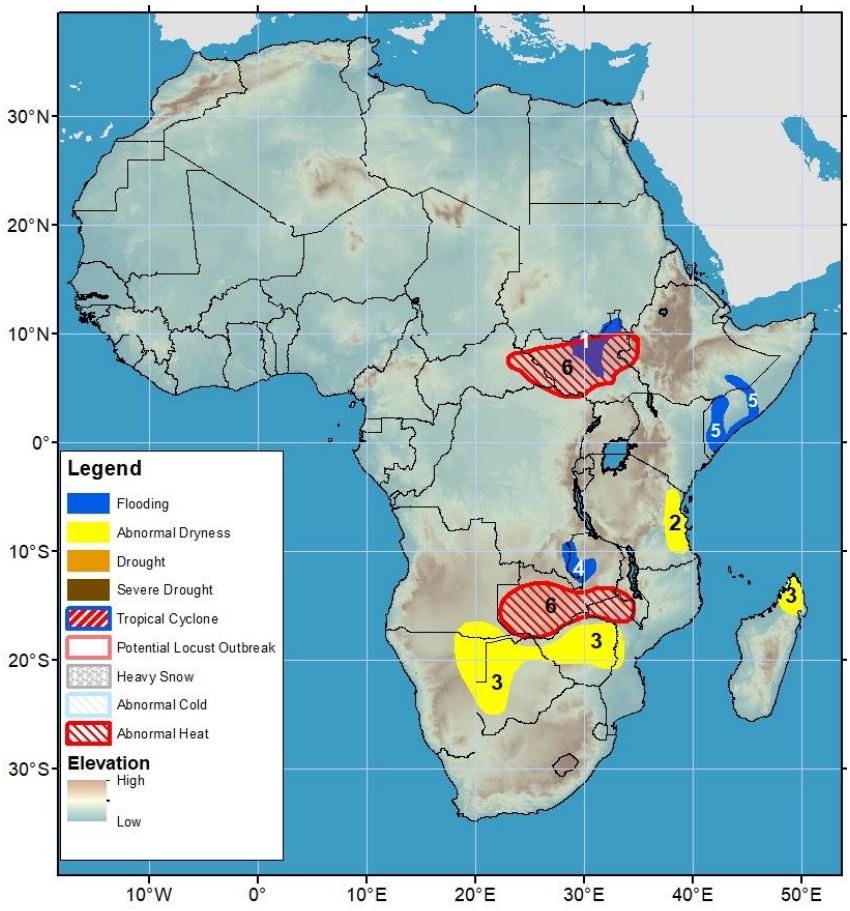
Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
18 May – 24 May, 2023

- **Heavy seasonal rains have triggered flooding along the Juba and Shebelle rivers in East Africa.**
- **Abnormal Heat continues in and around South Sudan as well as Zambia and Mozambique.**



1) The extent of inundation remained unchanged in South Sudan.

2) Suppressed rainfall since November last year and corresponding soil moisture ranking less than the 30th percentile led to abnormal dryness in eastern Tanzania.

3) Poor rainfall since November resulted in abnormal dryness in southeastern Angola, northeastern Namibia, northern and western parts of Botswana, much of Zimbabwe, and western Mozambique. Northern Madagascar has shown significant dryness in recent months.

4) After a wetter than average conclusion to the rainy season, flooding lingers but is improving in parts of Zambia.

5) Heavy and above average seasonal rainfall in Ethiopia has caused ongoing flooding downstream along the Jubba and Shebelle rivers in central and southern Somalia.

6) An abnormal heat hazard is placed in South Sudan and eastern CAR, as well as Zambia and western Mozambique where temperatures are expected to be 4-8°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.

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

Heavy rains have triggered flooding in many portions of East Africa

Rainfall coverage was diminished during the past 7 days. Heavy rainfall continued in central/southwestern Ethiopia and southwestern South Sudan where more than 50mm was recorded according to satellite estimates (**Figure 1**). Uganda, Rwanda, and Burundi received generally light rains. Meanwhile, most of Kenya, Somalia, and parts of eastern South Sudan were completely dry. Due to this pattern, 10-50mm negative anomalies were registered in many places outside of central Ethiopia which continued to receive above-average rainfall. Over the last 3 months (**Figure 2**), below-average rain, with 50-200mm deficits, has persisted over southwestern South Sudan accounting for more than a 20% reduction in rainfall. Similar conditions linger in eastern Tanzania and scattered deficits also persist in central Somalia. The widespread and heavy rainfall events have built large surpluses in northern/eastern Ethiopia and northern Somalia. 3-month anomalies exceed 100-300mm, accounting for over twice the average rainfall. This has led to deadly flooding along the Jubba and Shebelle rivers. Normalized vegetation health index (NDVI) indicates that lush conditions exist on the ground in Belg-producing regions of Ethiopia as well as southeastern South Sudan and northern/central Kenya. Pockets of degraded vegetation are present in eastern Tanzania, southern Kenya, central South Sudan, and Somalia.

During the next week, rainfall is forecasted to be suppressed across East Africa. However, substantial rainfall totals of 25-75mm should persist in Southwestern and central Ethiopia. Rainfall of 25-50mm is expected in the broader Lake Victoria region. Somalia and eastern Kenya should only receive light showers.

7-Day Satellite Estimated Total Rainfall (mm)
Valid: 10 May – 16 May 2023

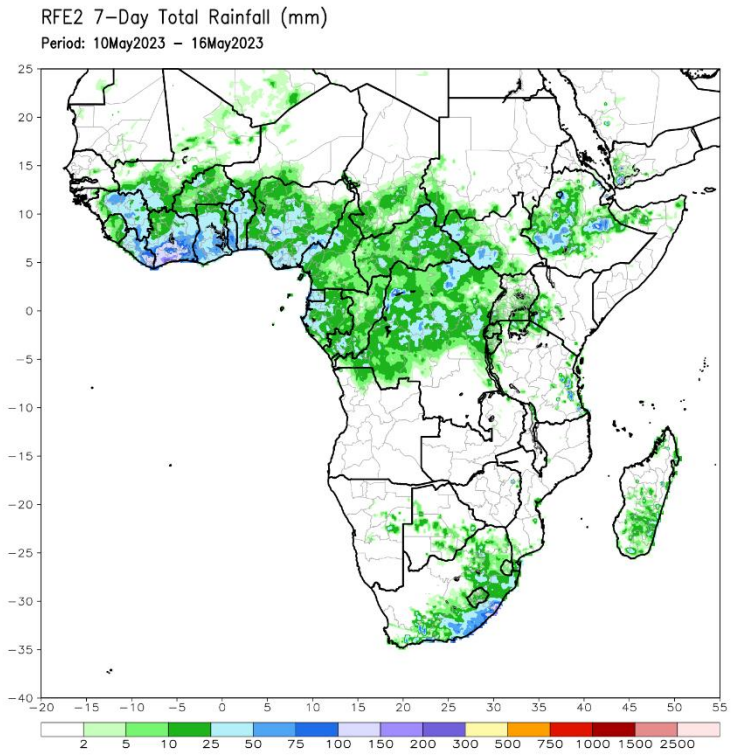


Figure 1: NOAA/CPC

Light, but well-distributed, rains in West Africa.

West Africa received broad rainfall coverage and northward movement of moisture this past week as the African intertropical front shifted well-northward. The heaviest 7-day totals (100-200mm) were observed in Liberia and southern Cote D'Ivoire. Moderate rainfall totals (25-75mm) were observed over many areas, including Guinea, southern Ghana, and southern Togo. Some other parts of the region received between 10mm and 25mm. Wetter-than-average conditions were present in Guinea, Liberia, Mali, and southern Cote D'Ivoire. Rain was suppressed in Nigeria and Cameroon. Rainfall during the past 30 days has been less than average for portions of Liberia, northwestern Cote D'Ivoire, Liberia, Nigeria and Cameroon, with deficits of 25-100mm. Analysis of NDVI indicates degraded vegetation conditions in portions of northern Togo, Benin, and central Nigeria, with decent to good conditions elsewhere.

During the next week, near-normal rainfall is expected. Most of the Gulf of Guinea countries should expect 10-50mm of rainfall with greater rains in the south. The largest, and likely above average amounts, (50-100mm) are favored in Liberia, Sierra Leone, and southern Guinea.

3-Month Satellite Estimated Rainfall Anomaly (mm)
Valid: 01 March – 16 May 2023

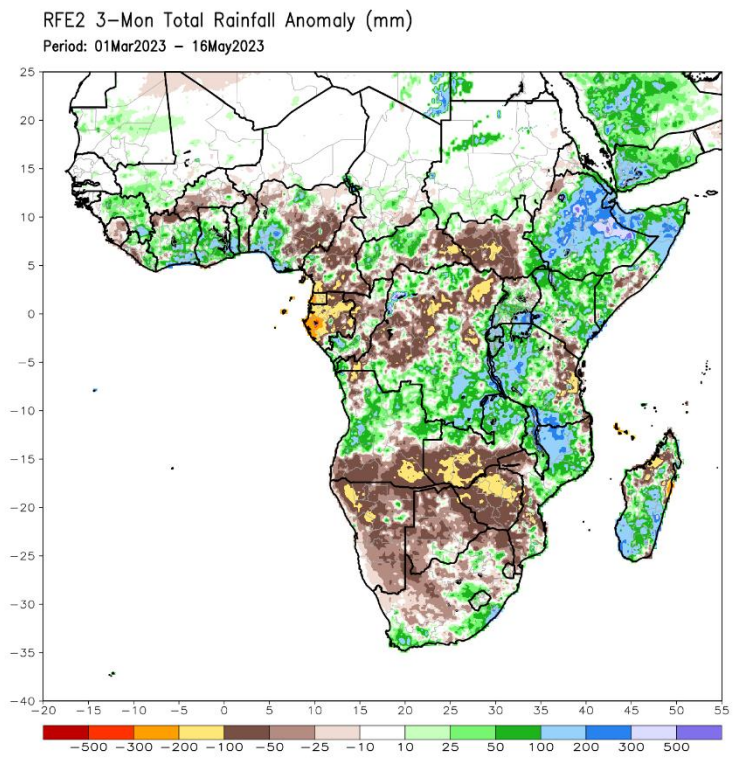
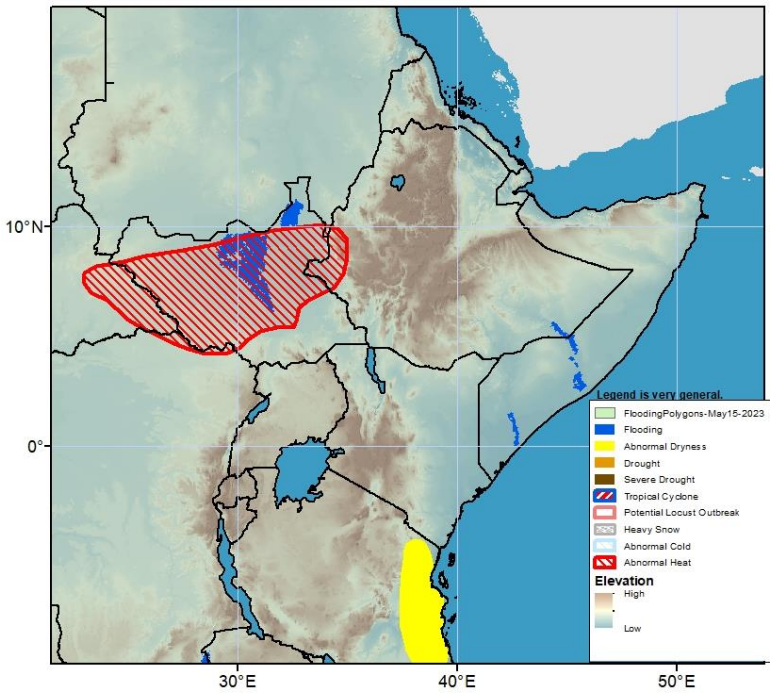
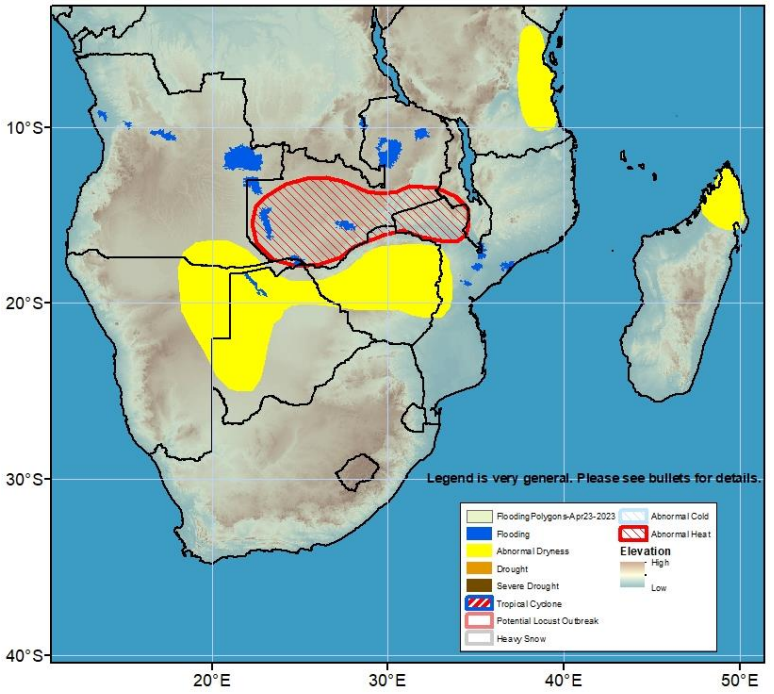


Figure 2: NOAA/CPC



Inundation remains unchanged in the Sudd Wetlands causing floods in South Sudan. The Jubba and Shebelle rivers are above the flood danger level causing widepread damge and fatalties around Belet Weyne.

Figure 3: Hazards, focused over Eastern Africa



High waters along the Luapula and Chambeshi Rivers has resulted in floods in Zambia. Previous heavy rains have triggered flooding in central Mozambique. An abnormal heat hazard is posted for parts of Zambia and western.

Figure 4: Hazards, focused over southern Africa