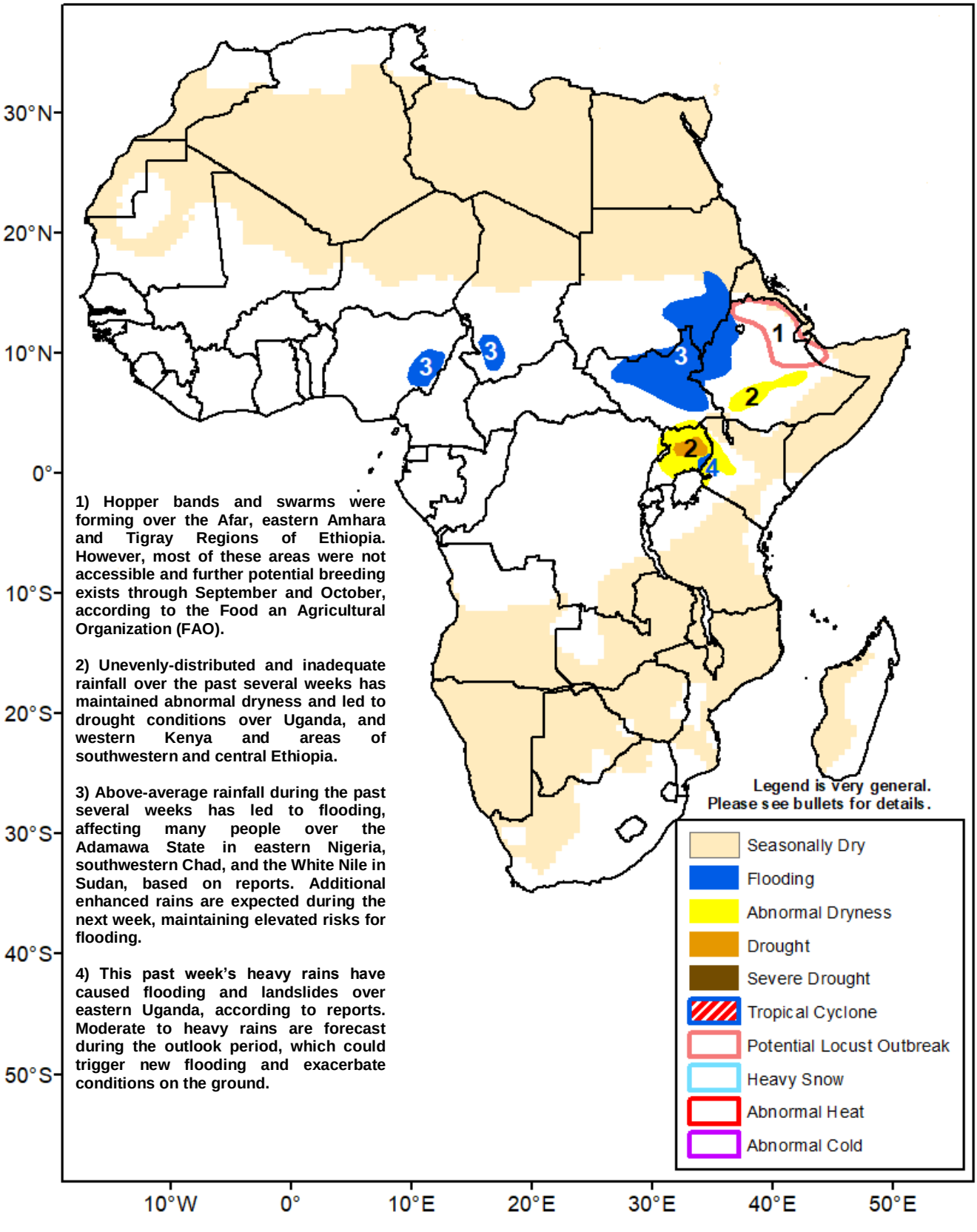
Climate Prediction Center's Africa Hazards Outlook
23 – 29 September 2021

- **Heavy rains are forecast over western Ethiopia, potentially leading to widespread flooding in eastern Africa.**



1) Hopper bands and swarms were forming over the Afar, eastern Amhara and Tigray Regions of Ethiopia. However, most of these areas were not accessible and further potential breeding exists through September and October, according to the Food an Agricultural Organization (FAO).

2) Unevenly-distributed and inadequate rainfall over the past several weeks has maintained abnormal dryness and led to drought conditions over Uganda, and western Kenya and areas of southwestern and central Ethiopia.

3) Above-average rainfall during the past several weeks has led to flooding, affecting many people over the Adamawa State in eastern Nigeria, southwestern Chad, and the White Nile in Sudan, based on reports. Additional enhanced rains are expected during the next week, maintaining elevated risks for flooding.

4) This past week's heavy rains have caused flooding and landslides over eastern Uganda, according to reports. Moderate to heavy rains are forecast during the outlook period, which could trigger new flooding and exacerbate conditions on the ground.

Heavy rains fell over the far western West Africa during this past week.

During the past week, abundant and above-average rainfall was observed over the far western West Africa. While rainfall amounts varied 25 – 75 mm along the Gulf of Guinea, weekly totals exceeding 100 mm were registered over parts of Senegal, Guinea-Bissau, and Guinea-Conakry (**Figure 1**). Meanwhile, light to locally moderate rains spread over the Sahel and remainders of the sub-region. Although the Inter-Tropical Front (ITF), main rain-bearing system, has already begun to move equatorward, continued seasonal rainfall has maintained ongoing flooding over many local areas, including the Adamawa State in eastern Nigeria and Tandjilé Region in southwestern Chad, according to reports. Over the past thirty days, rainfall was well above-average along the Gulf of Guinea, where many areas received more than twice their average rainfall. Near to slightly below-average rainfall was recorded over the Sahel, particularly over parts of Mali, Burkina Faso, and Niger, where small deficits persisted. The largest deficits were registered over east-central Nigeria, with cumulative rainfall accounting for 25 – 50 percent of the average only.

An analysis of recent Vegetation Health Index (VHI) indicated that favorable conditions prevailed over a wide swath of the Sahel from Senegal, to the West, to Chad, to the east. However, poor vegetation status was depicted over localized areas of the Gulf of Guinea, including Cote d'Ivoire and Nigeria.

During the outlook period, heavy rains are to continue over the far western West Africa and Gulf of Guinea. Farther north, light to moderate rains are forecast across the Sahel. The forecast additional rains may exacerbate conditions over already-flooded areas and raise water levels further, potentially leading to overflowing of rivers over many areas of the sub-region (**Figure 3**).

7-Day Satellite Estimated Total Rainfall (mm)
Valid: 15 September – 21 September 2021

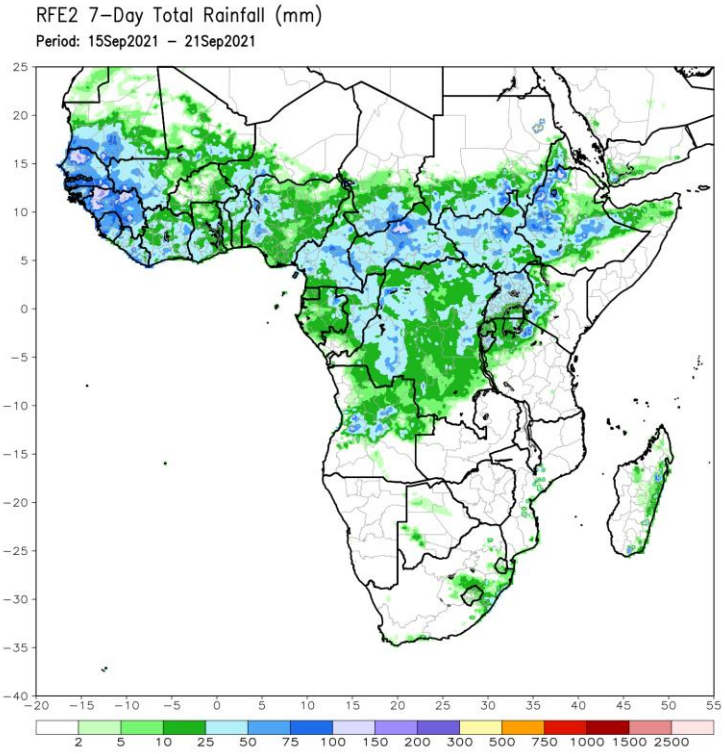


Figure 1: NOAA/CPC

Near to above-average rainfall dominated over eastern Africa over the past thirty days.

Accumulated rainfall was near to above-average over eastern Africa during the past thirty days. A wide band of Sudan, northern Ethiopia, and parts of South Sudan received more than 120 percent of their average rainfall (**Figure 2**). Some areas registered even more than twice their average rainfall. These areas included southeastern Sudan and south-central South Sudan, where widespread flooding has already affected many people, according to reports. Moreover, previously-dry portions of Uganda also experienced an uptake in rainfall over the past few weeks. While this increase may have contributed to replenish soil moisture, crops were already negatively impacted. This past week, heavy rains were reported to trigger flooding and landslides in Sironko, Kapchorwa, Mbale, and Kween Districts of Eastern Uganda Region, according to media.

Consequently, the VHI exhibited mostly positive vegetation conditions throughout eastern Africa, except for localized areas in south-central Ethiopia and central Uganda, where degraded conditions ensued from an irregular rainfall distribution.

During the outlook period, heavy and well above-average rainfall is forecast over western Ethiopia, which could trigger not only flash flood over western Oromia and Benshangul-Gumuz but also raise river levels further over downstream areas in Sudan and South Sudan (**Figure 4**). To the south, moderate to locally heavy rains are expected over South Sudan, Uganda, and southwest Kenya.

30-Day Satellite Estimated Percent of Normal Rainfall (%)
Valid: 23 August – 21 September 2021

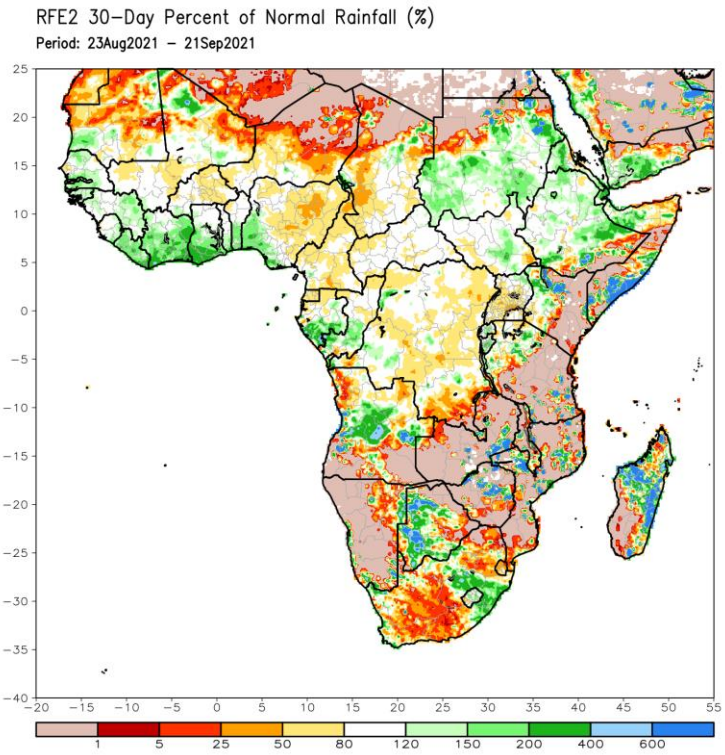


Figure 2: NOAA/CPC

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.

Questions or comments about this product may be directed to Wassila.Thiaw@noaa.gov or 1-301-683-3424.

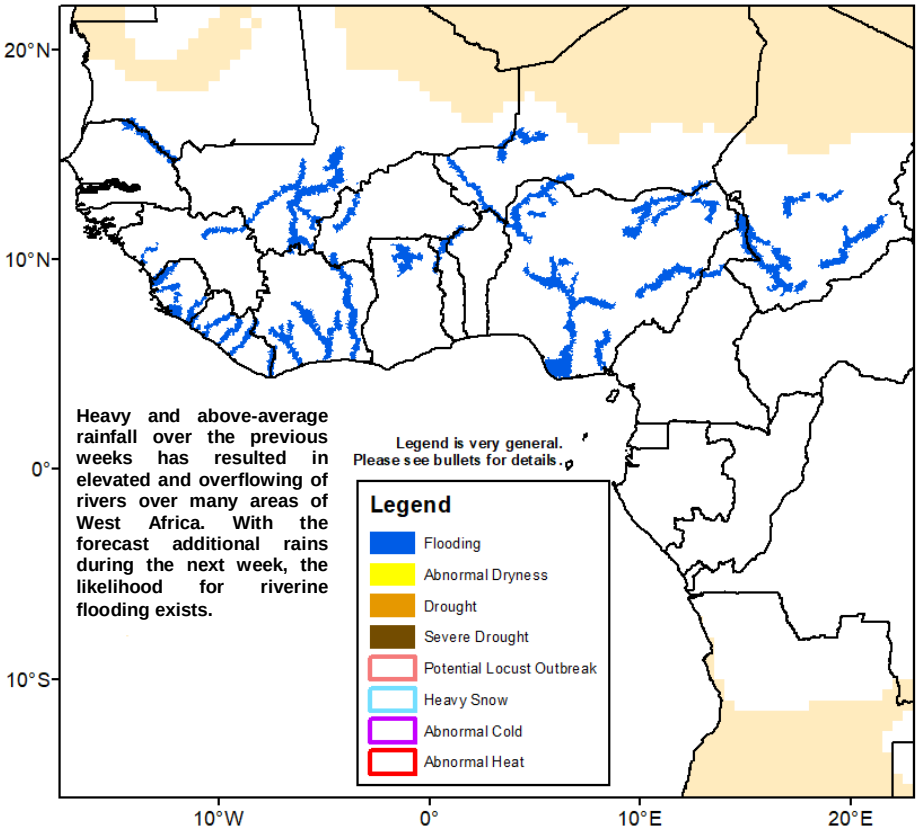


Figure 3: Hazards, focused over West Africa

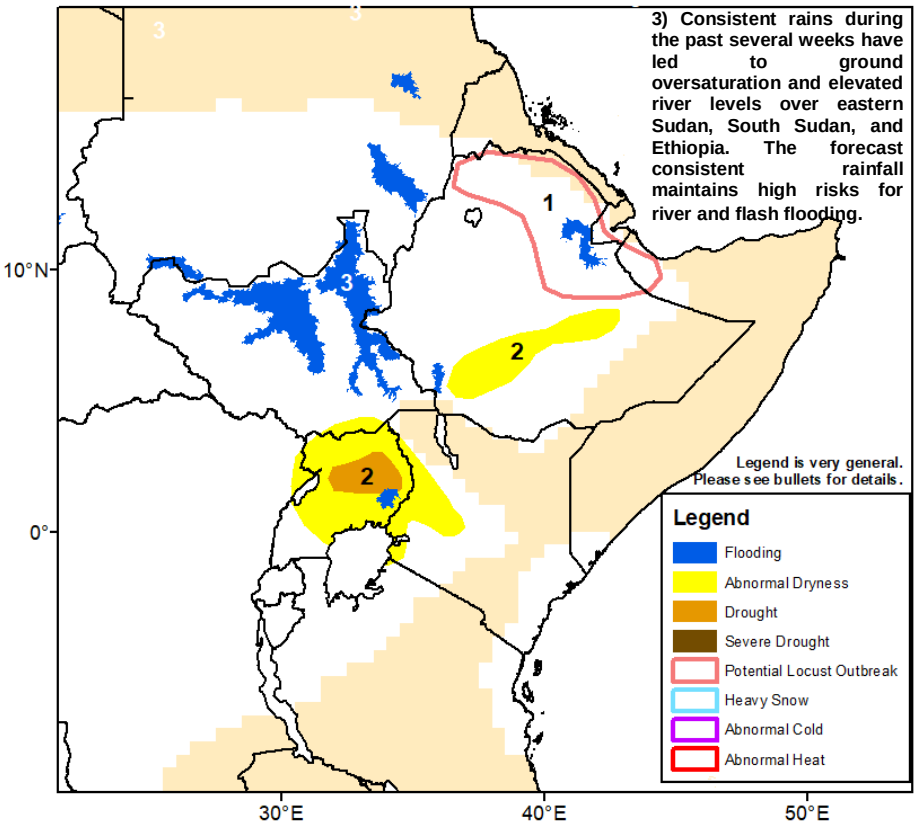


Figure 4: Hazards, focused over eastern Africa