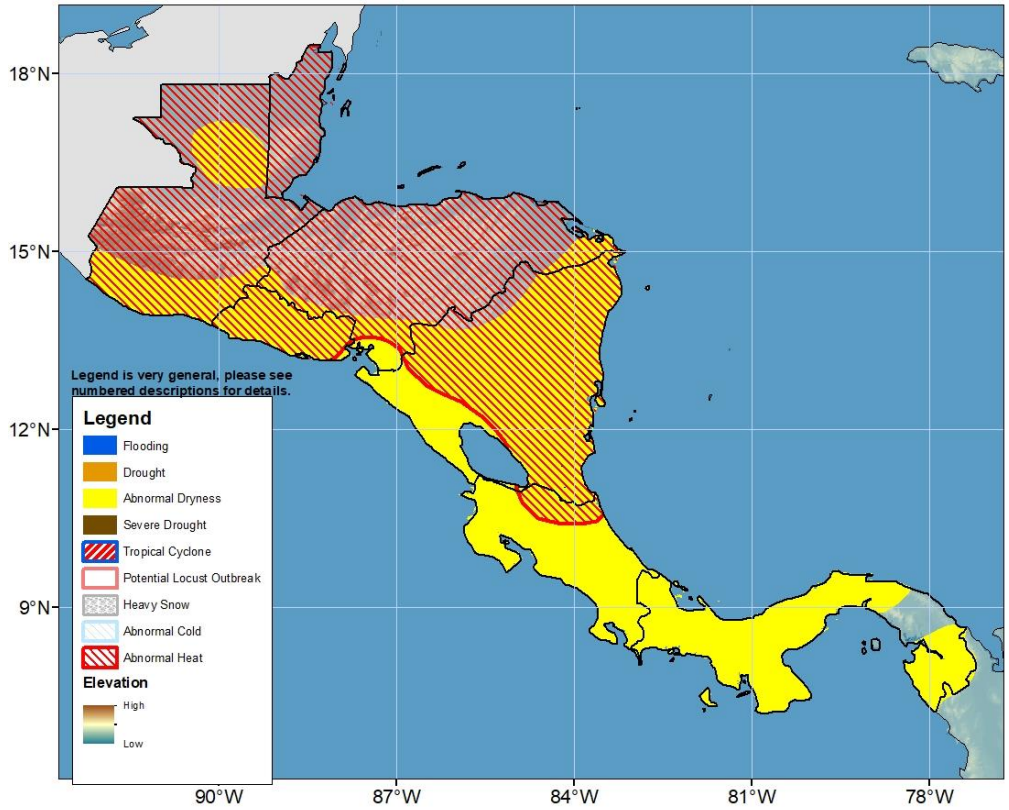
Climate Prediction Center's Central America Hazards Outlook
For USAID / FEWS-NET
08 June – 14 June 2023

Abnormally dry and hot conditions are persisting throughout Central America from May into early June.



1) **Weekly mean maximum temperatures are forecast to be above average by 2-6°C across the northern two thirds of the region with maximum temperatures exceeding 30°C and reaching as high as 40°C in northern Guatemala**
2) **Inconsistent and insufficient rainfall since the beginning of the "primera" season starting in April has led to large reductions in total rainfall and expanding abnormal dryness.**

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 takes into account 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 a number of other national and regional organizations in the countries concerned.

Questions or comments about the hazards 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

Elevated temperatures are expected in many parts of Central America during the upcoming week.

During the last week, heavy rainfall (50-100mm or more) occurred in portions of southern and eastern Honduras, El Salvador, and northern Nicaragua, as well as a few portions of Panama. It is these areas of heaviest rain that registered surpluses for the week. Many other areas, however, mainly received light rainfall which led to substantial 7-day deficits. Areas of Guatemala, Belize, El Salvador, and Nicaragua all registered negative anomalies greater than 50mm. The 30-day cumulative rainfall analysis shows dry conditions prevailing across the region. Deficits of at least 50-100mm are present throughout much of the region and larger deficits greater than 100mm are present in Costa Rica, western and eastern Panama, El Salvador, southern, western, and eastern Honduras, Nicaragua, as well as much of Guatemala and southern Belize. Many of these deficits equate to 50% or even 75% reductions in rainfall, with many fewer days of rain than normal. As a result, abnormal dryness is steadily expanding through Central America. Vegetation health is relatively poor in northern and eastern and central Honduras, eastern Nicaragua, northern and southeastern (up to Chiquimula) Guatemala, parts of northern Belize, most of El Salvador, and much of central and southern Panama. Maximum temperature anomalies were between 2 to 4^{o}C above normal in Guatemala, western El Salvador, northern Honduras, and northeastern Nicaragua, and anomalies were 4 to 6^{o}C above normal in west ern Guatemala. The high temperatures have quickly evaporated any moisture from the soil making agriculture difficult for local farmers.

During the next week, forecasts suggest more favorable rainfall for southern parts of the region. Totals of (50mm-100mm) are forecasted by weather models across southern Guatemala, southern Honduras, and western Nicaragua. Heavier rainfall (100mm-150mm) is expected in Costa Rica and Panama. Even so, most of Central America is expected to receive below-normal totals, especially Guatemala and eastern Nicaragua – where >50mm rainfall anomalies are expected (Fig 1). Maximum temperatures are forecasted to be at 2 to 8^{o}C warmer than average from Guatemala and Belize to northeastern Costa Rica. A majority of the area between Guatemala/Belize and northwestern Panama – outside of the Pacific-facing coasts of Honduras, Nicaragua, and Costa Rica -- is expected to receive maximum temperatures >90th percentile for 3 or more consecutive days.

Week 1 GEFS Rainfall Total Forecast and GEFS Rainfall Anomaly forecast (mm): 08 June – 14 June 2023

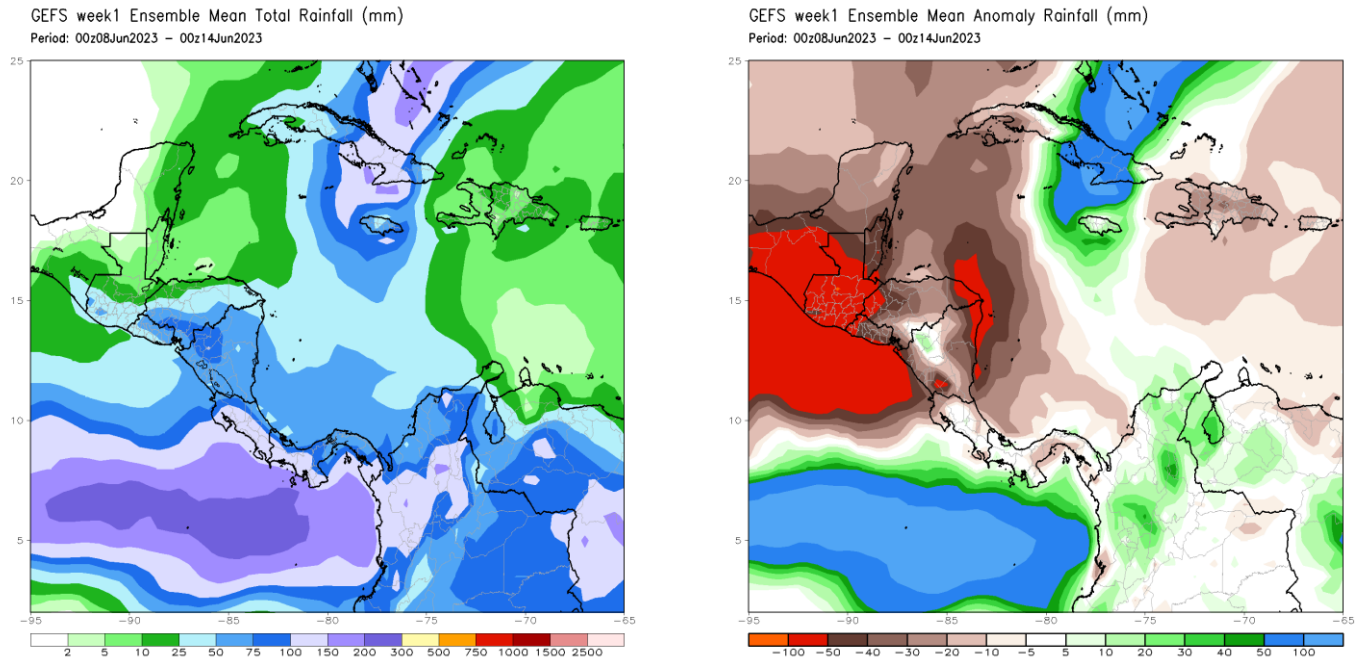


Figure 1: Source NOAA / CPC