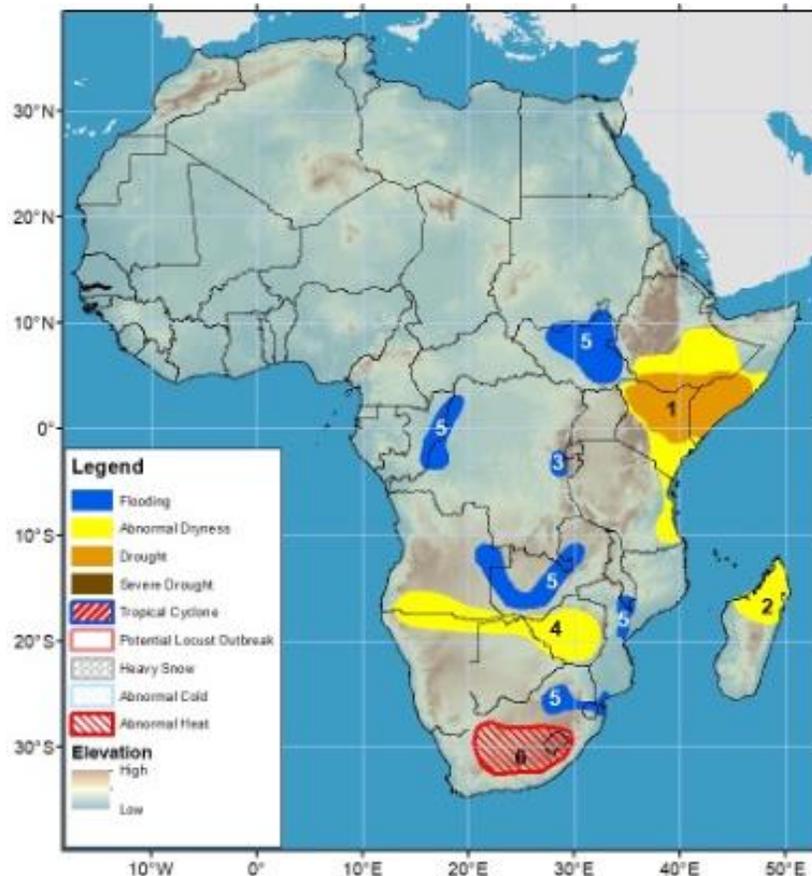


## Global Weather Hazards Summary

January 20 – 26, 2023

*Abnormal heat in South Africa, while Eastern Africa experiences abnormal dryness and drought*

### AFRICA WEATHER HAZARDS



1. Dry and erratic conditions since the beginning of the October to December season in Eastern Africa have resulted in abnormal dryness in central and eastern Kenya, southern Ethiopia, and eastern Tanzania. Drought has developed in southern Ethiopia, southern Somalia, and northern Kenya.
2. Below-average rainfall over the past eight weeks has resulted in moderate to large 30-day moisture deficits, which have led to abnormal dryness in northern Madagascar.
3. Increased rainfall in the past few weeks has overly saturated the soil, resulting in flooding in South Kivu Province in the Democratic Republic of the Congo.
4. An erratic rainfall distribution since November has resulted in abnormal dryness in southern parts of Angola and Zambia, northern portions of Namibia and Botswana, and much of Zimbabwe.
5. Despite the dry period, inundation is increasing in the Sudd Wetlands, causing flooding in South Sudan. Rising water levels from the Kafue River have resulted in rising water levels and flooding in Zambia. Likewise, heavy rainfall in recent weeks has led to flooding along the Congo River and its tributaries, and elevated flows in the Orange and Vaal rivers have led to floods in South Africa.
6. An abnormal heat hazard is posted in South Africa, where maximum temperatures could exceed 35°C next week.

## AFRICA OVERVIEW

### *Scattered moderate rainfall in Eastern Africa*

During the past week, showers were widely scattered over parts of western Ethiopia and Kenya, including moderate rainfall totals in some areas (**Figure 1**). Tanzania received more widespread rainfall in the middle and southwestern areas, which produced above-average rainfall. Over the past month, below-average rainfall persisted across southern Ethiopia, many areas in Kenya, as well as northern and southeastern Tanzania, maintaining abnormal dryness over the dry portions of the subregion. Since October, southern Ethiopia, much of Kenya, and southern Somalia have experienced large seasonal rainfall deficits, resulting in drought across the dry portions of Eastern Africa. Conversely, some parts of Kenya, western Ethiopia, and southern Uganda received above-average rainfall due to wet episodes through mid-December. In South Sudan, despite being in the dry period, the extent of inundation is increasing in the Sudd Wetlands, causing flooding.

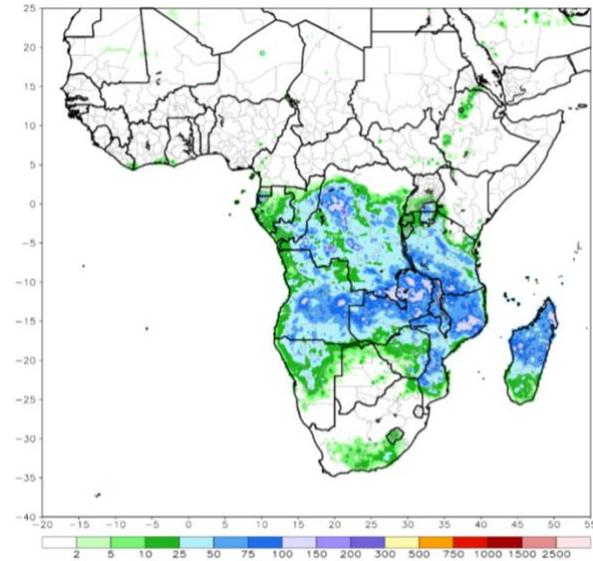
Next week, light rainfall is expected over southern Uganda and southern Kenya. Most areas of Ethiopia, Somalia, and Kenya are not expected to have any rainfall. Central and southern parts of Tanzania will likely have moderate rainfall, while the north is expected to receive light rainfall.

### *Flooding in western and central Zambia, southern Malawi and Mozambique, and northern South Africa*

During the past week, South Africa, Lesotho, Eswatini, parts of Namibia, Botswana, Mozambique, and southern Madagascar received well above-average seasonal rainfall. However, the accumulated rainfall since October in the northern sectors of southern Africa has been below average, including in Angola, northern Namibia, northern Botswana, southern Zambia, much of Zimbabwe, and northern Mozambique, with the largest deficits in northern Madagascar (**Figure 2**). The drier conditions were due to the ongoing *La Niña* event, which also tends to bring above-average rainfall to the southeastern portions of the subregion. Reports show that flooding along the Kafue River has resulted in rising water levels and flooding in western and central Zambia. Likewise, heavy rainfall in recent weeks has led to flooding in southern Malawi and southern Mozambique, and elevated flows in the Orange and Vaal rivers have led to flooding in South Africa.

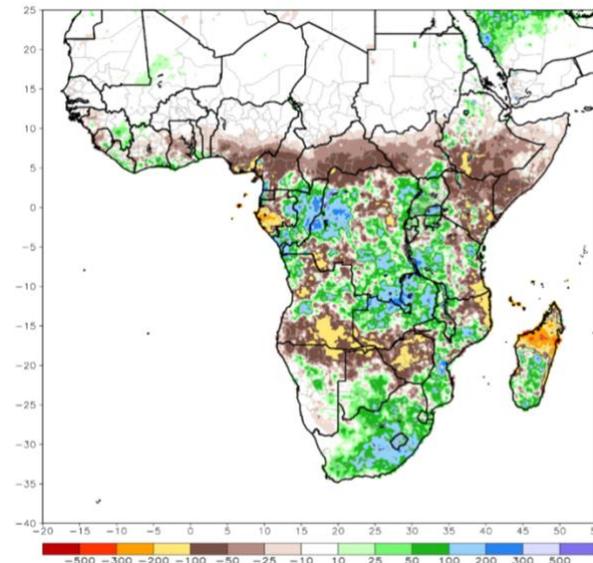
Next week, moderate to heavy and above-average rainfall is expected to continue over northern portions of the region, including Angola, Zambia, Malawi, northern Mozambique, and Zimbabwe. In South Africa, moderate rainfall is expected over the south-central part of the country. Madagascar is also expected to receive heavy rainfall in the northern sector.

**Figure 1.** 7-Day Satellite Estimated Total Rainfall (mm)  
Period: January 11 – 17, 2023



Source: NOAA/CPC

**Figure 2.** 3-Month Satellite Estimated Rainfall Anomaly (mm)  
Period: November 1, 2022 – January 17, 2023



Source: NOAA/CPC

#### ABOUT WEATHER HAZARDS

Hazard maps are based on current weather/climate information, short and medium range weather forecasts (up to 1 week) and 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.

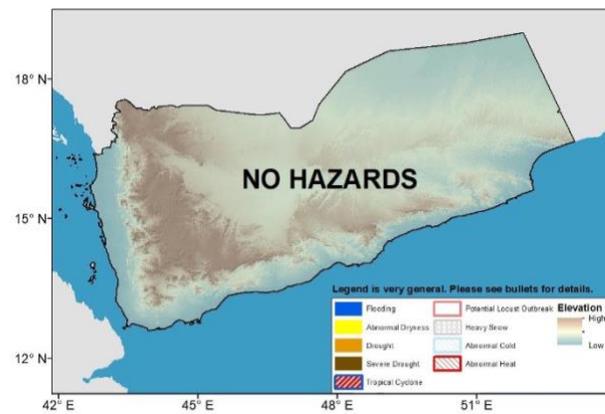
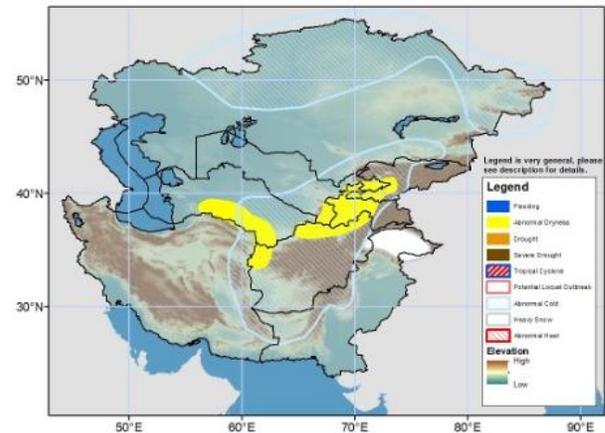
## CENTRAL ASIA OVERVIEW

### Temperatures

During the past week, temperatures were much colder than average across the entire region, with a strong arctic high. Both maximum and minimum temperatures were below average in southern Kazakhstan, Uzbekistan, Turkmenistan, and northwestern Afghanistan. As a result, subfreezing temperatures were widespread across Iran, southern portions of Afghanistan, and even Pakistan. Temperatures dropped well-below 20°C across Kazakhstan, Kyrgyzstan, and in Afghanistan's central highlands. Next week, arctic air will remain in place across central and southern parts of Central Asia. Temperatures will be slightly warmer but still significantly below average, with widespread subfreezing conditions. Temperatures in northern Kazakhstan will moderate during the first half of the period, before colder-than-normal air enters that region late in the week.

### Precipitation

During the past week, moderate to heavy precipitation was observed along an axis stretching northeastward from Iran to eastern Kazakhstan, mostly in the form of snow. The highest liquid equivalent totals and largest snow accumulations occurred in South Kaz, western Tajikistan, Kandahar in Afghanistan, and northern Pakistan. Central portions of Central Asia have been drier than average during the past 10 weeks, and snow depth and snow water equivalent (SWE) values have been lower than normal across much of Kyrgyzstan, eastern Tajikistan, and Afghanistan, although they are improving. Conversely, Kazakhstan and western Tajikistan have experienced greater-than-normal snow depth. Abnormal dryness is placed from northern Afghanistan to western Kyrgyzstan and from Afghanistan's Herat province to southern Turkmenistan. Next week, a system tracking through the southern part of the region will bring rainfall and snow to Afghanistan and Pakistan, with the highest amounts expected in northern Pakistan. Conditions in the northern half of Central Asia will be milder, with light to moderate snow in northeastern Kazakhstan.



## YEMEN OVERVIEW

### Temperatures

During the past week, both maximum and minimum mean temperatures were above normal in Yemen, with minimum temperatures showing the largest departures from the normal, particularly across inland portions of the country. The minimum temperatures ranged between 10 and 20°C across the country. Next week, warmer-than-normal weather is forecast to continue in southeastern Yemen, while north-central areas will be colder than normal. For most of the country, temperatures will be close to average. In general, mean temperatures are expected to range between 14 and 24°C.

### Precipitation

During the past week, dry but seasonable conditions for the time of the year were observed in Yemen. Next week, light rain is expected in a few areas in the western and southern sectors of Yemen. Much of the country will have no rain in the next week.

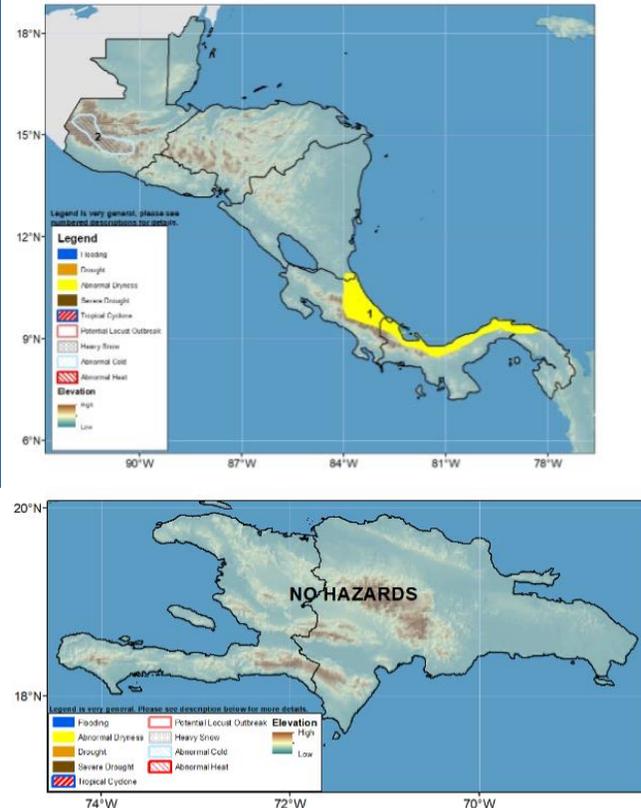
**CENTRAL AMERICA AND THE CARIBBEAN OVERVIEW**

*Dryness and below-freezing temperatures continue in parts of the southern Caribbean and Guatemala*

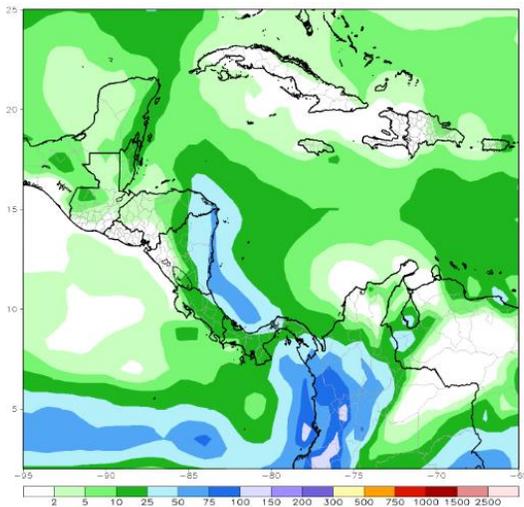
During the past week, Central America registered another week of below-average rainfall, maintaining overall dry conditions in the region. However, little to light precipitation fell over some areas in southwestern and eastern Guatemala, northern Honduras, and parts of Costa Rica and Panama. This past week’s rainfall amounts were near average; however, 30-day cumulative rainfall remained below average, with the greatest deficits along the Atlantic littorals in Costa Rica and Panama. Next week, little to no rainfall is likely in most areas, except for eastern Honduras, eastern Nicaragua, and parts of Panama, where moderate rainfall is possible. The continuation of near-average to below-average rainfall could maintain 30-day rainfall deficits and dryness in the dry portions of the region. Meanwhile, a frontal system across northern Central America may bring a cold air mass, with minimum temperatures nearing or descending below the freezing point across the higher elevations in western Guatemala, which could lead to frost in the region.

*Drier conditions expected to return over Hispaniola following a slight increase in rainfall*

During the past week, slightly increased rainfall was observed in parts of northern and southern Hispaniola, whereas below-average rainfall prevailed elsewhere. Although rainfall was near average in most areas, total accumulation was slightly above average in northeastern Dominican Republic. Over the past month, rainfall was light across a major part of the Island. Small deficits were recorded in parts of southern Haiti. Next week, a return to drier conditions is expected, with below-average rainfall in Haiti and western Dominican Republic and small amounts farther east. Due to the limited rainfall, moisture deficits could emerge in the region.

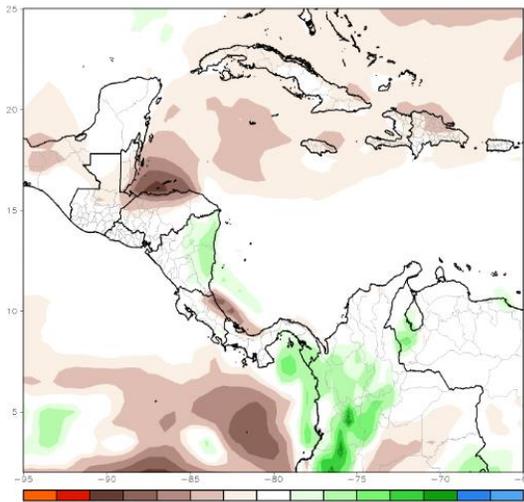


**Figure 3.** Ensemble Mean Total Rainfall (mm)  
Period: January 19 – 25, 2023



Source: NOAA/CPC

**Figure 4.** CMORPH Climatological Rainfall (mm)  
Period: January 19 – 25, 2023



Source: NOAA/CPC