

## FAMINE EARLY WARNING SYSTEMS NETWORK

# Haiti

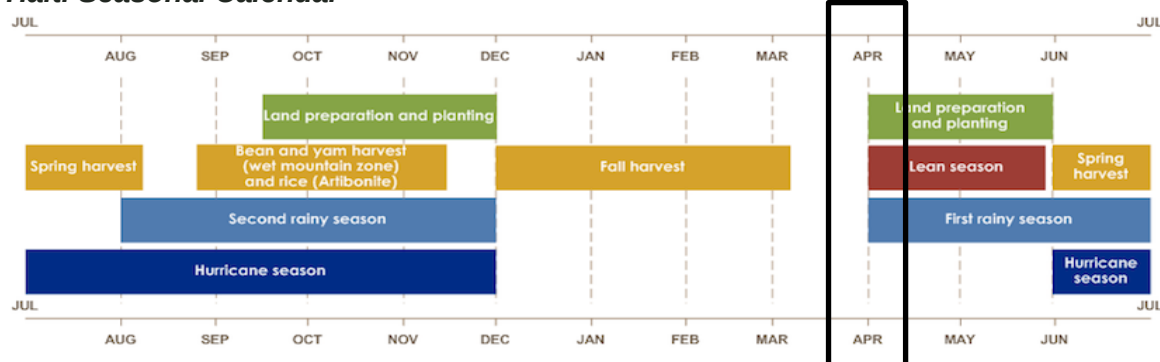
## Monthly Climate and Weather

9 May 2025

### Highlights

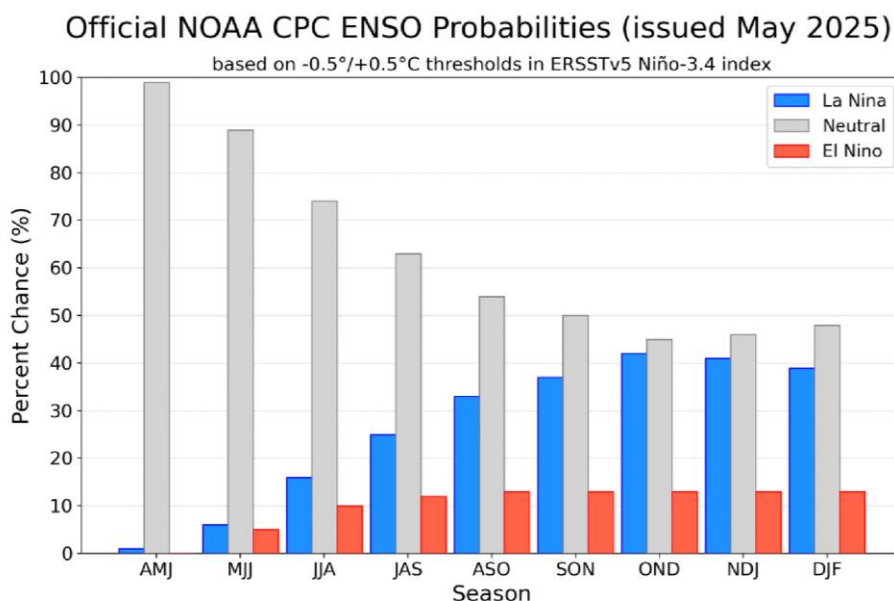
- ENSO-neutral conditions are present, with near-average sea surface temperatures (SSTs) covering most of the equatorial Pacific Ocean. According to the NOAA ENSO Diagnostic Discussion, ENSO-neutral conditions are favored through the Northern Hemisphere summer 2025 (74% chance during June-August), with chances exceeding 50% through August-October 2025. Historically, El Niño is associated with drier-than-average conditions, while La Niña typically brings wetter-than-average conditions to Haiti.
- April marks the beginning of the first rainy season in Haiti, which typically starts in April and extends through June. Climatological rainfall ranges from 10 mm to 150 mm across Haiti.
- In April, most of Haiti received moderate to heavy rainfall, with totals ranging from 25 mm to 300 mm. Positive rainfall anomalies between 10 mm and 200 mm dominated Haiti; the largest anomalies were observed in northwest, southwestern, and central Haiti. On the contrary, below-normal rainfall was confined to the southeastern Ouest department. Floods were reported in the middle of April across different cities of the country.
- The NMME models indicate equal chances for above-, near-, or below-average rainfall conditions across the country for the monthly forecast (May). Meanwhile, for the seasonal forecast (June – August 2025) the models indicate that there is an increased likelihood (over 70%) of above-average temperatures in the southwestern and southeastern departments, and there are 50% to 60% chances of above-average temperatures in the northern, western and southern central regions of Haiti.
- The SPI forecast suggests that wetter-than-average conditions will continue in most of Haiti. The largest positive SPI values are expected across the northern, southwestern, and southeastern portions of Haiti, with SPI values ranging from 1.2 to over 2 standard deviations above the mean.

## Haiti Seasonal Calendar



## Current Climate Modes and Teleconnections

- During April 2025, ENSO-neutral conditions continued, with near-average sea surface temperatures (SSTs) covering most of the equatorial Pacific Ocean. According to the NOAA ENSO Diagnostic Discussion, as of early May 2025, ENSO-neutral is favored through the Northern Hemisphere summer 2025 (74% chance during June-August), with chances exceeding 50% through August-October 2025 (**Fig. 1**). For the latest update from the NOAA Climate Prediction Center (CPC) on ENSO, check [here](#).
- Much of the Caribbean Sea experienced near-average conditions with small SSTs positive anomalies of 0.5–1.0°C across the region.



**Figure 1.** Official ENSO probabilities for the Niño 3.4 SST index (5°N–5°S, 120°W–170°W). Figure updated 8 May 2025. **Source: NOAA/CPC**

- Implications of ENSO conditions: Based on historical records, La Niña conditions are associated with below average precipitation throughout most of Haiti from May to July (**Fig. A1, left panels**). Meanwhile, La Niña conditions are related to slightly below average

mean temperatures in Haiti (**Fig. A1, right panels**). The ENSO-precipitation teleconnection pattern can be found [here](#), and the pattern for temperature can be found [here](#)

### **Extreme Events**

- During the last month, a low-pressure system brought heavy rainfall to southwestern and northeastern Haiti. A flood was reported in Les Cayes, Port-au-Prince, and Cap Haitien, causing damage to structures, cutting off electricity, and affecting vulnerable people living in a displacement camp in Port-au-Prince
- There have been no reports of fire activity in Haiti during April 2025.

### **Rainfall/Precipitation**

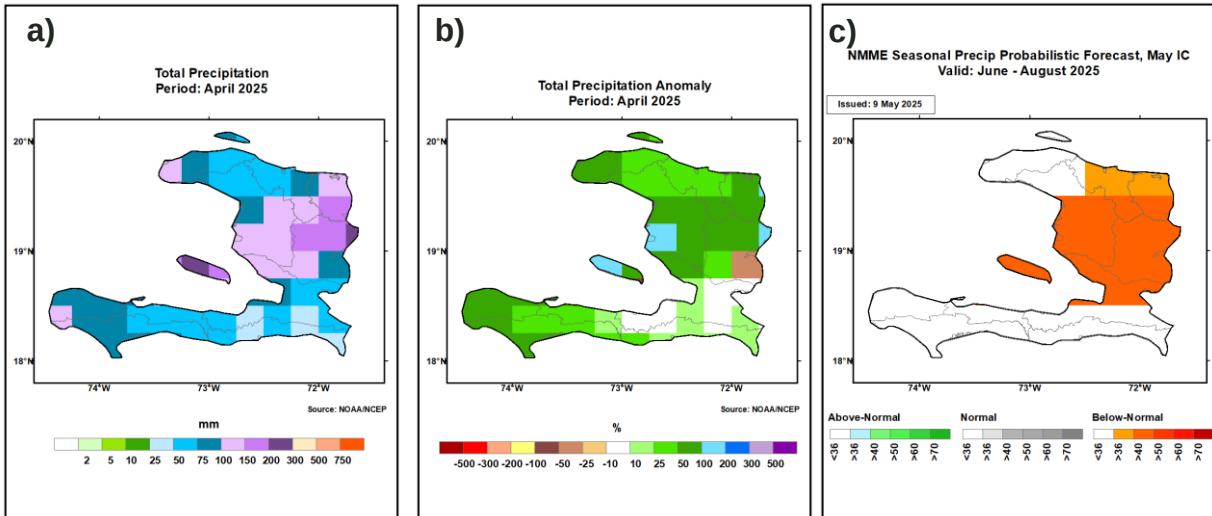
- April marks the beginning of the first rainy season in Haiti, which typically starts in April and extends through June. Climatological rainfall ranges from 10 mm to 150 mm across Haiti, with the highest rainfall totals generally observed in central and eastern Haiti (50-150 mm); lower rainfall amounts (10-25 mm) are climatologically expected in northwestern Haiti.

#### **Past 3 months (February – April 2025):**

- **Totals:** Over the last three months, rainfall ranging from 100 mm to 300 mm was recorded in most parts of Haiti. Meanwhile, in northwestern Artibonite, most of Ouest, Sud-Est Nippes, Sud, and eastern Grande-Anse registered rainfall values between 25 mm and 100 mm.
- **Anomalies:** During the past three months, above-average rainfall anomalies between 10 mm and 200 mm dominated Haiti. The largest anomalies were observed in western Nord-Ouest, northeastern Nord-Est, western Grande-Anse, southwestern Artibonite, and northeastern Centre departments, with anomalies ranging from 100 mm to 200 mm. On the contrary, rainfall deficits ranged from 10 mm to 200 mm in the southern and central-east departments of the country.

#### **Past 1 Month (April 2025):**

- **Totals:** In April, northwestern, central, and southwestern Haiti received the largest amount of total rainfall, with values ranging from 100 mm to 300 mm. The rest of the country observed moderate to heavy rainfall, with total values between 25 mm and 100 mm (Fig. 2a). Floods were reported in the middle of April across different cities of the country.
- **Anomalies:** During the past month, positive rainfall anomalies between 10 mm and 200 mm dominated Haiti. The largest anomalies were observed in northwestern, southwestern, and central Haiti. On the contrary, below-normal rainfall was confined to the southeastern Ouest department. Meanwhile, near-average (-10 mm to 10 mm) conditions were observed in portions of the Ouest and Sud-Est departments.



**Figure 2.** Satellite estimates of precipitation (CMORPH) for April 2025. **(a)** 1-month total accumulation and **(b)** 1-month anomaly. **(c)** NMME seasonal rainfall probabilistic forecast for June – August 2025. **Source: NOAA/NCEP**

### Monthly and Seasonal Forecasts (June 2025 and June – August 2025):

- **Monthly:** Based on the North American Multi-Model Ensemble (NMME) models, utilizing observations from May 2025 for model initialization, the forecast for June 2025 indicates a 36% to 40% chance of below-average rainfall in central and central-eastern portions of the country.
- **Seasonal:** The NMME seasonal forecast for June–August 2025 suggests a 36% to 50% chance of below-average rainfall in central and northeastern Haiti (Fig. 2c).

## Temperature

### Past 3 months (February – April 2025):

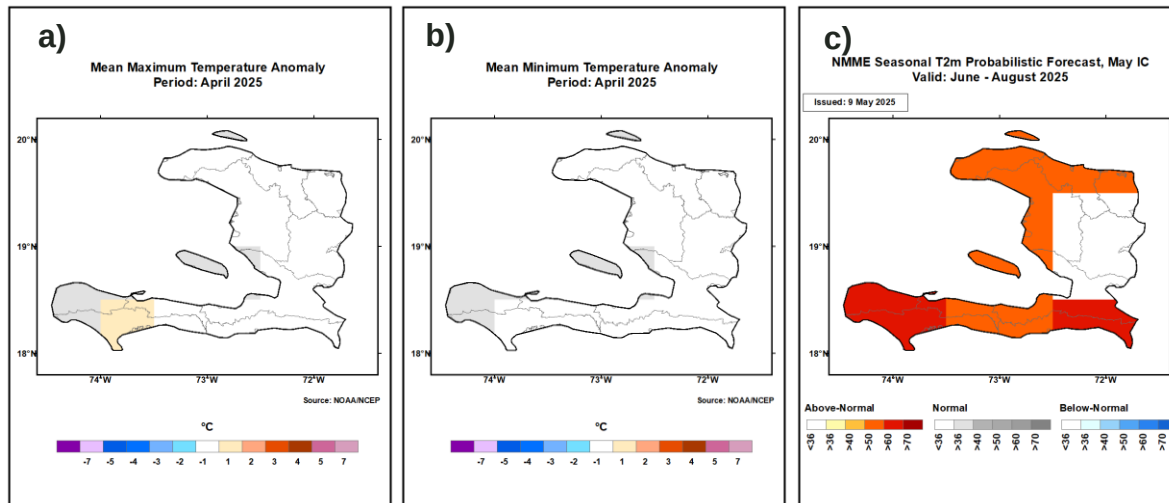
- **Maximums:** Haiti experienced maximum temperatures ranging from 25°C to 35°C. Northwestern and portions of southwestern departments experienced slightly above average anomalies between 1°C and 2°C. Meanwhile, the rest of Haiti observed near average temperature anomalies between -1°C and 1°C.
- **Minimums:** Minimum temperatures ranged from 15°C to 25°C across Haiti. Northern, western, and southwestern Haiti recorded the highest minimums between 20°C and 25°C. During this month, Haiti registered near average minimum temperature anomalies of -1°C to 1°C

### Past 1 Month (April 2025):

- **Maximums:** Monthly maximum temperature patterns were similar to those observed in the seasonal term. Therefore, maximum temperatures ranged from 25°C to 35°C in Haiti, and near average temperature anomalies of -1°C to 1°C were observed in most of the

territory. However, portions of southwestern Haiti observed slightly above average anomalies between 1°C and 2°C (**Fig. 3a**).

- **Minimums:** Eastern Artibonite, southern Nord, southern Nord-Est, the majority of Centre, southern and northeastern Ouest, and central and eastern Sud-Est departments recorded temperatures between 10°C and 20°C. Meanwhile the rest of the country observed values ranging from 20°C to 25°C. Near average minimum temperatures were observed across Haiti, with anomalies ranging from -1°C to 1°C (**Fig. 3b**).



**Figure 3.** Spatial structure of temperature for April 2025. **(a)** Maximum temperature anomaly and **(b)** minimum temperature anomaly. **(c)** NMME probabilistic forecast of seasonal 2-m temperature anomaly for June – August 2025. **Source: NOAA/NCEP**

### Monthly and Seasonal Forecasts (June 2025 and June – August 2025):

- **Monthly:** The NMME forecast indicates no clear dominant signal for either below or above average temperatures in Haiti during June.
- **Seasonal:** For the June – August 2025 season, there is an increased likelihood (over 70%) of above average temperatures in the southwestern and southeastern departments. Meanwhile, there are 50% to 60% chances of above average temperatures in the northern, western, and southern central regions of Haiti. In contrast, there is no clear signal for near-, above-, or below-average temperatures in the central areas of the country (**Fig. 3c**).

### Drought and Dryness

The Standardized Precipitation Index (SPI) is used to characterize meteorological drought. SPI compares the precipitation over a specific period of time with the climatology from that same period. Therefore, the SPI values can be thought of as the number of standard deviations the observed anomaly deviates from the climatology. The 1-month SPI values are a good representation of the monthly precipitation anomaly as well as the soil moisture and vegetation health. The 3-month SPI values are a good representation of seasonal precipitation anomalies. The Standardized Precipitation Evapotranspiration Index (SPEI) is similar to the SPI, but it also

takes evapotranspiration into account (and therefore the impact of temperatures on water demand).

### **Past 3 Months (February – April 2025):**

- The SPI analysis for the past 3 months indicated wetter-than-average conditions (SPI values of 0.4 to 1.5 standard deviations above the mean) dominated over northern, central, southwestern and south-central areas in Haiti. On the contrary, portions of southern Artibonite, southeastern Centre, western and eastern Ouest, western Sud-Est, departments experienced drier-than-average conditions (SPI values of 0.4 to 1.5 standard deviations below the mean).

### **Past 1 Month (April 2025):**

- The SPI analysis for April 2025 indicated that Haiti experienced wetter-than-average conditions (SPI values of 0.4 to over 2 standard deviations above the mean), except for southeastern Centre and northeastern Ouest departments that observed near-average SPI conditions (SPI values of 0.4 to 0.4 standard deviations below the mean).

### **Current/Forecast (28 February 2025 to 28 May 2025):**

- The SPI forecast suggests that wetter-than-average conditions will continue in most parts of Haiti. The largest positive SPI values are expected across the northern, southwestern, and southeastern portions of Haiti, with SPI values ranging from 1.2 to over 2 standard deviations above the mean.

### **Water Requirement Satisfaction Index (WRSI)**

- Not Available

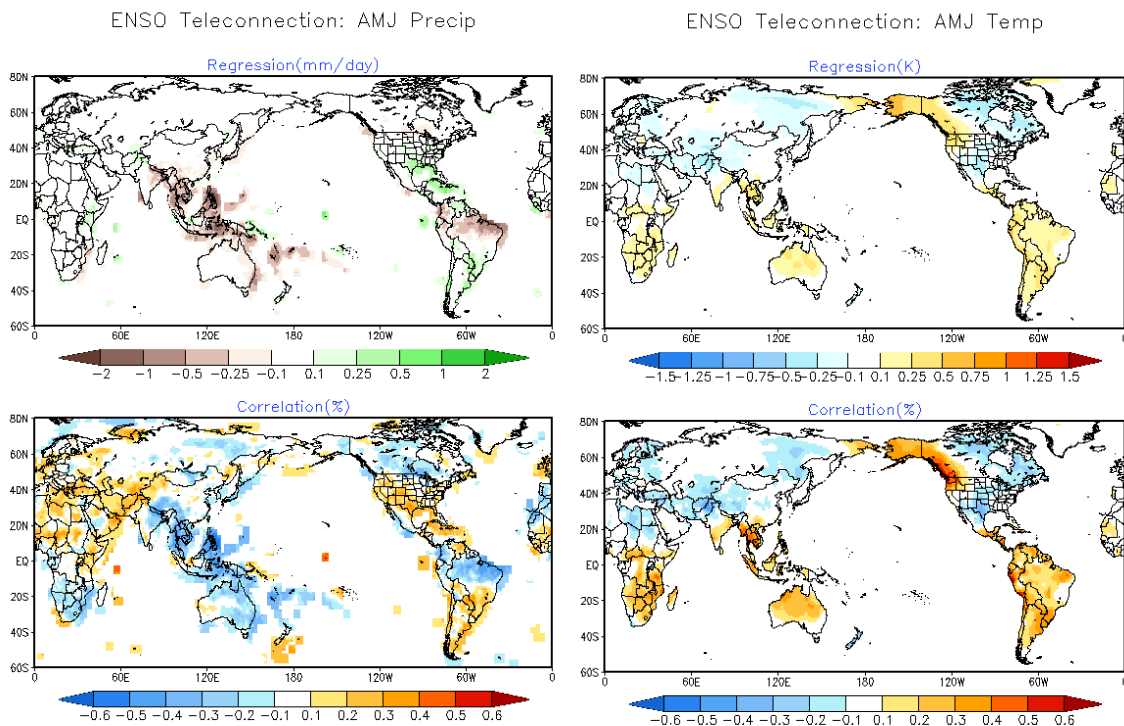
### **GEOGLAM Crop Monitor**

- GEOGLAM Crop Monitor synthesis indicated 'Watch' conditions across Haiti for maize and rice during April 2025.

### **Additional Resources**

- <https://protectioncivile.gouv.ht/>
- <https://www.meteo-haiti.gouv.ht/>

# Annex



**Figure A1.** ENSO teleconnection for the April-May-June season. The upper-level panel shows the precipitation and temperature anomalies regressed onto the standardized Niño-3.4 index. The bottom panel shows the correlation between Nino-3.4 and the anomalies.

Source: <https://www.cpc.ncep.noaa.gov/products/precip/CWlink/ENSO/regressions/>