

# Caribbean Climate Outlook Newsletter - February to April 2025

For climate information specific to your country, please consult with your national meteorological service.  
CariCOF outlooks speak to recent and expected seasonal climate trends across the Caribbean in general.

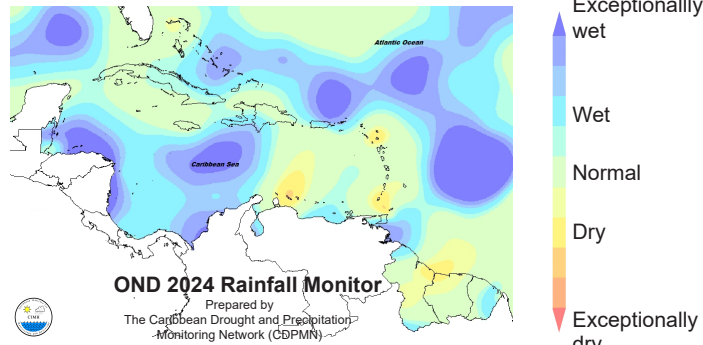
## BRIEF SUMMARY: October 2024 to April 2025

**October to December 2024:** Record Tropical North Atlantic ocean temperatures continued to fuel (near-)record temperatures, with uncomfortable and humid heat through early November. Most areas observed the at usual rainfall totals during this period, though long-term drought continues in the ABC Islands, parts of the Guianas, Trinidad and the US Caribbean Territories.

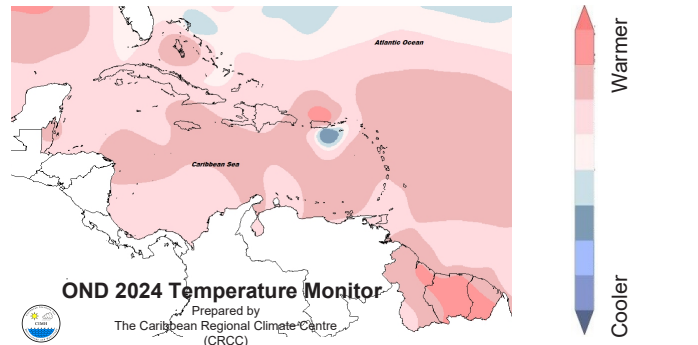
**February to April 2025:** Unusually warm Tropical North Atlantic Ocean temperatures and weak La Niña conditions forecasted for this period imply: (i) a likely less intense peak of the Dry Season in the Lesser Antilles and Guianas, though the potential for flooding, flash floods, cascading hazards and associated impacts will be *moderate to high*; (ii) by contrast, some areas in the northwestern Caribbean may well face a harsher peak of the Dry Season; (iii) a marked increase in the frequency of dry spells and the potential for wildfire weather across the region; (iv) a transition out of the Cool Season and into the 2025 Heat Season up to 1 month earlier than usual, i.e., in March or April. The incursion of Saharan dust into the Caribbean may well be frequent.

### LOOKING BACK:

#### Oct. - Nov. - Dec. (OND) 2024 Observations



♦ **RAINFALL:** Curaçao very dry; Southeastern Bahamas, northern Belize, northern Puerto Rico, parts of the Dominican Republic, St. Thomas, southernmost Trinidad very wet.



♦ **TEMPERATURE:** Most locations 0.25-1.5°C warmer than usual, with parts of the Guianas and Trinidad hovering about 2°C warmer than usual.

#### Notable Climate Records in OND 2024:

**WET:** 4 locations in the Dominican Rep. and 1 in Belize reported record high rainfall for this period (~205-305% of average).

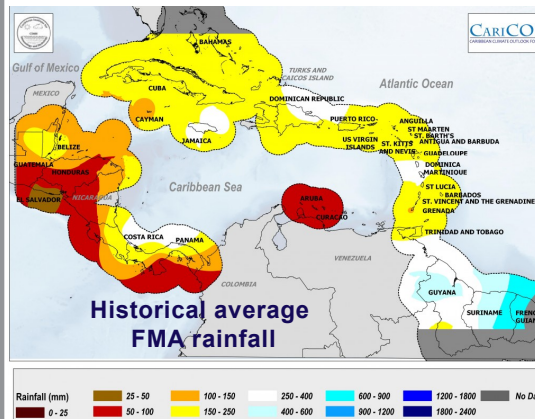
**DRY:** No locations reported record low rainfall for this period.

**HOT:** Barbados, Curaçao, St. Kitts, Sint Maarten, as well as 1 location in Martinique, and 2 in Puerto Rico reported record-high mean temperatures.

More at <https://carogen.cimh.edu.bb/index.php/component/countrydata/>

### WHAT NEXT?

#### Rainfall patterns February - March - April (FMA)



**Belize :** Feb to Apr - dry season. Mostly without heavy rainfall.

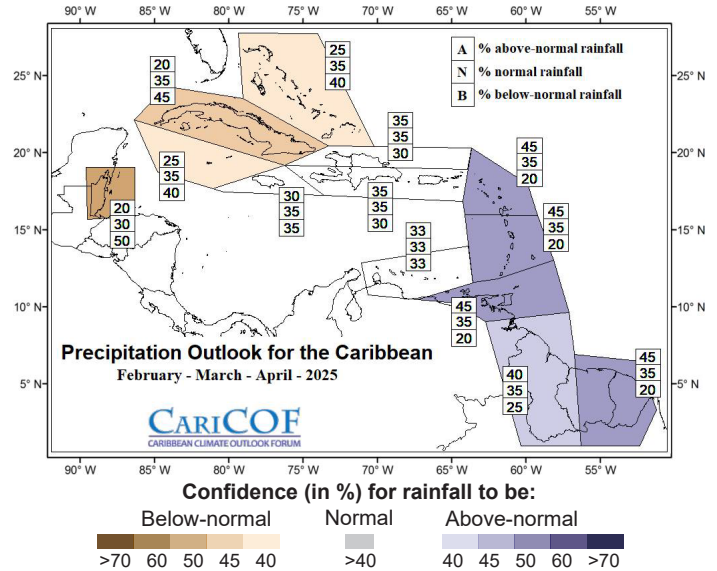
**C'bean Islands north of 16°N:** Feb to Apr - sunny days and some days with showers.

**C'bean Islands south of 16°N (except ABC Islands):** Feb to Apr - sunny days and some days with showers.

**ABC Islands:** Feb to Apr - generally dry.

**Guianas:** Feb to Apr - End of dry season with occasional heavy showers and thunderstorms.

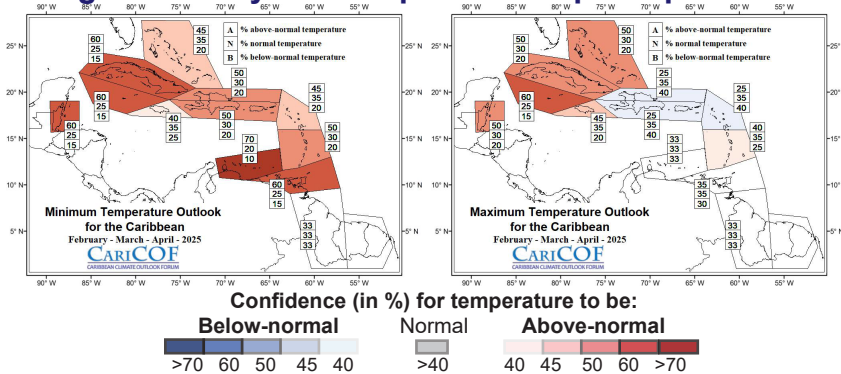
#### FMA 2025 Rainfall Outlook



Rainfall totals from February to April are likely to be the usual or higher in the Lesser Antilles and the Guianas, but, likely, the usual or less in The Bahamas, Belize, the Cayman Islands and Cuba.

White areas show where the forecast indicates little information on rainfall totals.

Night- and daytime temperatures up to April



FMA night-time (min.) as well as air humidity will likely be higher than usual in most areas. In addition, daytime (max.) temperatures will likely be higher than usual in the northwest of the region. Episodes of hazardous heat stress across a wide section of the population are not expected until March in Belize and Trinidad and April elsewhere.

Wet days and wet spells up to April

What usually happens from February to April?

- Number of wet days: roughly 15 to 30 (ABC Is.: 5 to 15; northern Guianas: 20 to 45).
- # of wet spells: up to 2 or 3, of which up to 1 is very wet (northern Guianas: up to 2).
- # of extreme wet spells: up to 1 or two in the northern Guianas and mountainous areas. Virtually none elsewhere.

Forecast and Implications:

- The potential for flooding and cascading impacts arising from very wet and extreme wet spells increases from moderate in its most areas in February and March, to high in April.
- Water depletion rates in smaller and larger surface reservoirs and in rivers may be slower than usual in the Lesser Antilles.
- Sparse occurrence of wet days will often lead to favourable conditions for outdoor tourism activities, but are accompanied by rapidly increasing wildfire potential.

Drought conditions

**Lastest drought situation:** Moderate (or worse) short-term drought has developed in Antigua, Aruba, Curaçao, Grenada, northeast Guyana, and northwest Suriname; moderate (or worse) long-term drought in Aruba French Guiana, northernmost Guyana, Jamaica, southern Puerto Rico, eastern Suriname, and Trinidad.

**Short-term drought (at the end of Apr. 2025)** Short-term drought is evolving in the extreme northwest Bahamas and southeast Cuba, and might possibly develop or continue in Antigua, the central Bahamas islands, southwest Belize, and the USVI.

**Long-term drought (at the end of May 2025)** Long-term drought is evolving in the ABC islands, Antigua and southwest Belize, and might possibly develop in the extreme northwest Bahamas and southwest Puerto Rico.

BRIEF CLIMATE OUTLOOK - May to July 2025

This period marks the early Heat Season, the Wet Season starting in May or June, as well as the Atlantic Hurricane Season starting in June. While considerable uncertainty exists with regards to ENSO conditions in the Pacific, unseasonably high Tropical North Atlantic temperatures are forecast. The heat is set to become uncomfortable in a wide section of the population, potentially even dangerous in the event of prolonged heatwaves. The risk of severe weather impacts from intense shower activity, including flooding, flash floods, and cascading impacts should be high to extremely high, except in the ABC islands. Until wet season rains become abundant, dry season impacts might linger in areas affected by drought. Finally, incursions of Saharan usually peak in frequency during this period. Detailed outlooks for MJJ 2025 are available at [rcc.cimh.edu.bb/caricof-climate-outlooks](http://rcc.cimh.edu.bb/caricof-climate-outlooks)

What influences the next season?

El Niño Southern Oscillation (ENSO)

**Recent observations:** Borderline La Niña conditions have emerged in December 2024, with Sea Surface Temperatures (SSTs) having anomalously cooled to 0.5°C below average.

**Model forecast and guidance:** The forecast models forecast more likely than not La Niña conditions (~50-60% confidence) in FMA 2025, but likely anomalously warming to ENSO neutral by MJJ (~50-60% confid.).

**Expected impacts on rainfall and temperatures:** La Niña conditions are often associated with increased heavy shower activity and rainfall totals in the southeastern Caribbean, but the opposite in the northwestern Caribbean through April.

Climate conditions in the Tropical North Atlantic and Caribbean

**Recent observations:** Unseasonably warm SSTs in the Caribbean Sea and the Tropical North Atlantic (TNA) around 0.5°C to 2°C above average were in place in December 2024.

**Expected conditions:** Models are confidently forecasting warm SST anomalies of 0.25°C to 1°C above average in FMA and in MJJ across the Caribbean Sea and western half of the TNA.

**Expected impacts:** Warm SSTs in and around the Caribbean tend to contribute to higher air temperatures with above-average humidity, seasonal rainfall totals, an increased frequency of extreme rainfall and increased tropical cyclone activity. The likelihood of extreme rainfall and related impacts is higher than usual, even in the Dry Season.

Climate outlooks - background

The Caribbean Climate Outlooks are prepared by the Caribbean Climate Outlook Forum (CariCOF). The Caribbean Institute for Meteorology and Hydrology, in its role as WMO Regional Climate Centre, coordinates the CariCOF process. Contributors to the Outlooks are the Meteorological Services from the region. The Precipitation and Temperature Outlooks are issued in the form of a map, which shows regions where the forecast rainfall or temperatures have the same probabilities to be:

- Above-normal (A) - within the wettest/hottest third of the historical record
- Near-normal (N) - within the middle third of the historical record, i.e. a range called the 'usual'
- Below-normal (B) - within the driest/coldest third of the historical record

CariCOF Outlooks offer consensus-based information averaged across multiple territories. In some cases, individual national results may differ from region wide results. To get information on your specific country context, please consult your National Meteorological and Hydrological Services and/or any national level bulletins they may provide.

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