

# Caribbean Climate Outlook Newsletter - January to March 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.

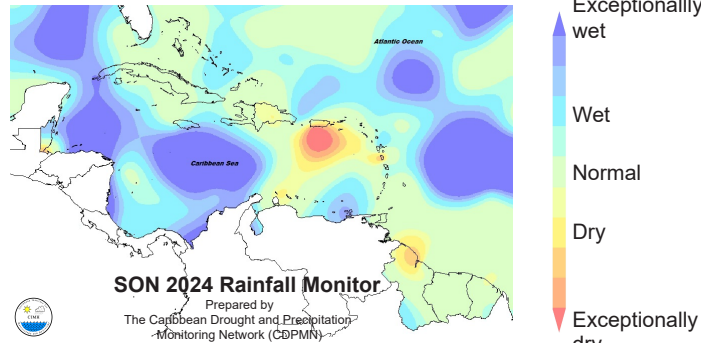
## BRIEF SUMMARY: September 2024 to March 2025

**September to November 2024:** Record Tropical North Atlantic Ocean temperatures continued to fuel (near-)record humid heat across the Caribbean. Most areas observed at least the usual rainfall totals during the second half of the Caribbean Wet Season, with the notable exceptions of northern Guyana and southern Puerto Rico, where short and long-term drought occurred.

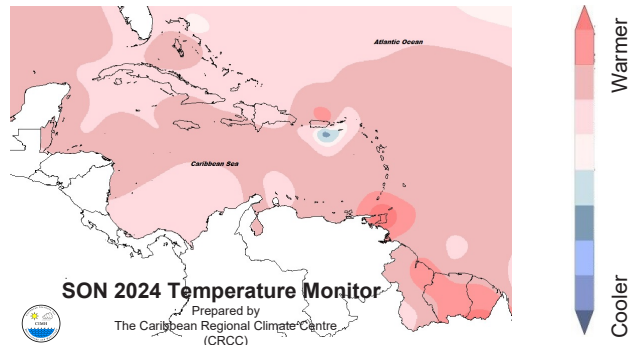
**January to March 2025:** Unusually warm Tropical North Atlantic Ocean temperatures forecasted for this period imply: (i) increased severe weather activity through early February in the Guianas, resulting in *high* to *extremely high* potential for flooding, flash floods, cascading hazards and associated impacts; (iii) short dry spells increase in frequency during the core of the 2024-25 Dry Season, particularly in the far northwest of the region. Short and long-term drought are evolving in southwest Belize and southern Puerto Rico. Widespread extreme heat is not expected through February, i.e., during the Caribbean Cool Season -, but may occur in parts of Belize and Trinidad during March. Recurrent incursion of Saharan dust into the Caribbean is possible.

### LOOKING BACK:

#### Sep. - Oct. - Nov. (SON) 2024 Observations



♦ **RAINFALL:** Southernmost Belize, parts of northern Guyana, southern Puerto Rico very dry; northern Belize, Grand Cayman, Western-most Cuba, southeast Jamaica very wet.



♦ **TEMPERATURE:** Many locations still 0.5-1.5°C warmer than usual, with parts of the Guianas and Trinidad hovering about 2°C warmer than usual.

#### Notable Climate Records in SON 2024:

**WET:** 1 location in the Dominican Rep. reported record high rainfall for this period (~240% of average).

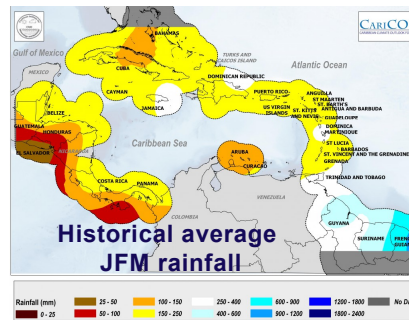
**DRY:** 1 location in the Dominican Rep. reported record low rainfall for this period (~45% of avg.).

**HOT:** Dominica, Sint Maarten, as well as 1 location in French Guiana, 1 in Martinique, 2 in Puerto Rico, 1 in Saint Lucia, 2 in Suriname and 1 in Trinidad reported record-high mean temperatures.

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

### WHAT NEXT?

#### Rainfall patterns January - February - March (JFM)



#### Guianas:

Jan - wet season. Frequent, heavy showers.  
Feb - Mar - dry season; occasional heavy showers and thunderstorms.

#### Belize :

Jan - start of dry season; occasionally still wet.  
Feb to Mar - dry season. Mostly without heavy rainfall.

#### C'bean Islands north of 16°N:

Jan to Mar - sunny days and some days with showers.

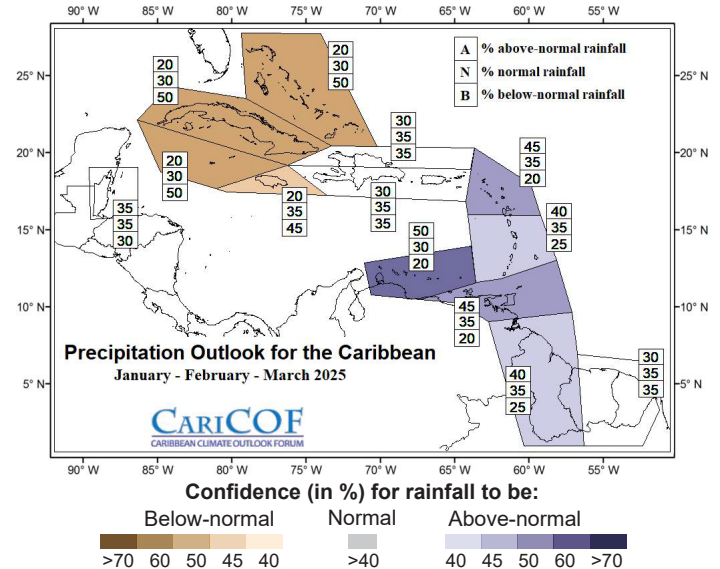
#### C'bean Islands south of 16°N (except ABC Islands):

Jan to Mar - sunny days and some days with showers.

#### ABC Islands:

Jan - wet season ending.  
Feb to Mar - generally dry.

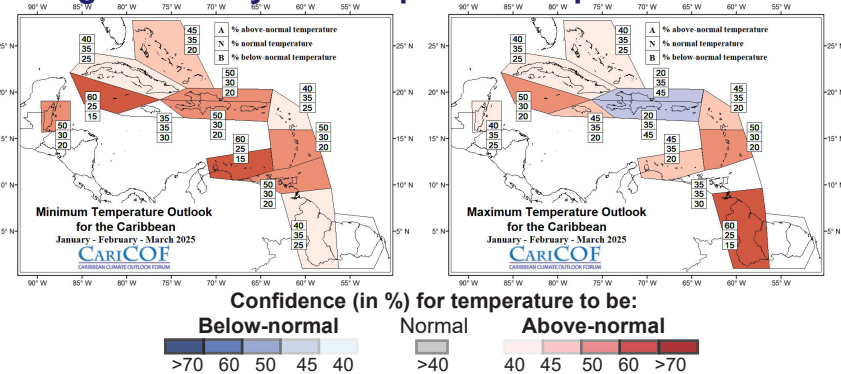
#### JFM 2025 Rainfall Outlook



Rainfall totals from January to March are likely to be the usual or higher in the ABC Is., the Guianas, the Lesser Antilles, but, likely, the usual or less in The Bahamas, Cayman Islands, Cuba and Jamaica.

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

Night- and daytime temperatures up to March



JFM night-time (min.) and daytime (max.) temperatures, as well as air humidity will likely be considerably higher than usual in most areas. Episodes of hazardous heat stress across a wide section of the population are not expected during this period, with the possible exception of Belize and Trinidad in March.

Wet days and wet spells up to March

What usually happens from January to March?

- Number of wet days: roughly 15 to 30 (ABC Is.: 10 to 25; coastal Guianas: 20 to 50).
- # of wet spells: up to 3 (ABC Is.: 1 to 4; Guianas: up to 4), of which up to 1 is very wet (ABC Is.: up to 2; Guianas: up to 3).
- # of extreme wet spells: up to 1 or two in the northern Guianas, virtually none elsewhere.

Forecast and Implications:

- High potential for long-term flooding, flash floods and related hazards arising from very/extreme wet spells in the coastal Guianas through Feb.; slight to moderate potential elsewhere.
- Slower than usual depletion of large water reservoirs, except in the Bahamas, Cayman Is. and Cuba.
- Often favourable conditions for outdoor tourism activities, but increasing wildfire potential towards March, particularly in Cuba.

Drought conditions

**Lastest drought situation:** Moderate (or worse) short-term drought has developed in Aruba, southern Belize, Dominica, northern Guyana, and southern Puerto Rico; moderate (or worse) long-term drought in French Guiana, northern Guyana, Jamaica, southern Puerto Rico, eastern Suriname, and Trinidad.

**Short-term drought (at the end of Mar. 2025)** Short-term drought is evolving in the extreme northwest Bahamas and most of Cuba, and might possibly develop or continue in Antigua, southwest Belize, westernmost Cuba, Dominica and Martinique.

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

BRIEF CLIMATE OUTLOOK - April to June 2025

This period marks the transition into the 2025 Heat Season in April or May, the Wet Season in May or June and the Atlantic Hurricane Season in June. While considerable uncertainty exists with regards to ENSO conditions in the Pacific, an unseasonably warm Tropical North Atlantic is forecast. Air temperatures are set to becoming increasingly uncomfortable by April and May, and very likely higher and with more humidity than usual with a strong chance for heatwaves. The risk of severe weather impacts from intense shower activity, including flooding, flash floods, and cascading impacts should be moderate to high by May or June, except in the ABC islands. Dry season impacts might linger and would be exacerbated by high evapotranspiration rates, particularly in areas affected by drought. Detailed outlooks for AMJ 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:** A strong El Niño event which peaked in December in the eastern equatorial Pacific ended in May, with Sea Surface Temperatures (SSTs) having anomalously cooled to near average.

**Model forecast and guidance:** The forecast models forecast either La Niña or ENSO neutral conditions (~35-65% confid. each) in JFM and likely ENSO neutral conditions in AMJ (~65-75% 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:** Record-warm SSTs in the Caribbean Sea and the Tropical North Atlantic (TNA) around 1°C to 2°C above average have been observed across vast ocean areas since the summer of 2023.

**Expected conditions:** Models are confidently forecasting warm SST anomalies of 0.5°C to 1°C above average in JFM, and 0.25°C to 1°C in AMJ 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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