

Caribbean Climate Outlook Newsletter - March to May 2020

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.

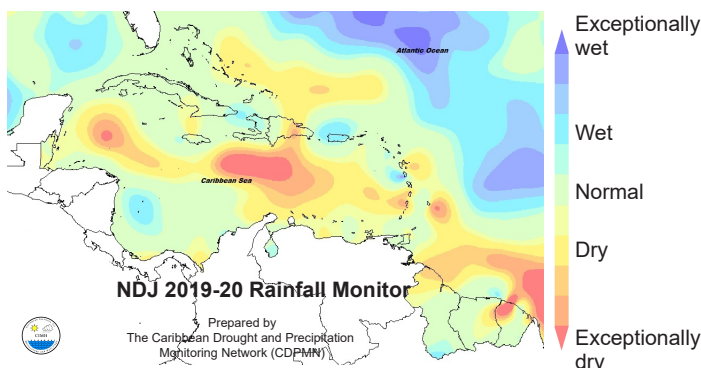
BRIEF SUMMARY: November 2019 to May 2020

November 2019 to January 2020: Long term drought has developed in many areas in the Caribbean, and short term drought locally. Temperatures were significantly above average, accompanied by heat waves into early December in the Guianas, but also locally in the Lesser Antilles where their occurrence was unseasonably late.

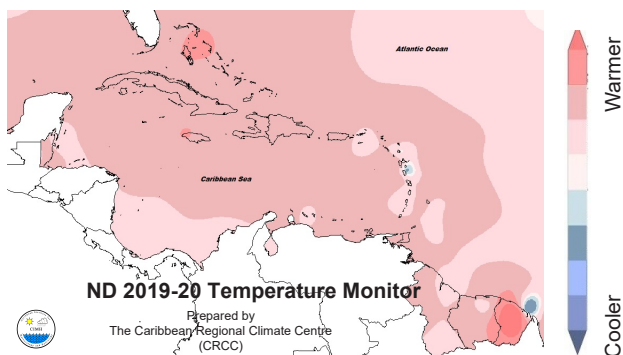
March to May 2020: Towards the end of the Caribbean dry season, a likely reduction in water availability is due to evolving (or possible) long term drought in all countries and territories except French Guiana and Guadeloupe. In addition, frequent dry spells and short-term drought in a majority of places may pose water stress to sensitive rainfed crops. There is growing concern for flooding and flash floods in Belize and the islands from April onwards, as extreme wet spells may occur. Warmer than usual temperatures could make the heat uncomfortable at times.

LOOKING BACK:

Nov. - Dec. 2019 / Jan. 2020 (NDJ) Observations



- ♦ **RAINFALL:** part of E Dom. Rep., N French Guiana, N Guyana, Saint Lucia, St. Vincent very dry; southwestern Dominica very wet.



- ♦ **TEMPERATURE:** Most of the Caribbean significantly warmer than avg., especially in parts of the NW Bahamas, W Jamaica and French Guiana.

Notable Climate Records:

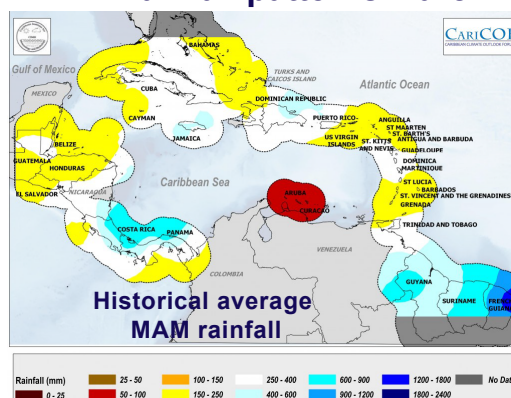
WET: NDJ: 7 locations in Dom. Rep., 2 in Jamaica, 1 Cuba and 1 in St. Vincent recorded their highest rainfall totals for this period (125-370% of avg.).

DRY: NDJ: no record low rainfall totals for this period.

HOT: NDJ: 1 location in Puerto Rico (24.0C) recorded their highest minimum temperatures for the season.

WHAT NEXT?

Rainfall patterns March-April-May (MAM)



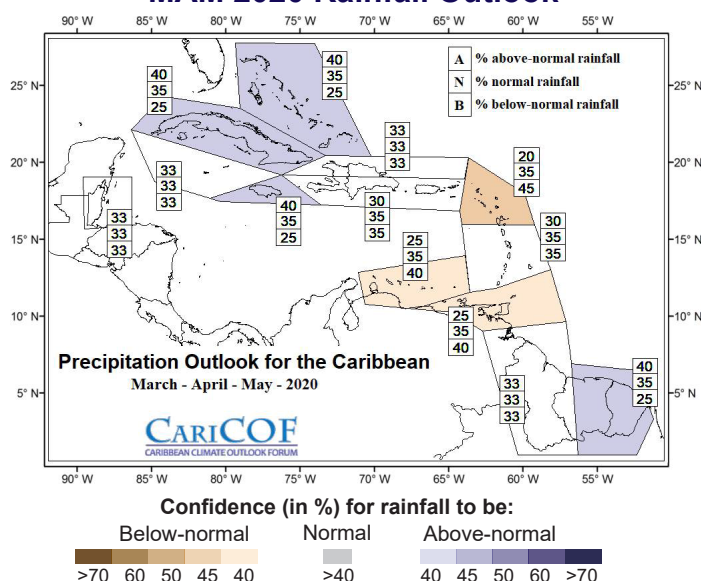
Belize & C'bean Islands north of 16°N:
Mar to Apr - latter part of dry season; limited duration and area of heavy showers.
May - transition to wet season.

C'bean Islands south of 16°N (except ABC Islands):
Mar to May - second half of dry season; limited duration and area of heavy showers; April & May occasionally very wet.

ABC Islands: Mar to May - generally dry.

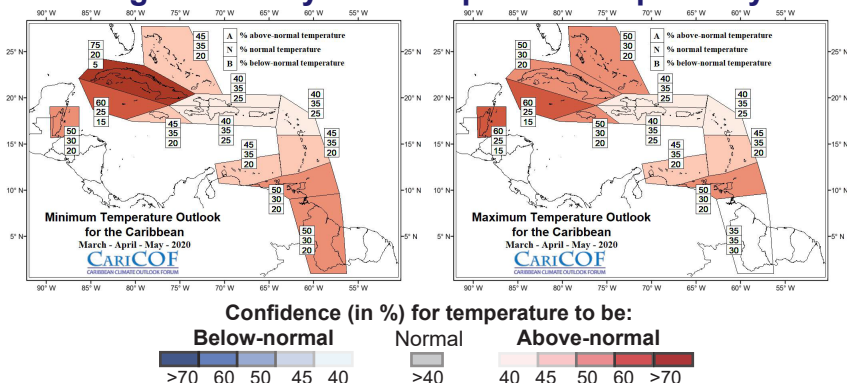
Guianas: Mar to May - transition to wet season; heavy showers more and more frequent.

MAM 2020 Rainfall Outlook



Rainfall totals from March to May are likely to be as dry as usual or drier in the ABC Islands, the Leeward Islands and Trinidad & Tobago, but likely the usual or wetter in the Bahamas, Cuba, eastern parts of the Guianas and Jamaica.
White areas show where the forecast indicates little information on rainfall totals.

Night- and day-time temperatures up to May



MAM night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across most of the Caribbean and may, at times, become uncomfortably hot.

Wet days and wet spells up to May

What usually happens from March to May?

- Number of wet days: roughly 15 to 30.
- # of wet spells: up to 3 (ABC Is. & Guianas: up to 4), of which up to 1 are very wet (Guianas: up to 2).
- # of extreme wet spells: 0 (mountainous areas: up to 1).

Forecast and Implications:

- Growing concern of flash flood and flooding from April onwards in the occurrence of extreme wet spells and very wet spells, especially in the Greater Antilles.
- Relatively fast depletion of large water reservoirs across the Caribbean during the peak of the dry season due to a low frequency of wet spells.
- Wild fire season peaks due to the many dry days.

Drought conditions up to May

Drought situation:

(as of February 1st)

Moderate (or worse) drought has developed in the ABC Islands, central Bahamas, SE Barbados, E Dominican Rep. E Guadeloupe, parts of N French Guiana, northernmost Guyana, Saint Lucia, and St. Vincent on the shorter term; ABC Islands, the Antilles (except for Antigua, W Cuba, Dominica, Grenada, W Guadeloupe, W Jamaica, Puerto Rico and Tobago), N and SE Bahamas, much of N French Guiana, Turks & Caicos Is. are in long term drought.

Shorter term outlook:

Shorter term drought is evolving in ABC Is., Barbados, Belize, Dominica, Grenada, Guyana, NE Puerto Rico, Martinique, Saint Lucia, St. Vincent, Trinidad & Tobago, and is possible in Leeward Islands, Dom. Rep., N French Guiana, Suriname.

Long term concern:

Long term drought is evolving in Antigua, Barbados, northwestern half of Belize, Cayman Is., parts of coastal and interior Guyana, much of Dominican Republic, Guyana, St. Kitts, Windward Islands, USVI, and is possible in most other locations.

BRIEF CLIMATE OUTLOOK - June to August 2020

Indications are that the first half of the Caribbean wet season may end up drier than usual in Barbados, Belize and the Windward Islands, while the the primary wet season in the Guianas may be wetter than usual. Region-wide, heat builds up during this part of the heat season to peak by August, with an increasing frequency of heat waves, especially in view of temperatures forecast to be at least as warm as usual. Areas affected by severe or worse long term drought might see gradual improvement. Flash flood and flooding potential will increase in August in the islands, and is of concern in Belize and the Guianas. For detailed temperature and precipitation outlooks for JJA 2020, please visit rcc.cimh.edu.bb/caricof-climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: Sea Surface Temperatures (SSTs) in the eastern Pacific SSTs remained slightly above normal (~0.2°C above average) by mid-February, meaning ENSO neutral conditions are still in place.

Model forecast and guidance: Most models favor ENSO neutral conditions to persist during MAM (with 60-70% confidence) and possibly maintain ENSO neutral through JJA (50-55% confidence).

Expected impacts on rainfall and temperatures: The ENSO neutral phase offers little contribution to seasonal rainfall or temperature prediction in any part of the Caribbean, leading to diminished skill of and confidence in seasonal forecasts at this time. Conversely, uncertainty in the seasonal forecasts increases with ENSO-neutral conditions.

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 |
| 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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