

# Caribbean Climate Outlook Newsletter - April to June 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.

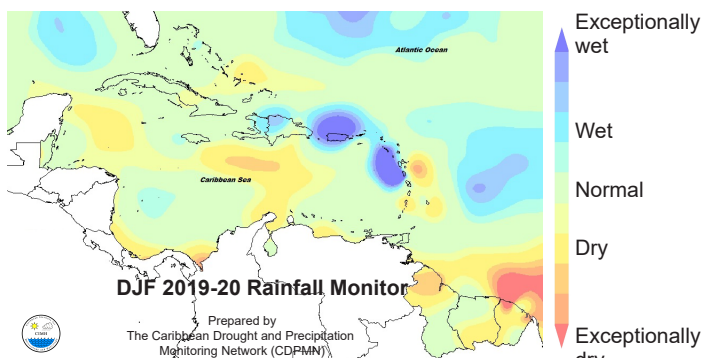
## BRIEF SUMMARY: December 2019 to June 2020

**December 2019 to February 2020:** Long term drought has developed in many areas in the Caribbean, and short term drought locally. Temperatures were significantly above average, though comfortably cool during this major part of the Caribbean's cool season (which runs from December to March).

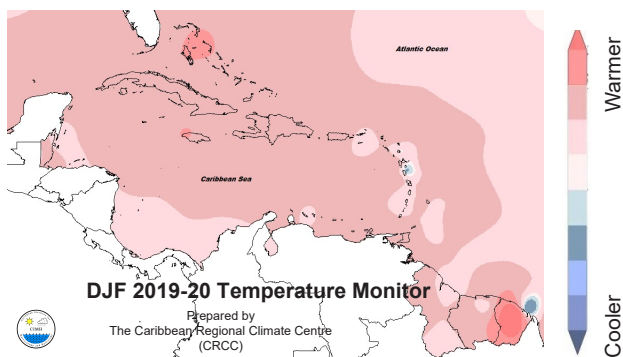
**April to June 2020:** Before entering the Caribbean wet season in May (June in the Windward Islands), a likely reduction in water availability is due to evolving (or possible) long term drought in all countries and territories except Guadeloupe. Frequent dry spells until May may pose water stress to sensitive crops and cause significant wild fire potential. However, concern for flooding and flash floods will gradually grow, as extreme wet spells may occur. Rising temperatures and the possibility of heat waves into May will make the heat uncomfortable at times.

### LOOKING BACK:

#### Dec. 2019 / Jan. - Feb. 2020 (DJF) Observations



- ♦ **RAINFALL:** N French Guiana, N Guyana very dry; Dominica, NW Dom. Republic, Puerto Rico, St. Thomas, St. Kitts, very wet.



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

#### Notable Climate Records:

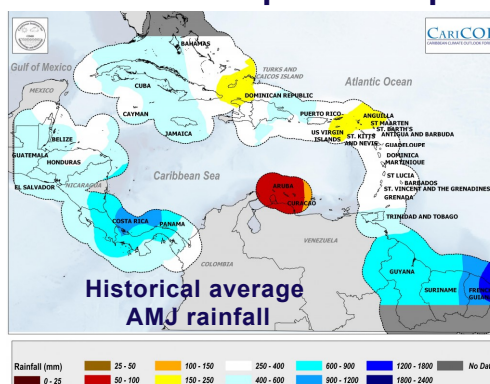
**WET:** DJF: 7 locations in Dom. Rep., 3 in Martinique, 2 in Belize, and 1 in Dominica recorded their highest rainfall totals for this period (165-425% of avg.).

**DRY:** DJF: no record low rainfall totals for this period.

**HOT:** DJF: 1 location in Belize and 1 in Jamaica recorded their highest minimum temperatures for the season.

### WHAT NEXT?

#### Rainfall patterns April-May-June (AMJ)



#### Belize & C'bean Islands north of 16°N:

Apr - end of the dry season. Limited spatial extent and duration of heavy showers.

May & Jun - usually frequent heavy showers.

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

Apr to May - end of dry season. Limited spatial extent and duration of heavy showers; occasionally very wet.

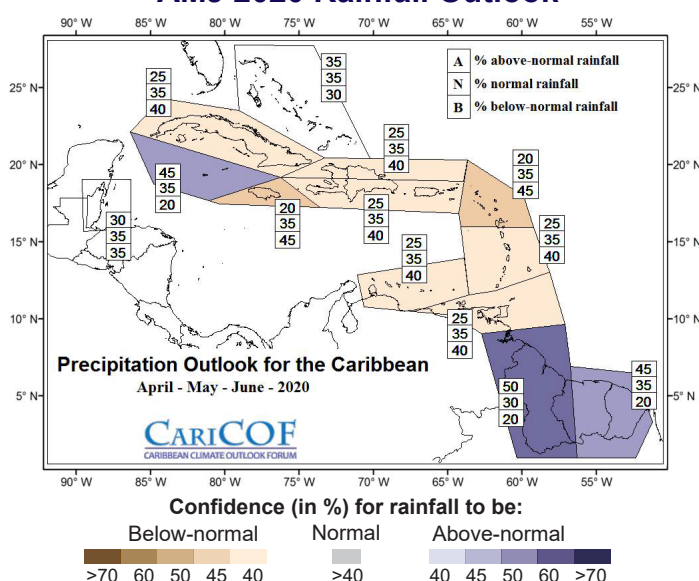
Jun - onset of wet season.

Increasingly heavy showers.

**ABC Islands:** Apr to Jun - mostly dry.

**Guianas:** Apr to Jun - transition to wet season; heavy showers more and more frequent.

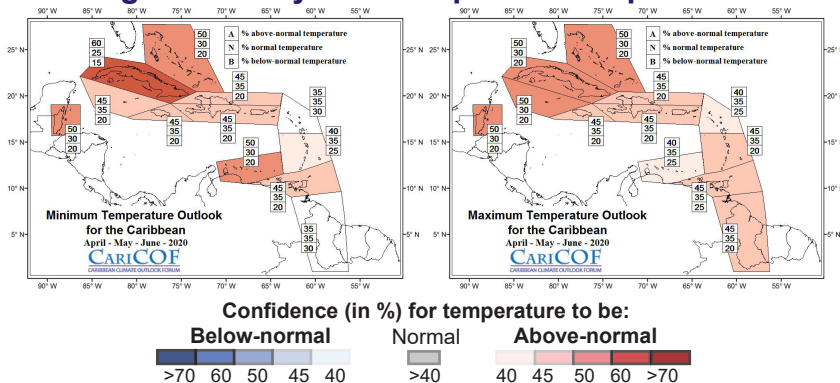
#### AMJ 2020 Rainfall Outlook



Rainfall totals from April to June are likely to be at least as wet as usual in the Cayman Islands and the Guianas, but likely as dry as usual or drier in the rest of the Antilles.

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

## Night- and day-time temperatures up to June



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

## Wet days and wet spells up to June

## What usually happens from April to June?

- Number of wet days: roughly 20 to 35, (ABC Is. 5-10; Guianas: 40-55).
- # of wet spells: up to 4 (ABC Is. 1; Guianas: up to 6), of which up to 2 are very wet (ABC Is. 1; Guianas: up to 3).
- # of extreme wet spells: up to 1 in most locations.

## Forecast and Implications:

- Growing concern of flash flood and flooding in the occurrence of extreme wet spells and very wet spells, especially in Belize, the Greater Antilles and Guianas.
- Relatively fast depletion of large water reservoirs across the Caribbean until the end of the dry season due to the low frequency of wet spells in the islands.
- With few wet days, wild fire potential peaks in April/May.

## Drought conditions up to June

*Drought situation:*

(as of March 1st)

Moderate (or worse) drought has developed in in southeastern parts of The Bahamas, French Guiana, northern Guyana, St. Vincent and southern Suriname; ABC Islands., northernmost and southeastern parts of the Bahamas, Barbados, most of Belize, Cayman, Central and Eastern Cuba, much of French Guiana, easternmost Guadeloupe, most of Hispaniola, Martinique, Saint Lucia, St. Vincent, eastern Suriname, Trinidad & Tobago, USVI are in long term drought.

*Shorter term concern:*

(by the end of June)

Shorter term drought is evolving in ABC Islands, Barbados, east-central Belize, much of French Guiana, the Windward Islands (except Dominica), Suriname, and Trinidad & Tobago.

*Long term concern:*

(by the end of May)

Long term drought is evolving in northwestern half of Belize, eastern Cuba, most of Dominican Republic, Guyana, the Lesser Antilles (except Guadeloupe and Sint Maarten), and is possible in most other locations.

## BRIEF CLIMATE OUTLOOK - July to September 2020

The middle of the wet season may end up drier than usual in Barbados, Belize, Trinidad & Tobago and the Windward Islands, but possibly wetter than usual in the Bahamas and the Greater Antilles. Transitioning out of the wet season, the Guianas may be wetter than usual. Heat builds up and heat waves become frequent during this part of the Caribbean heat season (May to October) to peak by August/September. Areas affected by long term drought might see gradual improvement, esp. in the Guianas and Greater Antilles. Flash flood and flooding potential will be moderate to high as of August (except the Guianas). For detailed temperature and precipitation outlooks for JAS 2020, please visit [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:** Sea Surface Temperatures (SSTs) in the eastern Pacific SSTs remained slightly above normal (~0.4°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 AMJ (with 65-80% confidence) and possibly maintain ENSO neutral through JAS (45-55% 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 conditions in the Tropical North Atlantic and Caribbean

**Recent observations:** In January, SSTs throughout the Gulf of Mexico were up to 2°C above average while SSTs across much of the Caribbean and into the western Tropical North Atlantic (TNA) are up to 1°C above average. SST remains near average farther east in the TNA.

**Expected conditions:** Sustained warm SST anomalies up to about +1°C are expected across the Caribbean Sea and Gulf of Mexico, while TNA SSTs are expected to be near normal to slightly above normal (0.5°C).

**Expected impacts:** Continued warm SSTs throughout the Caribbean may contribute to above-average seasonal surface temperatures across the region. In addition, those environmental factors slightly favour a wetter transition from the dry to the wet season in May and June.

## 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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