

# Caribbean Climate Outlook Newsletter - February to April 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.

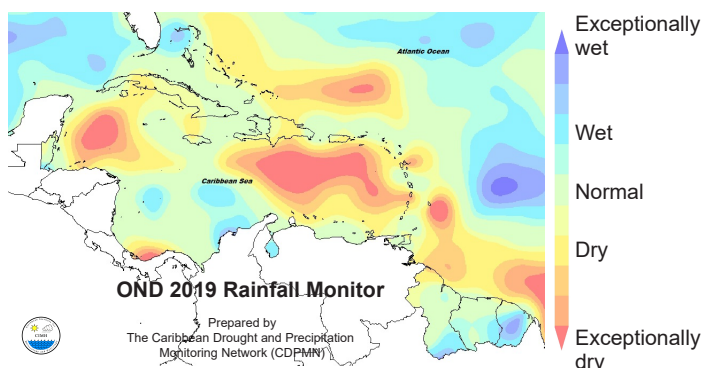
## BRIEF SUMMARY: October 2019 to April 2020

**October to December 2019:** Shorter term drought and long term drought have developed in many areas in the Caribbean. Temperatures were significantly above average towards the end of the year, accompanied by recurrent heat waves in October in the eastern and southern Caribbean and into November in the Guianas.

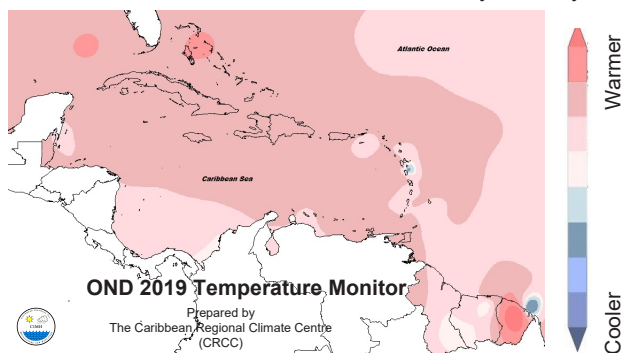
**February to April 2020:** During the peak of the dry season, limited water availability is due to evolving (or possible) long term drought throughout the Caribbean (except French Guiana, NW Bahamas and the US Territ.). In addition, frequent dry spells and short-term drought in a majority of places may pose water stress to sensitive rainfed crops. There is marginal concern for flooding and flash floods in Belize and the islands through March, but some concern in April. Temperatures, seasonably cool and comfortable until March, will start rising by April.

### LOOKING BACK:

#### Oct. - Nov. - Dec. 2019 (OND) Observations



- **RAINFALL:** Barbados, southernmost Dom. Rep., E Guadeloupe, Saint Lucia, St. Vincent, St. Croix very dry; Grand Bahama, interior of French Guiana, southernmost Guyana very wet.



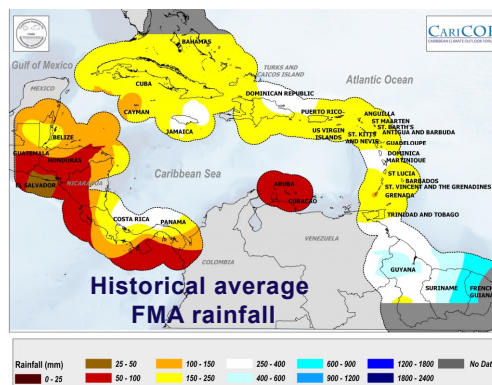
- **TEMPERATURE:** NE Dominica signif. cooler than avg.; other areas slightly to significantly warmer than avg., especially in parts of the NW Bahamas and French Guiana.

#### Notable Climate Records:

- WET:** OND: 3 locations in Dom. Rep., 2 in French Guiana recorded their highest rainfall totals for this period (185-240% of avg.).
- DRY:** OND: 1 location in Dom. Rep., 1 in Guadeloupe recorded their lowest rainfall totals for this period (15-35% of avg.).
- HOT:** OND: Sint Maarten recorded its highest mean temperature for this period.

### WHAT NEXT?

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



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

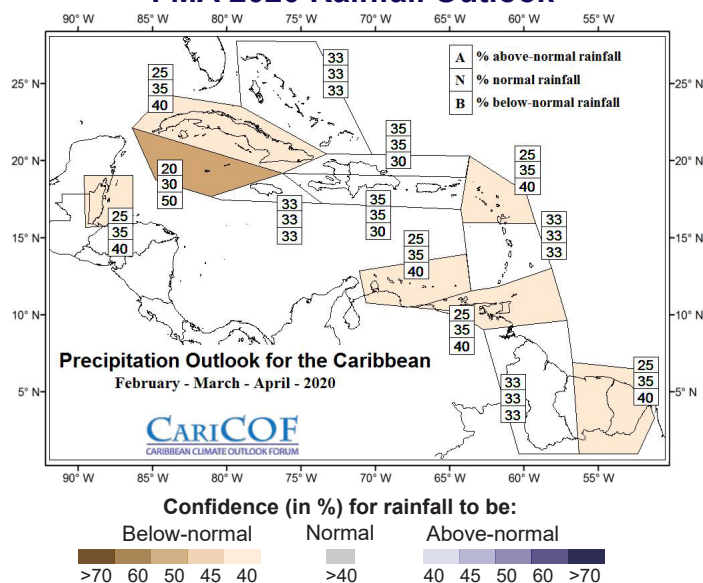
**C'bean Islands north of 16°N:** Feb to Apr - sunny days and some days with showers.

**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.

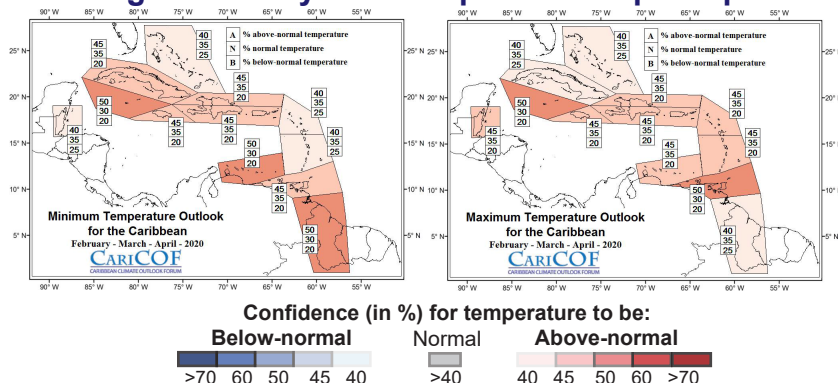
#### FMA 2020 Rainfall Outlook



Rainfall totals from February to April are likely to be as dry as usual or drier in the ABC Islands, Belize, Cayman, Cuba, eastern parts of the Guianas, the Leeward Islands and Trinidad & Tobago.

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

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



FMA night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across most of the Caribbean and seasonably comfortable through March.

## Wet days and wet spells up to April

### What usually happens from February to April?

- 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:

- Some concern of flash flood and flooding from April in the occurrence of 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.
- Few disruptions of outdoor activities by rainfall.

## Drought conditions up to April

### Drought situation:

(as of January 1st)

Moderate (or worse) drought has developed in the ABC Islands, E Bahamas, N Cuba, most islands from central and S Dom. Rep. east- and southward (except Antigua, Dominica, Grenada, Martinique, St. Martin, Trinidad & Tobago) on the shorter term; portions of all islands (except Antigua and Grenada), Belize, and French Guiana are in long term drought.

### Shorter term outlook:

Shorter term drought is evolving in Tobago and is possible in the ABC Isls., Barbados, Belize, Cayman, central Cuba, Dom. Rep., Grenada, Guyana, NE Puerto Rico, St. Kitts, Saint Lucia, St. Vincent, St Martin, Trinidad and US Virgin Islands.

### Long term concern:

Long term drought is evolving in ABC Isls., Antigua, Barbados, Belize, Cayman, Dom. Repub., eastern Jamaica, Saint Lucia, St. Vincent, Trinidad & Tobago, and is possible in other locations (with the exception of the NW Bahamas, French Guiana, eastern Puerto Rico and the USVI, where no significant concern is seen).

## BRIEF CLIMATE OUTLOOK - May to July 2020

Indications are that the first half of the Caribbean heat season (May to October), during which heat waves are possible, may end up hotter than usual across most of the region. Region-wide, severe or worse long-term drought might slowly improve as the region transitions back into the wet season.

Frequent dry spells and the related potentially reduced crop productivity and increased wild fire potential in May could be of concern, especially in areas currently affected by drought. Flash flood and flooding potential will increase in May in Belize, the Guianas and the Greater Antilles.

For detailed temperature and precipitation outlooks for MJJ 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:** SSTs in the east-central Pacific shifted from borderline weak El Nino levels (~0.5°C above average) to ENSO neutral by early January, meaning ENSO neutral conditions are still in place.

**Model forecast and guidance:** Most models favor ENSO neutral conditions to persist during FMA (with 60-70% confidence) and possibly maintain ENSO neutral through MJJ (55-65% 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/colest 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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