Caribbean Climate Outlook Newsletter - January to March 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.

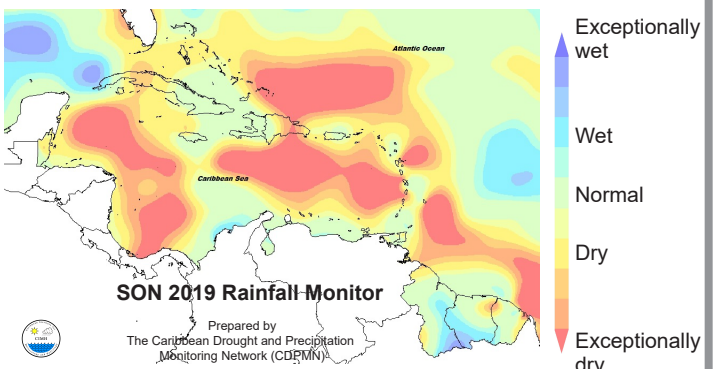
BRIEF SUMMARY: September 2019 to March 2020

September to November 2019: Shorter term drought and long term drought have developed in many areas in the Caribbean. Temperatures were significantly above average during this peak period within the Caribbean heat season, leading to recurrent heat waves. With elevated humidity, the heat led to discomfort in most locations.

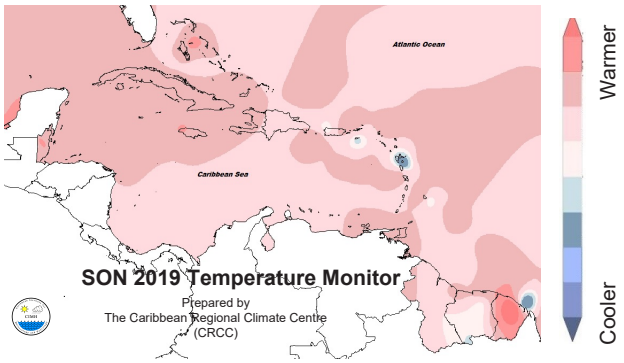
January to March 2020: Limited water availability is due to evolving (or possible) long term drought in Belize and a majority of Caribbean Islands. In addition, frequent dry spells and short-term drought in Belize and most islands may pose water stress to sensitive rainfed crops. There is marginal concern for flooding and flash floods in Belize, the islands and southwestern parts of the Guianas. By contrast, flooding and flash flood potential is relatively high in the coastal Guianas through mid-February. Temperatures should be seasonably comfortable.

LOOKING BACK:

Sept. - Oct. - Nov. 2019 (SON)
Observations



- **RAINFALL:** Barbados, Cayman, N Cuba, S Dominica, E Dom. Rep., Guadeloupe, Martinique, Saint Lucia, St. Vincent, Turks & Caicos very dry; SE Guyana and SW Suriname very wet.



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

Notable Climate Records:

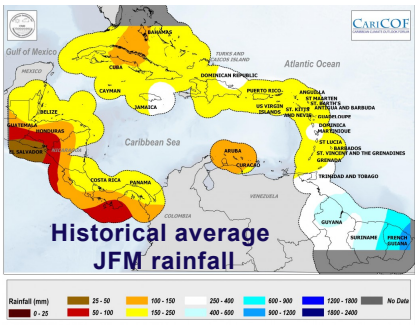
WET: *SON:* 2 locations in Dom. Rep. and 2 in Puerto Rico recorded their highest rainfall totals for this period (175-270% of avg.).

DRY: *SON:* No records .

HOT: *SON:* 1 location in Guyana recorded their highest min. temp. and 1 location in Haiti their highest max. temp. for this period.

WHAT NEXT?

Rainfall patterns January-February-March (JFM)



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

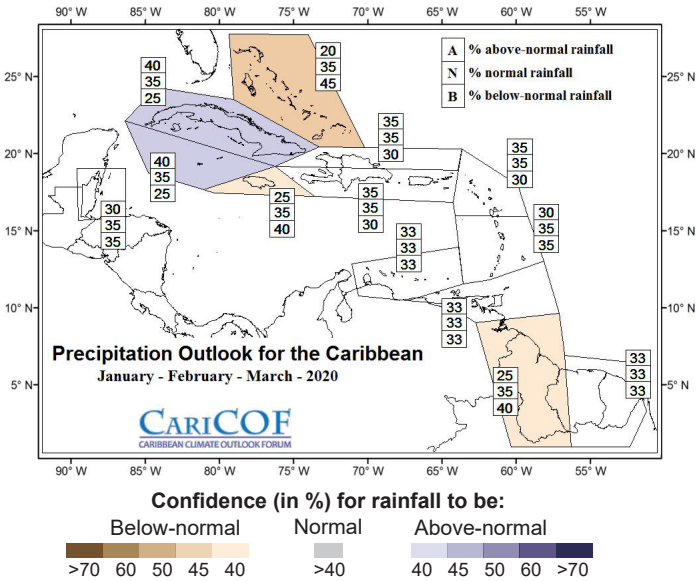
C'bean Islands north of 16°N:
Jan to Mar - sunny days and some days with showers.

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

***ABC Islands*:** *wet season ending in Jan. Feb to Mar generally dry.*

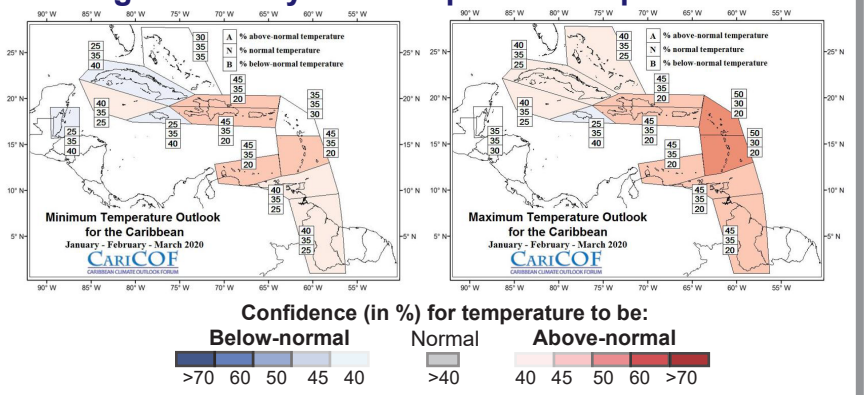
Guianas:
Jan - wet season. Frequent, heavy showers.
Feb - Mar - dry season; occasional heavy showers and thunderstorms.

JFM 2020 Rainfall Outlook



Rainfall totals from January to March are likely to be at least the usual in the Cayman Isls. and Cuba, but as dry as usual or drier in the Bahamas, western 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 March



Confidence (in %) for temperature to be:

Below-normal					Normal	Above-normal				
>70	60	50	45	40	>40	40	45	50	60	>70

JFM night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across most of the Caribbean during this period, while being seasonably comfortable, with the possible exception of Jamaica, or night-time temperatures in Belize & Cuba.

Wet days and wet spells up to March

What usually happens from January to March?

- Number of wet days: roughly 20 to 40.
- # of wet spells: up to 3 (ABC Is. & Guianas: up to 4), of which up to 1 are very wet (ABC Is.:up to 2 & Guianas: up to 3).
- # of extreme wet spells: 0 (coastal Guianas: up to 1).

Forecast and Implications:

- Flash flood and flooding concern from very/extreme wet spells is marginal in Belize and the islands, but remains in the coastal Guianas through mid-February).
- Potentially faster depletion of large water reservoirs across Belize and most of the Islands.
- Favourable conditions for outdoor activities, but rising wild fire potential and local airborne dust concentrations.

Drought conditions up to March

Drought situation: (*as of December 1st*)	Moderate (or worse) drought has developed in the ABC Islands, NW Bahamas, NE Belize, Cayman, N Cuba, E Dom. Republic, the Lesser Antilles (except Antigua & Barbuda, Grenada, Trinidad & Tobago) and Turks & Caicos on the shorter term; Northern- and southern-most Bahamas, Belize, the Antilles (except Antigua, W and Central Cuba, W Dom. Rep., Jamaica) and parts of French Guiana are in long term drought.
Shorter term outlook:	Shorter term drought is evolving in ABC islands, Barbados, Guadeloupe, and eastern Puerto Rico.
Long term concern:	Long term drought is evolving in in the ABC islands, Barbados, most of Belize, Cayman, central Cuba, southern Dom. Rep., St. Kitts, St. Vincent, Trinidad and is possible in other islands, except Bahamas, US C'bean Terr.,St. Martin and Tobago.

BRIEF CLIMATE OUTLOOK - April to June 2020

Indications are that the transition from the dry to the wet season may end up hotter and wetter than usual across most of the region. Region-wide, severe or worse long-term drought might slowly improve if the heavier rains manifest. Frequent dry spells and the related potentially reduced crop productivity and increased wild fire potential, as well as, an increase in the chance of heat waves and heat discomfort from May onwards (particiularly in Belize and Trinidad) may be of concern. Flash flood and flooding potential will increase in May in Belize, the Guianas and the Greater Antilles. For detailed temperature and precipitation outlooks for AMJ 2020, please visit rcc.cimh.edu.bb/caricof-climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: Though SSTs in the east-central Pacific have hovered around borderline El Nino levels in recent months (~0.5°C above average), ENSO neutral conditions are still in place.

Model forecast and guidance: Most models favor ENSO neutral conditions to persist during JFM (with 55-70% confidence) and AMJ (60-70% 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. Thus, seasonal forecast skill for the Caribbean region tends to be diminished during ENSO neutral conditions. Chances for equal chances of below, normal, and above conditions are increased.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs in the Tropical North Atlantic (TNA) and the eastern Caribbean Sea continue to be slightly above average, particularly in the vicinity of the Caribbean Islands and in the sub-tropical North Atlantic, where surface waters are nearly 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 through the subtropical North Atlantic and around the Caribbean Islands.

Expected impacts: Continued warm SSTs throughout the Caribbean may contribute to above-average seasonal surface temperatures across the region. Those environmental factors favour a wetter transition from the dry to the wet season towards April, 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.

DISCLAIMER