

# CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM



MARCH 2020 • VOLUME 3 • ISSUE 10

A joint bulletin of the Caribbean Agricultural Research and Development Institute (CARDI) and the Caribbean Institute for Meteorology and Hydrology (CIMH).

## KEY MESSAGES

Concerns continue over available water for agriculture as soil moisture, stream flow and river flow may be impacted (by the end of May 2020) especially for the ABC Islands, Barbados, portions of Belize, Grenada, Guyana, northeastern Puerto Rico, Martinique, Saint Lucia, St. Vincent, and Trinidad and Tobago.

By the end of May 2020 long-term drought may be of a concern for Antigua, Barbados, northwestern Belize, Cayman Islands, parts of coastal and interior Guyana, most of Dominican Republic, St. Kitts, the Windward Islands, and US Virgin Islands. These areas may experience significantly reduced water levels in large reservoirs, large rivers and ground water during the dry season.

Interests across the region should continue to closely monitor their water status.

Growing concerns of flash flooding (from April onwards) from the occurrence of very wet spells, especially in the Greater Antilles.

## JANUARY IN REVIEW

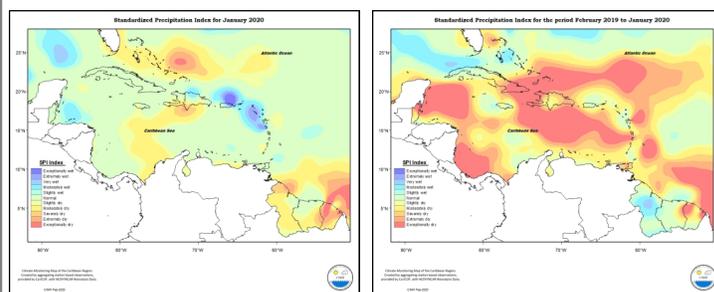
Mixed conditions were seen throughout the islands of the eastern Caribbean in the month of December. Trinidad, Tobago, Grenada and Antigua were normal; St Vincent slightly dry; St Lucia and St Croix normal to slightly dry; Barbados slight to moderately dry from north to south; Martinique predominantly normal with the exception of the extreme northern border which was slight to moderately wet; Dominica slight to exceptionally wet from the north east to the south west; Guadeloupe normal to very wet from east to west; St Kitts and St Maarten slight to moderately wet; and St Thomas very wet. Conditions in the Guianas ranged from slightly dry in northwest and northeast Guyana to extremely wet in southern Guyana and to exceptionally wet in south-eastern French Guiana. Curacao was normal.

Puerto Rico, Hispaniola and Jamaica were normal to moderately wet, Grand Cayman was normal, while Cuba was predominantly normal with the exception of the extreme northwest that was slightly wet and some east central areas which were slight to moderately dry. Northern Bahamas was moderate to very wet. Belize, though mostly normal, was slightly wet in the east and slight to severely dry on the western border.

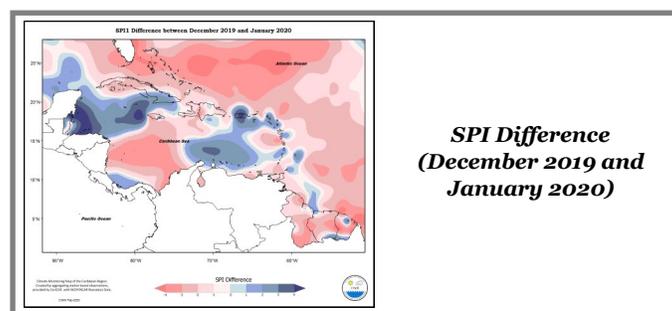
## ABOUT CariSAM

The Caribbean Society for Agricultural Meteorology (CariSAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises, and more. Visit us at: [www.carisam.cimh.edu.bb](http://www.carisam.cimh.edu.bb)

## JANUARY 2020 SPI (left) and 12-month SPI FEBRUARY 2019 TO JANUARY 2020 (right)



Some territories received more rain in January than December, particularly most of Belize. Cayman Islands, Puerto Rico, and most territories of the Eastern Caribbean.



**SPI Difference  
(December 2019 and  
January 2020)**

Read more at <https://rcc.cimh.edu.bb/spi-monitor/>

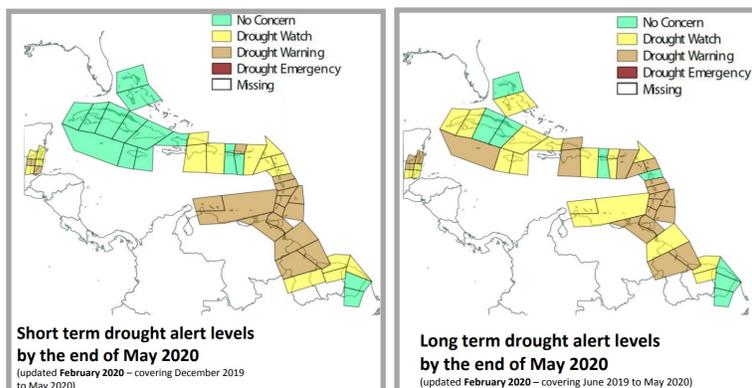
## AGRI-NEWS

**Barbados:** The Barbados Agricultural Development and Marketing Corporation (BADMC) will once again be rationing the water supply to farmers at its Spring Hall Land Lease Project amid forecasted drought conditions threatening to wreak havoc on yet another crop. Read more <https://barbadostoday.bb/2020/02/11/water-rationing-for-farmers-andwele/>

## REGIONAL OUTLOOKS

### DROUGHT

At present, moderate (or worse) shorter term drought has developed in the ABC Islands, central Bahamas, southeastern Barbados, eastern Dominican Republic, eastern Guadeloupe, portions of northern French Guiana, northernmost Guyana, Saint Lucia, and St. Vincent.

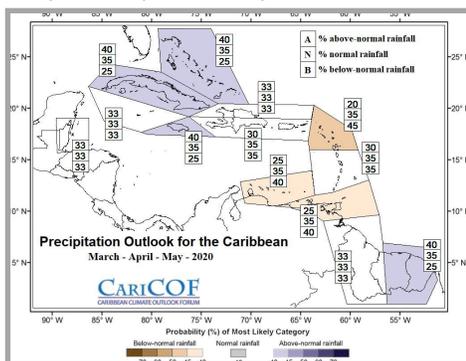


Surface soil wetness, and stream and river flow is likely to significantly decrease (by the end of May 2020) across the ABC Islands, Barbados, portions of Belize, Dominica, Grenada, Guyana, northeastern Puerto Rico, Martinique, Saint Lucia, St. Vincent, and Trinidad and Tobago. These conditions could possibly develop (or continue) across the Leeward Islands, portions of Belize, Dominican Republic, northern French Guiana, and Suriname.

By the end of the 2020 dry season long-term drought conditions could be a challenge in farming especially where water supply is sourced from larger reservoirs, large rivers or groundwater, affecting Antigua, Barbados, northwestern Belize, Cayman Islands, portions of coastal and interior Guyana, Dominican Republic, St. Kitts, the Windward Islands, and US Virgin Islands. Long term drought might possibly develop (or continue) in the ABC Islands, northwestern Bahamas, southeastern Belize, east and west Cuba, eastern Dominican Republic, Jamaica, eastern Puerto Rico, Sint Maarten, and Suriname. **Interests across the region should continue to closely monitor their water status during this dry season.**

### RAINFALL, WET/DRY SPELLS and TEMPERATURE (MARCH–MAY 2020)

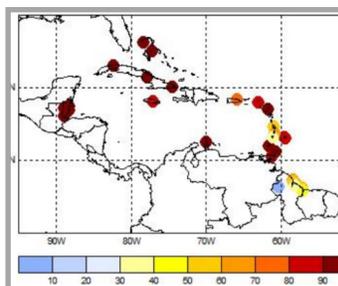
Rainfall totals from March to May are likely to be as dry as usual or drier in the ABC Islands, the Leeward Islands and Trinidad and Tobago. However, conditions are likely to be as wet as usual or wetter in the Bahamas, Cuba, the eastern parts of the Guianas and Jamaica.



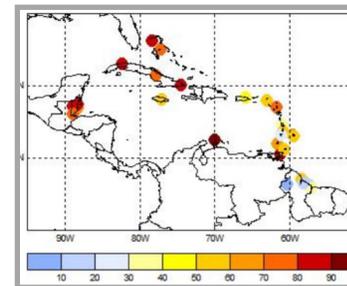
There are growing concerns of flash flooding (from April onwards) from the occurrence of very wet spells, especially in the Greater Antilles.

The occurrence of at least three 7-day dry spells is highly favourable across most of the region. The occurrence of at least one 15-day dry spell is possible particularly across Belize, Cuba, northern Bahamas, Trinidad and the ABC Islands. Wild fires may peak due to many dry days.

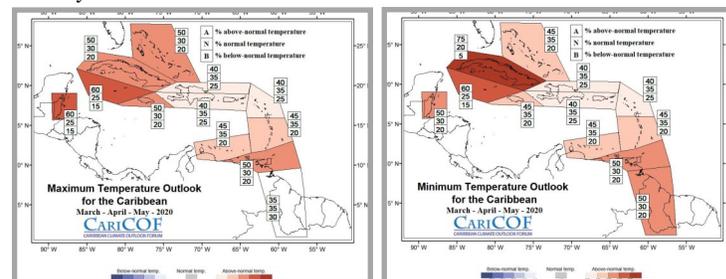
Probability of at least THREE 7-day dry spells in MAM



Probability of at least ONE 15-day dry spell in MAM



Day (maximum) and night (minimum) time temperatures are likely to be as warm as usual across most of the region and may, at times, become uncomfortably hot.



Visit <http://rcc.cimh.edu.bb/climate-outlooks/> to access the latest climate outlooks.

### CLIMATE-SMART ADVISORIES

- ◆ Farmers, particularly in countries most likely to be impacted by drought, should at this time have alternate water sources for on-farm activities.
- ◆ Continue to employ water conservation measures, especially in severely impacted areas. Water conservation techniques such as mulching and (drip) irrigation are known to increase crop yields by close to 10% compared to crops that are not mulched or irrigated.
- ◆ In preparation, farmers should consider preparing plot sizes that their limited water resources would irrigate/satisfy. Consider planting drought tolerant species and varieties. Provide shade and ample water for livestock. And keep good written production records.
- ◆ Irrigate in the early morning preferably. There is less chance of wind and lower evaporation rates.
- ◆ Territories of the Greater Antilles should be on guard for flood producing rains, especially from April onward:
  - ⇒ Maintain drains around crop beds and/or plant crops on raised beds
  - ⇒ House animals on high ground and/or on raised pens
  - ⇒ Store fertilizer away from moisture and water sources

**Please also take into consideration your local weather and climate advisories.**

#### Disclaimer

The information contained herein is provided with the understanding that the CARDI, and the CIMH make no warranties, either expressed or implied concerning the accuracy, completeness, reliability or suitability of said information. This bulletin provides a broad overview of climate conditions up to 6 months in advance. It is recommended that stakeholders should use this information in combination with nearer term weather forecasts to guide operational decision making. The bulletin may be freely used by the public with appropriate acknowledgement of its source but shall not be modified in content and then presented as original material.

### CONTACT US:

**Adrian Trotman**  
 Agro-meteorologist/ Chief of Applied Meteorology and Climatology, CIMH  
 Email: [atrotman@cimh.edu.bb](mailto:atrotman@cimh.edu.bb)

**Shontelle Stoute**  
 Technical Officer, CIMH  
 Email: [sstoute@cimh.edu.bb](mailto:ssoute@cimh.edu.bb)

**Kistian Flemming**  
 Climate Change Development Specialist, CARDI  
 Email: [kflemming@cardi.org](mailto:kflemming@cardi.org)