

# CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM



MARCH 2021 • VOLUME 4 • 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

**Dry spells are likely to be frequent in Belize and the islands, except in mountainous areas. Towards May, such dry spells may spark some heatwaves as the region moves into the Heat Season, which could start intensely in the Western Caribbean.**

**By the end of the 2021 dry season there may be concern for short-term drought for several territories. Long term drought may be of concern particularly for the ABC Islands.**

**An increase in rainfall amounts is possible for Belize, Cuba and the Guianas from March through May 2021.**

**The potential for flooding, flash floods and related hazards will increase from marginal in March across the region to limited to moderate by May.**

## JANUARY IN REVIEW

The islands of the eastern Caribbean were predominantly normal to below normal during the month of January. Trinidad, Tobago and St Croix normal; Grenada and St Vincent slight to moderately dry; Barbados very to extremely wet; Saint Lucia normal to moderately dry; Martinique and Dominica slight to exceptionally dry; Guadeloupe slight to extremely dry; Antigua extremely dry; St Kitts severe to slightly dry; St Maarten moderate to extremely dry; St Thomas moderately dry. Conditions in the Guianas ranged from severely dry in northeastern Guyana to exceptionally wet in southern French Guiana. Aruba normal and curacao slight to moderately wet.

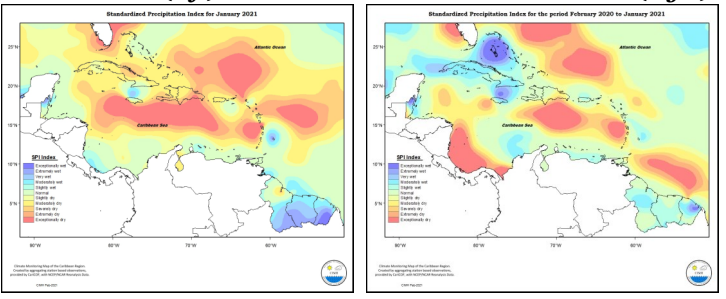
Puerto Rico ranged from moderate to slightly dry west to southeast. The Dominican Republic ranged from moderate to exceptionally dry. Jamaica ranged from exceptionally dry in the west to moderately wet in the north and severely dry in the east. Grand Cayman was moderately dry. Cuba ranged from extremely dry in the northeast to slightly dry in the extreme west and slightly wet in the extreme southeast. Northern Bahamas ranged from normal to severely dry and Belize ranged from slightly dry in the south to extremely wet in northern areas.

## ABOUT CariSAM

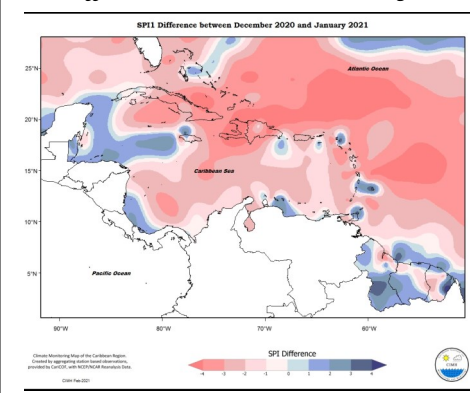
The Caribbean Society for Agricultural Meteorology (CariSAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises,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

The 12-month review of rainfall shows a surplus of moisture across the northwestern section of The Bahamas, much of Cuba, Belize and portions of the Guianas.

### JAN 2020 SPI (left) and 12-month SPI FEB 2020—JAN 2021 (right)



### SPI Difference (December and January 2020)



The month of January was predominantly relatively drier than December across much of the region with a few exceptions.

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

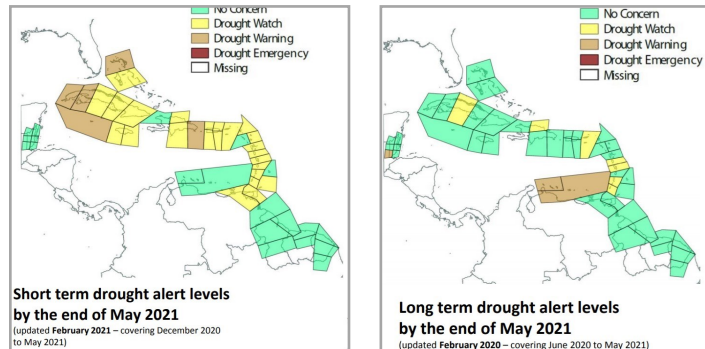
## AGRI-NEWS

Belize: Climate Change Hits Sugar Production Hard! Read more <https://edition.channel5belize.com/archives/215139>

## REGIONAL OUTLOOKS

### DROUGHT

As at the end of January 2021, moderate (or worse) shorter term drought has developed in southernmost parts of Dominica, northern Martinique, Sint Maarten/St-Martin and northwestern Trinidad. Moderate (or worse) long term drought has developed in southwestern Belize, along the southern coastline of the Dominican Republic, south-westernmost Jamaica, and along the Windward Islands.



By the end of May 2021, there is some chance for impacts from short-term drought in northernmost Bahamas, Cayman Islands, Western Cuba, and eastern Dominican Republic. Short term drought might possibly develop or continue in north-western Bahamas, the remainder of the Greater Antilles, and the Lesser Antilles (except Barbados, St. Kitts). **This situation should be monitored.**

However, concerns for long-term drought (by end of May 2021) could present a challenge in farming, especially where water supply is sourced from larger reservoirs, large rivers or groundwater, across Aruba, southwest Belize and could possibly develop across Central Cuba, Dominica, northern Dominican Republic, Grenada, Martinique, St. Vincent, US Virgin Islands.

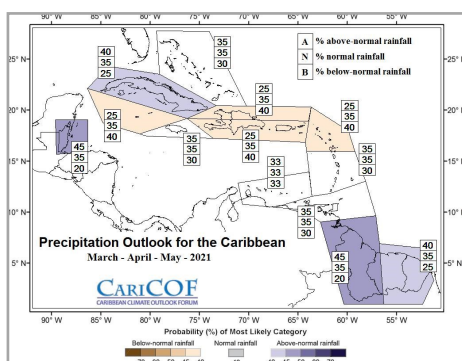
**Interests across the region should continue to monitor their water status.**

### RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (MARCH—MAY 2021)

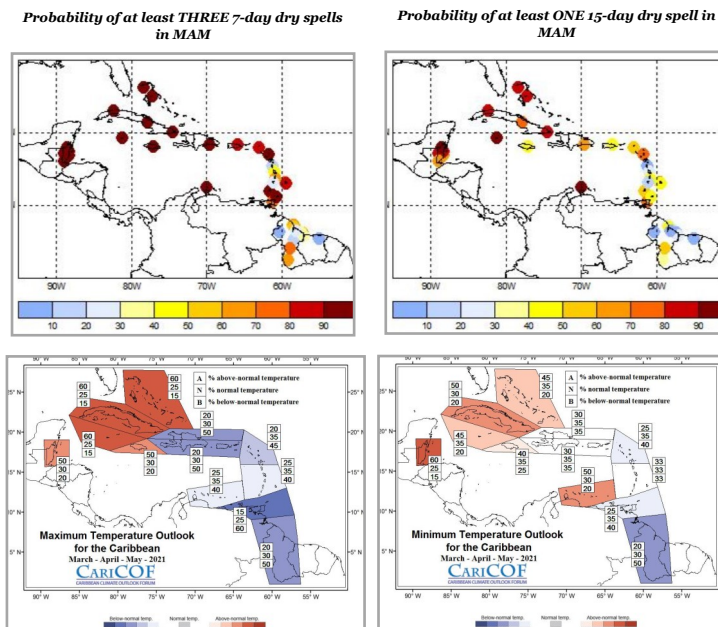
Rainfall totals from March to May are likely to be at least as high as usual in Belize, Cuba and the Guianas; but likely the usual or drier in the Cayman Islands, Hispaniola, the Leeward Islands and the US Caribbean Territories.

The likelihood/chance for flash floods and associated hazards in Belize and the islands in April and May is limited to moderate.

Slower depletion of water reservoirs than usual from Dominica southwards in view of a higher than usual number of wet spells. Faster depletion may occur in Belize and the Greater Antilles.



The occurrence of at least three 7-day dry spells is highly likely across the region with the exception of the Guianas. The occurrence of at least one 15-day dry spell is highly likely across Belize, Cayman Islands, Cuba, northwestern portion of The Bahamas, and the ABC Islands.



Day-time (maximum) and night-time (minimum) temperatures will progressively warm into May, but remain comfortably cool until March. Temperatures are likely to be at least as warm as usual westwards of Hispaniola, where heat stress is likely to become apparent by April or May. By contrast, temperatures, particularly at night, may remain cooler elsewhere.

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

### CLIMATE-SMART ADVISORIES

Consider on-farm drought management plans in the event of a likely occurrence of dry spells and short-term drought conditions. These may include:

- ◆ Identifying alternate water sources for on-farm activities; employing water management techniques such as irrigation scheduling and mulching; installing water-saving devices
- ◆ Selecting drought tolerant crops and varieties and planting them with careful thought of the availability of water resources

Pest and diseases may increase in extreme dry and wet conditions. Monitor and employ recommended treatment as necessary.

**Please also keep updated and 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)