

# CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM



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

## KEY MESSAGES

**Long-term drought concerns are rising in parts of Cuba, while the effects of frequent dry spells across the Islands and Belize will likely continue, with a peak in wild fire potential and Saharan dust intrusions.**

**There is a likelihood of heatwaves in Belize, Cuba, Jamaica and Trinidad from April, and from May elsewhere in the Islands.**

**By contrast, the potential for flooding, flash floods and cascading hazards will increase to moderate or high into May.**

## FEBRUARY IN REVIEW

Mixed conditions prevailed throughout the islands of the eastern Caribbean during the month of February. Trinidad ranged from very wet to slightly dry southeast to northwest; Grenada slightly dry; Barbados moderately dry to normal; St Vincent and St Thomas normal; Saint Lucia, Martinique and St Maarten normal to slightly wet; Dominica moderately wet to normal; Guadeloupe and St Kitts normal to moderately dry; Antigua moderate to slightly wet and St Croix slightly dry to normal. In the Guianas, conditions ranged from normal to exceptionally wet in French Guiana. Aruba ranged from normal to predominantly slightly wet, and Curacao was normal.

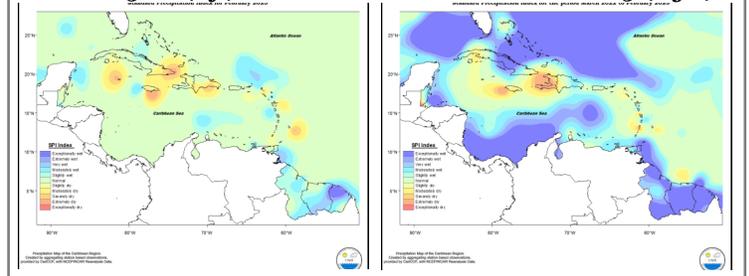
Puerto Rico was normal. The Dominican Republic ranged from severely dry in southern areas to normal in the north. Jamaica ranged from moderately wet in the west to extremely dry in the south and to severely dry in the east. Grand Cayman was extreme to severely dry. Cuba ranged from normal in western areas to slightly wet in central areas and to extremely dry in the extreme east. Northern Bahamas ranged from predominantly normal to slightly wet and Belize from mostly normal to moderately wet in the south and to slightly dry in the north.

## ABOUT CarisAM

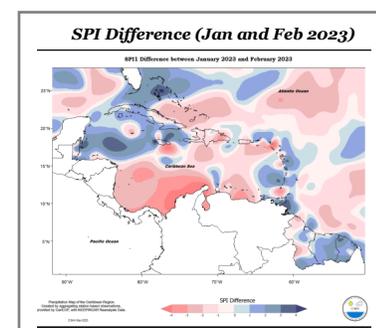
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A review of the 12-month period (March 2022 to February 2023), showed predominantly normal to exceptionally wet conditions across the region.

**FEB 2023 SPI (left) and 12-mth SPI MAR 2022 - FEB 2023 (right)**



A mixture of conditions prevailed across the region during the month of February. Wetter conditions were observed across the Guianas, much of the eastern Caribbean, Cuba and Belize in comparison to January.

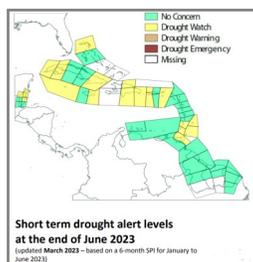
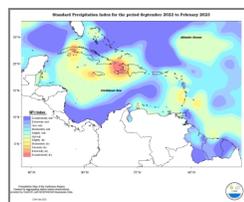


Read more at <https://rcc.cimh.edu.bb/spi-monitor/>

## REGIONAL OUTLOOKS

### DROUGHT

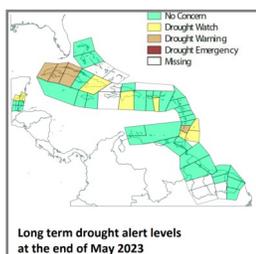
By the end of February, severe (or worse) short term drought has developed in south-east Cuba, eastern Dominican Republic, Haiti, and Jamaica. Severe (or worse) long term drought has developed in Haiti, and Saint Vincent.



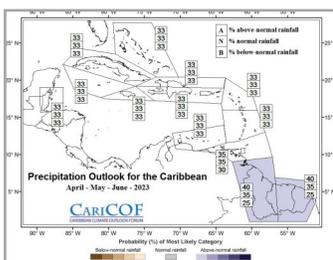
There may be some concern over short-term drought that can impact small rivers, streams and ponds, across the Northern Bahamas, Barbados, northern Belize, Grand Cayman, Eastern and Western Cuba, Dominican Republic, Grenada, eastern Jamaica, western Puerto Rico, St. Vincent, Trinidad and Tobago, and the US Virgin Islands by the end of June.

Interests in these areas should monitor their water resources.

There is much concern for long-term drought, that can impact large reservoirs, large rivers or groundwater, to present a challenge in farming by the end of May 2023 across Central and Western Cuba, and St. Vincent. Interests in Barbados, northern Belize, Eastern Cuba, southern Dominican Republic, Grenada, and Tobago should also monitor their water resources.



### RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (MARCH–MAY 2023)

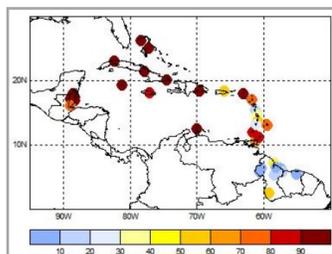


There is much uncertainty regarding rainfall totals from April through June, except the Guianas which could be normal or higher.

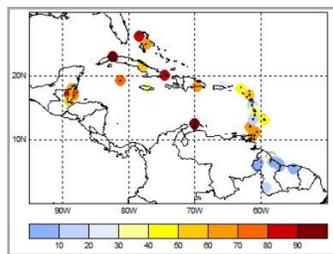
Moderate flooding, flash flood, landslide/rockfall and soil erosion potential in the northern Guianas and, elsewhere in mountainous areas in April and June, as well as

in most areas in May in view of the likelihood of very and extreme wet spells. Significant wildfire potential and local airborne dust due to a relatively low number of wet days through April (Guianas and Greater Antilles) or May (elsewhere).

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

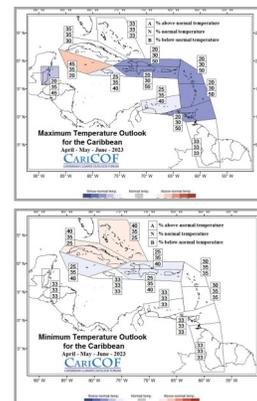


Probability of at least ONE 15-day dry spell in MAM



The occurrence of at least three 7-day dry spells is highly favourable across the region, except the Guianas. The occurrence of at least one 15-day dry spell is also favourable across the region, except the Guianas.

Day-time (maximum) and night-time (minimum) temperatures are forecast to be close to the usual or slightly lower in most areas, but possibly higher temperatures at night in Cuba and the Bahamas and during the day in Cayman Islands. However, heatwaves can occur in April, especially in Belize and Trinidad, and in areas in drought. From the start of the Caribbean Heat Season in May, they become more common in the Bahamas and Antilles.



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

### CLIMATE-SMART ADVISORIES

**In the event of drought**, implement drought management plans by employing water management practices to enhance conservation and efficient use of water, some of these may include:

- ◆ Assess water resources and availability.
- ◆ Where irrigation resources are satisfactory, irrigation scheduling (irrigating early mornings and late afternoons to reduce evaporation and transpiration rates) with efficiency in water use would be necessary; where resources may be insufficient, determining what size field can be satisfied may be paramount.
- ◆ Applying mulch for moisture conservation in the soil.

#### In the event of dry spells:

- ◆ Ensure regular weeding to reduce competition and further stress to crops
- ◆ Schedule irrigation
- ◆ Utilize irrigation techniques to apply the right amount of water for the crop and to avoid runoff

#### In the event of the threat from bush fires:

- ◆ Keep farm clean and free from trash and combustible material
- ◆ Store combustible substances (e.g. fuel) safely
- ◆ Ensure that machinery is free from any faults or mechanical defects that could start a fire
- ◆ Have a supply of water readily available in case of fire.

**Maintain proper records** of inputs and the crop under cultivation and/or livestock being reared.

*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.

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