

CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM



FEBRUARY 2023 • VOLUME 6 • ISSUE 9

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

KEY MESSAGES

Less intense core of the Dry Season expected, with a few more wet days and wet spells than usual (with the likely exception of The Bahamas, Cayman Is. and Cuba).

Minimal chance of excessive rainfall through March. Marginal to slight potential for flooding, flash floods and cascading hazards is forecasted for most areas. This potential is expected to increase to moderate in April.

Drought concerns will likely continue in Cuba and the likelihood of significant dry spells are expected to be high, particularly in the western portion of the region.

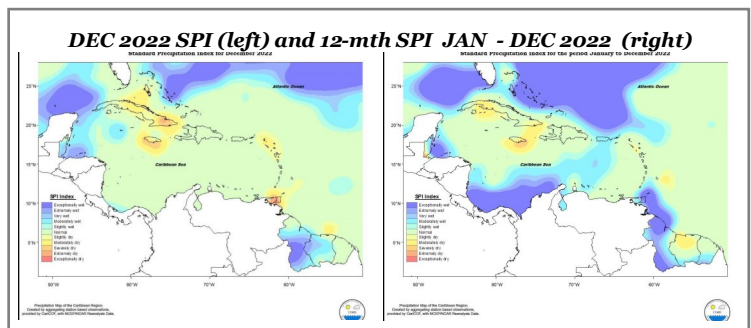
No significant episodes of heat discomfort are expected through March, but heatwaves may occur in April, particularly in Belize, Cuba, Jamaica and Trinidad.

DECEMBER IN REVIEW

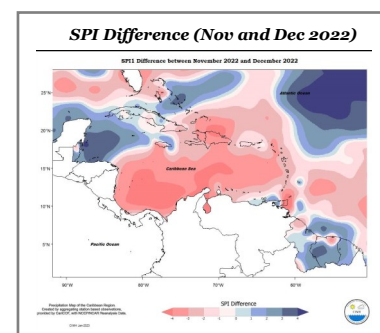
Conditions throughout the eastern Caribbean were predominantly normal to below normal during the month of December. Trinidad ranged from exceptional to moderately dry; Tobago, Antigua and St Kitts moderate to slightly dry; Grenada and Dominica slightly dry to normal; Barbados, St Vincent, Saint Lucia, Martinique, St Croix and St Thomas normal; Guadeloupe slightly dry; St Maarten and Anguilla moderately dry. In the Guianas, conditions ranged from exceptionally wet in central areas of Guyana to moderately dry in northern Suriname. Aruba and Curacao were normal.

Puerto Rico was normal. Hispaniola was predominantly normal apart from in western portions of Haiti that were slightly dry. Jamaica ranged from severely dry in southern areas to normal in the north. Grand Cayman was moderately wet. Cuba ranged from very wet in the extreme west to extremely dry in the east. Northern Bahamas ranged from moderately dry to extremely wet from south to north, and Belize ranged from extremely wet in the extreme south to normal in the north.

A review of the 12-month period (January to December 2022), showed predominantly normal conditions across the region. However, Guyana, Trinidad and Tobago, most of The Bahamas and northern Belize was exceptionally wet.



Rainfall totals across the month of December had been predominantly relatively drier than November across Hispaniola, Puerto Rico, the ABC Islands, the Virgin Islands and southward to Trinidad and Tobago (except Barbados).



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

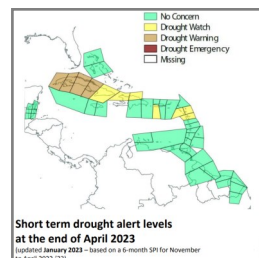
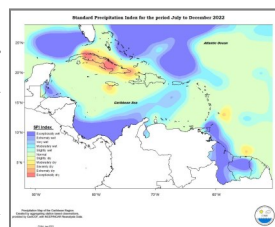
ABOUT CariSAM

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

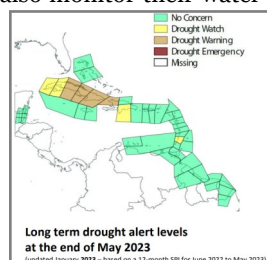
REGIONAL OUTLOOKS

DROUGHT

By the end of December, moderate (or worse) short term drought has developed in Cuba and eastern and southern Jamaica. Moderate (or worse) long term drought has developed in Cuba, eastern and southern Jamaica, and northern Suriname.

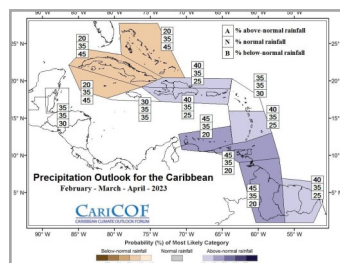


There is some concern of impacts from short-term drought across western Cuba by the end of April. Interests in Antigua, Eastern Cuba, Guadeloupe, northern Hispaniola, southwest Puerto Rico, and St. Kitts should also monitor their water resources.



There is some possibility 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, particularly in central and eastern Cuba. Interests in western Cuba, Dominican Republic, and St. Vincent should also monitor their water resources.

RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (FEBRUARY–APRIL 2023)

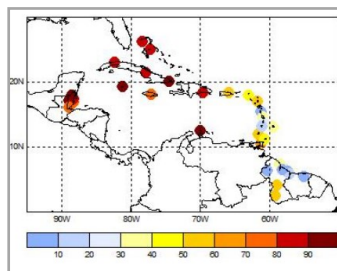
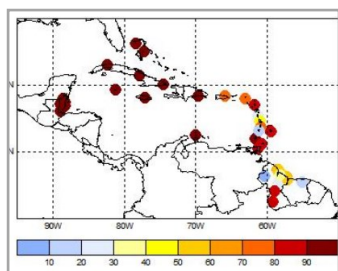


Rainfall totals from February through April likely be normal to below normal in the west of the region, particularly over The Bahamas, Cayman Islands and Cuba; but at least as high as usual in the Guianas, Hispaniola, the U.S. Caribbean Territories and the islands south of Guadeloupe.

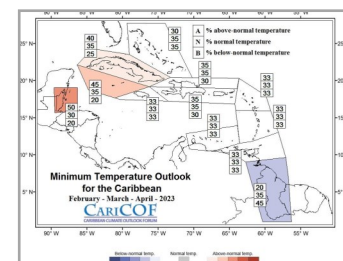
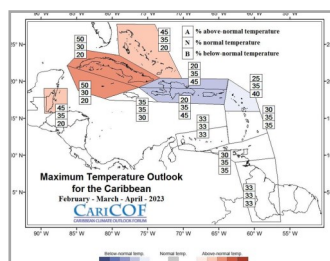
Marginal to slight flooding, flash flood, landslide/rockfall and soil erosion potential exists across Belize and the islands through March but moderate potential in the northern Guianas and mountainous areas in April in view of very wet and extreme wet spells. Faster depletion of water reservoirs than usual for the core of the dry season in Cuba in view of a lower than usual number of wet spells. Increasing wildfire potential and local airborne dust from Hispaniola westwards with a lower potential from Dominica southwards.

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

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



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 favourable across the region (except the eastern Caribbean and Guyana).



Day-time (maximum) and night-time (minimum) temperatures are expected to be close to the usual or lower in many areas, but possibly higher in The Bahamas, Belize, Cayman Islands and Cuba. Heat stress should not be a significant concern through March. However, heatwaves do occur in April, especially in Belize and Trinidad, and in areas in drought.

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

CLIMATE-SMART ADVISORIES

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

- ♦ Irrigation scheduling (irrigating early mornings and late afternoons to reduce evaporation and transpiration rates)
- ♦ 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.

CONTACT US:

Adrian Trotman
Agro-meteorologist/ Chief of Applied Meteorology and Climatology, CIMH
Email: 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