

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

The region is set to transition into an intense Heat Season with heatwaves occurring as early as April.

March is characterised by high evaporation rates and an annual peak in the frequency of short dry spells, as well as further buildup of any ongoing drought and with increasing wildfire potential.

By contrast, from April to May, rainfall intensity and shower frequency are likely to sharply rise, resulting in high to extremely high potential for flooding, flash floods, cascading hazards and associated impacts in the Caribbean.

Episodes of Saharan dust intrusion - and lower air quality - will likely increase in frequency.

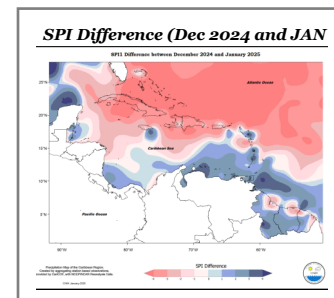
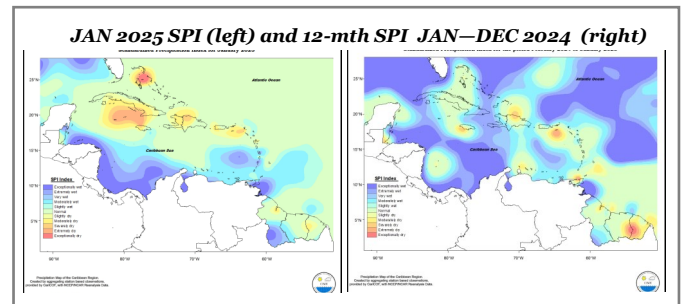
JANUARY IN REVIEW

Mixed conditions were experienced throughout the islands of the eastern Caribbean during the month of January, with normal to below normal rainfall in the Leeward Islands and normal to above normal in the rest of the island chain. Trinidad was exceptional to slightly wet; Tobago very to moderately wet; Grenada moderately wet; Barbados normal; St Vincent extremely wet; Saint Lucia very wet to normal; Martinique moderate to predominantly very wet; Dominica moderately wet to normal; Guadeloupe normal to slightly dry; Antigua normal to slightly wet; St Kitts and Anguilla predominantly normal to slightly dry; St Maarten moderately dry to normal; St Croix moderately dry and St Thomas slightly dry. In the Guianas, conditions ranged from exceptionally wet in southwestern Guyana to moderately dry in northern Guyana and western areas of French Guiana. Aruba and Curacao were slightly wet.

Puerto Rico ranged from moderately dry in the west to normal in the east. Hispaniola ranged from severely dry in northwestern Dominican Republic to normal in southwest Haiti and southwestern and eastern areas of the Dominican Republic. Jamaica ranged from extremely dry in northwestern areas to moderately dry in the west and to slightly wet

in the east. Grand Cayman was extremely dry. Cuba ranged from extremely dry in the southeast to normal in the west and east. Northern Bahamas ranged from exceptionally dry to normal and Belize was mostly normal ranging to extremely wet in the north.

During the 12-month period (January to December 2024), extremely dry conditions prevailed across the U.S. Virgin Islands and northern Trinidad, while portions of Suriname and French Guiana were exceptionally dry.



The month of December was relatively drier than November across the Bahamas, Cuba, Hispaniola, Puerto Rico and the U.S. Virgin Islands.

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

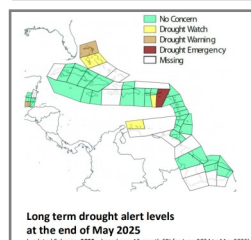
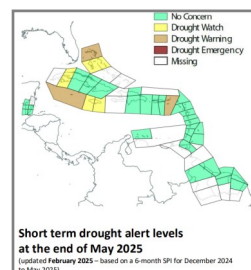
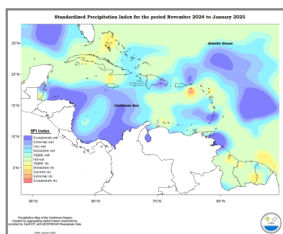
ABOUT CariSAM

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

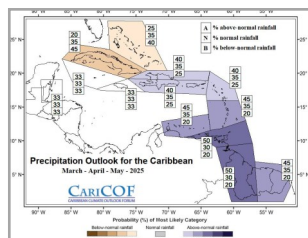
Moderate (or worse) short-term drought has developed in Antigua, the northern and central Bahamas, southwest French Guiana, central portions of the coast of Guyana, and St. Croix. Moderate (or worse) long-term drought has developed in southwest Belize, northernmost parts of Dominican Republic, southwest French Guiana, southwest Jamaica, St. Croix, and northwest Trinidad.



There is some concern over short term drought that can impact small rivers, streams and ponds by the end of May 2025 across the northern Bahamas, Cayman Islands and the U.S. Virgin Islands, though central Bahamas, western Cuba and Jamaica should monitor their water resources.

There is immediate 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 2025 across the U.S. Virgin Islands. Concern also arises for northern Bahamas and southwest Belize. Interests in the ABC Islands, central Bahamas and southeast Puerto Rico should monitor their water resources for long term drought.

RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (MAR – MAY 2025)

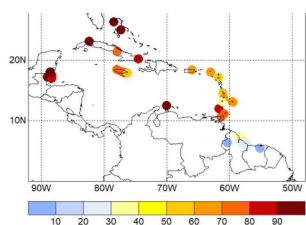


Rainfall totals from March through May are likely to be the usual or higher in the ABC Islands, the Guianas, the Lesser Antilles, Hispaniola and the U.S. Caribbean Territories but, likely, the usual or less in The Bahamas and Cuba. The potential for flooding, flash floods and related hazards arising from intense rainfall events increase from limited or moderate in March, to high or

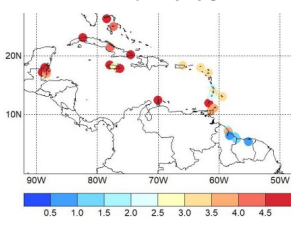
extremely high in April and May.

Thus, water recharge rates in surface reservoirs and rivers will likely accelerate after March, especially in the southeast.

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

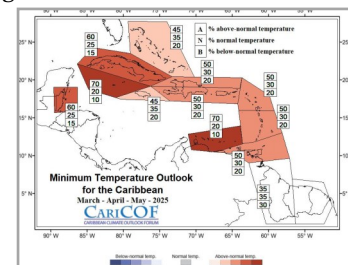
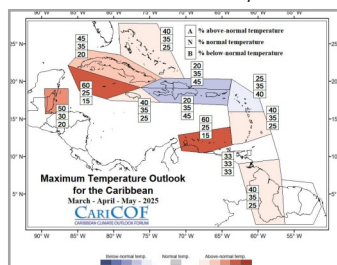


MAXIMUM number of 15-day dry spell in MAM



Moderate to high potential for the occurrence of at least three 7-day dry spells across most of the region. Moderate potential for at least one occurrence of a 15-day dry spell across The ABC Islands, Belize, Jamaica, Cuba, and northwestern Bahamas.

Night-time (minimum) temperatures will likely be higher than usual in most areas. In addition, daytime (maximum) temperatures will likely be as high as usual or higher, with the exception of the area from Haiti eastwards to the Leeward Islands. Episodes of hazardous heat could appear in April & May, with increased risk in areas that are wind-sheltered and/or in drought.



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

CLIMATE-SMART ADVISORIES

Where there is the greater likelihood of drought and dry spells and heatwaves:

- ◆ Use mulching (e.g. organic amendments) and drip irrigation to conserve water. Schedule irrigation during cooler hours to reduce evaporation losses.
- ◆ Collect and store rain water for supplemental use in the event of long-term drought.
- ◆ Ensure proper ventilation, shading and adequate water for your animals.
- ◆ Monitor poultry for signs of heat stress (e.g., spreading out of wings, panting etc) and in ruminants (e.g., panting, drooling, sweating)
- ◆ Farmers should avoid foods that increase dehydration and take breaks in cool, shady areas to reduce body temperature.
- ◆ Farmers should wear protective, loose fitting and light-coloured clothing.

Where there is the greater likelihood of flooding in April/May:

- ◆ Pest and disease increase in wet conditions; maintain and clean drains or ditches, use contour farming and install raised planting beds
- ◆ House livestock on high ground if possible, and evacuate animals from low-laying/flood prone areas.
- ◆ Consider planting flood resistant varieties.

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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