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

Much of the region would likely experience a warmer than usual start to the Heat Season in April.

An intense peak of the Caribbean dry season, especially in the northwestern Caribbean, will therefore be enhanced by high evaporation rates, leading to continued drought in Puerto Rico and the northern Leeward Islands, a high frequency of short dry spells and wildfire potential building towards March.

In April, rainfall intensity is set to sharply rise, with the potential for flooding, flash floods and cascading impacts rapidly becoming moderate westwards of Puerto Rico and high further east and south.

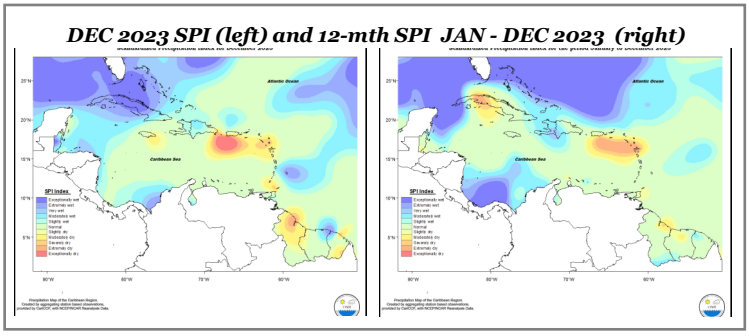
DECEMBER IN REVIEW

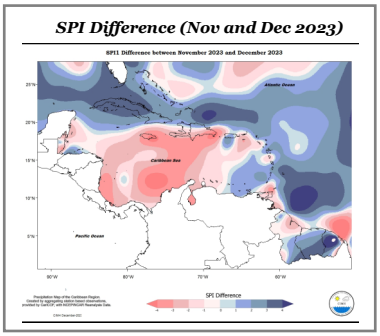
Predominantly normal to below normal conditions were seen throughout the islands of the eastern Caribbean during the month of December. Trinidad predominantly normal ranging to slightly wet in the south and to moderately dry in the extreme northeast; Tobago severe to slightly dry; Grenada and St Croix moderately dry; Barbados extremely wet; St. Vincent mostly normal to slightly wet; Saint Lucia moderately wet to normal in the extreme north; Martinique, St Maarten and St Thomas normal to slightly dry; Dominica and Guadeloupe moderate to slightly dry; Antigua severely dry and St Kitts severe to moderately dry, Anguilla was normal. In the Guianas, conditions ranged from extremely dry in northern Guyana to extremely wet on the northern Suriname/ French Guiana border. Aruba and Curacao were normal.

Puerto Rico ranged from exceptionally dry in the extreme southwest to normal in northern areas. Hispaniola was slightly wet in most of Haiti, then ranging from moderately wet to extremely dry in the Dominican Republic. Jamaica ranged from normal to moderately dry west to east. Grand Cayman was moderately wet.

Cuba ranged from exceptionally wet in northern areas to very wet in the extreme west and to normal in the extreme east. Northern Bahamas ranged from exceptional to very wet, and Belize from exceptionally wet in the west to normal in the north and to moderately wet in the south.

Predominantly normal to moderately dry conditions prevailed across the Caribbean Islands during the 12-month period (January to December 2023) with The Bahamas and Haiti exceptionally and very wet respectively.





Predominantly relatively wetter conditions were observed across the region in the month of December compared to November.

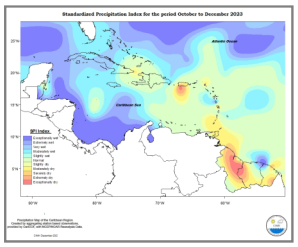
Read more at https://rcc.cimh.edu.bb/spi-monitor/

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*

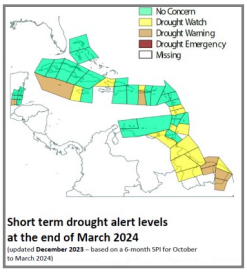
REGIONAL OUTLOOKS

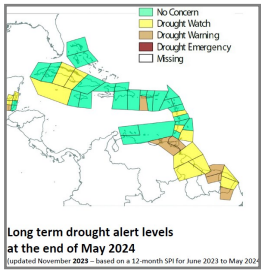
DROUGHT



Moderate (or worse) short-term drought has developed in eastern Cuba, French Guiana, Grenada, Guyana, Martinique, Puerto Rico, St. Vincent, Sint Maarten/St-Martin, western Suriname, and Trinidad and Tobago. Moderate (or worse) long-term drought has developed in Antigua, Cuba, Dominica, Guadeloupe, northern Guyana, southern Puerto Rico, and St. Kitts.

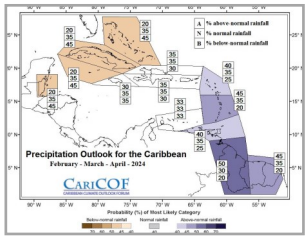
There is some concern over short-term drought that can impact small rivers, streams and ponds by the end of April across Grand Cayman, southern Puerto Rico, Sint Maarten/St-Martin, U.S. Virgin Islands and possibly develop or continue in Antigua, Dominica, Guadeloupe southern French Guiana, and northern Suriname. ***Interests in these territories should monitor their water resources.***





There is some 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 2024 across Grand Cayman, central and southern French Guiana, southwest Puerto Rico, and northern Suriname and possibly develop or continue across northwestern parts of Belize, Western Cuba, Dominica, northern Guyana, Jamaica, Sint Maarten/St-Martin, Trinidad and Tobago, and the U.S. Virgin Islands. ***Interests in these countries should monitor their water resources.***

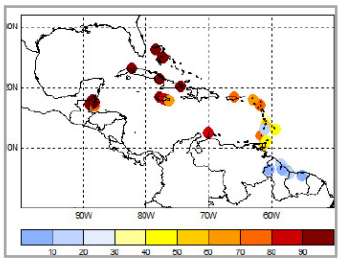
RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (FEBRUARY — APRIL 2024)



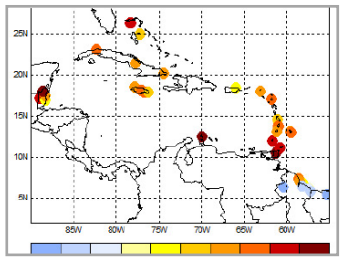
Rainfall totals from February through April are likely to be the usual or lower across The Bahamas, Belize, Cayman Islands and Cuba but the usual or higher across the Lesser Antilles and the Guianas.

Increasing potential for flooding and related hazards exist due to very wet and extreme wet spells.

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

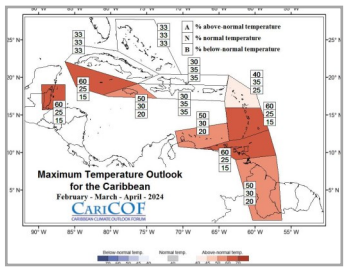


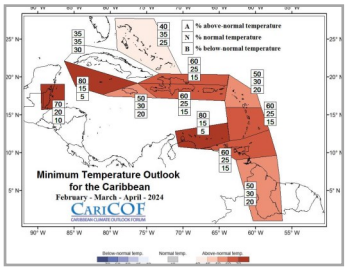
Probability of at least ONE 15-day dry spell in FMA



The occurrence of at least three 7-day dry spells and at least one 15-day dry spells is favourable across the region, with the exception of the Guianas.

Day-time (maximum) and night-time (minimum) temperatures are forecast to be higher than usual in most areas. Significant episodes of heat stress may, therefore, appear after the end of the Caribbean Cool Season in March. However, heatwaves might well be recorded this March, notably where soil moisture content is even lower than usual.





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

CLIMATE-SMART ADVISORIES

In the event of short-term drought (across some territories), 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
- Utilize irrigation techniques to apply the right amount of water for the crop and to avoid runoff

In the event of increasing temperatures livestock (in particular poultry) farmers:

- Ensure proper ventilation, shading and adequate water

Farmers in areas with significant rainfall deficits going into the heart of the dry season may want to make sure they have adequate irrigation for their fields at least for the first half of the season. If not, farmers may want to consider reducing their planting area.

In the event of flooding towards the end of the Dry Season:

- Ensure that livestock are housed on high grounds; evacuate animals in low lying areas and pastures which are prone to flooding and erosion.
- Certain pest and diseases such as blossom end rot will increase during and after extreme wet conditions, implement appropriate disease and pest management practices.

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.

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