

CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM



FEBRUARY 2022 • VOLUME 5 • 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

By the end of April 2022, impacts from short-term drought may be of a concern across Antigua, western Cuba, Guadeloupe, and Martinique. Long-term drought that can impact large reservoirs, large rivers or groundwater would likely present a challenge in farming across Cuba, Dominica, Guadeloupe, Martinique, and U.S. Virgin Islands by the end of May 2022.

Increasing number of dry spells across the northwest section of the region in addition to the ABC islands and Belize where seasonal rainfall is expected to be the usual or drier.

Higher frequency of wet days and wet spells is forecasted for the eastern Caribbean where rainfall is expected to be at least as wet as or wetter than the usual, which should taper the chances of wildfire, as we as reduce the rate of depletion in water reservoirs.

Extreme wet spells for the region are not expected to feature prominently during the upcoming season.

Cooler than normal day-time and night-time temperatures likely across some territories.

DECEMBER IN REVIEW

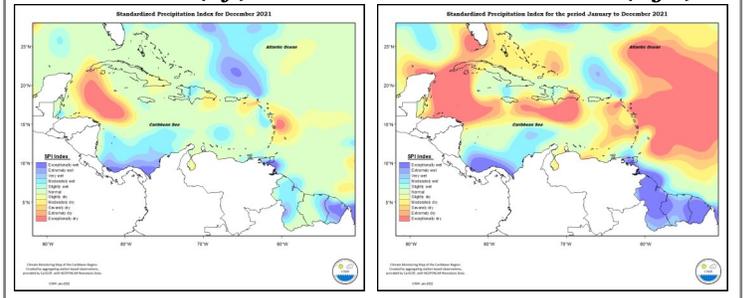
Mixed conditions were seen throughout the islands of the eastern Caribbean during the month of December. Trinidad was exceptionally wet in the south to normal in the north; Tobago and Grenada normal; Barbados, St Vincent and St Croix moderately dry; Saint Lucia and Antigua slight to moderately dry; Martinique exceptionally dry in the southeast to normal in the northwest; Dominica predominantly normal ranging to slightly wet in the south and moderately dry in the coastal northeast; Guadeloupe normal in western areas to moderately dry in the east; St Kitts and Anguilla moderately wet to normal; St Maarten severely dry to normal and St Thomas predominantly normal to slightly dry in the south. Conditions in the Guianas ranged from normal to exceptionally wet. Aruba and Curacao were normal.

Puerto Rico was predominantly normal with slightly wet conditions in the extreme north. Hispaniola ranged from moderately wet on the Haiti/ Dominican Republic border to normal in the west and to moderately dry in the east. Jamaica was predominantly normal ranging to slightly wet in the extreme south.

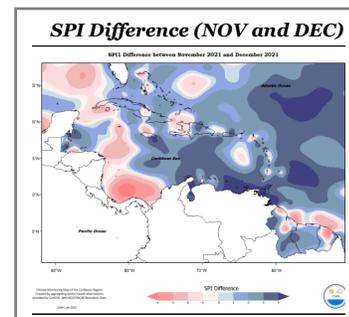
Grand Cayman was slightly dry to normal. Cuba was predominantly normal ranging to extremely dry in the west and to slightly dry in the east. Northern Bahamas was normal and Belize was predominantly normal ranging to moderately wet in the southeast.

A review of the 12-month period (January to December 2021), showed predominantly normal to extremely dry conditions across most of the region with the exception of the Guianas.

DEC 2021 SPI (left) and 12-month SPI JAN – DEC 2021 (right)



The month of December has been predominantly wetter as compared to November.



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

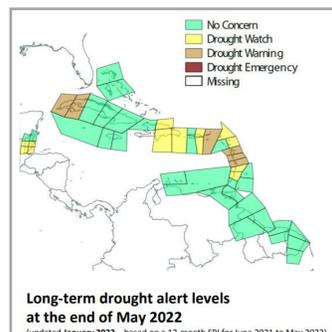
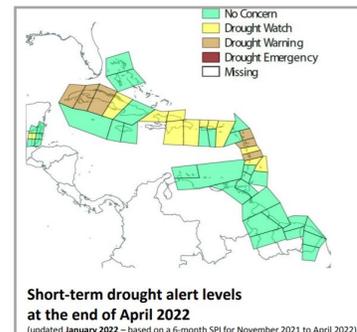
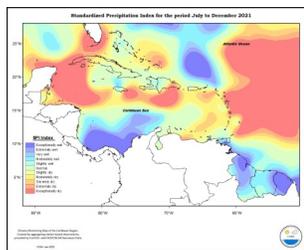
ABOUT CariSAM

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, Barbados, western Cuba, Dominican Republic, Haiti, U.S. Virgin Islands, Guadeloupe, Martinique, Saint Lucia, and St. Vincent. Moderate (or worse) long-term drought has developed in The Bahamas, Cuba, Dominica, Dominican Republic, throughout the Leeward Islands, Martinique.

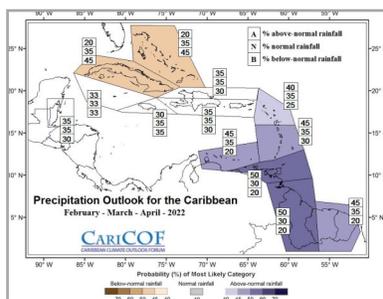


By the end of April 2022, impacts from short-term drought may be of a concern across Antigua, western Cuba, Guadeloupe, Martinique, and possibly across Barbados, western Belize, Dominica, Dominican Republic, northern Haiti, northern Puerto Rico, St. Vincent, and the U.S. Virgin Islands. Long-term drought that can impact large reservoirs, large rivers or groundwater would likely present a challenge in farming across Cuba, Dominica, Guadeloupe, Martinique, U.S. Virgin Islands, and possibly across Antigua, southern Belize, Dominican Republic, western Puerto Rico, Saint Lucia, St. Vincent, and Sint Martin by the end of May 2022.

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

RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (FEBRUARY–APRIL 2022)

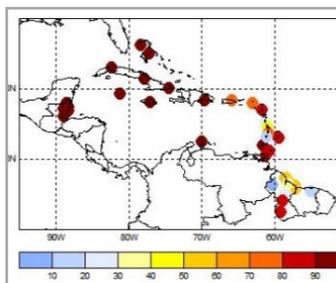
Rainfall totals (from February through April) could possibly be the usual or higher across the Lesser Antilles, the ABC Islands and the Guianas, but likely to be the usual or drier across Cuba and The Bahamas.



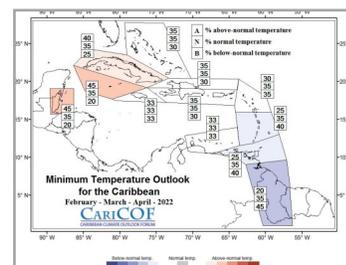
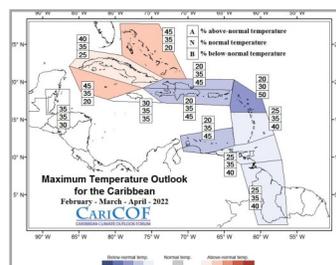
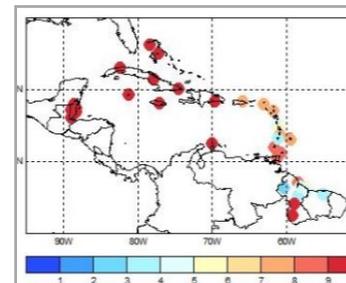
Marginal increase of flooding and soil erosion potential is likely across Guyana through April because of an increase in wet spells. However, there is a high potential for surface dryness and wild fires across the north-western part of the region.

The occurrence of at least three 7-day dry spells is highly favourable across most of the region during this period, which marks the heart of the dry season. The potential for at least one 15-day dry spell is likely across the region, but less so in Dominica, St. Vincent and portions of the Guianas.

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



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



Although day-time (maximum) temperatures and night-time (minimum) temperatures will progressively warm into April, they will remain comfortably cooler than usual throughout much of the Lesser Antilles, Hispaniola, Puerto Rico and the Virgin Islands during the day and territories south of Dominica during the night.

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

CLIMATE-SMART ADVISORIES

Farmers should consider planting plots that their limited water resources would irrigate/satisfy in the event of frequent dry spells/drought.

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

- ◆ Selecting drought tolerant crops and varieties and planting them with careful thought of the availability of water resources.
- ◆ Identifying alternate water sources for irrigation and other on-farm activities; employing water management techniques such as irrigation scheduling and mulching; installing water-saving devices (e.g. drip lines & timers).

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:ssstoute@cimh.edu.bb)

Kistian Flemming
Climate Change Development Specialist, CARDI
Email: kflemming@cardi.org