

Caribbean Climate Outlook Newsletter | - March to May 2022

For climate information specific to your country, please consult with your national meteorological service.
CariCOF outlooks speak to recent and expected seasonal climate trends across the Caribbean in general.

BRIEF SUMMARY: November 2021 to May 2022

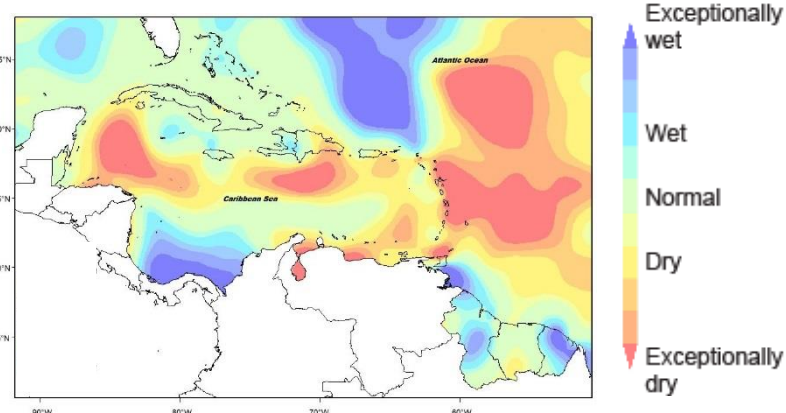
November to January 2021-'22: Lingering seasonal dryness was reported throughout most of the eastern Caribbean with many islands there experiencing severely dry or drier conditions. Although temperatures were warmer than usual, they were generally comfortable across the region.

March to May 2022: A persistent weak La Nina pattern is expected to transition to near neutral conditions during the upcoming season, which may drive increasing uncertainty into the seasonal rainfall forecast. This uncertainty points the MAM rainfall and wet day forecast towards climatology across most of the region (*equal chances for above normal, normal, and below normal probabilities*). However, a small increase in wet spell frequency is expected for the eastern Caribbean which could lead to marginal flash flood and soil erosion potential in Belize and the islands from May. Extreme wet spells for the region are not expected to feature prominently during the upcoming season.

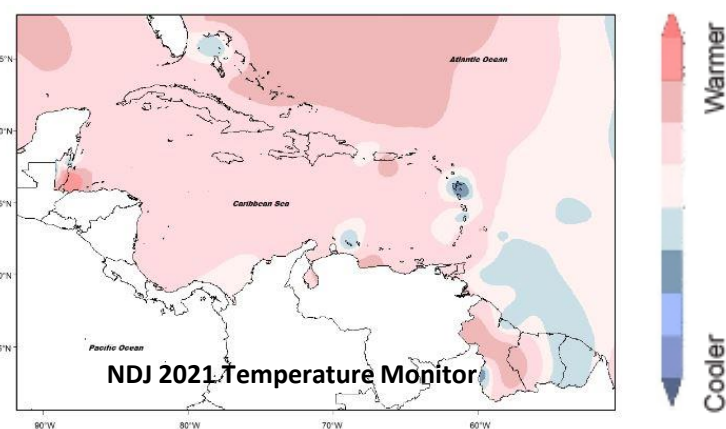
LOOKING BACK:

Rainfall Nov. - Dec. - Jan. (NDJ) 2021-'22

Observations:



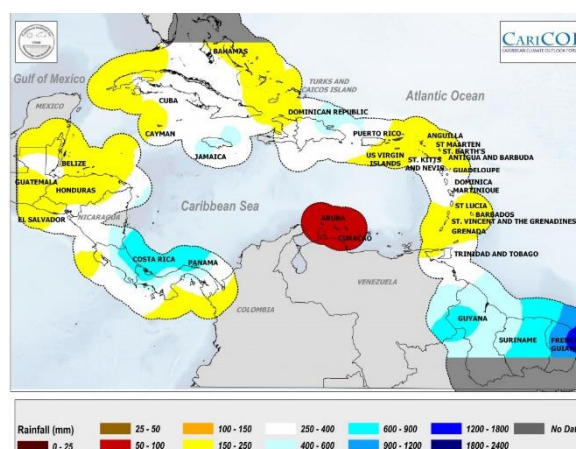
RAINFALL: western Cuba and islands east of The Dominican Republic, very dry; parts of the Guianas very wet.



TEMPERATURE: Near average temperatures in much of the Caribbean, but Aruba, NW sections of The Bahamas, and the eastern Guianas were cooler than normal.

WHAT NEXT?

Rainfall patterns January - February - March



Belize : Mar to Apr - latter part of dry season; limited duration and area of heavy showers. May - transition to wet season..

C'bean Islands south of 16°N (except ABC Islands):

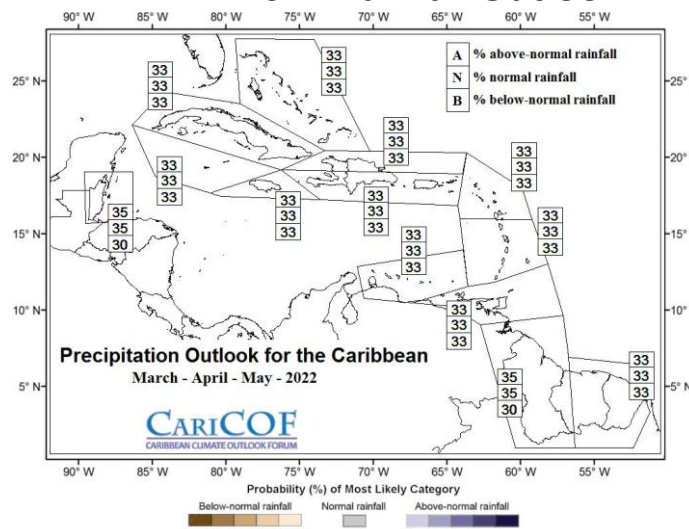
Mar to May - second half of dry season; limited spatial extent and duration of heavy showers; April & May occasionally very wet

ABC Islands:

Mar to May- generally dry.

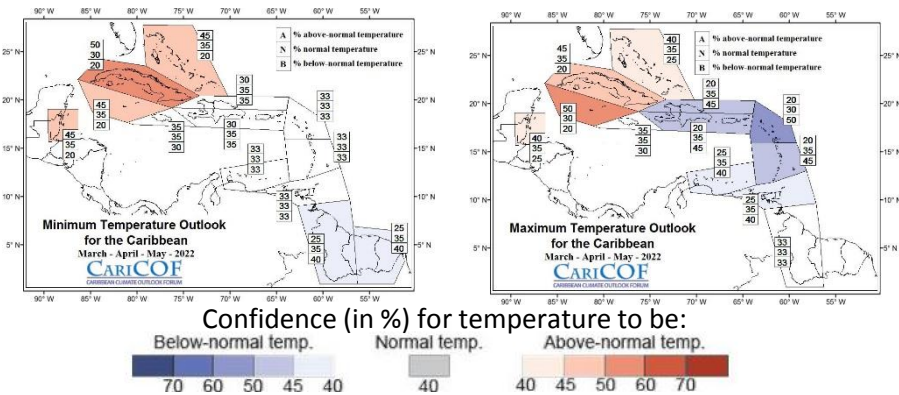
Guianas: Mar to May - transition to wet season; heavy showers more and more frequent

MAM 2022 Rainfall Outlook



The forecast for climatological rainfall conditions (equal chances for above/normal/below) is present across the region. *White areas represent areas of low forecast predictability for this season.*

Night/Day – time temperatures up to May



MAM night-time (min.) and day-time (max.) temperatures will progressively warm into April, but may remain comfortably cooler than usual throughout much of the Hispaniola and the Lesser Antilles. Overnight temperatures may be warmer than usual for The Bahamas, Belize, Cayman Is., and Cuba.

Wet days and wet spells up to May

What usually happens from March to May?

Number of wet days: roughly 15 to 30 (ABC Is.: 1 to 10; northern Guianas: 30 to 50).

of wet spells: up to 3, of which up to 2 is very wet (northern Guianas: up to 3).

of extreme wet spells: Up to 1 extreme wet spell occurs from March to May.

Forecast and Implications for MAM 2022:

- High potential for surface dryness and wildfire along the NW part of the region.
- Rising flood potential towards May, especially in the Lesser Antilles and coastal Guyana in view of the increased frequency of very wet spells.

Drought conditions

Lastest drought situation (as of February 1st): Moderate (or worse) shorter term drought has developed in in western Cuba and across all areas east of and including The Dominican Republic, excluding the Guianas; moderate longer term drought has developed in Belize, western Cuba, along the southern coastline of the Dominican Republic, and along the Lesser Antilles excluding Trinidad and Tobago.

Short-term drought (at the end of May 2022): Short term drought is evolving in The USVI and Sint Martin and may develop or continue in Barbados, Dominica, The Dominican Republic, Guadeloupe, Martinique, southwest Puerto Rico, Saint Lucia, and Saint Vincent

Long-term drought (at the end of May 2022): Long term drought is evolving the ABC Islands, Antigua, parts of Belize, Dominica, Guadeloupe, Martinique, Sint-Martin, Saint Lucia, and The USVI and might possibly develop or continue in the northern Bahamas, Barbados, western Cuba, The Dominican Republic, southern Puerto Rico, Saint Kitts, Trinidad, and Saint Vincent

BRIEF CLIMATE OUTLOOK –June to August 2022

An existing weak La Nina will likely phase into neutral conditions upon entering the wet season with near normal sea surface temperatures across the Caribbean. Neutral ENSO conditions provide little seasonal rainfall forecast information, thus, there is low forecast confidence with the exception of the Guianas, which are expected to be at least as wet as usual or wetter. Wet spells are expected to increase into July during the wet season across the islands. Maximum temperatures may be warmer than normal for most of the southeast part of the region. For temperature and precipitation outlooks for JJA 2022, please visit rcc.cimh.edu.bb/caricof-climate-outlooks.

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: Sea Surface Temperatures (SSTs) in the eastern Pacific remain below normal -0.6°C ; La Niña conditions have maintained into the start of this year.

Model forecast and guidance: The models forecast indicate La Niña conditions in MAM (75-70% confidence), which may phase into ENSO neutral into JJA (60-55% confid.).

Expected impacts on rainfall and temperatures: La Niña tilts the odds to more rainfall activity in MAM and JJA, except in the northern Caribbean where it tilts the odds to less rainfall. ENSO neutral offers little contribution to seasonal rainfall or temperature prediction in the Caribbean.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: Warmer than usual SSTs persisted to 1°C above average around the northern section of the Caribbean Sea and in the sub-tropical portions of the North Atlantic in January. Elsewhere in the Caribbean SSTs were near normal.

Expected conditions: Models are forecasting SST to maintain anomalously warm ($0.5-1^{\circ}\text{C}$ above average) around the Caribbean and in the sub-tropical North Atlantic.

Expected impacts: Warm SSTs in and around the Caribbean tend to contribute to higher air temperatures with above-average humidity, seasonal rainfall totals and an increased frequency of extreme rainfall.

Climate outlooks - background

The Caribbean Climate Outlooks are prepared by the Caribbean Climate Outlook Forum (CariCOF). The Caribbean Institute for Meteorology and Hydrology, in its role as WMO Regional Climate Centre, coordinates the CariCOF process. Contributors to the Outlooks are the Meteorological Services from the region.

The Precipitation and Temperature Outlooks are issued in the form of a map, which shows regions where the forecast rainfall or temperatures have the same probabilities to be:

Above-normal (A) - within the wettest/hottest third of the historical record

Near-normal (N) - within the middle third of the historical record, i.e. a range called the 'usual'

Below-normal (B) - within the driest/coldest third of the historical record

CariCOF Outlooks offer consensus-based information averaged across multiple territories. In some cases, individual national results may differ from region wide results. To get information on your specific country context, please consult your National Meteorological and Hydrological Services and/or any national level bulletins they may provide.

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