A Joint Bulletin of the CTO, the CHTA and the CIMH

CARIBBEAN TOURISM CLIMATIC BULLETIN

for Tourism Businesses and Policymakers

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Purpose

This Bulletin is a joint effort between the Caribbean Tourism Organization (CTO), the Caribbean Hotel & Tourism Association (CHTA) and the Caribbean Institute for Meteorology and Hydrology (CIMH) to help tourism businesses and policymakers identify and prepare for favourable or inclement climate conditions in the Caribbean and source markets, before they occur. It is recommended that industry stakeholders use the seasonal climate forecast information for the upcoming period (March-May 2023) presented in this Bulletin in tandem with weather forecasts (1-7 days). This suite of information can inform strategic and operational decisions related to the use of environmental resources, marketing, and enhancement of the visitor experience.

Table of Contents

- COVID-19, Flu and RSV 'Tripledemic' Page 3 Climate Advisories: Caribbean Page 4 Climate Advisories: Caribbean Source Markets Page 8 Surf and Sargassum Outlook Page 9 Upcoming events and contact information Page 10 Glossary
 - Page 11

COVID-19, FLU & RSV 'TRIPLEDEMIC'

Climate risk management linked to enhancing visitor health and safety, remains a critical factor in ensuring tourism sector resilience and managing the overall visitor experience. Tourism interests across the region should be prepared to deal with weather and climate emergencies in addition to ongoing concerns related to managing the 'Tripledemic', as well as other possible threats as they arise. The CTO, CHTA, and CIMH will continue to closely monitor the situation.



Climate Advisories: Caribbean

March through May marks: 1) the transition between the dry season (up till April) and the start of the wet season (in May) in the Bahamas, Belize, the Greater Antilles and the Guianas; 2) the second half of the dry season in the Lesser Antilles; and 3) the long dry season in the ABC Islands. What can we usually expect during this period?



- Climatically, March to May forms the **late Dry Season** in Belize and the Caribbean Islands.
- This season is characterised by relatively few wet days and a small number of **wet spells**, but many dry days and quite a few **dry spells**.
- The resulting drier surface and foliage increase **wildfire potential** and the concentration of **airborne particulates**.
- In the Guianas, the Greater Antilles and, in many years, the Leeward Islands, the **wet season** tends to start in May, with a return of heavy rainfall.
- Coincidentally, largely fueled by drier soils, the Caribbean Heat Season characterised by the recurrence of heatwaves – commences in April (in Belize, Cuba, Trinidad) or May (elsewhere except for the Guianas).



 In addition, though the 2023 Hurricane Season officially starts on 1 June, severe weather events, including storms and hurricanes have occurred and are increasingly common before that date. Severe weather events can come with a range of hazards, including high winds, landslides, long-term flooding, flash floods, coastal flooding, among others.

Climate Advisories: Caribbean

- The frequency of Saharan dust incursions into the Caribbean tends to increase during this period to peak starting in May. It should be noted that, in some years, significant Saharan dust episodes also occur in March and April. (Access more detailed forecast information on dust and air quality in the Caribbean here: http://dafc.cimh.edu.bb/). Local dust levels should be increasing during prolonged dry spells and towards the end of the dry season. Tourism practitioners should be aware that visitors and staff may temporarily experience symptoms associated with respiratory ailments during dust episodes.
- Exposure to **harmful UV light** on sunny days will be very high to extremely high. Visitors should be encouraged to apply high SPF sunscreen lotion regularly (preferably reef safe), and seek shaded areas between the hours of 10 AM and 3 PM. Outdoor tourism operators and staff should also be mindful to minimise skin exposure during these times, and to wear sunscreen and protective clothing when they work outdoors.

Ocean temperatures are not expected to become as warm as to trigger coral bleaching throughout the period. It is imperative to minimise runoff of pollutants into coastal waters and to encourage the use of reef-safe sunscreen by guests and locals alike, which can increase the survival chances of coral reefs. This is also a good season to engage in coral reef restoration activities, especially in destinations where there is an on-going standalone program or partnership between tourism practitioners and coastal managers.

Climate Advisories: Caribbean Cont'd

What is different this year?

- A moderate **La Niña** event in the Pacific Ocean had started in September 2020 and appears to be coming to an end this month.
- The Pacific is transitioning into ENSO neutral. This means that both the Eastern Tropical Pacific Ocean and North Atlantic Ocean temperatures – and, thereby the Caribbean – are expected to be close to average.
- This change makes it difficult to forecast unusual climate conditions in the Caribbean this late dry season.
- However, in case the Pacific transitions into El Niño by May, then chances of drought, weaker tropical cyclone activity, but more frequent heatwaves increase.

Climate Advisories: Caribbean Cont'd

In light of this year's changing ocean conditions, the forecast for March to May 2023 suggests:

- A faster depletion of water reservoirs than usual for the late dry season in Cuba in view of a reduced number of **wet spells**. Wildfire potential and local airborne dust will be increasing until heavy rains return in view of a low frequency of **wet days** (*medium confidence*).
- The potential for floods and cascading hazards -- such as land slippage or rockfall, power outages and possible contamination of food and water supplies -- arising from **excessive rainfall** will be slight (i.e., occurs once or twice every 10 years) for most areas in March but -- with the exception of the ABC Islands -- will increase to moderate (i.e., occurs at least once every 5 years) or high (i.e., occurs at least once every other year) into May. Tourism operators are advised to keenly monitor weather advisories issued by the National Meteorological Services and other information provided by the Caribbean Disaster Emergency Management Agency (http://cdema.org/) and the US National Hurricane Center (https://www.nhc.noaa.gov/). Given the current global 'Tripledemic', tourism operators should, at all times, maintain a state of readiness, including communication plans and response protocols to deal with sudden eventualities.

Climate Advisories: Caribbean Cont'd

- Short-term drought (on a 3-6 months timescale) concerns at the end of March 2023 are few in the region. However, some concern arises in the Northern Bahamas, Barbados, Western Cuba, Dominica, Dominican Republic, Martinique, Puerto Rico, St. Barts, Sint Maarten/St-Martin, St. Vincent, and the USVI, potentially impacting food production, water quality and quantity from small streams, small ponds and other surface sources (medium confidence). Longterm drought (on a 12 months timescale), which may affect water availability across a multitude of socio-economic sectors in a country, is evolving in Central and Western Cuba (high confidence), and may possibly develop or continue in Eastern Cuba, southern Dominican Republic and St. Vincent (medium confidence).
- Heat discomfort should not be a significant concern through March, which is the final month of the Caribbean Cool Season which started in December. However, heatwaves do occur in April, especially in Belize and Trinidad, and in areas in drought (Cuba), and in May across the Antilles (high confidence).

Climate Advisories: Caribbean Source Markets

March to May marks the spring season in the source markets. What should you do?

Although there may still be some restrictions to foreign travel to the Caribbean from some northern source markets related to the ongoing 'Tripledemic', they will probably not yet experience the warm summer conditions that vacationers are seeking.

Inbound Tour Operators are recommended to monitor the weather forecasts, as well as, the 'Tripledemic' situation in the source markets during this season. They should be on the lookout for reports of inclement weather in Canada, northern US and northern Europe.

In addition, some competing markets in the ASEAN region of Southeast Asia are expected to likely see wetter than usual conditions, with increased chances of flooding and reduced sunshine. Marketing efforts could focus on attracting visitors to the generally sunny, warm and breezy weather, and general health and safety in the Caribbean region.



Surf and Sargassum Outlook

Surf's Up

Surfers, divers, fishers and marine craft operators should consult the 7-day wave forecast before planning activities. Click here to access this product: http://ww3.cimh.edu.bb/



Sargassum Outlook

Tourism operators may consult the University of the West Indies / Centre for Resource Management and Environmental Studies (UWI/CERMES)'s Sargassum sub-regional Outlook Bulletin for the Eastern Caribbean or the monthly University of South Florida (USF)/NASA Sargassum Outlook Bulletin for the entire Caribbean before planning activities.

Click here to access the latest UWI/CERMES product: https://www.cavehill.uwi.edu/cermes/projects/sargas sum/outlook-bulletin.aspx

Click here to access the USF/NASA product: https://optics.marine.usf.edu/projects/SaWS.html

Additionally, a Sargassum resource guide is available from the Caribbean Alliance for Sustainable Tourism (CAST) and can be accessed here: https://caribbeanhotelandtourism.com/publications/ Additional resources and publications for Sargassum management are also available from CTO here: https://www.onecaribbean.org/our-work/sustainabletourism-dept/sargassum-resources/

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Upcoming Events

- CHTA Marketplace takes place in Barbados, May 9-11, 2023
- CTO hosted Tourism Health and Wellness Webinar, April 5, 2023
- CIMH hosted Caribbean Climate Outlook

Websites

Caribbean Tourism Organization: www.onecaribbean.org

Caribbean Hotel and Tourism Association: www.caribbeanhotelassociation.com

Forum, May 202

Regional Climate Centre: http://rcc.cimh.edu.bb

Disclaimer

This Bulletin provides a broad overview of climate conditions up to 3 months in advance. It is based on insights drawn from CIMH's suite of technical climate information products and industry insights from the CTO and the CHTA. The information contained herein is provided with the understanding that the CTO, the CHTA, and the CIMH make no warranties, either expressed or implied, concerning the accuracy, completeness, reliability or suitability of said information. The Bulletin may be freely used and distributed by the public with appropriate acknowledgement of its source but shall not be modified in content and then presented as original material. CTO, CHTA and CIMH disclaim any liability with respect to the use of any information within this document by any person or entity



Seasonal climate forecast - the guidance offered by a forecaster or forecast centre on climate conditions during the coming months. Forecast information in this Bulletin pertains to the 3 months highlighted in the Issue.

Short-term drought – A rainfall deficit over a total period of 6 months.

Long-term drought – A rainfall deficit over a total period of 12 months.

 $\mathbf{Dry} \ \mathbf{day} - \mathbf{A} \ \mathbf{24}$ hour period during which the rainfall total is less than 1 mm.

Dry spell – A succession of at least 7 consecutive dry days.

Wet Day - A 24 hour period during which the rainfall total is at least 1 mm.

Wet Spell – A multi-day period during which the rainfall total is large enough to cross a certain threshold.

Extreme wet spell – 3 consecutive days of which the total rainfall is extremely high, with increased flash flood potential.

Caribbean Heat Season - most heatwaves and the associated spikes in heat stress occur between April or May and October in the Caribbean

Caribbean Cool Season - occurs between December and February or March when the Caribbean experiences comfortably cool weather The Guianas – French Guiana, Guyana and Suriname.

US Caribbean Territories – Puerto Rico, U.S. Virgin Islands.

Leeward Islands – Anguilla, Antigua and Barbuda, British Virgin Islands, Guadeloupe, Montserrat, Saba, St. Barthélemy, St. Eustatius, St. Kitts and Nevis, St. Maarten and St. Martin.

Windward Islands – Dominica, Grenada, Martinique, St. Lucia and St. Vincent and the Grenadines.

Lesser Antilles – Leeward and Windward Islands along with, Barbados and Trinidad and Tobago.

Greater Antilles – Cayman Islands, Cuba, Dominican Republic, Haiti, Jamaica and Puerto Rico.

ABC Islands – Aruba, Bonaire, Curacao

Lucayan Islands – The Bahamas, Turks and Caicos Islands.

For more technical climate terms: https://rcc.cimh.edu.bb/glossary-of-terms/