



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

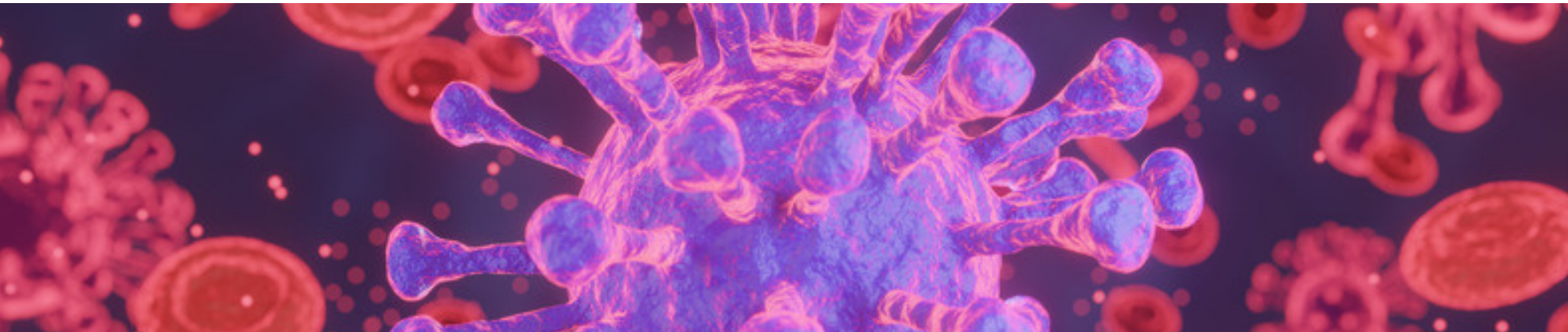
This Bulletin is a joint effort between the Caribbean Tourism Organization (CTO), the Caribbean Hotel & Tourism Association (CHTA) and the Caribbean Institute for Meteorology and Hydrology (CIMH) to help tourism businesses and policymakers identify and prepare for favourable or inclement climate conditions 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 2024) 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.

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CLIMATE RISK MANAGEMENT & VISITOR HEALTH

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 COVID-19, other respiratory issues and dengue, as well as other possible health 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 should you do?



Climatically, March to May forms the **late Dry Season** in Belize and the Caribbean Islands. This season is typically 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 local dust and Saharan dust.



In the Guianas, the Greater Antilles and, in many years, the Leeward Islands, the **wet season** usually 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 – typically commences in April (in Belize, Cuba, Trinidad) or May (elsewhere except for the Guianas).



In addition, though the **2024 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

This year, a waning El Niño event will likely make way for its cold counterpart in the tropical Pacific Ocean, namely a La Niña, by June-July-August. Meanwhile, in the North Atlantic Ocean and the Caribbean Sea, (near-)record high sea surface temperatures are expected to prevail.

Years in which El Niño wanes and Atlantic ocean temperatures are high (a reasonable past example is 2010) typically drive: (1) an major increase in excessive, humid heat in the Caribbean to the point of **significant heat stress** and potentially triggering a mass **coral reef bleaching** event; (2) an early and often **abrupt transition into the wet season** – particularly in Barbados, Trinidad and Tobago and the Windward Islands –, with frequent, heavy showers triggering episodes of flooding and flash floods; and (3) potentially, an early onset of an **active Atlantic Hurricane Season**.

The forecast for March to May 2024 further suggests:

Night-time and daytime temperatures are forecast to be higher than usual in most areas (*high confidence*). Therefore, significant episodes of **heat stress** may appear as the region is forecast to **transition into the Heat Season in April**. However, heatwaves might already be recorded this March in a number of locations, notably where soil moisture content is even lower than usual. Therefore, tourism practitioners should expect a significantly higher demand for cooling/hydration services (e.g., AC use and refrigeration use, use of pools and showers, and drinking water) than usual for the period, and should advise their staff and guests accordingly in the upcoming period.

Climate Advisories: Caribbean Cont'd

Severe weather systems related to tropical cyclones, as well as heavy showers may affect Caribbean territories repeatedly in April and May. Tourism operators are advised to **constantly monitor and abide by weather advisories** issued by 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/>). At all times, tourism operators should maintain a state of readiness, including communication plans and response protocols to deal with sudden eventualities.



Apart from The Bahamas, Cayman Islands and Cuba, seasonal **rainfall amounts** are forecast to be the usual or even higher in the rest of the region (*medium confidence*).



Besides the buildup of rainfall deficits in certain areas, higher than normal temperatures have been exacerbating drought conditions since May last year, continuing into 2024.

Short-term drought is expected to be a significant concern by the end of May 2024 in southern French Guiana (*medium to high confidence*), but also possible in southern Belize, Grand Cayman, central French Guiana, northeastern Guyana, Jamaica, and the USVI (*medium confidence*). Short-term drought may impact food production, water quality and quantity from small streams, small ponds and other surface sources.



Climate Advisories: Caribbean Cont'd

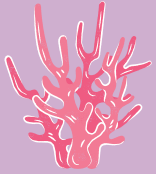
Long-term drought is evolving by the end of May 2024 in southwest Belize, Grand Cayman, inland portions of French Guiana, northeastern and inland portions of Guyana, southwest Puerto Rico, northern Suriname (*high confidence*) and might possibly develop or continue in the northern Belize, Central Cuba, Dominica, coastal French Guiana, northern Guyana, Tobago, the USVI (*medium confidence*). Long-term drought (on a 12 months timescale) affects water availability across a multitude of socio-economic sectors in countries where the main freshwater resource is from very large rivers, large reservoirs or groundwater.

Tourism facilities should continue to enhance/upgrade their water conservation practices, as well as rainwater harvesting and repairs to leaky pipes, etc., and advise staff and guests of the need to reduce water wastage on an ongoing basis.

In view of the very *high* to *extremely high* exposure to **harmful UV light** on sunny days, 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.



Climate Advisories: Caribbean Cont'd



Though widespread marine heatwaves triggering **coral bleaching** have occurred in late 2023 and are likely to occur again later on in 2024, ocean temperatures are not expected to become as warm as to trigger coral bleaching between March and May. It should be noted that a portion of the recently bleached corals may recover in cooler, clear and clean water. Therefore, 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. This 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.

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 there may be an increase in visitors and staff experiencing respiratory and eye-related concerns.

Climate Advisories: Caribbean Source Markets

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

Inbound Tour Operators are recommended to monitor the weather forecasts. 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 which will experience the hottest part of the year and the late dry season in this period (i.e., Vietnam, The Philippines and Thailand) and are expected to likely see drier than usual conditions, with increased chances of extreme heat and recurrent wildfires. These conditions would result in high concentration of smoke haze and its degrading impact on air pollution.

Marketing efforts could focus on attracting visitors to the generally sunny, warm and breezy weather, and general health and safety in the Caribbean region. Additionally, they should differentiate themselves through innovative package offers, memorable customer service (bearing in mind appropriate health protocols where applicable), and activities that take advantage of the pristine natural environments on offer.



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/sargassum/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/sustainable-tourism-dept/sargassum-resources/>



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Upcoming Events

- 1. CTO Caribbean Conference on Sustainable Tourism Development, 22–24 April 2024, Grenada**
- 2. CHTA Caribbean Travel Marketplace, 20-23 May 2024, Montego Bay, Jamaica**
- 3. CIMH 2024 Wet/Atlantic Hurricane Season Caribbean Climate Outlook Forum, 23-24 May 2024, Guyana**
- 4. Fourth International Conference on Small Island Developing States (SIDS-4), 25-30 May 2024, Antigua and Barbuda**

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

Websites

Caribbean Tourism Organization:
www.onecaribbean.org

Caribbean Hotel and Tourism Association:
www.caribbeanhotelassociation.com

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

Glossary

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.

Dry day – A 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/>