



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

# CARIBBEAN TOURISM CLIMATIC BULLETIN

for Tourism Businesses and Policymakers

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A close-up photograph of several green leaves, likely from a tropical plant, covered in numerous clear water droplets. The leaves are vibrant green and the droplets are of various sizes, some reflecting light. The background is dark, making the green leaves and white droplets stand out.

# Purpose

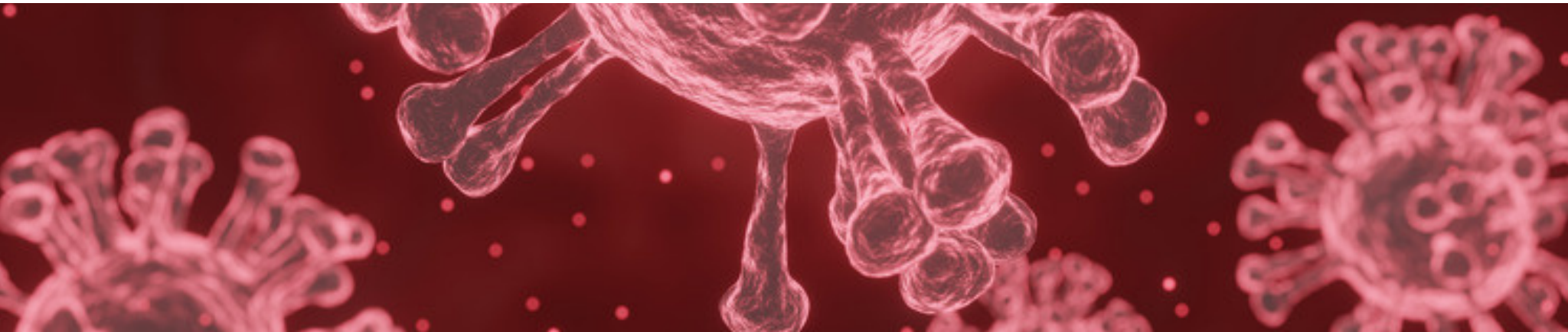
This Bulletin is a joint effort between the Caribbean Tourism Organization (CTO), the Caribbean Hotel & Tourism Association (CHTA) and the Caribbean Institute for Meteorology and Hydrology (CIMH) to help tourism businesses and policymakers identify and prepare for favourable or inclement climate conditions 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 (September - November 2022) 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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# COVID-19 PANDEMIC

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 COVID-19 pandemic, as well as other possible threats as they arise. The CTO, CHTA, and CIMH will continue to closely monitor the situation.



# Climate Advisories: Caribbean

**September through November marks: 1) the late wet season in the Caribbean Islands and Belize, 2) the transition to the wet season in the ABC Islands, and 3) the dry season in the Guianas. What should you do?**



Climatically, September to November forms the **second half of the wet season in the Caribbean Islands and in Belize**. During this period, a large number of wet days and frequent wet spells occur. However, a number of short dry spells still can punctuate this season, particularly in the Greater Antilles. By contrast, the Guianas are in their **hot, dry season**, running into November in most areas, but continuing through April in far inland, southwestern parts of the region. Hence, frequent dry spells, but infrequent wet days and wet spells are the historical norm from September to November.



This year, a long-lasting **La Niña event** in the Pacific is tilting the odds towards more frequent and more intense rainfall, a more active second half of the Hurricane Season and higher rainfall totals across the Caribbean (*medium confidence*).

# Climate Advisories: Caribbean

**September through November marks: 1) the late wet season in the Caribbean Islands and Belize, 2) the transition to the wet season in the ABC Islands, and 3) the dry season in the Guianas. What should you do?**



The **2022 Hurricane Season** officially lasts until November 30th, with the peak of tropical cyclone activity typically lasting until around mid-October, but storms and hurricanes have occurred after the official end date. This Season has produced only 3 named Tropical Storms, but no hurricanes as of 31 August 2022. An highly unusual, persistent inflow of dry air over the Tropical North Atlantic – originating from the Sahara\*\*\* – has impeded storm formation from July 3rd until August 31st. While the September to November second half of the Hurricane Season is still predicted to be more active than average, the 2022 Hurricane Season totals may end up closer to 9-15 named storms.



*\*\*\*Dry air high up in the atmosphere originating from the Sahara (i.e. Saharan Air Layer, the carrier of Saharan dust) often makes its way from Africa westward over the Tropical North Atlantic and the Caribbean. In July and August, the intrusion has been so persistent that it inhibited storm formation over the Atlantic and reduced rainfall amounts in the Leeward Islands.*

*The persistence or the relative absence of the Saharan Air Layer above the Caribbean and the Tropical North Atlantic cannot as yet be accurately predicted at the seasonal timescale, leaving forecasters with some uncertainty, which is factored into the forecast confidence level (e.g. medium confidence - see the Glossary on the last page of this Bulletin). Because of this uncertainty, the activity of the Atlantic Hurricane Season tends to be lower than forecasting agencies may have predicted at times when Saharan Air is particularly persistent (as has been the case in July and August 2022). Similarly, some countries in the Caribbean may see lower seasonal rainfall totals than forecasted in such a situation.*

# Climate Advisories: Caribbean Cont'd



**Severe weather events** are expected to affect Caribbean territories. Such events include but are not restricted to tropical cyclones and extreme wet spells. These can come with a range of hazards, including high winds, flash floods, land slippage or rockfall, power outages and possible contamination of food and water supplies. Tourism operators are advised to constantly 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/>). At all times, tourism operators should maintain a state of readiness, including communication plans and response protocols to deal with sudden eventualities.



The intense and frequent heavy showers clustered in **very wet spells** throughout the period result in a *high potential* (i.e. occurs once every other year or even more often) for **long-term flooding** in flood-prone areas of the Caribbean Islands and Belize. Similarly, up to two or three severe weather events that produce **extreme wet spells** can be expected during these three months in the Caribbean Islands and Belize, resulting in *high to extremely high* (i.e. occurs at least once in most years) potential for flash floods and cascading hazards. By contrast, in the coastal Guianas, apart from locations which are still flooded at the time of writing, flooding potential should be *limited* (i.e. occurs once or twice in 10 years) to *moderate* (i.e. occurs two to five times in 10 years) up until the onset of their secondary wet season in mid- to late-November. Therefore, proper planning / contingencies for these scenarios is imperative for tourism operators, especially those operating outdoors. Tourism facilities should clear their drainage and clean catchment systems as soon as possible.



# Climate Advisories: Caribbean Cont'd



While there is no ongoing regional **drought**, pockets of the Caribbean have been affected by rainfall shortages in the past six months. As of August 1st, **short-term drought** (on a 3-6 months timescale) has developed in Guadeloupe, southwestern Hispaniola, southernmost Jamaica, St Barts, St Croix, Sint Maarten and in St Vincent. Short term drought is unlikely to be of significant concern by the end of November (*medium confidence*).



**Long-term drought** (on a 12 months timescale), which may affect water availability across a multitude of socio-economic sectors in a country, has developed in Antigua, Western Cuba, southwest Haiti, Guadeloupe, eastern Jamaica, Martinique, St Barts, St Croix, Sint Maarten, St Lucia, and St Vincent. However, though not a widespread concern, long term drought by the end of November might possibly develop in parts of Belize, or continue in Martinique and St Vincent (*medium confidence*).

Therefore, despite the limited drought concern by the end of November, 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.

# Climate Advisories: Caribbean Cont'd



Seasonal night-time and day-time **temperatures** are expected to cool by the end of the season, which coincides with the conclusion of the **Caribbean Heat Season**. Seasonal average daytime temperatures may be slightly cooler than usual in Cuba, Hispaniola and the US Caribbean Territories. However, region-wide, recurrent **heatwaves** are still expected in September and, possibly, in October anywhere further south than the Leeward Islands (or even in early-November in the Guianas). Tourism practitioners should expect an increase in demand for cooling/hydration services (e.g. AC use and refrigeration use, use of pools and showers, and drinking water) in the upcoming period. Staff and visitors should be sensitised to the importance of staying cool and properly hydrated.



Notwithstanding that it is the wettest part of the year in the Caribbean Islands and Belize, there remains a high risk of skin damage due to intense ultraviolet (UV) light emitted by the sun. The **UV index** will progressively decrease from extremely high to very high on sunny days towards November. 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



Ocean temperatures will peak in September to slowly decrease towards November and are forecast to remain close to average throughout the period in most areas. As such, the temperatures are forecast to potentially be warm enough to trigger localised **coral bleaching** in October and November, with the strongest concern being between the southernmost islands of The Bahamas, Eastern Cuba, Haiti, and Turks & Caicos Islands. 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 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 decrease during this period (access more detailed forecast information on dust and air quality in the Caribbean here: <http://dafc.cimh.edu.bb/>). Similarly, local dust levels should be on the low end throughout the remainder of the Wet 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

**September to November marks the Autumn season in the source markets.  
What should you do?**

Northern source markets will experience less sunny and cooler weather in the Autumn season. While the current rainfall forecasts provide no specific indication of seasonal climate beyond these historical expectations, temperatures are unlikely to be cooler than usual in North America and Europe (*medium confidence*). This may create a climate driven increase in demand for Caribbean vacations. Tourism operators are therefore recommended to focus on enhanced marketing efforts to attract visitors. Additionally, they should differentiate themselves through innovative package offers, memorable customer service (bearing in mind COVID-19 protocols where applicable), and activities that take advantage of the pristine natural environments on offer. Furthermore, Tour Operators should monitor the weather forecasts in the source markets.

In addition, some competing markets in the ASEAN region of Southeast Asia and in the southwest Pacific 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 even in the wet season, 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/sargassum/docs/bulletin/sargassum\\_outlook\\_bulletin\\_issue\\_04\\_mjj\\_cermes\\_202.aspx](https://www.cavehill.uwi.edu/cermes/projects/sargassum/docs/bulletin/sargassum_outlook_bulletin_issue_04_mjj_cermes_202.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://www.onecaribbean.org/wp-content/uploads/SargassumResourceGuideFinal.pdf>

# Contact Us



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# Upcoming Events

**CTO World Tourism Day Forum**  
Tuesday September 27, 2022

## **CHTA CAST Sargassum Webinars**

**Part 1: Sargassum Basics**  
Thursday September 8, 2022

**Part 2: Sargassum Solutions**  
Thursday September 15, 2022

Register here:  
<https://member.caribbeanhotelandtourism.com/events/register.aspx?id=1669354&itemid=bd5d0ec0-9de3-4431-8d28-135e30a4bc4b>

### Websites

Caribbean Tourism Organization:  
[www.onecaribbean.org](http://www.onecaribbean.org)

Caribbean Hotel and Tourism Association:  
[www.caribbeanhotelassociation.com](http://www.caribbeanhotelassociation.com)

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



# Glossary

**Seasonal climate forecast** - the guidance offered by a forecaster or forecast centre on the climate conditions during the coming months.

NB: This forecast information 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.

**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/>