



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 (June - August 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.

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# CLIMATE RISK MANAGEMENT IN CARIBBEAN TOURISM

Climate risk management 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, as well as other possible threats as they arise.

The CTO, CHTA, and CIMH will continue to closely monitor the situation.



# Climate Advisories: Caribbean

**June through August forms part of the Caribbean Heat Season and marks: 1) part of the long Dry Season in the ABC Islands, 2) the early Wet Season in Belize and the Lesser Antilles, 3) the summer portion of the Wet Season in the Greater Antilles, and 4) the transition from the Wet to the Dry Season in the Guianas. What should you do?**

The **2023 Atlantic Hurricane Season** officially started on June 1st and is forecast to be near-normal with an estimated 13-17 named storms (i.e. tropical storm, hurricane or major hurricane), including approximately 6-8 hurricanes, of which 3 or 4 may easily intensify into a major hurricane (i.e., category 3, 4 or 5 on the Saffir-Simpson scale) over the entire season. As of June 5th, one sub-tropical storm occurred in January and one on June 2nd.



**Severe weather systems** related to tropical cyclones often affect Caribbean territories. Tourism operators are advised to constantly monitor 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/>), and abide by any official advisories issued by the National Meteorological Service in their country. At all times, tourism operators should maintain a state of readiness, including communication plans and response protocols to deal with sudden eventualities.



While preparing for hurricanes and other severe weather events remains a priority, this year an additional priority for climate risk management should be on **heat and associated impacts**. There are strong indications that **excessive heat** during the current Heat Season is going to be worse than in the last two years and, possibly, similar to the record-breaking year of 2020.



# Climate Advisories: Caribbean (Cont'd)

Currently, an unusual combination of factors driving the excessive heat are arising. As ocean temperatures in the tropical Pacific increase, we will very likely see the Pacific transition into **El Niño**. At the same time, **North Atlantic ocean temperatures** in and around the Caribbean are expected to be and remain well above-average. Unusually warm waters in these two ocean basins will steadily **amplify heat stress** by increasing temperatures, humidity and heat wave frequency.




This part of the **Caribbean Heat Season** (which runs from April/May to October) usually is characterised by a notable increase in heat stress from high day and nighttime temperatures, increasing air humidity and more frequent heat waves.




Seasonal night-time and day-time **temperatures** in the Caribbean increase into the summer months, but are expected to be even warmer than usual this year. Frequent **heat waves** are expected, especially towards August. In the aftermath of a debilitating severe weather event, exposure to the combination of humid heat and recurrent heat waves can become severely dangerous to human life if unmitigated. Tourism practitioners should expect an increase in demand for cooling/hydration services (e.g., AC use and drinking water) and should advise their visitors and staff accordingly in the upcoming period.

# Climate Advisories: Caribbean (Cont'd)



Climatically, this half of the **Caribbean Wet Season** in Belize and the Caribbean Islands is usually characterised by an increase in the number of wet days and wet spells. By contrast, the number of dry days and dry spells decreases notably compared to the previous months.



The usual or even higher seasonal **rainfall totals** are expected across most of the Greater Antilles and the Leeward Islands. By contrast, the ABC Islands, The Bahamas, Barbados, Cayman Islands, eastern parts of the Guianas, Trinidad & Tobago and the Windward Islands are likely to record the usual rainfall amounts or less.



It should be noted that virtually all countries in the Caribbean could potentially experience the heavy showers and extreme wet spells that trigger **flooding or flash floods** and cascading hazards such as landslides. This potential is particularly high in Belize, The Bahamas, most areas in the Greater Antilles, Guyana, the US Virgin Islands and the Windward Islands, but moderate in the ABC Islands and the Leeward Islands.

# Climate Advisories: Caribbean (Cont'd)



Even where less than the usual rainfall totals are recorded in the next 3 months, these will not raise major concerns for drought. **Short term drought** may possibly develop in southern French Guiana by the end of August 2023. Short term drought may impact food production, water quality and quantity from small streams, small ponds and other surface sources. Long term drought may possibly develop in Dominica and Trinidad by the end of November 2023. **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 visitors of the need to reduce water wastage on an ongoing basis.



During this period, the **UV index** will be very high to extremely high on sunny days. Visitors and staff (working outdoors) should be encouraged to apply high SPF sunscreen lotion regularly (preferably reef safe) between the hours of 10 AM and 3 PM and should be warned that sunburn can occur even on cloudy days. 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)



Unlike cooler years, ocean temperatures are expected to become as warm as to potentially trigger **coral bleaching** in and beyond August. Until then, 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 be a recurring concern during this period as it can pose respiratory and ocular concerns for visitors and staff.



# Climate Advisories: Caribbean Source Markets

## June to August marks the summer season in the source markets. What should you do?

Source markets tend to experience the warm and sunny summer conditions vacationers are seeking at this time, with the exception of northern Europe. 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, and activities that take advantage of the pristine natural environments on offer.

Furthermore, inbound Tour Operators are recommended to monitor the weather forecasts in the source markets during this season. They should be on the lookout for reports of inclement summer weather in Canada and northern Europe, as well as reports of wildfires causing a deterioration in air quality in Canada and the Northern US.

A few competing markets in South East Asia (Bali, Indonesia in particular) are expected to see much drier than usual conditions with increased chance of extensive man-made fires for land management purposes, as well as natural wildfires, leading to severely deteriorated air quality at times.

Marketing efforts should focus on attracting visitors to the generally sunny, warm and breezy weather, and general health and safety, in the Caribbean Islands, as well as, in the coastal areas of Belize and the Guianas.



# 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/>



# Wildfires and air quality



When there is a combination of dense, dry, combustible vegetation with wildfire weather (i.e., windy and hot weather with low air humidity), environmental conditions are prime for wildfires. Smoke from these wildfires can cause discomfort in visitors and tourism operators alike. Fortunately, wildfire weather is not too common during the wet season, and neither is it in June-July-August 2023 across most of the Caribbean region.

Find out if your country may face a decrease or an uptick in wildfire weather week by week here:

<https://rcc.cimh.edu.bb/caribbean-fire-weather-monitor/>

# Contact Us



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# Stay Alert & Be Prepared!



## Disclaimer

### 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>

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# 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.

**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

**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.

**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/>