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

CARIBBEAN TOURISM CLIMATIC BULLETIN

for Tourism Businesses and Policymakers

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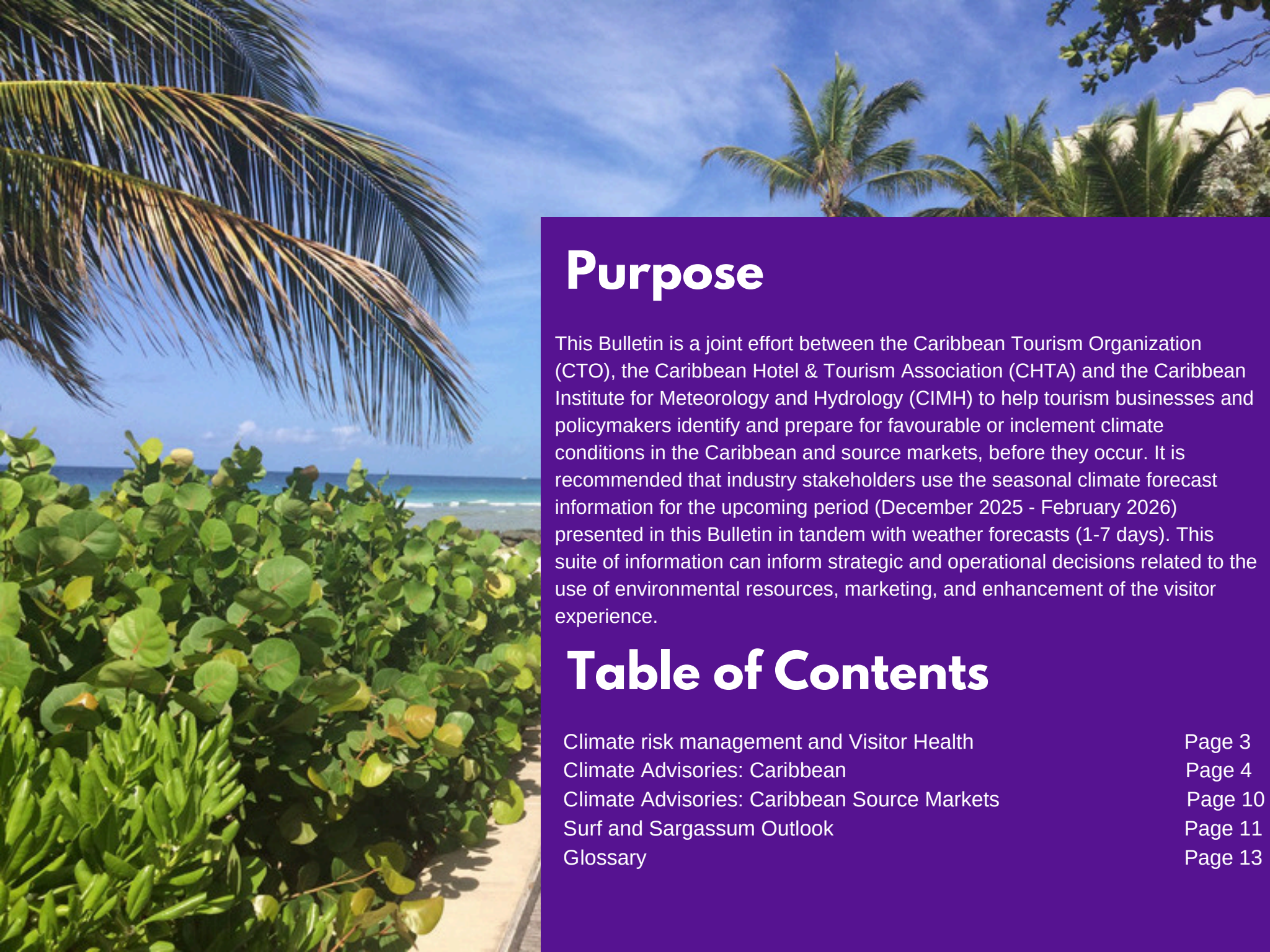

Purpose

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 (December 2025 - February 2026) 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 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 respiratory issues and dengue, as well as other possible threats as they arise.

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

Climate Advisories: Caribbean

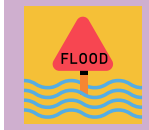
December through February marks: 1) the early dry season in the Caribbean Islands and Belize, except for the ABC Islands which transition into the long dry season; and 2) the secondary wet season in the coastal Guianas.

What should you do?

Climatically, December to February forms the **first half of the Dry Season** in the Caribbean Islands, Belize, and the far interior of the Guianas. The historical record shows that the first half of the Caribbean Dry Season in the Bahamas, Belize, the Greater and Lesser Antilles is usually characterised by a steady decrease in the frequency of **wet days** and in the intensity of **heavy showers**. Conversely, the number of **dry days and dry spells** is high westwards of Puerto Rico throughout the period while, further east, their frequency increases towards the end of February. The resulting drier surface and foliage increase **wildfire potential** and the concentration of airborne particulates and local **dust levels**.

By contrast, the coastal Guianas are in their **secondary Wet Season** until early February, then moving into their secondary Dry Season. Hence, wet days and wet spells are usually frequent while dry spells are few in December and January.

Climate Advisories: Caribbean



In this period, **flood and flash flood potential** (i.e., the chance of occurrence of an excessive rainfall event that can trigger floods and cascading impacts – such as land slippage, rock fall, soil erosion, river damming, mud flows – in flash flood-prone areas) is typically *high* (i.e., has a chance of occurrence of at least 50% in the period of interest) to *extremely high* (i.e., occurs at least once in most years during the period of interest) in the Guianas and southern Belize. In most other areas, this potential decreases from *moderate* (i.e., has a 20% to 50% chance of occurring at least once during the period of interest) or high in December to *slight* (i.e., occurs once every five to ten years during the period of interest) in February.

December to February further marks the return of the entire Caribbean region to the **Cool Season**. The historical norm for this period is more comfortable temperatures, accompanied by decreasing humidity by the end of February.

Ocean temperatures in and around the Caribbean are warmer than average and are forecast to remain so. Due to these unusually warm waters in the Tropical North Atlantic Ocean, **air temperatures** and **humidity** during the Cool Season are likely to be higher than normal, but unlikely to the point of significant heat stress.

Climate Advisories: Caribbean Cont'd

In recent months, cooler than average temperatures have appeared in the tropical Pacific Ocean, with conditions now borderline **La Niña.** This La Niña is forecast to subside by March or even before then. Borderline La Niña conditions do not tend to significantly affect the Caribbean. If anything, they are associated with increased heavy shower activity and rainfall totals in the southeastern Caribbean - including the Guianas -, and a more intense early dry season in the northwestern Caribbean.

The **2025 Hurricane Season** officially ended on November 30th. With 13 tropical cyclones reaching at least tropical storm strength this year, 5 of which became hurricanes, including 3 category 5 hurricanes (the second largest number on record). By at least two metrics, the number of named storms and the Accumulated Cyclone Energy (ACE) over the entire 2025 Season was near average and fell well within the forecast ranges. However, the Caribbean Climate Outlook Forum (CariCOF) in May expected that activity could be erratic, with explosive episodes interspersed with quieter periods, for instance due to episodes of increased Saharan dust incursions into the Caribbean. This reconciled the seasonal outlooks with the observations. Most storms and hurricanes did not significantly impact the Caribbean and the usual peak of the season from late-August to mid-September was particularly quiet. In stark contrast, one of the most intense - e.g., making landfall at maximum sustained wind speeds of 185 mph - and destructive hurricanes on record, Melissa, decimated western parishes of Jamaica before severely impacting portions of Eastern Cuba. With a lifetime spanning the second half of October, Melissa was the last tropical cyclone of the 2025 Season to date.

Climate Advisories: Caribbean Cont'd

Severe weather systems related to tropical cyclones, as well as heavy showers can still affect Caribbean territories, particularly during December. The warm Atlantic and possible La Niña conditions increase flood and flash flood potential to *high* to *extremely high* in Belize and Guyana, *high* in the Windward Islands, and *moderate* to *high* elsewhere.

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. An example of why vigilance is still paramount was the flooding Christmas rains in the Windward Islands in 2013.

The forecast for seasonal rainfall amounts are uncertain at this point. However, relatively dry air above the Tropical North Atlantic that dominated through September had led to long-term drought in many areas - particularly in Barbados and the Windward Islands -, exacerbated by (near-)record heat in several locations.

Climate Advisories: Caribbean Cont'd

Despite the pre-existing long-term drought in multiple areas of the Caribbean, **short-term drought** is expected to be a *significant* concern by the end of February 2025 only in northwest Puerto Rico, and the U.S. Virgin Islands (*medium to high confidence*). However, short-term drought *might possibly develop or continue* in the ABC Islands, Dominica, Martinique, Saint Lucia, and Tobago (*medium confidence*). Short-term drought may impact food production, water quality and quantity from small streams, small ponds and other surface sources.

Long-term drought by the end of May 2026 is *evolving* in southwest Belize, Grand Cayman, Grenada, Dominica, Martinique, and Saint Lucia (*high confidence*) and *might possibly develop or continue* in the ABC islands, southeast Belize, and St. Vincent (*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 (i) continue to enhance/upgrade their water conservation practices, (ii) rainwater harvesting and repairs to leaky pipes, etc., and (iii) advise staff and guests of the need to reduce water wastage on an ongoing basis.

Climate Advisories: Caribbean Cont'd

The amount of **harmful UV light** on sunny days is at its annual minimum in December, i.e., *high* to *very high*, but will steadily increase from January onwards to *very high* to *extremely high*. Visitors should be encouraged to apply high SPF sunscreen lotion regularly, 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.

Owing to the warmer ocean temperatures this year than in most other years, heat stress in corals in the Atlantic Ocean can still lead to **coral bleaching** in the far southeastern Caribbean through December 2025. However, ocean temperatures should be more beneficial to coral health from January onwards. And, 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, 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 be low during this period, though, in some years, significant episodes occur as early as February. Though initially low, local dust levels may increase towards February, particularly in areas under short-term drought. 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

December to February marks the Winter season in the source markets. What should you do?

Northern source markets will experience winter cold, short days and limited sunshine. This may create a climate-driven increase in demand for Caribbean vacations, as well as vacations to the US's Sunbelt area of Florida, the desert southwest and the southeast. Due to a possible extension of borderline La Niña conditions through February, there is a tendency towards warmer, drier and sunnier weather than usual in the latter areas of the US, and also in The Bahamas, the Cayman Islands and Cuba. By contrast, La Niña conditions increase the odds that competing markets in Southeast Asia are impacted by excessive rainfall and flood-related impacts which can materialise to disastrous levels. Tourism operators are therefore recommended to monitor the weather forecasts, as well as focus on enhanced marketing efforts to attract visitors. 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.

Marketing efforts could focus on attracting visitors to the generally sunny, warm, breezy weather in the early dry season - especially in the northwestern markets -, as well as the anticipated, excellent air quality in this season and general health and safety across 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/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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Websites

Caribbean Tourism Organization:
www.onecaribbean.org

Caribbean Hotel and Tourism Association:
www.caribbeanhotelassociation.com

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

Disclaimer

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/