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

CARIBBEAN TOURISM CLIMATIC BULLETIN

for Tourism Businesses and Policymakers

March – May 2021 I Vol 5 I Issue 1

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 2021) 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 PANDEMIC

The impact of COVID-19 to tourism activities and businesses across the region has been unprecedented. 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 the added concern of managing the current COVID-19 pandemic.

The CTO, CHTA, and CIMH will continue to closely monitor the situation and issue the relevant climate outlooks.

Looking Back: November 2020 - January 2021

The **2020 Hurricane Season** was the busiest since at least the 1950s with 30 named storms. Of those storms, 13 had developed into hurricanes and 6 into major hurricanes, including major hurricane Eta that affected the Caribbean, including Belize, the Cayman Islands and Cuba with flooding rains in November.

The secondary wet season was wet to exceptionally wet in the Guianas. By contrast, **short term drought** has developed in the southernmost parts of Dominica, northern Martinique, Sint Maarten/St-Martin and northwest Trinidad. Although the wet season rains were plenty throughout Belize and the islands, **long term drought** has developed in southwest Belize, along the south coast of the Dominican Republic, south-westernmost Jamaica, and along the Windward Islands.

With November forming the transition into the December to March Caribbean **cool season**, comfortable temperatures returned to the region after an otherwise hot 2020. Even then, much of the Caribbean was still warmer than average, especially in The Bahamas, Jamaica and Trinidad & Tobago. By contrast, Antigua, Guadeloupe and parts of Suriname were slightly cooler than average.

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 **second half of the Caribbean Dry Season** in Belize and the Caribbean Islands, characterised by relatively few wet days and a small number of wet spells, but many dry days and quite a few dry spells.

A **La Niña** event has started in September 2020. The current La Niña is expected to progressively fade in strength in March-April-May 2021. Yet, more likely than not, La Niña will remain in place until then. La Niña tilts the odds towards a wetter March to May season in the Guianas, enhancing flood potential there in May. Sometimes, La Niña can also reduce rainfall somewhat in the Bahamas and Greater Antilles at this time.

Climate Advisories: Caribbean Cont'd

That said, the intensity of **heavy showers** increases towards May, especially in the Greater Antilles and the Guianas. **Extreme wet spells** become a possibility and **very wet spells** a more frequent occurrence from April onwards across the region. Consequently, in Belize and the Caribbean Islands, the potential for widespread rainfall-induced **flooding** in flood-prone areas, as well as, **flash floods** increases from marginal (i.e. occurs less than once in 10 years) in March to limited (i.e. occurs once or twice in 10 years) in April and moderate (i.e. occurs two to five times in 10 years) in May (high confidence). In the Guianas, a steady increase in flooding and flash flood potential to moderate or high (i.e. occurs more often than once every other year) should manifest by May which is the start of their primary wet season (high confidence). Guyana in particular may see an increased chance of extreme wet spells in April and May this year. Such extreme wet spells may coincide with thunderstorms and high winds, and may result in flash floods, land slippage, power outages and possible contamination of food and water supplies. Therefore, proper planning / contingencies for these scenarios is imperative in tourism disaster plans.

Short term drought (on a 3-6 months timescale) is evolving by the end of May in the northernmost parts of The Bahamas, the Cayman Islands, Western Cuba and eastern parts of the Dominican Republic (medium to high 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 (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. Long term drought is evolving by the end of May in Aruba and southwest Belize (high confidence). It should be noted that, wherever long term drought persists during the dry season, **drought impacts** related to shortages in water availability typically worsen over time.

With a high number of dry days and **dry spells** across the region, the ground surface and foliage typically can dry out and increase the potential for wildfires, especially in areas currently experiencing short term drought. In the face of drought and dry spells, tourism facilities should enhance/upgrade their water conservation practices (e.g. rainwater harvesting and repairs to leaky pipes), advise staff and guests of the need for water conservation and fire safety on an ongoing basis.

Night-time and day-time **temperatures** in the Caribbean are forecast to warm up into May (high confidence). Region-wide, the early part of the Caribbean Heat Season (which runs from April or May to October) is not expected to be as intense as in 2020, with likely fewer heat waves and fewer heat records.

Climate Advisories: Caribbean Cont'd

However, temperatures will likely still be warmer than usual in The Bahamas, Belize, the Cayman Islands and Cuba. At times, the heat may become uncomfortable across the region, especially in the event of heat waves which are relatively frequent during the month of May, particularly in Belize and Trinidad. Tourism practitioners should expect an increase in demand for cooling/hydration services (e.g. AC use and drinking water) and should advise their guests accordingly in the upcoming period.

There is a high risk of skin damage due to intense ultraviolet (UV) light emitted by the sun. During this period, the **UV index** will be very high to extremely high 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.

Ocean temperatures are not expected to become as warm as to trigger **coral bleaching** throughout the period. 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.

Climate Advisories: Caribbean Cont'd

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 symptoms in visitors and staff with respiratory ailments. It may be prudent to advise visitors and staff to stock up on medications and/or seek medical attention, as necessary.

The **2021 Hurricane Season** officially starts on June 1st, but storms and hurricanes can and, in many recent years, did occur before the official start date. Severe weather systems, which can come with a range of hazards, including high winds, landslides, flash floods, among others, are expected to possibly 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.

Climate Advisories: Caribbean Source Markets

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

Although there are some restrictions to foreign travel from some northern source markets, they will probably not yet experience the warm summer conditions that vacationers are seeking. 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.

Climate Outlook for the Caribbean

It is the late dry season. What do we expect for the Caribbean?

How wet?

Regionally, forecasts of rainfall totals are not typically very confident for the period March to May. That said, the current March to May forecast does indicate at least as high as usual rainfall in Belize and the western half of the Guianas (medium confidence).

How dry?

Short term drought (on a 3-6 months timescale) is evolving by May in the northernmost parts of The Bahamas, the Cayman Islands, Western Cuba and eastern parts of the Dominican Republic (medium to high confidence) and might possibly develop or continue in the Leeward Islands, other parts of the Dominican Republic, northern French Guiana, and Suriname (medium confidence). Long term drought (on a 12 months timescale) is evolving by the end of May in Aruba and southwest Belize (high confidence), and may possibly develop or persist in Central Cuba, Dominica, northern parts of the Dominican Republic, Grenada, Martinique, St. Vincent, US Virgin Islands (medium confidence).

How hot?

MAM night-time (min.) and day-time (max.) temperatures will progressively warm into May, but remain comfortably cool until the end of March. Temperatures are likely to be at least as warm as usual westwards of Hispaniola, where heat stress is likely to become apparent by April or May. By contrast, temperatures, particularly at night, may remain cooler elsewhere.

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://www.onecaribbean.org/wp-content/uploads/SargassumResourceGuideFinal.pdf

Climate Outlook for Caribbean Source Markets

What do we expect in the source markets?

Spring-time sees rapidly rising temperatures and increasing sunshine hours across most source markets, though mostly still too cold for sun, sea and sand vacations. There are signs in the seasonal forecasts suggesting that a majority of source market areas may potentially experience warmer than usual temperatures. At the same time, the Gulf Coast states of the USA are likely to see more dry weather than in most years as a result of the La Niña.

Contact Us

Amanda Charles
Sustainable Tourism Specialist, CTO
Email: acharles@caribtourism.com

Loreto Duffy-Mayers
CHTA
Email: loreto.duffy-mayers@un.org

Dr. Roché Mahon
Social Scientist, CIMH
Email: rmahon@cimh.edu.bb

Dr. Cédric Van Meerbeeck
Climatologist, CIMH
Email: cmeerbeeck@cimh.edu.bb

Upcoming Events

Late May 2021: CIMH hosted 2021 Wet/Hurricane Season Caribbean Climate Outlook Forum (CariCOF)

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 the climate conditions during the coming months.
NB: This forecast information 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.

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.

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/