## Heat Outlook for May to October 2025

## Episodes of excessive heat expected to ramp up as the Caribbean enters another unusually hot Heat Season

## Participating countries and territories

Antigua & Barbuda, Aruba, Bahamas, Barbados, Belize, Cayman Islands, Cuba, Curaçao, Dominica, Dominican Republic, French Guiana, Grenada, Guadeloupe, Guyana, Haïti, Jamaica, Martinique, Puerto Rico, St. Barth's, St. Kitts & Nevis, St. Lucia, St. Maarten/St. Martin, St. Vincent & the Grenadines, Suriname, Trinidad & Tobago and the US Virgin Islands





## Health: Greater frequency of heat symptoms due to excessive heat, *likely* peaking in September

## Public health:

- *strong* increase in mild heat symptoms
- notable increase in heat illnesses, fainting episodes, hospitalisations, health services
- *likely* increase in biological risk (e.g. Aedes mosquito borne diseases, gastrointestinal disease)
- exacerbation of vulnerability in patients with chronic illness, children, pregnant women and the elderly

#### Occupational health:

- *potential* increase in exhaustion during intense outdoor activity
- significantly reduced labour performance and productivity if unprotected

## Well-being:

- *significantly* increased sweating and water consumption
- snacking/binge eating leading to acute negative health impacts (hypertension, diabetes) and weight gain
- *increased* fatigue, irritability and aggression during prolonged heatwaves





## **Agriculture:**

## Expect impacts from excessive heat, likely peaking in September









#### Livestock:

- *increased* cooling and ventilation need to mitigate heat stress in small and large livestock
- stunted growth rate of broilers and egg production of layers
- *likely* reduced dairy production •

#### **Crop agriculture:**

- exacerbation of any evolving drought conditions leading to • increased wilting
- strongly reduced productivity between 10 AM and 3 PM

#### **Fisheries:**

- *increased* water temperatures potentially reducing catch of reef fish, die-off and migration of pelagic fish
- *significant* potential for coral reef bleaching as early as August

## Forestry:

- *exacerbation* of any evolving drought conditions
- increased wildfire potential if fuel stock is dry

## **Tourism – Energy – Water:**

## Expect impacts from excessive heat, *likely* peaking in September

Tourism:

- Heat adaptation significantly increased demand for AC and refrigeration and associated costs in hotels
- Diving operations significant potential coral reef bleaching, resulting in long-term reduction in demand

#### Energy:

- Production reduced efficiency of power generation; potential increase in interruptions as a result of spikes in cooling demand
- **Demand and consumption** *significantly* increased cooling need in households, hotels, restaurants

#### Water:

- Quantity and quality recharge of water reservoirs along the wet season slowed down due to increased evapotranspiration; potential increase in algal blooms
- **Consumption** likely increase in households, hotels and power utilities



## **DRM – Child Care & Education** Expect impacts from excessive heat, *likely* peaking in September



#### DRM:

- **Risk:** potentially increased mortality and increased need for cooling strategies immediately post disaster (e.g. intense heat after passage of tropical cyclone); increased wildfire potential (if fuel stock is dry)
- Operations: likely reduced productivity of warehouse staff if unprotected



#### Child care and education:

- Learning: significantly reduced productivity and reduced learning ability of students during the summer semester and at the start of the 2024-2025 school year
- *Child Protection: potential* increase in aggression during prolonged heatwaves





## Overall, how hot will the next three to six months be?



#### FORECAST

- May to July, marking the early part of the Caribbean Heat Season in the Caribbean Islands and Belize is forecast to *likely* be at least as warm as usual.
- Intense night-time and daytime heat is expected, especially in August and September.

#### IMPLICATIONS

- Increasingly frequent and possibly intense episodes of heat stress in the vulnerable population & small livestock because of high temperature and increasing humidity through September.
- Cooling need rising along these months, peaking in August and September.

# How many heatwave days to expect for **May to July 2025**?



USUALLY: 15-20 heatwave days in The Bahamas, Belize, USVI; 9-15 in the Greater Antilles, the Leeward Isls. and wind-sheltered areas in Barbados & the Windward Isls.; fewer than 3 in the Guianas; fewer than 9 elsewhere. FORECAST: Higher than usual number of heatwave days in the Greater Antilles, but a lower than usual number in wind-exposed areas of the Lesser Antilles (medium confidence); likely at least 15 heatwave days in The Bahamas, northern Belize, northwest Jamaica, and St. Croix.

#### Heatwave days from May to July (1991-2020 avg.)



Prob at least 15 heatwave days between May & Jul 2025





- May: Moderate potential in Belize; marginal to slight elsewhere.
- Jun.: Slight potential in Barbados and areas from St. Martin westwards; marginal elsewhere.
- Jul.: Slight to moderate potential in the Greater Antilles & Leeward Is.; marginal to slight elsewhere.
- Aug.: Moderate potential in Barbados & islands westwards of Guadeloupe; marginal elsewhere.
- Sep.: Moderate potential in the ABC Is., Lesser Antilles, Guianas; marginal to slight elsewhere.
- Oct.: Moderate potential in Barbados, the Guianas & St. Croix; marginal westwards of Hispaniola; slight elsewhere.





## Regional climate data, information, tools, experimental and operational products are available at **rcc.cimh.edu.bb**

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