CariCOF Drought Outlook By the end of June 2021

Coordination: Caribbean Institute for Meteorology & Hydrology Dr. Cédric J. Van Meerbeeck - Climatologist Dr. Teddy Allen – Assistant Climatologist caricof@cimh.edu.bb

Participating territories

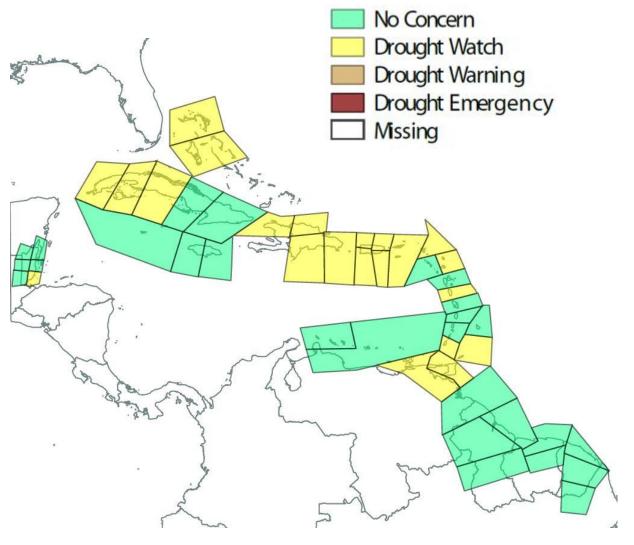
Antigua & Barbuda, Aruba, Bahamas, Barbados, Belize, Cayman Islands, Cuba, Curaçao, Dominica, Dominican Republic, French Guiana, Grenada, Guadeloupe, Guyana, Haïti, Jamaica, Martinique, Puerto Rico, St. Barth's, St. Kitts & Nevis, St. Lucia, St. Maarten/St-Martin, St. Vincent & the Grenadines, Suriname,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







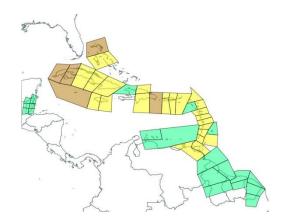
What is the predicted short term drought concern by the end of June 2021?



Current update (March 2021):

We are currently in the second half of the dry season. Currently, no major shorter term drought concern is developing throughout the region. However,

 a drought watch should be considered for Antigua, the north-western Bahamas, southeast Belize, Dominica, Central and Western Cuba, Grenada, Hispaniola, Puerto Rico, Sint Maarten/St-Martin, Trinidad and Tobago and USVI.



Previous short term drought alert levels by the end of May 2021

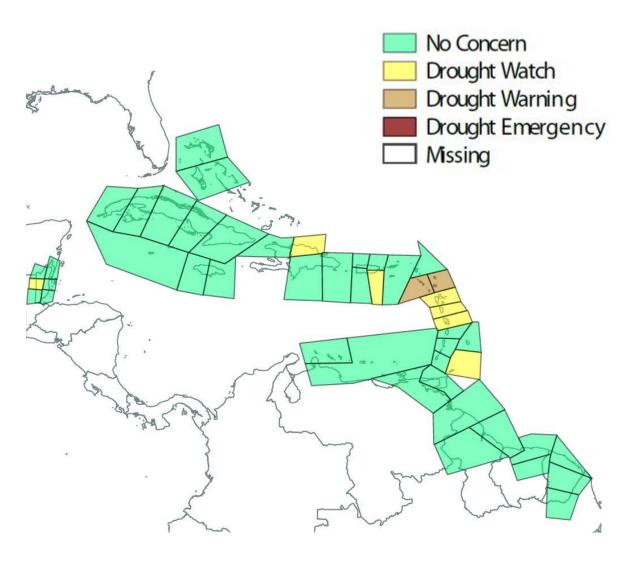
Short term drought alert levels by the end of June 2021

(updated **March 2021** – covering January to June 2021)

For climate information specific to your country, please consult with your national meteorological service. CariCOF outlooks speak to recent and expected climate trends across the Caribbean in general.



What is the predicted long term drought concern by the end of May 2021?



- This 12-month SPI-based drought outlook uses observations through February 2021, with potential impacts on large surface water reservoirs and groundwater. In general, impacts are expected if the 12-month SPI is ≤-0.8 (moderately dry or worse – ref.: CDPMN).
- A **drought warning** should be considered for Antigua and St. Kitts.
- A drought watch should be considered for parts of western Belize, Dominica, northern parts of the Dominican Republic, Guadeloupe, Martinique, southeast Puerto Rico, and Tobago.

Long term drought alert levels by the end of May 2021

(updated March 2020 - covering June 2020 to May 2021)



For climate information specific to your country, please consult with your national meteorological service. CariCOF outlooks speak to recent and expected climate trends across the Caribbean in general.

Drought outlook – shorter-/longer-term concern?

- Current drought situation (up to the end of February 2021): (more information here)
 - Moderate (or worse) shorter term drought has developed in Antigua, The northwestern and central Bahamas, Grand Cayman, south Belize, Central & Western Cuba, southwest Dominica, eastern Dominican Republic, southernmost Jamaica, Martinique, St. Kitts, St. Thomas, St. Vincent, Tobago.
 - Moderate (or worse) long term drought has developed along the southern coast of Hispaniola, St. Kitts and along the west coasts of the Windward Islands.
- Shorter term drought situation (by the end of June 2021):
 - Short term drought might possibly develop or continue Antigua, the north-western Bahamas, southeast Belize, Dominica, Central and Western Cuba, Grenada, Hispaniola, Puerto Rico, Sint Maarten/St-Martin, Trinidad and Tobago and USVI.
- Long term drought situation (by the end of May 2021):
 - Long term drought is evolving in Antigua and St. Kitts.
 - Long term drought might possibly develop in parts of western Belize, Dominica, northern parts of the Dominican Republic, Guadeloupe, Martinique, southeast Puerto Rico, and Tobago.
 - Areas ending up in long term drought by the end of May may experience significantly reduced water levels in large reservoirs, large rivers and groundwater during the dry season.
 - * We advise all stakeholders to keep monitoring drought and look for our monthly updates.*





ALERT LEVEL	MEANING	ACTION LEVEL
NO CONCERN	No drought concern	 ✓ monitor resources ✓ update and ratify management plans ✓ public awareness campaigns ✓ upgrade infrastructure
DROUGHT WATCH	Drought possible	 ✓ keep updated ✓ protect resources and conserve water ✓ implement management plans ✓ response training ✓ monitor and repair infrastructure
DROUGHT WARNING	Drought evolving	 ✓ protect resources ✓ conserve and recycle water ✓ implement management plans ✓ release public service announcements ✓ last minute infrastructural repairs and upgrades ✓ report impacts
DROUGHT EMERGENCY caricof@cimh.edu.bb	Drought of immediate concern	 ✓ release public service announcements ✓ implement management and response plans ✓ enforce water restrictions and recycling ✓ enforce resource protection ✓ repair infrastructure ✓ report impacts

THRESHOLDS

Drought		
Alert Levels	Probabilities	
No Concern	< 33.3333	
Drought Watch	33.3334 – 50	
Drought Warning	50 - 83.3333	
Drought Emergency	≥83.3334	ROC
		Discrii

ROC	
Discrimination	Thresholds
No	< 0.5
Poor	0.5 0.6
Moderate	0.6 - 0.7
Fair	0.7 -0.8
Good	0.8 – 0.95
Very Good	> 0.95

Goodness Index			
Skill	Thresholds		
Negative Skill	< 0		
Very Limited	0 - 0.1		
Limited	0.1 - 0.2		
Moderate	0.2 – 0.25		
Fair	0.25 -0.3		
Good	> 0.3		





caricof@cimh.edu.bb rcc.cimh.edu.bb Caribbean Institute for Meteorology and Hydrology TEL: (246) 425-1362/3 | FAX: (246) 424-4733