

CariCOF Drought Outlook

By the end of March 2022

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Participating territories

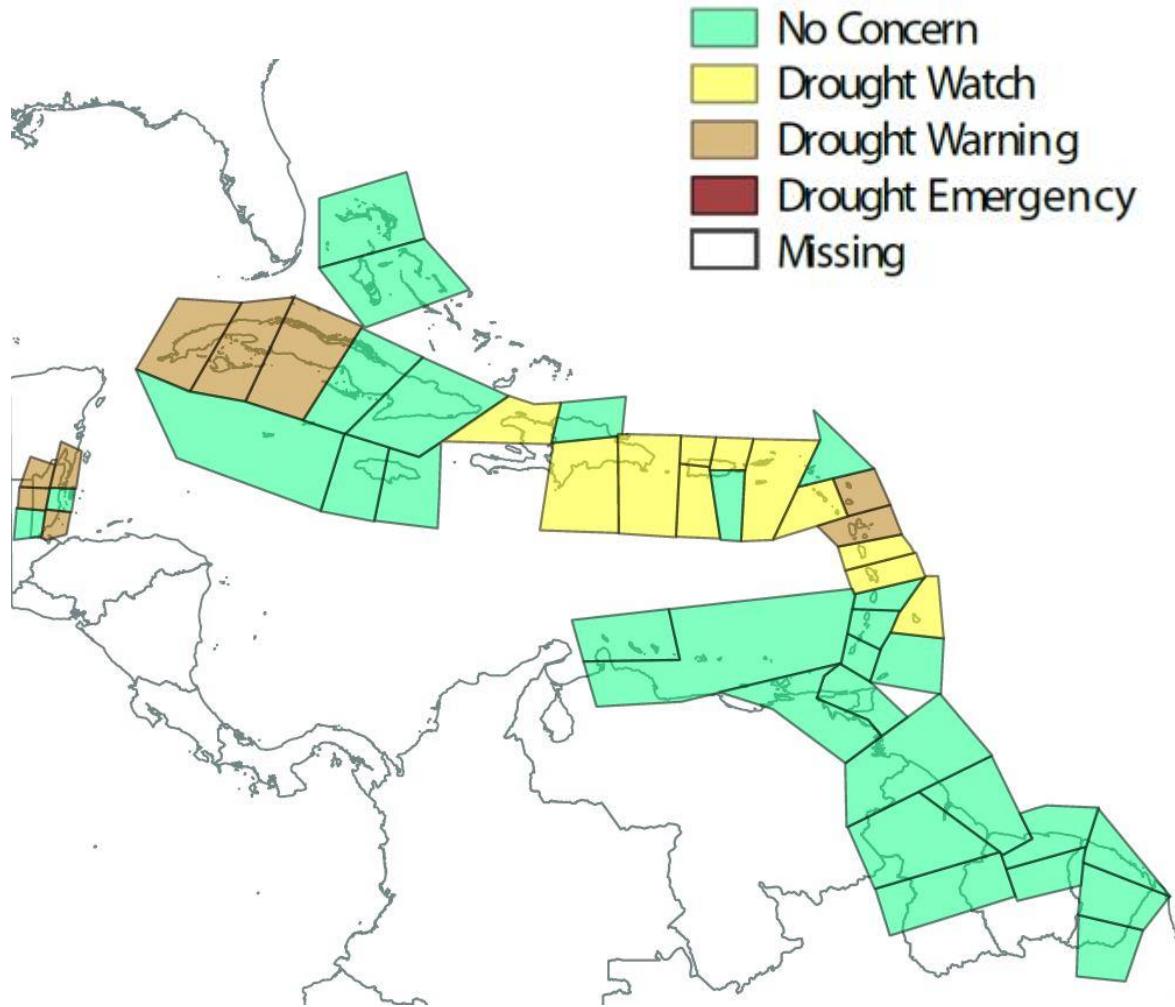
Antigua & Barbuda, Aruba, Bahamas, Barbados, Belize, Cayman Islands, Cuba, Curaçao, Dominica, Dominican Republic, French Guiana, Grenada, Guadeloupe, Guyana, Haïti, Jamaica, Martinique, Puerto Rico, St. Barth's, St. Kitts & Nevis, St. Lucia, St. Maarten/St-Martin, St. Vincent & the Grenadines, Suriname,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



What is the predicted short-term drought concern by the end of March 2022?

Current update (December 2022):

- We are transitioning into the dry season.
- A **drought warning** should be considered for Antigua, most of Belize, western Cuba, and Guadeloupe.
- A **drought watch** should be considered for Barbados, Dominica, southern Dominican Republic northern Haiti, Martinique, Puerto Rico, USVI, and Saint Kitts.

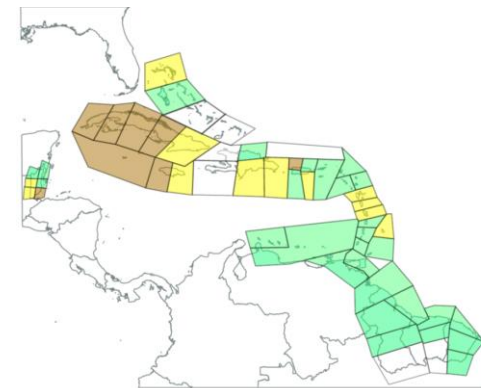


Short-term drought alert levels at the end of March 2022

(updated December 2021 – based on a 6-month SPI for October 2021 to March 2022)

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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.



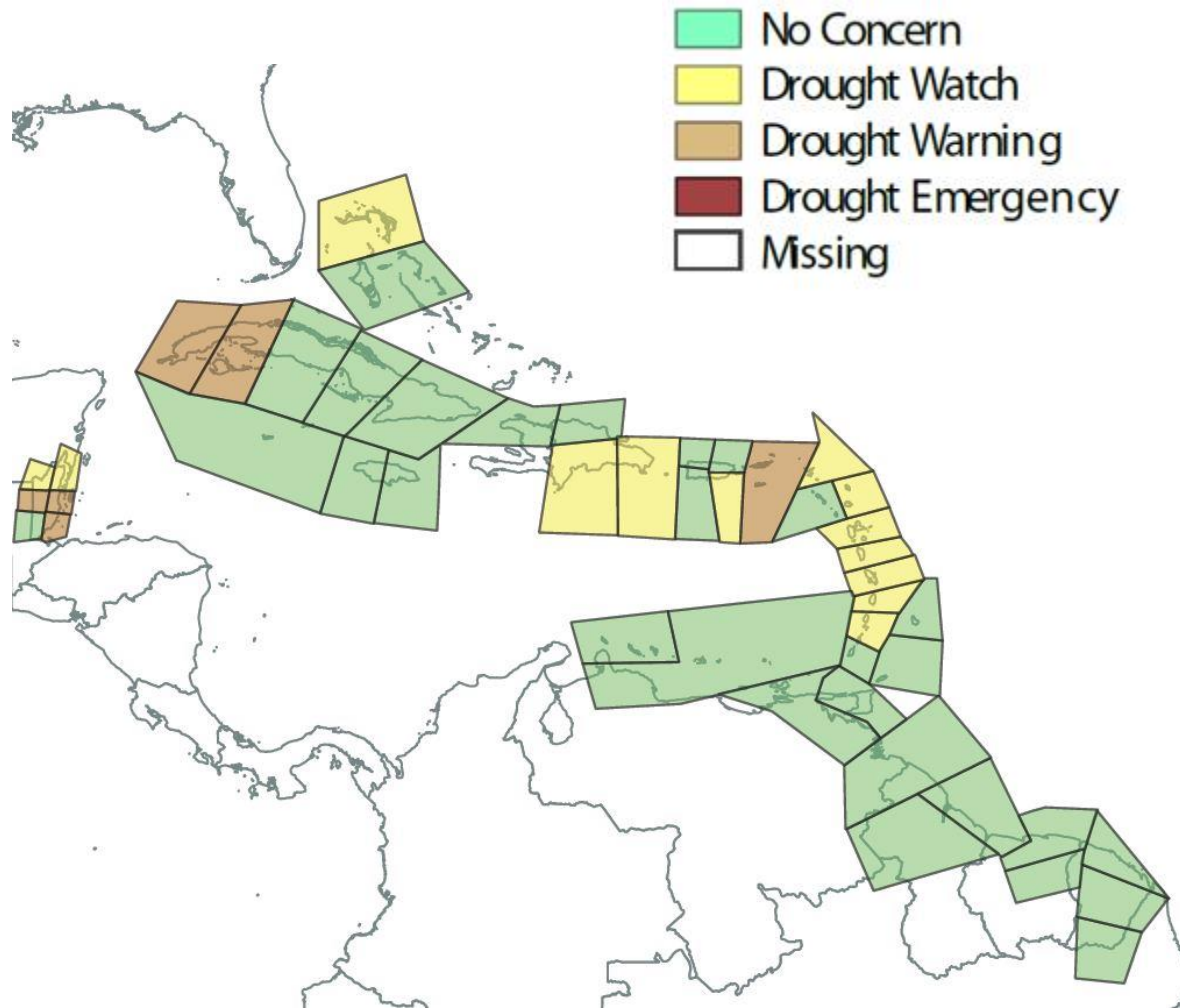
Previous update (November): short term drought alert levels at the end of February 2022

Impactful drought tends to occur with larger rainfall deficits from the usual amounts while in the wet season (i.e., severely dry) than in the dry season (i.e., moderately dry). This provides a partial explanation to the change to a higher alert category for some between the October and the November updates.



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CARIBBEAN CLIMATE OUTLOOK FORUM

What is the predicted long-term drought concern at the end of May 2022?



- This 12-month SPI-based drought outlook uses observations through November 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 central and southern Belize, western Cuba, and USVI.
- A **drought watch** should be considered for Antigua, the northern Bahamas, northern Belize, Dominica, southern Dominican Republic, Guadeloupe, Martinique, Saint Lucia, Saint Vincent, and Sint Martin.

Long-term drought alert levels at the end of May 2022

(updated December 2021 – based on a 12-month SPI for June 2021 to May 2022)

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 concerns?

- **Current drought** (*situation up to the end of November 2021*): (more information [here](#))
 - Moderate (or worse) short-term drought has developed in Aruba, southern Belize, western Cuba, eastern Hispaniola, southern Jamaica, and all portions of the Lesser Antilles with the exception of Trinidad.
 - Moderate (or worse) long-term drought has developed in The Bahamas, south Belize, Western Cuba, Dominica, eastern Dominican Republic, throughout the Leeward Islands, in Martinique, St. Lucia, St. Vincent, and northern Suriname.
- **Short-term drought** (*expected situation by the end of March 2022*):
 - Short term drought is evolving in central and southern Belize, western Cuba, and USVI.
 - Short term drought might possibly develop or continue in Barbados, Dominica, southern Dominican Republic northern Haiti, Martinique, Puerto Rico, USVI, and Saint Kitts.
- **Long-term drought** (*expected situation by the end of May 2022*):
 - Long term drought is evolving in central and southern Belize, western Cuba, and USVI.
 - Long term drought might possibly develop or continue in Antigua, the northern Bahamas, northern Belize, Dominica, southern Dominican Republic, Guadeloupe, Martinique, Saint Lucia, Saint Vincent, and Sint Martin.
 - Areas ending up in long term drought by the end of May may experience lower than usual water levels in large reservoirs, large rivers and groundwater at that time.

** We advise all stakeholders to keep monitoring drought and look for our monthly updates. **



ALERT LEVEL	MEANING	ACTION LEVEL
NO CONCERN	No drought concern	<ul style="list-style-type: none"> ✓ monitor resources ✓ update and ratify management plans ✓ public awareness campaigns ✓ upgrade infrastructure
DROUGHT WATCH	Drought possible	<ul style="list-style-type: none"> ✓ keep updated ✓ protect resources and conserve water ✓ implement management plans ✓ response training ✓ monitor and repair infrastructure
DROUGHT WARNING	Drought evolving	<ul style="list-style-type: none"> ✓ protect resources ✓ conserve and recycle water ✓ implement management plans ✓ release public service announcements ✓ last minute infrastructural repairs and upgrades ✓ report impacts
DROUGHT EMERGENCY	Drought of immediate concern	<ul style="list-style-type: none"> ✓ release public service announcements ✓ implement management and response plans ✓ enforce water restrictions and recycling ✓ enforce resource protection ✓ repair infrastructure ✓ report impacts



THRESHOLDS

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
ROC score (<i>area under the curve</i>)	
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

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Drought

SPI threshold for impactful drought used in forecasts issued starting in November and ending in April	-0.8 (moderately dry or worse)
SPI threshold for impactful drought used in forecasts issued starting in May and ending in October	-1.3 (severely dry or worse)
Alert Levels	Probabilities of exceeding SPI threshold
No Concern	< 33.3333
Drought Watch	$33.3334 - 50$
Drought Warning	$50 - 83.3333$
Drought Emergency	≥ 83.3334



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