CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM

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A joint bulletin of the Caribbean Agricultural Research and Development Institute (CARDI) and the Caribbean Institute for Meteorology and Hydrology (CIMH).

KEY MESSAGES

Concerns continue over available water for agriculture as soil moisture, stream flow and river flow may be impacted (by the end of June 2020) especially for some territories.

By the end of May 2020 long-term drought may be of a concern for the south-western half of Belize, eastern Cuba, most of Dominican Republic, Guyana, the Lesser Antilles (except Guadeloupe and Sint Maarten). These areas may experience significantly reduced water levels in large reservoirs, large rivers and ground water during the dry season.

Interests across the region should continue to closely monitor their water status.

There are growing concerns of flash flooding across Belize, the Greater Antilles and the Guianas.

Day and night time temperatures could be as warm as usual and at times uncomfortably hot.

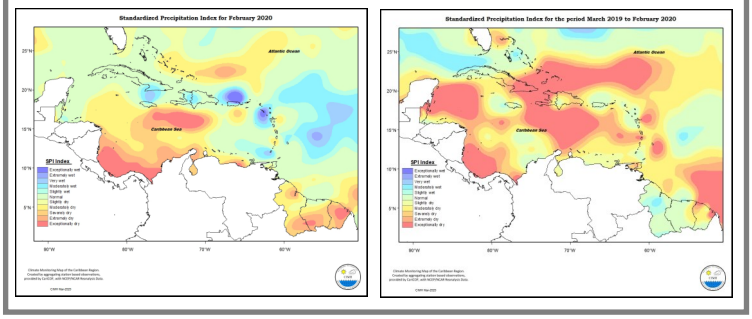
FEBRUARY IN REVIEW

Mixed conditions prevailed throughout the islands of the eastern Caribbean during the month of February. Trinidad was predominantly normal, apart from the southwest which was slightly dry; Tobago, Dominica, St Croix and St Thomas normal; Grenada moderate to very wet; Saint Lucia and Martinique normal to moderately dry; Barbados normal to moderately wet; St Vincent moderately dry; Guadeloupe slightly wet in the west to moderately dry in the east; Antigua moderately wet; St Kitts mostly exceptionally wet, with extremely wet conditions in the extreme north; and St Maarten normal. In The Guianas, conditions ranged from normal in northern Suriname to exceptionally dry in in the vicinity of the southern Guyana/Suriname border, and east central French Guiana. Curacao was slightly dry. Puerto Rico ranged from slightly wet in the south west to exceptionally wet in the north east, with normal conditions on the south central to south eastern coast.

Hispaniola ranged from exceptionally wet at the Dominican Republic/Haiti border to normal in the east, west and south. Jamaica ranged from normal to moderately wet from south to north, except for slight to moderately dry conditions in the extreme east and the southern tip which was slightly dry. Grand Cayman was moderately dry. Cuba was predominantly normal, with the exception of slight to moderately wet conditions in the southeast.

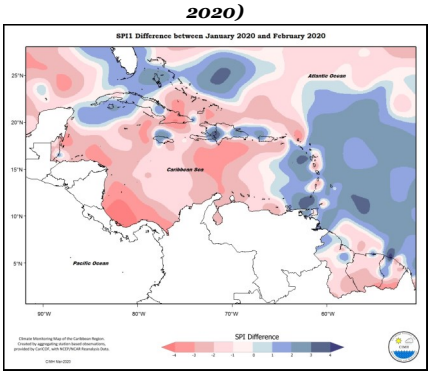
Northern Bahamas was normal. Belize was mostly normal with the exception of a small area in the east which was slightly dry and parts of the western border and extreme south which was slight to moderately dry.

FEBRUARY 2020 SPI (left) and 12-month SPI MARCH 2019 TO FEBRUARY 2020 (right)



A 12-month review of rainfall across the region shows exceptionally dry conditions across most territories.

SPI Difference (January and February 2020)



Mixed conditions in February gave rise to relatively wetter (and drier) conditions than the previous month for some territories.

Read more at https://rcc.cimh.edu.bb/spi-monitor/

AGRI-NEWS

Trinidad and Tobago: Government launches TT1.7M project to help farmers fight climate change. Read more https://www.looptt.com/content/govt-launches-tt17m-project-help-farmers-fight-climate-change

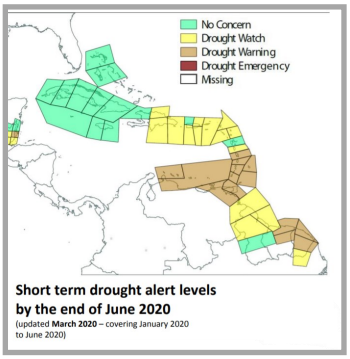
ABOUT CariSAM

The Caribbean Society for Agricultural Meteorology (CariSAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises, and more. *Visit us at: www.carisam.cimh.edu.bb*

REGIONAL OUTLOOKS

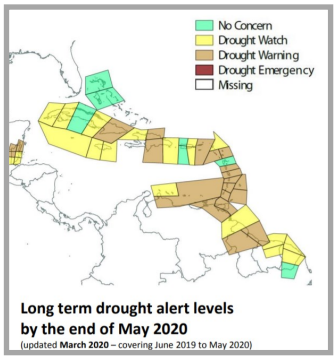
DROUGHT

As at the end of February 2020, moderate (or worse) shorter term drought has developed in the southeastern parts of The Bahamas, French Guiana, northern Guyana, St. Vincent, and southern Suriname. Moderate (or worse) long term drought has developed in the ABC Islands, northernmost and southernmost parts of The Bahamas, Barbados, most of Belize, Cayman Islands, Central and Eastern Cuba, much of French Guiana, easternmost Guadeloupe, most of Hispaniola, Martinique, Saint Lucia, St. Vincent, eastern Suriname, Trinidad and Tobago and the US Virgin Islands.



By the end of June 2020, surface soil wetness, and stream and river flow is likely to decrease across the ABC Islands, Barbados, east-central Belize, much of French Guiana, the Windward Islands (except Dominica), Suriname, and Trinidad and Tobago. These conditions could also possibly develop (or continue) across portions of Belize, Dominica, Dominican Republic, southern French Guiana, northern Guyana, the Leeward Islands (except Guadeloupe), and the US Caribbean Territories.

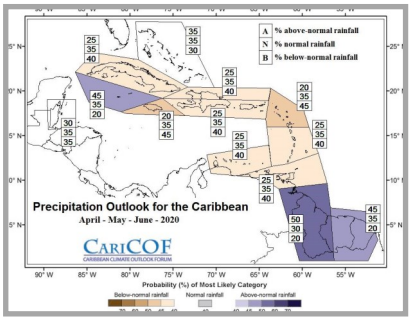
By the end of the 2020 dry season concerns for long-term drought could present a challenge in farming especially where water supply is sourced from larger reservoirs, large rivers or groundwater, affecting the south-western half of Belize, eastern Cuba, most of Dominican Republic, Guyana, the Lesser Antilles (except Guadeloupe and Sint Maarten). Interests of the ABC Islands, southeastern Belize, the remainder of the Greater Antilles (except central Cuba and western Puerto Rico), French Guiana, Sint Maarten, and Suriname should also pay attention to this long-term drought situation.



Interests across the region should continue to monitor their water status.

RAINFALL, WET/DRY SPELLS and TEMPERATURE (APRIL—JUNE 2020)

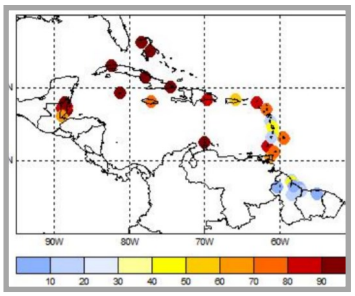
Rainfall totals from April to June are likely to be as wet as usual or wetter across the Cayman Islands and the Guianas but as dry as usual or drier across the rest of the Antilles.



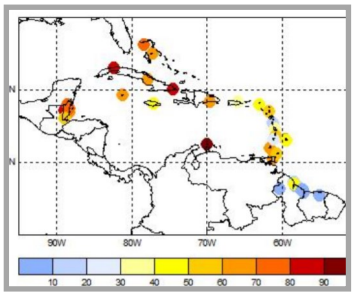
With the possibility of extreme wet spells and very wet spells, there would still be some concern over flash flooding particularly for Belize, the Greater Antilles, and the Guianas. With a low anticipation of wet spells across the other territories relatively rapid depletion of large reservoirs across the Caribbean could be a reality.

The occurrence of at least three 7-day dry spells remains highly favourable particularly across Belize, Cayman Islands, Cuba, The Bahamas, Dominican Republic, and the ABC Islands. The occurrence of at least one 15-day dry spell is possible particularly across eastern and western Cuba and the ABC Islands.

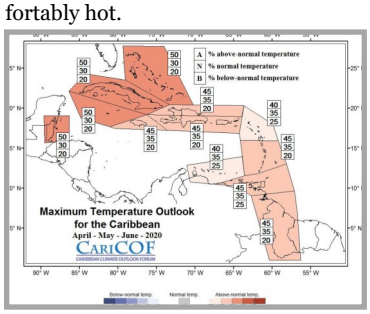
Probability of at least THREE 7-day dry spells in AMJ

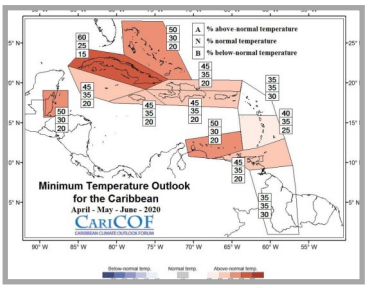


Probability of at least ONE 15-day dry spell in AMJ



Day (maximum) and night (minimum) time temperatures are likely to be as warm as usual across most of the region and may, at times, become uncomfortably hot.





Visit http://rcc.cimh.edu.bb/climate-outlooks/ to access the latest climate outlooks.

CLIMATE-SMART ADVISORIES

- Farmers, particularly in countries most likely to be impacted by drought, should at this time have alternate water sources for on-farm activities.
- Continue to employ water conservation measures, especially in severely impacted areas. Water conservation techniques such as mulching and (drip) irrigation are known to increase crop yields by close to 10% compared to crops that are not mulched or irrigated.
- In preparation, farmers should consider preparing plot sizes that their limited water resources would irrigate/satisfy. Consider planting drought tolerant species and varieties. Provide shade and ample water for livestock. And keep good written production records.
- Irrigate in the early morning preferably. There is less chance of wind and lower evaporation rates.
- With the possibility of flood producing rains, particularly in the Guianas farmers should:

⇒ Maintain drains around crop beds and/or plant crops on raised beds

⇒ House animals on high ground and/or on raised pens

⇒ Store fertilizer away from moisture and water sources

Please also take into consideration your local weather and climate advisories.

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