



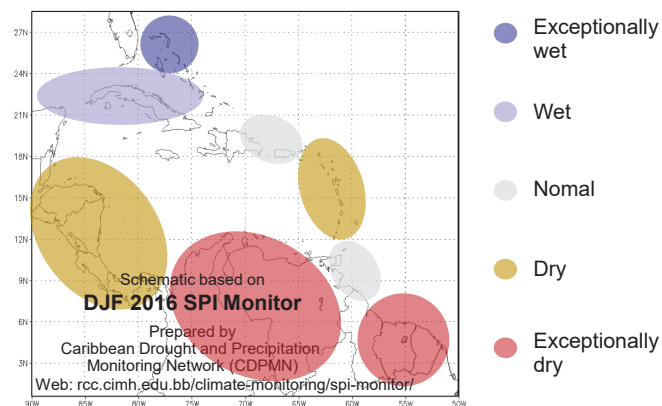
**BRIEF SUMMARY: DECEMBER 2015 TO JUNE 2016**

December to February was warmer than usual throughout the Caribbean. After a failure of the wet season in ABC Islands and of the secondary wet season in the Guianas, as well as with dry conditions in parts of the eastern Caribbean, many island territories remained in drought. Belize is no longer in drought.

**April to June 2016:** We expect above-normal, increasingly uncomfortable temperatures throughout the region. Drought is expected to intensify in the eastern and southern Caribbean until April, with few rain disruptions of outdoor activities. Intensifying drought worsens water shortages in households and agriculture, increases fire risk, and heightens food insecurity in Haïti. However, the wet season may start abruptly and up to one month earlier than usual (April to May), with raised flash flood potential from then onwards.

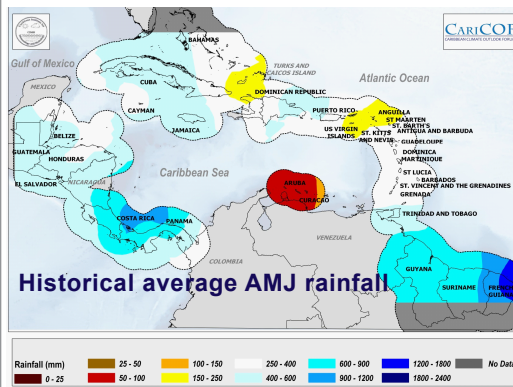
**LOOKING BACK:**

**Dec-Jan-Feb 2015-6 (DJF)**



**WHAT NEXT?**

**Rainfall patterns Apr-May-June (AMJ)**



**Belize & C'bean Islands north of 16°N:**

Apr - end of the dry season. Limited number & extent of heavy showers. May & Jun - usually frequent heavy showers.

**C'bean Islands south of 16°N (except ABC Islands):**

Limited number & extent of heavy showers; occasionally very wet. Jun - onset of wet season. Increasingly heavy showers.

**ABC Islands:** Apr to Jun - mostly dry.

**Guianas:** Apr to Jun - transition to wet season; heavy showers more and more frequent.

**Observations**

- ♦ **RAINFALL:** *February:* very dry in Antigua, Grenada, St. Lucia, St. Vincent. *January:* very dry in ABC Islands, Dominica, St. Croix. *December:* very dry in Dominica, NW Dom. Rep., Jamaica; very wet in NE Dom. Rep. (almost twice average).
- ♦ **Temperatures:** *February, January, December:* above-normal across the Caribbean, record high in some places.

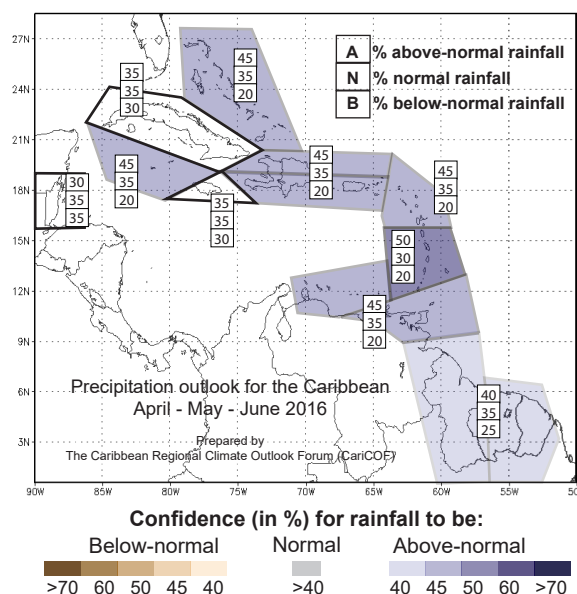
**Notable climate records:**

- ♦ **DRY - DJF:** 1 territory with a location experiencing record low rainfall (41% of average at 1 location in Guadeloupe). *Feb:* record dry in the Guianas and in 1 location in Puerto Rico.
- ♦ **WET - DJF:** 1 location in Jamaica (195% of avg.).
- ♦ **HOT - DJF:** 4, 4 & 3 territories with locations recording highest min., mean & max. temps., respectively (notably Puerto Rico).

**Notable Impacts**

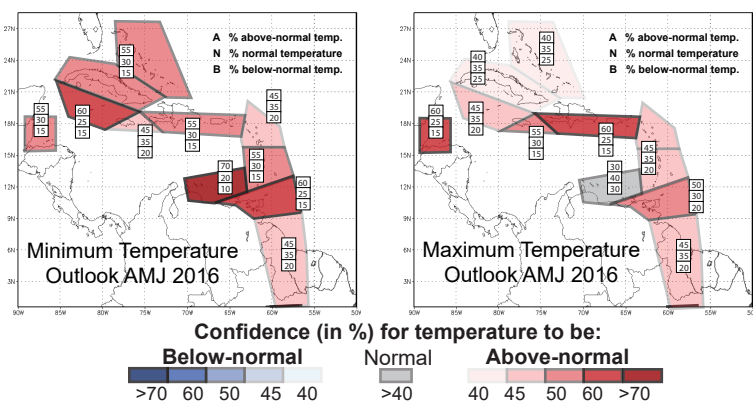
- ♦ Prevailing short- and long-term drought across the Caribbean, with a doubling of food insecurity in Haïti, a major blow to 2016 sugar cane harvest & water rationing announced in Barbados; low water levels in four regions and has impacted households & farmers in Guyana; Trinidad's Water and Sewerage Authority to implement water supply plans as of March 1st.

**AMJ 2016 Rainfall Outlook**



AMJ rainfall in the Caribbean is likely to be above- to normal across the islands and Guianas. There is little predictability in Belize, Cuba and Jamaica.

Min. and max. temperatures up to June



AMJ min. & max. temp. in the Caribbean are likely to be above- to normal.

Wet days and wet spells up to June

What usually happens from April to June?

- Number of wet days: low in April, and usually increases in May and June.
- Number of wet spells: very few in April, with a marked increase in May and June.

Forecast and Implications:

- Many wet days: more often disruptions of outdoor activities, decreasing surface dryness.
- Several wet spells: effective recharge of water reservoirs expected, especially in May & June.
- Up to 2 extremely wet spells in May & June: growing flash flood potential, especially in May & June.

Drought conditions up to June

**Currently:** Most islands are in long-term drought (except Bahamas and Cuba). These places suffer water shortages. Short-term drought is noted in S Belize and from the Virgin Islands east and southward.  
**Alert levels:** **Drought warning or worse:** ABC Islands.  
**Long-term Concern:** **Drought emergency:** ABC Islands, Antigua. Existing water shortages may worsen up until the end of the dry season. Drought relief is expected from May onwards as the wet season may start up to one month earlier than usual.

BRIEF CLIMATE OUTLOOK - July to September 2016

Temperatures are expected to continue to rise to uncomfortable, above-normal levels by September across the Caribbean. There are indications (*medium confidence*) that the period may be drier than usual for this part of the wet season in Belize and the eastern half of the Antilles. Whereas rains might fail to fully alleviate long-term drought in a couple of places, this could reduce the risk of flash flooding and long-term flooding.

For detailed temperature and precipitation outlooks for JAS 2016, please visit [rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/](http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/)

What influences the next season?

El Niño Southern Oscillation (ENSO)

**Recent observations:** A now borderline strong El Niño is steadily weakening after reaching peak strength in November 2015; sea-surface temperatures (SSTs) 1.5°C above avg. in equatorial eastern Pacific (NINO3.4).

**Model forecast and guidance:** Models indicate steadily weakening El Niño conditions for AMJ (75-80% confidence), and a return to neutral or La Niña conditions by JAS (40-50% confid. each).

**Expected impacts on rainfall and temperatures:** Shift towards above-normal rainfall is noted for the C'bean due to reduced winds in the upper atmosphere, which allows for stronger, local showers to develop. Higher temperatures are probable for the region, which may also add to increased moisture uptake and leads to increase precipitation.

Climate conditions in the Tropical North Atlantic and Caribbean

**Recent observations:** SSTs 0-1°C above-average north of C'bean; trade wind speed stronger than avg; upper level winds stronger than usual.

**Expected conditions:** SST anomalies expected to warm up somewhat towards the east in the Atlantic by AMJ, but cooler than average waters may develop along the equator and off the western African coast; strength of trade winds is hardly predictable at seasonal time scales, whereas the upper level winds are expected to weaken.

**Expected impacts:** Warm Atlantic temperatures increase evaporation and local deep atmospheric convection, potentially increasing precipitation during AMJ. However, during JAS, cooler waters off W Africa and around the equator may reduce the formation of rain-producing weather systems that are carried into the eastern Caribbean by the tradewinds.

Climate outlooks - background

The Caribbean Climate Outlooks are prepared by the Caribbean Regional Climate Outlook Forum (CariCOF). The Caribbean Institute for Meteorology and Hydrology, in its role as WMO Regional Climate Centre in demonstration phase, coordinates the CariCOF process. Contributors to the Outlooks are the Meteorological Services from the region. For more information on how the outlooks are produced, please visit [rcc.cimh.edu.bb](http://rcc.cimh.edu.bb)

The Precipitation and Temperature Outlooks are issued in the form of a map, which shows regions where the forecast rainfall or temperatures have the same probabilities to be:

- Above-normal (A) - within the wettest/hottest third of the historical record
- Near-normal (N) - within the middle third of the historical record
- Below-normal (B) - within the driest/coldest third of the historical record

DISCLAIMER

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