



Caribbean climate outlook September 2015 to February 2016

CariCOF - The Caribbean Climate Outlook Forum

WHAT HAPPENED?

May - June - July (MJJ) 2015

Dry to very dry in most of the Islands;
very wet in Guyana;
hot temperatures

+ impacts

Positive discussions on drought mitigation strategies

- impacts

Water shortages in Antigua & Barbuda, Jamaica, Puerto Rico, St. Lucia; reduced crop production and livestock

Notable climate events - May to July 2015

Dry - MJJ: 3 stations in Barbados, 1 in Belize, 5 in Dom. Rep., 1 in Guadeloupe, 5 in Jamaica, 4 in Leewards, 1 in Puerto Rico (9-51% of avg.). July: 2 stns in Belize, 5 in Dom. Rep., 3 in Jamaica, 3 in Leewards, 1 in Puerto Rico.

Wet - MJJ: 1 stn in French Guiana, 3 in Guyana. (141-186% of avg) July: 3 stns in Guyana.

Summary

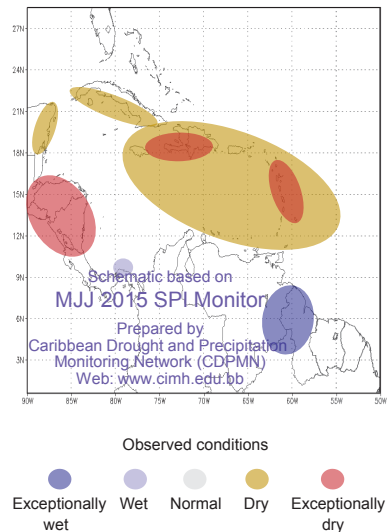
- May: very wet in W & E Guianas; very dry in Dominica, St. Kitts & St. Lucia.
June: very wet in W Guyana; very dry in Dominica, S Dom. Rep. & Jamaica.
July: Very wet in Guyana; very dry in Barbados, N Belize, central Cuba, Dominica, S&E Dom. Rep, Grand Cayman, W Jamaica, Leewards, Puerto Rico and Tobago.

- Temperatures July- normal to above-normal across the Caribbean.

Headline Impacts

- Prevailing drought across the Caribbean affecting the agriculture sector in Anguilla, Antigua, Cuba, Jamaica, St. Kitts and Nevis and St. Lucia.
- Livestock severely affected in Cuba due to drought.
- Water shortages in Antigua and Barbuda, Jamaica, Puerto Rico & St. Lucia.
- High incidences of bushfires in Antigua and Dominica.

MJJ 2015 Precipitation



WHAT NEXT?

September - October - November (SON) 2015

Consensus Outlook

Wet season drier than usual in Antilles, with fewer wet days and wet spells; dry season drier than usual in Guianas; generally hot.

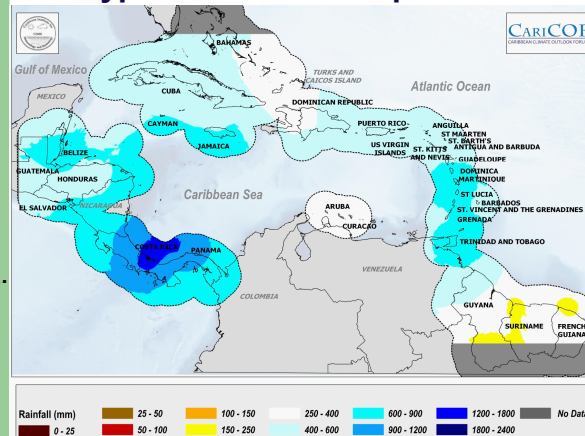
+ impacts

some short-term drought relief, limited water-related pests, epidemics and flood potential

- impacts

long-term drought remaining in parts the Islands; heat stress

Our typical SON rainfall patterns



Climate outlook

September - October - November

(SON temperature, wet days and wet spells outlook maps available at rcc.cimh.edu.bb)

Rainfall **ABC Islands:** below- to normal, confidence 85%, **Barbados, Leewards, Windwards:** below- to normal, confidence 80%. **Guianas, S Hispaniola, Jamaica, Trinidad & Tobago, US C'bean Terr.:** below- to normal; confidence 80%. **Belize, Cayman, Cuba, N Hispaniola:** below- to normal; confidence 75%. **Elsewhere:** above- or normal; confidence 75%.

Temperature **Leewards:** above- to normal; confidence 85%. **Cayman, Jamaica:** above- to normal, confidence 85%. **ABC Islands, Barbados, Windwards:** above- to normal; confidence 80%. **Bahamas, Belize, W Guianas, Hispaniola, Trinidad & Tobago, Turks & Caicos, US C'bean Terr.:** below- to normal, 80% confidence. **Elsewhere:** above- or normal; confidence 75%.

Drought conditions up to November

(Drought outlook available at rcc.cimh.edu.bb)

Drought situation: South-eastern Jamaica, Haïti, many of the Leewards & Windwards, Dominica, St. Lucia are in long-term drought and (as of August 1) have suffered water shortages. Barbados, the Leewards and parts of the Windwards are in short-term drought.

Drought alert levels: **Drought warning:** Some of the Leewards, Martinique and Tobago.

Long-term concern: Water shortages may persist throughout the wet season, especially in St. Lucia and some of the Leeward Islands.

December - January - February

(DJF precip. and temp. outlook maps available at rcc.cimh.edu.bb)

Rainfall **ABC Islands** below- to normal, confidence 80%. **Barbados, W Guianas, Trinidad & Tobago, Windwards:** below- to normal, confidence 80%. **Bahamas, Cuba, Turks & Caicos:** above- to normal; confidence 80%. **E Guianas, Leewards:** below- or normal; confidence 75%. **Belize, Cayman:** above- to normal; confidence 75%. **Elsewhere:** above- or normal; confidence 70%.

Temperature **Guianas:** above- to normal; confidence 90%. **ABC Islands, Trinidad & Tobago:** above- to normal, confidence 90%. **Barbados, Leewards, Windwards:** above- to normal; confidence 85%. **Cayman, Hispaniola, Jamaica, US C'bean Terr.:** above- to normal; confidence 80%. **Elsewhere:** above- to normal; confidence 75%.

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: strong El Niño; sea-surface temperatures (SSTs) 1.5-2°C above avg. & rising in equatorial eastern Pacific (NINO3.4).

Model guidance: 95-99% of the models indicate continued El Niño conditions for SON & DJF with many suggesting further warming.

Forecast: More than 95% confidence in El Niño conditions during SON and DJF.

Expected impacts on rainfall and temperatures: a large shift to higher probabilities for below-normal rainfall and higher temperatures for the region, as El Niño usually weakens the development of rain-, thunder- and tropical storms. However, a shift towards above-normal rainfall is noted for the NW of the Caribbean during DJF due to reduced winds in the upper atmosphere, which allows for stronger showers.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs 0.5-1°C above-average north of the Caribbean, -1°C to average further southeast; trade wind speed below avg.

Expected conditions: SST anomalies expected to warm up towards the southeast; strength of trade winds hardly predictable in most areas, but expected to be stronger over the ABC Islands as a result of the El Niño.

Precipitation and temperature outlook - 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.

This consensus outlook is produced by combining global, regional and national forecasts and expert interpretation. National and region-wide forecasts produced using the Climate Prediction Tool (CPT) are considered together with global dynamical climate models. Global forecasts that are examined include those from the IRI, the U.K. Met Office, ECMWF, Météo-France, the WMO LRF-MME and the APCC.

Probabilities for three-month rainfall totals and average temperatures are estimated for sub-regions based on the model outputs, the level of agreement between the different models and expert knowledge of the regional setting.

The Precipitation Outlook is issued in the form of a map, which shows regions where the forecast rainfall has 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

The information contained herein is provided with the understanding that The Caribbean Climate Outlook Forum makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the Outlook. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.