

Caribbean climate outlook September to November 2013

CariCOF - The Caribbean Climate Outlook Forum

WHAT HAPPENED?

May - June - July (MJJ) 2013

Wet in parts of the eastern Caribbean; dry in Haïti, Bahamas, ABC Islands

+ impacts

drought relief after 2013 dry season, replenishment of aquifers in most areas

- impacts

growing water shortages in Haïti, losses from floodings in some other areas

Notable climate events

Suriname: May (usually the wettest month) 50% wetter than average in coastal areas.

Grenada: July driest on record (i.e., since 1986).

Summary

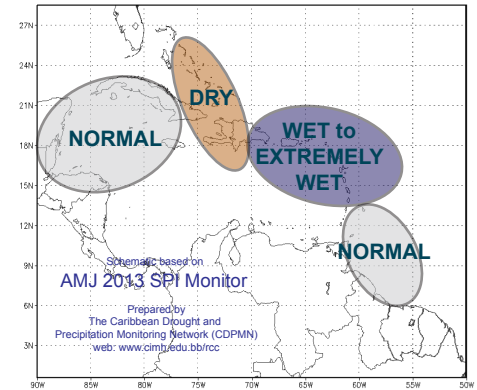
- Wet to extremely wet in May, but dry to extremely dry in Haïti and the Bahamas; very dry in June in Haïti, wet to extremely wet further east and south; wet July in the Bahamas, western Cuba and the Guianas, but dry to extremely dry in southern parts of the Eastern Caribbean and in Belize.

- Rather cool May; mild July in the north-west, warm in the dry areas of Belize and the southern Antilles.

Headline Impacts

- In May, flooded area in Suriname expanded, leading to evacuations in the hinterland, household disruptions in Paramaribo and loss of cattle stock in other districts.
- In June, floodings in most parts of Belize.
- Drought conditions in Grenada impaired banana production, requiring import from St. Vincent.

MJJ 2013 Precipitation



WHAT NEXT?

September - October - November (SON) 2013

Consensus Outlook

Wet and warm across the Caribbean, except mild and possibly dry in the northwest

+ impacts

sufficient drinking / recreational water production and aquifer replenishment ahead of dry season

- impacts

Enhanced risk of excessive heat stress, floods, pests and vector borne disease outbreaks

Our typical SON rainfall patterns

1. Belize:

- SEP + wettest months, most frequent tropical, storms, hurricanes and extreme rainfall events
- OCT
- NOV wet, less frequent tropical storms and hurricanes

2. Islands north of 16°N:

- SEP + wettest months; most frequent tropical storms, hurricanes and extreme rainfall events
- OCT
- NOV wet, occasional tropical storm or hurricane

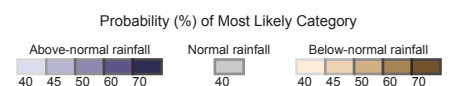
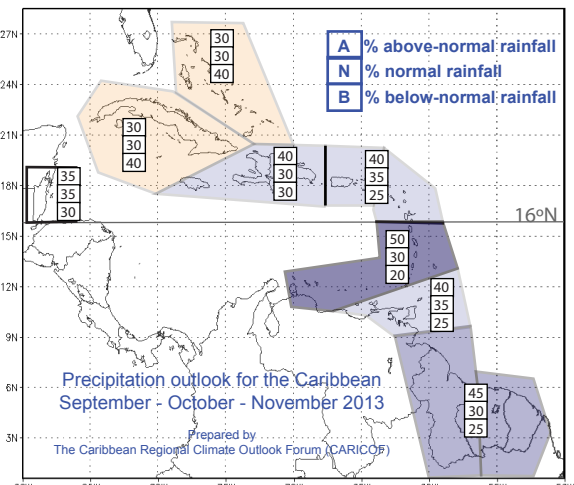
3. Islands south of 16°N:

- SEP wet, frequent heavy rainfall; most frequent tropical storms and hurricanes
- OCT wettest month, frequent heavy rainfall, frequent tropical storms and hurricanes
- NOV wet, frequent heavy rainfall, occasional tropical storm or hurricane

Note The ABC Islands are in the latter part of their dry season, very little rainfall

4. Guianas:

- SEP + dry season, frequent dry spells, occasional heavy rainfall
- OCT +
- NOV



SON rainfall likely above- to normal across the region except in the far north-west where below- to normal is expected; fair chance of wet conditions in many places from Puerto Rico east- and southwards into the Guianas. Note the low predictability in Belize.

<<< see outlook discussion on page 2 >>>

Climate outlook

September - October - November

Rainfall **Barbados, Windward Islands, ABC Islands:** above- to normal; 80% confidence. **Guianas, Leeward Islands, Puerto Rico, Trinidad and Tobago:** above- or normal; 75% confidence. **Hispaniola, Jamaica:** above- to normal; 70% confidence. **Bahamas, Cayman, Cuba, Turks and Caicos:** below- to normal; 70% confidence. **Belize:** above- or normal; 70% confidence.

Temperature **Eastern Caribbean, Guianas, Haïti, Jamaica:** above-normal; confidence 70%. **Belize, Dominican Republic:** above-normal; confidence 60%. **All other areas:** above- to normal.

December - January - February

(DJF precipitation outlook map available at www.cimh.edu.bb/?p=precipoutlook)

Rainfall **Guianas:** above- to normal; confidence 75%. **Bahamas, Turks and Caicos:** below- to normal; confidence 75%. **Dutch, British and French Leeward Islands:** below- to normal; confidence 70%. **Belize, Cayman, Cuba, Jamaica:** below- to normal; confidence 70%. **All other areas:** above- or normal; confidence 70%.

Temperature **Islands south of 16N Guianas:** above-normal; confidence 70%. **Bahamas:** below-normal; confidence 50-60%. **Cuba, Turks and Caicos:** below- to normal; confidence 70%. **All other areas:** above-normal to normal.

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: ENSO neutral; sea-surface temperatures (SSTs) 0°C to 0.5°C below average in the equatorial eastern Pacific (NINO3.4).

Model guidance: most indicate little change in the coming months.

Forecast: neutral ENSO conditions; 65% confidence for September to November decreasing to 55% confidence for December to February.

Expected impacts on rainfall and temperatures: slight increase in rainfall in the Eastern Caribbean, mild temperatures and slight decrease in rainfall, if accompanied by above-average Tropical North Atlantic and Caribbean SSTs.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs about 0.5-1°C above average; trade winds stronger than average, atmosphere drier than average.

Expected conditions: above average SSTs forecasted to last into December, below average SSTs forecasted around the Bahamas into February; atmosphere expected to gain a lot of moisture except the north-west (mild and relatively dry air).

Expected impacts: more rainfall and high humidity except the north-west, above average storminess across Belize and the Antilles during SON..

What caused recent climate events?

Wet to extremely wet May over the eastern Caribbean: northward shift of this High from mid-April; persistent strong trough over the Windward Islands in mid-April to May.

Driest July on record in Grenada: unusually persistent inflow of dry air originating from the Sahara desert reduced July rainfall over southern portions of the eastern Caribbean, with maximum impact on rainfall in Grenada.

Precipitation 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 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 third of the historical record
- Near-normal (N) - within the middle third of the historical record
- Below-normal (B) - within the driest third of the historical record

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