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BMS MONTHLY CLIMATE OUTLOOK NEWSLETTER

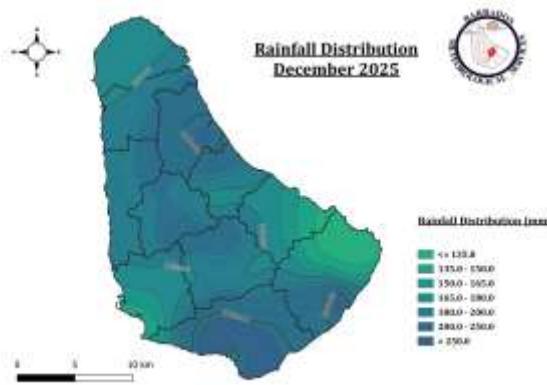
December 2025 | Issue No.71

Key Messages: Near to above average rainfall is expected for much of the dry season. However, given that intense rainfall events occurred in December, **Agricultural Drought and Hydrological Drought Watches** will come into effect from February. **Warmer-than-normal temperatures will persist**, particularly at night, in the coming months. ENSO neutral conditions are present and are expected for much of the forecast period. Persons are urged to continue monitoring the BMS daily weather forecast as well as seasonal outlooks for updates.

DECEMBER IN REVIEW

Precipitation

Figure 1: December Rainfall Distribution



A continued increase in rainfall was observed in December when compared to the previous five months, as the wettest month of 2025 was recorded here at Charnocks. Rainfall for the month was 229.6mm, which was two and a half (2.5) times the climatological average for December (91.0mm). Meanwhile, rainfall accumulations across the island ranged from 121.4mm to 294.2mm, as seen in figure 1. Most of this rainfall was a result of two multiday rainfall events this month.

The first rainfall event occurred between the 2nd and the 3rd of December and was due to a trough which affected the island and prompted the issuance of a flash-flood warning. During this event, 4 to 6 inches of rainfall was recorded across the island.

The second rainfall event occurred between the 29th and the 30th of December and was due to low-level convergence aided by a favourable upper-level pattern, which prompted the issuance of flash-flood watches. Across the two days, between 3 and 5 inches of rainfall was recorded across the island.

A small craft warning and high surf advisory was also issued this month as wind speeds peaked around 25 knots and swells in open water ranged from 2.5 to 3.5m.

Temperature

Figure 2: December Average Temperature Distribution

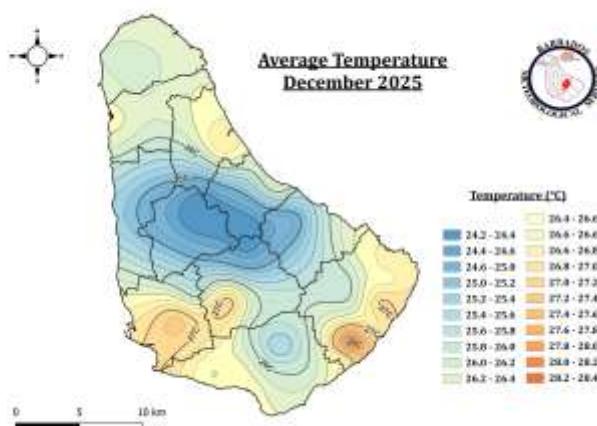
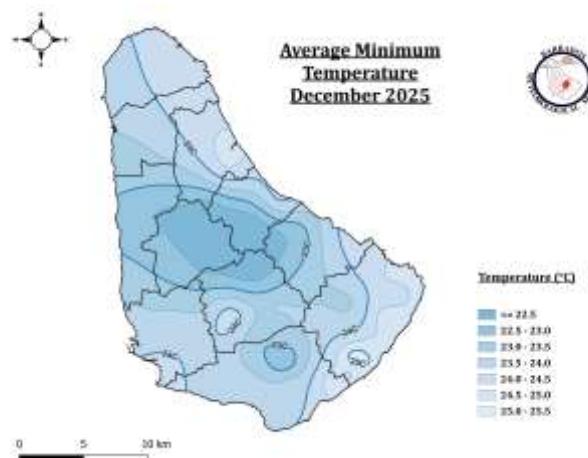


Figure 3: December Minimum Temperature Distribution



More pleasant temperatures were recorded this month as Barbados entered the cool season. Here at Charnocks, an average temperature of 26.3°C was recorded, which was 0.3°C cooler than the climatological average (26.6°C). Meanwhile, the average temperature at the 3DPaws stations across the island ranged from 24.2°C to 28.4°C, as seen in Figure 2. Night-time temperatures here at Charnocks were 24.6°C, which was 0.7°C warmer than the climatological average (23.9°C). Minimum temperatures across the island ranged from 22.1°C to 25.5°C, as seen in Figure 3.



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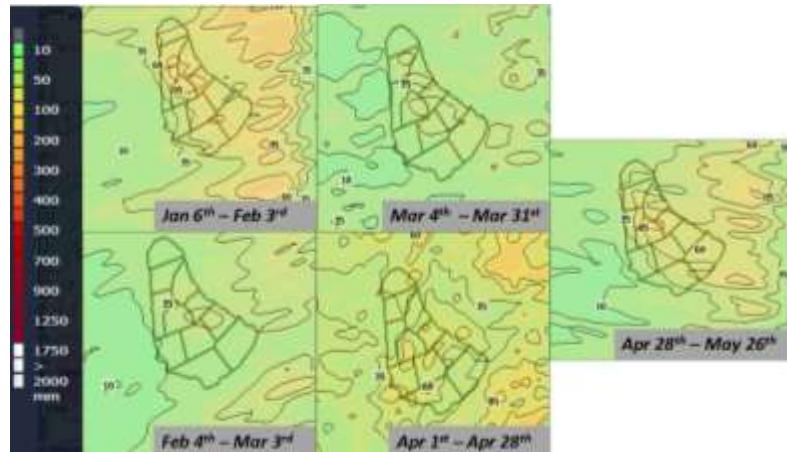


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PRECIPITATION OUTLOOK

Figure 4: BMS Experimental rainfall forecast from January to May 2026



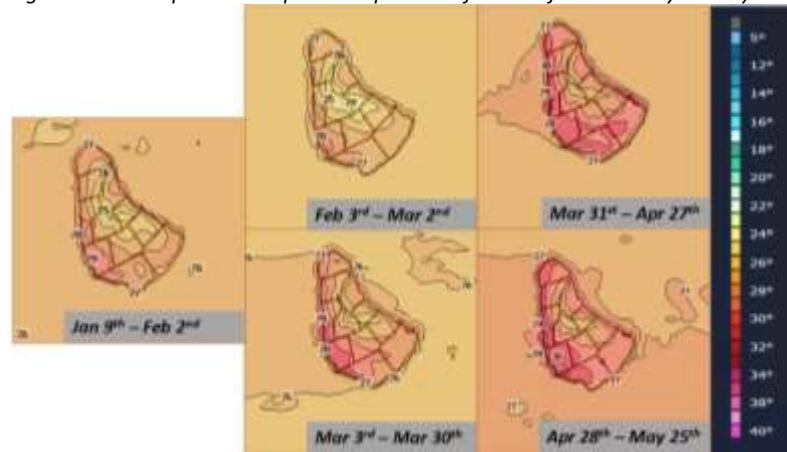
The BMS seasonal rainfall forecast calls for average to slightly above average rainfall until May 2026. It should be noted that factors like entering the driest period of the year based on the 30-year climatology; intrusions of Saharan dust, which are common for this time of the year but difficult to predict on a seasonal timescale; and the expectation of very little to no impact from ENSO, may lead to reduced rainfall total. Therefore, all forecasts issued by the BMS should be monitored for updates in the coming months.

Table 1: Rainfall Projections for December 2025 to March 2026

Month	Projections (mm)	Deviation from 30-yr Average at Charnocks
January	60-85	Average to Above Average
February	35-60	Average to Slightly Above Average
March	35-60	Average to Slightly Above Average
April	35-60	Average
May	60-85	Average

TEMPERATURE OUTLOOK

Figure 5: BMS Experimental peak temperature forecast from January to May 2026



As Barbados' cool season evolves, above-normal temperatures are expected, particularly at night. The latest probabilistic and dynamic model forecast continues to favour above-normal minimum and mean temperatures for the entire forecast period (Table 2). As for the maximum temperature, the probabilistic forecast is leaning towards near-normal for JFM and below-normal for AMJ. Based on the BMS experimental model (Figure 5), daytime temperatures should peak around 27°C in the higher elevations and around 30°C in the urban and southwestern districts until late March/ early April. After this, a transition into the warmer months is expected and temperatures should peak between 29°C and 32°C.

Table 2: Temperature Outlook for January to June 2026

Temperature	Season	Forecast Probability (%)		
		Below	Normal	Above
Minimum Temperature	JFM	16	16	68
	AMJ	7	21	72
Maximum Temperature	JFM	31	36	33
	AMJ	37	27	36
Mean Temperature	JFM	14	26	60
	AMJ	13	32	56

DROUGHT OUTLOOK

The month of December was the wettest month of the year. That month follows the month of November, where there were several intense rainfall events as well. Although Barbados' dry season has begun, the **Agricultural Drought Watch** will be delayed until February due to the heavy December rainfall and the average to above-average rainfall expected for January. Persons in the agricultural sector are urged to continue monitoring the Ministry of Agriculture, Food and Nutritional Security for updates and the BMS for updates to the seasonal drought outlook. Given the current state of available water resources as reported by BWA, the alert level will be elevated to a **Hydrological Drought Watch from February 2026**. Members of the public are urged to continue to conserve water, regardless of the drought alert level and to monitor the BWA and the BMS for updates. Below is a table of the forecast drought alert levels based on the forecast rainfall accumulations (Table 1).

Table 3: Drought Outlooks for January 2026 to April 2026

MONTH	AGRICULTURAL	HYDROLOGICAL
JANUARY	No Concern	No Concern
FEBRUARY	Drought Watch	Drought Watch
MARCH	Drought Watch	Drought Watch
APRIL	Drought Watch	Drought Watch



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Agricultural Drought Watch

Responses to the predicted Drought Alert Level.

Key Messages:

- Protect resources
- Conserve and recycle water
- Repair and upgrade infrastructure
- Prepare for increased irrigation during periods of extensive dryness
- Report Impacts

- ✓ Continue to monitor for updates from the Barbados Water Authority and Ministry of Agriculture, Food and Nutritional Security.
- ✓ Continue to monitor the BMS Climate Outlook for monthly updates.

Hydrological Drought Watch

Responses to the predicted Drought Alert Level.

Key Messages:

- Encourage water conservation through public awareness campaigns
- Last minute infrastructural repairs and upgrades
- Implement drought management plans

- ✓ Continue to monitor for updates from the Barbados Water Authority.
- ✓ Continue to monitor the BMS Climate Outlook for monthly updates.

Likely Impacts for the January to May 2026 Period

What do these forecasts mean for Barbados?

- Falling reservoir/aquifer levels.
- Employ rainwater harvesting techniques for rain feed crops during dry periods.
- It is recommended to have an irrigation plan and systems to ensure the best crop yield during the dry season.
- More comfortable nights as compared to the warmer months.
- Air quality may be impacted by periodic intrusions of Saharan dust and grass fires.
- Keep updated with daily weather as well as seasonal forecasts issued by the BMS.

CLIMATE OUTLOOK

ENSO (El Niño Southern Oscillation)

ENSO is the interaction between the ocean and atmosphere in the equatorial Pacific which results in periodic departures from the expected sea surface temperatures. There are two phases of ENSO, the cold phase of sea surface temperatures, La Niña and the warm phase, El Niño. La Niña conditions usually results in higher rainfall for Barbados. El Niño conditions usually result in lower rainfall for the island. Neutral conditions which are close to average or what is normally expected. These are the general conditions associated with each phase however, there are other factors which influence the rainfall patterns across Barbados which may result in a deviation from the norm.

Current state

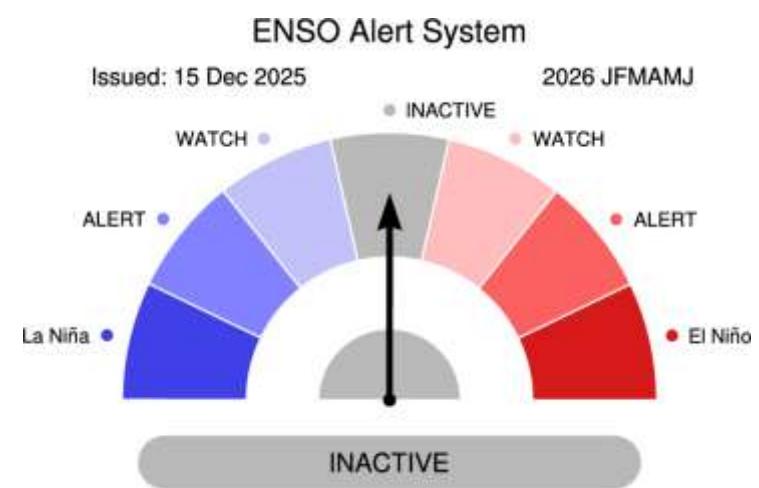
ENSO Neutral conditions are present across much of the Pacific Ocean.

What's the Outlook?

ENSO neutral conditions are expected for the entire forecast period.

Impact to the Upcoming Seasons

There is typically no significant predictability on rainfall patterns in Barbados during ENSO-neutral events.



(Source: APCC/ Climate Information Services)



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CLIMATE OUTLOOK

Sea Surface Temperatures (SSTs)

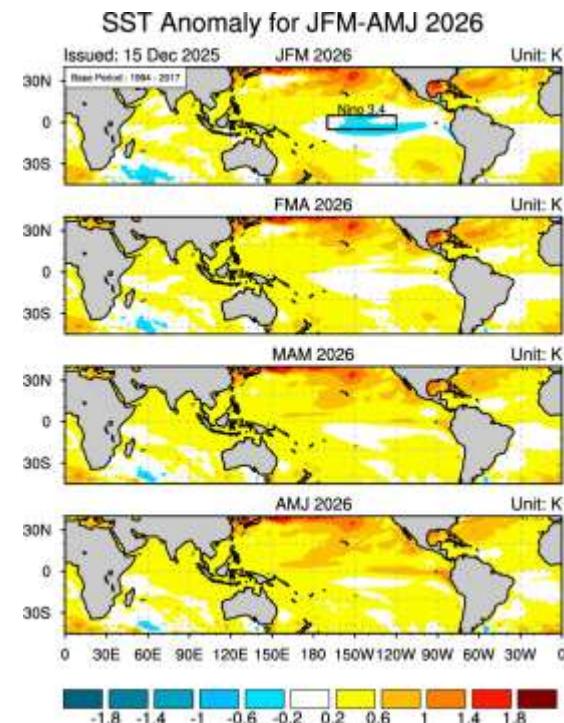
The Multi-Model Ensemble continues to suggest above-normal sea surface temperatures (SSTs) are expected across the tropical Atlantic. SSTs are forecast to remain above normal by 0.2°C to 0.6°C through to June 2026. Across the eastern and central equatorial Pacific, SSTs are expected to be close to the climatological average, which is consistent with the ENSO-neutral conditions.

Impact on Rainfall

Warmer-than-normal SSTs in the Atlantic may continue to favour some periods of increased rainfall.

Impact on Temperatures

Warmer-than-normal SSTs across the tropical Atlantic will result in warmer-than-normal temperatures, although not uncomfortable during the cool season.



(Source: APCC/ Climate Information Services)

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