



BMS MONTHLY CLIMATE OUTLOOK NEWSLETTER

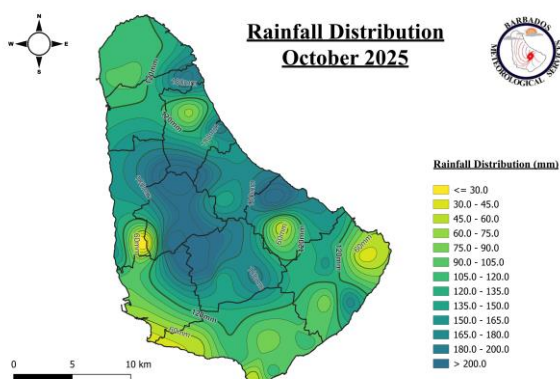
October 2025 | Issue No.69

Key Messages: Near to below average rainfall is expected for much of the forecast period. Consequently, **Agricultural Drought and Hydrological Drought Watches** are now in effect and may be elevated to **Agricultural Drought and Hydrological Drought Warnings in the coming months**. The annual Heat season is expected to end by late November; however, **warmer-than-normal temperatures will persist thereafter**. Weak La Niña conditions are expected around the beginning of the forecast period, transitioning to ENSO neutral thereafter. **Slightly above-average tropical cyclone activity** is expected for the rest of the 2025 Atlantic Hurricane season. Persons are, however urged to continue monitoring the BMS seasonal outlooks for updates.

OCTOBER IN REVIEW

Precipitation

Figure 1: October Rainfall Distribution



Rainfall recorded at Charnocks this month (110.9mm) remains below the climatological norm (179.6mm), however, we have seen a relative increase compared to August and September. The BMS at Charnocks recorded approximately 62% of the climatological norms for October while only 37% was recorded in August and September. This increase is attributed to localized activity (5th), a trough system(14th) and active tropical waves (9th, 14th, 19th, 31st); one of the tropical waves that traversed the island later became Major Hurricane Melissa.

The highest rainfall across most of the island occurred on the 14th and 19th of the month. The tropical waves that traversed the island left accumulations between 0.5 to just over 2 inches. Monthly totals across the rest of the island ranged between 1 to 9 inches.

Temperature

Figure 2: October Average Temperature Distribution

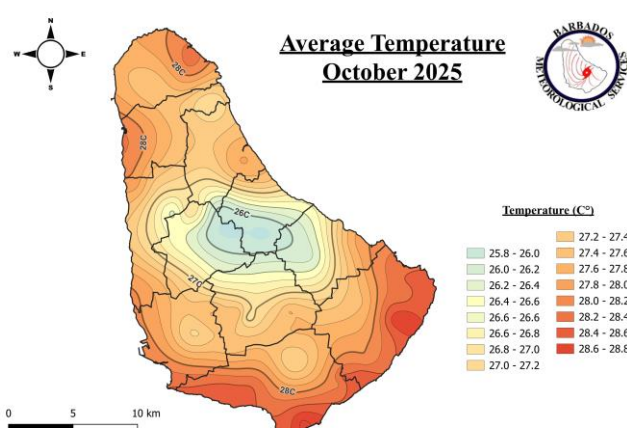
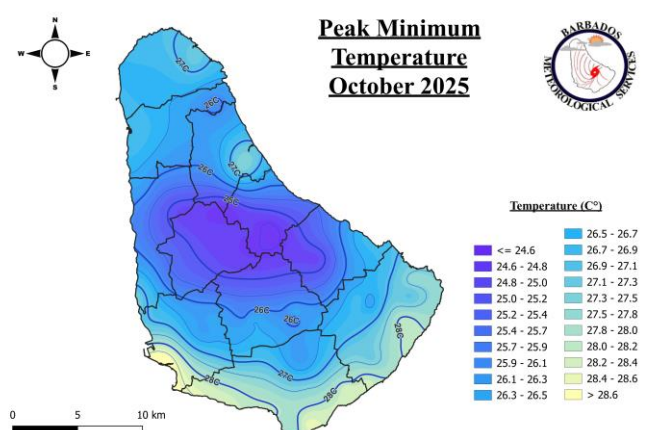


Figure 3: October Peak Night-time Temperature Distribution



Minimum temperatures were above average by 1.2°C this month, at 25.9°C, and peaked 1.8°C above average at 28.2°C; this would account for any heat stress experienced in October. Maximum and average temperatures were otherwise near the climatological normal at 31.5°C and 28.2°C respectively at Charnocks; otherwise ranging between 29.7°C - 33.9°C and 25.8°C - 28.8°C respectively across the island.

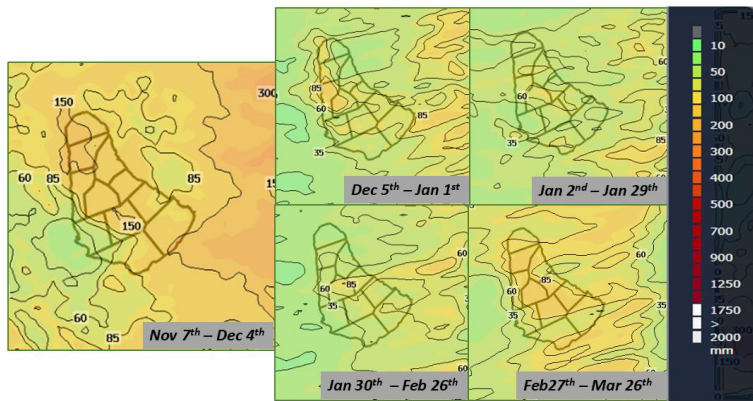


BMS MONTHLY CLIMATE OUTLOOK NEWSLETTER

October 2025 | Issue No.69

PRECIPITATION OUTLOOK

Figure 4: BMS Experimental rainfall forecast from Nov 2025 to March 2026



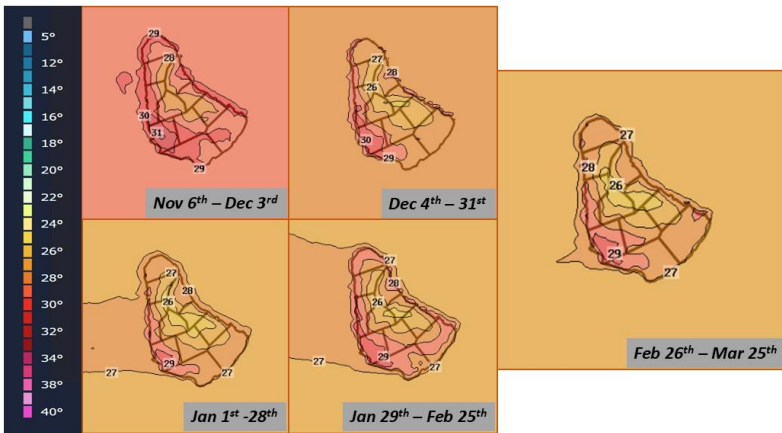
The BMS seasonal rainfall forecast continues to indicate below to near average rainfall for Barbados for much of the forecast period, with only March being the exception. Given that the BMS WRF experimental model (figure 4) projection for October was 85-200mm and only seven 3dpaws stations had rainfall accumulations at or above 200mm, the official forecast leaned toward the drier side of the model projections. Additionally, 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 totals. March is an outlier in this model run and will be closely monitored in successive runs. Therefore, all forecasts issued by the BMS should be monitored for updates.

Table 1: Rainfall Projections for November 2025 to March 2026

Month	Projections (mm)	Deviation from 30-yr Average at Charnocks
November	100 - 200	Below to Near Average
December	50 - 100	Below to Near Average
January	25 - 75	Below to Near Average
February	15- 50	Below to Near Average
March	35- 75	Near to Above Average

TEMPERATURE OUTLOOK

Figure 5: BMS Experimental peak temperature forecast from Nov 2025 to March 2026



Above normal night time temperatures are expected until April 2026 and some uncomfortable periods are expected until the Heat Season ends in late November. The latest probabilistic and dynamic model forecasts and the BMS continue to project above-normal minimum temperatures for the entire forecast period (Table 2). As for the maximum temperature, the probabilistic forecast is leaning towards above-normal for NDJ and near normal thereafter, while mean temperatures are forecast to be above normal and below normal, respectively. Based on the experimental WRF model (Figure 5), daytime temperatures will continue to be uncomfortable and are expected to peak between 30°C and 32°C until late November. Thereafter, daytime temperatures should peak between 27°C and 30°C. The BMS urges members of the public to continue monitoring the temperature outlook for updates and adhere to any recommendations coming from the Ministry of Health and Wellness as the heat season comes to a close.

Table 2: Temperature Outlook for November 2025 to April 2026

Temperature	Season	Forecast Probability (%)		
		Below	Normal	Above
Minimum Temperature	NDJ	18	17	65
	FMA	11	22	67
Maximum Temperature	NDJ	28	27	46
	FMA	32	39	29
Mean Temperature	NDJ	13	32	55
	FMA	37	30	33

DROUGHT OUTLOOK

Given that rainfall continues to be below average for 2025 and below to near average rainfall is expected into the early dry season, **Agricultural Drought Watch** remains in effect and may be elevated to an **Agricultural Drought Warning** from as early as January 2026. 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 that we are entering the dry season, and the current salinity levels as reported by BWA, the alert level remains elevated to a **Hydrological Drought Watch through to December** and a **Hydrological Drought Warning may be issued thereafter**. Members of the public are urged to continue conserving 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 November 2025 to March 2026

MONTH	AGRICULTURAL	HYDROLOGICAL
NOVEMBER	Drought Watch	Drought Watch
DECEMBER	Drought Watch	Drought Watch
JANUARY	Drought Warning	Drought Warning
FEBRUARY	Drought Warning	Drought Warning
MARCH	Drought Warning	Drought Warning



BMS MONTHLY CLIMATE OUTLOOK NEWSLETTER

October 2025 | Issue No.69

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 November 2025 to April 2026 Period

What do these forecasts mean for Barbados?

- Unchanged/ falling reservoir/aquifer levels.
- Employ rainwater harvesting techniques for rain feed crops during dry periods.
- Increased likelihood of flooding during intense rainfall events until the end of the Wet Season.
- Increase in soil moisture content and possible saturation during excess rainfall events until the end of the Wet Season.
- Uncomfortable temperatures which may lead to an increased need for cooling and hydration, until mid to late November.
- Heat stress in farm animals and pets, until mid to late November.
- Air quality may be impacted by periodic intrusions of Saharan dust.
- 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

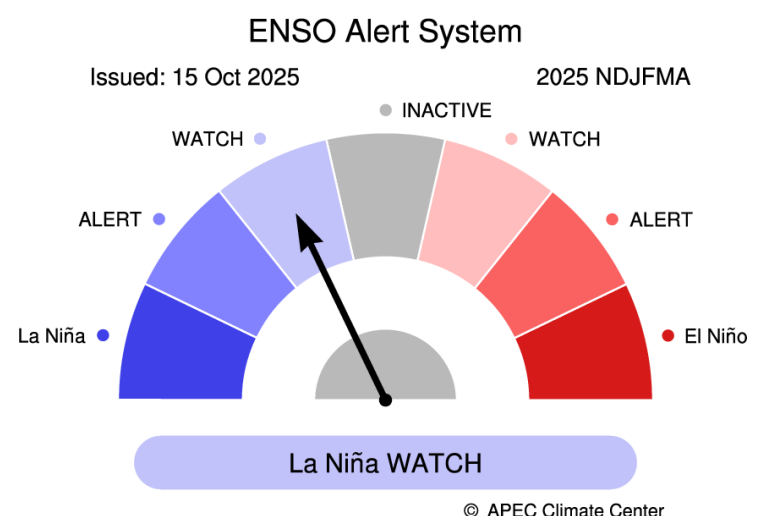
ENSO Neutral conditions are present across much of the Pacific Ocean.

What's the Outlook?

Weak La Niña conditions are expected at the beginning of the forecast period with the odds moving in favour of ENSO neutral in the latter part of the forecast period.

Impact to the Upcoming Seasons

Weak La Niña conditions may favour an increase in rainfall across Barbados; there is typically no significant predictability on rainfall patterns in Barbados during ENSO-neutral events.



(Source: APCC/ Climate Information Services)



BMS MONTHLY CLIMATE OUTLOOK NEWSLETTER

October 2025 | Issue No.69

CLIMATE OUTLOOK

Sea Surface Temperatures (SSTs)

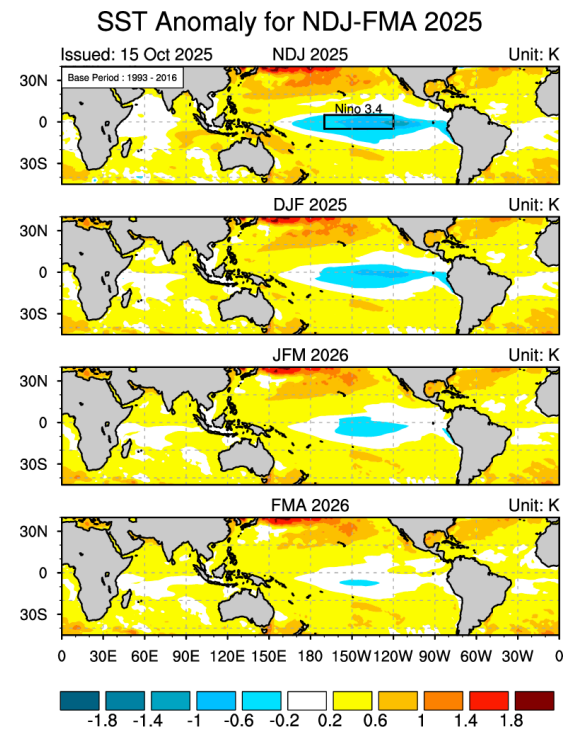
The Multi-Model Ensemble continues to suggest above-normal sea surface temperatures (SSTs) are expected across the tropical Atlantic. SSTs are forecast to remain above normal by 0.2°C through to March 2026. Across the eastern and central equatorial Pacific, SSTs are expected to be 0.2 to 1 °C cooler than normal which is consistent with the ENSO-neutral to weak La Niña conditions.

Impact on Rainfall

Warmer-than-normal SSTs in the Atlantic may favour periods of increased rainfall characterized by intense rainfall events; this may result in flash flooding across the island.

Impact on Temperatures

Warmer-than-normal SSTs across the tropical Atlantic will result in warmer-than-normal temperatures and humid conditions, although not as warm as 2023 and 2024. Recurrent episodes of heat stress are likely, but not to the degree of the previous two years, until the Heat Season Ends around November.



(Source: APCC/ Climate Information Services)

2025 ATLANTIC HURRICANE SEASON OUTLOOK

Forecasts for the 2025 Atlantic Hurricane season from Colorado State University, Tropical Storm Risk and the National Oceanic and Atmospheric Administration indicate slightly above-normal activity for the remainder of the Hurricane Season. With all centres leaning towards ENSO- neutral to weak La Niña and warm sea surface temperatures making conditions more favourable. The Barbados Meteorological Services has also produced a forecast, a hybrid statistical and deterministic product to predict the activity in the Eastern Atlantic (bounded by 10°W – 65°W, 5°N – 20°N). The table below summarizes these forecasts as compared to Atlantic hurricane season Climatology.

Table 3: 2025 Atlantic Hurricane Season Forecast compared to Atlantic Hurricane Season

	Atlantic Basin Climatology (1991-2020)	Cumulative Forecast Ranges for 2025 Hurricane Season	BMS 2025 Eastern Atlantic Outlook	Observed Tropical Cyclones in the Atlantic (31 st October)	Observed Tropical Cyclones in the Eastern Atlantic (31 st October)
Named Storms	14	12-19	5-8	12	5
Hurricanes	7	6-10	2-5	5	1
Major Hurricanes (Category 3 and above)	3	3-5	0-2	4	1

Date Issued: 12-11-2025

Editors: Mr. Christophe Martin (Meteorologist Ag), Mr. Don Layne (Senior Meteorological Assistant), Ms. Shanice Whitehall (Meteorologist Ag), Ms. Cherise Brathwaite (Meteorologist Ag), Ms. Danielle Nurse (Meteorologist Ag)

For more information, contact the Barbados Meteorological Services at
CAD Building Charnocks Christ Church
Tel: 535-0023|Fax: 535-0029|Email: BMS.Climat@barbados.gov.bb

CONTRIBUTORS:

