

# DOMINICA CLIMATIC NEWSLETTER



## WORLD METEOROLOGICAL DAY

MARCH 23RD, 2025

Closing the Early Warning Gap Together



World Meteorological Day 2025 will be celebrated on March 23rd, 2025 under the theme “**Closing the Early Warning Gap Together.**”

This year’s focus is on ensuring that no one is left behind in accessing early warning systems, which are crucial for protecting lives, livelihoods and ecosystems in the face of growing climate risks.

The goal is for everyone to have access to early warning systems by 2027. Early warnings help communities prepare and reduce the impact of extreme weather, such as floods, hurricanes and heatwaves. The theme highlights the need for global cooperation among governments, private sectors and local communities.

It also highlights the role of meteorological innovations such as advances in satellite technology, issuing real-time alerts and tailored communication strategies in building resilience against disasters.

World Meteorological Day 2025 serves as a call to action to bridge existing gaps and ensure that timely and accurate warnings reach everyone, safeguarding both human lives and sustainable development.

## SEASONAL CLIMATE OUTLOOK SUMMARY

### Previous Season Forecast:

#### Dec-Jan-Feb (DJF) 2024/ 25

Rainfall accumulations were likely to be higher than usual (medium confidence).

Warmer-than-usual daytime temperatures were anticipated (medium to high confidence); night-time temperatures likely to be as cool as usual (medium confidence)

### Dec-Jan-Feb (DJF) 2024/ 25 Observations:

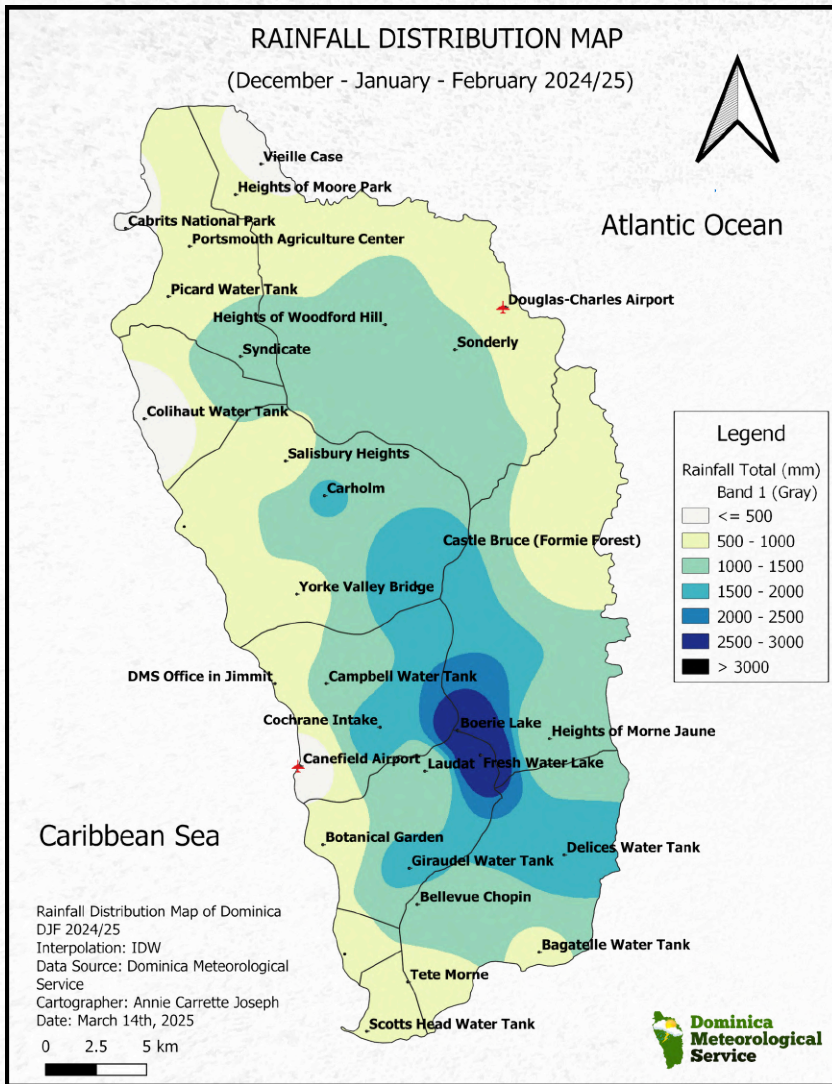
Above normal rainfall totals with warmer than usual temperatures.

### Current Season Forecast:

#### Mar-Apr-May (MAM) 2025

Models are giving little information at this time for rainfall. However, expect at least the usual dry season conditions.

Warmer-than-usual temperatures are forecast (Low to medium confidence).



**3 Driest Stations**

Colihaut	304.6mm/ 11.99in
Canefield Airport	361.2mm/ 14.22in
Cabrits National Park	409.0mm/ 16.10in

**3 Wettest Stations**

Fresh Water Lake	2931.8mm/ 115.43in
Boerie Lake	2651.2mm/ 104.38in
Belles Bridge	1720.6mm/ 67.74

Dec 2024 -Jan-Feb 2025 Forecast Verification		
CLIMATOLOGICAL NORMAL (1991-2020)		
RAINFALL	Canefield Airport	Douglas-Charles Airport
Accumulated Normal	209.6 to 367.8mm	323.3 to 480.4 mm
Forecast	Above normal	Above normal
Observed	548.2mm (above normal)	698.8mm (above normal)
Wet Days Normal	36 to 53 days	49 to 63 days
Forecast	35 to 59 days	46 to 71 days
Observed	58 days (within range)	65 days (within range)
TEMPERATURE AVERAGE (2006-2020)		
Average Maximum	29.9°C to 30.4°C	28.7°C to 28.9°C
Forecast	Warmer than usual	Warmer than usual
Observed	30.3°C (normal)	29.0°C (warmer)
Average Mean	25.8°C to 26.1°C	25.4°C to 25.8°C
Forecast	Warmer than usual	Warmer than usual
Observed	26.4°C (warmer)	25.7°C (normal)
Average Minimum	21.6°C to 22.0°C	22.2°C to 22.7°C
Forecast	Warmer than usual	Normal
Observed	22.5°C (warmer)	22.5°C (normal)

Wetter than usual conditions were observed during the season, DJF 2023/2024. An extremely wet spell in the middle of December resulted in several landslides from the 19th and widespread flooding on the 21st.

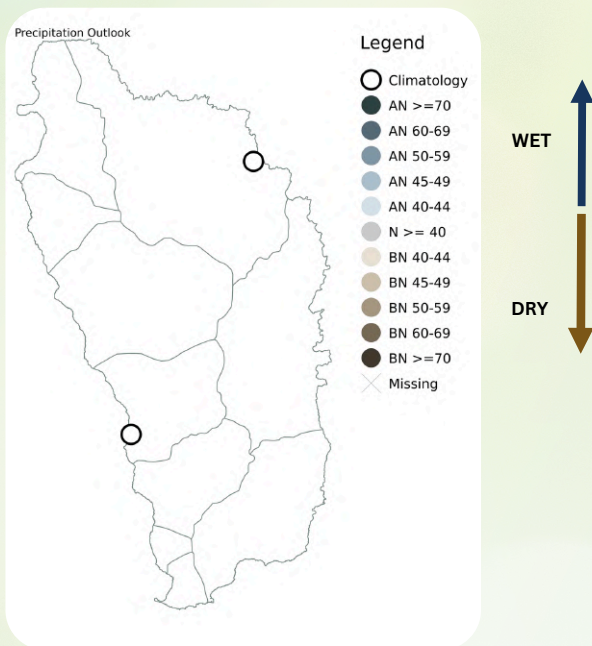
Temperatures were generally cool as usual across the island. There were no recorded hot days at both airports.



## INFLUENCING FACTORS

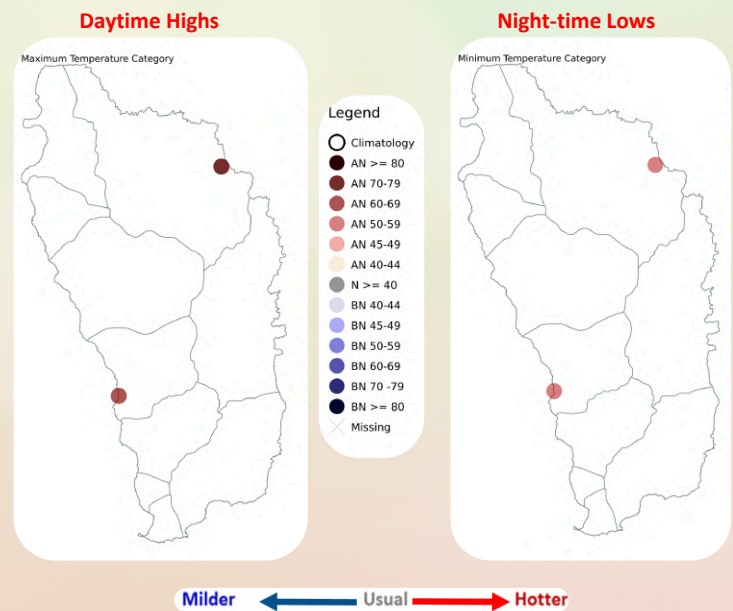
- Sea Surface Temperatures (SSTs) in the Eastern Equatorial Pacific Ocean cooled to below average (La Niña conditions) in December 2024. Models are predicting that these conditions continue in the near future, but a transition to neutral conditions is likely during the March to May 2025 season (66% chance). La Niña conditions are often associated with increased heavy shower activity and rainfall totals in the southeastern Caribbean.
- SSTs in the Caribbean Sea and the Tropical North Atlantic (TNA) have cooled a bit faster than 2024 at this time but remained warmer than usual. Above average SSTs is expected to continue during the MAM season. Warm SSTs tend to contribute to higher air temperatures with above-average humidity, seasonal rainfall totals, increased frequency of extreme rainfall and increased tropical cyclone activity. The likelihood of extreme rainfall is higher than usual, even in the Dry Season.
- Saharan dust haze intrusions are not forecasted seasonally, but weekly. Climatologically, the frequency of Saharan Dust Haze intrusion increases during the season.

### MAM RAINFALL PROBABILITY FORECAST (%)



- Models are giving little information on any shifts away from the normal rainfall totals. Therefore, prepare for the usual dry season conditions.
- About 23 to 68 wet days are likely across the island with up to about five 7-day wet spells. About two extremely wet 3-day spells which could trigger flash flooding are possible.
- The chance of significant dry spells is expected to increase into April, especially when Saharan dust is present. Up to eight 7-day dry spells and four 15-day dry spells are possible during this season.
- There are no drought concerns at this time up to the end of May.
- Increased chances of brush fires during this season.

### MAM TEMPERATURE PROBABILITY FORECAST (%)



- Hot and humid conditions will become a concern as the atmosphere transitions into the heat season, which starts officially in April.
- Above normal day and night temperatures are expected.

### USUAL MARCH-APRIL-MAY (MAM) VALUES

March-April-May Season CLIMATOLOGICAL NORMAL (1991-2020)		
RAINFALL	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Normal	105.2 to 234.4mm	290.6 to 530.2mm
Wet Days Normal	22 to 35 days	36 to 60 days
7-Day Wet Spells Normal	0 to 3	1 to 4
7-Day Dry Spells Normal	n/a	0 to 4
TEMPERATURE AVERAGE (2006-2020)		
Average Maximum	30.8°C to 31.4°C	29.2°C to 29.6°C
Average Mean	26.7°C to 27.2°C	26.0°C to 26.4°C
Average Minimum	22.6°C to 23.0°C	22.7°C to 23.1°C





## AGRICULTURE

- High temperatures and possible wet spells may encourage the proliferation of pests such as aphids, fungal infections and diseases like blight. Regular monitoring and integrated pest management are recommended.
- Farmers are encouraged to implement efficient irrigation systems and mulching to retain soil moisture, especially in western communities, as an increase in dry days is expected in the coming weeks.
- Hot and humid conditions can lead to heat stress in livestock and poultry. This could result in reduced productivity and increased susceptibility to diseases.
- Provide adequate ventilation, shade and access to clean drinking water.



## HYDROLOGY

- Although there are no drought concerns at this time, extended dry spells may put a strain on stream flows and reservoirs. Promote water conservation and improve storage.
- There is a moderate chance for significant wet spells during the season, posing risks of flash flooding, erosion and landslides, particularly in flood-prone and hilly areas.
- Infrastructure such as pipelines, water treatment facilities and reservoirs could be affected by flooding and sediment build-up.
- Increased evaporation due to higher temperatures may also contribute to lower reservoir levels, impacting water availability and hydropower output.
- Rising temperatures may also increase cooling demands, adding stress to energy and water systems.



## TOURISM

- Wet days may disrupt outdoor tours and events. Tourism operators should provide flexible scheduling and inform visitors about potential rain delays or cancellations. Safety advisories for activities near rivers and trails prone to flooding or landslides during extremely wet spells should be issued.
- Expected drier conditions as the season progresses will favour beach tourism, hiking and snorkelling, with reduced chances of rain disrupting plans.
- Cooling needs will increase especially during dry spells as the island enters its heat season.
- All should apply high SPF sunscreen lotion regularly and seek shaded areas between the hours of 10am and 3pm.
- Dust haze during this period will reduce air quality and visibility, which could impact scenic tours. Prepare for sensitive visitors.
- Fluctuations in sargassum levels are expected over the period
- Coral bleaching is not expected to be a concern up to May.



## HEALTH

- Health officials should advise on proper covering of water storage containers, regular cleaning to prevent mosquito breeding and increase vector control efforts to reduce the risk of Dengue, Chikungunya and Zika outbreaks.
- The authorities should ramp up vector control measures like mosquito fogging.
  - Episodes of heavy rainfall could lead to contaminated water sources, raising concerns about waterborne diseases such as diarrhoea.
  - As Dominica transitions into the hotter and drier months of April and May, health services should prepare for increased cases of heat exhaustion, heatstroke and dehydration, particularly affecting the chronically ill, elderly residents, outdoor workers and children. Public awareness campaigns on staying hydrated, wearing sunscreen and limiting outdoor exposure during peak heat hours should be launched.
  - Medical facilities should anticipate a rise in respiratory consultations due to a reduction in air quality with increased episodes of Saharan dust haze. Promote protective measures, such as wearing masks, staying indoors during high dust levels and using air purifiers.

For Regional Sectoral Bulletins (Agriculture, Health and Tourism)

Visit: <https://rcc.cimh.edu.bb/>

Source: Dominica Meteorological Service (DMS) in collaboration with the Caribbean Institute for Meteorology and Hydrology (CIMH) & National Oceanic and Atmospheric Administrative (NOAA); UWI-CERMES

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