

## MONTHLY CLIMATE BULLETIN DECEMBER 2024

### 1. Introduction

This bulletin provides a summary of December 2024 climate conditions across Mahe, Praslin, and La Digue. Wet conditions prevailed across the islands. During the month, Neutral to weak La Niña was observed, while the Indian Ocean Dipole (IOD) remained neutral. The MJO index propagated from phase 4 through phase 7 during the month of December.

### 2. Monthly Rainfall Performance in December 2024

#### 2.1 Distribution of Rainfall for December 2024

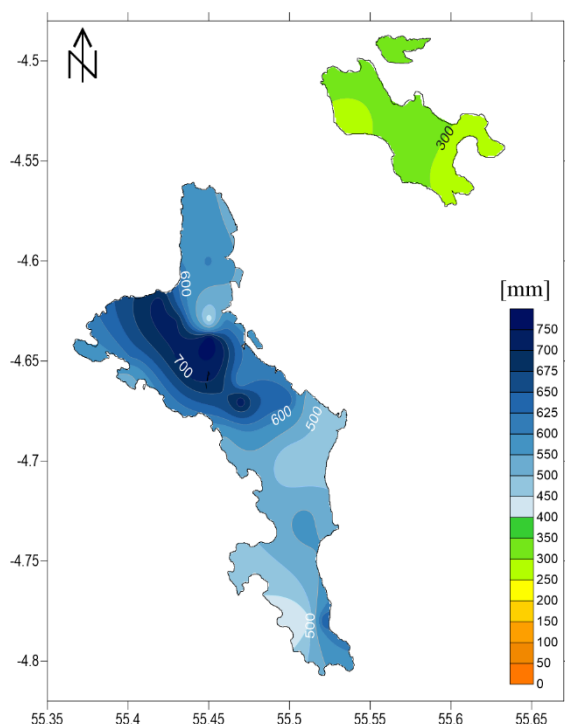


Figure 1: Monthly total rainfall in mm during December 2024

Figure 1 shows the spatial distribution of rainfall across Seychelles in December 2024. The observed rainfall over Mahe ranged from 403 mm to 792.2 mm, with the highest recorded amount at La Rochon-Waterwork-PUC Station and the lowest at Quatre Bornes Station. The central-western region of Mahe and the northern part of the western region received the highest rainfall, with amounts surpassing 650 mm, whereas most other areas received less than 600 mm of rainfall.

Praslin and La Digue received less rainfall compared to Mahe, with observed amounts ranging from 250 mm to 358.2 mm. The highest recorded rainfall, 358.5 mm, was measured at Praslin Desalination Station.

## 2.2 Monthly Rainfall Anomaly and Percentage of Mean Rainfall during December 2024

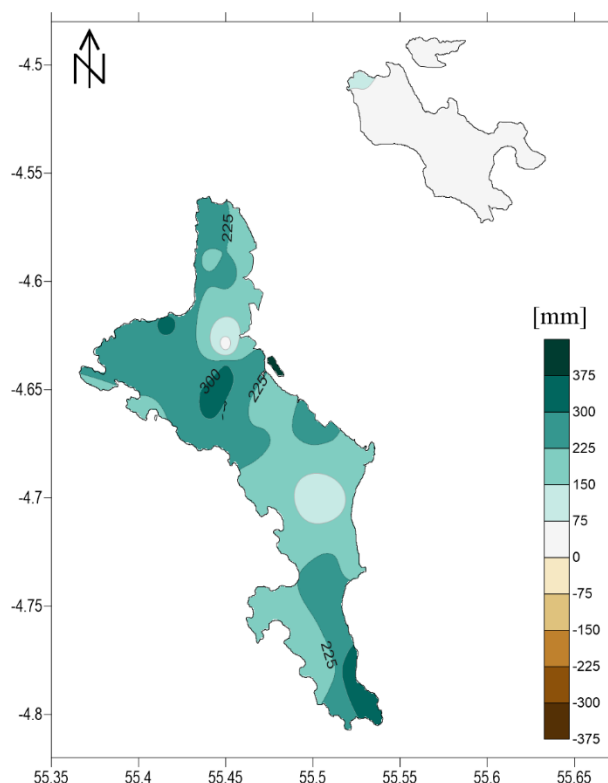


Figure 2: Monthly rainfall anomaly in mm during December 2024

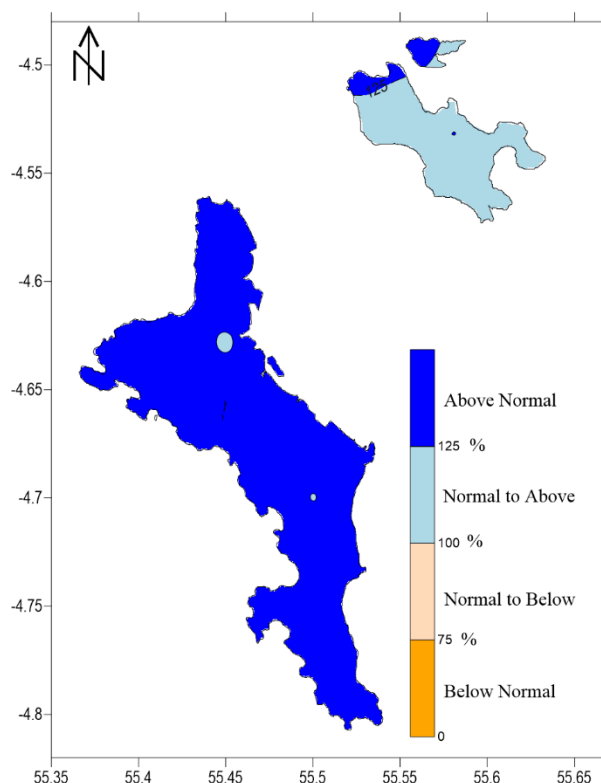


Figure 3: Percent of mean rainfall during December 2024

Figure 2 highlights the rainfall anomalies for December 2024. The maps indicate positive rainfall anomalies across Mahe, Praslin, and La Digue during December 2024. Over Mahe, Significant positive anomalies, ranging between 225 mm and 325 mm, were observed in the western part of the northern region, the northern part of the western region, and in the eastern part of the southern region. In the remaining areas of Mahe, positive anomalies were generally below 225 mm.

As shown in Figure 3, Mahe experienced predominantly wet conditions throughout December 2024. Meanwhile, normal to above-normal precipitation conditions were observed over most of Praslin and La Digue, with above-normal precipitation particularly noticeable in the northern fringe of Praslin.

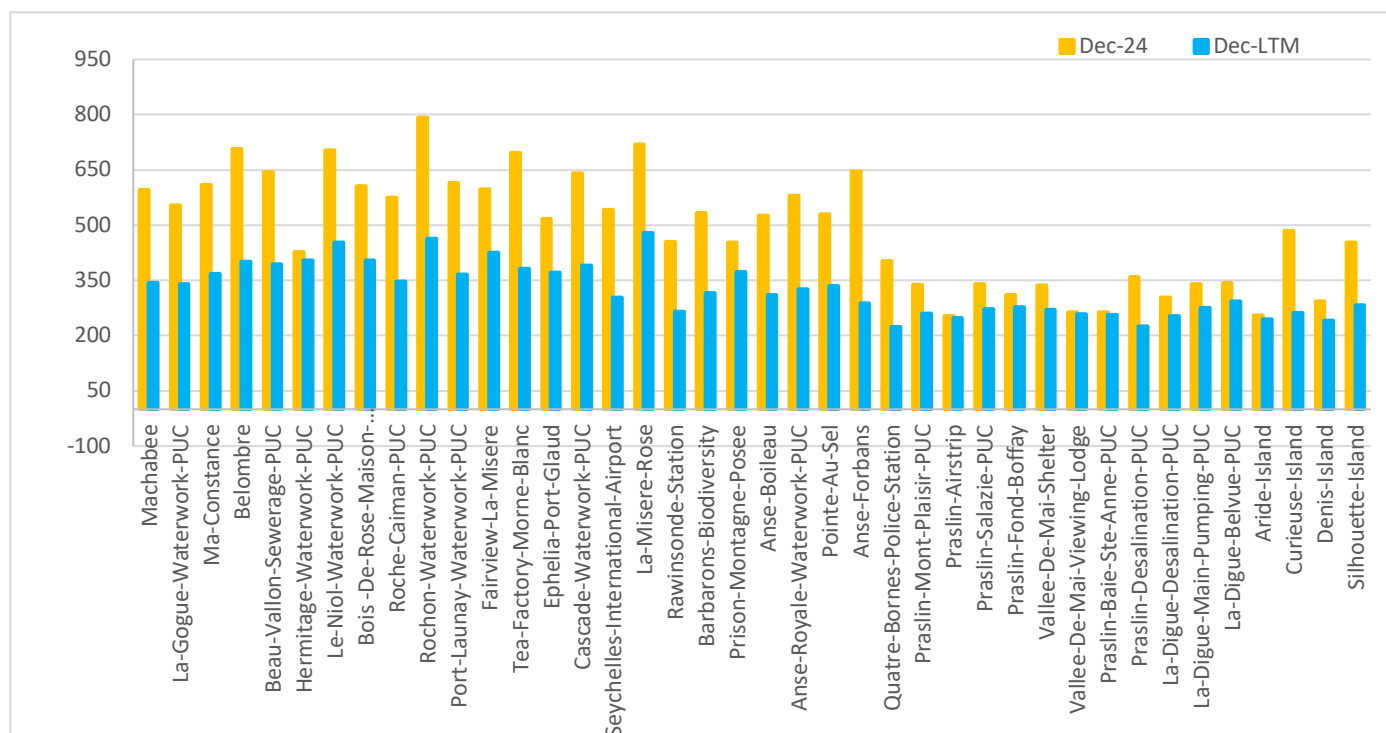


Figure 4: December 2024 rainfall total against December Long Term Mean (LTM)

### 3. Daily Weather for December 2024 at Seychelles International Airport

#### 3.1 Daily rainfall, relative humidity, maximum and minimum temperature in December 2024

The Seychelles International Airport station recorded a total precipitation of 542.11 mm in December 2024, which is significantly higher than the long-term mean of 303.9 mm for this month. The highest daily rainfall was observed on December 17<sup>th</sup>, with a total of 101.1 mm. The distribution of rainfall throughout the month indicates the following trends: First dekad (1<sup>st</sup> –10<sup>th</sup> December): 134.3 mm of rainfall was recorded; Second dekad (11<sup>th</sup> –20<sup>th</sup> December): 345.11 mm of rainfall was observed, accounting for 63.6% of the month's total precipitation; Third dekad (21<sup>st</sup> –31<sup>st</sup> December): 62.7 mm of rainfall was recorded, showing a significant decrease compared to the second dekad. The record suggests that rainfall was heavily concentrated in the second dekad of December.



The relative humidity in December 2024 ranged between 71% and 96%. The highest humidity was recorded on December 18<sup>th</sup>, while the lowest occurred on December 1<sup>st</sup>. Overall, the atmosphere remained relatively humid throughout the month. Maximum temperatures in December 2024 ranged between 28.9°C and 32.4°C. The highest values were recorded on December 10<sup>th</sup> and 11<sup>th</sup>. The Minimum temperatures ranged from 23.7°C to 26.6°C. The lowest values were observed on December 3<sup>rd</sup>–4<sup>th</sup> and December 18<sup>th</sup>–19<sup>th</sup>, while the highest occurred on December 1<sup>st</sup>. From December 19<sup>th</sup> onward, minimum temperatures exhibited a gradual increase.

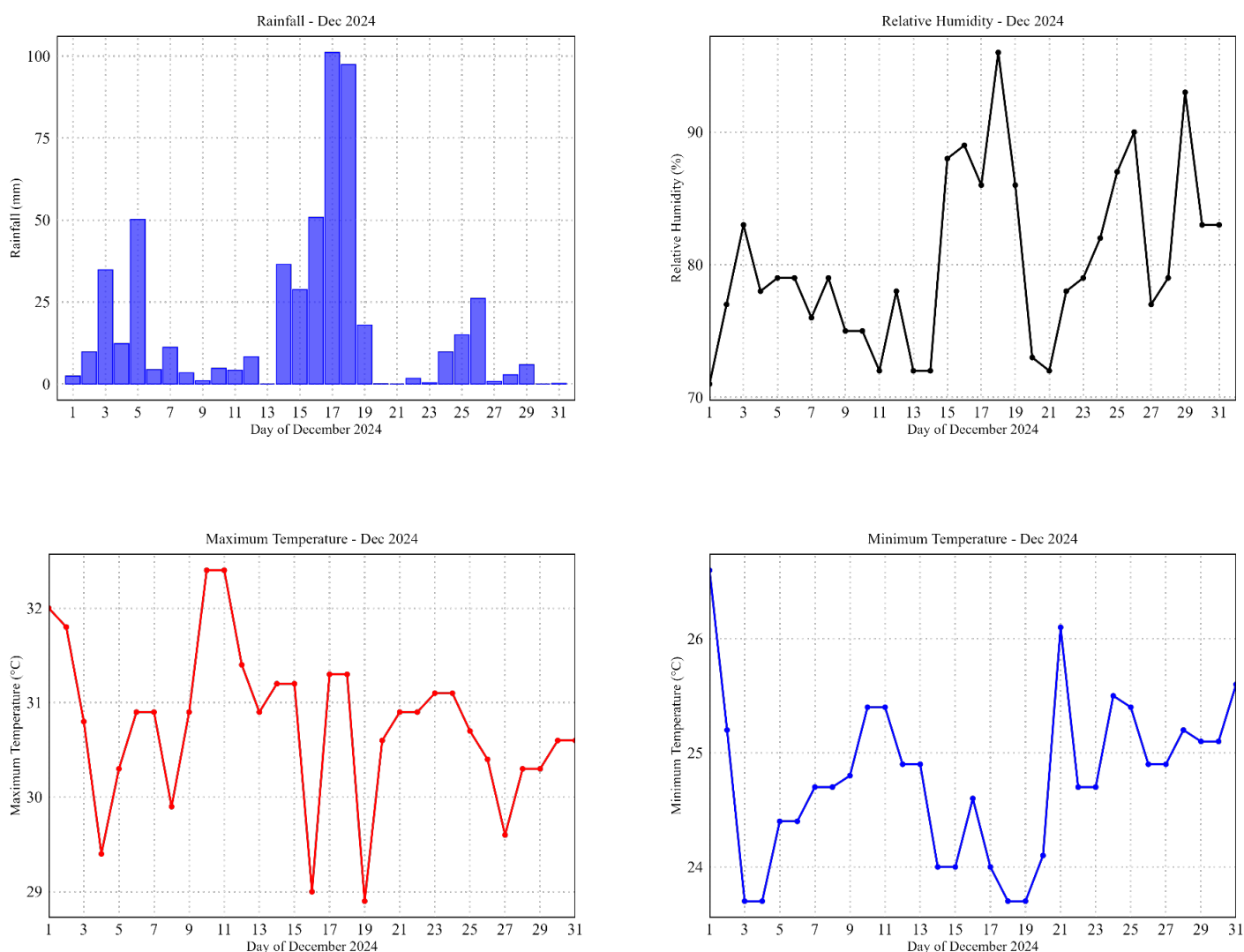


Figure 5: Daily Rainfall, Relative humidity, Maximum temperature, Minimum temperature  
in December 2024



### 3.2 Daily Sunshine hours, Mean Sea level pressure and surface wind in December 2024

During December 2024, wind speeds at the airport station ranged from 2.9 to 11.1 knots, with a monthly average of 6.8 knots. The mean sea level pressure was 1011.21 hPa. Sunshine duration averaged 5.1 hours per day. The shortest duration of 0 hours was recorded on December 4<sup>th</sup>, 8<sup>th</sup>, 19<sup>th</sup>, and 26<sup>th</sup>. The longest duration of 10.8 hours occurred on December 11<sup>th</sup> and 13<sup>th</sup>.

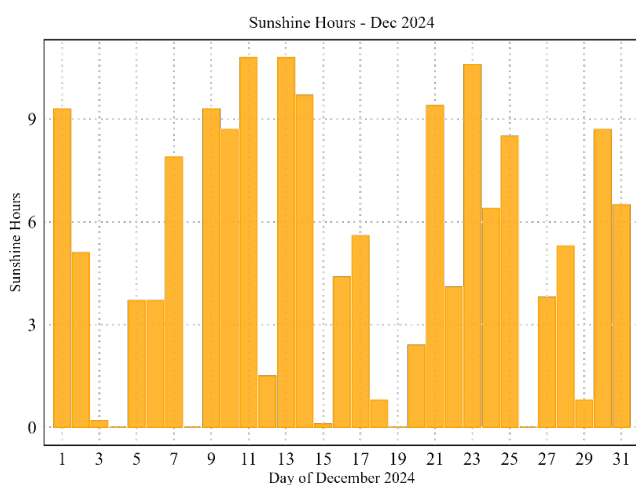
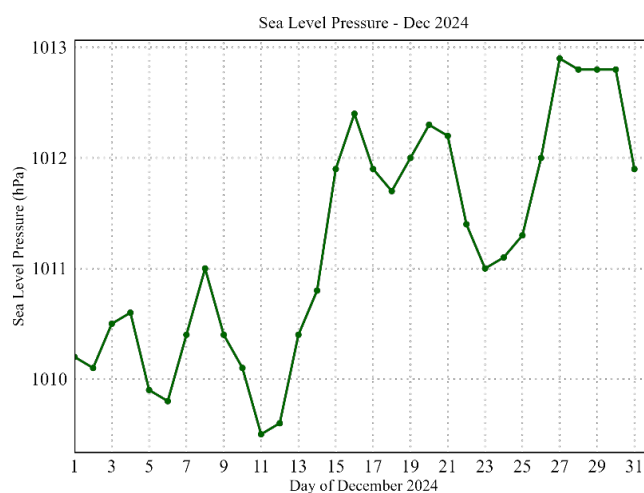
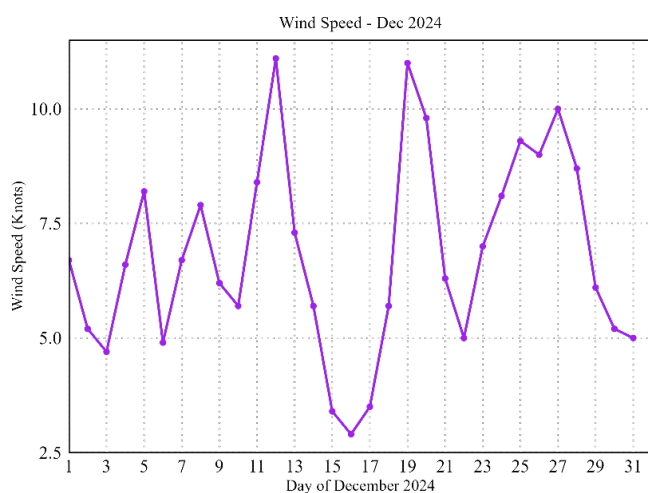


Figure 6: Daily Wind speed, Sea Level pressure, sunshine hours in December 2024

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### 3.3 Wind Pattern in December 2024

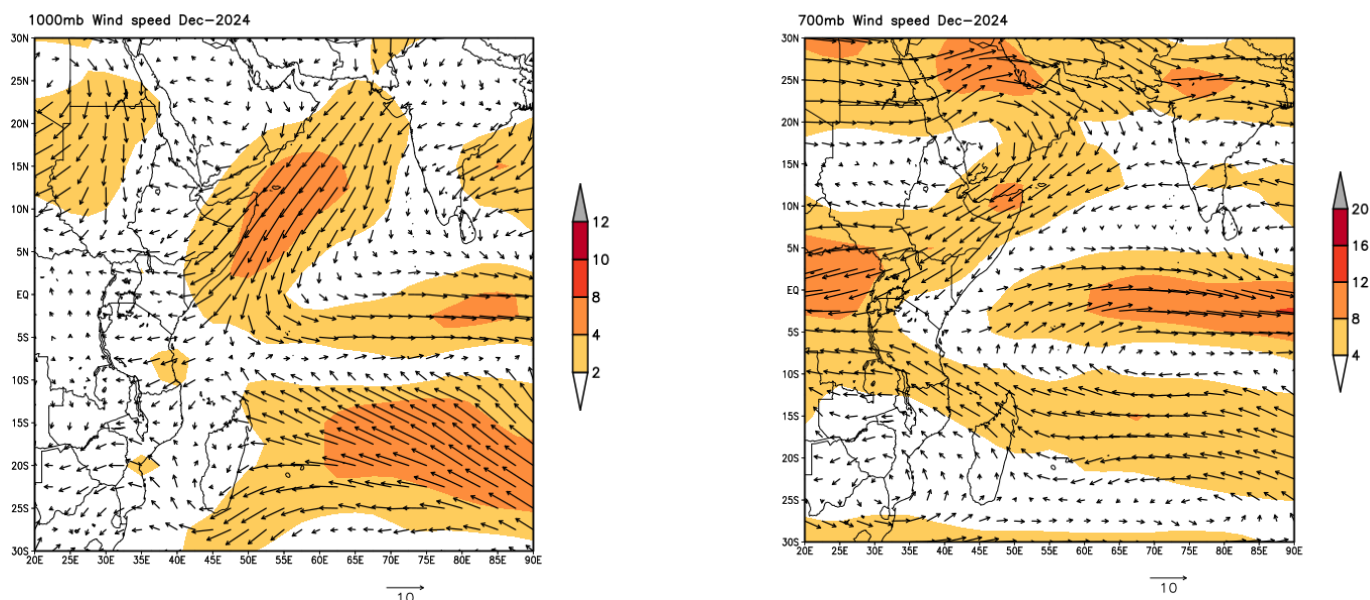


Figure 7: Surface wind flow (left) and wind flow at 700mb (right)

Figure 7 displays wind patterns at 1000 mb (near-surface) and 700 mb (mid-level). Around Mahe, near-surface winds in December are typically northeasterly, reflecting the influence of the northeast monsoon flow. Wind speeds at the surface are generally light to gentle, in the range of about 2–4 m/s. The Intertropical Convergence Zone (ITCZ) is shown extending approximately from 5° S to 10° S, placing it just south of Mahe. At 700 mb, the flow turns more southwesterly toward Mahe. Winds at this mid-level are gentle to moderate, generally between 4 m/s and 8 m/s.

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