MONTHLY CLIMATE BULLETIN NOVEMBER 2024

1. Introduction

This bulletin summarizes the climate conditions on Mahe, Praslin, and La Digue for November 2024. While central regions experienced wet conditions, the northern and southern areas of Mahe remained dry. Both the El Niño Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD) remained in neutral phases. The MJO index propagated from phase 8 through phase 4 during the month of November.

2. Monthly Rainfall Performance in November 2024

2.1 Distribution of Rainfall for November 2024

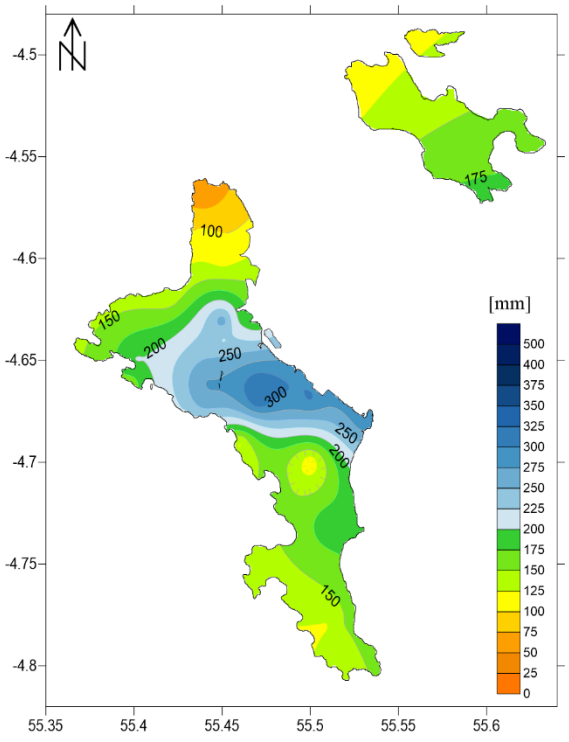

Figure 1: Monthly total rainfall in mm during November 2024

Figure 1 shows the spatial distribution of rainfall across Seychelles in November 2024. Observed rainfall totals varied from 75 mm to 323.8 mm, with the highest amount recorded at La Misere Station. In contrast, the lowest rainfall was recorded at Machabee Station. The northern tip of Mahe received less than 100 mm of rainfall, indicating relatively drier conditions in comparison to other parts of the island. The central region of Mahe experienced notably higher rainfall, ranging from 200 mm to 323.8 mm. A gradual decline in rainfall amounts is observed from the central areas toward the northern, northwestern, and southwestern parts of the island.

On Praslin, the lowest total, 89 mm, was recorded at Praslin Airstrip Station, while the highest amount of 207.3 mm was observed at Mont Plaisir Station.

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2.2 Monthly Rainfall Anomaly and Percentage of Normal Rainfall during November 2024

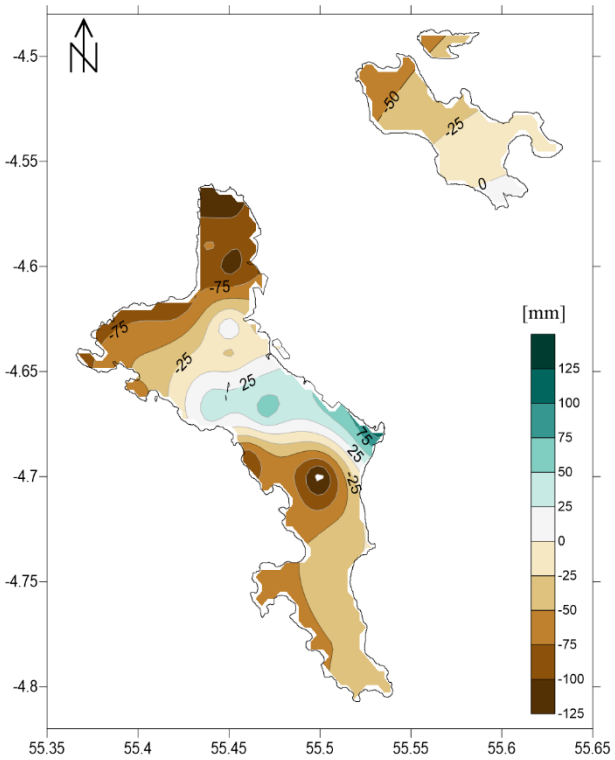

Figure 2: Monthly rainfall anomaly in mm during November 2024

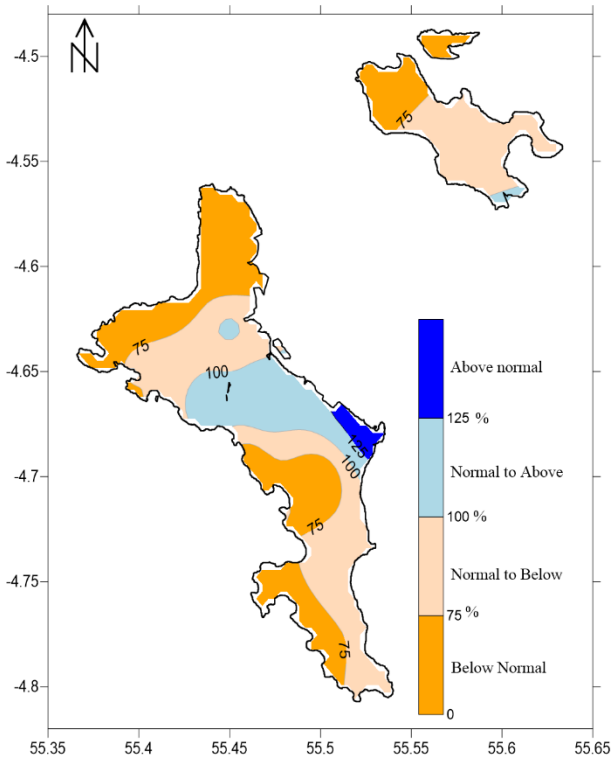

Figure 3: Percent of normal rainfall during November 2024

Figure 2 highlights the rainfall anomalies for November 2024. Negative anomalies were prevalent across the southern, northern, and northwestern regions of Mahe, as well as on Praslin and La Digue Islands. The most significant reduction in rainfall was recorded at Prison Montagne Posee Station, with an anomaly of -140.1 mm, underscoring the drier-than-usual conditions in this area. Positive anomalies were concentrated in the central region of Mahe, where an anomaly of +107.5 mm was observed at Rawinsonde Station. This indicates a wetter-than-average condition in this region during the month. As shown in Figure 3, areas transitioning from above-normal to below-normal conditions extend from Seychelles International Airport and Rawinsonde Stations toward the northern and southwestern parts of Mahe. These patterns highlight drier conditions dominating the northern and southwestern regions of Mahe, as well as Praslin and La Digue Islands.

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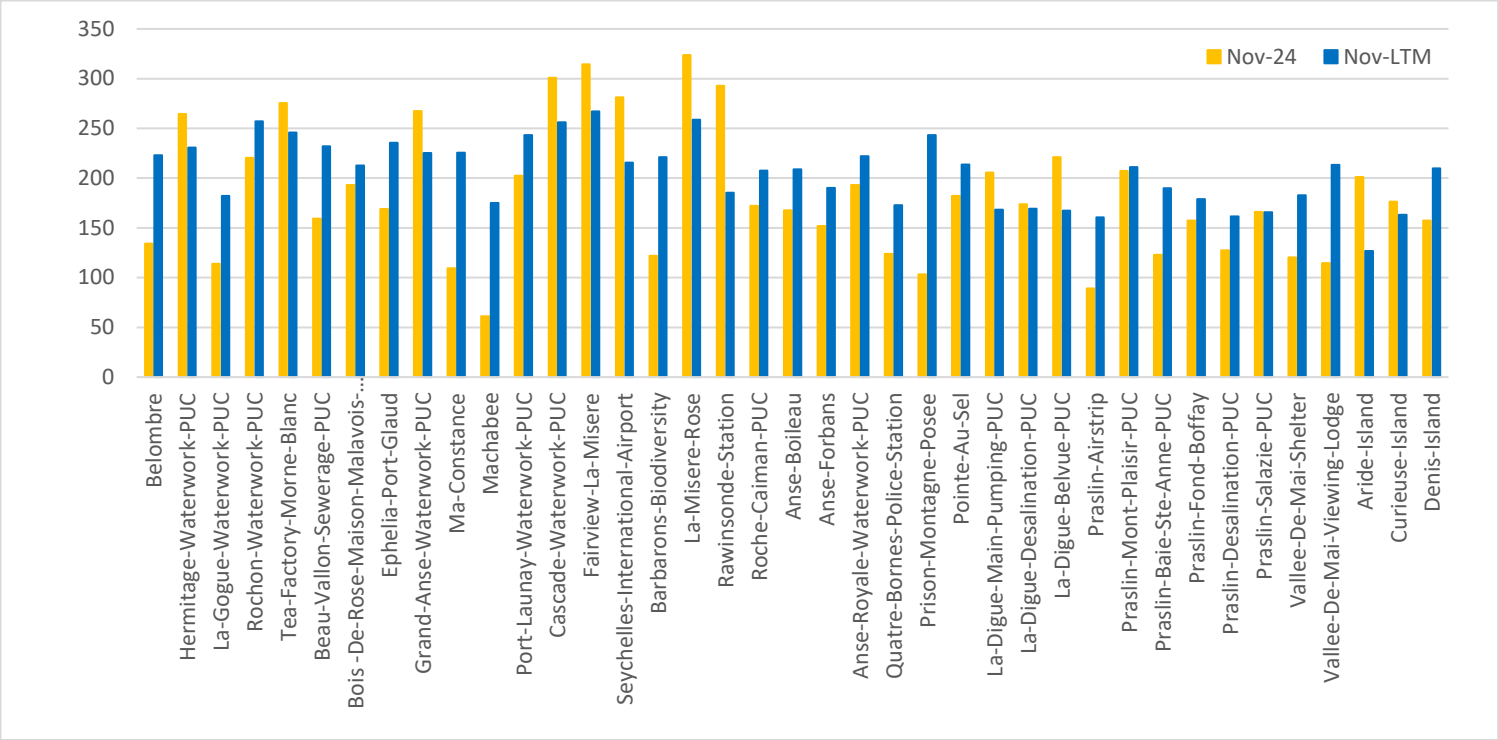

Figure 4: November 2024 rainfall total against November Long Term Mean (LTM)

3. Daily Weather for November 2024 at Seychelles International Airport

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

In November 2024, the Seychelles Airport weather station recorded a total precipitation of 281.14 mm, which is higher than the long-term mean of 215.6 mm for this month. The highest daily rainfall was observed on the 12th of November, with a value of 122 mm. The distribution of rainfall throughout the month reveals the following trends: First dekad (1st –10th November): A total of 126.61 mm of rainfall was recorded, with most of this precipitation occurring on the 10th of November; Second dekad (11th–20th November): A total of 146.41 mm of rainfall was observed, accounting for 52.1% of the month's total precipitation.

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The highest rainfall in this period occurred on the 12th of November; Third dekad (21st–30th November): This period recorded significantly lower rainfall, amounting to only 8.12 mm. The graph indicates that the rainfall was heavily concentrated in two main events: one towards the end of the first dekad and another at the beginning of the second dekad. These two peaks contribute substantially to the monthly total. Furthermore, the longest consecutive dry spell occurred from the 19th to the 22nd of November, spanning four days.

The relative humidity for November 2024 ranged between 67% and 89%. The peak value was recorded on the 12th, while the lowest occurred on the 20th. A general decreasing trend in relative humidity was observed throughout the month.

Maximum temperatures during November 2024 ranged from 28.8°C to 33.8°C. The highest maximum temperatures were recorded consecutively on the 11th and 12th, followed by the month's lowest on the 13th. After this dip, the temperature gradually increased, reaching 32.6°C by the end of the month. Minimum temperatures for November 2024 ranged from 22.3°C to 26.3°C. The lowest values were observed on the 2nd and 3rd, while the highest occurred on the 28th.

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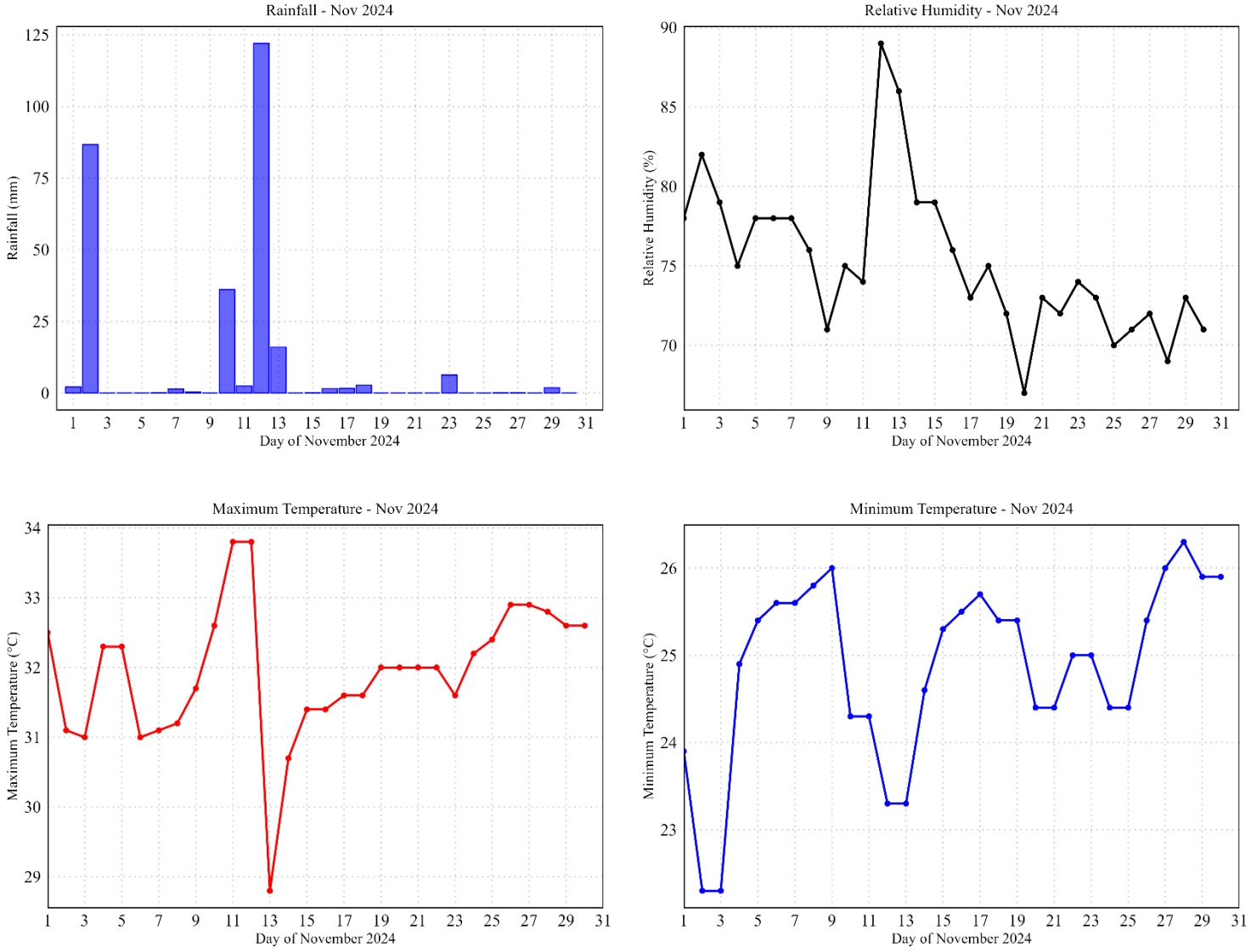

Figure 5: Daily Rainfall, Relative humidity, Maximum temperature, Minimum temperature in November 2024

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

During November 2024, wind speeds at the airport station ranged from 2.8 to 7.7 knots, with a monthly average of 4.5 knots. The sea level pressure had a mean value of 1010.73 hPa, peaking at 1012.3 hPa on the 7th and dropping to 1009.7 hPa on the 13th and 17th.

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Sunshine duration averaged 8 hours per day, with the shortest duration of 0.2 hours recorded on the 2nd and 12th, and the longest duration of 11.5 hours observed on the 4th. From the 19th to the 27th, sunshine durations consistently exceeded 10 hours per day.

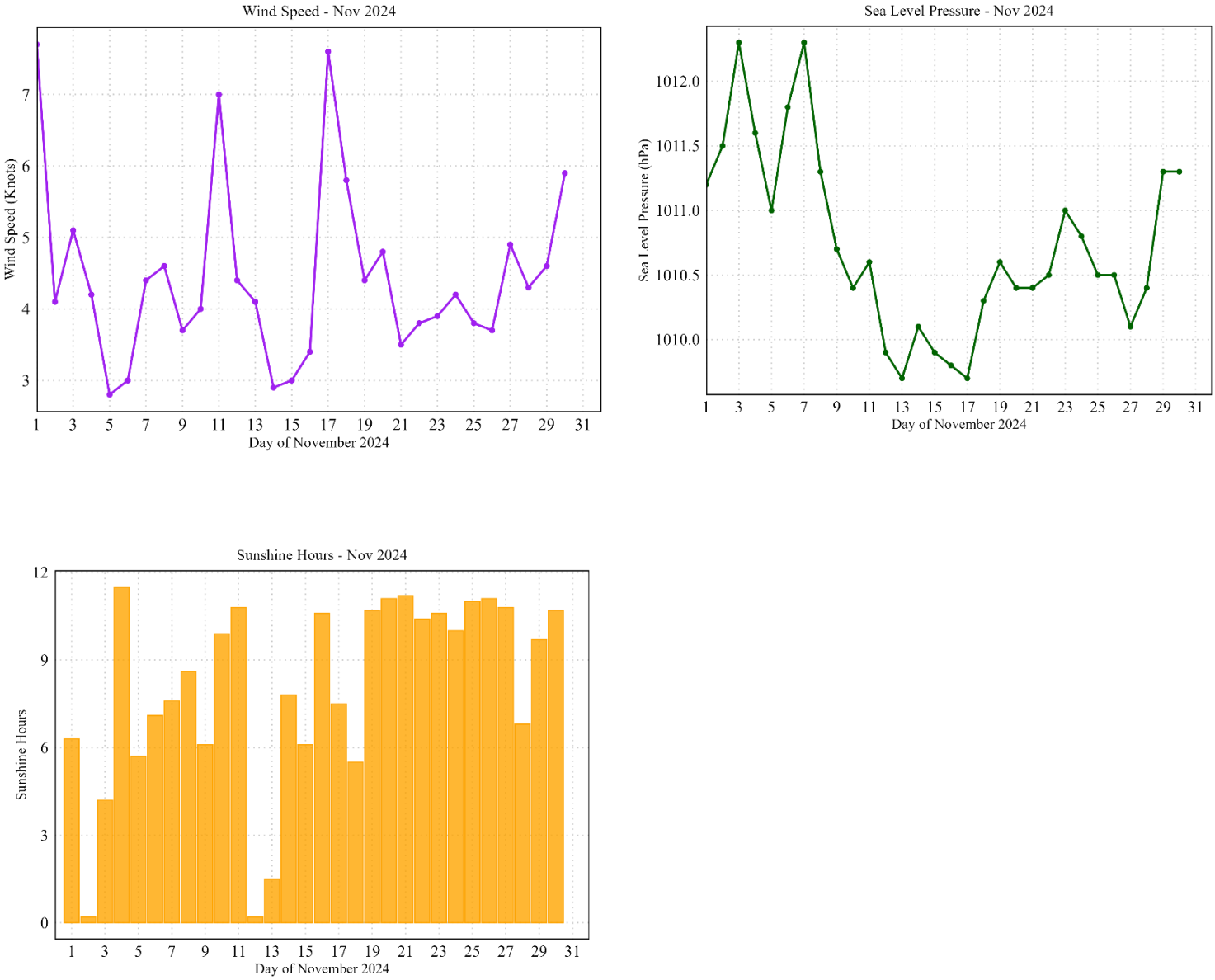

Figure 6: Daily Wind speed, Sea Level pressure, sunshine hours in November 2024

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3.3 Wind Pattern in November 2024

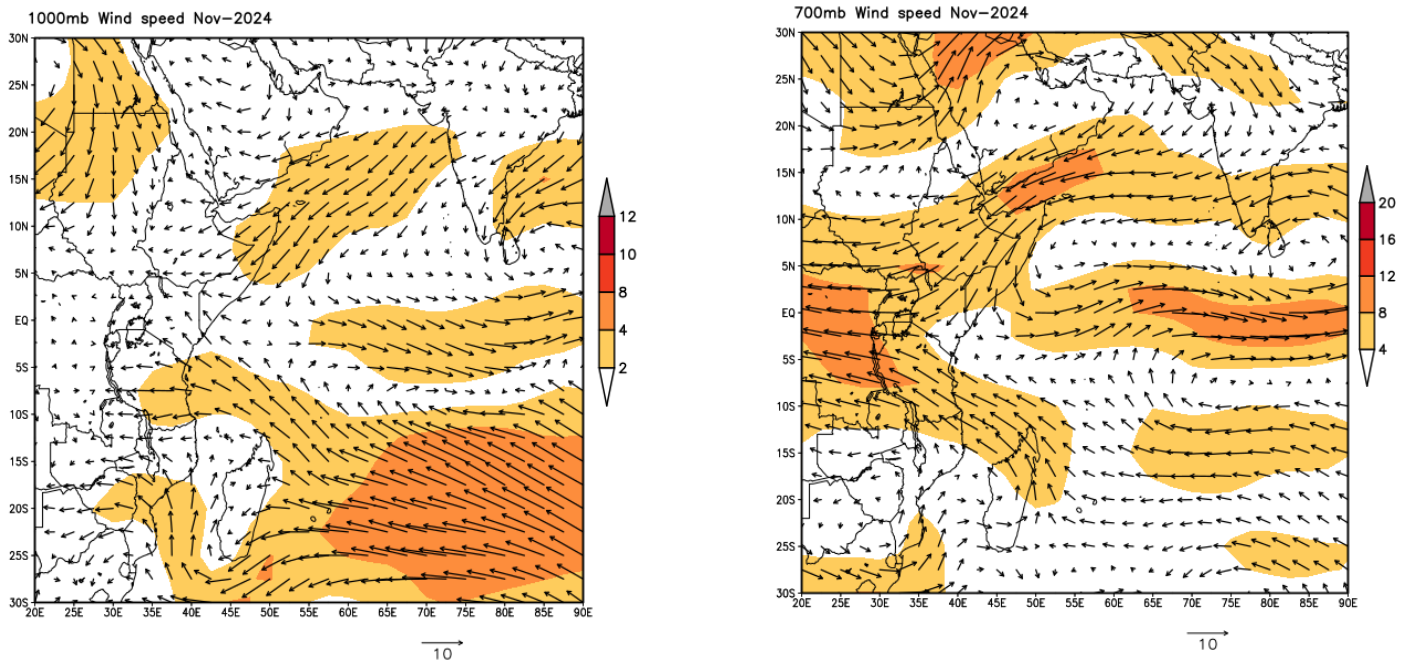

Figure 7: Surface wind flow (left) and wind flow at 700mb (right)

At the surface level (1000 mb), lower wind speeds (approximately 2 m/s) are observed east of 55°E and between latitudes 6°S and 7°S. This indicates that the Near-Equatorial Trough is positioned slightly south of the equator in November 2024, aligning with the seasonal southward migration of the ITCZ. Over Mahe, the winds were light breezes, predominantly from the southwest. Gentle to moderate breezes (4–8 m/s, indicated by orange shading) are concentrated around the 15°–20°S latitude region. At the mid-level (700mb), westerly winds blowing towards Mahe were light breezes, ranging from 2 m/s to 4 m/s.

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