

Climate and Weather Bulletin



August 2023 Weather Review





SEYCHELLES METEOROLOGICAL AUTHORITY
August 2023 Climate and Weather Bulletin



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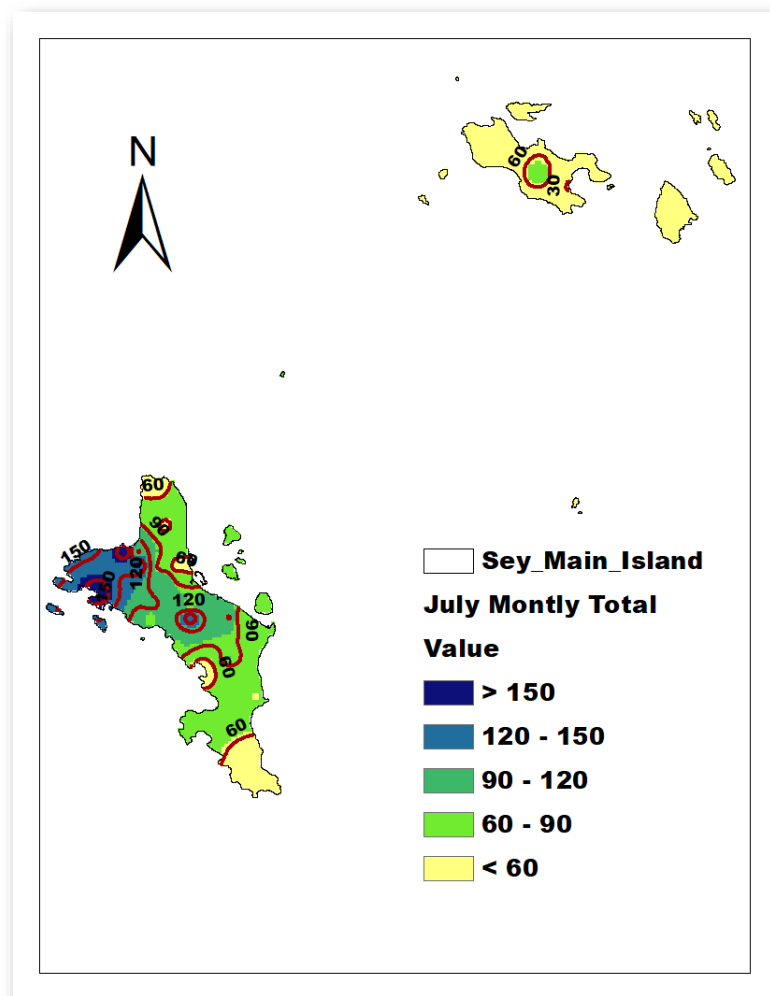
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1. Introduction

This bulletin reviews climate conditions over Mahe, Praslin, and La Digue and highlights the status of the climate systems during the month of July 2023. The basin is under the influence of the Near Equatorial Trough pattern which was mainly concentrated to the East and occasionally strongly interrupted by ridging from the Mascarene and Indian Ocean High. Therefore, convective activities were predominant over the lows and the convergence zone.

2. Rainfall Performance in July 2023

2.1 Spatial Rainfall Distribution for July 2023



The spatial rainfall distribution for July (Figure 1) indicates La Digue, most of Praslin, North and South of Mahe was drier with rainfall amounts of below 50mm compared to Central and Western Mahe and Central Praslin which recorded rainfall of above 60mm in July. The highest rainfall over Mahe amounting to 203.6mm was recorded at the Belombre station. On Praslin Island, the maximum was 84.0mm recorded at Vallee De Mai Viewing Lodge station and, on La Digue, Main Pumping PUC station recorded a maximum of 42.8mm. An overall minimum of 27.2mm was reported at Baie Ste Anne PUC station on Praslin.

Figure 1: July 2023 Spatial Rainfall Distribution



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When comparing the reported rainfall to the long term mean of each station (Figure 2), it is clear that 17 stations received rainfall amount which is below their respective long-term mean with only 1 station above normal and 17 stations near normal for their monthly mean rainfall for July.

The basin remained majorly under the influence of weak Monsoon Trough pattern which was occasionally interrupted by ridging from the Mascarene and Indian Ocean High. Therefore, convective activity was concentrated on the low-pressure systems.

Looking at it in terms of percentages (Figure 3), most of the North and South of Mahe, Praslin and La Digue recorded below 80%. The Western part of Mahe has the highest percentage with 157.6%, while Praslin have the lowest at 36.5%.

Table 1 summarizes July's rainfall performance. 17 stations reported Below-Normal rainfall with significantly high negative anomalies, with only 1 station having Above-Normal rainfall with significantly high positive anomalies and also 17 stations reported Near-Normal for July. Generally, the monthly rainfall performance was Normal-Below.



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2.2 July Rainfall Totals Compared to Long-Term Mean

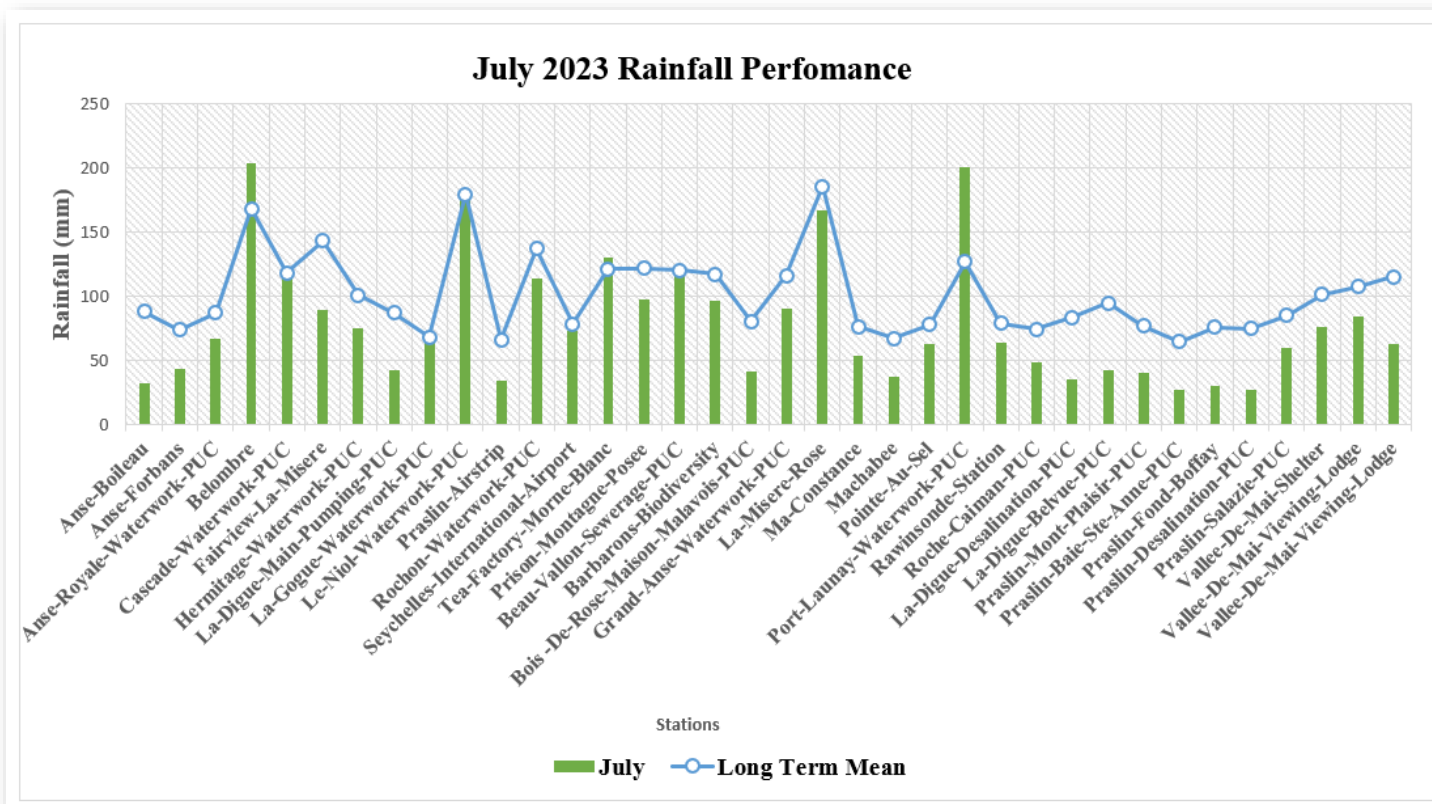


Figure 2: July 2023 rainfall totals compared to the long-term mean

2.3 Percentage of Mean Rainfall for July 2023

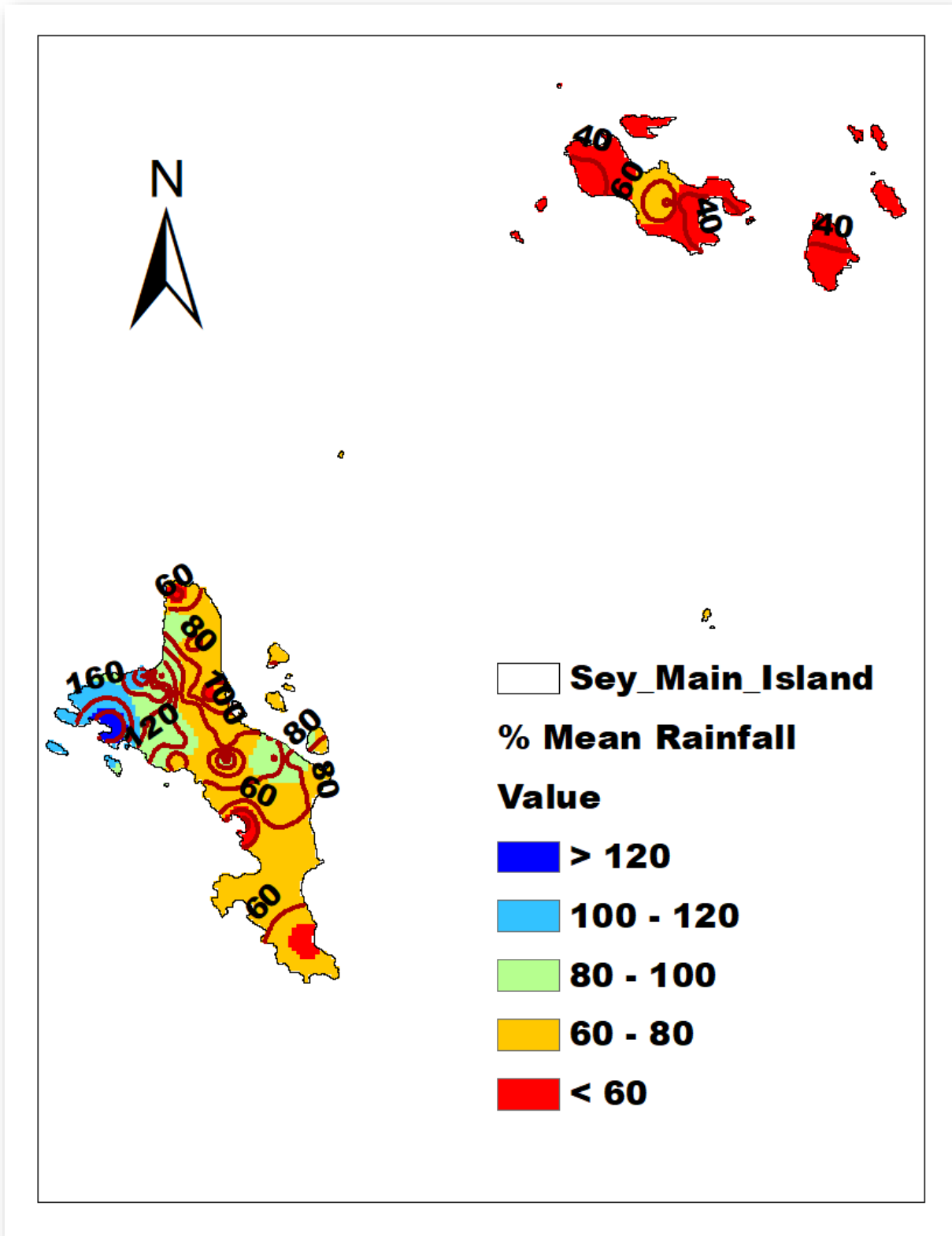


Figure 3: Percentage of mean Rainfall for July 2023



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Table 1: Rainfall performance in July

Stations	July	Long Term Mean	BN	AN	BN?	AN?	Anomalies
Anse-Boileau	32.4	88	66.0	110.0	YES	NO	-55.6
Anse-Forbans	43	73.7	55.3	92.1	YES	NO	-30.7
Anse-Royale-Waterwork-PUC	66.3	87.1	65.3	108.9	NO	NO	-20.8
Belombre	203.6	168.1	126.1	210.1	NO	NO	35.5
Cascade-Waterwork-PUC	121.6	118.1	88.6	147.6	NO	NO	3.5
Fairview-La-Misere	89	143.1	107.3	178.9	YES	NO	-54.1
Hermitage-Waterwork-PUC	75.3	100.9	75.7	126.1	YES	NO	-25.6
La-Digue-Main-Pumping-PUC	42.8	87.1	65.3	108.9	YES	NO	-44.3
La-Gogue-Waterwork-PUC	71.8	67.9	50.9	84.9	NO	NO	3.9
Le-Niol-Waterwork-PUC	178.1	179.3	134.5	224.1	NO	NO	-1.2
Praslin-Airstrip	33.9	66	49.5	82.5	YES	NO	-32.1
Rochon-Waterwork-PUC	114	137	102.8	171.3	NO	NO	-23.0
Seychelles-International-Airport	72.7	78.2	58.7	97.8	NO	NO	-5.5
Tea-Factory-Morne-Blanc	130	121.1	90.8	151.4	NO	NO	8.9
Prison-Montagne-Posee	97.6	121.6	91.2	152.0	NO	NO	-24.0
Beau-Vallon-Sewerage-PUC	118.3	120.1	90.1	150.1	NO	NO	-1.8
Barbarons-Biodiversity	96.3	117	87.8	146.3	NO	NO	-20.7
Bois -De-Rose-Maison-Malavois-PUC	41.7	80.4	60.3	100.5	YES	NO	-38.7
Grand-Anse-Waterwork-PUC	90	116	87.0	145.0	NO	NO	-26.0
La-Misere-Rose	166.3	185.3	139.0	231.6	NO	NO	-19.0
Ma-Constance	53.2	76.1	57.1	95.1	YES	NO	-22.9
Machabee	36.7	67	50.3	83.8	YES	NO	-30.3
Pointe-Au-Sel	62.2	77.9	58.4	97.4	NO	NO	-15.7
Port-Launay-Waterwork-PUC	199.9	126.8	95.1	158.5	NO	YES	73.1
Rawinsonde-Station	63.3	78.7	59.0	98.4	NO	NO	-15.4
Roche-Caiman-PUC	48	74.1	55.6	92.6	YES	NO	-26.1
La-Digue-Desalination-PUC	35.3	83.3	62.5	104.1	YES	NO	-48.0
La-Digue-Belvue-PUC	42	94.8	71.1	118.5	YES	NO	-52.8
Praslin-Mont-Plaisir-PUC	40.2	76.5	57.4	95.6	YES	NO	-36.3
Praslin-Baie-Ste-Anne-PUC	27.2	64.6	48.5	80.8	YES	NO	-37.4
Praslin-Fond-Boffay	30.2	75.6	56.7	94.5	YES	NO	-45.4
Praslin-Desalination-PUC	27.3	74.7	56.0	93.4	YES	NO	-47.4
Praslin-Salazie-PUC	60.1	84.8	63.6	106.0	YES	NO	-24.7
Vallee-De-Mai-Shelter	76	101	75.8	126.3	NO	NO	-25.0
Vallee-De-Mai-Viewing-Lodge	84	107.2	80.4	134.0	NO	NO	-23.2

3. Daily Weather for July 2023 at the Seychelles International Airport

3.1 Daily rainfall, relative humidity, maximum and minimum temperatures in July 2023

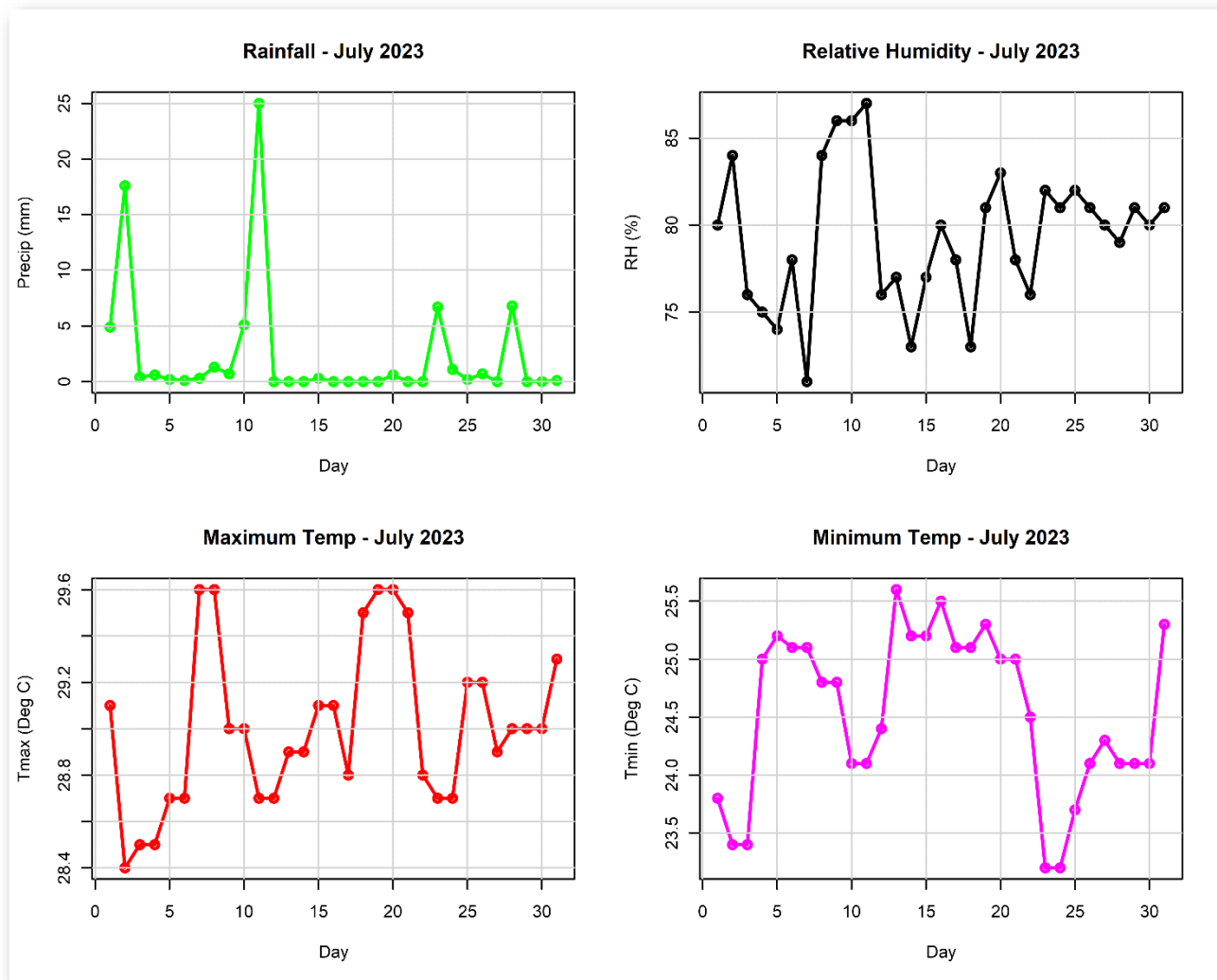


Figure 4: Daily rainfall, relative humidity, maximum and minimum temperatures in July 2023

The highest recorded daily rainfall in July at the Airport Station was 25.0mm on the 11th, with 8 dry days during the month. The daily mean Relative Humidity was significantly high above 70% (Figure 4). Daily maximum temperature generally remained above 28.4°C for the entire month with a highest temperature of 29.6°C reported on the 8-9th and 19-20th. The minimum temperature varied between 23.5°C to 25.5°C. However, a minimum temperature of 23.2°C was reported on the 23rd-24th.

3.2 Daily Sunshine hours, Mean Sea Level Pressure, and Surface wind speeds in July 2023

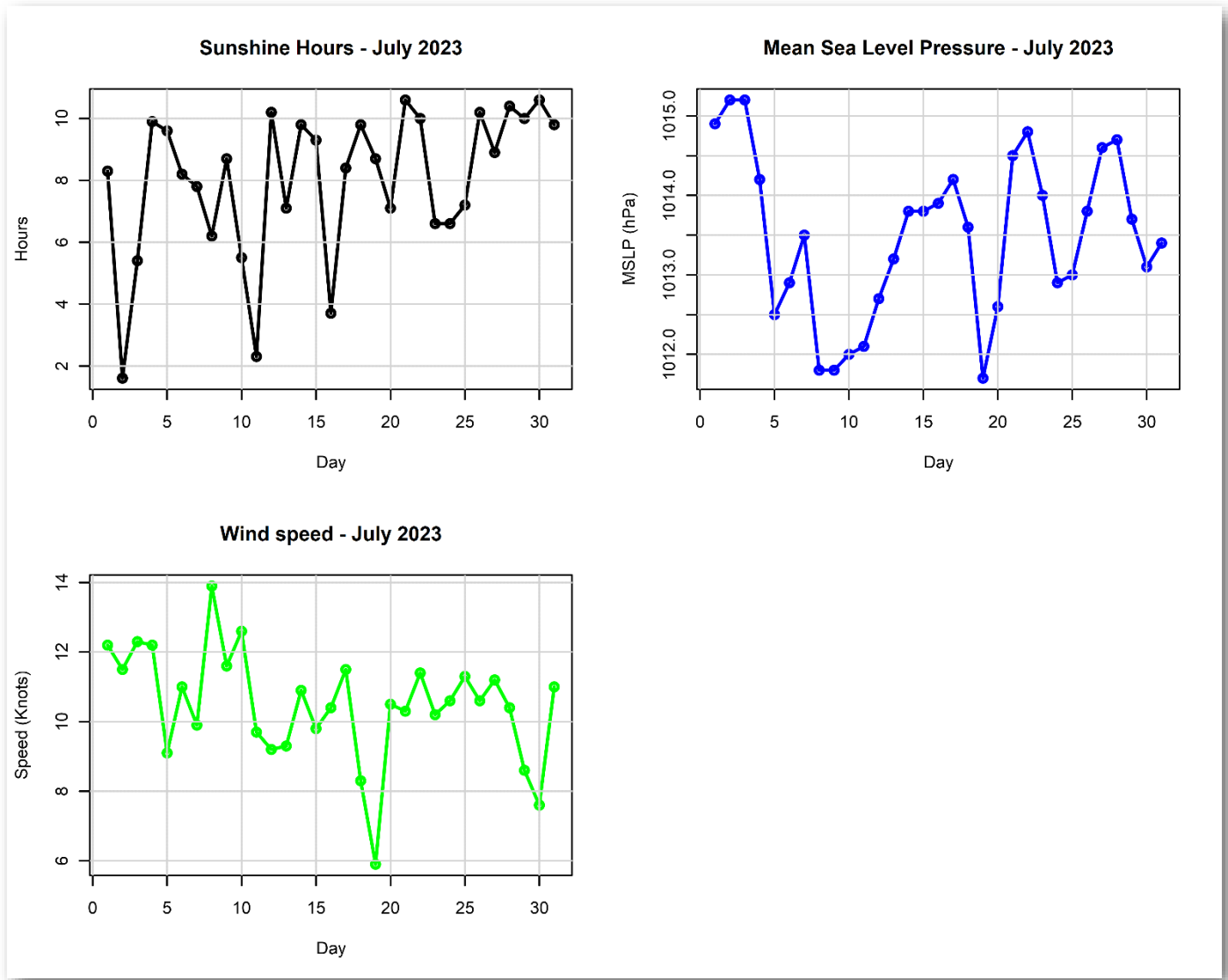


Figure 5: Daily Sunshine hours, Mean Sea Level Pressure, and Surface wind speeds in July 2023

On average, the sunshine hours were between 6-10 hours. The average wind speeds were moderate, ranging between 8-14 Knots depicting a decreasing trend while the mean sea level pressure showed a negative trend with a range of 1012-1015hPa (Figure 5).

4. Wind Patterns in July 2023

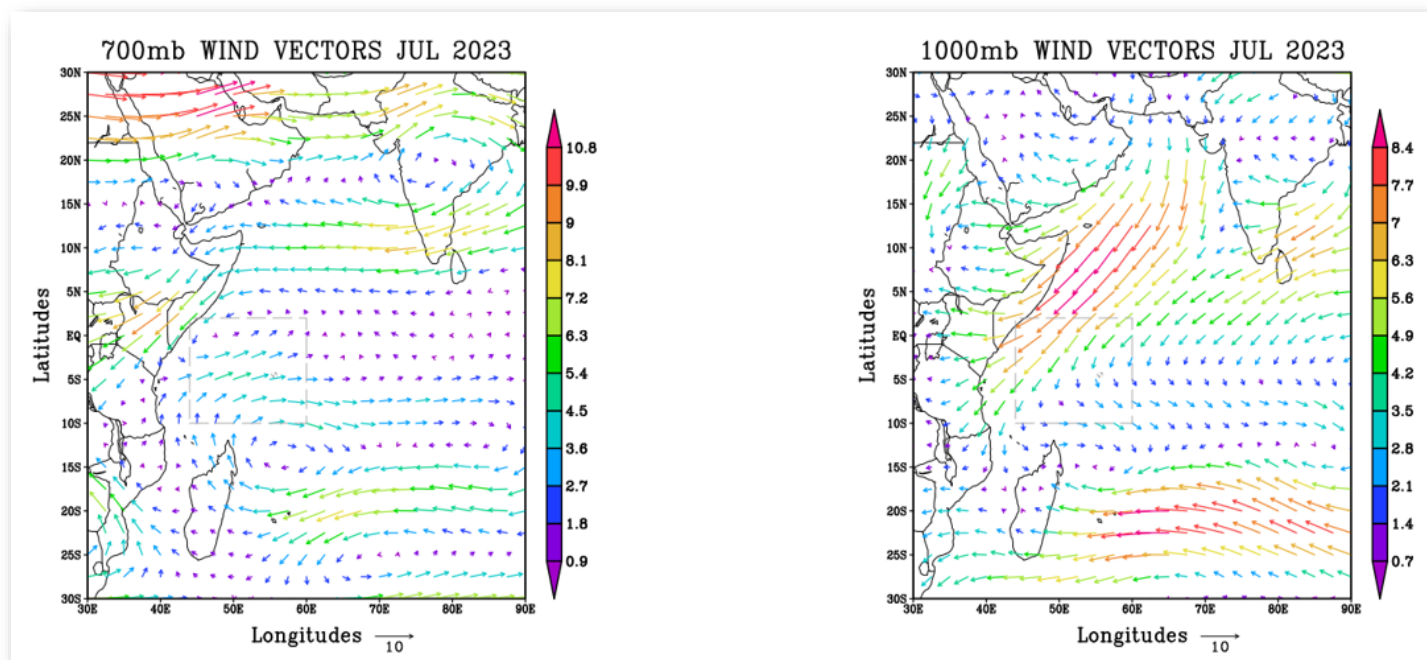


Figure 6: Wind flow at 700mb (left) and surface wind flow (right)

The analysis (Figure 6) indicates that the winds near the surface were light North-easterlies with the speed ranging between 2.1m/s to 2.8m/s. The winds to the North-west of Mahe were strong and mainly originating from the Arabian High. The trough axis extended mainly to the south-east. At the mid-levels, the Easterly winds were also light ranging between 2.7m/s to 4.5m/s. The winds to the North-west of Mahe were lighter.