

Climate and Weather Bulletin





SEYCHELLES METEOROLOGICAL AUTHORITY

April 2022 Climate and Weather Bulletin



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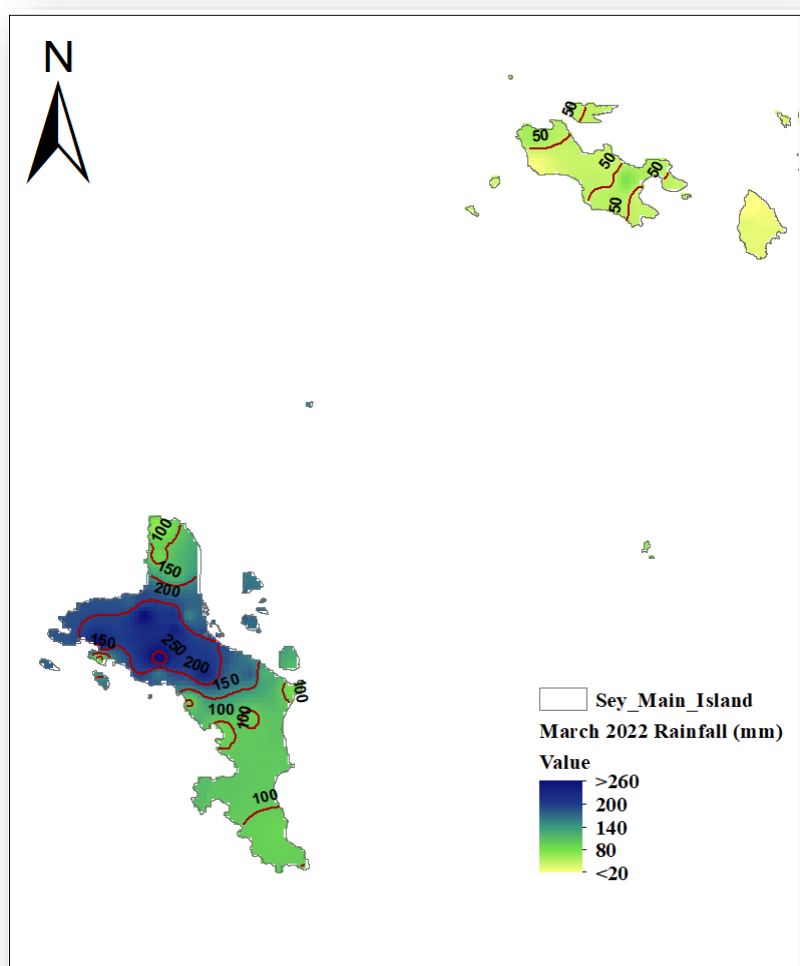
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1. Introduction

This bulletin reviews climate conditions over Mahe, Praslin, and La Digue and highlights the status of the climate systems during the month of March 2022. The basin remained under the influence of Monsoon trough pattern which was concentrated mainly to the South and occasionally strongly interrupted by the presence of tropical lows to the east. Therefore, convective activities were focused on the lows and more significant convergence zone away from the area of interest.

2. Rainfall Performance in March 2022

2.1 Spatial Rainfall Distribution for March 2022



The spatial rainfall distribution for March (Figure 1) indicates that extreme Southern and Northern Mahe, Praslin as well as La Digue were drier with rainfall amounts below 150mm compared to Central Mahe which recorded rainfall between 150 -270mm in March. The highest rainfall amounting to 274mm was recorded at the Tea Factory Morne-Blanc station. On Praslin Island, the maximum was 80mm recorded at Fond B'offay station and, on La Digue, Belvue and Main Pumping station (PUC) at Anse Reunion recorded a maximum of 36.4mm. An overall minimum of 18.8mm was reported at La Digue Desalination Station.

Figure 1: March 2022 Spatial Rainfall Distribution

Rainfall recorded at the 37 stations (Figure 2) was significantly below the long-term mean rainfall for March with the exception of Port Launay Waterwork (PUC) and Tea Factory Morne Blanc stations that exceeded the long-term mean. The basin remained under the influence of Monsoon trough pattern which was strongly interrupted by the presence of tropical cyclones/lows along its southern edge. Therefore, convective activities was focused on the systems South of Mahe and the Inner Islands.

Most areas reported less than 50% rainfall with the exception of the North West region of Mahe where the rainfall reported was more than 100% of their long term mean (Figure 3).

Table 1 summarizes March rainfall performance. 23 stations of the 37 reported Below-Normal rainfall with significantly high negative anomalies. 13 stations reported Near-Normal rainfall with only Port Launay Waterwork (PUC) which recorded Above-Average rainfall for March. Generally, the monthly rainfall performance was Near-Normal to Below-Normal.

2.2 March Rainfall Totals Compared to Long-Term Mean

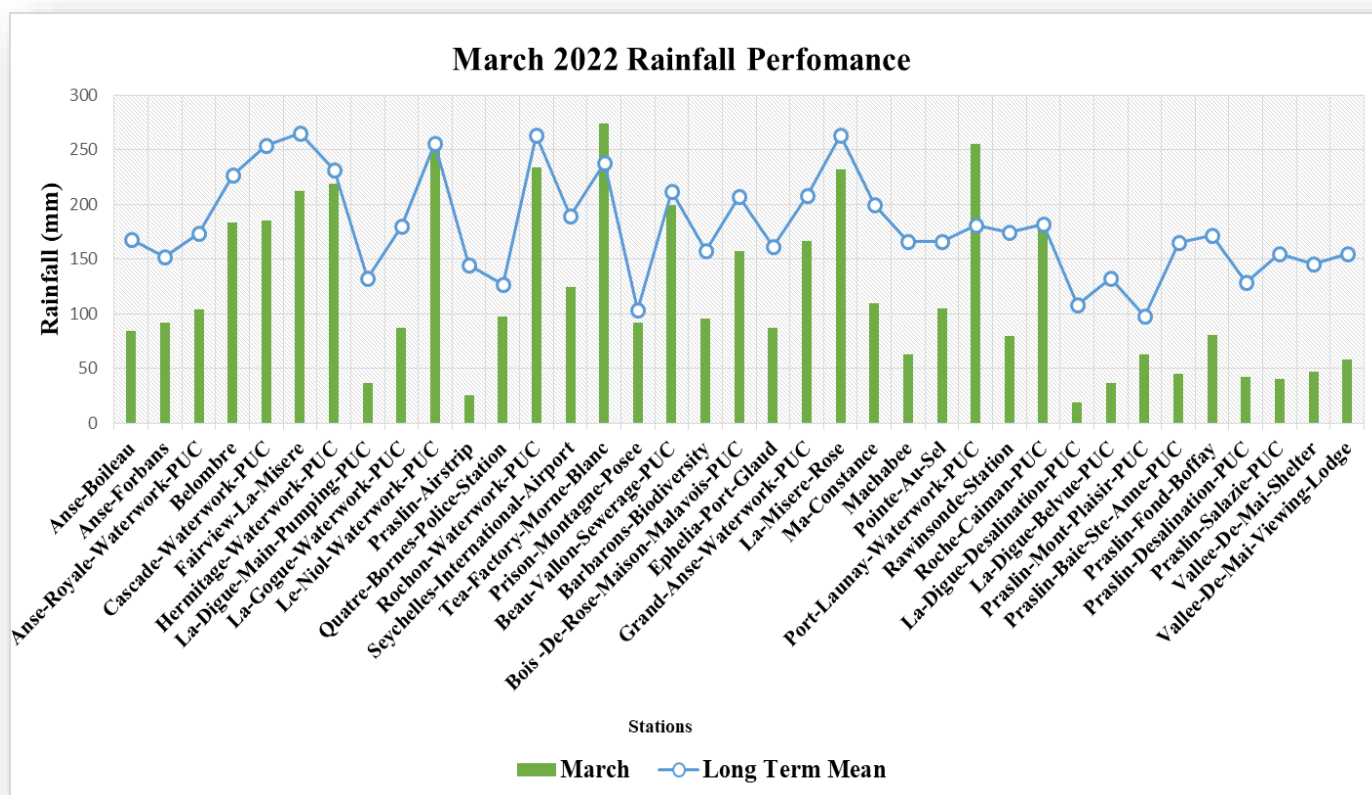


Figure 2: March 2022 rainfall totals compared to the long-term mean

2.3 Percentage of Mean Rainfall for March 2022

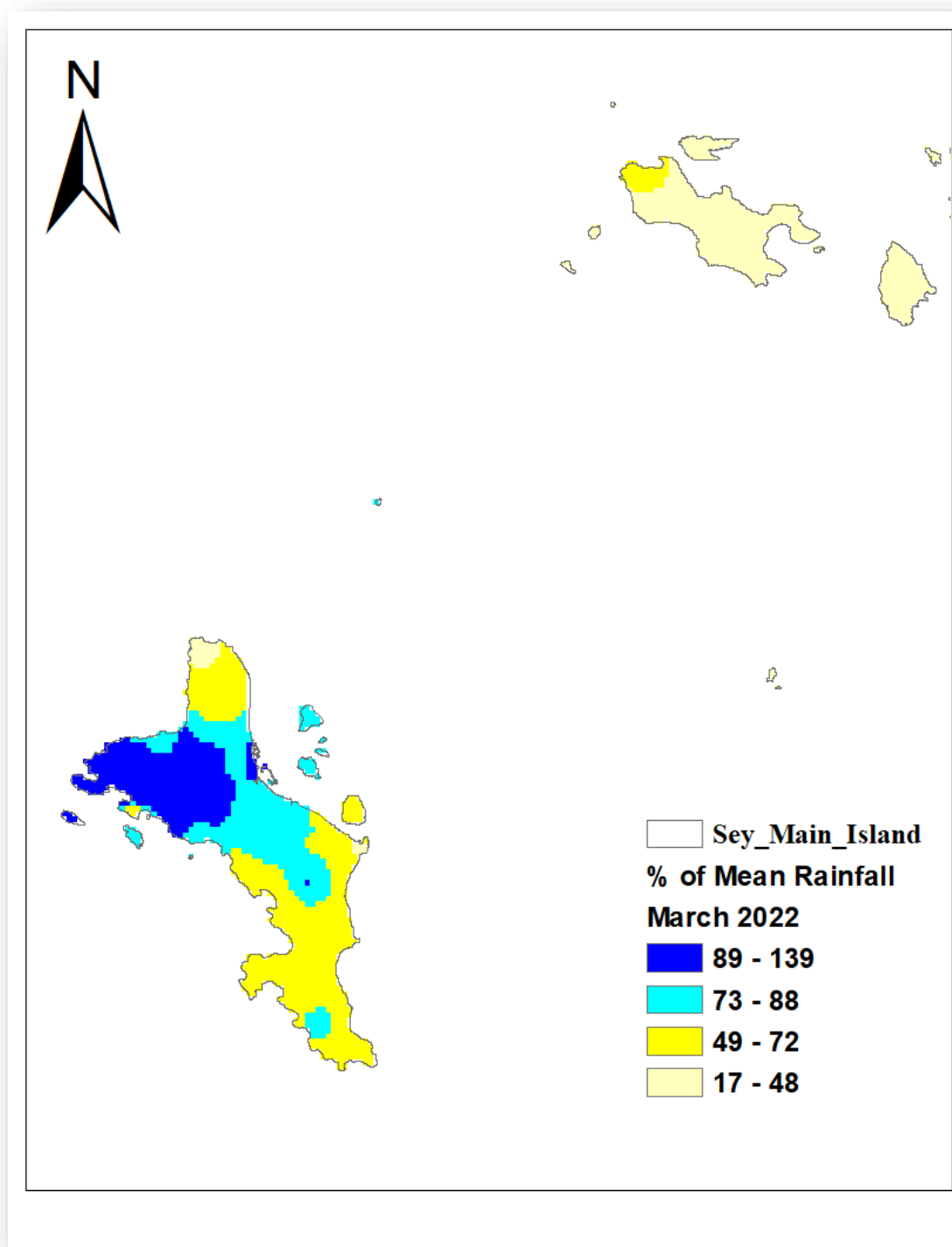


Figure 3: Percentage of mean Rainfall for March 2022



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Table 1: Rainfall performance in March

Stations	March	Long Term Mean	BN	AN	BN?	AN?	Anomalies
Anse-Boileau	84.2	167.8	125.85	209.75	YES	NO	-83.6
Anse-Forbans	91.8	151.5	113.625	189.375	YES	NO	-59.7
Anse-Royale-Waterwork-PUC	104.2	173	129.75	216.25	YES	NO	-68.8
Belombre	182.8	226.3	169.725	282.875	NO	NO	-43.5
Cascade-Waterwork-PUC	184.7	253.3	189.975	316.625	YES	NO	-68.6
Fairview-La-Misere	212.5	265.4	199.05	331.75	NO	NO	-52.9
Hermitage-Waterwork-PUC	218.7	231.4	173.55	289.25	NO	NO	-12.7
La-Digue-Main-Pumping-PUC	36.4	132.1	99.075	165.125	YES	NO	-95.7
La-Gogue-Waterwork-PUC	87	179.7	134.775	224.625	YES	NO	-92.7
Le-Niol-Waterwork-PUC	253.1	255.9	191.925	319.875	NO	NO	-2.8
Praslin-Airstrip	25.7	144.2	108.15	180.25	YES	NO	-118.5
Quatre-Bornes-Police-Station	96.8	126.8	95.1	158.5	NO	NO	-30.0
Rochon-Waterwork-PUC	233.9	262.9	197.175	328.625	NO	NO	-29.0
Seychelles-International-Airport	124.1	189.3	141.975	236.625	YES	NO	-65.2
Tea-Factory-Morne-Blanc	274	238.3	178.725	297.875	NO	NO	35.7
Prison-Montagne-Posee	92.1	103.1	77.325	128.875	NO	NO	-11.0
Beau-Vallon-Sewerage-PUC	198.8	212	159	265	NO	NO	-13.2
Barbarons-Biodiversity	95.7	157.1	117.825	196.375	YES	NO	-61.4
Bois -De-Rose-Maison-Malavois-PUC	157.2	207.1	155.325	258.875	NO	NO	-49.9
Ephelia-Port-Glaud	87.1	161.4	121.05	201.75	YES	NO	-74.3
Grand-Anse-Waterwork-PUC	166.4	208.4	156.3	260.5	NO	NO	-42.0
La-Misere-Rose	231.7	263.4	197.55	329.25	NO	NO	-31.7
Ma-Constance	109.8	200	150	250	YES	NO	-90.2
Machabee	63	166.2	124.65	207.75	YES	NO	-103.2
Pointe-Au-Sel	104.9	166.3	124.725	207.875	YES	NO	-61.4
Port-Launay-Waterwork-PUC	255.6	181	135.75	226.25	NO	YES	74.6
Rawinsonde-Station	79.8	174.1	130.575	217.625	YES	NO	-94.3
Roche-Caiman-PUC	180.3	181.8	136.35	227.25	NO	NO	-1.5
La-Digue-Desalination-PUC	18.8	108.2	81.15	135.25	YES	NO	-89.4
La-Digue-Belvue-PUC	36.4	132.1	99.075	165.125	YES	NO	-95.7
Praslin-Mont-Plaisir-PUC	63.1	97.8	73.35	122.25	YES	NO	-34.7
Praslin-Baie-Ste-Anne-PUC	44.6	165	123.75	206.25	YES	NO	-120.4
Praslin-Fond-Boffay	80	171.7	128.775	214.625	YES	NO	-91.7
Praslin-Desalination-PUC	41.8	128.2	96.15	160.25	YES	NO	-86.4
Praslin-Salazie-PUC	40.7	154.6	115.95	193.25	YES	NO	-113.9
Vallee-De-Mai-Shelter	47	145.8	109.35	182.25	YES	NO	-98.8
Vallee-De-Mai-Viewing-Lodge	58	155	116.25	193.75	YES	NO	-97.0

3. Daily Weather for March 2022 at the Seychelles International Airport

3.1 Daily rainfall, relative humidity, maximum and minimum temperatures in March 2022

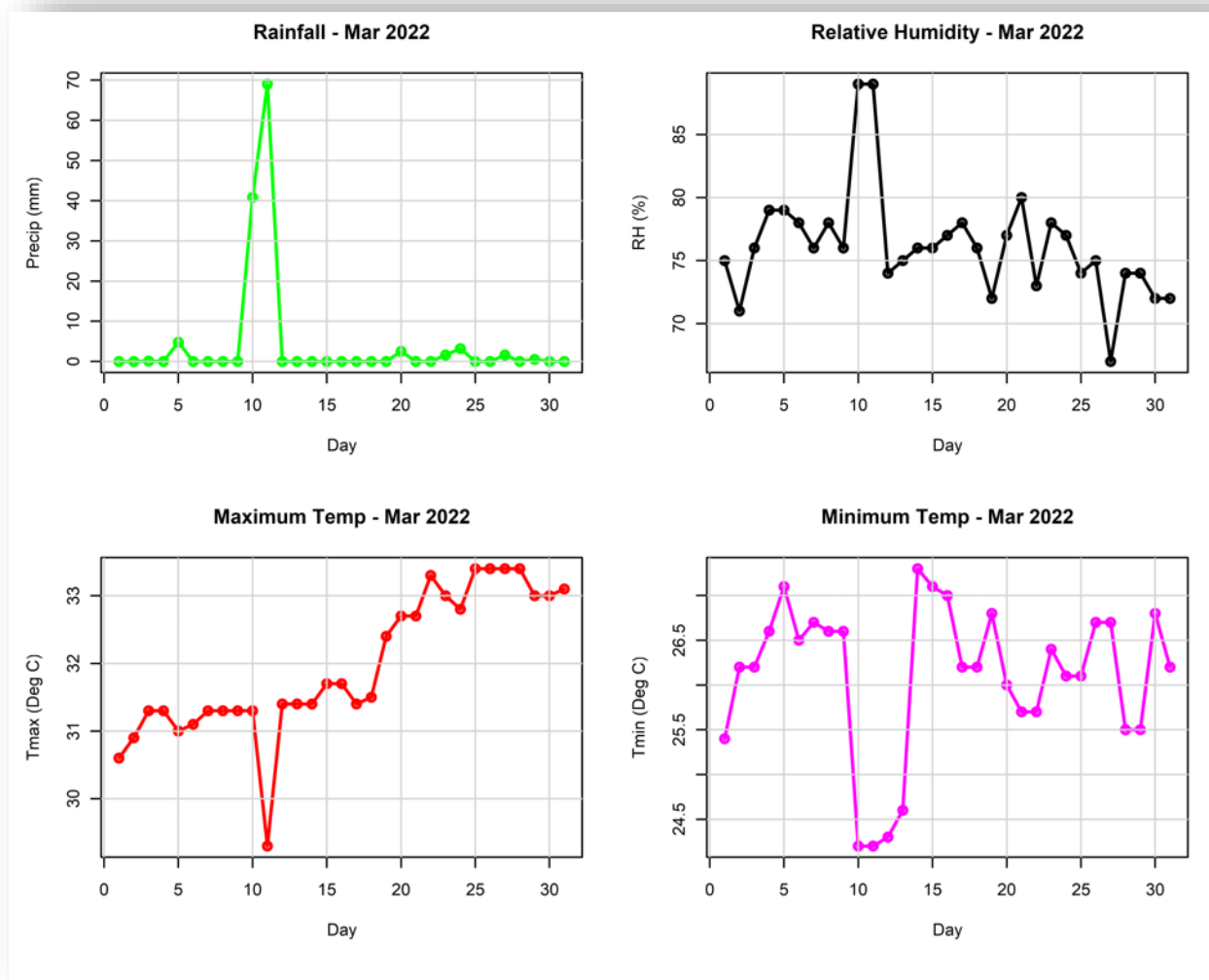


Figure 4: Daily rainfall, relative humidity, maximum and minimum temperatures in March 2022

The highest recorded daily rainfall in March at the Airport Station was 69.0mm recorded on the 11th, with 16 dry days during the month. The daily mean Relative Humidity was below 80% for a better part of the month indicating fairly dry conditions with the lowest relative humidity of 67% recorded on the 27th (Figure 4). Daily maximum temperature mostly remained above 31°C and continued to increase to above 32°C during the second half of the month. Meanwhile the minimum temperature exceeded 25°C except for a few days from the 10th – 13th due to the increase in cloud coverage when a minimum of 24.2°C was recorded on the 11th and 12th.

3.2 Daily solar Radiation, Sunshine hours, Mean Sea Level Pressure, and Surface wind speeds in March 2022

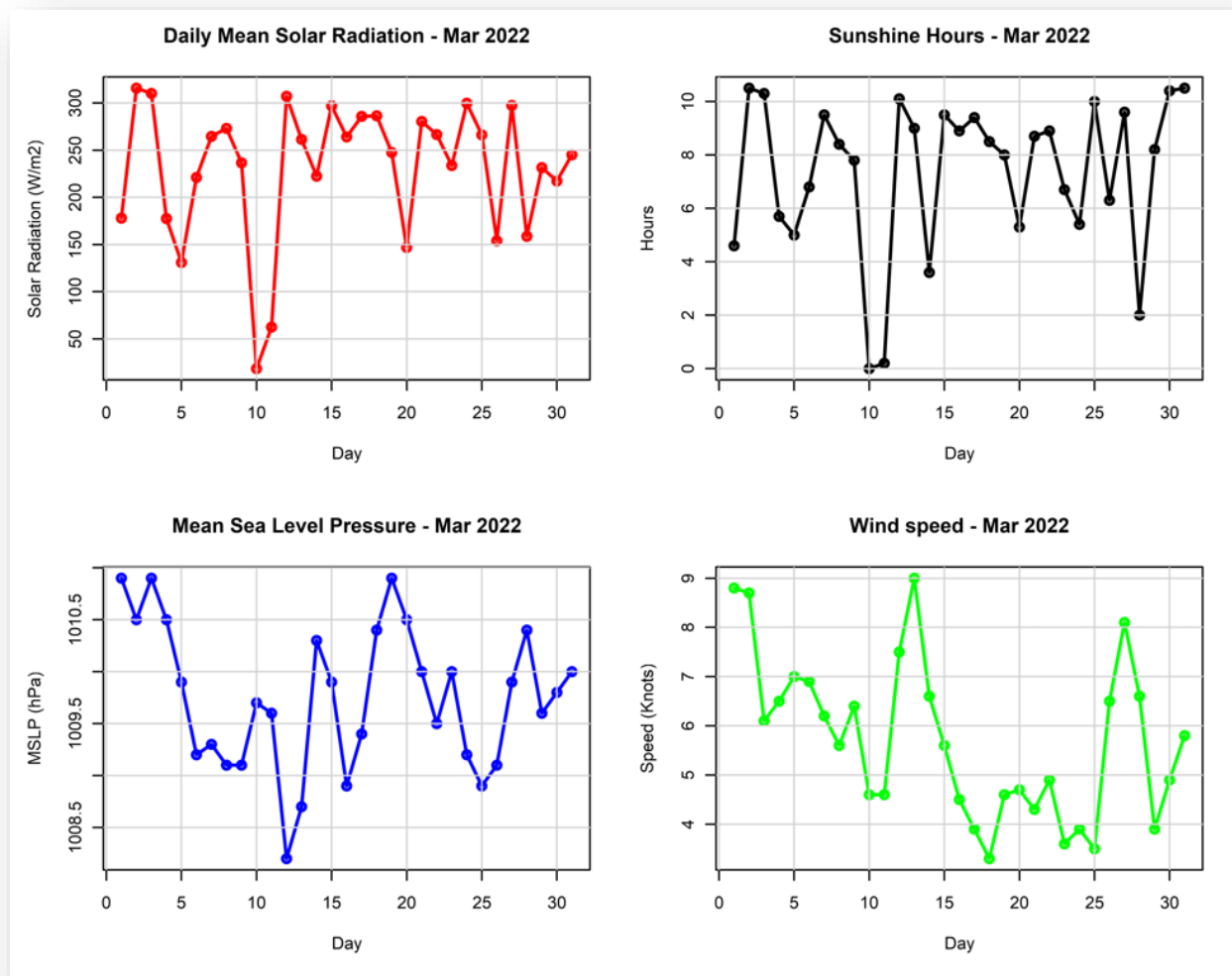


Figure 5: Daily solar Radiation, Sunshine hours, Mean Sea Level Pressure, and Surface wind speeds in March 2022

The mean solar radiation during March remained mostly above 150 W/m² with an average of 230.9 W/m². The maximum daily sunshine hours was 10.5 hrs recorded on the 31st and 2nd of March. Mean sea level pressure varied between 1008.0 – 1010.5 Hpa. However, the lowest atmospheric pressure was 1008.2 recorded on the 12th. The wind speed was moderate to light throughout the month with a maximum of 9.0 knots and minimum of 3.3 knots (Figure 5).

4. Wind Patterns in March 2022

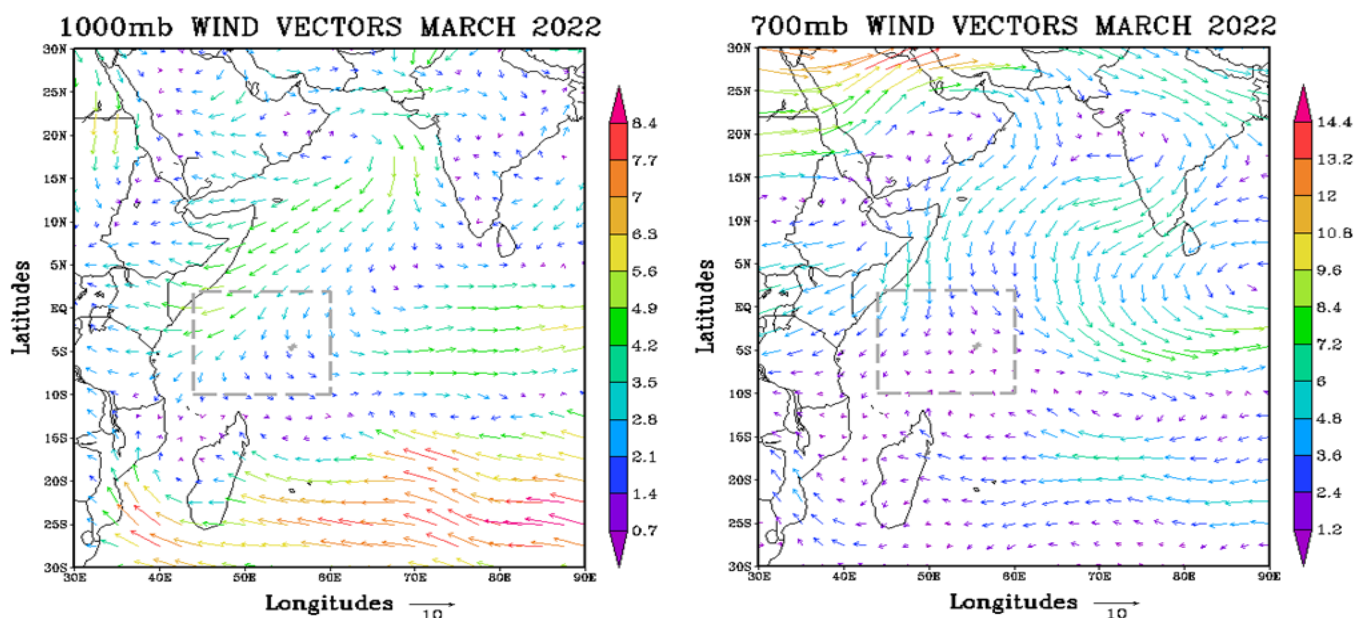


Figure 6: Surface wind flow (left) and wind flow at 700mb (right)

The analysis (Figure 6) indicates that the winds near the surface were mainly light North-westerlies ranging between 2 - 4m/s and converging mainly to the South between 10°S and 15°S across the Indian Ocean. Strong convergence is also present to the far northeast near the southern tip of the Asian continent. An extension of the trough axis from the Northeast towards the forecast area is also evident.

The winds at the steering level (700mb) were light North-westerly with a speed of less than 4m/s. The Inter-Tropical Convergence Zone remained to the South. The winds were originating from the weak Arabian High and were of a diffluent nature in both levels thus explaining the reason of the depressed rainfall over Seychelles in the month of March.