

July 2021 Weather Review





SEYCHELLES METEOROLOGICAL AUTHORITY

August 2021 Climate and Weather Bulletin



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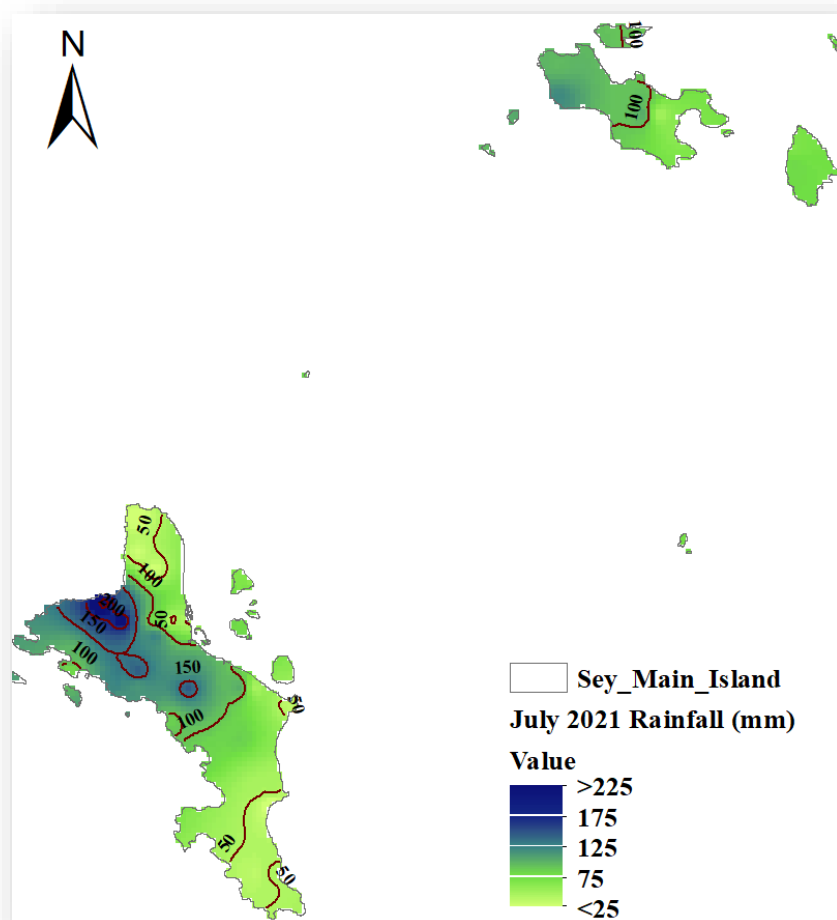
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1. Introduction

This bulletin reviews climate conditions over Mahe, Praslin, and La Digue and highlights the status of the climate systems during the month of July 2021. July was a generally dry month, the trough axis remained active slightly to the North. Increased atmospheric instability over the eastern part of the Indian Ocean basin as well the negative Indian Ocean Dipole underway lead to reduced precipitation activities over Mahe and the inner islands.

2. Rainfall Performance in July 2021

2.1 Spatial Rainfall Distribution for July 2021



The spatial rainfall distribution for July (Figure 1) indicates that most stations recorded less than 150 mm of rainfall, with only stations to the Western Mahe that reported rainfall exceeding 150mm. The highest rainfall amounting to 266.3 mm was recorded at Belombre station. Over Praslin, a maximum of 138.2 mm was recorded at the Praslin Airstrip station and, in La-Digue Belvue PUC station, a maximum of 96.6mm was recorded. The minimum rainfall amount of 20.8 was reported at Anse Royale Police Station.

Figure 1: July 2021 Spatial Rainfall Distribution

Comparing the rainfall recorded at the 38 stations to their respective long-term mean during the month of July (Figure 2) shows relatively drier than average conditions. However, 13 stations got fairly more than their monthly mean rainfall for July. In July, the reduction in rainfall amounts was attributed to the shift of the trough axis to the North due to the intensification of the Mascarene high and active eastern side of the Indian Ocean basin. 6 stations, surpassed their long-term means by over 125% (Figure 3).

Table 1 summarizes July's rainfall performance. Out of the 38 stations, 14 recorded Below Normal rainfall with relatively high negative anomalies. 18 stations recorded Near-Normal and 6 Above-Normal (Table 1). Therefore, it was clear that overall the month of July got Near-Normal rainfall with a bias towards Below-Normal rainfall.

2.2 July Rainfall Totals Compared to Long-Term Mean

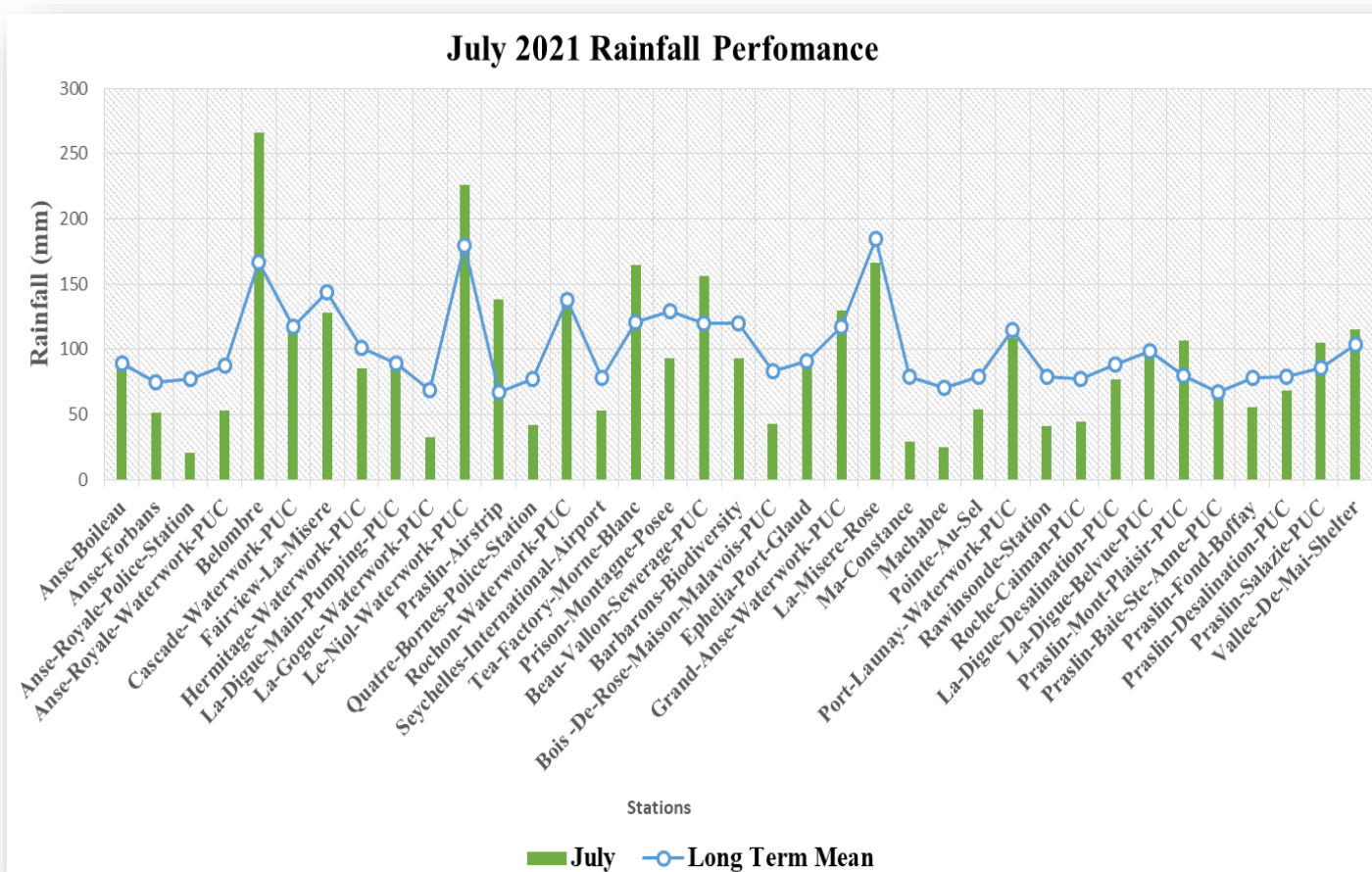


Figure 2: July 2021 Rainfall totals compared to the long-term mean

2.3 Percentage of Mean Rainfall for July 2021

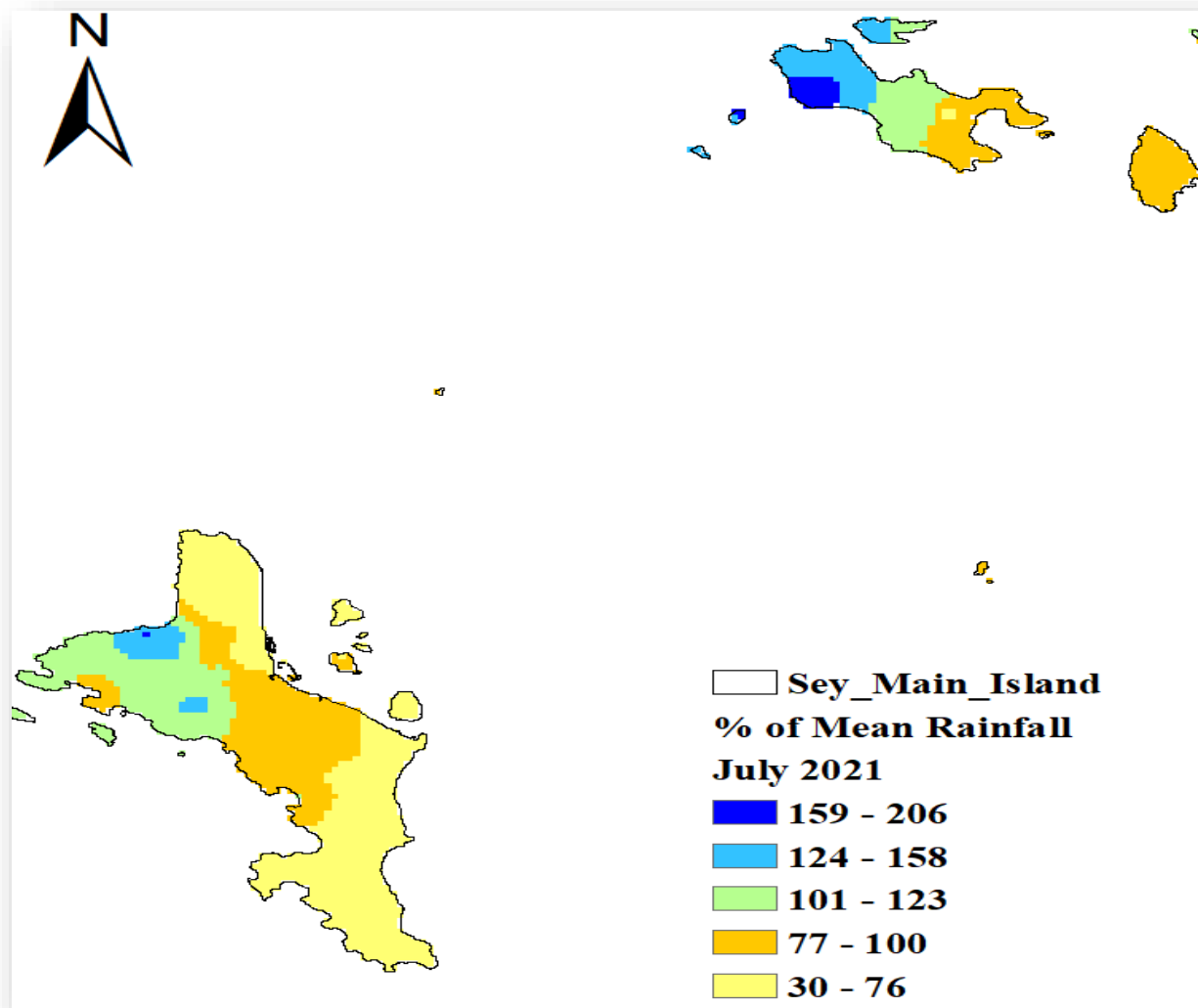


Figure 3: Percentage of mean Rainfall for July 2021



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Table 1: Rainfall performance in July

Stations	July	Long Term Mean	BN	AN	BN?	AN?	Anomalies
Anse-Boileau	89.9	88.9	66.675	111.125	NO	NO	1.0
Anse-Forbans	51.5	74.9	56.175	93.625	YES	NO	-23.4
Anse-Royale-Police-Station	20.8	77.6	58.2	97	YES	NO	-56.8
Anse-Royale-Waterwork-PUC	53.3	87.8	65.85	109.75	YES	NO	-34.5
Belombre	266.3	167.2	125.4	209	NO	YES	99.1
Cascade-Waterwork-PUC	115.1	117.5	88.125	146.875	NO	NO	-2.4
Fairview-La-Misere	128.4	143.5	107.625	179.375	NO	NO	-15.1
Hermitage-Waterwork-PUC	85.7	101.1	75.825	126.375	NO	NO	-15.4
La-Digue-Main-Pumping-PUC	88.5	89.1	66.825	111.375	NO	NO	-0.6
La-Gogue-Waterwork-PUC	32.5	68.7	51.525	85.875	YES	NO	-36.2
Le-Niol-Waterwork-PUC	226.2	179.2	134.4	224	NO	YES	47.0
Praslin-Airstrip	138.2	66.7	50.025	83.375	NO	YES	71.5
Quatre-Bornes-Police-Station	42.2	77.6	58.2	97	YES	NO	-35.4
Rochon-Waterwork-PUC	142.9	137.7	103.275	172.125	NO	NO	5.2
Seychelles-International-Airport	53	78.4	58.8	98	YES	NO	-25.4
Tea-Factory-Morne-Blanc	164.3	121.2	90.9	151.5	NO	YES	43.1
Prison-Montagne-Posee	93.1	129.1	96.825	161.375	YES	NO	-36.0
Beau-Vallon-Sewerage-PUC	155.9	120.1	90.075	150.125	NO	YES	35.8
Barbarons-Biodiversity	92.7	120	90	150	NO	NO	-27.3
Bois -De-Rose-Maison-Malavois-PUC	42.7	83.5	62.625	104.375	YES	NO	-40.8
Ephelia-Port-Glaud	86.9	90.9	68.175	113.625	NO	NO	-4.0
Grand-Anse-Waterwork-PUC	129.7	117.3	87.975	146.625	NO	NO	12.4
La-Misere-Rose	166.8	185.1	138.825	231.375	NO	NO	-18.3
Ma-Constance	29.5	78.8	59.1	98.5	YES	NO	-49.3
Machabee	24.9	70.1	52.575	87.625	YES	NO	-45.2
Pointe-Au-Sel	54.2	79	59.25	98.75	YES	NO	-24.8
Port-Launay-Waterwork-PUC	108.5	114.8	86.1	143.5	NO	NO	-6.3
Rawinsonde-Station	41.3	79.2	59.4	99	YES	NO	-37.9
Roche-Caiman-PUC	44.7	77	57.75	96.25	YES	NO	-32.3
La-Digue-Desalination-PUC	76.7	88.2	66.15	110.25	NO	NO	-11.5
La-Digue-Belvue-PUC	96.6	98.5	73.875	123.125	NO	NO	-1.9
Praslin-Mont-Plaisir-PUC	106.6	80.1	60.075	100.125	NO	YES	26.5
Praslin-Baie-Ste-Anne-PUC	71	67	50.25	83.75	NO	NO	4.0
Praslin-Fond-Boffay	55.2	78.1	58.575	97.625	YES	NO	-22.9
Praslin-Desalination-PUC	68	79.4	59.55	99.25	NO	NO	-11.4
Praslin-Salazie-PUC	105.3	85.9	64.425	107.375	NO	NO	19.4
Vallee-De-Mai-Shelter	115.2	103.9	77.925	129.875	NO	NO	11.3
Vallee-De-Mai-Viewing-Lodge	129.1	109.3	81.975	136.625	NO	NO	19.8

3. Daily Weather for July 2021 at the Seychelles International Airport

3.1 Daily rainfall, relative humidity, maximum, and minimum temperatures in July 2021

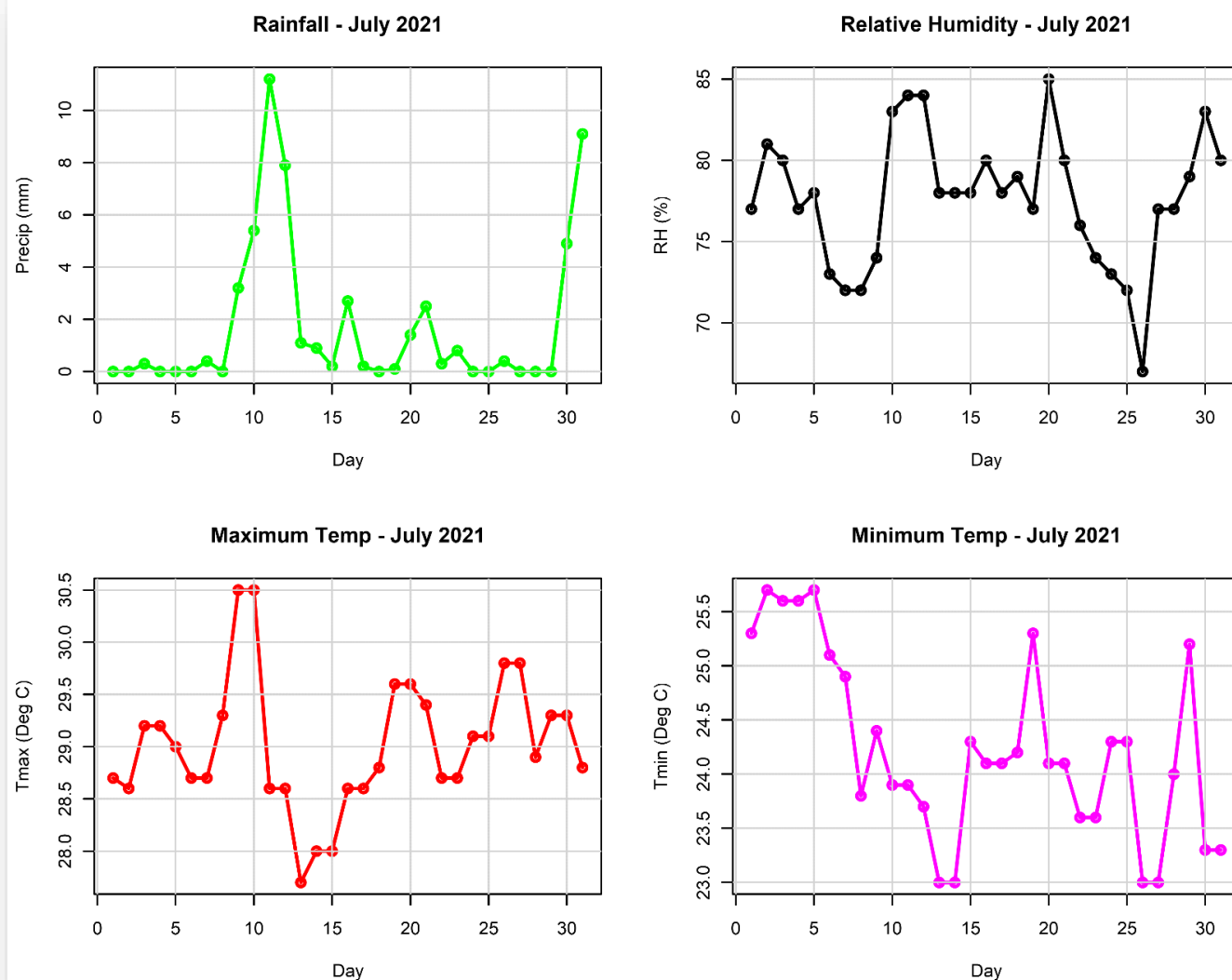


Figure 4: Daily rainfall, relative humidity, maximum and minimum temperatures in July 2021

The highest recorded daily rainfall in July at the Airport Station was 11.2 mm on the 11th, with 5 dry days during the month. The Relative Humidity remained high, above 70%, throughout the month. The daily maximum temperature generally remained above 28.0°C for the entire month, with the highest at 30.5°C reported on the 9th and 10th. The minimum temperature varied between 23°C to 26°C, with the lowest of 23.0°C reported on 13th, 14th, 26th and 27th. At the same time, the highest of 27.5°C was registered on 2nd and 5th.

3.2 Daily solar Radiation, Sunshine hours, Mean Sea Level Pressure, and Surface wind speeds in July 2021

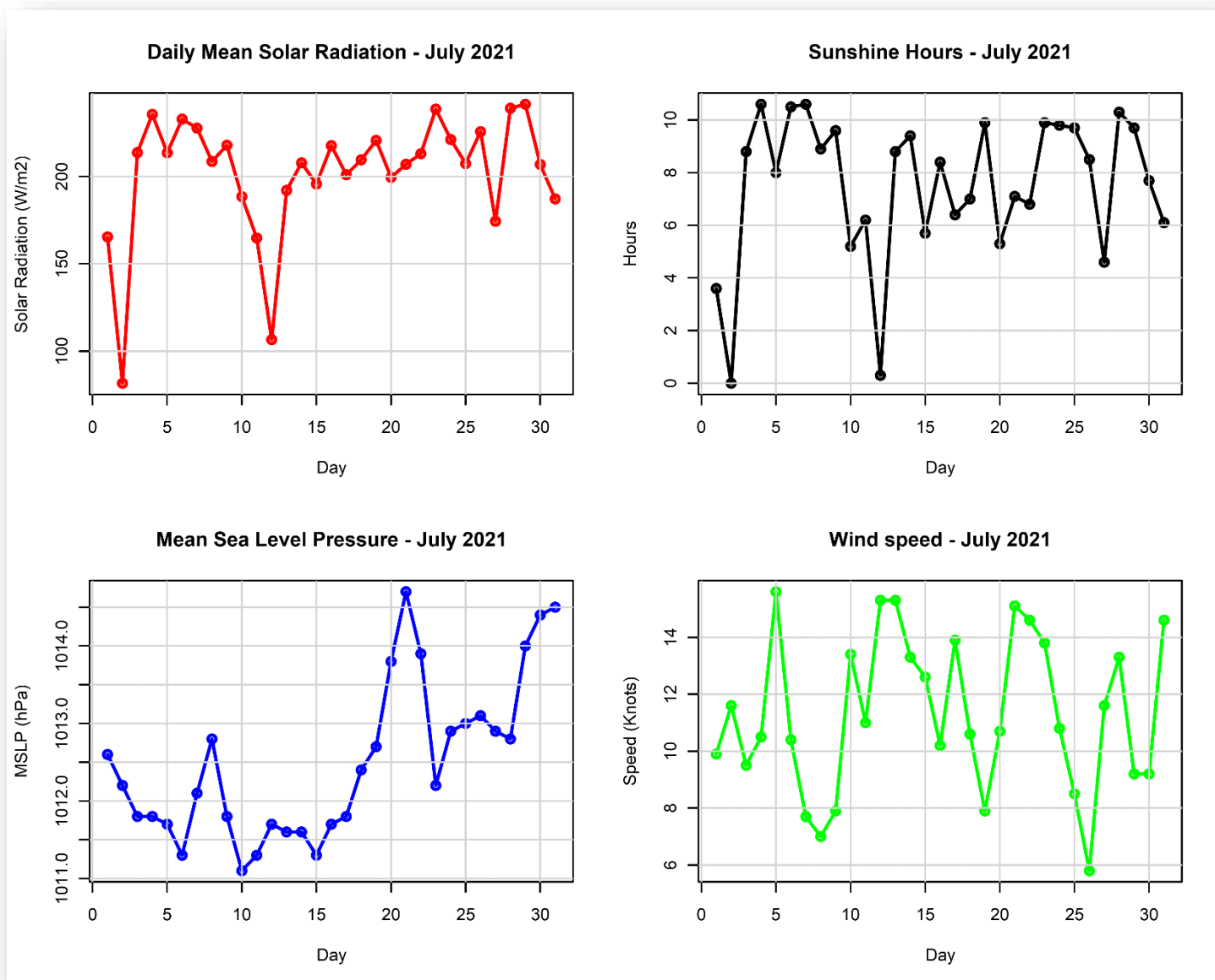


Figure 5: Daily solar Radiation, Sunshine hours, Mean Sea Level Pressure, and Surface wind speeds in July 2021

On average, the mean solar radiation during the month of July mainly remained above 150 W/m2, and the diurnal variation closely matched the sunshine hours. A gradual increase in the wind speeds was reported with moderate wind strength ranging between 6-15 Knots. The mean sea level pressure showed a positive trend with a range of 1011.1-1014.7hPa (Figure 5).

4. Wind Patterns in July 2021

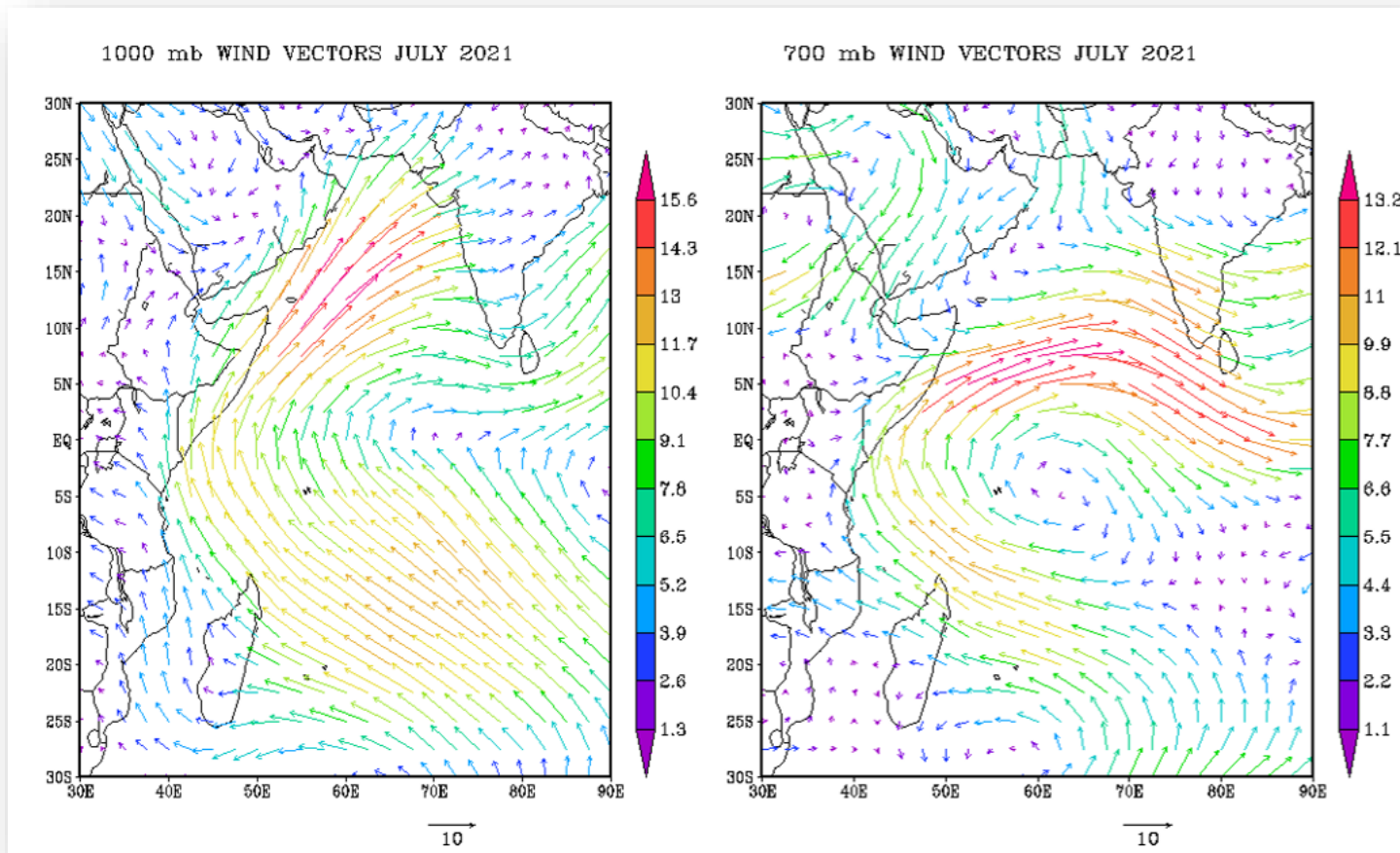


Figure 6: Surface wind flow (left) and wind flow at 700mb (right)

The analysis (Figure 6) indicates that at the surface, a trans-equatorial flow of moderate South-easterlies ranging between 5-14m/s and a trough axis forming slightly to the North. Strong convergence is present to the northeast as the winds cross the equator. The pattern at the middle levels also indicated a cyclonic circulation spanning through 55°-70° longitude.