

## **March 2021 Weather Review**





# SEYCHELLES METEOROLOGICAL AUTHORITY

## April 2021 Climate and Weather Bulletin



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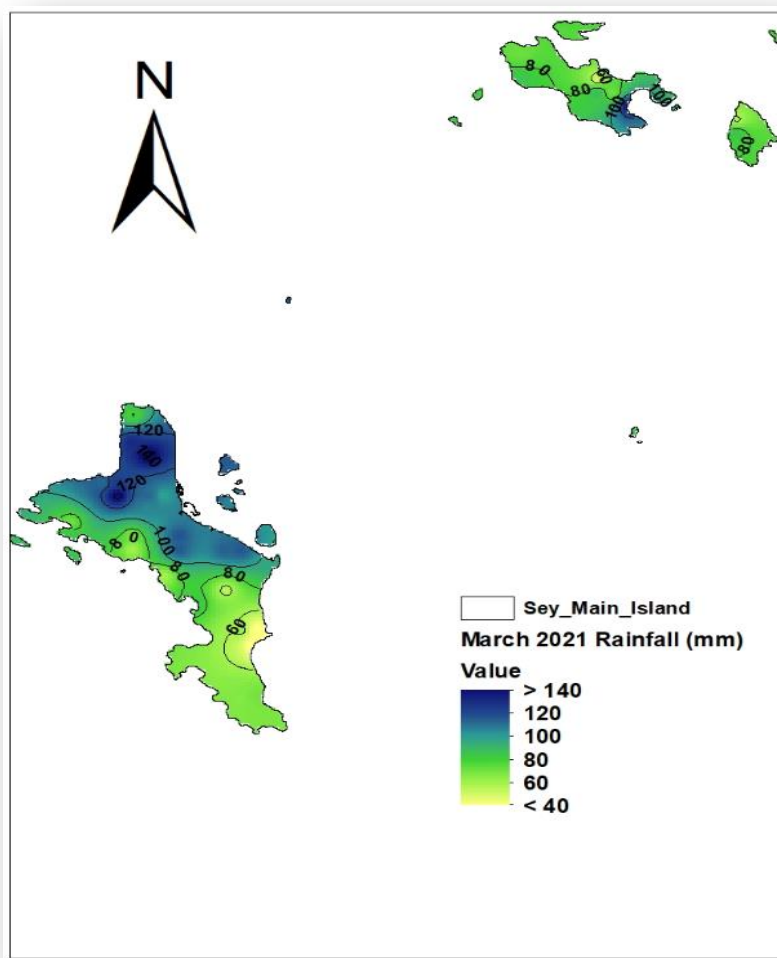
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## 1.0 INTRODUCTION

This bulletin reviews climate conditions over *Mahe, Praslin, and La Digue* and highlights the status of the climate systems during the month of March 2021. March was a generally dry month, the monsoon trough remained more active to the east, leaving Mahe and the Inner Islands in a relatively dry zone. Meanwhile the Tropical Cyclone season remained active with three Cyclones forming within the Southwest Indian Ocean basin. On the 1<sup>st</sup> of March Severe Tropical Cyclone Marian briefly entered the basin from the Australian region before tracking back towards the east the following day. This was followed by the formation of Intense Tropical Cyclone Habana (2<sup>nd</sup> to 16<sup>th</sup> March) and Moderate tropical storm Iman (2<sup>nd</sup> to 8<sup>th</sup> March).

## 2.0 RAINFALL PERFORMANCE IN MARCH 2021

### 2.1 Spatial Rainfall Distribution



Rainfall amounts continued to drop in March as the rainy season slowly approaches its end. The spatial map (Figure 1) shows an uneven distribution over the three main Islands. The Northern region of Mahe received most of the rainfall with Ma Constance station reporting a maximum of 144.1 mm. The minimum was reported at Anse Royale police station with 39.3 mm. However, Praslin and La Digue recorded the most significant drop when compared to February. Baie St. Anne on Praslin recorded a maximum of 136.3 mm and Belvue on La Digue reported a maximum of 97.0 mm. Both Islands recorded maximums well above 400 mm in February.

Figure 1: March 2021 Spatial Rainfall Distribution

### 2.2 March rainfall totals compared to the long-term mean

The reduction in rainfall for the month of March is highlighted in figure 2 below. None of the 37 stations managed to exceed their respective long term mean rainfall amount, with most stations recording significant departures from their normal rainfall for this period of the year. The extent of the drop was more apparent over the southern part of Mahe. For example, Anse Royale police station which recorded the lowest rainfall amount of 39.3 mm has a long term mean of 157.8 mm for March; this represents a 75% reduction. The pattern was similar for all stations, however Praslin fared much better with the desalination station recording only 6% reduction from the long-term mean.

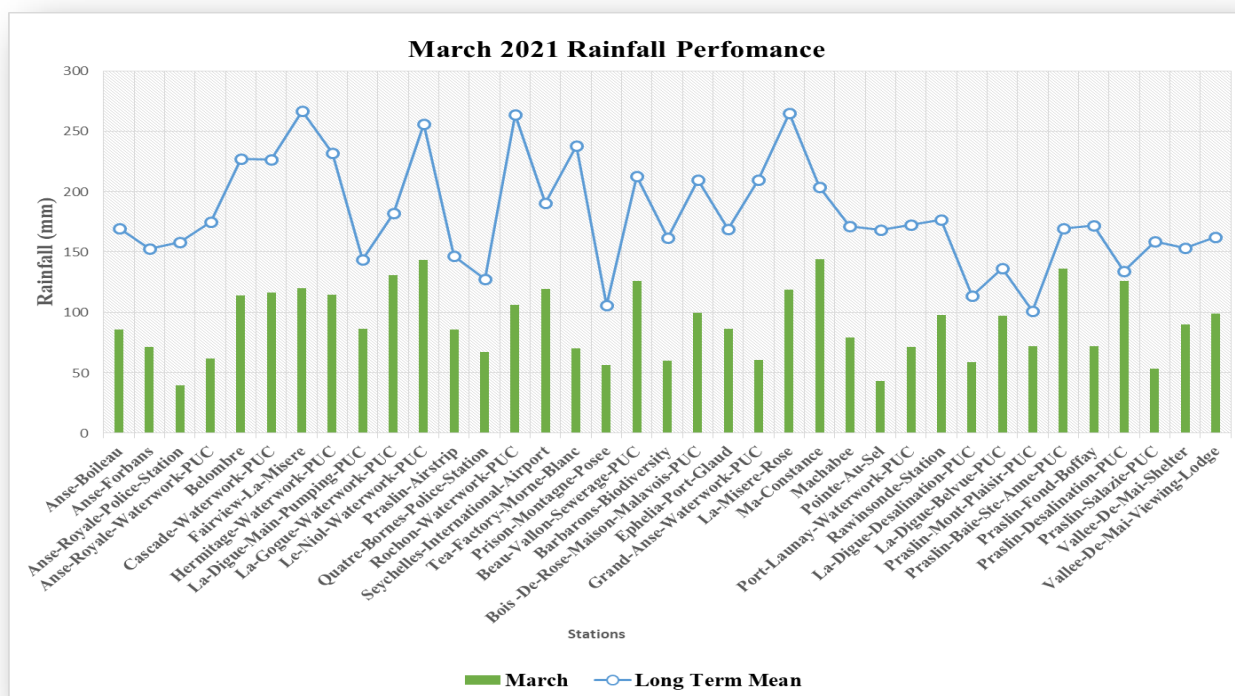
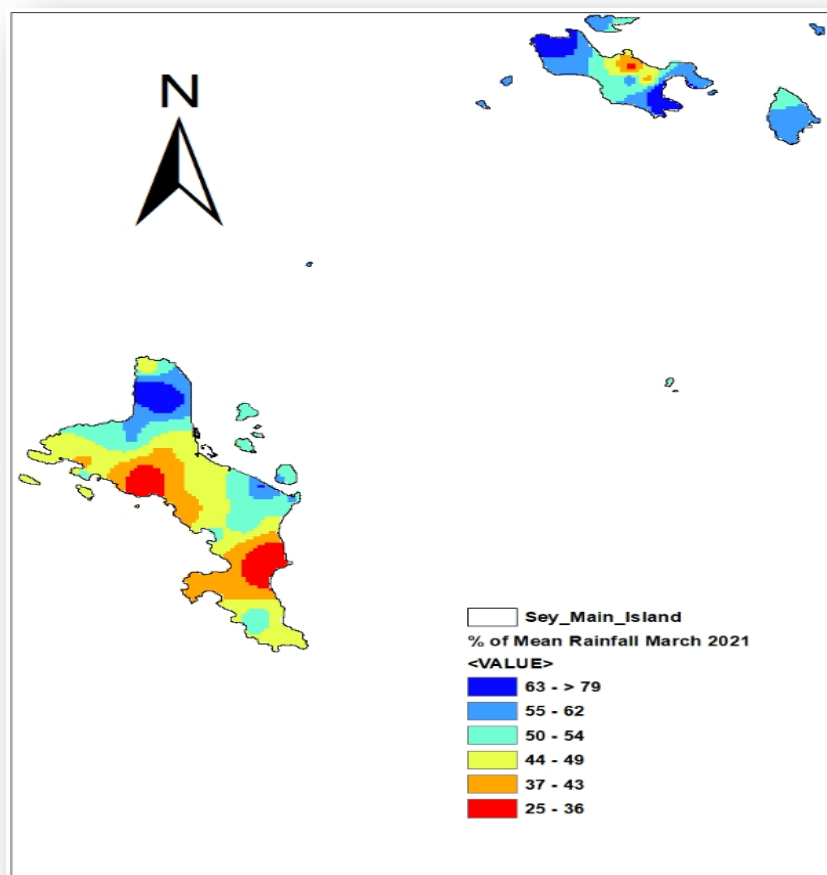


Figure 2: March 2021 rainfall totals compared to long-term mean

### 2.3 Percentage of mean Rainfall for March 2021



*Figure 3: Percentage of mean Rainfall for March 2021*

As can be seen on figure 3 above, most stations on Mahe recorded rainfall amounts less than 50% of the normal rainfall. Despite the low amount, the northern part of Mahe, Praslin and La Digue performed better with most of the stations, exceeding the 50% mark. However, none of the stations managed to record 100%, the closest was the desalination station on Praslin. This is again an indication that the month of March was a very dry month.



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STATION	MARCH	LTM	BN	AN	BN?	AN?	ANOMALIES
Anse-Boileau	86	169.7	127.3	212.1	YES	NO	-83.7
Anse-Forbans	71.1	152.8	114.6	191.0	YES	NO	-81.7
Anse-Royale-Police-Station	39.3	157.8	118.4	197.3	YES	NO	-118.5
Anse-Royale-Waterwork-PUC	61.9	174.7	131.0	218.4	YES	NO	-112.8
Belombre	114.2	227.2	170.4	284.0	YES	NO	-113.0
Cascade-Waterwork-PUC	116.4	226.2	169.7	282.8	YES	NO	-109.8
Fairview-La-Misere	120	266.5	199.9	333.1	YES	NO	-146.5
Hermitage-Waterwork-PUC	114.5	231.7	173.8	289.6	YES	NO	-117.2
La-Digue-Main-Pumping-PUC	86.6	143.9	107.9	179.9	YES	NO	-57.3
La-Gogue-Waterwork-PUC	130.6	181.8	136.4	227.3	YES	NO	-51.2
Le-Niol-Waterwork-PUC	143.5	256	192.0	320.0	YES	NO	-112.5
Praslin-Airstrip	85.9	146.8	110.1	183.5	YES	NO	-60.9
Quatre-Bornes-Police-Station	67	127.4	95.6	159.3	YES	NO	-60.4
Rochon-Waterwork-PUC	106.3	263.5	197.6	329.4	YES	NO	-157.2
Seychelles-International-Airport	119.3	190.7	143.0	238.4	YES	NO	-71.4
Tea-Factory-Morne-Blanc	69.9	237.6	178.2	297.0	YES	NO	-167.7
Prison-Montagne-Posee	56.5	105.8	79.4	132.3	YES	NO	-49.3
Beau-Vallon-Sewerage-PUC	126.1	212.7	159.5	265.9	YES	NO	-86.6
Barbarons-Biodiversity	59.8	161.5	121.1	201.9	YES	NO	-101.7
Bois -De-Rose-Maison-Malavois-PUC	99.8	209.7	157.3	262.1	YES	NO	-109.9
Ephelia-Port-Glaud	86.3	168.8	126.6	211.0	YES	NO	-82.5
Grand-Anse-Waterwork-PUC	60.7	209.7	157.3	262.1	YES	NO	-149.0
La-Misere-Rose	118.8	264.9	198.7	331.1	YES	NO	-146.1
Ma-Constance	144.1	203.8	152.9	254.8	YES	NO	-59.7
Machabee	79.4	171.1	128.3	213.9	YES	NO	-91.7
Pointe-Au-Sel	43.2	168.5	126.4	210.6	YES	NO	-125.3
Port-Launay-Waterwork-PUC	71.3	172.7	129.5	215.9	YES	NO	-101.4
Rawinsonde-Station	97.8	176.5	132.4	220.6	YES	NO	-78.7
La-Digue-Desalination-PUC	58.6	113.8	85.4	142.3	YES	NO	-55.2
La-Digue-Belvue-PUC	97	136.7	102.5	170.9	YES	NO	-39.7
Praslin-Mont-Plaisir-PUC	72.2	101.3	76.0	126.6	YES	NO	-29.1
Praslin-Baie-Ste-Anne-PUC	136.3	169.6	127.2	212.0	NO	NO	-33.3
Praslin-Fond-Boffay	71.8	171.7	128.8	214.6	YES	NO	-99.9
Praslin-Desalination-PUC	126	133.9	100.4	167.4	NO	NO	-7.9
Praslin-Salazie-PUC	53.5	158.5	118.9	198.1	YES	NO	-105.0
Vallee-De-Mai-Shelter	89.7	153.4	115.1	191.8	YES	NO	-63.7
Vallee-De-Mai-Viewing-Lodge	98.7	162.5	121.9	203.1	YES	NO	-63.8

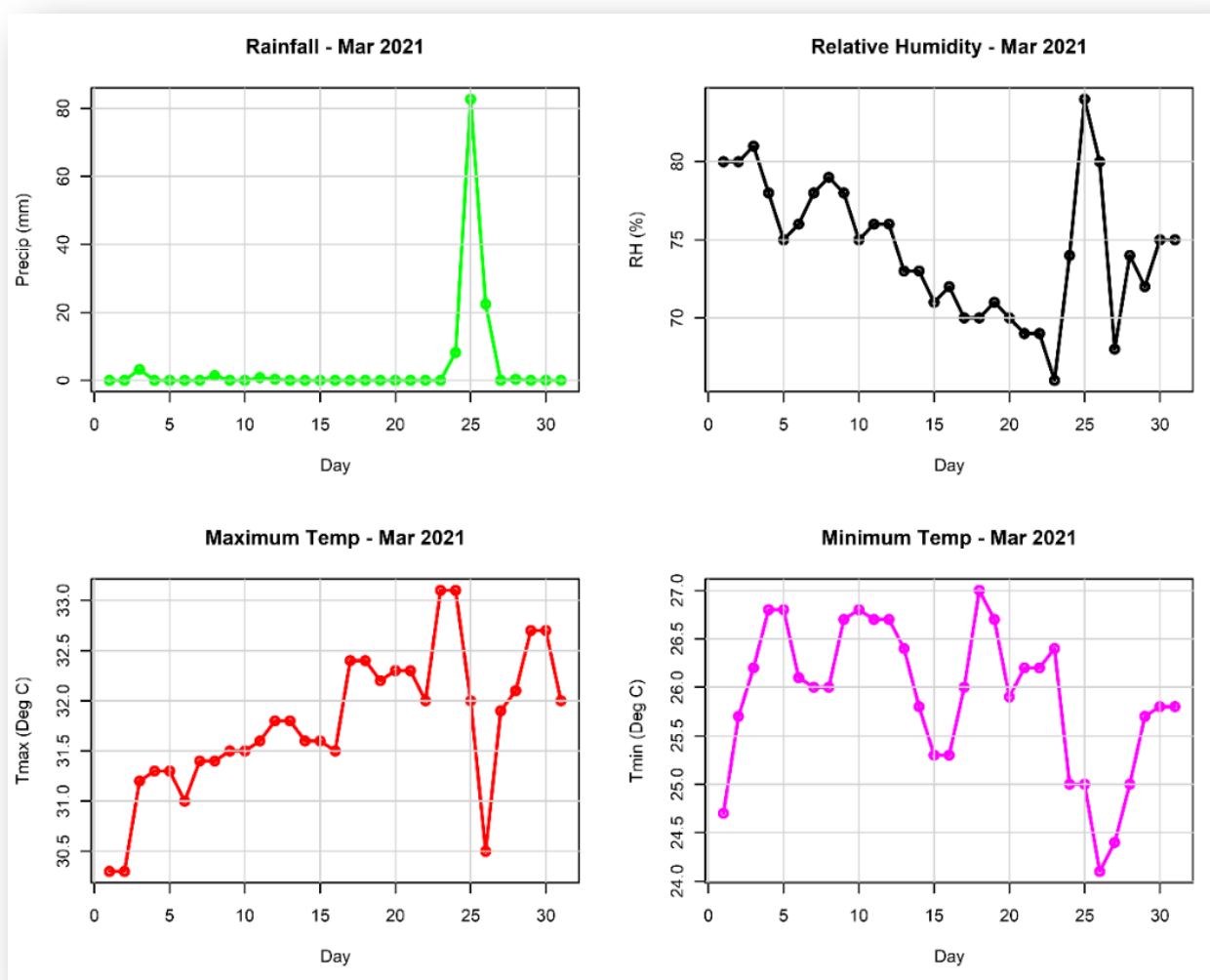
*Table 1: Observed rainfall for March 2021*

Deeper analysis highlighted on Table 1 above shows that all of the 37 stations recorded below normal rainfall with significant negative anomalies. The most significant was recorded at the Tea Factory station with a value of -167.7 mm.



### 3.0 DAILY WEATHER FOR FEBRUARY 2021 AT THE SEYCHELLES INTERNATIONAL AIRPORT

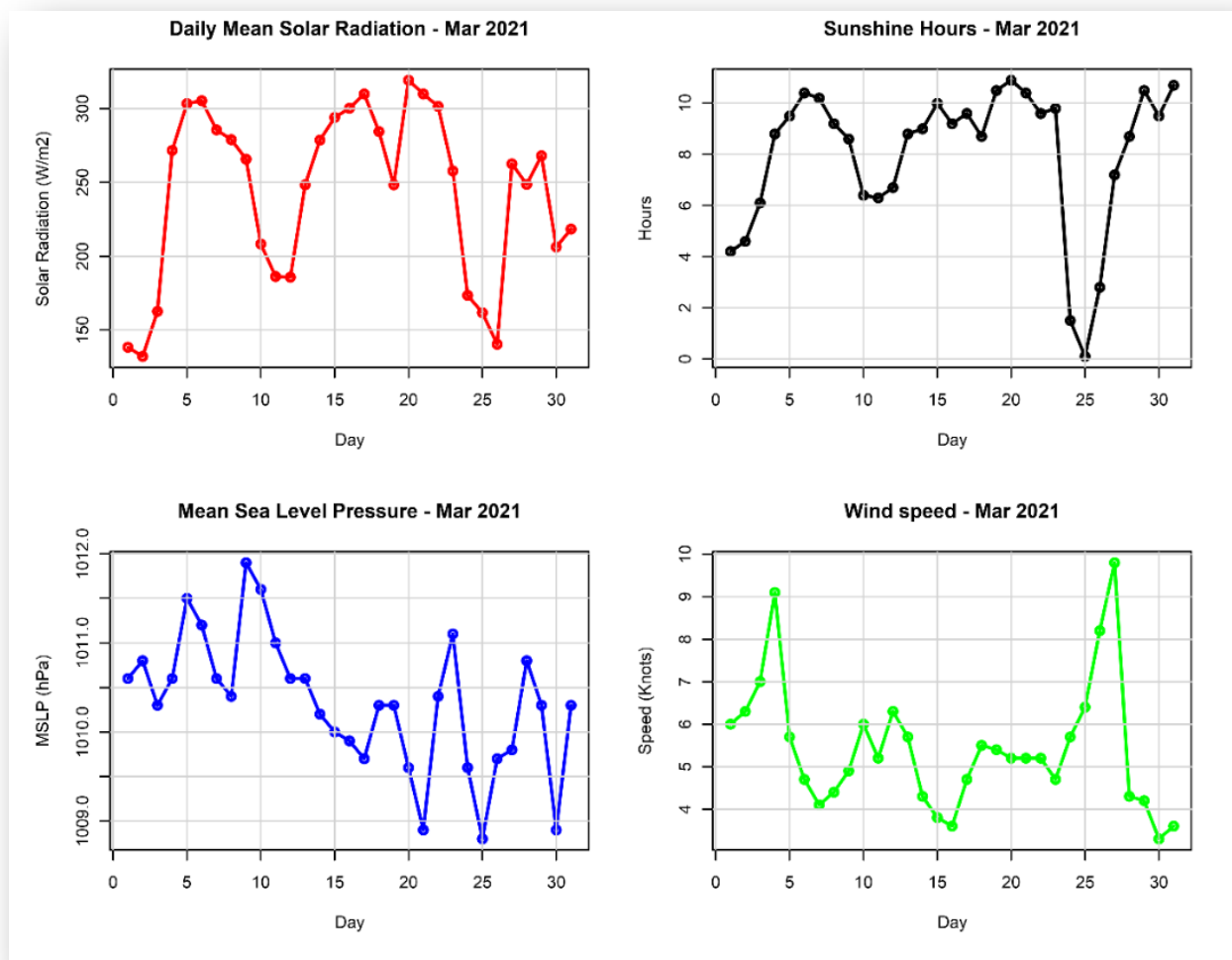
#### 3.1 Daily rainfall, relative humidity, maximum and minimum temperatures in March 2021



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

Maximum rainfall recorded at the Airport Station was 82.7 mm recorded on the 25<sup>th</sup> of March. The Monthly mean relative humidity for the month was 74%, with a maximum of 84% recorded on the 25<sup>th</sup>. The highest maximum daily temperature was 33.1 °C recorded on the 23<sup>rd</sup> and 25<sup>th</sup>, while the lowest minimum temperature was recorded on the 26<sup>th</sup> with a value of 24.1 °C.

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

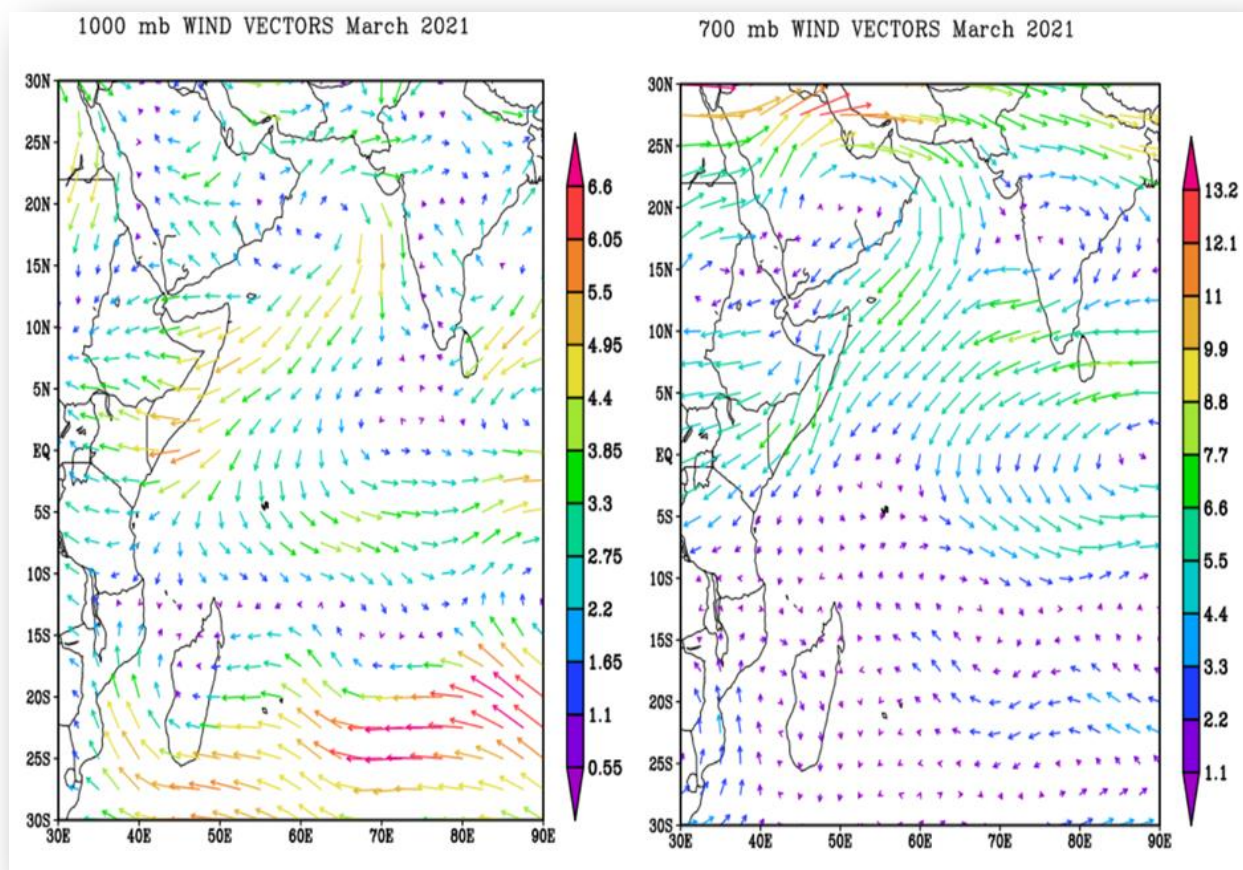


*Figure 5: Daily solar Radiation, Sunshine hours, Mean Sea Level Pressure, and Surface wind speeds in March 2021*

The average solar radiation during the month of March was 244 W/m<sup>2</sup>, a significant increase of 72 W/m<sup>2</sup> from the previous month, while the average sunshine hours stood at 8.0 hrs (Figure 5), an increase of 3.5 hrs. The average monthly wind speed dropped to 5.4 Knots (~10 km/hr) and the average mean sea level pressure was 1010.3Hpa with the lowest being 1008.8Hpa recorded on the 25<sup>th</sup>.



### 4.0 WIND PATTERNS IN FEBRUARY 2021



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

The winds at the surface (figure 6) did not show much of an organized pattern. However, at 700mb the situation is clearer. To the east of the main Island Mahe the monsoon trough is quite apparent. Further to the north, the presence of the Arabian High extending its ridging effect to the south has contributed in maintaining the monsoon trough more active to the east of Mahe and keeping the area of interest in a clear zone in terms of precipitation.