

September 2021 Weather Review





SEYCHELLES METEOROLOGICAL AUTHORITY

October 2021 Climate and Weather Bulletin



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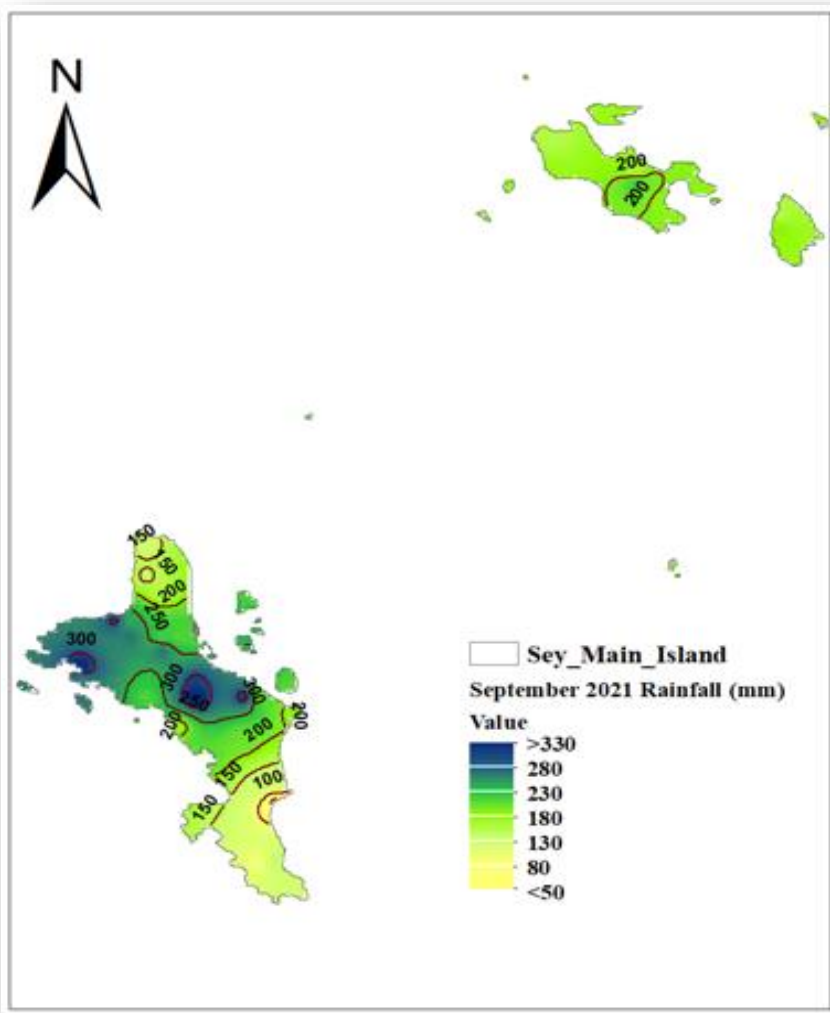
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1. Introduction

This bulletin reviews climate conditions over Mahe, Praslin, and La Digue and highlights the status of the climate systems during the month of September 2021. Although the mean position of the Near Equatorial Trough Axis remained to the north of Mahe, relaxation of the mascarene high meant that the axis periodically shifted to the south over Mahe and the inner islands giving an increase in rainfall.

2. Rainfall Performance in September 2021

2.1 Spatial Rainfall Distribution for September 2021



The spatial rainfall distribution (Figure 1) shows that the central and northwestern region of Mahe had a better performance compared to the other regions for the month of September. Rainfall amount exceeding 300 mm was recorded over most stations with a maximum of 346.8 mm recorded at the La Misere station. On the other hand, a minimum of 100.6 mm was recorded at Quatre Bornes in the southern part of Mahe which was the driest region overall. Praslin and La Digue performed slightly better with 200mm of rainfall recorded over most stations.

Figure 1: September 2021 Spatial Rainfall Distribution

Figure 2 shows that 28 out of the 37 stations recorded rainfall amounts exceeding the long-term-mean for the month of September. The central to northwestern region of Mahe out-performed the rest of the country by recording the highest departures from the average rainfall. Rainfall over this region ranged between 131 – 163% of the long-term-mean (Figure 3). However, along the southeastern coast from Pointe Au Sel to Anse Royale, the rainfall was much less compared to the September long-term-mean, with rainfall ranging between 22 – 77%. To summarise, out of the 36 stations, 15 recorded Above Normal, 21 recorded Near Normal and 1 station recorded below Normal Rainfall during the month of September (Table 1).

2.2 September Rainfall Totals Compared to Long-Term Mean

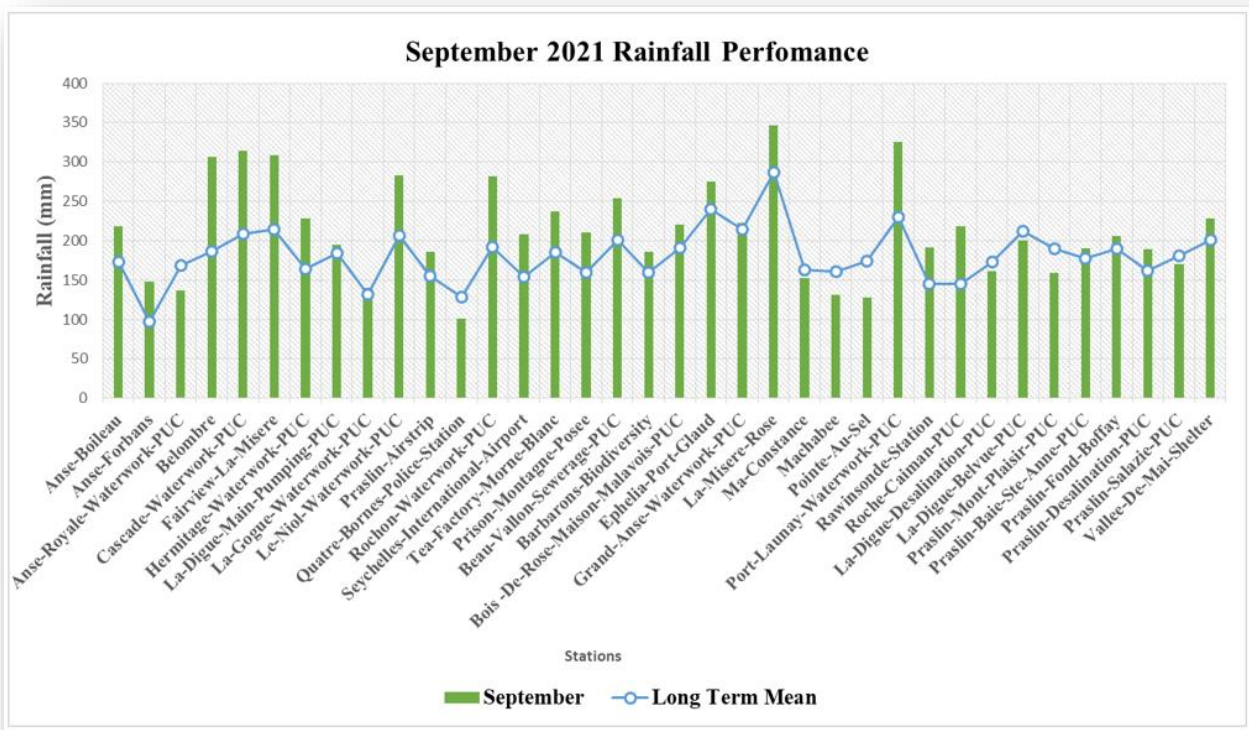


Figure 2: September 2021 Rainfall totals compared to the long-term mean

2.3 Percentage of Mean Rainfall for September 2021

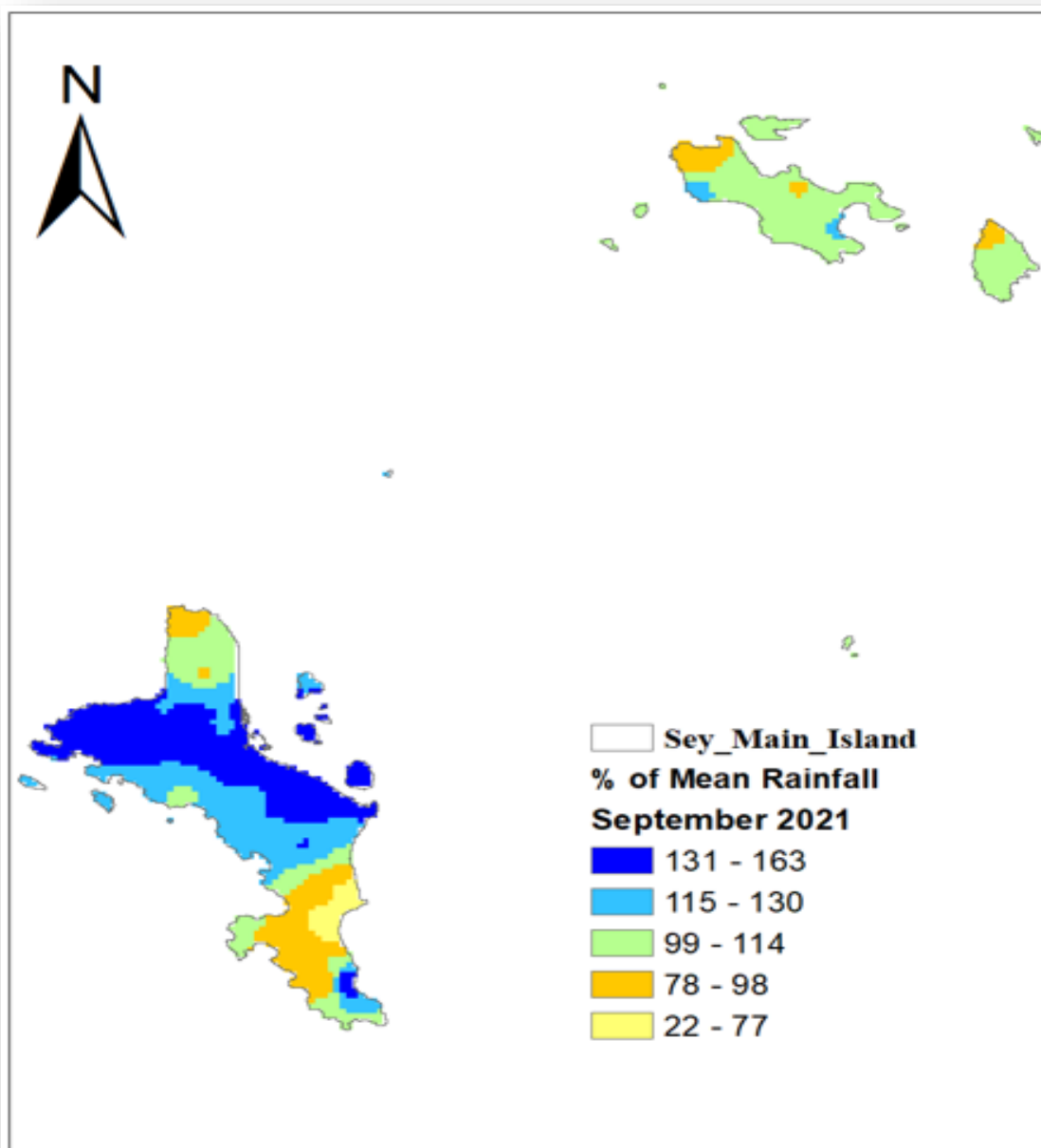


Figure 3: Percentage of mean Rainfall for September 2021



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Table 1: Rainfall performance in September

Stations	September	Long Term Mean	BN	AN	BN?	AN?	Anomalies
Anse-Boileau	218.7	173.2	129.9	216.5	NO	YES	45.5
Anse-Forbans	147.5	96.9	72.675	121.125	NO	YES	50.6
Anse-Royale-Waterwork-PUC	136.3	169.1	126.825	211.375	NO	NO	-32.8
Belombre	306.4	186.3	139.725	232.875	NO	YES	120.1
Cascade-Waterwork-PUC	314.2	208.7	156.525	260.875	NO	YES	105.5
Fairview-La-Misere	309.1	214.2	160.65	267.75	NO	YES	94.9
Hermitage-Waterwork-PUC	228.3	163.9	122.925	204.875	NO	YES	64.4
La-Digue-Main-Pumping-PUC	194.5	184.4	138.3	230.5	NO	NO	10.1
La-Gogue-Waterwork-PUC	139.8	131.6	98.7	164.5	NO	NO	8.2
Le-Niol-Waterwork-PUC	282.7	207	155.25	258.75	NO	YES	75.7
Praslin-Airstrip	185.7	155.2	116.4	194	NO	NO	30.5
Quatre-Bornes-Police-Station	100.6	128.5	96.375	160.625	NO	NO	-27.9
Rochon-Waterwork-PUC	282.3	191.6	143.7	239.5	NO	YES	90.7
Seychelles-International-Airport	207.8	153.6	115.2	192	NO	YES	54.2
Tea-Factory-Morne-Blanc	237.7	185	138.75	231.25	NO	YES	52.7
Prison-Montagne-Posee	210.2	160.1	120.075	200.125	NO	YES	50.1
Beau-Vallon-Sewerage-PUC	254.1	200.8	150.6	251	NO	YES	53.3
Barbarons-Biodiversity	185.7	160.2	120.15	200.25	NO	NO	25.5
Bois -De-Rose-Maison-Malavois-PUC	220.7	191.2	143.4	239	NO	NO	29.5
Ephelia-Port-Glaud	274.8	240.2	180.15	300.25	NO	NO	34.6
Grand-Anse-Waterwork-PUC	223.1	214.3	160.725	267.875	NO	NO	8.8
La-Misere-Rose	346.8	287.4	215.55	359.25	NO	NO	59.4
Ma-Constance	152.1	163.3	122.475	204.125	NO	NO	-11.2
Machabee	131.1	161.1	120.825	201.375	NO	NO	-30.0
Pointe-Au-Sel	127.8	174	130.5	217.5	YES	NO	-46.2
Port-Launay-Waterwork-PUC	325.7	230.4	172.8	288	NO	YES	95.3
Rawinsonde-Station	191.9	145	108.75	181.25	NO	YES	46.9
Roche-Caiman-PUC	218.5	145	108.75	181.25	NO	YES	73.5
La-Digue-Desalination-PUC	161.9	172.6	129.45	215.75	NO	NO	-10.7
La-Digue-Belvue-PUC	200.2	212.7	159.525	265.875	NO	NO	-12.5
Praslin-Mont-Plaisir-PUC	159	190.2	142.65	237.75	NO	NO	-31.2
Praslin-Baic-Ste-Anne-PUC	190.3	178	133.5	222.5	NO	NO	12.3
Praslin-Fond-Boffay	206.5	189.7	142.275	237.125	NO	NO	16.8
Praslin-Desalination-PUC	189.6	161.6	121.2	202	NO	NO	28.0
Praslin-Salazie-PUC	170.2	180.8	135.6	226	NO	NO	-10.6
Vallee-De-Mai-Shelter	228.4	201.4	151.05	251.75	NO	NO	27.0
Vallee-De-Mai-Viewing-Lodge	233.5	221.2	165.9	276.5	NO	NO	12.3

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

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

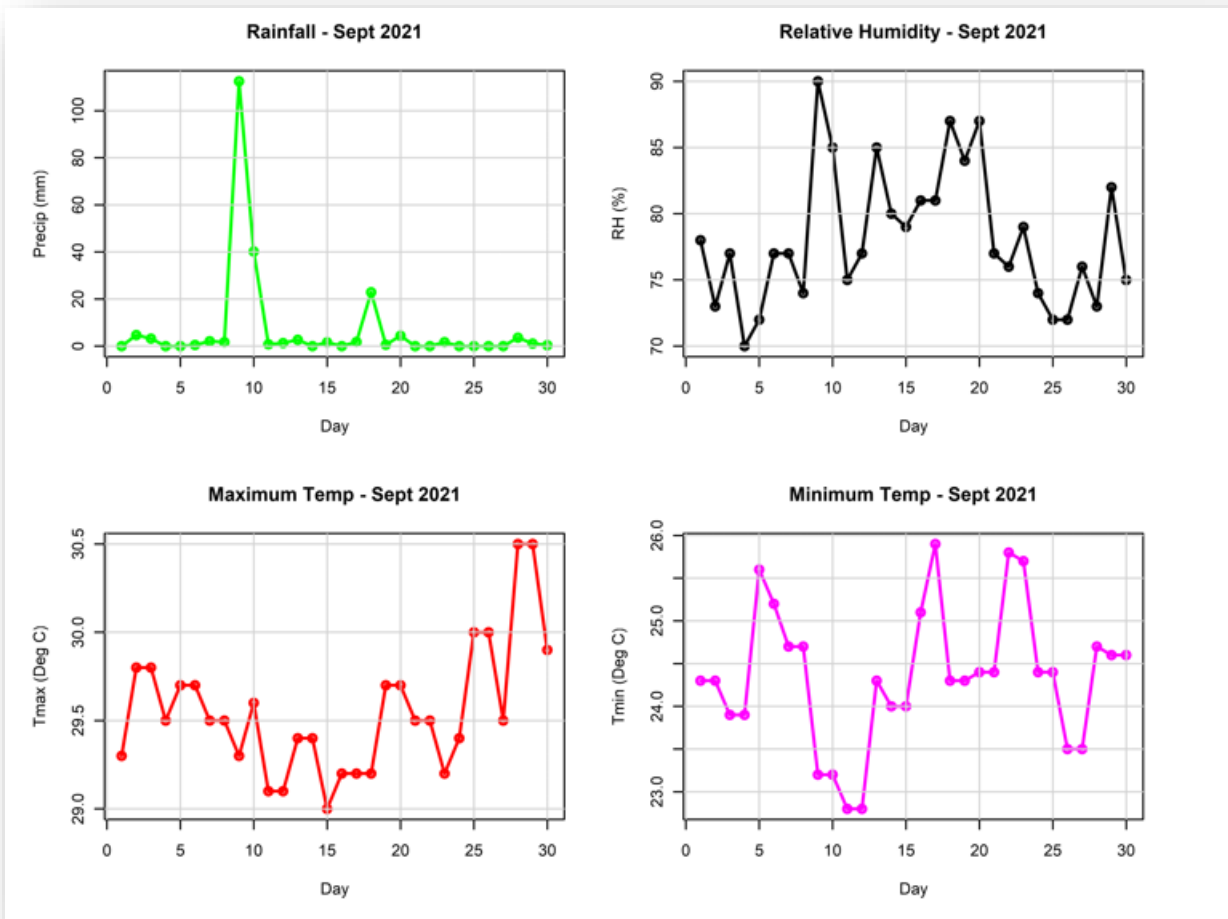


Figure 4: Daily rainfall, relative humidity, maximum and minimum temperatures in September 2021

The highest daily rainfall recorded at the Airport Station was 112.5 mm on the 9th, with 6 dry days during the month. The maximum Relative Humidity of 90% was also recorded on the 9th, and the minimum of 70% was recorded on the 4th. The daily maximum temperature generally remained above 29.0°C for the entire month, with the highest at 30.5°C reported on the 28th and 29th September. The minimum temperature remained slightly below 26.0°C with the lowest being 22.8°C reported on 11th and 12th.

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

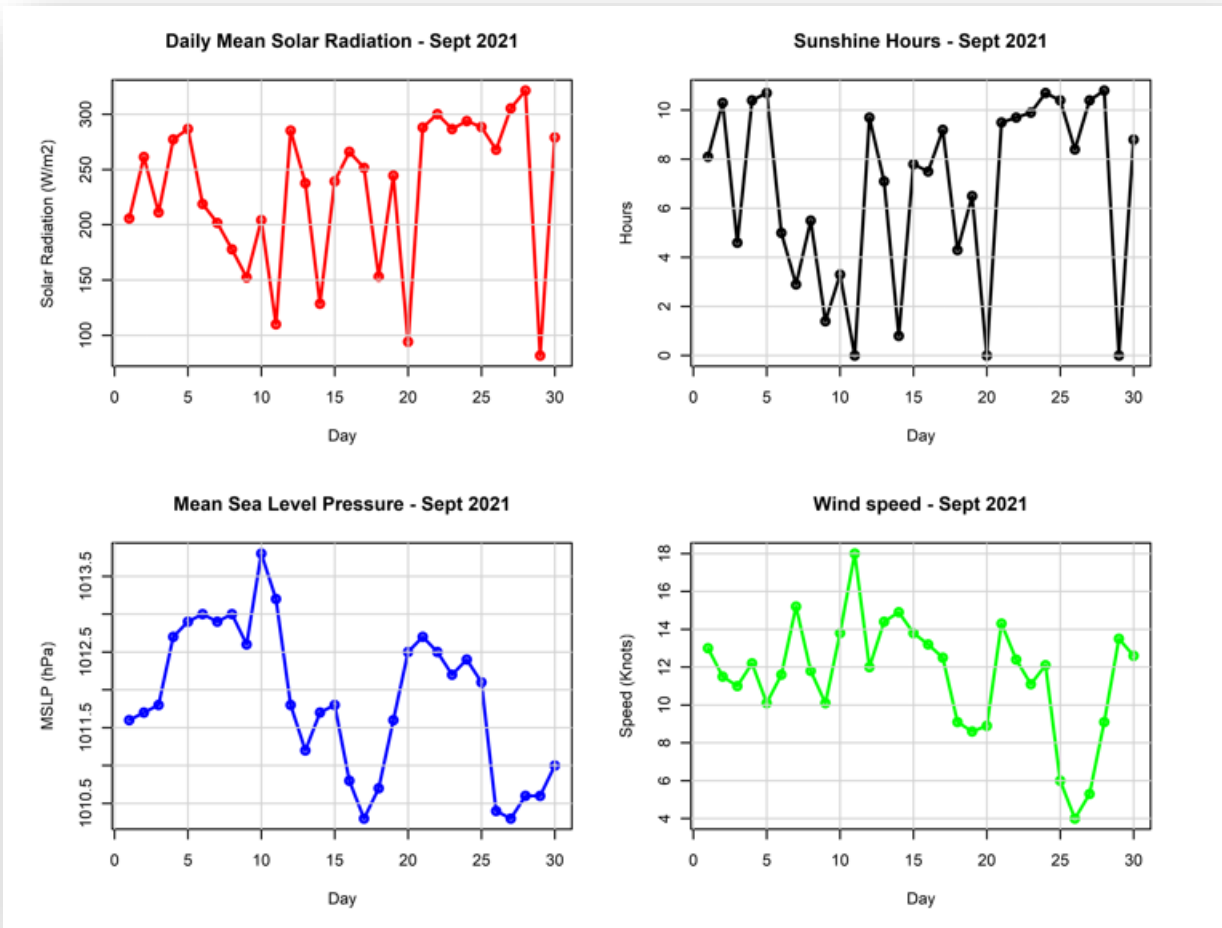


Figure 5: Daily solar Radiation, Sunshine hours, Mean Sea Level Pressure, and Surface wind speeds in September 2021

The average mean daily solar radiation during September was 230.6 W/m², with a maximum of 321.4 W/m² recorded on the 28th and a minimum of 81.7 on the 29th. The diurnal variation of the mean solar radiation closely matched the sunshine hours. The wind remained fairly strong, with wind strength ranging between 4-18 Knots. The mean sea level pressure showed a negative trend with a range of 1010.3-1013.8hPa (Figure 5).

4. Wind Patterns in September 2021

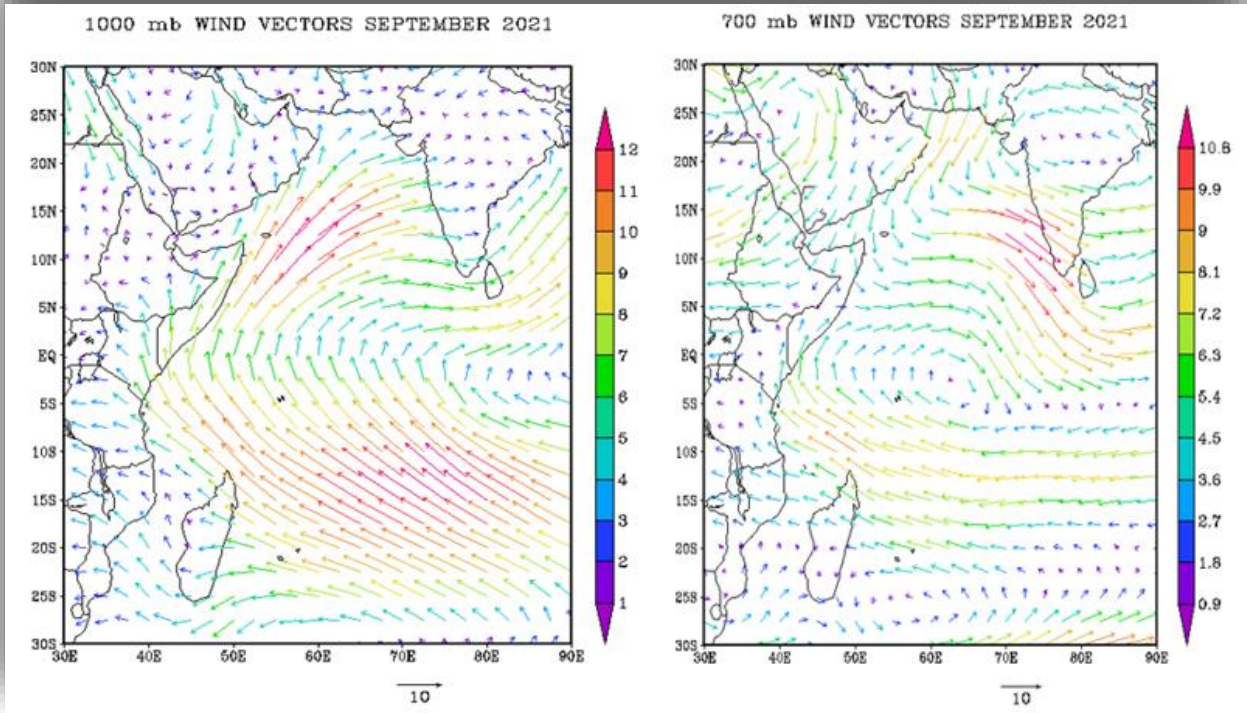


Figure 6: Surface wind flow (left) and wind flow at 700mb (right)

The analysis (Figure 6) shows a cross-equatorial flow of moderate South-easterlies at the surface with the Near Equatorial trough axis maintaining its position slightly to the North. However, a reduction in wind speed was observed at the medium level. The wind pattern at 700mb formed a closed cyclonic circulation with its center located to the northeast of the main island Mahe.