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Fiji Climate Summary March 2025

ISO 9001:2015 certified Climate Services

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1. IN BRIEF

The amount of rain observed across the country during March varied considerably, ranging from *well below average* to *well above average* rainfall. The month started off with the presence of Ex-TC Seru, resulting in localized heavy rainfall, with flash flooding reported in some parts of the Western Division.

Overall, out of the 25 rainfall monitoring stations that were analyzed, 1 station recorded *well above average*, 3 *above average*, 14 *average*, 6 *below average,* and 1 station with *well below average* rainfall (Table 2, Figures 1-5). The highest monthly rainfall of 789.5mm was recorded at Nadarivatu, followed by 481.0mm at Nasinu, 417.9mm at Koronivia, 413.4mm at Vunisea, 409.8mm at Nausori Airport, 403.8mm at Matuku, and 399.1mm at Ono-i-Lau.

On temperatures, the month's highest day-time temperature of 36.4°C was observed at Korolevu on the 27th, followed by Yasawa-i-Rara with 35.7°C on the 23rd, Navua with 34.7°C on the 6th, Koronivia with 34.2°C on the 6th, and Laucala Bay (Suva) with 34.1°C on the 6th. The lowest night-time temperature of 16.4°C was recorded at Nadarivatu on the 22nd, followed by Monasavu with 18.1°C on the 23rd, Lautoka with 19.0°C on the 30th, Vanuabalavu with 19.5°C on the 21st, and Vunisea with 20.0°C on the 3rd.

Southeasterly winds were dominant at Nadi Airport, Savusavu Airfield and Matei Airfield, while northwesterly winds were dominant at Nausori Airport (Figure 7).

Warmer than normal sea surface temperature anomalies were observed across the Fiji Waters (Figure 8), with *above normal* cloud cover present over the country (Figure 9). *Above normal* sea level anomalies persisted during March (Figure 10). Flash flooding was experienced in some parts of the Western Division (Figure 12a -12c). Coastal inundation occurred in Rakiraki village, Kadavu (Figure 13a-13c).

2. WEATHER PATTERNS

March, being a summer month in Fiji, experienced weather patterns largely driven by a series of low-pressure systems. These systems played a dominant role in shaping the month's weather, contributing to unsettled conditions across various parts of the country. The prevailing subtropical ridge and associated shifts in wind flow further added to the dynamic and varied weather seen throughout the month.

At the beginning of March, Ex-Tropical Cyclone (TC) Seru remained slow-moving southwest of Fiji. From March 1–3, an associated active trough brought south-westerly to north-westerly winds, affecting most parts of the country. As the active trough dissipated on March 4, a series of weak troughs linked to Ex-TC Seru approached from the south until March 6. The center of Ex-TC Seru drifted over Fiji on March 7 and gradually elongated within a trough by March 8. Cloud and showers continued to impact the northern and eastern parts of the country until March 11 with a predominant southeast wind flow over the country. Meanwhile, in the western division, afternoon showers and thunderstorms were prevalent throughout this period, with severe thunderstorms recorded on March 7, highlighting the localized intensity of severe weather impacts over Fiji. Southeast winds transitioned to easterly winds from March 12 onward. During this period, weak troughs of low pressure intermittently developed, with one affecting the eastern parts of Fiji from March 13–15 and another redeveloping over the same region from March 16–18. Severe thunderstorms affected parts of Viti Levu and Vanua Levu during this period. Another weak trough approached from the southwest on March 18, resulting in unsettled conditions across the country until March 21. A more pronounced trough of low pressure affected the group from 21st to 23rd. Easterly wind flow dominated the weather from March 21–23 with trade showers prevailing over the windward side of the larger islands. A trough of low pressure developed near the northwest of Fiji and affected the group until March 25. Subsequently, the trough drifted over the eastern and southern parts of the country, influencing weather until March 29. Afterward, clouds and showers associated with the trough affected most parts of Fiji until the trough drifted north on March 31, whereby a southeast wind flow prevailed across the group.

Weather conditions over Rotuma were primarily influenced by easterly wind flow, convergence zone and series of low-pressure systems active near the island. The dry days were dominated by easterly or southeast winds.

3. RAINFALL

March rainfall varied considerably, ranging from *well below average* to *well above average*. Majority of the stations experienced *average* rainfall, while Ono-i-Lau was the lone station that recorded more than twice its normal monthly rainfall.

On the contrary, slightly drier than usual conditions were observed at most parts of the Western Division; Nadi Airport, Lautoka, Rarawai Mill (Ba), Monasavu and Viwa, as well as Udu Point. Penang Mill was the lone station that recorded significantly drier than normal conditions. Overall, out of the 25 rainfall monitoring stations that were analyzed during the compilation of this bulletin, 1 recorded *well above average*, 3 *above average*, 14 *average*, 6 *below average,* and 1 station with *well below average* rainfall (Table 2, Figures 1-5).

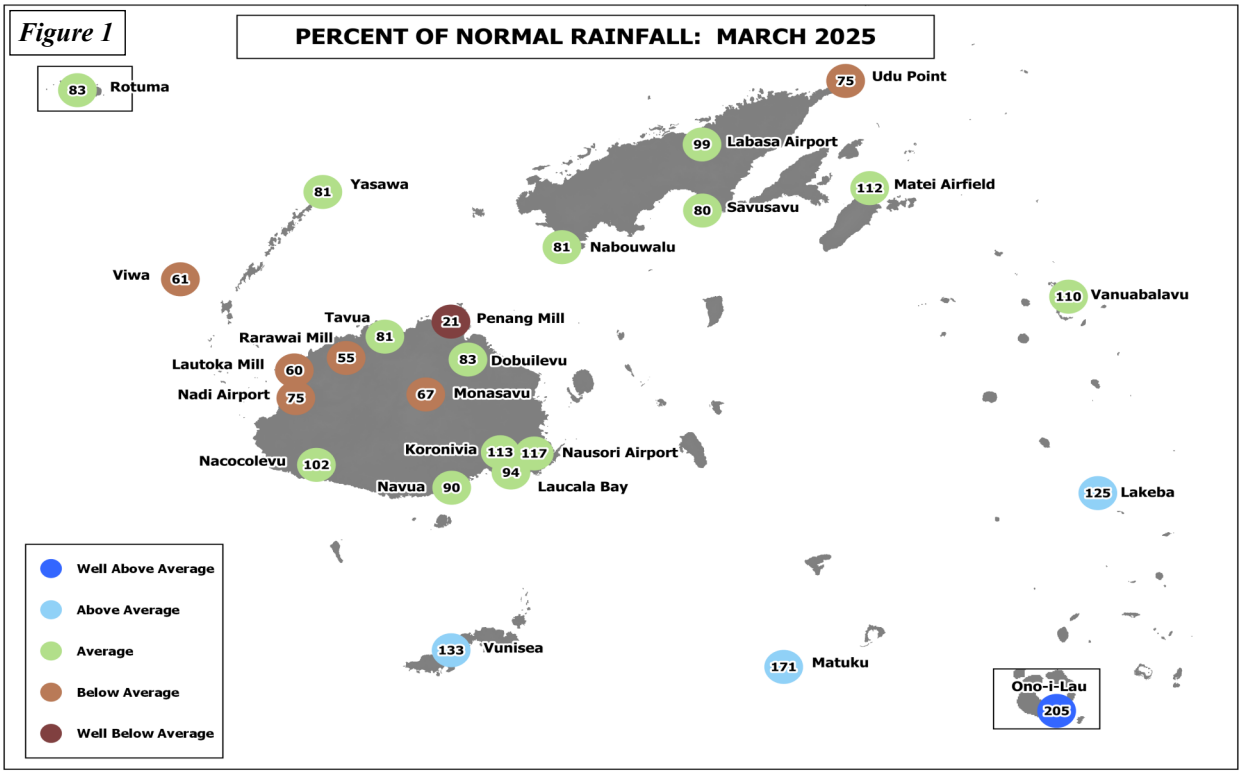
The highest monthly rainfall of 789.5mm was recorded at Nadarivatu, followed by 481.0mm at Nasinu, 417.9mm at Koronivia, 413.4mm at Vunisea, 409.8mm at Nausori Airport, 403.8mm at Matuku, and 399.1mm at Ono-i-Lau. On the other hand, Penang Mill recorded the month's lowest total monthly rainfall of 73.9mm, followed by Korolevu with 108.5mm, Viwa with 156.1mm, and Savusavu Airfield with 171.1mm (Table 2).

The highest 24-hour rainfall of 142.0mm was recorded at Nausori Airport on the 12th, followed by Vunisea with 138.0mm on the 12th, Nasinu with 135.5mm on the 12th, Nadarivatu with 132.5mm on the 6th, Navua with 109.0mm on the 12th, Matei Airfield with 108.0mm on the 8th, and Koronivia with 100.0mm on the 7th. From 21st to 23rd March, significant rainfall exceeding 50mm within 24 hours was recorded over the eastern parts of the country, especially over the Lau and Lomaiviti groups.

Nacocolevu recorded the highest number of rain days (rainfall≥0.1mm) with 29 days, followed by Vunisea, Nadarivatu and Labasa Airfield all with 27 days, Monasavu with 26 days, Koronivia and Ono-i-Lau both with 25 days, Nabouwalu with 24 days, and Matuku and Savusavu Airfield both with 23 days. Consequently, Penang Mill recorded the least number of rainfall days with 13 days, followed by Korolevu and Momi both with 15 days, Lakeba with 16 days, Lautoka and Nadi Airport both with 17 days, and Laucala Bay (Suva) and Matei Airfield both with 18 days.

There were no new rainfall records established during the month.

Figure 1



Normal: *Long term average from 1991 to 2020*
Well Below Average: *Rainfall less than 40% of normal*
Below Average: *Rainfall between 40 to 79%*
Rain Day: *Rainfall ≥ 0.1mm*

Average: *Rainfall between 80 to 119%*
Above Average: *Rainfall between 120 to 199%*
Well Above Average: *Rainfall greater than or equal to 200% of normal*

4. AIR TEMPERATURES

A. Maximum Day-time Air Temperatures

Generally, *near normal* to *above normal* day-time temperatures were observed across the country during the month. Out of the 22 climate stations that reported in time for the analysis of data, 6 recorded anomalies ≥+0.5°C, 15 within ±0.5°C and 1 station with anomaly of ≤-0.5°C.

On average, the warmest days were recorded at Labasa Airfield with 32.4°C, followed by Viwa with 32.3°C, Yasawa-i-Rara with 32.0°C, Korolevu with 31.9°C and Penang Mill with 31.8°C. Consequently, Nadarivatu recorded the coolest days on average with 26.4°C, followed by Monasavu with 26.8°C, Ono-i-Lau with 30.0°C, Nacocolevu with 30.2°C, Matuku with 30.3°C, and Vunisea and Vanuabalavu both with 30.7°C.

The month's highest day-time temperature of 36.4°C was observed at Korolevu on the 27th, followed by Yasawa-i-Rara with 35.7°C on the 23rd, Navua with 34.7°C on the 6th, Koronivia with 34.2°C on the 6th, Laucala Bay (Suva) with 34.1°C on the 6th , and Savusavu Airfield and Labasa Airfield both with 34.0°C on the 6th and 16th, respectively.

The coolest daytime temperatures were observed at Monasavu with 22.1°C on the 12th, followed by Nadarivatu with 23.1°C on the 2nd, Navua with 26.3°C on the 10th, Laucala Bay (Suva) with 26.8°C on the 28th, and Vanuabalavu with 27.0°C on the 9th.

Monasavu recorded its highest daily maximum temperature of 30.6°C since observations began in 1980 (Table 1).

B. Minimum Night-time Air Temperatures

Below normal to *above normal* night-time temperatures were recorded at majority of the climate stations during the month. For the 22 stations that reported in, 5 recorded anomalies ≥+0.5°C, 13 within ±0.5°C, and 4 with anomalies ≤-0.5°C.

The coolest nights on average were at Nadarivatu with 18.8°C, followed by Monasavu with 20.3°C, Vanuabalavu with 22.2°C, Matei Airfield with 22.4°C, Korolevu and Labasa Airfield both with 22.5°C, Vunisea with 22.8°C, and Sigatoka, Navua and Lakeba all with 23.1°C. Consequently, on average, the warmest nights were observed at Udu Point with 25.6°C, Viwa with 25.5°C, Rotuma with 25.4°C, Nabouwalu with 24.8°C and Laucala Bay (Suva) with 24.7°C.

The lowest night-time temperature of 16.4°C was recorded at Nadarivatu on the 22nd, followed by Monasavu with 18.1°C on the 23rd, Lautoka with 19.0°C on the 30th, Vanuabalavu with 19.5°C on the 21st, Vunisea with 20.0°C on the 3rd, and Matei Airfield and Korolevu both with 20.7°C on the 11th and 22nd, respectively.

The warmest night-time temperatures were recorded at Viwa with 27.3°C on the 1st, followed by Rotuma with 27.0°C on the 8th, Udu Point with 26.9°C on the 3rd, and Nabouwalu with 26.8°C on the 26th.

Vanuabalavu recorded its lowest daily minimum temperature of 19.5°C since observations began in 1985 (Table 1).

TABLE 1. CLIMATE RECORDS ESTABLISHED IN MARCH 2025

Element	Station	Observed (record)	On	Rank	Previous (record)	Year	Records Began
Daily Maximum Temperature	Monasavu	30.6°C	23rd	New High	30.4°C	2004	1980
Daily Minimum Temperature	Vanuabalavu	19.5°C	21st	New High	19.6°C	1997	1985

Note: All comparisons in this summary are with respect to "Climatic Normals". This is defined to be the average climate condition over a 30-year period. Fiji uses 1991-2020 period as its "climatic normal" period.

TABLE 2. DAILY CLIMATE REPORTING SITES: SUMMARY FOR MARCH 2025

	RAINFALL					AIR TEMPERATURES								SUNSHINE	
	TOTAL	*	RAIN DAYS	+	MAX. FALL	AVERAGE DAILY MAX.	#	AVERAGE DAILY MIN.	#	EXTREME MAX.	ON	EXTREME MIN.	ON	TOTAL	*
	MM	%			MM ON	C	C	C	C	C		C		HRS	%
NADI AIRPORT	262.6	75	17		63 28	31.4	0.1	23.5	0.1	33.0	20	21.6	22	186	97
LAUCALA BAY	319.4	94	18		85 12	31.1	-0.3	24.7	0.1	34.1	6	23.0	11	134	74
NACOCOLEVU RESEARC	249.6	102	29		46 16	30.2	-1.6	23.4	0.7	32.5	20	21.5	12	111	77
ROTUMA ISLAND	287.2	83	20		73 4	31.1	0.0	25.4	0.4	32.5	27	23.0	25	194	117
VIWA ISLAND	156.1	61	21		62 28	32.3	0.4	25.5	0.6	33.8	1	23.4	29		
YASAWA-I-RARA	207.5	81	22		86 24	32.0	0.6	24.5	-0.0	35.7	23	22.5	29		
UDU POINT (AWS)	223.5	75	20		79 9	30.8	-0.3	25.6	0.8	32.0	1	23.9	10		
NABOUWALU	249.2	81	24		62 12	31.3	0.3	24.8	0.1	32.7	29	21.0	4		
LABASA AIRFIELD	334.5	99	27		60 8	32.4	0.4	22.5	0.0	34.0	16	21.0	26		
SAVUSAVU AIRFIELD	171.1	80	23		38 8	31.3	0.5	24.5	0.6	34.0	6	23.5	6		
KORONIVIA RESEARCH	417.9	113	25		100 7	31.5	0.5	23.9	0.4	34.2	6	22.4	22		
NAUSORI AIRPORT	409.8	117	21		142 12	31.1	0.1	23.7	0.2	33.5	6	22.0	21		
NAVUA (AWS)	334.5	90	22		109 12	31.6	1.1	23.1	0.2	34.7	6	21.6	22		
MONASAVU HYDRO DAM	338.4	67	26		77 7	26.8	0.9	20.3	0.7	30.6	23	18.1	23		
FSC LAUTOKA MILL	197.2	60	17		51 7	31.5	0.0	23.6	-0.3	33.4	9	19.0	30		
FSC RARAWAI MILL	203.1	55	19		48 1	U/S		U/S		U/S		U/S			
FSC PENANG MILL	73.9	21	13		22 1	31.8	0.5	24.0	0.3	33.5	18	22.2	22		
MATEI AIRFIELD	280.5	112	18		108 8	30.9	0.2	22.4	-2.1	32.4	5	20.7	11		
VANUABALAVU	245.1	110	21		59 23	30.7	0.1	22.2	-2.5	32.0	25	19.5	21		
LAKEBA	334.4	125	16		79 21	31.1	0.4	23.1	-1.3	32.4	7	21.0	13		
VUNISEA	413.4	133	27		138 12	30.7	0.1	22.8	-1.4	32.5	19	20.0	3		
MATUKU	403.8	171	23		94 27	30.3	-0.1	24.5	-0.1	32.1	5	23.2	28		
ONO-I-LAU	399.1	205	25		93 23	30.0	-0.1	24.4	-0.0	32.0	17	22.1	21		
YAQARA AWS	U/S					U/S		U/S		U/S		U/S			
LEVUKA AWS	U/S					U/S		U/S		U/S		U/S			
KEIYASI AWS	U/S					U/S		U/S		U/S		U/S			
LOMAIVUNA AWS	U/S					U/S		U/S		U/S		U/S			
NADARIVATU AWS	789.5		27		133 6	26.4		18.8		33.3	8	16.4	22		
RKS LODONI AWS	U/S					U/S		U/S		U/S		U/S			
MOMI AWS	180.0		15		44 1	31.1		24.0		32.7	20	22.7	21		
SIGATOKA AWS	U/S					U/S		U/S		U/S		U/S			
VATUREKUKA AWS	U/S					U/S		U/S		U/S		U/S			
KOROLEVU AWS	108.5		15		24 7	31.9		22.5		36.4	27	20.7	22		
WAINIKORO AWS	U/S					U/S		U/S		U/S		U/S			
SAQANI AWS	U/S					U/S		U/S		U/S		U/S			
SEAQAQA AWS	U/S					U/S		U/S		U/S		U/S			
DOBUILEVU TB3	292.0	83	20		92 12										
NASINU TB3	481.0		21		136 12										
TAVUA TB3	227.5	81	19		44 19										

	TEMPERATURE(C)			HUMIDITY	WIND
	MEAN	DRY (AVERAGE AT 9AM)	WET (AVERAGE AT 9AM)	RH% (AVERAGE AT 9AM)	VP (AVERAGE AT 9AM)	KT
NADI AIRPORT	27.4	27.7	25.6	84	27.8	6.0
LAUCALA BAY	27.9	28.2	25.7	81	28.6	6.6
NACOCOLEVU RESEARC	26.8	27.4	25.4	86	27.3	
ROTUMA ISLAND	28.3	29.3	26.8	82	30.5	8.5
VIWA ISLAND	28.9	29.8	27.0	81	31.4	
YASAWA-I-RARA	28.2	28.3	26.9	90	28.8	
UDU POINT (AWS)	28.2					
NABOUWALU	28.0	28.9	26.2	81	29.8	
LABASA AIRFIELD	27.5	28.3	25.9	82	28.8	8.5
SAVUSAVU AIRFIELD	27.9	28.3	25.8	81	28.8	6.2
KORONIVIA RESEARCH	27.7	28.2	26.1	85	28.6	
NAUSORI AIRPORT	27.4	27.6	25.7	86	27.6	3.9
NAVUA (AWS)	27.4					
MONASAVU HYDRO DAM	23.6	23.2	22.7	95	21.3	
FSC LAUTOKA MILL	27.5	26.6	25.0	88	26.0	
FSC RARAWAI MILL	U/S	27.8	26.1	86	27.9	
FSC PENANG MILL	27.9	28.5	25.9	82	29.1	
MATEI AIRFIELD	26.6	28.8	26.2	80	29.6	9.0
VANUABALAVU	26.5	28.6	25.9	81	29.3	
LAKEBA	27.1	28.6	26.3	84	29.3	
VUNISEA	26.8	27.5	24.6	79	27.5	
MATUKU	27.4	27.9	25.3	81	28.1	
ONO-I-LAU	27.2	27.7	25.6	85	27.8	

MEAN TEMPERATURE IS (MAX+MIN)/2; WIND IS MEAN SPEED AT 06,12,18,24 HOURS.
$:SOLAR RADIATION CALCULATED FROM SUNSHINE DURATION. # :DEPARTURE FROM LONG-TERM AVERAGES (1991-2020). + :NUMBER OF DAYS WITH 0.1 MM OR MORE RAIN. * :PERCENT OF LONG-TERM AVERAGES.
BLUE FONT: MISSING RECORDS OF LESS THAN OR EQUAL(≤) TO 5 DAYS. U/S: UNSERVICEABLE

Figure 2

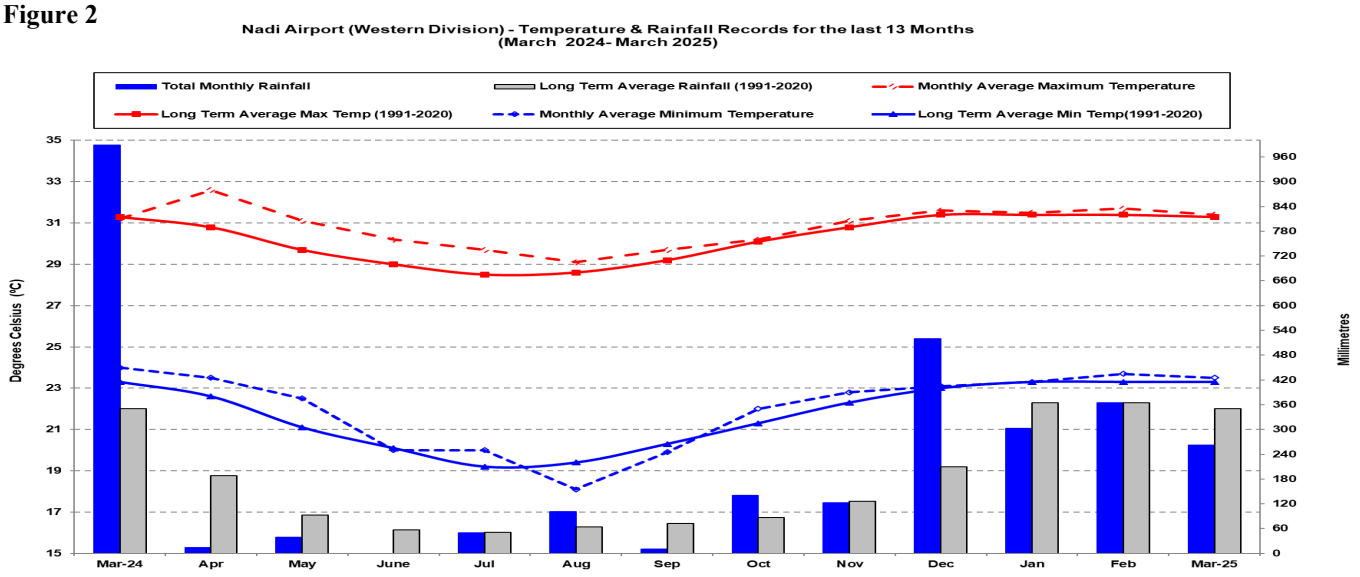


Figure 3

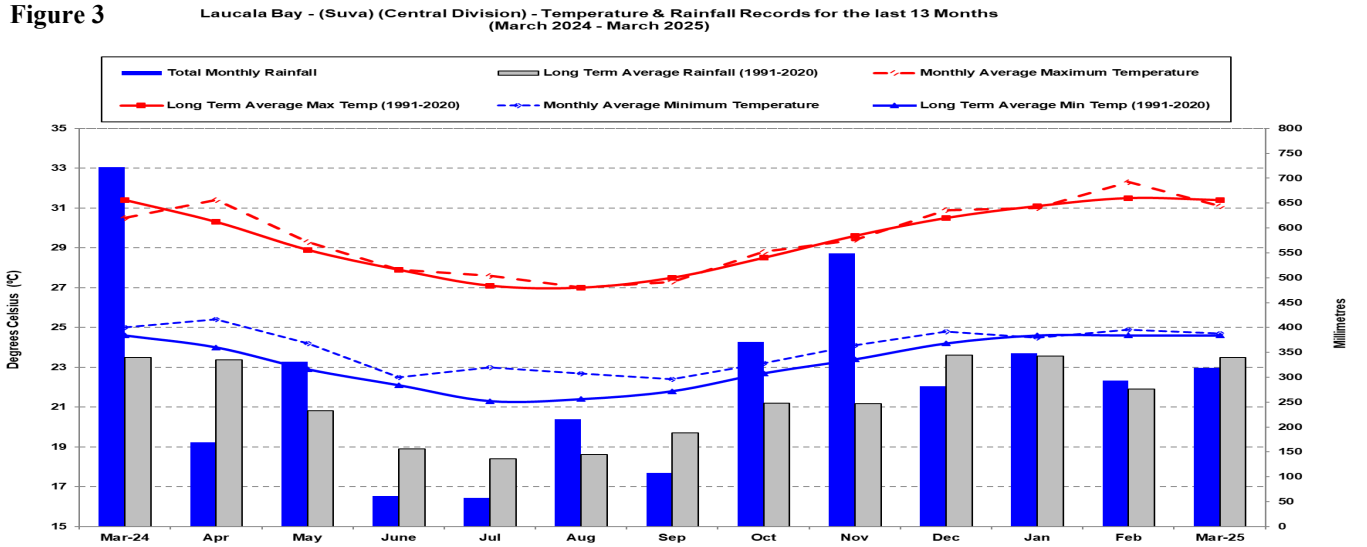


Figure 4

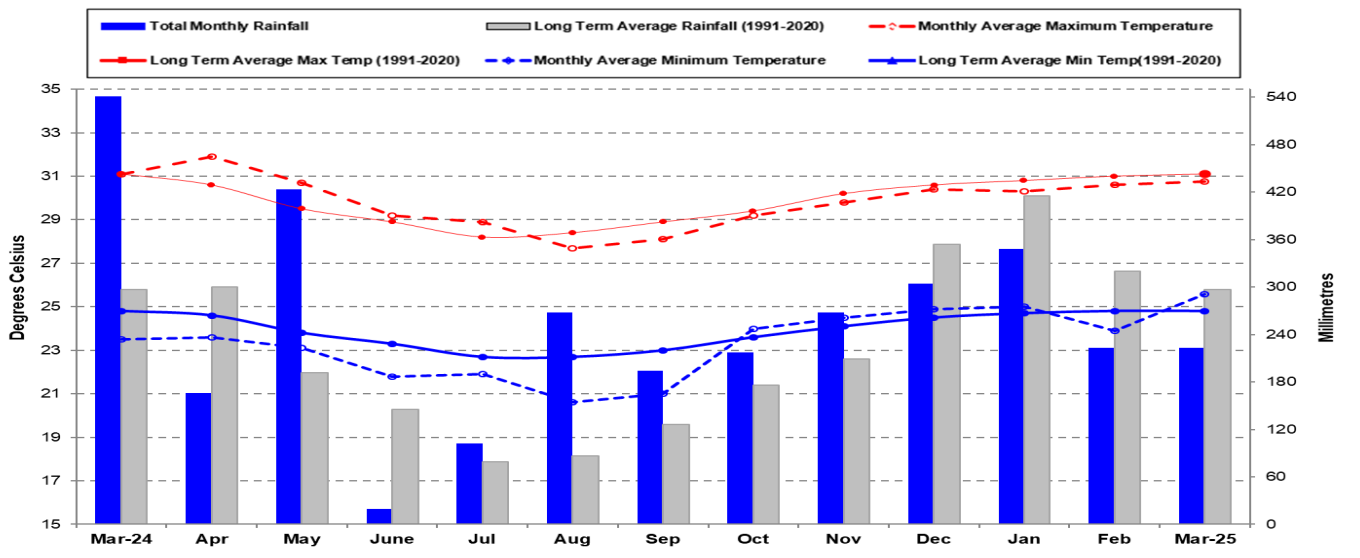
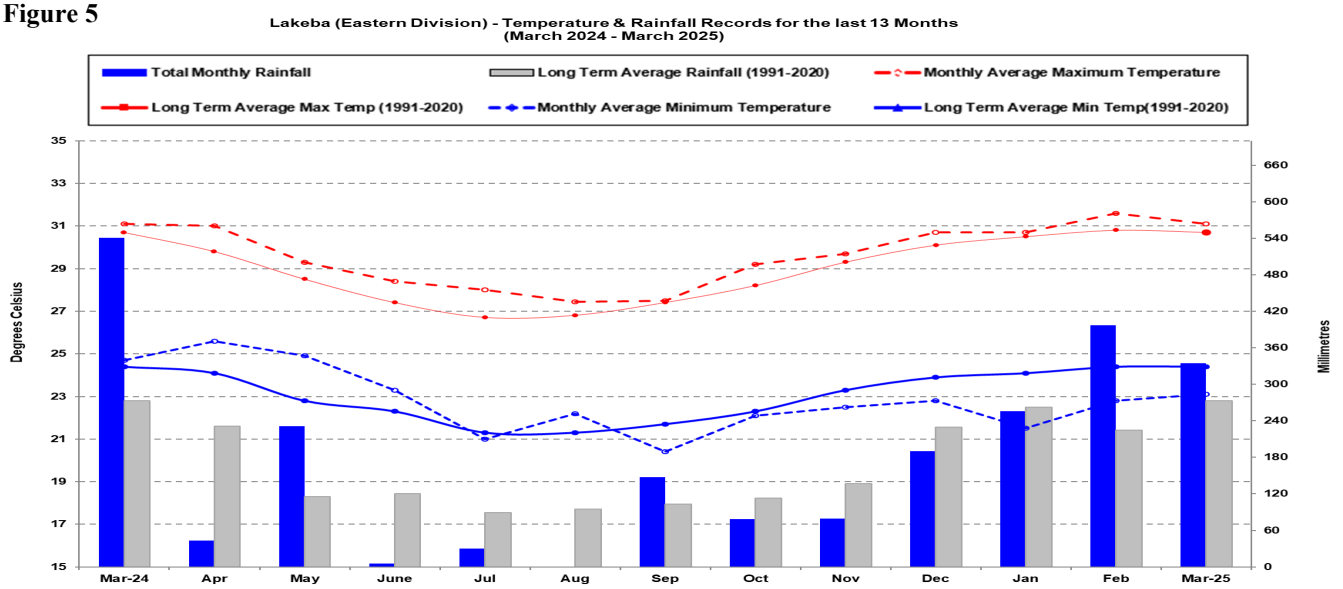


Figure 5



5. DAILY RAISED PAN EVAPORATION

Figure 6

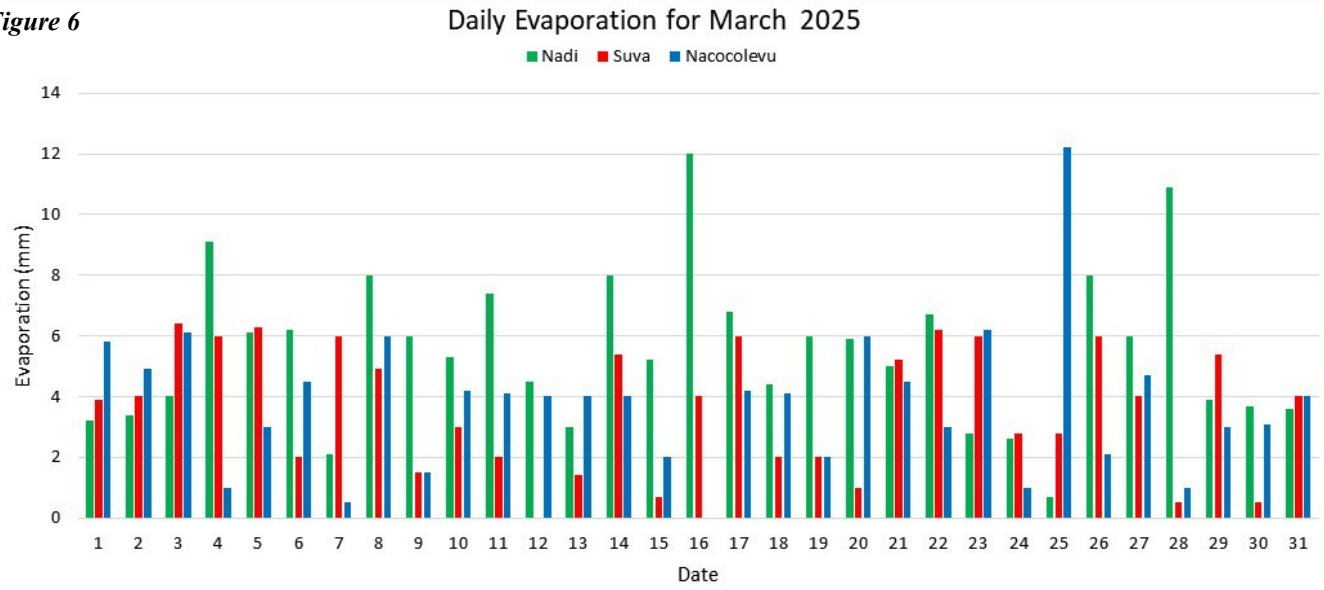


Figure 6: The total monthly raised pan evaporation at Nadi Airport, Laucala Bay (Suva) and Nacocolevu (Sigatoka) were 170.5mm, 111.9mm and 116.7mm, respectively. Nadi's highest daily evaporation was 12.0mm on the 16th with Suva's highest daily evaporation of 6.4mm on the 3rd, and Nacocolevu (Sigatoka) recorded its highest of 12.2mm on the 25th.

6. SOLAR RADIATION

The Nadi solar radiation instrument was unserviceable during the month of March 2025.

7. WIND SUMMARY

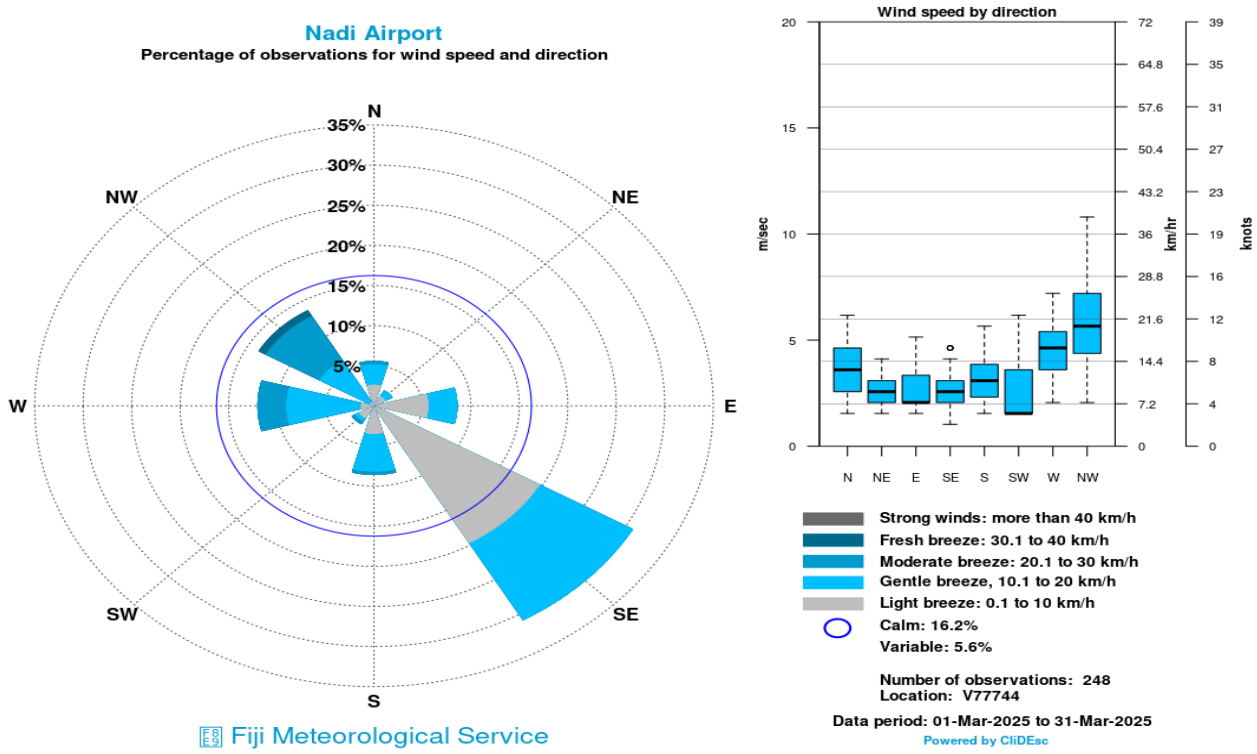


Figure 7a: Looking at Nadi's 3 hourly observations, southeasterly winds were most dominant during the month, followed by northwesterly and then westerly winds. Wind strength ranged from light to fresh breeze, while 16.2% observations accounted for calm winds.

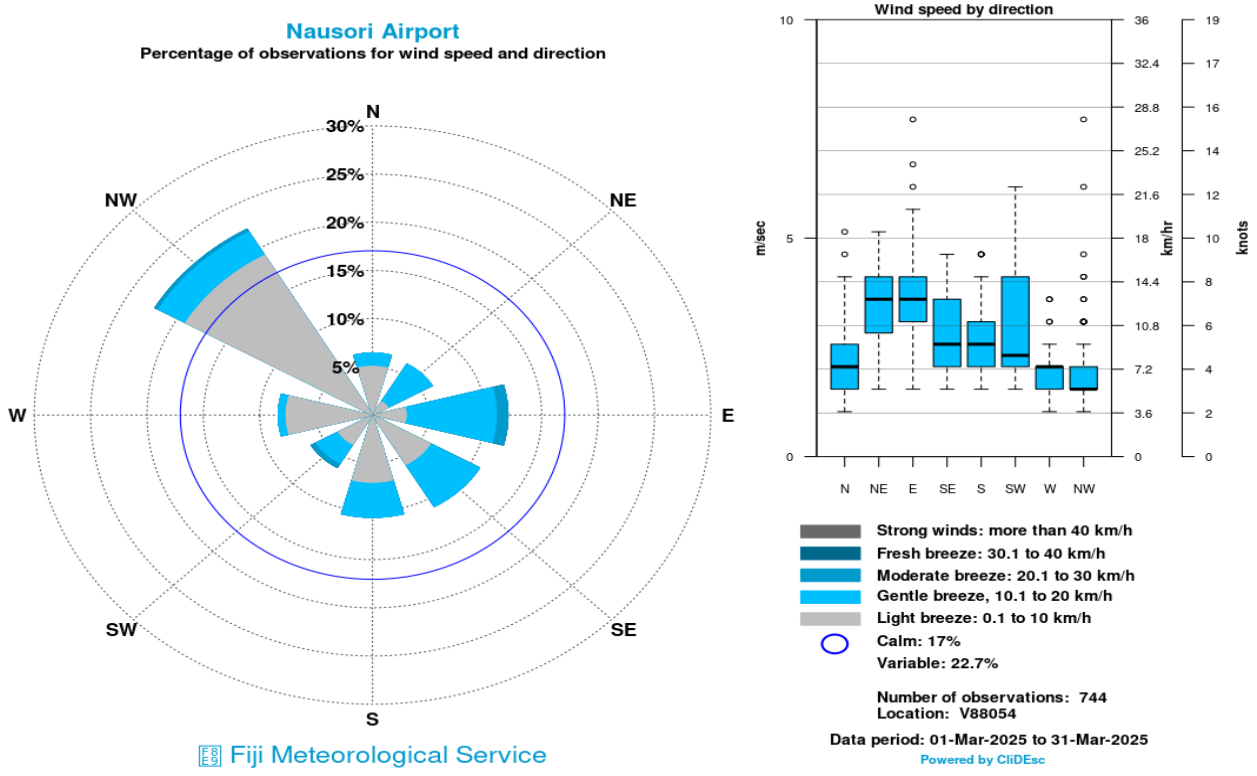


Figure 7b: For Nausori Airport's hourly wind observations, northwesterly winds were most dominant during the month, followed by easterly and then southeasterly winds. Wind strength ranged from light to moderate breeze, while 17% observations accounted for calm winds.

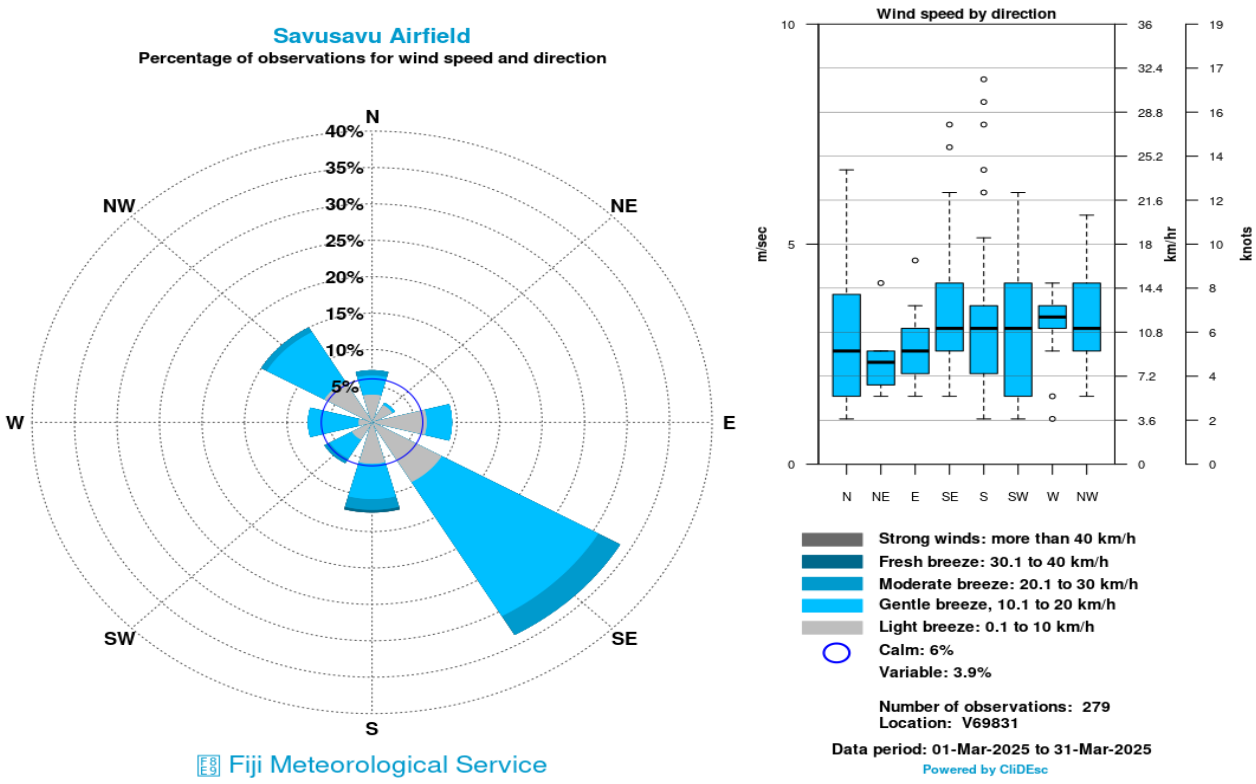


Figure 7c: For Savusavu Airfield's hourly observations (0800hrs to 1600hrs), southeasterly winds were most dominant during the month, followed by northwesterly and then southerly winds. Wind strength ranged from light to fresh breeze, with calm winds observed 6% of the time.

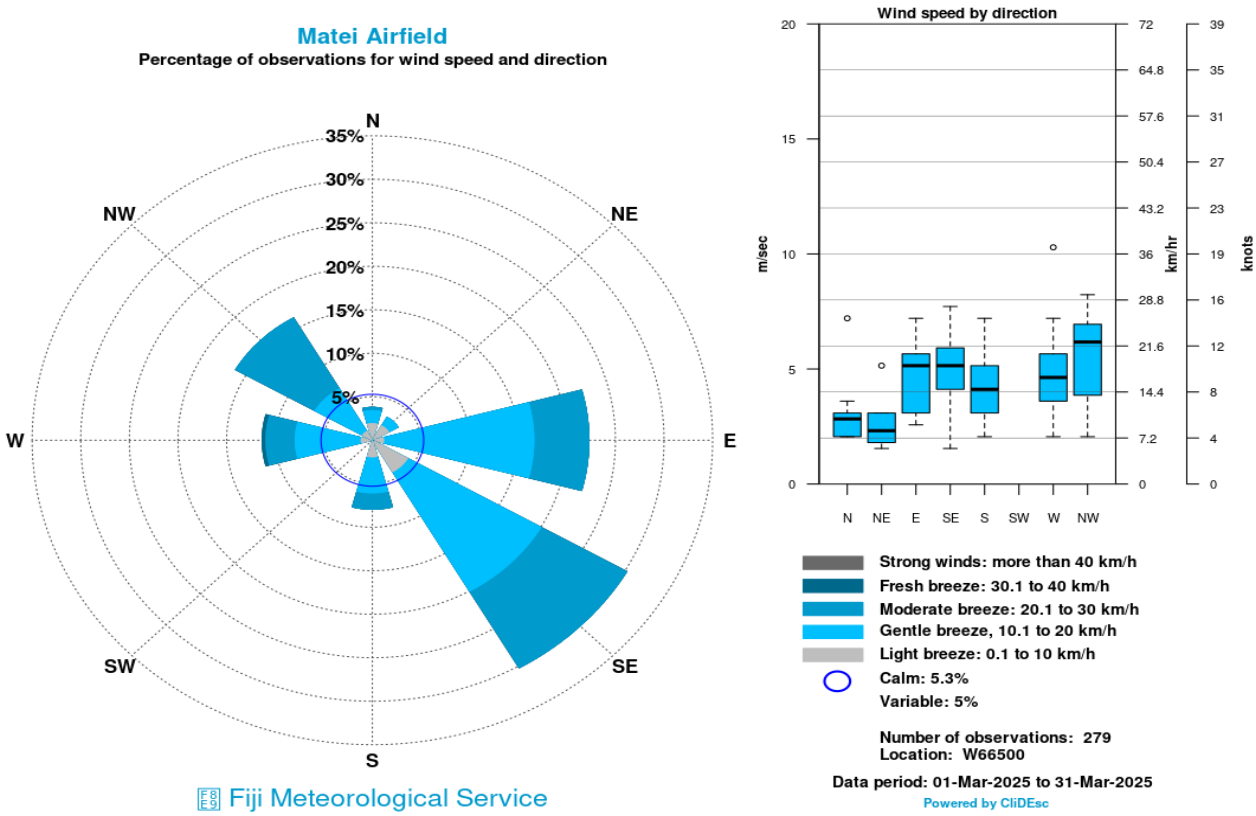


Figure 7d: For Matei Airfield's hourly wind observations (0800hrs to 1600hrs), southeasterly winds were dominant followed by easterly and then northwesterly winds. Wind strength ranged from light to fresh breeze, with calm winds observed 5.3% of the time.

8. SEA SURFACE TEMPERATURE (SST)

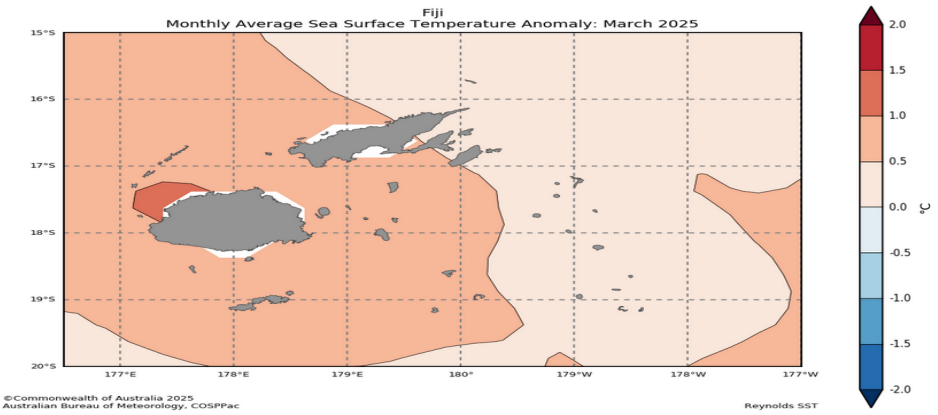


Figure 8:
Warmer than normal sea surface temperature anomalies were observed across most of the Fiji Waters, with anomalies 1.0-1.5°C observed west of Viti Levu.

Source: https://oceanportal.spc.int/portal/app.html#climate

9. CLOUD COVER

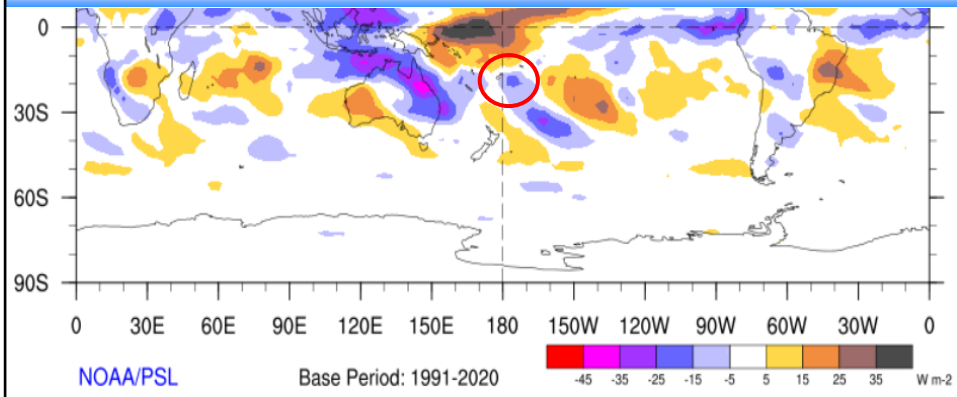


Figure 9:
Above normal cloud cover were present over the Fiji Group during March (*Fiji in red circle).*

Source: http://www.esrl.noaa.gov/psd/map/clim/olr.shtml

10. SEA LEVEL

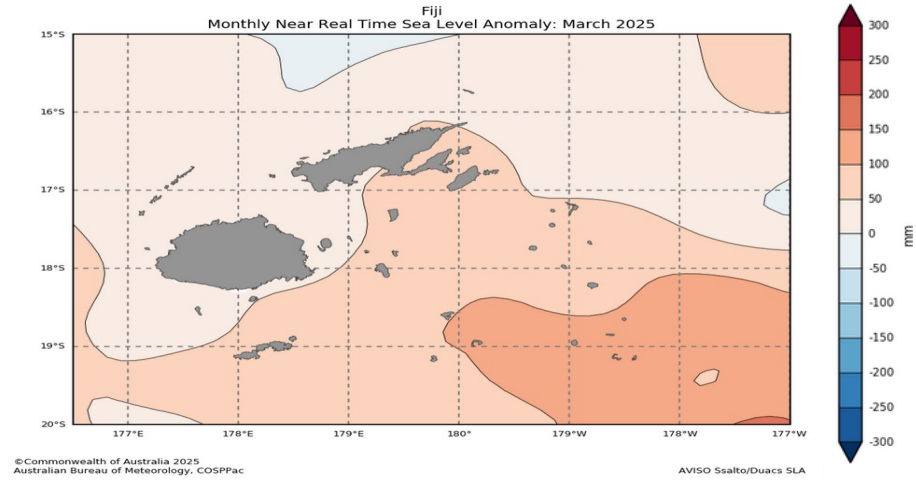


Figure 10:
Above normal sea level anomalies persisted across most of the Fiji Waters during March, while slightly *below normal* anomalies were present north of Vanua Levu.

Source: https://oceanportal.spc.int/portal/app.html#sealevel

11. WIND ANOMALIES

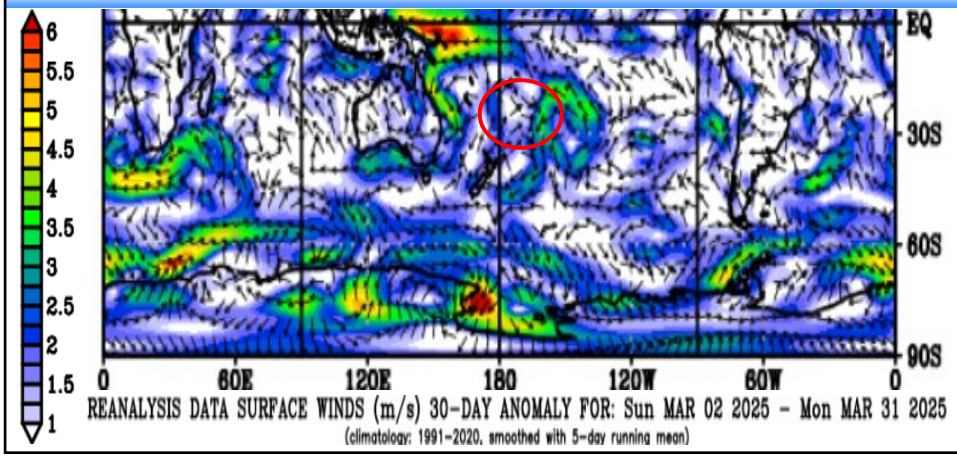


Figure 11:

Southerly winds were observed over the Fiji Group during the month (base period: 1991-2020) (*Fiji in red circle*).

Source: https://www.esrl.noaa.gov/psd/map/images/rnl/sfcwnd_30b.rnl.html

12. FLASH FLOODING: 2nd.

At the beginning of the month, localized heavy rainfall was observed on the 2nd, resulting in flash flooding in low-lying areas of the Western Division, particularly in Ba and Lautoka. As a result, several low level crossings were inundated, leading to their closure and making certain areas inaccessible.

Figure 12a: Vaivai Rd, 1st Crossing, Lautoka, on the 2nd. Source: Fiji Roods Authority.

Figure 12b: Vunisamaloa, Ba on the 2nd . source: Fiji Roads Authority.

Figure 12c: Saru Back Rd, Lautoka on the 2nd. Source: Fiji Roads Authority.

13. COASTAL INUNDATION: 12th.

A massive coastal inundation took place at Rakiraki village in Kadavu on 12th March. Seawater encroached the houses and agriculture areas near the coast of Rakiraki village (Figure 13a-13c).

Figure 13a: Coastal area in Rakiraki village, Kadavu inundated with sea-water, on the 12th. Source: The Fiji Times.

Figure 13b: Houses in Rakiraki village, Kadavu inundated with seawater, on the 12th. Source: The Fiji Times.

Figure 13c: Seawater encroached agriculture and inland house areas in Rakiraki village, Kadavu , on the 12th. Source: The Fiji Times.

EXPLANATORY NOTES

Anomalies - denote the departure of an element (rainfall, temperature, sea surface temperature, cloud cover, sea level and wind) from its long-period average value for a particular location.

Trough - an elongated area of low atmospheric pressure that is associated with a cyclone, or low. Sometimes referred to as a 'trough of low pressure'.

Rain - Liquid precipitation in the form of water droplets. Rain falls from dense, continuous clouds, called 'stratiform' clouds.

Shower - precipitation from individual clouds, often characterised by the sudden beginning or ending. Showers fall from 'lumpy looking', 'cauliflower' clouds, called 'cumuloform' clouds.

Trade Winds - the trade winds are the east to southeasterly winds (in the Southern Hemisphere) which affect tropical and subtropical regions.

High pressure systems or anticyclones are atmospheric circulations that rotate anti-clockwise in the Southern Hemisphere. Anticyclones are areas of higher pressure and are generally associated with lighter winds and fine and settled conditions.

Low pressure systems or mid-latitude cyclones are atmospheric circulations that rotate clockwise in the Southern Hemisphere (anti-clockwise in the Northern Hemisphere). Cyclones are areas of lower pressure and generally associated with stronger winds, unsettled conditions, cloudiness and rainfall.

Sea Surface Temperature (SST) - the temperature of the water's surface. It is usually measured using buoys, ship data, and satellites.