

### 1. IN BRIEF

A La Niña event continues in the tropical Pacific region.

Moist easterlies, southeast trade winds, together with series of troughs of low pressure systems affected the country during the month. Typical wet season rainfall continued to be experienced at most parts of the country, with generally *average to well above average* rainfall recorded during the month. However, drier than usual conditions were experienced at Dobuilevu, Monasavu, Nausori Airport, Laucala Bay and Rotuma.

Overall, out of the 25 rainfall monitoring stations, 3 recorded *well above average* rainfall, 10 above average, 7 average and 5 stations recorded *below average* rainfall.

A trough of low pressure affected the country at the end of the month. Significant 24-hour rainfall of 104mm was recorded at Vanuabalavu and 102mm at Yasawa-i-Rara, both on the 31<sup>st</sup>.

On temperatures, the highest day-time temperature of 35.9°C was recorded at Levuka on the 8<sup>th</sup>, followed by Navua with 35.4°C on the 22<sup>nd</sup>, Saqani with 35.2°C on the 15<sup>th</sup>,

Ellington (Rakiraki) with 34.8°C on the 16<sup>th</sup>, Korolevu with 34.3°C on the 4<sup>th</sup> and Sigatoka with 34.2°C on the 6<sup>th</sup>.

The lowest daily minimum air temperature of 17.0°C was recorded at both Vunisea and Nadarivatu on the 21<sup>st</sup> and 28<sup>th</sup>, respectively, followed by Monasavu with 18.0°C on the 28<sup>th</sup>, Lomaivuna with 20.4°C on the 28<sup>th</sup>, Savusavu Airfield with 20.5°C on the 22<sup>nd</sup> and Vaturekuka (Labasa) with 20.6°C on the 28<sup>th</sup>, Korolevu with 20.8°C on the 28<sup>th</sup>, Udu Point with 20.9°C on the 20<sup>th</sup>, both Vanuabalavu and Lakeba with 21.0°C on the 20<sup>th</sup> and 29<sup>th</sup>, respectively.

Southeasterly winds were dominant at Nadi Airport while northwesterly winds were dominant at Nausori Airport during the month, both with light to moderate wind strength (Figure 8).

Warmer than normal sea surface temperature anomalies were observed across most of the Fiji Group (Figure 9).

### 2. WEATHER PATTERNS

The weather in March was dominated by series of trough of low pressure systems with moist east to northerly winds prevailing over the Fiji group.

Moist easterly wind flow prevailed over the Fiji group from the 1<sup>st</sup> as a trough of low pressure approached the group from the west while swiftly sweeping eastwards over the rest of Fiji on the 2<sup>nd</sup>. Another trough followed through on the 3<sup>rd</sup> with occasional rain and thunderstorms over the group till the 5<sup>th</sup> with Suva recording the highest 24-hour rainfall of 72mm as it drifted north-eastwards towards the Northern Division of Fiji. The trough continued to linger over the Northern Division of Fiji till 13<sup>th</sup> with continued northerly to easterly wind flow prevailing over the country.

In addition, a trough developed to the south of the Fiji group on the 15<sup>th</sup> and affected the group while clearing to the north of Fiji till the 17<sup>th</sup> where it was situated away from the north of the group. Meanwhile, another trough approached the group from the west extending south-eastwards to the southwest of the group from the 18<sup>th</sup> to the 22<sup>nd</sup>. As the trough was over the south of the group it gradually moved north-eastwards with showers and thunderstorms experienced over the group which then lay to the far north of Fiji by the 25<sup>th</sup>.

Finally, on the 26<sup>th</sup>, the trough re-intensified while drifting south over the group affecting the Northern Division and spreading to the rest of the group with occasional rain and thunderstorms till the end of the month.

Rotuma's weather was primarily dominated with east to northerly winds over the island with a series of trough moving near the island towards the final week of the month.

### 3. RAINFALL

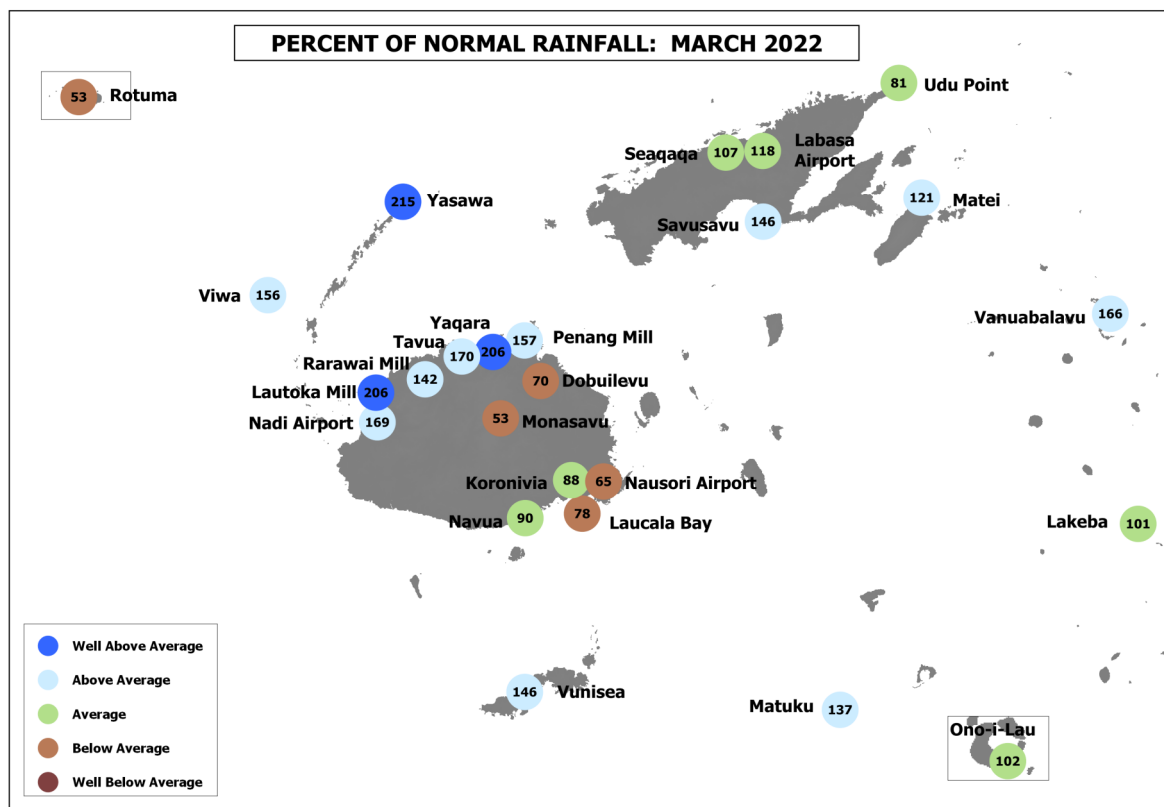
Typical wet season rainfall continued to be experienced at most parts of the country, with generally *average to well above average* rainfall recorded during the month of March 2022. The only exceptions were at Dobuilevu, Monasavu, Nausori Airport, Laucala Bay and Rotuma which experienced drier than usual conditions. Yaqara, Lautoka Mill and Yasawa-i-Rara recorded more than twice their *normal* monthly rainfall.

Matei Airfield recorded its highest number of rain days (rainfall  $\geq 0.1\text{mm}$ ) with 30 days, followed by Nadarivatu with 29 days, Yasawa-i-Rara and Savusavu Airfield both with 28 days, Nadi Airport and Viwa both with 27 days and both Monasavu and Dobuilevu with 25 days. On the other hand, Ellington (Rakiraki) recorded the least number of rain days with 16 days, followed by Sigatoka with 17 days, Yaqara with 18 days, and Laucala Bay with 19 days.

Overall, out of the 25 rainfall monitoring stations, 3 recorded *well above average* rainfall, 10 above average, 7 average and 5 stations recorded *below average* rainfall (Table 2, Figures 1-5).

Nadarivatu was the wettest site with 702.0mm of rainfall, followed by Yaqara with 621.5mm, Lautoka Mill with 595.4mm, Penang Mill with 568.0mm, Nadi Airport with 547.2mm, Yasawa-i-Rara with 513.5mm, Rarawai Mill with 511.3mm and Tavua with 494.0mm. On the other hand, Ellington (Ra) recorded the month's lowest total monthly rainfall of 99.0mm, followed by RKS Lodoni with 151.5mm, Rotuma with 182.5mm, Levuka with 218.5mm, Ono-i-Lau with 229.9mm, Nausori Airport with 230.2mm, Nasinu with 235.0mm and Udu Point with 243.6mm (Table 2).

A trough of low pressure affected the country at the end of the month. Significant 24-hour rainfall of 104mm was recorded at Vanuabalavu and 102mm at Yasawa-i-Rara, both on the 31<sup>st</sup>.



Normal: Long term average from 1981 to 2010  
 Well Below Average: Rainfall less than 40% of normal  
 Below Average: Rainfall between 40 to 79%  
 Rain Day: Rainfall  $\geq 0.1\text{mm}$

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

Above normal day-time air temperatures were observed at most parts of Fiji during the month. Out of the 21 climate stations that reported in time for the analysis of data, 12 recorded anomalies  $\geq +0.5^{\circ}\text{C}$ , 8 within  $\pm 0.5^{\circ}\text{C}$ , and Rarawai Mill was the only lone station that recorded  $\leq -0.5^{\circ}\text{C}$ .

The warmest days on average were recorded at Ellington (Rakiraki) with  $33.3^{\circ}\text{C}$ , followed by Navua and Levuka both with  $32.8^{\circ}\text{C}$ , Saqani with  $32.5^{\circ}\text{C}$ , Laucala Bay with  $32.0^{\circ}\text{C}$ , Labasa Airfield and RKS Lodoni both with  $31.9^{\circ}\text{C}$ , and Koronivia and Nausori Airport both with  $31.8^{\circ}\text{C}$ . On the other hand, Nadarivatu recorded the coolest days on average with  $24.9^{\circ}\text{C}$ , followed by Monasavu with  $26.5^{\circ}\text{C}$ , Momi with  $30.3^{\circ}\text{C}$ , Vaturekuka (Labasa) with  $30.5^{\circ}\text{C}$ , Ono-i-Lau with  $30.7^{\circ}\text{C}$ , Udu Point with  $30.8^{\circ}\text{C}$ , Vanuabalavu and Nadi Airport both with  $30.9^{\circ}\text{C}$  and Matuku with  $31.0^{\circ}\text{C}$ .

The highest day-time temperature was observed at Levuka with  $35.9^{\circ}\text{C}$  on the 8<sup>th</sup>, followed by Navua with  $35.4^{\circ}\text{C}$  on the 22<sup>nd</sup>, Saqani with  $35.2^{\circ}\text{C}$  on the 15<sup>th</sup>, Ellington (Rakiraki) with  $34.8^{\circ}\text{C}$  on the 16<sup>th</sup>, Korolevu with  $34.3^{\circ}\text{C}$  on the 4<sup>th</sup> and Sigatoka with  $34.2^{\circ}\text{C}$  on the 6<sup>th</sup>. In contrast, the coolest day-time temperature of  $20.9^{\circ}\text{C}$  was recorded at Nadarivatu on the 19<sup>th</sup>, followed by Monasavu with  $24.0^{\circ}\text{C}$  on the 19<sup>th</sup>, Yasawa-i-Rara and Penang Mill both with  $27.5^{\circ}\text{C}$  on the 19<sup>th</sup> and Koronivia and Yaqara both with  $27.6^{\circ}\text{C}$  on the 18<sup>th</sup> and 19<sup>th</sup>, respectively.

There were no new day-time temperature records registered during the month.

### B. Minimum Night-time Air Temperatures

Generally near normal to below normal night-time temperatures were recorded over most parts of the country during the month. Of the 21 stations, 4 recorded anomalies  $\geq +0.5^{\circ}\text{C}$ , 9 within  $\pm 0.5^{\circ}\text{C}$ , and 8 registered anomalies  $\leq -0.5^{\circ}\text{C}$ .

The coolest days on average was at Nadarivatu with  $18.9^{\circ}\text{C}$ , followed by Monasavu with  $19.8^{\circ}\text{C}$ , Savusavu Airfield with  $21.6^{\circ}\text{C}$ , Lomaivuna with  $21.8^{\circ}\text{C}$ , Vaturekuka (Labasa) with  $22.4^{\circ}\text{C}$ , Yasawa-i-Rara with  $22.5^{\circ}\text{C}$ , and both Sigatoka and Korolevu with  $22.9^{\circ}\text{C}$ . On the other hand, the warmest night-time temperatures on average were observed at Levuka with  $25.6^{\circ}\text{C}$ , followed by Rotuma with  $25.2^{\circ}\text{C}$ , Laucala Bay with  $24.6^{\circ}\text{C}$ , Saqani with  $24.5^{\circ}\text{C}$  and Momi, Matuku and Viwa all with  $24.1^{\circ}\text{C}$ .

The coolest night-time temperatures were recorded towards the end of the month. The lowest daily minimum air temperature of  $17.0^{\circ}\text{C}$  was recorded at both Vunisea and Nadarivatu on the 21<sup>st</sup> and 28<sup>th</sup>, respectively, followed by Monasavu with  $18.0^{\circ}\text{C}$  on the 28<sup>th</sup>, Lomaivuna with  $20.4^{\circ}\text{C}$  on the 28<sup>th</sup>, Savusavu Airfield with  $20.5^{\circ}\text{C}$  on the 22<sup>nd</sup> and Vaturekuka (Labasa) with  $20.6^{\circ}\text{C}$  on the 28<sup>th</sup>, Korolevu with  $20.8^{\circ}\text{C}$  on the 28<sup>th</sup>, Udu Point with  $20.9^{\circ}\text{C}$  on the 20<sup>th</sup>, both Vanuabalavu and Lakeba with  $21.0^{\circ}\text{C}$  on the 20<sup>th</sup> and 29<sup>th</sup>, respectively. On the other hand, the warmest night-time temperature of  $27.2^{\circ}\text{C}$  was recorded at Levuka on the 22<sup>nd</sup>, followed by Rotuma with  $27.0^{\circ}\text{C}$  on the 2<sup>nd</sup>, Koronivia with  $26.9^{\circ}\text{C}$  on the 19<sup>th</sup>, Vunisea with  $26.4^{\circ}\text{C}$  on the 16<sup>th</sup> and Matei Airfield with  $26.1^{\circ}\text{C}$  on the 4<sup>th</sup>.

There were no new night time temperature records established during the month.

## TABLE 1. CLIMATE RECORDS ESTABLISHED IN MARCH 2022

There were no new climate records established during March 2022.

*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 1981-2010 period as its “climatic normal” period.*

**TABLE 2. DAILY CLIMATE REPORTING SITES: SUMMARY FOR MARCH 2022**

	RAINFALL				AIR TEMPERATURES								SUNSHINE		
	TOTAL	RAIN		MAX. FALL	AVERAGE DAILY				EXTREME		TOTAL				
	MM	* DAYS	% +	MM ON	MAX. #	MIN. #	MIN. #	MAX. #	MAX. #	MIN. #	HRS	%			
NADI AIRPORT	547.2	169	27	63	5	30.9	-0.4	23.9	0.8	32.6	15	22.6	18	146	75
LAUCALA BAY	268.6	78	19	72	5	32.0	0.8	24.6	0.4	34.0	4	23.3	18	133	74
NACOCOLEVU RESEARCH	MISSING OBSERVATIONS														
ROTUMA ISLAND	182.5	53	20	40	26	31.3	0.4	25.2	0.4	33.0	26	23.9	31	154	97
VIWA ISLAND	356.9	156	27	79	31	31.5	0.1	24.1	-1.1	32.8	8	22.6	18		
YASAWA-I-RARA	513.5	215	28	102	31	31.7	0.7	22.5	-2.0	33.9	8	21.2	21		
UDU POINT WEATHER	243.6	81	23	46	31	30.8	-0.2	23.4	-1.1	32.0	2	20.9	20		
LABASA AIRFIELD	394.9	118	24	65	31	31.9	0.2	23.1	0.6	33.2	15	21.4	28		
SAVUSAVU AIRFIELD	345.7	146	28	54	31	31.7	0.9	21.6	-2.1	34.0	16	20.5	22		
KORONIVIA RESEARCH	326.4	88	24	71	17	31.8	1.0	23.8	0.4	33.0	7	22.5	18		
NAUSORI AIRPORT	230.2	65	23	58	4	31.8	1.0	23.7	0.3	33.2	7	21.9	28		
NAVUA (AWS)	328.5	86	23	60	16	32.8	1.9	23.4	1.2	35.4	22	21.1	28		
MONASAVU HYDRO DAM	316.4	53	25	37	10	26.5	0.8	19.8	0.5	28.7	7	18.0	28		
FSC LAUTOKA MILL	595.4	206	20	77	17	31.5	0.2	23.9	0.0	33.0	15	23.0	11		
FSC RARAWAI MILL	511.3	142	23	79	4	31.3	-0.9	23.2	0.7	33.4	2	21.5	28		
FSC PENANG MILL	568.0	157	22	85	31	31.2	0.2	23.7	-0.1	32.5	15	22.3	18		
MATEI AIRFIELD	339.6	121	30	62	25	31.2	0.7	23.3	-1.0	32.1	23	21.5	18		
VANUABALAVU	366.4	166	23	104	31	30.9	0.2	23.2	-1.8	32.1	28	21.0	20		
LAKEBA	272.2	101	24	45	19	31.3	0.9	23.4	-0.8	32.8	11	21.0	29		
VUNISEA	453.0	146	23	99	29	31.4	1.0	23.6	0.0	32.9	23	17.0	21		
MATUKU	304.0	137	21	85	19	31.0	0.6	24.1	-0.5	32.2	9	22.9	19		
ONO-I-LAU	229.9	102	22	36	2	30.7	0.9	23.6	-0.8	34.0	14	21.8	22		
YAQARA AWS	621.5	206	18	88	31	31.2		23.5		32.4	2	22.4	18		
LEVUKA AWS	218.5		22	84	31	32.8		25.6		35.9	8	23.7	26		
KEYIASI AWS	306.0		24	27	17	MISSING OBSERVATIONS									
LOMAIVUNA AWS	365.0		23	127	9	31.7		21.8		33.8	7	20.4	28		
NADARIVATU AWS	702.0		29	92	18	24.9		18.9		27.4	15	17.0	28		
RKS LODONI AWS	151.5		23	39	31	31.9		23.3		33.0	11	21.3	28		
MOMI AWS	473.0		21	87	20	30.3		24.1		31.9	27	22.8	21		
SIGATOKA AWS	383.0		17	79	16	31.7		22.9		34.2	6	21.2	27		
ELLINGTON (RA) AWS	99.0		16	25	3	33.3		U/S		34.8	16	U/S			
VATUREKUKA AWS	387.0		22	98	31	30.5		22.4		32.2	9	20.6	28		
KOROLEVU AWS	335.0		22	92	16	31.7		22.9		34.3	4	20.8	28		
WAINIKORO AWS	MISSING OBSERVATIONS														
SAQANI AWS	324.5		24	79	31	32.5		24.5		35.2	15	22.5	20		
SEAQAQA TB3	392.5	107	22	83	31										
DOBUILEVU TB3	273.0	70	25	37	31										
NASINU TB3	235.0		23	52	17										
TAVUA TB3	494.0	170	21	86	31										

	TEMPERATURE (C)		HUMIDITY RH%	WIND VP	SUN RAD %OF MJ/ POS SQ.M
	DRY	WET			
	MEAN (AVERAGE AT 9AM)				
NADI AIRPORT	27.4	27.9	25.2	80	28.1
LAUCALA BAY	28.3	28.7	25.5	77	29.4
NACOCOLEVU RESEARCH	MISSING OBSERVATIONS				
ROTUMA ISLAND	28.3	29.3	26.1	78	30.5
VIWA ISLAND	27.8	28.4	26.3	85	28.9
YASAWA-I-RARA	27.1	28.0	26.6	90	28.3
UDU POINT WEATHER	27.1	28.0	25.7	83	28.3
LABASA AIRFIELD	27.5	27.7	25.4	83	27.8
SAVUSAVU AIRFIELD	26.7	28.3	25.8	82	28.8
KORONIVIA RESEARCH	27.8	28.2	25.8	83	28.6
NAUSORI AIRPORT	27.7	28.0	25.6	82	28.3
NAVUA (AWS)	28.1				4.7
MONASAVU HYDRO DAM	23.2	23.7	21.9	86	21.9
FSC LAUTOKA MILL	27.7	29.3	26.6	81	30.5
FSC RARAWAI MILL	27.2	27.4	25.4	86	27.3
FSC PENANG MILL	27.4	27.9	25.8	84	28.1
MATEI AIRFIELD	27.3	28.6	26.1	82	29.3
VANUABALAVU	27.1	28.5	25.7	80	29.1
LAKEBA	27.4	29.2	26.3	80	30.3
VUNISEA	27.5	27.8	25.6	84	27.9
MATUKU	27.6	28.2	25.5	80	28.6
ONO-I-LAU	27.2	28.3	26.2	85	28.8

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 (1981-2010). + :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

Nadi Airport (Western Division) - Temperature & Rainfall Records for the last 13 Months (March 2021 - March 2022)

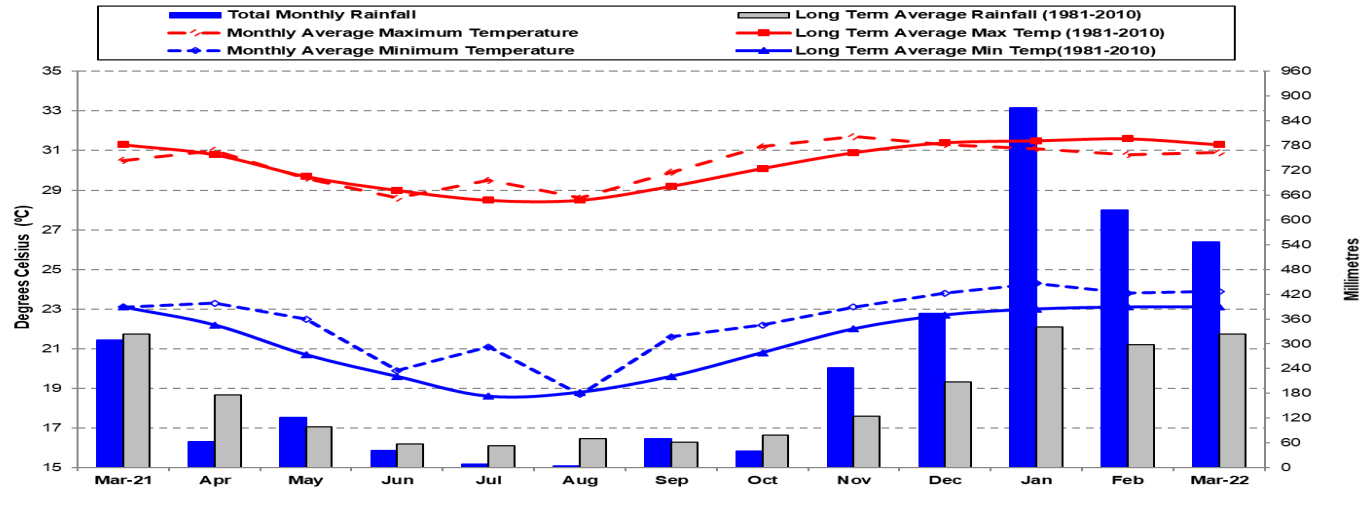


Figure 3

Laucala Bay - (Suva) (Central Division) - Temperature & Rainfall Records for the last 13 Months (March 2021 - March 2022)

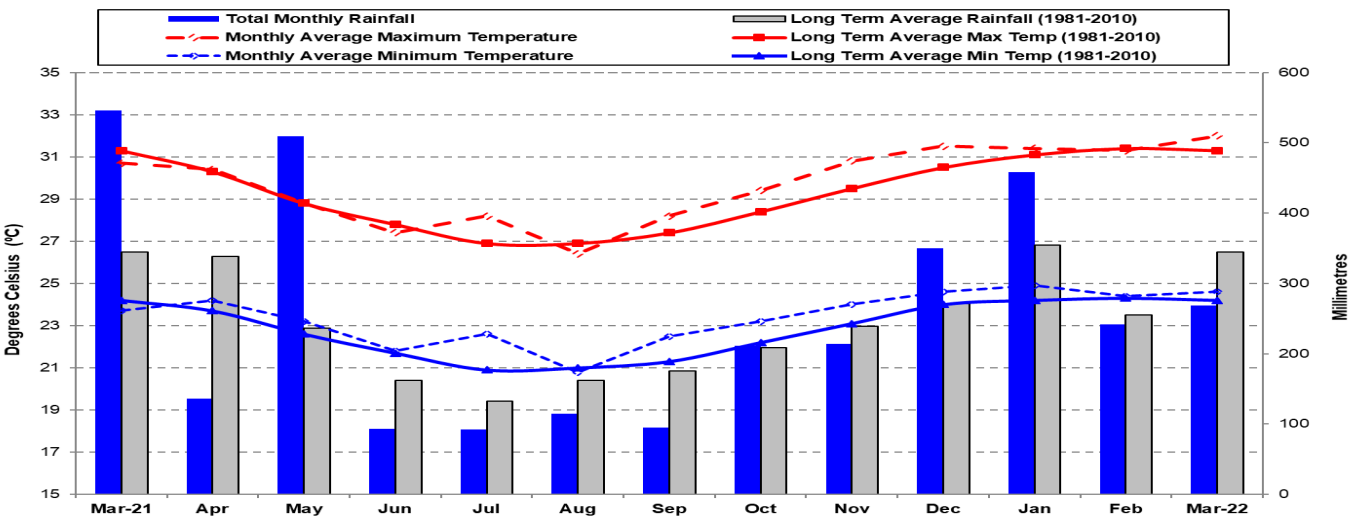


Figure 4

Udu Point (Eastern Division) - Temperature & Rainfall Records for the last 13 Months (March 2021 - March 2022)

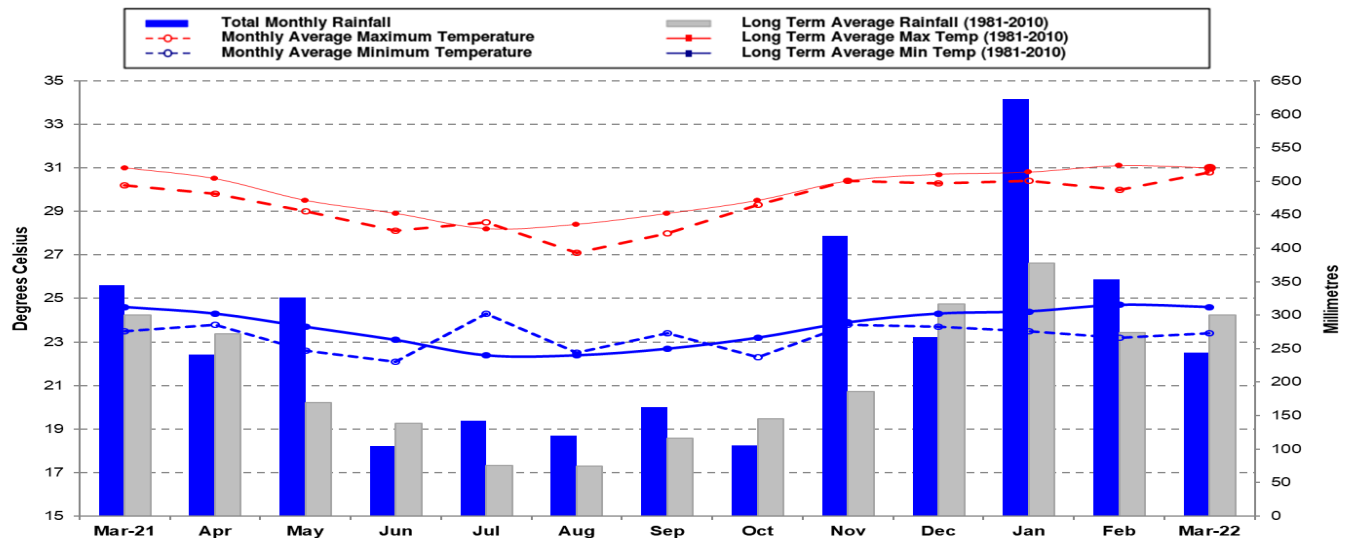
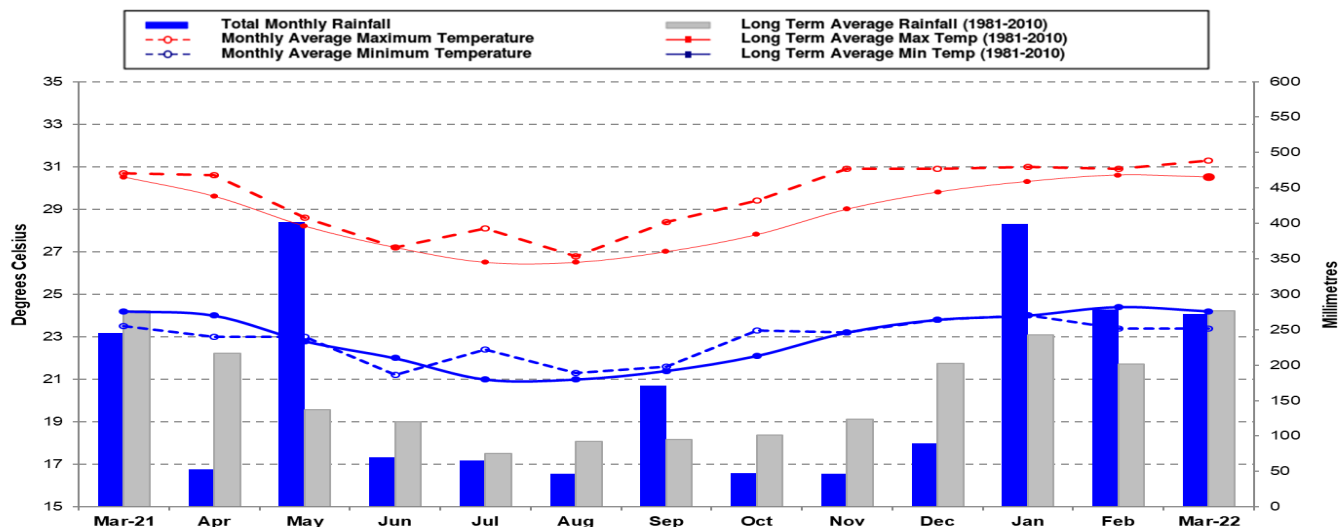


Figure 5

Lakeba (Eastern Division) - Temperature & Rainfall Records for the last 13 Months (March 2021 - March 2022)



### 5. DAILY RAISED PAN EVAPORATION

Daily Evaporation for March 2022

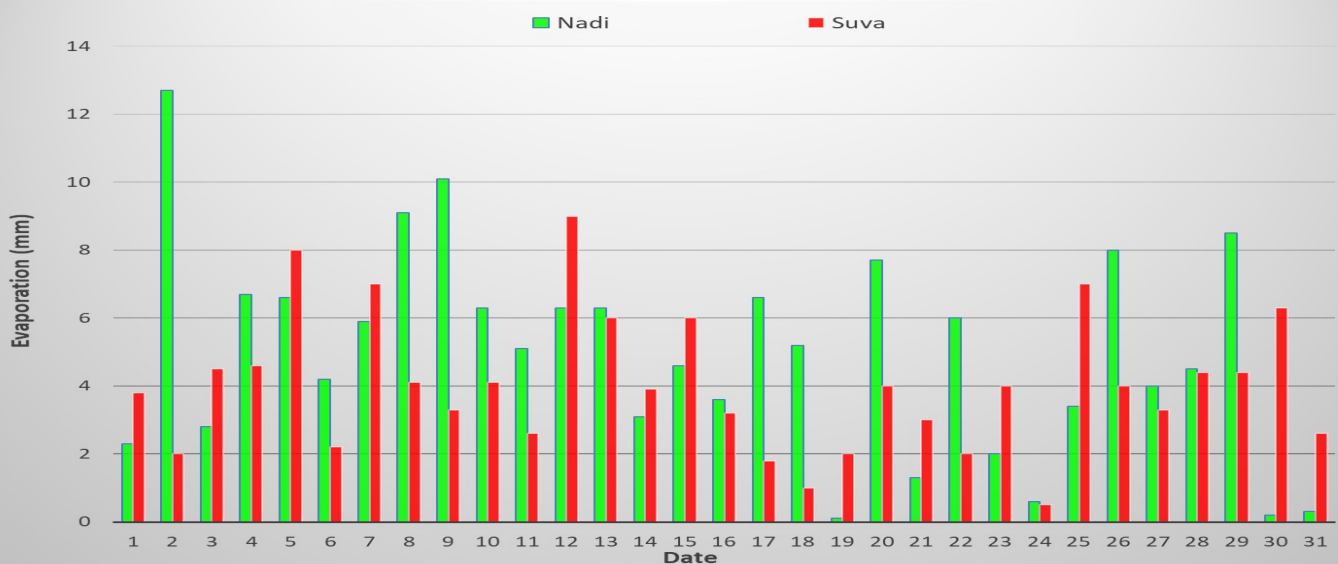


Figure 6: The total monthly evaporation at Nadi Airport and Laucala Bay (Suva) were 154.1mm and 124.6mm, respectively. Nadi’s highest daily evaporation was 12.7mm on the 2<sup>nd</sup>, with Suva’s highest daily evaporation of 9.0mm on the 12<sup>th</sup>. Note Nacocolevu’s evaporation could not be analysed due to missing observation data.

### 6. SOLAR RADIATION

The Nadi solar radiation instrument became unserviceable during the month of March 2022.



7. WIND SUMMARY

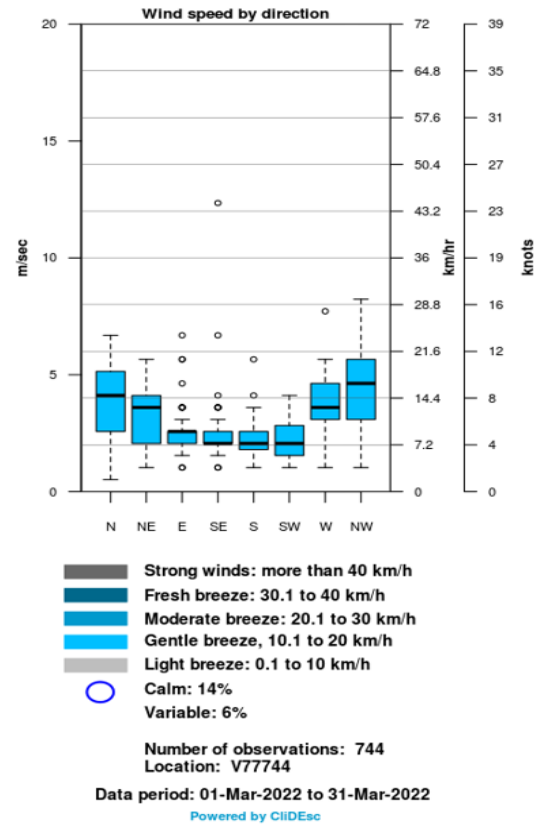
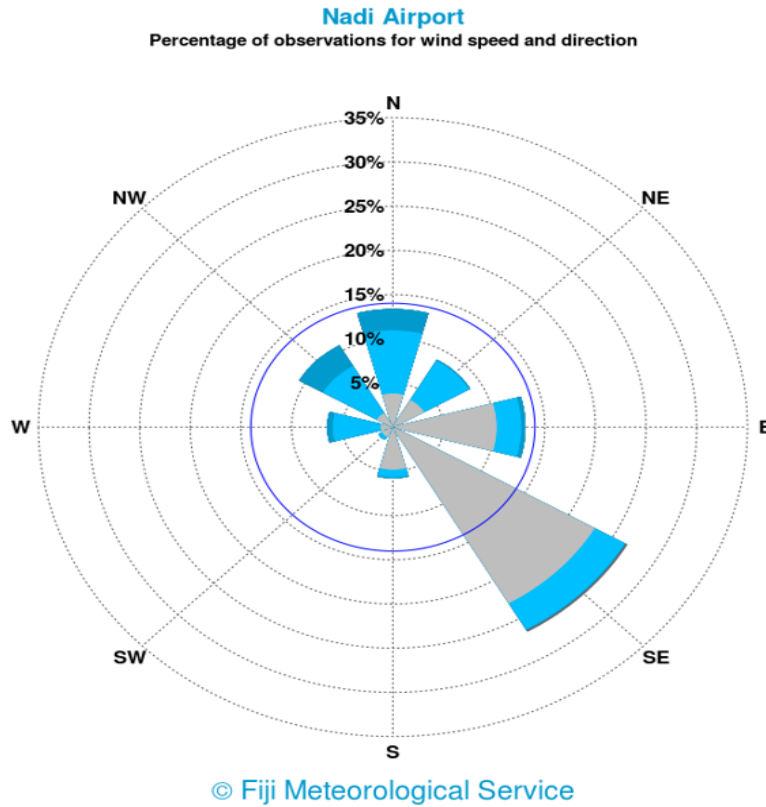


Figure 8a: Southeasterly winds were most dominant at Nadi Airport during the month, followed by northerly and easterly winds. Wind strength ranged from light to moderate during this period.

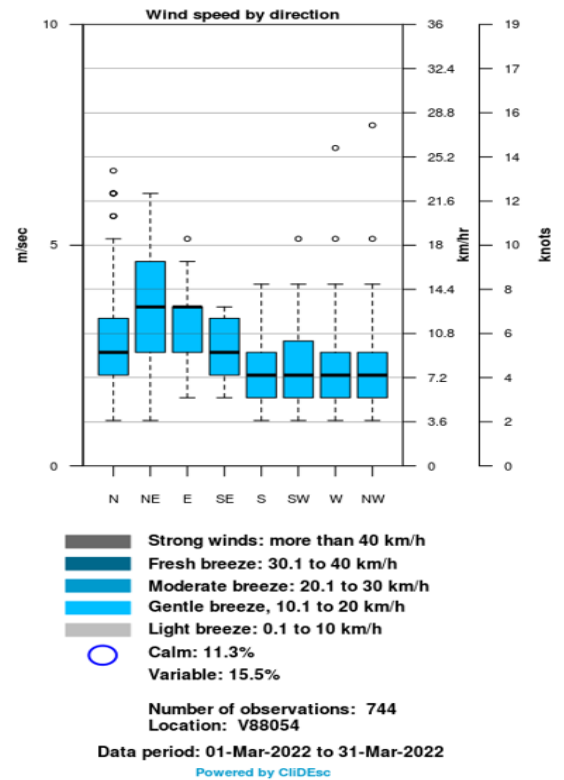
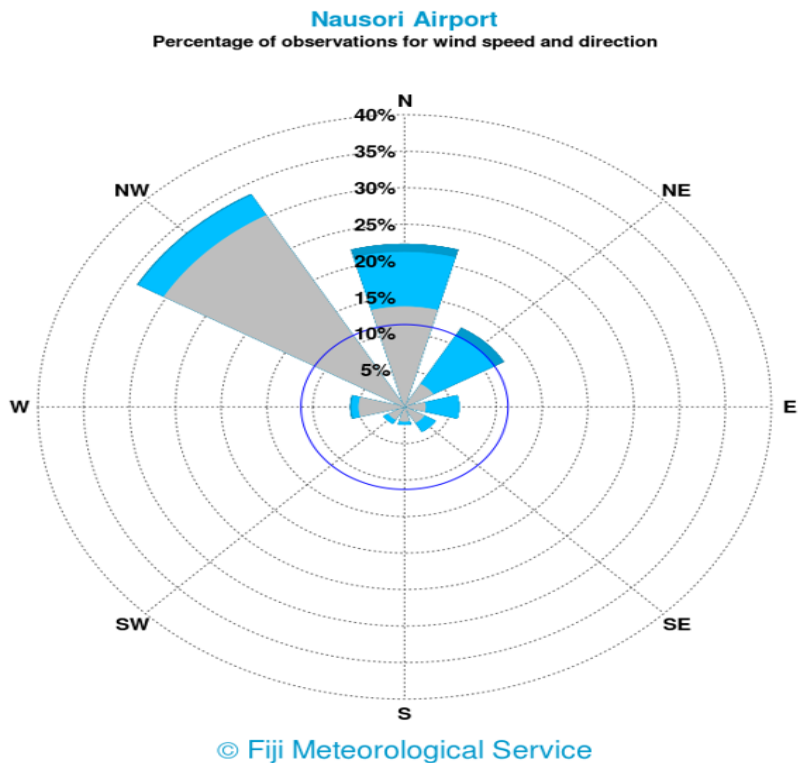
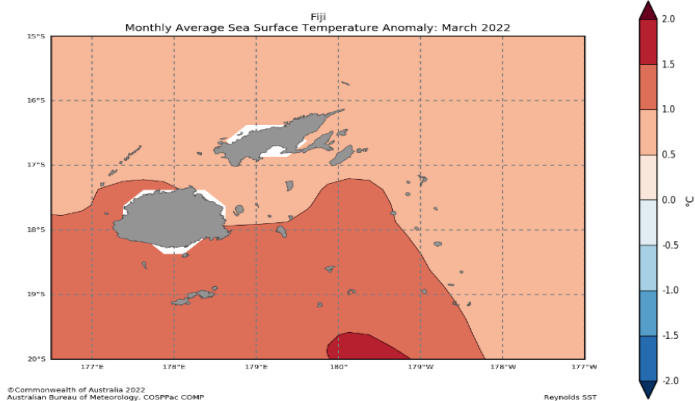


Figure 8b: Northwesterly winds were dominant at Nausori Airport, followed by northerly and northeasterly winds. Wind strength ranged from light to moderate during this period.

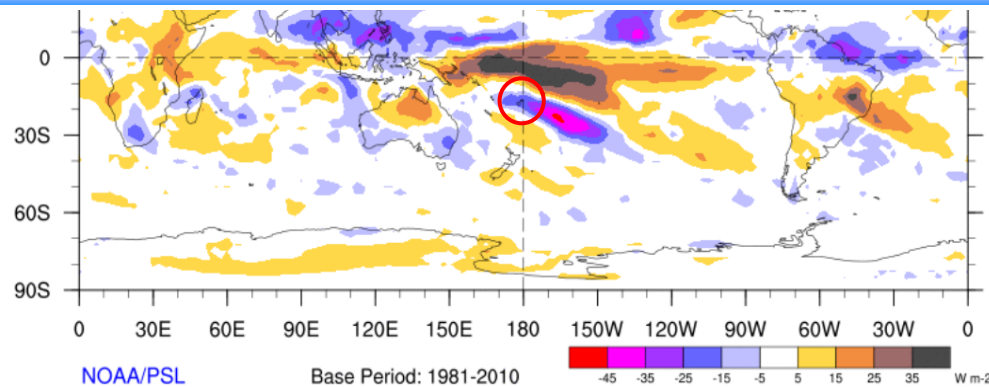
### 8. SEA SURFACE TEMPERATURE (SST)



**Figure 9:** Warmer than normal sea surface temperature anomalies were observed across most of the Fiji Waters.

Source: <http://oceanportal.spc.int/portal/app.html#climate>

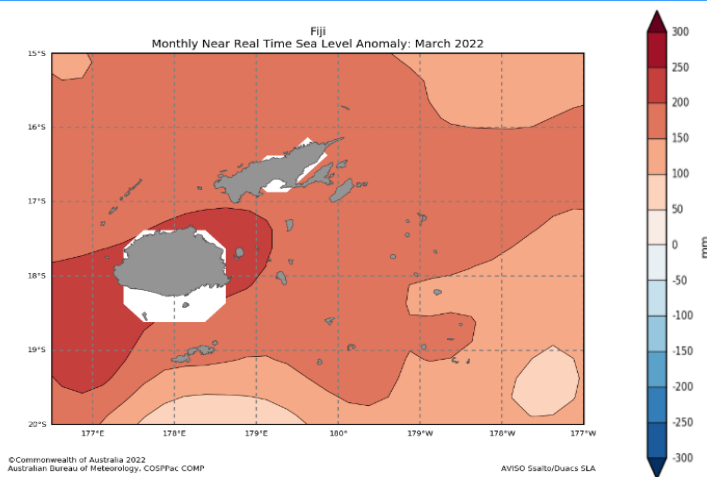
### 9. CLOUD COVER



**Figure 10:** Slightly above normal cloud cover was present over the Fiji Group during March (Fiji in red circle).

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

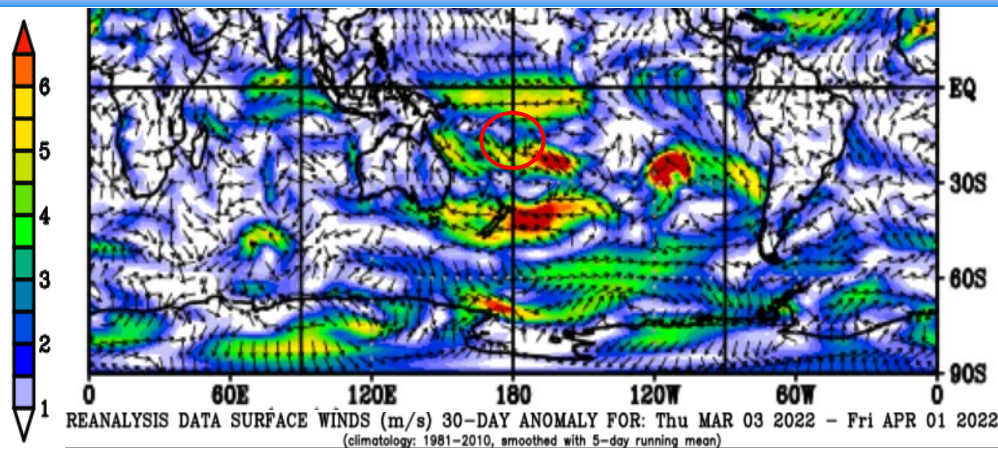
### 10. SEA LEVEL



**Figure 11:** Above normal sea level anomalies (between 15-25cm) persisted across most of the Fiji Waters.

Source: <http://oceanportal.spc.int/portal/app.html#sealevel>

### 11. WIND ANOMALIES



**Figure 12:** Northwesterly wind anomalies were recorded over the Fiji Group during the month (base period: 1981-2010) (Fiji in red circle).

Source: [https://www.esrl.noaa.gov/psd/map/images/rnl/sfcwnd\\_30b.rnl.html](https://www.esrl.noaa.gov/psd/map/images/rnl/sfcwnd_30b.rnl.html)