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Fiji Climate Summary December 2020



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1. IN BRIEF

A moderate La-Niña event continued in the tropical Pacific during December 2020. The South Pacific Convergence Zone (SPCZ) was displaced south of its normal position, closer to the Fiji Group. Consequently, most parts of the country experienced wetter than usual month.

The highlight of the month was severe tropical cyclone Yasa, which made a landfall as a Category 5 tropical cyclone over Vanua Levu in the evening of 17th and then later over Taveuni in the early hours of 18th. With the maximum sustained wind of 250 km/hr, globally Yasa was the strongest cyclone to be recorded in 2020. Furthermore, Yasa ranks as the 2nd most intense tropical cyclone in the recorded history in the Southwest Pacific, equalling tropical cyclone Pam in 2015.

Yasa made a landfall over Bua province on Vanua Levu with estimated sustained wind of 240 km/hr and momentary gust of 345 km/hr. Consequently, very destructive hurricane force winds were experienced across Vanua Levu,

resulting in widespread damages to infrastructures. Furthermore, phenomenal seas and storm surges resulted in coastal flooding in some of the communities.

Severe tropical cyclone Yasa also resulted in some significant rainfall, especially over Vanua Levu, northwestern Viti Levu and eastern half of Viti Levu. The highest of this was at Nakawaqa on Vanua Levu with 221mm of rainfall over a 24-hour period on the 17th. Consequently, parts of the country were flooded, including severe flooding in Rakiraki town on the 17th.

Apart from the rainfall brought by Yasa, there were numerous other significant rainfall events associated with isolated afternoon thunderstorm activities during the month. In particular, the rainfall event in Sigatoka on the 30th was a standout with 108mm of rainfall recorded in 1 hour 10 minutes, between 4.00pm to 5.10pm (Fiji Standard Time). This led to flash flooding in Sigatoka town.

2. WEATHER PATTERNS

Series of troughs of low-pressure systems, moist easterly wind flow and severe tropical cyclone Yasa dominated the weather during the month.

The month began with a high-pressure system to the far southwest of Fiji which directed an east to southeast wind flow over the group. A trough of low pressure approached Fiji from the west on the 4th and this moistened the easterlies over the group. The trough moved over the group on the 5th and then to the east of Fiji later on the same day. The trough lingered over the eastern parts of the group till the 8th. An active trough to the north of Fiji drifted towards the group on the 9th and this continued to enhance the easterlies.

Tropical disturbance 02F, TD02F, developed to the west of Rotuma on the 11th. The development of the disturbance just to the north of Fiji strengthened the easterlies during this period and brought some fresh to strong winds over parts of the group with rough to very rough seas. On the 13th, TD02F intensified into a depression to the northwest of Fiji. Another tropical disturbance TD03F developed along the trough to the east of Fiji, just north of Niue and this continued to enhance the easterlies over Fiji.

Early on the 14th, TD02F developed further into a tropical cyclone and was named Yasa to the northwest of Fiji while TD03F developed into a depression just to the east of Fiji.

TD03F directed a south to southeast wind flow during this period. TD03F also developed further and was named tropical cyclone Zazu over Tongan waters. Tropical cyclone Zazu continued to direct a southeast to southwest wind flow over Fiji.

Severe tropical cyclone Yasa, Category 5, drifted just north of Yasawa early on the 17th and made landfall early in the evening over Vanua Levu. Very destructive winds, phenomenal seas, storm surge, heavy rain and severe flooding were experienced on the 17th, especially over Vanua Levu. Early on the 18th, severe tropical cyclone Yasa centre crossed over to Northern Koro sea and over Northern Lau waters. Yasa gradually weakened to Category 4 and then to Category 3 later on the 18th over Southern Lau waters. Yasa continued to weaken thereafter and was de-classified on the 20th. Nonetheless, the former tropical cyclone Yasa continued to direct north to northwest wind flow over the group till the 24th.

A weak trough then developed over the group together with a strengthening high-pressure system to the south, directed a northeast to southeast wind flow over the group which lasted till month end.

Rotuma was affected by series of troughs and low-pressure systems, and as well as TD01F and tropical cyclone Yasa.

3. RAINFALL

It was wetter than usual month in most parts of the country during December 2020. More than twice the normal rainfall was registered at Udu Point, Yasawa-i-Rara, Nacocolevu, Penang Mill, Monasavu and Matuku. In contrast, Lautoka Mill and Rarawai Mill were drier than usual during the month.

Overall, out of the 23 rainfall monitoring sites, 6 stations received *well above average* rainfall, 13 *above average*, Nadi Airport and Ono-i-Lau *near average*, while Lautoka Mill and Rarawai Mill recorded *below average* rainfall (Table 2, Figures 1-5).

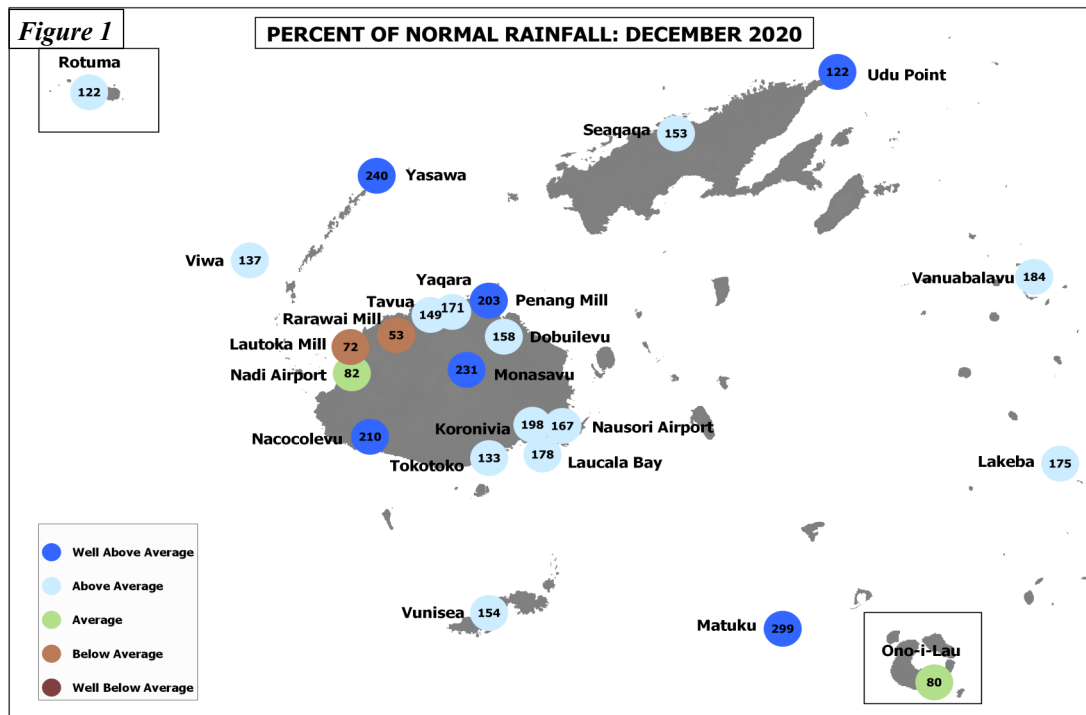
Severe tropical cyclone Yasa resulted in some significant rainfall, especially over Vanua Levu, northwestern Viti Levu and eastern half of Viti Levu. Over a 24-hour period on the 17th, Nakawaqa, Monasavu, Levuka, Vatukaceveva, Nadarivatu and Penang Mill registered 221mm, 211mm, 201mm, 172mm, 167mm and 160mm, respectively (Figure 17). Consequently, parts of the country were flooded, including severe flooding in Rakiraki town on the 17th.

Apart from the rainfall brought by Yasa, there were numerous other significant rainfall events associated with isolated afternoon thunderstorm activities during the month. In particular, the rainfall event in Sigiatoka on the 30th was a standout with 108mm of rainfall recorded in 1 hour 10 minutes, between 4.00pm to 5.10pm (Fiji Standard Time). The highest total monthly rainfall during the month was received at Monasavu with 1304mm of rainfall, followed by Lomaivuna with 936mm, Nadarivatu with 741mm, RKS

(Lodoni) with 632mm, Penang Mill with 527mm, Koronivia with 511mm, Levuka with 496mm and Laucala Bay (Suva) with 482mm. On the other hand, the lowest total monthly rainfall was registered at Ono-i-Lau with 103mm of rainfall, followed by Momi with 110mm, Rarawai Mill (Ba) with 137mm, Lautoka Mill with 143mm, Nadi Airport with 170mm, Viwa with 201mm and Tavua with 256mm.

Laucala Bay (Suva), Koronivia, Navua (Tokotoko) and Lomaivuna recorded the highest number of rain days (rainfall ≥ 0.1 mm) during the month with all 28 days, followed by both Nausori Airport and Monasavu with 27, Nasinu with 26, Nacocolevu, Vunisea, Keiyasi, Nadarivatu and Saqani all with 25, and Penang Mill, Matuku, RKS Lodoni and Korolevu with all 24. On the other hand, Momi experienced least number of rain days with 13, followed by Lautoka Mill with 16, Udu Point and Ono-i-Lau both with 18, and Yasawa-i-Rara and Tavua both with 19.

There was no new record for rainfall being registered during the month.



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 ≥ 0.1 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

Generally *near normal* maximum air temperatures were observed over the Fiji Group during December. Out of the 19 climate stations, 3 recorded anomalies $\geq +0.5^{\circ}\text{C}$, 12 within $\pm 0.5^{\circ}\text{C}$, while 4 registered anomalies below $\leq -0.5^{\circ}\text{C}$ (Table 2 & Figures 2-5).

Warmest days on average during the month was at Seaqaqa with 32.4°C , followed by Keiyasi with 32.2°C , Lautoka Mill and Saqani with both 32.0°C , Yaqara with 31.9°C , and Rarawai Mill (Ba) with 31.8°C . On the other hand, Monasavu and Nadarivatu were both coolest on average with 25.2°C , followed by Matuku and Rakiraki with both 28.8°C , Ono-i-Lau with 29.1°C , and Vunisea (Kadavu) and Vanuabalavu with both 29.6°C .

The highest daily day-time air temperature during the month was registered at Levuka with 36.0°C on the 24th, followed by Lautoka Mill with 35.5°C on the 12th, Nadi Airport and Saqani both with 34.6°C on the 12th and 24th, respectively, Nacocolevu and Keiyasi both with 34.5°C on the 10th and 31st, respectively and Seaqaqa with 34.3°C on the 13th. In contrast, the coolest maximum air temperature for December was recorded at Nadarivatu with 21.7°C on the 17th, followed by Monasavu with 21.9°C on the 8th, Lomaivuna with 24.0°C on the 17th, Rakiraki with 24.9°C on the 17th, Vaturekuka (Labasa) with 25.0°C on the 17th and RKS (Lodoni) with 25.1°C on the 17th as well.

There was no new record day-time temperature set during the month.

B. Minimum Night-time Air Temperatures

Near normal or *above normal* minimum air temperatures were recorded over most part of the Fiji Group during the month. Out of the 19 stations, 10 recorded anomalies within $\pm 0.5^{\circ}\text{C}$, 6 $\geq +0.5^{\circ}\text{C}$ and 3 registered anomalies of $\leq -0.5^{\circ}\text{C}$ (Table 2 & Figures 2-5).

The coolest monthly average night-time temperature was recorded at Nadarivatu with 18.3°C , followed by Monasavu with 19.0°C , Lomaivuna with 21.5°C and Keiyasi with 22.0°C . On the other hand, the warmest monthly average night-time temperature was recorded at Rotuma with 24.8°C , followed by Viwa with 24.7°C , Ono-i-Lau with 24.2°C , Matuku with 24.1°C and Vunisea (Kadavu) with 24.0°C .

A number of places around the Viti Levu recorded significantly cool condition on the 1st. The lowest night-time temperatures during the month was recorded at Nadarivatu with 12.9°C , followed by Monasavu with 14.0°C , Keiyasi with 17.4°C , Rarawai Mill (Ba) with 18.1°C , RKS (Lodoni) and Korolevu with both 18.3°C and Koronivia with 18.3°C , all registered on the 1st. In contrast, the warmest minimum air temperature during the month was recorded at Penang Mill with 26.7°C on the 12th, followed by Yasawa-i-Rara with 26.5°C on the 4th, Vunisea (Kadavu) with 26.4°C on the 10th, Rotuma, Vaturekuka (Labasa) and Levuka with all 26.2°C on the 10th, 21st and 10th, respectively.

There was no new record night-time temperature set during the month.

TABLE 1. CLIMATE RECORDS ESTABLISHED IN DECEMBER 2020

There was no new record established during the month.

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 DECEMBER 2020

	RAINFALL				AIR TEMPERATURES								SUNSHINE		
	TOTAL MM	RAIN		MAX. MM ON	AVERAGE DAILY				EXTREME		TOTAL HRS	* %			
		* DAYS %	+ %		MAX. C	# C	MIN. C	# C	MAX. C	MIN. C					
NADI AIRPORT	170	82	20	28	4	31.0	-0.4	23.4	0.7	34.6	12	20.5	1	187	85
SUVA/LAUCALA BAY	482	178	28	61	16	29.9	-0.6	23.9	-0.1	32.2	22	20.8	1	147	79
NACOCOLEVU	372	210	25	92	4	31.2	-0.1	23.0	1.1	34.5	10	21.8	8	105	54
ROTUMA	373	122	22	80	21	30.7	-0.2	24.8	-0.1	32.0	9	23.1	14	141	77
VIWA	201	137	21	62	16	31.2	-0.2	24.7	-0.3	33.0	25	23.0	1		
UDU POINT	385	121	18	125	17	30.1	-0.6	23.2	-1.1	31.5	14	21.3	6		
SAVUSAVU AIRFIELD	NO OBSERVATION														
LABASA AIRFIELD	NO OBSERVATION														
NABOUWALU	STATION NOT OPERATIONAL DUE TO TC YASA														
KORONIVIA	511	198	28	110	16	29.8	-0.2	22.7	0.0	32.0	31	18.4	1		
NAUSORI AIRPORT	443	167	27	90	16	30.1	0.3	23.1	0.2	32.0	22	18.9	1		
NAVUA/TOKOTOKO	463	133	28	58	4	30.1	0.5	23.0	1.2	32.3	12	18.5	1		
MONASAVU	1304	231	27	211	17	25.2	0.3	19.0	0.4	28.0	21	14.0	1		
LAUTOKA AES	143	72	16	20	3	32.0	0.7	23.6	0.2	35.5	12	20.5	2		
BA/RARAWAI MILL	137	53	21	34	17	31.8	-0.6	22.5	0.5	33.7	12	18.1	1		
PENANG MILL	527	203	24	191	17	30.6	-0.2	23.7	0.1	32.0	24	22.4	14		
MATEI AIRFIELD	NO OBSERVATION														
VANUABALAVU	343	184	20	80	17	29.6	-0.1	23.8	-0.5	33.1	26	21.6	1		
LAKEBA	353	175	21	99	6	30.3	0.5	23.7	-0.1	32.6	22	18.6	1		
YASAWA	344	240	19	104	17	31.2	0.3	23.7	-0.7	33.1	4	21.3	17		
VUNISEA	283	154	25	94	16	29.6	0.2	24.0	0.8	30.9	23	20.4	1		
MATUKU	428	299	24	62	28	28.8	-1.0	24.1	0.1	30.7	24	22.5	30		
ONO-I-LAU	103	80	18	52	18	29.1	0.0	24.2	0.6	31.0	22	22.5	18		
YAQARA AWS	297	171	22	102	17	31.9		23.9		33.5	1	19.4	20		
LEVUKA AWS	496		23	201	17	31.6		24.5		36.0	24	22.6	18		
KEIYASI AWS	471		25	79	27	32.2		22.0		34.5	31	17.4	1		
LOMAIVUNA AWS	936		28	142	17	30.2		21.5		33.8	19	19.5	20		
NADARIVATU AWS	741		25	167	17	25.2		18.3		27.6	2	12.9	1		
RKS LODONI AWS	632		24	151	17	29.8		22.7		31.6	19	18.3	1		
MOMI AWS	110		13	21	5	U/S		23.6		U/S		20.5	1		
SIGATOKA AWS	374		23	118	30	30.1		22.4		32.1	10	18.5	1		
RAKIRAKI AWS	455		23	127	17	28.8		22.8		30.0	25	19.9	20		
WAINIKORO AWS	406		22	104	17	31.3		22.5		33.3	14	19.4	21		
SAQANI AWS	460		25	148	17	32.0		U/S		34.6	24	U/S			
VATUREKUKA AWS	389		20	92	17	29.9		22.5		32.0	3	21.1	15		
SEAQAQA AWS	440	153	22	126	16	32.4		23.5		34.3	13	19.8	20		
KOROLEVU AWS	453		24	60	4	30.9		22.6		33.5	12	18.3	1		
KORO ISLAND AWS	U/S					U/S		U/S		U/S					
KUBULAU AWS	U/S					U/S		U/S		U/S					
DOBUILEVU TB3	411	158	22	109	17										
NASINU TB3	466		26	77	16										
TAVUA TB3	256	149	19	74	27										
TEMPERATURE(C)HUMIDITY WIND SUN RAD															
DRY WET RH% VP %OF MJ/															
(AVERAGE AT 9AM) KT POS SQ.M															
NADI AIRPORT	27.2	28.7	24.7	71	28.0	6.7	47	17.3							
SUVA/LAUCALA BAY	26.9	27.4	25.1	82	30.0		37	19\$							
NACOCOLEVU	27.1	28.8	26.0	80	31.6		27	17\$							
ROTUMA	27.8	28.3	25.9	83	31.7		37	18\$							
VIWA	27.9	28.6	25.7	79	30.8										
UDU POINT	26.6	27.6	24.9	80	29.3										
SAVUSAVU AIRFIELD	NO OBSERVATION														
LABASA AIRFIELD	NO OBSERVATION														
NABOUWALU	INSUFFICIENT DATA														
KORONIVIA	26.2	27.7	25.3	82	30.2										
NAUSORI AIRPORT	26.6	27.4	25.1	82	30.0	5.3									
NAVUA/TOKOTOKO	26.6	28.1													
MONASAVU	22.1	22.4	21.0	88	23.8										
LAUTOKA AES	27.8	29.4	25.6	74	29.8										
BA/RARAWAI MILL	27.2	28.8	24.9	72	28.4										
PENANG MILL	27.2	28.1	25.4	80	30.3										
MATEI AIRFIELD	NO OBSERVATION														
VANUABALAVU	26.7	27.6	25.1	80	29.8										
LAKEBA	27.0	28.2	25.5	80	30.4										
YASAWA	27.4	28.3													
VUNISEA	26.8	27.5	25.1	82	30.1										
MATUKU	26.5	27.3	24.9	82	29.6										
ONO-I-LAU	26.6	27.5	24.9	80	29.5										
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 - Temperature & Rainfall for the last 13 Months
(December, 2019 - December, 2020)**

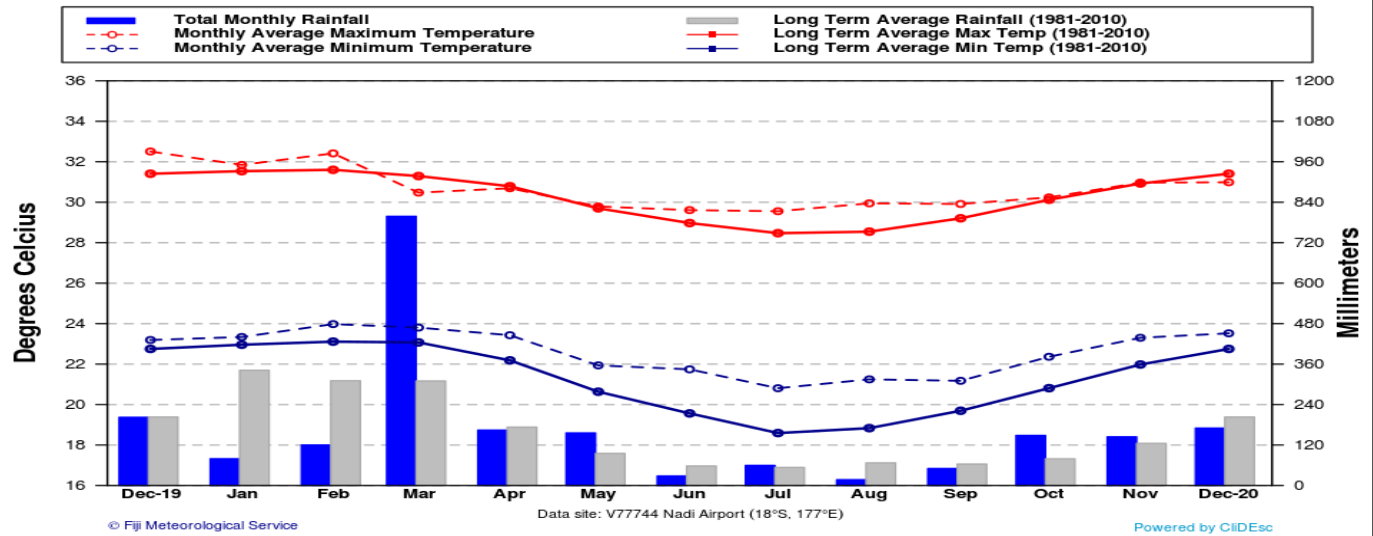


Figure 3

**Laucala Bay - Temperature & Rainfall for the last 13 Months
(December, 2019 - December, 2020)**

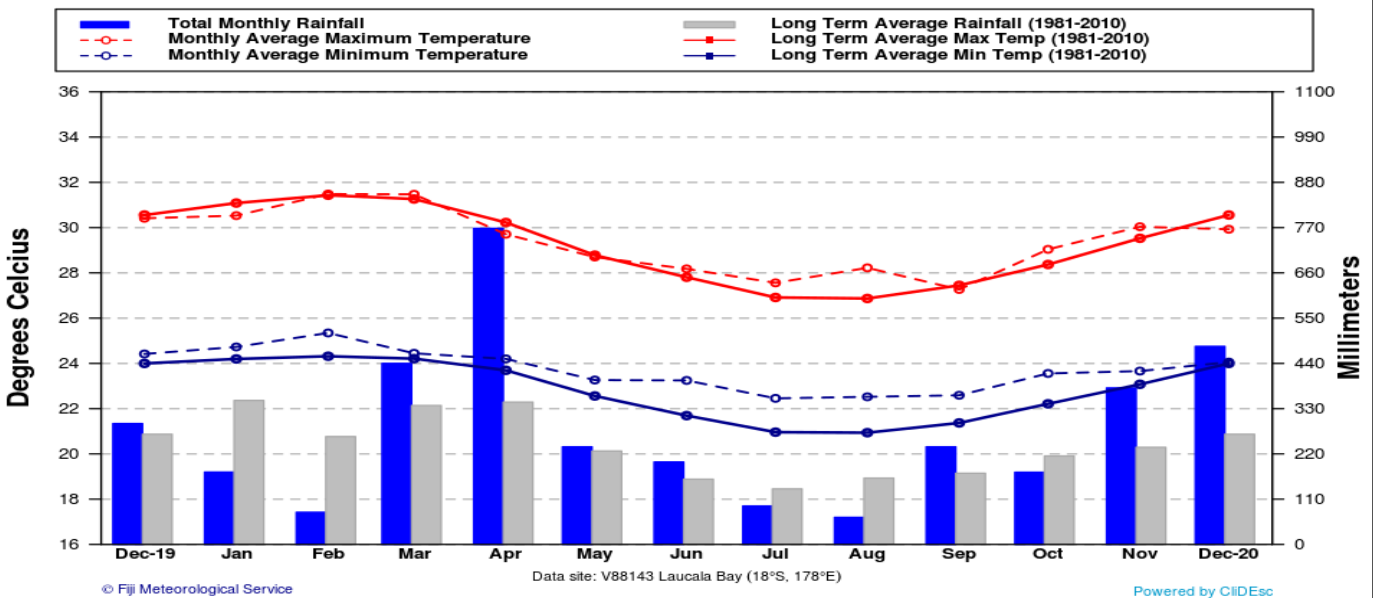


Figure 4

**Labasa Airfield - Temperature & Rainfall for the last 13 Months
(December, 2019 - December, 2020)**

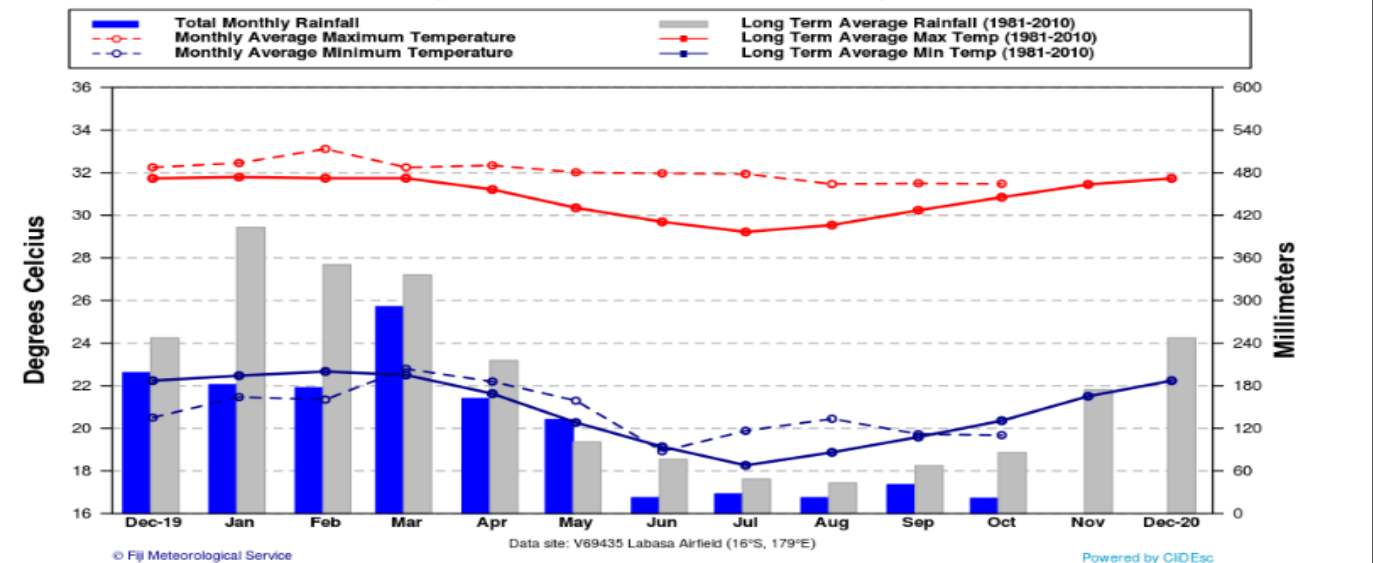
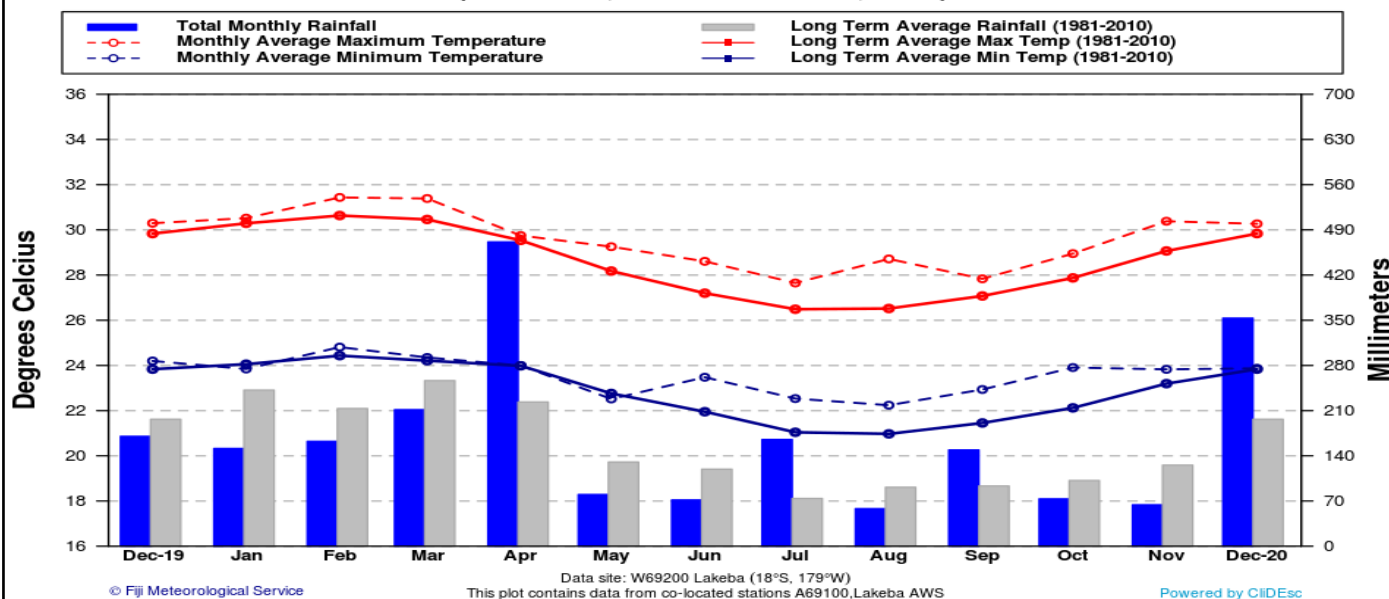


Figure 5

Lakeba - Temperature & Rainfall for the last 13 Months
(December, 2019 - December, 2020)



5. DAILY RAISED PAN EVAPORATION

Figure 6

Daily Evaporation for December 2020

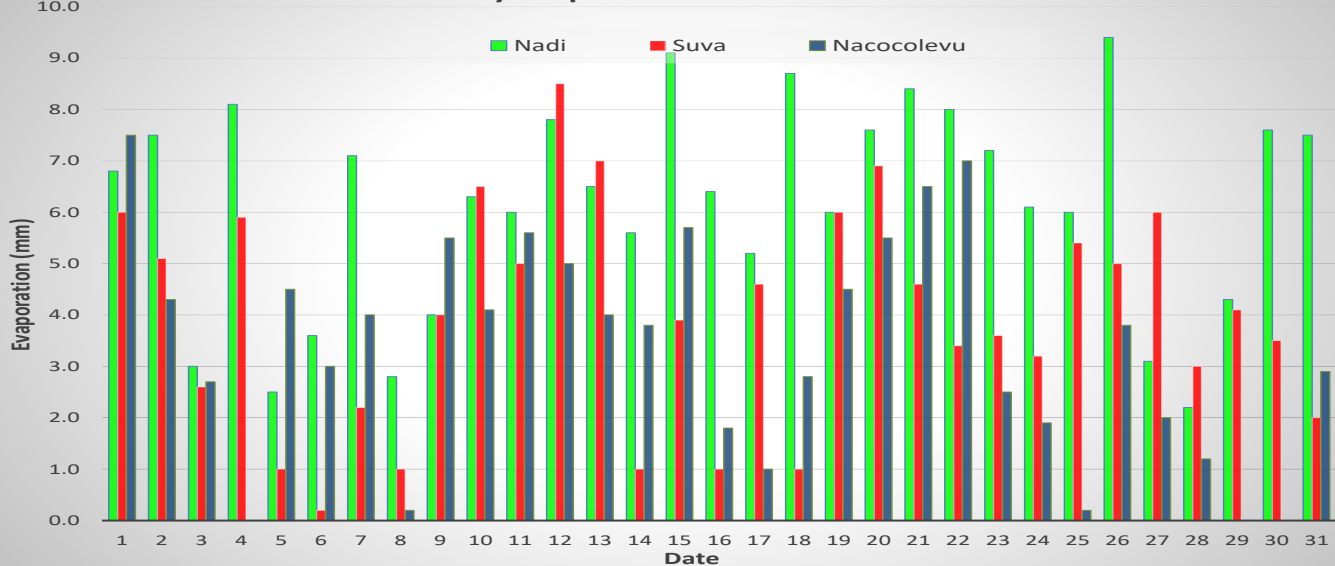


Figure 6: The total monthly evaporation at Nacocolevu, Nadi Airport and Laucala Bay (Suva) were 103.5mm, 190.4mm, and 123.2mm, respectively. Nacocolevu’s highest daily evaporation was 7.5mm on the 1st, with Nadi Airport’s highest daily evaporation of 9.4mm on the 26th and Laucala Bay (Suva) with 8.5mm on the 12th.

6. SOLAR RADIATION

Nadi Daily Solar Radiation (MJ/m²) for December 2020

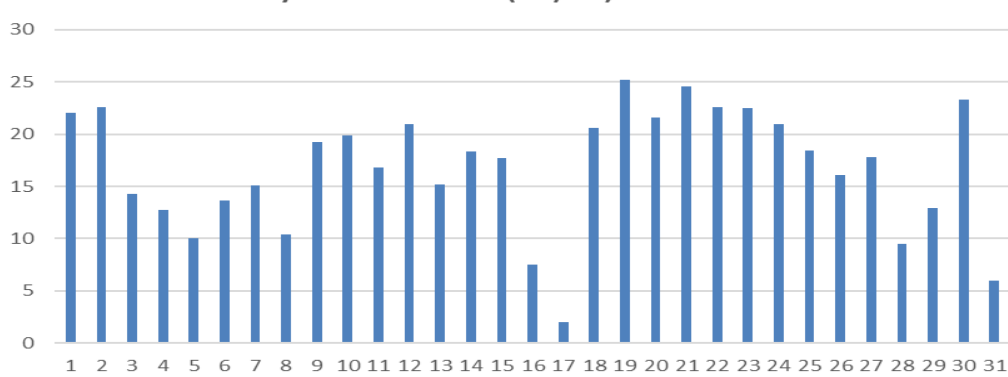


Figure 7:

The mean daily solar radiation at Nadi Airport during the month was 16.8MJ/m² compared to 21.5MJ/m² over 30 year average (1981-2010).

7. WIND SUMMARY

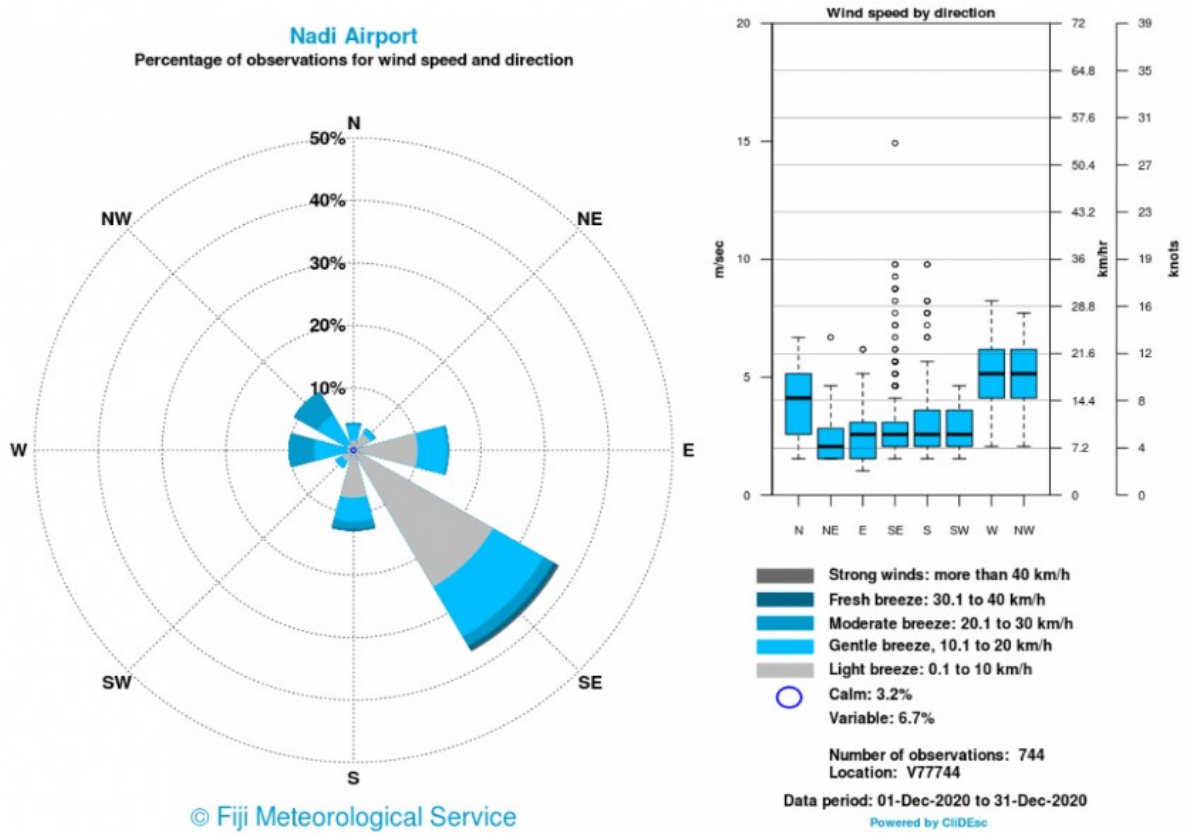


Figure 8a: Southeast winds were dominant at Nadi during the month, followed by winds from the east and south. Wind strength ranged from light to strong during this period.

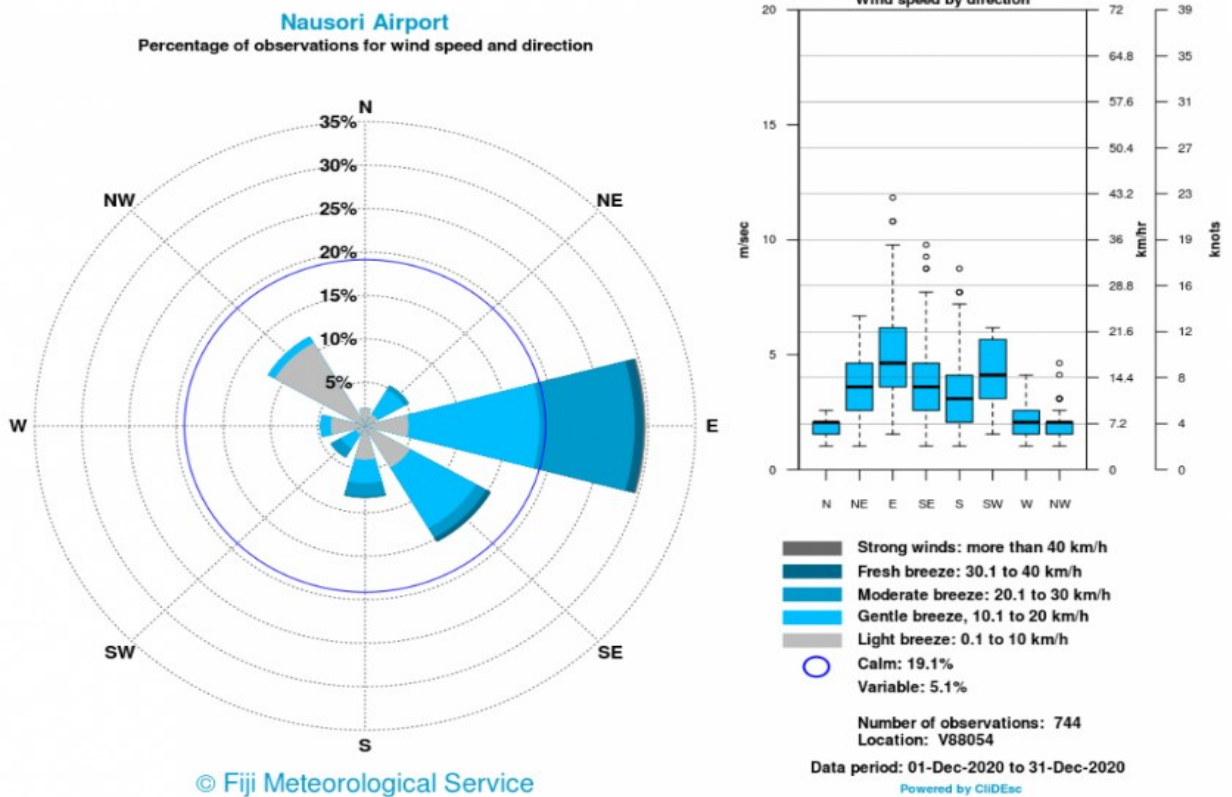


Figure 8b: Easterly winds were dominant at Nausori Airport during the month, followed by southeasterlies and north-westerlies. Wind strength ranged from light to strong during this period.

8. SEA SURFACE TEMPERATURE (SST)

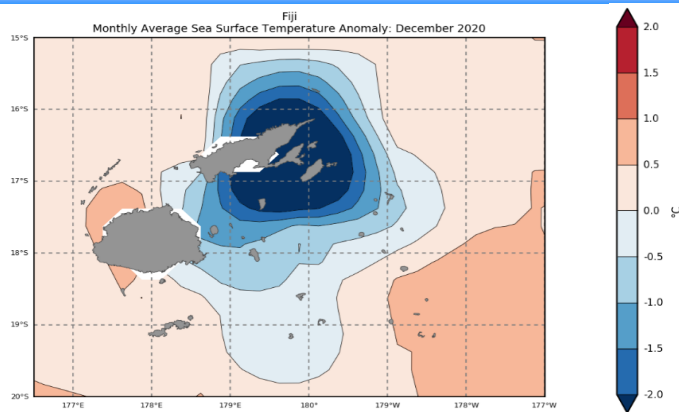


Figure 9:
Tropical cyclone Yasa had a very significant effect in cooling the SSTs around Vanua Levu during the month, with anomalies of more than -2°C observed around the island.

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

9. CLOUD COVER

30-Day Average OLR Anomaly 2020/11/01 - 2020/11/30

30-Day Average OLR Anomaly 2020/12/04 - 2021/01/02

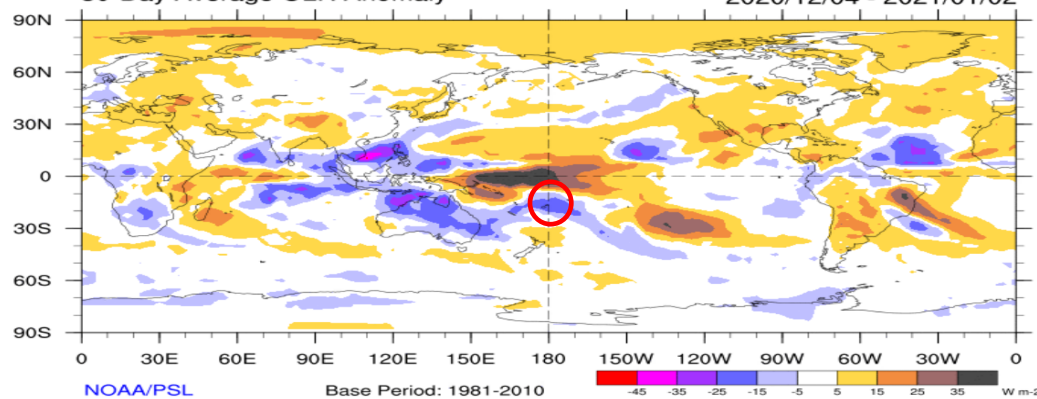


Figure 10:
Above normal cloud cover was present over the Fiji region during the month (Fiji in red circle).

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

10. SEA LEVEL

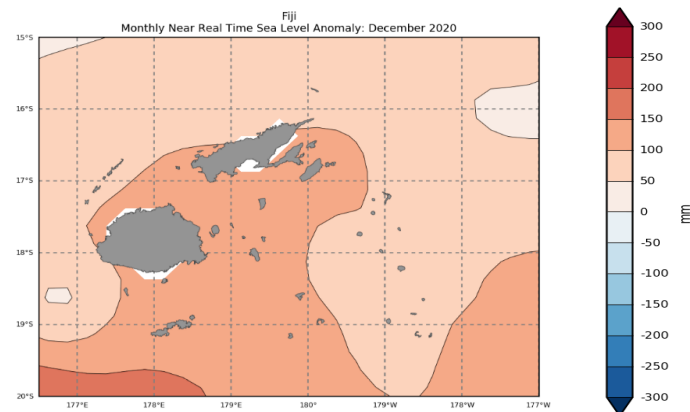


Figure 11:
Positive sea level anomalies were present in majority of the Fiji Waters, with anomalies of $+10\text{-}15\text{cm}$ in waters around most of the islands.

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

11. WIND ANOMALIES

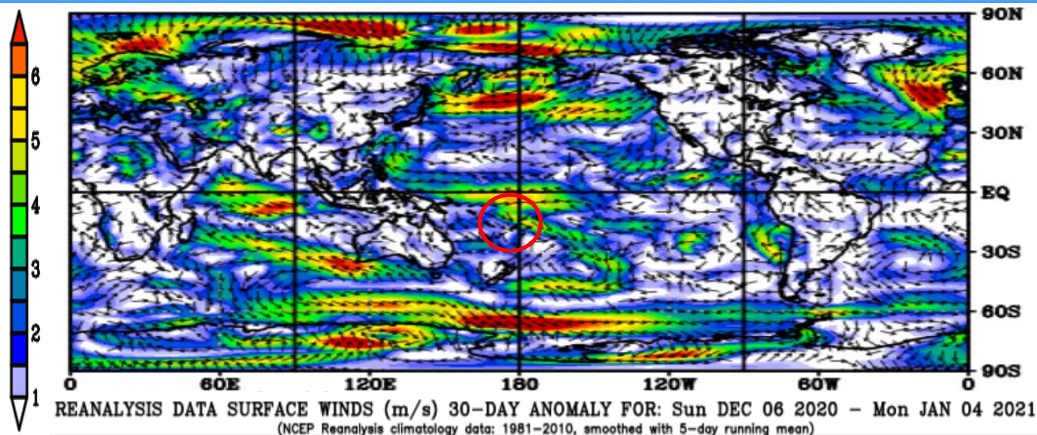


Figure 12:
Northwesterly wind anomalies of around 2.0m/s were recorded in the Fiji region during the month (base period: 1981-2010) (Fiji in red circle).

Source: https://www.esrl.noaa.gov/psd/map/images/rnl/sfcvnd_30b.rnl.html

12. SEVERE TROPICAL CYCLONE YASA

Severe tropical cyclone Yasa devastated the Fiji Group on the December 17-18, 2020. It attained a maximum intensity of a Category 5 system, with the maximum sustained winds estimated around the centre reaching 250km/hr. This makes Yasa the 2nd most intense tropical cyclone in the recorded history in the Southwest Pacific, equaling tropical cyclone Pam in 2015 with the same wind speed. Tropical cyclone Winston in 2016 still ranks the strongest with the maximum sustained wind of 295km/hr. Globally, Yasa was the strongest cyclone to occur in 2020.

Severe tropical cyclone Yasa was the first tropical cyclone in the southwest Pacific during the 2020-21 tropical cyclone season. It was one of those exceptional tropical cyclones that rapidly strengthened from a Category 2 to a Category 5 in close to 24 hours between 12am on the 15th to 12am on the 16th (Figure 13a to 13d).

Tropical depression, TD02F, was upgraded to a Category 1 tropical cyclone and subsequently named tropical cyclone Yasa at around 12am on the 14th, while it was over open waters between Fiji and Vanuatu. Approximately 12-hours later it was upgraded to a Category 2 system after making an anti-clockwise loop. On the same day, Yasa supposedly made a second anticlockwise loop. By 3am on the 15th, Yasa intensified into a severe Category 3 tropical cyclone. Due to favourable environment, it rapidly intensified to a Category 4 cyclone by 12pm on the 15th and it was upgraded to Category 5 at 12am on the 16th (Figure 15). It eventually started its movement east-southeast towards the Fiji Group after 9am on the 16th.

Figure 13a: Himawari IR imagery at 12am on the 15th with Yasa at Category 2.

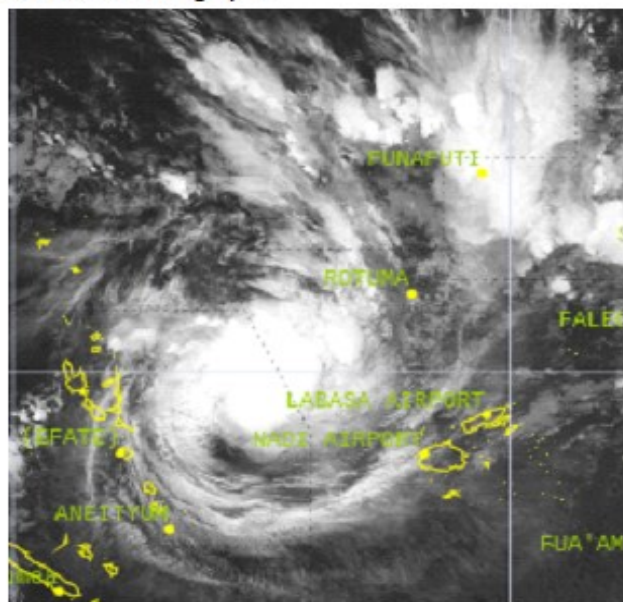


Figure 13b: Himawari IR imagery at 6am on the 15th with Yasa at Category 3.

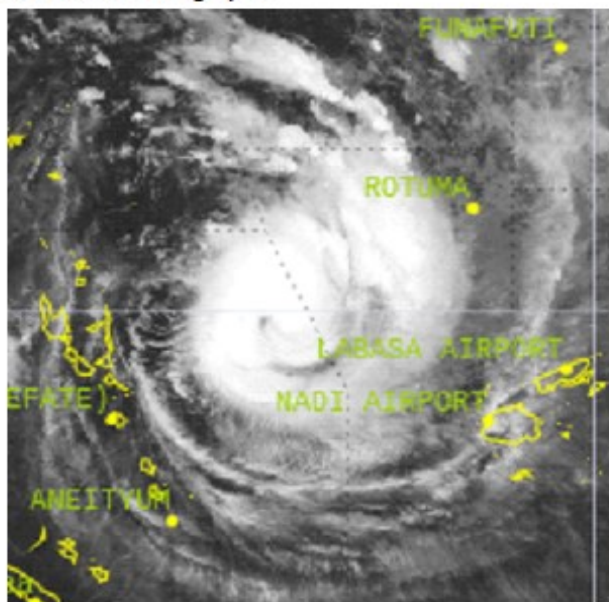


Figure 13c: Himawari IR imagery at 12pm on the 15th with Yasa at Category 4.

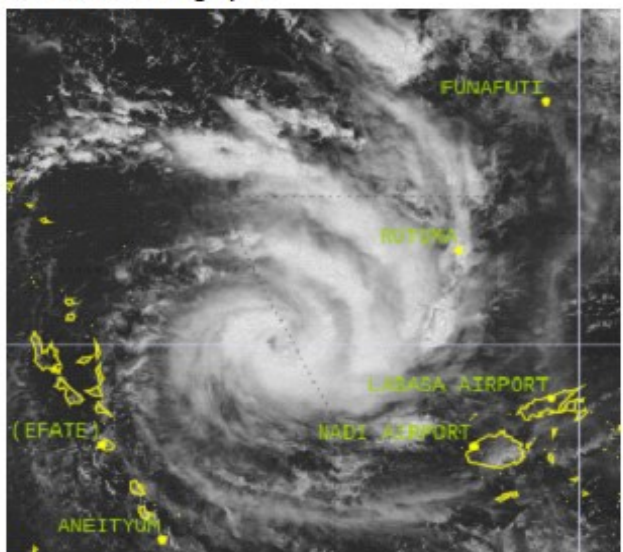
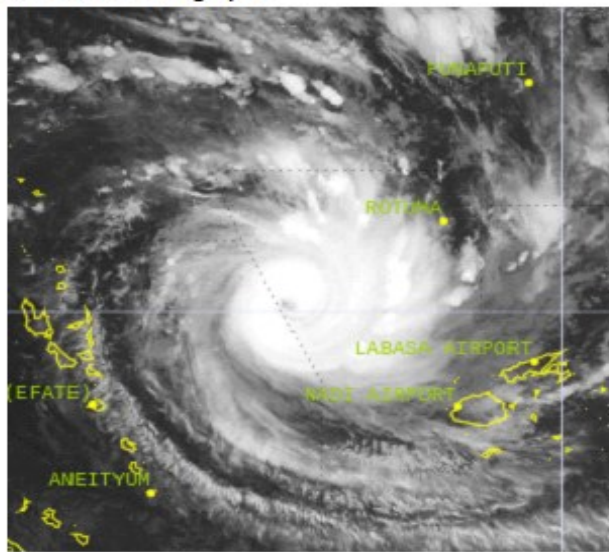


Figure 13d: Himawari IR imagery at 12am on the 16th with Yasa at Category 5.



The system entered into the Fiji waters at 12pm on the 16th. It attained and maintained peak intensity of 250km/hr and gust of 350km/hr around the centre of the system for 6 hours from 6am to 12pm on the 17th while to the north-northwest of Yasawa-i-Rara. Yasa made a landfall over Bua province on Vanua Levu as a Category 5 tropical cyclone around 6pm on the 17th, with estimated sustained wind speed of up to 240 km/hr and momentary gust of 345 km/hr (Figure 14). The centre of the system drifted northeastwards while over Vanua Levu encroaching over Cakaudrove and the Macuata province. Yasa eventually exited Vanua Levu through the Cakaudrove province after passing over land areas for about 4 hours. It later made a landfall over southern parts of Taveuni as a Category 5 system at around 12am on the 18th.

Yasa thereafter gradually weakened due to land interaction coupled with cooler sea surface temperatures, high sheared environment and unfavourable conditions. The system weakened to Category 3 tropical cyclone as it drifted over the Lau waters, just to the east of Lakeba on the 18th. It further weakened to a Category 2 tropical cyclone to the east of Ono-i-Lau early on the 19th and as a Category 1 system later on the 19th to the south of Ono-i-Lau. Yasa was eventually declassified at around 3am on the 20th when it lost all its tropical cyclone characteristics.

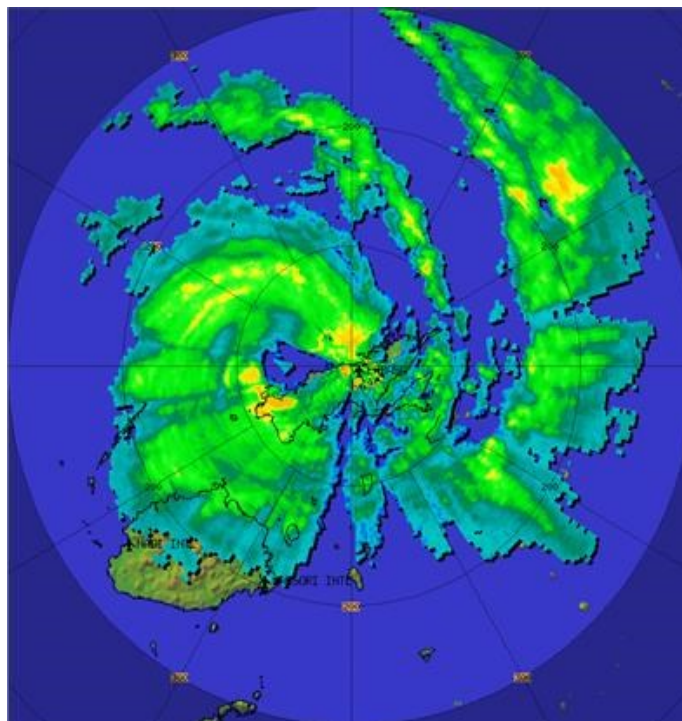


Figure 14: Severe tropical cyclone Yasa on the RADAR network in Fiji at 6.11pm on the 17th making a landfall over Vanua Levu.

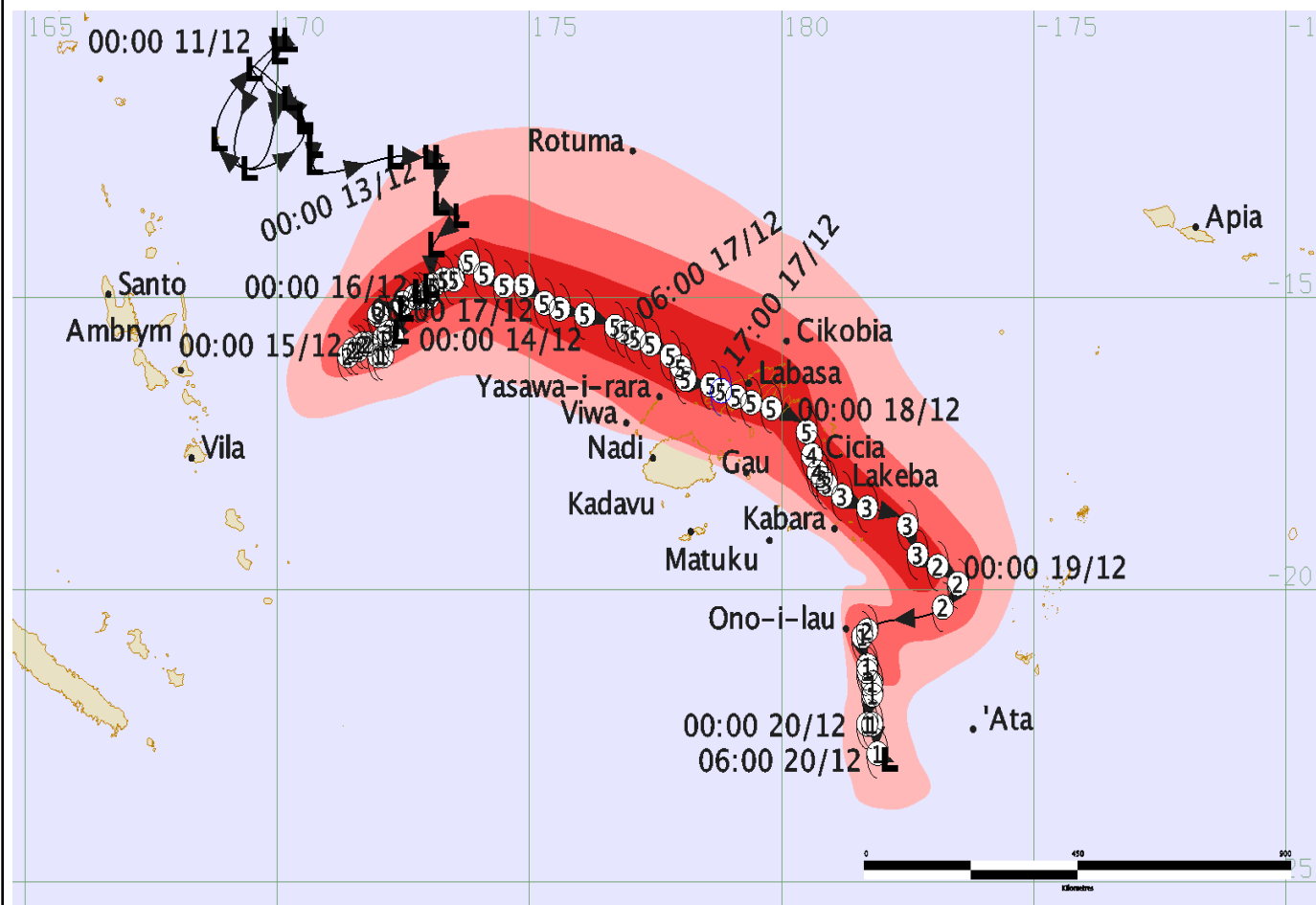


Figure 15: Track map of severe tropical cyclone Yasa.

Yasa brought very destructive hurricane force winds over Vanua Levu, Taveuni and nearby smaller islands, Koro, and the Lau group. It was estimated that Yasa made a landfall over Vanua Levu with sustained wind of up to 240 km/hr and momentary gust of 345 km/hr. The highest recorded sustained wind was registered at Lakeba with 123km/hr, followed by Udu Point with 121km/hr, Rakiraki with 102km/hr and Vanuabalavu with 90km/hr (Figure16). The highest observed wind gust was at Lakeba with 162km/hr, followed by Udu Point with 161km/hr, Rakiraki with 136km/hr and Vanuabalavu with 135km/hr (Figure 17). Many of the meteorological stations in the direct path of Yasa did not report due to communication failures.

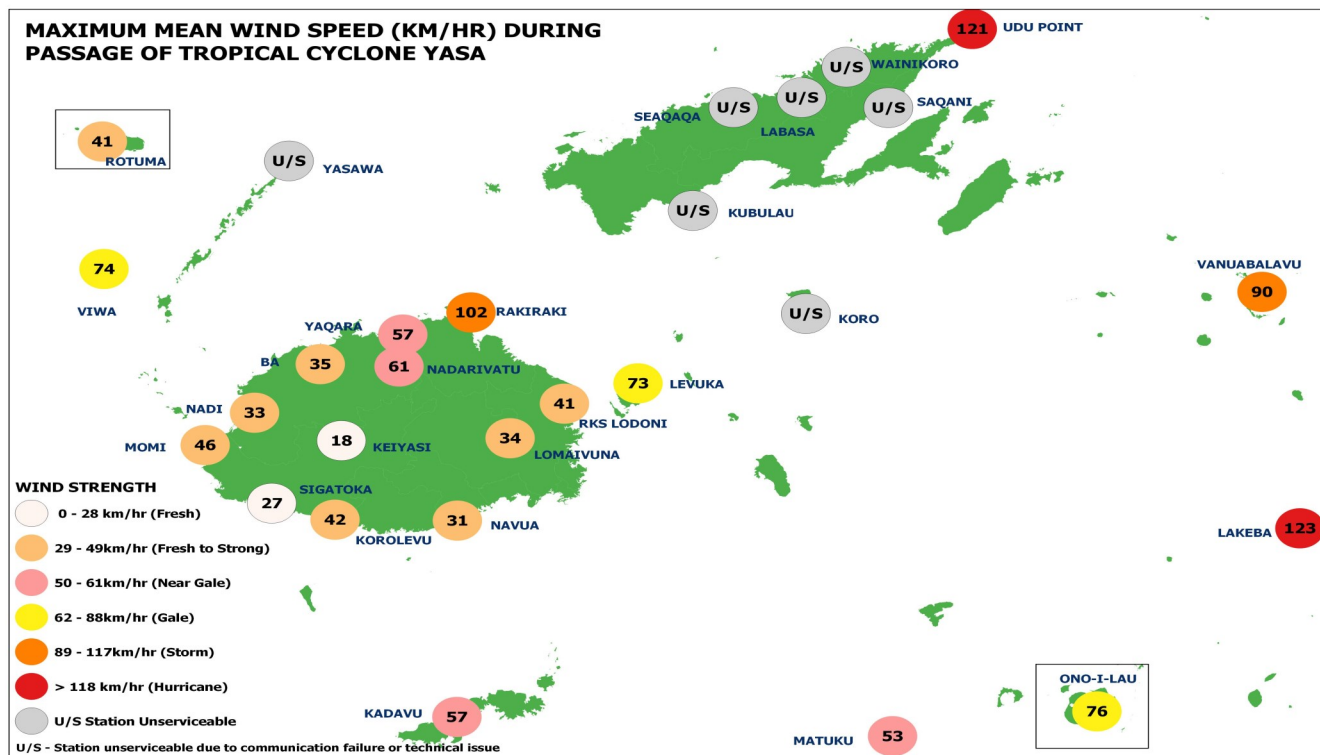


Figure 16: Maximum recorded sustained winds during the passage of severe tropical cyclone Yasa.

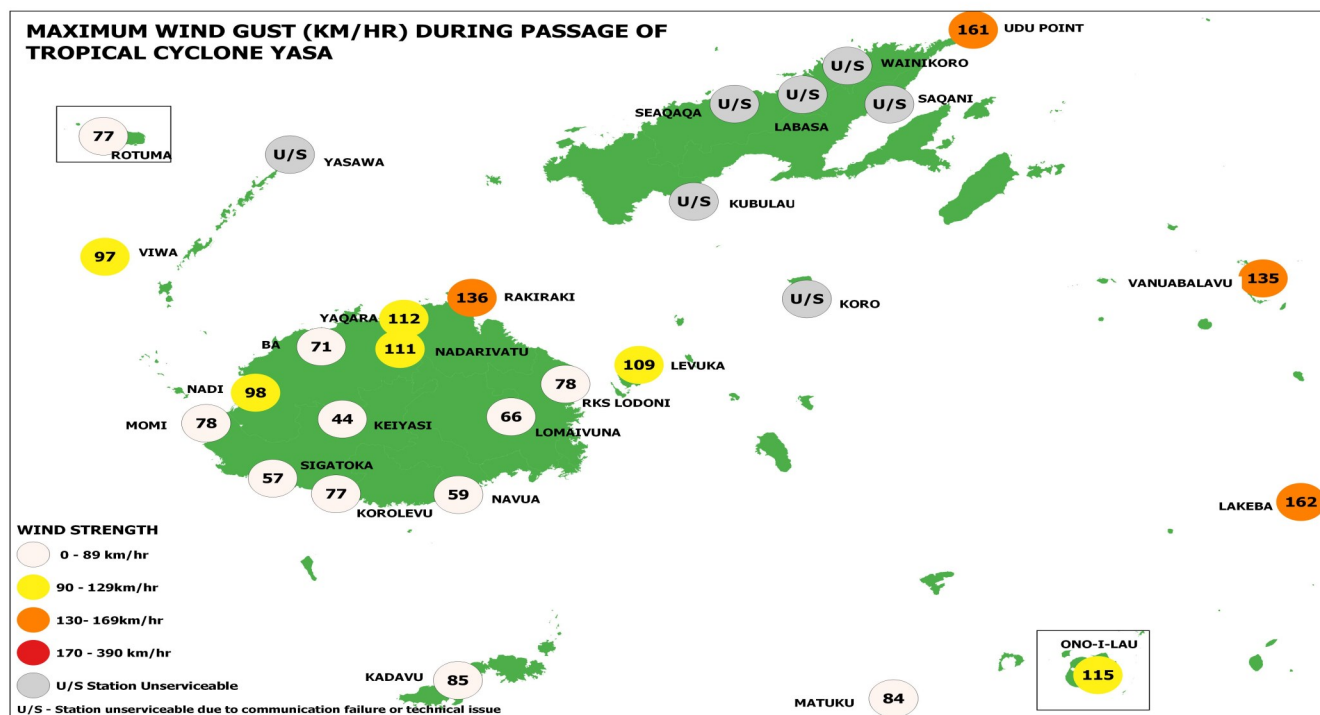


Figure 17: Maximum recorded wind gusts during the passage of severe tropical cyclone Yasa.

Storm surge and damaging heavy swells was experienced at Yasawa-i-Rara, along the coastal areas of Vanua Levu, Taveuni and nearby smaller islands, eastern parts of Viti Levu, and the Lomaiviti and Lau Lomaiviti groups.

Yasa also resulted in very heavy rainfall, especially over Vanua Levu, northwestern Viti Levu and eastern half of Viti Levu. Over a 24-hour period on the 17th, Nakawaqa, Monasavu, Levuka, Vatukaceveva, Nadarivatu and Penang Mill registered 221mm, 211mm, 201mm, 172mm, 167mm and 160mm, respectively (Figure 18). Consequently, parts of the country were flooded, including severe flooding in Rakiraki town on the 17th.

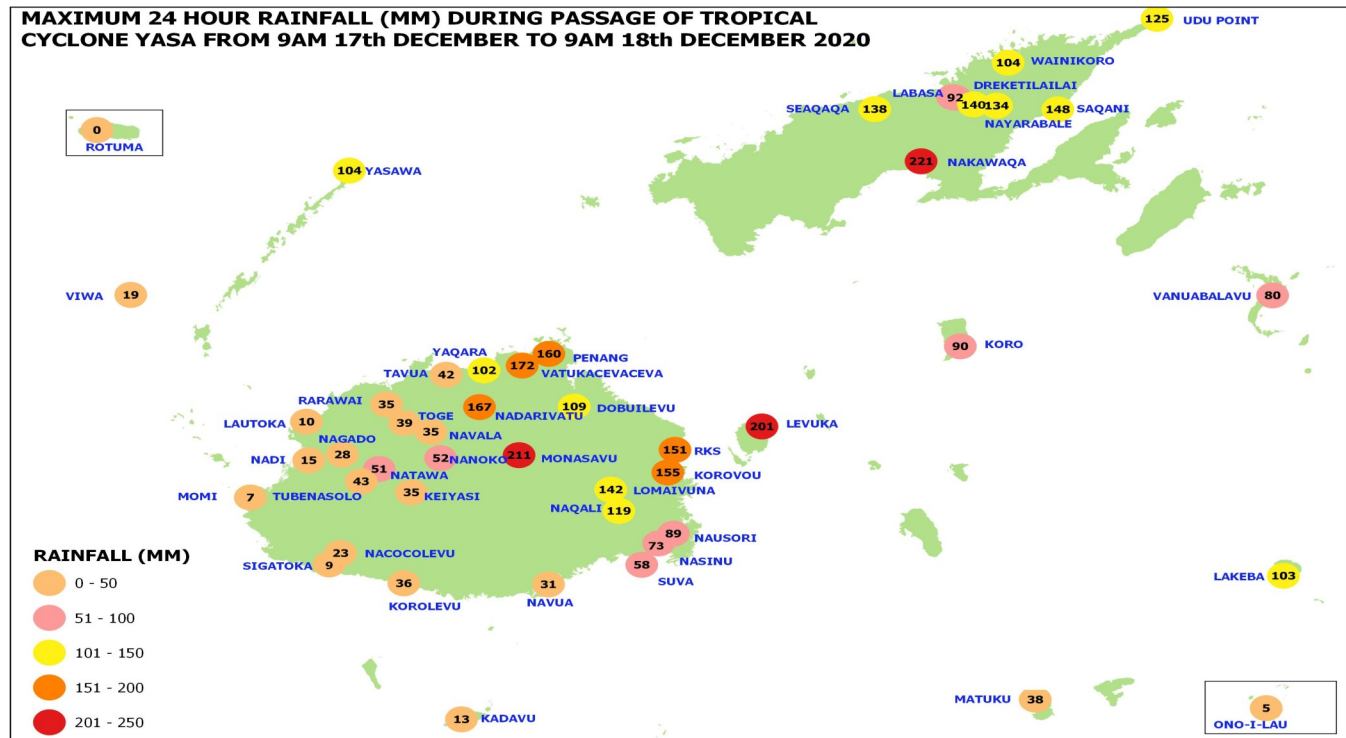


Figure 18: Accumulated 24-hour rainfall from 9am on the 17th to 9am on the 18th.

More than 93,000 Fijians were in the direct path of Yasa, with over 23,000 taking shelter in evacuation centres around the country at the height of the tropical cyclone. There were major damages to the infrastructure. Hundreds of houses were completely destroyed or damaged, with major damages to electrical powerlines on Vanua Levu. Communication was also severely affected. Transportations were disrupted as number of roads in the country were closed due to fallen trees, powerlines, and flooding. At the time of this report, there were four confirmed casualties of Yasa.

Note: All date and time in this summary are in Fiji Standard Time.