

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 164

Country: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	Feb-2021	Mar-2021	Apr-2021				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
<i>Western Division</i>							
Penang Mill (1910-2021)	471.7	392.3	217.6	178.7	288.5	209.2	62/111
Lautoka Mill (1900-2021)	305.2	308.3	228.5	123.2	241.0	162.8	87/122
Nadi Airport (1942-2021)	332.8	308.9	63.4	113.7	210.5	154.7	9/79
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2021)	143.9	545.8	136.6	269.9	376.8	329.6	9/80
Nausori Airport (1957-2021)	211.7	466.9	352.0	262.9	391.6	331.8	38/65
Tokotoko (Navua) (1945-2021)	M	322.6	133.1	305.7	463.2	362.2	3/77
<i>Eastern Division</i>							
Lakeba (1950-2021)	346.2	245.2	57.2	133.5	258.4	180.4	5/69
Vunisea (Kadavu) (1931-2021)	177.8	135.6	274.7	162.8	283.4	240.2	55/86
Ono-i-Lau (1943-2021)	97.8	273.3	62.2	103.5	228.4	181.3	14/74
<i>Northern Division</i>							
Labasa Airport (1946-2021)	346.2	259.5	159.6	147.9	283.3	236.0	24/66
Savusavu Airfield (1956-2021)	M	M	M	142.3	280.4	215.4	M
Udu Point (1946-2021)	320.2	344.7	240.9	193.6	301.5	236.3	39/72
Rotuma (1912-2021)	559.6	157.0	552.3	203.9	302.5	256.0	105/109

TABLE 2: Three-month Rainfall for February to April 2021

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 November-December 2020				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Western Division											
Penang Mill (1910-2021)	1081.6	Normal	833.1	1131.8	1013.5	72/111	18	35	47	9	Near-consistent
Lautoka Mill (1900-2021)	842.0	Normal	746.0	958.7	833.7	65/121	15	43	42	8	Consistent
Nadi Airport (1942-2021)	705.1	Normal	679.5	954.4	815.2	30/78	16	32	52	13	Near-consistent
Central Division											
Laucala Bay (Suva) (1942-2021)	826.3	Below normal	856.8	1059.6	944.8	22/80	30	44	26	-1	Near-consistent
Nausori Airport (1957-2021)	1030.6	Normal	894.0	1047.4	966.4	39/65	41	35	24	2	Near-consistent
Tokotoko (Navua) (1945-2021)	M		999.3	1217.8	1116.0	M	34	42	24	0	
Eastern Division											
Lakeba (1950-2021)	648.6	Below normal	653.1	830.5	715.0	23/69	16	40	44	9	Inconsistent
Vunisea (Kadavu) (1931-2021)	588.1	Below normal	646.0	840.5	772.8	21/85	15	41	44	9	Inconsistent
Ono-i-Lau (1943-2021)	433.3	Below normal	481.1	748.7	597.4	19/72	26	33	41	1	Inconsistent
Northern Division											
Labasa Airport (1947-2021)	765.3	Below normal	773.6	1142.7	1025.6	22/64	22	37	41	4	Inconsistent
Savusavu Airfield (1957-2021)	M		638.9	827.3	694.9	M	22	38	40	1	
Udu Point (1946-2021)	905.8	Normal	782.5	1018.2	851.0	42/72	27	34	39	1	Near-consistent
Rotuma (1912-2021)	1268.9	Above normal	860.7	1073.8	994.5	98/108	29	32	39	0	Consistent

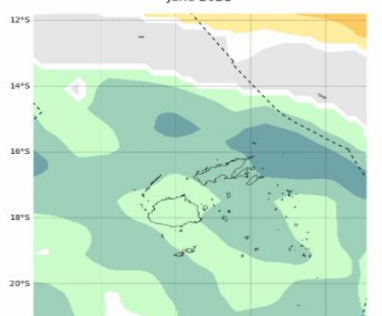
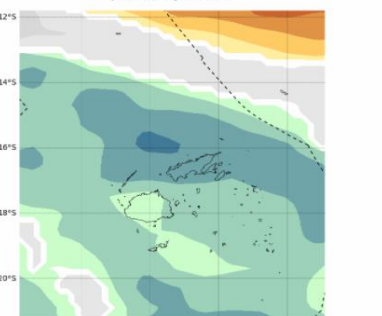
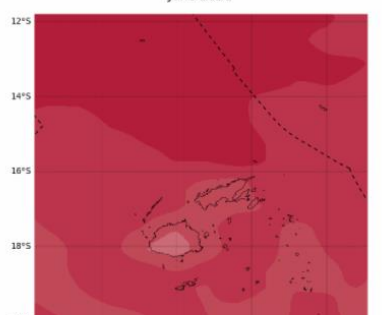
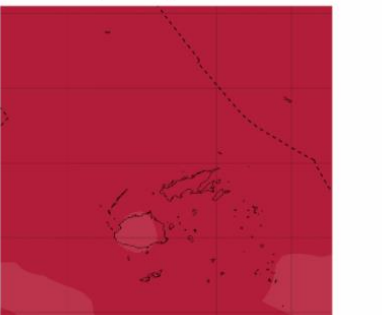
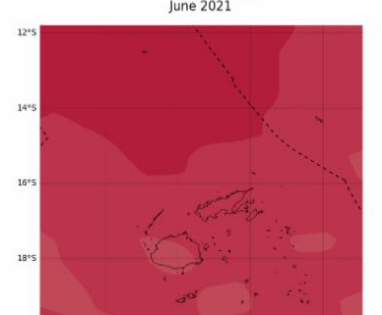
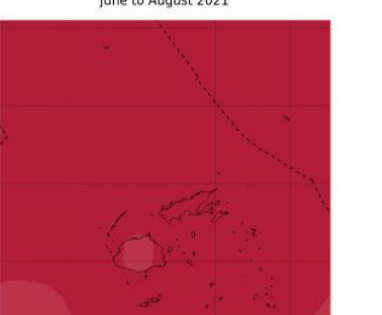
TABLE 3: Seasonal Climate Outlooks using SCOPIC for June to August 2021

Predictor and Period used: NINO3.4 for March to April 2021

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Western Division						
Penang Mill (1910-2021)	46	190.7	54		-1	55
Lautoka Mill (1900-2021)	41	151.3	59		3	59
Nadi Airport (1942-2021)	41	156.0	59		2	56
Central Division						
Laucala Bay (Suva) (1942-2021)	43	436.1	57		1	55
Nausori Airport (1957-2021)	40	423.6	60		3	58
Tokotoko (Navua) (1945-2021)	39	559.5	61		5	57
Eastern Division						
Lakeba (1950-2021)	44	270.1	56		1	49
Vunisea (Kadavu) (1931-2021)	46	350.1	54		0	51
Ono-i-Lau (1943-2021)	41	287.6	59		3	59
Northern Division						
Labasa Airport (1946-2021)	43	145.3	57		0	56
Savusavu Airfield (1956-2021)	35	305.0	65		6	61
Udu Point (1946-2021)	36	311.6	64		6	58
Rotuma (1912-2021)	57	701.5	43		1	61

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Western Division							
Penang Mill (1910-2021)	26	165.6	38	225.9	36	1	39
Lautoka Mill (1900-2021)	29	113.5	31	211.6	40	1	34
Nadi Airport (1942-2021)	24	114.2	35	203.2	41	3	42
Central Division							
Laucala Bay (Suva) (1942-2021)	29	366.1	31	519.9	40	1	31
Nausori Airport (1957-2021)	22	339.1	35	495.8	43	4	38
Tokotoko (Navua) (1945-2021)	26	480.5	30	651.4	44	3	36
Eastern Division							
Lakeba (1950-2021)	25	189.3	29	298.9	46	5	39
Vunisea (Kadavu) (1931-2021)	29	281.0	35	420.8	36	-1	19
Ono-i-Lau (1943-2021)	27	252.2	33	340.7	40	1	36
Northern Division							
Labasa Airport (1946-2021)	26	110.1	39	181.4	35	0	38
Savusavu Airfield (1956-2021)	19	230.6	38	367.8	43	6	45
Udu Point (1946-2021)	24	253.0	31	393.7	45	5	40
Rotuma (1912-2021)	42	589.6	33	834.5	25	3	49

TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for June to August 2021

Monthly rainfall	Seasonal rainfall
<p style="text-align: center;">Tercile rainfall probabilities for June 2021</p>  <p style="text-align: center;"> </p> <p style="text-align: center;"> Below normal (%) Near normal (%) Above normal (%) </p> <p style="font-size: small;"> © Commonwealth of Australia 2021, Australian Bureau of Meteorology Disaggregation data extracted from Flanders Marine Institute (2018), MeteoRea Bourdonin, Secretariat, MeteoRea Bourdonin et al and Cuckin on Economic Zones (2020), version 11. Available online at http://www.marineopenings.org/ Model: ACCESS-S1 Model run: 03/05/2021 Base period: 1990-2012 Issued: 06/05/2021 </p>	<p style="text-align: center;">Tercile rainfall probabilities for June to August 2021</p>  <p style="text-align: center;"> </p> <p style="text-align: center;"> Below normal (%) Near normal (%) Above normal (%) </p> <p style="font-size: small;"> © Commonwealth of Australia 2021, Australian Bureau of Meteorology Disaggregation data extracted from Flanders Marine Institute (2018), MeteoRea Bourdonin, Secretariat, MeteoRea Bourdonin et al and Cuckin on Economic Zones (2020), version 11. Available online at http://www.marineopenings.org/ Model: ACCESS-S1 Model run: 03/05/2021 Base period: 1990-2012 Issued: 06/05/2021 </p>
<p style="text-align: center;">Tercile maximum temperature probabilities for June 2021</p>  <p style="text-align: center;"> </p> <p style="text-align: center;"> Below normal (%) Near normal (%) Above normal (%) </p> <p style="font-size: small;"> © Commonwealth of Australia 2021, Australian Bureau of Meteorology Disaggregation data extracted from Flanders Marine Institute (2018), MeteoRea Bourdonin, Secretariat, MeteoRea Bourdonin et al and Cuckin on Economic Zones (2020), version 11. Available online at http://www.marineopenings.org/ Model: ACCESS-S1 Model run: 03/05/2021 Base period: 1990-2012 Issued: 06/05/2021 </p>	<p style="text-align: center;">Tercile maximum temperature probabilities for June to August 2021</p>  <p style="text-align: center;"> </p> <p style="text-align: center;"> Below normal (%) Near normal (%) Above normal (%) </p> <p style="font-size: small;"> © Commonwealth of Australia 2021, Australian Bureau of Meteorology Disaggregation data extracted from Flanders Marine Institute (2018), MeteoRea Bourdonin, Secretariat, MeteoRea Bourdonin et al and Cuckin on Economic Zones (2020), version 11. Available online at http://www.marineopenings.org/ Model: ACCESS-S1 Model run: 03/05/2021 Base period: 1990-2012 Issued: 06/05/2021 </p>
<p style="text-align: center;">Tercile minimum temperature probabilities for June 2021</p>  <p style="text-align: center;"> </p> <p style="text-align: center;"> Below normal (%) Near normal (%) Above normal (%) </p> <p style="font-size: small;"> © Commonwealth of Australia 2021, Australian Bureau of Meteorology Disaggregation data extracted from Flanders Marine Institute (2018), MeteoRea Bourdonin, Secretariat, MeteoRea Bourdonin et al and Cuckin on Economic Zones (2020), version 11. Available online at http://www.marineopenings.org/ Model: ACCESS-S1 Model run: 03/05/2021 Base period: 1990-2012 Issued: 06/05/2021 </p>	<p style="text-align: center;">Tercile minimum temperature probabilities for June to August 2021</p>  <p style="text-align: center;"> </p> <p style="text-align: center;"> Below normal (%) Near normal (%) Above normal (%) </p> <p style="font-size: small;"> © Commonwealth of Australia 2021, Australian Bureau of Meteorology Disaggregation data extracted from Flanders Marine Institute (2018), MeteoRea Bourdonin, Secretariat, MeteoRea Bourdonin et al and Cuckin on Economic Zones (2020), version 11. Available online at http://www.marineopenings.org/ Model: ACCESS-S1 Model run: 03/05/2021 Base period: 1990-2012 Issued: 06/05/2021 </p>

Summary Statements

Rainfall for April 2021:

Below normal rainfall was recorded at Nadi, Suva, Navua, Lakeba and Ono-i-Lau. *Near-normal* rainfall was received across remaining sites in the Western, Central and Eastern Divisions, as well as at all available sites in the Northern Division. On the other hand, *above normal* rainfall was registered at Rotuma. Rainfall data was not available for Savusavu Airfield.

Navua recorded its third driest April in its 77 years of record and Lakeba recorded its fifth driest April in 69 years of record. In contrast, Rotuma recorded its fifth wettest April in 109 years of record.

Accumulated rainfall for February to April 2021, including outlook verification:

Below normal rainfall was recorded in the Eastern Division, and *normal* rainfall was observed across the Western Division. The Central and Northern Divisions had a mix of normal and below normal totals. Rotuma was the lone station that received *above normal* rainfall. Savusavu Airfield could not be analysed due to missing rainfall data.

The rainfall outlooks issued in January were verified as 'Consistent' at two sites, 'Near-Consistent' at five sites, 'Inconsistent' at four sites, while Savusavu Airfield and Navua could not be verified due to missing readings.

Outlooks for June to August 2021:

1. SCOPIC:

- **Central Division, Northern Division (except Labasa), Eastern Division (except Vunisea), Nadi and Lautoka :** The outlook shows *above normal* rainfall as the most likely outcome, with *near-normal* the next most likely. *Below normal* rainfall is the least likely.
- **Rotuma:** The outlook shows *below normal* rainfall as the most likely outcome, with *near-normal* the next most likely. *Above normal* rainfall is the least likely.
- **Labasa:** The outlook shows *normal* rainfall as the most likely outcome, with *above normal* the next most likely. *Below normal* rainfall is the least likely.
- **Penang:** The outlook shows near-equal likelihood of *above normal* and *normal* rainfall. *Below normal* is the least likely.
- **Vunisea:** The outlook offers little guidance as the chances of *above normal*, *near-normal* and *below normal* rainfall are similar.

2. ACCESS-S:

Monthly rainfall:

- **All regions:** *Above normal* rainfall is favoured across the Fiji Group in **June**.
- **Rotuma:** *Near-normal* rainfall is the most likely outcome.

Monthly maximum and minimum temperatures:

- **All regions:** Temperatures are favoured to be *above normal* across the Fiji Group in June.

Seasonal rainfall:

- **All regions:** *Above normal* rainfall is favoured across Fiji Group for the **June to August** period.
- **Rotuma:** *Near-normal* rainfall is the most likely outcome.

Seasonal maximum and minimum temperatures:

- **All regions:** Maximum and minimum temperatures are favoured to be *above normal* across the Fiji Group for the coming three months.

NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

High: $15 \leq X < 25$

TABLE 5: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Product	Date: April 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Fiji Climate Summary	11/04/21	General public	140	106	34
EAR Watch	09/04/21	Humanitarian partners	122	96	26
Fiji Climate Outlook	29/04/21	General public	124	93	31
Climate Outlook for Monasavu	30/04/21	Energy Fiji Limited	13	13	-
Ocean Outlook	20/04/21	A number of key ocean related stakeholders	36	29	7
Fiji Sugarcane Climate Outlook	23/04/21	Sugar Industry stakeholders	77	60	17
Meteorological Data Request	01/04/21/ to 30/04/21	A range of stakeholders	33	26	7
Infield interview of sugar sector to determine weather and climate information needs	13/04/21 to 16/04/21	A range of Sugar Industry stakeholders, including farmers			
Total			545	423	122