

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 162

Country: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	Dec-2020	Jan-2021	Feb-2021				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Western Division							
Penang Mill (1910-2021)	527.4	1008.0	471.7	283.4	404.5	343.4	90/112
Lautoka Mill (1900-2021)	143.3	676.3	305.2	218.9	383.6	277.0	70/121
Nadi Airport (1942-2021)	170.4	538.8	332.8	220.6	375.1	285.8	50/79
Central Division							
Laucala Bay (Suva) (1942-2021)	481.5	578.4	143.9	242.0	326.8	287.7	10/80
Nausori Airport (1957-2021)	443.0	553.7	211.7	223.8	314.8	283.0	22/65
Tokotoko (Navua) (1945-2021)	463.0	432.5	M	250.6	347.5	289.2	M
Eastern Division							
Lakeba (1950-2021)	353.4	487.7	346.2	163.2	276.7	191.2	58/72
Vunisea (Kadavu) (1931-2021)	282.5	446.9	177.8	158.4	276.6	230.4	34/86
Ono-i-Lau (1943-2021)	102.6	295.4	97.8	129.2	223.9	177.6	16/75
Northern Division							
Labasa Airport (1946-2021)	M	M	346.2	239.3	458.2	345.2	33/65
Savusavu Airfield (1956-2021)	M	M	M	154.0	301.6	250.2	M
Udu Point (1946-2021)	385.1	582.4	320.2	217.0	358.8	273.2	44/74
Rotuma (1912-2021)	373.4	671.9	559.6	281.1	364.2	312.3	98/109

TABLE 2: Three-month Rainfall for December 2020 to February 2021

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 September-October 2020				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
<i>Western Division</i>											
Penang Mill (1910-2021)	2007.1	Above normal	824.9	1087.9	952.0	106/108	15	25	60	23	Consistent
Lautoka Mill (1900-2021)	1124.8	Above normal	675.3	996.5	828.8	100/121	9	31	60	30	Consistent
Nadi Airport (1942-2021)	1042.0	Above normal	664.7	941.0	844.2	61/78	13	32	55	19	Consistent
<i>Central Division</i>											
Laucala Bay (Suva) (1942-2021)	1203.8	Above normal	781.7	1010.5	868.1	68/79	25	35	40	1	Consistent
Nausori Airport (1957-2021)	1208.4	Above normal	786.4	1105.3	852.2	58/65	32	32	36	-1	Consistent
Tokotoko (Navua) (1945-2021)	M		870.2	1105.3	986.4	M	31	35	34	-2	-
<i>Eastern Division</i>											
Lakeba (1950-2021)	1187.3	Above normal	575.8	750.9	665.8	66/71	9	30	61	29	Consistent
Vunisea (Kadavu) (1931-2021)	907.2	Above normal	554.5	754.7	651.3	70/83	18	40	42	7	Consistent
Ono-i-Lau (1943-2021)	495.8	Normal	439.1	620.5	541.1	31/71	21	36	43	5	Near-consistent
<i>Northern Division</i>											
Labasa Airport (1947-2021)	M		774.7	1070.6	896.9	M	7	28	65	32	-
Savusavu Airfield (1957-2021)	M		586.6	852.4	703.2	M	20	32	48	9	-
Udu Point (1946-2021)	1287.7	Above normal	749.4	1048.6	927.2	62/71	15	43	42	10	Near-consistent
Rotuma (1912-2021)	1604.9	Above normal	859.4	1054.3	963.7	102/105	16	29	55	17	Consistent

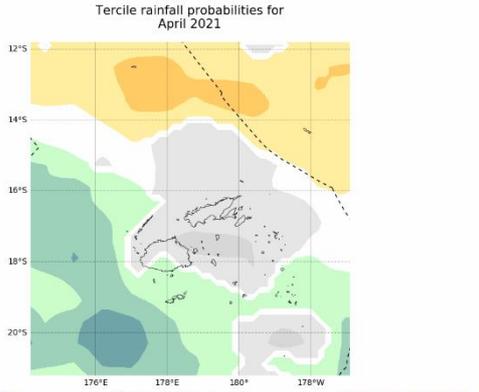
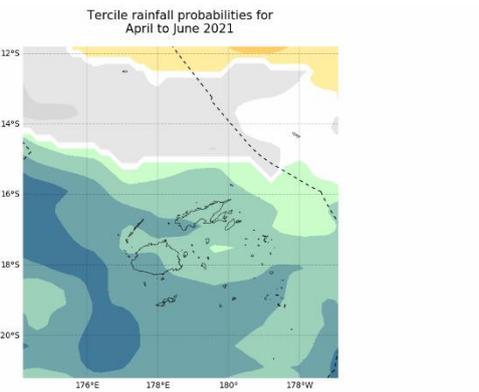
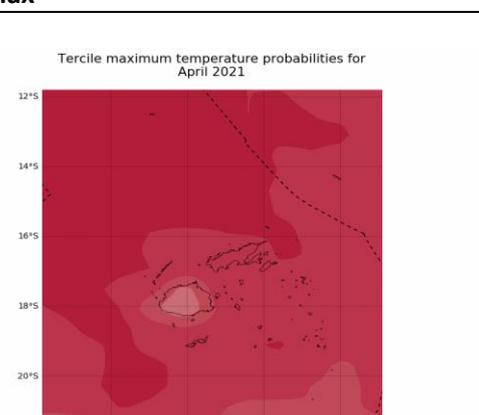
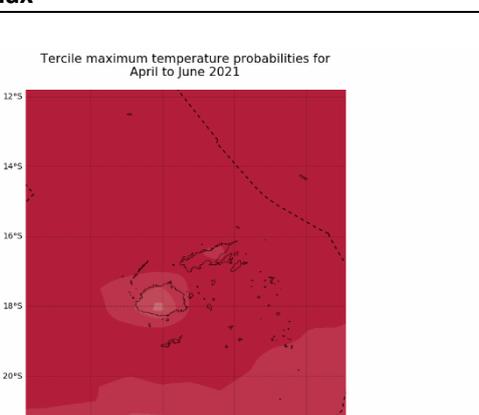
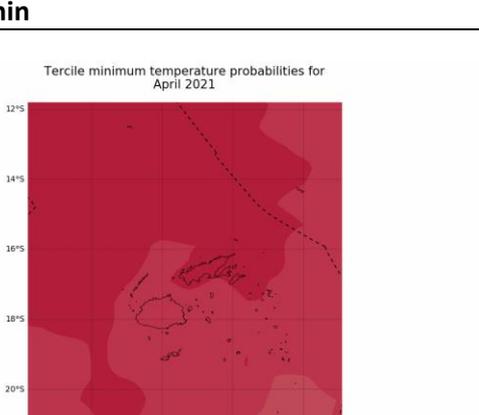
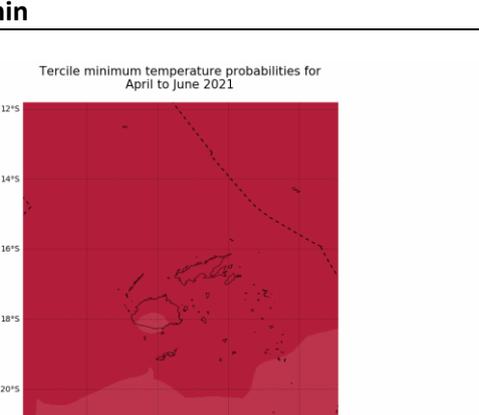
TABLE 3: Seasonal Climate Outlooks using SCOPIC for April to June 2021

Predictor and Period used: NINO3.4 for January to February 2021

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Western Division						
Penang Mill (1910-2021)	43	450.1	57		1	57
Lautoka Mill (1900-2021)	36	347.5	64		9	65
Nadi Airport (1942-2021)	36	315.7	64		8	63
Central Division						
Laucala Bay (Suva) (1942-2021)	40	732.4	60		4	55
Nausori Airport (1957-2021)	38	708.2	62		4	59
Tokotoko (Navua) (1945-2021)	40	864.5	60		3	58
Eastern Division						
Lakeba (1950-2021)	38	434.8	62		5	60
Vunisea (Kadavu) (1931-2021)	40	549.3	60		4	66
Ono-i-Lau (1943-2021)	41	428.6	59		2	58
Northern Division						
Labasa Airport (1946-2021)	42	407.4	58		1	59
Savusavu Airfield (1956-2021)	30	506.7	70		13	66
Udu Point (1946-2021)	45	535.5	55		0	56
Rotuma (1912-2021)	54	825.7	46		-1	49

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)	27	372.8	34	542.7	39	1	37
Lautoka Mill (1900-2021)	19	264.0	33	411.5	48	11	45
Nadi Airport (1942-2021)	22	254.3	32	376.2	46	8	52
Central Division							
Laucala Bay (Suva) (1942-2021)	25	682.4	32	849.4	43	4	42
Nausori Airport (1957-2021)	19	645.9	37	794.0	44	6	42
Tokotoko (Navua) (1945-2021)	24	737.5	31	992.1	45	5	45
Eastern Division							
Lakeba (1950-2021)	22	357.3	37	502.8	41	5	41
Vunisea (Kadavu) (1931-2021)	18	485.5	40	620.7	42	7	50
Ono-i-Lau (1943-2021)	13	324.1	45	486.6	42	10	49
Northern Division							
Labasa Airport (1946-2021)	26	331.4	34	447.5	40	2	42
Savusavu Airfield (1956-2021)	18	398.0	30	629.3	52	12	51
Udu Point (1946-2021)	24	447.6	40	662.2	36	2	40
Rotuma (1912-2021)	37	744.0	32	913.8	31	-2	1

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

Monthly rainfall	Seasonal rainfall
<p>Tercile rainfall probabilities for April 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Base period: 1990-2012 Model run: 01/03/2021 Issued: 04/03/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marineseg.org/</small></p>	<p>Tercile rainfall probabilities for April to June 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Base period: 1990-2012 Model run: 01/03/2021 Issued: 04/03/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marineseg.org/</small></p>
<p>Tercile maximum temperature probabilities for April 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Base period: 1990-2012 Model run: 01/03/2021 Issued: 04/03/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marineseg.org/</small></p>	<p>Tercile maximum temperature probabilities for April to June 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Base period: 1990-2012 Model run: 01/03/2021 Issued: 04/03/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marineseg.org/</small></p>
<p>Tercile minimum temperature probabilities for April 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Base period: 1990-2012 Model run: 01/03/2021 Issued: 04/03/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marineseg.org/</small></p>	<p>Tercile minimum temperature probabilities for April to June 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Base period: 1990-2012 Model run: 01/03/2021 Issued: 04/03/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marineseg.org/</small></p>

Summary Statements

Rainfall for February 2021:

Below normal rainfall was recorded at Suva (Laucala Bay), Nausori Airport and Ono-i-Lau. On the other hand, *above normal* rainfall was registered at Penang, Lakeba and Rotuma. *Near normal* rainfall was received at Lautoka, Nadi, Labasa, Vunisea and Udu Point.

Rainfall data is not available for Tokotoko (Navua) and Savusavu Airfield.

Accumulated rainfall for December 2020 to February 2021, including outlook verification:

Above normal rainfall was recorded across the country, with normal rainfall at Ono-i-Lau (Eastern Division) being the only exception. Tokotoko (Navua), Labasa and Savusavu could not be analysed due to missing rainfall data.

Penang, Rotuma and Lakeba, recorded their third, fourth and sixth wettest December to February periods in their 108, 105 and 71 years of record respectively.

The rainfall outlooks issued in November were 'Consistent' at eight sites and 'Near-Consistent' at two sites, while Tokotoko (Navua), Labasa and Savusavu could not be verified due to missing readings.

Outlooks for April to June 2021:

1. SCOPIC:

- **Western and Central Divisions, Lakeba, Labasa and Savusavu:** 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.
- **Udu Point:** The outlook shows *near-normal* rainfall as the most likely outcome, with *above normal* the next most likely. *Below normal* rainfall is the least likely.
- **Vunisea and Ono-i-Lau:** The outlook shows a near-equal likelihood of *above normal* and *normal* rainfall. *Below normal* is the least likely.
- **Rotuma:** 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:** *Near-normal* rainfall is most likely across the Fiji Group in **April**, except for areas along the Coral Coast, Kadavu and southeastern parts of Eastern Division where *above normal* rainfall is most likely.
- **Rotuma:** *Below normal* rainfall is favoured.

Monthly maximum and minimum temperatures:

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

Seasonal rainfall:

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

Seasonal maximum and minimum temperature:

- **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: $15 \leq X < 25$

Very High: $25 \leq X < 35$ Exceptional: $X \geq 35$

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

Product	Date: February 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Fiji Climate Summary	05/02/21	General public	140	106	34
EAR Watch	05/02/21	Humanitarian partners	122	96	26
Fiji Climate Outlook	26/02/21	General public	124	93	31
Ocean Outlook	19/02/21	A number of key ocean related stakeholders	36	29	7
Meteorological Data Request	01/02/21 to 28/02/21	A range of stakeholders	38	32	6
Total			460	256	104

Flooding during February 2021



Nabuna Village Road, Tavua – 13th Feb



Yaladro Road, Tavua – 13th Feb



BA, Town -27th Feb



BA, Town BA, Town – 27th Feb



Boubale Crossing, Qawa Road, Bulileka Labasa -28th Feb



Zailav Crossing, Zailav Road, Batiri, Seaqaqa-28th Feb