

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 158

Country: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	Aug-2020	Sep-2020	Oct-2020				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Western Division							
Penang Mill (1910-2020)	40.0	50.6	165.9	44.1	119.7	72.6	95/111
Lautoka Mill (1900-2020)	20.6	32.9	80.6	38.2	103.3	64.4	67/121
Nadi Airport (1942-2020)	17.3	50.5	148.7	39.5	107.9	61.6	62/79
Central Division							
Laucala Bay (Suva) (1942-2020)	69.1	232.2	177.2	132.1	236.1	173.4	42/79
Nausori Airport (1957-2020)	95.4	246.7	240.4	128.7	236.7	153.0	43/64
Tokotoko (Navua) (1945-2020)	74.1	294.5	287.7	195.0	317.4	248.5	44/76
Eastern Division							
Lakeba (1950-2020)	61.8	162.5	71.4	65.7	141.3	90.7	28/71
Vunisea (Kadavu) (1931-2020)	65.5	145.1	231.9	96.3	168.7	127.4	71/83
Ono-i-Lau (1943-2020)	88.5	159.5	145.7	40.5	111.5	74.5	59/75
Northern Division							
Labasa Airport (1946-2020)	22.2	67.0	109.4	67.1	133.4	96.6	36/63
Savusavu Airfield (1956-2020)	80.2	190.2	128.6	97.1	190.2	129.5	32/64
Udu Point (1946-2020)	102.0	179.9	295.6	90.3	204.7	163.5	64/72
Rotuma (1912-2020)	178.1	501.9	594.5	243.7	369.0	290.9	100/106

TABLE 2: Three-month Rainfall for August to October 2020

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 May-June 2020				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Western Division											
Penang Mill (1910-2020)	256.5	Normal	182.3	292.3	236.0	65/110	33	33	34	6	Near-consistent
Lautoka Mill (1900-2020)	134.1	Below normal	153.0	254.2	215.4	29/121	30	35	35	4	Near-consistent
Nadi Airport (1942-2020)	216.5	Normal	170.3	284.2	225.1	39/79	31	35	34	6	Consistent
Central Division											
Laucala Bay (Suva) (1942-2020)	478.5	Normal	416.6	628.8	515.6	33/79	31	35	34	4	Consistent
Nausori Airport (1957-2020)	582.5	Normal	421.0	606.9	483.9	40/64	34	31	35	-1	Near-consistent
Tokotoko (Navua) (1945-2020)	656.3	Normal	549.1	785.5	642.6	38/74	33	33	34	7	Near-consistent
Eastern Division											
Lakeba (1950-2020)	295.7	Normal	252.4	344.3	308.9	32/70	32	34	34	2	Near-consistent
Vunisea (Kadavu) (1931-2020)	442.5	Normal	325.7	447.8	392.0	56/81	34	32	34	2	Near-consistent
Ono-i-Lau (1943-2020)	393.7	Above normal	236.7	357.5	312.2	53/73	32	34	34	1	Near-consistent
Northern Division											
Labasa Airport (1947-2020)	198.6	Normal	173.0	242.2	197.2	31/61	32	33	35	0	Near-consistent
Savusavu Airfield (1957-2020)	399.0	Normal	301.3	416.5	353.9	38/63	31	34	35	2	Near-consistent
Udu Point (1946-2020)	577.5	Above normal	297.4	411.9	342.0	62/71	33	32	35	2	Consistent
Rotuma (1912-2020)	1274.5	Above normal	634.6	888.1	717.8	96/103	35	35	30	2	Near-consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for December 2020 to February 2021
Predictor and Period used: NINO3.4 for September to October 2020

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<i>Western Division</i>						
Penang Mill (1910-2020)	30	952.0	70		15	66
Lautoka Mill (1900-2020)	27	828.8	73		19	73
Nadi Airport (1942-2020)	19	844.2	81		32	79
<i>Central Division</i>						
Laucala Bay (Suva) (1942-2020)	45	868.1	55		0	59
Nausori Airport (1957-2020)	48	852.2	52		-2	42
Tokotoko (Navua) (1945-2020)	45	986.4	55		0	53
<i>Eastern Division</i>						
Lakeba (1950-2020)	25	665.8	75		20	67
Vunisea (Kadavu) (1931-2020)	38	651.3	62		5	65
Ono-i-Lau (1943-2020)	35	541.1	65		8	60
<i>Northern Division</i>						
Labasa Airport (1946-2020)	19	896.9	81		27	71
Savusavu Airfield (1956-2020)	29	703.2	71		14	65
Udu Point (1946-2020)	35	927.2	65		7	58
Rotuma (1912-2020)	30	963.7	70		10	57

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<i>Western Division</i>							
Penang Mill (1910-2020)	15	824.9	25	1087.9	60	23	54
Lautoka Mill (1900-2020)	9	675.3	31	996.5	60	30	56
Nadi Airport (1942-2020)	13	664.7	32	941.0	55	19	50
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2020)	25	781.7	35	1010.5	40	1	23
Nausori Airport (1957-2020)	32	786.4	32	1105.3	36	-1	22
Tokotoko (Navua) (1945-2020)	31	870.2	35	1105.3	34	-2	13
<i>Eastern Division</i>							
Lakeba (1950-2020)	9	575.8	30	750.9	61	29	55
Vunisea (Kadavu) (1931-2020)	18	554.5	40	754.7	42	7	45
Ono-i-Lau (1943-2020)	21	439.1	36	620.5	43	5	49
<i>Northern Division</i>							
Labasa Airport (1946-2020)	7	774.7	28	1070.6	65	32	54
Savusavu Airfield (1956-2020)	20	586.6	32	852.4	48	9	43
Udu Point (1946-2020)	15	749.4	43	1048.6	42	10	44
Rotuma (1912-2020)	16	859.4	29	1054.3	55	17	44

TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for December 2020 to February 2021

Monthly rainfall	Seasonal rainfall
<p>Tercile rainfall probabilities for December 2020</p> <p>Model: ACCESS-S1 Base period: 1990-2012 Model run: 02/11/2020 Issued: 05/11/2020</p> <p>© Commonwealth of Australia 2020, Australian Bureau of Meteorology</p>	<p>Tercile rainfall probabilities for December 2020 to February 2021</p> <p>Model: ACCESS-S1 Base period: 1990-2020 Model run: 07/11/2020 Issued: 09/11/2020</p> <p>Shapfile data extracted from Flinders Marine Institute (2018), Maritime Boundaries Geodatabase, Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au/</p>
Monthly Tmax	Seasonal Tmax
<p>Tercile maximum temperature probabilities for December 2020</p> <p>Model: ACCESS-S1 Base period: 1990-2012 Model run: 07/11/2020 Issued: 05/11/2020</p> <p>© Commonwealth of Australia 2020, Australian Bureau of Meteorology</p>	<p>Tercile maximum temperature probabilities for December 2020 to February 2021</p> <p>Model: ACCESS-S1 Base period: 1990-2020 Model run: 07/11/2020 Issued: 09/11/2020</p> <p>Shapfile data extracted from Flinders Marine Institute (2018), Maritime Boundaries Geodatabase, Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au/</p>
Monthly Tmin	Seasonal Tmin
<p>Tercile minimum temperature probabilities for December 2020</p> <p>Model: ACCESS-S1 Base period: 1990-2012 Model run: 07/11/2020 Issued: 05/11/2020</p> <p>© Commonwealth of Australia 2020, Australian Bureau of Meteorology</p>	<p>Tercile minimum temperature probabilities for December 2020 to February 2021</p> <p>Model: ACCESS-S1 Base period: 1990-2020 Model run: 07/11/2020 Issued: 09/11/2020</p> <p>Shapfile data extracted from Flinders Marine Institute (2018), Maritime Boundaries Geodatabase, Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au/</p>

Summary Statements

Rainfall for October 2020:

Near normal to *above normal* rainfall was recorded across all Divisions in Fiji while *above normal* rainfall was observed at Rotuma.

Rotuma recorded its seventh wettest October.

Accumulated rainfall for August to October 2020, including outlook verification:

Near normal rainfall was recorded in the Central and Western Divisions, except at Lautoka which recorded *below normal* rainfall. *Near normal* to *above normal* rainfall was received across the Eastern and Northern Divisions; Rotuma also registered *above normal*.

Rotuma recorded its eighth wettest August-October period on record.

The rainfall outlooks were 'Consistent' at three sites and 'Near Consistent' at ten sites.

Outlooks for December 2020 to February 2021:

1. SCOPIC:

- **Western Division, Lakeba, Labasa and Rotuma:** The outlook favours *above normal* rainfall.
- **Suva, Ono-i-Lau and Savusavu:** The outlook shows *above normal* rainfall as the most likely outcome, with *near normal* the next most likely. *Below normal* rainfall is least likely.
- **Kadavu and Udu Point:** The outlook shows a near-equal likelihood of *above normal* and *near normal* rainfall. *Below normal* rainfall is least likely.
- **Navua and Nausori (Central Division):** The outlook offers little guidance as the chances of *above normal*, *normal* and *below normal* are similar.

2. ACCESS-S:

Monthly rainfall:

- **All regions:** *Above normal* rainfall is favoured across Fiji in December except for Rotuma with *near-normal* rainfall the most likely.

Monthly maximum and minimum temperatures:

- **All regions:** Maximum and minimum temperatures are favoured to be *above normal* across the Fiji Group in December, with the possible exception of parts of Viti Levu where there's little guidance for maximum temperature.

Seasonal rainfall:

All regions: *Above normal* rainfall is favoured across the Fiji Group during the December 2020 to February 2021 period. *Above normal* is also the most likely at Rotuma.

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, with the possible exception of parts of Viti Levu where there's little guidance for maximum temperature.

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: October 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
Fiji Climate Summary	07/10/20	General public	140	106	34
EAR Watch	07/10/20	Humanitarian partners	122	96	26
Fiji Climate Outlook	30/10/20	General public	124	93	31
Climate Outlook for Monasavu	09/10/20	Energy Fiji Limited	13	13	-
Ocean Outlook	20/10/20	A number of key ocean related stakeholders	36	29	7
Fiji Sugarcane Climate Outlook	26/10/20	General Public	77	60	17
Meteorological Data Request	01/10/20 to 31/10/20	A range of stakeholders	55	47	8
Total			567	444	123