

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 148

Country: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	Oct-2019	Nov-2019	Dec-2019					Rank
			Total (mm)	33%tile	67%tile	Median		
	Total (mm)	Total (mm)	Rainfall (mm)					
<b>Western Division</b>								
Penang Mill (1910-2019)	44.1	96.2	164.6	142.6	256.4	203.2	39/107	
Lautoka Mill (1900-2019)	101.6	77.0	158.6	107.3	201.8	161.0	64/120	
Nadi Airport (1942-2019)	132.7	47.9	202.3	119.7	241.3	181.8	45/78	
<b>Central Division</b>								
Lautala Bay (Suva) (1942-2019)	557.2	144.3	293.8	211.9	334.2	268.3	44/78	
Nausori Airport (1957-2019)	449.3	193.0	254.4	215.6	326.0	256.3	32/64	
Tokotoko (Navua) (1945-2019)	299.6	146.4	239.5	224.1	402.7	291.4	27/74	
<b>Eastern Division</b>								
Lakeba (1950-2019)	112.8	98.5	170.8	135.9	209.5	166.6	37/70	
Vunisea (Kadavu) (1931-2019)	170.5	120.8	387.9	110.4	213.7	142.0	80/83	
Ono-i-Lau (1943-2019)	76.1	16.8	226.0	82.0	169.4	113.4	59/72	
<b>Northern Division</b>								
Labasa Airport (1946-2019)	52.3	40.0	198.2	144.7	273.7	205.8	42/62	
Savusavu Airfield (1956-2019)	305.3	89.9	341.8	145.6	244.5	169.6	54/63	
Udu Point	365.6	256.2	294.4	184.6	310.2	262.5	40/70	
Rotuma (1912-2019)	377.9	723.3	184.6	239.1	355.4	297.5	18/105	

**TABLE 2: Three-month Rainfall for October to December 2019**

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIIC forecast probabilities based on NINO3.4 July-August 2019				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
<i>Western Division</i>											
Penang Mill (1910-2019)	304.9	Below normal	351.4	595.3	471.8	23/105	44	32	24	15	Consistent
Lautoka Mill (1900-2019)	337.2	Normal	292.0	441.3	360.4	53/120	47	35	18	24	Near-consistent
Nadi Airport (1942-2019)	382.9	Normal	327.5	493.7	377.7	41/77	46	34	20	19	Near-consistent
<i>Central Division</i>											
Laucala Bay (Suva) (1942-2019)	995.3	Above normal	554.1	868.6	760.7	59/78	39	34	27	3	Inconsistent
Nausori Airport (1957-2019)	896.7	Above normal	568.7	894.7	700.9	42/63	39	34	27	6	Inconsistent
Tokotoko (Navua) (1945-2019)	685.5	Below normal	769.0	1043.2	887.9	19/74	41	32	27	7	Consistent
<i>Eastern Division</i>											
Lakeba (1950-2019)	382.1	Normal	338.3	535.6	427.5	32/70	43	31	26	10	Near-consistent
Vunisea (Kadavu) (1931-2019)	679.2	Above normal	313.6	532.6	465.1	72/81	44	38	18	14	Inconsistent
Ono-i-Lau (1943-2019)	318.9	Normal	218.8	416.9	348.3	33/72	48	34	18	23	Near-consistent
<i>Northern Division</i>											
Labasa Airport (1947-2019)	290.5	Below normal	361.8	605.9	483.2	23/59	43	40	17	23	Consistent
Savusavu Airfield (1957-2019)	737.0	Above normal	421.9	626.5	518.8	46/62	42	32	26	13	Inconsistent
Udu Point	916.2	Above normal	543.0	734.8	622.0	58/69	42	27	31	3	Inconsistent
Rotuma (1912-2019)	1285.8	Above normal	813.6	1054.3	946.7	94/104	37	32	31	1	Inconsistent

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for February to April 2020**

Predictor and Period used: NINO3.4 for November to December 2019

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<i>Western Division</i>						
Penang Mill (1910-2019)	58	1015.1	42		5	63
Lautoka Mill (1900-2019)	59	831.1	41		7	59
Nadi Airport (1942-2019)	59	808.6	41		8	62
<i>Central Division</i>						
Laucala Bay (Suva) (1942-2019)	51	938.6	49		-1	45
Nausori Airport (1957-2019)	46	960.5	54		1	57
Tokotoko (Navua) (1945-2019)	47	1111.2	53		0	54
<i>Eastern Division</i>						
Lakeba (1950-2019)	57	708.8	43		5	61
Vunisea (Kadavu) (1931-2019)	57	755.3	43		4	60
Ono-i-Lau (1943-2019)	55	595.9	45		2	60
<i>Northern Division</i>						
Labasa Airport (1946-2019)	58	1028.0	42		5	65
Savusavu Airfield (1956-2019)	54	697.2	46		1	58
Udu Point	54	851.6	46		0	53
Rotuma (1912-2019)	55	995.6	45		1	54

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 (1910-2019)	42	842.9	34	1143.3	24	8	46
Lautoka Mill (1900-2019)	43	743.8	30	946.8	27	8	44
Nadi Airport (1942-2019)	43	676.6	37	945.9	20	14	52
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2019)	35	851.0	27	1055.9	38	-1	39
Nausori Airport (1957-2019)	30	893.9	33	1045.3	37	1	43
Tokotoko (Navua) (1945-2019)	34	999.0	28	1210.9	38	-1	34
<i>Eastern Division</i>							
Lakeba (1950-2019)	42	649.4	32	824.6	26	9	46
Vunisea (Kadavu) (1931-2019)	43	645.2	29	835.5	28	9	50
Ono-i-Lau (1943-2019)	38	480.2	33	740.1	29	2	38
<i>Northern Division</i>							
Labasa Airport (1946-2019)	40	798.4	31	1159.2	29	4	50
Savusavu Airfield (1956-2019)	38	639.0	31	829.7	31	1	25
Udu Point	37	782.7	34	1022.7	29	0	23
Rotuma (1912-2019)	36	872.4	34	1075.7	30	0	36

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for February to April 2020**

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Lakeba	42	545.0	19	757.0	39
Nadi	52	657.0	12	856.0	36
Nabouwalu	36	735.0	39	1042.0	25
Udu Point	45	709.0	13	928.0	42
Vunisea	52	618.0	12	846.0	36
Suva	52	852.0	12	983.0	36
Rotuma	49	845.0	18	1046.0	33

## Summary Statements

### **Rainfall for December 2019:**

*Near normal rainfall* was recorded at most of the places. The exceptions to this were Vunisea and Ono-i-Lau in the Eastern Division and Savusavu Airfield in the Northern Division with *above normal rainfall*, while Rotuma received *below normal rainfall*.

Vunisea registered its fourth wettest December on record.

### **Accumulated rainfall for October to December 2019, including outlook verification:**

Rainfall was *normal* to *below normal* in the Western Division, while *normal* to *above normal* falls were recorded in the Eastern Division. There was a mix of *below normal* and *above normal* totals in the Central and Northern Divisions, while Rotuma recorded *above normal*.

The outlook issued in August were 'near-consistent' at four stations, 'consistent' at three stations, and 'inconsistent' at six stations.

### **Outlooks for February to April 2020:**

#### **1. SCOPIC:**

The outlooks for the **Western Division**, **Labasa** in the **Northern Division** and **Lakeba** and **Vunisea** in the **Eastern Division** show *below normal* rainfall as the most likely outcome followed by *near normal* as the next most likely. At **Suva** in the **Central Division**, the outlook is mixed, with near-equal chances of *above normal* and *below normal* rainfall.

For remaining sites in the **Central, Eastern and Northern Divisions**, together with **Rotuma**, the outlook offers little guidance as the chances of *below normal*, *normal* and *above normal* rainfall are similar.

#### **2. POAMA:**

*Below normal* rainfall is favoured at Nadi, Vunisea, Suva and Rotuma.

At Lakeba and Udu Point, the outlook is mixed with near-equal chances of *below normal* and *above normal* rainfall; *near normal* is the least likely.

At Nabouwalu, there are near-equal chances of *near normal* and *below normal* rainfall.

**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: December 2019	Stakeholder	Total Number of Participants	Number of male	Number of female
<b>Fiji Climate Summary</b>	12/12/2019	General public	140	106	34
<b>Fiji Climate Outlook</b>	13/12/2019	General public	124	93	31
<b>Climate Outlook for Monasavu</b>	12/12/2019	EFL	13	13	-
<b>EAR Watch</b>	09/12/2019	Humanitarian partners	122	96	26
<b>Ocean Outlook</b>	19/12/2019	Reef Explorer Fiji Limited, Maritime Safety Authority of Fiji, World Wildlife Fund, Wildlife Conservation Society, Ministry of Fisheries and Tourism Sector.	36	29	7
<b>National Climate Outlook Forum (NCOF)</b>	02/12-06/12/2019	Fiji Sugar Cooperation Sugar Research Institute University of Fiji National Fire Authority Fiji Times Ltd. Fiji Broadcasting Cooperation Fiji Sun Energy Fiji Ltd. Fiji Roads Authority Ministry of Rural & Maritime Authority Dep. Of Information Fiji Hotels & Tourism Ass. Dept. Of Energy Mins. Of Waterways Mineral Resources Dept. Fiji National University Fiji Red Cross Society Pacific Financial Inclusion Program Fiji Commerce & Employers Federation FemLINK Pacific Mins. Of Fisheries Water Authority of Fiji Fiji Crop & Livestock Council Mins. Of Education & Cultural Heritage Mins. Of Agriculture Fiji Television National Disaster Management Maritime Safety Mins. Of Health Tower Insurance Sigatoka Town Council Secrétariat of the Pacific Community (SPC) Bureau of Meteorology (BoM)	52	34	18
<b>Total</b>			487	371	116

