

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 90

Country Name: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	February 2015						
	December 2014 Total	January 2015 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Western Division							
Penang Mill (1910-2015)	455.2	136.8	354.1	274.9	399.8	343.1	57/106
Lautoka Mill (1900-2015)	136.2	203.3	342.1	216.5	368.4	272.3	73/115
Nadi Airport (1942-2015)	123.9	205.8	346.6	218.3	338.7	273.5	50/73
Yasawa-i-rara (1950-2015)	81.1	111.2	365.7	176.4	292.6	222.0	52/65
Central Division							
Laucala Bay (Suva) (1942-2015)	579.8	301.1	273.1	241.1	331.2	289.5	35/74
Nausori Airport (1957-2015)	732.6	312.5	310.0	210.5	314.8	283.1	37/59
Tokotoko (Navua) (1945-2015)	418.0	415.4	324.3	269.7	366.9	299.5	41/71
Eastern Division							
Lakeba (1950-2015)	88.9	131.7	187.4	151.7	276.7	206.8	32/66
Vunisea (Kadavu) (1931-2015)	222.1	145.9	312.2	154.7	260.5	224.7	66/80
Ono-i-lau (1943-2015)	1.7	131.6	144.0	124.6	210.3	174.5	28/69
Northern Division							
Labasa Airport (1956-2015)	94.8	105.0	298.2	242.8	456.8	369.3	25/60
Nabouwalu (1918-2015)	280.4	233.5	574.5	254.4	335.8	302.0	94/98
Rotuma (1912-2015)	330.3	367.9	342.5	288.2	381.0	323.0	60/103

Period: *below normal/normal/above normal

**TABLE 2: Three-monthly Rainfall
December 2014 to February 2015
Predictors and Period used: NIÑO 3.4 (August to October 2014)**

Station	Three-month Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking	Forecast probs.* (include LEPS)	Verification* (Consistent, Near-consistent or Inconsistent)
Western Division							
Penang Mill (1910-2015)	946.1	774.7	1070.7	870.9	56/102	38:39:23 (18.2)	Consistent
Lautoka Mill (1900-2015)	681.6	607.9	925.3	781.9	47/115	37:42:21 (28.3)	Consistent
Nadi Airport (1942-2015)	676.3	620.4	908.4	839.9	27/72	38:39:23 (25.4)	Consistent
Yasawa-i-rara (1950-2015)	558.0	487.5	783.5	699.8	26/62	41:47:12 (41.2)	Consistent
Central Division							
Laucala Bay (Suva) (1942-2015)	1154.0	779.8	1015.2	865.0	55/73	36:33:31 (1.5)	Inconsistent
Nausori Airport (1957-2015)	1355.1	779.5	991.5	820.6	57/59	34:33:33 (-1.7)	Near-consistent
Tokotoko (Navua) (1945-2015)	1157.7	883.4	1124.8	992.6	47/69	33:34:33 (-1.7)	Near-consistent
Eastern Division							
Lakeba, Lau (1950-2015)	408.0	582.1	757.3	665.8	9/66	40:41:19 (25.2)	Near-consistent
Vunisea (Kadavu) (1931-2015)	680.2	498.1	720.2	613.0	49/78	37:33:30 (7.8)	Near-consistent
Ono-i-lau (1943-2015)	277.3	439.1	591.0	523.5	10/67	36:34:30 (4.7)	Consistent
Northern Division							
Labasa Airport (1956-2015)	498.0	812.3	1127.0	936.8	5/58	37:41:21 (28.3)	Near-consistent
Nabouwalu (1918-2015)	1088.4	765.3	1013.7	874.9	70/96	40:37:23 (21.4)	Inconsistent
Rotuma (1912-2015)	1040.7	901.9	1099.1	996.9	59/100	41:40:19 (16.6)	Near-consistent

* Forecast is consistent when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is near-consistent when observed and predicted (tercile with the highest probability) differ by only one category (i.e. terciles 1 and 2 or terciles 2 and 3).

Forecast is inconsistent when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for
April to June 2015**

Predictors and Period used: NINO 3.4 (December 2014 to February 2015)

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS (%)	Hit-rate (%)
<i>Western Division</i>							
Penang Mill (1910-2015)	42	352.7	31	532.1	27	4.2	41.3
Lautoka Mill (1900-2015)	47	263.9	37	389.7	16	16.5	51.6
Nadi Airport (1942-2015)	50	258.3	33	375.0	17	19.2	51.6
Yasawa-i-rara (1950-2015)	50	291.9	24	429.9	26	11.4	42.6
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2015)	41	678.4	37	844.1	22	5.3	43.8
Nausori Airport (1957-2015)	45	645.9	31	794.0	24	9.2	46.6
Tokotoko (Navua) (1945- 2015)	43	756.7	37	999.2	20	8.6	50
<i>Eastern Division</i>							
Lakeba (1950-2015)	43	348.5	32	502.1	25	6.1	44.4
Vunisea (Kadavu) (1931- 2015)	45	453.2	31	611.3	24	11.0	53.1
Ono-i-lau (1943-2015)	52	319.0	29	463.3	19	17.9	44.1
<i>Northern Division</i>							
Labasa Airport (1956- 2015)	39	331.4	34	447.5	27	2.8	41.4
Nabouwalu (1918-2015)	50	485.1	30	659.4	20	16.6	57.8
Rotuma (1912 -2015)	34	746.3	30	922.9	36	-1.9	19

Seasonal Climate Outlook:

April to June 2015 - Median Table:

Predictors and Period used: NINO 3.4 (December 2014 to February 2015)

Station	Below Median (prob)	Median rainfall (mm)	Above Median (prob)	LEPS	Hit-rate
Western Division					
Penang Mill (1910-2015)	56	422.6	44	1.1	55.6
Lautoka Mill (1900-2015)	65	323.5	35	12.3	67.2
Nadi Airport (1942-2015)	66	314.4	35	14.4	67.2
Yasawa-i-rara (1950-2015)	60	348.0	40	5.5	65.6
Central Division					
Laucala Bay (Suva) (1942-2015)	59	735.4	41	4.3	57.8
Nausori Airport (1957-2015)	58	708.2	42	3.3	60.3
Tokotoko (Navua) (1945-2015)	62	876.5	38	8.6	60.9
Eastern Division					
Lakeba (1950-2015)	63	424.2	37	9.2	65.1
Vunisea (Kadavu) (1931-2015)	59	541.0	41	4.9	64.1
Ono-i-lau (1943-2015)	63	405.5	37	9.2	64.4
Northern Division					
Labasa Airport (1956-2015)	57	407.4	43	2.2	58.6
Nabouwalu (1918-2015)	66	544.7	34	13.2	71.9
Rotuma (1912 -2015)	49	836.0	51	-1.6	47.6

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
April to June 2015**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Nadi	18	250	58	385	24
Nabouwalu	27	409	49	627	24
Udu Point	27	397	43	618	30
Vunisea	18	446	58	627	24
Rotuma	18	761	64	973	18

Summary Statements

Rainfall for February 2015:

Rainfall in February was *normal to above normal* across the country. *Above normal* rainfall was received at Nadi Airport and Yasawa-i-rara in the Western Division, Nabouwalu in the Northern Division and Vunisea in the Eastern Division. The rest of the OCOF stations recorded *normal* rainfall.

The total monthly rainfall at Nabouwalu ranked 5th wettest in the 98 year history of the station.

Accumulated rainfall December 2014 to February 2015 and outlook verification:

Rainfall over the December 2014 to February 2015 was *above normal* in the Central Division, and at Nabouwalu in the Northern Division. *Normal* rainfall was received across the Western Division, at Vunisea in the Eastern Division, and at Rotuma. *Below normal* rainfall was recorded at Lakeba and Ono-i-lau in the Eastern Division, and at Labasa in the Northern Division.

The rainfall at Nausori Airport ranked 3rd wettest 3 month period in its 59 year history.

The SCOPIC forecasts for the December 2014 to February 2015 were consistent at 5 stations, near- consistent at 6 and inconsistent at 2.

A number of the stations which were in meteorological drought on a 3 month timescale at the end of January have recovered during February. However, Nadi Airport, Labasa Airport, Lautoka Mill, Matuku, Rarawai Mill, Vatukoula, Lakeba and Ono-i-lau continue to be in meteorological drought conditions.

On a 6 month timescale, a little over half (14 out of the 27) of the stations across the country are yet to recover from rainfall deficiencies, despite receiving significant amount of rainfall on occasions. Dreketi, Nabouwalu, Nacocolevu (Sigatoka), Savusavu Airfield, Laucala Bay (Suva) and Viwa have recovered from drought conditions.

Outlooks for April to June 2015:

1. SCOPIC:

The seasonal rainfall outlook for April to June 2015 shows:

- *Below normal* rainfall is the most likely outcome across the Western, Central Northern and Eastern Divisions, with *normal* the next most likely;
- There is no clear guidance for Rotuma, as the chances of *below normal*, *normal* and *above normal* rainfall are quite close; and
- The forecast skill are generally *low to moderate*.

2. POAMA:

POAMA model favours *normal* rainfall across the country, including Rotuma.

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: $X \geq 35$