

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 93

Country Name: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	May 2015						
	March 2015 Total	April 2015 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<i>Western Division</i>							
Penang Mill (1910-2015)	143.4	101.8	72.2	65.4	164.9	101.0	42/106
Lautoka Mill (1900-2015)	130.0	63.7	10.0	45.4	119.4	80.3	11/116
Nadi Airport (1942-2015)	154.0	94.5	2.8	42.7	104.1	79.1	4/73
Yasawa-i-rara (1950-2015)	72.2	22.0	8.6	45.2	112.6	92.0	3/63
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2015)	187.9	78.3	92.9	175.5	259.4	199.6	7/74
Nausori Airport (1957-2015)	172.7	138.1	150.6	160.8	255.0	198.3	16/59
Tokotoko (Navua) (1945-2015)	89.3	138.1	194.4	183.6	347.1	254.7	27/71
<i>Eastern Division</i>							
Lakeba (1950-2015)	332.4	58.3	20.3	83.2	171.2	112.4	3/66
Vunisea (Kadavu) (1931-2015)	186.4	76.1	438.5	103.0	207.6	139.3	79/80
Ono-i-lau (1943-2015)	304.5	30.1	31.5	63.5	146.1	85.6	10/68
<i>Northern Division</i>							
Labasa Airport (1956-2015)	204.0	11.3	62.3	58.8	119.4	85.5	24/60
Nabouwalu (1918-2015)	152.2	M	161.8	116.1	207.5	173.3	47/98
Rotuma (1912-2015)	200.9	305.4	125.0	233.1	341.5	284.6	10/102

Period: *below normal/normal/above normal

M- Missing

**TABLE 2: Three-monthly Rainfall
March to May 2015**
Predictors and Period used: NIÑO 3.4 (November 2014 to January 2015)

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)	317.4	596.0	895.1	694.4	5/105	45/30/25 (7.3)	Consistent
Lautoka Mill (1900-2015)	203.7	480.6	680.6	537.6	6/115	48/29/23 (11.0)	Consistent
Nadi Airport (1942-2015)	251.3	508.9	670.1	538.8	4/72	47/35/18 (13.4)	Consistent
Yasawa-i-rara (1950-2015)	102.8	468.5	643.2	545.2	1/63	45/33/22 (9.1)	Consistent
Central Division							
Laucala Bay (Suva) (1942-2015)	359.1	828.4	1062.2	912.7	2/74	37/35/28 (0.2)	Consistent
Nausori Airport (1957-2015)	461.4	808.9	1035.5	916.4	2/59	37/31/32 (-1.2)	Consistent
Tokotoko (Navua) (1945-2015)	421.8	945.3	1170.4	1063.7	1/71	39/27/34 (-0.6)	Consistent
Eastern Division							
Lakeba, Lau (1950-2015)	411.0	545.3	721.3	636.7	11/65	43/30/27 (3.2)	Consistent
Vunisea (Kadavu) (1931-2015)	701.0	611.2	760.9	697.4	41/79	44/31/25 (5.3)	Near-consistent
Ono-i-lau (1943-2015)	366.1	459.4	649.9	513.9	17/66	42/37/21 (7.5)	Consistent
Northern Division							
Labasa Airport (1956-2015)	277.6	563.7	841.2	722.3	3/60	39/33/28 (1.2)	Consistent
Nabouwalu (1918-2015)	M	668.5	907.1	758.5	-	44/32/24 (6.8)	-
Rotuma (1912-2015)	631.3	828.7	1041.6	957.3	13/101	34/30/36 (-1.7)	Inconsistent

* 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
July to September 2015**

Predictors and Period used: NINO 3.4 (March to May 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)	50	152.3	31	233.2	19	3.9	40.6
Lautoka Mill (1900-2015)	60	123.2	17	220.9	23	6.0	43.1
Nadi Airport (1942-2015)	59	131.0	22	212.0	19	5.6	26.2
Yasawa-i-rara (1950-2015)	60	121.4	23	223.7	17	6.0	34.4
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2015)	53	384.3	23	566.4	24	2.3	32.3
Nausori Airport (1957-2015)	46	364.2	24	531.9	30	-0.3	41.4
Tokotoko (Navua) (1945- 2015)	50	529.3	30	689.5	20	3.7	40.6
<i>Eastern Division</i>							
Lakeba (1950-2015)	43	203.0	38	321.6	19	1.7	32.8
Vunisea (Kadavu) (1931- 2015)	44	272.6	33	381.7	23	1.2	32.3
Ono-i-lau (1943-2015)	50	251.0	27	346.6	23	3.4	36.1
<i>Northern Division</i>							
Labasa Airport (1956- 2015)	49	110.6	35	201.1	16	4.1	39.7
Nabouwalu (1918-2015)	52	212.0	37	367.0	11	8.8	38.1
Rotuma (1912 -2015)	37	575.4	26	769.0	37	-2.1	18.8

Seasonal Climate Outlook:

July to September 2015 - Median Table:

Predictors and Period used: NINO 3.4 (March to May 2015)

Station	Below Median (prob)	Median rainfall (mm)	Above Median (prob)	LEPS	Hit-rate
Western Division					
Penang Mill (1910-2015)	67	196.5	33	3.5	53.1
Lautoka Mill (1900-2015)	59	171.7	41	0.4	50.8
Nadi Airport (1942-2015)	67	175.1	33	5.1	55.4
Yasawa-i-rara (1950-2015)	73	141.9	27	7.6	63.9
Central Division					
Laucala Bay (Suva) (1942-2015)	65	464.6	35	2.4	53.8
Nausori Airport(1957-2015)	61	441.8	39	0.4	50.0
Tokotoko (Navua) (1945-2015)	72	625.7	28	6.6	59.4
Eastern Division					
Lakeba (1950-2015)	58	244.9	42	-0.3	51.6
Vunisea (Kadavu) (1931-2015)	65	331.6	35	2.4	58.5
Ono-i-lau (1943-2015)	62	291.9	38	0.8	52.5
Northern Division					
Labasa Airport (1956-2015)	69	157.8	31	4.2	60.3
Nabouwalu (1918-2015)	79	279.8	21	12.8	63.5
Rotuma (1912 -2015)	43	656.1	57	-0.6	54.7

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
July to September 2015**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Lakeba	12	174.0	79	303.0	9
Nadi	6	142.0	89	198.0	5
Nabouwalu	12	183.0	83	297.0	5
Udu Point	12	151.0	83	295.0	5
Vunisea	6	298.0	89	413.0	5
Suva	6	142.0	89	198.0	5
Rotuma	27	573.0	68	784.0	5

Summary Statements

Rainfall for May 2015:

During May 2015, rainfall was *below normal* at Rotuma, *below normal* to *normal* in the Western and Central Divisions and *normal* in the Northern Division. In the Eastern Division, Lakeba and Ono-i-lau recorded *below normal* rainfall, while Vunisea recorded *above normal* rainfall.

May 2015 was the 3rd driest May on record at Yasawa-i-rara and Lakeba, and 4th driest at Nadi Airport. In contrast, May 2015 was the 2nd wettest May on record at Vunisea.

Accumulated rainfall for March to May 2015 and outlook verification:

Rainfall over the March to May 2015 period was *below normal* almost across the country.

March to May 2015 period was the driest March to May period on record at Yasawa-i-rara and Tokotoko, 2nd driest at Laucala Bay and Nausori Airport, 3rd driest at Labasa Airport, 4th driest at Nadi Airport, 5th driest at Penang Mill, and 6th driest at Lautoka Mill.

Out of the 13 forecasts issued for the March to May 2015 period, 10 were consistent with the observed rainfall, one near-consistent, one inconsistent, while one forecast could not be verified due to missing record.

Majority of the sites are in a state of drought at all three timescales at which Fiji Meteorological Service monitors drought, that is, 3, 6 and 12 months.

Outlooks for July to September 2015:

1. SCOPIC:

The seasonal rainfall outlook for July to September 2015:

- Favours *below normal* rainfall at all stations across the country with the exception of Rotuma;
- Shows mixed outlook for Rotuma with almost similar chances of *below normal* and *above normal* rainfall; and
- The forecast confidences are generally *very low* to *moderate*.

2. POAMA:

POAMA model favours *normal* rainfall at all sites.

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: $X \geq 35$