

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 91

Country Name: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	March 2015						
	January 2015 Total	February 2015 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Western Division							
Penang Mill (1910-2015)	136.8	354.1	143.4	268.2	444.2	363.7	12/106
Lautoka Mill (1900-2015)	203.3	342.1	130.0	214.3	390.8	285.2	13/115
Nadi Airport (1942-2015)	205.8	346.6	154.0	240.3	406.4	317.3	9/72
Yasawa-i-rara (1950-2015)	111.2	365.7	72.2	180.4	324.5	237.6	6/64
Central Division							
Laucala Bay (Suva) (1942-2015)	301.1	273.1	187.9	298.9	435.0	347.0	9/74
Nausori Airport (1957-2015)	312.5	310.0	172.7	316.2	448.6	369.7	6/59
Tokotoko (Navua) (1945-2015)	415.4	324.3	89.3	324.6	441.0	385.5	1/71
Eastern Division							
Lakeba (1950-2015)	131.7	187.4	332.4	214.7	333.8	264.7	43/65
Vunisea (Kadavu) (1931-2015)	145.9	312.2	186.4	222.6	303.9	275.9	15/79
Ono-i-lau (1943-2015)	131.6	144.0	304.5	168.0	293.7	206.0	49/68
Northern Division							
Labasa Airport (1956-2015)	105.0	298.2	204.0	271.5	438.5	356.0	11/60
Nabouwalu (1918-2015)	233.5	574.5	152.2	246.0	372.7	295.5	7/98
Rotuma (1912-2015)	367.9	342.5	200.9	261.7	421.5	327.0	16/102

Period: *below normal/normal/above normal

**TABLE 2: Three-monthly Rainfall
January to March 2015**
Predictors and Period used: NIÑO 3.4 (September to November 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)	634.3	934.6	1188.3	1070.6	12/106	47:37:16 (29.4)	Consistent
Lautoka Mill (1900-2015)	675.4	798.9	1068.9	945.7	26/115	47:34:19 (22.6)	Consistent
Nadi Airport (1942-2015)	706.4	818.6	1092.3	937.2	17/72	48:33:19 (20.4)	Consistent
Yasawa-i-rara (1950-2015)	549.1	649.6	905.0	753.6	18/63	53:30:17 (26.0)	Consistent
Central Division							
Laucala Bay (Suva) (1942-2015)	762.1	858.6	1106.6	1016.7	17/74	35:35:30 (-1.2)	Near Consistent
Nausori Airport (1957-2015)	795.2	892.5	1079.7	958.6	12/59	35:30:35 (-2.1)	Near Consistent
Tokotoko (Navua) (1945-2015)	829.0	927.5	1247.2	1100.5	11/71	34:30: 36 (-1.0)	Inconsistent
Eastern Division							
Lakeba, Lau (1950-2015)	651.5	658.3	884.4	764.2	22/65	44:37:19 (13.8)	Consistent
Vunisea (Kadavu) (1931-2015)	644.5	618.1	836.3	753.5	30/79	38:30:32 (-0.3)	Near Consistent
Ono-i-lau (1943-2015)	580.1	506.8	709.7	618.1	32/67	37:32:31 (-0.4)	Near Consistent
Northern Division							
Labasa Airport (1956-2015)	607.2	982.5	1302.8	1126.8	6/59	46:27:27 (14.0)	Consistent
Nabouwalu (1918-2015)	960.2	826.3	1065.9	941.0	52/98	49:26:25 (16.6)	Near Consistent
Rotuma (1912-2015)	911.3	933.7	1162.9	1054.2	34/102	48:32:20 (15.4)	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
May to July 2015**

Predictors and Period used: NINO 3.4 (January to March 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)	43	179.7	35	299.0	22	9.1	47.7
Lautoka Mill (1900-2015)	51	153.6	29	235.7	20	19.4	50.8
Nadi Airport (1942-2015)	45	144.6	34	247.4	21	11.8	50.8
Yasawa-i-rara (1950-2015)	50	173.2	23	273.6	27	17.0	55.7
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2015)	45	440.0	36	614.5	19	12.7	44.6
Nausori Airport (1957-2015)	48	431.0	34	585.0	18	17.3	50.0
Tokotoko (Navua) (1945- 2015)	47	576.5	38	760.1	15	16.4	43.1
<i>Eastern Division</i>							
Lakeba (1950-2015)	52	258.6	28	365.0	20	18.6	46.9
Vunisea (Kadavu) (1931- 2015)	39	326.0	27	435.7	24	2.8	29.2
Ono-i-lau (1943-2015)	49	236.9	30	378.3	21	15.6	50.0
<i>Northern Division</i>							
Labasa Airport (1956- 2015)	47	171.8	37	269.8	16	18.5	46.6
Nabouwalu (1918-2015)	51	323.2	27	444.0	22	18.6	50.8
Rotuma (1912 -2015)	29	691.8	35	872.8	36	-0.6	22.2

Seasonal Climate Outlook:

May to July 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)	61	254.0	39	7.4	58.5
Lautoka Mill (1900-2015)	65	206.8	35	15.3	67.7
Nadi Airport (1942-2015)	67	185.0	33	16.3	66.2
Yasawa-i-rara (1950-2015)	66	230.8	34	15.4	62.3
Central Division					
Laucala Bay (Suva) (1942-2015)	68	509.5	32	16.9	61.5
Nausori Airport(1957-2015)	70	516.8	30	24.0	67.2
Tokotoko (Navua) (1945-2015)	63	661.8	37	10.4	60.0
Eastern Division					
Lakeba (1950-2015)	61	321.3	39	7.0	51.6
Vunisea (Kadavu) (1931-2015)	55	380.1	45	0.6	52.3
Ono-i-lau (1943-2015)	62	311.6	38	8.4	65.0
Northern Division					
Labasa Airport (1956-2015)	64	210.5	36	13.6	60.3
Nabouwalu (1918-2015)	66	368.0	34	14.1	69.2
Rotuma (1912 -2015)	44	787.9	56	1.1	54.0

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

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Nadi	42	149	46	206	12
Nabouwalu	15	240	80	393	5
Udu Point	21	215	70	355	9
Vunisea	42	358	46	422	12
Suva	42	415	46	560	12
Rotuma	12	758	78	863	10

Summary Statements

Rainfall for March 2015:

Rainfall in March was *below normal* across the country except at Lakeba and Ono-i-lau which recorded *normal* and *above normal* rainfall, respectively.

March 2015 is ranked as the driest March for Tokotoko (Navua), while sixth driest for Nausori Airport and Yasawa-i-rara.

Accumulated rainfall January to March 2015 and outlook verification:

Rainfall over the January to March 2015 period was *below normal* in the Western Division, Central Division, Lakeba in the Eastern Division, Labasa Airport in the Northern Division and at Rotuma. Vunisea and Ono-i-lau in the Eastern Division, and Nabouwalu in the Northern Division received *normal* rainfall.

The rainfall at Labasa Airport ranked 6th driest January to March period in its 59 year history.

The SCOPIC forecasts for the January to March 2015 period were consistent at 7 stations, near- consistent at 5 and inconsistent at 1.

With the exception of Ono-i-lau, all stations which were in meteorological drought on a 3 month timescale at the end of February continue to be in meteorological drought at the end of March, with new inclusion to the list being Matei Airfield, Monasavu, Penang Mill, Udu Point and Dobuilevu.

Out of the three stations that were in meteorological drought warning stage, two (Udu Point & Dobuilevu) have progressed to meteorological drought, while Seaqqa continues to be in meteorological drought warning state.

Eight new stations have progressed into the meteorological drought warning stage on a 3 month timescale.

On a 6 month timescale, 14 out of the 27 stations across the country are yet to recover from rainfall deficiencies, while 5 are in a warning stage for meteorological drought.

Outlooks for May to July 2015:

1. SCOPIC:

The seasonal rainfall outlook for May to July 2015 shows:

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

2. POAMA:

POAMA model favours *normal* or *below normal* at Nadi, Suva and Vunisea, while normal rainfall is most likely for Nabouwalu, Udu Point and 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: $X \geq 35$