

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 101

Country Name: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	January 2016						
	November 2015 Total	December 2015 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Western Division							
Penang Mill (1910-2016)	27.7	195.4	84.8	231.4	399.3	303.1	12/107
Lautoka Mill (1900-2016)	2.4	116.3	168.2	173.1	371.5	258.7	38/116
Nadi Airport (1942-2016)	28.4	204.6	227.4	217.8	362.1	288.1	29/75
Yasawa-i-rara (1950-2016)	2.9	249.0	45.5	130.5	299.3	217.8	6/65
Central Division							
Laucala Bay (Suva) (1942-2016)	45.6	364.8	177.5	253.1	382.6	317.6	15/75
Nausori Airport (1957-2016)	74.4	375.1	103.5	264.3	398.7	324.1	3/60
Tokotoko (Navua) (1945-2016)	193.8	493.1	166.5	283.0	412.5	352.5	5/72
Eastern Division							
Lakeba (1950-2016)	48.4	86.1	167.1	172.6	306.7	244.8	22/67
Vunisea (Kadavu) (1931-2016)	26.1	M	156.0	168.9	280.2	227.8	22/80
Ono-i-lau (1943-2016)	25.8	15.8	112.1	122.2	223.5	183.8	20/70
Northern Division							
Labasa Airport (1956-2016)	72.2	82.9	201.3	237.9	464.8	390.7	19/60
Nabouwalu (1918-2016)	M	295.2	132.2	250.2	400.2	327.4	15/99
Rotuma (1912-2016)	252.7	274.2	73.8	287.0	410.4	337.0	2/104

Period:*below normal/normal/above normal

M - Missing

**TABLE 2: Three-monthly Rainfall
November 2015 to January 2016**

Predictors and Period used: NINO3.4 SST Anomalies: Jul – Sep 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)
<i>Western Division</i>							
Penang Mill (1910-2016)	307.9	570.8	821.2	682.8	7/101	87:9:4 (17.3)	Consistent
Lautoka Mill (1900-2016)	286.9	417.0	694.2	561.5	21/116	93:6:1 (32.5)	Consistent
Nadi Airport (1942-2016)	460.4	427.1	750.3	656.2	28/73	95:5:0 (29.4)	Consistent
Yasawa-i-rara (1950-2016)	297.4	389.2	634.4	503.5	18/63	92:8:0 (34.6)	Consistent
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2016)	587.9	685.1	1025.1	850.1	17/74	39: 47 :14 (1.9)	Near-consistent
Nausori Airport (1957-2016)	553.0	743.0	1007.4	850.4	8/60	68:26:6 (10.4)	Consistent
Tokotoko (Navua) (1945-2016)	853.4	858.7	1120.2	928.6	24/70	65:16:19 (4.2)	Consistent
<i>Eastern Division</i>							
Lakeba, Lau (1950-2016)	301.6	462.7	671.2	575.8	8/67	62:35:3 (15.1)	Consistent
Vunisea (Kadavu) (1931-2016)	M	443.8	634.5	523.3	-	71:22:7 (11.0)	M
Ono-i-lau (1943-2016)	153.7	346.0	515.2	448.6	8/68	89:10:1 (31.3)	Consistent
<i>Northern Division</i>							
Labasa Airport (1956-2016)	356.4	573.9	943.9	672.1	5/56	80:20:0 (30.7)	Consistent
Nabouwalu (1918-2016)	M	648.6	890.7	759.4	-	87:12:1 (24.7)	M
Rotuma (1912-2016)	600.7	902.0	1079.0	994.7	6/101	75:16:9 (9.7)	Consistent

Period:*below normal/normal/above normal

* 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).

M - Missing

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for
March to May 2016 – Tercile Method**

Predictors and Period used: NINO3.4 SST Anomalies: Nov 2015 – Jan 2016

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 (1910-2016)	81	594.1	11	883.8	8	9.0	50
Lautoka Mill (1900-2016)	85	480.1	9	679.3	6	11.8	49.2
Nadi Airport (1942-2016)	78	508.1	19	664.4	3	14.4	53.8
Yasawa-i-rara (1950-2016)	72	456.7	22	642.9	6	7.6	43.5
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2016)	45	819.3	37	1054.3	18	0.2	41.5
Nausori Airport (1957-2016)	48	805.4	28	1031.5	24	-0.9	35.6
Tokotoko (Navua) (1945-2016)	52	940.6	18	1167.1	30	-0.5	38.5
<i>Eastern Division</i>							
Lakeba (1950-2016)	69	540.5	16	719.6	15	4.2	28.1
Vunisea (Kadavu) (1931-2016)	71	611.2	17	760.9	12	5.5	23.8
Ono-i-lau (1943-2016)	58	441.1	34	642.8	8	6.8	45.8
<i>Northern Division</i>							
Labasa Airport (1956-2016)	53	558.2	31	838.7	16	1.9	40
Nabouwalu (1918-2016)	72	668.5	18	907.1	10	6.6	45.3
Rotuma (1912 -2016)	35	819.5	28	1041.4	37	-1.8	28.1

Seasonal Climate Outlook:

March to May 2016 - Median Table:

Predictors and Period used: NINO3.4 SST Anomalies: Nov 2015 – Jan 2016

Station	Below Median (prob)	Median rainfall (mm)	Above Median (prob)	LEPS	Hit-rate
<i>Western Division</i>					
Penang Mill (1910-2016)	87	693.2	13	11.7	64.1
Lautoka Mill (1900-2016)	87	571.6	13	11.2	66.2
Nadi Airport (1942-2016)	86	578.9	14	9.7	64.6
Yasawa-i-rara (1950-2016)	71	540.9	29	2.0	56.5
<i>Central Division</i>					
Laucala Bay (Suva) (1942-2016)	56	909.5	44	-1.2	50.8
Nausori Airport(1957-2016)	66	915.9	34	0.4	54.2
Tokotoko (Navua) (1945-2016)	63	1059.8	37	-0.3	53.8
<i>Eastern Division</i>					
Lakeba (1950-2016)	72	625.5	28	2.0	60.9
Vunisea (Kadavu) (1931-2016)	74	697.4	26	2.7	61.9
Ono-i-lau (1943-2016)	84	510.3	16	8.5	66.1
<i>Northern Division</i>					
Labasa Airport (1956-2016)	64	691.5	36	-0.1	51.7
Nabouwalu (1918-2016)	87	758.5	13	10.4	67.2
Rotuma (1912 -2016)	48	957.0	52	-1.6	29.7

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
March to May 2016**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Lakeba	82	448	13	732	5
Nadi	88	469	7	647	5
Nabouwalu	73	623	18	885	9
Udu Point	67	590	21	807	12
Vunisea	88	636	7	756	5
Suva	88	807	7	971	5
Rotuma	73	836	15	1043	12

Summary Statements

Rainfall for January 2016:

With the exception of Nadi Airport, which had *normal* rainfall, *below normal* rainfall was recorded at all other stations.

The rainfall at Rotuma ranked second driest January on record, with third driest at Nausori Airport and fifth driest at Tokotoko.

Accumulated rainfall for November 2015 to January 2016 & outlook verification:

Rainfall over the last three months was *below normal* across the country.

The total rainfall at Labasa Airport through the November 2015 to January 2016 period ranked fifth driest in the historical record.

Verification of the 3-month rainfall

The SCOPIC outlooks for the last three months were consistent at 10 stations and near-consistent at 1 station (Laucala Bay). The outlook for Vunisea and Nabouwalu could not be verified due to missing data.

Outlooks for March to May 2016:

1. SCOPIC:

The seasonal rainfall outlook for March to May 2016 shows:

- *Below normal* rainfall favoured over majority of the places, with *normal* the next most likely outcome;
- The outlook for Rotuma does not provide any clear guidance, as there is almost equal chances of *below normal*, *normal* and *above normal* rainfall;
- The outlook confidences range from *moderate* to *good* in the Western, Eastern and Northern Divisions, while the confidences range from *very low* to *low* in the Central Division and at Rotuma.

2. POAMA:

POAMA model favours *below normal* rainfall at all the stations.

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: $X \geq 35$