

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 108

Country Name: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	August 2016						
	June 2016 Total	July 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Western Division							
Penang Mill (1910-2016)	56.9	13.5	200.8	38	75	57	104/107
Lautoka Mill (1900-2016)	18.9	6.4	210.0	23	73	43	109/117
Nadi Airport (1942-2016)	28.1	13.4	197.0	27	68	50	72/75
Yasawa-i-Rara (1950-2016)	80.0	8.8	167.4	34	59	45	59/63
Central Division							
Laucala Bay (Suva) (1942-2016)	50.3	78.8	407.5	99	152	133	73/75
Nausori Airport (1957-2016)	92.7	61.2	387.7	90	148	111	58/60
Tokotoko (Navua) (1945-2016)	103.6	168.5	463.1	138	208	187	68/71
Eastern Division							
Lakeba (1950-2016)	92.3	21.0	187.9	45	84	71	60/68
Vunisea (Kadavu) (1931-2016)	92.5	62.5	226.9	60	129	86	73/80
Ono-i-lau (1943-2016)	97.3	26.1	212.5	55	110	89	59/69
Northern Division							
Labasa Airport (1956-2016)	45.9	28.8	210.2	13	64	49	61/61
Nabouwalu (1918-2016)	M	46.5	366.0	53	114	82	96/97
Rotuma (1912-2016)	168.0	68.8	384.8	142	256	178	92/103

Period: *below normal/normal/above normal

M - Missing

TABLE 2: Three-monthly Rainfall**June to August 2016****Predictors and Period used: NINO3.4 SST Anomalies: February to April 2016**

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 (1910-2016)	271.2	159	226	185	88/107	73/13/14 (4.0)	Inconsistent
Lautoka Mill (1900-2016)	235.3	119	223	169	84/117	68/19/13 (4.4)	Inconsistent
Nadi Airport (1942-2016)	238.5	118	207	162	55/75	68/24/8 (7.2)	Inconsistent
Yasawa-i-rara (1950-2016)	256.2	132	240	185	46/63	62/30/8 (5.6)	Inconsistent
Central Division							
Laucala Bay (Suva) (1942-2016)	536.6	366	507	436	53/75	56/31/13 (8.7)	Inconsistent
Nausori Airport (1957-2016)	541.6	341	498	425	47/60	76/18/6 (13.5)	Inconsistent
Tokotoko (Navua) (1945-2016)	735.2	487	679	576	53/71	63/29/8 (13.2)	Inconsistent
Eastern Division							
Lakeba, Lau (1950-2016)	301.2	197	304	270	43/66	68/26/6 (8.8)	Near-consistent
Vunisea (Kadavu) (1931-2016)	381.9	255	398	310	51/79	68/12/20 (2.4)	Near-consistent
Ono-i-lau (1943-2016)	335.9	247	345	289	43/67	57/29/14 (3.6)	Near-consistent
Northern Division							
Labasa Airport (1956-2016)	284.9	113	184	146	52/60	66/18/16 (3.0)	Inconsistent
Nabouwalu (1918-2016)	M	232	336	281	-	81/16/3 (16.1)	-
Rotuma (1912-2016)	621.6	596	780	713	38/102	13/43/44 (2.1)	Near-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
October to December 2016 – Tercile Method**

Predictors and Period used: NINO3.4 SST Anomalies: June to August 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)	27	348	37	571	36	13.7	49.2
Lautoka Mill (1900-2016)	26	274	39	444	35	18.8	40.9
Nadi Airport (1942-2016)	26	326	39	478	35	18.3	39.4
Yasawa-i-rara (1950-2016)	29	262	37	434	34	16.6	44.4
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2016)	30	539	35	833	35	5.2	43.9
Nausori Airport (1957-2016)	29	553	35	810	36	5.3	42.4
Tokotoko (Navua) (1945-2016)	32	767	33	1025	35	5.4	46.2
<i>Eastern Division</i>							
Lakeba (1950-2016)	28	323	37	527	35	10.3	39.4
Vunisea (Kadavu) (1931-2016)	32	310	34	505	34	8.8	48.4
Ono-i-lau (1943-2016)	22	210	41	401	37	23.0	53.1
<i>Northern Division</i>							
Labasa Airport (1956-2016)	22	361	39	625	39	23.2	56.1
Nabouwalu (1918-2016)	29	446	37	720	34	15.9	48.4
<i>Rotuma</i>							
Rotuma (1912 -2016)	32	818	34	1054	34	0.5	35.4

Seasonal Climate Outlook:

October to December 2016 - Median Table:

Predictors and Period used: NINO3.4 SST Anomalies: June to August 2016

Station	Below Median (prob)	Median rainfall (mm)	Above Median (prob)	LEPS	Hit-rate
<i>Western Division</i>					
Penang Mill (1910-2016)	45	461	55	15.4	68.3
Lautoka Mill (1900-2016)	45	356	55	19.2	638.2
Nadi Airport (1942-2016)	46	379	54	19.6	69.7
Yasawa-i-rara (1950-2016)	46	344	54	18.0	65.1
<i>Central Division</i>					
Laucala Bay (Suva) (163.6942-2016)	48	698	52	3.5	56.1
Nausori Airport (1957-2016)	46	680	54	8.4	57.6
Tokotoko (Navua) (1945-2016)	47	783	53	9.6	60.0
<i>Eastern Division</i>					
Lakeba (1950-2016)	47	403	53	9.5	65.2
Vunisea (Kadavu) (1931-2016)	46	415	54	12.5	64.1
Ono-i-lau (1943-2016)	41	348	59	39.3	82.8
<i>Northern Division</i>					
Labasa Airport (1956-2016)	40	484	60	23.6	68.4
Nabouwalu (1918-2016)	47	547	53	18.7	71.9
<i>Rotuma</i>					
Rotuma (1912 -2016)	48	939	52	2.5	55.4

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
October to December 2016**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Lakeba	27	307	21	419	52
Nadi	30	305	21	410	49
Nabouwalu	27	344	18	648	55
Udu Point	27	437	5	605	68
Vunisea	30	314	21	519	49
Suva	30	505	21	763	49
Rotuma	9	828	6	1026	85

Summary Statements

Rainfall for August 2016:

Above normal to well above normal rainfall was recorded across the country during August 2016.

It was the wettest August on record at Labasa Airport, 2nd wettest at Nabouwalu, and 3rd wettest at Laucala Bay and Nausori Airport. The August 2016 rainfall ranked within top ten wettest August on record at majority of the other stations.

Accumulated rainfall for June to August 2016 & outlook verification:

Above normal rainfall was recorded at majority of the stations through the June to August 2016 period. The exceptions to this were stations in the Eastern Division and Rotuma, which registered normal rainfall.

Verification of the 3-month rainfall

The SCOPIC outlooks for June to August 2016 period were inconsistent at 8 stations, near-consistent in the Eastern Division and Rotuma, while the outlook for Nabouwalu could not be verified due to some missing records.

Outlooks for October to December 2016:

1. SCOPIC:

The SCOPIC outlooks for October to December 2016 period shows:

- At Penang Mill, Lakeba and Labasa Airport there is a *near equal likelihood* of *above normal* and *normal* rainfall. *Below normal* is the least likely outcome.
- For Ono-i-Lau, Nadi Airport and Lautoka normal rainfall is favoured with *above normal* the next most likely outcome.
- There is no clear guidance for the Central Division, Yasawa-i-rara, Vunisea, Nabouwalu and Rotuma as the chances of *below normal*, *normal* and *above normal* rainfall are near equal.
- The confidences in the predictions generally range from *good* to *very high*; the exception to this is Rotuma and across the Central Division where the confidences are *low* to *moderate*.

2. POAMA:

POAMA favours *above normal* rainfall across the country.

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: $X \geq 35$