Pacific Islands - Online Climate Outlook Forum (OCOF) No. 84

Country Name: Fiji

**TABLE 1: Monthly Rainfall** 

Station (include data period)			August 2014				
	June 2014 Total	July 2014 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Western Division			<b>-</b>				
Penang Mill (1910- 2014)	42.2	26.7	16.2	38.5	77.5	54.7	20/105
Lautoka Mill (1900- 2014)	13.8	0.8	0.0	23.4	81.2	43.7	1/115
Nadi Airport (1942- 2014)	1.3	13.3	0.0	26.0	71.9	49.1	1/73
Yasawa-i-rara (1950- 2014)	3.4	9.7	3.8	29.7	59.6	46.9	8/61
Central Division							
Laucala Bay (Suva) (1942-2014)	56.4	105.9	39.0	93.2	149.1	127.0	5/73
Nausori Airport (1957- 2014)	81.4	118.5	47.5	90.5	165.2	114.8	7/58
Tokotoko (Navua) (1945-2014)	138.8	136.4	88.6	142.9	220.8	187.4	11/69
Eastern Division							
Lakeba (1950-2014)	23.2	80.1	9.2	53.9	104.5	73.1	3/66
Vunisea (Kadavu) (1931-2014)	49.9	73.9	34.0	57.5	123.7	86.2	3/78
Ono-i-lau (1943-2014)	58.3	82.5	43.1	54.0	107.1	77.8	16/67
Northern Division						1	
Labasa Airport (1956- 2014)	27.9	4.1	1.0	13.9	64.0	49.0	2/59
Nabouwalu (1918- 2014)	77.4	49.4	42.7	53.5	120.0	85.0	24/95
Rotuma (1912-2014)	328.5	144.7	193.0	153.0	256.2	197.3	48/101

Period:\*below normal/normal/above normal

# TABLE 2: Three-monthly Rainfall June to August 2014

Predictors and Period used: SST 1 & 9 (February to April 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		•		1			
Penang Mill (1910- 2014)	85.1	161.8	226.3	188.1	11/105	28:25 <b>: 47</b> (0.4)	Inconsistent
Lautoka Mill (1900- 2014)	14.6	121.7	223.7	169.7	3/115	16:23 <b>:61</b> (9.7)	Inconsistent
Nadi Airport (1942- 2014)	14.6	125.4	208.2	173.9	4/73	15:35 <b>:50</b> (7.7)	Inconsistent
Yasawa-i-rara (1950- 2014)	16.9	132.6	243.2	204.4	2/61	22:28: <b>50</b> (6.8)	Inconsistent
Central Division							
Laucala Bay (Suva) (1942-2014)	201.3	367.0	513.9	436.5	6/73	34:23: <b>43</b> (2.2)	Inconsistent
Nausori Airport (1957-2014)	247.4	355.4	496.8	431.3	5/58	28:25 <b>:47</b> (6.5)	Inconsistent
Tokotoko (Navua) (1945-2014)	363.8	506.5	682.7	577.6	8/69	29:28 <b>:43</b> (3.4)	Inconsistent
Eastern Division		T				1	1
Lakeba, Lau (1950- 2014)	112.5	202.2	304.6	270.8	8/64	18:24: <b>58</b> (10.5)	Inconsistent
Vunisea (Kadavu) (1931-2014)	157.8	257.0	397.9	316.4	7/78	24: <b>48</b> :28 (-1.8)	Near- consistent
Ono-i-lau (1943- 2014)	183.9	253.5	345.4	289.6	13/65	35:26: <b>39</b> (-0.6)	Inconsistent
Northern Division						1	T
Labasa Airport (1956-2014)	33.0	116.5	192.9	147.1	3/58	14:17: <b>69</b> (13.6)	Inconsistent
Nabouwalu (1918- 2014)	169.5	231.9	336.9	283.5	21/95	16:35: <b>49</b> (15.8)	Inconsistent
Rotuma (1912-2014)	666.2	589.6	784.5	705.8	44/100	29: <b>44</b> :27 (1.8)	Consistent

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<sup>\*</sup>Forecast is <u>consistent</u> when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is <u>near-consistent</u> 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 <u>inconsistent</u> 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 October to December 2014

**Predictors and Period used:** NINO 3.4 (June to August 2014)

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS (%)	Hit-rate (%)
Western Division							
Penang Mill (1910-2014)	41	350.6	34	569.7	25	15.5	45.9
Lautoka Mill (1900-2014)	42	277.9	37	448.1	21	19.2	45.3
Nadi Airport (1942-2014)	42	326.6	36	487.3	22	18.0	48.5
Yasawa-i-rara (1950-2014)	42	267.8	38	434.0	20	19.9	45.9
Central Division							
Laucala Bay (Suva) (1942-2014)	38	539.3	33	831.6	29	2.6	42.2
Nausori Airport (1957-2014)	38	544.4	33	807.2	29	5.1	36.8
Tokotoko (Navua) (1945- 2014)	38	754.9	37	1018.7	25	7.1	49.2
Eastern Division							
Lakeba (1950-2014)	40	334.7	33	525.4	27	8.3	37.5
Vunisea (Kadavu) (1931- 2014)	39	306.9	38	502.8	23	10.1	47.6
Ono-i-lau (1943-2014)	43	226.7	36	411.7	21	22.5	58.1
Northern Division							
Labasa Airport (1956- 2014)	40	365.1	40	623.1	20	21.1	54.5
Nabouwalu (1918-2014)	41	446.3	38	719.9	21	17.3	48.4
Rotuma (1912 -2014)	35	837.4	32	1057.0	33	-1.3	42.9

# **Seasonal Climate Outlook:**

# October to December 2014- Median Table:

Predictors and Period used: NINO 3.4 (May to July 2014)

Station	Below Median (prob)	Median rainfall (mm)	Above Median (prob)	LEPS	Hit-rate		
Western Division							
Penang Mill (1910-2014)	61	461.0	39	17.1	72.1		
Lautoka Mill (1900-2014)	62	358.3	38	19.9	70.3		
NadiAirport (1942-2014)	64	381.3	36	20.9	71.9		
Yasawa-i-rara (1950-2014)	61	361.0	39	15.2	63.9		
Central Division							
Laucala Bay (Suva) (1942-2014)	54	698.5	46	1.8	57.8		
Nausori Airport(1957-2014)	56	680.1	44	6.2	61.4		
Tokotoko (Navua) (1945-2014)	58	872.7	42	9.2	61.9		
Eastern Division							
Lakeba (1950-2014)	58	415.4	42	8.2	65.6		
Vunisea (Kadavu) (1931-2014)	59	409.0	41	14.3	66.7		
Ono-i-lau (1943-2014)	67	357.3	33	32.2	82.3		
Northern Division							
Labasa Airport (1956-2014)	60	486.9	40	19.7	67.3		
Nabouwalu (1918-2014)	65	546.9	35	19.7	68.8		
Rotuma (1912 -2014)	54	946.7	46	1.2	57.1		

TABLE 4: Seasonal Climate Outlooks using POAMA2 for October to December 2014

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Nadi Airport	58	178	33	305	9
Suva	58	369	33	713	9
Udu Point	27	325	43	501	30
Rotuma	33	723	30	970	37

## **Summary Statements**

#### Rainfall for August 2014:

With the exception of Rotuma, below normal rainfall was recorded across the country during August.

The rainfall at Lautoka and Nadi Airport ranked lowest in the historical record for the month of August, with second lowest at Labasa Airport, third lowest at Lakeba and Vunisea, and fifth lowest at Suva.

### Accumulated rainfall for June to August 2014, including outlook verification:

Rainfall over the last three months was *below normal* across the country, with the exception of Rotuma, which received *normal* rainfall.

The total three months rainfall at Yasawa-i-rara ranked second lowest in the historical record for June to August, third lowest at Lautoka Mill and Labasa Airport, forth lowest at Nadi Airport, and fifth lowest at Nausori Airport.

The SCOPIC forecasts for the last three months were inconsistent at 11 stations, near-consistent at 1 and consistent at 1.

#### **Outlooks for October to December 2014:**

#### 1. SCOPIC:

The seasonal rainfall outlook for October to December 2014 shows:

- Below normal is the most likely outcome for Penang Mill, Lautoka Mill, Nadi Airport, Yasawa-i-rara, Lakeba, Ono-i-lau and Nabouwalu, with normal the next most likely;
- The outlooks for Tokotoko (Navua), Vunisea and Labasa Airport show similar chances of *below normal* and *normal* rainfall .
- The outlook offers little guidance for Laucala Bay, Nausori Airport and Rotuma as the chances of *above-normal*, *normal* and *below-normal* rainfall are similar.

The historical accuracy of outlooks is generally moderate to high at this time of the year.

### 2. POAMA:

POAMA model favours *below normal* rainfall at Nadi Airport and Suva, *normal* at Udu Point, while the outlook offers little guidance for Rotuma as the chances of *above-normal*, *normal* and *below-normal* rainfall are similar.

#### NB: The X LEPS % score has been categorised as follows:

 $Very \ Low: \ X < 0.0 \\ Low: \ 0 \le X < 5 \\ Moderate \ 5 \le X < 10 \\ Good: \ 10 \le X < 15 \\ High: \ 15 \le X < 25 \\$ 

Very High:  $25 \le X < 35$  Exceptional:  $X \ge 35$