

## Pacific Islands - Online Climate Outlook Forum (OCOF) No. 110

Country Name: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)	October 2016						
	August 2016 Total	September 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<i>Western Division</i>							
Penang Mill (1910-2016)	200.8	1.2	72.5	45.5	112.0	73.8	52/107
Lautoka Mill (1900-2016)	210.0	2.6	153.2	37.0	107.1	63.9	97/117
Nadi Airport (1942-2016)	197.0	7.3	164.6	39.6	101.8	61.6	63/75
Yasawa-i-Rara (1950-2016)	167.4	1.4	176.2	44.0	107.3	76.4	56/66
<i>Central Division</i>							
Laucala Bay (Suva) (1942-2016)	407.5	56.9	291.9	126.1	217.1	164.2	59/75
Nausori Airport (1957-2016)	387.7	26.1	300.5	128.3	223.2	146.3	47/60
Tokotoko (Navua) (1945-2016)	463.1	41.1	398.2	193.0	321.8	249.1	59/72
<i>Eastern Division</i>							
Lakeba (1950-2016)	187.9	3.0	139.5	63.6	140.2	84.8	45/68
Vunisea (Kadavu) (1931-2016)	226.9	21.8	174.9	70.4	145.5	119.0	58/80
Ono-i-lau (1943-2016)	212.5	23.6	175.7	40.0	99.7	70.5	59/71
<i>Northern Division</i>							
Labasa Airport (1956-2016)	210.2	7.9	202.6	69.2	131.4	96.6	51/59
Rotuma (1912-2016)	384.8	379.3	423.6	242.8	342.1	284.3	81/102

Period: \*below normal/normal/above normal

M - Missing

**TABLE 2: Three-monthly Rainfall**

**August to October 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)
<b>Western Division</b>							
Penang Mill (1910-2016)	274.5	178	275	223	71/106	51:36:13 (7.6)	Near-consistent
Lautoka Mill (1900-2016)	365.8	165	257	221	102/117	58:25:17 (7.0)	Inconsistent
Nadi Airport (1942-2016)	368.9	172	289	221	65/75	62:26:12 (11)	Inconsistent
Yasawa-i-rara (1950-2016)	345.0	153	255	216	54/63	63:21:16(8.5)	Inconsistent
<b>Central Division</b>							
Laucala Bay (Suva) (1942-2016)	756.3	404	611	506	57/75	55:34:11 (10.1)	Inconsistent
Nausori Airport (1957-2016)	714.3	421	593	475	51/60	33:49:18 (1.1)	Near-consistent
Tokotoko (Navua) (1945-2016)	902.4	555	879	636	49/71	50:42:8 (10.6)	Inconsistent
<b>Eastern Division</b>							
Lakeba, Lau (1950-2016)	330.4	251	346	308	39/68	51:25:24 (2.1)	Near-consistent
Vunisea (Kadavu) (1931-2016)	423.6	292	438	363	49/78	57:30:13 (8.4)	Near-consistent
Ono-i-lau (1943-2016)	411.8	233	346	303	53/69	50:31:19 (3.6)	Inconsistent
<b>Northern Division</b>							
Labasa Airport (1956-2016)	420.7	166	242	199	52/58	58:22:20 (2.9)	Inconsistent
Rotuma (1912-2016)	1187.7	652	826	718	92/101	58:34:8 (11.1)	Inconsistent

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  
December 2016 to February 2017 – Tercile Method**

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

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS (%)	Hit-rate (%)
<b><i>Western Division</i></b>							
Penang Mill (1910-2016)	24	782.0	29	1068.2	<b>47</b>	16.5	50.0
Lautoka Mill (1900-2016)	13	609.7	36	922.8	<b>51</b>	26.4	56.1
Nadi Airport (1942-2016)	17	646.8	35	906.3	<b>48</b>	22.3	50.0
Yasawa-i-rara (1950-2016)	13	491.2	33	778.8	<b>54</b>	40.2	63.5
<b><i>Central Division</i></b>							
Laucala Bay (Suva) (1942-2016)	29	782.3	33	1020.0	38	1.8	39.4
Nausori Airport (1957-2016)	32	784.1	34	1002.3	34	-1.9	3.3
Tokotoko (Navua) (1945-2016)	36	883.8	30	1130.6	34	-1.3	32.3
<b><i>Eastern Division</i></b>							
Lakeba (1950-2016)	13	566.3	38	744.6	<b>49</b>	27.1	56.1
Vunisea (Kadavu) (1931-2016)	21	498.2	<b>38</b>	716.4	<b>41</b>	7.9	46.2
Ono-i-lau (1943-2016)	23	438.7	<b>37</b>	586.3	<b>40</b>	6.3	47.6
<b><i>Northern Division</i></b>							
Labasa Airport (1956-2016)	13	786.5	34	1105.5	<b>53</b>	29.1	54.2
<b><i>Rotuma</i></b>							
Rotuma (1912 -2016)	22	900.7	34	1098.9	<b>44</b>	17.3	37.9

## Seasonal Climate Outlook:

### December 2016 to February 2017 - Median Table:

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

Station	Below Median (prob)	Median rainfall (mm)	Above Median (prob)	LEPS	Hit-rate
<b><i>Western Division</i></b>					
Penang Mill (1910-2016)	34	887.8	<b>66</b>	11.9	67.2
Lautoka Mill (1900-2016)	39	781.9	<b>61</b>	9.8	68.2
Nadi Airport (1942-2016)	32	839.9	<b>68</b>	22.5	75.8
Yasawa-i-rara (1950-2016)	23	665.0	<b>77</b>	38.6	82.5
<b><i>Central Division</i></b>					
Laucala Bay (Suva) (163.6942-2016)	47	868.6	<b>53</b>	-0.3	51.5
Nausori Airport (1957-2016)	48	831.4	<b>52</b>	-1.4	51.7
Tokotoko (Navua) (1945-2016)	46	992.6	<b>54</b>	-0.2	50.8
<b><i>Eastern Division</i></b>					
Lakeba (1950-2016)	33	645.3	<b>67</b>	21.5	69.7
Vunisea (Kadavu) (1931-2016)	37	614.5	<b>63</b>	12.8	69.2
Ono-i-lau (1943-2016)	39	502.0	<b>61</b>	9.0	60.3
<b><i>Northern Division</i></b>					
Labasa Airport (1956-2016)	25	899.8	<b>75</b>	32.2	74.6
<b><i>Rotuma</i></b>					
Rotuma (1912 -2016)	34	996.9	<b>66</b>	22.6	66.7

## Summary Statements

### **Rainfall for October 2016:**

Apart from Lakeba and Penang, which recorded normal rainfall, the rest of the stations recorded *above normal* rainfall.

### **Accumulated rainfall for August to October 2016 & outlook verification:**

For 3 month rainfall, Lakeba and Vunisea recorded normal rainfall while rest of the sites recorded *above normal*

### **Verification of the 3-month rainfall**

Apart from Nausori Airport, Lakeba and Vunisea, which had near- consistent forecasts, inconsistent forecasts were recorded at the rest of the stations.

### **Outlooks for December 2016 to February 2017:**

#### **1. SCOPIC:**

*Above normal* rainfall is favoured for Rotuma, the Western and Northern Divisions and Lakeba in the Eastern Division. There is a near equal chance of normal and above normal rainfall at Vunisea and Ono-i-Lau in the Eastern Division while there is no clear guidance for the Central Division as there is almost equal chances of *below normal*, *normal* and *above normal* rainfall.

- The confidences in the rainfall outlook for Western, Eastern, Northern Division and Rotuma generally range from moderate to very high. The confidence in the outlook for Central Division is very low to low.

**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:  $X \geq 35$