

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 82

Country Name: Fiji

TABLE 1: Monthly Rainfall

| Station (include data period) | June 2014 | | | | | | |
|--------------------------------|------------------|----------------|-------|-----------------------|-----------------------|----------------------|---------|
| | April 2014 Total | May 2014 Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking |
| Western Division | | | | | | | |
| Penang Mill (1910-2014) | 123.5 | 207.1 | 42.2 | 39.9 | 96.7 | 58.7 | 37/105 |
| Lautoka Mill (1900-2014) | 145.7 | 140.6 | 13.8 | 30.5 | 79.6 | 47.1 | 25/115 |
| Nadi Airport (1942-2014) | 117.3 | 133.9 | 1.3 | 28.4 | 74.1 | 53.1 | 5/73 |
| Yasawa-i-Rara (1950-2014) | 101.4 | 132.6 | 3.4 | 43.0 | 131.0 | 72.1 | 4/62 |
| Central Division | | | | | | | |
| Laucala Bay (Suva) (1942-2014) | 186.0 | 447.1 | 56.4 | 110.9 | 216.6 | 141 | 11/73 |
| Nausori Airport (1957-2014) | 107.3 | 226.5 | 81.4 | 94.5 | 204.3 | 145.7 | 16/58 |
| Tokotoko (Navua) (1945-2014) | 154.6 | 224.2 | 138.8 | 134.9 | 259.1 | 190.1 | 26/70 |
| | | | | | | | |
| Eastern Division | | | | | | | |
| Lakeba (1950-2014) | 91.0 | 155.3 | 23.2 | 51.3 | 137.4 | 93.1 | 11/65 |
| Vunisea (Kadavu) (1931-2014) | 165.1 | 249.9 | 49.9 | 76.5 | 141.6 | 114.9 | 19/79 |
| Ono-i-Lau (1943-2014) | 91.0 | 243.5 | 58.3 | 61.9 | 112.6 | 78.8 | 23/67 |
| | | | | | | | |
| Northern Division | | | | | | | |
| Labasa Airport (1956-2014) | 62.8 | 107.8 | 27.9 | 33.5 | 84.8 | 52.3 | 17/58 |
| Nabouwalu (1918-2014) | 106.9 | 315.6 | 77.4 | 60.1 | 145.7 | 103.0 | 39/96 |
| | | | | | | | |
| Rotuma (1912-2014) | 163.9 | 426.7 | 328.5 | 198.0 | 293.1 | 246.0 | 77/101 |

Period: *below normal/normal/above normal

**TABLE 2: Three-monthly Rainfall
April to June 2014**

Predictors and Period used: SST 1 & 9 (December 2013 to February 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, Inconsistent ?) |
|--------------------------------|-------------------|-----------------------|-----------------------|----------------------|-------------|---------------------------------|---|
| Western Division | | | | | | | |
| Penang Mill (1910-2014) | 372.8 | 352.0 | 532.3 | 424.0 | 39/104 | 24:31:45 (1.1) | Near-consistent |
| Lautoka Mill (1900-2014) | 300.1 | 263.5 | 389.8 | 322.7 | 52/115 | 23:39:38 (12.5) | Consistent |
| Nadi Airport (1942-2014) | 252.5 | 260.9 | 376.2 | 315.7 | 21/72 | 12:35:53 (17.2) | Inconsistent |
| Yasawa-i-Rara (1950-2014) | 237.4 | 287.4 | 431.3 | 359.9 | 15/62 | 16:36:48 (14.9) | Inconsistent |
| Central Division | | | | | | | |
| Laucala Bay (Suva) (1942-2014) | 689.5 | 678.1 | 846.7 | 736.6 | 26/73 | 25:31:44 (7.4) | Near Consistent |
| Nausori Airport (1957-204) | 415.2 | 646.8 | 796.8 | 710.1 | 5/58 | 17:39:44 (14.1) | Inconsistent |
| Tokotoko (Navua) (1945-2014) | 517.6 | 771.6 | 1000.3 | 879.3 | 6/70 | 28:34:38 (6.3) | Inconsistent |
| Eastern Division | | | | | | | |
| Lakeba, Lau (1950-2014) | 269.5 | 353.4 | 509 | 426.4 | 12/64 | 9:36:55 (14.6) | Inconsistent |
| Vunisea (Kadavu) (1931-2014) | 464.9 | 464.0 | 614.4 | 547.8 | 27/78 | 22:41:37 (5.7) | Consistent |
| Ono-i-Lau (1943-2014) | 392.8 | 316.8 | 465.8 | 413.6 | 31/64 | 32:27:41 (8.4) | Near-Consistent |
| Northern Division | | | | | | | |
| Labasa Airport (1956-2014) | 198.5 | 341.2 | 448.0 | 410.0 | 7/58 | 21:32:47 (3.1) | Inconsistent |
| Nabouwalu (1918-2014) | 499.9 | 484.4 | 660.5 | 547.6 | 36/96 | 18:41:41 (15.4) | Near-Consistent |
| Rotuma (1912-2014) | 919.1 | 744.4 | 924.8 | 830.9 | 67/101 | 28:43:29 (-2.0) | 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
August to October 2014**

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

| 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 (1910-2014) | 39 | 187.2 | 38 | 277.0 | 23 | 6.8 | 47.6 |
| Lautoka Mill (1900-2014) | 41 | 167.3 | 30 | 258.8 | 29 | 5.7 | 35.9 |
| Nadi Airport (1942-2014) | 41 | 175.6 | 35 | 290.7 | 24 | 7.9 | 42.2 |
| Yasawa-i-Rara (1950-2014) | 41 | 164.8 | 31 | 260.6 | 28 | 6.7 | 43.3 |
| <i>Central Division</i> | | | | | | | |
| Laucala Bay (Suva) (1942-2014) | 40 | 428.4 | 38 | 615.5 | 22 | 8.3 | 45.3 |
| Nausori Airport (1957-2014) | 34 | 434.4 | 37 | 600.1 | 29 | 0.1 | 35.1 |
| Tokotoko (Navua) (1945- 2014) | 40 | 559.9 | 40 | 891.0 | 20 | 9.9 | 36.5 |
| <i>Eastern Division</i> | | | | | | | |
| Lakeba (1950-2014) | 38 | 256.0 | 31 | 348.8 | 31 | 1.4 | 39.1 |
| Vunisea (Kadavu) (1931- 2014) | 40 | 290.9 | 36 | 436.2 | 24 | 8.8 | 39.7 |
| Ono-i-Lau (1943-2014) | 38 | 235.9 | 34 | 348.2 | 28 | 1.9 | 36.7 |
| <i>Northern Division</i> | | | | | | | |
| Labasa Airport (1956- 2014) | 39 | 166.6 | 33 | 242.6 | 28 | 4.2 | 30.9 |
| Nabouwalu (1918-2014) | 42 | 263.0 | 37 | 447.5 | 21 | 9.6 | 46.0 |
| | | | | | | | |
| Rotuma (1912 -2014) | 31 | 654.1 | 31 | 839.7 | 38 | 0.6 | 36.5 |

Seasonal Climate Outlook:

August to October 2014- Median Table:

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

| Station | Below Median (prob) | Median rainfall (mm) | Above Median (prob) | LEPS | Hit-rate |
|---------------------------------|---------------------------|----------------------------|---------------------------|------|----------|
| <i>Western Division</i> | | | | | |
| Penang Mill (1910-2014) | 55 | 224.0 | 45 | 1.9 | 55.6 |
| Lautoka Mill (1900-2014) | 58 | 224.6 | 42 | 5.5 | 56.3 |
| Nadi Airport (1942-2014) | 57 | 225.1 | 43 | 5 | 54.7 |
| Yasawa-i-Rara (1950-2014) | 59 | 222.6 | 41 | 6.3 | 53.3 |
| | | | | | |
| <i>Central Division</i> | | | | | |
| Laucala Bay (Suva) (1942-2014) | 55 | 511.5 | 45 | 1.8 | 50.0 |
| Nausori Airport (1957-2014) | 55 | 483.9 | 45 | 1.8 | 56.1 |
| Tokotoko (Navua) (1945-2014) | 59 | 642.6 | 41 | 9 | 54.0 |
| | | | | | |
| <i>Eastern Division</i> | | | | | |
| Lakeba (1950-2014) | 51 | 309.9 | 49 | -1.6 | 34.4 |
| Vunisea (Kadavu) (1931-2014) | 57 | 360.5 | 43 | 4.8 | 55.6 |
| Ono-i-Lau (1943-2014) | 53 | 307.5 | 47 | -0.6 | 53.3 |
| | | | | | |
| <i>Northern Division</i> | | | | | |
| Labasa Airport (1956-2014) | 57 | 206.5 | 43 | 7.6 | 65.5 |
| Nabouwalu (1918-2014) | 66 | 351.0 | 34 | 18.3 | 66.7 |
| | | | | | |
| Rotuma (1912 -2014) | 49 | 719.9 | 51 | -1.4 | 50.8 |

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

| Station | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) |
|--------------|----------------------|----------------------|-----------------------|----------------------|----------------------|
| Nadi Airport | 9 | 142 | 85 | 198 | 6 |
| Suva | 9 | 369 | 85 | 602 | 6 |
| Udu Point | 18 | 151 | 64 | 295 | 18 |
| Rotuma | 12 | 573 | 61 | 784 | 27 |

Summary Statements

Rainfall for June 2014:

With the exception of Nabouwalu (Northern Division), Navua (Central Division) & Penang (Western Division), which received *normal* rainfall, *below normal* rainfall was experienced at the rest of the stations.

Rotuma received *above normal* rainfall during the month.

The total monthly rainfall at Nadi Airport and Yasawa-i-Rara ranked in the bottom 5 of the historical record of the stations.

Accumulated rainfall for April to June 2014, including outlook verification:

Normal to below normal rainfall was recorded across the country during April to June period. Nadi Airport, Yasawa-i-Rara, Nausori, Navua, Lakeba and Labasa Airfield recorded *below normal* rainfall, while the rest of the stations received *normal* rainfall.

Nausori Airport recorded its fifth lowest April to June rainfall.

Using the 3-month Standardised Precipitation Index (SPI) method of drought monitoring, Viwa, Savusavu Airfield, Matei Airfield, Vanuabalavu, Dobuilevu, Nadi Airport, Monasavu, Lakeba, Labasa Airport, Nabouwalu, Koronivia, Nausori Airport, Tokotoko and Matuku are under meteorological drought, while Dreketi, Seqaqa, Penang Mill, Rarawai Mill, Udu Point, Yasawa-i-Rara, Laucala Bay and Vunisea are at warning stage for meteorological drought.

The forecasts for April to June 2014 period were consistent at 3 out of the 13 stations, near-consistent at 4 and inconsistent at 6.

Outlooks for August to October 2014:

1. SCOPIC:

The seasonal rainfall outlook for August to October 2014 shows:

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

The historical accuracy of outlooks is low to moderate at this time of year.

2. POAMA:

Normal rainfall is favoured 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: $X \geq 35$