

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 94

Country Name: Fiji

TABLE 1: Monthly Rainfall

| Station (include data period) | | | JULY 2015 | | | | |
|--------------------------------|----------------|-----------------|-----------|-----------------------|-----------------------|----------------------|---------|
| | MAY 2015 Total | JUNE 2015 Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking |
| Western Division | | | | | | | |
| Penang Mill (1910-2015) | 72.2 | 14.6 | 3.6 | 25.6 | 57.7 | 38.0 | 4/106 |
| Lautoka Mill (1900-2015) | 10.0 | 9.7 | 27.5 | 21.3 | 59.6 | 40.6 | 45/116 |
| Nadi Airport (1942-2015) | 2.8 | 14.8 | 15.6 | 17.0 | 61.0 | 34.8 | 25/74 |
| Yasawa-i-rara (1950-2015) | 8.6 | 37.0 | 3.0 | 21.3 | 51.3 | 34.0 | 3/62 |
| Central Division | | | | | | | |
| Laucala Bay (Suva) (1942-2015) | 92.9 | 56.9 | 53.3 | 93.5 | 158.8 | 120.7 | 5/74 |
| Nausori Airport (1957-2015) | 150.6 | 81.1 | 69.2 | 98.8 | 135.3 | 122.1 | 12/59 |
| Tokotoko (Navua) (1945-2015) | 194.4 | 135.9 | 133.4 | 145.8 | 214.1 | 184.6 | 22/71 |
| Eastern Division | | | | | | | |
| Lakeba (1950-2015) | 20.3 | 74.4 | 70.0 | 48.5 | 93.3 | 59.0 | 37/65 |
| Vunisea (Kadavu) (1931-2015) | 438.5 | M | 82.7 | 80.4 | 123.0 | 94.4 | 30/79 |
| Ono-i-lau (1943-2015) | 31.5 | 59.5 | 38.8 | 57.6 | 116.2 | 70.7 | 12/69 |
| Northern Division | | | | | | | |
| Labasa Airport (1956-2015) | 62.3 | 10.8 | 0 | 23.2 | 57.0 | 33.3 | 1/60 |
| Nabouwalu (1918-2015) | 161.8 | 51.8 | M | 51.2 | 103.5 | 79.7 | |
| | | | | | | | |
| Rotuma (1912-2015) | 125.0 | 211.5 | 209.2 | 180.1 | 254.7 | 214.0 | 51/102 |

Period: *below normal/normal/above normal

M- Missing

**TABLE 2: Three-monthly Rainfall
May to July 2015
Predictors and Period used: NIÑO 3.4 (February to April 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 (1910-2015) | 90.4 | 179.7 | 299.0 | 254.0 | 7/106 | 43:35:22 (8.4) | Consistent |
| Lautoka Mill (1900-2015) | 47.2 | 153.6 | 235.7 | 206.8 | 3/116 | 51:29:20 (17.4) | Consistent |
| Nadi Airport (1942-2015) | 33.2 | 144.6 | 247.4 | 185.0 | 2/73 | 45:33:22(10.0) | Consistent |
| Yasawa-i-rara (1950-2015) | 48.6 | 173.2 | 273.6 | 230.8 | 3/62 | 51:23:26 (16.3) | Consistent |
| <i>Central Division</i> | | | | | | | |
| Laucala Bay (Suva) (1942-2015) | 203.1 | 440.0 | 614.5 | 509.5 | 3/74 | 45:36:19 (12.4) | Consistent |
| Nausori Airport (1957-2015) | 300.9 | 431.0 | 585.0 | 516.8 | 7/59 | 48:33:19 (17.0) | Consistent |
| Tokotoko (Navua) (1945-2015) | 463.7 | 576.5 | 760.1 | 661.8 | 13/71 | 48:38:14 (16.7) | Consistent |
| | | | | | | | |
| <i>Eastern Division</i> | | | | | | | |
| Lakeba, Lau (1950-2015) | 164.7 | 258.6 | 365.0 | 321.3 | 11/165 | 52:27:21(17.8) | Consistent |
| Vunisea (Kadavu) (1931-2015) | M | 326.0 | 435.7 | 380.1 | - | 40:37:23 (3.5) | - |
| Ono-i-lau (1943-2015) | 129.8 | 236.9 | 378.3 | 311.6 | 4/65 | 49:29:22 (14.8) | Consistent |
| | | | | | | | |
| <i>Northern Division</i> | | | | | | | |
| Labasa Airport (1956-2015) | 73.1 | 171.8 | 269.8 | 210.5 | 6/59 | 47:37:16 (17.6) | Consistent |
| Nabouwalu (1918-2015) | M | 323.2 | 444.0 | 368.0 | - | 54:26:20 (20.1) | - |
| | | | | | | | |
| Rotuma (1912-2015) | 545.7 | 691.8 | 872.8 | 787.9 | 13/101 | 29:35:36 (-0.7) | Inconsistent |

* 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: 3-Month Timescale Drought Monitoring
May to July 2015**

| Station | Status | Drought Rank | Duration | Rainfall Required (mm) | Chance of Breaking Drought |
|---------------------------------|----------------------|---------------------|-----------------|-------------------------------|-----------------------------------|
| <i>Western Division</i> | | | | | |
| Penang Mill (1910-2015) | Drought | 8 th | 5 months | >177 | 36% |
| Lautoka Mill (1900-2015) | Drought | 6 th | 12 months | >117 | 52% |
| Nadi Airport (1942-2015) | Drought | 4 th | 12 months | >134 | 47% |
| Yasawa-i-rara (1950-2015) | Drought | 14 th | 3 months | >133 | 44% |
| <i>Central Division</i> | | | | | |
| Laucala Bay (Suva) (1942-2015) | Drought | 8 th | 4 months | >380 | 33% |
| Nausori Airport (1957-2015) | Drought | 7 th | 4 months | >349 | 36% |
| Tokotoko (Navua) (1945-2015) | Drought | 12 th | 4 months | >428 | 41% |
| <i>Eastern Division</i> | | | | | |
| Lakeba (1950-2015) | Drought | 4 th | 10 months | >144 | 58% |
| Vunisea (Kadavu) (1931-2015) | Not Available | - | | | |
| Ono-i-lau (1943-2015) | Drought | 14 th | 2 months | >241 | 38% |
| <i>Northern Division</i> | | | | | |
| Labasa Airport (1956-2015) | Drought | Most Severe | 15 months | >138 | 37% |
| Nabouwalu (1918-2015) | Not Available | - | | | |
| | | | | | |
| Rotuma (1912 -2015) | Warning | - | 3 months | <169 | 1% |

**TABLE 4: Seasonal Climate Outlooks using SCOPIC for
September to November 2015**

Predictors and Period used: NINO 3.4 (April to June 2015)

| 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 (1910-2015) | 66 | 245.2 | 30 | 362.9 | 4 | 15.7 | 55.6 |
| Lautoka Mill (1900-2015) | 67 | 184.5 | 29 | 324.8 | 4 | 17 | 41.5 |
| Nadi Airport (1942-2015) | 85 | 239.7 | 14 | 343.5 | 1 | 28.3 | 43.1 |
| Yasawa-i-rara (1950-2015) | 56 | 195.8 | 41 | 352.2 | 3 | 12.6 | 34.4 |
| <i>Central Division</i> | | | | | | | |
| Laucala Bay (Suva) (1942-2015) | 73 | 461.9 | 18 | 754.6 | 9 | 8.1 | 47.7 |
| Nausori Airport (1957-2015) | 64 | 438.0 | 28 | 713.6 | 8 | 9.7 | 48.3 |
| Tokotoko (Navua) (1945- 2015) | 74 | 648.5 | 24 | 936.8 | 2 | 22.6 | 62.5 |
| <i>Eastern Division</i> | | | | | | | |
| Lakeba (1950-2015) | 71 | 289.7 | 21 | 399.2 | 8 | 11.3 | 50.8 |
| Vunisea (Kadavu) (1931- 2015) | 78 | 310.2 | 15 | 440.4 | 7 | 14.8 | 46.9 |
| Ono-i-lau (1943-2015) | 75 | 207.9 | 20 | 358.9 | 5 | 13.5 | 46.9 |
| <i>Northern Division</i> | | | | | | | |
| Labasa Airport (1956- 2015) | 69 | 263.0 | 28 | 386.8 | 3 | 17.4 | 47.5 |
| Nabouwalu (1918-2015) | 88 | 352.3 | 9 | 541.0 | 3 | 22.2 | 47.3 |
| | | | | | | | |
| Rotuma (1912 -2015) | 35 | 724.7 | 15 | 936.6 | 50 | -1.1 | 34.4 |

Seasonal Climate Outlook:

September to November 2015 - Median Table:

Predictors and Period used: NINO 3.4 (April to June 2015)

| Station | Below Median (prob) | Median rainfall (mm) | Above Median (prob) | LEPS | Hit-rate |
|--------------------------------|---------------------------|----------------------------|---------------------------|------|----------|
| Western Division | | | | | |
| Penang Mill (1910-2015) | 89 | 293.7 | 11 | 17.2 | 71.4 |
| Lautoka Mill (1900-2015) | 89 | 264.7 | 11 | 16.7 | 67.7 |
| Nadi Airport (1942-2015) | 92 | 296.8 | 8 | 20.4 | 69.2 |
| Yasawa-i-rara (1950-2015) | 83 | 268.7 | 17 | 9.1 | 63.9 |
| | | | | | |
| Central Division | | | | | |
| Laucala Bay (Suva) (1942-2015) | 76 | 626.9 | 24 | 5.0 | 67.7 |
| Nausori Airport(1957-2015) | 75 | 597.3 | 25 | 4.5 | 63.8 |
| Tokotoko (Navua) (1945-2015) | 93 | 779.1 | 7 | 22.8 | 76.6 |
| | | | | | |
| Eastern Division | | | | | |
| Lakeba (1950-2015) | 84 | 331.2 | 16 | 10.7 | 69.2 |
| Vunisea (Kadavu) (1931-2015) | 85 | 388.2 | 15 | 13.0 | 67.2 |
| Ono-i-lau (1943-2015) | 88 | 293.1 | 12 | 16.5 | 72.1 |
| | | | | | |
| Northern Division | | | | | |
| Labasa Airport (1956-2015) | 85 | 311.7 | 15 | 12.5 | 69.1 |
| Nabouwalu (1918-2015) | 94 | 424.0 | 6 | 24.3 | 78.1 |
| | | | | | |
| Rotuma (1912 -2015) | 43 | 845.5 | 57 | -1.3 | 54.7 |

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
September to November 2015**

| Station | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) |
|-----------|----------------------|----------------------|-----------------------|----------------------|----------------------|
| Lakeba | 23 | 192 | 52 | 298 | 15 |
| Nadi | 24 | 152 | 61 | 266 | 15 |
| Nabouwalu | 64 | 234 | 31 | 318 | 5 |
| Udu Point | 64 | 241 | 21 | 364 | 15 |
| Vunisea | 24 | 302 | 61 | 459 | 15 |
| Suva | 24 | 434 | 61 | 590 | 15 |
| Rotuma | 61 | 650 | 12 | 894 | 27 |

Summary Statements

Rainfall for July 2015:

Rainfall during July ranged from *normal* to *below normal* across the Fiji Group. July 2015 rainfall ranked as the driest July for Labasa Airport, 3rd driest for Yasawa-i-Rara, 4th driest at Penang Mill and 5th driest at Laucala Bay.

Accumulated rainfall for May to July 2015 and outlook verification:

Rainfall over the May to July 2015 period was *below normal* across the country.

May to July 2015 ranked at 2nd driest may to July period on record for Nadi Airport, 3rd driest for Lautoka Mill, Yasawa-I-Rara & Laucala Bay and 4th driest for Ono-I-Lau.

Forecasts were consistent at 10 of the stations, inconsistent at 1 station and forecast for 2 stations could not be verified due to missing data.

Outlooks for September to November 2015:

1. SCOPIC:

The seasonal rainfall outlook for July to September 2015:

- Favours *below normal* rainfall at the Western, Eastern, Central and Northern Division;
- *Above normal* favoured for Rotuma;
- The forecast confidences are generally *moderate to good*

2. POAMA:

Below normal rainfall favoured for Rotuma, Nabouwalu and Udu point while *normal* rainfall favoured at the rest of 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: $X \geq 35$