

## Pacific Islands - Online Climate Outlook Forum (OCOF) No.76

**Country Name:** Fiji

**TABLE 1: Monthly Rainfall**

| Station (include data period)  | December 2013      |                     |       |                       |                       |                      |         |
|--------------------------------|--------------------|---------------------|-------|-----------------------|-----------------------|----------------------|---------|
|                                | October 2013 Total | November 2013 Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking |
| <b>Western Division</b>        |                    |                     |       |                       |                       |                      |         |
| Penang Mill (1910-2013)        | 124.9              | 89.5                | 253.4 | 140.4                 | 274.0                 | 210.3                | 64/101  |
| Lautoka Mill (1900-2013)       | 62.2               | 290.4               | 429.6 | 108.0                 | 210.0                 | 150.7                | 108/114 |
| Nadi Airport (1942-2013)       | 118.7              | 239.2               | 257.6 | 118.6                 | 229.8                 | 176.1                | 51/72   |
| Yasawa-I-Rara (1950-2013)      | 177.2              | 89.2                | 247.6 | 99.4                  | 180.2                 | 140.7                | 52/61   |
| <b>Central Division</b>        |                    |                     |       |                       |                       |                      |         |
| Laucala Bay (Suva) (1942-2013) | 240.3              | 155.3               | 451.9 | 201.7                 | 307.3                 | 251.3                | 64/72   |
| Nausori Airport (1957-2013)    | 290.2              | 112.3               | 312.9 | 212.4                 | 305.3                 | 238.4                | 40/58   |
| Tokotoko (Navua) (1945-2013)   | 362.9              | 135.9               | 382.1 | 210.0                 | 383.4                 | 269.6                | 45/68   |
|                                |                    |                     |       |                       |                       |                      |         |
| <b>Eastern Division</b>        |                    |                     |       |                       |                       |                      |         |
| Lakeba (1950-2013)             | 145.6              | 100.9               | 221.8 | 135.6                 | 208.2                 | 168.4                | 45/65   |
| Vunisea (Kadavu) (1931-2013)   | Missing            | 263.5               | 323.9 | 102.0                 | 173.2                 | 138.7                | 71/78   |
| Ono-I-Lau (1943-2013)          | 35.8               | 104.1               | 393.9 | 82.4                  | 172.4                 | 116.4                | 66/68   |
|                                |                    |                     |       |                       |                       |                      |         |
| <b>Northern Division</b>       |                    |                     |       |                       |                       |                      |         |
| Labasa Airfield (1956-2013)    | 90.9               | 266.8               | 211.0 | 148.9                 | 284.2                 | 215.6                | 29/58   |
| Nabouwalu (1918-2013)          | 197.5              | 233.7               | 347.6 | 173.2                 | 308.7                 | 242.2                | 71/95   |
|                                |                    |                     |       |                       |                       |                      |         |
| Rotuma (1912-2013)             | Missing            | 223.5               | 403.2 | 240.9                 | 373.8                 | 307.4                | 73/100  |

**Period:**\*below normal/normal/above normal

**TABLE 2: Three-monthly Rainfall**  
**October to December 2013**  
Predictors and Period used: SOI (June to August)

| 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?) |
|--------------------------------|-------------------|-----------------------|-----------------------|----------------------|---------|---------------------------------|-----------------------------------------------------------|
| <b>Western Division</b>        |                   |                       |                       |                      |         |                                 |                                                           |
| Penang Mill (1910-2013)        | <b>467.8</b>      | 347.6                 | 570.9                 | 461.0                | 52/99   | 23: 33: <b>44</b> (7.0)         | Near-consistent                                           |
| Lautoka Mill (1900-2013)       | <b>782.2</b>      | 277.0                 | 443.9                 | 358.0                | 106/114 | 19: 36: <b>45</b> (11.8)        | Consistent                                                |
| Nadi Airport (1942-2013)       | <b>615.5</b>      | 325.7                 | 477.9                 | 380.1                | 61/71   | 16: 37: <b>47</b> (13.3)        | Consistent                                                |
| Yasawa-I-Rara (1950-2013)      | <b>514.0</b>      | 261.6                 | 433.6                 | 352.5                | 48/61   | 20: 30: <b>50</b> (14.7)        | Consistent                                                |
| <b>Central Division</b>        |                   |                       |                       |                      |         |                                 |                                                           |
| Laucala Bay (Suva) (1942-2013) | <b>847.5</b>      | 539.0                 | 828.2                 | 691.2                | 51/72   | 22: 34: <b>44</b> (6.5)         | Consistent                                                |
| Nausori Airport (1957-2013)    | <b>715.4</b>      | 541.0                 | 809.8                 | 679.6                | 31/57   | 20: 37: <b>43</b> (5.3)         | Near-consistent                                           |
| Tokotoko (Navua) (1945-2013)   | <b>880.9</b>      | 749.1                 | 1024.9                | 873.2                | 35/68   | 21: 32: <b>47</b> (10.0)        | Near-consistent                                           |
|                                |                   |                       |                       |                      |         |                                 |                                                           |
| <b>Eastern Division</b>        |                   |                       |                       |                      |         |                                 |                                                           |
| Lakeba (1950-2013)             | <b>468.3</b>      | 334.4                 | 527.0                 | 409.1                | 38/65   | 15: 38: <b>47</b> (13.8)        | Near-consistent                                           |
| Vunisea (Kadavu) (1931-2013)   | Missing           | 306.9                 | 502.8                 | 409.0                | -       | 19: 35: <b>46</b> (10.1)        | -                                                         |
| Ono-I-Lau (1943-2013)          | <b>533.8</b>      | 225.1                 | 401.0                 | 348.3                | 56/68   | 10: 39: <b>51</b> (20.9)        | Consistent                                                |
|                                |                   |                       |                       |                      |         |                                 |                                                           |
| <b>Northern Division</b>       |                   |                       |                       |                      |         |                                 |                                                           |
| Labasa Airfield (1956-2013)    | <b>568.7</b>      | 364.0                 | 632.3                 | 485.4                | 35/55   | 15: 31: <b>54</b> (15.1)        | Near-Consistent                                           |
| Nabouwalu (1918-2013)          | <b>778.8</b>      | 445.2                 | 700.0                 | 546.0                | 68/95   | 11: 33: <b>56</b> (22.6)        | Consistent                                                |
| Rotuma (1912-2013)             | Missing           | 837.4                 | 1057.0                | 946.7                | -       | 30: <b>38</b> : 32 (-0.8)       | -                                                         |

\* 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 February to April 2014**

**Predictors and Period used: SOI (October to December 2013)**

| Station                        | Below Normal (prob) | 33%ile rainfall (mm) | Normal (prob) | 66%ile rainfall (mm) | Above Normal (prob) | LEPS (%) | Hit-rate (%) |
|--------------------------------|---------------------|----------------------|---------------|----------------------|---------------------|----------|--------------|
| <b>Western Division</b>        |                     |                      |               |                      |                     |          |              |
| Penang Mill (1910-2013)        | 28                  | 827.4                | <b>36</b>     | 1102.7               | <b>36</b>           | 7.7      | 43.7         |
| Lautoka Mill (1900-2013)       | 26                  | 694.5                | <b>37</b>     | 926.3                | <b>37</b>           | 9.9      | 46.9         |
| Nadi Airport (1942-2013)       | 29                  | 671.0                | <b>36</b>     | 910.1                | 35                  | 11       | 42.9         |
| Yasawa-I-Rara (1950-2013)      | 26                  | 584.9                | <b>37</b>     | 837.2                | <b>37</b>           | 9.5      | 40.3         |
| <b>Central Division</b>        |                     |                      |               |                      |                     |          |              |
| Laucala Bay (Suva) (1942-2013) | <b>34</b>           | 879.2                | <b>34</b>     | 1078.7               | 32                  | -1       | 34.7         |
| Nausori Airport (1957-2013)    | <b>35</b>           | 892.5                | 34            | 1057.8               | 31                  | 1.3      | 52.6         |
| Tokotoko (Navua) (1945-2013)   | <b>34</b>           | 1004.6               | <b>34</b>     | 1210.9               | 32                  | -0.2     | 26.1         |
| <b>Eastern Division</b>        |                     |                      |               |                      |                     |          |              |
| Lakeba (1950-2013)             | 28                  | 646.6                | <b>36</b>     | 827.6                | <b>36</b>           | 10.5     | 50.8         |
| Vunisea (Kadavu) (1931-2013)   | 32                  | 637.5                | 33            | 828.3                | <b>35</b>           | 3.1      | 44.2         |
| Ono-I-Lau (1943-2013)          | 27                  | 474.0                | 36            | 698.4                | <b>37</b>           | 7.8      | 42.2         |
| <b>Northern Division</b>       |                     |                      |               |                      |                     |          |              |
| Labasa Airfield (1956-2013)    | 30                  | 833.3                | <b>35</b>     | 1121.9               | <b>35</b>           | 5.8      | 48.3         |
| Nabouwalu (1918-2013)          | 32                  | 775.4                | 33            | 1033.5               | <b>35</b>           | 3.8      | 39.6         |
| Rotuma (1912 -2013)            | 31                  | 896.2                | 34            | 1079                 | <b>35</b>           | 0.9      | 33           |

**Seasonal Climate Outlook:**

**February to April 2014 - Median Table:**

**Predictors and Period used:** SOI (October to December 2013)

| Station                         | Below<br>Median<br>(prob) | Median<br>rainfall<br>(mm) | Above<br>Median<br>(prob) | LEPS | Hit-rate |
|---------------------------------|---------------------------|----------------------------|---------------------------|------|----------|
| <b><i>Western Division</i></b>  |                           |                            |                           |      |          |
| Penang Mill (1910-2013)         | 46                        | 997                        | <b>54</b>                 | 9    | 60.2     |
| Lautoka Mill (1900-2013)        | 46                        | 809.4                      | <b>54</b>                 | 10.5 | 61.9     |
| Nadi Airport (1942-2013)        | 47                        | 797.2                      | <b>53</b>                 | 7.1  | 61.4     |
| Yasawa-I-Rara (1950-2013)       | 47                        | 663.4                      | <b>53</b>                 | 6.9  | 61.3     |
|                                 |                           |                            |                           |      |          |
| <b><i>Central Division</i></b>  |                           |                            |                           |      |          |
| Laucala Bay (Suva) (1942-2013)  | <b>51</b>                 | 945.9                      | 49                        | -0.5 | 50       |
| Nausori Airport(1957-2013)      | <b>51</b>                 | 960.5                      | 49                        | -0.4 | 64.9     |
| Tokotoko (Navua) (1945-2013)    | <b>52</b>                 | 1111.2                     | 48                        | 1.1  | 53.6     |
|                                 |                           |                            |                           |      |          |
| <b><i>Eastern Division</i></b>  |                           |                            |                           |      |          |
| Lakeba (1950-2013)              | 47                        | 699.4                      | <b>53</b>                 | 4.8  | 60.3     |
| Vunisea (Kadavu) (1931-2013)    | 48                        | 734.5                      | <b>52</b>                 | 1.5  | 58.4     |
| Ono-I-Lau (1943-2013)           | 45                        | 585                        | <b>55</b>                 | 10.4 | 64.1     |
|                                 |                           |                            |                           |      |          |
| <b><i>Northern Division</i></b> |                           |                            |                           |      |          |
| Labasa Airfield (1956-2013)     | 47                        | 1022.4                     | <b>53</b>                 | 4.5  | 65.5     |
| Nabouwalu (1918-2013)           | 47                        | 880.1                      | <b>53</b>                 | 6    | 64.6     |
|                                 |                           |                            |                           |      |          |
| Rotuma (1912 -2013)             | 48                        | 1004.8                     | <b>52</b>                 | 1.6  | 56       |

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for January to March 2014**

| Station      | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) |
|--------------|----------------------|----------------------|-----------------------|----------------------|----------------------|
| Nadi Airport | 27                   | 657                  | <b>52</b>             | 856                  | 21                   |
| Suva         | 27                   | 852                  | <b>52</b>             | 983                  | 21                   |
| Udu Point    | 30                   | 709                  | <b>58</b>             | 928                  | 12                   |
| Rotuma       | <b>46</b>            | 845                  | 33                    | 1046                 | 21                   |

### **Summary Statements**

#### **Rainfall for December 2013:**

Rainfall during December 2013 was *normal* to *above normal* over the Fiji Group. The total monthly rainfall at Ono-i-Lau ranked third highest in the historical record of the station.

#### **Accumulated rainfall for October to December 2013, including outlook verification:**

Rainfall during the last three months was also *normal* to *above normal* across the country.

The SCOPIC forecasts for the October to December 2013 period were consistent at the 6 stations, near-consistent at 5 and 2 forecasts couldn't be verified due to missing data.

#### **Outlooks for January to March 2014:**

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

Generally, *normal* to *above normal* rainfall is favoured over the Fiji Group during February to April 2014 period. The exception to this is the Central Division, where the model is biased towards *normal* to *below normal* rainfall.

##### **POAMA:**

*Normal* rainfall is favoured at Nadi, Suva and Udu Point, while *below normal* rainfall is favoured for Rotuma.

**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: $X \geq 35$ |                          |                        |                        |