Pacific Islands - Online Climate Outlook Forum No 66

Country: Fiji

Table 1: Monthly Rainfall

| Station (data period) | | | February 2013 | | | | |
|--------------------------------|-----------------------|-----------------------|---------------|----------------------------|----------------------------|----------------------------|---------|
| | Dec. 2012 Total | Jan. 2013 Total | Total | 33%ile Rainfall (mm) | 67%ile Rainfall (mm) | Median Rainfall (mm) | Ranking |
| Western Division | | | | | | | |
| Penang Mill (1910-2013) | 430.4 | 311.4 | 462.4 | 274.6 | 395.7 | 340.3 | 85/104 |
| Lautoka Mill (1900-2013) | 232.2 | 116.3 | 531.2 | 216.8 | 367.3 | 272.3 | 101/113 |
| Nadi Airport (1942-2013) | 199.0 | 87.9 | 459.8 | 217.3 | 336.6 | 273.5 | 59/71 |
| Yasawa-I-Rara (1950-2013) | 230.6 | 70.1 | 340.7 | 174.8 | 292.0 | 222.0 | 48/63 |
| Central Division | | | | | | | |
| Laucala Bay (Suva) (1942-2013) | 288.7 | 188.5 | 434.5 | 240.0 | 329.6 | 287.7 | 67/72 |
| Nausori Airport (1957-2013) | 326.0 | 347.7 | 588.1 | 209.1 | 313.6 | 279.9 | 57/57 |
| Tokotoko (Navua) (1945-2013) | 291.0 | 354.2 | 347.6 | 264.6 | 362.9 | 295.3 | 45/69 |
| Eastern Division | | | | | | | |
| Lakeba (1950-2013) | 202.0 | 123.0 | 340.9 | 149.4 | 271.3 | 190.0 | 51/64 |
| Vunisea (Kadavu) (1931-2013) | 269.2 | 118.6 | 276.9 | 151.6 | 257.5 | 209.0 | 58/78 |
| Ono-I-Lau (1943-2013) | 28.1 | 99.0 | 195.4 | 122.3 | 209.9 | 173.1 | 42/67 |
| Northern Division | | | | | | | |
| Labasa Airfield (1956-2013) | 273.7 | 172.0 | 217.4 | 246.3 | 459.6 | 369.3 | 15/58 |
| Nabouwalu (1918-2013) | 399.5 | 224.2 | 304.4 | 250.5 | 341.9 | 301.6 | 49/96 |
| Rotuma (1912-2013) | 258.7 | 470.9 | 203.8 | 288.5 | 380.0 | 323.0 | 15/101 |

Below Normal Rainfall Normal Rainfall Above Normal Rainfall

Table 2: Three-monthly Rainfall

<u>December 2012 to February 2013</u> <u>Predictor: SOI (Aug. – Oct. 2012)</u>

| Station | Three- month Total | 33%ile Rain- fall (mm) | 67%ile Rainfall (mm) | Median Rainfall (mm) | Rank- ing | Forecasted probs.* (include LEPS) | Verification ¹ (Consistent, Near- consistent Inconsistent ?) |
|-----------------------------------|--------------------------|---------------------------------|----------------------------|----------------------------|--------------|---|---|
| Western Division | | | | | | | |
| Penang Mill (1910-2013) | 1204.2 | 770.4 | 1067.6 | 868.7 | 78/100 | 32:40:28 (20.3) | Near consistent |
| Lautoka Mill (1900-2013) | 879.7 | 604.6 | 928.8 | 766.3 | 69/113 | 31: 39 :30 (23.0) | Consistent |
| Nadi Airport (1942-2013) | 746.7 | 607.0 | 913.0 | 839.9 | 31/70 | 30: 39 :31 (17.0) | Consistent |
| Yasawa-I-Rara (1950-2013) | 641.4 | 485.0 | 791.0 | 665.0 | 30/60 | 30: 45 :25 (34.9) | Consistent |
| Central Division | | | | | | l | |
| Laucala Bay (Suva) (1942-2013) | 911.7 | 776.0 | 1010.5 | 847.4 | 40/71 | 34:34:32 (-0.3) | Near Consistent |
| Nausori Airport (1957-2013) | 1261.8 | 770.0 | 978.0 | 811.8 | 54/57 | 33:33:34 (-2.0) | Consistent |
| Tokotoko (Navua) (1945-2013) | 992.8 | 882.1 | 1119.0 | 990.5 | 35/67 | 33:33:34 (-1.6) | Near Consistent |
| Eastern Division | | | | | | | |
| Lakeba (1950-2013) | 665.9 | 575.8 | 750.9 | 645.3 | 33/64 | 31: 42 :27 (28.5) | Consistent |
| Vunisea (Kadavu) (1931-2013) | 664.7 | 495.5 | 716.4 | 600.8 | 48/76 | 31:35:34 (7.3) | Consistent |
| Ono-I-Lau (1943-2013) | 322.5 | 439.1 | 589.0 | 523.5 | 12/65 | 30:35:35 (8.0) | In Consistent |
| Northern Division | | | | | | | |
| Labasa Airfield (1956- 2013) | 663.1 | 813.5 | 1135.3 | 936.8 | 14/56 | 31: 42 :27 (27.8) | Near consistent |
| Nabouwalu (1918-2013) | 928.1 | 751.8 | 1023.7 | 870.0 | 52/94 | 31: 39 :30 (20.5) | Consistent |
| Rotuma (1912-2013) | 933.4 | 899.6 | 1099.1 | 996.9 | 38/98 | 33:36:31 (10.2) | Consistent |

Below Normal Rainfall Normal Rainfall Above Normal Rainfall

^{*}below normal/normal/above normal

¹Forecast 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 for April to June 2013

Predictors used: SST 1 & 9 (Dec. 2012 to Feb. 2013)

| Station | Below Normal (prob) | 33%ile rainfall (mm) | Normal (prob) | 66%ile rainfall (mm) | Above Normal (prob) | LEPS | Hit-rate |
|--------------------------------|---------------------------|----------------------------|------------------|----------------------------|---------------------------|------|----------|
| Western Division | | | | | | | |
| Penang Mill (1910-2013) | 32 | 349.3 | 30 | 534.6 | 38 | 1.3 | 32.3 |
| Lautoka Mill (1900-2013) | 33 | 263.2 | 39 | 389.0 | 28 | 12.5 | 42.9 |
| Nadi Airport (1942-2013) | 26 | 260.1 | 35 | 377.3 | 39 | 16.0 | 47.6 |
| Yasawa-I-Rara (1950-2013) | 31 | 283.4 | 29 | 437.9 | 40 | 13.7 | 48.3 |
| Central Division | | | | | | | |
| Laucala Bay (Suva) (1942-2013) | 33 | 684.0 | 35 | 849.4 | 32 | 7.3 | 41.3 |
| Nausori Airport (1957-2013) | 27 | 647.5 | 39 | 799.5 | 34 | 12.7 | 50.0 |
| Tokotoko (Navua) (1945-2013) | 35 | 764.2 | 35 | 1001.4 | 30 | 5.3 | 39.7 |
| Eastern Division | | | | | | | |
| Lakeba (1950-2013) | 16 | 357.3 | 40 | 516.0 | 44 | 17.2 | 50.0 |
| Vunisea (Kadavu) (1931-2013) | 32 | 464.0 | 34 | 614.4 | 34 | 5.7 | 41.3 |
| Ono-I-Lau (1943-2013) | 40 | 314.5 | 27 | 468.3 | 33 | 8.8 | 44.8 |
| Northern Division | | | | | | | |
| Labasa Airfield (1956-2013) | 27 | 350.8 | 36 | 448.6 | 37 | 4.1 | 41.1 |
| Nabouwalu (1918-2013) | 33 | 483.7 | 35 | 661.5 | 32 | 14.1 | 44.4 |
| Rotuma (1912 -2013) | 29 | 744.0 | 39 | 925.6 | 32 | -2.1 | 37.1 |

Table 4: <u>Seasonal Climate Outlooks using POAMA 2 for</u>
<u>April to June 2013</u>

| Station | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) |
|---------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|
| Nadi | 33 | 250 | 40 | 385 | 27 |
| Rotuma | 37 | 761 | 26 | 973 | 37 |

Summary Statement:

February 2013 rainfall:

Rainfall during February was *above normal* over a number of places, with Western Division and parts of the Central and Eastern Divisions recording *above normal* rainfall. The exception to this was Labasa Airfield, Ono-i-Lau and Rotuma, where *below normal* rainfall was recorded, with Tokotoko (Navua) and Nabouwalu recording *normal* rainfall.

A new high total monthly rainfall record was established at Nausori Airport during the month.

December 2012 to February 2013 rainfall: (Include a summary statement on verification)

Rainfall over the last three months was *normal* over most of the places. The exceptions to this were Penang Mill and Nausori Airport, where *above normal* rainfall was received, while Labasa Airfield and Ono-i-Lau recorded *below normal* rainfall.

The total three months rainfall at Nausori Airport ranked fourth highest in the historical record.

The SCOPIC forecasts for December 2012 to February 2013 period were consistent at 11 out of the 13 stations, while 2 stations recorded near-consistent forecast.

Outlook for April to June 2013:

The <u>SCOPIC</u> model generally favours climatological rainfall over the Central, Northern and Eastern Divisions, while *normal* to *above normal* rainfall is predicted for the Western Division. The model is biased towards *normal* rainfall at Rotuma. The forecast skill generally ranges from *moderate* to *good*, with *very low* skill at Rotuma.

The <u>POAMA</u> model outlook favours for *normal* rainfall at Nadi Airport, while climatological rainfall is expected at Rotuma.

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: $X \ge 35$