

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 87

Country Name: TUVALU

TABLE 1: Monthly Rainfall

| Station (include data period) | November 2014 | | | | | | |
|-------------------------------|----------------------|--------------------|-------|-----------------------|-----------------------|----------------------|----------|
| | September 2014 Total | October 2014 Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking |
| Nanumea | 103.1 | 91.8 | 61.6 | 114.6 | 203.0 | 152.7 | 14 of 74 |
| Nui | 184.3 | 113.4 | 136.6 | 199.1 | 275.9 | 235.4 | 12 of 69 |
| Funafuti | 293.1 | 287.1 | 308.9 | 210.3 | 305.0 | 244.4 | 56 of 82 |
| Niulakita | 192.0 | 196.6 | 209.4 | 213.0 | 322.0 | 277.0 | 19 of 62 |

TABLE 2: Three-monthly Rainfall September to November 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #83]

| 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?) |
|-----------|-------------------|-----------------------|-----------------------|----------------------|----------|---------------------------------|---|
| Nanumea | 256.5 | 325.1 | 587.0 | 472.4 | 19 of 74 | 31/44/25 [31.6%] | Near consistent |
| Nui | 434.3 | 505.1 | 734.4 | 620.3 | 18 of 69 | 34/37/29 [13.0%] | Near consistent |
| Funafuti | 889.1 | 620.6 | 826.5 | 728.7 | 60 of 82 | 34/34/32 [3.6%] | Near consistent |
| Niulakita | 598.0 | 616.0 | 847.5 | 713.0 | 18 of 62 | 34/34/32 [0.2%] | Consistent |

Period: *below normal/normal/above normal

Predictors and Period used for September to November 2014 Outlooks (refer to OCOF #83): SOI VALUES for MAY TO JULY

* 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
January to March 2015**

Predictors and Period used: NINO 3.4 SST Anomalies September to November 2014

| Station | Below Median (prob) | Median Rainfall (mm) | Above Median (prob) | | LEPS | Hit-rate |
|-----------|------------------------------------|----------------------------|------------------------------------|--|-------------|-----------------|
| Nanumea | 26% | 942.7 | 74% | | 40.5% | 74.2% |
| Nui | 38% | 984.0 | 62% | | 16.7% | 78.1% |
| Funafuti | 36% | 1070.6 | 64% | | 12.3% | 59.4% |
| Niulakita | 48% | 1067.0 | 52% | | -2.7% | 50.0% |

| Station | Below Normal (prob) | 33%ile rainfall (mm) | Normal (prob) | 66%ile rainfall (mm) | Above Normal (prob) | LEPS | Hit-rate |
|-----------|------------------------------------|----------------------------|--------------------------|----------------------------|------------------------------------|-------------|-----------------|
| Nanumea | 10% | 733.5 | 42% | 1076.2 | 48% | 34.6% | 58.1% |
| Nui | 26% | 847.6 | 33% | 1097.3 | 41% | 7.8% | 50.0% |
| Funafuti | 19% | 984.6 | 39% | 1179.4 | 42% | 9.8% | 37.5% |
| Niulakita | 29% | 947.4 | 40% | 1148.6 | 31% | -0.8% | 28.1% |

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
January to March 2015**

| Station | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) | | |
|----------|-------------------------------------|----------------------------|--------------------------------------|----------------------------|-------------------------------------|--|--|
| Nanumea | 5% | 838 | 65% | 1130 | 30% | | |
| Nui | 5% | 695 | 62% | 1262 | 33% | | |
| Funafuti | 9% | 930 | 39% | 1150 | 52% | | |

Summary Statements

Rainfall for November 2014:

- Below normal rainfall recorded at Nanumea, Nui and Niulakita. Above normal rainfall observed at Funafuti.

Accumulated rainfall for September to November 2014, including outlook verification:

- Below normal rainfall recorded at Nanumea, Nui and Niulakita with near consistent verification for Nanumea and Nui. Consistent verification for Niulakita while Funafuti collected above normal rainfall which was near consistent.

Outlooks for January to March 2015:

1. SCOPIC:

- Above normal rainfall is predicted for Nanumea, Nui and Funafuti. The most likely outcome for Niulakita is normal rainfall. The skill of the outlook for Niulakita is very low, very high skill for Nanumea and moderate for Nui and Funafuti.

2. POAMA:

- Normal rainfall for the northern and central islands and above normal rainfall for Funafuti.

Overall prediction comparing Scopic and POAMA:

- A high chance of normal to above normal rainfall for the whole country for the upcoming three months Jan to March 2015

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: $X \geq 35$