

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 96

Country Name: Tuvalu

TABLE 1: Monthly Rainfall

| Station (include data period) | August 2015 | | | | | | |
|-------------------------------|-----------------|-----------------|-------|-----------------------|-----------------------|----------------------|---------|
| | June 2015 Total | July 2015 Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking |
| Nanumea | 108.9 | 229.7 | 203.6 | 138.0 | 222.7 | 186.4 | 45/75 |
| Nui | 289.6 | 503.7 | 97.3 | 136.8 | 259.0 | 180.3 | 17/70 |
| Funafuti | 194.7 | 519.6 | 131 | 186.3 | 283.7 | 214.9 | 16/83 |
| Niulakita | 303.8 | 286.9 | 343.8 | 145.7 | 236.0 | 196.7 | 57/63 |

TABLE 2: Three-monthly Rainfall June to August 2015

[Please note that the data used in this verification should be sourced from table 3 of OCOF #92]

| 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 | 542.2 | 426.7 | 696.0 | 584.2 | 37/75 | 15/37/48 16.1% | Consistent |
| Nui | 890.6 | 485.3 | 713.9 | 599.8 | 60/70 | 26/22/52 10.0% | Near-consistent |
| Funafuti | 845.3 | 583.4 | 814.8 | 713.8 | 56/83 | 12/48/40 6.7% | Consistent |
| Niulakita | 934.5 | 533.3 | 737.3 | 591.6 | | 29/31/40 | Near-consistent |

Period: *below normal/normal/above normal

Predictors and Period used for June to August 2015 Outlooks (refer to OCOF #92):

* 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
October to December 2015**

Predictors and Period used:

| Station | Below Median (prob) | Median Rainfall (mm) | Above Median (prob) | | LEPS | Hit-rate |
|-----------|---------------------------|----------------------------|---------------------------|--|-------|----------|
| Nanumea | 28.1% | 584.2 | 71.9% | | 22.7% | 63.6 |
| Nui | 38.0% | 599.8 | 62.0% | | 6.0% | 60.6 |
| Funafuti | 10.4 | 895.0 | 89.6 | | 22.6 | 72.7 |
| Niulakita | 45.8% | 591.6 | 54.2% | | -1.4% | 66.7 |

| Station | Below Normal (prob) | 33%ile rainfall (mm) | Normal (prob) | 66%ile rainfall (mm) | Above Normal (prob) | LEPS | Hit-rate |
|-----------|---------------------------|----------------------------|------------------|----------------------------|---------------------------|-------|----------|
| Nanumea | 15 | 426.7 | 37 | 696.0 | 48 | 16.1% | 52.0 |
| Niulakita | 21 | 726.3 | 45 | 952.3 | 34 | 2.4 | 33.3 |
| Nui | 18 | 709.7 | 40 | 914.4 | 42 | 1.8 | 40.7 |
| Funafuti | 4 | 810.8 | 54 | 1007.9 | 42 | 14.1 | 47.8 |

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
October to December 2015**

| Station | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) | | |
|-----------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|--|--|
| Funafuti | 20 | 802 | 4 | 949 | 76 | | |
| Nanumea | 21 | 627 | 12 | 636 | 67 | | |
| Nui | 15 | 528 | 6 | 869 | 79 | | |
| Niulakita | 42 | 708 | 21 | 907 | 37 | | |

Summary Statements

Rainfall for August 2015:

Nanumea normal rainfall

Funafuti below normal rainfall

Nui below normal rainfall

Niulakita above normal rainfall

Accumulated rainfall for June to August 2015, including outlook verification:

Nanumea rainfall was above normal with the received rainfall consistent with the outlook. Skill was moderate. Funafuti, Nui and Niulakita rainfall was near normal with the received rainfall consistent for Funafuti and near consistent at Nui and Niulakita with the outlook. Skill was very good for Nui and high for Niulakita

Outlooks for October to December 2015:

1. SCOPIC:

Prediction:

The Nanumea outlook is most likely to be above normal with normal the next likely outcome. Confidence in the outlook is high.

The Funafuti and Niulakita outlook is favoured to be normal with above normal the next most likely confidence in the outlook is moderate

There is an equal chance of normal and above normal rainfall at Nui

2. POAMA:

POAMA favors above normal for Funafuti, Nui and Nanumea and below normal is most likely for Niulakita

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: $X \geq 35$