

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 93

Country Name: Tuvalu

TABLE 1: Monthly Rainfall

| Station (include data period) | May 2015 | | | | | | |
|-------------------------------|------------------|------------------|-------|-----------------------|-----------------------|----------------------|----------|
| | March 2015 Total | April 2015 Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking |
| Nanumea | 331.4 | 286.9 | 152.0 | 154.2 | 231.9 | 203.5 | 25 of 75 |
| Nui | 453.9 | 227.8 | 222.2 | 148.6 | 212.8 | 179.0 | 50 of 70 |
| Funafuti | 289.7 | 356.2 | 282.8 | 177.6 | 248.0 | 212.3 | 64 of 83 |
| Niulakita | 604.5 | 276.3 | 208.0 | 174.0 | 247.9 | 209.0 | 32 of 63 |

TABLE 2: Three-monthly Rainfall March to May 2015

[Please note that the data used in this verification should be sourced from table 3 of OCOF #89]

| 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 | 770.3 | 549.7 | 880.5 | 770.6 | 38/75 | 17/37/46 [15.1%] | Near consistent |
| Nui | 903.9 | 603.2 | 828.1 | 698.5 | 50/70 | 27/31/42 [0.8%] | Consistent |
| Funafuti | 928.7 | 671.1 | 886.4 | 787.1 | 58/83 | 25/32/43 [6.2%] | Consistent |
| Niulakita | 1088.8 | 674.1 | 914.0 | 828.6 | 56/63 | 22/41/37 [2.9%] | Near consistent |

Period: *below normal/normal/above normal

Predictors and Period used for March to May 2015 Outlooks (refer to OCOF #88): Nino 3.4 SST anomaly NDJ

* 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 July to September 2015

Predictors and Period used: Nino 3.4

| Station | Below Median (prob) | Median Rainfall (mm) | Above Median (prob) | | LEPS | Hit-rate |
|-----------|---------------------|----------------------|---------------------|--|-------|----------|
| Nanumea | 16% | 498.1 | 84% | | 26.7% | 66.7% |
| Nui | 26% | 596.9 | 74% | | 10.8 | 66.7% |
| Funafuti | 26% | 693.6 | 74% | | 10.1% | 66.7% |
| Niulakita | 50% | 602.1 | 50% | | -3.0% | 18.2% |

| Station | Below Normal (prob) | 33%ile rainfall (mm) | Normal (prob) | 66%ile rainfall (mm) | Above Normal (prob) | LEPS | Hit-rate |
|-----------|---------------------|----------------------|---------------|----------------------|---------------------|-------|----------|
| Nanumea | 9% | 399.6 | 9% | 629.7 | 82% | 25.8% | 51.5% |
| Nui | 17% | 505.0 | 20% | 688.5 | 63% | 10.6% | 24.2% |
| Funafuti | 13% | 589.6 | 22% | 813.1 | 65% | 15.2% | 45.5% |
| Niulakita | 29% | 513.8 | 40% | 710.9 | 31.0% | -3.8% | 21.2% |

TABLE 4: Seasonal Climate Outlooks using POAMA2 for June to August 2015

| Station | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) | | |
|-----------|----------------------|----------------------|-----------------------|----------------------|----------------------|--|--|
| Nanumea | 18% | 405 | 49% | 705 | 33% | | |
| Nui | 15% | 533 | 58% | 729 | 27% | | |
| Funafuti | 21% | 671 | 49% | 859 | 30% | | |
| Niulakita | 15% | 492 | 61% | 709 | 24% | | |

Summary Statements

Rainfall for May 2015:

Nanumea below Normal rainfall

Nui & Funafuti above Normal rainfall

Niulakita Normal rainfall

Accumulated rainfall for March to May 2015, including outlook verification:

Nanumea: Normal rainfall with verification outlook of near consistent, confidence in the outlook is high

Nui and Funafuti: Above normal rainfall with verification outlook of consistent, confidence in the outlook is moderate.

Niulakita: Above normal rainfall with verification outlook of near consistent, the confidence in the outlook is very low

Outlooks for July to September 2015:

1. SCOPIC:

Nanumea, Nui, & Funafuti: the most likely outlook is above normal rainfall with normal the next most likely outcome.

Niulakita: the most likely outcome is Normal with above normal the next.

2. POAMA:

Predicts Normal to above Normal rainfall for the whole of Tuvalu

The overall prediction for Tuvalu using SCOPIC and POAMA is normal to above normal rainfall

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: $X \geq 35$