

## Pacific Islands - Online Climate Outlook Forum (OCOF) No. 95

**Country Name:** Tuvalu

**TABLE 1: Monthly Rainfall**

| Station (include data period) | July 2015      |                 |       |                       |                       |                      |          |
|-------------------------------|----------------|-----------------|-------|-----------------------|-----------------------|----------------------|----------|
|                               | May 2015 Total | June 2015 Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking  |
| Nanumea                       | 152.0          | 108.9           | 229.7 | 123.4                 | 214.6                 | 168.2                | 53 of 75 |
| Nui                           | 222.2          | 289.6           | 503.7 | 162.0                 | 230.2                 | 197.9                | 68 of 70 |
| Funafuti                      | 282.8          | 194.7           | 519.6 | 189.7                 | 272.0                 | 220.2                | 79 of 83 |
| Niulakita                     | 208.0          | 303.8           | 286.9 | 164.1                 | 252.1                 | 200.5                | 48 of 63 |

**TABLE 2: Three-monthly Rainfall  
May to July 2015**

[Please note that the data used in this verification should be sourced from table 3 of OCOF #91]

| 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   | 490.6             | 468.3                 | 698.0                 | 595.1                | 27 of 75 | 20/38/42<br>[12.8%]             | Near consistent   |
| Nui       | 834.8             | 502.3                 | 635.5                 | 573.5                | 65 of 70 | 14/39/47<br>[25.5%]             | Consistent  |
| Funafuti  | 997.1             | 595.8                 | 774.4                 | 699.0                | 72 of 83 | 20/30/50<br>[22.5%]             | Consistent  |
| Niulakita | 798.7             | 534.6                 | 699.2                 | 606.0                | 48 of 63 | 37/37/26<br>[-1.8%]             | Near consistent   |

Period: \*below normal/normal/above normal

**Predictors and Period used for May to July 2015 Outlooks (refer to OCOF #91): Jan – March 2015.....NINO 3.4**

\* 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 September to November 2015**

**Predictors and Period used: NINO 3.4**

| Station   | Below Median (prob) | Median Rainfall (mm) | Above Median (prob) |  | LEPS  | Hit-rate |
|-----------|---------------------|----------------------|---------------------|--|-------|----------|
| Nanumea   | 12%                 | 470.7                | 88%                 |  | 14.7% | 63.6%    |
| Nui       | 7%                  | 620.0                | 93%                 |  | 24.1% | 63.6%    |
| Funafuti  | 4%                  | 732.7                | 96%                 |  | 27.6% | 75.8%    |
| Niulakita | 62%                 | 708.1                | 38%                 |  | -1.2% | 45.5%    |

| Station   | Below Normal (prob) | 33%ile rainfall (mm) | Normal (prob) | 66%ile rainfall (mm) | Above Normal (prob) | LEPS  | Hit-rate |
|-----------|---------------------|----------------------|---------------|----------------------|---------------------|-------|----------|
| Nanumea   | 4%                  | 325.0                | 6%            | 577.7                | 90%                 | 19.0% | 54.5%    |
| Nui       | 2%                  | 498.5                | 12%           | 730.5                | 86%                 | 22.6% | 54.5%    |
| Funafuti  | 1%                  | 620.8                | 33%           | 843.2                | 66%                 | 24.7% | 54.5%    |
| Niulakita | 42%                 | 608.2                | 24%           | 839.9                | 34%                 | -3.5% | 27.3%    |

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for September to November 2015**

| Station   | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) |  |  |
|-----------|----------------------|----------------------|-----------------------|----------------------|----------------------|--|--|
| Nanumea   | 9%                   | 460                  | 21%                   | 664                  | 70%                  |  |  |
| Nui       | 9%                   | 497                  | 21%                   | 726                  | 70%                  |  |  |
| Funafuti  | 18%                  | 632                  | 21%                   | 810                  | 61%                  |  |  |
| Niulakita | 33%                  | 595                  | 27%                   | 811                  | 40%                  |  |  |

## **Summary Statements**

**Rainfall for July 2015:** All stations recorded above normal rainfall.

### **Accumulated rainfall for May to July 2015, including outlook verification:**

Normal rainfall for Nanumea with near consistent verification.

Above normal rainfall for Nui, Funafuti and Niulakita. Verification results are consistent for Nui and Funafuti and near consistent for Niulakita.

### **Outlooks for September to November 2015:**

**1. SCOPIC:** Above normal rainfall is favoured for Nanumea, Nui and Funafuti with normal rainfall the next most likely outcome. The skill of these outlooks is very high. Below normal rainfall is the most likely outlook for Niulakita with above normal the next most likely outcome. The skill of the Niulakita outlook is very low.

**2. POAMA:** Above normal rainfall is favoured for Nanumea, Nui and Funafuti and above normal is most likely for Niulakita for the upcoming three months.

Overall predictions: Normal to above normal rainfall is favoured for Nanumea, Nui and Funafuti for the next three months. There is little guidance 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:  $X \geq 35$