# Pacific Islands - Online Climate Outlook Forum (OCOF) No. 164

**Country: Tuvalu** 

TABLE 1: Monthly Rainfall

| Station (include data period) | Feb-<br>2021 | Mar-<br>2021 | Apr-2021      |         |         |        |       |
|-------------------------------|--------------|--------------|---------------|---------|---------|--------|-------|
|                               |              |              | Total<br>(mm) | 33%tile | 67%tile | Median |       |
|                               | Total        | Total        |               | Rank    |         |        |       |
|                               | (mm)         | (mm)         |               |         |         |        |       |
| Nanumea (1941-2021)           | 299.4        | 108.6        | 255.9         | 197.3   | 272.5   | 229.7  | 51/81 |
| Nui (1946-2021)               | 320.8        | 151.9        | 272.9         | 152.9   | 268.6   | 201.4  | 52/76 |
| Funafuti (1933-2021)          | 634.4        | 192.5        | 397.0         | 185.7   | 300.2   | 238.2  | 75/89 |
| Niulakita (1953-2021)         | 842.4        | 148.3        | 329.3         | 167.8   | 256.9   | 215.9  | 57/69 |

**TABLE 2: Three-month Rainfall for February to April 2021** 

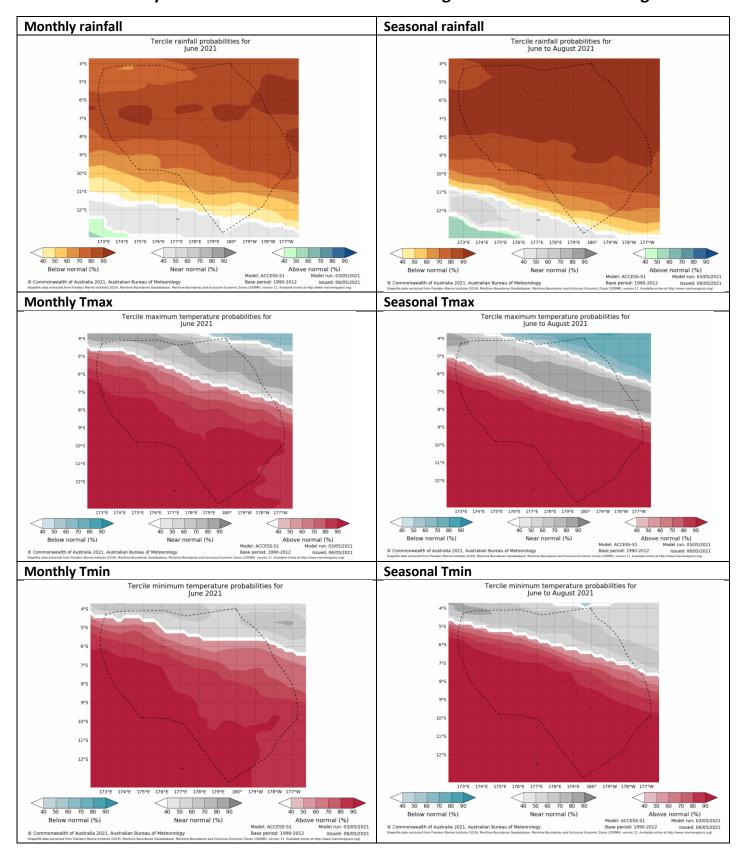
| Three-month Total Station |        | 33%tile      | 67%tile | Median | Rank  | SCOPIC forecast probabilities based on NINO3.4 November-December 2020 |    |     |      | Verification:<br>Consistent, Near-<br>consistent,<br>Inconsistent? |                 |
|---------------------------|--------|--------------|---------|--------|-------|---|----|-----|------|--|-----------------|
| Rainfall (mm)             |        |              |         |        |       | B-N   | N  | A-N | LEPS |  |                 |
| Nanumea (1941-2021)       | 663.9  | Normal       | 640.8   | 1002.0 | 823.9 | 30/81   | 76 | 17  | 7    | 37   | Near-consistent |
| Nui (1946-2021)           | 745.6  | Normal       | 698.3   | 983.3  | 825.5 | 31/76   | 52 | 26  | 22   | 10   | Near-consistent |
| Funafuti (1933-2021)      | 1223.9 | Above normal | 821.4   | 1063.2 | 941.2 | 75/89   | 58 | 17  | 25   | 12   | Inconsistent    |
| Niulakita (1953-2021)     | 1320.0 | Above normal | 855.3   | 1028.9 | 947.2 | 64/69   | 29 | 33  | 38   | -1   | Consistent      |

TABLE 3: Seasonal Climate Outlooks using SCOPIC for June to August 2021 Predictor and Period used: NINO3.4 for March to April 2021

| Station               | Below<br>Median<br>(prob) | Median<br>Rainfall<br>(mm) | Above<br>Median<br>(prob) | LEPS (%)<br>[whole<br>numbers] | Hit-rate<br>(%)<br>[whole<br>numbers] |
|-----------------------|---------------------------|----------------------------|---------------------------|--------------------------------|---------------------------------------|
| Nanumea (1941-2021)   | 71                        | 575.3                      | 29                        | 14                             | 68                                    |
| Nui (1946-2021)       | 78                        | 646.5                      | 22                        | 26                             | 72                                    |
| Funafuti (1933-2021)  | 70                        | 719.4                      | 30                        | 15                             | 65                                    |
| Niulakita (1953-2021) | 58                        | 614.2                      | 42                        | 2                              | 60                                    |

| Station               | Below<br>Normal<br>(prob) | 33%ile<br>Rainfall<br>(mm) | Normal<br>(prob) | 67%ile<br>Rainfall<br>(mm) | Above<br>Normal<br>(prob) | LEPS (%)<br>[whole<br>numbers] | Hit-rate<br>(%)<br>[whole<br>numbers] |
|-----------------------|---------------------------|----------------------------|------------------|----------------------------|---------------------------|--------------------------------|---------------------------------------|
| Nanumea (1941-2021)   | 56                        | 448.0                      | 30               | 696.7                      | 14                        | 20                             | 56                                    |
| Nui (1946-2021)       | 54                        | 507.4                      | 33               | 728.3                      | 13                        | 21                             | 58                                    |
| Funafuti (1933-2021)  | 57                        | 586.1                      | 25               | 814.8                      | 18                        | 18                             | 51                                    |
| Niulakita (1953-2021) | 45                        | 541.8                      | 28               | 738.5                      | 27                        | 4                              | 44                                    |

**TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for June to August 2021** 



# **Summary Statements**

# Rainfall for April 2021:

Normal rainfall was recorded at Nanumea while above normal rainfall was recorded at Nui, Funafuti and Niulakita.

# Accumulated rainfall for February to April 2021, including outlook verification:

The two northern stations, Nanumea and Nui, recorded normal rainfall while above normal rainfall was observed at Funafuti and Niulakita. The outlook issued in January was verified as consistent at Niulakita, near-consistent at Nanumea and Nui, and inconsistent at Funafuti. Niulakita recorded its sixth wettest February to April period on record.

# **Outlooks for June to August 2021:**

#### 1. SCOPIC:

The outlook for the season at Nanumea, Nui and Funafuti favours below normal rainfall. The outlook for Niulakita shows below normal rainfall as the most likely outcome, with normal rainfall as the next most likely. Above normal is the least likely.

#### 2. ACCESS-S:

#### Monthly rainfall:

The outlook favour below normal rainfall for all stations.

#### Monthly maximum temperature and minimum temperatures:

The outlook favours above normal maximum and minimum temperature at all stations.

#### Seasonal rainfall:

The outlook for the season favours below normal rainfall for all stations.

#### Seasonal maximum temperature minimum temperatures:

The outlook for the season favours above normal maximum and minimum temperatures at most stations apart from Nanumea.

NB: The X LEPS % score has been categorised as follows:

 $Very \ Low: \ X < 0.0 \qquad \qquad Low: \ 0 \le X < 5 \qquad \qquad Moderate \ 5 \le X < 10 \qquad \qquad Good: \ 10 \le X < 15 \qquad High: \ 15 \le X < 25 \qquad \qquad Low: \ 0 \le X < 10 \qquad \qquad Good: \ 10 \le X < 10 \qquad \qquad Good: \ 10 \le X < 10 \qquad Good: \ 1$ 

 TABLE 5: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

| Product             | Date:<br>April<br>2021 | Stakeholder                            | Total Number of Participants | Number of male | Number of female |
|---------------------|------------------------|--|------------------------------|----------------|------------------|
| Climate             |                        | Met staffs                             | 6                            | 5              | 1                |
| Bulletin            |                        | Disaster<br>Members                    | 9                            | 6              | 3                |
|                     |                        | All civil servants and kaupule members |                              |                |                  |
| EAR Watch           |                        | Met staffs                             | 6                            | 5              | 1                |
|                     |                        | Disaster<br>Members                    | 9                            | 5              | 4                |
|                     |                        | All civil servants and kaupule members |                              |                |                  |
| Monthly             |                        | Met staffs                             | 6                            | 5              | 1                |
| Climate<br>Briefing |                        | Disaster<br>Members                    | 9                            | 5              | 4                |
|                     |                        | All civil servants and kaupule members |                              |                |                  |
| Ocean Bulletin      |                        | Met staffs                             | 6                            | 5              | 1                |
|                     |                        | Disaster<br>Members                    | 9                            | 4              | 5                |
|                     |                        | All civil servants and kaupule members |                              |                |                  |
|                     |                        | Total                                  | 60                           | 40             | 20               |