

GOVERNMENT OF TONGA



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MEDIA RELEASE

**Drought warnings remain in force for Niuafu'ou, Niuatoputapu, Tongatapu and Ha'apai**

(26 November 2021, Nuku'alofa).

Drought warnings remain in force for Niuafu'ou, Niuatoputapu, Tongatapu and Ha'apai Groups. This drought warning is based on the amount of rain that has fallen in the September, the rainfall trend over the last 3 months (Figure 1) and the November rainfall to date (Table 1.)

| Rainfall totals for August– October 2021 (mm) |               |                 |               |
|---|---------------|-----------------|---------------|
|   | August        | September       | October       |
| <u>Niuafu'ou</u>                              | 154.7         | 26.0            | 56.6          |
| <u>Niuatoputapu</u>                           | 144.9         | 33.2            | 20.6          |
| <u>Vava'u</u>                                 | 267.0         | 194.0           | 144.4         |
| <u>Ha'apai</u>                                | 141.2         | 97.5            | 58.3          |
| <u>Fua'amotu</u>                              | 82.0          | 104.8           | 110.3         |
| <u>Nuku'alofa</u>                             | 74.0          | 79.5            | 113.2         |
| <u>'Eua</u>                                   | 109.0         | 121.0           | 142.5         |
|   | Below average | Average (usual) | Above average |

Figure 1 Rainfall recorded at the main centers during the months of August to October 2021

Niuafu'ou, Niuatoputapu and Tongatapu had already been under drought warning from September with those islands experiencing below average rainfall particularly Niuafu'ou and Niuatoputapu which saw only 25% of their average month rainfall fall in September and October rainfall has also seen a continuation of below average rainfall for Niuafu'ou, Niuatoputapu and Ha'apai experiencing rainfall deficit in October (Refer Table 1).

|             | Niuafo'ou    | Niuatoputapu | Vava'u      | Ha'apai     | Fua'amotu   | Nuku'alofa  | 'Eua        |
|-------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|
| 1-Nov-21    | 0            | 0            | 0           | 4.5         | 3.5         | 2           | 0.5         |
| 2-Nov-21    | 0            | 0            | 0.5         | 8           | 0           | 0           | 1.5         |
| 3-Nov-21    | 0            | 1            | 0           | 0           | 0           | 0           | 0           |
| 4-Nov-21    | 0.5          | 8.5          | 1           | 1.5         | 7.5         | 4           | 6.5         |
| 5-Nov-21    | 3            | 5.5          | 0           | 0           | 0.5         | 6.5         | 3           |
| 6-Nov-21    | 6.5          | 0.5          | 0           | 0           | 0           | 0           | 0           |
| 7-Nov-21    | 3            | 0            | 2           | 0.5         | 0           | 1           | 0.5         |
| 8-Nov-21    | 0.5          | 0.5          | 39.5        | 27.5        | 1           | 1.5         | 1           |
| 9-Nov-21    | 0            | 0            | 0           | 8           | 1.5         | 3           | 25          |
| 10-Nov-21   | 0            | 0            | 0.5         | 0           | 0           | 0           | 0           |
| 11-Nov-21   | 17           | 26.5         | 0           | 1           | 0           | 0           | 0           |
| 12-Nov-21   | 31           | 19.5         | 0           | 6.5         | 2           | 0           | 0           |
| 13-Nov-21   | 0            | 2            | 1           | 0.5         | 0.5         | 0.5         | 0           |
| 14-Nov-21   | 0            | 3.5          | 17.5        | 0           | 0           | 0           | 0           |
| 15-Nov-21   | 111.5        | 15           | 0           | 0           | 0           | 0           | 0           |
| 16-Nov-21   | 3.5          | 0            | 0           | 0           | 3.5         | 2           | 5.5         |
| 17-Nov-21   | 0            | 0            | 1           | 3.5         | 0           | 0.5         | 1.5         |
| 18-Nov-21   | 0            | 0            | 0           | 0           | 0           | 0           | 0.5         |
| 19-Nov-21   | 7            | 1.5          | 0           | 0           | 0           | 0           | 0           |
| 20-Nov-21   | 0            | 0            | 0           | 0           | 0           | 0           | 0           |
| 21-Nov-21   | 0            | 0            | 0           | 0           | 0           | 0           | 0           |
| 22-Nov-21   |              |              |             |             |             |             |             |
| <b>Sum:</b> | <b>183.5</b> | <b>84.0</b>  | <b>63.0</b> | <b>61.5</b> | <b>20.0</b> | <b>21.0</b> | <b>45.5</b> |

Table 1: November 2021 rainfall to date showing rainfall for stations across Tonga.

Although the prediction for the coming 6 months is for above average rainfall throughout Tonga as we enter La Nina conditions, if these drought conditions persist for another month, water shortages will become problematic for communities throughout the country. Especially for the Niuafo'ou where rain water catchment tanks are down to their last quarter. NEMO and the National Emergency Management Committee has responded to these water shortages and have dispatched desalination units to Niuafo'ou and Niuatoputapu to cater for the water needs of those communities.

### Rainfall Outlook for the next 3 to 6 months

Sea Temperatures to the far north of Tonga have cooled in the last 2 months and predictions are for cooling to reach La Nina status (Cooler than normal ocean temperature to the far north of Tonga near the equator) and stay there for the next for 5 to 6 months. Traditionally La Nina brings above average rainfall to the Kingdom and in some months during the peak of summer from December to February total rain could reach twice the monthly average with regular flooding events.

Therefore, current dry conditions are not expected to last too long before good rains should start arriving, However, particular caution should be exercised in-case the rains arrive late and current drought conditions are prolonged.

|                             | <b>Nov 2021–<br/>Jan 2022<br/>(%) chance)</b> | <b>Feb – Apr<br/>2022 (%)<br/>chance)</b> |
|-----------------------------|---|---|
| <u>Niuafo’ou</u>            | 41  | 37  |
| <u>Niuaatoputapu</u>        | 48  | 40  |
| <u>Vava’u</u>               | 48  | 37  |
| <u>Ha’apai</u>              | 47  | 41  |
| <u>Fua’amotu &amp; ‘Eua</u> | 50  | 44  |
| <u>Nuku’alofa</u>           | 49  | 40  |

*Table 2: Rainfall prediction for the next 3 to 6 months. Above average rain (Green) and near average (Yellow)*

### **Some actions that can be taken during times of drought and water shortage**

1. **Conserve water** – Use your water tank sparingly or implement water rationing saving water for essential needs only e.g. for drinking
2. **Harvest rainwater** - Encourage the collections of as much water as possible when there is rain
3. **Avoid ploughing** – Avoid ploughing and tilling the soil during drought to keep soil moisture
4. **Irrigation** – Consider irrigation or watering of gardens if you have a constant supply of water
5. **Mulching** – Apply mulching in gardens to keep the soil mist
6. **Boil Drinking Water** – Water is easily contaminated in times of drought. Make sure you boil the water thoroughly
7. **Plan your next steps** – Plan your next steps by following the climate predictions closely and the likely timing of the break of the drought