

GOVERNMENT OF TONGA



METEOROLOGY DEPARTMENT
MINISTRY OF METEOROLOGY, ENERGY, INFORMATION, DISASTER MANAGEMENT, ENVIRONMENT,
CLIMATE CHANGE & COMMUNICATIONS
P.O. Box 845, Domestic Terminal, Fua'amotu Airport, TONGA
Tel: (676) 740062/0800638 Fax: (676) 35123 Email: metstaff@met.gov.to

MEDIA RELEASE

Drought warnings remain in force for Niuafou'ou, Niuatoputapu and Tongatapu and is now in force for Ha'apai

(29 October 2021, Nuku'alofa).

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

Rainfall totals for July– September 2021 (mm)			
	July	August	September
<u>Niuafou'ou</u>	59.0	154.7	26.0
<u>Niuatoputapu</u>	132.9	144.9	33.2
<u>Vava'u</u>	122.4	267.0	194.0
<u>Ha'apai</u>	54.7	141.2	97.5
<u>Fua'amotu</u>	135.1	82.0	104.8
<u>Nuku'alofa</u>	93.4	74.0	79.5
<u>'Eua</u>	127.5	109.0	121.0
Below average	Average (usual)	Above average	

Figure 1 Rainfall recorded at the main centers during the months of July to September 2021

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

	Niuafou'ou	Niuatoputapu	Vava'u	Ha'apai	Fua'amotu	Nuku'alofa	'Eua
1-Oct-21	2	4.5	0	0	0.4	0	0
2-Oct-21	13.5	1.5	0	0	0	1.5	1
3-Oct-21	2	0	9	0	0	0	0
4-Oct-21	0	0.5	42	0	0.3	0	0
5-Oct-21	0	0	44	15.5	1.9	1	1
6-Oct-21	0	0	0	0	0	0	0.5
7-Oct-21	2	0	4.5	25.5	13.4	22.5	17.5
8-Oct-21	0	0	0	0.5	0	0	0
9-Oct-21	0	0	0	0	9	1	45
10-Oct-21	0	0	0	12	6	9	37.5
11-Oct-21	7.5	9.5	2.5	0	3	0.5	0
12-Oct-21	0	0	0	0	0	0	0
13-Oct-21	0	0	0	0	0	0	0
14-Oct-21	0	0	0	0	0	0	0
15-Oct-21	0	0	0	0	6.2	1.5	9.5
16-Oct-21	0	1	2.5	0	1.4	2.5	10
17-Oct-21	0.5	0	0	3	0	0.5	0
18-Oct-21	2	2.5	0	0	0	0	0.5
19-Oct-21	0.5	0	0.5	0	0	0	0
20-Oct-21	0	0	0	0	0	0	0
21-Oct-21	0	0	0	0	0	0	0
22-Oct-21	0	0	0	0	0	0	0
23-Oct-21	0	0	0	0	0	4	0
24-Oct-21	4	0	1	0	0	0	0
25-Oct-21	9.5	4.0	0.5	0	0	0	0
26-Oct-21	5.0	0	0	0	0	0	0
27-Oct-21	0	0	0	0	0	0	0
28-Oct-21	2.0	0.5	7.0	0	0	0	0.5
Total	50.5	24.0	114.5	56.5	41.8	44.0	123.5

Table 1: October 2021 rainfall to date shows rainfall deficits at Niuafou'ou, Niuatoputapu, Ha'apai and Tongatapu

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 Niua 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 Niuafou'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.

	Oct– Dec 2021 (%) chance)	Jan – Mar 2022 (%) chance)
Niuafo’ou	36	38
Niutoputapu	37	39
Vava’u	39	37
Ha’apai	39	39
Fua’amotu & ‘Eua	46	46
Nuku’alofa	43	38

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