



Climate Update



January to March 2023 Rainfall outlook

Issued: 9 December 2022

La Niña continues in the Pacific.

- Atmospheric and oceanic indicators of the El Niño–Southern Oscillation (ENSO) reflect a mature La Niña. Models suggest a return to ENSO-neutral in January or February 2023.
- Niuafu'ou continued to receive below average rainfall and is therefore remains in drought status.

Recent

November 2022

Above average rainfall received across the country except for Niuafu'ou where below average rainfall was recorded (see graph & Table 2 below). The mean air temperature was 25.7°C which was on average. Highest maximum temperature was 31.8°C recorded on the 25th at Vava'u and the lowest minimum temperature was 17.7°C also recorded in Vava'u on the 22nd.

November rainfall Vs average (1981-2010)

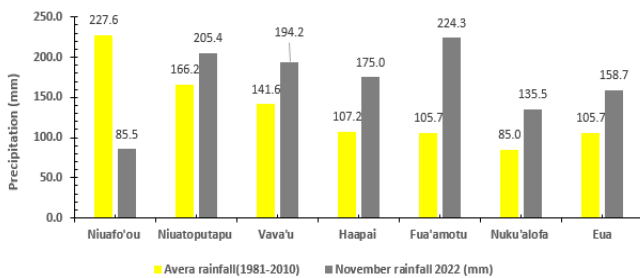


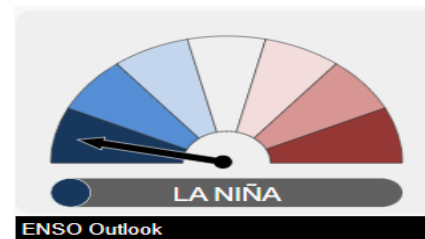
Table 2. Last 6 months rainfall

Rainfall totals for June– November 2022 (mm)						
	June	July	Aug	Sept	Oct	Nov
Niuafu'ou	74.5	83.0	93.0	43.3	88.0	85.5
Niuatoputapu	62.5	91.5	104.0	178	224.0	205.4
Vava'u	59.9	74.7	105.9	57.5	164.3	194.2
Ha'apai	18.5	21.0	32.0	94.0	406.0	175.0
Fua'amotu	32.2	22.5	91.6	96.1	194.0	224.3
Nuku'alofa	36.3	20.5	37.9	50.5	281.8	135.5
'Eua	29.5	25.5	62.0	102.4	138.7	158.7

Traditional knowledge indicators for the summer season.

- If you see bees building their nests indoors and lower near the ground in shelters or empty containers and coconuts, then it is an indication that there will be a cyclone in the season.
- If you see fruit bearing trees are heavy fruiting, for example mangoes or breadfruit, then it is an indication that there will be a cyclone in the season.
- When you see flowers starting to bloom especially the traditional flowers and also bananas starting to bear fruits then you know summer is coming.
- If you see plenty cockroaches in the house than usual and that they also fly, it indicates that rain is near within a few hours.
- If rain has just started and you see roosters/hens not hiding or finding shelter and Rooster continue to crow then it is an indication that the rain will not last long.

Current ENSO status



Forecast

Table 1: Forecast for January up to June 2023

Rainfall Outlook for Jan–Mar 2023:

Rainfall is forecast to be above average across Tonga.

April – June 2023:

Rainfall is forecast to be above average for Tonga except for Niuafu'ou for below average rainfall.

	January–March 2023 (% chance)	Apr–June 2023 (% chance)
Niuafu'ou	43	36
Niuatoputapu	49	37
Vava'u	43	37
Ha'apai	46	38
'Eua	55	48
Tongatapu	46	48
Below average	Average (usual)	Above average

Note:

La Niña continues in the Pacific Basin. Models indicate a return to ENSO-neutral conditions (neither La Niña nor El Niño) early in 2023. La Niña possibly increases the chance of receiving above average rainfall during the wet season across Tonga.

According to the current status, previous 3 months rainfall and rainfall outlook (Refer Table 1 & 2), it is advised to collect water when it rains and use it wisely. Public are advised to ensure that you stay alert at all times and get the latest weather forecast and warnings from the Met service. It is also advisable to seek advice from relevant authorities of sensitive sectors, e.g. Agriculture, Water, Health and the National Emergency Management Office (NEMO) on the best practices to save lives and property and minimize the effects of natural disaster.

The next Climate update will be issued second week of January 2023 or earlier

Disclaimer:

This summary is prepared as soon as possible following the end of the month, once climate data is received from recording stations around Tonga. Delays in data collection, communication and processing occasionally arise. While every effort is made to verify observational data, the Tonga Meteorological Service makes no statements, representations, or warranties about the accuracy or completeness of, and you should not rely on, any information contained in this report. Despite our best efforts, TMS makes no warranties that the information in this publication is free of numerical errors. TMS disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason. This information should be used as a guidance only. For further information about this forecast should be directed to the Director of the Tonga Meteorological Service, at P.O. Box 1380, Nuku'alofa. Or email at metstaff@met.gov.to. Tel: (676) 35 123/740062 or our website, <http://www.met.gov.to> for more information.