



Tuvalu Meteorological Service Early Action Rainfall Watch:

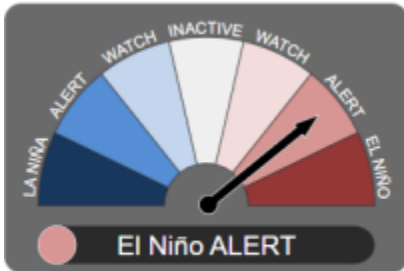


Purpose: The Early Action Rainfall Watch provides a summary of recent rainfall patterns, particularly the status of drought and the rainfall outlook for the coming months. The status and outlook will be revised on a monthly basis. Contact the Tuvalu Meteorological Service (TMS) for further information.

Issued: 26/06/2023

SUMMARY

“El Niño activate Alert”



- The **ENSO outlook has been shifted to El Niño ALERT**. This means that while the El Niño–Southern Oscillation (ENSO) is currently neutral, there is approximately a 70% chance of El Niño forming in 2023. This is roughly three times the normal chance of an El Niño. An El Niño ALERT is not a guarantee that El Niño will occur, but it is an indication that most of the typical precursors of an event are in place.

- **Oceanic ENSO indicators** have warmed to El Niño thresholds. Models are forecasting that further warming is likely, with ocean temperatures expected

to persist above El Niño thresholds in the central and eastern Pacific.

RAINFALL STATUS:

During the month of May, Nanumea, Nanumaga and Niutao are under **very dry**, while Nui, Vaitupu, Nukufetau, Funafuti, Nukulaelae and Niulakita, are under **No extreme**.

There has been **Meteorological drought** at Nanumea, Nanumaga, Niutao, Vaitupu, Nukufetau and Nukulaelae while **Very dry** in Nui, Funafuti and Niulakita in the last three months.

By the last 6-month period, there has been **very dry** in Nanumea, Nanumaga, Niutao, Nui and Funafuti, while **Meteorological drought** existed in Vaitupu, Nukufetau, Nukulaelae and Niulakita. Since the past 12 months, the Northern, Central and Southern group mostly affected with the Meteorological drought exception Funafuti in the Southern group was Very dry. (Refer to the table below)

OUTLOOK: For July 2023, Nanumea predict to be on **Medium Chance of very wet**, while Nanumaga, Niutao, Nui, Vaitupu, Nukufetau, Funafuti and Niulakita predicts to be on **Low Chance of extreme**, and **Medium Chance of very dry** in Nukulaelae.

For the coming season, July to September 2023, for the Northern group is predicted to be on **High to Medium chance of very wet**, **Medium Chance of very wet** in the Central group, while **Low chance of extreme** at the Southern group. (See the table below for more information.)

Rainfall observed for the last month, 3-months, 6-months and 12-months

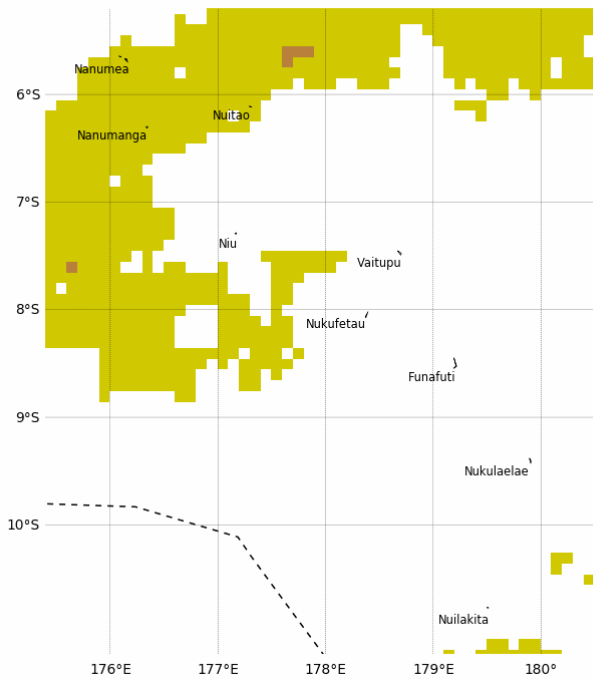
The table below provides information on rainfall received over specific periods in the last 12 months, whether a station is in drought or a very wet period (opposite of drought). If a station is in drought warning, this indicates an increased chances of drought in the coming months, especially when approaching the dry season. The time periods are associated with different drought impacts presented below the tables.

Past Rainfall Status					Very Dry/Wet Rainfall Outlook	
1-month May 2023	3-months March 2023 to May	6-months December 2022 to May 2023	12-months June 2022 to May 2023	Tuvalu Islands	July2023 Chance of extreme	July 2023 to September 2023 Chance of extreme
Very Dry	Meteorological drought	Very Dry	Meteorological drought	Nanumea	Medium (Chance of very wet)	High (Chance of very wet)
Very Dry	Meteorological drought	Very Dry	Meteorological drought	Nanumaga	Low chance of extreme	Medium (Chance of very wet)
Very Dry	Meteorological drought	Very Dry	Meteorological drought	Niutao	Low chance of extreme	Medium (Chance of very wet)
No extreme	Very Dry	Very Dry	Meteorological drought	Nui	Low chance of extreme	Medium (Chance of very wet)
No extreme	Meteorological drought	Meteorological drought	Meteorological drought	Vaitupu	Low chance of extreme	Medium (Chance of very wet)
No extreme	Meteorological drought	Meteorological drought	Meteorological drought	Nukufetau	Low chance of extreme	Medium (Chance of very wet)
No extreme	Very Dry	Very Dry	Very Dry	Funafuti	Low chance of extreme	Medium (Chance of very wet)
No extreme	Meteorological drought	Meteorological drought	Meteorological drought	Nukulaelae	Medium (Chance of very dry)	Low Chance of extreme

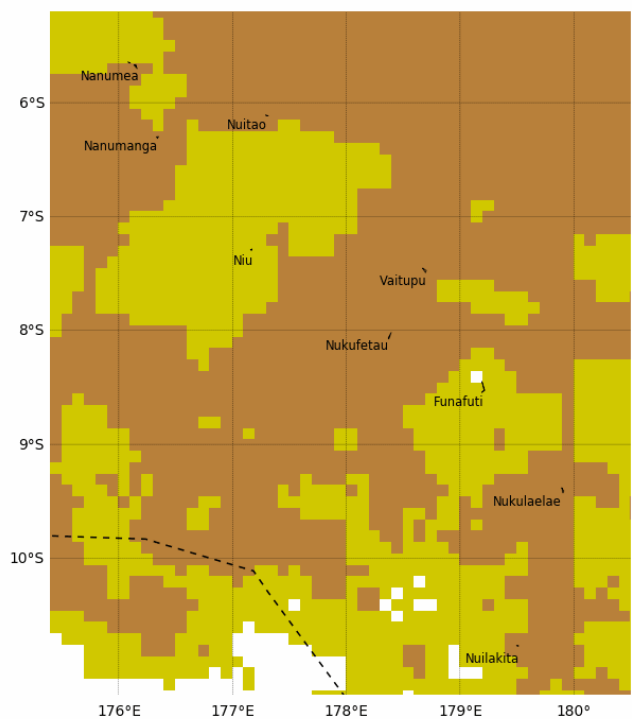
No extreme	Very Dry	Meteorological drought	Meteorological drought	Niulakita	Low chance of extreme	Low Chance of extreme
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ACCESS-S Rainfall Summary for May 2023.

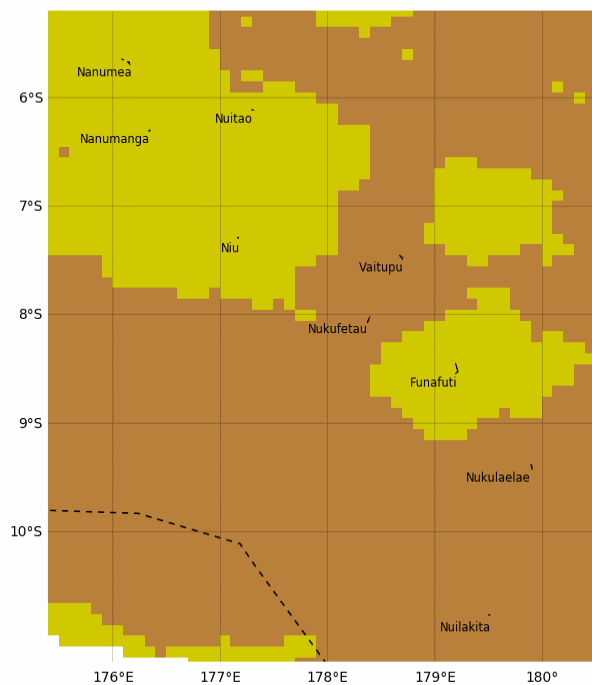
Rainfall status for May 2023



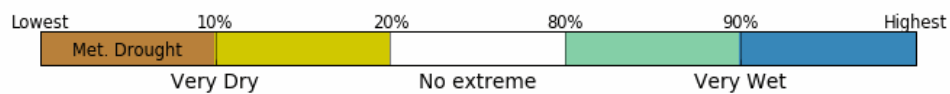
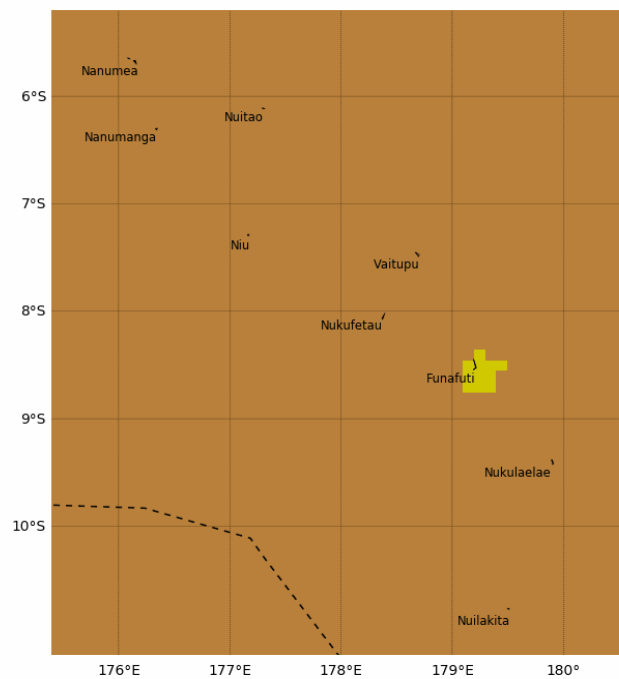
3-month rainfall status to end of May 2023



6-month rainfall status to end of May 2023



12-month rainfall status to end of May 2023



Time periods and impacts:

1 – month period is most relevant for shallow rooted crops (e.g. eggplant, cabbage, tomatoes, spring onions, watermelons, cucumber), small water tanks (e.g. 1000galloons) and household water cisterns. The following secondary health and social-economic have been associated with drought at the 1-month period. Diarrhoea, skin rash, cough and fever, red eye, desalination plant (increased power demand and higher water costs for households), health of babies and elderly people declines, schools close and construction stops.

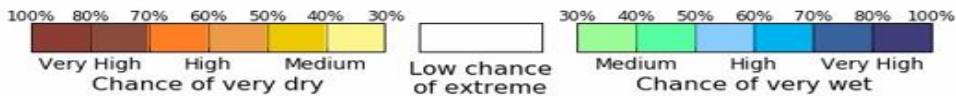
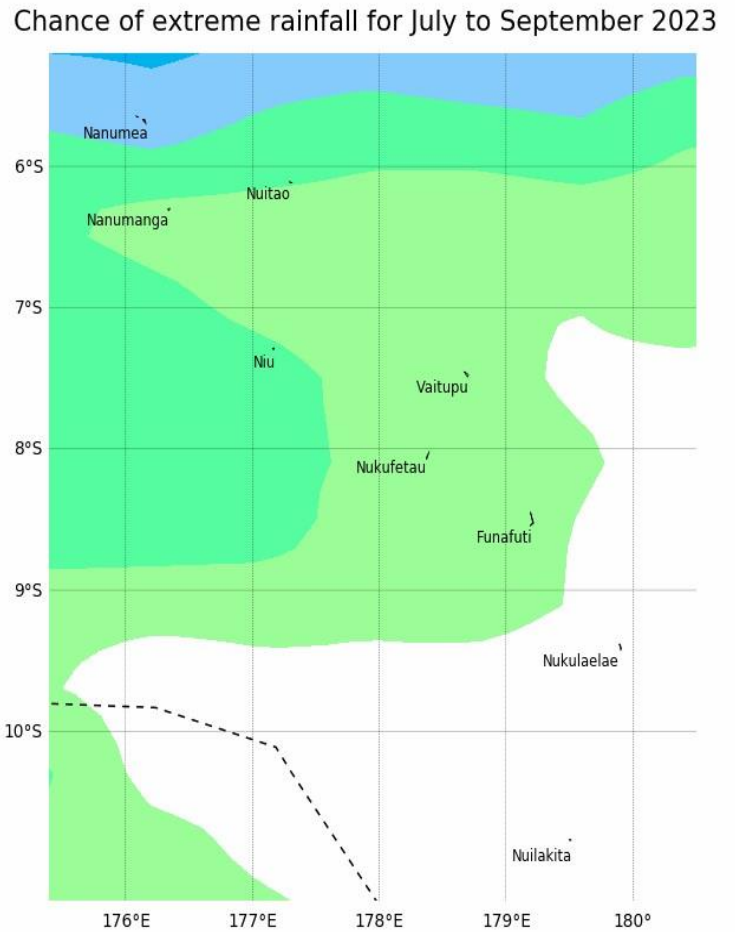
2 – months period is most relevant for bottle gourd, pawpaw, banana, chicken, pigs and community cisterns. The following secondary social-economic and health impacts have been associated with drought at the 2-months period. Community gatherings stop, increased in community disputes over water and limited or no employment.

3 – months period is most relevant for pumpkin, groundwater and ponds. The following secondary social-economic and health impacts have been associated with drought at the 3-months period. Crimes increase e.g. water stealing, government offices close and national events postponed.

6 – months period is most relevant for large trees (e.g. breadfruits, pulaka, taro). The following secondary social-economic and health impacts have been associated with drought at the 6-months periods. Meteorological balloon flights stop, interislands shipping delays, entry of visitors to Tuvalu restricted.

12- months period is most relevant for felo, dragon fruits, pandanus, coconuts and ofega

Very dry/Wet Rainfall Outlooks for July, and July to September 2023



Outlook Status

The outlook provides the likelihood of receiving above normal to normal rainfall over the next three months and the following three months. The outlook does not indicate the amount of rainfall that may be received, how intense the rain may be in any one event, nor how it may vary from month to month.

***No alert:** Normal rainfall is favoured in the next three months or there are equal chances of below normal, normal and above normal rainfall.

The **rainfall status** been calculated using the percentile (decile) index and the rainfall outlook using ACCESS-S, a statistical prediction tool.

Contact Tuvalu Meteorological Service for further information:

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