



Tuvalu Meteorological Service Early Action Rainfall Watch:



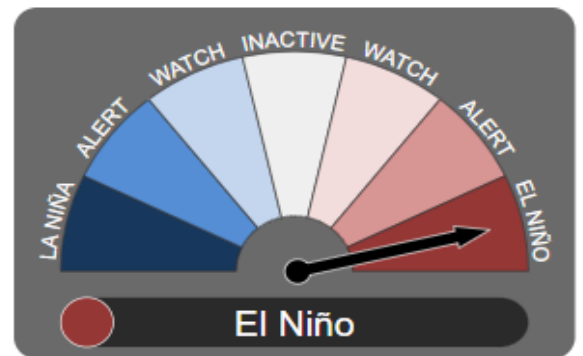
Purpose: The Early Action Rainfall Watch provides a summary of recent rainfall patterns, particularly the status of drought and the rainfall outlook for the coming months. The status and outlook will be revised on a monthly basis. Contact the Tuvalu Meteorological Service (TMS) for further information.

SUMMARY

Issued: 26/01/2023

“Strong El Niño continues in the tropical Pacific “

- ❖ El Niño continues and it will likely to increase high chance rainfall and tropical cyclones in the tropical Pacific.
- ❖ Sea surface temperatures expected to remain above El Niño thresholds into the 2024 southern hemisphere.



RAINFALL STATUS:

For the month of December 2023, it was **No Extreme** in Nanumea, Nanumaga, Niutao, Nui, Vaitupu, Funafuti and Nukulaelae. Very Dy existed at Nukufetau and Seriously Dry stretching over Niulakita.

Over October to December (3Months), **Very Wet** at Nanumea, Nanumaga, Niutao, and Nui. **No Extreme** in Funafuti, Nukufetau, Vaitupu, and Nukulaelae But **Very Dry** at Niulakita.

Over the past six months, July to December, **No Extreme** most stretching around the group of Tuvalu.

January to December 2023 (12months), it was **No Extreme** existed Nanumea, Nanumaga, Niutao, Nui and Funafuti. **Very Dry** at Vaitupu, Nukufetau and Funafuti. While **Seriously Dry** over Nukulaelae and Niulakita.

Rainfall OUTLOOK:

Very High chance of very wet conditions predicted for February 2024 across the group of Tuvalu.

February to April 2024, expected to be **High Chance of very wet** over Nanumea, Nanumaga, Niutao, Nui and Vaitupu. **Very High chance of very wet** in Nukufetau, Funafuti, Nukulaelae and Niulakita.

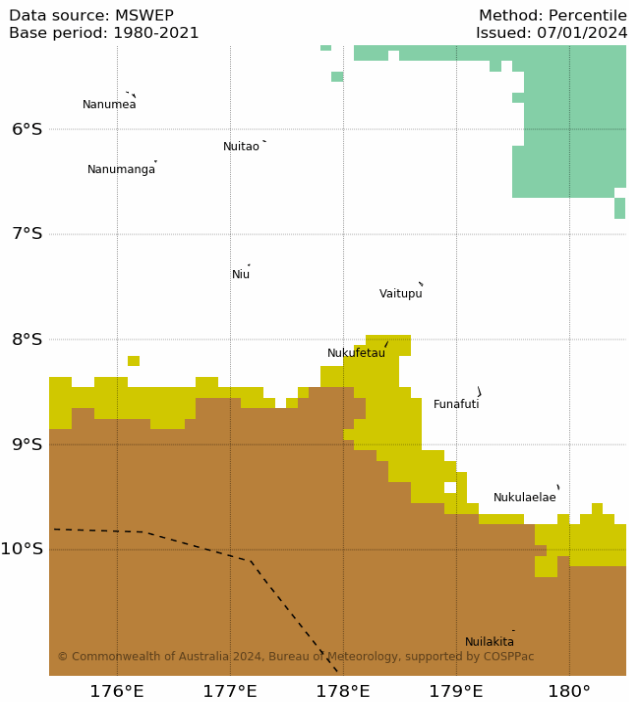
Rainfall observed for the last month, 3-months, 6-months and 12-months

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.

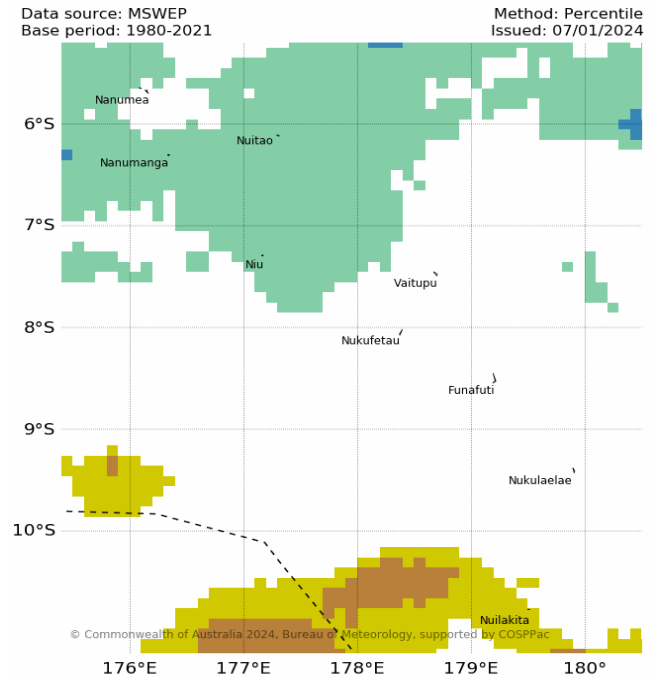
Past Rainfall Status					Very Dry/Wet Rainfall Outlook		
1-month December 2023	3-months October to December 2023	6-months July to December 2023	12-months January to December 2023		Tuvalu Islands	February 2024 Chance of extreme	February to April 2024 Chance of extreme
No Extreme	Very Wet	No Extreme	No Extreme		Nanumea	Very high Chance of very wet	High Chance of very wet
No Extreme	Very Wet	No Extreme	No Extreme		Nanumaga	Very high chance of very wet	High Chance of very wet
No Extreme	Very Wet	No Extreme	No Extreme		Niutao	Very high Chance of very wet	High Chance of very wet
No Extreme	Very Wet	No Extreme	No Extreme		Nui	Very high chance of very wet	High Chance of very wet
No Extreme	No Extreme	No Extreme	Very Dry		Vaitupu	Very high chance of very wet	High Chance of very wet
Very Dry	No Extreme	No Extreme	Very Dry		Nukufetau	Very high chance of very wet	Very high Chance of very wet
No Extreme	No Extreme	No Extreme	No Extreme		Funafuti	Very high chance of very wet	Very high Chance of very wet
No Extreme	No Extreme	No Extreme	Seriously Dry		Nukulaelae	Very high chance of very wet	Very high Chance of very wet
Seriously Dry	Very Dry	No Extreme	Seriously Dry		Niulakita	Very high chance of very wet	Very high Chance of very wet

ACCESS-S Rainfall Summary for December, 2023.

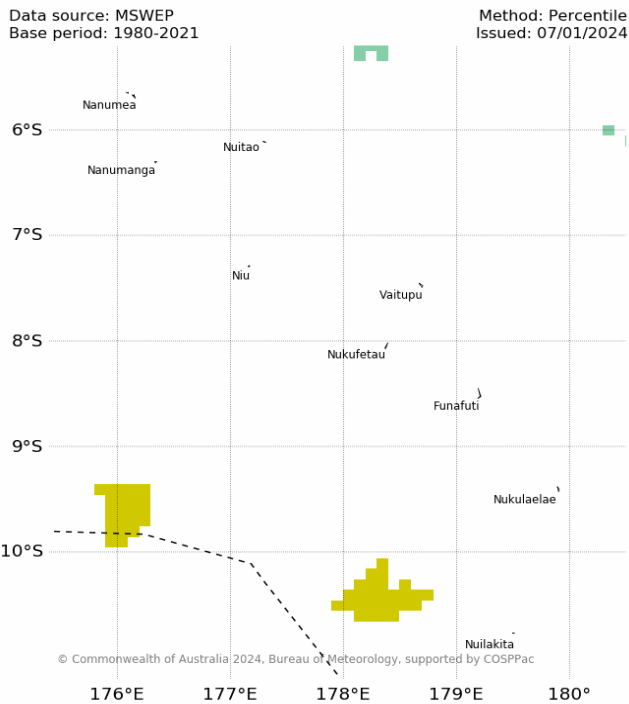
Rainfall status for December 2023



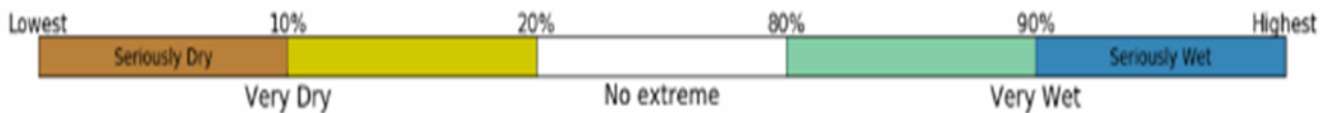
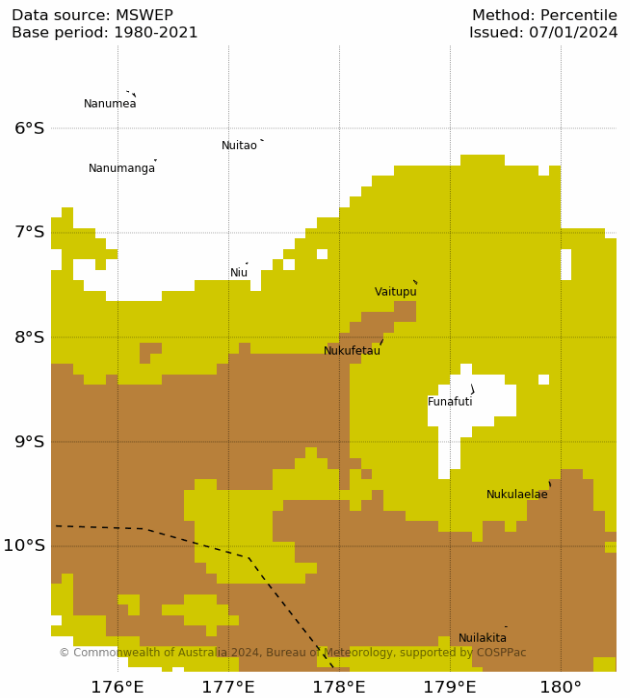
3-month rainfall status to end of December 2023



6-month rainfall status to end of December 2023



12-month rainfall status to end of December 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. 1000gallons) 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.

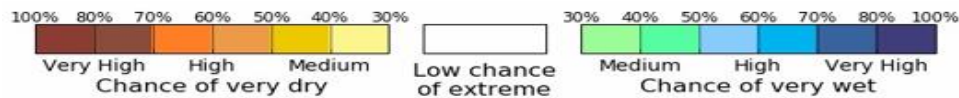
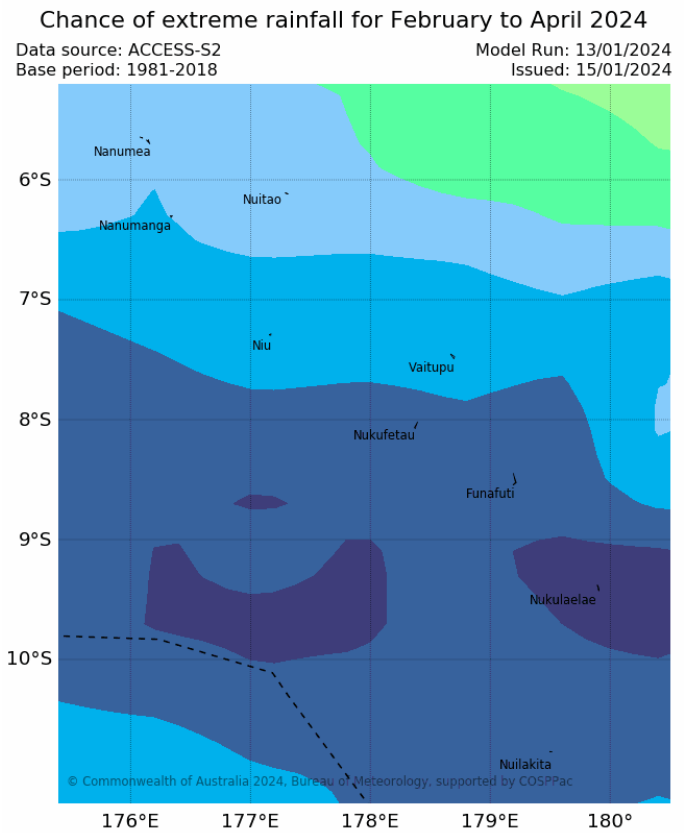
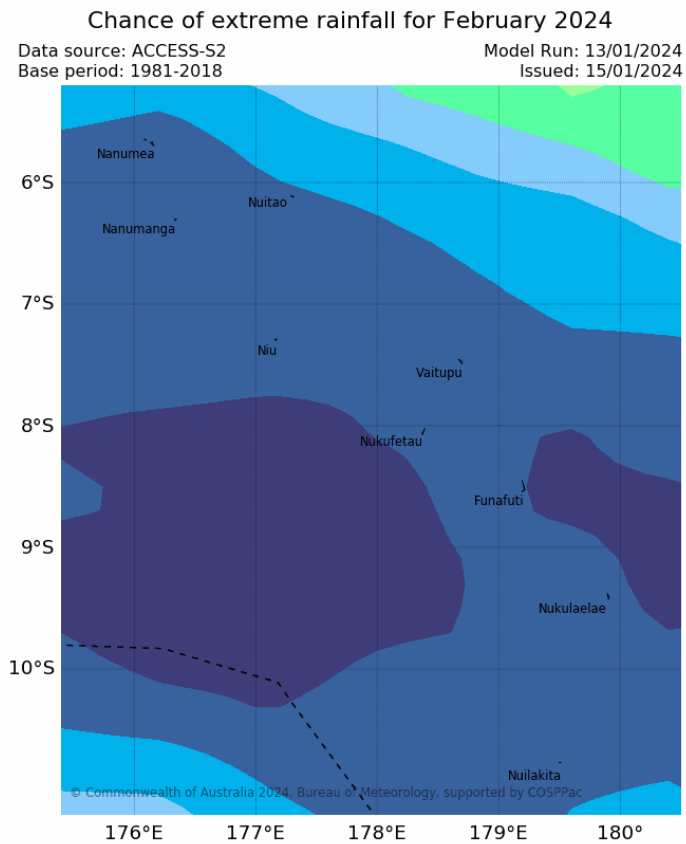
2 – months period is most relevant for bottle gourd,pawpaw, banana, chicken, pigs and community cisterns. The following secondary social-economic and health impacts have been associated with drought at the 2-months period. Community gatherings stop, increased in community disputes over water and limited 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 February, and February to April 2024



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.

Rainfall Status

- Estimates of moisture/water stress is based on recent rainfall compared with historical observations using the Percentile (Decile) Index.

- *Definitions:* "Very Dry" = rainfall in the lowest 20% of the historical record for that location and season, "Very Wet" = rainfall in the highest 20% for that location and season, "Seriously Dry" = rainfall in the lowest 10% of the historical record for that location and season, "Seriously Wet" = rainfall in the highest 10% for that location and season.

Contact Tuvalu Meteorological Service for further information:

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