



Tuvalu Meteorological Service Early Action Rainfall Watch:



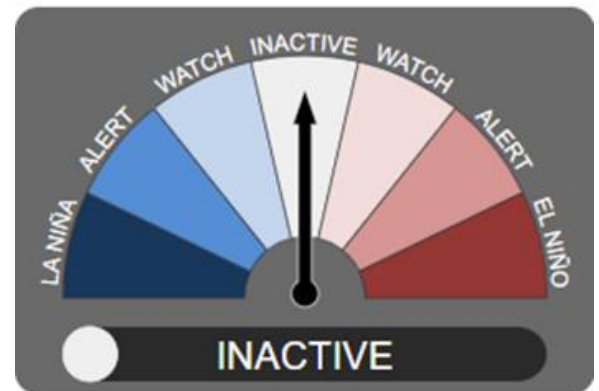
Purpose: The Early Action Rainfall Watch provides a summary of recent rainfall patterns, particularly the status of drought and the rainfall outlook for the coming months. The status and outlook will be revised on a monthly basis. Contact the Tuvalu Meteorological Service (TMS) for further information.

SUMMARY

“Some weak sign of La Nina development, ENSO remains Neutral conditions”

- The El Niño–Southern Oscillation (ENSO) is currently neutral while not meeting thresholds for La Nina. Some oceanic, rain, and cloud patterns in the Pacific have, at times, shown weak La Nina developments.
- The Bureau Models forecast that ENSO remains neutral phase throughout the forecast period to April 2025.
- In neutral conditions, Tuvalu is expected to have below-average rainfall for the next three months.

Issued 26/12/2024



RAINFALL STATUS:

- ❖ For the month of November 2024, it was *Very dry* over Naumea, Nanumaga and Vaitupu. *Meteorological drought* over Niutao and No extreme most existed around Nui, Nukufetau, Funafuti, Nukulaelae and Niulakita.
- ❖ Over September to November 2024 (3Months), it was *No extreme* over Tuvalu.
- ❖ Over the past six months, June to November 2024, *Very Wet* existed at Nukufetau, Funafuti and Niulakita, while *No Extreme* over Nanumea, Nanumaga, Niutao, Nui, and Vaitupu. *Seriously wet* at Nukulaelae.
- ❖ December to November 2024 (12months), it was *No Extreme* most stretching over Tuvalu.

Rainfall OUTLOOK:

- *Medium Chance of Very Dry* conditions predicted for January 2024 over Nanumea, Nanumaga, and Niutao. There is a *Low Chance of Extreme* expected for Nui, Vaitupu, Nukufetau, Funafuti and Nukulaelae, while Niulakita predicted to be *Medium Chance of Very Wet*.
- January to March 2025, expected to be *High to Medium Chance of Very Dry over Tuvalu*.

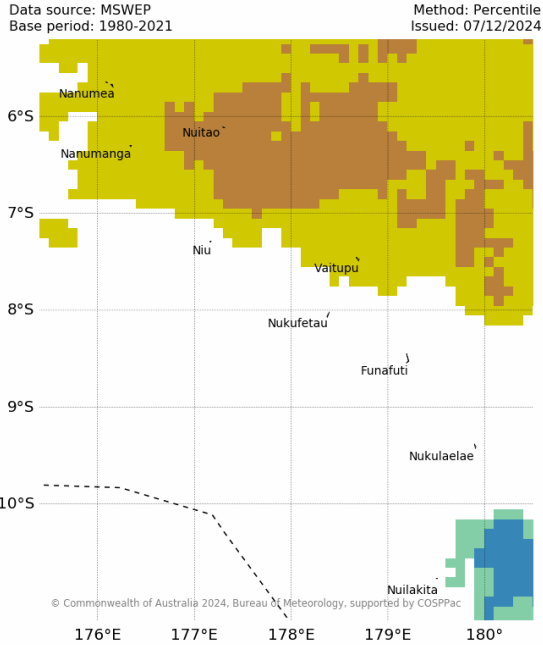
Rainfall observed for the last month, 3-months, 6-months and 12-months

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.

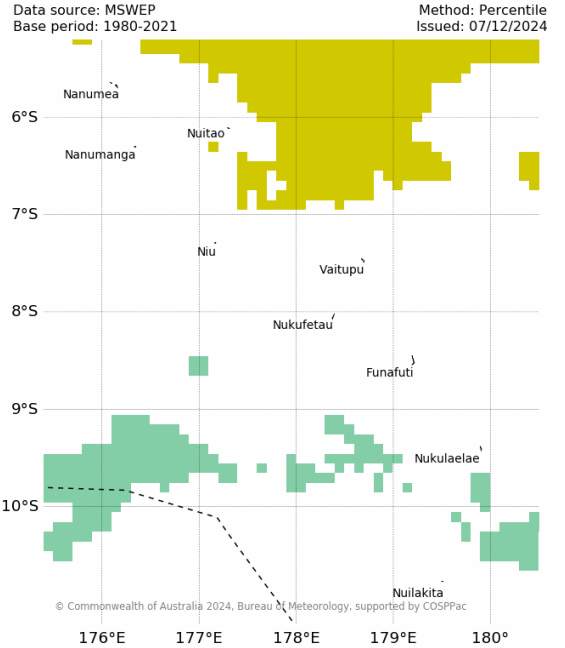
Past Rainfall Status					Very Dry/Wet Rainfall Outlook		
1-month November 2024	3-months September to November 2024	6-months June to November 2024	12-months December 2023 to November 2024		Tuvalu Islands	January 2025 Chance of extreme	January to March 2025 Chance of extreme
Very Dry	No Extreme	No Extreme	No Extreme		Nanumea	Medium Chance of Very Dry	High Chance of Very Dry
Very Dry	No Extreme	No Extreme	No Extreme		Nanumaga	Medium Chance of Very Dry	High Chance of Very Dry
Seriously Dry	No Extreme	No Extreme	No Extreme		Niutao	Medium Chance of Very Dry	High Chance of Very Dry
No Extreme	No Extreme	No Extreme	No Extreme		Nui	Low Chance of Extreme	High Chance of Very Dry
Very Dry	No Extreme	No Extreme	No Extreme		Vaitupu	Low Chance of Extreme	High Chance of Very Dry
No Extreme	No Extreme	Very Wet	No Extreme		Nukufetau	Low Chance of Extreme	Medium Chance of Very Dry
No Extreme	No Extreme	Very Wet	No Extreme		Funafuti	Low Chance of Extreme	Medium Chance of Very Dry
No Extreme	No Extreme	Seriously Wet	No Extreme		Nukulaelae	Low chance of extreme	Medium Chance of Very Dry
No Extreme	No Extreme	Very Wet	No Extreme		Niulakita	Medium Chance of Very Wet	Medium Chance of Very Dry

ACCESS-S Rainfall Summary for November, 2024.

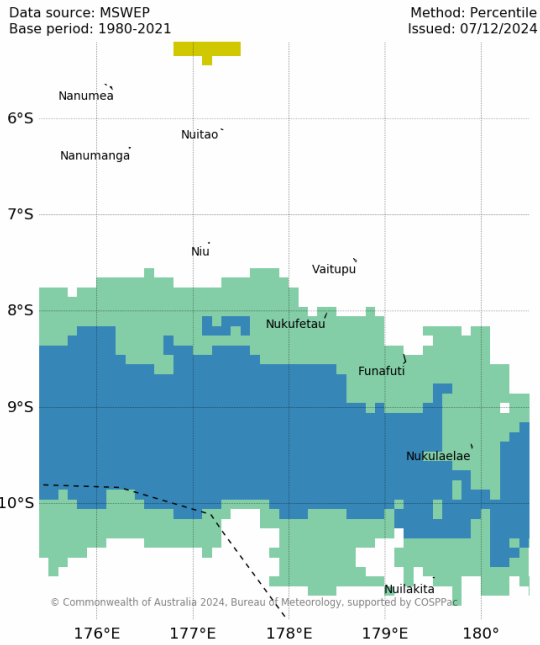
Rainfall status for November 2024



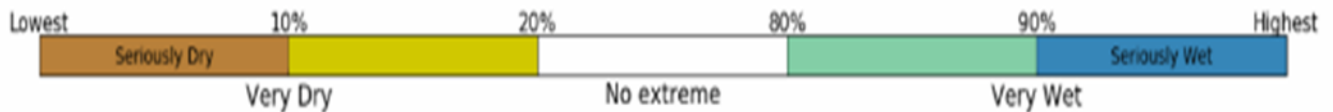
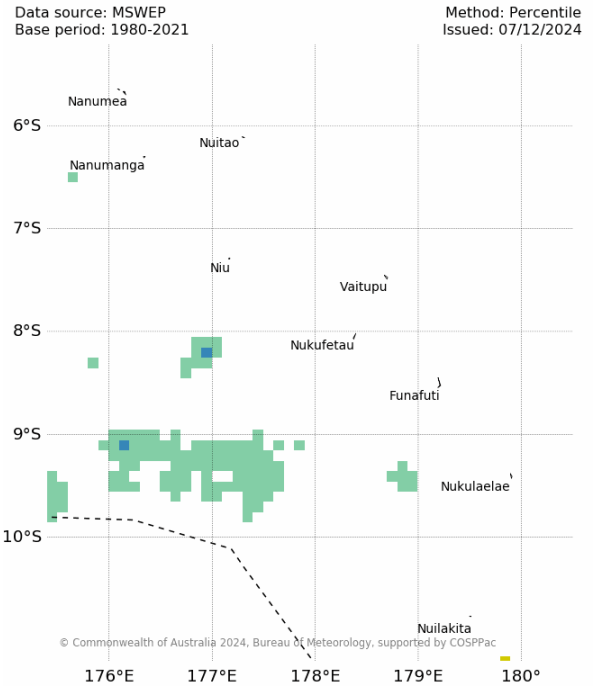
3-month rainfall status to end of November 2024



6-month rainfall status to end of November 2024



12-month rainfall status to end of November 2024



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.

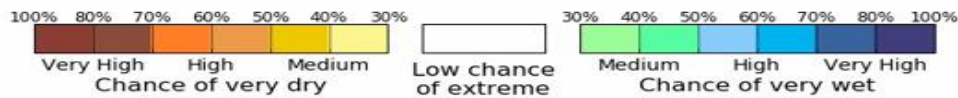
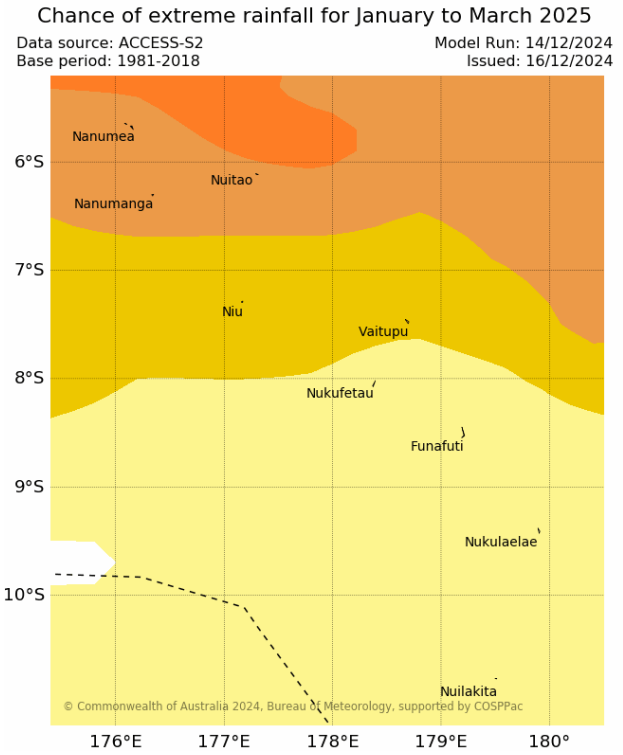
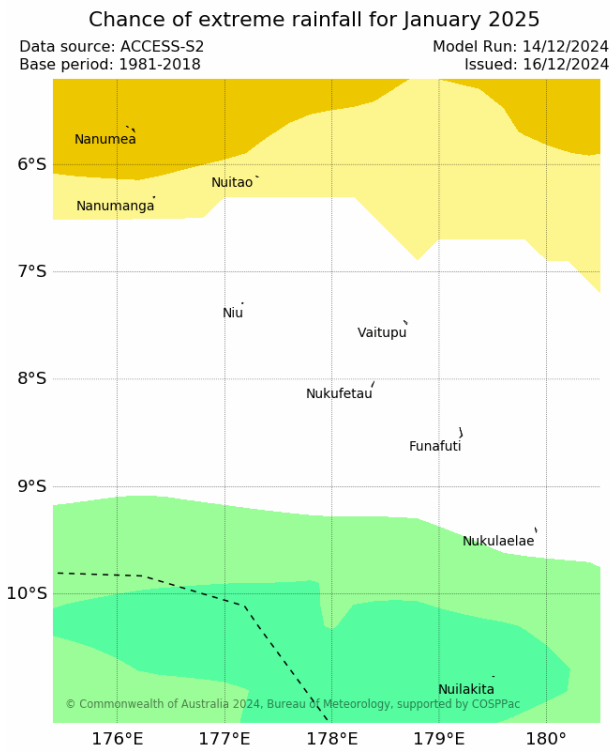
2 – months period is most relevant for bottle gourd,pawpaw, banana, chicken, pigs and community cisterns. The following secondary social-economic and health impacts have been associated with drought at the 2-months period. Community gatherings stop, increased in community disputes over water and limited 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 January, and January to March 2025



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:

Chief Meteorological Officer, Ministry of Public Works, Infrastructure, Water, Meteorology and Disaster, Vaiaku, Funafuti, Tuvalu.

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