



Tuvalu Meteorological Service Early Action Rainfall Watch:



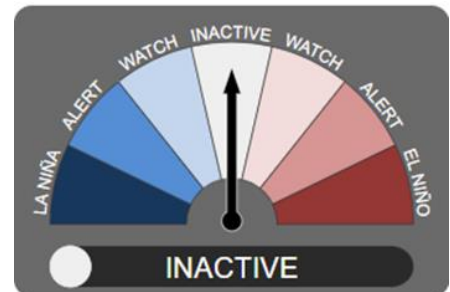
Purpose: The Early Action Rainfall Watch provides a summary of recent rainfall patterns, particularly the status of drought and the rainfall outlook for the coming months. The status and outlook will be revised on a monthly basis. Contact the Tuvalu Meteorological Service (TMS) for further information.

SUMMARY

“ENSO remains Neutral conditions”

- The ENSO Outlook may signal La Nina Watch to be active in the coming months.
- Bureau’s model suggests SSTs are likely to remain within the ENSO-neutral state, although some have displayed La Nina-like signals over the past several weeks, these signals have not been consistent.
- In the Neutral conditions, Tuvalu is expected to be below average rainfall next three months.

Issued 26/10/2024



RAINFALL STATUS:

- ❖ For September 2024, it was **No extreme** over Nanumea, Nanumaga, Niutao, Nui, Vaitupu, Nukufetau, Funafuti, and Niulakita, but **Very wet** at Nukulaelae.
- ❖ From July to September 2024 (3 months), it was **No extreme** over Nanumea, Nanumaga, and Niutao. **Very wet** existed Nui, Funafuti, Nukulaelae, and Niulakita, while **Seriously wet** at Vaitupu, and Nukufetau.
- ❖ Over the past six months, from April to September 2024, **No Extreme** existed at Nanumea, while **Very Wet** at Nanumaga, Niutao, Nui, Vaitupu, and Funafuti. **Seriously wet** most stretching over Nukulaelae and Niulakita.
- ❖ October 2023 to September 2024 (12 months), it was **Very Wet** over Nanumaga and Nui. **No Extreme** over Nanumea, Nitao, Vaitupu, Nukufetau, Funafuti, Nukulaelae and Niulakita.

Rainfall OUTLOOK:

- **High Chance of Very Dry** conditions predicted for November 2024 at Nanumea, Nanumaga, Niutao, Nui, and Vaitupu. There is a **Medium Chance of Very Dry** expected for Nukufetau, Funafuti, Nukulaelae, and Niulakita.
- November 2024 to January 2025, expected to be a **Very High Chance to High Chance of Very Dry conditions** over Nanumea, Nanumaga, Niutao, Nui, and Nukufetau. **Medium Chance of Very Dry** stretching over Nukulaelae and Niulakita.

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

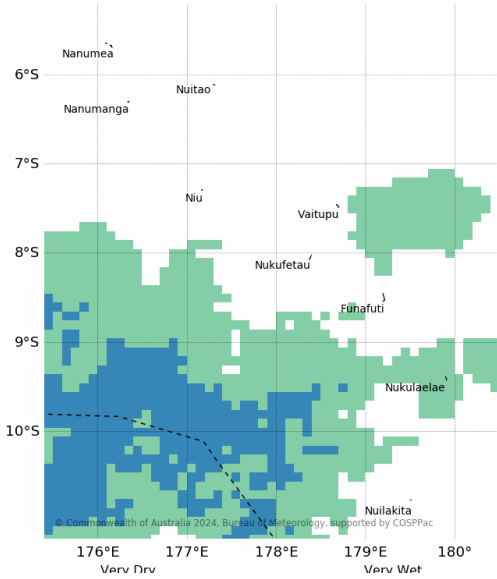
The table below provides information on rainfall received over specific periods in the last 12 months, whether a station is in drought or a very wet period (opposite of drought). If a station is in drought warning, this indicates an increased chances of drought in the coming months, especially when approaching 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 September 2024	3-months July to September 2024	6-months April to September 2024	12-months October 2023 to September 2024		Tuvalu Islands	November 2024 Chance of extreme	November 2024 to January 2025 Chance of extreme
No Extreme	No Extreme	No Extreme	No Extreme		Nanumea	High Chance of Very Dry	Very High Chance of Very Dry
No Extreme	No Extreme	Very Wet	Very Wet		Nanumaga	High Chance of Very Dry	High Chance of Very Dry
No Extreme	No Extreme	Very Wet	No Extreme		Niutao	High Chance of Very Dry	High Chance of Very Dry
No Extreme	Very Wet	Very Wet	Very Wet		Nui	High Chance of Very Dry	High Chance of Very Dry
No Extreme	Seriously Wet	Very Wet	No Extreme		Vaitupu	High Chance of Very Dry	High Chance of Very Dry
No Extreme	Seriously Wet	Seriously Wet	No Extreme		Nukufetau	Medium Chance of Very Dry	High Chance of Very Dry
No Extreme	Very Wet	Very Wet	No Extreme		Funafuti	Medium Chance of Very Dry	Medium Chance of Very Dry
Very Wet	Very Wet	Seriously Wet	No Extreme		Nukulaelae	Medium Chance of Very Dry	Medium Chance of Very Dry
No Extreme	Very Wet	Seriously Wet	No Extreme		Niulakita	Medium Chance of Very Dry	Medium Chance of Very Dry

ACCESS-S Rainfall Summary for September, 2024.

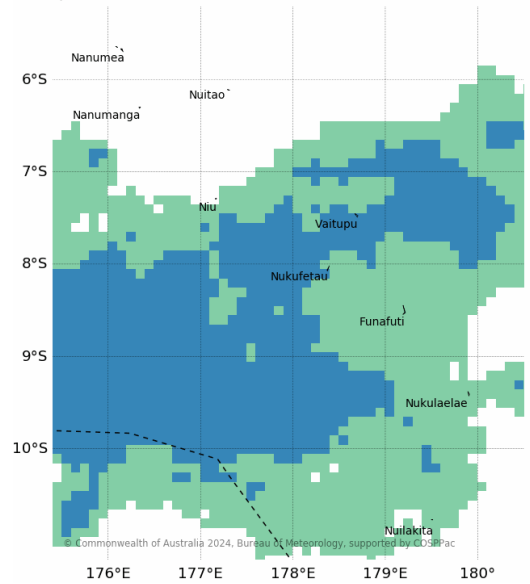
Rainfall status for September 2024

Data source: MSWEP Method: Percentile
Base period: 1980-2021 Issued: 07/10/2024



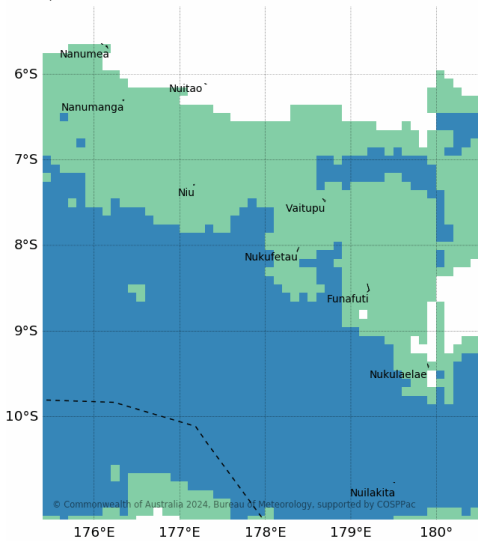
3-month rainfall status to end of September 2024

Data source: MSWEP Method: Percentile
Base period: 1980-2021 Issued: 07/10/2024



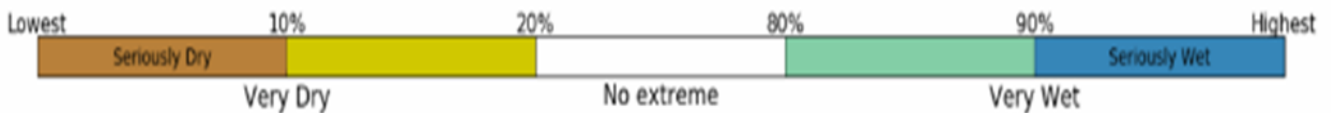
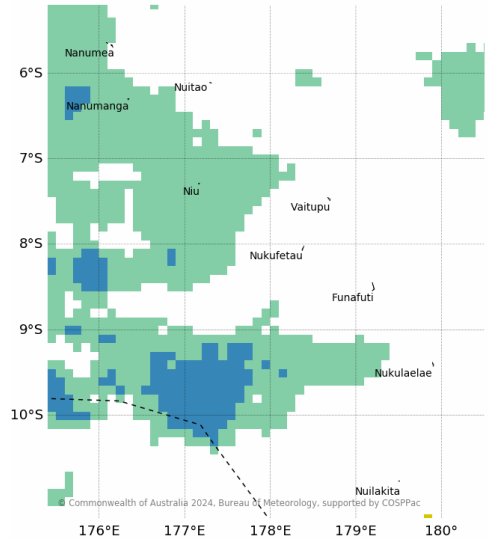
6-month rainfall status to end of September 2024

Data source: MSWEP Method: Percentile
Base period: 1980-2021 Issued: 07/10/2024



12-month rainfall status to end of September 2024

Data source: MSWEP Method: Percentile
Base period: 1980-2021 Issued: 07/10/2024



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. 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 stopped, increased in community disputes over water, and limited or no employment.

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

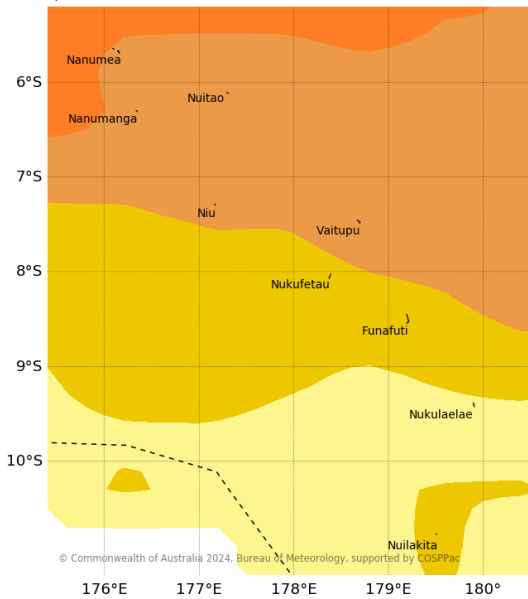
6 – months period is most relevant for large trees (e.g. breadfruits, pulaka, taro). The following secondary social-economic and health impacts have been associated with drought at the 6-months periods. Meteorological balloon flights stop, interisland shipping delays, and entry of visitors to Tuvalu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

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

Very Dry/Wet Rainfall Outlooks for November 2024, and November 2024 to January 2025

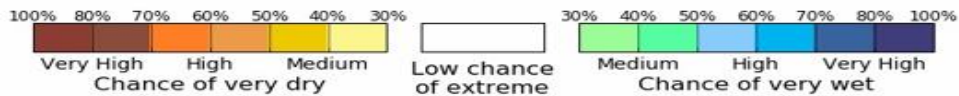
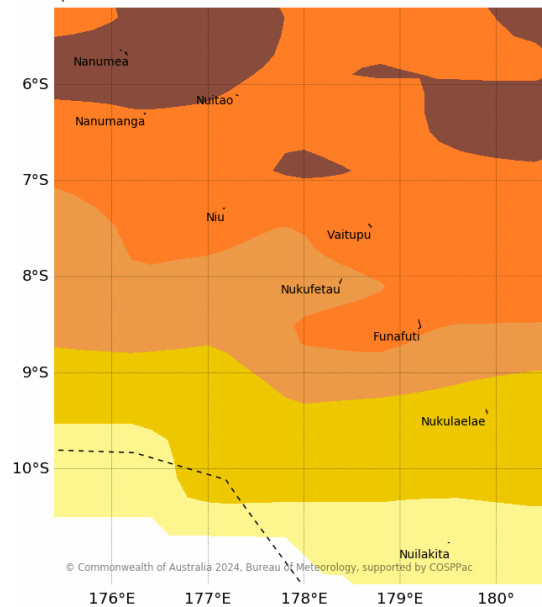
Chance of extreme rainfall for November 2024

Data source: ACCESS-S2
Base period: 1981-2018
Model Run: 19/10/2024
Issued: 21/10/2024



Chance of extreme rainfall for November 2024 to January 2025

Data source: ACCESS-S2
Base period: 1981-2018
Model Run: 19/10/2024
Issued: 21/10/2024



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:

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

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