



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

“La Nina Watch is continued in the Central Tropical Pacific.”

- The El Niño-Southern Oscillation (ENSO) is currently Neutral.
- Sea Surface Temperatures in the Central Pacific have been steadily cooling.

The Climate models suggest that Sea Surface Temperature in the Central Tropical Pacific are likely to continued to cool over the coming months.

- The Bureau’s ENSO Outlook is at La Nina Watch due to early signs that an event May in the Pacific Ocean later in the 2024.

Issued: 26/06/2024



RAINFALL STATUS:

- ❖ For the month of May 2024, it was **No Extreme** over Nanumea, Nanumaga, Niutao, Vaitupu, Funafuti and Nukulaelae. **Very Wet** at Nui and **Seriously Wet** at Niulakita.
- ❖ Over March to May 2024 (3Months), it was **No Extreme** over Tuvalu
- ❖ Over the past six months, December 2023 to May 2024, **No Extreme** most existed over Tuvalu, except Niulakita observed **Very Dry**.
- ❖ April 2023 to May 2024 (12months), it was **No Extreme** most existed over Tuvalu.

Rainfall OUTLOOK:

- **Medium chance of very wet** conditions predicted for July 2024 at Nanumaga, Niutao, Vaitupu and Niulakita, but there is a **High chance of very wet** expected at Nui, Nukufetau, Funafuti, and Nukulaelae while Nanumea are predicted to be **Low Chance of Extreme conditions**.
- July to September 2024, expected to be **Low chance of extreme** over Nanumea, Nanumaga and Niutao and **Medium chance of very wet** stretching over, Nui, Vaitupu and Niulakita, while there is a **High chance of very wet** predicted for, Funafuti, and Nukulaelae.

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

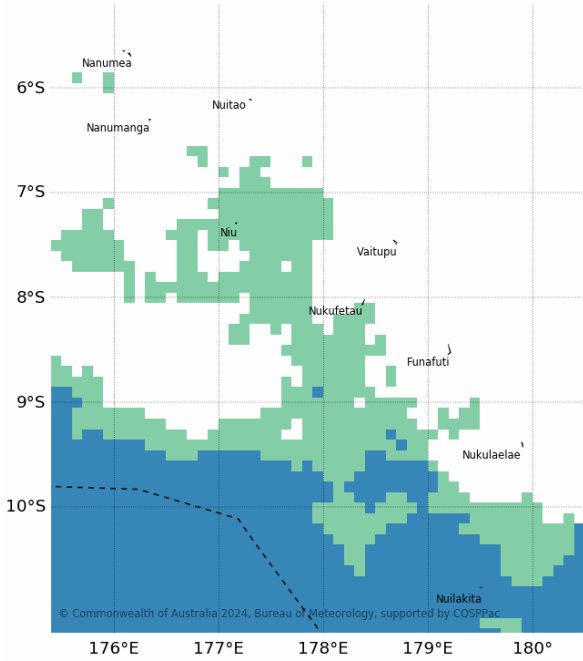
The table below provides information on rainfall received over specific periods in the last 12 months, whether a station is in drought or a very wet period (opposite of drought). If a station is in drought warning, this indicates an increased chances of drought in the coming months, especially when approaching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

ACCESS-S Rainfall Summary for May, 2024.

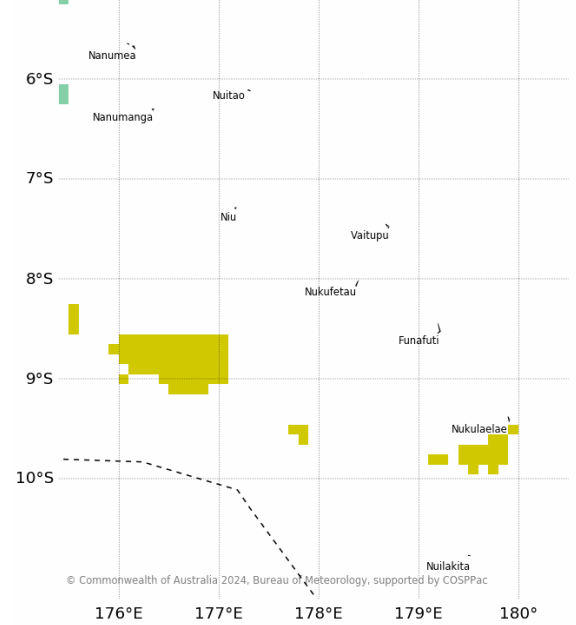
Rainfall status for May 2024

Data source: MSWEP
Base period: 1980-2021
Method: Percentile
Issued: 07/06/2024



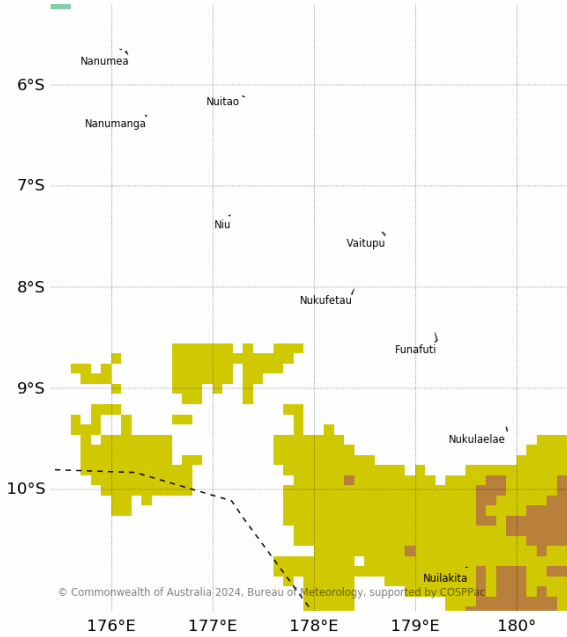
3-month rainfall status to end of May 2024

Data source: MSWEP
Base period: 1980-2021
Method: Percentile
Issued: 07/06/2024



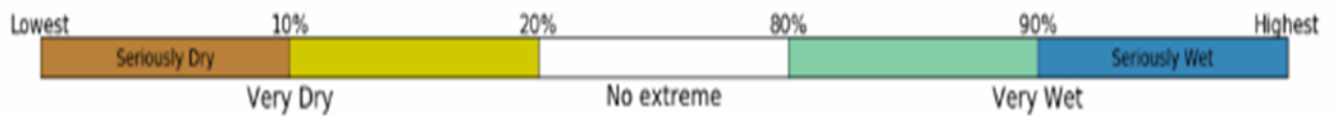
6-month rainfall status to end of May 2024

Data source: MSWEP
Base period: 1980-2021
Method: Percentile
Issued: 07/06/2024



12-month rainfall status to end of May 2024

Data source: MSWEP
Base period: 1980-2021
Method: Percentile
Issued: 07/06/2024



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 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.

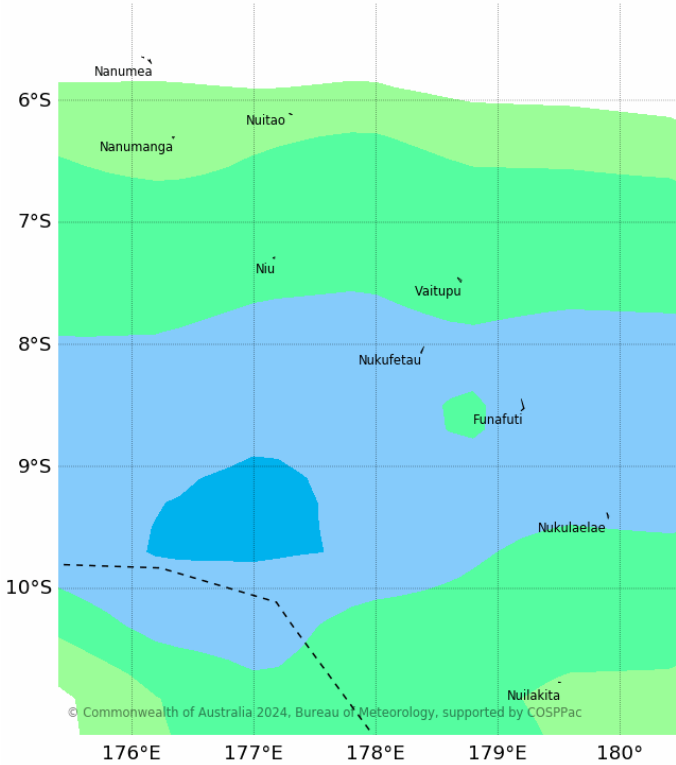
12- months period is most relevant for felo, dragon fruits, pandanus, coconuts and ofega.

Very Dry/Wet Rainfall Outlooks for July, and July to September 2024

Chance of extreme rainfall for July 2024

Data source: ACCESS-S2
Base period: 1981-2018

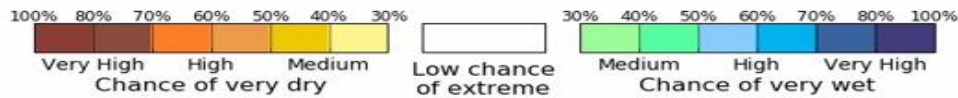
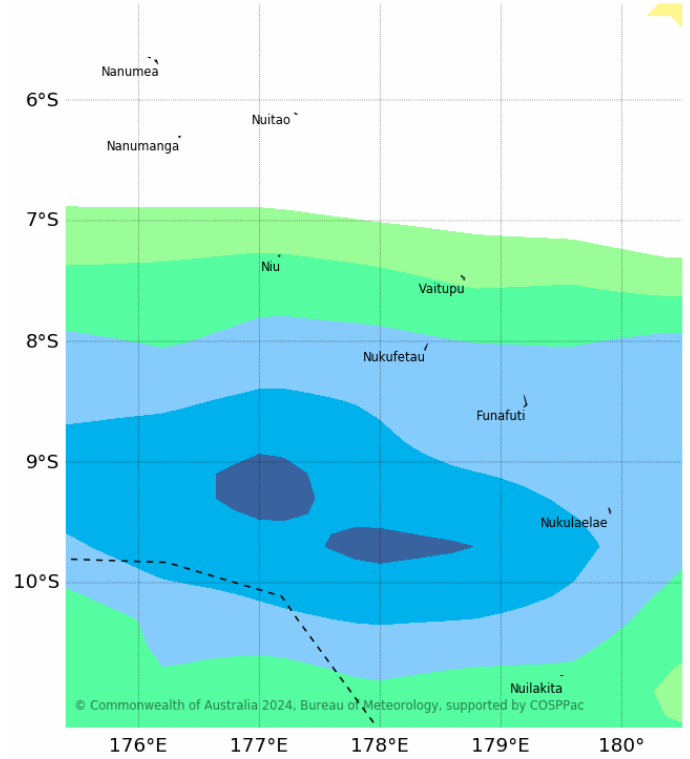
Model Run: 15/06/2024
Issued: 17/06/2024



Chance of extreme rainfall for July to September 2024

Data source: ACCESS-S2
Base period: 1981-2018

Model Run: 15/06/2024
Issued: 17/06/2024



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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