



Tuvalu Meteorological Service

Early Action Rainfall Watch:



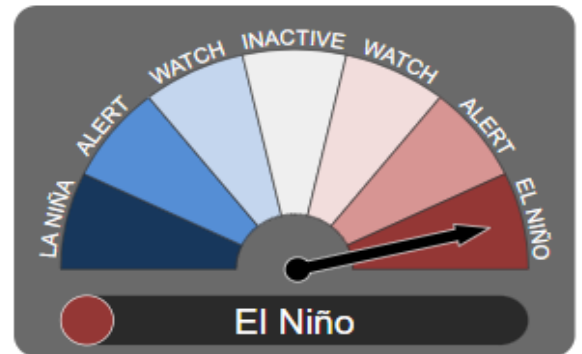
Purpose: The Early Action Rainfall Watch provides a summary of recent rainfall patterns, particularly the status of drought and the rainfall outlook for the coming months. The status and outlook will be revised on a monthly basis. Contact the Tuvalu Meteorological Service (TMS) for further information.

SUMMARY

Issued: 26/11/2023

“El Niño continue “

- ❖ Warmer than average sea surface temperatures (SSTs) in the tropical Pacific persist above El Niño thresholds, with warmer water beneath the surface to support that at the surface.
- ❖ In the atmosphere, cloud, wind and pressure patterns are consistent with El Niño conditions.
- ❖ Climate model forecasts indicate some further warming of the central to eastern Pacific is likely, with SSTs remaining above El Niño thresholds



RAINFALL STATUS:

For the month of October 2023, it was **Seriously Wet** in Nanumea, and Nanumaga.

Very wet existed Niutao and Nui. While **No Extreme** at Vaitupu, Nukufetau, Funafuti, Nukulaelae and Niulakita.

Over August to October (3Months), and past six months, May to October it was **No Extreme** across the group of Tuvalu.

November 2022 to October 2023 (12months), it was **Very dry** existed Nanumea, Nanumaga and Niutao. **Seriously dry** stretching over Nui, Vaitupu, Nukufetau, Nukulaelae and Niulakita. While **No Extreme** at Funafuti.

Rainfall OUTLOOK:

Medium chance of very wet conditions predicted for November over Nanumea, Nanumaga, Niutao, Nui, and Niulakita. while **Low chance of extreme** at Vaitupu, Nukufetau, Funafuti, and Nukulaelae.

December 2023 to February 2024, expected to be **High Chance of very wet** in Nanumea, Nanumaga, Niutao, Nui, and Vaitupu. **Medium chance of very wet** at Funafuti, Nukulaelae and Niulakita.

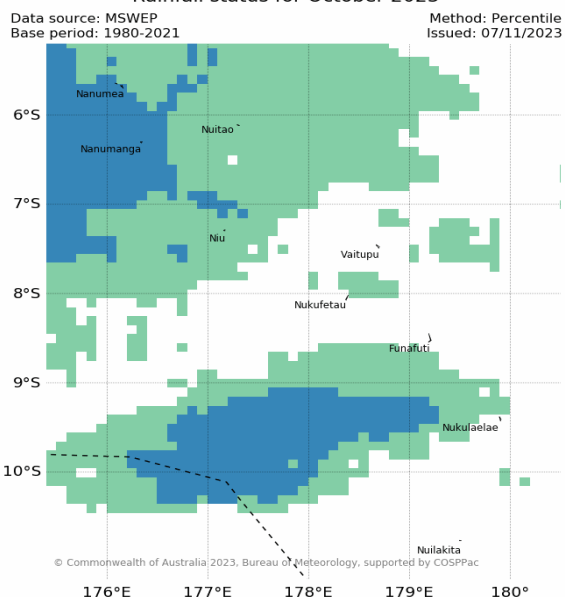
Rainfall observed for the last month, 3-months, 6-months and 12-months

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.

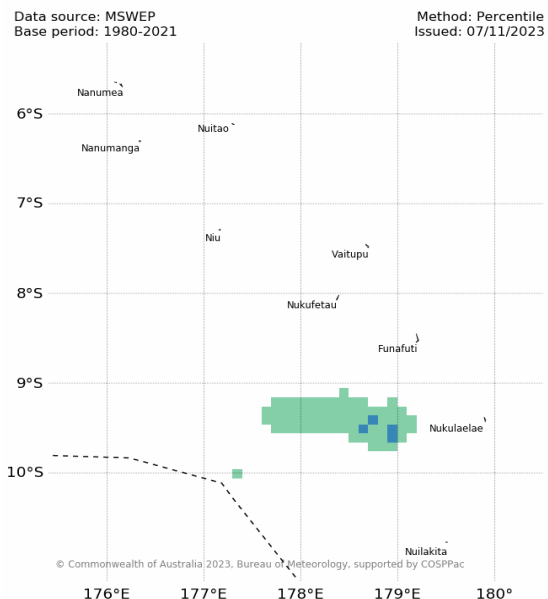
Past Rainfall Status						Very Dry/Wet Rainfall Outlook	
1-month October 2023	3-months August to October 2023	6-months May to October 2023	12-months November 2022 to October 2023		Tuvalu Islands	December 2023 Chance of extreme	December 2023 to February 2024 Chance of extreme
Seriously Wet	No Extreme	No Extreme	Very Dry		Nanumea	Medium Chance of very wet	High Chance of very wet
Seriously Wet	No Extreme	No Extreme	Very Dry		Nanumaga	Medium Chance of very wet	High Chance of very wet
Very Wet	No Extreme	No Extreme	Very Dry		Niutao	Medium Chance of very wet	High Chance of very wet
Very Wet	No Extreme	No Extreme	Seriously Dry		Nui	Medium Chance of very wet	High Chance of very wet
No Extreme	No Extreme	No Extreme	Seriously Dry		Vaitupu	Low Chance of Extreme	High Chance of very wet
No Extreme	No Extreme	No Extreme	Seriously Dry		Nukufetau	Low Chance of Extreme	Medium Chance of very wet
No Extreme	No Extreme	No Extreme	No Extreme		Funafuti	Low Chance of extreme	Medium Chance of very wet
No Extreme	No Extreme	No Extreme	Seriously Dry		Nukulaelae	Low Chance of extreme	Medium Chance of very wet
No Extreme	No Extreme	No Extreme	Seriously Dry		Niulakita	Medium Chance of very wet	Medium Chance of very wet

ACCESS-S Rainfall Summary for October, 2023.

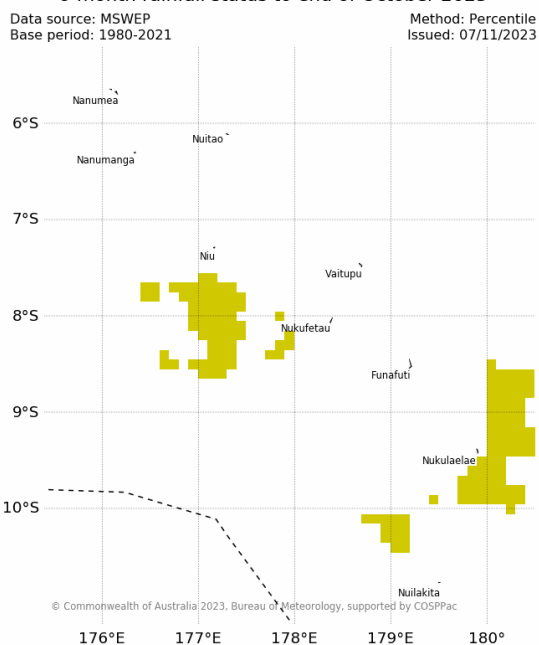
Rainfall status for October 2023



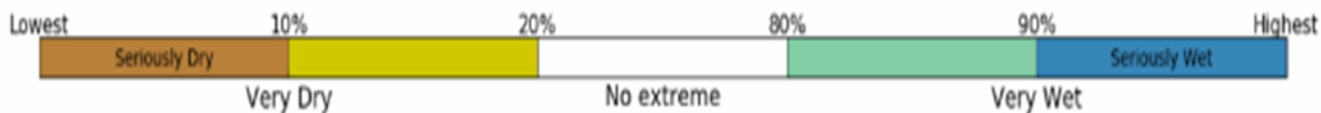
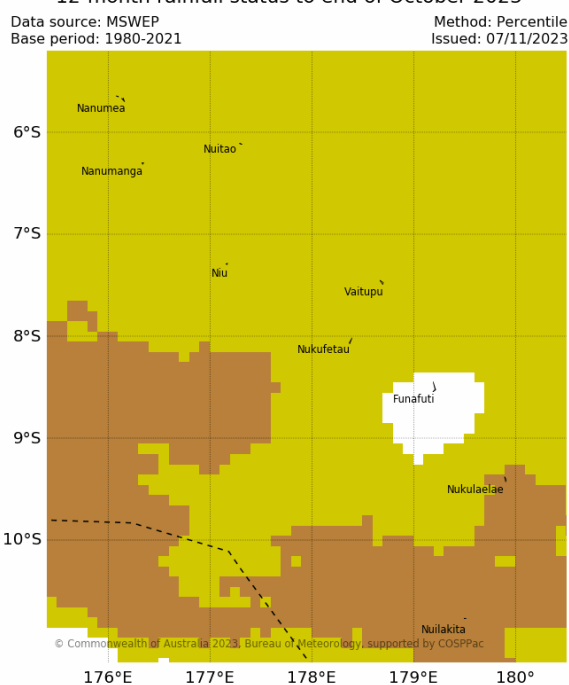
3-month rainfall status to end of October 2023



6-month rainfall status to end of October 2023



12-month rainfall status to end of October 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.

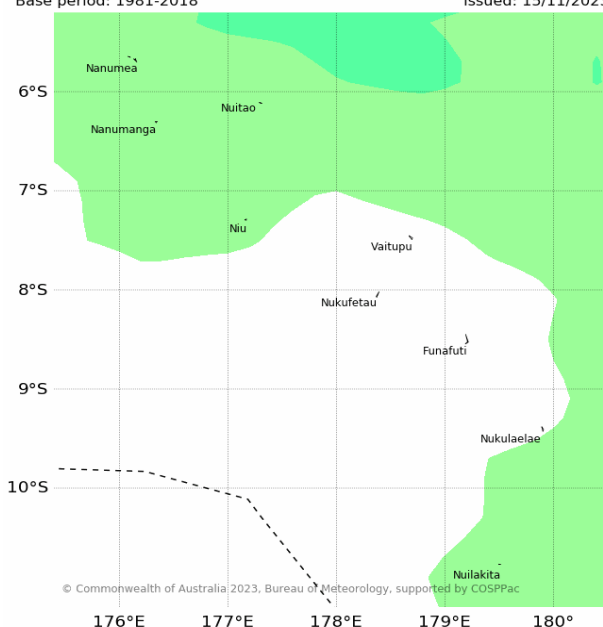
3 – months period is most relevant for pumpkin, groundwater and ponds. The following secondary social-economic and health impacts have been associated with drought at the 3-months period. Crimes increase e.g. water stealing, government offices close and national events postponed.

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.

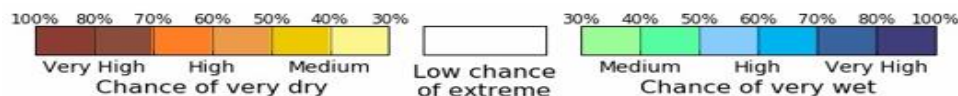
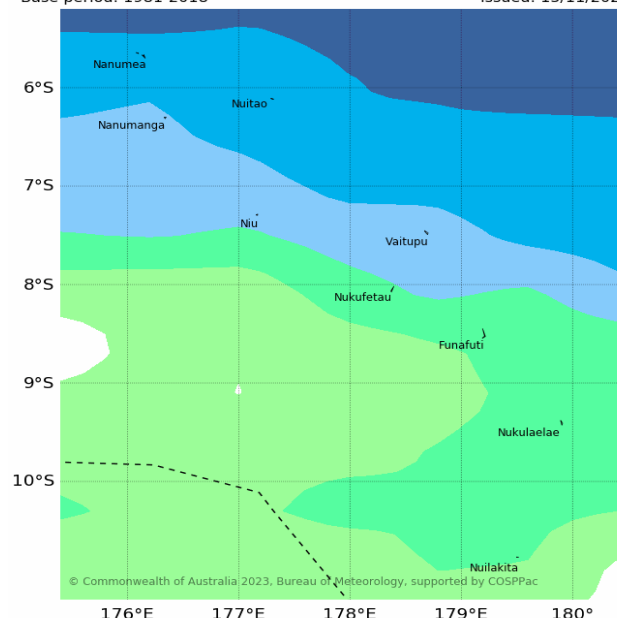
12- months period is most relevant for felo, dragon fruits, pandanus, coconuts and ofega.

Very dry/Wet Rainfall Outlooks for December, and Decemebtr 2023 to January 2024

Chance of extreme rainfall for December 2023
Data source: ACCESS-S2
Base period: 1981-2018
Model Run: 13/11/2023
Issued: 15/11/2023



ance of extreme rainfall for December 2023 to February 20
Data source: ACCESS-S2
Base period: 1981-2018
Model Run: 13/11/2023
Issued: 15/11/2023



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.

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, Environment, Labour, Meteorology and Disaster, Vaiaku, Funafuti, Tuvalu. Email: tauala.k@gmail.com, tuvalumet@gmail.com, tuvalumet@gov.tv
website: tuvmet.tv, Facebook:<Tuvalu Meteorological Service>