

Tuvalu Meteorological Service Early Action Rainfall Watch:



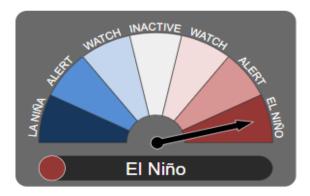
Purpose: The Early Action Rainfall Watch provides a summary of recent rainfall patterns, particularly the status of drought and the rainfall outlook for the coming months. The status and outlook will be revised on a monthly basis. Contact the Tuvalu Meteorological Service (TMS) for further information.

SUMMARY

"El Niño near its end"

- The ENSO Outlook continues El Niño, but it is weakening and near its end.
- Sea Surface Temperatures have been still warming and it is high chance to be cooling over the coming months.
- Atmospheric indicators are now mostly close to neutral ENSO levels.
- Climate Model Outlooks suggest a return to neutral ENSO later
- ENSO Outlooks will remain at El Nino status until this event decay or clear sign of a possible La Nina appear.

Issued: 26/04/2024



RAINFALL STATUS:

- For the month of March 2024, it was No Extreme over Nanumea, Nanumaga and Niutao. Very Dry existed at Nui, Vaitupu, Nukufetau and Funafuti. But Seriously Dry over Nukulaelae and Niulakita.
- Over January to May 2024 (3Months), No Extreme at Nanumea, Nanumaga, Niutao, Nui, Vaitupu, Nukufetau, Funafuti and Nukulaelae. Seriously Dry stretching over Niulakita.
- Over the past six months, October 2023 to January 2024, No Extreme most existed over Tuvalu, except Niulakita observed Seriously Dry.
- February 2023 to March 2024 (12months), it was No Extreme existed Nanumea, Nanumaga, Niutao, Nui, Vaitupu, and Funafuti, While Very Dry over Nukufetau, Nukulaelae and Niulakita.

Rainfall OUTLOOK:

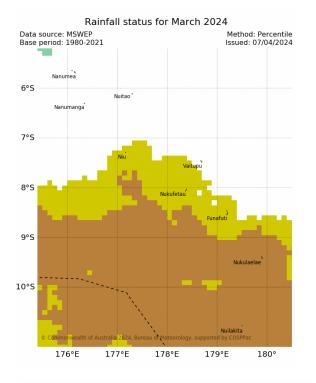
- Low Chance of Extreme conditions predicted for May 2024 at Nanumea and Niutao, but there is a medium chance of very wet expected at Nanumaga, Nui, Vaitupu, Nukufetau, Funafuti, Nukulaelae and Niulakita.
- May to July 2024, expected to be Low Chance of Extreme over Nanumea, and Niutao. High chance of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

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

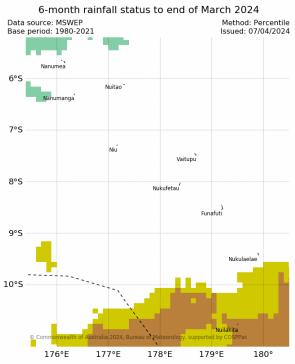
The table below provides information on rainfall received over specific periods in the last 12 months, whether a station is in drought or a very wet period (opposite of drought). If a station is in drought warning, this indicates an increased chances of drought in the coming months, especially when approaching the dry season. The time periods are associated with different drought impacts presented below the tables.

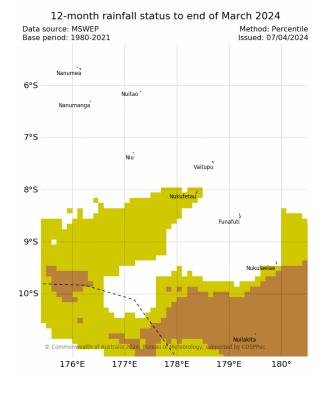
Past Rainfall Status					Very Dry/Wet Rainfall Outlook	
1-month March 2024	3-months January 2023 to March 2024	6-months October 2023 to March 2024	12-months February 2023 to March 2024	Tuvalu Islands	May 2024 Chance of extreme	May to July 2024 Chance of extreme
No Extreme	No Extreme	No Extreme	No Extreme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

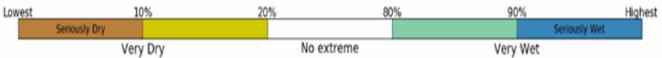
ACCESS-S Rainfall Summary for March, 2024.



3-month rainfall status to end of March 2024 Data source: MSWEP Base period: 1980-2021 Method: Percentile Issued: 07/04/2024 Nanumea 6°S Nuitao Nanumanga 7°S Niu Vaitupu 8°S Nukufetau , Funafuti 9°S Nukulaelae 10°S © Cor monwealth of Australia 20 177°E 178°E 180° 176°E 179°E







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.

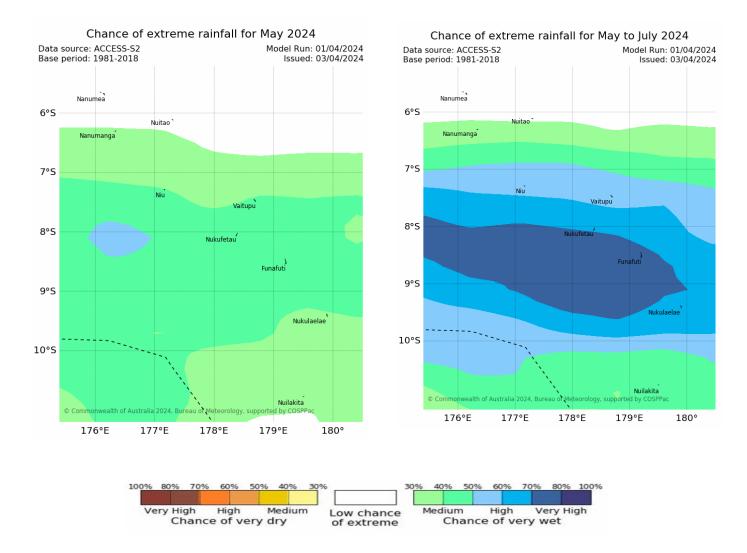
2 – **months** period is most relevant for bottle gourd,pawpaw, banana, chicken, pigs and community cisterns. The following secondary social-economic and health impacts have been associated with drought at the 2-months period. Community gatherings stop, increased in community disputes over water and limited or no employment.

3 – **months** period is most relevant for pumpkin, groundwater and ponds. The following secondary socialeconomic 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 heath 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 May, and May to July 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, and season, "Seriously Wet" = rainfall in the highest 10% for that location and season, "Seriously Wet" = rainfall in the highest 10% for that location and season, "Seriously Wet" = rainfall in the highest 10% for that location and season, "Seriously Wet" = rainfall in the highest 10% for that location and season, "Seriously Wet" = rainfall in the highest 10% 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: <u>tauala.k@gmail.com, tuvalumet@gmail.com</u>, <u>tuvalumet@gov.tv</u> website: tuvmet.tv, Facebook:<Tuvalu Meteorological Service>