



# 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

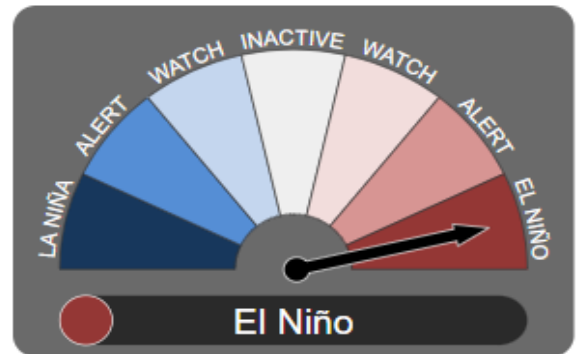
**Issued: 26/03/2024**

### **“Moderate El Niño remains in the central tropical Pacific “**

El Niño event remains in the central tropical Pacific oceans and it persists, although El Niño predicted to weaken in the coming months.

Climate models indicate sea surface temperatures in the central tropical Pacific are expected to continue declining and forecast to return to ENSO-Neutral in June 2024

Moderate to Strong Madden Julian Oscillation (MJO) is forecast to move into the Maritime Continent in the coming days and progress eastwards over the coming fortnight into the western Pacific.



## RAINFALL STATUS:

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

## Rainfall OUTLOOK:

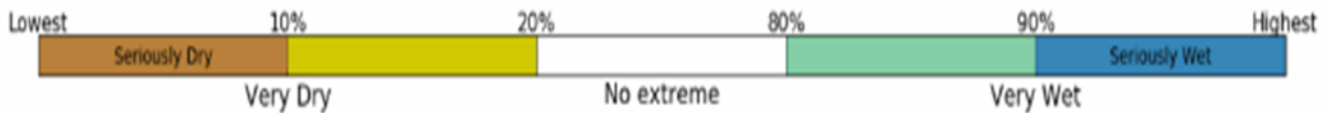
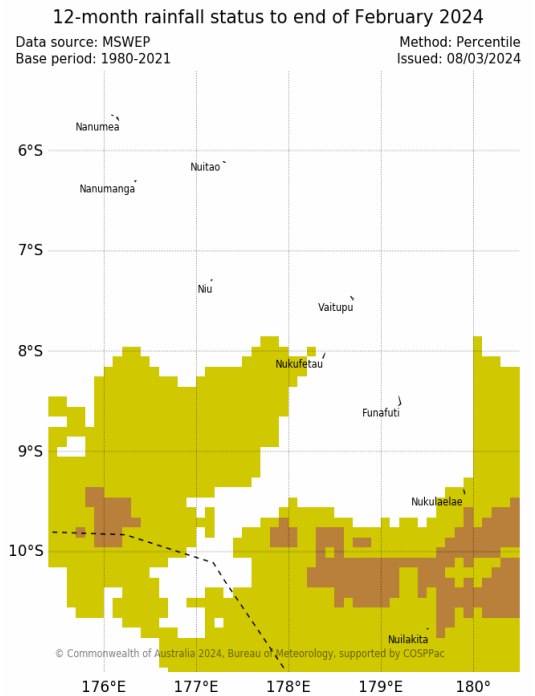
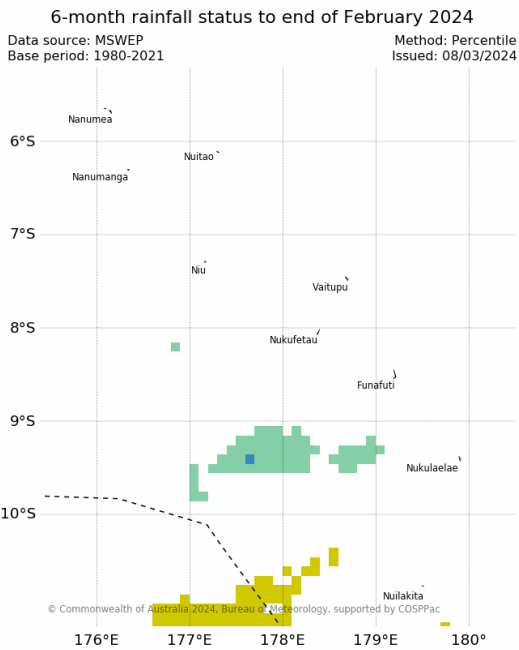
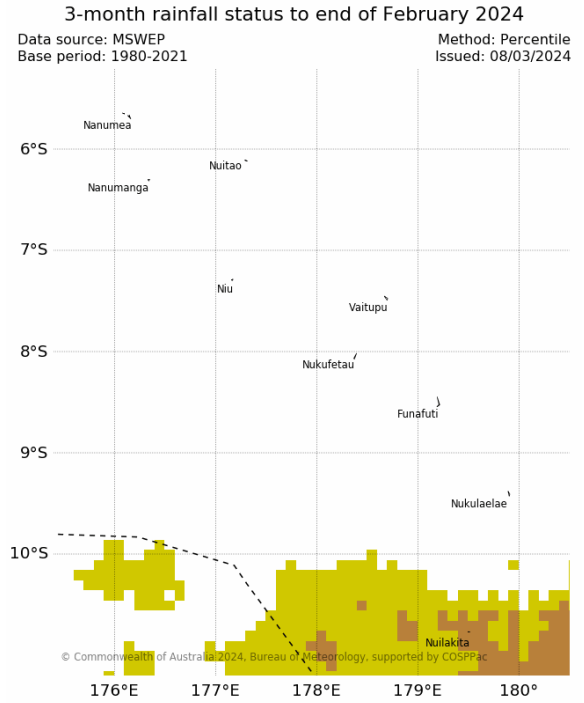
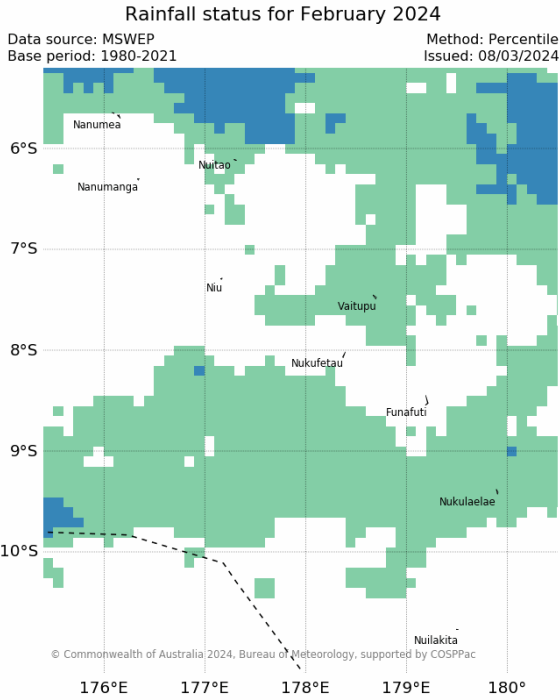
- **High chance of very wet** conditions predicted for April 2024 at Nanumea, and there is a medium chance of very wet expected at Nanumaga, Niutao, Nui, Vaitupu, Nukufetau, Funafuti, Nukulaelae and Niulakita.
- April to June 2024, expected to be **Medium Chance of very wet** over Nanumea, Niutao, Vaitupu, Nukulaelae and Niulakita. **High chance of very wet** stretching over Nanumaga, Nui, 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 February 2024	3-months December 2023 to February 2024	6-months September to February 2023	12-months January 2023 to February 2024		Tuvalu Islands	April 2024 Chance of extreme	April to June 2024 Chance of extreme
Ver Wet	No Extreme	No Extreme	No Extreme		<b>Nanumea</b>	High chance of very wet	Medium Chance of Very Wet
No Extreme	No Extreme	No Extreme	No Extreme		<b>Nanumaga</b>	Medium Chance of very wet	High Chance of very wet
Very Wet	No Extreme	No Extreme	No Extreme		<b>Niutao</b>	Medium Chance of Very Wet	Medium Chance of Very Wet
No Extreme	No Extreme	No Extreme	No Extreme		<b>Nui</b>	Medium Chance of Very Wet	High Chance of Very Wet
Very Wet	No Extreme	No Extreme	No Extreme		<b>Vaitupu</b>	Medium Chance of Very Wet	Medium Chance of Very Wet
No Extreme	No Extreme	No Extreme	No Extreme		<b>Nukufetau</b>	Medium Chance Very Wet	High Chance of Very Wet
No Extreme	No Extreme	No Extreme	No Extreme		<b>Funafuti</b>	Medium Chance of Very Wet	High Chance of Very Wet
Very Wet	No Extreme	No Extreme	Very Dry		<b>Nukulaelae</b>	Medium chance of Very Wet	Medium Chance of Very Wet
No Extreme	Seriously Dry	No Extreme	Very Dry		<b>Niulakita</b>	Medium Chance of Very Wet	Medium Chance of Very et

# ACCESS-S Rainfall Summary for February, 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.

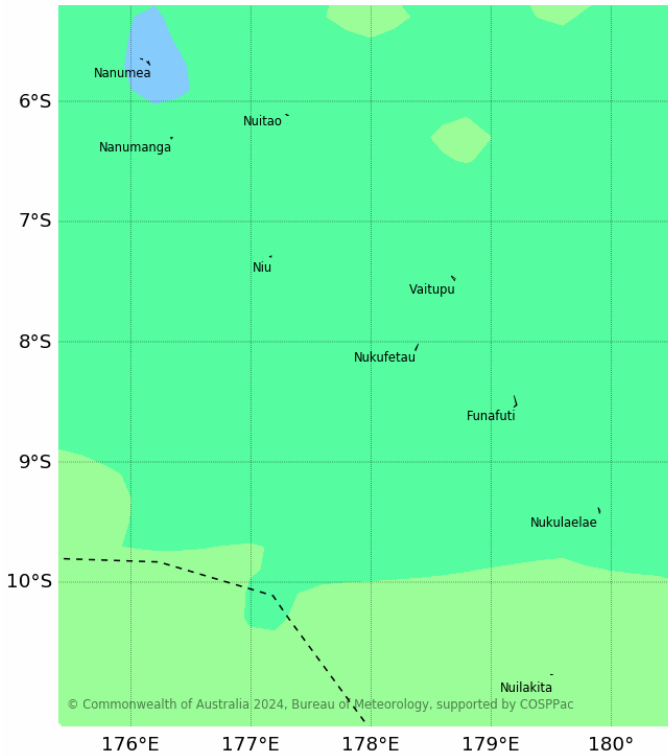
**6 – months** period is most relevant for large trees (e.g. breadfruits, pulaka, taro). The following secondary social-economic and health impacts have been associated with drought at the 6-months periods.Meteorological balloon flights stop, interislands shipping delays, entry of visitors to Tuvalu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

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

# Very dry/Wet Rainfall Outlooks for April, and April to June 2024

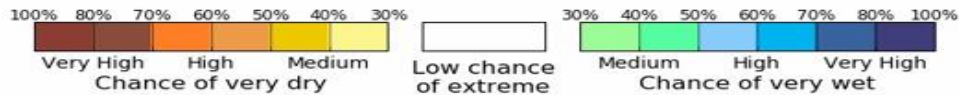
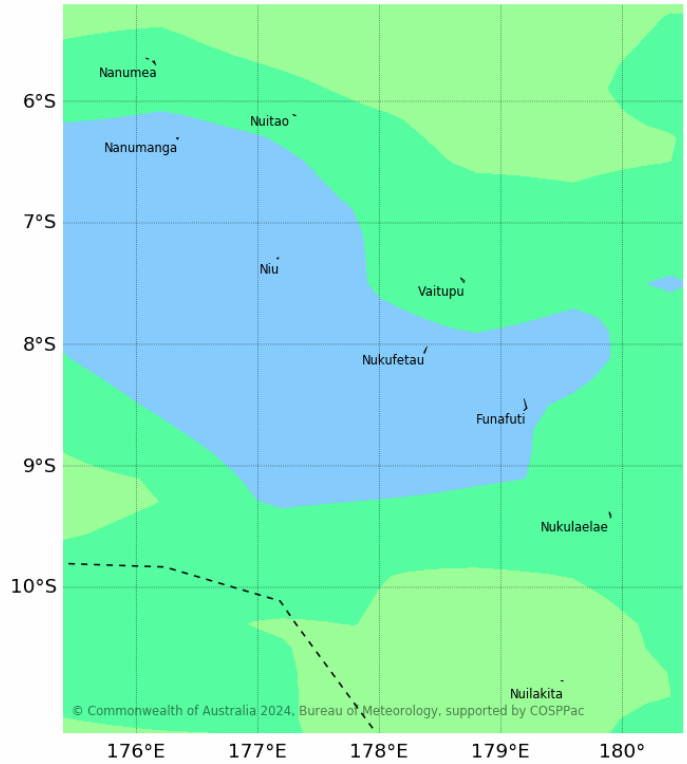
Chance of extreme rainfall for April 2024

Data source: ACCESS-S2  
Base period: 1981-2018  
Model Run: 13/02/2024  
Issued: 20/02/2024



Chance of extreme rainfall for April to June 2024

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## 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:

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