



Tuvalu Meteorological Service Early Action Rainfall Watch:



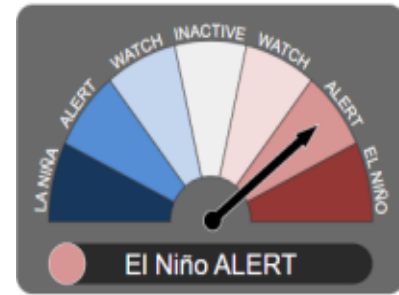
Purpose: The Early Action Rainfall Watch provides a summary of recent rainfall patterns, particularly the status of drought and the rainfall outlook for the coming months. The status and outlook will be revised on a monthly basis. Contact the Tuvalu Meteorological Service (TMS) for further information.

Issued: 26/09/2023

SUMMARY:

“El Niño Alert Continues”

- The Bureau’s El Niño Alert continues, with El Niño development likely during the months of Southern Spring (September, October and November). When El Niño Alert criteria have been met in the past, an El Niño event has developed around 70% of the time.
- Sea surface temperatures (SSTs) in the tropical Pacific are exceeding El Niño thresholds, with climate models indicating this is likely to continue at least through to early 2024.
- The chance of an El Nino developing in the coming season has increased.



RAINFALL STATUS: For the month of August 2023, it was a **Very Dry** in Nanumea, Nanumaga, Nui, Vaitupu, Nukufetau, Funafuti and Nukulaelae. **No Extreme** at Niutao and Niulakita.

Over June to August (3Months), it was **Very dry** at Nanumea, Nanumaga, Vaitupu, Nukufetau, Funafuti Nukulaelae and Niulakita. **No alert** in Niutao, and Seriously dry existed at Nui.

Over the past six months, March 2022 to August 2023, it was a **Very Dry** at Nanumea, Nanumaga, Niutao and Nui. **Seriously Dry** existed at Vaitupu, Nukufetau, Funafuti, Nukulaelae and Niulakita.

September 2022 to August 2023 (12months), it was **Very dry** existed Nanumea, Niutao, and Funafuti.

Seriously dry stretching over Nanumaga, Nui, Vaitupu, Nukufetau, Nukulaelae and Niulakita.

Rainfall OUTLOOK: There is a **Medium** chance of very wet conditions in October 2023 over the whole group of Tuvalu.

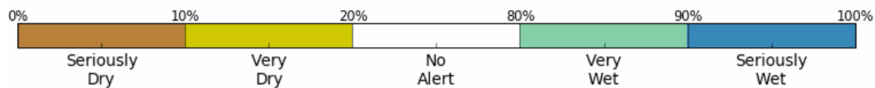
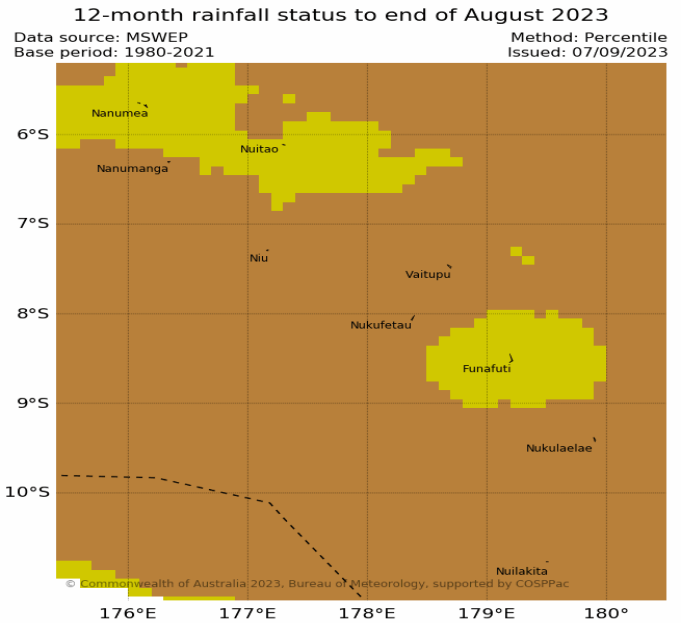
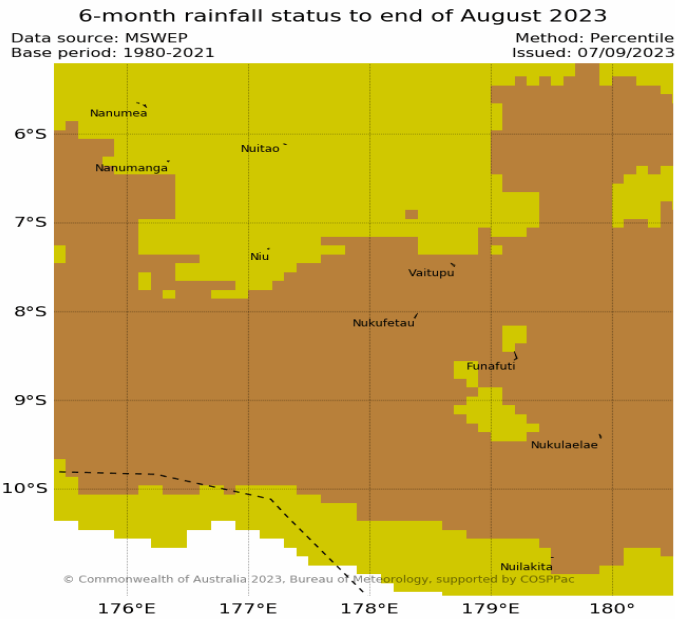
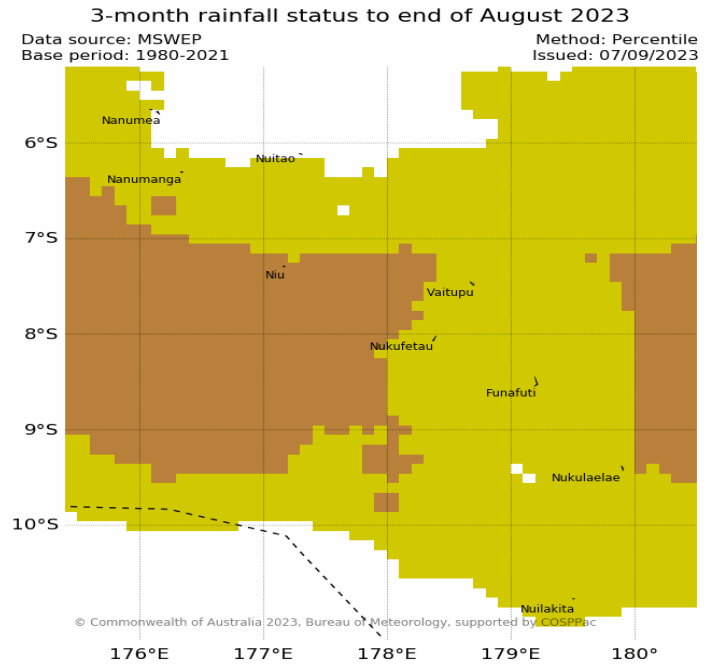
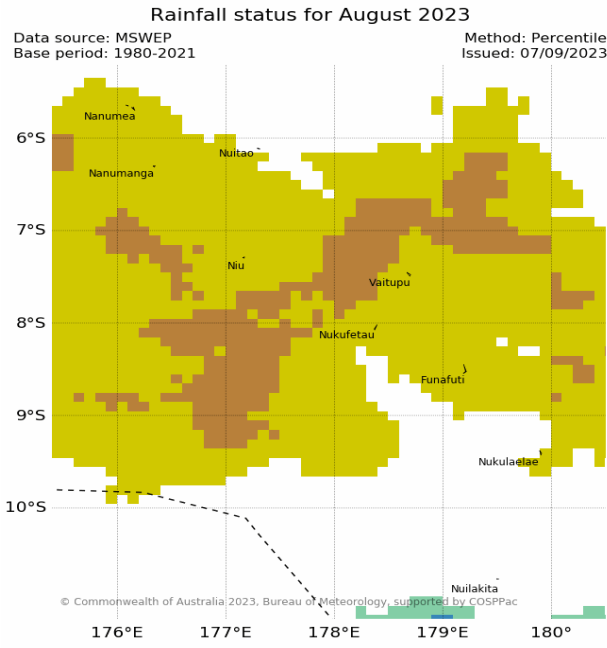
There is a **Very High** chance of very wet conditions over the next three months (October to December 2023) at Nanumea, and Nanumaga. **High** chance of very wet in Niutao, and Nui, and **Medium** chance of very wet rainfall in Vaitupu, Nukufetau, Funafuti, Nukulaelae and Niulakita.

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 August 2023	3-months June to August 2023	6-months March to August 2023	12-months September 2022 to August 2023		October 2023 Chance of extreme	October 2023 to December 2023 Chance of extreme
Very Dry	Very Dry	Very Dry	Very Dry	Tuvalu Islands	Medium Chance of very wet	Very High Chance of very wet
Very Dry	Very Dry	Very Dry	Seriously Dry	Nanumaga	Medium Chance of very wet	Very High Chance of very wet
No Extreme	No Extreme	Very Dry	Very Dry	Niutao	Medium Chance of very wet	High Chance of very wet
Very Dry	Seriously Dry	Very Dry	Seriously Dry	Nui	Medium Chance of very wet	High Chance of very wet
Very Dry	Very Dry	Seriously Dry	Seriously Dry	Vaitupu	Medium Chance of very wet	Medium Chance of very wet
Very Dry	Very Dry	Seriously Dry	Seriously Dry	Nukufetau	Medium Chance of very wet	Medium Chance of very wet
Very Dry	Very Dry	Seriously Dry	Very Dry	Funafuti	Medium Chance of very wet	Medium Chance of very wet
Very Dry	Very Dry	Seriously Dry	Seriously Dry	Nukulaelae	Medium Chance of very wet	Medium Chance of very wet
No Extreme	Very Dry	Seriously Dry	Seriously Dry	Niulakita	Medium Chance of very wet	Medium Chance of very wet

ACCESS-S Rainfall Summary for August, 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.

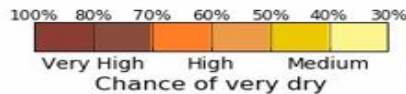
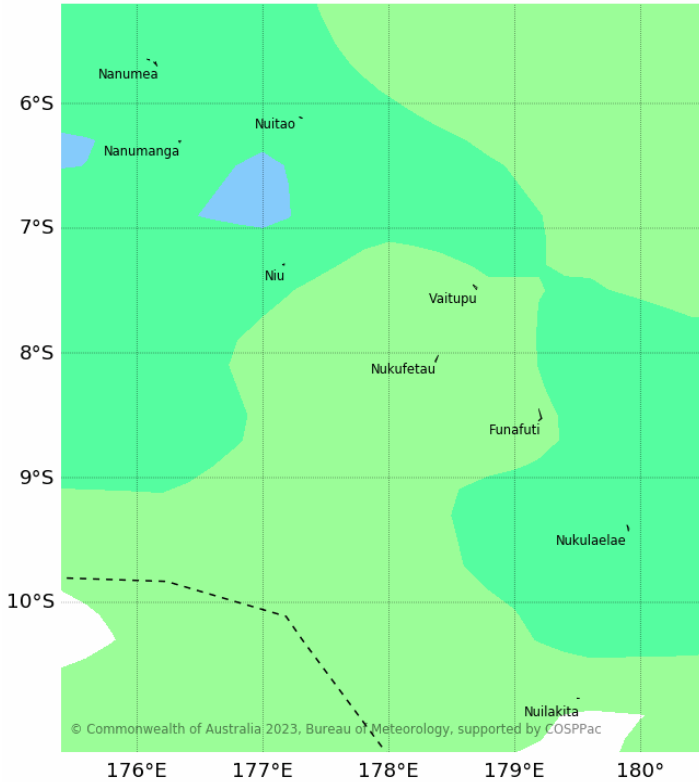
12- months period is most relevant for felo, dragon fruits, pandanus, coconuts and ofega.

Very dry/Wet Rainfall Outlooks for October, and October to December 2023

Chance of extreme rainfall for October 2023

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

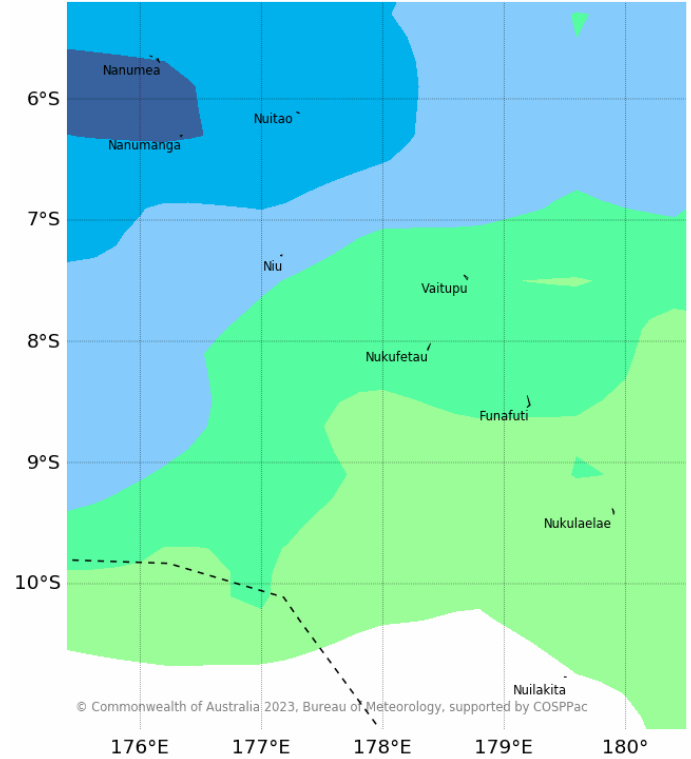
Model Run: 13/09/2023
Issued: 15/09/2023



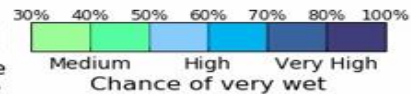
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Outlook Status

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 are 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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