

Island Climate Update



Earth Sciences
New Zealand

ENSO Watch
August 2026

Recent



El Niño has now been officially declared, and it is strengthening rapidly in the tropical Pacific Ocean.

The Southern Oscillation Index (SOI) was well into the El Niño range (-1.5) from April-June 2026.

Tropical Pacific Ocean sea surface temperatures (SSTs) are well into El Niño range and continue to strengthen.

100% chance for **El Niño** to continue during August-October 2026

Chance for **El Niño** conditions during September-November 2026

100%



Forecast

ENSO situation summary

El Niño has now been officially declared, and it is strengthening rapidly in the tropical Pacific Ocean. There is a 100% chance that El Niño will continue during August-October, and a 100% chance that El Niño will continue through the rest of 2026. This El Niño is expected to be one of the strongest El Niños on record, if not the strongest.

As of 12 July 2026, the 30-day NINO3.4 Index (in the central equatorial Pacific) was 1.82°C, well into El Niño range. The 30-day relative Niño 3.4 Index (RONI) was 1.27°C, in El Niño range and reflective of the central equatorial Pacific being warmer than the average of the global tropics.

The Southern Oscillation Index (SOI) was well into El Niño range during April-June 2026 (-1.5), while the June value was -2.3 (strong El Niño range).

Subsurface ocean temperatures in the equatorial Pacific continue to be above average or well above average everywhere across the basin, and upper-ocean heat content anomalies are well above average in the tropical eastern Pacific.

Extremely warm water is located in the eastern equatorial Pacific between depths of about 50-100 metres, where temperature anomalies of 5-7°C are widespread. This indicates that a strong El Niño is now occurring, and further strengthening is expected in the coming months.

During August-October, model guidance favours above normal or well above normal rainfall across eastern Micronesia and island groups along the equator. This may result in enhanced rainfall for island groups such as Federated States of Micronesia, the Marshall Islands, Nauru, and most of Kiribati, Tuvalu, and Tokelau.

Conversely, drier than normal or much drier than normal conditions are likely to occur for many island groups in a large arc from Palau and Papua New Guinea southeast to Vanuatu and New Caledonia, and from Fiji east to the Marquesas. Many of these island groups will also have a high chance to be extremely dry during August-October (i.e. to receive less than 25% of their normal rainfall). See pages 6-7 for more information.

Island Climate Update

Rainfall Watch



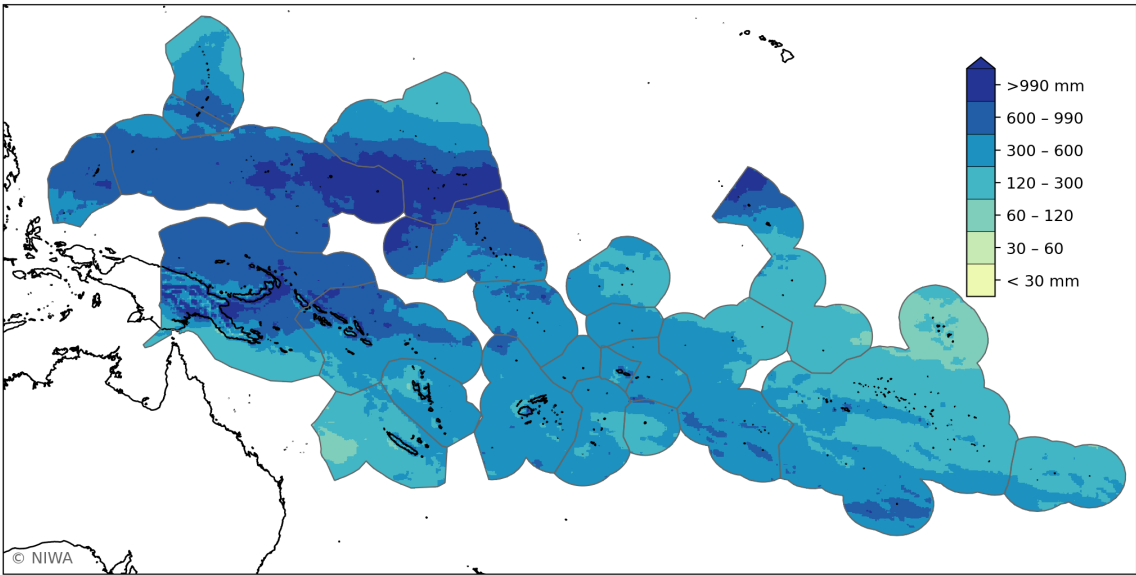
Regional situation summary (11 July 2026)

Rainfall summaries for the last month and three months are shown below.

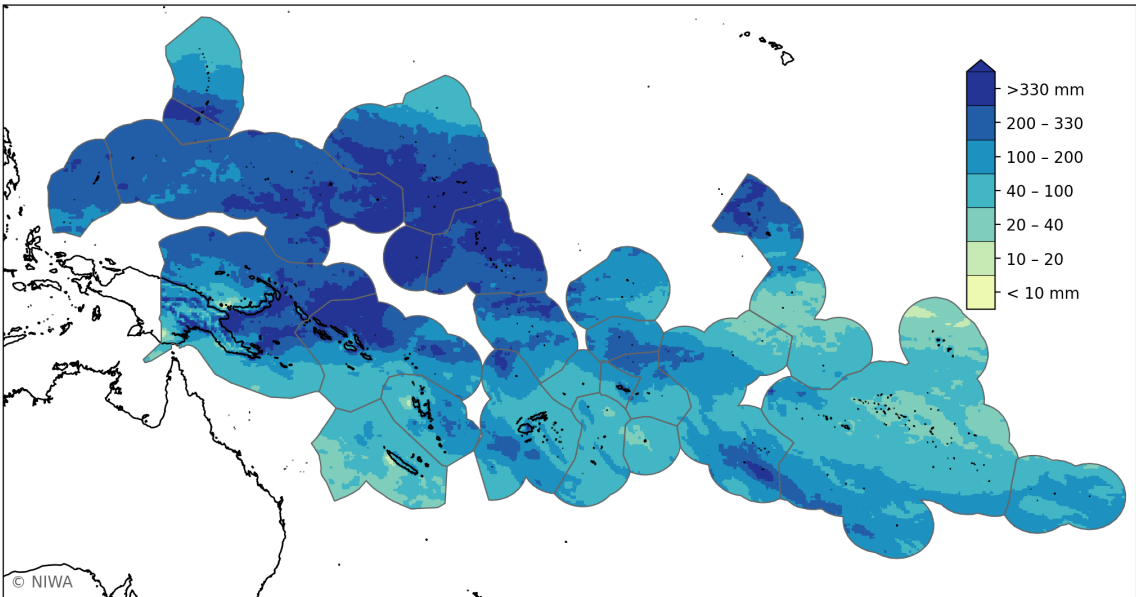
During the 90 days ending 11 July (top plot), over 990 mm of rain fell across the eastern Federated States of Micronesia (FSM) and southern Marshall Islands. Less than 60 mm of rain was not observed in any island groups.

During the 30 days ending 11 July (bottom plot), over 330 mm of rain fell across Guam, parts of the Northern Marianas, eastern FSM, southern Marshall Islands, northern Solomon Islands, Nauru, and Kiribati (Gilbert Islands). Less than 40 mm of rain fell in Niue, parts of the Tuamotu Archipelago, and parts of the Marquesas.

Cumulative rainfall (mm), source: MSWEP 2.8.0
90 days to 11 Jul 2026



Cumulative rainfall (mm), source: MSWEP 2.8.0
30 days to 11 Jul 2026



Island Climate Update

Water Stress Watch



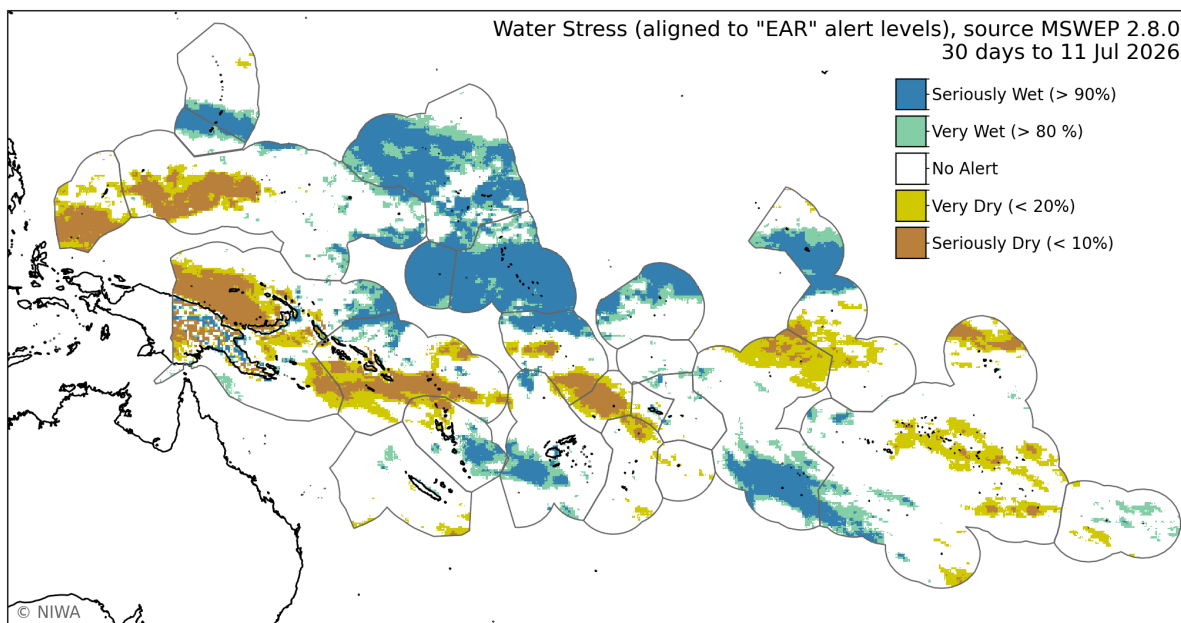
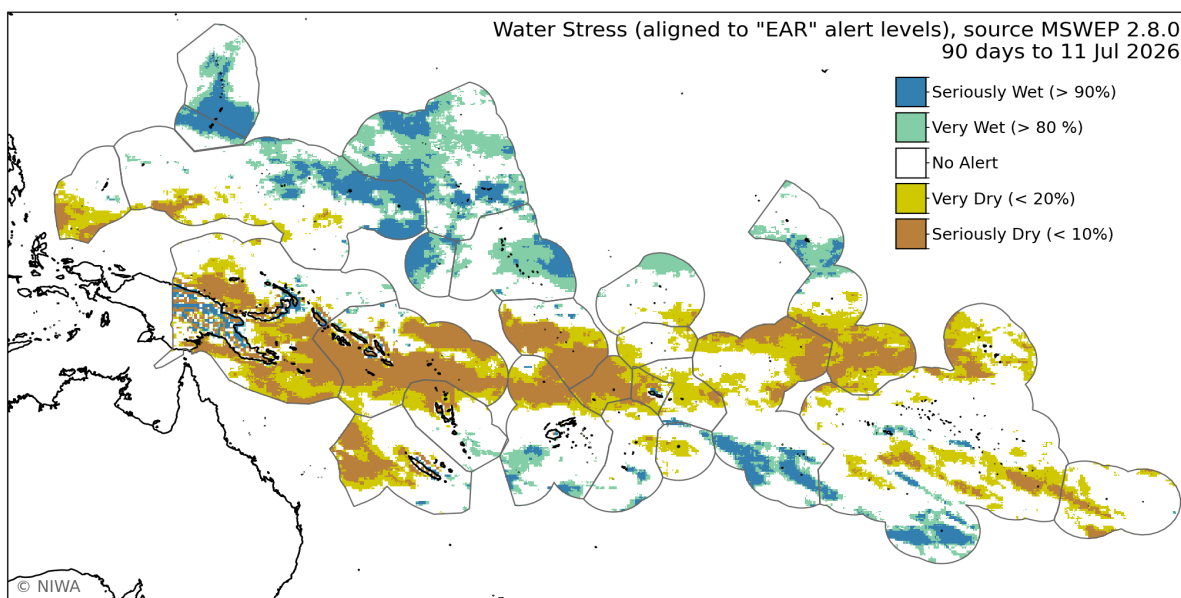
Earth Sciences
New Zealand

EAR regional situation summary (11 July 2026)

Cumulative rainfall categories aligned to the Early Action Rainfall (EAR) Watch over the last 90 and 30 days are shown in the plots below.

During the 90 days ending 11 July (top plot), seriously dry or very dry conditions affected southern Palau, much of Papua New Guinea (PNG), the Solomon Islands, northern Vanuatu, New Caledonia, northern Fiji, northern Tonga, Niue, Tuvalu, Wallis and Futuna, Samoa, American Samoa, northern Cook Islands, as well as parts of the Austral Islands, southern Tuamotu Archipelago, Marquesas, and western Pitcairn Islands.

During the 30 days ending 11 July (bottom plot), seriously dry or very dry conditions affected southern Palau, western FSM, parts of PNG and the Solomon Islands, northern Vanuatu, northern Tonga, Wallis and Futuna, parts of Tuvalu, parts of the northern Cook Islands, and parts of the Tuamotu Archipelago.



Island Climate Update

Water Stress Watch



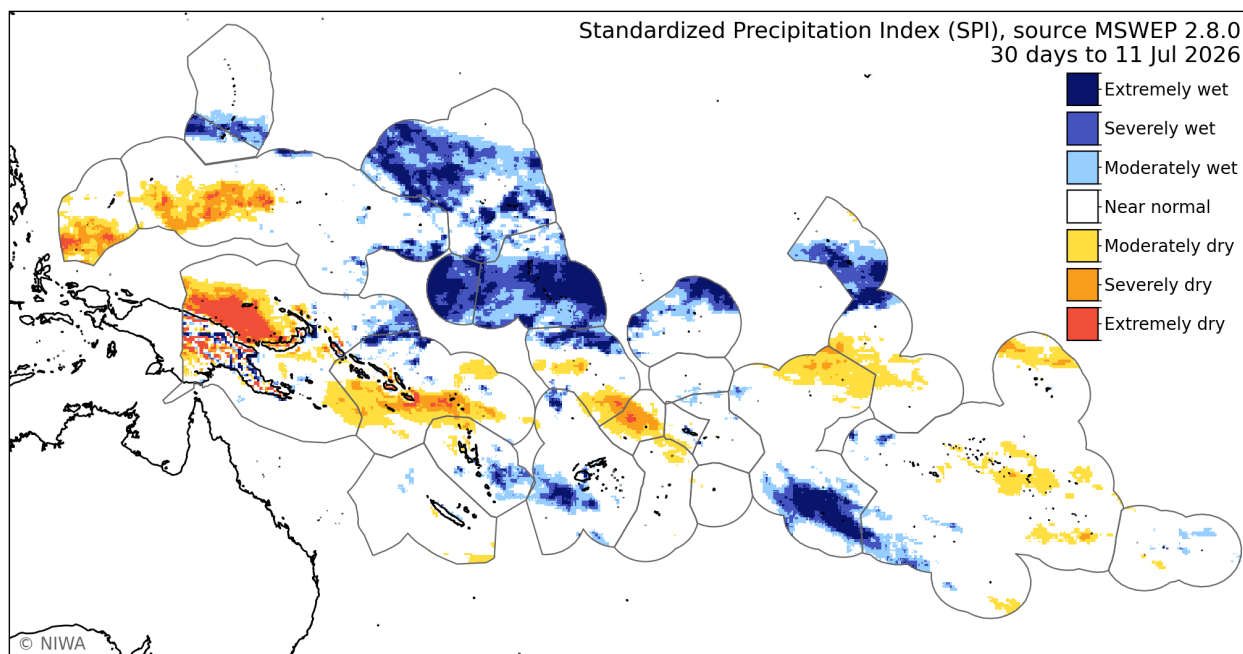
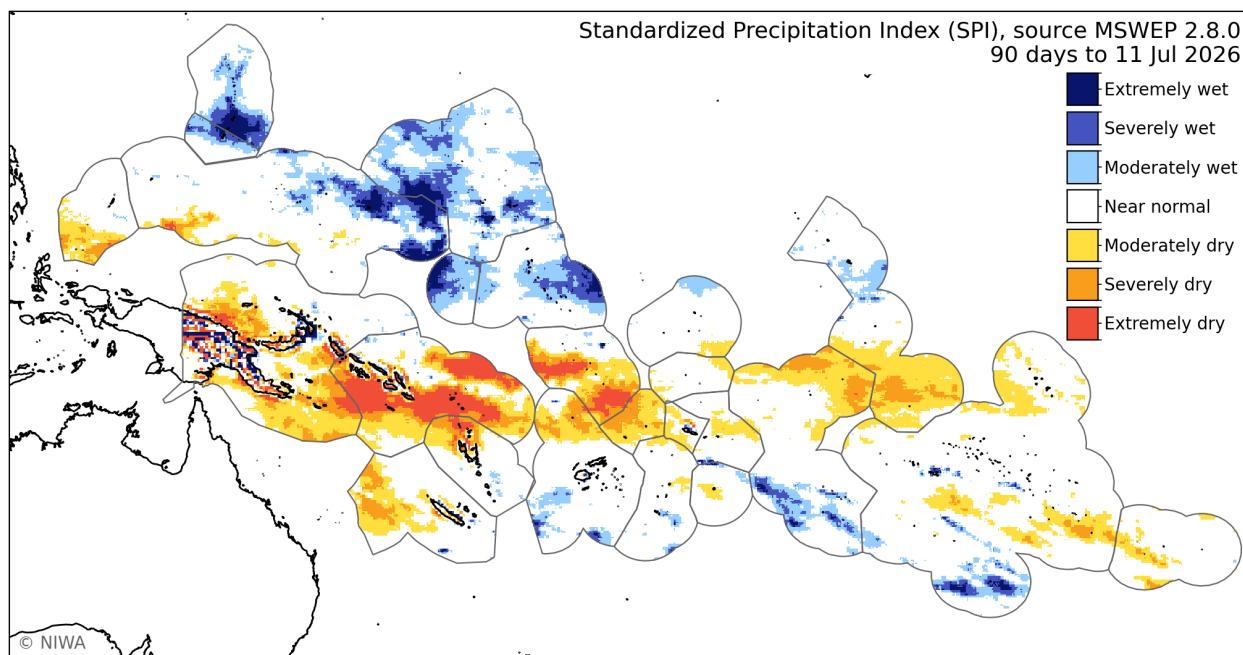
Earth Sciences
New Zealand

SPI Regional situation summary (11 July 2026)

The Standardized Precipitation Index (SPI) categories for cumulative rainfall over the last 90 and 30 days are shown in the plots below.

During the 90 days ending 11 July (top plot), extremely dry or severely dry conditions occurred in parts of PNG, the Solomon Islands, northern Vanuatu, northern Fiji, and parts of Tuvalu.

During the 30 days ending 11 July (bottom plot), extremely dry or severely dry conditions occurred in southern Palau, western FSM, parts of PNG and the Solomon Islands, and parts of Wallis and Futuna.



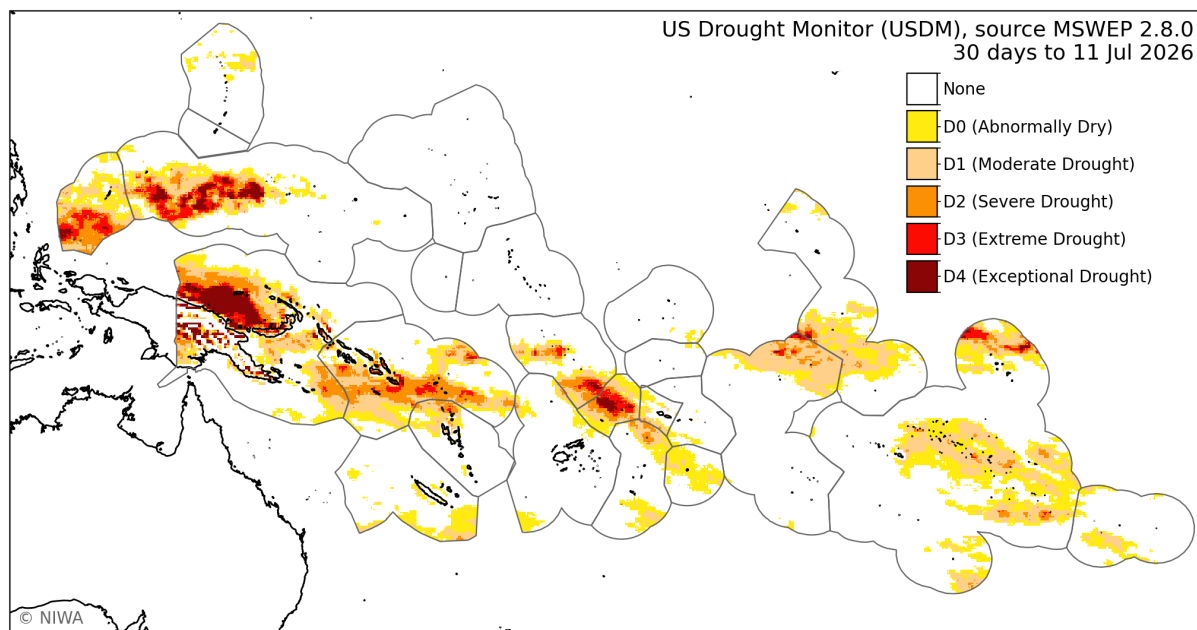
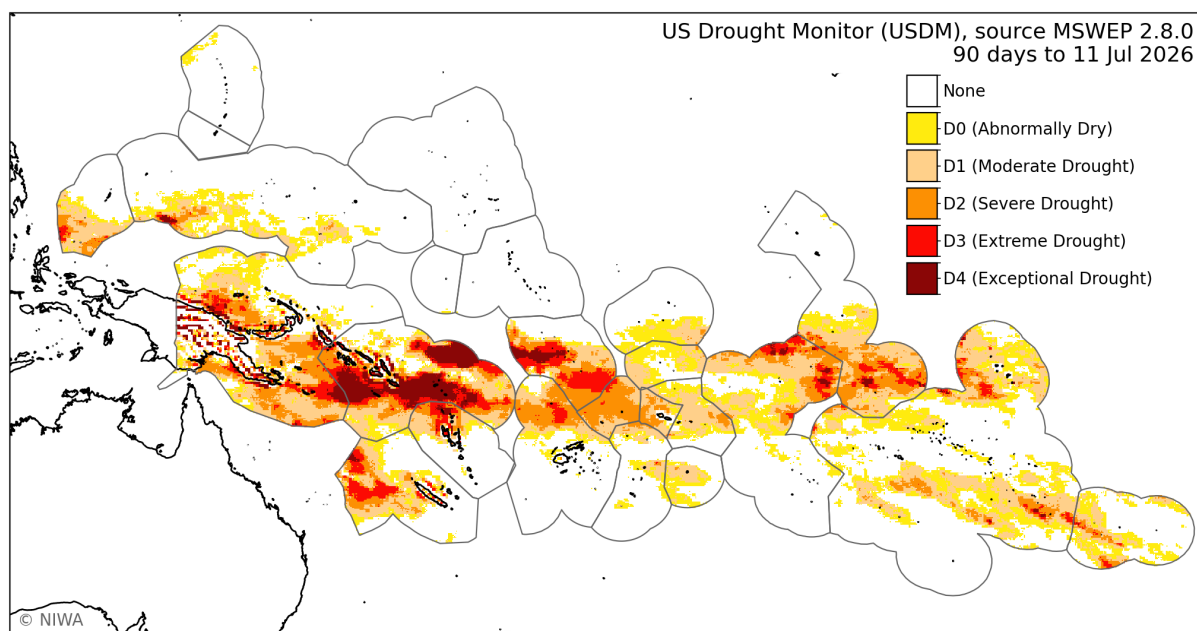


USDM Regional situation summary (11 July 2026)

The US Drought Monitor Index (USDM) categories for cumulative rainfall over the last 90 and 30 days are shown in the plots below.

During the 90 days ending 11 July (top plot), extreme or exceptional drought occurred in parts of PNG and the Solomon Islands, northern Vanuatu, parts of New Caledonia, northern Fiji, and Tuvalu.

During the 30 days ending 11 July (bottom plot), extreme or exceptional drought occurred in southern Palau, western FSM, parts of PNG and the Solomon Islands, northern Vanuatu, southern Tuvalu, and Wallis and Futuna.



Island Climate Update

Water Stress Outlook



Earth Sciences
New Zealand

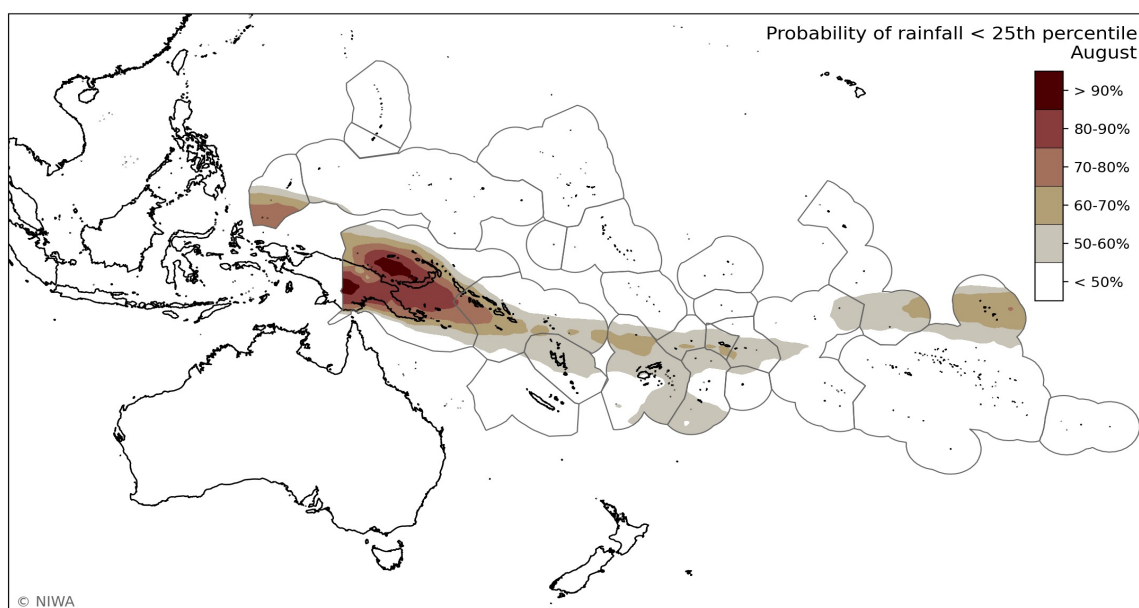
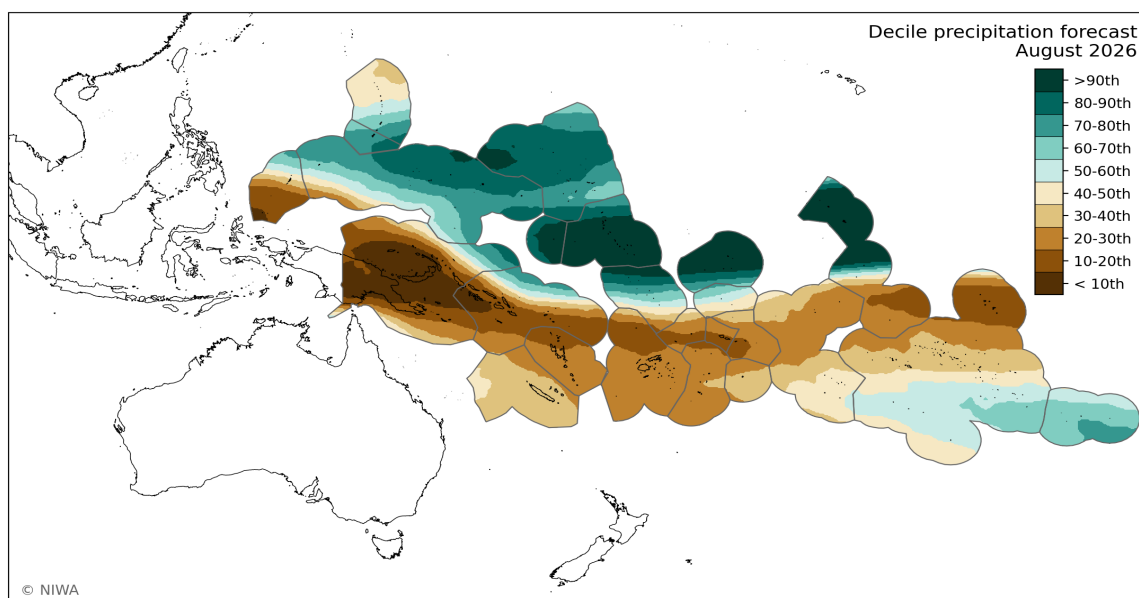
August 2026 forecast & probabilities of rainfall < 25th percentile

During August, significantly below normal rainfall is favoured in Palau, PNG, the Solomon Islands, New Caledonia, Vanuatu, Fiji, Tonga, Niue, Wallis and Futuna, southern Tuvalu, Samoa, American Samoa, northern Cook Islands, Society Islands, much of the Tuamotu Archipelago, and Marquesas.

Significantly above normal rainfall is favoured in Guam, the Northern Marianas, FSM, the Marshall Islands, Nauru, Kiribati (Gilbert, Phoenix, and northern Line Islands), and the Pitcairn Islands.

All other island groups are expected to see near normal rainfall amounts during August.

During August, the highest chances for very dry conditions are located in southern Palau, PNG, the Solomon Islands, northern Vanuatu, Fiji, parts of Tonga, Wallis and Futuna, Samoa, American Samoa, a portion of the northern Cook Islands, and Marquesas.





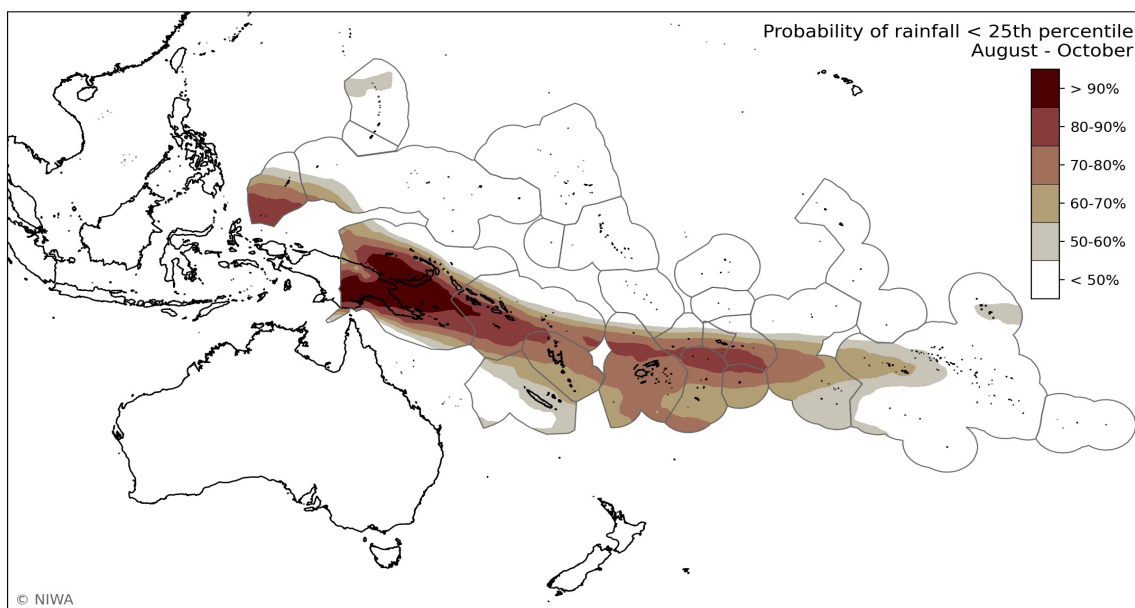
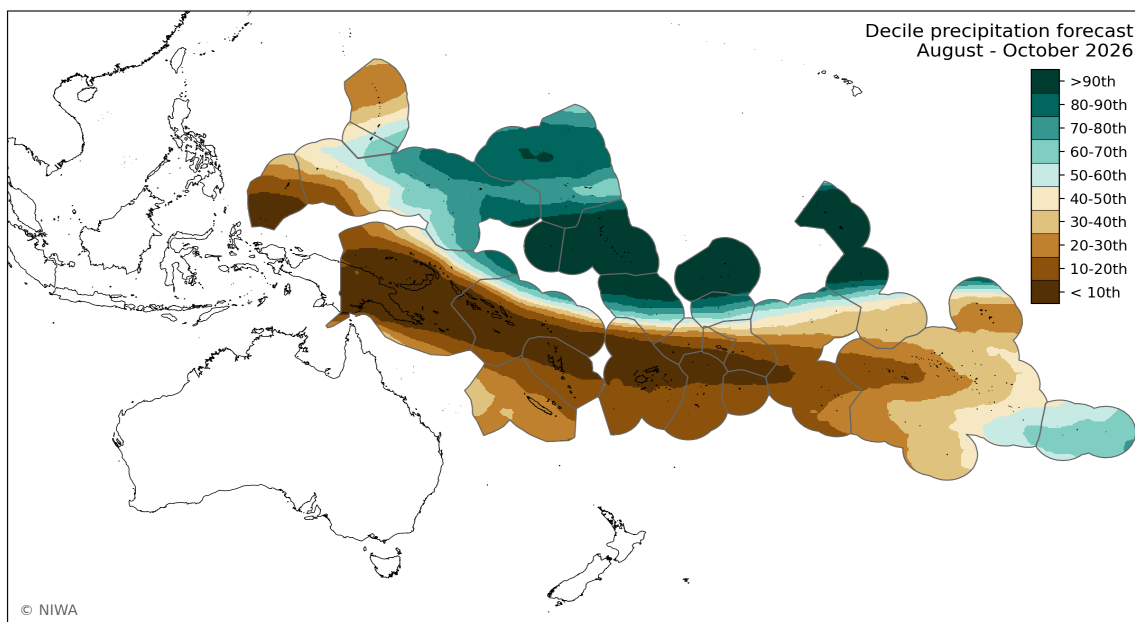
Aug-Oct 2026 forecast & probabilities of rainfall < 25th percentile

During August-October, significantly below normal rainfall is favoured in Palau, western FSM, PNG, Solomon Islands, New Caledonia, Vanuatu, Fiji, Wallis and Futuna, Tonga, Niue, southern Tuvalu, Samoa, American Samoa, northern and southern Cook Islands, Austral Islands, Society Islands, much of the Tuamotu Archipelago, and Marquesas.

Significantly above normal rainfall is favoured in eastern FSM, Marshall Islands, Nauru, Kiribati (Gilbert, Phoenix, and northern Line Islands), northern Tuvalu, Tokelau, and Pitcairn Islands.

All other island groups are expected to see near normal rainfall amounts during August-October.

During August-October, the highest chances for very dry conditions are located in Palau, PNG, Solomon Islands, New Caledonia, Vanuatu, Fiji, Wallis and Futuna, Tonga, Niue, Samoa, American Samoa, southern Cook Islands, Society Islands, and Marquesas.



Island Climate Update



Earth Sciences
New Zealand

About

Understanding the Island Climate Update bulletin

The ICU utilises rainfall data from the [Multi-Source Weighted-Ensemble Precipitation](#) (MSWEP) and a multi-model ensemble forecast utilising 550+ members derived from ten global climate models available from the [Copernicus Data Store](#).

Bulletin page	Description
Rainfall watch	Rainfall plots are derived from MSWEP data. Regional rainfall accumulation is shown for the last 30 days (1 month) and 90 days (3 months).
Water stress watch	Plots are derived from MSWEP data. Different Pacific Island Meteorological Services use different approaches to defining drought and water stress. Current regional water stress classifications are shown for the Early Action Rainfall (Page 3), Standard Precipitation Index (Page 4), and US Drought Monitoring (Page 5) alert levels for the last 90 and 30 days of accumulated rainfall.
Water stress outlook	Outlook water stress classifications are based on both realtime rainfall data and a multi-model ensemble forecast derived from ten global climate models for the next month and three months. The top plots on each page show the rainfall decile band for the next 1 and 3 months for which the cumulative probability derived from the multi-model ensemble forecasts reaches 50%. The bottom plots bring together conditions over the past 3 months and forecast conditions over the next month: • Current water stress conditions potentially easing: Past 3 month accumulation less than 25th percentile. 1 month / seasonal accumulation forecast greater than 25th percentile. • Areas moving into water stress: Past 3 month accumulation between the 40th and 25th percentile. 1 month / seasonal accumulation forecast less than 25th percentile. • Current water stress conditions persisting: Past 3 month accumulation less than 25th percentile. 1 month / seasonal accumulation forecast less than 25th percentile. The final page shows the probability that forecast rainfall over the next 1 or 3 months is within the lowest 25% of cumulative rainfall over the same period (a measure of the confidence in a low rainfall forecast).
Online Resources	Additional regional and country-level resources are available online: • Daily updated plots for 30, 60, 90, 180 and 365 day: accumulative rainfall, number of dry days, number of days since last rainfall > 1 mm, EAR, SPI and USDM indices. • A range of probabilistic one to five monthly and seasonal forecast plots updated around the 11th of each month. • Click here for the imagery and here for the underlying forecast data [forecast].



Earth Sciences New Zealand is the Network co-lead for the [WMO RA V Regional Climate Centre Node](#) on Long Range Forecast and consortium member for nodes on Climate Monitoring, Operational Data Services, and Training.

Development and production of the ICU is supported by Earth Sciences New Zealand Strategic Science Investment Funding under contract PRAS2401.

The Island Climate Update bulletin and associated video and products are prepared before the end of each month. Delays in data availability occasionally arise. While every effort is made to verify the data, Earth Sciences New Zealand does not guarantee the accuracy and reliability of the analysis and forecast information presented and accepts no liability for any losses incurred through the use of this bulletin and its contents.

The contents of this bulletin and all associated products produced by the Island Climate Update may be freely disseminated provided the source is acknowledged.

Contact

islandclimateupdate@comms.niwa.co.nz

<https://niwa.co.nz/climate/island-climate-update>

<https://www.facebook.com/IslandClimateUpdate>

https://twitter.com/ICU_NIWA