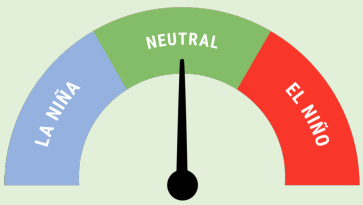
Island Climate Update

Earth Sciences New Zealand

ENSO Watch

July 2026

Recent



ENSO-neutral

ENSO-neutral conditions remain in place in the tropical Pacific Ocean, but El Niño will be officially declared very soon by Earth Sciences New Zealand.

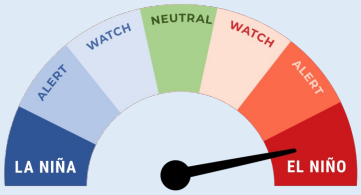
The Southern Oscillation Index (SOI) was on the El Niño side of neutral (-0.4) from March-May 2026.

Tropical Pacific Ocean sea surface temperatures (SSTs) are on the brink of reaching El Niño status.

Forecast

100% chance for **El Niño** to develop during **July-September 2026**

Chance for **El Niño** conditions during **August-October 2026** **100%**



El Niño

ENSO situation summary

ENSO-neutral remains in place in the tropical Pacific, but El Niño will be officially declared very soon by Earth Sciences New Zealand. There is a 100% chance that El Niño will form during July-September, with a 100% chance that El Niño will continue during August-October. The upcoming El Niño is expected to be very strong, perhaps rivalling the strongest El Niños on record.

As of 14 June 2026, the 30-day NINO3.4 Index (in the central equatorial Pacific) was 1.18˚C, in the El Niño range. The 30-day relative Niño 3.4 Index (RONI) was 0.68˚C, just below the El Niño threshold and reflective of the central equatorial Pacific being warmer than the average of the global tropics.

The Southern Oscillation Index (SOI) was on the El Niño side of neutral during March-May 2026 (-0.4), while the May value was -1.4 (i.e. in the El Niño range).

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

Particularly warm water is located in the eastern and central equatorial Pacific between depths of about 50-150 metres, where temperature anomalies of 5-7°C are widespread. This indicates that a very strong El Niño is on the brink of occurring.

During July-September, model guidance favours a continued chance of above normal or well above normal rainfall across most of Micronesia, island groups along the equator, southern French Polynesia, and Pitcairn Islands. This may result in enhanced rainfall for island groups such as Guam, the Northern Marianas, Federated States of Micronesia, the Marshall Islands, Nauru, and most of Kiribati.

Conversely, drier than normal or much drier than normal conditions are likely to occur for many island groups farther south, including Palau, Papua New Guinea southeast to Vanuatu, and from Fiji east to the Marquesas (see pages 6-7 for more information).

Island Climate Update

Rainfall Watch

Earth Sciences New Zealand

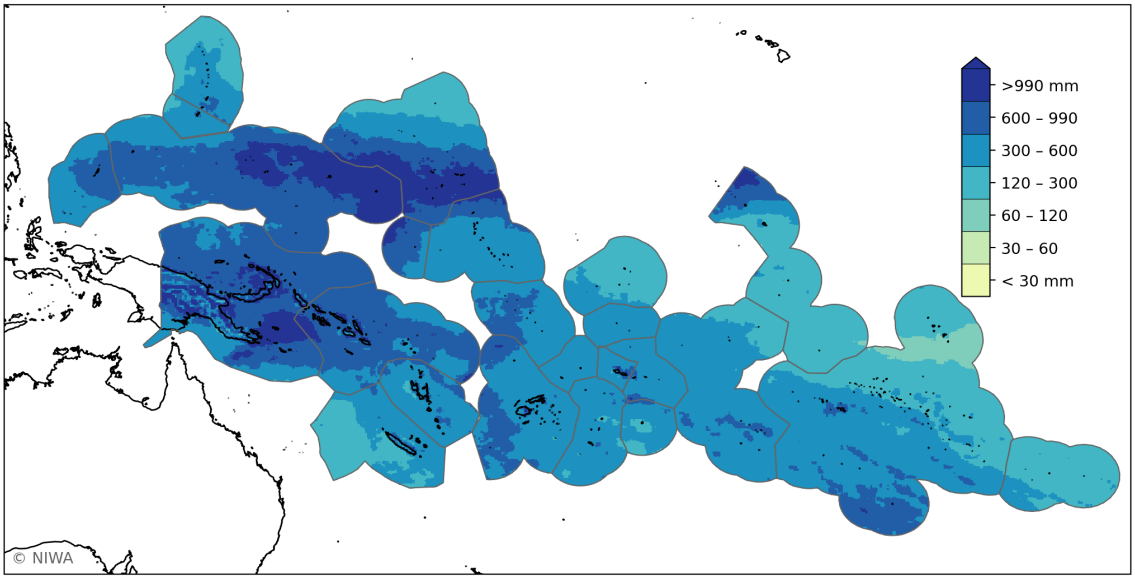
Regional situation summary (13 June 2026)

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

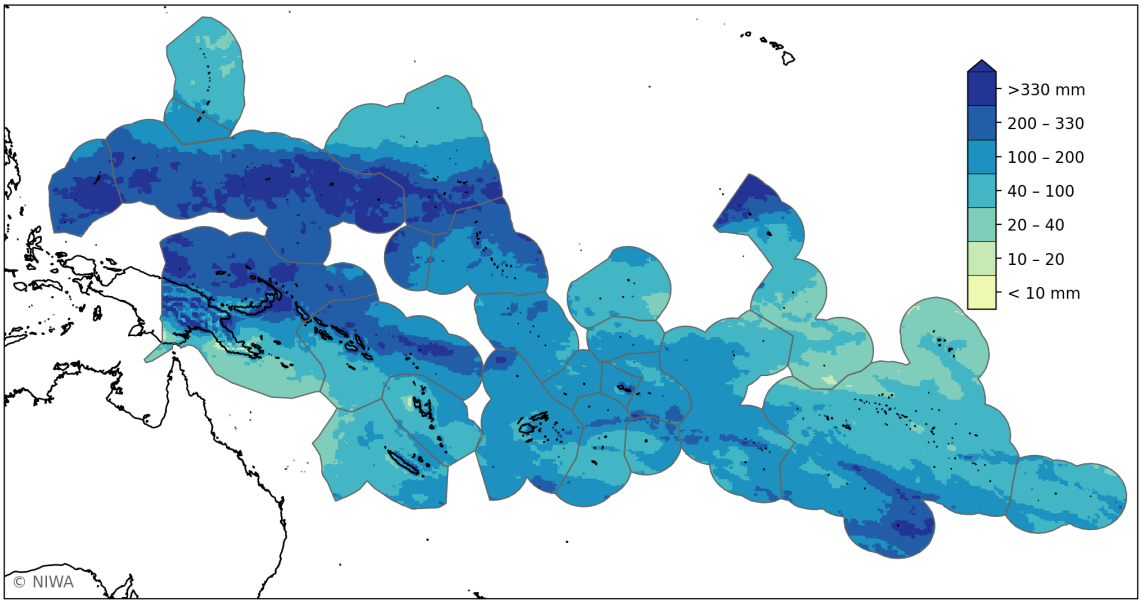
During the 90 days ending 13 June (top plot), over 990 mm of rain fell across parts of the central and eastern Federated States of Micronesia (FSM), southern Marshall Islands, and isolated parts of Papua New Guinea (PNG). Less than 60 mm of rain was not observed in any island groups.

During the 30 days ending 13 June (bottom plot), over 330 mm of rain fell across Palau, parts of FSM, southern Marshall Islands, parts of northern PNG, far northern Line Islands, and eastern Austral Islands. Less than 40 mm of rain fell in parts of southern PNG and the Marquesas.

Cumulative rainfall (mm), source: MSWEP 2.8.0
90 days to 13 Jun 2026



Cumulative rainfall (mm), source: MSWEP 2.8.0
30 days to 13 Jun 2026



Island Climate Update

Water Stress Watch

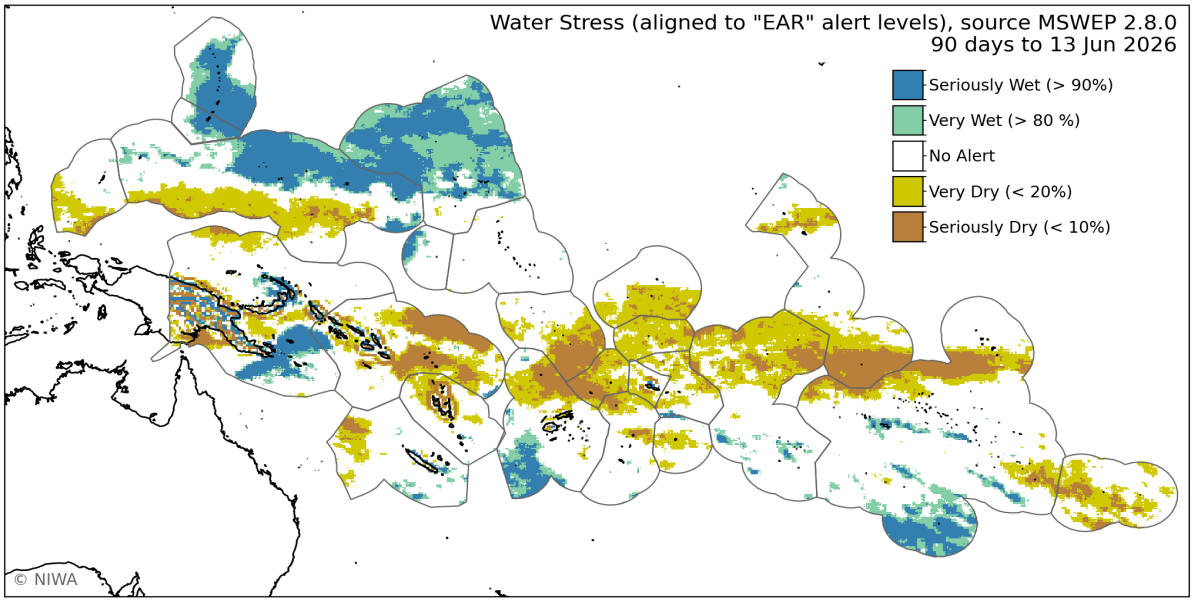
Earth Sciences New Zealand

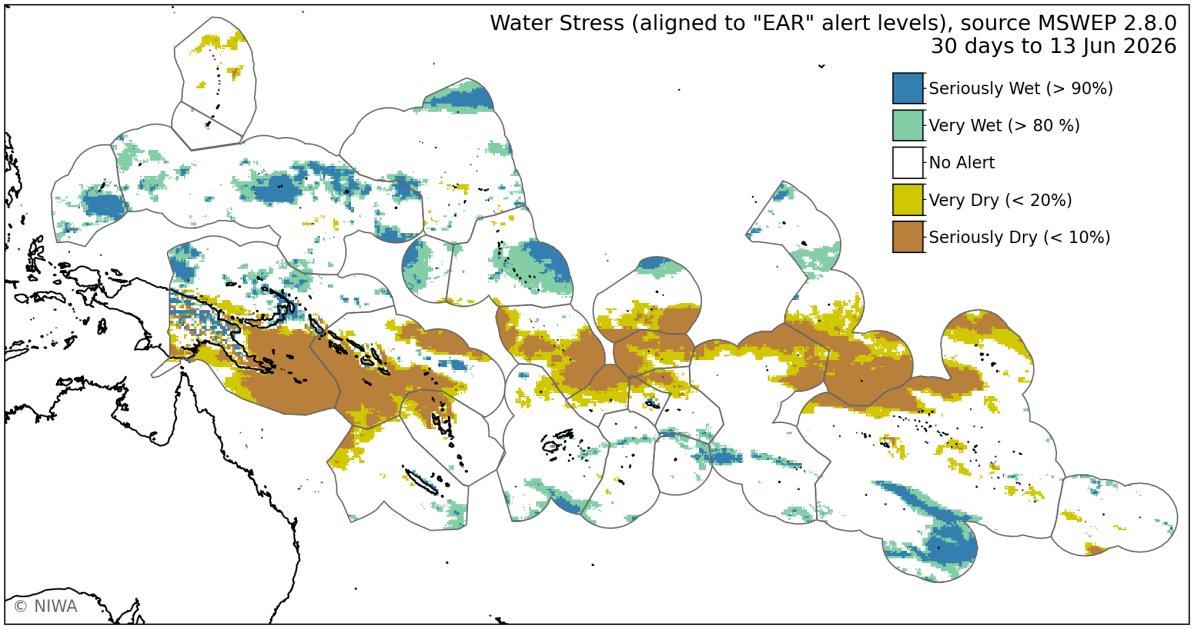
EAR regional situation summary (13 June 2026)

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 13 June (top plot), seriously dry or very dry conditions affected parts of southern Palau and FSM, parts of PNG, the Solomon Islands, northern Vanuatu, northern Fiji, northern Tonga, Niue, southern Tuvalu, Wallis and Futuna, Tokelau, American Samoa, Kiribati (Phoenix Islands), northern Cook Islands, far northern Tuamotu Archipelago, southern Marquesas, and Pitcairn Islands.

During the 30 days ending 13 June (bottom plot), seriously dry or very dry conditions affected eastern PNG, the Solomon Islands, northern Vanuatu, far northern Fiji, parts of Tuvalu and Wallis and Futuna, Tokelau, northern American Samoa, parts of the northern Cook Islands, and isolated parts of the Tuamotu Archipelago.



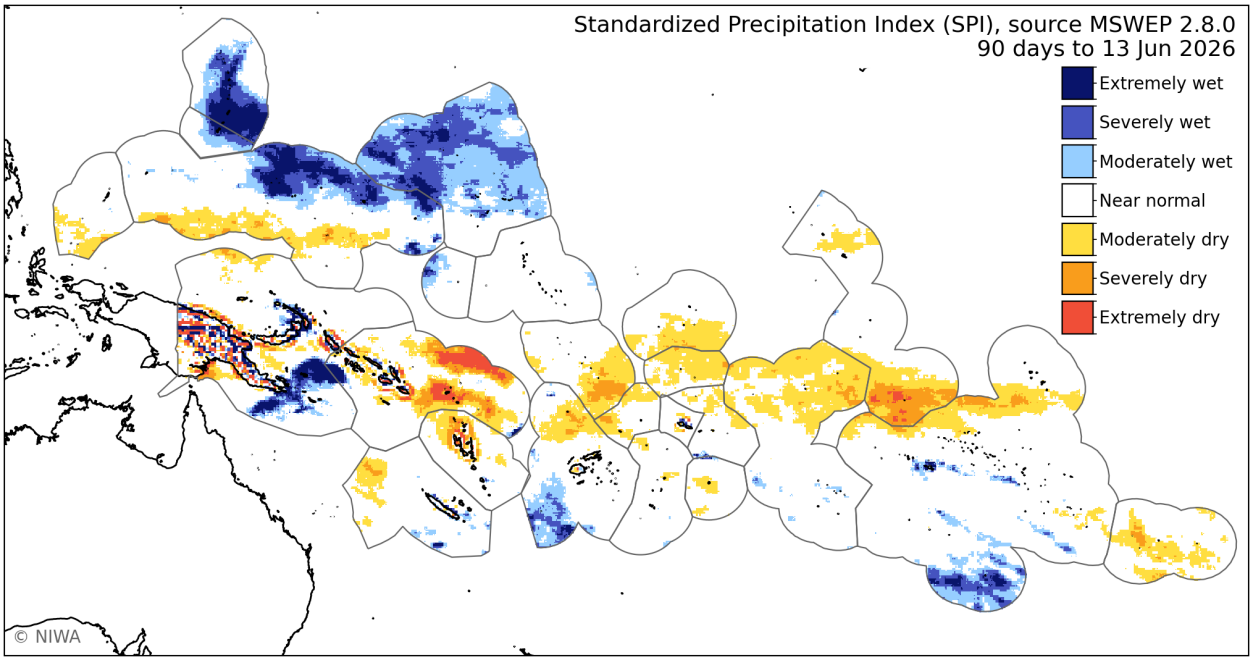


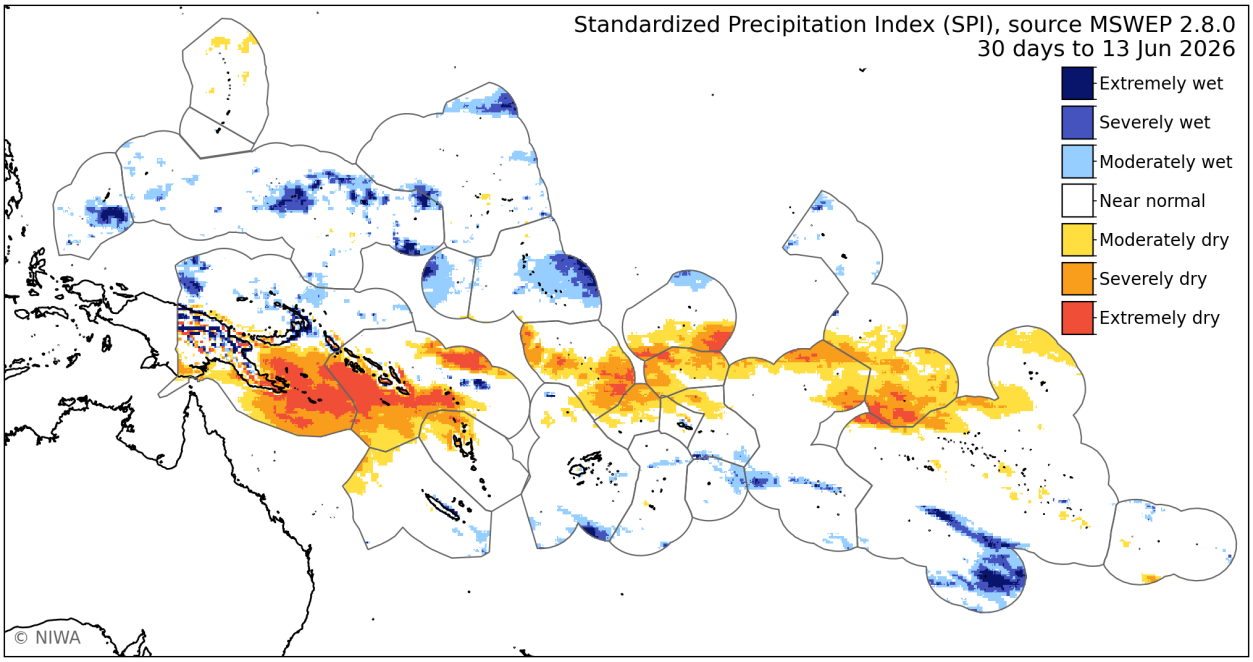
SPI Regional situation summary (13 June 2026)

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 13 June (top plot), extremely dry or severely dry conditions occurred in parts of PNG, the Solomon Islands, northern Vanuatu, far northern Fiji, and southern Tuvalu.

During the 30 days ending 13 June (bottom plot), extremely dry or severely dry conditions occurred in eastern PNG, the Solomon Islands, northern Vanuatu, southern Tuvalu, parts of Tokelau, and northern American Samoa.



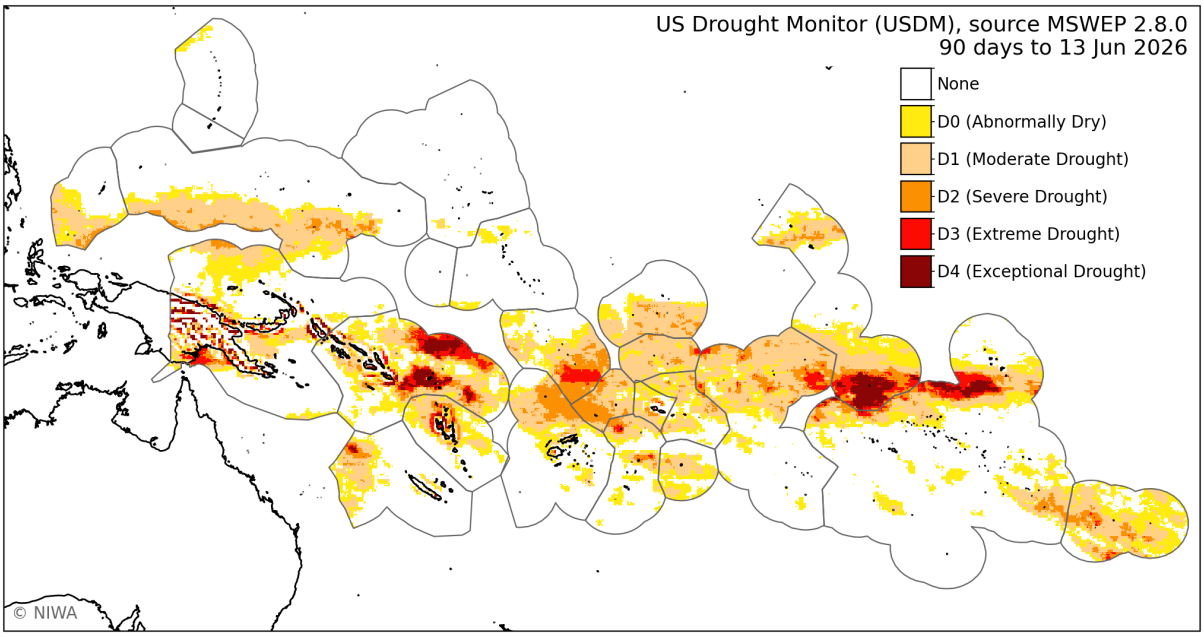


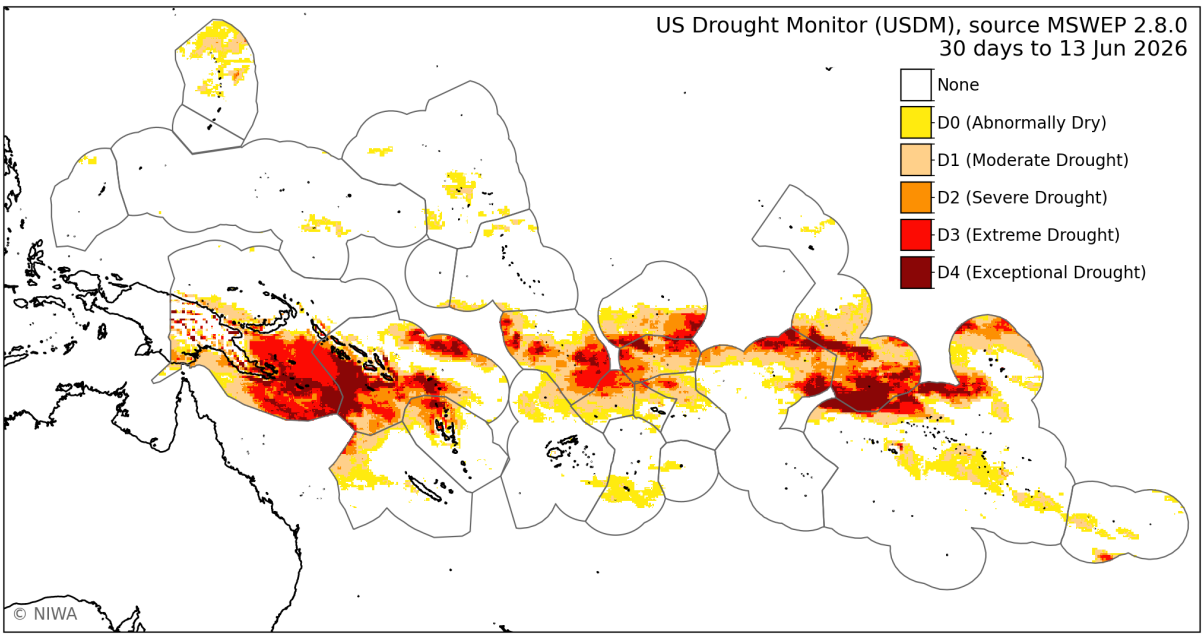
USDM Regional situation summary (13 June 2026)

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 13 June (top plot), extreme or exceptional drought occurred in parts of PNG and the Solomon Islands, northern Vanuatu, northern Tonga, and southern Tuvalu.

During the 30 days ending 13 June (bottom plot), extreme or exceptional drought occurred in eastern PNG, the Solomon Islands, northern Vanuatu, parts of Tuvalu and Tokelau, and northern American Samoa.





Island Climate Update

Water Stress Outlook

Earth Sciences New Zealand

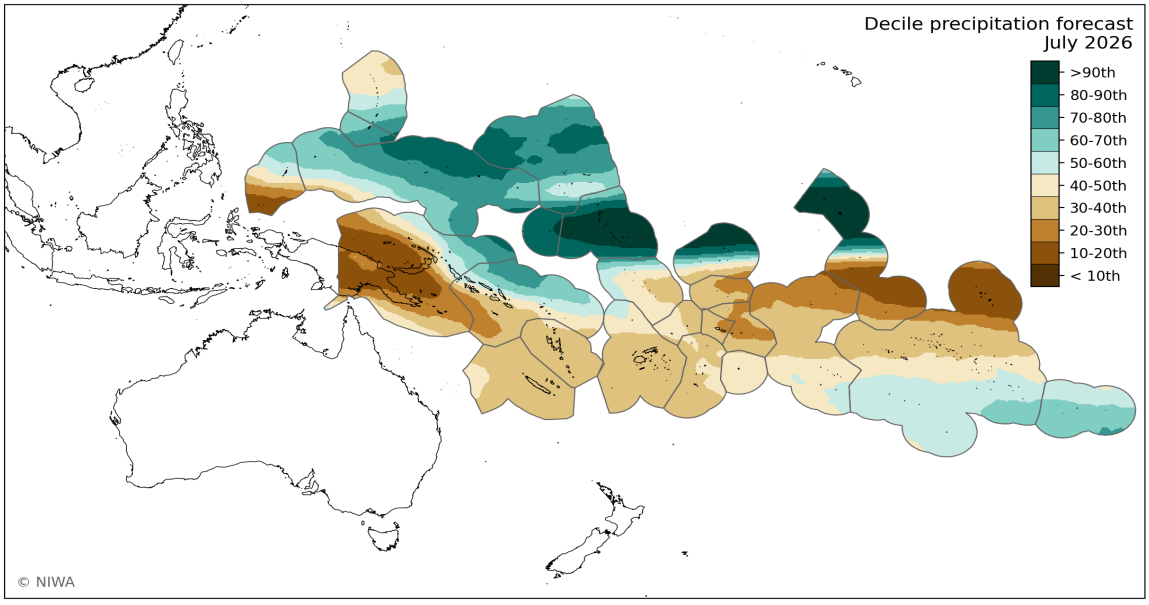
July 2026 forecast & probabilities of rainfall < 25th percentile

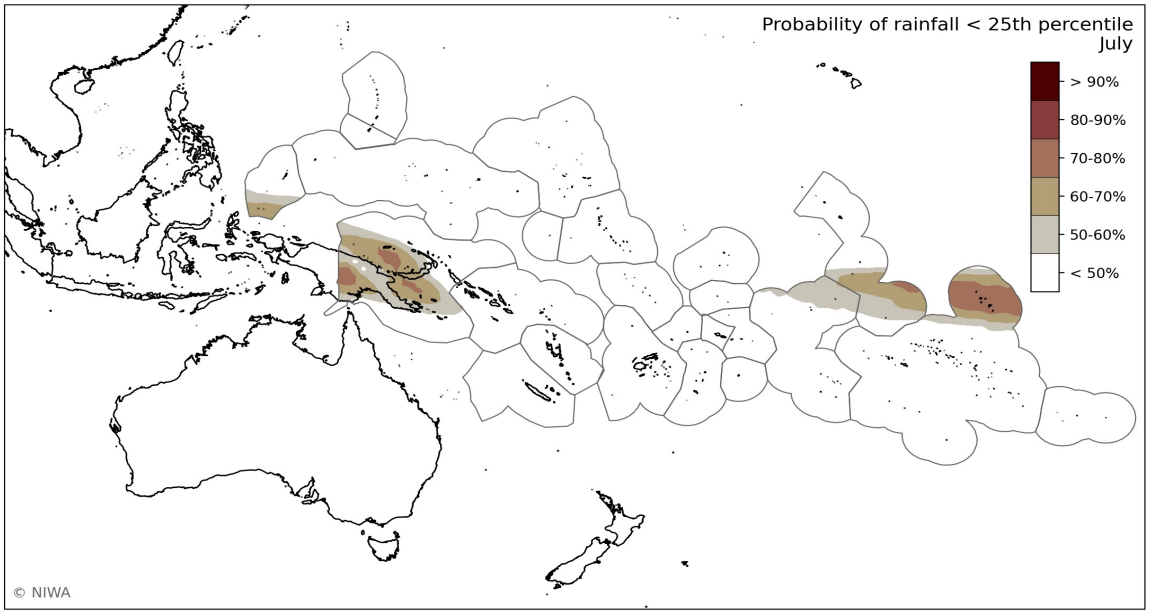
During July, significantly below normal rainfall is favoured in southern Palau, most of PNG, southern Solomon Islands, New Caledonia, Vanuatu, Fiji, parts of Tonga, Wallis and Futuna, and Tuvalu, Tokelau, Samoa, American Samoa, northern Cook Islands, Society Islands, northern Tuamotu Archipelago, and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

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

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

During July, the highest chances for very dry conditions are located in southern Palau, much of PNG, the northern Cook Islands, and Marquesas.





Island Climate Update

Water Stress Outlook

Earth Sciences New Zealand

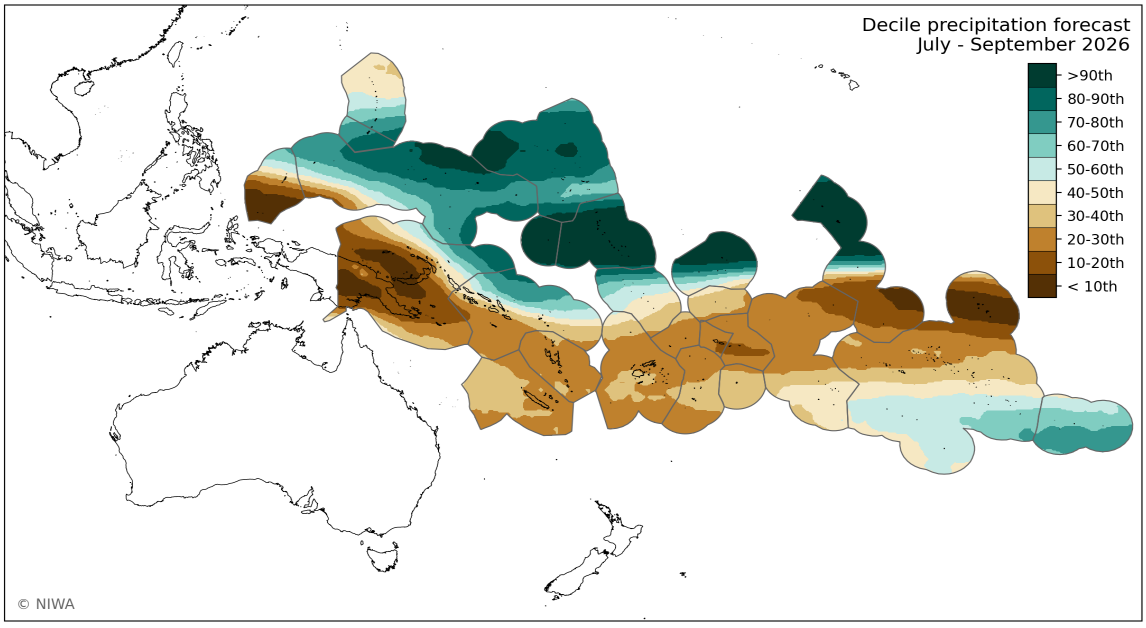
Jul-Sep 2026 forecast & probabilities of rainfall < 25th percentile

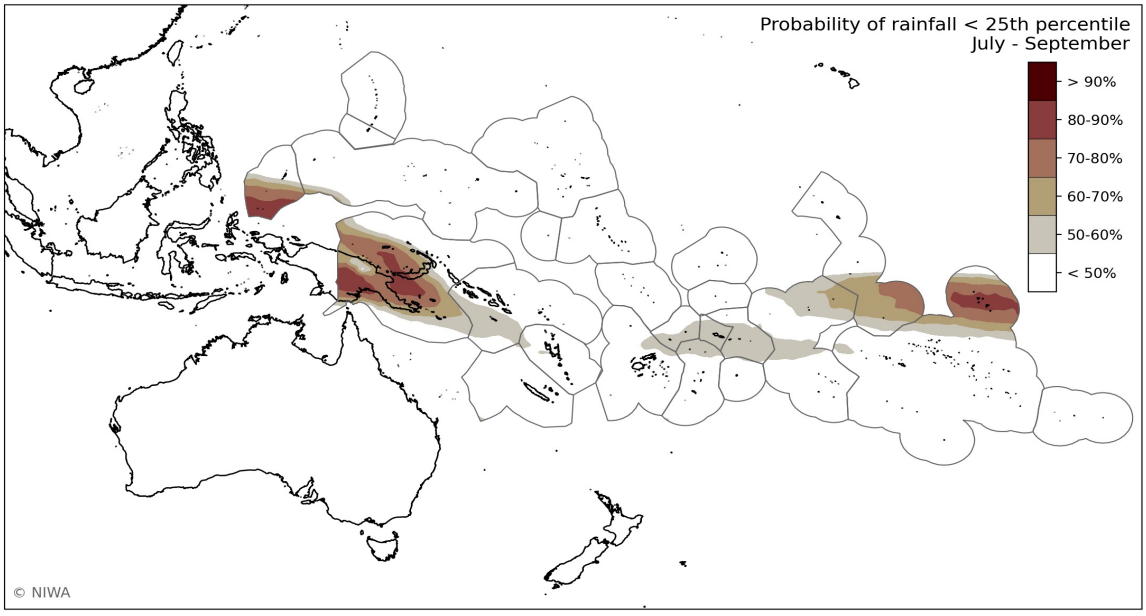
During July-September, significantly below normal rainfall is favoured in Palau, PNG, Solomon Islands, New Caledonia, Vanuatu, Fiji, Wallis and Futuna, Tonga, Niue, southern Tuvalu, Tokelau, Samoa, American Samoa, northern Cook Islands, a portion of the southern Cook Islands, Society Islands, much of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

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

All other island groups are expected to see near normal rainfall amounts during July-September.

During July-September, the highest chances for very dry conditions are located in southern Palau, PNG, southern Solomon Islands, Wallis and Futuna, northern Tonga, Samoa, American Samoa, northern Cook 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].

WMO

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.

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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.

Contact

islandclimateupdate@comms.niwa.co.nz

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