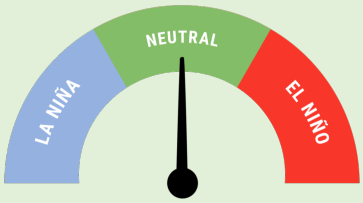
Island Climate Update

Earth Sciences New Zealand

ENSO Watch
November 2025

Recent



ENSO-Neutral

Conditions are nearing La Niña in the tropical Pacific, and have already reached La Niña according to the Relative Niño Index.

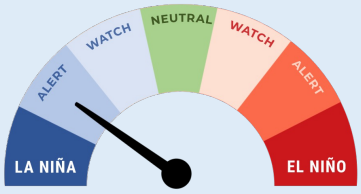
The Southern Oscillation Index (SOI) was on the La Niña side of the neutral range (+0.4) from August-October.

Tropical Pacific Ocean sea surface temperatures (SSTs) are approaching the La Niña range.

Forecast

70% chance for **La Niña** conditions to develop during **November 2025-January 2026**

Chance for **La Niña** conditions to continue during **December-February** **55%**



La Niña Alert

ENSO situation summary

Conditions in the tropical Pacific are approaching La Niña, and therefore a La Niña Alert is now in effect. There is a 70% chance that La Niña conditions will develop during November 2025-January 2026, with a 55% chance that La Niña conditions will continue during December 2025-February 2026.

As of 18 October 2025, the 30-day NINO3.4 Index (in the central equatorial Pacific) was -0.47˚C, in the neutral range. The 30-day relative Niño 3.4 Index (RONI) was -0.82˚C, indicating La Niña conditions and reflective of the central equatorial Pacific being cooler than the average of the global tropics.

The Southern Oscillation Index (SOI) was on the La Niña side of the neutral range during August-October (+0.4), while the October value was +0.8 (in the La Niña range).

Subsurface ocean temperatures in the equatorial Pacific remain above average in the western part of the basin with cooler than average temperatures in the east.

Notably cooler than average temperatures are currently located in the eastern equatorial Pacific at depths of 50-200 metres. These cool water temperatures indicate a tropical Pacific on the brink of La Niña.

During November, a pulse of the Madden-Julian Oscillation (MJO) is predicted to move across the Pacific. This will result in an enhancement in convective activity and rainfall.

During November-January, model guidance favours an enhancement in convective forcing over the western Pacific and parts of Melanesia consistent with La Niña and co-located with the warmest sea surface temperatures. This may lead to enhanced rainfall for island groups such as Palau, western Federated States of Micronesia, and Papua New Guinea east to parts of French Polynesia.

Conversely, drier than normal conditions are likely to occur for most island groups near the equator, including parts of the Marshall Islands, Nauru, Kiribati, Tuvalu, Tokelau, northern Cook Islands, and northern French Polynesia (see pages 6-7 for more information).

Island Climate Update

Rainfall Watch

Earth Sciences New Zealand

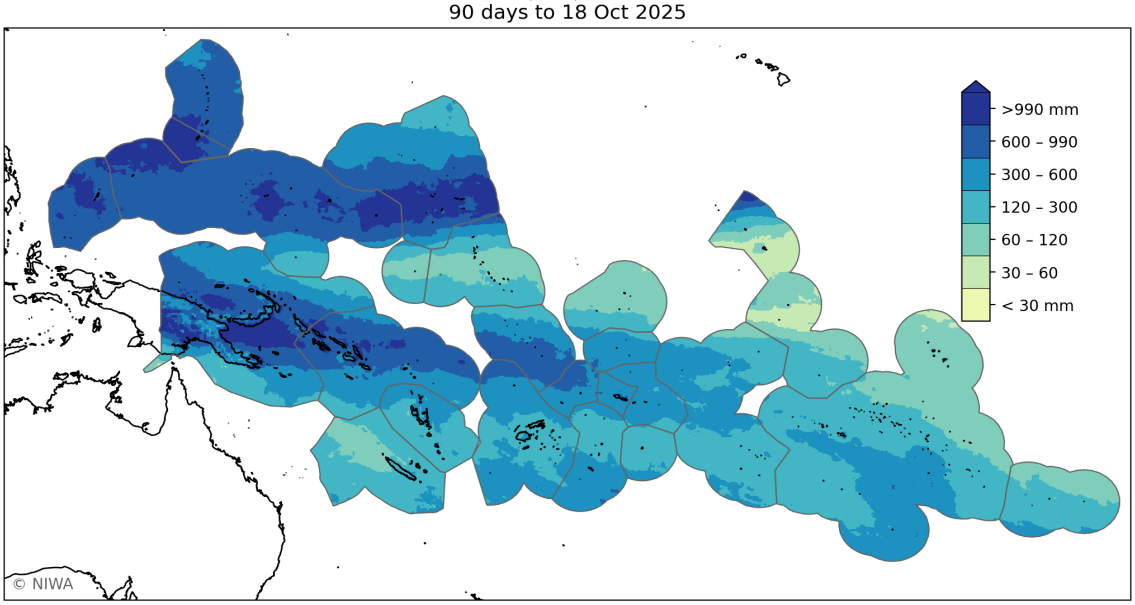
Regional situation summary (18 October 2025)

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

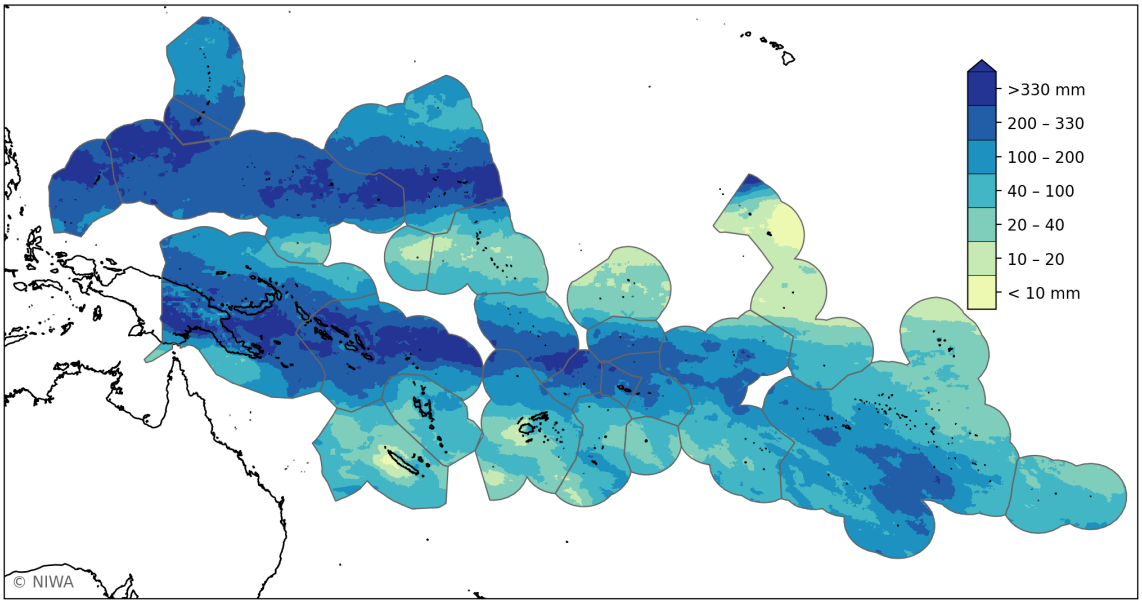
During the 90 days ending 18 October (top plot), over 990 mm of rain fell across parts of Palau, Guam, central and eastern Federated States of Micronesia (FSM), southern Marshall Islands, and parts of Papua New Guinea (PNG) and the Solomon Islands. Less than 60 mm of rain was observed in parts of eastern Kiribati (Line Islands).

During the 30 days ending 18 October (bottom plot), over 330 mm of rain fell across parts of Palau, Guam, portions of FSM, southern Marshall Islands, and parts of PNG, the Solomon Islands, and southern Tuvalu. Less than 40 mm of rain fell in New Caledonia, parts of Fiji, Niue, Nauru, Kiribati (Gilbert, Phoenix, and Line Islands), northern Tuamotu Archipelago, and the Marquesas.

Cumulative rainfall (mm), source: MSWEP 2.8.0
90 days to 18 Oct 2025



Cumulative rainfall (mm), source: MSWEP 2.8.0
30 days to 18 Oct 2025

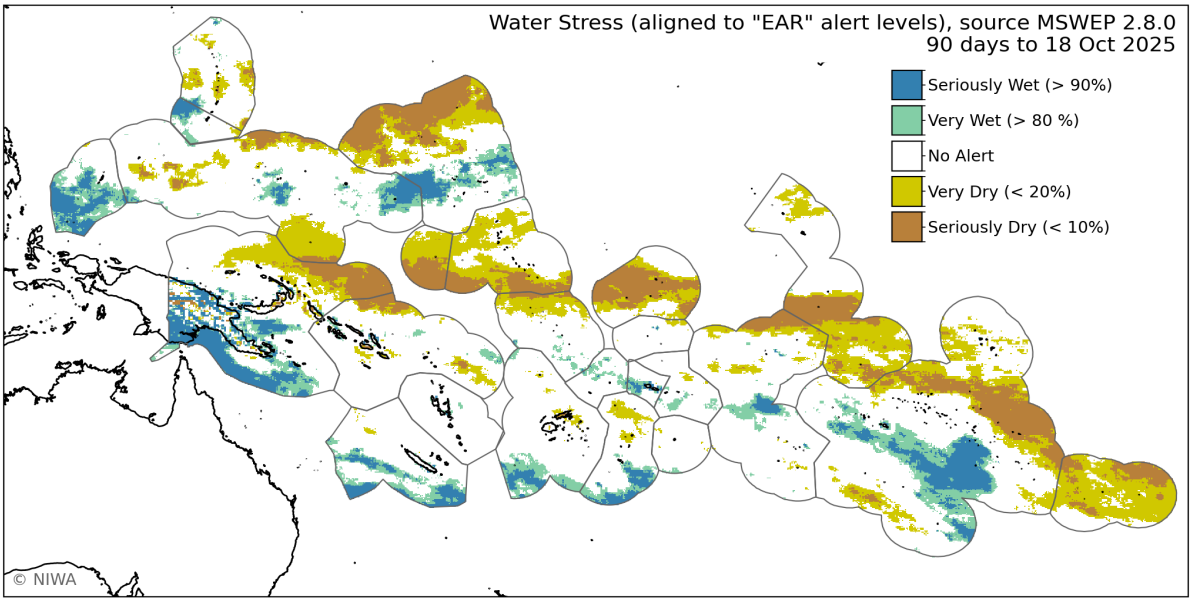


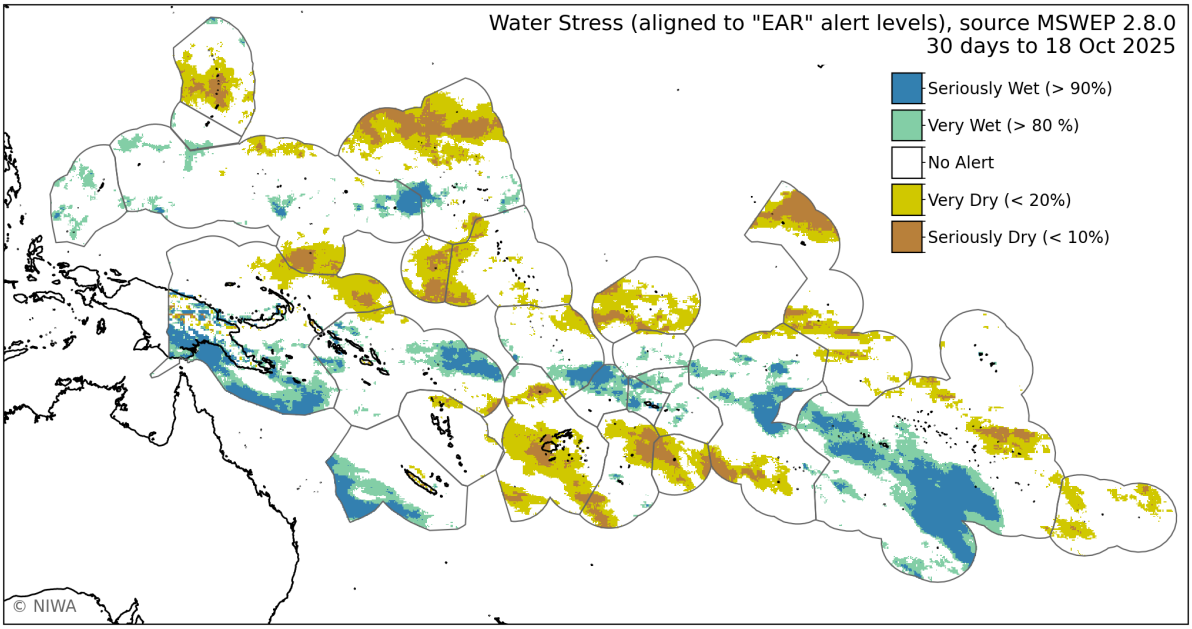
EAR regional situation summary (18 October 2025)

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 18 October (top plot), seriously dry or very dry conditions affected parts of the Northern Marianas, isolated parts of FSM, northern Marshall Islands, northern PNG, parts of the Solomon Islands, Nauru, Kiribati (Gilbert, Phoenix, and central Line Islands), parts of Fiji, northern Tonga, northern Tuamotu Archipelago, parts of the Marquesas, and the Pitcairn Islands.

During the 30 days ending 18 October (bottom plot), seriously dry or very dry conditions affected the Northern Marianas, southern FSM, northern Marshall Islands, Nauru, Kiribati (Phoenix Islands and northern and central Line Islands), New Caledonia, northern Vanuatu, Fiji, northern Tonga, Niue, southern Cook Islands, and northern Tuamotu Archipelago.





Island Climate Update

Water Stress Watch

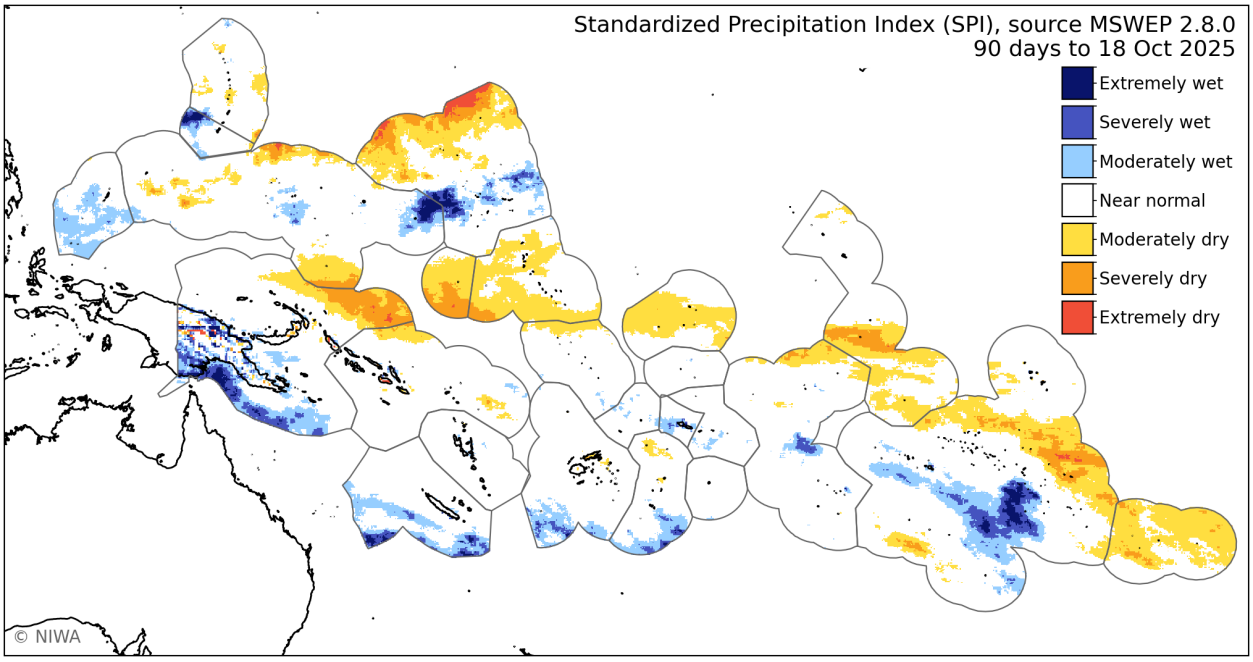
Earth Sciences New Zealand

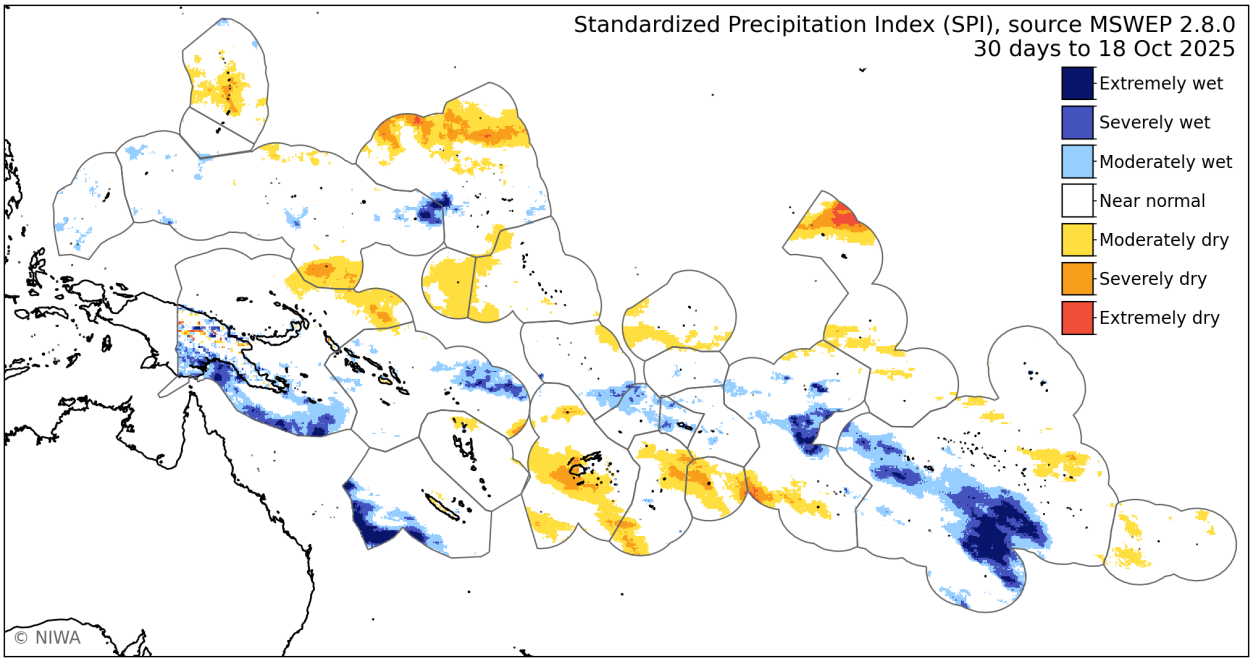
SPI Regional situation summary (18 October 2025)

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 18 October (top plot), extremely dry or severely dry conditions occurred in the far northern Marshall Islands, parts of the Solomon Islands, Kiribati (central Line Islands), and northern Tuamotu Archipelago.

During the 30 days ending 18 October (bottom plot), extremely dry or severely dry conditions occurred in parts of the Northern Marianas, far southern FSM, northern Marshall Islands, parts of Fiji, and Niue.



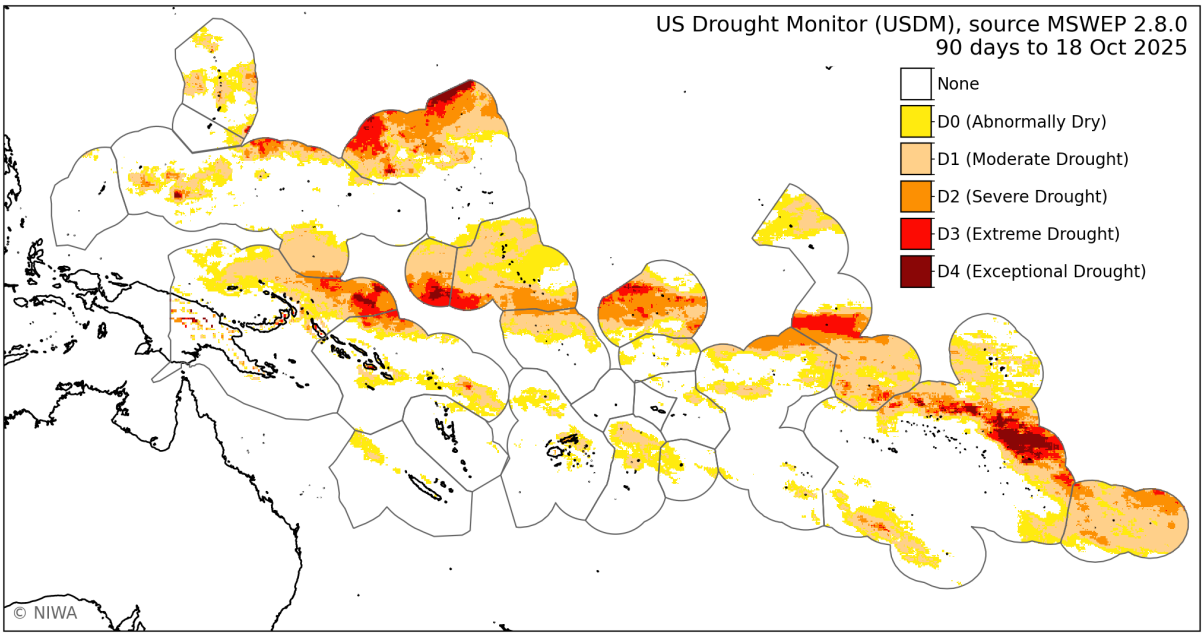


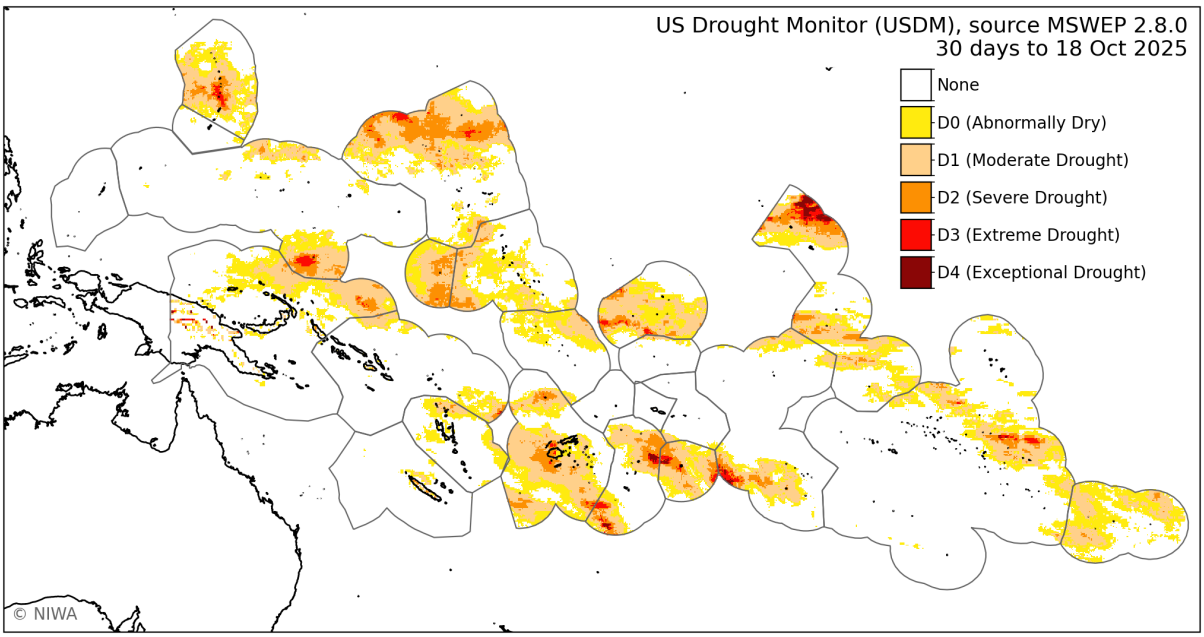
USDM Regional situation summary (18 October 2025)

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 18 October (top plot), extreme or exceptional drought occurred in isolated parts of FSM, northern Marshall Islands, isolated parts of PNG and the Solomon Islands, Kiribati (Phoenix and central Line Islands), and northern Tuamotu Archipelago.

During the 30 days ending 18 October (bottom plot), extreme or exceptional drought occurred in parts of the Northern Marianas, far southern FSM, northern Marshall Islands, parts of Fiji, Niue, and parts of the northern Tuamotu Archipelago.





Island Climate Update

Water Stress Outlook

Earth Sciences New Zealand

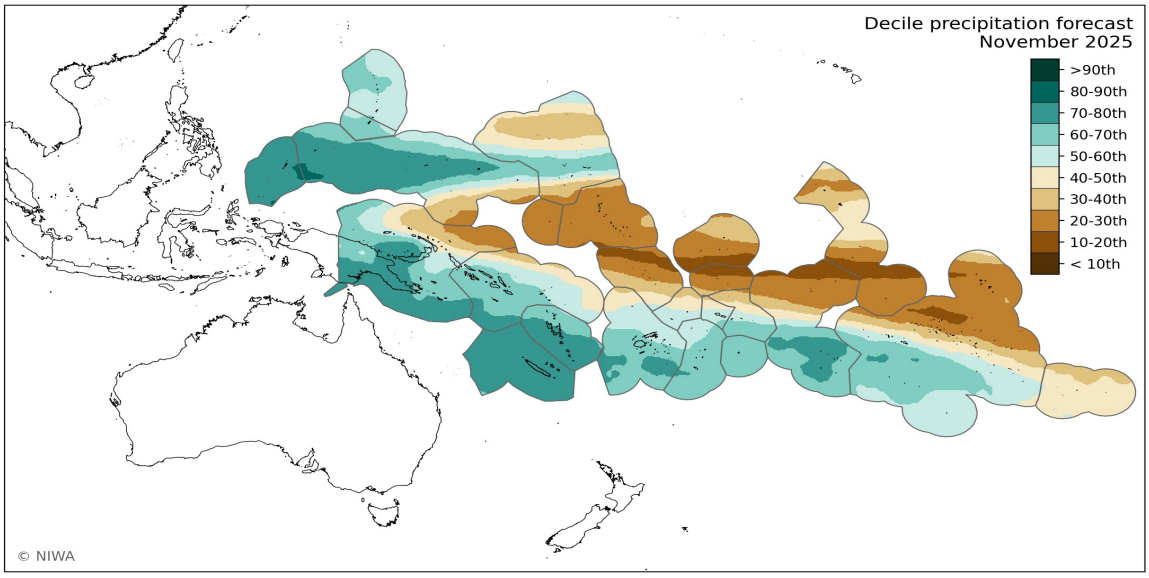
Nov 2025 forecast & probabilities of rainfall < 25th percentile

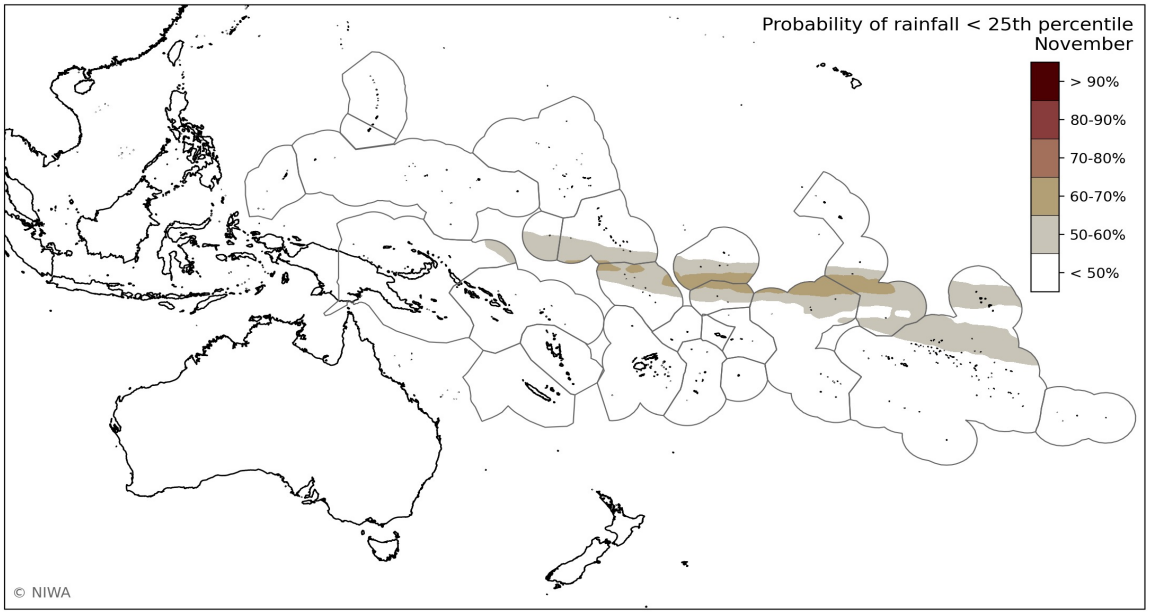
During November, significantly below normal rainfall is favoured in southern FSM, northern and southern Marshall Islands, far northern PNG, Nauru, Kiribati (Gilbert, Phoenix, and Line Islands), Tuvalu, Tokelau, northern American Samoa, northern Cook Islands, Tuamotu Archipelago, and Marquesas.

Significantly above normal rainfall is favoured in Palau, much of FSM, central Marshall Islands, much of PNG, Solomon Islands, New Caledonia, Vanuatu, southern Fiji, much of Tonga, Niue, southern Cook Islands, and parts of the Austral Islands.

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

For November, the highest chances for very dry conditions are located in Nauru, Kiribati (southern Gilbert, Phoenix, and central Line Islands), northern Tuvalu, Tokelau, northern Cook Islands, far northern Tuamotu Archipelago, and Marquesas.





Island Climate Update

Water Stress Outlook

Earth Sciences New Zealand

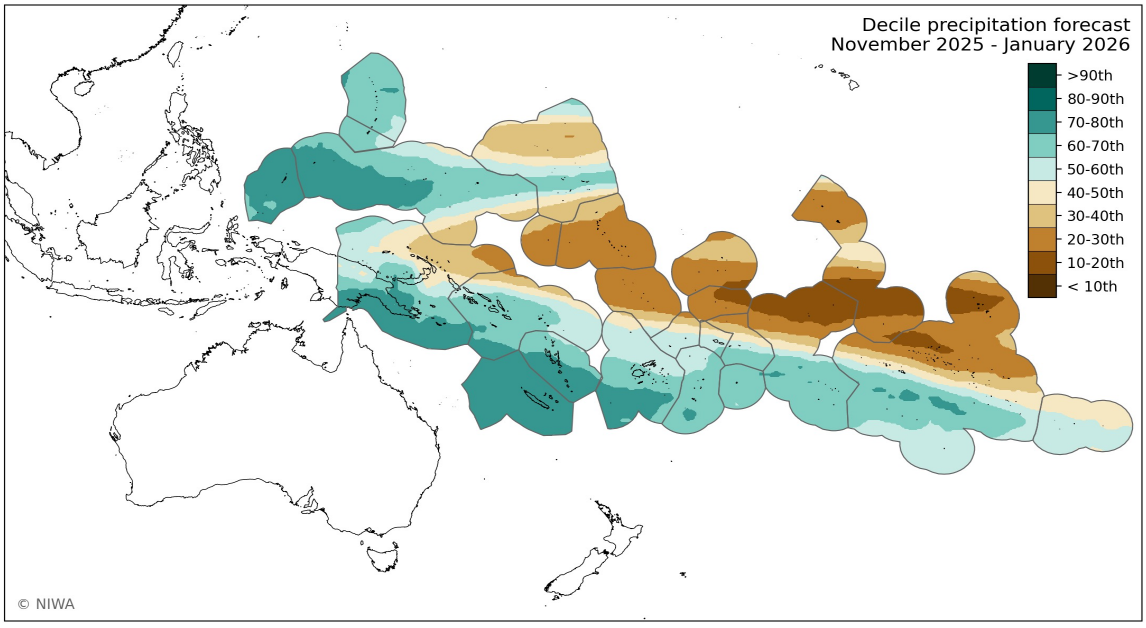
Nov-Jan forecast & probabilities of rainfall < 25th percentile

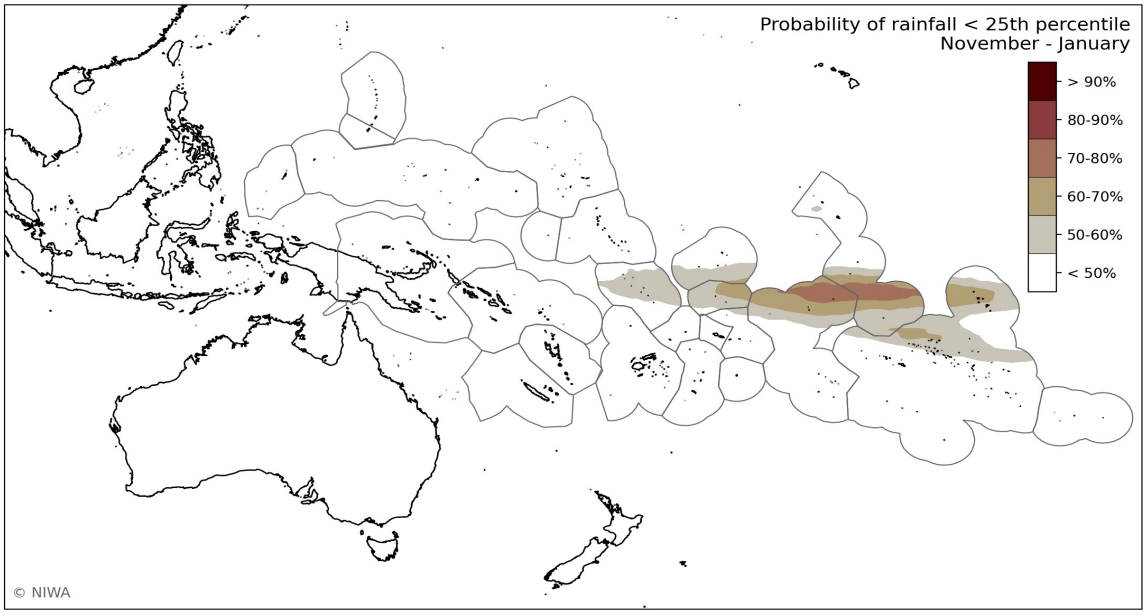
During November-January, significantly below normal rainfall is favoured in southern FSM, northern and southern Marshall Islands, far northern PNG, Nauru, Kiribati (Gilbert, Phoenix, and Line Islands), Tuvalu, Tokelau, northern American Samoa, northern Cook Islands, Tuamotu Archipelago, and Marquesas.

Significantly above normal rainfall is favoured in Palau, Guam, Northern Marianas, much of FSM, southern PNG, the Solomon Islands, New Caledonia, Vanuatu, southern Fiji, much of Tonga, Niue, southern Cook Islands, and parts of the Austral Islands.

All other island groups are expected to see near normal rainfall amounts during November-January.

For November-January, the highest chances for very dry conditions are located in Kiribati (central Line Islands), Tuvalu, Tokelau, northern Cook Islands, northern Tuamotu Archipelago, and Marquesas.





Island Climate Update

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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 as soon as possible at the start 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.

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