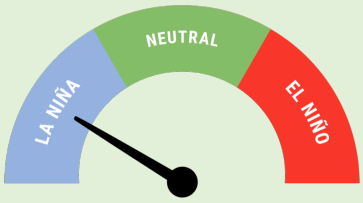
Island Climate Update

Earth Sciences New Zealand

ENSO Watch
February 2026

Recent



La Niña

Weak La Niña conditions currently remain in place in the tropical Pacific Ocean, but a return to ENSO-neutral is likely in the next 1-3 months.

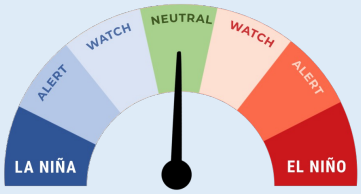
The Southern Oscillation Index (SOI) was on the La Niña side of the neutral range (+0.7) from October-December.

Tropical Pacific Ocean sea surface temperatures (SSTs) remain in the La Niña range.

Forecast

80% chance for **ENSO-neutral** conditions during **February-April 2026**

Chance for **ENSO-neutral** conditions during **March-May 2026** **90%**



ENSO-neutral

ENSO situation summary

Weak La Niña conditions currently remain in place in the tropical Pacific, but a return to ENSO-neutral is likely in the next 1-3 months. There is about an 80% chance that La Niña will dissipate to ENSO-neutral during February-April, with a 90% chance for ENSO-neutral during March-May.

As of 12 January 2026, the 30-day NINO3.4 Index (in the central equatorial Pacific) was -0.70˚C, near the La Niña range. The 30-day relative Niño 3.4 Index (RONI) was -1.04˚C, in the La Niña range 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 October-December (+0.7), while the December value was -0.2 (Neutral).

Subsurface ocean temperatures in the equatorial Pacific remain above average in the western part of the basin with cooler than average temperatures in eastern areas. However, the above average temperatures in the western part of the basin have started rapidly moving into the central Pacific.

Cooler than average temperatures are currently located in the central and eastern equatorial Pacific to depths of about 50 metres. However, warmer than average temperatures below 50-100 metres are rapidly progressing into the central and eastern equatorial Pacific, signalling that La Niña is likely nearing its end.

During February-April, model guidance favours an enhancement in convective forcing over Micronesia, co-located with the warmest sea surface temperatures. This may lead to enhanced rainfall for island groups such as Palau, Guam, the Northern Marianas, Federated States of Micronesia, and the Marshall Islands.

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

Tropical cyclone season in the southwest Pacific continues through April, and there are indications that one or more tropical cyclones may form over the next couple of weeks.

Island Climate Update

Rainfall Watch

Earth Sciences New Zealand

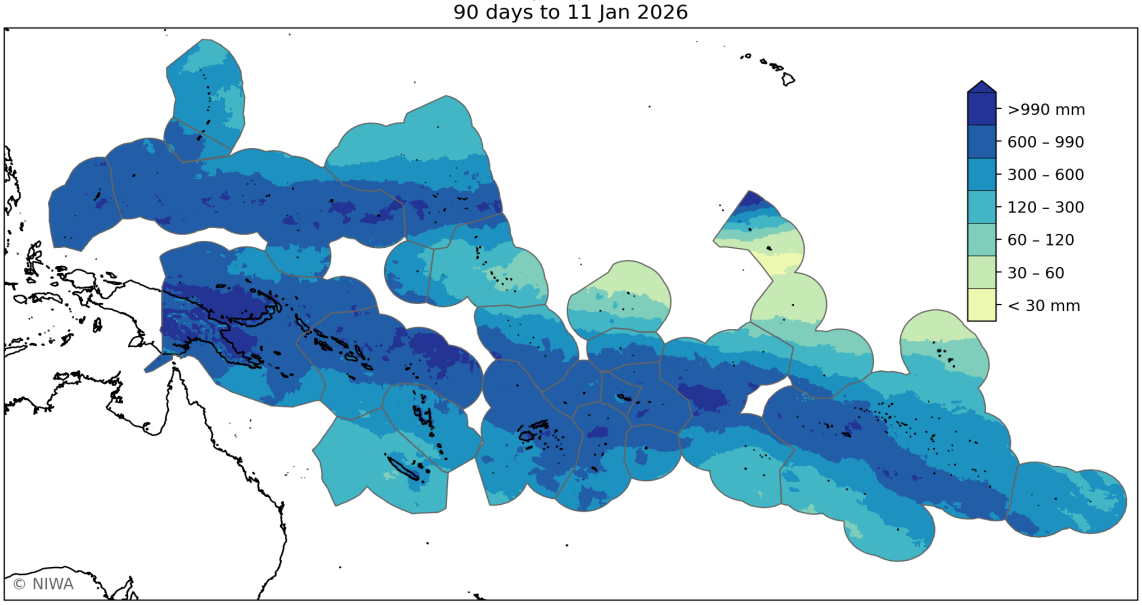
Regional situation summary (11 January 2026)

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

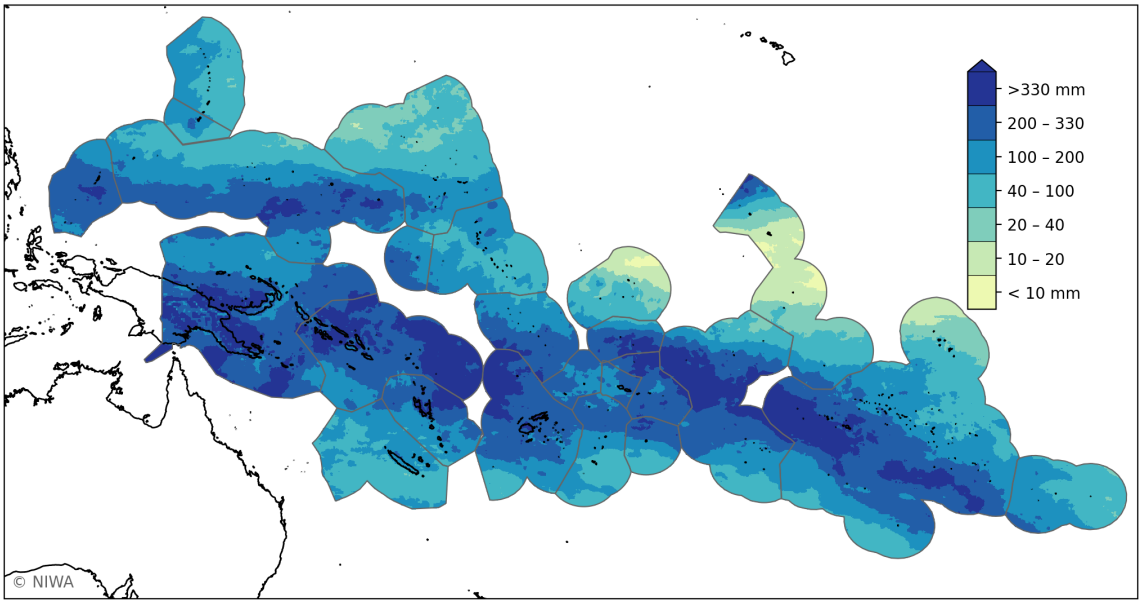
During the 90 days ending 11 January (top plot), over 990 mm of rain fell across isolated parts of the Federated States of Micronesia (FSM), southern Marshall Islands, Society Islands, and parts of Papua New Guinea (PNG). Less than 60 mm of rain was observed in Kiribati (parts of the northern and central Line Islands).

During the 30 days ending 11 January (bottom plot), over 330 mm of rain fell across parts of eastern FSM, PNG, Solomon Islands, northern Fiji, Tokelau, northern Cook Islands, and Society Islands. Less than 40 mm of rain fell in Kiribati (parts of the Phoenix and Line Islands), and northern Marquesas.

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



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



Island Climate Update

Water Stress Watch

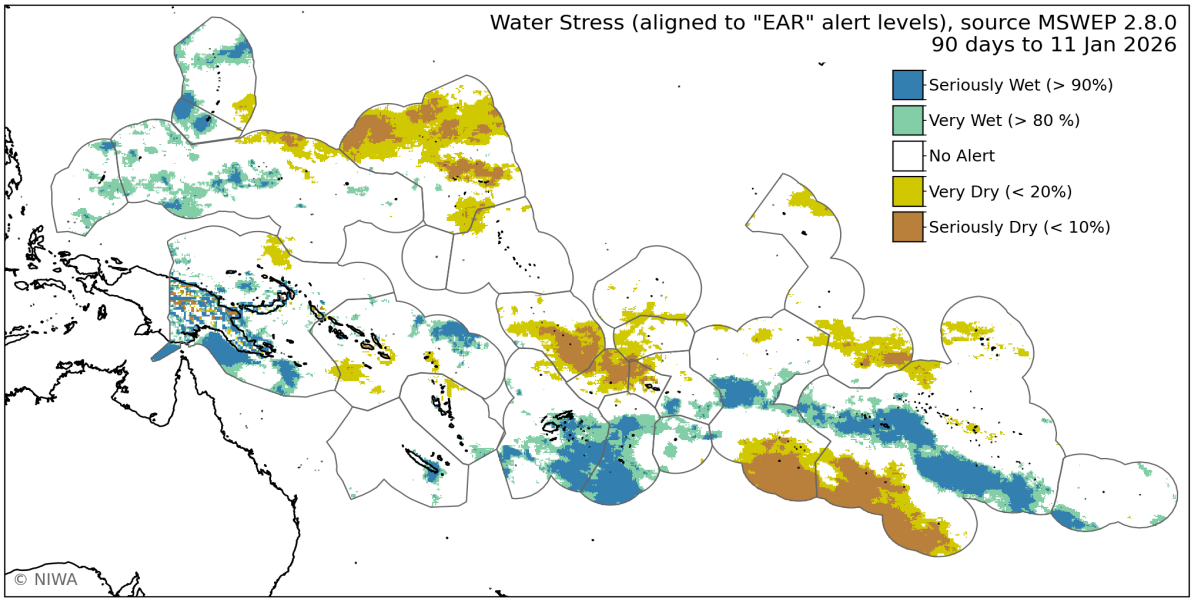
Earth Sciences New Zealand

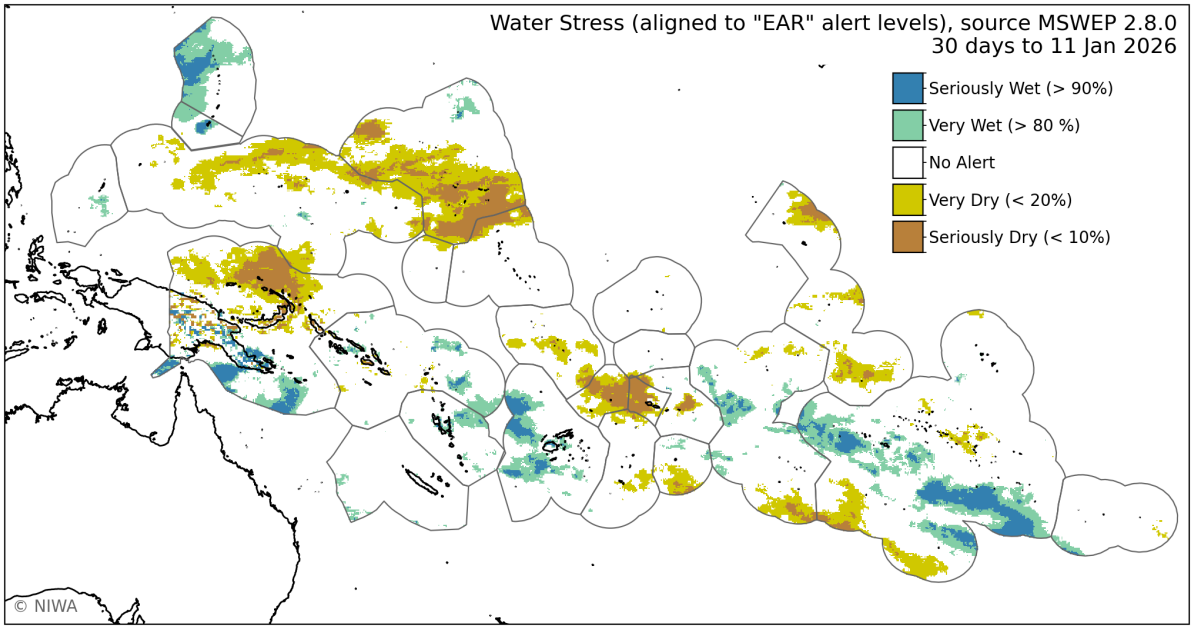
EAR regional situation summary (11 January 2026)

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 January (top plot), seriously dry or very dry conditions affected much of the Marshall Islands, isolated parts of the Solomon Islands, northern Vanuatu, Tokelau, Wallis and Futuna, Samoa, southern Cook Islands, Austral Islands, and isolated parts of the Tuamotu Archipelago and Marquesas.

During the 30 days ending 11 January (bottom plot), seriously dry or very dry conditions affected isolated parts of FSM, much of the Marshall Islands, northern PNG, parts of the Solomon Islands, Tuvalu, Wallis and Futuna, Samoa, American Samoa, and isolated parts of Tonga and the Tuamotu Archipelago.





Island Climate Update

Water Stress Watch

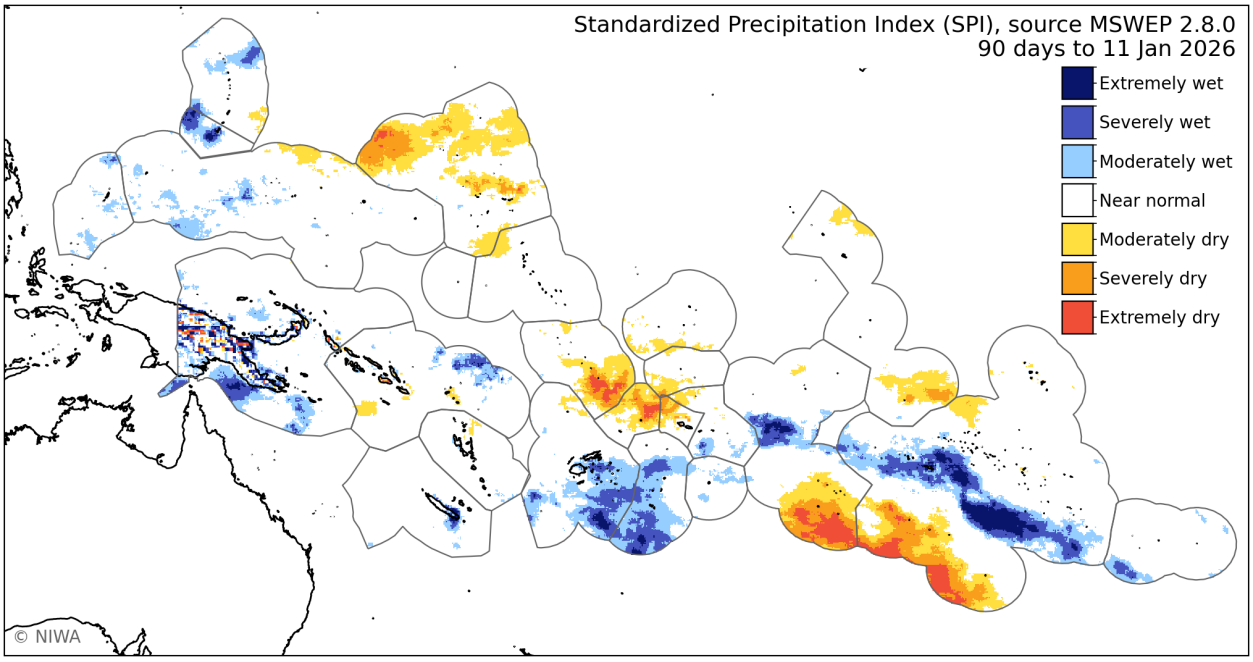
Earth Sciences New Zealand

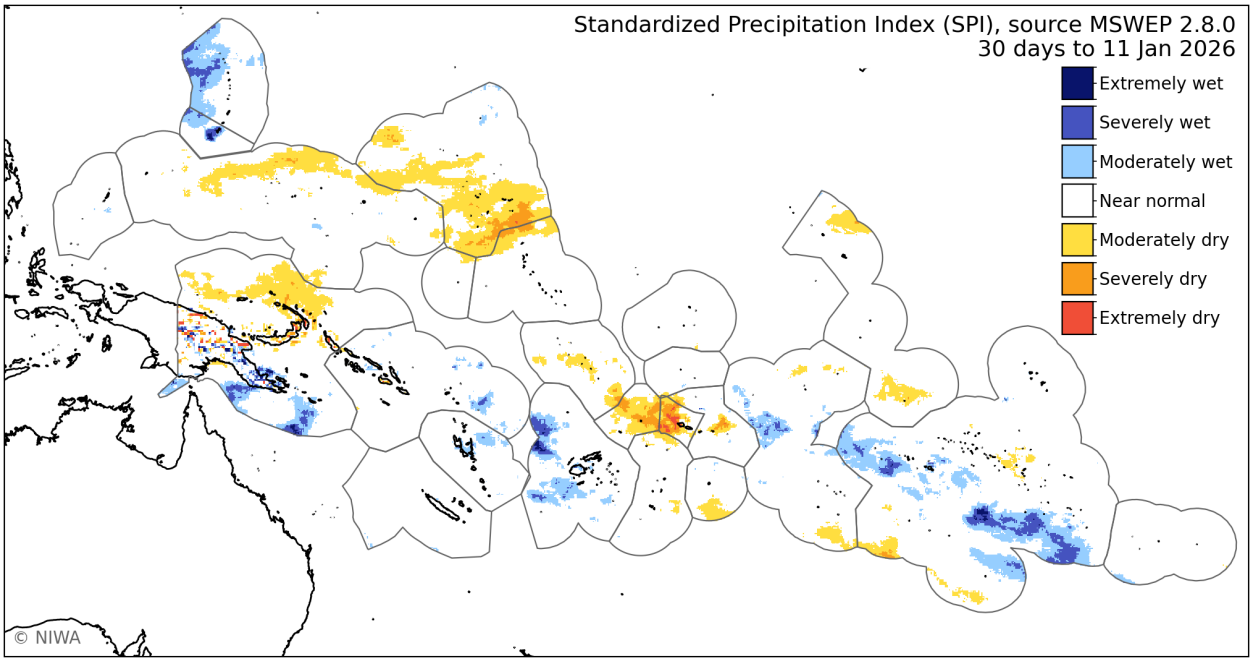
SPI Regional situation summary (11 January 2026)

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 January (top plot), extremely dry or severely dry conditions occurred in the northern Marshall Islands, southern Tuvalu, Wallis and Futuna, southern Cook Islands, and the Austral Islands.

During the 30 days ending 11 January (bottom plot), extremely dry or severely dry conditions occurred in parts of northern PNG, Wallis and Futuna, and Samoa.



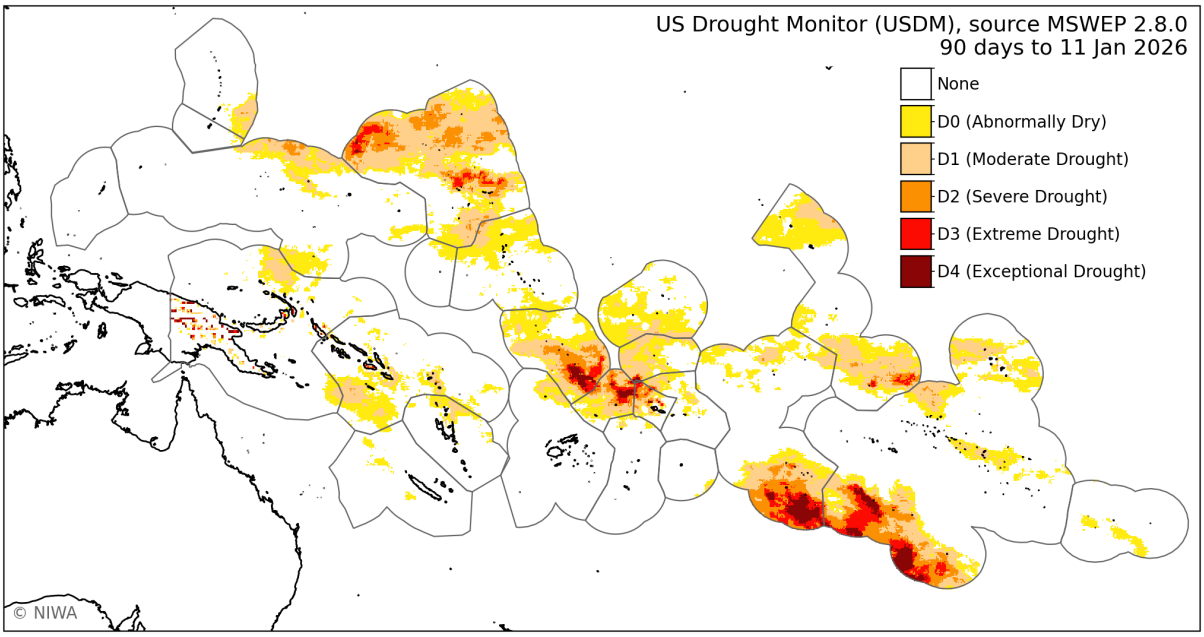


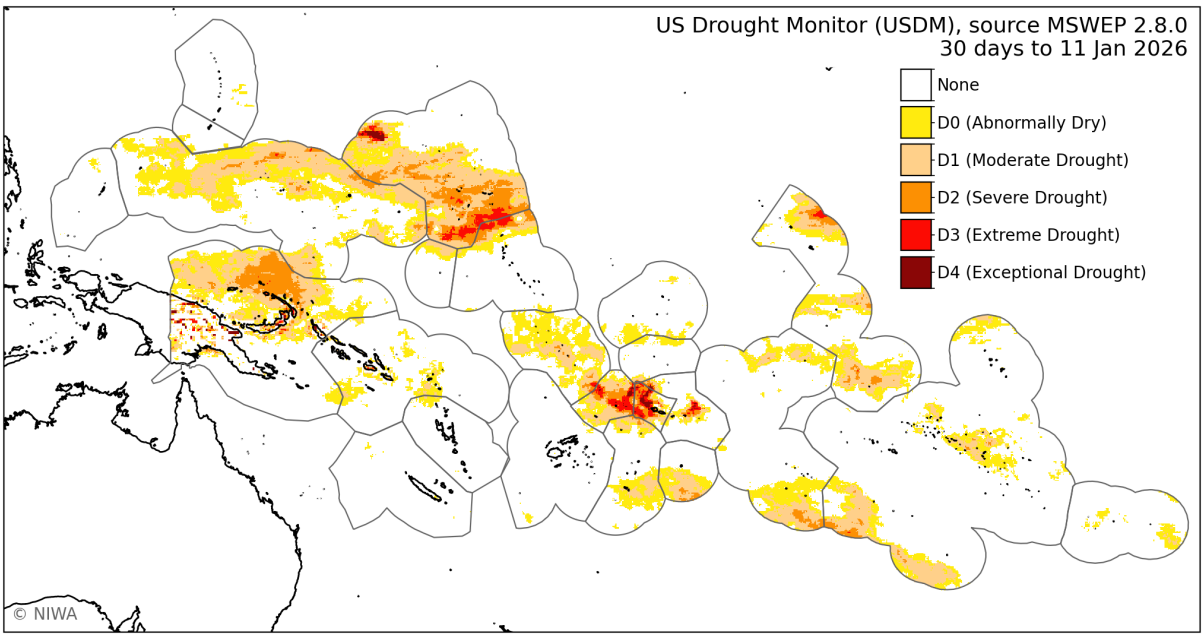
USDM Regional situation summary (11 January 2026)

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 January (top plot), extreme or exceptional drought occurred in parts of the Marshall Islands, southern Tuvalu, Wallis and Futuna, southern Cook Islands, and the Austral Islands.

During the 30 days ending 11 January (bottom plot), extreme or exceptional drought occurred in the southern Marshall Islands, parts of northern PNG, Wallis and Futuna, and Samoa.





Island Climate Update

Water Stress Outlook

Earth Sciences New Zealand

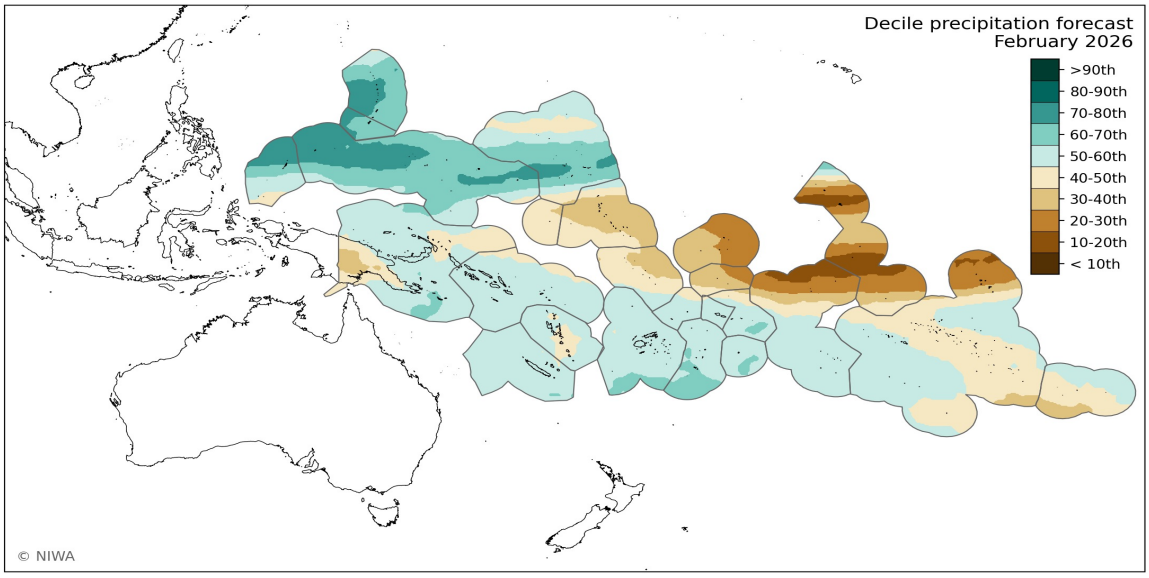
February 2026 forecast & probabilities of rainfall < 25th percentile

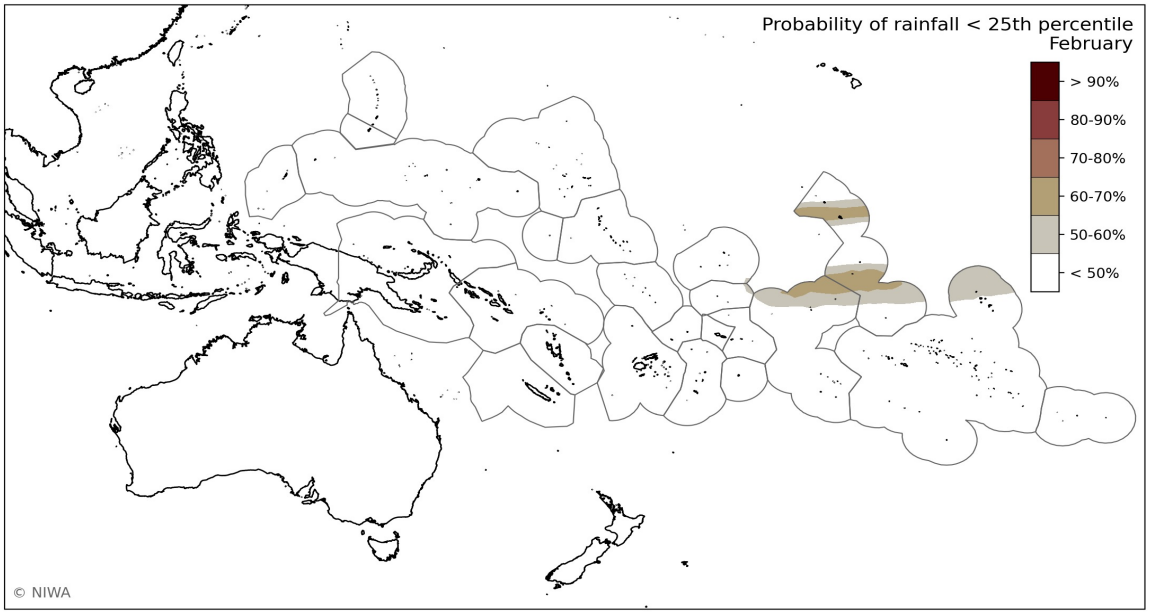
During February, significantly below normal rainfall is favoured in Kiribati (Gilbert, Phoenix, and Line Islands), northern Tuvalu, Tokelau, northern Cook Islands, and Marquesas.

Significantly above normal rainfall is favoured in parts of Palau, Guam, Northern Marianas, FSM, parts of the Marshall Islands, and southern Tonga.

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

For February, the highest chances for very dry conditions are located in the northern Cook Islands, Line Islands, and northern Marquesas.





Island Climate Update

Water Stress Outlook

Earth Sciences New Zealand

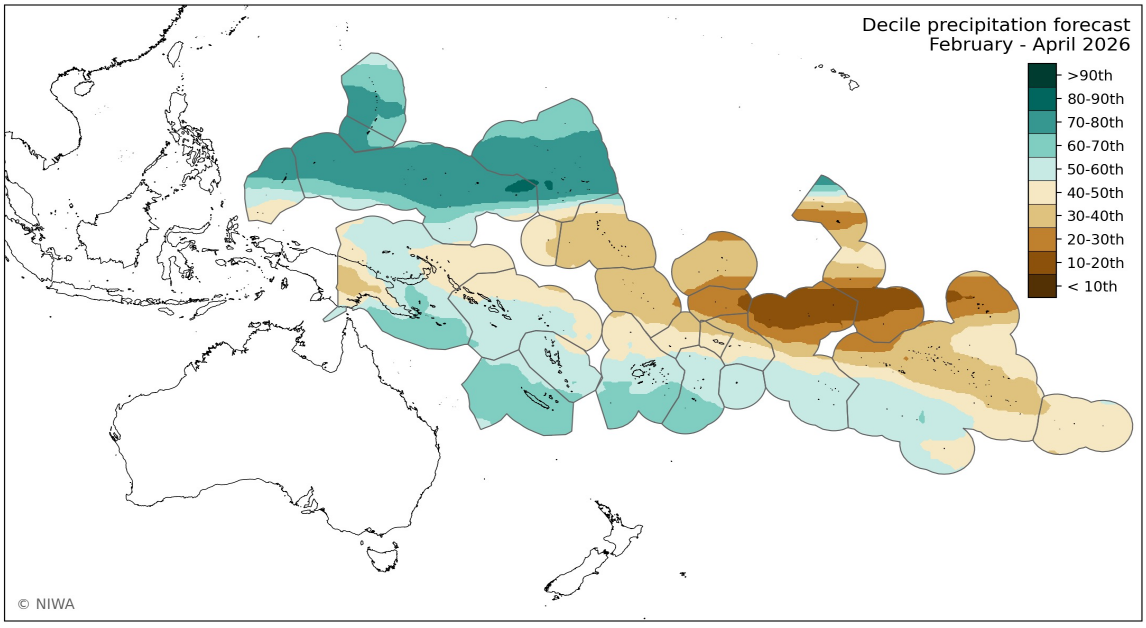
Feb-Apr 2026 forecast & probabilities of rainfall < 25th percentile

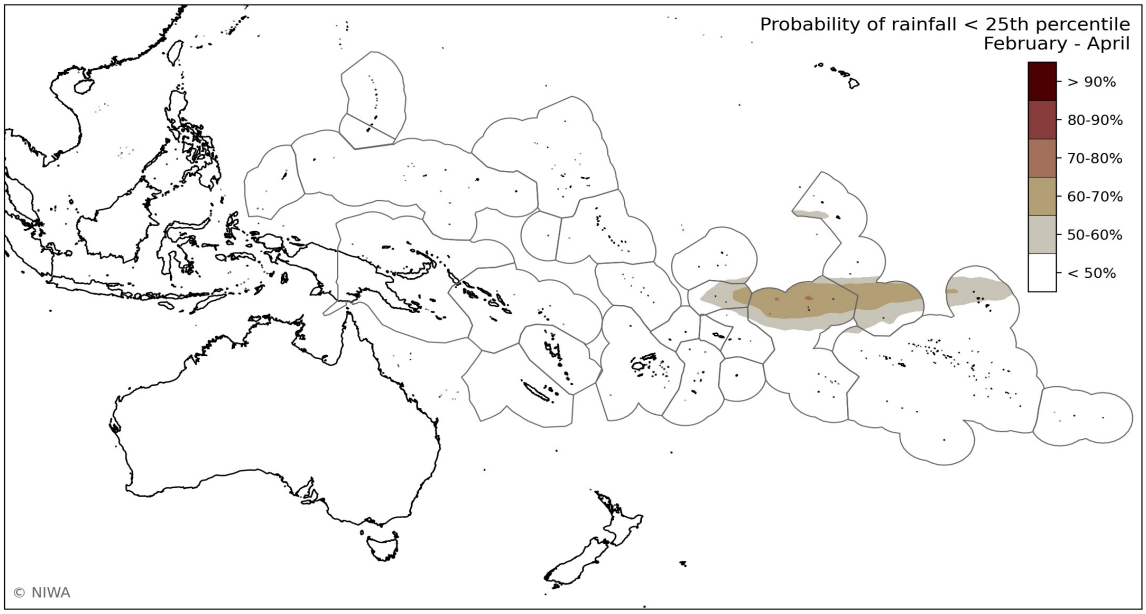
During February-April, significantly below normal rainfall is favoured in Kiribati (Gilbert, Phoenix, and Line Islands), Tuvalu, Tokelau, northern American Samoa, northern Cook Islands, Society Islands, Tuamotu Archipelago, and Marquesas.

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

All other island groups are expected to see near normal rainfall amounts during February-April.

For February-April, the highest chances for very dry conditions are located in Tokelau, northern Cook Islands, southern Line 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.

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.

Contact

islandclimateupdate@comms.niwa.co.nz

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

https://www.facebook.com/IslandClimateUpdate

https://twitter.com/ICU_NIWA