

# Island Climate Update

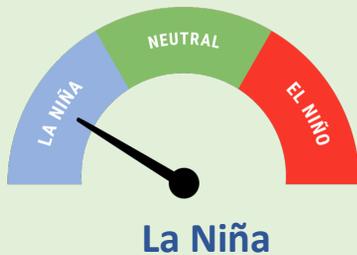


Earth Sciences  
New Zealand

**ENSO Watch**

January 2026

Recent



La Niña conditions currently remain in place in the tropical Pacific Ocean, but La Niña is likely to be short-lived.

The Southern Oscillation Index (SOI) was on the La Niña side of the neutral range (+0.8) from September-November.

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

**70%** chance for ENSO-neutral conditions during January-March 2026

Chance for ENSO-neutral conditions during February-April 2026

**85%**



Forecast

## ENSO situation summary

La Niña conditions currently remain in place in the tropical Pacific, but La Niña is likely to dissipate in the coming months. There is about a 70% chance that La Niña will dissipate to ENSO-neutral during January-March 2026, with an 85% chance for ENSO-neutral conditions during February-April 2026.

As of 15 December 2025, the 30-day NINO3.4 Index (in the central equatorial Pacific) was  $-0.68^{\circ}\text{C}$ , near the La Niña range. The 30-day relative Niño 3.4 Index (RONI) was  $-0.94^{\circ}\text{C}$ , 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 September-November (+0.8), while the November value was +1.2 (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 central and eastern areas.

Notably cooler than average temperatures are currently located in the central and eastern equatorial Pacific at depths of 50-150 metres. These cool water temperatures indicate a tropical Pacific in a La Niña state. However, warmer than average temperatures below 150 metres are progressing farther east.

During January-March, model guidance favours an enhancement in convective forcing over Micronesia 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, the Northern Marianas, and Federated States of Micronesia, as well as southern Papua New Guinea east to Tonga.

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

Tropical cyclone season in the southwest Pacific is underway and continues through April 2026.



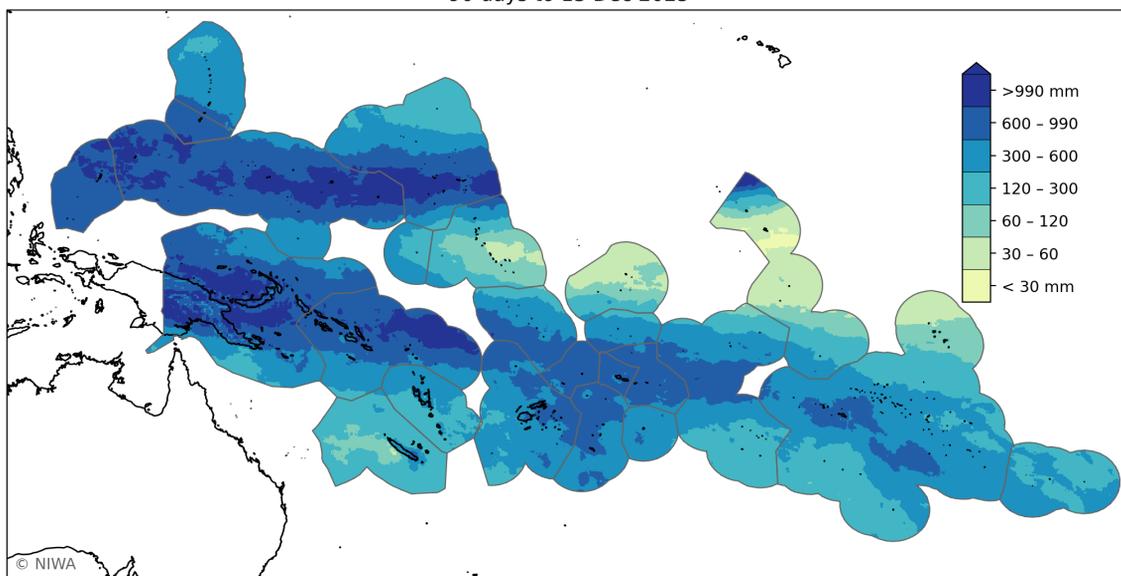
### Regional situation summary (13 December 2025)

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

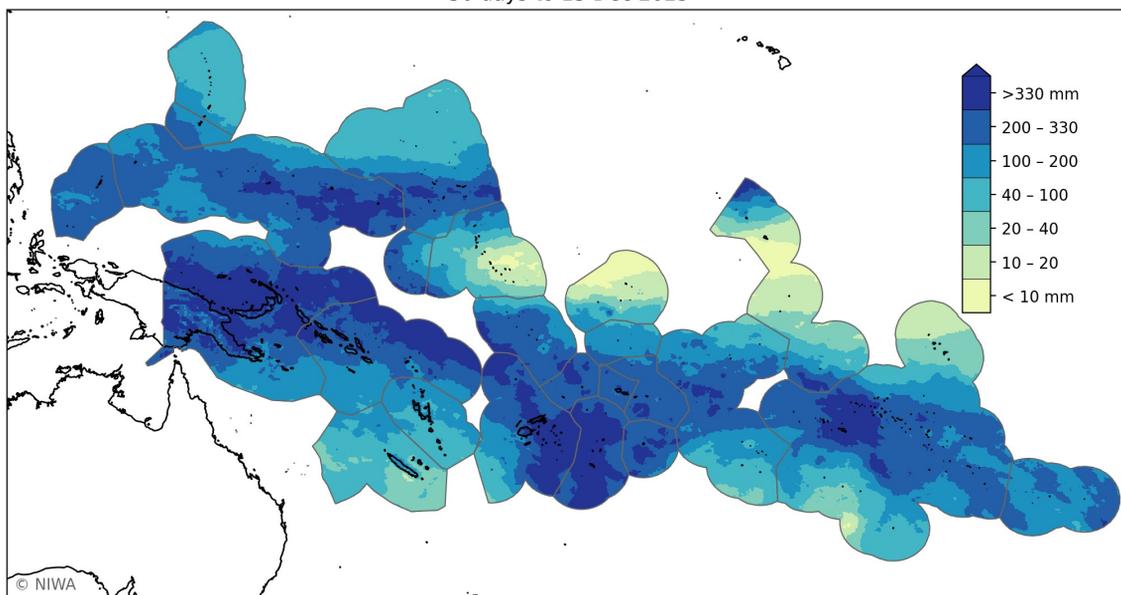
During the 90 days ending 13 December (top plot), over 990 mm of rain fell across parts of Palau, the Federated States of Micronesia (FSM), southern Marshall Islands, and parts of Papua New Guinea (PNG). Less than 60 mm of rain was observed in Kiribati (Gilbert, Phoenix, and Line Islands).

During the 30 days ending 13 December (bottom plot), over 330 mm of rain fell across parts of FSM, southern Marshall Islands, parts of PNG and the Solomon Islands, Fiji, Tonga, Society Islands, and western Tuamotu Archipelago. Less than 40 mm of rain fell in New Caledonia, Kiribati (Gilbert, Phoenix, and Line Islands), Marquesas, and parts of the Austral Islands.

Cumulative rainfall (mm), source: MSWEP 2.8.0  
90 days to 13 Dec 2025



Cumulative rainfall (mm), source: MSWEP 2.8.0  
30 days to 13 Dec 2025



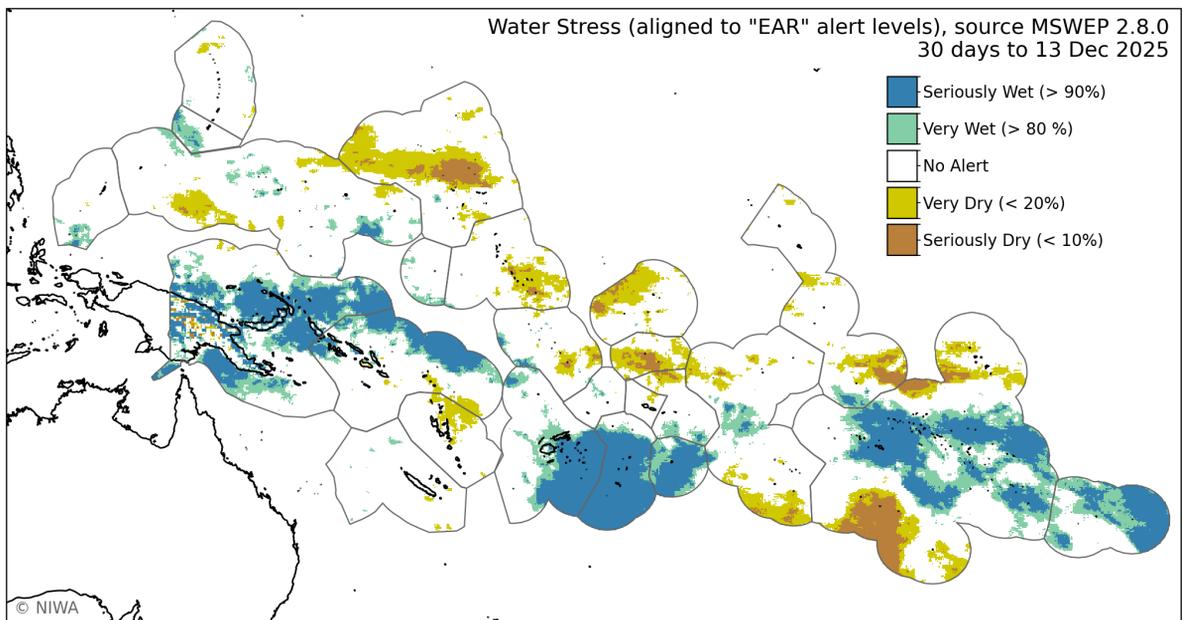
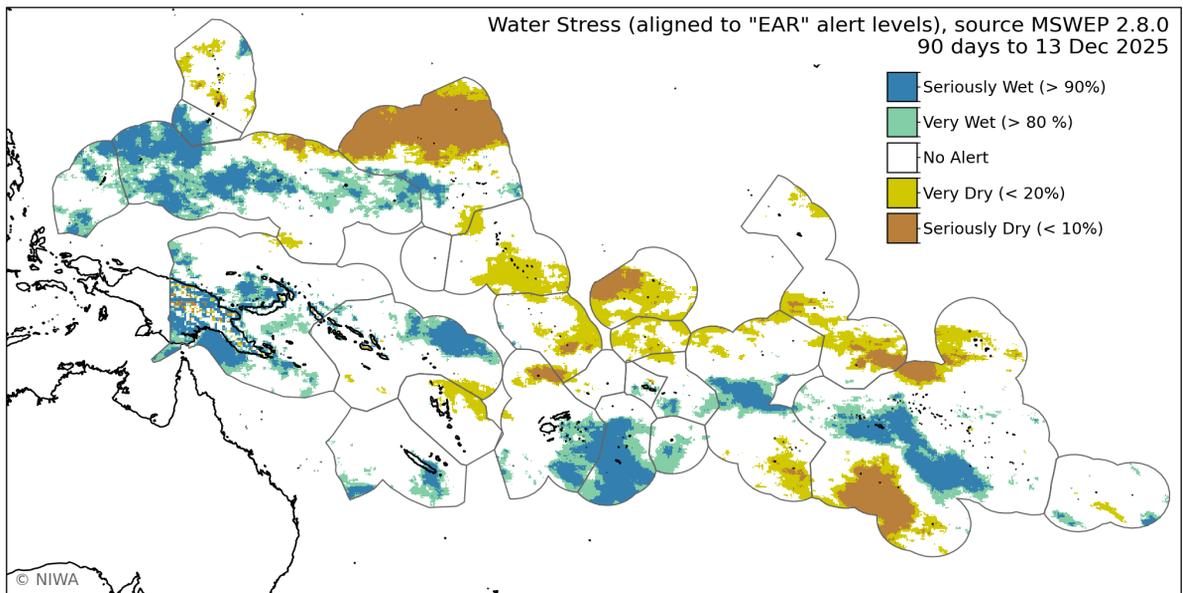


### EAR regional situation summary (13 December 2025)

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 13 December (top plot), seriously dry or very dry conditions affected parts of the Northern Marianas, northern Marshall Islands, isolated parts of the Solomon Islands, Kiribati (Gilbert and Phoenix Islands), parts of Tuvalu and Tokelau, northern Vanuatu, northern Fiji, southern Cook Islands, Austral Islands, and parts of the Marquesas.

During the 30 days ending 13 December (bottom plot), seriously dry or very dry conditions affected parts of the Marshall Islands, eastern Solomon Islands, northern Vanuatu, southern Tuvalu, Tokelau, isolated parts of the northern and southern Cook Islands, and Marquesas.



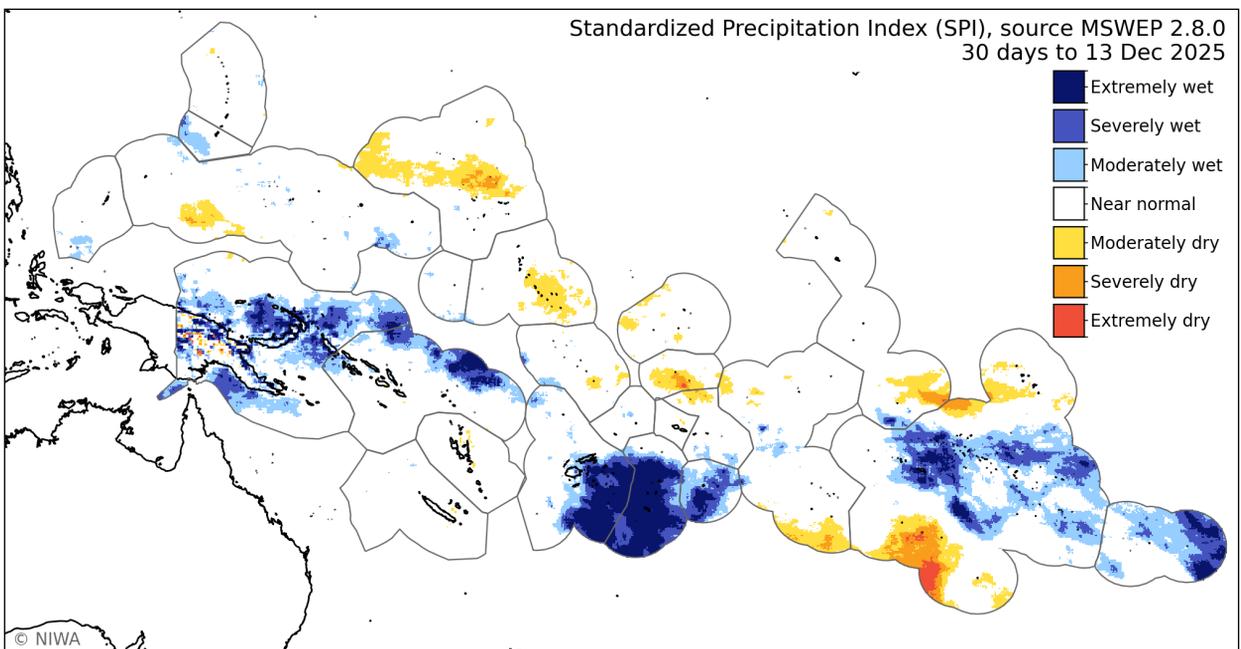
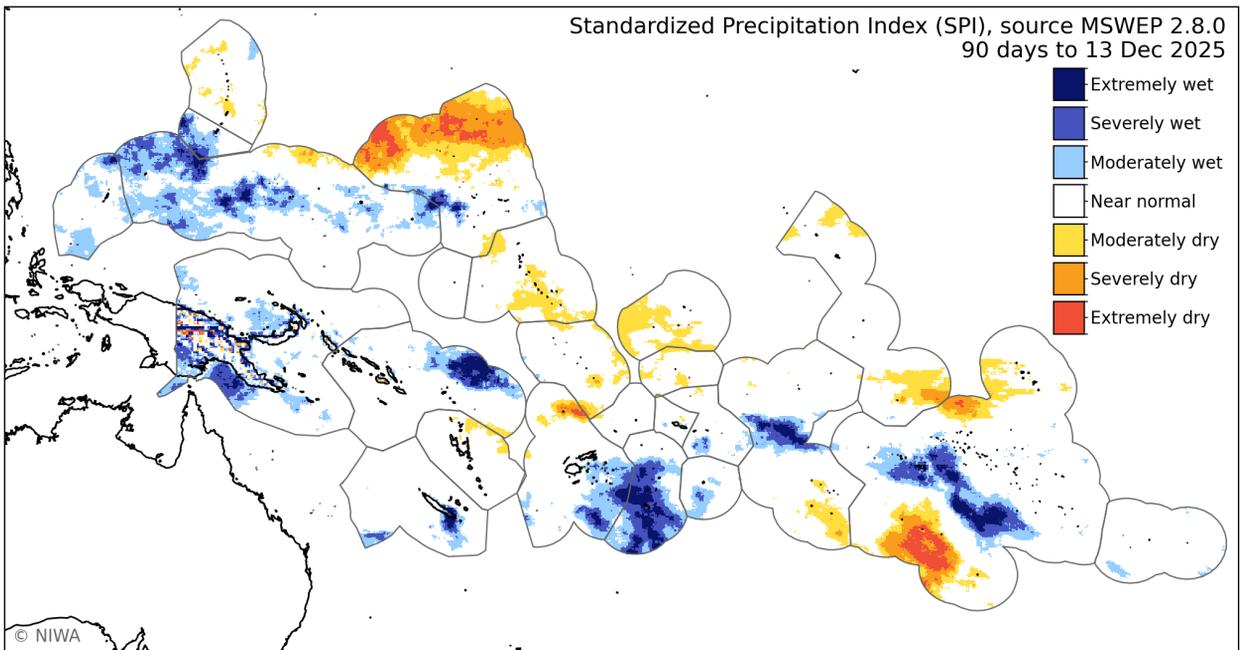


### SPI Regional situation summary (13 December 2025)

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 13 December (top plot), extremely dry or severely dry conditions occurred in the northern Marshall Islands, isolated parts of the Solomon Islands, far northern Fiji, and the Austral Islands.

During the 30 days ending 13 December (bottom plot), extremely dry or severely dry conditions occurred in the central Marshall Islands, Tokelau, and the Austral Islands.



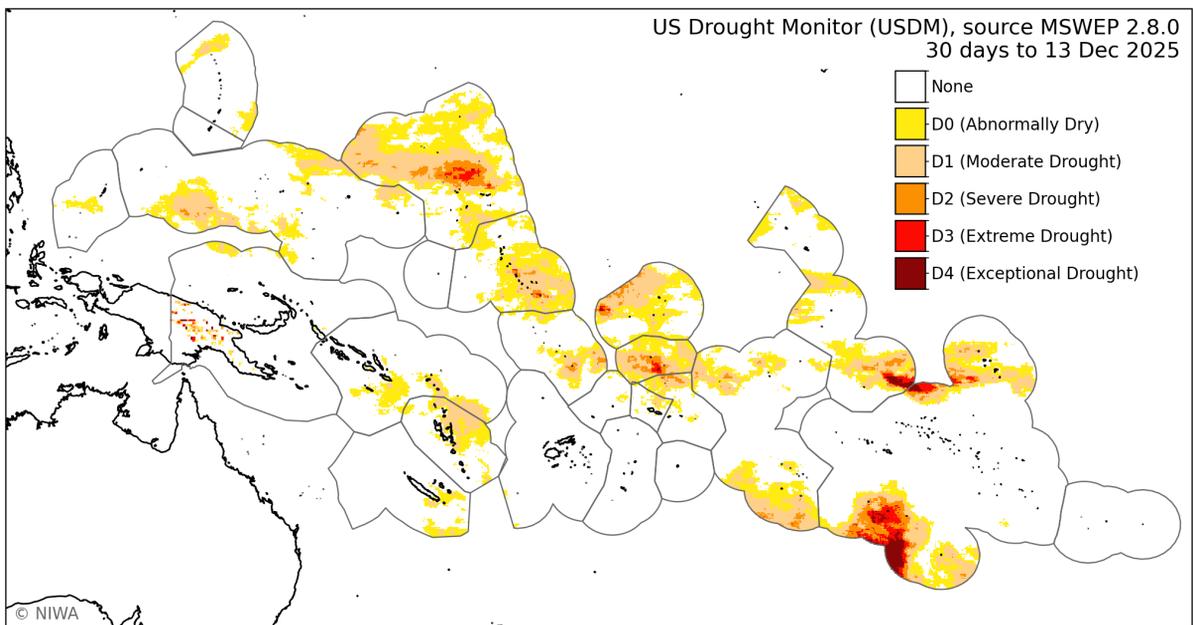
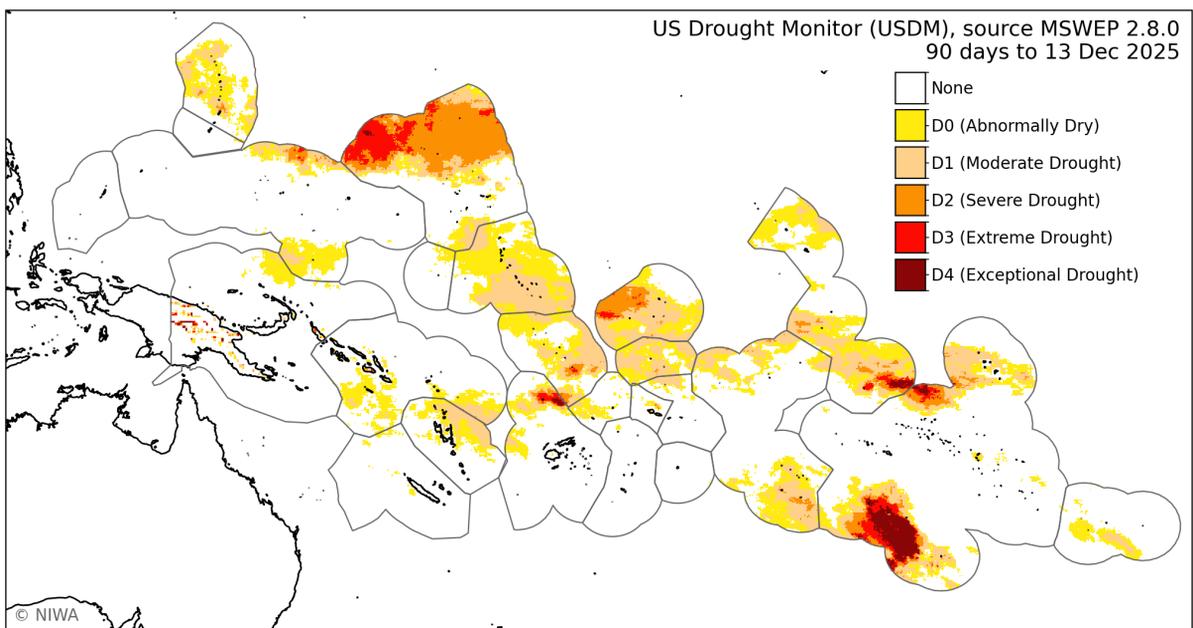


### USDM Regional situation summary (13 December 2025)

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 13 December (top plot), extreme or exceptional drought occurred in the northern Marshall Islands, far northern Fiji, southern Tuvalu, and the Austral Islands.

During the 30 days ending 13 December (bottom plot), extreme or exceptional drought occurred in the central Marshall Islands, Kiribati (Gilbert Islands), Tokelau, and the Austral Islands.





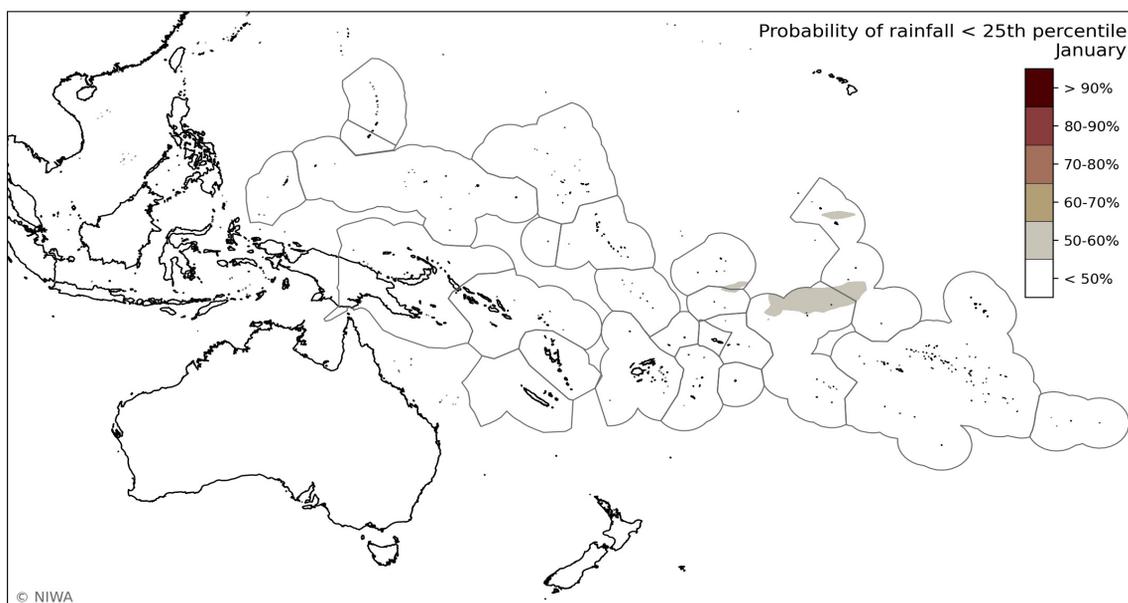
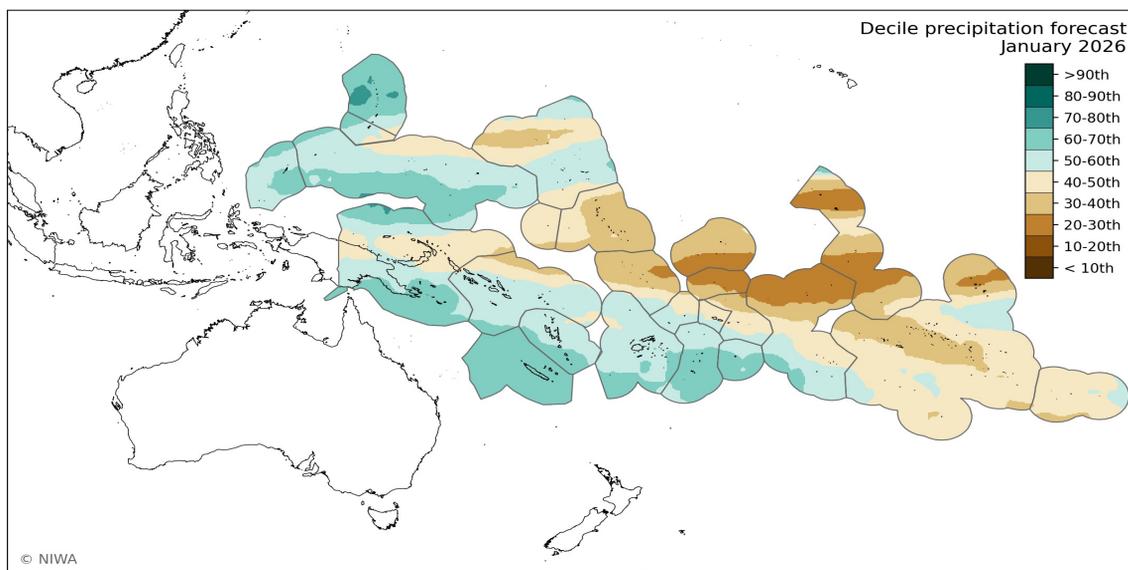
### January 2026 forecast & probabilities of rainfall < 25<sup>th</sup> percentile

During January, significantly below normal rainfall is favoured in the northern Marshall Islands, 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, Northern Marianas, southern FSM, southern PNG, New Caledonia, southern Vanuatu, much of Tonga, and Niue.

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

For January, the highest chances for very dry conditions are located in the northern Cook Islands.



# Island Climate Update

## Water Stress Outlook



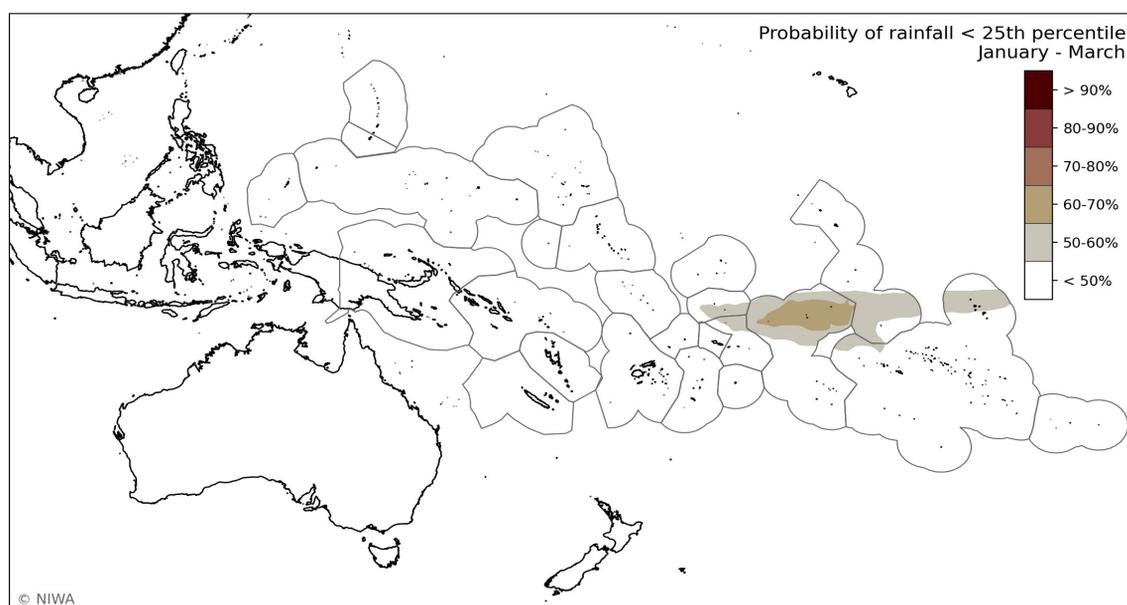
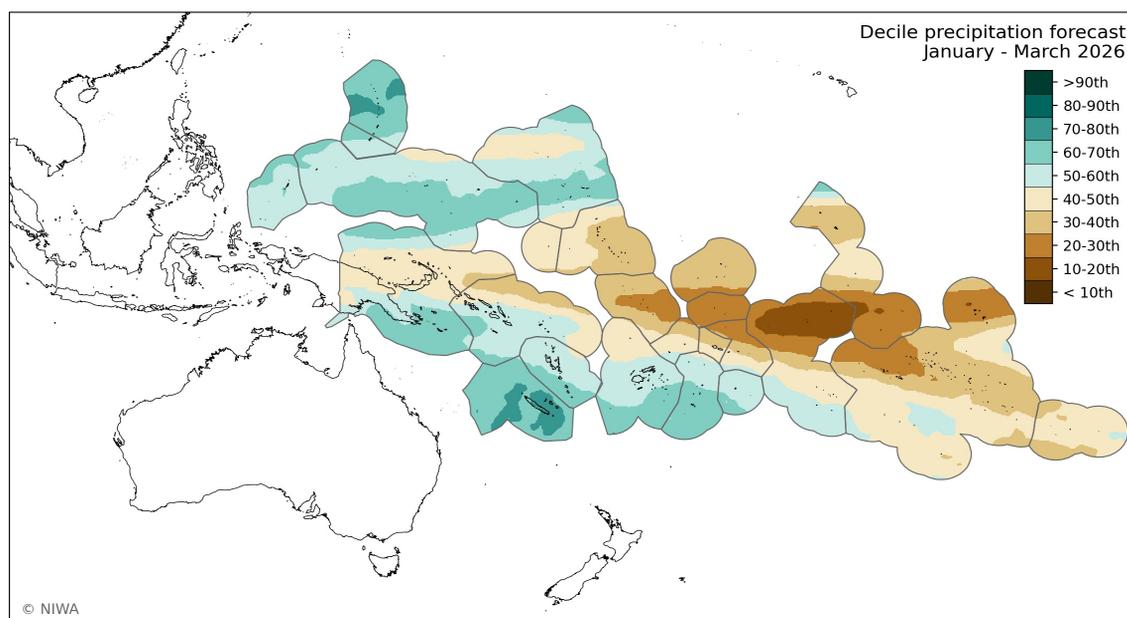
### Jan-Mar 2026 forecast & probabilities of rainfall < 25<sup>th</sup> percentile

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

Significantly above normal rainfall is favoured in the Northern Marianas, southern FSM and the Marshall Islands, southern PNG, New Caledonia, southern Vanuatu, southern Fiji, and southern Tonga.

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

For January-March, the highest chances for very dry conditions are located in Tokelau, northern American Samoa, northern Cook Islands, 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	<p>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.</p> <p>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%.</p> <p>The bottom plots bring together conditions over the past 3 months and forecast conditions over the next month:</p> <ul style="list-style-type: none"> <li>• Current water stress conditions potentially easing: Past 3 month accumulation less than 25<sup>th</sup> percentile. 1 month / seasonal accumulation forecast greater than 25<sup>th</sup> percentile.</li> <li>• Areas moving into water stress: Past 3 month accumulation between the 40<sup>th</sup> and 25<sup>th</sup> percentile. 1 month / seasonal accumulation forecast less than 25<sup>th</sup> percentile.</li> <li>• Current water stress conditions persisting: Past 3 month accumulation less than 25<sup>th</sup> percentile. 1 month / seasonal accumulation forecast less than 25<sup>th</sup> percentile.</li> </ul> <p>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).</p>
<p>Online Resources</p>	<p><b>Additional regional and country-level resources are available online:</b></p> <ul style="list-style-type: none"> <li>• Daily updated plots for 30, 60, 90, 180 and 365 day: accumulative rainfall, number of dry days, number of days since last rainfall &gt; 1 mm, EAR, SPI and USDM indices.</li> <li>• A range of probabilistic one to five monthly and seasonal forecast plots updated around the 11<sup>th</sup> of each month.</li> <li>• Click <a href="#">here for the imagery</a> and here for the underlying forecast data <a href="#">[forecast]</a>.</li> </ul>



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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## Contact

[islandclimateupdate@comms.niwa.co.nz](mailto:islandclimateupdate@comms.niwa.co.nz)

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