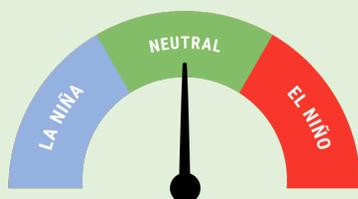


Island Climate Update



ENSO Watch
October 2025

Recent



ENSO-Neutral

ENSO-neutral conditions currently remain in place in the tropical Pacific, but they are trending toward La Niña.

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

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

60% chance for **La Niña** conditions to develop during **October-December 2025**

Chance for **La Niña** conditions to continue during **November-January**

60%



La Niña Watch

Forecast

ENSO situation summary

ENSO-neutral conditions currently remain in place in the tropical Pacific, but they are trending toward La Niña. There is a 60% chance that La Niña conditions will develop during October-December 2025, with a 60% chance that La Niña conditions will continue during November 2025-January 2026.

As of 22 September 2025, the 30-day NINO3.4 Index (in the central equatorial Pacific) was -0.38°C , in the neutral range. The 30-day relative Niño 3.4 Index (RONI) was -0.70°C , at the La Niña threshold 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 July-September (+0.4), while the September value was 0.0 (in the neutral range).

Temperatures in the subsurface equatorial Pacific remain above average in the western part of the basin with cooler than average temperatures continuing to develop in the east.

Notably cooler than average temperatures are currently located in the eastern equatorial Pacific at depths of 50-200 metres. These cooler water temperatures reaching the surface will move conditions in a La Niña direction.

Upper oceanic heat content is also moving in a La Niña-like direction.

During October-December, model guidance favours an enhancement in convective forcing over the western Pacific and parts of Melanesia, 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 along and north of the equator, including much of the Marshall Islands, Nauru, Kiribati, Tuvalu, Tokelau, northern Cook Islands, and northern French Polynesia (see pages 6-7 for more information).

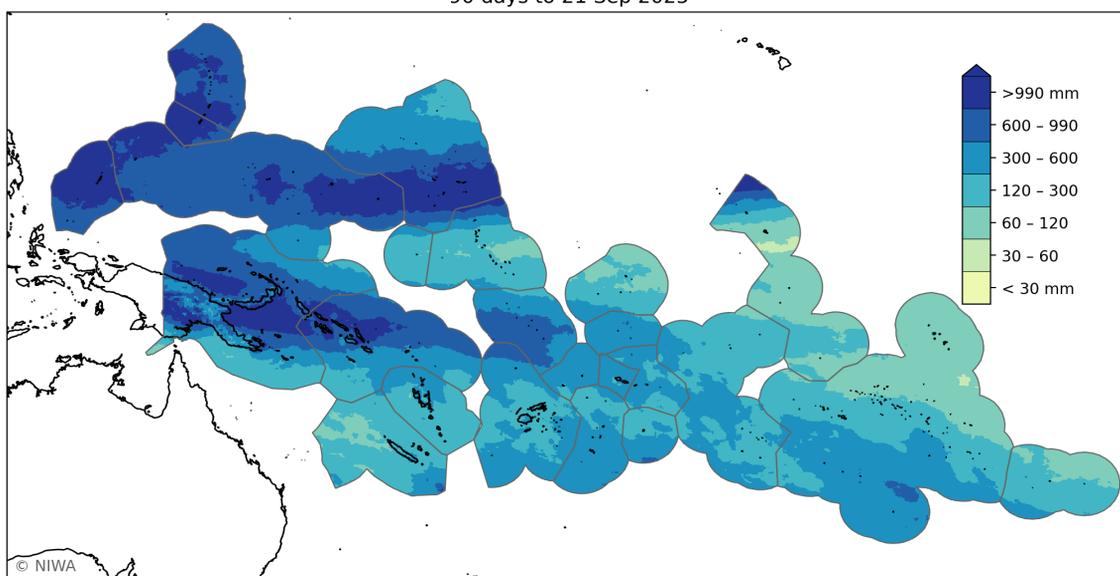
Regional situation summary (21 September 2025)

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

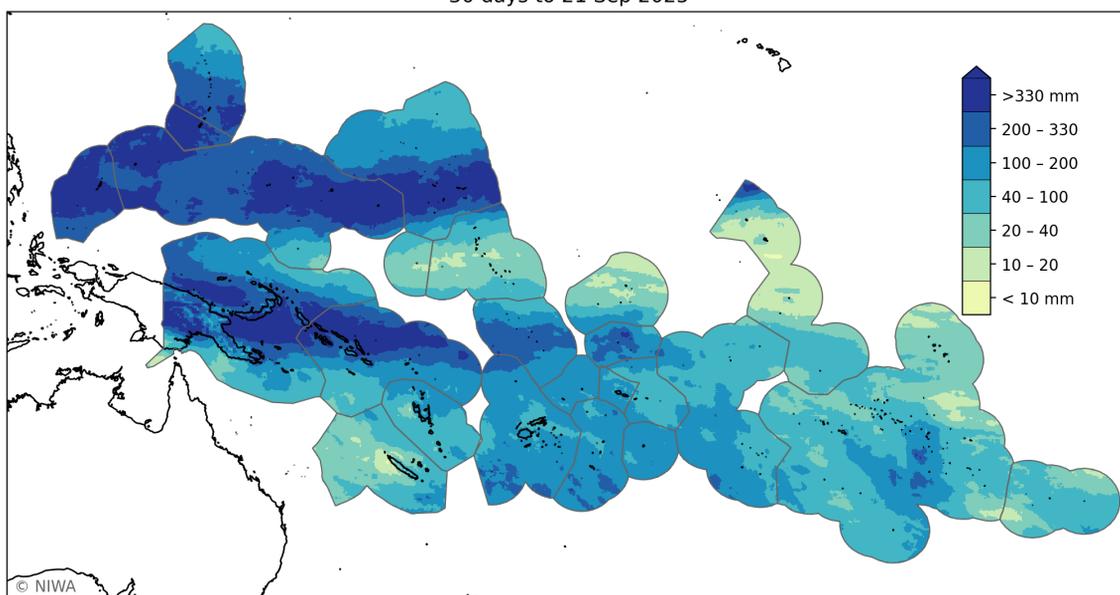
During the 90 days ending 21 September (top plot), over 990 mm of rain fell across Palau, Guam, the Northern Marianas, portions of the Federated States of Micronesia (FSM), southern Marshall Islands, and parts of Papua New Guinea (PNG) and the Solomon Islands. Less than 60 mm of rain was not observed in any island group.

During the 30 days ending 21 September (bottom plot), over 330 mm of rain fell across Palau, Guam, portions of FSM, southern Marshall Islands, and parts of PNG and the Solomon Islands. Less than 40 mm of rain fell in New Caledonia, Nauru, Kiribati (Gilbert, Phoenix, and Line Islands), parts of the Tuamotu Archipelago, and the Marquesas.

Cumulative rainfall (mm), source: MSWEP 2.8.0
90 days to 21 Sep 2025



Cumulative rainfall (mm), source: MSWEP 2.8.0
30 days to 21 Sep 2025

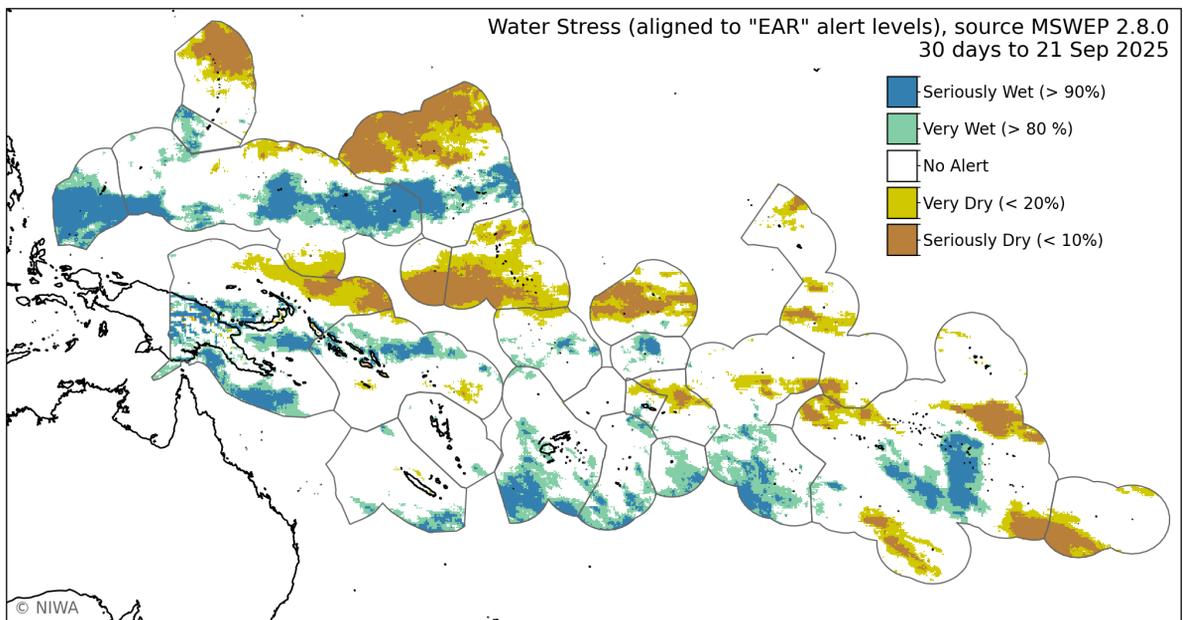
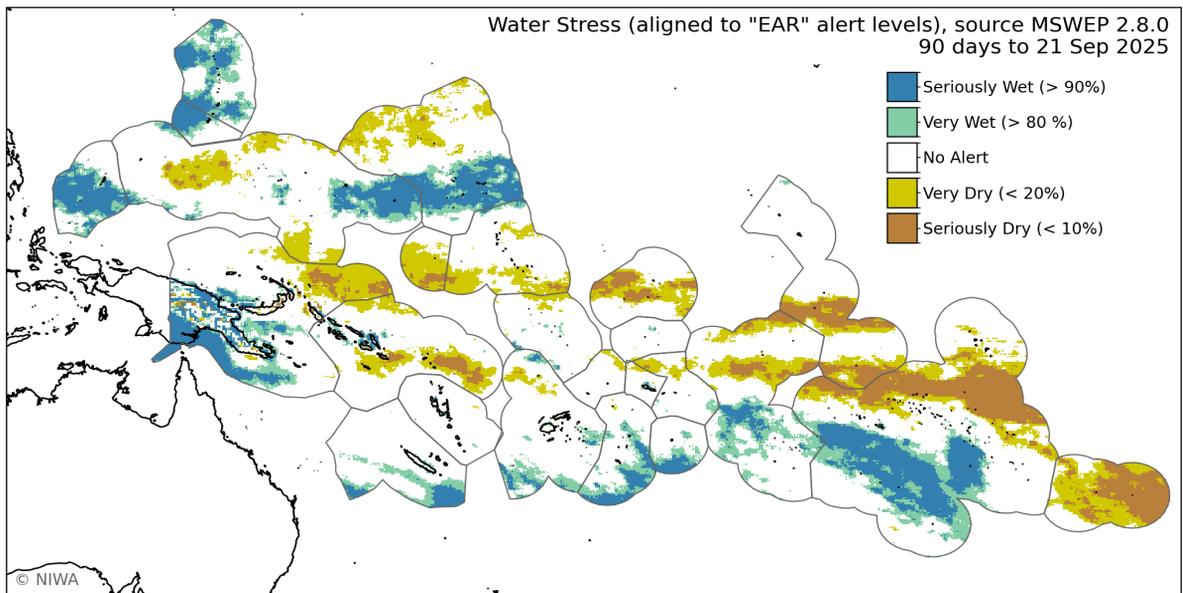


EAR regional situation summary (21 September 2025)

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 21 September (top plot), seriously dry or very dry conditions affected parts of FSM, northern Marshall Islands, northern PNG, southern and eastern Solomon Islands, Nauru, parts of Kiribati (Gilbert, Phoenix, and Line Islands), northern Fiji, northern American Samoa, northern Cook Islands, parts of the Tuamotu Archipelago and Marquesas, and the Pitcairn Islands.

During the 30 days ending 21 September (bottom plot), seriously dry or very dry conditions affected the northern Marshall Islands, southern and eastern Solomon Islands, Nauru, Kiribati (Gilbert, Phoenix, and central Line Islands), and isolated parts of the Tuamotu Archipelago.

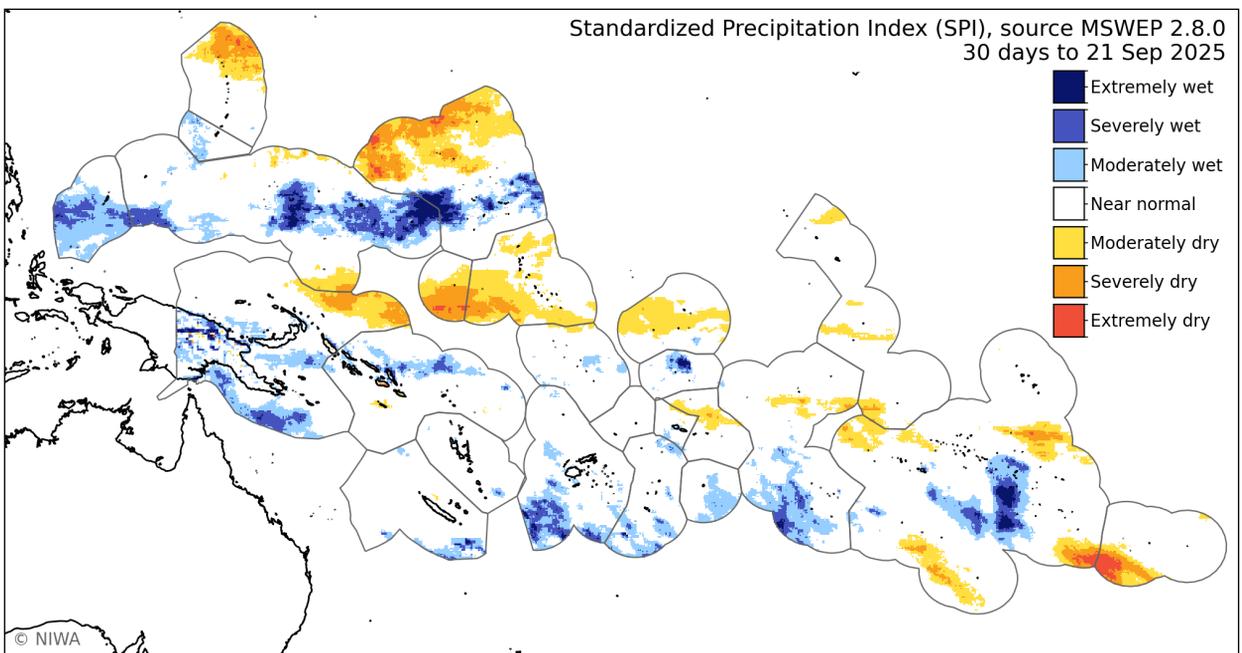
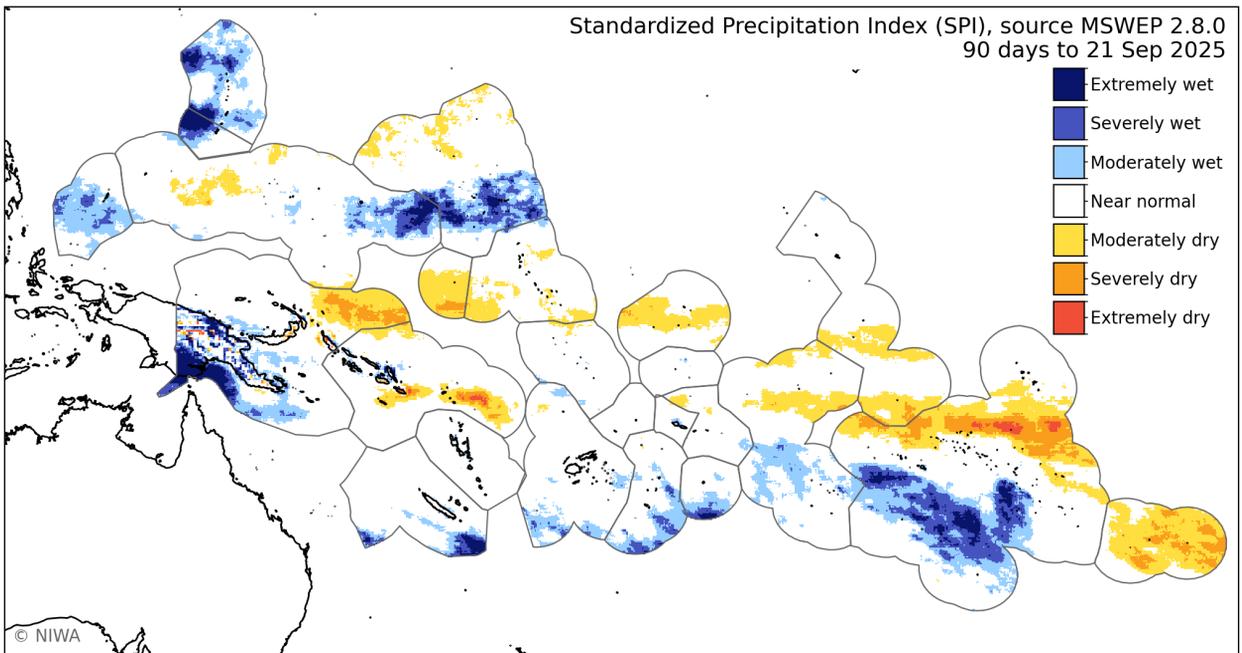


SPI Regional situation summary (21 September 2025)

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 21 September (top plot), extremely dry or severely dry conditions occurred in the southern and eastern Solomon Islands, northern Tuamotu Archipelago, and Pitcairn Islands.

During the 30 days ending 21 September (bottom plot), extremely dry or severely dry conditions occurred in the northern Marshall Islands and Nauru.

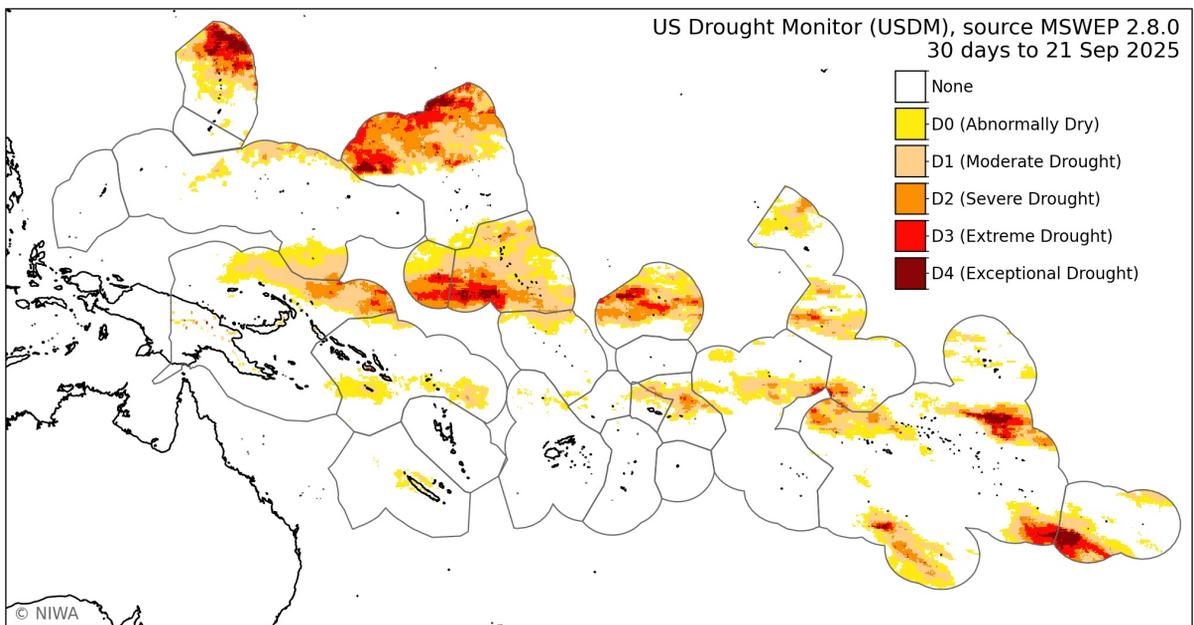
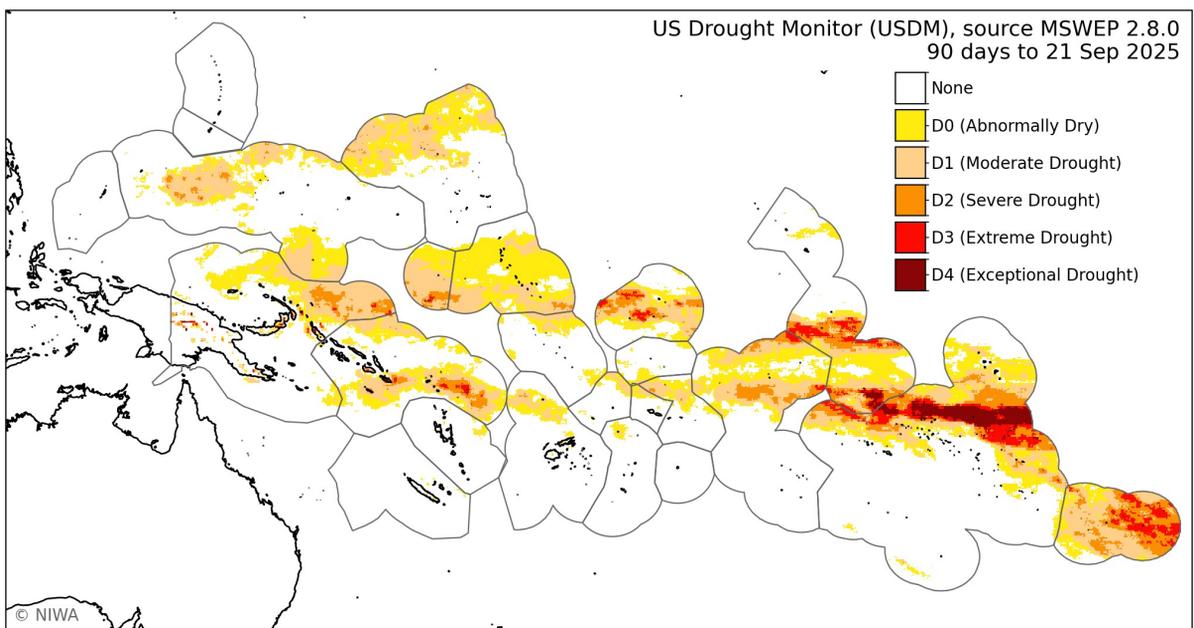


USDM Regional situation summary (21 September 2025)

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 21 September (top plot), extreme or exceptional drought occurred in parts of far northern PNG, southern and eastern Solomon Islands, Kiribati (Phoenix and central Line Islands), northern Tuamotu Archipelago, and the Pitcairn Islands.

During the 30 days ending 21 September (bottom plot), extreme or exceptional drought occurred in the northern Marshall Islands, Nauru, Kiribati (Phoenix Islands), and northern Tuamotu Archipelago.



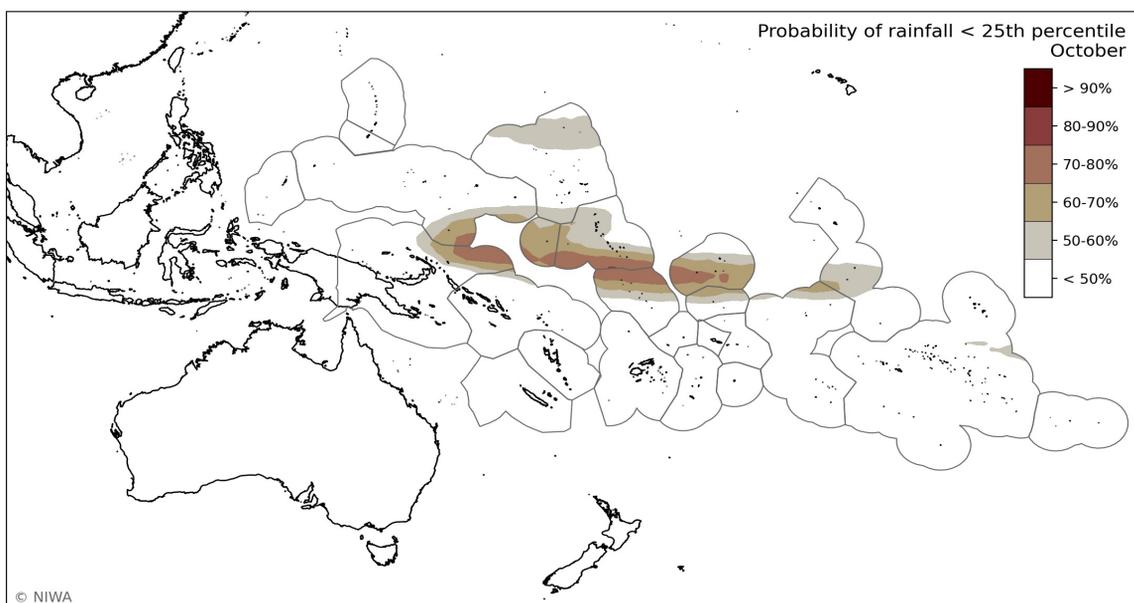
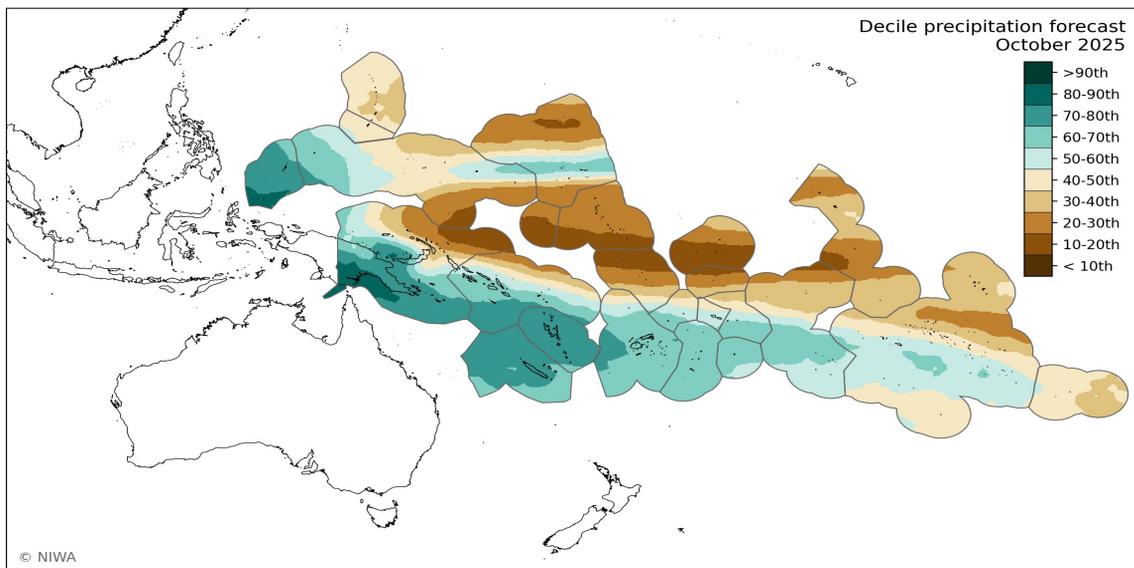
October 2025 forecast & probabilities of rainfall < 25th percentile

During October, significantly below normal rainfall is favoured in the Northern Marianas, 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, parts of the Tuamotu Archipelago, and Marquesas.

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

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

For October, the highest chances for very dry conditions are located in southern FSM, far northern Marshall Islands, Nauru, Kiribati (Gilbert, Phoenix, and central Line Islands), northern Tuvalu, and northern Tokelau.



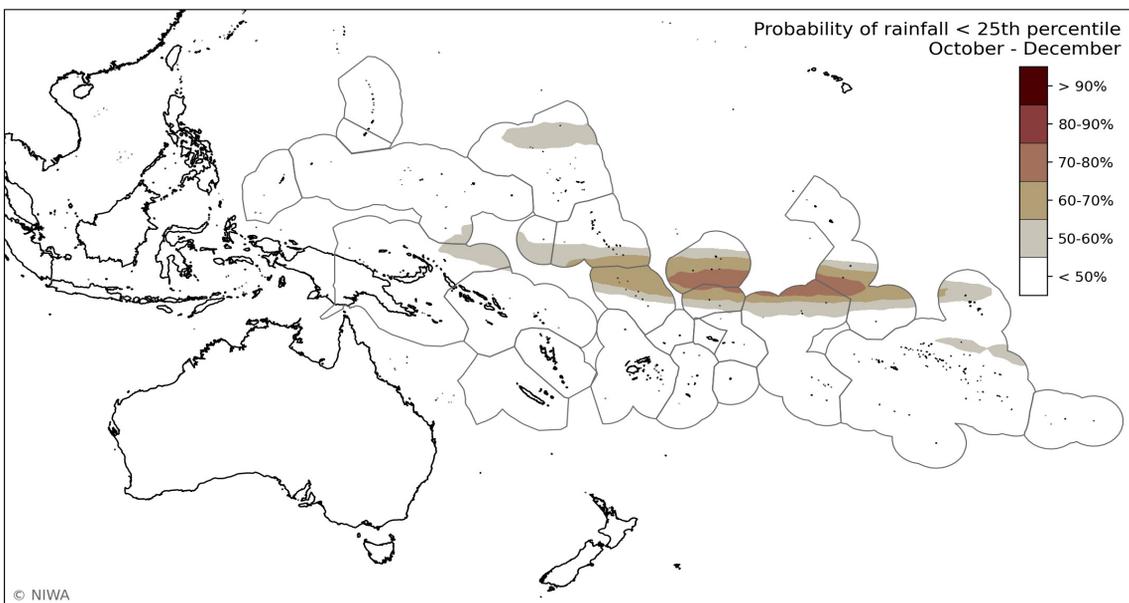
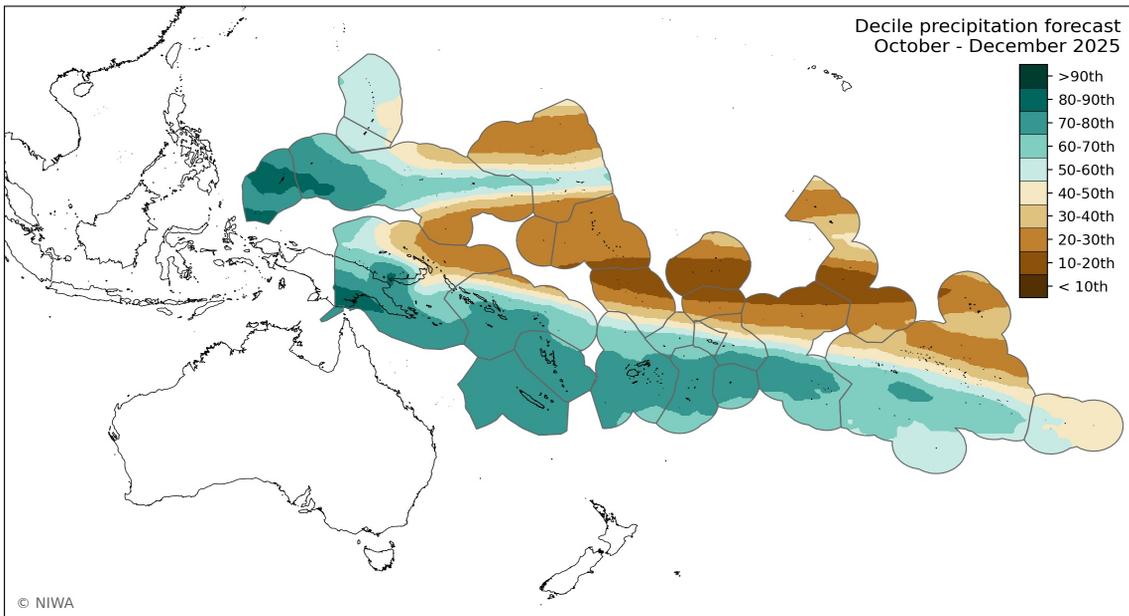
Oct-Dec 2025 forecast & probabilities of rainfall < 25th percentile

During October-December, 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, western and central FSM, southern PNG, southern Solomon Islands, New Caledonia, Vanuatu, Fiji, Wallis and Futuna, Samoa, southern American Samoa, Tonga, Niue, southern Cook Islands, and parts of the Austral Islands and southern Tuamotu Archipelago.

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

For October-December, the highest chances for very dry conditions are located in the northern Marshall Islands, Kiribati (southern Gilbert, Phoenix, and central Line Islands), northern Tuvalu, Tokelau, northern Cook Islands, and an isolated part of the northern Tuamotu Archipelago and northern Marquesas.



Island Climate Update



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"> • 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. <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>Additional regional and country-level resources are available online:</p> <ul style="list-style-type: none"> • 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].



NIWA 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 NIWA Strategic Science Investment Funding under contract PRAS2401.

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