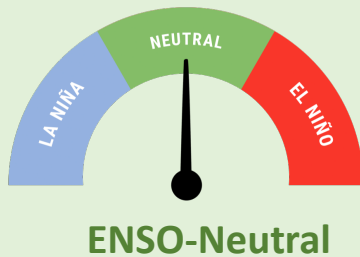


Island Climate Update



ENSO Watch
June 2025

Recent



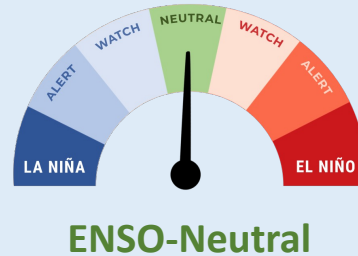
ENSO-neutral conditions are now in place.

The Southern Oscillation Index (SOI) was on the La Niña side of the neutral range (+0.5) from March-May.

Tropical Pacific Ocean sea surface temperatures (SSTs) are in the ENSO-neutral range.

70% chance for **ENSO-neutral** conditions to continue during **June-August 2025**

Chance for **ENSO-neutral** conditions to continue during **July-September 2025** **60%**



Forecast

ENSO situation summary

ENSO-neutral conditions are now in place, and there is a 70% chance that ENSO-neutral conditions will continue during June-August 2025, followed by a 60% chance that ENSO-neutral will remain in place during July-September.

As of 19 May, the 30-day NINO3.4 Index (in the central equatorial Pacific) was -0.02°C , in the neutral range. The 30-day relative Niño 3.4 Index (RONI) was -0.41°C , reflective of the central equatorial Pacific being cooler than the average of the global tropics and on the La Niña side of neutral.

The Southern Oscillation Index (SOI) was on the La Niña side of the neutral range during March-May (+0.5), while the May value was +0.1 (in the neutral range).

The subsurface equatorial Pacific is barely cooler than average just below the surface in the central part of the basin, a continued warming trend since last month. In addition, above average temperatures are emerging in the eastern Pacific. Both of these factors indicate ENSO-neutral conditions. Meanwhile, above average upper oceanic heat content continues in western parts of the Pacific basin.

The South Pacific Convergence Zone (SPCZ) was located close to its climatological normal position during May.

During June-August, model guidance favours an enhancement in convective forcing over the western Pacific and Melanesia, collocated with the warmest sea surface temperatures and position of the SPCZ. This may lead to enhanced rainfall for places such as southern Papua New Guinea and the Solomon Islands in particular.

However, drier than normal conditions are likely to occur for several island groups along and north of the equator, including the Federated States of Micronesia, the Marshall Islands, Nauru, and portions of Kiribati (see pages 6-7 for more information).

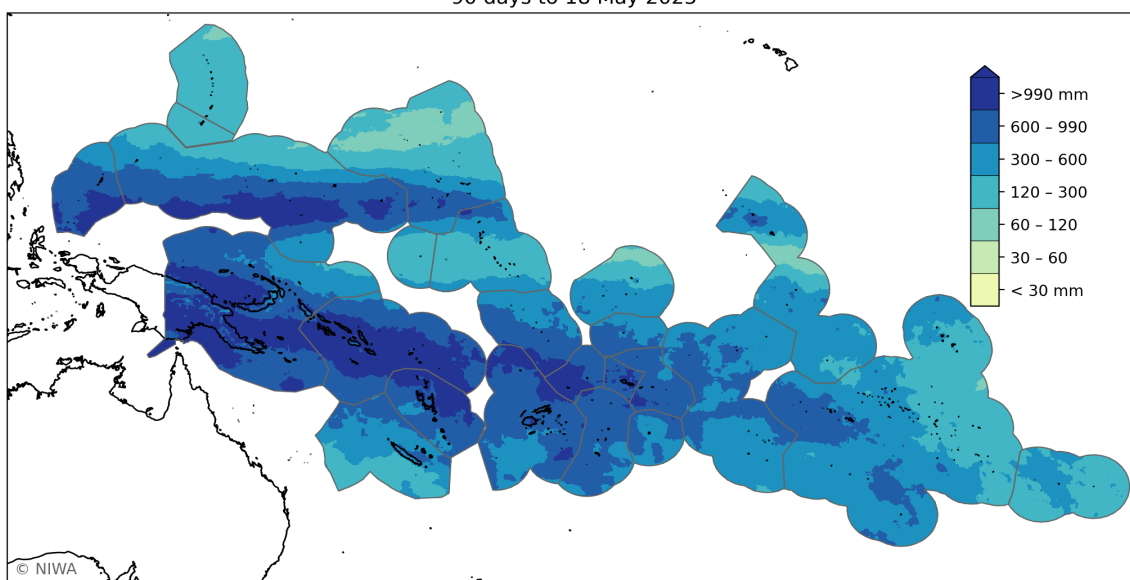
Regional situation summary (18 May 2025)

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

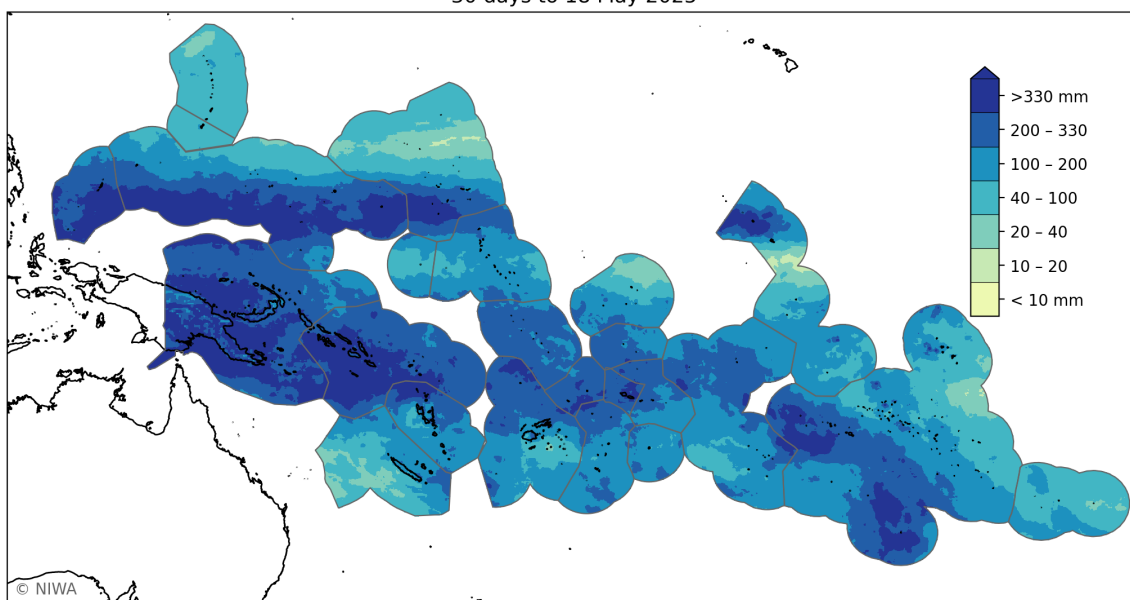
During the 90 days ending 18 May (top plot), over 990 mm of rain fell across southern Federated States of Micronesia (FSM), parts of Papua New Guinea (PNG), Solomon Islands, northern Vanuatu, northern Fiji, southern Tuvalu, Wallis and Futuna, and Samoa. Less than 60 mm of rain was not observed in any island groups.

During the 30 days ending 18 May (bottom plot), over 330 mm of rain fell across Palau, southern FSM and the Marshall Islands, much of PNG, Solomon Islands, northern Vanuatu, Samoa, parts of the Austral and Society Islands, and Kiribati (northern Line Islands). Less than 40 mm of rain fell in the northern Marshall Islands and a small part of Fiji.

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



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

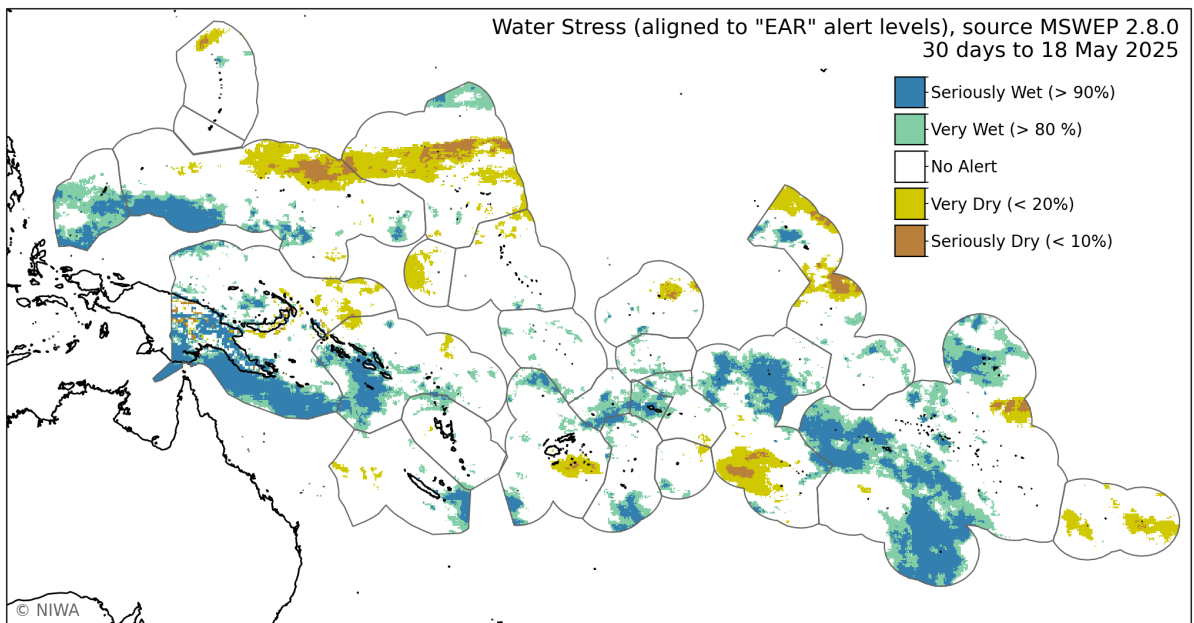
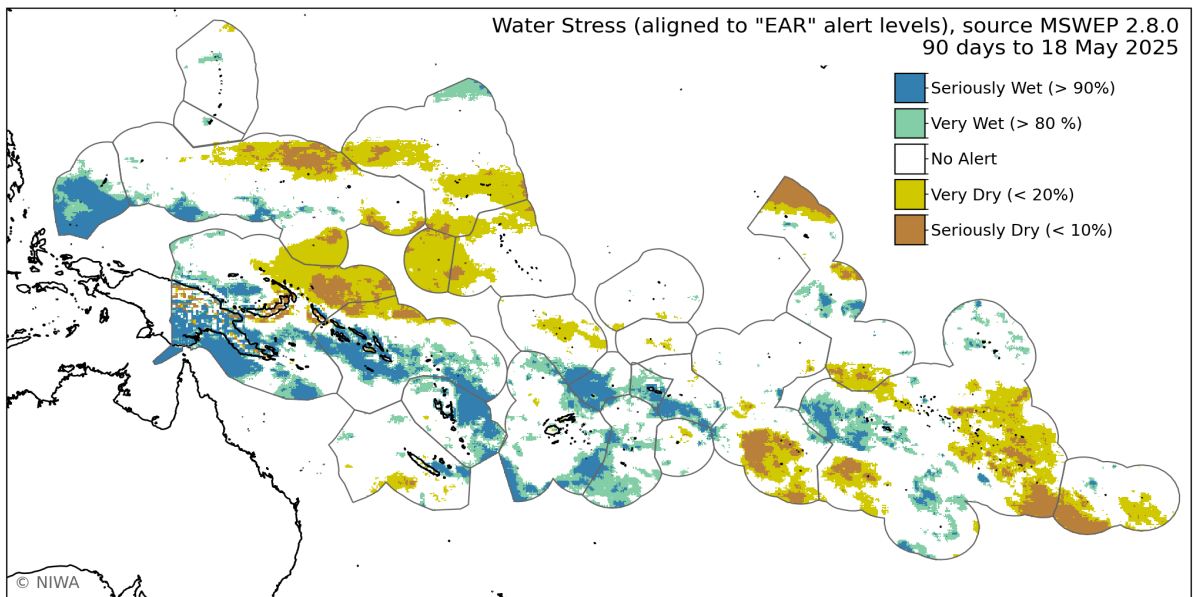


EAR regional situation summary (18 May 2025)

Cumulative rainfall thresholds 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 May (top plot), seriously dry or very dry conditions affected parts of FSM and the Marshall Islands, northern PNG, parts of the Solomon Islands and New Caledonia, Nauru, Kiribati (western Gilbert Islands), parts of Tuvalu and Tokelau, southern Cook Islands, and parts of the Austral Islands and Tuamotu Archipelago.

During the 30 days ending 18 May (bottom plot), seriously dry or very dry conditions affected northern FSM and the Marshall Islands, parts of northern PNG, Solomon Islands, and Vanuatu, parts of Fiji, southern Cook Islands, and parts of the Pitcairn Islands.

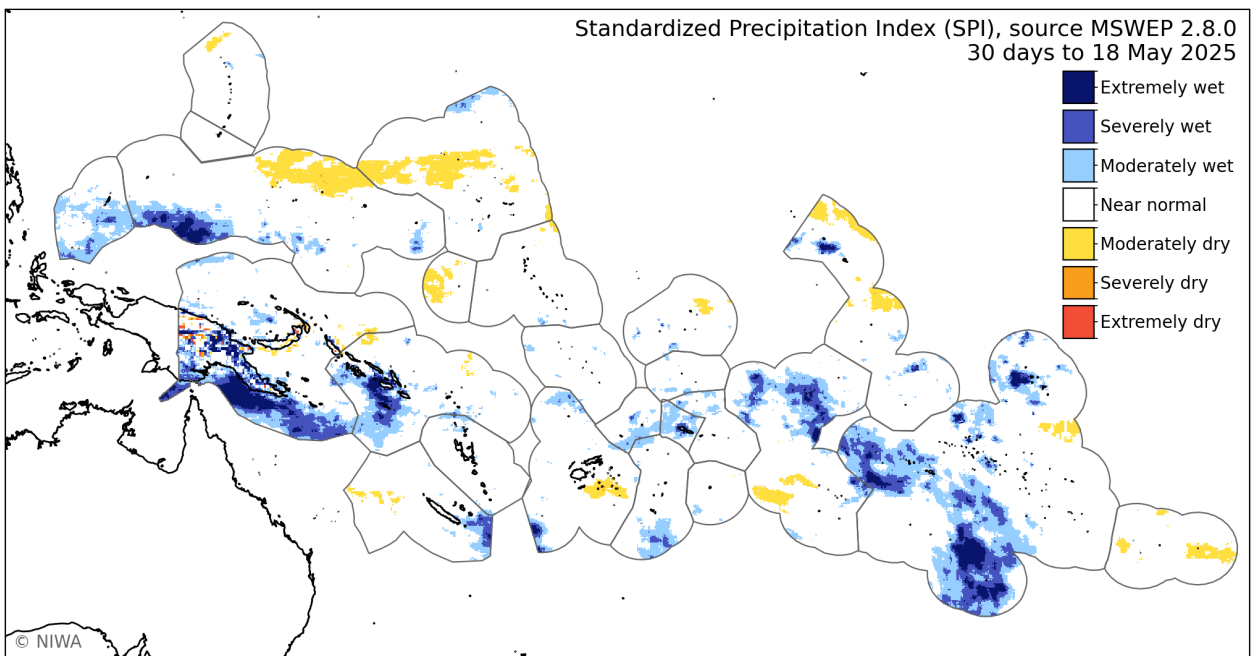
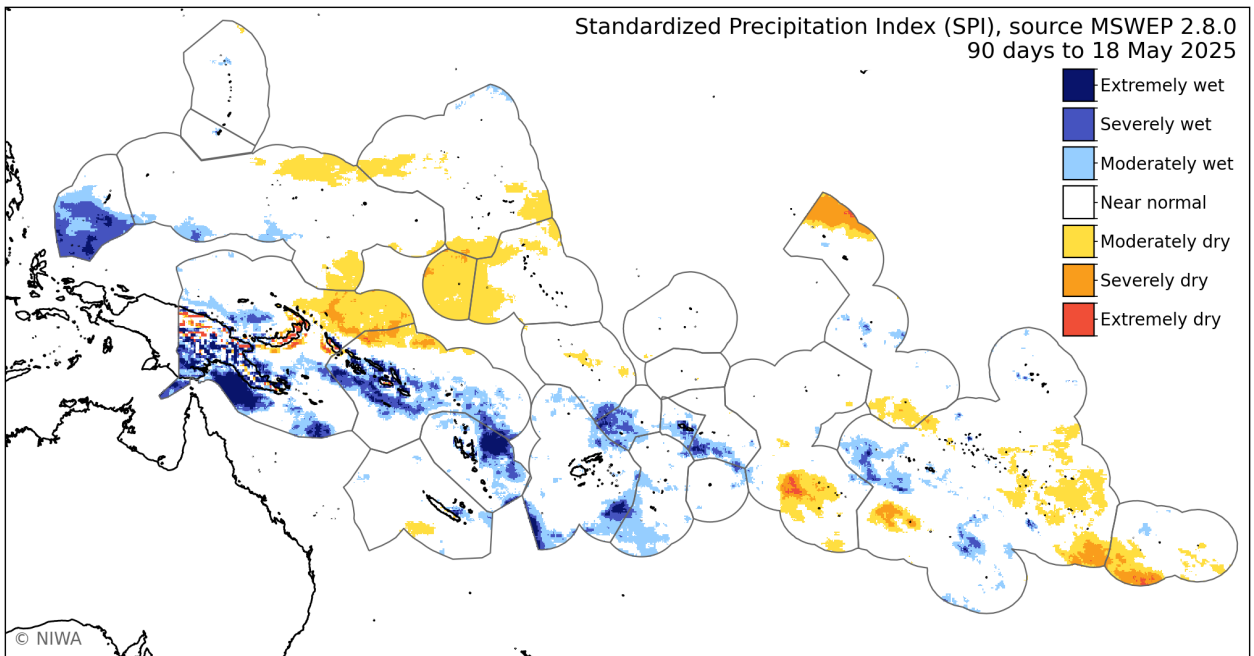


SPI Regional situation summary (18 May 2025)

The Standardized Precipitation Index (SPI) thresholds for cumulative rainfall over the last 90 and 30 days are shown in the plots below.

During the 90 days ending 18 May (top plot), extremely dry or severely dry conditions occurred in northern PNG, isolated parts of the Solomon Islands, and parts of the southern Cook Islands and Austral Islands.

During the 30 days ending 18 May (bottom plot), extremely dry or severely dry conditions occurred in small parts of northern PNG.

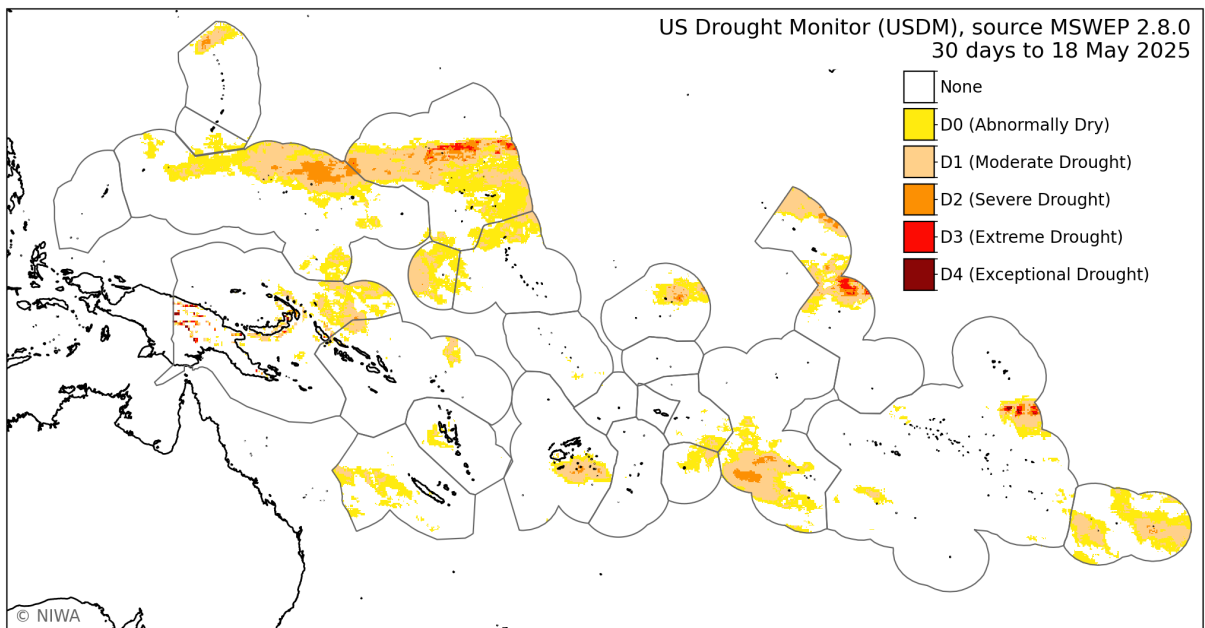
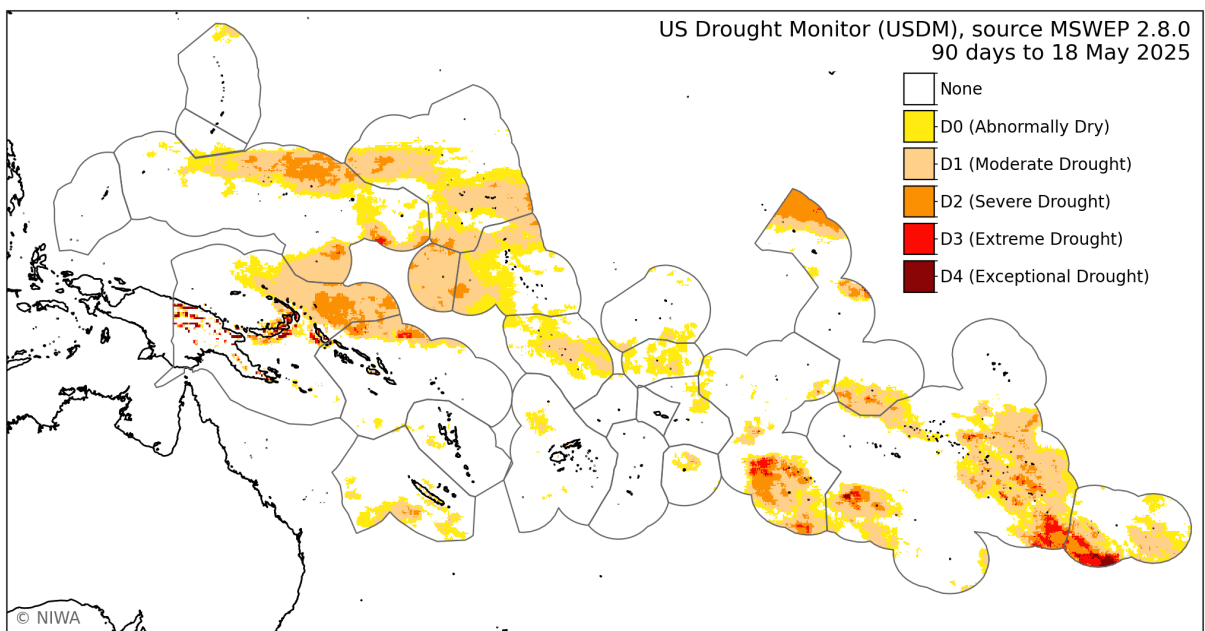


USDM Regional situation summary (18 May 2025)

The US Drought Monitor Index (USDM) levels for cumulative rainfall over the last 90 and 30 days are shown in the plots below.

During the 90 days ending 18 May (top plot), extreme or exceptional drought occurred in northern PNG, southern Cook Islands, western Austral Islands, and parts of the Tuamotu Archipelago.

During the 30 days ending 18 May (bottom plot), extreme or exceptional drought occurred in isolated parts of the northern Marshall Islands.



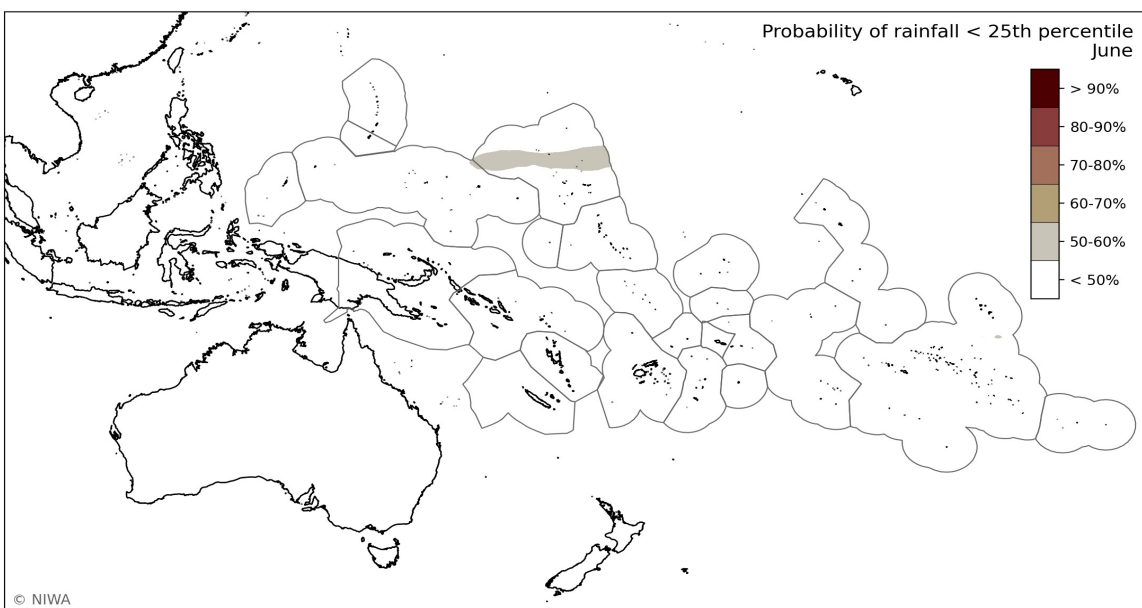
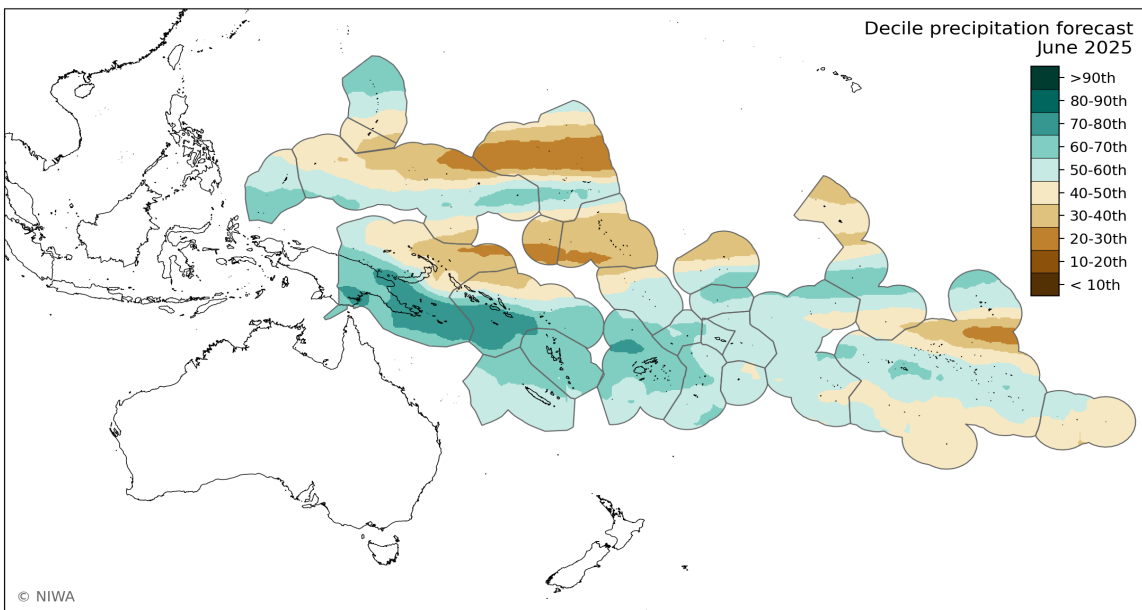
June 2025 forecast & probabilities of rainfall < 25th percentile

During June, significantly below normal rainfall is favoured in northern FSM and the Marshall Islands, isolated parts of northern PNG, Nauru, and Kiribati (Gilbert and northern Phoenix Islands).

Significantly above normal rainfall is favoured in southern Palau, isolated parts of southern FSM and the Marshall Islands, southern PNG, much of the Solomon Islands, Vanuatu, Fiji, parts of Tonga, Wallis and Futuna, Tokelau, Kiribati (central Line Islands), and parts of the Society Islands.

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

For June, the highest chances for very dry conditions are located across the central Marshall Islands.



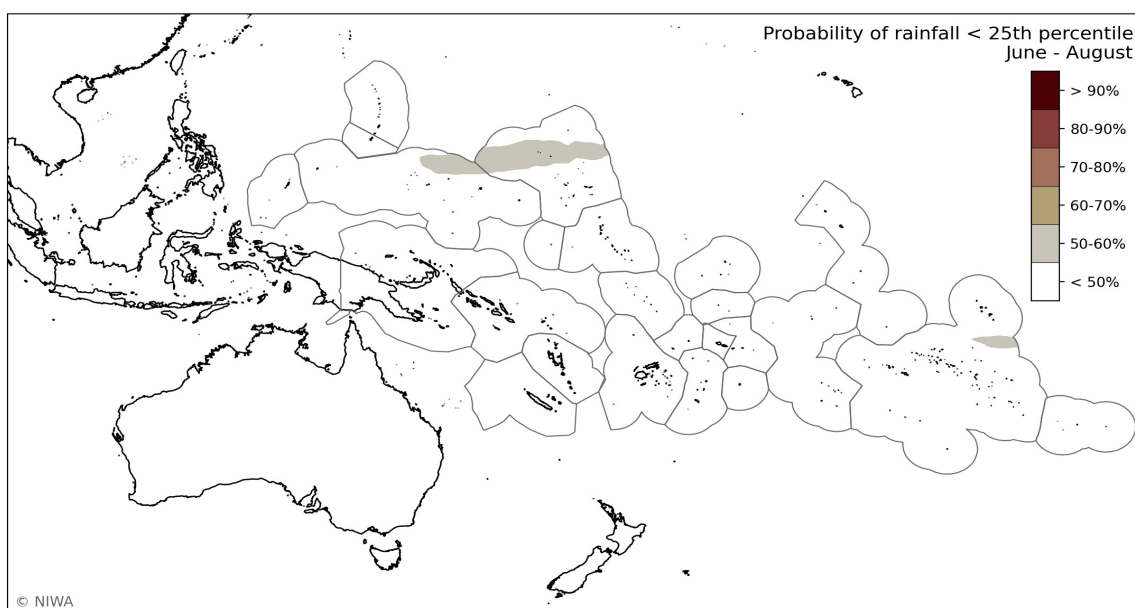
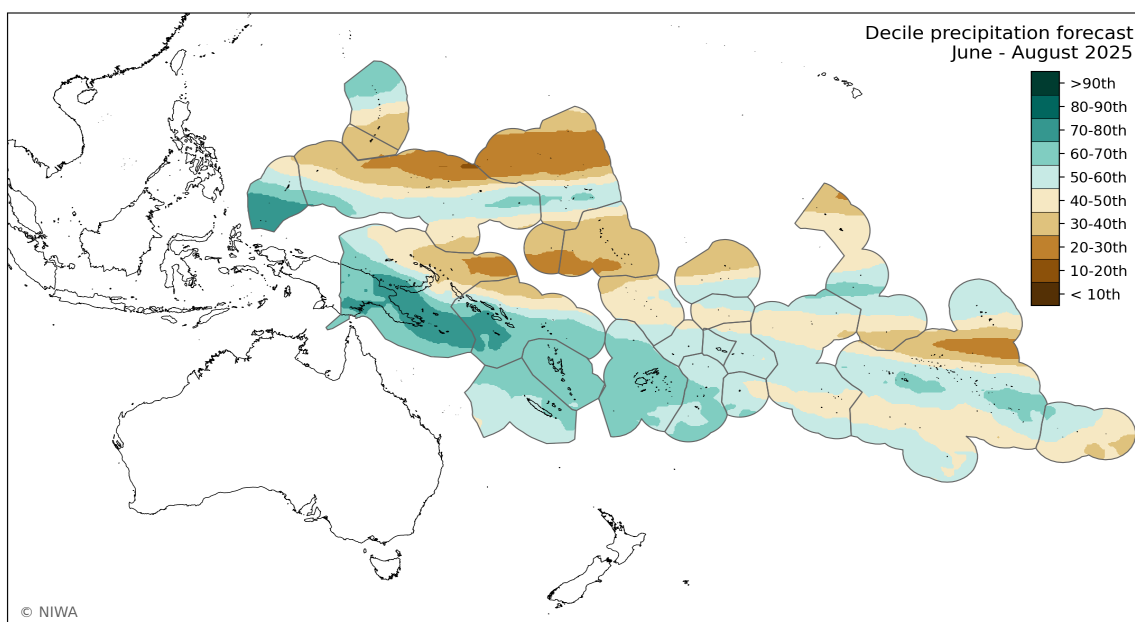
Jun-Aug 2025 forecast & probabilities of rainfall < 25th percentile

During June-August, significantly below normal rainfall is favoured in Guam, Northern Mariana Islands, northern FSM and the Marshall Islands, far northern PNG, Nauru, Kiribati (Gilbert and northern Phoenix Islands), and northern Tuamotu Archipelago.

Significantly above normal rainfall is favoured in southern Palau, isolated parts of southern FSM and the Marshall Islands, southern PNG, southern Solomon Islands, parts of New Caledonia, Vanuatu, Fiji, parts of Tonga, parts of the Society Islands and eastern Tuamotu Archipelago, and central Line Islands.

All other island groups are expected to see near normal rainfall amounts during June-August.

For June-August, the highest chances for very dry conditions are located across parts of the northern Marshall Islands.



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 nine 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 the satellite rainfall data and a multi-model ensemble forecast derived from nine 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 in to 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 data [observations, 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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