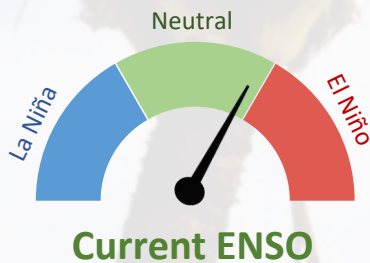


Recent



Current ENSO

The Pacific Ocean made a significant transition towards El Niño conditions during October 2018.

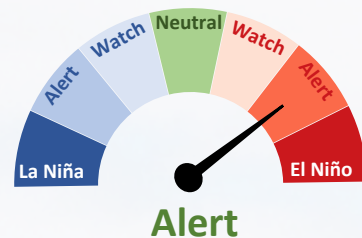
Sea surface temperatures in the equatorial Pacific warmed notably over the past month.

The Southern Oscillation Index (SOI) was slightly positive (+0.2) in October 2018.

88%

chance for El Niño conditions to become established during **November 2018 – January 2018**.

Chance for El Niño conditions during **March – May 2019** **88%**



Alert

Forecast

ENSO situation summary

Sea surface temperatures (SSTs) in the central Pacific (NINO3.4 Index) warmed notably over the past month, increasing from an anomaly of +0.25°C in September to +0.75°C in October. The anomaly value for October exceeded what international centres consider necessary for the onset of El Niño conditions. The NINO1+2 Index in the eastern Pacific (near South America) continued to show significant variability. This pattern of SST anomalies continues to be consistent with the expected development of El Niño 'Modoki', a non-conventional type where the maximum SST anomaly is located in the central Pacific rather than the eastern Pacific.

Warmer than average subsurface ocean waters strengthened and expanded eastward during October. Anomalies of +3.0°C and above now cover a wide area from the Dateline to 100°W at 150m depth in the west and 50m depth in the east. This is associated with large upper-ocean heat content anomalies (+1.5 to 2.0°C), spanning from near the Dateline to about 110°W.

The Southern Oscillation Index (SOI) was slightly positive with a value of +0.2 for October 2018, following negative values during August and September.

The consensus from international models is for the tropical Pacific to transition towards El Niño over the next three-month period (88% chance over November 2018 – January 2019). The probability for El Niño remains high through Autumn 2019, with a 88% chance for El Niño conditions over the March – May 2019 period, with some long-range models indicating the possibility of the event continuing through next winter in the Southern Hemisphere (a protracted El Niño event).

Rainfall outlook for November 2018 – January 2019

Below normal rainfall for New Caledonia, Tokelau, the northern Cook Islands, the Tuamotu archipelago and the Marquesas.

Normal or below normal rainfall for Palau, the northern Marianas islands, the Federated States of Micronesia, Papua New Guinea, Vanuatu, Samoa, American Samoa and the Society Islands.

Near normal rainfall for the southern Cook Islands, Tonga, Pitcairn Island, Niue, Wallis and Futuna and Tuvalu.

Normal or above normal rainfall for Guam, Nauru, Western Kiribati (Gilbert Islands), Fiji, Central Kiribati (Phoenix Islands) and the Austral Islands.

Above normal rainfall for the Solomon Islands and the Marshall Islands.

Forecast

Rainfall outlook table for November 2018 – January 2019

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Solomon Islands	10	30	60	ABOVE	High
Marshall Islands	20	35	45	ABOVE	High
Austral Islands	25	35	40	AVG - ABOVE	Moderate
Kiribati (Eastern)	25	35	40	AVG - ABOVE	Moderate-High
Nauru	25	35	40	AVG - ABOVE	Moderate
Central Kiribati (Phoenix)	25	35	40	AVG - ABOVE	Moderate
Fiji	25	35	40	AVG - ABOVE	Moderate
Guam	25	40	35	AVG - ABOVE	Moderate
Kiribati (Western)	25	40	35	AVG - ABOVE	Moderate
Cook Islands (Southern)	25	45	30	NEAR NORMAL	Moderate-High
Tonga	25	45	30	NEAR NORMAL	Moderate
Pitcairn Island	30	40	30	NEAR NORMAL	Moderate
Niue	30	40	30	NEAR NORMAL	Moderate-High
Wallis & Futuna	30	40	30	NEAR NORMAL	Moderate-High
Tuvalu	30	40	30	NEAR NORMAL	Moderate
Papua New Guinea	35	40	25	AVG - BELOW	Moderate-High
American Samoa	35	40	25	AVG - BELOW	Moderate
N. Marianas	35	40	25	AVG - BELOW	Moderate
Vanuatu (North)	35	40	25	AVG - BELOW	Moderate-High
Samoa	40	35	25	AVG - BELOW	Moderate-High
FSM	40	35	25	AVG - BELOW	Moderate
Palau	40	35	25	AVG - BELOW	Moderate-High
Society Islands	40	35	25	AVG - BELOW	Moderate-High
Vanuatu (South)	40	40	20	AVG - BELOW	Moderate-High
Tuamotu Islands	45	35	20	BELOW	Moderate-High
Tokelau	45	35	20	BELOW	Moderate-High
New Caledonia	45	35	20	BELOW	High
Cook Islands (Northern)	45	35	20	BELOW	Moderate-High
Marquesas	50	30	20	BELOW	Moderate-High

Note: Rainfall estimates for Pacific Islands for the next three months are given in terms of tercile probabilities (e.g. 20:30:50). These are derived from the averages of several global climate models. They correspond to the odds of the observed rainfall being in the lowest one third of the distribution, the middle one third, or the highest one third of the distribution. For the long term average, it is equally likely (33% chance) that conditions in any of the three terciles will occur. *If conditions are climatology, we expect an equal chance of the rainfall being in any tercile.

The Island Climate Update bulletin is currently being produced by NIWA in association with the Pacific Island Meteorological Services and other supporting meteorological organisations.

The Island Climate Update is prepared as soon as possible following the end of the month, once the data and information are received from the Pacific Island meteorological services. Delays in data collection and communication occasionally arise. While every effort is made to verify observational data, NIWA 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 advisory and its contents.

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For more information see: <http://www.niwa.co.nz/climate/icu> <https://www.facebook.com/IslandClimateUpdate/>



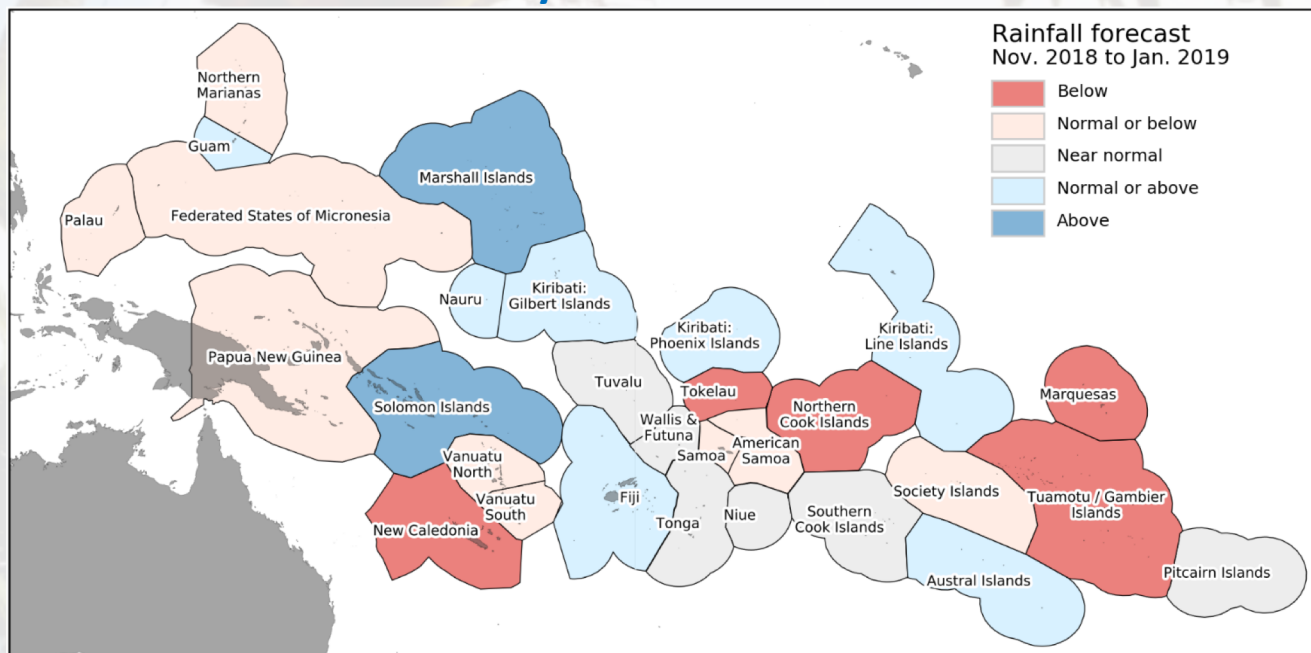
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The Island Climate Update

Drought Watch

November 2018

November 2018 to January 2019 rainfall forecast

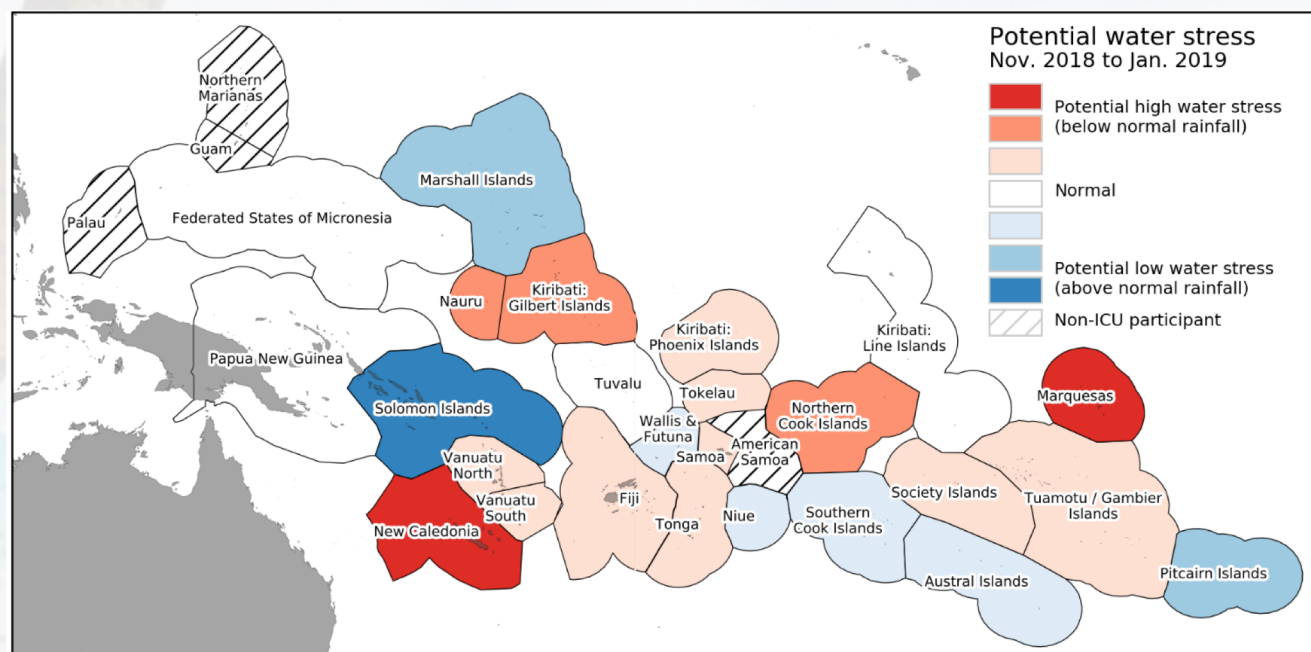


Regional drought potential advisory

Based on rainfall anomaly classification over the past six months and forecast rainfall anomaly classification over the next 3 months

New Caledonia and the Marquesas Islands are at risk from high water stress over the next three months, as they have received low rainfall over the past few months and dry conditions are forecast.

Other countries to watch for water stress are **Nauru, Western Kiribati (Gilbert Islands) and the northern Cook Islands.**



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