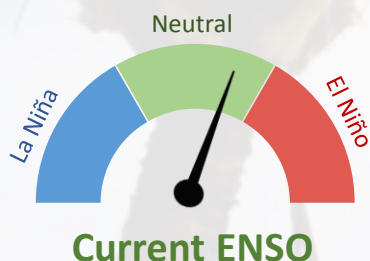


## Recent



ENSO (El Niño – Southern Oscillation) neutral conditions persisted in the tropical Pacific during September 2018.

Sea surface temperatures in the central Pacific remained in the neutral range in September 2018.

The Southern Oscillation Index (SOI) was negative at -1 (i.e. on the El Niño side).

**68%** chance for El Niño conditions to emerge during **October – December 2018**.

Chance for El Niño conditions during **April – June 2019** **71%**



## Forecast

### ENSO situation summary

For the sixth consecutive month, **ENSO-neutral conditions persisted** across the tropical Pacific. **Sea surface temperatures (SSTs)** in the central and eastern equatorial Pacific remained in the **neutral range**. Anomalies for the conventional NINO3.4 index remain just under the +0.3°C mark.

**In the subsurface ocean**, positive temperature anomalies (centred around 150m depth) expanded towards the eastern Pacific and strengthened during September 2018. These anomalies at depth are associated with large heat content anomalies (> +2°C) being centred just west and over the International Dateline, again a signal consistent with the **potential for a *Modoki* (i.e. central Pacific) rather than a canonical, eastern Pacific El Niño event**.

The **Southern Oscillation Index (SOI)** was **negative** with a value of **-1 for September 2018**. Trade winds during September 2018 were slightly weaker than normal over much of the tropical Pacific. The last week of September saw the emergence of a westerly wind burst (WWB), associated with a reversal of the climatological easterly trade winds west of 160°E. This WWB, along with the sizeable heat content anomalies in the central Pacific is expected to eventually tip the ocean – atmosphere system towards what is shaping to be a **late-onset El Niño event**.

The consensus from international models is for the tropical Pacific to **transition towards El Niño over the next three-month period (68% chance over October – December 2018)**. The probability for El Niño conditions being established remains high into the autumn of 2019, with a 71% chance for El Niño conditions over the April – June 2019 period. **Almost all models are consistent in pointing towards a weak El Niño**.

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## Rainfall outlook for October – December 2018

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

**Normal or below normal rainfall** for Palau, the Federated States of Micronesia, Vanuatu, Wallis and Futuna, Samoa and the Society Islands.

**Near normal rainfall** for the northern Marianas Islands, Nauru, Fiji, Tonga, American Samoa and central Kiribati (Phoenix Islands).

**Normal or above normal rainfall** for Guam, the Marshall Islands, Papua New Guinea, eastern Kiribati (Line Islands), Niue, western Kiribati (Gilbert Islands), the southern Cook Islands, the Austral Islands and Pitcairn Island.

**Above normal rainfall** for the Solomon Islands.

Forecast

## Rainfall outlook table for October – December 2018

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Solomon Islands	15	30	55	ABOVE	High
Marshall Islands	25	35	40	AVG - ABOVE	High
Austral Islands	25	35	40	AVG - ABOVE	Moderate-High
Cook Islands (Southern)	25	40	35	AVG - ABOVE	Moderate-High
Pitcairn Island	25	40	35	AVG - ABOVE	Moderate-High
Guam	25	40	35	AVG - ABOVE	Moderate-High
Kiribati (Eastern)	25	40	35	AVG - ABOVE	Moderate
Kiribati (Western)	25	40	35	AVG - ABOVE	Moderate
Papua New Guinea	25	40	35	AVG - ABOVE	Moderate
Niue	30	40	30	NEAR NORMAL	Moderate
Tonga	30	40	30	NEAR NORMAL	Moderate
Nauru	30	40	30	NEAR NORMAL	Moderate
American Samoa	30	40	30	NEAR NORMAL	Moderate
Central Kiribati (Phoenix)	30	40	30	NEAR NORMAL	Moderate
Fiji	30	40	30	NEAR NORMAL	Moderate
N. Marianas	30	40	30	NEAR NORMAL	Moderate
Samoa	35	40	25	AVG - BELOW	Moderate
FSM	40	35	25	AVG - BELOW	Moderate
Palau	40	35	25	AVG - BELOW	Moderate-High
Vanuatu (South)	40	35	25	AVG - BELOW	Moderate-High
Society Islands	40	35	25	AVG - BELOW	Moderate-High
Wallis & Futuna	40	35	25	AVG - BELOW	Moderate-High
Vanuatu (North)	40	35	25	AVG - BELOW	High
Tuamotu Islands	45	35	20	BELOW	Moderate-High
Marquesas	45	35	20	BELOW	Moderate-High
Tokelau	45	35	20	BELOW	Moderate-High
New Caledonia	45	35	20	BELOW	High
Cook Islands (Northern)	50	30	20	BELOW	Moderate-High
Tuvalu	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.

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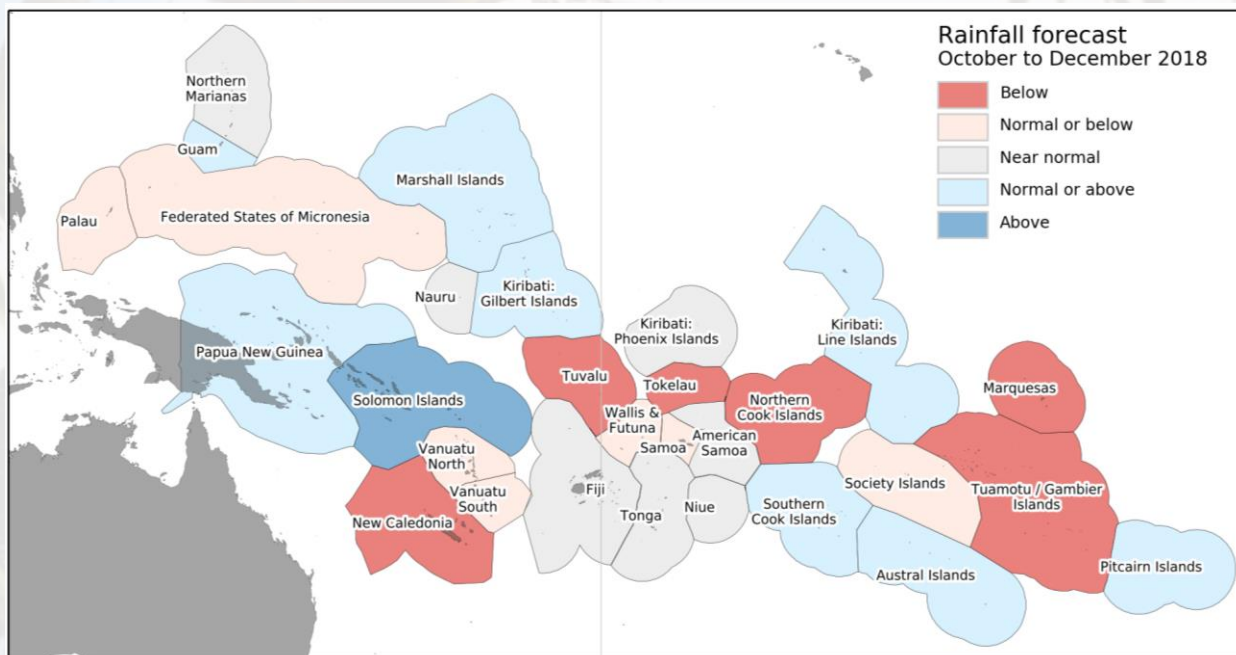


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# The Island Climate Update

## October to December 2018 rainfall forecast

Drought Watch  
October 2018

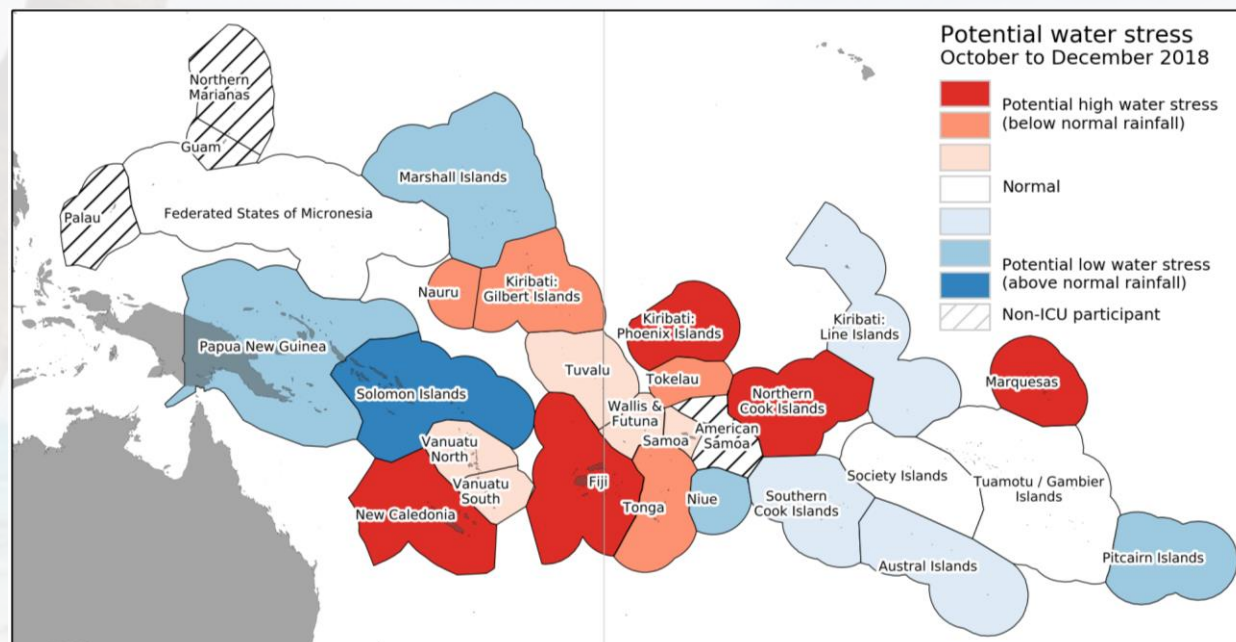


## Regional drought potential advisory

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

A number of island groups 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. These include: **New Caledonia, Tuvalu, Tokelau, the northern Cook Islands, the Marquesas and the Tuamotu archipelago.**

Other countries to watch for water stress are **Fiji and central Kiribati (Phoenix Islands).**



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