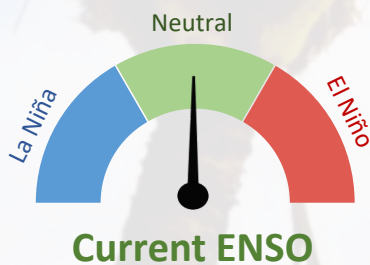


## Recent



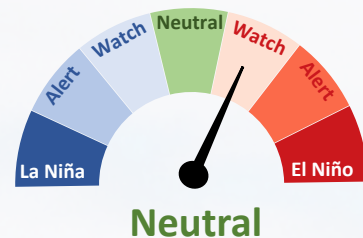
ENSO (El Niño – Southern Oscillation) neutral conditions persisted in the tropical Pacific during August 2018.

Sea surface temperatures in the central Pacific continued to warm in August 2018.

The Southern Oscillation Index (SOI) was negative at -0.9 (i.e. on the El Niño side).

**65%** chance for El Niño conditions to emerge during September – November 2018.

Chance for El Niño conditions during March – May 2019 **78%**



## Forecast

### ENSO situation summary

For the fifth consecutive month, **ENSO-neutral conditions persisted across the tropical Pacific**. However **Sea surface temperatures (SSTs)** in the vicinity of the Dateline **continued to warm** during August 2018. Prelimarily, the NINO4 Index is now on the El Niño side of neutral at +0.61°C (was +0.45°C last month) but the NINO3.4 Index remained in the neutral range at +0.28°C (was +0.47°C last month). Like the past several months, warming during August was focused toward the Dateline, a signal that **the upcoming ENSO event (and its impacts) may be of the so-called “Modoki” flavour** (i.e. a type of El Niño where the maximum SST anomalies are located in the central rather than the eastern Equatorial Pacific).

In the subsurface ocean (within the first 150 metres of the ocean), the warm anomalies that were present in the eastern equatorial Pacific during July gave way to cooler than average conditions during August. The warm pool retracted westward, as an area of +2.0°C anomalies is now found at 100-150m depth from 170°E to 160°W and +1.0°C anomalies extend to the near-surface from 160-175°E.

**The Southern Oscillation Index (SOI)** was **negative** (i.e. on the El Niño side) with a preliminary value of **-0.9 for August 2018**. Trade winds during August were weaker than normal over much of the tropical Pacific west of 120°W.

**In summary**, atmospheric indicators became aligned with oceanic indicators during August, for a climate system that is **gradually moving in the direction of El Niño**. This is consistent with the consensus from international models, which forecast a **transition toward El Niño over the next three-month period (65% chance over September – November 2018)**. The probability for El Niño conditions being established reaches a peak during early 2019, with a **78% chance for El Niño conditions over March – May 2019**.

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.

The contents of this advisory and the Island Climate Update may be freely disseminated provided the source is acknowledged.

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

## Rainfall outlook for September – November 2018

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

**Normal or below normal rainfall** for the northern Marianas Islands, Palau, Papua New Guinea, Southern Vanuatu, Fiji, Wallis and Futuna, Samoa, the Society Islands and the Tuamotu archipelago.

**Near normal rainfall** for Nauru, western Kiribati (Gilbert Islands), central Kiribati (Phoenix islands) and American Samoa.

**Normal or above normal rainfall** for Guam, the Federated States of Micronesia, the Marshall Islands, Tonga, Niue, eastern Kiribati (Line Islands), the Austral Islands, the southern Cook Islands and Pitcairn

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

Forecast

## Rainfall outlook table for September – November 2018

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Solomon Islands	20	30	50	ABOVE	High
Marshall Islands	20	40	40	AVG - ABOVE	High
Niue	25	35	40	AVG - ABOVE	High
Austral Islands	25	35	40	AVG - ABOVE	Moderate
FSM	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
Guam	25	40	35	AVG - ABOVE	High
Tonga	25	40	35	AVG - ABOVE	Moderate
Kiribati (Eastern)	25	40	35	AVG - ABOVE	Moderate
Kiribati (Western)	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	35	40	25	AVG - BELOW	Moderate
N. Marianas	40	35	25	AVG - BELOW	Moderate-High
Palau	40	35	25	AVG - BELOW	Moderate
Papua New Guinea	40	35	25	AVG - BELOW	Moderate
Vanuatu (South)	40	35	25	AVG - BELOW	Moderate-High
Samoa	40	35	25	AVG - BELOW	High
Society Islands	40	35	25	AVG - BELOW	Moderate-High
Wallis & Futuna	40	35	25	AVG - BELOW	Moderate
Tuamotu Islands	40	35	25	AVG - BELOW	Moderate-High
Cook Islands (Northern)	55	35	20	BELOW	High
Marquesas	45	35	20	BELOW	Moderate-High
Tuvalu	45	35	20	BELOW	Moderate-High
Tokelau	45	35	20	BELOW	Moderate-High
Vanuatu (North)	50	30	20	BELOW	High
New Caledonia	60	30	10	BELOW	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 climatological, 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.

The contents of this advisory and the Island Climate Update may be freely disseminated provided the source is acknowledged.

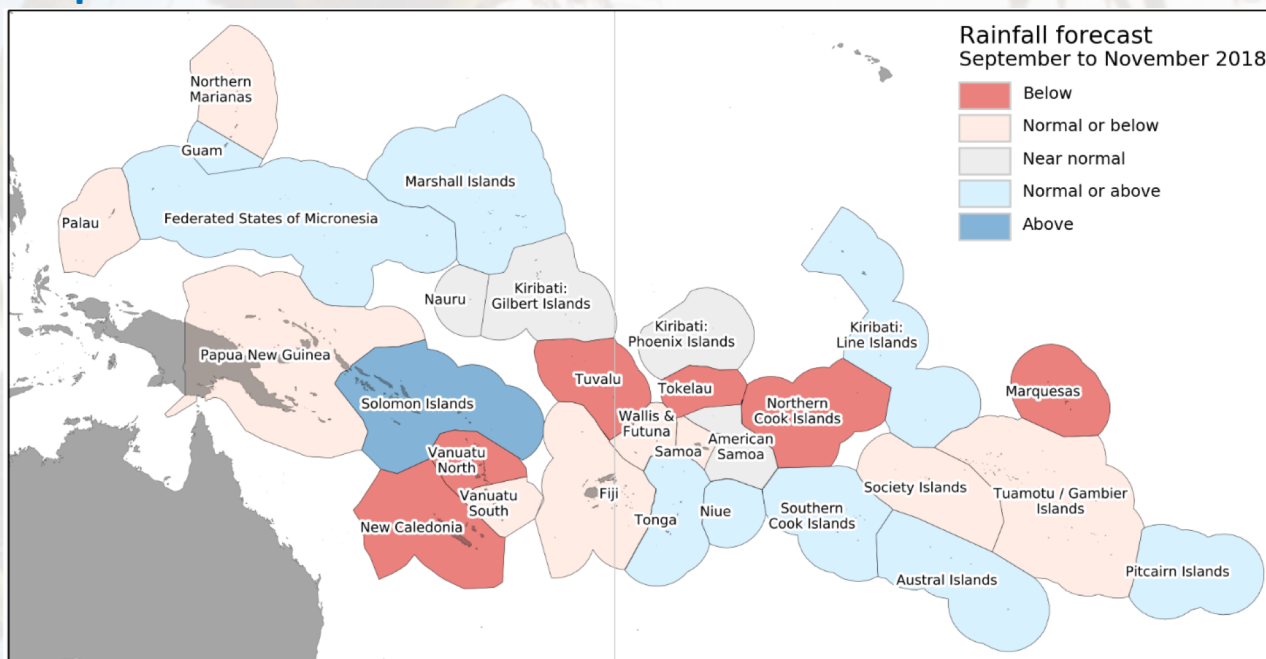
For more information see: <http://www.niwa.co.nz/climate/icu> <https://www.facebook.com/IslandClimateUpdate/>

# The Island Climate Update

Drought Watch

September 2018

## September to November 2018 rainfall forecast

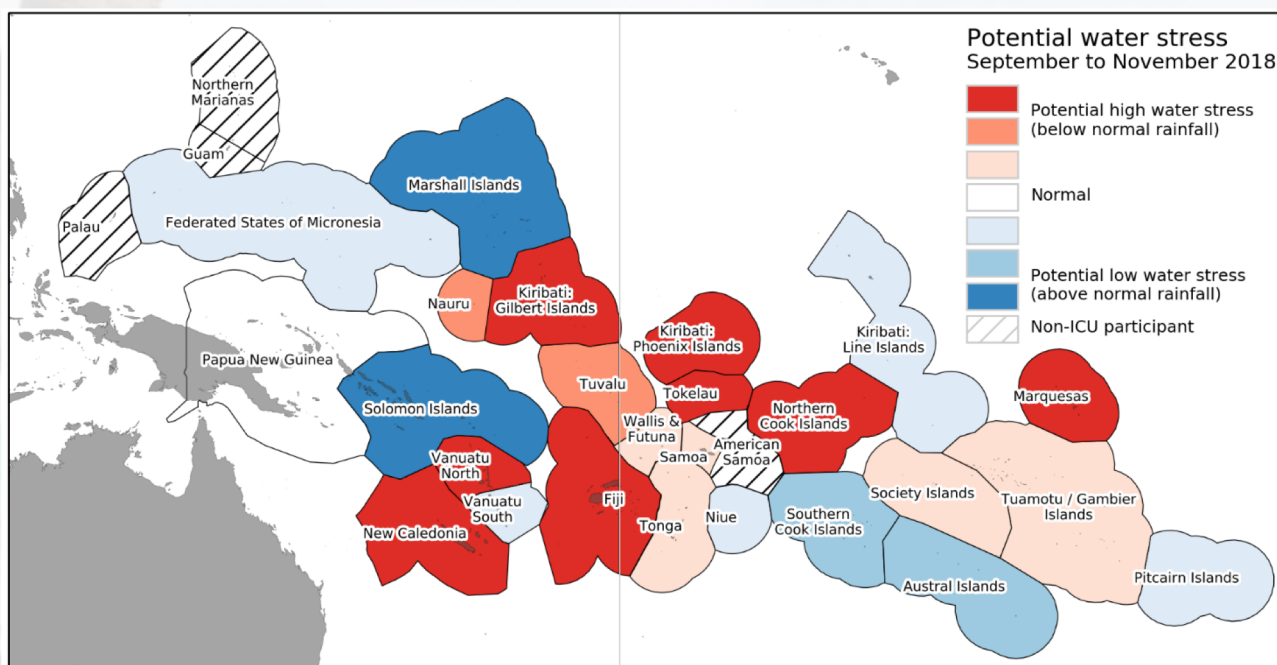


### Regional drought potential advisory

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

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, northern Vanuatu, Tokelau, the northern Cook Islands and the Marquesas.**

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



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.

The contents of this advisory and the Island Climate Update may be freely disseminated provided the source is acknowledged.

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

<https://www.facebook.com/IslandClimateUpdate/>