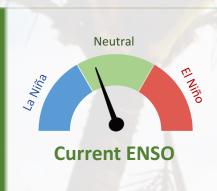
# **The Island Climate Update**

**ENSO Watch** November 2017



El Niño/Southern Oscillation (ENSO) conditions remain in the **neutral** range, but close to **La Niña** thresholds.

Sea Surface Temperatures are below average in the eastern Equatorial Pacific.

The Southern Oscillation Index (SOI) is positive (+0.9 for October 2017).

70%

chance for La Niña conditions to develop over November 2017 - January 2018.

Chance for ENSO-neutral conditions returning in Februay-April 2018



La Niña Watch

#### **ENSO** situation summary

The tropical Pacific is still officially in a ENSO (El Niño Southern Oscillation) neutral state, but some indicators have leaned more towards La Niña conditions during the course of October 2017.

After a brief period of warming early in October, sea surface temperatures (SSTs) in the central and eastern equatorial Pacific Ocean cooled substantially during the remainder of the month. This cooling was particularly significant in the far eastern Pacific, off the South American coast. The NIWA Southern Oscillation Index (SOI) has been positive since July 2017 and is currently at +0.9 (i.e. just below the La Niña threshold). In keeping with a positive SOI, trade winds along the equator are stronger than normal in the western half of the Pacific Ocean. Rainfall and convection anomalies in the tropical Pacific, which had been displaying a relatively strong La Niña-like pattern over the past few months, have however eased up.

In summary, the tropical Pacific Ocean has consistent La Niña-like signals in both the ocean and atmosphere. Some of these signals - notably SSTs in the eastern Pacific, and the SOI - have intensified since early October 2017, making it increasingly likely that the tropical Pacific will transition towards a La Niña state before the end of the year.

The international consensus is that the tropical Pacific Ocean will cool further over the next 3 months (November 2017 – January 2018), with La Niña conditions likely to be met over the same period (with 70% chance). However, the models indicate that if La Niña does develop, it is likely to remain in the weak category and be short-lived: a return to neutral conditions is most likely (58% chance) over the February-April 2018 period.

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# **The Island Climate Update**

#### Rainfall outlook for November 2017 – January 2018

Below normal rainfall for Tuvalu, eastern Kiribati, the northern Cook Islands, the Marquesas, central Kiribati (Phoenix Islands), western Kiribati and Nauru.

Normal or below normal rainfall for Tokelau and the Tuamotu Islands.

Near normal rainfall for Papua New Guinea, the Society Islands, the Austral Islands, Pitcairn Island and southern Vanuatu.

Normal or above normal rainfall for Amercican Samoa, northern Vanuatu, the Federated States of Micronesia, Palau, Guam, Wallis & Futuna, the southern Cook Islands, the Solomon Islands, the northern Marianas Islands, New Caledonia and the Marshall Islands.

Above normal rainfall for Tonga, Samoa, Fiji and Niue.

### Rainfall outlook table for November 2017 – January 2018

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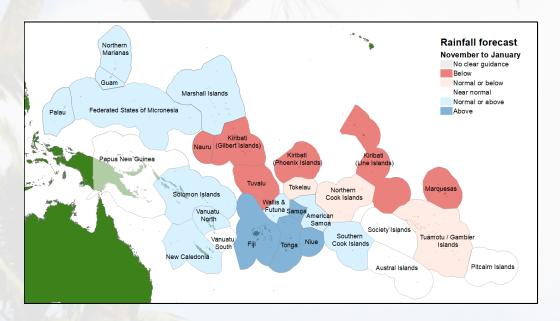
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# **The Island Climate Update**

### **Drought Watch** November 2017

### **November 2017 to January 2018 rainfall forecast**

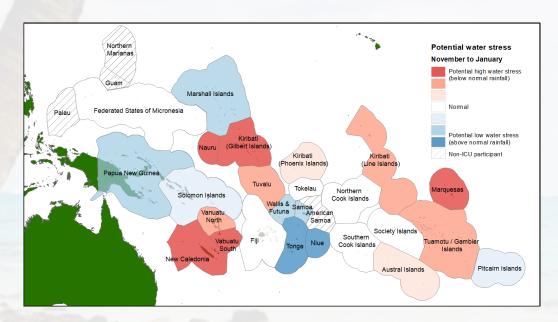


#### Regional drought potential advisory

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

Nauru, Kiribati Gilbert Islands, Marquesas: Below to well below normal rainfall experienced over several months. Below normal rainfall is forecast over the next 3 months.

New Caledonia, Vanuatu South: Below to well below normal rainfall observed over the past 5 months, with normal or above normal rainfall forecast for the next 3 months in New Caledonia and near normal rainfall forecast for southern Vanuatu.



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