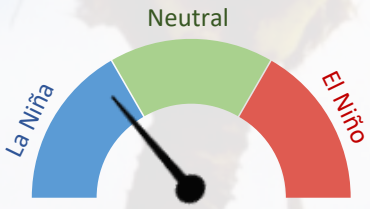
The Island Climate Update

ENSO Watch
February 2018

Recent



Current ENSO

Weak La Niña conditions continued in the tropical Pacific during January 2018.

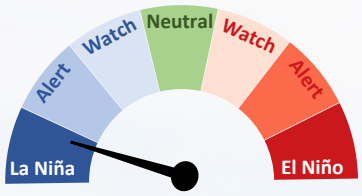
Sea surface temperatures remain below average in the central and eastern equatorial Pacific.

Some oceanic La Niña signals have weakened in January 2018, but the Southern Oscillation Index (SOI) remains positive (+0.9 for January 2018).

Forecast

50% chance for **La Niña** conditions to continue over **February – April 2018.**

Chance for **ENSO-neutral** conditions returning in **May – July 2018** **65%**



La Niña

ENSO situation summary

Weak La Niña conditions continued in the tropical Pacific during January 2018. Below average sea surface temperatures (SSTs) remained present in the central and eastern equatorial Pacific Ocean but warmed slightly compared to December 2017. The NINO1 index (near the coast of Peru), which was the most negative with a value below -1.0°C for December 2017, weakened to -0.52°C during January 2018. The NINO3.4 index is negative at -0.68°C (and therefore in the La Niña category), the NINO3 index is at -0.91°C and the NINO4 index is only very weakly negative (-0.13°C for the month of January 2018 as a whole).

While the ocean-atmosphere system remained consistent with a weak La Niña state during January 2018, **some oceanic indicators**, such as the upper ocean heat content and related SST values, **weakened**.

Meanwhile, the **Southern Oscillation Index (SOI) increased into the La Niña range once again** (+0.9 for January 2018 as a whole) after having subsided to neutral values during December 2017. Similarly, the negative zonal wind anomalies that were present in November in the western Pacific Ocean, signalling enhanced trade wind circulation associated with La Niña conditions, returned during January.

In summary, **weak La Niña conditions remain present in the Pacific Ocean**, despite weakened oceanic signals during January 2018. The international consensus is that **La Niña conditions are now equally likely to persist (50% chance) or decay to ENSO-neutral (50% chance) over the next 3 month period (February – April 2018).** The chance for ENSO neutral conditions to occur then increases to 65% during the May – July 2018 period.

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The Island Climate Update

Rain Watch
February 2018

Forecast

Rainfall outlook for February – April 2018

Below normal rainfall for Tuvalu, all Kiribati islands groups, Nauru and the Marquesas.

Normal or below normal rainfall for Tokelau, the Tuamotu archipelago, the northern Cook Islands and Papua New Guinea.

Near normal rainfall for the Austral Islands.

Normal or above normal rainfall for Samoa, the northern Marianas islands, New Caledonia, the southern Cook Islands, Niue, Wallis & Futuna, Vanuatu, American Samoa, the Solomon Islands, the Society Islands and Pitcairn Islands.

Above normal rainfall for Fiji, Tonga, the Federated States of Micronesia, Guam, Palau and the Marshall Islands.

Rainfall outlook table for February – April 2018

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Fiji	5	30	65	ABOVE	High
Tonga	10	35	55	ABOVE	High
FSM	10	35	55	ABOVE	High
Guam	20	30	50	ABOVE	High
Palau	20	30	50	ABOVE	Moderate-High
Marshall Islands	20	35	45	ABOVE	Moderate-High
Samoa	15	40	45	AVG - ABOVE	Moderate
N. Marianas	15	40	45	AVG - ABOVE	Moderate-High
New Caledonia	20	40	40	AVG - ABOVE	Moderate-High
Cook Islands (Southern)	25	35	40	AVG - ABOVE	Moderate
Niue	25	35	40	AVG - ABOVE	Moderate
Wallis & Futuna	25	35	40	AVG - ABOVE	Moderate-High
Vanuatu (South)	25	35	40	AVG - ABOVE	Moderate
American Samoa	25	40	35	AVG - ABOVE	Moderate
Solomon Islands	25	40	35	AVG - ABOVE	Moderate
Vanuatu (North)	25	40	35	AVG - ABOVE	Moderate
Society Islands	25	40	35	AVG - ABOVE	Moderate
Pitcairn Island	25	40	35	AVG - ABOVE	Moderate
Austral Islands	30	40	30	NEAR NORMAL	Moderate
Papua New Guinea	35	40	25	AVG - BELOW	Moderate
Cook Islands (Northern)	40	35	25	AVG - BELOW	Moderate-High
Tuamotu Islands	40	35	25	AVG - BELOW	Moderate
Tokelau	45	40	15	AVG - BELOW	Moderate-High
Tuvalu	45	35	20	BELOW	Moderate-High
Kiribati (Eastern)	55	30	15	BELOW	High
Marquesas	55	30	15	BELOW	Moderate-High
Nauru	55	30	15	BELOW	High
Kiribati (Western)	60	30	10	BELOW	High
Central Kiribati (Phoenix)	65	30	5	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 climatology, we expect an equal chance of the rainfall being in any tercile.

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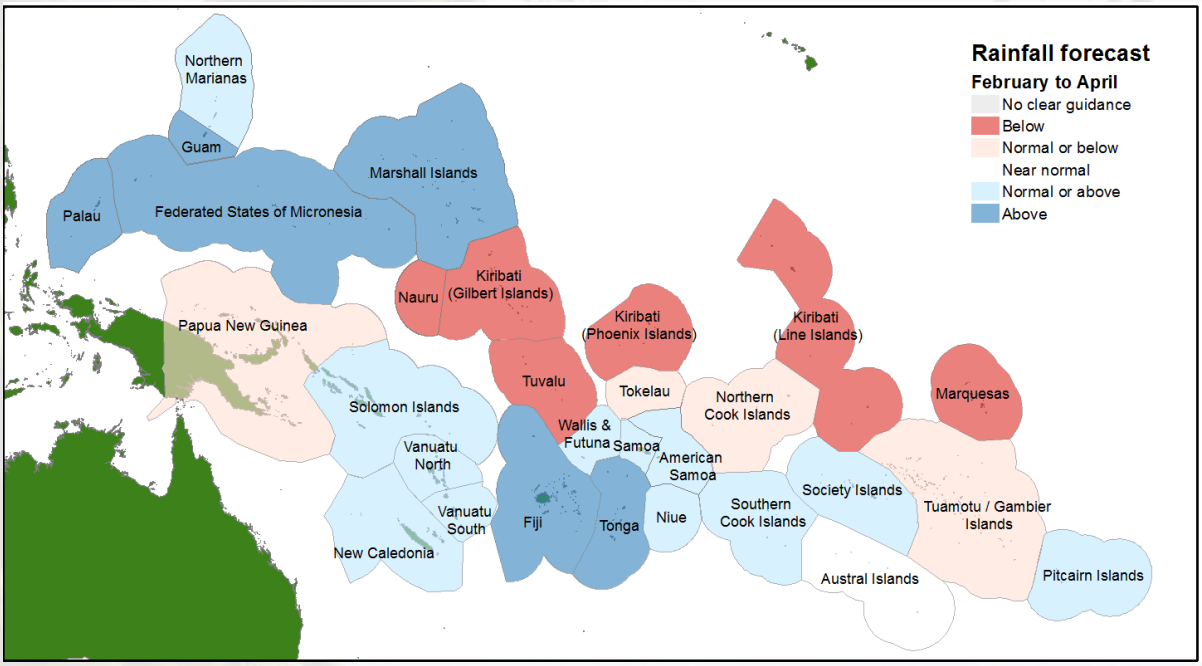
The Island Climate Update

Drought Watch
February 2018

February to April 2018 rainfall forecast

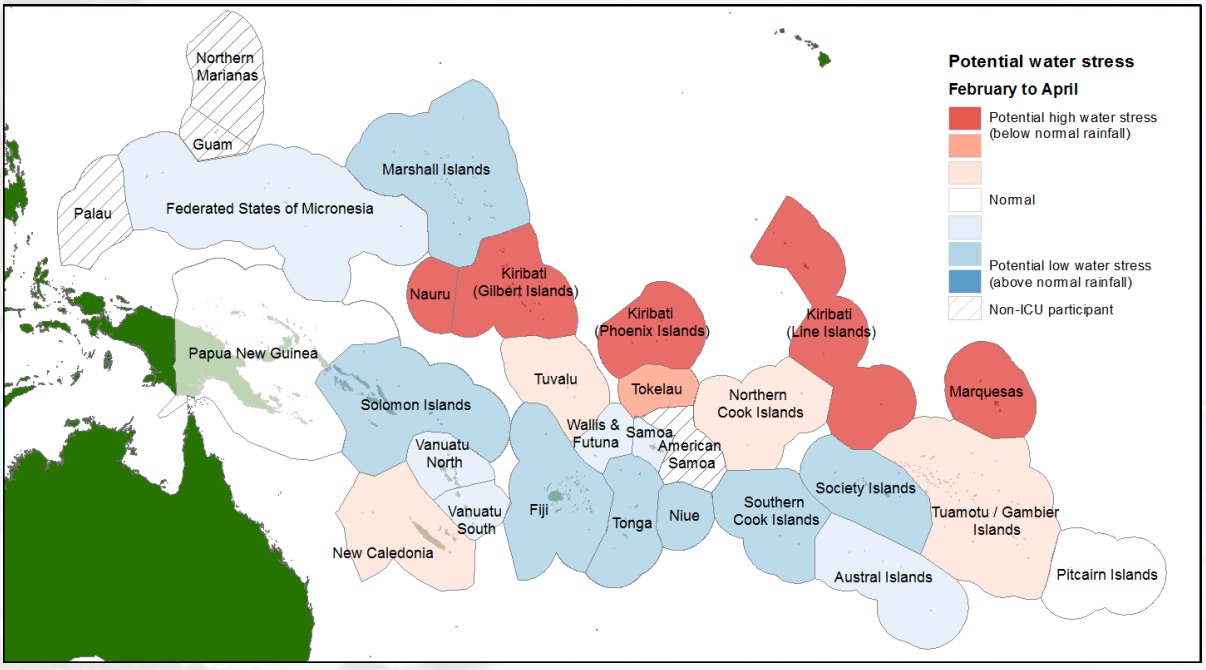


Regional drought potential advisory

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

Nauru, Kiribati (Gilbert, Phoenix, Line Islands), Marquesas: Below to well below normal rainfall experienced over the last several months. Below normal rainfall is forecast for these island groups over the next three months.

Tokelau: Below to well below normal rainfall experienced over the last two months. Normal or below normal rainfall is forecast over the next three months.



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