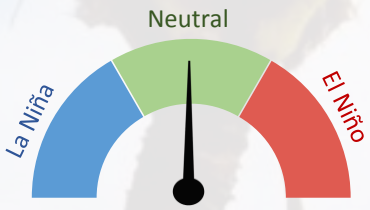
The Island Climate Update

ENSO Watch
July 2018

Recent



Current ENSO

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

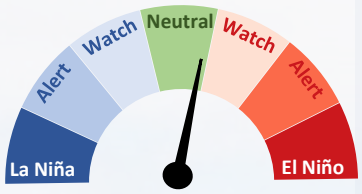
Sea surface temperatures in the central and eastern Pacific continued to warm and are slightly above average.

The Southern Oscillation Index (SOI) was on the El Niño side of Neutral (-0.5 in June 2018).

Forecast

52% chance for **ENSO-neutral** conditions to continue during **July – September 2018.**

Chance for **El Niño** conditions to emerge during **August – October 2018** **54%**



Neutral

ENSO situation summary

El Niño – Southern Oscillation (ENSO) neutral conditions continued across the tropical Pacific during June 2018. Sea surface temperatures (SSTs) in the central equatorial Pacific warmed for the third consecutive month and are currently slightly above average. **The NINO3.4 is currently weakly positive** with a value of **+ 0.27ºC for June 2018**.

In the subsurface ocean, (within the first 150 metres of the ocean) positive temperature anomalies extend from the western Pacific (near 160°E) to the South American coast. Significant positive anomalies (> +3.0°C) have migrated from the central Pacific during May to the eastern Pacific during June at 50-100m depth. Positive anomalies of +2.0°C extend to 25m depth from about 130°W to the coast of South America and appear poised to surface in the basin over the upcoming months.

The Southern Oscillation Index (SOI) was **slightly negative** with a value of **-0.5 for June 2018**, but remains in the neutral range. The Intertropical Convergence Zone remained north of its climatological position in the central Pacific and the South Pacific Convergence Zone was south of its climatological position.

Warming temperatures across the subsurface and surface waters in the equatorial Pacific, weaker than normal trade winds, and convective anomalies broadly indicative of El Niño may indicate the trend of the climate system for spring 2018. In the meantime, the consensus from international models is for the tropical Pacific to persist in an ENSO-neutral state over the next three-month period (**52% chance over July – September 2018**). However, **El Niño conditions become favored in the following three-month period (54% chance over August – October 2018), peaking in December 2018 – February 2019 at a 71% chance.**

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

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The Island Climate Update

Rain Watch
July 2018

Forecast

Rainfall outlook for July – September 2018

Below normal rainfall for northern Vanuatu, Wallis & Futuna, Nauru, New Caledonia, Tokelau, Tuvalu, the northern Cook islands, the Marquesas and the Tuamotu archipelago.

Normal or below normal rainfall for Papua New Guinea, Solomon Islands, southern Vanuatu, Gilbert and Phoenix Islands of Kiribati, Samoa and the Society islands.

Near normal rainfall for Fiji, Tonga and the Line Islands of Kiribati.

Normal or above normal rainfall for Guam, the northern Marianas Islands, Palau, Federated States of Micronesia, the Marshall Islands, American Samoa , Niue, the southern Cook Islands, the Austral Islands and Pitcairn Island.

Rainfall outlook table for July – September 2018

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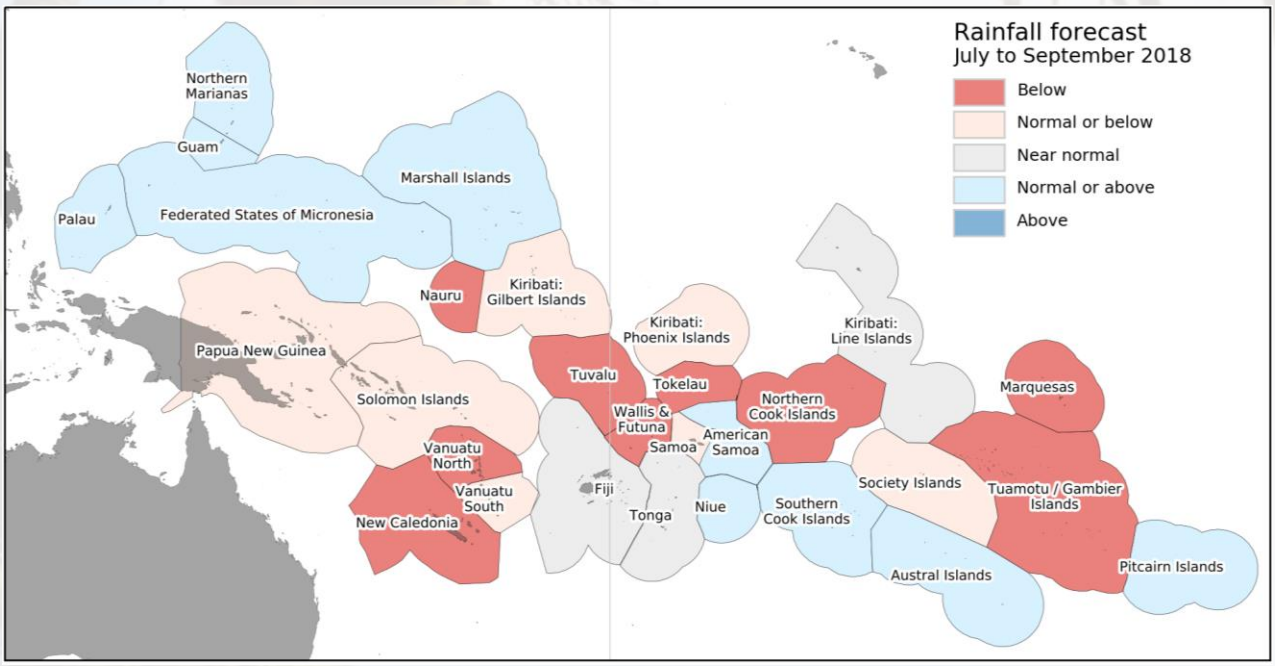
The Island Climate Update

Drought Watch
July 2018

July to September 2018 rainfall forecast

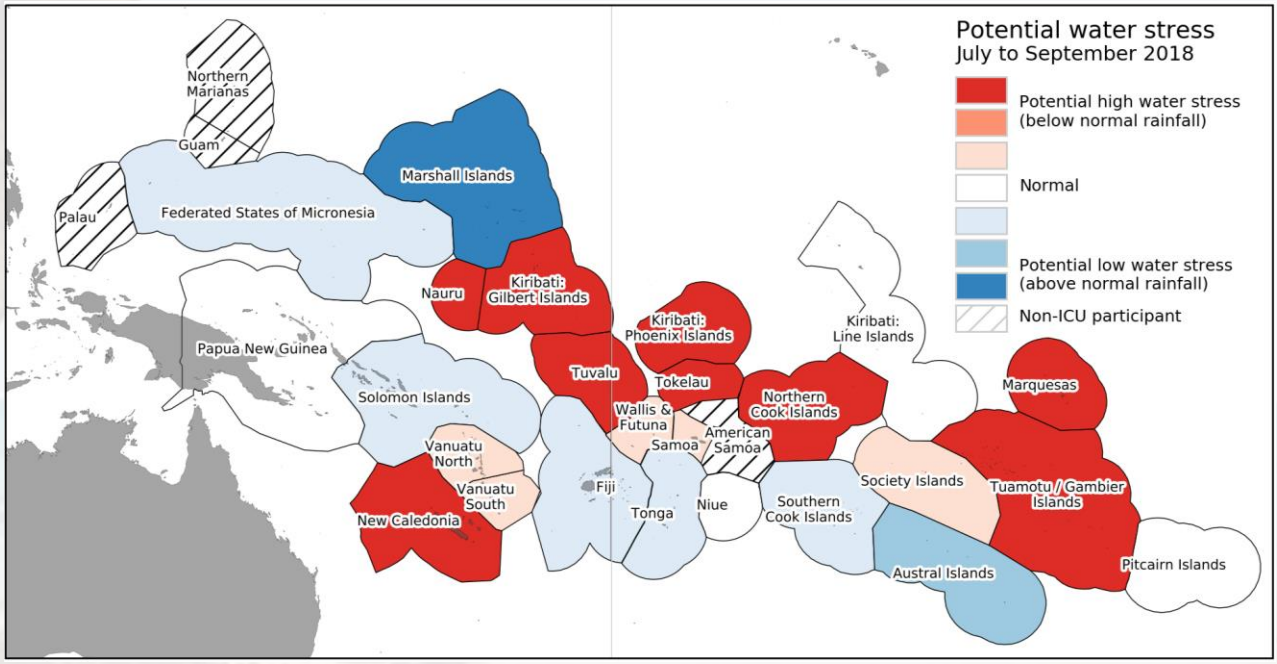


Regional drought potential advisory

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

Nauru, Tuvalu, Tokelau, northern Cook Islands, Marquesas, Tuamotu archipelago, and New Caledonia: Below to well below normal rainfall experienced over some the last several months. Below normal rainfall is forecast for these island groups over the next three months.

Kiribati (Gilbert Islands and Phoenix Islands): Below or well below normal rainfall experienced over some of the last several months. Normal or below normal rainfall is forecast over the next three months.



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