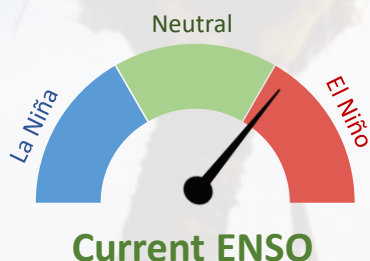


Recent



Current ENSO

Sea surface temperatures (SSTs) remained above average in the equatorial Pacific Ocean during March 2019.

The atmosphere continued to respond to the oceanic anomalies in the central Pacific.

The Southern Oscillation Index (SOI) was close to the El Niño range in March 2019 with a value of -0.7.

90% chance for El Niño conditions persisting during April – June 2019.

Chance for El Niño conditions during July – September 2019 **73%**



El Niño

Forecast

ENSO situation summary

Warmer than average sea surface temperatures (SSTs) now cover the tropical Pacific uniformly, a sign of a strengthening oceanic El Niño event.

While the flavour of El Niño has been closer to the central-based type over the last month or two, the eastward propagation of anomalously warm ocean water may signal that the event is transitioning to an east-based one. This transition could bring more traditional El Niño impacts for the Pacific Islands, such as increased rainfall for northern and eastern island groups and reduced rainfall for western and southwestern island groups.

The NINO3.4 index SST anomaly for March was +0.81°C, an increase of 0.38°C compared to February 2019. The atmosphere continued to respond to a warm pool of water in the central and western tropical Pacific Ocean. This was reflected by above normal rainfall and cloud cover across the region.

The Southern Oscillation Index (SOI) was negative during March (-0.7), although not as persistently negative as in February. The conventional threshold for El Niño (SOI values below -1.0 for three consecutive months) has not been reached, but a weakly coupled central-based El Niño remains present.

According to the consensus from international models, the probability for oceanic El Niño conditions is 90% for the April-June period. Beyond this, for the July to September period, the probability for oceanic El Niño conditions increased to 73%, up from 55% last month. This continues to suggest the potential for a 'protracted' event (multi-year duration).

Rainfall outlook for April – June 2019

Below normal rainfall for Palau, Guam, the Northern Marianas Islands, Papua New Guinea, the Marshall Islands, Vanuatu, New Caledonia, Tonga, Niue, and the Marquesas.

Normal or below normal rainfall the Federated States of Micronesia, Fiji, and the Northern Cook Islands.

Normal or above normal rainfall for Tokelau.

Above normal rainfall for the Solomon Islands, Kiribati (Gilbert, Phoenix and Line Islands), Nauru, Tuvalu, Wallis and Futuna, Samoa, American Samoa, and Pitcairn Islands.

No strong guidance (i.e. climatological forecast) for the Society Islands, the Southern Cook Islands, the Austral Islands, and the Tuamotu Islands.

Rainfall outlook table for April – June 2019

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Kiribati: Gilbert Islands	0	0	100	ABOVE	High
Nauru	0	1	99	ABOVE	High
Kiribati: Phoenix Islands	1	2	97	ABOVE	High
Kiribati: Line Islands	2	8	90	ABOVE	High
Tuvalu	15	18	67	ABOVE	Moderate-High
Wallis & Futuna	26	26	48	ABOVE	Moderate
Pitcairn Islands	26	27	47	ABOVE	Moderate-High
Solomon Islands	26	32	42	ABOVE	Moderate-High
American Samoa	27	31	42	ABOVE	Moderate
Samoa	28	30	42	ABOVE	Moderate-High
Tokelau	31	31	38	AVG - ABOVE	Moderate-High
Society Islands	30	33	37	CLIMATOLOGY	Moderate-High
Southern Cook Islands	32	35	33	CLIMATOLOGY	Moderate-High
Austral Islands	37	33	30	CLIMATOLOGY	High
Tuamotu Islands	36	35	29	CLIMATOLOGY	High
Northern Cook Islands	38	31	31	AVG - BELOW	Moderate-High
Fiji	39	32	29	AVG - BELOW	Moderate-High
FSM	40	34	26	AVG - BELOW	High
Papua New Guinea	43	31	26	BELOW	High
Tonga	52	25	23	BELOW	Moderate-High
Niue	56	22	22	BELOW	Moderate-High
Vanuatu North	58	22	20	BELOW	Moderate-High
Marshall Islands	67	18	15	BELOW	High
Vanuatu South	69	16	15	BELOW	High
Palau	69	16	15	BELOW	Moderate-High
New Caledonia	72	17	11	BELOW	High
Guam	89	6	5	BELOW	High
Northern Marianas	92	5	3	BELOW	High
Marquesas	95	5	0	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.

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.

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



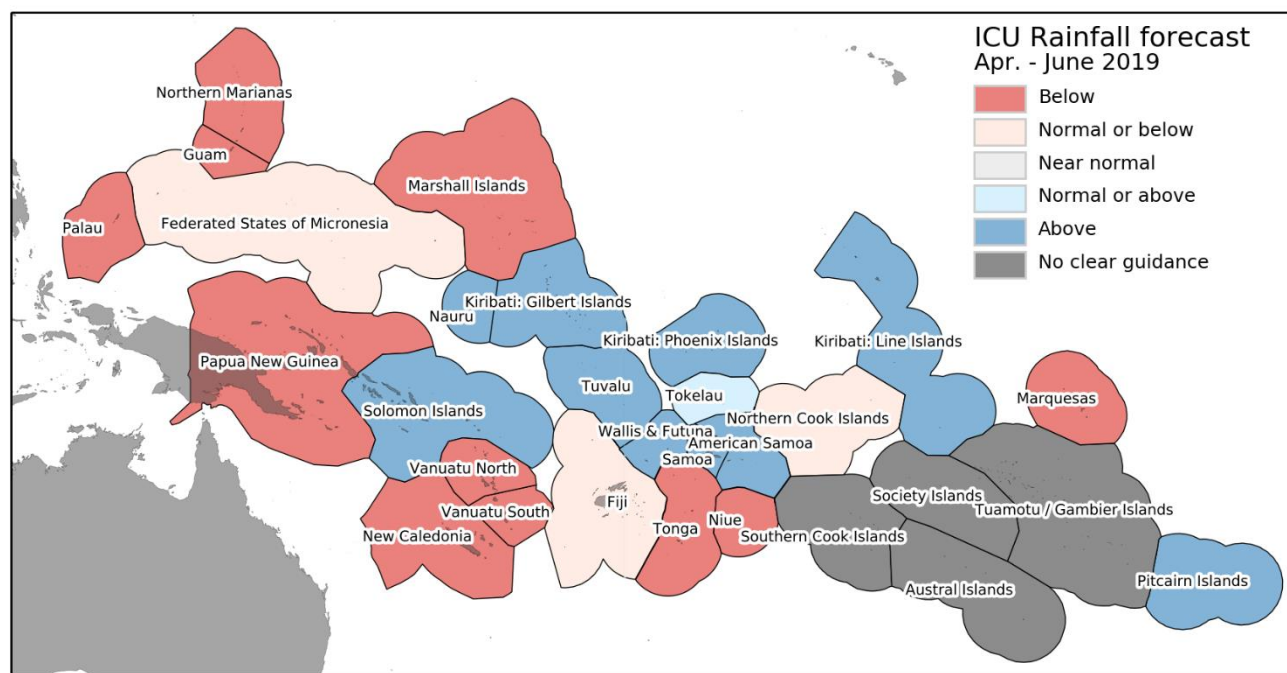
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The Island Climate Update

Drought Watch

April 2019

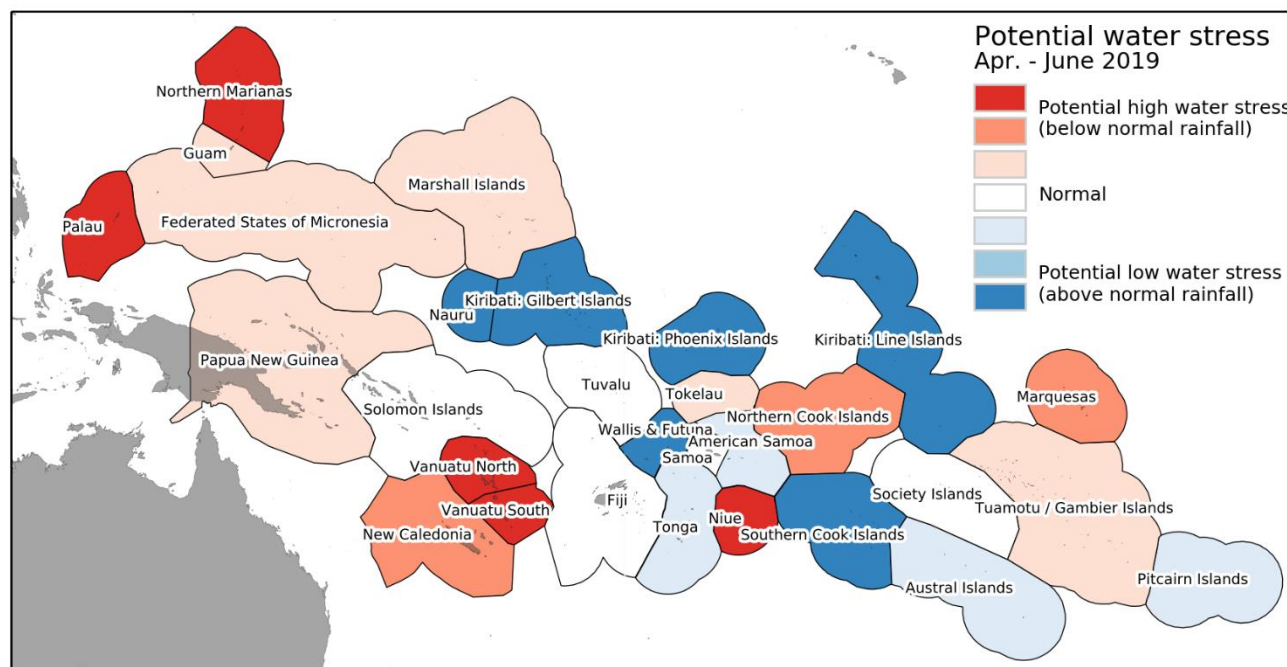
April to June 2019 rainfall forecast



Regional drought potential advisory

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

Countries to watch for potential water stress are **Palau**, the **Northern Marianas Islands**, **Vanuatu**, and **Niue**, as they have received low rainfall over part of the past 6 months, and dry conditions are forecast for the next three months period (April – June 2019). **New Caledonia**, the **Northern Cook Islands** and the **Marquesas** are approaching high water stress levels.



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