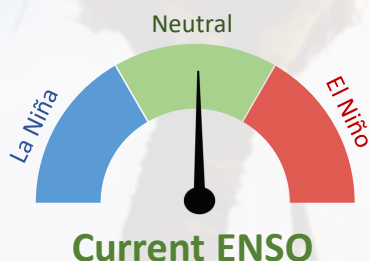


Recent



ENSO-neutral conditions continued during March 2020.

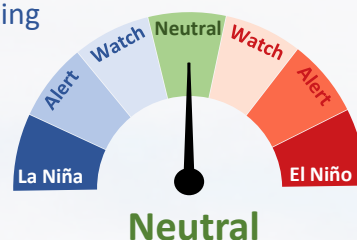
Sea surface temperatures (SSTs) were above average in the central Pacific during March but still in the ENSO-neutral range.

The Southern Oscillation Index (SOI) was -0.5 in March (in ENSO-neutral territory). The 3-month average SOI was -0.2.

81% chance for **ENSO-neutral** conditions persisting during **April – June 2020**.

Chance for **ENSO-neutral** conditions during **July – September 2020**.

53%



Forecast

ENSO situation summary

El Niño-Southern Oscillation (ENSO) neutral conditions continued during March 2020. The Southern Oscillation Index (SOI) was -0.5.

The NINO3.4 Index anomaly (in the central Pacific) for March was +0.39°C (in the neutral range). The warmest ocean waters with respect to average continued to be located in the west-central Pacific, with the NINO4 region recording a monthly value of +0.69°C. During March 2020, upper-oceanic heat content near the Dateline decreased, while it increased farther east from about 140°W to 110°W. It is this warm pool of water, in the tropical north Pacific, that is expected to become a focal point for rainfall and convection during April-June.

Trade winds in March were weaker than normal east of the International Dateline from near 160°W to 110°W. Enhanced trade winds were present from the Dateline to about 160°E. For most of April, enhanced trade winds (i.e. stronger than normal) are forecast to occur in the east-central Pacific with weaker than normal trade winds in the west-central part of the basin during the first half of the month. This will most likely lead to the persistence of the current SST pattern (warmer west, cooler east).

According to the consensus from international models, ENSO-neutral conditions are most likely (81% chance) for the April – June period. For the July – September period, the probability for ENSO-neutral conditions is 53%. The probability of La Niña increases to 38% in October – December although ENSO-neutral remains the most likely outcome (53% chance).

Rainfall outlook for April – June 2020

Below normal rainfall for Palau, Northern Marianas Islands, Guam, New Caledonia, Nauru, Kiribati (Gilbert and Phoenix Islands), Tuvalu, Tokelau, Wallis and Futuna, Samoa, American Samoa, Northern and Southern Cook Islands, Society Islands, Austral Islands, the Marquesas, and Pitcairn Islands.

Near or below normal rainfall for Papua New Guinea, Solomon Islands, Niue, and the Tuamotu Archipelago.

Near or above normal rainfall for Vanuatu (north and south) and Fiji.

Above normal rainfall for the Federated States of Micronesia, Marshall Islands, and Kiribati (Line Islands).

Forecast

Rainfall outlook table for April – June 2020

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Marshall Islands	5	19	76	ABOVE	High
Kiribati: Line Islands	20	24	56	ABOVE	High
FSM	19	26	55	ABOVE	High
Vanuatu South	25	35	40	AVG - ABOVE	Moderate
Vanuatu North	25	35	40	AVG - ABOVE	Moderate
Fiji	25	40	35	AVG - ABOVE	Moderate
Tonga	31	36	33	NEAR NORMAL	High
Niue	39	33	28	AVG - BELOW	Moderate-High
Papua New Guinea	34	38	28	AVG - BELOW	High
Tuamotu Islands	38	34	28	AVG - BELOW	High
Solomon Islands	39	31	30	AVG - BELOW	Moderate-High
Pitcairn Islands	41	31	28	BELOW	High
Palau	43	29	28	BELOW	High
New Caledonia	46	28	26	BELOW	High
Austral Islands	47	27	26	BELOW	High
Southern Cook Islands	54	23	23	BELOW	High
Northern Marianas	57	28	15	BELOW	High
Kiribati: Phoenix Islands	81	10	9	BELOW	High
Marquesas	88	9	3	BELOW	High
Society Islands	41	31	28	BELOW	Moderate-High
Wallis & Futuna	42	31	27	BELOW	Moderate-High
Samoa	45	29	26	BELOW	Moderate-High
American Samoa	47	29	24	BELOW	Moderate-High
Guam	50	27	23	BELOW	Moderate-High
Kiribati: Gilbert Islands	64	19	17	BELOW	Moderate-High
Tuvalu	62	23	15	BELOW	Moderate-High
Northern Cook Islands	69	16	15	BELOW	Moderate-High
Tokelau	70	17	13	BELOW	Moderate-High
Nauru	58	22	20	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.

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: <https://www.niwa.co.nz/pacific-rim/publications> <https://www.facebook.com/IslandClimateUpdate/>



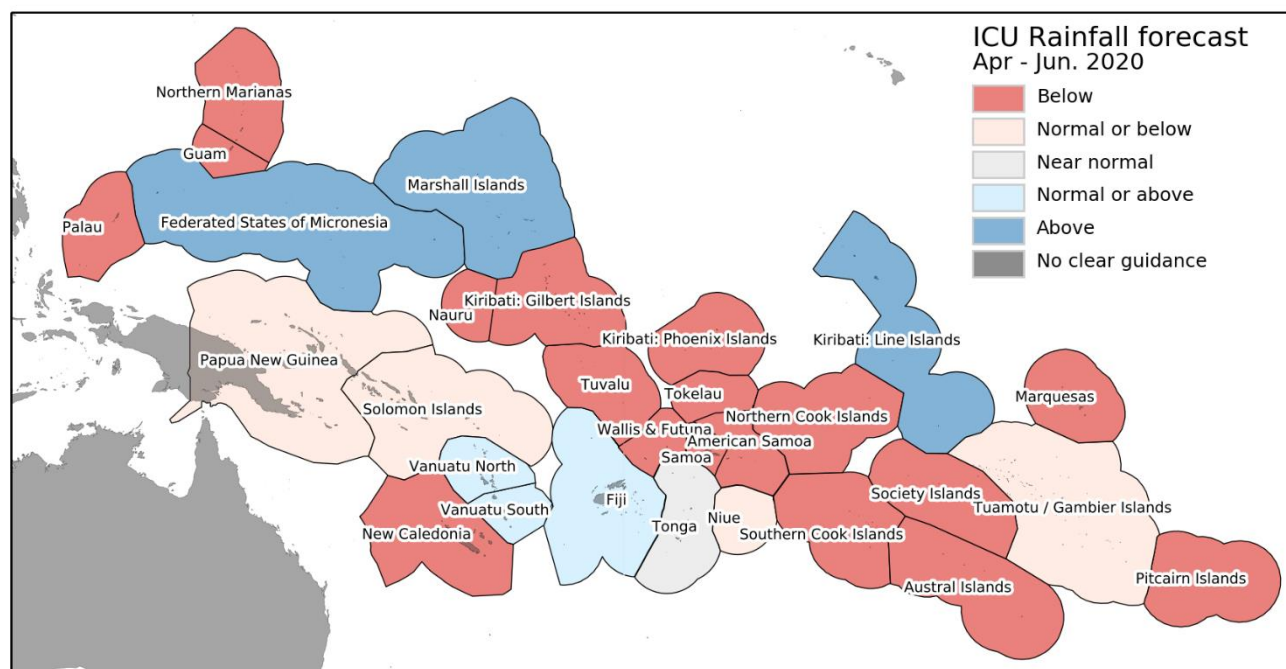
NIWA
Taihoro Nukurangi

The Island Climate Update

Drought Watch

April 2020

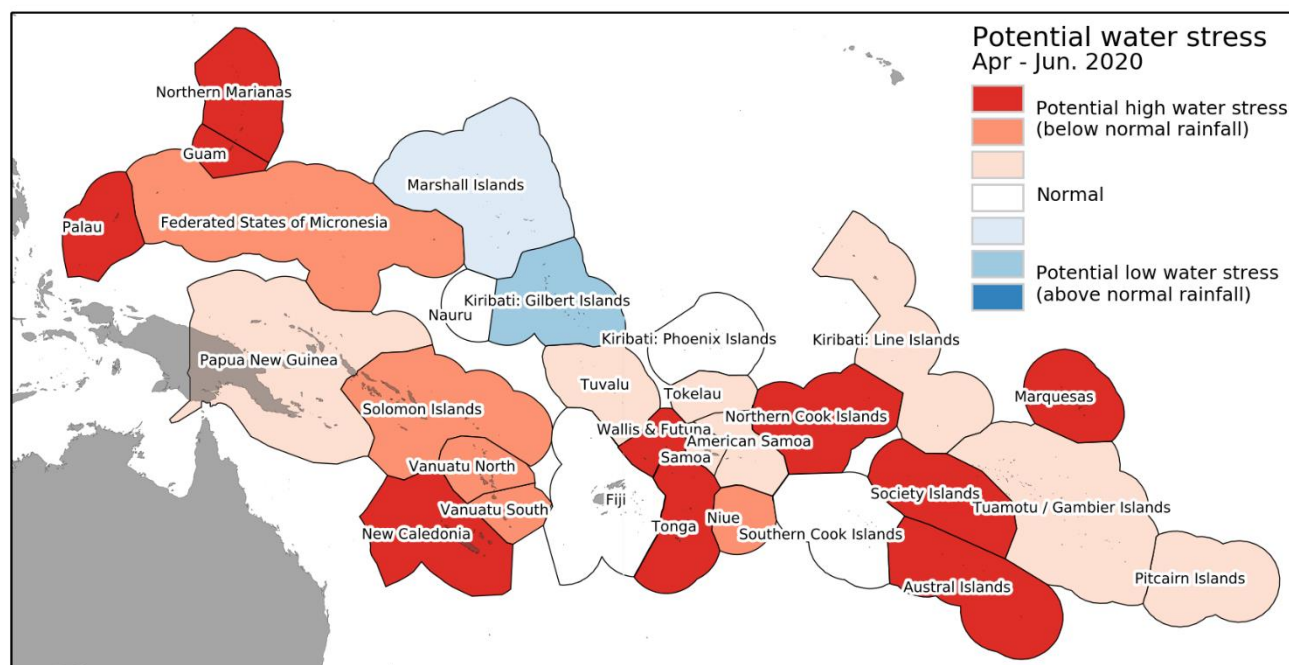
April – June 2020 rainfall forecast



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, Guam, Northern Marianas, New Caledonia, Wallis & Futuna, Tonga, Northern Cook Islands, Society Islands, Austral Islands, and the Marquesas** as they have received low rainfall over part of the past six months, and dry conditions are forecast for the next three month period. Other countries with developing water stress conditions are **the Federated States of Micronesia, Solomon Islands, Vanuatu, and Niue**. Most other countries across the region are experiencing slight water stress.



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