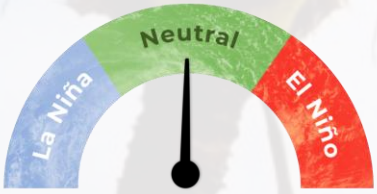
The Island Climate Update

ENSO Watch
May 2021

Recent



Current ENSO

During April 2021, the tropical Pacific transitioned to ENSO neutral conditions.

Sea surface temperatures (SSTs) remained in the ENSO neutral range during April.

The Southern Oscillation Index (SOI) was +0.3 during April and the three-month average SOI was +0.4, both in the neutral range.

Forecast

78% chance for **ENSO neutral** conditions during **May-July 2021.**

Chance for **ENSO neutral** conditions during **August - October 2021.** **53%**

Neutral

ENSO situation summary

The NINO3.4 Index anomaly (in the central Pacific) during April was -0.30°C and the SOI (Southern Oscillation Index) was +0.3, both within the neutral range. Despite the transition to ENSO neutral, atmospheric patterns may continue to be reflective of La Niña for some time to come due to its lag effect – this means that dry conditions and potential water stress may persist in island groups that have experienced dry conditions during recent months.

In the subsurface equatorial Pacific, substantial warming over the past several months is now surfacing in the eastern part of the basin. As a result of this the La Niña base state has almost entirely faded, with a weak, remnant cool pool still lingering near the surface in the central Pacific. Accordingly, upper-oceanic heat content continued to increase.

According to the consensus from international models, the probability for ENSO neutral conditions is 78% for May to July. For August to October and November to January, the probability for ENSO neutral is 53% and 43%, respectively.

During early and mid April, a strong active pulse of the Madden-Julian Oscillation (MJO) moved over the Maritime Continent and the Western Pacific. This resulted in the formation of two late season tropical systems, Severe Tropical Cyclone Sejora (Australia region) and Super Typhoon Surigae (North Pacific).

The tropical cyclone season is over. With the MJO active over Africa and the Indian Ocean early in May, out-of-season tropical cyclone development is unlikely in the Southwest Pacific.

For more information see: https://www.niwa.co.nz/pacific-rim/publications https://www.facebook.com/IslandClimateUpdate/

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The Island Climate Update

Rain Watch
May 2021

Forecast

Rainfall outlook for May – July 2021

Above normal rainfall Guam, Northern Marianas, Papua New Guinea, Marshall Islands, New Caledonia, Vanuatu North, Vanuatu South, Fiji, Tonga, Niue, Southern Cook Islands, Austral Islands.

Near normal rainfall for Society Islands.

Near or below normal rainfall for the Federated States of Micronesia and Wallis & Futuna.

Below normal rainfall Palau, Nauru, Kiribati, Solomon Islands, Tuvalu, Tokelau, Samoa, American Samoa, Northern Cook Islands, Tuamotu/Gambier Islands, Marquesas and Pitcairn Islands.

Rainfall outlook table for May - July 2021

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Vanuatu North	12	14	74	ABOVE	Moderate-High
Fiji	17	17	66	ABOVE	High
Tonga	18	23	59	ABOVE	High
Vanuatu South	19	22	59	ABOVE	High
Papua New Guinea	14	29	57	ABOVE	High
Southern Cook Islands	22	23	55	ABOVE	Moderate-High
Northern Marianas	22	24	54	ABOVE	Moderate-High
Marshall Islands	17	31	52	ABOVE	High
Austral Islands	22	28	50	ABOVE	High
Niue	24	27	49	ABOVE	Moderate-High
New Caledonia	26	30	44	ABOVE	High
Guam	28	28	44	ABOVE	Moderate-High
Society Islands	33	36	31	NEAR NORMAL	High
FSM	34	34	32	AVG-BELOW	High
Wallis & Futuna	36	35	29	AVG-BELOW	Moderate-High
Solomon Islands	40	30	30	BELOW	Moderate
American Samoa	44	28	28	BELOW	Moderate-High
Pitcairn Islands	48	26	26	BELOW	High
Palau	48	26	26	BELOW	Moderate-High
Tuamotu Islands	54	23	23	BELOW	High
Samoa	50	28	22	BELOW	Moderate-High
Nauru	69	18	13	BELOW	Moderate-High
Kiribati: Phoenix Islands	75	13	12	BELOW	High
Kiribati: Line Islands	63	27	10	BELOW	High
Marquesas	62	29	9	BELOW	High
Kiribati: Gilbert Islands	84	10	6	BELOW	High
Tokelau	86	8	6	BELOW	Moderate-High
Northern Cook Islands	87	7	6	BELOW	High
Tuvalu	88	8	4	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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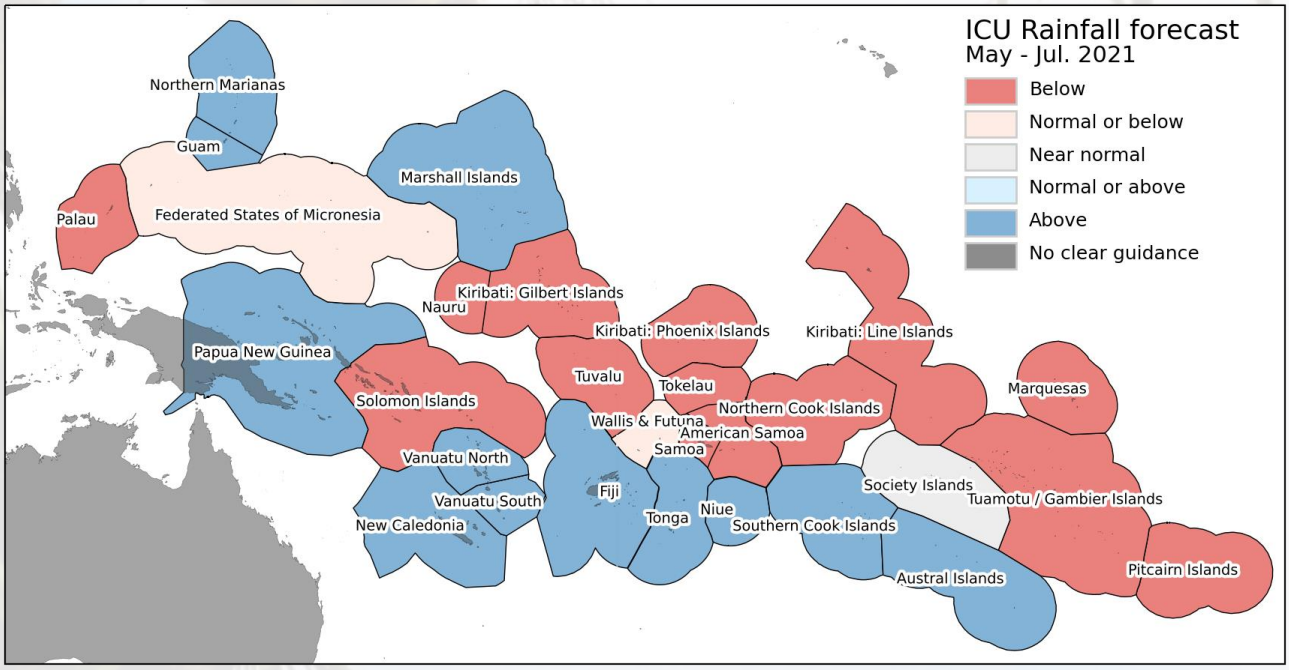
The Island Climate Update

Drought Watch
May 2021

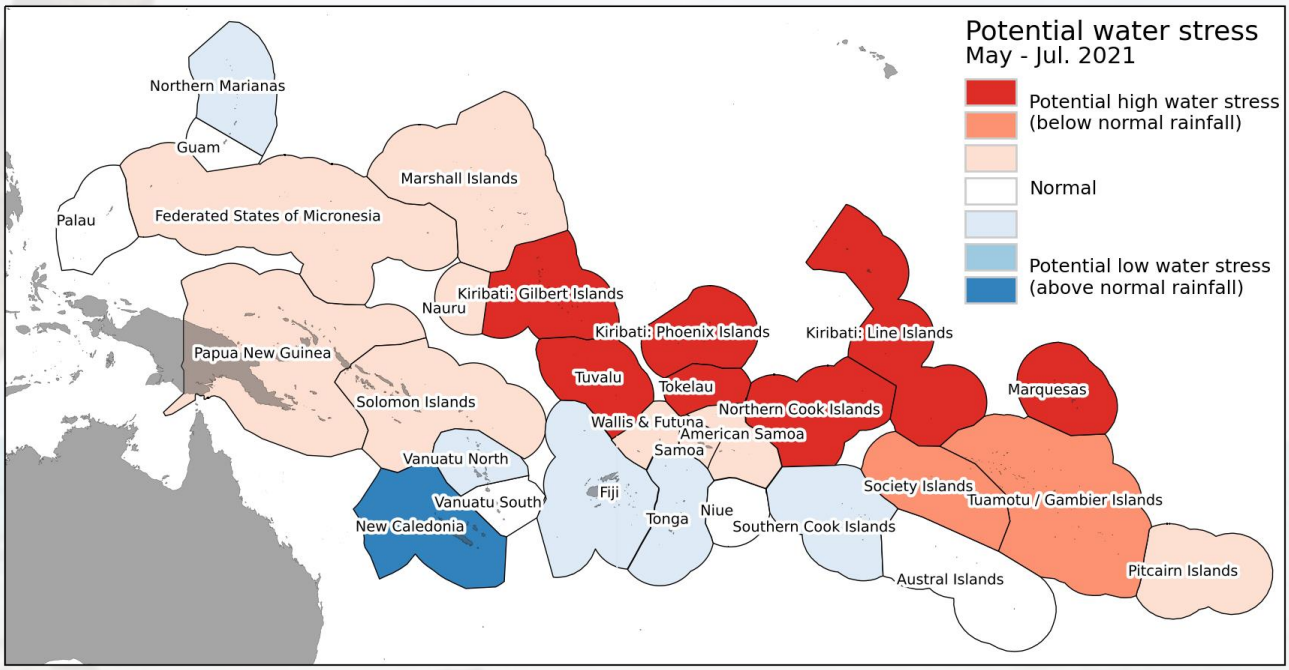
May - July 2021 rainfall forecast



Regional drought potential advisory

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

Parts of several island groups in the north-central and east may experience high water stress over the next three months, including **Kiribati, Tuvalu, Tokelau, Northern Cook Islands and Marquesas.** The **Society Islands and Tuamotu/Gambier Islands** may also experience water stress**.** These countries have received low rainfall over part of the past six months, and dry conditions are possible over the next three-month period.



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