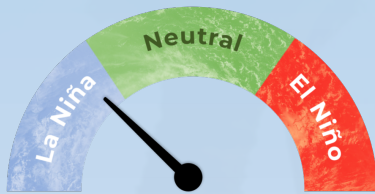


## Recent



Current ENSO

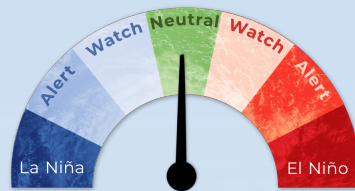
La Niña conditions waned considerably in the tropical Pacific during March 2021 and a transition to ENSO neutral is well underway.

Sea surface temperatures (SSTs) in the equatorial Pacific moved into the ENSO “neutral” range during March.

The Southern Oscillation Index (SOI) was +0.1 during March (neutral range). The three-month average SOI was +0.9.

**66%** chance for the development of ENSO neutral conditions during April-June 2021.

Chance for ENSO neutral conditions during July-September 2021. **56%**



Neutral

## Forecast

### ENSO situation summary

The NINO3.4 Index anomaly (in the central Pacific) during March was  $-0.44^{\circ}\text{C}$ . This marked the first time since August 2020 that SSTs in this region were in the neutral range. The SOI value for March was +0.1 (in the neutral range).

In the subsurface equatorial Pacific, warming continued at depth in the west and central regions during March, associated with the expansion of the western Pacific warm pool. Ocean temperatures remained marginally cooler than normal closer to the surface. This is aligned with other indicators: La Niña has waned considerably and a transition to ENSO neutral is well underway, but it will likely take an additional month for the transition to fully occur.

According to the consensus from international models, the probability for ENSO neutral conditions is 66% for April – June. For July – September, the probability for ENSO neutral is 56%.

The convectively active phase of the Madden-Julian Oscillation (MJO) was over the western Pacific during early March and was associated with the development of Severe Tropical Cyclone Niran. The MJO and its associated regional effects then moved out of the western Pacific for most of the rest of the month, leading to an extended period of suppressed tropical activity.

From late March into April, the MJO re-entered the Australasia region and then crossed into the Pacific. It may come with a slightly increased risk for regional tropical cyclone activity during the mid and late part of the month.

## Rainfall outlook for April – June 2021

**Above normal rainfall** for Palau, Federated States of Micronesia, Guam, Northern Marianas, Papua New Guinea, Marshall Islands, New Caledonia, Vanuatu, Fiji, Tonga, Niue, Southern Cook Islands and Austral Islands.

**Near or above normal rainfall** for Palau and Papua New Guinea.

**Below normal rainfall** for Solomon Islands, Nauru, Kiribati (Gilbert, Phoenix and Line Islands), Tuvalu, Wallis & Futuna, Tokelau, Samoa, American Samoa, Northern Cook Islands, Society Islands, Tuamotu/Gambier Islands, Marquesas and Pitcairn Islands.

Forecast

## Rainfall outlook table for April - June 2021

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Northern Marianas	11	18	71	ABOVE	High
Guam	17	19	64	ABOVE	Moderate-High
Southern Cook Islands	18	18	64	ABOVE	Moderate-High
Vanuatu North	17	20	63	ABOVE	Moderate-High
Fiji	18	21	61	ABOVE	Moderate-High
New Caledonia	18	22	60	ABOVE	High
Marshall Islands	20	26	54	ABOVE	High
Vanuatu South	20	28	52	ABOVE	Moderate-High
Tonga	20	29	51	ABOVE	Moderate-High
Austral Islands	21	29	50	ABOVE	Moderate-High
FSM	24	26	50	ABOVE	High
Niue	28	30	42	ABOVE	Moderate-High
Palau	25	33	42	AVG - ABOVE	High
Papua New Guinea	30	34	36	AVG - ABOVE	High
Society Islands	49	26	25	BELOW	Moderate-High
Wallis & Futuna	48	28	24	BELOW	Moderate-High
Pitcairn Islands	53	25	22	BELOW	Moderate-High
American Samoa	54	24	22	BELOW	Moderate-High
Samoa	56	23	21	BELOW	Moderate-High
Kiribati: Line Islands	61	20	19	BELOW	Moderate-High
Solomon Islands	60	22	18	BELOW	Moderate-High
Tuamotu Islands	54	30	16	BELOW	High
Tokelau	82	11	7	BELOW	High
Marquesas	76	19	5	BELOW	High
Northern Cook Islands	85	10	5	BELOW	High
Kiribati: Phoenix Islands	91	5	4	BELOW	High
Tuvalu	94	4	2	BELOW	High
Nauru	96	2	2	BELOW	High
Kiribati: Gilbert Islands	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.

The contents of this advisory and the Island Climate Update may be freely disseminated provided the source is acknowledged.

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



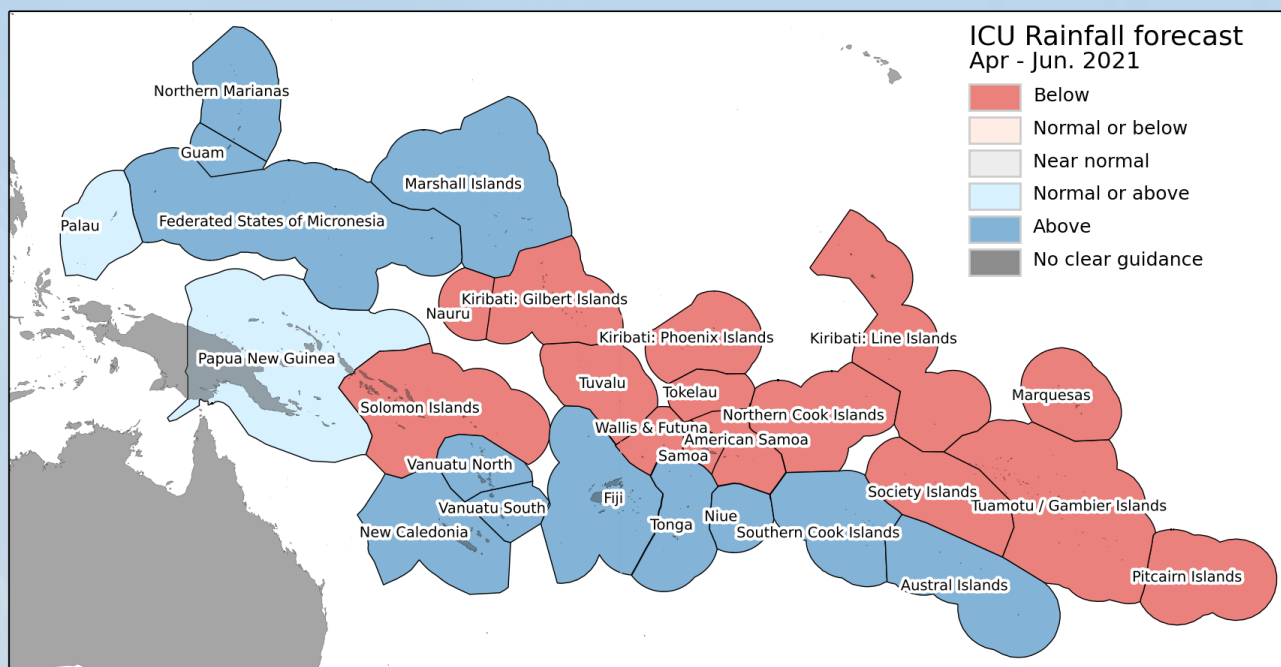
**NIWA**  
Taihoro Nukurangi

# The Island Climate Update

Drought Watch

April 2021

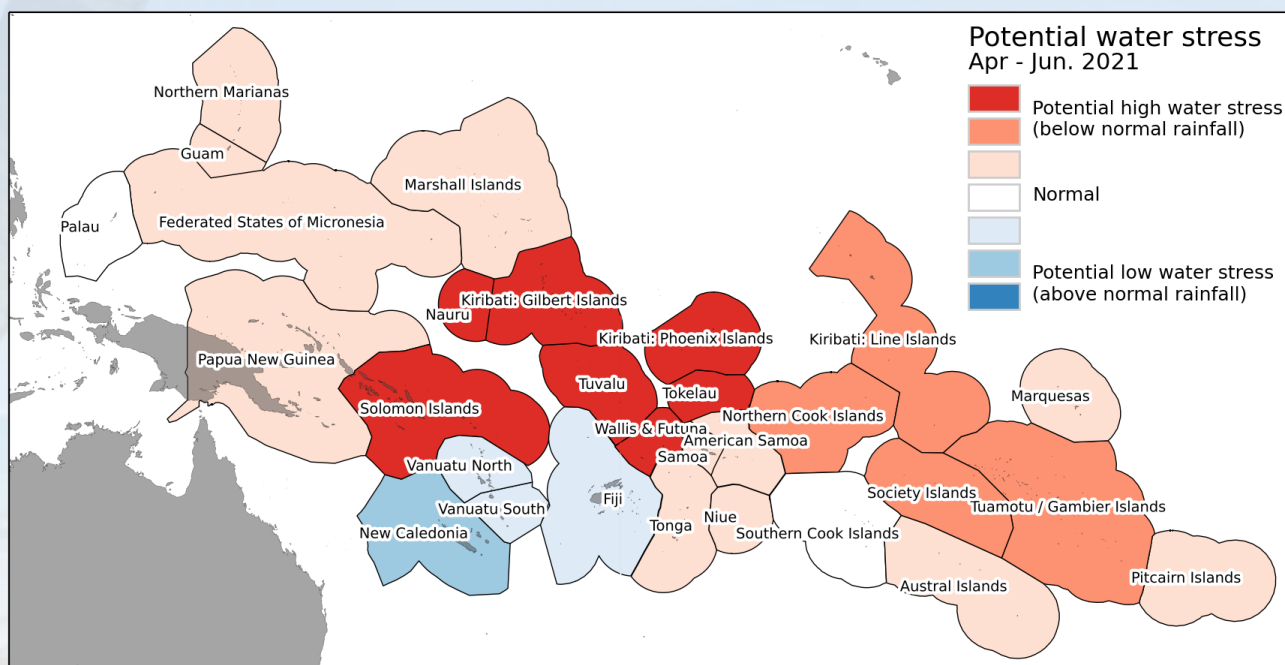
## April - June 2021 rainfall forecast



## 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 the **northern Solomon Islands, Nauru, Kiribati (Gilbert and Phoenix Islands), Tuvalu, Wallis & Futuna and Tokelau**. The **Northern Cook Islands, Kiribati (Line Islands), 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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