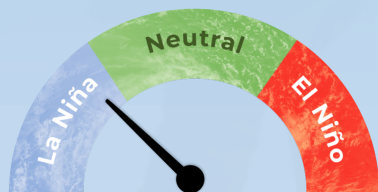


Recent



Current ENSO

La Niña conditions continued in the tropical Pacific during February 2021 but weakened compared to January.

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

The Southern Oscillation Index (SOI) was +1.0 during February (on the La Niña threshold). The three-month average SOI was +1.4.

56% chance for **La Niña** conditions continuing during **March-May 2021**.

Chance for **ENSO neutral** conditions during **June-August 2021**. **56%**



La Niña

Forecast

ENSO situation summary

The NINO3.4 Index anomaly (in the central Pacific) during January was -0.68°C , entering ENSO “cool-neutral” territory (-0.5 to -0.69°C) for the first time since August 2020. The SOI value also increased compared to January and is now on the La Niña threshold (+1.0). These trends suggest that La Niña is steadily weakening in both the ocean and atmosphere.

Of note, trade winds are expected to weaken during March in the eastern equatorial Pacific, which may allow for additional warming of SSTs.

Meanwhile, cooler than average subsurface waters persisted in the central equatorial Pacific during February, but warming was observed in the east. This signature remained consistent with the central Pacific variety of La Niña called Modoki. The persistence of the cool pool at depth in the central equatorial Pacific continues to suggest that the trend away from La Niña will be gradual rather than abrupt.

Based on the consensus from international models, the probability for the continuation of La Niña is 56% for March-May. During June-August, ENSO-neutral becomes most likely at 56%.

The convectively active phase of the Madden-Julian Oscillation (MJO) was over the western Pacific during late February and early March and was associated with the development of Severe Tropical Cyclone Niran. Niran will track very closely to New Caledonia during the first weekend of March. With the MJO exiting the region in the mid-month, the risk for additional cyclone activity is reduced.

Rainfall outlook for March-May 2021

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

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

Forecast

Rainfall outlook table for March-May 2021

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Palau	10	12	78	ABOVE	Moderate-High
Austral Islands	14	16	70	ABOVE	Moderate-High
New Caledonia	15	17	68	ABOVE	Moderate-High
Vanuatu South	18	18	64	ABOVE	Moderate-High
Northern Marianas	13	29	58	ABOVE	High
Southern Cook Islands	16	26	58	ABOVE	Moderate-High
Federated States of Micronesia	19	25	56	ABOVE	High
Vanuatu North	21	29	50	ABOVE	Moderate-High
Guam	21	29	50	ABOVE	Moderate-High
Marshall Islands	24	28	48	ABOVE	Moderate-High
Tonga	26	27	47	ABOVE	Moderate-High
Fiji	25	29	46	ABOVE	Moderate-High
Niue	30	33	37	ABOVE	Moderate-High
Pitcairn Islands	38	32	30	BELOW	Moderate-High
Papua New Guinea	58	24	18	BELOW	High
Wallis & Futuna	65	19	16	BELOW	Moderate-High
Kiribati: Line Islands	67	19	14	BELOW	High
Society Islands	68	18	14	BELOW	Moderate-High
American Samoa	70	16	14	BELOW	High
Samoa	72	16	12	BELOW	High
Solomon Islands	75	14	11	BELOW	Moderate-High
Tuamotu / Gambier Islands	75	17	8	BELOW	High
Tokelau	90	8	2	BELOW	High
Marquesas	95	4	1	BELOW	High
Tuvalu	96	3	1	BELOW	High
Northern Cook Islands	97	3	0	BELOW	High
Kiribati: Gilbert Islands	98	2	0	BELOW	High
Kiribati: Phoenix Islands	100	0	0	BELOW	High
Nauru	100	0	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: <https://www.niwa.co.nz/pacific-rim/publications> <https://www.facebook.com/IslandClimateUpdate/>



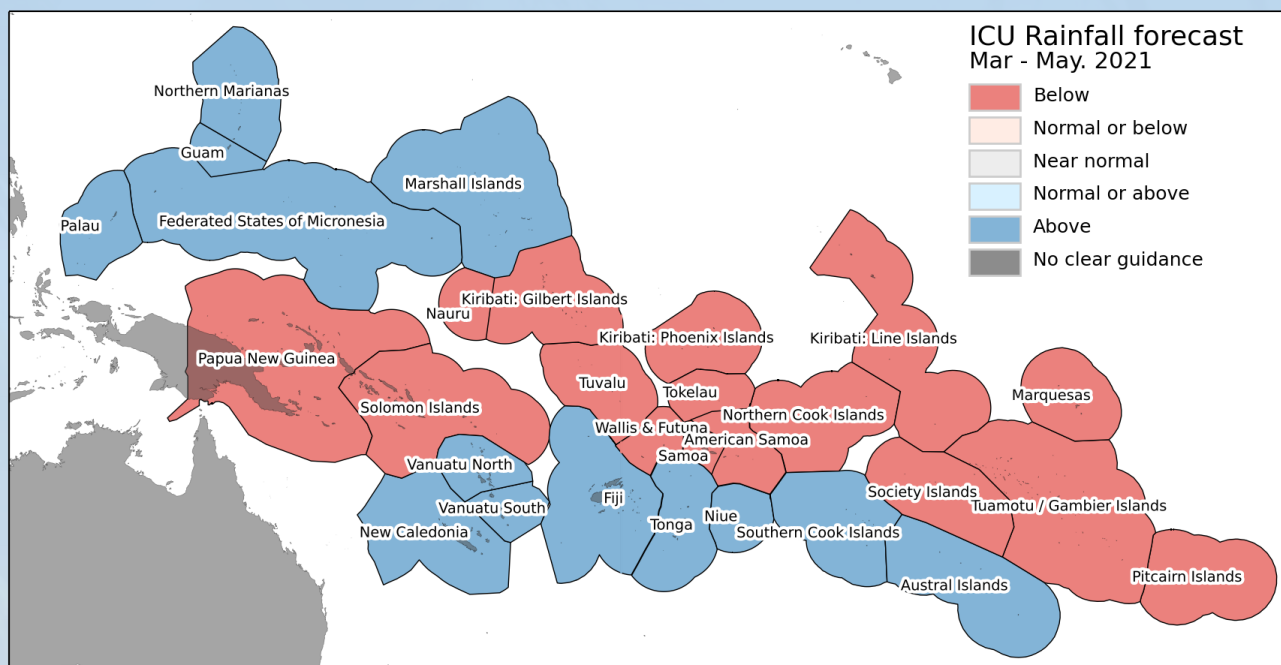
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The Island Climate Update

Drought Watch

March 2021

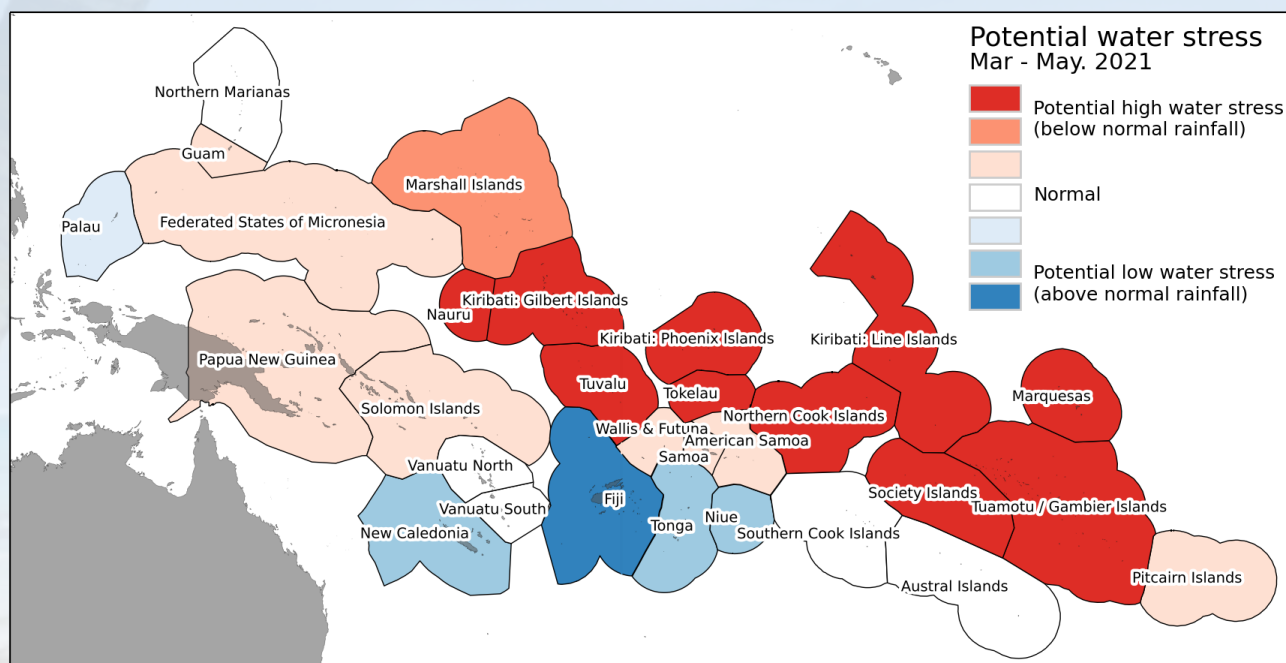
March-May 2021 rainfall forecast



Regional drought potential advisory

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

Many of the countries in the north central and eastern part of the region may experience high water stress over the next three months, including **Nauru, Kiribati (Gilbert, Phoenix and Line Islands), Tuvalu, Tokelau, Northern Cook Islands, Society Islands, Tuamotu/Gambier Islands, and Marquesas**. The **Marshall 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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NIWA
Taihoro Nukurangi