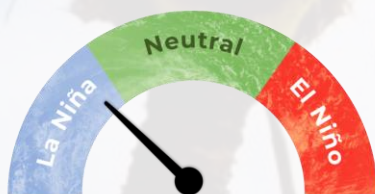


Recent



Current ENSO

Conditions in the tropical Pacific continued to trend toward La Niña during October.

Sea surface temperatures approached the La Niña threshold in the central equatorial Pacific during October, reaching -0.59°C .

The Southern Oscillation Index (SOI) was $+0.7$ during October and during August-October (on the La Niña side of neutral).

80%

chance for **La Niña** conditions during **November 2021 - January 2022**.

Chance for **La Niña** conditions during **February - April 2022**

65%

La Niña Watch



Forecast

ENSO situation summary

The NINO3.4 Index anomaly (in the central Pacific) during October was -0.59°C . The latest weekly value was -0.80°C , continuing the trend towards La Niña. The Southern Oscillation Index (SOI) was $+0.7$ during October and August-October, on the La Niña side of neutral. Overall, this represented an ocean-atmosphere system that was on the verge of La Niña conditions.

During October, upper-oceanic heat content decreased substantially across the equatorial Pacific. Sub-surface ocean conditions during the month were 3°C to 4°C colder than average around 100 m depth in the east-central Pacific, a marked trend from September.

Trade winds were again stronger than normal across the equatorial Pacific during October and are expected to remain enhanced through November. The influence of these enhanced trade winds will result in continued cooling of the sea surface.

Based on the trends described above, NIWA has moved to La Niña Alert. There is an 80% chance for the development of a La Niña event between November 2021 - January 2022 based on international guidance.

Over the last 90 days and generally consistent with La Niña-like conditions, parts of several island groups have experienced very low rainfall ($\leq 10^{\text{th}}$ percentile), including the Northern Marianas, FSM, Nauru, Kiribati, Wallis & Futuna, northern Fiji, northern Tonga, Pitcairn Islands, and parts of French Polynesia.

Rainfall outlook for November 2021 – January 2022

Above normal rainfall for Palau, Federated States of Micronesia, Solomon Islands, New Caledonia, Vanuatu, Fiji, Wallis & Futuna, Samoa, American Samoa, Tonga, Niue, Southern Cook Islands, and Austral Islands.

Near or above normal rainfall for the Northern Marianas and Marshall Islands.

No clear guidance for Guam.

Near normal rainfall for Papua New Guinea.

Below normal rainfall for Nauru, Kiribati, Tuvalu, Tokelau, Northern Cook Islands, Society Islands, Tuamotu/Gambier Islands, Marquesas, and Pitcairn Islands.

Forecast

Rainfall outlook table for November 2021 - January 2022


ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Southern Cook Islands	8	12	80	ABOVE	Moderate
Austral Islands	10	11	79	ABOVE	Moderate-High
Tonga	9	14	77	ABOVE	Moderate-High
New Caledonia	7	17	76	ABOVE	Moderate-High
Niue	12	12	76	ABOVE	Moderate
Vanuatu South	13	15	72	ABOVE	Moderate-High
Palau	14	14	72	ABOVE	Moderate-High
FSM	12	20	68	ABOVE	High
Fiji	13	20	67	ABOVE	Moderate-High
Vanuatu North	14	20	66	ABOVE	Moderate
American Samoa	23	24	53	ABOVE	Moderate
Wallis & Futuna	24	24	52	ABOVE	Moderate-High
Samoa	25	27	48	ABOVE	Moderate
Solomon Islands	26	29	45	ABOVE	Moderate-High
Marshall Islands	24	34	42	AVG - ABOVE	High
Northern Marianas	31	34	35	AVG - ABOVE	High
Guam	34	33	33	CLIMATOLOGY	Moderate-High
Papua New Guinea	27	41	32	NEAR NORMAL	High
Society Islands	55	23	22	BELOW	Moderate-High
Pitcairn Islands	58	21	21	BELOW	Moderate-High
Tokelau	77	12	11	BELOW	Moderate
Tuamotu Islands	82	9	9	BELOW	Moderate-High
Northern Cook Islands	84	10	6	BELOW	Moderate-High
Tuvalu	87	7	6	BELOW	Moderate
Marquesas	90	8	2	BELOW	High
Kiribati: Line Islands	98	1	1	BELOW	High
Kiribati: Phoenix Islands	99	1	0	BELOW	High
Nauru	99	1	0	BELOW	High
Kiribati: Gilbert Islands	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.

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/>

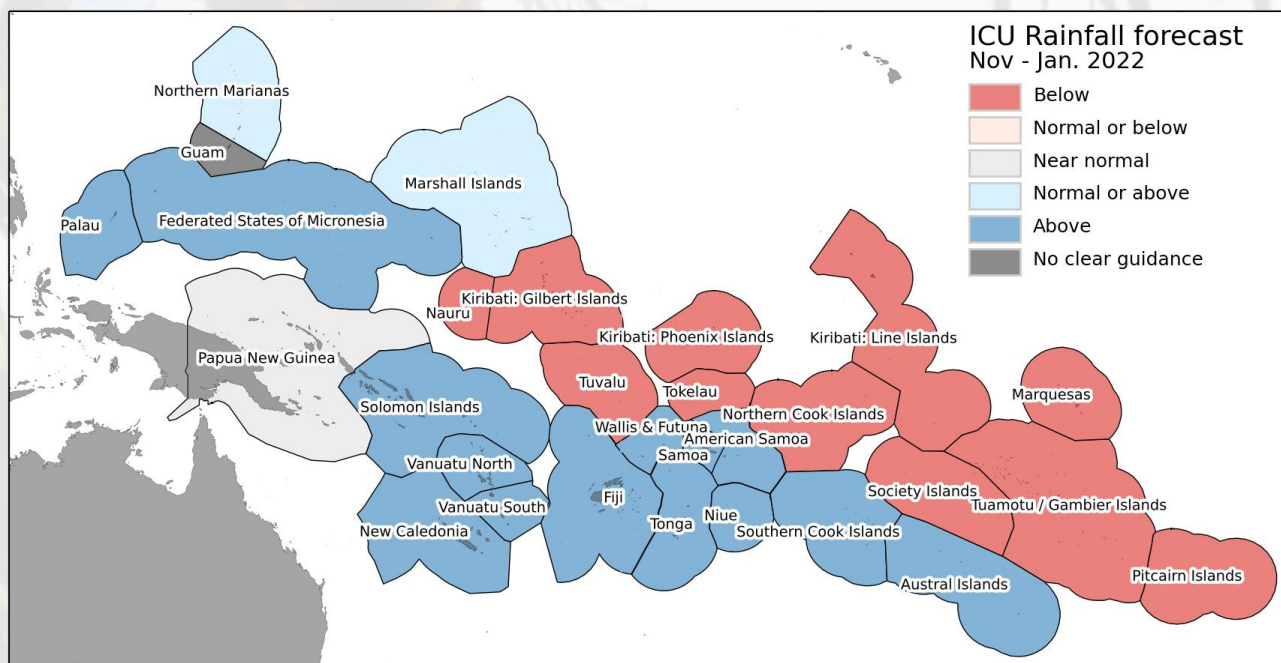


NIWA
Taihoro Nukurangi

The Island Climate Update

Drought Watch
November 2021

November 2021 - January 2022 rainfall forecast

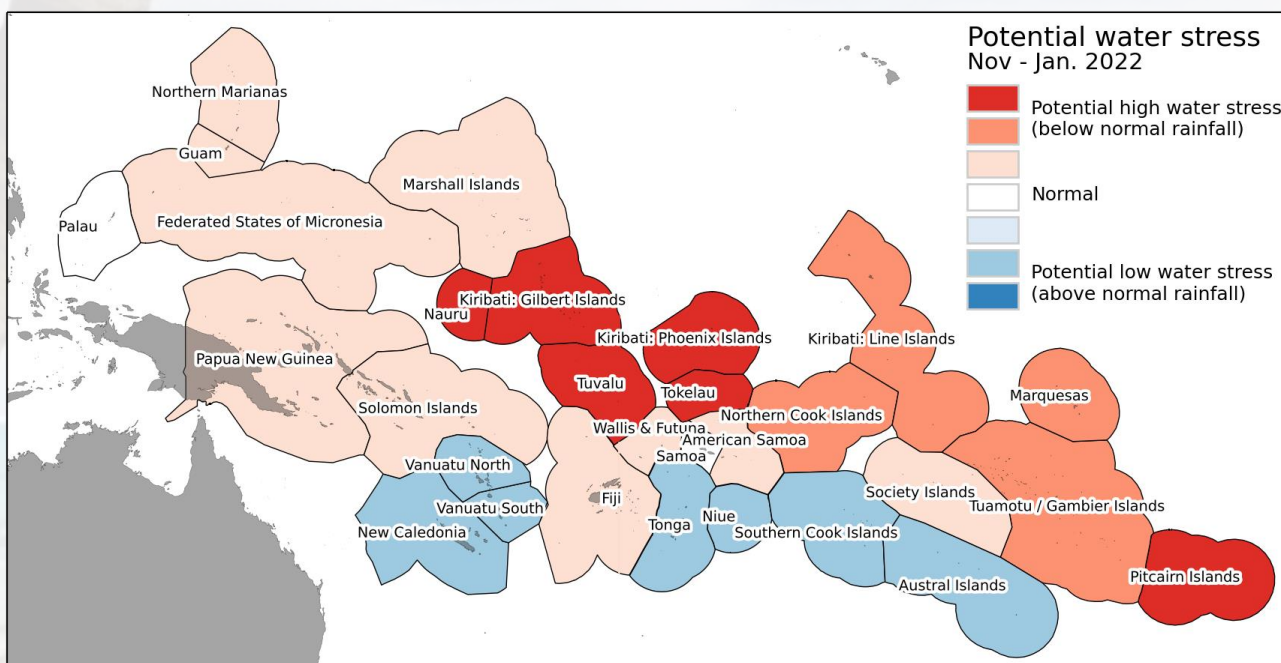


Regional drought potential advisory

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 may experience high water stress over the next three months, including **Nauru, Tuvalu, Kiribati (Gilbert & Phoenix Islands), Tokelau, and Pitcairn Islands.**

In addition, **Northern Cook Islands, Kiribati (Line Islands), Tuamotu/Gambier Islands, and Marquesas** 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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