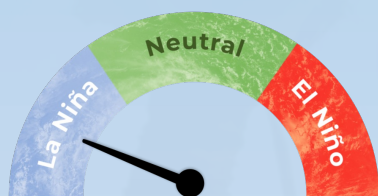


Recent



Current ENSO

La Niña conditions continued in the equatorial Pacific during July.

Sea surface temperatures (SSTs) were in the neutral range during July, but the Southern Oscillation Index (SOI) was +1.7 for May-July, well above the La Niña threshold.

Very strong trade winds during July are expected to lead to a restrengthening of La Niña in the coming months.

70%

chance for **La Niña** conditions during August – October 2022.



Chance for **La Niña** conditions during November 2022 – January 2023

65%

La Niña event

Forecast

ENSO situation summary

The NINO3.4 Index anomaly (in the central equatorial Pacific) over the last month (through 31 July) was -0.34°C (climatology: 1961-1990); the latest weekly anomaly was -0.43°C , showing a late-month cooling trend. The index was -0.63°C relative to the more modern 1991-2020 climatological period. The July monthly SOI was +0.9, which was near the La Niña threshold.

Large changes took place in the subsurface equatorial Pacific during July in response to much stronger than normal trade winds. The strong trades drove the development of an upwelling Kelvin wave, which will likely further cool the equatorial Pacific in the coming months.

At the end of July, substantially cooler than average subsurface waters (3°C to 5°C below average) were focused in the central Pacific, particularly at 100-150 m depth. The effect of the upwelling Kelvin wave will likely see cooler waters migrate eastward and toward the surface over the next 1-2 months, reinforcing the oceanic La Niña signal.

Trade winds across the equatorial Pacific were much stronger than normal during July, in some cases by as much as 10-15 knots – this qualified as near-record strength. This was associated with rapidly cooling sub-surface ocean temperatures across the central part of the basin. Strong trade winds are predicted to continue over the next month or beyond with cooling seas likely.

Taking these factors into account, La Niña conditions are most likely to continue during August-October (70% chance). During November-January, there is a 65% chance for La Niña and a 35% chance for ENSO neutral. During February-April, ENSO neutral is favoured at 65%. Overall, this implies that a “triple dip” La Niña (three consecutive La Niña events from 2020-2022) is likely.

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Rainfall outlook for August – October 2022

Above normal rainfall for Papua New Guinea, Vanuatu North and South, New Caledonia, Fiji, Tonga, and Niue.

Near normal or below normal rainfall for Marshall Islands and Southern Cook Islands.

Below normal rainfall for Palau, Northern Marianas, Guam, Federated States of Micronesia, Solomon Islands, Nauru, Kiribati, Tuvalu, Wallis and Futuna, Tokelau, Samoa, American Samoa, Northern Cook Islands, Society Islands, Tuamotu/Gambier Islands, Marquesas, Austral Islands, and Pitcairn Islands.

Forecast

Rainfall outlook table for August – October 2022


ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Vanuatu North	4	9	87	ABOVE	Moderate-High
New Caledonia	1	15	84	ABOVE	High
Vanuatu South	3	14	83	ABOVE	High
Fiji	10	12	78	ABOVE	Moderate-High
Tonga	15	19	66	ABOVE	Moderate-High
Papua New Guinea	20	21	59	ABOVE	Moderate-High
Niue	23	26	51	ABOVE	Moderate-High
Southern Cook Islands	37	35	28	AVG-BELOW	High
Marshall Islands	38	34	28	AVG-BELOW	High
Austral Islands	42	29	29	BELOW	High
Solomon Islands	46	27	27	BELOW	Moderate
Palau	50	27	23	BELOW	Moderate
Society Islands	55	24	21	BELOW	High
Wallis & Futuna	62	20	18	BELOW	Moderate-High
Pitcairn Islands	68	16	16	BELOW	High
American Samoa	68	18	14	BELOW	Moderate-High
Northern Marianas	70	16	14	BELOW	High
Samoa	74	13	13	BELOW	Moderate-High
Tuamotu Islands	72	17	11	BELOW	High
Guam	77	13	10	BELOW	Moderate-High
Kiribati: Line Islands	72	24	4	BELOW	High
FSM	86	12	2	BELOW	High
Tokelau	97	2	1	BELOW	High
Kiribati: Phoenix Islands	98	1	1	BELOW	High
Marquesas	70	30	0	BELOW	High
Tuvalu	99	1	0	BELOW	High
Northern Cook Islands	99	1	0	BELOW	High
Kiribati: Gilbert 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.

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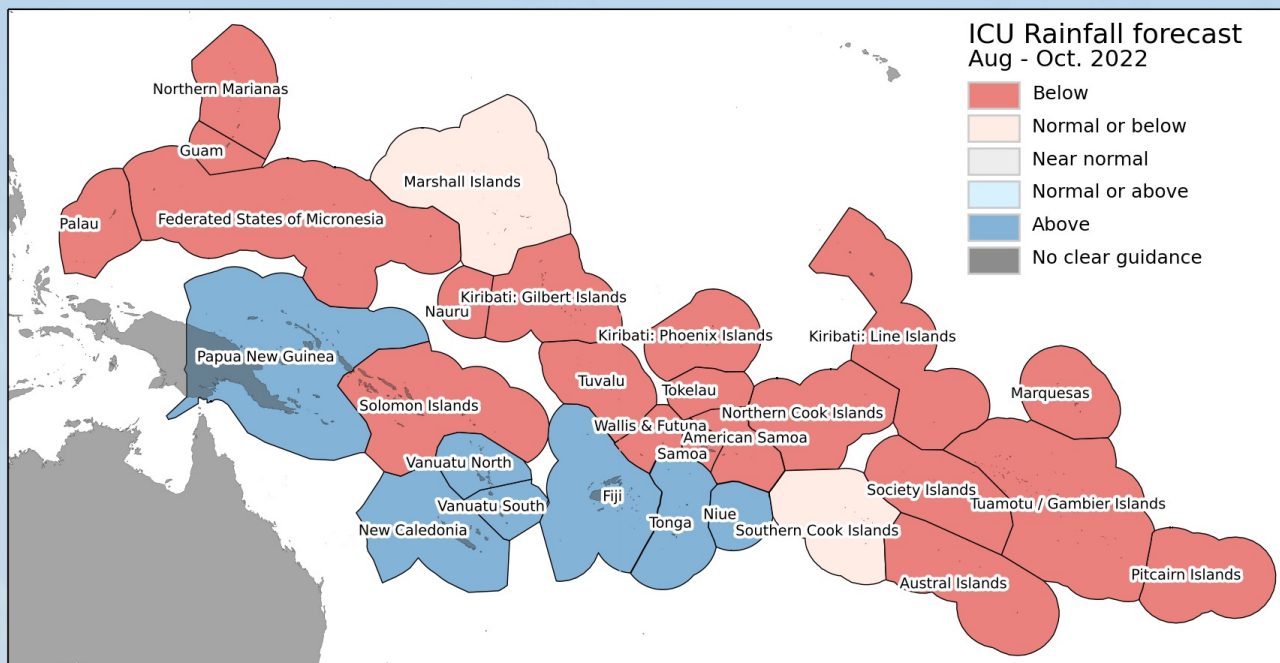
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The Island Climate Update

Drought Watch

August 2022

August – October 2022 rainfall forecast

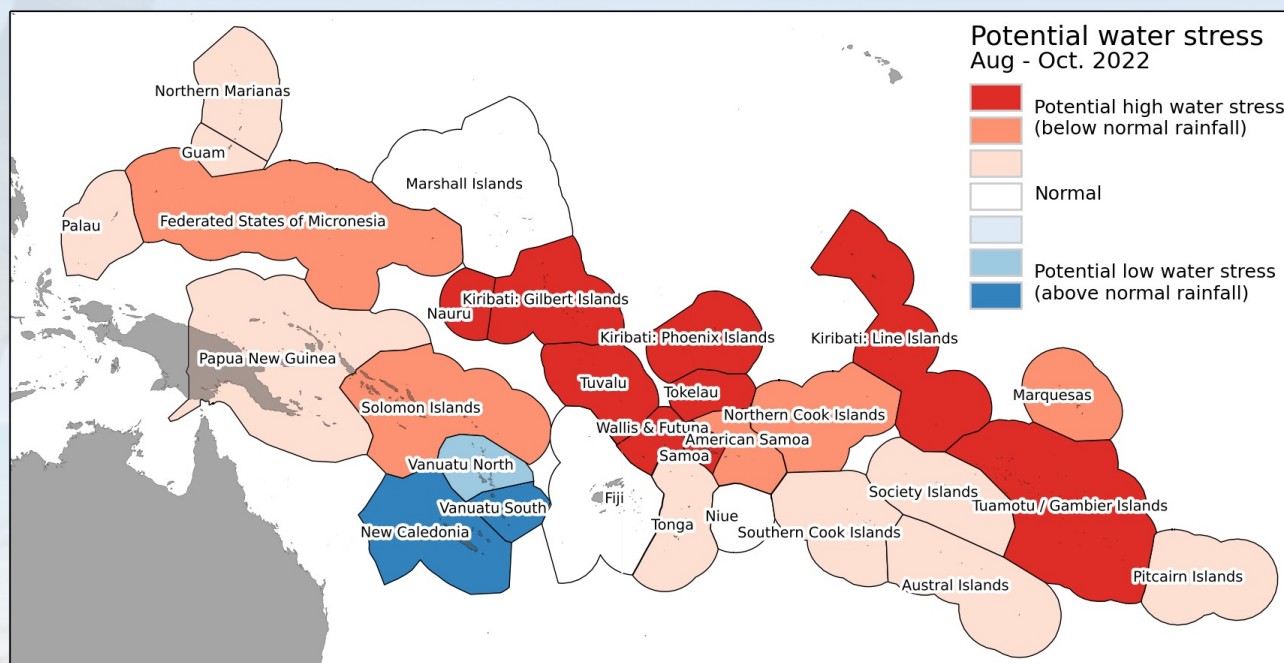


Regional drought potential advisory

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, Kiribati, Tuvalu, Tokelau, Wallis & Futuna, Samoa, and Tuamotu/Gambier Islands.**

In addition, **Federated States of Micronesia, Solomon Islands, American Samoa, Northern Cook 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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