## **The Island Climate Update**



**Current ENSO** 

La Niña conditions continued in the equatorial Pacific during April.

Sea surface temperatures (SSTs) were near the La Niña threshold in the central equatorial Pacific during April, on -0.66°C.

The Southern Oscillation Index (SOI) was +2.1 during April, well within the La Niña range.

60% chance for La Niña conditions during May – July 2022.



Chance for La Niña conditions during
August - October 2022.

La Niña event

#### **ENSO** situation summary

The NINO3.4 Index anomaly over the last month (to 1 May) was -0.66°C, an increase compared to the previous month but still near the La Niña threshold. The April monthly SOI was +2.1, well within the La Niña range and the 3<sup>rd</sup> highest April value on record since at least 1876 (only April 2011 and April 1904 were higher); this suggests that the atmospheric imprint of La Niña is strong.

Upper-oceanic heat content (OHC) continued to decrease. Below normal OHC was present in the central and eastern Pacific and above normal west of the International Date Line. This pattern was consistent with continued La Niña conditions.

In the subsurface equatorial Pacific, a narrow layer of above average waters was present just below the surface in the eastern Pacific. If this were to surface over the next month, it could lead to warming conditions in the NINO 1 and 2 regions. In the western Pacific, a warm pool of water intensified at depth (below 100 m). The potential eastward progression of this warm pool will be monitored in the coming months.

La Niña conditions are forecast to continue during May-July (60% chance). Between August-October, La Niña and ENSO neutral conditions are about equally likely (45-50% chance). During November-January, La Niña is favoured at around 50%.

The 2021-22 Southwest Pacific tropical cyclone (TC) season has ended. There were 7 TCs in total, slightly fewer than normal. A pulse of the Madden-Julian Oscillation developing in the Indian Ocean is forecast to move across the Pacific in mid-May; although TC season has ended, remain vigilant.

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#### Rainfall outlook for May – July 2022

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

Below normal rainfall for Palau, FSM, Solomon Islands, Nauru, Kiribati, Tuvalu, Wallis & Futuna, Tokelau, Samoa, American Samoa, Northern Cook Islands, Society Islands, Tuamotu/Gambier Islands, Marquesas, and Pitcairn Islands.

# Forecast

#### Rainfall outlook table for May – July 2022

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Vanuatu North	6	10	84	ABOVE	Moderate-High
New Caledonia	5	14	81	ABOVE	High
Vanuatu South	9	13	78	ABOVE	Moderate-High
Marshall Islands	8	23	69	ABOVE	High
Niue	14	20	66	ABOVE	Moderate-High
Fiji	13	23	64	ABOVE	Moderate-High
Tonga	16	22	62	ABOVE	Moderate-High
Austral Islands	19	27	54	ABOVE	High
Southern Cook Islands	22	25	53	ABOVE	High
Northern Marianas	22	27	51	ABOVE	High
Papua New Guinea	23	31	46	ABOVE	High
Guam	28	30	42	ABOVE	Moderate-High
Solomon Islands	46	29	25	BELOW	Moderate
Society Islands	52	25	23	BELOW	High
Wallis & Futuna	53	24	23	BELOW	Moderate-High
Pitcairn Islands	55	23	22	BELOW	Moderate-High
American Samoa	64	19	17	BELOW	Moderate-High
FSM	50	35	15	BELOW	High
Samoa	69	16	15	BELOW	Moderate-High
Palau	67	20	13	BELOW	High
Tuamotu Islands	73	21	6	BELOW	High
Kiribati: Line Islands	85	11	4	BELOW	High
Marquesas	95	5	0	BELOW	High
Northern Cook Islands	98	2	0	BELOW	High
Tokelau	98	2	0	BELOW	High
Kiribati: Phoenix Islands	99	1	0	BELOW	High
Tuvalu	100	0	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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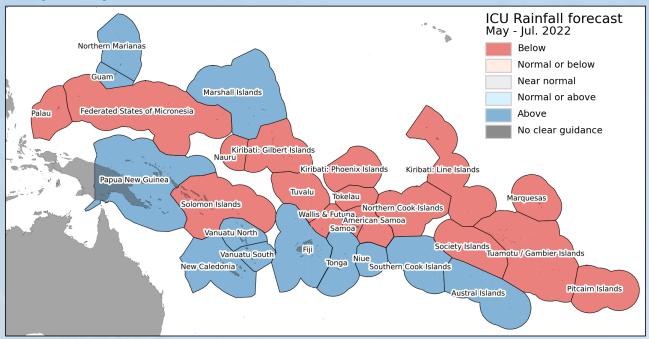
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### **The Island Climate Update**

#### **Drought Watch** May 2022

#### May – July 2022 rainfall forecast

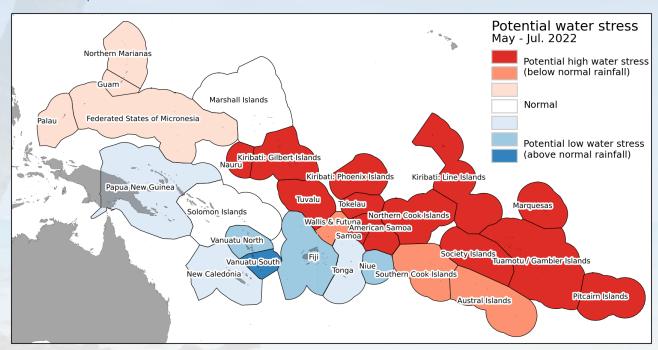


#### Regional drought potential advisory

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, Samoa, American Samoa, Northern Cook Islands, Marquesas, Society Islands, the Tuamotu Archipelago, and Pitcairn Islands.

In addition, Wallis & Futuna, Southern Cook Islands, and Austral 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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