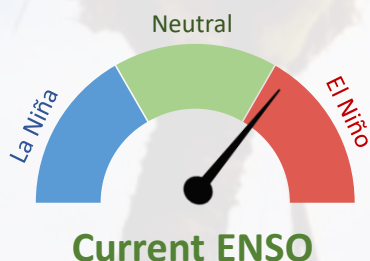


Recent



Sea surface temperatures (SSTs) remained above El Niño thresholds in the central and eastern Pacific Ocean during April 2019, but cooled in the western Pacific.

The atmosphere continued to respond to the oceanic anomalies in the central Pacific.

The Southern Oscillation Index (SOI) was near neutral in April 2019 with a value of -0.1.

83% chance for El Niño conditions persisting during May – July 2019.

Chance for El Niño conditions during August – October 2019 **64%**



Forecast

ENSO situation summary

During April 2019, the atmosphere once again responded to a warm pool of water in the central and western Pacific, with **above normal rainfall and cloud centred along and just west of the International Dateline**. Rainfall and sea surface temperature (SST) patterns remained consistent with a **weak, central Pacific El Niño**.

While the flavour of **El Niño has been closer to the central-based type** over the last few months, the eastward propagation of anomalously warm ocean water may signal that the event is **transitioning to an east-based one**. This transition could bring more traditional El Niño impacts for the Pacific Islands, such as increased rainfall for northern and eastern island groups and reduced rainfall for western and southwestern island groups.

The **NINO3.4** index SST anomaly for April was **+0.76°C**, consistent with what occurred during March. The **Southern Oscillation Index (SOI)** was near neutral during April (-0.1), an increase compared to March (-0.6). The conventional threshold for El Niño (SOI values below -1.0 for three consecutive months) has not been reached, but a **weakly coupled central-based El Niño remains present**.

According to the consensus from international models, the **probability** for oceanic **El Niño conditions** is **83% for the May-July period**. Beyond this, for the August to October period, the probability for oceanic El Niño conditions is 64%. For November 2019 to January 2020, El Niño remains the most likely outcome at 58%. This continues to suggest the potential for a 'protracted' event (multi-year duration).

Rainfall outlook for May – July 2019

Below normal rainfall for Palau, Guam, the Northern Marianas Islands, Papua New Guinea, the Marshall Islands, Vanuatu, New Caledonia, Fiji, Tonga, Niue, the Southern Cook Islands, the Austral Islands, and the Marquesas Islands.

Normal or above normal rainfall for American Samoa.

Above normal rainfall for Federated States of Micronesia, Nauru, Kiribati (Gilbert, Phoenix and Line Islands), Tuvalu, Wallis and Futuna, Tokelau, and Samoa.

No strong guidance (i.e. climatological forecast) for the Solomon Islands, Northern Cook Islands, the Tuamotu archipelago, the Society Islands, and Pitcairn Islands.

Rainfall outlook table for May – July 2019

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Kiribati: Gilbert Islands	0	1	99	ABOVE	High
Nauru	0	1	99	ABOVE	High
Kiribati: Phoenix Islands	2	11	87	ABOVE	High
Kiribati: Line Islands	6	21	73	ABOVE	Moderate-High
Tuvalu	13	15	72	ABOVE	Moderate-High
FSM	28	28	44	ABOVE	Moderate-High
Wallis & Futuna	28	28	44	ABOVE	Moderate
Tokelau	28	29	43	ABOVE	Moderate
Samoa	26	32	42	ABOVE	Moderate-High
American Samoa	29	32	39	AVG - ABOVE	Moderate
Northern Cook Islands	25	35	40	CLIMATOLOGY	High
Tuamotu Islands	27	36	37	CLIMATOLOGY	High
Pitcairn Islands	32	33	35	CLIMATOLOGY	High
Solomon Islands	32	35	33	CLIMATOLOGY	Moderate
Society Islands	34	33	33	CLIMATOLOGY	Moderate-High
Austral Islands	47	27	26	BELOW	High
Palau	50	25	25	BELOW	Moderate-High
Southern Cook Islands	55	23	22	BELOW	High
Fiji	60	21	19	BELOW	High
Niue	61	21	18	BELOW	High
Papua New Guinea	61	22	17	BELOW	High
Vanuatu North	68	16	16	BELOW	Moderate-High
Tonga	69	17	14	BELOW	High
Marshall Islands	70	19	11	BELOW	High
New Caledonia	69	21	10	BELOW	High
Vanuatu South	72	19	9	BELOW	High
Guam	81	10	9	BELOW	High
Northern Marianas	83	10	7	BELOW	High
Marquesas	76	22	2	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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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: <http://www.niwa.co.nz/climate/icu> <https://www.facebook.com/IslandClimateUpdate/>

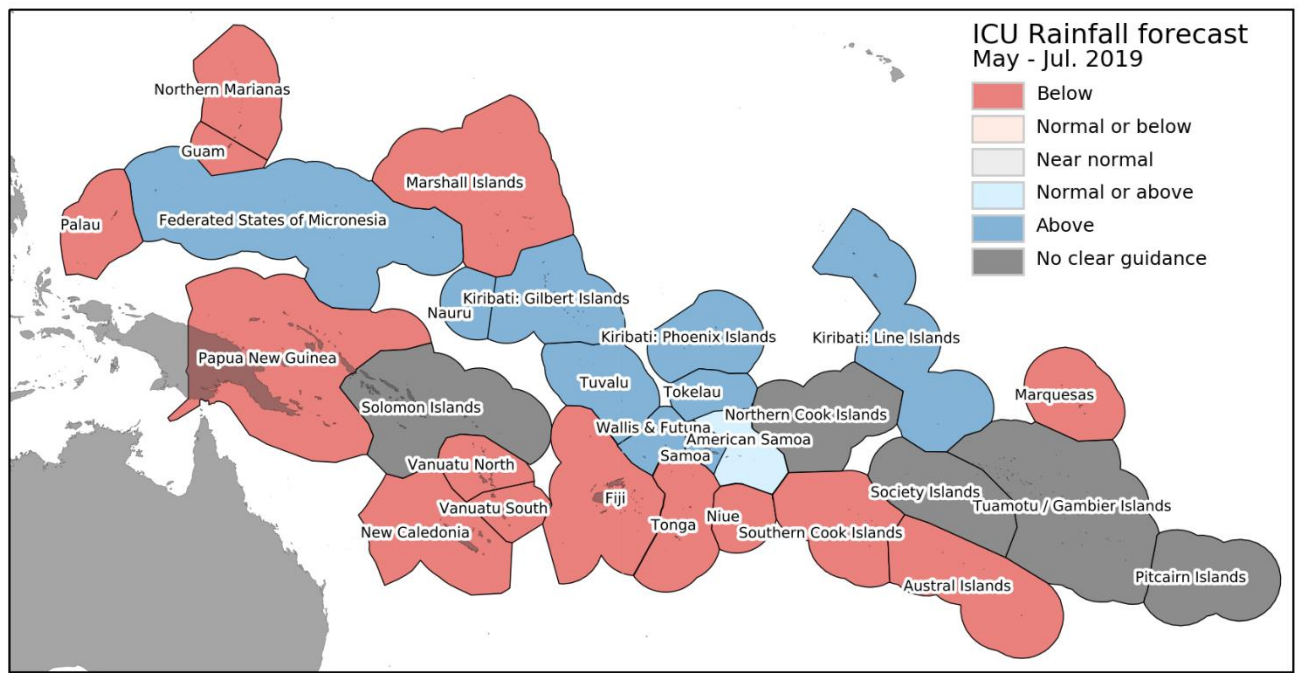


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The Island Climate Update

Drought Watch
May 2019

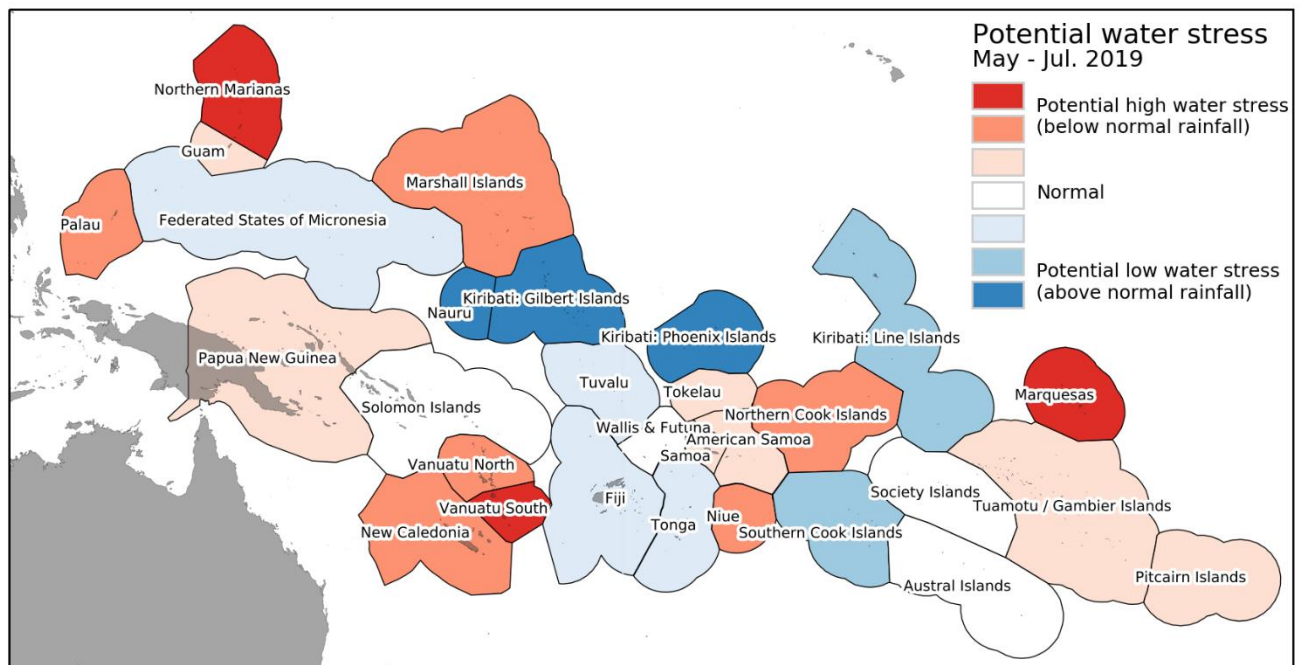
May to July 2019 rainfall forecast



Regional drought potential advisory

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

Countries to watch for potential water stress are the **Northern Marianas Islands, southern Vanuatu, and the Marquesas Islands**, as they have received low rainfall over part of the past 6 months, and dry conditions are forecast for the next three month period (May – July 2019). **Palau, the Marshall Islands, northern Vanuatu, New Caledonia, the Northern Cook Islands and Niue** are approaching high water stress levels.



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