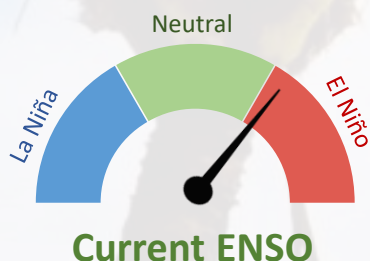


### Recent



Current ENSO

Sea surface temperatures (SSTs) remained above El Niño thresholds in the central Pacific Ocean during May 2019, but decreased for the second consecutive month.

The atmosphere continued to respond to the warm pool of water in the central Pacific.

The Southern Oscillation Index (SOI) decreased in May to -0.7 (April was 0.0).

**66%** chance for El Niño conditions persisting during June – August 2019.

Chance for El Niño conditions during September – November 2019 **56%**



El Niño

### Forecast

## ENSO situation summary

During May 2019, the atmosphere continued to respond 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**.

However, there are signals that a trend towards ENSO-neutral conditions may occur toward the end of the June to August period.

The **NINO3.4** index SST anomaly for May was **+0.72°C**, which was a decrease for the second consecutive month. The NINO1+2 index (in the far eastern Pacific) had an anomaly of +0.38°C, down nearly 0.20°C from last month. The **Southern Oscillation Index (SOI)** decreased to -0.7, compared with 0.0 for April. 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 **66% for the June – August period**. Beyond this, for the September – November period, the probability for oceanic El Niño conditions reduces to 56%. For December 2019 to February 2020, El Niño remains the most likely outcome at 56%. This continues to suggest the occurrence of a ‘protracted’ weak event (multi-year duration).

## Rainfall outlook for June – August 2019

**Below normal rainfall** for Guam, the Northern Marianas Islands, the Marshall Islands, Papua New Guinea, Vanuatu, New Caledonia, Fiji, Tonga, and Niue.

**Normal or below normal rainfall** for the Marquesas

**Above normal rainfall** for the Federated States of Micronesia, Kiribati (Gilbert, Phoenix and Line Islands), Nauru, Tuvalu, Tokelau, and the Austral Islands.

**No strong guidance** (i.e. climatological forecast) for Palau, the Solomon Islands, Wallis and Futuna, Samoa, American Samoa, the Cook Islands, the Society Islands, the Tuamotu Archipelago, and Pitcairn Islands.

## Rainfall outlook table for June – August 2019

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Nauru	2	2	96	ABOVE	High
Kiribati: Gilbert Islands	3	4	93	ABOVE	High
FSM	16	20	64	ABOVE	High
Kiribati: Phoenix Islands	18	23	59	ABOVE	Moderate-High
Tuvalu	21	25	54	ABOVE	Moderate
Kiribati: Line Islands	25	32	43	ABOVE	High
Austral Islands	26	32	42	ABOVE	High
Tokelau	30	30	40	ABOVE	Moderate
Pitcairn Islands	29	32	39	CLIMATOLOGY	High
Northern Cook Islands	30	31	39	CLIMATOLOGY	High
Samoa	31	31	38	CLIMATOLOGY	Moderate-High
Society Islands	29	37	34	CLIMATOLOGY	High
American Samoa	28	39	33	CLIMATOLOGY	Moderate-High
Wallis & Futuna	32	35	33	CLIMATOLOGY	Moderate-High
Tuamotu Islands	33	37	30	CLIMATOLOGY	High
Solomon Islands	37	34	29	CLIMATOLOGY	Moderate
Southern Cook Islands	37	34	29	CLIMATOLOGY	High
Palau	37	35	28	CLIMATOLOGY	Moderate-High
Marquesas	50	47	3	AVG - BELOW	High
Niue	44	32	24	BELOW	High
Guam	52	24	24	BELOW	Moderate-High
Northern Marianas	53	26	21	BELOW	Moderate-High
Tonga	57	23	20	BELOW	High
Fiji	61	20	19	BELOW	High
Papua New Guinea	58	24	18	BELOW	High
Marshall Islands	53	30	17	BELOW	High
Vanuatu North	67	17	16	BELOW	High
Vanuatu South	68	22	10	BELOW	High
New Caledonia	69	22	9	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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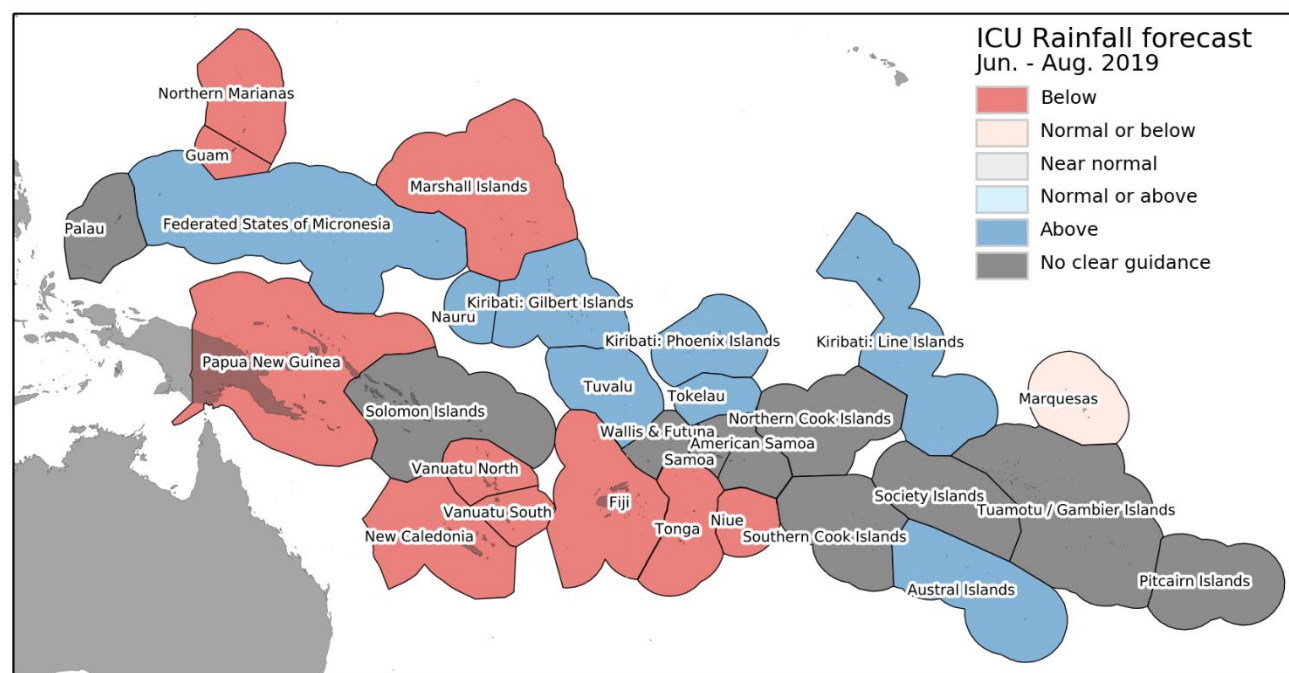


# The Island Climate Update

## June to August 2019 rainfall forecast

Drought Watch

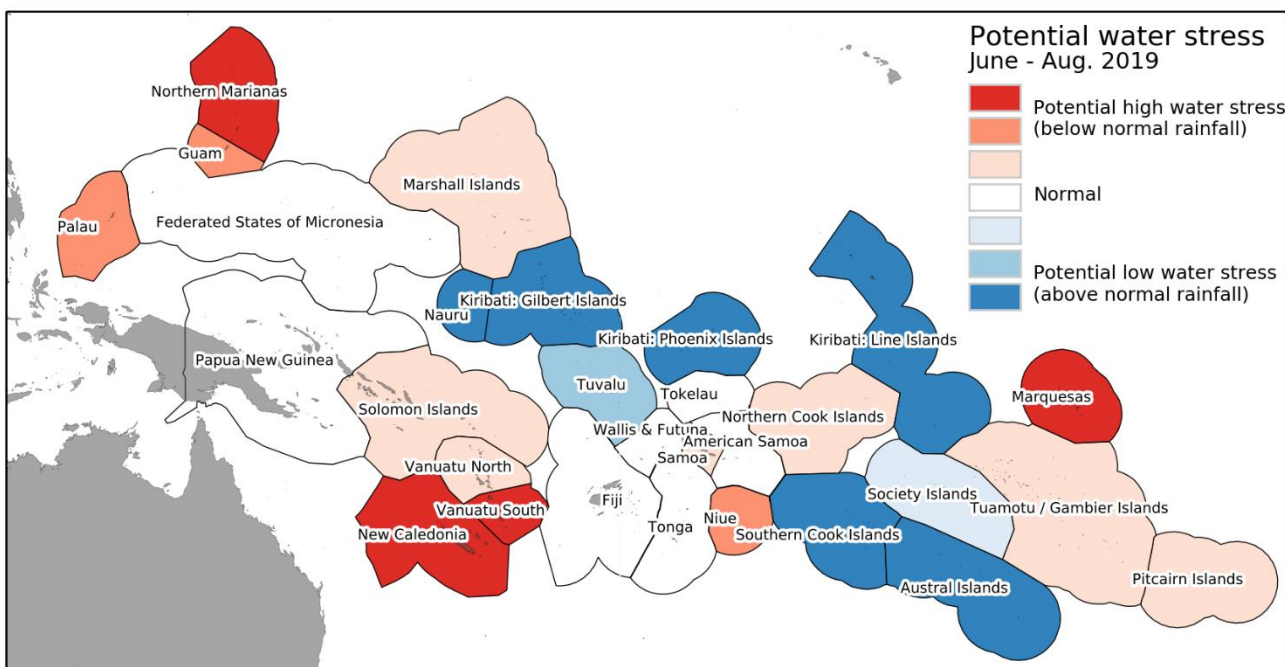
June 2019



## 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, New Caledonia** 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 (June – August 2019). Note that islands in the northern Marshall Islands are also experiencing ongoing severe drought conditions. **Palau, Guam, and Niue** are approaching high water stress levels.



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