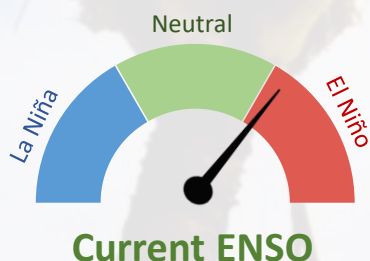


## Recent



Current ENSO

A weak, central Pacific El Niño continued during June as sea surface temperatures (SSTs) remained more than 0.7°C above average (i.e. the El Niño threshold) for the fourth consecutive month.

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

The Southern Oscillation Index (SOI) in June was -0.7 (on the El Niño side of neutral; the same as May).

**60%** chance for El Niño conditions persisting during July – September 2019.

Chance for El Niño conditions during October – December 2019 **60%**



El Niño

## Forecast

### ENSO situation summary

During June 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 **weak, central Pacific El Niño conditions**.

The **NINO3.4** index SST anomaly (in the central Pacific) for June was **+0.75°C**, which was similar to May. The NINO1+2 index (in the far eastern Pacific) was near normal. The **Southern Oscillation Index (SOI)** was -0.7 in June, which was the same value as May. 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 **60% for the July – September period**. Beyond this, for the October – December period, the probability for oceanic El Niño conditions is the same at 60%. For January – March 2020, the probability for El Niño increases to 65%. This continues to suggest the occurrence of a ‘protracted’ weak event (multi-year duration).

## Rainfall outlook for July – September 2019

**Below normal rainfall** for Papua New Guinea, Kiribati (Phoenix Islands), Vanuatu, New Caledonia, Fiji, Wallis & Futuna, Tonga, and Niue.

**Near normal rainfall** for the Marshall Islands, the Marquesas and the Society Islands.

**Near or above normal rainfall** for Kiribati (Line Islands) and the Tuamotu Islands.

**Above normal rainfall** for Palau, Guam, the Northern Marianas Islands, Federated States of Micronesia, Nauru, Kiribati (Gilbert Islands), Tuvalu, Tokelau, Samoa, American Samoa, the Northern Cook Islands, the Austral Islands, and Pitcairn Islands.

**No strong guidance** (i.e. climatological forecast) for the Solomon Islands and the Southern Cook Islands.

## Rainfall outlook table for June – August 2019

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Nauru	11	12	77	ABOVE	Moderate
FSM	11	17	72	ABOVE	High
Kiribati: Gilbert Islands	14	20	66	ABOVE	High
Guam	18	20	62	ABOVE	Moderate-High
Northern Marianas	20	20	60	ABOVE	Moderate-High
Tuvalu	22	24	54	ABOVE	Moderate-High
Pitcairn Islands	23	25	52	ABOVE	High
Northern Cook Islands	24	28	48	ABOVE	High
Palau	27	27	46	ABOVE	Moderate
Austral Islands	25	31	44	ABOVE	High
Samoa	28	28	44	ABOVE	Moderate-High
Tokelau	26	32	42	ABOVE	Moderate-High
American Samoa	29	32	39	ABOVE	Moderate-High
Kiribati: Line Islands	26	34	40	AVG - ABOVE	High
Tuamotu Islands	27	37	36	AVG - ABOVE	High
Solomon Islands	32	32	36	CLIMATOLOGY	Moderate
Southern Cook Islands	32	35	33	CLIMATOLOGY	High
Society Islands	31	38	31	NEAR NORMAL	High
Marshall Islands	32	40	28	NEAR NORMAL	High
Marquesas	30	62	8	NEAR NORMAL	High
Wallis & Futuna	38	31	31	BELOW	Moderate-High
Niue	41	30	29	BELOW	High
Papua New Guinea	47	30	23	BELOW	High
Tonga	47	30	23	BELOW	High
Kiribati: Phoenix Islands	51	30	19	BELOW	High
Fiji	67	17	16	BELOW	High
Vanuatu South	69	18	13	BELOW	High
Vanuatu North	72	16	12	BELOW	High
New Caledonia	70	23	7	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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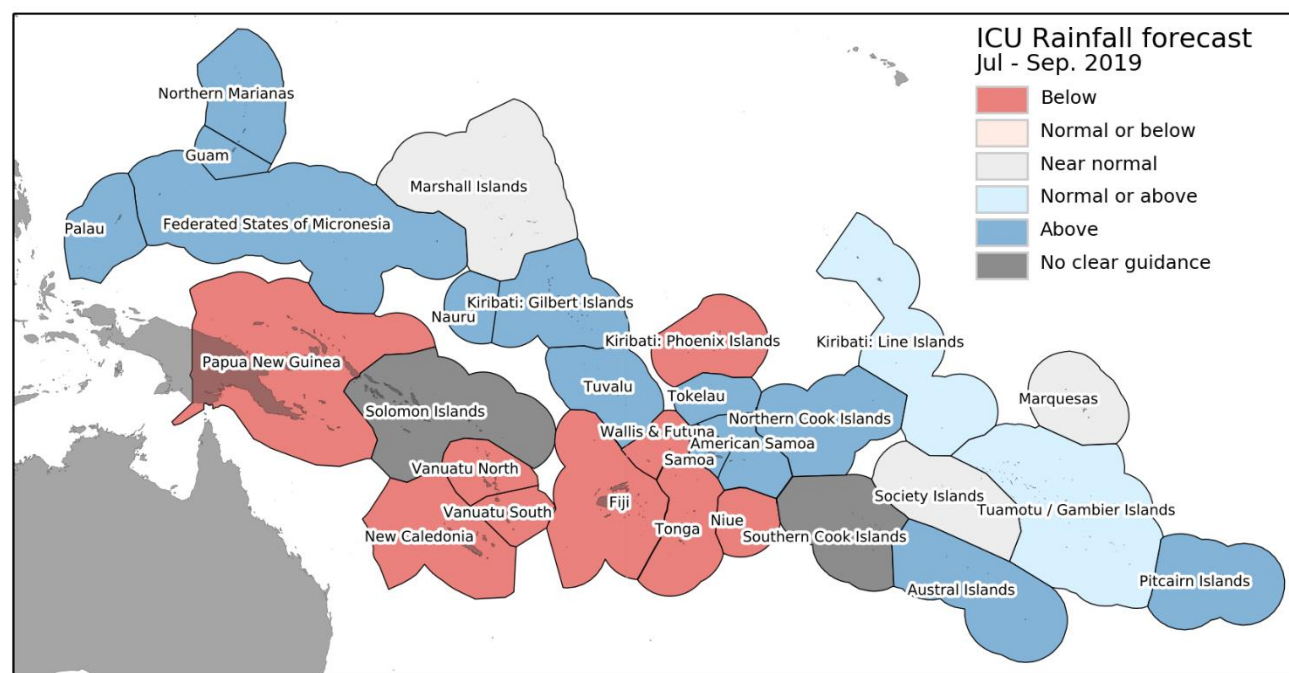
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Taihoro Nukurangi

# The Island Climate Update

## July to September 2019 rainfall forecast

Drought Watch

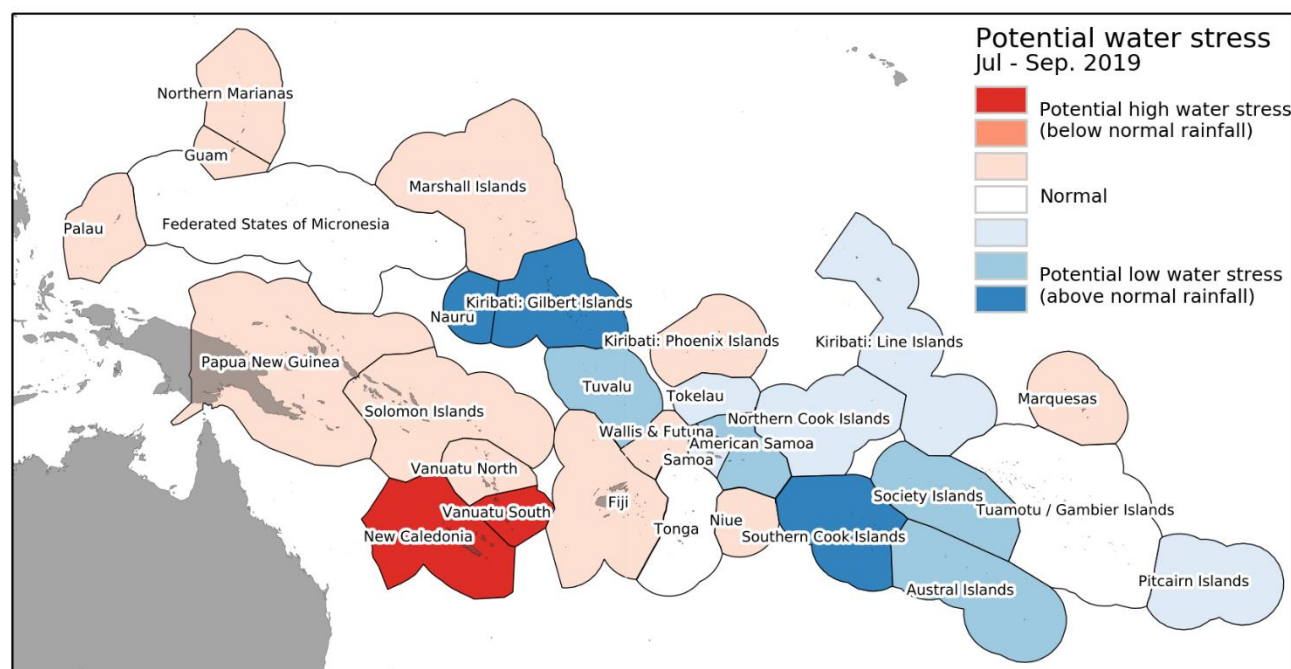
July 2019



## 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 **southern Vanuatu and New Caledonia**, as they have received low rainfall over part of the past 6 months, and dry conditions are forecast for the next three month period (July – September 2019). Note that islands in the northern Marshall Islands are also experiencing ongoing severe drought conditions. A number of islands groups, particularly to the west of the International Dateline, are starting to show signs of water stress.



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