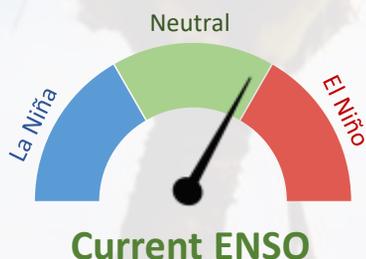


Recent



Sea surface temperatures (SSTs) remained above average in the equatorial Pacific Ocean during February 2019.

The atmosphere has started to respond to the oceanic anomalies in the central Pacific.

The Southern Oscillation Index (SOI) was in the El Niño range in February 2019 with a value of -1.2.

76% chance for El Niño conditions persisting during March – May 2019.

Chance for El Niño conditions during June – August 2019 **61%**



Forecast

ENSO situation summary

Over the past month, **Sea surface temperatures (SSTs) remained above average in the equatorial Pacific Ocean**, particularly near and just west of the International Dateline. The **NINO3.4** index SST anomalies however remained **just below +0.5°C** during February 2019.

The atmosphere continued to respond to a warm pool of water in the central and western tropical Pacific Ocean. This was reflected by well above normal rainfall during February near the Dateline and below normal rainfall over the Maritime Continent (Indonesia and north of Australia).

Central Pacific El Niño conditions are now occurring as the ocean and atmosphere have been weakly coupled for a third consecutive month. Traditionally, this occurs farther east toward South America and during the early summer season.

The **Southern Oscillation Index (SOI)** decreased substantially from near 0.0 in January to a value of **-1.2 in February** and is currently in the **El Niño territory**.

According to the consensus from international models, the **probability** for oceanic **El Niño conditions** is **76% for the March – May period**. This is an increase from 66% last month. Beyond this, for the June to August period, the probability for oceanic El Niño conditions increased to 61%, up from 48% last month.

Oceanic El Niño remains the mostly likely outcome for the March to May period at 48%. This continues to suggest the potential for a 'protracted' event (multi-year duration).

Rainfall outlook for March – May 2019

Below normal rainfall for Palau, the northern Marianas Islands, Guam, Vanuatu, New Caledonia, Tonga, Niue, the northern Cook Islands, the Tuamotu archipelago and the Marquesas.

Normal or below normal rainfall for the Society Islands.

Normal or above normal rainfall for Fiji, Samoa and American Samoa.

Above normal rainfall for the Federated States of Micronesia, Nauru, Papua New Guinea, the Solomon Islands, the Kiribati (Gilbert, Phoenix and Line Islands), Tuvalu, Wallis & Futuna and Pitcairn Islands.

No strong guidance (i.e. climatological forecast) for the Marshall Islands, Tokelau, the Southern Cook Islands and the Austral Islands.

Rainfall outlook table for March – May 2019

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Kiribati: Line Islands	3	8	89	ABOVE	High
Nauru	7	8	85	ABOVE	High
Kiribati: Gilbert Islands	8	8	84	ABOVE	High
Kiribati: Phoenix Islands	14	16	70	ABOVE	Moderate
Tuvalu	20	20	60	ABOVE	Moderate-High
Solomon Islands	25	25	50	ABOVE	Moderate-High
Wallis & Futuna	25	25	50	ABOVE	Moderate
Pitcairn Islands	26	27	47	ABOVE	Moderate-High
FSM	25	29	46	ABOVE	High
Papua New Guinea	29	30	41	ABOVE	High
American Samoa	27	32	41	AVG - ABOVE	Moderate
Samoa	28	33	39	AVG - ABOVE	Moderate
Fiji	30	31	39	AVG - ABOVE	Moderate-High
Marshall Islands	30	33	37	CLIMATOLOGY	Moderate-High
Austral Islands	31	34	35	CLIMATOLOGY	High
Tokelau	37	32	31	CLIMATOLOGY	Moderate-High
Southern Cook Islands	38	33	29	CLIMATOLOGY	Moderate-High
Society Islands	39	31	30	AVG - BELOW	Moderate-High
Vanuatu North	43	31	26	BELOW	Moderate
Tonga	48	26	26	BELOW	High
Tuamotu Islands	48	27	25	BELOW	High
Niue	51	25	24	BELOW	Moderate-High
Northern Cook Islands	54	24	22	BELOW	Moderate-High
Palau	56	23	21	BELOW	Moderate-High
Vanuatu South	61	21	18	BELOW	Moderate-High
New Caledonia	67	18	15	BELOW	High
Guam	74	16	10	BELOW	High
Northern Marianas	73	19	8	BELOW	High
Marquesas	95	3	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/>



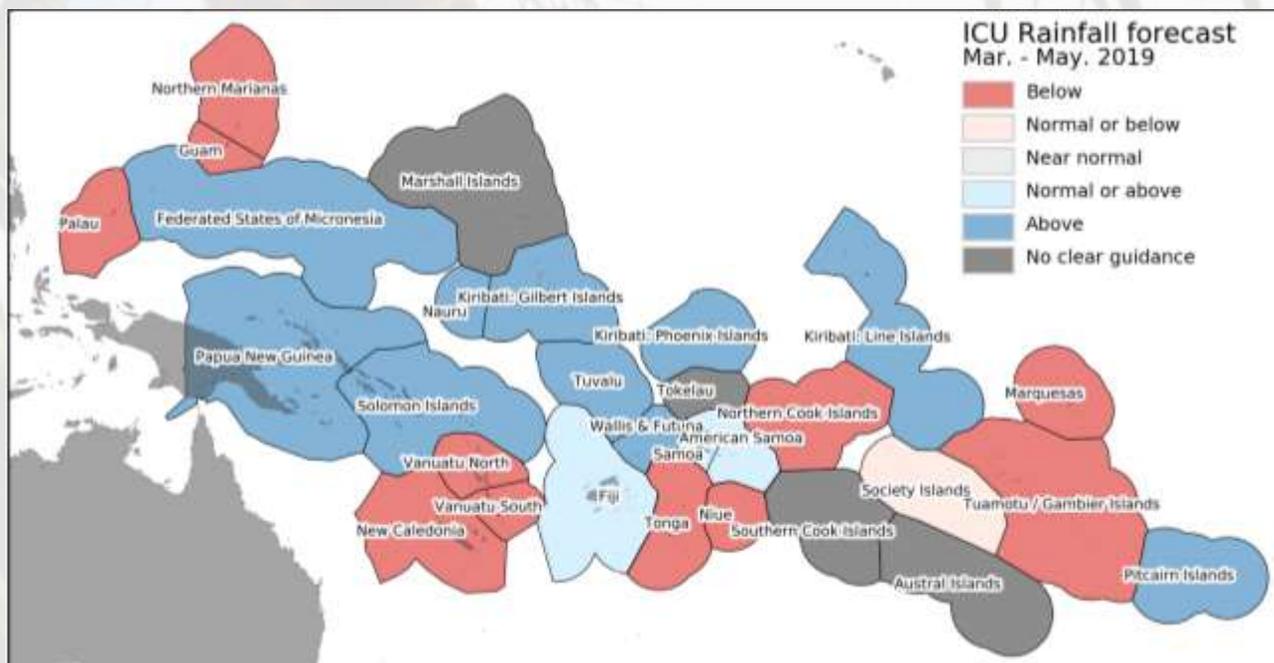
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The Island Climate Update

March to May 2019 rainfall forecast

Drought Watch

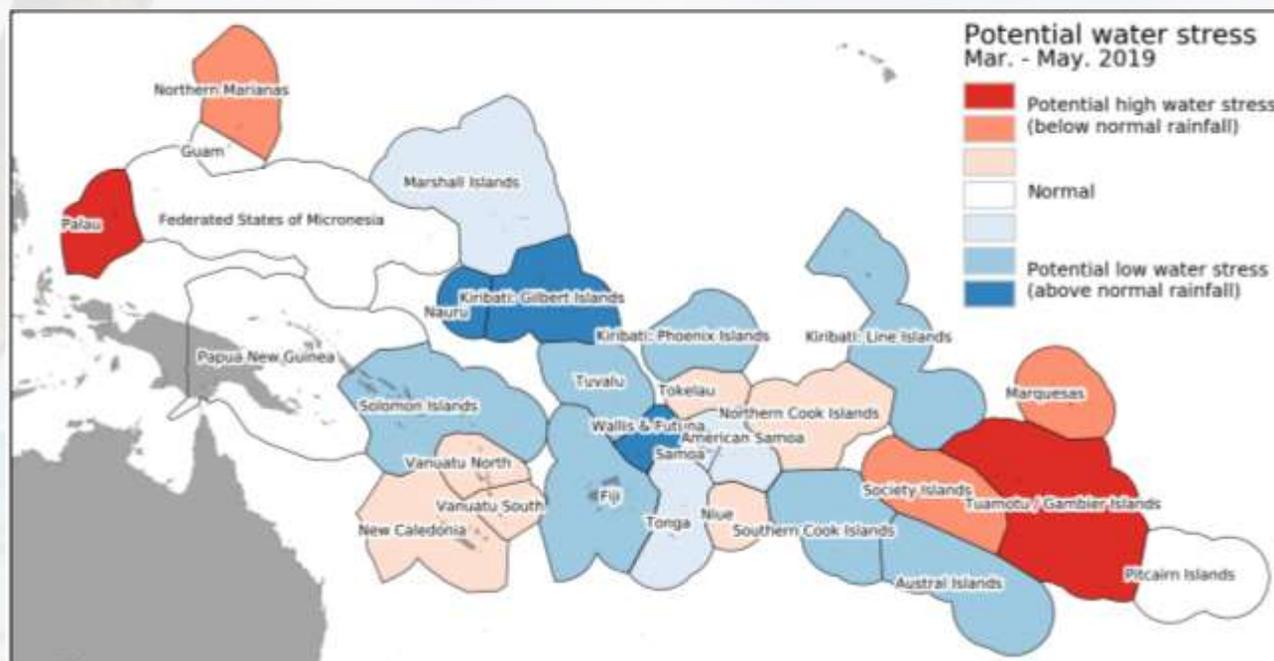
March 2019



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 **Palau** and the **Tuamotu archipelago**, as well as the **Society Islands**, the **Marquesas** and the **northern Marianas Islands**, as they have received low rainfall over part of the past 6 months, and dry conditions are forecast for the next three months period (March – May 2019).



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