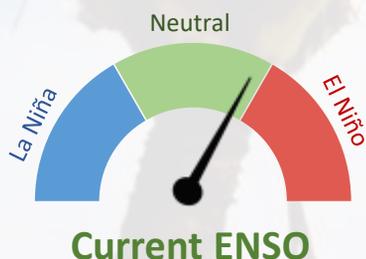


Recent



The equatorial Pacific Ocean remains warmer than normal but anomalies weakened compared to last month.

The coupling between the atmosphere and the ocean remains weak.

The Southern Oscillation Index (SOI) was in the neutral range in January 2019.

74% chance for El Niño conditions during February – April 2019.

Chance for El Niño conditions during May – July 2019 **52%**



Forecast

ENSO situation summary

Over the past month, **sea surface temperatures (SSTs)** in the central Pacific have remained **above normal** particularly near and west of the International Dateline, although declined slightly **below the conventional threshold for El Niño**.

The **Southern Oscillation Index (SOI)** decreased substantially from a positive value of +0.8 during December to **-0.1 during January (in the neutral range)**. Trade winds were close to normal east of the International Dateline during January 2019, however a westerly wind burst earlier in January in the far western Pacific triggered warming at depth (100-150 m) near and just east of the International Dateline.

The atmosphere has responded to the warm pool of water in the central and western Pacific, but the coupling between the ocean and the atmosphere still remains weak. During traditional El Niño events, this response tends to take place farther east and is usually well-established by this time of year. It appears quite **unlikely that a classical coupling will occur over the next 3 months**.

The **probability for oceanic El Niño conditions**, according to the consensus from international models, is **74% over February – April period**. Compared to last month, the probabilities decreased for April - June 2019 (now 65%, down from 78%) and August - October 2019 (now 51%, down from 62%).

However, later in 2019, long-range models indicate the potential **re-emergence of oceanic El Niño conditions**, which suggests the potential for a 'protracted' event. **This means that above average SSTs may persist for more than a year across the equatorial Pacific.**

Rainfall outlook for February – April 2019

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

Normal or below normal rainfall for the Federated States of Micronesia, Tonga and the Society Islands.

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

Above normal rainfall for Papua New Guinea, the Solomon Islands, Nauru, the Kiribati (Phoenix, Line and Gilbert Islands), Tuvalu, Tokelau and the southern Cook Islands.

No strong guidance (i.e. climatological forecast) for northern Vanuatu, Wallis & Futuna, Samoa and Pitcairn Island.

Rainfall outlook table for February – April 2019

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Nauru	8	8	84	ABOVE	High
Kiribati (Western)	8	11	81	ABOVE	High
Kiribati (Eastern)	5	15	80	ABOVE	High
Tuvalu	14	16	70	ABOVE	High
Papua New Guinea	13	22	65	ABOVE	High
Central Kiribati (Phoenix)	20	20	60	ABOVE	Moderate-High
Cook Islands (Southern)	25	26	49	ABOVE	Moderate
Solomon Islands	23	29	48	ABOVE	Moderate-High
Tokelau	26	29	45	ABOVE	Moderate-High
Austral Islands	25	33	42	AVG - ABOVE	Moderate-High
Fiji	29	31	40	AVG - ABOVE	Moderate-High
American Samoa	30	31	39	AVG - ABOVE	Moderate
Samoa	31	33	36	CLIMATOLOGY	Moderate
Wallis & Futuna	30	35	35	CLIMATOLOGY	Moderate
Pitcairn Island	35	34	31	CLIMATOLOGY	Moderate
Vanuatu (North)	36	34	30	CLIMATOLOGY	Moderate
Tonga	38	31	31	AVG - BELOW	Moderate
Society Islands	38	32	30	AVG - BELOW	Moderate-High
FSM	38	33	29	AVG - BELOW	Moderate
Niue	41	30	29	BELOW	Moderate
Cook Islands (Northern)	42	31	27	BELOW	Moderate-High
Marshall Islands	49	27	24	BELOW	Moderate-High
Vanuatu (South)	53	26	21	BELOW	Moderate
Palau	55	24	21	BELOW	Moderate-High
Tuamotu Islands	58	21	21	BELOW	Moderate-High
New Caledonia	63	20	17	BELOW	High
Guam	72	19	9	BELOW	High
Marquesas	84	8	8	BELOW	High
N. Marianas	70	24	6	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.

The Island Climate Update bulletin is currently being produced by NIWA in association with the Pacific Island Meteorological Services and other supporting meteorological organisations.

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/>



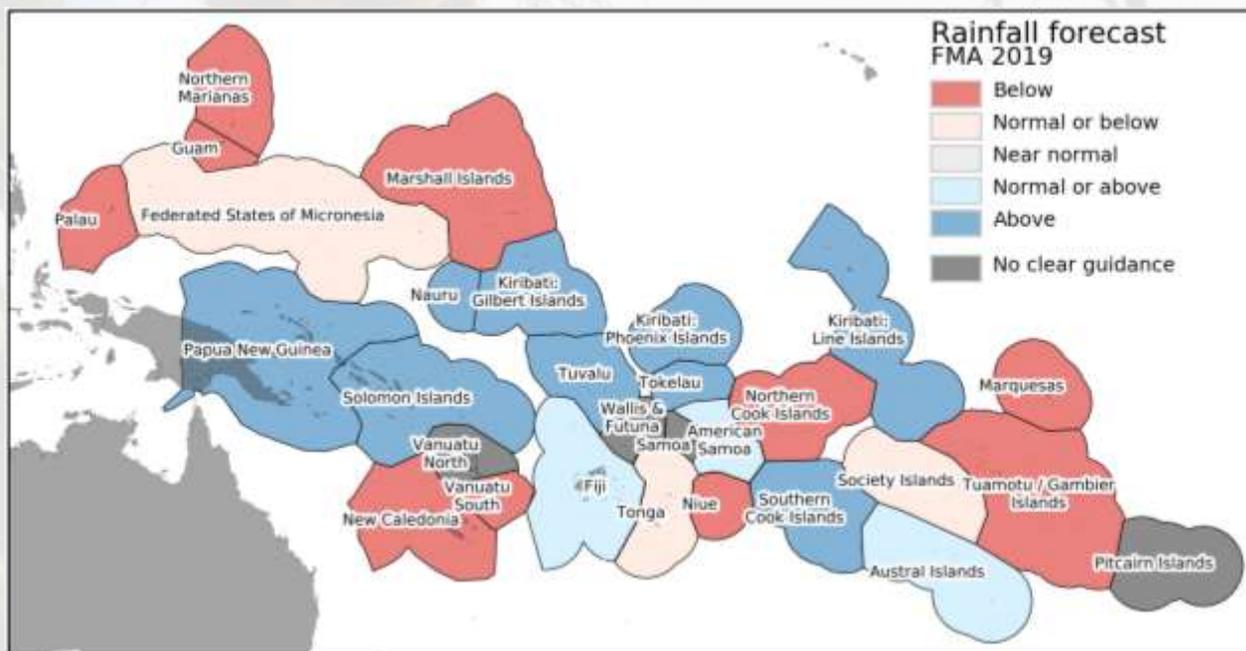
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The Island Climate Update

February to April 2019 rainfall forecast

Drought Watch

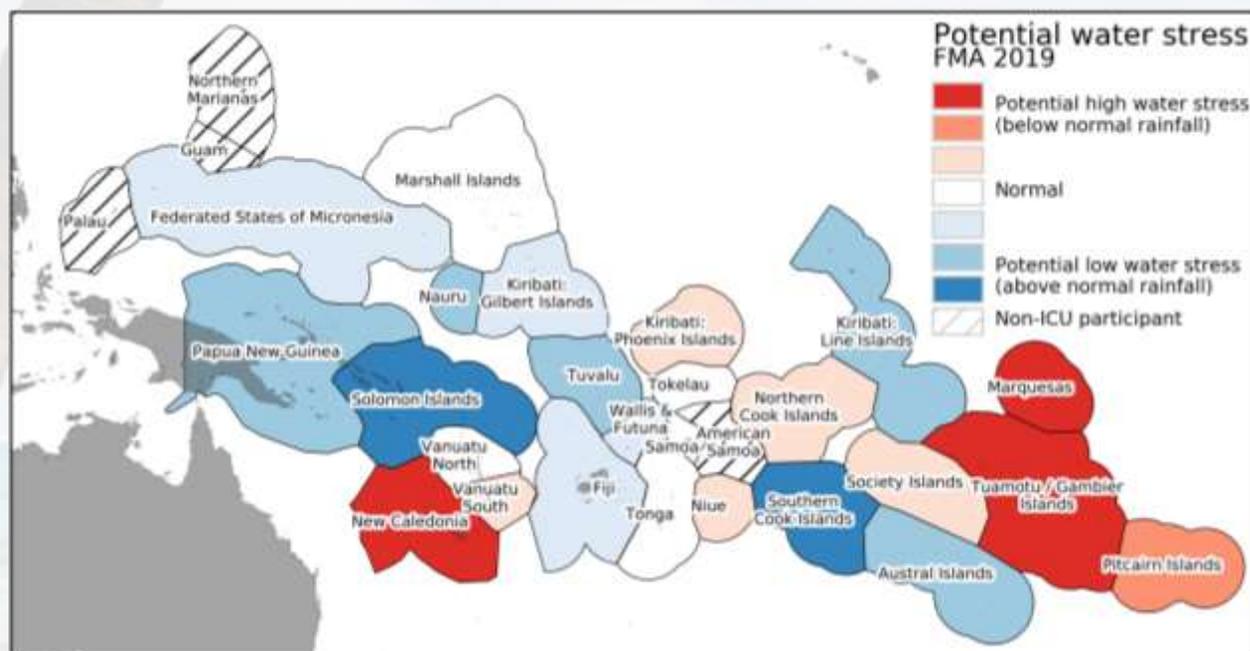
February 2019



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 **New Caledonia, the Tuamotu archipelago and the Marquesas** as they have received low rainfall over part of the past 6 months, and dry conditions are forecast for the next three months period (February – April 2019).



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