The Island Climate Update

ENSO Watch September 2019

Neutral **Current FNSO**

The central Pacific El Niño event has ended, giving way to ENSO-neutral conditions, due to cooling sea surface temperatures (SSTs) in the tropical Pacific and a neutral Southern Oscillation Index (SOI) during August.

SSTs in the central equatorial Pacific were 0.2°C above average in August (in the neutral range), down from 0.5°C during July.

The Southern Oscillation Index (SOI) in August was -0.2 (in the neutral range).

chance for ENSO-neutral conditions persisting during September-November 2019.

Chance for **ENSO-neutral** conditions during December 2019 - February 2020.

49%



ENSO situation summary

Upper-oceanic heat content anomalies continued to decrease, but remained slightly above average in the west-central equatorial Pacific. In the eastern part of the basin, heat content was below normal for the time of year. Overall, this reflects ENSO neutral conditions, but with a slight lean toward El Niño-Modoki (central Pacific El Niño).

During August, above normal rainfall occurred from the eastern Maritime Continent into the western Pacific, with below normal rainfall just north of the equator in the central Pacific. This remained broadly consistent with El Niño Modoki conditions.

Trade winds were slightly weaker than normal in the eastern Pacific and slightly stronger than normal in the west-central Pacific. During September, reduced trades are forecast to west of the International Dateline, which may help to sustain the warm pool of water in the NINO4 region.

On the other hand, stronger than normal trade winds are expected in the east-central tropical Pacific, which may lead to additional cooling of SSTs.

According to the consensus from international models, oceanic ENSO-neutral conditions are most likely at 59% chance for the September – November period with El Niño at 33% chance. For the December 2019 - February 2020 period, the probability for neutral conditions is 49% with the chance for El Niño increasing to 41%. For the March – May 2020 period, the probability for neutral conditions and El Niño is 55% and 43%, respectively.

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The Island Climate Update

Rain Watch September 2019

Rainfall outlook for September – November 2019

Below normal rainfall for Palau, Kiribati (Gilbert, Phoenix, Line Islands), Vanuatu, New Caledonia and the Society Islands.

Near or below normal rainfall for Nauru, Fiji, Southern Cook Islands and the Marquesas.

Near or above normal rainfall for Papua New Guinea, Marshall Islands, Niue and Pitcairn Islands.

Above normal rainfall for Northern Marianas Islands, Guam, Federated States of Micronesia, Solomon Islands, Wallis & Futuna, Tokelau, Samoa, American Samoa, Northern Cook Islands, and Tuamotu Archipelago.

No strong guidance (i.e. climatological forecast) for Tuvalu, Tonga and the Austral Islands.

Rainfall outlook table for September – November 2019

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Northern Marianas	21	23	56	ABOVE	Moderate-High
Guam	23	25	52	ABOVE	Moderate-High
FSM	19	30	51	ABOVE	High
Solomon Islands	23	26	51	ABOVE	Moderate
Northern Cook Islands	24	26	50	ABOVE	High
Tuamotu Islands	25	26	49	ABOVE	High
Wallis & Futuna	26	27	47	ABOVE	Moderate
Samoa	30	30	40	ABOVE	Moderate-High
Tokelau	30	31	39	ABOVE	Moderate-High
American Samoa	31	32	37	ABOVE	Moderate
Marshall Islands	14	41	45	AVG - ABOVE	High
Papua New Guinea	27	33	40	AVG - ABOVE	High
Pitcairn Islands	28	32	40	AVG - ABOVE	Moderate-High
Niue	28	37	35	AVG - ABOVE	Moderate-High
Tuvalu	32	33	35	CLIMATOLOGY	Moderate-High
Austral Islands	34	34	32	CLIMATOLOGY	High
Tonga	36	33	31	CLIMATOLOGY	High
Nauru	40	31	29	AVG - BELOW	Moderate
Fiji	39	33	28	AVG - BELOW	High
Southern Cook Islands	41	32	27	AVG - BELOW	High
Marquesas	47	40	13	AVG - BELOW	High
Society Islands	42	30	28	BELOW	High
Palau	49	26	25	BELOW	Moderate-High
Vanuatu North	56	23	21	BELOW	High
Kiribati: Gilbert Islands	63	19	18	BELOW	High
Vanuatu South	66	22	12	BELOW	High
New Caledonia	63	26	11	BELOW	High
Kiribati: Phoenix Islands	86	9	5	BELOW	High
Kiribati: Line Islands	79	18	3	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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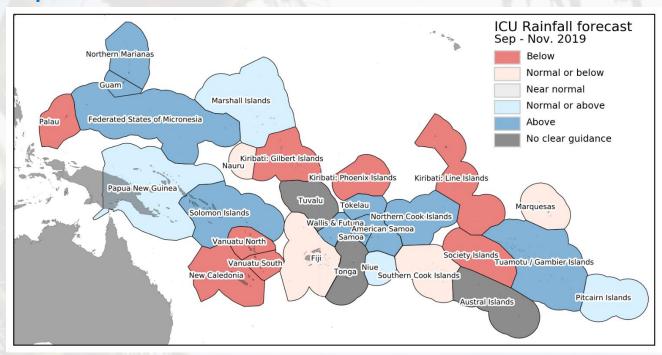




The Island Climate Update

Drought Watch September 2019

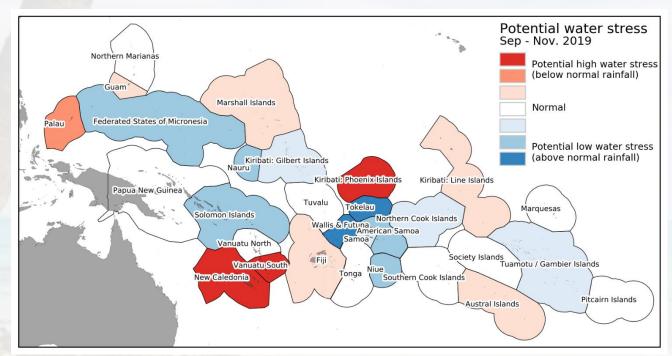
September to November 2019 rainfall forecast



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 **New Caledonia**, **southern Vanuatu**, **Kiribati (Phoenix Islands) and Palau** as they have received low rainfall over part of the past 6 months, and dry conditions are forecast for the next three month period (September-November 2019). Over the last month severe drought conditions in the northern Marshall Islands have eased somewhat.



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