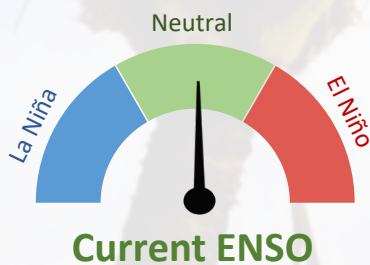


Recent



ENSO-neutral conditions continued during January 2020.

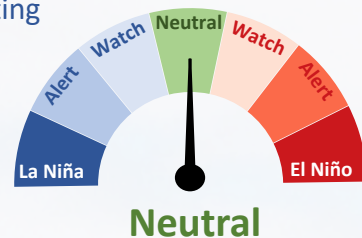
Sea surface temperatures (SSTs) were above average in the west-central Pacific during January but still in the ENSO-neutral range.

The Southern Oscillation Index (SOI) was +0.2 in January (in ENSO-neutral territory). The 3-month average SOI was -0.5.

68% chance for ENSO-neutral conditions persisting during February – April 2020.

Chance for ENSO-neutral conditions during May – July 2020.

64%



Forecast

ENSO situation summary

El Niño-Southern Oscillation (ENSO) neutral conditions continued during January 2020. The Southern Oscillation Index (SOI) was +0.2, the first positive monthly value since December 2018.

The NINO3.4 Index anomaly (in the central Pacific) for January was +0.45°C, slightly warmer than December. The warmest ocean waters with respect to average continued to be located in the west-central Pacific. Upper-oceanic heat content remained above average near the Dateline, as it has for much of the past year. Overall, this was indicative of oceanic ENSO neutral conditions that leaned toward El Niño Modoki.

Across the global tropics, rainfall patterns indicated a decay of the strongly positive Indian Ocean Dipole pattern during January, with abundant rainfall and convection north of Australia. Rainfall and convection was also prominent in the vicinity of the International Dateline due to the warm pool of water there. This warm water is likely to result in an increase in SW Pacific tropical cyclone activity during February.

Trade winds were weaker than normal near and west of the Dateline during January, allowing the west-central Pacific warm pool of ocean water to persist. During February, stronger than normal trade winds are forecast to develop in the eastern and central Pacific, which may lead to cooling of SSTs in that region.

According to the consensus from international models, ENSO-neutral conditions are most likely (68% chance) for the February – April period. For the May – July period, the probability for ENSO-neutral conditions is 64%. The probability of La Niña increases to 30% in August-October although ENSO-neutral remains the most likely outcome.

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Rainfall outlook for February – April 2020

Below normal rainfall for Northern Marianas Islands, Palau, Guam, Kiribati (Gilbert and Phoenix Islands), Tuvalu, Wallis & Futuna, Tokelau, Samoa, American Samoa, Northern and Southern Cook Islands, Society Islands, Austral Islands, Tuamotu Islands, and the Marquesas.

Near or below normal rainfall for Niue, Pitcairn Islands.

Near or above normal rainfall for the Federated States of Micronesia, New Caledonia, and Southern Vanuatu.

Above normal rainfall for the Marshall Islands, Kiribati (Line Islands), Papua New Guinea, Northern Vanuatu, Fiji and Nauru.

No clear guidance for Tonga.

Forecast

Rainfall outlook table for February – April 2020

| ISLAND | PROBABILITY (%) | | | OUTLOOK | CONFIDENCE |
|---------------------------|-----------------|--------|-------|-------------|---------------|
| | Below | Normal | Above | | |
| Marshall Islands | 7 | 16 | 77 | ABOVE | Moderate-High |
| Kiribati: Line Islands | 11 | 18 | 71 | ABOVE | High |
| Papua New Guinea | 20 | 35 | 45 | ABOVE | High |
| Vanuatu North | 26 | 30 | 44 | ABOVE | Moderate-High |
| Fiji | 27 | 30 | 43 | ABOVE | Moderate-High |
| Nauru | 31 | 31 | 38 | ABOVE | Moderate |
| New Caledonia | 20 | 40 | 40 | AVG - ABOVE | Moderate |
| Vanuatu South | 20 | 40 | 40 | AVG - ABOVE | Moderate |
| FSM | 29 | 33 | 38 | AVG - ABOVE | Moderate-High |
| Tonga | 33 | 34 | 33 | CLIMATOLOGY | Moderate-High |
| Niue | 36 | 33 | 31 | AVG - BELOW | Moderate-High |
| Pitcairn Islands | 35 | 35 | 30 | AVG - BELOW | Moderate-High |
| Solomon Islands | 39 | 35 | 26 | AVG - BELOW | High |
| Tuamotu Islands | 42 | 30 | 28 | BELOW | High |
| Tuvalu | 44 | 28 | 28 | BELOW | Moderate-High |
| American Samoa | 48 | 26 | 26 | BELOW | Moderate-High |
| Austral Islands | 45 | 30 | 25 | BELOW | High |
| Samoa | 49 | 26 | 25 | BELOW | Moderate-High |
| Palau | 51 | 25 | 24 | BELOW | Moderate |
| Kiribati: Gilbert Islands | 51 | 26 | 23 | BELOW | Moderate |
| Wallis & Futuna | 53 | 24 | 23 | BELOW | Moderate-High |
| Society Islands | 59 | 22 | 19 | BELOW | High |
| Southern Cook Islands | 62 | 19 | 19 | BELOW | High |
| Kiribati: Phoenix Islands | 71 | 15 | 14 | BELOW | High |
| Tokelau | 71 | 16 | 13 | BELOW | Moderate-High |
| Northern Cook Islands | 84 | 8 | 8 | BELOW | High |
| Guam | 80 | 14 | 6 | BELOW | High |
| Northern Marianas | 82 | 16 | 2 | BELOW | High |
| Marquesas | 96 | 4 | 0 | 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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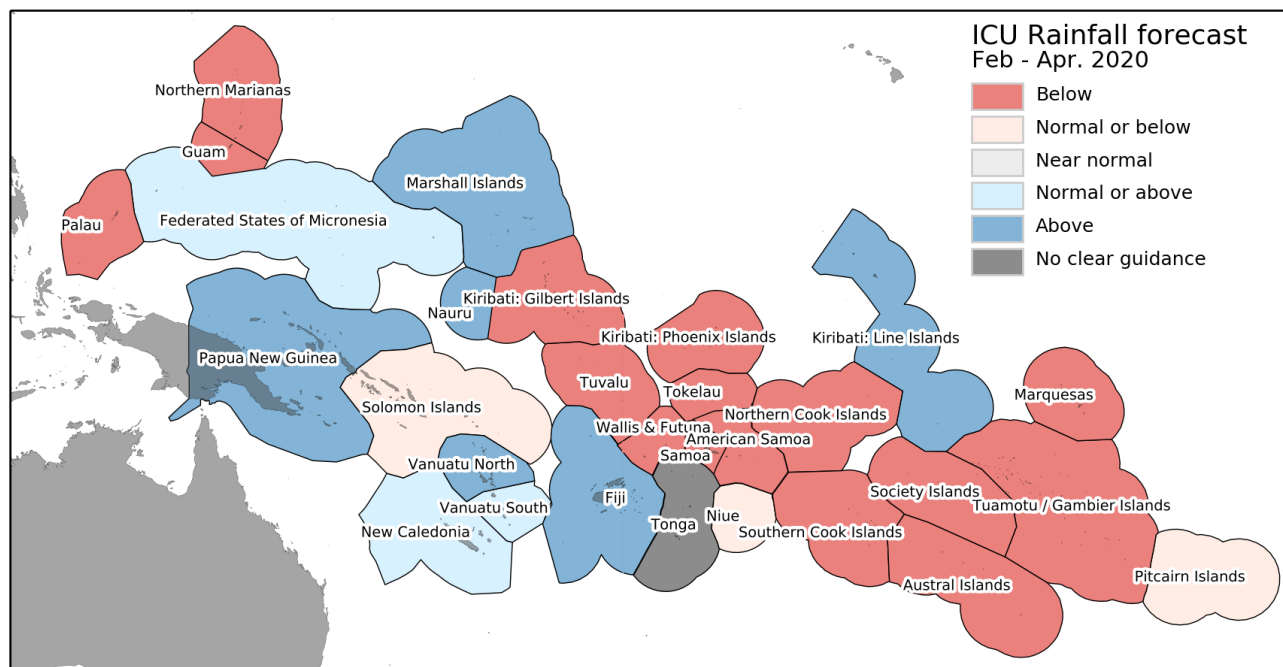
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The Island Climate Update

Drought Watch

February 2020

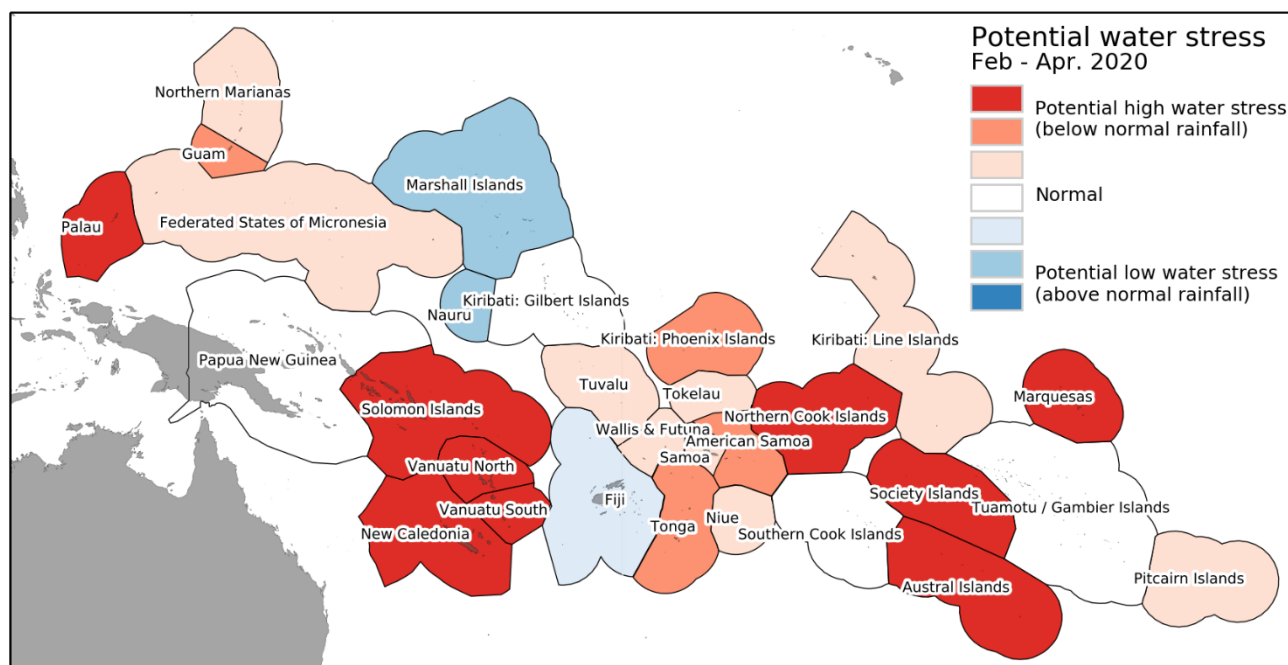
February – April 2020 rainfall forecast



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 **Palau, Solomon Islands, Vanuatu, New Caledonia, Northern Cook Islands, Society Islands, Austral Islands and the Marquesas** as they have received low rainfall over part of the past six months, and dry conditions are forecast for the next three month period. Other countries with developing water stress conditions are **Guam, Kiribati (Phoenix Islands), American Samoa, and Tonga**.



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