The Island Climate Update



During June 2021, the tropical Pacific remained in ENSO neutral conditions.

Sea surface temperatures (SSTs) in the equatorial Pacific were in the ENSO neutral range during June.

The Southern Oscillation Index (SOI) was +0.4 during June (neutral range). The three-month average SOI was +0.4 (neutral range).

Chance for ENSO neutral conditions during October - December 2021.

72% neutral conditions during July -September 2021.



chance for the continuation of ENSO



Forecast

ENSO Watch

July 2021

ENSO situation summary

The NINO3.4 Index anomaly (in the central Pacific) during June was 0.18°C, the first time it has been positive since July 2020. The Southern Oscillation Index was +0.4, in the ENSO neutral range.

During June, upper-oceanic heat content remained above average across the Pacific. A slight cooling trend occurred in the central part of the basin and is worth monitoring through the rest of the dry season.

According to the consensus from international models, the probability for ENSO neutral conditions is 72% for July-September. For October-December, ENSO neutral is favoured at 50%, although the chance for the re-emergence of La Niña increases to 34% compared to last month when it was 31%.

Since ENSO neutral conditions are still occurring, intraseasonal convective forcing from the Madden-Julian Oscillation and/or Kelvin waves is expected to be an important mode of climate variability. A pulse of convection is expected to reach the western Pacific between the 15-20th, which could result in more unsettled weather around Fiji, extending to the southeast.

Global climate variability may also be influenced by warmer than average ocean temperatures in the central and eastern equatorial Atlantic, which have culminated in the development of an "Atlantic Niño". When an Atlantic Niño is active in the dry season, there is a tendency for La Niña to become active during the following wet season.

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The Island Climate Update

Rain Watch July 2021

Rainfall outlook for July – September 2021

Above normal rainfall for Papua New Guinea, Vanuatu North, Vanuatu South, New Caledonia and Fiji

Above or near normal rainfall for Tonga

Near normal rainfall for Kiribati (Line Islands), Niue and Marquesas.

Near or below normal rainfall for Southern Cook Islands.

Below normal rainfall for Northern Marianas, Palau, Guam, FSM, Marshall Islands, Nauru, Kiribati (Gilbert & Phoenix Islands), Tuvalu, Wallis & Futuna, Tokelau, Samoa, American Samoa, Northern Cook Islands, Society Islands, Austral Islands, Tuamotu/Gambier Islands & Pitcairn Islands.

Rainfall outlook table for July - September 2021

| ISLAND | PROBABILITY (%) | | | OUTLOOK | CONFIDENCE |
|---------------------------|-----------------|--------|-------|-------------|---------------|
| | Below | Normal | Above | | |
| Papua New Guinea | 16 | 20 | 64 | ABOVE | High |
| VanuatuNorth | 19 | 21 | 60 | ABOVE | High |
| Fiji | 20 | 20 | 60 | ABOVE | High |
| Vanuatu South | 18 | 26 | 56 | ABOVE | High |
| New Caledonia | 22 | 32 | 46 | ABOVE | High |
| Tonga | 25 | 33 | 42 | AVG - ABOVE | High |
| Niue | 30 | 37 | 33 | NEAR NORMAL | High |
| Marquesas | 38 | 60 | 2 | NEAR NORMAL | High |
| Kiribati: Line Islands | 39 | 45 | 16 | NEAR NORMAL | High |
| Sol o mon I slands | 34 | 34 | 32 | CLIMATOLOGY | Moderate |
| Southern Cook Islands | 37 | 33 | 30 | AVG-BELOW | High |
| Wallis & Futuna | 39 | 31 | 30 | BELOW | Moderate-High |
| American Samoa | 44 | 29 | 27 | BELOW | Moderate-High |
| Samoa | 45 | 30 | 25 | BELOW | Moderate-High |
| Austral Islands | 48 | 27 | 25 | BELOW | High |
| Palau | 59 | 21 | 20 | BELOW | Moderate-High |
| Pitcairn Islands | 56 | 26 | 18 | BELOW | High |
| SocietyIslands | 57 | 26 | 17 | BELOW | High |
| MarshallIslands | 59 | 25 | 16 | BELOW | High |
| Tua motu Islands | 56 | 30 | 14 | BELOW | High |
| FSM | 67 | 20 | 13 | BELOW | High |
| Northern Marianas | 76 | 13 | 11 | BELOW | Moderate-High |
| Kiribati: Phoenix Islands | 82 | 10 | 8 | BELOW | High |
| Guam | 83 | 9 | 8 | BELOW | Moderate-High |
| Kiribati: Gilbert Islands | 80 | 16 | 4 | BELOW | High |
| Northern Cook Islands | 91 | 5 | 4 | BELOW | High |
| Nauru | 86 | 11 | 3 | BELOW | High |
| Tokelau | 93 | 4 | 3 | BELOW | High |
| Tuvalu | 94 | 4 | 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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Forecast

The Island Climate Update

July - September 2021 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

Parts of several island groups may experience high water stress over the next three months, including Kiribati (Gilbert Islands) Tuvalu, Tokelau, Northern Cook Islands and Tuamotu/Gambier Islands.

Additionally, Vanuatu North, Kiribati (Phoenix Islands) and American Samoa may also experience water stress. These countries have received low rainfall over part of the past six months, and dry conditions are possible over the next three-month period.



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