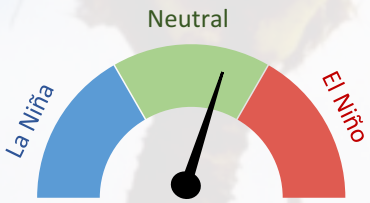
The Island Climate Update

ENSO Watch
May 2017

Recent



Current ENSO

El Niño/Southern Oscillation (ENSO) conditions are currently near **neutral**, but leaning towards El Niño.

Sea Surface Temperatures are close to or slightly above average across the Equatorial Pacific.

The Southern Oscillation Index (SOI) is slightly negative (-0.4 for April 2017).

Forecast

56% chance for **El Niño conditions** to develop over **May – July 2017.**

Chance for **El Niño** conditions developing over **August – October 2017** **70%**

Watch

ENSO situation summary

The tropical Pacific overall remained in an **ENSO (El Niño – Southern Oscillation) neutral state** (neither El Niño nor La Niña) during April 2017. The strong 'coastal El Niño' which developed along the coast of South America (southern Ecuador and northern Peru) during February and March has now weakened. In the central equatorial Pacific Ocean, **sea surface temperatures (SSTs) are close to or slightly above normal**. Atmospheric patterns generally reflect ENSO-neutral conditions, but convective and rainfall anomalies in the central and western Pacific are still leaning towards weak La Niña-like conditions.

Ocean subsurface waters are slightly warmer than normal at depth in the western Pacific and close to the surface in the eastern Pacific, and are generally consistent with an ENSO-neutral state. **The Southern Oscillation Index (SOI) is currently negative with an estimated value of -0.4 for April 2017**; i.e. on the El Niño side of neutral.

International guidance indicates that **a transition towards El Niño conditions over the next three months period (May – July 2017) is more likely than not**, (56% chance, versus 44% chance for persistence of the current ENSO-neutral state). The models indicate **increasing chance for El Niño becoming established later during the Southern Hemisphere winter**, with nearly 70% chance for the August to October period. Note however that ENSO forecasts made just before the start of the winter season have lower accuracy than at other times of the year, and the current spread between the models' forecasts is significant.

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.

For more information see: http://www.niwa.co.nz/climate/icu https://www.facebook.com/IslandClimateUpdate/

NIWA
Taihoro Nukurangi

The Island Climate Update

Rain Watch
May 2017

Forecast

Rainfall outlook for May – July 2017

Normal or below normal rainfall for Fiji, eastern Kiribati, the Marquesas, New Caledonia, the Tuamotu archipelago, western Kiribati, southern Vanuatu, central Kiribati and the Marshall Islands.

Normal or above normal rainfall for the Austral Islands, the southern Cook Islands, the Solomon Islands, Palau, Guam, the northern Marianas, Niue, Tonga, the Federated States of Micronesia and American Samoa.

No clear guidance for Papua New Guinea and Nauru.

Near normal rainfall for the remaining Pacific Island countries.

Rainfall outlook table for May – July 2017

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Austral Islands	25	35	40	AVG - ABOVE	High
Cook Islands (Southern)	25	35	40	AVG - ABOVE	Moderate
Solomon Islands	25	35	40	AVG - ABOVE	High
Palau	25	35	40	AVG - ABOVE	Moderate
Guam	25	35	40	AVG - ABOVE	Moderate
N. Marianas	25	35	40	AVG - ABOVE	Moderate
Niue	25	40	35	AVG - ABOVE	Moderate
Tonga	25	40	35	AVG - ABOVE	Moderate-High
FSM	25	40	35	AVG - ABOVE	Moderate-High
American Samoa	25	40	35	AVG - ABOVE	Moderate
Papua New Guinea	30	35	35	CLIMATOLOGY	Moderate
Cook Islands (Northern)	30	40	30	NEAR NORMAL	High
Pitcairn Island	30	40	30	NEAR NORMAL	Moderate
Samoa	30	40	30	NEAR NORMAL	High
Society Islands	30	40	30	NEAR NORMAL	Moderate-High
Tokelau	30	40	30	NEAR NORMAL	High
Tuvalu	30	40	30	NEAR NORMAL	Moderate
Vanuatu (North)	30	40	30	NEAR NORMAL	Moderate
Wallis & Futuna	30	40	30	NEAR NORMAL	Moderate-High
Nauru	35	35	30	CLIMATOLOGY	Moderate
Fiji	35	40	25	AVG - BELOW	Moderate-High
Kiribati (Eastern)	35	40	25	AVG - BELOW	Moderate
Marquesas	35	40	25	AVG - BELOW	High
New Caledonia	35	40	25	AVG - BELOW	Moderate
Tuamotu Islands	35	40	25	AVG - BELOW	Moderate-High
Kiribati (Western)	40	35	25	AVG - BELOW	Moderate-High
Vanuatu (South)	40	35	25	AVG - BELOW	High
Central Kiribati (Phoenix)	40	35	25	AVG - BELOW	Moderate
Marshall Islands	40	35	25	AVG - BELOW	Moderate

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.

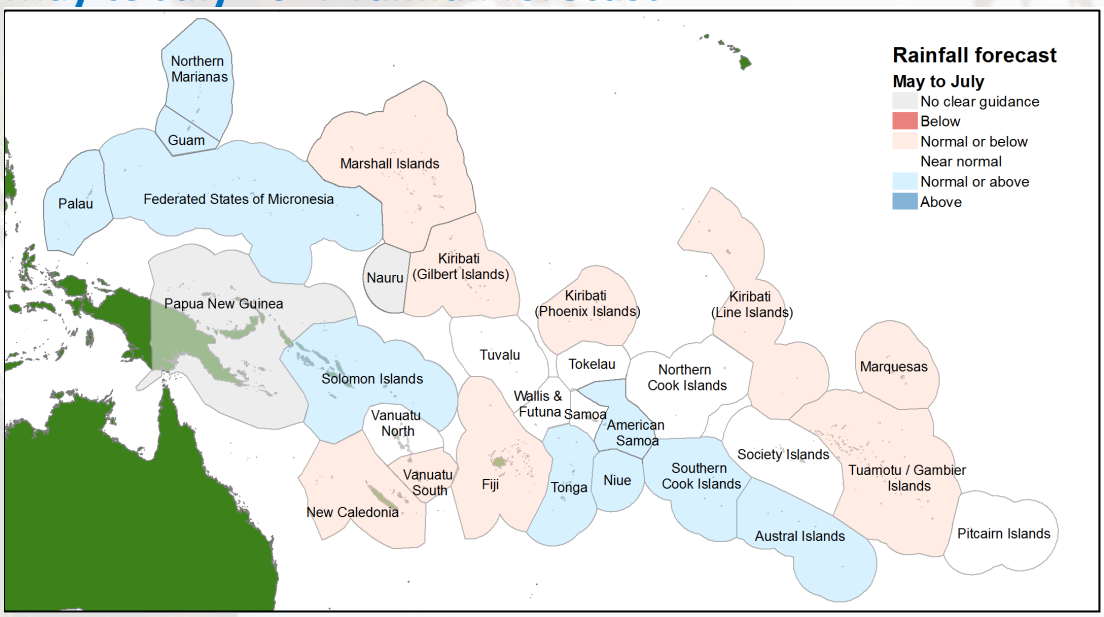
For more information see: http://www.niwa.co.nz/climate/icu https://www.facebook.com/IslandClimateUpdate/

NIWA
Taihoro Nukurangi

The Island Climate Update

Drought Watch
May 2017

May to July 2017 rainfall forecast



Regional drought potential advisory

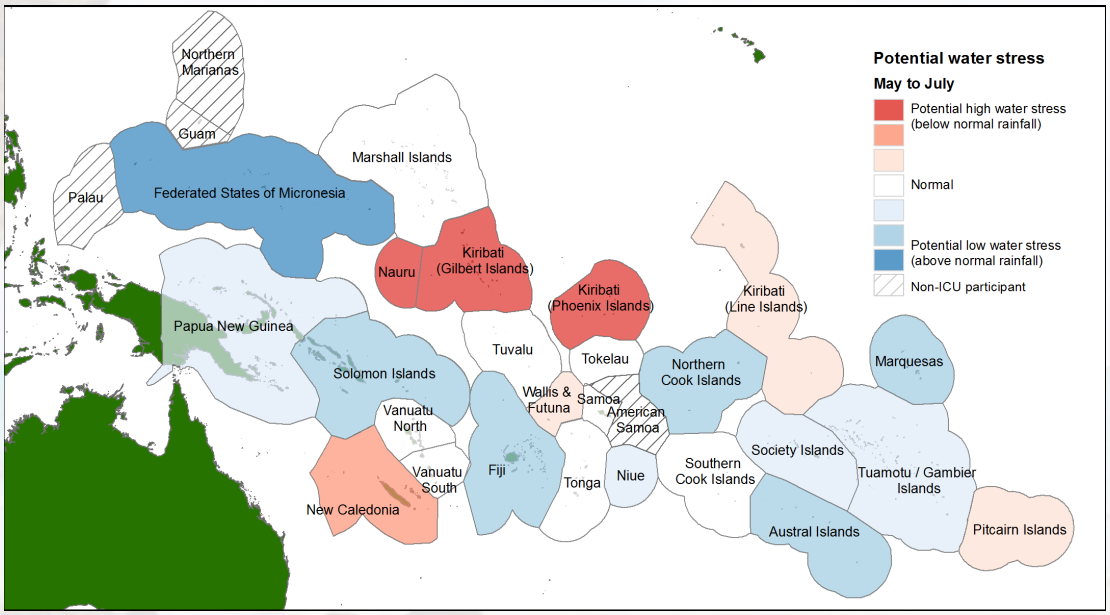
Based on rainfall anomaly classification over the past six months and forecast rainfall anomaly classification over the next 3 months

Nauru, Kiribati Gilbert Islands: Below or well below normal rainfall experienced over the past 6 months. Normal or below normal rainfall is forecast over the next 3 months for the Gilbert Islands while the forecast for Nauru is climatology.

Kiribati Phoenix: Below or well below normal rainfall experienced over 5 of the past 6 months. Normal or below normal rainfall is forecast over the next 3 months.

New Caledonia: Below normal rainfall experienced over 3 of the past 6 months. Normal or below normal rainfall is forecast over the next 3 months.

Marshall Islands: The drought advisory is not yet indicating water stress conditions. However, a drought state of emergency is currently in place for 8 northern atolls.



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

For more information see: http://www.niwa.co.nz/climate/icu https://www.facebook.com/IslandClimateUpdate/

NIWA
Taihoro Nukurangi