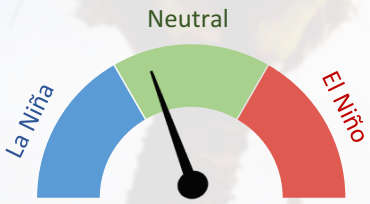
The Island Climate Update

ENSO Watch
October 2017

Recent



Current ENSO

El Niño/Southern Oscillation (ENSO) conditions are currently near **neutral**, but close to **La Niña** thresholds.

Sea Surface Temperatures are slightly below average in the eastern Equatorial Pacific.

The Southern Oscillation Index (SOI) is positive (+0.6 for September 2017).

Forecast

52% chance for **La Niña** conditions to develop over **October – December 2017.**

Chance for **ENSO-neutral** conditions returning in **January– March 2017** **51%**

La Niña Watch

ENSO situation summary

La Niña-like signals in the ocean – atmosphere system in the tropical Pacific Ocean have become **more prominent and coherent in September 2017**, although have **not yet reached the thresholds required for a La Niña event to be declared**.

Sea surface temperatures (SSTs) in the central and eastern equatorial Pacific Ocean cooled substantially during September. In mid-August, NINO3 and NINO3.4 were near zero, and NINO4 positive. By mid-September, **NINO3 and NINO3.4 were 0.3 to 0.4 degree cooler than normal**, and NINO4 close to normal.

The Southern Oscillation Index (SOI) for the month of September 2017 was positive at +0.6, **on the La Niña side of neutral**. Zonal wind anomalies along the equator have become more negative in the central and western equatorial Pacific during September, indicating enhanced trade-winds and a pattern which is consistent with a positive SOI.

Moreover, rainfall and convection anomalies in the tropical Pacific have become more La Niña-like than they were in August.; that is, enhanced convection over the maritime continent and drier than normal conditions about and east of the Dateline.

International forecast guidance has changed markedly in the past month. Previously, there was a strong consensus for continuation of ENSO-neutral conditions. **Now there is an approximate 50:50 split between La Niña and neutral conditions being forecast through to March 2018**, with very little chance of El Niño development (<5%) through this period.

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The Island Climate Update

Rain Watch
October 2017

Rainfall outlook for October – December 2017

Forecast

Below normal rainfall for central Kiribati (Phoenix Islands), eastern and western Kiribati, the northern Cook Islands and Nauru.

Normal or below normal rainfall for Tuvalu, the Marquesas, Tokelau, the Tuamotu archipelago and the Marshall Islands.

Near normal rainfall for the Society Islands, Tonga, the Austral Islands, Niue, Pitcairn Island and southern Vanuatu.

Normal or above normal rainfall for Papua New Guinea, the southern Cook Islands, American Samoa, northern Vanuatu, the Federated States of Micronesia, the Solomon Islands, Palau, Fiji, Guam, the northern Marianas and New Caledonia.

No clear guidance (climatological forecast) for Wallis &Futuna

Rainfall outlook table for October – December 2017

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Papua New Guinea	25	35	40	AVG - ABOVE	Moderate-High
Cook Islands (Southern)	25	35	40	AVG - ABOVE	Moderate
American Samoa	25	35	40	AVG - ABOVE	Moderate-High
Samoa	25	35	40	AVG - ABOVE	Moderate-High
Vanuatu (North)	25	35	40	AVG - ABOVE	Moderate-High
FSM	25	35	40	AVG - ABOVE	Moderate
Solomon Islands	25	35	40	AVG - ABOVE	Moderate
Palau	25	40	35	AVG - ABOVE	Moderate
Fiji	25	40	35	AVG - ABOVE	Moderate
Guam	25	40	35	AVG - ABOVE	Moderate-High
N. Marianas	25	40	35	AVG - ABOVE	Moderate-High
New Caledonia	25	40	35	AVG - ABOVE	Moderate
Wallis & Futuna	33	33	33	CLIMATOLOGY	Moderate
Society Islands	30	40	30	NEAR NORMAL	Moderate
Tonga	30	40	30	NEAR NORMAL	Moderate
Austral Islands	30	40	30	NEAR NORMAL	Moderate-High
Niue	30	40	30	NEAR NORMAL	Moderate
Pitcairn Island	30	40	30	NEAR NORMAL	Moderate
Vanuatu (South)	30	40	30	NEAR NORMAL	Moderate
Tuvalu	40	35	25	AVG - BELOW	Moderate-High
Marquesas	40	35	25	AVG - BELOW	Moderate-High
Tokelau	40	35	25	AVG - BELOW	Moderate
Tuamotu Islands	40	35	25	AVG - BELOW	Moderate-High
Marshall Islands	40	35	25	AVG - BELOW	Moderate
Central Kiribati (Phoenix)	45	35	20	BELOW	Moderate-High
Kiribati (Eastern)	45	35	20	BELOW	Moderate-High
Cook Islands (Northern)	45	35	20	BELOW	Moderate-High
Kiribati (Western)	50	30	20	BELOW	Moderate-High
Nauru	50	30	20	BELOW	Moderate-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.

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

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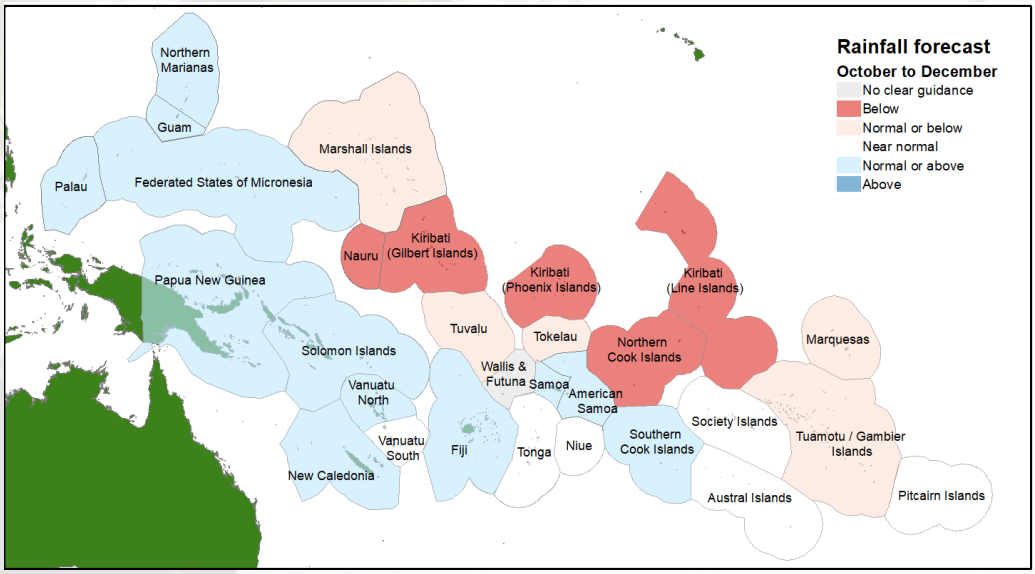
Drought Watch
October 2017

October to December 2017 rainfall forecast



Regional drought potential advisory

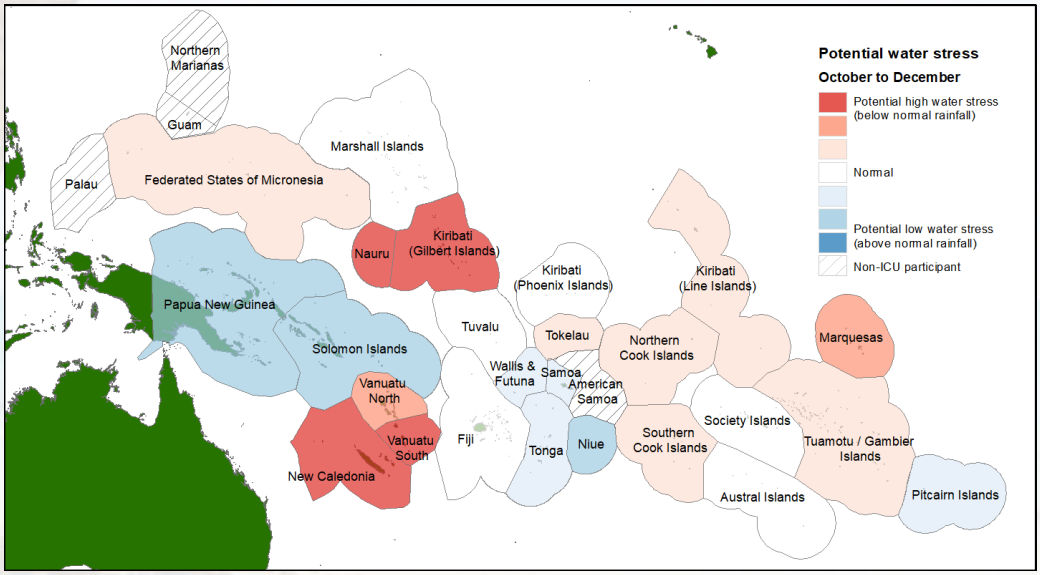
Based on rainfall anomaly classification over the past six months and forecast rainfall anomaly classification over the next 3 months

Nauru, New Caledonia, Vanuatu South: Below to well below normal rainfall experienced over 4 of the past 6 months. Below normal rainfall is forecast over the next 3 months in Nauru while near normal rainfall is expected in New Caledonia and southern Vanuatu.

Kiribati Gilbert Islands: Below to well below normal rainfall observed for several months with below normal rainfall forecast for the next 3 months.

Marquesas: Below to well below normal rainfall observed over the past 3 months, with normal or below normal rainfall forecast for the next 3 months.

Vanuatu North: Below to well below normal rainfall experienced over 4 of the past 6 months. Normal or above normal rainfall is forecast over the next 3 months.



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