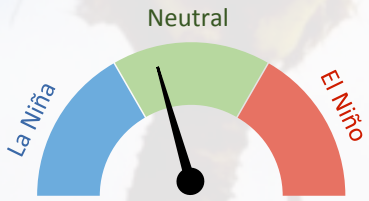
The Island Climate Update

ENSO Watch
October 2016

Recent



Current ENSO

El Niño/Southern Oscillation (ENSO) conditions are currently near **neutral**, but leaning towards a **weak La Niña** state.

Sea Surface Temperatures are near to below average across the eastern Equatorial Pacific.

The Southern Oscillation Index (SOI) is positive (+1.3 for September 2016).

Forecast

54% chance of La Niña conditions developing **October to December 2016**.

Chance of La Niña conditions occurring between **January 2017 and March 2017** **50%**

Chances for **La Niña** drop sharply later (24% chance in **April – June 2017**)

La Niña Watch

ENSO situation summary

ENSO (El Niño – Southern Oscillation) **neutral conditions** are still present in the tropical Pacific Ocean as a whole, **although some indicators are currently in the weak La Niña category**. Sea surface temperatures (SSTs) in the central equatorial Pacific Ocean are near or slightly below average, and slightly above average in the western Pacific and off the South American coast. The atmospheric conditions over the tropical Pacific are generally consistent with an ENSO-neutral state, but show a leaning towards La Niña, as was already the case last month.

The **Southern Oscillation Index** (SOI) is currently positive (+1.3, value for September 2016) and thus technically in the La Niña category. The trade winds are slightly stronger than normal in the western Pacific (west of ~ 140°W). Subsurface ocean temperature anomalies are relatively weak and cooler than normal waters are mostly found in the central (rather than the eastern) Pacific**. In summary, the ocean – atmosphere system in the tropical Pacific shows a mix of ENSO-neutral and weak La Niña signals.**

International guidance still slightly favors **La Niña conditions** (**54%** chance) over the next three months (**October - December 2016**) however neutral conditions are forecast to become slightly more likely than La Niña by January – March 2017 (50% chance for neutral) and the probability for La Niña drops sharply later on, with only 24% chance in April – June 2017**. In summary, La Niña conditions are only slightly more likely than not over the next 3 months, and become less likely as we progress into the first half of 2017.**

NIWA
Taihoro Nukurangi

The Island Climate Update

Rain Watch
October 2016

Rainfall outlook for October – December 2016

Forecast

Below normal rainfall for eastern Kiribati, western Kiribati and the Federated States of Micronesia.

Normal or below normal rainfall for the Austral Islands and Pitcairn Island.

Normal or above normal rainfall for Papua New Guinea,the Society Islands, the southern Cook Islands, New Caledonia, Niue and southern Vanuatu.

Near normal rainfall for the northern Cook Islands, Fiji, the Marquesas, Tokelau, Tonga, northern Vanuatu and Wallis & Futuna

No clear guidance (climatological forecast) for the Solomon Islands, Samoa, the Tuamotu archipelago and Tuvalu.

Rainfall outlook table for October – December 2016

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

For more information see: http://www.niwa.co.nz/climate/icu

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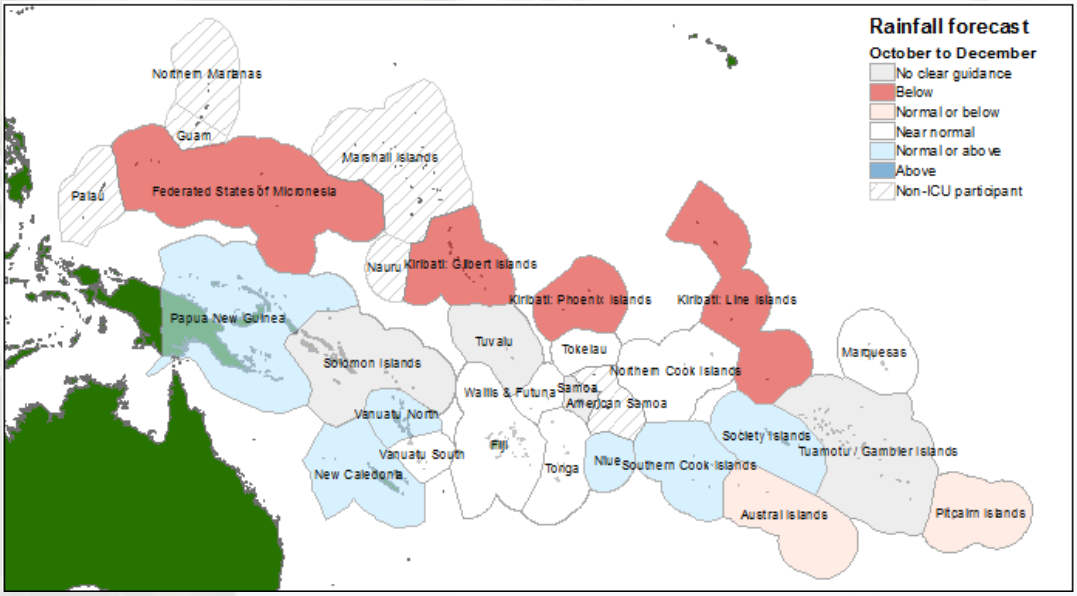
The Island Climate Update

Drought Watch
October 2016

October to December 2016 rainfall forecast



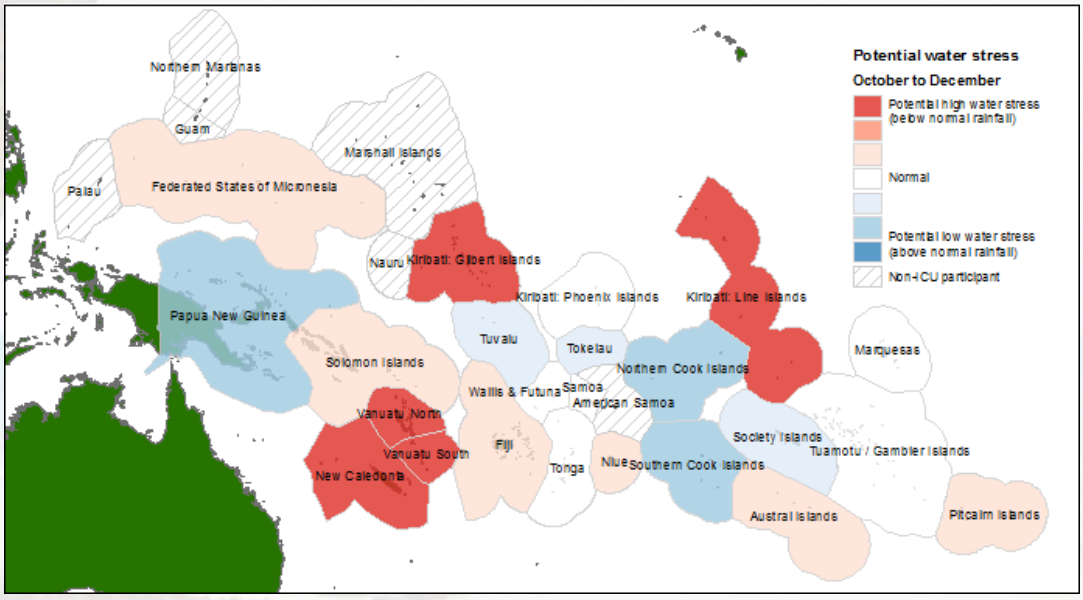
Regional drought potential advisory

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

Kiribati, Gilbert and Line Islands: Below or well below normal rainfall experienced over 4 of the past 6 months in the Gilbert Islands and 3 of the past 6 months in the Line Island. Below normal rainfall is forecast over the next 3 months.

Northern and Southern Vanuatu: Below or well below normal rainfall experienced over 5 of the past 6 months. Near normal rainfall is forecast in northern Vanuatu and normal or above normal rainfall is forecast for southern Vanuatu for the next 3 months.

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



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