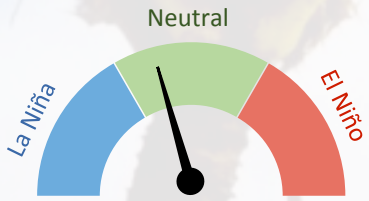
The Island Climate Update

ENSO Watch
September 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 slightly positive (+0.6 for August 2017).

Forecast

53% chance of La Niña conditions developing **September to November 2016**.

Chance of La Niña conditions occurring between **December 2016 and February 2017** **55%**

Models indicate La Niña strength likely to be **weak**.

La Niña Watch

ENSO situation summary

ENSO-neutral conditions continued in the tropical Pacific during August: Sea surface temperatures (SSTs) along the eastern equatorial Pacific Ocean are near or slightly below normal, and the atmospheric conditions over the tropical Pacific are generally consistent with an ENSO-neutral state. As a whole the tropical ocean-atmosphere system still shows a leaning towards La Niña, with a slight weakening of the signals that were observed last month (July 2016).

The Southern Oscillation Index (SOI) is currently positive (value for August 2016: +0.6) and has increased over the past month. Trade winds are slightly stronger than normal in the central and eastern Pacific (110-140°W). Convection and rainfall anomalies as well as sea surface temperatures are leaning slightly towards La Niña, while the South Pacific Convergence Zone is no longer displaced north of its climatological position (a pattern generally associated with El Niño). The subsurface ocean remains cooler than normal in the central and eastern Pacific, however these anomalies have weakened compared to last month.

International guidance still slightly favours **La Niña conditions** (**53%** chance) over the next three month period (**September - November 2016**), however the probability of neutral conditions over the next 3 months is almost equally as high (45% chance). The likelihood of La Niña conditions becoming established in the Pacific increase slightly to reach **55% chance for December 2016 – February 2017**. In summary, both the current state and recent evolution of the ocean-atmosphere system in the Pacific, as well as the models' forecasts, suggest that if La Niña develops, it will be characterized by **a short duration and weak amplitude.**

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

Rain Watch
September 2016

Forecast

Rainfall outlook for September – November 2016

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

Normal or below normal rainfall for the Austral Islands, the southern Cook Islands, Niue, the Solomon Islands, Fiji, Pitcairn Island, Tonga, northern Vanuatu and Wallis & Futuna.

Normal or above normal rainfall for Papua New Guinea, Samoa, the Society Islands and New Caledonia.

Above normal rainfall for the northern Cook Islands, Tokelau and the Tuamotu archipelago.

Rainfall outlook table for September – November 2016

ISLAND	PROBABILITY (%)			OUTLOOK	CONFIDENCE
	Below	Normal	Above		
Cook Islands (Northern)	20	35	45	ABOVE	Moderate-High
Tokelau	20	35	45	ABOVE	Moderate-High
Tuamotu Islands	20	35	45	ABOVE	Moderate-High
Papua New Guinea	25	35	40	AVG - ABOVE	Moderate-High
Samoa	25	35	40	AVG - ABOVE	Moderate-High
Society Islands	25	35	40	AVG - ABOVE	High
New Caledonia	25	40	35	AVG - ABOVE	High
Tuvalu	30	35	35	CLIMATOLOGY	Moderate-High
Marquesas	30	40	30	NEAR NORMAL	Moderate-High
Vanuatu (South)	30	40	30	NEAR NORMAL	Moderate-High
Austral Islands	35	40	25	AVG - BELOW	Moderate-High
Cook Islands (Southern)	35	40	25	AVG - BELOW	High
Niue	35	40	25	AVG - BELOW	Moderate-High
Solomon Islands	35	40	25	AVG - BELOW	Moderate-High
Fiji	40	35	25	AVG - BELOW	Moderate-High
Pitcairn Island	40	35	25	AVG - BELOW	Moderate
Tonga	40	35	25	AVG - BELOW	Moderate-High
Vanuatu (North)	40	35	25	AVG - BELOW	
Wallis & Futuna	40	35	25	AVG - BELOW	Moderate-High
FSM	45	35	20	BELOW	Moderate-High
Kiribati (Eastern)	50	30	20	BELOW	Moderate-High
Kiribati (Western)	55	30	15	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.

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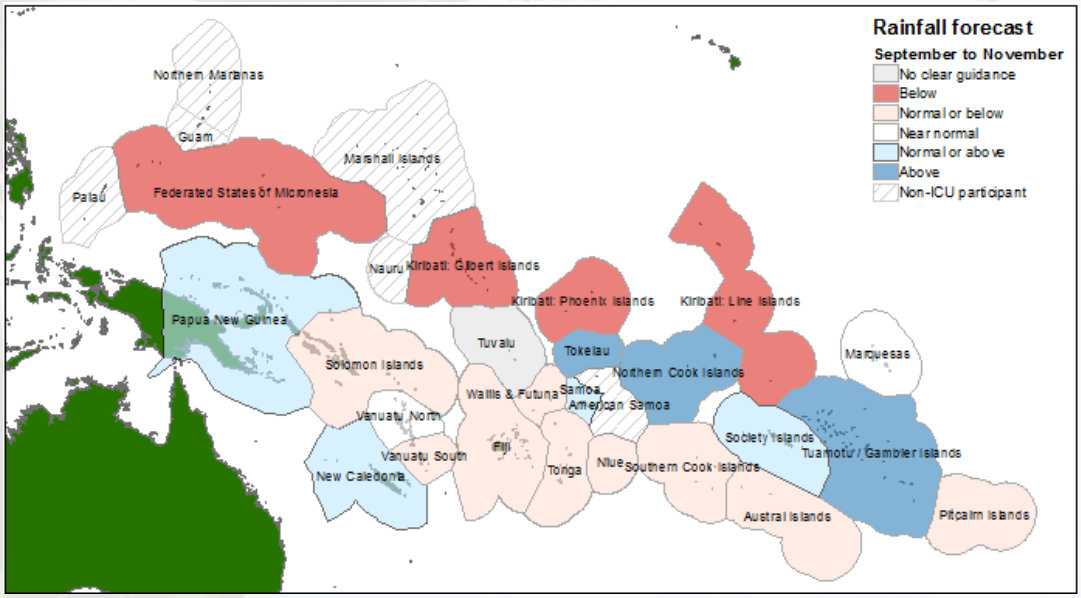
The Island Climate Update

Drought Watch
September 2016

September to November 2016 rainfall forecast



Regional drought potential advisory

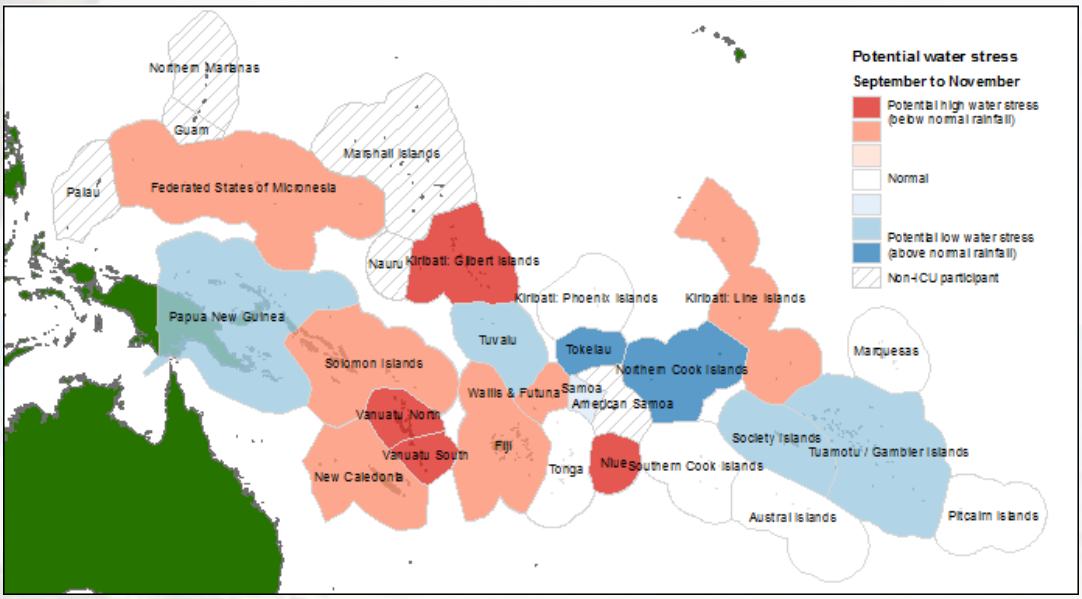
Based on rainfall anomaly classification over the past six months and forecast rainfall anomaly classification over the next 3 months

Niue: 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.

Northern and Southern Vanuatu: Below or well below normal rainfall experienced over 4 of the past 6 months. Near normal rainfall is forecast in southern Vanuatu and normal or below normal rainfall is forecast for northern Vanuatu for the next 3 months.

Federated States of Micronesia, Kiribati (Gilberts), Wallis & Futuna: Below or well below normal rainfall experienced over 3 of the past 6 months. Normal or below normal rainfall is forecast over the next 3 months for Wallis and Futuna while below normal rainfall is forecast for FSM and the Gilbert Islands.

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 months.



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