



10th September 2018 [TONGAN](#)

Summary

ENSO-neutral conditions persisted in the tropical Pacific during August 2018. Atmospheric indicators became aligned with oceanic indicators during August, for a climate system that is gradually moving in the direction of El Niño. This is consistent with the consensus from international models, which forecast a transition toward El Niño over the next three-month period (62% chance over September – November 2018). The probability for El Niño conditions being established reaches a peak during early 2019, with a 78% chance for El Niño conditions over March – May 2019.

What is El Nino?

El Niño is the movement of warm ocean water from the north of Australia to the South American coast along the tropics. It brings warmer than normal water to the central and eastern tropical Pacific which usually results in changes in weather and climate. El Niño is a natural occurrence and happens about every 3 to 7 years.

Effects of El Niño on Tonga's Climate

The effects of El Niño in Tonga usually include cooler night time temperatures, lower rainfall during the rainy season and increase in the frequency of tropical cyclone occurrence. El Niño events normally last for around a year however, they can be shorter, or last much longer depending on the nature of the event. Usually Tonga is affected by 1 cyclone per year but increases to around 2 during El Niño.

Droughts.

There are many definitions of drought but It is generally associated with a sustained period of significantly lower soil moisture and water supply than the normal levels to which the local environment and society have adapted (Smith et al., 1992). Or generally, abnormally dry conditions, which lead to a lack of sufficient water to meet normal requirements.

Current drought situation

Niuafu'ou and Vava'u are currently experiencing drought conditions according to rainfall data collected. About average rainfall was recorded in Niuafu'ou in August, however below average rainfall has been observed in the past few months since June 2018. Vava'u recorded very much below average rainfall in August and June 2018. There is drought evolving in Niuatoputapu since June 2018 and a possibility of drought in Ha'apai and Tongatapu as rainfall has been below average in the last month.

Previous El Niño Events and droughts.

The worst droughts to be recorded in Tonga in recent history happened during El Niño Years. The 1982-83 and the 1997-98 caused water shortages to a point where water had to be distributed to the islands of Ha'apai and caused food shortages as a result of devastation to Agriculture. Tropical Cyclone "Isaac" (Category 4 Cyclone that affected most of Tonga Islands and most costly on record) and Tropical Cyclone "Ron" (Category 5 Cyclone, strongest ever recorded in Tonga's history affected Niuafu'ou) occurred in 1982 and 1997 respectively. The drought during the 2015-2016 El Niño very much affected agriculture and various climate sensitive sectors in the country and about 5 cyclones affecting part of the country during the cyclone season.

Recommended actions for the next 3 months.

Overall, citizens from Tongatapu to the Niuas, should be watched for water stress conditions which could develop over the next few months.

Planners are encouraged to start planning for the possible El Niño development and drought in the coming 3 months. Particular attention should focus on rainfall and tropical cyclone sensitive sectors such as Agriculture and Fisheries (Food Security), Health, Water Resource Management and Tourism.

The public are encouraged to protect resources, conserve water and seek advice from the relevant authorities e.g. Ministry of Agriculture on the best practices to minimise the effects of El Niño.

Citizens are also encouraged to follow the El Niño Advisories over the coming months issued by the Meteorological Service. The next El Niño Advisory will be issued in early October 2018.

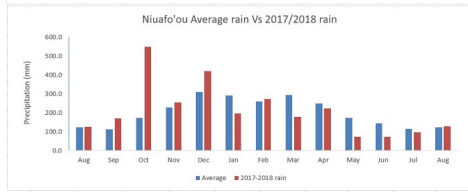
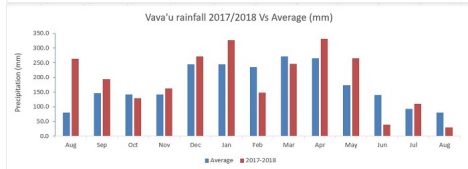
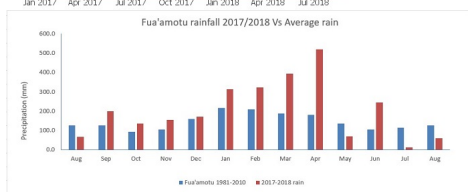
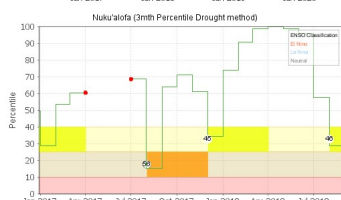
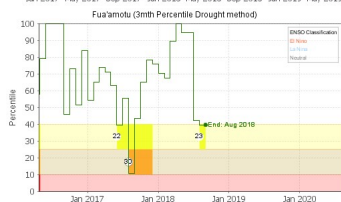
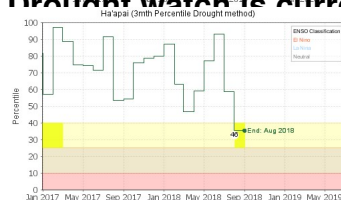
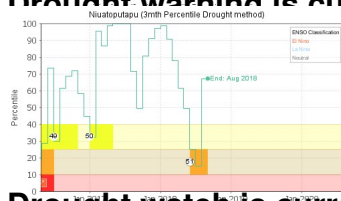
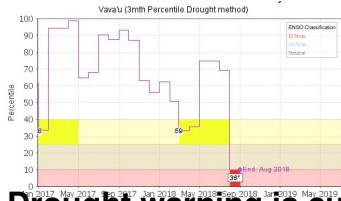
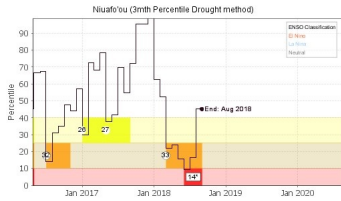
Contact & Further information

For further information contact the Meteorology Division of the Ministry of Environment, Energy, Climate Change, Disaster Management, Meteorology, Information and Communications at Telephone 35355 or Email metstaff@met.gov.to . More information is also available at www.met.gov.to

Niuafu'ou and Vava'u are currently in drought

El Niño and drought Watch for Tonga

Monday, 10 September 2018 12:20 - Last Updated Monday, 10 September 2018 12:47



Drought warning is current for Niuatoputapu

Drought watch is current for Ha'apai and Tongatapu.

