



## Media Release

### *El Niño 2015-16 likely passed its peak in recent weeks*

(Issue 14 January 2016)

**Below average rainfall is forecast for the next 3 to 6 months for Tonga.**

**Use water wisely.**

#### El Nino Advice

A number of El Niño-Southern Oscillation (ENSO) indicators suggest that the 2015-16 El Niño has peaked in recent weeks. Tropical Pacific Ocean temperatures suggest this event is one of the top three strongest El Niño events of the past 50 years. Climate models suggest the 2015-16 El Niño will decline during the coming months, with a return to ENSO neutral likely during the second quarter of 2016.

#### What is El Niño?

El Niño is the movement of warm ocean water from the north of Australia to South American crossing the Pacific Islands every 3 to 7 years. The movement of this warm water changes the weather patterns in many countries. El Nino usually lasts for 1 year.

#### Effects of El Niño on Tonga's Climate and Activities

For Tonga, El Niño usually brings cooler night time temperatures, less rainfall and more cyclones than usual. El Nino years are excellent for growing sweet potatoes (provided enough water is given) and crops that depend on cooler night time temperatures but no good for rain dependant crops in the Summer time. Fruit trees and Vanilla also tend to do well during El Nino due to stress induce flowering. Tuna fisheries tend to be poor during this time due to tuna stocks migrating away from Tonga waters.

#### Current Situation

The highest maximum day time temperature was 33.9°C recorded in Niuafu'ou on the 24<sup>th</sup> December and the lowest night time minimum temperature was 17.1°C recorded on the 10<sup>th</sup> of December in Vava'u.

Rainfall received across the country during December was below average across the country. Dry conditions over the Niuaus were eased in November during the passage of Tropical Cyclone Tuni and also rain bands from the Tropical depression which was later named TC Ula in December 27<sup>th</sup> – 29<sup>th</sup>.

**TABLE 1: Monthly rainfall from October to December 2015**

Island Group	Rainfall Observed		
	October	November	December
Niuafu'ou	Drier than Normal	Wetter than Normal	Drier than Normal
Niuatoputapu	Drier than Normal	Wetter than Normal	Drier than Normal
Vava'u	Drier than Normal	Normal	Drier than Normal
Ha'apai	Drier than Normal	Drier than Normal	Drier than Normal
Nuku'alofa	Drier than Normal	Normal	Drier than Normal
Fua'amotu	Drier than Normal	Normal	Drier than Normal

**KEY**

	Drier than Normal
	Normal
	Wetter than Normal

**Table 1 -Amount of rain that fell throughout Tonga from October to December 2015.**

## Drought Analyser

Rainfalls recorded in the last 3 months (i.e. October - December) were below normal in across the country except for Niuatoputapu, which received normal rainfall.

Rainfall forecast for the next 3 to 6 months is for below normal conditions for Tonga, therefore it is advised to collect as much water as possible. This pattern of three month outlook is typical of El Niño years.

Island group	Analysis of rainfall in last 3 months and forecast			
	Total rainfall that fell from October to December 2015	Current drought status and warning	Forecast for Jan-Mar 2016	Forecast for Apr - Jun 2016
Niufo'ou		Drought warning		
Niuatoputapu		Drought eased		
Vava'u		Drought warning		
Ha'apai		Drought warning		
Tongatapu		Drought warning		

**KEY**

	Drought warning
	Drier than normal rain
	Normal
	Wetter than normal

Table2 -Looks at the total rain that fell in the last 3 months, current drought status and warnings and Outlooks up to Jun 2016.

### Recommended actions for the next 3 months

The strong El Niño has peaked in the past few weeks according to most climate models. The rainfall outlook for the coming 3 months is below average with higher chance of tropical cyclone occurrence. It is advisable especially for the smaller islands that do not have ground water to collect as much water as possible when it rains and use it wisely for drinking purposes only. Planners are encouraged to activate their drought response and tropical cyclone plans and remain on the alert for the possible continuation of below average rainfall for the next 6 months. Rainfall and tropical cyclone sensitive sectors such as Agriculture and Fisheries (Food Security), Health, Water Resource Management and Tourism should take extra measures in public awareness and continue drought operations and tropical cyclone planning and the conservation of rain water. The public are encouraged to continue to seek advice from the relevant authorities e.g. Ministry of Agriculture and the National Emergency Management Office (NEMO) on the best practices to minimise the effects of El Niño.

No	Good El Nino response practices for the next 6months
1	Continue to conserve water and use water wisely. If in outer islands only use rain water for drinking
2	Always keep guttering clean and ready to collect as much rain water as possible
3	Be responsible and exercise caution when lighting fires to avoid bush fires
4	Potentially tuna stocks could decrease so consider other fishing options
5	Plant drought resistant crops
6	Prepare for cyclones this season by tying down loose objects and trim overhanging branches
7	Care for grazing livestock and irrigate crops responsibly
8	Apply mulching to keep soil moisture and prepare for very hot days
9	Ensure you listen to the daily weather forecast & receive the next 3 months outlook

The next El Niño Advisory will be issued in early February 2016.

#### Contact & Further information

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



## Ongoongo Tukuatu

### *Ko e El Niño mālohi koia 'oe 2015-2016 kuo ngali a'u ki hono malohi taha 'i he ngaahi uike si'i kuo hili*

(Tukuatu 14 Sanuali 2016)

**'Oku kei tu'u pe 'a e fakafuofua 'e ma'olalo'a e 'uha 'i he 'avalisi angamaheni 'i he mahina 'e 3 pe 6 ka hoko 'i he 'otu Tonga.**

### **MAHU'INGA PE KE NGAUE FAKAPOTOPOTO 'AKI 'AE VAI 'UHA**

#### **Fakamatala kihe El Niño**

*Fakatatau kihe ngaahi fakamatala kuo tanaki moe ngaahi faka'ilonga 'oku mahino mai ko e El Niño 'oe 2015-16 kuo a'u ki he mālohi taha 'i he ngaahi uike kuo hili. Koe mafana e tahi Pasifiki 'oku ha mai ai koe El Niño 'oku kau ia he ngaahi faha'i ta'u El Niño 'e 3 malohi taha kuo hoko he ta'u 'e 50 kuo hili. 'Oku fakafuofua 'e holoholo mamalie atu e malohi e El Niño 'i he ngahai mahina ka hoko 'o foki ai pe ki he faha'l ta'u anga maheni fakafuofua kihe kuata hono ua 'oe 2016, ka neongo ia ko hono ngaahi uesia 'e kei hokohoko atu pe ia ki he ngaahi lau mahina hoko.*

#### **Ko e ha 'a e El Niño?**

Ko e *El Niño* ko e fa'ahi ta'u 'oku nga'unu ai 'a e konga tahi mafana 'oku anga maheni ke toka ma'u pe ki he tokelau 'o Aositelelia 'o kolosi he Pasifiki 'o a'u ki 'Amelika Tonga. Ko e nga'unu 'a e konga tahi ko 'eni 'oku ne hiki'i hake ai e mafana e tahi i he Pasifiki 'o lahi hake 'i he mafana angamaheni pea hoko ai e ngaahi liliu kihe natula angamaheni e 'ea 'i he ngaahi feitu'u lahi kau ai 'a Tonga ni. Ko e *El Niño* 'oku hoko fakanatula pe pea meimei ke hoko 'i he ta'u 3 ki he 7 kotoa pe.

#### **Ko e uesia 'e he El Niño e 'ea 'o Tonga ni**

Ko e faha'i ta'u *El Niño* 'oku ha'u ai moe ngaahi éa mokomoko 'ihe taimi po'uli, sií ange áe úha 'i he fahaí taú úha, Novema ki 'Épeleli pea lahi ange moe faingamalie ke hoko ai ha ngaahi afaa 'i he angamaheni. Koe ngaahi ta'u *El Niño* koe taimi lelei ia kihe to 'oe kumala moe ngaahi ngoue foha 'oku lelei ange kihe éa mokomoko he taimi po'uli ka óku íkai ke lelei ia kihe ngaahi ngoue foha áia 'oku fiemaú vai ange pe fakafalala kihe úha. Koe ngaahi 'akau fua moe Vanila 'oku ha mai 'oku nau fua lahi ange 'i he faha'i ta'u El Niño. Koe maketi kihe valu 'oku 'ikai ke faá lelei 'i he taimi koeni koeúhi koe mafana e tahi pea 'oku lahi ange leva 'ae 'alu 'ae ika ni meihe potu tahi ó Tonga.

#### **Tuúnga lolotonga**

Koe mafana taha e éa na é 33.9°C í he áho 24 ó Tisema í Niuafó'ou. Koe mokomoko taha 'o e 'ea na'e 17.1°C 'i he 'aho 10 ó Tisema 'i Vava'u.

Koe 'uha 'i Tisema na'e ma'olalo 'i he 'avalisi angamaheni 'i he 'otu Tonga. Ko e 'uha ne to he ongo Niuafó'ou e fononga mai 'ae Saikolone Tuni 'i Novema pea pehe kia Saikolone Ula 'i Tisema na'e malava ai ke feau ai e nounou 'i he vai kihe ongo motu ni.

Feituu	'Uha naé lekooti		
	'Okatopa	Novema	Tisema
Niuafó'ou			
Niuatoputapu			
Vava'u			
Ha'apai			
Nuku'alofa			
Fua'amotu			

#### KEY

	'Uha, maólalo he angamaheni
	'Uha anga maheni
	'Uha, maólunga he angamaheni

**Tepile 1. Lahi e 'uha mei 'Okatopa ki Tisema 2015.**

## Ko e tu'unga e 'uha 'i he 'otu Tonga

'I he mahina e 3 kuo hili na'e maólalo áe úha í he angamaheni'i he kotoa e 'otu Tonga tukukehe pe 'a Niuatoputapu ne 'avalisi angamaheni e 'uha ai.

Koe fakafuofua kihe mahina é 3 kihe 6 ka hoko 'e kei ma'olalo pe 'i he angamaheni 'ae 'uha 'ihe 'otu Tonga. Koia ai 'oku mahu'inga peke tanaki e vai 'uha he taimi 'oku 'uha ai pea ngaue fakapotopoto'aki kihe inu pe tautau tefito ki motu.

Feitu'u	Koe 'uha he mahina e 3 kuo hili		Fakafuofua kihe 'uha	
	Lahi e 'uha mei Sepitema ki Novema 2015	Tu'unga e laálaá moe ngaahi fakatokanga	Sanuali ki Ma'asi 2016	'Epeleli ki Sune 2016
Niuafou'u		Fakatokanga 'e ma'olalo e 'uha he 'avalisi		
Niuatoputapu		'Avalisi e 'uha		
Vava'u		Fakatokanga 'e ma'olalo e 'uha he 'avalisi		
Ha'apai		Fakatokanga 'e ma'olalo e 'uha he 'avalisi		
Tongatapu		Fakatokanga 'e ma'olalo e 'uha he 'avalisi		

**Key**

- Tu'unga koe fakatokanga
- Maólalo 'uha he angamaheni
- 'Avalisi
- Maólunga he Angamaheni

**Tepile 2. 'Uha he mahina e 3 kuo hili moe tu'unga lolotonga e laálaá moe ngaahi fakatokanga moe fakafuofua kihe úha 'o a'u ki Sune 2016.**

## Ko e ngaahi me'a leva ke fakahoko he mahina 'e 3 ka hoko mai

Ko e fakafuofua ke si'isi'i ange 'uha 'i he 'avalisi kihe mahina 'e 3 ka hoko pea lahi ange faingamalie ke hoko ha afaa 'i Tonga ni 'o makatu'unga 'i he fa'ahi ta'u El Niño malohi 'oku ne lolotonga uesia 'a e Pasifiki. Koe fale'i ki he kau Palani ngaue pea pehe ki he tokotaha kotoa ke fakahoko leva e ngaahi palani ngaue tokateu kiha la'ala'aa fuoloa, pea pehe kiha hoko ha ngaahi saikolone tau tefito ki he ngaahi Sekitoa tu'u lavea ngofua ki he feliuliuaiki 'a e 'uha, mafana 'o 'ea mo e saikolone hange ko e Ngoue & Toutai (Malu 'a e Me'atokoni), Mo'ui, Vai mo e Takimamata . 'Oku 'oatu foki mo e fale'i ki he kakai e Fonua kenau fengau'e'aki vaofi mo e ngaahi fa'unga pule hange ko e Potungau'e Ngoue mo e 'Ofisi Tokangaekina ngaahi fakatamaki (NEMO) mo e ngaahi va'a fekau'aki kotoa 'a e Pule'anga mo ta'efakapule'anga kotoa pe kiha ngaahi fale'i fekau'aki mo e ngaahi ngaue ke fakahoko ke fakasi'isi'i 'a e tu'u lavea ngofua ki he ngaahi nu'anua 'a e El Niño. Ko e ngaahi ngaue eni 'e ala fakahoko ke fakasi'isi'i 'ai e uesia 'a e El Niño

Fika	Ngaue 'e ala fakahoko he mahina 'e 3-6 ka hoko ke fakasi'isi'i e uesia 'ae El Nino
1	Ngaue fakapotopoto 'aki e vai. Ki he 'otu motu iiki ange ngaue'aki pe 'a e vai uha kihe inu pe
2	Fakapapau'i 'oku ma'a e fakahali ho fale pea mateuteu ke tanaki e vai 'uha kotoa 'e ala lava
3	Tokanga lahi ki ho'o ngaue'aki 'a e afi ke fakasi'isi'i 'a e vela mo e vela vao
4	'E malava ke holo e lahi 'o e ika ko e valu 'i hotau 'elia. Palani ki ha founga toutai kehe
5	To 'a e ngaahi ngoue 'oku malohi 'i he la'aa
6	Tokateu kiha afaa 'aki hao fakama'opo'opo ho 'api nofo'anga mo 'auhani e 'akau ofi atu
7	Tokangaekina e monumanu kai mohuku pea fu'ifu'i fakafuofua pe ho'o ngoue
8	Ngaue'aki e fakaveve ke ma'u pe hauhau e kelekele pea tokateu ki he ngaahi 'aho 'afu
9	Fakapapau'i 'oku ke ma'u 'a e fakamatala'ea tu'o taha he 'aho pea pehe kihe fakamatala'ea taimi loloa 'I he kamata'anga 'o e mahina kotoa

Koe fakamatala El Niño hono hoko 'e tuku atu ia 'ihe 'uluaki uike pe ofi kiai 'o Fepueli 2016.

### Fetu'utaki mo ha toe Fakamatala

Ki ha toe fiemaú fakamatala fakaiiki, fetu'utaki kihe vaá Vakai Matangi a Tonga 'I he Potungau'e Vakai Matangi, Maúanga Ivi, Fakamatala, Fakatamaki Fakanatula, 'Atakai, Feliliuaki e 'Ea moe Fetu'utaki, telefoni 35355, pe koe email [metstaff@met.gov.to](mailto:metstaff@met.gov.to). 'E toe ma'u foki moe ngaahi fakamatala mei he [www.met.gov.to](http://www.met.gov.to).