

## Pacific Islands - Online Climate Outlook Forum (OCOF) No. 64

**Country Name: TONGA**

### TABLE 1: Monthly Rainfall

Station (include data period)			December 2012				
	October 2012 Total	November 2012 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<b>Northern Division</b>							
Niuafoóu	310.3	268.3	365.5	226.7	349.9	281.0	29
Niuaotoputapu	218.8	191.9	205.5	179.3	279.7	241.5	23
<b>Central Division</b>							
Vavaú	135.6	73.9	119.2	129.0	257.0	178.0	21
Haápai	94.5	23.8	17.3	78.0	160.0	123.0	4
<b>Southern Division</b>							
Nukuálofa	81.9	128.0	153.2	74.7	174.0	126.0	39
Fuaámotu	94.6	201.0	140.8	129.7	187.4	153.5	15

### TABLE 2: Three-monthly Rainfall October to December 2012

[Please note that the data used in this verification should be sourced from table 3 of OCOF #60]

Station	Three-month Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking	Forecast probs.* (include LEPS)	Verification* (Consistent, Near-consistent, Inconsistent?)
<b>Northern Division</b>							
Niuafoóu	944.1	626.0	812.8	707.0	31	26,35,39 (4.9)	Consistent
Niuaotoputapu	616.2	521.3	746.3	647.5	29	39,28,33 (4.3)	Near Consistent
<b>Central Division</b>							
Vavau	328.7	383.0	636.3	544.0	13	39,38,22(17.4)	Near Consistent
Haápai	135.6	275.7	425.0	358.0	8	40,34,26(17.9)	Consistent
<b>Southern Division</b>							
Nukuálofa	363.1	281.0	421.0	350.0	37	63,23,14(22.6)	Near Consistent
Fuaámotu	436.4	287.9	417.8	363.0	24	49,6,45 (28.1)	Inconsistent

Period: \*below normal/normal/above normal

\* Forecast is consistent when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is near-consistent when observed and predicted (tercile with the highest probability) differ by only one category (i.e. terciles 1 and 2 or terciles 2 and 3).

Forecast is inconsistent when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).

Predictors and Period used for October to December 2012 Outlooks (refer to OCOF #60):

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for February to April 2013**

**Predictors and Period used: SSTa's 1 and 9**

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
<b>Northern Division</b>							
Niuafoóu	30	719.0	13	937.0	57	3.8	40.5
Niuaatoputapu	31	689.0	20	847.4	49	1.1	42.1
<b>Central Division</b>							
Vavaú	42	706.0	28	918.2	30	2.2	28.6
Haápai	41	534.7	41	708.0	18	13.5	54.0
<b>Southern Division</b>							
Nukuálofa	31	542.7	29	662.8	40	2.7	33.3
Fuaámotu	44	455.3	23	655.3	33	5.7	48.5

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for February to April 2013**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	33.33	420	33.33	583	33.33		

## **Summary Statements**

### **Rainfall for December 2012:**

**Northern Division:** Above normal in Niuafóú, Normal in Niuatoputapu.

**Central Division:** Below normal.

**Southern Division:** Normal.

### **Accumulated rainfall for October–December 2012, including outlook verification:**

**Northern Division:** Niuafóú: Above normal. Consistent.

Niuatoputapu: Normal, Near consistent.

**Central Division:** Below normal, forecast was near consistent in Vavaú and consistent in Ha'apai.

**Southern Division:** Normal in Nukuálofa, Near consistent.

Fuaámotu: Above normal, Inconsistent.

### **Outlooks for February–April 2013:**

#### **1. SCOPIC:**

Northern Division: Above normal, skill is low.

Central Division: Below normal, skill is low for Vavaú and good for Ha'apai.

Southern Division: Above normal in Nukuálofa. Skill is low  
Below normal in Fuaámotu with a moderate skill.

**2. POAMA:** Outlook is for normal for Nukuálofa.

**NB: The X LEPS % score has been categorised as follows:**

Very Low:  $X < 0.0$

Low:  $0 \leq X < 5$

Moderate  $5 \leq X < 10$

Good:  $10 \leq X < 15$

High:  $15 \leq X < 25$

Very High:  $25 \leq X < 35$

Exceptional:  $X \geq 35$