

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 76

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)			December 2013				
	October 2013 Total	November 2013 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafoóu	208.0	272.6	385.9	228.0	359.0	282.0	30/43
Niuaatoputapu	184.1	212.0	458.1	186.0	278.0	240.0	56/67
Central Division							
Vavaú	148.0	118.8	328.3	125.3	250.0	172.0	51/67
Haápai	43.1	32.9	161.8	73.3	158.0	119.9	45/67
Southern Division							
Nukuálofa	160.5	173.0	233.8	75.3	173.0	129.0	61/70
Fuaámotu	130.1	210.0	251.8	131.3	186.2	150.5	30/34

TABLE 2: Three-monthly Rainfall

October to December 2013

[Please note that the data used in this verification should be sourced from table 3 of OCOF #72]

Predictors and Period used: SSTa's 1@9 –June to August 2013

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?)
Northern Division							
Niuafoóu	866.5	632.3	840.1	709.0	29/43	20,25, 55 (4.9)	Consistent
Niuaatoputapu	854.2	532.0	746.0	640.0	52/67	19,29, 52 (4.3)	Consistent
Central Division							
Vavaú	595.1	381.3	624.7	530.0	43/67	14,22, 64 (17.4)	Near Consistent
Haápai	237.8	267.6	423.0	354.0	19/67	15,14, 71 (17.9)	In Consistent
Southern Division							
Nukuálofa	567.3	285.3	420.3	351.0	58/70	15,25, 60 (22.6)	Consistent
Fuaámotu	591.9	298.5	434.5	364.0	30/34	8, 13, 79 (28.1)	Consistent

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).

TABLE 3: Seasonal Climate Outlooks using SCOPIC for February 2014 to April 2014

Predictors and Period used: SSTa's 1@9 – October to December 2013

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Northern Division						
Niuafoóu	21	888.5	79		4.2	57.9
Niuaotopotapu	38	756.0	62		1.1	51.7
Central Division						
Vavaú	51	826.2	49		4.0	59.4
Haápai	45	646.0	55		3.3	56.3
Southern Division						
Nukuálofa	34	607.0	66		0.3	59.4
Fuaámotu	44	508.5	56		0.3	55.9

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division							
Niuafoóu	14	719.7	6	938.3	80	6.5	42.1
Niuaotopotapu	27	685.0	23	845.0	50	2.0	37.9
Central Division							
Vavaú	37	692.0	30	915.0	33	2.6	35.9
Haápai	23	538.0	54	705.0	23	13.5	51.6
Southern Division							
Nukuálofa	20	543.3	26	677.1	54	2.7	29.7
Fuaámotu	29	456.0	16	672.0	55	3.7	47.1

TABLE 4: Seasonal Climate Outlooks using POAMA2 for February 2014 to April 2014

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	33	420	43	583	24		

Summary Statements

Rainfall for December 2013:

Northern Division: Above Normal.

Central Division: Above Normal.

Southern Division: Above Normal.

Accumulated rainfall for October – December 2013, including outlook verification:

Northern Division: Above normal, forecast was Consistent.

Central Division: Normal for Vava'u, forecast was Near Consistent, Below Normal
Ha'apai forecast was In Consistent.

Southern Division: Above Normal, forecast was Consistent.

Outlooks for February 2014-April 2014:

1. SCOPIC:

Northern Division: Above normal with low to moderate skill.

Central Division: Below normal for Vava'u and Normal for Ha'apai with low to good skill.

Southern Division: Above normal with low skill.

2. POAMA: Outlook for Nuku'alofa is Normal.

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: $X \geq 35$