

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 80

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)			April 2013				
	February 2014 Total	March 2014 Total	0Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafoóu	399.8	175.6	372.0	152.7	299.0	209.0	35/44
Niutatoputapu	237.9	221.7	318.4	160.3	266.3	209.0	52/68
Central Division							
Vavaú	142.1	319.0	190.4	155.0	267.0	210.0	29/68
Haápai	277.4	412.1	157.1	115.6	244.4	171.0	30/68
Southern Division							
Nukuálofa	178.6	509.9	133.1	109.3	205.3	137.0	34/70
Fuaámotu	229.9	507.3	204.7	97.0	249.0	167.5	23/35

TABLE 2: Three-monthly Rainfall

February 2014 to April 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #76]

Predictors and Period used: SSTa's 1@9 – October to December 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	947.4	719.7	938.3	888.5	27/39	14,6,80 (6.5)	Consistent
Niutatoputapu	778.0	685.0	845.0	756.0	33/62	27,23,50 (2.0)	Near Consistent
Central Division							
Vavaú	651.5	692.0	915.0	826.2	17/68	37,30,33 (2.6)	Consistent
Haápai	846.6	538.0	705.0	646.0	55/68	23,54,23 (13.5)	Near Consistent
Southern Division							
Nukuálofa	821.6	543.3	677.1	607.0	57/70	20,26,54 (2.7)	Consistent
Fuaámotu	941.9	456.0	672.0	508.5	29/35	29,16,55 (3.7)	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 June to August 2014

Predictors and Period used: SSTa's 1@9 – February to April 2014

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Northern Division						
Niuafoóu	39	375.0	61		-0.1	60.5
Niuaotoputapu	31	304.5	69		4.0	64.1
Central Division						
Vavaú	31	308.0	69		5.1	55.4
Haápai	43	275.0	57		-1.6	49.2
Southern Division						
Nukuálofa	50	298.0	50		-3.1	30.8
Fuaámotu	49	359.9	51		-6.2	35.3

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division							
Niuafoóu	30	277.3	38	419	32	-1.6	36.8
Niuaotoputapu	21	231	43	352.1	36	0.8	34.4
Central Division							
Vavaú	21	254	34	353	45	0.9	30.8
Haápai	35	191	25	314	40	-1.9	29.2
Southern Division							
Nukuálofa	29	240	34	362.3	37	-3.3	15.4
Fuaámotu	25	271.1	30	401	45	-0.4	38.2

TABLE 4: Seasonal Climate Outlooks using POAMA2 for June 2014 to August 2014

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	36	220	58	359	6		

Summary Statements

Rainfall for April 2014:

Northern Division: Above Normal

Central Division: Normal.

Southern Division: Normal.

Accumulated rainfall for February - April 2014, including outlook verification:

Northern Division: Niuafu'ou: Above normal, forecast was consistent
Niuatoputapu: Normal, forecast was near consistent

Central Division: Vava'u: Below normal, forecast was consistent
Ha'apai: Above normal, forecast was near consistent.

Southern Division: Above Normal, forecast was consistent.

Outlooks for June - August 2014:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for June to August 2014 shows:

- the most likely outcome for the Northern Division is Normal, with Above Normal the next most likely;
- the most likely outcome for the Southern Division and Vava'u in the Central Division is Above Normal, with Normal the next most likely; and
- the most likely outcome for Ha'apai in the Central Division is Above Normal, with Below Normal the next most likely.

2. POAMA:

The POAMA seasonal rainfall outlook for Nuku'alofa for June to August 2014 shows the most likely outcome 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: $X \geq 35$