

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 78

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)	February 2014						
	December 2013 Total	January 2014 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafoóu	385.9	351.3	399.8	203.0	299	237.5	35/44
Niutatoputapu	458.1	220.1	237.9	190.0	270.3	223.0	39/68
Central Division							
Vavaú	328.3	381.5	142.1	183.0	278.7	215.0	17/68
Haápai	161.8	375.6	277.4	135.5	236.0	186.9	53/68
Southern Division							
Nukuálofa	233.8	421.5	178.6	149.7	252.7	217.0	27/70
Fuaámotu	251.8	348.8	229.9	137.0	240.0	181.0	23/35

TABLE 2: Three-monthly Rainfall

December 2013 to February 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #74]

Predictors and Period used: SSTa's 1@9 –Sept-Oct 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	1137.0	732.7	950.3	844.5	29/43	11,30,59 (6.8)	Consistent
Niutatoputapu	916.1	647.0	887.0	728.0	44/67	08,41,51 (15.9)	Consistent
Southern Division							
Vavaú	851.9	603.7	899.0	718.0	42/67	9,44,47 (27.0)	Near Consistent
Haápai	814.8	433.0	678.3	573.2	55/67	4,45,52 (24.7)	Consistent
Southern Division							
Nukuálofa	833.9	439.3	729.7	558.0	57/70	10,21,69 (29.7)	Consistent
Fuaámotu	830.5	424.0	788.3	561.0	25/34	15,29,56 (10.1)	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 April 2014 to June 2014

Predictors and Period used: SSTa's 1@9 – December 2013 to February 2014

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Northern Division						
Niuafoóu	43	586	57		-3.5	51.3
Niuaotoputapu	49	533	51		-3.2	43.1
Central Division						
Vavaú	33	479	67		4.4	60.9
Haápai	39	353	61		2.3	58.7
Southern Division						
Nukuálofa	31	325	69		8.5	56.3
Fuaámotu	41	474	59		1.6	51.5

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division							
Niuafoóu	31	482.1	24	648	45	-2.9	33.2
Niuaotoputapu	36	421	34	592	30	-3.7	12.1
Central Division							
Vavaú	14	392	37	526	49	8.5	39.1
Haápai	24	289	33	421.7	43	5	39.7
Southern Division							
Nukuálofa	14	281.7	56	427.3	30	5.6	50
Fuaámotu	18	322.7	45	526.1	37	5.3	42.4

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

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	42	361	30	503	27		

Summary Statements

Rainfall for February 2014:

Northern Division: Above Normal for Niuafou'ou and Normal for Niuatoputapu.

Central Division: Below Normal for Vava'u and Above Normal for Ha'apai.

Southern Division: Normal.

Accumulated rainfall for November 2013 – January 2014, including outlook verification:

Northern Division: Above normal, forecast was Consistent.

Central Division: Above normal for Ha'apai and Normal for Vava'u, forecast was Near Consistent to Consistent.

Southern Division: Above normal, forecast was Consistent.

Outlooks for April 2014- June 2014:

1. SCOPIC:

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

- the most likely outcome for Niuafou'ou is above-normal, with below-normal the next most likely;
- there is little guidance for Niuatoputapu as the chances of above-normal, normal and below-normal are similar;
- the most likely outcome for the Central Division is above-normal, with normal the next most likely; and
- the most likely outcome for the Southern Division is normal, with above normal the next most likely.

2. POAMA: Outlook for Nuku'alofa is Below 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: $X \geq 35$