

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 81

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)	May 2014						
	March 2014 Total	April 2014 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafoóu	175.6	372.0	143.8	136.0	206.7	155.7	19/44
Central Division							
Vavaú	319.0	190.4	144.1	91.0	177.0	132.0	38/68
Haápai	412.1	157.1	149.6	64.0	111.4	88.0	51/68
Southern Division							
Nukuálofa	509.9	133.1	228.0	64.0	130.7	85.0	68/70
Fuaámotu	507.3	204.7	174.2	56.8	161.7	122.0	25/35

TABLE 2: Three-monthly Rainfall

March 2014 to May 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #77]

Predictors and Period used: SSTa's 1@9 – November 2013 to January 2014

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	691.4	653.0	808.0	770.5	15/44	27, 16, 57 (3.1)	Near Consistent
Central Division							
Vavaú	653.5	583.2	810.0	706.8	32/68	39, 37, 24 (0.5)	Near Consistent
Haápai	718.8	442.7	606.9	544.0	54/68	36, 49, 15 (3.0)	Near Consistent
Southern Division							
Nukuálofa	871	440.8	547.3	481.0	69/70	44, 24, 32 (0.4)	In Consistent
Fuaámotu	886.2	424.7	576.0	506.7	31/35	7, 65, 28 (4.9)	Near 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 July to September 2014

Predictors and Period used: SSTa's 1@9 – March to May 2014

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Northern Division Niuafóou	40	338.6	60		-1	52.5
Central Division Vavaú	51	340	49		-0.7	53.8
Haápai	57	295	43		7.2	63.1
Southern Division Nukuálofa	46	323.7	54		-1.9	49.2
Fuaámotu	37	374	63		-3.8	50

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division Niuafóou	29	269	32	422.6	39	-4.7	37.5
Central Division Vavaú	24	254	35	399	41	-1.1	26.2
Haápai	34	237.5	22	365	44	-0.6	26.2
Southern Division Nukuálofa	38	276.3	18	383.3	44	-2.7	21.5
Fuaámotu	41	298	18	423	41	-5.3	35.3

TABLE 4: Seasonal Climate Outlooks using POAMA2 for July 2014 to September 2014

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	18	261	73	402	9		

Summary Statements

Rainfall for May 2014:

Northern Division: Normal for Niuafu'ou

Central Division: Normal to Above Normal.

Southern Division: Above Normal.

Accumulated rainfall for March - May 2014, including outlook verification:

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

Central Division: Vava'u: normal, forecast was near consistent

Ha'apai: Above normal, forecast was near consistent.

Southern Division: Above Normal, forecast was inconsistent in Nuku'alofa and near consistent in Fua'amotu.

Outlooks for July - September 2014:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for July to September 2014 shows:

- the most likely outcome for the Northern Division is Above normal,
- the most likely outcome for the Central Division and Nuku'alofa in the Southern Division is Above normal, and
- the outlook for Fua'amotu in the Southern Division is mixed, with equal chance of Below Normal and Above Normal.

2. POAMA: POAMA seasonal Outlook for Nuku'alofa for July to August 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: $X \geq 35$