

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 87

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)	November 2014						
	September 2014 Total	October 2014 Total	November 2014 Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafoóu	102.4	268.4	261	175	280	237	24/44
Niuaotoputapu	16.0	84.0	264	141	233	183	49/68
Central Division							
Vavaú	33.9	62.0	13.3	78	173	115	2/68
Haápai	1.1	95.8	11.1	67	134	95	6/68
Southern Division							
Nukuálofa	32.9	73.3	13.6	44	137	76	5/71
Fuaámotu	19.0	83.2	28.7	43	136	102	6/35

TABLE 2: Three-monthly Rainfall

Sep to November 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #83]

Predictors and Period used: SSTa's 1 & 9 – Sep- Nov 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	631.8	451	639	566	26/44	35,35,30 (3.6)	Consistent
Niuaotoputapu	364.0	389	596	486	20/68	38,36,26 (10.6)	Consistent
Central Division							
Vavaú	109.2	364	546	416	3/68	38,38,24 (14.5)	Consistent
Haápai	108	236.0	405	306	6/68	37,36,27 (7.1)	Consistent
Southern Division							
Nukuálofa	119.8	252	431	355	5/70	38,38,24 (20.8)	Consistent
Fuaámotu	130.9	257	411	316	3/35	34,37,29 (11.0)	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 January to March 2015

Predictors and Period used: NINO 3.4 SST Anomalies– October to December 2015

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Northern Division						
Niuafo'ou	53	561.5	47		3.7	53.7
Niuaatoputapu	58	485.5	42		14.4	64.5
Central Division						
Vava'u	59	416	41		19.2	67.7
Ha'apai	55	304	45		5.6	55.4
Southern Division						
Nuku'alofo	59	354.7	41		18.2	70.8
Fua'amotu	51	315.5	49		6.7	62.9

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division							
Niuafo'ou	45	763.7	26	962.3	29	4.9	44.7
Niuaatoputapu	49	660	37	925	14	17.5	55
Central Division							
Vava'u	44	690	32	928	23	7.9	49.2
Ha'apai	53	563.3	30	784	17	20.3	54.7
Southern Division							
Nuku'alofo	46	496	38	823	16	15.2	50
Fua'amotu	45	465.7	40	788.3	15	18.7	51.4

TABLE 4: Seasonal Climate Outlooks using POAMA2 for January to March 2015

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nuku'alofo							

Summary Statements

Rainfall for November 2014:

Northern Division:	Niuafóú:	Normal
	Nuatoputapu:	Above normal
Central Division:	Vavaú:	Below normal
	Haápai:	Below normal
Southern Division:	Nukuálofa:	Below Normal
	Fuaámotu:	Below Normal

Accumulated rainfall for September - November 2014, including outlook verification:

Northern Division: Normal in Niuafó'u and below normal in Nuatoputapu, forecast was consistent.

Central Division: Below normal, forecast was consistent

Southern Division: Below normal, forecast was consistent

Outlooks for January - March 2015:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for January to March 2015 shows:

- The most likely outcome for the country of Tonga (Northern, Central and Southern division) is below normal, the next most likely is normal rainfall.

2. POAMA:

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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: $X \geq 35$