Pacific Islands - Online Climate Outlook Forum (OCOF) No. 119

<u>Country Name</u>: Fiji TABLE 1: Monthly Rainfall

Station (include data period)			July 2017					
	May 2017 Total	June 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking	
			Western L	Division				
Penang Mill (1910-2017)	162.5	12.5	1.4	25	58	38	<mark>4/108</mark>	
Lautoka Mill (1900-2017)	65.8	24.0	10.2	21	59	40	27/118	
Nadi Airport (1942-2017)	55.2	2.4	20.5	15	61	34	30/76	
Viwa (1978 -2017)	137.0	20.0	15.8	23	58	43	12/36	
			Central Di	vision				
Laucala Bay (Suva) (1942-2017)	285.2	109.8	85.1	83	158	116	27/76	
Nausori Airport (1957-2017)	248.9	80.0	76.9	94	135	120	14/61	
Tokotoko (Navua) (1945- 2017)	262.8	161.3	146.5	143	213	179	26/73	
			Eastern D	ivision				
Lakeba (1950-2017)	183.8	22.0	26.6	48	85	59	6/67	
Vunisea (Kadavu) (1931-2017)	246.4	45.7	M	80	120	92	М	
Ono-i-Lau (1943-2017)	142.3	39.0	20.1	57	115	69	5/71	
Northern Division								
Labasa Airport (1946-2017)	148.1	23.2	20.3	23	57	32	21/62	
Savusavu Airfield (1956-2017)	114.2	91.1	17.0	55	106	84	3/62	
Rotuma (1912-2017)	216.2	319.6	434.6	179	255	214	98/104	

Period: *below normal/normal/above normal M - Missing

TABLE 2: Three-monthly Rainfall May to July 2017

Predictors and Period used: NINO3.4 SST Anomalies: February to March 2017

Station	Three- month Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking	Forecast probs.* (include LEPS)	Verification* (Consistent, Near- consistent or Inconsistent)			
	Western Division									
Penang Mill (1910- 2017)	176.4	179	297	251	36/108	31:36:33 (11.6)	Near-consistent			
Lautoka Mill (1900- 2017)	100.0	152	235	196	19/118	30:37:33 (18.0)	Near-consistent			
Nadi Airport (1942- 2017)	78.1	141	245	184	12/75	31:36:33 (11.3)	Near-consistent			
Viwa (1978 -2017)	172.8	174	255	200	12/35	23:39:38 (17.9)	Near-consistent			
			Centra	l Division						
Laucala Bay (Suva) (1942-2017)	480.1	437	612	506	33/76	30:37:33 (14.6)	Consistent			
Nausori Airport (1957-2017)	405.8	427	583	509	18/61	26:40:34 (21.4)	Near-consistent			
Tokotoko (Navua) (1945-2017)	570.6	557	753	649	26/73	31:39:30 (18.3)	Consistent			
			Easteri	n Division						
Lakeba, Lau (1950- 2017)	232.4	252	364	319	19/67	25:39:36 (21.0)	Near-consistent			
Vunisea (Kadavu) (1931-2017)	M	322	429	377	М	33:34:33 (4.7)	M			
Ono-i-lau (1943- 2017)	201.4	223	371	303	17/67	28:38:34 (17.3)	Near-consistent			
Northern Division										
Labasa Airport (1956- 2017)	191.6	153	263	204	28/61	31:39:30 (18.7)	Consistent			
Savusavu Airfield (1956-2017)	222.3	297	467	365	13/59	30:38:32 (17.3)	Near-consistent			
Rotuma (1912-2017)	970.4	689	872	786	86/103	33:34:33 (-1.6)	Near-consistent			

Period:* below normal/normal/above normal

^{*}Forecast is <u>consistent</u> when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is <u>near-consistent</u> 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 <u>inconsistent</u> when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).

M - Missing

TABLE 3: Seasonal Climate Outlooks using SCOPIC for September to November 2017 – Tercile Method

Predictors and Period used: NINO3.4 SST Anomalies: June to July 2017

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS (%)	Hit-rate (%)	
Western Division								
Penang Mill (1910-2017)	41	238	37	358	22	16.9	49.2	
Lautoka Mill (1900-2017)	42	184	39	325	19	19.4	49.3	
Nadi Airport (1942-2017)	46	239	37	343	17	28.4	44.8	
Viwa (1978 -2017)	36	185	30	303	34	8.3	31.4	
		Cer	ntral Division	1				
Laucala Bay (Suva) (1942-2017)	41	460	33	754	26	9.9	44.8	
Nausori Airport (1957-2017)	40	433	37	713	23	11.2	46.7	
Tokotoko (Navua) (1945-2017)	44	645	37	932	19	22.4	57.6	
		Eas	tern Divisio	า				
Lakeba (1950-2017)	41	266	36	393	23	12.5	49.3	
Vunisea (Kadavu) (1931- 2017)	41	308	35	440	24	13.9	47.7	
Ono-i-Lau (1943-2017)	42	208	32	351	26	14.4	44.4	
Northern Division								
Labasa Airport (1956- 2017)	41	259	38	379	21	20.5	45.6	
Savusavu Airfield (1956- 2017)	44	369	35	512	21	29.7	55.9	
Rotuma (1912 -2017)	36	723	27	946	37	-0.9	30.3	

Seasonal Climate Outlook:

September to November 2017 - Median Table:

Predictors and Period used: NINO3.4 SST Anomalies: June to July 2017

Station	Below Median (prob)	Median rainfall (mm)	Above Median (prob)	LEPS (%)	Hit-rate (%)				
Western Division									
Penang Mill (1910-2017)	61	291	39	16.6	73.8				
Lautoka Mill (1900-2017)	62	265	38	17.8	71.6				
Nadi Airport (1942-2017)	66	296	34	22.4	71.6				
Viwa (1978 -2017)	53	229	47	2.7	57.1				
	Central Division								
Laucala Bay (Suva) (1942-2017)	57	602	43	6.7	62.7				
Nausori Airport (1957-2017)	56	591	44	5.7	60.0				
Tokotoko (Navua) (1945-2017)	65	767	35	23.7	75.8				
	Eastern Division								
Lakeba (1950-2017)	60	325	40	11.8	71.6				
Vunisea (Kadavu) (1931-2017)	61	385	39	14.0	69.2				
Ono-i-Lau (1943-2017)	62	293	38	17.4	74.6				
Northern Division									
Labasa Airport (1956-2017)	60	304	40	16.8	71.9				
Savusavu Airfield (1956-2017)	62	424	38	22.3	76.3				
			I		·				
Rotuma (1912 -2017)	49	846	51	-1.5	51.5				

TABLE 4: Seasonal Climate Outlooks using POAMA2 for September to November 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Lakeba	40	225	30	313	30
Nadi	46	178	27	305	27
Nabouwalu	40	284	18	439	42
Udu Point	40	325	18	501	42
Vunisea	46	291	27	431	27
Suva	46	369	27	713	27
Rotuma	24	723	15	970	61

Summary Statements

Rainfall for July 2017:

Rainfall during July 2017 was *below normal* at most of the stations. The exceptions to this were Nadi Airport, Laucala Bay and Tokotoko where *normal* rainfall was registered, while Rotuma recorded *above normal* rainfall.

Notably, the total monthly rainfall at Savusavu Airfield during the month was 3rd driest July in 62 years of record, while Penang Mill's rainfall was 4th driest July in 108 years of record.

Accumulated rainfall for May to July 2017 & outlook verification:

Accumulated rainfall over the May to July 2017 was *below normal* at 8 out of the 12 stations used in this report. The exceptions to this were Laucala Bay, Tokotoko and Labasa Airport, where *normal* rainfall was received, while Rotuma registered *above normal* rainfall.

The rainfall outlooks for the May to July 2017 period were consistent at 3 out of the 12 sites and near-consistent at 9.

Outlooks for September to November 2017:

1. SCOPIC:

The SCOPIC rainfall outlook for September to November 2017 shows:

- Below normal rainfall as the most likely outcome at a majority of the sites, followed by normal rainfall;
- No clear guidance at Viwa with the chances of below normal, normal and above normal rainfall almost similar;
- Mixed outlook for Rotuma as the chances of *below normal* and *above normal* rainfall are almost similar; and
- Generally *good* to *high* confidences in the outlooks.

2. POAMA

The POAMA outlook shows:

- Below normal rainfall as the most likely outcome Nadi, Suva, Lakeba and Vunisea.
- Mixed outlook for Udu Point and Nabouwalu with almost equal chances of below normal and above normal rainfall; and
- Above normal rainfall as the most likely outcome at Rotuma.

NB: The X LEPS % score has been categorised as follows:

Very Low: X < 0.0 Low: $0 \le X < 5$ Moderate $5 \le X < 10$ Good: $10 \le X < 15$ High: $15 \le X < 25$

Very High: $25 \le X < 35$ Exceptional: $X \ge 35$