Pacific Islands - Online Climate Outlook Forum (OCOF) No. 113

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

Station (include data period)			January 2017							
	November 2016 Total	December 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking			
Western Division										
Penang Mill (1910-2017)	126.0	713.2	170.9	231	394	301	27/108			
Lautoka Mill (1900-2017)	110.7	217.6	182.4	171	368	259	43/117			
Nadi Airport (1942-2017)	123.4	269.9	314.1	219	360	281	45/76			
Yasawa-i-Rara (1950-2017)	71.6	670.6	122.0	127	299	217	19/66			
			Central Divi	sion						
Laucala Bay (Suva) (1942-2017)	118.0	761.8	305.1	249	381	315	38/76			
Nausori Airport (1957-2017)	73.7	924.2	296.4	257	391	318	26/61			
Tokotoko Navua) (1945-2017)	72.6	927.6	343.7	274	413	347	37/73			
		E	astern Div	rision						
Lakeba (1950-2017)	28.7	453.5	228.8	172	306	242	32/68			
Vunisea (Kadavu) (1931-2017)	60.8	299.4	392.8	167	278	227	69/82			
Ono-i-Lau (1943-2017)	105.4	273.5	148.9	118	223	180	34/71			
Northern Division										
Labasa Airport (1956-2017)	23.4	Missing	300.9	222	464	388	26/61			
Savusavu Airport (1956-2017)	73.1	Missing	101.5	211	322	254	6/58			
Rotuma (1912-2017)	351.2	Missing	Missing	287	410	337	-			

Period: *below normal/normal/above normal

M - Missing

TABLE 2: Three-monthly Rainfall November 2016 to January 2017

Predictors and Period used: NINO3.4 SST Anomalies: July to September 2016

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)	1010.1	565	818	682	77/102	17/41/ 42 (17.3)	Consistent	
Lautoka Mill (1900- 2017)	510.7	415	692	560	51/117	11/42/ 47 (32.5)	Near- consistent	
Nadi Airport (1942- 2017)	707.4	428	750	651	45/74	16/40/ 44 (29.4)	Near- consistent	
Yasawa-i-rara (1950- 2017)	864.2	379	632	501	56/64	14/41/ 45 (34.6)	Consistent	
			Centra	Division				
Laucala Bay (Suva) (1942-2017)	1184.9	683	1020	850	65/75	32/31/ 37 (1.9)	Consistent	
Nausori Airport (1957-2017)	1294.3	732	1004	846	57/61	25/34/ 41 (10.4)	Consistent	
Tokotoko (Navua) (1945-2017)	1343.9	853	1116	927	61/71	28/35/ 37 (4.2)	Consistent	
			Eastern	Division				
Lakeba, Lau (1950- 2017)	711.0	460	671	567	52/68	25/34/ 41 (15.1)	Consistent	
Vunisea (Kadavu) (1931-2017)	753.0	444	635	523	64/79	24/36/ 40 (11.0)	Consistent	
Ono-i-lau (1943-2017)	527.8	310	515	448	48/69	14/40/ 46 (31.3)	Consistent	
Northern Division								
Labasa Airport (1956-2017)	Missing	568	936	669	1	14/32/ 54 (30.7)	-	
Savusavu Airport (1956 -2017)	Missing	572	762	668	-	19/39/ 42 (24.7)	-	
Rotuma (1912-2017)	Missing	899	1079	984	-	23/38/ 39 (9.7)	-	

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 March to May 2017 – Tercile Method

<u>Predictors and Period used</u>: NINO3.4 SST Anomalies: November 2016 to January 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)	21	596	38	873	41	8.4	49.2		
Lautoka Mill (1900-2017)	20	480	40	682	40	8.3	37.9		
Nadi Airport (1942-2017)	23	509	37	676	40	9.1	54.5		
Yasawa-i-Rara (1950-2017)	21	454	37	643	42	9.1	41.3		
		Cen	tral Divisio	n					
Laucala Bay (Suva) (1942-2017)	30	815	33	1046	37	1.0	42.4		
Nausori Airport (1957-2017)	30	803	34	1028	36	-0.2	18.3		
Tokotoko (Navua) (1945-2017)	28	928	37	1164	35	0.5	39.4		
		East	ern Divisio	n					
Lakeba (1950-2017)	22	536	39	718	39	6.4	43.1		
Vunisea (Kadavu) (1931- 2017)	23	607	38	761	39	6.1	23.4		
Ono-i-Lau (1943-2017)	28	449	32	644	40	3.9	45.0		
Northern Division									
Labasa Airport (1956- 2017)	30	561	32	836	38	2.0	41.0		
Savusavu Airport (1956-2017)	23	566	37	749	40	7.0	49.2		
Rotuma (1912 -2017)	34	824	33	1041	33	-1.6	18.5		

Seasonal Climate Outlook:

March to May 2017 - Median Table:

Predictors and Period used: NINO3.4 SST Anomalies: November 2016 to January 2017

Station	Below Median (prob)	Median rainfall (mm)	Above Median (prob)	LEPS	Hit-rate			
Western Division								
Penang Mill (1910-2017)	40	694	60	8.1	64.6			
Lautoka Mill (1900-2017)	40	574	60	7.6	63.6			
Nadi Airport (1942-2017)	42	584	58	6.3	62.1			
Yasawa-i-rara (1950-2017)	43	539	57	4.0	60.3			
Central Division								
Laucala Bay (Suva) (1942-2017)	48	906	52	-0.8	51.5			
Nausori Airport (1957-2017)	45	908	55	1.4	53.3			
Tokotoko (Navua) (1945-2017)	46	1045	54	0.5	54.5			
Eastern Division								
Lakeba (1950-2017)	44	624	56	2.8	56.9			
Vunisea (Kadavu) (1931-2017)	44	697	56	2.9	59.4			
Ono-i-lau (1943-2017)	42	513	58	5.3	65.0			
Northern Division								
Labasa Airport (1956-2017)	47	722	53	-1.0	50.8			
Savusavu Airport (1659-2017)	41	664	59	8.0	64.4			
Rotuma (1912 -2017)	50	957	50	-1.5	38.5			

Summary Statements

Rainfall for January 2017:

Majority of the stations in Fiji received *normal* to *below normal* rainfall during January 2017. The only exception to this was Vunisea which registered *above normal* rainfall.

Accumulated rainfall for November 2016 to January 2017 & outlook verification:

Due to a tropical depression, TD04F, in December 2016, accumulated rainfall over the last three months was *above normal* at most of the stations. The exceptions to this were Lautoka Mill and Nadi Airport which recorded *normal* rainfall.

Verification of the 3-month rainfall

For the November 2016 to January 2017 period, the rainfall outlooks were consistent at eight of the ten sites and near- consistent at two sites. Outlooks for three sites could not be verified due to missing observations.

Outlooks for March to May 2017:

SCOPIC:

Western Division: *Normal* or *above normal* rainfall with *moderate* skill;

Central Division: The outlook offers little guidance as the chances of *above normal*, *normal* and *below normal* are similar. *Very low* to *low* skill;

Eastern Division: Near equal likelihood of *normal* and *above normal* rainfall for Lakeba and Vunisea, while *above normal* rainfall is favoured for Ono-i-Lau. Skill range from *low* to *moderate*:

Northern Division: The most likely outcome is *above-normal*, with *normal* the next most likely. *Low to moderate* skill;

Rotuma: The outlook offers little guidance as the chances of *above normal*, *normal* and *below normal* are similar. *Very low* skill.

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: $X \ge 35$