Pacific Islands - Online Climate Outlook Forum (OCOF) No. 109

Country Name: Fiji

TABLE 1: Monthly Rainfall

Station (include data period)			September 2016				
	July 2016 Total	August 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Western Division							
Penang Mill (1910-2016)	13.5	200.8	**1.2**	41	105	69	3/106
Lautoka Mill (1900-2016)	6.4	210.0	**2.6**	33	82	53	5/117
Nadi Airport (1942-2016)	13.4	197.0	**7.3**	37	92	63	6/75
Yasawa-i-Rara (1950-2016)	8.8	167.4	**1.4**	35	94	61	2/64
Central Division							
Laucala Bay (Suva) (1942-2016)	78.8	407.5	**56.9**	123	220	155	11/75
Nausori Airport (1957-2016)	61.2	387.7	**26.1**	108	205	150	3/60
Tokotoko (Navua) (1945-2016)	168.5	463.1	**41.1**	159	287	215	4/72
Eastern Division							
Lakeba (1950-2016)	21.0	187.9	**3.0**	69	121	92	2/68
Vunisea (Kadavu) (1931-2016)	62.5	226.9	**21.8**	81	152	110	3/80
Ono-i-lau (1943-2016)	26.1	212.5	**23.6**	70	118	96	7/69
Northern Division							
Labasa Airport (1956-2016)	28.8	210.2	**7.9**	37	83	62	6/60
Rotuma (1912-2016)	68.8	384.8	**379.3**	178	239	211	91/102

Period: *below normal/normal/above normal

M - Missing

TABLE 2: Three-monthly Rainfall
July to September 2016

Predictors and Period used: NINO3.4 SST Anomalies: February to April 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 (1910-2016)	**215.5**	149	233	195	63/106	**58**:29:13 (4.6)	Near-consistent
Lautoka Mill (1900-2016)	**219.0**	123	220	171	78/117	**67**:17:16 (5.7)	Near-consistent
Nadi Airport (1942-2016)	**217.7**	130	211	175	51/75	**73**:14:13 (7.9)	Inconsistent
Yasawa-i-rara (1950-2016)	**177.6**	121	216	141	37/63	**70**:18:12 (7.0)	Near-consistent
Central Division							
Laucala Bay (Suva) (1942-2016)	**543.2**	384	565	461	49/75	**64**:18:18 (3.5)	Near-consistent
Nausori Airport (1957-2016)	**475.0**	367	532	438	35/60	**41**:37:22 (-0.5)	Near-consistent
Tokotoko (Navua) (1945-2016)	**672.7**	524	684	622	46/71	**64**:23:13 (5.1)	Near-consistent
Eastern Division							
Lakeba, Lau (1950-2016)	**211.9**	206	319	240	23/66	**44**:39:17 (1.0)	Near-consistent
Vunisea (Kadavu) (1931-2016)	**311.2**	273	382	332	37/79	**45**:35:20 (0.7)	Near-consistent
Ono-i-lau (1943-2016)	**262.2**	251	346	292	29/69	**59**:22:19 (2.3)	Near-consistent
Northern Division							
Labasa Airport (1956-2016)	**246.9**	107	197	155	47/60	**55**:34:11 (5.0)	Inconsistent
Rotuma (1912-2016)	**832.9**	576	769	655	78/102	33:30:**37** (-2.1)	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).
M - Missing

TABLE 3: Seasonal Climate Outlooks using SCOPIC for November 2016 to January 2017 – Tercile Method

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

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS (%)	Hit-rate (%)
Western Division							
Penang Mill (1910-2016)	17	565	**41**	818	**42**	17.3	57.1
Lautoka Mill (1900-2016)	11	415	42	692	**47**	32.5	57.6
Nadi Airport (1942-2016)	16	428	40	750	**44**	29.4	59.1
Yasawa-i-rara (1950-2016)	14	379	41	632	**45**	34.6	52.4
Central Division							
Laucala Bay (Suva) (1942-2016)	32	683	31	1020	37	1.9	33.3
Nausori Airport (1957-2016)	25	732	34	1004	**41**	10.4	43.3
Tokotoko (Navua) (1945-2016)	28	853	**35**	1116	**37**	4.2	44.6
Eastern Division							
Lakeba (1950-2016)	25	460	34	671	**41**	15.1	51.5
Vunisea (Kadavu) (1931-2016)	24	444	36	635	**40**	11.0	52.3
Ono-i-lau (1943-2016)	14	310	40	515	**46**	31.3	60.3
Northern Division							
Labasa Airport (1956-2016)	14	568	32	936	**54**	30.7	55.4
Nabouwalu (1918-2016)	19	649	**39**	891	**42**	24.7	50.8
Rotuma (1912 -2016)	23	899	**38**	1079	**39**	9.7	39.4

Seasonal Climate Outlook:

October to December 2016 - Median Table:

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

Station	Below Median (prob)	Median rainfall (mm)	Above Median (prob)	LEPS	Hit-rate
Western Division					
Penang Mill (1910-2016)	34	682	**66**	21.7	69.8
Lautoka Mill (1900-2016)	27	560	**73**	36.5	80.3
Nadi Airport (1942-2016)	32	651	**68**	35.4	78.8
Yasawa-i-rara (1950-2016)	29	501	**71**	38.9	81.0
Central Division					
Laucala Bay (Suva) (163.6942-2016)	44	850	56	5.4	63.6
Nausori Airport (1957-2016)	41	846	59	8.6	60.0
Tokotoko (Navua) (1945-2016)	47	927	53	0.3	58.5
Eastern Division					
Lakeba (1950-2016)	40	567	**60**	12.5	65.2
Vunisea (Kadavu) (1931-2016)	43	523	57	8.8	69.2
Ono-i-lau (1943-2016)	39	448	**61**	13.4	71.4
Northern Division					
Labasa Airport (1956-2016)	29	669	**71**	30.6	76.8
Nabouwalu (1918-2016)	39	759	**61**	19.7	70.8
Rotuma (1912 -2016)	44	984	56	5.1	59.1

Summary Statements

Rainfall for September 2016:
Apart from Rotuma, *below normal* rainfall was recorded at all stations.

It was the second driest September on record at Lakeba and Yasawa-i-rara, 3rd driest at Penang Mill, Nausori Airport and Vunisea (Kadavu), and 4th driest at Navua.

Accumulated rainfall for July to September 2016 & outlook verification:
Above normal rainfall was recorded at Nadi, Labasa and Rotuma, while the rest of the stations recorded *normal* rainfall.

Verification of the 3-month rainfall
The SCOPIC outlooks for July to September 2016 period were near-consistent at 9 stations, inconsistent at 2 stations and consistent at 1 station.

Outlooks for November 2016 to January 2017:

1. **SCOPIC:**

The SCOPIC outlooks for November 2016 to January 2017 period shows:

- There is a near equal likelihood of above-normal and normal rainfall for Penang Mill in the Western Division, Navua in the Central Division, Nabouwalu in the Northern Division and Rotuma. The Suva outlook offers little guidance for the coming season as the chances of above-normal, normal and below-normal rainfall are similar. Elsewhere the most likely outcome is above-normal rainfall, with normal the next most likely;
- The confidences in the predictions generally range from *good* to *very high*; with the exception for the Central Division where the confidences are *low* to *moderate*.

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: $X \geq 35$