

Pacific Islands - Online Climate Outlook Forum No 119

Country: **PAPUA NEW GUINEA**

TABLE 1: Monthly Rainfall

Station (include data period)	July 2017						
	May 2017 Total	Jun 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2017)	371.8	186.8	-	110.7	183.6	148.0	-
Nadzab(1973-2017)	86.8	141.0	-	69.9	129.5	116.7	-
Wewak (1894-2017)	287.2	375.6	101.0	150.2	206.4	177.8	9/62
Vanimo (1918-2017)	269.8	172.0	384.2	136.3	218.0	188.3	61/63
Highlands Region							
Goroka (1948-2017)	98.8	22.0	-	42.8	70.6	55.0	-
New Guinea Islands							
Momote (1949-2017)	394.0	328.8	808.4	303.3	397.9	348.6	69/69
Kavieng (1916-2017)	87.0	122.0	-	197.6	277.7	226.4	-
Southern Region							
Misima (1917-2017)	-	-	-	86.9	191.3	133.9	-
Port Moresby(1875-2017)	0.6	0.6	0.2	4.9	24.0	13.2	2/118

TABLE 2: Three-monthly Rainfall (May - July 2017)

Predictor ***NINO3.4 SST Anomalies***:—Period: ***Feb - Mar 2017***

[Please note that the data used in this verification should be sourced from table 3 of OCOF #115]

Station	Three-month Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking	Forecasted probs.* (include LEPS)	Verification (Consistent, Near-consistent Inconsistent?)
Momase Region							
Madang (1944-2017)	-	635.5	817.6	744.8	-	29/39/32 (20.7)	-
Nadzab (1973-2017)	-	259.6	376.6	287.9	-	34/33/33 (-3.3)	-
Wewak (1894-2017)	763.8	560.6	668.4	629.6	50/62	32/35/33 (5.0)	Near-consistent
Vanimo (1918-2017)	826.0	563.2	683.2	608.2	57/62	33/33/34 (-2.2)	Near-consistent
Highlands Region							
Goroka (1948-2017)	-	199.4	277.8	225.0	-	33/34/33 (3.7)	-
New Guinea Islands							
Momote (1949-2017)	1531.2	792.7	1015.0	884.9	68/69	33/32/35 (0.4)	Consistent
Kavieng (1916-2017)	-	633.2	820.0	730.6	-	35/34/31 (0.3)	-
Southern Region							
Misima (1917-2017)	-	488.0	849.0	625.4	-	32/46/22 (34.2)	-
PortMoresby (1875-2017)	1.4	78.9	148.7	118.1	1/109	33/35/32 (5.6)	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 for September - November 2017

Predictors: [NINO3.4 SST Anomalies-Period: June – July 2017](#)

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2017)	69	735.7	31		29.3	72.3
Nadzab(1973-2017)	43	274.6	57		9.7	64.1
Wewak (1894-2017)	58	593.9	42		10.4	61.0
Vanimo (1918-2017)	57	537.4	43		4.5	67.3
Highlands Region						
Goroka (1948-2017)	48	421.0	52		-7.0	61.7
New Guinea Islands						
Momote (1949-2017)	48	723.4	52		-1.1	56.7
Kavieng (1916-2017)	51	655.9	49		-1.3	50.0
Southern Region						
Misima(1917-2016)	67	686.4	33		23.8	73.4
Port Moresby(1875-2017)	65	109.0	35		20.8	67.2

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	Leps (%)	Hit-rate (%)
Momase Region							
Madang (1944-2017)	49	637.7	34	844.6	17	29.9	53.8
Nadzab(1973-2017)	39	227.6	36	349.4	25	15.6	48.7
Wewak (1894-2017)	42	529.6	30	648.6	28	18.2	40.7
Vanimo (1918-2017)	38	495.1	36	625.8	26	7.0	34.7
Highlands Region							
Goroka (1948-2017)	32	355.0	34	474.0	34	-0.6	44.7
New Guinea Islands							
Momote (1949-2017)	34	635.8	34	797.5	32	-1.8	31.3
Kavieng (1916-2017)	36	553.9	32	770.3	32	-0.5	25.8
Southern Region							
Misima(1917-2017)	44	522.3	31	856.0	25	16.4	39.1
Port Moresby(1875-2017)	43	84.4	37	150.1	20	18.6	49.3

TABLE 4: Seasonal Climate Outlooks using POAMA2 for Sep - Nov 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang	36	551	36	698	28
Nadzab	43	196	30	297	27
Wewak	9	524	15	615	76
New Guinea Islands					
Momote	43	632	21	783	36
Kavieng	49	496	9	729	42
Southern Region					
Misima	58	340	18	699	24
Port Moresby	61	54	21	125	18
Daru	5	73	80	170	15

Summary Statements:

Rainfall for July 2017

Rainfall for the month of July was below-normal for Port Moresby whilst above-normal for Vanimo, Wewak and Momote.

Accumulated rainfall for May to July 2017, including outlook verification

Rainfall for the last three months was below-normal for Port Moresby and above-normal for Wewak, Vanimo and Momote.

Forecasts were consistent at Momote and near-consistent at Wewak, Vanimo and Port Moresby.

The skills range from very low to very high.

Outlook for September to November 2017:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for September to November 2017 shows:

- **Momase Region:** Below-normal is the most likely for the region, with normal the next most likely outcome for Nadzab and Vanimo.
- **Highlands Region:** Little guidance as chances of below-normal, normal and above-normal are similar.
- **New Guinea Islands:** Little guidance as chances of below-normal, normal and above-normal are similar.
- **Southern Region:** Below normal is the most likely outcome for the region.

Confidence ranges from very low to very high.

2. POAMA:

The POAMA model favours normal for Daru, above-normal for Wewak and below-normal for rest of the monitoring stations whilst little guidance is available for Madang as chances of below-normal, normal and above-normal are similar.

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: $X \geq 35$