

Pacific Islands - Online Climate Outlook Forum No 118

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

Station (include data period)	June 2017						
	Apr 2017 Total	May 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2017)	309.4	371.8	186.8	155.5	225.7	205.8	30/65
Nadzab(1973-2017)	201.4	86.8	141.0	62.8	120.6	78.9	34/43
Wewak (1894-2017)	-	287.0	375.6	171.6	227.4	192.2	61/62
Vanimo (1918-2017)	263.0	269.8	172.0	167.7	246.3	206.6	23/63
Highlands Region							
Goroka (1948-2017)	168.6	98.8	22.0	45.0	75.0	56.0	7/53
New Guinea Islands							
Momote (1949-2017)	405.2	394.0	328.8	222.7	317.5	277.2	48/69
Kavieng (1916-2017)	367.0	87.0	122.0	192.0	272.9	218.0	8/87
Southern Region							
Misima (1917-2017)	-	-	-	121.7	282.9	205.0	-
Port Moresby(1875-2017)	94.4	0.6	0.6	11.0	43.3	22.9	4/120

TABLE 2: Three-monthly Rainfall (April - June 2017)

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

[Please note that the data used in this verification should be sourced from table 3 of OCOF #114]

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)	868.0	900.7	1083.8	1010.2	20/66	30/34/36 (9.8)	Inconsistent
Nadzab (1973-2017)	429.2	268.8	352.0	316.2	37/41	32/35/33 (-3.0)	Near-consistent
Wewak (1894-2017)	-	566.2	671.6	641.8	-	31/35/34 (-1.1)	-
Vanimo (1918-2017)	704.8	574.6	728.5	648.4	38/61	34/33/33 (-2.2)	Near-consistent
Highlands Region							
Goroka (1948-2017)	289.4	335.0	428.0	393.0	12/50	33/33/34 (-2.3)	Near-consistent
New Guinea Islands							
Momote (1949-2017)	1,128.0	705.4	893.8	809.8	65/68	33/34/33 (-1.4)	Near-consistent
Kavieng (1916-2017)	576.0	688.9	898.4	788.8	12/85	35/34/31 (0.2)	Consistent
Southern Region							
Misima (1917-2017)	-	615.0	919.4	764.9	-	29/39/32 (22.6)	-
Port Moresby (1875-2017)	95.6	174.3	268.2	207.8	11/116	27/36/37 (10.7)	Inconsistent

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 Aug - Oct 2017

Predictors: [NINO3.4 SST anomalies](#)-Period: [May - Jun 2017](#)

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2017)	80	495.6	20		20.7	75.4
Nadzab(1973-2017)	68	331.8	32		9.3	61.5
Wewak (1894-2017)	85	574.8	15		27.9	71.7
Vanimo (1918-2017)	59	521.2	41		2.0	54.0
Highlands Region						
Goroka (1948-2017)	50	335.2	50		-2.1	14.3
New Guinea Islands						
Momote (1949-2017)	41	758.0	59		0.2	58.2
Kavieng (1916-2017)	47	625.4	53		-1.4	52.5
Southern Region						
Misima(1917-2016)	87	617.1	13		31.3	77.8
Port Moresby(1875-2017)	49	75.1	51		-1.6	26.9

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)	70	406.4	23	629.5	7	25.0	53.8
Nadzab(1973-2017)	51	242.1	22	395.1	27	3.1	53.8
Wewak (1894-2017)	72	495.8	20	662.1	8	26.4	50.0
Vanimo (1918-2017)	36	485.6	36	553.8	28	-1.8	26.0
Highlands Region							
Goroka (1948-2017)	34	272.3	32	378.2	34	-2.6	22.4
New Guinea Islands							
Momote (1949-2017)	33	646.4	30	901.2	37	-1.5	26.9
Kavieng (1916-2017)	35	507.4	31	711.5	34	-2.0	15.3
Southern Region							
Misima(1917-2017)	65	456.0	31	766.7	4	29.1	52.4
Port Moresby(1875-2017)	42	58.8	23	96.4	35	-0.5	35.8

TABLE 4: Seasonal Climate Outlooks using POAMA2 for Aug - Oct 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang	33	311	40	568	27
Nadzab	55	199	9	342	36
Wewak	12	454	49	627	39
New Guinea Islands					
Momote	42	650	21	857	37
Kavieng	64	489	15	659	21
Southern Region					
Misima	55	226	15	593	30
Port Moresby	64	36	12	81	24
Daru	5	63	83	134	12

Summary Statements:

Rainfall for June 2017

Rainfall for the month of June was normal for Madang and Vanimo, above normal for Nabzad, Wewak and Momote, while the rest of the monitoring stations recorded below normal.

Accumulated rainfall for April to June 2017, including outlook verification

Rainfall for the last three months was normal at Vanimo, above normal at Nadzab and Momote, and below normal for the rest of the monitoring stations.

Forecasts were consistent at Kavieng, near-consistent in the Nadzab, Vanimo, Momote and Goroka, whilst the Madang, and Port Moresby forecasts were inconsistent.

The skills range from very low to high.

Outlook for August to October 2017:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for August to October 2017 shows:

- **Momase Region:** Below normal is favoured for the three monitoring stations, whilst there is little guidance for Vanimo as the chances of below-normal, normal and above-normal are similar.
- **Highlands Region:** Little guidance as the chances of below-normal, normal and above-normal are similar.
- **New Guinea Islands:** Little guidance as the chances of below-normal, normal and above-normal are similar.
- **Southern Region:** Below normal is the favoured or most likely outcome for the region.

Confidence range from very low to very high.

2. POAMA:

The POAMA model favours normal for Madang, Wewak and Daru whilst below normal is favoured for the rest of the monitoring stations.

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: $X \geq 35$