

Pacific Islands - Online Climate Outlook Forum No 109

Country: **PAPUA NEW GUINEA**

TABLE 1: Monthly Rainfall

Station (include data period)	September 2016						
	Jul 2016 Total	Aug 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2016)	76.6	133.4	243.2	75.5	183.7	129.3	58/66
Nadzab(1973-2016)	97.0	110.2	283.0	55	124.4	99.5	40/41
Wewak (1894-2016)	109.0	108.6					
Vanimo (1918-2016)	144.6	175.0	283.8	120.3	184.3	147.8	55/61
Highlands Region							
Goroka (1948-2016)	8.8	99.8	151.2	70.7	122	96.6	40/54
New Guinea Islands							
Momote (1949-2016)	292.8	186.0	290.6	189.8	275.2	237.8	49/68
Kavieng (1916-2016)	128.8	150.0	286.6	140	194.6	163.1	73/88
Southern Region							
Misima (1917-2016)	-	-	-				
PortMoresby(1875-2016)	11.4	100.6	10.2	8.9	32	17.4	43/122

TABLE 2: Three-monthly Rainfall (July - September 2016)

Predictor *NINO3.4 SST Anomalies*:—Period: April - Jun 2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #105]

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 (1944-2016)	453.2	329.6	481.4	407.0	41/66	63/32/5 (15.3)	Near-consistent
Nadzab (1973-2016)	490.2	251.2	462.7	367.0	30/40	48/29/23 (-1.5)	Inconsistent
Wewak (1894-2016)	-	467.1	589.9	551.1	-	86/12/2 (26.3)	-
Vanimo (1918-2016)	603.4	454.7	555.5	510.9	41/57	26/31/43 (-1.1)	Consistent
Highlands Region							
Goroka (1948-2016)	259.8	196.0	286.7	247.0	30/52	34/27/39 (-2.2)	Near-consistent
New Guinea Islands							
Momote (1949-2016)	769.4	746.4	1053.1	893.3	25/67	25/24/51 (0.3)	Near-Consistent
Kavieng (1916-2016)	565.4	504.9	723.8	611.6	35/82	34/28/38 (-1.9)	Near-consistent
Southern Region							
Misima (1917-2016)	-	332.0	609.2	464.0	-	84/15/1 (32.5)	-
PortMoresby (1875-2016)	122.2	41.7	86.2	65.4	86/106	41/28/31 (-1.4)	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 November 2016 to January 2017

Predictors: NINO3.4 SST Anomalies-Period: August - September 2016

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2016)	50	1041.2	50		-1.6	27.7
Nadzab(1973-2016)	51	403.7	49		-2.1	45
Wewak (1894-2016)						
Vanimo (1918-2016)	50	731.3	50		-2.2	17
Highlands Region						
Goroka (1948-2016)	52	569.4	48		-1.6	64.4
New Guinea Islands						
Momote (1949-2016)	53	827.4	47		0.2	53
Kavieng (1916-2016)	56	849.2	44		2	53.3
Southern Region						
Misima(1917-2016)						
Port Moresby(1875-2016)	33	362	67		21.6	68.2

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	Leps (%)	Hit-rate (%)
Momase Region							
Madang (1944-2016)	35	959	31	1132	33	-1.4	35.4
Nadzab(1973-2016)	36	381	32	442.6	32	-2.4	15
Wewak (1894-2016)							
Vanimo (1918-2016)	32	640.2	33	822.8	35	-2.4	14.9
Highlands Region							
Goroka (1948-2016)	36	516.4	31	641.8	34	-2.1	33.3
New Guinea Islands							
Momote (1949-2016)	36	731	33	883.7	30	1	42.4
Kavieng (1916-2016)	35	776	31	949.7	33	-1.6	31.7
Southern Region							
Misima(1917-2016)							
Port Moresby(1875-2016)	20	297.4	36	422.6	44	15	48.5

TABLE 4: Seasonal Climate Outlooks using POAMA2 for November 2016 to January 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang					
Nadzab					
Wewak					
New Guinea Islands					
Momote					
Kavieng					
Southern Region					
Misima					
Port Moresby					
Daru					

Summary Statements:

Rainfall for September 2016

Rainfall for the month of September was above normal across the country except for Port Moresby which recorded normal rainfall.

Accumulated rainfall for July to September 2016, including outlook verification

Rainfall for the last three months was normal to above normal across the country.

Forecasts were consistent for Vanimo, inconsistent for Port Moresby and Nadzab and near-consistent for rest of the monitoring stations. The skills are very low at all stations whilst low at Momote and high at Madang.

Outlook for – November 2016 to January 2017:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for October to December 2016 shows:

- **Momase Region:** There is little guidance for Madang, Nadzab and Vanimo as chances of below normal, normal and above normal are similar.
- **New Guinea Islands:** There is little guidance for Momote and Kavieng as chances of below normal, normal and above normal are similar.
- **Highlands Region:** There is little guidance as chances of below normal, normal and above normal are similar.
- **Southern Region:** Port Moresby favours above normal rainfall

Confidence is very low for all stations whilst high for Port Moresby

2. POAMA:

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: $X \geq 35$