

Pacific Islands - Online Climate Outlook Forum No 112

Country: **PAPUA NEW GUINEA**

TABLE 1: Monthly Rainfall

Station (include data period)	December 2016						
	Oct 2016 Total	Nov 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2016)	81.0	366.0	-				
Nadzab(1973-2016)	-	156.4	-				
Wewak (1894-2016)	251.4	215.0	196.4	121.5	174.5	142.3	45/61
Vanimo (1918-2016)	196.4	399.8	-				
Highlands Region							
Goroka (1948-2016)	249.0	235.0	175.8	154.4	229.0	173.0	25/48
New Guinea Islands							
Momote (1949-2016)	185.4	364.4	266.2	250.8	334.2	282.8	22/63
Kavieng (1916-2016)	254.2	233.0	221.8	255.4	336.3	301.5	18/90
Southern Region							
Misima (1917-2016)	-	-	-				
Port Moresby(1875-2016)	30.6	15.4	154	75.6	151.7	115.8	86/126

TABLE 2: Three-monthly Rainfall (Oct - Dec 2016)

Predictor *NINO3.4 SST Anomalies*:—Period: Aug – Sept 2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #108]

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)	-	865.3	1090.8	977.0		95/5/0 (32.8)	
Nadzab (1973-2016)	-	313.2	389.0	338.6		33/41/26 (-3.3)	
Wewak (1894-2016)	662.8	537.6	645.8	573.0	43/60	91/7/2 (18.0)	Inconsistent
Vanimo (1918-2016)	-	559.9	697.9	573.0		14/31/55 (2.0)	
Highlands Region							
Goroka (1948-2016)	659.8	423.0	594.8	499.6	37/47	52/16/32 (-1.3)	Inconsistent
New Guinea Islands							
Momote (1949-2016)	816.0	688.0	866.4	782.4	40/68	15/46/38 (0.7)	Consistent
Kavieng (1916-2016)	709.0	705.4	867.7	780.3	31/87	28/29/44 (-1.5)	Near-consistent
Southern Region							
Misima (1917-2016)	-	559.4	763.0	636.3		92/8/0 (28.9)	
PortMoresby (1875-2016)	200.0	175.1	268.3	213.9	52/115	60/36/4 (10.2)	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 February 2017 to April 2017

Predictors: [NINO3.4 SST Anomalies-Period: \[November- December 2016\]\(#\)](#)

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2016)	51	1035.7	49		-1.5	45.5
Nadzab(1973-2016)	53	461.4	47		-1.9	51.2
Wewak (1894-2016)	48	484.4	52		-1.1	56.7
Vanimo (1918-2016)	53	789.6	47		-0.8	50.9
Highlands Region						
Goroka (1948-2016)	57	673.4	43		3.0	58.0
New Guinea Islands						
Momote (1949-2016)	49	797.8	51		-1.5	28.8
Kavieng (1916-2016)	58	884.2	42		4.3	56.7
Southern Region						
Misima(1917-2016)	36	848.2	64		15.3	66.1
Port Moresby(1875-2016)	41	513.8	59		7.7	60.6

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	929.6	31	1138.5	34	-1.2	36.4
Nadzab(1973-2016)	38	370.8	30	512.9	32	0.6	24.4
Wewak (1894-2016)	29	436.1	37	522.6	34	-1.2	40.0
Vanimo (1918-2016)	38	682.0	34	911.8	28	1.3	34.0
Highlands Region							
Goroka (1948-2016)	37	604.8	34	746.6	29	0.4	32.0
New Guinea Islands							
Momote (1949-2016)	33	751.9	33	922.5	34	-1.7	15.2
Kavieng (1916-2016)	40	793.7	30	973.2	30	2.4	33.3
Southern Region							
Misima(1917-2016)	17	762.7	37	979.0	46	25.7	56.6
Port Moresby(1875-2016)	21	433.7	38	593.1	41	9.5	43.9

TABLE 4: Seasonal Climate Outlooks using POAMA2 for December 2017 to February 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 December 2016

Rainfall for the month of December was normal for Goroka and Momote and above normal for Wewak and Port Moresby whilst Kavieng received below normal rainfall.

Accumulated rainfall for October to December 2016, including outlook verification

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

Forecasts were inconsistent for Wewak and Goroka and near-consistent for Port Moresby and Kavieng whilst consistent for Momote station. The skills range from very low to very high.

Outlook for – February 2017 to April 2017:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for February 2017 to April 2017 shows:

- **Momase Region:** The most likely outlook for Vanimo is below normal with normal the next most likely. There is little guidance for the other 3 stations as chances of below normal, normal and above normal are similar.
- **New Guinea Islands:** Below normal is favoured for Kavieng. There is little guidance for Momote as the chances of below normal, normal and above normal are similar.
- **Highlands Region:** There is little guidance for Garoka as the chances of below normal, normal and above normal are similar.
- **Southern Region:** Above normal is favoured for Misima and Port Moresby with normal the next most likely.

Confidence ranges from very low to high.

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: $X \geq 35$