

Pacific Islands - Online Climate Outlook Forum No 116

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

Station (include data period)	April 2017						
	Feb 2016 Total	Mar 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2017)		-					
Nadzab(1973-2017)	46.0	203.2	201.4	86.4	135.0	103.8	34/43
Wewak (1894-2017)	104.2	140.6					
Vanimo (1918-2017)	346.0	147.0					
Highlands Region							
Goroka (1948-2017)	228.0	239.0	168.6	158.7	223.7	200.0	21/55
New Guinea Islands							
Momote (1949-2017)	211.8	457.2	405.2	246.5	293.7	273.6	60/68
Kavieng (1916-2017)	467.0		367.0	262.9	312.4	285.9	72/88
Southern Region							
Misima (1917-2017)	-	-	-				
Port Moresby(1875-2017)	122.0	324.1	94.4	74.2	129.5	104.5	58/127

TABLE 2: Three-monthly Rainfall (Feb- Apr 2017)

Predictor NINO3.4 SST Anomalies:—Period: Nov – Dec2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #112]

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)	-	929.6	1138.5	1035.7	-		
Nadzab (1973-2017)	450.6	370.8	512.9	461.4	19/42	38/30/32 (0.6)	Near Consistent
Wewak (1894-2017)	-	436.1	522.6	484.4	-		
Vanimo (1918-2017)	-	682.0	911.8	789.6	-		
Highlands Region							
Goroka (1948-2017)	635.6	604.8	746.6	673.4	22/53	37/34/29(0.4)	Near Consistent
New Guinea Islands							
Momote (1949-2017)	1074.2	751.9	922.5	797.8	61/67	33/33/34(-1.7)	Near Consistent
Kavieng (1916-2017)	-	793.7	973.2	884.2	-		
Southern Region							
Misima (1917-2017)	-	762.7	979.0	848.2	-		
PortMoresby (1875-2017)	540.5	433.7	593.1	513.8	68/126	21/38/41(9.5)	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 Jun - Aug 2017

Predictors: [NINO3.4 SST Anomalies](#)-Period: [March - April 2017](#)

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2017)	77	469.0	23		34.3	76.9
Nadzab(1973-2017)	51	328.0	49		-2.4	43.9
Wewak (1894-2017)	67	537.4	33		17.5	72.1
Vanimo (1918-2017)	44	558.5	56		-0.3	51.0
Highlands Region						
Goroka (1948-2017)	53	191.0	47		0.7	52
New Guinea Islands						
Momote (1949-2017)	45	943.6	55		-0.3	55.2
Kavieng (1916-2017)	46	704.5	54		-0.2	51.7
Southern Region						
Misima(1917-2016)	84	510.6	16		37.3	73.0
Port Moresby(1875-2017)	59	81.4	41		5.6	59.7

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)	53	404.5	36	530.1	11	27.2	52.3
Nadzab(1973-2016)	35	281.2	33	402.7	32	-2.9	29.3
Wewak (1894-2016)	48	467.2	33	618.6	19	15.9	45.9
Vanimo (1918-2016)	26	510.1	35	625.9	39	1.7	35.3
Highlands Region							
Goroka (1948-2016)	37	169.5	31	283.4	32	-1.2	28.0
New Guinea Islands							
Momote (1949-2016)	26	745.2	39	1051.2	35	0.9	41.8
Kavieng (1916-2016)	31	561.2	33	804.4	36	-1.6	15
Southern Region							
Misima(1917-2016)	59	362.5	32	688.3	9		
Port Moresby(1875-2016)	41	55.4	37	102.6	22	7.3	40.3

TABLE 4: Seasonal Climate Outlooks using POAMA2 for June - August 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang					
Nadzab	36	259	16	350	48
Wewak	45	514	13	619	42
New Guinea Islands					
Momote	18	813	21	1036	61
Kavieng	30	522	9	809	61
Southern Region					
Misima	82	310	6	517	12
Port Moresby	61	50	9	101	30
Daru	5	125	86	208	9

Summary Statements:

Rainfall for April 2017

Rainfall for the month of April was normal at Goroka and Port Moresby and above normal for Nadzab, Kavieng and Momote.

Accumulated rainfall for February to April 2017, including outlook verification

Rainfall for the last three months was normal at Nadzab, Goroka and Port Moresby whilst above normal at Momote.

Forecasts were near-consistent at all sites.

The skills range from very low to moderate

Outlook for June to August 2017:

1. SCOPIC:

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

- **Momase Region:** Below normal is the most likely for three monitoring stations, whilst above normal is the most likely at Vanimo.
- **Highlands Region:** Little guidance as there is roughly an equal chance of either below normal, normal or above normal for Goroka.
- **New Guinea Islands:** Normal is the most likely for Momote, whilst Kavieng has a roughly equal chance of below normal, normal or above normal.
- **Southern Region:** Below normal is the most likely for both monitoring stations, with normal the next most likely category.

Confidence range from very low to very high.

2. POAMA:

The POAMA model favours below normal for Port Moresby, Misima and Wewak. Normal is favoured for Daru whilst above normal is favoured for the New Guinea Islands Region and Nadzab.

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: $X \geq 35$