

Pacific Islands - Online Climate Outlook Forum No 101

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

Station (include data period)	January 2016						
	Nov 2015 Total	Dec 2015 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2016)	-	-	325.2	279.4	381.4	344.2	-
Nadzab(1973-2016)	160.6	280.0	169.2	130.2	182.4	152.9	25/41
Wewak (1894-2016)	66.4	121.6	62.4	101.9	159.2	132.6	11/61
Vanimo (1918-2016)	-	294.8	-	202.6	342.5	275.3	-
Highlands Region							
Goroka (1948-2016)	126.8	108.0	246.0	201.0	270.6	225.0	33/53
New Guinea Islands							
Momote (1949-2016)	151.4	270.0	308.0	236.6	319.5	269.4	41/66
Kavieng (1916-2016)	287.8	255.4	312.6	271.6	362.0	323.6	38/86
Southern Region							
Misima (1917-2016)	151.4	167.0	74.6	197.1	325.2	277.0	6/88
PortMoresby(1875-2016)	2.4	82.2	42.6	133.1	217.2	174.2	2/128

TABLE 2: Three-monthly Rainfall (November 2015 – January 2016)

Predictor NINO3.4 SST Anomalies:-Period: August-September 2015

[Please note that the data used in this verification should be sourced from table 3 of OCOF #97]

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)	-	959.0	1132	1041.2	-	23/44/33	-
Nadzab (1973-2016)	609.8	371.5	435.9	403.0	39/40	26/47/27	Near-Consistent
Wewak (1894-2016)	250.4	439.8	543.4	484.8	2/59	63/26/11	Consistent
Vanimo (1918-2016)	-	640.2	822.8	731.3	-	39/24/37	-
Highlands Region							
Goroka (1948-2016)	480.8	517.0	641.9	569.4	11/45	19/45/36	Near-Consistent
New Guinea Islands							
Momote (1949-2016)	629.4	735.5	885.2	833.0	22/66	12/39/49	Inconsistent
Kavieng (1916-2016)	855.8	773.5	953.4	849.0	44/84	28/35/37	Consistent
Southern Region							
Misima (1917-2016)	393.0	602.8	799.6	703.3	6/85	55/24/21	Consistent
PortMoresby (1875-2016)	127.2	299.6	424.6	365.0	3/117	74/22/4	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 March to May 2016

Predictors: [NINO3.4 SST Anomalies-Period: December-January 2015](#)

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2016)	50	1149	50		-1.4	32.8
Nadzab(1973-2016)	46	387.0	54		-2.4	41.0
Wewak (1894-2016)	64	604.1	36		-0.5	64.4
Vanimo (1918-2016)	49	711.9	51		-2.0	25.5
Highlands Region						
Goroka (1948-2016)	36	558.9	64		-0.6	51.1
New Guinea Islands						
Momote (1949-2016)	53	818.9	47		-1.4	52.3
Kavieng (1916-2016)	46	832.6	54		-1.7	32.8
Southern Region						
Misima(1917-2016)	97	794.4	3		26.8	69.4
Port Moresby(1875-2016)	77	381.8	23		4.2	60.0

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)	34	1000.2	34	1207.6	32	-1.9	0.0
Nadzab(1973-2016)	17	359.3	29	429.9	54	1.1	30.8
Wewak (1894-2016)	60	512.1	10	651.6	30	-0.3	44.1
Vanimo (1918-2016)	38	598.1	15	848.7	47	-1.5	33.3
Highlands Region							
Goroka (1948-2016)	18	491.3	22	606.9	60	1.3	36.2
New Guinea Islands							
Momote (1949-2016)	33	713.7	28	884.6	39	-1.6	6.2
Kavieng (1916-2016)	12	751.0	53	946.8	35	1.6	48.3
Southern Region							
Misima(1917-2016)	85	686.2	13	1010.0	2	19.3	48.4
Port Moresby(1875-2016)	50	308.1	39	450.5	11	3.3	41.5

TABLE 4: Seasonal Climate Outlooks using POAMA2 for March to May 2016

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang	33	1002	9	1201	58
Wewak	39	508	6	630	55
Nadzab	39	298	9	409	52
New Guinea Islands					
Momote	21	698	24	854	55
Kavieng	33	769	12	998	55
Southern Region					
Misima	61	665	18	941	21
Port Moresby	55	327	12	498	33
Daru	6	828	82	939	12

Summary Statements:

Rainfall for January 2016

During the month of January 2016, observed rainfall was mainly normal to below normal. New Guinea Islands, Highlands with Nadzab in the Momase regions received normal rainfall whilst Southern region recorded below normal rainfall.

Accumulated rainfall for November 2015 to January 2016, including outlook verification

Most stations recorded below normal rainfall except Nadzab (Momase region) receiving above normal rainfall and Kavieng (NGI region) observed normal rainfall.

Forecasts were consistent in the Southern, Wewak in MOMASE region and Kavieng (NGI region) predicting above normal rainfall and likelihood of normal rainfall. In the Highlands region and Nadzab in the MOMASE region, forecast was near consistent whilst in-consistent for Momote (NGI region).

Outlook for – March to May 2016:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for March to May 2016 shows:

- **Momase Region:** Below normal to Above normal rainfall but equal chances of Below to normal rainfall for Madang.
- **New Guinea Islands:** Normal to above normal rainfall forecasted for the region.
- **Southern Region:** Below normal rainfall is favoured in the region with normal rainfall the next most likely outcome for Port Moresby.
- **Highlands Region:** Above normal rainfall is favoured in the Highlands region.
- Confidence is very low to low at all stations except Misima in the Southern region with high confidence.

2. POAMA:

The POAMA model favours Above normal rainfall for the Momase and New Guinea Islands regions. For Southern region, Below normal to Normal rainfall.

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: $X \geq 35$