

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 65

Country Name: **PAPUA NEW GUINEA**

TABLE 1: Monthly Rainfall

Station (include data period)	JANUARY 2013						
	November Total	December Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<i>Momase Region</i>							
Madang (1944-2013)	60.4	474.0	418.6 AN	279.4	381.4	344	51/65
Nadzab(1973-2013)	60.4	64.0	255.2 AN	130.2	182.4	150.2	34/38
Wewak (1894-2013)	235.0	88.0	159.2 AN	99.3	155.8	130.8	40/58
Vanimo (1918-2013)	279.0	155.0	624.8 AN	202.6	342.5	269.0	61/62
<i>New Guinea Islands</i>							
Momote (1949-2013)	261.0	309.6	466.2 AN	228.7	315.7	265.2	60/63
Kavieng (1916-2013)	231.4	236.0	368.6 AN	269.6	358.2	319.7	58/83
<i>Southern Region</i>							
Misima (1917-2013)	39.4	139.4	608.2 AN	189.7	325.2	271.5	85/85
Port Moresby (1875-2013)	3.6	18.2	307.4 AN	130.2	214.4	172.1	113/125

TABLE 2: Three-monthly Rainfall

November 2012 to January 2013

Predictors: SSTa's 1 & 9 – Period: *July to September 2012*

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?)
<i>Momase Region</i>							
Madang (1944-2013)	953.0 BN	962.0	1133.4	1048.9	22/65	46/36/18 (0.8)	Consistent
Nadzab (1973-2013)	379.6 N	350.9	435.9	400.5	14/37	45/22/33 (-5.1)	Near-Consistent
Wewak (1894-2013)	482.2 N	434.0	543.4	479.9	30/56	57/28/15 (7.7)	Near-Consistent
Vanimo (1918-2013)	1058.8 AN	640.2	820.4	727.7	50/54	28/ 45 /27(-1.8)	Near-Consistent
<i>New Guinea Islands</i>							
Momote (1949-2013)	1036.8AN	729.8	872.3	819.7	57/63	33/ 42 /25 (-1.2)	Near-Consistent
Kavieng (1916-2013)	836.0 N	769.1	953.4	844.8	40/81	57/16/27 (-1.6)	Near-Consistent
<i>Southern Region</i>							
Misima (1917-2013)	787.0 AN	602.8	779.6	704.6	56/82	12/42/ 46 (17.6)	Consistent
Port Moresby (1875-2013)	329.2 N	299.6	424.6	368.8	49/114	36/30/34 (6.6)	Near-Consistent

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 using SCOPIC for March to May 2013

Predictors: [SSTa's 1 & 9](#) - Period: [November 2012 to January 2013](#)

Period: Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2013)	63	1149.0	37		2.4	59.7
Nadzab(1973-2013)	52	385.8	48		-5.5	33.3
Wewak (1894-2013)	51	608.3	49		-3.6	39.3
Vanimo (1918-2013)	37	683.2	63		1.9	52.1
New Guinea Islands						
Momote (1949-2013)	51	821.0	49		-3.2	29.0
Kavieng (1916-2013)	50	834.0	50		-3.2	41.8
Southern Region						
Misima(1917-2013)	62	781.8	38		31.3	70.0
Port Moresby(1875-2013)	44	381.3	56		2.4	57.1

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	Leps (%)	Hit-rate (%)
Momase Region							
Madang (1944-2013)	36	1001.0	36	1205.6	28	-2.0	16.1
Nadzab(1973-2013)	35	340.1	37	429.9	28	-0.6	25
Wewak (1894-2013)	31	516.8	29	651.6	40	-2.6	42.9
Vanimo (1918-2013)	24	583.2	33	839.5	43	1.2	35.4
New Guinea Islands							
Momote (1949-2013)	26	728.0	30	884.6	44	0.1	29.0
Kavieng (1916-2013)	27	766.3	39	947.9	34	0.1	41.8
Southern Region							
Misima(1917-2013)	47	680.5	34	995.3	19	20.9	45.0
Port Moresby(1875-2013)	25	305.8	43	450.4	32	0.6	34.9

TABLE 4: Seasonal Climate Outlooks using POAMA2 for March to May 2013

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Wewak	5.0	508.0	68.33	630.0	26.67
Southern Region					
Port Moresby	36.67	327.0	26.67	498.0	36.67

Summary Statement:

Rainfall for January 2013:

Above Normal rainfall was received across the country with Misima (Southern region) recording highest rainfall.

Accumulated rainfall for November 2012 to January 2013, including outlook verification:

During these three months the rainfall received was Normal to Above Normal across the country except for Madang (Momase region) with Below Normal rainfall.

The forecast for the three months were near consistent to consistent across the country.

Outlooks for March to May 2013:

1. SCOPIC:

Momase region: Madang/Nadzab – Below Normal to Normal whilst Wewak/Vanimu – Above Normal rainfall with very low skills.

NGI region: Normal to Above Normal rainfall with low skills.

Southern region: Below Normal for Misima with high skills and Normal rainfall for Port Moresby with low skills.

2. POAMA:

The model favours Normal rainfall for Wewak. For Port Moresby, POAMA is giving inconsistent forecast due to low forecast skills for this period (predictability barrier).

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: $X \geq 35$