

Pacific Islands - Online Climate Outlook Forum No 105

Country: **PAPUA NEW GUINEA**

**TABLE 1: Monthly Rainfall**

Station (include data period)	May 2016						
	Mar 2016 Total	Apr 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<b>Momase Region</b>							
Madang (1944-2016)	319.0	353.8	151.0	300.9	420.5	334.5	5/66
Nadzab(1973-2016)	109.4	239.6	72.2	63.5	103.3	76.0	17/42
Wewak (1894-2016)	28.8	305.8	149.2	178.9	271.6	219.8	16/61
Vanimo (1918-2016)	360.0	177.6	165.2	166.3	268.5	205.8	21/63
<b>Highlands Region</b>							
Goroka (1948-2016)	323.0	362.6	69.0	95.7	141.0	115.0	12/52
<b>New Guinea Islands</b>							
Momote (1949-2016)	414.6	228.6	383.6	196.4	257.0	230.4	61/68
Kavieng (1916-2016)	346.0	272.0	266.0	204.0	301.0	245.8	49/86
<b>Southern Region</b>							
Misima (1917-2016)	186.2	-	-	185.0	324.2	248.0	-
PortMoresby(1875-2016)	120.6	73.6	10.0	30.6	73.6	50.8	20/125

**TABLE 2: Three-monthly Rainfall (March- May 2016)**

Predictor *NINO3.4 SST Anomalies*:—Period: *December 2015-January 2016*

[Please note that the data used in this verification should be sourced from table 3 of OCOF #101]

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?)
<b>Momase Region</b>							
Madang (1944-2016)	823.8	1000.2	1207.6	1149.0	6/66	34/34/32 (-1.9)	Consistent
Nadzab (1973-2016)	421.2	359.3	429.9	387.0	24/40	17/29/54 (1.1)	Near Consistent
Wewak (1894-2016)	483.8	512.1	651.6	604.1	17/60	60/10/30 (0.3)	Consistent
Vanimo (1918-2016)	702.8	598.1	848.7	711.9	30/61	38/15/47 (-1.5)	Near Consistent
<b>Highlands Region</b>							
Goroka (1948-2016)	754.6	491.3	606.9	558.9	49/51	18/22/60 (1.3)	Consistent
<b>New Guinea Islands</b>							
Momote (1949-2016)	1026.8	713.7	884.6	818.9	59/66	33/28/39 (-1.6)	Consistent
Kavieng (1916-2016)	884.0	751.0	946.8	832.6	48/83	12/53/35 (1.6)	Consistent
<b>Southern Region</b>							
Misima (1917-2016)	-	686.2	1010.0	794.4	-	85/13/2 (19.3)	
PortMoresby (1875-2016)	204.2	308.1	450.5	381.8	14/122	50/39/11 (3.3)	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 July to September 2016**

*Predictors: [NINO3.4 SST Anomalies-Period: April - May 2016](#)*

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
<b>Momase Region</b>						
Madang (1944-2016)	83	407.0	17		10.4	65.6
Nadzab(1973-2016)	57	367.0	43		-1.9	56.4
Wewak (1894-2016)	96	551.1	4		34.3	76.7
Vanimo (1918-2016)	39	510.9	61		-0.9	58.0
<b>Highlands Region</b>						
Goroka (1948-2016)	47	247.0	53		-1.7	52.0
<b>New Guinea Islands</b>						
Momote (1949-2016)	32	893.3	68		2.6	59.1
Kavieng (1916-2016)	46	611.6	54		-1.7	51.8
<b>Southern Region</b>						
Misima(1917-2016)	95	464.0	5		30.0	79.4
Port Moresby(1875-2016)	65	65.4	35		1.2	53.0

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	Leps (%)	Hit-rate (%)
<b>Momase Region</b>							
Madang (1944-2016)	63	329.6	32	481.4	5	15.3	53.1
Nadzab(1973-2016)	48	251.2	29	462.7	23	-1.5	28.2
Wewak (1894-2016)	86	467.1	12	589.9	2	26.3	50.0
Vanimo (1918-2016)	26	454.7	31	555.5	43	-1.1	28.0
<b>Highlands Region</b>							
Goroka (1948-2016)	34	196.0	27	286.7	39	-2.2	28.0
<b>New Guinea Islands</b>							
Momote (1949-2016)	25	746.4	24	1053.1	51	0.3	22.7
Kavieng (1916-2016)	34	504.9	28	723.8	38	-1.9	33.9
<b>Southern Region</b>							
Misima(1917-2016)	84	332.0	15	609.2	1	32.5	63.5
Port Moresby(1875-2016)	41	41.7	28	86.2	31	-1.4	31.8

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for July to September 2016**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
<b>Momase Region</b>					
Madang	12	280	39	426	48
Nadzab	33	204	27	384	39
Wewak	27	432	58	590	15
<b>New Guinea Islands</b>					
Momote	88	779	7	1011	5
Kavieng	91	489	5	699	4
<b>Southern Region</b>					
Misima	6	265	9	500	85
Port Moresby	24	37	12	70	64
Daru	5	81	77	150	18

## Summary Statements:

### Rainfall for May 2016

Recorded rainfall for the month of May was below normal to normal across the country except for Momote in New Guinea Island region receiving above normal rainfall.

### Accumulated rainfall for March to May 2016, including outlook verification

Observed rainfall for the three months period, was below normal to normal at most monitoring stations except Goroka in the Highlands region and Momote in the New Guinea Islands region that recorded above normal rainfall.

Forecasts in the Momase region were near consistent to consistent with skills ranging from low to very low whilst across the country; forecasts were mostly consistent with very low to high skills.

### Outlook for – July to September 2016:

#### 1. SCOPIC:

The SCOPIC seasonal rainfall outlook for July to September 2016 shows:

- **Momase Region:** Below normal is favoured except Vanimo with an outlook for above normal rainfall.
- **New Guinea Islands:** Above normal rainfall is favoured.
- **Southern Region:** Below normal rainfall is favoured.
- **Highlands Region:** Above normal rainfall is favoured.
- Confidence is low to very low for most monitoring stations whilst high confidence for Madang and Wewak in the Momase; very high confidence for Misima in the Southern region.

#### 2. POAMA:

The POAMA model favours normal to above normal rainfall for the Momase and Southern regions. Below normal rainfall is favoured in the New Guinea Island regions.

**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:  $X \geq 35$