

## Pacific Islands - Online Climate Outlook Forum No 79

**Country:** PAPUA NEW GUINEA

### TABLE 1: Monthly Rainfall

Station (include data period)	March 2014						
	January Total	February Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<b>Momase Region</b>							
Madang (1944-2013)	360.8	240.0	418.2	296.8	398.9	337.1	54/66
Nadzab(1973-2013)	125.0	237.6	153.8	141.3	209.9	153.3	20/39
Wewak (1894-2013)	168.2	166.2	135.8	132.5	187.3	164.8	23/58
Vanimo (1918-2013)	287.6	131.4	168.4	214.8	350.2	271.0	7/62
<b>New Guinea Islands</b>							
Momote (1949-2013)	344.0	306.6	154.0	266.6	333.3	295.1	5/64
Kavieng (1916-2013)	441.8	242.0	286.2	253.9	367.9	312.6	33/83
<b>Southern Region</b>							
Misima (1917-2013)	303.4	367.0	241.0	213.8	320.0	254.1	41/89
Port Moresby(1875-2013)	263.0	131.4	220.2	136.9	240.8	181.4	79/126

### TABLE 2: Three-monthly Rainfall (January- March 2014)

*Predictors: SSTa's 1& 9—Period: September -November 2013*

[Please note that the data used in this verification should be sourced from table 3 of OCOF #75]

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 (1944-2013)	1019.0	899.3	1077.5	967.2	38/66	37/38/25(9.9)	Consistent
Nadzab (1973-2013)	516.4	434.0	525.8	469.0	25/38	33/38/29(1.5)	Consistent
Wewak (1894-2013)	470.2	374.8	454.6	428.8	40/58	36/18/46(2.3)	Consistent
Vanimo (1918-2013)	587.4	723.4	1003.2	878.7	11/59	35/24/41(1.1)	Inconsistent
<b>New Guinea Islands</b>							
Momote (1949-2013)	804.6	751.7	894.6	807.8	32/64	27/22/51(3.7)	Near Consistent
Kavieng (1916-2013)	970.0	841.0	1011.8	936.4	47/80	40/23/37(1.7)	Near Consistent
<b>Southern Region</b>							
Misima (1917-2013)	911.4	715.4	933.6	778.3	55/85	25/38/37(11.2)	Consistent
Port Moresby (1875-2013)	614.6	505.3	635.5	570.0	77/126	16/48/36(-0.3)	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 May to July 2014**

*Predictors: [NINO3.4 SST Anomalies-Period: January 2013 – March 2014](#)*

<b>Period:Station</b>	<b>Below Median (prob)</b>	<b>Median Rainfall (mm)</b>	<b>Above Median (prob)</b>		<b>LEPS (%)</b>	<b>Hit-rate (%)</b>
<b>Momase Region</b>						
Madang (1944-2013)	34	746.1	66		12.2	69.8
Nadzab(1973-2013)	48	288.0	52		-2.4	59.5
Wewak (1894-2013)	40	632.6	60		5.0	58.6
Vanimo (1918-2013)	52	613.5	48		-1.4	52.1
<b>New Guinea Islands</b>						
Momote (1949-2013)	49	874.5	51		-1.5	43.8
Kavieng (1916-2013)	50	719.8	50		-1.9	19.6
<b>Southern Region</b>						
Misima(1917-2013)	21	634.9	79		40	75.4
Port Moresby(1875-2013)	39	118.2	61		3.7	57.8

<b>Station</b>	<b>Below Normal (prob)</b>	<b>33%ile rainfall (mm)</b>	<b>Normal (prob)</b>	<b>66%ile rainfall (mm)</b>	<b>Above Normal (prob)</b>	<b>Leps (%)</b>	<b>Hit-rate (%)</b>
<b>Momase Region</b>							
Madang (1944-2013)	14	641.2	33	821.4	53	18.5	49.2
Nadzab(1973-2013)	36	259.6	28	380.0	36	-3.4	24.3
Wewak (1894-2013)	20	560.6	37	659.2	43	8	44.8
Vanimo (1918-2013)	37	576.2	32	690.0	31	-1.9	25
<b>New Guinea Islands</b>							
Momote (1949-2013)	41	792.7	26	1015.0	33	0.2	39.1
Kavieng (1916-2013)	29	631.5	49	805.8	22	0.3	51.8
<b>Southern Region</b>							
Misima(1917-2013)	7	501.1	37	865.0	56	40.6	57.4
Port Moresby(1875-2013)	24	82.1	32	148.7	44	6.3	45.3

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for May to July 2014**

<b>Station</b>	<b>Lower Tercile (prob)</b>	<b>33%ile rainfall (mm)</b>	<b>Middle Tercile (prob)</b>	<b>66%ile rainfall (mm)</b>	<b>Upper Tercile (prob)</b>
<b>Momase Region</b>					
Madang	67	878	5	1091	28
Wewak	70	560	21	671	9
<b>New Guinea Islands</b>					
Momote	30	703	42	860	28
Kavieng	39	689	22	838	39
<b>Southern Region</b>					
Misima	70	612	9	823	21
Port Moresby	61	189	15	294	24

## Summary Statements:

### **Rainfall for March 2014:**

During March, above sixty percent of the stations in the three regions received Normal rainfall with Below Normal to Above Normal received in the other stations.

### **Accumulated rainfall for January - March 2014, including outlook verification**

Rainfall over period Jan – Mar 2014 was Normal across all regions while Wewak received Above Normal rainfall and Vanimo received Below Normal rainfall.

The SCOPIC forecasts for the 3 months period were Consistent at majority of the stations, Near-Consistent at the 2 stations in the New Guinea Islands Region and Inconsistent at Vanimo. The skills ranged from very low to good.

### **Outlook for -May- July 2014:**

#### **1. SCOPIC:**

The SCOPIC seasonal rainfall outlook for May to July 2014 shows:

- The most likely outcome for Madang, Wewak and the Southern region is Above Normal, with the next most likely is Normal.
- The most likely outcome for Kavieng is Normal with Below Normal the next most likely.
- The most likely outcome for Vanimo and Momote is Below Normal. The next most likely outcome for Vanimo is Normal and the next most likely outcome for Momote is Above Normal.
- There is an equal chance of Below Normal and Above Normal for Nadzab with Normal the least likely.

#### **2. POAMA:**

The POAMA model favours Below Normal across the country expect for Momote with Normal.

For Kavieng, there is an equal chance of Below Normal and Above Normal, with Normal the least likely.

**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:  $X \geq 35$