

Pacific Islands - Online Climate Outlook Forum No 83

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

Station (include data period)	July 2014						
	May Total	June Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2014)	-	-	184.2				
Nadzab(1973-2014)	48.0	60.8	240.2	69.9	129.5	117.0	9/59
Wewak (1894-2014)	159.4	140.8	105.4	155.0	206.4	180.2	35/40
Vanimo (1918-2014)	124.4	339.0	62.0	136.3	219.3	188.6	6/60
New Guinea Islands							
Momote (1949-2014)	181.4	639.6	691.0	307.7	397.9	349.2	*63/66
Kavieng (1916-2014)	177.2	-	424.6				
Southern Region							
Misima (1917-2014)	201.8	93.0	11.0	90.0	191.8	136.5	*1/89
PortMoresby(1875-2014)	0.0	16.2	7.6	4.4	24.0	13.2	48/115

TABLE 2: Three-monthly Rainfall (May-July 2014)

Predictor ***NINO3.4 SST Anomalies*** :-Period: ***January 2014 -March 2014***

(Please note that the data used in this verification should be sourced from table 3 of OCOF #79)

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 (1944-2014)	-	641.2	821.4	746.1			
Nadzab (1973-2014)	349.0	259.6	380.0	288.0	23/38	36/28/36 [-3.4]	Near consistent
Wewak (1894-2014)	405.6	560.6	659.2	632.6	11/59	20/37/43 [8]	Inconsistent
Vanimo (1918-2014)	525.4	576.2	690.0	613.5	16/59	36/32/32 [-1.9]	Consistent
New Guinea Islands							
Momote (1949-2014)	1512.0	792.7	1015.0	874.5	*65/66	41/26/33 [0.2]	Inconsistent
Kavieng (1916-2014)	-	631.5	805.8	719.8			
Southern Region							
Misima (1917-2014)	305.8	501.1	865.0	634.9	11/87	7/37/56 [40.6]	Inconsistent
Port Moresby (1875-2014)	23.8	82.1	148.7	118.2	10/106	24/32/44 [6.3]	Inconsistent

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 September to November 2014

Predictors: [NINO3.4 SST Anomalies](#)-Period: [June- July 2014](#)

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2014)						
Nadzab(1973-2014)	54	274.6	46		5.8	62.2
Wewak (1894-2014)	54	593.9	46		9.3	59.6
Vanimo (1918-2014)	53	537.2	47		2.3	61.7
New Guinea Islands						
Momote (1949-2014)	48	718.3	52		0.1	60.9
Kavieng (1916-2014)						
Southern Region						
Misima(1917-2014)	59	705.2	41		16.7	67.7
Port Moresby(1875-2014)	59	109.2	41		24.1	73.4

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	Leps (%)	Hit-rate (%)
Momase Region							
Madang (1944-2014)							
Nadzab(1973-2014)	36	229.0	36	340.6	28	11.2	51.4
Wewak (1894-2014)	35	530.0	33	647.4	32	10.5	35.1
Vanimo (1918-2014)	37	491.2	37	602.9	26	8	36.2
New Guinea Islands							
Momote (1949-2014)	33	635.8	34	786.6	33	-1.9	23.4
Kavieng (1916-2014)							
Southern Region							
Misima(1917-2014)	38	559.0	32	868.0	30	13.7	40.3
Port Moresby(1875-2014)	39	85.9	39	150.1	22	20	48.4

TABLE 4: Seasonal Climate Outlooks using POAMA2 for September to November 2014

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang	45	311	22	568	33
Wewak	21	454.0	12	627.0	67
New Guinea Islands					
Momote	24	650.0	49	857.0	27
Kavieng	33	489	28	659	39
Southern Region					
Misima	27	226.0	25	593.0	48
Port Moresby	67	36.0	9	81.0	24

Summary Statements:

Rainfall for July 2014

Normal to Above Normal rainfall across the country except for Misima station receiving Below Normal rainfall. Kavieng and Madang had some missing data.

Accumulated rainfall for May to July 2014, including outlook verification

Rainfall for the period May to July was Below Normal except for two stations. Nadzab received Normal and Momote received Above Normal, ranking 2nd highest (65/66).

Inconsistent forecast at all stations except Vanimo (Consistent) and Nadzab (Near-consistent) with very low skills.

Outlook for – September to November 2014:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for Sept to Nov 2014 shows:

- The outlook offers little guidance for Nadzab, Wewak, Momote and Misima for the coming season as the chances of above-normal, normal and below-normal rainfall are similar. For Vanimo and Port Moresby below normal and normal rainfall are equally favoured.

2. POAMA:

The POAMA model favours Below Normal rainfall for Madang and Port Moresby, Normal rainfall for Momote and Above Normal for Wewak and Misima. The outlook offers little guidance for Kavieng for the coming season as the chances of above-normal, normal and below-normal rainfall are similar

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: $X \geq 35$