

Pacific Islands - Online Climate Outlook Forum No 89

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

Station (include data period)	January 2015						
	November 2014 Total	December 2014 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2015)	244.2	463.4	251.4	283.1	382.1	345.1	18/67
Nadzab(1973-2015)	174.0	151.8	155.6	128.5	182.5	150.2	21/40
Wewak (1894-2015)	307.4	136.0	102.0	104.6	161.0	134.4	21/60
Vanimo (1918-2015)	133.6	275.6	202.6	204.2	345.4	281.6	21/64
New Guinea Islands							
Momote (1949-2015)	183.0	474.0	-	233.4	318.8	268.3	-
Kavieng (1916-2015)	387.4	441.0	356.6	270.9	362.9	322.9	54/85
Southern Region							
Misima (1917-2015)	85.4	-	-	197.0	326.2	276.0	-
PortMoresby(1875-2015)	64.8	50	153.6	132.1	219.4	175.3	54/127

TABLE 2: Three-monthly Rainfall (November 2014-January 2015)

Predictor *NINO3.4 SST Anomalies* :-Period: August – September 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #85]

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 (1944-2015)	959.0	959.0	1132.5	1044.3	23/67	32/34/34 (-1.2)	Near-Consistent
Nadzab (1973-2015)	481.4	361.9	429.4	400.5	29/39	33/34/33 (-2.9)	Near-Consistent
Wewak (1894-2015)	545.4	437.9	542.7	480.4	40/58	35/34/31 (4.3)	Inconsistent
Vanimo (1918-2015)	611.8	644.2	823.9	734.8	18/56	34/34/33 (-2.7)	Near-Consistent
New Guinea Islands							
Momote (1949-2015)	-	731.8	882.1	847.4	-	30/35/35 (2.7)	-
Kavieng (1916-2015)	1185.0	770.9	946.1	844.8	79/83	33/34/34 (-1.9)	Near-Consistent
Southern Region							
Misima (1917-2015)	-	604.1	780.8	704.6	-	35/33/32 (-0.4)	-
Port Moresby (1875-2015)	268.4	303.8	426.6	368.0	26/116	35/38/27 (14.3)	Near-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 2015

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

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2014)	49	1151.9	51		-1.5	44.4
Nadzab(1973-2014)	48	385.8	52		-2.4	39.5
Wewak (1894-2014)	53	608.3	47		-1.1	63.8
Vanimo (1918-2014)	50	708.4	50		-2.0	24.0
New Guinea Islands						
Momote (1949-2014)	50	821.0	50		-1.6	37.5
Kavieng (1916-2014)	50	834.0	50		-1.8	26.3
Southern Region						
Misima(1917-2014)	75	787.0	25		30.7	68.9
Port Moresby(1875-2014)	58	381.3	42		4.9	60.9

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)	32	1001.9	35	1209.6	33	-1.9	19.0
Nadzab(1973-2014)	29	356.7	32	431.1	39	0.5	34.2
Wewak (1894-2014)	40	513.0	23	654.4	37	-0.9	41.4
Vanimo (1918-2014)	36	590.8	27	839.9	37	-2.0	26.0
New Guinea Islands							
Momote (1949-2014)	32	719.8	34	884.8	34	-1.6	18.8
Kavieng (1916-2014)	23	761.2	41	947.2	36	2.7	50.9
Southern Region							
Misima(1917-2014)	49	683.6	35	998.7	16	22.1	44.3
Port Moresby(1875-2014)	39	307.3	37	450.4	24	3.0	37.5

TABLE 4: Seasonal Climate Outlooks using POAMA2 for March to May 2015

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang	49	904	21	1154	30
Wewak	46	428	12	575	42
New Guinea Islands					
Momote	37	720	33	844	30
Kavieng	46	774	30	989	24
Southern Region					
Misima	64	708	31	930	5
Port Moresby	55	465	24	593	21

Summary Statements:

Rainfall for January 2015

Below Normal to Normal rainfall was received across the country.

Accumulated rainfall for November 2014 to January 2015, including outlook verification

Below normal was received in the Southern Region, above normal was received over the New Guinea Islands and below normal to above normal was received in the Momase Region. The forecasts were near-consistent for all the three regions except for Wewak which was inconsistent.

Outlook for - March - May 2015:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for March to May 2015 shows:

- **Momase Region:** There is a near equal chance of below normal, normal and above normal at Madang. The most likely outcome for Nadzab is above normal and for Wewak is below normal. At Vanimo there is a near equal likelihood of below normal or above normal.
- **New Guinea Islands:** There is little guidance for Momote as the chances of below normal, normal and above normal are similar. At Kavieng the most likely outcome is normal.
- **Southern Region:** The most likely outcome for Misima is below normal and for Port Moresby there is a near equal chance of below normal and normal.
- Confidence is very low at all the stations in the Momase Region and one station in the New Guinea Islands (Momote). Low at Kavieng and Port Moresby and high at Misima.

2. POAMA:

The POAMA model favours Below Normal for the three regions, Momase, New Guinea Islands and Southern Region.

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: $X \geq 35$