Pacific Islands - Online Climate Outlook Forum No 106

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

Station (include data period)			June 2016				
	Apr 2016 Total	May 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2016)	353.8	151.0	222.6	153.1	226.2	205.2	42/66
Nadzab(1973-2016)	239.6	72.2	67.2	62.4	121.0	81.0	18/42
Wewak (1894-2016)	305.8	149.2	306.2	169.9	226.3	191.2	55/61
Vanimo (1918-2016)	177.6	165.2	-	167.4	246.6	208.6	-
Highlands Region							
Goroka (1948-2016)	362.6	69.0	63.6	44.6	76.0	55.0	30/52
New Guinea Islands							
Momote (1949-2016)	228.6	383.6	336.0	222.4	312.9	273.6	52/68
Kavieng (1916-2016)	272.0	266.0	-	191.7	267.1	215.8	-
Southern Region							
Misima (1917-2016)	-	-	-	121.7	282.9	205.0	-
PortMoresby(1875-2016)	73.6	10.0	21.2	10.9	43.3	23.4	56/119

TABLE 2: Three-monthly Rainfall (April - June 2016)

Predictor NINO3.4 SST Anomalies:–Period: January – February 2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #102]

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 (1944-2016)	727.4	901.2	1086.6	1017.7	10/65	59/36/5 (8.8)	Consistent
Nadzab (1973-2016)	379.0	268.8	347.1	313.4	31/40	56/19/25 (-2.2)	Inconsistent
Wewak (1894-2016)	761.2	564.3	669.7	639.3	49/61	58/21/21 (0.6)	Inconsistent
Vanimo (1918-2016)	-	576.9	733.3	650.4	-	21/**40**/**39** (-1.4)	-
Highlands Region							
Goroka (1948-2016)	495.2	333.0	425.3	391.5	44/49	46/32/22 (-1.3)	Inconsistent
New Guinea Islands							
Momote (1949-2016)	948.2	705.1	893.1	806.9	51/67	41/34/25 (-0.9)	Inconsistent
Kavieng (1916-2016)	-	688.5	888.7	777.3	-	21/33/46 (-1.2)	-
Southern Region							
Misima (1917-2016)	-	615.0	919.4	764.9	-	79/21/0 (22.6)	-
PortMoresby (1875-2016)	104.8	175.9	268.7	639.3	17/115	70/25/5 (9.2)	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 August to October 2016

Predictors: NINO3.4 SST Anomalies-*Period:* May - June 2016

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2016)	82	496.6	18		21.6	76.6
Nadzab(1973-2016)	68	331.8	32		9.3	61.5
Wewak (1894-2016)	84	574.8	16		27.9	71.7
Vanimo (1918-2016)	63	517.2	37		2.7	57.1
Highlands Region						
Goroka (1948-2016)	50	335.1	50		-2.1	22.9
New Guinea Islands						
Momote (1949-2016)	41	772.5	59		1.0	59.1
Kavieng (1916-2016)	47	625.0	43		-1.5	53.4
Southern Region						
Misima(1917-2016)	86	617.1	14		31.3	77.8
Port Moresby(1875-2016)	50	74.8	50		-1.6	1.5

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	Leps (%)	Hit-rate (%)
Momase Region							
Madang (1944-2016)	70	404.8	22	635.6	8	25.7	54.7
Nadzab(1973-2016)	51	242.1	22	395.1	27	3.1	53.8
Wewak (1894-2016)	72	495.8	20	662.1	8	26.4	50
Vanimo (1918-2016)	37	484.5	34	551.8	29	-1.9	20.4
Highlands Region							
Goroka (1948-2016)	34	269.7	32	372.5	34	-2.7	6.3
New Guinea Islands							
Momote (1949-2016)	33	643.5	30	901.6	37	-1.5	33.3
Kavieng (1916-2016)	36	506.2	31	712.0	32	-1.9	27.6
Southern Region							
Misima(1917-2016)	65	456.0	32	766.7	4	29.1	52.4
Port Moresby(1875-2016)	42	58.7	24	96.2	34	-0.3	39.4

TABLE 4: Seasonal Climate Outlooks using POAMA2 for August to October 2016

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang	36	311	18	568	46
Nadzab	42	199	16	342	42
Wewak	15	454	49	627	36
New Guinea Islands					
Momote	70	650	24	857	6
Kavieng	76	489	12	659	12
Southern Region					
Misima	33	226	12	593	55
Port Moresby	42	36	6	81	52
Daru	5	63	74	134	21

Summary Statements:

Rainfall for June 2016

Rainfall for the month of June was Normal at Madang, Nadzab, Goroka and Port Moresby whilst above normal at Wewak and Momote.

Accumulated rainfall for April to June 2016, including outlook verification

Rainfall for the last three months was below normal at Madang and Port Moresby whilst rest of the stations observed above normal rainfall.

Forecasts were inconsistent for all the stations except for Madang.

Outlook for – August to October 2016:

1. **SCOPIC:**

The SCOPIC seasonal rainfall outlook for August to October 2016 shows:

- **Momase Region**: Below normal is favoured
- **New Guinea Islands**: Momote has chances of above normal with below normal the next most likely. Kavieng shows below normal with normal to above normal the next most likely.
- **Southern Region:** Below normal is favoured for this region
- **Highlands Region:** Equal chances of below to above normal
- Confidence is very low for most monitoring stations whilst very high for Madang & Wewak in Momase region and Misima in Southern region.

2. **POAMA:**

The POAMA model favours below normal for New Guinea Islands Region whilst normal to above normal is favoured for Momase 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: $X \geq 35$