Pacific Islands - Online Climate Outlook Forum No 114

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

Station (include data period)			February 2017				
	Dec 2016 Total	Jan 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2017)	307.0	248.8	-	232.1	343.3	284.9	-
Nadzab(1973-2017)	127.4	222.0	46.0	111.5	190.0	163.1	2/43
Wewak (1894-2017)	196.4	208.4	104.2	106.6	143.4	119.7	21/61
Vanimo (1918-2017)	417.0	-	346.0	200.7	307.1	262.4	-
Highlands Region							
Goroka (1948-2017)	175.8	346.0	228.0	194.7	268.7	237.8	27/54
New Guinea Islands							
Momote (1949-2017)	266.2	280.8	211.8	201.6	289.2	227.4	26/67
Kavieng (1916-2017)	221.8	374.6	467.0	233.7	306.0	264.8	80/87
Southern Region							
Misima (1917-2017)	-	-	-	231.0	358.7	302.9	-
Port Moresby(1875-2017)	154.0	233.2	122.0	140.9	220.1	168.6	38/129

TABLE 2: Three-monthly Rainfall (Dec 2016 – Feb 2017)

Predictor NINO3.4 SST Anomalies:–Period: Sep – Oct 2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #110]

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 (1944-2017)	-	941.0	1125.0	1014.7	-	45/27/28 (11.2)	-
Nadzab (1973-2017)	395.4	429.0	527.8	493.1	12/41	39/37/24 (3.0)	Consistent
Wewak (1894-2017)	509.0	362.5	460.9	412.0	47/60	26/36/38 (2.3)	Consistent
Vanimo (1918-2017)	-	718.6	918.0	807.8	-	38/29/33 (-1.7)	-
Highlands Region							
Goroka (1948-2017)	749.8	629.7	734.4	681.0	35/48	32/34/34 (-2.4)	Near-consistent
New Guinea Islands							
Momote (1949-2017)	758.8	757.6	894.5	816.4	24/67	39/30/31 (1.4)	Near-consistent
Kavieng (1916-2017)	1,063.4	840.9	985.1	912.4	65/84	47/25/28 (10.4)	Inconsistent
Southern Region							
Misima (1917-2017)	-	682.5	886.2	766.5	-	29/31/40 (2.8)	-
PortMoresby (1875-2017)	509.2	420.0	562.0	466.8	77/125	21/34/45 (10.1)	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 April to June 2017

Predictors: NINO3.4 SST Anomalies-*Period:* January - February 2017

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2016)	46	1010.2	54		6.0	60.9
Nadzab(1973-2016)	49	316.2	51		-2.3	50.0
Wewak (1894-2016)	50	641.8	50		-1.6	31.1
Vanimo (1918-2016)	51	648.4	49		0.1	53.8
Highlands Region						
Goroka (1948-2016)	50	393.0	50		-2.3	38.3
New Guinea Islands						
Momote (1949-2016)	50	809.8	50		-1.2	53.7
Kavieng (1916-2016)	51	788.8	49		-0.4	53.4
Southern Region						
Misima(1917-2016)	47	764.9	53		16.0	65.1
Port Moresby(1875-2016)	44	207.8	56		14.1	65.7

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)	30	900.7	34	1083.8	36	9.8	46.9
Nadzab(1973-2016)	32	268.8	35	352.0	33	-3.0	17.5
Wewak (1894-2016)	31	566.2	35	671.6	34	-1.1	37.7
Vanimo (1918-2016)	34	574.6	33	728.5	33	-2.2	28.8
Highlands Region							
Goroka (1948-2016)	33	335.0	33	428.0	34	-2.3	19.1
New Guinea Islands							
Momote (1949-2016)	33	705.4	34	893.8	33	-1.4	35.8
Kavieng (1916-2016)	35	688.9	34	898.4	31	0.2	34.5
Southern Region							
Misima(1917-2016)	29	615.0	39	919.4	32	22.6	52.4
Port Moresby(1875-2016)	27	174.3	36	268.2	37	10.7	46.3

TABLE 4: Seasonal Climate Outlooks using POAMA2 for April - June 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang	61	878	5	1091	34
Nadzab	58	249	6	342	36
Wewak	73	560	6	671	21
New Guinea Islands					
Momote	36	703	25	860	39
Kavieng	39	689	13	838	48
Southern Region					
Misima	82	612	5	823	13
Port Moresby	70	189	9	294	21
Daru	27	548	55	816	18

Summary Statements:

Rainfall for February 2017

Rainfall for the month of February was normal for Goroka, Momote and Port Moresby. Vanimo and Kavieng received above normal whilst Nadzab and Wewak received below normal.

Accumulated rainfall for December 2016 to February 2017, including outlook verification

Rainfall for the last three months was normal at Momote and Port Moresby, below normal at Nadzab and above normal at three monitoring stations.

Forecasts were consistent in the Momase Region, near-consistent in the Highlands and Southern Region, whilst New Guinea Islands Region forecasted for near-consistent and inconsistent for Momote and Kavieng respectively.

The skills range from very low to good.

Outlook for April to June 2017:

1. **SCOPIC:**

   The SCOPIC seasonal rainfall outlook for April to June 2017 shows:

   - **Momase Region**: The four monitoring stations have equal chances of below normal to normal to above normal occurring respectively.
   - **Highlands Region:** There is an equal chance of either below normal to normal to above normal rainfall for Goroka.
   - **New Guinea Islands**: The two monitoring stations have equal chances of below normal to normal to above normal occurring respectively.
   - **Southern Region:** For Misima, the chances of below-normal, normal and above-normal are roughly equal. Port Moresby has an equal chance of normal to above normal occurring.

     Confidence range from very low to high.

2. **POAMA:**

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: $X \geq 35$