Pacific Islands - Online Climate Outlook Forum No 113

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

Station (include data period)			January 2017				
	Nov 2016 Total	Dec 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2016)	366.0	-	248.8	281.3	379.5	344.0	
Nadzab(1973-2016)	156.4						
Wewak (1894-2016)	215.0	196.4	208.4	101.8	157.4	130.8	
Vanimo (1918-2016)	399.8						
Highlands Region							
Goroka (1948-2016)	235.0	175.8					
New Guinea Islands							
Momote (1949-2016)	364.4	266.2	280.8	239.7	319.1	271.1	
Kavieng (1916-2016)	233.0	221.8	374.6	272.5	360.7	322.9	
Southern Region							
Misima (1917-2016)		-					
Port Moresby (1875-2016)	15.4	154	233.2	131.2	216.3	172.0	

TABLE 2: Three-monthly Rainfall (Nov 2016 - Jan 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 #109]

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)		959	1132	1041.2		**35**/32/33 (-1.4)	
Nadzab (1973-2016)	-	381	442.6	403.7		**36** / 32 /32 (-2.4)	
Wewak (1894-2016)	**619.8**	435.9	543.1	480.4		23/36/**41** (7.5)	Consistent
Vanimo (1918-2016)		640.2	822.8	731.3		32/ 33/ **35** (-2.4)	
Highlands Region							
Goroka (1948-2016)	-	516.4	641.8	569.4		**35**/ 31/ 34/(-2.1)	
New Guinea Islands							
Momote (1949-2016)	**911.4**	731	883.7	827.4		**36**/ 33/31(1)	Inconsistent
Kavieng (1916-2016)	**829.4**	776	949.7	849.2		**35**/32/33 (-1.6)	Near Consistent
Southern Region							
Misima (1917-2016)	-	602.0	778.4	702.0		26/**37**/**37**(2.2)	
Port Moresby (1875-2016)	**402.6**	297.4	422.6	362		20/36/**44**(15)	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 2017

Predictors: **NINO3.4 SST Anomalies*-Period:*** **November- December 2016**

Period:Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%)	Hit-rate (%)
Momase Region						
Madang (1944-2016)	48	1145.3	**52**		-0.9	56.9
Nadzab(1973-2016)	**52**	388.7	48		-1.9	
Wewak (1894-2016)	46	595.5	**54**		0.4	63.3
Vanimo (1918-2016)	49	708.4	**51**		-1.9	28.8
Highlands Region						
Goroka (1948-2016)	**55**	560.8	45		1.2	55.3
New Guinea Islands						
Momote (1949-2016)	50	821.0	**50**		-1.5	22.7
Kavieng (1916-2016)	**52**	832.6	48		-1.2	51.7
Southern Region						
Misima(1917-2016)	34	794.4	**66**		26.8	69.4
Port Moresby (1875-2016)	42	381.3	**58**		5.8	60.2

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)	31	997.9	**35**	1205.6	34	-1.5	21.5
Nadzab (1973-2016)	**38**	361.8	32	428.6	30	0.5	22.5
Wewak (1894-2016)	27	511.5	**39**	648.7	34	1.0	43.3
Vanimo (1918-2016)	33	605.5	**36**	840.2	31	-1.8	32.7
Highlands Region							
Goroka (1948-2016)	**38**	491.7	36	611.3	26	3.8	38.3
New Guinea Islands							
Momote (1949-2016)	**34**	716.8	**34**	894.3	32	-1.4	15.2
Kavieng (1916-2016)	**39**	751.0	27	946.8	34	1.9	50.0
Southern Region							
Misima(1917-2016)	19	686.2	38	1010.0	**43**	19.3	48.4
Port Moresby (1875-2016)	27	303.6	34	450.5	**39**	5.0	42.4

TABLE 4: Seasonal Climate Outlooks using POAMA2 for March to May 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)
Momase Region					
Madang					
Nadzab					
Wewak					
New Guinea Islands					
Momote					
Kavieng					
Southern Region					
Misima					

Port Moresby					
Daru					

Summary Statements:

Rainfall for January 2017

Rainfall for the month of January was normal for Momote and above normal for Wewak, Kavieng and Port Moresby whilst Madang received below normal rainfall.

Accumulated rainfall for November 2016 to January 2017, including outlook verification

Rainfall for the last three months was normal Kavieng and Port Moresby, Wewak and Momote whilst Madang received below normal rainfall.

Forecasts were consistent for Madang and Wewak, near consistent for Kavieng and Port Moresby whilst inconsistent for Momote station.

The skills range from very low to high.

Outlook for – March to April 2017:

1. **SCOPIC:**

   The SCOPIC seasonal rainfall outlook for March to May 2017 shows:

   - **Momase Region**: The most likely outlook for Wewak is normal. There is little guidance for the other 3 stations as chances of below normal, normal and above normal are similar respectively.
   - **New Guinea Islands**: Below normal is favoured for Kavieng. Momote has an equal chance of below normal to normal to above normal occurring.
   - **Highlands Region:** There is an equal chance of either below normal to normal to above normal rainfall for Goroka.
   - **Southern Region:** Above normal is favoured for Misima and Port Moresby with normal the next most likely.

     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 ≤ X < 5 Moderate 5 ≤ X < 10 Good: 10 ≤ X < 15 High: 15≤ X < 25

Very High: 25 ≤X < 35 Exceptional: X ≥ 35