

Pacific Islands - Online Climate Outlook Forum No 111

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

Station (include data period)	November 2016						
	Sep 2016 Total	Oct 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<b>Momase Region</b>							
Madang (1944-2016)	243.2	81.0	366.0	273.8	370.0	323.2	45/68
Nadzab(1973-2016)	283.0	-	156.4	79.6	113.9	88.5	-
Wewak (1894-2016)	-	251.4	215.0	152.7	236.1	188.8	-
Vanimo (1918-2016)	183.8	196.4	399.8	160.0	235.6	194.7	58/59
<b>Highlands Region</b>							
Goroka (1948-2016)	151.2	249.0	235.0	130.0	180.0	157.0	43/50
<b>New Guinea Islands</b>							
Momote (1949-2016)	290.6	185.4	-				-
Kavieng (1916-2016)	286.6	254.2	233.0	195.4	271.5	225.9	48/89
<b>Southern Region</b>							
Misima (1917-2016)	-	-	-			-	-
Port Moresby(1875-2016)	10.2	30.6	15.4	24.5	74.9	40.6	31/120

TABLE 2: Three-monthly Rainfall (Sept - November 2016)

Predictor NINO3.4 SST Anomalies:—Period: June – July 2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #107]

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?)
<b>Momase Region</b>							
Madang (1944-2016)	690.2	635.1	845.8	739.8	30/66	28/42/30 (29.9)	Consistent
Nadzab (1973-2016)	-	227.6	349.4	274.6	-	29/37/34 (15.6)	-
Wewak (1894-2016)	-	529.6	648.6	593.9	-	27/37/36 (18.2)	-
Vanimo (1918-2016)	780.0	493.1	617.9	537.3	55/55	34/35/31 (6.9)	Inconsistent
<b>Highlands Region</b>							
Goroka (1948-2016)	635.2	355.0	464.7	420.0	47/49	33/33/34 (-0.6)	Consistent
<b>New Guinea Islands</b>							
Momote (1949-2016)	-	633.8	791.0	718.3	-	33/33/34 (-1.9)	-
Kavieng (1916-2016)	773.8	553.8	763.4	655.5	58/86	33/33/34 (-0.5)	Consistent
<b>Southern Region</b>							
Misima (1917-2016)	-	-	-		-		-
PortMoresby (1875-2016)	56.2	85.0	151.4	109.2	21/113	31/39/30(18.7)	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 January 2017 to March 2017**

*Predictors: [NINO3.4 SST Anomalies-Period: \[September- October 2016\]\(#\)](#)*

<b>Period:Station</b>	<b>Below Median (prob)</b>	<b>Median Rainfall (mm)</b>	<b>Above Median (prob)</b>		<b>LEPS (%)</b>	<b>Hit-rate (%)</b>
<b>Momase Region</b>						
Madang (1944-2016)	<b>64</b>	959.6	36		14.2	66.7
Nadzab(1973-2016)	<b>63</b>	473.3	37		9.5	57.5
Wewak (1894-2016)	41	428.3	<b>59</b>		5.3	61.7
Vanimo (1918-2016)	<b>59</b>	878.7	41		5.5	57.7
<b>Highlands Region</b>						
Goroka (1948-2016)	<b>60</b>	709.2	<b>40</b>		5.9	57.1
<b>New Guinea Islands</b>						
Momote (1949-2016)	<b>60</b>	806.2	40		6.5	57.6
Kavieng (1916-2016)	<b>65</b>	942.1	35		15.1	63.3
<b>Southern Region</b>						
Misima(1917-2016)	39	785.4	<b>61</b>		8.2	63.5
Port Moresby(1875-2016)	37	571.9	<b>63</b>		10.6	65.2

<b>Station</b>	<b>Below Normal (prob)</b>	<b>33%ile rainfall (mm)</b>	<b>Normal (prob)</b>	<b>66%ile rainfall (mm)</b>	<b>Above Normal (prob)</b>	<b>Leps (%)</b>	<b>Hit-rate (%)</b>
<b>Momase Region</b>							
Madang (1944-2016)	<b>46</b>	895.7	25	1064.7	29	11.3	48.5
Nadzab(1973-2016)	<b>43</b>	435.0	31	625.8	26	6.6	50
Wewak (1894-2016)	26	367.8	35	454.6	<b>39</b>	3.1	43.3
Vanimo (1918-2016)	<b>38</b>	721.3	<b>37</b>	964.0	25	2.9	40.4
<b>Highlands Region</b>							
Goroka (1948-2016)	<b>41</b>	637.6	<b>40</b>	783.4	19	9.1	44.9
<b>New Guinea Islands</b>							
Momote (1949-2016)	<b>39</b>	751.7	<b>39</b>	894.6	22	6.8	24.2
Kavieng (1916-2016)	<b>44</b>	841.0	29	1011.6	27	7.2	38.3
<b>Southern Region</b>							
Misima(1917-2016)	24	715.4	34	933.6	<b>42</b>	8.7	44.4
Port Moresby(1875-2016)	26	505.3	35	635.5	<b>39</b>	2.3	42.4

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for November 2016 to January 2017**

<b>Station</b>	<b>Lower Tercile (prob)</b>	<b>33%ile rainfall (mm)</b>	<b>Middle Tercile (prob)</b>	<b>66%ile rainfall (mm)</b>	<b>Upper Tercile (prob)</b>
<b>Momase Region</b>					
Madang					
Nadzab					
Wewak					
<b>New Guinea Islands</b>					
Momote					
Kavieng					
<b>Southern Region</b>					
Misima					
Port Moresby					
Daru					

## Summary Statements:

### Rainfall for November 2016

Rainfall for the month of November in the Momase Region was above normal for Nadzab and Vanimo and normal for Madang and Wewak. In Kavieng the rainfall was normal while Goroka observed above normal rainfall whilst Port Moresby received below normal rainfall.

### Accumulated rainfall for September to November 2016, including outlook verification

Rainfall for the last three months was normal to above normal for the country, except in Port Moresby where the rainfall was below normal.

Forecasts were inconsistent for Vanimo and near-consistent for Port Moresby whilst the rest of the monitoring stations were consistent. The skills range from very low to very high.

### Outlook for – January 2017 to March 2017:

#### 1. SCOPIC:

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

- **Momase Region:** The most likely outcome for Madang and Nadzab is below normal. Vanimo shows a near equal likelihood for below normal and normal rainfall, with above normal the least likely. Above normal rainfall is favoured for Wewak with normal the next most likely.
- **New Guinea Islands:** Below normal is favoured for Kavieng. There is an equal likelihood of below normal and normal rainfall for Momote with above normal rainfall the least likely.
- **Highlands Region:** A near-equal likelihood of below normal and normal is shown for Goroka.
- **Southern Region:** The outlook shows above normal the most likely outcome, with normal the next most likely for Misima and Port Moresby.

Confidence range from low to good.

#### 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:  $X \geq 35$