

Pacific Islands - Online Climate Outlook Forum No 76

Country: PAPUA NEW GUINEA

TABLE 1: Monthly Rainfall

| Station (include data period) | December 2013 | | | | | | |
|-------------------------------|---------------|----------------|-------|-----------------------|-----------------------|----------------------|---------|
| | October Total | November Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking |
| Momase Region | | | | | | | |
| Madang (1944-2013) | 313.2 | 166.0 | 509.4 | 341.5 | 439.0 | 382.0 | 53/66 |
| Nadzab(1973-2013) | 150.0 | 80.4 | 217.6 | 109.1 | 187.7 | 151.0 | 30/39 |
| Wewak (1894-2013) | 216.6 | 228.2 | 126.8 | 121.1 | 179.5 | 142.8 | 22/58 |
| Vanimo (1918-2013) | 206.4 | 223.8 | 403.2 | 179.4 | 280.2 | 228.6 | 54/60 |
| New Guinea Islands | | | | | | | |
| Momote (1949-2013) | 259.6 | 328.2 | 347.6 | 247.4 | 322.8 | 282.4 | 49/65 |
| Kavieng (1916-2013) | 371.0 | 165.4 | 276.4 | 251.5 | 336.3 | 301.8 | 39/86 |
| Southern Region | | | | | | | |
| Misima (1917-2013) | 190.8 | 124.2 | 244.4 | 160.7 | 258.3 | 215.0 | 54/88 |
| PortMoresby(1875-2013) | 25.4 | 120.6 | 133.6 | 75.6 | 152.1 | 116.0 | 73/123 |

TABLE 2: Three-monthly Rainfall (October-December 2013)

Predictors: SSTa's 1 & 9—Period: June - August 2013

[Please note that the data used in this verification should be sourced from table 3 of OCOF #72]

| 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 (1944-2013) | 988.6 | 865.6 | 1100.2 | 981.6 | 33/65 | 11/60/29 (18.6) | Consistent |
| Nadzab (1973-2013) | 448.0 | 305.4 | 369.0 | 336.8 | 32/38 | 19/37/44 (4.7) | Consistent |
| Wewak (1894-2013) | 571.6 | 537.6 | 645.8 | 573.8 | 27/57 | 27/27/46 (2.8) | Near Consistent |
| Vanimo (1918-2013) | 833.4 | 555.0 | 686.2 | 611.4 | 48/53 | 16/30/54 (24.3) | Consistent |
| New Guinea Islands | | | | | | | |
| Momote (1949-2013) | 935.4 | 688.0 | 866.2 | 773.0 | 55/65 | 30/53/17 (3.2) | Near Consistent |
| Kavieng (1916-2013) | 812.8 | 705.4 | 867.7 | 773.2 | 49/84 | 50/27/23 (3.5) | Near Consistent |
| Southern Region | | | | | | | |
| Misima (1917-2013) | 559.4 | 565.6 | 784.3 | 650.0 | 28/86 | 2/33/65 (29.0) | Inconsistent |
| Port Moresby (1875-2013) | 279.6 | 176.8 | 268.3 | 214.2 | 79/112 | 13/26/61 (19.2) | 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 February to April 2014

Predictors: [SSTa's 1 & 9-Period: October – December 2013](#)

| Period:Station | Below Median (prob) | Median Rainfall (mm) | Above Median (prob) | | LEPS (%) | Hit-rate (%) |
|---------------------------|----------------------------|-----------------------------|----------------------------|--|-----------------|---------------------|
| Momase Region | | | | | | |
| Madang (1944-2013) | 60 | 1046.8 | 40 | | -0.7 | 58.7 |
| Nadzab(1973-2013) | 26 | 457.1 | 74 | | 0.0 | 60.5 |
| Wewak (1894-2013) | 42 | 486.4 | 58 | | -2.8 | 40.4 |
| Vanimo (1918-2013) | 51 | 812.1 | 49 | | -2.5 | 46.0 |
| New Guinea Islands | | | | | | |
| Momote (1949-2013) | 35 | 801.2 | 65 | | -0.3 | 54.0 |
| Kavieng (1916-2013) | 47 | 881.7 | 53 | | 3.8 | 52.6 |
| Southern Region | | | | | | |
| Misima(1917-2013) | 47 | 844.0 | 53 | | 15.4 | 65.0 |
| PortMoresby(1875-2013) | 58 | 517.0 | 42 | | 5.3 | 56.3 |

| Station | Below Normal (prob) | 33%ile rainfall (mm) | Normal (prob) | 66%ile rainfall (mm) | Above Normal (prob) | Leps (%) | Hit-rate (%) |
|---------------------------|----------------------------|-----------------------------|----------------------|-----------------------------|----------------------------|-----------------|---------------------|
| Momase Region | | | | | | | |
| Madang (1944-2013) | 42 | 946.6 | 43 | 1149.4 | 15 | 1.0 | 41.3 |
| Nadzab(1973-2013) | 32 | 358.0 | 28 | 493.7 | 40 | -4.4 | 28.9 |
| Wewak (1894-2013) | 17 | 436.1 | 19 | 530.8 | 64 | 2.4 | 42.1 |
| Vanimo (1918-2013) | 26 | 677.8 | 22 | 911.8 | 52 | 1.7 | 28.0 |
| New Guinea Islands | | | | | | | |
| Momote (1949-2013) | 23 | 756.9 | 25 | 926.3 | 52 | -0.9 | 33.3 |
| Kavieng (1916-2013) | 42 | 793.7 | 9 | 973.6 | 49 | 4.0 | 36.8 |
| Southern Region | | | | | | | |
| Misima(1917-2013) | 48 | 759.2 | 33 | 959.0 | 19 | 22.2 | 65.0 |
| PortMoresby(1875-2013) | 24 | 433.7 | 37 | 593.1 | 39 | 2.4 | 29.7 |

TABLE 4: Seasonal Climate Outlooks using POAMA2 for February to April 2014

| Station | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) |
|---------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------------|-----------------------------|
| Momase Region | | | | | |
| Madang | 42 | 904 | 22 | 1154 | 36 |
| Wewak | 42 | 428 | 25 | 575 | 33 |
| New Guinea Islands | | | | | |
| Momote | 33 | 720 | 37 | 844 | 30 |
| Kavieng | 36 | 774 | 37 | 989 | 27 |
| Southern Region | | | | | |
| Misima | 39 | 708 | 49 | 930 | 12 |
| PortMoresby | 42 | 465 | 25 | 593 | 33 |

Summary Statements:

Rainfall for December 2013:

Normal to *Above Normal* received across the country.

Accumulated rainfall for October-December 2013, including outlook verification

Normal to *Above Normal* rainfall was received across the country except Misima received *Below Normal*.

The forecasts were *Near-Consistent* to *Consistent* across the country whilst Misima being *Inconsistent*. The skills ranged from low to very high.

Outlook for February - April 2014:

1. SCOPIC:

The SCOPIC Model favours *Above Normal* across the country with very low to low skills whilst *Normal* for Madang with low skill and *Below Normal* for Misima with high skill.

2. POAMA:

The POAMA Model favours *Below Normal* to *Normal* across the country.

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: $X \geq 35$