Pacific Islands - Online Climate Outlook Forum (OCOF) No. 113

Country Name: Samoa

TABLE 1: Monthly Rainfall

| Station (include data period) | | | January 2017 | | | | | | |
|-------------------------------|---------------------------|---------------------------|--------------|-----------------------------|-----------------------------|-------------------------|---------|--|--|
| | November 2016 Total | December 2016 Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking | | |
| Afiamalu | 372.4 | 834.2 | 497.5 | 552.1 | 760.8 | 645.4 | 18/64 | | |
| Nafanua | 156.8 | 757.3 | 338.8 | 352.0 | 720.2 | 442.5 | 13/43 | | |
| Apia | 111.6 | 560.4 | 270.4 | 355.8 | 489.1 | 399.6 | 23/128 | | |
| Faleolo | 231.8 | 382.7 | 226.5 | 213.8 | 361.9 | 293.5 | 22/57 | | |

TABLE 2: Three-monthly Rainfall November 2016 to January 2017

[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 | Forecast probs.* (include LEPS) | Verification* (Consistent, Near-consistent Inconsistent? |
|----------|----------------------|-----------------------------|-----------------------------|----------------------------|---------|------------------------------------|---|
| Afiamalu | 1704.1 | 1445.8 | 1993.1 | 1767.2 | 30/62 | 29/29/ 42 | Near |
| | | | | | | (14.2) | consistent |
| Nafanua | 1252.6 | 1083.4 | 1490.6 | 1337.2 | 20/40 | 16/41/ 43 | Near |
| | | | | | | (17.5) | consistent |
| Apia | 942.4 | 968.6 | 1205.0 | 1056.0 | 41/126 | 27/36/ 37 | Inconsistent |
| | | | | | | (4.0) | |
| Faleolo | 841.0 | 689.4 | 897.6 | 772.0 | 34/55 | 27/36/ 37 | Near |
| | | | | | | (2.4) | consistent |

Period:*below normal/normal/above normal

Predictors and Period used for October to December 2016 Outlooks (refer to OCOF #109):

Nino 3.4 values from June to August 2016

Forecast is <u>consistent</u> when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is <u>near-consistent</u> 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 <u>inconsistent</u> when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).

TABLE 3: Seasonal Climate Outlooks using SCOPIC for March to May 2017

Predictors and Period used: NINO 3.4 indices from November 2016 to January 2017

| Station | Below Median (prob) | Median Rainfall (mm) | Above Median (prob) | LEPS | Hit-rate |
|----------|---------------------------|----------------------------|---------------------------|-------|----------|
| Afiamalu | 57 | 1161.2 | 43 | 3.5% | 60.0% |
| Nafanua | 51 | 872.1 | 49 | -2.2% | 47.7% |
| Apia | 52 | 763.9 | 48 | -1.0% | 53.0% |
| Faleolo | 51 | 541.6 | 49 | -1.7% | 40.7% |
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| | | | | | |

| Station | Below Normal (prob) | 33%ile rainfall (mm) | Normal (prob) | 66%ile rainfall (mm) | Above Normal (prob) | LEPS | Hit-rate |
|----------|---------------------------|----------------------------|------------------|----------------------------|---------------------------|-------|----------|
| Afiamalu | 36 | 1009.9 | 34 | 1298.6 | 30 | -1.3% | 50.9% |
| Nafanua | 32 | 801.9 | 39 | 1001.1 | 29 | -2.3% | 20.5% |
| Apia | 30 | 664.6 | 39 | 836.8 | 31 | -0.5% | 30.3% |
| Faleolo | 36 | 487.7 | 31 | 621.3 | 33 | -1.7% | 25.9% |
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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) | |
|---------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|--|
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Summary Statements

Rainfall for January 2017: "Above normal" rainfall were observed for Afiamalu, Nafanua and Apia with an exception of Faleolo recorded "normal" rainfall.

Accumulated rainfall for November 2016 to January 2017, including outlook verification: "Normal rainfalls were recorded except Apia received "below normal".

The outlook verification was "near consistent" for Afiamalu, Nafanua and Faleolo. Inconsistent was registered for Apia station.

Outlooks for March to May 2017:

1. SCOPIC:

• The outlook for all sites offers little guidance for the coming season as the chances of above-normal, normal and below-normal rainfall are similar.

The confidence of the model is "very low".

NB: The X LEPS % score has been categorised as follows:

Very Low: X < 0.0 Low: $0 \le X < 5$ Moderate $5 \le X < 10$ Good: $10 \le X < 15$ High: $15 \le X < 25$

Very High: $25 \le X < 35$ Exceptional: $X \ge 35$