## Pacific Islands - Online Climate Outlook Forum (OCOF) No. 159

## Country: Fiji

## TABLE 1: Monthly Rainfall

| Station (include data period) | Sep-2020 | Oct-2020 | Nov-2020 | | | | |
|---|---|---|---|---|---|---|---|
| | | | Total (mm) | 33%tile | 67%tile | Median | Rank |
| | Total (mm) | Total (mm) | Rainfall (mm) | | | | |
| ***Western Division*** | | | | | | | |
| Penang Mill (1910-2020) | 50.6 | 165.9 | 197.8 | 95.4 | 188.9 | 133.0 | 79/109 |
| Lautoka Mill (1900-2020) | 32.9 | 80.6 | 161.3 | 62.5 | 153.8 | 111.9 | 92/121 |
| Nadi Airport (1942-2020) | 50.5 | 148.7 | 144.5 | 90.1 | 145.7 | 123.2 | 51/78 |
| ***Central Division*** | | | | | | | |
| Laucala Bay (Suva) (1942-2020) | 232.2 | 177.2 | 385.6 | 155.3 | 278.9 | 205.6 | 65/79 |
| Nausori Airport (1957-2020) | 246.7 | 240.4 | 330.4 | 189.0 | 300.5 | 229.8 | 48/65 |
| Tokotoko (Navua) (1945-2020) | 294.5 | 287.7 | 395.9 | 200.7 | 356.6 | 279.0 | 55/75 |
| ***Eastern Division*** | | | | | | | |
| Lakeba (1950-2020) | 162.5 | 71.4 | 64.2 | 71.9 | 176.4 | 114.8 | 22/72 |
| Vunisea (Kadavu) (1931-2020) | 145.1 | 231.9 | 65.6 | 94.3 | 164.9 | 110.0 | 24/85 |
| Ono-i-Lau (1943-2020) | 159.5 | 145.7 | 103.6 | 59.5 | 125.9 | 93.1 | 44/74 |
| ***Northern Division*** | | | | | | | |
| Labasa Airport (1946-2020) | 67.0 | 109.4 | – | 108.4 | 196.9 | 144.1 | – |
| Savusavu Airfield (1956-2020) | 190.2 | 128.6 | – | 126.2 | 209.2 | 160.5 | – |
| Udu Point (1946-2020) | 179.9 | 295.6 | 170.6 | 153.6 | 286.2 | 222.6 | 27/71 |
| | | | | | | | |
| Rotuma (1912-2020) | 501.9 | 594.5 | 476.2 | 249.6 | 347.2 | 298.0 | 95/107 |

## TABLE 2: Three-month Rainfall for September to November 2020

| Station | Three-month Total | | 33%tile | 67%tile | Median | Rank | SCOPIC forecast probabilities based on NINO3.4 June-July 2020 | | | | Verification: Consistent, Near-consistent, Inconsistent? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rainfall (mm) | | | | | | B-N | N | A-N | LEPS | |
| ***Western Division*** | | | | | | | | | | | |
| Penang Mill (1910-2020) | 414.3 | Above normal | 245.0 | 404.7 | 292.4 | 78/108 | 29 | 37 | 34 | 15 | Near-consistent |
| Lautoka Mill (1900-2020) | 274.8 | Normal | 198.0 | 345.9 | 279.8 | 65/121 | 28 | 39 | 33 | 19 | Consistent |
| Nadi Airport (1942-2020) | 343.7 | Above normal | 240.9 | 342.9 | 295.7 | 54/78 | 25 | 42 | 33 | 26 | Near-consistent |
| ***Central Division*** | | | | | | | | | | | |
| Laucala Bay (Suva) (1942-2020) | 795.0 | Above normal | 471.7 | 781.4 | 653.0 | 54/79 | 31 | 35 | 34 | 6 | Near-consistent |
| Nausori Airport (1957-2020) | 817.5 | Above normal | 436.4 | 736.5 | 600.3 | 48/64 | 30 | 35 | 35 | 9 | Near-consistent |
| Tokotoko (Navua) (1945-2020) | 978.1 | Above normal | 643.3 | 937.2 | 773.1 | 55/74 | 27 | 40 | 33 | 24 | Near-consistent |
| ***Eastern Division*** | | | | | | | | | | | |
| Lakeba (1950-2020) | 298.1 | Normal | 286.0 | 410.2 | 331.2 | 25/70 | 32 | 36 | 32 | 11 | Consistent |
| Vunisea (Kadavu) (1931-2020) | 442.6 | Normal | 343.9 | 452.0 | 406.2 | 58/82 | 30 | 37 | 33 | 11 | Consistent |
| Ono-i-Lau (1943-2020) | 408.8 | Above normal | 207.2 | 375.8 | 294.5 | 52/72 | 27 | 37 | 36 | 14 | Near-consistent |
| ***Northern Division*** | | | | | | | | | | | |
| Labasa Airport (1947-2020) | | | 258.1 | 367.4 | 303.7 | – | 25 | 38 | 37 | 20 | Unverified |
| Savusavu Airfield (1957-2020) | | | 368.5 | 511.5 | 425.2 | – | 21 | 41 | 38 | 25 | Unverified |
| Udu Point (1946-2020) | 646.1 | Above normal | 385.8 | 566.5 | 497.5 | 51/70 | 31 | 35 | 34 | 2 | Near-consistent |
| | | | | | | | | | | | |
| Rotuma (1912-2020) | 1572.6 | Above normal | 728.3 | 967.2 | 887.1 | **101/103** | 34 | 34 | 32 | -1 | Near-consistent |

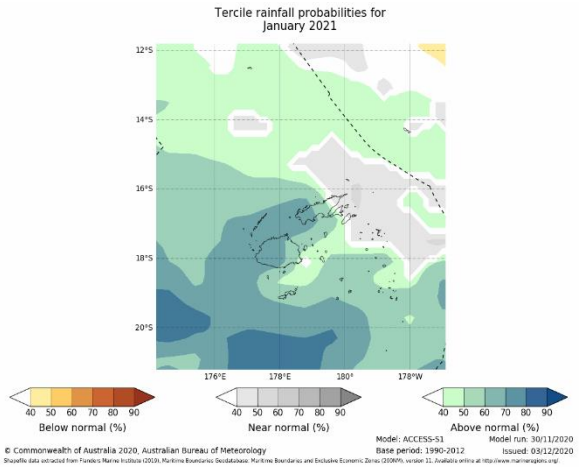
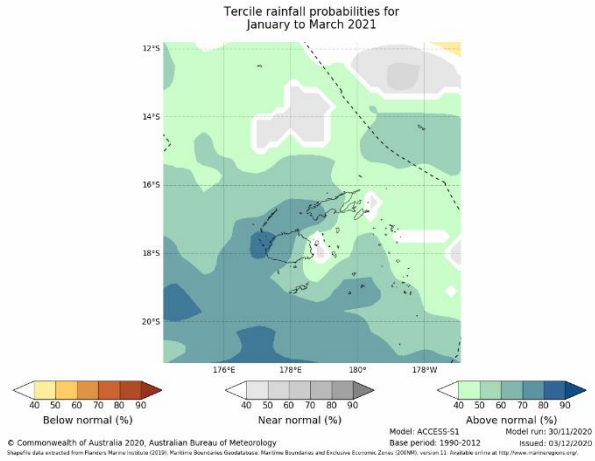
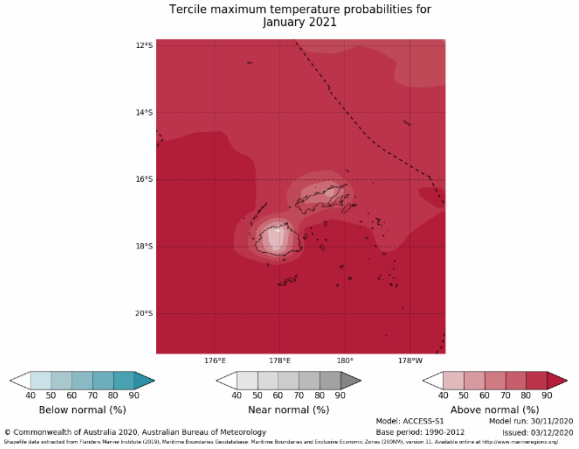
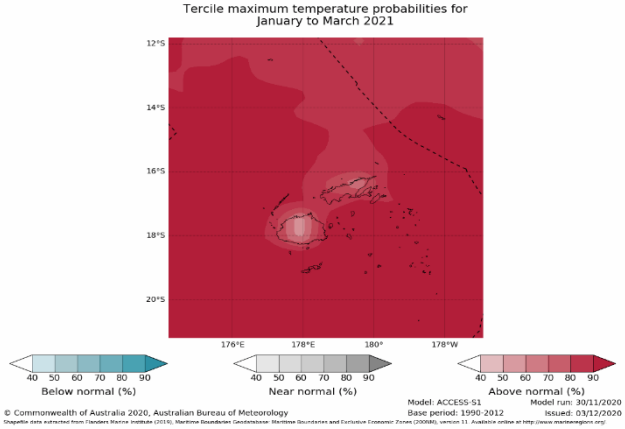
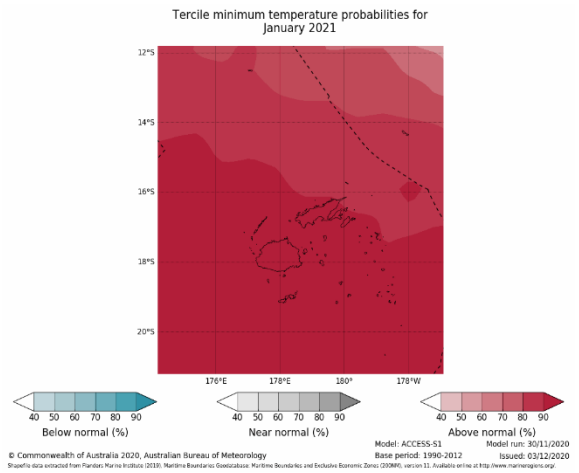
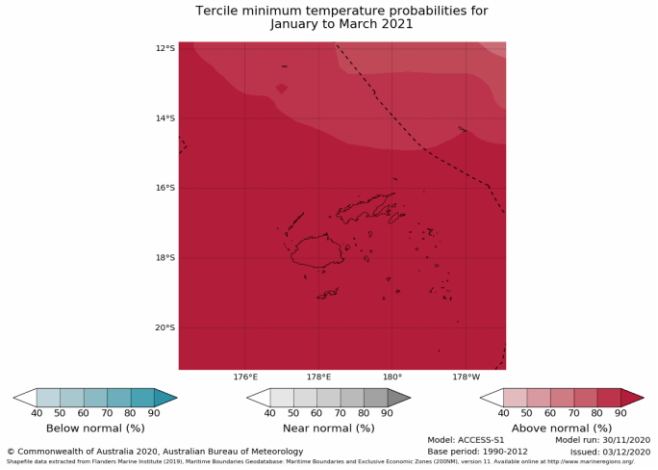
## TABLE 3: Seasonal Climate Outlooks using SCOPIC for January to March 2021

**Predictor and Period used: NINO3.4 for October to November 2020**

| Station | Below Median (prob) | Median Rainfall (mm) | Above Median (prob) | | LEPS (%) [whole numbers] | Hit-rate (%) [whole numbers] |
|---|---|---|---|---|---|---|
| ***Western Division*** | | | | | | |
| Penang Mill (1910-2020) | 14 | 1124.2 | 86 | | 35 | 79 |
| Lautoka Mill (1900-2020) | 23 | 1011.6 | 77 | | 21 | 70 |
| Nadi Airport (1942-2020) | 26 | 938.8 | 74 | | 19 | 74 |
| ***Central Division*** | | | | | | |
| Laucala Bay (Suva) (1942-2020) | 46 | 996.4 | 54 | | -1 | 53 |
| Nausori Airport (1957-2020) | 50 | 979.4 | 50 | | -2 | 31 |
| Tokotoko (Navua) (1945-2020) | 56 | 1061.1 | 44 | | 0 | 59 |
| ***Eastern Division*** | | | | | | |
| Lakeba (1950-2020) | 28 | 765.0 | 72 | | 13 | 63 |
| Vunisea (Kadavu) (1931-2020) | 40 | 789.1 | 60 | | 3 | 59 |
| Ono-i-Lau (1943-2020) | 42 | 618.4 | 58 | | 1 | 55 |
| ***Northern Division*** | | | | | | |
| Labasa Airport (1946-2020) | 27 | 1108.6 | 73 | | 15 | 71 |
| Savusavu Airfield (1956-2020) | 31 | 780.7 | 69 | | 10 | 58 |
| Udu Point (1946-2020) | 24 | 965.2 | 76 | | 17 | 64 |
| | | | | | | |
| Rotuma (1912-2020) | 14 | 1031.5 | 86 | | 31 | 73 |

| Station | Below Normal (prob) | 33%ile Rainfall (mm) | Normal (prob) | 67%ile Rainfall (mm) | Above Normal (prob) | LEPS (%) [whole numbers] | Hit-rate (%) [whole numbers] |
|---|---|---|---|---|---|---|---|
| ***Western Division*** | | | | | | | |
| Penang Mill (1910-2020) | 7 | 1035.8 | 34 | 1250.0 | 59 | 27 | 53 |
| Lautoka Mill (1900-2020) | 11 | 863.7 | 32 | 1133.0 | 57 | 19 | 59 |
| Nadi Airport (1942-2020) | 10 | 818.6 | 32 | 1121.5 | 58 | 22 | 53 |
| ***Central Division*** | | | | | | | |
| Laucala Bay (Suva) (1942-2020) | 28 | 847.4 | 35 | 1070.6 | 37 | -1 | 37 |
| Nausori Airport (1957-2020) | 27 | 892.5 | 40 | 1076.2 | 33 | -1 | 39 |
| Tokotoko (Navua) (1945-2020) | 29 | 913.4 | 43 | 1202.9 | 28 | -1 | 38 |
| ***Eastern Division*** | | | | | | | |
| Lakeba (1950-2020) | 14 | 652.4 | 32 | 884.6 | 54 | 16 | 47 |
| Vunisea (Kadavu) (1931-2020) | 23 | 674.5 | 39 | 876.6 | 38 | 1 | 49 |
| Ono-i-Lau (1943-2020) | 23 | 481.9 | 37 | 752.3 | 40 | 2 | 38 |
| ***Northern Division*** | | | | | | | |
| Labasa Airport (1946-2020) | 7 | 945.7 | 48 | 1299.6 | 45 | 19 | 37 |
| Savusavu Airfield (1956-2020) | 16 | 669.4 | 38 | 855.5 | 46 | 7 | 39 |
| Udu Point (1946-2020) | 12 | 813.8 | 39 | 1038.7 | 49 | 14 | 52 |
| | | | | | | | |
| Rotuma (1912-2020) | 14 | 887.4 | 29 | 1152.0 | 57 | 17 | 53 |

# TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for January to March 2021

| Monthly rainfall | Seasonal rainfall |
|---|---|
|  |  |
| **Monthly Tmax** | **Seasonal Tmax** |
|  |  |
| **Monthly Tmin** | **Seasonal Tmin** |
|  |  |

## Summary Statements

**Rainfall for November 2020:**

*Below normal* rainfall was recorded at Lakeba and Vunisea. On the other hand, *above normal* rainfall was registered across the Central Division, at Penang, Lautoka and Rotuma. *Near normal* rainfall was received at Nadi Airport, Ono-i-Lau and Udu Point. Rainfall data is not available for Labasa and Savusavu Airfield.

**Accumulated rainfall for September to November 2020, including outlook verification:**

*Above normal* rainfall was recorded across the Central Division, together with Penang Mill, Nadi Airport, Ono-i-Lau and Udu Point. *Near normal* was received at Lautoka Mill, Lakeba, and Vunisea. Rotuma also registered *above normal* rainfall.

Rotuma recorded its third wettest September- November period on record.

The rainfall outlooks were 'Consistent' at three sites and 'Near Consistent' at 8 sites, while Labasa Airport and Savusavu Airfield could not be verified due to missing readings.

**Outlooks for January to March 2021:**

1. **SCOPIC:**

- **Western Division, Lakeba and Rotuma:** The outlook favours *above normal* rainfall.
- **Nausori:** The outlook shows *near normal* rainfall as the most likely outcome, with *above normal* the next most likely. *Below normal* rainfall is least likely.
- **Tokotoko (Navua):** The outlook shows *near normal* rainfall as the most likely outcome, with *below normal* the next most likely. *Above normal* rainfall is least likely.
- **Savusavu and Udu Point:** The outlook shows *above normal* rainfall as the most likely outcome, with *near normal* the next most likely. *Below normal* rainfall is least likely.
- **Vunisea, Ono-i-Lau and Labasa:** The outlook shows a near-equal likelihood of *near normal* and *above normal* rainfall. Below normal rainfall is least likely.
- **Suva:** The outlook offers little guidance as the chances of *above normal*, *normal* and *below normal* rainfall are similar.

2. **ACCESS-S:**

**Monthly rainfall:**

- **All regions:** *Above normal* rainfall is favoured across most of the Fiji Group in **January**. At some of the more eastern parts, including Udu Point, northern Taveuni and Vanuabalavu, near-normal rainfall is the most likely outcome.

**Monthly maximum and Minimum temperatures:**

- **All regions:** Maximum and minimum temperatures are favoured to be *above normal* across the Fiji Group in January, with the exception on the interior of Viti Levu, where there's little guidance for maximum temperature.

**Seasonal rainfall:**

- **All regions:** *Above normal* rainfall is the favoured or most likely outcome across the Fiji Group for the **January to March** 2021 period.

**Seasonal maximum and minimum temperatures:**

- **All regions:** Maximum and minimum temperatures are favoured to be *above normal* across the Fiji Group for the coming three months.

**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

## TABLE 5: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

| Product | Date: November 2020 | Stakeholder | Total Number of Participants | Number of male | Number of female |
|---|---|---|---|---|---|
| 3rd Fiji National Climate Outlook Forum (NCOF) | 25/11/20-26/11/20 | Disaster Management, Oceans, Fisheries, Utilities, Agriculture, and Media | 72 | 46 | 26 |
| Fiji Climate Summary | 09/11/20 | General public | 140 | 106 | 34 |
| EAR Watch | 05/11/20 | Humanitarian partners | 122 | 96 | 26 |
| Fiji Climate Outlook | 30/11/20 | General public | 124 | 93 | 31 |
| Climate Outlook for Monasavu | 11/11/20 | Energy Fiji Limited | 13 | 13 | - |
| Ocean Outlook | 20/11/20 | A number of key ocean related stakeholders | 36 | 29 | 7 |
| ENSO Update | 30/11/20 | General Public | 142 | 116 | 26 |
| Meteorological Data Request | 01/11/20 to 30/11/20 | A range of stakeholders | 27 | 23 | 4 |
| **Total** | | | **676** | **522** | **154** |