

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 218

Country: Tonga

Part 1: Recent climate

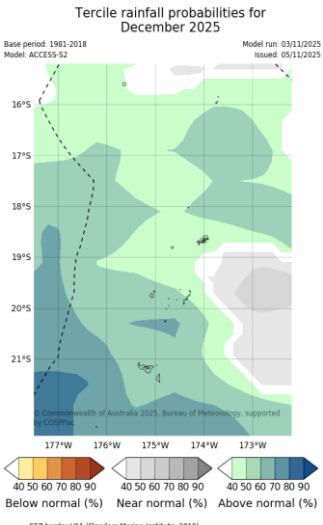
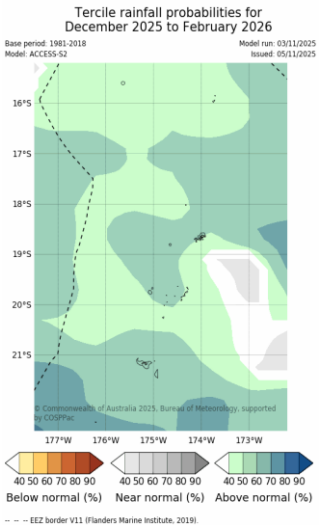
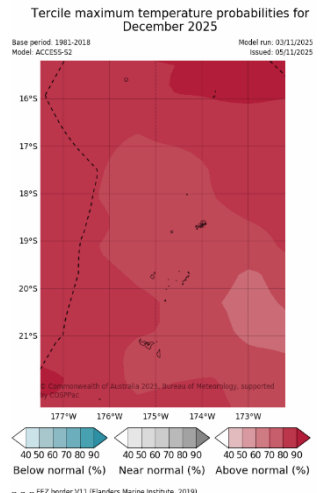
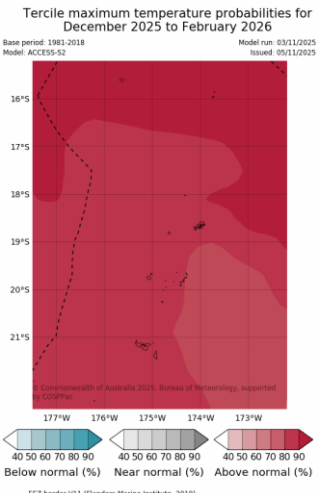
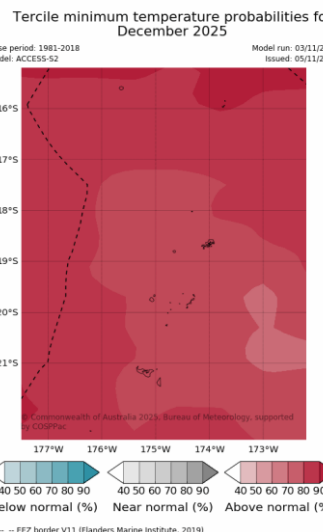
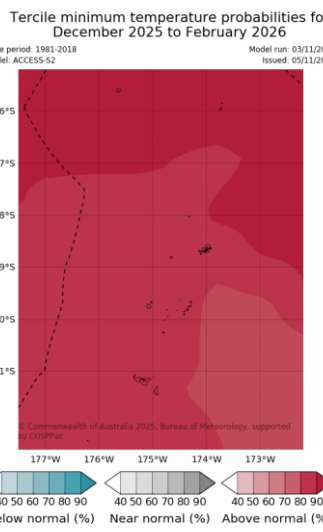
TABLE 1: Monthly Rainfall

| Station (include data period) | Aug-2025 | Sep-2025 | Oct-2025 | | | | Rank |
|-------------------------------|------------|------------|---------------|---------|---------|--------|-------|
| | Total (mm) | Total (mm) | Total (mm) | 33%tile | 67%tile | Median | |
| | | | Rainfall (mm) | | | | |
| <i>Northern Division</i> | | | | | | | |
| Niufo'ou (1971-2025) | 67.5 | 112.5 | | | | | |
| Niutoputapu (1947-2025) | 7.0 | 102.3 | 56.5 | 116.7 | 214.3 | 165.5 | 11/76 |
| <i>Central Division</i> | | | | | | | |
| Vava'u (1947-2025) | 19.6 | 112.3 | 81.1 | 94.0 | 175.7 | 143.0 | 23/79 |
| Ha'apai (1947-2025) | 59.8 | 65.1 | 166.5 | 55.5 | 124.0 | 94.5 | 67/79 |
| <i>Southern Division</i> | | | | | | | |
| Fua'amotu (1979-2025) | 225.2 | 20.3 | 79.7 | 56.7 | 122.3 | 94.6 | 22/46 |
| Nuku'alofa (1944-2025) | 208.5 | 37.0 | 151.0 | 60.6 | 130.3 | 102.0 | 65/82 |

TABLE 2: Three-month Total Rainfall for August to October 2025

| Station | Three-month Total | 33%tile | 67%tile | Median | Rank | |
|--------------------------|-------------------|--------------|---------|--------|-------|-------|
| | Rainfall (mm) | | | | | |
| <i>Northern Division</i> | | | | | | |
| Niufo'ou (1971-2025) | | | | | | |
| Niutoputapu (1947-2025) | 175.3 | Below normal | 273.0 | 508.5 | 339.2 | 9/76 |
| <i>Central Division</i> | | | | | | |
| Vava'u (1947-2025) | 213.0 | Below normal | 334.5 | 474.2 | 399.0 | 14/78 |
| Ha'apai (1947-2025) | 291.4 | Normal | 235.3 | 355.0 | 292.7 | 39/78 |
| <i>Southern Division</i> | | | | | | |
| Fua'amotu (1979-2025) | 325.2 | Normal | 280.0 | 405.1 | 359.0 | 21/45 |
| Nuku'alofa (1944-2025) | 396.5 | Normal | 267.2 | 399.5 | 344.0 | 52/80 |

Part 1i. Monthly and Seasonal Outlooks for December and December to February 2026

| Monthly: December 2025 | Seasonal: December to February 2026 |
|---|---|
| Rainfall (Image 1) | Rainfall (Image 2) |
|  <p>Tercile rainfall probabilities for December 2025</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 03/11/2025 Issued: 05/11/2025</p> <p>16°S, 17°S, 18°S, 19°S, 20°S, 21°S</p> <p>177°W, 176°W, 175°W, 174°W, 173°W</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p> |  <p>Tercile rainfall probabilities for December 2025 to February 2026</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 03/11/2025 Issued: 05/11/2025</p> <p>16°S, 17°S, 18°S, 19°S, 20°S, 21°S</p> <p>177°W, 176°W, 175°W, 174°W, 173°W</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p> |
| Monthly Maximum temperature (Image 3): | Seasonal maximum temperature (Image 4): |
|  <p>Tercile maximum temperature probabilities for December 2025</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 03/11/2025 Issued: 05/11/2025</p> <p>16°S, 17°S, 18°S, 19°S, 20°S, 21°S</p> <p>177°W, 176°W, 175°W, 174°W, 173°W</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p> |  <p>Tercile maximum temperature probabilities for December 2025 to February 2026</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 03/11/2025 Issued: 05/11/2025</p> <p>16°S, 17°S, 18°S, 19°S, 20°S, 21°S</p> <p>177°W, 176°W, 175°W, 174°W, 173°W</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p> |
| Monthly minimum temperature (Image 5): | Seasonal minimum temperature (Image 6): |
|  <p>Tercile minimum temperature probabilities for December 2025</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 03/11/2025 Issued: 05/11/2025</p> <p>16°S, 17°S, 18°S, 19°S, 20°S, 21°S</p> <p>177°W, 176°W, 175°W, 174°W, 173°W</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p> |  <p>Tercile minimum temperature probabilities for December 2025 to February 2026</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 03/11/2025 Issued: 05/11/2025</p> <p>16°S, 17°S, 18°S, 19°S, 20°S, 21°S</p> <p>177°W, 176°W, 175°W, 174°W, 173°W</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p> |

Part 2: Recent Ocean Observation

Monthly/Three months: October and August to October 2025

| Monthly: October 2025 | Last three months: August to October 2025: |
|--|---|
| <p>Sea Surface Temperature Anomaly (Image 1):</p> <p>Daily Sea Surface Temperature Anomalies: 9 November 2025</p> <p>Tonga</p> <p>© Pacific Community (SPC) 2025 Reynolds</p> | <p>Sea Surface Temperature Anomaly (Image 4):</p> <p>Seasonal Sea Surface Temperature Anomalies: Aug 2025 - Oct 2025</p> <p>Tonga</p> <p>© Pacific Community (SPC) 2025 Reynolds</p> |
| <p>Sea level anomaly (Image 2):</p> <p>Sea Level Anomaly: 10 November 2025</p> <p>Tonga</p> <p>© Pacific Community (SPC) 2025. Data provided using E.U. Copernicus Marine Service Information: https://doi.org/10.48670/moi-00149</p> | |
| <p>National daily coral bleaching alert (Image 3):</p> <p>Coral Bleaching Alert: 3 November 2025</p> <p>Tonga</p> <p>© Pacific Community (SPC) 2025 NOAA</p> | <p>Pacific daily coral bleaching alert (Image 5):</p> <p>Coral Bleaching Alert: 3 November 2025</p> <p>Pacific Islands</p> <p>© Pacific Community (SPC) 2025 NOAA</p> |

Part 2i. Monthly and Seasonal Outlooks for December and December to February 2026

| Monthly: December 2025 | Seasonal: December to February 2026 |
|--|---|
| Monthly sea surface temperature anomaly (Image 5): | Seasonal sea surface temperature anomaly (Image 6): |
| <p>Difference from average sea surface temperature forecast for December 2025</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 03/11/2025 Issued: 05/11/2025</p> <p>© Commonwealth of Australia 2025, Bureau of Meteorology, supported by COSPPac</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p> | <p>Difference from average sea surface temperature forecast for December 2025 to February 2026</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 03/11/2025 Issued: 05/11/2025</p> <p>© Commonwealth of Australia 2025, Bureau of Meteorology, supported by COSPPac</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p> |
| Monthly sea level anomaly (Image 7): | Seasonal sea level anomaly (Image 8): |
| <p>Difference from average sea surface height forecast for December 2025</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 08/11/2025 Issued: 10/11/2025</p> <p>© Commonwealth of Australia 2025, Bureau of Meteorology, supported by COSPPac</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p> | <p>Difference from average sea surface height forecast for December 2025 to February 2026</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 08/11/2025 Issued: 10/11/2025</p> <p>© Commonwealth of Australia 2025, Bureau of Meteorology, supported by COSPPac</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p> |
| National 4-week Coral Bleaching Outlook (Image 9): | Pacific 4-week Coral Bleaching Outlook (Image 10): |
| <p>Tonga 4 Week Coral Bleaching Outlook: 24 November 2025</p> <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</p> <p>© Pacific Community (SPC) 2025 NOAA</p> | <p>Pacific Islands 8 Week Coral Bleaching Outlook: 24 November 2025</p> <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</p> <p>© Pacific Community (SPC) 2025 NOAA</p> |

Summary Statement

Monthly and last three months: October 2025/August to October 2025 statement

The rainfall for October was above normal at Ha'apai and Nuku'alofa, near normal rainfall at Fua'amotu. Below normal rainfall was recorded at Niuatoputapu and Vava'u.

August to October rainfall was near normal for Ha'apai, Fua'amotu and Nuku'alofa, below normal rainfall for Niuatoputapu and Vava'u.

Part 1i. Monthly and Seasonal Outlooks for December and December to February 2026

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for December is likely to be above normal for Niuafu'ou, Niuatoputapu, and Vava'u while it is very likely to be above normal for Ha'apai and Tongatapu

The rainfall for December to February 2026 is likely to be above normal over Niuafu'ou and Niuatoputapu while very likely to be above normal for Vava'u, Ha'apai, Tongatapu, and 'Eua.

Maximum and minimum temperatures during December and December to February are likely to be above normal for all of Tonga.

Part 2: Recent Ocean summary statement

Monthly and last three months: October 2025/August to October 2025

October sea surface temperatures (SSTs) around Tonga were 0.8 to 2.0°C above normal.

Averaged over August to October, sea surface temperatures around Tonga were -0.4 to 0.8°C above normal.

October sea levels around Tonga were -30 to 30 mm near-normal.

The coral bleaching alert as of 3rd November shows "No Stress"

Part 2i. Monthly and Seasonal Outlooks for December and December to February 2026

Ocean Variable statement

December sea surface temperatures around Tonga are predicted to be 0.4 to 1.2°C above normal.

Averaged over December to February 2026, sea surface temperatures around Tonga are predicted to be 0.4 to 0.8°C above normal.

December sea levels around are predicted to be -30 to 30 mm near-normal.

Averaged over December to February 2026, sea levels around are predicted to be -30 to -100 mm below normal.

Coral Bleaching outlook indicates "No Stress" status for the next 4 weeks.

In brief for Teleconference

- Rainfall was above normal to below normal for October while August to October rainfall was normal to below normal.
- The rainfall outlook generally indicates above normal rainfall in December and similarly for the total rainfall over December to February 2026.
- SSTs were above normal for October and August to October. The outlook shows above normal SST for the next one and three months.
- Sea levels were near normal for October. Above normal to Below normal sea levels are predicted for December and December to February 2026.

TABLE 3: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders (October 2025)

| Product | Stakeholder | Total Number of Participants | Number of Male | Number of Female | Disability | Comments (If there are comments from you Stakeholders) |
|--------------------------|-------------|--|----------------|------------------|------------|--|
| Climate Bulletin | 3 Oct. | Government Ministries, NGOs, Media, Private Sector | 225 | 188 | 37 | |
| EAR Watch | | | | | | |
| Monthly Climate Briefing | | | | | | |
| Ocean Outlook | 3 Oct. | Government Ministries, NGOs, Media, Private Sector | 225 | 188 | 37 | |
| Climate data request | | | | | | |
| Total | | | 450 | 376 | 74 | |

| Stakeholder category | Do your products reach this group? (Y/N) | Tailored product? (Y/N) |
|---|--|-------------------------|
| Agriculture sector | | |
| Disaster Risk Reduction sector | | |
| Energy sector | | |
| Health sector | | |
| Water sector | | |
| Fisheries and Aquaculture sector | | |
| Tourism sector | | |
| Maritime sector | | |
| Research & education sector | | |
| Women's [] organisations | | |
| National disability organisations | | |
| Community based organisations (e.g. councils) | | |
| Products offered in local dialects/ languages | | |