

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 219

Country: Tonga

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Sep-2025	Oct-2025	Nov-2025				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
<i>Northern Division</i>							
Niuafu'ou (1971-2025)	112.5	47.0	393.5	157.7	268.6	231.5	47/51
Niuaatoputapu (1947-2025)	102.3	56.5	466.2	136.7	229.7	183.0	72/76
Vava'u (1947-2025)	112.3	81.1	342.3	81.2	170.4	118.8	72/79
Ha'apai (1947-2025)	65.1	166.5	181.8	65.7	134.0	84.7	61/79
Fua'amotu (1979-2025)	20.3	79.7	370.4	50.7	146.4	103.0	46/46
Nuku'alofa (1944-2025)	37.0	151.0	334.0	50.0	133.8	81.0	79/82

TABLE 2: Three-month Total Rainfall for September to November 2025

Station	Three-month Total	33%tile	67%tile	Median	Rank	
	Rainfall (mm)					
<i>Northern Division</i>						
Niuafu'ou (1971-2025)	553.0	Normal	426.7	638.0	555.5	25/51
Niuaatoputapu (1947-2025)	625.0	Above normal	392.3	572.0	453.0	55/76
<i>Central Division</i>						
Vava'u (1947-2025)	535.7	Above normal	357.4	520.3	425.1	55/79
Ha'apai (1947-2025)	413.4	Above normal	226.3	390.1	295.0	55/79
<i>Southern Division</i>						
Fua'amotu (1979-2025)	470.4	Above normal	244.7	412.2	315.9	34/46
Nuku'alofa (1944-2025)	522.0	Above normal	237.7	424.1	354.7	67/81

Part 1i. Monthly and Seasonal Outlooks for January and January to March 2026

Monthly: January 2026	Seasonal: January to March 2026
<p>Rainfall (Image 1)</p> <p>Tercile rainfall probabilities for January 2026 Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>Commonwealth of Australia 2025. Bureau of Meteorology, supported by CO2PPac.</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p>	<p>Rainfall (Image 2)</p> <p>Tercile rainfall probabilities for January to March 2026 Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>Commonwealth of Australia 2025. Bureau of Meteorology, supported by CO2PPac.</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p>
<p>Monthly Maximum temperature (Image 3):</p>	<p>Seasonal maximum temperature (Image 4):</p>
<p>Tercile maximum temperature probabilities for January 2026 Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>Commonwealth of Australia 2025. Bureau of Meteorology, supported by CO2PPac.</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p>	<p>Tercile maximum temperature probabilities for January to March 2026 Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>Commonwealth of Australia 2025. Bureau of Meteorology, supported by CO2PPac.</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p>
<p>Monthly minimum temperature (Image 5):</p>	<p>Seasonal minimum temperature (Image 6):</p>
<p>Tercile minimum temperature probabilities for January 2026 Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>Commonwealth of Australia 2025. Bureau of Meteorology, supported by CO2PPac.</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p>	<p>Tercile minimum temperature probabilities for January to March 2026 Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>Commonwealth of Australia 2025. Bureau of Meteorology, supported by CO2PPac.</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019)</p>

Part 2: Recent Ocean Observation

Monthly/Three months: November and September to November 2025

Monthly: November 2025	Last three months: September to November 2025
<p>Sea Surface Temperature Anomaly (Image 1):</p>	<p>Sea Surface Temperature Anomaly (Image 4):</p>
<p>Sea level anomaly (Image 2):</p>	
<p>National daily coral bleaching alert (Image 3):</p>	<p>Pacific daily coral bleaching alert (Image 5):</p>

Part 2i. Monthly and Seasonal Outlooks for January and January to March 2026

Monthly: January 2026	Seasonal: January to March 2026
<p>Monthly sea surface temperature anomaly (Image 5):</p> <p>Difference from average sea surface temperature forecast for January 2026</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>© Commonwealth of Australia 2025, Bureau of Meteorology, supported by COSPPac</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p>	<p>Seasonal sea surface temperature anomaly (Image 6):</p> <p>Difference from average sea surface temperature forecast for January to March 2026</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>© Commonwealth of Australia 2025, Bureau of Meteorology, supported by COSPPac</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p>
<p>Monthly sea level anomaly (Image 7):</p> <p>Difference from average sea surface height forecast for January 2026</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>© Commonwealth of Australia 2025, Bureau of Meteorology, supported by COSPPac</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p>	<p>Seasonal sea level anomaly (Image 8):</p> <p>Difference from average sea surface height forecast for January to March 2026</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 06/12/2025 Issued: 08/12/2025</p> <p>© Commonwealth of Australia 2025, Bureau of Meteorology, supported by COSPPac</p> <p>--- EEZ border V11 (Flanders Marine Institute, 2019).</p>
<p>National 4-week Coral Bleaching Outlook (Image 9):</p> <p>Tonga 4 Week Coral Bleaching Outlook: 22 December 2025</p> <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</p> <p>© Pacific Community (SPC) 2025</p> <p>NOAA</p>	<p>Pacific 4-week Coral Bleaching Outlook (Image 10):</p> <p>Pacific Islands 4 Week Coral Bleaching Outlook: 22 December 2025</p> <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</p> <p>© Pacific Community (SPC) 2025</p> <p>NOAA</p>

Summary Statement

Monthly and last three months: November 2025/September to November 2025 statement

The rainfall for November was above normal for all of Tonga. Fua'amotu recorded its highest, Nuku'alofa was its third, Niuafou'ou and Niuatoputapu was its fourth, Vava'u was its seventh highest rainfall recorded in November.

For the past three months, rainfall was normal over Niuafou'ou, above normal for the rest of the Country.

Part 1i. Monthly and Seasonal Outlooks for January and January to March 2026

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for January 2026 is to be above normal over Vava'u, Niuatoputapu and Niuafou'ou. In Ha'apai and Tongatapu, the outlook shows January's rainfall is likely to be near-normal.

The rainfall for January to March is to be above normal over most of the country.

Maximum and minimum temperatures during January and averaged over January to March 2026 was above normal over most of the country.

Part 2: Recent Ocean summary statement

Monthly and last three months: November 2025/September to November 2025

November sea surface temperatures (SSTs) around Tonga were 0.4 to 0.8°C above normal.

Averaged over September to November, sea surface temperatures around Tonga were -0.4 to 0.4°C near normal to 0.4 to 0.8°C above normal.

November sea levels around Tonga were -30.0 to 30mm near normal to 30 to 100mm above normal.

A coral bleaching is at no stress level for Tonga.

Part 2i. Monthly and Seasonal Outlooks for January and January to March 2026

Ocean Variable statement

January and averaged over January to March 2026, sea surface temperatures around Tonga are predicted to be 0.4 to 0.8°C above normal.

January 2026 sea levels around Tonga are predicted to be 30 to 100mm below normal.

Averaged over January to March 2026, sea levels around Tonga are predicted to be 30 to 100mm below normal.

Coral Bleaching outlook indicates a "Watch" status over the two Niuas for the next 4 weeks.

In brief for Teleconference

- Rainfall was above normal for all of Tonga for November and September to November, except Niuafu'ou where rainfall was normal for the last 3 months.
- The rainfall outlook generally indicates above normal most likely in January 2026 but near normal for total rainfall over January to March 2026.
- SSTs were above normal for November and near normal to above normal for September to November. The outlook shows above normal SSTs for the next one and three months.
- Sea levels were near normal to above normal for November. Below normal sea levels are predicted for January and January to March 2026.

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

Product	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Disability	Comments (If there are comments from you Stakeholders)
Climate Bulletin	Government Ministries, NGO's, Media, Private Sector	77	32	42	3	
EAR Watch						
Monthly Climate Briefing						
Ocean Outlook	Government Ministries, NGO's, Media, Private Sector	77	32	42	3	
Climate data request						
Total		154	64	84	6	

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		