

Country: Tonga

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Feb-2024	Mar-2024	Apr-2024				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Northern Division							
Niuafo'ou (1971-2024)	362.0	158.0	192.0	178.0	277.0	214.0	22/53
Niuatoputapu (1947-2024)	390.5	172.0	178.5	161.0	302.0	222.5	29/74
Central Division							
Vava'u (1947-2024)	257.1	758.5	100.4	162.7	269.0	217.0	10/78
Ha'apai (1947-2024)	106.8	567.6	40.6	113.9	230.8	167.5	6/78
Southern Division							
Fua'amotu (1979-2024)	134.0	637.6	22.3	112.3	245.4	180.5	4/45
Nuku'alofa (1944-2024)	141.5	739.0	134.5	112.0	215.4	142.0	36/79

TABLE 2: Three-month Total Rainfall for February to April 2024

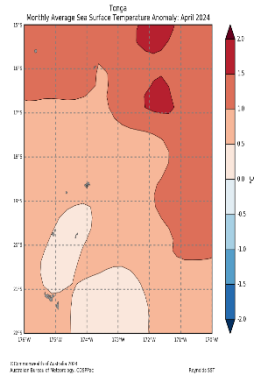
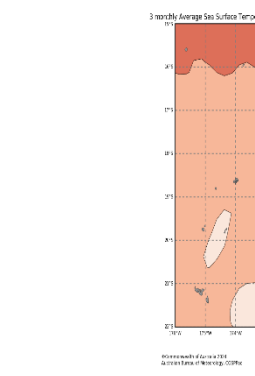
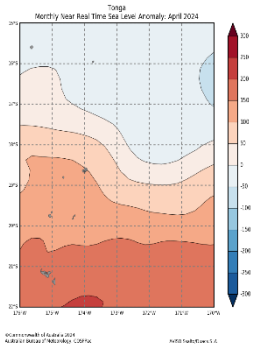
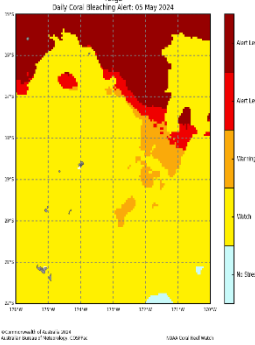
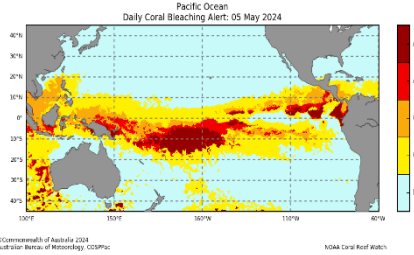
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Northern Division						
Niuafo'ou (1971-2024)	712.0	Below normal	720.3	935.0	857.4	15/49
Niuatoputapu (1947-2024)	741.0	Normal	685.5	838.6	764.2	33/72
Central Division						
Vava'u (1947-2024)	1116.0	Above normal	716.8	957.2	831.6	68/78
Ha'apai (1947-2024)	715.0	Normal	546.4	726.3	655.6	52/78
Southern Division						
Fua'amotu (1979-2024)	793.9	Above normal	483.0	702.1	600.2	32/45
Nuku'alofa (1944-2024)	1015.0	Above normal	554.0	737.5	627.0	73/79

Part 1i. Monthly and Seasonal Outlooks for June and June to August 2024

Monthly: June	Seasonal: June to August
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for June 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Copyright data extracted from European Centre for Medium-Range Weather Forecasts (ECMWF), version 1.1. Available online at http://www.ecmwf.int</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>	<p>Tercile rainfall probabilities for June to August 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Copyright data extracted from European Centre for Medium-Range Weather Forecasts (ECMWF), version 1.1. Available online at http://www.ecmwf.int</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for June 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Copyright data extracted from European Centre for Medium-Range Weather Forecasts (ECMWF), version 1.1. Available online at http://www.ecmwf.int</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>	<p>Tercile maximum temperature probabilities for June to August 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Copyright data extracted from European Centre for Medium-Range Weather Forecasts (ECMWF), version 1.1. Available online at http://www.ecmwf.int</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for June 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Copyright data extracted from European Centre for Medium-Range Weather Forecasts (ECMWF), version 1.1. Available online at http://www.ecmwf.int</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>	<p>Tercile minimum temperature probabilities for June to August 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Copyright data extracted from European Centre for Medium-Range Weather Forecasts (ECMWF), version 1.1. Available online at http://www.ecmwf.int</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>

Part 2: Recent Ocean Observation

Monthly/Three months: April 2024 and February to April 2024

<p>Monthly: April 2024</p>	<p>Last three months: February to April 2024:</p>
<p>Sea Surface Temperature (Image 1):</p>	<p>Sea Surface Temperature (Image 4):</p>
	
<p>Sea level (Image 2):</p>	
	
<p>Daily coral bleaching alert (Image 3):</p>	
	

Part 2i. Monthly and Seasonal Outlooks for June and June to August 2024

Monthly: June	Seasonal: June to August
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<div><p>Difference from average sea surface temperature forecast for June 2024</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2024, Australian Bureau of Meteorology Boundary data sourced from Repas's Marine Vectors (2023), Marine Boundary Configuration: Maritime Boundaries and Exclusive Economic Zones (EMBR), version 11. Available online at http://www.marine.gov.au</p><p>Model run: 06/05/2024 Issued: 06/05/2024</p></div>	<div><p>Difference from average sea surface temperature forecast for June to August 2024</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2024, Australian Bureau of Meteorology Boundary data sourced from Repas's Marine Vectors (2023), Marine Boundary Configuration: Maritime Boundaries and Exclusive Economic Zones (EMBR), version 11. Available online at http://www.marine.gov.au</p><p>Model run: 06/05/2024 Issued: 06/05/2024</p></div>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<div><p>Difference from average sea surface height forecast for June 2024</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2024, Australian Bureau of Meteorology Boundary data sourced from Repas's Marine Vectors (2023), Marine Boundary Configuration: Maritime Boundaries and Exclusive Economic Zones (EMBR), version 11. Available online at http://www.marine.gov.au</p><p>Model run: 06/05/2024 Issued: 06/05/2024</p></div>	<div><p>Difference from average sea surface height forecast for June to August 2024</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2024, Australian Bureau of Meteorology Boundary data sourced from Repas's Marine Vectors (2023), Marine Boundary Configuration: Maritime Boundaries and Exclusive Economic Zones (EMBR), version 11. Available online at http://www.marine.gov.au</p><p>Model run: 06/05/2024 Issued: 06/05/2024</p></div>
4-week Coral Bleaching (Image 9):	
<div><p>Tonga 4 Weeks Coral Bleaching Outlook: 02 June 2024</p><p>© Commonwealth of Australia 2024 And other names of Marine Stages (2021)</p><p>8000 Coral Reef Watch</p></div>	

Summary Statement

Monthly and last three months: April 2024/February to April 2024 statement

April rainfall was below normal at Vava'u, Ha'apai and Fua'amotu, and near-normal for the rest of the country. Fua'amotu had its fourth and Ha'apai had its sixth lowest April rainfall on record.

February to April rainfall was below normal for Niuafo'ou, normal for Niuatoputapu and Ha'apai, and above normal for the rest of Tonga. Nuku'alofa had its seventh highest February to April rainfall on record.

Part 1i. Monthly and Seasonal Outlooks for June and June to August 2024

Monthly /Seasonal rainfall and temperature Outlook statements

June rainfall is likely to be above normal in the Northern and Southern Divisions, while the outlook offers little guidance for the Central Division.

The outlook for June to August is very similar, except that near-normal is likely for Niuatoputapu.

Maximum and minimum temperatures for June and averaged over June to August, are very likely to be above normal across Tonga.

Part 2: Recent Ocean summary statement

Monthly and last three months: April 2024/February to April 2024

April ocean temperatures around Tonga were utmost 1.5°C above normal.

Averaged over February to April, ocean temperatures around Tonga were utmost 1.5°C above normal.

April sea levels were near-normal around northern Tonga and 50 to 200mm above normal elsewhere.

Coral bleaching alert shows 'Alert level 2' status for northern Tonga waters.

Part 2i. Monthly and Seasonal Outlooks for June and June to August 2024

Ocean Variable statement

June and averaged over June to August, ocean temperatures around Tonga are predicted to be 0.8 to 1.2°C above normal.

June and averaged over June to August, sea levels around Tonga are predicted to be 30 to 60mm below normal around northern Tonga, near-normal around central Tonga and 30 to 100mm above normal around southern Tonga.

IN BRIEF for Teleconference

- April rainfall was near-normal to below normal, but February to April rainfall was mainly near-normal to above normal.
- The rainfall outlook for both June and June to August generally indicates above normal in the north and south, but little guidance is offered in the Central Division.
- SSTs were above normal for April and February to April. The outlook shows above normal SSTs for the next one and three months.
- SSHs were below normal to above normal throughout Tonga. The outlook shows similar conditions to prevail (i.e. below to above normal) for the next one and three months.

TABLE 3: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Product	Date: April 2024	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Comments (If there are comments from you Stakeholders)
Climate Bulletin	3 April	Government ministries, NGOs,Media,Private Sector	155	118	37	
EAR Watch						
Monthly Climate Briefing						
Ocean Outlook	3 April	Government ministries, NGOs,Media,Private Sector	155	118	37	
Climate data request						
Total			310	236	74	