

Country: Tuvalu

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)				
	Nanumea (1941-2024)	532.6	373.8	265.2	197.1	270.3	
Nui (1946-2024)	594.4	391.6	224.4	151.4	271.0	200.1	43/79
Funafuti (1933-2024)	337.0	249.8	226.1	188.0	310.5	238.2	41/92
Niulakita (1953-2024)	372.5	252.4	234.6	167.8	265.9	213.4	43/72

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

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Nanumea (1941-2024)	1171.6	Above normal	635.4	997.0	810.2	70/82
Nui (1946-2024)	1210.4	Above normal	695.2	980.0	813.2	65/79
Funafuti (1933-2024)	812.9	Below normal	821.4	1050.7	941.4	30/92
Niulakita (1953-2024)	859.5	Normal	794.7	1014.3	924.0	27/72

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

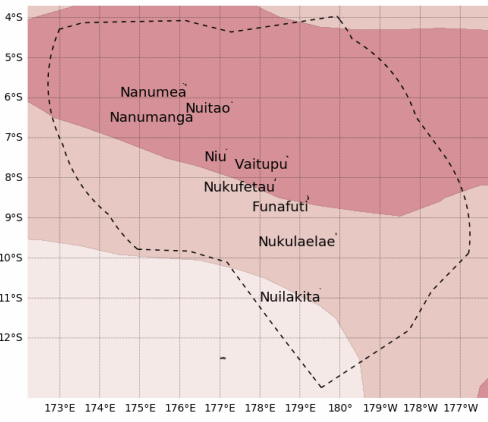
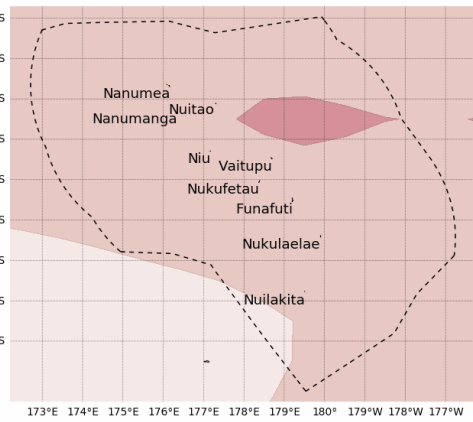
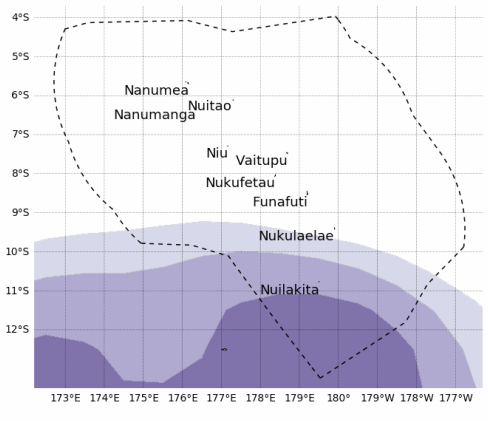
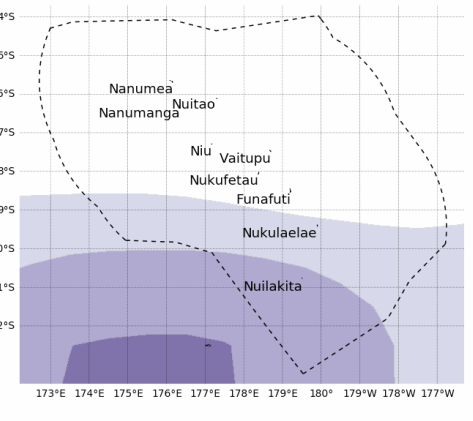
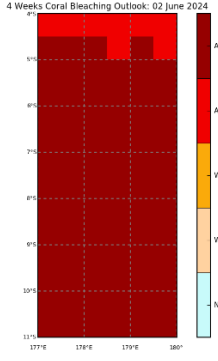
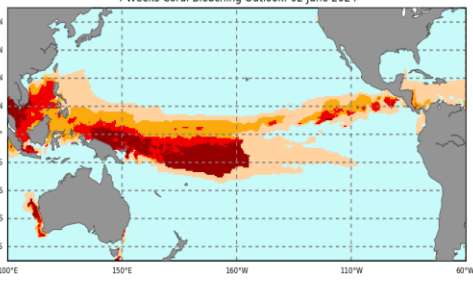
Monthly: June		Seasonal: June to August	
Rainfall (Image 1)		Rainfall (Image 2)	
<p>Tercile rainfall probabilities for June 2024</p> <p>This map shows the probability of different rainfall terciles for June 2024 across the Line Islands region. The map area is bounded by 4°S to 12°S latitude and 173°E to 177°W longitude. It includes labels for islands: Nanumea, Naitao, Nanumanga, Niu, Vaitupu, Nukufetau, Funafuti, Nukulaelae, and Nuilakita. Three color-coded legends are provided at the bottom: 'Below normal (%)' with a scale from 40 to 90 (yellow to red), 'Near normal (%)' with a scale from 40 to 90 (grey), and 'Above normal (%)' with a scale from 40 to 90 (green to blue). Metadata at the bottom states: Base period: 1981-2018; Model: ACCESS-S2; © Commonwealth of Australia 2024, Australian Bureau of Meteorology; Shapefile data extracted from Flanders Marine Institute (2019); Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegovernance.org/.</p>		<p>Tercile rainfall probabilities for June to August 2024</p> <p>This map shows the probability of different rainfall terciles for the season June to August 2024. The map area is bounded by 4°S to 12°S latitude and 173°E to 177°W longitude. It includes labels for islands: Nanumea, Naitao, Nanumanga, Niu, Vaitupu, Nukufetau, Funafuti, Nukulaelae, and Nuilakita. Three color-coded legends are provided at the bottom: 'Below normal (%)' with a scale from 40 to 90 (yellow to red), 'Near normal (%)' with a scale from 40 to 90 (grey), and 'Above normal (%)' with a scale from 40 to 90 (green to blue). Metadata at the bottom states: Base period: 1981-2018; Model: ACCESS-S2; © Commonwealth of Australia 2024, Australian Bureau of Meteorology; Shapefile data extracted from Flanders Marine Institute (2019); Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegovernance.org/.</p>	
<p>Monthly Maximum temperature (Image 3):</p> <p>Tercile maximum temperature probabilities for June 2024</p> <p>This map shows the probability of different maximum temperature terciles for June 2024. The map area is bounded by 4°S to 12°S latitude and 173°E to 177°W longitude. It includes labels for islands: Nanumea, Naitao, Nanumanga, Niu, Vaitupu, Nukufetau, Funafuti, Nukulaelae, and Nuilakita. Three color-coded legends are provided at the bottom: 'Below normal (%)' with a scale from 40 to 90 (blue to green), 'Near normal (%)' with a scale from 40 to 90 (grey), and 'Above normal (%)' with a scale from 40 to 90 (red to orange). Metadata at the bottom states: Base period: 1981-2018; Model: ACCESS-S2; © Commonwealth of Australia 2024, Australian Bureau of Meteorology; Shapefile data extracted from Flanders Marine Institute (2019); Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegovernance.org/.</p>		<p>Seasonal maximum temperature (Image 4):</p> <p>Tercile maximum temperature probabilities for June to August 2024</p> <p>This map shows the probability of different maximum temperature terciles for the season June to August 2024. The map area is bounded by 4°S to 12°S latitude and 173°E to 177°W longitude. It includes labels for islands: Nanumea, Naitao, Nanumanga, Niu, Vaitupu, Nukufetau, Funafuti, Nukulaelae, and Nuilakita. Three color-coded legends are provided at the bottom: 'Below normal (%)' with a scale from 40 to 90 (blue to green), 'Near normal (%)' with a scale from 40 to 90 (grey), and 'Above normal (%)' with a scale from 40 to 90 (red to orange). Metadata at the bottom states: Base period: 1981-2018; Model: ACCESS-S2; © Commonwealth of Australia 2024, Australian Bureau of Meteorology; Shapefile data extracted from Flanders Marine Institute (2019); Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegovernance.org/.</p>	
<p>Monthly minimum temperature (Image 5):</p> <p>Tercile minimum temperature probabilities for June 2024</p> <p>This map shows the probability of different minimum temperature terciles for June 2024. The map area is bounded by 4°S to 12°S latitude and 173°E to 177°W longitude. It includes labels for islands: Nanumea, Naitao, Nanumanga, Niu, Vaitupu, Nukufetau, Funafuti, Nukulaelae, and Nuilakita. Three color-coded legends are provided at the bottom: 'Below normal (%)' with a scale from 40 to 90 (blue to green), 'Near normal (%)' with a scale from 40 to 90 (grey), and 'Above normal (%)' with a scale from 40 to 90 (red to orange). Metadata at the bottom states: Base period: 1981-2018; Model: ACCESS-S2; © Commonwealth of Australia 2024, Australian Bureau of Meteorology; Shapefile data extracted from Flanders Marine Institute (2019); Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegovernance.org/.</p>		<p>Seasonal minimum temperature (Image 6):</p> <p>Tercile minimum temperature probabilities for June to August 2024</p> <p>This map shows the probability of different minimum temperature terciles for the season June to August 2024. The map area is bounded by 4°S to 12°S latitude and 173°E to 177°W longitude. It includes labels for islands: Nanumea, Naitao, Nanumanga, Niu, Vaitupu, Nukufetau, Funafuti, Nukulaelae, and Nuilakita. Three color-coded legends are provided at the bottom: 'Below normal (%)' with a scale from 40 to 90 (blue to green), 'Near normal (%)' with a scale from 40 to 90 (grey), and 'Above normal (%)' with a scale from 40 to 90 (red to orange). Metadata at the bottom states: Base period: 1981-2018; Model: ACCESS-S2; © Commonwealth of Australia 2024, Australian Bureau of Meteorology; Shapefile data extracted from Flanders Marine Institute (2019); Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegovernance.org/.</p>	

Part 2: Recent Ocean Observation

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

Monthly: April 2024		Last three months: February to April 2024:	
Sea Surface Temperature (Image 1):		Sea Surface Temperature (Image 4):	
<div><p>Tuvalu</p><p>Monthly Average Sea Surface Temperature Anomaly: April 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>Reynolds SST</p></div>		<div><p>Tuvalu</p><p>3 monthly Average Sea Surface Temperature Anomaly: February 2024 to April 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>Reynolds SST</p></div>	
Sea level (Image 2):			
<div><p>Tuvalu</p><p>Monthly Near Real Time Sea Level Anomaly: April 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>AVISO SeaSurface SLA</p></div>			
Daily coral bleaching alert (Image 3):			
<div><p>Tuvalu</p><p>Daily Coral Bleaching Alert: 05 May 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>		<div><p>Pacific Ocean</p><p>Daily Coral Bleaching Alert: 05 May 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>	

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):
<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 Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>	<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 Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<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 Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>	<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 Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 06/05/2024 Issued: 08/05/2024</p>
4-week Coral Bleaching (Image 9):	
<p>Tuvalu 4 Weeks Coral Bleaching Outlook: 02 June 2024</p>  <p>© Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac NOAA Coral Reef Watch</p>	<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 02 June 2024</p>  <p>© Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac NOAA Coral Reef Watch</p>

Summary Statement

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

The rainfall for April was near-normal across Tuvalu.

For the past three months, rainfall was above normal over Nanumea and Nui, below normal at Funafuti, and near-normal at Niulakita.

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

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for June and June to August is likely or very likely to be above normal over most of Tuvalu, except for the far north of the EEZ where near-normal rainfall is likely.

Maximum and minimum temperatures during June and averaged over June to August are very likely to be above normal.

Part 2: Recent Ocean summary statement

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

April ocean temperatures around Tuvalu were 1.0 to 2.0°C above normal.

Averaged over February to April, ocean temperatures around Tuvalu were 1.0 to 1.5°C above normal.

April sea levels around the Northern and Southern groups were 50 to 150mm above normal, while Central group sea levels were 150 to 200mm above normal.

Coral Bleaching Alert shows Alert Level 1 to Alert Level 2 in most parts of Tuvalu.

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

Ocean Variable statement

June ocean temperatures around Tuvalu are predicted to be 0.4 to 2.0°C above normal.

Averaged over June to August, ocean temperatures around Tuvalu are predicted to be 0.4 to 1.2°C above normal.

June and averaged over June to August sea levels around Northern group and Central group are predicted to be -30mm to 30mm near normal. For the Southern group, sea levels are predicted to be 30 to 200mm below normal.

Four-week coral bleaching outlook shows Alert Level 2 around Tuvalu.

IN BRIEF for Teleconference

- Rainfall was near-normal for April across Tuvalu, and at Niulakita for February to April. Nanumea and Nui recorded above normal rainfall during February to April, while Funafuti recorded below normal.
- The rainfall outlook generally indicates above normal most likely in June and June to August.
- SSTs were above normal for April and February to April. The outlook shows above SSTs for the next one and three months.
- Sea-surface heights (SSHs) were above normal for April. Near-normal sea surface heights are predicted for June and June to August in the Northern group and Central group, while below normal over the Southern group of Tuvalu.
- Coral Bleaching Alert shows Alert Level 1 to Alert Level 2. The Outlook for the next four weeks shows an Alert Level 2 over Tuvalu.

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	26/04/24	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All-Kaupule Secretary	24 2 1 2 1 All 13	13 2 1 7	11 2 6	
EAR Watch	26/04/24	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All-Kaupule Secretary	24 2 1 2 1 All 13	13 2 1 7	11 2 6	
Monthly Climate Briefing	26/04/24	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All-Kaupule Secretary	24 2 1 2 1 All 13	13 2 1 7	11 2 6	
Ocean Outlook	26/04/24	MET Staff Fisheries Dept	24 3	13 1	11 2	

		Disaster Dept	2	2		
		TRC	1		1	
		TuCAN	2			
		Agriculture	1	1	2	
		All Civil Servants	All			
		All-Kaupule	13	7	6	
		Secretary				
Dry Seasons Outlook Forum 2024	26/04/24	Met Staff	24	13	11	
		Climate Change Dpt	2	1	1	
		Agriculture Dtp	1	1		
		Waters Detp	1	1		
		Funfafuti Community				
Climate data request						
Total			203	109	94	