

Country: Tuvalu

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Dec-2023	Jan-2024	Feb-2024				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
	Nanumea (1941-2024)	252.4	376.1	532.6	164.6	328.4	
Nui (1946-2024)	246.1	210.2	594.4	218.1	351.2	281.2	73/79
Funafuti (1933-2024)	339.4	440.3	337.0	258.4	426.1	332.6	45/92
Niulakita (1953-2024)	177.7	286.3	372.5	252.3	382.0	318.2	45/72

TABLE 2: Three-month Total Rainfall for December 2023 to February 2024

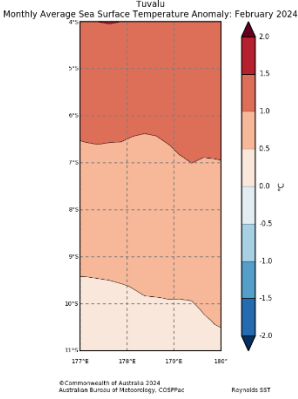
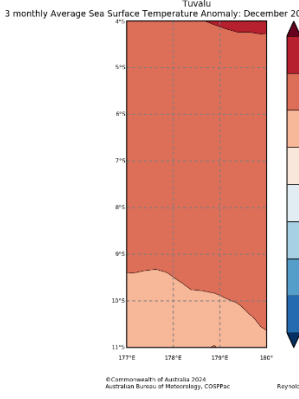
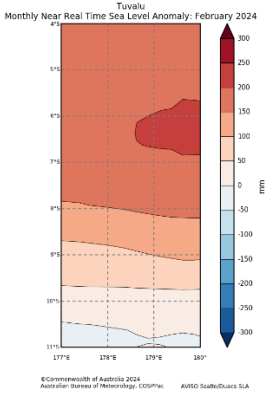
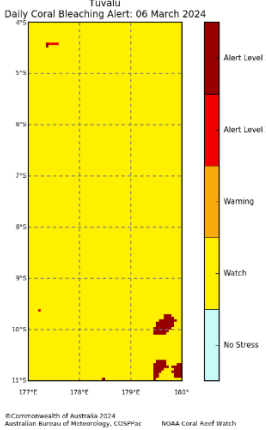
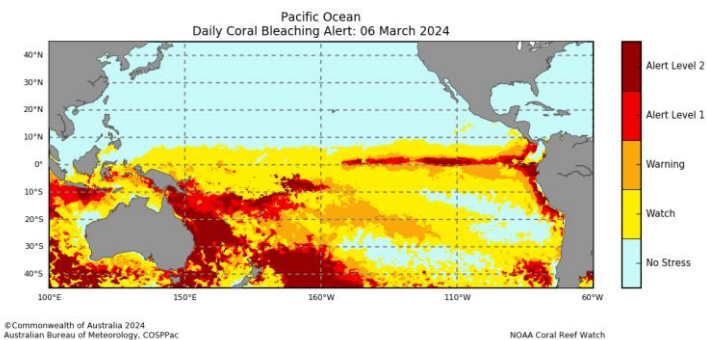
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Nanumea (1941-2024)	1161.1	Above normal	704.8	1131.0	969.6	58/82
Nui (1946-2024)	1050.7	Normal	832.5	1196.9	1065.5	38/76
Funafuti (1933-2024)	1116.7	Normal	993.3	1258.7	1111.0	44/91
Niulakita (1953-2024)	836.5	Below normal	886.5	1174.2	1012.0	20/68

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

Monthly: April	Seasonal: April to June
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for April 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.maritimergions.org/</p> <p>Model run: 04/03/2024 Issued: 06/03/2024</p>	<p>Tercile rainfall probabilities for April to 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.maritimergions.org/</p> <p>Model run: 04/03/2024 Issued: 06/03/2024</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for April 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.maritimergions.org/</p> <p>Model run: 02/03/2024 Issued: 04/03/2024</p>	<p>Tercile maximum temperature probabilities for April to 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.maritimergions.org/</p> <p>Model run: 02/03/2024 Issued: 04/03/2024</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for April 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.maritimergions.org/</p> <p>Model run: 02/03/2024 Issued: 04/03/2024</p>	<p>Tercile minimum temperature probabilities for April to 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.maritimergions.org/</p> <p>Model run: 02/03/2024 Issued: 04/03/2024</p>

Part 2: Recent Ocean Observation

Monthly/Three months: February 2024 and December 2023 to February 2024

Monthly: February 2024	Last three months: December 2023 to February 2024:
Sea Surface Temperature (Image 1): <div></div>	Sea Surface Temperature (Image 4): <div></div>
Sea level (Image 2): <div></div>	
Daily coral bleaching alert (Image 3): <div></div>	<div></div>

Summary Statement

Monthly and last three months: February 2024/December 2023 to February 2024 statement

The rainfall for February was above normal over Nanumea and Nui, while near-normal was observed at Funafuti and Niulakita. Nui recorded its seventh wettest February record.

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

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

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for April and April to June is likely or very likely to be above normal over Tuvalu.

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

Part 2: Recent Ocean summary statement

Monthly and last three months: February 2024/December 2023 to February 2024

February ocean temperatures were 1.0 to 1.5°C above normal around Northern group, 0.5 to 1.0°C above normal in the Central group and Southern group and near normal for parts of the South-West of Tuvalu EEZ.

Averaged over December to February, ocean temperatures around Northern group and Central group were 1.0 to 1.5°C above normal while in the Southern group, ocean temperatures were 0.5 to 1.5°C above normal.

February sea levels were 150 to 200mm above normal for majority of the Northern group except for a little portion of 200 to 250mm above normal over the central Eastern side. In the Central group, sea levels were 50 to 150mm above normal, while near normal sea levels were observed in the Southern group.

Coral Bleaching Alert on watch over Tuvalu.

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

Ocean Variable statement

April ocean temperatures for majority of Tuvalu are predicted to be 0.8 to 1.2°C above normal, except for ocean temperatures of 0.4 to 0.8°C above normal are predicted for the Southern side of Tuvalu EEZ.

Averaged over April to June, ocean temperatures over the Northern and Central group are predicted to be 0.8 to 1.2°C above normal, while in the Southern group, ocean temperatures are predicted to be 0.4 to 1.2°C above normal.

April and averaged over April to June sea levels around Northern group and Central group including Funafuti are predicted to be near normal, while in the Southern group sea levels are predicted to be 30 to 200mm below normal.

Coral Bleaching Outlook is predicted to be Alert Level 1 to Alert Level 2 across the country.

IN BRIEF for Teleconference

- Rainfall was above normal to normal for February and December to January, except Niulakita where rainfall was below normal for past three months.
- The rainfall outlook generally indicates above normal most likely in April and averaged over April to June.
- Sea surface temperatures (SSTs) were above normal for February and December to February. The outlook shows above normal SSTs for the next one and three months.
- Sea-surface heights (SSHs) were above normal for February. Near-normal SSHs are predicted for Northern and Central groups for April and April to June.
- Coral bleaching Alert on watch and the outlook for the next 4 weeks shows Alert level 1 to Alert level 2.

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

Product	Date: February 2024	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Comments (If there are comments from you Stakeholders)
Climate Bulletin	23/02/24	MET Staff	24	13	11	
		Disaster Dept	2	1	1	
		TRC	2	2		
		TuCAN	1		1	
		Agriculture	1		1	
		All Civil Servants	All			
		All-Kaupule Secretary	13	7	6	
EAR Watch	23/02/24	MET Staff	24	13	11	
		Disaster Dept	2	1	1	
		TRC	2	2		
		TuCAN	1		1	
		Agriculture	1		1	
		All Civil Servants				
		All-Kaupule Secretary	All 13	7	6	
Monthly Climate Briefing	15/02/24	Met (Climate Division)	5	2	3	
Ocean Outlook	23/02/24	MET Staff	24	13	11	
		Disaster Dept	2	1	1	
		TRC	2	2		
		TuCAN	1		1	
		Agriculture	1		1	
		Fisheries Dept	1		1	
		All Civil Servants All-Kaupule Secretary	All 13	7	6	

Climate data request	12/02/24	Education département (Rainfall data for Funafuti and Vaitupu)	2	1	1	
Total			136	72	64	

Product	Date	Social Media	Viewers	Like	Share	Comments
Rainfall and Ocean Outlook Video show	07/03/24	Facebook Page (Tuvalu Meteorological Service)	3.74k	127	16	Need more vidéos for Product

Storm Surges with fresh strong wind and spring tide in Funafuti, Tuvalu on 11th February, 2024



Figure 1: Storm surges and highest tide contributed toward the main road affect the transportations service.
Source: Tuvalu Meteorological Service

Flash flooded in Kavatoetoe, Funafuti, 11 February- 2024



Figure 2: Rising Sea level inundated areas and affected the living standard of Households
Source: Tuvalu Meteorological Service

King tide of the year 2024 in Tuvalu, 10/03/24



Figure 3: rise the sea level into the main roads causing inundating vital transportation
Source: TMS