

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 185

Country: Tuvalu

Part 1: Recent climate

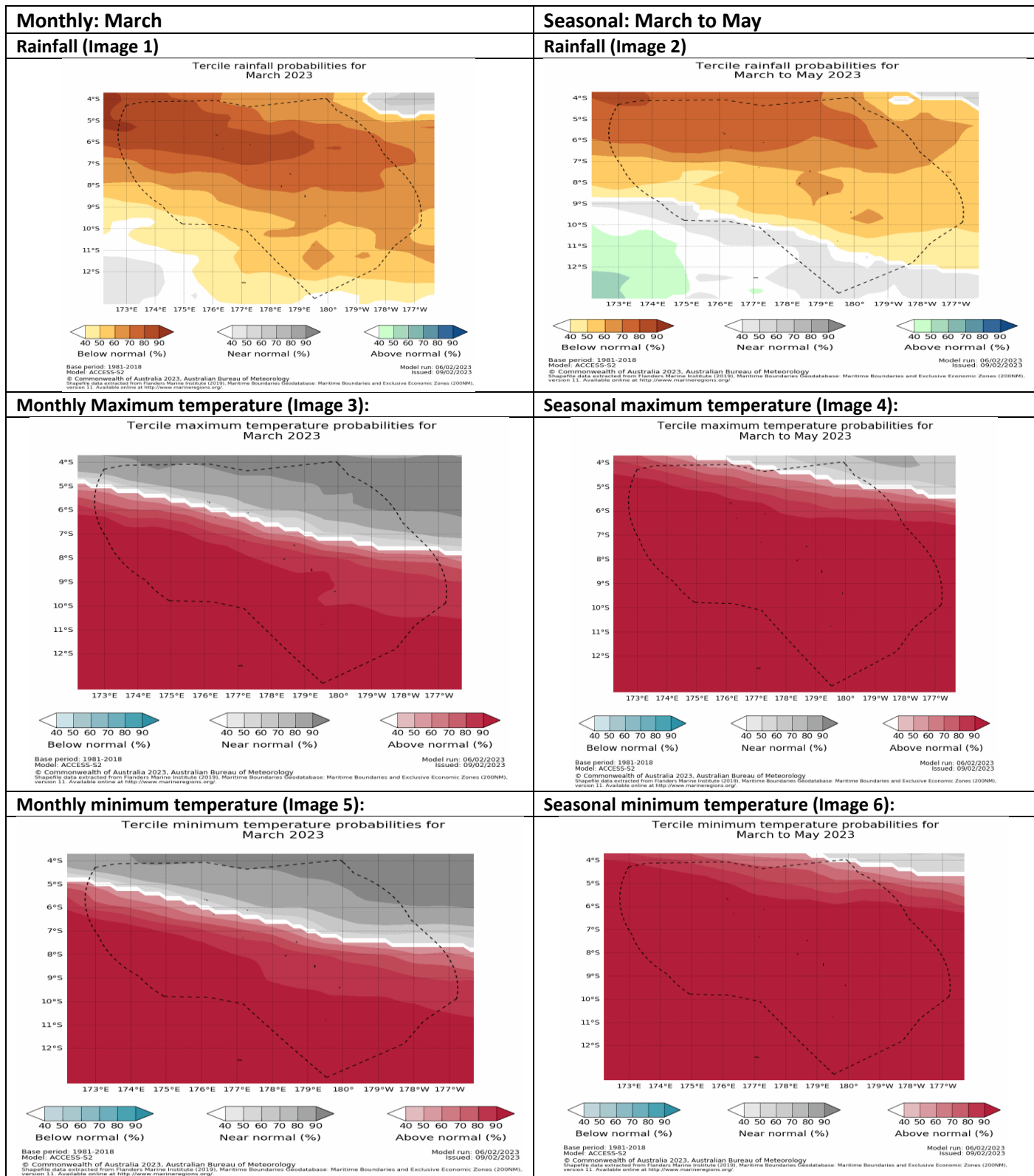
TABLE 1: Monthly Rainfall

Station (include data period)	Nov-2022	Dec-2022	Jan-2023				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Nanumea (1941-2023)	29.9	172.9	80.6	243.1	388.0	328.8	8/83
Nui (1946-2023)	206.2	268.7	196.8	243.8	446.0	323.1	13/78
Funafuti (1933-2023)	124.7	331.9	250.4	308.7	446.5	383.8	17/91
Niulakita (1953-2023)	187.8	337.4	129.8	309.6	442.4	381.0	5/70

TABLE 2: Three-month Total Rainfall for November 2022 to January 2023

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Nanumea (1941-2023)	283.4	Below normal	581.9	996.3	868.0	11/80
Nui (1946-2023)	671.7	Below normal	817.1	1090.7	936.1	18/77
Funafuti (1933-2023)	707.0	Below normal	934.6	1144.4	1018.6	9/90
Niulakita (1953-2023)	655.0	Below normal	842.3	1141.5	1035.1	7/68

Part 1i. Monthly and Seasonal Outlooks for March and March to May 2023

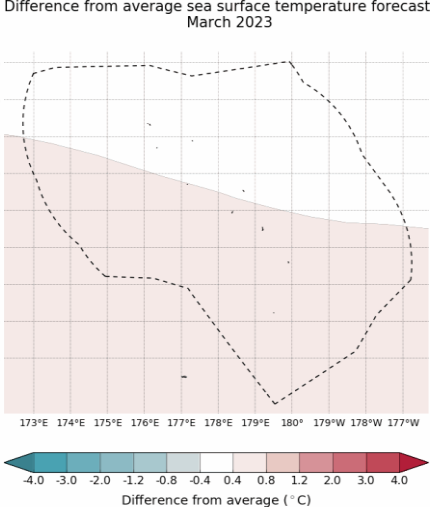
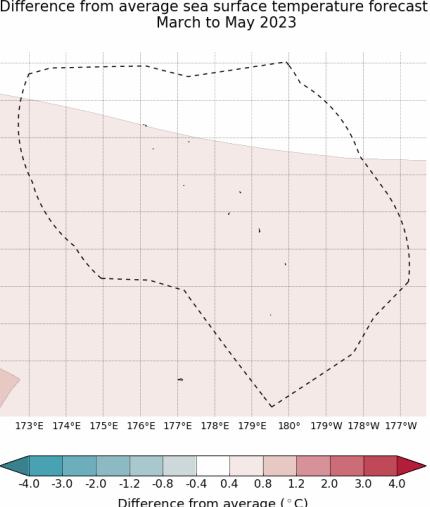
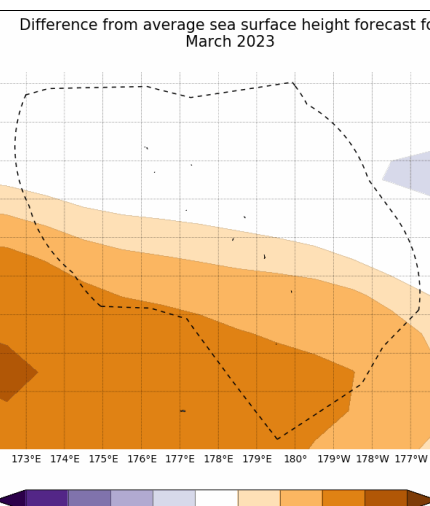
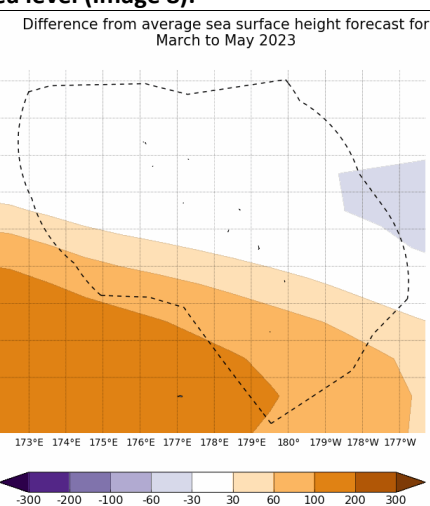
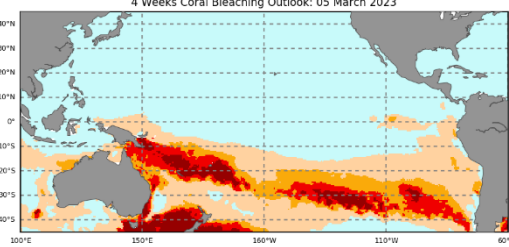
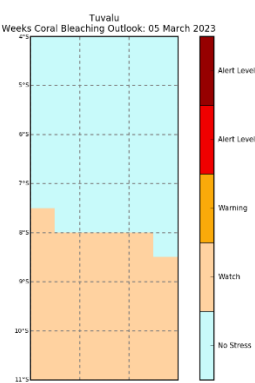


Part 2: Recent Ocean Observation

Monthly/Three months: January 2023 and November 2022 to January 2023

Monthly: January	Last three months: November 2022 to January 2023:
<p>Sea Surface Temperature (Image 1):</p> <p>Tuvalu Monthly Average Sea Surface Temperature Anomaly: January 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac Reynolds SST</p>	<p>Sea Surface Temperature (Image 4):</p> <p>Tuvalu 3 monthly Average Sea Surface Temperature Anomaly: November 2022 to January 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac Reynolds SST</p>
<p>Sea level (Image 2):</p> <p>Tuvalu Monthly Near Real Time Sea Level Anomaly: January 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac AVISO SeaWiFS/QuikSCAT SLA</p>	
<p>Daily coral bleaching alert (Image 3):</p> <p>Pacific Ocean Daily Coral Bleaching Alert: 06 February 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac NOAA Coral Reef Watch</p>	<p>Tuvalu Daily Coral Bleaching Alert: 06 February 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac NOAA Coral Reef Watch</p>

Part 2i. Monthly and Seasonal Outlooks for March and March to May 2023

Monthly: March	Seasonal: March to May
<p>Monthly sea surface temperature (Image 5):</p> <p>Difference from average sea surface temperature forecast for March 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, 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.marinegovern.org/</p> <p>Model run: 11/02/2023 Issued: 13/02/2023</p>	<p>Seasonal sea surface temperature (Image 6):</p> <p>Difference from average sea surface temperature forecast for March to May 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, 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.marinegovern.org/</p> <p>Model run: 11/02/2023 Issued: 13/02/2023</p>
<p>Monthly sea level (Image 7):</p> <p>Difference from average sea surface height forecast for March 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, 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.marinegovern.org/</p> <p>Model run: 11/02/2023 Issued: 13/02/2023</p>	<p>Seasonal sea level (Image 8):</p> <p>Difference from average sea surface height forecast for March to May 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, 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.marinegovern.org/</p> <p>Model run: 11/02/2023 Issued: 13/02/2023</p>
<p>4-week Coral Bleaching (Image 9):</p> <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 05 March 2023</p>  <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>	<p>Tuvalu 4 Weeks Coral Bleaching Outlook: 05 March 2023</p>  <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>

Summary Statement

Monthly and last three months: January 2023/November 2022 to January 2023 statement

Below normal observed across the country for January 2023 and November 2022 to January 2023. Nanumea recorded its eight driest January while Niulakita recorded its fifth driest.

Part 1i. Monthly and Seasonal Outlooks for March and March to May 2023

Monthly /Seasonal rainfall and temperature Outlook statements

Rainfall across Tuvalu during March and March to May is likely or very likely to be below normal, especially over the northern islands.

Monthly maximum and minimum temperatures are likely to be near-normal at Nanumea, but over remaining islands, temperatures are very likely to be above normal.

Seasonal maximum and minimum temperature are very likely to be above normal over the whole country.

Part 2: Recent Ocean summary statement

Monthly and last three months: January 2023/November 2022 to January 2023

The sea surface temperature for January and the last three months, November to January, reveals near normal SSTs for Tuvalu.

The sea level anomaly for January were above normal with sea level height differences of up to 150mm.

Coral bleaching reveals Watch status for the southern part of Tuvalu.

Part 2i. Monthly and Seasonal Outlooks for March and March to May 2023

Ocean Variable statement

The monthly sea surface temperature outlooks for March predict near-normal SSTs in the northeast half of the country, and 0.4 to 0.8 °C above normal in the southwest half. The seasonal sea surface temperature outlooks for March to April predict 0.4 to 0.8 above normal for majority of Tuvalu.

Monthly and seasonal sea levels are forecast to be near-normal for the northern group, with southwest region forecast to be above normal ranging from 100 to 200mm.

Coral bleaching outlook reveals Watch status for the southern part of Tuvalu.

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

Product	Date: January 2023	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin		MET Staffs	22	17	5
		Disaster Dept	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
		All Civil Servants			
		All Kaupule Secretary			
EAR Watch		MET Staffs	22	17	5
		Disaster Dept	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
		All Civil Servants			
		All Kaupule Secretary			
Monthly Climate Briefing		MET Staffs	22	17	5
		Disaster Dept	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
		All Civil Servants			
		All Kaupule Secretary			
Ocean Outlook		MET Staffs	22	17	5
		Disaster Dept	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
		All Civil Servants			
		All Kaupule Secretary			
Climate data request		Fatoaga Fiafia (James)	1	1	
Total			115	85	32