

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 188

Country: Tuvalu

Part 1: Recent climate

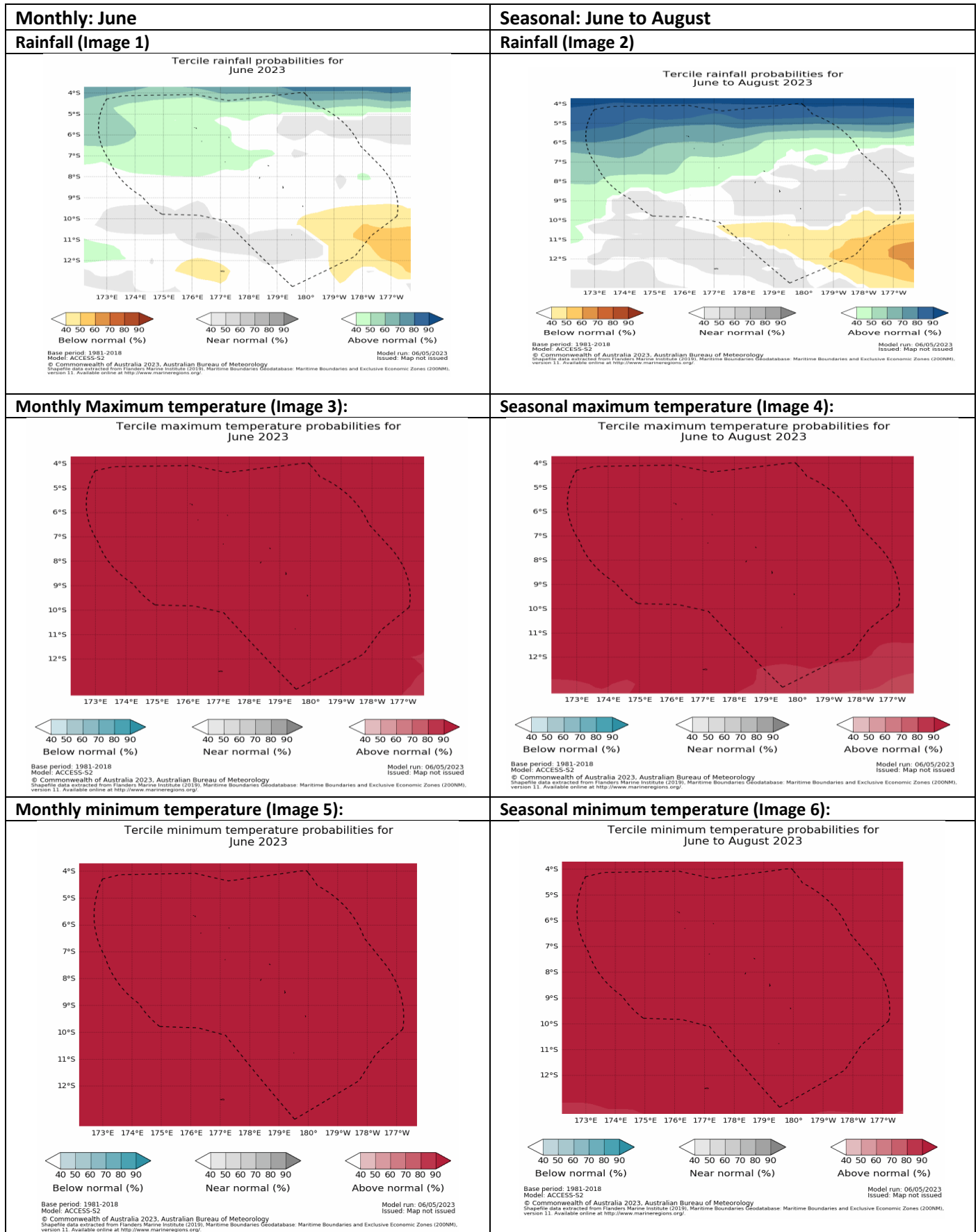
TABLE 1: Monthly Rainfall

Station (include data period)	Feb-2023	Mar-2023	Apr-2023				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Nanumea (1941-2023)	52.0	108.4	139.4	197.1	271.4	228.0	17/83
Nui (1946-2023)	170.2	247.1	285.4	149.9	267.2	198.8	55/78
Funafuti (1933-2023)	424.8	299.4	270.5	185.7	314.5	237.5	54/91
Niulakita (1953-2023)	91.3	137.1	128.3	168.1	257.8	215.9	13/71

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

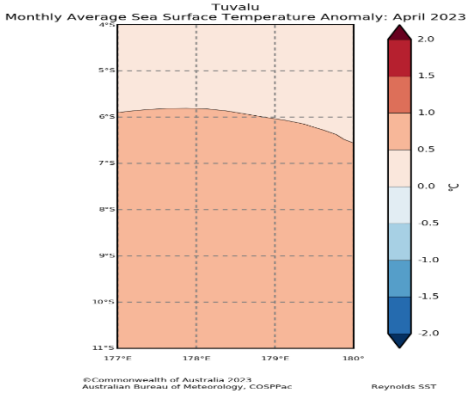
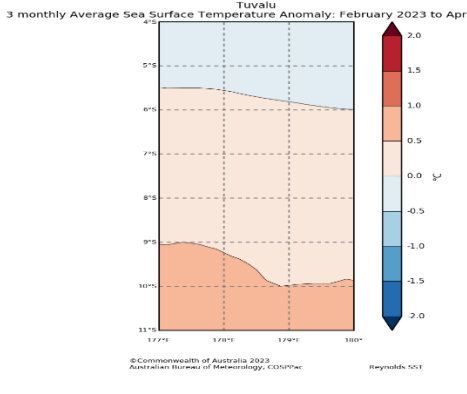
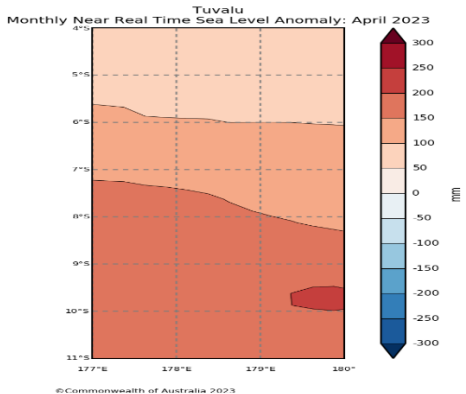
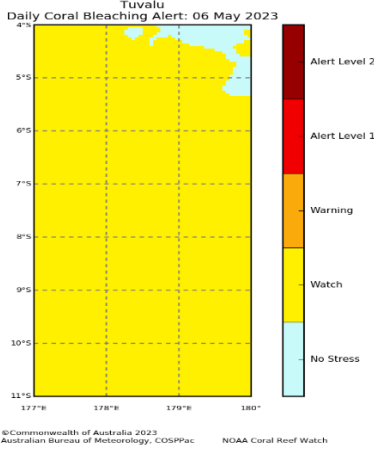
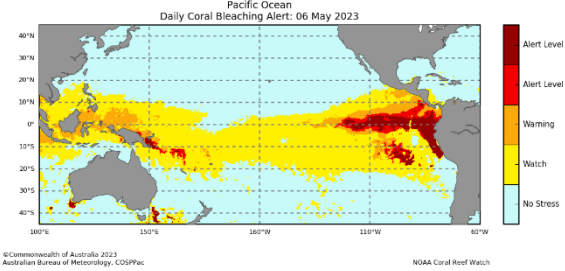
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Nanumea (1941-2023)	299.8	Below normal	639.3	992.0	796.6	8/83
Nui (1946-2023)	702.7	Normal	691.4	980.0	824.0	27/78
Funafuti (1933-2023)	994.7	Normal	804.0	1069.1	941.2	56/91
Niulakita (1953-2023)	356.7	Below normal	851.0	1030.4	947.1	2/71

Part 1i. Monthly and Seasonal Outlooks for June and June to August 2023

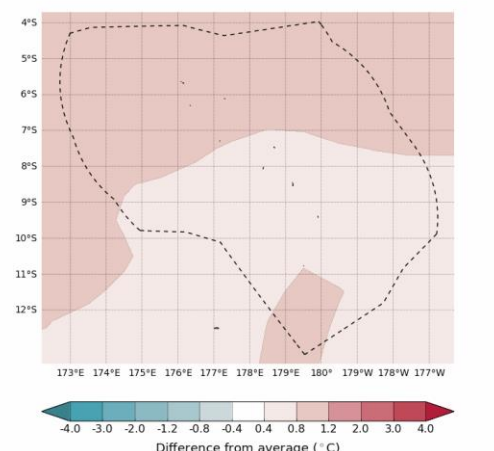
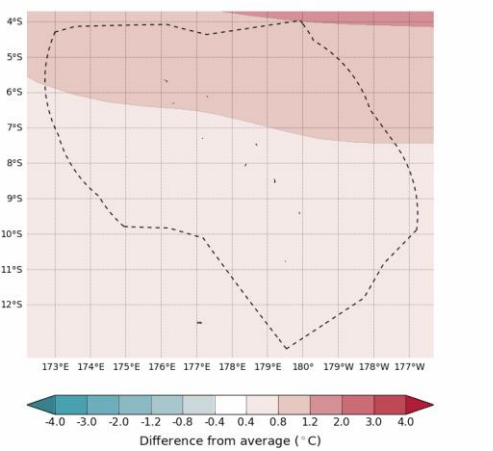
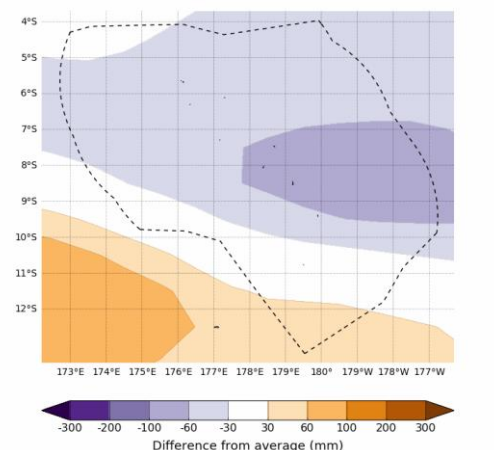
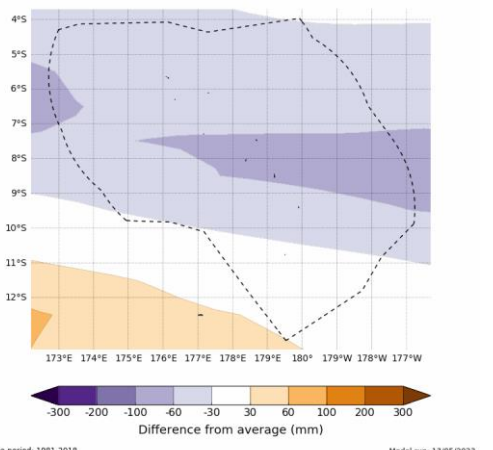
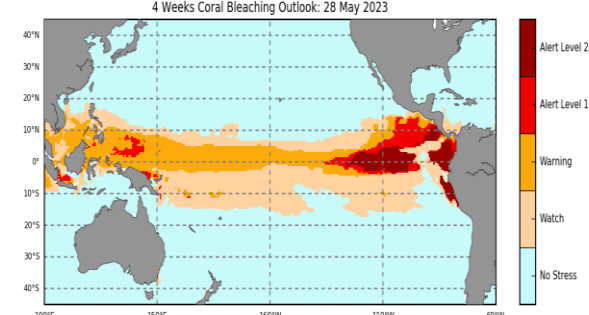
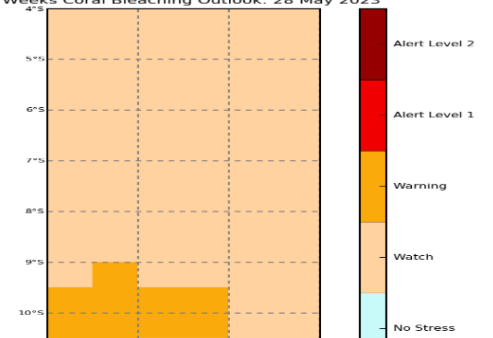


Part 2: Recent Ocean Observation

Monthly/Three months: April and February to April 2023

Monthly: April	Last three months: February to April 2023:
<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 2023

Monthly: June	Seasonal: June to August
<p>Monthly sea surface temperature (Image 5):</p> <p>Difference from average sea surface temperature forecast for June 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.maritimerregions.org/</p> <p>Model run: 13/05/2023 Issued: 16/05/2023</p>	<p>Seasonal sea surface temperature (Image 6):</p> <p>Difference from average sea surface temperature forecast for June to August 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.maritimerregions.org/</p> <p>Model run: 13/05/2023 Issued: 16/05/2023</p>
<p>Monthly sea level (Image 7):</p> <p>Difference from average sea surface height forecast for June 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.maritimerregions.org/</p> <p>Model run: 13/05/2023 Issued: 16/05/2023</p>	<p>Seasonal sea level (Image 8):</p> <p>Difference from average sea surface height forecast for June to August 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.maritimerregions.org/</p> <p>Model run: 13/05/2023 Issued: 16/05/2023</p>
<p>4-week Coral Bleaching (Image 9):</p> <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 28 May 2023</p>  <p>© Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPac</p> <p>NOAA Coral Reef Watch</p>	<p>Tuvalu 4 Weeks Coral Bleaching Outlook: 28 May 2023</p>  <p>© Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPac</p> <p>NOAA Coral Reef Watch</p>

Summary Statement

Monthly and last three months: April 2023/February to April 2023 statement

Nanumea and Niulakita observed below normal rainfall, Nui above normal, and Funafuti near-normal rainfall in April. February to April rainfall was below normal at Nanumea and Niulakita, and near-normal at Nui and Funafuti.

Part 1i. Monthly and Seasonal Outlooks for June and June to August 2023

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for June is likely to be above normal at Nanumea and Nui, and near-normal at Niulakita. There is little guidance for Funafuti.

The rainfall for June to August is likely to be very likely to be above normal for the northern group, near-normal over the central group, while below normal is likely in the southern group.

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 2023/February to April 2023

April ocean temperatures around the northern part were near normal, while the central and southern group experienced 0.5 to 1.0°C above normal.

Averaged over February to April, ocean temperatures around the northern group and the central group were near normal, while the southern group experienced 0.5-1.0°C above normal temperatures.

April sea levels around the north and the central group were 50mm to 150mm above normal, while the southern group were 150mm to 200mm above normal.

Coral bleaching were on watch status across the country unless the NE corner of Tuvalu EEZ were No Stress

Part 2i. Monthly and Seasonal Outlooks for June and June to August 2023

Ocean Variable statement

For June and averaged June to August ocean temperatures around the northern group are predicted to be 0.8 to 1.2°C above normal and the southern group are predicted to be 0.4 to 0.8°C.

For June and averaged June to August, sea levels around the country are predicted to be 30mm to 60mm below normal.

Coral Bleaching on Watch status across the country with exception for southwest Tuvalu EEZ at warning status for the next four weeks.

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

Product	Date: April 2023	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Comments (If there are comments from you Stakeholders)
Climate Bulletin		MET Staff	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 Staff	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 Staff	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 Staff	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						
Total			117	85	34	