

# Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 178

Country: Tuvalu

## Part 1: Recent climate

**TABLE 1: Monthly Rainfall**

Station (include data period)	Apr-2022	May-2022	Jun-2022				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Nanumea (1941-2022)	84.5	33.5	57.9	127.0	212.9	168.4	4/82
Nui (1946-2022)	125.7	210.2	55.3	148.0	218.4	174.8	4/77
Funafuti (1933-2022)	65.5	312.2	93.5	165.2	259.4	210.8	3/90
Niulakita (1953-2022)	169.9	151.4	141.8	146.3	273.2	197.0	5/70

**TABLE 2: Three-month Total Rainfall for April to June 2022**

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Nanumea (1941-2022)	175.9	Below normal	520.9	766.8	615.0	2/82
Nui (1946-2022)	391.2	Below normal	508.6	731.2	578.4	14/77
Funafuti (1933-2022)	471.2	Below normal	629.9	806.4	706.3	10/90
Niulakita (1953-2022)	463.1	Below normal	578.9	751.3	661.0	8/70

**NB: The X LEPS % score has been categorised as follows:**

Very Low:  $X < 0.0$

Low:  $0 \leq X < 5$

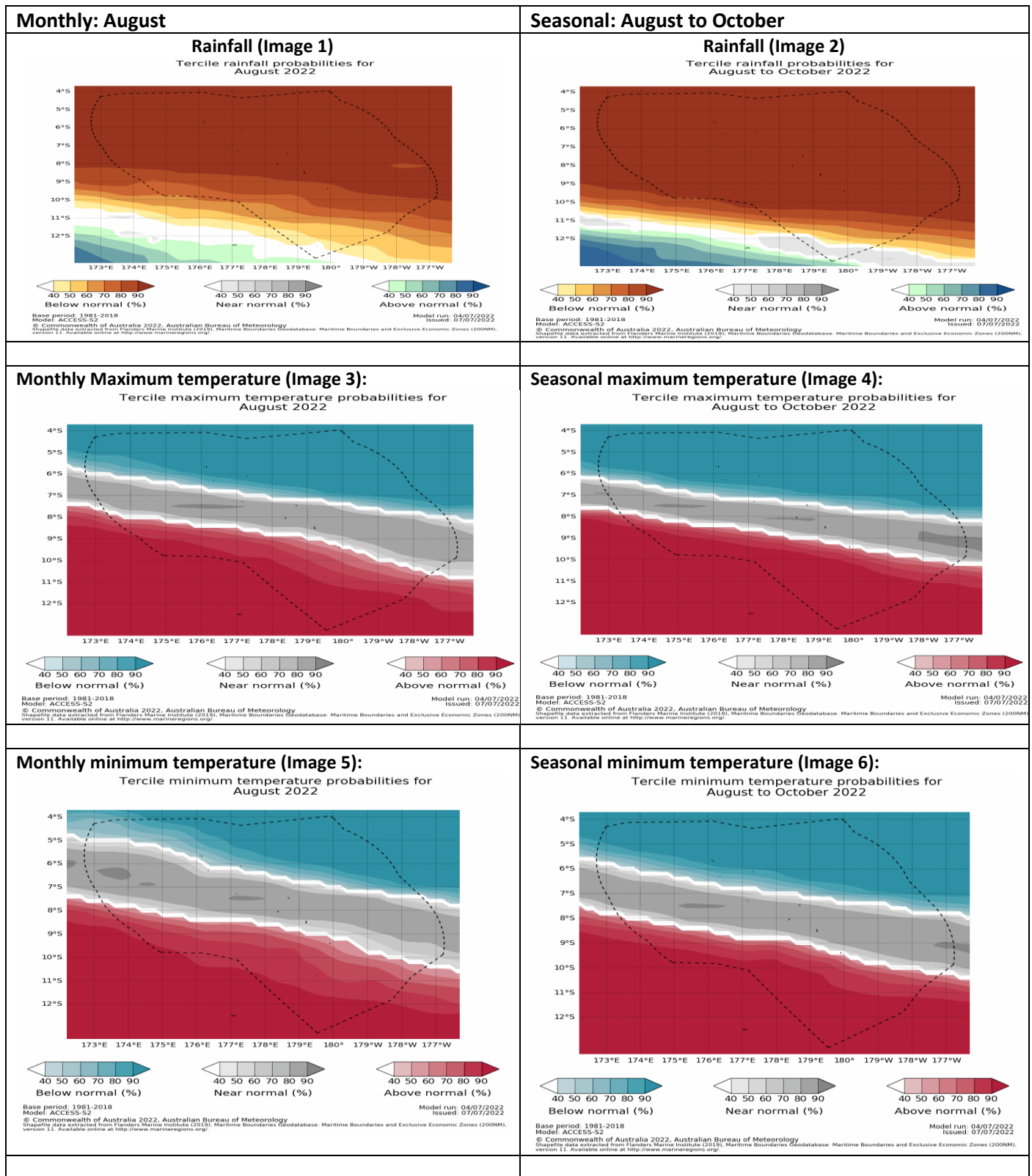
Moderate  $5 \leq X < 10$

Good:  $10 \leq X < 15$

High:  $15 \leq X < 25$

Very High:  $25 \leq X < 35$  Exceptional:  $X \geq 35$

# Part 1i. Monthly and Seasonal Outlooks for August and August to October 2022



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## Part 2: Recent Ocean observations

### Monthly: June 2022, Seasonal (April to June)

Monthly: June	Last three months: April to June 2022:
<p><b>Sea Surface Temperature (Image 1):</b></p> <p>Tuvalu Monthly Average Sea Surface Temperature Anomaly: June 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>Reynolds SST</p>	<p><b>Sea Surface Temperature (Image 4):</b></p> <p>Tuvalu 3 monthly Average Sea Surface Temperature Anomaly: April 2022 to June 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>Reynolds SST</p>
<p><b>Sea level (Image 2):</b></p> <p>Tuvalu Monthly Near Real Time Sea Level Anomaly: June 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMIAVIS0 SeaR/Duacs SLA</p>	
<p><b>Daily coral bleaching alert (Image 3):</b></p> <p>Pacific Ocean Daily Coral Bleaching Alert: 06 July 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>	<p><b>Daily coral bleaching alert (Image 3):</b></p> <p>Tuvalu Daily Coral Bleaching Alert: 06 July 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COM/NOAA Coral Reef Watch</p>

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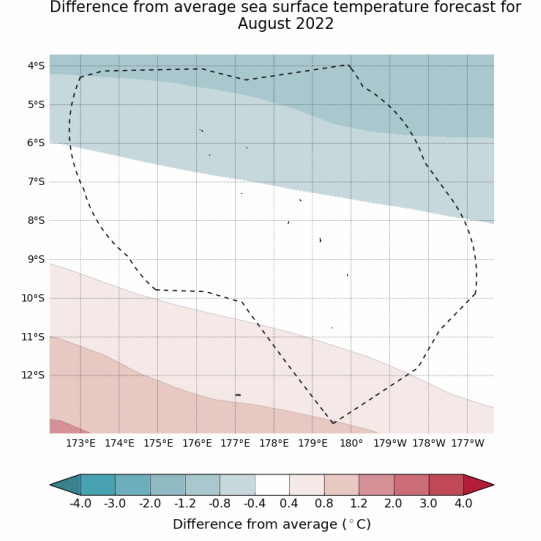
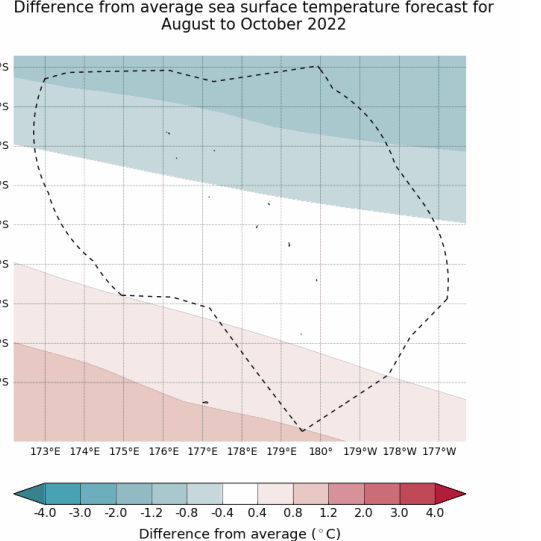
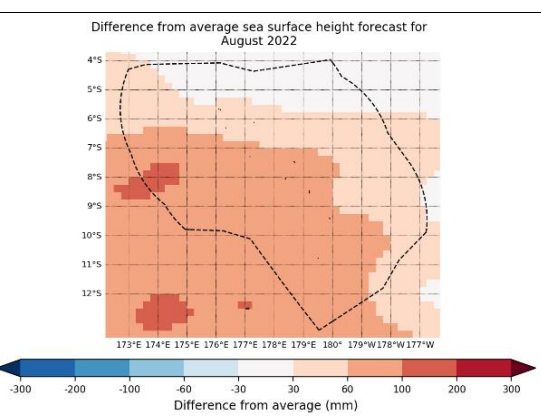
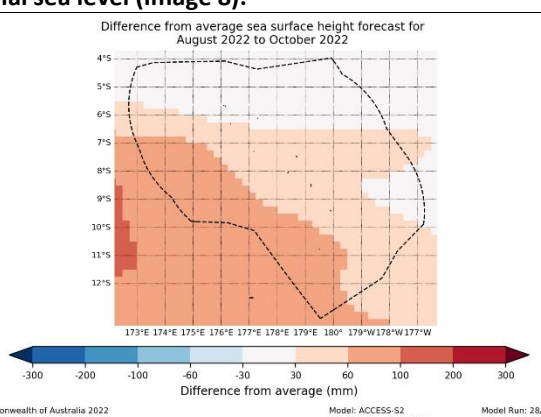
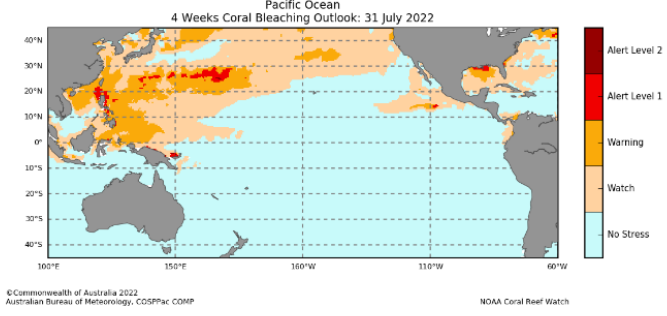
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# Part 2i. Monthly and Seasonal Outlooks for August and August to October 2022

Monthly: August	Seasonal: August to October
<p><b>Monthly sea surface temperature (Image 5):</b></p> <p>Difference from average sea surface temperature forecast for August 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, 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 <a href="http://www.marinerregions.org/">http://www.marinerregions.org/</a></p> <p>Model run: 16/07/2022 Issued: 18/07/2022</p>	<p><b>Seasonal sea surface temperature (Image 6):</b></p> <p>Difference from average sea surface temperature forecast for August to October 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, 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 <a href="http://www.marinerregions.org/">http://www.marinerregions.org/</a></p> <p>Model run: 16/07/2022 Issued: 18/07/2022</p>
<p><b>Monthly sea level (Image 7):</b></p> <p>Difference from average sea surface height forecast for August 2022</p>  <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28/06/2022 Issued: 12/07/2022</p>	<p><b>Seasonal sea level (Image 8):</b></p> <p>Difference from average sea surface height forecast for August 2022 to October 2022</p>  <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28/06/2022 Issued: 12/07/2022</p>
<p><b>4-week Coral Bleaching (Image 9):</b></p> <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 31 July 2022</p>  <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>	

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## Summary Statement

### Monthly and last three months: June 2022/April to June 2022 statement (Highly significant changes)

*June: Rainfall was very much below average across the country. Funafuti recorded its third-, Nanumea and Niu recorded their fourth-, and Niulakita its fifth-driest June on record*

*April-June: A very dry three months across the country, with all stations recording significantly below normal rainfall. Nanumea recorded its second driest April-June on record.*

## Part 1i. Monthly and Seasonal Outlooks for August and August to October 2022

### Monthly /Seasonal rainfall and temperature Outlook statements (Highly significant changes)

*The monthly rainfall outlook for August shows below normal is very likely for all stations (Nanumea, Nui, Funafuti and Niulakita). For the coming season August to October, the rainfall outlook for Tuvalu strongly indicates below normal across the country.*

*The monthly outlook and Seasonal outlooks for maximum and minimum temperatures show below normal the most likely for Nanumea, near-normal the most likely at Nui and Funafuti, while Niulakita is very likely to experience above normal temperatures.*

## Part 2: Recent Ocean summary statement

### Monthly and last three months: June/April to June 2022 (Highly significant changes)

*For June 2022 and April to June 2022, Tuvalu experienced normal SST conditions. The sea level was about 50-150mm above normal for Tuvalu in June 2022.*

*Coral Bleaching status in the last three months was 'No Stress' for the whole group of Tuvalu.*

## Part 2i. Monthly and Seasonal Outlooks for August and August to October 2022

### Ocean Variable statement (Highly significant changes)

*Monthly and Seasonal sea-surface temperature outlooks indicate below normal for the northern group, and near-normal for the central and southern groups of Tuvalu.*

The sea level anomaly forecasts for August and August to October reveal anomalies of +30 to +100mm for both periods.

Coral bleaching outlook for Tuvalu reveals no thermal stress for the next four weeks.

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

Product	Date: June 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin		MET Staff	22	17	5
		Disaster Dept	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
		All Civil Servents			
		All Kaupule Members			
EAR Watch		MET Staff	22	17	5
		Disaster Dept	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
		All Civil Servents			
		All Kaupule Members			
Monthly Climate Briefing		MET Staff	22	17	5
		Disaster Dept	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
		All Civil Servents			
		All Kaupule Members			
Ocean Outlook		MET Staff	22	17	5
		Disaster Dept	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
		All Civil Servents			
		All Kaupule Members			
Climate data request		Taiwan Mission	1	1	
<b>Total</b>			<b>117</b>	<b>85</b>	<b>32</b>

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