

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 190

Country: Fiji

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Apr-2023	May-2023	Jun-2023				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Western Division							
Penang Mill (1910-2023)	223.4	171.8	164.2	45.9	96.0	59.4	101/114
Lautoka Mill (1900-2023)	121.0	99.3	38.1	33.8	74.4	49.6	53/124
Nadi Airport (1942-2023)	113.6	136.9	86.7	28.1	72.7	53.2	62/82
Central Division							
Laucala Bay (Suva) (1942-2023)	163.9	197.7	314.5	100.9	208.3	136.7	72/82
Nausori Airport (1957-2023)	143.1	246.9	248.4	92.0	195.1	135.4	54/67
Tokotoko (Navua) (1945-2023)	87.5	150.5	203.2	129.1	234.5	162.5	47/79
Eastern Division							
Lakeba (1950-2023)	162.6	63.7	147.9	51.3	125.2	78.8	59/74
Vunisea (Kadavu) (1931-2023)	101.9	85.4	119.5	84.0	142.8	115.8	50/87
Ono-i-Lau (1943-2023)	71.3	73.0	92.0	61.5	109.5	79.3	45/76
Northern Division							
Labasa Airport (1946-2023)	89.5	164.8	103.9	28.8	80.3	44.0	52/67
Savusavu Airfield (1956-2023)	60.3	193.8	153.8	66.0	135.9	105.5	48/64
Udu Point (1946-2023)	131.7		154.5	76.1	149.6	105.2	52/75
Rotuma (1912-2023)	197.6	261.2	330.4	201.2	303.2	244.8	85/109

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

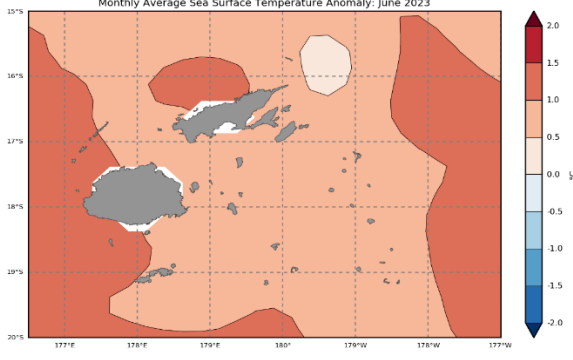
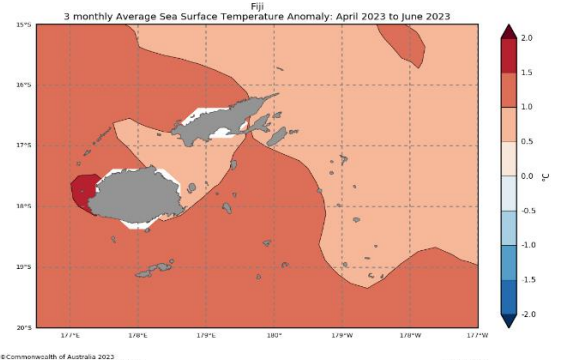
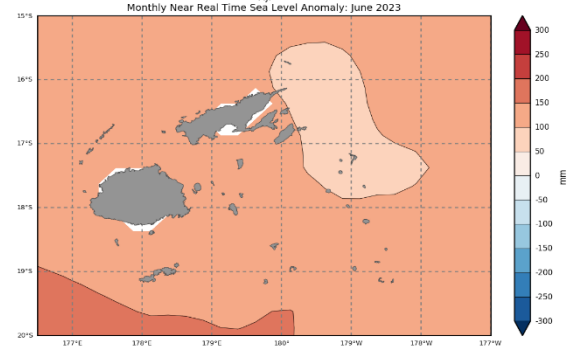
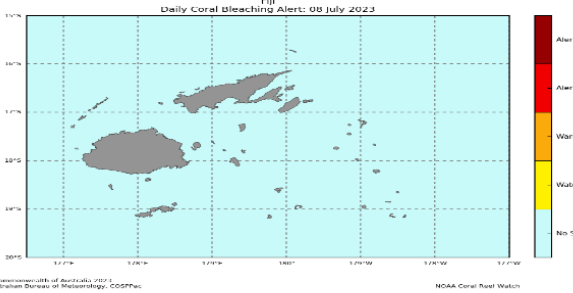
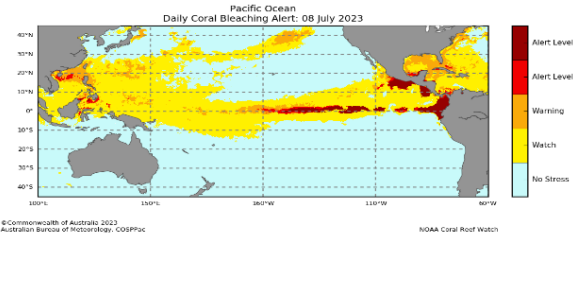
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Western Division						
Penang Mill (1910-2023)	559.4	Above normal	374.1	546.8	450.1	80/113
Lautoka Mill (1900-2023)	258.4	Below normal	264.3	412.0	347.7	37/124
Nadi Airport (1942-2023)	337.2	Normal	254.1	373.9	313.1	45/81
Central Division						
Laucala Bay (Suva) (1942-2023)	676.1	Below normal	678.4	844.1	732.4	27/82
Nausori Airport (1957-2023)	638.4	Below normal	645.9	796.8	708.2	22/67
Tokotoko (Navua) (1945-2023)	441.2	Below normal	730.0	999.2	864.5	3/79
Eastern Division						
Lakeba (1950-2023)	374.2	Normal	355.9	503.1	434.7	28/71
Vunisea (Kadavu) (1931-2023)	306.8	Below normal	484.9	626.9	549.3	16/87
Ono-i-Lau (1943-2023)	236.3	Below normal	322.7	475.8	419.8	17/73
Northern Division						
Labasa Airport (1947-2023)	358.2	Normal	334.3	448.0	407.4	25/67
Savusavu Airfield (1957-2023)	407.9	Normal	407.3	629.2	507.8	22/63
Udu Point (1946-2023)			443.5	664.4	535.5	
Rotuma (1912-2023)	789.2	Normal	743.6	916.4	825.7	49/109

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

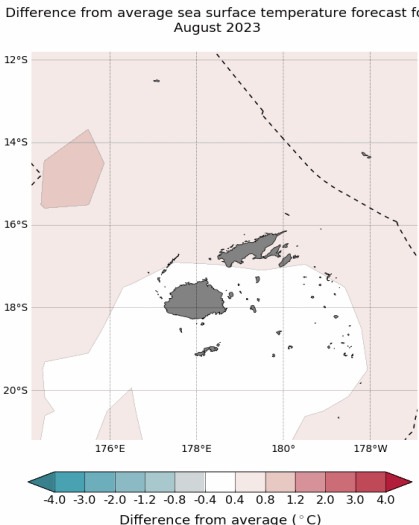
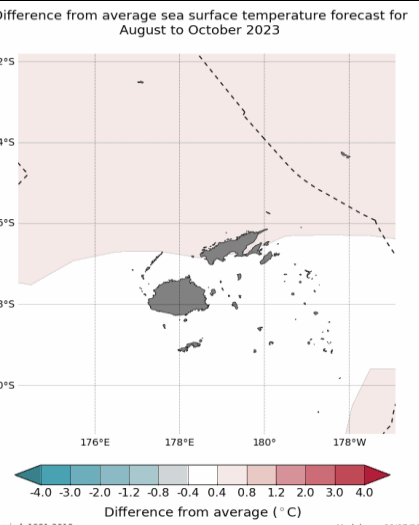
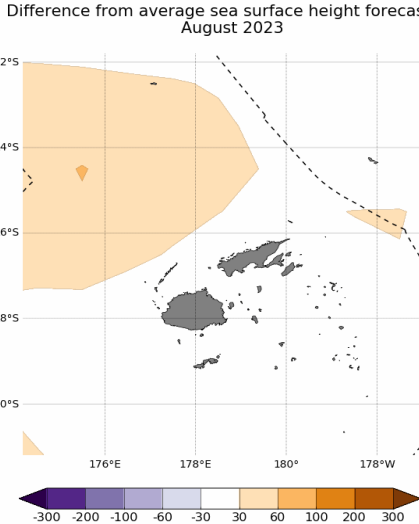
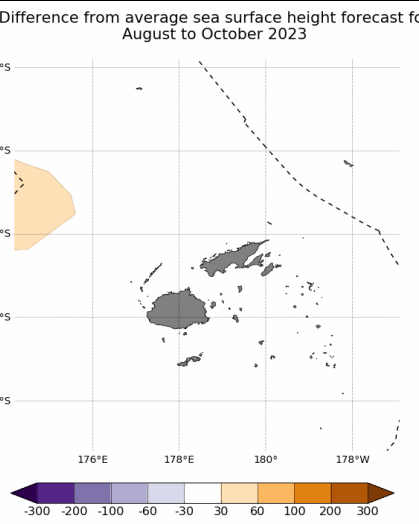
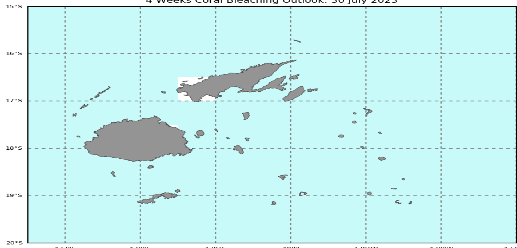
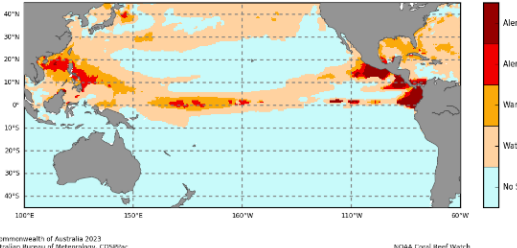
Monthly: August	Seasonal: August to October
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for August 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/ Model run: 08/07/2023 Issued: Map not issued</p>	<p>Tercile rainfall probabilities for August to October 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/ Model run: 08/07/2023 Issued: Map not issued</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for 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/ Model run: 08/07/2023 Issued: Map not issued</p>	<p>Tercile maximum temperature probabilities for August to October 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/ Model run: 08/07/2023 Issued: Map not issued</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for 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/ Model run: 08/07/2023 Issued: Map not issued</p>	<p>Tercile minimum temperature probabilities for August to October 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/ Model run: 08/07/2023 Issued: Map not issued</p>

Part 2: Recent Ocean Observation

Monthly/Three months: June and April to June 2023

<p><u>Monthly: June</u></p> <p>Sea Surface Temperature (Image 1):</p> <div><p>Fiji</p><p>Monthly Average Sea Surface Temperature Anomaly: June 2023</p><p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p><p>Reynolds SST</p></div>	<p><u>Last three months: April to June 2023:</u></p> <p>Sea Surface Temperature (Image 4):</p> <div><p>Fiji</p><p>3 monthly Average Sea Surface Temperature Anomaly: April 2023 to June 2023</p><p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p><p>Reynolds SST</p></div>
<p>Sea level (Image 2):</p> <div><p>Fiji</p><p>Monthly Near Real Time Sea Level Anomaly: June 2023</p><p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p><p>AVISO SeaWiFS SJA</p></div>	
<p>Daily coral bleaching alert (Image 3):</p> <div><p>Fiji</p><p>Daily Coral Bleaching Alert: 08 July 2023</p><p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>	<div><p>Pacific Ocean</p><p>Daily Coral Bleaching Alert: 08 July 2023</p><p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>

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

Monthly: August	Seasonal: August to October
<p>Monthly sea surface temperature (Image 5):</p>  <p>Difference from average sea surface temperature forecast for 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: 08/07/2023 Issued: 10/07/2023</p>	<p>Seasonal sea surface temperature (Image 6):</p>  <p>Difference from average sea surface temperature forecast for August to October 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: 08/07/2023 Issued: 10/07/2023</p>
<p>Monthly sea level (Image 7):</p>  <p>Difference from average sea surface height forecast for 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: 08/07/2023 Issued: 10/07/2023</p>	<p>Seasonal sea level (Image 8):</p>  <p>Difference from average sea surface height forecast for August to October 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: 08/07/2023 Issued: 10/07/2023</p>
<p>4-week Coral Bleaching (Image 9):</p>  <p>4 Weeks Coral Bleaching Outlook: 30 July 2023</p> <p>© Commonwealth of Australia 2023 Australian Bureau of Meteorology, CSIRO</p> <p>NOAA Coral Reef Watch</p>	 <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 30 July 2023</p> <p>© Commonwealth of Australia 2023 Australian Bureau of Meteorology, CSIRO</p> <p>NOAA Coral Reef Watch</p>

Summary Statement

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

For June 2023, *above normal* rainfall was recorded across Northern Division, at Penang Mill, Nadi Airport, Laucala Bay (Suva), Nausori Airport, Lakeba and Rotuma, while *near-normal* rainfall was registered at Lautoka Mill, Tokotoko (Navua), Vunisea and Ono-i-Lau.

For April to June 2023, *above normal* rainfall was recorded at Penang Mill, *near-normal* rainfall was recorded at Nadi Airport, Lakeba, Labasa Airport, Savusavu Airfield and Rotuma, while *below normal* rainfall was registered across Central Division, at Lautoka Mill, Vunisea and Ono-i-Lau. Tokotoko (Navua) recorded its third driest April to June period in 79 years of record.

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

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for August is likely to be *above normal* for northern and western Viti Levu, Mamanuca Group, Lomaiviti Group and Rotuma. Below normal rainfall is likely for Kadavu, Vatulele, Moala Group and Ono-i-Lau. In remaining parts of the country, the outlook offers little guidance.

The rainfall for August to October is likely to be below normal for Viti Levu, Viwa, Vanua Levu, Yasawa and Mamanuca Group, Moala Group, parts of Lomaiviti Group, and parts of northern and southern Lau group. In remaining parts of the country, the outlook offers little guidance.

Both maximum and minimum temperatures for Fiji for August and averaged over August to October 2023 are very likely to be *near normal*, except for some parts of Viti Levu and Vanua Levu where *above normal* temperatures are likely.

Part 2: Recent Ocean summary statement

Monthly and last three months: June 2023/April to June 2023

June ocean temperatures around Fiji were 0.5 to 1.0°C above normal.

Averaged over April to June, ocean temperatures around Fiji were 0.5 to 1.0°C above normal.

May sea levels around Fiji were 100mm to 150mm above normal.

Coral bleaching alert is at '*No Stress*' for Fiji Waters.

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

Ocean Variable statement

August and averaged over August and October, ocean temperatures around Fiji are predicted to be 0.4 to 0.8°C above normal for northern parts of Yasawa Group, Vanua Vanua Levu and Rotuma. The remaining parts of Fiji are predicted to experience near normal ocean temperatures.

The monthly and seasonal sea surface heights are likely to be near normal for majority of Fiji with exception around Rotuma predicted to be 30-60mm above normal for August.

Coral bleaching outlook for the next four weeks is at '*No Stress*' for most of the Fiji waters.

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

Product	Date: June 2023	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Comments (If there are comments from you Stakeholders)
Fiji Climate Summary	7/06/2023	General Public	140	106	34	
EAR Watch	9/06/2023	Humanitarian partners	122	96	26	
Fiji Climate Outlook	30/06/2023	General public	124	93	31	
Climate Outlook for Monasavu	30/06/2023	Energy Fiji Limited	13	13	-	
Fiji Ocean Outlook	20/06/2023	A number of key ocean related stakeholders	36	29	7	
Fiji Sugarcane Rainfall Outlook	30/06/2023	Sugar Industry stakeholders	77	60	17	
Meteorological Data Request	1/06/2023- 30/06/2023	A range of stakeholders	60	46	14	
Total			572	443	129	