

# Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 193

Country: Fiji

## Part 1: Recent climate

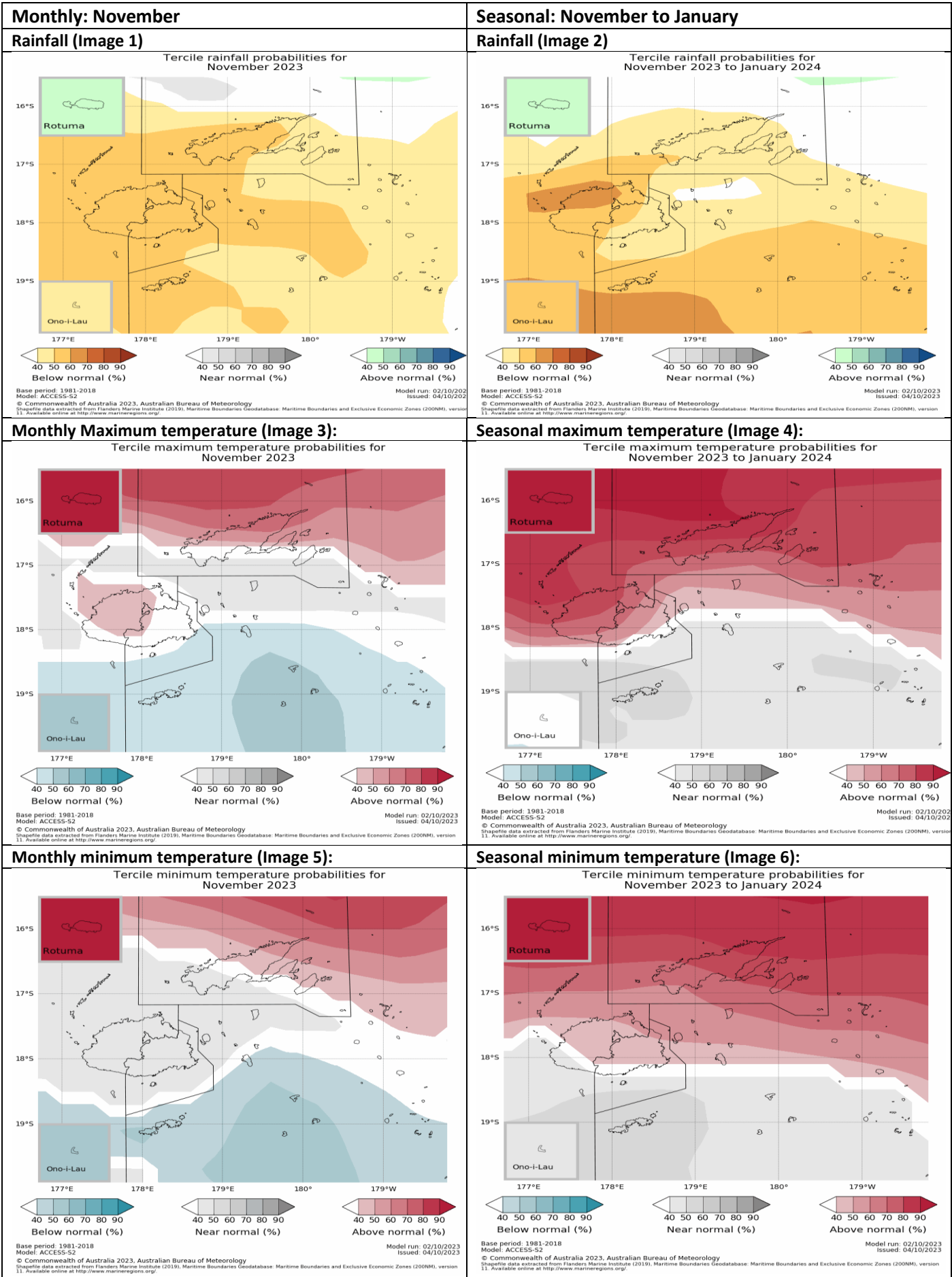
TABLE 1: Monthly Rainfall

Station (include data period)	Jul-2023	Aug-2023	Sep-2023				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Western Division							
Penang Mill (1910-2023)	76.8	51.8	142.9	40.8	87.3	59.2	93/113
Lautoka Mill (1900-2023)	52.0	41.5	210.6	31.6	85.9	56.0	118/124
Nadi Airport (1942-2023)	49.6	134.2	141.6	36.3	87.9	62.5	68/82
Central Division							
Laucala Bay (Suva) (1942-2023)	234.3	306.1	215.7	113.7	220.8	147.7	52/82
Nausori Airport (1957-2023)	184.8	211.1	153.6	108.1	200.5	144.0	37/67
Tokotoko (Navua) (1945-2023)	272.5	268.0	188.5	157.4	288.1	214.4	36/78
Eastern Division							
Lakeba (1950-2023)	77.8	111.5	29.5	68.8	126.2	92.4	10/74
Vunisea (Kadavu) (1931-2023)	85.4	173.0	134.5	93.2	167.7	133.5	49/86
Ono-i-Lau (1943-2023)	58.0	148.0	77.0	72.5	122.9	101.0	31/76
Northern Division							
Labasa Airport (1946-2023)	27.2	58.7	139.5	37.3	77.3	59.7	56/65
Savusavu Airfield (1956-2023)	108.6	88.1	173.2	79.0	132.4	102.8	50/65
Udu Point (1946-2023)	67.0	398.0	38.8	74.1	149.5	108.3	13/74
Rotuma (1912-2023)	517.9	211.5	78.6	168.0	270.0	210.4	6/107

TABLE 2: Three-month Total Rainfall for July to September 2023

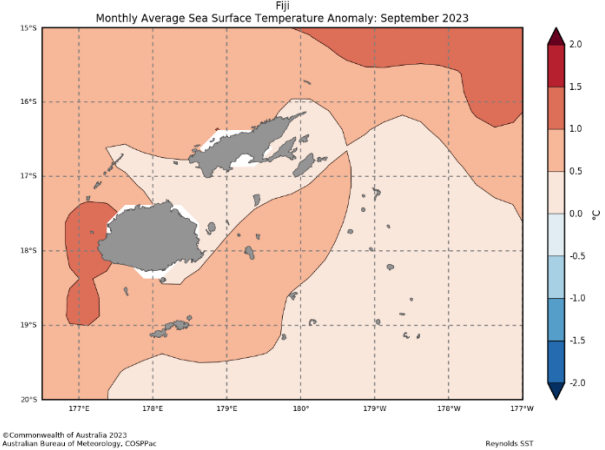
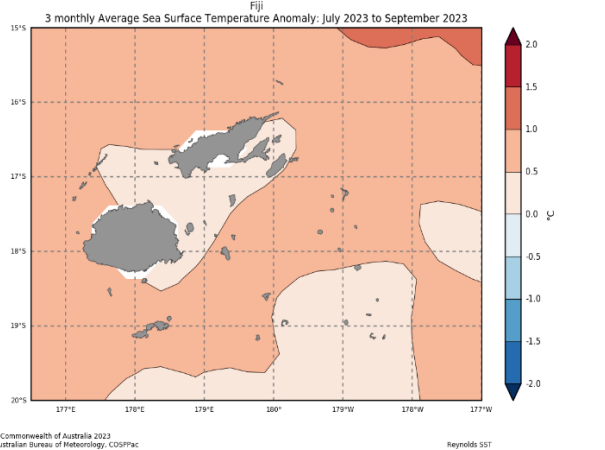
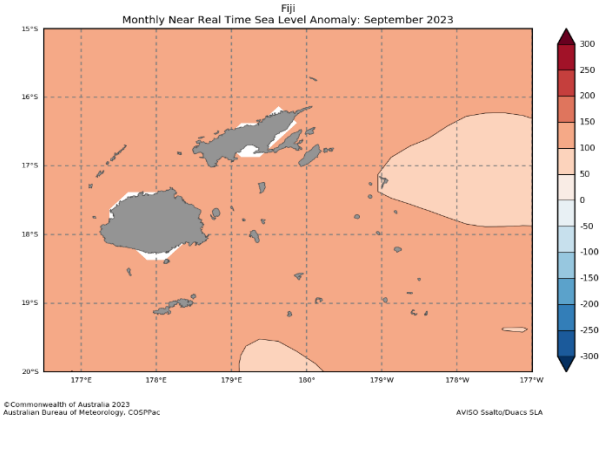
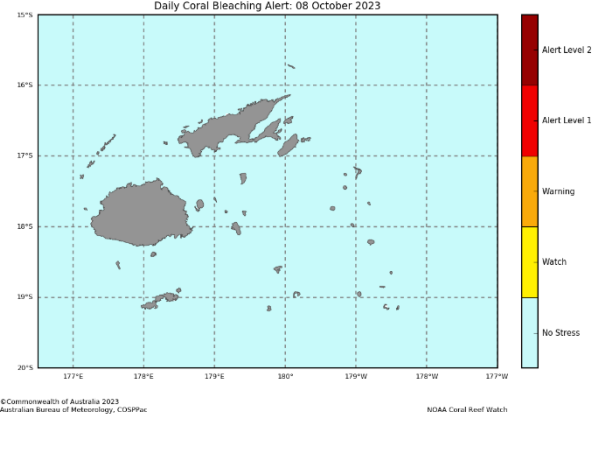
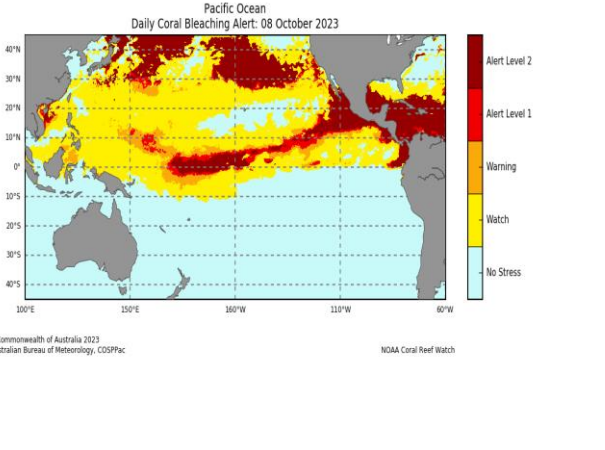
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Western Division						
Penang Mill (1910-2023)	271.5	Above normal	129.9	226.5	184.8	91/113
Lautoka Mill (1900-2023)	304.1	Above normal	112.7	214.5	154.6	104/123
Nadi Airport (1942-2023)	325.4	Above normal	128.5	210.3	174.2	74/82
Central Division						
Laucala Bay (Suva) (1942-2023)	756.1	Above normal	383.9	560.6	451.7	73/82
Nausori Airport (1957-2023)	549.5	Above normal	363.8	525.0	433.4	52/67
Tokotoko (Navua) (1945-2023)	729.0	Above normal	512.5	660.3	592.0	58/77
Eastern Division						
Lakeba (1950-2023)	218.8	Normal	203.6	314.0	240.3	30/72
Vunisea (Kadavu) (1931-2023)	392.9	Normal	295.8	399.5	347.0	57/84
Ono-i-Lau (1943-2023)	283.0	Normal	252.4	338.6	295.5	35/75
Northern Division						
Labasa Airport (1947-2023)	225.4	Above normal	110.6	188.1	154.2	48/65
Savusavu Airfield (1957-2023)	369.9	Above normal	242.2	336.0	304.0	46/65
Udu Point (1946-2023)	503.8	Above normal	240.6	350.2	296.1	67/73
Rotuma (1912-2023)	808.0	Above normal	573.0	762.2	655.2	74/106

Part 1i. Monthly and Seasonal Outlooks for November and November 2023 to January 2024



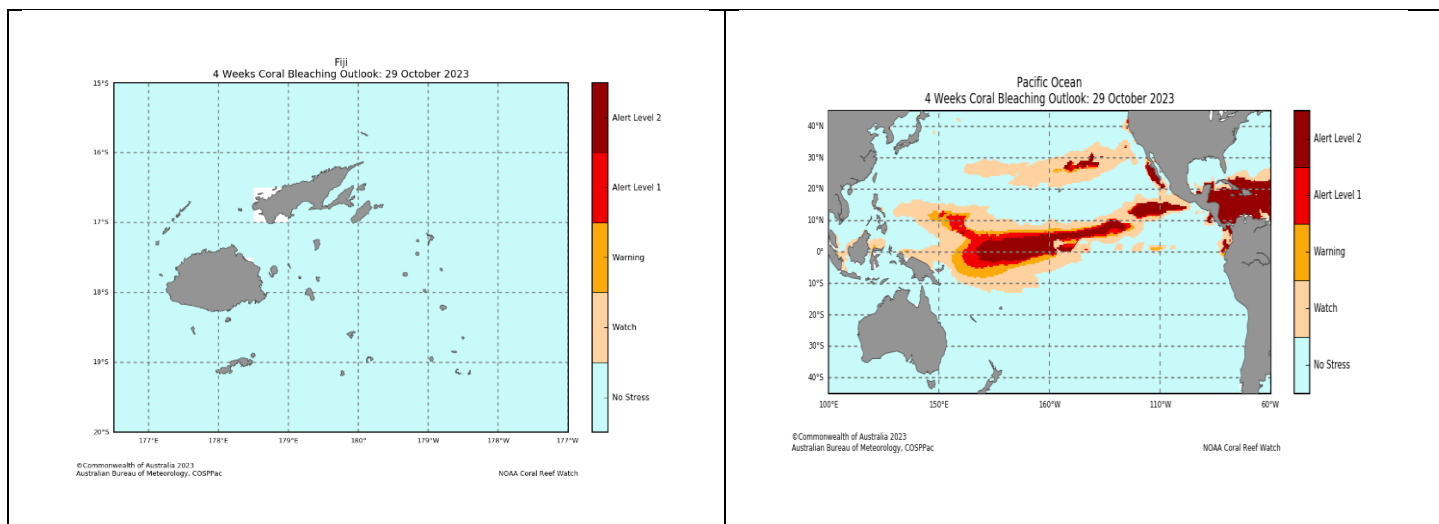
Part 2: Recent Ocean Observation

Monthly/Three months: September and July to September 2023

<p><b>Monthly: September</b></p> <p><b>Sea Surface Temperature (Image 1):</b></p>  <p>Monthly Average Sea Surface Temperature Anomaly: September 2023</p> <p>Reynolds SST</p>	<p><b>Last three months: July to September 2023:</b></p> <p><b>Sea Surface Temperature (Image 4):</b></p>  <p>3 monthly Average Sea Surface Temperature Anomaly: July 2023 to September 2023</p> <p>Reynolds SST</p>
<p><b>Sea level (Image 2):</b></p>  <p>Monthly Near Real Time Sea Level Anomaly: September 2023</p> <p>AVISO Ssalto/Duacs SLA</p>	
<p><b>Daily coral bleaching alert (Image 3):</b></p>  <p>Daily Coral Bleaching Alert: 08 October 2023</p> <p>NOAA Coral Reef Watch</p>	 <p>Daily Coral Bleaching Alert: 08 October 2023</p> <p>NOAA Coral Reef Watch</p>

Part 2i. Monthly and Seasonal Outlooks for November and November 2023 to January 2024

Monthly: November	Seasonal: November to January
<p>Monthly sea surface temperature (Image 5):</p> <p>Difference from average sea surface temperature forecast for November 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 (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimerregions.org/">http://www.maritimerregions.org/</a></p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>	<p>Seasonal sea surface temperature (Image 6):</p> <p>Difference from average sea surface temperature forecast for November 2023 to January 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimerregions.org/">http://www.maritimerregions.org/</a></p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>
<p>Monthly sea level (Image 7):</p> <p>Difference from average sea surface height forecast for November 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 (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimerregions.org/">http://www.maritimerregions.org/</a></p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>	<p>Seasonal sea level (Image 8):</p> <p>Difference from average sea surface height forecast for November 2023 to January 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimerregions.org/">http://www.maritimerregions.org/</a></p> <p>Model run: 09/10/2023 Issued: 11/10/2023</p>
<p>4-week Coral Bleaching (Image 9):</p>	



## Summary Statement

### Monthly and last three months: September 2023/July to September 2023 statement

For September 2023, *above normal* rainfall was recorded across Western Division, at Labasa and Savusavu, while *near-normal* rainfall was recorded across Central Division, at Kadavu and Ono-i-Lau. *Below normal* rainfall was observed at Lakeba, Udu Point and Rotuma. Lakeba and Rotuma recorded their tenth and sixth driest September in 74 and 104 years of record, respectively. In contrast, Lautoka had its seventh wettest September in 124 years of record.

For July to September 2023, *above normal* rainfall was recorded across the Western, Central and Northern Divisions, and at Rotuma, while *near-normal* rainfall was recorded across the Eastern Division. Nadi and Laucala Bay recorded their ninth and tenth wettest July to September period, respectively, in 82 years of record.

## Part 1i. Monthly and Seasonal Outlooks for November and November 2023 to January 2024

### Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for November and November 2023 to January 2024 is likely to be *below normal* across the Fiji Group, while *above normal* is likely for Rotuma.

Maximum temperature for Fiji for November is likely to be *above normal* for western parts of Viti Levu, northern parts of Vanua Levu and Rotuma, while *near-normal* is likely for Viwa, northern parts of Yasawa group and most parts of the Eastern Division. *Below normal* November maxima are likely for Kadavu, southern parts of Lau Group and Ono-i-Lau, while in remaining parts of Fiji the outlook offers little guidance.

Minimum temperature for November is likely to be *above normal* for northern parts of Vanua Levu, Taveuni, and Rotuma, *near-normal* for the Western and Central Division, Vatulele and Beqa, and *below normal* for Kadavu, southern parts of Lau Group and Ono-i-Lau. There is little guidance for the remaining parts of Fiji.

Maximum temperature averaged over November to January 2024 is likely to be *above normal* across the Western, Central and Northern Divisions, and northern parts of the Lau Group and Rotuma, and *near-normal* temperatures for southern parts of the Lau Group and Kadavu. There is little guidance for the remaining parts of Fiji.

Minimum temperature averaged over November to January 2024 is likely to be above normal across the Western, Central and Northern Divisions, the northern Lau Group, and Rotuma, and *near-normal* for the remaining parts of Fiji.

## Part 2: Recent Ocean summary statement

### Monthly and last three months: September 2023/July to September 2023

September ocean temperatures around Fiji were 0.0°C to 1.5°C above normal.

Averaged over July to September, ocean temperatures around Fiji were 0.0°C to 1.5°C above normal.

September 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 November and November to January 2024

### Ocean Variable statement

November and averaged over November to January 2024, ocean temperatures around Fiji are predicted to be 0.4 to 0.8°C *above normal* for Rotuma. The remaining parts of Fiji are predicted to experience *near normal* ocean temperatures.

The monthly sea surface heights are likely to be 30 to 60mm *below normal* for Viwa and Yasawa Group, while remaining parts of the Fiji group are likely to be *near normal*. Seasonal sea surface heights are likely to be *near normal* across the Fiji Group.

Coral bleaching outlook is predicted to have no thermal stress for Fiji for the next four weeks.

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

Product	Date: August 2023	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Comments (If there are comments from you Stakeholders)
Fiji Climate Summary	07/09/2023	General Public	140	106	34	
EAR Watch	11/09/2023	Humanitarian partners	122	96	26	
Fiji Climate Outlook	29/09/2023	General public	124	93	31	
Climate Outlook for Monasavu	29/09/2023	Energy Fiji Limited	13	13	-	
Fiji Ocean Outlook	20/09/2023	A number of key ocean related stakeholders	36	29	7	
ENSO Update	25/09/2023	General Public	142	116	26	



Fiji Sugarcane Rainfall Outlook	29/09/2023	Sugar Industry stakeholders	77	60	17	
Meteorological Data Request	1/09/2023-30/09/2023	A range of stakeholders	35	33	2	
<b>Total</b>			<b>689</b>	<b>546</b>	<b>143</b>	

### Flash Flooding in the Central Division – 13<sup>th</sup> to 14<sup>th</sup> September 2023



*Figure 1: Flash flooding in Wainadoi on 14<sup>th</sup> September, 2023. Source: NDMO*



*Figure 2: Flash flooding in Wainadoi on 14<sup>th</sup> September, 2023. Source: NDMO*

### Flash Flooding in the Western Division – 26<sup>th</sup> September 2023



*Figure 3: Vuda Back Road 1st crossing, Lautoka on 26<sup>th</sup> September, 2023. Source: Fiji Roads Authority.*



*Figure 4: Vaivai Road 1st crossing, Nadi on 26<sup>th</sup> September, 2023. Source: Fiji Roads Authority.*