

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 181

Country: Fiji

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Jul-2022	Aug-2022	Sep-2022				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Western Division							
Penang Mill (1910-2022)	51.8	92.3	49.6	39.5	90.1	59.2	43/112
Lautoka Mill (1900-2022)	0.0	40.9	0.0	31.7	86.2	57.1	1/123
Nadi Airport (1942-2022)	4.8	54.2	9.1	36.6	88.2	62.6	9/81
Central Division							
Laucala Bay (Suva) (1942-2022)	79.8	123.4	113.7	119.1	224.6	148.6	28/81
Nausori Airport (1957-2022)	116.4	133.8	58.5	110.7	204.7	145.2	6/66
Tokotoko (Navua) (1945-2022)	118.5	203.5	122.5	158.7	288.6	215.2	15/77
Eastern Division							
Lakeba (1950-2022)	40.8	48.9	224.9	68.8	124.1	91.5	70/73
Vunisea (Kadavu) (1931-2022)	17.3		135.0	93.2	169.7	133.0	49/85
Ono-i-Lau (1943-2022)	75.4	115.4	111.3	72.3	126.1	96.7	44/75
Northern Division							
Labasa Airport (1946-2022)	90.7	28.7	40.4	37.1	79.9	61.6	24/64
Savusavu Airfield (1956-2022)	111.6	123.8	29.2	79.5	134.5	107.0	4/64
Udu Point (1946-2022)	282.9	105.3	99.9	73.6	151.4	111.8	33/73
Rotuma (1912-2022)	162.0	79.5	124.5	169.0	271.0	210.5	17/106

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: $X \geq 35$

TABLE 2: Three-month Total Rainfall for July to September 2022

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Western Division						
Penang Mill (1910-2022)	193.7	Normal	129.7	227.2	183.0	58/112
Lautoka Mill (1900-2022)	40.9	Below normal	117.9	216.7	156.2	8/122
Nadi Airport (1942-2022)	68.1	Below normal	128.6	210.9	174.6	8/81
Central Division						
Laucala Bay (Suva) (1942-2022)	316.9	Below normal	384.2	562.5	458.2	19/81
Nausori Airport (1957-2022)	308.7	Below normal	365.4	527.9	436.0	15/66
Tokotoko (Navua) (1945-2022)	444.5	Below normal	514.6	661.5	593.4	13/76
Eastern Division						
Lakeba (1950-2022)	314.6	Above normal	203.0	312.9	236.8	48/71
Vunisea (Kadavu) (1931-2022)			295.8	399.5	347.0	
Ono-i-Lau (1943-2022)	302.1	Normal	252.3	343.4	295.5	41/74
Northern Division						
Labasa Airport (1947-2022)	159.8	Normal	109.0	188.5	153.0	34/64
Savusavu Airfield (1957-2022)	264.6	Normal	240.6	336.7	305.5	26/64
Udu Point (1946-2022)	488.1	Above normal	235.4	345.8	295.0	63/72
Rotuma (1912-2022)	366.0	Below normal	576.0	765.5	656.1	12/105

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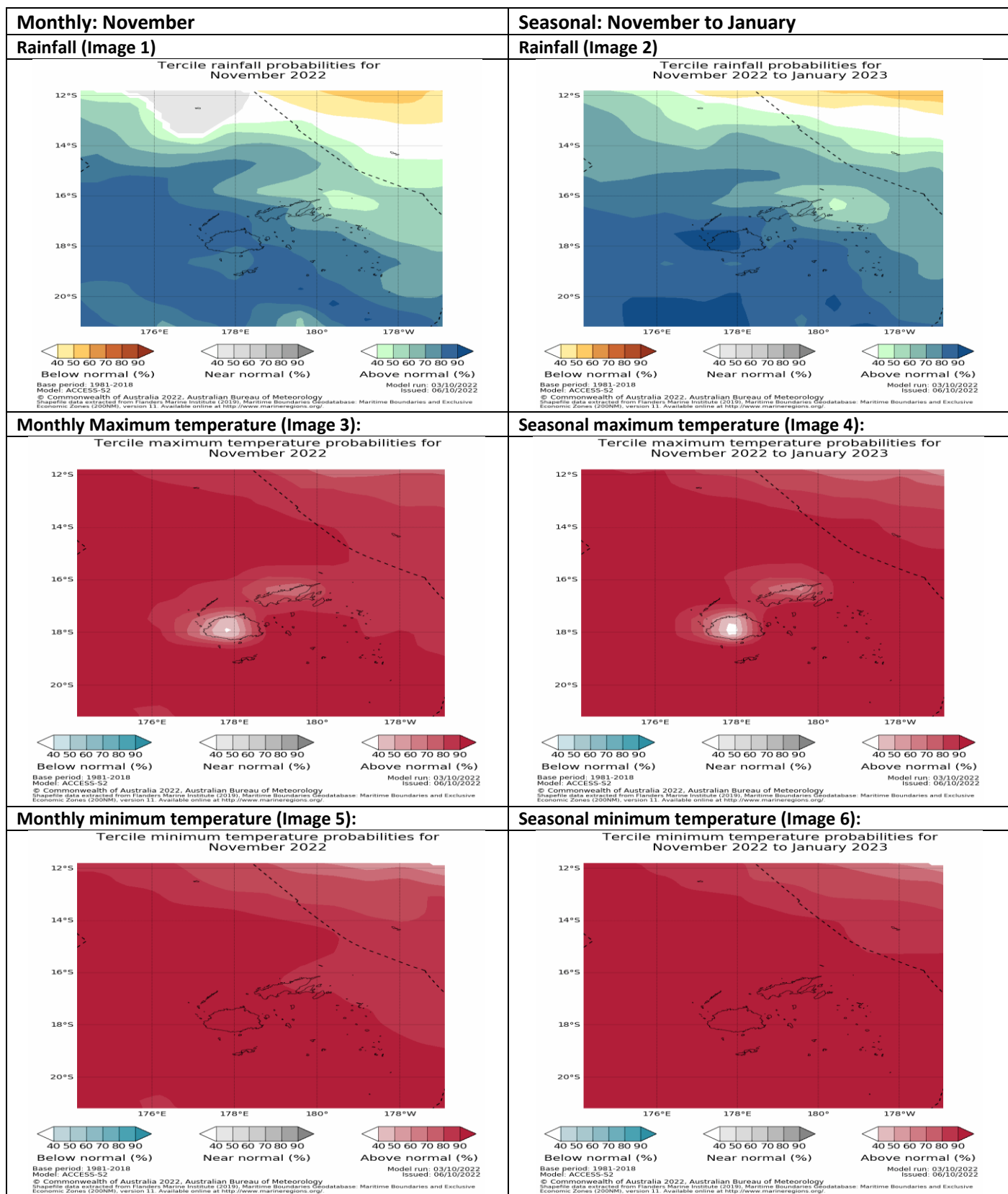
Moderate $5 \leq X < 10$

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



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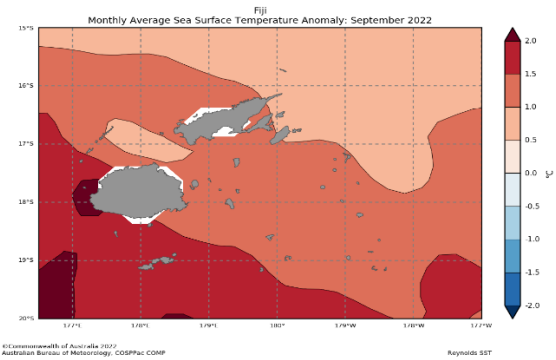
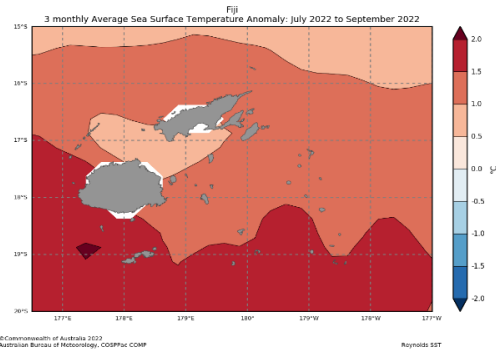
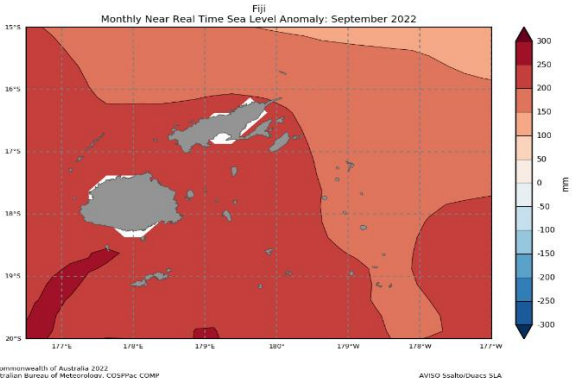
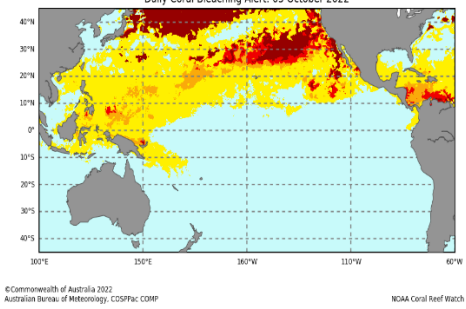
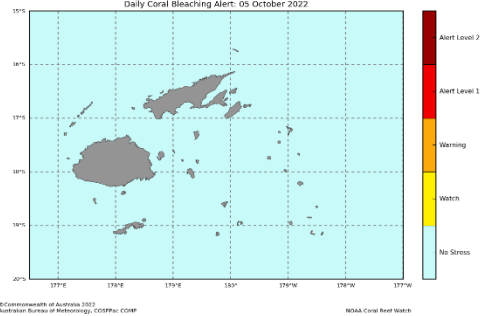
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Part 2: Recent Ocean Observation

Monthly/Three months: September 2022 and July to September 2022

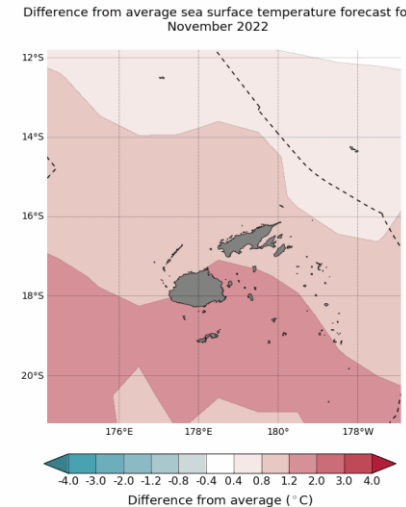
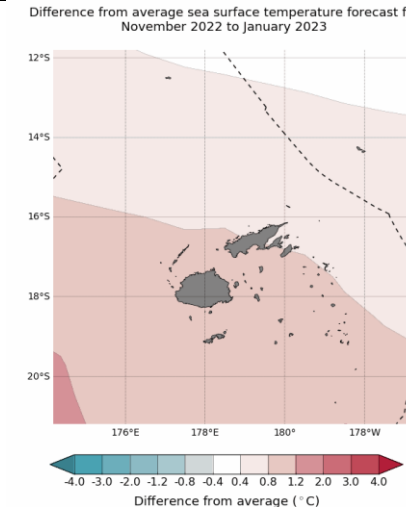
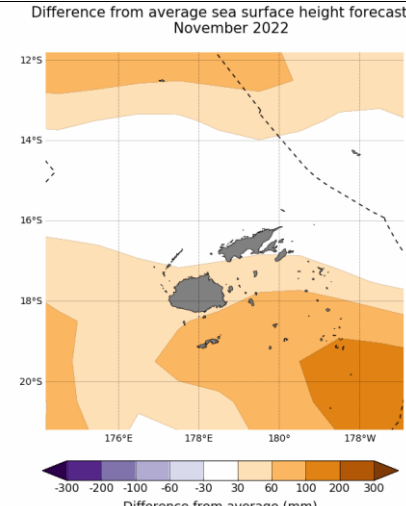
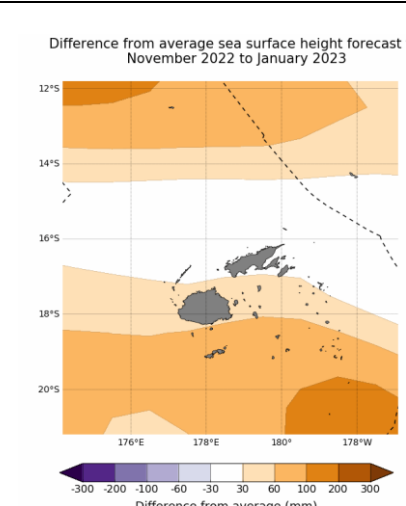
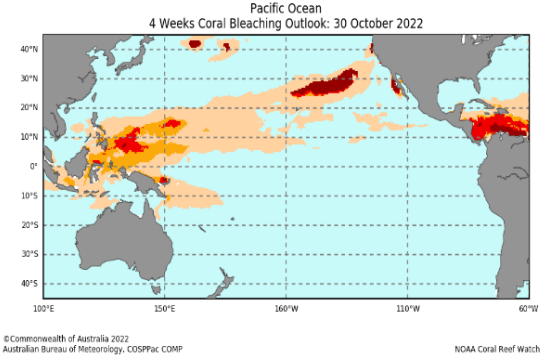
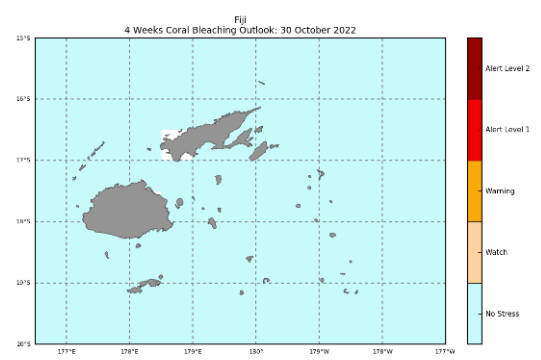
Monthly: September	Last three months: July to September 2022:
Sea Surface Temperature (Image 1): <div></div>	Sea Surface Temperature (Image 4): <div></div>
Sea level (Image 2): <div></div>	
Daily coral bleaching alert (Image 3): <div></div>	<div></div>

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

Monthly: November	Seasonal: November to January
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for November 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Candidatebase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegovern.org</p> <p>Model run: 10/10/2022 Issued: 12/10/2022</p>	<p>Difference from average sea surface temperature forecast for November 2022 to January 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Candidatebase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegovern.org</p> <p>Model run: 10/10/2022 Issued: 12/10/2022</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for November 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Candidatebase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegovern.org</p> <p>Model run: 10/10/2022 Issued: 12/10/2022</p>	<p>Difference from average sea surface height forecast for November 2022 to January 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Candidatebase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegovern.org</p> <p>Model run: 10/10/2022 Issued: 12/10/2022</p>
4-week Coral Bleaching (Image 9):	
<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 30 October 2022</p>  <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>NOAA Coral Reef Watch</p>	<p>Fiji 4 Weeks Coral Bleaching Outlook: 30 October 2022</p>  <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>NOAA Coral Reef Watch</p>

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Summary Statement

Monthly and last three months: September 2022/July to September 2022 statement

For September 2022, *above normal* rainfall was recorded at Lakeba. *Normal* rainfall was registered at Penang Mill, Vunisea, Ono-i-Lau, Labasa Airport, and Udu Point. *Below normal* rainfall was recorded across the Central Division, Lautoka Mill, Nadi Airport, Savusavu Airfield and Rotuma. Lautoka Mill, Savusavu Airfield and Nausori Airport recorded their driest, fourth and sixth driest September, in 123, 64 and 66 years of record, respectively. Lakeba recorded its fourth wettest September on record, in 73 years of record.

For July to September 2022, *normal* to *below normal* rainfall was recorded across Fiji, except for Lakeba and Udu Point which recorded *above normal* rainfall. Lautoka Mill and Nadi Airport registered their eighth driest July to September on record.

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

Monthly /Seasonal rainfall and temperature Outlook statements

Fiji's November rainfall is likely to be *above normal*, except for Rotuma where near normal rainfall is likely.

Fiji's rainfall for November to January 2023 is very likely to be *above normal*.

Both maximum and minimum temperatures for Fiji for November and November to January 2023 are very likely to be *above normal*.

Part 2: Recent Ocean summary statement

Monthly and last three months: September/July to September 2022

Most of the Fiji Waters experienced above average SST in September 2022. Significant warm SSTs of more than 1.5°C above average were experienced around Western Viti Levu, Vatulele, Kadavu and Matuku.

For the July to September 2022 period, above average SSTs were experienced in most of the Fiji Waters, while significant warmer SSTs of 1.5 to 2.0°C above average were experienced in waters west of Viti Levu, Kadavu and around southern Lau Group.

The sea level anomaly across Fiji in September 2022 was significantly higher than normal, with waters around Viti Levu, Vanua Levu, Lomaiviti Group, Kadavu and parts of southern Lau Group in the range of 200 to 250 mm above average.

Coral bleaching alert reveals no thermal stress.

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

Ocean Variable statement

The monthly SST outlook for November shows a significant temperature difference of 1.2-2.0°C *above normal* for waters south and east of Viti Levu, Lomaiviti Group, Beqa, Vatulele, Kadavu and parts of Southern Lau group. The

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seasonal SST outlook for November 2022 to January 2023 forecasts SST temperatures of utmost 1.2°C over most of Fiji Islands.

The monthly and seasonal sea level outlook for November and November to January 2023 reveals significant sea surface height differences of 100mm to 200mm for waters in parts of southern Lau Group.

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

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

Product	Date: September 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Fiji Climate Summary	08/09/22	General Public	140	106	34
EAR Watch	15/09/22	Humanitarian partners	122	96	26
Fiji Climate Outlook	30/09/22	General public	124	93	31
Climate Outlook for Monasavu	30/09/22	Energy Fiji Limited	13	13	-
Fiji Ocean Outlook	20/09/22	A number of key ocean related stakeholders	36	29	7
ENSO Update	23/09/22	General Public	142	116	26
Meteorological Data Request	01/09/22 to 30/09/22	A range of stakeholders	35	24	11
Total			612	477	135

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