

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 182

Country: Kiribati

Part 1: Recent climate

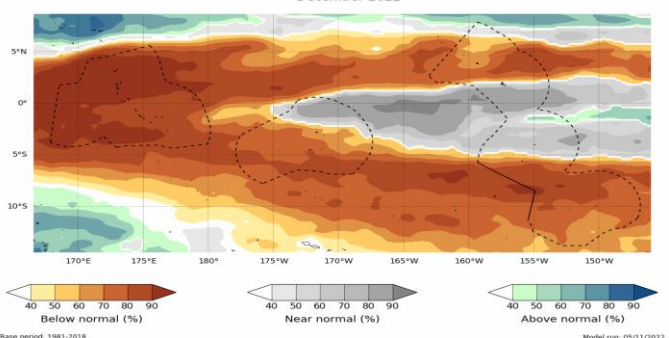
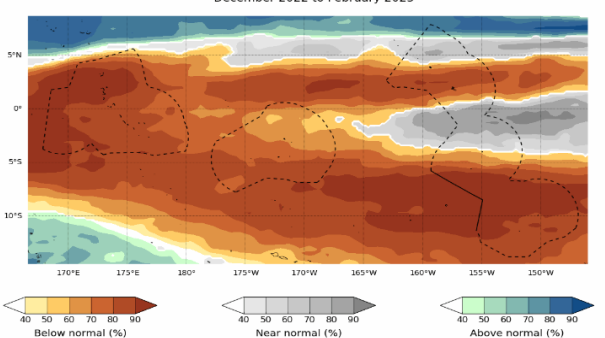
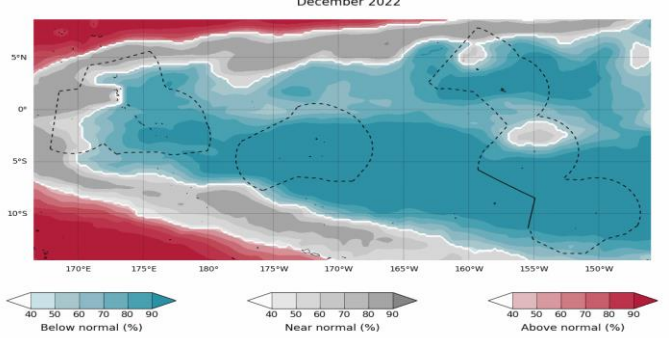
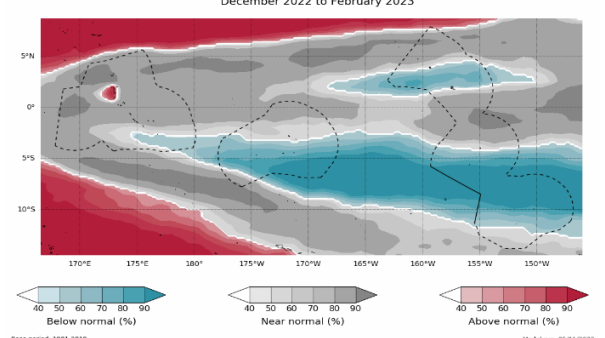
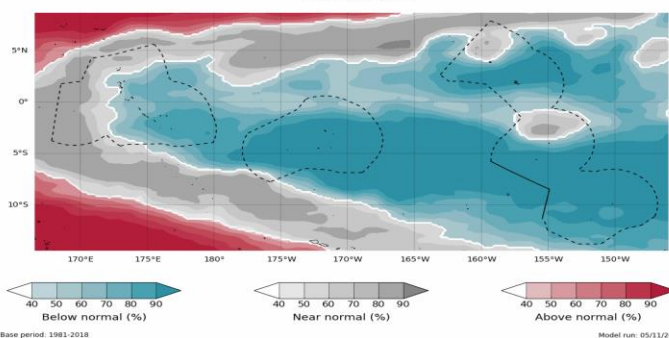
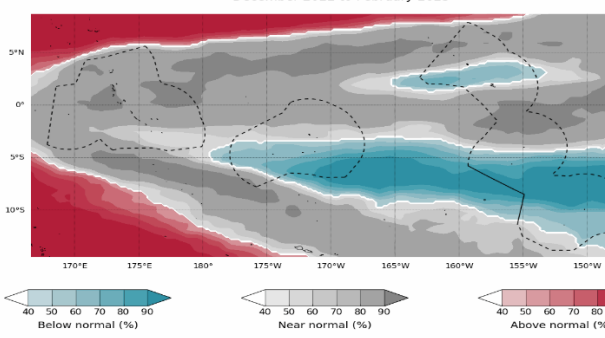
TABLE 1: Monthly Rainfall

Station (include data period)	Aug-2022	Sep-2022	Oct-2022				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Beru (1932-2022)	18.5	14.7	16.1	16.7	61.7	33.0	21/65
Butaritari (1931-2022)	197.8	186.9	159.8	95.8	184.9	138.5	52/85
Kanton (1937-2022)				7.5	32.4	16.1	
Kiritimati (1921-2022)	4.8	4.0	63.0	4.1	22.0	13.0	88/97
Tarawa (1950-2022)	41.6	95.1	103.3	37.3	113.8	64.0	50/75
Arorae (1950-2022)	15.2	16.6	8.3	27.0	81.0	44.0	9/56

TABLE 2: Three-month Total Rainfall for August to October 2022

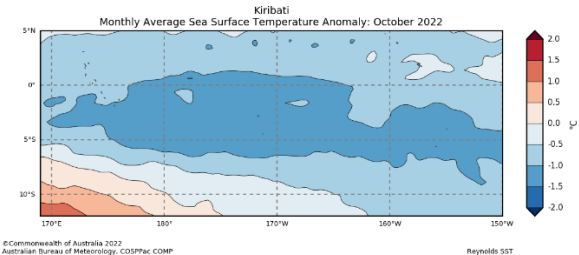
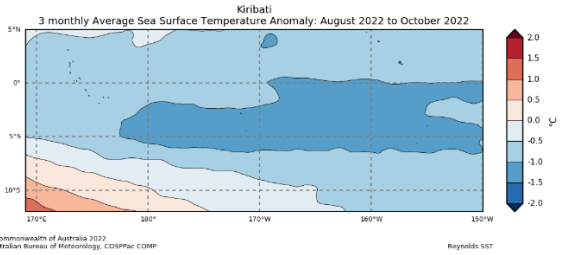
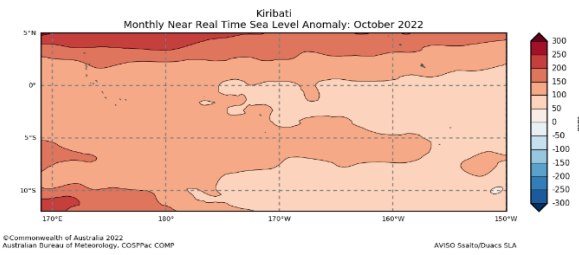
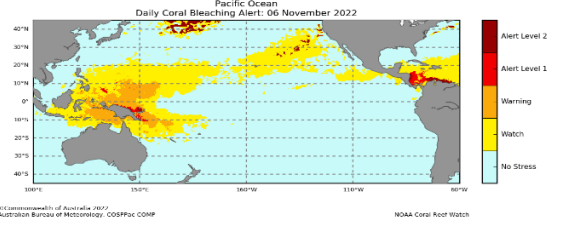
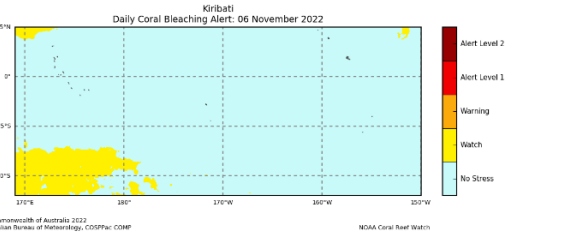
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Beru (1932-2022)	49.3	Below normal	114.1	193.9	135.4	4/64
Butaritari (1931-2022)	544.5	Normal	374.5	629.6	548.0	47/85
Kanton (1937-2022)			108.6	173.1	131.0	
Kiritimati (1921-2022)	71.8	Above normal	26.9	58.0	43.6	73/96
Tarawa (1950-2022)	240.0	Normal	194.0	392.2	277.8	32/75
Arorae (1950-2022)	40.1	Below Normal	156.6	409.0	237.7	1/54

Part 1i. Monthly and Seasonal Outlooks for December 2022 and December 2022 to February 2023

Monthly: December	Seasonal: December to January
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for December 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2018), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.maritime.gov.au/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>	<p>Tercile rainfall probabilities for December 2022 to February 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2018), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.maritime.gov.au/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for December 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2018), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.maritime.gov.au/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>	<p>Tercile maximum temperature probabilities for December 2022 to February 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2018), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.maritime.gov.au/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for December 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2018), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.maritime.gov.au/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>	<p>Tercile minimum temperature probabilities for December 2022 to February 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2018), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.maritime.gov.au/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>

Part 2: Recent Ocean Observation

Monthly/Three months: October 2022 and August to October 2022

<u>Monthly: October</u>	<u>Last three months: August to October 2022:</u>
<p>Sea Surface Temperature (Image 1):</p>  <p>Monthly Average Sea Surface Temperature Anomaly: October 2022</p> <p>Kiribati</p> <p>5°N 0° 5°S 10°S</p> <p>170°E 180° 170°W 160°W 150°W</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>Reynolds SST</p>	<p>Sea Surface Temperature (Image 4):</p>  <p>3 monthly Average Sea Surface Temperature Anomaly: August 2022 to October 2022</p> <p>Kiribati</p> <p>5°N 0° 5°S 10°S</p> <p>170°E 180° 170°W 160°W 150°W</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>Reynolds SST</p>
<p>Sea level (Image 2):</p>  <p>Monthly Near Real Time Sea Level Anomaly: October 2022</p> <p>Kiribati</p> <p>5°N 0° 5°S 10°S</p> <p>170°E 180° 170°W 160°W 150°W</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>AVISO SeaWiFS/Quicks SLA</p>	
<p>Daily coral bleaching alert (Image 3):</p>  <p>Pacific Ocean Daily Coral Bleaching Alert: 06 November 2022</p> <p>40°N 30°N 20°N 10°N 0° 10°S 20°S 30°S 40°S</p> <p>180°E 150°E 120°E 90°E 60°E</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>	 <p>Kiribati Daily Coral Bleaching Alert: 06 November 2022</p> <p>5°N 0° 5°S 10°S</p> <p>170°E 180° 170°W 160°W 150°W</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>

Part 2i. Monthly and Seasonal Outlooks for December 2022 and December 2022 to February 2023

Monthly: December	Seasonal: December to February
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for December 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Boundary data extracted from Natural Earth (2018), Maritime Boundaries Geodatabase, Maritime Boundaries and Exclusive Economic Zones (2004), version 3.1. Available online at http://data.marineinsights.com/</p>	<p>Difference from average sea surface temperature forecast for December 2022 to February 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Boundary data extracted from Natural Earth (2018), Maritime Boundaries Geodatabase, Maritime Boundaries and Exclusive Economic Zones (2004), version 3.1. Available online at http://data.marineinsights.com/</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for December 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Boundary data extracted from Natural Earth (2018), Maritime Boundaries Geodatabase, Maritime Boundaries and Exclusive Economic Zones (2004), version 3.1. Available online at http://data.marineinsights.com/</p>	<p>Difference from average sea surface height forecast for December 2022 to February 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Boundary data extracted from Natural Earth (2018), Maritime Boundaries Geodatabase, Maritime Boundaries and Exclusive Economic Zones (2004), version 3.1. Available online at http://data.marineinsights.com/</p>
4-week Coral Bleaching (Image 9):	
<p>4 Weeks Coral Bleaching Outlook: 27 November 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPAR, COSP NOAA Coral Reef Watch</p>	<p>4 Weeks Coral Bleaching Outlook: 27 November 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPAR, COSP NOAA Coral Reef Watch</p>

Summary Statement

Monthly and last three months: October 2022/August to October 2022 statement

Rainfall was below normal at Beru and Arorae, near-normal rainfall at Butaritari and Tarawa, while Kiritimati received above normal rainfall for October 2022. This was the ninth driest October on record at Arorae.

For the three-month period, rainfall was above normal at Kiritimati, Near-normal at Butaritari and Tarawa, while Beru and Arorae received below normal rainfall. Arorae and Beru recorded their first and fourth driest August to October on record, respectively.

Kanton rainfall data is not available.

Part 1i. Monthly and Seasonal Outlooks for December 2022 and December 2022 to February 2023

Monthly /Seasonal rainfall and temperature Outlook statements

Rainfall for December is very likely to be below normal over the most parts of the Kiribati region. One exception is the Central Line Group where near-normal rainfall is likely

Rainfall for December to February is very likely to be below-normal for Kiribati, except for central and northern parts of the Line Groups where rainfall is likely to be near-normal.

Maximum and minimum temperatures during December are very likely to be below normal for most of the country. The main exceptions are western and northern parts of western Kiribati, and some areas in the central and northern regions of east Kiribati where near-normal temperatures are likely.

Maximum and minimum temperatures averaged for December to February are very likely to be near-normal over the Kiribati region, except for the Southern Phoenix, and Northern and Southern Line Groups where temperatures are very likely to be below normal.

Part 2: Recent Ocean summary statement

Monthly and last three months: October/August to October 2022

The sea surface temperature for October and the last three months, August to October, was below normal ranging from -0.5 to -1.5 degrees for the Kiribati region.

The sea level for October was above normal for Kiribati ranging from 50 to 150mm.

Coral bleaching alerts reveals no thermal stress.

Part 2i. Monthly and Seasonal Outlooks for December 2022 and December 2022 to February 2023

Ocean Variable statement

The SST outlook for December predicts below normal of utmost -1.2 degrees parts of Pheonix and Line Islands Group.

The seasonal SST outlook for December to February also predicts a below normal of utmost -1.2 degrees, but mostly -0.8 degrees across Phoenix and Line Islands group. However, the Gilbert group is predicted to be near-normal temperature.

The monthly sea level anomaly outlook for December reveals above normal sea level differences of utmost 60mm to 100mm over the Northern Gilbert Islands. The Southern Line Islands reveals below normal differences of utmost - 60mm. The rest of the islands are predicted to have normal conditions.

The 4-week coral bleaching alert predicted no thermal stress.

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

Product	Date: October 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	11th	Government and Non-Government Organisations and Public subscribed to the products	118	45	73
EAR Watch	14th	KMS staff and Drought Committee members	9	3	6
Media Release	11th	National Media and KMS Staff	53	23	30
Ocean Outlook	11th	Government and Non-Government Organisations and Public subscribed to the products	118	45	73
Total			180	71	109