

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 185

Country: Kiribati

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Nov-2022	Dec-2022	Jan-2023				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Beru (1932-2023)	0.1	5.0	15.5	55.0	240.0	122.0	14/67
Butaritari (1931-2023)	23.2	131.0	173.1	201.0	336.0	275.1	21/86
Kanton (1937-2023)				4.2	61.0	10.9	
Kiritimati (1921-2023)	0.9	33.5	32.7	9.2	42.3	21.3	47/97
Tarawa (1950-2023)	20.2	41.5	120.6	131.8	309.4	216.7	26/76
Arorae (1950-2023)	1.4	0.5	12.7	49.0	269.0	158.5	11/56

TABLE 2: Three-month Total Rainfall for November 2022 to January 2023

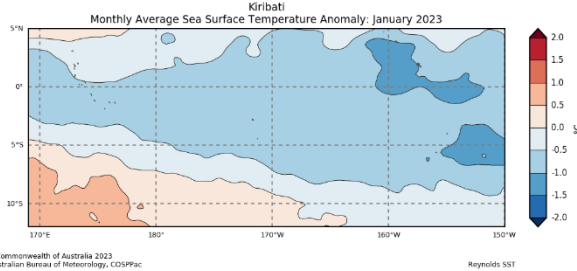
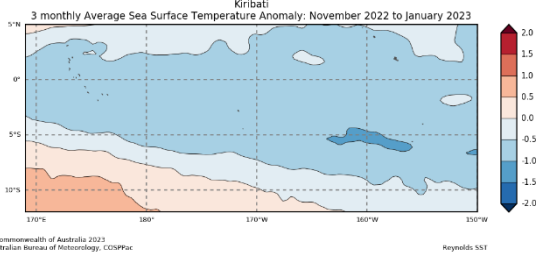
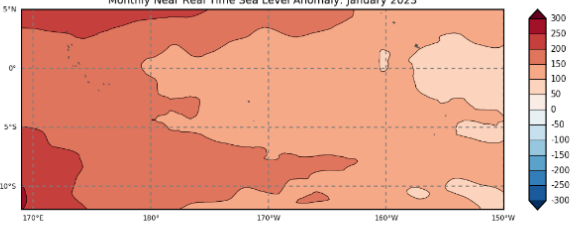
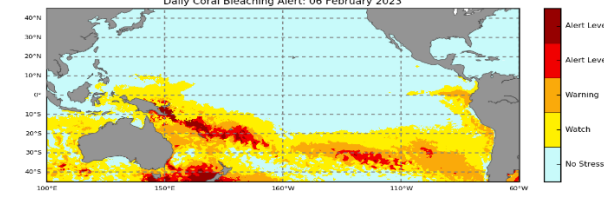
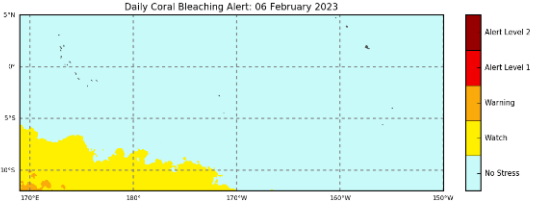
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Beru (1932-2023)	20.6	Below normal	164.0	600.0	277.5	7/66
Butaritari (1931-2023)	327.3	Below normal	566.2	900.4	730.4	11/84
Kanton (1937-2020)			26.0	169.2	65.4	
Kiritimati (1921-2023)	67.1	Normal	25.0	91.2	41.0	46/80
Tarawa (1950-2023)	182.3	Below normal	313.3	756.0	498.4	16/75
Arorae (1950-2023)	14.6	Below normal	231.0	689.2	450.0	1/55

Part 1i. Monthly and Seasonal Outlooks for March and March to May 2023

Monthly: March	Seasonal: March to May
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for March 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapefile data extracted from: Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/03/2023 Issued: 09/03/2023</p>	<p>Tercile rainfall probabilities for March to May 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapefile data extracted from: Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/03/2023 Issued: 09/03/2023</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for March 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapefile data extracted from: Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/03/2023 Issued: 09/03/2023</p>	<p>Tercile maximum temperature probabilities for March to May 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapefile data extracted from: Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/03/2023 Issued: 09/03/2023</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for March 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapefile data extracted from: Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/03/2023 Issued: 09/03/2023</p>	<p>Tercile minimum temperature probabilities for March to May 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapefile data extracted from: Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/03/2023 Issued: 09/03/2023</p>

Part 2: Recent Ocean Observation

Monthly/Three months: January 2023 and November 2022 to January 2023

Monthly: January	Last three months: November 2022 to January 2023:
<p>Sea Surface Temperature (Image 1):</p>  <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>Reynolds SST</p>	<p>Sea Surface Temperature (Image 4):</p>  <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>Reynolds SST</p>
<p>Sea level (Image 2):</p>  <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>AVISO SeaLarDuacs SLA</p>	
<p>Daily coral bleaching alert (Image 3):</p>  <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>	 <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>

Part 2i. Monthly and Seasonal Outlooks for March and March to May 2023

Monthly: March	Seasonal: March to April
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for March 2023</p> <p>Base period: 1981-2018 Model: ACCESS-2 © 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 (2009), version 11. Available online at http://www.maritimesegs.org/</p> <p>Model run: 11/02/2023 Issued: 13/02/2023</p>	<p>Difference from average sea surface temperature forecast for March to May 2023</p> <p>Base period: 1981-2018 Model: ACCESS-2 © 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 (2009), version 11. Available online at http://www.maritimesegs.org/</p> <p>Model run: 11/02/2023 Issued: 13/02/2023</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for March 2023</p> <p>Base period: 1981-2018 Model: ACCESS-2 © 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 (2009), version 11. Available online at http://www.maritimesegs.org/</p> <p>Model run: 11/02/2023 Issued: 13/02/2023</p>	<p>Difference from average sea surface height forecast for March to May 2023</p> <p>Base period: 1981-2018 Model: ACCESS-2 © 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 (2009), version 11. Available online at http://www.maritimesegs.org/</p> <p>Model run: 11/02/2023 Issued: 13/02/2023</p>
4-week Coral Bleaching (Image 9):	
<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 05 March 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COOPIAC</p> <p>NOAA Coral Reef Watch</p>	<p>Kiribati 4 Weeks Coral Bleaching Outlook: 05 March 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COOPIAC</p> <p>NOAA Coral Reef Watch</p>

Summary Statement

Monthly and last three months: January 2023/November 2022 to January 2023 statement

Below normal rainfall was received at all the Kiribati Islands for the month of January, apart from Kiritimati that recorded near-normal rainfall.

For the three-month period, rainfall was normal at Kiritimati, but below normal over the rest of the country. Arorae posted its driest November to January on record.

Kanton rainfall data is not available.

Part 1i. Monthly and Seasonal Outlooks for March and March to May 2023

Monthly /Seasonal rainfall and temperature Outlook statements

Rainfall for March is very likely to be below normal over the southern parts of the Gilbert Islands, the southwest of the Phoenix Islands, and the southern Line Islands. Near-normal rainfall is likely over remaining areas, apart from central parts of the Line Group where above normal rainfall is favoured.

The March to May rainfall outlook is very similar, the only difference being that near-normal rainfall is likely or very likely across all parts of the central and northern Line Islands.

Maximum and minimum temperatures for March are very likely to be near-normal across most of the country, except for the northern parts of Gilbert group where temperatures are very likely to be above normal.

For March to May, maximum and minimum temperatures are very likely to be above normal over the Kiribati region, except for the southeast of the Gilbert group, much of the Phoenix group, and parts of the central to southern Line Islands where temperatures are very likely to be near-normal.

Part 2: Recent Ocean summary statement

Monthly and last three months: January 2023/November 2022 to January 2023

For January, and past three months, November to January, ocean temperatures were below normal utmost to -1.5 degrees Celsius.

January sea level around Kiribati were above normal by 50mm to 200mm.

Coral bleaching alert shows no thermal stress.

Part 2i. Monthly and Seasonal Outlooks for March and March to May 2023

Ocean Variable statement

March ocean temperatures in the northern parts of the Gilbert group are predicted to be above-normal of utmost 0.8 degree. The rest are expected to experience near normal temperatures.

Outlook for March to May indicates ocean temperatures around Northern Gilbert group and northern Line Group to be above normal (0.4 to 0.8°C).

For monthly and seasonal sea level forecast around the Gilbert, Northern Phoenix and Northern Line groups are predicted to be 30mm to 100mm (above normal). The Southern Line group is predicted to be below normal ranging from -30 to -60mm. The rest of the islands in Kiribati region show near normal sea level height.

The 4-week coral bleaching outlook shows no thermal stress.

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

Product	Date: January 2023	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	11 th	Government and Non-Government Organisations and Public subscribed to the products	161	45	73
EAR Watch	18 th	Island Council Mayors & Clerks, KMS staff	52	30	22
Media release	11 th	National Media and KMS Staff	53	23	30
Ocean Outlook	11 th	Government and Non-Government Organisations and Public subscribed to the products	161	45	73
Total			427	143	198