

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

Country: Kiribati

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)				
Beru (1932-2023)	92.7	220.9	350.3	48.7	107.0	69.0	66/66
Butaritari (1931-2023)	257.6	386.2	588.1	198.0	311.0	255.0	86/86
Kanton (1937-2023)	50.7	59.0	6.4	52.7	104.4	81.2	3/67
Kiritimati (1921-2023)	87.8	373.0	175.8	21.0	91.0	54.0	86/99
Tarawa (1950-2023)	137.5	161.3	365.0	84.6	165.4	122.0	73/76
Arorae (1950-2023)	111.9	163.1	159.6	64.3	131.3	93.0	45/58

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

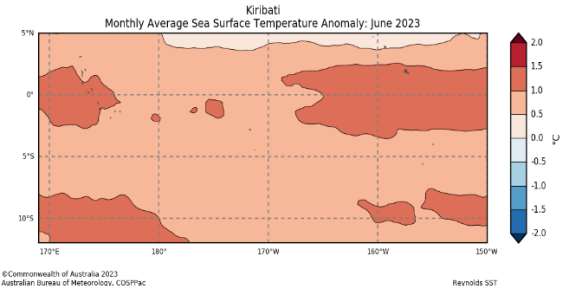
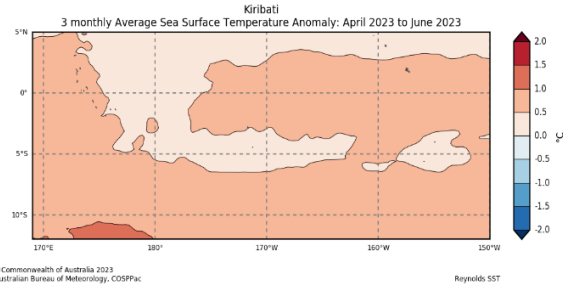
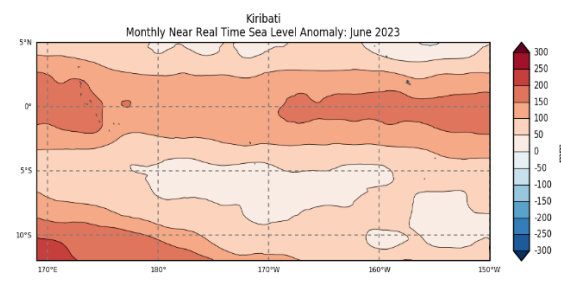
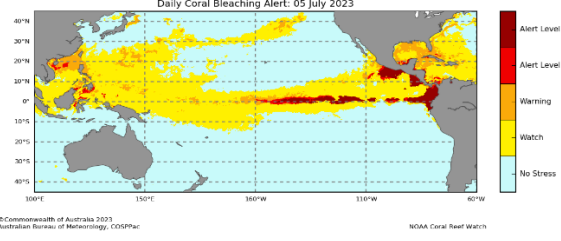
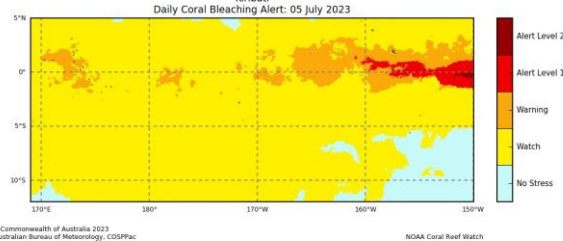
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Beru (1932-2023)	663.9	Above normal	170.3	333.3	236.9	57/65
Butaritari (1931-2023)	1231.9	Above normal	708.0	1010.0	859.1	74/86
Kanton (1937-2023)	116.1	Below normal	179.4	253.5	217.8	11/65
Kiritimati (1921-2023)	636.6	Above normal	211.4	417.7	328.0	86/98
Tarawa (1950-2023)	663.8	Above normal	312.1	562.0	421.9	55/76
Arorae (1950-2023)	434.6	Normal	231.0	499.0	347.0	35/55

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 Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegovernors.org/</p> <p>Model run: 03/07/2023 Issued: 06/07/2023</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 Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegovernors.org/</p> <p>Model run: 03/07/2023 Issued: 06/07/2023</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 Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegovernors.org/</p> <p>Model run: 03/07/2023 Issued: 06/07/2023</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 Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegovernors.org/</p> <p>Model run: 03/07/2023 Issued: 06/07/2023</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 Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegovernors.org/</p> <p>Model run: 03/07/2023 Issued: 06/07/2023</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 Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegovernors.org/</p> <p>Model run: 03/07/2023 Issued: 06/07/2023</p>

Part 2: Recent Ocean Observation

Monthly/Three months: April and April to June 2023

<u>Monthly: June</u>	<u>Last three months: April to June 2023:</u>
<p>Sea Surface Temperature (Image 1):</p> 	<p>Sea Surface Temperature (Image 4):</p> 
<p>Sea level (Image 2):</p> 	
<p>Daily coral bleaching alert (Image 3):</p> 	

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

Monthly: August	Seasonal: August to October
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<div><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 Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegaps.org/</p><p>Model run: 03/07/2023 Issued: 05/07/2023</p></div>	<div><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 Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegaps.org/</p><p>Model run: 03/07/2023 Issued: 05/07/2023</p></div>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<div><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 Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegaps.org/</p><p>Model run: 03/07/2023 Issued: 05/07/2023</p></div>	<div><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 Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.marinegaps.org/</p><p>Model run: 03/07/2023 Issued: 05/07/2023</p></div>
4-week Coral Bleaching (Image 9):	
<div><p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 30 July 2023</p><p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>	<div><p>Kiribati 4 Weeks Coral Bleaching Outlook: 30 July 2023</p><p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>

Summary Statement

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

June rainfall was above normal for all stations except for Kanton which recorded below normal rainfall. Beru and Butaritari recorded their wettest, while Kanton recorded its third driest June on record.

For the three-month period, Kanton received below normal rainfall, while near-normal was recorded at Arorae. The rest of the stations received above normal rainfall. Beru recorded its ninth wettest June on 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 and August to October is very likely to be above normal over the Gilbert and Northern Phoenix and Line groups. In the southernmost part of the Line group, the outlook shows August's rainfall is very likely to be below normal, while the remaining parts of the Line and Phoenix are very likely to be near-normal.

Maximum and minimum temperatures during August and averaged over August to October are very likely to be above normal over the Kiribati region.

Part 2: Recent Ocean summary statement

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

June ocean temperatures around Kiribati were 0.5 to 1.5°C above normal.

Averaged over April to June, ocean temperatures around Kiribati were 0.0 to 1.0°C above normal.

June sea levels around Kiribati were 0mm to 200mm above normal.

The daily coral bleaching shows that Kiribati was in warning and Alert level.

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

Ocean Variable statement

August and averaged August to October, ocean temperatures across the central Kiribati are predicted to be 0.4 to 2.0°C above normal.

August and averaged August to October, sea levels around central Gilbert, Line and northern Phoenix groups are predicted to be 30mm to 60mm above normal. However, the remaining parts of the Kiribati region are predicted to be -30 to -60°C below normal.

The 4-weeks coral bleaching outlook shows warning to Alert level 1 for the whole of Kiribati.

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)
Climate Outlook	6 th	Government and Non-Government Organisations and Public subscribed to the products	158	68	86	The number is increased as NCOF participants subscribed to Climate products.
EAR Watch	12 th	Government and Non-Government Organisations and Public subscribed to the products	62	35	27	
Media release	6 th	KMS Media and KMS staff	53	23	30	
Ocean Outlook	6 th	Government and Non-Government Organisations and Public subscribed to the products	158	68	86	The number is increased as NCOF participants subscribed to Ocean products.
Climate data request	1st – 30th	Government and Non-Government sectors & High school students	16	6	10	
NCOF Tarawa & Kiritimati	13th-14th (Tarawa) 22 & 26th (Kiritimati)	MISE, MICT, MOE, MELAD, KCCI, TTM, NDMO, KRCS, TUC, MIA, MLPID, MFMRD, MHMS, TAK,	40	23	13	
Total			487	223	252	