

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 189

Country: Kiribati

Part 1: Recent climate

TABLE 1: Monthly Rainfall

| Station (include data period) | Mar-2023 | Apr-2023 | May-2023 | | | | |
|-------------------------------|------------|------------|---------------|---------|---------|--------|-------|
| | | | Total (mm) | 33%tile | 67%tile | Median | Rank |
| | Total (mm) | Total (mm) | Rainfall (mm) | | | | |
| Beru (1932-2023) | 1.4 | 92.7 | 220.9 | 36.7 | 97.0 | 66.5 | 57/67 |
| Butaritari (1931-2023) | 240.4 | 257.6 | 386.2 | 216.0 | 326.0 | 302.0 | 65/86 |
| Kanton (1937-2023) | 14.5 | 50.7 | 59.0 | 45.7 | 91.9 | 58.7 | 32/65 |
| Kiritimati (1921-2023) | 81.3 | 87.8 | 373.0 | 29.6 | 106.1 | 56.0 | 98/99 |
| Tarawa (1950-2023) | 76.5 | 137.5 | 161.3 | 94.5 | 170.0 | 139.6 | 46/76 |
| Arorae (1950-2023) | 24.0 | 111.9 | 163.1 | 58.4 | 148.0 | 100.5 | 41/57 |

TABLE 2: Three-month Total Rainfall for March to May 2023

| Station | Three-month Total | | 33%tile | 67%tile | Median | Rank |
|------------------------|-------------------|--------------|---------|---------|--------|-------|
| | Rainfall (mm) | | | | | |
| Beru (1932-2023) | 315.0 | Normal | 152.2 | 379.0 | 257.5 | 39/66 |
| Butaritari (1931-2023) | 884.2 | Normal | 693.0 | 1084.0 | 941.1 | 40/86 |
| Kanton (1937-2023) | 124.2 | Below normal | 135.9 | 224.8 | 182.3 | 23/65 |
| Kiritimati (1921-2023) | 542.1 | Above normal | 302.3 | 464.3 | 365.5 | 81/98 |
| Tarawa (1950-2023) | 375.3 | Normal | 328.9 | 665.0 | 490.0 | 30/76 |
| Arorae (1950-2023) | 299.0 | Normal | 241.1 | 516.0 | 345.0 | 24/55 |

Part 1i. Monthly and Seasonal Outlooks for July and July to September 2023

| Monthly: July | Seasonal: July to September |
|--|---|
| Rainfall (Image 1) | Rainfall (Image 2) |
| <p>Tercile rainfall probabilities for July 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Map data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au/</p> <p>Model run: 05/06/2023 Issued: 08/06/2023</p> | <p>Tercile rainfall probabilities for July to September 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Map data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au/</p> <p>Model run: 05/06/2023 Issued: 08/06/2023</p> |
| Monthly Maximum temperature (Image 3): | Seasonal maximum temperature (Image 4): |
| <p>Tercile maximum temperature probabilities for July 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Map data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au/</p> <p>Model run: 05/06/2023 Issued: 08/06/2023</p> | <p>Tercile maximum temperature probabilities for July to September 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Map data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au/</p> <p>Model run: 05/06/2023 Issued: 08/06/2023</p> |
| Monthly minimum temperature (Image 5): | Seasonal minimum temperature (Image 6): |
| <p>Tercile minimum temperature probabilities for July 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Map data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au/</p> <p>Model run: 05/06/2023 Issued: 08/06/2023</p> | <p>Tercile minimum temperature probabilities for July to September 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Map data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au/</p> <p>Model run: 05/06/2023 Issued: 08/06/2023</p> |

Monthly/Three months: May and March to May 2023

| | |
|--|---|
| <p>Monthly: May</p> <p>Sea Surface Temperature (Image 1):</p> <p>Kiribati Monthly Average Sea Surface Temperature Anomaly: May 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>Reynolds SST</p> | <p>Last three months: March to May 2023:</p> <p>Sea Surface Temperature (Image 4):</p> <p>Kiribati 3 monthly Average Sea Surface Temperature Anomaly: March 2023 to May 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>Reynolds SST</p> |
| <p>Sea level (Image 2):</p> <p>Kiribati Monthly Near Real Time Sea Level Anomaly: May 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>AVISO SeaLtoDuacs SLA</p> | |
| <p>Daily coral bleaching alert (Image 3):</p> <p>Pacific Ocean Daily Coral Bleaching Alert: 06 June 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p> | <p>Kiribati Daily Coral Bleaching Alert: 06 June 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> |

Part 2i. Monthly and Seasonal Outlooks for July and July to September 2023

| Monthly: July | Seasonal: July to September |
|--|---|
| Monthly sea surface temperature (Image 5): | Seasonal sea surface temperature (Image 6): |
| <div><p>Difference from average sea surface temperature forecast for July 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegaps.org/</p><p>Model run: 05/06/2023 Issued: 07/06/2023</p></div> | <div><p>Difference from average sea surface temperature forecast for July to September 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegaps.org/</p><p>Model run: 05/06/2023 Issued: 07/06/2023</p></div> |
| Monthly sea level (Image 7): | Seasonal sea level (Image 8): |
| <div><p>Difference from average sea surface height forecast for July 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegaps.org/</p><p>Model run: 05/06/2023 Issued: 07/06/2023</p></div> | <div><p>Difference from average sea surface height forecast for July to September 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shoreline data extracted from Flinders Marine Institute (2019), Maritime Boundaries Database: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marinegaps.org/</p><p>Model run: 05/06/2023 Issued: 07/06/2023</p></div> |
| 4-week Coral Bleaching (Image 9): | |
| <div><p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 02 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: 02 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: May 2023/March to May 2023 statement

May rainfall was above normal at a majority of stations, with Kanton and Tarawa recording near-normal totals. Kiritimati recorded its second wettest May on record.

For the three-month period, Kanton received below normal rainfall, while Kiritimati recorded above normal rainfall. The rest of the stations received near-normal rainfall.

Part 1i. Monthly and Seasonal Outlooks for July and July to September 2023

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for July and July to September is very likely to be above normal over the Gilbert group, plus the Northern Line and Phoenix groups. One exception is southern part of the Line group where rainfall is likely or very likely to be below normal. The other exceptions are the southern Phoenix and central Line Groups where near-normal is likely.

Maximum and minimum temperatures during July and averaged over July to September are very likely to be above normal.

Part 2: Recent Ocean summary statement

Monthly and last three months: May 2023/March to May 2023

May ocean temperatures around Kiribati were 0.0 to 1.0°C above normal.

Averaged over March to May, ocean temperatures around Kiribati were near-normal.

May sea levels around Kiribati were 50mm to 150mm above normal.

Part 2i. Monthly and Seasonal Outlooks for July and July to September 2023

Ocean Variable statement

July ocean temperatures around Kiribati are predicted to be 0.4 to 2.0°C above normal.

Averaged over July to September, ocean temperatures around Kiribati are predicted to be 0.4 to 3.0°C above normal.

July and July to September Sea levels around the Kiribati region are predicted to be 30mm to 100mm above normal. Below normal sea is expected for the southern part of all the groups and northern Gilbert and Line groups are predicted to be -30mm to -100mm below normal.

The 4-weeks coral bleaching outlook shows warning level for the whole region.

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

| Product | Date: May 2023 | Stakeholder | Total Number of Participants | Number of Male | Number of Female | Comments (If there are comments from you Stakeholders) |
|-------------------------|----------------------|---|------------------------------------|-------------------|---------------------|--|
| Climate Bulletin | 11 | Government and Non-Government Organisations and Public subscribed to the products | 118 | 45 | 73 | |
| EAR Watch | 11 | Island Council Mayors & Clerks, Drought Committee members, KMS Staff | 62 | 35 | 27 | |
| Media release | 11 | National Media and KMS Staff | 53 | 23 | 30 | |
| Ocean Outlook | 11 | Government and Non-Government Organisations and Public subscribed to the products | 118 | 45 | 73 | |
| Climate data request | May | High school students & | 9 | 5 | 4 | |
| Total | | | 242 | 108 | 134 | |