

# Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 171

Country: Kiribati

## Part 1: Recent climate

**TABLE 1: Monthly Rainfall**

Station (include data period)	Sep-2021	Oct-2021	Nov-2021				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Beru (1932-2021)	73.5	9.6	29.2	21.7	75.5	38.4	26/65
Butaritari (1931-2021)	122.1	8.8	50.6	116.7	215.3	175.5	9/84
Kiritimati (1921-2021)	29.9	4.2	0.6	4.8	20.4	11.0	<b>9/88</b>
Tarawa (1950-2021)	25.0	0.9	13.8	41.2	129.3	69.0	11/74
Arorae (1950-2021)	80.8	31.4	29.6	29.6	111.0	53.0	19/55

**TABLE 2: Three-month Total Rainfall for September to November 2021**

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Beru (1932-2021)	112.3	Normal	78.0	213.7	138.0	30/64
Butaritari (1931-2021)	181.5	Below normal	387.7	553.0	481.9	11/84
Kiritimati (1921-2021)	34.7	Normal	19.3	54.6	40.0	40/87
Tarawa (1950-2021)	39.7	Below normal	159.0	365.5	254.8	<b>6/74</b>
Arorae (1950-2021)	141.8	Normal	139.8	350.7	225.0	19/54

**NB: The X LEPS % score has been categorised as follows:**

Very Low:  $X < 0.0$

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Moderate  $5 \leq X < 10$

Good:  $10 \leq X < 15$

High:  $15 \leq X < 25$

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# Part 1i. Monthly and Seasonal Outlooks for January and January to March 2022

Monthly	Seasonal
<p><b>Rainfall (Image 1)</b></p> <p>Tercile rainfall probabilities for January 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapfiles data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at <a href="http://www.marinegovernance.org/">http://www.marinegovernance.org/</a></p> <p>Model run: 04/12/2021 Issued: 06/12/2021</p>	<p><b>Rainfall (Image 2)</b></p> <p>Tercile rainfall probabilities for January to March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapfiles data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at <a href="http://www.marinegovernance.org/">http://www.marinegovernance.org/</a></p> <p>Model run: 04/12/2021 Issued: 06/12/2021</p>
<p><b>Monthly Maximum temperature (Image 3):</b></p> <p>Tercile maximum temperature probabilities for January 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapfiles data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at <a href="http://www.marinegovernance.org/">http://www.marinegovernance.org/</a></p> <p>Model run: 04/12/2021 Issued: 06/12/2021</p>	<p><b>Seasonal maximum temperature (Image 4):</b></p> <p>Tercile maximum temperature probabilities for January to March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapfiles data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at <a href="http://www.marinegovernance.org/">http://www.marinegovernance.org/</a></p> <p>Model run: 04/12/2021 Issued: 06/12/2021</p>
<p><b>Monthly minimum temperature (Image 5):</b></p> <p>Tercile minimum temperature probabilities for January 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapfiles data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at <a href="http://www.marinegovernance.org/">http://www.marinegovernance.org/</a></p> <p>Model run: 04/12/2021 Issued: 06/12/2021</p>	<p><b>Seasonal minimum temperature (Image 6):</b></p> <p>Tercile minimum temperature probabilities for January to March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapfiles data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at <a href="http://www.marinegovernance.org/">http://www.marinegovernance.org/</a></p> <p>Model run: 04/12/2021 Issued: 06/12/2021</p>

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# Part 2: Recent Ocean summary statement

## Monthly: November 2021

<p><b>Monthly: November</b></p>	<p><b>Last three months: September to November 2021:</b></p>
<p><b>Sea Surface Temperature (Image 1):</b></p> <p>Kiribati Monthly Average Sea Surface Temperature Anomaly: November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP Reynolds SST</p>	<p><b>Sea Surface Temperature (Image 4):</b></p> <p>Kiribati 3 monthly Average Sea Surface Temperature Anomaly: September 2021 to November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP Reynolds SST</p>
<p><b>Sea level (Image 2):</b></p> <p>Kiribati Monthly Near Real Time Sea Level Anomaly: November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP AVSO SsaltoDuetcs SLA</p>	
<p><b>Daily coral bleaching alert (Image 3):</b></p> <p>Pacific Ocean Daily Coral Bleaching Alert: 04 December 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP NOAA Coral Reef Watch</p>	

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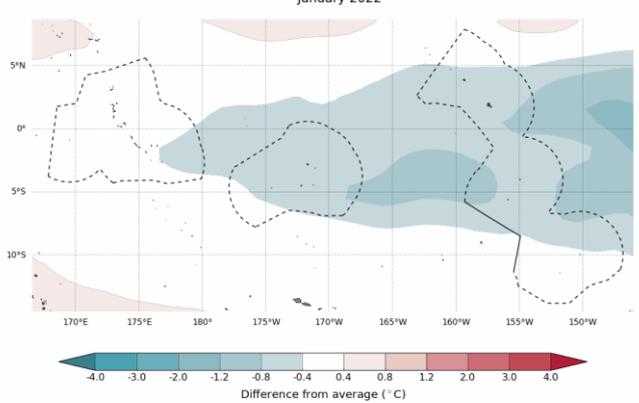
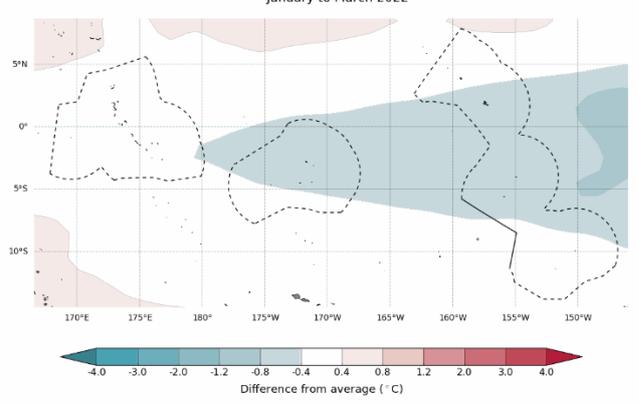
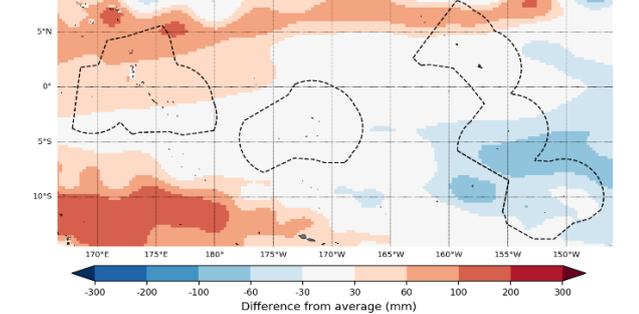
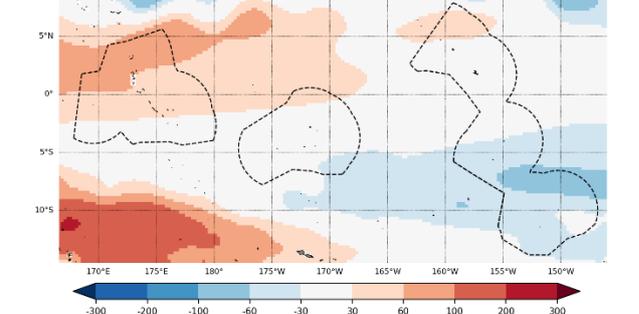
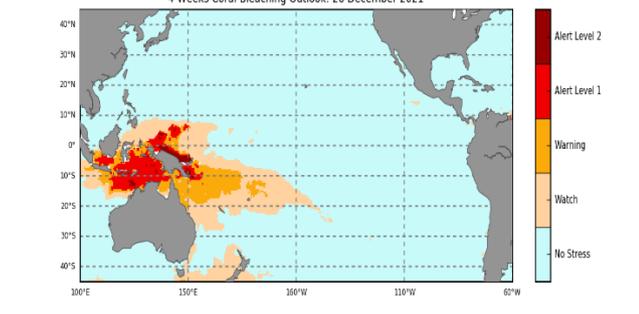
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# Part 2i. Monthly and Seasonal Outlooks for January and January to March 2022

Monthly: January	Seasonal: January to March
<b>Monthly sea surface temperature (Image 5):</b>	<b>Seasonal sea surface temperature (Image 6):</b>
<p>Difference from average sea surface temperature forecast for January 2022</p>  <p>Difference from average (°C)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Model run: 04/12/2021 Issued: 06/12/2021 <small>Shapefile data extracted from Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimegis.org/">http://www.maritimegis.org/</a></small></p>	<p>Difference from average sea surface temperature forecast for January to March 2022</p>  <p>Difference from average (°C)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Model run: 04/12/2021 Issued: 06/12/2021 <small>Shapefile data extracted from Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimegis.org/">http://www.maritimegis.org/</a></small></p>
<b>Monthly sea level (Image 7):</b>	<b>Seasonal sea level (Image 8):</b>
<p>Difference from average sea surface height forecast for January 2022</p>  <p>Difference from average (mm)</p> <p>© Commonwealth of Australia 2021 Bureau of Meteorology Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 28/11/2021 Issued: 07/12/2021</p>	<p>Difference from average sea surface height forecast for January 2022 to March 2022</p>  <p>Difference from average (mm)</p> <p>© Commonwealth of Australia 2021 Bureau of Meteorology Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 28/11/2021 Issued: 07/12/2021</p>
<b>4-week Coral Bleaching (Image 9):</b>	
<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 26 December 2021</p>  <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</p> <p>© Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPac COMP NOAA Coral Reef Watch</p>	

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## Summary Statement

### Monthly and last three months: November 2021/September to November statement (Highly significant changes)

Below normal rainfall was recorded for all stations except for Beru and Arorae which recorded normal rainfall. Kiritimati recorded the 9<sup>th</sup> driest on record.

For September to November 2021 period, below normal rainfall was recorded at Butaritari and Tarawa. Normal at Beru, Kiritimati and Arorae.

Tarawa recorded the 6<sup>th</sup> driest September to November on record.

## Part 1i. Monthly and Seasonal Outlooks for January and January to March 2022

### Monthly /Seasonal rainfall and temperature Outlook statements (Highly significant changes)

*The monthly and seasonal rainfall outlooks for Kiribati for January 2021, and January to March 2022 are very likely to be below normal. Near normal is very likely for central line group.*

*The monthly and seasonal maximum temperature outlook is very likely to be below normal for all the Kiribati region except for some parts of the northern Gilbert group is very likely to be near normal and above normal temperature.*

*The monthly and seasonal minimum temperature is very likely to be below normal for the Phoenix and Line groups. Near normal minimum temperature is likely for Jan and Jan – Mar 2022 for Gilbert group.*

## Part 2: Recent Ocean summary statement

### Monthly and last three months: November/September to November 2021 (Highly significant changes)

*Much of the Kiribati group experienced below average SST in November and September to November periods with SST observed as low as  $-1.5^{\circ}\text{C}$ .*

*The monthly sea level anomaly for all the Kiribati groups were above average with maximum of 200mm above average. The daily coral bleaching shows no stress for Kiribati region.*

## Part 2i. Monthly and Seasonal Outlooks for January and January to March 2022

### Ocean Variable statement (Highly significant changes)

*The monthly and seasonal outlook across Kiribati shows sea surface temperature difference as low as  $-1.2^{\circ}\text{C}$ .*

*The monthly and seasonal outlook for Kiribati shows a significant sea surface heights difference down to -100 in the Line Islands, neutral in Phoenix Islands, and up to 100mm in the Gilbert Islands .*

*The four weeks coral bleaching outlook shows that there are no coral bleaching alerts for Kiribati.*

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

Product	Date: November 2021	Stakeholder	Total Number of Participants	Number of males	Number of females
Climate Bulletin	26 <sup>th</sup> – 27 <sup>th</sup>	4 villages in North Tarawa	62	40	22
EAR Watch	26 <sup>th</sup> – 27 <sup>th</sup>	4 villages in North Tarawa	62	40	22
Ocean Outlook	26 <sup>th</sup> – 27 <sup>th</sup>	4 villages in North Tarawa	62	40	22
Products send via email (Media Release, bulletins, EAR Watch, Ocean Outlook).	2 <sup>nd</sup>	Government and Non Government Organisations and general public subscribed to the products.	118	45	73
Climate data request	29th	Ocean Link in Kiritimati (Wind speed, max and mini temp)	1	1	
	24th	SPC (Monthly rainfall for Bonriki 2020)	1	1	
<b>Total</b>			<b>182</b>	<b>87</b>	<b>95</b>

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