



KIRIBATI EARLY ACTION RAINFALL WATCH- AUGUST 2022

Rainfall Status to August 2022:

- Over the last **3- to 24-months**, Very Dry to Seriously Dry conditions existed for most of the Kiribati Islands.
- This is due to a **La Niña** event being in place from October 2020 to March 2021 and from November 2021 to August 2022. Kiribati experiences drier than normal conditions during La Niña. The current ENSO status is La Niña ALERT. The chance of another La Niña event developing in the coming months is medium to high.

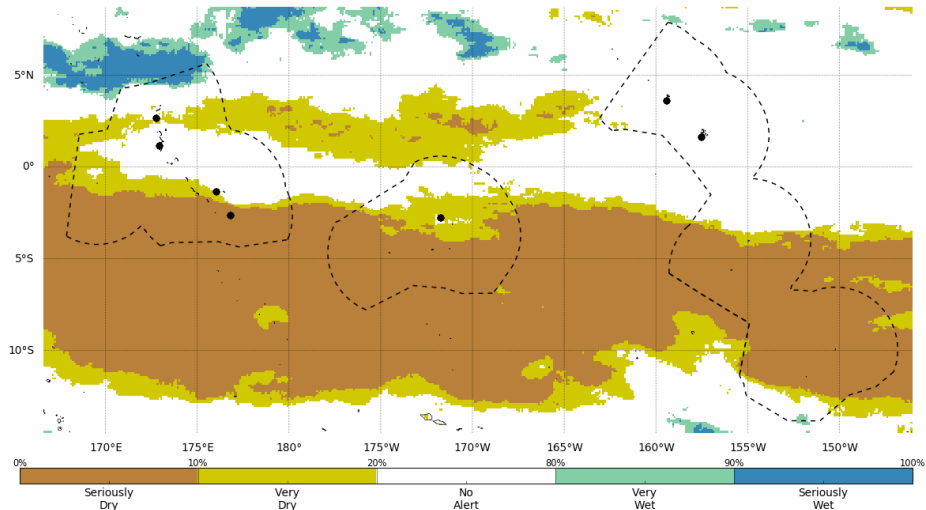
Rainfall Outlook to December 2022:

- The Very Dry conditions are likely to continue.
- For **September 2022**, there is a very high chance of Very Dry conditions for Banaba, southern Gilbert Islands, Phoenix Islands, and southern Line Islands and high chance of Very Dry conditions for the northern Gilbert Islands. There is a medium chance of Very Dry conditions for the northernmost Line Islands
- For **September to November 2022**, there is a very high chance of Very Dry conditions for Banaba, southern Gilbert Islands, Phoenix Islands and southernmost Line Islands and high chance of Very Dry conditions for the northern Gilbert Islands, Tarawa and surrounding islands and central Line Islands (Malden and Starbuck).
- For **October to December 2022**, there is a very high chance of very dry conditions for Gilbert group and Phoenix. Northern Line islands have a medium to high chance of very dry condition.

Rainfall status for the last 3-months, 6-months, 12-months and 24-months

	3-months June to August 2022	6-months March to August 2022	12-months September 2021 to August 2022	24-months September 2020 to August 2022
Banaba	Very Dry to Seriously Dry	Seriously Dry	Seriously Dry	Seriously Dry
Gilbert Islands north of equator	No Alert	Seriously Dry	Seriously Dry	Seriously Dry
Southern Gilbert Islands	Very Dry to Seriously Dry	Seriously Dry	Very Dry to Seriously Dry	Seriously Dry
Phoenix Islands	Very Dry to Seriously Dry	Seriously Dry	Seriously Dry	Seriously Dry
Line Islands north of the equator	No Alert	No Alert to Seriously Dry	Very Dry to Seriously Dry	Very Dry to Seriously Dry
South Line Islands	Very Dry to Seriously Dry	Very Dry to Seriously Dry	Seriously Dry	No Alert to Seriously Dry

3-month rainfall status to end of August 2022

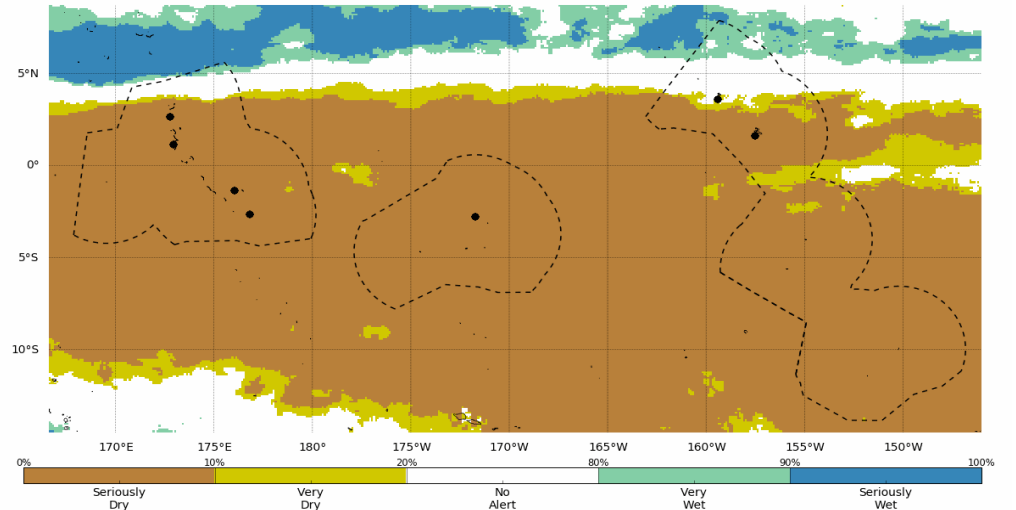


Data source: MSWEP
Method: Percentile
© Commonwealth of Australia 2022, Australian Bureau of Meteorology, supported by COSPPac

Model Run: 01/08/2022
Base period: 1980-2021

Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinerregions.org/>

6-month rainfall status to end of August 2022

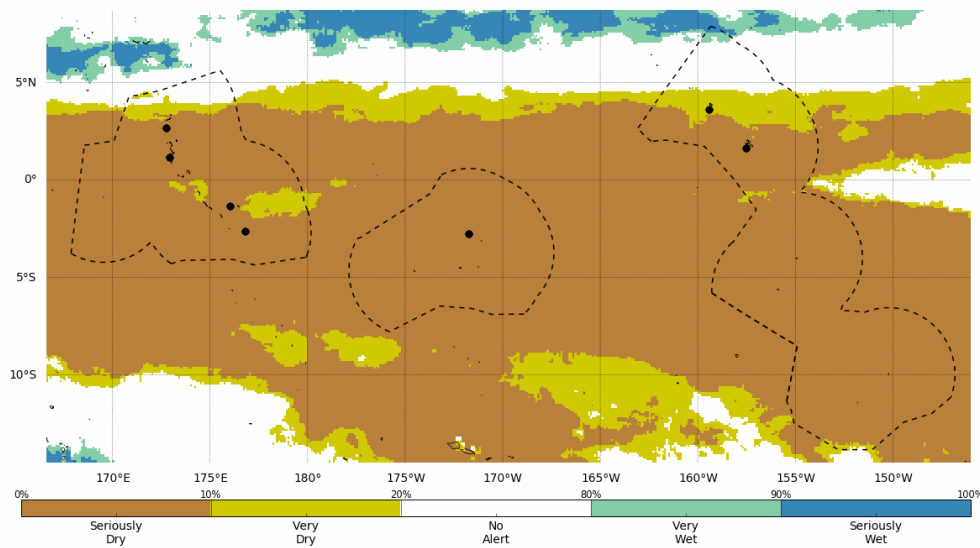


Data source: MSWEP
Method: Percentile
© Commonwealth of Australia 2022, Australian Bureau of Meteorology, supported by COSPPac

Model Run: 01/08/2022
Base period: 1980-2021

Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinerregions.org/>

12-month rainfall status to end of August 2022

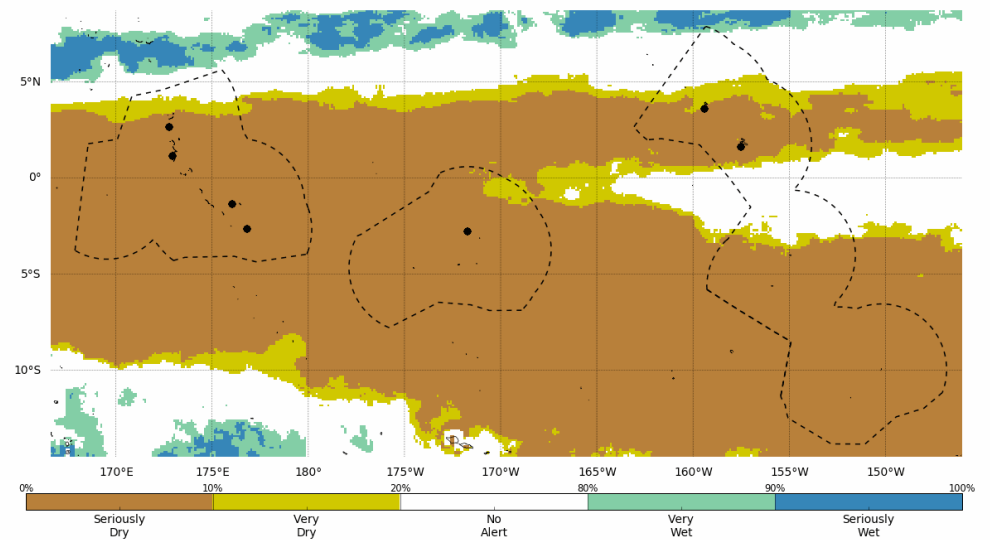


Data source: MSWEP
Method: Percentile
© Commonwealth of Australia 2022, Australian Bureau of Meteorology, supported by COSPPac

Model Run: 01/08/2022
Base period: 1980-2021

Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinerregions.org/>

24-month rainfall status to end of August 2022



Data source: MSWEP
Method: Percentile
© Commonwealth of Australia 2022, Australian Bureau of Meteorology, supported by COSPPac

Model Run: 01/08/2022
Base period: 1981-2021

Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinerregions.org/>

Time periods and impacts

3 months is most relevant for rainwater tanks and wells (water quality decreases).

The following health impacts have been experienced in the past: influenza, eye diseases e.g., red eye, diarrhea, water borne diseases.

6 months is most relevant for wells near coastlines which become brackish and slight increase in salinity at the Bonriki water reserve

The following health impacts have been experienced in the past: crop pest outbreak and livestock production decreases.

12 months is most relevant for smaller fruits size, bush fires in coconut trees and toddy production decreases

The following socio-economic impacts have been experienced in the past: fish mortality rate due to increase in seawater salinity

Other monitored indicators:

24 months is most relevant for groundwater supplies and deep-rooted trees e.g., coconuts and breadfruit.

The following socio-economic impacts have been experienced in the past: national water rationing

Allow for uncertainty associated with island size, topography, geology and soil type.

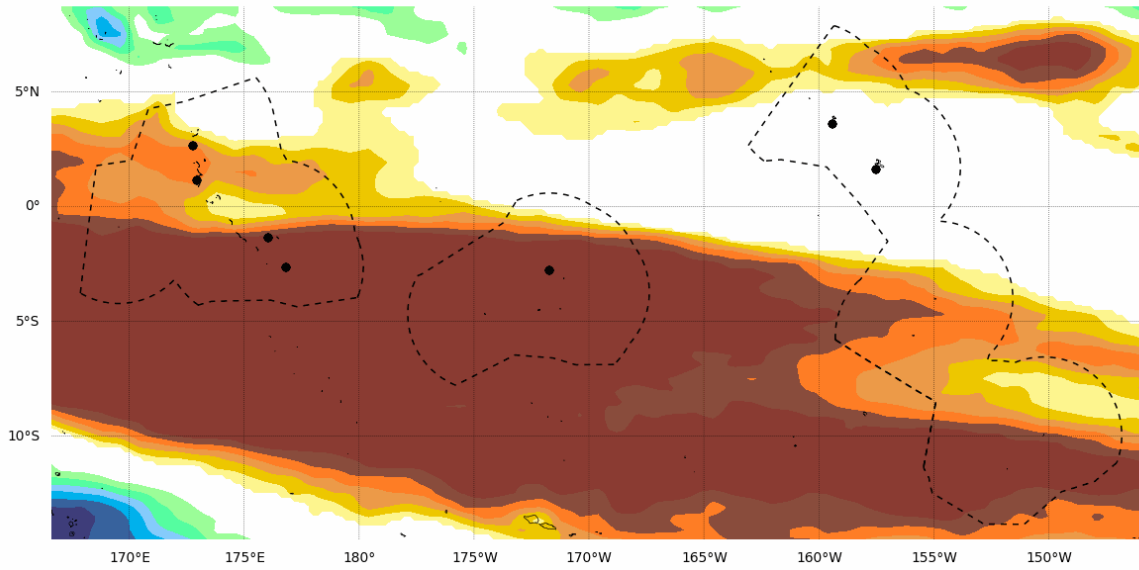
Information on the Maps

Rainfall Monitoring maps

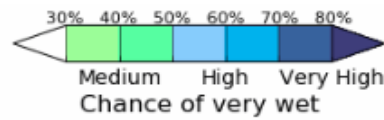
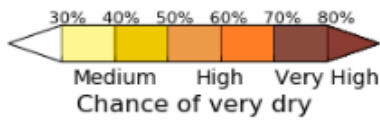
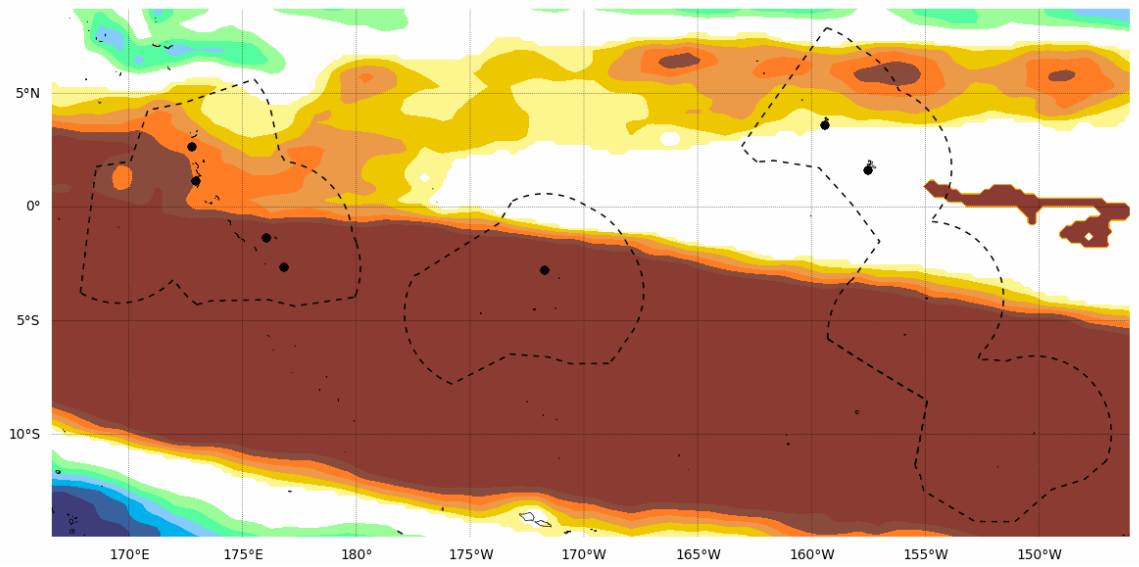
Kiribati's rainfall status is assessed using the MSWEP dataset available via <http://www.gloh2o.org/mswep/>. MSWEP is a global precipitation dataset at 0.1° resolution, available from 1979 that combines data from rain gauges, satellite observations and reanalysis. The data is processed and presented in Percentile Index form by the Australian and New Zealand DFAT Climate and Ocean Support Program in the Pacific. 'No Alert' is assigned where rainfall was between the 20th and 80th percentile for the period in question.

Rainfall Outlooks September, September to November and October to December 2022

Chance of extreme rainfall for September 2022



Chance of extreme rainfall for September to November 2022



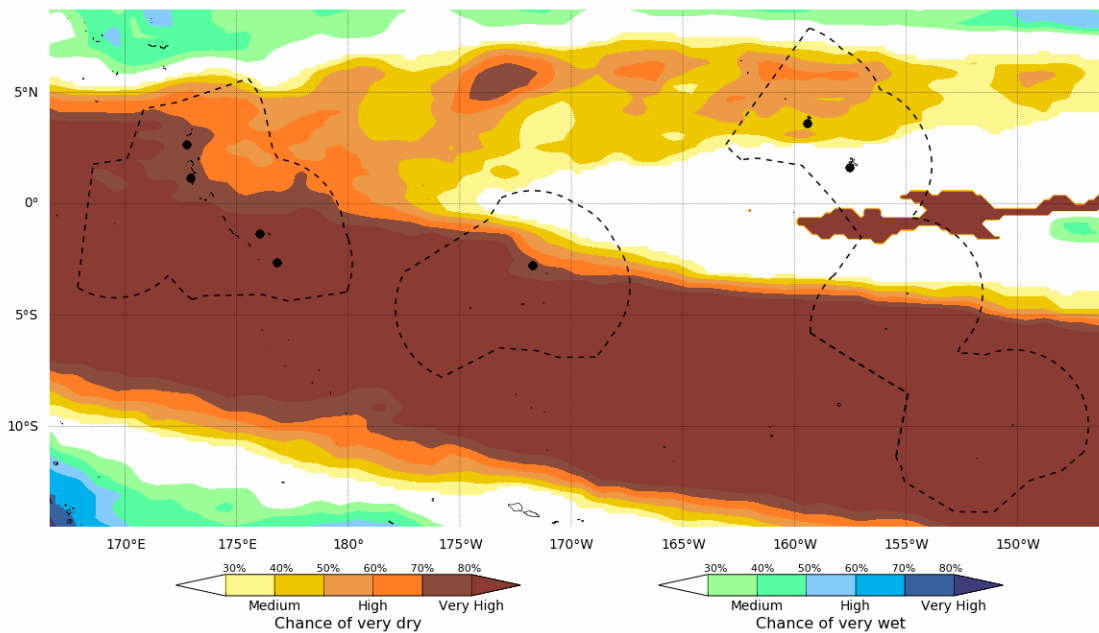
Data source: ACCESS-S2
 Issued: 08/08/2022

© Commonwealth of Australia 2022. Australian Bureau of Meteorology, supported by COSPPac

Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marineregions.org/>.

Model Run: 04/08/2022
 Base period: 1981-2018

Chance of extreme rainfall for October to December 2022



Data source: ACCESS-S2
Issued: 08/09/2022
© Commonwealth of Australia 2022, Australian Bureau of Meteorology, supported by COSPPac

Model Run: 01/09/2022
Base period: 1981-2018

Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinerregions.org/>.

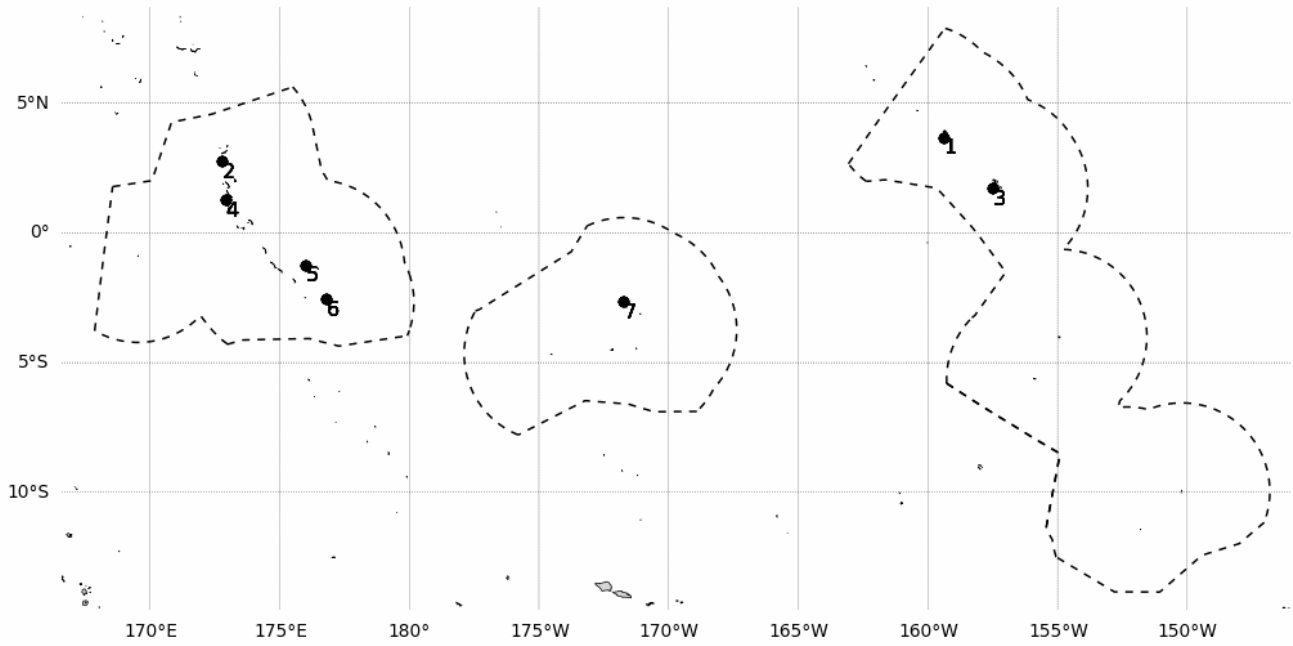
Information on the Maps

Forecast for Extreme Rainfall maps

The chance of extremes outlook maps presents the likelihood of very wet or very dry conditions. They are displayed by the chance that the outlook will result in rainfall in the top or bottom 20% of historical observations for the selected outlook period. Where there is white shading, it is less likely there will be either very wet or very dry conditions, rainfall is likely to be close to normal in this case. A very high chance of very dry (very wet) conditions is associated with the highest likelihood of rainfall being in the lowest (highest) 20% on record. A medium chance of very dry (very wet) conditions is associated with a lower but reasonable chance of rainfall being in the lowest (highest) 20% on record.

The outlooks have been produced using the Australian Bureau of Meteorology ACCESS-S2 model <http://www.bom.gov.au/climate/ahead/about/model/access.shtml>.

Kiribati Reference Map



Tabuaeran 1. ,Butaritari 2. ,Kiritimati 3. ,Tarawa 4. ,Beru 5. ,Arorae 6. ,Kanton 7.