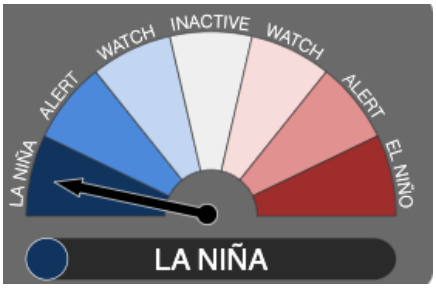
THE LINE & PHOENIX ISLANDS GROUP EARLY ACTION RAINFALL WATCH- DECEMBER 2022

Rainfall Status to November 2022:

- Over the last **3- to 6-month,** Very Dry to Seriously Dry exist for most island in the Phoenix while Line Island experienced No Alert conditions.
- Over the last **12- to 24-month,** Very Dry to Seriously Dry conditions existed for all islands in the Phoenix and Line Group.
- 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 and is likely to persist into early 2023.

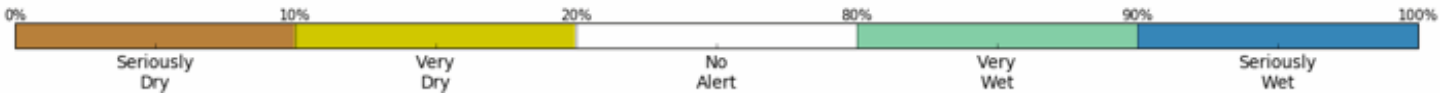


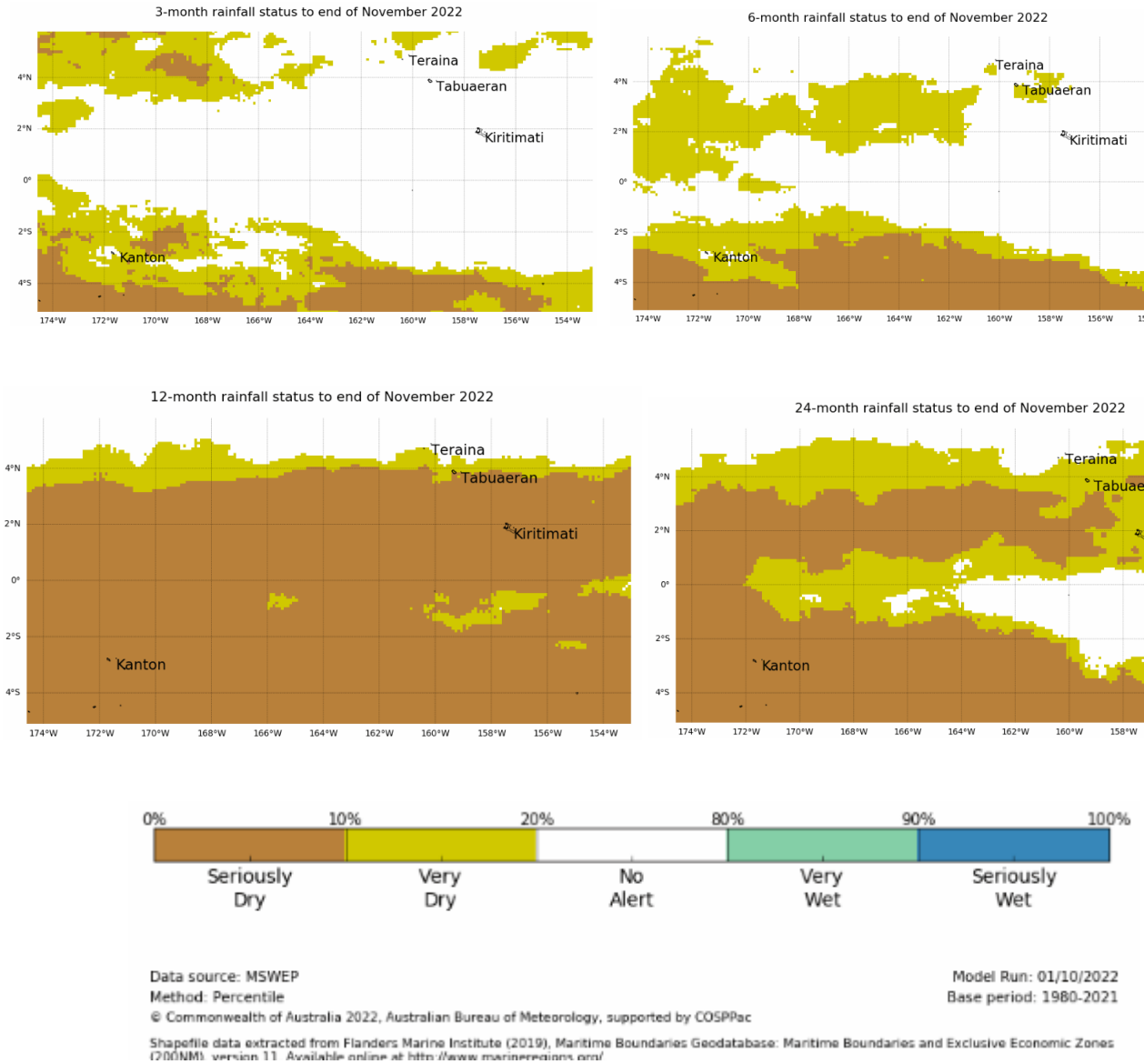
Rainfall Outlook:

- The Very Dry conditions are likely to continue.
- For **December 2022,** there is a **high to very high chance of Very Dry conditions** in Kanton.
- For **December 2022 to February 2023,** there is a **medium chance of Very Dry conditions** for Kanton and Kiritimati.
- For **January to March 2023,** there is no alert to **medium chance of Very Dry conditions** for the Phoenix and Line Islands.

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

	3-months September to November 2022	6-months June to November 2022	12-months December 2021 to November 2022	24-months December 2020 to November 2022
Kanton	Very Dry	Very Dry	Seriously Dry	Seriously Dry
Teraina	No Alert	No Alert	Very Dry	Very Dry
Tabuaeran	No Alert	No Alert	Seriously Dry	Very Dry to Seriously Dry
Kiritimati	No Alert	No Alert	Seriously Dry	Very Dry to Seriously Dry





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.

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

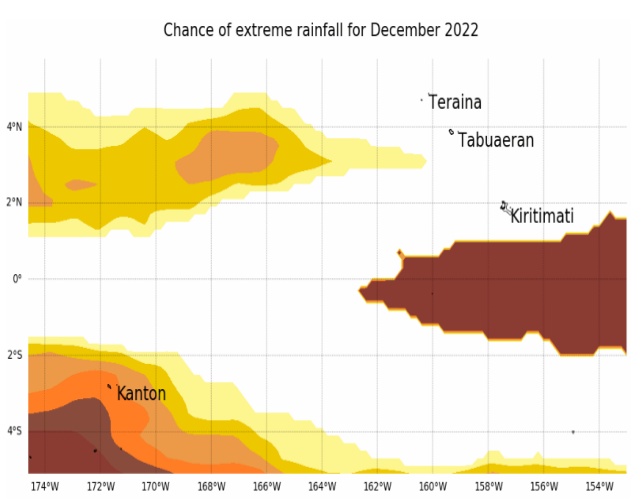
Other monitored indicators:

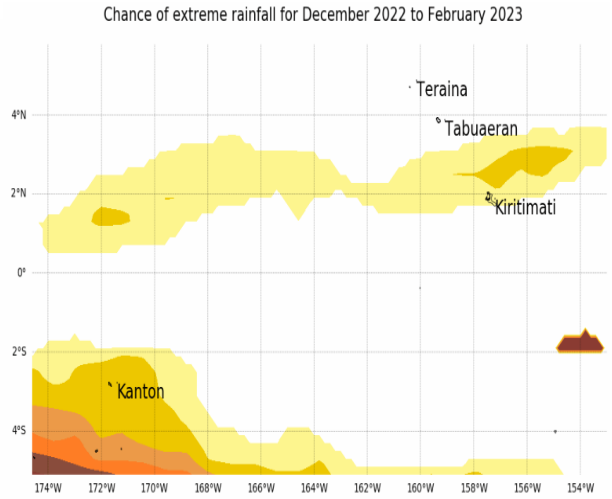
24 months is most relevant for groundwater supplies and deep-rooted trees e.g., coconuts and breadfruit.

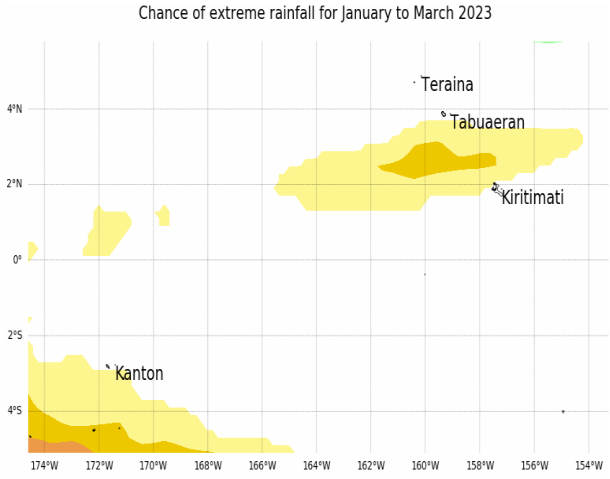
The following socio-economic impacts have been experienced in the past: national water rationing

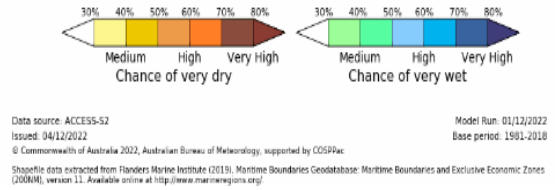
Allow for uncertainty associated with island size, topography, geology and soil type.

Rainfall Outlooks December 2022, December 2022 to February 2023 and January to March 2023









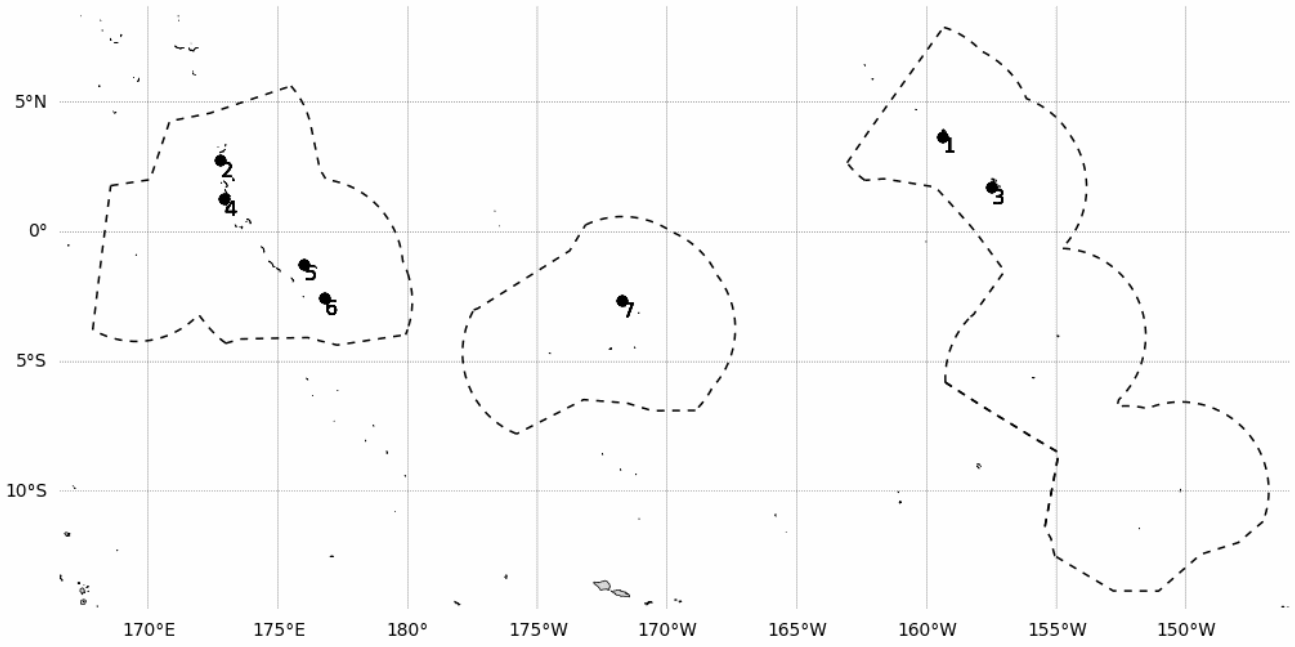
Information on the Maps

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.