



Kiribati Meteorological Service  
Member of WMO

#### Contacts

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#### Important Notes:

##### Meteorological Drought

- is defined as a deviation from normal precipitation conditions over a period of time for a specific region.

##### Hydrological Drought

- occurs when precipitation has been reduced for an extended period of time, and water supplies are deficient.

#### Rainfall Status Key

Seriously dry	A seriously dry advisory is when rainfall has been extremely lower than normal for the given time period and at that time of year. It is issued when rainfall for a given time period is at or below the lowest 10% (or 10 <sup>th</sup> percentile) of the historical rainfall record.
Warning	If a location has been significantly drier than normal for the given time period, but is not seriously dry. The likelihood of proceeding to seriously dry in the coming months is increased. This is when rainfall is in the lowest 25% of the historical record.
Watch	If a location has been drier than normal a watch is issued. The likelihood of seriously dry is somewhat increased as rainfall has been below average for a period of time and is in the lowest 40% of the historical record.
Missing observations	On occasion, rainfall data is not available for a station. In this case, it is impossible to give rainfall status.
No Alert	Rainfall received over the given time period is within a normal range.
Very wet	Very wet advisory is issued when rainfall has been extremely higher than normal for the given time period and at that time of year. Or when rainfall for a given time period is in the highest 90% of the historical record.

# Early Action Rainfall Watch

## Kiribati Meteorological Service Division

### Office of Te Beretitenti

The Early Action Rainfall Watch provides a summary of recent rainfall patterns, particularly the status of rainfall and outlook for the coming months. The status and outlook are revised on a monthly basis.

Issue 05/09/2019—Dry Season (May—October)

September 2019

#### SUMMARY STATEMENT

**ENSO Neutral:** Neither El Niño nor La Niña, since sea surface temperature was still warm in the previous weeks and just started cooling just recently this month—slight warming of the ocean was still observable, this leads to wetter conditions expected in Kiribati (more detail in climate bulletin).

**Status:** Rainfall status for the past 2 years from September 2017 to August 2019- Kiritimati is in warning, no alert status for 1 year (September 2018 to August 2019), 6 months (March to August 2019) and 3 months (June to August 2019).

No alert in Tarawa for the past 2 years and past 3 months while the past 1 year and 6 months- is very wet.

Beru has the same rainfall status as in Tarawa.

There is also no alert for dry conditions in Butaritari for past 2 years. Past 1 year, 6 months and 3 months status; experiences very wet conditions.

**Outlook:** For the next 3 month (Oct-Dec 2019), high chance of wet expected at Butaritari, Tarawa, Beru and Kiritimati while Kanton is expecting medium chance of wet conditions. For 6 months period, Butaritari, Tarawa and Kanton all expect medium chance wet with high chance of wet in Beru and Kiritimati.

#### Rainfall Observed to August 2019 & Outlook to March 2020

	Rainfall Status				Rainfall Outlook	
	2 years Sept 2017— August	1 year September 2018 – August	6 months Mar-Aug 2019	3 months June- August 2019	Next 3 months Oct-Dec 2019	Next 6 months Oct-March 2019
<b>Gilbert Islands</b>						
Butaritari						
Tarawa						
Beru						
<b>Phoenix Islands</b>						
Kanton						
<b>Line Islands</b>						
Kiritimati						
<b>Outlook Key</b>	<b>High Chance Dry</b>	<b>Medium Chance Dry</b>	<b>Low Chance Dry</b>	<b>Outlook not available</b>	<b>No Alert</b>	<b>Low Chance Wet</b>
						<b>Medium Chance Wet</b>
						<b>High Chance Wet</b>

#### Outlook Key Definitions

Seasonal forecasts tell you whether total rainfall over the coming months is likely to be above normal or below normal.

Alert levels indicate increasing chances of receiving either above normal or below normal rainfall over the entire 3 or 6 month periods. Alert levels do not tell you how much above or below normal the rainfall will be.

This summary report is prepared as soon as possible by the end of the month, once climate data completed from the operational meteorological stations around Kiribati together with the ENSO information which is received from various Meteorological Agencies around the world. Every effort is made to verify observational data. The Kiribati Meteorological Service does not guarantee the accuracy and reliability of the analysis and rainfall predictions presented, and accepts no liability for any losses incurred through the use of this summary and its contents. The contents of the summary may be freely disseminated provided the source is acknowledged. All enquiries on this report should be directed to the Kiribati Meteorological Service HQ at Temakin Betio. For further information please contact: Director, Kiribati Meteorological Services (686) 75126511 Email cmo@met.gov.ki



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## Time periods and possible impacts

After the period of below or above normal rainfall, the following **primary** agricultural and hydrological impacts, **secondary** socio-economic and health impacts **may** occur. Allow for uncertainty associated with island size, topography, population, geology and soil type. Contact the relevant sector offices for further information on impacts.

Sector	3 month period most relevant for	6 month period most relevant for	1 year period most relevant for	2 year period most relevant for
Water	Household rainwater tanks and wells quality decrease  Slight increase salinity of trunk main at Bonriki water reserve  Brackish wells near coastline  Increase water demand  Well water quality decrease (W)  Flooded homes (W)	Increase salinity of trunk main at Bonriki water reserve  Solar pump systems in outer islands over extraction  Decrease quality of wells  Infrastructure/ pump stations prone to flooding (W)	Individual domestic wells such as smaller freshwater lenses between Bonriki and Buota, large community water tanks.  Water Quality decrease (e.g algae)	Groundwater monitoring budget increases for monthly monitoring.  Increase cost to operate the desalination plant.  National water rationing
Fisheries/ Aqua-culture			Increase in salinity killing farm fish e.g milkfish in Kiritimati  Growth of mangroves affected  Mangroves seedlings affected by barnacles (W)	
Agriculture	Shallow rooted crops (e.g. tomato, lettuce, kumala, egg-plant) pawpaw and pumpkin  Pig farms & outbreak of diseases (W)  Impact bwabwai pit being flooded (W)  Rainfall impacting Copra quality & production (W)  Shallow rooted seedling impacted by rainfall (W)	Impact on livestock & production decreases (e.g pigs—heat stress)  Crop pest outbreak	Size of fruits gets smaller  Bush fires (e.g coconut tress)  Toddy production decreases	Deep rooted trees e.g. coconuts, bread-fruit
Health	Influenza,  Eye diseases e.g red eye  Diarrhoea  Water borne diseases	Skin diseases		Non-communicable diseases
Socio-economic	Reduced household economic activities (W)  Other diseases from sewage/ pigsty (W)  Increase burden in fetching water	Increase cost of living (use of gas, kerosene stoves)  Reduce household income (W) e.g copra	Domestic violence (extra load of task de-watering)  Conflict with water sharing in communities	Domestic violence (Extra load of task dewater)  Copra production decreases

**Contact the Kiribati Meteorological Service for further information.**

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