

# AFRICA: Monthly Climate Outlook February to November

**Issued: May 2022**

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# Overview

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# Africa Current Status and Outlook - Temperature

## Current Status:

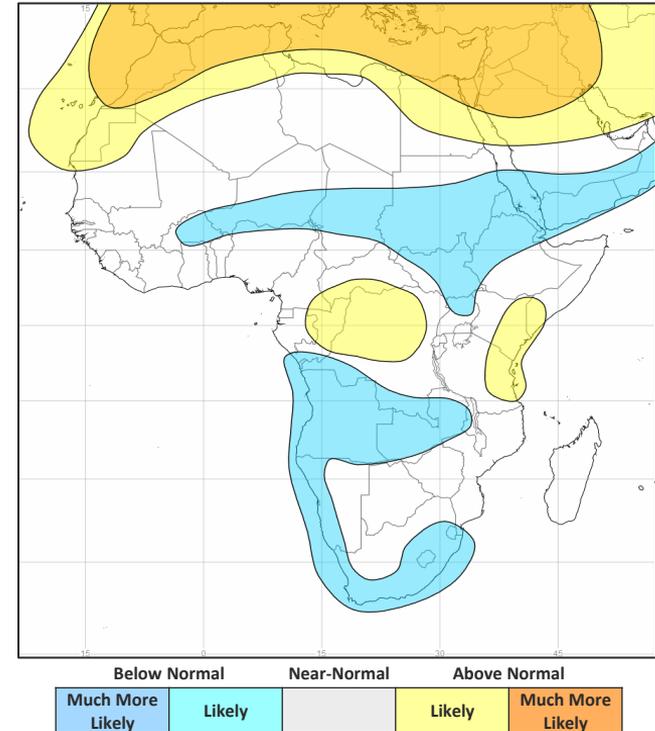
Over the last three months, tropical parts of the continent have had mostly hot conditions. Parts of southern Africa have experienced near- or below normal temperatures, particularly Madagascar. Across northern Africa temperatures have been near- or below normal widely during February and March. However, for April, much of North Africa experienced warm or hot conditions.

## Outlook:

Over the next three months, it is likely to be warmer than normal across much of northern Africa, particularly close to the Mediterranean coastline, and some tropical regions of the continent. For East Africa regions already experiencing multi-season drought this is likely to further exacerbate conditions.

It is likely to be colder than normal across the central and eastern Sahel including South Sudan and large parts of Ethiopia. Parts of southern Africa, especially Angola, Zambia and western Namibia are also likely to be colder than normal.

## 3-Month Outlook June to August - Temperature



# Africa Current Status and Outlook - Rainfall

## Current Status:

During February to April rainfall tends to be focused on central/southern/eastern parts of the continent as well as the far north.

Parts of East Africa, particularly in Kenya, Somalia and eastern Ethiopia experienced drier than normal conditions during the first part of their rainy season, further exacerbating a multi season drought. Conversely, Tanzania experienced above normal rainfall in February and near-normal conditions in March and April, and parts of DRC were also wetter than normal over the last three months. Mixed conditions were observed over southern Africa, although large parts of the region were wet during April.

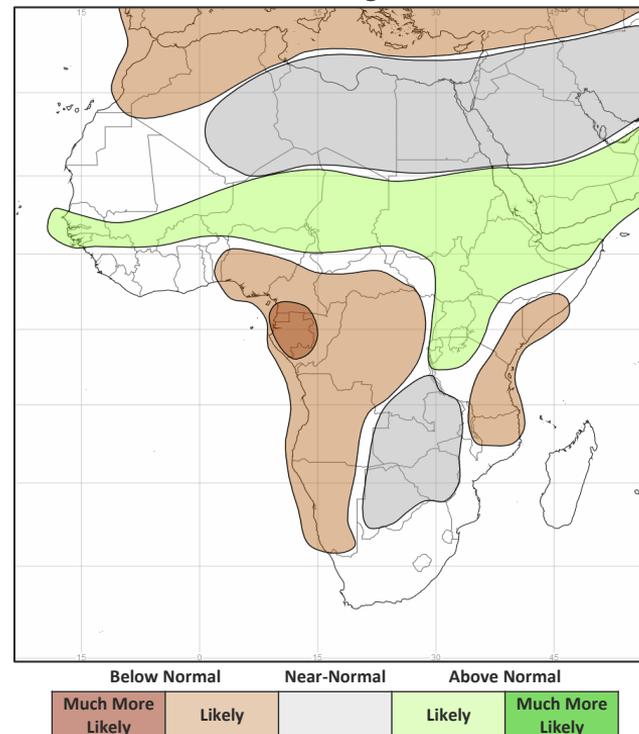
## Outlook:

Over the next three months, drier than normal conditions are likely across eastern parts of Africa, including southern Somalia, and coastal parts of Kenya and Tanzania. Western parts of the tropical Africa, including DRC, Cameroon, Gabon and parts of Nigeria are also likely to be drier than normal.

Rains associated with the West African monsoon will spread northwards inland over the next three months. In La Niña years, the Sahel tends to be wetter than normal during the Northern Hemisphere summer, and this is supported by most of the long-range forecasting model outputs. Further east, across parts of Ethiopia, South Sudan, northern Somalia and regions around Lake Victoria, it is likely to be wetter than normal.

Looking further ahead across East Africa, the Short Rains season (from September) is increasingly likely to be drier than normal, particularly in coastal regions. Forecasts for concurrent La Niña and negative Indian Ocean Dipole, along with high-level agreement from long-range models support this outlook. Should this materialise, this would be the fifth consecutive poor or failed rainy season exacerbating the already severe humanitarian emergency in the region.

## 3-Month Outlook June to August - Rainfall



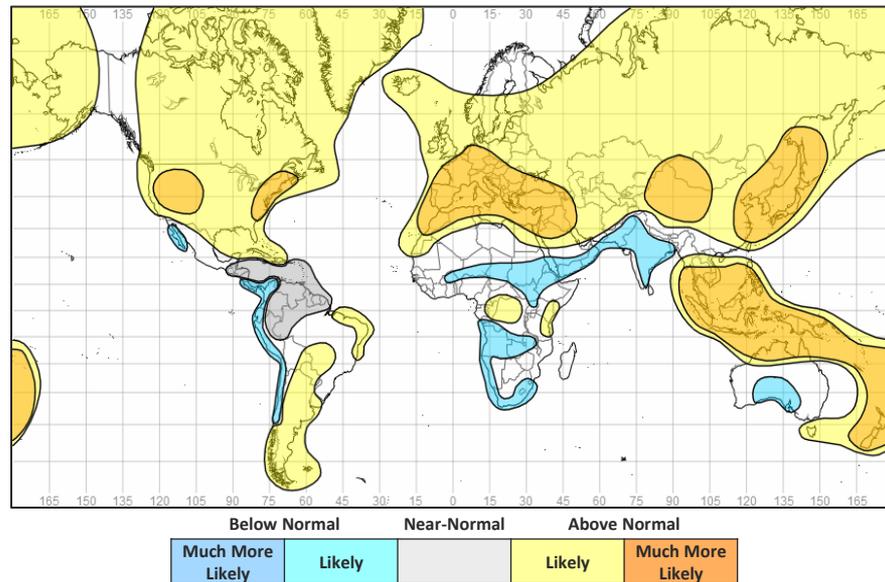
# Global Outlook - Temperature

## Outlook:

La Niña conditions are likely to persist for at least the next three months, although it is likely to weaken during this period.

Many parts of the globe are likely to be warmer than normal over the next three months. However, consistent with La Niña, parts of Australia, the Indian sub-continent, the Sahel region in Africa and parts of southern Africa are likely to be colder than normal.

## 3-Month Outlook June to August - Temperature



# Global Outlook - Rainfall

## Outlook:

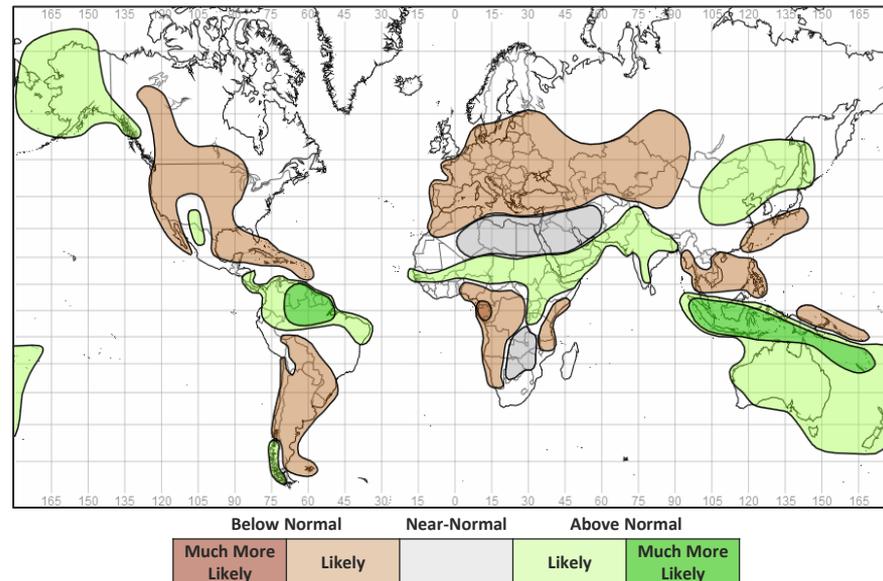
**El Niño-Southern Oscillation (ENSO)** – The 2021-22 La Niña event continues in the tropical Pacific Ocean. Whilst this event is likely to weaken, La Niña remains probable, albeit with lower likelihood, throughout the northern hemisphere summer.

The latest [ENSO outlook issued by NOAA](#) (23 May) states that although La Niña is likely to continue, the odds decrease into the late Northern Hemisphere summer (58% chance in August-October 2022) before slightly increasing during the Northern Hemisphere autumn and early winter 2022 (61% chance). Therefore, it seems likely that La Niña will remain a dominant driver of global weather patterns over the next few months, particularly in tropical regions.

With a couple of notable exceptions (e.g., East Africa) La Niña, very broadly speaking, tends to increase the likelihood of wetter than normal conditions across many land areas of the tropics. More information on typical impacts can be found here <https://www.metoffice.gov.uk/research/climate/seasonal-to-decadal/gpc-outlooks/el-nino-la-nina/enso-impacts>

**Indian Ocean Dipole (IOD)** – The Indian Ocean Dipole (IOD) is currently neutral. Seasonal forecast systems are consistent in suggesting a negative IOD, potentially strongly negative, is likely to form during the Northern Hemisphere summer. Should this occur, this would start to influence rainfall patterns both around the Indian Ocean basin and more widely. However, it should be noted skilful prediction of the IOD is limited at this time of year so forecasts of a negative phase still need to be treated with caution.

## 3-Month Outlook June to August - Rainfall



# Current Status

[Current Status maps](#)

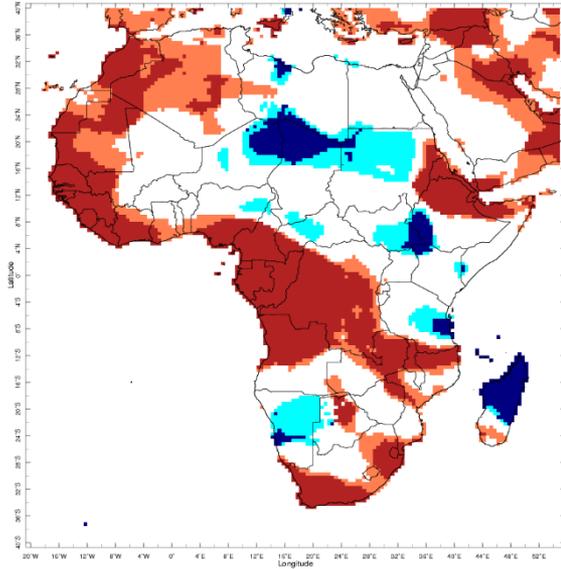
[Western Africa](#)

[Central Africa](#)

[Eastern Africa](#)

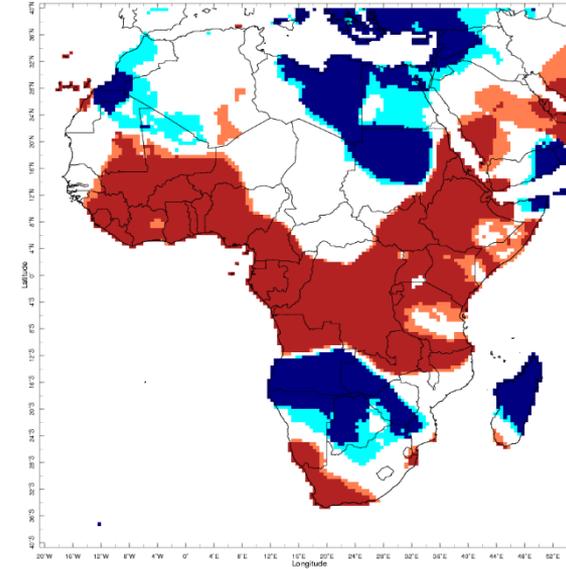
[Southern Africa](#)

# Current Status – Temperature percentiles



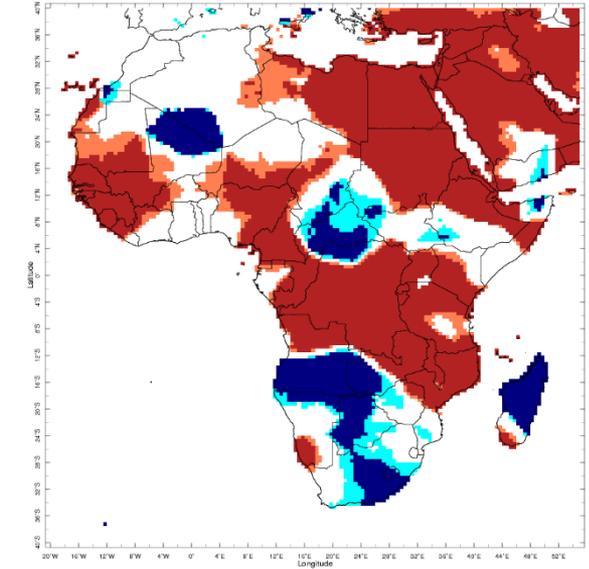
Feb 2022

February



Mar 2022

March



Apr 2022

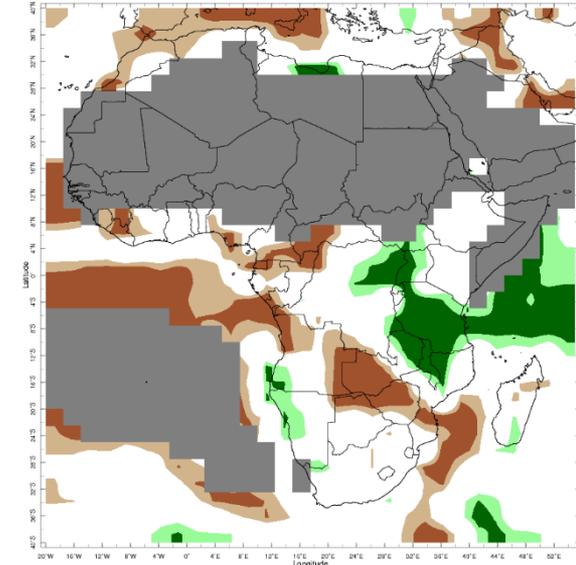
April

Temperature Percentiles (BLUE below 20th and RED above 80th)



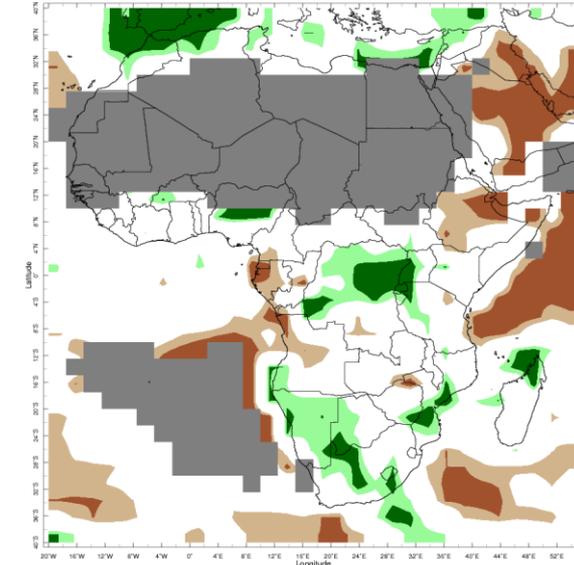
**Notes:** The percentiles shown in the map indicate a ranking of temperature, with the 0th percentile being the coolest and the 100th percentile being the warmest in the 1981–2010 climatology. Orange and red shading represent values above the 80th (Warm) and 90th (Hot) percentile, respectively; regions shaded in light and dark blue indicate values below the 20th (Cool) and 10th (Cold) percentile, with respect to the 1981–2010 climatology. The data used in this map are from the NOAA Climate Prediction Center.

# Current Status – Precipitation percentiles



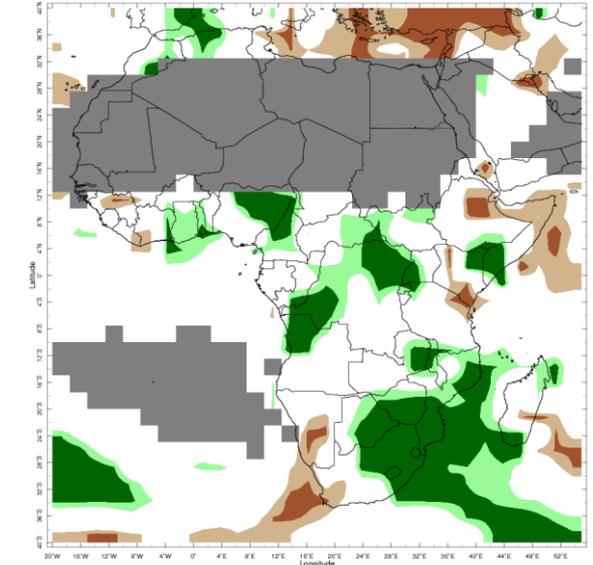
Feb 2022

February



Mar 2022

March



Apr 2022

April



**Notes:** The percentiles shown in the map indicate a ranking of rainfall, with the 0th percentile being the driest and the 100th percentile being the wettest in the 1981-2010 climatology. Green and dark green shading represent values above the 80th (Wet) and 90th (Very Wet) percentile, respectively; regions shaded in light and dark brown indicate rainfall below the 20th (Dry) and 10th (Very Dry) percentile, with respect to the 1981-2010 climatology. Grey areas on the map mask out regions that receive less than 10 mm/month of rainfall on normal in the 1981-2010 climatology for the month. The data used in this map are from the NOAA Climate Prediction Center.

## Current Status – Western Africa

Current Status: Temperature

	February	March	April
Sierra Leone	Hot	Hot	Hot
Liberia	Hot	Hot	Hot
Mali	Mixed (1)	Mixed (4)	Mixed (4)
Ghana	Mixed (2)	Hot	Normal
Nigeria	Mixed (2)	Hot	Hot
Cameroon	Hot	Hot	Hot

Current Status: Rainfall

	February	March	April
	Dry	Normal	Normal
	Normal	Normal	Normal
	Normal*	Normal*	Normal*
	Normal	Normal	Wet
	Normal (3)	Normal (5)	Normal (6)
	Dry	Normal	Wet

### Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room:

<http://iridl.ldeo.columbia.edu/maproom/>.

\* Region usually experiences less than 10mm/month rainfall during the month (dry season).

### Additional Information:

- (1) **Note:** Cold in the north; normal elsewhere
- (2) **Note:** Warm in the south; normal elsewhere
- (3) **Note:** Dry in the southern coastal regions
- (4) **Note:** Cool in far north, hot elsewhere
- (5) **Note:** Wet or very wet in some central areas
- (6) **Note:** Very Wet in the northeast

## Current Status – Central Africa

	Current Status: Temperature		
	February	March	April
Niger	Mixed (1)	Mixed (4)	Mixed (4)
Chad	Mixed (1)	Normal	Mixed (5)
DRC	Hot	Hot	Hot

	Current Status: Rainfall		
	February	March	April
Niger	Normal*	Normal*	Normal*
Chad	Normal*	Normal*	Normal*
DRC	Mixed (2)	Mixed (3)	Mixed (3)

### Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room:

<http://iridl.ldeo.columbia.edu/maproom/>.

\* Region usually experiences less than 10mm/month rainfall during the month (dry season).

### Additional Information:

- (1) **Note:** Very cold in the north; normal elsewhere
- (2) **Note:** Normal for most areas, though very wet in the far east
- (3) **Note:** Wet or very wet in central and northern areas, normal elsewhere
- (4) **Note:** Hot southwest, normal elsewhere
- (5) **Note:** Cool/cold in the southeast; normal or warm elsewhere.

## Current Status – Eastern Africa (1)

Current Status: Temperature

	February	March	April
Sudan	Mixed (1)	Mixed (1)	Mixed (3)
South Sudan	Cold	Hot	Normal
Uganda	Normal	Hot	Hot
Rwanda	Normal	Hot	Hot

Current Status: Rainfall

	February	March	April
	Normal*	Normal*	Normal*
	Mixed (2)	Normal	Normal
	Wet	Wet	Wet
	Normal	Very Wet	Wet

### Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room:

<http://iridl.ldeo.columbia.edu/maproom/>.

\* Region usually experiences less than 10mm/month rainfall during the month (dry season).

### Additional Information:

- (1) Note:** Normal in the south, cool or cold in the north
- (2) Note:** Wet in the south, normal\* elsewhere
- (3) Note:** Cool in the southwest; hot elsewhere

## Current Status – Eastern Africa (2)

Current Status: Temperature

	February	March	April
Tanzania	Normal (1)	Warm	Hot
Ethiopia	Mixed (2)	Hot	Mixed (2)
Kenya	Normal	Hot	Hot
Somalia	Normal (3)	Warm	Normal (3)

Current Status: Rainfall

	February	March	April
	Very Wet	Normal	Normal
	Normal	Dry	Normal
	Normal	Normal	Mixed (4)
	Normal*	Normal	Mixed (5)

### Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room: <http://iridl.ldeo.columbia.edu/maproom/>.

\* Region usually experiences less than 10mm/month rainfall during the month (dry season).

### Additional Information:

- (1) **Note:** Locally cold in the east
- (2) **Note:** Hot in the north, cold in the far southwest, normal elsewhere
- (3) **Note:** Hot in the far north
- (4) **Note:** Very Wet in the northeast and dry in the southeast; near Normal elsewhere
- (5) **Note:** Very Wet in the south; Dry in the north; Normal elsewhere

# Current Status – Southern Africa

### Current Status: Temperature

	February	March	April
South Africa	Warm	Mixed (1)	Cool
Zambia	Hot	Mixed (2)	Mixed (2)
Zimbabwe	Mixed (3)	Cold	Cool
Mozambique	Mixed (3)	Normal	Mixed (3)
Malawi	Hot	Hot	Hot
Madagascar	Cold	Cold	Cold

### Current Status: Rainfall

	February	March	April
	Normal	Mixed (4)	Mixed (5)
	Mixed (5)	Normal	Mixed (8)
	Very Dry	Normal	Very Wet
	Mixed (6)	Wet	Very Wet
	Very Wet	Normal	Wet
	Normal	Normal (7)	Normal

#### Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room: <http://iridl.ldeo.columbia.edu/maproom/>.

\* Region usually experiences less than 10mm/month rainfall during the month (dry season).

#### Additional Information:

- (1) Note:** Hot in the southwest, cold in the northeast
- (2) Note:** Hot in the east, cold in the west
- (3) Note:** Hot in the northeast, normal elsewhere
- (4) Note:** Wet or very wet in parts of the south and southwest, normal elsewhere
- (5) Note:** Very dry in the west, very wet in the east.
- (6) Note:** Very wet in the far north, very dry in parts of the south, normal elsewhere
- (7) Note:** Very wet in the far north
- (8) Note:** Very Wet in the east; Normal elsewhere

# Outlooks

[Notes for use](#)

[Western Africa](#)

[Central Africa](#)

[Eastern Africa](#)

[Southern Africa](#)

# Outlooks: Notes for use

## Outlooks for months 4 to 6:

As forecast uncertainty generally increases with longer range **the 4-6-month outlook is less reliable than the 1-3 month outlook**. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range.

Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

## Climatological odds:

A forecast is only provided in the outlooks where there is information in the model data about likely outcomes. Therefore, where the likelihoods for above, near and below normal conditions are evenly balanced the phrase 'climatological odds' will be used. This means the outcome could fall anywhere within the possible climatological range. Near-normal conditions should not necessarily be assumed, and users should update with shorter-term forecasts when available.

# Outlook: June to November – Western Africa (1)

		Forecast summary		
		June	June to August	September to November
Sierra Leone	Temperature	Likely to be warmer than normal	Climatological odds	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Climatological odds
Liberia	Temperature	Likely to be warmer than normal	Climatological odds	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Climatological odds
Mali	Temperature	Likely to be warmer than normal	Climatological odds	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Climatological odds in the north; Likely to be wetter than normal in the south	Climatological odds
Ghana	Temperature	Likely to be warmer than normal	Climatological odds	Climatological odds
	Rainfall	Climatological odds	Climatological odds	Climatological odds

**Outlooks for months 4 to 6:** As forecast uncertainty generally increases with longer range the 4-6-month outlook is less reliable than the 1-3 month outlook. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

## Outlook: June to November – Western Africa (2)

		Forecast summary		
		June	June to August	September to November
Nigeria	Temperature	Likely to be warmer than normal	Climatological odds	Climatological odds
	Rainfall	Climatological odds	Likely to be wetter than normal in the north; Likely to be drier than normal in the south	Climatological odds
Cameroon	Temperature	Likely to be warmer than normal	Climatological odds	Likely to be warmer than normal
	Rainfall	Climatological odds	Likely to be drier than normal	Likely to be drier than normal

**Outlooks for months 4 to 6:** As forecast uncertainty generally increases with longer range the 4-6-month outlook is less reliable than the 1-3 month outlook. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

# Outlook: June to November – Central Africa

		Forecast summary		
		June	June to August	September to November
Niger	Temperature	Climatological odds	Likely to be colder than normal in the south; Climatological odds elsewhere	Climatological odds
	Rainfall	Likely to be near-normal	Likely to be wetter than normal	Climatological odds
Chad	Temperature	Climatological odds	Likely to be colder than normal	Climatological odds
	Rainfall	Likely to be near-normal	Likely to be wetter than normal	Climatological odds
Democratic Republic of Congo	Temperature	Climatological odds	Likely to be colder than normal in the far south, Likely to be warmer than normal in the northwest and Climatological odds elsewhere	Likely to be warmer than normal
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Climatological odds

**Outlooks for months 4 to 6:** As forecast uncertainty generally increases with longer range the 4-6-month outlook is less reliable than the 1-3 month outlook. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

# Outlook: June to November – Eastern Africa (1)

		Forecast summary		
		June	June to August	September to November
Sudan	Temperature	Climatological odds	Likely to be colder than normal	Climatological odds
	Rainfall	Likely to be near-normal	Likely to be wetter than normal	Climatological odds
South Sudan	Temperature	Climatological odds	Likely to be colder than normal	Climatological odds
	Rainfall	Climatological odds	Likely to be wetter than normal	Climatological odds
Uganda	Temperature	Likely to be warmer than normal	Likely to be colder than normal	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Climatological odds
Rwanda	Temperature	Likely to be warmer than normal	Climatological odds	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Climatological odds
Tanzania	Temperature	Likely to be warmer than normal	Likely to be warmer than normal along in the Coastal Plain; Climatological odds elsewhere	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal near Lake Victoria, Likely to be drier than normal in the east and Climatological odds elsewhere	Likely to be wetter than normal near Lake Victoria, Likely to be drier than normal in the east and Climatological odds elsewhere	Likely to be drier than normal

**Outlooks for months 4 to 6:** As forecast uncertainty generally increases with longer range the 4-6-month outlook is less reliable than the 1-3 month outlook. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

## Outlook: June to November – Eastern Africa (2)

		Forecast summary		
		June	June to August	September to November
Ethiopia	Temperature	Likely to be warmer than normal	Likely to be colder than normal in the west; Climatological odds in the east	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Climatological odds
Kenya	Temperature	Likely to be warmer than normal	Likely to be warmer than normal along in the Coastal Plain; Climatological odds elsewhere	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal in the Highlands, Likely to be drier than normal along the Coastal Plain and Climatological odds elsewhere	Likely to be wetter than normal in the Highlands, Likely to be drier than normal along the Coastal Plain and Climatological odds elsewhere	Likely to be drier than normal
Somalia	Temperature	Likely to be warmer than normal	Likely to be warmer than normal in the far south; Climatological odds elsewhere	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be drier than normal in the south, Likely to be wetter than normal in the north and Climatological odds elsewhere	Likely to be drier than normal

**Outlooks for months 4 to 6:** As forecast uncertainty generally increases with longer range the 4-6-month outlook is less reliable than the 1-3 month outlook. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

# Outlook: June to November – Southern Africa (1)

		Forecast summary		
		June	June to August	September to November
South Africa	Temperature	Climatological odds	Likely to be colder than normal	Climatological odds
	Rainfall	Likely to be near-normal	Climatological odds	Climatological odds
Zambia	Temperature	Likely to be colder than normal	Likely to be colder than normal	Climatological odds
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds
Zimbabwe	Temperature	Climatological odds	Climatological odds	Climatological odds
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds
Mozambique	Temperature	Climatological odds	Climatological odds	Climatological odds
	Rainfall	Likely to be drier than normal	Likely to be drier than normal in the north; Climatological odds elsewhere	Likely to be drier than normal

**Outlooks for months 4 to 6:** As forecast uncertainty generally increases with longer range the 4-6-month outlook is less reliable than the 1-3 month outlook. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

# Outlook: June to November – Southern Africa (1)

		Forecast summary		
		June	June to August	September to November
Malawi	Temperature	Climatological odds	Climatological odds	Climatological odds
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Likely to be drier than normal
Madagascar	Temperature	Likely to be warmer than normal	Climatological odds	Climatological odds
	Rainfall	Climatological odds	Climatological odds	Climatological odds

**Outlooks for months 4 to 6:** As forecast uncertainty generally increases with longer range the 4-6-month outlook is less reliable than the 1-3 month outlook. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

# Annex 1 – Supplemental Information

## For further information

WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble (LC-LRFMME)

[https://www.wmolc.org/seasonPmmeUI/plot\\_PMME](https://www.wmolc.org/seasonPmmeUI/plot_PMME)

International Research Institute for Climate and Society (IRI)

<http://iridl.ldeo.columbia.edu/maproom/>

NOAA El Niño technical info

<https://www.ncdc.noaa.gov/teleconnections/enso/indicators/sst.php>

Met Office

<https://www.metoffice.gov.uk/services/government/international-development>

Climate Outlook Fora (<https://public.wmo.int/en/our-mandate/climate/regional-climate-outlook-products>), including:

Greater Horn of Africa Climate Outlook Forum (GHACOF): [GHACOF 61 Statement](#) (May 2022)

PRÉvisions climatiques Saisonnières en Afrique Soudano-Sahélienne (PRESASS): <http://acmad.net/rcc/presassS.php> (April 2021)

Southern African Regional Climate Outlook Forum (SARCOF): <http://csc.sadc.int/en/news-and-events/326-climate-outlook-forum-2021-sarcof-25> (August 2021)

PRÉvisions climatiques Saisonnières en Afrique, pays du Golfe de Guinée (PRESAGG): <http://acmad.net/rcc/presagg.php> (February 2021)

South-West Indian Ocean Climate Outlook Forum (SWIOCOF) - [http://www.acmad.net/new/NEWSITEACMAD/wp-content/uploads/2021/10/SWIOCOF-10\\_Statement-EN.pdf](http://www.acmad.net/new/NEWSITEACMAD/wp-content/uploads/2021/10/SWIOCOF-10_Statement-EN.pdf) (October 2021)

# Technical notes

The [WMO lead centre for long-range forecast multi-model ensemble \(LC-LRFMME\)](#) produce a probabilistic multi-model mean forecast product in which the multi-model mean is based on uncalibrated model output with a model weighting system that accounts for errors in both the forecast probability and ensemble mean. The method used by LC-LRFMME separately computes a probabilistic forecast and calculates tercile probabilities with respect to climatology for each individual model, before creating the weighted multi-model mean. In seasonal prediction, shifts in the tercile probabilities are always closely associated with the shifts in the probability of extremes, and we can use the probability of terciles to provide information on the likelihood of above- or below- normal conditions. The thresholds used in the forecast summaries are defined below.

Seasonal forecasts rely on the aspects of the global weather and climate system that are more predictable, such as tropical sea-surface temperatures or the El Niño–Southern Oscillation (ENSO). However, whilst such forecasts may be able to show what is more or less likely to occur, they acknowledge that other outcomes are possible.

In addition, forecast uncertainty generally increases with longer range so the 6-month outlook is less reliable. It is also based on less information, because not all models are available to this range. Therefore the information presented here should be used to raise early awareness of potential hazards, and should be updated with the 3-month outlook when available.

In the report and tables precipitation is referred to as rainfall but in fact encompasses any form of water, liquid or solid, falling from the sky. Temperatures are the (2 metre) near-surface temperature.

Description	Definition
Much more likely to be below normal	When probability of lower tercile > 70%
More likely to be below normal	When probability of lower tercile is 40-70%
Likely to be near-normal	When probability of middle tercile is 40-70%
Much more likely to be near-normal	When probability of middle tercile > 70%
Likely to be above normal	When probability of upper tercile is 40-70%
Much more likely to be above normal	When probability of upper tercile > 70%
Climatological odds	When probabilities for all categories are roughly 33%

## Global Producing Centres (GPC) forecasts used by WMO LC-LRFMME:

- GPC CPTC (INPE),
- GPC ECMWF,
- GPC Exeter (Met Office),
- GPC Melbourne (BOM),
- GPC Montreal (CMC),
- GPC Moscow (Hydromet Centre of Russia),
- GPC Offenbach (DWD),
- GPC Pretoria (SAWS),
- GPC Seoul (KMA),
- GPC Tokyo (JMA),
- GPC Toulouse (Meteo France),
- GPC Washington (NCEP)

# Enquiries

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