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AFRICA: Monthly Climate Outlook January to October

Issued: April 2025

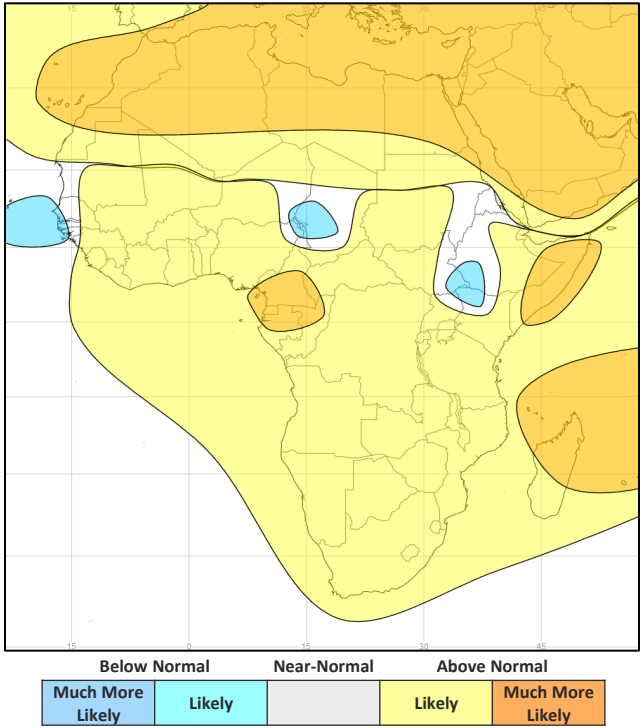
Overview

Africa Current Status and Outlook - Temperature

Current Status: Many areas were warm or hot over the last three months though there were some exceptions. Much of northern Africa including the Sahel experienced near normal temperatures in February. Temperatures in Madagascar have been below normal between January and March and were also widely below normal across Southern Africa in January and February. Some parts of East Africa also had below normal temperatures in January and February, especially Eritrea in January.

Outlook: Consistent with a warming climate, warmer than normal conditions are likely or very likely across most areas. However, there are some exceptions across parts of East Africa and the Sahel where below normal is likely and this coincides with a wetter than normal forecast.

3-Month Outlook May to July - Temperature

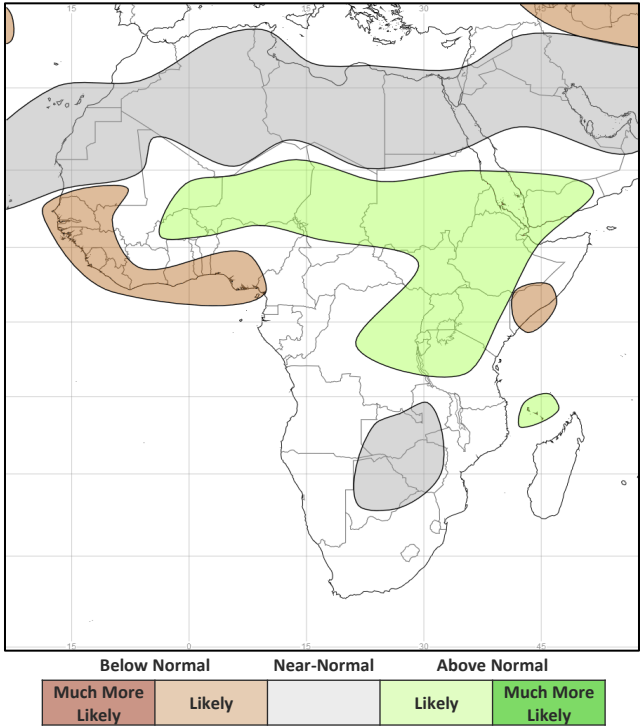


Africa Current Status and Outlook - Rainfall

Current Status: During January and February rainfall tends to be focused over Southern Africa with Malawi and some nearby areas experiencing wet or very wet conditions. During March, rainfall tends to shift further north over East Africa with above normal rainfall experienced across parts of Mozambique, Tanzania and Kenya.

Outlook: Across East Africa, for the end of the Long Rains season, drier than normal is likely for southern Somalia. Above normal rainfall is likely for many other parts of East Africa. The West African monsoon becomes the focus of rainfall over the continent through this period as rains extend further inland. Across the Sahel, wetter than normal conditions are likely while for countries adjacent to the Gulf of Guinea below normal conditions are likely.

3-Month Outlook May to July - Rainfall



Global Outlook - Temperature

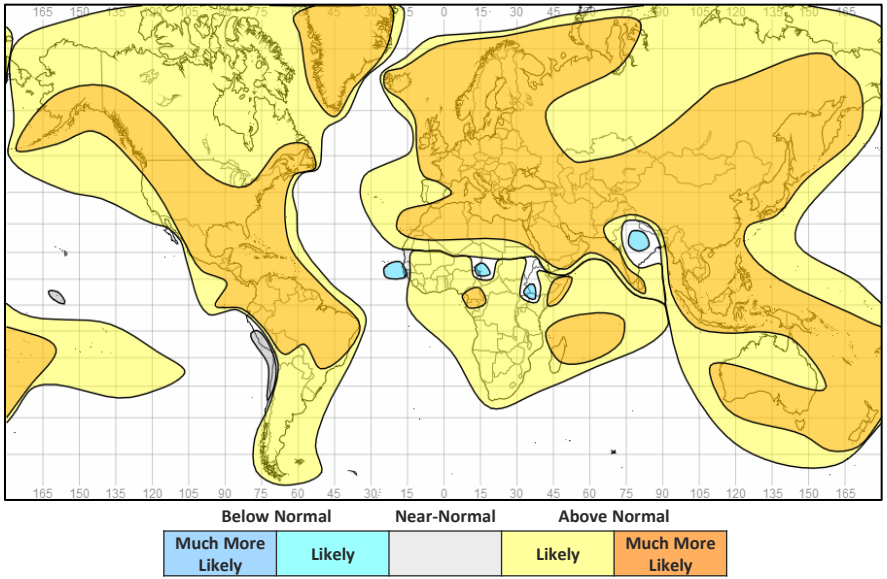
Outlook:

ENSO is now neutral and will have minimal influence on global temperatures through this period.

Consistent with a warming climate, nearly all land areas are likely or very likely to experience warmer than normal conditions through the next three months.

The main exceptions over parts of Africa and southern Asia owing to likely active monsoon seasons.

3-Month Outlook May to July - Temperature



Global Outlook - Rainfall

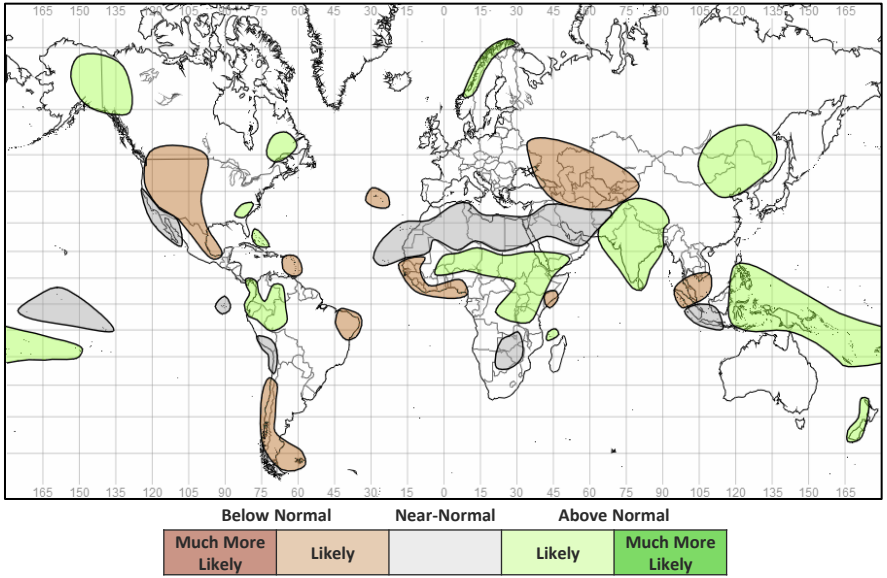
Outlook:

El Niño-Southern Oscillation (ENSO) – Following the recent La Niña, sea surface temperatures in the tropical Pacific have returned to around normal with ENSO now in a neutral state. ENSO is very likely to remain neutral through the next three months and therefore will provide limited influence as a driver of global weather patterns.

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 Diploe (IOD) – The IOD is currently neutral and therefore will provide limited predictive value through this period. However, sea surface temperatures are currently widely above normal over the Indian Ocean, this probably a factor driving the increased likelihood of a wetter than normal South Asian monsoon.

3-Month Outlook May to July - Rainfall



Current Status

Current Status maps

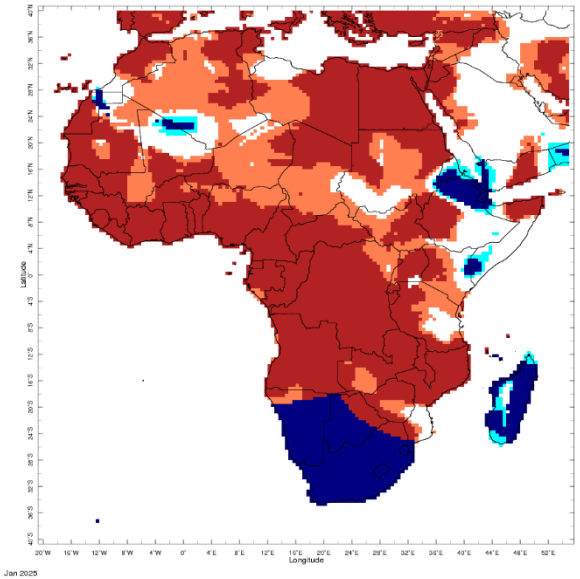
Western Africa

Central Africa

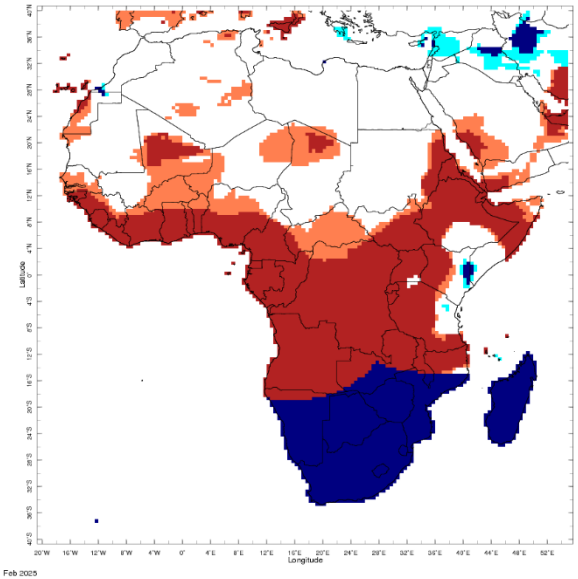
Eastern Africa

Southern Africa

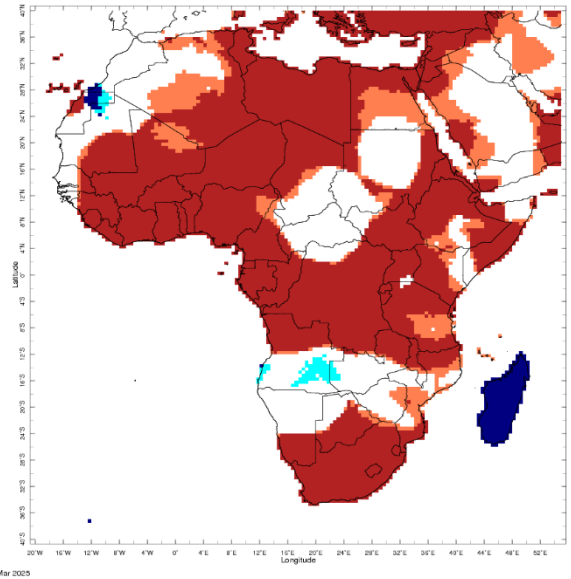
Current Status – Temperature percentiles



January



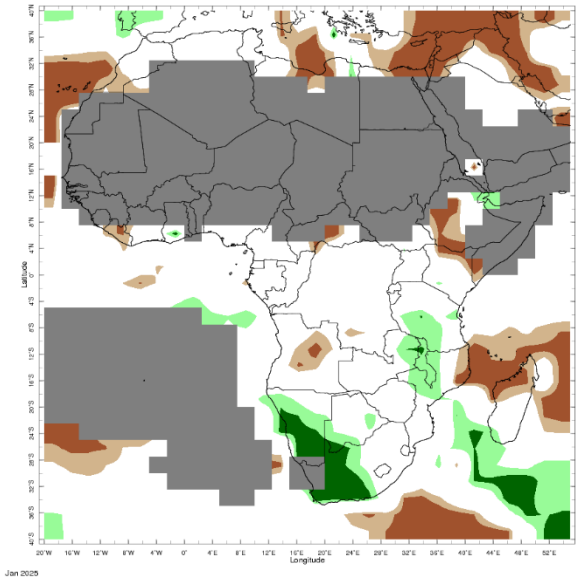
February



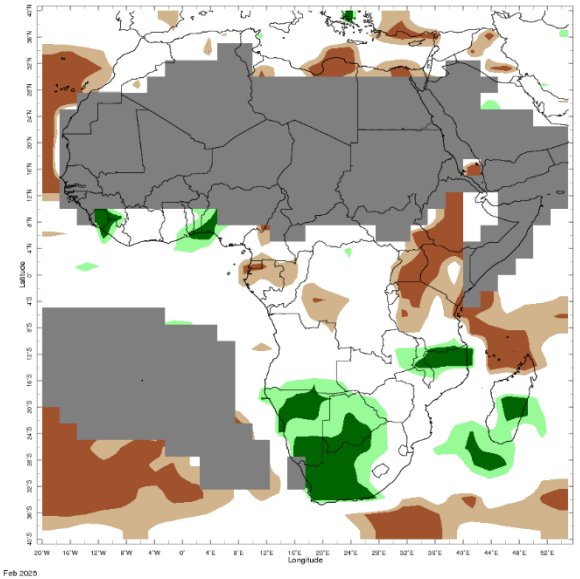
March

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.

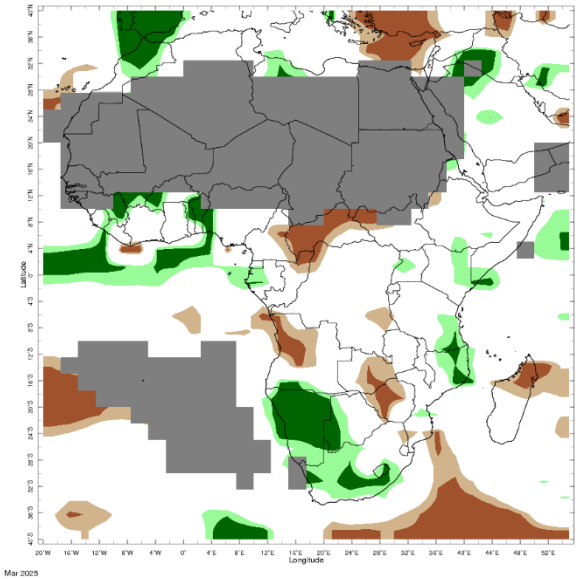
Current Status – Precipitation percentiles



January



February



March

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 (1)

	Current Status: Temperature			Current Status: Rainfall		
	January	February	March	January	February	March
Mauritania	Warm	Normal	Mixed (2)	Normal*	Normal*	Normal*
Sierra Leone	Hot	Hot	Hot	Normal*	Very Wet	Normal
Liberia	Hot	Hot	Hot	Dry	Normal	Normal
Mali	Warm (1)	Warm	Hot	Normal*	Normal*	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: Warm or hot for most areas, normal in the north
(2) Note: Hot in the southeast, normal in the northwest

Current Status – Western Africa (2)

	Current Status: Temperature			Current Status: Rainfall		
	January	February	March	January	February	March
Ghana	Hot	Hot	Hot	Normal	Normal	Normal
Nigeria	Hot (1)	Hot (2)	Hot	Normal	Normal	Normal
Cameroon	Hot	Hot	Hot	Normal	Normal	Normal
Burkina Faso	Warm	Warm	Hot	Normal*	Normal*	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: Warm in the north
(2) Note: Normal in the north

Current Status – Central Africa

	Current Status: Temperature			Current Status: Rainfall		
	January	February	March	January	February	March
Niger	Warm	Normal	Hot	Normal*	Normal*	Normal*
Chad	Warm	Normal	Mixed (1)	Normal*	Normal*	Normal*
DRC	Hot	Hot	Hot	Normal	Normal	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 north, normal in the south

Current Status – Eastern Africa (1)

	Current Status: Temperature			Current Status: Rainfall		
	January	February	March	January	February	March
Sudan	Warm	Normal (1)	Normal (1)	Normal*	Normal*	Normal*
South Sudan	Warm	Hot	Hot	Normal*	Normal*	Normal
Uganda	Warm	Hot	Hot	Normal	Very Dry	Normal
Rwanda	Warm	Hot	Hot	Normal	Dry	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 far east

Current Status – Eastern Africa (2)

	Current Status: Temperature			Current Status: Rainfall		
	January	February	March	January	February	March
Tanzania	Mixed (1)	Mixed (1)	Hot	Normal (4)	Mixed (7)	Normal (4)
Eritrea	Cold	Hot	Hot	Normal*	Normal*	Normal
Ethiopia	Mixed (2)	Hot	Hot	Normal (5)	Normal (5)	Normal
Kenya	Mixed (2)	Mixed (2)	Hot	Normal (6)	Dry	Normal
Somalia	Mixed (3)	Hot	Hot	Normal (5)	Normal*	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:** Warm or hot in the southwest, normal in the northeast
(2) **Note**: Warm or hot in the west, cool or cold in the east
(3) **Note**: Warm in the northeast, else cool or cold
(4) **Note**: Wet in parts of the south
(5) **Note**: Dry or very dry in the southwest
(6) **Note**: Dry or very dry in the northeast
(7) **Note:** Dry in the north, very wet in the far south, else normal

Current Status – Southern Africa

	Current Status: Temperature			Current Status: Rainfall		
	January	February	March	January	February	March
South Africa	Cold	Cold	Hot	Mixed (4)	Mixed (4)	Wet
Zambia	Hot	Mixed (8)	Mixed (8)	Mixed (1)	Mixed (1)	Normal (9)
Zimbabwe	Hot	Cold	Normal	Normal	Normal	Dry
Mozambique	Hot	Mixed (8)	Warm	Mixed (5)	Normal (2)	Normal (2)
Malawi	Hot	Mixed (8)	Hot	Wet	Wet	Normal
Madagascar	Mixed (3)	Cold	Cold	Normal (6)	Mixed (7)	Normal (6)

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 wet in the east, normal or dry in the west
(2) **Note:** Very wet in the north
(3) **Note:** Mainly cool or cold, but normal in central Madagascar
(4) **Note**: Very wet in the west, normal in the east
(5) **Note**: Normal in the south, wet in the northwest, dry in the northeast
(6) **Note:** Dry or very dry in the north
(7) **Note:** Very dry in the far north, otherwise wet or very wet
(8) **Note**: Hot in the north, cold or normal in the south
(9) **Note:** Dry in the west

Outlooks

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: May to October – Western Africa (1)

		Forecast summary		
		May	May to July	August to October
Mauritania	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds
Sierra Leone	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Likely to be drier than normal
Liberia	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Likely to be drier than normal	Likely to be drier than normal
Mali	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds northwest, Likely to be wetter than normal southeast	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: May to October – Western Africa (2)

		Forecast summary		
		May	May to July	August to October
Ghana	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Likely to be drier than normal	Likely to be drier than normal
Nigeria	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Likely to be drier than normal south, Climatological odds north	Likely to be drier than normal
Cameroon	*Temperature*	Likely to be warmer than normal	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Likely to be drier than normal
Burkina Faso	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Likely to be wetter 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: May to October – Central Africa

		Forecast summary		
		May	May to July	August to October
Niger	*Temperature*	Likely to be warmer than normal	Likely to be colder than normal southeast, else Likely to be warmer than normal	Climatological odds
	Rainfall	Climatological odds	Likely to be wetter than normal	Likely to be wetter than normal
Chad	*Temperature*	Likely to be warmer than normal	Likely to be colder than normal south, Likely to be warmer than normal north	Climatological odds
	Rainfall	Climatological odds	Likely to be wetter than normal	Likely to be wetter than normal
Democratic Republic of Congo	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter 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: May to October – Eastern Africa (1)

		Forecast summary		
		May	May to July	August to October
Sudan	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds
	Rainfall	Climatological odds	Likely to be wetter than normal	Likely to be wetter than normal
South Sudan	*Temperature*	Likely to be warmer than normal	Likely to be colder than normal far east, else Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be wetter than normal
Uganda	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be wetter 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: May to October – Eastern Africa (2)

		Forecast summary		
		May	May to July	August to October
Tanzania	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal northwest, else Climatological odds	Climatological odds
Rwanda	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be wetter than normal
Eritrea	*Temperature*	Likely to be warmer than normal	Climatological odds	Climatological odds
	Rainfall	Climatological odds	Likely to be wetter 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: May to October – Eastern Africa (3)

		Forecast summary		
		May	May to July	August to October
Ethiopia	*Temperature*	Likely to be warmer than normal	Likely to be colder than normal southwest, Likely to be warmer than normal northwest	Likely to be warmer than normal
	Rainfall	Climatological odds	Likely to be wetter than normal	Likely to be wetter than normal
Kenya	*Temperature*	Likely to be warmer than normal	Likely to be colder than normal northwest, Likely to be warmer than normal southeast	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be wetter than normal
Somalia	*Temperature*	Likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Climatological odds	Likely to be drier than normal south, else Climatological odds	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: May to October – Southern Africa (1)

		Forecast summary		
		May	May to July	August to October
South Africa	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Climatological odds
Zambia	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be near-normal	Likely to be drier than normal
Zimbabwe	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be near-normal	Likely to be drier than normal
Mozambique	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	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: May to October – Southern Africa (1)

		Forecast summary		
		May	May to July	August to October
Malawi	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Likely to be drier than normal
Madagascar	*Temperature*	Much more likely to be warmer than normal	Much more likely to be warmer than normal north, Likely to be warmer than normal south	Likely to be warmer than normal
	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

International Research Institute for Climate and Society (IRI)
http://iridl.ldeo.columbia.edu/maproom/

NOAA El Niño technical info
https://www.ncei.noaa.gov/access/monitoring/enso/

Met Office
https://www.metoffice.gov.uk/services/government/international-development

Climate Outlook Fora (WMO Factsheet), including:

Greater Horn of Africa Climate Outlook Forum (GHACOF): GHACOF 64 Statement (May 2023)
PRÉvisions climatiques Saisonnières en Afrique Soudano-Sahélienne (PRESASS): http://acmad.net/rcc/presassS.php (April 2022)
Southern African Regional Climate Outlook Forum (SARCOF): http://csc.sadc.int/en/news-and-events/338-the-twenty-sixth-southern-africa-regional-climate-outlook-forum-sarcof-26 (August 2022)
PRÉvisions climatiques Saisonnières en Afrique, pays du Golfe de Guinée (PRESAGG): https://agrhymet.cilss.int/doss/tocharg/2023/02/COMMUNIQUE-FINAL_PRESAGG_2023_VF_Engl.pdf (February 2023)
South-West Indian Ocean Climate Outlook Forum (SWIOCOF) - https://www.commissionoceanindien.org/wp-content/uploads/2022/10/SWIOCOF11_Statement-EN-final.pdf (September 2022)

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 CPTEC (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)

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