

AFRICA: Monthly Climate Outlook

July to April

Issued: October 2020

[Overview](#)

[Current Status](#)

[Outlooks](#)

[Annex 1 – Supplemental Information](#)

Overview

[Africa Current Status and Outlook – Temperature](#)

[Africa Current Status and Outlook – Rainfall](#)

[Global Outlook – Temperature](#)

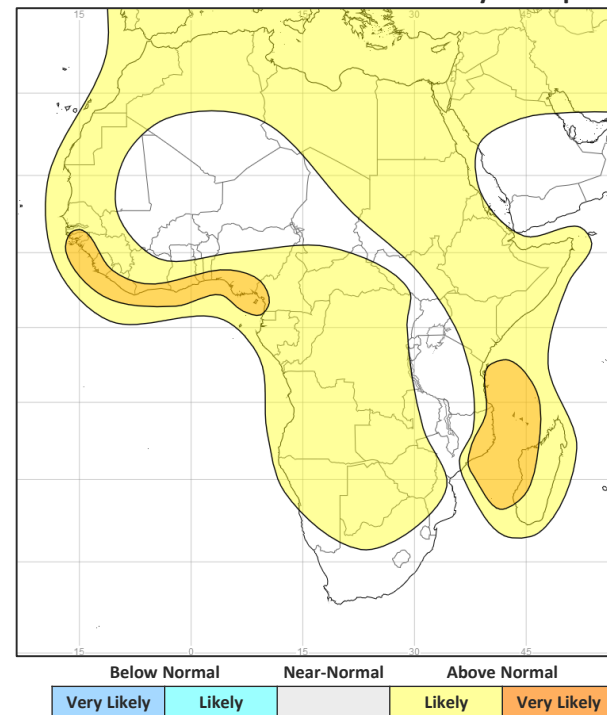
[Global Outlook – Rainfall](#)

Africa Current Status and Outlook - Temperature

Current Status: From July to September, conditions have been warmer than normal across much of the continent away from the Sahara Desert and some countries in the south-east where temperatures have been closer to normal. Conditions in Madagascar have been colder than normal overall, as they also have been in parts of South Africa and Democratic Republic of Congo.

Outlook: For the next three months, warmer than normal conditions are likely across much of continent, apart from parts of the Sahara Desert and the Sahel, South Africa, Lesotho and Eswatini. Warmer than normal conditions are very likely for countries close to the Gulf of Guinea coast.

3-Month Outlook November to January - Temperature



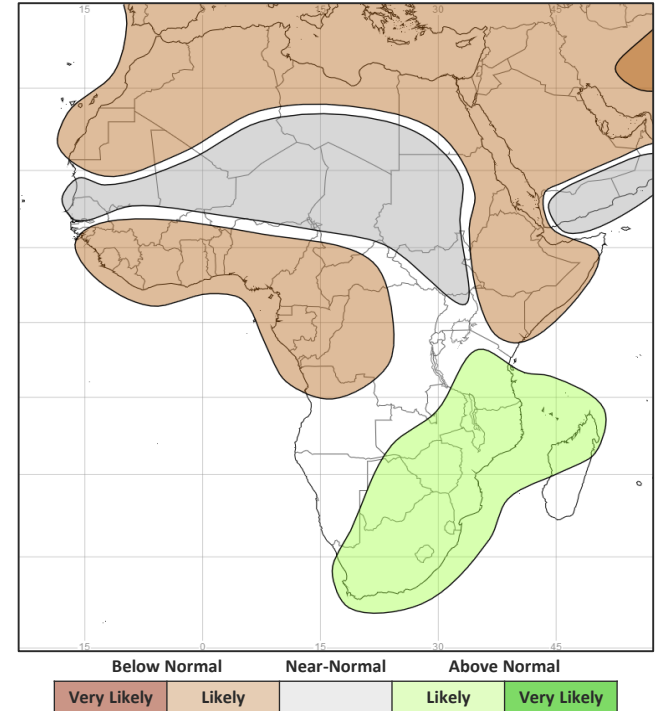
Africa Current Status and Outlook - Rainfall

Current Status: From July to September, West Africa and many parts of the Sahel have been much wetter than normal. Many countries adjacent to the Gulf of Guinea experienced drier than normal conditions in August.

Outlook: The dominant driver of African rainfall through the next three months will be the mature La Niña now established in the tropical Pacific. The Indian Ocean Dipole (IOD), which is currently neutral, is now less likely to become negative over the coming months. This trend, in conjunction with La Niña, increases sea surface temperatures (SSTs) in the west/south-west Indian Ocean basin as well as the likelihood of above average cyclone activity in the region. Above normal rainfall is likely across the south-east of the continent, including northern Madagascar.

Drier than normal conditions are likely for November to January in Northern Africa, Greater Horn of Africa and countries adjacent to the Gulf of Guinea.

3-Month Outlook November to January - Rainfall

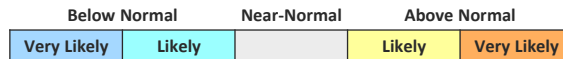
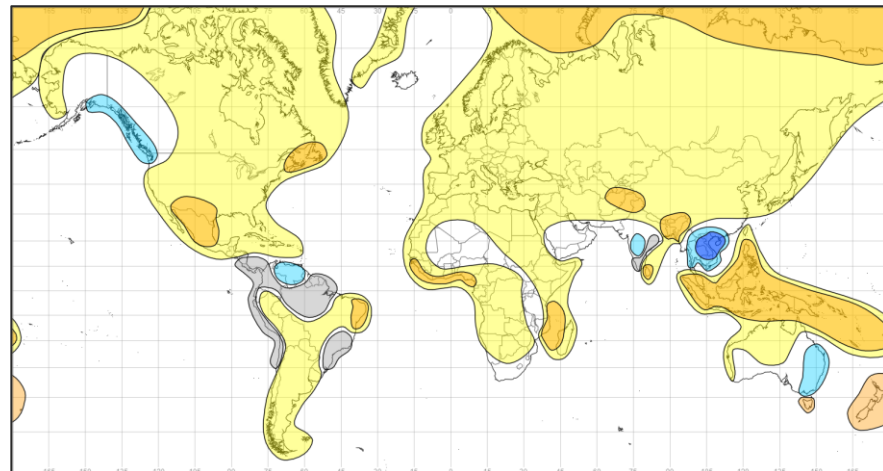


Global Outlook - Temperature

Outlook: For the next three months, the majority of the globe is likely to experience warmer than normal conditions, which is supported by the generally warming climate over the past decade (the anomalies forecast are with respect to the 1981-2010 climate).

The most significant deviations from this are in areas where La Niña has a strong influence – for example colder than normal conditions are very likely across south-east Asia, whereas warmer than normal conditions are very likely across Indonesia and Malaysia, where Sea Surface Temperatures (SSTs) are above normal. Warmer than normal conditions are very likely over large parts of the Arctic, where sea ice and snow cover are currently at record minimum levels.

3-Month Outlook November to January - Temperature



Global Outlook - Rainfall

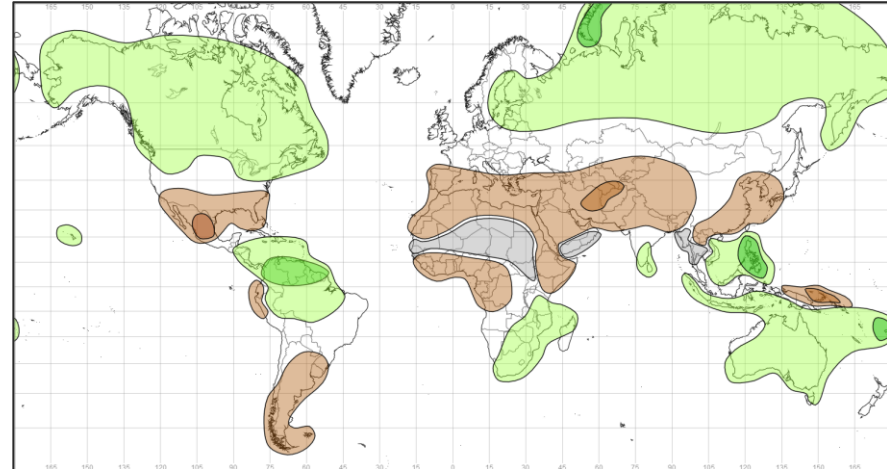
Outlook: As with temperature, the rainfall patterns over the next 3-6 months are expected to be influenced by the ongoing mature La Niña event in the tropical Pacific. Confidence is highest in these rainfall patterns across the tropics, but the impacts of La Niña will be far reaching, and in general the expected rainfall anomalies are in line with what is normally expected in a La Niña year.

Rainfall is very likely to be above normal over the Philippines and north-west Pacific tropical cyclone activity likely higher across the Philippine and South China Seas compared to areas further north. Above normal rainfall is also very likely in parts of southern Africa, the southern Caribbean Sea, the north of South America, large parts of northern North America, northern Asia, parts of Scandinavia, parts of Indonesia, and Australia.

However, below normal rainfall is very likely over parts of Mexico, and in parts of south-west Asia. More broadly, below normal rainfall is likely across northern and eastern Africa, large parts of southern North America, southern South America, southern Europe and southern Asia.

Forecasts for the Indian Ocean Dipole (IOD) show lower likelihood that it will become negative as the La Niña continues to dominate. However, if the IOD does become negative, the effects on rainfall patterns are likely to be similar to those caused by La Niña, particularly in countries surrounding the Indian Ocean Basin.

3-Month Outlook November to January - Rainfall



Current Status

[Current Status maps](#)

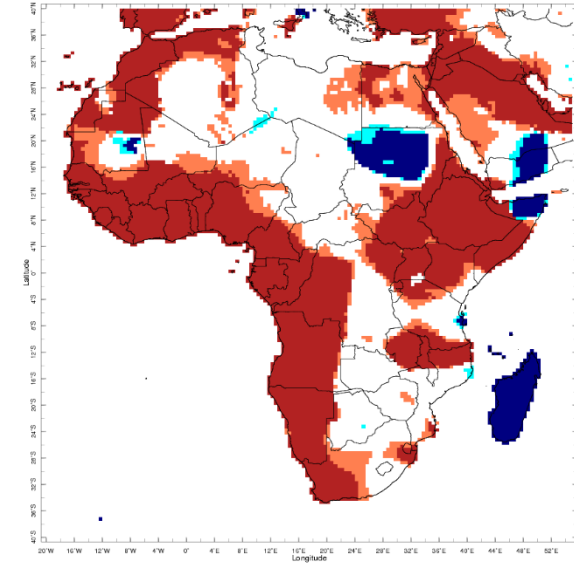
[Western Africa](#)

[Central Africa](#)

[Eastern Africa](#)

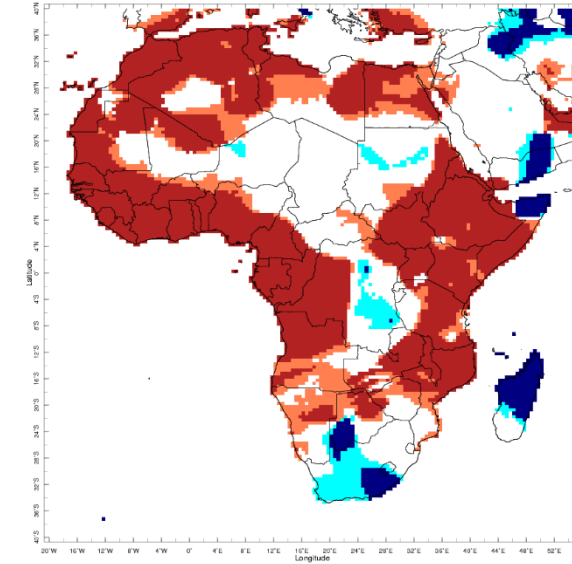
[Southern Africa](#)

Current Status – Temperature percentiles



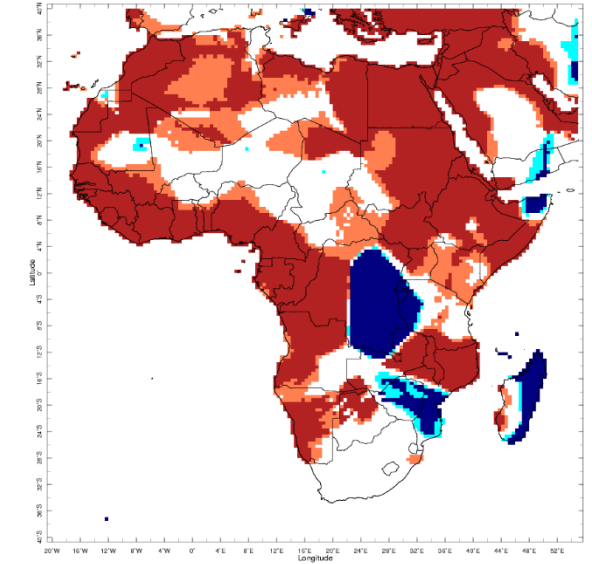
Jul 2020

July



Aug 2020

August



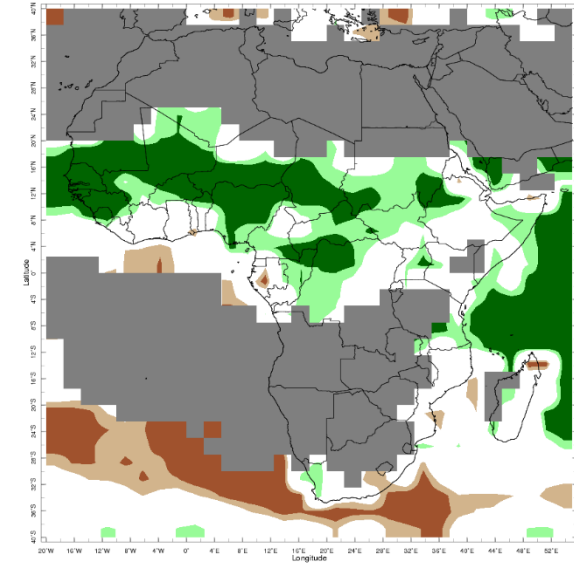
Sep 2020

September



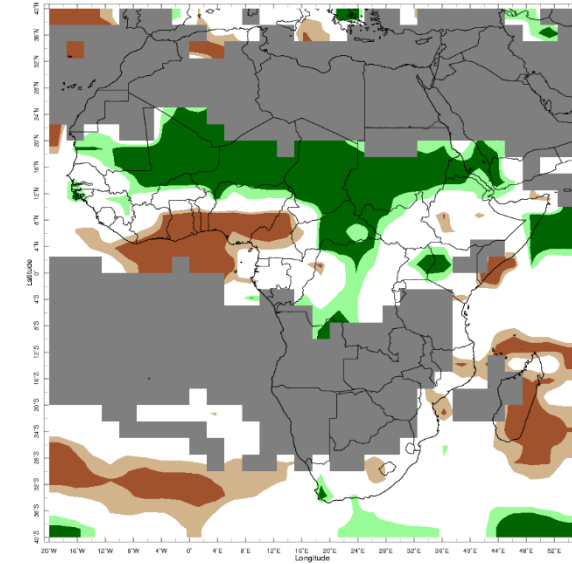
Notes: The percentiles shown in the map indicate a ranking of temperature, with the 0th percentile being the coolest and the 100th percentile being the warmest in the 1981-2010 climatology. Orange and red shading represent values above the 80th (Warm) and 90th (Hot) percentile, respectively; regions 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



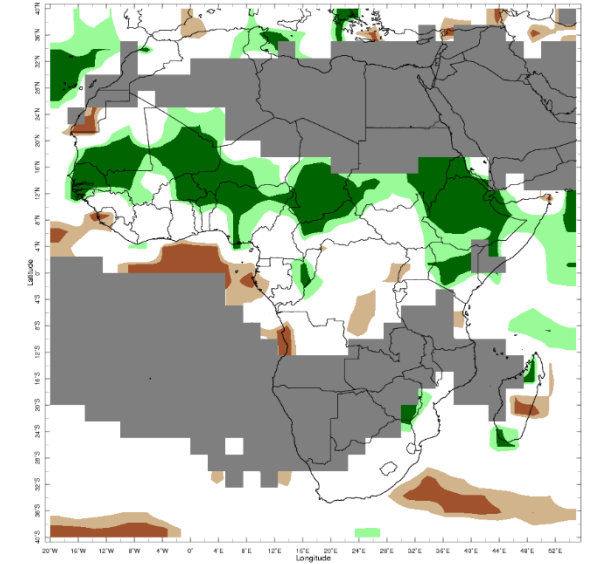
Jul 2020

July



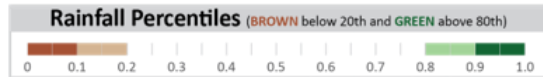
Aug 2020

August



Sep 2020

September



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

	July	August	September
Sierra Leone	Hot	Hot	Hot
Liberia	Hot	Hot	Hot
Mali	Warm [^]	Warm [^]	Warm
Ghana	Hot	Hot	Hot
Nigeria	Hot ^{^^}	Hot ^{^^}	Hot ^{^^}
Cameroon	Hot ^{^^}	Hot ^{^^}	Hot ^{^^}

Current Status: Rainfall

	July	August	September
	Very Wet	Normal	Dry
	Normal	Normal	Normal
	Very Wet	Very Wet [^]	Very Wet
	Normal	Very Dry	Normal
	Very Wet	Mixed	Wet
	Wet	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:

[^]Note: Normal in northern third of the country in July, and in central third of country in August. Very Wet conditions except in the extreme south of Mali.

^{^^}Note: Normal in far north-east of Nigeria and Cameroon

Current Status – Central Africa

Current Status: Temperature

	July	August	September
Niger	Warm	Normal	Normal
Chad	Normal	Normal	Normal
DRC	Warm [^]	Warm [^]	Mixed [^]

Current Status: Rainfall

	July	August	September
	Wet ^{^^}	Wet ^{^^}	Wet ^{^^}
	Wet ^{^^}	Wet ^{^^}	Wet ^{^^}
	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:

[^] Note: Strong west/east differences in DRC, Hot in west, and Normal (July), Cool(August) and Cold (September) in east.

^{^^} Note: Very Wet in the southern half of Niger and Chad, Normal in the northern half.

^{^^^} Note: Very Wet in the far north of DRC in July and August

Current Status – Eastern Africa (1)

Current Status: Temperature

	July	August	September
Sudan	Cool [^]	Normal	Hot
South Sudan	Hot	Hot	Hot
Uganda	Hot	Hot	Hot
Rwanda	Hot	Normal	Hot

Current Status: Rainfall

	July	August	September
	Wet	Very Wet	Wet
	Wet	Normal	Normal
	Wet	Wet	Normal
	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:

[^]Note: Cold in the north of Sudan, Hot in parts of the east and south.

Current Status – Eastern Africa (2)

	Current Status: Temperature		
	July	August	September
Tanzania	Warm	Hot	Normal
Ethiopia	Hot	Hot	Hot
Kenya	Hot	Hot	Warm
Somalia	Hot [^]	Hot [^]	Hot [^]

	Current Status: Rainfall		
	July	August	September
Tanzania	Wet	Normal	Normal
Ethiopia	Normal	Normal	Very Wet
Kenya	Normal	Normal	Very Wet
Somalia	Normal	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:

[^]Note: Hot overall, but Cold in far north-west

Current Status – Southern Africa

Current Status: Temperature

	July	August	September
South Africa	Warm	Cool	Normal
Zambia	Warm^	Warm^	Warm^
Zimbabwe	Normal	Warm	Cold
Mozambique	Normal	Warm	Mixed^^
Malawi	Hot	Hot	Hot
Madagascar	Cold	Cold	Cool

Current Status: Rainfall

	July	August	September
South Africa	Normal*	Normal	Normal
Zambia	Normal*	Normal*	Normal*
Zimbabwe	Normal*	Normal*	Normal*
Mozambique	Normal	Dry	Normal
Malawi	Normal*	Normal*	Normal*
Madagascar	Normal	Very 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:

^Note: Hot in east. Normal in west.

^^Note: Hot in north but Cold in south in September.

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: November to April – Western Africa (1)

		Forecast summary		
		November	November to January	February to April
Sierra Leone	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Climatological odds - see note
	Rainfall	Much more likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note
Liberia	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Climatological odds - see note
	Rainfall	Much more likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note
Mali	Temperature	Likely to be colder than normal in the south, Climatological odds - see note elsewhere	Climatological odds - see note	Climatological odds - see note
	Rainfall	Likely to be near-normal	Likely to be near-normal	Likely to be near-normal
Ghana	Temperature	Likely to be warmer than normal	Likely to be warmer than normal, but much more likely to be warmer than normal in the far south.	Climatological odds - see note
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note

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: November to April – Western Africa (2)

		Forecast summary		
		November	November to January	February to April
Nigeria	Temperature	Much more likely to be warmer than normal in the south, but likely to be colder than normal in the north	Climatological odds - see note in the north, likely to be warmer than normal elsewhere	Climatological odds - see note
	Rainfall	Much more likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note
Cameroon	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Much more likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note

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: November to April – Central Africa

		Forecast summary		
		November	November to January	February to April
Niger	Temperature	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
	Rainfall	Likely to be near-normal	Likely to be near-normal	Likely to be near normal
Chad	Temperature	Climatological odds - see note	Climatological odds - see note	Likely to be colder than normal in the far south, otherwise Climatological odds - see note
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds - see note
Democratic Republic of Congo	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Likely to be wetter than normal	Climatological odds - see note , but likely to be drier than normal in the east.	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: November to April – Eastern Africa (1)

		Forecast summary		
		November	November to January	February to April
Sudan	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note , but likely to be colder than normal in the south
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds - see note
South Sudan	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be colder than normal
	Rainfall	Climatological odds - see note	Likely to be near-normal	Climatological odds - see note
Uganda	Temperature	Likely to be warmer than normal	Climatological odds - see note	Likely to be colder than normal
	Rainfall	Climatological odds - see note	Climatological odds - see note	Likely to be drier than normal
Rwanda	Temperature	Likely to be warmer than normal	Climatological odds - see note	Climatological odds - see note
	Rainfall	Climatological odds - see note	Climatological odds - see note	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: November to April – Eastern Africa (2)

		Forecast summary		
		November	November to January	February to April
Tanzania	Temperature	Likely to be warmer than normal	Climatological odds - see note , but likely to be warmer than normal in the far east.	Likely to be wetter than normal in the south, otherwise Climatological odds - see note
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Climatological odds - see note
Ethiopia	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Much more likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note
Kenya	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Climatological odds - see note	Likely to be drier than normal	Climatological odds - see note
Somalia	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Likely to be near-normal	Likely to be drier than normal	Climatological odds - see note

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: November to April – Southern Africa (1)

		Forecast summary		
		November	November to January	February to April
South Africa	Temperature	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
	Rainfall	Climatological odds - see note	Likely to be wetter than normal	Climatological odds - see note
Zambia	Temperature	Climatological odds - see note	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Climatological odds - see note
Zimbabwe	Temperature	Likely to be warmer than normal	Likely to be warmer than normal, although Climatological odds - see note in the far east	Climatological odds - see note
	Rainfall	Climatological odds - see note	Likely to be wetter than normal	Climatological odds - see note
Mozambique	Temperature	Likely to be warmer than normal	Climatological odds - see note	Climatological odds - see note
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be wetter than normal in the north, otherwise Climatological odds - see note

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: November to April – Southern Africa (1)

		Forecast summary		
		November	November to January	February to April
Malawi	Temperature	Likely to be warmer than normal	Climatological odds - see note	Likely to be colder than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be wetter than normal
Madagascar	Temperature	Likely to be warmer than normal	Likely to be warmer than normal, and much more likely to be warmer than normal in the far west	Likely to be warmer than normal
	Rainfall	Climatological odds - see note	Likely to be wetter than normal in the north, climatological odds - see note in the south	Climatological odds - see note

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

Regional Climate Outlook Forums (RCOF)

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

Greater Horn of Africa Climate Outlook Forum (GHACOF)

Latest Output - https://www.icpac.net/wp-content/uploads/GHACOF55_Statement.pdf

PRÉvisions climatiques Saisonnières en Afrique Soudano-Sahélienne (PRESASS)

Latest Output – English - <https://urlz.fr/cuFo> ; French - <https://urlz.fr/cuFm>

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.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)

PRÉvisions climatiques Saisonnières en Afrique Soudano-Sahélienne (PRESASS)

Southern African Regional Climate Outlook Forum (SARCOF)

PRÉvisions climatiques Saisonnières en Afrique, pays du Golfe de Guinée (PRESAGG)

PRÉvisions climatiques Saisonnières en Afrique centrale (PRESAC)

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 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 near-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

Email: internationaldevelopment@metoffice.gov.uk

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