

AFRICA: Monthly Climate Outlook September to June

Issued: December 2024

[Overview](#)

[Current Status](#)

[Outlooks](#)

[Annex 1 – Supplemental Information](#)

Overview

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

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

[Global Outlook – Temperature](#)

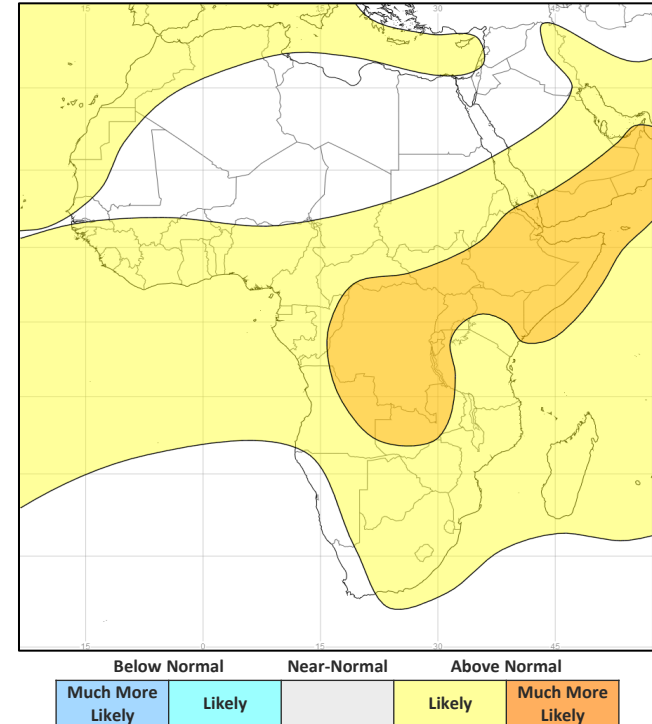
[Global Outlook – Rainfall](#)

Africa Current Status and Outlook - Temperature

Current Status: Many areas across Africa were warm or hot over the last three months. There have been some exceptions with parts of Ethiopia seeing below normal temperatures during September. Temperatures have also been more mixed across the Sahel with some areas seeing near or below average temperatures. Parts of Southern Africa also had near or below average temperatures at times during September, including Madagascar which was cold.

Outlook: Consistent with a warming climate, warmer than normal conditions are likely or very likely across the whole continent. The exception being parts of the Sahel, which may be influenced by increased soil moisture after an active rainy season, as well as increased Harmattan winds. However, this effect is likely to be very small and of very little impact.

3-Month Outlook January to March - Temperature



Africa Current Status and Outlook - Rainfall

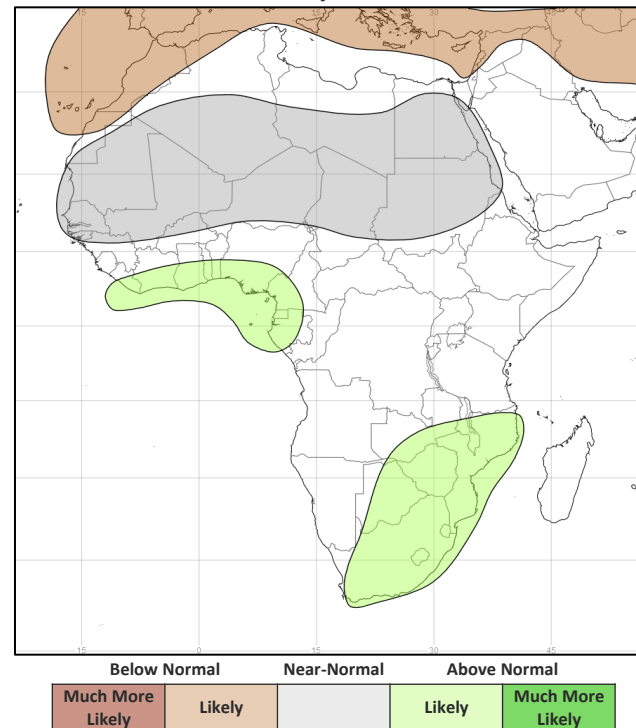
Current Status: The West Africa Monsoon has now ended although its effects can be seen during September and October, with wet to very wet conditions experienced across the region. Parts of central Africa have been dry during the last three months, including DRC and Cameroon. During November, Uganda, western Kenya, western Tanzania and parts of Malawi and Zambia were wetter than normal.

Outlook: The next three months is peak rainy season across southern Africa. Large parts of this region have seen a dry start to the rainy season, exacerbated by an extreme heat wave for many. The development of a weak La Niña increases slightly the chance of a wetter than normal season across large parts of southern Africa.

The West African monsoon has now ended, many parts usually receive very little rain with rainfall confined to areas adjacent to the Gulf of Guinea. Here, it is slightly more likely to be wetter than normal.

Tropical cyclones – Southwest Indian Ocean – The season typically begins during December before peaking between January and March. Indications suggest near-average activity but with a risk of landfalls being more frequent than usual over parts of southeast Africa.

3-Month Outlook January to March - Rainfall

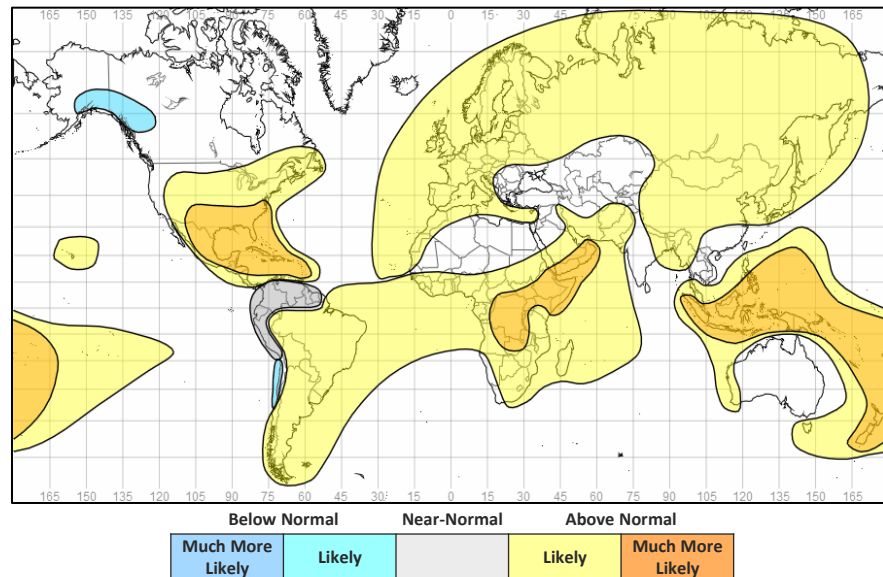


Global Outlook - Temperature

Outlook: Weak La Niña are likely to develop and persist over the next three months, transitioning back to ENSO-Neutral in the northern hemisphere spring. More details in the precipitation section.

Many parts of the globe are likely to see warmer than normal conditions through the next three months. However, consistent with a developing La Niña, parts of Alaska, western Canada, and the Pacific coastlines of South America are more likely to be colder than normal.

3-Month Outlook January to March - Temperature



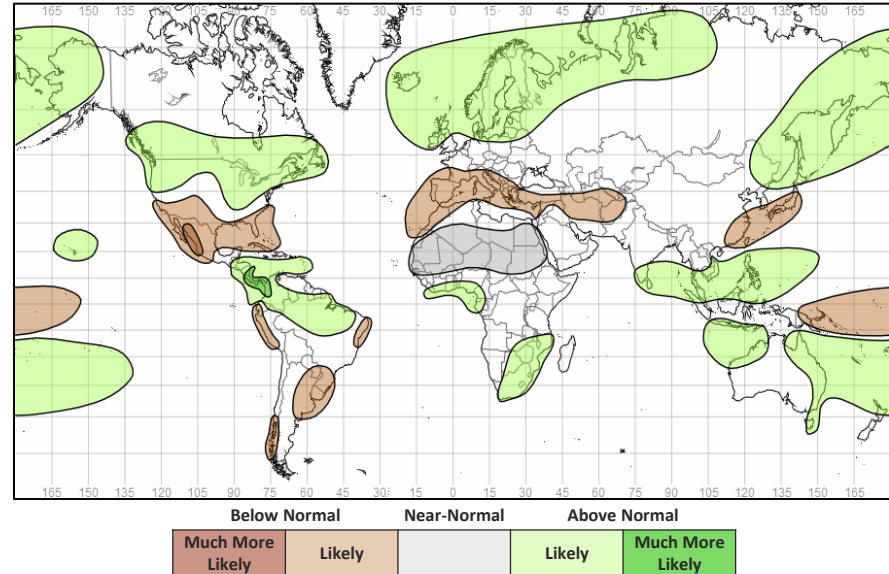
Global Outlook - Rainfall

Outlook:

El Niño-Southern Oscillation (ENSO) – Yet to be declared, but weak La Niña conditions are most likely over the next three months, with then a return to ENSO-neutral in the northern hemisphere spring. Equatorial sea surface temperatures across the central and eastern Pacific are slightly below average. Atmospheric indicators, such as the Southern Oscillation Index (SOI), trade wind strength and dateline cloudiness, are now indicating that some weak ocean-atmosphere coupling may now be underway. A transition to La Niña would improve the predictability of global weather patterns on seasonal timescales, particularly in the tropics, though its influence may not be as strong as some La Niña events over recent years. 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) – Negative-like IOD conditions were observed through much of October and November. However, this event was never officially declared by the Bureau of Meteorology (BoM), falling short by just one week of the necessary 7 consecutive weeks of an IOD index below -0.4°C . The IOD is now at neutral levels and is expected to remain so throughout this period.

3-Month Outlook January to March - Rainfall



Current Status

[Current Status maps](#)

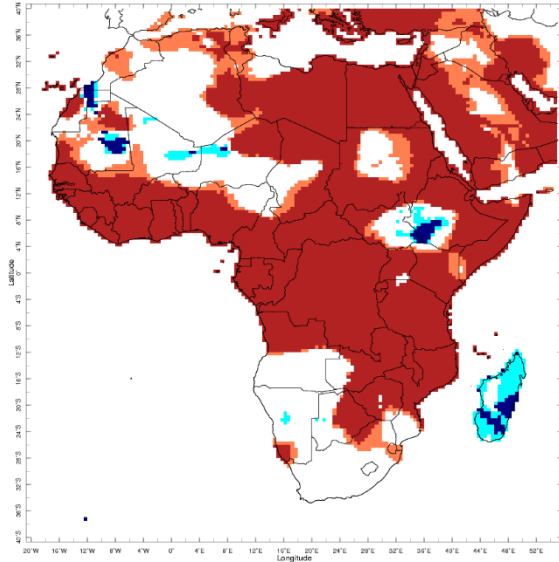
[Western Africa](#)

[Central Africa](#)

[Eastern Africa](#)

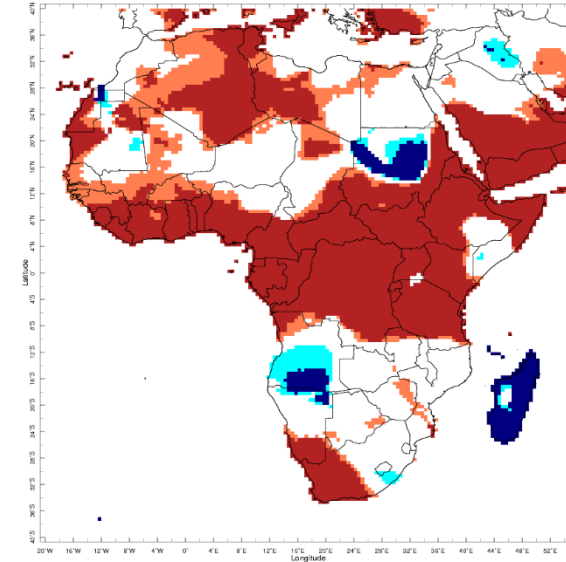
[Southern Africa](#)

Current Status – Temperature percentiles



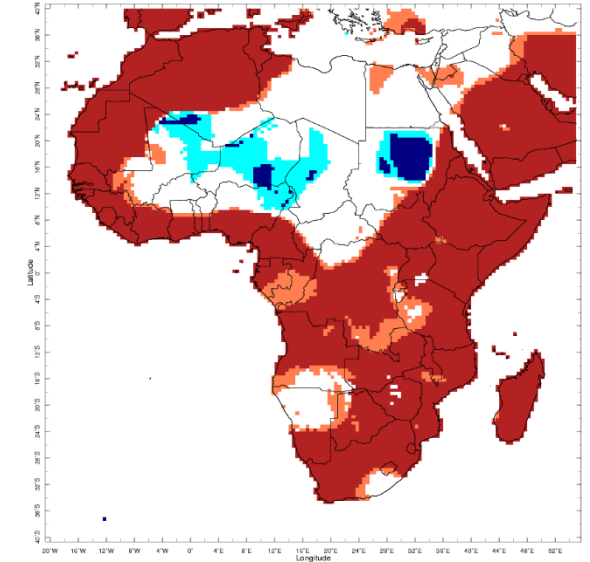
Sep 2024

September



Oct 2024

October



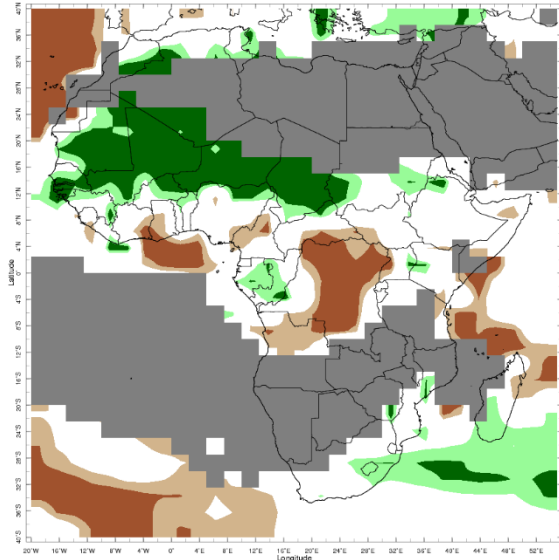
Nov 2024

November



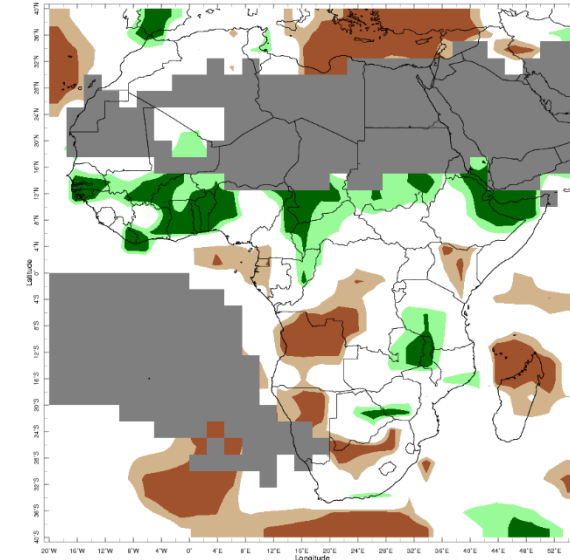
Notes: The percentiles shown in the map indicate a ranking of temperature, with the 0th percentile being the coolest and the 100th percentile being the warmest in the 1981–2010 climatology. Orange and red shading represent values above the 80th (Warm) and 90th (Hot) percentile, respectively; regions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



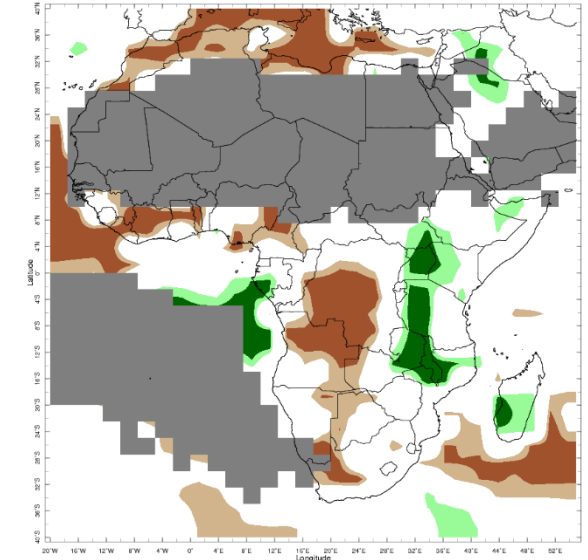
Sep 2024

September



Oct 2024

October



Nov 2024

November



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

	September	October	November
Mauritania	Mixed (1)	Normal	Hot
Sierra Leone	Hot	Warm	Hot
Liberia	Hot	Hot	Hot
Mali	Mixed (2)	Normal (3)	Normal (4)

Current Status: Rainfall

	September	October	November
	Very Wet	Mixed (5)	Normal*
	Normal	Normal	Normal
	Normal	Mixed (6)	Very Dry
	Very Wet	Mixed (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:** Large variations across the country
- (2) Note:** Warm or hot in the southwest, cool to normal in the northeast
- (3) Note:** Normal but warm in the west
- (4) Note:** Normal but cool in the northeast
- (5) Note:** Normal but wet in the north
- (6) Note:** Normal in the west, very wet in the east
- (7) Note:** Normal* in the north, very wet in the south

Current Status – Western Africa (2)

Current Status: Temperature

	September	October	November
Ghana	Hot	Hot	Hot
Nigeria	Hot (1)	Mixed (2)	Mixed (2)
Cameroon	Hot	Hot	Hot
Burkina Faso	Hot	Warm	Normal

Current Status: Rainfall

	September	October	November
	Normal	Very Wet	Dry
	Normal (3)	Mixed (4)	Dry
	Normal	Mixed (5)	Dry
	Wet	Very wet	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:** Normal or cool in the northeast
- (2) **Note:** Hot in the south, normal or cool in the north
- (3) **Note:** Very wet in the far north
- (4) **Note:** Very wet in the west and northeast, otherwise normal
- (5) **Note:** Very wet in the northeast, dry in the far west, otherwise normal

Current Status – Central Africa

	Current Status: Temperature		
	September	October	November
Niger	Normal (2)	Normal	Cool
Chad	Hot	Normal (1)	Cool
DRC	Hot	Hot	Hot

	Current Status: Rainfall		
	September	October	November
Niger	Very Wet	Normal*	Normal*
Chad	Very Wet	Mixed (3)	Normal*
DRC	Very Dry	Mixed (4)	Mixed (4)

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 southeast
- (2) Note:** Hot in the northeast, cold in the northwest, else normal
- (3) Note:** Very wet in the south, otherwise normal*
- (4) Note:** Dry or very dry in the southwest, otherwise normal

Current Status – Eastern Africa (1)

	Current Status: Temperature		
	September	October	November
Sudan	Hot	Mixed (3)	Mixed (3)
South Sudan	Mixed (2)	Hot	Hot
Uganda	Hot	Hot	Hot
Rwanda	Hot	Hot	Warm

	Current Status: Rainfall		
	September	October	November
	Mixed (1)	Mixed (1)	Normal*
	Normal	Normal	Normal (1)
	Normal	Normal	Very Wet
	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:

- (1) Note:** Wet in parts of the south
- (2) Note:** Hot in the west, cool in the far east, else normal
- (3) Note:** Cold in the north, hot in the south

Current Status – Eastern Africa (2)

	Current Status: Temperature		
	September	October	November
Tanzania	Hot	Hot	Hot
Eritrea	Hot	Hot	Hot
Ethiopia	Mixed (1)	Mixed (2)	Hot
Kenya	Hot	Hot	Hot
Somalia	Hot	Mixed (1)	Hot

	Current Status: Rainfall		
	September	October	November
	Normal*	Normal (3)	Mixed (6)
	Wet	Wet	Normal*
	Normal	Mixed (4)	Normal
	Normal	Dry	Mixed (6)
	Normal	Mixed (5)	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 north and east, cool or cold in the southwest
- (2) **Note:** Warm or hot in the northwest, cool or cold in the southeast
- (3) **Note:** Wet in parts of the south
- (4) **Note:** Very wet in the northeast, otherwise normal
- (5) **Note:** Very wet in the north, otherwise normal
- (6) **Note:** Wet or very wet in the west; normal in the east.

Current Status – Southern Africa

Current Status: Temperature

	September	October	November
South Africa	Normal	Normal (1)	Hot
Zambia	Hot	Normal	Hot
Zimbabwe	Hot	Normal	Hot
Mozambique	Hot	Normal	Hot
Malawi	Hot	Normal	Hot
Madagascar	Cool	Cold	Hot

Current Status: Rainfall

	September	October	November
	Normal (2)	Mixed (4)	Normal
	Normal*	Normal (2)	Mixed (6)
	Normal*	Normal (1)	Normal
	Normal	Normal	Normal (7)
	Normal*	Very Wet	Very Wet
	Mixed (3)	Mixed (5)	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:** Normal but hot in the west
- (2) **Note:** Very wet in the far south
- (3) **Note:** Wet in parts of the east
- (4) **Note:** Wet in parts of the south, dry in the northeast, otherwise normal
- (5) **Note:** Very dry in parts of the north, otherwise normal
- (6) **Note:** Very dry in the north, normal in the south.
- (7) **Note:** Very Wet in the east, dry in the west.
- (8) **Note:** Very Wet in the north.

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: January to June – Western Africa (1)

		Forecast summary		
		January	January to March	April to June
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	Climatological odds	Climatological odds	Likely to be wetter than normal
Liberia	Temperature	Much more 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	Likely to be wetter than normal
Mali	Temperature	Likely to be near-normal	Climatological odds	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be near-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: January to June – Western Africa (2)

		Forecast summary		
		January	January to March	April to June
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 wetter than normal in the south, Climatological odds in the north	Likely to be wetter than normal
Nigeria	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds
	Rainfall	Climatological odds	Likely to be wetter than normal in the south, Climatological odds in the north	Likely to be wetter than normal
Cameroon	Temperature	Much more 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 in the west, Climatological odds in the east	Climatological odds
Burkina Faso	Temperature	Likely to be near-normal	Climatological odds	Climatological odds
	Rainfall	Likely to be near-normal	Likely to be near-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: January to June – Central Africa

		Forecast summary		
		January	January to March	April to June
Niger	Temperature	Likely to be near-normal	Climatological odds	Climatological odds
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds
Chad	Temperature	Likely to be near-normal	Climatological odds	Climatological odds
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds
Democratic Republic of Congo	Temperature	Much more 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	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: January to June – Eastern Africa (1)

		Forecast summary		
		January	January to March	April to June
Sudan	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
South Sudan	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds
	Rainfall	Likely to be near-normal	Climatological odds	Climatological odds
Uganda	Temperature	Much more 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	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: January to June – Eastern Africa (2)

		Forecast summary		
		January	January to March	April to June
Tanzania	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
Rwanda	Temperature	Much more 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	Climatological odds
Eritrea	Temperature	Much more 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

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: January to June – Eastern Africa (3)

		Forecast summary		
		January	January to March	April to June
Ethiopia	Temperature	Likely to be warmer than normal	Much more likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Climatological odds	Climatological odds
Kenya	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
Somalia	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	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: January to June – Southern Africa (1)

		Forecast summary		
		January	January to March	April to June
South Africa	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be wetter than normal
Zambia	Temperature	Likely to be warmer than normal	Much more likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Likely to be wetter than normal in the south, Climatological odds in the north	Climatological odds
Zimbabwe	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Climatological odds
Mozambique	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds
	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: January to June – Southern Africa (1)

		Forecast summary		
		January	January to March	April to June
Malawi	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds
	Rainfall	Climatological odds	Likely to be wetter than normal	Climatological odds
Madagascar	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

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

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