

AFRICA: Monthly Climate Outlook

April to January

Issued: July 2020

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Overview

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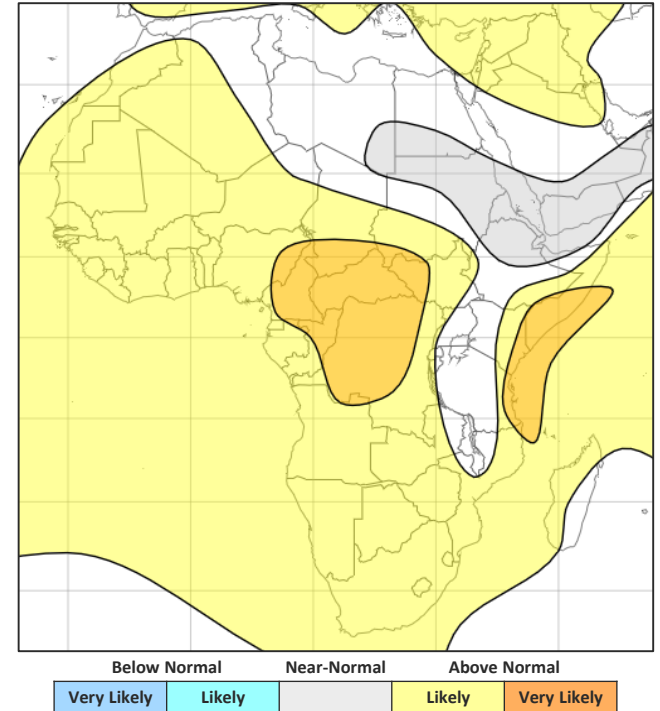
[Global Outlook – Rainfall](#)

Africa Current Status and Outlook - Temperature

Current Status: Conditions have been warmer than normal across the bulk of the continent over the past 3 months. The exception to this has been across parts of Southern and Eastern Africa where, overall, temperatures have been closer to normal. In Madagascar conditions have often been colder than normal.

Outlook: For the next three months, warmer than normal conditions are likely across much of Africa, with the most likely areas to see much warmer than normal temperatures being across western parts of central Africa, as well as eastern coastal areas.

3-Month Outlook August to October 2020 - Temperature



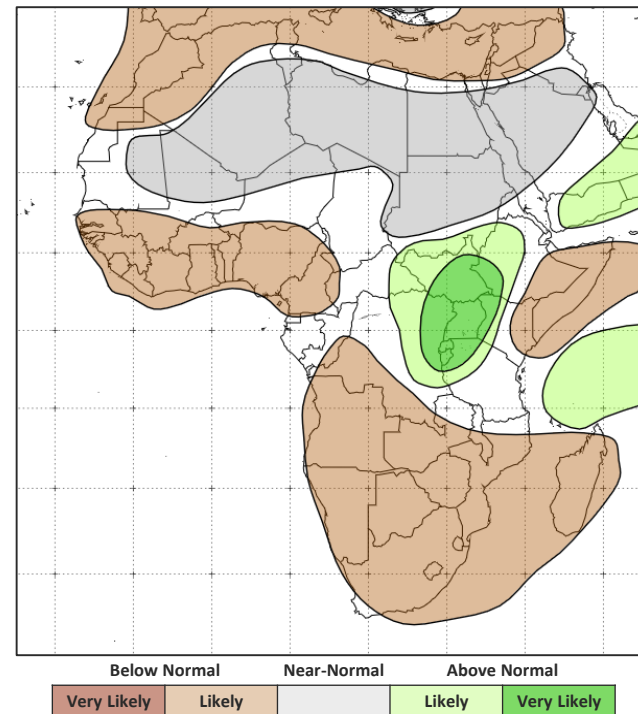
Africa Current Status and Outlook - Rainfall

Current Status: Most of East Africa has been wetter than normal. Rainfall has been normal over much of Southern Africa, except for Angola, Zambia, Malawi, northern Mozambique and southern Tanzania where it has been much wetter than normal. Conversely southern Mozambique has been drier than normal. Elsewhere, rainfall has been mostly near normal.

Outlook: The most influential global drivers in this region, El Niño Southern Oscillation (ENSO), and the Indian Ocean Dipole (IOD), are both currently neutral and predictability, therefore, is not particularly high. Later in the northern hemisphere autumn (towards November) these are both likely to become more influential, perhaps more so the IOD. A developing negative phase of the IOD (where cooler than normal Sea Surface Temperatures develop in the western Indian Ocean) is likely to modulate rainfall across East Africa, and typically brings drier-than-normal conditions.

For the next three months, drier than normal conditions are most probable for countries that experience the West African Monsoon, including the countries that border the Gulf of Guinea coastline and western Sahel regions. There is an increase in the likelihood of wetter than normal conditions in the East African highlands, including regions such as west Kenya, large parts of Ethiopia, South Sudan, Uganda, north-east DRC and Rwanda. For Southern Africa, drier than normal conditions are more probable overall, although normal rainfall is more likely in parts of Zimbabwe and Zambia.

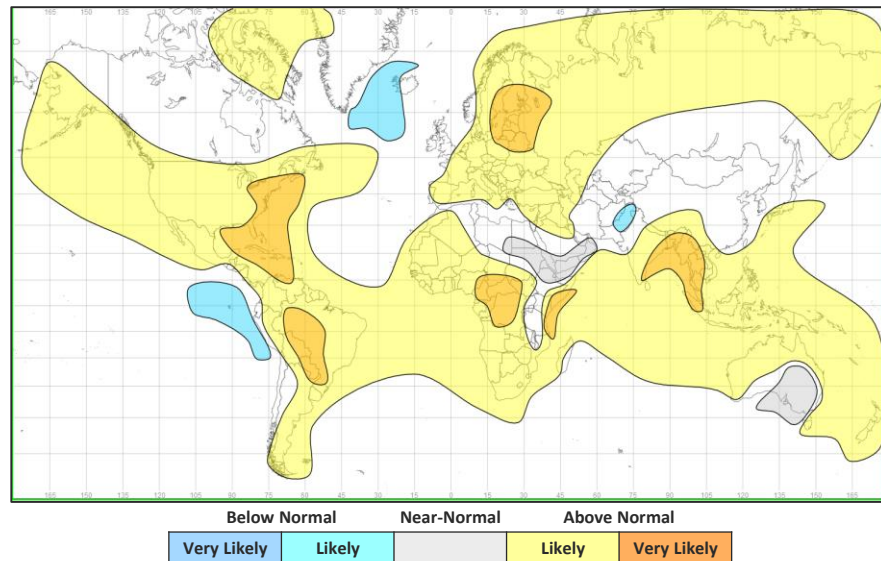
3-Month Outlook August to October 2020 - Rainfall



Global Outlook - Temperature

Outlook: There is an increase in the likelihood of warmer than normal conditions across large parts of the world, with the highest confidence in tropical regions. This is consistent with the warming observed in the past decade.

3-Month Outlook August to October 2020 - Temperature



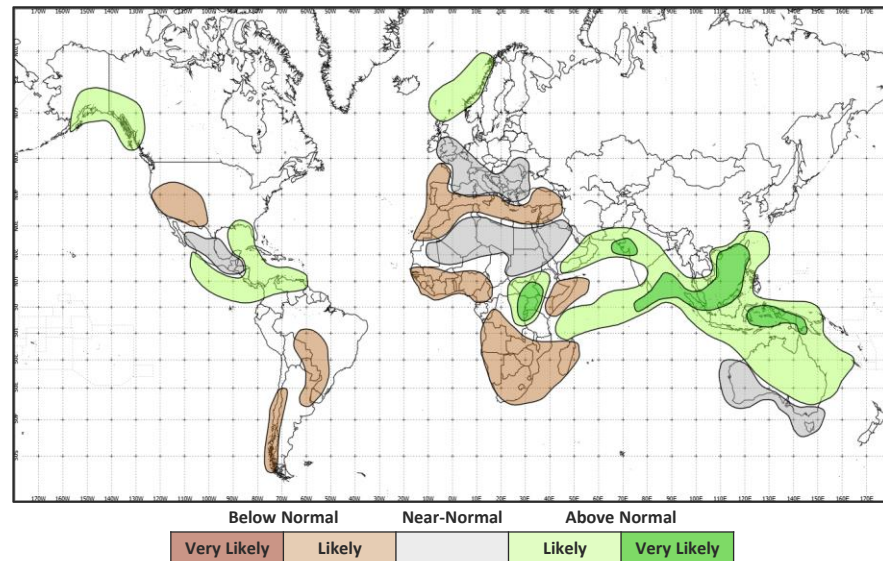
Global Outlook - Rainfall

Outlook:

El Niño-Southern Oscillation (ENSO) – Sea Surface Temperatures (SSTs) continue to decline in the central and eastern tropical Pacific, close to La Niña thresholds. However, there is yet to be an atmospheric response with most other indicators still neutral. Long-range forecast models continue to predict La Niña developing later this year, most probably in the northern hemisphere autumn. Considering signals from the long-range models and the ongoing decline in SSTs, there is around a 50-55% chance of La Niña developing during the northern hemisphere autumn, this a slight increase in likelihood on last month's outlook.

Indian Ocean Dipole (IOD) – The IOD is currently neutral, but there is growing evidence of a negative pattern developing through this period, most likely through August. For this period, the IOD will likely only moderately influence patterns of rainfall around the world. However, should a negative IOD develop, then wetter than normal conditions become more likely, later in this period, across Australia, along with Malaysia and Indonesia; drier than normal conditions in East Africa for the Short Rains season (October-November-December).

3-Month Outlook August to October 2020 - Rainfall



Current Status

[Current Status maps](#)

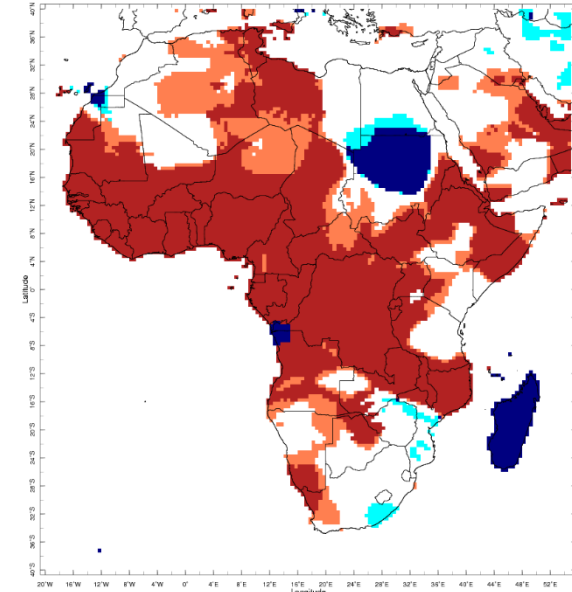
[Western Africa](#)

[Central Africa](#)

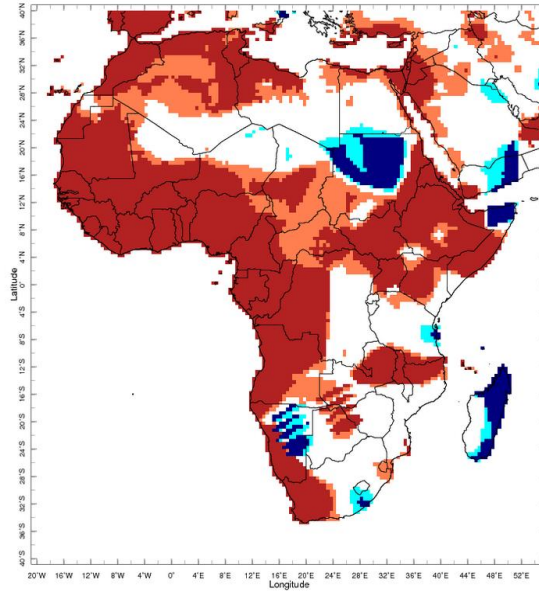
[Eastern Africa](#)

[Southern Africa](#)

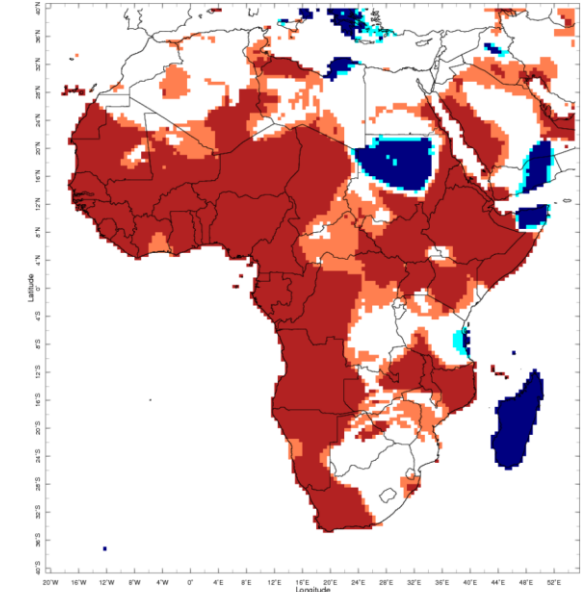
Current Status – Temperature percentiles



Apr 2020

April 2020


May 2020

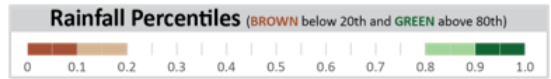
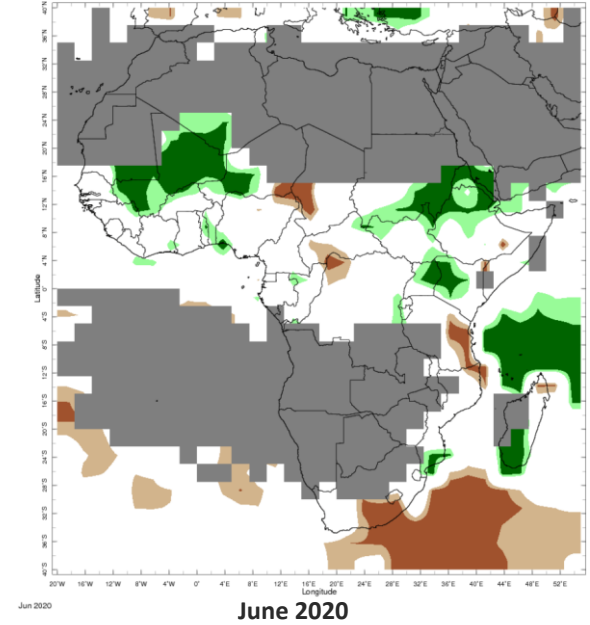
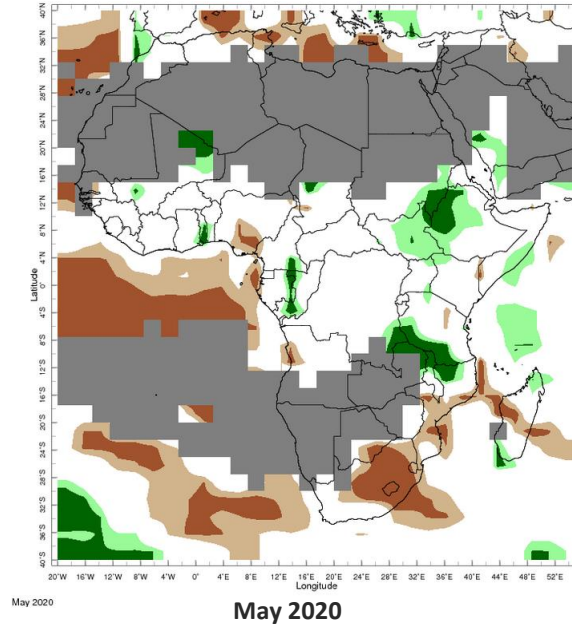
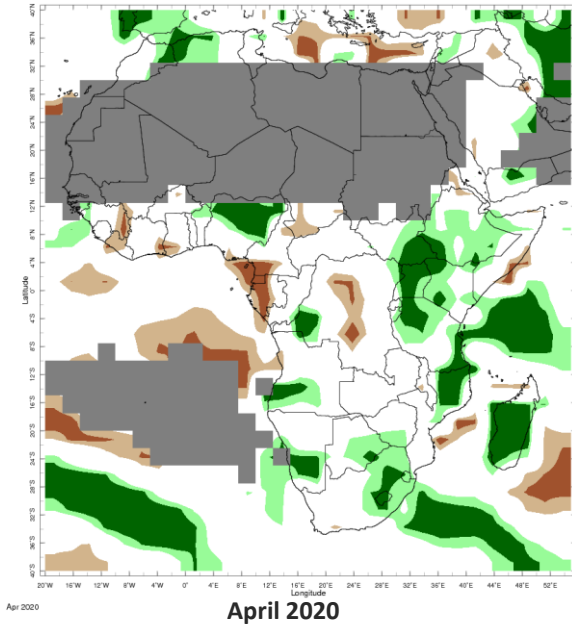
May 2020


Jun 2020

June 2020


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



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

	April	May	June
Sierra Leone	Hot	Hot	Hot
Liberia	Hot	Hot	Hot
Mali	Hot	Hot	Hot
Ghana	Hot	Hot	Hot
Nigeria	Hot	Hot	Not
Cameroon	Hot	Hot	Hot

Current Status: Rainfall

April	May	June
Normal	Normal	Normal
Dry	Normal	Normal
Normal	Normal*	Wet
Normal	Normal	Normal
Mixed^	Mixed^	Normal
Mixed^	Mixed^	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: In April, northern Nigeria was **Very Wet** and western Cameroon **Very Dry**.

Current Status – Central Africa

Current Status: Temperature

	April	May	June
Niger	Hot	Hot	Hot
Chad	Hot	Warm	Hot
DRC	Hot	Normal	Warm

Current Status: Rainfall

	April	May	June
Niger	Normal*	Normal*	Wet [^]
Chad	Normal*	Normal*	Normal
DRC	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: [^]data is only available for the south-west of Niger.

Current Status – Eastern Africa (1)

Current Status: Temperature

	April	May	June
Sudan	Cold	Cold	Cold
South Sudan	Hot	Hot	Hot
Uganda	Hot	Hot	Hot
Rwanda	Hot	Normal	Normal

Current Status: Rainfall

April	May	June
Normal*	Normal*	Normal*
Wet	Wet	Wet
Very Wet	Normal	Wet
Wet	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:

Current Status – Eastern Africa (2)

Current Status: Temperature

	April	May	June
Tanzania	Normal	Normal	Normal
Ethiopia	Hot	Hot	Hot
Kenya	Warm	Hot	Hot
Somalia	Hot	Hot	Hot [^]

Current Status: Rainfall

	April	May	June
	Wet	Normal ^{^^}	Normal [^]
	Wet	Wet	Wet
	Wet	Normal	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: North-east Somalia around the Horn of Africa was **Cold** in June

^{^^}Note: Southwestern Tanzania was **Very Wet** in May

^{^^^}Note: Western Kenya was **wet** in June.

Current Status – Southern Africa

Current Status: Temperature

	April	May	June
South Africa	Mixed [^]	Mixed [^]	Mixed [^]
Zambia	Hot	Warm	Warm
Zimbabwe	Normal	Normal	Normal
Mozambique	Mixed [^]	Mixed [^]	Mixed [^]
Malawi	Hot	Hot	Hot
Madagascar	Cold	Cold	Cold

Current Status: Rainfall

April	May	June
Wet ^{^^}	Very Dry	Very Dry
Normal	Normal*	Normal*
Normal	Normal*	Normal*
Very Wet ^{^^}	Normal	Normal
Normal	Normal	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: In April to June, western South Africa and northern Mozambique were **Hot**; southern Mozambique was **Cold**.

^{^^}Note: Note: Rainfall was normal in southern Mozambique and western South Africa.

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: August to January – Western Africa (1)

		Forecast summary		
		August	August to October	November to January
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	Climatological odds - see note
Liberia	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	Climatological odds - see note
Mali	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
Ghana	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Much more likely to be drier than normal	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: August to January – Western Africa (2)

		Forecast summary		
		August	August to October	November to January
Nigeria	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 drier than normal	Likely to be drier than normal	Likely to be drier than normal
Cameroon	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 drier than normal	Likely to be drier than normal	Likely to be drier than normal

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Outlook: August to January – Central Africa

		Forecast summary		
		August	August to October	November to January
Niger	Temperature	Likely to be warmer than normal	Climatological odds - see note	Climatological odds - see note
	Rainfall	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
Chad	Temperature	Likely to be warmer than normal	Climatological odds - see note	Climatological odds - see note
	Rainfall	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
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	Likely to be wetter than normal in the east and likely to be drier than normal in the west. Climatological odds elsewhere - see note	Likely to be wetter than normal in the east and likely to be drier than normal in the west. Climatological odds elsewhere - see note	Climatological odds - see note

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Outlook: August to January – Eastern Africa (1)

		Forecast summary		
		August	August to October	November to January
Sudan	Temperature	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
	Rainfall	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
South Sudan	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Much more likely to be wetter than normal	Much more likely to be wetter than normal	Likely to be drier than normal
Uganda	Temperature	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
	Rainfall	Much more likely to be wetter than normal	Much more likely to be wetter than normal	Climatological odds - see note
Rwanda	Temperature	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
	Rainfall	Much more likely to be wetter than normal	Much more likely to be wetter 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: August to January – Eastern Africa (2)

		Forecast summary		
		August	August to October	November to January
Tanzania	Temperature	Likely to be warmer than normal	Climatological odds - see note	Climatological odds - see note
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note
Ethiopia	Temperature	Climatological odds - see note	Climatological odds - see note	Likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be drier than normal
Kenya	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Likely to be wetter than normal in the Highlands and likely to be drier than normal in the Coastal Plain	Likely to be wetter than normal in the Highlands and likely to be drier than normal in the Coastal Plain	Likely to be drier than normal
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 drier than normal	Much more 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: August to January – Southern Africa (1)

		Forecast summary		
		August	August to October	November to January
South Africa	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	Climatological odds - see note
Zambia	Temperature	Climatological odds - see note	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note
Zimbabwe	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note
Mozambique	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds - see note	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: August to January – Southern Africa (1)

		Forecast summary		
		August	August to October	November to January
Malawi	Temperature	Climatological odds - see note	Climatological odds - see note	Likely to be warmer than normal
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note
Madagascar	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	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>