

# Global: Monthly Climate Outlook

## June to March

**Issued: September 2022**

[Overview](#)

[Current Status](#)

[Outlooks](#)

[Annex 1 – Supplemental Information](#)

# Overview

[MENA, Caribbean and British Overseas Territories Current Status and Outlook – Temperature](#)

[MENA, Caribbean and British Overseas Territories Current Status and Outlook – Rainfall](#)

[Global Seasonal Outlook – Temperature](#)

[Global Seasonal Outlook – Rainfall](#)

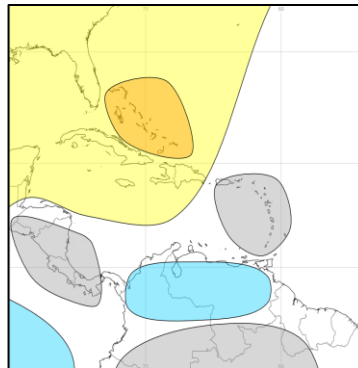
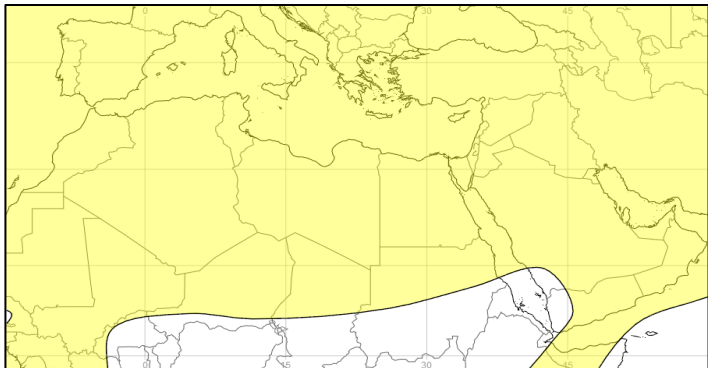
# MENA, Caribbean and British Overseas Territories Current Status and Outlook - Temperature

## Current Status:

For much of the last three months, most of the MENA region had above normal temperatures, though some parts of Yemen have been colder than normal. The Caribbean has been warmer than normal, though colder in the west of the region. Overseas Territories have been warmer than normal, except for the Central Pacific which remained cold.

## Outlook:

Over the next three months, temperatures are likely to be above normal across the MENA region. Across the Caribbean region, above normal temperatures are likely and much more likely for the Greater Antilles, Bahamas as well as Turks and Caicos islands, whilst near-normal is likely for the Lesser Antilles. Overseas territories in the Indian and Pacific Ocean are likely to experience below normal temperatures while above normal is likely for southern Europe.



## 3-Month Outlook October to December - Temperature

Below Normal		Near-Normal	Above Normal	
Much More Likely	Likely		Likely	Much More Likely

Left: Middle East and North Africa

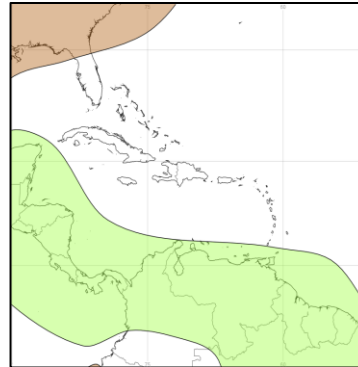
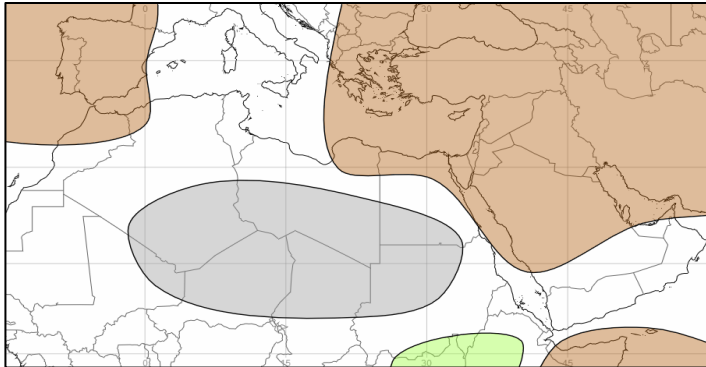
Right: Caribbean region

# MENA, Caribbean and British Overseas Territories Current Status and Outlook - Rainfall

**Current Status:** Rainfall across much of the MENA region was near-normal over the last three months, though there is typically little rainfall at this time of year. After near-normal rainfall in June, much of the Caribbean region was dry during July and August.

**Outlook:** Over the next three months below normal rainfall is likely across much of the MENA region, and the British Overseas Territories. It is likely to be wetter than normal in Guyana.

**Tropical Cyclone outlook:** The Atlantic Tropical Cyclone season is now near its peak with seven named storms (up to 22<sup>nd</sup> Sept). September typically sees peak activity with the season continuing through October and November before ending. Predictions are consistent in suggesting above average activity during the season and where storms do form, they may be more intense and longer lasting than normal. This brings a continued risk of impacts across the Caribbean region though the risk should tend to reduce over the next two months. The full forecast is available [here](#).



## 3-Month Outlook October to December - Rainfall

Below Normal		Near-Normal	Above Normal	
Much More Likely	Likely		Likely	Much More Likely

Left: Middle East and North Africa

Right: Caribbean region

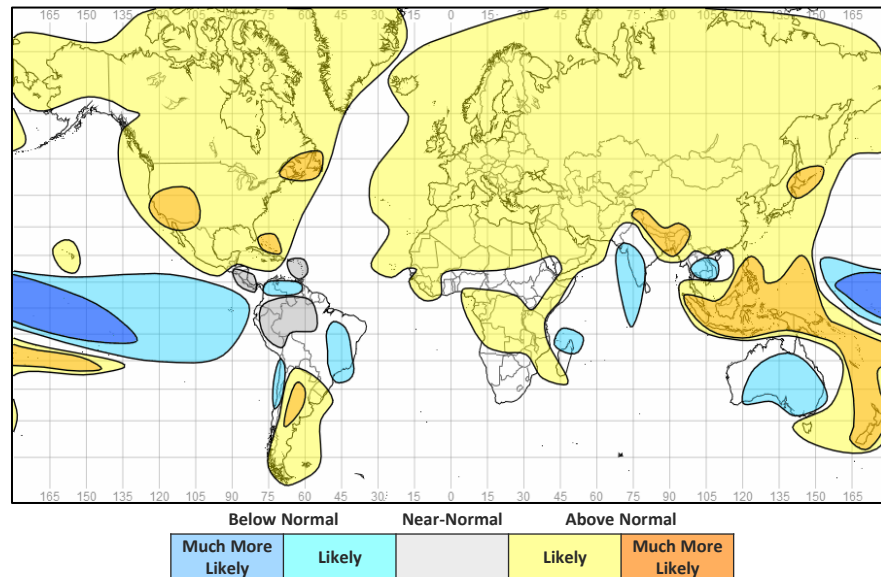
# Global Outlook - Temperature

## Outlook:

The ongoing La Niña has strengthened over the last month and is likely to persist into the northern hemisphere winter. Aside from the background global warming trend, La Niña is likely to be the largest driver of temperatures over the next three months. The negative Indian Ocean Dipole (IOD) will have more limited influence but will reinforce the effects of La Niña on temperatures around the Indian Ocean and western Pacific.

For many areas above normal temperatures are likely. However, consistent with La Niña and the IOD, northern South America, parts of Australia, mainland Southeast Asia and southwest India are likely to experience near- to below normal temperatures.

## 3-Month Outlook October to December - Temperature



# Global Outlook - Rainfall

## Outlook:

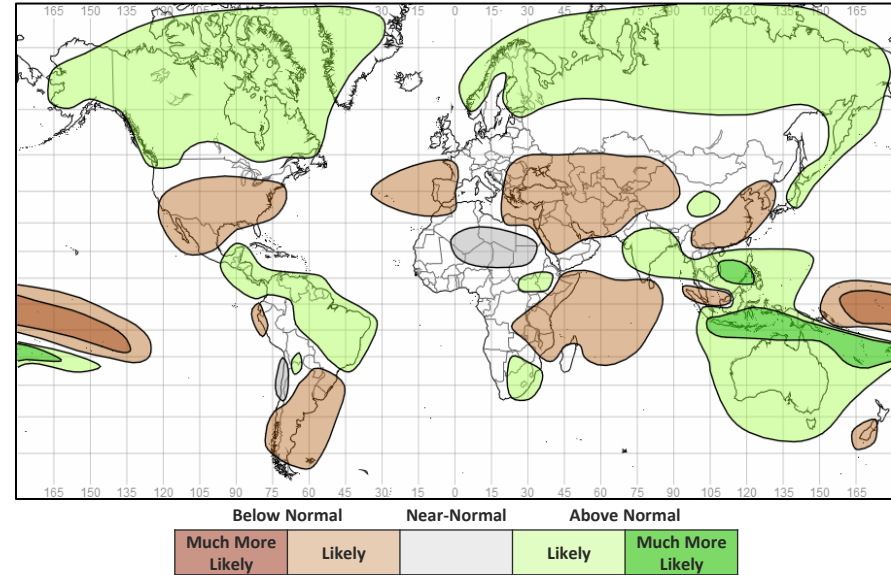
**El Niño-Southern Oscillation (ENSO)** – The current La Niña event continues in the tropical Pacific Ocean with oceanic and atmospheric indicators showing it has strengthened over the last month.

The latest [ENSO outlook](#) issued by NOAA (26<sup>th</sup> September) states that La Niña is active, with a 91% chance of it persisting through the northern hemisphere autumn and 54% it will last through the northern hemisphere winter.

La Niña will remain the most dominant driver of global weather patterns over the next few months at least, more especially for tropical regions. With a couple of notable exceptions (e.g. East Africa) La Niña, very broadly speaking, tends to increase the likelihood of wetter than normal conditions across many land areas of the tropics. More information on typical impacts can be found here <https://www.metoffice.gov.uk/research/climate/seasonal-to-decadal/gpc-outlooks/el-nino-la-nina/enso-impacts>

**Indian Ocean Dipole (IOD)** – The IOD index is negative and is expected to remain so for at least the next three months before returning to neutral around the turn of the year. When concurrent with a La Niña, a negative IOD can increase the effects of a La Niña, enhancing wetter than normal conditions in parts of Australia and Asia, and drier than normal conditions in East Africa - of particular concern given the current drought conditions in the Horn of Africa.

## 3-Month Outlook October to December - Rainfall



# Current Status

[Current Status maps](#)

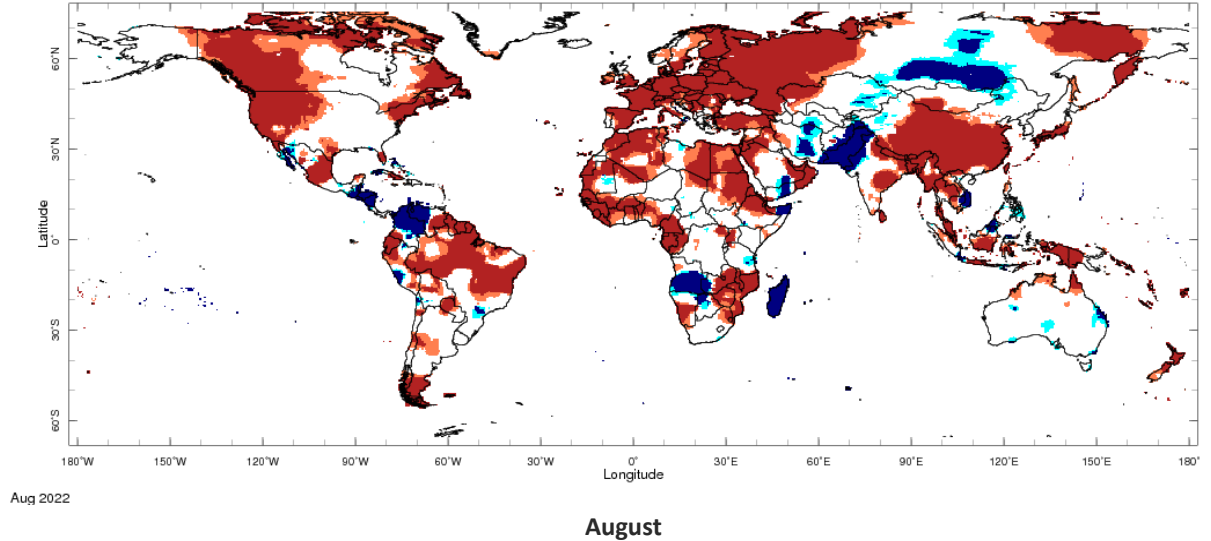
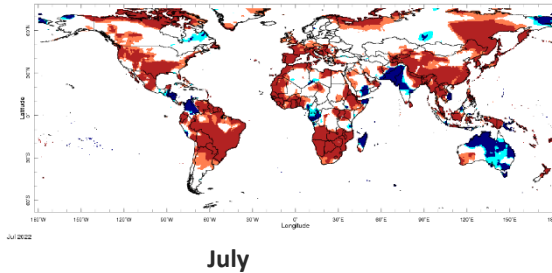
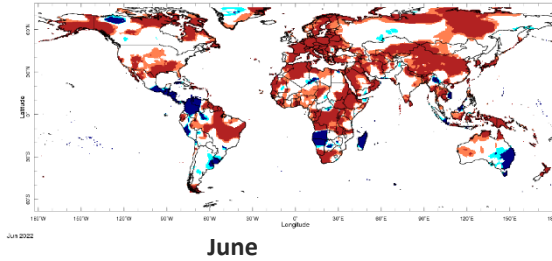
[MENA – Middle East](#)

[MENA – North Africa](#)

[Caribbean](#)

[British Overseas Territories](#)

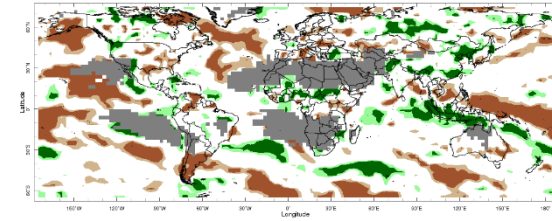
# Current Status – Temperature percentiles



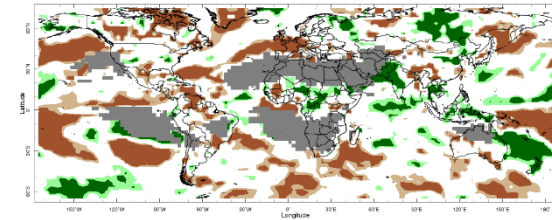
**Notes:** The percentiles shown in the map indicate a ranking of temperature, with the 0th percentile being the coolest and the 100th percentile being the warmest in the 1981-2010 climatology. Orange and red shading represent values above the 80th (Warm) and 90th (Hot) percentile, respectively; regions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



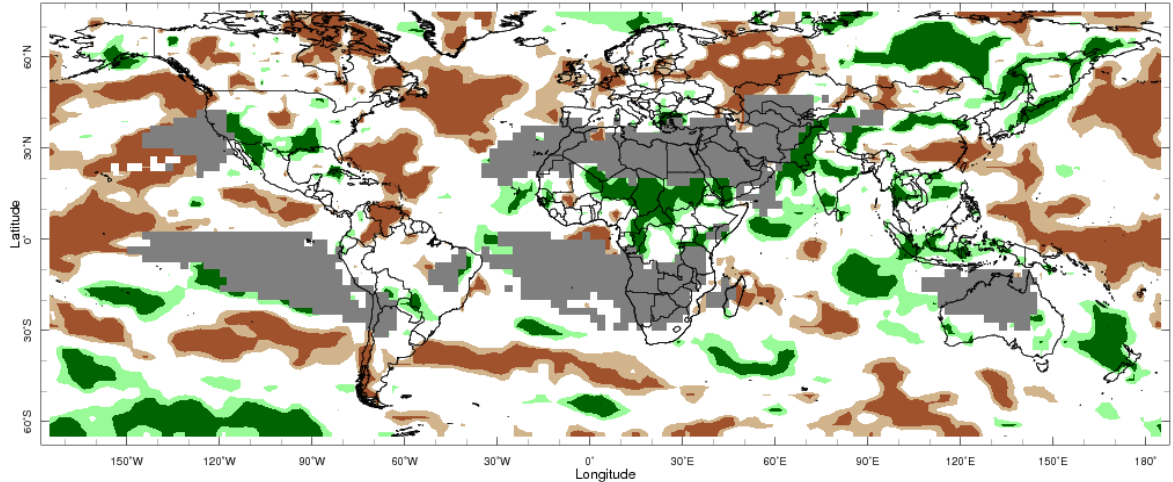
# Current Status – Precipitation percentiles



June



July



Aug 2022

August



**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 – MENA – Middle East

## Current Status: Temperature

	June	July	August
Turkey	Mixed (1)	Mixed (1)	Hot
Palestine	Warm	Warm	Hot
Lebanon	Normal	Normal	Hot
Jordan	Hot	Warm	Hot
Syria	Normal	Normal	Hot
Iraq	Hot	Mixed (1)	Hot
Yemen	Mixed (2)	Cold	Mixed (4)

## Current Status: Rainfall

	June	July	August
	Mixed (3)	Normal	Mixed (3)
	Normal*	Normal*	Normal*
	Normal*	Normal*	Normal*
	Normal*	Normal*	Normal*
	Normal*	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:

- (1) **Note:** Hot in west, and far east. Normal elsewhere.
- (2) **Note:** Large variations in the populated areas. Largely normal overall.
- (3) **Note:** Very wet in west, normal in east.
- (4) **Note:** Normal in west, cold in east.

## Current Status – MENA – North Africa

### Current Status: Temperature

	June	July	August
Mauritania	Mixed (1)	Hot	Mixed (1)
Morocco	Mixed (2)	Hot	Hot
Algeria	Mixed (2)	Mixed (2)	Hot
Tunisia	Hot	Hot	Hot
Libya	Mixed (3)	Mixed (3)	Mixed (3)
Egypt	Normal	Normal	Hot
Eritrea	Hot	Hot	Hot

### Current Status: Rainfall

June	July	August
Normal*	Normal*	Normal*
Normal*	Normal*	Normal*
Normal*	Normal*	Normal*
Normal*	Normal*	Normal*
Normal*	Normal*	Normal*
Normal*	Normal*	Normal*
Dry	Normal	Very 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:** Hot in north and west.
- (2) **Note:** Hot in north. Normal in south.
- (3) **Note:** Large variations across the country.

## Current Status – Caribbean

Current Status: Temperature

	June	July	August
Caribbean Region	Mixed (1)	Mixed (1)	Mixed(1)
Haiti	Hot	Normal	Normal
Guyana	Warm	Hot	Hot

Current Status: Rainfall

	June	July	August
Caribbean Region	Mixed (2)	Dry	Dry
Haiti	Normal	Dry	Normal
Guyana	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:** Ranging from cold in west to hot in east.

**(2) Note:** Ranging from very wet in west to normal in east.

## Current Status – British Overseas Territories

	Current Status: Temperature		
	June	July	August
Southern Europe	Hot	Hot	Hot
Central Indian Ocean	Hot	Hot	Normal
Central Pacific	Cold	Cold	Cold

	Current Status: Rainfall		
	June	July	August
	Normal*	Normal*	Normal*
	Dry	Wet	Dry
	Very Dry	Dry	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:

# Outlooks

Outlooks – Notes for use

MENA – Middle East

MENA – North Africa

Caribbean

British Overseas Territories

# 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: March to August – MENA – Middle East (1)

		Forecast summary		
		October	October to December	January to March
Turkey	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
Palestine	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
Lebanon	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
Jordan	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 drier than normal	Climatological odds

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



## Outlook: March to August – MENA – Middle East (2)

		Forecast summary		
		October	October to December	January to March
Syria	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
Iraq	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
Yemen	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.

# Outlook: March to August – MENA – North Africa(1)

		Forecast summary		
		October	October to December	January to March
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	Climatological odds	Climatological odds
Morocco	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 in the north; Climatological odds in the south	Climatological odds
Algeria	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	Climatological odds	Climatological odds
Tunisia	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.

## Outlook: March to August – MENA – North Africa(2)

		Forecast summary		
		October	October to December	January to March
Libya	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 drier than normal in the north; Likely to be near-normal in the south	Climatological odds
Egypt	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 drier than normal in the north; Likely to be near-normal in the south	Climatological odds
Eritrea	Temperature	Likely to be colder than normal in the west; Likely to be warmer than normal in the east	Likely to be near-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: March to August – Caribbean

		Forecast summary		
		October	October to December	January to March
Caribbean Region	Temperature	Likely to be warmer than normal	Likely to be near-normal in the east; Likely to be warmer than normal in the west	Climatological odds
	Rainfall	Climatological odds	Climatological odds	Likely to be drier than normal in the northwest; elsewhere Climatological odds
Haiti	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be near-normal
	Rainfall	Climatological odds	Climatological odds	Climatological odds
Guyana	Temperature	Climatological odds	Climatological odds	Climatological odds
	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: March to August – British Overseas Territories

		Forecast summary		
		October	October to December	January to March
Southern Europe	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
Central Indian Ocean	Temperature	Likely to be colder than normal	Likely to be colder than normal	Climatological odds
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Climatological odds
Central Pacific	Temperature	Likely to be colder than normal	Likely to be colder than normal	Climatological odds
	Rainfall	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.

# Annex 1 – Supplemental Information

## For further information

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

<https://www.wmolc.org/>

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>)

# 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](mailto:internationaldevelopment@metoffice.gov.uk)

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