

Global: Monthly Climate Outlook November to August

Issued: February 2024

Overview

Current Status

<u>Outlooks</u>

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



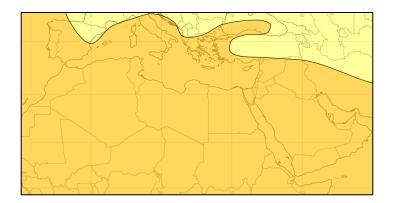
MENA, Caribbean and British Overseas Territories Current Status and Outlook - Temperature

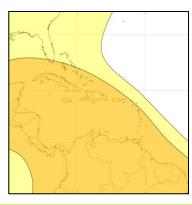
Current Status:

Across the MENA region, the Caribbean and the British Overseas Territories temperatures were hot over the last three months. The exception to this has been the British Overseas Territories in the central Pacific which were near-normal in December but cold in November and again in January.

Outlook:

It is likely or much more likely to be warmer than normal in the MENA region, the Caribbean and the British Overseas Territories over the next three months. The exception to this is the British Overseas Territories in the central Pacific where temperatures are likely to be colder than normal.





3-Month Outlook March to May - 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

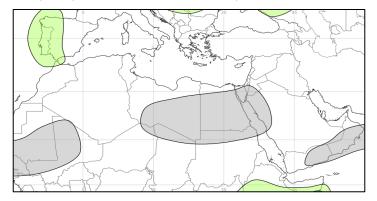
Current Status:

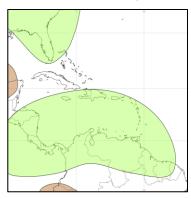
Across most of the Middle East, rainfall was near-normal over the last three months, exceptions being some of Syria and parts of Iraq which were wet in December and January. In North Africa, many parts have been near-normal or dry during November, December and January while northern Libya was very wet in November and December before returning to near-normal in January. The Caribbean and British Overseas Territories were either dry or had near-normal rainfall over the last three months, the exception being Haiti which was very wet in December.

Outlook:

Over the next three months, parts of the MENA region are likely to have near-normal rainfall. Western Iberia, including Gibraltar, is likely to be wetter than normal. In the Caribbean, many areas are likely to be wetter than normal.

Tropical Cyclone outlook: North Atlantic tropical storm seasonal forecasts for 2024 will be issued in May.





3-Month Outlook March to May - Rainfall

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

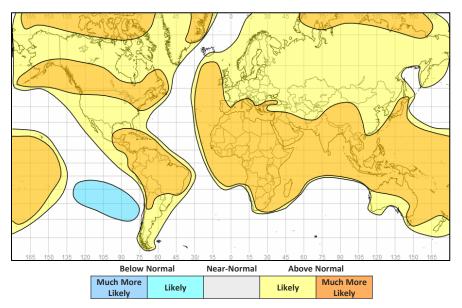
Left: Middle East and North Africa Right: Caribbean region

Global Outlook - Temperature

Outlook:

With the backdrop of a warming climate and the current ongoing (although weakening) El Niño event, nearly all land areas are likely or much more likely to be warmer than normal during March to May. The main exception to this being the southeast Pacific region, the result of colder than normal sea surface temperatures in this area due to El Niño.

3-Month Outlook March to May - Temperature



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Climate Outlook Global: November to August

Global Outlook - Rainfall

Outlook:

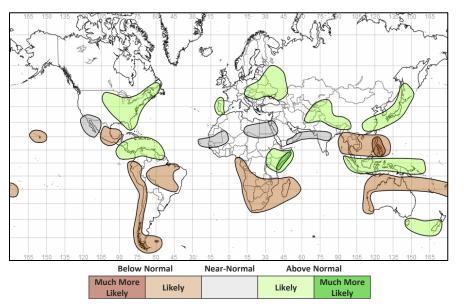
El Niño-Southern Oscillation (ENSO) – Sea surface temperatures (SSTs) across the equatorial Pacific remain indicative on an ongoing El Niño event.

Now past its peak, the current El Niño event is likely to weaken further with a transition ENSO-neutral likely by April-June 2024 (79% chance). There are also increasing odds of La Niña developing in June-August 2024 (55% chance).

El Niño impacts regional weather patterns around the world, leading to some regions experiencing wetter than normal conditions and other regions drier than normal conditions. Its influence tends to be most dominant across the tropics. Although weakening, El Niño will continue to impact global weather patterns over the next few months.

Indian Ocean Dipole (IOD) – The recent positive Indian Ocean Dipole has now come to an end, with conditions expected to remain near-neutral for the next few months.

3-Month Outlook March to May - Rainfall







Current Status

Current Status maps

MENA – Middle East

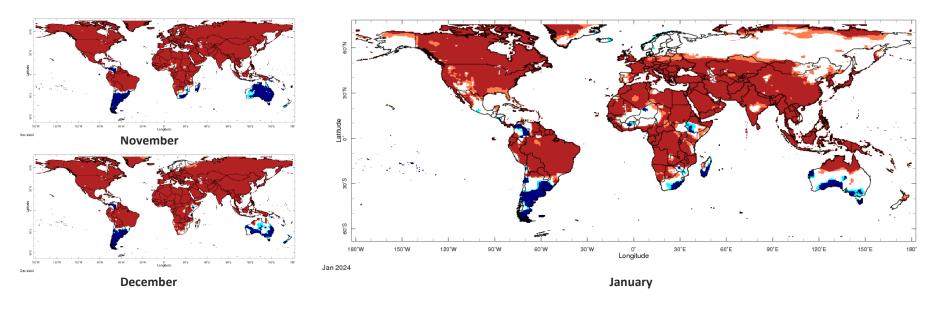
MENA – North Africa

<u>Caribbean</u>

British Overseas Territories



Current Status – Temperature percentiles



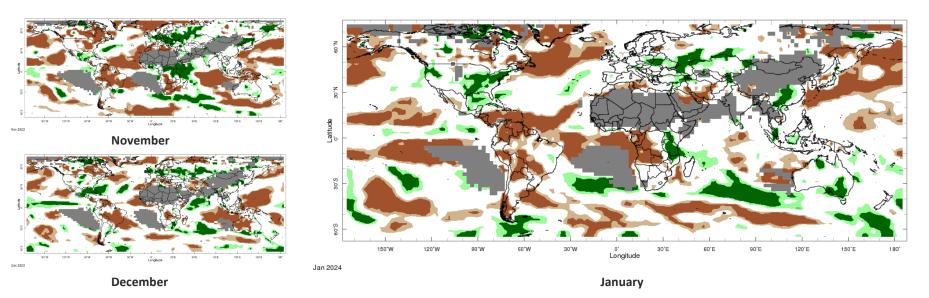


Current Status

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





Current Status

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.

Climate Outlook Global: November to August

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Current Status – MENA – Middle East

	Current Status: Temperature		
	November	December	January
Turkey	Hot	Hot	Hot
Palestine	Hot	Hot	Hot
Lebanon	Hot	Hot	Hot
Jordan	Hot	Hot	Hot
Syria	Hot	Hot	Hot
Iraq	Hot	Hot	Hot
Yemen	Hot	Hot	Hot

Current Status: Rainfall

November	December	January
Wet	Normal	Normal (4)
Normal	Normal	Normal
Normal	Normal	Normal
Normal	Normal	Normal
Wet (2)	Normal	Wet
Normal	Normal (3)	Normal (5)
Normal*	Normal*	Normal*

Notes:

Additional Information:

(1) Note: Normal in central regions

(2) Note: Normal in the west

(3) Note: Wet in far west

(4) Note: Wet in the east

(5) Note: Dry in the south

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).

Current Status



Normal*

Current Status – MENA – North Africa

	Current Status: Temperature			
	November	December	January	
Mauritania	Hot	Hot	Hot	
Могоссо	Hot	Hot	Hot	
Algeria	Hot	Hot	Hot	
Tunisia	Hot	Hot	Hot	
Libya	Hot	Hot	Hot	
Egypt	Hot	Hot	Hot	
Eritrea	Hot	Hot	Hot	

Current Status: Rainfall November December January Normal* Normal* Normal* Very Dry Normal Normal (1) Normal (2) Normal (2) Normal Normal Very Wet Very Dry 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).

Current Status

Additional Information:

(1) Note: Very dry in the west(2) Note: Dry in the west

Normal*

Climate Outlook Global: November to August

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Current Status – Caribbean

	Current Status: Temperature		
	November	December	January
Caribbean Region	Hot	Hot	Hot
Haiti	Hot	Hot	Hot
Guyana	Hot	Hot	Hot

Cur	Current Status: Rainfall					
November December January						
Normal (1)	Normal (2)	Normal (1)				
Normal	Very Wet	Dry				
Very Dry	Very Dry	Very Dry				

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).

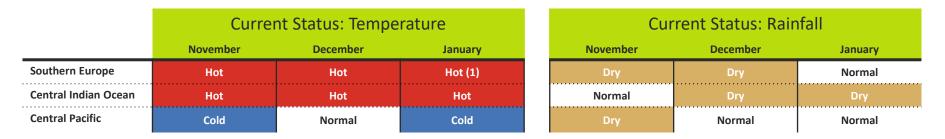
Current Status

Additional Information:

(1) Note: Very dry across the Lesser Antilles.(2) Note: Very wet in the northwest, normal elsewhere



Current Status – British Overseas Territories





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).

Current Status

Additional Information:

(1) Note: Normal across western Iberia.





Outlooks

Outlooks – Notes for use

MENA – Middle East

MENA – North Africa

<u>Caribbean</u>

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.

Outlooks

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

		Forecast summary			
		March	March to May	June to August	
Turkey	Temperature	Likely to be warmer than normal	Much more likely to be warmer than normal in the south and west; Likely to be warmer than normal elsewhere	Much more likely to be warmer than normal	
	Rainfall	Climatological odds	Climatological odds	Climatological odds	
Palestine	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal	
	Rainfall	Climatological odds	Climatological odds	Likely to be near-normal	
Lebanon	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal	
	Rainfall	Climatological odds	Climatological odds	Likely to be near-normal	
Jordan	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal	
	Rainfall	Climatological odds	Climatological odds in north Likely to be near- normal in south	Likely to be near-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.

Outlooks

Outlooks



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

		Forecast summary		
		March March to May June to August		
Syria	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Likely to be near-normal
Iraq	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Likely to be near-normal
Yemen	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Climatological odds in the west; Likely to be near-normal in east	Climatological odds in the west; Likely to be near-normal in east	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 – MENA – North Africa(1)

		Forecast summary		
		March	March to May	June to August
Mauritania	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Likely to be near-normal	Climatological odds in the north; Likely to be near-normal in the south	Likely to be near-normal
Morocco	Temperature Rainfall	Likely to be warmer than normal Climatological odds	Much more likely to be warmer than normal Climatological odds	Likely to be warmer than normal Likely to be near-normal
Algeria	Temperature Rainfall	Likely to be warmer than normal Climatological odds in the north; Likely to be near-normal in the south	Much more likely to be warmer than normal Climatological odds	Much more likely to be warmer than normal Likely to be near-normal
Tunisia	Temperature	Likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Climatological odds	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.

Outlooks

Outlooks



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

		March	March to May	June to August
Libya	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Climatological odds	Likely to be near-normal in the north; Climatological odds in the south	Likely to be near-normal
Egypt	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Likely to be near-normal	Climatological odds in the north; Likely to be	Likely to be wetter than normal
			near-normal elsewhere	
Eritrea	Temperature	Much more likely to be warmer than normal	near-normal elsewhere Much more likely to be warmer than normal	Much more likely to be warmer 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.

Outlooks



Outlook: March to August – Caribbean

		Forecast summary			
		March	March to May	June to August	
Caribbean	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal	
Region	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Much more likely to be wetter than normal	
Haiti	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal	
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be wetter than normal	
Guyana	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal	
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be near-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.

Outlooks



Outlook: March to August – British Overseas Territories

		Forecast summary		
		March	March to May	June to August
Southern Europe	Temperature	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Likely to be wetter than normal in Gibraltar; Climatological odds in Cyprus	Likely to be wetter than normal in Gibraltar; Climatological odds in Cyprus	Likely to be drier than normal in Gibraltar; Likely to be near-normal in Cyprus
Central Indian Ocean	Temperature Rainfall	Much more likely to be warmer than normal Likely to be wetter than normal	Much more likely to be warmer than normal Likely to be wetter than normal	Much more likely to be warmer than normal Likely to be wetter than normal
Central Pacific	Temperature	Likely to be colder than normal	Likely to be colder than normal	Likely to be colder than normal
	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.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)

Technical notes

The <u>WMO lead centre for long-range forecast multi-model ensemble (LC-LRFMME)</u> 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 CPTEC (INPE),
- GPC ECMWF,
- GPC Exeter (Met Office),
- GPC Melbourne (BOM),
- GPC Montreal (CMC),
- GPC Moscow (Hydromet Centre of Russia),
- GPC Offenbach (DWD),
- GPC Pretoria (SAWS),
- GPC Seoul (KMA),
- GPC Tokyo (JMA),
- GPC Toulouse (Meteo France),
- GPC Washington (NCEP)

Supplemental Information





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