

Global: Monthly Climate Outlook January to October

Issued: April 2024

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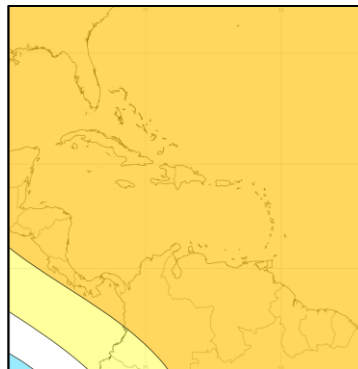
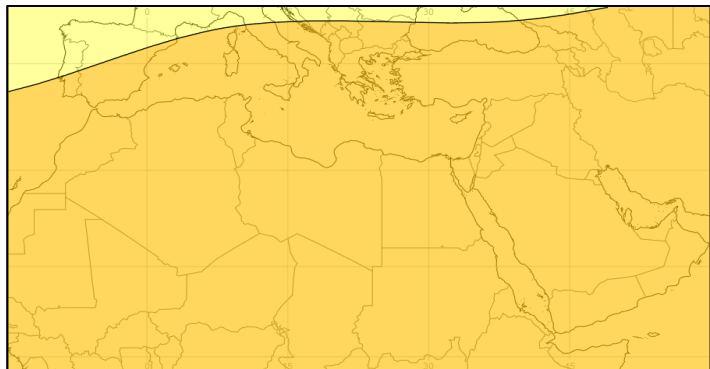
MENA, Caribbean and British Overseas Territories Current Status and Outlook - Temperature

Current Status:

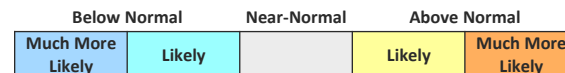
Across much of the MENA region, the Caribbean and the British Overseas Territories temperatures were above normal in January, but with a marked cooling trend through February and March especially around North Africa and Parts of the Middle East, which were cold.

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 and South Atlantic, where temperatures are likely to be below normal.



3-Month Outlook May to July - Temperature



Left: Middle East and North Africa

Right: Caribbean region

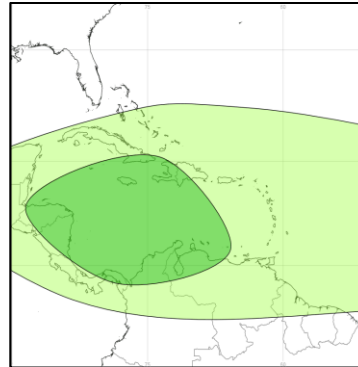
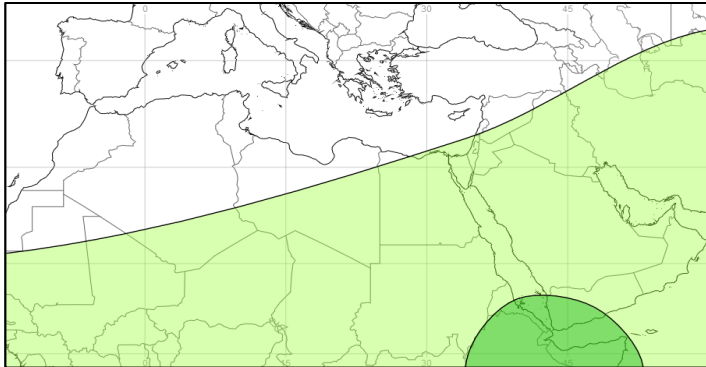
MENA, Caribbean and British Overseas Territories Current Status and Outlook - Rainfall

Current Status:

Across most of the Middle East, rainfall was near-normal over the last three months, apart from some parts of Syria and Iraq which were wet over the past three months. In North Africa, many parts have been normal over the past three months, although this region usually experiences very little rainfall in this period. The Caribbean and British Overseas Territories were either dry or had near-normal rainfall over the past three months.

Outlook:

Across both the MENA and Caribbean regions, it is likely to be wetter than normal over the next three months. Parts of the Caribbean are much more likely to be wetter than normal over the next three months, which coincides with the beginning of the region's wet season.



3-Month Outlook May to July - Rainfall

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

Left: Middle East and North Africa

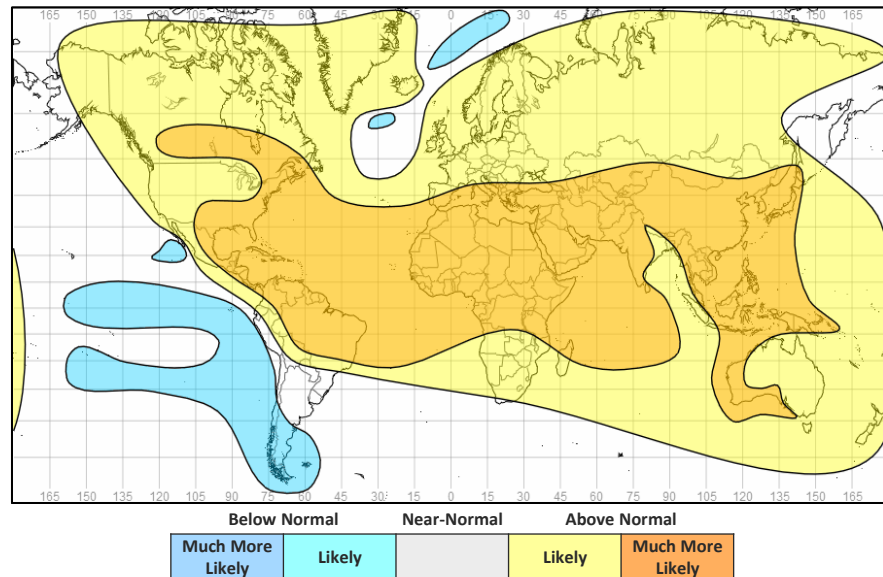
Right: Caribbean region

Global Outlook - Temperature

Outlook:

Consistent with a warming climate, over the next three months almost all land areas are likely to see above normal temperatures. However, the cooling in parts of the South Pacific associated with the expected development of La Niña conditions will have an increasing impact in surrounding areas, especially southern South America.

3-Month Outlook May to July - Temperature



Global Outlook - Rainfall

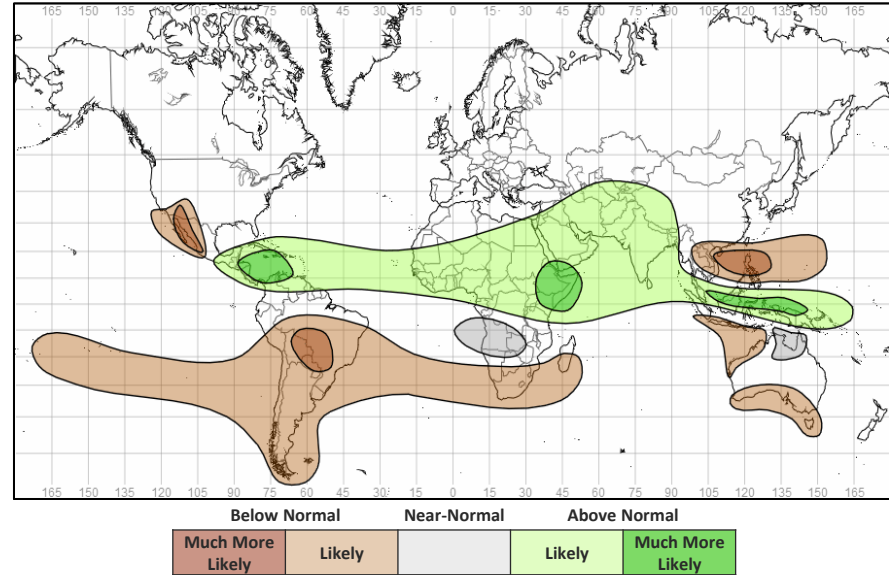
Outlook:

El Niño-Southern Oscillation (ENSO) - Although now declining, 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 to ENSO-neutral very likely (85%) in April-June. There continues to be a likely (60%) transition to La Niña in June-August. The reducing sea surface temperatures (SSTs) in parts of the Pacific mean that areas such as South America are likely to be drier than normal.

The impact of El Niño on some regional weather patterns around the world remains, 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, reflected in areas which experience monsoon rains in the Northern Hemisphere being likely to be wetter than normal over the next three months.

Indian Ocean Dipole (IOD) – Record warm temperatures in the north-west Indian Ocean and atmospheric indicators in the east are consistent with a developing positive IOD. Models suggest positive IOD conditions in May, though it should be noted that at this time confidence in IOD forecasts beyond the Southern Hemisphere autumn is low.

3-Month Outlook May to July - Rainfall



Current Status

[Current Status maps](#)

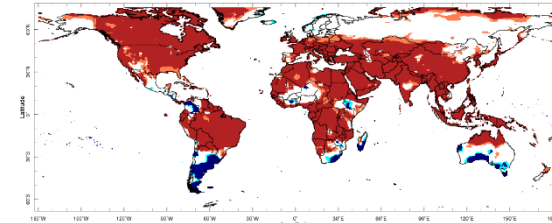
[MENA – Middle East](#)

[MENA – North Africa](#)

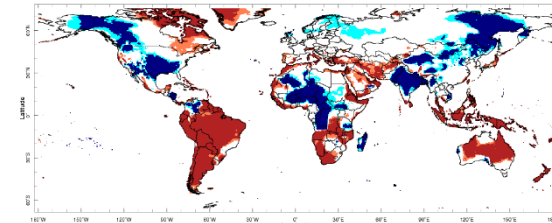
[Caribbean](#)

[British Overseas Territories](#)

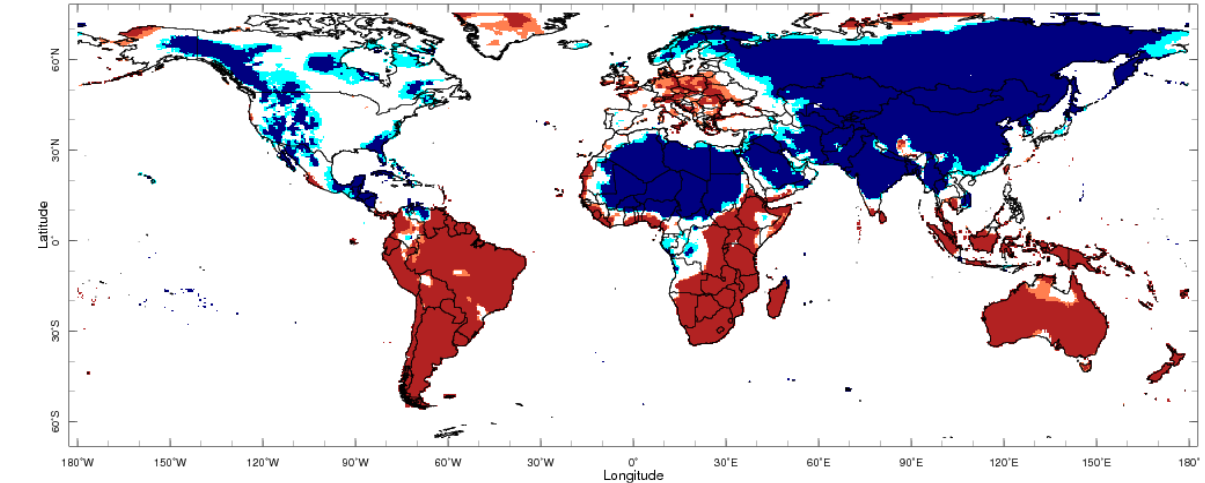
Current Status – Temperature percentiles



January



February



Mar 2024

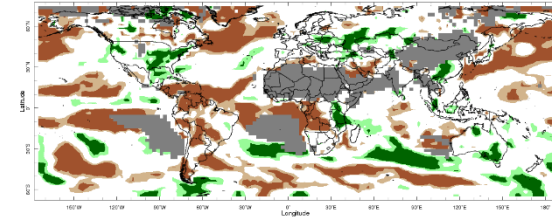
March

Temperature Percentiles (BLUE below 20th and RED above 80th)

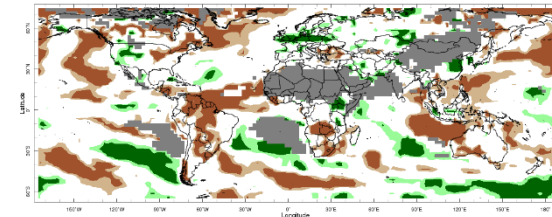


Notes: The percentiles shown in the map indicate a ranking of temperature, with the 0th percentile being the coolest and the 100th percentile being the warmest in the 1981-2010 climatology. Orange and red shading represent values above the 80th (Warm) and 90th (Hot) percentile, respectively; regions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

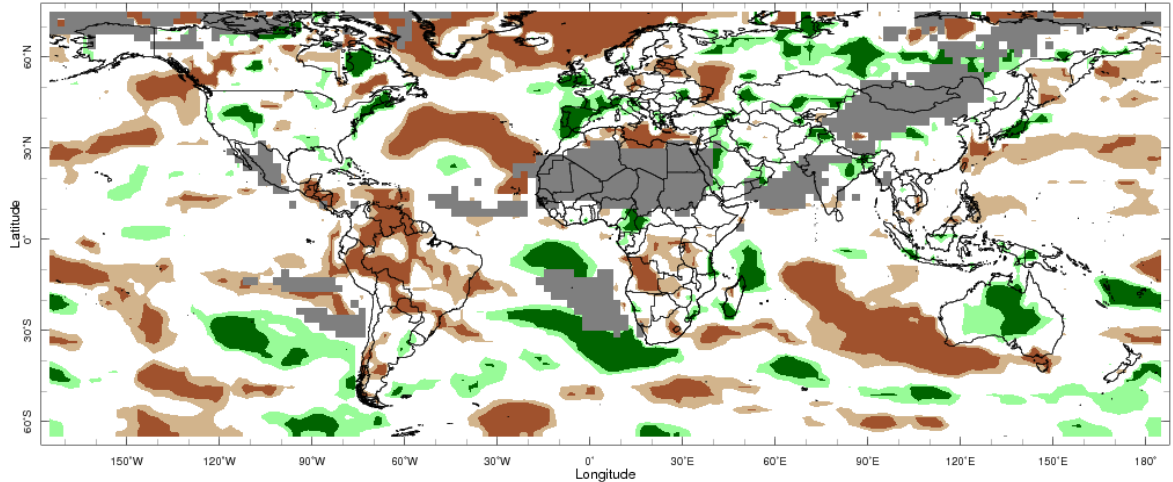
Current Status – Precipitation percentiles



January



February



January



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

	January	February	March
Turkey	Hot	Hot (3)	Normal
Palestine	Hot	Hot	Cool
Lebanon	Hot	Hot	Cool
Jordan	Hot	Hot	Cool
Syria	Hot	Normal (4)	Cool
Iraq	Hot	Mixed (5)	Cold
Yemen	Hot	Hot	Normal

Current Status: Rainfall

	January	February	March
	Normal (1)	Dry (6)	Normal (1)
	Normal	Normal	Normal
	Normal	Normal	Normal
	Normal	Normal	Normal
	Wet	Normal	Wet
	Normal (2)	Normal (7)	Wet
	Normal*	Normal*	Normal

Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room:

<http://iridl.ldeo.columbia.edu/maproom/>.

* Region usually experiences less than 10mm/month rainfall during the month (dry season).

Additional Information:

- (1) Note: Wet in the east
- (2) Note: Dry in the south
- (3) Note: Normal in central parts
- (4) Note: Hot in the far west
- (5) Note: Normal in central parts, hot in the far north and south
- (6) Note: Normal in the east
- (7) Note: Wet in central parts

Current Status – MENA – North Africa

Current Status: Temperature

	January	February	March
Mauritania	Hot	Hot	Normal (5)
Morocco	Hot	Hot	Normal
Algeria	Hot	Mixed (2)	Cold
Tunisia	Hot	Normal (3)	Normal
Libya	Hot	Normal (4)	Cold
Egypt	Hot	Normal (3)	Cold
Eritrea	Hot	Hot	Hot

Current Status: Rainfall

January	February	March
Normal*	Normal*	Normal*
Normal	Normal	Normal (6)
Normal (1)	Normal*	Dry
Dry	Normal	Dry
Normal	Normal*	Very Dry
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: Dry in the west
- (2) Note: Normal, but hot in the north and cold in the southwest and southeast
- (3) Note: Hot in the north
- (4) Note: Hot in the far northeast and cold in the far southwest
- (5) Note: Cold in the east
- (6) Note: Very wet in the far north

Current Status – Caribbean

Current Status: Temperature

	January	February	March
Caribbean Region	Hot	Hot	Mixed (3)
Haiti	Hot	Hot	Cold
Guyana	Hot	Hot	Hot

Current Status: Rainfall

January	February	March
Normal (1)	Normal (2)	Normal (2)
Dry	Normal	Normal
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).

Additional Information:

(1) Note: Very dry across the Lesser Antilles

(2) Note: Wet across parts of the far northeast and west, dry in the far south and southwest, normal elsewhere

(3) Note: Hot in the south, cold in the north

Current Status – British Overseas Territories

Current Status: Temperature

	January	February	March
Southern Europe	Hot (1)	Hot	Normal
Central Indian Ocean	Hot	Hot	Hot
Central Pacific	Hot (1)	Hot	Cold

Current Status: Rainfall

	January	February	March
	Normal	Normal	Mixed (2)
	Dry	Wet	Dry
	Normal	Very Wet	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:** Normal across western Iberia
- (2) Note:** Wet in Gibraltar, normal in Cyprus

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		
		May	May to July	August to October
Turkey	Temperature	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	Climatological odds	Likely to be drier than normal
Palestine	Temperature	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 drier than normal
Lebanon	Temperature	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 drier than normal
Jordan	Temperature	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 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: March to August – MENA – Middle East (2)

		Forecast summary		
		May	May to July	August to October
Syria	Temperature	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	Climatological odds	Much more likely to be drier than normal
Iraq	Temperature	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	Climatological odds	Much more likely to be drier than 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	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 – MENA – North Africa(1)

		Forecast summary		
		May	May to July	August to October
Mauritania	Temperature	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	Likely to be near-normal
Morocco	Temperature	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	Likely to be near-normal
Algeria	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	Likely to be near-normal
Tunisia	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	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.

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

		Forecast summary		
		May	May to July	August to October
Libya	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 wetter than normal	Likely to be wetter than normal	Likely to be near-normal
Egypt	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 wetter than normal	Likely to be wetter than normal	Likely to be near-normal
Eritrea	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	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.

Outlook: March to August – Caribbean

		Forecast summary		
		May	May to July	August to October
Caribbean Region	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	Much more likely to be wetter than normal	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	Much more 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 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		
		May	May to July	August to October
Southern Europe	Temperature	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	Climatological odds	Likely to be drier than normal
Central Indian Ocean	Temperature	Much more likely to be warmer than normal	Likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Climatological odds	Likely to be near-normal
Central Pacific	Temperature	Climatological odds	Likely to be colder than normal	Much more likely to be warmer than normal
	Rainfall	Likely to be near-normal	Climatological odds	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 [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)

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