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Asia: Monthly Climate Outlook March to December

Issued: June 2025

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Overview

Asia Current Status and Outlook – Temperature

Asia Current Status and Outlook – Rainfall

Global Outlook – Temperature

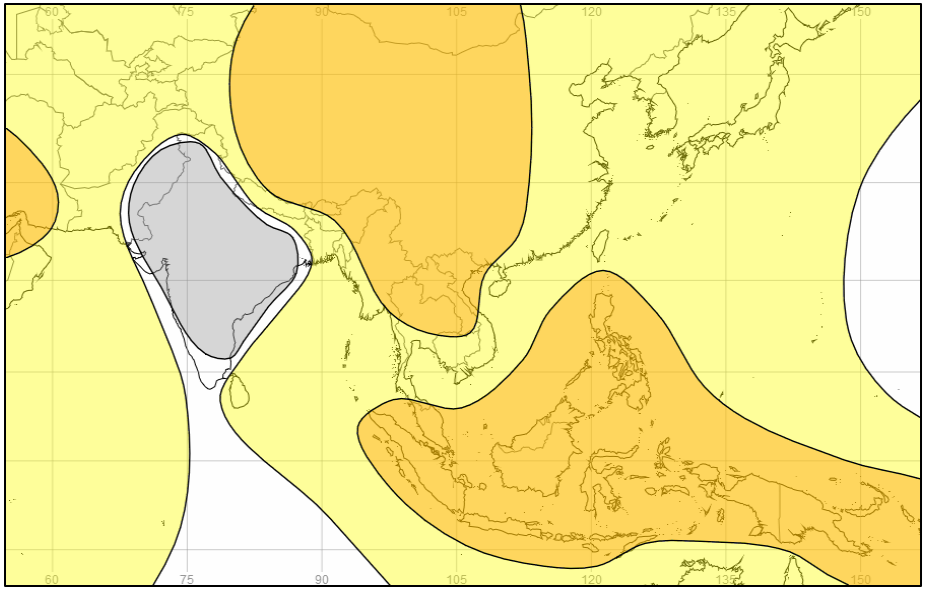
Global Outlook – Rainfall

Asia Current Status and Outlook - Temperature

Current Status: Southern Vietnam experienced below normal temperatures over the last three months. Temperatures were also below normal across India during May. Otherwise, above normal temperatures were experienced for most other areas.

Outlook: Warmer than normal conditions are likely across most the continent. The main exception is across India and Pakistan where there is an increased likelihood of near normal temperatures.

3-Month Outlook July to September - Temperature



Asia Current Status and Outlook - Rainfall

Current Status: Many parts of Indonesia, Papua New Guinea and Timor Leste were wet or very wet over the past three months, while conditions were more mixed over the rest of South and East Asia. Central Asia climatologically has a peak in precipitation during March. Here conditions were mixed although Afghanistan was very dry during April.

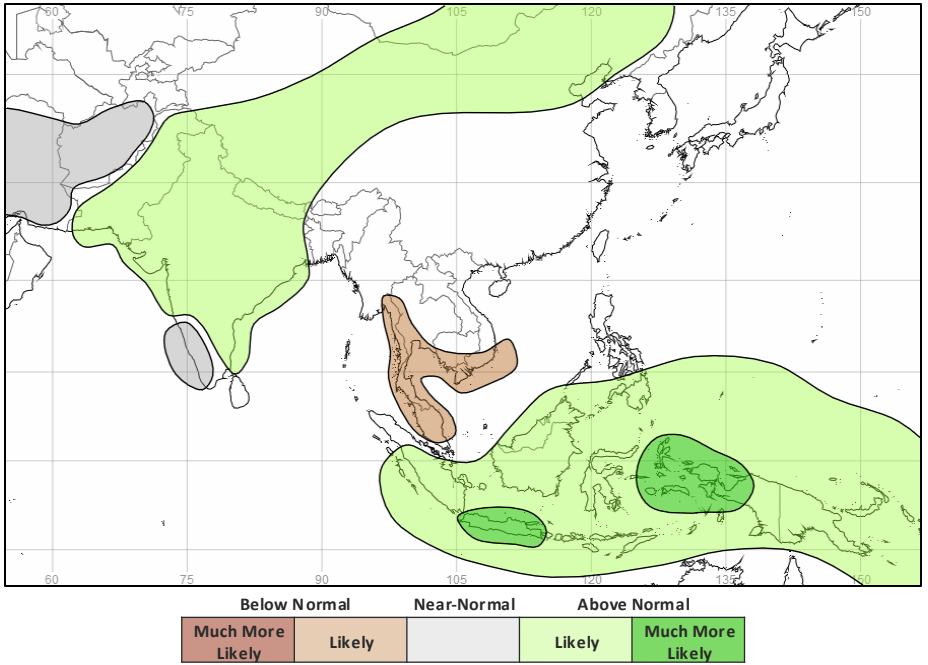
Outlook: This is the peak season for heavy rainfall during the South Asian monsoon. For India and Pakistan, wetter than normal conditions are most likely. However, for other regions of the sub-continent predictions are more finely balanced, with even a shift towards drier than normal conditions across parts of Myanmar. Forecasts are more uncertain for the East Asian monsoon, aside from central and northeast China, along with parts of Tibet, where wetter than normal conditions are more likely. Elsewhere, wetter than normal more likely across Indonesia; however, for southern Vietnam, there is an increased likelihood of drier than normal conditions.

Tropical cyclones

North Indian Ocean: Activity tends to peak during May and June before another increase in activity later in the year – associated with the advance and retreat of the South Asian monsoon.

Northwest Pacific: Tropical cyclones can form throughout the year in this basin though activity tends to peak between July and October. Latest forecasts suggest near normal activity over the coming months. Storms are more likely to develop in the Philippines and South China Seas than out in the Pacific.

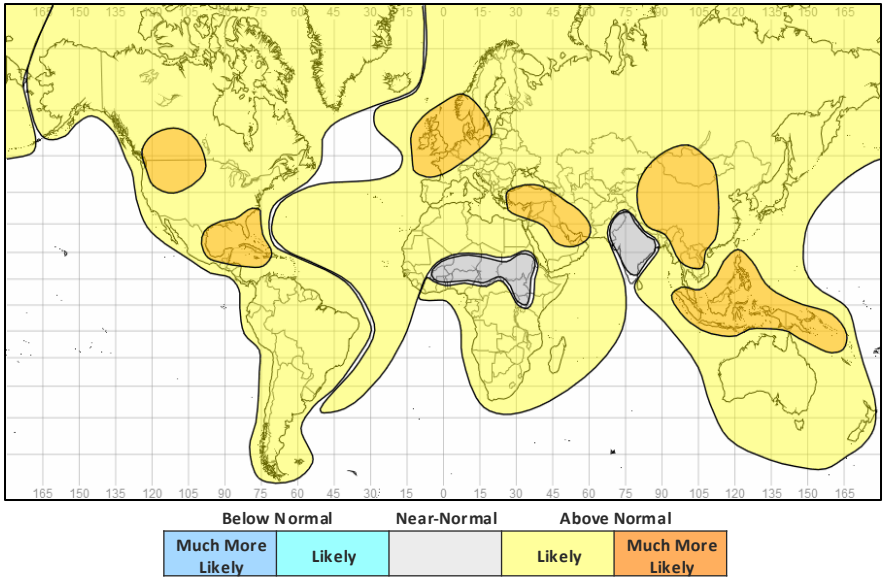
3-Month Outlook July to September - Rainfall



Global Outlook - Temperature

Outlook: Consistent with our warming climate, there is an increase in the likelihood of warmer than normal conditions across many regions of the world. There are a few notable exceptions though, with areas of the Sahel and the Indian sub-continent more likely have temperatures close to normal.

3-Month Outlook July to September - Temperature



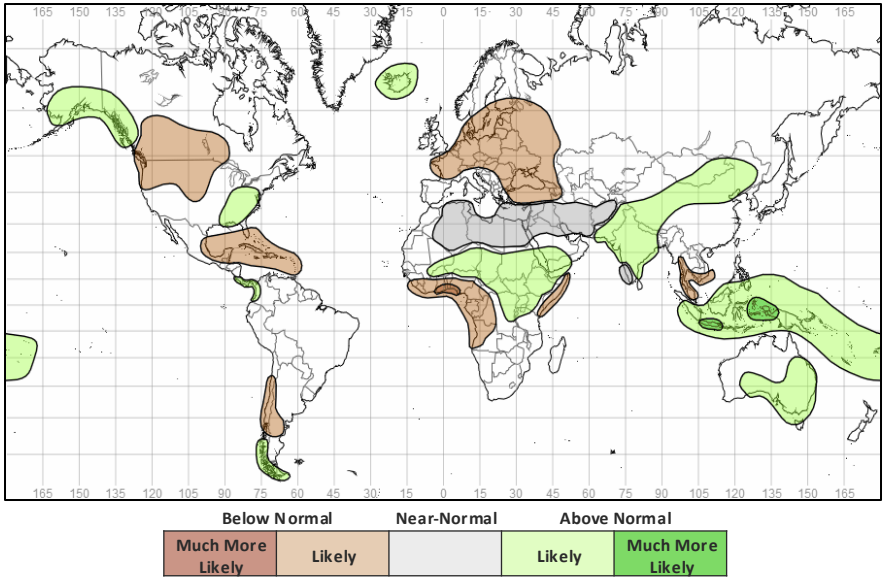
Global Outlook - Rainfall

Outlook:

El Niño-Southern Oscillation (ENSO) – Both oceanic and atmospheric indicators are consistent with ENSO-neutral conditions. ENSO-neutral is expected to prevail for at least the next three months. Longer term, the likelihood of La Niña developing increases during the northern hemisphere autumn. However, ENSO-neutral remains the most likely outcome. 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 Diploe (IOD) – The Indian Ocean Dipole (IOD) is currently neutral and therefore will provide limited predictive value through much of this period. However, towards the end of this period (early autumn in the northern hemisphere) long-range models show a small increase in the likelihood of negative IOD developing. Should a negative event develop, then this would lead to an increase likelihood of drier than normal conditions across East Africa, with a poor performance of the Short Rains. Conversely, the likelihood of wetter than normal increases across Indonesia.

3-Month Outlook July to September - Rainfall



Current Status

Current Status maps

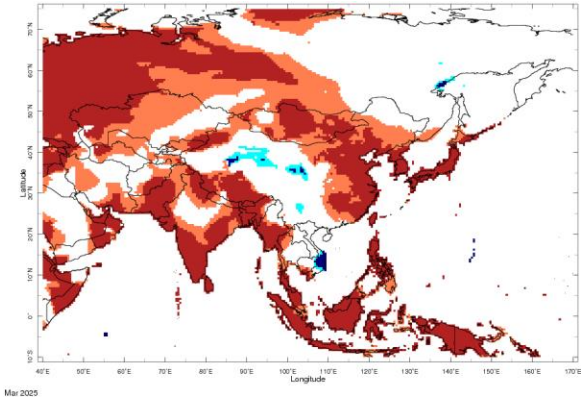
Central Asia

Southern Asia

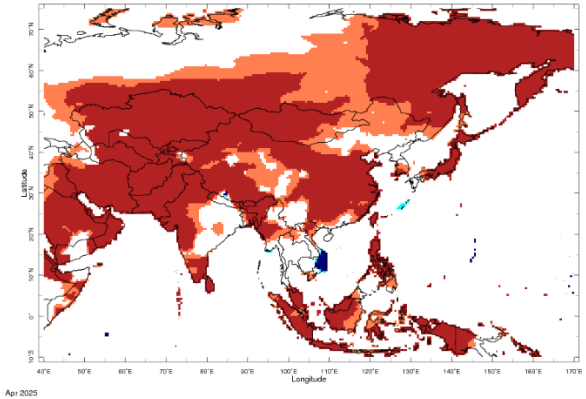
Southeast Asian Peninsula

Southeastern Asia / Indonesia

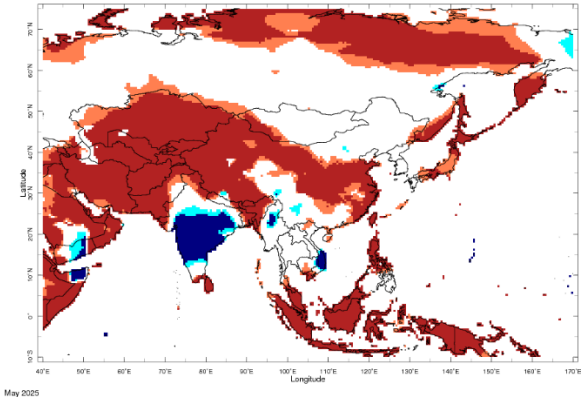
Current Status – Temperature percentiles



March



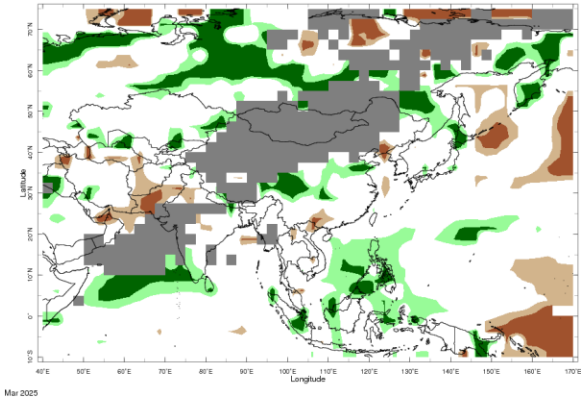
April



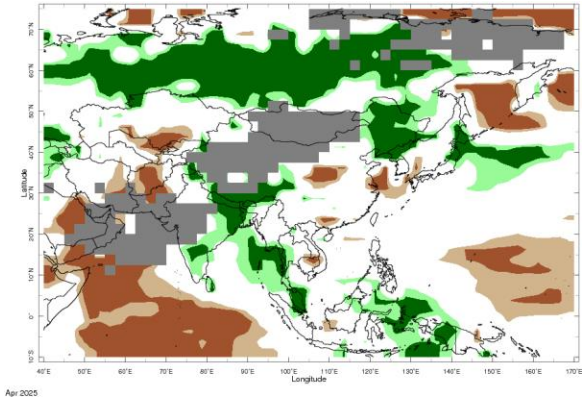
May

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.

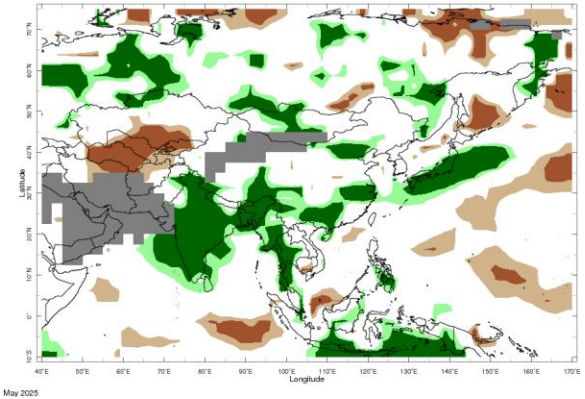
Current Status – Precipitation percentiles



March



April



May

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 10mm/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 – Central Asia

	Current Status: Temperature			Current Status: Rainfall		
	March	April	May	March	April	May
Afghanistan	Normal (1)	Hot	Hot	Normal	Dry	Dry
Tajikistan	Warm	Hot	Hot	Normal	Mixed (5)	Dry
Kyrgyzstan	Warm (2)	Hot	Hot	Mixed (4)	Mixed (6)	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: Hot in the far east
(2) Note: Hot in the east
(3) Note: Wet in the northeast, else normal
(4) Note: Very wet in the northwest, else normal
(5) Note: Dry in the west, else normal
(6) Note: Very dry in the east, else normal

Current Status – Southern Asia

	Current Status: Temperature			Current Status: Rainfall		
	March	April	May	March	April	May
Pakistan	Hot	Hot	Hot	Dry	Normal	Normal (5)
India	Warm	Mixed (1)	Cold (4)	Mixed (2)	Mixed (3)	Very Wet
Nepal	Warm	Normal	Warm	Wet	Normal	Normal (6)
Bangladesh	Hot	Hot	Hot	Normal	Normal	Very Wet
Sri Lanka	Hot	Hot	Hot	Wet	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: Hot in the west, south and in the far northeast, else normal
(2) Note: Wet in parts of the south, dry in parts of the northwest, else normal
(3) Note: Dry or very dry in some central parts, wet or very wet in the far north, else normal
(4) Note: Hot in the south and far northeast.
(5) Note: Wet in the north
(6) Note: Very Wet in the west

Current Status – Southeast Asian Peninsula

	Current Status: Temperature			Current Status: Rainfall		
	March	April	May	March	April	May
China	Mixed	Mixed (4)	Mixed (4)	Mixed	Mixed	Mixed (5)
Myanmar	Hot	Mixed (4)	Normal	Normal	Mixed (2)	Very Wet
Vietnam	Mixed (1)	Mixed (1)	Mixed (1)	Normal	Mixed (3)	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: Cold in the south, normal elsewhere
(2) Note: Dry in the north, wet in the south, else normal
(3) Note: Wet or very wet in coastal parts in the south, else normal
(4) Note: Mixed, but mainly warm or hot
(5) Note: Wet or very wet in the south and northeast, normal elsewhere

Current Status – Southeastern Asia / Indonesia

	Current Status: Temperature			Current Status: Rainfall		
	March	April	May	March	April	May
Indonesia	Hot	Hot	Hot	Normal	Normal	Mixed (1)
Papua New Guinea	Hot	Mixed	Hot	Wet	Normal	Normal
Timor-Leste	Hot	Hot	Hot	Normal	Wet	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: Large regional variation but many areas Wet or Very Wet

Outlooks

Outlooks – Notes for use

Central Asia

Southern Asia

Southeast Asian Peninsula

Southeastern Asia / Indonesia

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: July to December – Central Asia

		Forecast summary		
		July	July to September	October to December
Afghanistan	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be near-normal	Likely to be drier than normal
Tajikistan	*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	Likely to be drier than normal
Kyrgyzstan	*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	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: July to December – Southern Asia (1)

		Forecast summary		
		July	July to September	October to December
Pakistan	*Temperature*	Climatological odds	Likely to be near-normal in the east, Likely to be warmer than normal elsewhere	Climatological odds
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Climatological odds
India	*Temperature*	Much more likely to be warmer than normal in the far northeast, Likely to be colder than normal elsewhere	Much more likely to be warmer than normal in the far northeast, Likely to be near-normal elsewhere	Climatological odds
	Rainfall	Likely to be wetter than normal	Likely to be near-normal in the far southwest, Likely to be wetter than normal elsewhere	Climatological odds
Nepal	*Temperature*	Climatological odds	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	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: July to December – Southern Asia (2)

		Forecast summary		
		July	July to September	October to December
Bangladesh	*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
Sri Lanka	*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: July to December – SE Asian Peninsula

		Forecast summary		
		July	July to September	October to December
China	*Temperature*	Likely to be warmer than normal	**Much more likely to be warmer than normal**	Climatological odds
	Rainfall	**Likely to be wetter than normal** in Tibet and the north, Climatological odds elsewhere	**Likely to be wetter than normal** in Tibet and the north, Climatological odds elsewhere	Climatological odds
Myanmar	*Temperature*	Likely to be warmer than normal	**Much more likely to be warmer than normal**	Climatological odds
	Rainfall	Climatological odds	Likely to be drier than normal in the south and west, Climatological odds elsewhere	Climatological odds
Vietnam	*Temperature*	Likely to be warmer than normal	**Much more likely to be warmer than normal** in the north, Likely to be warmer than normal elsewhere	Climatological odds
	Rainfall	Likely to be drier than normal in the south, Climatological odds in the north	Likely to be drier than normal in the south, Climatological odds in the north	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: July to December – SE Asia / Indonesia

		Forecast summary		
		July	July to September	October to December
Indonesia	*Temperature*	**Much more likely to be warmer than normal**	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	**Much more likely to be wetter than normal**	**Likely to be wetter than normal** but **Much more likely to be wetter than normal** in Java and the east	Likely to be wetter than normal
Papua New Guinea	*Temperature*	**Much more likely to be warmer than normal**	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	**Much more likely to be wetter than normal**	**Likely to be wetter than normal**	Likely to be wetter than normal
Timor-Leste	*Temperature*	**Much more likely to be warmer than normal**	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	**Much more 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.

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 (WMO Factsheet), including:

The South Asian Climate Outlook Forum (SASCOF) http://www.imdpune.gov.in/Clim_RCC_LRF/Index.html
Latest Output (May 2025) - https://rimes.int/SASCOF-31

Technical notes

The WMO lead centre for long-range forecast multi-model ensemble (LC-LRFMME) produce a probabilistic multi-model mean forecast product in which the multi-model mean is based on uncalibrated model output with a model weighting system that accounts for errors in both the forecast probability and ensemble mean. The method used by LC-LRFMME separately computes a probabilistic forecast and calculates tercile probabilities with respect to climatology for each individual model, before creating the weighted multi-model mean. In seasonal prediction, shifts in the tercile probabilities are always closely associated with the shifts in the probability of extremes, and we can use the probability of terciles to provide information on the likelihood of above- or below- normal conditions. The thresholds used in the forecast summaries are defined below.

Seasonal forecasts rely on the aspects of the global weather and climate system that are more predictable, such as tropical sea-surface temperatures or the El Niño–Southern Oscillation (ENSO). However, whilst such forecasts may be able to show what is more or less likely to occur, they acknowledge that other outcomes are possible.

In addition, forecast uncertainty generally increases with longer range so the 6-month outlook is less reliable. It is also based on less information, because not all models are available to this range. Therefore the information presented here should be used to raise early awareness of potential hazards, and should be updated with the 3-month outlook when available.

In the report and tables precipitation is referred to as rainfall but in fact encompasses any form of water, liquid or solid, falling from the sky. Temperatures are the (2 metre) near-surface temperature.

Description	Definition
Much more likely to be below normal	When probability of lower tercile > 70%
More likely to be below normal	When probability of lower tercile is 40-70%
Likely to be near-normal	When probability of middle tercile is 40-70%
Much more likely to be near-normal	When probability of middle tercile > 70%
Likely to be above normal	When probability of upper tercile is 40-70%
Much more likely to be above normal	When probability of upper tercile > 70%
Climatological odds	When probabilities for all categories are roughly 33%

Global Producing Centres (GPC) forecasts used by WMO LC-LRFMME:

- GPC 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)

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