PRESS RELEASE

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पृथ्वी विज्ञान मंत्रालय (एम. ओ. ई. एस.)

Ministry of Earth Sciences (MoES)

भारत मौसम विज्ञान विभाग

INDIA METEOROLOGICAL DEPARTMENT

Outlook for the Rainfall during Second Half of the SW Monsoon Season (August – September) and Monthly Rainfall and Temperature during August, 2025

Highlights

a) **Above Normal rainfall (>106% of Long Period Average (LPA))** is most likely over the country during the **second half of the southwest monsoon season (August to September) 2025.** During the second half of the monsoon season, normal to above normal rainfall is most likely over most parts of the country except many parts of northeast and adjoining areas of east India, some isolated regions of central India and south western parts of peninsular India where below normal rainfall is likely.

b) **During August 2025,** rainfall over the country is likely to be **within the normal range** (**94% to 106% of the LPA**. Normal to above normal rainfall is very likely over many parts of the country except many parts of central India, western parts of peninsular India, northeast India and some parts of east and northwest India where it is likely to be below normal.

c) During August 2025, monthly average maximum temperatures are expected to remain normal to below normal in many regions, except northeast India and some areas of the northwest, east and many parts southern peninsula, where they are likely to be above normal. In August 2025, the monthly average minimum temperatures are expected to be normal to above normal over most parts of the country. However, below normal minimum temperatures are likely over some parts of northwest India.

d) Currently, neutral El Nino-Southern Oscillation (ENSO) conditions are prevailing over the equatorial Pacific region. The latest Monsoon Mission Climate Forecast System (MMCFS) as well as other climate model forecasts indicate that the neutral ENSO conditions are likely to continue during remaining part of the monsoon season.

e) At present, neutral Indian Ocean Dipole (IOD) conditions are observed over the Indian Ocean. The latest MMCFS forecast as well as other climate model forecasts indicates that the neutral IOD conditions are likely to turn into weak negative IOD conditions at the end of the monsoon season.

f) The IMD will issue the forecast for rainfall during September by the end of August 2025.

1. Background

Since 2021, the India Meteorological Department (IMD) has been using a new strategy for issuing operational long range forecasts on a monthly and seasonal scales for rainfall and temperatures over the country. For this, a newly developed Multi-Model Ensemble (MME) forecasting system is used. The MME system utilizes simulations from the coupled global climate models (CGCMs) sourced from various global climate prediction and research centers, including IMD's Monsoon Mission Climate Forecasting System (MMCFS) model.

IMD had issued the first stage forecast for the 2025 southwest monsoon seasonal (June to September) rainfall over the country on 15th April and update for the forecast on 27th May 2025. In addition, IMD also issued the forecast for rainfall during June on 27th May, 2025 and during July on 30th June, 2025. Southwest Monsoon Rainfall Forecast for the Seasonal Rainfall during August-September, 2025 and Monthly Rainfall and Temperature Outlook for August 2025 is presented here.

2. Probabilistic Forecast of Rainfall over the Country during August to September (Aug+Sep), 2025

The rainfall averaged over the entire country from August to September is likely to be **above normal (>106% of the Long Period Average (LPA)).** The LPA of rainfall over the country as a whole during the August to September period, based on historical data of 1971 to 2020 is 422.8 mm.

The spatial distribution of probabilistic forecasts for the tercile categories (above normal, normal, and below normal) of rainfall during the August to September 2025 period is presented in **Figure 1**. During the second half of the monsoon season, normal to above normal rainfall is most likely over most parts of the country except many parts of northeast and adjoining areas of east India, some isolated regions of central India and south western parts of peninsular India where below normal rainfall is likely.

3. Probabilistic Forecast for the Rainfall over the Country during August 2025

The rainfall averaged over the entire country for **August 2025 is likely to be normal (94 to 106 % of LPA).** The LPA of the rainfall over the country as a whole during August, based on data of 1971-2020 is 254.9 mm.

The spatial distribution of probabilistic forecasts for the tercile categories (above normal, normal, and below normal) of rainfall during August 2025 is illustrated in **Figure 2**. Normal to above normal rainfall is very likely over many parts of the country except many parts of central India, western parts of peninsular India, northeast India and some parts of east and northwest India where it is likely to be below normal.

4. Probabilistic Forecast of Temperatures over the Country during August 2025

Fig.3a and Fig.3b show forecast probabilities of the maximum and minimum temperatures respectively for August 2025. During August 2025 (Fig. 3a), monthly average maximum temperatures are expected to remain normal to below normal in many regions, except northeast India and some areas of the northwest, east and many parts southern peninsula, where they are likely to be above normal. There is no signal by the model over the white shaded areas within the land region of the country.

In August 2025, the monthly average minimum temperatures are expected to be normal to above normal over most parts of the country. However, below normal minimum temperatures are likely over some parts of northwest India (Fig.3b). There is no signal by the model over the white shaded areas within the land region of the country.

5. Sea Surface Temperatures (SST) conditions in the Pacific and the Indian Oceans

Currently, neutral El Nino-Southern Oscillation (ENSO) conditions are prevailing over the equatorial Pacific region. The latest Monsoon Mission Climate Forecast System (MMCFS) as well as other climate model forecasts indicate that the neutral ENSO conditions are likely to continue during the remaining period of the monsoon season.

At present, neutral Indian Ocean Dipole (IOD) conditions are observed over the Indian Ocean. The latest MMCFS forecast as well as other climate model forecasts indicates that the neutral IOD conditions are likely to turn into weak negative IOD conditions at the end of the monsoon season.

6. Extended Range Forecast and Short to Medium Range Forecast Services

IMD also provides extended range forecasts (7–day averaged forecasts for the next four weeks) of rainfall and maximum & minimum temperatures over the country updated every week on Thursday. This is based on the Multi-model ensemble dynamical Extended Range Forecasting System currently operational at IMD. The extended range forecasts are available through the IMD website https://mausam.imd.gov.in/imd_latest/contents/extendedrangeforecast.php).

The extended range forecast is followed by a short to medium range forecast issued daily by IMD. The forecasts are available through the IMD website https://nwp.imd.gov.in/gfsproducts_cycle00_mausam.php.

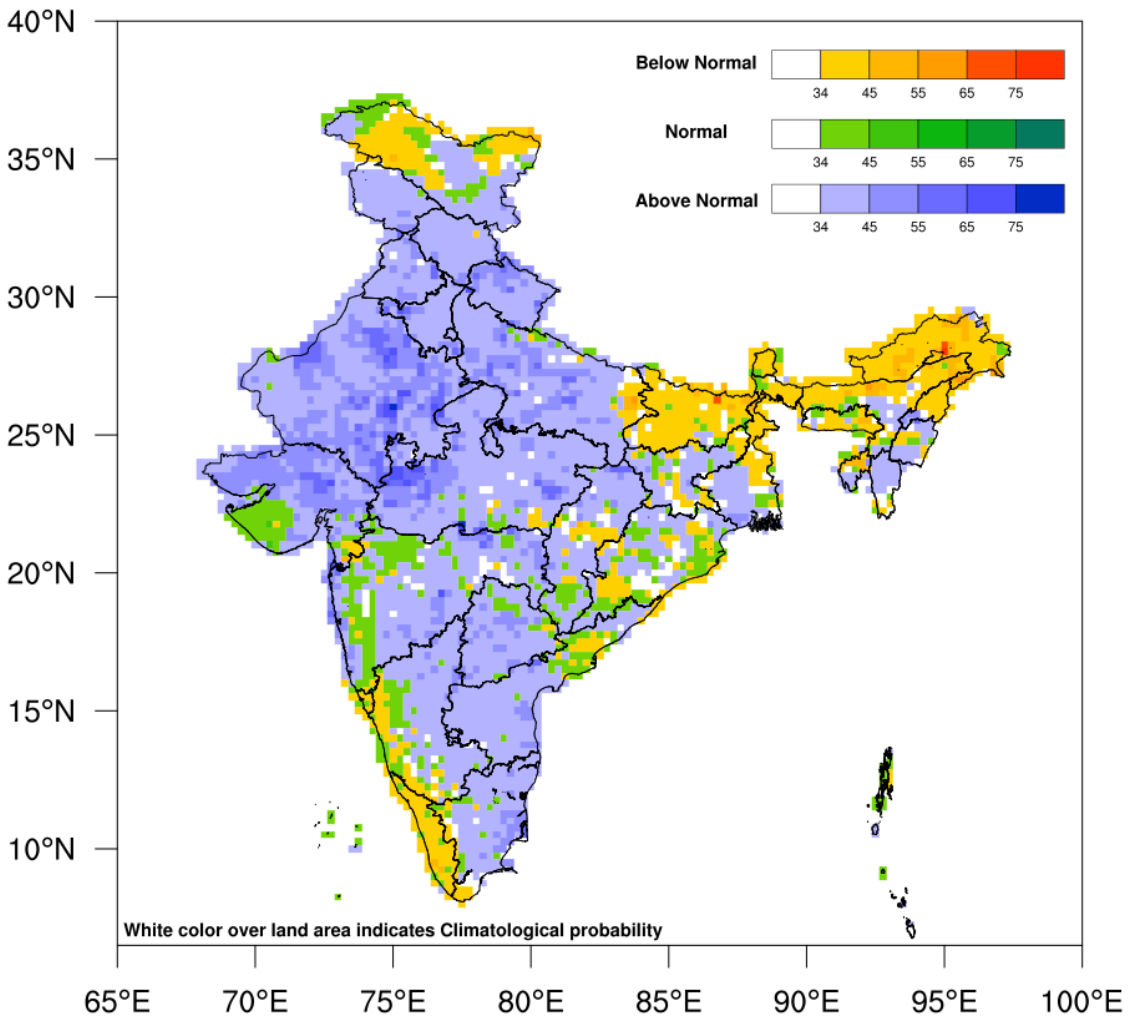

Fig.1. Probability Forecast of Tercile Categories of Rainfall over India during the Second Half (August to September) of the Southwest Monsoon Season, 2025. The figure illustrates the most likely tercile categories (below normal, normal, and above normal) of rainfall over India during the specified period, along with their corresponding probabilities. The model has no forecasting signal over the white shaded areas within the land region of the country. The probability is equally distributed among the tercile categories (33.33% each).

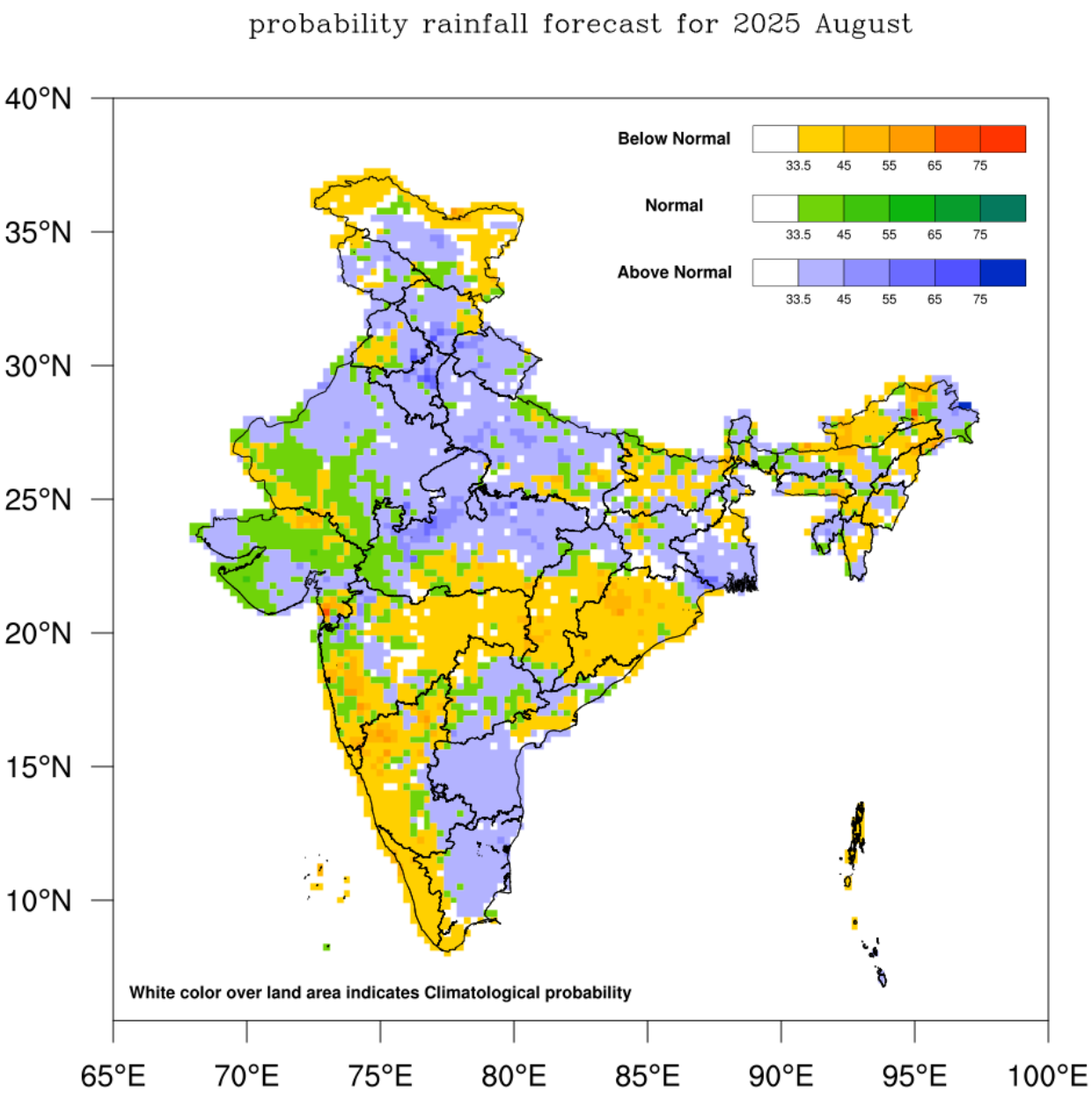

Fig.2. Probability Forecast of Tercile Categories of Rainfall over India during August, 2025. The figure illustrates the most likely tercile categories (below normal, normal, and above normal) of rainfall over India during the month of August, along with their corresponding probabilities. The model has no forecasting signal over the white shaded areas within the land region of the country. The probability is equally distributed among the tercile categories (33.33% each).

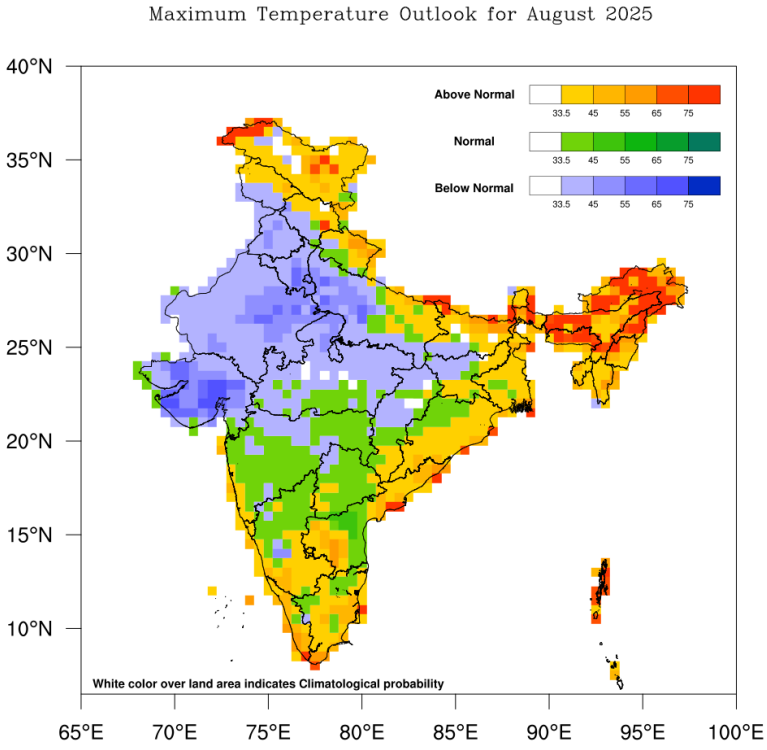

Fig.3a. Probability forecast of Maximum Temperature during August 2025.

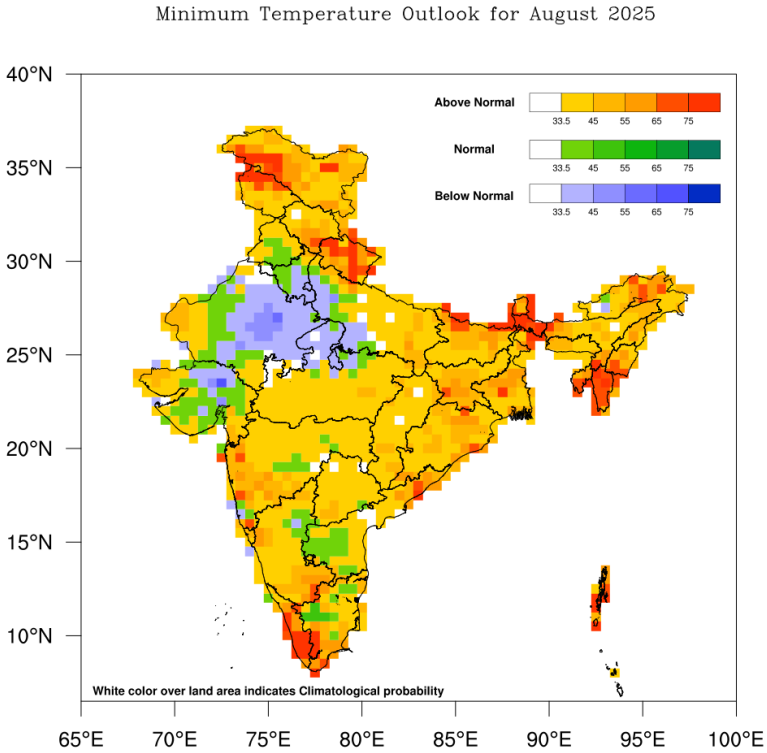

Fig.3b. Probability forecast of Minimum Temperature during August 2025

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