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 Temperatures during Winter Season (Dec.2025- Feb.2026) and Forecast for the Rainfall and Temperatures during December 2025

Highlights

a) During the upcoming winter season (December 2025 to February 2026 normal to below-normal minimum temperatures are likely over most parts of central India and adjoining peninsular and Northwest India. Above normal minimum temperatures are likely over the remaining parts of the country. During the season, maximum temperatures are expected to be normal to below normal across most parts of the country. However, some regions, including parts of Northwest India, Northeast India, and areas along the foothills of the Himalayas are likely to experience above-normal maximum temperatures.

b) During the upcoming winter season (December 2025 to February 2026), parts of central India, as well as some regions in northwest and northeast India, are likely to experience above-normal occurrences of cold wave days.

c) During December 2025, Normal to below-normal monthly minimum temperatures are likely over most parts of central and northwest India, northern parts of peninsular India. Above normal minimum temperatures are likely over the remaining parts of the country. The maximum temperatures during December 2025 are likely to be above normal over most parts of the country except many areas of central India and adjoining northwest and peninsular India, where normal to below maximum temperatures are likely.

d) The occurrence of cold waves during December 2025 is likely to be above normal over parts of northwest, central and northeast India.

e) Monthly rainfall for December 2025 over South Peninsular India consisting of five meteorological subdivisions (Tamil Nadu, Puducherry & Karaikkal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe and South Interior Karnataka) is most likely to be normal (69-131% of Long Period Average (LPA)). Monthly rainfall over the country as a whole during December 2025 is most likely to be normal (79-121 % of the long-period average (LPA)). Above-normal rainfall is expected over many areas of peninsular India and west-central India, as well as parts of east-central and northeast India. The below normal rainfall is likely over remaining parts of the coluntry.

Outlook for the Temperatures during Winter Season (Dec.2025- Feb.2026) and Forecast for the Rainfall and Temperatures during December 2025

1. Background

India Meteorological Department (IMD) has recently adopted a new strategy using Multi-Model Ensemble (MME) based forecasting system for issuing monthly and seasonal outlooks of rainfall and temperature over the country. The MME approach uses the coupled global climate models (CGCMs) from different global climate prediction and research centers including Monsoon Mission Coupled Forecast System (MMCFS) model used by IMD for seasonal forecast.

IMD has prepared a seasonal outlook for temperatures for the upcoming Winter Season (December 2025 to February 2026), including an outlook for cold waves and a monthly outlook for rainfall and temperature for December 2025.

2. Seasonal Temperature Forecast for December 2025 to February 2026

Fig.1 and Fig.2 show the probability forecast during December 2025 to February 2026 (DJF 2025/26) season for the minimum and maximum temperatures, respectively. It indicates that during the upcoming winter season (December 2025 to February 2026), normal to below-normal minimum temperatures are likely over most parts of central India and adjoining peninsular and Northwest India. Above normal minimum temperatures are likely over the remaining parts of the country (Fig.1).

During the the season, maximum temperatures are expected to be normal to below normal across most parts of the country. However, some regions, including parts of Northwest India, Northeast India, and areas along the foothills of the Himalayas, are likely to experience above-normal maximum temperatures (Fig.2).

3. Cold wave outlook for the December 2025 to February 2026 Season

The forecast for the number of coldwave days compared to the normal number of coldwave days in the country for the December 2025 to February 2026 season is presented in Figure 3. The above normal cold wave days are likely over parts of central India, as well as some regions in northwest and northeast India during the upcoming winter season (December 2025 to February 2026).

Above-normal cold wave conditions may increase health risks for vulnerable groups, including senior citizens, children, and individuals with underlying medical conditions. Early-morning fog could reduce visibility and disrupt road, rail, and air transportation, while stagnant atmospheric conditions may further deteriorate air quality in some urban areas. A rise in heating demand is also anticipated. Weather-sensitive sectors—such as agriculture, horticulture, and daily-wage labour—may face operational challenges during extended cold spells. Authorities are advised to maintain heightened preparedness, and the public should adopt essential safety measures and follow local advisories. Both the public and concerned agencies are encouraged to regularly monitor the Impact-Based Forecast (IBF) issued through IMD's daily early-warning services for timely updates

4. Probabilistic Forecast for the Temperature during December 2025

Fig.4 and Fig.5 show the probability forecast for the minimum and maximum temperatures, respectively during December 2025. Normal to below-normal monthly minimum temperatures are likely over most parts of central and northwest India, northern parts of peninsular India. Above normal minimum temperatures are likely over the remaining parts of the country (Fig.4). The maximum temperatures(Fig.5) during December 2025 are likely to be above normal over most parts of the country except many areas of central India and adjoining northwest and peninsular India, where normal to below maximum temperatures are likely.

5. Cold wave outlook for the December 2025

The forecast for the number of coldwave days compared to the normal number of coldwave days in the country for December 2025 is presented in Figure 6). The occurrence of cold waves during December 2025 is likely to be above normal over parts of northwest, central and northeast India.

6. Probabilistic Forecast for the Rainfall during December 2025

Monthly rainfall for December 2025 over South Peninsular India consisting of five meteorological subdivisions (Tamil Nadu, Puducherry & Karaikkal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe and South Interior Karnataka) is most likely to be normal (69-131% of Long Period Average (LPA)). The LPA of rainfall over South Peninsular India during December, based on data from 1971 to 2020, is about 43.0 mm. Monthly rainfall over the country as a whole during December 2025 is most likely to be normal (79-121 % of the long-period average (LPA)). The LPA of rainfall over the country as a whole during the month of December, based on data from 1971 to 2020, is about 15.9 mm.

The probabilistic forecast of tercile rainfall categories (above normal, normal, and below normal) over the country for the month of December 2025 is shown in Fig.7. Normal to above-normal rainfall is expected over many areas of peninsular India and west-central India, as well as parts of east-central and northeast India. The below-normal rainfall is likely over remaining parts of the country. In the map, dotted areas represent areas that receive climatologically very less rainfall during December. There is no signal by the model over the white-shaded areas within the land region of the country.

7. SST conditions in the Pacific and the Indian Oceans

Currently, weak La Niña conditions prevail over the equatorial Pacific region. The latest forecasts from the Monsoon Mission Climate Forecast System (MMCFS) and other climate models suggest a moderate to fairly high likelihood (around 62%) of La Niña conditions persisting through the DJF 2025/26 season, with a probable transition to neutral ENSO conditions thereafter.

In addition to ENSO conditions over the Pacific, other factors, such as the Indian Ocean Sea Surface Temperatures (SSTs), also influence the Indian climate. Currently, negative Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest MMCFS forecast

suggests that these negative IOD conditions are likely to weaken, with an increasing probability of a transition to neutral conditions during the DJF season and thereafter.

8. Extended Range Forecast and short to medium-range forecasting services

IMD also provides extended range forecasts (7–day averaged forecasts for the next four weeks) of rainfall and maximum and 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

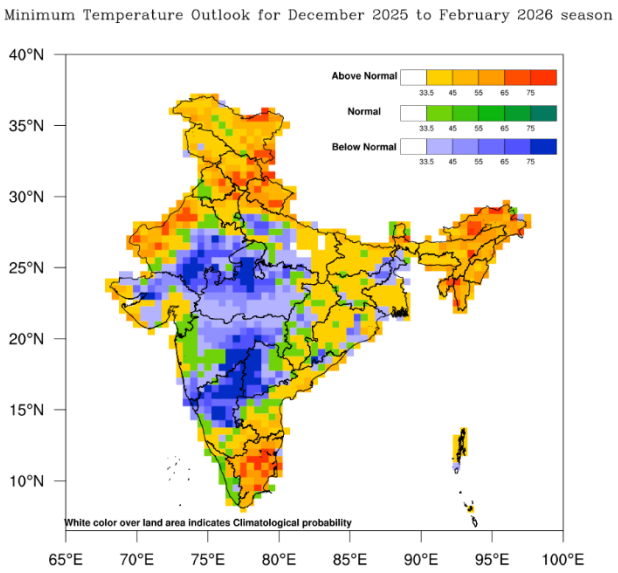

Fig 1. Probability forecast of Minimum Temperature for Dec. 2025 to Feb. 2026

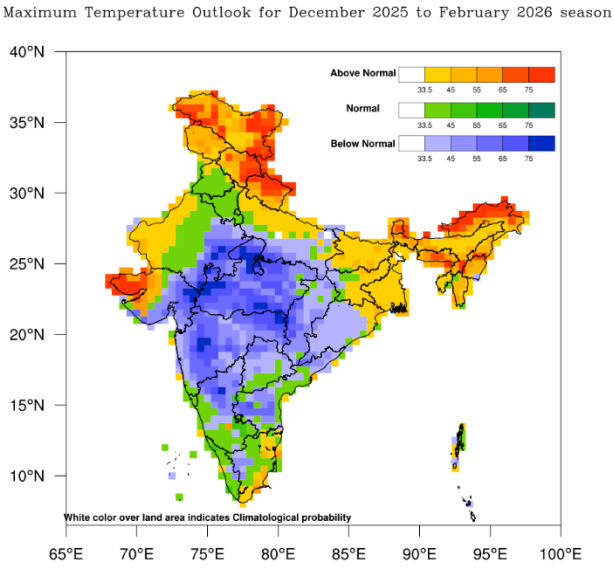

Fig 2. Probability forecast of Maximum Temperature for Dec. 2025 to Feb. 2026

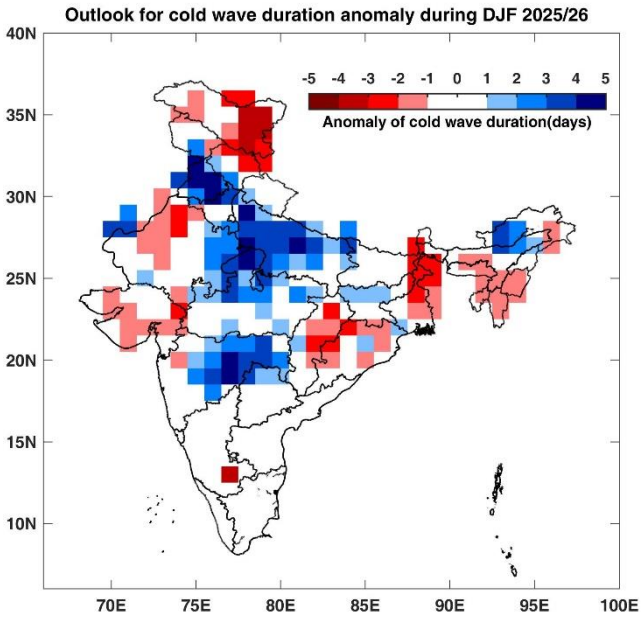

Fig 3. Anomaly (Deviation from the normal) of Cold Wave days for Dec. 2025 to Feb. 2026

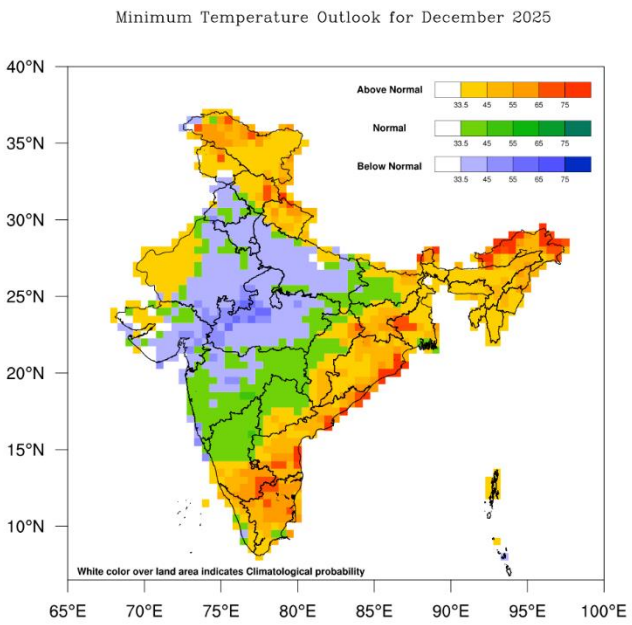

Fig 4. Probability forecast of Minimum Temperature for December 2025

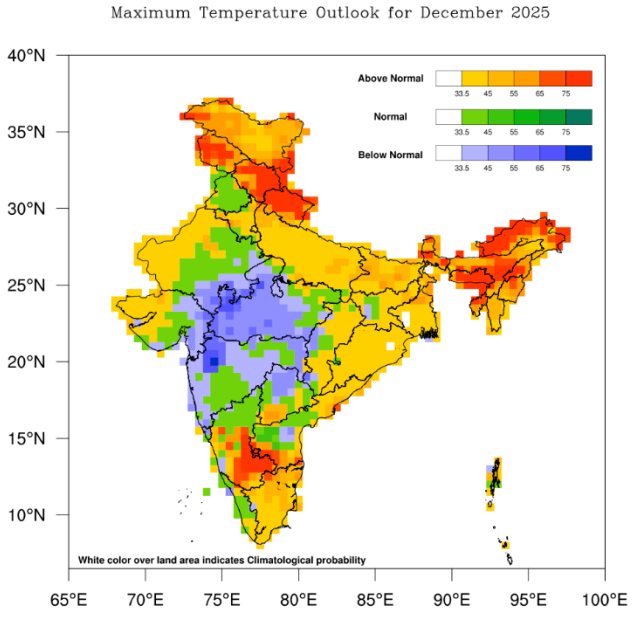

Fig 5. Probability forecast of Maximum Temperature for December 2025

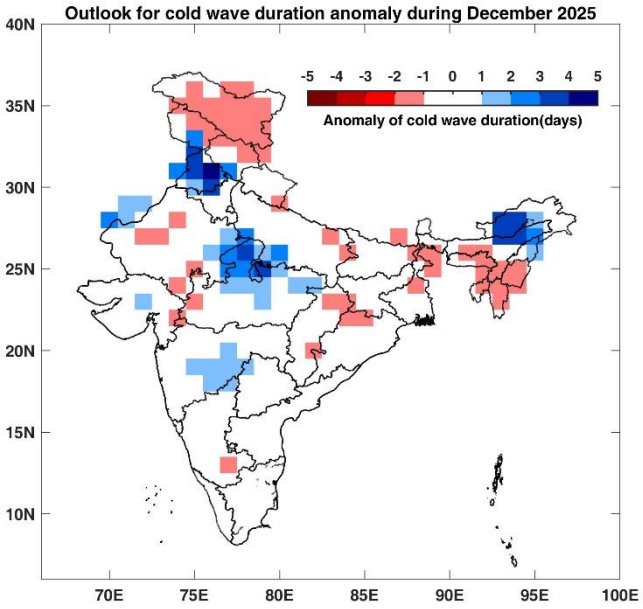

Fig 6. Anomaly (Deviation from the normal) of Cold Wave days for Dec.2025

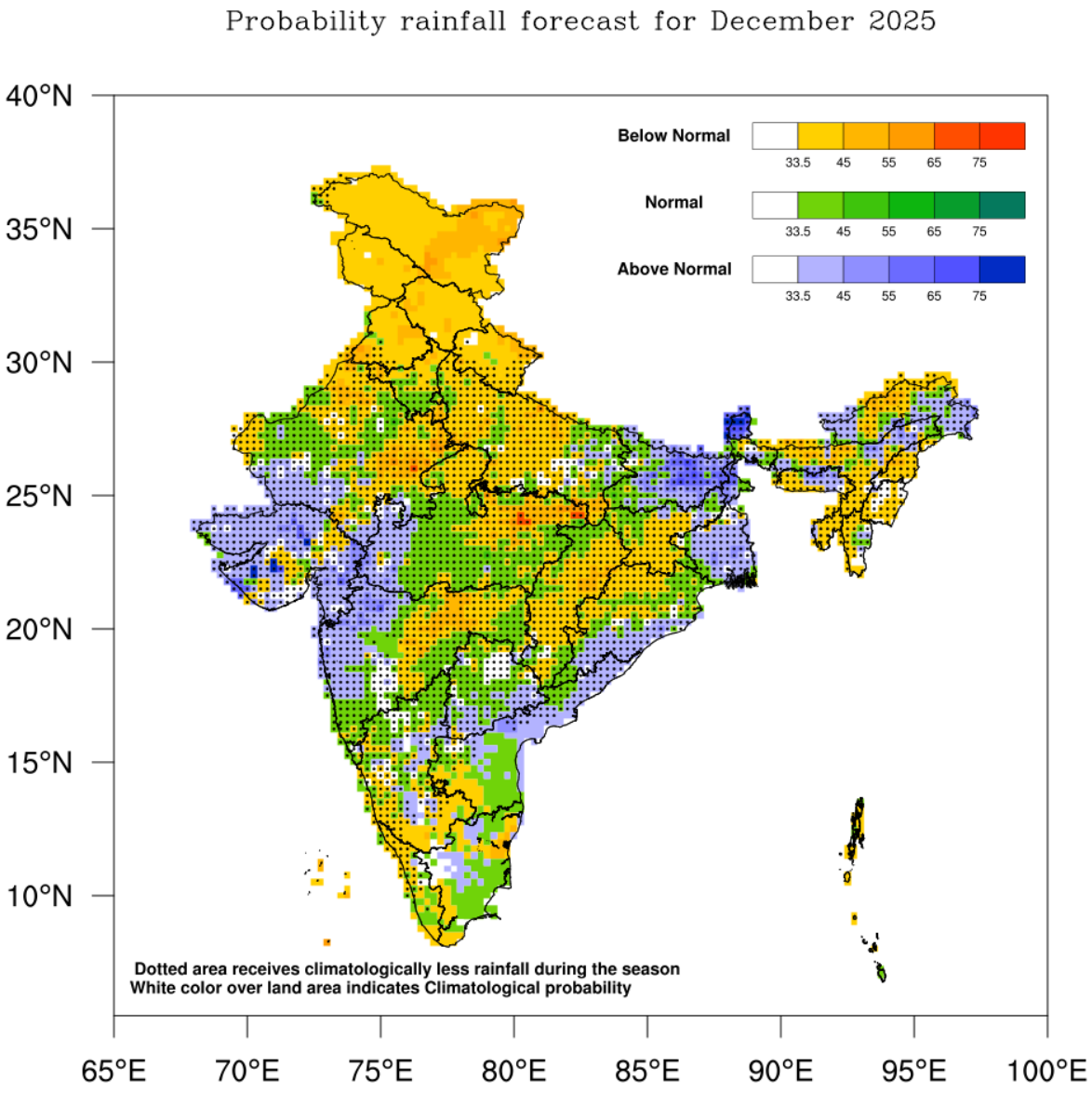

Fig.7. Probability forecast of tercile categories* (below normal, normal, and above normal) of rainfall over India during December 2025. The figure illustrates the most likely categories as well as their probabilities. The dotted area shown in the map climatologically receives very less rainfall during December. There is no signal by the model over the white-shaded areas within the land region of the country.

(*Tercile categories have equal climatological probabilities of 33.33% each).