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Ministry of Earth Sciences (MoES)



भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

Seasonal outlook for Rainfall during Post-Monsoon Season 2026 and Rainfall and Temperature during October 2026

Highlights

- Seasonal rainfall during October to December (OND) over South Peninsular India** consisting of five meteorological subdivisions (Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe, and South Interior Karnataka) **is most likely to be normal (88-112% of Long Period Average (LPA))**. Most parts of the country are expected to receive below-normal rainfall, except some areas of Northwest India and southern parts of the peninsular India, where rainfall is likely to be normal to above-normal.
- Monthly rainfall over the country as a whole during October 2026 is likely to be below normal (<85 % of LPA)**. In October 2026, most parts of the country are expected to receive below-normal rainfall except, some areas in Northwest India, southern parts of peninsular India and isolated areas of the East India, which may experience normal to above normal rainfall.
- In October, above-normal maximum temperatures are likely over most parts of the country except some regions of the northeast India and isolated pockets of central and northwest India where normal maximum temperatures are expected. During October, above normal minimum temperatures are likely over most parts of the country except in most parts of Northeast India where normal to below normal minimum temperatures are likely.
- Strong El Niño conditions are currently prevailing over the equatorial Pacific Ocean, with sea surface temperatures well above average (especially in the eastcentral and eastern equatorial Pacific). Forecasts from the Monsoon Mission Coupled Forecast System (MMCFS) and other major climate models indicate that El Niño will continue to strengthen through the end of the year.
- Neutral Indian Ocean Dipole (IOD) conditions are currently prevailing over the Indian Ocean. The latest MMCFS forecast indicates that neutral IOD conditions are likely to continue during NE Monsoon season.
- IMD will issue the outlook for the rainfall and temperature during November 2026 towards the end of October 2026.**

1. Background

South Peninsular India consisting of five meteorological subdivisions (Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe, and South Interior Karnataka) receives about 30% of its annual rainfall during the northeast monsoon season (October to December). Tamil Nadu, Puducherry, and Karaikal receive approximately 48% of their annual rainfall during the northeast monsoon season. Recognizing the significance of this period, IMD has been issuing seasonal rainfall forecasts for the south peninsula using statistical models since 1998 and continues to enhance the skill of these forecasting systems.

In 2021, IMD adopted a new strategy for issuing monthly and seasonal operational forecasts for rainfall over the country. This approach combines the existing statistical forecasting system with a newly developed Multi-Model Ensemble (MME)–based system. The MME technique use coupled global climate models (CGCMs) from various international climate prediction and research centers, including IMD's own Monsoon Mission Climate Forecast System (MMCFS). Using this strategy, IMD issues a range of seasonal and monthly forecasts for rainfall and temperature (maximum & minimum).

The rainfall forecast for the post-monsoon season (October to December 2026), along with the rainfall and temperature outlook for October 2026 is given below.

2. Probabilistic Forecast for the rainfall during October to December (OND) 2026

The rainfall averaged over south Peninsular India during post-monsoon season (October to December (OND)) **is most likely to be normal (88-112% of Long Period Average (LPA))**. The LPA of rainfall over the South Peninsular India during the post-monsoon season based on data of 1971 to 2020 is about 334.1 mm.

The spatial distribution of probabilistic forecasts for the tercile categories (above normal, normal, and below normal) of rainfall over the country for the post-monsoon season is shown in Fig.1. The probability forecast indicates that most parts of the country are expected to receive below-normal rainfall, except some areas of Northwest India and southern parts of the peninsular India, where rainfall is likely to be normal to above-normal. The dotted area shown in the map receives very less rainfall during October to December season as per climatology and the white shaded areas within the main land represent no signal from the model.

Below-normal rainfall during the Rabi season could adversely affect soil moisture, water availability, irrigation requirements, and agricultural productivity, while increasing the likelihood of dry spells, moisture stress, and reduced recharge of reservoirs and groundwater. Although extreme weather events are generally less frequent during this season, their occurrence and localized impacts cannot be ruled out.

In view of these potential risks, anticipatory preparedness and mitigation measures may be initiated well in advance. IMD's early warning and advisory services, including weather forecasts, Impact-Based Forecasts (IBF), and risk-based advisories, may be effectively utilized to support timely decision-making. Authorities and stakeholders are advised to regularly assess water availability, optimize irrigation resources, promote water conservation and efficient water use, and implement appropriate agricultural contingency measures. Timely action based on IMD advisories can help strengthen preparedness,

improve resource management, and minimize potential impacts on agriculture and livelihoods.

3. Probabilistic Forecast for the rainfall during October 2026

The rainfall averaged over the country as a whole during October 2026 **is likely to be below normal (< 85 % of LPA)**. The LPA of rainfall over the country during the month of October based on data of 1971 to 2020 is about 75.4 mm.

The spatial distribution of probabilistic forecasts for tercile categories (above normal, normal, and below normal) of rainfall over the country during October 2026 is shown in Fig.2. The Forecast suggests that most parts of the country are expected to receive below-normal rainfall except, some areas in Northwest India, southern parts of peninsular India and isolated areas of the East India, which may experience normal to above normal rainfall. The white shaded areas within the land area represent no signal from the model. The dotted area shown in the map receives very less rainfall during October as per climatology.

4. Probabilistic Forecast of Temperatures over the Country during October 2026

Fig.3a and Fig.3b show probabilistic forecast of the maximum and minimum temperatures respectively during October 2026.

In October, above-normal maximum temperatures are likely over most parts of the country except some regions of the northeast India and isolated pockets of central and northwest India where normal maximum temperatures are expected (Fig. 3a).

During October, above normal minimum temperatures are likely over most parts of the country except in most parts of Northeast India where normal to below normal minimum temperatures are likely (Fig. 3b).

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

Strong El Niño conditions are currently prevailing over the equatorial Pacific Ocean, characterized by significantly above-average sea surface temperatures, particularly across the eastcentral and eastern equatorial Pacific Ocean. Forecasts from the Monsoon Mission Coupled Forecast System (MMCFS), along with those from other major global climate models, indicate that El Niño will continue to strengthen through the end of the year.

Neutral Indian Ocean Dipole (IOD) conditions are currently prevailing over the Indian Ocean. The latest forecast from the Monsoon Mission Coupled Forecast System (MMCFS) indicates that neutral IOD conditions are most likely to persist during the NE monsoon season.

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

In addition to seasonal forecasts, IMD prepares and 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

Probability rainfall forecast for 2026 October to December Season

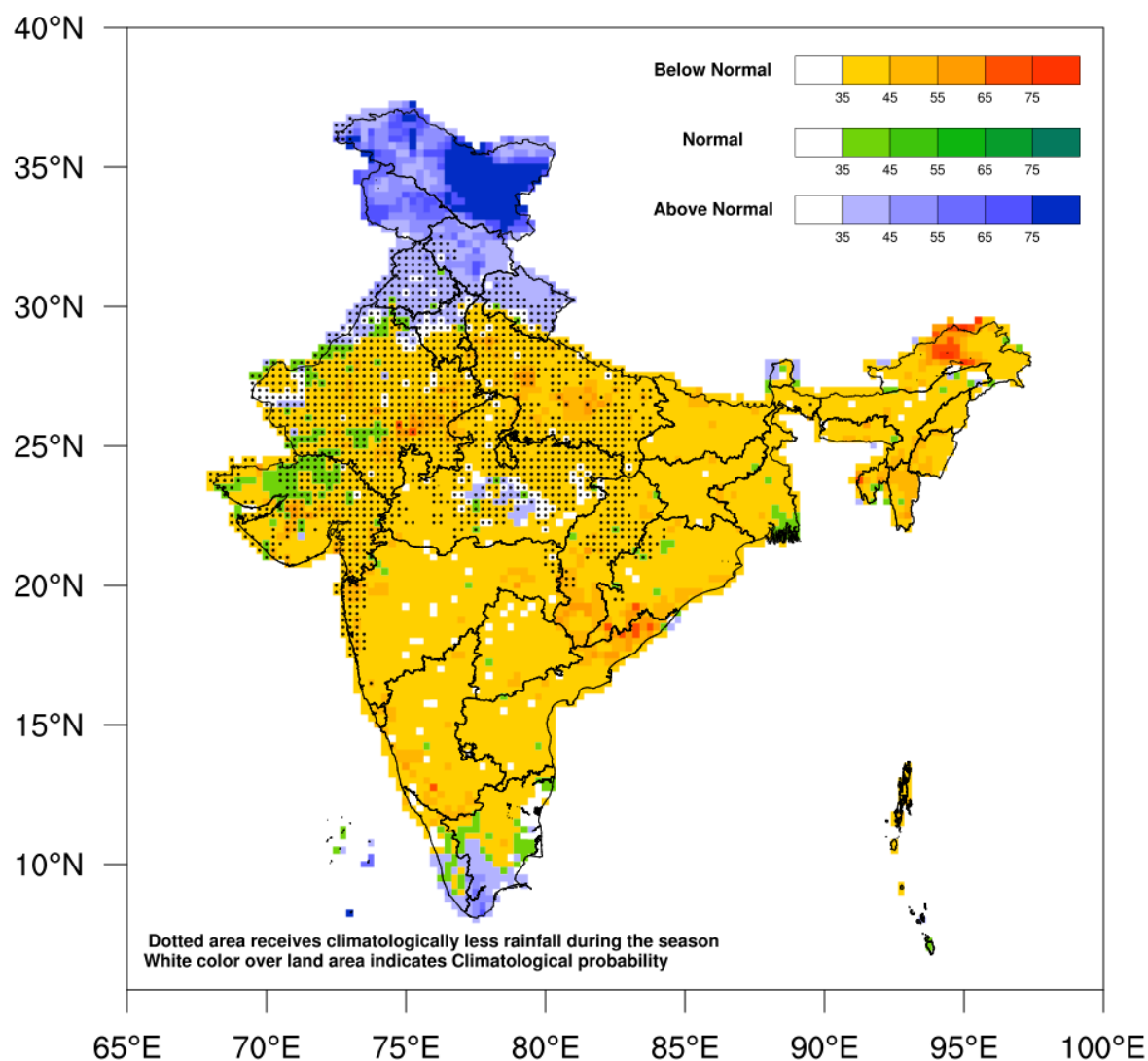


Fig.1. Probability forecast of tercile categories* (below normal, normal, and above normal) of rainfall over India during October to December, 2026 period. The figure illustrates the most likely categories as well as their probabilities. The white shaded areas within the land area represent no signal from the model. (*Tercile categories have equal climatological probabilities, of 33.33% each). The dotted areas receive low rainfall during the season as per climatology.

Probability rainfall forecast for October 2026

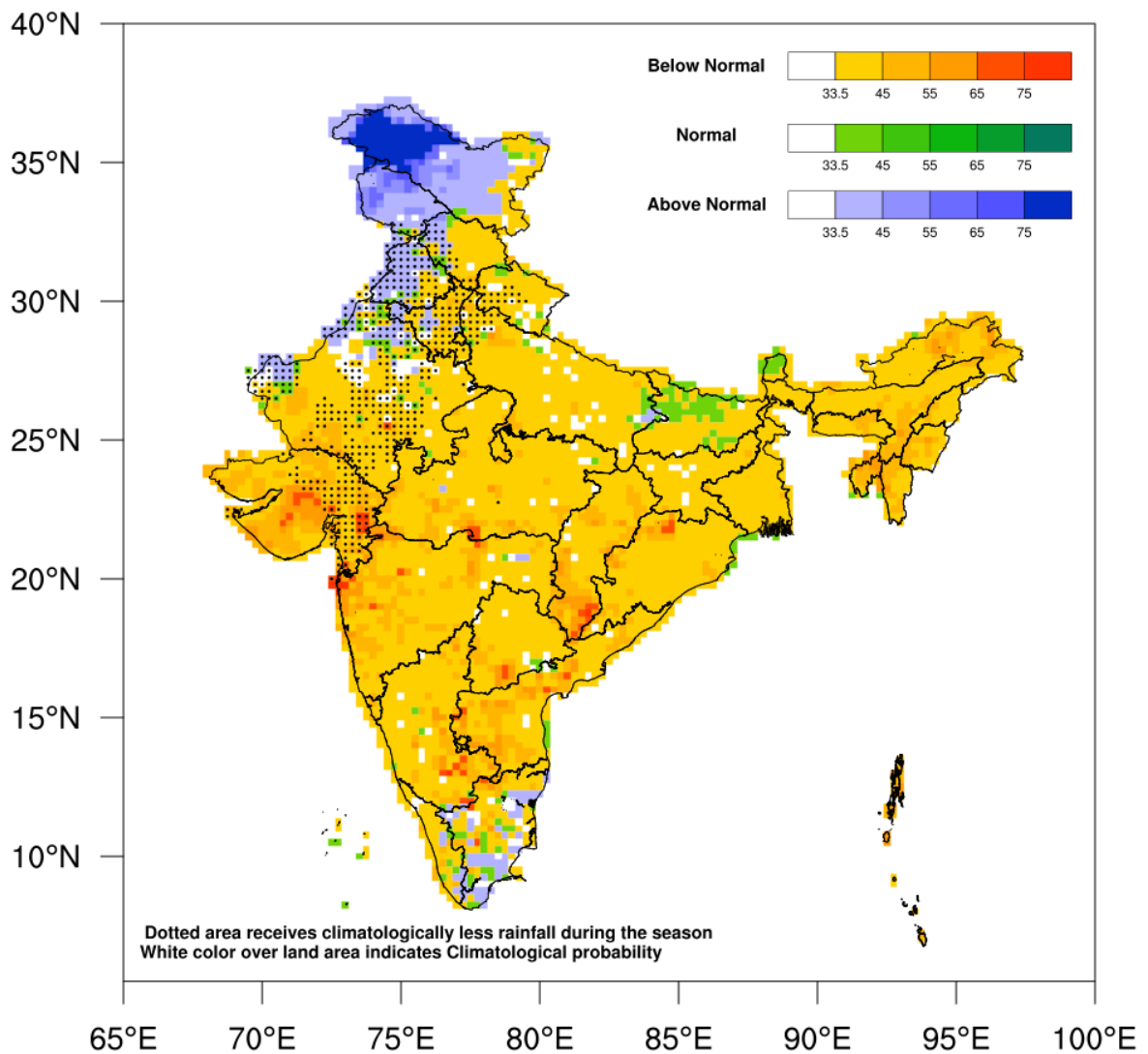


Fig.2. Probability forecast of tercile categories* (below normal, normal, and above normal) of rainfall over India during October, 2026. The figure illustrates the most likely categories as well as their probabilities. The white shaded areas within the main land represent no signal from the model. The dotted areas receive low rainfall during October as per climatology (*Tercile categories have equal climatological probabilities, of 33.33% each).

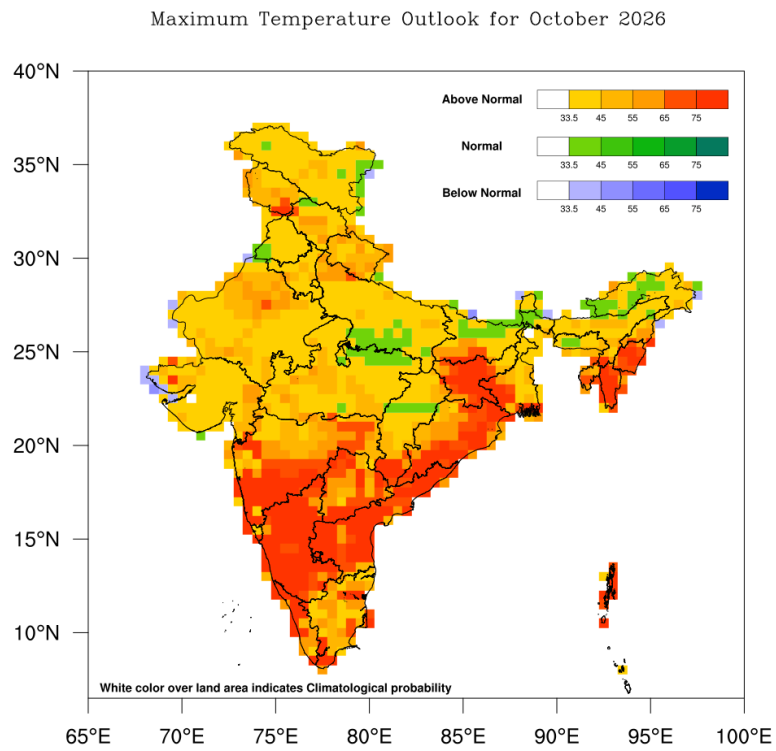


Fig.3a. Probability forecast of Maximum Temperature over India during October 2026.

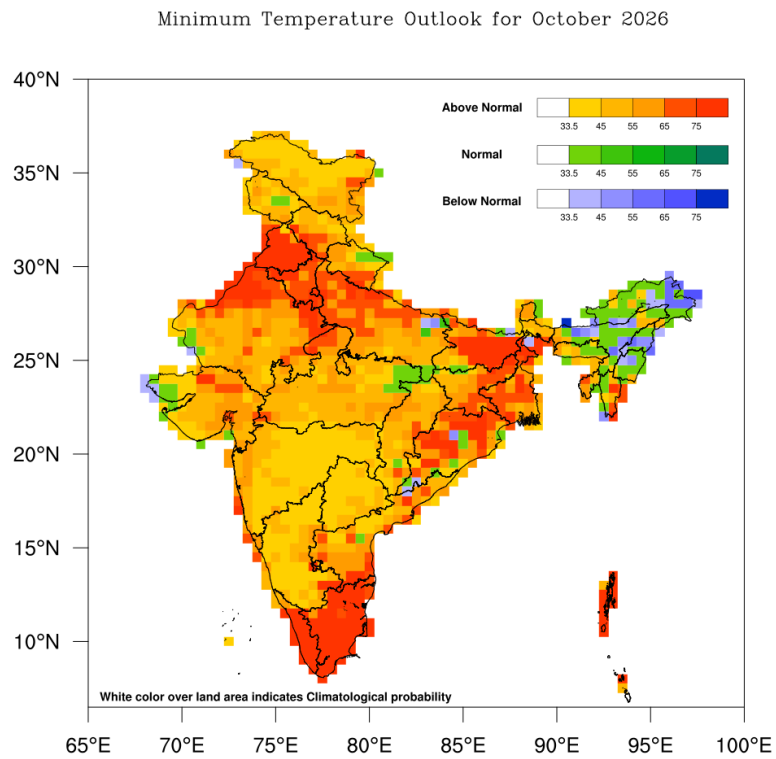


Fig.3b. Probability forecast of Minimum Temperature over India during October 2026.