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INDIA METEOROLOGICAL DEPARTMENT

Monthly Outlook for Rainfall and Temperature during September 2026

Highlights

- a) **Rainfall over India** – Monthly rainfall over the country as a whole during September 2026 is most likely to be below normal (<91% of Long Period Average (LPA)). Spatially, many parts of the country are likely to receive below-normal rainfall. However, some areas of Northwest, Northeast, East, Eastcentral and Southeast Peninsular India, are likely to receive normal to above-normal rainfall.
- b) **Surface Air Temperature over India** – During September 2026, monthly average maximum temperatures are likely to be above normal over most parts of the country. Monthly average minimum temperatures are expected to be above normal over most parts of the country except some parts of Northwest, Westcentral and Northeast India where it is likely to be normal to below normal.
- c) **Sea Surface Temperature (SST)** – Currently, strong El Niño conditions are prevailing over the equatorial Pacific Ocean, with sea surface temperature (SST) remaining above normal across the central and eastern equatorial Pacific. These conditions are expected to strengthen further in the coming months. At present, neutral Indian Ocean Dipole (IOD) conditions prevail over the Indian Ocean. Forecasts from the Monsoon Mission Coupled Forecast System (MMCFS) indicate that neutral IOD conditions are likely to persist through September 2026. However, forecasts from international climate centres suggest that the neutral IOD conditions may transition to positive IOD conditions from September onwards.

IMD will issue the **forecast for the Northeast Monsoon Season (October to December (OND) 2026)**, and the rainfall and temperature outlook for October 2026, towards the end of September 2026.

Monthly Outlook for Rainfall and Temperature during September 2026

1. Background

Since 2021, IMD has been issuing monthly and seasonal forecasts of southwest monsoon rainfall over the country based on the Multi-Model Ensemble (MME) forecasting system. The MME approach uses the coupled global climate models (CGCMs) from different global climate prediction and research centers including IMD's Monsoon Mission Climate Forecasting System (MMCFS) model.

IMD issued the first-stage forecast for the 2026 southwest monsoon season (June to September) rainfall over the country on 13th April and updated it on 29th May 2026. In addition, IMD issued the forecast for rainfall during June 2026 on 29th May, 2026, and for July on 30th June, 2026. Southwest Monsoon Rainfall Forecast for the Seasonal Rainfall during August-September, 2026 and Monthly Rainfall and Temperature Outlook for August 2026 was issued on 31st July 2026. The monthly outlook for Rainfall and Temperature during September 2026 is presented here.

2. Probabilistic Forecast of the Rainfall during September 2026

Monthly rainfall over the country as a whole during September 2026 is most likely to be below normal (<91% of long period average (LPA)). The LPA of rainfall over the country as a whole during September, based on data from 1971-2020, is about 167.9 mm

The probabilistic forecast of the spatial distribution of tercile rainfall categories (above normal, normal, and below normal) over the country for September 2026 is shown in Fig. 1. It indicates that many parts of the country are likely to receive below-normal rainfall. However, some areas of Northwest, Northeast, East, Eastcentral and Southeast Peninsular India, are likely to receive normal to above-normal rainfall. There is no signal from the model over the white-shaded areas within the land region of the country.

Below-normal rainfall can adversely affect agriculture, water resources, hydropower generation, ecosystem sustainability, and drinking water availability, besides increasing the risk of heat stress in several regions. Timely preparedness measures — including water conservation, efficient resource management, and agricultural contingency planning — by concerned agencies and stakeholders can help mitigate these impacts. IMD provides a range of weather and climate services, including seasonal and extended-range forecasts, district-level forecasts, agro-meteorological advisories, and impact-based early warnings, to support informed decision-making by farmers, water resource managers, disaster management authorities, and power sector planners. Effective utilization of IMD's forecasts and early warning services can significantly enhance resilience to rainfall deficit conditions.

3. Probabilistic Forecast of Temperature for September 2026

Fig. 2 and Fig. 3 show probabilistic forecasts of the maximum and minimum temperatures, respectively, for September 2026. During September 2026, monthly average maximum temperatures are likely to be above normal over most parts of the country (Fig. 2). There is no signal from the model over the white-shaded areas within the land region of the country.

In September 2026, the monthly average minimum temperatures are expected to be above normal over most parts of the country except some parts of Northwest, Westcentral and Northeast India where it is likely to be normal to below normal (Fig.3). There is no signal from the model over the white-shaded areas within the land region of the country.

4. SST conditions in the Pacific and the Indian Oceans

Currently, strong El Niño conditions are prevailing over the equatorial Pacific Ocean, with sea surface temperature (SST) anomalies remaining above normal across the central and eastern equatorial Pacific. These conditions are expected to strengthen further in the coming months.

At present, neutral Indian Ocean Dipole (IOD) conditions prevail over the Indian Ocean. Forecasts from the Monsoon Mission Coupled Forecast System (MMCFS) indicate that neutral IOD conditions are likely to persist through September 2026. However, forecasts from international climate centres suggest that the neutral IOD conditions may transition to positive IOD conditions from September onward.

5. 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 & 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 September

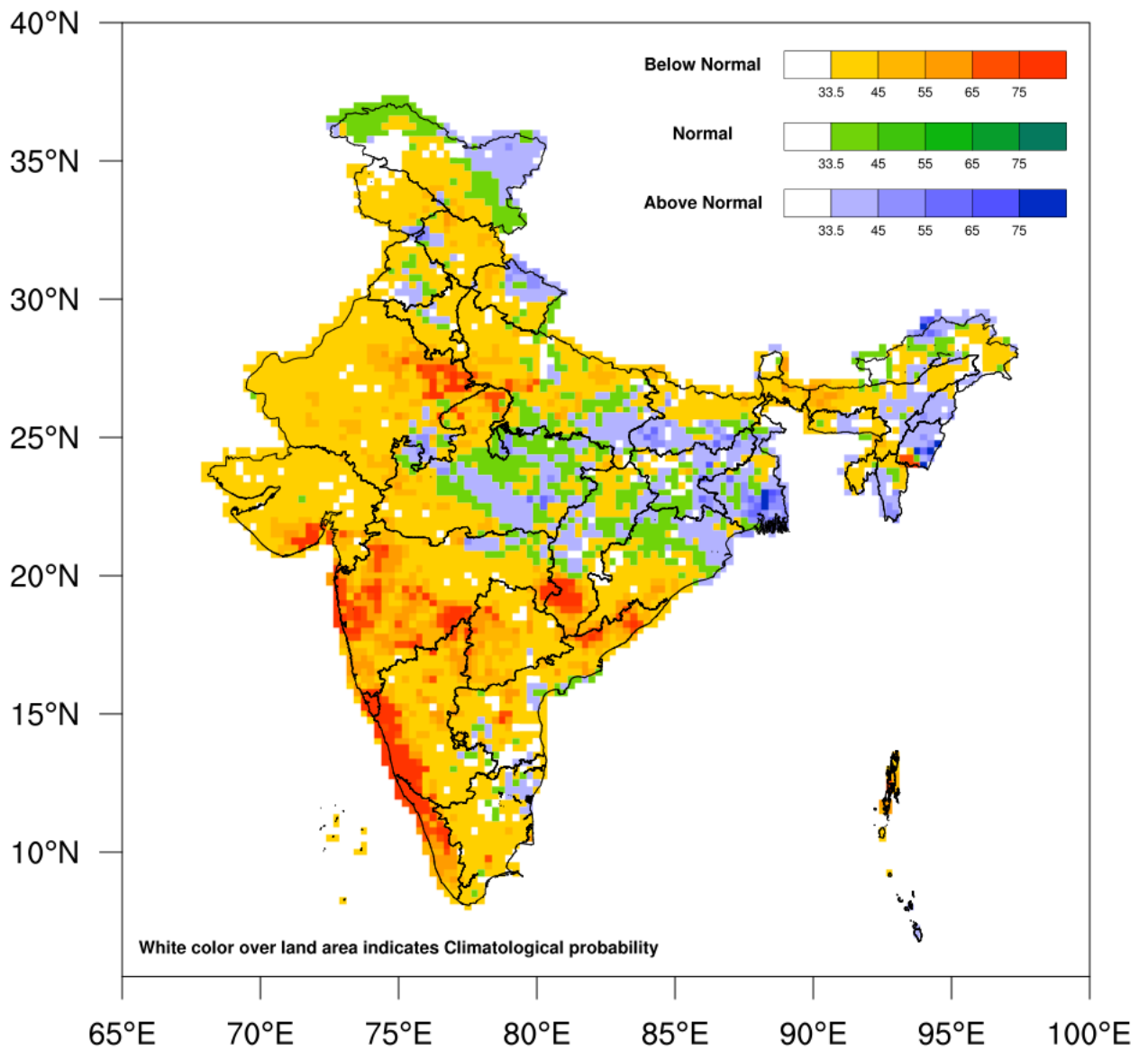


Fig.1. Probability forecast of tercile categories* (below normal, normal, and above normal) of rainfall over India during September 2026. There is no signal from the model over the white shaded areas within the land region of the country. *Tercile categories have equal climatological probabilities, of 33.33% each.

Maximum Temperature Outlook for September 2026

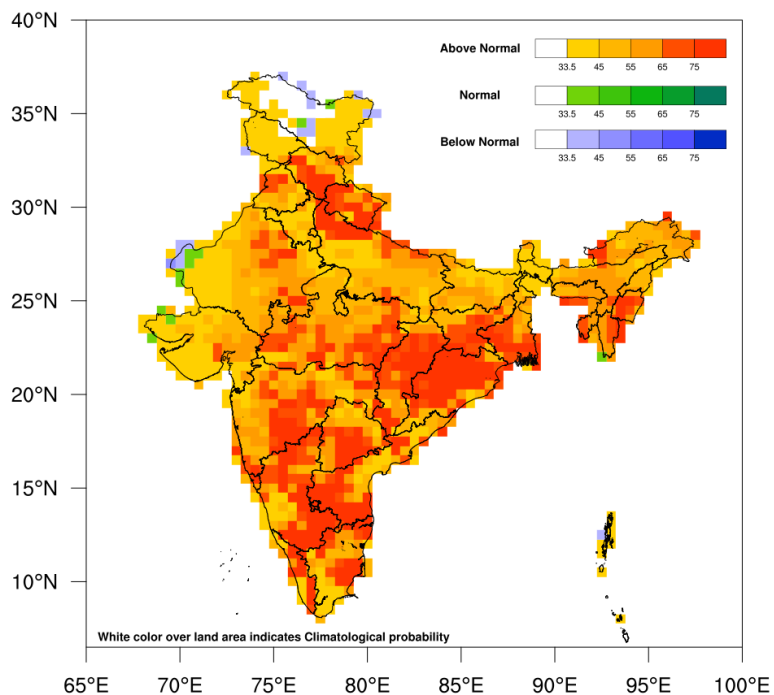


Fig.2. Probability forecast of Maximum Temperature for September 2026.

Minimum Temperature Outlook for September 2026

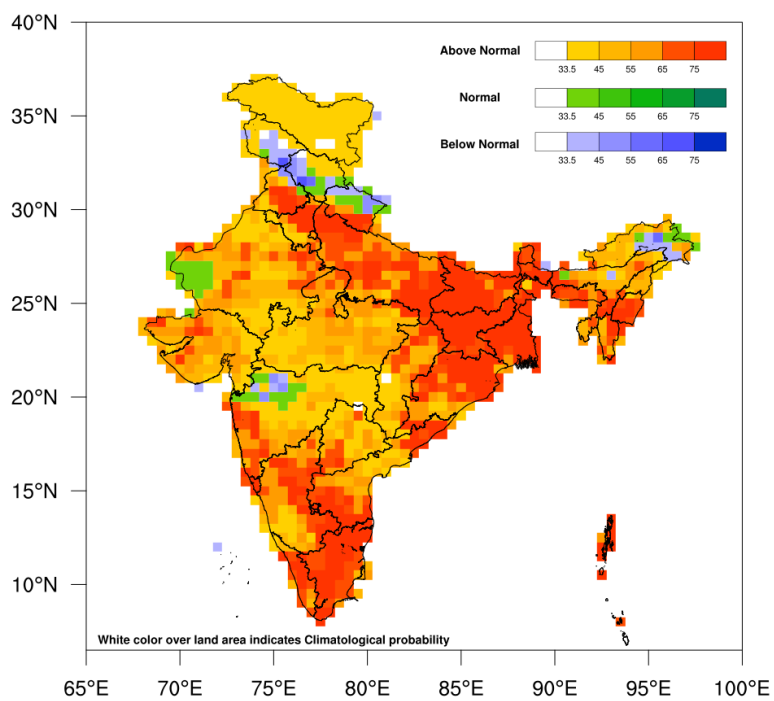


Fig.3. Probability forecast of Minimum Temperature for September 2026.