## भारत सरकार पृथ्वी विज्ञान मंत्रालय भारत मौसम विज्ञान विभाग मौसम केंद्र चंडीगढ



## Government of India Ministry of Earth Sciences India Meteorological Department Meteorological Centre, Chandigarh

<mark>प्रेस विज्ञप्ति</mark> PRESS RELEASE

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विषय: 2025 के दक्षिण-पश्चिम मानसून (जून-सितंबर) सीज़न में होने वाली वर्षा का दीर्घावधि पूर्वानुमान।

**Subject:** Long Range Forecast For the Southwest Monsoon Seasonal Rainfall (June - September) during 2025.

## 1.Main Highlights

- a) The southwest monsoon seasonal (June to September) rainfall over the country as a whole during 2025 is **most likely to be above normal**(>104% of the Long Period Average (LPA)). Quantitatively, the seasonal rainfall over the country as a whole is likely to be 105% of LPA with a model error of  $\pm$  5%. The LPA of the season rainfall over the country as a whole for the period 1971-2020 is 87 cm.
- b) Currently, Neutral El Nino-Southern Oscillation (ENSO) conditions are prevailing over the equatorial Pacific region. However the atmospheric Circulation features are similar to La Nina conditions. The latest Monsoon Mission Climate Forecast System (MMCFS) as well as other climate model forecasts indicate that the Neutral ENSO condition are likely to continue during the monsoon season.
- c) At present, neutral Indian Ocean Dipole (IOD) conditions are present over the Indian Ocean and the latest Climate models forecast indicates that the Neutral IOD conditions are likely to continue during the southwest monsoon season.
- d) The snow cover areas of northern hemisphere and Eurasia during the last three months (January to March, 2025) were below normal. The winter and spring snow cover extent over Northern Hemisphere as well as Eurasia has in general an inverse relationship with the subsequent Indian summer monsoon rainfall.

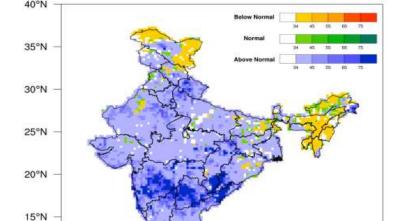
## 2.Forecast for the 2025 Southwest Monsoon Season (June-September) rainfall over the country as a whole during 2025.

The five category probability forecasts for the Seasonal (June to September) rainfall over the country as a whole are given below, which suggests that there is strong probability (59%) of southwest monsoon seasonal rainfall likely to be in the above normal category or higher (>104% of LPA).

Category	Rainfall Range (% of LPA)	Forecast Probability (%)	Climatological Probability (%)
Deficient	< 90	2	16
Below Normal	90 - 95	9	17
Normal	96 -104	30	33
Above Normal	105-110	33	16
Excess	> 110	26	17

The Multi Model Ensemble forecast for the southwest monsoon season rainfall during 2025 was prepared based on the April initial conditions of a group of coupled climate models which have higher prediction skill over the Indian monsoon region.

The spatial distribution of probabilistic forecasts for tercile categories (above normal, normal and below normal) for the seasonal (June to September) rainfall during 2025 is shown in Fig.1. The spatial distribution suggests above-normal seasonal rainfall is very likely over most parts of the country except some areas **over Northwest India**, **Northeast India** and **South Peninsular India**, where below-normal rainfall is likely. The white-shaded areas within the land area represent no signal from the model with equal probabilities for all the tercile categories of rainfall.



Terclie probability rainfall forecast for 2025 southwest monsoon season

Fig.1.Probability forecast of tercile categories (below normal, normal, and above normal) for the seasonal rainfall over India during southwest monsoon season (June -September), 2025. The figure illustrates the most likely categories as well as their probabilities. The white shaded areas represent no signal from the model with equal

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

10°N

probabilities for all the tercile categories.

IMD will issue the updated forecasts for monsoon season rainfall in the last week of May 2025.