भारत सरकार

Government of India

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

Ministry of Earth Sciences (MoES)

भारत मौसम विज्ञान विभाग

INDIA METEOROLOGICAL DEPARTMENT

Climate Research and Services (CRS)

# Monthly Climate Summary for December 2025

## 1. Monthly Rainfall Scenario (01 to 31 December, 2025)

Rainfall over the country as a whole for the month of December 2025 was 4.9 mm which is 69% less than its Long Period Average (LPA) of 15.9 mm. Daily variation of the rainfall over the country as a whole during the month of December 2025 with normal based on data of 1971-2020 is presented in Fig 1(a). The percentage departure of All-India rainfall from normal for December over the period 1901–2025 is presented in Figure 1(b). Rainfall over All India (4.9 mm) was the sixth lowest since 1901 and the lowest since 2001, as shown in Figure 1(c). Similarly, rainfall over East and Northeast India (0.6 mm) ranked as the sixth lowest since 1901 and the lowest since 2001, as illustrated in Figure 1(d).

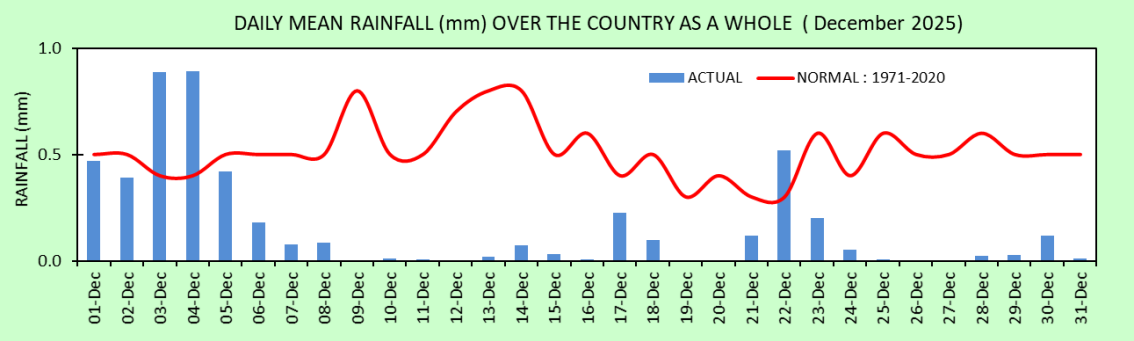


**Fig. 1(a): Daily variation of rainfall over the country as a whole during December 2025**.

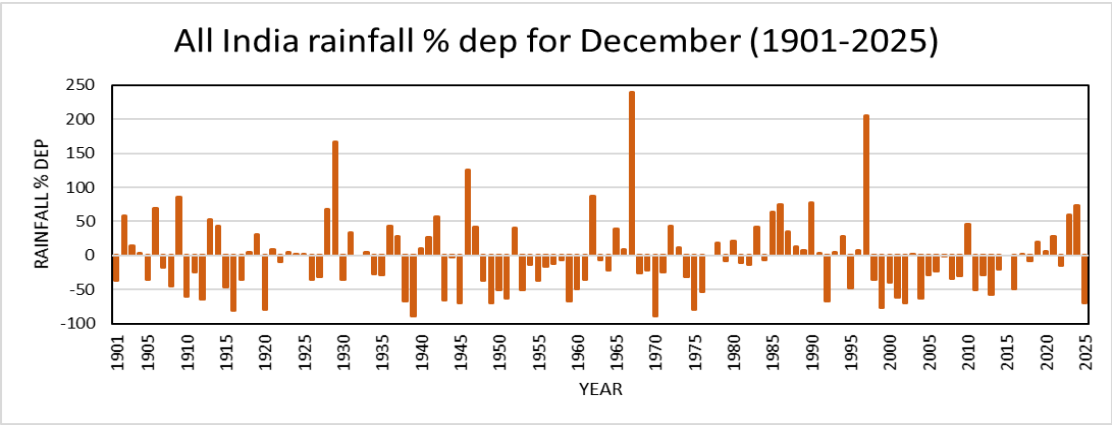


**Fig. 1(b): All India monthly rainfall percentage departure from normal (1971-2020) for December from 1901-2025.**

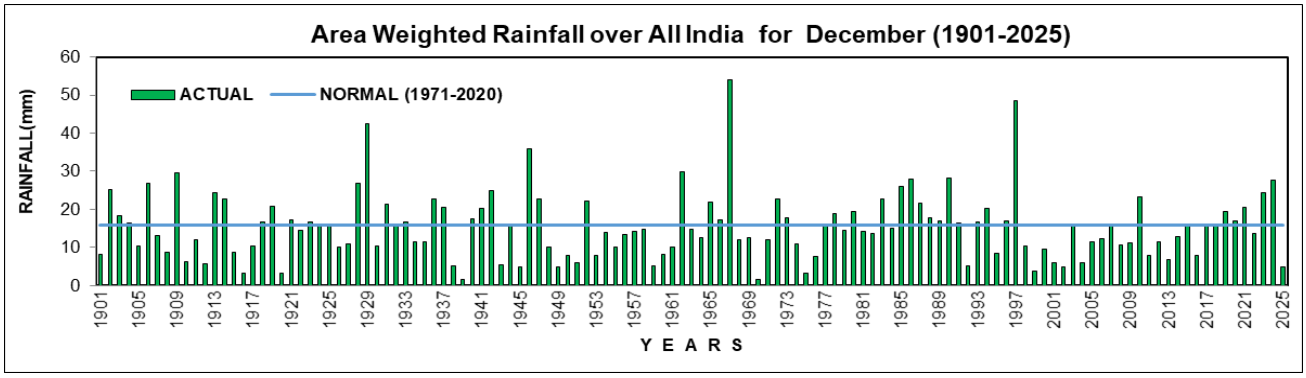


**Fig. 1(c): Time series of area weighted rainfall over All India for December (1901 – 2025).**

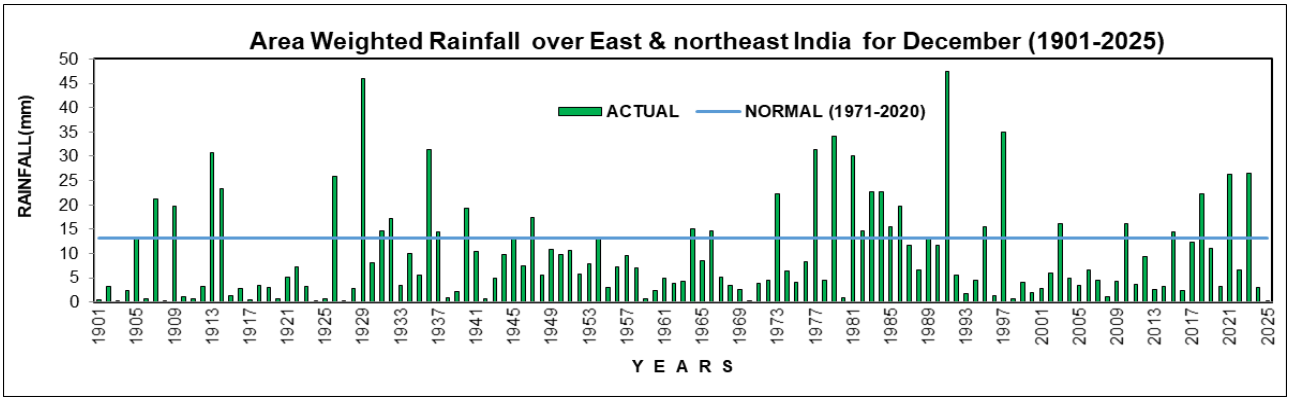


**Fig. 1(d): Time series of area weighted rainfall over East & Northeast India for December (1901 – 2025).**

During this month, one sub-division (Rayalaseema) received excess rainfall, 2 sub-divisions received normal rainfall, 3 sub divisions received deficient rainfall, 15 sub-division received large deficient rainfall and 15 sub-divisions did not receive any rainfall. (Fig 2). The monthly rainfall for December 2025 is given in the table below:

| Regions | Actual Rainfall (mm) | Normal Rainfall (mm) | % Departure from LPA |
|---|---|---|---|
| Country as a whole | 4.9 | 15.9 | -68.9 |
| Northwest India | 2.87 | 18.9 | -84.8 |
| Central India | 0 | 5.1 | -99.0 |
| South Peninsula | 20.1 | 32.0 | -37.3 |
| East & northeast India | 0.6 | 13.1 | -95.2 |

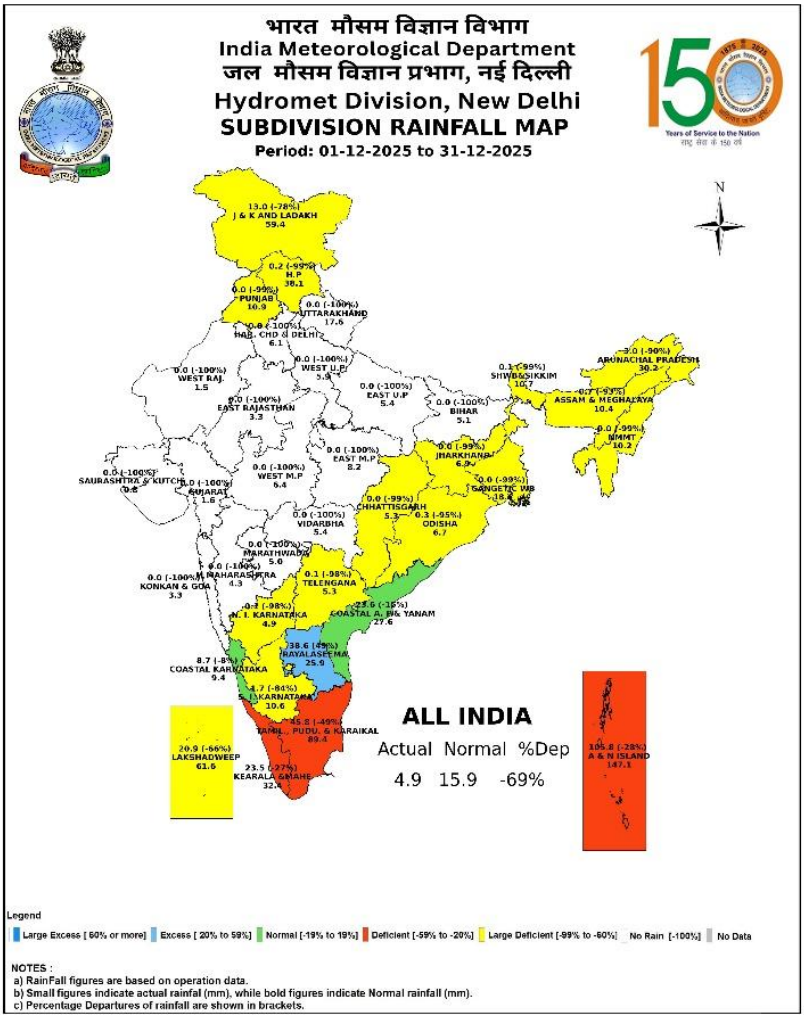


**Fig 2: Subdivision-wise rainfall distribution for December 2025.**

The observed spatial distribution of rainfall during December 2025, normal rainfall based on data of 1971 to 2020 and rainfall departures from normal during December 2025 are shown in Fig.3.

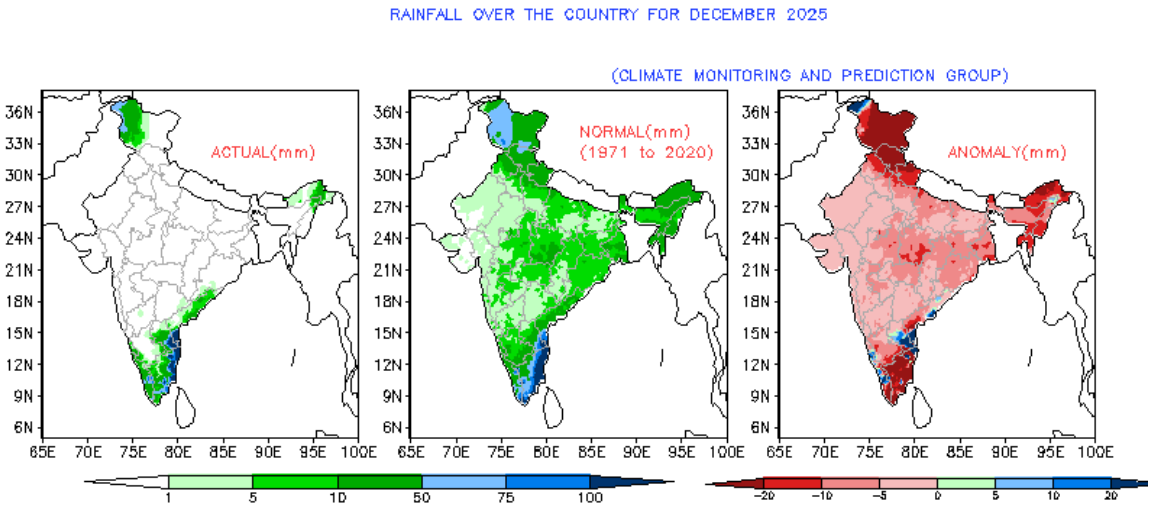


**Fig. 3: Observed spatial Rainfall pattern for the month December 2025 over India and their departure from normal (1971 to 2020 period).**
**Departure from normal is anomaly = actual rainfall - normal rainfall.**

## 2. Frequency of Heavy Rainfall events

December 2025 witnessed heavy rainfall events mainly over Coastal Andhra Pradesh & Yanam, Tamilnadu, Puducherry & Karaikal and Andaman & Nicobar Islands.The location of occurrences of heavy, very heavy rainfall and extremely heavy events is shown in the Fig. 4. Out of total 50 occasions, 1 station reported extremely heavy rainfall (>204.4 mm), 12 were very heavy rainfall (115.6 to 204.4 mm) and 37 were heavy rainfall (64.5 to 115.5 mm) categories during this month.

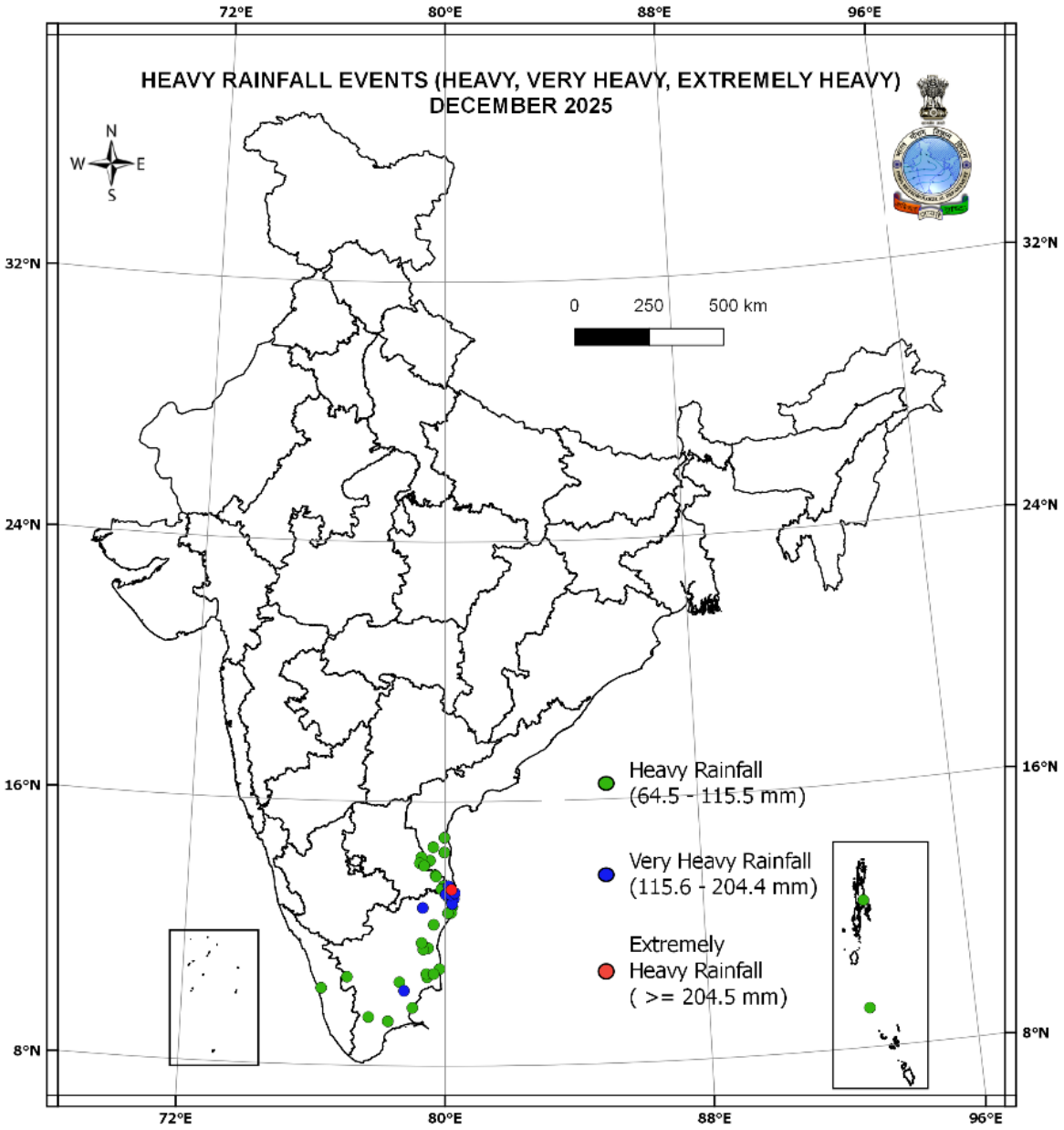


**Fig. 4: The location of occurrences of heavy, very heavy rainfall events in the month of December 2025.**

**(Only highest category of rainfall event considered for a station)**

## 3. Chief Synoptic weather features observed during December 2025.

**Western Disturbances:** Total of eight Western Disturbances (WDs) formed during the month, which is higher than the normal frequency of six (occurring during 1–5, 4–6, 6–9, 12–17, 13–16, 18–20, 17–24, and 26–31 December). However, most of these systems were feeble in intensity and had shorter spatial and temporal extent.

**Low pressure systems:** The Cyclonic storm DITWAH which formed on 26 November dissipated on 3 December over Bay of Bengal. DITWAH moved very close to Sri lanka coast and exhibited rapidly intensified from depression to cyclonic storm stage within 12 hours.Sri Lanka was severely affected by torrential rainfall, extensive flooding, and landslides associated with Cyclonic Storm DITWAH, which made landfall along the island's eastern coast in the early hours of 28 November 2025. The cyclone triggered a nationwide emergency, affecting more than 1.4 million people from over 407,594 families across all 25 districts. Because of the disaster, 410 fatalities have been confirmed, while 336 persons are reported missing. Track of the cyclic storm DITWAH is given in Fig.5.

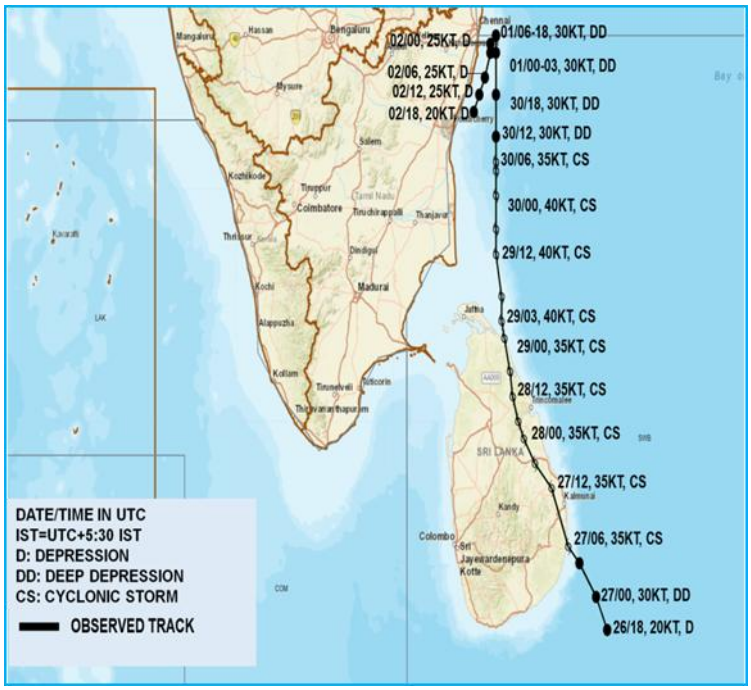


**Fig. 5: Tracks of Cyclonic Storm DITWAH (26 November–1 December).**

## 4. Characteristics of Temperatures for the month of December 2025

The average maximum, average minimum and mean temperature for the country as a whole during December 2025 were 25.92ºC, 12.19ºC and 19.05ºC respectively, against the normal of 25.81ºC, 12.27ºC and 19.04ºC based on data of 1991-2020. Thus, the average maximum, average minimum and mean temperature were normal to near normal with departure from normal of 0.11ºC, -0.08ºC and 0.01ºC respectively for the country as a whole. The daily variation of maximum and minimum temperature departure from normal over the country as a whole for December 2025 is shown in the Fig. 6(a) and (b) respectively.

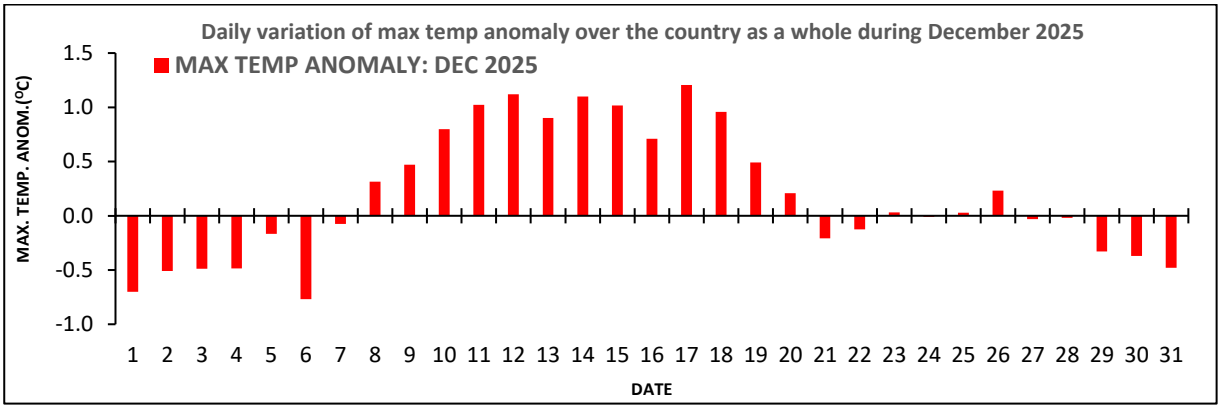


**Fig. 6(a): Daily variation of maximum temperature anomaly (departure from normal) over the country as a whole for December 2025**

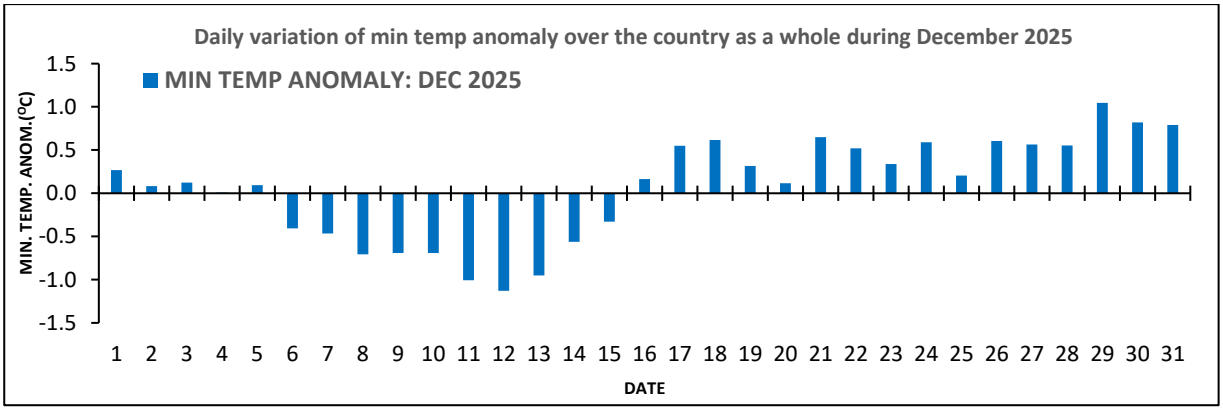


**Fig. 6(b): Daily variation of minimum temperature anomaly (departure from normal) over the country as a whole for December 2025**

Fig.7 shows the time series of monthly average maximum, average minimum and mean temperature over the country as a whole for the month of December 1901-2025. Over the country during December, the average maximum temperature was the 23$^{rd}$ highest and average minimum temperature was the 52$^{nd}$ highest since 1901. The mean temperature was the 30$^{h}$ highest since 1901.

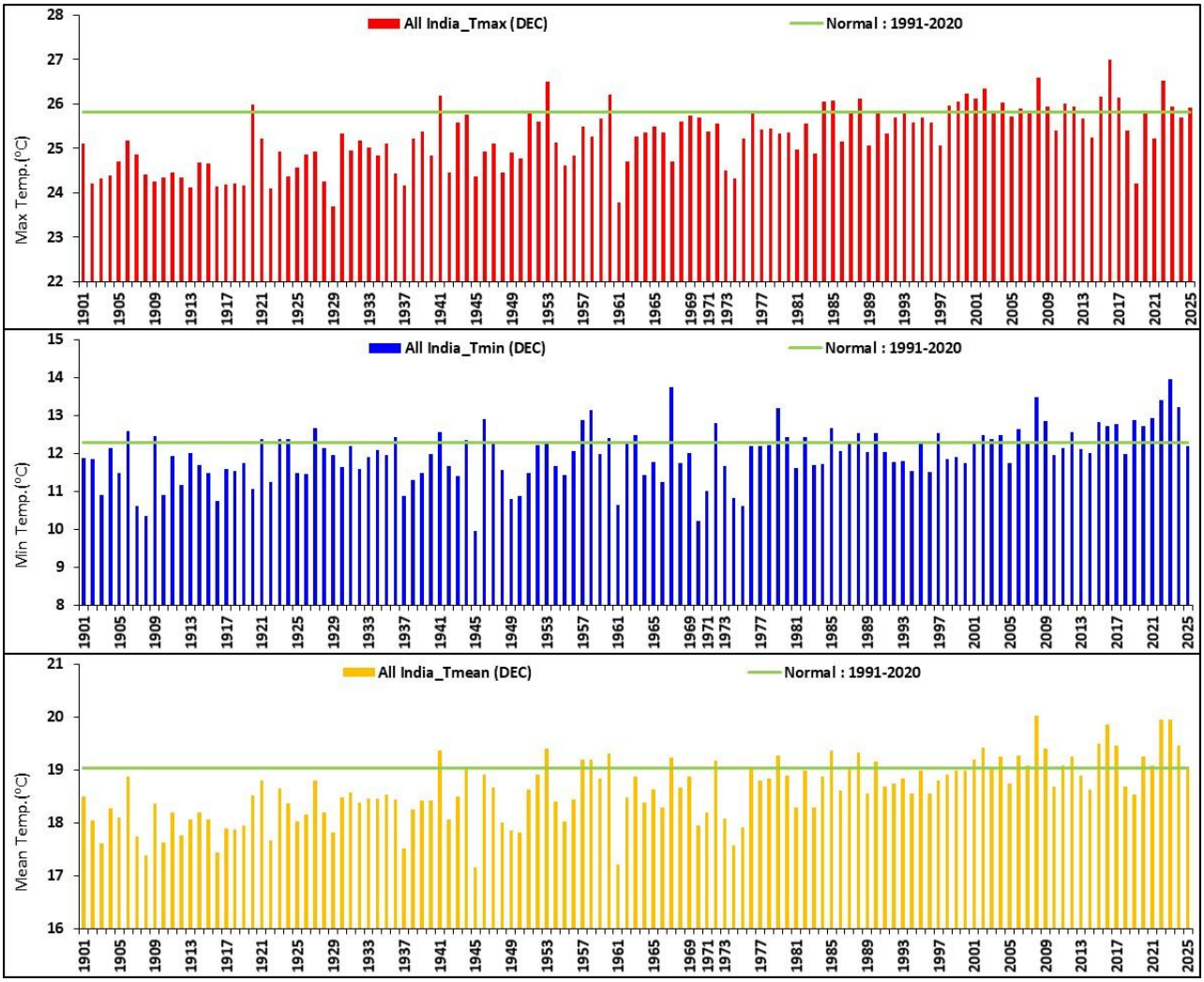


**Fig. 7: Time series of monthly average maximum, average minimum and mean temperature over the country as a whole for the month of December 1901-2025.**

Fig.8 shows the time series of mean temperature over Northwest India for the month of December 1901-2025. Over Northwest India during December, the mean temperature was the 4$^{th}$ highest (15.12ºC with departure from normal of 0.86ºC) after the years 1953 (15.76ºC), 2016 (15.58ºC) and 2008 (15.48ºC) since 1901.

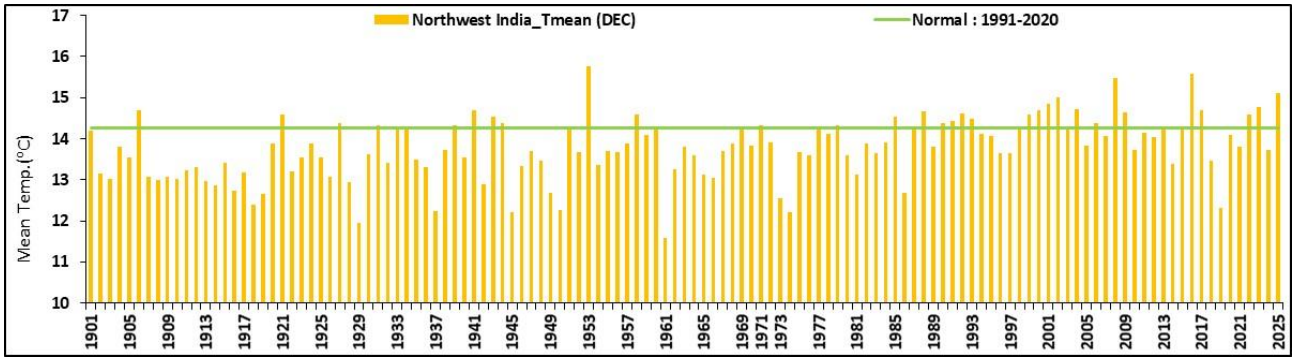


**Fig. 8: Time series of monthly average maximum, average minimum and mean temperature over Northwest India for the month of December 1901-2025.**

The Temperatures during December 2025 for all India and homogeneous regions with its top ranks since 1901 are given below:

| DECEMBER 2025 | | Max Temp ($^0$C) | Min Temp ($^0$C) | Mean Temp ($^0$C) |
|---|---|---|---|---|
| ALL INDIA | **ACTUAL** | **25.92** | **12.19** | **19.05** |
| | NORMAL | 25.81 | 12.27 | 19.04 |
| | ANOMALY | 0.11 | -0.08 | 0.01 |
| | **Rank since 1901** | **23** | **52** | **30** |
| NORTHWEST INDIA | **ACTUAL** | **22.15** | **8.09** | **15.12** |
| | NORMAL | 21.21 | 7.30 | 14.26 |
| | ANOMALY | 0.93 | 0.78 | 0.86 |
| | **Rank since 1901** | **9** | **10** | **4** |
| EAST & NORTHEAST INDIA | **ACTUAL** | **23.57** | **11.73** | **17.65** |
| | NORMAL | 23.97 | 11.44 | 17.70 |
| | ANOMALY | -0.40 | 0.30 | -0.05 |
| | **Rank since 1901** | **77** | **25** | **44** |
| CENTRAL INDIA | **ACTUAL** | **28.59** | **12.17** | **20.38** |
| | NORMAL | 28.70 | 12.95 | 20.83 |
| | ANOMALY | -0.11 | -0.78 | -0.45 |
| | **Rank since 1901** | **34** | **94** | **58** |
| SOUTH PENINSULAR INDIA | **ACTUAL** | **29.30** | **18.06** | **23.68** |
| | NORMAL | 29.59 | 18.71 | 24.15 |
| | ANOMALY | -0.29 | -0.65 | -0.47 |
| | **Rank since 1901** | **35** | **91** | **66** |

Note: Values are rounded off to the nearest two decimals.

The stations recorded the highest maximum and lowest minimum temperature in December 2025 is given in table below. A list of stations is given below with their previous record and date.

| **Highest Maximum** | | | | |
|---|---|---|---|---|
| **STATION NAME** | **NEW RECORD ($^0$C) #** | **DATE (DEC 2025)** | **PREVIOUS RECORD ($^0$C)** | **DATE** |
| KOTTAYAM | 36.6 | 18-12-2025 | 36.5 | 11-12-1970 |
| SOLAN (NAUNI) | 28 | 17-12-2025 | 27 | 24-12-2007 |
| **Lowest Minimum** | | | | |
| **STATION NAME** | **NEW RECORD ($^0$C) #** | **DATE (DEC 2025)** | **PREVIOUS RECORD ($^0$C)** | **DATE** |
| GADAG | 9.4 | 20-12-2025 | 9.8 | 22-12-2010 |
| MADURAI | 16.2 | 15-12-2025 | 16.7 | 05-12-1920 |

# based on real-time available data

The observed spatial temperature pattern of monthly average maximum, average minimum and mean temperature over India and their departures from normal (1991 to 2020 period) for the month of December 2025 is given in Fig. 9.

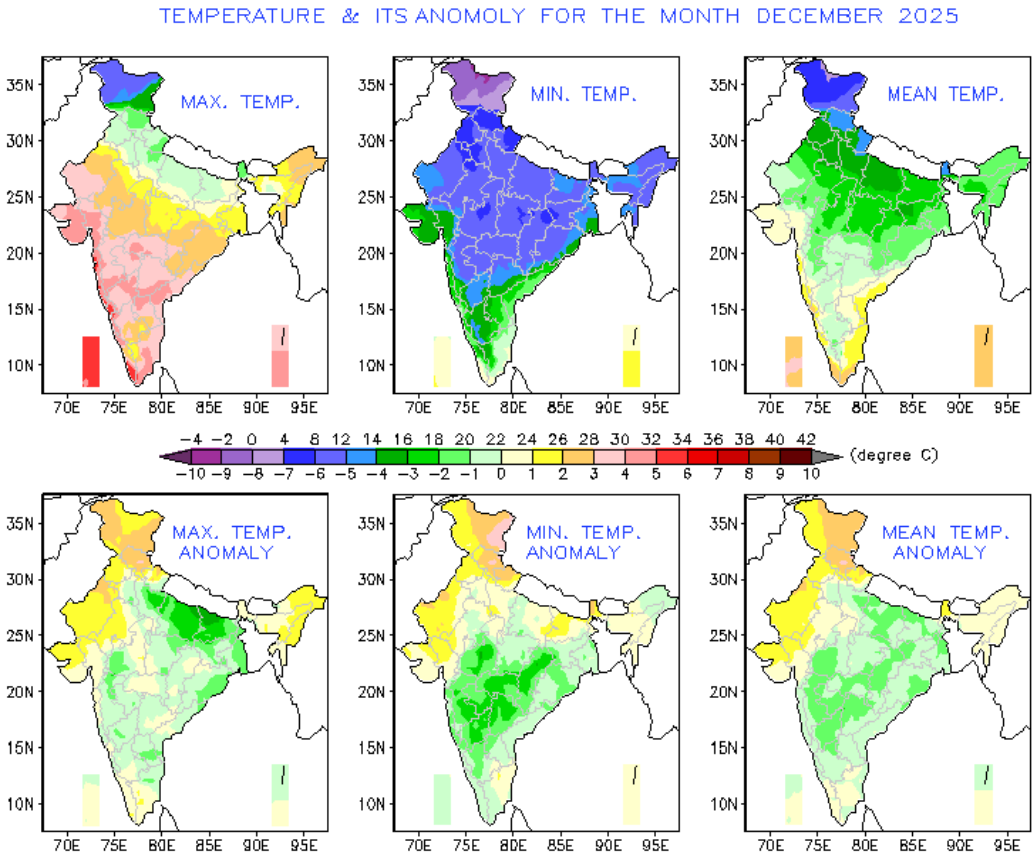


**Fig. 9: Observed spatial temperature pattern of monthly average maximum, average minimum, and mean temperature over India (top three from left to right) and their departure from normal (1991 to 2020 period) for December 2025 (lower three from left to right)**

## 5. Significant Weather Events:

During December, media reports indicated two deaths, three injuries, and the loss of over 580 livestock due to the Cyclonic Storm DITWAH (26 Nov. to 3 Dec.). Additionally, the Tiruvallur district of Tamil Nadu was impacted by extremely heavy rainfall. Figure 10 depicts the locations of significant weather events during December 2025.

During December, Higher Fog days observed across north, east and adjoining central India. Because of the absence major rainfall producing system in these regions, Boundary layer was stable in most nights/morning and so higher days of dense fog events were observed in most areas especially during 2nd half of the month.

The fog and low cloud layer over the Indo-Gangetic Plains (IGP) intensified and spread across the region during 13–16 December and subsequently persisted for an extended duration of about 15 days, remaining prevalent until 30 December 2025.Odisha experienced a notably high number of days with dense to very dense fog (DF to VDF), with Rourkela recording 26 days. Across the Indo-Gangetic Plains, 15 to 26 days of DF to VDF were observed, primarily affecting Punjab, Haryana, Uttar Pradesh, Assam, Odisha, and parts of the western Himalayan region, including Himachal Pradesh and Uttarakhand. Madhya Pradesh, Bihar, and the North Maharashtra-Madhya Maharashtra-Thane (NMMT) regions also reported 10 to 14 days of dense to very dense fog.

Figure 11 illustrates the total days of dense to very dense fog (DF to VDF) by meteorological sub-division for December 2025.

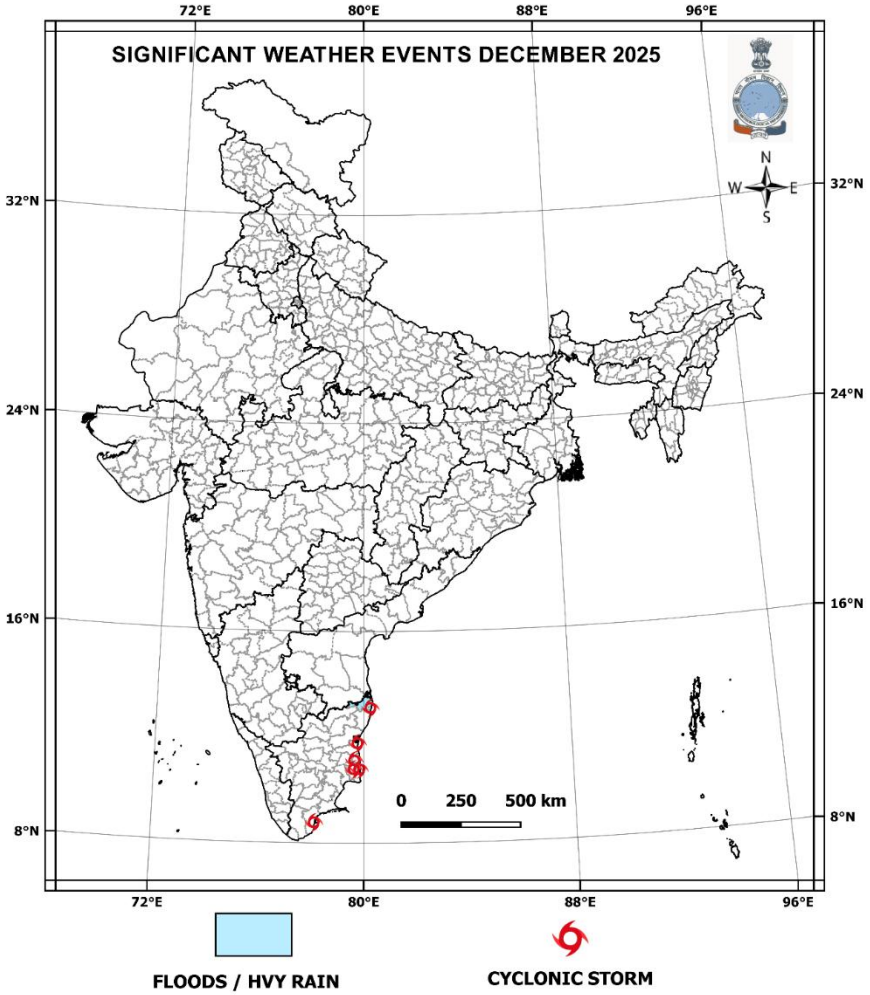


**Fig. 10: Casualties and damages due to significant weather events during December 2025. (Based on real time media reports and other state government agencies)**

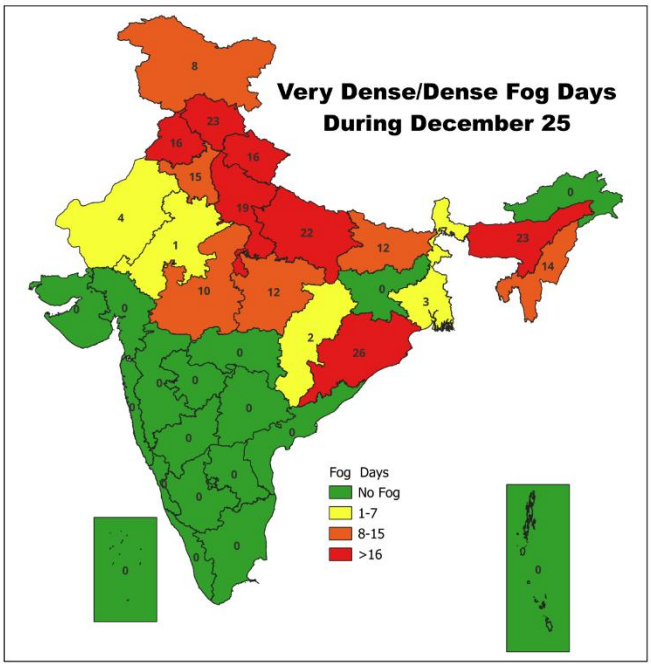


**Fig. 11: Total days of Dense to very dense fog (DF to VDF) (Met Sub-Division-wise) for Dec 2025.**