

**Government of India**  
**Earth System Science Organization**  
**Ministry of Earth Sciences**  
**India Meteorological Department**

**Press Release: Dated: 09<sup>th</sup> January, 2025**

**Subject: Current Weather Status and Extended range Forecast for the next two weeks (09<sup>th</sup> to 22<sup>nd</sup> January 2025)**

**1. Salient Observed Features for the week ending 08<sup>th</sup> January 2025:**

- ❖ **In association with the Western Disturbance** over northeast India, **Heavy to very heavy rainfall** was recorded at isolated places over Arunachal Pradesh and **Heavy rainfall** was recorded at isolated places over Assam on 8<sup>th</sup> January. **Hailstorm** was also recorded at isolated places over Sub-Himalayan West Bengal & Sikkim and Assam on 8<sup>th</sup> January.
- ❖ **Large-scale Dense fog/ low cloud cover across Indo Gangetic Plains continued to persist in most dates during the week. It was extended to Bihar during the week. It was mainly observed over its Western and Central parts in most dates during the Period.** As per Surface data, it was **Dense to very Dense Fog** in isolated pockets of Punjab from 2<sup>nd</sup> to 8<sup>th</sup> January, Haryana on 2<sup>nd</sup> & 4<sup>th</sup> to 7<sup>th</sup> January, Delhi from 2<sup>nd</sup> to 5<sup>th</sup> & 8<sup>th</sup> January, Uttar Pradesh from 2<sup>nd</sup> to 8<sup>th</sup> January, Madhya Pradesh from 2<sup>nd</sup> to 6<sup>th</sup> January, Rajasthan on 2<sup>nd</sup> & 4<sup>th</sup> to 5<sup>th</sup> January; Jammu & Kashmir from 3<sup>rd</sup> to 5<sup>th</sup> & 7<sup>th</sup> to 8<sup>th</sup> January, Chandigarh on 3<sup>rd</sup> & 4<sup>th</sup> January, Bihar from 4<sup>th</sup> to 6<sup>th</sup> January, Assam on 4<sup>th</sup> January, West Bengal on 5<sup>th</sup> & 6<sup>th</sup> January, Odisha on 6<sup>th</sup> & 7<sup>th</sup> January. **Dense Fog** was observed in isolated pockets of Himachal Pradesh on 2<sup>nd</sup>, 4<sup>th</sup>, 7<sup>th</sup> & 8<sup>th</sup> January, Odisha on 2<sup>nd</sup>, 4<sup>th</sup> & 8<sup>th</sup> January, West Bengal on 3<sup>rd</sup> & 7<sup>th</sup> January, Tripura on 4<sup>th</sup> January, Uttarakhand on 6<sup>th</sup> & 7<sup>th</sup> January, Chandigarh on 7<sup>th</sup> & 8<sup>th</sup> January, Bihar, Chhattisgarh, Jharkhand on 7<sup>th</sup> January; Haryana, northwest Madhya Pradesh, South Interior Karnataka on 8<sup>th</sup> January.
- ❖ **Cold day to severe cold day** conditions observed in isolated pockets of Uttar Pradesh on 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup> & 8<sup>th</sup> January, Haryana, Rajasthan, West Madhya Pradesh on 2<sup>nd</sup> January, Bihar on 5<sup>th</sup> January.
- ❖ **Weekly Average Minimum temperature** was above normal by 1-3°C over the northern and northeastern parts of the country and nearly normal over rest parts of the country during this week.
- ❖ **Weekly Average Maximum temperature** was above normal by 1-3°C over western, central and northeast India and near normal over rest parts of the country during this week.

- ❖ **Temperature Scenario:** The lowest minimum temperature of **1.6°C** had been recorded at **Rajgarh (West Madhya Pradesh)** on **08<sup>th</sup> January 2025** and the highest maximum temperature of **36.0°C** had been recorded at **Kannur Airport (Kerala & Mahe)** on **05<sup>th</sup> & 07<sup>th</sup> January 2025** and **Mumbai Santacruz (Konkan & Goa)** on **05<sup>th</sup> January 2025** over the plains of the country during the week.
- ❖ **Analysis of weekly overall rainfall distribution during the week ending on 08<sup>th</sup> January and Winter Season's Rainfall Scenario (1<sup>st</sup> – 08<sup>th</sup> January 2025):** The country as a whole, the weekly cumulative All India Rainfall (for 02<sup>nd</sup> to 08<sup>th</sup> January 2025) in % departure from its long period average (LPA) is -59%. All India Seasonal cumulative rainfall % departure during this year's Winter Season Rainfall (01<sup>st</sup> – 08<sup>th</sup> January 2024) is -64%. Details of the rainfall distribution over the four broad geographical regions of India are given in Table 1 and Meteorological sub-division-wise rainfall both for week and season are given in Annexure I & II respectively.

**Table 1: Rainfall status (Week and season)**

Region	Week			Season		
	02.01.2025 TO 08.01.2025			01.01.2025 TO 08.01.2025		
	Actual (mm)	Normal (mm)	Departure (%)	Actual (mm)	Normal (mm)	Departure (%)
<b>EAST &amp; NORTHEAST INDIA</b>	<b>4.3</b>	<b>3.4</b>	<b>+26%</b>	<b>4.3</b>	<b>3.7</b>	<b>+16%</b>
<b>NORTH WEST INDIA</b>	<b>1.8</b>	<b>5.6</b>	<b>-67%</b>	<b>1.8</b>	<b>6.6</b>	<b>-72%</b>
<b>CENTRAL INDIA</b>	<b>0.0</b>	<b>1.4</b>	<b>-100%</b>	<b>0.0</b>	<b>1.8</b>	<b>-100%</b>
<b>SOUTH PENINSULA</b>	<b>0.3</b>	<b>2.2</b>	<b>-88%</b>	<b>0.7</b>	<b>2.8</b>	<b>-76%</b>
<b>COUNTRY AS A WHOLE</b>	<b>1.3</b>	<b>3.2</b>	<b>-59%</b>	<b>1.4</b>	<b>3.8</b>	<b>-64%</b>

## 2. Large scale features:

- ❖ Currently, neutral El Niño-Southern Oscillation (ENSO) conditions are observed over the equatorial Pacific. The probability forecast indicates a highest probability of La Niña conditions during the DJF and JFM seasons.
- ❖ Above-average sea surface temperatures (SSTs) are currently seen across most of the Indian Ocean. Currently, neutral Indian Ocean Dipole (IOD) conditions are observed over the Indian Ocean. The latest MMCFS forecast indicates that the neutral IOD conditions are likely to continue for the next several months.

- ❖ The Madden Julian Oscillation (MJO) index is currently in Phase 8 with an amplitude > 1. It is likely to move to phase 1 during the initial days of week 1 with amplitude > 1 and will continue to propagate in Phase 1 for whole week 1. Thereafter, during the initial days of week 2 it likely to move to Phase 2 with amplitude > 1. By the latter half of Week 2, it is likely to propagate to Phase 3 with amplitude remaining > 1 and will remain in Phase 3 for the remaining portion of Week 2.

### **3. Forecast for next two week**

#### **Weather systems & associated Precipitation during Week 1 (09 to 15 January, 2025):**

- ❖ A Western Disturbance as a Cyclonic Circulation lies over southwest Iran & neighbourhood in lower & middle tropospheric levels. Under its influence, Light/moderate isolated to scattered rainfall/snowfall likely over Western Himalayan region on 11<sup>th</sup> & 12<sup>th</sup> and Light/moderate isolated to scattered rainfall likely over the plains of Northwest India and adjoining central India during 10<sup>th</sup> -12<sup>th</sup> January.
  - ✓ Thunderstorm activity at isolated places likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh, West Uttar Pradesh, Rajasthan and Madhya Pradesh on 11<sup>th</sup> January. Isolated hailstorm also likely over south Haryana & Rajasthan on 11<sup>th</sup> January.
- ❖ A cyclonic circulation lies over Southeast Bay of Bengal & adjoining Equatorial Indian Ocean in lower tropospheric levels. Under its influence,
  - ✓ Light to moderate rainfall accompanied with thunderstorm, lightning very likely at a few places over Tamil Nadu, Puducherry & Karaikal during 11<sup>th</sup> – 13<sup>th</sup> and Kerala & Mahe on 12<sup>th</sup> & 13<sup>th</sup> January with Isolated **heavy rainfall** likely over Tamilnadu, Puducherry & Karaikal on 12<sup>th</sup> January.
- ❖ Light to moderate rainfall accompanied with thunderstorm, lightning very likely at isolated places over northeastern states on 13<sup>th</sup> January.
- ❖ Overall, rainfall is likely to be above normal over most parts of south Peninsular & adjoining central India and many parts of plains of northwest India; below normal over rest parts of the country during the week.

#### **Precipitation for week 2 (16 to 22 January, 2025):**

- ❖ No active western disturbance is likely to influence northwest India during the week.

- ❖ Under the influence of likely formation of cyclonic circulation/ Low Pressure area over south Bay of Bengal, isolated to scattered rainfall likely over South Peninsular & adjoining central India during some days of the week.
- ❖ Overall, rainfall is likely to be normal to above normal over most parts of south Peninsular & central India; below normal over rest parts of the country during the week.

### Minimum temperature and Fog forecast & warning for Week 1 (09 to 15 January, 2025):

- ❖ Minimum temperatures are **below 0°C** over many parts of Jammu, Kashmir & Ladakh; **1-4°C** over isolated places of Himachal Pradesh, Punjab, Haryana; **5-10°C** over many parts of Northwest & Central India; **10-15°C** over many parts of East & West India. Today, the lowest minimum temperature of **1.6°C** is reported at **Adampur (Punjab)** over the plains of the country.
- ❖ During the past 24 hours, there has been **fall in minimum temperatures** by 3-6°C over many parts of Uttar Pradesh; by 1-3°C over some parts of Himachal Pradesh, East Madhya Pradesh, Gangetic West Bengal, Odisha, Madhya Maharashtra, Assam & Meghalaya; in isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Chhattisgarh, Telangana and **rise by** 1-3°C over some parts of Rajasthan, West Madhya Pradesh, Gujarat State and Tamil Nadu.
- ❖ Minimum temperatures are **appreciably below normal (-3°C to -5°C)** at isolated places over Madhya Pradesh, Vidarbha, Telangana, Chhattisgarh and Saurashtra & Kutch; **below normal (-1°C to -3°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Haryana, Chandigarh, East Uttar Pradesh, East Rajasthan, Jharkhand, Odisha, Gujarat Region and Marathawada. These are **appreciably above normal (3°C to 5°C)** at isolated places over Assam & Meghalaya; **above normal (1°C to 3°C)** at isolated places over West Rajasthan, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe and near normal over rest part of the country.

### **Forecast of temperature:**

- ❖ Rise in minimum temperatures by 2-4°C likely over Northwest India during 1<sup>st</sup> half of the week and gradual fall by 2-3°C thereafter.
- ❖ Gradual rise in minimum temperatures by 2-4°C likely over Central India during 1<sup>st</sup> half of the week and gradual fall by about 2°C thereafter.
- ❖ No significant change in minimum temperatures likely over East India during next 2 days and gradual rise by 2-4°C thereafter.
- ❖ Rise in minimum temperatures by 2-3°C likely over Maharashtra & Gujarat state during next 2 days and gradual fall by 2-3°C thereafter over Gujarat.

### **Cold Wave Warnings:**

- ❖ **Cold wave** conditions very likely in isolated pockets over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Himachal Pradesh on 09<sup>th</sup> & 10<sup>th</sup>; Punjab, Madhya Pradesh and Chhattisgarh on 09<sup>th</sup> January.

### **Dense Fog Warnings:**

- ❖ **Dense to very Dense fog Condition** very likely to continue to prevail during night/early morning hours in some parts of Punjab till 11<sup>th</sup>; Haryana-Chandigarh till 10<sup>th</sup>; in isolated pockets of Uttar Pradesh till 10<sup>th</sup>; Rajasthan on 12<sup>th</sup> January.
- ❖ **Dense fog conditions** very likely to continue to prevail during night/early morning hours in isolated pockets of Bihar during 10<sup>th</sup> -12<sup>th</sup>; Jharkhand on 10<sup>th</sup> & 11<sup>th</sup>; Himachal Pradesh, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura till 11<sup>th</sup>; Sub-Himalayan West Bengal & Sikkim on 11<sup>th</sup> & 12<sup>th</sup>; West Rajasthan on 11<sup>th</sup>, 13<sup>th</sup> & 14<sup>th</sup>; East Rajasthan on 13<sup>th</sup> & 14<sup>th</sup> January.

### **Minimum temperature forecast and dense fog warning for Week 2 (16 to 22 January, 2025):**

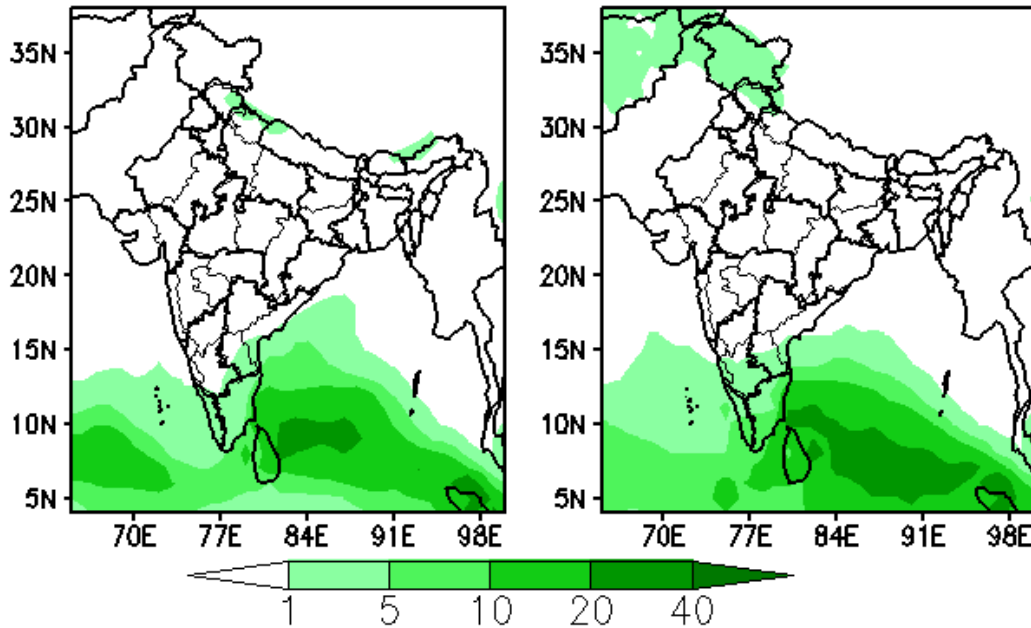
- ❖ Minimum temperatures are likely to be between 4-8°C over many parts of north & adjoining central India (excluding Western Himalayan Region) and above 8°C over rest parts of the country during the week.
- ❖ Minimum temperatures are likely to be near normal or slightly above normal over many parts of northwest India, over northeast India and Gujarat. It is likely to be below normal by 1-3°C over most parts of north Peninsular India, central & east India during the week (**Annexure V**).
- ❖ There is a low to moderate probability of cold wave conditions at isolated places over Punjab, Haryana, north Rajasthan & Madhya Pradesh during some days of the week.
- ❖ **Dense fog is likely to occur in isolated places of Indo Gangetic plains during some to many days of the week.**



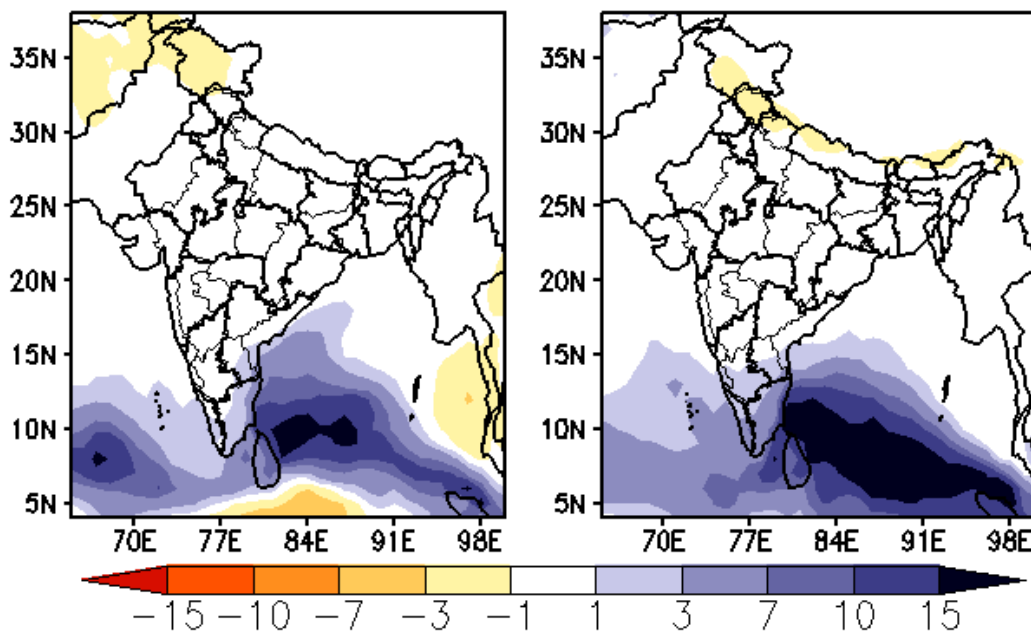




**Forecast Rainfall (mm/day)** (00Z=0530 hrs IST)  
(Week1:00Z09Jan-00Z16Jan) (Week2:00Z16Jan-00Z23Jan)



**Forecast Rainfall Anomaly (mm/day)** (00Z=0530 hrs IST)  
(Week1:00Z09Jan-00Z16Jan) (Week2:00Z16Jan-00Z23Jan)



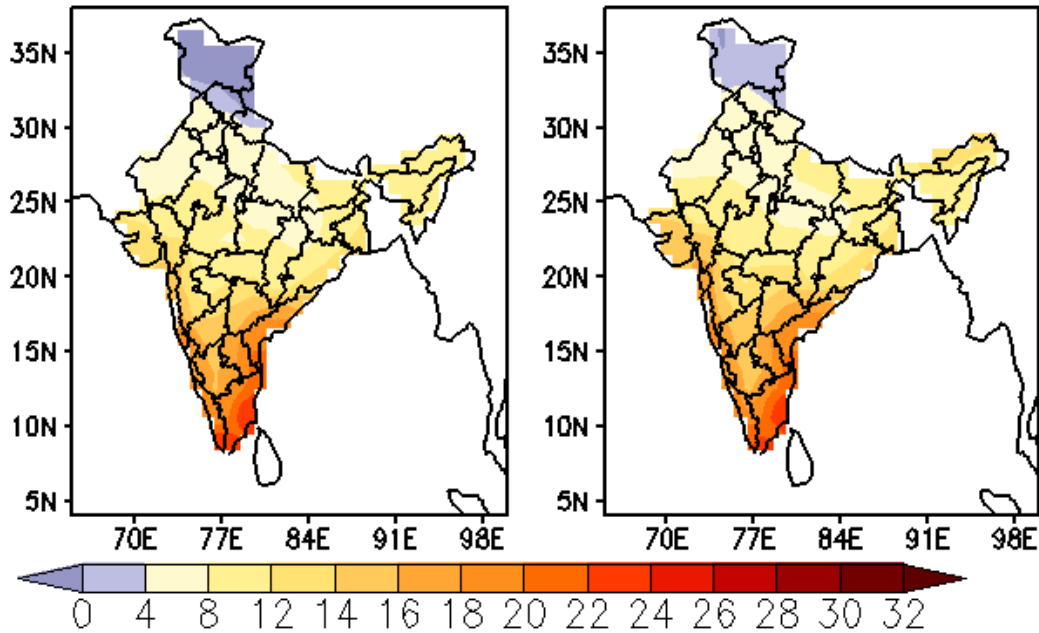
Extended range forecast of weekly distribution of rainfall in mm per day (top panel) and anomalies (lower panel) from IMD MME



### MME Bias corrected forecast Tmin (Deg C)

(Week1: 10Jan-16Jan)

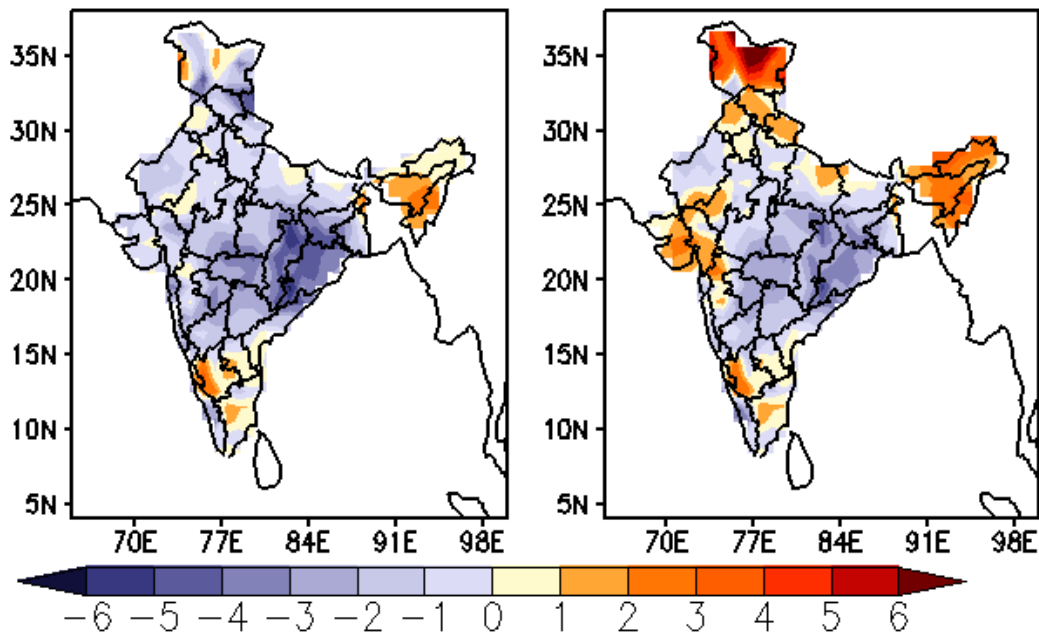
(Week2: 17Jan-23Jan)



### MME forecast Tmin anomaly (Deg C)

(Week1: 10Jan-16Jan)

(Week2: 17Jan-23Jan)



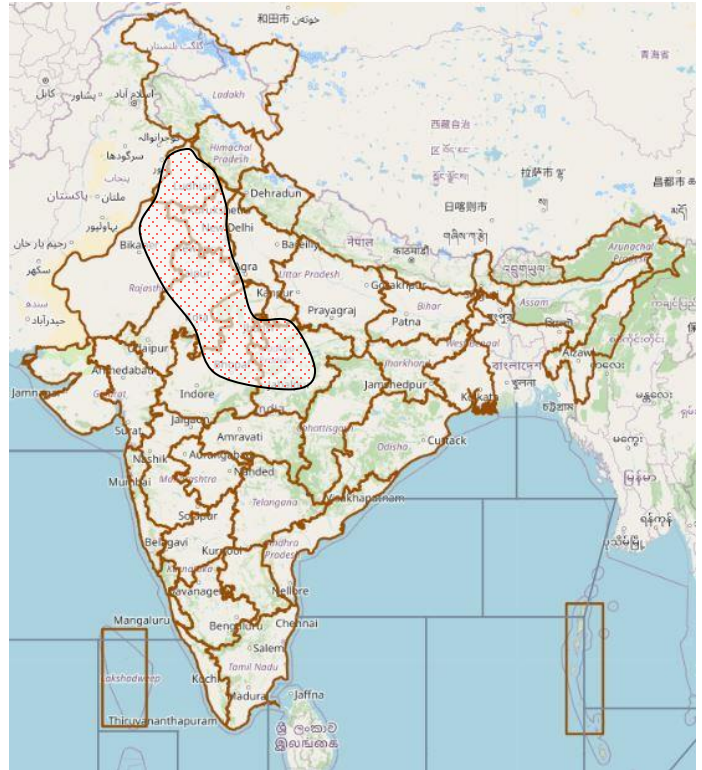
Extended range forecast of weekly distribution of Minimum Temperature in °C (top panel) and anomalies (lower panel) from IMD Bias Corrected Forecast

**Cold Wave forecast during next 2 weeks**

**EXTENDED RANGE OUTLOOK FOR COLDWAVE**

**Week 1: 10.01.2025-16.01.2025**

**Week2: 17.01.2025-23.01.2025**



**PROBABILITY OF COLD WAVE      CONFIDENCE**

- LOW (1-33% PROBABILITY)**
- MODERATE (34-67% PROBABILITY)**
- HIGH (68-100% PROBABILITY)**