

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

Press Release: Dated: 16th January, 2025

Subject: Current Weather Status and Extended range Forecast for the next two weeks (16th to 29th January 2025)

1. Salient Observed Features for the week ending 15th January 2025:

- ❖ **Wet spell over Northwest & adjoining Central India during 11th – 13th January** due to a) movement of an active Western Disturbance as a cyclonic circulation in the lower & upper tropospheric levels which moved from central Pakistan to Punjab & neighbourhood during the period b) induced cyclonic circulation over West Rajasthan & neighbourhood with a trough extending from it to northeast Arabian Sea in lower tropospheric levels c) Interaction of westerly in association with Western Disturbance and easterly winds at lower tropospheric levels d) Favourable location of lower level anti-cyclone over eastern parts of India which provided additional moisture incursion into the region. Light to moderate rainfall occurred over the region during the period accompanied with isolated thunderstorm and hailstorm on 12th & 13th January.
- ❖ Last week's large-scale dense fog/low cloud cover across Indo-Gangetic Plains continued to persist mainly over its western and central parts till 10th January and gradually reduced over western parts, mainly from Punjab on 11th Jan and then over most parts of the region on 13th Jan due to the influence of above active Western Disturbance and induced cyclonic circulation. It re-occurred over Rajasthan during 12th - 15th Jan and in the Indo-Gangetic Plains region, mainly over Uttar Pradesh, Bihar on 14th January and further expanded to Delhi and Haryana on 15th Jan. In terms of meteorological sub-division wise fog observations, **Dense to very Dense Fog** was observed in isolated pockets of Punjab from 9th to 11th & 13th January, Uttar Pradesh from 9th to 15th January, Haryana from 9th to 11th, 13th & 15th January, Meghalaya on 9th & 15th January, Delhi on 10th, 14th & 15th January, Chandigarh on 10th January, West Madhya Pradesh from 10th to 12th & 15th January; Rajasthan from 12th to 15th January; East Madhya Pradesh on 14th January. **Dense Fog**

was observed in isolated pockets of Himachal Pradesh from 9th to 11th & 13th & 14th January, Assam on 9th & 10th January, Odisha on 10th, 12th & 15th January; East Madhya Pradesh on 11th & 15th January, Tripura on 11th January; Gangetic West Bengal on 12th & 15th January; Madhya Maharashtra on 13th January; Uttarakhand on 14th & 15th January, Haryana and Meghalaya on 14th January; Punjab on 15th January.

- ❖ **Cold day to severe cold day** conditions observed in isolated pockets of East Uttar Pradesh on 9th January; East Rajasthan on 13th January; West Madhya Pradesh, East Rajasthan on 14th January.
- ❖ **Cold wave to severe cold wave** conditions prevailed in isolated pockets of Himachal Pradesh on 10th and 15th January.
- ❖ **Heavy to very heavy rainfall** was recorded at isolated places over Andaman & Nicobar Islands on 9th January. **Heavy rainfall** was recorded at isolated places over Tamilnadu, Puducherry & Karaikal on 11th & 15th January.
- ❖ **Weekly Average Minimum temperature** was above normal by 1-3°C over east, northeast and south peninsular India and near normal over rest parts of the country during this week. **Weekly Average Maximum temperature** was below normal by 2-4°C over west & adjoining central 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 **Adampur (Punjab)** on **09th January 2025** and the highest maximum temperature of **36.6°C** had been recorded at **Karwar (Coastal Karnataka)** on **13th January 2025** and **Kannu Airport (Kerala & Mahe)** on **15th January 2025** over the plains of the country during the week.
- ❖ **Analysis of weekly overall rainfall distribution during the week ending on 15th January and Winter Season's Rainfall Scenario (1st – 15th January 2025):** The country as a whole, the weekly cumulative All India Rainfall (for 09th to 15th January 2025) in % departure from its long period average (LPA) is -64%. All India Seasonal cumulative rainfall % departure during this year's Winter Season Rainfall (01st – 15th January 2024) is -63%. 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		
	09.01.2025 TO 15.01.2025			01.01.2025 TO 15.01.2025		
	Actual (mm)	Normal (mm)	Departure (%)	Actual (mm)	Normal (mm)	Departure (%)
EAST & NORTHEAST INDIA	1.2	3.0	-59%	5.6	6.7	-16%
NORTH WEST INDIA	2.1	6.6	-68%	3.9	13.2	-70%
CENTRAL INDIA	0.2	1.9	-87%	0.2	3.7	-93%
SOUTH PENINSULA	2.0	2.2	-11%	2.6	5.0	-48%
COUNTRY AS A WHOLE	1.3	3.6	-64%	2.7	7.4	-63%

2. Large scale features:

- ❖ Over the equatorial Pacific Ocean, weak La Niña conditions are present and are expected to persist through the first quarter of 2025 (January to March). After that, a transition to ENSO-neutral conditions is likely.
- ❖ Near-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 JFM season.
- ❖ The Madden Julian Oscillation (MJO) index is currently in Phase 1 with an amplitude > 1. It is likely to migrate to Phase 2 during the start of week 1 with amplitude > 1 and will continue to propagate in Phase 2 till the first half of week 1. Thereafter, during the later half of week 1 it likely to migrate to Phase 3 with amplitude remaining > 1. By the latter half of Week 2, it is likely to propagate to Phase 3 with amplitude remaining > 1. During the first half of Week 2 it is likely to migrate to Phase 4 with amplitude becoming < 1. By the latter half of Week 2, it is likely to cross into Phase 5 and by the end of week 2 into Phase 6 with amplitude remaining < 1.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (16 to 22 January, 2025):

- ❖ A Western Disturbance as a cyclonic circulation over north Pakistan with a trough aloft in middle & upper tropospheric levels runs roughly along Long. 72°E to the north of Lat. 25°N. An induced cyclonic circulation lies over south Haryana in lower tropospheric levels. Under their influence,
 - ✓ Scattered to Fairly widespread rainfall/snowfall activity likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Uttarakhand on 16th; Himachal Pradesh on 16th & 17th and Isolated rainfall activity over Punjab, Haryana, Chandigarh, Uttar Pradesh, East Rajasthan & Madhya Pradesh on 16th January.
 - ✓ Thunderstorm activity at isolated places likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand and West Uttar Pradesh on 16th January.

- ❖ A fresh intense Western Disturbance is likely to affect Northwest India from 18th to 24th January, under its influence an induced cyclonic circulation is likely to form over West Rajasthan & adjoining Pakistan by 20th January. In addition, high moisture feeding is likely from Arabian Sea to northwest India at lower & middle tropospheric levels from 21st to 23rd January 2025.
 - ✓ It is very likely to cause isolated to scattered rainfall/snowfall activity likely over Western Himalayan region during 18th to 20th and its distribution & Intensity is likely to increase with scattered to fairly widespread rainfall/snowfall from 21st to 24th with peak intensity on 23rd January. Isolated heavy rainfall/snowfall is also likely over the region on 23rd January, 2025. Isolated to scattered rainfall is also likely over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan and West Uttar Pradesh during 20th to 24th January 2025.

- ❖ An upper air cyclonic circulation lies over southeast Arabian Sea off south Kerala coast 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 18th-20th and Kerala & Mahe on 19th & 20th January with isolated **heavy rainfall** likely over Tamilnadu, Puducherry & Karaikal on 18th & 19th and Kerala & Mahe on 19th January.
 - ✓ Isolated **heavy rainfall** likely over Nicobar Islands on 16th January.

- ❖ **Overall, rainfall is likely to be above normal over most parts of south Peninsular & adjoining central India during the week.**

Precipitation for week 2 (23 to 29 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; below normal over rest parts of the country during the week.

Minimum temperature and Fog forecast & warning for Week 1 (16 to 22 January, 2025):

- ❖ Minimum temperatures are **below 0°C** over many parts of Jammu, Kashmir & Ladakh; **1-4°C** over some parts of Himachal Pradesh; **6-10°C** over many parts of Northwest India; **10-15°C** over many parts of Central & East India; **15-20°C** over many parts of West India. Today, the lowest minimum temperature of **3.7°C** is reported at **Nagaur (Rajasthan)** over the plains of the country.
- ❖ During the past 24 hours, there has been **fall in minimum temperatures by 1-3°C** in many parts of Gujarat State; in some parts of Gangetic West Bengal; in isolated pockets of East Uttar Pradesh, East Rajasthan and Vidarbha and **rise by 1-4°C** in many parts of Madhya Pradesh; in some parts of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Haryana Chandigarh & Delhi; in isolated pockets of Uttarakhand, West Uttar Pradesh and Chhattisgarh.
- ❖ Minimum temperatures are **below normal (-1°C to -3°C)** at isolated places over Saurashtra & Kutch. These are **markedly above normal (5°C or above)** at a few places over West Madhya Pradesh; at isolated places over Madhya Maharashtra; **appreciably above normal (3°C to 5°C)** at many places over Coastal Karnataka; at a few places over Haryana, Chandigarh; at isolated places over Punjab, East Rajasthan, East Madhya Pradesh, Bihar, Vidarbha, Marathawada, Telangana, Kerala & Mahe, Tamilnadu Puducherry & Karaikal; **above normal (1°C to 3°C)** at many places over Coastal Andhra Pradesh & Yanam; at a few places over Konkan & Goa, Rayalaseema; at isolated places over Odisha and Chhattisgarh and near normal over rest part of the country.

Forecast of temperature:

- ❖ Gradual fall in minimum temperatures by 2-3°C likely over Northwest India during next 2 days and gradual rise by 2-4°C thereafter during subsequent days of the week.
- ❖ Gradual rise in minimum temperatures by 2-3°C likely over Gujarat Region during 1st half of the week and no significant change thereafter.
- ❖ No significant change in minimum temperatures likely over Central & East India and Maharashtra region during most days of the week.

Dense Fog Warnings:

- ❖ **Dense to very dense fog Condition** very likely to continue to prevail during night/early morning hours in many parts of Punjab, Haryana, Chandigarh on 16th & 17th; in isolated pockets of Uttar Pradesh & East Rajasthan on 16th & 17th and West Rajasthan on 16th January.
- ❖ **Dense fog conditions** very likely to continue to prevail during night/early morning hours in some parts of Punjab, Haryana, Chandigarh on 18th; in isolated pockets of Punjab, Haryana, Chandigarh on 19th & 20th; Himachal Pradesh, Assam & Meghalaya & Nagaland, Manipur, Mizoram & Tripura during 17th-20th; West Rajasthan during 17th-19th; Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Odisha till 18th; Uttar Pradesh & East Rajasthan during 18th-20th; Madhya Pradesh till 19th January.

Cold Day Warnings:

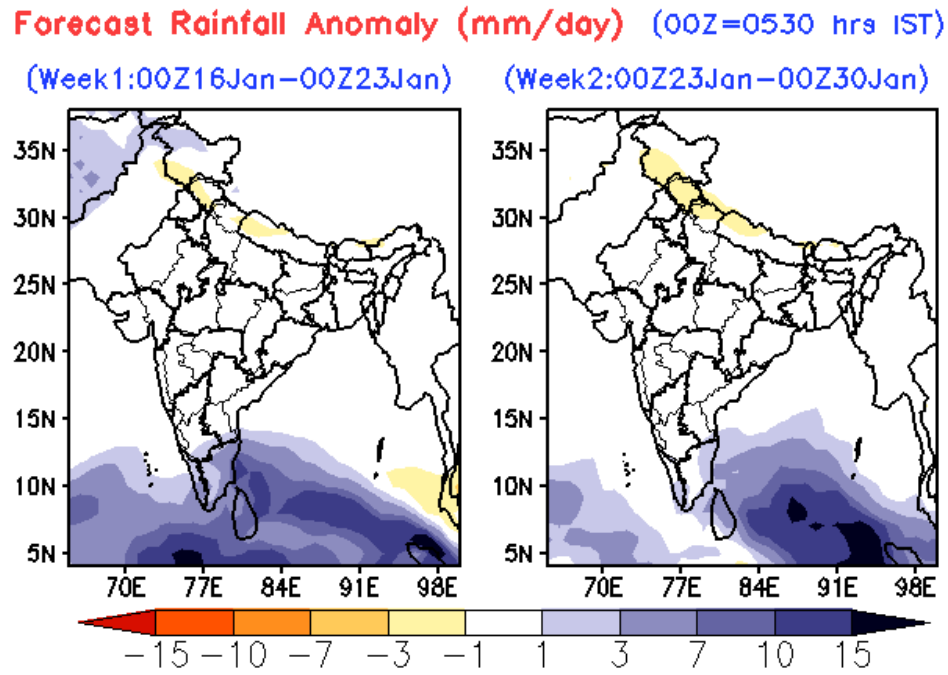
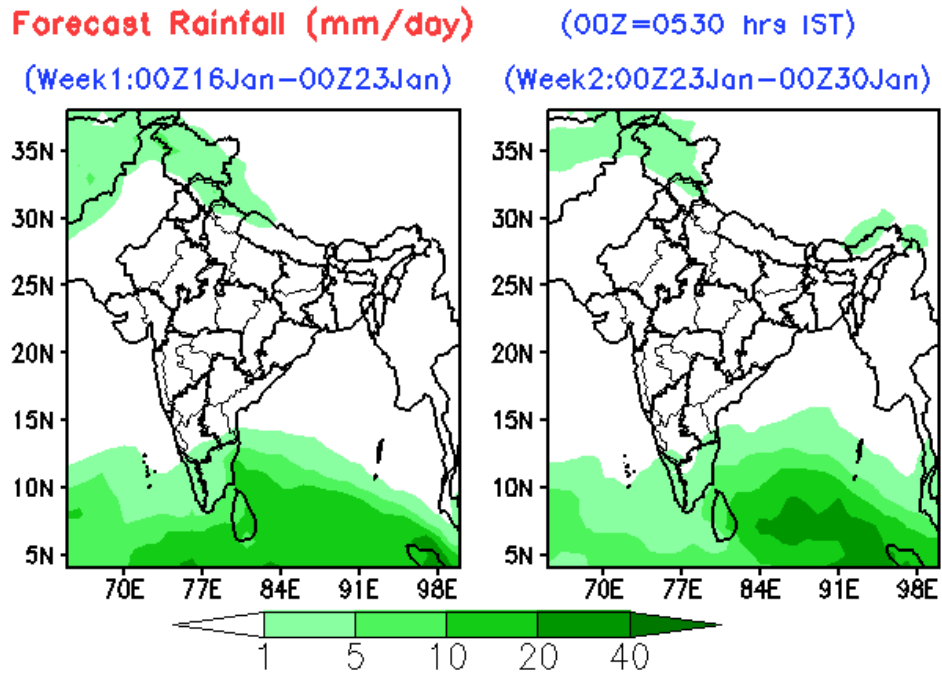
- ❖ **Cold day** conditions very likely in isolated pockets of Himachal Pradesh during 16th-18th and East Rajasthan on 16th & 17th January.

Minimum temperature forecast and dense fog warning for Week 2 (23 to 29 January, 2025):

- ❖ Minimum temperatures are likely to fall by 2-4°C over northwest & central India as compared to week 1. It is likely to be between 4-8°C to be 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 below normal by 1-3°C over most parts of plains of northwest India, central, east & Peninsular India during the week. It is likely to below normal by **(Annexure V)**.
- ❖ There is a low to moderate probability of cold wave conditions at isolated places over Himachal Pradesh, Punjab, Haryana and north Rajasthan 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.**





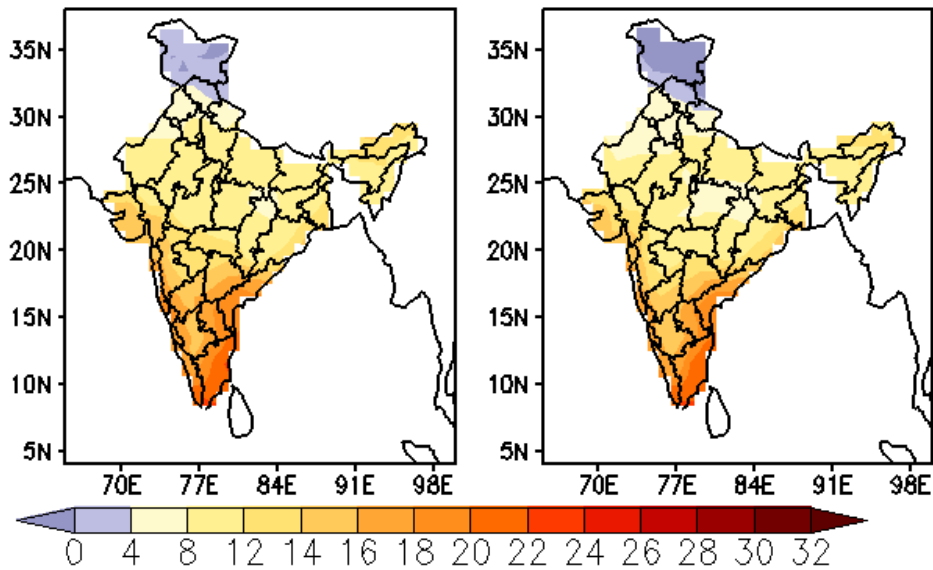


Extended range forecast of weekly distribution of rainfall in mm per day (top panel) and anomalies (lower panel) from IMD MME

MME Bias corrected forecast Tmin (Deg C)

(Week1: 17Jan–23Jan)

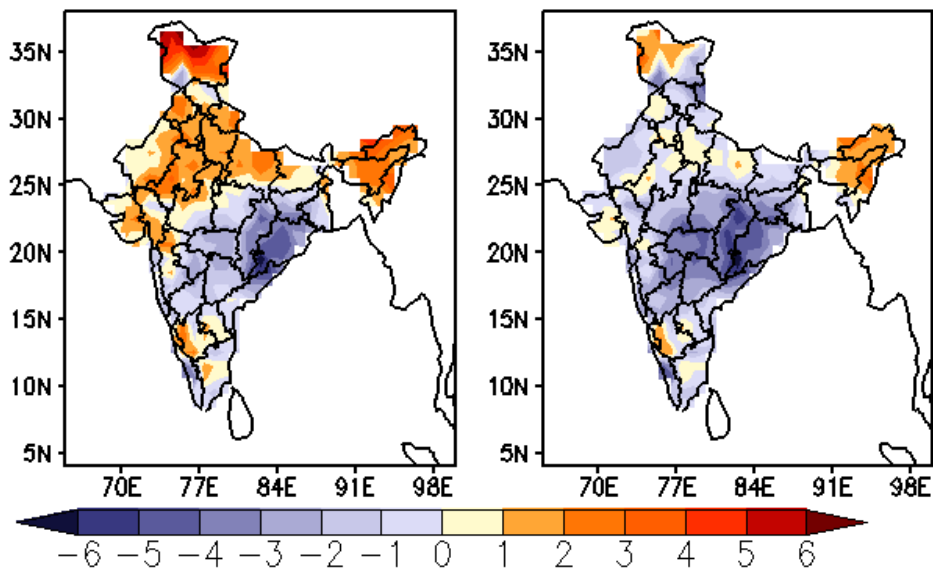
(Week2: 24Jan–30Jan)



MME forecast Tmin anomaly (Deg C)

(Week1: 17Jan–23Jan)

(Week2: 24Jan–30Jan)



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: 03.01.2025- 09.01.2025



Week2: 10.01.2025- 16.01.2025



PROBABILITY OF COLDWAVE	CONFIDENCE
LOW (1-33% PROBABILITY)	
MODERATE (34-67% PROBABILITY)	
HIGH (68-100% PROBABILITY)	

Cold wave warning:

Week 1 (17.01.2025- 23.01.2025)

There is NIL probability of cold wave conditions during week 1.

Week 2 (24.01.2025- 30.01.2025)

There is a low to moderate probability of cold wave conditions over Punjab, Haryana, adjoining north Rajasthan & Himachal Pradesh during some days of week 2.