

**Tuesday, January 30, 2024**  
**Time of Issue: 0800 hours IST**  
**(MORNING)**

## **ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN**

### **Significant Weather Features:**

**Minimum temperatures:** Yesterday, Minimum temperatures were in the range of 7-10°C over many parts of Punjab, Haryana, Chandigarh, Delhi, Uttar Pradesh, Bihar, Jharkhand, north Rajasthan, northeast Madhya Pradesh and Sub-Himalayan West Bengal & Sikkim. These were below normal by 2-4°C over some parts of Bihar and in isolated pockets of East Uttar Pradesh, Jharkhand, Gangetic West Bengal; in the range of 1-3°C over Delhi and East Madhya Pradesh. **Yesterday, the lowest minimum temperature of 5.0 °C reported at Sabaur (Bihar).**

### **Weather Systems and Forecast & Warnings during next 5 days:**

- ❖ **Three Western Disturbances in quick succession are likely to affect northwest India during next one week.** Under the influence of these systems:
  - Light/moderate fairly widespread to widespread rainfall/snowfall very likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand during next 7 days (30<sup>th</sup> Jan to 05<sup>th</sup> Feb).
  - Isolated **heavy rainfall/snowfall** also likely over Kashmir on 30<sup>th</sup> & 31<sup>st</sup> January; over Himachal Pradesh on 31<sup>st</sup> January & 01<sup>st</sup> February, Uttarakhand on 31<sup>st</sup> January and Arunachal Pradesh on 02<sup>nd</sup> February, 2024.
  - Light/moderate isolated to scattered rainfall very likely over Punjab, Chandigarh, Haryana, Uttar Pradesh on 31<sup>st</sup> January & 01<sup>st</sup> February, 2024.
  - Isolated **hailstorm** likely over Sub-Himalayan West Bengal & Sikkim on 31<sup>st</sup> January & 02<sup>nd</sup> February, 2024.

### **Dense fog and Cold day warning:**

- ❖ **Dense to very dense fog** conditions very likely to prevail in morning hours over some parts of Uttar Pradesh and Bihar on 31<sup>st</sup> January & 01<sup>st</sup> February, 2024.
- ❖ **Dense Fog** conditions in isolated pockets very likely to prevail for a few hours in morning over north Rajasthan on 31<sup>st</sup> January, 2024.
- ❖ **Cold Day to Severe Cold Day** conditions very likely to continue in isolated pockets of East Uttar Pradesh and Bihar on 30<sup>th</sup> & 31<sup>st</sup> January, 2024.

### **Minimum Temperature Forecast and Cold wave warning:**

- ❖ Rise by 2-4°C in minimum temperatures very likely over many parts of Northwest & Central India during next 3 days.
- ❖ Rise by 2-3°C in minimum temperatures very likely over many parts of East India during next 24 hours and no significant change thereafter.
- ❖ **No Cold wave conditions** very likely over most parts of the country during next 5 days.

## Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Significant rainfall amount recorded** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **NIL**.
- ❖ Yesterday, **Cold day** conditions prevailed over isolated pockets of Haryana.
- ❖ **Fog conditions observed (at 0530 hours IST of today):** **Very dense fog** in isolated pockets of Punjab, Haryana, northwest Rajasthan and East Uttar Pradesh; **dense fog** in isolated pockets over Delhi, Bihar & Odisha; **moderate fog** in isolated pockets of West Uttar Pradesh and **shallow fog** in isolated pockets of northwest Madhya Pradesh, Coastal Andhra Pradesh and Tripura.
- ❖ **Visibility recorded (at 0530 hours IST of today) ( $\leq 500$  metres):** **Punjab:** Amritsar & Patiala-25 each; **Haryana:** Ambala-25, Hissar-200; **northwest Rajasthan:** Ganganagar-25, Churu-50; **Delhi:** Palam & Safdarjung-50 each; **West Uttar Pradesh:** Bareilly-200; **East Uttar Pradesh:** Varanasi-25, Gorakhpur-50, Bahraich-200, Lucknow & Sultanpur-500 each; **northwest Madhya Pradesh:** Gwalior-500; **Bihar:** Purnea-50, Gaya, Patna & Bhagalpur-500 each; **Odisha:** Chandbali & Bhubaneswar-50 each; **Coastal Andhra Pradesh:** Vijaywada-500; **Tripura:** Kailashahar-500.
- ❖ **Minimum Temperature Departures (as on 29-01-2024):** Minimum temperatures were **appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ )** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ )** at many places over Konkan & Goa, Madhya Maharashtra and Tamil Nadu, Puducherry & Karaikal; at isolated places over Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, Madhya Pradesh, South Interior Karnataka, Coastal Andhra Pradesh & Yanam and Telangana. They were **below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ )** at isolated places over Uttar Pradesh, Bihar, Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of  $5.0^{\circ}\text{C}$  is reported at **Sabaur (Bihar)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 29-01-2024):** Maximum temperatures were **appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ )** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, and Chhattisgarh; **above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ )** at East Madhya Pradesh, Jharkhand and Saurashtra & Kutch. They were **markedly below normal ( $-5.1^{\circ}\text{C}$  or less)** at West Rajasthan and Haryana; **appreciably below normal ( $-3.1^{\circ}\text{C}$  to  $-5.0^{\circ}\text{C}$ )** at isolated places over West Uttar Pradesh; **below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ )** at East Uttar Pradesh, Bihar, Gangetic West Bengal and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature** of  $35.6^{\circ}\text{C}$  is reported at **Karwar (Coastal Karnataka)**.

## Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **Western Disturbance** as a cyclonic circulation over north Pakistan & neighbourhood at 3.1 km with trough aloft in middle tropospheric westerlies at 5.8 km above mean sea level now runs roughly along Long. 75°E to the north of Lat. 32°N.
- ❖ Another **Western Disturbance** as a trough in middle tropospheric westerlies at 5.8 km above mean sea level now runs roughly along Long. 60°E to the north of Lat. 32°N.
- ❖ The **cyclonic circulation** over northwest Rajasthan and adjoining Punjab & Haryana extending upto 0.9 km above mean sea level persists.
- ❖ **Jet Stream Winds** of the order of 120-140 knots at 12.6 km above mean sea level continue to prevail over North India.
- ❖ A fresh **Western Disturbance** is likely to affect Northwest India from 03<sup>rd</sup> February, 2024.

## Weather Forecast for next 7 days (Upto 0830 hours IST of 06<sup>th</sup> Feb., 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Rise by 2-4°C in minimum temperatures very likely over many parts of Northwest & Central India during next 3 days.
- ❖ Rise by 2-3°C in minimum temperatures very likely over many parts of East India during next 24 hours and no significant change thereafter.
- ❖ No significant change in minimum temperatures over rest parts of the country.

## Weather Outlook for subsequent 2 days

- ❖ Light rainfall/snowfall at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, north Haryana, West Rajasthan, Punjab, Uttar Pradesh, northeast India and light rainfall at isolated places over Andaman & Nicobar Islands.
- ❖ Mainly dry weather likely to prevail over rest parts of the country.

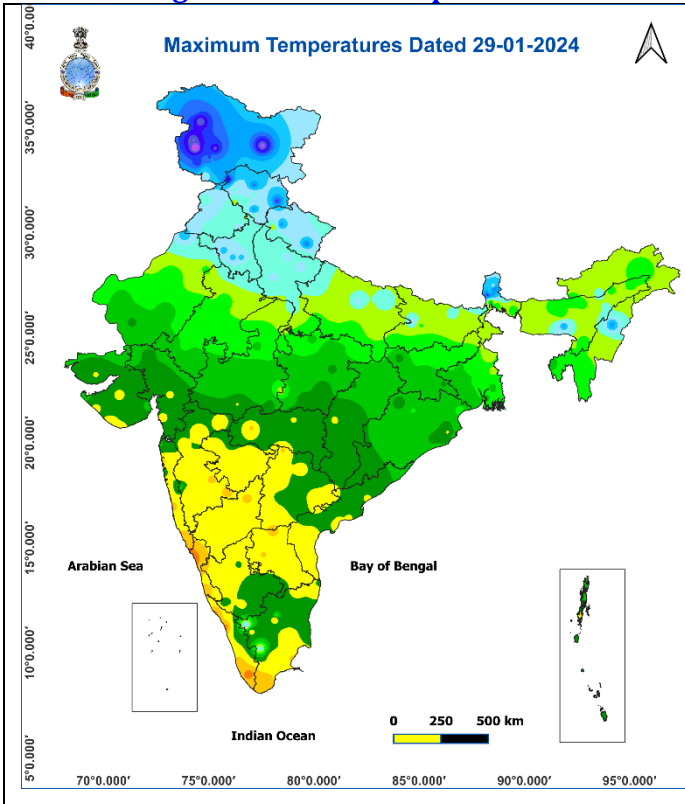
Table-1

7 Days Rainfall Forecast								
S. No.	Subdivision	30-Jan	31-Jan	01-Feb	02-Feb	03-Feb	04-Feb	05-Feb
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
2	ARUNACHAL PRADESH	SCT	SCT	FWS	WS	SCT	SCT	SCT
3	ASSAM & MEGHALAYA	ISOL	ISOL	SCT	FWS	ISOL	ISOL	SCT
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	ISOL	ISOL	SCT	FWS	ISOL	ISOL	ISOL
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	SCT	ISOL	SCT	ISOL	ISOL	ISOL
6	GANGETIC WEST BENGAL	ISOL	SCT	FWS	SCT	DRY	DRY	DRY
7	ODISHA	DRY	DRY	ISOL	ISOL	DRY	DRY	DRY
8	JHARKHAND	DRY	ISOL	SCT	DRY	DRY	DRY	DRY
9	BIHAR	DRY	DRY	ISOL	ISOL	DRY	DRY	DRY
10	EAST UTTAR PRADESH	DRY	ISOL	ISOL	DRY	DRY	ISOL	ISOL
11	WEST UTTAR PRADESH	DRY	SCT	SCT	DRY	ISOL	ISOL	ISOL
12	UTTARAKHAND	ISOL	WS	FWS	ISOL	SCT	FWS	FWS
13	HARYANA CHANDIGARH & DELHI	DRY	SCT	SCT	DRY	SCT	ISOL	ISOL
14	PUNJAB	ISOL	FWS	SCT	DRY	SCT	ISOL	ISOL
15	HIMACHAL PRADESH	FWS	WS	WS	ISOL	FWS	FWS	FWS
16	JAMMU & KASHMIR AND LADAKH	WS	WS	SCT	ISOL	WS	WS	WS
17	WEST RAJASTHAN	DRY	ISOL	DRY	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	DRY	ISOL	DRY	DRY	ISOL	ISOL	ISOL
19	WEST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
21	GUJARAT REGION	DRY	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
25	MARATHAWADA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
26	VIDARBHA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
27	CHHATTISGARH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
28	COASTAL ANDHRA PRADESH & YANAM	DRY	DRY	DRY	DRY	DRY	DRY	DRY
29	TELANGANA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
30	RAYALASEEMA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
31	TAMILNADU PUDUCHERRY & KARAIKAL	DRY	ISOL	ISOL	ISOL	DRY	DRY	DRY
32	COASTAL KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
35	KERALA & MAHE	DRY	ISOL	ISOL	ISOL	ISOL	DRY	DRY
36	LAKSHADWEEP	DRY	DRY	DRY	DRY	DRY	DRY	DRY

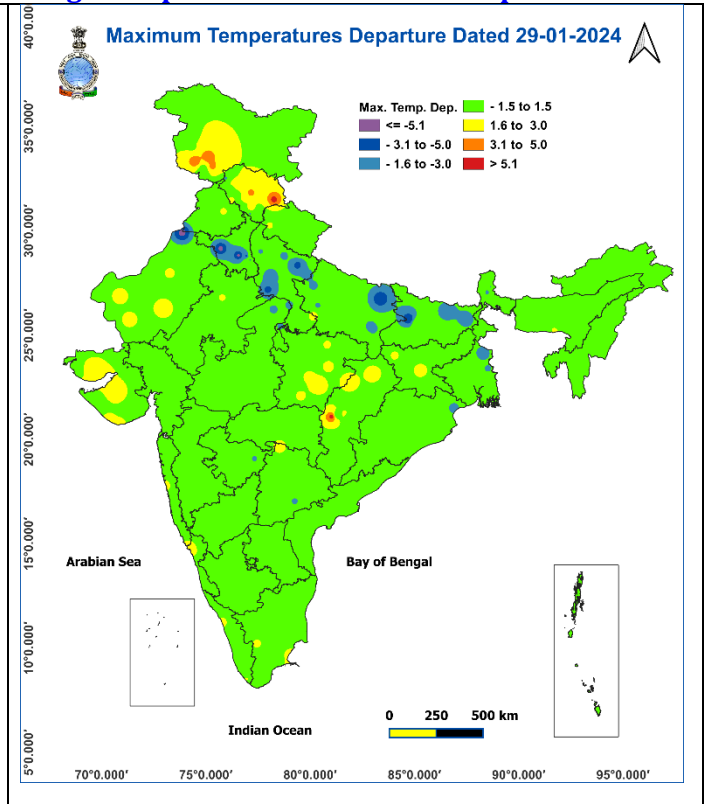
Legend	Category	% Stations
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many Places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0

\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".  
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.  
For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599  
(Service to the Nation since 1875)

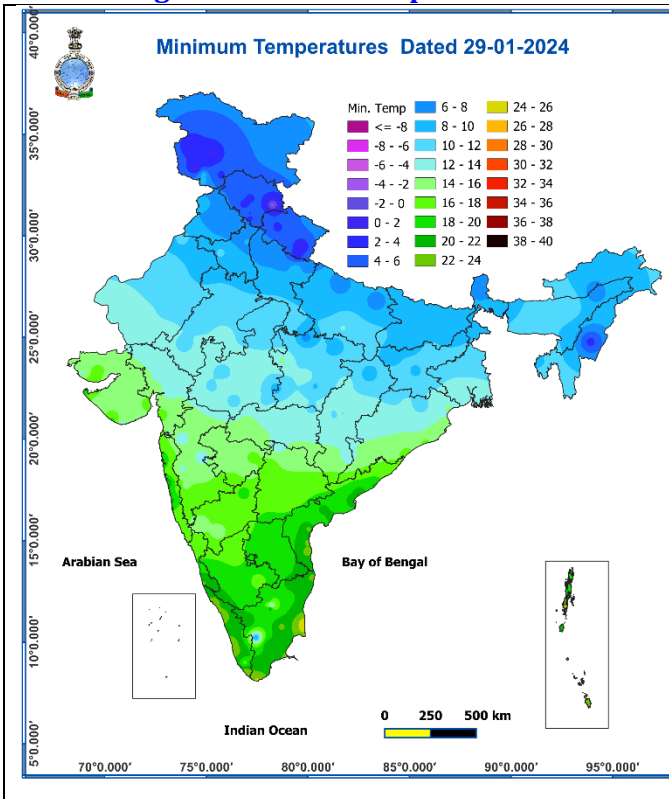
**Fig. 1: Maximum Temperatures**



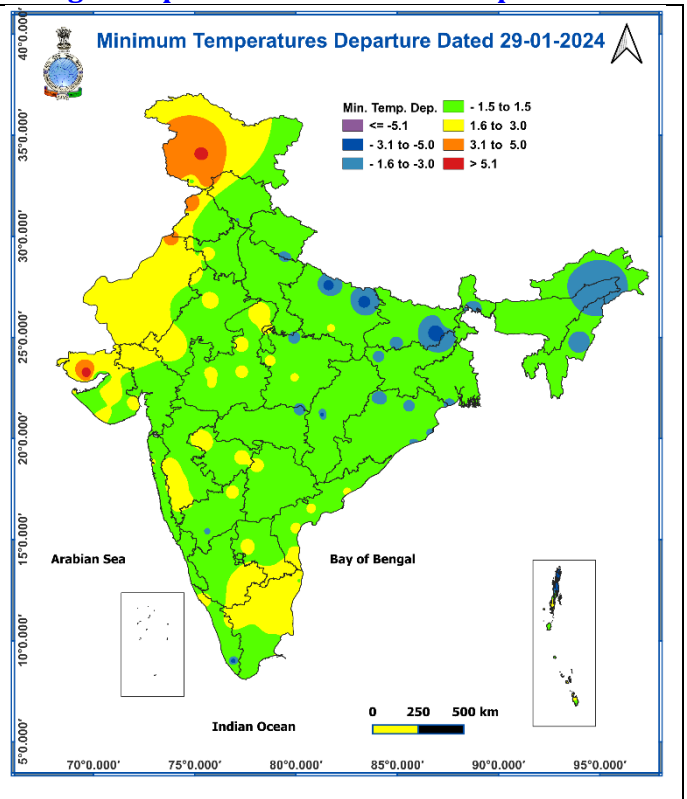
**Fig. 2: Departure of Maximum Temperatures**



**Fig. 3: Minimum Temperatures**



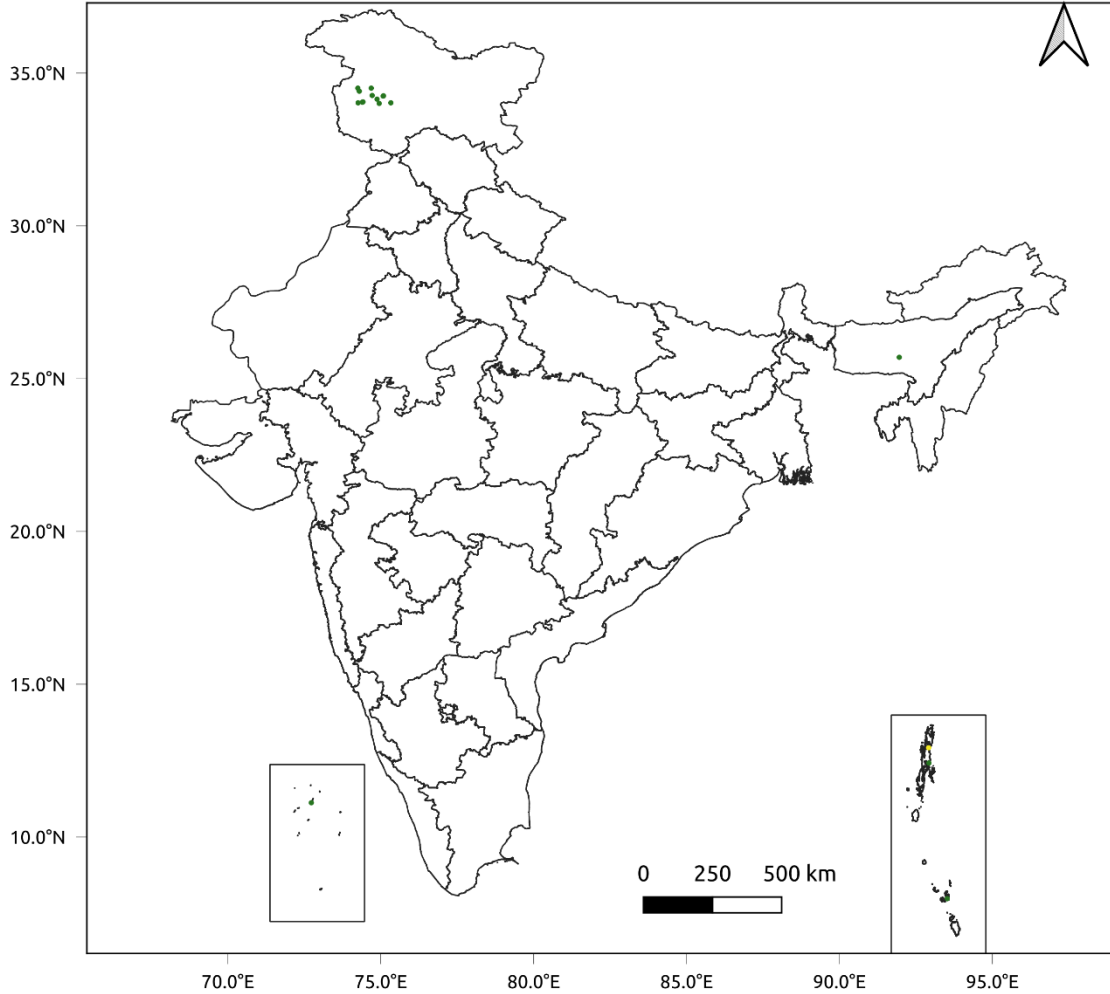
**Fig. 4: Departure of Minimum Temperatures**



**Fig. 5: Accumulated Rainfall (mm) during past 24 hours**

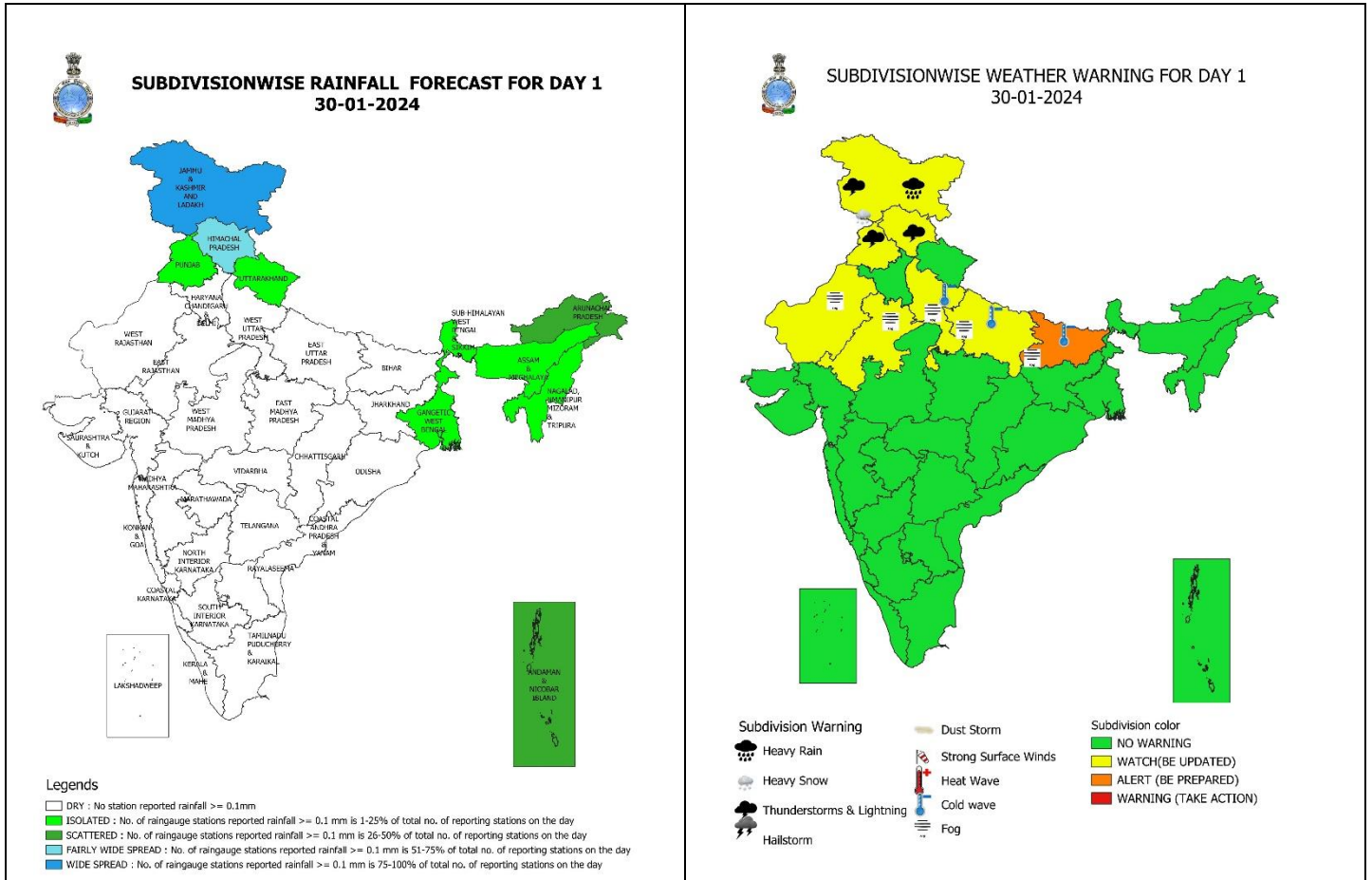


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 28-1-2024 to 0830 IST of 29-1-2024



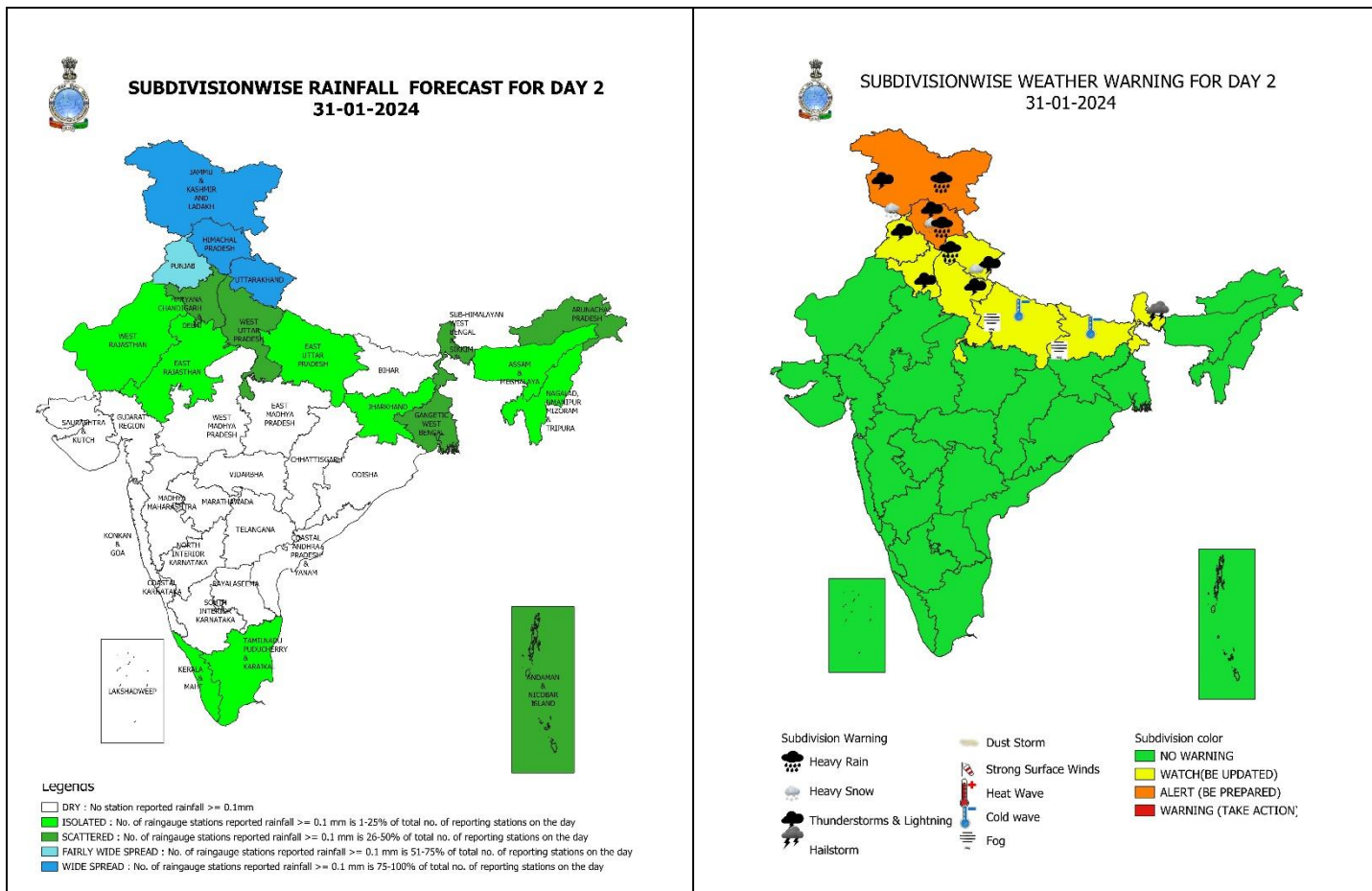
### Legends

- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall ( $\geq 204.5$  mm)



## 30 January (Day 1):

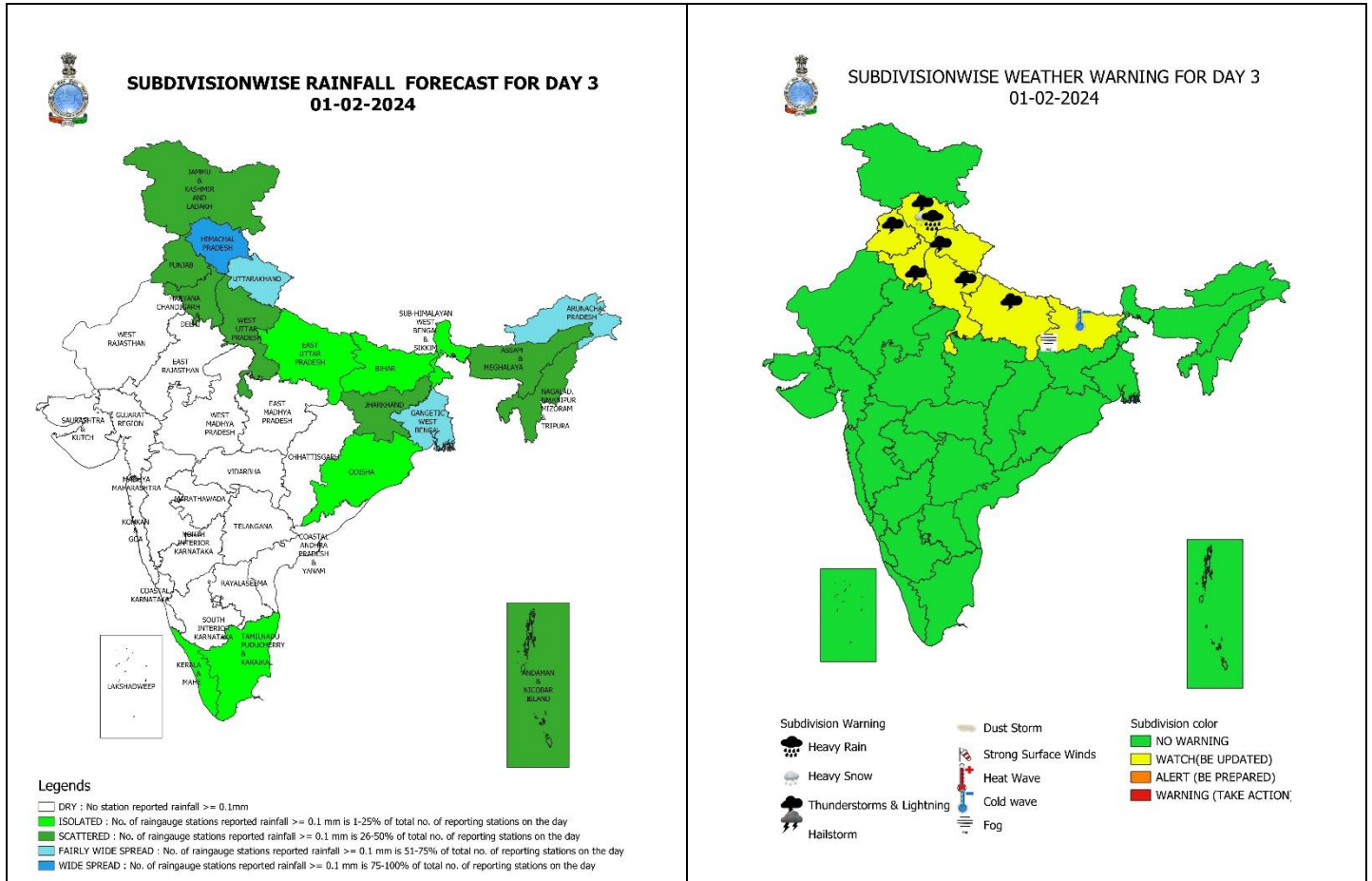
- ❖ **Dense to very dense fog** conditions very likely in isolated pockets over Uttar Pradesh and **Dense fog** in some parts over Bihar; in isolated pockets over north Rajasthan.
- ❖ **Cold day to severe cold day** conditions very likely in isolated pockets over Bihar and Uttar Pradesh.
- ❖ **Heavy Rainfall/snowfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Punjab.
- ❖ **Squally weather with wind speed 40-45 kmph gusting to 55 kmph** very likely to prevail over Comorin area. Fishermen are advised not to venture into these areas.



### 31 January (Day 2):

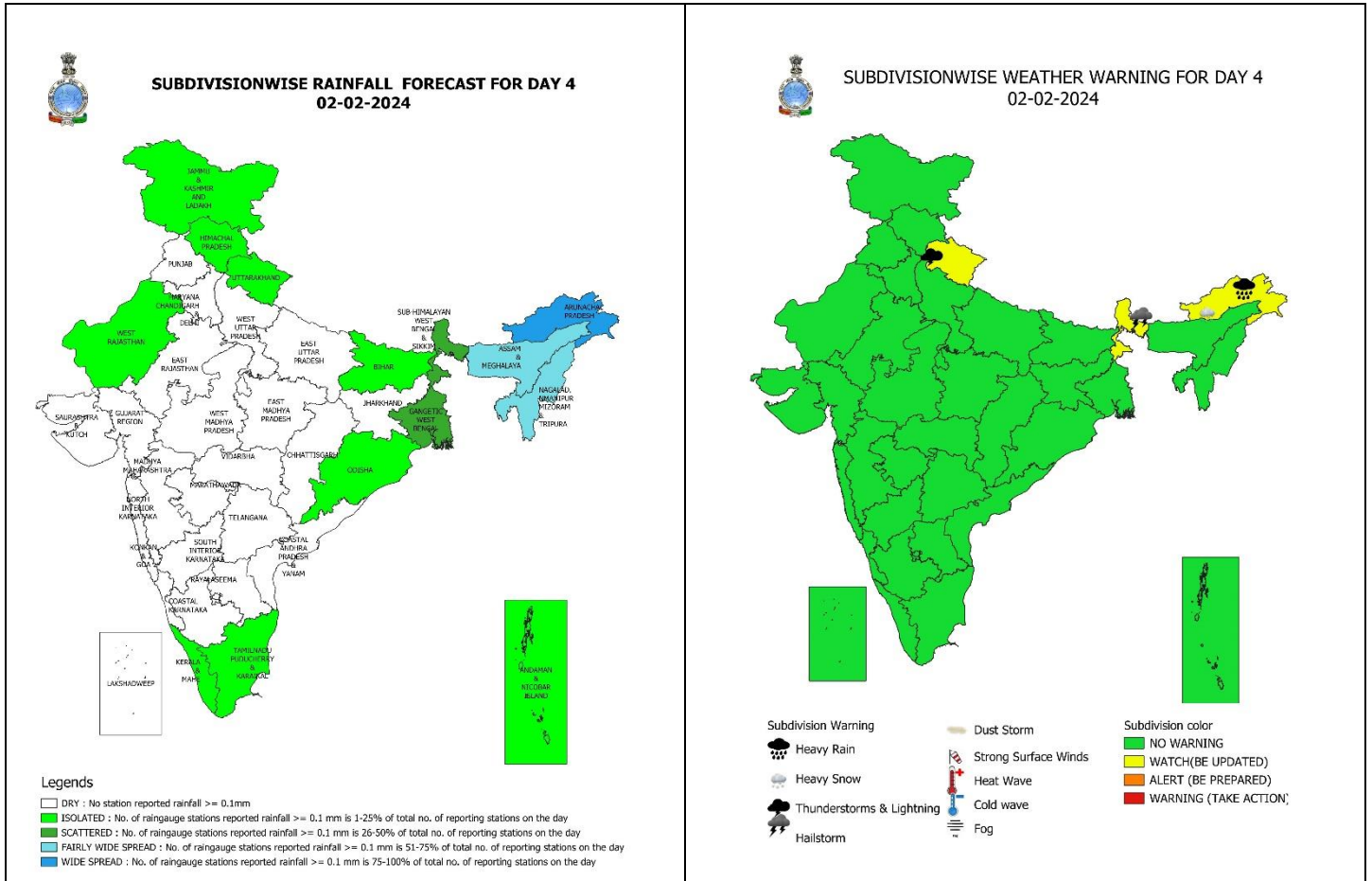
- ❖ **Dense to very dense fog** conditions very likely in isolated pockets over East Uttar Pradesh and **Dense fog** in some parts over Bihar.
- ❖ **Cold day to severe cold day** conditions very likely in isolated pockets over Bihar; **Cold day** conditions in isolated pockets over East Uttar Pradesh.
- ❖ **Heavy Rainfall/snowfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand.
- ❖ **Thunderstorm accompanied with lightning & hail** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh and West Uttar Pradesh.





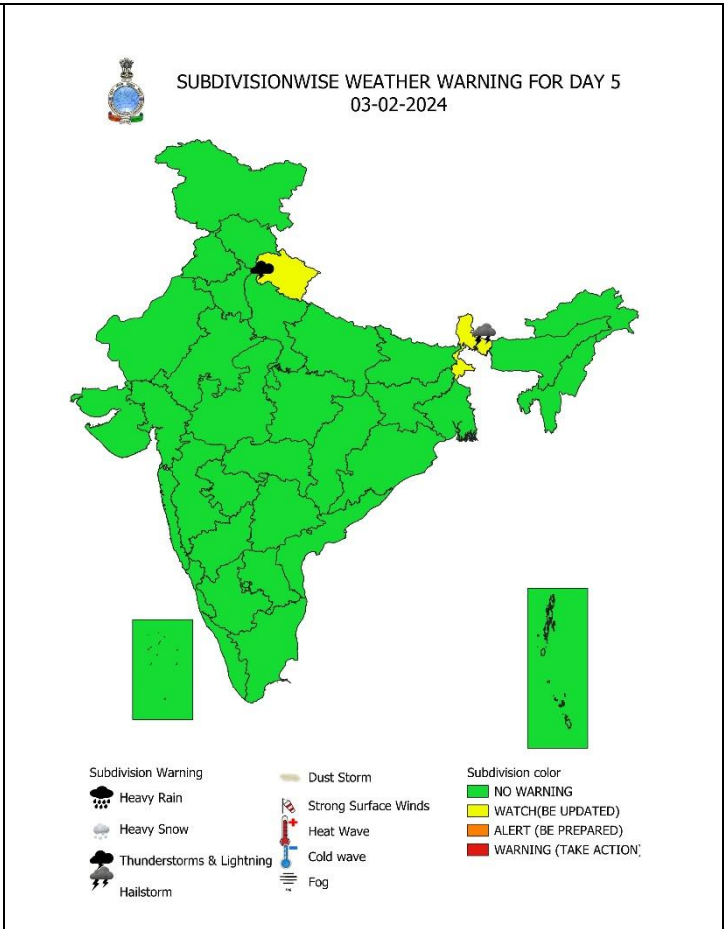
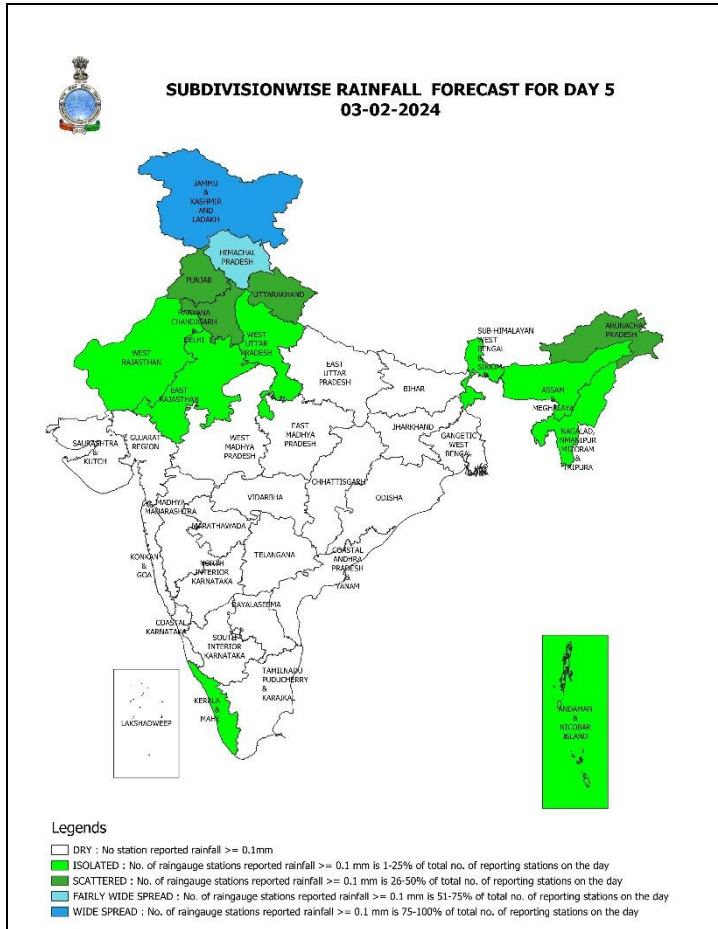
## 01 February (Day 3):

- ❖ Dense fog conditions likely in some parts over Bihar.
- ❖ Cold day to severe cold day conditions likely in isolated pockets over Bihar.
- ❖ Heavy Rainfall/snowfall likely at isolated places over Himachal Pradesh.
- ❖ Thunderstorm accompanied with lightning likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh and Uttar Pradesh.



## 02 February (Day 4):

- ❖ **Thunderstorm accompanied with lightning & hail** likely at isolated places over Sub-Himalayan West Bengal & Sikkim and **with lightning** at isolated places over Uttarakhand.
- ❖ **Heavy Rainfall/snowfall** likely at isolated places over Arunachal Pradesh.

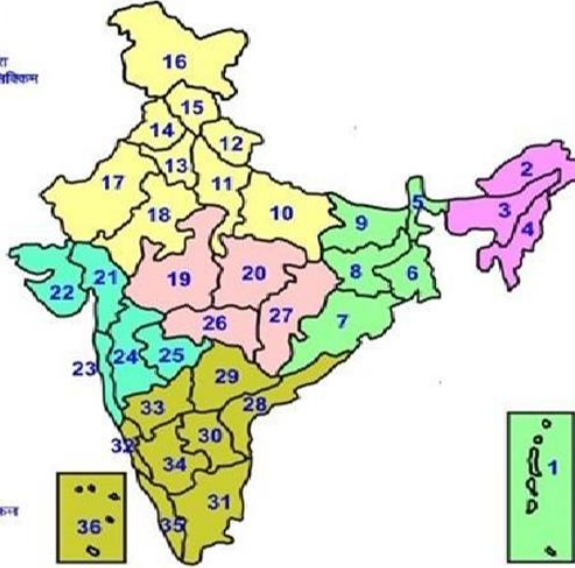


## 03 February (Day 5):

❖ **Thunderstorm accompanied with lightning & hail** likely at isolated places over Sub-Himalayan West Bengal & Sikkim and **with lightning** at isolated places over Uttarakhand.

## LEGENDS

- 1 अंडमन और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मणिपुर मीज़ोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडीगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवंम लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 उत्तरीसमूह
- 28 तटीय आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 दख्खिणी
- 31 पश्चिमनाडु, पुदुचेरी एवंम कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल एवंम माहे
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathwada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

## SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

## WARNING

WARNING (TAKE ACTION)
ALERT ( BE PREPARED)
WATCH (BE UPDATED)
NO WARNING ( NO ACTION)

## Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

## LEGENDS

### WARNING

<b>WARNING (TAKE ACTION)</b>
ALERT ( BE PREPARED)
WATCH (BE UPDATED)
NO WARNING ( NO ACTION)

### Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



Rain/ Snow \*

Heavy: 64.5 to 115.5 mm/cm \*  
Very Heavy: 115.6 to 204.4 mm/cm\*  
Extremely Heavy: > 204.4 mm/cm \*



Heat Wave

When maximum temperature of a station reaches  $\geq 40^{\circ}\text{C}$  for plains and  $\geq 30^{\circ}\text{C}$  for hilly regions  
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .  
Severe Heat Wave: Maximum Temperature Departure from normal  $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature  $\geq 45^{\circ}\text{C}$ .  
Severe Heat Wave: When actual maximum temperature  $\geq 47^{\circ}\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is  $> 4.5^{\circ}\text{C}$  from normal. Heat Wave may be described provided maximum temperature  $\geq 37^{\circ}\text{C}$



Warm Night

When maximum temperature remains  $40^{\circ}\text{C}$

Warm Night: When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .  
Severe Warm Night: When minimum temperature departure  $> 6.4^{\circ}\text{C}$ .



Cold Wave

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .  
Severe Cold Wave: Minimum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is  $\leq 4.0^{\circ}\text{C}$   
Severe Cold Wave: When Minimum Temperature is  $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is  $\leq -4.5^{\circ}\text{C}$  & actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$



Cold Day

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions  
Based on departure

Cold Day: Maximum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .  
Severe Cold Day: Maximum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$



Fog

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres  
Dense Fog: when the visibility between 50- 200 metres  
Very Dense Fog: when the visibility  $< 50$  metres



Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Frost

Ice deposits on ground

Air temperature  $\leq 4^{\circ}\text{C}$  ( over Plains)



Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph  
Severe: Wind speed 62-87 kmph  
Very Severe: Wind speed  $> 87$  kmph



Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre  
High to very high: Wind speed 63-117 kmph ( 34-63 knots) & Wave height 6-14 metre  
Phenomenal: Wind speed  $> 117$  kmph ( $> 63$  knots) & Wave height  $> 14$  metre



Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)  
Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)  
Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)  
Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)  
Super Cyclone Strom: Wind speed  $> 220$  kmph ( $> 119$  knots)

\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.

For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599

(Service to the Nation since 1875)