

Monday, April 8, 2024
Time of Issue: 0745 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems and Forecast & Warnings:

- ❖ A cyclonic circulation lies over east Assam in lower tropospheric levels. Under its influence:
 - ✓ Fairly widespread to widespread light/moderate rainfall/snowfall with isolated **thunderstorms & lightning** very likely over Arunachal Pradesh; scattered to fairly widespread light to moderate rainfall with isolated **thunderstorms, lightning & gusty winds** over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 08th to 10th April.
 - ✓ **Isolated heavy rainfall also very likely over Arunachal Pradesh on 08th April, 2024.**
- ❖ The trough/wind discontinuity runs from interior Odisha to north Tamil Nadu across Chhattisgarh, Vidarbha and interior Karnataka in lower tropospheric levels. Under its influence;
 - ✓ Scattered to fairly widespread light/moderate rainfall accompanied with **thunderstorms, lightning & gusty winds (30-50 kmph)** very likely over Madhya Pradesh, Chhattisgarh, Marathwada, Vidarbha Jharkhand and Gangetic West Bengal during 08th-12th; Odisha and Bihar on 08th; and Madhya Maharashtra during 09th-12th April, 2024.
 - ✓ Isolated light/moderate rainfall accompanied with **thunderstorms, lightning & gusty winds (30-50 kmph)** very likely over Coastal Andhra Pradesh & Yanam and Telangana during 08th-12th; Kerala & Mahe on 09th; Tamil Nadu, Puducherry & Karaikal during 10th-12th April, 2024.
 - ✓ **Hailstorm activity also very likely at isolated places over Madhya Pradesh on 08th & 09th; Vidarbha, Chhattisgarh and Marathwada on 08th April, 2024.**
- ❖ Two Western Disturbances are likely to affect Northwest India, the first from 10th April and the second from 13th April, 2024. Under the influence of these systems:
 - ✓ Scattered to fairly widespread light rainfall/snowfall with **thunderstorms, lightning** very likely over Jammu-Kashmir, Himachal Pradesh during 10th-13th; and isolated light rainfall/snowfall over Uttarakhand during 08th-13th April, 2024.
 - ✓ Isolated light to moderate rainfall with **thunderstorms, lightning** very likely over Rajasthan and Uttar Pradesh during 10th-13th; Punjab and Haryana on 13th April, 2024.

Maximum temperature observation and forecast for next 5 days:

- ❖ Yesterday, maximum temperatures were in the range of **42-44°C** over many parts of Rayalaseema; in isolated pockets over south coastal Andhra Pradesh & North Interior Karnataka and in the range of **40-42°C** over many parts of Telangana & north Tamil Nadu, in isolated pockets over Kerala, Coastal Andhra Pradesh, Madhya Maharashtra, Marathwada & southwest Madhya Pradesh. They were above normal by 2-5°C over the region.
- ❖ Yesterday, the **maximum temperature exceeded 98th percentile** over some parts of Vidarbha, Madhya Maharashtra, South Interior Karnataka & south interior Odisha and in isolated pockets over Kerala, north Interior Tamil Nadu & Rayalaseema. The **maximum temperature likely to exceed 98th percentile** at isolated pockets over north Interior Tamil Nadu on 08th; Kerala, & Interior Karnataka during 08th-11th and over Rayalaseema on 08th & 09th April, 2024.

Heat wave, Warm Night and Hot & Humid weather warning for next 5 days:

- ❖ **Heat wave conditions** very likely in isolated pockets over South Coastal Andhra Pradesh, Rayalaseema, Telangana and Interior Karnataka on 08th April, 2024.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over North Interior Karnataka on 08th April, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Kerala & Mahe, coastal areas of Gujarat, Coastal Andhra Pradesh & Yanam and Rayalaseema during 08th-12th April, 2024.

Main Weather Observations:

- ❖ **Rainfall/snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at many places over Arunachal Pradesh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Himachal Pradesh.
- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Odisha, Chhattisgarh, Jharkhand, Kerala & Mahe, East Madhya Pradesh.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **Assam:** Dibrugarh-2; **Tripura:** Kadamatala-3; **Odisha:** Ganjam, Khurdha -2 each; **Arunachal Pradesh:** West Siang-2.
- ❖ Yesterday, **heat wave to severe heat wave conditions** prevailed in some parts of south Coastal Andhra Pradesh and **heat wave** condition in isolated pockets over North Interior Karnataka & Telangana.
- ❖ Yesterday, **Hailstorm** observed at isolated places over Odisha (Balasore).
- ❖ Yesterday, **Warm night** prevailed in isolated pockets of Odisha.
- ❖ Yesterday, **Hot and Humid condition** prevailed in some parts of Kerala.
- ❖ **Minimum Temperature Departures (as on 07-04-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Madhya Maharashtra and Odisha; **above normal (1.6°C to 3.0°C)** at most places over Bihar, Jharkhand, Marathwada and Coastal Karnataka; at many places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Telangana and North Interior Karnataka; at a few places over Vidarbha, West Bengal & Sikkim, Chhattisgarh and Kerala & Mahe; at isolated places over East Uttar Pradesh, Madhya Pradesh, Arunachal Pradesh, Rayalaseema, Coastal Andhra Pradesh & Yanam and South Interior Karnataka. These were **below normal (-1.6°C to -3.0°C)** at many places over Haryana-Chandigarh-Delhi; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, West Uttar Pradesh, Rajasthan, Punjab, Saurashtra & Kutch and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 13.4°C** was reported at **Hissar (Haryana)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 07-04-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at many places over Sub-Himalayan Gangetic West Bengal & Sikkim; at a few places over Andhra Pradesh; **above normal (1.6°C to 3.0°C)** at most places over Interior Karnataka, Arunachal Pradesh; at many places over Assam & Meghalaya, Telangana, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe; at a few places over Rayalaseema; at isolated places over Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, West Rajasthan Haryana-Chandigarh-Delhi, Uttar Pradesh, Bihar, Madhya Maharashtra, Marathwada, Konkan & Goa Gujarat Region. These were **below normal (-1.6°C to -3.0°C)** at a few places over Chhattisgarh, East Madhya Pradesh, Gangetic West Bengal; at isolated places over East Rajasthan, West Madhya Pradesh, Saurashtra & Kutch, Odisha and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 44.4°C** was reported at **Anantapur (Rayalaseema)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Western Disturbance now seen as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along long. 78°E to the north of lat. 30°N.
- ❖ The trough/wind discontinuity from interior Odisha to north Tamil Nadu across Chhattisgarh, Vidarbha, Marathwada & interior Karnataka extending upto 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over east Assam & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over southeast Rajasthan & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ A fresh Western Disturbance is likely to affect Western Himalayan Region from 10th April, 2024.
- ❖ Another fresh Western Disturbance is likely to affect Northwest India from 13th April, 2024.

Weather Forecast for next 7 days (Upto 0830 hours IST of 15th April, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Gradual fall by 2-4°C in maximum temperatures very likely over many parts of Central India during next 2 days and no significant change thereafter.
- ❖ Fall by 2-4°C in maximum temperatures very likely over many parts of East India during next 24 hours and gradual rise about 2°C for subsequent 4 days.
- ❖ No significant change in maximum temperatures very likely over many parts of South India during next 24 hours then gradual fall by 2-3°C for subsequent 4 days.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

Weather Outlook for subsequent 3 days (During 15th-17th April, 2024)

- ❖ Isolated to scattered light/moderate rainfall/snowfall likely over Northeast India and Western Himalayan Region.
- ❖ Isolated light rainfall likely over plains of Northwest India, East, Central & south Peninsular India.
- ❖ Dry weather likely to prevail over rest parts of the country.

Table-1

7 Days Rainfall Forecast

S. No.	Subdivision	08-Apr	09-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	DRY	DRY	ISOL	ISOL	ISOL	DRY	DRY
2	ARUNACHAL PRADESH	FWS	FWS	FWS	SCT	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	SCT	SCT	ISOL	ISOL	FWS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	SCT	SCT	ISOL	ISOL	FWS	SCT	SCT
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	SCT	ISOL	SCT	SCT	SCT	ISOL	ISOL
6	GANGETIC WEST BENGAL	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
7	ODISHA	FWS	ISOL	ISOL	ISOL	DRY	DRY	DRY
8	JHARKHAND	ISOL	ISOL	ISOL	ISOL	ISOL	DRY	DRY
9	BIHAR	ISOL	DRY	DRY	DRY	ISOL	ISOL	ISOL
10	EAST UTTAR PRADESH	ISOL	ISOL	ISOL	ISOL	DRY	ISOL	ISOL
11	WEST UTTAR PRADESH	DRY	DRY	ISOL	ISOL	DRY	ISOL	ISOL
12	UTTARAKHAND	ISOL	ISOL	ISOL	SCT	ISOL	ISOL	ISOL
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
15	HIMACHAL PRADESH	DRY	DRY	SCT	SCT	ISOL	SCT	SCT
16	JAMMU & KASHMIR AND LADAKH	DRY	DRY	FWS	SCT	SCT	SCT	SCT
17	WEST RAJASTHAN	DRY	DRY	ISOL	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	DRY	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
19	WEST MADHYA PRADESH	ISOL	SCT	SCT	ISOL	ISOL	ISOL	ISOL
20	EAST MADHYA PRADESH	SCT	SCT	SCT	SCT	ISOL	ISOL	ISOL
21	GUJARAT REGION	DRY	DRY	DRY	ISOL	ISOL	ISOL	ISOL
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
23	KONKAN & GOA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	ISOL	ISOL	ISOL	ISOL	ISOL	DRY	DRY
25	MARATHAWADA	ISOL	SCT	SCT	ISOL	ISOL	ISOL	ISOL
26	VIDARBHA	SCT	SCT	SCT	SCT	ISOL	ISOL	ISOL
27	CHHATTISGARH	SCT	SCT	SCT	SCT	ISOL	ISOL	ISOL
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
29	TELANGANA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	DRY	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
33	NORTH INTERIOR KARNATAKA	DRY	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
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

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

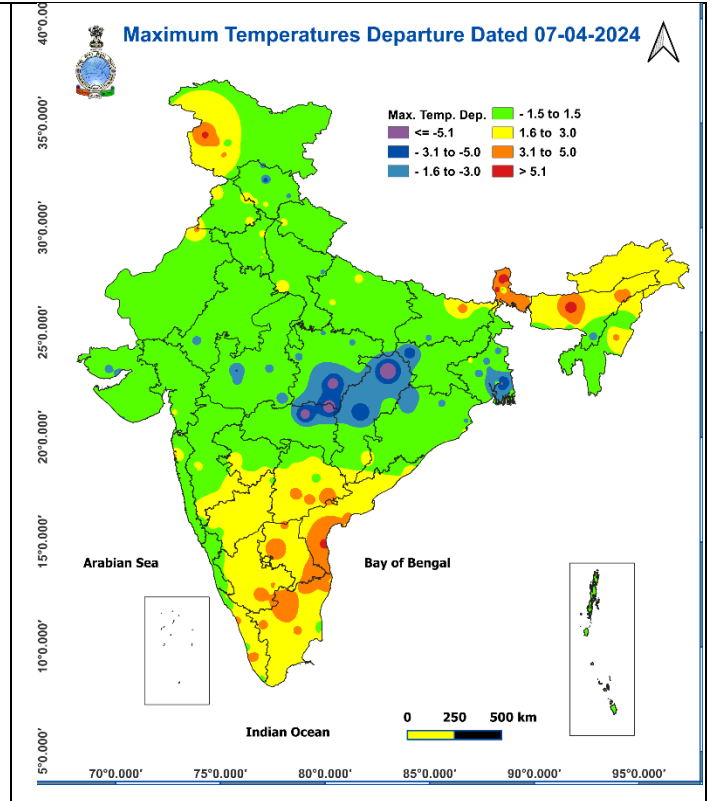
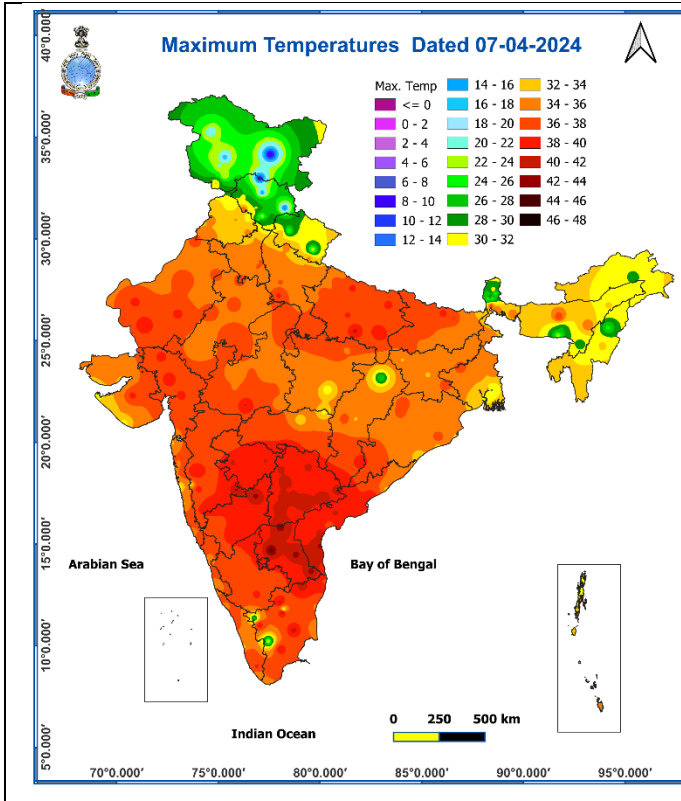


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

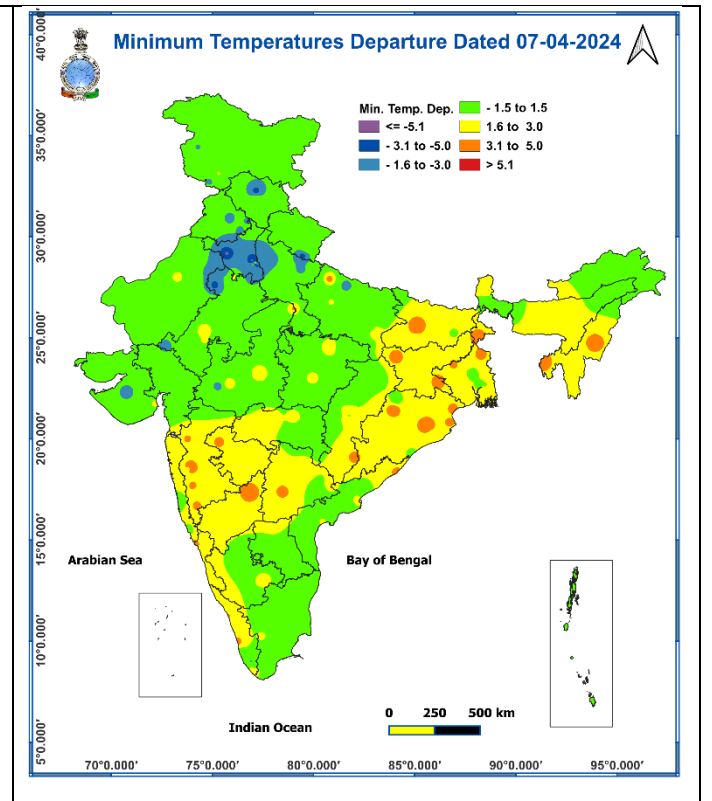
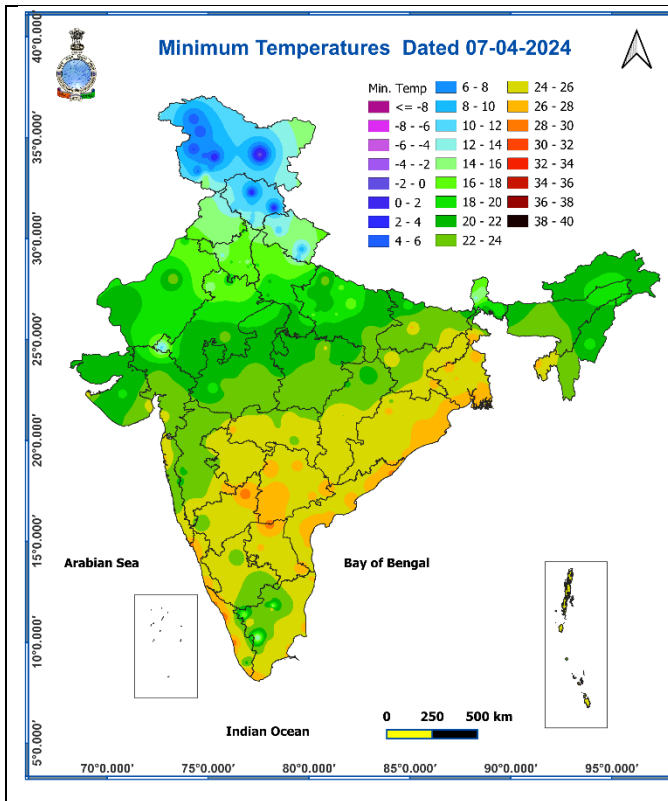
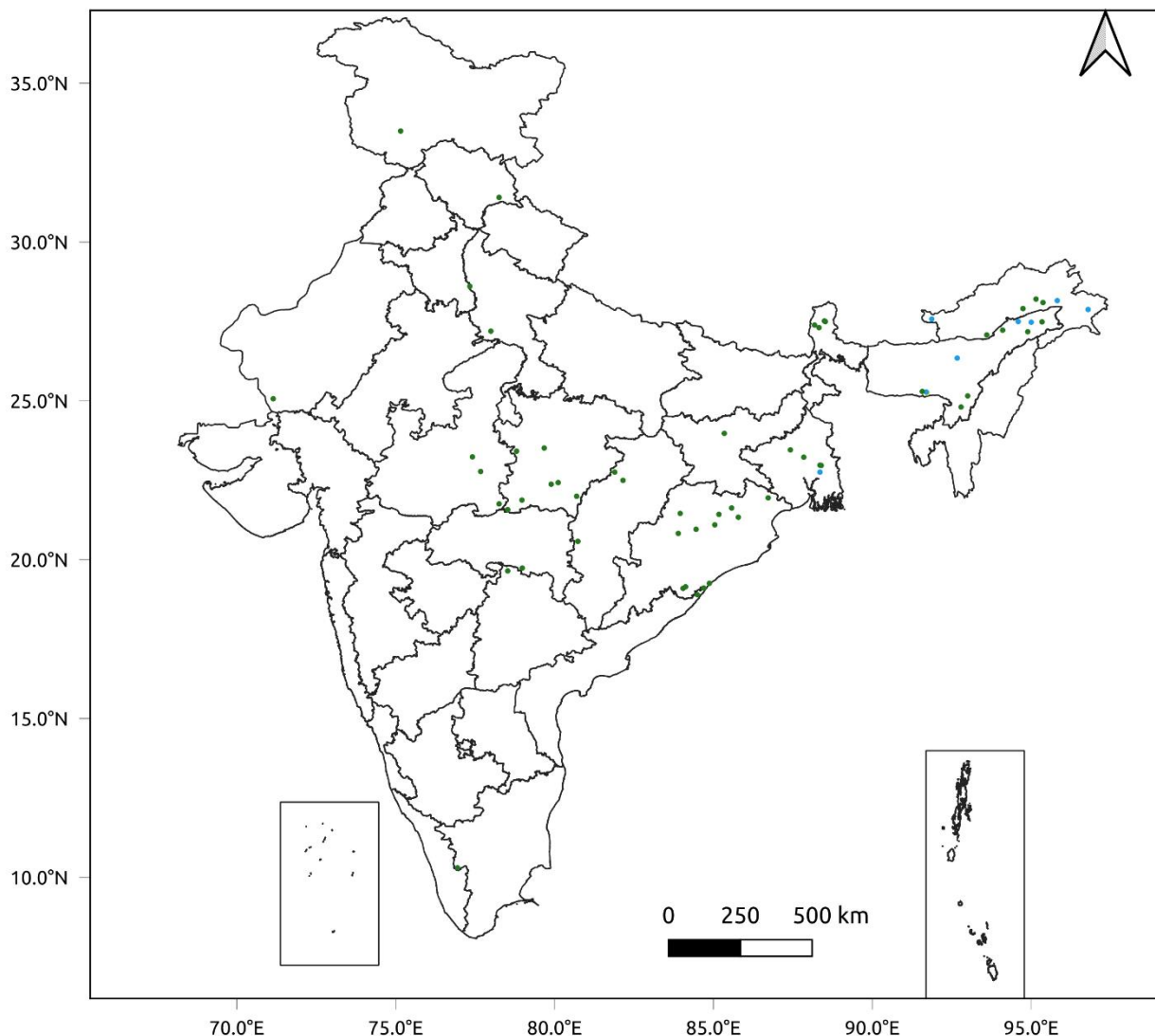


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

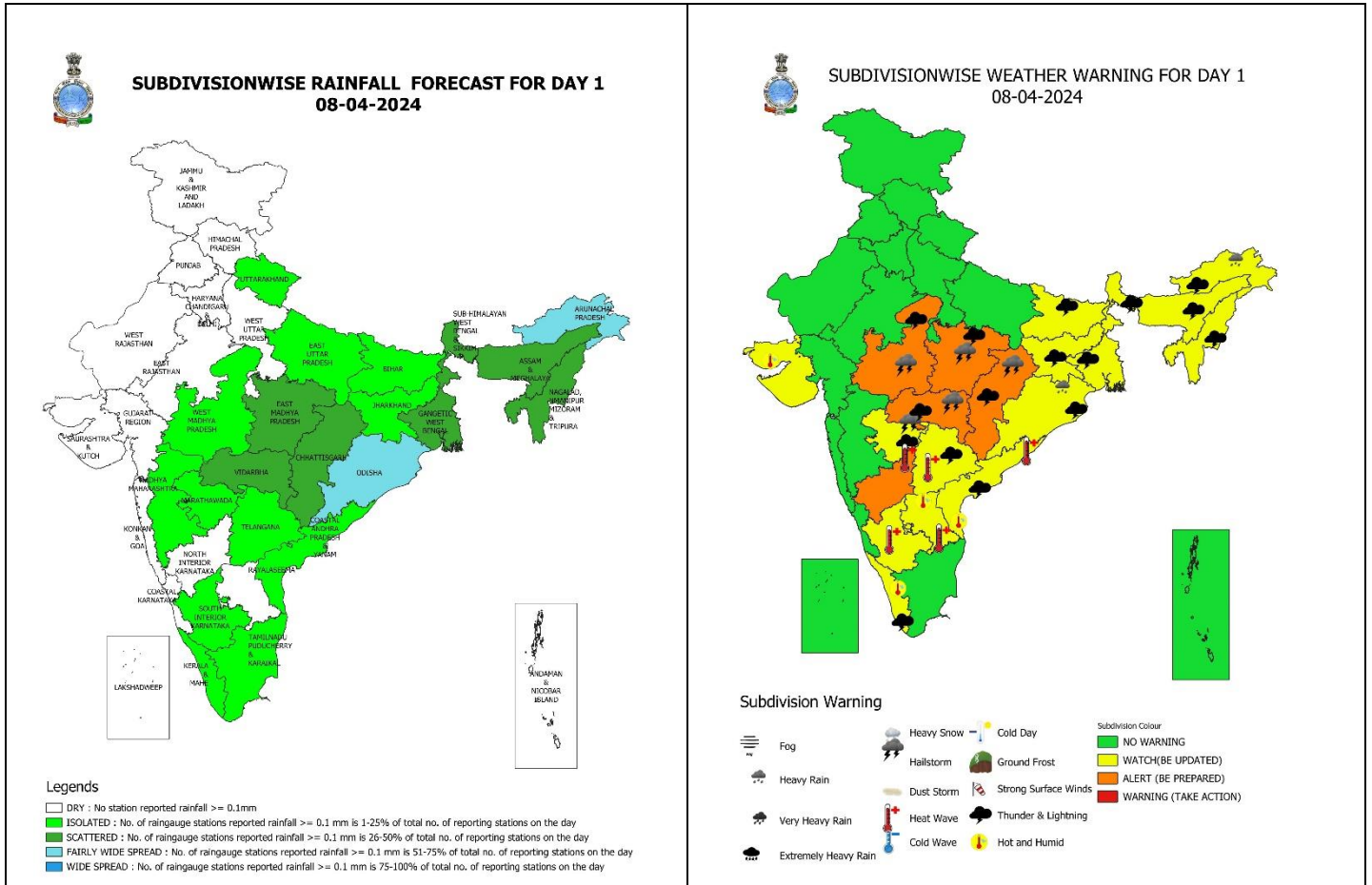


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 6-4-2024 to 0830 IST of 7-4-2024



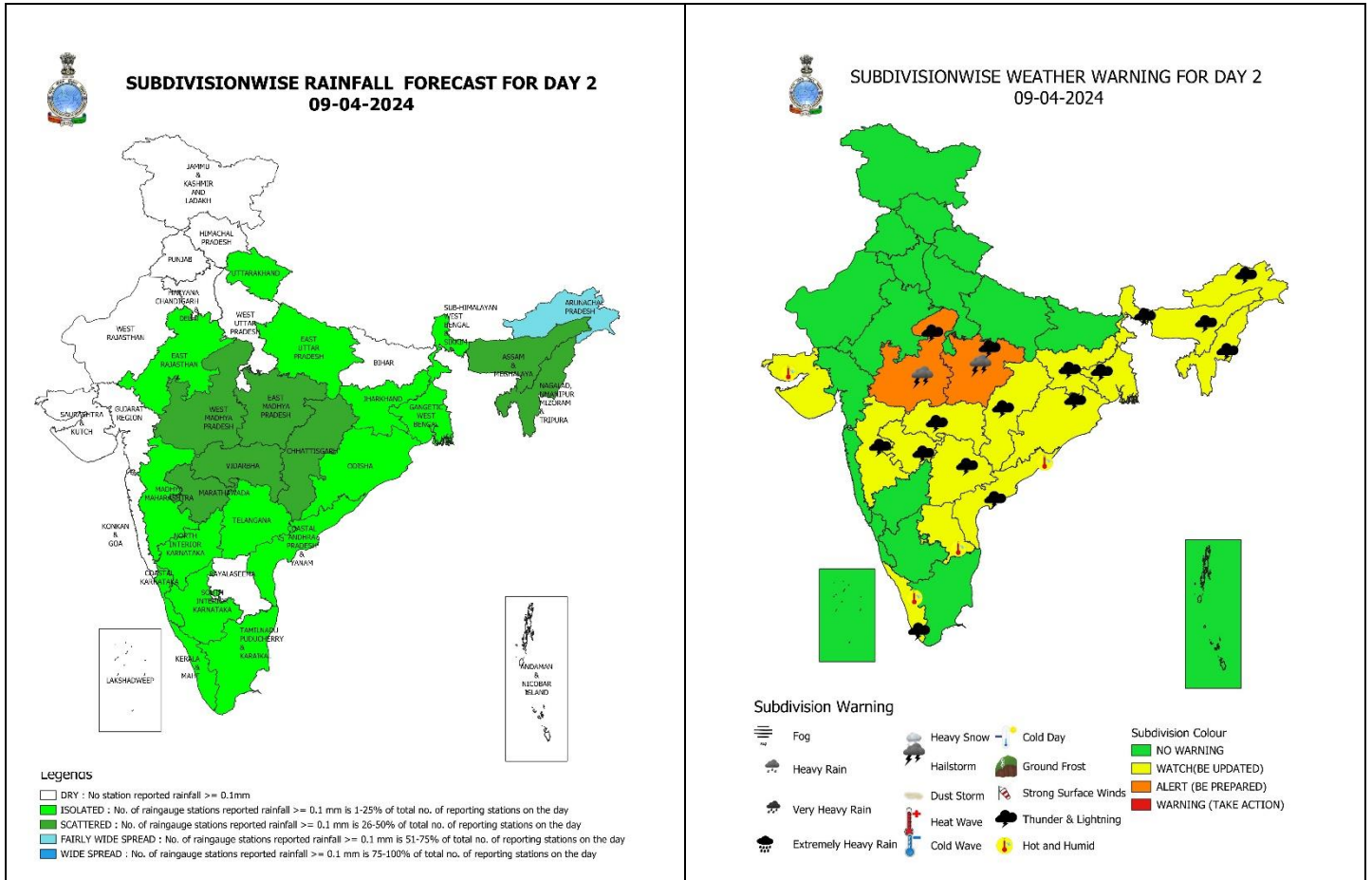
Legends

- 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 (≥ 204.5 mm)



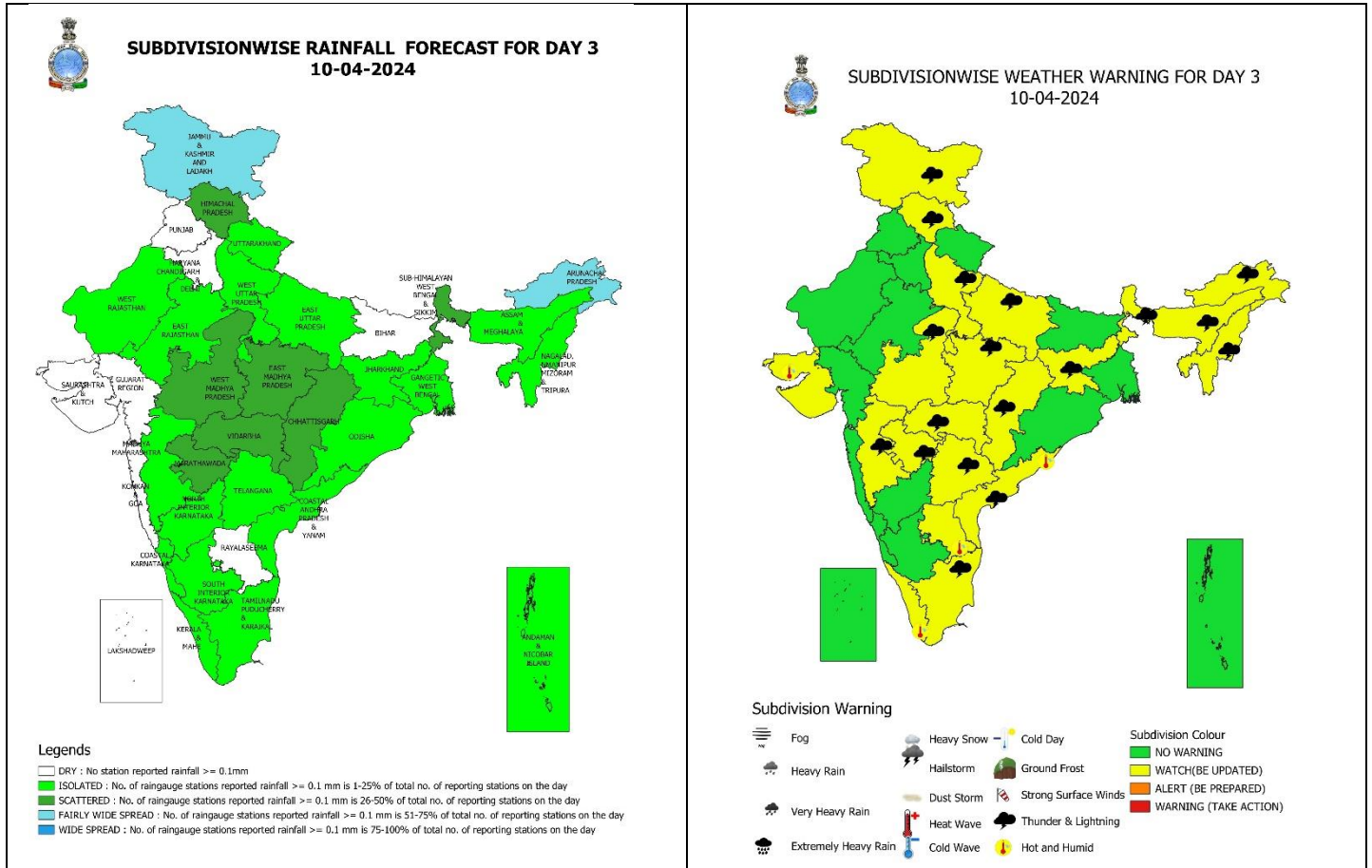
08 April (Day 1):

- ❖ **Thunderstorm accompanied with lightning, hailstorm & gusty winds (speed reaching 40-50 kmph)** at isolated places over East Madhya Pradesh, Vidarbha and Marathwada; **with lightning, hailstorm & gusty winds (speed reaching 30-40 kmph)** at isolated places over West Madhya Pradesh, Chhattisgarh; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over Gangetic West Bengal and Telangana; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh, Kerala & Mahe and Coastal Andhra Pradesh & Yanam.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh.
- ❖ **Warm night** very likely to prevail in isolated pockets over North Interior Karnataka.
- ❖ **Heat wave conditions** very likely in isolated pockets over Coastal Andhra Pradesh, Rayalaseema, Telangana and Interior Karnataka.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat State, Rayalaseema, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.



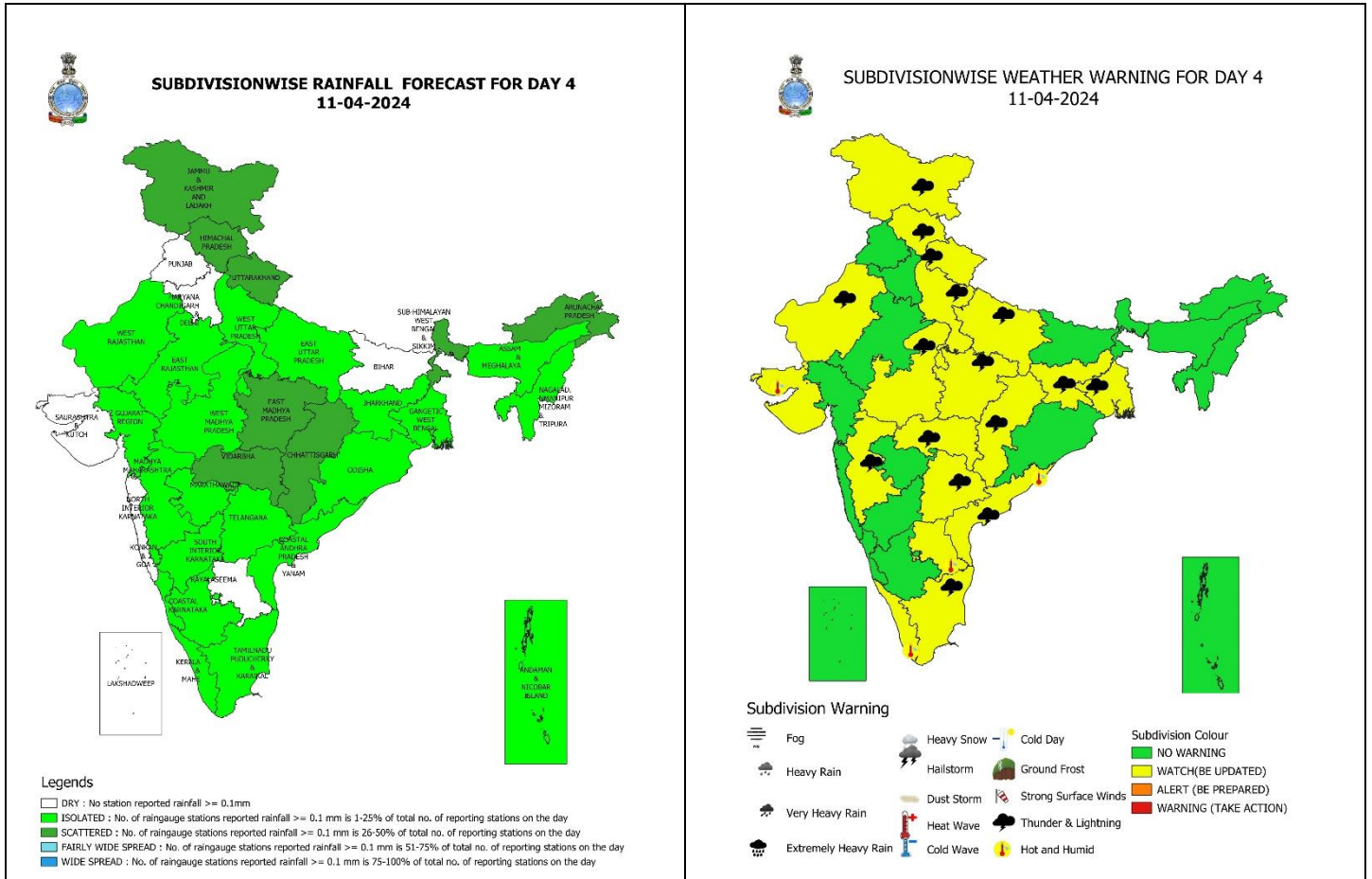
09 April (Day 2):

- ❖ **Thunderstorm accompanied with lightning, hailstorm & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Madhya Pradesh; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over Sub-Himalayan West Bengal & Sikkim; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Chhattisgarh, Jharkhand, Madhya Maharashtra, Marathwada and Telangana; **with lightning** at isolated places over Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat State, Rayalaseema, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.



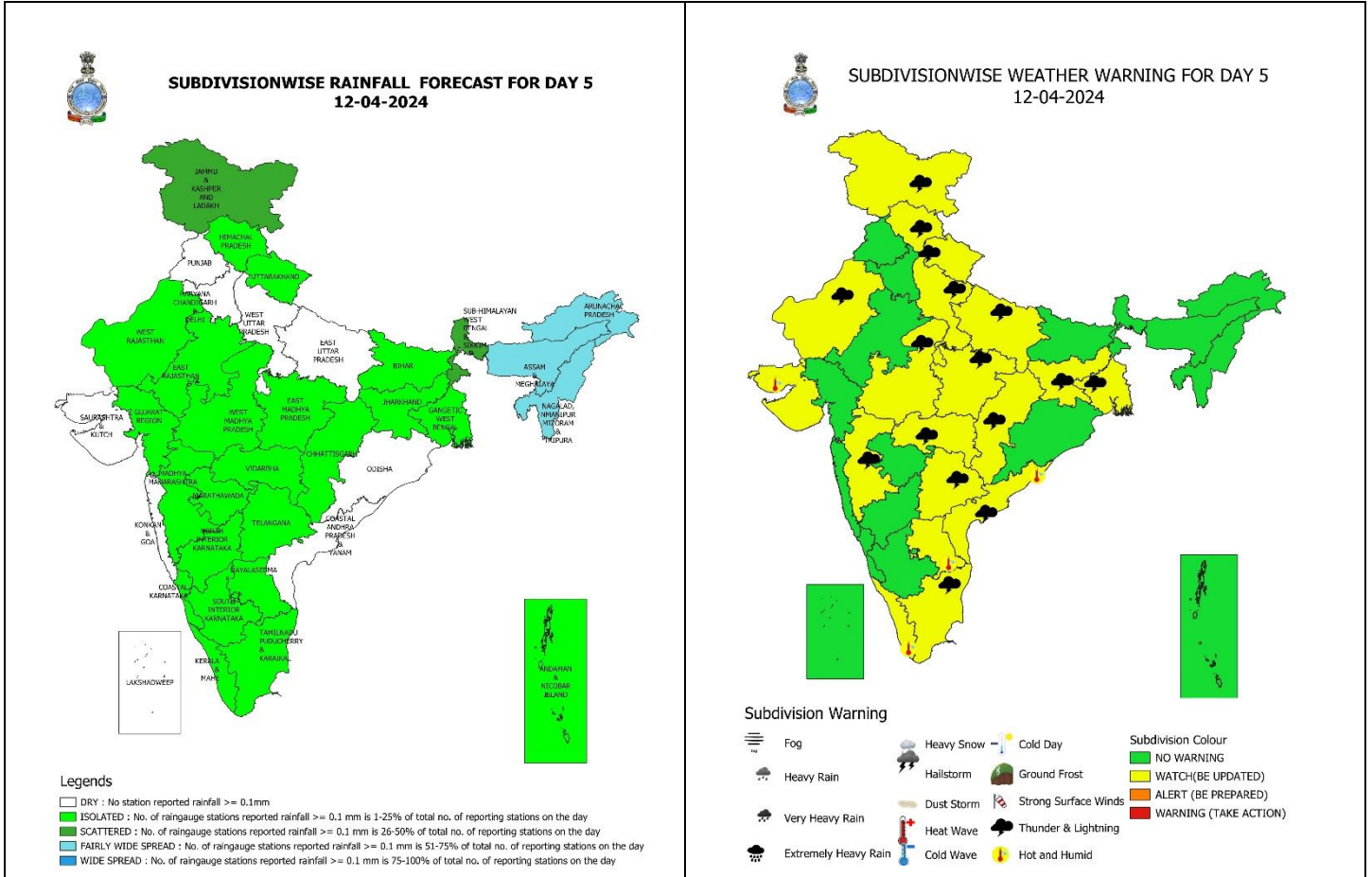
10 April (Day 3):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Madhya Maharashtra, Marathwada and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat State, Rayalaseema, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.



11 April (Day 4):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Uttarakhand, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand, Madhya Maharashtra, Marathwada and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttar Pradesh, West Rajasthan, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Hot and humid weather** likely to prevail over coastal areas of Gujarat State, Rayalaseema, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.

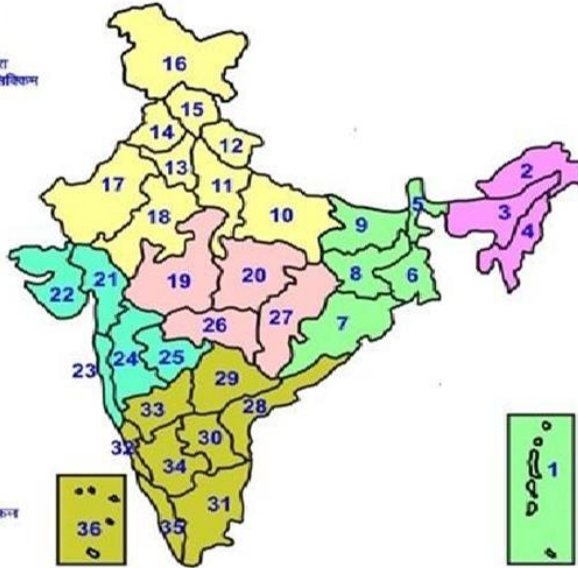


12 April (Day 5):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Uttarakhand, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand, Madhya Maharashtra, Marathwada and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttar Pradesh, West Rajasthan, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Hot and humid weather** likely to prevail over coastal areas of Gujarat State, Rayalaseema, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.

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

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



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

Rain/ Snow *



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°C to 6.4°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°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°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°C to -6.4°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°C to -6.4°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)