

Wednesday, April 10, 2024
Time of Issue: 2000 hours IST
(NIGHT)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems and Forecast & Warnings:

- ❖ A cyclonic circulation lies over southeast Rajasthan and a trough/wind discontinuity runs from southeast Rajasthan to northern parts of Coastal Karnataka and another trough runs from southeast Rajasthan to northeast Bangladesh in lower tropospheric levels. Under its influence;
 - ✓ Isolated to scattered light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (occasionally 30-50 kmph)** very likely over Madhya Pradesh, Chhattisgarh, Vidarbha, over Marathwada, Madhya Maharashtra during 10th-13th April, 2024.
 - ✓ Isolated light/moderate rainfall accompanied with **thunderstorm, lightning** very likely over Gangetic West Bengal, Jharkhand, Odisha, Bihar and Andaman & Nicobar Islands during 10th-13th April, 2024.
 - ✓ Isolated light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (occasionally 30-50 kmph)** very likely over Telangana, Kerala & Mahe, Interior Karnataka during next 7 days and over Coastal Andhra Pradesh-Yanam, Tamil Nadu, Puducherry-Karaikal during 11th-15th April, 2024.
 - ✓ **Hailstorm activity also very likely at isolated places over Madhya Pradesh on 10th & 11th; Vidarbha during 10th - 12th and over Marathwada on 10th, 12th & 13th April, 2024.**
- ❖ A **Western Disturbance** as a cyclonic circulation over Afghanistan with trough aloft in middle tropospheric westerlies runs along Long. 68°E to the north of Lat. 30°N. **An Active Western Disturbance is likely to affect Northwest India from 12th April, 2024.** Under the influence of these systems:
 - ✓ Isolated light rainfall/snowfall very likely over Jammu-Kashmir, Himachal Pradesh, Uttarakhand during 10th-12th and fairly widespread to widespread light to moderate rainfall/snowfall with **thunderstorm, lightning & gusty winds (occasionally 30-50 kmph)** over the region during 13th-15th April, 2024.
 - ✓ Scattered to fairly widespread rainfall with **thunderstorm, lightning & gusty winds (occasionally 30-50 kmph)** very likely over Uttar Pradesh, Punjab and Haryana during 13th-15th April and isolated to scattered light to moderate rainfall with **thunderstorm, lightning** very likely over Rajasthan during 10th-15th April, 2024.
 - ✓ **Isolated heavy rainfall/snowfall very likely over Jammu & Kashmir on 13th & 14th and Himachal Pradesh on 14th April, 2024.**
 - ✓ **Isolated hailstorm very likely over Jammu, Punjab, Haryana, West Rajasthan on 13th; Himachal Pradesh, Uttarakhand on 13th & 14th and over East Rajasthan & West Uttar Pradesh on 14th April.**
 - ✓ **Duststorm/thundersquall (50-60 kmph)** very likely over Rajasthan on 13th & 14th April, 2024.
- ✓ Scattered to fairly widespread light/moderate rainfall/snowfall with isolated **thunderstorm & lightning** very likely over Arunachal Pradesh; isolated to scattered light to moderate rainfall with isolated **thunderstorm, lightning & gusty winds** over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 7 days. **Isolated hailstorm very likely over Sikkim today.**

Maximum temperature observation and forecast for next 5 days:

- ❖ Today, maximum temperatures are in the range of 40-43°C over many parts of West Rajasthan, Gujarat Region; at isolated places over Uttar Pradesh, Madhya Maharashtra, Saurashtra & Kutch, Marathwada, East Rajasthan. These are above normal by 2-4 °C over these areas.
- ❖ Today, Minimum temperatures are above normal by 3-6°C over many parts of Rajasthan; by 2-4°C at isolated places over Gujarat state, West Madhya Pradesh, Bihar, Jharkhand, Kerala & Mahe and Madhya Maharashtra.

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

- ❖ **Hot and humid weather** very likely to prevail over Kerala & Mahe during 10th-14th and over Coastal Andhra Pradesh & Yanam, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Rayalaseema during 10th-12th April, 2024.

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of today): at a few places over Sub-Himalayan West Bengal & Sikkim and at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Madhya Pradesh, Chhattisgarh, Vidarbha and North Interior Karnataka.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of today): (in cm): West Madhya Pradesh: Bhopal-3, Raisen-1; East Madhya Pradesh: Seoni-2.
- ❖ **Hailstorm reported** at isolated places over East Madhya Pradesh (Bhopal, Betul, Chindawara, Balaghat, Seoni).
- ❖ **Minimum Temperature Departures (as on 10-04-2024):** Minimum temperatures are **markedly above normal (5.1°C or above)** at isolated places over West Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over East Rajasthan; **above normal (1.6°C to 3.0°C)** at many places over Gujarat State and Andaman & Nicobar Islands; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Bihar, East Madhya Pradesh, Jharkhand and Madhya Maharashtra; at isolated places over Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. These are **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over West Uttar Pradesh; **below normal (-1.6°C to -3.0°C)** at isolated places over Himachal Pradesh, Haryana-Chandigarh-Delhi, Sub-Himalayan West Bengal & Sikkim, Odisha and Vidarbha and **near normal** over rest parts of the country. Today, **the lowest minimum temperature** of 14.8°C is reported at **Meerut (West Uttar Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 10-04-2024):** Maximum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at many places over Punjab, Haryana-Chandigarh-Delhi; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over West Rajasthan, West Uttar Pradesh, Arunachal Pradesh and Assam & Meghalaya; **above normal (1.6°C to 3.0°C)** at many places over Uttarakhand, Himachal Pradesh; at a few places over East Rajasthan, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam; at isolated places over East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Bihar, Madhya Maharashtra, Gujarat state. These are **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Vidarbha; **below normal (-1.6°C to -3.0°C)** at isolated places over Madhya Pradesh, Odisha and **near normal** over rest parts of the country. Today, **the highest maximum temperature** of 42.4°C is reported at **Barmer (West Rajasthan)** over the country.

Meteorological Analysis (Based on 1730 hours IST)

- ❖ The Western Disturbance as a cyclonic circulation over Afghanistan & neighbourhood at 3.1 km above mean sea level with a trough aloft in middle tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 68°E to the north of Lat. 30°N.
- ❖ The cyclonic circulation over southeast Rajasthan extending upto 1.5 km above mean sea level persists.
- ❖ The trough/wind discontinuity from cyclonic circulation over southeast Rajasthan to northern parts of Coastal Karnataka across Madhya Maharashtra & south Konkan at 1.5 km above mean sea level persists.
- ❖ The trough from southeast Rajasthan to northeast Bangladesh across Uttar Pradesh, Bihar and Sub-Himalayan West Bengal at 0.9 km above mean sea level persists.
- ❖ An active Western Disturbance is likely to affect Northwest India from 12th April, 2024.

Weather Forecast for next 7 days (Upto 0830 hours IST of 17th April, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Thunderstorm accompanied with lightning very likely at isolated places over Madhya Maharashtra on 10th April and over Interior Karnataka on 10th & 11th April, 2024.
- ❖ No significant change in maximum temperatures very likely over Northwest India during next 3 days and gradual fall by 3-5°C thereafter.
- ❖ Gradual rise by about 3-5°C in maximum temperatures very likely over many parts of East India during next 3 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over many parts of West India during next 24 hours and gradual fall by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

Weather Outlook for subsequent 3 days (During 17th-19th April, 2024)

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

Table-1

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

Fig. 2: Departure of Maximum Temperatures

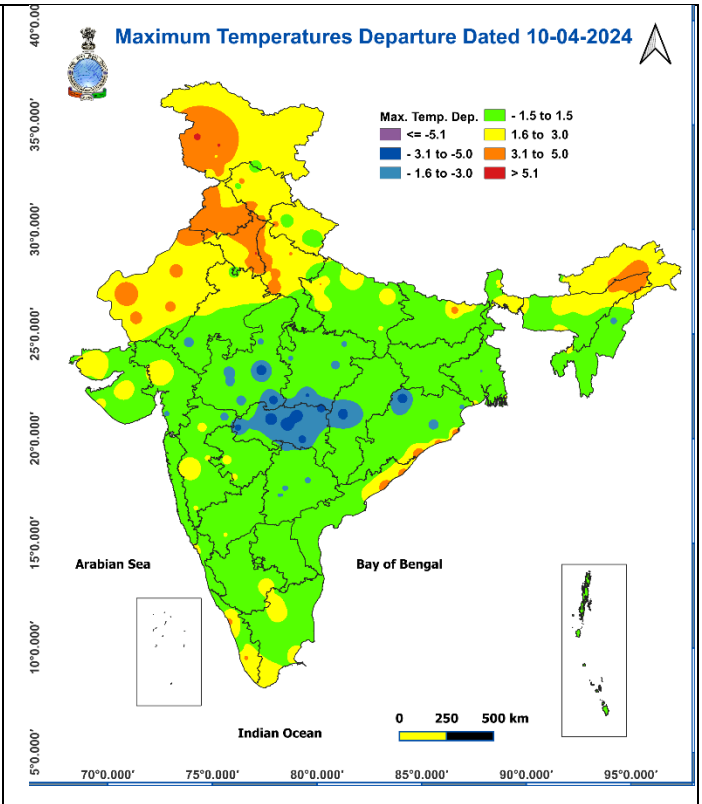
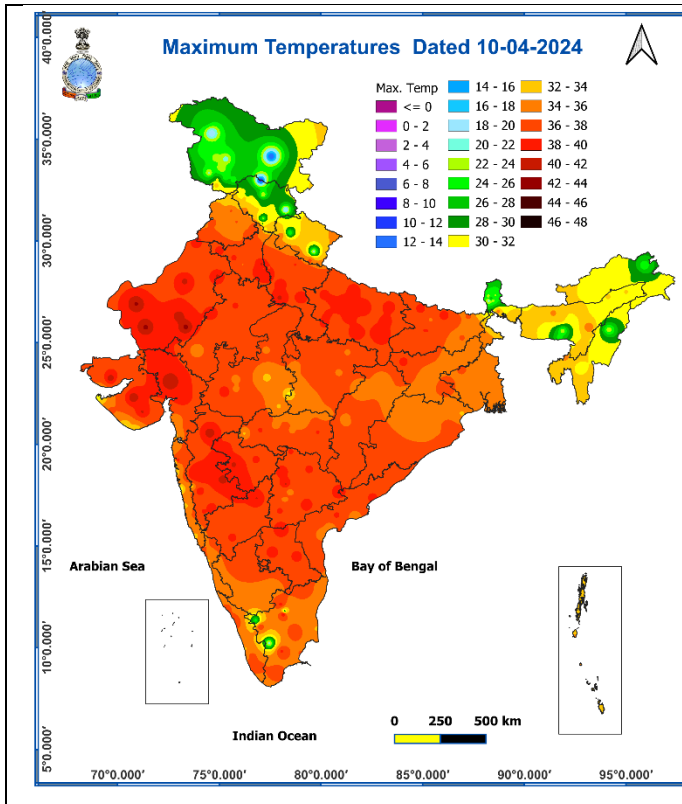


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

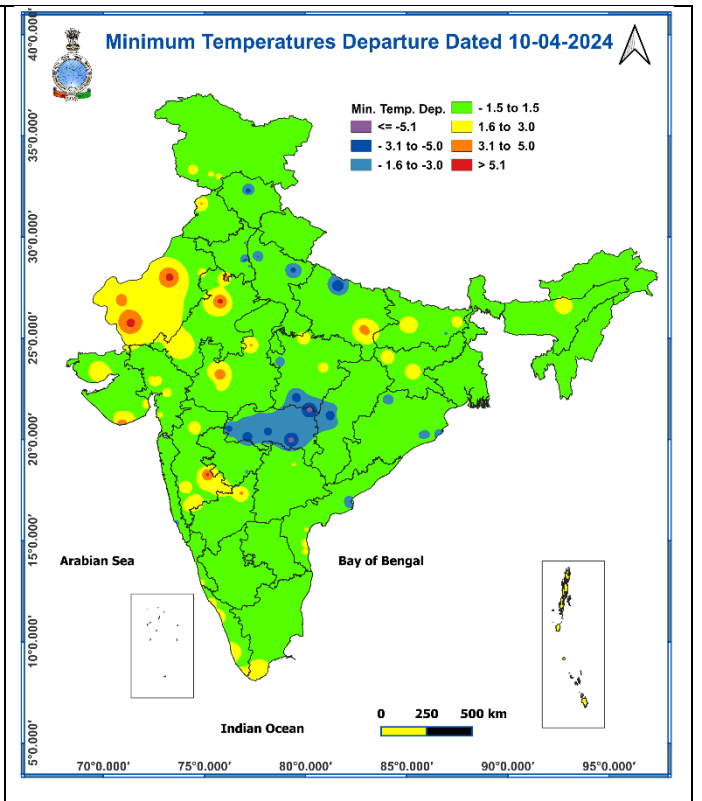
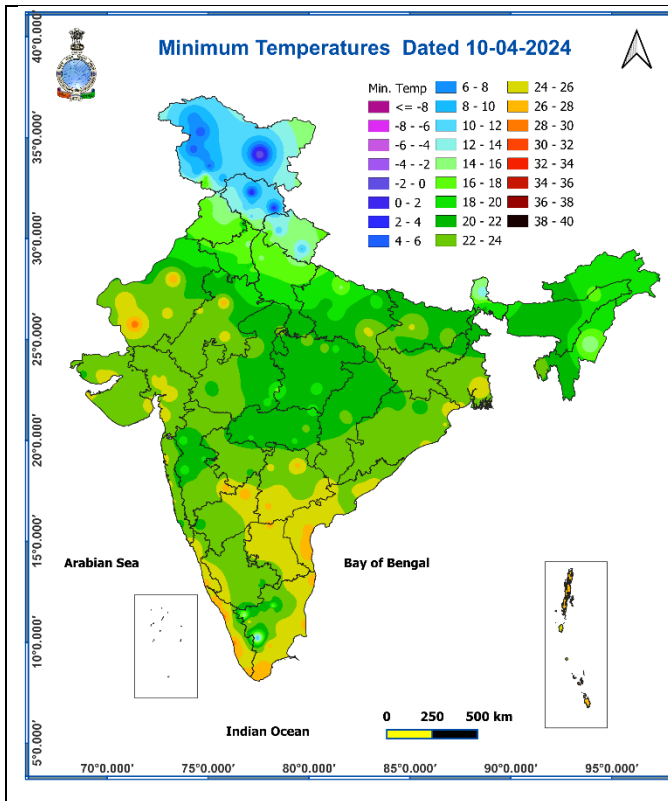
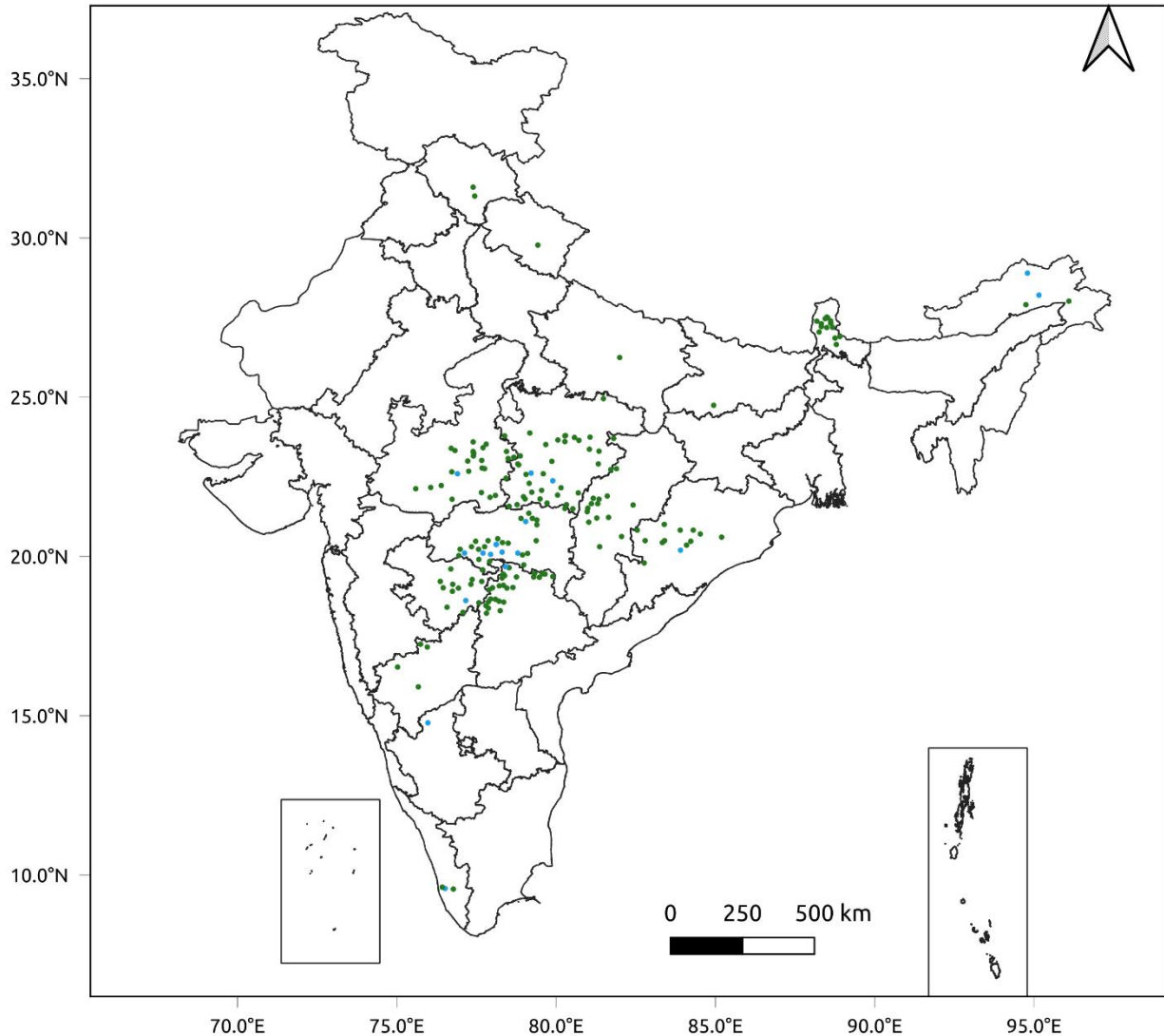


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

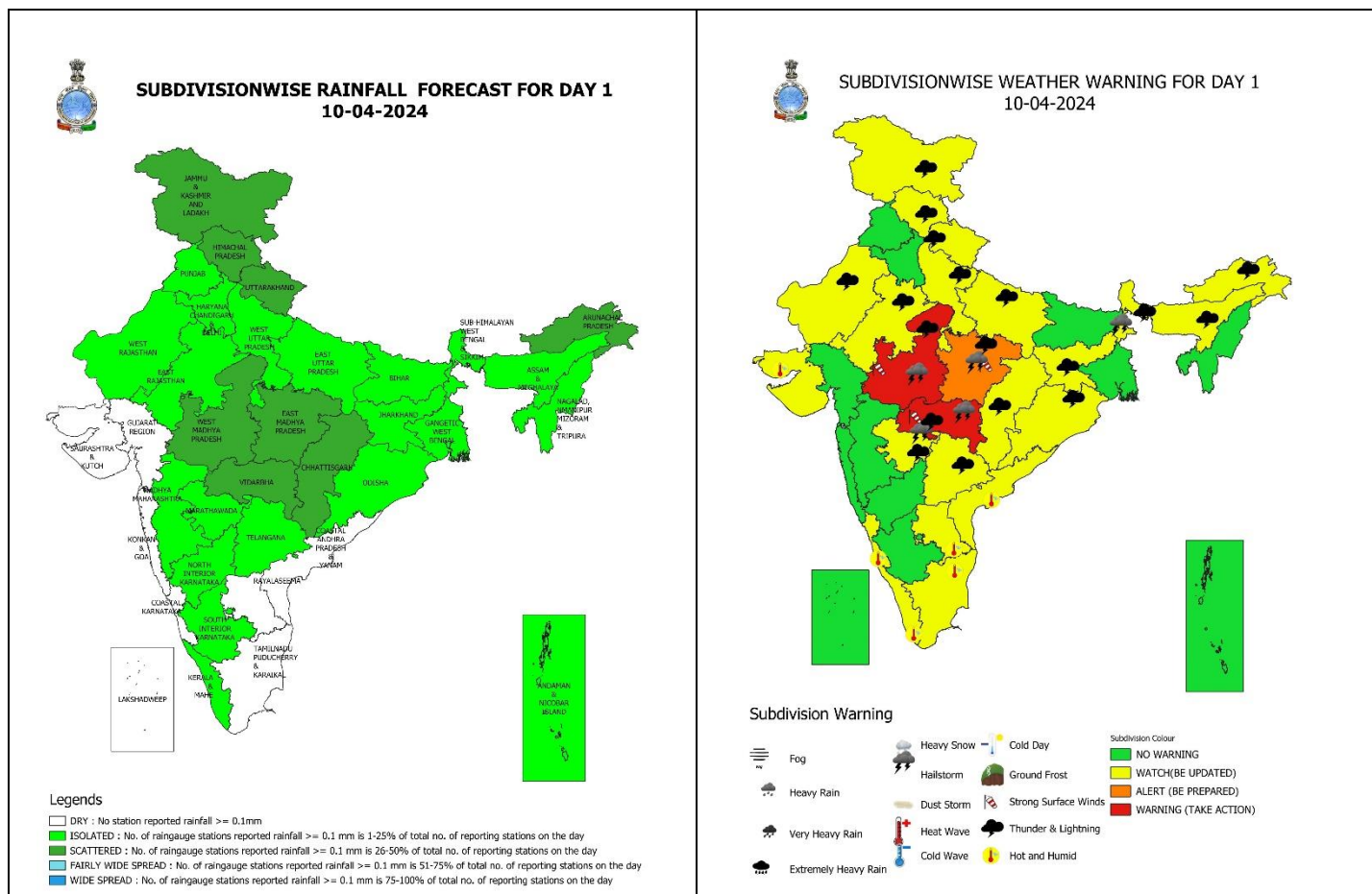


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 9-4-2024 to 0830 IST of 10-4-2024



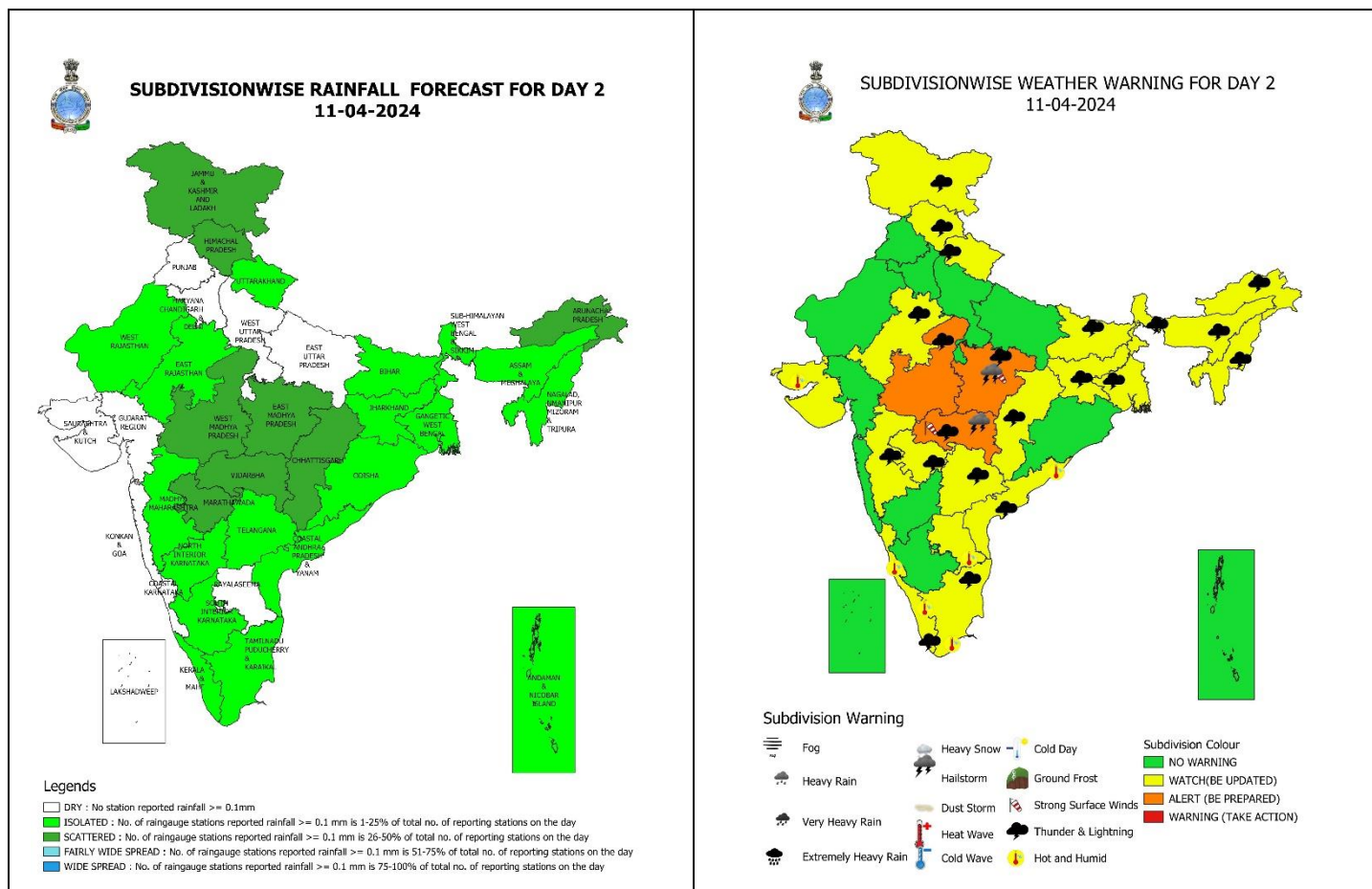
Legends

- 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)



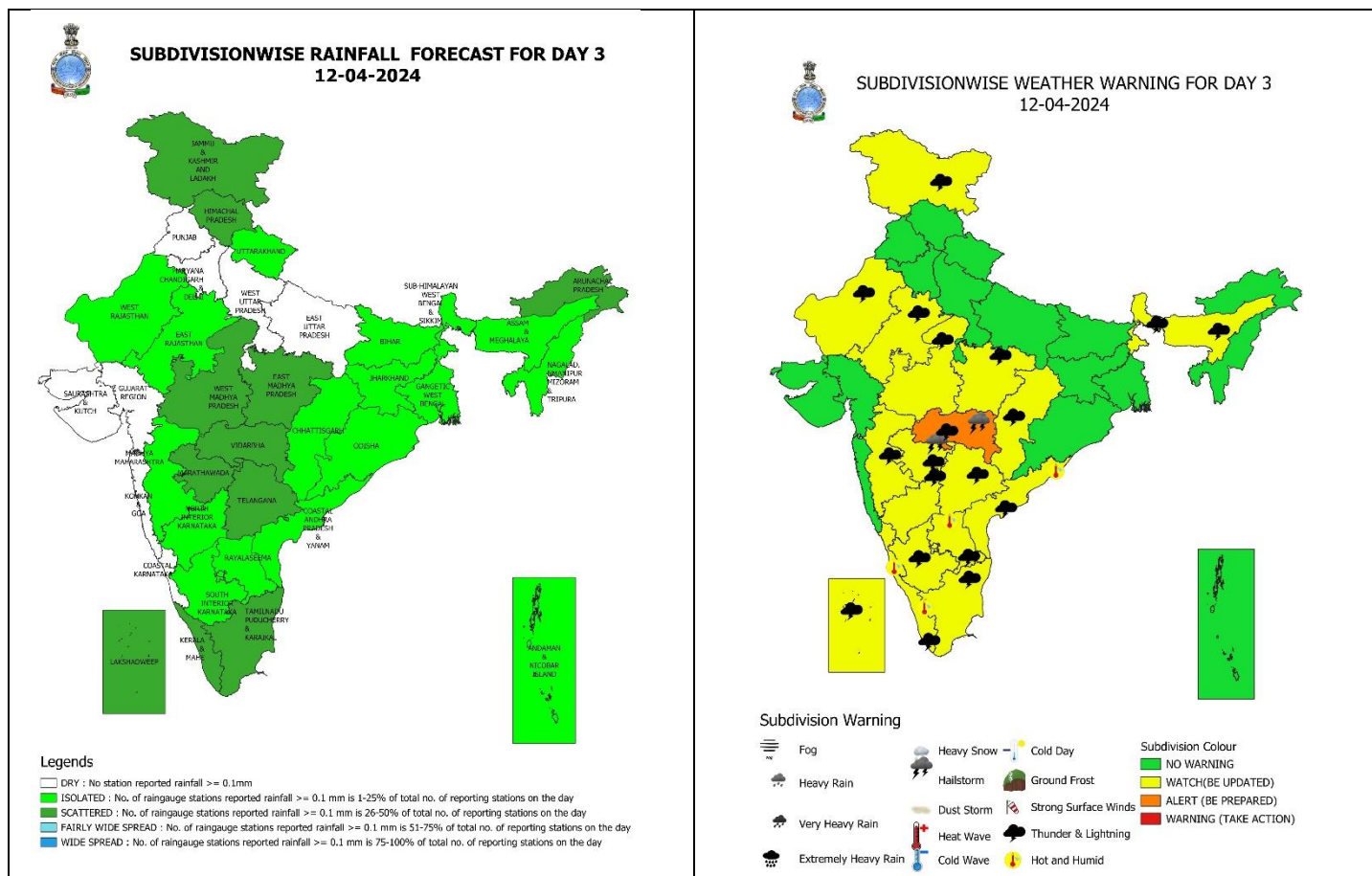
10 April (Day 1):

- ❖ **Thunderstorm accompanied with lightning, squall (speed reaching 50-60 kmph) & hailstorm** very likely at isolated places over Madhya Pradesh, Vidarbha; **with lightning & gusty winds (speed reaching 30-40 kmph) and hailstorm** at isolated places over Sikkim and Marathwada; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over West Uttar Pradesh, Rajasthan, Chhattisgarh, Jharkhand, Assam & Meghalaya and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Odisha and Arunachal Pradesh.
- ❖ **Hot and humid weather** very likely to prevail over Coastal Andhra Pradesh & Yanam, Rayalaseema, Saurashtra & Kutch, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.



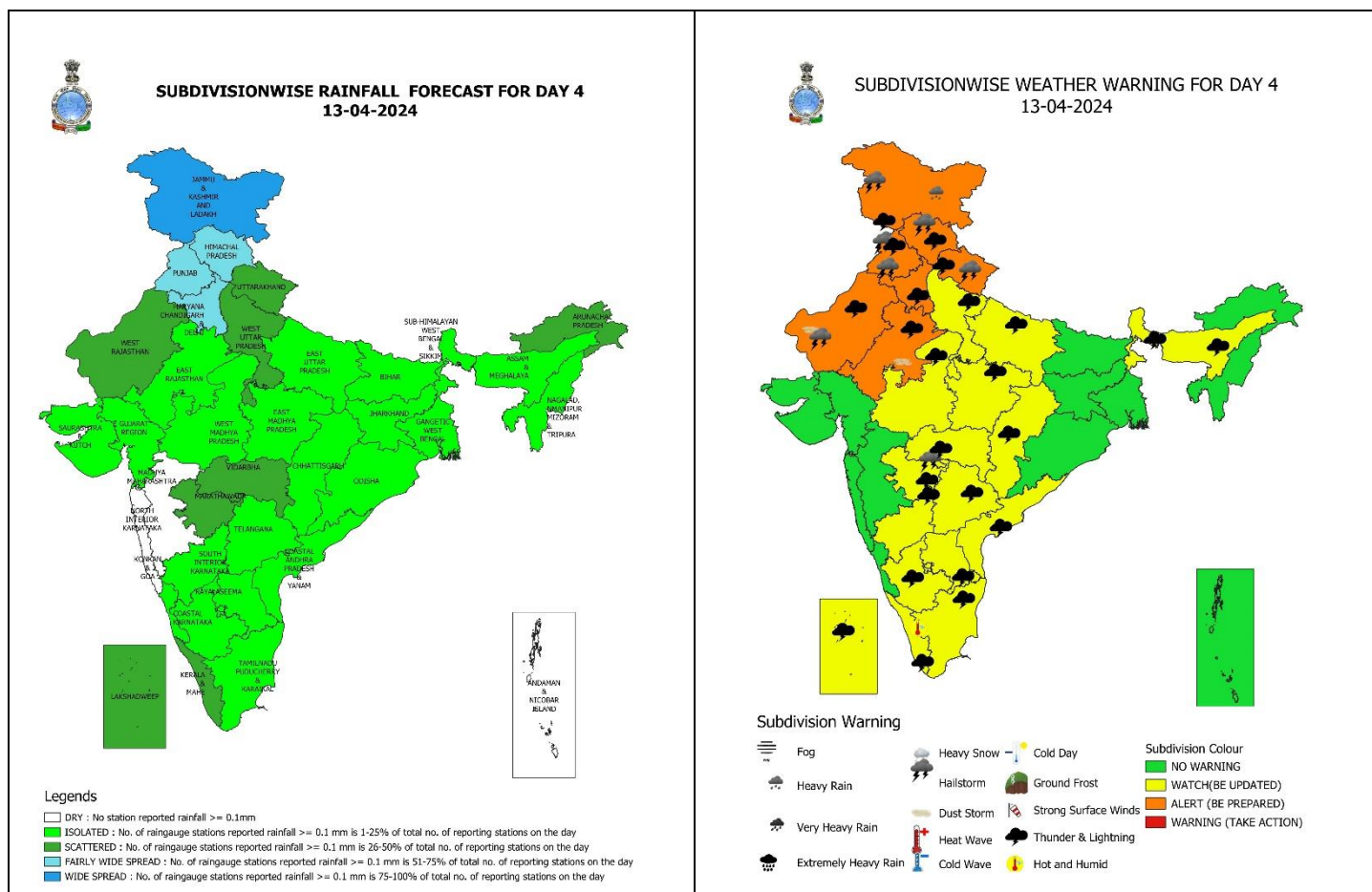
11 April (Day 2):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) & hailstorm** very likely at isolated places over East Madhya Pradesh and Vidarbha; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over West Madhya Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over East Rajasthan, Chhattisgarh, West Bengal & Sikkim, Jharkhand, Bihar, Marathwada and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Coastal Andhra Pradesh & Yanam.
- ❖ **Hot and humid weather** very likely to prevail over Coastal Andhra Pradesh & Yanam, Rayalaseema, Saurashtra & Kutch, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.



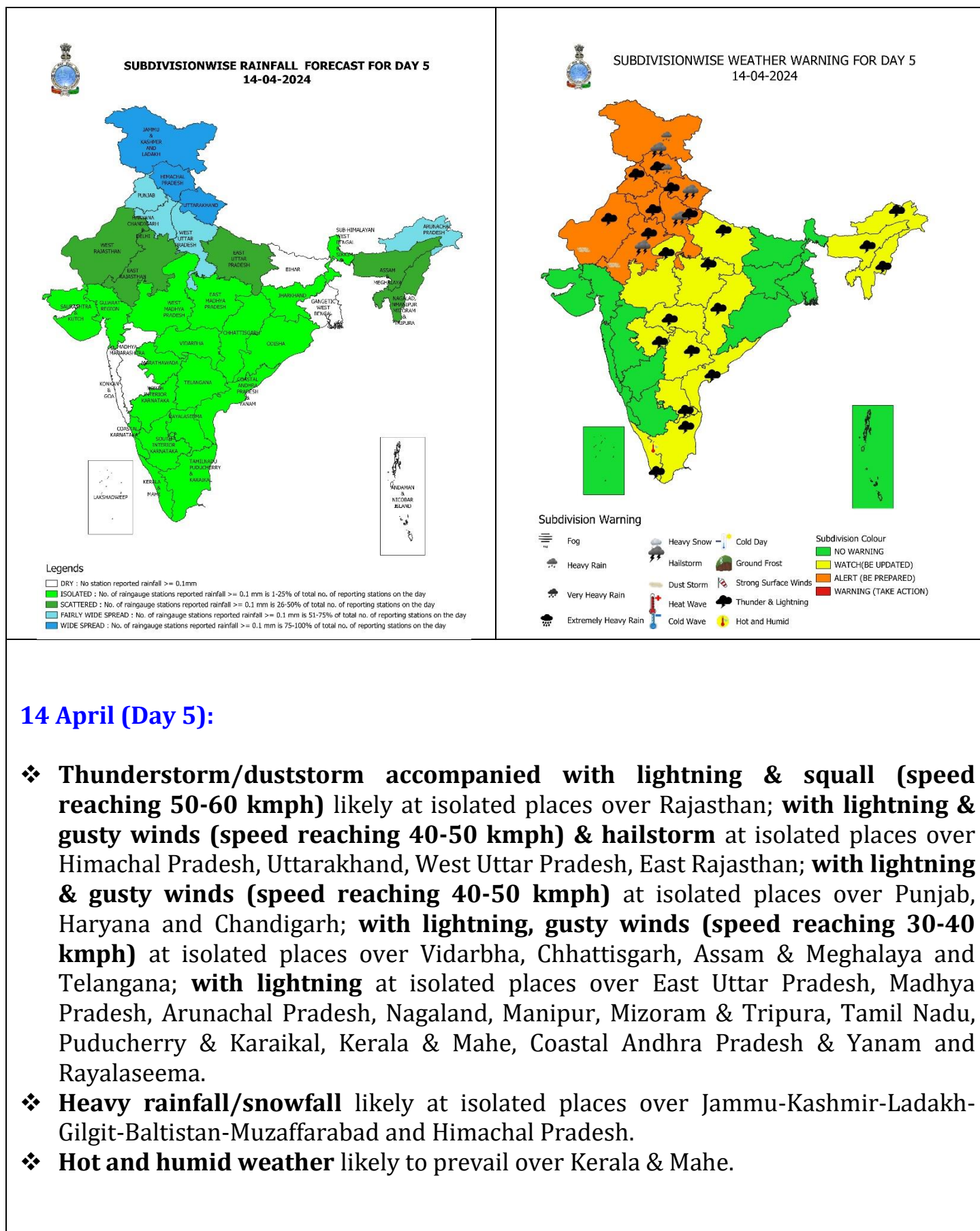
12 April (Day 3):

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** very likely at isolated places over Vidarbha; **with lightning & hailstorm** at isolated places over Marathwada; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Rajasthan, Madhya Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Madhya Maharashtra and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Coastal Andhra Pradesh & Yanam, Rayalaseema and Interior Karnataka.
- ❖ **Hot and humid weather** very likely to prevail over Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka and Kerala & Mahe.



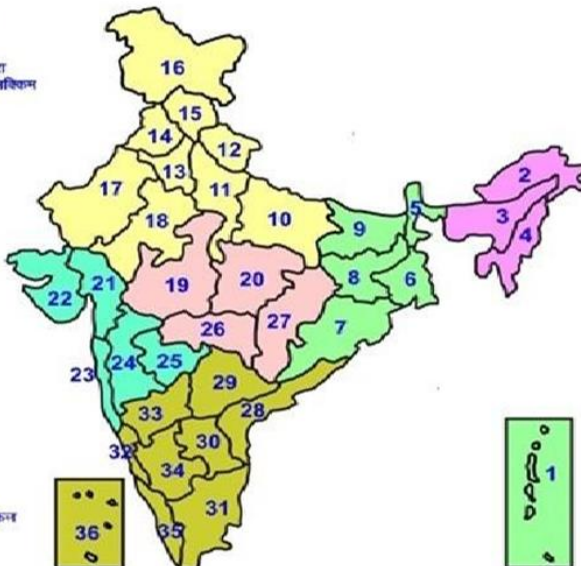
13 April (Day 4):

- ❖ **Thunderstorm/duststorm accompanied with lightning & squall (speed reaching 50-60 kmph)** likely at isolated places over Rajasthan; **with lightning & gusty winds (speed reaching 40-50 kmph) & hailstorm** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Chandigarh, West Rajasthan; **with lightning, gusty winds (speed reaching 30-40 kmph) & hailstorm** at isolated places over Uttarakhand and Marathwada; **with lightning, gusty winds (speed reaching 30-40 kmph)** at isolated places over West Uttar Pradesh, East Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya and Telangana; **with lightning** at isolated places over East Uttar Pradesh, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Coastal Andhra Pradesh & Yanam, Rayalaseema and Interior Karnataka.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Hot and humid weather** likely to prevail over Kerala & Mahe.



LEGENDS

- 1 अंडमन और निकोबार द्वीप समुह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
- 5 उप-हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 गंगोत्री 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 एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 उत्तरीसमूह
- 28 तटीय आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 दक्षिण तेलंगाना
- 31 तमिलनाडु, पुदुचेरी एवं काराईकल
- 32 उत्तरि कर्नाटक
- 33 दक्षिण उत्तरी कर्नाटक
- 34 दक्षिण दक्षिणी कर्नाटक
- 35 केरल एवं 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

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

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(Service to the Nation since 1875)

LEGENDS

WARNING

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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°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 Storm: 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

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