

Monday, April 1, 2024
Time of Issue: 0830 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems and Forecast & Warnings:

- ❖ A Western Disturbance seen as a trough in middle tropospheric westerlies roughly along Long. 76°E to the north of Lat. 35°N and an induced cyclonic circulation lies over south Haryana & neighbourhood in lower tropospheric levels.
- ❖ Two fresh Western Disturbances likely to affect Western Himalayan region, 1st from 02nd April night and 2nd from 05th April. Under their influence:
 - ✓ Isolated to Scattered light/moderate rainfall/snowfall with isolated **thunderstorms & lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh & Uttarakhand during 03rd-06th April and light isolated rainfall over Punjab, Haryana & Chandigarh during 03rd-05th April, 2024.
- ❖ A cyclonic circulation lies over northeast Assam & a north-south trough runs from east Bihar to north Bay of Bengal in lower tropospheric levels. Under the influence of these systems:
 - ✓ Fairly widespread to widespread light/moderate rainfall/snowfall with isolated **thunderstorms & lightning very likely** over Arunachal Pradesh; light to moderate rainfall over Assam & Meghalaya and scattered light to moderate rainfall over Nagaland, Manipur, Mizoram & Tripura and Sikkim during 01st April-04th April, 2024.
 - ✓ **Isolated heavy rainfall/snowfall very likely over Arunachal Pradesh during 01st April- 04th April.**
 - ✓ **Isolated heavy rainfall over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 01st April 2024.**

Maximum temperature observation and forecast for next 5 days:

- ❖ Yesterday, Maximum temperatures are in the range of 40-42°C at a few places over Rayalaseema and at isolated pockets over West Madhya Pradesh, Gangetic West Bengal, Jharkhand, Chhattisgarh, Vidarbha, Telangana, Coastal Andhra Pradesh & Yanam and Madhya Maharashtra.
- ❖ Yesterday, the maximum temperature exceeded 95th percentile at a few places over Uttar Pradesh and at isolated places over Uttarakhand, Bihar, Jharkhand, Madhya Pradesh, Telangana, Coastal Andhra Pradesh & Yanam, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Marathwada. Maximum temperature likely to exceed 95th percentile over parts of Rayalaseema, Karnataka, Marathwada and Odisha till 4th April, over Chhattisgarh, Jharkhand, East Madhya Pradesh and Vidarbha from 4th April onward and over north Tamil Nadu from 3rd April, 2024.
- ❖ Yesterday, minimum temperatures are **above normal by 3-5°C** at most places over East Uttar Pradesh; at many places over Sub-Himalayan West Bengal & Sikkim and West Uttar Pradesh; at a few places over Bihar, Madhya Pradesh, Madhya Maharashtra; at isolated places over Haryana-Chandigarh-Delhi, East Rajasthan, Chhattisgarh, Odisha, Konkan & Goa, Marathwada, Jharkhand, Arunachal Pradesh and Assam & Meghalaya.

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

- ❖ **Heat wave conditions** very likely in isolated pockets over Madhya Pradesh, Vidarbha & North Interior Karnataka during 02nd-04th April; over Rayalaseema during 01st-4th April and over Telangana on 01st & 02nd April, 2024.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over Odisha during 02nd-04th April; over Madhya Maharashtra during 01st April - 03rd April, Marathwada on 01st & 02nd and over Telangana on 01st April, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Coastal Andhra Pradesh & Yanam, Kerala & Mahe & Tamil Nadu, Puducherry & Karaikal during 01st April -04th April; over Odisha during 02nd-04th April, 2024.

Main Weather Observations:

- ❖ **Rainfall/snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at a few places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim and Arunachal Pradesh; at isolated places over Uttarakhand.
- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at many places over Assam & Meghalaya; at a few places over Nagaland, Manipur, Mizoram & Tripura; at isolated places over Jharkhand and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **Assam:** Guwahati-5, **Sikkim:** Gangtok-1; **Arunachal Pradesh:** Itanagar-1; **Himachal Pradesh:** Bhuntar-1.
- ❖ Yesterday, **Warm night conditions** prevailed in isolated pockets over East Madhya Pradesh and Madhya Maharashtra.
- ❖ **Minimum Temperature Departures (as on 31-03-2024):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Madhya Maharashtra; **appreciably above normal (3.1°C to 5.0°C)** at most places over East Uttar Pradesh; at many places over Sub-Himalayan West Bengal & Sikkim and West Uttar Pradesh; at a few places over Bihar and Madhya Pradesh; at isolated places over Haryana-Chandigarh-Delhi, Arunachal Pradesh, Chhattisgarh; **above normal (1.6°C to 3.0°C)** at most places over Arunachal Pradesh, Marathwada, Vidarbha and North Interior Karnataka; at many places over Uttarakhand, Rajasthan, Odisha and Jharkhand; at a few places over Punjab, Saurashtra & Kutch, Konkan & Goa, Nagaland, Manipur, Mizoram & Tripura and Rayalaseema; at isolated places over Himachal Pradesh and Coastal Andhra Pradesh & Yanam. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Gujarat Region, Gangetic West Bengal and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of 15.6°C was reported at **Bhilwara (East Rajasthan)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 31-03-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Uttar Pradesh and Bihar; **above normal (1.6°C to 3.0°C)** at many places over Jharkhand and Sub-Himalayan West Bengal & Sikkim; at a few places over West Madhya Pradesh; at isolated places over Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, East Rajasthan, East Madhya Pradesh, Gangetic West Bengal, Telangana, Konkan & Goa, North Interior Karnataka, Coastal Karnataka, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. These were **below normal (-1.6°C to -3.0°C)** at many places over Nagaland, Manipur, Mizoram & Tripura; at isolated places over Arunachal Pradesh, Assam & Meghalaya, West Rajasthan and Gujarat state and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature** of 41.9°C was reported at **Nandyal (Rayalaseema)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Western Disturbance as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 76°E to the north of Lat. 35°N.
- ❖ The induced cyclonic circulation over south Haryana & neighbourhood extending upto 0.9 km above mean sea level persists.
- ❖ The trough/wind discontinuity from interior Tamil Nadu to Marathwada across interior Karnataka extending upto 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Assam at 1.5 km above mean sea level persists.
- ❖ The north-south trough from east Bihar to north Bay of Bengal across Jharkhand and Gangetic West Bengal at 0.9 km above mean sea level persists.
- ❖ A fresh Western Disturbance is likely to affect Western Himalayan Region from the night of 02nd April, 2024.
- ❖ Another Western Disturbance is likely to affect Western Himalayan Region from 05th April, 2024.

Weather Forecast for next 7 days (Upto 0830 hours IST of 08th April, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Fall in maximum temperatures by above 2°C very likely over many parts of Northwest India during next 24 hours and rise by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures very likely over many parts of East India during next 2 days and rise by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures very likely over many parts of Madhya Maharashtra & Madhya Maharashtra during next 24 hours and rise by 2-3°C thereafter and No significant change in maximum temperatures over rest parts of rest parts of west India during next 4-5 days.
- ❖ No significant change in maximum temperatures very likely over many parts of south peninsular India during next 4-5 days except parts of Tamil Nadu & Andhra Pradesh where temperatures are likely to rise by 2-3°C during next 2 days.
- ❖ No significant change in maximum temperatures over rest parts of the country during next 4-5 days.

Weather Outlook for subsequent 3 days (During 08th-10th April, 2024)

- ❖ Scattered to fairly widespread light to moderate rainfall/snowfall likely over Northeast India and Western Himalayan Region.
- ❖ Isolated light rainfall likely over central India, Madhya Maharashtra, Marathwada, Karnataka and Kerala & Mahe.
- ❖ Dry weather likely to prevail over rest parts of the country.

Table-1

7 Days Rainfall Forecast								
S. No.	Subdivision	01-Apr	02-Apr	03-Apr	04-Apr	05-Apr	06-Apr	07-Apr
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
2	ARUNACHAL PRADESH	WS	WS	WS	WS	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	FWS	FWS	FWS	FWS	FWS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	SCT	SCT	SCT	SCT	SCT	SCT	SCT
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	DRY	DRY	DRY	DRY
7	ODISHA	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
8	JHARKHAND	DRY	DRY	DRY	DRY	DRY	DRY	DRY
9	BIHAR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	DRY	ISOL	ISOL	ISOL	SCT	SCT	SCT
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	ISOL	ISOL	ISOL	DRY	DRY
14	PUNJAB	DRY	DRY	ISOL	ISOL	ISOL	DRY	DRY
15	HIMACHAL PRADESH	DRY	ISOL	SCT	SCT	SCT	SCT	SCT
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	SCT	SCT	SCT	SCT	SCT
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
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	ISOL	ISOL
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
25	MARATHAWADA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
26	VIDARBHA	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
27	CHHATTISGARH	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
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	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
32	COASTAL KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
33	NORTH INTERIOR KARNATAKA	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
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

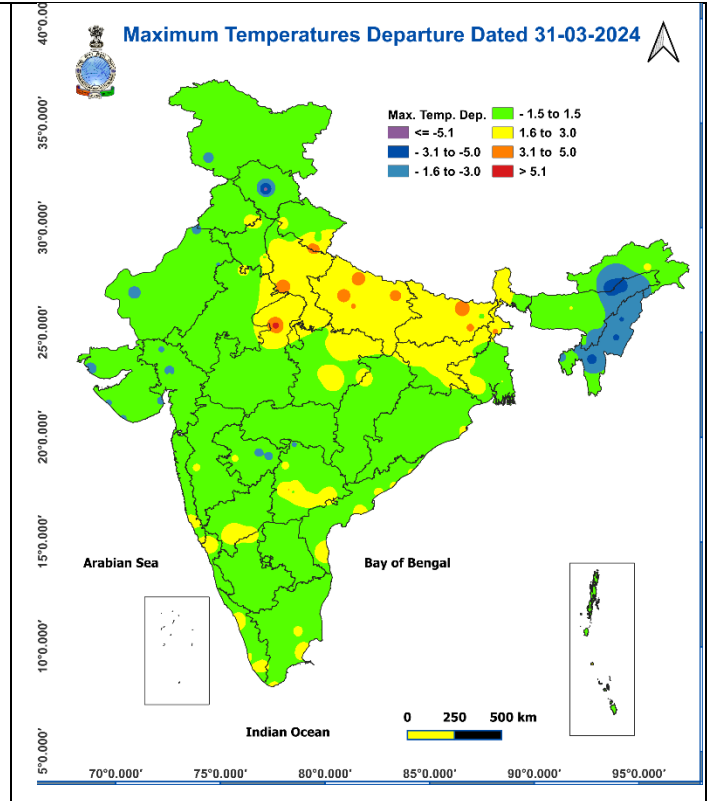
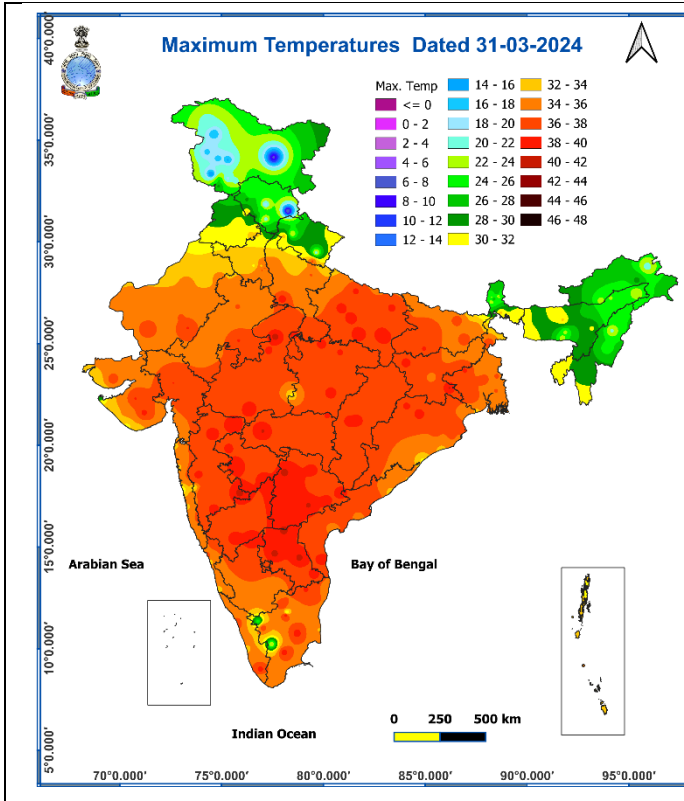


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

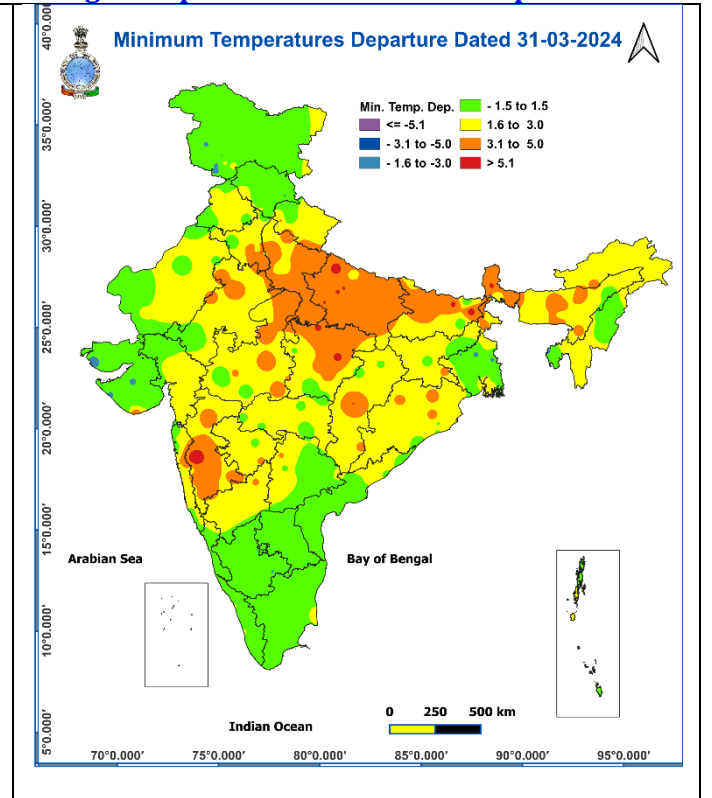
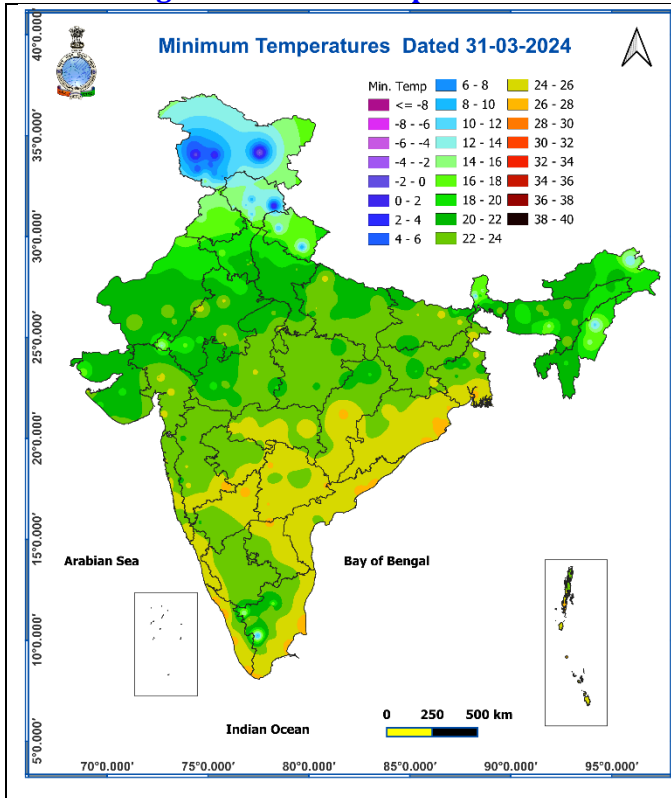
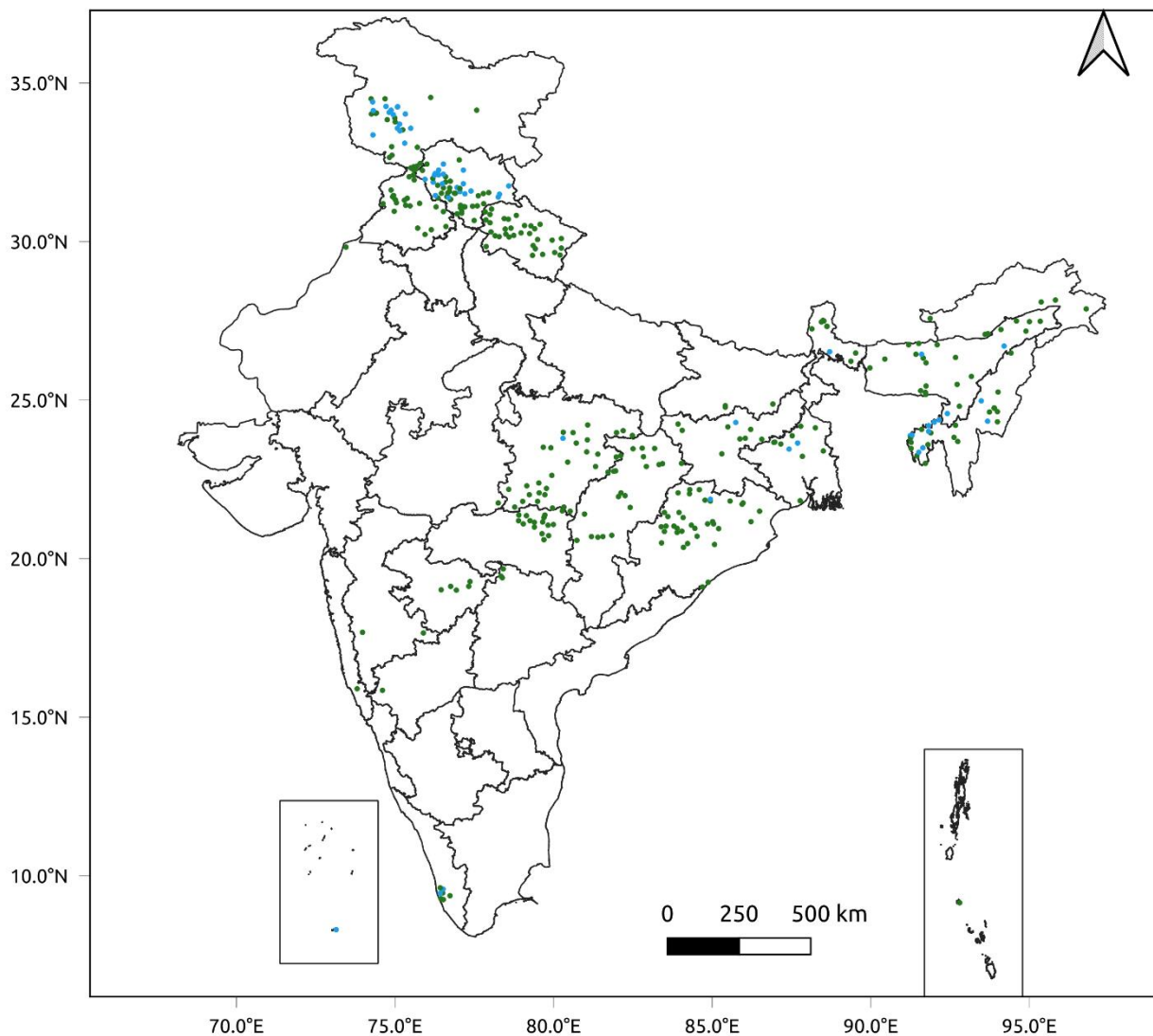


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

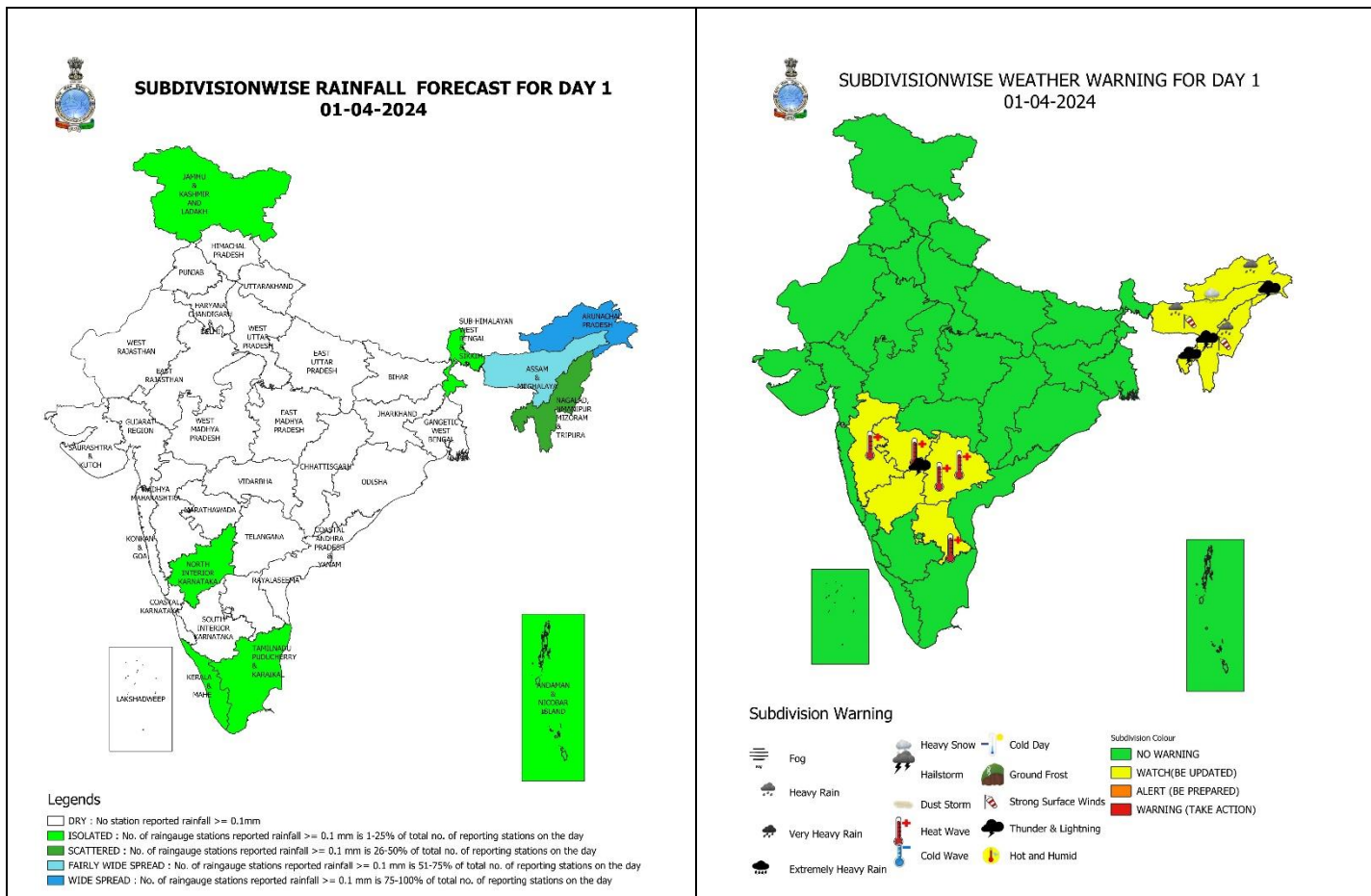


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 30-3-2024 to 0830 IST of 31-3-2024



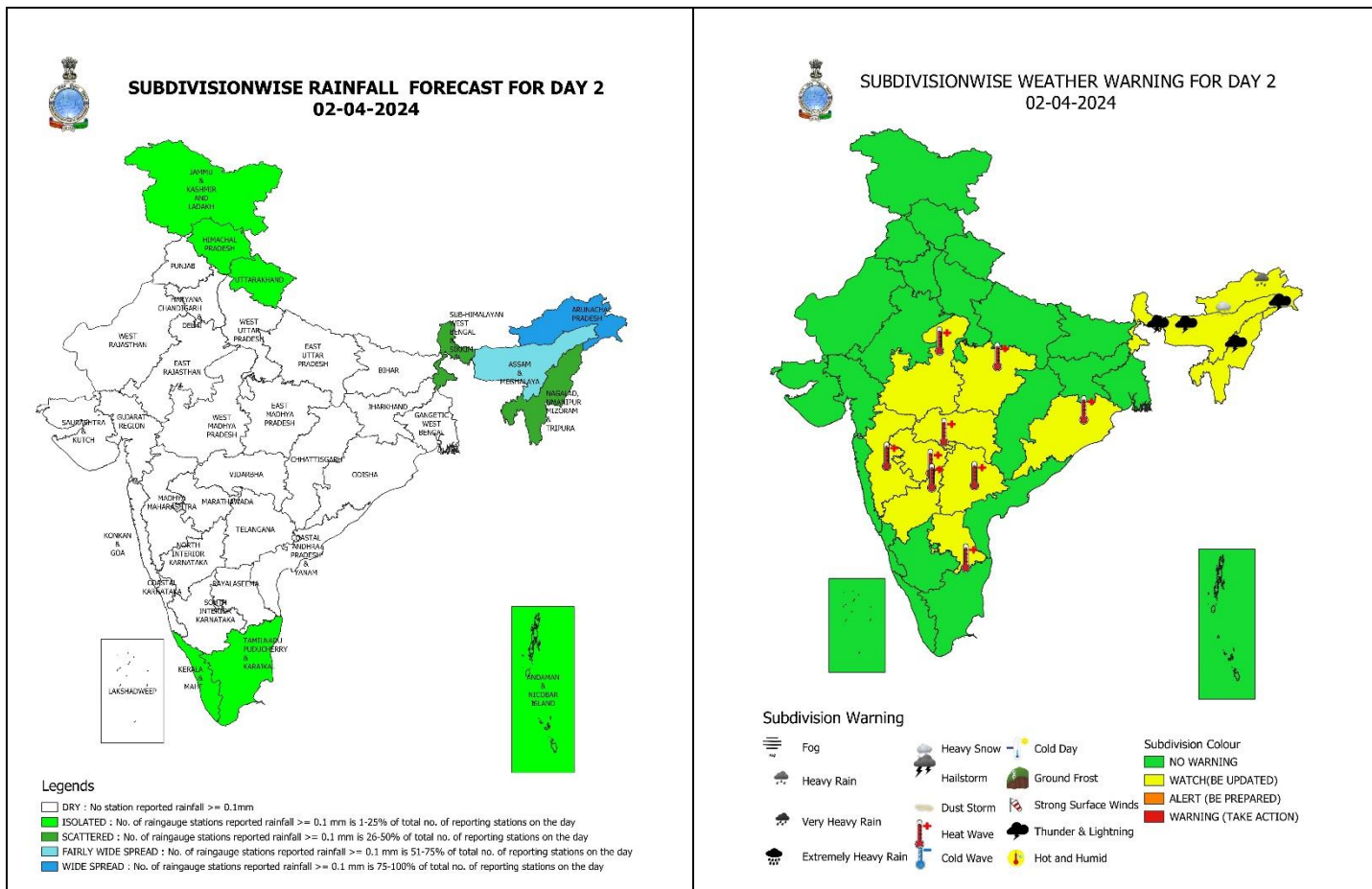
Legends

- 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)



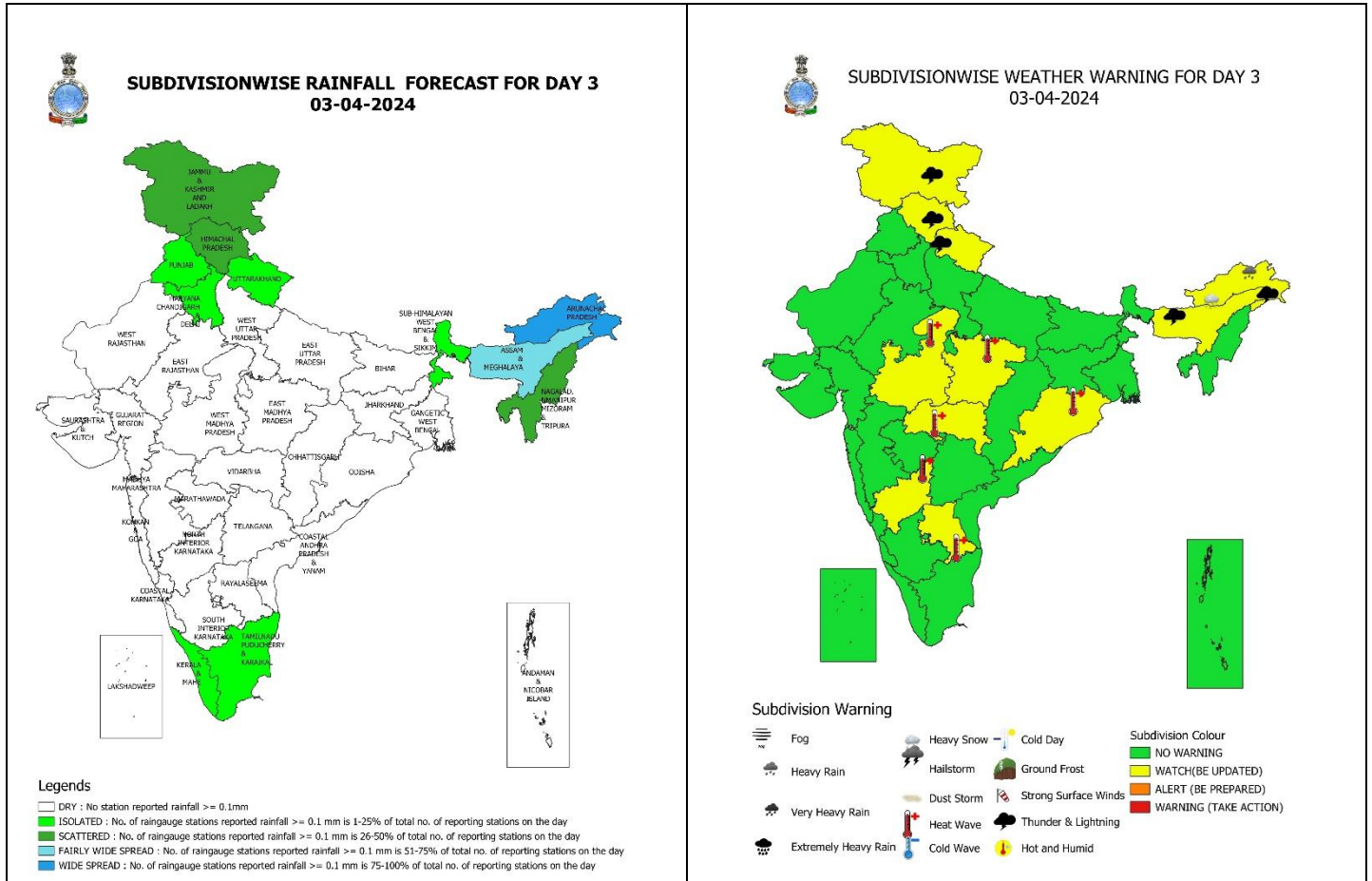
01 April (Day 1):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh and North Interior Karnataka.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Warm night** very likely to prevail in isolated pockets over Madhya Maharashtra, Marathwada and Telangana.
- ❖ **Heat wave conditions** very likely at isolated places over Rayalaseema and Telangana.
- ❖ **Hot and humid weather** very likely to prevail over Rayalaseema, Kerala & Mahe, Coastal Andhra Pradesh and Tamil Nadu, Puducherry & Karaikal.



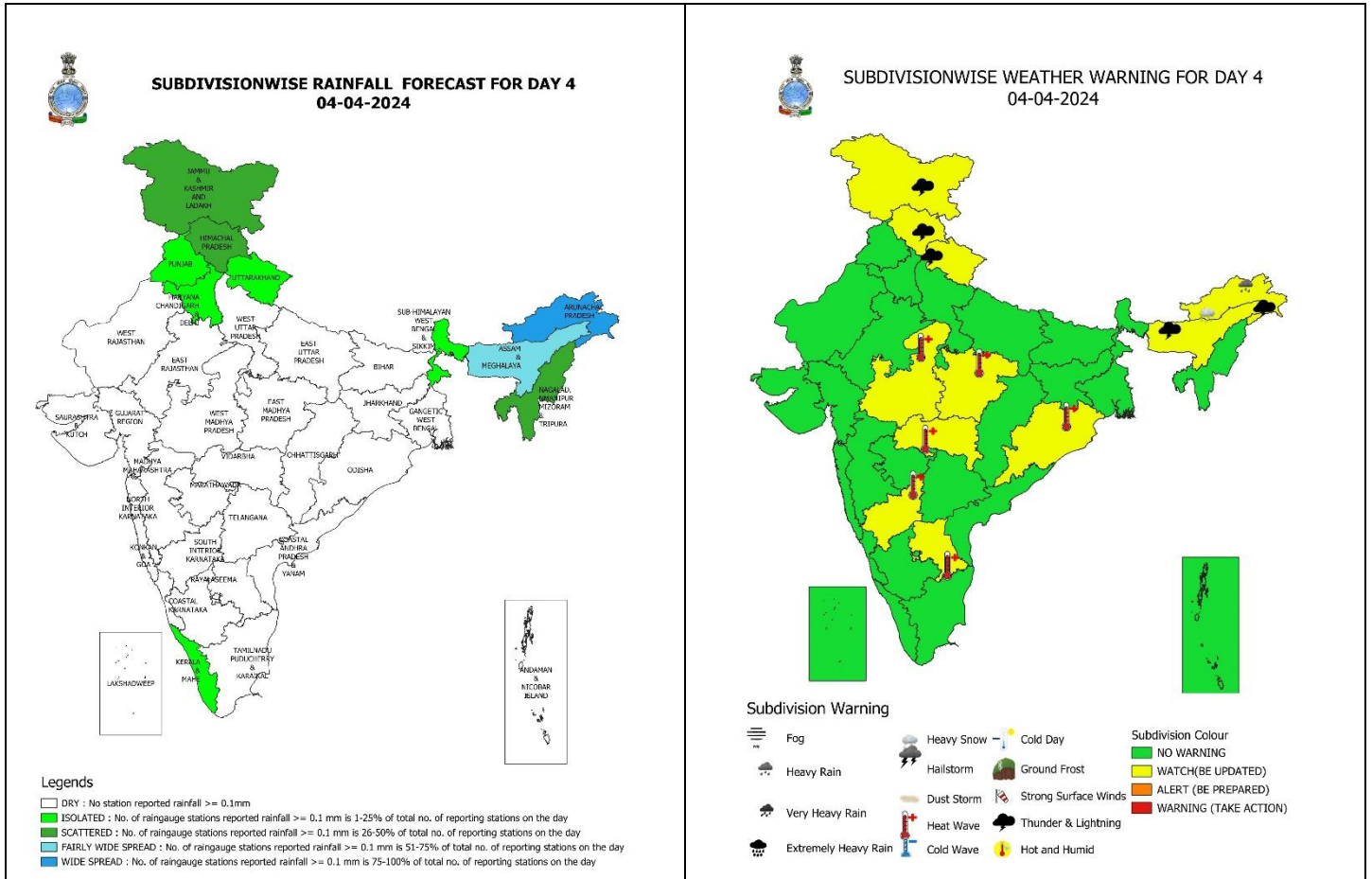
02 April (Day 2):

- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh.
- ❖ **Warm night** very likely to prevail in isolated pockets over Odisha, Madhya Maharashtra and Marathwada.
- ❖ **Heat wave conditions** very likely at isolated places over Madhya Pradesh, Vidarbha, Rayalaseema, Telangana and North Interior Karnataka.
- ❖ **Hot and humid weather** very likely to prevail over Odisha, Kerala & Mahe, Coastal Andhra Pradesh and Tamil Nadu, Puducherry & Karaikal.



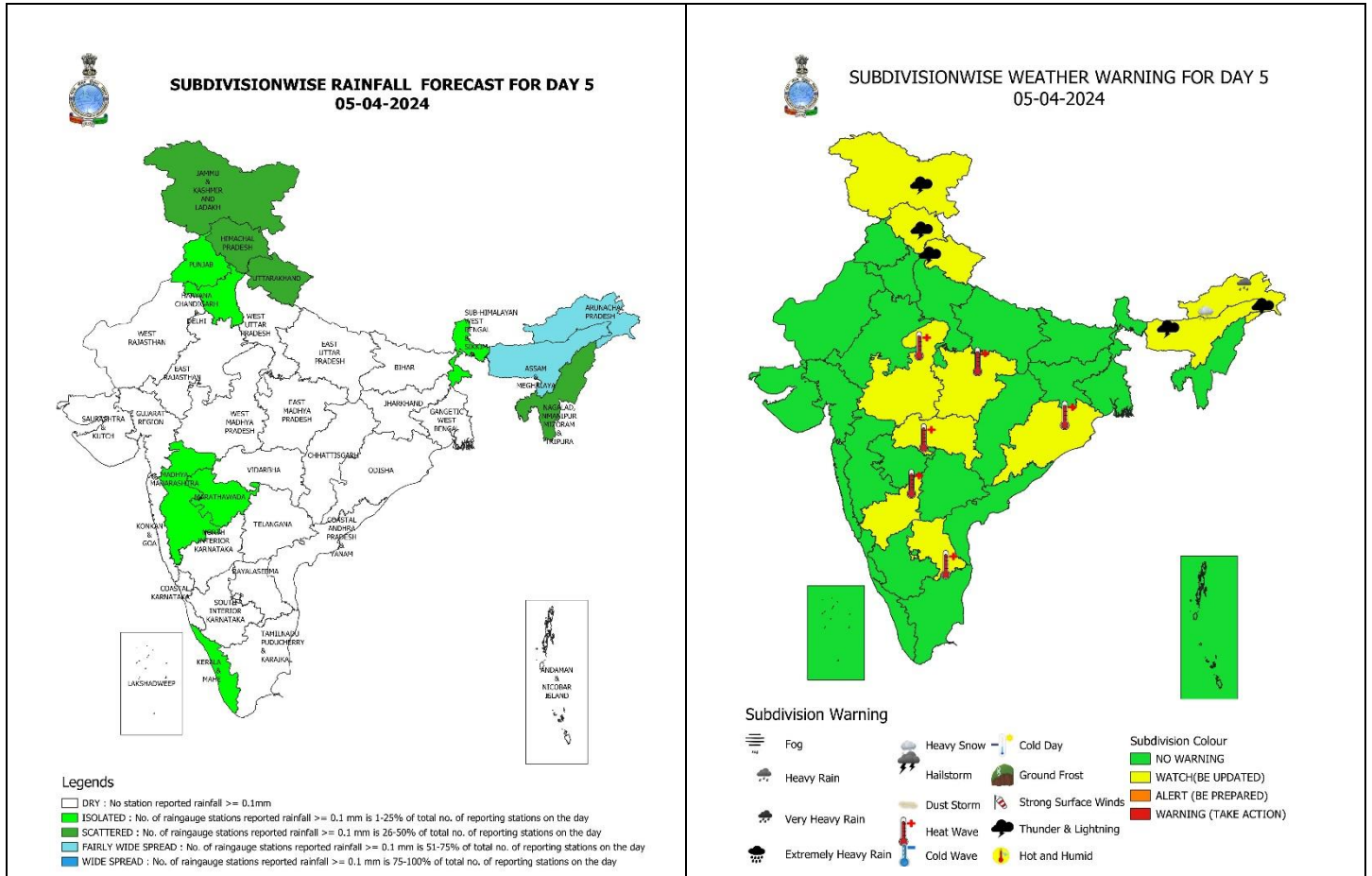
03 April (Day 3):

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Arunachal Pradesh.
- ❖ **Warm night** likely to prevail in isolated pockets over Odisha.
- ❖ **Heat wave conditions** likely at isolated places over Madhya Pradesh, Vidarbha, Rayalaseema and North Interior Karnataka.
- ❖ **Hot and humid weather** likely to prevail over Odisha, Kerala & Mahe, Coastal Andhra Pradesh and Tamil Nadu, Puducherry & Karaikal.



04 April (Day 4):

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Arunachal Pradesh.
- ❖ **Warm night** likely to prevail in isolated pockets over Odisha.
- ❖ **Heat wave conditions** likely at isolated places over Madhya Pradesh, Vidarbha, Rayalaseema and North Interior Karnataka.
- ❖ **Hot and humid weather** likely to prevail over Odisha, Kerala & Mahe, Coastal Andhra Pradesh and Tamil Nadu, Puducherry & Karaikal.

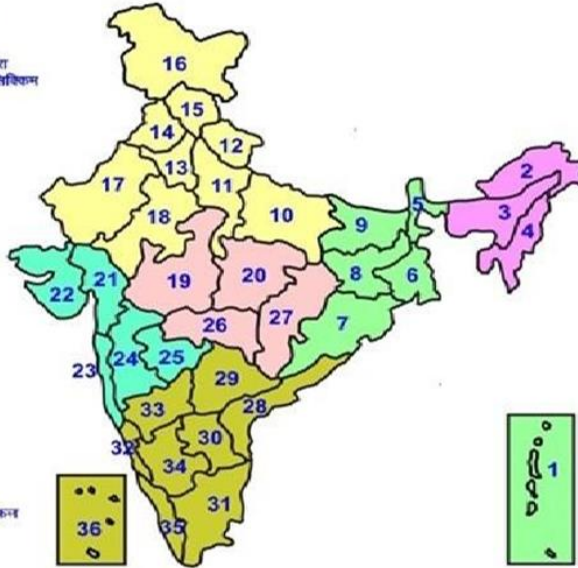


05 April (Day 5):

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Arunachal Pradesh.
- ❖ **Warm night** likely to prevail in isolated pockets over Odisha.
- ❖ **Heat wave conditions** likely at isolated places over Madhya Pradesh, Vidarbha, Rayalaseema and North Interior Karnataka.
- ❖ **Hot and humid weather** likely to prevail over Odisha, Kerala & Mahe, Coastal Andhra Pradesh and Tamil Nadu, Puducherry & Karaikal.

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 उत्तरीमहाराष्ट्र
- 28 तटीय आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 दखिनीय
- 31 दखिनीय, 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. Marathawada
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)