



ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

**Significant Meteorological features:**

- ❖ The **Western Disturbance** as a cyclonic circulation lies over central Pakistan in lower & upper tropospheric levels.
- ❖ An Induce Cyclonic Circulation lies over south Pakistan & adjoining West Rajasthan in lower tropospheric levels.
- ❖ A Cyclonic Circulations lies over southwest Uttar Pradesh and another over south Chhattisgarh in lower tropospheric levels.
- ❖ A **trough/wind discontinuity** runs from east Vidarbha to North Interior Tamil Nadu in lower tropospheric levels.
- ❖ **An active Western Disturbance is likely to affect Northwest India from the night of 01st May, 2023.**

**Severe weather warning for next 5 days:**

**Northwest India:**

- ❖ **Hailstorm** activity very likely at isolated places over Himachal Pradesh and Uttar Pradesh on 01st & 02nd May; Uttarakhand during next 5 days; over Punjab, Haryana, Chandigarh & Delhi, during 01st-02nd May; over Rajasthan on 03rd May. **Thundersquall** very likely over Uttarakhand on 02nd & 03rd May.
- ❖ **Heavy rainfall** very likely at isolated places over Jammu division on 02nd May and Himachal Pradesh on 01st & 02nd May.
- ❖ **Duststorm** very likely at isolated places over West Rajasthan during 03rd-04th May.
- ❖ **Gradual decrease in rainfall activity over the region from 4<sup>th</sup> May.**

**Central India:**

- ❖ Scattered/Fairly widespread light/moderate rainfall and isolated thunderstorm with gusty winds over the region during next 4 days and reduction in intensity and distribution thereafter.

**South India:**

- ❖ **Very Heavy rainfall** at isolated places over Rayalaseema & Tamil Nadu 01st May. **Heavy rainfall** likely at isolated places over South Interior Karnataka and Coastal Andhra Pradesh on 01st & 2nd May; over Kerala & Tamil Nadu during next 3 days.
- ❖ **Significant decrease in rainfall activity over the region from 4<sup>th</sup> May.**

**East India:**

- ❖ **Hailstorm** very likely at isolated places over Jharkhand and West Bengal & Sikkim on 01st May.
- ❖ **Heavy rainfall** likely at isolated places over Sub-Himalayan West Bengal & Sikkim on 01st & 2nd May.
- ❖ **Gradual decrease in rainfall activity over the region from 3<sup>rd</sup> May.**

**Northeast India:**

- ❖ **Heavy rainfall** very likely at isolated places over Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura during 01st-02st May; Assam & Meghalaya during 01st-04th May.



## Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Uttarakhand and Chhattisgarh; **at many places** over East Uttar Pradesh and Madhya Pradesh; **at a few places** over Himachal Pradesh, East Rajasthan, West Uttar Pradesh, Vidarbha, Bihar, Jharkhand, West Bengal & Sikkim, North Interior Karnataka and Tamil Nadu, Puducherry & Karaikal and **at isolated places** over Punjab, Haryana, Chandigarh & Delhi, West Rajasthan, Saurashtra & Kutch, Assam & Meghalaya, Odisha, Telangana, Marathwada, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday)(in cm): Valprai-6; Khajuraho and Damoh-4 each; Sagar, Durg and Dharmapuri-3 each; Shimla, Dehradun, Nagpur, Raisen, Khandwa, Patna, Tiruchirrapalli and Gulbarga-2 each; Mukteshwar Kumaon, Mandi, Kandla, Fursatganj, Chhindwara, Indore, Seoni, Pachmarhi, Raipur, Jamshedpur, Kolkata, Diamond Harbour, Haldia, Dehri, Midnapore, Vijayawada, Ramgundam, Ariyalur and K Paramathy-1 each.
- ❖ **Thunderstorm observed** (from 0830 hours IST to yesterday to 0530 hours IST of today): at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Rajasthan, East Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, Odisha, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Gujarat State, Chhattisgarh, Andhra Pradesh & Yanam, Telangana, Tamilnadu, Puducherry and Karaikal, Interior Karnataka and Kerala & Mahe.
- ❖ **Hailstorm Observed** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Himachal Pradesh, Uttarakhand, Rajasthan, East Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, West Bengal & Sikkim, Telangana and Rayalaseema.
- ❖ **Minimum Temperature Departures (as on 30-04-2023):** Minimum temperatures were **appreciably above normal (3.1°C to 5.1°C)** at a few places over Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at a few places over East Uttar Pradesh, Bihar, Andaman & Nicobar Islands. They were **markedly below normal (-5.1°C or less)** at most places over Vidarbha and Marathwada; at many places over Madhya Pradesh; at a few places over Rajasthan; at isolated places over Chhattisgarh, North Interior Karnataka, Telangana; **appreciably below normal (-3.1°C to -5.1°C)** at isolated places over West Uttar Pradesh, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam; **below normal (-1.6°C to -3.0°C)** at many places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Gujarat Region, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal; at a few places over Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Coastal Karnataka, West Bengal & Sikkim; at isolated places over Uttarakhand, Rayalaseema, Kerala & Mahe and Odisha. Yesterday, the **lowest minimum temperature** of 15.8°C was reported at Malanjkhanda (East Madhya Pradesh).
- ❖ **Maximum Temperature Departures (as on 30-04-2023):** Maximum temperatures were **appreciably above normal (3.1°C to 5.1°C)** at a few places over Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at a few places over Coastal Karnataka and at isolated places over Kerala & Mahe. They were **markedly below normal (-5.1°C or less)** at most places over Punjab, Haryana, Chandigarh & Delhi, Rajasthan, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Vidarbha, Marathwada and Telangana; at many places over Uttarakhand and Jharkhand; at a few places over Bihar, Odisha, Gujarat State and North Interior Karnataka; **appreciably below normal (-3.1°C to -5.0°C)** at most places over Rayalaseema; at many places over Madhya Maharashtra; at a few places over Tamil Nadu, Puducherry & Karaikal; at isolated places over Gangetic West Bengal and Coastal Andhra Pradesh & Yanam; **below normal (-1.6°C to -3.0°C)** at most places over Himachal Pradesh; at a few places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and Sub-Himalayan West Bengal & Sikkim; at isolated places over Assam & Meghalaya and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature** of 39.6°C was reported at **Bhubaneswar (Odisha)**.

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Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Western Disturbance as a **cyclonic circulation** over central Pakistan & neighbourhood between 3.1 km & 9.3 km above mean sea level persists.
- ❖ The induced cyclonic circulation over south Pakistan & adjoining West Rajasthan extending upto 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over southwest Uttar Pradesh & neighbourhood extending upto 3.1 km above mean sea level persists.
- ❖ The cyclonic circulation over south Chhattisgarh & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over Maldives area at 0.9 km above mean sea level persists.
- ❖ The **trough/wind discontinuity** from east Vidarbha to north interior Tamil Nadu across Telangana and interior Karnataka at 1.5 km above mean sea level persists.
- ❖ A fresh Western Disturbance is likely to affect Northwest India from the night of 01<sup>st</sup> May, 2023.

Weather Forecast for next 5 days (Upto 0830 hours IST of 06th May, 2023)

- ❖ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-1.

**Maximum Temperatures Forecast and Heat Wave Warnings:**

- ❖ **Maharashtra:** No significant change in maximum temperatures very likely during next 24 hours and rise by 2-3°C thereafter.
- ❖ **Gujarat state:** Gradual rise by 2-4°C in maximum temperatures very likely during next 5 days.
- ❖ No significant change in maximum temperatures over rest parts of India during the next 5 days.
- ❖ **No Heat wave conditions over most parts of India during next 5 days.**

Weather Outlook for subsequent 2 days (During 06th-08th May, 2023)

- ❖ Scattered to fairly widespread light/moderate rainfall likely to continue over northeast India and parts of Northwest India. Isolated light rainfall likely along east coast and over south peninsular India. Dry weather over rest parts of the country.



### Weather Warning during next 5 days

**01 May (Day 1):** ♦ **Heavy to very heavy rainfall** very likely at isolated places over ghat areas of Tamilnadu, Rayalaseema; **Heavy rainfall** at isolated places over Himachal Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh, South Interior Karnataka and Kerala.

♦ **Hailstorm with lightning & gusty wind (40-50 kmph)** very likely at isolated places over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Jharkhand, West Bengal & Sikkim and **with lightning** at isolated places over Himachal Pradesh.

♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Odisha, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Coastal Andhra Pradesh, Telangana Rayalaseema, interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe; **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Rajasthan, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathawada, Gujarat state and Lakshadweep.

**02 May (Day 2):** ♦ **Heavy rainfall** very likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh, South Interior Karnataka, Tamil Nadu and Kerala.

♦ **Hailstorm with lightning & squall (50-60 kmph)** very likely at isolated places over Uttarakhand; **with lightning & gusty wind (40-50 kmph)** at isolated places over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and **with lightning** at isolated places over Himachal Pradesh.

♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Jharkhand, Coastal Andhra Pradesh, Telangana Rayalaseema, South interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe; **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathawada, Bihar and Lakshadweep.

**03 May (Day 3):** ♦ **Heavy rainfall** likely at isolated places over Assam & Meghalaya, Tamil Nadu and Kerala.

♦ **Hailstorm with lightning & squall (50-60 kmph)** likely at isolated places over Uttarakhand and **with lightning & gusty wind (40-50 kmph)** at isolated places over Rajasthan.

♦ **Thunderstorm with lightning & gusty wind (40-50 kmph)** likely at isolated places over Punjab, Haryana, Chandigarh & Delhi; **with lightning & gusty wind (30-40 kmph)** over Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe; **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Gangetic West Bengal, Jharkhand, Odisha, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Madhya Maharashtra, Marathawada, Telangana, Tamil Nadu, Puducherry & Karaikal and South Interior Karnataka.

♦ **Duststorm** likely at isolated places over West Rajasthan.

**04 May (Day 4):** ♦ **Heavy rainfall** likely at isolated places over Assam & Meghalaya.

♦ **Hailstorm with lightning & gusty winds (40-50 kmph)** likely at isolated places over Uttarakhand.

♦ **Thunderstorm with lightning & gusty wind (40-50 kmph)** likely at isolated places over Punjab; **with lightning & gusty wind (30-40 kmph)** over Haryana, Chandigarh & Delhi, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya; **with lightning** at isolated places Himachal Pradesh, Uttar Pradesh, Arunachal Pradesh, West Bengal & Sikkim, Odisha, Jharkhand, Coastal Andhra Pradesh & Yanam, Telangana, South Interior Karnataka, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.

♦ **Duststorm** likely at isolated places over West Rajasthan.

**05 May (Day 5):** ♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** likely at isolated places over East Rajasthan, Madhya Pradesh, Vidarbha, Assam & Meghalaya; **with lightning** at isolated places Uttarakhand, Himachal Pradesh, Uttar Pradesh, Arunachal Pradesh, West Bengal & Sikkim, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, South Interior Karnataka, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.

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Table-1

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

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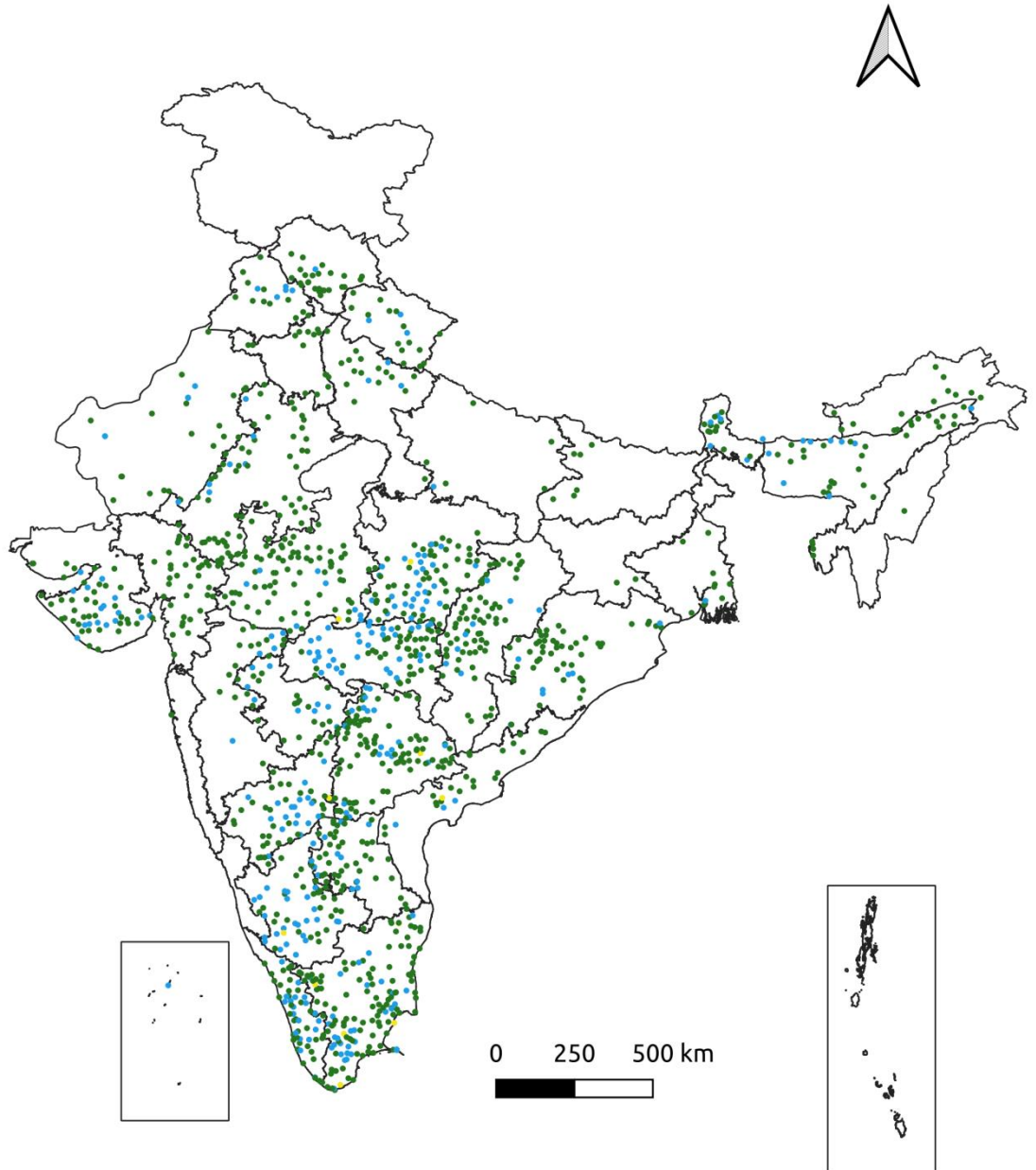
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Fig. 1: Accumulated Rainfall (mm) during past 24 hours



24 Hr cumulative rainfall recorded over different stations  
during 0830 IST of 29-4-2023 to 0830 IST of 30-4-2023



## Legends

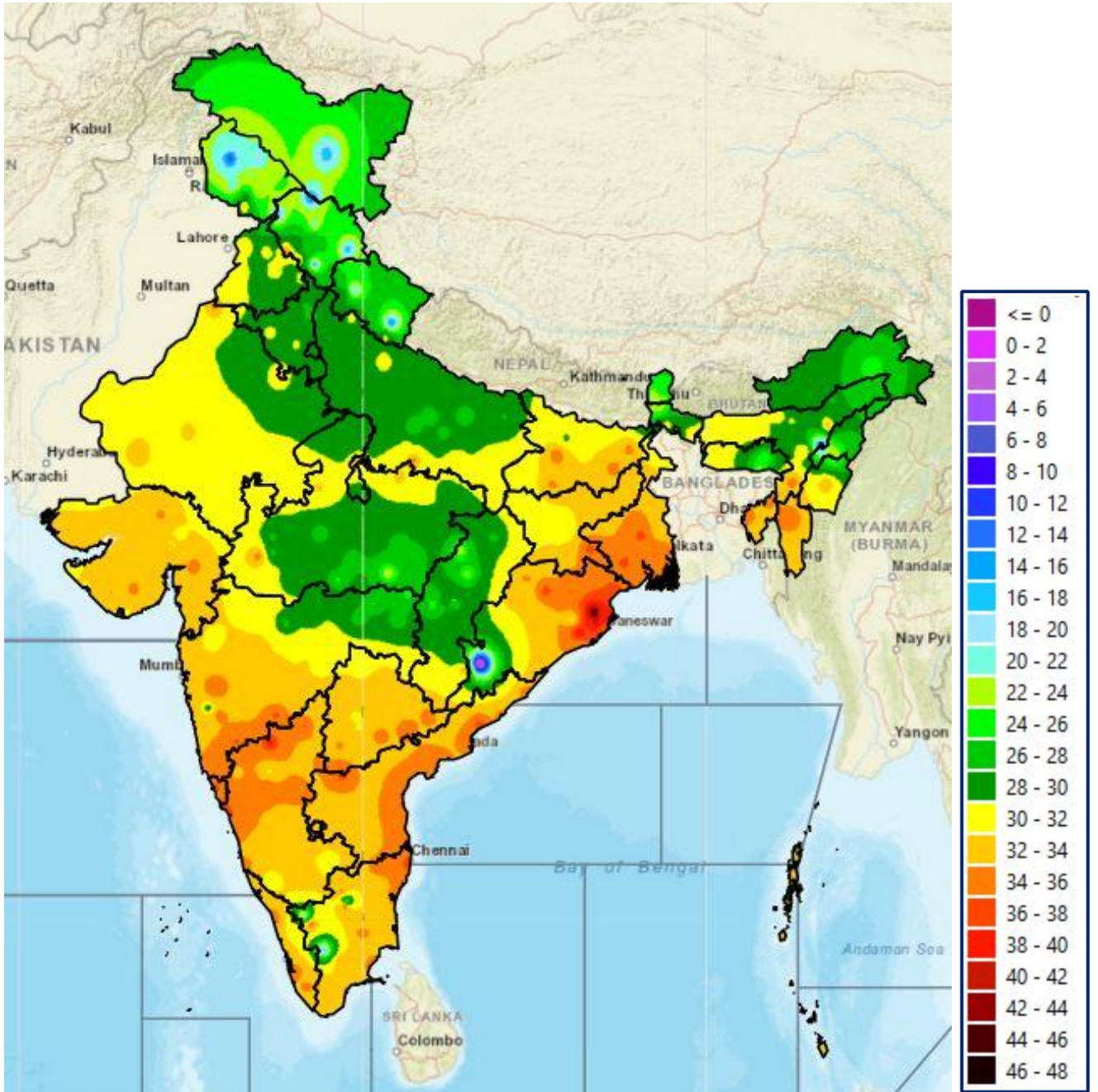
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall ( $\geq 204.5$  mm)

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Fig. 2: Maximum Temperatures Dated 30.04.2023



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Fig. 3: Minimum Temperatures Dated 30.04.2023

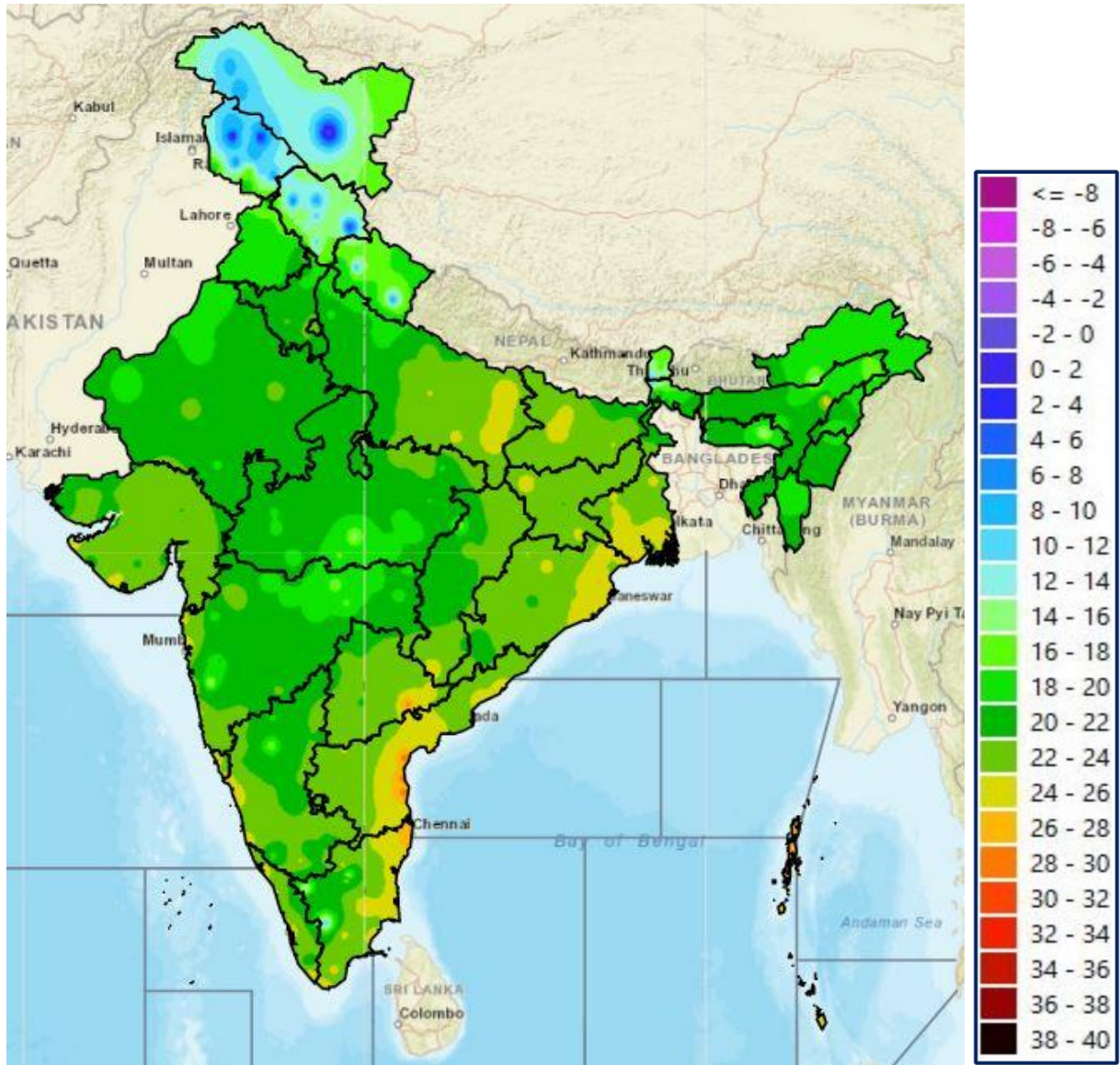
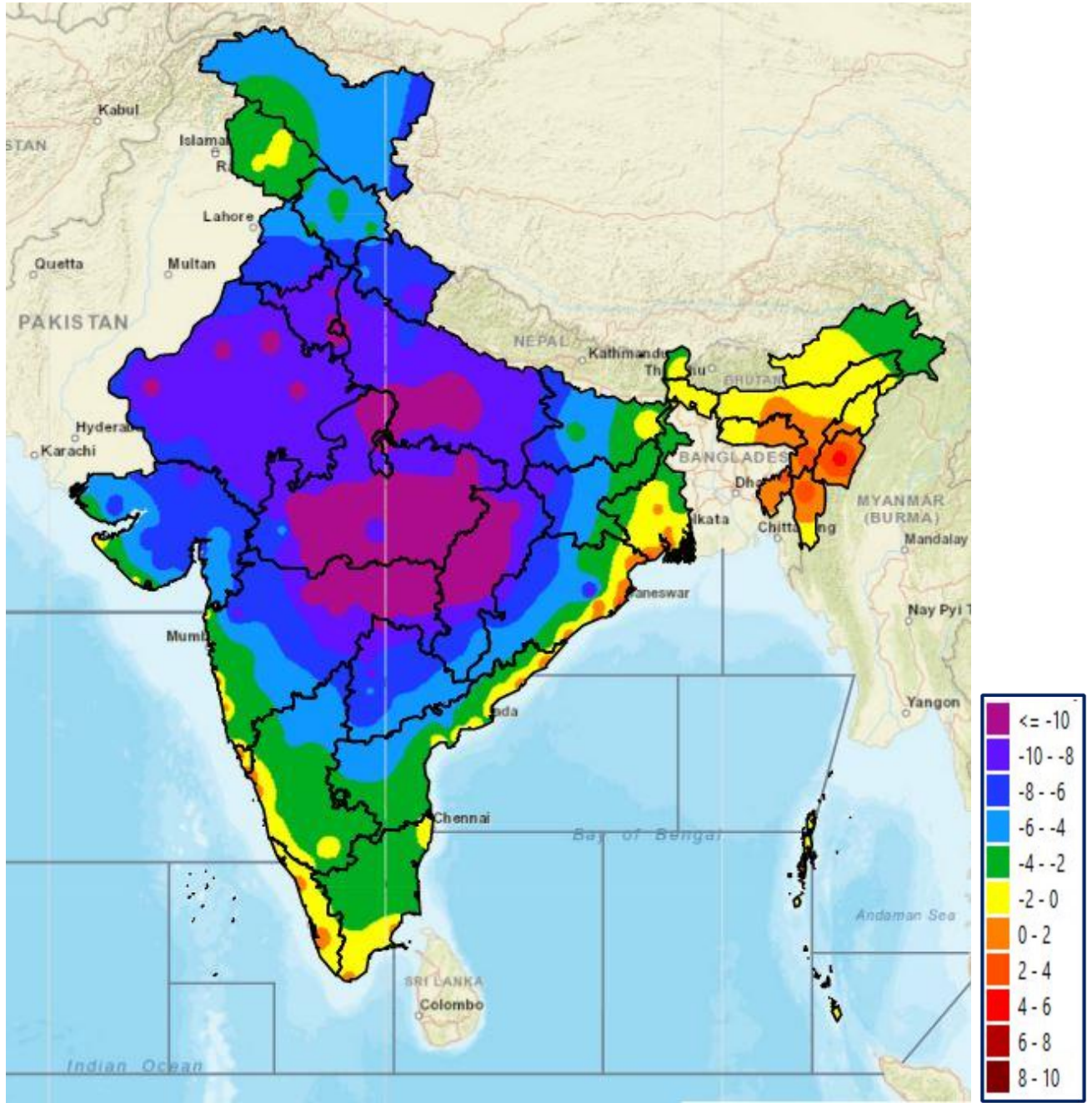


Fig. 4: Departure from Normal of Maximum Temperatures Dated 30.04.2023

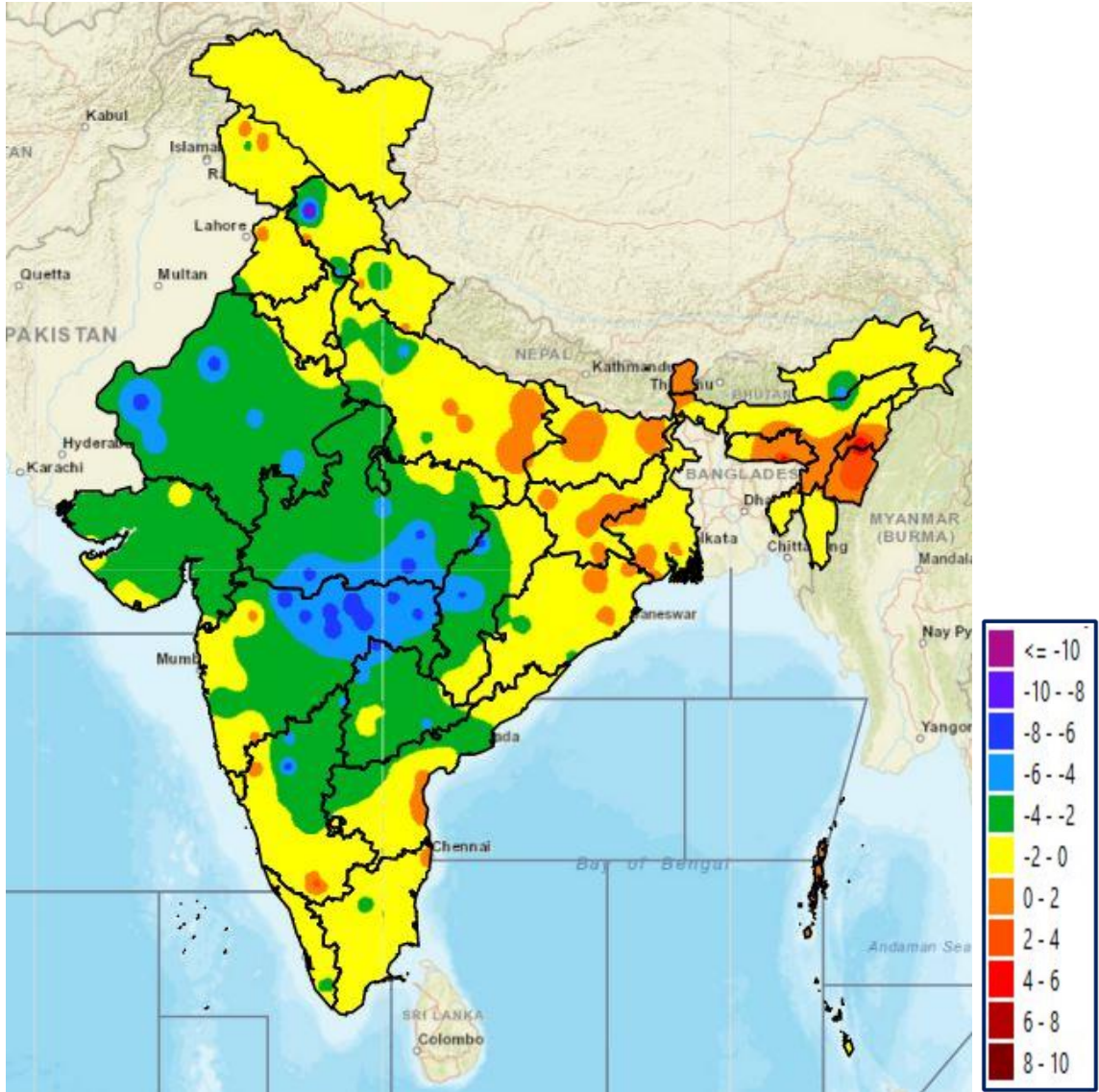


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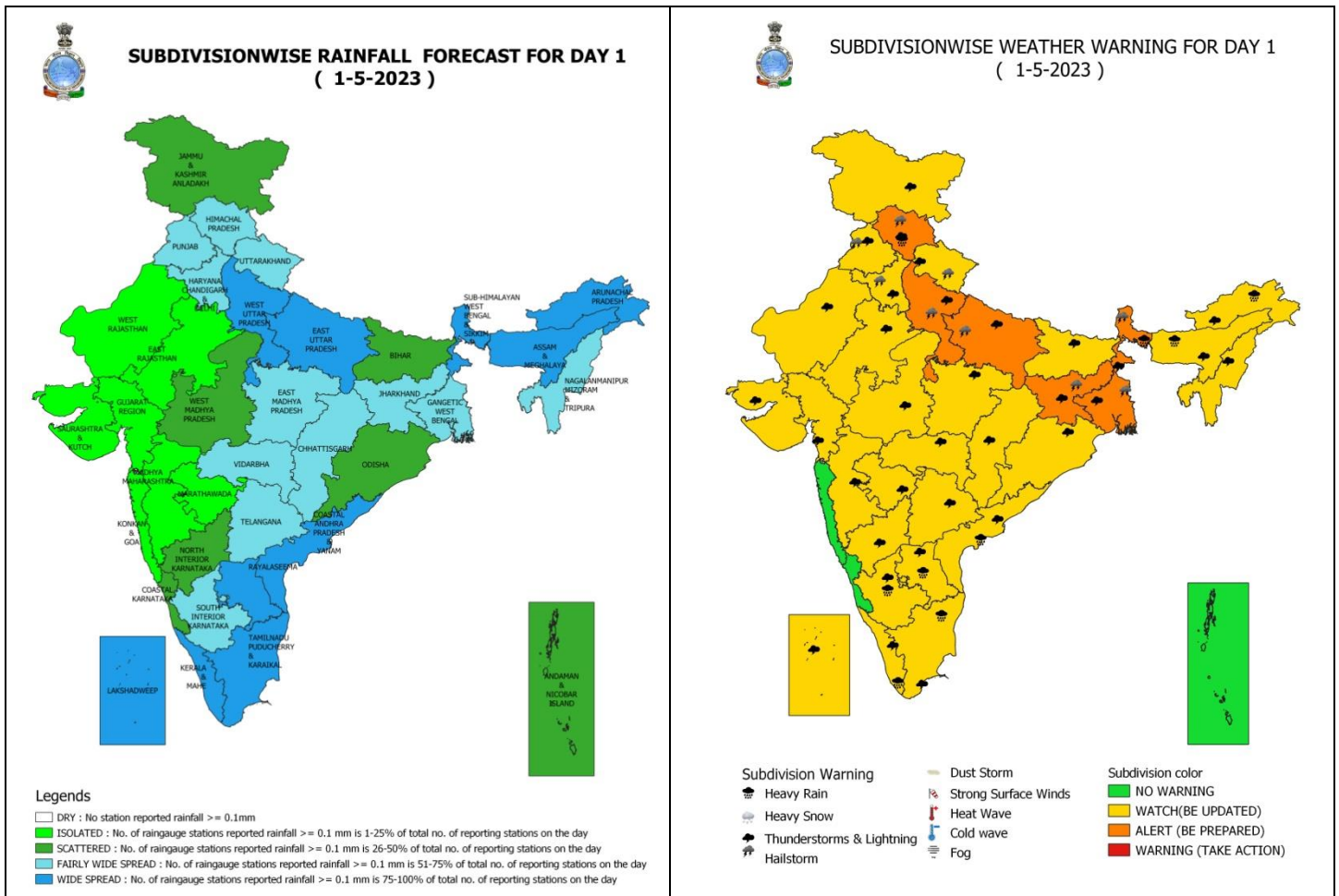
Fig. 5: Departure from Normal of Minimum Temperatures Dated 30.04.2023



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**01 May (Day 1):** ♦ **Heavy to very heavy rainfall** very likely at isolated places over ghat areas of Tamilnadu, Rayalaseema; **Heavy rainfall** at isolated places over Himachal Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh, South Interior Karnataka and Kerala.

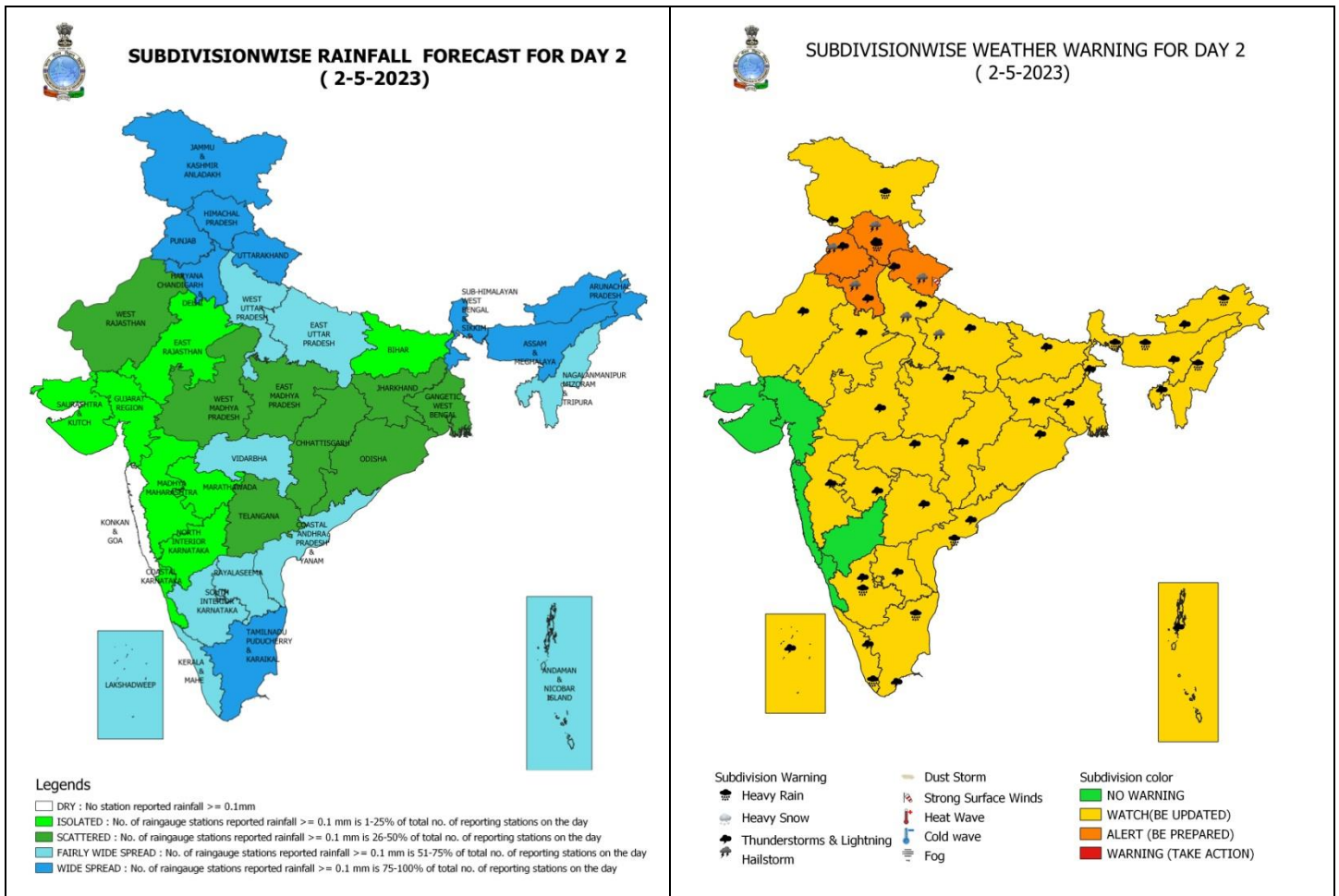
♦ **Hailstorm with lightning & gusty wind (40-50 kmph)** very likely at isolated places over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Jharkhand, West Bengal & Sikkim and **with lightning** at isolated places over Himachal Pradesh.

♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Odisha, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Coastal Andhra Pradesh, Telangana Rayalaseema, interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe; **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Rajasthan, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Gujarat state and Lakshadweep.

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**02 May (Day 2):** ♦ **Heavy rainfall** very likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh, South Interior Karnataka, Tamil Nadu and Kerala.

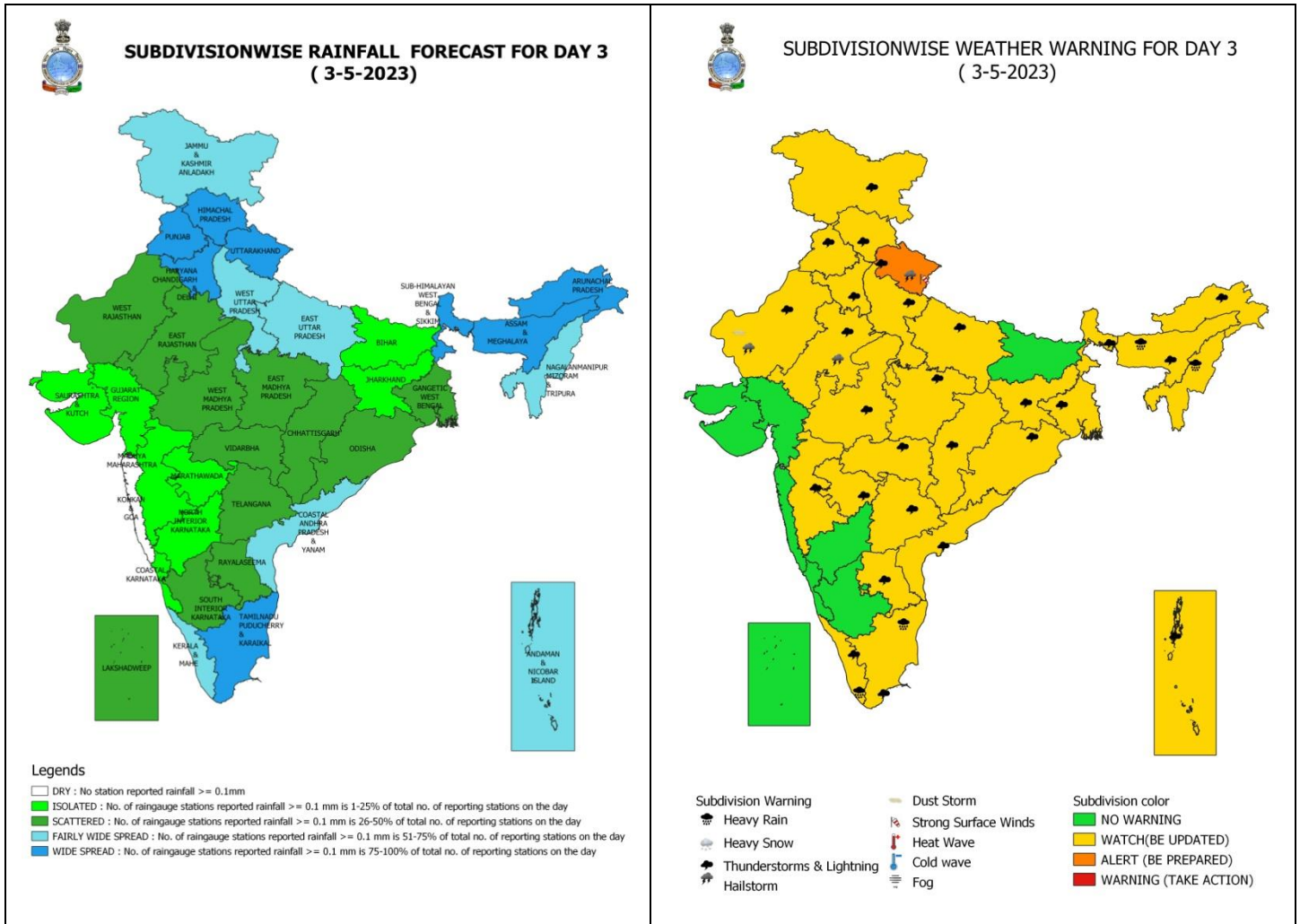
♦ **Hailstorm with lightning & squall (50-60 kmph)** very likely at isolated places over Uttarakhand; **with lightning & gusty wind (40-50 kmph)** at isolated places over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and **with lightning** at isolated places over Himachal Pradesh.

♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Jharkhand, Coastal Andhra Pradesh, Telangana Rayalaseema, South interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe; **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathawada, Bihar and Lakshadweep.

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**03 May (Day 3):** ♦ Heavy rainfall likely at isolated places over Assam & Meghalaya, Tamil Nadu and Kerala.

♦ Hailstorm with lightning & squall (50-60 kmph) likely at isolated places over Uttarakhand and with lightning & gusty wind (40-50 kmph) at isolated places over Rajasthan.

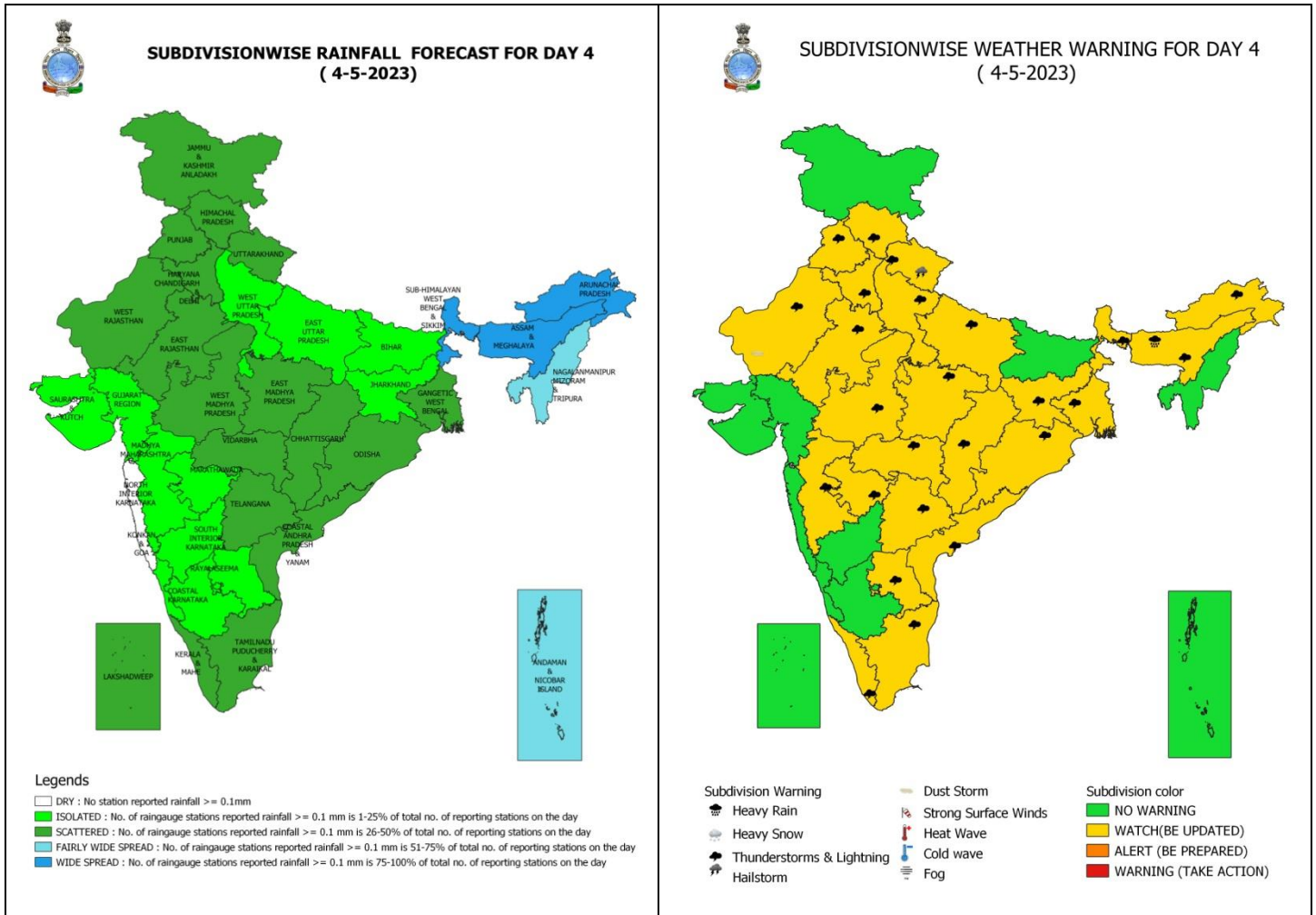
♦ Thunderstorm with lightning & gusty wind (40-50 kmph) likely at isolated places over Punjab, Haryana, Chandigarh & Delhi; with lightning & gusty wind (30-40 kmph) over Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe; with lightning at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Gangetic West Bengal, Jharkhand, Odisha, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Madhya Maharashtra, Marathawada, Telangana, Tamil Nadu, Puducherry & Karaikal and South Interior Karnataka.

♦ Duststorm likely at isolated places over West Rajasthan.

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**04 May (Day 4):** ♦ Heavy rainfall likely at isolated places over Assam & Meghalaya.

♦ Hailstorm with lightning & gusty winds (40-50 kmph) likely at isolated places over Uttarakhand.

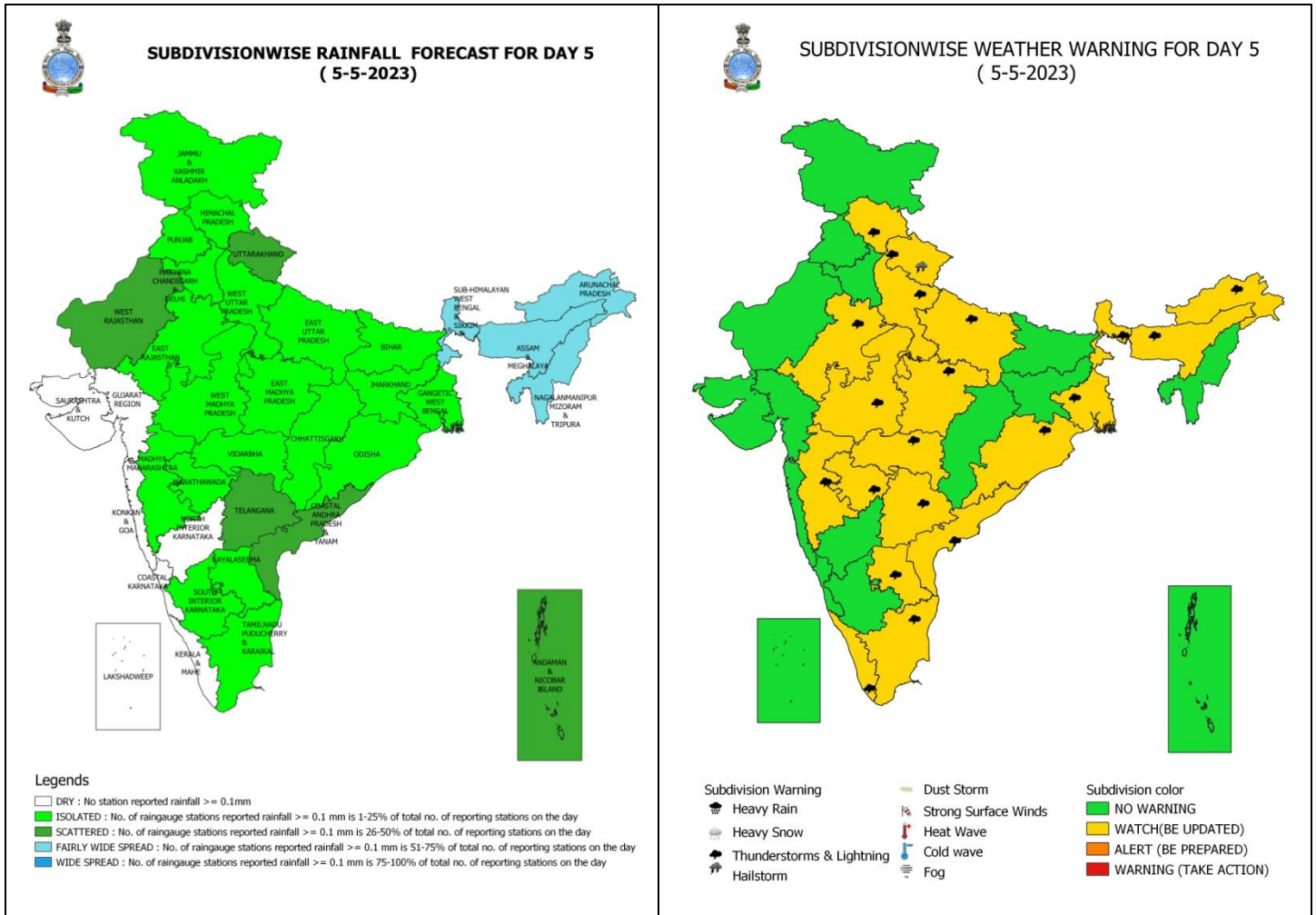
♦ Thunderstorm with lightning & gusty wind (40-50 kmph) likely at isolated places over Punjab; with lightning & gusty wind (30-40 kmph) over Haryana, Chandigarh & Delhi, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya; with lightning at isolated places Himachal Pradesh, Uttar Pradesh, Arunachal Pradesh, West Bengal & Sikkim, Odisha, Jharkhand, Coastal Andhra Pradesh & Yanam, Telangana, South Interior Karnataka, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.

♦ Duststorm likely at isolated places over West Rajasthan.

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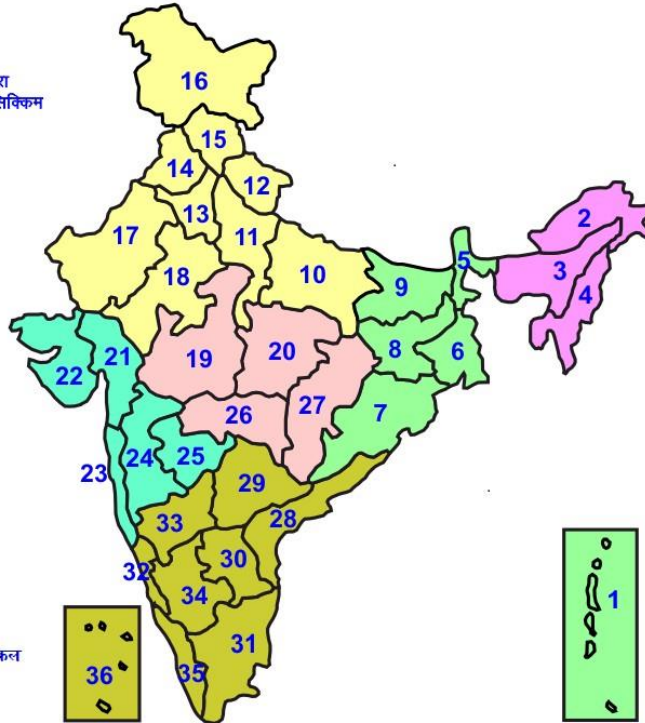
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**05 May (Day 5): ♦ Thunderstorm with lightning & gusty wind (30-40 kmph) likely at isolated places over East Rajasthan, Madhya Pradesh, Vidarbha, Assam & Meghalaya; with lightning at isolated places Uttarakhand, Himachal Pradesh, Uttar Pradesh, Arunachal Pradesh, West Bengal & Sikkim, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, South Interior Karnataka, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.**

## LEGENDS

- 1 अंडमान और निकोबार द्वीप समुह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम बंगाल
- 7 ओडिसा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडिगढ़ 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 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठावाडा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसीमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक 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. Orissa
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

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

## Probabilistic Forecast

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



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

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## 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



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 Storm: Wind speed  $> 220$  kmph ( $> 119$  knots)

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