



Wednesday, April 19, 2023
MORNING
Time of Issue: 0800 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Significant Meteorological features:

- ❖ A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 65°E to the north of Lat. 25°N.
- ❖ An induced cyclonic circulation lies over north Pakistan & adjoining Punjab and another cyclonic circulation over southwest Rajasthan & neighbourhood in lower tropospheric levels.
- ❖ A trough/wind discontinuity runs from south Madhya Maharashtra to south Tamil Nadu in lower tropospheric levels.

Maximum Temperatures and Heat Wave observed:

- ❖ Yesterday's, Maximum Temperatures were in the range of 40-44°C over most parts of Central & North India; in some parts of northern parts of Peninsular India and in isolated parts of plains of Northwest India and West India; 35-40°C over many parts of rest of the country except over Western Himalayan Region (15-27°C) & Islands (30-34°C). Maximum Temperatures were above normal by 3-5°C over most parts of Northeast India; in many parts of north India and East India, in some parts of Central India and in isolated pockets over Rayalaseema.
- ❖ Heat Wave conditions are prevailing in isolated pockets over Gangetic West Bengal since last 8 days and Bihar since last 5 days.

Maximum Temperatures Forecast and Heat Wave Warnings:

Northwest India:

- ❖ Gradual fall in Maximum Temperatures by 2-4°C very likely during next 2 days and rise by 2-3°C thereafter.
- ❖ **Heat wave conditions** are very likely in isolated pockets over East Uttar Pradesh on 19th April and abate thereafter.

East India:

- ❖ No significant change in Maximum Temperatures very likely during next 2 days and gradual fall by 2-3°C thereafter.
- ❖ **Heat wave conditions in some parts with severe heat wave condition** in isolated pockets very likely over Gangetic West Bengal and Bihar during next 24 hours and **Heat wave conditions** in isolated pockets thereafter during subsequent 2 days and abate thereafter.
- ❖ **Heat wave conditions** very likely in isolated pockets over Sub-Himalayan West Bengal & Sikkim, Odisha and Jharkhand during next 24 hours and abate thereafter.

Central India:

- ❖ No significant change in Maximum Temperatures very likely during next 24 hours and fall by 2-3°C during subsequent 4 days.

South Peninsular India:

- ❖ No significant change in Maximum Temperatures very likely during next 24 hours and fall by 2-3°C during subsequent 4 days.
- ❖ **Heat wave conditions** very likely in isolated pockets over Coastal Andhra Pradesh during next 24 hours.

Rainfall Forecast and Warnings:

Northwest India:

- ❖ Light/moderate fairly widespread to widespread rainfall with thunderstorm/lightning very likely over Western Himalayan Region during next 3 days and isolated to scattered rainfall with thunderstorm/lightning/gusty winds over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan during 19th-21st April.
- ❖ **Heavy rainfall** very likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand on 19th April.
- ❖ Isolated **Hailstorm** very likely over Himachal Pradesh, Punjab on 19th; over Uttarakhand during 19th to 21st and over Haryana on 19th April, 2023.

West India:

- ❖ Light isolated rainfall with thunderstorm/lightning/gusty winds very likely over parts of Maharashtra next 3 days.

East India:

- ❖ Light isolated rainfall with thunderstorm/lightning very likely Bihar, Jharkhand, West Bengal and Odisha from 21st April, 2023.

No significant weather likely over rest parts of the country.

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Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places over** Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad **and at isolated places** over Himachal Pradesh and Gujarat Region.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Jammu & Kashmir:** Pahalgam and Gulmarg-3 each; Kupwara, Qazi Gund and Banihal- 2 each; Srinagar, Kokarnag, Batote and Baderwah- 1 each.
- ❖ **Thunderstorm observed** (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Himachal Pradesh, Gujarat region and Sub-Himalayan West Bengal & Sikkim.
- ❖ **Hailstorm observed** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad.
- ❖ **Yesterday, Heat wave to severe heat wave conditions** observed in isolated pockets over Sub-Himalayan West Bengal and **heat wave conditions** observed in some pockets over Bihar and Gangetic West Bengal and in isolated pockets over East Uttar Pradesh.
- ❖ **Minimum Temperature Departures (as on 18-04-2023):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Punjab and East Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Himachal Pradesh, Haryana, Chandigarh & Delhi, West Rajasthan, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and at isolated places over Gangetic West Bengal; **above normal (1.6°C to 3.0°C)** at many places over Chhattisgarh and Andaman & Nicobar Islands; at a few places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Uttarakhand, Uttar Pradesh, Marathwada, Kerala & Mahe, Odisha, Jharkhand and Bihar and at isolated places over Madhya Pradesh, Gujarat state, Madhya Maharashtra and Coastal Andhra Pradesh & Yanam. They were **below normal (-1.6°C to -3.0°C)** at a few places over Rayalaseema and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 17.4°C** was reported at **Una (Himachal Pradesh)** over plains of the country.
- ❖ **Maximum Temperature Departures (as on 18-04-2023):** Maximum temperatures were **markedly above normal (5.1°C or more)** at many places over Assam & Meghalaya, Arunachal Pradesh and Bihar; at a few places over West Bengal & Sikkim; **appreciably above normal (3.1°C to 5.0°C)** at many places over Punjab, Haryana, Chandigarh & Delhi, East Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura and Rayalaseema; at a few places over West Uttar Pradesh, East Madhya Pradesh, Chhattisgarh and Odisha; **above normal (1.6°C to 3.0°C)** at many places over Himachal Pradesh, Vidarbha, Telangana and Coastal Andhra Pradesh & Yanam; at a few places over East Rajasthan, Saurashtra & Kutch, West Madhya Pradesh, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal. They were **markedly below normal (-5.1°C or less)** at many places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and **near normal** over rest parts of the country. Yesterday, the **highest maximum temperature of 44.2°C** was reported at **Hamirpur, Prayagraj (East Uttar Pradesh)** and **Jharsuguda, Baripada (Odisha)**.



Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **Western Disturbance** as a trough between 3.1 km & 5.8 km above mean sea level with its axis at 5.8 km above mean sea level now runs roughly along Long. 65°E to the north of Lat. 25°N.
- ❖ The induced **cyclonic circulation** over north Pakistan and adjoining Punjab extending upto 1.5 km above mean sea level persists.
- ❖ The **cyclonic circulation** over southwest Rajasthan & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The **trough/wind discontinuity** from south Madhya Maharashtra to south Tamil Nadu at 0.9 km above mean sea level persists.

Weather Forecast for next 5 days (upto 0830 hours IST of 24th April, 2023)

- ❖ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-1.
- ❖ **Northwest India:** Gradual fall in Maximum Temperatures by 2-4°C very likely during next 2 days and rise by 2-3°C thereafter.
- ❖ **Central India:** No significant change in Maximum Temperatures very likely during next 24 hours and fall by 2-3°C during subsequent 4 days.
- ❖ **East India:** No significant change in Maximum Temperatures very likely during next 2 days and gradual fall by 2-3°C thereafter.
- ❖ **South India:** No significant change in Maximum Temperatures very likely during next 24 hours and fall by 2-3°C during subsequent 4 days.
- ❖ **Rest parts of the country:** No significant change in Temperatures very likely during 5 days.

Weather Outlook for subsequent 2 days (during 24th -26th April, 2023)

- ❖ Scattered to Fairly widespread light/moderate rainfall likely over Northeast India.
- ❖ Isolated to scattered light rainfall likely over parts of Western Himalayan region and Peninsular India.
- ❖ Dry weather likely over rest parts of India.

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Weather Warning during next 5 days

19 April (Day 1): ♦ **Heavy rainfall/snowfall** very likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand.

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

♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Delhi, West Uttar Pradesh, East Rajasthan, Telangana and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Madhya Pradesh, Vidarbha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada and Kerala.

♦ **Duststorm with thunderstorm & lightning** very likely at isolated places over West Rajasthan.

♦ **Heat Wave conditions** in some parts with **Severe Heat Wave conditions** in isolated pockets very likely over Gangetic West Bengal and Bihar. **Heat Wave conditions** in isolated pockets over East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Odisha, Jharkhand and Coastal Andhra Pradesh & Yanam.

20 April (Day 2): ♦ **Hailstorm with thunderstorm, lightning & gusty wind (40-50 kmph)** very likely at isolated places over Uttarakhand and **with thunderstorm, lightning** at isolated places Sub-Himalayan West Bengal & Sikkim..

♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Arunachal Pradesh, Odisha, Telangana, Coastal & North Interior Karnataka and Kerala & Mahe.

♦ **Heat Wave conditions** very likely in isolated pockets over West Bengal and Bihar.

21 April (Day 3): ♦ **Hailstorm with thunderstorm, lightning** likely at isolated places over Uttarakhand.

♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** likely at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh, Rayalaseema, Kerala & Mahe and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Odisha, Telangana, Karnataka and Tamilnadu.

♦ **Heat Wave conditions** likely in isolated pockets over Gangetic West Bengal and Bihar.

22 April (Day 4): ♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** likely at isolated places over Vidarbha, Chhattisgarh, Coastal Andhra Pradesh, Rayalaseema, Kerala & Mahe and **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Odisha, Telangana, Karnataka and Tamilnadu.

23 April (Day 5): ♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** likely at isolated places over Vidarbha, Chhattisgarh, Coastal Andhra Pradesh, Rayalaseema, Kerala & Mahe and **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Odisha, Telangana, Karnataka and Tamilnadu.

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5 Day Rainfall Forecast

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

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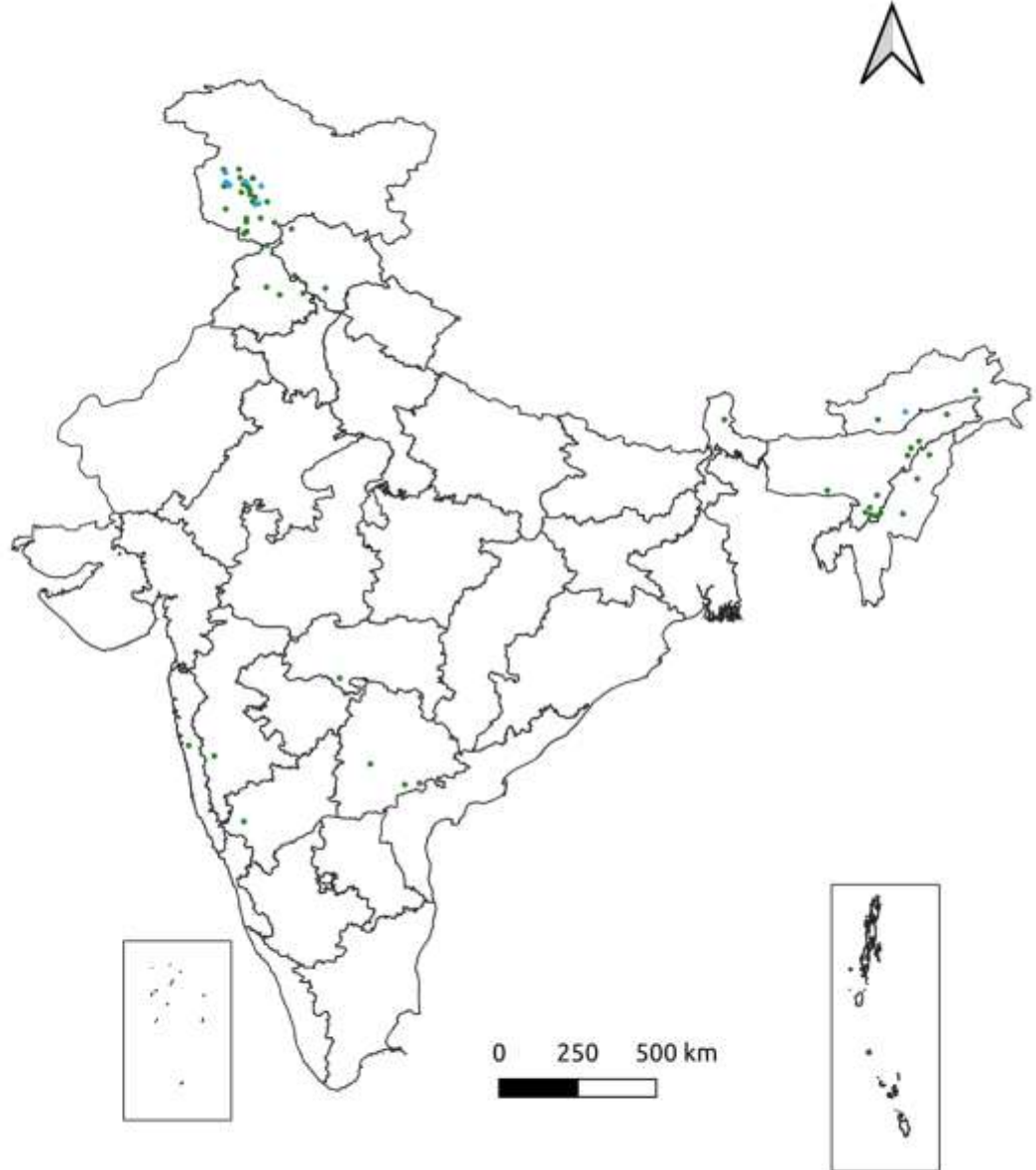
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Fig. 1: Accumulated Rainfall (mm) during past 24 hours



24 Hr cumulative rainfall recorded over different stations
during 0830 IST of 17-4-2023 to 0830 IST of 18-4-2023



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 (≥ 204.5 mm)

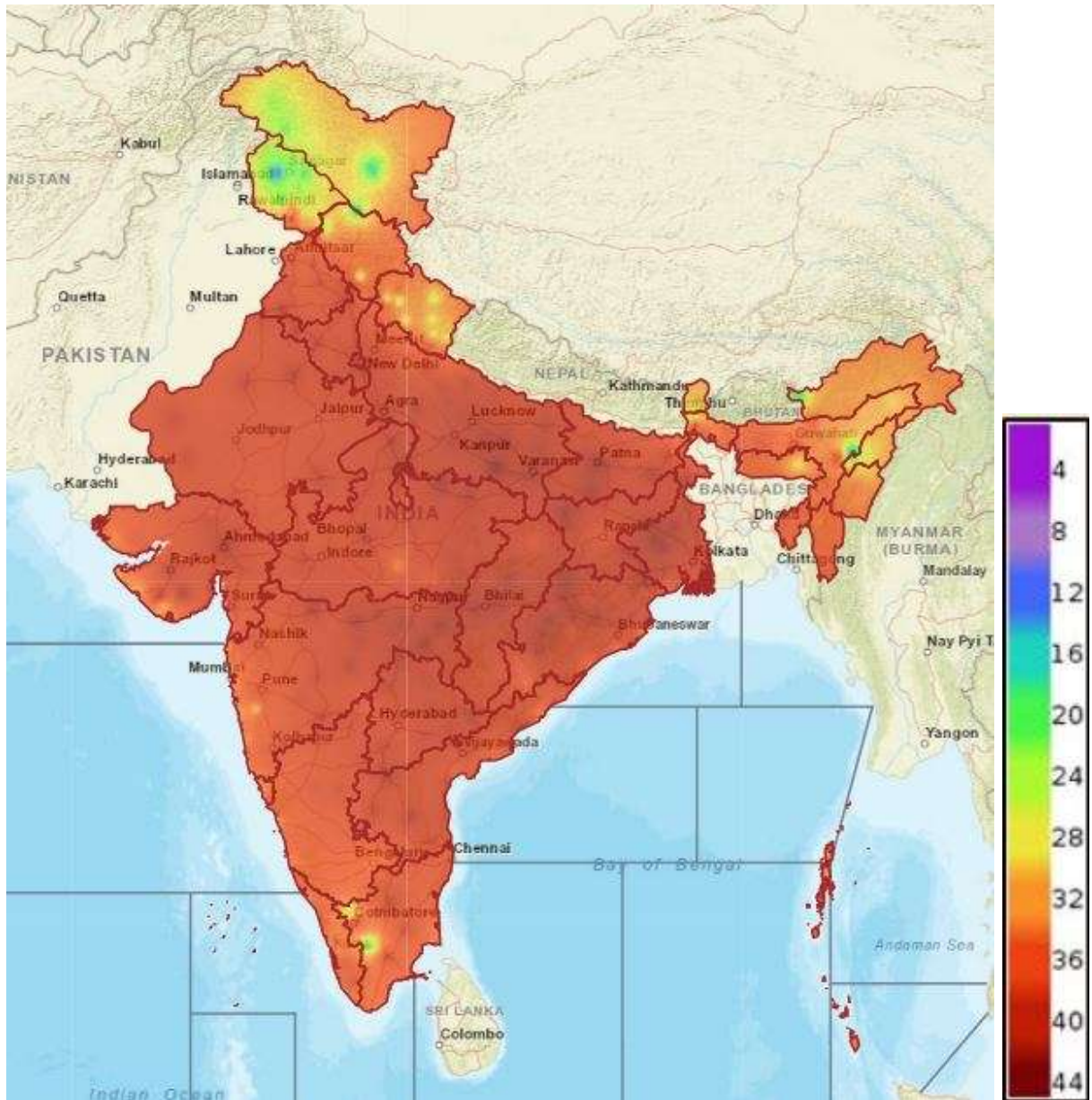
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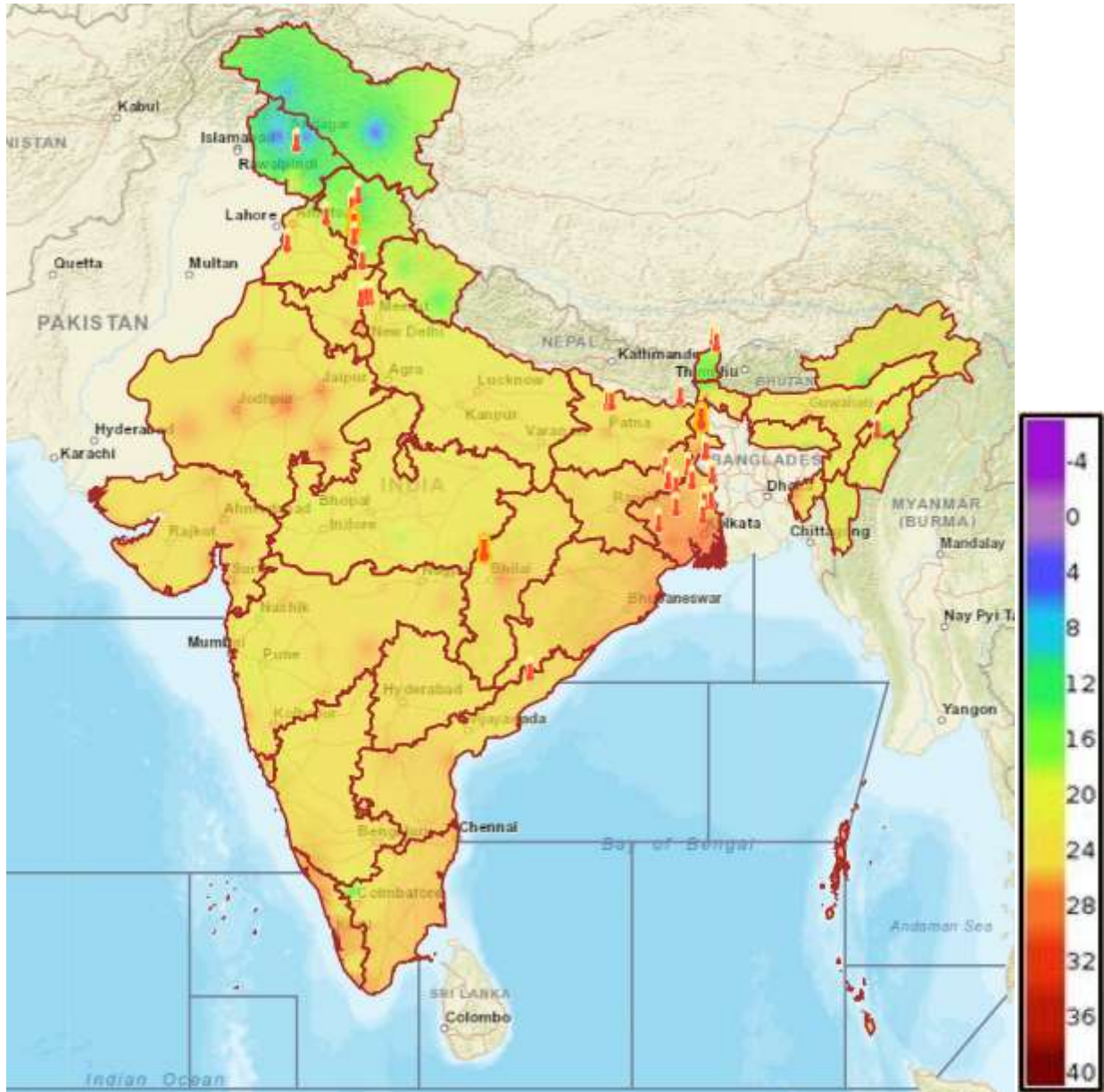
Fig. 2: Maximum Temperatures Dated 18.04.2023



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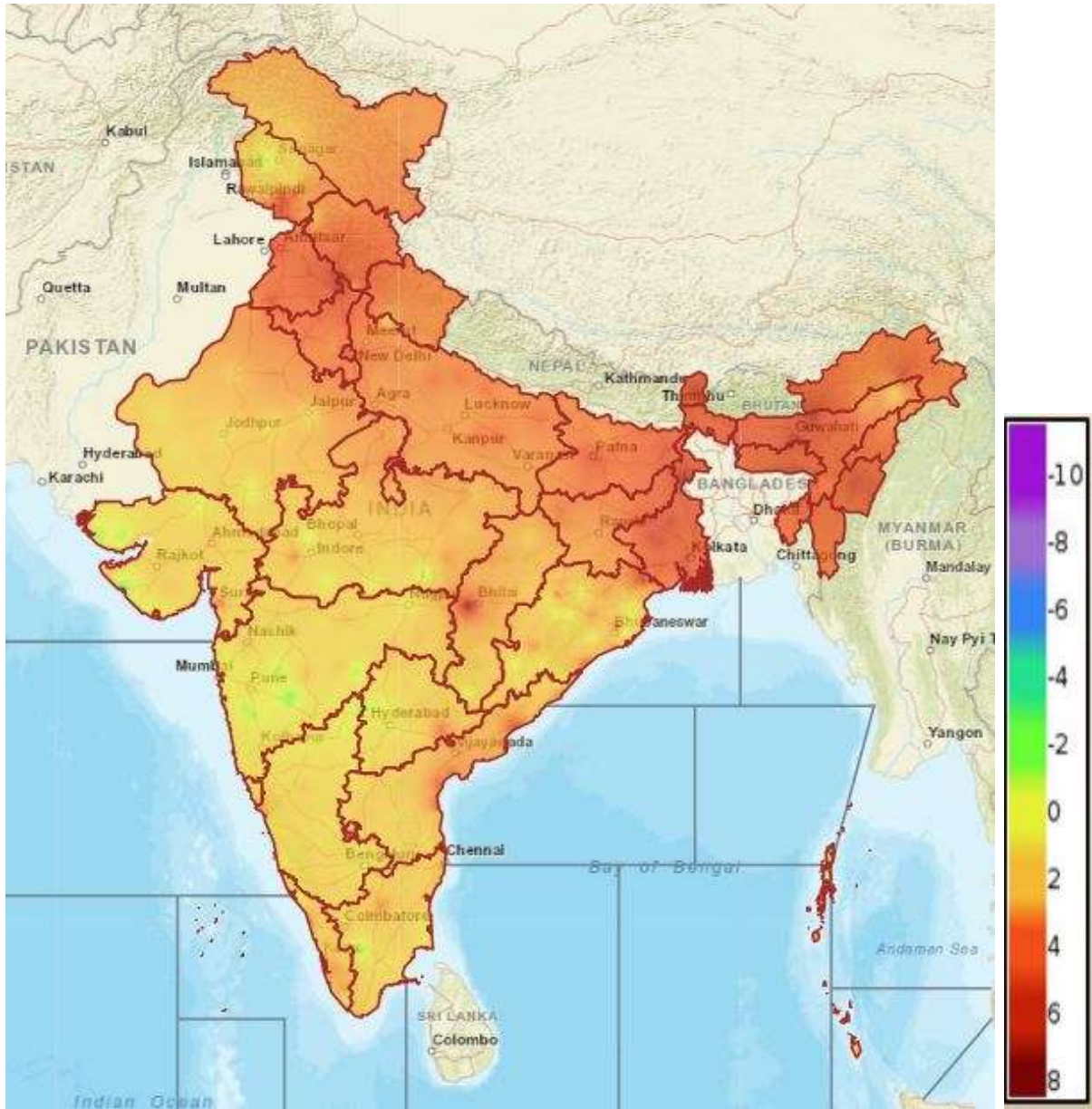
Fig. 3: Minimum Temperatures Dated 18.04.2023



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Fig. 4: Departure from Normal of Maximum Temperatures Dated 18.04.2023



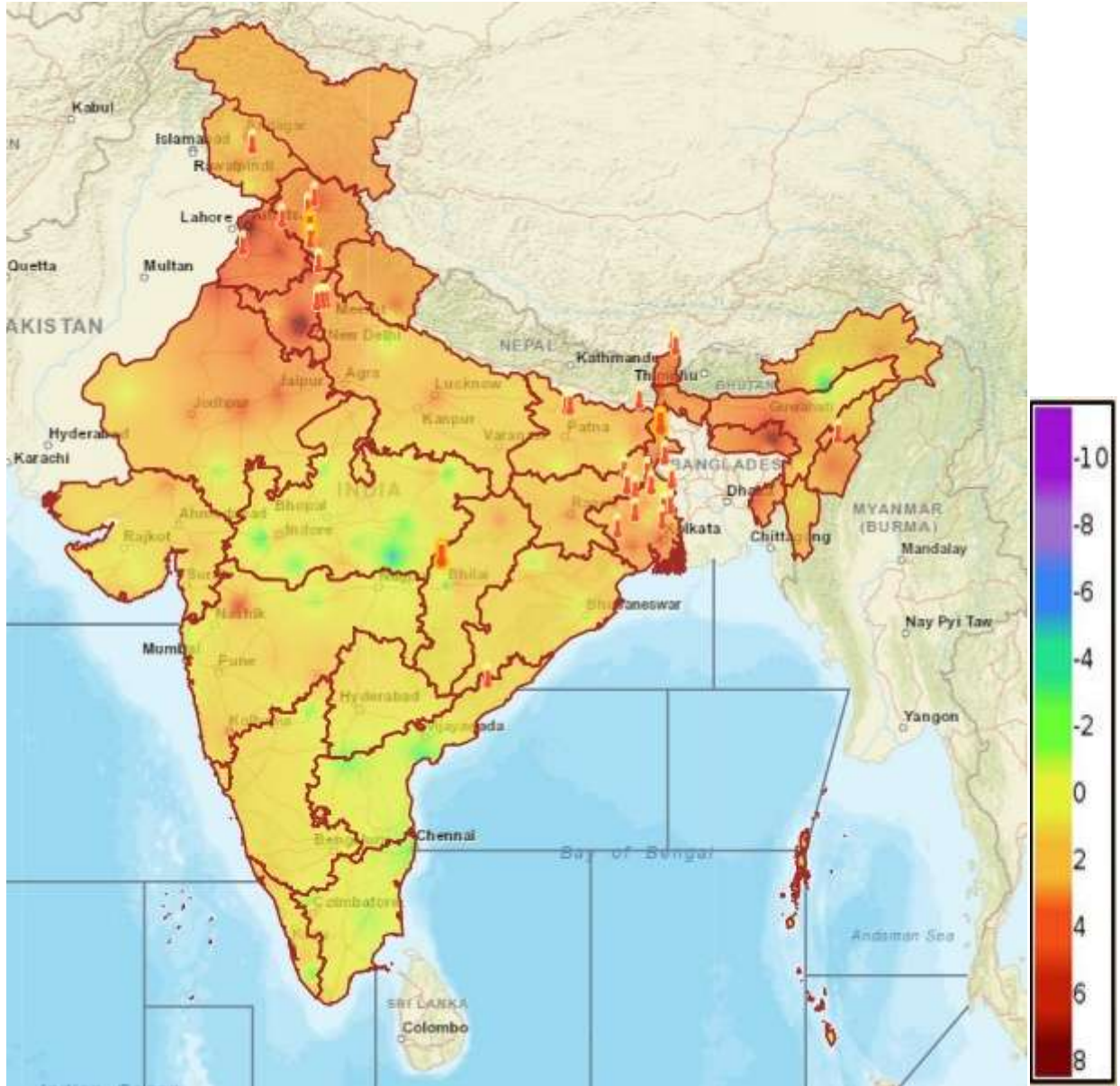
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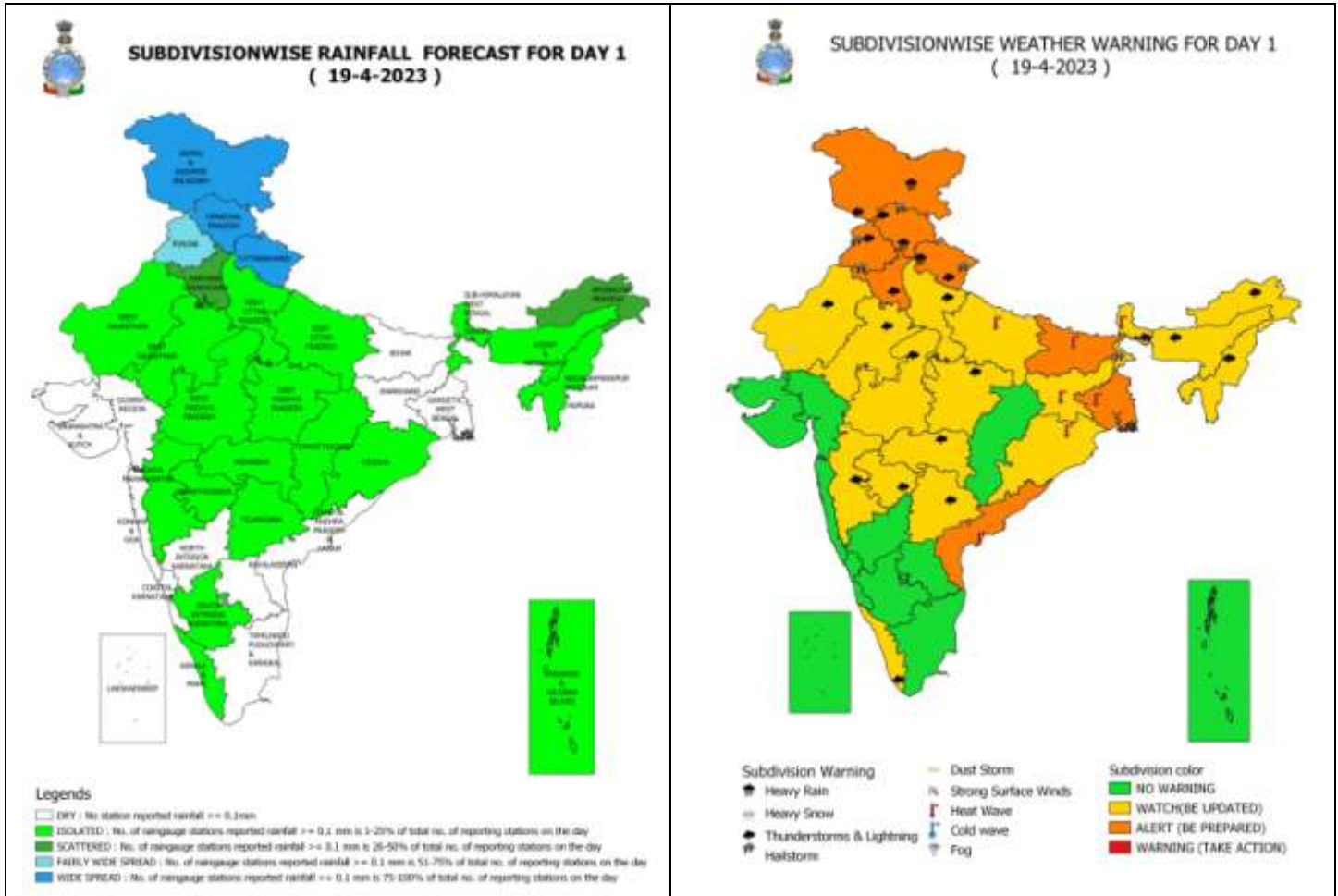
Fig. 5: Departure from Normal of Minimum Temperatures Dated 18.04.2023



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19 April (Day 1): ♦ Heavy rainfall/snowfall very likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffrabad, Himachal Pradesh and Uttarakhand.

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

♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Delhi, West Uttar Pradesh, East Rajasthan, Telangana and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Madhya Pradesh, Vidarbha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada and Kerala.

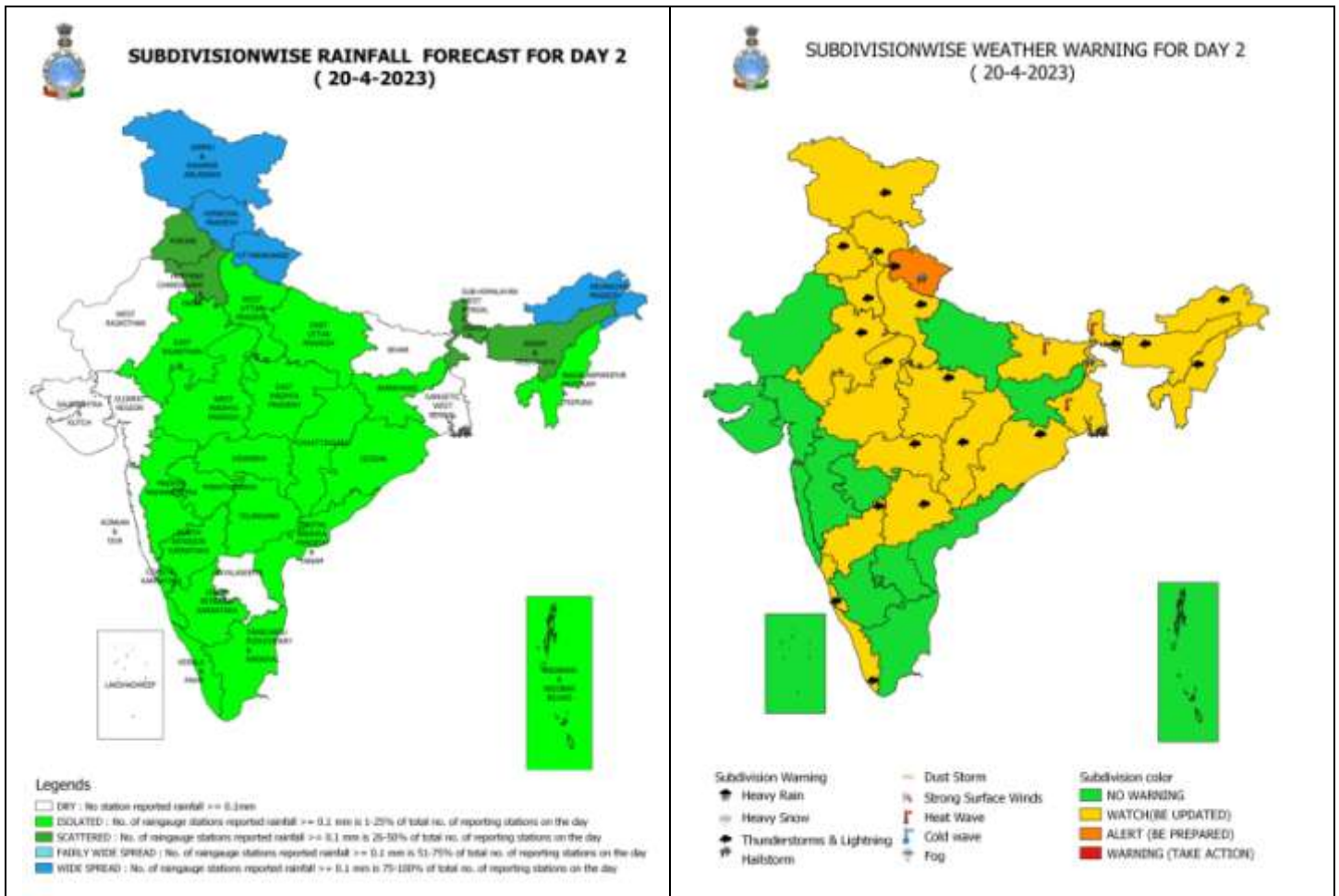
♦ **Duststorm with thunderstorm & lightning** very likely at isolated places over West Rajasthan.

♦ **Heat Wave conditions** in some parts with **Severe Heat Wave conditions** in isolated pockets very likely over Gangetic West Bengal and Bihar. **Heat Wave conditions** in isolated pockets over East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Odisha, Jharkhand and Coastal Andhra Pradesh & Yanam.

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20 April (Day 2): ♦ **Hailstorm with thunderstorm, lightning & gusty wind (40-50 kmph)** very likely at isolated places over Uttarakhand and **with thunderstorm, lightning** at isolated places Sub-Himalayan West Bengal & Sikkim..

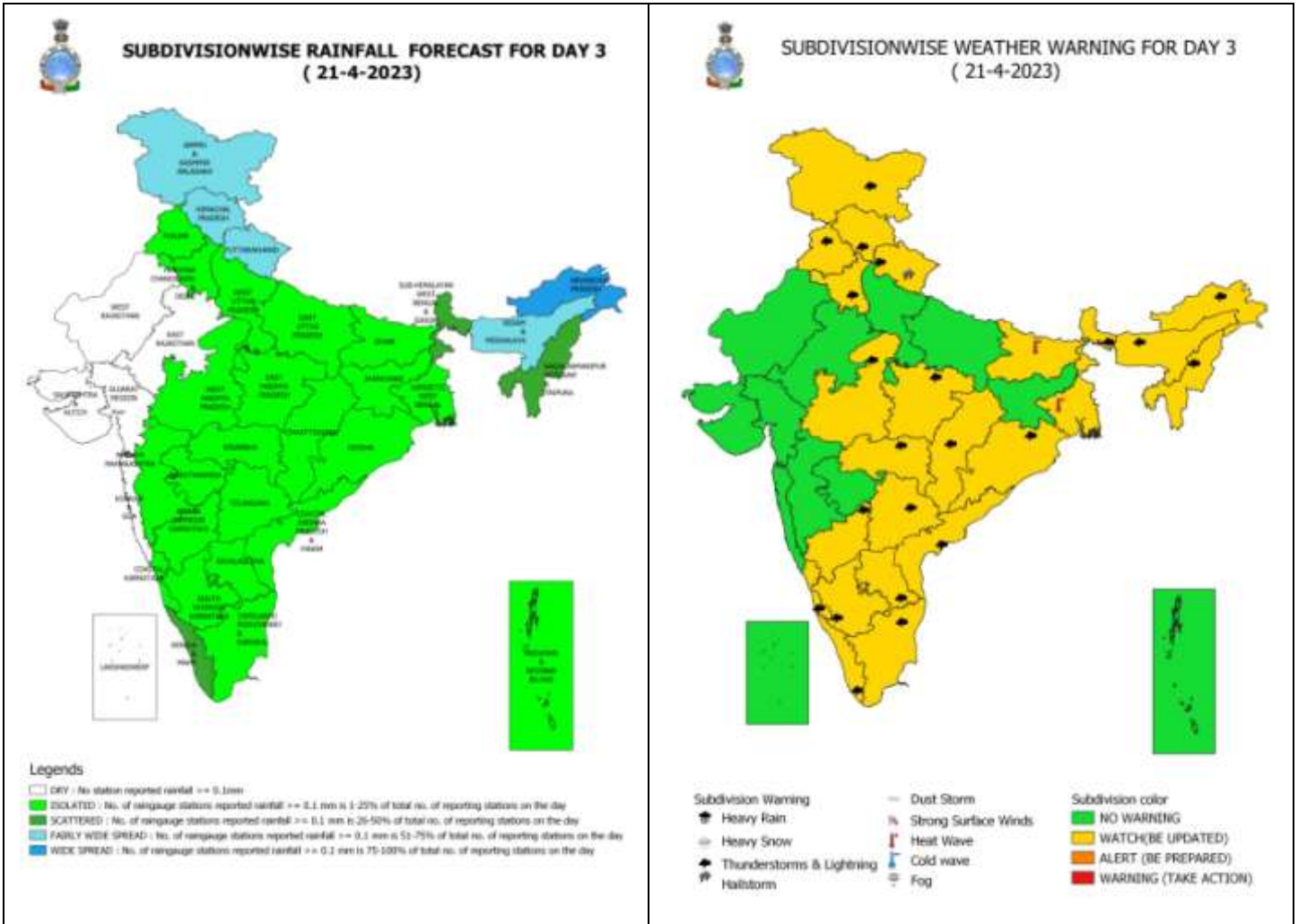
♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Arunachal Pradesh, Odisha, Telangana, Coastal & North Interior Karnataka and Kerala & Mahe.

♦ **Heat Wave conditions** very likely in isolated pockets over West Bengal and Bihar.

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21 April (Day 3): ♦ Hailstorm with thunderstorm, lightning likely at isolated places over Uttarakhand.

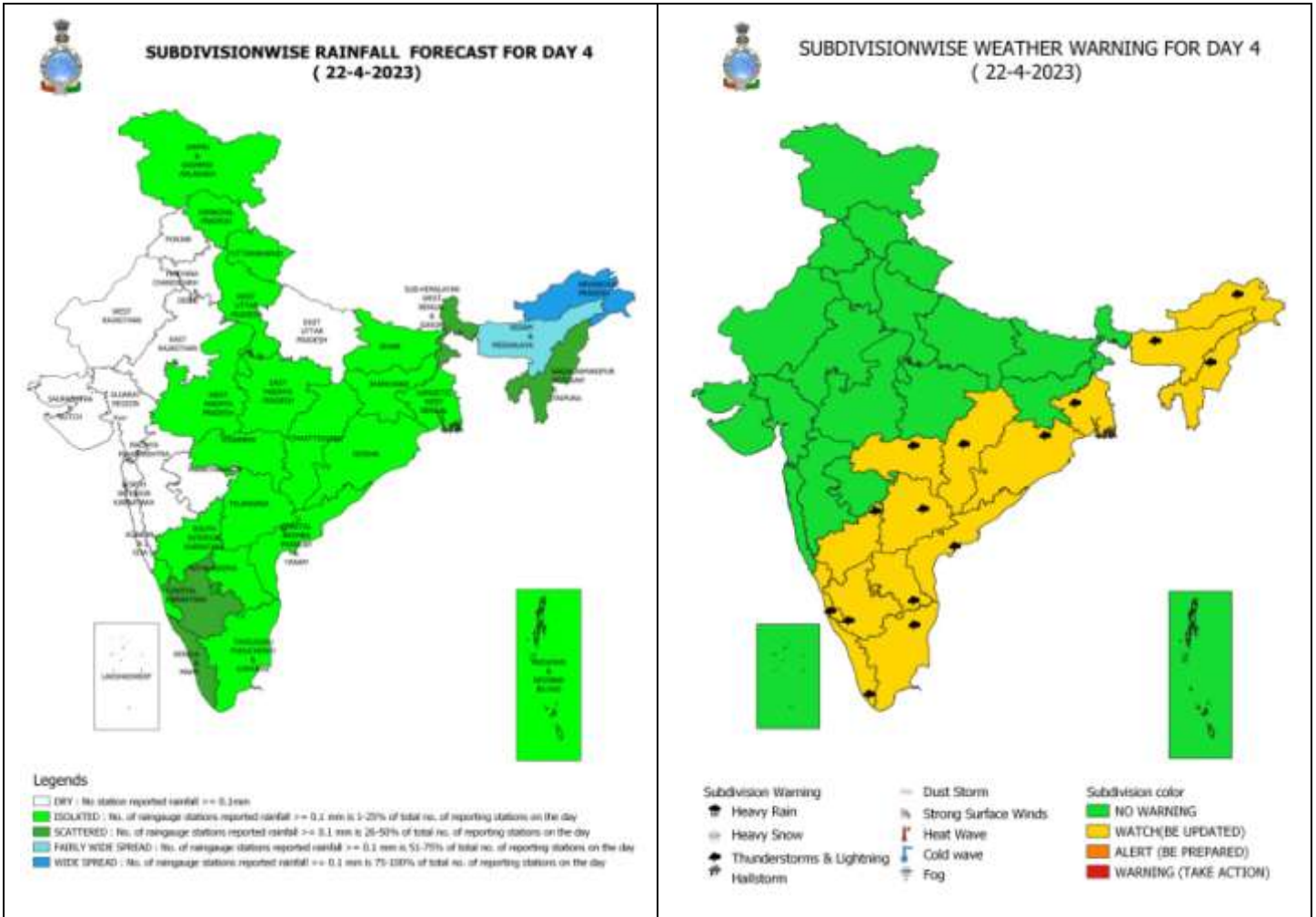
♦ **Thunderstorm with lightning & gusty wind (30-40 kmph)** likely at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh, Rayalaseema, Kerala & Mahe and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Odisha, Telangana, Karnataka and Tamilnadu.

♦ **Heat Wave conditions** likely in isolated pockets over Gangetic West Bengal and Bihar.

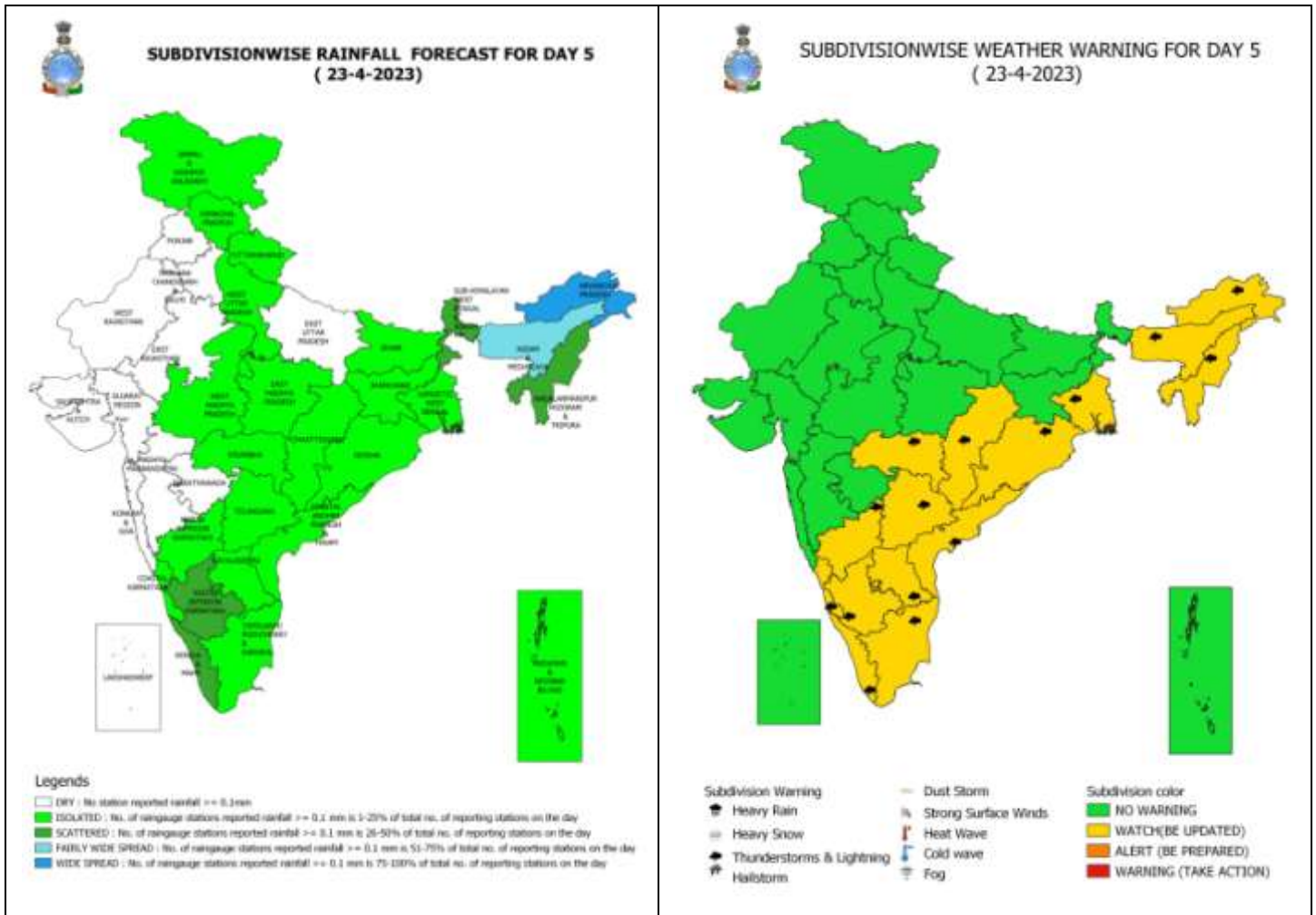
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22 April (Day 4): ♦ Thunderstorm with lightning & gusty wind (30-40 kmph) likely at isolated places over Vidarbha, Chhattisgarh, Coastal Andhra Pradesh, Rayalaseema, Kerala & Mahe and **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Odisha, Telangana, Karnataka and Tamilnadu.

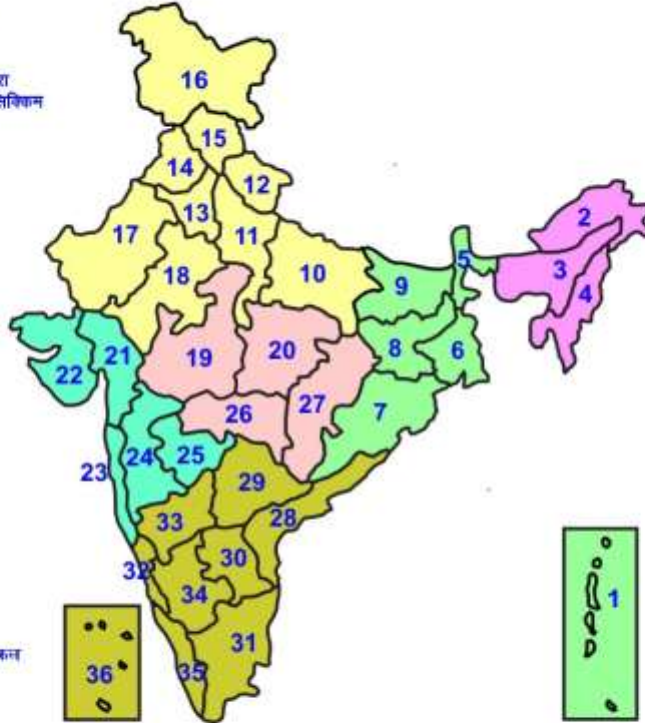


23 April (Day 5): ♦ Thunderstorm with lightning & gusty wind (30-40 kmph) likely at isolated places over Vidarbha, Chhattisgarh, Coastal Andhra Pradesh, Rayalaseema, Kerala & Mahe and **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Odisha, Telangana, Karnataka and Tamilnadu.



LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर 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 एवं नददाख
- 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 छत्तीसगढ़
- 28 वटीय 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

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 Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

* Red color warning does not mean "Red Alert" Red color 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 www.imd.gov.in or contact : +91 11 24631913, 24643965, 24629798



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*



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 $\geq 37^{\circ}\text{C}$.



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 $> 6.4^{\circ}\text{C}$.



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 $\leq 15^{\circ}\text{C}$.



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 $\leq -6.5^{\circ}\text{C}$.



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



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



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



Ice deposits on ground

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



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



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



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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