

Saturday, April 13, 2024  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Weather Systems and Forecast & Warnings:

- ❖ A cyclonic circulation lies over Saurashtra & Kutch and a trough/wind discontinuity runs from this cyclonic circulation to South Interior Karnataka in lower tropospheric levels. A cyclonic circulation lies over north Odisha and another over Comorin area & neighbourhood in lower tropospheric levels. Under the influence of these systems:
  - ✓ Isolated to scattered light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Madhya Pradesh, Chhattisgarh, Vidarbha, Marathwada, Madhya Maharashtra during 13<sup>th</sup>-14<sup>th</sup> April, 2024.
  - ✓ Isolated light/moderate rainfall accompanied with **thunderstorm, lightning** very likely over Gangetic West Bengal, Jharkhand, Odisha, Bihar and Andaman & Nicobar Islands during 13<sup>th</sup>-14<sup>th</sup> April, 2024.
  - ✓ Isolated light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Telangana, Kerala & Mahe, Interior Karnataka during next 6 days and over Coastal Andhra Pradesh-Yanam, Tamil Nadu, Puducherry-Karaikal during 13<sup>th</sup>-15<sup>th</sup> April, 2024.
  - ✓ **Hailstorm activity also very likely at isolated places over Madhya Pradesh & Vidarbha on 13<sup>th</sup> April, 2024.**
- ❖ An intense **Western Disturbance** as a cyclonic circulation lies over Iran in middle & upper tropospheric westerlies. High moisture feeding from Arabian Sea is likely into Northwest India during 13<sup>th</sup>-15<sup>th</sup> April. As a result:
  - ✓ Fairly widespread to widespread light to moderate rainfall/snowfall with **thunderstorm, lightning & gusty winds (30-40 kmph)** over Jammu-Kashmir, Himachal Pradesh, Uttarakhand during 13<sup>th</sup>-15<sup>th</sup> April, 2024.
  - ✓ Scattered to fairly widespread rainfall with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Northwest Uttar Pradesh, Punjab and Haryana during 13<sup>th</sup>-15<sup>th</sup> April and isolated to scattered light to moderate rainfall with **thunderstorm, lightning** very likely over Rajasthan during 13<sup>th</sup>-15<sup>th</sup> April, 2024.
  - ✓ **Isolated heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 13<sup>th</sup>-15<sup>th</sup> and Himachal Pradesh on 14<sup>th</sup> & 15<sup>th</sup> April, 2024.**
  - ✓ **Isolated hailstorm very likely over Jammu, Rajasthan on 13<sup>th</sup>; Himachal Pradesh, Punjab, Haryana on 13<sup>th</sup> & 14<sup>th</sup> and Uttarakhand & West Uttar Pradesh on 14<sup>th</sup> April.**
  - ✓ **Dust storm/thundersquall (50-60 kmph)** very likely over Rajasthan on 13<sup>th</sup> April, 2024.
  - ✓ **Strong surface winds (20-30 kmph)** very likely to prevail over Haryana-Chandigarh-Delhi and Uttar Pradesh during 16<sup>th</sup>-18<sup>th</sup> 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 heavy rainfall very likely over Arunachal Pradesh and northeast Assam on 16<sup>th</sup> April, 2024.**

#### Maximum temperature observation and forecast for next 5 days:

- ❖ Today, maximum temperatures are in the range of 40-42°C over many parts of West Rajasthan; at isolated places over Saurashtra & Kutch, Rayalaseema and Madhya Maharashtra. These are above normal by 2-4 °C over West Rajasthan.
- ❖ **Fall by 3-5°C in maximum temperatures very likely over Northwest India during next 3 days.**
- ❖ No significant change in maximum temperatures very likely over Central & south peninsular India during next 24 hours and gradual rise by 2-4°C during subsequent 3 days.
- ❖ Gradual fall by 2-3°C very likely over many parts of West India during next 24 hours and gradual rise by 2-4°C during subsequent 3 days.
- ❖ Gradual fall by 3-5°C very likely over many parts of East India during next 5 days.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

#### 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 13<sup>th</sup>-17<sup>th</sup>; over Rayalaseema, Coastal Andhra Pradesh & Yanam during 13<sup>th</sup>-14<sup>th</sup>, Tamil Nadu, Coastal Karnataka during 14<sup>th</sup>-17<sup>th</sup>; Odisha on 14<sup>th</sup> and Konkan & Goa and Saurashtra & Kutch on 15<sup>th</sup> & 16<sup>th</sup> April, 2024.
- ❖ **Heat Wave conditions** likely over Odisha and Coastal Andhra Pradesh & Yanam during 15<sup>th</sup>-17<sup>th</sup> April, 2024.

## Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Assam & Meghalaya, Rajasthan, West Madhya Pradesh, North Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **Tamil Nadu:** Adiramapatinam-1.
- ❖ Yesterday, **Thundersquall/gusty winds** observed at isolated places over East Uttar Pradesh, Madhya Pradesh, Interior Karnataka, Madhya Maharashtra and Kerala & Mahe.
- ❖ **Minimum Temperature Departures (as on 12-04-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over West Rajasthan; **above normal (1.6°C to 3.0°C)** at isolated places over East Rajasthan, Assam & Meghalaya, Madhya Maharashtra, West Madhya Pradesh, Andaman & Nicobar Islands, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. These were **below normal (-1.6°C to -3.0°C)** at many places over Chhattisgarh, Jharkhand, Odisha and Gangetic West Bengal; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, East Madhya Pradesh, Bihar and Marathwada and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of **15.5°C** was reported at **Sagar (East Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 12-04-2024):** Maximum temperatures were **above normal (1.6°C to 3.0°C)** at most places over Punjab and Haryana-Chandigarh-Delhi; at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh; at a few places Assam & Meghalaya and at isolated places over Arunachal Pradesh, Manipur & Tripura, West Uttar Pradesh, Rajasthan, Uttarakhand and Tamil Nadu, Puducherry & Karaikal. These were **markedly below normal (-5.1°C or less)** at many places over Vidarbha; at a few places over Chhattisgarh and Odisha and at isolated places over East Madhya Pradesh **below normal (-1.6°C to -3.0°C)** at many places over West Madhya Pradesh, and Marathwada; at a few places over Telangana and at isolated places over East Uttar Pradesh, Bihar, Madhya Maharashtra and Gangetic West Bengal and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature** of **42.2°C** was reported at **Barmer (West Rajasthan)** over the country.

## Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Western Disturbance as a cyclonic circulation over Iran between 3.1 & 9.6 km above mean sea level persists.
- ❖ The cyclonic circulation over Saurashtra & Kutch and neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ The trough/wind discontinuity from the above cyclonic circulation to South Interior Karnataka across Madhya Maharashtra & North Interior Karnataka extending upto 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over southwest Uttar Pradesh at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over north Odisha at 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over Comorin area & neighbourhood extending upto 1.5 km above mean sea level persists.

## Weather Forecast for next 7 days (Upto 0830 hours IST of 20<sup>th</sup> 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 Coastal Andhra Pradesh & Yanam and Rayalaseema during 13<sup>th</sup>-14<sup>th</sup> April, 2024.
- ❖ **Fall by 3-5°C in maximum temperatures very likely over Northwest India during next 3 days.**
- ❖ No significant change in maximum temperatures very likely over Central & south peninsular India during next 24 hours and gradual rise by 2-4°C during subsequent 3 days.
- ❖ Gradual fall by 2-3°C very likely over many parts of West India during next 24 hours and gradual rise by 2-4°C during subsequent 3 days.
- ❖ Gradual fall by 3-5°C very likely over many parts of East India during next 5 days.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

## Weather Outlook for subsequent 3 days (During 20<sup>th</sup>-22<sup>st</sup> 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

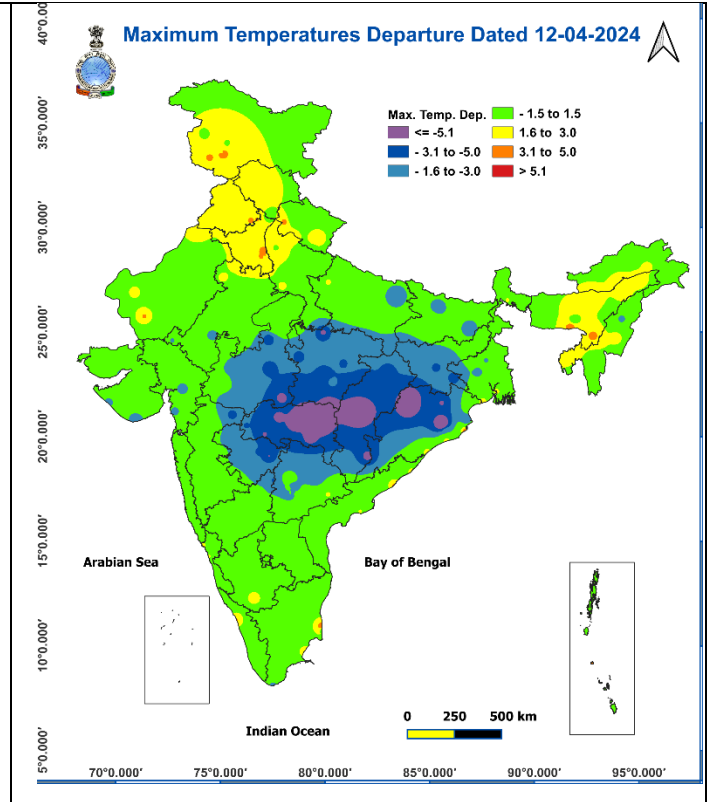
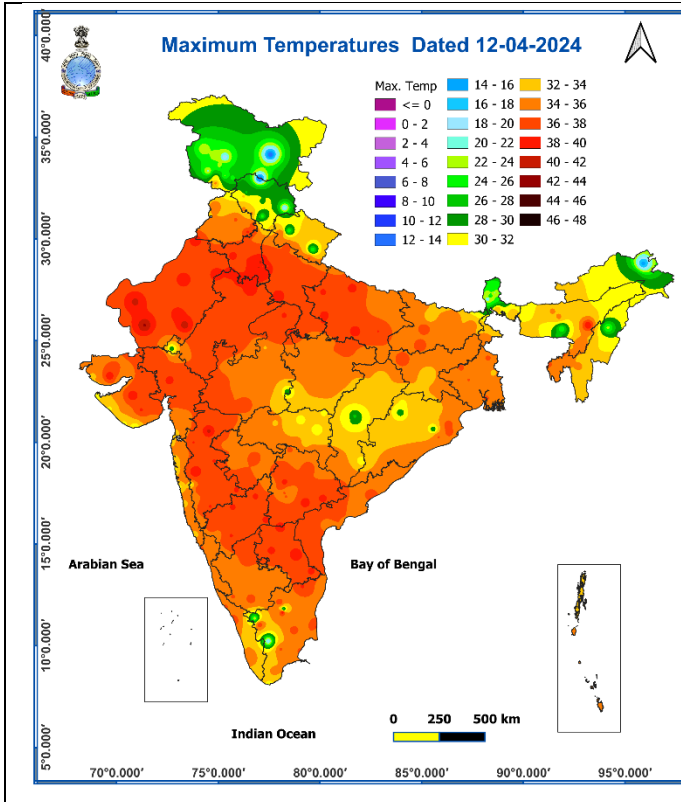
| 7 Days Rainfall Forecast |                                      |        |        |        |        |        |        |        |
|--------------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| S. No.                   | Subdivision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

\* 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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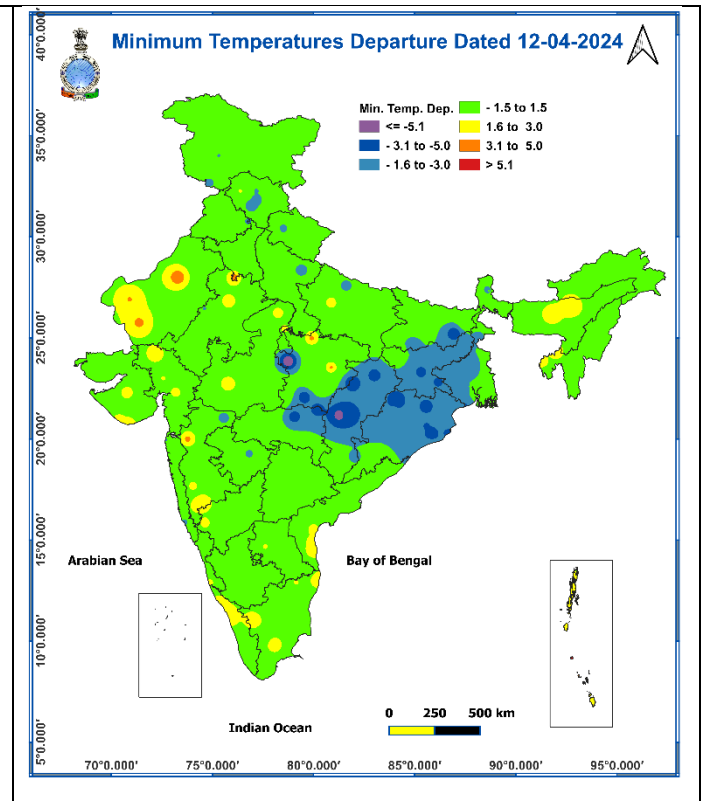
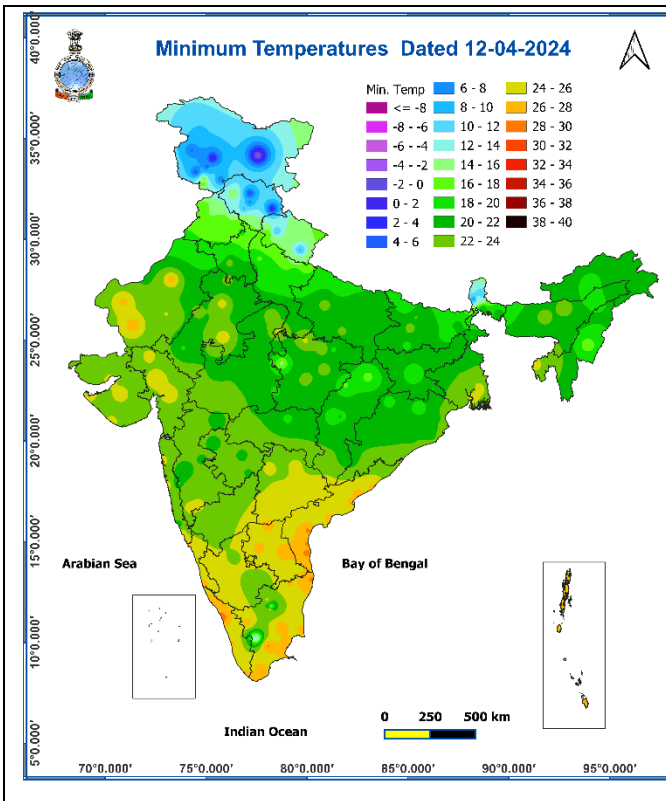
**Fig. 1: Maximum Temperatures**

**Fig. 2: Departure of Maximum Temperatures**



**Fig. 3: Minimum Temperatures**

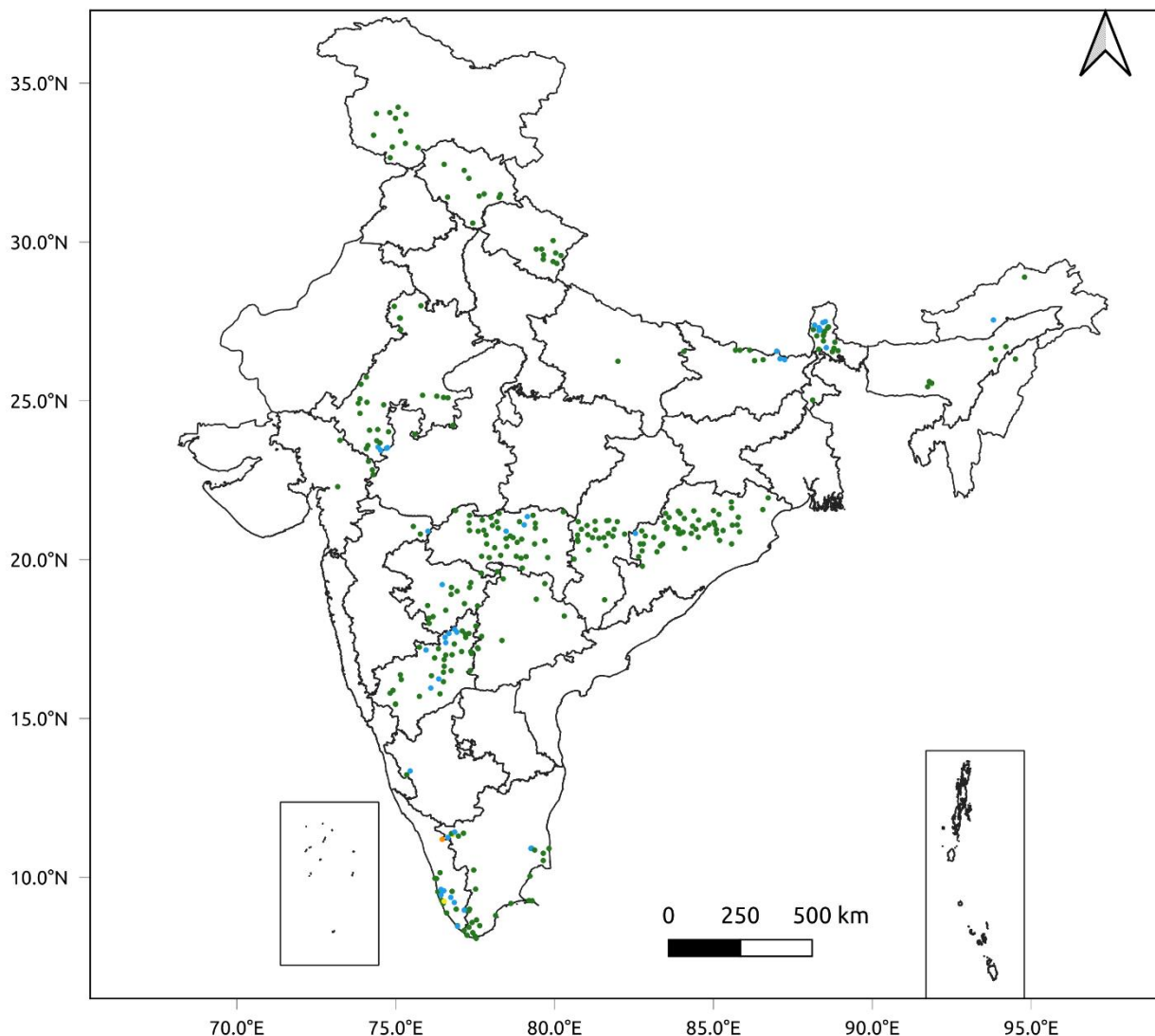
**Fig. 4: Departure of Minimum Temperatures**



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

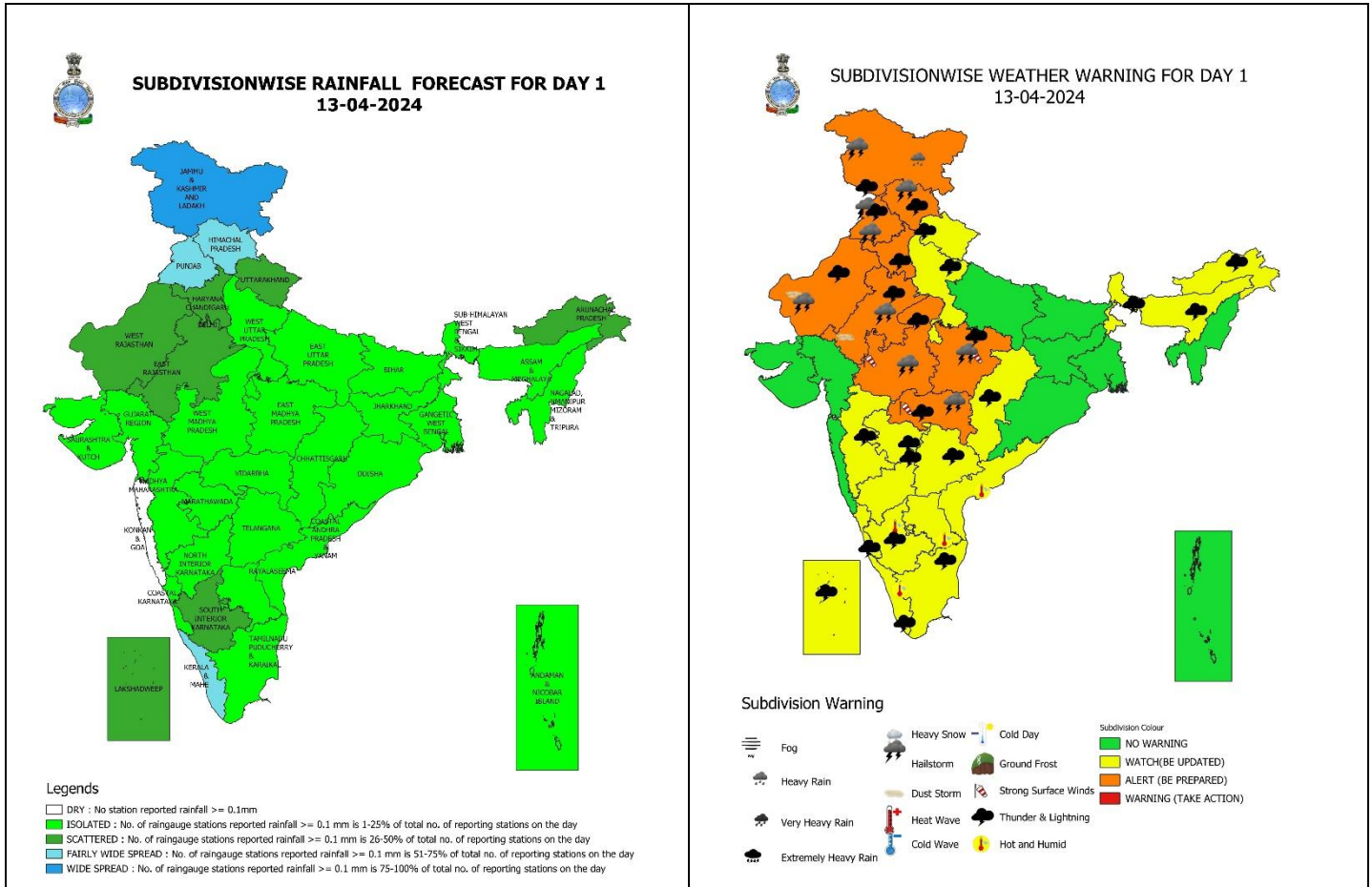


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 11-4-2024 to 0830 IST of 12-4-2024



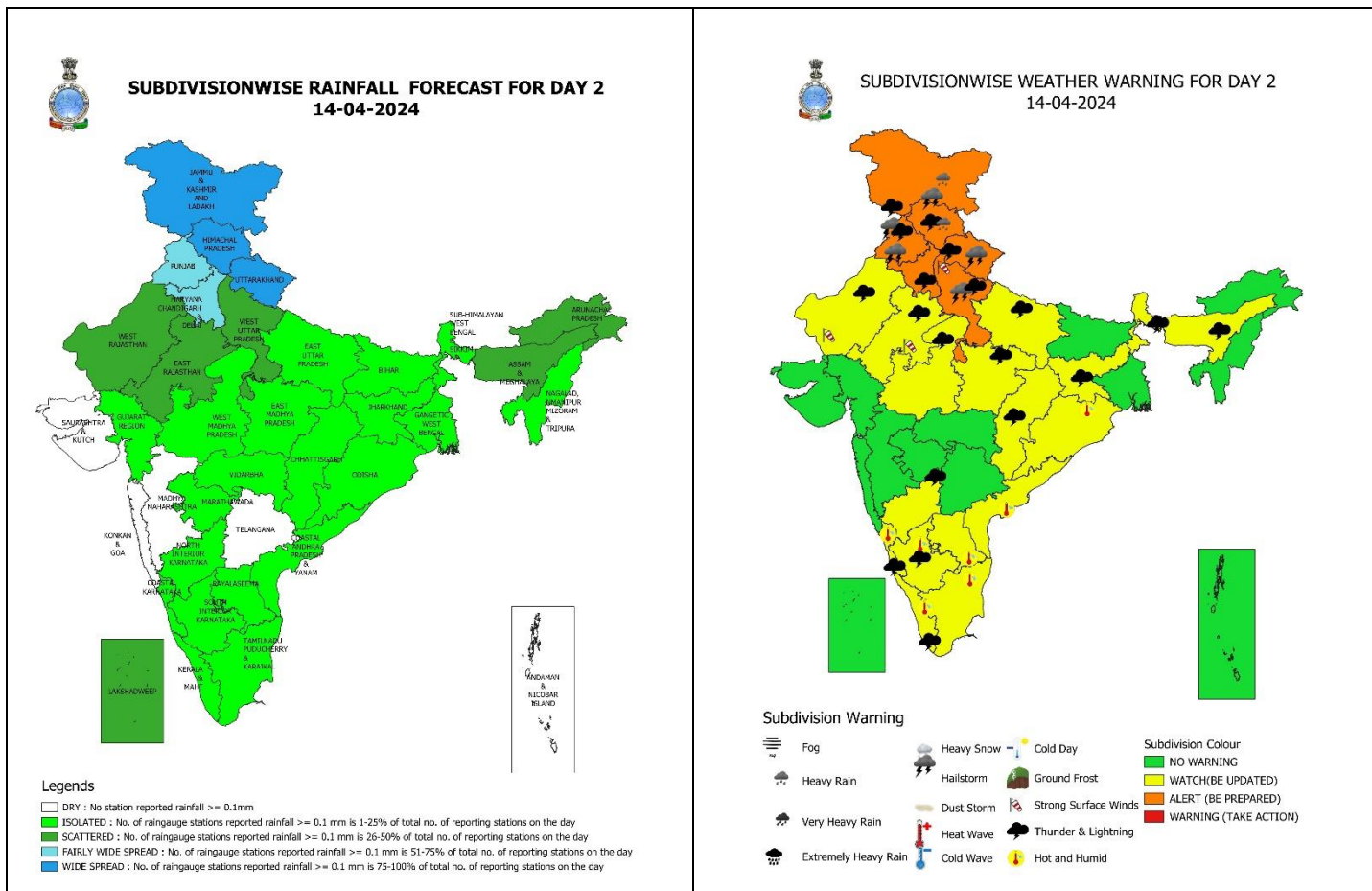
## Legends

- 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 ( $\geq 204.5$  mm)



## 13 April (Day 1):

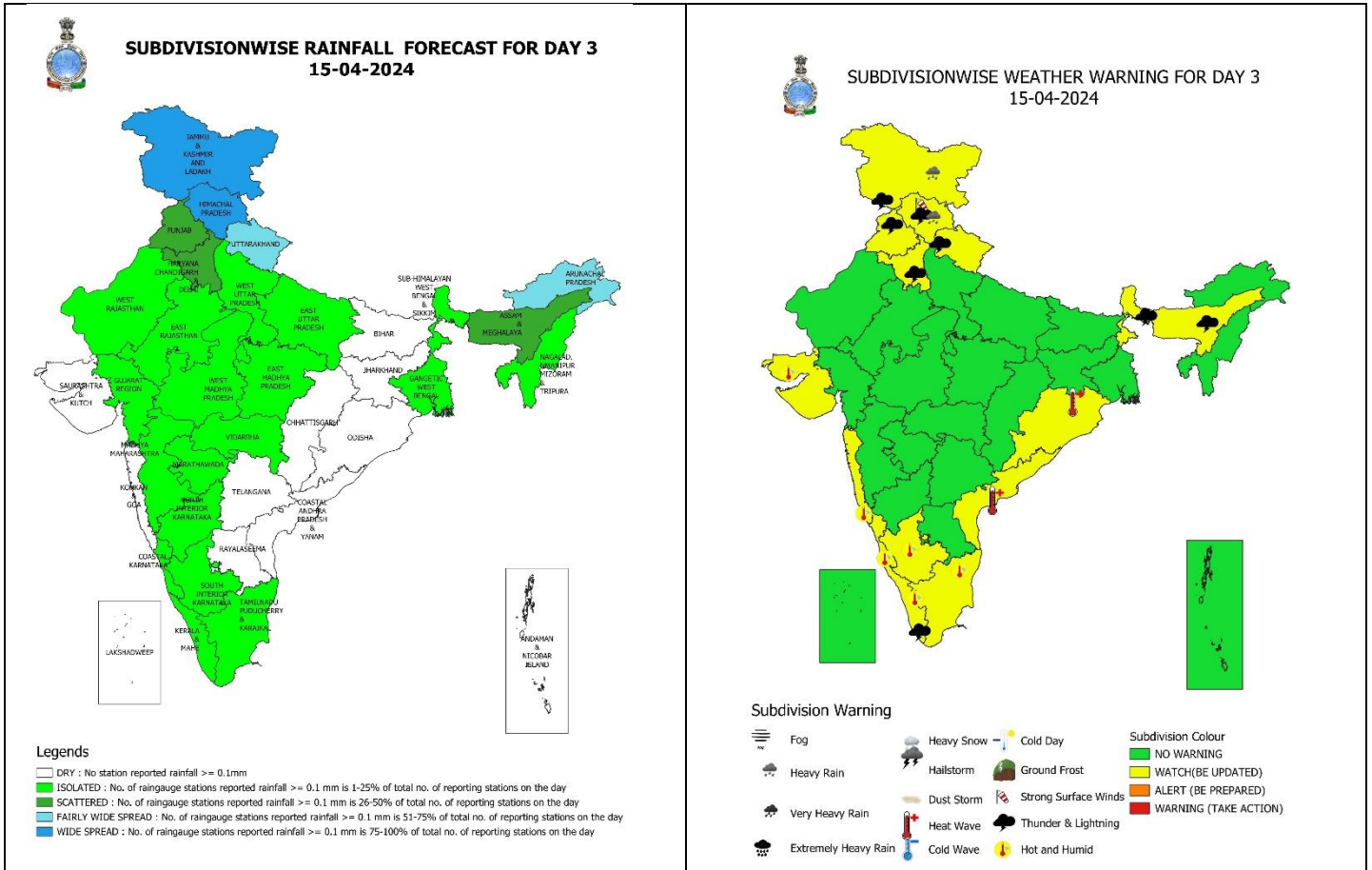
- ❖ **Thunderstorm/Duststorm accompanied with lightning & squall (speed reaching 50-60 kmph) & hailstorm** very likely at isolated places over Rajasthan.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh, Madhya Pradesh and Vidarbha; **with lightning, gusty winds (speed reaching 30-40 kmph)** at isolated places over Uttarakhand, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Madhya Maharashtra, Marathwada, Telangana, North & South Interior Karnataka, Kerala & Mahe and Lakshadweep; **with lightning** at isolated places over Chhattisgarh, Arunachal Pradesh, Assam & Meghalaya, Coastal Karnataka and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Hot and humid weather** very likely to prevail over Coastal Andhra Pradesh & Yanam, Rayalaseema, South Interior Karnataka and Kerala & Mahe.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over Comorin area, along and off south Kerala coast, Gulf of Mannar; **with wind speed 45 kmph to 55 kmph gusting to 65 kmph** prevail along and off Oman coast. Fishermen are advised not to venture into these areas.



## 14 April (Day 2):

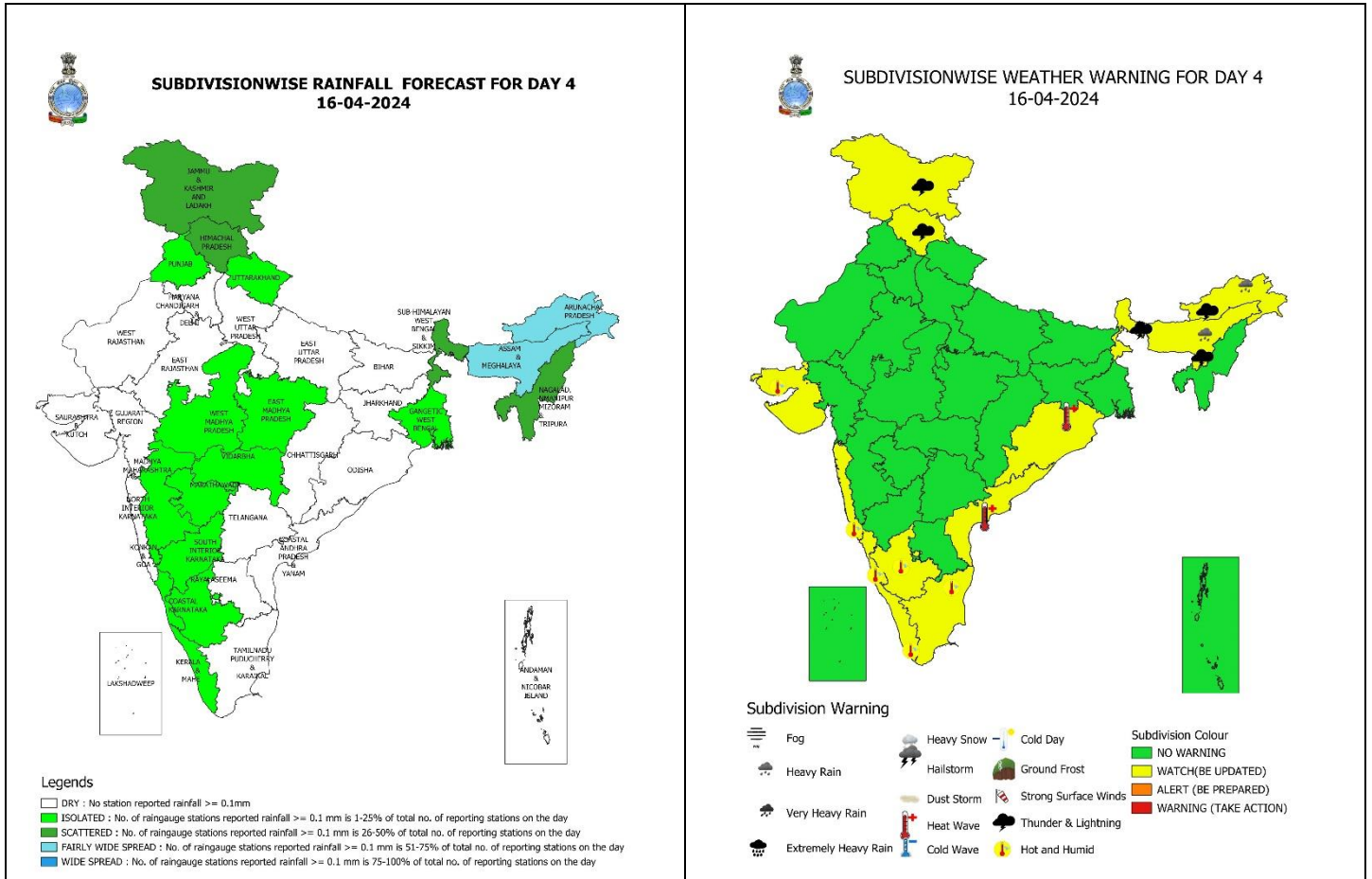
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) & hailstorm** very likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh, West Uttar Pradesh; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rajasthan; **with lightning, gusty winds (speed reaching 30-40 kmph)** at isolated places over East Uttar Pradesh, Madhya Pradesh, Jharkhand, Assam & Meghalaya and Interior Karnataka; **with lightning** at isolated places over Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Kerala & Mahe and Coastal Karnataka.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh.
- ❖ **Hot and humid weather** very likely to prevail over Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** very likely to prevail along and off Oman coast. Fishermen are advised not to venture into these areas.





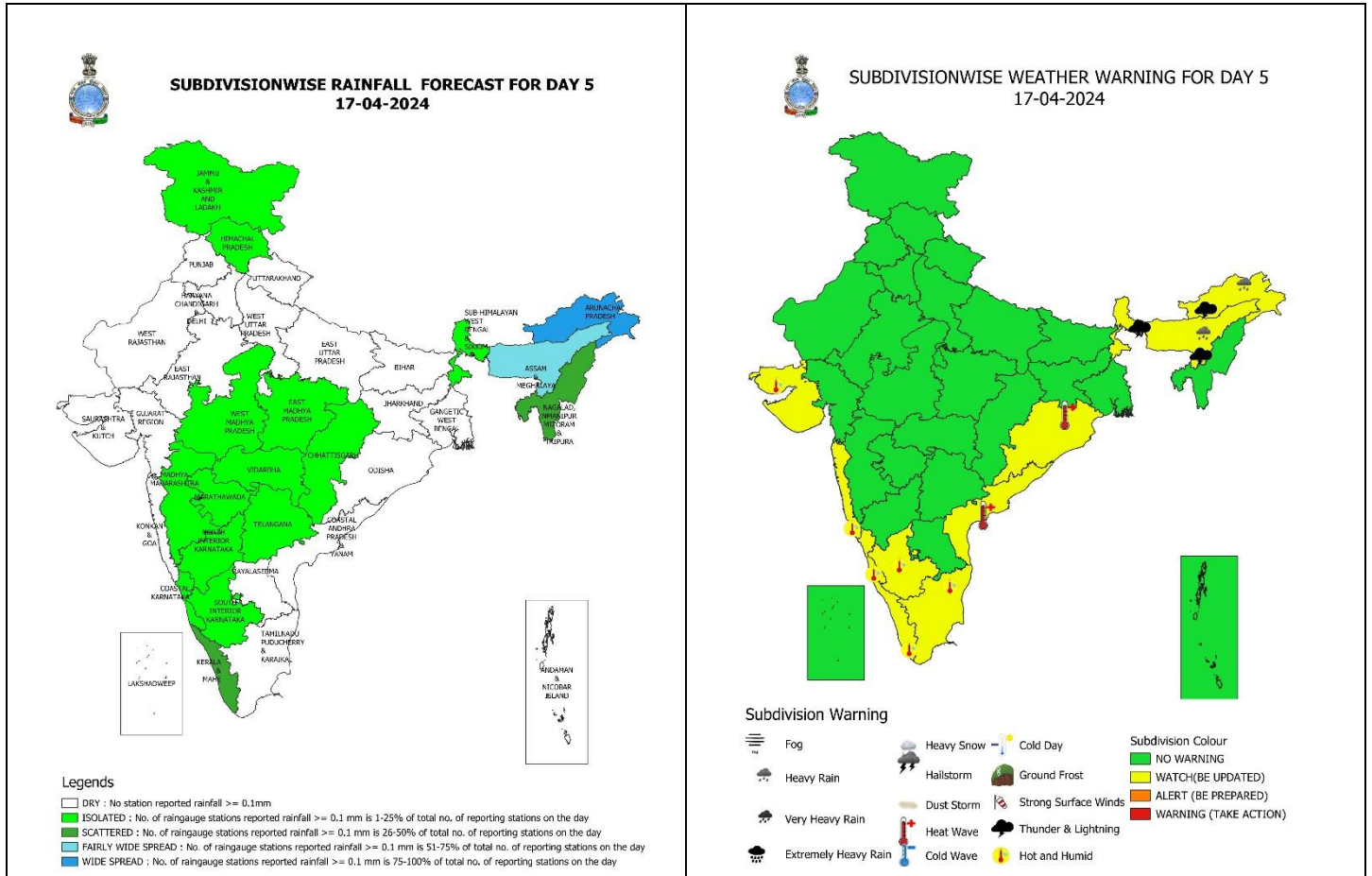
**15 April (Day 3):**

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh, Assam & Meghalaya; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Sub-Himalayan West Bengal & Sikkim and Kerala & Mahe.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh.
- ❖ **Hot and humid weather** likely to prevail over Coastal & South Interior Karnataka, Konkan & Goa, Saurashtra & Kutch, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heat wave** likely to prevail in isolated pockets over Odisha and Coastal Andhra Pradesh & Yanam.



## 16 April (Day 4):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Himachal Pradesh, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Arunachal Pradesh.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya.
- ❖ **Hot and humid weather** likely to prevail over Coastal & South Interior Karnataka, Konkan & Goa, Saurashtra & Kutch, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heat wave** likely to prevail in isolated pockets over Odisha and Coastal Andhra Pradesh & Yanam.

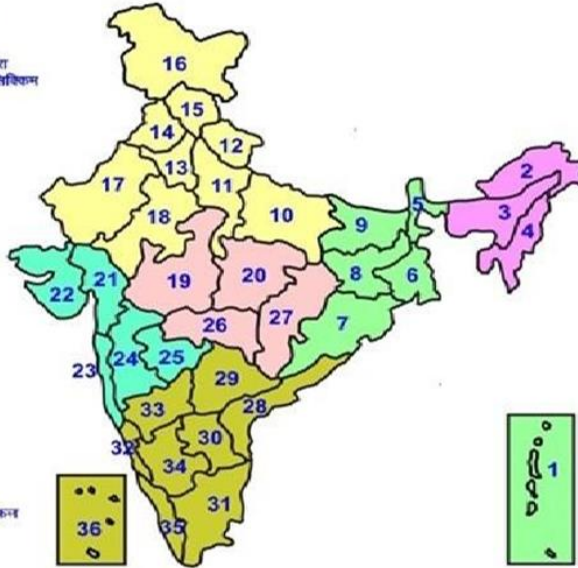


## 17 April (Day 5):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya.
- ❖ **Hot and humid weather** likely to prevail over Coastal & South Interior Karnataka, Konkan & Goa, Saurashtra & Kutch, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heat wave** likely to prevail in isolated pockets over Odisha and Coastal Andhra Pradesh & Yanam.

## LEGENDS

- 1 अंडमन और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मणिपुर मीज़ोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडीगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवंम लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 उत्तरीसमूह
- 28 तटीय आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 दख्खिणी
- 31 पश्चिमनाडु, पुदुचेरी एवंम कराईकल
- 32 उत्तरी 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

|                              |
|------------------------------|
| <b>WARNING (TAKE ACTION)</b> |
| 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  $4.5^{\circ}\text{C}$  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 Strom: Wind speed  $> 220$  kmph ( $> 119$  knots)