

Tuesday, April 16, 2024  
Time of Issue: 2000 hours IST  
(NIGHT)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Weather Systems and Forecast & Warnings:

- ❖ A **Western Disturbance** as a cyclonic circulation over Jammu-Kashmir & neighbourhood with trough aloft in middle tropospheric westerlies roughly along Long. 70°E to the north of Lat. 32°N. Under the influence, Isolated light to moderate rainfall/snowfall with **thunderstorm & lightning** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand today.
- ❖ A fresh Western Disturbance is likely to affect Northwest India from 18<sup>th</sup> April, 2024. Under its influence:
  - ✓ Fairly widespread to widespread light to moderate rainfall/snowfall with **thunderstorm, lightning & gusty winds (30-40 kmph)** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand during 18<sup>th</sup>-21<sup>st</sup> April, 2024.
  - ✓ Isolated to scattered rainfall with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Punjab, Haryana-Chandigarh-Delhi during 18<sup>th</sup>-20<sup>th</sup> April; West Uttar Pradesh, East Rajasthan on 19<sup>th</sup> & 21<sup>st</sup> and West Rajasthan on 18<sup>th</sup>, 19<sup>th</sup> & 21<sup>st</sup> April, 2024.
  - ✓ **Isolated hailstorm** very likely over Himachal Pradesh 18<sup>th</sup> & 19<sup>th</sup> and Uttarakhand & Punjab on 19<sup>th</sup> April, 2024.
  - ✓ **Isolated heavy rainfall/snowfall** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 18<sup>th</sup> & 19<sup>th</sup> April, 2024.
  - ✓ **Strong surface winds (30-40 kmph)** very likely to prevail over Haryana-Chandigarh-Delhi and Uttar Pradesh during 17<sup>th</sup>-19<sup>th</sup> April, 2024.
- ❖ A cyclonic circulation lies over East Bihar and another over northeast Assam in lower tropospheric levels. Under its influence:
  - ✓ Fairly widespread to widespread light/moderate rainfall/snowfall with isolated **thunderstorm & lightning** over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 16<sup>th</sup>-21<sup>st</sup> April, 2024.
  - ✓ Scattered to fairly widespread light/moderate rainfall/snowfall with isolated **thunderstorm & lightning** over Sub-Himalayan West Bengal & Sikkim during 16<sup>th</sup>-18<sup>th</sup> April with possibility of isolated hailstorm over Sikkim on 16<sup>th</sup> April, 2024.
  - ✓ **Isolated heavy rainfall** over Arunachal Pradesh during 16<sup>th</sup>-20<sup>th</sup>; Assam & Meghalaya on 16<sup>th</sup>, 17<sup>th</sup>, 19<sup>th</sup> & 20<sup>th</sup> and Nagaland, Manipur, Mizoram & Tripura on 20<sup>th</sup> April, 2024.
- ❖ A cyclonic circulation lies over Rayalaseema and a trough runs from Marathwada to North Interior Karnataka in lower tropospheric levels. Under its influence: Isolated light rainfall with isolated **thunderstorm & lightning** very likely over Konkan & Goa, Madhya Maharashtra and Marathwada during 16<sup>th</sup>-18<sup>th</sup> April, 2024.
- ❖ A cyclonic circulation lies over south Tamil Nadu in lower tropospheric levels. Under its influence:
  - ✓ Scattered to fairly widespread light/moderate rainfall accompanied with isolated **thunderstorm & lightning** very likely over Kerala & Mahe, Lakshadweep and isolated rainfall with **thunderstorm & lightning** over Tamil Nadu, Puducherry-Karaikal, Karnataka, Andhra Pradesh during 18<sup>th</sup>-21<sup>st</sup> April, 2024.
  - ✓ **Isolated heavy rainfall** over Kerala & Mahe on 18<sup>th</sup> & 19<sup>th</sup> April, 2024.

#### Maximum temperature observation:

- ❖ Today, maximum temperatures are in the range of 41-43°C over at a few places Odisha, Coastal Andhra Pradesh & Yanam Saurashtra & Kutch and Rayalaseema and at isolated pockets over West Uttar Pradesh, Jharkhand, Gangetic West Bengal, Gujarat Region, Konkan & Goa, Madhya Maharashtra, Telangana and North Interior Karnataka; 38-40°C over many places over East Uttar Pradesh and Vidarbha; at a few places over Tamil Nadu, Puducherry & Karaikal, Madhya Pradesh, Bihar, Chhattisgarh and Marathwada. These are above normal by 2-3° C at a few places over these areas.

#### Second heat wave spell in April:

##### Heat Wave and Hot & Humid weather warning for next 5 days:

- ❖ **Heat Wave conditions** in isolated pockets of Odisha, Gangetic West Bengal during 16<sup>th</sup>-20<sup>th</sup>; north Konkan, Saurashtra & Kutch on 16<sup>th</sup> & 17<sup>th</sup>; Coastal Andhra Pradesh & Yanam on 17<sup>th</sup> & 18<sup>th</sup> and Telangana during 16<sup>th</sup>-18<sup>th</sup> April, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Gangetic West Bengal, Tamil Nadu, Puducherry & Karaikal, Rayalaseema during 16<sup>th</sup>-20<sup>th</sup>; Coastal Karnataka, Kerala & Mahe on 16<sup>th</sup> & 17<sup>th</sup>; coastal areas of Gujarat during 16<sup>th</sup>-18<sup>th</sup>; Konkan & Goa during 18<sup>th</sup>-20<sup>th</sup> April, 2024.
- ❖ **Warm night** very likely to prevail over Madhya Maharashtra during 16<sup>th</sup>-18<sup>th</sup> and over Odisha during 17<sup>th</sup>-20<sup>th</sup> April, 2024.

## Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST to 1730 hours IST of today): at most places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at many places over Himachal Pradesh; at isolated places over Uttarakhand and Arunachal Pradesh.
- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of today): at isolated places over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Odisha and Himachal Pradesh.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of today): (in cm): **Nil**
- ❖ **Heat Wave** conditions prevailed in some pockets over Coastal Andhra Pradesh and Odisha.
- ❖ **Minimum Temperature Departures (as on 16-04-2024):** Minimum temperatures are **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 many places over Bihar; at a few places over Sub-Himalayan West Bengal & Sikkim; **above normal (1.6°C to 3.0°C)** at most places over Arunachal Pradesh, Assam & Meghalaya, Jharkhand and Gujarat state; at many places over East Uttar Pradesh, Vidarbha and North Interior Karnataka; at isolated places over Haryana-Chandigarh-Delhi, Rajasthan, Madhya Pradesh, Odisha, Konkan & Goa, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe. These are **below normal (-1.6°C to -3.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Today, **the lowest minimum temperature of 16.0°C** is reported at **Amritsar (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 16-04-2024):** Maximum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at many places over Gangetic West Bengal; at a few places over Nagaland, Manipur, Mizoram & Tripura and at isolated places over Arunachal Pradesh, Coastal Andhra Pradesh & Yanam and Saurashtra & Kutch; **above normal (1.6°C to 3.0°C)** at most places over Interior Karnataka; at many places over Bihar, Odisha, Madhya Maharashtra and Konkan & Goa; at a few places over Jharkhand, Marathwada, Gujarat Region, Rayalaseema, Kerala & Mahe and Sub-Himalayan West Bengal & Sikkim; at isolated places over Andaman & Nicobar Islands, Assam & Meghalaya, Chhattisgarh, East Uttar Pradesh, Madhya Pradesh and Tamil Nadu, Puducherry & Karaikal. These are **below normal (-1.6°C to -3.0°C)** at a few places over West Rajasthan; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Punjab and near normal over rest parts of the country. Today, the highest maximum temperature of **43.6°C** is reported at **Baripada (Odisha)** over the country.

## Meteorological Analysis (Based on 1730 hours IST)

- ❖ The Western Disturbance as a cyclonic circulation over Jammu-Kashmir & neighbourhood at 3.1 km above mean sea level persists. However, trough aloft in middle tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 70°E to the north of Lat. 32°N.
- ❖ The cyclonic circulation over east Bihar & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The trough from above cyclonic circulation over east Bihar to south Chhattisgarh across Jharkhand & Odisha at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Assam at 3.1 km above mean sea level persists.
- ❖ The cyclonic circulation over Rayalaseema at 1.5 km above mean sea level persists.
- ❖ The trough from Marathwada to North Interior Karnataka at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over south Tamil Nadu & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ A fresh Western Disturbance is likely to affect northwest India from 18<sup>th</sup> April, 2024.

## Weather Forecast for next 7 days (Upto 0830 hours IST of 23<sup>rd</sup> April, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Gradual rise in maximum temperatures by 2-4°C very likely over Central, East & south peninsular India during next 3 days and no significant change thereafter.
- ❖ Gradual rise in maximum temperatures by 2-3°C very likely over Maharashtra during next 2 days and fall by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

## Weather Outlook for subsequent 3 days (During 23<sup>rd</sup> -25<sup>th</sup> April, 2024)

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

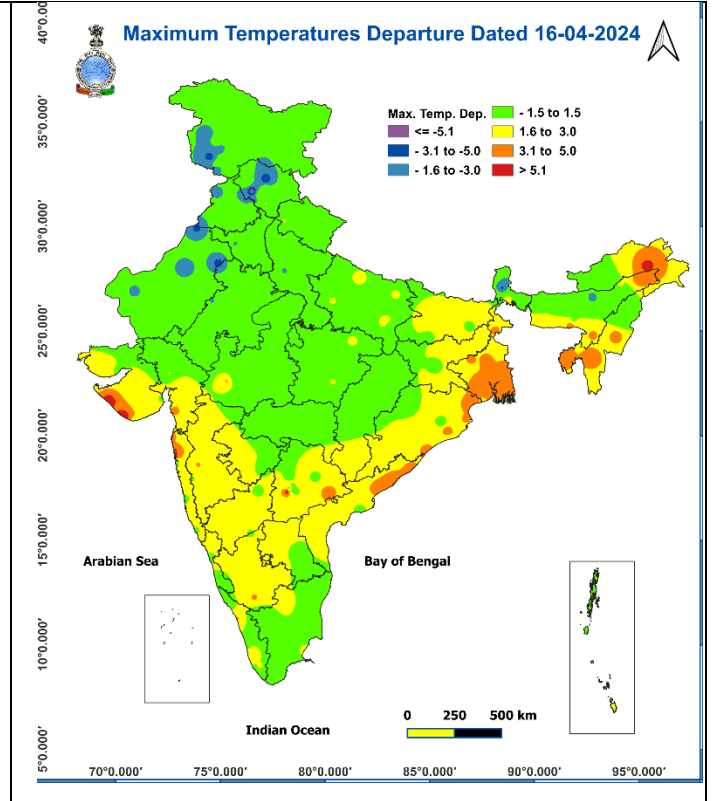
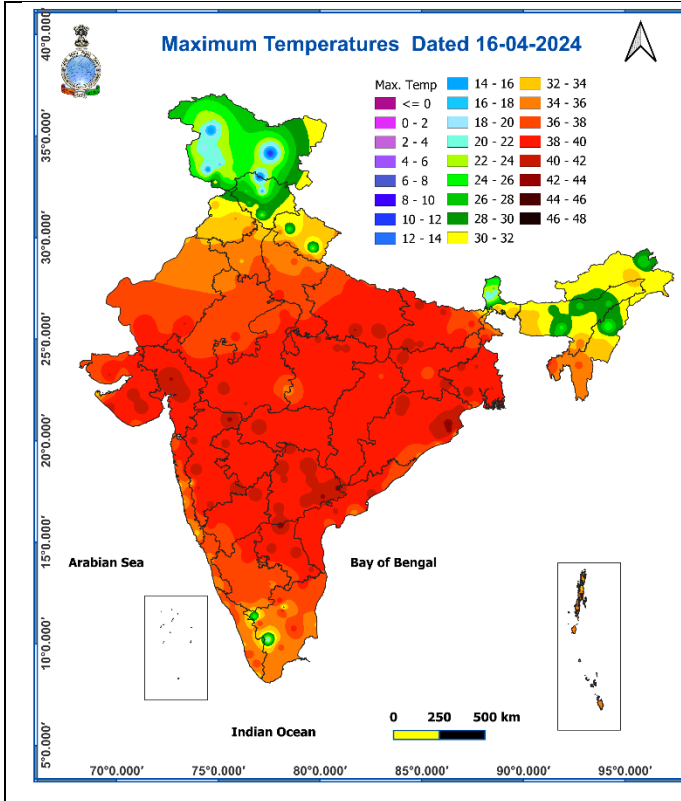
Table-1

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

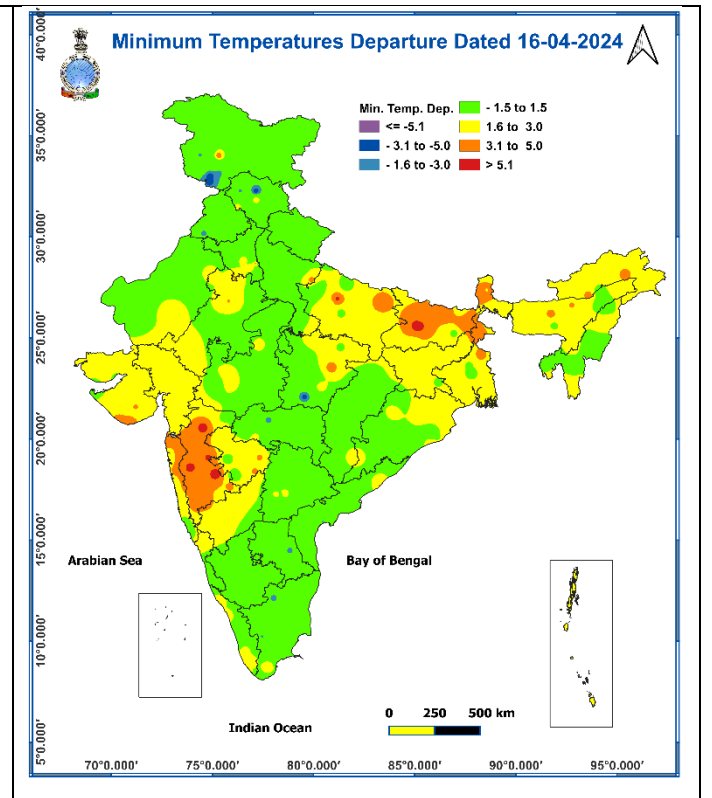
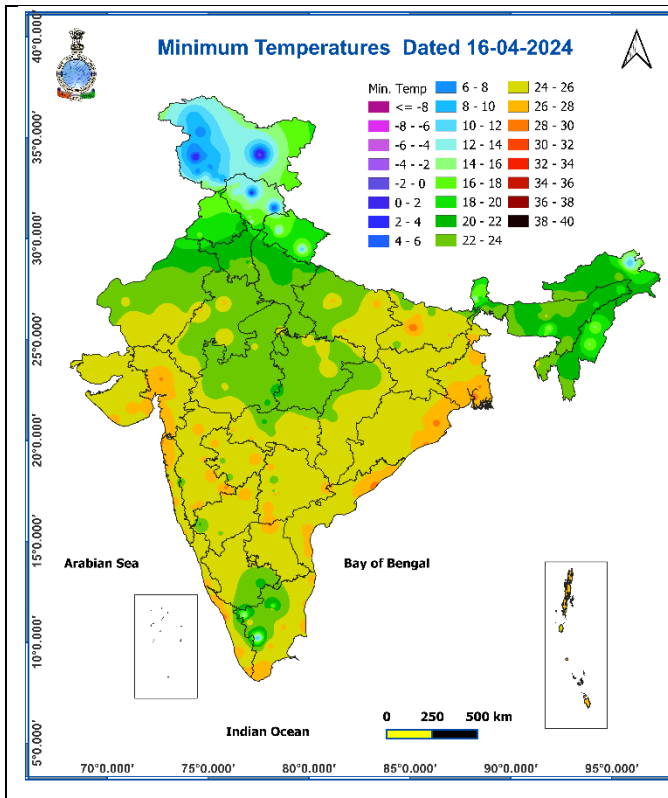
**Fig. 1: Maximum Temperatures**

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



**Fig. 3: Minimum Temperatures**

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

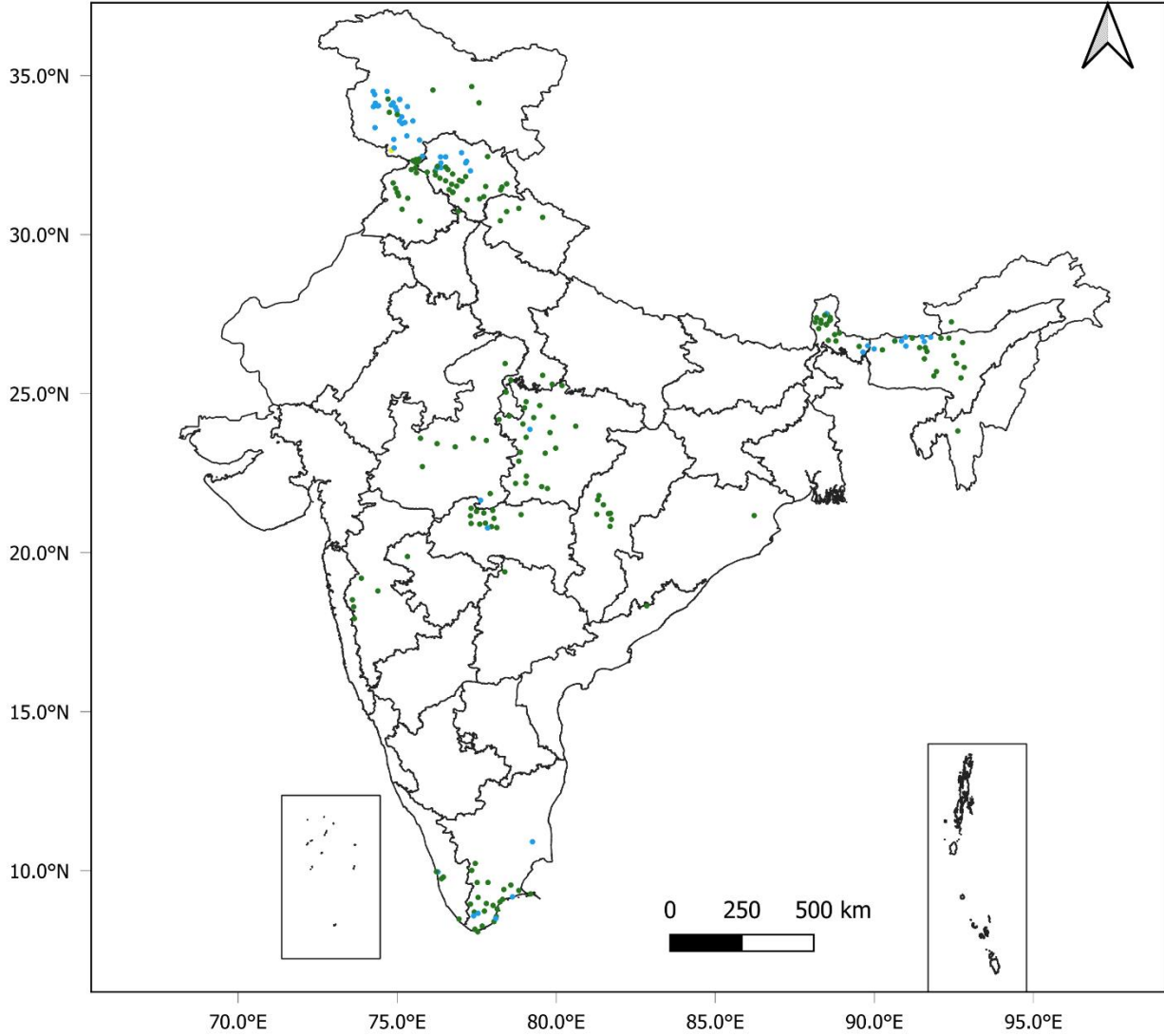




**Fig. 5: Accumulated Rainfall (mm) during past 24 hours**

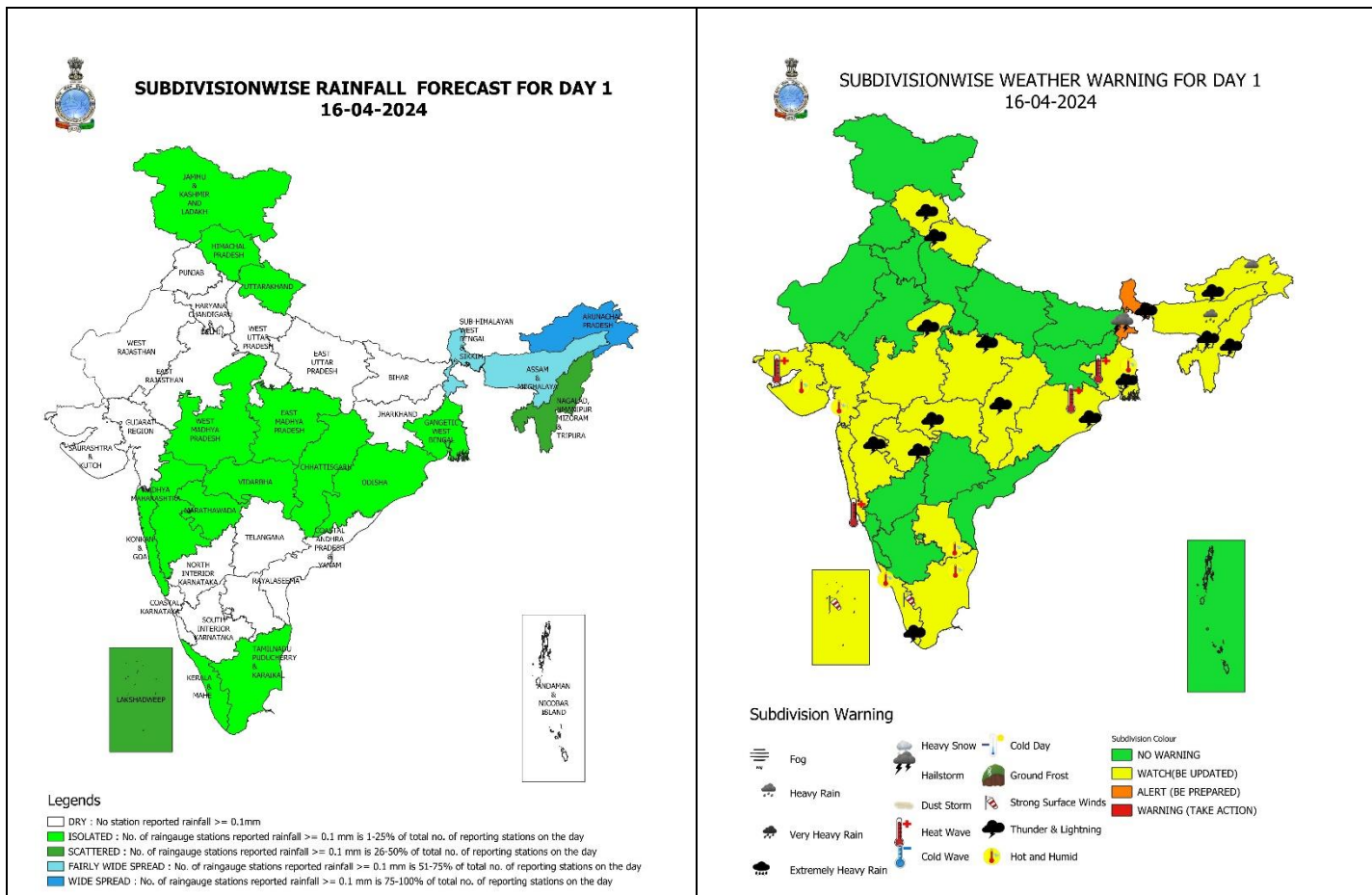


24 Hr cumulative rainfall recorded over different stations during  
0830 IST of 15-4-2024 to 0830 IST of 16-4-2024



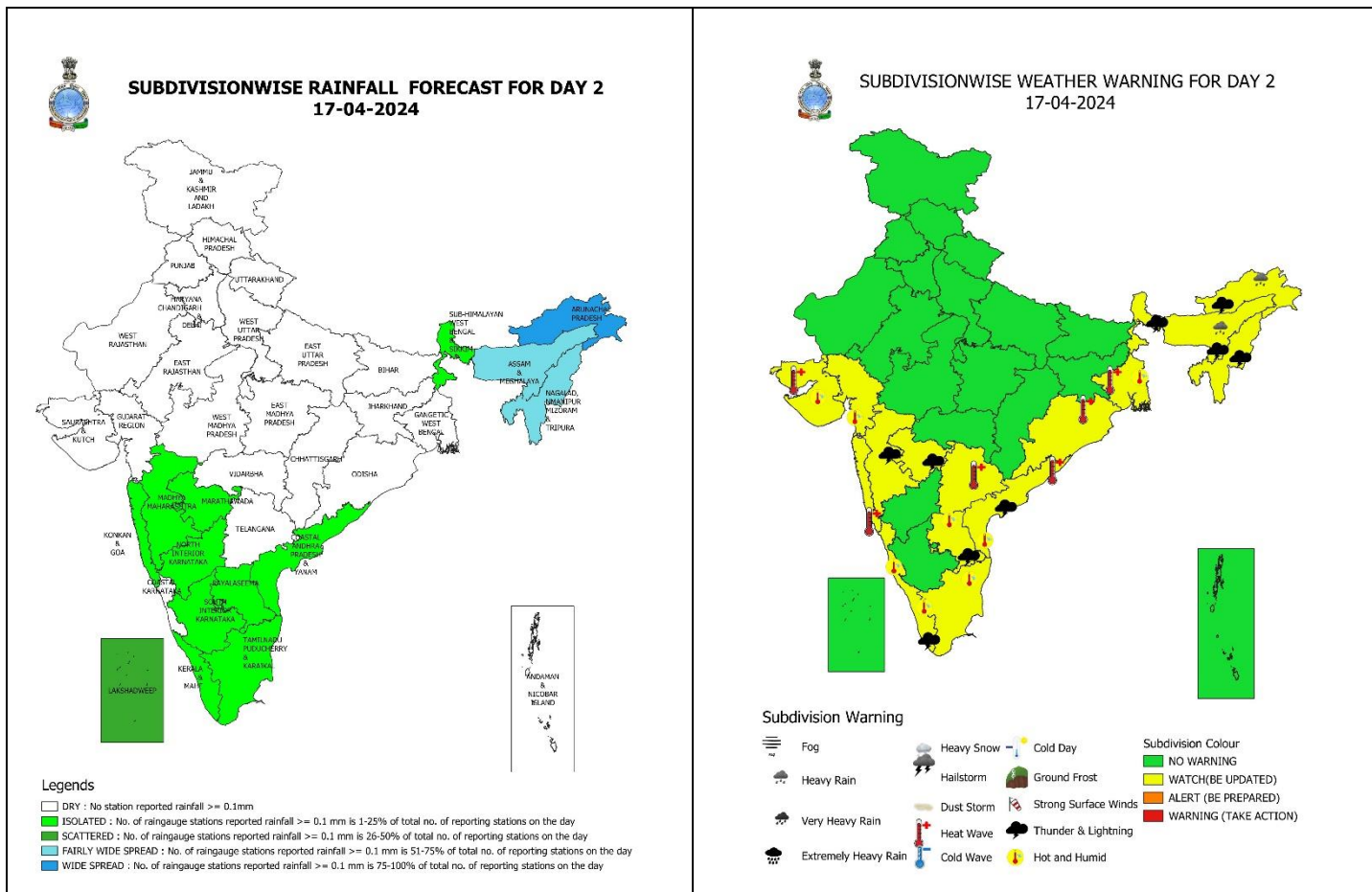
## Legends

- 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)



## 16 April (Day 1):

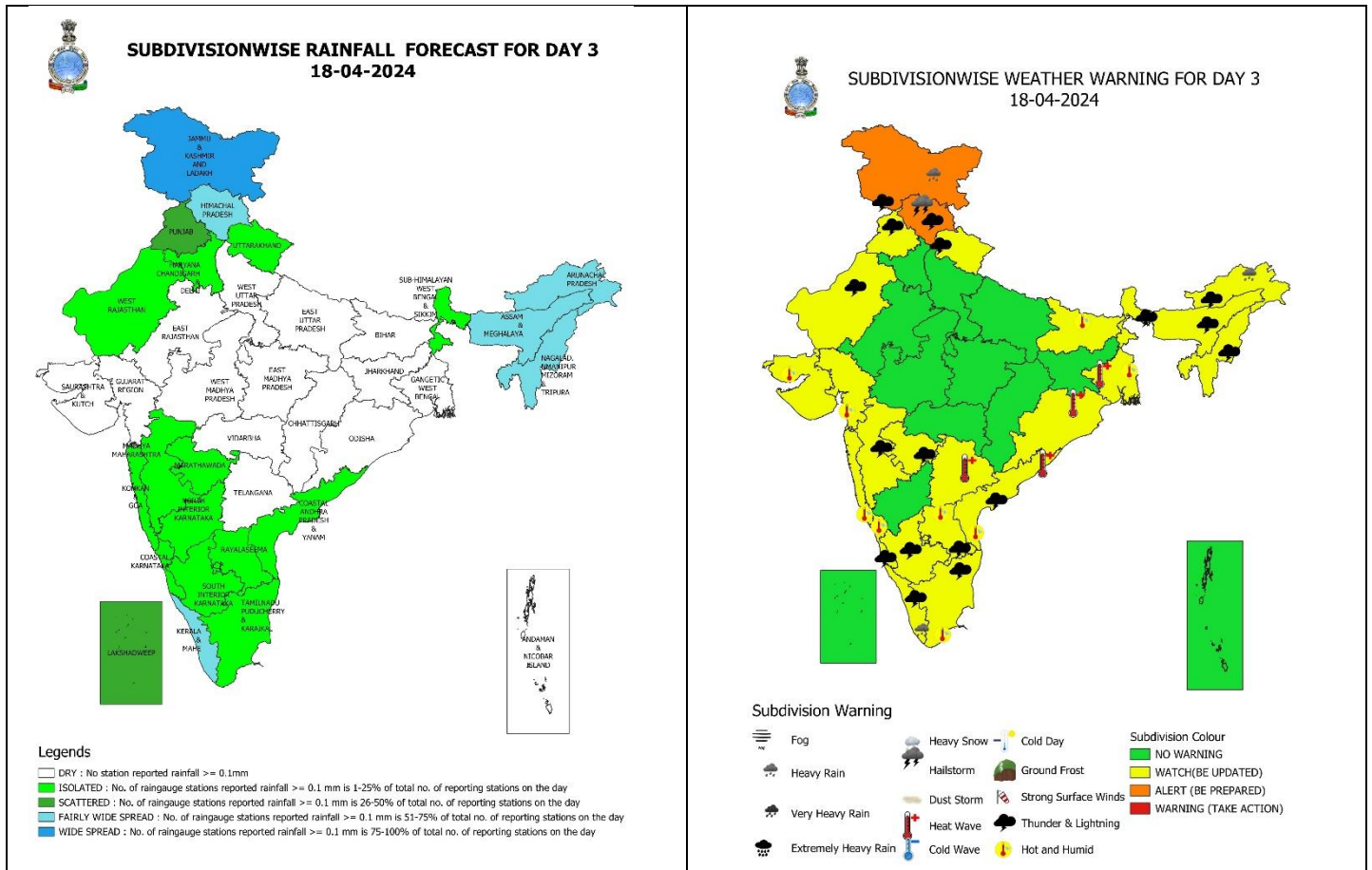
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Lakshadweep; **with lightning** at isolated places over Himachal Pradesh, Uttarakhand, Arunachal Pradesh, Odisha, Gangetic West Bengal, Madhya Maharashtra, Marathwada and Kerala & Mahe.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat, Gangetic West Bengal, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave** very likely to prevail in isolated pockets over Gangetic West Bengal, Odisha, north Konkan, Saurashtra & Kutch.
- ❖ **Warm Night** very likely to prevail in isolated pockets over Madhya Maharashtra.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over Lakshadweep and adjoining Maldives Area; **with wind speed 45 kmph to 55 kmph gusting to 65 kmph** prevail over Gulf of Oman and adjoining Northwest Arabian Sea. Fishermen are advised not to venture into these areas.



## 17 April (Day 2):

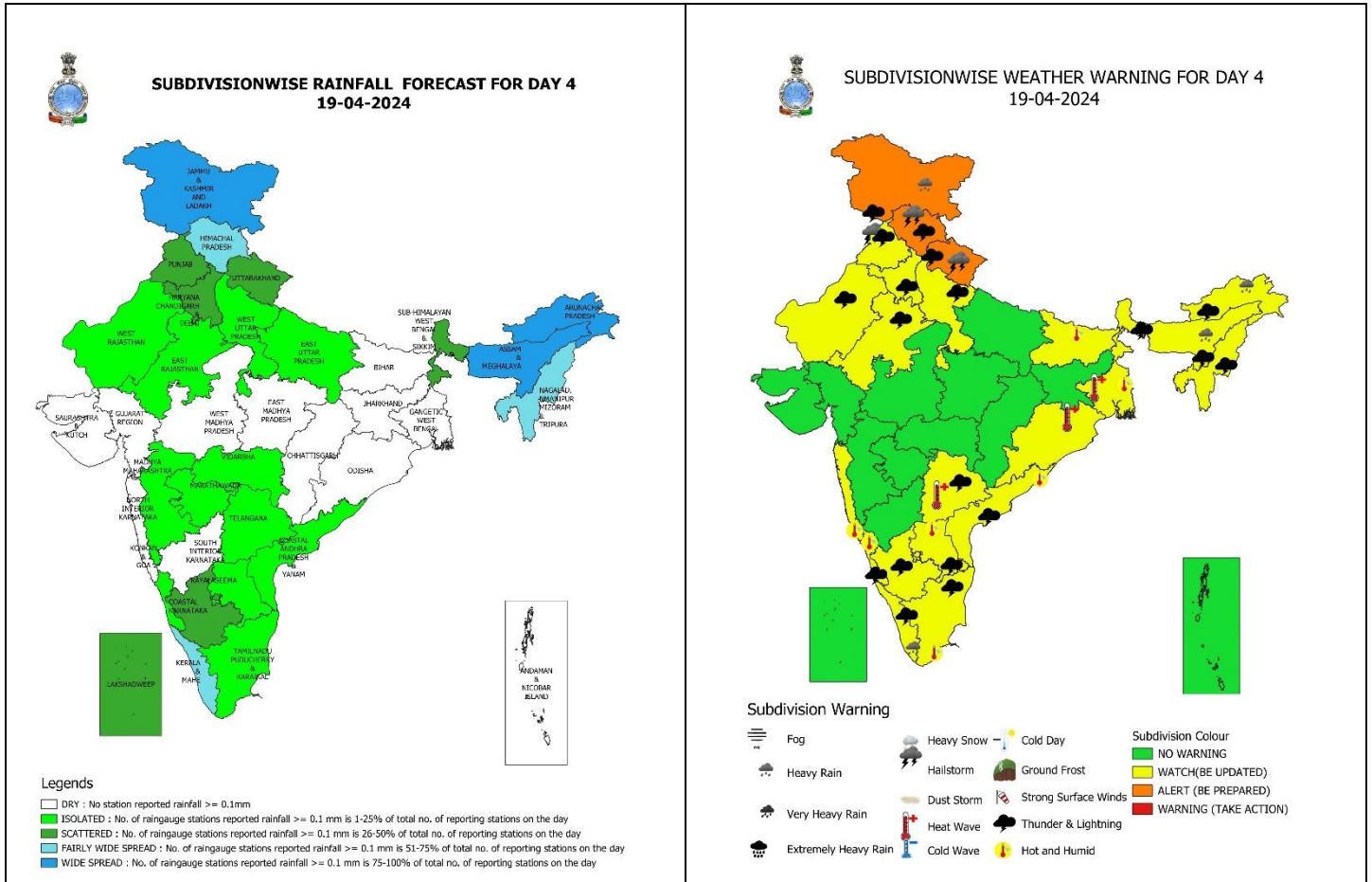
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Rayalaseema and Kerala & Mahe.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat, Gangetic West Bengal, Coastal Karnataka, Rayalaseema, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave** very likely to prevail in isolated pockets over Gangetic West Bengal, Odisha, north Konkan, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam and Telangana.
- ❖ **Warm Night** very likely to prevail in isolated pockets over Odisha and Madhya Maharashtra.
- ❖ **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** very likely to prevail over Gulf of Oman and adjoining Northwest Arabian Sea. Fishermen are advised not to venture into these areas.





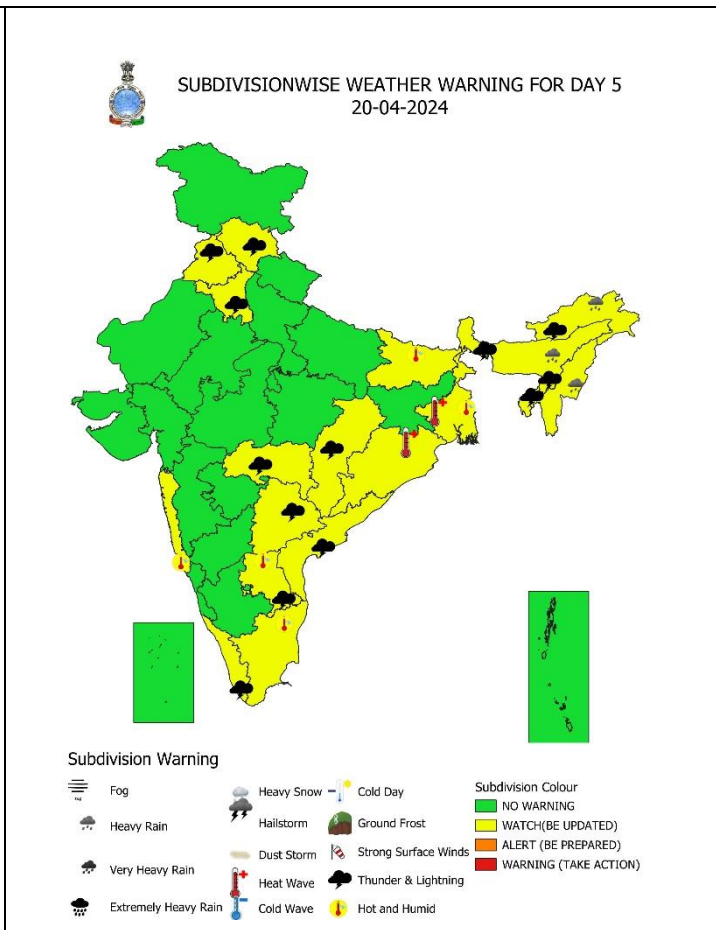
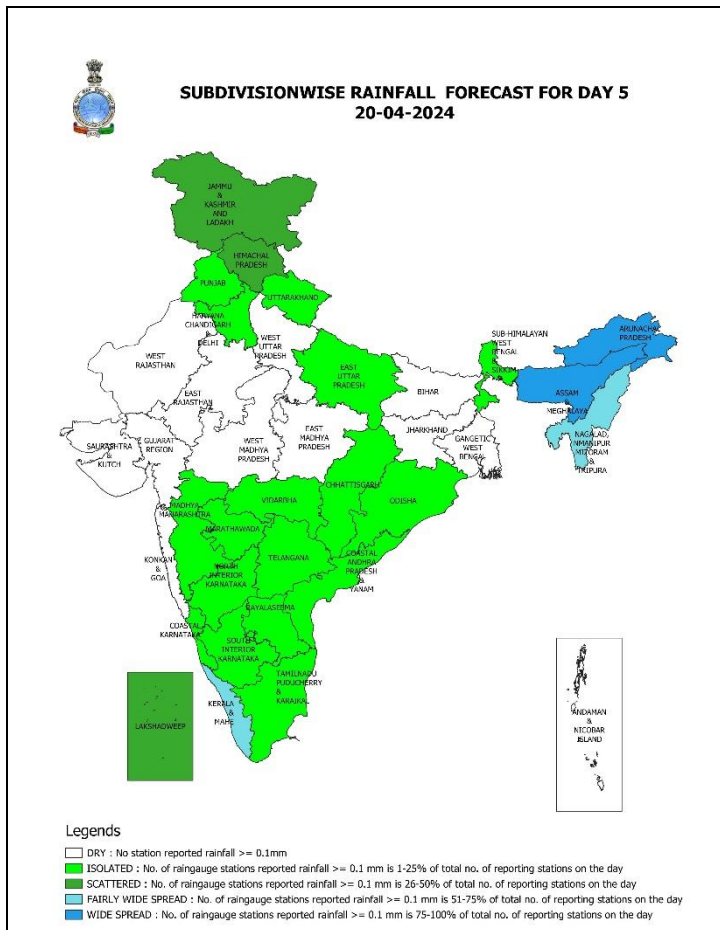
## 18 April (Day 3):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim; **with lightning & hailstorm** at isolated places over Himachal Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Punjab, West Rajasthan, Coastal & South Interior Karnataka and Kerala & Mahe; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam and Rayalaseema.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Arunachal Pradesh; **Heavy rainfall** at isolated places over Kerala & Mahe.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat, Gangetic West Bengal, Bihar, Coastal Karnataka, Rayalaseema, Coastal Andhra Pradesh & Yanam, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave** very likely to prevail in isolated pockets over Odisha, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam and Telangana.
- ❖ **Warm Night** very likely to prevail in isolated pockets over Odisha and Madhya Maharashtra.



## 19 April (Day 4):

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



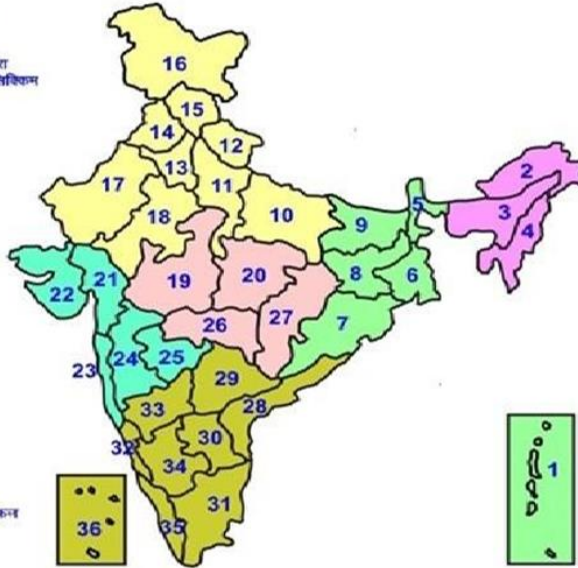
## 20 April (Day 5):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph) & hailstorm** likely at isolated places over Punjab, Haryana-Chandigarh-Delhi, Vidarbha, Chhattisgarh, Assam & Meghalaya and Kerala & Mahe; **with lightning** at isolated places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hot and humid weather** likely to prevail over Gangetic West Bengal, Bihar, Rayalaseema, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave** likely to prevail in isolated pockets over Gangetic West Bengal and Odisha.
- ❖ **Warm Night** likely to prevail in isolated pockets over Odisha.



## 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 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

<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



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 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)