

Saturday, April 27, 2024  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Weather Systems and Forecast & Warnings:

- ❖ A Western Disturbance as a cyclonic circulation lies over Pakistan & neighbourhood in lower & middle levels. An induced cyclonic circulation lies over West Rajasthan in lower tropospheric levels. Under their influence:
  - ✓ Fairly widespread to widespread light to moderate rainfall/snowfall accompanied with **thunderstorm, lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and isolated rainfall over Uttarakhand during 27<sup>th</sup>-29<sup>th</sup> April, 2024 with possibility of **hailstorm over Himachal Pradesh during 27<sup>th</sup>-28<sup>th</sup> and Uttarakhand on 28<sup>th</sup> & 29<sup>th</sup> April, 2024.**
  - ✓ Isolated **Heavy rainfall** also likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 27<sup>th</sup>-29<sup>th</sup> April and over Himachal Pradesh on 29<sup>th</sup> April, 2024.
  - ✓ Isolated to scattered rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** very likely over Punjab, Haryana-Chandigarh-Delhi during 27<sup>th</sup>-28<sup>th</sup> April, 2024. Isolated **Hailstorm** very likely over Punjab and Haryana, Chandigarh & Delhi on 27<sup>th</sup> April, 2024.
  - ✓ **Strong surface winds (25-35 kmph)** very likely to prevail over Uttar Pradesh, Bihar and south Rajasthan on 27<sup>th</sup> April 2024.
- ❖ A trough/wind discontinuity runs from Marathwada to north Tamil Nadu in lower tropospheric levels. Under their influence:
  - ✓ Isolated light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Madhya Maharashtra, Marathwada, Madhya Pradesh, Vidarbha, Chhattisgarh on 27<sup>th</sup> April, 2024.
  - ✓ Isolated **Hailstorm** very likely over Madhya Pradesh on 27<sup>th</sup> April, 2024.
- ❖ A cyclonic circulation lies over northeast Assam in lower tropospheric levels. Another cyclonic circulation lies over north Bangladesh and a trough runs from this to north Odisha in lower tropospheric levels. Under their influence:
  - ✓ Fairly widespread to widespread light to moderate rainfall/snowfall accompanied with isolated **thunderstorm & lightning & gusty winds (40-50 kmph)** very likely over Arunachal Pradesh and scattered to fairly widespread rainfall over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 27<sup>th</sup>-30<sup>th</sup> April, 2024.
  - ✓ Isolated light to moderate rainfall accompanied with **thunderstorm & lightning** very likely over Sikkim on 28<sup>th</sup> April, 2024.
  - ✓ **Isolated heavy rainfall** very likely over Arunachal Pradesh and Assam & Meghalaya on 28<sup>th</sup> & 30<sup>th</sup> April, 2024.

#### Maximum temperature observation:

- ❖ Yesterday, **maximum temperatures** were in the range of **42-44°C** over many parts of Odisha & Rayalaseema; in some parts of Gangetic West Bengal, Vidarbha & Telangana and in isolated pockets over Chhattisgarh, East Uttar Pradesh, Madhya Pradesh & Madhya Maharashtra; **40-42°C** over many parts of Bihar, Rayalaseema, Jharkhand, Marathwada and Coastal Andhra Pradesh & Yanam; in some parts of Gujarat state and Tamil Nadu and in isolated pockets over Sub-Himalayan West Bengal, Haryana-Chandigarh-Delhi & West Uttar Pradesh. These were **above normal by 4-6°C** over many parts of West Bengal; at isolated pockets over Bihar, Odisha, Telangana and Tamil Nadu and **above normal by 2-4°C** over many parts of Andhra Pradesh; in some parts of East Uttar Pradesh & Chhattisgarh and in isolated pockets over Haryana-Chandigarh-Delhi, Rajasthan, Madhya Pradesh and Vidarbha.

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

- ❖ **Heat Wave to severe heat wave conditions** very likely to prevail in many places over Gangetic West Bengal, in some parts over Odisha and in isolated pockets over Sub-Himalayan West Bengal during next 5 days. **Heat wave conditions** in isolated pockets over Bihar, Jharkhand, Telangana, Rayalaseema, Interior Karnataka, Tamil Nadu, East Uttar Pradesh during next 5 days; Kerala & Mahe during 27<sup>th</sup>-28<sup>th</sup>; Konkan during 27<sup>th</sup>-29<sup>th</sup> and West Uttar Pradesh, Coastal Andhra Pradesh & Yanam during 28<sup>th</sup>-30<sup>th</sup> April, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Assam & Meghalaya, Tripura during 27<sup>th</sup>-28<sup>th</sup>; Kerala & Mahe, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal during 27<sup>th</sup>-30<sup>th</sup>; Coastal Andhra Pradesh & Yanam on 27<sup>th</sup> April, 2024.

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### Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at a few places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and **at isolated places** over West Madhya Pradesh, Gujarat Region and North Interior Karnataka.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **West Madhya Pradesh:** Betul-2, Ratlam-1;
- ❖ Yesterday, **Heat wave to severe heat wave** conditions observed at many places over West Bengal; at isolated places over Odisha and **heat wave conditions** at many places over East Bihar and at isolated places over Kerala. **Heat wave conditions have been prevailing over Odisha since 15<sup>th</sup> and Gangetic West Bengal since 17<sup>th</sup> April.**
- ❖ **Minimum Temperature Departures (as on 26-04-2024):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Madhya Maharashtra; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Gangetic West Bengal; **above normal (1.6°C to 3.0°C)** at many places over Kerala & Mahe; at a few places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; at isolated places over Arunachal Pradesh, Bihar, Odisha, Marathwada, Saurashtra & Kutch, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Punjab, Haryana-Chandigarh-Delhi, Madhya Pradesh, Gujarat state, Chhattisgarh and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 19.8°C** was reported at **Karnal (Haryana)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 26-04-2024):** Maximum temperatures were **markedly above normal (5.1°C or more)** at a few places over Gangetic West Bengal and Bihar; at isolated places over Sub-Himalayan West Bengal & Sikkim; **appreciably above normal (3.1°C to 5.0°C)** at many places over Rayalaseema; at a few places over Odisha, Telangana, Jharkhand and at isolated places over Tamil Nadu, Puducherry & Karaikal and Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at a few places over Chhattisgarh, Arunachal Pradesh; at isolated places over Coastal Andhra Pradesh & Yanam, Interior Karnataka, Konkan & Goa and Kerala & Mahe. These were **markedly below normal (-5.1°C or less)** at a few places over Madhya Pradesh **below normal (-1.6°C to -3.0°C)** at a few places over Gujarat state at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 44.6°C** was reported at **Nandyal (Rayalaseema)** over the country.

### Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Western Disturbance as a cyclonic circulation over south Iran & adjoining south Pakistan now lies over Pakistan & neighbourhood between 3.1 & 5.8 km above mean sea level with a trough aloft in upper tropospheric westerlies with its axis at 7.6 km above mean sea level roughly along long. 62°E to the north of lat. 25°N.
- ❖ The induced cyclonic circulation over West Rajasthan extending upto 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over north Bangladesh at 0.9 km above mean sea level persists.
- ❖ The trough from above cyclonic circulation over north Bangladesh to north Odisha across Gangetic West Bengal at 0.9 km above mean sea level persists.
- ❖ The trough/wind discontinuity from Marathwada to north Tamil Nadu across Interior Karnataka extending upto 1.5 km above mean sea level persists.

### Weather Forecast for next 7 days (Upto 0830 hours IST of 04<sup>th</sup> May, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ No significant change in maximum temperatures very likely over Central India during next 24 hours and rise by about 2°C thereafter.
- ❖ Rise in maximum temperatures by 2-3°C very likely over East India during next 24 hours and no significant change thereafter.
- ❖ Rise in maximum temperatures by 2-3°C very likely over Maharashtra and many parts of south peninsular India during next 4 days.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

### Weather Outlook for subsequent 3 days (During 04<sup>th</sup>-06<sup>th</sup> May, 2024)

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

Table-1

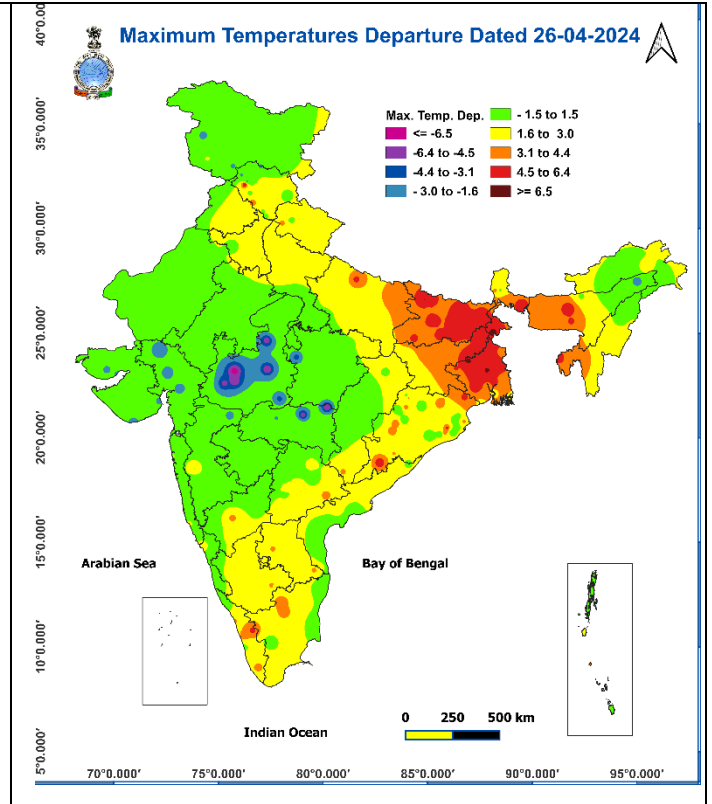
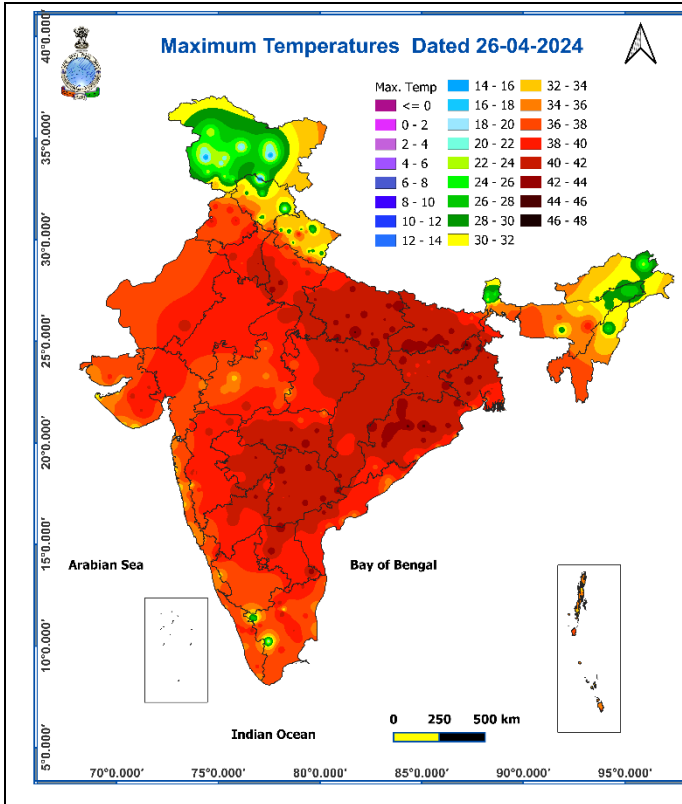
7 Days Rainfall Forecast								
S. No.	Subdivision	27-Apr	28-Apr	29-Apr	30-Apr	01-May	02-May	03-May
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
2	ARUNACHAL PRADESH	FWS	WS	WS	WS	WS	WS	WS
3	ASSAM & MEGHALAYA	SCT	FWS	FWS	WS	WS	WS	WS
4	NAGALAND,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

Legend	Category	% Stations
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many Places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0

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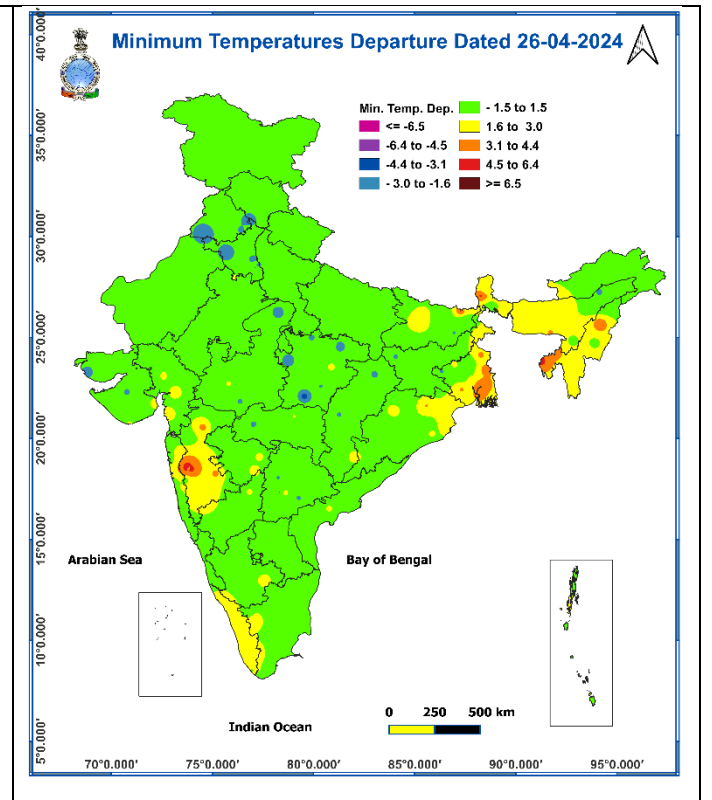
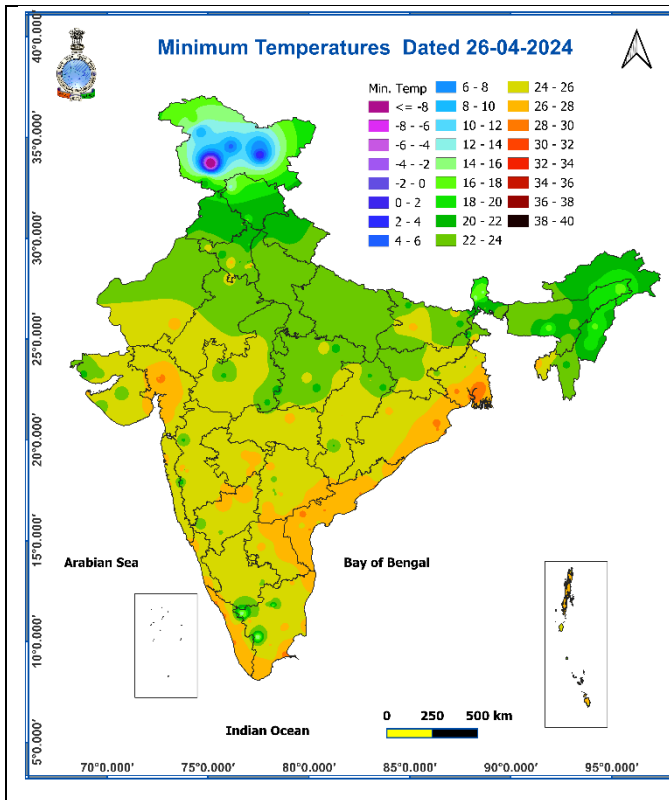
**Fig. 1: Maximum Temperatures**

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



**Fig. 3: Minimum Temperatures**

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

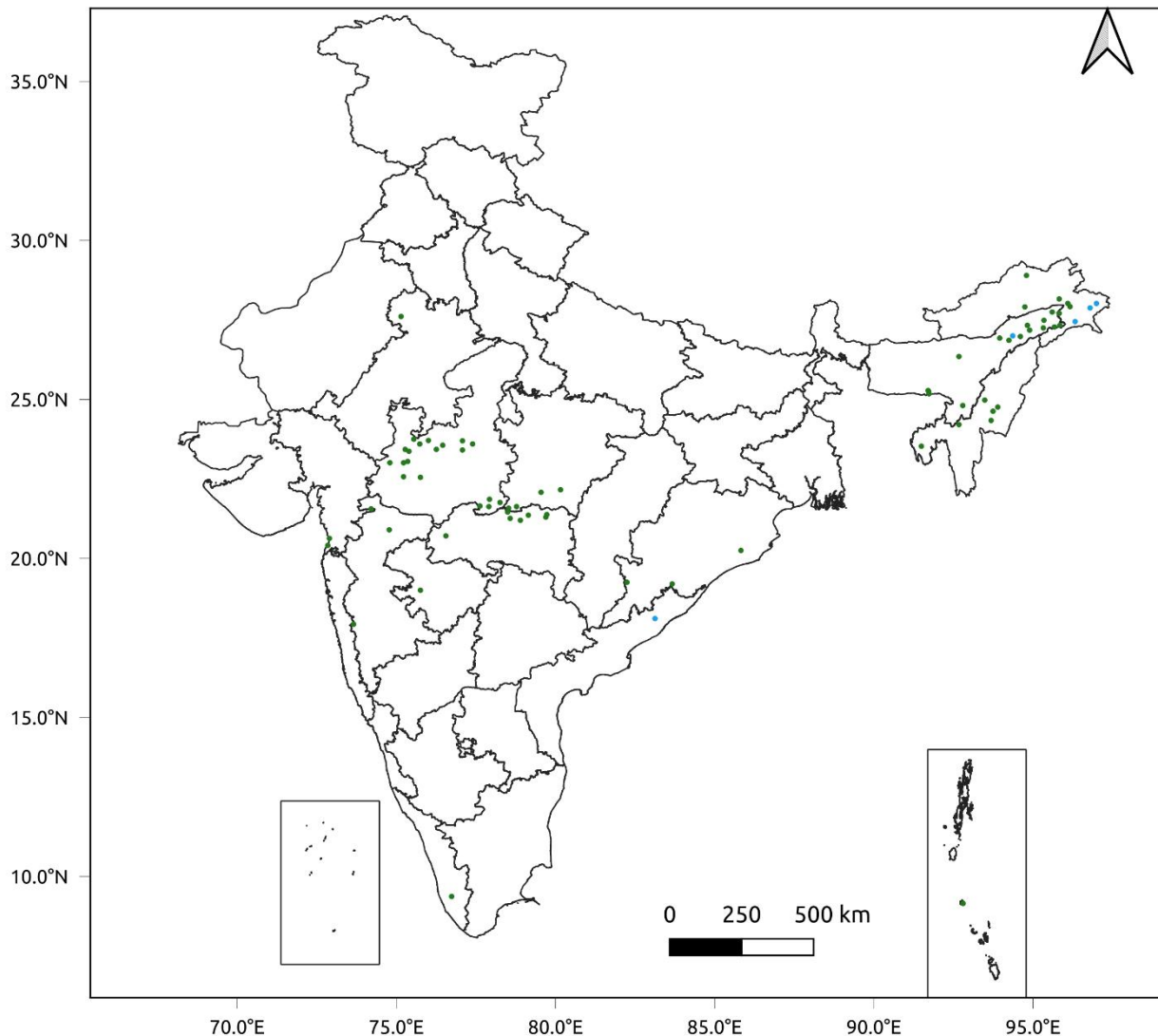


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**Fig. 5: Accumulated Rainfall (mm) during past 24 hours**

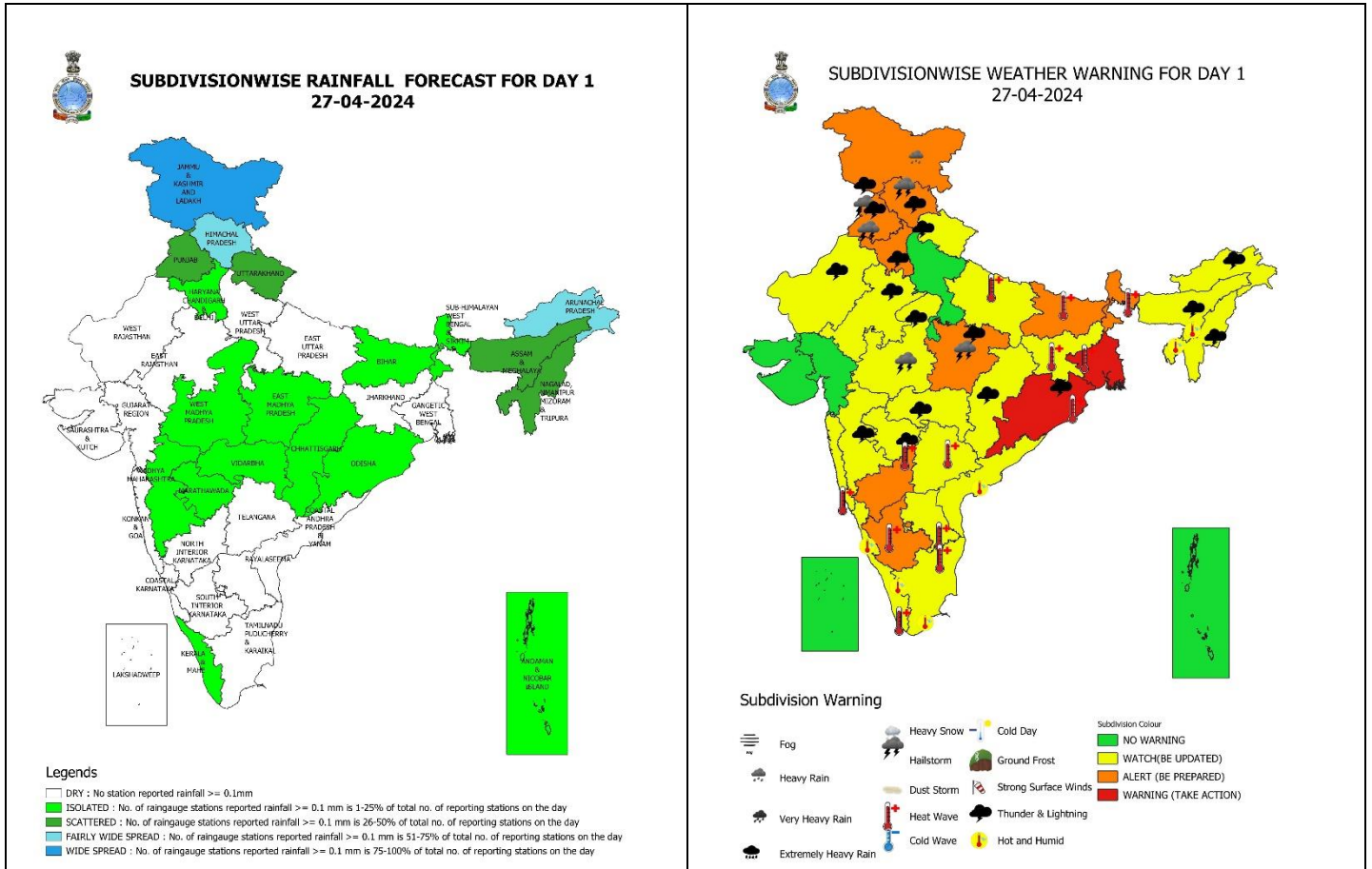


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 25-4-2024 to 0830 IST of 26-4-2024



## Legends

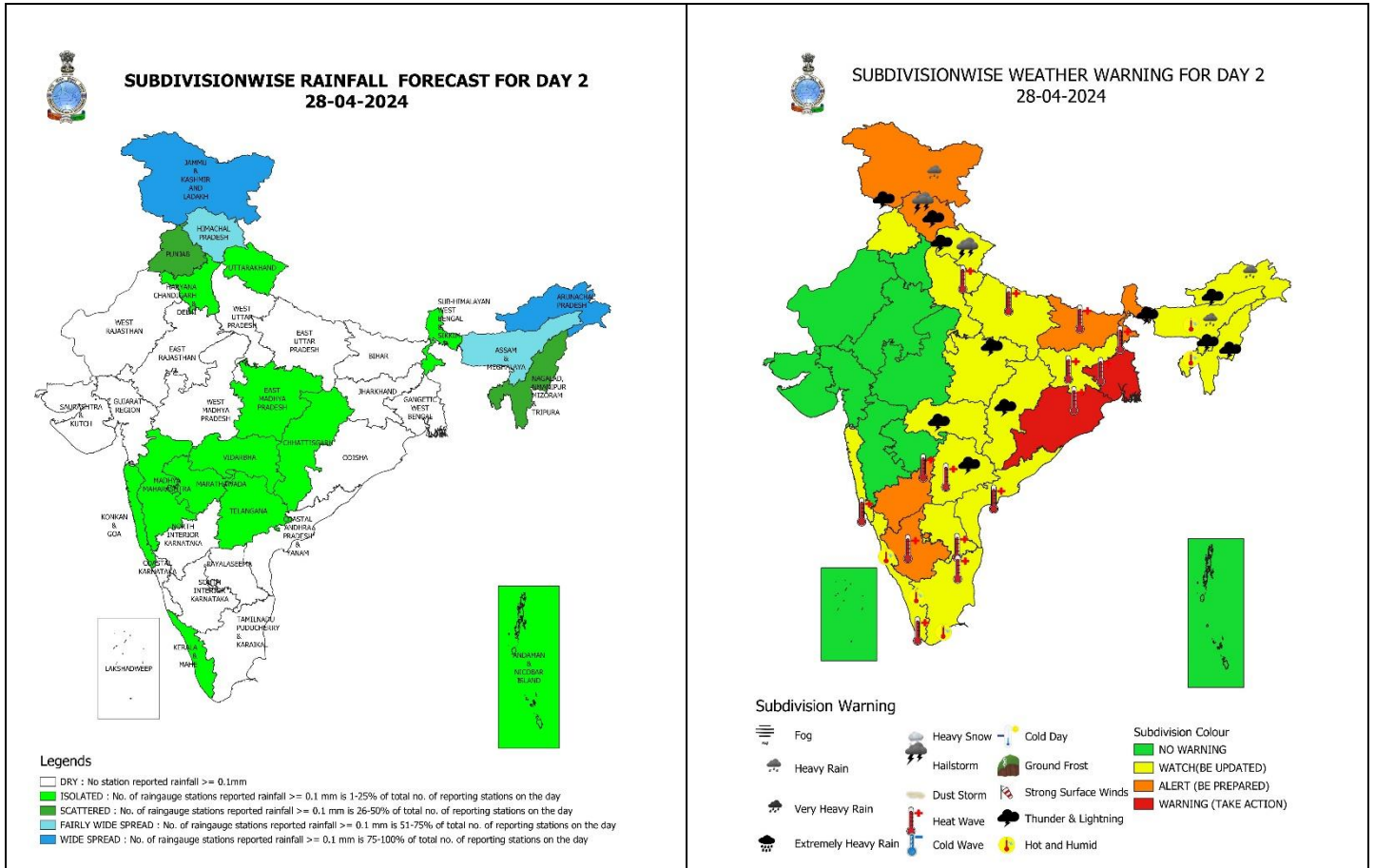
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall ( $\geq 204.5$  mm)



**27 April (Day 1):**

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** very likely at isolated places over Himachal Pradesh, Punjab, Haryana-Chandigarh and Madhya Pradesh; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over Chhattisgarh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Uttarakhand, Rajasthan, Vidarbha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra and Marathwada; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Odisha and Arunachal Pradesh.
- ❖ **Heavy rainfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Hot and humid weather** very likely to prevail over Assam & Meghalaya, Tripura, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave to severe heat wave conditions** very likely to prevail at many places over Gangetic West Bengal and north Odisha; in isolated pockets over Sub-Himalayan West Bengal; **heat wave conditions** in isolated pockets over East Uttar Pradesh, Bihar, Jharkhand, Konkan & Goa, Telangana, Rayalaseema, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

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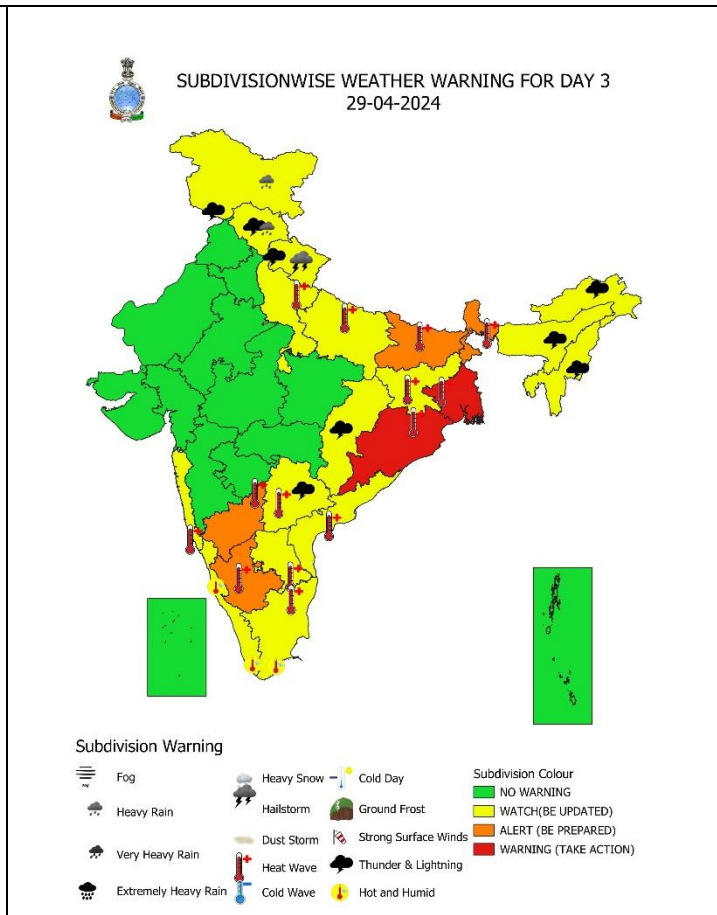
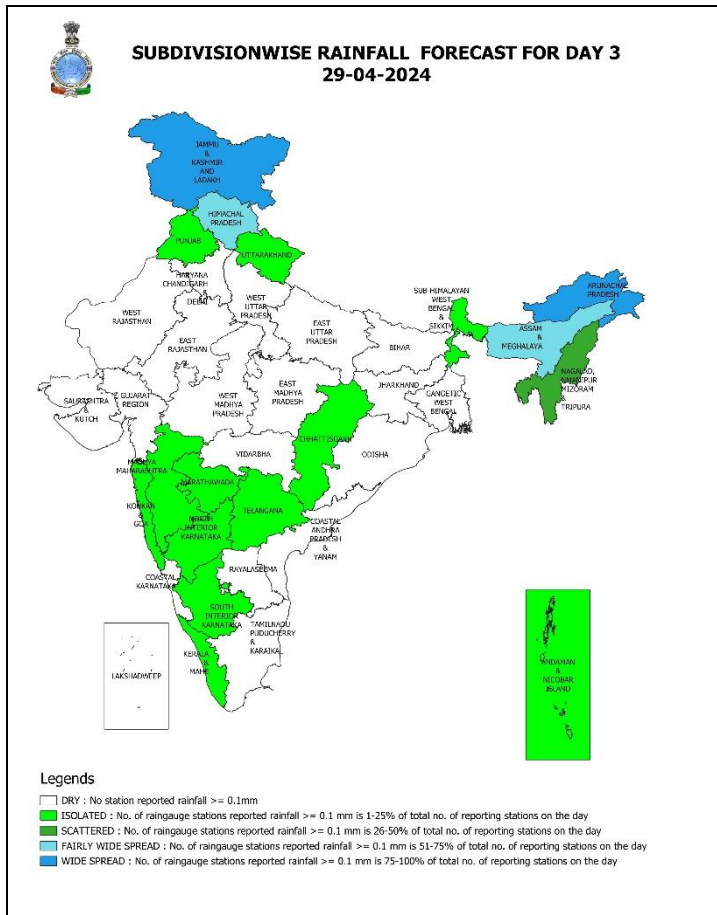


**28 April (Day 2):**

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** very likely at isolated places over Punjab, Haryana & Chandigarh; **with lightning, gusty winds (speed reaching 30-40 kmph) & hailstorm** at isolated places over Uttarakhand; **with lightning & hailstorm** at isolated places over Himachal Pradesh; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over East Madhya Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Arunachal Pradesh and Konkan & Goa .
- ❖ **Heavy rainfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Hot and humid weather** very likely to prevail over Assam & Meghalaya, Tripura, Konkan & Goa, Coastal Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave to severe heat wave conditions** very likely to prevail in many parts of Gangetic West Bengal; in some parts of Odisha; in isolated pockets over Sub-Himalayan West Bengal; **heat wave conditions** in isolated pockets over Uttar Pradesh, Bihar, Jharkhand, Konkan & Goa, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

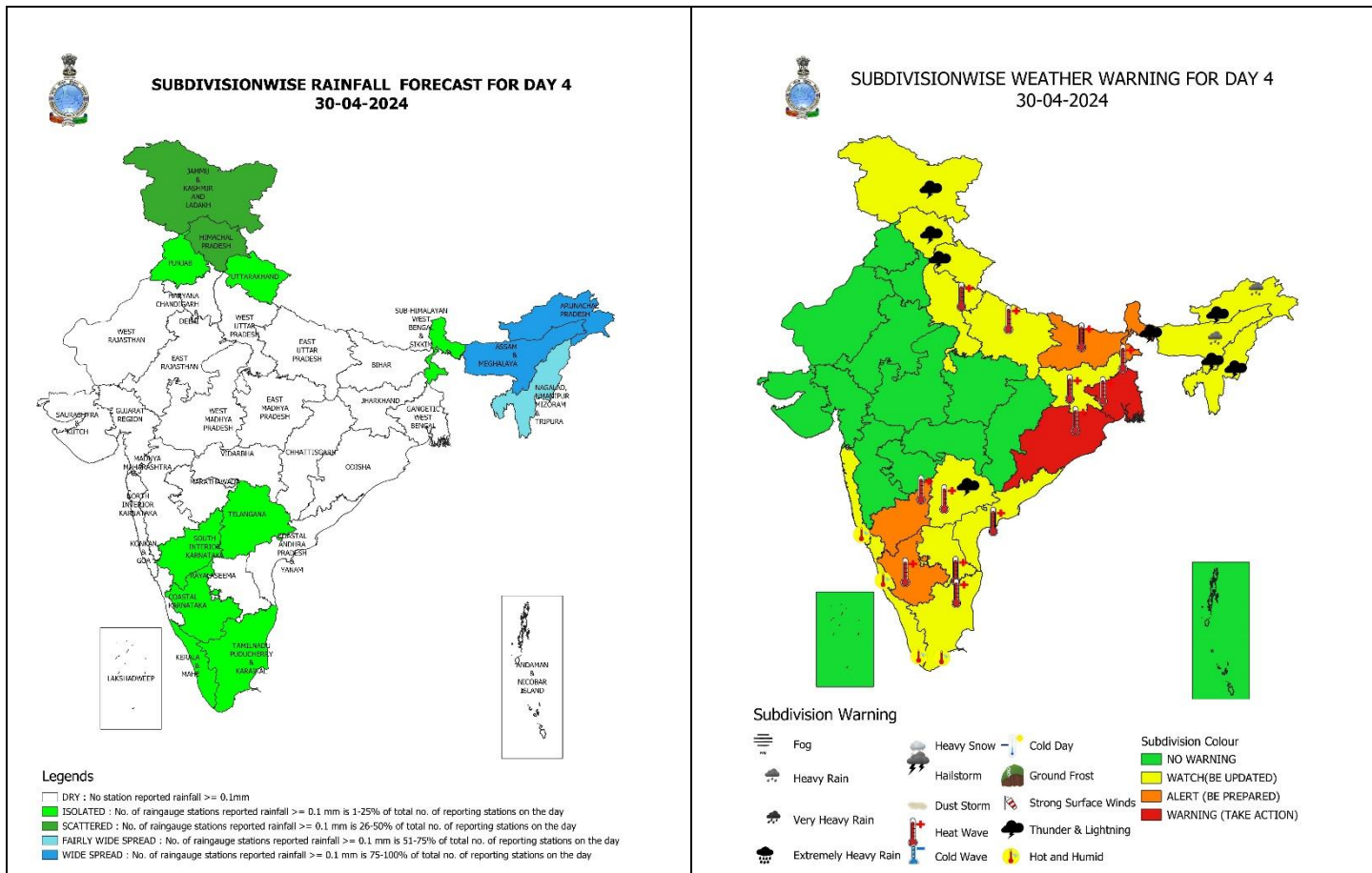
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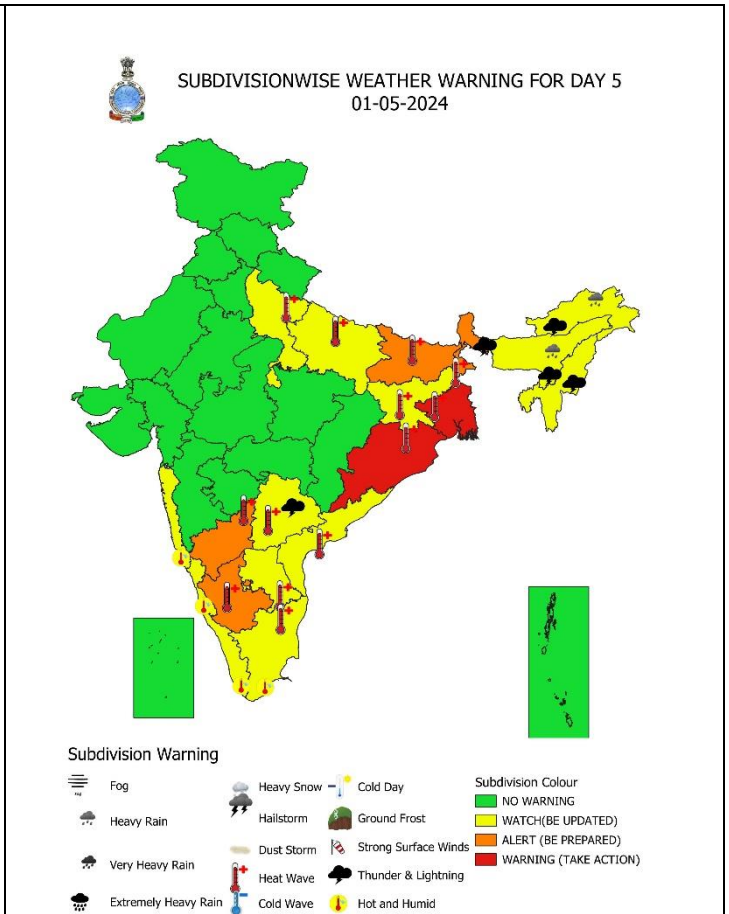
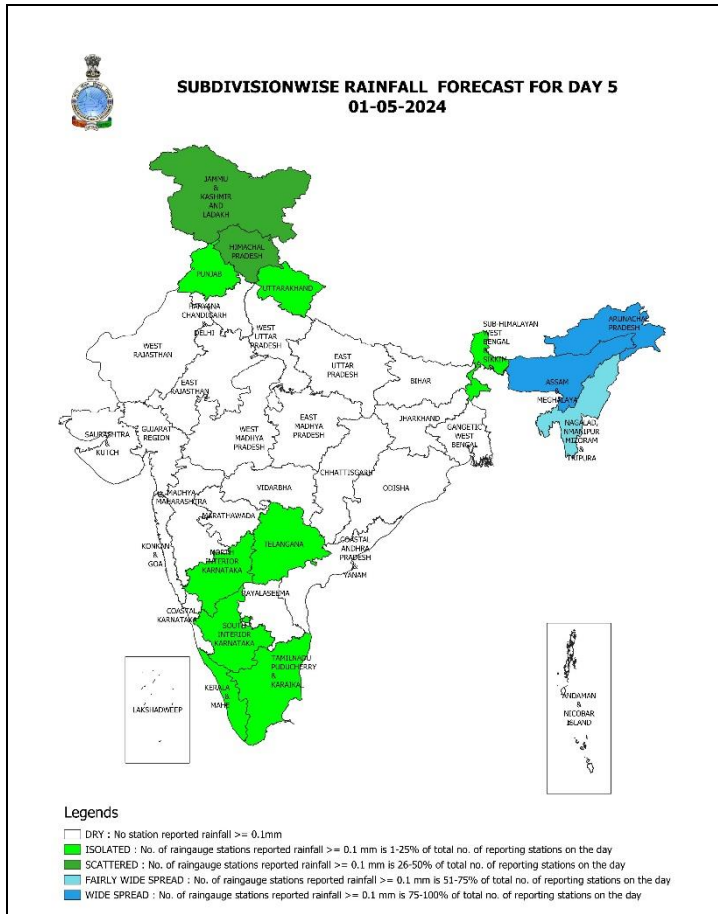
**29 April (Day 3):**

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph) & hailstorm** likely at isolated places over Uttarakhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Chhattisgarh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Arunachal Pradesh and Konkan & Goa.
- ❖ **Heavy rainfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh.
- ❖ **Hot and humid weather** likely to prevail over Konkan & Goa, Coastal Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in many parts of Gangetic West Bengal; in some parts of Odisha; in isolated pockets over Sub-Himalayan West Bengal; **heat wave conditions** in isolated pockets over Uttar Pradesh, Bihar, Jharkhand, Konkan & Goa, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.



**30 April (Day 4):**

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Uttarakhand and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hot and humid weather** likely to prevail over Konkan & Goa, Coastal Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in many parts of Gangetic West Bengal; in some parts of Odisha; in isolated pockets over Sub-Himalayan West Bengal; **heat wave conditions** in isolated pockets over Uttar Pradesh, Bihar, Jharkhand, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.

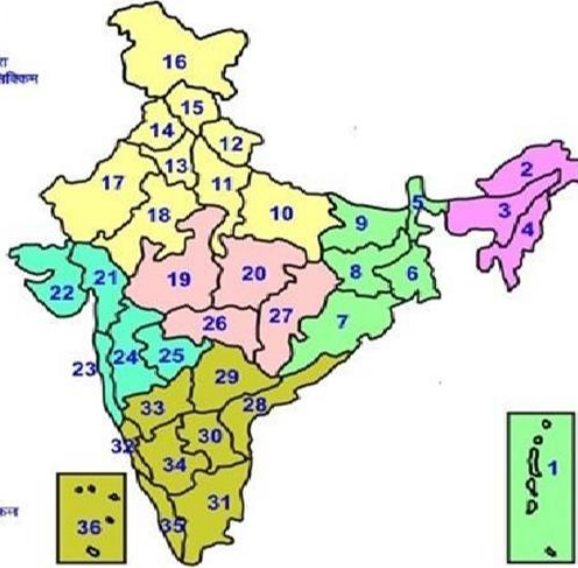


**01 May (Day 5):**

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Telangana; **with lightning** at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hot and humid weather** likely to prevail over Konkan & Goa, Coastal Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in many parts of Gangetic West Bengal; in some parts of Odisha; in isolated pockets over Sub-Himalayan West Bengal; **heat wave conditions** in isolated pockets over Uttar Pradesh, Bihar, Jharkhand, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.

## LEGENDS

- 1 अंडमन और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड, मणिपुर, मिजोरम 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 लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात
- 22 सौराष्ट्र
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 तमिलनाडु, पुदुचेरी एवं कराईकल
- 31 उत्तर कर्नाटक
- 32 दक्षिण कर्नाटक
- 33 उत्तर कर्नाटक
- 34 दक्षिण 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. 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. Marathwada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnada, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

## SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

## WARNING

WARNING (TAKE ACTION)
ALERT ( BE PREPARED)
WATCH (BE UPDATED)
NO WARNING ( NO ACTION)

## Probabilistic Forecast

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

## LEGENDS

### WARNING

WARNING (TAKE ACTION)
ALERT ( BE PREPARED)
WATCH (BE UPDATED)
NO WARNING ( NO ACTION)

### Probabilistic Forecast

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



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)

\* 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)