

Wednesday, July 31, 2024
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems

- ✓ The **Monsoon trough** is active and south of its normal position at mean sea level. It is likely to shift gradually northwards during next 4-5 days.
- ✓ A **cyclonic circulation** over Jharkhand & neighbourhood in lower & middle tropospheric levels tilting southwards with height.
- ✓ The **off-shore trough** at mean sea level now runs along South Gujarat to Kerala coast.
- ✓ A **cyclonic circulation** lies over northeast Arabian Sea and adjoining Saurashtra in lower & middle tropospheric levels tilting southwards with height.

Forecast & Warnings:

❖ West & Central India

- ✓ Fairly widespread to widespread light to moderate rainfall **accompanied with thunderstorm & lightning** very likely over the region during next 5 days.
- ✓ **Isolated extremely heavy rainfall very likely over Madhya Maharashtra during 01st-03rd August.**
- ✓ **Very heavy rainfall very likely at isolated places over Konkan & Goa during 31st July - 04th August; Madhya Maharashtra on 31st July; West Madhya Pradesh, Chhattisgarh during 01st - 04th August; East Madhya Pradesh during 31st July - 04th August; Vidarbha on 02nd August.**
- ✓ **Heavy rainfall** very likely at isolated places over Madhya Pradesh, Gujarat Region, Chhattisgarh during 31st July - 04th August; Saurashtra & Kutch during 31st July; Marathwada on 03rd & 04th August; Vidarbha during 31st July - 04th August.

❖ Northwest India

- ✓ Fairly widespread to widespread light to moderate rainfall **accompanied with thunderstorm & lightning** very likely over Himachal Pradesh, Uttarakhand; scattered to fairly widespread rainfall over Jammu-Kashmir, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh and Rajasthan during next 5 days.
- ✓ **Isolated very heavy rainfall also likely over Uttarakhand on 31st July & 01st August; Punjab, Haryana-Chandigarh, West Uttar Pradesh on 31st July & 01st August; over Jammu-Kashmir, Himachal Pradesh on 01st August.**
- ✓ Isolated **heavy rainfall** very likely over Himachal Pradesh, Uttarakhand, East Rajasthan during 31st July - 04th August; Jammu-Kashmir, Punjab, Haryana-Chandigarh, West Uttar Pradesh during 31st July - 02nd August; East Uttar Pradesh on 31st July & 01st August.

❖ South Peninsular India:

- ✓ Fairly widespread to widespread light to moderate rainfall over Coastal Karnataka, Lakshadweep and Kerala & Mahe and Scattered to fairly widespread light to moderate rainfall accompanied with thunderstorm & lightning very likely over Interior Karnataka and isolated to scattered rainfall over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema during next 5 days.
- ✓ **Isolated extremely heavy rainfall very likely over Coastal & South Interior Karnataka on 31st July.**
- ✓ **Very heavy rainfall very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe on 31st July & 01st August; Coastal & South Interior Karnataka on 01st August.**
- ✓ **Heavy rainfall** very likely at isolated places over Kerala & Mahe, Coastal & South Interior Karnataka during 31st July - 04th August, Tamil Nadu, Puducherry & Karaikal, North Interior Karnataka during 31st July & 02nd August.

❖ East & Northeast India

- ✓ Fairly widespread to widespread light to moderate rainfall **accompanied with thunderstorm, lightning** very likely over East India and Scattered to fairly widespread light to moderate rainfall accompanied with thunderstorm & lightning very likely over Northeast India during next 5 days.
- ✓ **Very heavy rainfall very likely at isolated places over Nagaland, Manipur, Mizoram & Tripura Odisha during 31st July-01st August.**
- ✓ Isolated **heavy rainfall** very likely over Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during 31st July - 02nd August; Gangetic West Bengal during 31st July - 02nd August, Arunachal Pradesh on 02nd & 03rd August; Sub-Himalayan West Bengal & Sikkim during 31st July - 04th August

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Konkan & Goa, Kerala & Mahe 7 Odisha; **at a few places** over Saurashtra & Kutch, Assam & Meghalaya and South Interior Karnataka; **at isolated places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Haryana-Chandigarh, Uttarakhand, Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Chhattisgarh, Gujarat Region, West Madhya Pradesh, Vidarbha, Madhya Maharashtra, West Bengal & Sikkim and Marathwada, Nagaland, Manipur, Mizoram & Tripura, Telangana, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, North Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **Heavy rainfall** at isolated places over Gujarat state, Coastal Karnataka and Kerala & Mahe.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Kerala & Mahe:** Ayyankunnu (Kannur Dist) 10, Athirappilly (Thrissur Dist), Kudlu_Afmu (Kasaragod Dist), Kottayam & Thennala (Malappuram Dist) 5 each, Peringome (Kannur Dist), Idamalayar Dam (Ernakulam Dist), Padinjarathara_Dam (Wayanad Dist), Karipur AP & Peechi (Thrissur Dist) 4 each , Vellanikkara , Kozhikode & CIAL Kochi, Choondi (Ernakulamdist), Panniyoor (Kannur Dist), Mangalam_Dam (Palakkad Dist) , Vilangankunnu (Thrissur Dist), Aralam (Kannur Dist), Padannakkad (Kasargod Dist), Neryamangalam (Ernakulam Dist) , Vadakara (Kozhikode Dist) & Neeleswaram (Ernakulam Dist) 3 each; **Gujrat State:** Kutch 11, Naliya 10, Banas Kantha 7, Surat 5, Patan 4, Dwarka, Valsad and Vadodara 3 each; **Coastal Karnataka:** Agumbe (Shivamogga) 11, Mangalore (Bajpe) & Panambur 7 each; **Madhya Maharashtra:** Lavasa 5, Christ_University_Lavsasa (Dist Pune) 5, Mahabaleshwar 3; **Konkan & Goa:** Matheran (Dist Raigad) 5; **West Madhya Pradesh:** Gwalior 3; **Gangetic West Bengal:** Diamond Harbour 4; **Assam & Meghalaya:** Shillong & East Khasi Hills 3 each; **Himachal Pradesh:** Una 6; **Haryana-Chandigarh:** Chandigarh 3; **Jharkhand:** Ramgarh 4; **Chhattisgarh:** Kanker 3.
- ❖ **Minimum Temperature Departures (as on 30-07-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at many places over Punjab, Haryana-Chandigarh-Delhi; at a few places over West Uttar Pradesh, West Rajasthan, Bihar; at isolated places over East Uttar Pradesh, East Rajasthan, Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at most places over Himachal Pradesh, Uttarakhand; at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Assam & Meghalaya; at a few places over Madhya Pradesh, Madhya Maharashtra, Konkan & Goa; at isolated places over Jharkhand, Odisha, Marathwada, Gangetic West Bengal, North Interior Karnataka, Tamil Nadu, Puducherry & Karaikal. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Telangana and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 20.4°C** was reported at **Narsinghpur (East Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 30-07-2024):** Maximum temperatures were **markedly above normal (5.1°C & above)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana-Chandigarh-Delhi, Uttar Pradesh & Bihar; **appreciably above normal (3.1°C to 5.0°C)** at a many places over Punjab; at a few places over West Rajasthan; at isolated places over East Rajasthan; **above normal (1.6°C to 3.0°C)** at many places over Sub-Himalayan West Bengal & Sikkim; at a few places over Madhya Pradesh, Jharkhand & Vidarbha; at isolated places over Gangetic West Bengal, Chhattisgarh, Arunachal Pradesh, Assam & Meghalaya, Telangana, Coastal Andhra Pradesh & Yanam, Odisha, Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Konkan & Goa and Coastal Karnataka. These were **below normal (-1.6°C to -3.0°C)** at most places over Kerala & Mahe; at isolated places over Saurashtra & Kutch and Kerala & Mahe and **near normal** over rest parts of the country. Yesterday, **the highest Maximum Temperature of 41.4°C** was reported at **Sri Ganganagar (West Rajasthan)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **Monsoon trough** at mean sea level now passes through Jaisalmer, Jaipur, Gwalior, Satna, Jamshedpur, Sagar Island and thence east-southeastwards to northeast Bay of Bengal and extends upto 1.5 km above mean sea level.
- ❖ The **cyclonic circulation** over Himachal Pradesh & neighbourhood at 3.1 km above mean sea level persists.
- ❖ The **cyclonic circulation** over Jharkhand & neighbourhood between 3.1 & 7.6 km above mean sea level tilting southwards with height persists.
- ❖ The **cyclonic circulation** over northeast Assam & neighbourhood between 1.5 & 3.1 km above mean sea level persists.
- ❖ The **cyclonic circulation** over Bangladesh & neighbourhood at 3.1 km above mean sea level persists.
- ❖ The **cyclonic circulation** over northeast Arabian Sea and adjoining Saurashtra between 1.5 & 7.6 km above mean sea level tilting southwards with height persists.
- ❖ The **off-shore trough** at mean sea level along South Gujarat to Kerala coast persists.

Weather Forecast for next 7 days (Upto 0830 hours IST of 07th August, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Thunderstorm/lightning likely at isolated places over Central & East India region for next 4-5 days.
- ❖ No significant change in maximum temperatures very likely over most parts of the country.

Weather Outlook for subsequent 3 days (During 07th August - 09th August, 2024)

- ❖ Fairly widespread to widespread rainfall likely over most parts of the country except Tamil Nadu, Puducherry & Karaikal and Rayalaseema where isolated to scattered rainfall likely.

Table-1

7 Days Rainfall Forecast

S. No.	Subdivision	31-Jul	01-Aug	02-Aug	03-Aug	04-Aug	05-Aug	06-Aug
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	WS	FWS	FWS	FWS
2	ARUNACHAL PRADESH	SCT	SCT	FWS	FWS	SCT	SCT	SCT
3	ASSAM & MEGHALAYA	FWS	FWS	FWS	FWS	FWS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	WS	WS	FWS	FWS	FWS	WS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	FWS	WS	WS	WS	WS	WS	WS
6	GANGETIC WEST BENGAL	WS	WS	WS	WS	FWS	FWS	FWS
7	ODISHA	WS	WS	WS	FWS	FWS	FWS	FWS
8	JHARKHAND	WS	WS	WS	FWS	FWS	SCT	SCT
9	BIHAR	SCT	SCT	SCT	SCT	SCT	ISOL	ISOL
10	EAST UTTAR PRADESH	FWS	FWS	SCT	SCT	ISOL	ISOL	ISOL
11	WEST UTTAR PRADESH	WS	FWS	FWS	SCT	ISOL	ISOL	ISOL
12	UTTARAKHAND	WS	WS	WS	WS	FWS	FWS	FWS
13	HARYANA CHANDIGARH & DELHI	WS	FWS	SCT	SCT	ISOL	ISOL	ISOL
14	PUNJAB	WS	WS	SCT	SCT	SCT	ISOL	ISOL
15	HIMACHAL PRADESH	WS	WS	WS	WS	FWS	FWS	FWS
16	JAMMU & KASHMIR AND LADAKH	WS	WS	SCT	SCT	SCT	SCT	SCT
17	WEST RAJASTHAN	SCT	ISOL	ISOL	SCT	FWS	FWS	FWS
18	EAST RAJASTHAN	FWS	SCT	FWS	FWS	WS	FWS	FWS
19	WEST MADHYA PRADESH	WS	WS	WS	WS	WS	WS	WS
20	EAST MADHYA PRADESH	WS	WS	WS	WS	WS	WS	WS
21	GUJARAT REGION	WS	FWS	WS	WS	WS	WS	WS
22	SAURASHTRA & KUTCH	FWS	FWS	FWS	WS	WS	WS	WS
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	SCT	SCT	FWS	WS	FWS	FWS	FWS
25	MARATHAWADA	ISOL	SCT	FWS	WS	FWS	SCT	SCT
26	VIDARBHA	FWS	WS	WS	WS	WS	WS	WS
27	CHHATTISGARH	WS	WS	WS	FWS	FWS	FWS	FWS
28	COASTAL ANDHRA PRADESH & YANAM	SCT	ISOL	ISOL	ISOL	SCT	SCT	SCT
29	TELANGANA	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	SCT	SCT	SCT	ISOL	SCT	SCT	SCT
32	COASTAL KARNATAKA	WS	WS	WS	WS	WS	WS	WS
33	NORTH INTERIOR KARNATAKA	SCT	FWS	WS	WS	FWS	FWS	FWS
34	SOUTH INTERIOR KARNATAKA	FWS	WS	WS	FWS	FWS	FWS	FWS
35	KERALA & MAHE	WS	WS	WS	FWS	FWS	FWS	FWS
36	LAKSHADWEEP	WS	WS	FWS	FWS	FWS	FWS	FWS

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.
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Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

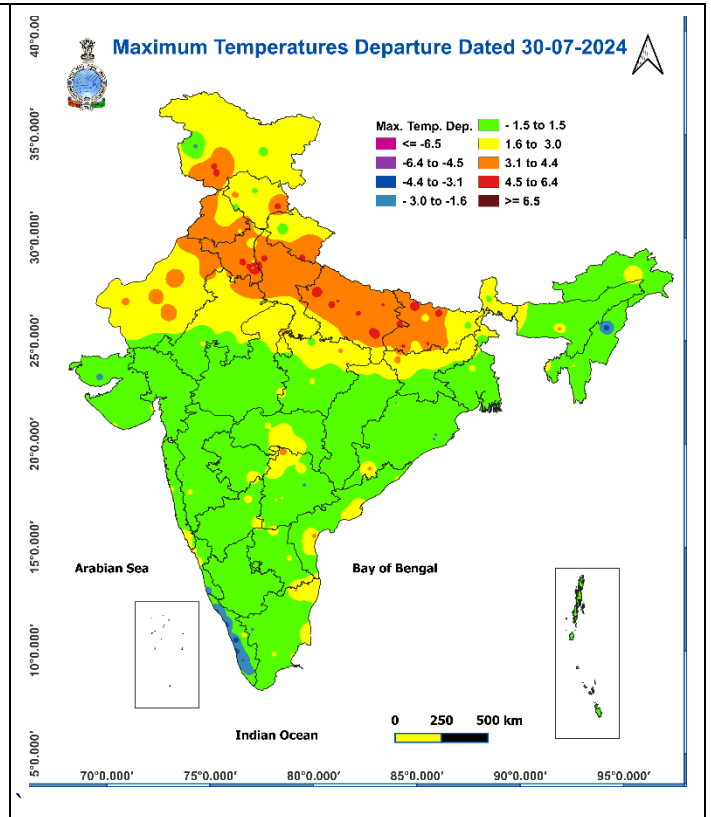
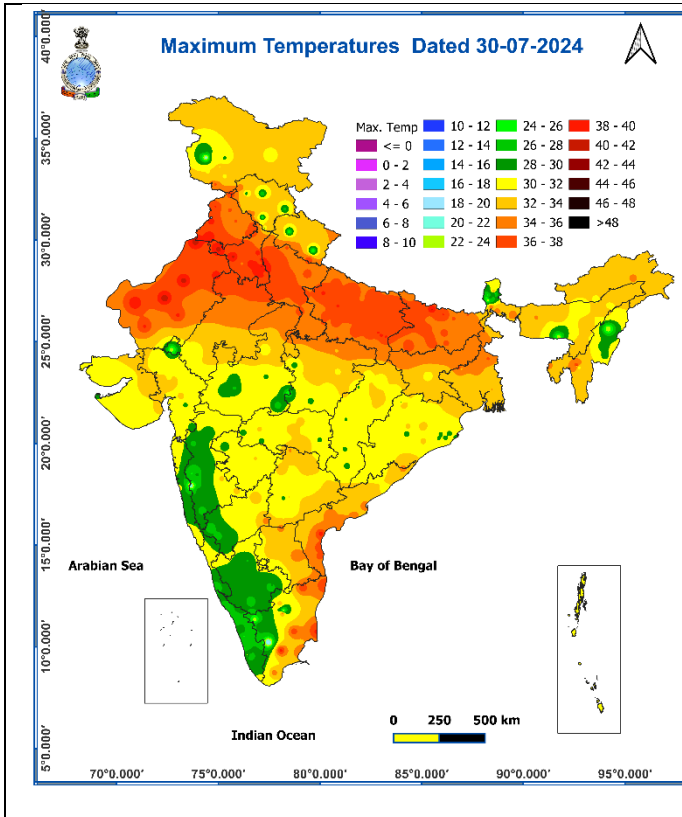
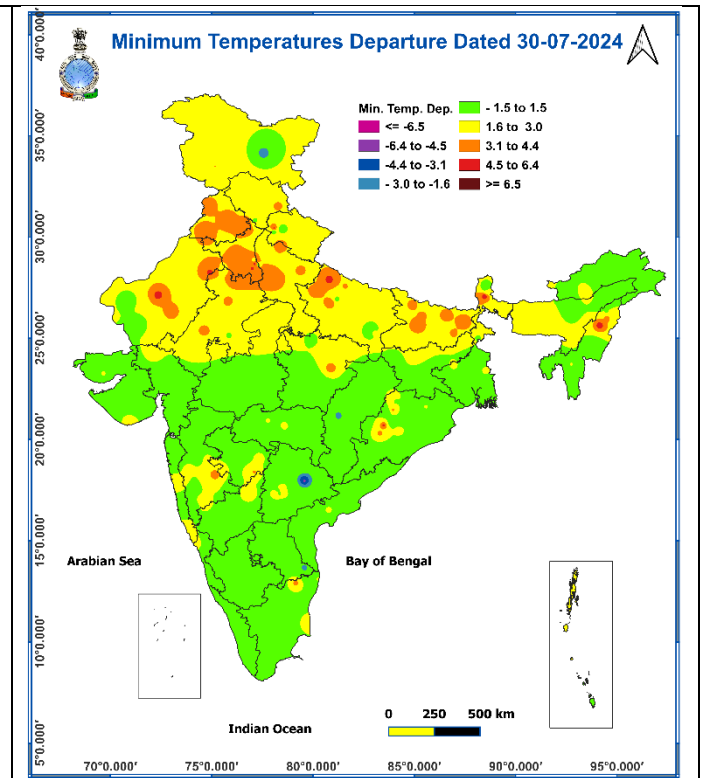
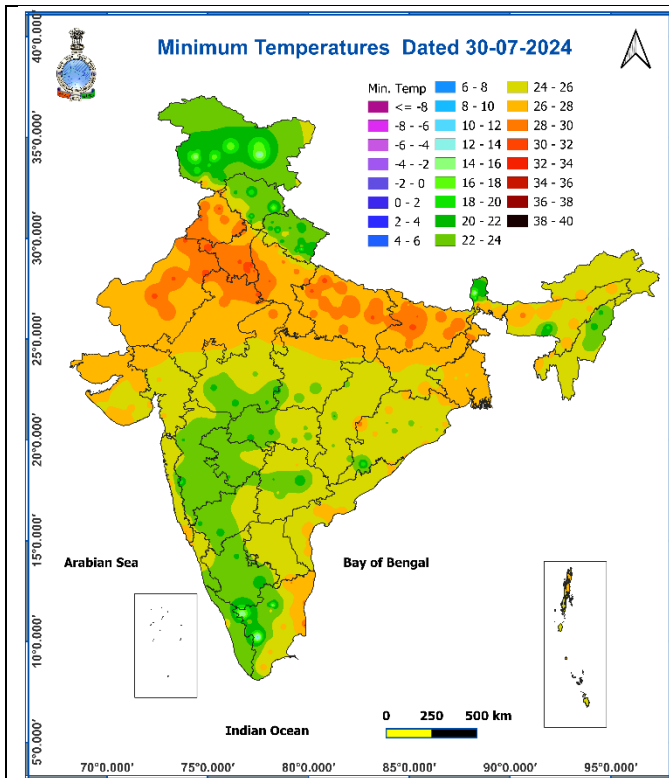


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

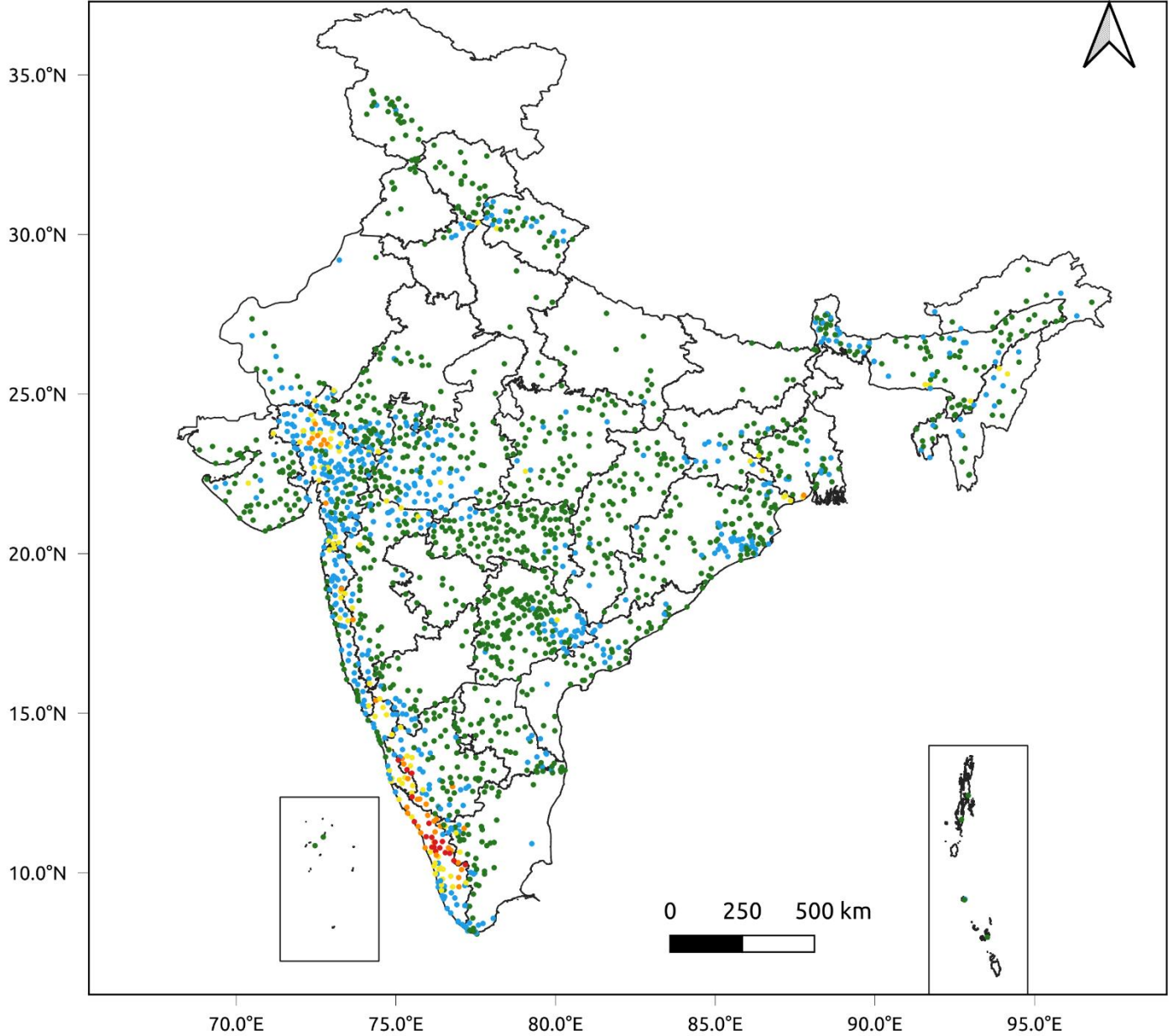


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Fig. 5: Accumulated Rainfall (mm) during past 24 hours

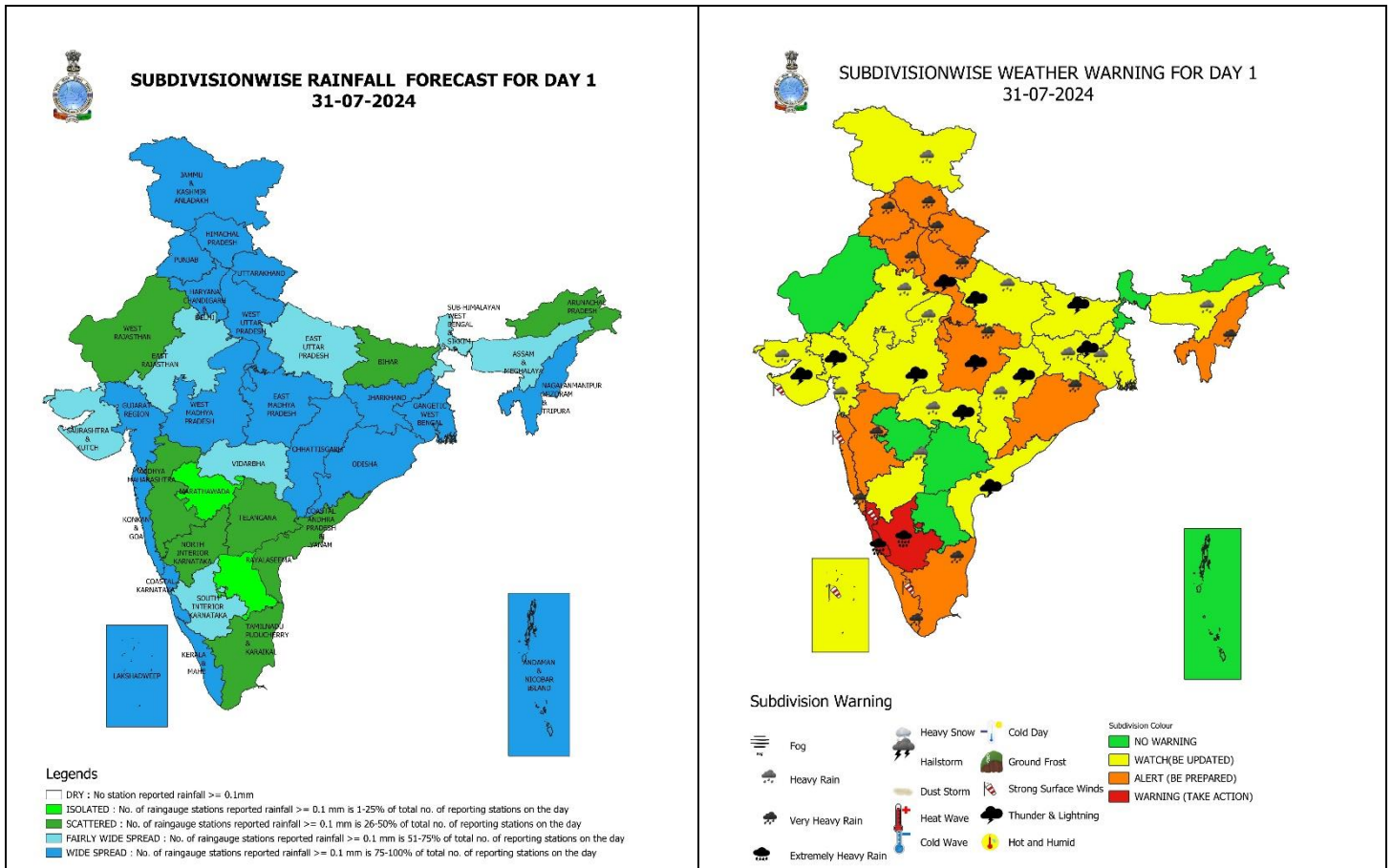


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 29-7-2024 to 0830 IST of 30-7-2024



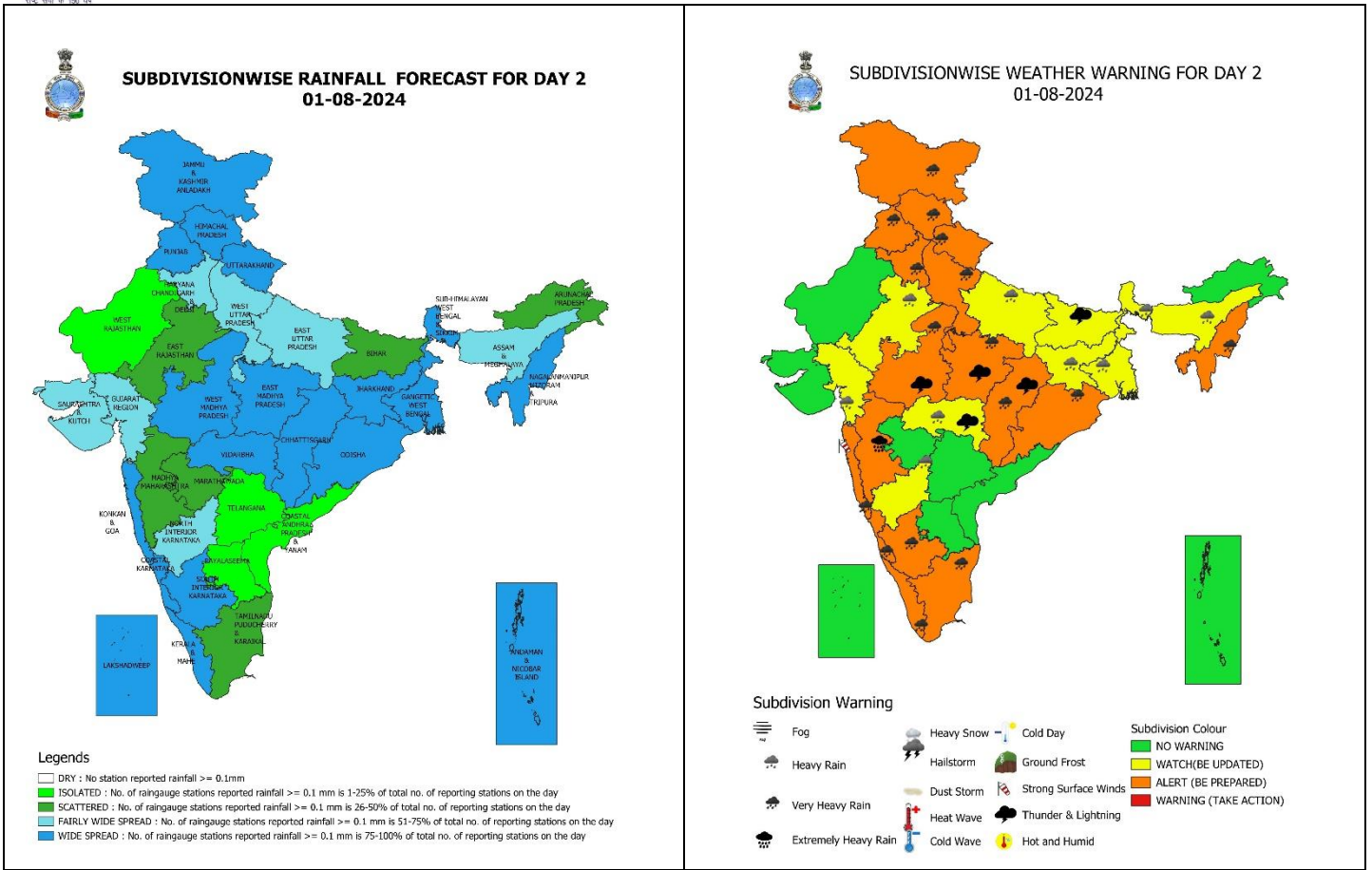
Legends

- 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 (≥ 204.5 mm)



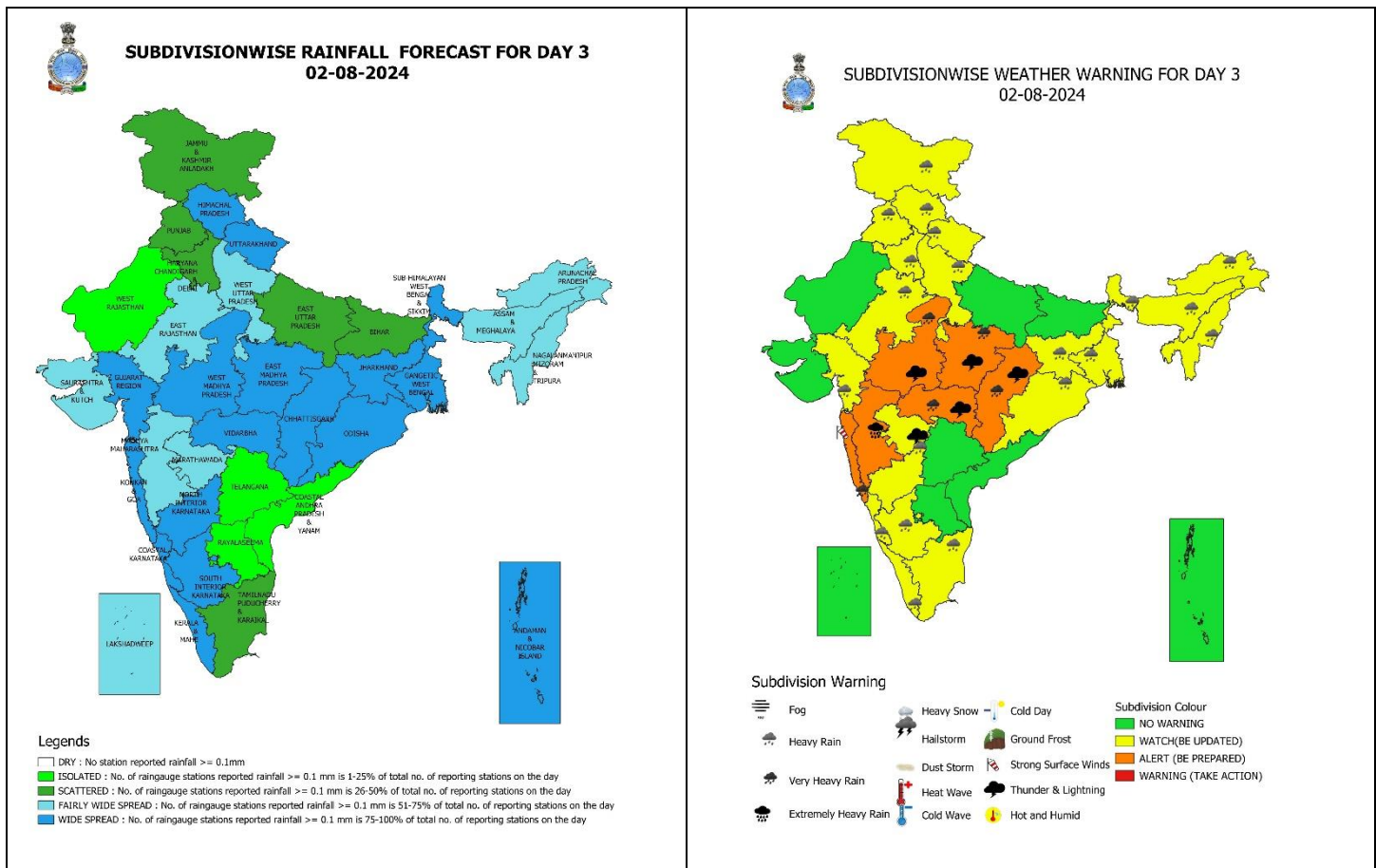
31 July (Day 1):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls (≥ 20 cm)** very likely at isolated places over Coastal & South Interior Karnataka; **Heavy to very heavy rainfall (≥ 12 cm)** at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh, West Uttar Pradesh, East Madhya Pradesh, Odisha, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; **Heavy rainfall (≥ 7 cm)** at isolated places over Jammu-Kashmir, East Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand, Assam & Meghalaya, Gujarat state and North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand and Gujarat state.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over northeast and adjoining northwest Arabian sea, most parts of eastcentral Arabian sea, many parts of west central Arabian sea, northern parts of southeast adjoining southwest Arabian sea, along and off Gujarat, Maharashtra, Konkan, Goa, Karnataka, north Kerla coasts, over Lakshadweep, gulf of Mannar, off Sri Lanka coast, over many parts of south & central Bay of Bengal, southern parts of north Bay of Bengal. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over few parts over westcentral Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central Arabian sea & adjoining areas of southwest Arabian sea, southern parts of north Arabian sea, along & off Somalia & Oman coasts. Fishermen are advised not to venture into these areas.



01 August (Day 2):

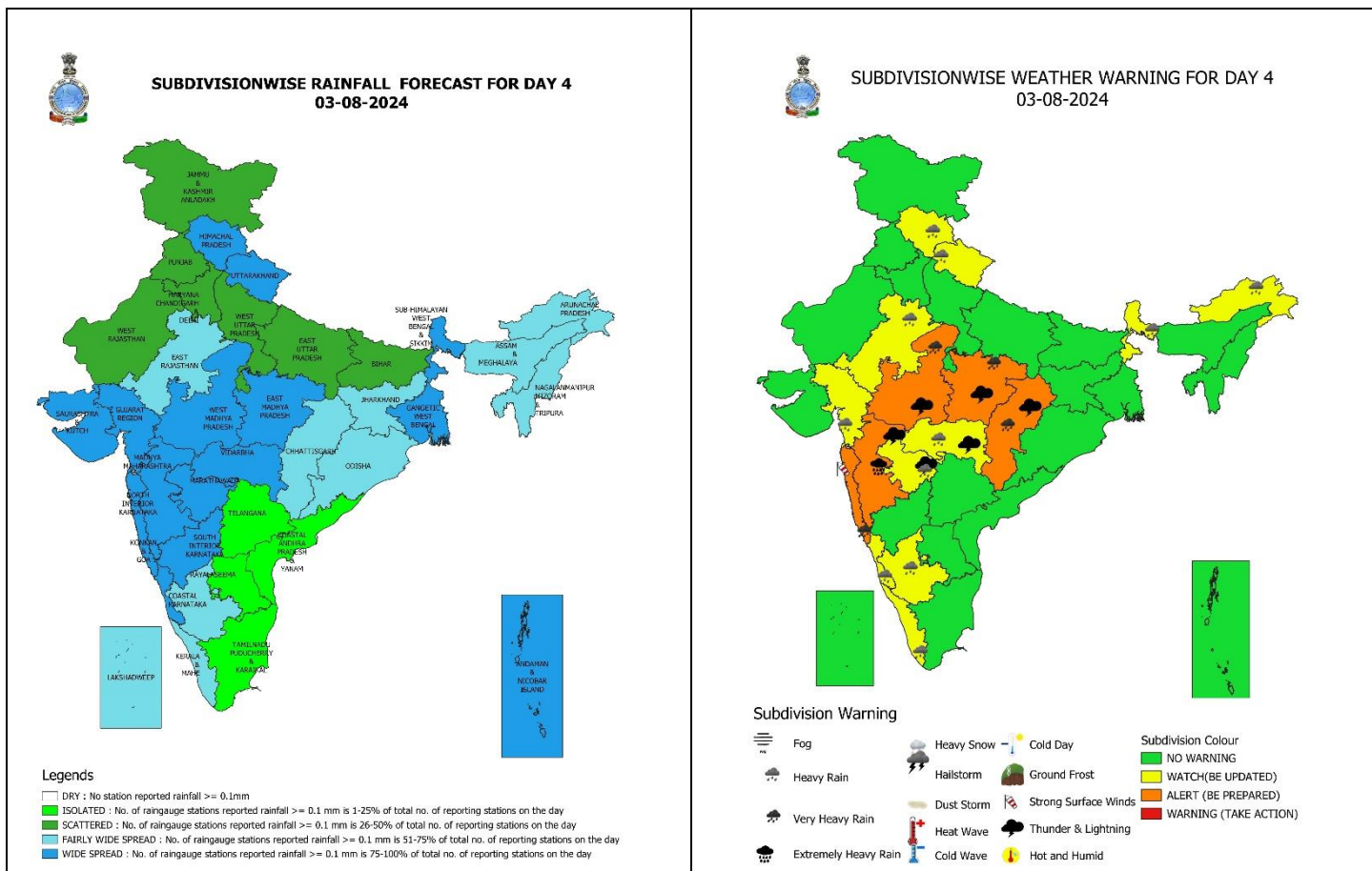
- ❖ **Heavy to very heavy rainfall (≥ 12 cm)** at isolated places over Jammu-Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh, West Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Odisha, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Karnataka, South Interior Karnataka; **Heavy rainfall (≥ 7 cm)** at isolated places over East Uttar Pradesh, East Rajasthan, Vidarbha, West Bengal & Sikkim, Jharkhand, Assam & Meghalaya, Gujarat Region and North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Madhya Pradesh, Chhattisgarh, Vidarbha and Bihar.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over northeast and adjoining eastcentral Arabian sea, along and off south Gujarat, north Maharashtra, gulf of Mannar, off Sri Lanka coast, over many parts of south Bay of Bengal & central, southern parts of north Bay of Bengal. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over few parts over westcentral Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central Arabian sea & adjoining areas of southwest Arabian sea, southern parts of north Arabian sea, along & off Somalia & Oman coasts. Fishermen are advised not to venture into these areas.



02 August (Day 3):

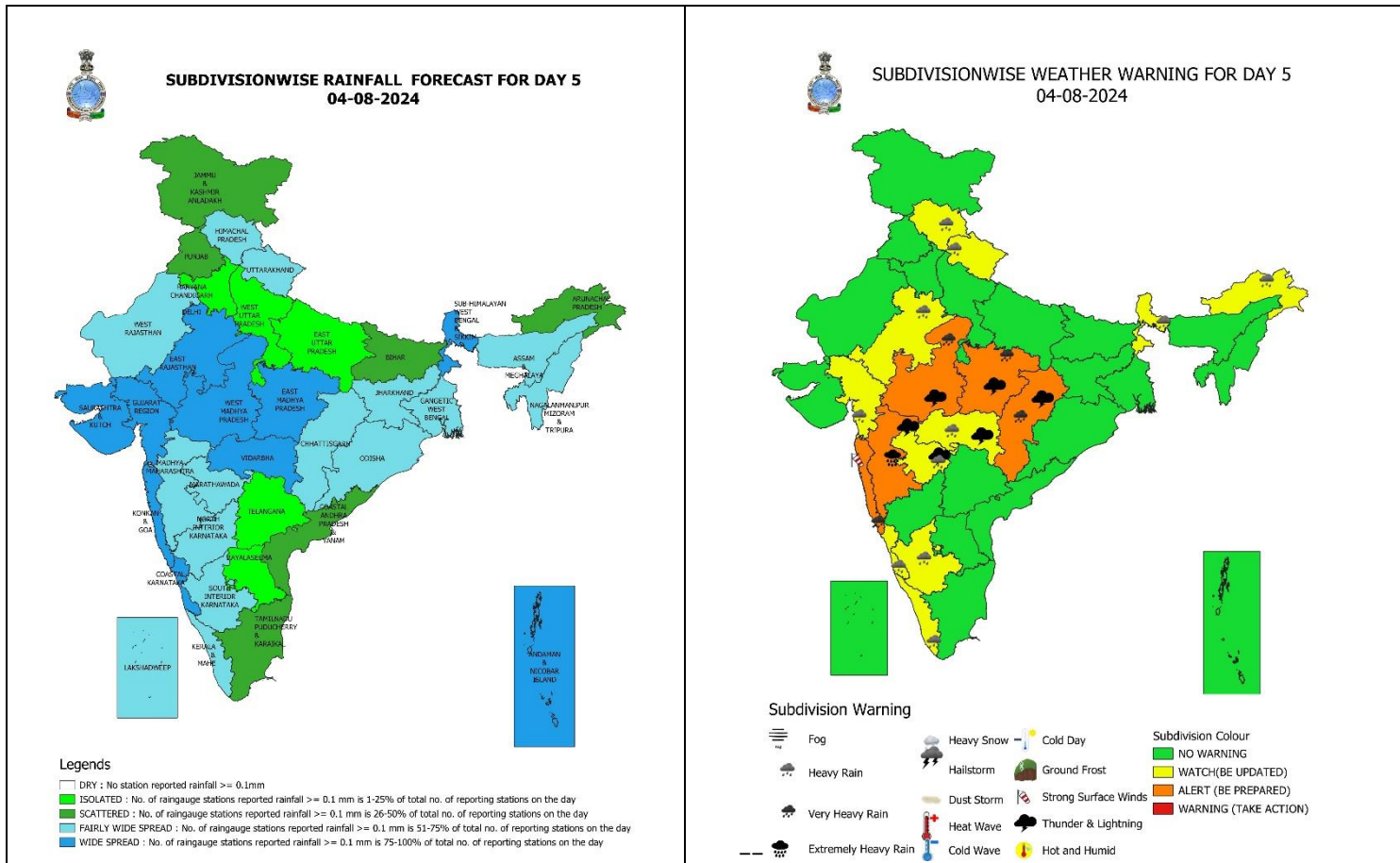
- ❖ **Heavy to very heavy rainfall with extremely heavy falls (≥ 20 cm)** likely at isolated places over Madhya Maharashtra; **Heavy to very heavy rainfall (≥ 12 cm)** at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Konkan & Goa; **Heavy rainfall (≥ 7 cm)** at isolated places over Jammu-Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh, West Uttar Pradesh, East Rajasthan, West Bengal & Sikkim, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Karnataka.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Madhya Pradesh, Chhattisgarh, Vidarbha and Marathwada.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over northeast and adjoining northwest Arabian sea, west central Arabian sea, along and off south Gujarat, Maharashtra, gulf of Mannar, off Sri Lanka coast, over many parts of southwest Bay of Bengal & few parts of southeast Bay of Bengal, most parts of central Bay of Bengal and adjoining southern parts of north Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central Arabian sea & adjoining areas of southwest Arabian sea, southern parts of north Arabian sea, along & off Somalia & Oman coasts. Fishermen are advised not to venture into these areas.

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03 August (Day 4):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls (≥ 20 cm) likely at isolated places over Madhya Maharashtra; Heavy to very heavy rainfall (≥ 12 cm) at isolated places over Madhya Pradesh, Konkan & Goa, Chhattisgarh; Heavy rainfall (≥ 7 cm) at isolated places over Himachal Pradesh, Uttarakhand, East Rajasthan, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Marathwada, Gujarat Region, Kerala & Mahe and Coastal & South Interior Karnataka.**
- ❖ **Thunderstorm accompanied with lightning very likely at isolated places over Madhya Pradesh, Chhattisgarh, Vidarbha, Madhya Maharashtra and Marathwada.**
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph likely to prevail over northeast and adjoining northwest Arabian sea, most parts of eastcentral Arabian sea and adjoining parts of west central Arabian sea, along and off Gujarat, Maharashtra coasts. northern parts of southeast and adjoining southwest Arabian sea gulf of Mannar, off Sri Lanka coast, over many parts of south Bay of Bengal & most parts of central Bay of Bengal and adjoining southern parts of north Bay of Bengal. Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph likely to prevail over central Arabian sea & adjoining areas of southwest Arabian sea, southern parts of north Arabian sea, along & off Somalia & Oman coasts. Fishermen are advised not to venture into these areas.**

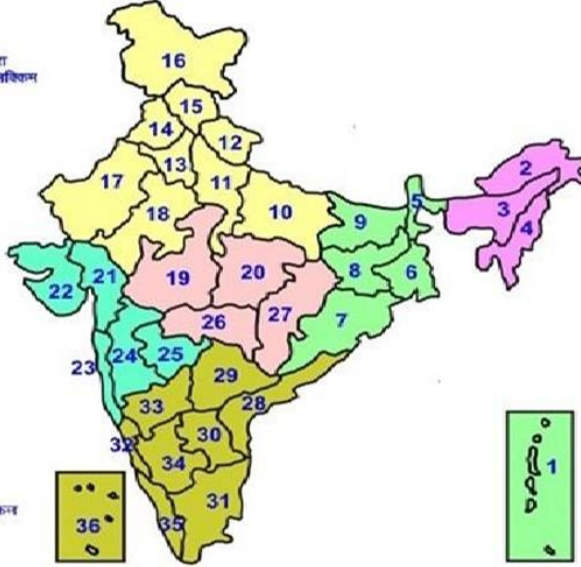


04 August (Day 5):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls (≥ 20 cm)** likely at isolated places over Madhya Maharashtra; **Heavy to very heavy rainfall (≥ 12 cm)** at isolated places over Madhya Pradesh, Konkan & Goa, Chhattisgarh; **Heavy rainfall (≥ 7 cm)** at isolated places over Himachal Pradesh, Uttarakhand, East Rajasthan, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Marathwada, Gujarat Region, Kerala & Mahe and Coastal & South Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Madhya Pradesh, Chhattisgarh, Vidarbha, Madhya Maharashtra and Marathwada.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over northeast and adjoining northwest Arabian sea, most parts of eastcentral Arabian sea and adjoining parts of west central Arabian sea, along and off Gujarat, Maharashtra coasts. northern parts of southeast and adjoining southwest Arabian sea gulf of Mannar, off Sri Lanka coast, over many parts of south Bay of Bengal & most parts of central Bay of Bengal and adjoining southern parts of north Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central Arabian sea & adjoining areas of southwest Arabian sea, southern parts of north Arabian sea, along & off Somalia & Oman coasts. Fishermen are advised not to venture into these areas.

LEGENDS

- 1 अंडमान 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 कच्छ
- 24 मध्य प्रदेश
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 उत्पी आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 रायलसेमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 उत्तर कर्नाटक
- 33 उत्तर कर्नाटक
- 34 दक्षिण कर्नाटक
- 35 कर्नाटक
- 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. 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

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°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 $\geq 37^\circ\text{C}$



Warm Night

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



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°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 $\leq 15^\circ\text{C}$



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°C to -6.4°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)