

Thursday, July 11, 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 it is near to its normal position in lower tropospheric levels.
- ✓ A shear zone runs over north peninsular India in middle tropospheric levels tilting southwards with height.
- ✓ The off-shore trough at mean sea level runs along north Maharashtra- north Kerala coasts.
- ✓ A cyclonic circulation over Kutch in lower tropospheric levels tilting southwestwards with height.
- ✓ A cyclonic circulation over northeast Assam & neighbourhood and an east-west trough runs from northeast Uttar Pradesh to the above cyclonic circulation over northeast Assam in lower tropospheric levels.

Forecast & Warnings

❖ West and South Peninsular India

- ✓ Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm & lightning very likely over Konkan & Goa, Madhya Maharashtra, Marathwada, Kerala & Mahe, Lakshadweep, Karnataka; scattered to fairly widespread light to moderate rainfall over Gujarat Region, Coastal Andhra Pradesh & Yanam, Telangana; isolated to scattered light to moderate rainfall over Tamil Nadu, Puducherry & Karaikal and Rayalaseema during next 5 days.
- ✓ **Isolated heavy to very heavy rainfall very likely over Konkan & Goa, Madhya Maharashtra and Coastal Karnataka during 11th-15th**; isolated **heavy rainfall** over Gujarat Region during 11th-15th; North Interior Karnataka during 11th-15th; Saurashtra & Kutch on 11th; Kerala & Mahe and South Interior Karnataka during 12th-15th July.
- ✓ **Isolated very heavy rainfall also likely over Goa on 11th; Konkan during 12th-15th July.**

❖ East & Northeast India

- ✓ Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm, lightning very likely over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Bihar and Northeast India; scattered to fairly widespread light to moderate rainfall over Gangetic West Bengal, Jharkhand, Odisha during next 5 days.
- ✓ **Heavy to very heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Arunachal Pradesh, Assam & Meghalaya during 11th-15th; isolated **heavy rainfall** over Jharkhand on 11th & 12th; Odisha during 12th-15th; Nagaland and Manipur on 11th & 14th July.
- ✓ **Isolated extremely heavy rainfall very likely over Sub-Himalayan West Bengal & Sikkim, Meghalaya, Bihar on 11th July.**

❖ Northwest & Central India

- ✓ Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm & lightning very likely over Uttarakhand and Central India; scattered to fairly widespread light to moderate rainfall over Himachal Pradesh, Uttar Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and East Rajasthan during next 5 days; Punjab, Haryana-Chandigarh-Delhi during 11th-13th July.
- ✓ Isolated **heavy rainfall** very likely over East Uttar Pradesh & Chhattisgarh during 11th-15th; Uttarakhand, West Uttar Pradesh on 11th & 12th; Himachal Pradesh during 11th-13th; Jammu on 12th & 13th; north Haryana, north Punjab on 12th; East Rajasthan, Madhya Pradesh on 11th July.
- ✓ **Isolated very heavy rainfall also likely over East Uttar Pradesh and East Madhya Pradesh on 11th July.**

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at **many places** over Assam & Meghalaya; at **a few places** over Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Lakshadweep and Andaman & Nicobar Islands ; at **isolated places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Gangetic West Bengal, Jharkhand, Odisha, Chhattisgarh, Madhya Pradesh, Arunachal Pradesh, East Rajasthan, Gujarat state, Vidarbha, Madhya Maharashtra, Karnataka, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heavy rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Chhattisgarh.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm):
Chhattisgarh: Ambikapur 7; **East Uttar Pradesh:** Varanasi (Babatpur) 6, Kanpur (IAF) 4, Ballia 2; **Coastal Karnataka:** Karwar 6; **Gujarat state:** Diu & Botad 4 each, Chjotaudepur 2; **Lakshadweep:** Agathi & Amini Divi 4 each; **Madhya Pradesh:** Damoh 3, Bhopal & Shivpuri 2 each; **Bihar:** Forbesganj 3; **Meghalaya:** Cherrapunji 3; **Gangetic West Bengal:** Asansol 3; **Arunachal Pradesh:** Pasighat 3; **Punjab:** Amritsar 2; **Delhi:** Palam 2, Safdarjung 1; **Sub-Himalayan West Bengal & Sikkim:** Bagdogra and Jalpaiguri 2 each; **Vidarbha:** Wardha 2; **Tamil Nadu:** Kodaikanal 2.
- ❖ **Minimum Temperature Departures (as on 10-07-2024):** Minimum temperatures were **above normal (1.6°C to 3.0°C)** at a few places over West Rajasthan; at isolated places over Himachal Pradesh, Bihar, Odisha, East Madhya Pradesh, East Uttar Pradesh, Gujarat state, Sub-Himalayan West Bengal & Sikkim and East Rajasthan. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Uttar Pradesh, Vidarbha and North Interior Karnataka and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of **23.2°C** was reported at **Ridge (Delhi)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 10-07-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Odisha; at isolated places over Himachal Pradesh, West Rajasthan, East Uttar Pradesh, Jharkhand, Gangetic West Bengal, Chhattisgarh, Madhya Pradesh, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at a few places over Madhya Maharashtra & Rayalaseema; at isolated places over Punjab, Uttarakhand, East Rajasthan, Gujarat state, West Uttar Pradesh, Bihar, Konkan & Goa, Vidarbha, Telangana and Coastal Andhra Pradesh & Yanam. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura and Lakshadweep and **near normal** over rest parts of the country. Yesterday, **the highest Maximum Temperature** of **42.7°C** was reported at **Bikaner (West Rajasthan)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Monsoon trough at mean sea level continue to pass through Jaisalmer, Kota, Shivpuri, Daltonganj, Purulia, Contai and thence eastwards to northeast Bay of Bengal.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ The east-west trough from northeast Uttar Pradesh to the above cyclonic circulation over northeast Assam across north Bihar and Sub-Himalayan West Bengal at 1.5 km above mean sea level persists.
- ❖ The off-shore trough at mean sea level along north Maharashtra - north Kerala coasts persists.
- ❖ The shear zone roughly along 20°N between 3.1 & 5.8 km above mean sea level tilting southwards with height persists.
- ❖ The cyclonic circulation over Kutch extending upto 1.5 km above mean sea level tilting southwestwards with height persists.
- ❖ The cyclonic circulation over northeast Rajasthan & neighbourhood extending upto 1.5 km above mean sea level persists.

Weather Forecast for next 7 days (Upto 0830 hours IST of 17th July, 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 Central and South Peninsular India during 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 17th-19th July, 2024)

- ❖ Fairly widespread to widespread rainfall likely over most parts of the country except plains of northwest India and East peninsular India where isolated to scattered rainfall likely.

Table-1

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

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

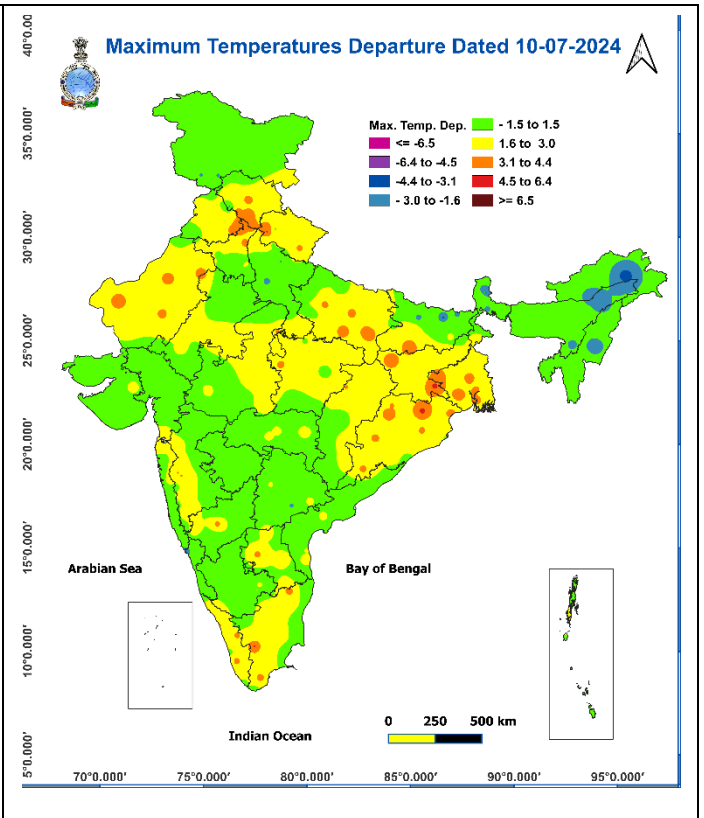
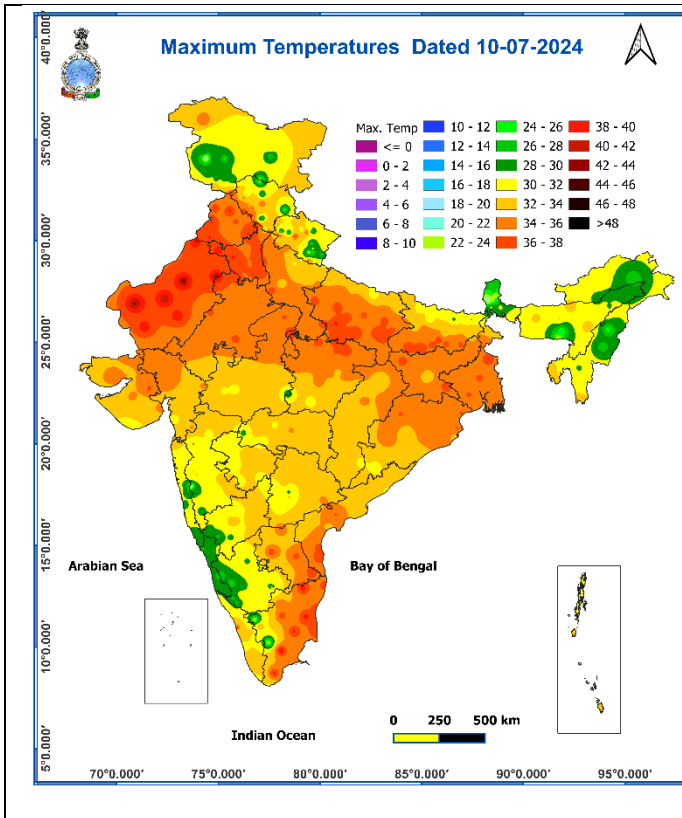


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

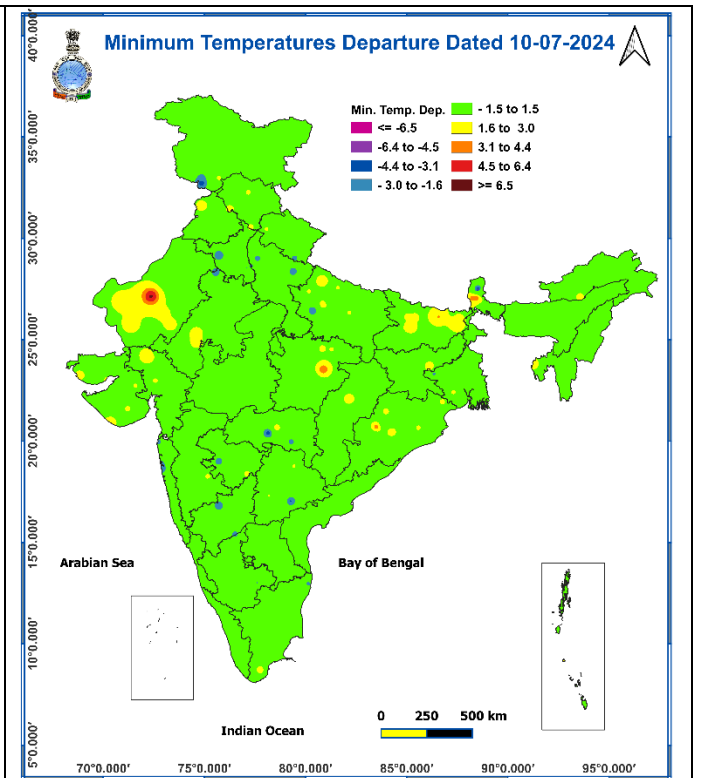
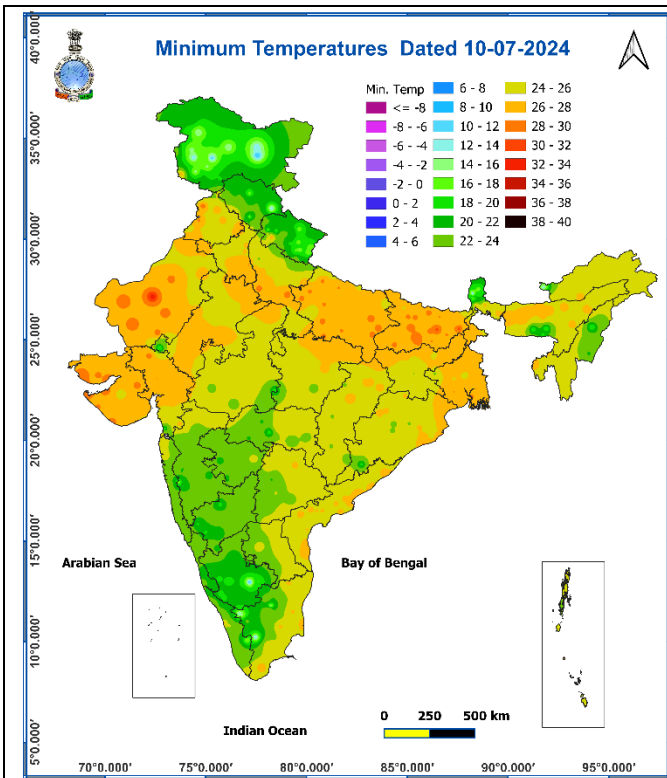
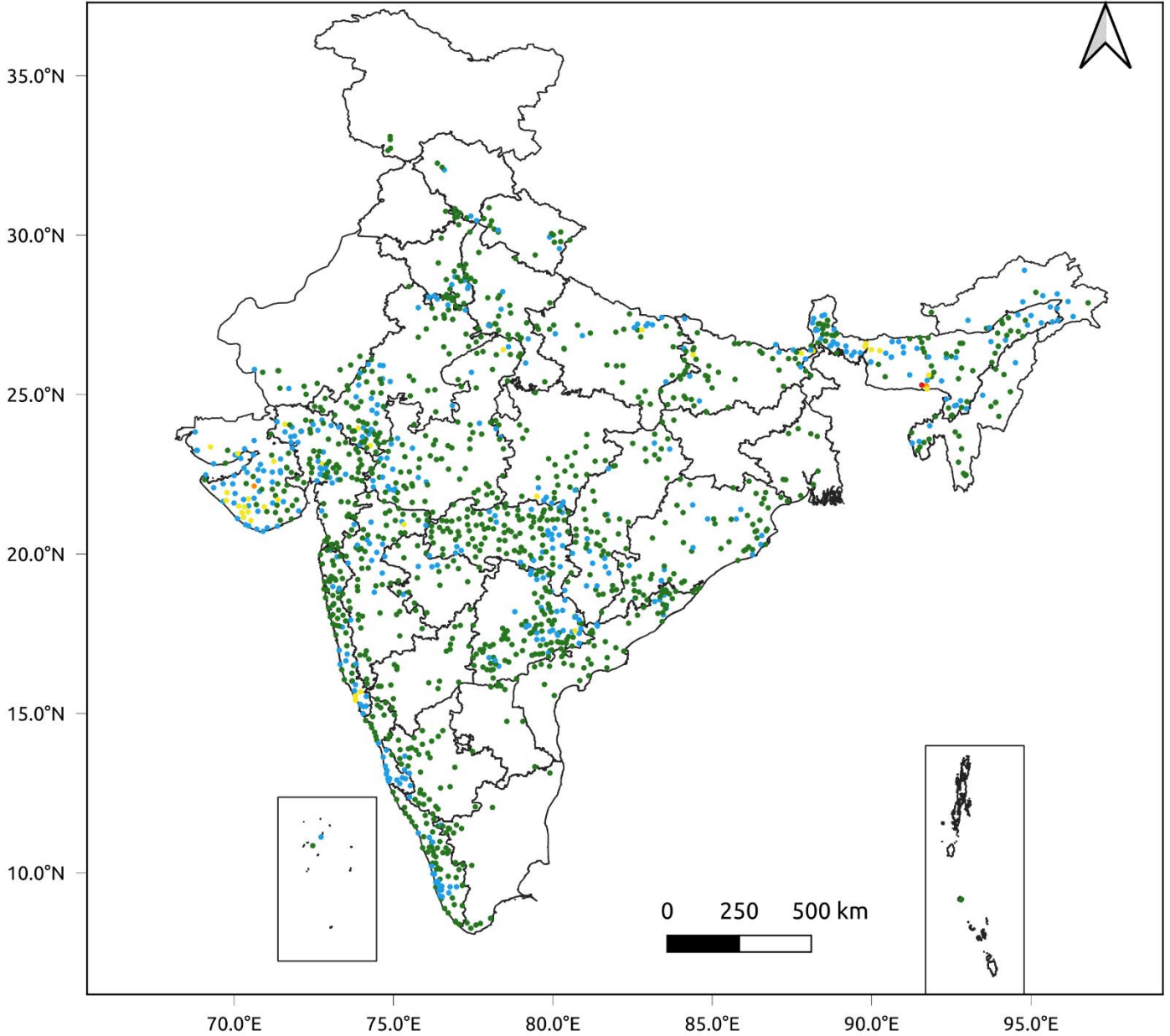


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

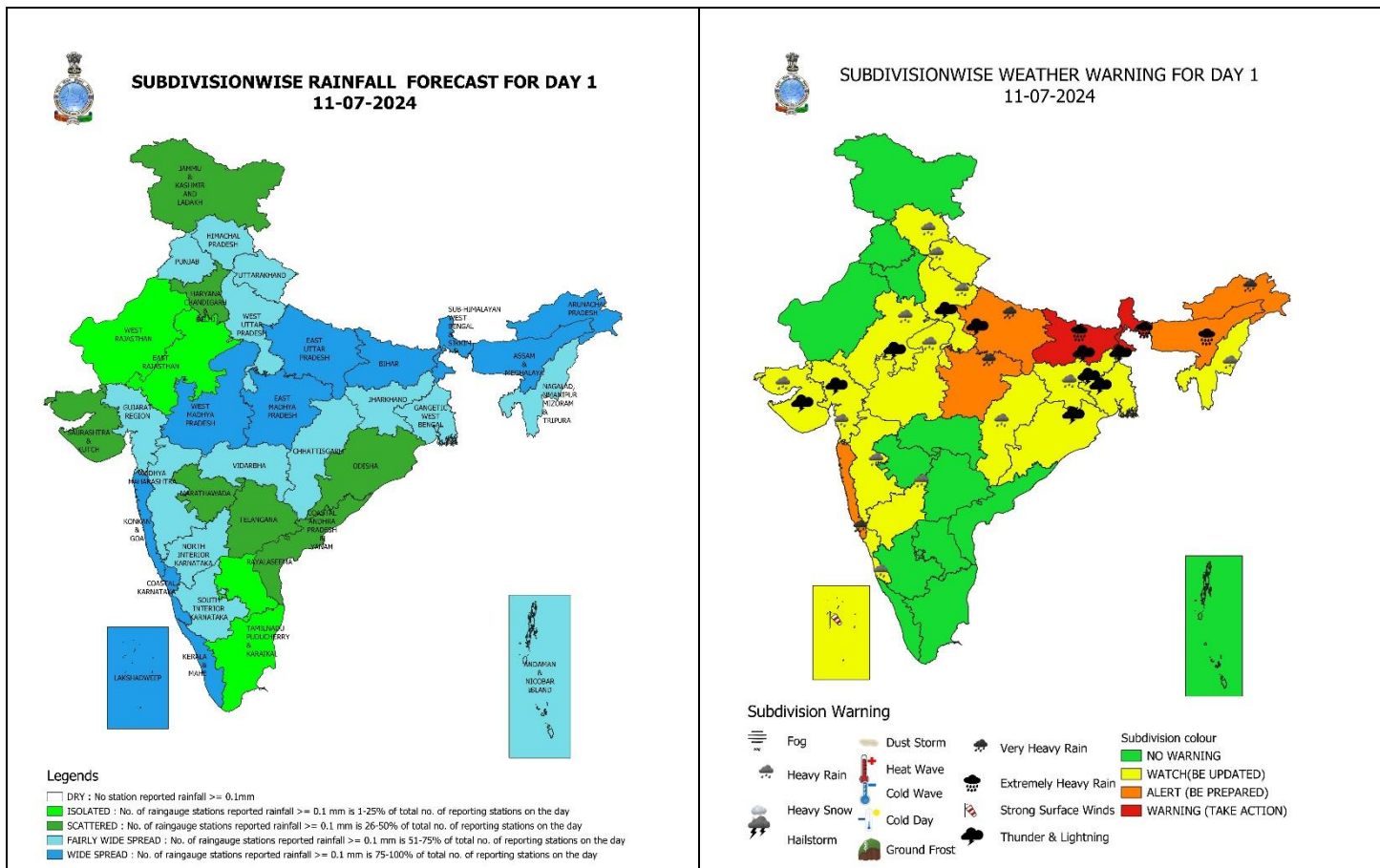


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 9-7-2024 to 0830 IST of 10-7-2024



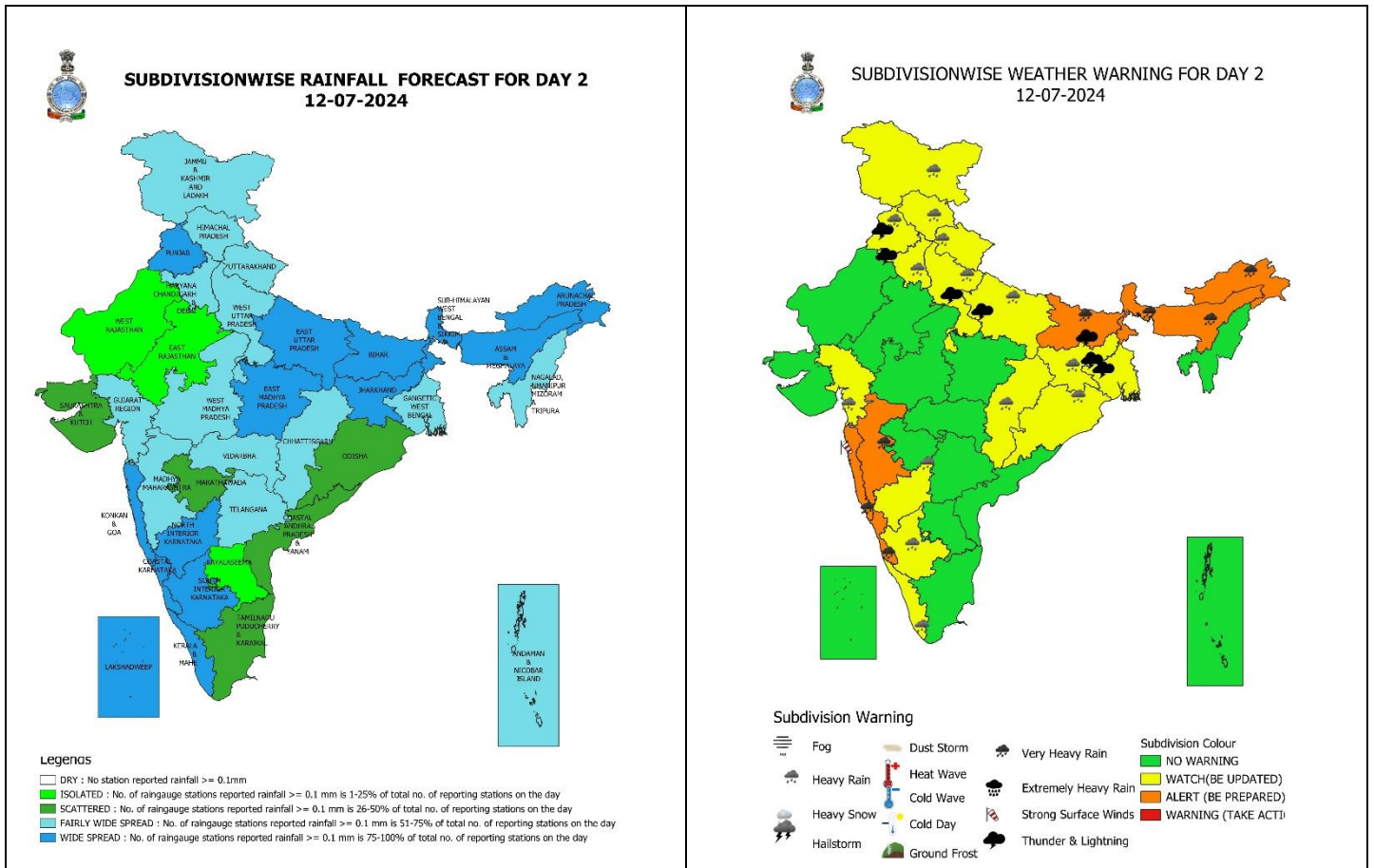
Legends

- 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)



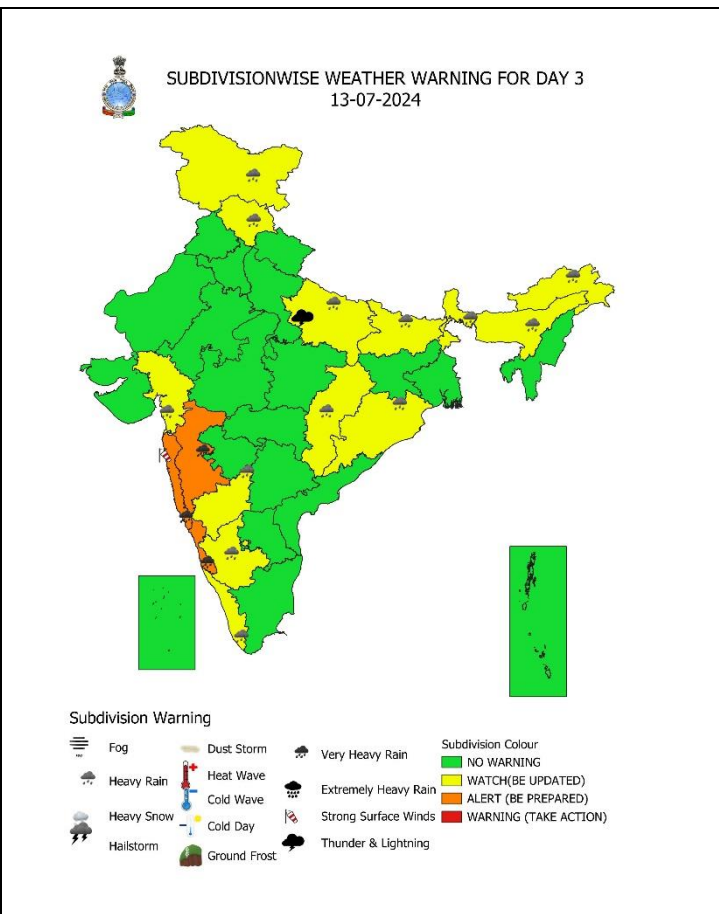
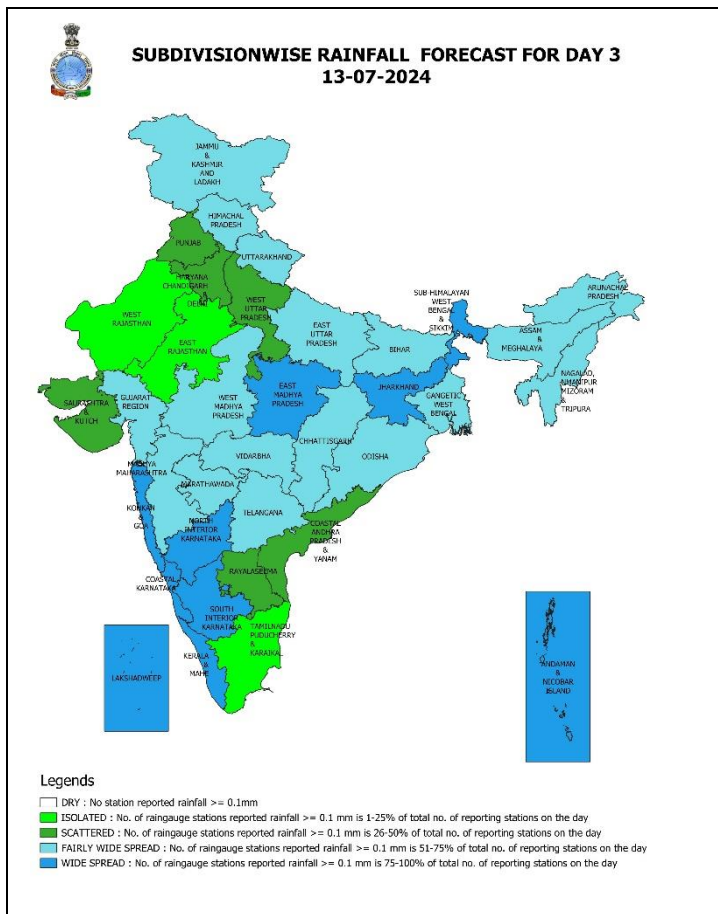
11 July (Day 1):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar and Meghalaya; **Heavy to very heavy rainfall** at isolated places over East Uttar Pradesh, East Madhya Pradesh, Arunachal Pradesh, Assam, Konkan & Goa; **Heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, West Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Chhattisgarh, Jharkhand, Nagaland, Manipur, Madhya Maharashtra, Gujarat state, Coastal & North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Uttar Pradesh, East Rajasthan, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya and Gujarat state.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over southern parts of northeast Arabian sea and adjoining northwest Arabian sea, many parts of eastcentral and most parts of westcentral Arabian sea, northern parts of southwest Arabian sea and adjoining southeast Arabian sea, gulf of Mannar, off Sri Lanka coast, southwest & adjoining southeast Bay of Bengal, most parts of central and northwest Bay of Bengal, off north Andhra Pradesh and south Odisha coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail along and off Somalia coast, adjoining and northern parts of southwest Arabian sea, over most parts of westcentral Arabian sea, along and off south Oman coast. Fishermen are advised not to venture into these areas.



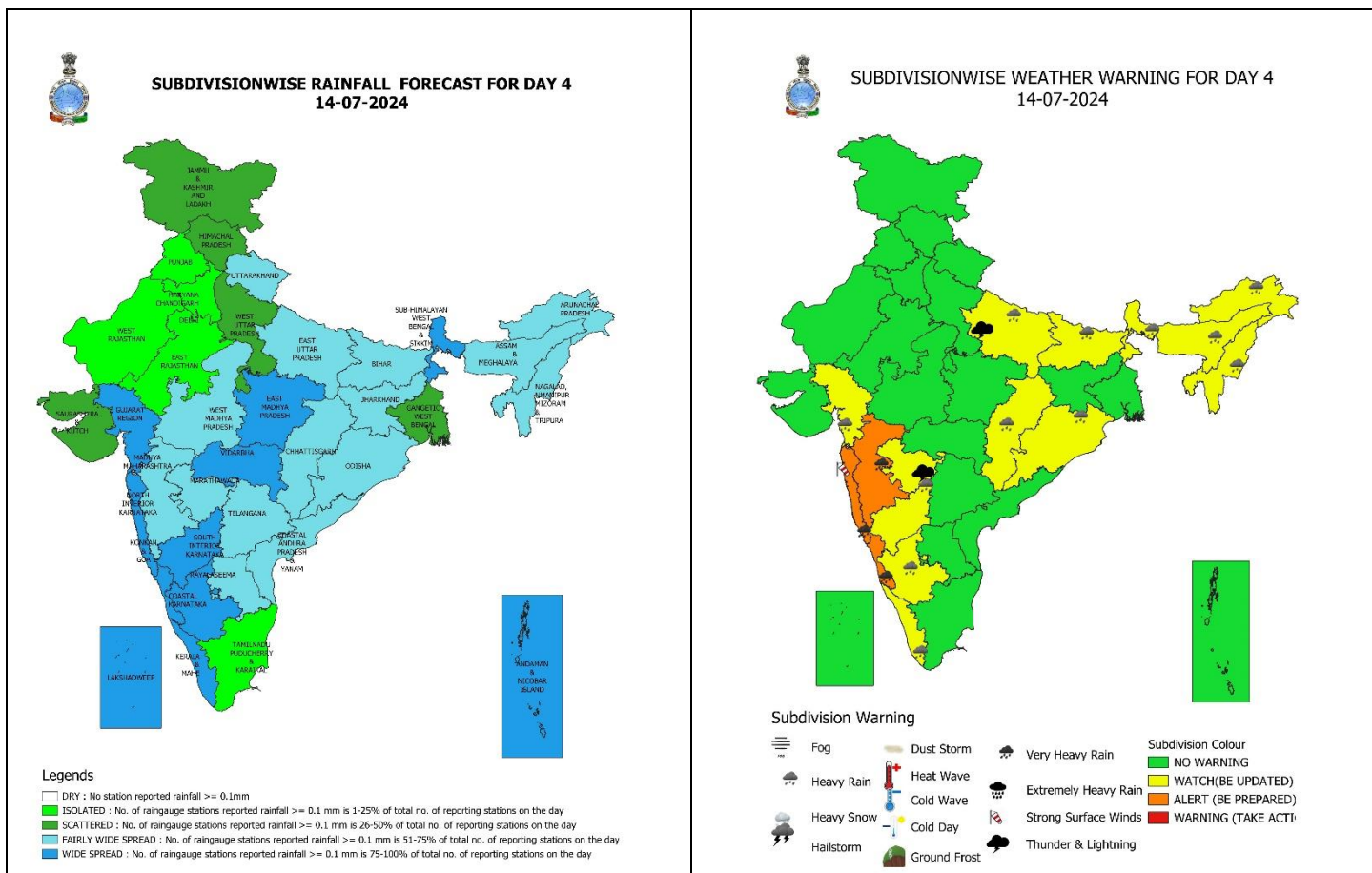
12 July (Day 2):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places Sub-Himalayan West Bengal & Sikkim, Bihar, Arunachal Pradesh, Assam & Meghalaya, Madhya Maharashtra and Coastal Karnataka; **Heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Chhattisgarh, Jharkhand, Odisha, Konkan & Goa, Gujarat Region, Kerala & Mahe and Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Gangetic West Bengal, Bihar, Jharkhand and Assam & Meghalaya.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over southern parts of northeast Arabian sea and adjoining northwest Arabian sea, eastcentral and adjoining westcentral Arabian sea, northern parts of southeast Arabian sea and most parts of southwest Arabian sea, along and off Gujarat, Maharashtra, Konkan, Goa coasts, gulf of Mannar, off Sri Lanka coast, southwest & adjoining southeast Bay of Bengal, most parts of central Bay of Bengal and north Bay of Bengal, off north Andhra Pradesh and south Odisha coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central parts of west central Bay of Bengal, along and off Somalia coast & adjoining and northern parts of southwest Arabian sea, over westcentral Arabian sea, adjoining eastcentral Arabian sea, southern parts of northwest Arabian sea, along and off Oman coast. Fishermen are advised not to venture into these areas.



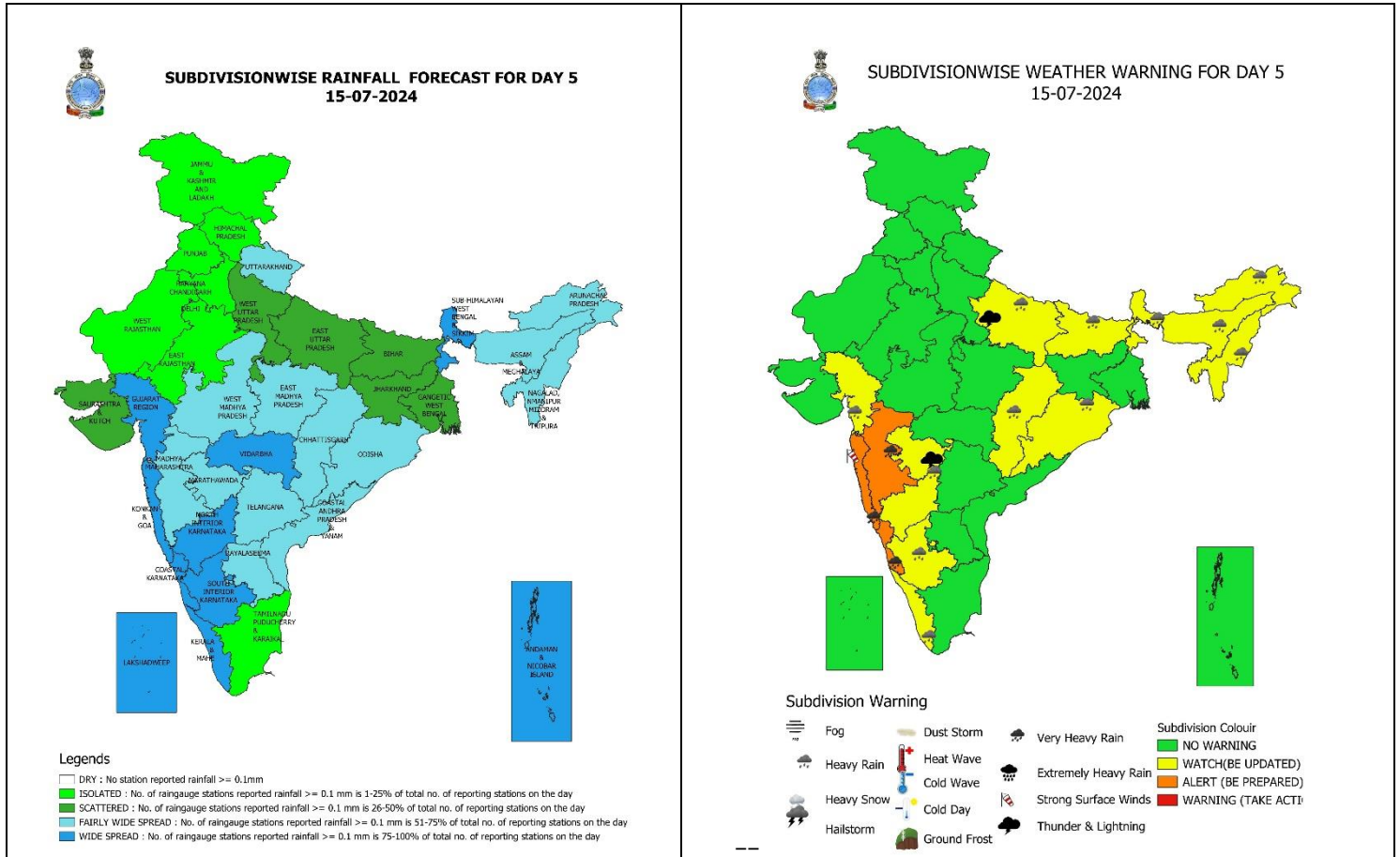
13 July (Day 3):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Madhya Maharashtra, Konkan & Goa, Coastal Karnataka; **Heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, East Uttar Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Odisha, Arunachal Pradesh, Assam & Meghalaya, Gujarat Region, Kerala & Mahe and Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over East Uttar Pradesh.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over southern parts of northeast Arabian sea and adjoining northwest Arabian sea, eastcentral and adjoining westcentral Arabian sea, northern parts of southeast Arabian sea and most parts of southwest Arabian sea, along and off Gujarat, Maharashtra, Konkan, goa coasts, gulf of Mannar, off Sri Lanka coast, southwest & adjoining southeast Bay of Bengal, most parts of central Bay of Bengal and north Bay of Bengal, off north Andhra Pradesh and south Odisha coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central parts of west central Bay of Bengal, along and off Somalia coast & adjoining and northern parts of southwest Arabian sea, over westcentral Arabian sea, adjoining eastcentral Arabian sea, southern parts of northwest Arabian sea, along and off Oman coast. Fishermen are advised not to venture into these areas.



14 July (Day 4):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Konkan & Goa, Madhya Maharashtra, Coastal Karnataka; **Heavy rainfall** at isolated places over East Uttar Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Odisha, Arunachal Pradesh, Assam & Meghalaya, Kerala & Mahe, Gujarat Region and Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over East Uttar Pradesh, Marathwada.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over southern parts of northeast Arabian sea and adjoining northwest Arabian sea, eastcentral and adjoining westcentral Arabian sea, northern parts of southeast Arabian sea and most parts of southwest Arabian sea, along and off Gujarat, Maharashtra, Konkan, goa coasts, gulf of Mannar, off Sri Lanka coast, southwest & adjoining southeast Bay of Bengal, most parts of central Bay of Bengal and north Bay of Bengal, off north Andhra Pradesh and south Odisha coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central parts of west central Bay of Bengal, along and off Somalia coast & adjoining and northern parts of southwest Arabian sea, over westcentral Arabian sea, adjoining eastcentral Arabian sea, southern parts of northwest Arabian sea, along and off Oman coast. Fishermen are advised not to venture into these areas.

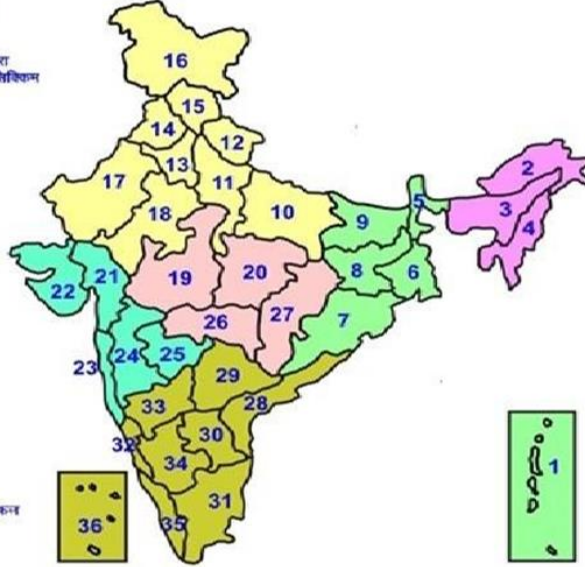


15 July (Day 5):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Konkan & Goa, Madhya Maharashtra, Coastal Karnataka; **Heavy rainfall** at isolated places over East Uttar Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Odisha, Arunachal Pradesh, Assam & Meghalaya, Kerala & Mahe, Gujarat Region and Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over East Uttar Pradesh, Marathwada.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over southern parts of northeast Arabian sea and adjoining northwest Arabian sea, eastcentral and adjoining westcentral Arabian sea, northern parts of southeast Arabian sea and most parts of southwest Arabian sea, along and off Gujarat, Maharashtra, Konkan, goa coasts, gulf of Mannar, off Sri Lanka coast, southwest & adjoining southeast Bay of Bengal, most parts of central Bay of Bengal and north Bay of Bengal, off north Andhra Pradesh and south Odisha coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central parts of west central Bay of Bengal, along and off Somalia coast & adjoining and northern parts of southwest Arabian sea, over westcentral Arabian sea, adjoining eastcentral Arabian sea, southern parts of northwest Arabian sea, along and off Oman coast. 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 उत्तराखण्ड
- 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 उत्पीन आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 रायलसेमा
- 31 तमिलनाडु, पुदुचेरी एवं केरल
- 32 उत्तर 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. 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)