

Thursday, July 18, 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. It is likely to be south of its normal position during next 4-5 days.
- ✓ A shear zone runs in lower & middle tropospheric levels roughly along 20°N tilting southwards with height.
- ✓ The off-shore trough runs along south Gujarat-north Kerala coasts at mean sea level.
- ✓ A fresh low-pressure area is likely to form over Westcentral & adjoining Northwest Bay of Bengal during next 24 hours.
- ✓ A cyclonic circulation lies over Saurashtra & Kutch in lower tropospheric levels.

Forecast & Warnings

❖ West, Central and South Peninsular India

- ✓ Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm & lightning very likely over West & Central India, Kerala & Mahe, Lakshadweep, Coastal Andhra Pradesh & Yanam, Telangana, Karnataka; isolated to scattered light to moderate rainfall over Tamil Nadu, Puducherry & Karaikal, Rayalaseema during next 5 days.
- ✓ **Heavy to very heavy rainfall very likely at isolated/some places over Vidarbha on 18th & 20th; Chhattisgarh on 19th & 20th; Telangana on 19th -21st; Madhya Pradesh Konkan & Goa, Madhya Maharashtra, Saurashtra & Kutch, Coastal & South Interior Karnataka during next 5 days.**
- ✓ **Isolated extremely heavy rainfall very likely over South Interior Karnataka, Saurashtra & Kutch on 18th; Konkan & Goa, Coastal Karnataka on 18th July.**
- ✓ Isolated **Heavy rainfall** very likely over East Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat Region, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, North Interior Karnataka during next 5 days, Marathwada on 20th;
- ✓ **Isolated very heavy rainfall likely over Tamil Nadu, Puducherry & Karaikal on 18th; Kerala & Mahe on 18th & 19th; Coastal Andhra Pradesh & Yanam during 18th - 20th; Gujarat Region on 18th & 19th 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, and Odisha; scattered to fairly widespread light to moderate rainfall over Bihar, Jharkhand and Northeast India during next 5 days.
- ✓ **Heavy rainfall** very likely at isolated places over Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura during 19th-21st; Sub-Himalayan West Bengal & Sikkim on 20th & 21st; Jharkhand on 21st; Odisha during 18th - 21st; Arunachal Pradesh, Assam & Meghalaya on 20th & 21st July.
- ✓ **Isolated very heavy rainfall also likely over Odisha on 19th & 20th July.**

❖ Northwest India

- ✓ Scattered to fairly widespread light to moderate rainfall **accompanied with thunderstorm & lightning** very likely over Himachal Pradesh, Uttarakhand, East Rajasthan, Haryana-Chandigarh-Delhi; isolated to scattered rainfall likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Uttar Pradesh and West Rajasthan during next 5 days.
- ✓ Isolated **heavy rainfall** very likely over Himachal Pradesh, Uttarakhand, East Rajasthan during next 5 days, Punjab, West Rajasthan on 18th, Haryana-Chandigarh on 18th & 21st, Uttar Pradesh on 20th & 21st July.
- ✓ **Isolated very heavy rainfall also likely over Uttarakhand, East Rajasthan on 18th July.**

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Kerala & Mahe; **at many places** over East Madhya Pradesh, Vidarbha, Konkan & Goa and Andaman & Nicobar Islands; **at a few places** over Arunachal Pradesh, Gangetic West Bengal, West Madhya Pradesh, Chhattisgarh, Coastal Karnataka and Lakshadweep; **at isolated places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Himachal Pradesh, Uttarakhand, Uttar Pradesh, East Rajasthan, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim.
- ❖ **Heavy Rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): **Heavy rainfall** at isolated places over West Madhya Pradesh, Vidarbha and Chhattisgarh.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday)(in cm): **Tamil Nadu:** Valprai-5; **South Interior Karnataka:** Belgaum-1; **Konkan & Goa:** Ratanagiri-3; Panjim-2; **Chhattisgarh:** Raipur(Mana)-8; Rajananadgaon-4; **Kerala & Mahe:** Cochin-4, Kannur, Kozhikode, Karipur, Palakkad and Thrissur-2 each; **Assam & Meghalaya:** Shillong & Barapani-1 each; **East Rajasthan:** Chittorgarh-2; **Coastal Karnataka:** Karwar-1; **West Madhya Pradesh:** Panchmarhi-9; Khandwa-2; **Vidarbha:** Brahmपुरi-9; Bhandara-5; Wardha-4; Gadchiroli-3; Chandrapur-1; **Punjab:** Patiala-1; **Madhya Maharashtra:** Mahabaleshwar-1; **Haryana-Chandigarh-Delhi:-** Narnaul and Nahan-1 each; **Gangetic West Bengal:** Kolkata(Alipur), Diamond Harbour & Haldia -2 each; Ulubareia-1; **Jharkhand:** Chaibasa-1; **West Uttar Pradesh:** Muzaffar Nagar-3; **Coastal Andhra Pradesh & Yanam:** Kalingapatnam-3; **Lakshadweep:** Amini Divi and Agathi- 1 each; **Andaman & Nicobar Islands:** Maya Bandar-4.
- ❖ **Minimum Temperature Departures (as on 17-07-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over West Rajasthan; at isolated places over East Rajasthan, Bihar, Himachal Pradesh, East Madhya Pradesh; **above normal (1.6°C to 3.0°C)** a few places over Uttar Pradesh, Punjab, Vidarbha; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi, Chhattisgarh, West Bengal & Sikkim, Odisha, Coastal Andhra Pradesh & Yanam, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal, Telangana and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 19.0°C** was reported at **Yeotmal (Vidarbha)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 17-07-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at many places over Sub-Himalayan West Bengal & Sikkim; at a few places over Bihar and at isolated places over Assam & Meghalaya, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, East Madhya Pradesh; **above normal (1.6°C to 3.0°C)** at many places over Jharkhand, Chhattisgarh, East Rajasthan, Odisha, Uttar Pradesh; at a few places over Arunachal Pradesh, Gangetic West Bengal, West Madhya Pradesh, Nagaland, Manipur, Mizoram & Tripura; at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and at isolated places over Saurashtra & Kutch, Himachal Pradesh, Uttarakhand, Punjab and Haryana-Chandigarh-Delhi. These were **below normal (-1.6°C to -3.0°C)** at a few places over Vidarbha and Telangana; at isolated places over Marathwada, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam Kerala & Mahe and **near normal** over rest parts of the country. Yesterday, **the highest Maximum Temperature of 43.5°C** was reported at **Jaisalmer (West Rajasthan)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **Monsoon trough** at mean sea level now passes through Jaisalmer, Kota, Sagar, Pendra Road, Puri and thence southeastwards to the central Bay of Bengal and extends upto 1.5 km above mean sea level.
- ❖ The **shear zone** roughly along 20°N between 3.1 & 5.8 km above mean sea level tilting southwards with height persists.
- ❖ The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 74°E to the north of Lat. 32°N persists.
- ❖ The **cyclonic circulation** over Northeast Assam & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The **off-shore trough** at mean sea level along South Gujarat-north Kerala coasts persists.
- ❖ The **cyclonic circulation** over Saurashtra & Kutch & neighbourhood at 0.9 km above mean sea level persists.
- ❖ A fresh **low pressure area** is likely to form over West central and adjoining Northwest Bay of Bengal during next 24 hours.

Weather Forecast for next 7 days (Upto 0830 hours IST of 25th 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 Northeast and South Peninsular India during next 48 hours.
- ❖ No significant change in maximum temperatures very likely over most parts of the country.

Weather Outlook for subsequent 3 days (During 25th -27th 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 | 18-Jul | 19-Jul | 20-Jul | 21-Jul | 22-Jul | 23-Jul | 24-Jul |
| | | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 |
| 1 | ANDAMAN & NICOBAR ISLANDS | WS | WS | WS | FWS | FWS | SCT | SCT |
| 2 | ARUNACHAL PRADESH | SCT | SCT | FWS | WS | FWS | FWS | FWS |
| 3 | ASSAM & MEGHALAYA | SCT | SCT | FWS | WS | FWS | FWS | FWS |
| 4 | NAGALAND, MANIPUR, MIZORAM & TRIPURA | SCT | FWS | FWS | FWS | WS | WS | WS |
| 5 | SUB-HIMALAYAN WEST BENGAL & SIKKIM | FWS | FWS | WS | WS | WS | FWS | FWS |
| 6 | GANGETIC WEST BENGAL | FWS | FWS | WS | WS | WS | WS | WS |
| 7 | ODISHA | FWS | WS | WS | WS | FWS | FWS | FWS |
| 8 | JHARKHAND | SCT | SCT | FWS | WS | WS | WS | WS |
| 9 | BIHAR | ISOL | ISOL | ISOL | SCT | SCT | FWS | FWS |
| 10 | EAST UTTAR PRADESH | ISOL | SCT | SCT | FWS | WS | FWS | FWS |
| 11 | WEST UTTAR PRADESH | SCT | SCT | SCT | WS | WS | FWS | FWS |
| 12 | UTTARAKHAND | WS | FWS | FWS | WS | WS | WS | WS |
| 13 | HARYANA CHANDIGARH & DELHI | SCT | SCT | SCT | FWS | FWS | SCT | SCT |
| 14 | PUNJAB | SCT | SCT | ISOL | SCT | SCT | SCT | SCT |
| 15 | HIMACHAL PRADESH | FWS | FWS | FWS | FWS | FWS | FWS | FWS |
| 16 | JAMMU & KASHMIR AND LADAKH | SCT | ISOL | ISOL | ISOL | ISOL | SCT | SCT |
| 17 | WEST RAJASTHAN | SCT | SCT | ISOL | SCT | SCT | SCT | SCT |
| 18 | EAST RAJASTHAN | FWS | WS | WS | WS | WS | WS | WS |
| 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 | WS | WS | WS | WS | WS | WS |
| 22 | SAURASHTRA & KUTCH | WS | WS | WS | FWS | FWS | FWS | FWS |
| 23 | KONKAN & GOA | WS | WS | WS | WS | WS | WS | WS |
| 24 | MADHYA MAHARASHTRA | FWS | FWS | FWS | FWS | FWS | FWS | FWS |
| 25 | MARATHAWADA | FWS | FWS | WS | FWS | SCT | SCT | SCT |
| 26 | VIDARBHA | WS | WS | WS | WS | FWS | FWS | FWS |
| 27 | CHHATTISGARH | WS | WS | WS | WS | FWS | FWS | FWS |
| 28 | COASTAL ANDHRA PRADESH & YANAM | WS | WS | FWS | FWS | FWS | SCT | SCT |
| 29 | TELANGANA | WS | WS | WS | FWS | FWS | SCT | SCT |
| 30 | RAYALASEEMA | SCT | SCT | SCT | ISOL | ISOL | ISOL | ISOL |
| 31 | TAMILNADU PUDUCHERRY & KARAIKAL | SCT | ISOL | ISOL | ISOL | ISOL | ISOL | ISOL |
| 32 | COASTAL KARNATAKA | WS | WS | WS | WS | WS | WS | WS |
| 33 | NORTH INTERIOR KARNATAKA | WS | WS | WS | WS | FWS | FWS | FWS |
| 34 | SOUTH INTERIOR KARNATAKA | WS | WS | WS | FWS | SCT | SCT | SCT |
| 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 |

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Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

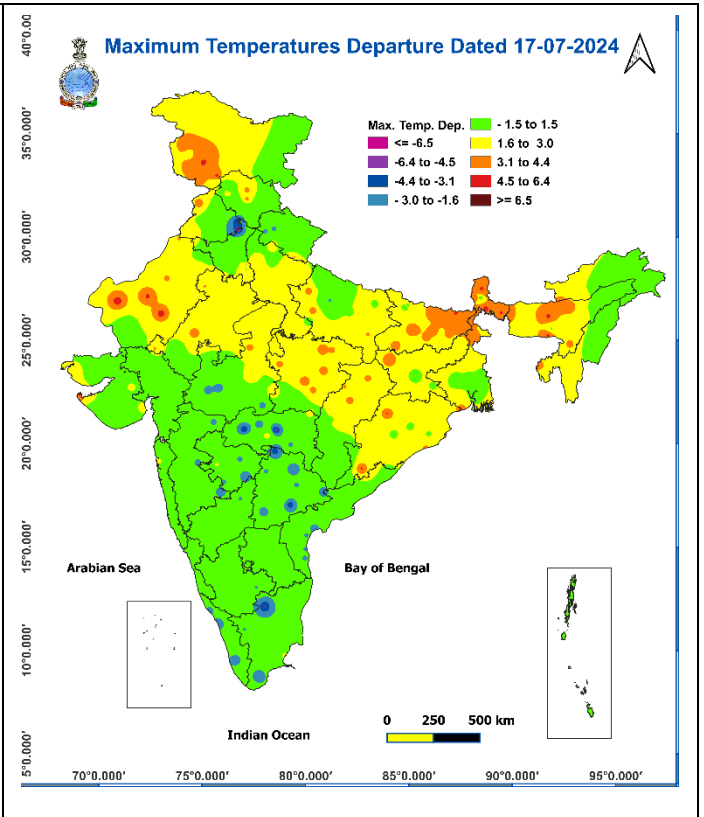
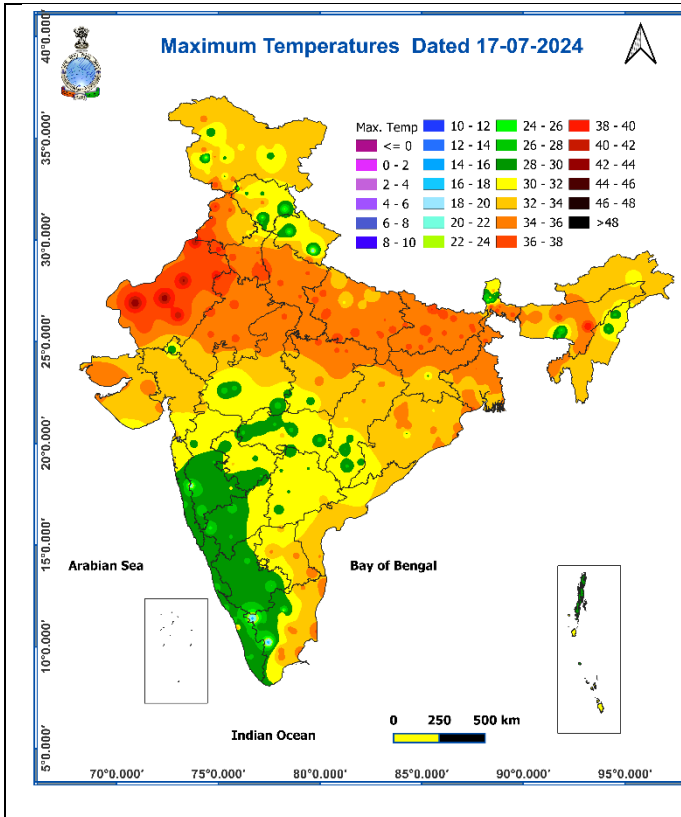


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

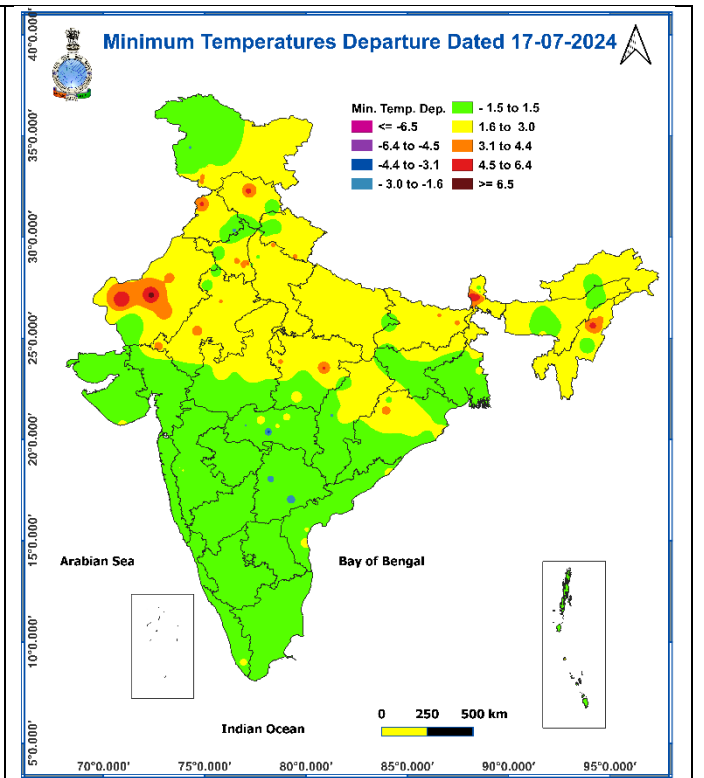
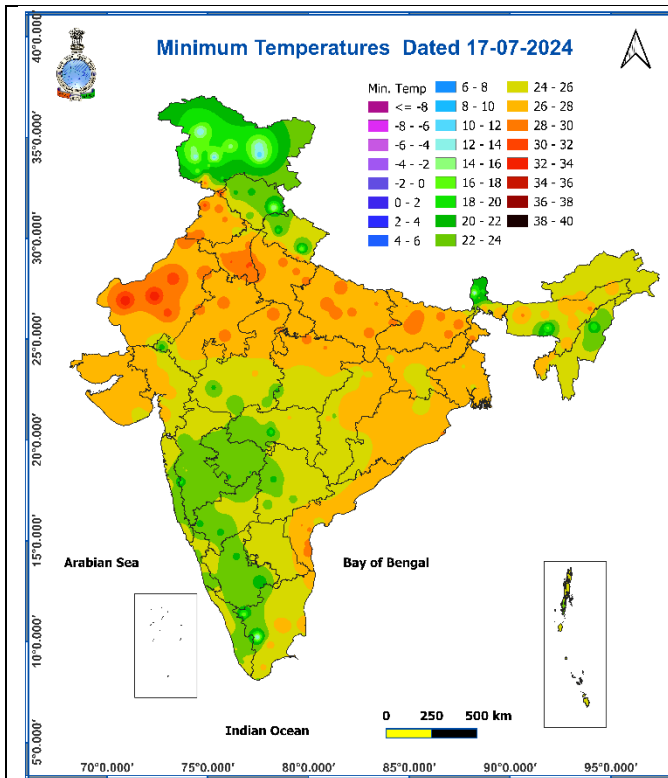
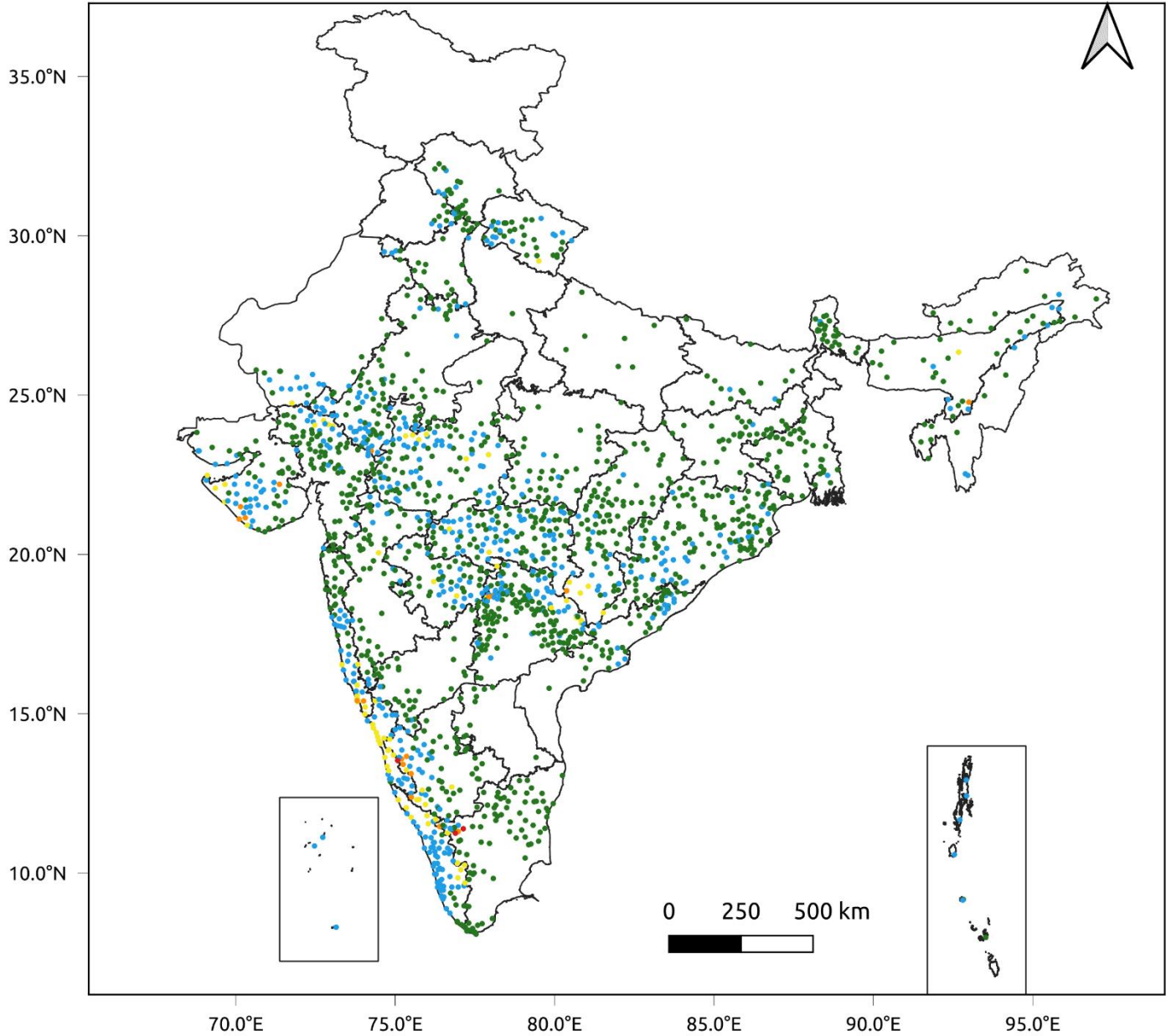


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

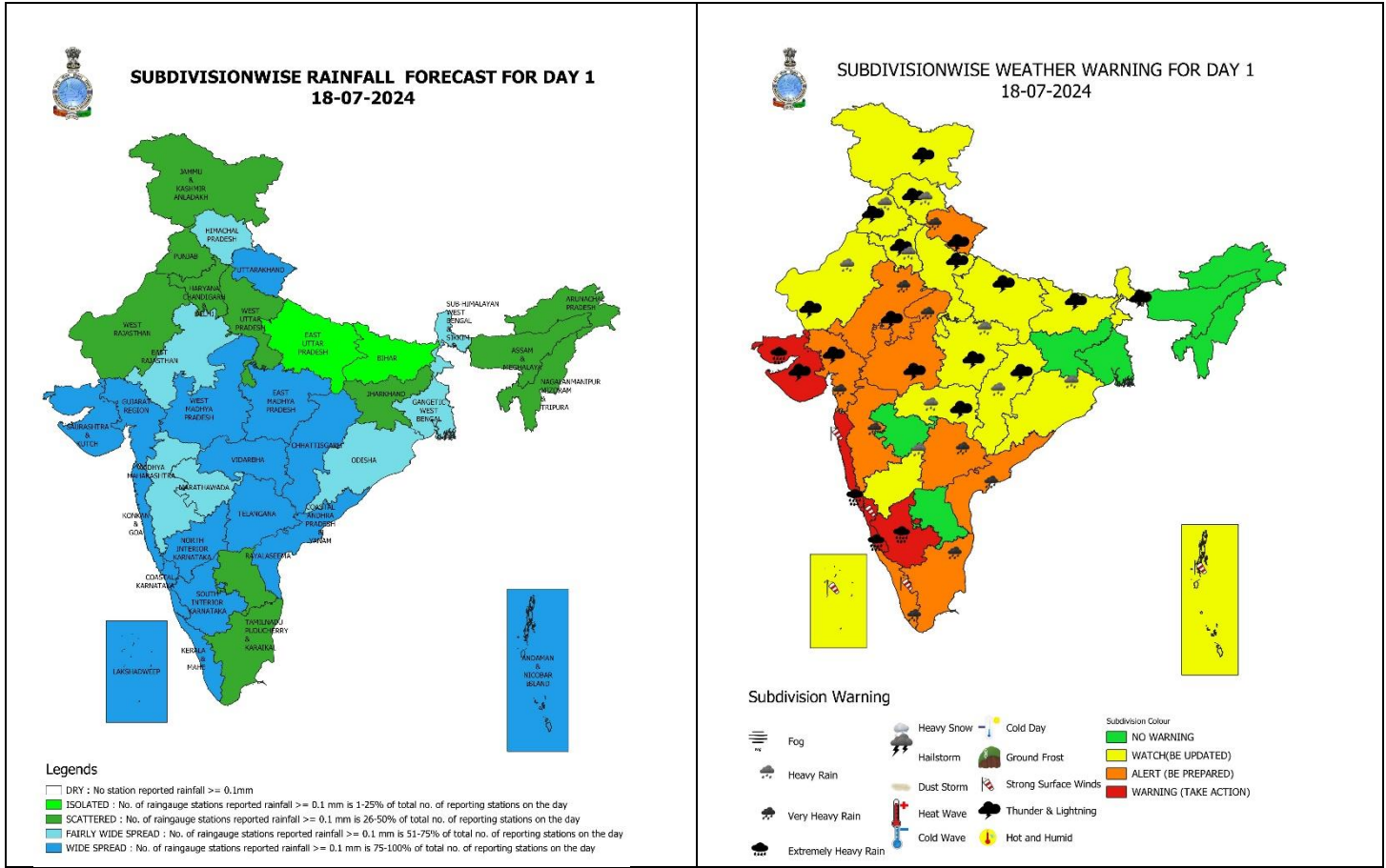


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 16-7-2024 to 0830 IST of 17-7-2024



Legends

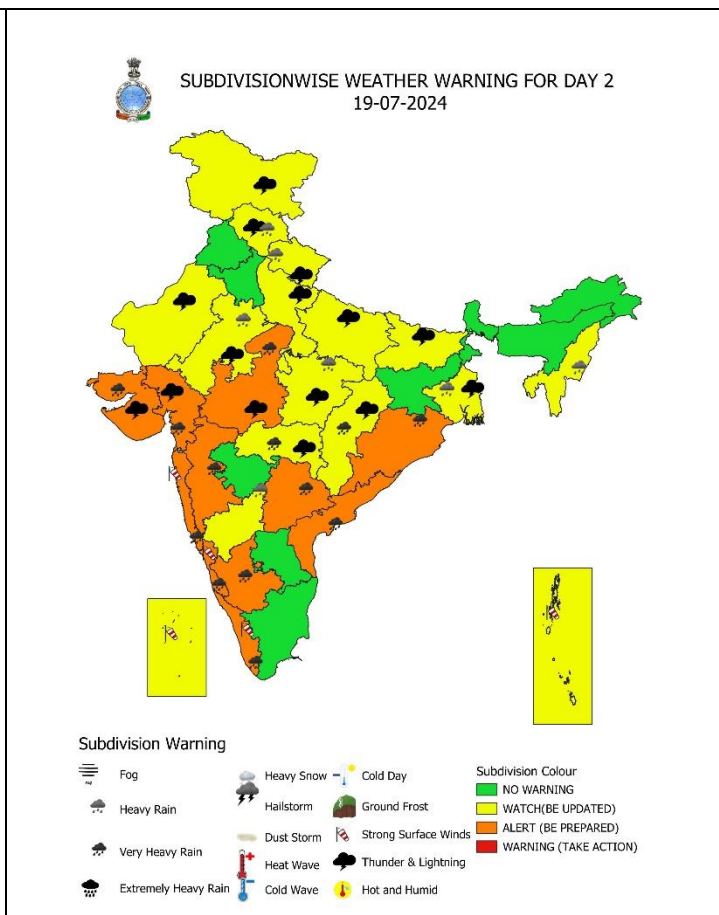
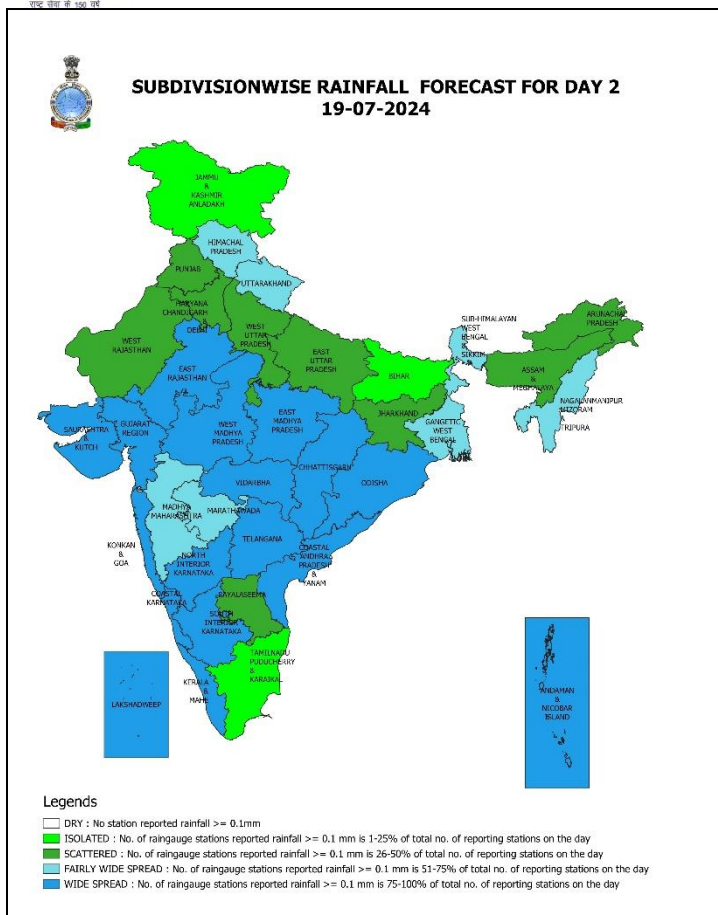
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (≥ 204.5 mm)



18 July (Day 1):

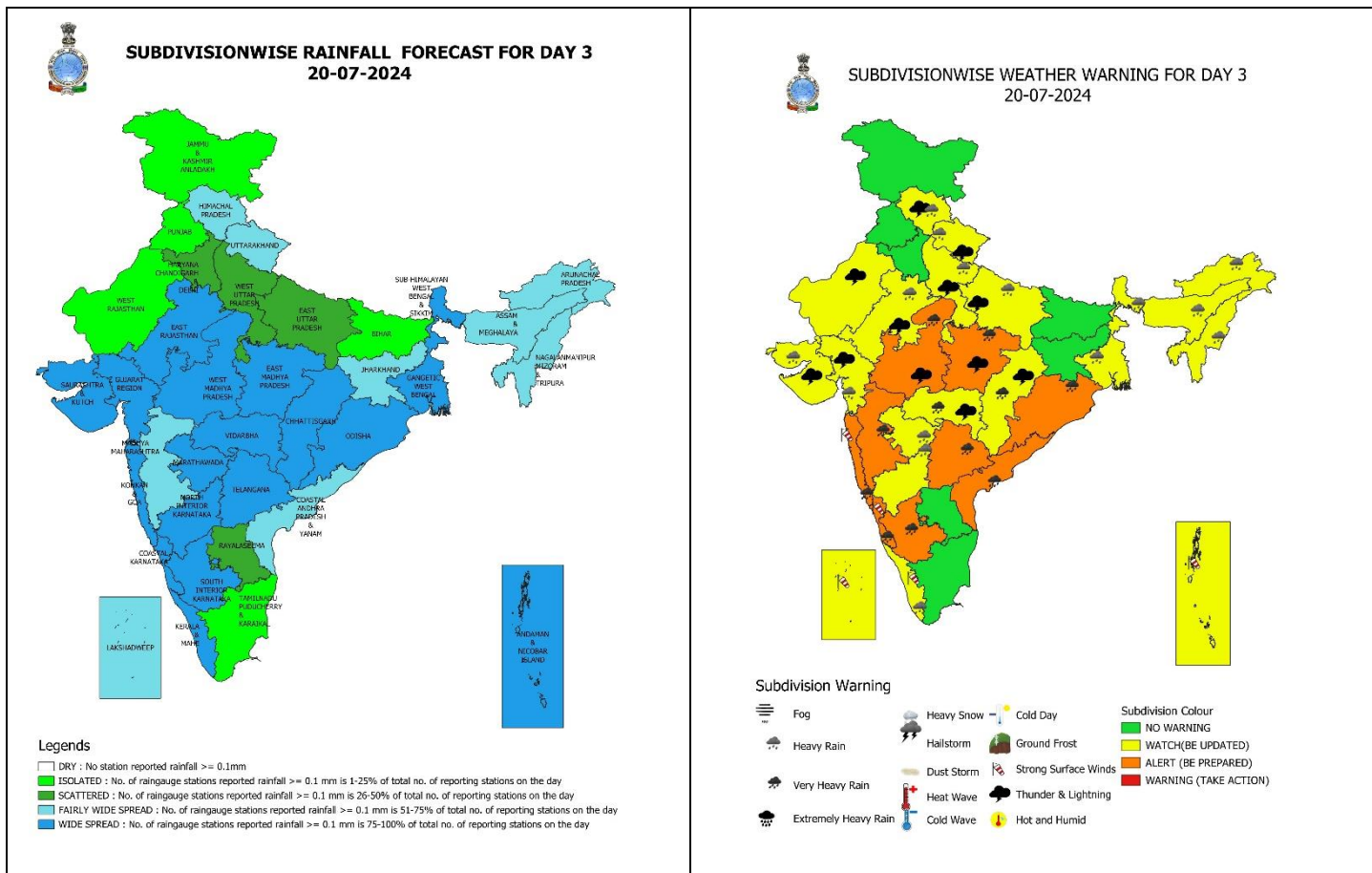
- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Konkan & Goa, Saurashtra & Kutch, Coastal Karnataka, South Interior Karnataka; **Heavy to very heavy rainfall** very likely at isolated places over Uttarakhand, East Rajasthan, West Madhya Pradesh, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Telangana, Kerala & Mahe; **Heavy rainfall** at isolated places over Himachal Pradesh, Punjab, Haryana-Chandigarh, West Rajasthan, East Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha and North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over southern parts of north Arabian sea central Arabian sea & many parts of south Arabian sea, Karnataka, Kerala coasts and over Lakshadweep area, off silence coast, over south and central Bay of Bengal, along and off Andhra Pradesh coast. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail along and off Gujarat, Maharashtra, Konkan, goa coasts, gulf of Mannar, most parts of central Bay of Bengal, northern parts of south Bay of Bengal, north Andaman Sea. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over westcentral and adjoining eastcentral & adjoining areas of southeast and southwest Arabian sea along & off Somalia & Oman coasts.

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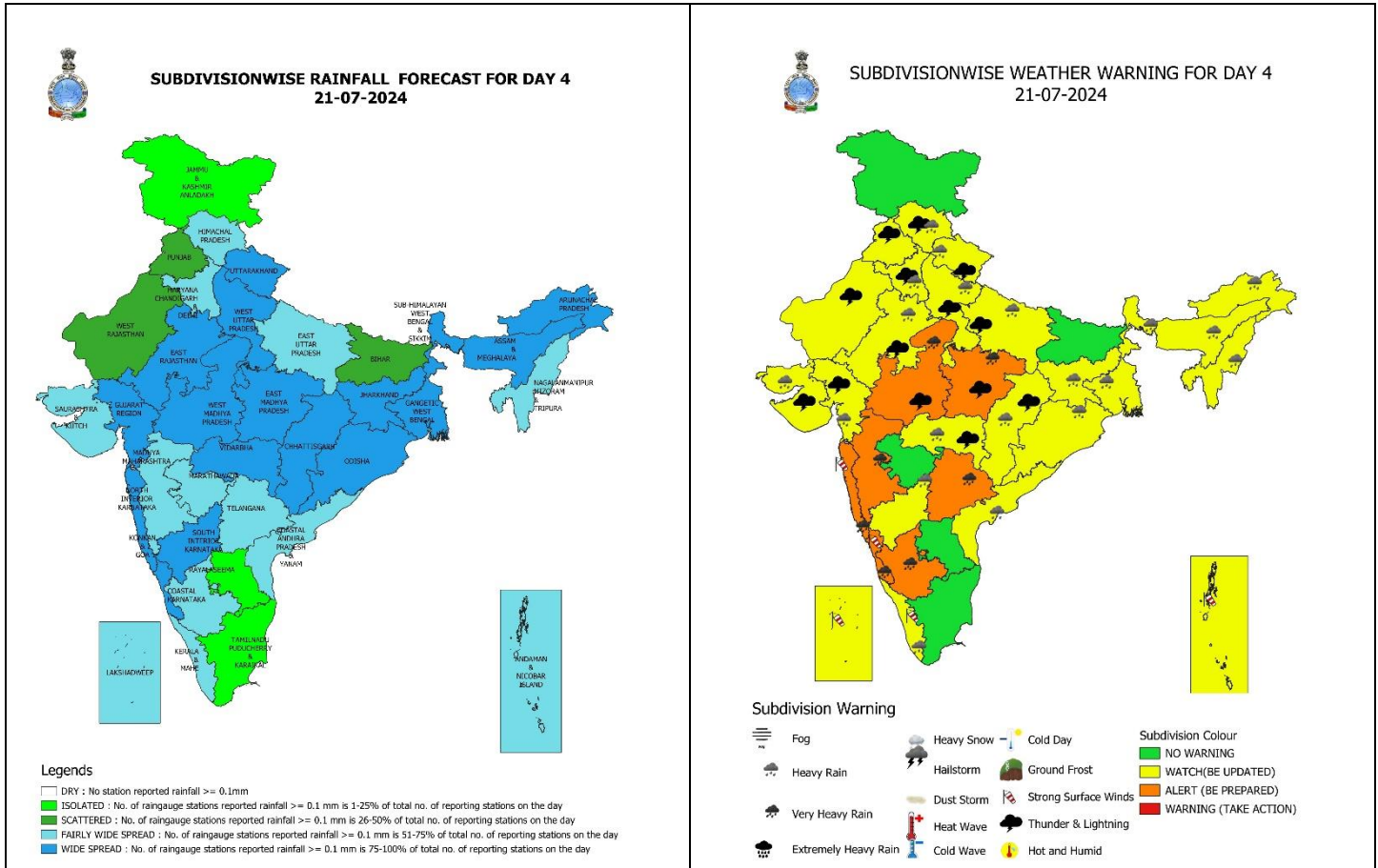
19 July (Day 2):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Vidarbha, Chhattisgarh, West Madhya Pradesh, Odisha, Konkan & Goa, Madhya Maharashtra, Saurashtra & Kutch, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana, Coastal Karnataka, South Interior Karnataka; **Heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, East Rajasthan, East Madhya Pradesh, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura Vidarbha, Gujarat Region, North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Madhya Maharashtra, Gujarat state.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over southern parts of north Arabian sea central Arabian sea & many parts of south Arabian sea, Karnataka, Kerala coasts and over Lakshadweep area, off silence coast, over south and central Bay of Bengal, along and off Andhra Pradesh coast. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail along and off Gujarat, Maharashtra, Konkan, goa coasts, gulf of Mannar, most parts of central Bay of Bengal, northern parts of south Bay of Bengal, north Andaman Sea. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over westcentral and adjoining eastcentral & adjoining areas of southeast and southwest Arabian sea along & off Somalia & Oman coasts.



20 July (Day 3):

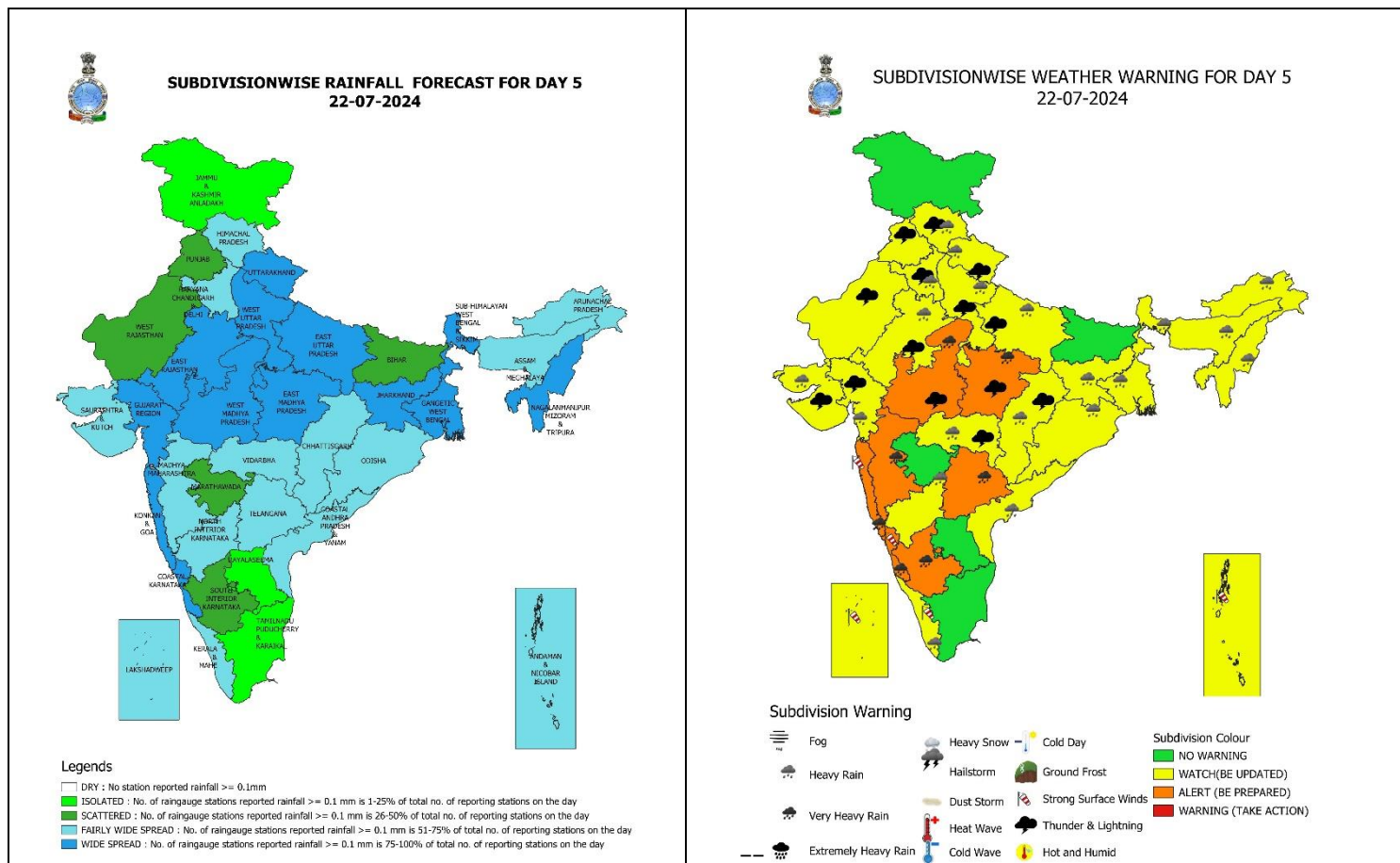
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Telangana, Coastal Karnataka, South Interior Karnataka; **Heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, East Rajasthan, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Gujarat state, Kerala & Mahe and North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Madhya Maharashtra, Gujarat state.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over southern parts of north Arabian sea central Arabian sea & many parts of south Arabian sea, along and off Gujarat, Maharashtra, Konkan, goa, Karnataka, Kerala coasts and over Lakshadweep area, gulf of Mannar & off silence coast, over south and central Bay of Bengal, along and off Andhra Pradesh coast, north Andaman Sea. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central Bay of Bengal & adjoining south Bay of Bengal, northwest Bay of Bengal, off south Odisha coast, parts of northeast Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over westcentral and adjoining eastcentral & adjoining areas of southeast and southwest Arabian sea along & off Somalia & Oman coasts.



21 July (Day 4):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Telangana, Coastal Karnataka; **Heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Haryana-Chandigarh, Uttar Pradesh, East Rajasthan, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over southern parts of north Arabian sea central Arabian sea & many parts of south Arabian sea, along and off Maharashtra, Konkan, goa, Karnataka, Kerala coasts and over Lakshadweep area, gulf of Mannar & off silence coast, over south and central Bay of Bengal adjoining northeast Bay of Bengal along and off Andhra Pradesh coast. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central Bay of Bengal & adjoining south Bay of Bengal northwest Bay of Bengal off south Odisha coast, parts of northeast Bay of Bengal **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over many parts of central Bay of Bengal northwest Bay of Bengal along and off north Andhra Pradesh and Odisha coasts.

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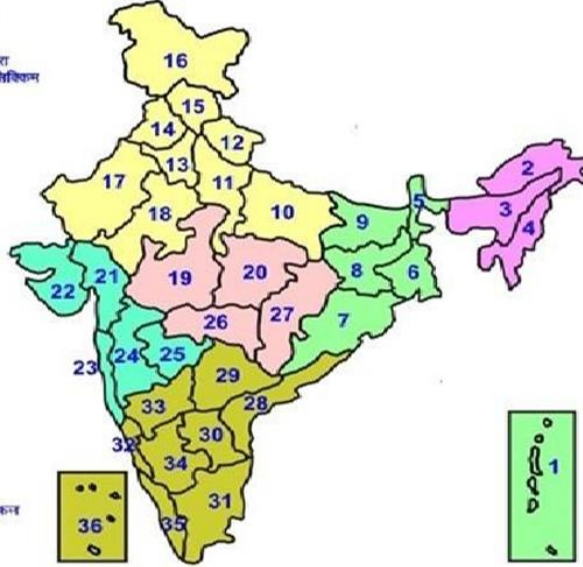
22 July (Day 5):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Telangana, Coastal Karnataka; **Heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Haryana-Chandigarh, Uttar Pradesh, East Rajasthan, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over southern parts of north Arabian sea central Arabian sea & many parts of south Arabian sea, along and off Maharashtra, Konkan, goa, Karnataka, Kerala coasts and over Lakshadweep area, gulf of Mannar & off silence coast, over south and central Bay of Bengal adjoining northeast Bay of Bengal along and off Andhra Pradesh coast. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central Bay of Bengal & adjoining south Bay of Bengal northwest Bay of Bengal off south Odisha coast, parts of northeast Bay of Bengal **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over many parts of central Bay of Bengal northwest Bay of Bengal along and off north Andhra Pradesh and Odisha coasts.

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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 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)