

Thursday, April 10, 2025
Time of Issue: 1430 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Temperature:

- ❖ Yesterday, **Maximum Temperatures** were in the range of **42-44°C** at many places over Rajasthan, Saurashtra & Kutch; at a few places over Gujarat Region, West Madhya Pradesh; at isolated places over Haryana, Madhya Maharashtra; **38-42°C** at most places over East Madhya Pradesh; at many places over Delhi, Uttar Pradesh, Chhattisgarh, Marathwada, Vidarbha, Odisha, Rayalaseema; at a few places over Punjab, Telangana; at isolated places over northwest Jharkhand, North Interior Karnataka, Coastal Andhra Pradesh & Yanam, north Tamil Nadu.
- ❖ **Maximum Temperatures** had fallen by 4-8°C over Jammu, Kashmir, west Bihar; by 2-4°C over Ladakh, Assam, West Bengal, extreme south Gujarat region & Saurashtra, north interior Karnataka, extreme north Andaman; 1-2°C over Rajasthan, east & northwest Madhya Pradesh, south Chhattisgarh, North coastal Andhra Pradesh and no significant change over rest parts of the country.

Weather Systems, Forecast and Warnings:

- ❖ The **Low-pressure area** over westcentral Bay of Bengal persisted at 0830 hrs IST of today, the 10th April, 2025 with the associated cyclonic circulation extending upto middle tropospheric levels. It is likely to move north-northeastwards and weaken gradually over central Bay of Bengal during next 24 hours. Under its influence squally weather wind speed reaching 35-45 Kmph gusting to 55 Kmph likely over central & northeast Bay of Bengal during next 24 hours.
- ❖ The **Western Disturbance** as a **trough** in westerlies in middle tropospheric levels runs roughly along Long. 68°E to the north of Lat. 28°N and another along Long. 77°E to the north of Lat. 21°N. **An upper air cyclonic circulation** lies over south Pakistan, 2nd over Punjab and 3rd over northwest Madhya Pradesh and a trough runs from west Rajasthan to Marathwada in lower tropospheric levels.
- ❖ The **upper air cyclonic circulations** also lie over north Bangladesh, 2nd over south assam and 3rd over northeast Assam in lower tropospheric levels and 04th over northeast Bihar in lower & middle tropospheric levels.
Under the influence of these systems:
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 10th & 11th and Uttarakhand during 10th-12th April.
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over northeast and adjoining east India during next 7 days.
 - ✓ Isolated to scattered rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over plains of Northwest, Central and adjoining East India during 10th-12th April.
 - ✓ **Heavy rainfall** likely over Bihar on 10th & 11th; Sub-Himalayan West Bengal & Sikkim and Arunachal Pradesh during 10th-12th; Assam & Meghalaya during 10th-13th April.
 - ✓ **Isolated Hailstorm** likely over Haryana, East Uttar Pradesh, north Chhattisgarh, East Madhya Pradesh, Jharkhand, Assam & Meghalaya on 10th; Jammu-Kashmir, Himachal Pradesh, Uttarakhand and Punjab on 10th & 11th April.
 - ✓ **Duststorm** very likely at isolated places over West Rajasthan on 10th & 11th April.
 - ✓ **Thundersquall (wind speed reaching 50-60 kmph)** very likely at isolated places over Haryana, East Uttar Pradesh, Bihar and Assam & Meghalaya on 10th; Uttarakhand, Punjab and Sub-Himalayan West Bengal & Sikkim on 10th & 11th April
- ❖ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Kerala & Mahe during next 7 days and Lakshadweep during next 3 days. **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over Tamilnadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Telangana, Karnataka during next 5 days.

Temperature Forecast:

- ❖ Fall by 3-5°C in maximum temperatures likely over Northwest India during next 3 days and gradual rise by 2-4°C thereafter during subsequent 4 days.
- ❖ Fall by 2-4°C in maximum temperatures likely over Central India during next 3 days and no significant change thereafter during subsequent 4 days.
- ❖ Fall by 2-4°C in maximum temperatures likely over west India during next 3 days and gradual rise by 2-3°C thereafter during subsequent 4 days.
- ❖ No significant change over rest parts of the country.

Heat wave, warm night and Hot & Humid weather warning:

- ❖ **Heat wave conditions** very likely at Rajasthan, south Haryana, Gujarat and Madhya Pradesh on 10th April.
- ❖ **A fresh spell of Heat wave conditions** likely at West Rajasthan from 14th to 16th, East Rajasthan, Haryana and Punjab on 16th April.
- ❖ **Hot & humid** weather is likely to prevail over coastal areas of Gujarat and Maharashtra on 10th April.

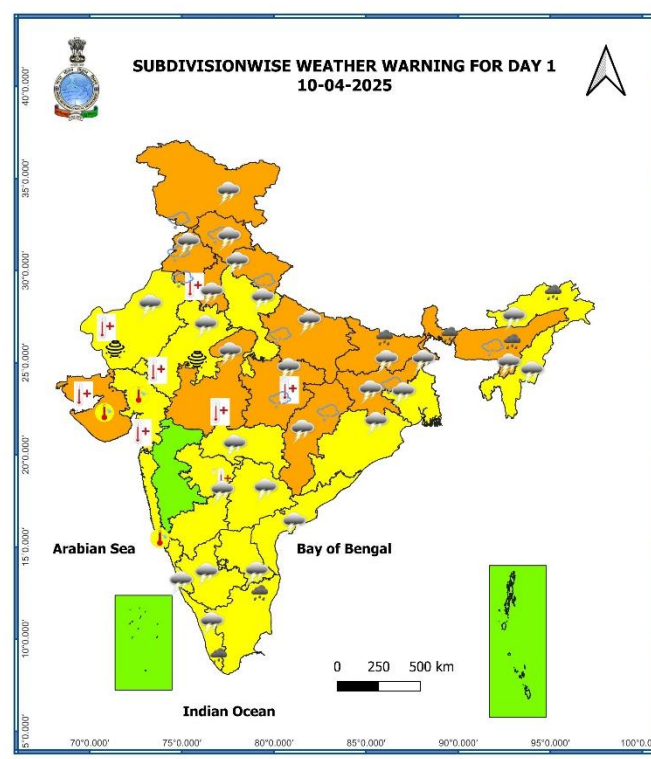
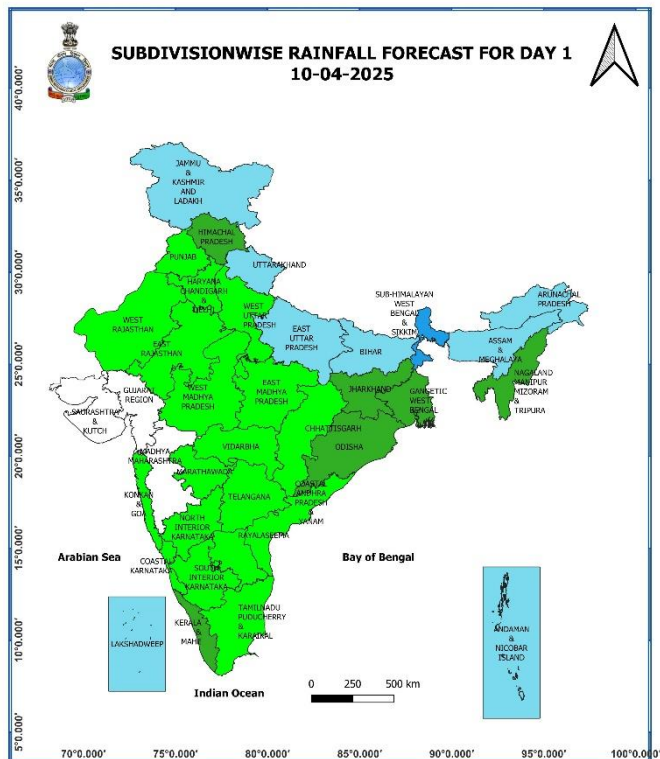
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Light/moderate Rainfall** observed at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Uttarakhand; a few places over Bihar, Kerala, Lakshadweep, South Interior Karnataka, Tamilnadu Puducherry & Karaikal; at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Odisha, Jharkhand, Himachal Pradesh, Haryana, Uttar Pradesh, Rajasthan, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, North Interior Karnataka, Vidarbha and Chhattisgarh.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today): (in cm): **Sub-Himalayan West Bengal & Sikkim:** Jalpaiguri (dist Jalpaiguri) 10, Cooch Behar (dist Cooch Behar) 5, Bagdogra IAF (dist Darjeeling) 5, Amfu Pundibari (dist Cooch Behar) 4, Darjeeling (dist Darjeeling) 4, Kabi (dist Mangan) 3; **Kerala:** Varkala (dist Thiruvananthapuram) 6, Padannakkad (dist Kasargod) 5, Konni (dist Pathanamthitta) 4, Punalur (dist Kollam) 4, Thennala (dist Malappuram) 4, Kudulu (dist Kasargod) 3, Aryankavu (dist Kollam) 3, Chemberi (dist Cannur) 3, Peringome (dist Cannur) 3; **Jammu-Kashmir:** Nowgam (dist Kupwara) 3; **South Interior Karnataka:** Somwarpet (dist Kodagu) 4, Kalasa (dist Chikkamagaluru) 3; **Tamilnadu:** Mylaudy (dist Kanyakumari), Kottaram (dist Kanyakumari) 6 each, Kannimar (dist Kanyakumari), Mambzhathuraiyaru (dist Kanyakumari) 4 each, Anaikedanku (dist Kanyakumari), Adayamadai (dist Kanyakumari), Needamangalam (dist Thiruvallur) 3; **Odisha:** Kolnara (dist Rayagada) 4; **Meghalaya:** Shillong_Aws (dist East Khasi Hills) 3, Shillong C.s.o. (dist East Khasi Hills) 3; **Bihar:** Supaul 12.
- ❖ Yesterday, **heat wave to severe heat wave conditions** prevailed many places over Rajasthan, at a few places over Saurashtra & Kutch, south Haryana and **heat wave conditions** at a few places over Himachal Pradesh, Delhi & adjoining west Uttar Pradesh, Gujarat region at isolated places over Madhya Pradesh.
- ❖ **Heavy to very heavy rainfall** recorded at isolated places over Bihar and **heavy rainfall** over Sub-Himalayan West Bengal & Sikkim.
- ❖ **Hailstorm** occurred at isolated places over East Uttar Pradesh, South Haryana, Uttarakhand, Himachal Pradesh and Meghalaya.
- ❖ **Thunderstorm accompanied with Squally/Gusty winds** prevailed at isolated locations over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Himachal Pradesh, Haryana, Uttar Pradesh, Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, Lakshadweep and Andaman & Nicobar Islands.
- ❖ **Warm night conditions** prevailed in isolated pockets of Madhya Pradesh, Madhya Maharashtra and Marathwada.
- ❖ **Minimum Temperature Departures (as on 10-04-2025):** Minimum temperatures are **markedly above normal (5.1°C or more)** at most places over Delhi; at a few places over Punjab and Haryana-Chandigarh; at isolated places over West Uttar Pradesh, West Rajasthan and Saurashtra & Kutch; **appreciably above normal (3.1°C to 5.0°C)** at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh; at a few places over Madhya Pradesh, East Rajasthan and Konkan & Goa; at isolated places over Uttarakhand, Gujarat Region, Madhya Maharashtra, Marathwada and Vidarbha; **above normal (1.6°C to 3.0°C)** at many places over Bihar; at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana and Tamil Nadu, Puducherry & Karaikal. These are **below normal (-3.0°C to -1.6°C)** at isolated places over Karnataka and normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature** of 17.0°C was reported at **Kheri (East Uttar Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 09-04-2025):** Maximum Temperatures were **markedly above normal (5.1°C or more)** at many places over Rajasthan; at a few places over Punjab Haryana-Chandigarh-Delhi, Himachal Pradesh and Saurashtra & Kutch; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **appreciably above normal (3.1°C to 5.0°C)** at many places over West Madhya Pradesh; at few places over Gujarat Region, East Madhya Pradesh, West Uttar Pradesh and Assam & Meghalaya; at isolated places over Konkan & Goa and Madhya Maharashtra; **above normal (1.6°C to 3.0°C)** at many places over East Madhya Pradesh; at isolated places over Coastal Andhra Pradesh & Yanam, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal and Tamil Nadu, Puducherry & Karaikal. These were **below normal (-3.0°C to -1.6°C)** at isolated places over Bihar, Odisha and normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature** of 45.6°C was reported at **Kandla (Saurashtra & Kutch)** over the country.

Meteorological Analysis (Based on 0830 hours IST)

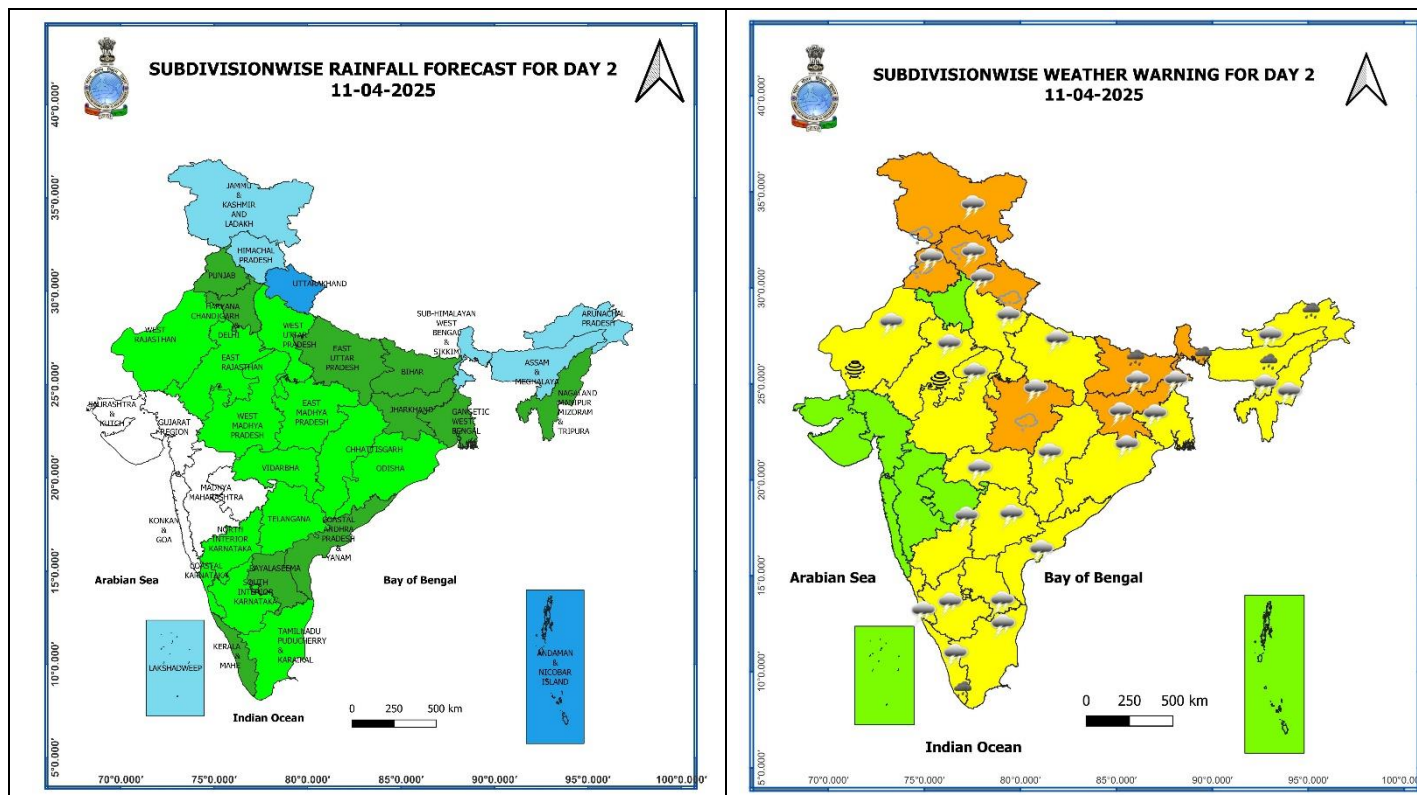
- ❖ The **Low-pressure area** over westcentral Bay of Bengal persisted at 0830 hrs IST of today, the 10th April, 2025 with the associated cyclonic circulation extending upto middle tropospheric levels. It is likely to move north-northeastwards and weaken gradually over central Bay of Bengal during next 24 hours.
- ❖ The **Western Disturbance** as a trough in westerlies in middle and upper tropospheric level with its axis at 5.8 km above mean sea level now runs roughly along Long. 68°E and to the north of Lat. 28°N.
- ❖ An upper air **cyclonic circulation** lies over Punjab & neighbourhood at 0.9 km above mean sea level.
- ❖ An upper air **cyclonic circulation** lies over south Pakistan adjoining southwest Rajasthan at 1.5 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over northwest Madhya Pradesh & neighbourhood persists and now seen at 0.9 km above mean sea level.
- ❖ The **trough** from west Rajasthan to northwest Vidarbha across Madhya Pradesh now runs from west Rajasthan to Marathwada across west Madhya Pradesh at 0.9 km above mean sea level.
- ❖ A **trough** in middle and upper tropospheric westerlies with its axis at 5.8 km above mean sea level run roughly along Long. 77°E and to the north of Lat. 21°N.
- ❖ An upper air **cyclonic circulation** lies over northeast Bihar between 3.1 & 5.8 km above mean sea level.
- ❖ An upper air **cyclonic circulation** lies over south Assam at 0.9 km above mean sea level.
- ❖ An upper air **cyclonic circulation** over north Bangladesh at 0.9 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over northeast Assam & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The **trough** from the cyclonic circulation associated with low pressure area over westcentral Bay of Bengal to south Tamil Nadu extending upto 1.5 km above mean sea level has become less marked.
- ❖ The upper air **cyclonic circulation** over West Rajasthan & neighbourhood at 1.5 km above mean sea level has become less marked.
- ❖ The **trough** from southeast Madhya Pradesh to east Gangetic West Bengal across Chhattisgarh & Jharkhand at 0.9 km above mean sea level has become less marked.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 17th April, 2025)



10th April (Day 1):

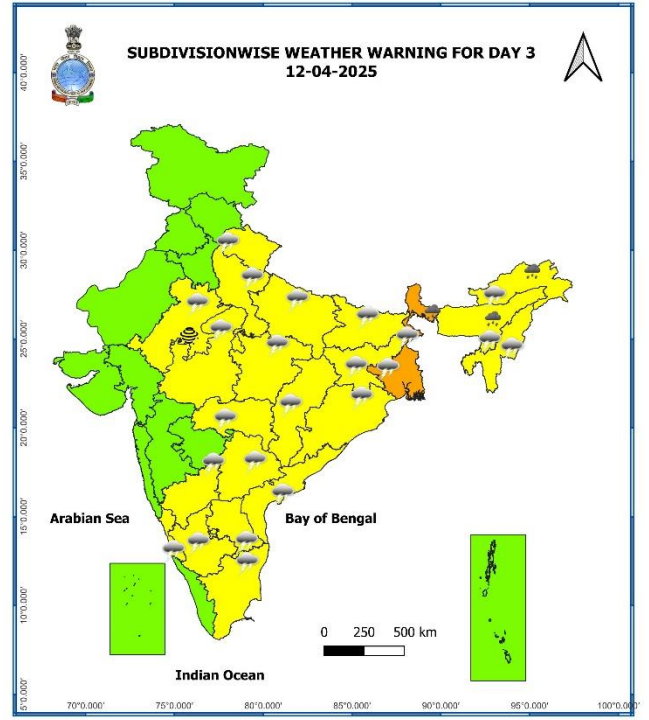
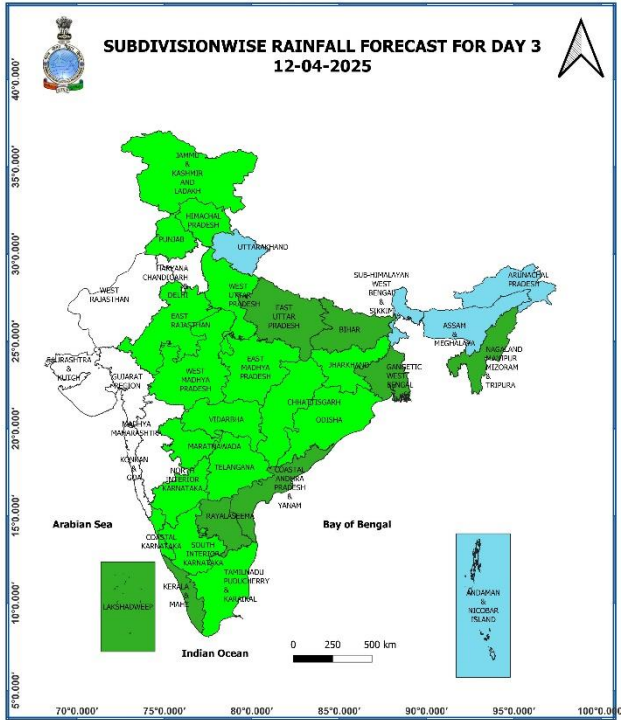
- ❖ **Heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Arunachal Pradesh, Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph) & hailstorm** very likely at isolated places over Uttarakhand, Punjab, Haryana-Chandigarh-Delhi and East Uttar Pradesh; **Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph)** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph) & hailstorm** at isolated places over East Madhya Pradesh, Chhattisgarh, Jharkhand; **with lightning & gusty winds (speed reaching 30 - 40 kmph) & hailstorm** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Assam & Meghalaya; **with lightning & gusty winds (speed reaching 40 - 50 kmph)** at isolated places over Rajasthan, west Madhya Pradesh, Vidarbha, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura and South Interior Karnataka; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over West Uttar Pradesh, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Kerala & Mahe; **with lightning** at isolated places over Coastal Karnataka and North Interior Karnataka.
- ❖ **Duststorm** very likely at isolated places over Rajasthan.
- ❖ **Heat wave conditions** very likely in isolated pockets over south Haryana, Rajasthan, Madhya Pradesh and Gujarat state.
- ❖ **Hot and humid conditions** very likely in isolated places over Konkan & Goa, Gujarat state,
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over Marathwada.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over westcentral & northeast Bay of Bengal, over gulf of Mannar & adjoining Comorin area, along and off Tamil Nadu coasts, along and off Sri Lanka coasts adjoining parts of southwest Bay of Bengal. **Squally wind with wind speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail along and off Oman coasts.



11th April (Day 2):

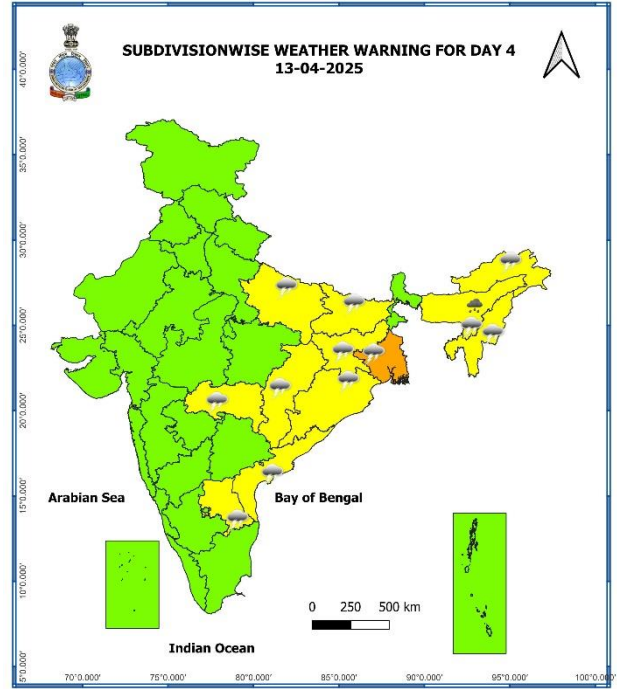
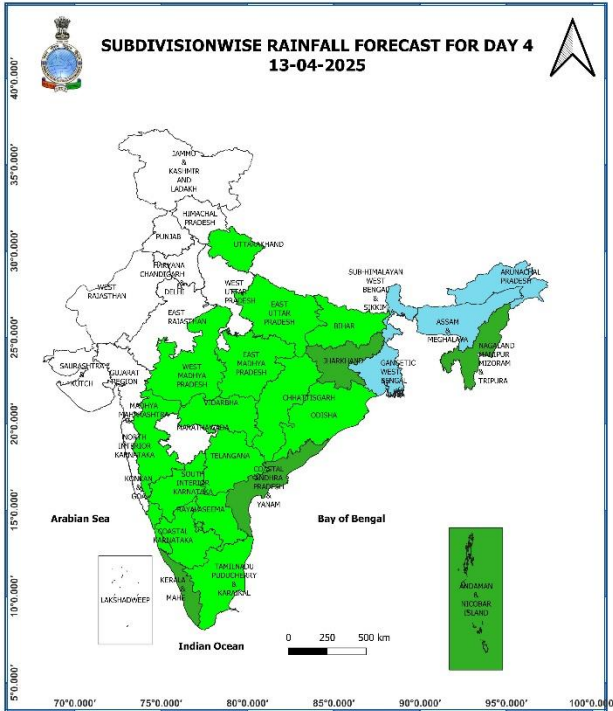
- ❖ **Heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Arunachal Pradesh, Assam & Meghalaya and Kerala & Mahe.
- ❖ **Thundersquall accompanied with lightning, gusty Winds (speed reaching 50 - 60 kmph) & hailstorm** very likely at isolated places over Uttarakhand, Punjab; **Thundersquall accompanied with lightning, gusty Winds (speed reaching 50 - 60 kmph)** likely at isolated places over Sub-Himalayan West Bengal & Sikkim; **Thunderstorm accompanied with lightning, gusty Winds (speed reaching 40 - 50 kmph) & hailstorm** at isolated places over East Madhya Pradesh; **with lightning & gusty Winds (speed reaching 30 - 40 kmph) & hailstorm** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh; **with lightning & gusty Winds (speed reaching 40 - 50 kmph)** at isolated places over East Uttar Pradesh, West Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Odisha and Assam & Meghalaya; **with lightning & gusty Winds (speed reaching 30 - 40 kmph)** at isolated places over West Uttar Pradesh, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana; **with lightning** at isolated places over Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal and Karnataka.
- ❖ **Duststorm** very likely at isolated places over Rajasthan.

Squally weather with Wind speed 35 kmph to 45 kmph gusting to 55 kmph likely to prevail over gulf of Mannar & adjoining Comorin area, along and off Tamil Nadu coast, along and off Sri Lanka coast and adjoining southwest Bay of Bengal. **Squally Wind with Wind speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail along and off Oman coasts.



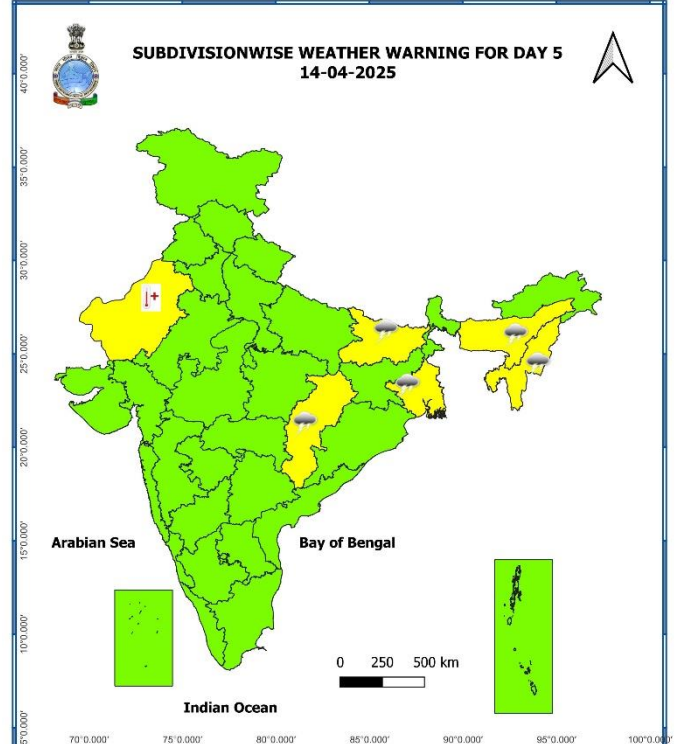
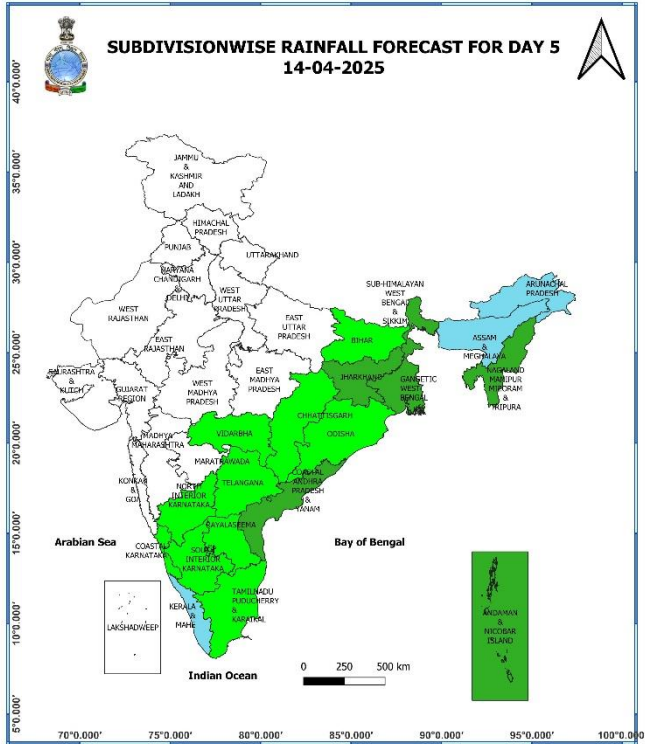
12th April (Day 3):

- ❖ **Heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, and Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph)** at isolated places over East Uttar Pradesh, East Madhya Pradesh, West Bengal & Sikkim, Jharkhand and Assam & Meghalaya; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over East Rajasthan, West Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Odisha, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana; **with lightning** at isolated places over East Rajasthan, Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal and Karnataka.
- ❖ **Duststorm** very likely at isolated places over east Rajasthan.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Gulf of Mannar & adjoining Comorin area.



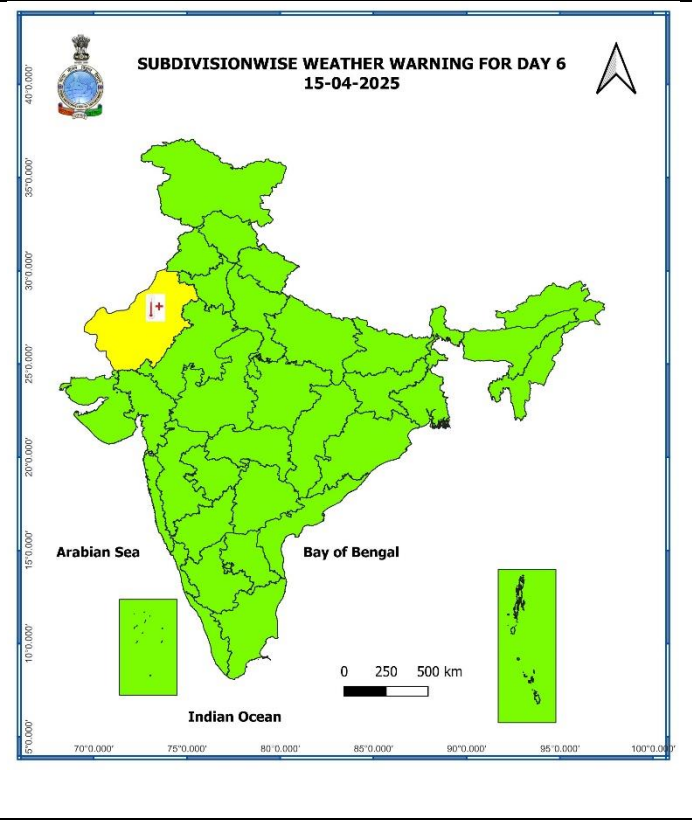
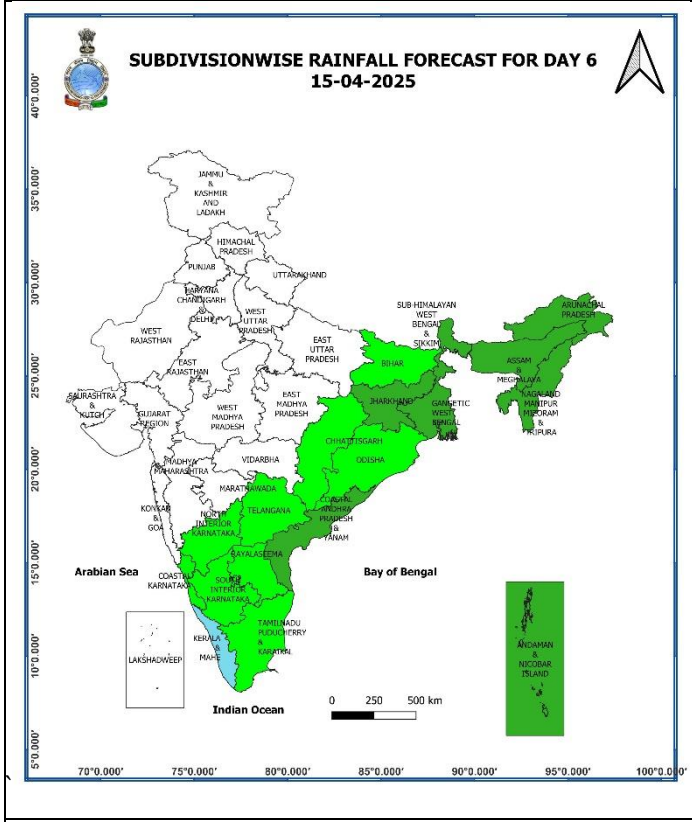
13th April (Day 4):

- ❖ **Heavy rainfall** very likely at isolated places over Assam & Meghalaya.
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph)** likely at isolated places over Gangetic West Bengal; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph)** at isolated places over Coastal Karnataka, Assam & Meghalaya; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over East Uttar Pradesh, Bihar, Jharkhand, Odisha, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam; **with lightning** at isolated places over Vidarbha and Arunachal Pradesh.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Gulf of Mannar; adjoining Comorin area. Fishermen are advised not to venture into these areas.



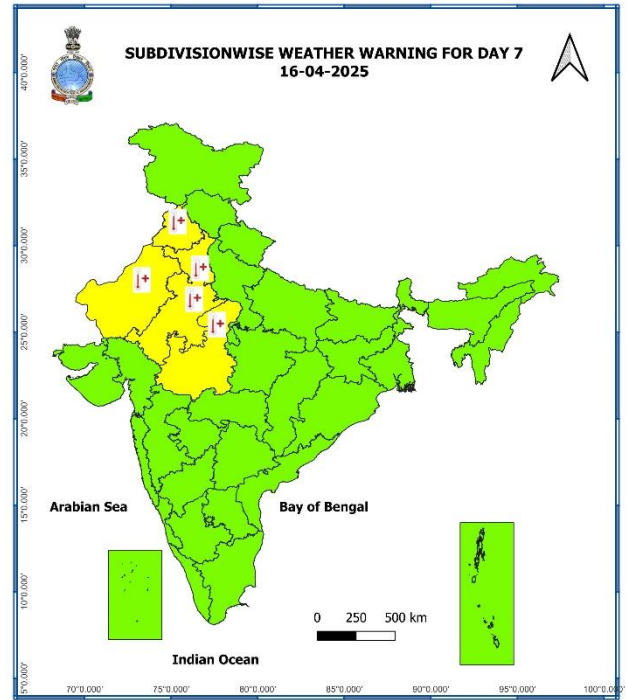
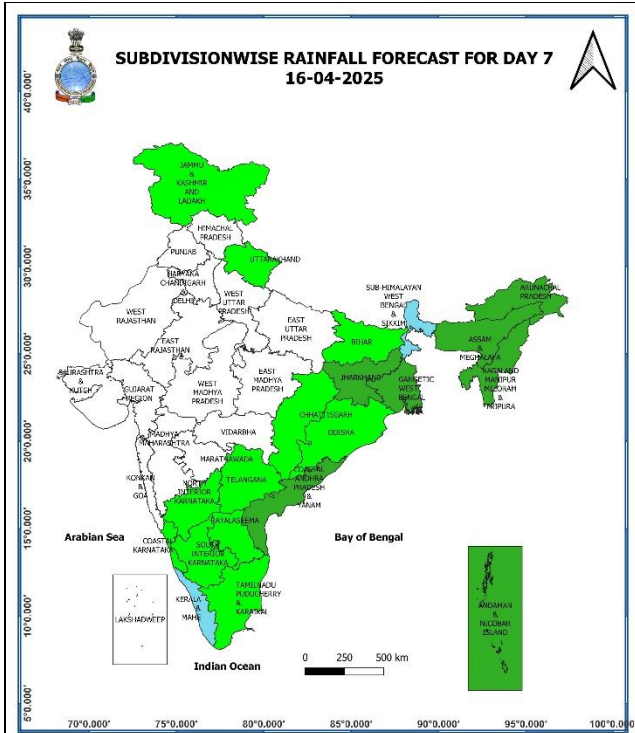
14th April (Day 5):

- ❖ **Heat wave conditions** very likely in isolated pockets over west Rajasthan.
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph)** at isolated places over Assam & Meghalaya, Gangetic West Bengal; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Bihar, Chhattisgarh and Nagaland, Manipur, Mizoram & Tripura.



15th April (Day 6):

❖ **Heat wave conditions** likely in isolated pockets over West Rajasthan.



16th April (Day 7):

- ❖ Heat wave conditions likely in isolated pockets over Punjab, Haryana, Delhi and West Rajasthan.

Weather Outlook for subsequent 3 days (During 17th April- 19th April, 2025)

- ❖ Isolated to scattered rainfall likely over Western Himalayan region, East & Northeast India, south peninsular India.

Action may be taken based on **ORANGE AND RED COLOUR** warnings.

- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

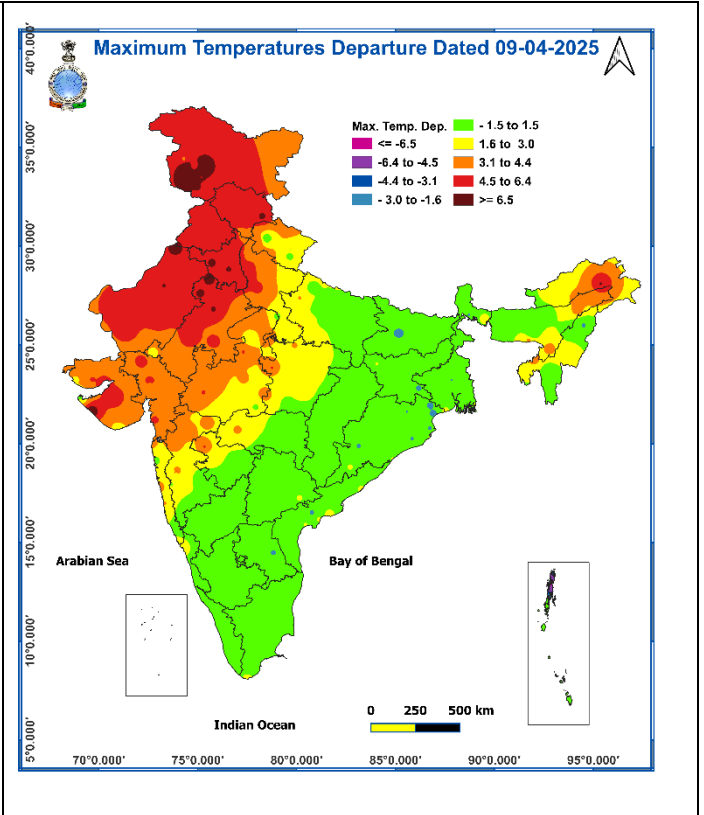
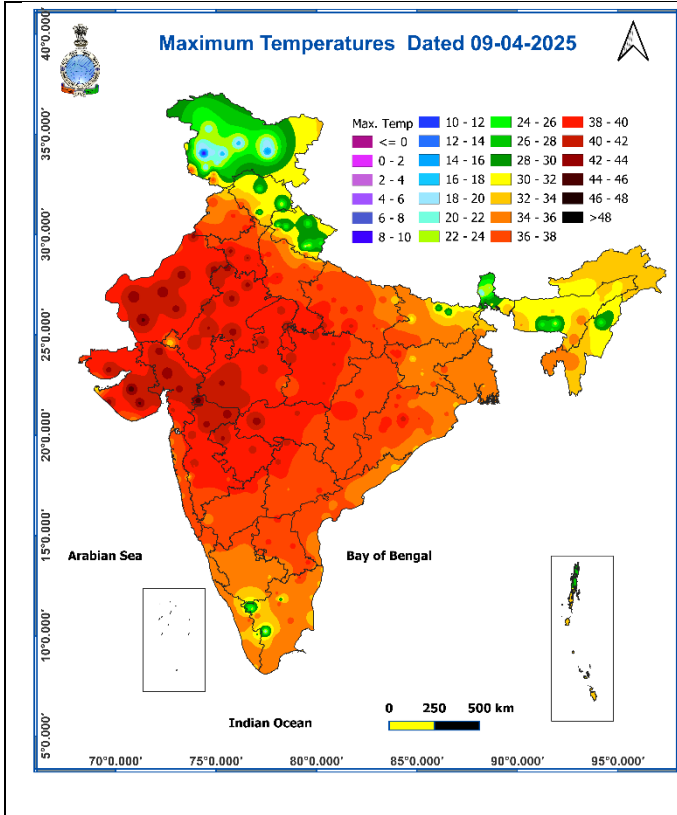
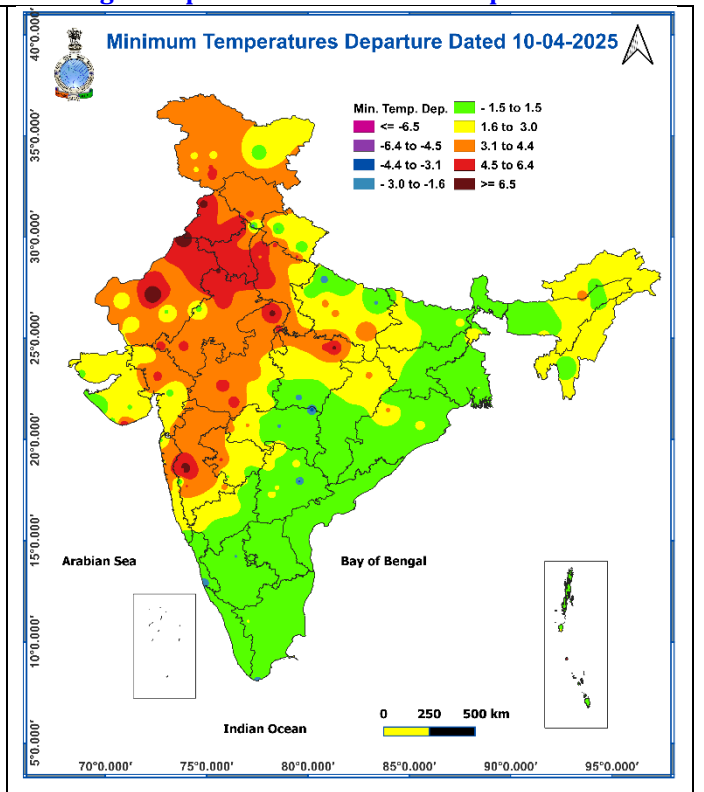
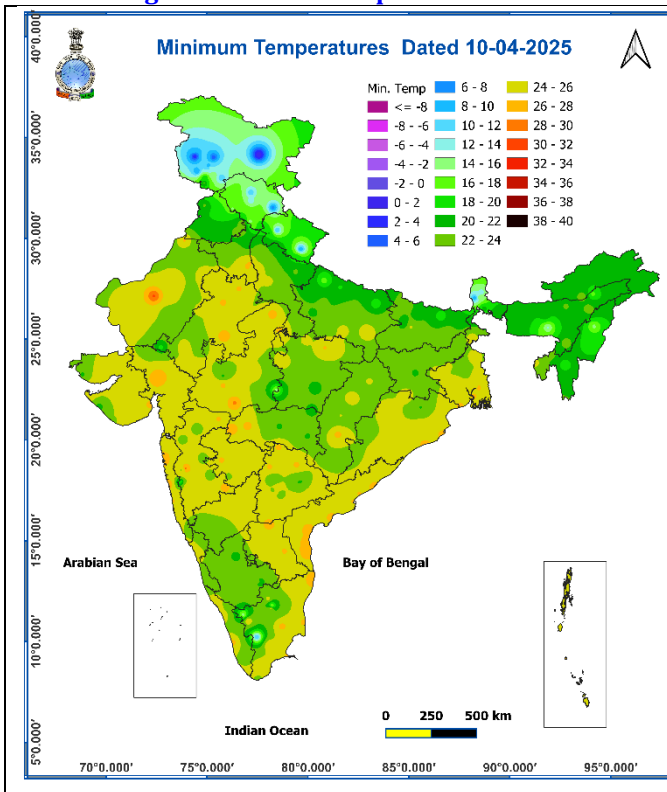


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



Impact expected and action suggested due to Heat wave to severe heat wave conditions very likely at Rajasthan, south Haryana, Gujarat and Madhya Pradesh on 10th April.

Orange alert Areas

- High temperature & increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.
- High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure– keep cool. Avoid dehydration.
- Drink sufficient water- even if not thirsty.
- Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

Yellow alert Areas

- Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure.
- Wear lightweight, light colour, loose, cotton clothes.
- Cover your head, use a cloth, hat or umbrella.

Impact expected and action suggested due to isolated thunderstorm with lightning/gusty winds & Hailstorm over Haryana, East Uttar Pradesh, north Chhattisgarh, East Madhya Pradesh, Jharkhand, Assam & Meghalaya on 10th April; Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand and Punjab on 10th & 11th and Uttarakhand during 10th-12th April.

Impact expected:

- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

Action suggested:

- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

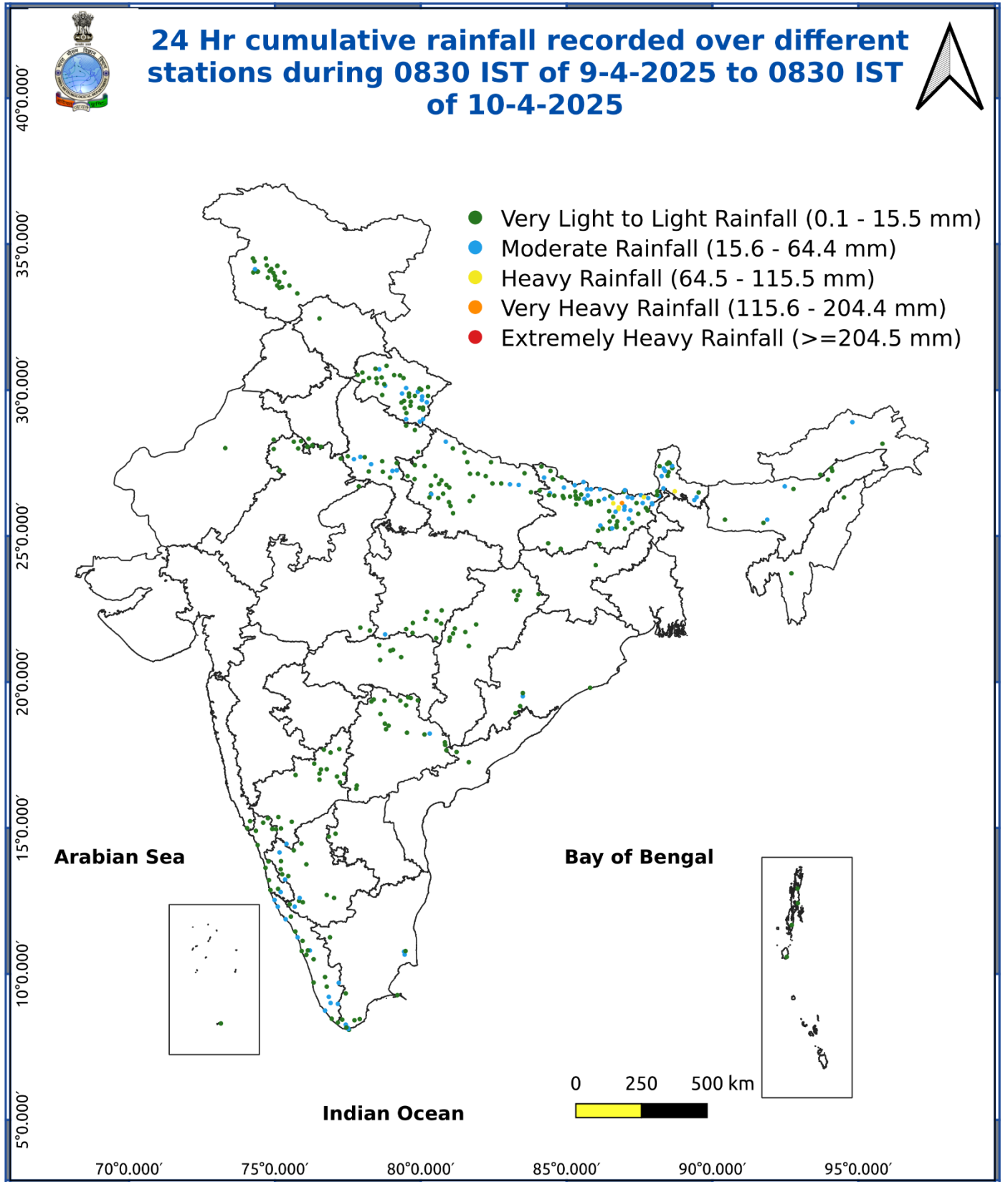
Agromet advisories for likely impact of Hailstorm / Heavy Rainfall / Gusty Winds / Heatwave

- In **Assam & Meghalaya, Jharkhand, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, East Uttar Pradesh and East Madhya Pradesh**, immediately shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields to avoid the adverse impact of likely hailstorm. Use hail net and hail caps to prevent mechanical damage in orchards due to hailstorms.
- In **Arunachal Pradesh and Assam & Meghalaya**, immediately harvest the matured crops, fruits and vegetables and shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields. Also make provision to drain out excess water from standing crop and vegetable fields.
- In **Bihar, Sub Himalayan West Bengal & Sikkim, Tamil Nadu and Kerala**, drain out excess water from standing crop and vegetable fields.
- In **Madhya Pradesh and Gujarat State**, apply light and frequent irrigation to standing crops in the evening to protect them from heat waves.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.

Livestock / Poultry / Fishery

- Keep the animals inside the shed during heavy rainfall / hailstorm and provide them balanced feed.
 - Store feed and fodder in a safe place to prevent spoilage.
 - To reduce the effect of heat wave/high temperature, cover the roof of poultry sheds with grass. Also provide clean, hygienic and plenty of drinking water to animals.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow

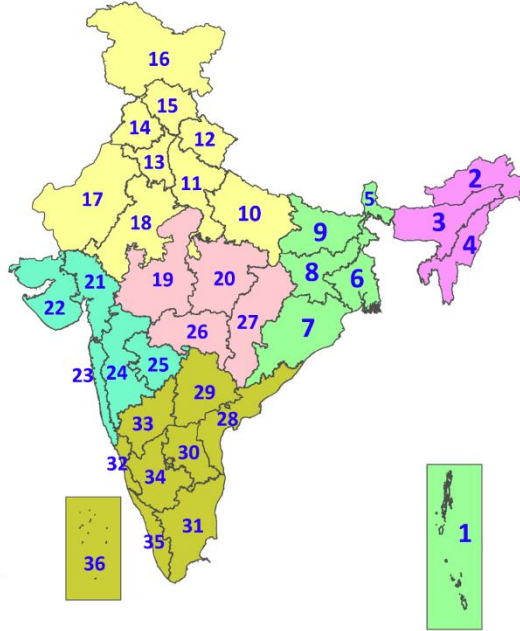
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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)

LEGENDS

1. अंडमान और निकोबार द्वीपसमूह
2. अरुणाचल प्रदेश
3. असम और मेघालय
4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
5. उप-हिमालयी पश्चिम बंगाल और सिक्किम
6. गंगीय पश्चिम बंगाल
7. ओडिशा
8. झारखंड
9. बिहार
10. पूर्वी उत्तर प्रदेश
11. पश्चिम उत्तर प्रदेश
12. उत्तराखंड
13. हरियाणा, चंडीगढ़ और दिल्ली
14. पंजाब
15. हिमाचल प्रदेश
16. जम्मू और कश्मीर और लद्दाख
17. पश्चिम राजस्थान
18. पूर्वी राजस्थान
19. पश्चिम मध्य प्रदेश
20. पूर्वी मध्य प्रदेश
21. गुजरात
22. सौराष्ट्र
23. कोंकण और गोवा
24. मध्य महाराष्ट्र
25. मराठवाड़ा
26. विदर्भ
27. छत्तीसगढ़
28. तटीय आंध्र प्रदेश और यनम
29. तेलंगाना
30. रायलसीमा
31. तमिलनाडु, पुडुचेरी और कराईकल
32. तटीय कर्नाटक
33. आंतरिक उत्तरी कर्नाटक
34. आंतरिक दक्षिणी कर्नाटक
35. केरल और 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, Chandigarh & 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. Vidarbha
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)

- | | | |
|----------------------|----------------------|--------------|
| Fog | Heavy Snow | Cold Wave |
| Heavy Rain | Dust Storm | Cold Day |
| Very Heavy Rain | Heat Wave | Ground Frost |
| Extremely Heavy Rain | Warm Night | |
| Thunder & Lightning | Hot Day | |
| Hailstorm | Hot & Humid | |
| Dust Raising Winds | Strong Surface Winds | |

COLOUR CODED WARNING

No Warning (No Action)
Watch (Be Aware)
Alert (Be Prepared To Take Action)
Warning (Take Action)

Probabilistic Forecast

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

DEFINITION/CRITERIA

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 Strom: Wind speed > 220 kmph (> 119 knots)

Hot and Humid: When maximum temperatures remains 3°C above normal along with the above normal relative humidity.