

Tuesday, April 8, 2025  
Time of Issue: 1345 hours IST  
(MID-DAY)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Weather Systems, Forecast and Warnings:

- ❖ The Low-Pressure Area over southwest & adjoining southeast Bay of Bengal moved northwestwards and lay as a Well-Marked Low-pressure area over southwest and adjoining Westcentral Bay of Bengal at 0830 hrs IST of today, the 08<sup>th</sup> April, 2025 with the associated cyclonic circulation extends upto middle tropospheric levels. It is likely to move north-northwestwards during next 24 hours over westcentral Bay of Bengal, maintaining the intensity of well marked low. Thereafter, it is likely to recurve north-northeastwards and weaken gradually over central Bay of Bengal during subsequent 24 hours.
- ❖ A trough runs from southeast Uttar Pradesh to North Bangladesh in lower tropospheric levels.
- ❖ An upper air cyclonic circulation lies over Madhya Maharashtra & neighbourhood and a trough from this cyclonic circulation to south Interior Karnataka in lower tropospheric levels.
- ❖ Under the influence of these systems;
  - ✓ **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, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana, Karnataka on 08<sup>th</sup> & 09<sup>th</sup>; East and Northeast India during 08<sup>th</sup>-12<sup>th</sup> April.
  - ✓ **Isolated Hailstorm** likely over Bihar on 09<sup>th</sup> April.
  - ✓ **Heavy rainfall** very likely at isolated places over Assam & Meghalaya on 09<sup>th</sup> & 10<sup>th</sup>; Arunachal Pradesh on 10<sup>th</sup> April.
- ❖ **A fresh Western Disturbance as a trough in westerlies in middle tropospheric levels runs roughly along Long. 54°E to the north of Lat. 28°N. A trough runs from West Rajasthan to west Vidarbha in lower 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 isolated to scattered rainfall over Himachal Pradesh and Uttarakhand during 09<sup>th</sup>-11<sup>th</sup> April and isolated rainfall over plains of Northwest India on 10<sup>th</sup> April.
  - ✓ **Isolated Hailstorm** likely over Jammu-Kashmir on 09<sup>th</sup> April.

#### Temperature Forecast:

- ❖ No significant change in maximum temperatures likely over Northwest India, Gujarat and Maharashtra during next 2 days and fall by 2-4°C during subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over Central India during next 3 days and fall by 2-3°C during subsequent 4 days.

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

- ❖ **Heat wave conditions** very likely at some/many places over West Rajasthan on 08<sup>th</sup> & 09<sup>th</sup> April with severe heat wave conditions at isolated pockets on 08<sup>th</sup> April.
- ❖ **Heat wave conditions** likely at isolated to some pockets over Saurashtra & Kutch, East Rajasthan, Punjab, Haryana Chandigarh & Delhi on 08<sup>th</sup> & 09<sup>th</sup> April with severe heat wave conditions at isolated pockets over the region 08<sup>th</sup> April.
- ❖ **Heat wave conditions** very likely in isolated pockets of Himachal Pradesh on 08<sup>th</sup>; West Uttar Pradesh, Vidarbha on 08<sup>th</sup> & 09<sup>th</sup>; Madhya Pradesh, Gujarat Region during 08<sup>th</sup>-10<sup>th</sup> April.
- ❖ **Warm night** conditions very likely in isolated pockets of West Madhya Pradesh during 08<sup>th</sup>-10<sup>th</sup>; Rajasthan, Marathwada, Madhya Maharashtra on 08<sup>th</sup> & 09<sup>th</sup> and Punjab, Haryana Chandigarh & Delhi on 08<sup>th</sup> April.
- ❖ **Hot & humid** weather is likely to prevail over Tamilnadu Puducherry & Karaikal, Kerala & Mahe on 08<sup>th</sup> and Konkan & Goa, Madhya Maharashtra on 08<sup>th</sup> & 09<sup>th</sup> April.

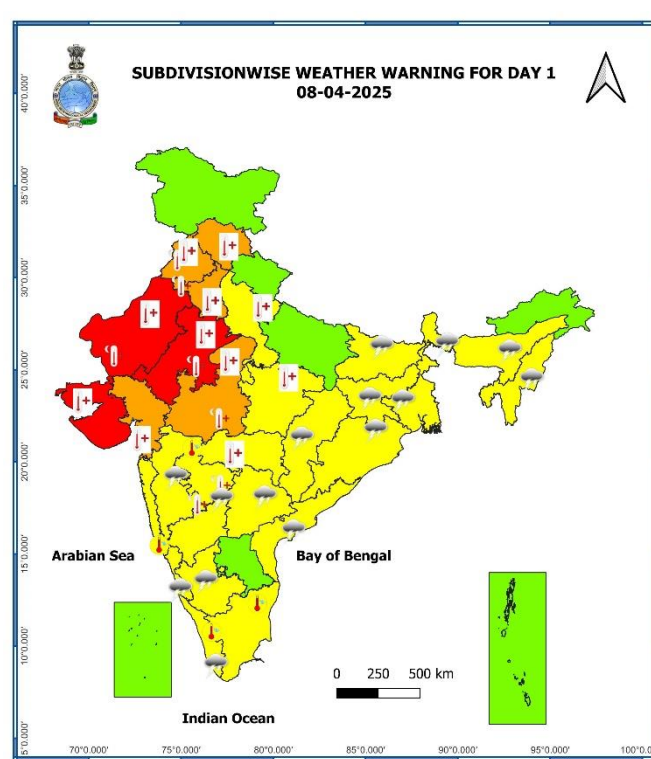
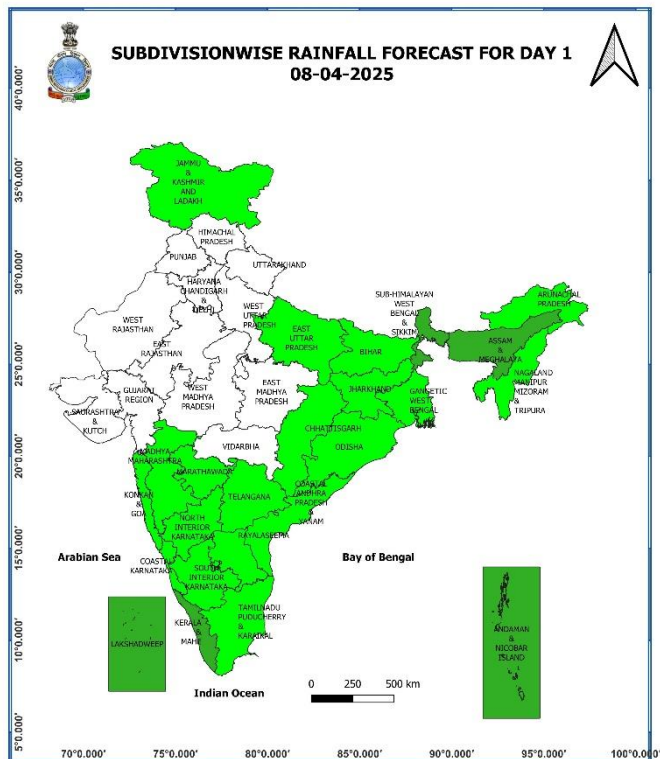
## Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): at a few places over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Lakshadweep; at isolated places over Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana and Karnataka.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **North Interior Karnataka:** Khanapur (dist Belagavi) 4, **Telangana:** Govindaraopet (dist Mulugu) 3, Tadwai Mlg (dist Mulugu) 3, **Coastal Andhra Pradesh & Yanam:** Amaravati (dist Guntur) 3, **Tamil Nadu:** Puthan Dam (dist Kanyakumari), Perunchani Dam (dist Kanyakumari) 3 each.
- ❖ **Heatwave conditions at most places with severe heat wave conditions in many pockets** prevailed over West Rajasthan; **Heatwave conditions at many places with severe heat wave conditions** in isolated pockets over East Rajasthan; **Heatwave to severe heat wave conditions** in isolated pockets of Saurashtra & Kutch, Himachal Pradesh, Punjab. **Heatwave conditions** in isolated pockets of Haryana-Chandigarh & Delhi, West Madhya Pradesh, Gujarat Region.
- ❖ **Thundersquall** observed at isolated places over Tripura (Agartala).
- ❖ **Thunderstorm accompanied with Squally/Gusty winds** prevailed at isolated locations over Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Telangana and Karnataka.
- ❖ **Minimum Temperature Departures (as on 08-04-2025):** Minimum temperatures are **markedly above normal (5.1°C or more)** at many places over West Rajasthan; at isolated places over East Rajasthan, Punjab, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **appreciably above normal (3.1°C to 5.0°C)** at most places over West Uttar Pradesh, Himachal Pradesh, Uttarakhand, Haryana-Chandigarh-Delhi; at many places over East Uttar Pradesh; at a few places over Gujarat state; **above normal (1.6°C to 3.0°C)** at most places over Madhya Pradesh, Bihar, Jharkhand; at a few places over Chhattisgarh, Odisha, Gangetic West Bengal; at isolated places over Konkan & Goa, Madhya Maharashtra, Kerala & Mahe, Coastal Andhra Pradesh & Yanam. These are **below normal (-3.0°C to -1.6°C)** at isolated places over Telangana, Assam & Meghalaya and normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature of 14.0°C** is reported at **Muzaffarnagar (West Uttar Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 07-04-2025):** Maximum Temperatures were **markedly above normal (5.1°C or more)** at most places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Rajasthan; at many places over East Rajasthan; at isolated places over West Uttar Pradesh, Uttarakhand; **appreciably above normal (3.1°C to 5.0°C)** at most places over Gujarat state; at many places over West Madhya Pradesh; at a few places over East Madhya Pradesh; at isolated places over Vidarbha, East Uttar Pradesh, Arunachal Pradesh; **above normal (1.6°C to 3.0°C)** at most places over Chhattisgarh, Marathwada, Madhya Maharashtra, Konkan & Goa; at many places over Odisha, Assam & Meghalaya; at a few places over Jharkhand, Telangana, North Interior Karnataka; at isolated places over Bihar, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Nagaland, Manipur, Mizoram & Tripura. These were **below normal (-3.0°C to -1.6°C)** at isolated places over Gangetic West Bengal and near normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 45.6°C** was reported at **Barmer (West Rajasthan)** over the country.

## Meteorological Analysis (Based on 0830 hours IST)

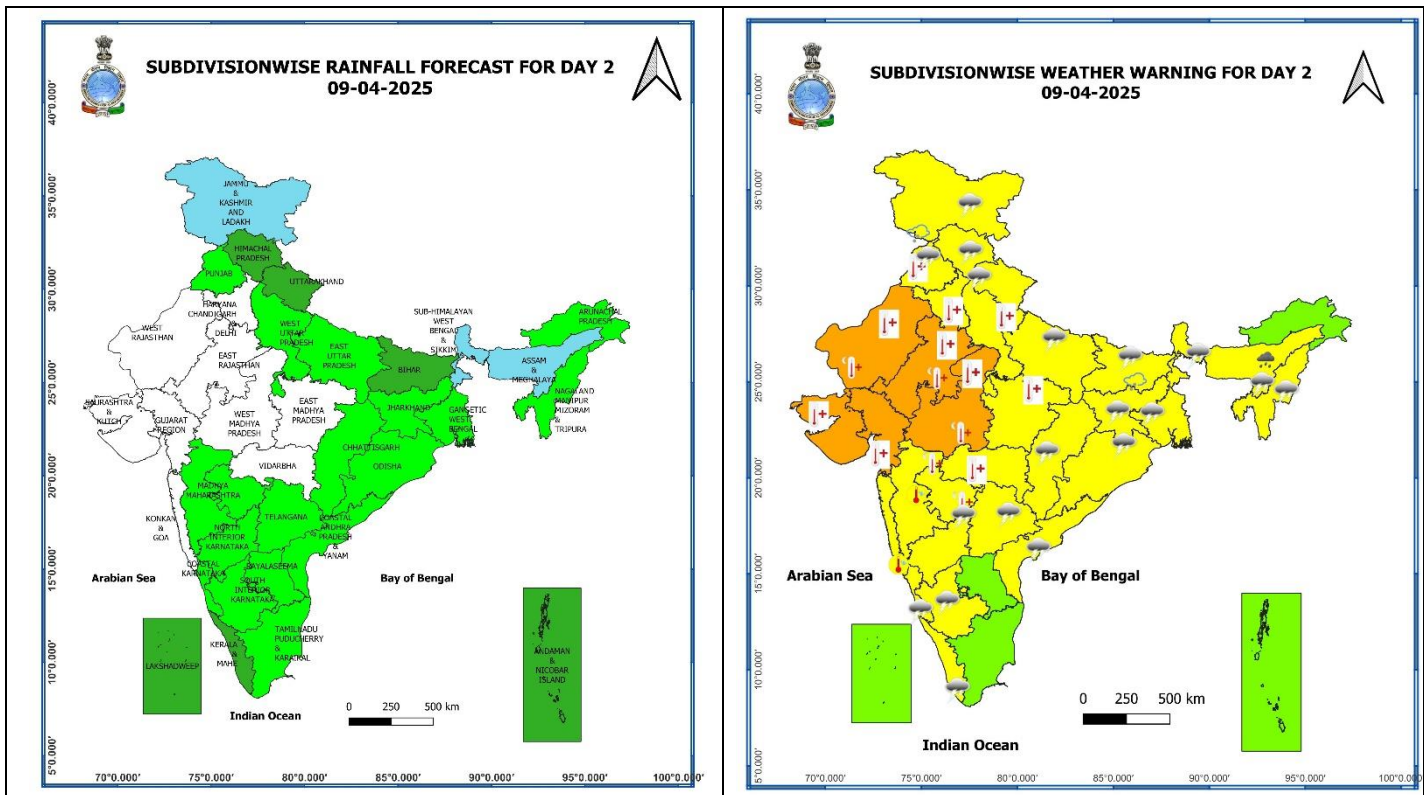
- ❖ The **Low-Pressure Area** over southwest & adjoining southeast Bay of Bengal moved northwestwards and lay as a **Well-Marked Low-pressure** area over southwest and adjoining Westcentral Bay of Bengal at 0830 hrs IST of today, the 08th April, 2025 with the associated cyclonic circulation extends upto middle tropospheric levels. It is likely to move north-northwestwards during next 24 hours over westcentral Bay of Bengal, maintaining the intensity of well marked low. Thereafter, it is likely to recurve north-northeastwards and weaken gradually over central Bay of Bengal during subsequent 24 hours.
- ❖ The **trough** from the above cyclonic circulation over southeast Bay of Bengal to south Tamil Nadu across southwest Bay of Bengal persists and now extends upto 0.9 km above mean sea level.
- ❖ The **Western Disturbance** as a trough in westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 54°E to the north of Lat. 28°N.
- ❖ A trough runs from west Rajasthan to west Vidarbha and extends upto 1.5 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over northeast Assam & neighbourhood persists and now seen at 3.1 km above mean sea level.
- ❖ An upper air **cyclonic circulation** lies over Madhya Maharashtra & neighbourhood at 0.9 km above mean sea level.
- ❖ The **trough** from north Madhya Maharashtra to South Interior Karnataka now runs from above cyclonic circulation over Madhya Maharashtra to south Interior Karnataka across North Interior Karnataka at 0.9 km above mean sea level.
- ❖ A trough runs from southeast Uttar Pradesh to North Bangladesh across Bihar at 0.9 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over northeast Jharkhand & neighbourhood at 1.5 km above mean sea level has become less marked.
- ❖ The **trough** from East Bihar to North Telangana across the cyclonic circulation over northeast Jharkhand, Chhattisgarh at 1.5 km above mean sea level has become less marked.

**Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 15<sup>th</sup> April, 2025)**



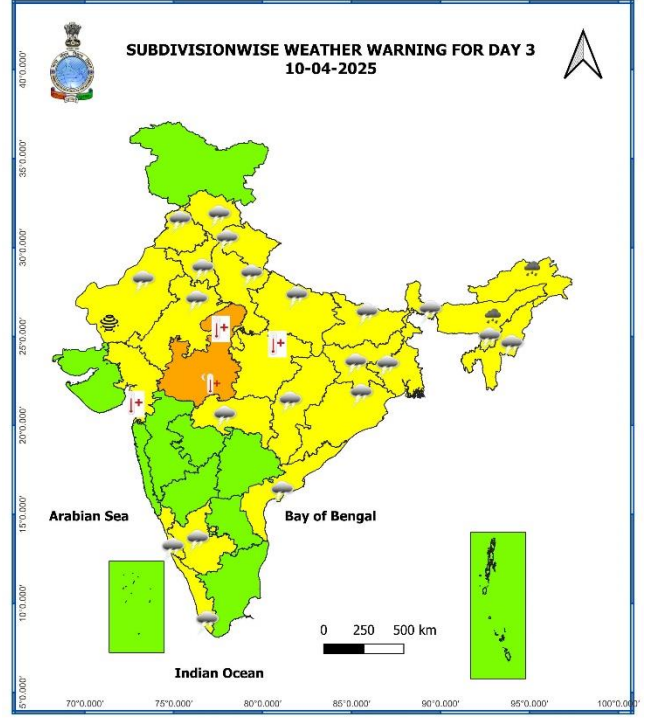
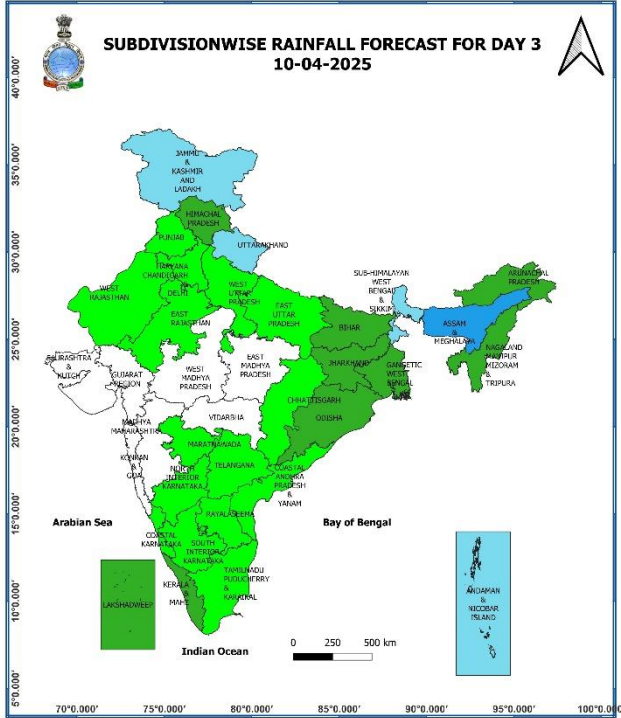
**08<sup>th</sup> April (Day 1):**

- ❖ **Heavy rainfall** very likely at isolated places over Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph)** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Telangana, Karnataka; with lightning at isolated places over Kerala & Mahe.
- ❖ **Heat wave at most places with severe Heat wave conditions** very likely in some places over West Rajasthan; **Heat wave at some places with severe Heat wave conditions** very likely in isolated pockets over East Rajasthan; Heat wave to severe Heat wave **conditions** in some parts of Punjab & Haryana-Chandigarh-Delhi, Saurashtra & Kutch; in isolated pockets of Himachal Pradesh; **Heat wave conditions** in isolated pockets of West Uttar Pradesh, Madhya Pradesh, Vidarbha, Gujarat Region.
- ❖ **Hot and humid weather** very likely in isolated pockets of Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- ❖ **Warm night conditions** very likely to prevail in many places over West Rajasthan; in isolated pockets over Punjab, Haryana-Chandigarh, East Rajasthan, West Madhya Pradesh, Madhya Maharashtra, Marathwada.
- ❖ **squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over southern parts of central bay of Bengal and adjoining northern parts of south bay of Bengal; **squally wind with wind speed 45 kmph to 50 kmph gusting to 55 kmph likely** to prevail over south Gujarat and adjoining north Maharashtra coasts. fishermen are advised not to venture into these areas.



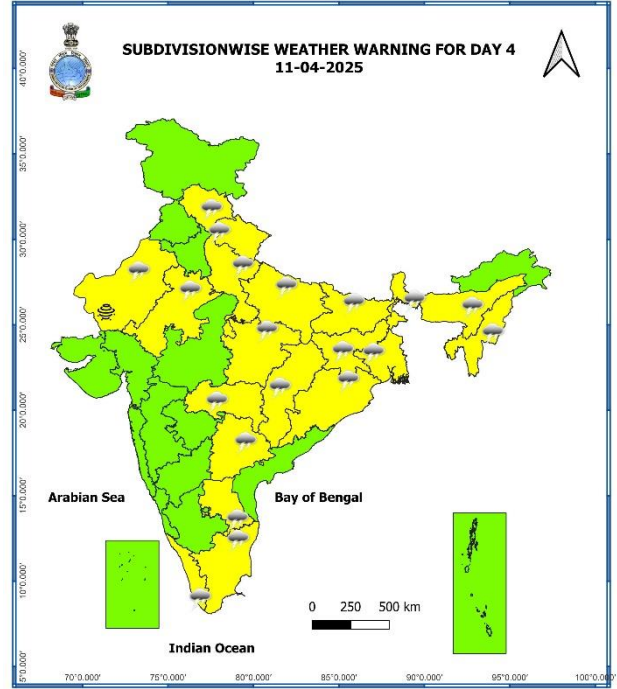
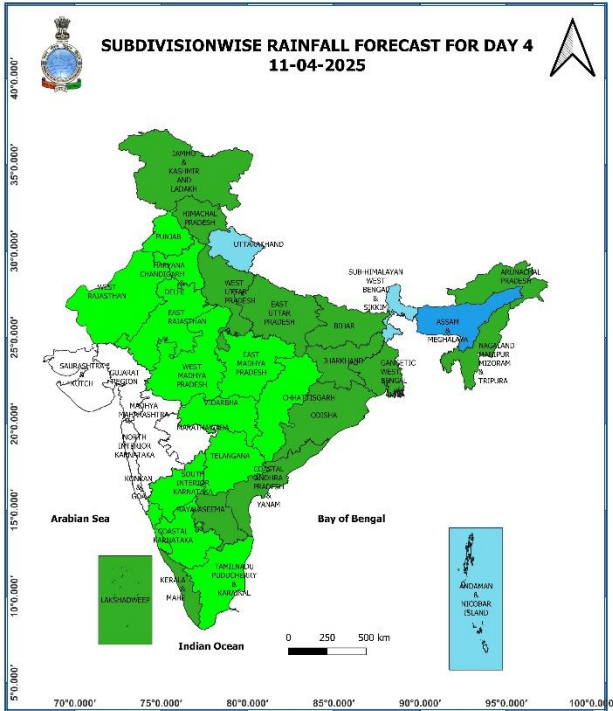
**09<sup>th</sup> April (Day 2):**

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40 - 50 kmph) & hailstorm** very likely at isolated places over Bihar; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Sub-Himalayan West Bengal & Sikkim, Jharkhand; **with lightning, gusty winds (speed reaching 30 - 40 kmph) & hailstorm** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Himachal Pradesh, Uttarakhand, Gangetic West Bengal, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Telangana, Karnataka; **with lightning** at isolated places over Punjab, East Uttar Pradesh, Kerala & Mahe.
- ❖ **Heat wave at some places with severe Heat wave conditions** very likely in isolated pockets over Rajasthan; Heat wave to severe Heat wave **conditions** in some parts of Punjab & Haryana-Chandigarh-Delhi; **Heat wave conditions** in isolated pockets of Vidarbha, Gujarat state.
- ❖ **Hot and humid weather** very likely in isolated pockets of Konkan & Goa, Madhya Maharashtra.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over Rajasthan, West Madhya Pradesh, Madhya Maharashtra, Marathwada.
- ❖ **squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over many parts of westcentral bay of Bengal and adjoining parts. **Squally wind with wind speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail over south Gujarat and adjoining north Maharashtra coasts. fishermen are advised not to venture into these areas.



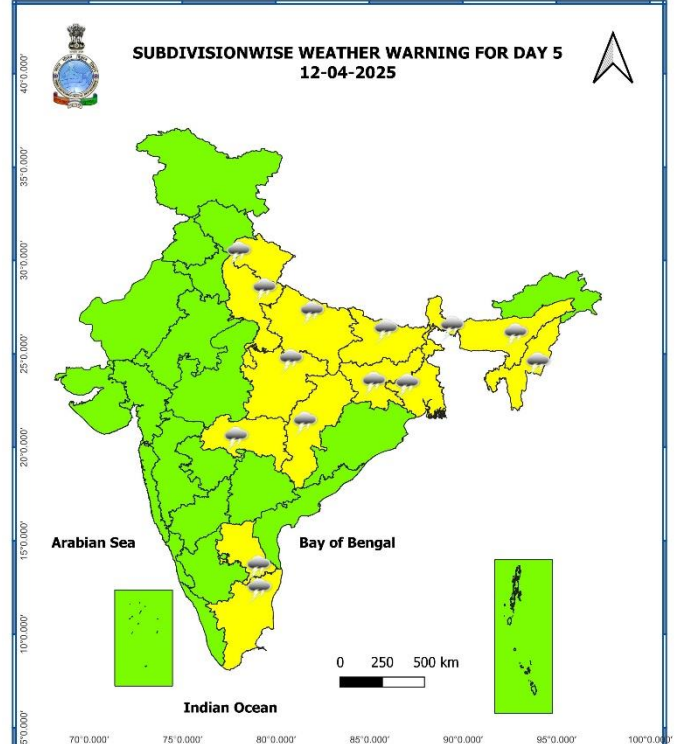
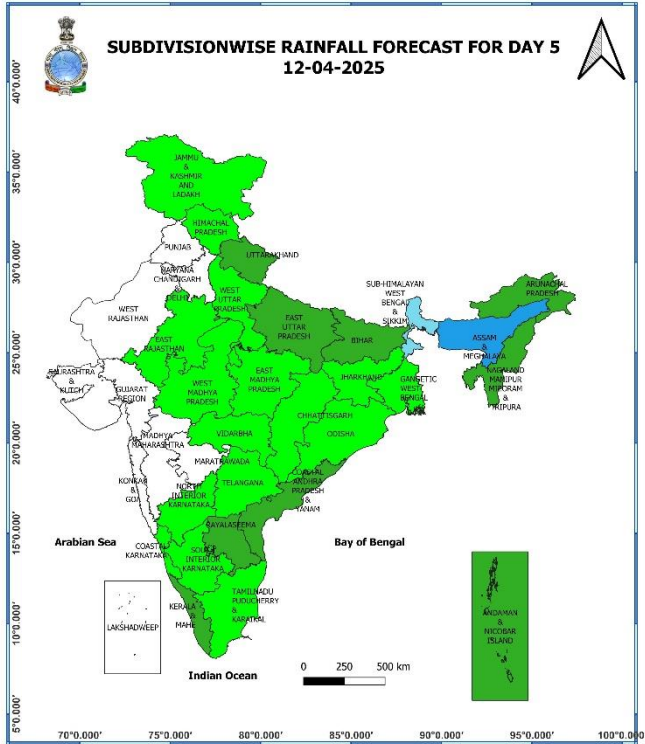
**10<sup>th</sup> April (Day 3):**

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph) very likely** at isolated places over Haryana-Chandigarh-Delhi, Rajasthan, Gangetic West Bengal, Bihar, Jharkhand, Odisha; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Sub-Himalayan West Bengal & Sikkim, Chhattisgarh, Vidarbha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam; **with lightning** at isolated places over Uttar Pradesh, Kerala & Mahe, Coastal Karnataka, South Interior Karnataka.
- ❖ **Heat wave conditions very likely** in isolated pockets over Madhya Pradesh and Gujarat state.
- ❖ **Warm night conditions very likely** to prevail in isolated pockets over West Madhya Pradesh.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph likely** to prevail over gulf of Mannar, along and off south Tamil Nadu coast, over southwestern parts of southwest bay of banal, along and off south Sri Lanka coast. **Squally wind with wind speed 45 kmph to 50 kmph gusting to 55 kmph likely** to prevail over south Gujarat and adjoining north Maharashtra coasts. fishermen are advised not to venture into these areas.



#### 11<sup>th</sup> April (Day 4):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40 - 50 kmph)** likely at isolated places over Gangetic West Bengal, Odisha, Assam & Meghalaya; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Himachal Pradesh, Uttarakhand, Rajasthan, East Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Bihar, Nagaland, Manipur, Mizoram & Tripura, Telangana, Rayalaseema; **with lightning** at isolated places over Uttar Pradesh, Chhattisgarh, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over gulf of Mannar, 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 coast and adjoining westcentral and northwest Arabian sea. fishermen are advised not to venture into these areas.

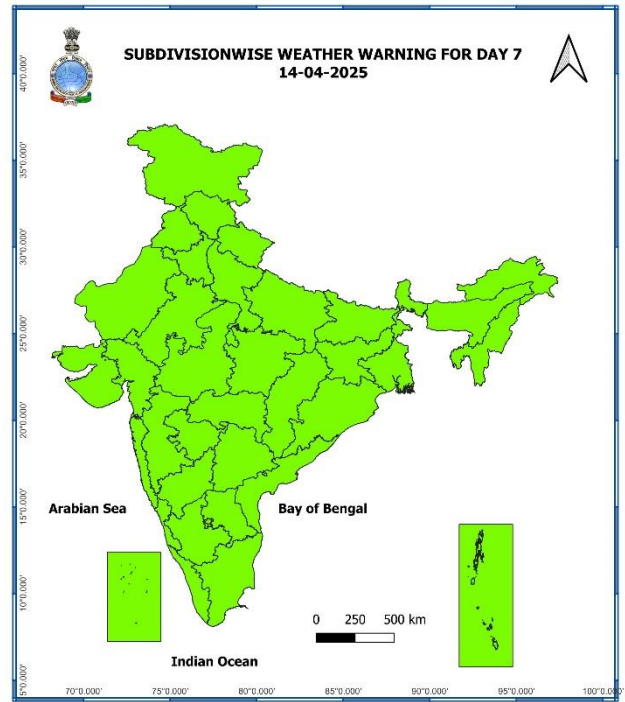
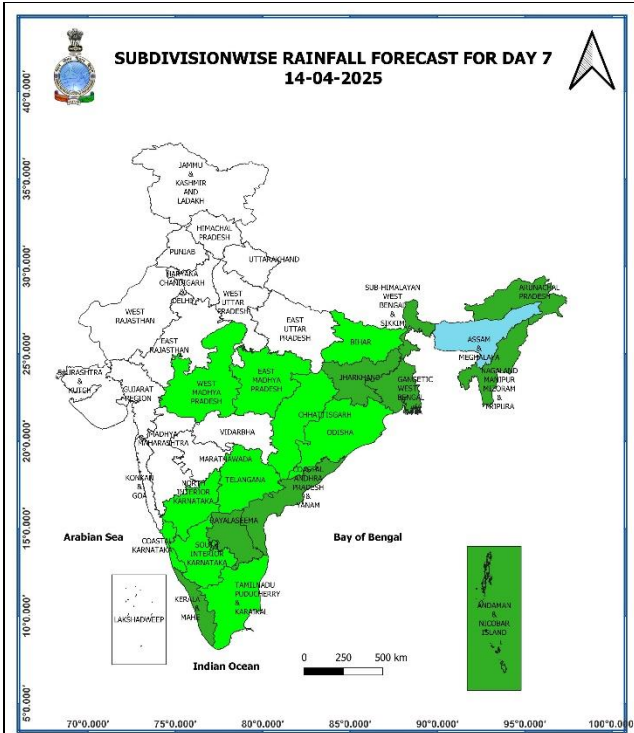


### 12th April (Day 5):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30 - 40 kmph)** likely at isolated places over Uttarakhand, East Madhya Pradesh, Vidarbha, West Bengal & Sikkim, Bihar, Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema; with lightning at isolated places over Uttar Pradesh, Chhattisgarh, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over gulf of Mannar, along and off Tamil Nadu coast. **Squally wind with wind speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail along and off Oman coast and adjoining westcentral and northwest Arabian sea. fishermen are advised not to venture into these areas.







**14<sup>th</sup> April (Day 7):**

❖ No weather warning.

**Weather Outlook for subsequent 3 days (During 15<sup>th</sup> April- 17<sup>th</sup> April, 2025)**

❖ Isolated to scattered rainfall likely over East & Northeast India, south peninsular India.

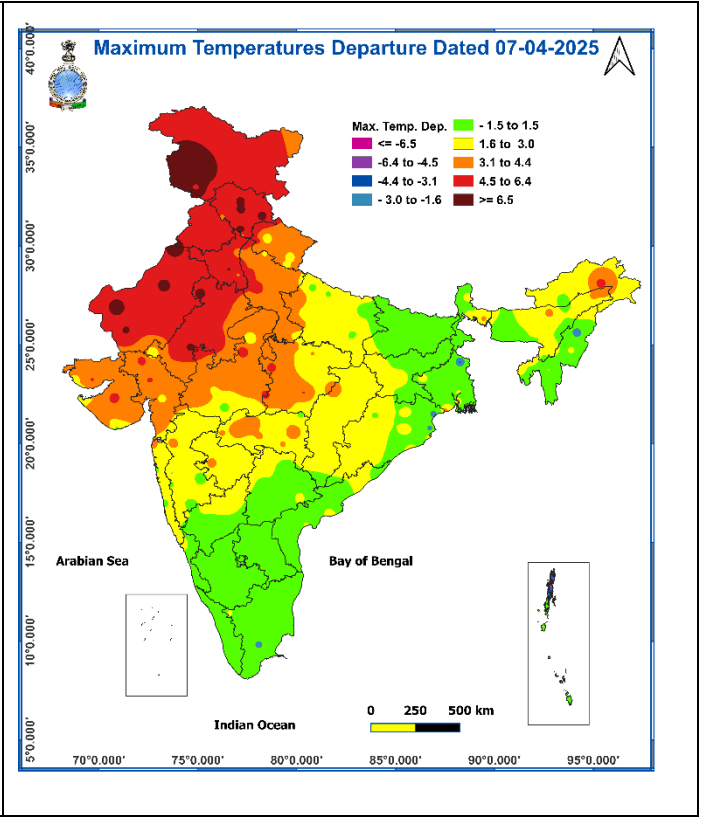
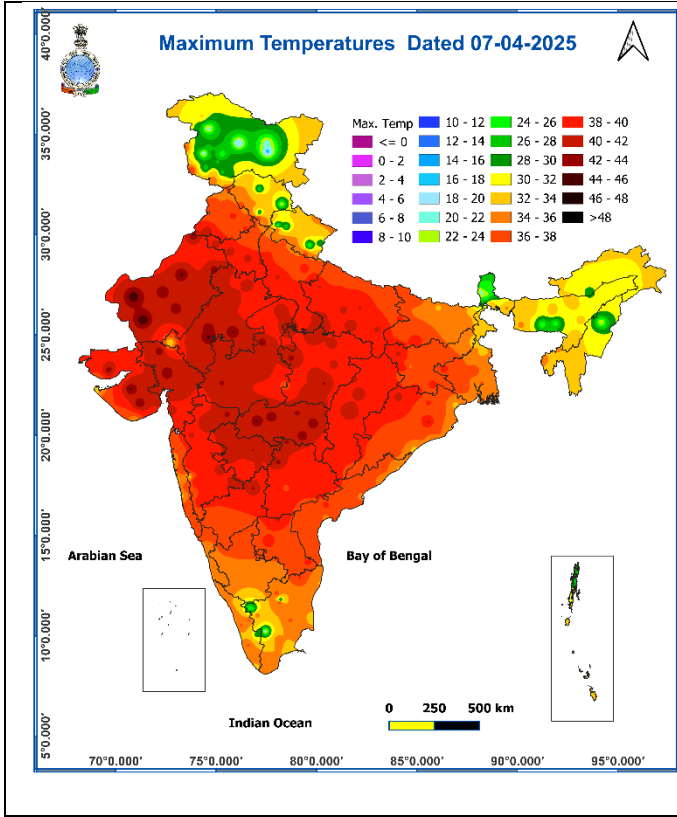
Action may be taken based on **ORANGE AND RED** COLOUR warnings.

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

\* 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  
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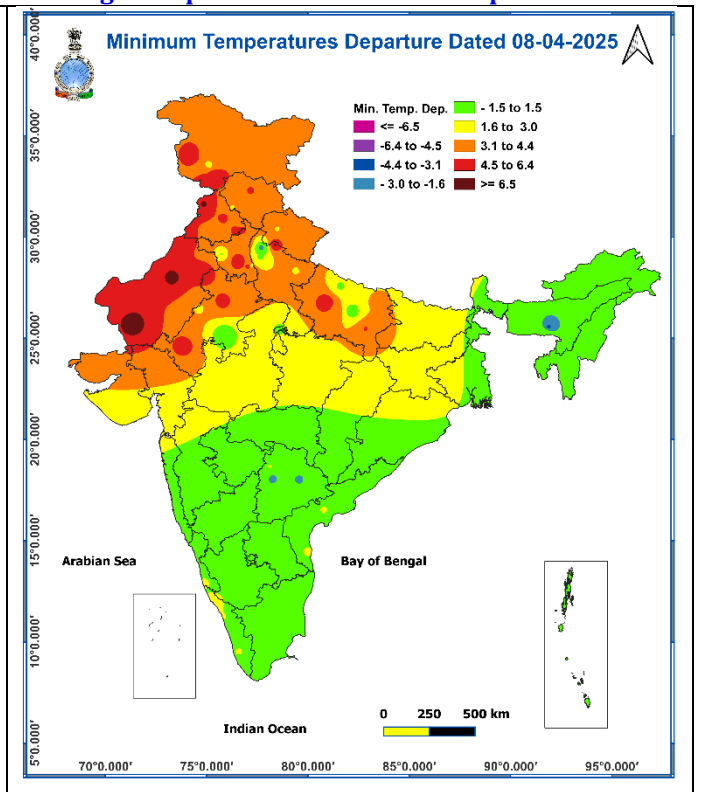
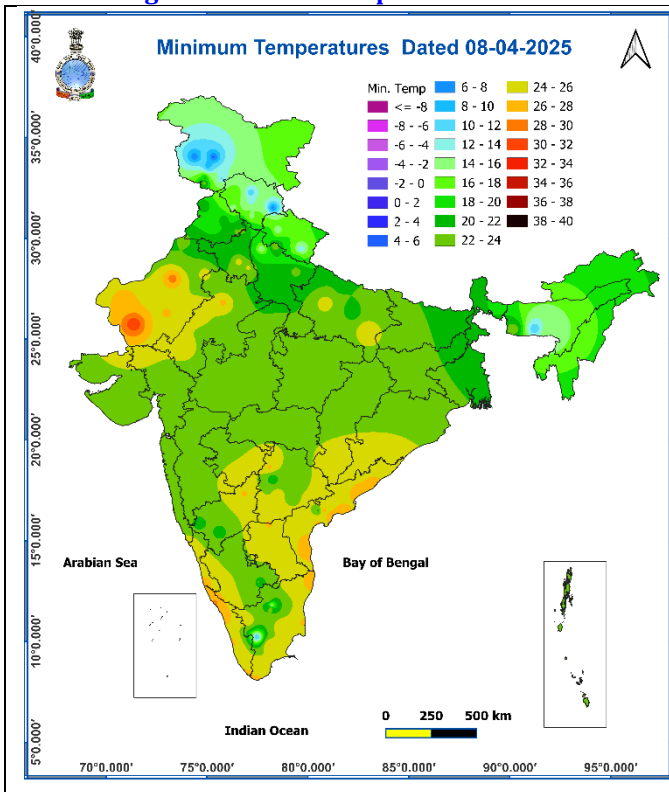
**Fig. 1: Maximum Temperatures**

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



**Fig. 3: Minimum Temperatures**

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



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**Impact expected and action suggested due to Heat wave to severe heat wave conditions likely at isolated to some pockets over Gujarat state, Rajasthan on 08<sup>th</sup> & 09<sup>th</sup> and Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi on 08<sup>th</sup> April.**

### Red alert Areas

- Very high likelihood of developing heat illness and heat stroke in all ages.
- Extreme care needed for vulnerable people.

### 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.

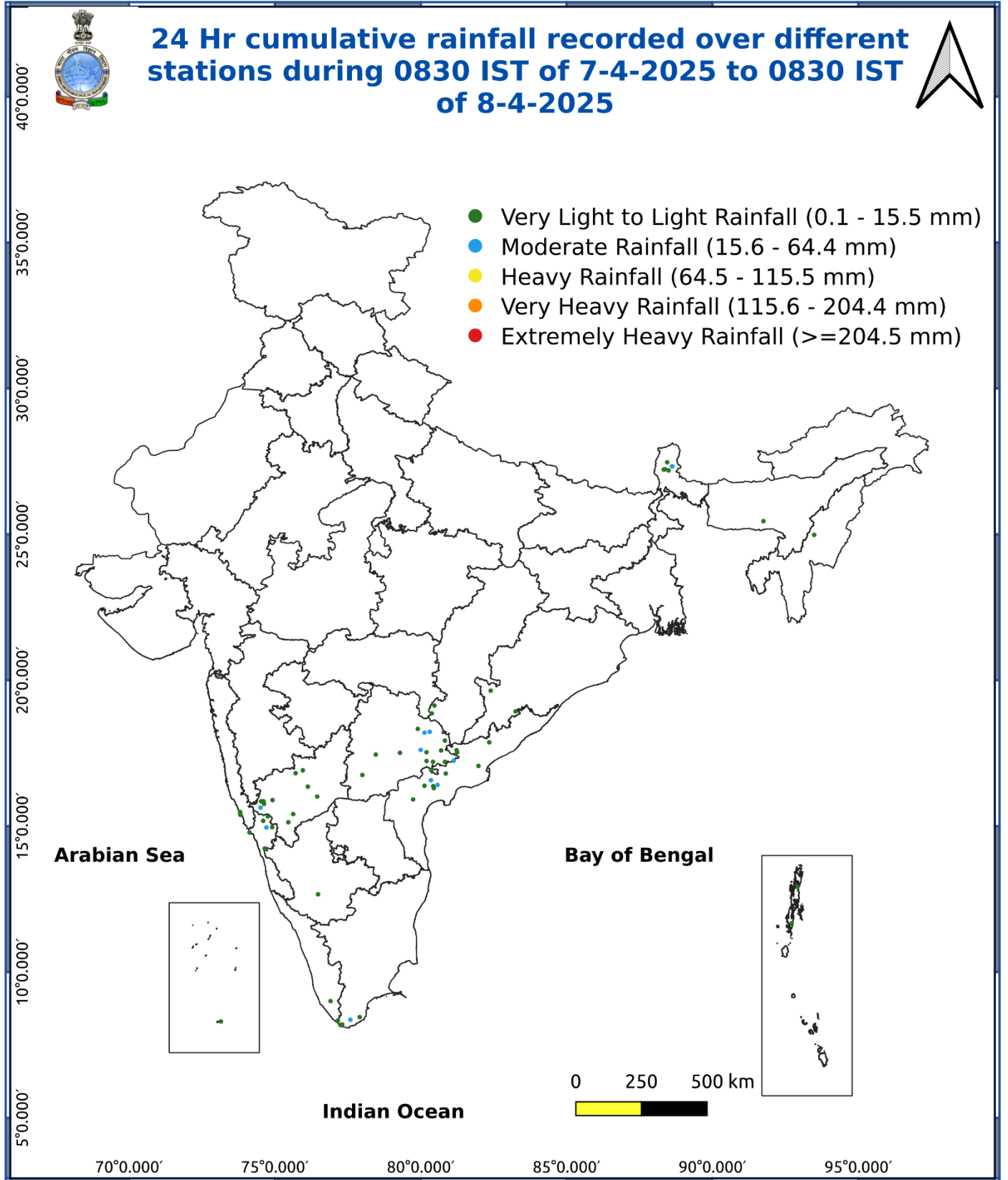
### Yellow alert Areas

- 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.

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

- In **Jammu & Kashmir and Bihar**, 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 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 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 **Himachal Pradesh, Punjab, Haryana, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha 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.

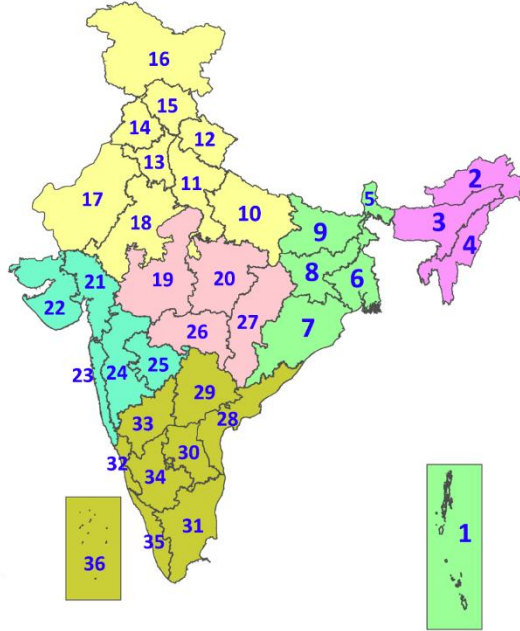
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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## 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  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .  
Severe Heat Wave: Maximum Temperature Departure from normal  $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature  $\geq 45^{\circ}\text{C}$ .  
Severe Heat Wave: When actual maximum temperature  $\geq 47^{\circ}\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is  $> 4.5^{\circ}\text{C}$  from normal. Heat Wave may be described provided maximum temperature  $\geq 37^{\circ}\text{C}$

### Warm Night

When maximum temperature remains  $40^{\circ}\text{C}$

Warm Night: When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .  
Severe Warm Night: When minimum temperature departure  $> 6.4^{\circ}\text{C}$ .

### Cold Wave

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions.  
(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .  
Severe Cold Wave: Minimum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave: When Minimum Temperature is  $\leq 4.0^{\circ}\text{C}$   
Severe Cold Wave: When Minimum Temperature is  $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is  $\leq -4.5^{\circ}\text{C}$  & actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$

### Cold Day

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions  
Based on departure

Cold Day: Maximum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .  
Severe Cold Day: Maximum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

### Fog

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres  
Dense Fog: when the visibility between 50- 200 metres  
Very Dense Fog: when the visibility  $< 50$  metres

### Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)

### Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.

### Frost

Ice deposits on ground

Air temperature  $\leq 4^{\circ}\text{C}$  ( over Plains)

### Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph  
Severe: Wind speed 62-87 kmph  
Very Severe: Wind speed  $> 87$  kmph

### Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre  
High to very high: Wind speed 63-117 kmph ( 34-63 knots) & Wave height 6-14 metre  
Phenomenal: Wind speed  $> 117$  kmph ( $> 63$  knots) & Wave height  $> 14$  metre

### Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)  
Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)  
Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)  
Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)  
Super Cyclone Strom: Wind speed  $> 220$  kmph ( $> 119$  knots)

**Hot and Humid:** When maximum temperatures remains  $3^{\circ}\text{C}$  above normal along with the above normal relative humidity.