

Friday, February 21, 2025  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Realised weather from 0830 hours IST to 1730 hours IST of yesterday

##### Temperature:

- ❖ During Past 24 hours, Day temperatures had risen by 1-2°C at many places over Madhya Pradesh, East Rajasthan, Kerala & Mahe, Konkan & Goa and northeast India. It has fallen by 2-5°C over many parts of Punjab, Haryana-Chandigarh, Uttar Pradesh, Gangetic West Bengal, Jharkhand and by 6-12°C over the Western Himalayan and Region.
- ❖ Day temperatures were in the range of 32-37°C over West and Peninsular & adjoining central India; 28-32°C over remaining central & East India; 24-28°C over Plains of Northwest India, Remaining East and Northeast India.
- ❖ Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Vidarbha; at isolated places over East Rajasthan, West Madhya Pradesh and Konkan & Goa; **above normal (1.6°C to 3.0°C)** at most places over East Madhya Pradesh; at a few places over Marathwada, Madhya Maharashtra and Saurashtra & Kutch; at isolated places over Chhattisgarh, Odisha, Telangana, North Interior Karnataka, Bihar, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, West Rajasthan, Gujarat Region, Nagaland, Manipur, Mizoram & Tripura and Jharkhand. These were **appreciably below normal (-5.0°C to -3.1°C)** at isolated places over **Gangetic West Bengal, Himachal Pradesh, Uttarakhand and below normal (-3.0°C to -1.6°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and near normal over rest parts of the country.

#### Weather Systems, Forecast and warning:

- ❖ **A trough runs from north Bangladesh to Telangana and an anti-cyclonic circulation lies over north Bay of Bengal in lower tropospheric levels. Under the influence of these systems and their confluence,**
  - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning with gusty winds (speed 30-40 kmph)** very likely over Gangetic West Bengal, Jharkhand and Odisha on 22<sup>nd</sup>; Isolated to scattered light/moderate rainfall accompanied with **thunderstorm & lightning** very likely over Sub-Himalayan West Bengal & Sikkim, Bihar on 22<sup>nd</sup>; Gangetic West Bengal, Jharkhand and Odisha on 21<sup>st</sup> & 23<sup>rd</sup> February.
  - ✓ **Hailstorm activity also likely at isolated places** over Gangetic West Bengal, Jharkhand & Odisha on 22<sup>nd</sup> February.
- ❖ **A cyclonic circulation** lies over Haryana & neighbourhood in lower tropospheric levels. Under their influence;
  - ✓ **Isolated light rainfall/snowfall over** Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand on 21<sup>st</sup> & 22<sup>nd</sup> February.
- ❖ **A fresh Western Disturbance** is likely to affect Northwest India from 24<sup>th</sup> February, 2025. Under its influence, Isolated to Scattered light to moderate rainfall/snowfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 24<sup>th</sup>-26<sup>th</sup> February.
- ❖ Isolated light/moderate rainfall very likely over Coastal Andhra Pradesh & Yanam and Kerala & Mahe during 21<sup>st</sup>-25<sup>th</sup> February.
- ❖ **A cyclonic circulation** lies over Nagaland & neighbourhood in lower tropospheric levels. Under its influence,
  - ✓ Isolated to scattered light rainfall activity likely over Northeast India and Sub-Himalayan West Bengal & Sikkim during next 7 days.
  - ✓ Thunderstorm & lightning activity likely over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 21<sup>st</sup> February; with **gusty winds (speed 30-40 kmph)** over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 22<sup>nd</sup> & 23<sup>rd</sup> February.
  - ✓ **Heavy rainfall** at isolated places likely over Arunachal Pradesh on 21<sup>st</sup> February.

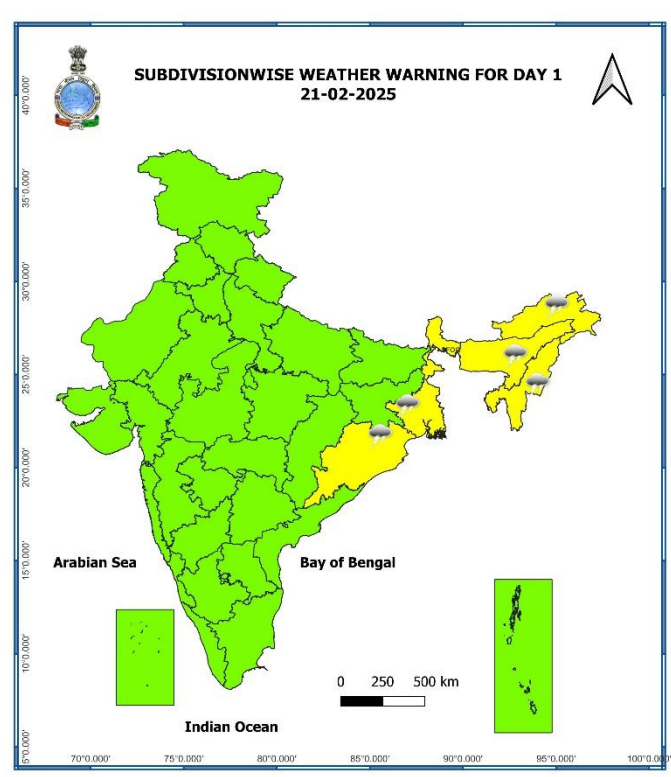
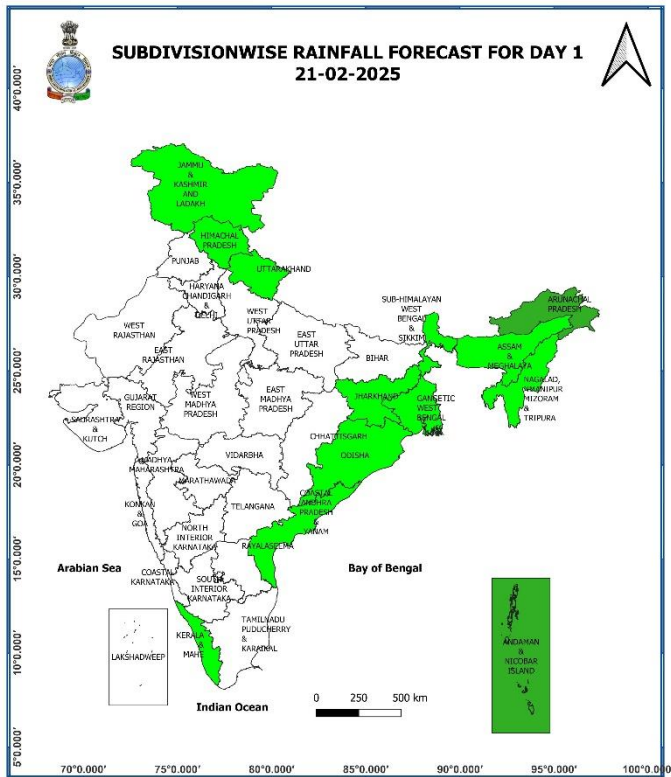
## Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Gangetic West Bengal; **at a few places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand; **at isolated places** over Uttar Pradesh, Punjab, Jharkhand and Odisha.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **Gangetic West Bengal:** Burdwan-8, Alipore-5, Haldia-3. Salt Lake, Diamond Harbour and Canning- 2 each, Uluberia and Contai- 1 each; **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Katra and Jammu- 3 each, Banihal, Batote and Bhaderwah-2 each, Kokarnag and Kupwara- 1 each; **Odisha:** Chandbali-2; **Punjab:** Amritsar-3.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Gangetic West Bengal.
- ❖ **Hailstorm recorded** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Chhattisgarh.
- ❖ **Minimum Temperature Departures (as on 20-02-2025):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over West Rajasthan, Gujarat Region, Madhya Maharashtra, Odisha; **appreciably above normal (3.1°C to 5.0°C)** at many places over Gangetic West Bengal; at a few places over Bihar, Chhattisgarh, West Rajasthan, Konkan & Goa; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi, West Madhya Pradesh, Jharkhand, Punjab, Himachal Pradesh, West Uttar Pradesh; **above normal (1.6°C to 3.0°C)** at most places over North Interior Karnataka, Coastal Karnataka; at many places over Uttarakhand, East Rajasthan, East Madhya Pradesh, Marathwada; at few places over Rayalaseema, Coastal Andhra Pradesh & Yanam, Sub-Himalayan West Bengal & Sikkim, Vidarbha; at isolated places over Assam & Meghalaya, Arunachal Pradesh, South Interior Karnataka, Kerala & Mahe and near normal over rest parts of the country (Fig. 4). Yesterday, the **lowest minimum temperature of 9.0°C** was reported at **Nahan (Haryana)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 20-02-2025):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Vidarbha; at isolated places over East Rajasthan, West Madhya Pradesh and Konkan & Goa; **above normal (1.6°C to 3.0°C)** at most places over East Madhya Pradesh; at a few places over Marathwada, Madhya Maharashtra and Saurashtra & Kutch; at isolated places over Chhattisgarh, Odisha, Telangana, North Interior Karnataka, Bihar, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, West Rajasthan, Gujarat Region, Nagaland, Manipur, Mizoram & Tripura and Jharkhand. These were **appreciably below normal (-5.0°C to -3.1°C) at isolated places over Gangetic West Bengal, Himachal Pradesh, Uttarakhand and below normal (-3.0°C to -1.6°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and near normal over rest parts of the country (Fig. 2). Yesterday, the highest **maximum temperature of 38.2°C** was reported at Kalaburagi (**North Interior Karnataka**) over the country.

## Meteorological Analysis (Based on 0530 hours IST)

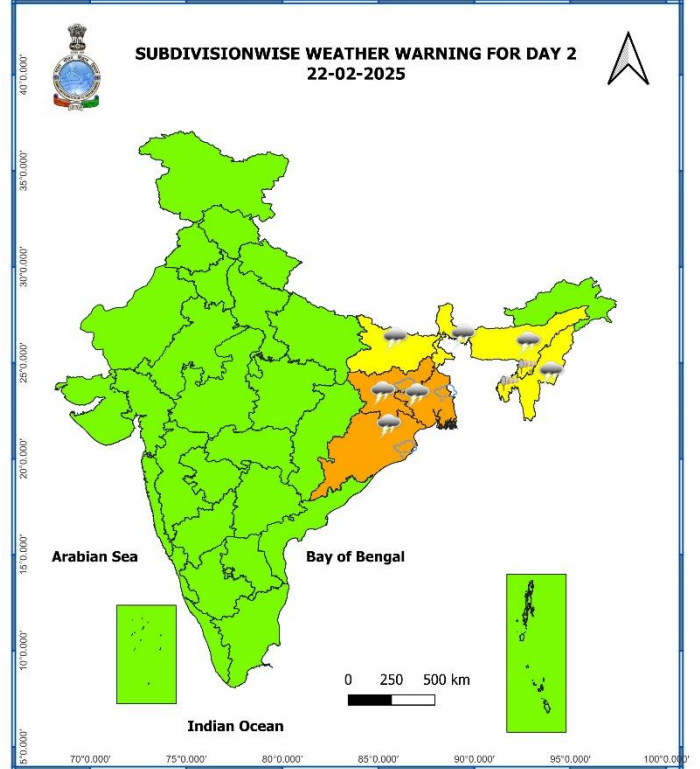
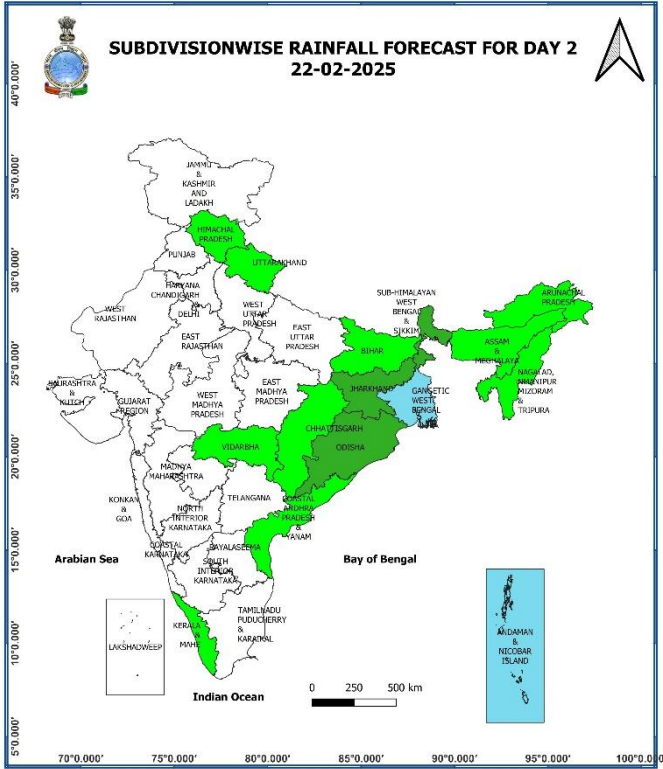
- ❖ The **induced cyclonic circulation** now seen as a cyclonic circulation over Haryana & neighbourhood and extends upto 1.5 km above mean sea level.
- ❖ The **trough** from north Bangladesh to Telangana across Gangetic West Bengal, interior Odisha & south Chhattisgarh extending upto 1.5 km above mean sea level persists.
- ❖ The **cyclonic circulation** over central Assam & neighbourhood now lies over Nagaland & neighbourhood at 1.5 km above mean sea level.
- ❖ A fresh **Western Disturbance** is likely to affect Northwest India from 24<sup>th</sup> February, 2025.
- ❖ The **Western Disturbance** as a **cyclonic circulation** over north Pakistan & neighbourhood between 3.1 & 4.5 km above mean sea level with a trough aloft in middle & upper tropospheric level with its axis at 5.8 km above mean sea level roughly along Long. 70°E to the north of Lat. 32°N has moved away east-northeastwards.

**Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 28<sup>th</sup> February, 2025)**



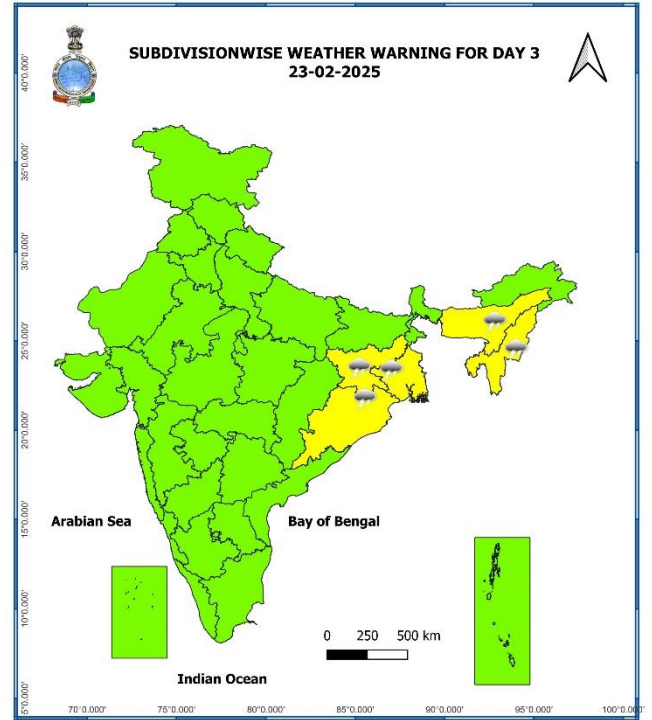
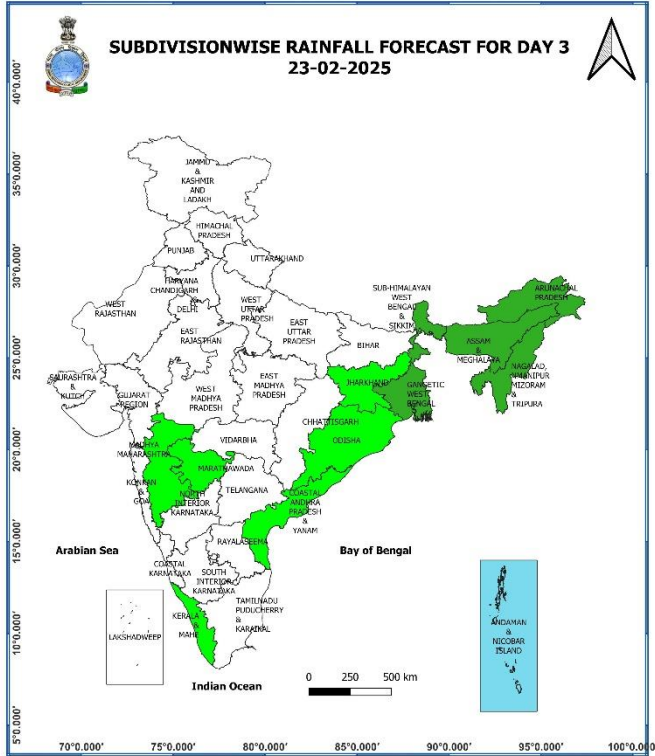
**21<sup>st</sup> February (Day 1):**

- ❖ **Heavy Rainfall ( $\geq 7$  cm)** very likely at isolated places of Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Gangetic West Bengal, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Dense fog conditions** very likely in isolated pockets of Sub-Himalayan West Bengal & Sikkim.



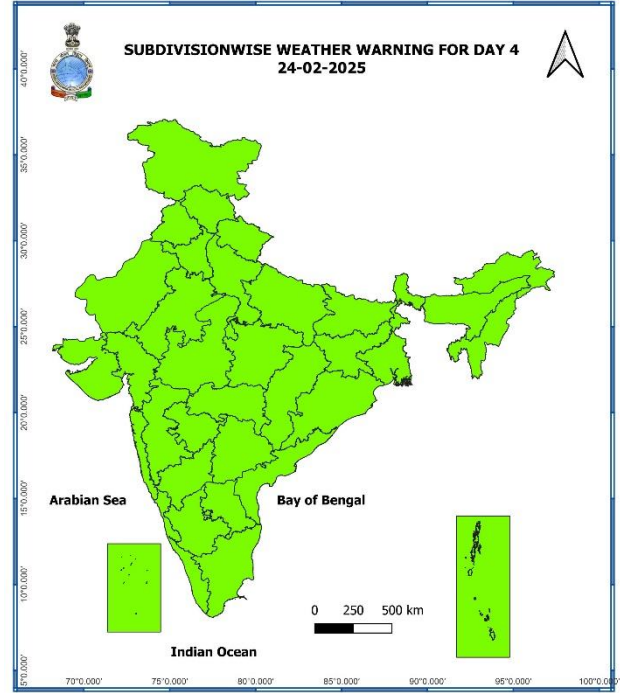
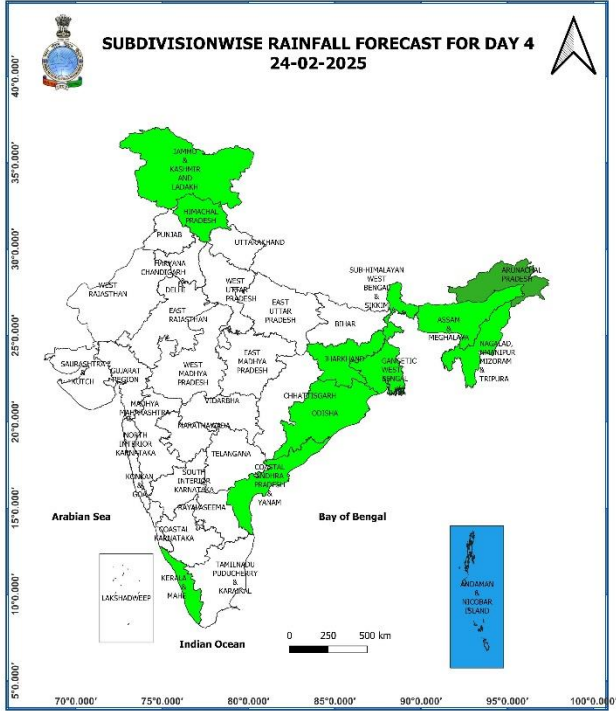
## 22<sup>nd</sup> February (Day 2):

- ❖ **Hailstorm conditions** very likely at isolated places over Gangetic West Bengal, Jharkhand, Odisha.
- ❖ **Thunderstorm accompanied with gusty winds (40-50 kmph) & lightning** likely at isolated places over Gangetic West Bengal, Jharkhand, Odisha; **with gusty winds (30-40 kmph) & lightning** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar.



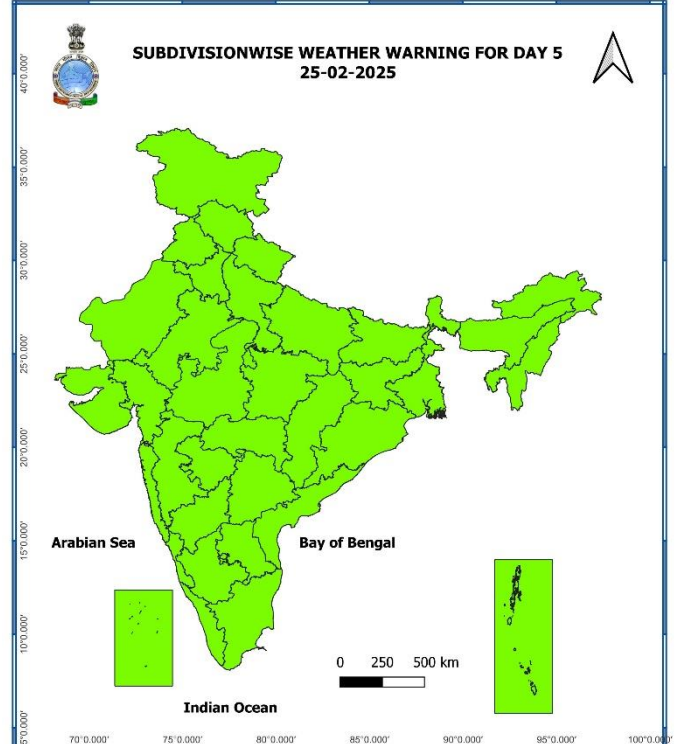
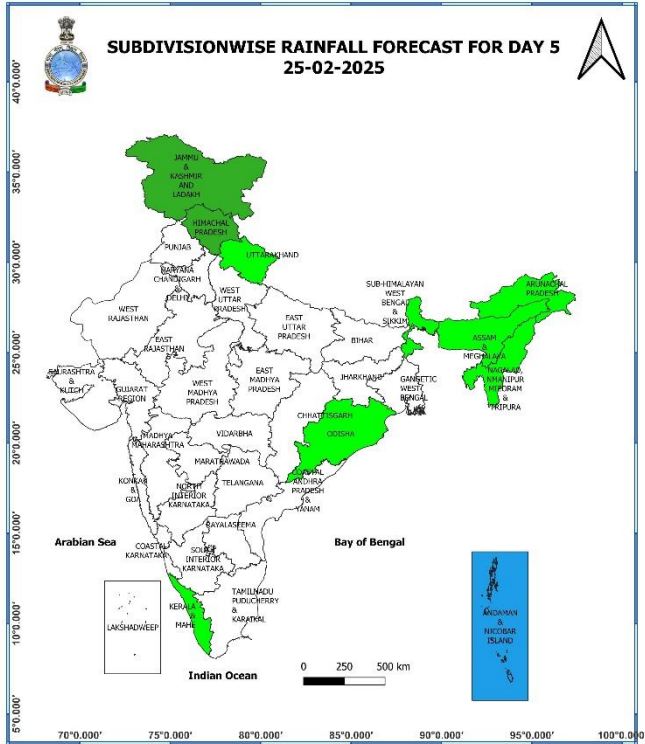
**23<sup>rd</sup> February (Day 3):**

- ❖ **Thunderstorm accompanied with gusty winds (30-40 kmph) & lightning** likely at isolated places over Gangetic West Bengal; with **lightning** at isolated places over Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.



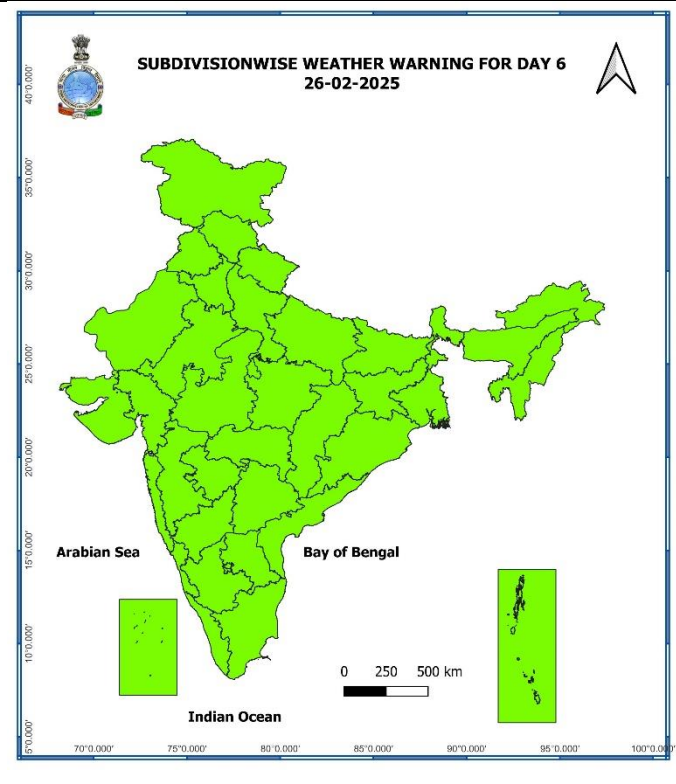
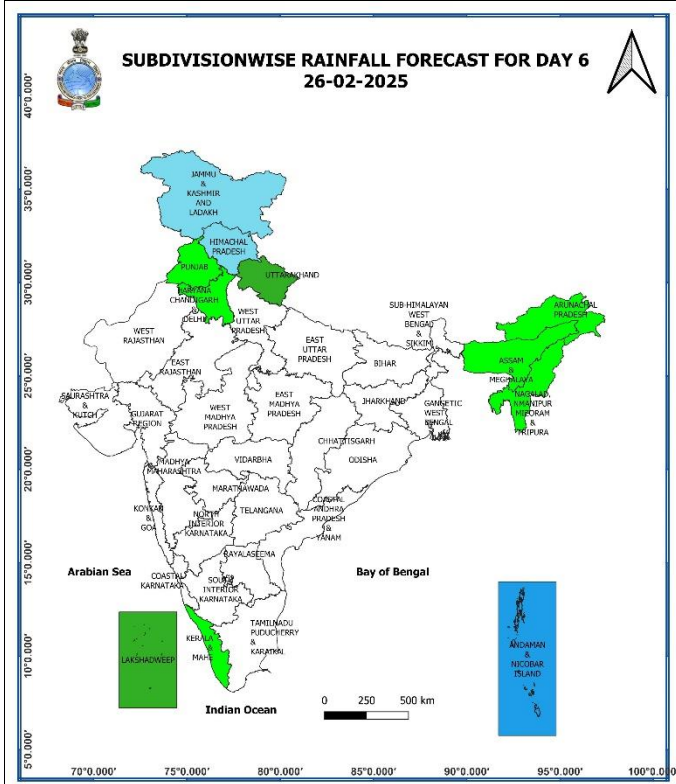
**24<sup>th</sup> February (Day 4):**

❖ **No Weather Warning.**



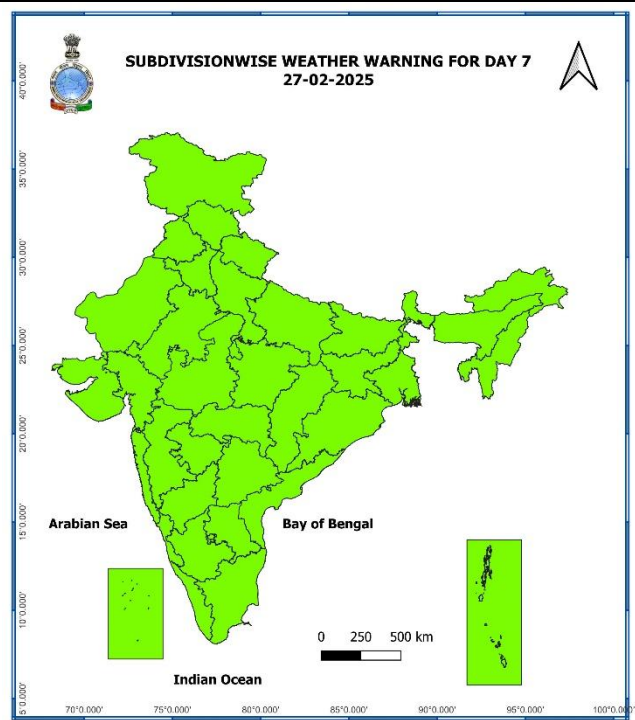
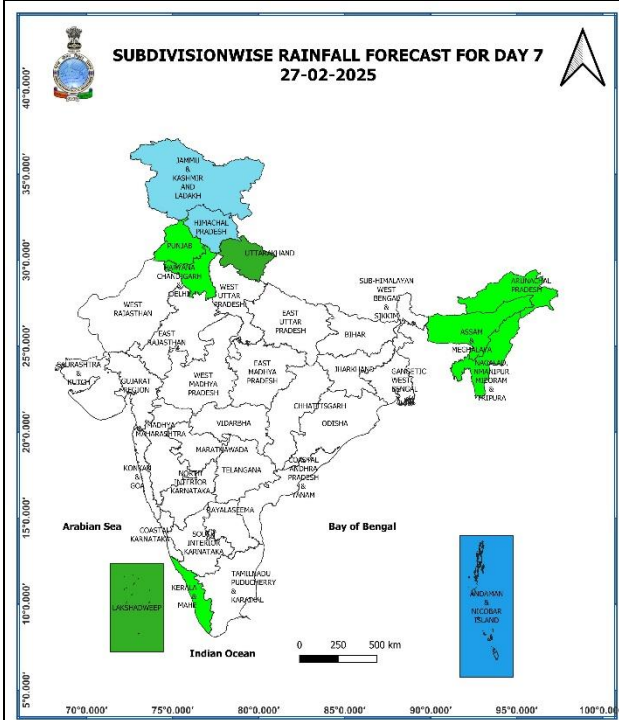
**25<sup>th</sup> February (Day 5):**

❖ **No Weather Warning.**



**26<sup>th</sup> February (Day 6):**

❖ **No Weather Warning.**



**27<sup>th</sup> February (Day 7):**

❖ **No Weather Warning.**

**Weather Outlook for subsequent 3 days (During 28<sup>th</sup> February- 02<sup>nd</sup> March, 2025)**

- ❖ **Scattered to fairly widespread rainfall/snowfall** likely over Western Himalayan region.
- ❖ **Isolated to scattered rainfall** likely over plains of Northwest India, Kerala & Mahe and Andaman & Nicobar Islands.

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

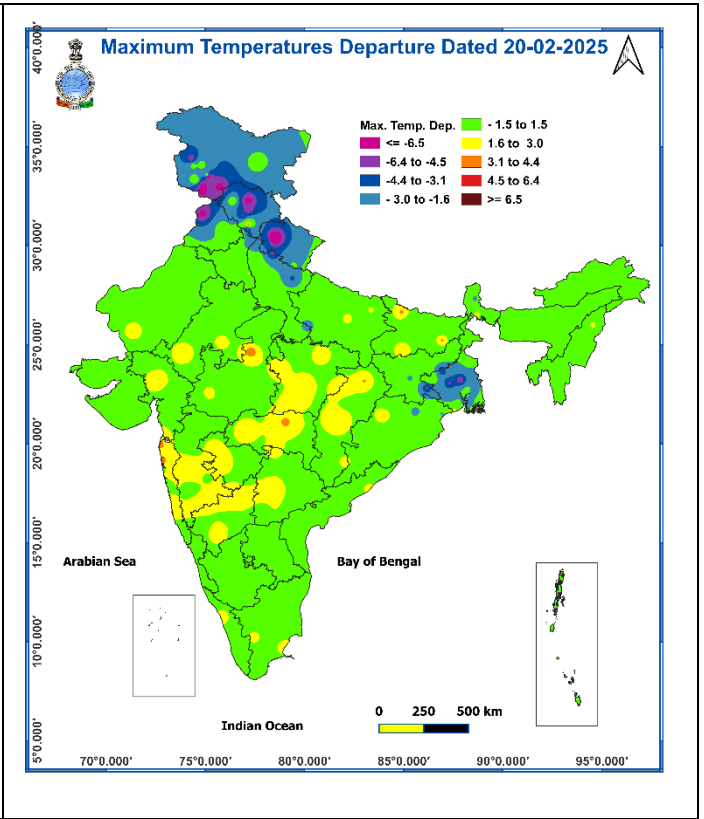
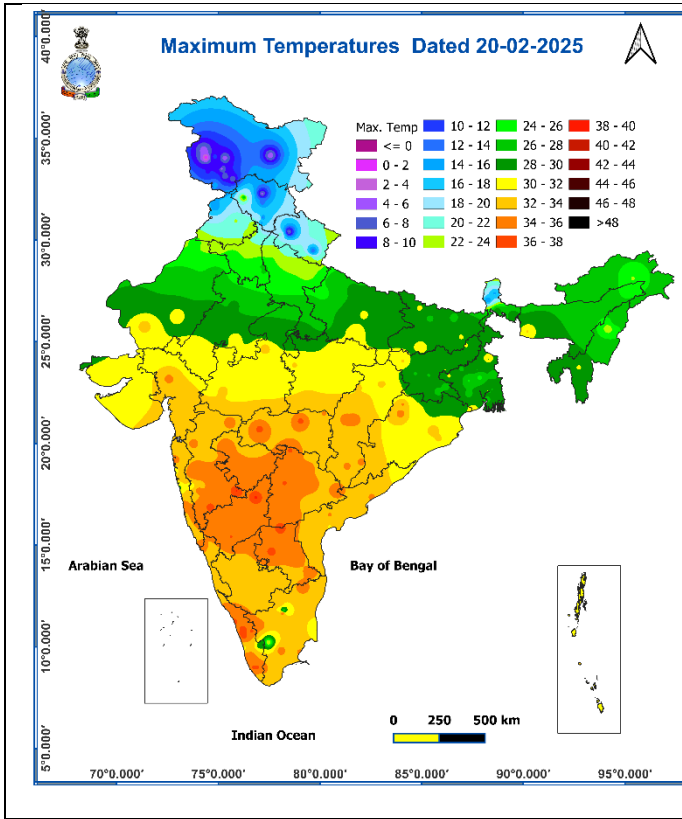
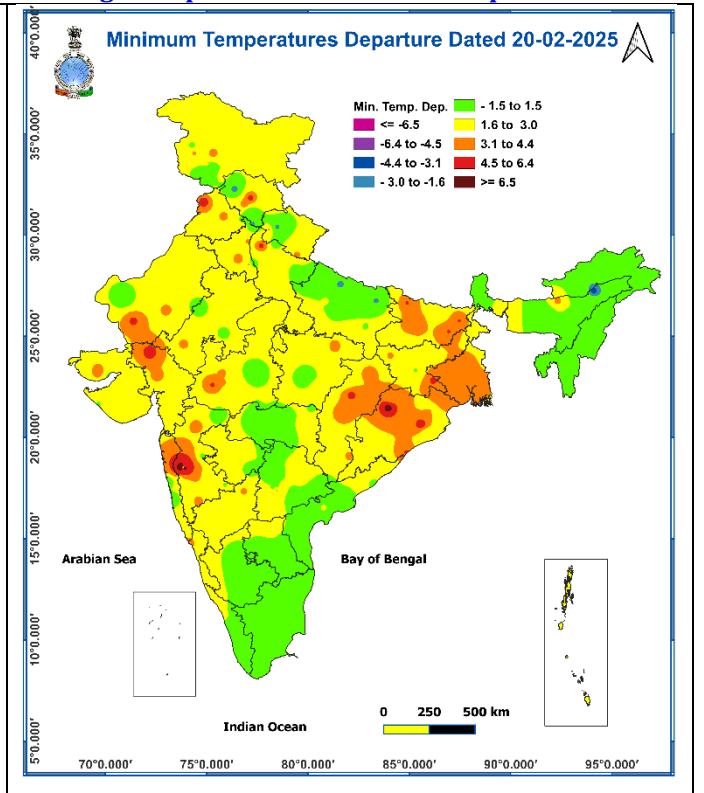
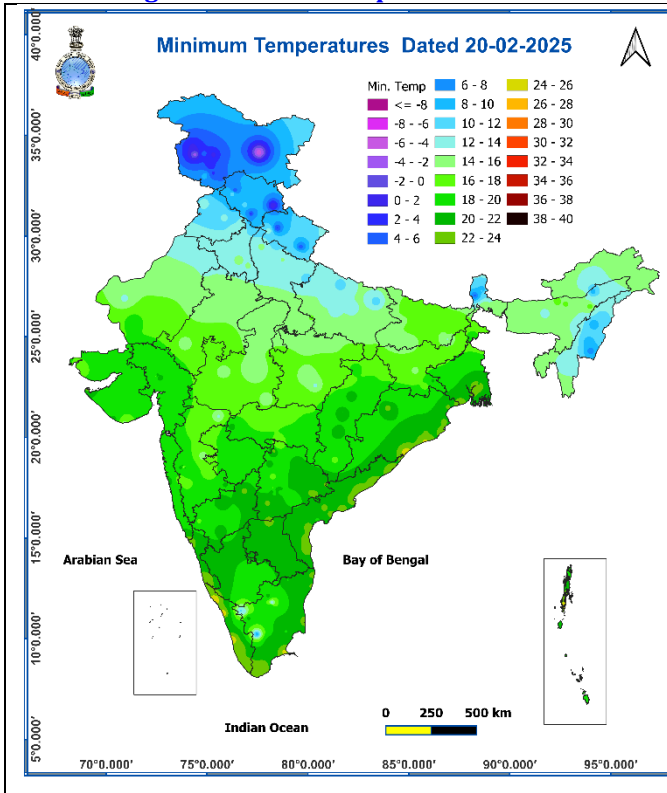


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



## Agromet advisories for likely impact of Heavy Rainfall / Hailstorms

- Use hail nets or hail caps in fruit orchards and vegetable plants to protect them from mechanical damage in **Gangetic West Bengal, Odisha, Jharkhand, West Uttar Pradesh and Uttarakhand**.
- Make provision for draining out excess water from the fields of wheat, mustard, pulses, other standing crops, vegetables and horticultural crops in **Jammu & Kashmir** and **Himachal Pradesh**; rice, mustard, field pea, other standing crops, vegetables and horticultural crops in **Arunachal Pradesh** to avoid water stagnation.
- Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- Provide mechanical support to horticultural crops and staking to vegetables.

### Livestock

- Keep the animals inside the shed during heavy rainfall/ hailstorms and provide them with balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.

## Impact expected and action suggested due to isolated thunderstorm with lightning/gusty winds & Hailstorm

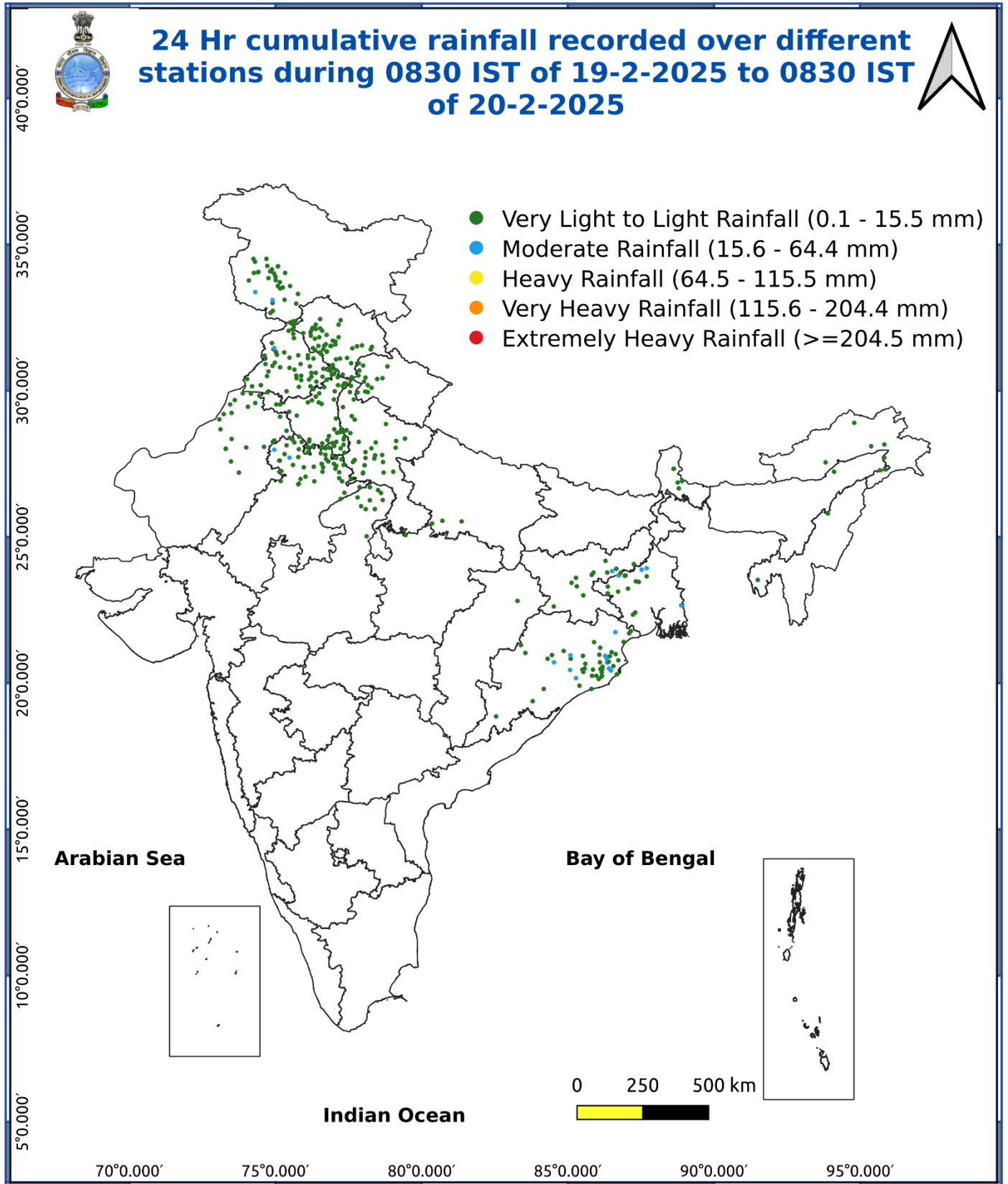
### Impact expected:

- 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 kutchha 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.

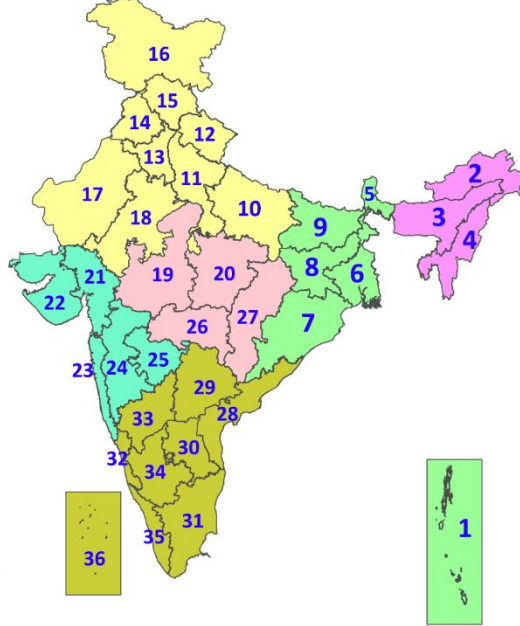
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



\* 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  $4.5^\circ\text{C}$  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)