

Wednesday, February 19, 2025  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Weather Systems, Forecast and warning:

- ❖ A **cyclonic circulation** lies over northeast Assam in lower tropospheric levels. Under its influence,
  - ✓ Scattered to Fairly widespread light/moderate rainfall/snowfall activity likely over Arunachal Pradesh during 19<sup>th</sup>-24<sup>th</sup> February with **Heavy rainfall activity** likely on 19<sup>th</sup> February.
  - ✓ Isolated to scattered light rainfall activity likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura 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 19<sup>th</sup> & 20<sup>th</sup> February; with gusty winds (speed 30-40 kmph) over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 19<sup>th</sup> February.
- ❖ A Western disturbance as a **cyclonic circulation lies over Jammu & neighbourhood** and an **Induced cyclonic circulation** lies over southwest Rajasthan in lower tropospheric levels.
- ❖ Another **Western Disturbance** as a trough in middle tropospheric level roughly along Long. 60°E to the north of Lat. 32°N.; under its influence **scattered to fairly widespread light to moderate rainfall/snowfall accompanied with thunderstorm & lightning over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh & Uttarakhand on 19<sup>th</sup> & 20<sup>th</sup> and isolated light rainfall/snowfall during 21<sup>st</sup> -23<sup>rd</sup> February.**
- ❖ **Heavy rainfall/snowfall** at isolated places likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 20<sup>th</sup> February.
- ❖ **Isolated to Scattered light to moderate rainfall accompanied with thunderstorm & lightning** likely over East Rajasthan on 19<sup>th</sup>; Punjab, Haryana-Chandigarh-Delhi on 19<sup>th</sup> & 20<sup>th</sup>; West Uttar Pradesh on 20<sup>th</sup>; with gusty winds (speed 30-40 kmph) over West Rajasthan on 19<sup>th</sup> and isolated light rainfall over Central India on 21<sup>st</sup> & 22<sup>nd</sup> February.
- ❖ A trough runs from Jharkhand to south Odisha in lower tropospheric levels. Under its influence **Isolated to Scattered light to moderate rainfall accompanied with thunderstorm & lightning** likely over West Bengal, Jharkhand and Odisha during 19<sup>th</sup>- 22<sup>nd</sup> February.

#### Temperature & Fog Forecast:

##### Forecast of temperature:

##### Minimum Temperature:

- ❖ Gradual rise by about 2-3°C in Minimum temperatures likely over Northwest India during next 48 hours and gradual fall by 2-3°C during subsequent 2 days.
- ❖ No significant change in minimum temperature likely over rest parts of India during next 4-5 days.

##### Maximum temperature:

- ❖ No significant change in Maximum temperatures likely over Northwest India during next 24 hours and gradual fall by about 2°C during subsequent 24 hours and gradual rise by 2-3°C during subsequent 2 days.
- ❖ No significant change in maximum temperature likely over rest parts of India during next 4-5 days.

##### Dense Fog Warnings:

- ❖ **Dense fog conditions** very likely to continue to prevail during early morning hours in isolated pockets of Sub-Himalayan West Bengal & Sikkim on 19<sup>th</sup> February.

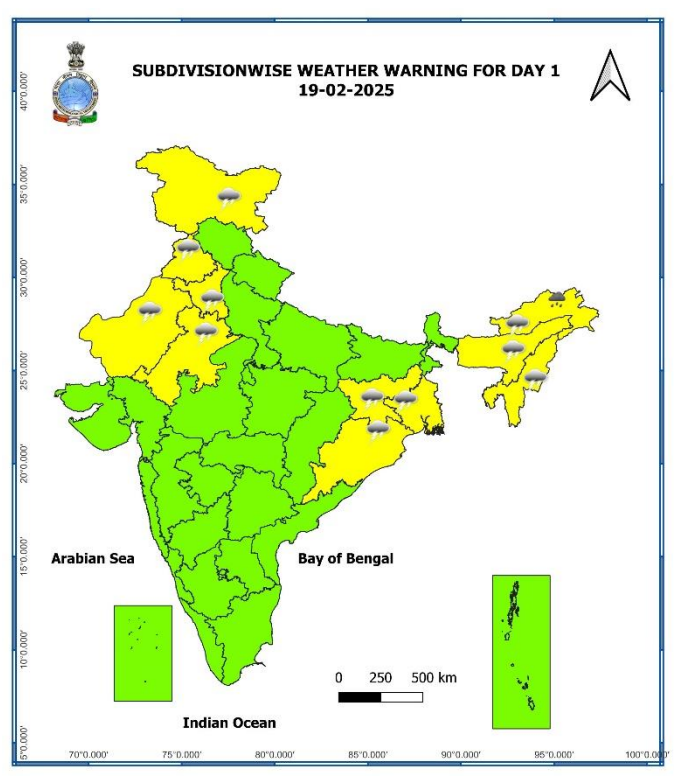
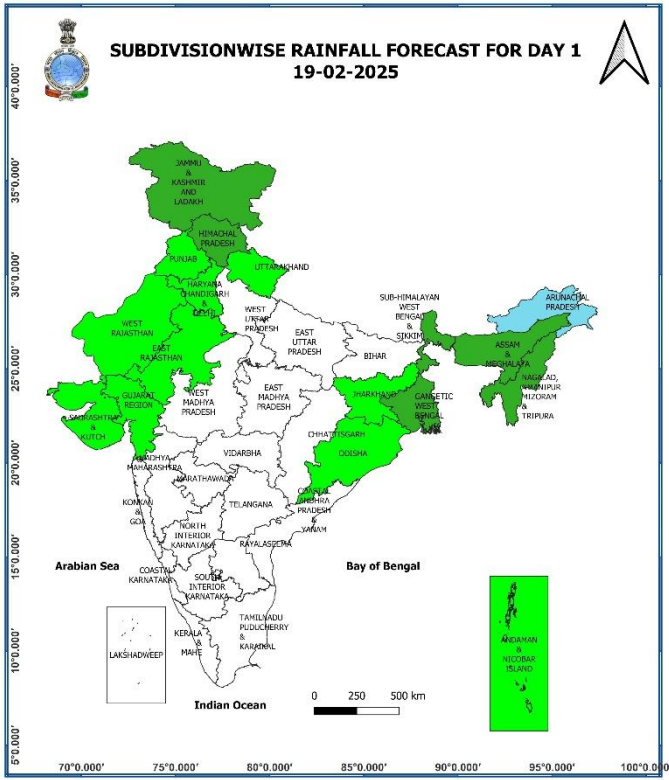
## Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **Nil.**
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **Nil.**
- ❖ **Fog reported (at 0530 hours IST of today): Dense to very dense fog conditions** reported in isolated pockets of Gangetic West Bengal.
- ❖ **Visibility reported (at 0530 hours IST of today) ( $\leq 500$  m): Gangetic West Bengal:** Haldia 0, Diamond Harbour 200.
- ❖ **Minimum Temperature Departures (as on 18-02-2025):** Minimum temperatures were **markedly above normal ( $5.1^{\circ}\text{C}$  or more)** at a few places over West Rajasthan; at isolated places over Gujarat state; **appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ )** at isolated places over Haryana-Chandigarh-Delhi, East Rajasthan, Madhya Pradesh, Assam & Meghalaya; **above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ )** at a few places over East Uttar Pradesh, Gangetic West Bengal, Madhya Maharashtra, Coastal Karnataka, Kerala & Mahe; at isolated places over Odisha, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Telangana, Nagaland, Manipur, Mizoram & Tripura. These were **below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ )** at a few places over Andaman & Nicobar Islands; at isolated places over Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country (Fig. 4). Today, the **lowest minimum temperature of  $7.8^{\circ}\text{C}$**  was reported at **Pathankot (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 18-02-2025):** Maximum temperatures were **markedly above normal ( $5.1^{\circ}\text{C}$  or more)** at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh; at isolated places over Punjab; **appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ )** at many places over Haryana-Chandigarh-Delhi, West Rajasthan and Saurashtra & Kutch; at a few places over West Uttar Pradesh, Madhya Maharashtra, Gujarat Region and Konkan & Goa; at isolated places over East Rajasthan, East Uttar Pradesh, Marathwada, Odisha and Vidarbha; **above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ )** at most places over North Interior Karnataka; at many places over Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh and Telangana; at a few places over Coastal Andhra Pradesh & Yanam, South Interior Karnataka, Kerala & Mahe and Sub-Himalayan West Bengal & Sikkim. These were **below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ )** at isolated places over Tamil Nadu, Puducherry & Karaikal, Assam & Meghalaya and near normal over rest parts of the country (Fig. 2). Yesterday, the highest **maximum temperature of  $37.8^{\circ}\text{C}$**  was reported at **Akola (Vidarbha)** over the country.

### Meteorological Analysis (Based on 0530 hours IST)

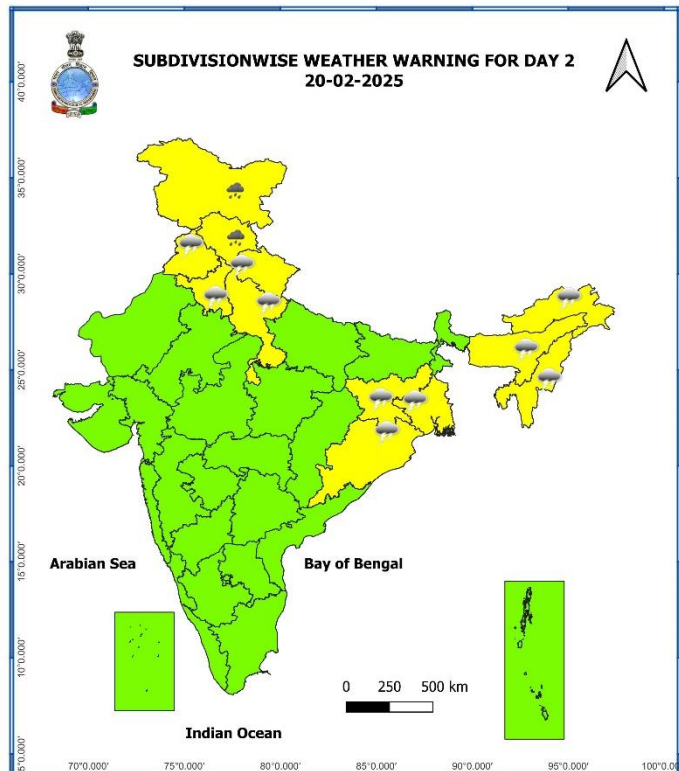
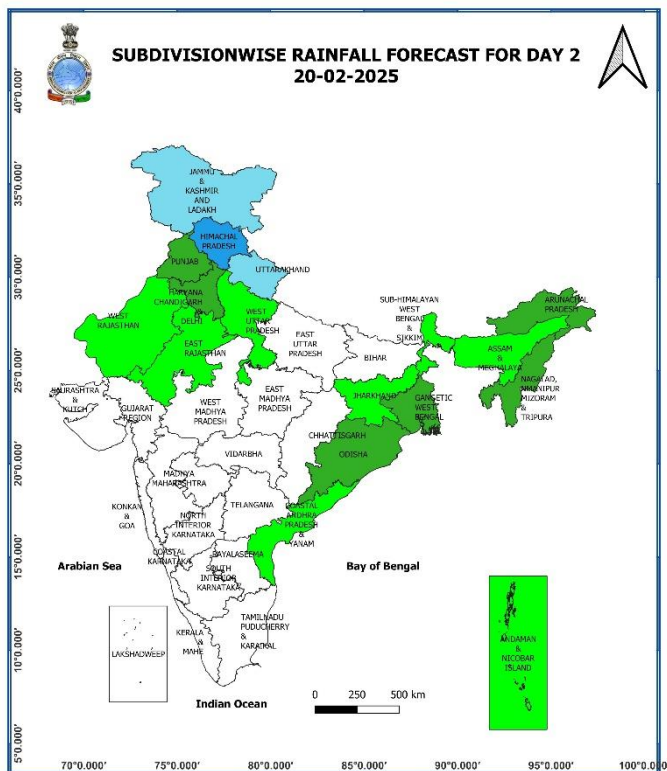
- ❖ The **Western Disturbance** as a cyclonic circulation over north Pakistan & neighbourhood now lies over Jammu & neighbourhood at 3.1 km above mean sea level.
- ❖ The **Induced cyclonic circulation** over southwest Rajasthan & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ Another **Western Disturbance** as a trough in middle tropospheric level with its axis at 5.8 km above mean sea level now lies roughly along Long. 60°E to the north of Lat. 32°N.
- ❖ A **trough** runs from Jharkhand to south Odisha at 0.9 km above mean sea level.
- ❖ The **cyclonic circulation** over northeast Assam & neighbourhood persists and now extends upto 1.5 km above mean sea level.

**Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 26<sup>th</sup> February, 2025)**



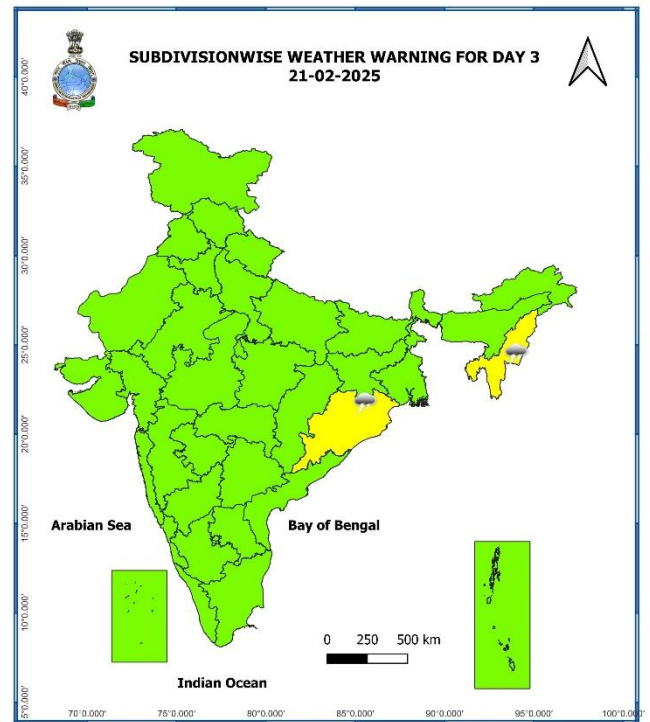
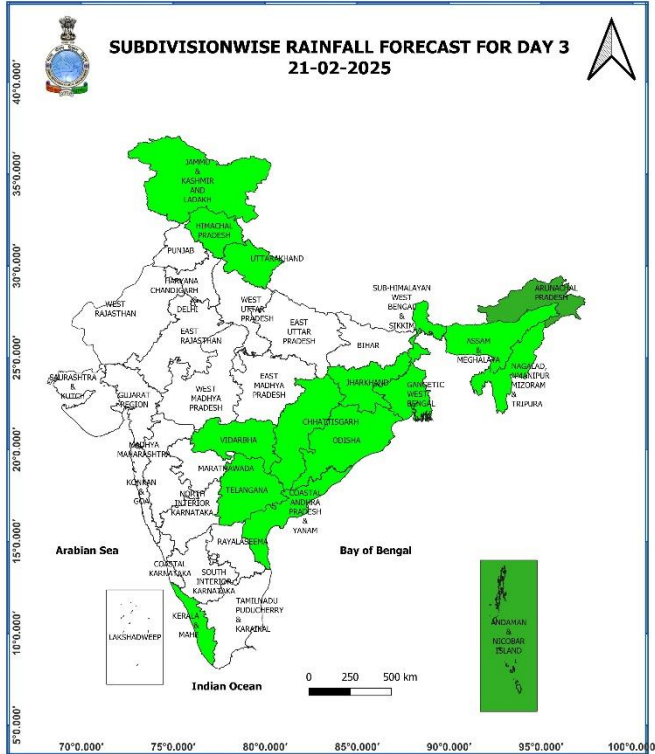
**19<sup>th</sup> February (Day 1):**

- ❖ **Heavy rainfall/snowfall ( $\geq 7$  cm)** very likely at isolated places over Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with gusty winds (30-40 kmph) & lightning** very likely at isolated places over West Rajasthan, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Haryana-Chandigarh-Delhi, East Rajasthan, Gangetic West Bengal, Jharkhand, Odisha and Arunachal Pradesh.



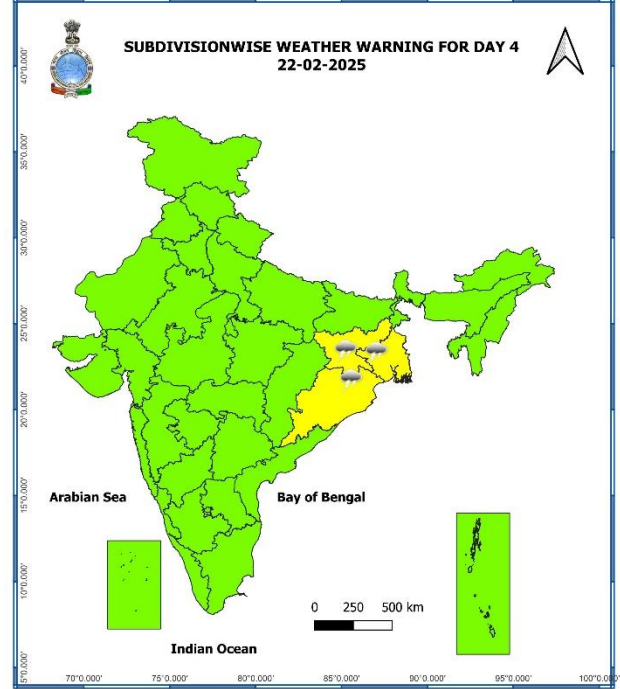
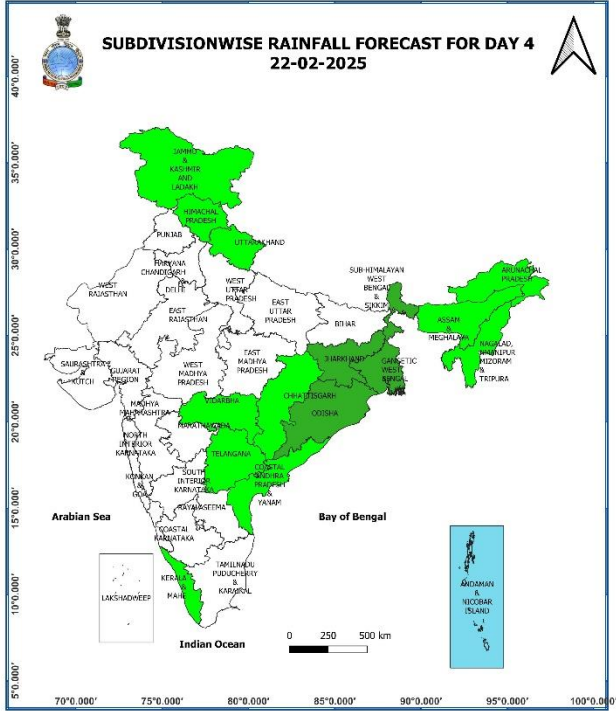
### 20<sup>th</sup> February (Day 2):

- ❖ **Heavy rainfall/snowfall ( $\geq 7$  cm)** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Gangetic West Bengal, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.



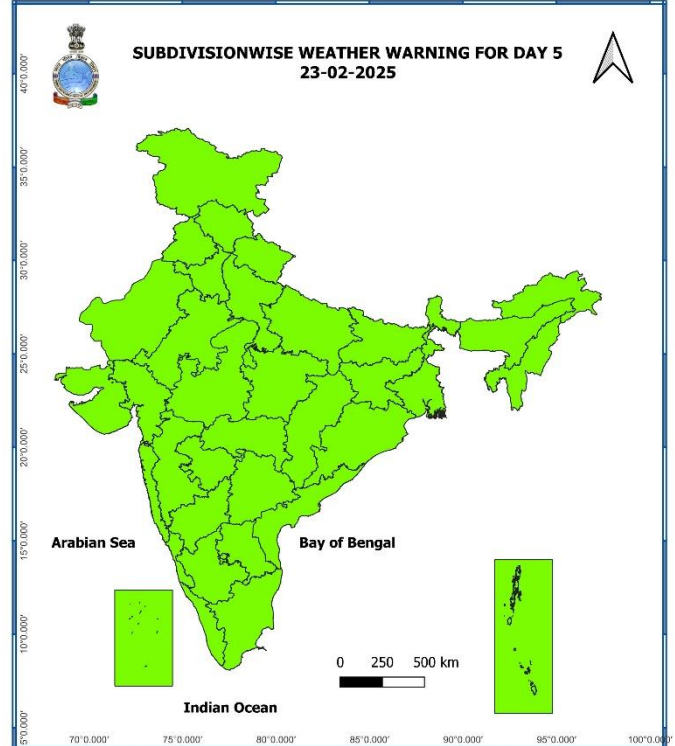
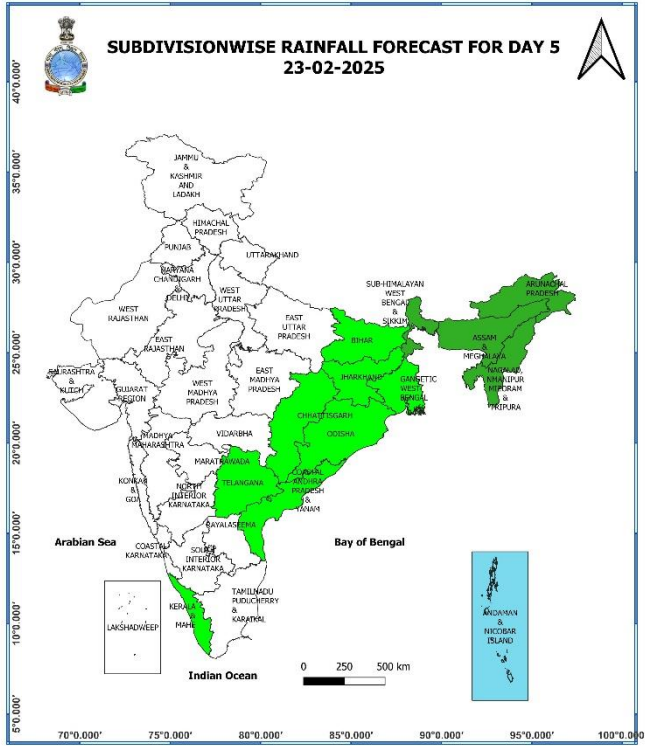
**21<sup>th</sup> February (Day 3):**

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Odisha and Nagaland, Manipur, Mizoram & Tripura.



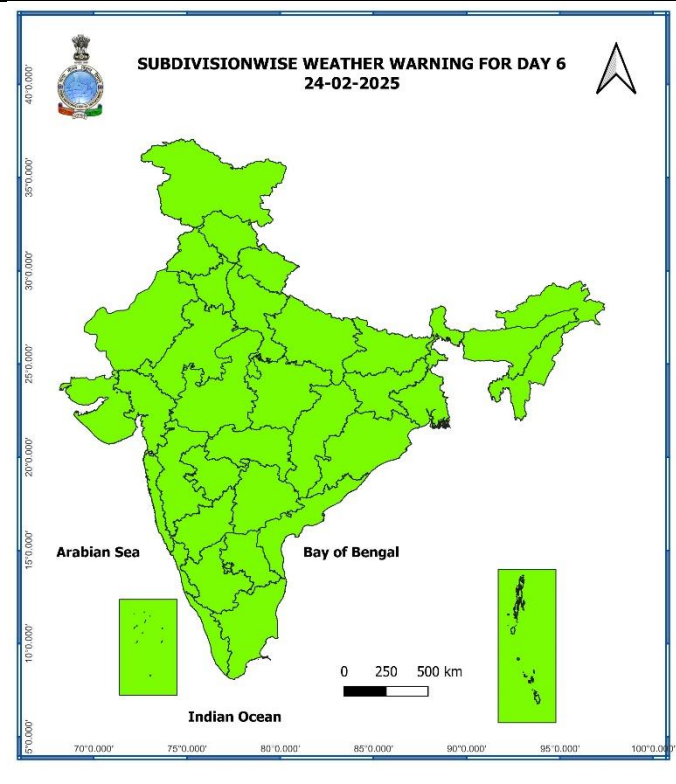
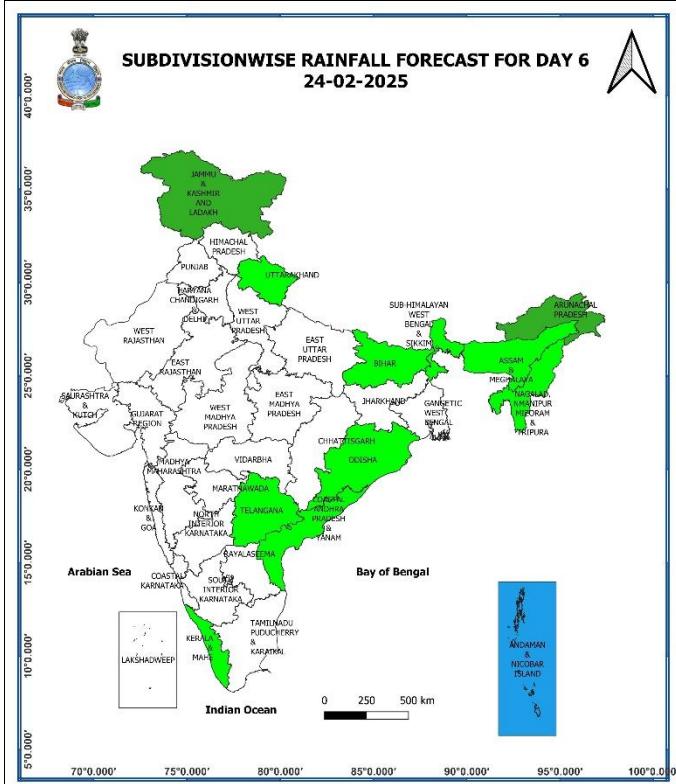
**22<sup>st</sup> February (Day 4):**

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Gangetic West Bengal, Jharkhand and Odisha.



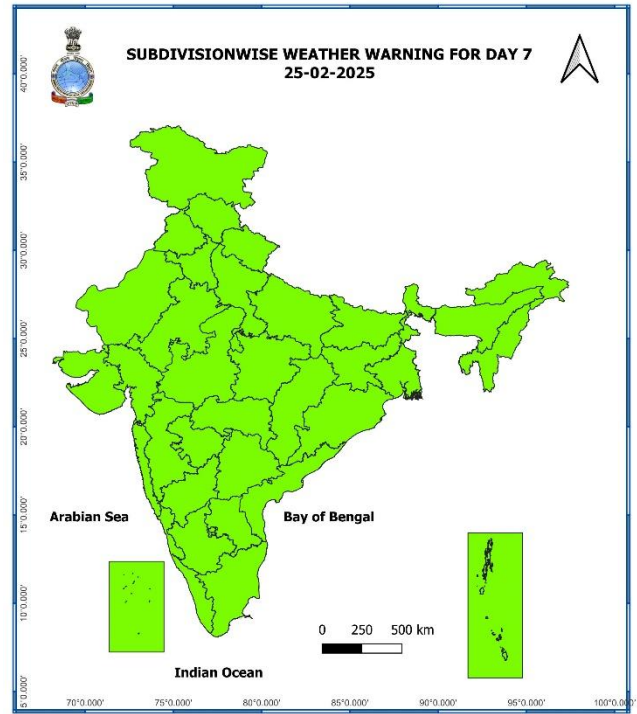
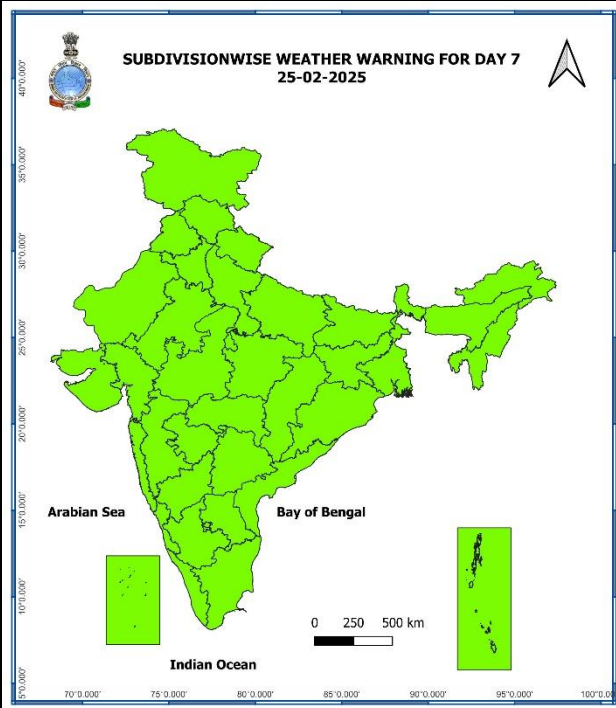
**23<sup>rd</sup> February (Day 5):**

❖ **No Weather Warning.**



**24<sup>rd</sup> February (Day 6):**

❖ **No Weather Warning.**



### 25<sup>th</sup> February (Day 7):

❖ No Weather Warning.

### Weather Outlook for subsequent 3 days (During 26<sup>th</sup> February- 28<sup>th</sup> February, 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

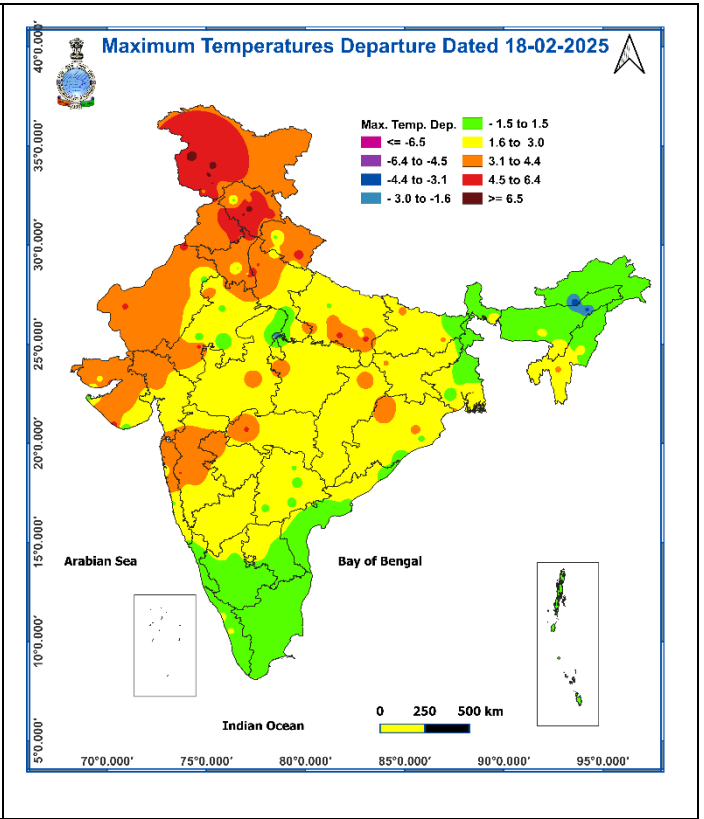
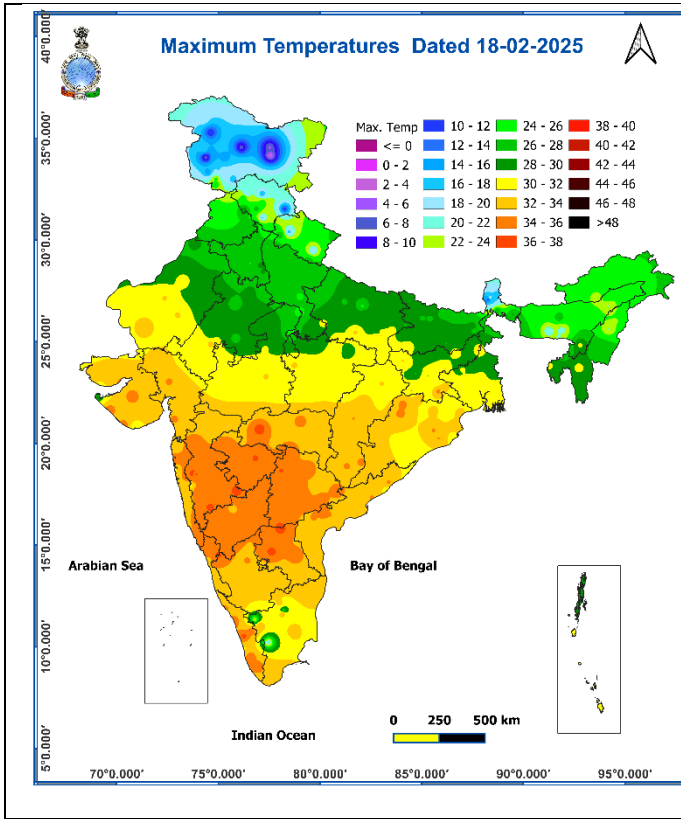
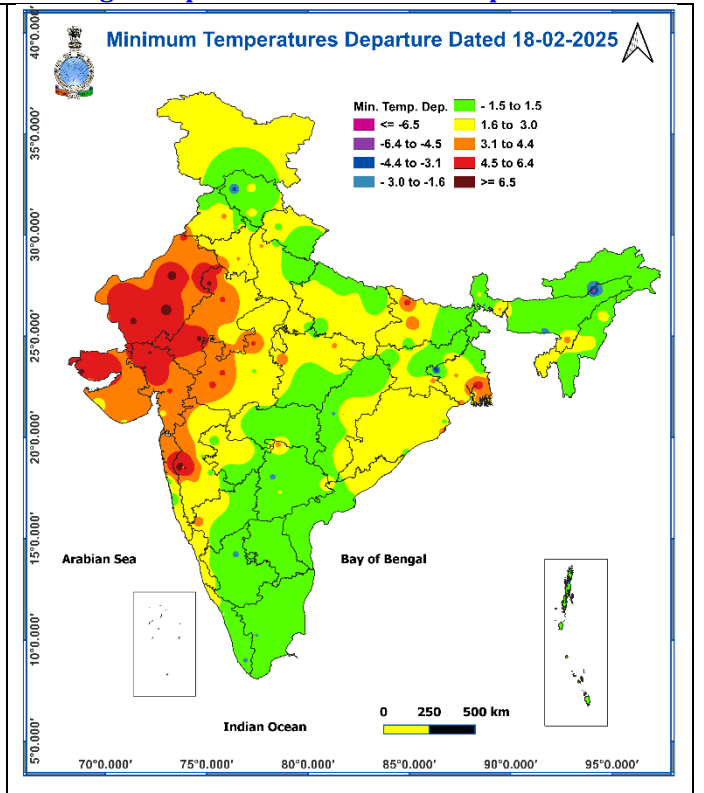
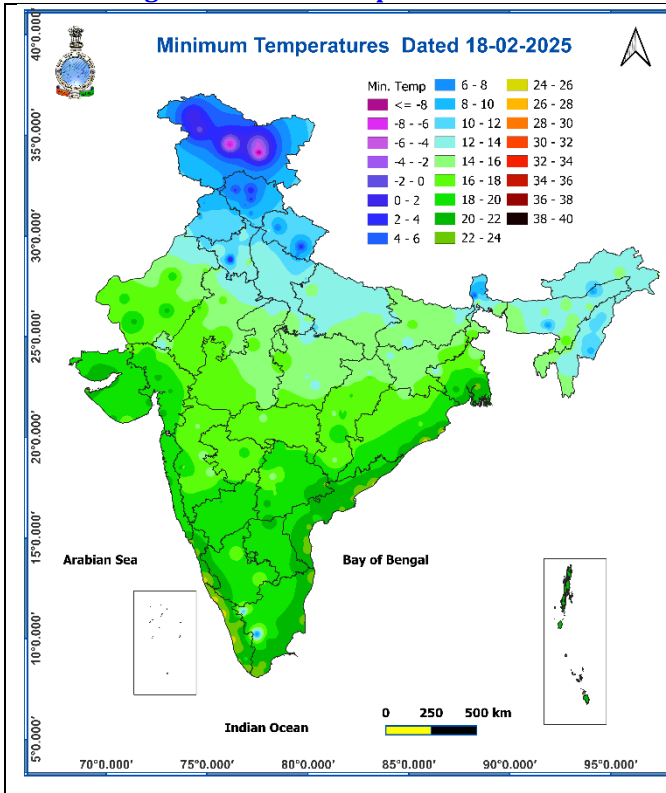


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



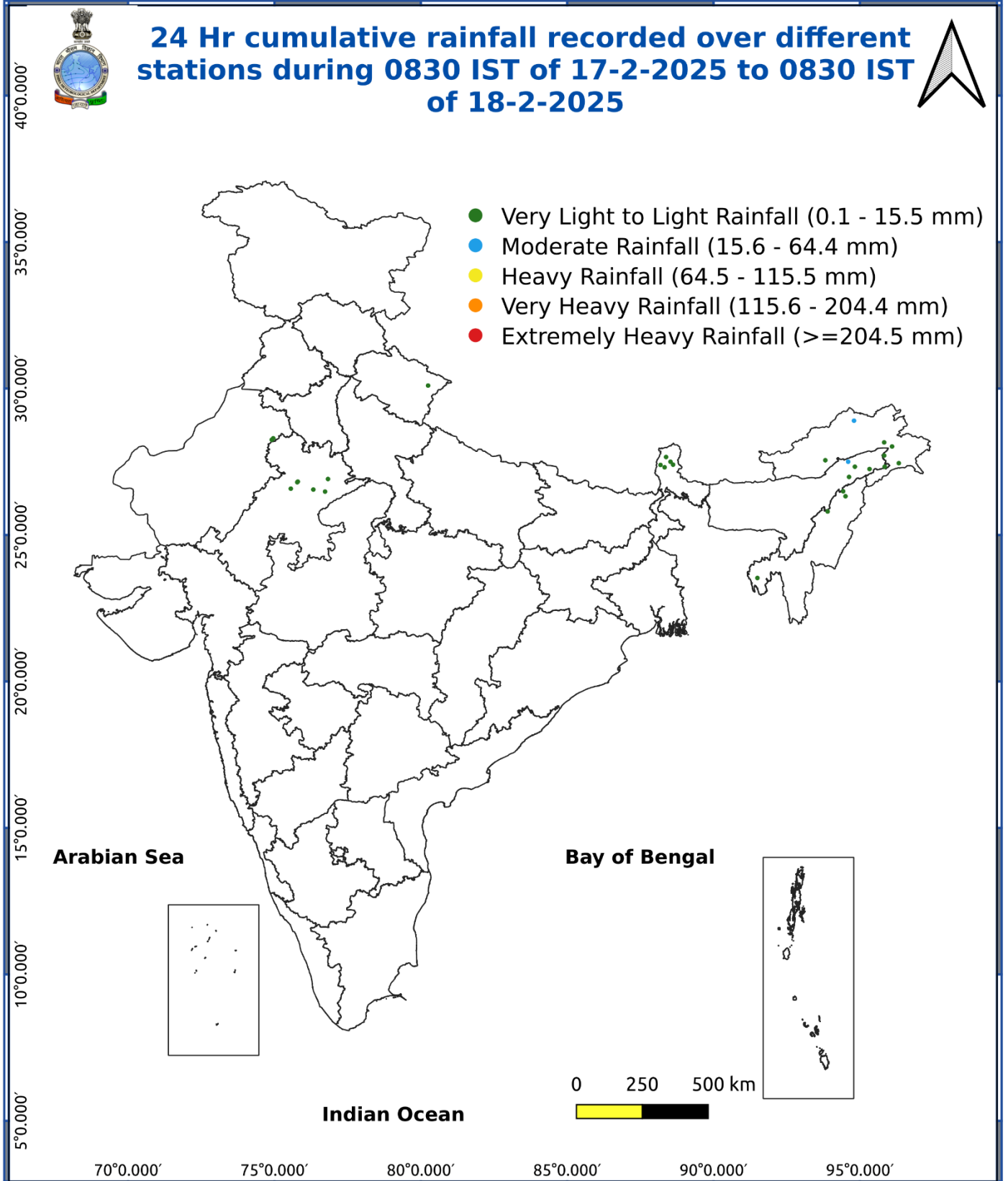
## Agromet advisories for likely impact of Heavy Rainfall

- In **Arunachal Pradesh**, postpone rice harvesting during rainfall periods and shift the already harvested produce to well-covered storage facilities to prevent damage. Provide extensive drainage in the fields of rice, mustard, other standing crops, vegetables and horticultural crops.
- 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** to avoid water stagnation. Harvest the mature crops and keep the harvested produce in safer places.
- Provide mechanical support to horticultural crops and staking to vegetables.

### Livestock

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

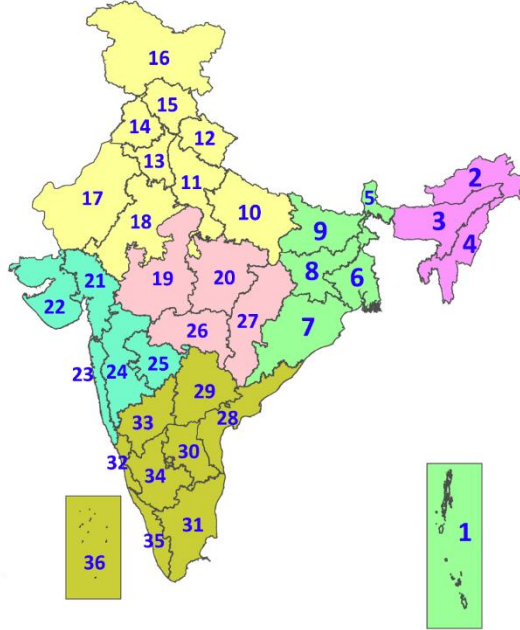
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



\* 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)