

Friday, February 21, 2025
Time of Issue: 1945 hours IST
(NIGHT)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Realised weather during past 24 hours, from 0830 hours IST of yesterday to 0830 hours IST of today

Temperature:

- ❖ During Past 24 hours, Day temperatures have risen by 1-2°C at many places over Madhya Pradesh, East Rajasthan, Interior Odisha, along the west coast and northeast India. It has fallen by 06-12°C at many places over Western Himalayan Region, by 02-04°C West Rajasthan, Punjab, Haryana, Uttar Pradesh, North coastal Odisha, Jharkhand, Gangetic West Bengal and no significant change over rest parts of the country.
- ❖ Day temperatures are **above normal (2.0°C to 5.0°C)** at many places over East Madhya Pradesh, Vidarbha, Konkan & Goa; at isolated places over Bihar, Uttar Pradesh, Chhattisgarh, Marathwada, Madhya Maharashtra, Gujarat state, North Interior Karnataka, Tamil Nadu, Puducherry & Karaikal. These are **below normal (-1°C to -3°C)** at many places over Rajasthan, Gangetic West Bengal and near normal over rest parts of the country
- ❖ During past 24 hours, Night temperatures have risen by 1-3°C at many places along the west coast, Bihar, Andaman Islands, Meghalaya, Manipur, Mizoram & Tripura and fallen by 2-4°C at many places over Western Himalayan Region, Punjab, Haryana, West Rajasthan, East Madhya Pradesh, North Chhattisgarh, Odisha, Jharkhand, Gangetic West Bengal, South interior Karnataka and Nagaland and no significant change over rest parts of the country.
- ❖ Night temperatures were **markedly above normal (5.1°C or more)** at isolated places over South Interior Karnataka, West Bihar, south Assam, Northwest Odisha, southeast Rajasthan **above normal (2.0°C to 5.0°C)** at a few places over south & east Rajasthan, Gujarat, Konkan & Goa, Madhya Maharashtra, Marathwada, Telangana, Madhya Pradesh, South Uttar Pradesh, Chhattisgarh, Bihar, Andaman & Nicobar Islands. These were **below normal (-1°C to -3°C)** at many places over Western Himalayan Region, Northwest Rajasthan, Punjab, Haryana, North Uttar Pradesh, Gangetic West Bengal, Northeast India and coastal & south Tamil Nadu near and near normal over rest parts of the country.

Weather Systems, Forecast and warning:

- ❖ A trough runs from Rayalaseema to South Chhattisgarh and an anti-cyclonic circulation lies over north Bay of Bengal in lower tropospheric levels. Under the influence of these systems;
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning with squall (speed 40-60 kmph)** very likely over Odisha on 22nd & 23rd; **thunderstorm, lightning with gusty winds (speed 30-40 kmph)** very likely over Gangetic West Bengal, Jharkhand on 22nd & 23rd; Isolated to scattered light/moderate rainfall accompanied with **thunderstorm & lightning** very likely over Sub-Himalayan West Bengal & Sikkim, Bihar on 22nd & 23rd; Gangetic West Bengal and Odisha during 21st-24th February.
 - ✓ **Hailstorm activity also likely at isolated places** over Gangetic West Bengal, Jharkhand & Odisha on 22nd February.
 - ✓ **Heavy rainfall** at isolated places likely over Andaman & Nicobar Islands on 25th & 26th February.
- ❖ A **fresh Western Disturbance** is likely to affect Northwest India from the night of 24th February, 2025. Under its influence,
 - ✓ **Fairly widespread to widespread** light to moderate rainfall/snowfall accompanied with thunderstorm & lightning over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh during 25th-27th; **Scattered to fairly widespread** light to moderate rainfall/snowfall accompanied with thunderstorm & lightning over Uttarakhand during 25th-27th February.
 - ✓ **Heavy rainfall/snowfall** at isolated places likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 25th-27th; Himachal Pradesh on 26th & 27th; Uttarakhand on 27th February.
 - ✓ Isolated light to moderate rainfall likely over Punjab, Haryana, Chandigarh on 26th & 27th; over West Uttar Pradesh and West Rajasthan on 27th February.
- ❖ Isolated light/moderate rainfall very likely over Karnataka on 21st & 22nd; Coastal Andhra Pradesh & Yanam, Rayalaseema during 21st-23rd; over Kerala & Mahe during next 7 days.
- ❖ An **upper air cyclonic circulation** lies over Nagaland 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 during 21st-23rd February; with **gusty winds (speed 30-40 kmph)** over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 22nd February.
- ❖ **Heavy rainfall/snowfall at isolated places likely over Arunachal Pradesh on 21st February.**

Forecast of temperature:

Minimum Temperature:

- ❖ Gradual fall in minimum temperatures by 2-3°C likely over Northwest India during next 3 days and no significant change thereafter.
- ❖ No significant change in minimum temperatures likely over rest parts of India during next 4-5 days.

Maximum temperature:

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

Dense Fog Warnings:

- ✓ **Dense fog conditions** very likely to continue to prevail during night/early morning hours in isolated pockets of Himachal Pradesh till 22nd; Sub-Himalayan West Bengal & Sikkim till 24th February.

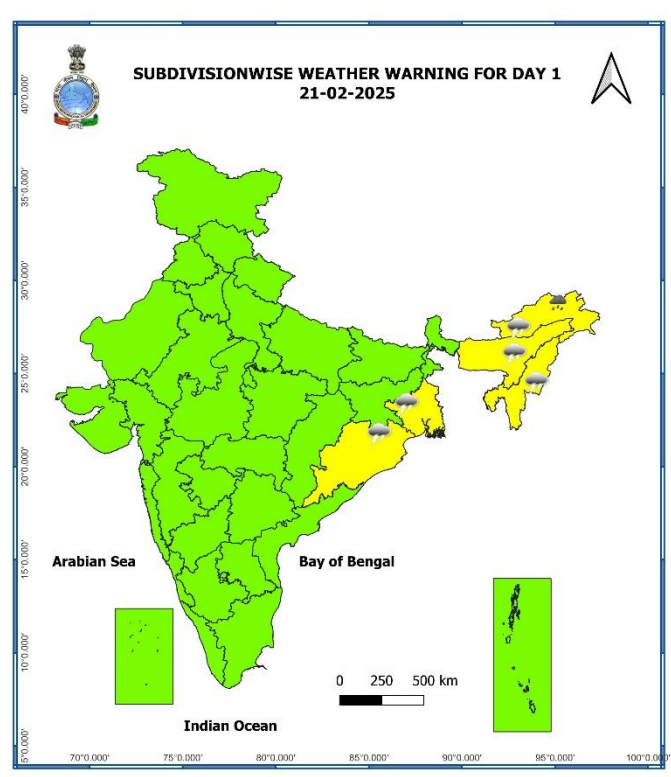
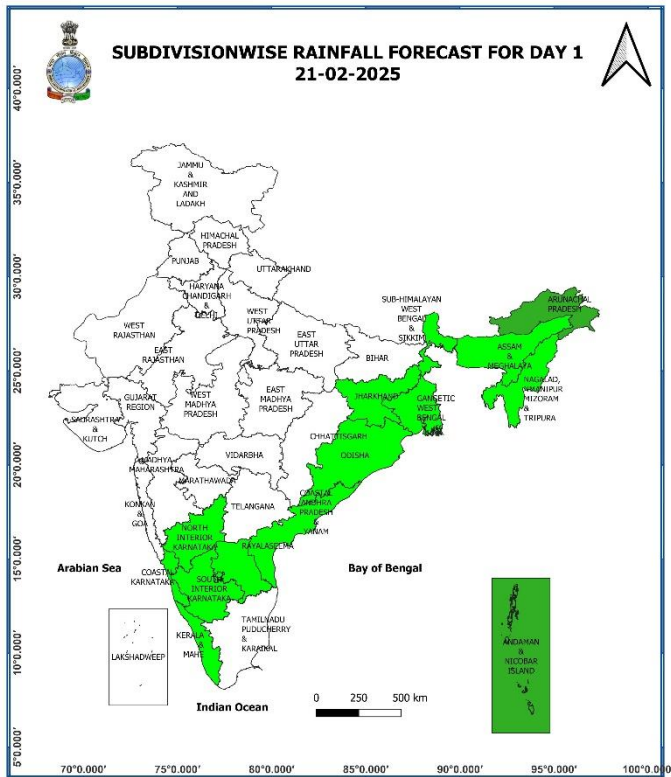
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of today): at isolated places over Sub-Himalayan West Bengal & Sikkim, Odisha.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of today): (in cm): **Nil**.
- ❖ **Minimum Temperature Departures (as on 21-02-2025)**: Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over Coastal Karnataka; **appreciably above normal (3.1°C to 5.0°C)** at a few places over East Rajasthan, Gujarat Region, Chhattisgarh; at isolated places over Madhya Pradesh, Saurashtra & Kutch, Marathwada, Madhya Maharashtra, Bihar; **above normal (1.6°C to 3.0°C)** at few places over Telangana, Andaman & Nicobar Islands, Kerala & Mahe; at isolated places over West Rajasthan, Uttar Pradesh, Haryana-Chandigarh-Delhi, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Jharkhand, Coastal Andhra Pradesh & Yanam, Rayalaseema and South Interior Karnataka. These are **appreciably below normal (-5.0°C to -3.1°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand and **below normal (-3.0°C to -1.6°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal, Gangetic West Bengal, Odisha and near normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature of 6.1°C** is reported at **Amritsar (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 21-02-2025)**: Maximum temperatures are **markedly above normal (5.1°C or more)** at isolated places over Konkan & Goa; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Saurashtra & Kutch; **above normal (1.6°C to 3.0°C)** at a few places over Assam & Meghalaya; at isolated places over Uttar Pradesh, Bihar, Jharkhand, Interior Karnataka, Kerala & Mahe, Sub-Himalayan West Bengal & Sikkim. These are **below normal (-3.0°C to -1.6°C)** at isolated places over Rajasthan, Gangetic West Bengal and near normal over rest parts of the country (**Fig. 2**). Today, the highest **maximum temperature of 38.6°C** is reported at Ratnagiri (**Konkan & Goa**) over the country.

Meteorological Analysis (Based on 1730 hours IST)

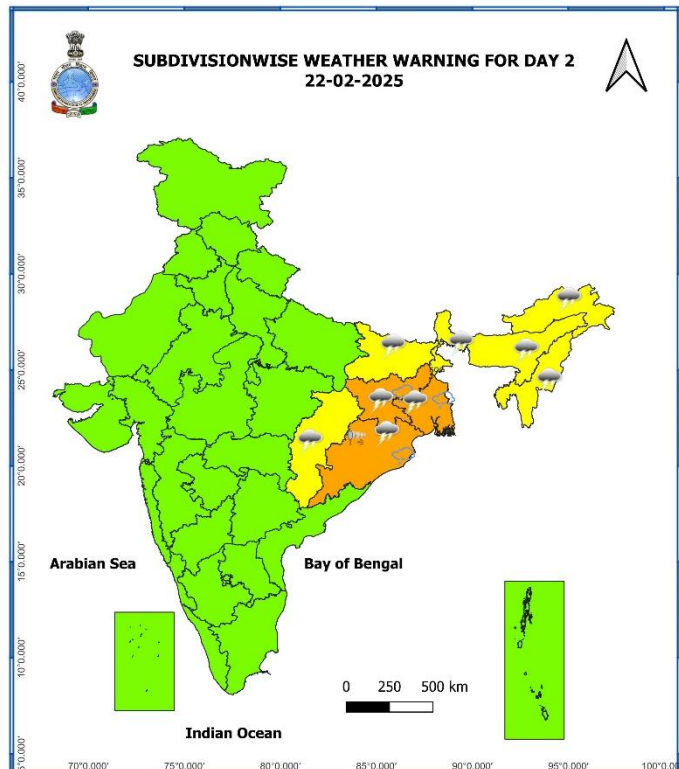
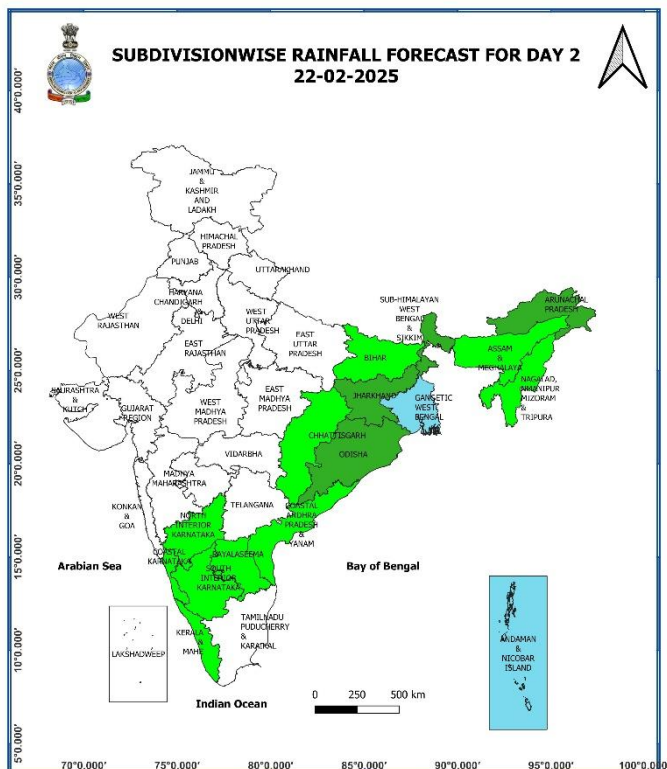
- ❖ The **cyclonic circulation** over Haryana & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The **trough in easterlies** from Rayalaseema to South Chhattisgarh at 0.9 km above mean sea level persists.
- ❖ The **cyclonic circulation** over Nagaland & neighbourhood at 1.5 km above mean sea level persists.
- ❖ A fresh **Western Disturbance** is likely to affect Northwest India from the night of 24th February, 2025.

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



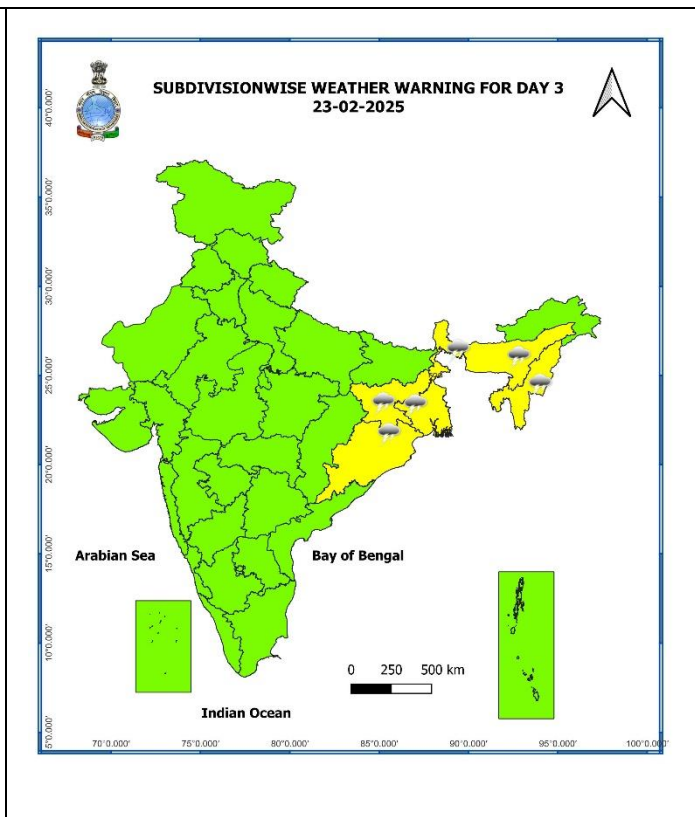
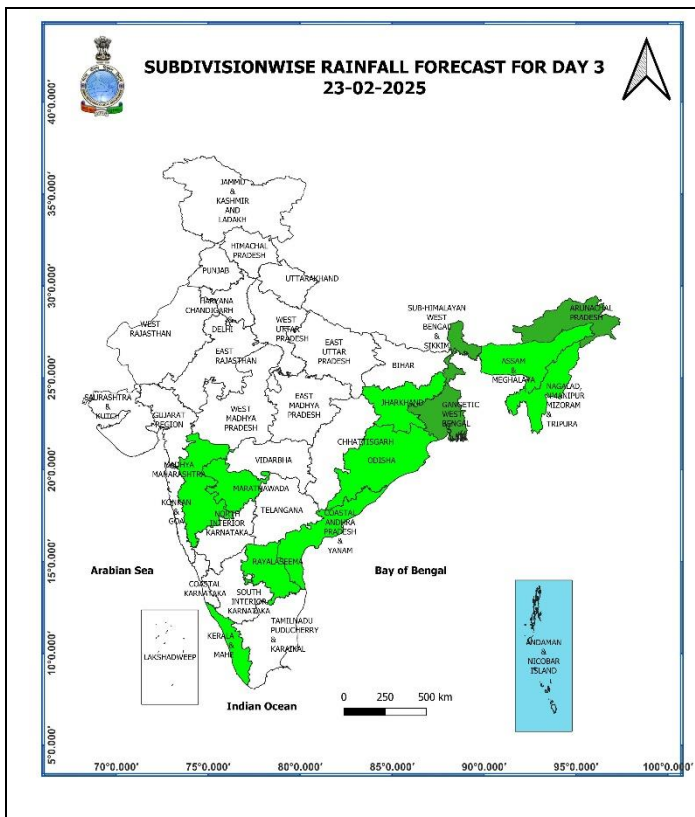
21st February (Day 1):

- ❖ **Heavy Rainfall (≥ 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 Himachal Pradesh.



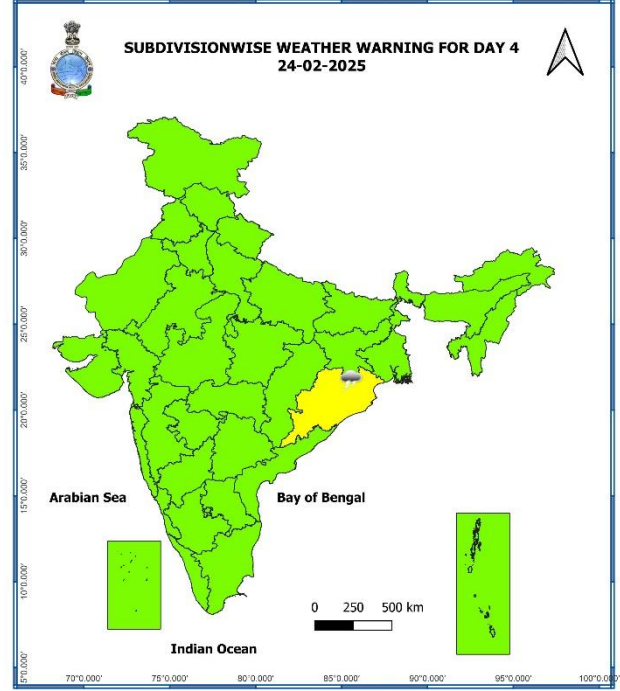
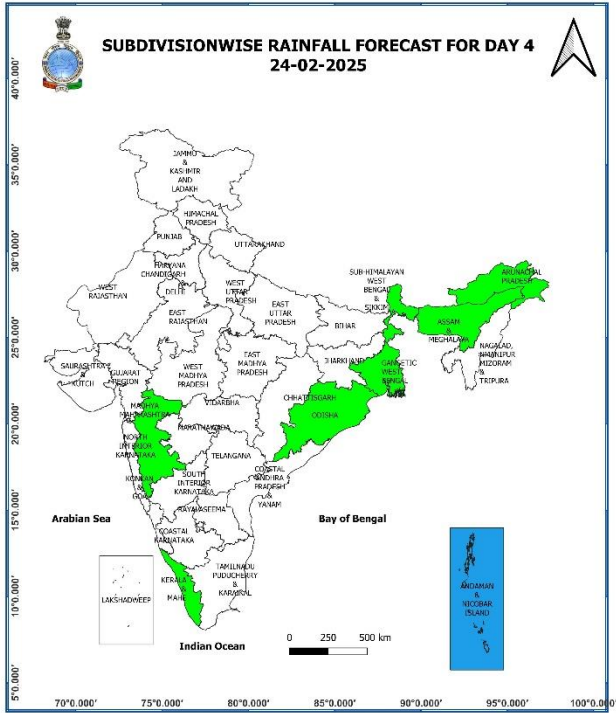
22nd February (Day 2):

- ❖ **Thundersquall accompanied with gusty winds (50-60 kmph), Hailstorm & lightning** likely at isolated places over Odisha; **Thunderstorm accompanied with gusty winds (40-50 kmph), Hailstorm & lightning** at isolated places over Jharkhand; **with gusty winds (30-40 kmph), Hailstorm & lightning** at isolated places over Gangetic West Bengal; **with gusty winds (30-40 kmph) & lightning** at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, north Chhattisgarh and Arunachal Pradesh.
- ❖ **Dense fog conditions** very likely in isolated pockets of Sub-Himalayan West Bengal & Sikkim.



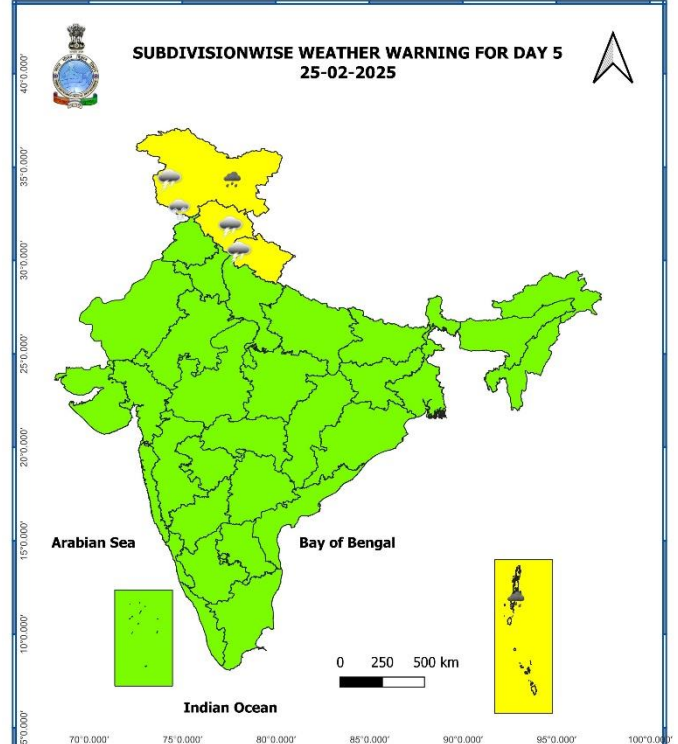
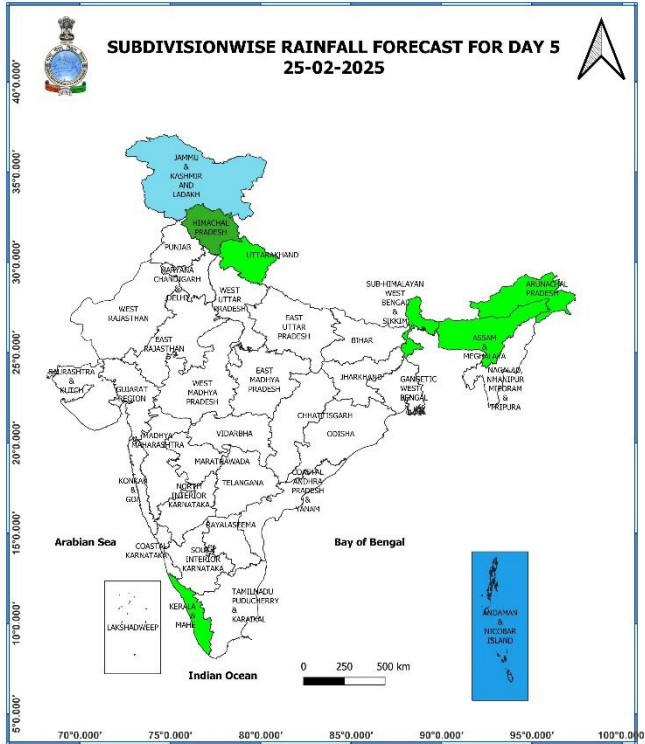
23rd February (Day 3):

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



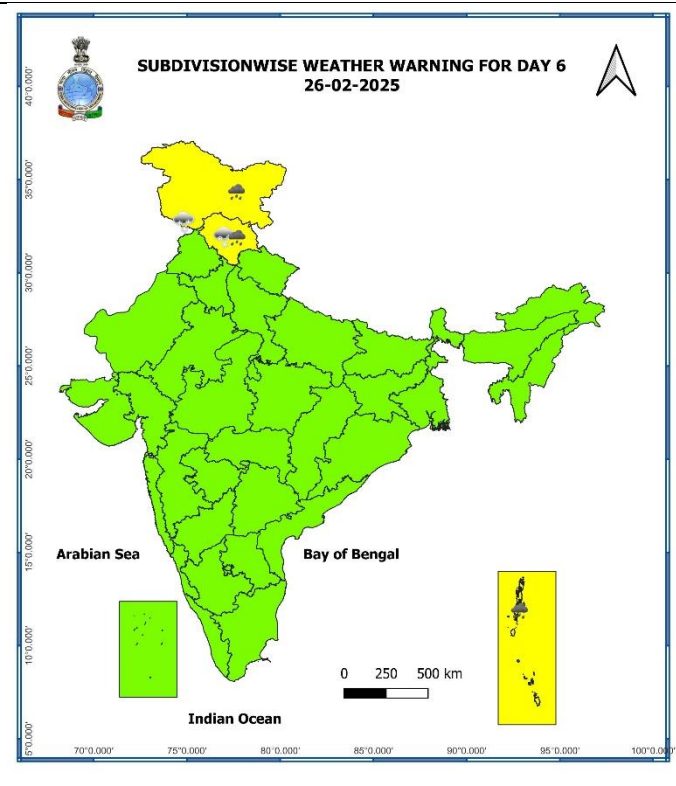
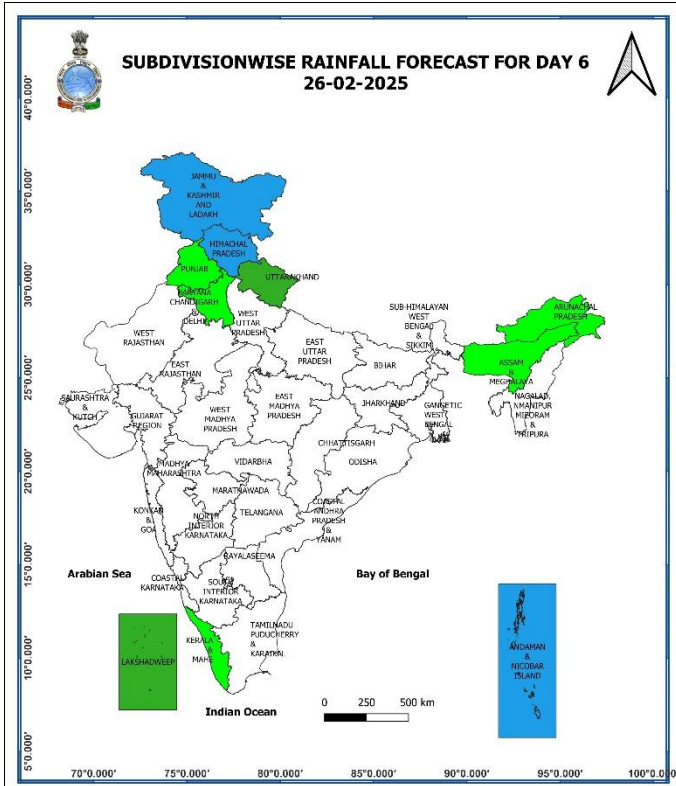
24th February (Day 4):

❖ **Thunderstorm accompanied with lightning** likely at isolated places over Odisha.



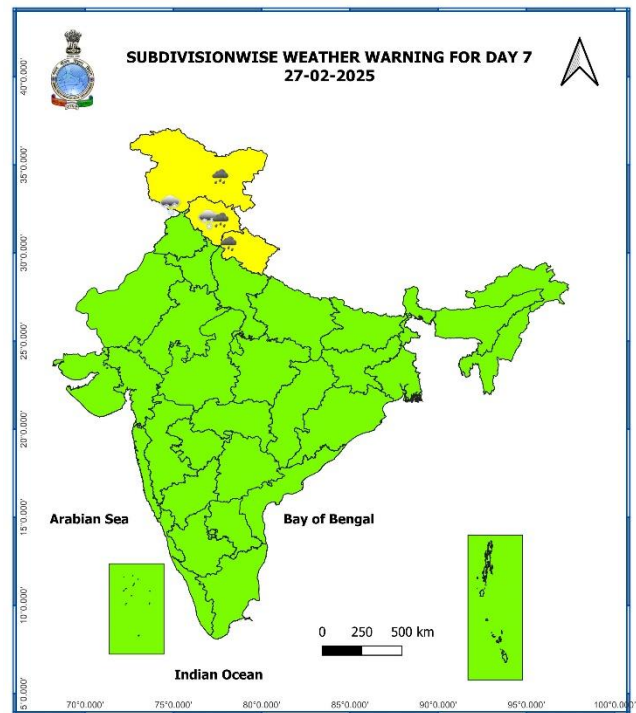
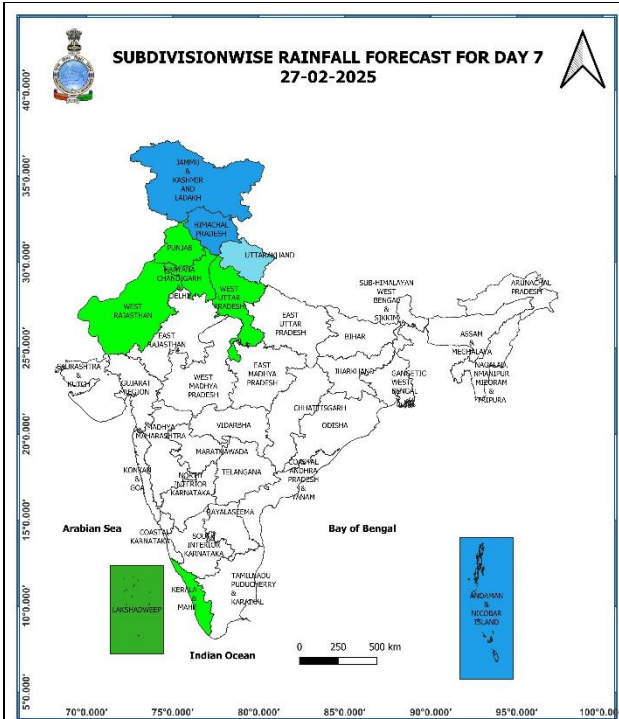
25th February (Day 5):

- ❖ **Heavy Rainfall/Snowfall (≥ 7 cm)** likely at isolated places of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and **Heavy Rainfall (≥ 7 cm)** likely at isolated places of Andaman & Nicobar Islands.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand.



26th February (Day 6):

- ❖ **Heavy Rainfall/Snowfall (≥ 7 cm)** likely at isolated places of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and **Heavy Rainfall (≥ 7 cm)** likely at isolated places of Andaman & Nicobar Islands.



27th February (Day 7):

- ❖ **Heavy Rainfall/Snowfall (≥ 7 cm)** likely at isolated places of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand.

Weather Outlook for subsequent 3 days (During 28th February- 02nd 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, Tamil Nadu, Puducherry & Karaikal 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

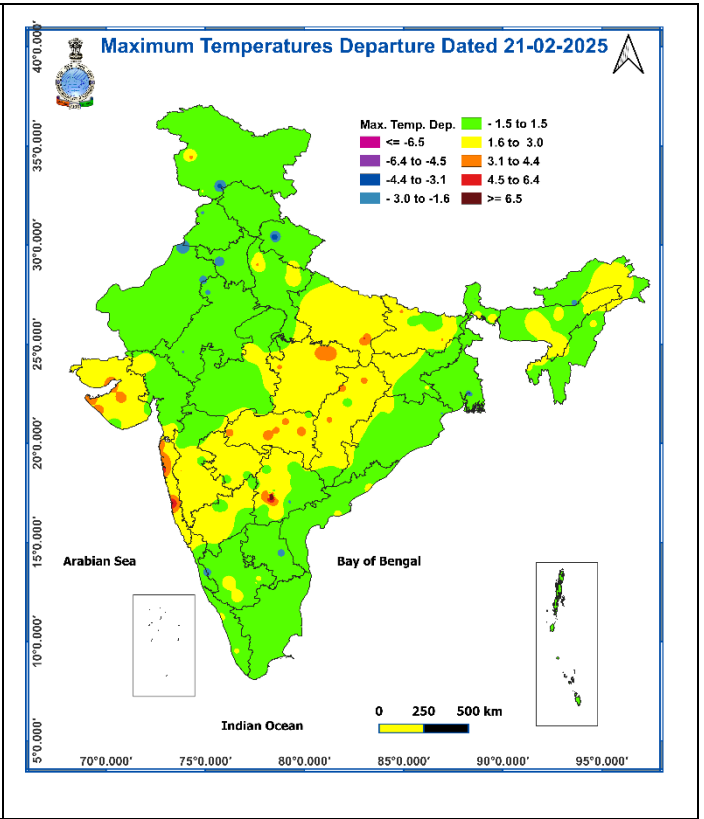
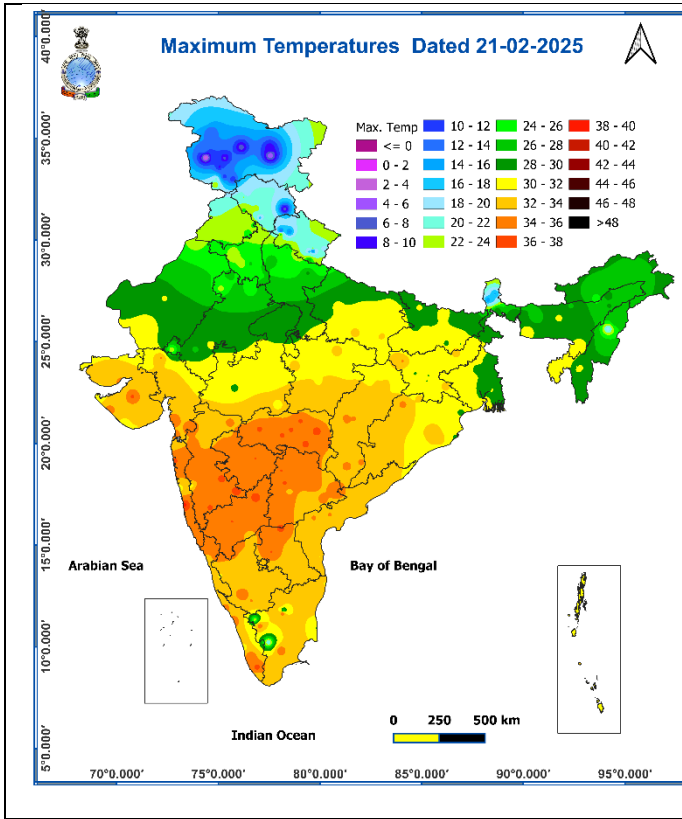
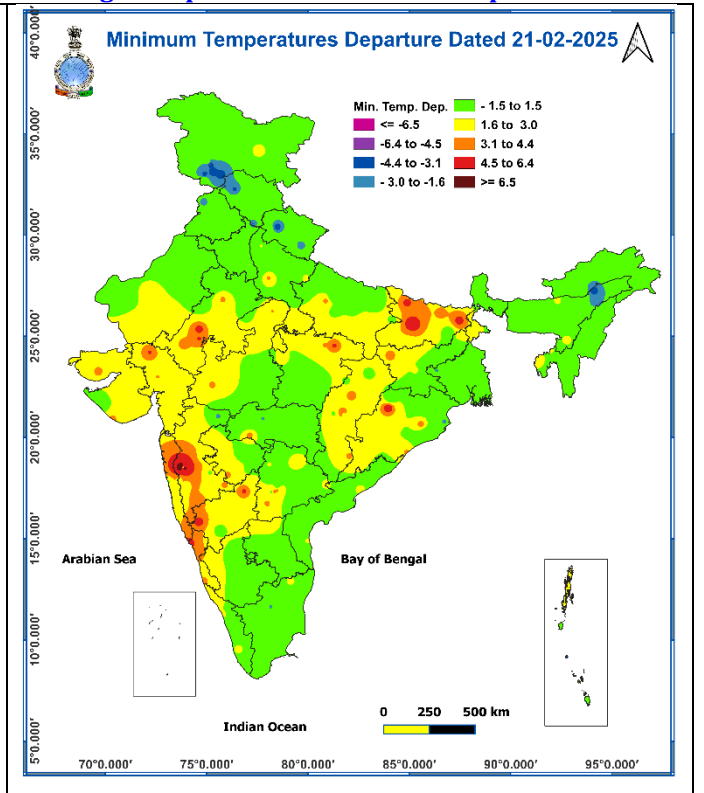
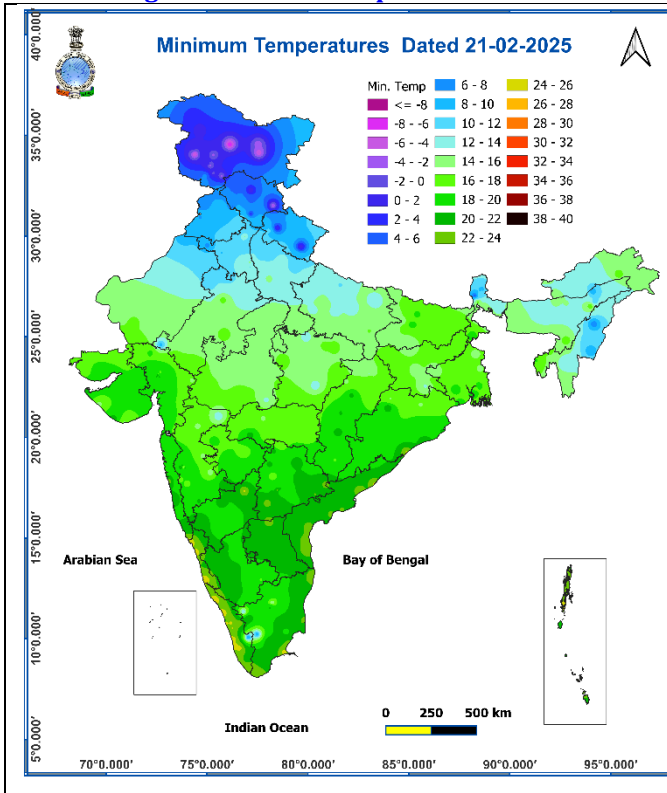


Fig. 3: Minimum Temperatures

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 and Jharkhand**.
- Make provision for draining out excess water from the fields of 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

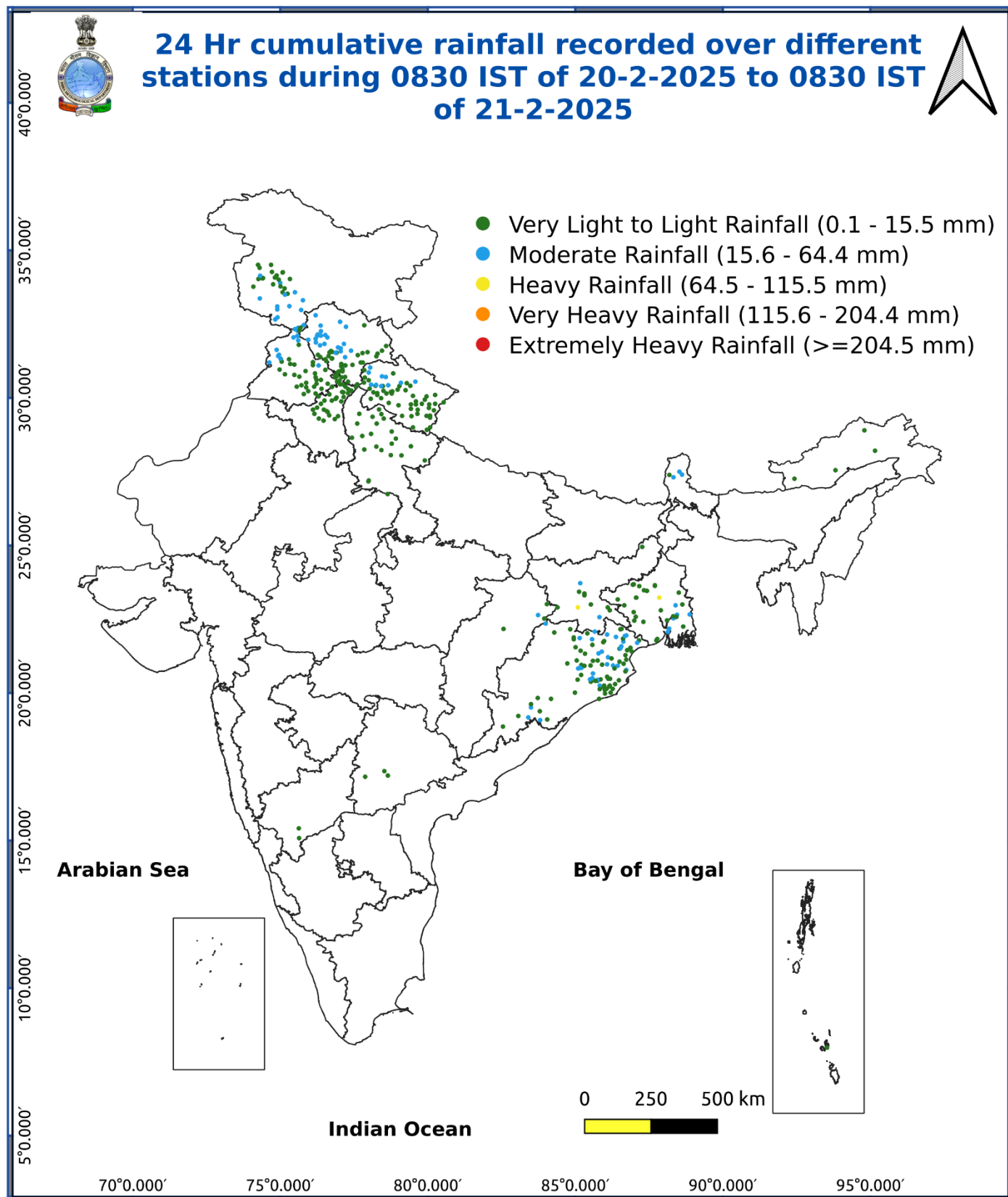
Impact expected:

- 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 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.

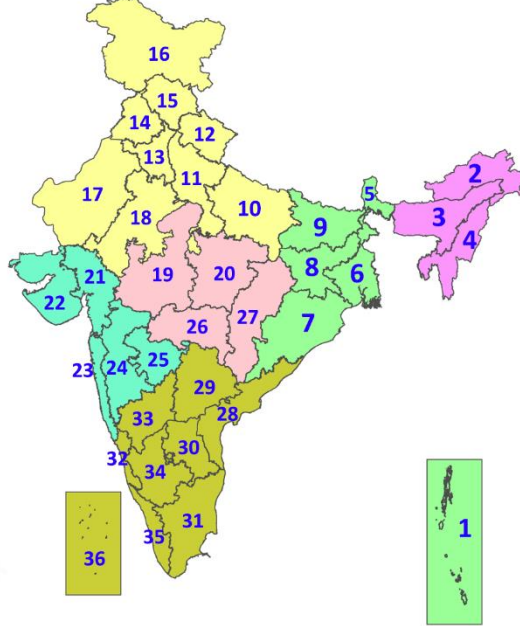
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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 *	<p>Heavy: 64.5 to 115.5 mm/cm *</p> <p>Very Heavy: 115.6 to 204.4 mm/cm*</p> <p>Extremely Heavy: > 204.4 mm/cm *</p>
Heat Wave	<p>When maximum temperature of a station reaches $\geq 40^\circ\text{C}$ for plains and $\geq 30^\circ\text{C}$ for hilly regions</p> <p>(a) Based on Departure from normal</p> <p>Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C.</p> <p>Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^\circ\text{C}$</p> <p>(b). Based on Actual maximum temperature</p> <p>Heat Wave: When actual maximum temperature $\geq 45^\circ\text{C}$.</p> <p>Severe Heat Wave: When actual maximum temperature $\geq 47^\circ\text{C}$</p> <p>(c). Criteria for heat wave for coastal stations</p> <p>When maximum temperature departure is $>4.5^\circ\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^\circ\text{C}$</p>
Warm Night	<p>When maximum temperature remains 40°C</p> <p>Warm Night: When minimum temperature departure 4.5°C to 6.4°C.</p> <p>Severe Warm Night: When minimum temperature departure $>6.4^\circ\text{C}$.</p>
Cold Wave	<p>When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions.</p> <p>(a). Based on departure</p> <p>Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^\circ\text{C}$</p> <p>(b) Based on actual Minimum Temperature (for Plains only)</p> <p>Cold Wave : When Minimum Temperature is $\leq 4.0^\circ\text{C}$</p> <p>Severe Cold Wave: When Minimum Temperature is $\leq 2.0^\circ\text{C}$</p> <p>(c) For Coastal Stations</p> <p>When Minimum Temperature departure is $\leq -4.5^\circ\text{C}$ & actual Minimum Temperature is $\leq 15^\circ\text{C}$</p>
Cold Day	<p>When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions</p> <p>Based on departure</p> <p>Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^\circ\text{C}$</p>
Fog	<p>Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$</p> <p>Moderate Fog: When the visibility between 500-200 metres</p> <p>Dense Fog: when the visibility between 50- 200 metres</p> <p>Very Dense Fog: when the visibility < 50 metres</p>
Thunderstorm	<p>Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)</p>
Dust/Sand Storm	<p>An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.</p>
Frost	<p>Ice deposits on ground</p> <p>Air temperature $\leq 4^\circ\text{C}$ (over Plains)</p>
Squall	<p>A strong wind that rises suddenly, lasts for atleast 1 minute.</p> <p>Moderate: Wind speed 52-61 kmph</p> <p>Severe: Wind speed 62-87 kmph</p> <p>Very Severe: Wind speed >87 kmph</p>
Sea State	<p>Effect of various waves in the sea over specific area</p> <p>Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre</p> <p>High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre</p> <p>Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre</p>
Cyclone	<p>Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)</p> <p>Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)</p> <p>Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)</p> <p>Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)</p> <p>Super Cyclone Strom: Wind speed >220 kmph (>119 knots)</p>