राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

Thursday, February 20, 2025
Time of Issue: 1330 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Realised weather during past 24 hours till 0830 hours IST of today

Temperature:

- During Past 24 hours, Day temperatures have risen by 1-3°C at many places over Jammu-Kashmir, Bihar; at some places over Chhattisgarh, Jharkhand, Coastal Andhra Pradesh & Yanam, Tamilnadu Puducherry & Karaikal, East Rajasthan, Gujarat Region. It has fallen by 1-3°C at few places over Uttarakhand, Himachal Pradesh, West Rajasthan, Maharashtra, Gangetic West Bengal; at isolated places over West Madhya Pradesh, Karnataka, West Uttar Pradesh.
- Day temperatures were **markedly above normal (5°C or more)** at many places over Jammu-Kashmir and Himachal Pradesh; **above normal (2.0°C to 5.0°C)** at many places over Haryana-Chandigarh-Delhi, Uttarakhand, Punjab, West Rajasthan, West Uttar Pradesh, East India; at a few places over West India, South Peninsular and Northeast India; at isolated places over East Uttar Pradesh, East Rajasthan, Vidarbha, Madhya Maharashtra, Odisha, West Madhya Pradesh and near normal over rest parts of the country.
- During past 24 hours, Night temperatures have risen by 1-4°C at many places over Northwest India except Rajasthan, East Madhya Pradesh, East India, Peninsular India, Assam & Meghalaya and fallen by 1-4°C at many places over West India, Rajasthan Nagaland, Manipur, Mizoram & Tripura.
- Night temperatures were **markedly above normal (5.1°C or more)** at a few places over Rajasthan; at isolated places over Saurashtra & Kutch; **above normal (2.0°C to 5.0°C)** at many places over Central, East & West India; at isolated places over Jammu-Kashmir, Himachal Pradesh, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam and North Interior Karnataka. These were **below normal (-1°C to -3°C)** at isolated places over East Uttar Pradesh, Tamilnadu Puducherry & Karaikal, Kerala & Mahe 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 20th & 22nd; Isolated to scattered light/moderate rainfall accompanied with **thunderstorm & lightning** very likely over Sub-Himalayan West Bengal & Sikkim, Bihar on 20th & 22nd; Gangetic West Bengal, Jharkhand and Odisha on 21st & 23rd February.
  - ✓ **Hailstorm activity also likely at isolated places** over Gangetic West Bengal, Jharkhand & Odisha on 20th & 22nd February.
- A **Western Disturbance** seen as a cyclonic circulation over north Pakistan & neighbourhood in lower tropospheric levels 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. 30°N. The induced **cyclonic circulation** lies over West Rajasthan & neighbourhood in lower tropospheric levels. Under their influence;
  - ✓ **fairly widespread to widespread light to moderate rainfall/snowfall accompanied with thunderstorm & lightning over** Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand on 20th and isolated light rainfall/snowfall on 21st & 22nd February.
  - ✓ **Heavy rainfall/snowfall** at isolated places likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 20th February.
  - ✓ **Hailstorm activity also likely at isolated places** over Uttarakhand and West Uttar Pradesh on 20th February.
  - ✓ Isolated to Scattered light to moderate rainfall aaccompanied with **thunderstorm & lightning with gusty winds (speed 30-40 kmph)** likely over Punjab, Haryana, Chandigarh and West Uttar Pradesh on 20th February; with **thunderstorm & lightning** likely over East Uttar Pradesh, north Chhattisgarh on 20th February.
- A **fresh Western Disturbance** is likely to affect Northwest India from 24th 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 24th-26th February.
- Isolated light/moderate rainfall very likely over Coastal Andhra Pradesh & Yanam and Kerala & Mahe during 21st-25th February.
- A **cyclonic circulation** lies over central Assam 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 20th & 21st February; with **gusty winds (speed 30-40 kmph)** over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 22nd & 23rd February.
  - ✓ **Heavy rainfall** at isolated places likely over Arunachal Pradesh on 21st February.

Main Weather Observations:

- **Rainfall/Snowfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab; **at a few places over** Haryana-Chandigarh-Delhi**,** Gangetic West Bengal, Arunachal Pradesh**; at isolated places** over Uttarakhand, Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.

- **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today): (in cm): **Odisha**: Marsaghai (Kendrapara) 5, Derabis (Kendrapara) 5, Akhuapada (Bhadrak) 4, Narsinghpur (Cuttack) 4, Begunia (Khurda) 4, Bari (Jajpur) 4; **Punjab:** Taran Taran (dist Tarn Taran) 2.

- **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **NIL.**

- **Fog reported** (at 0530 hours IST of today): Dense to very dense fog reported in isolated pockets of Meghalaya.

- **Visibility reported** (at 0530 hours IST of today) (≤200 m): **Meghalaya**: Barapani 30.

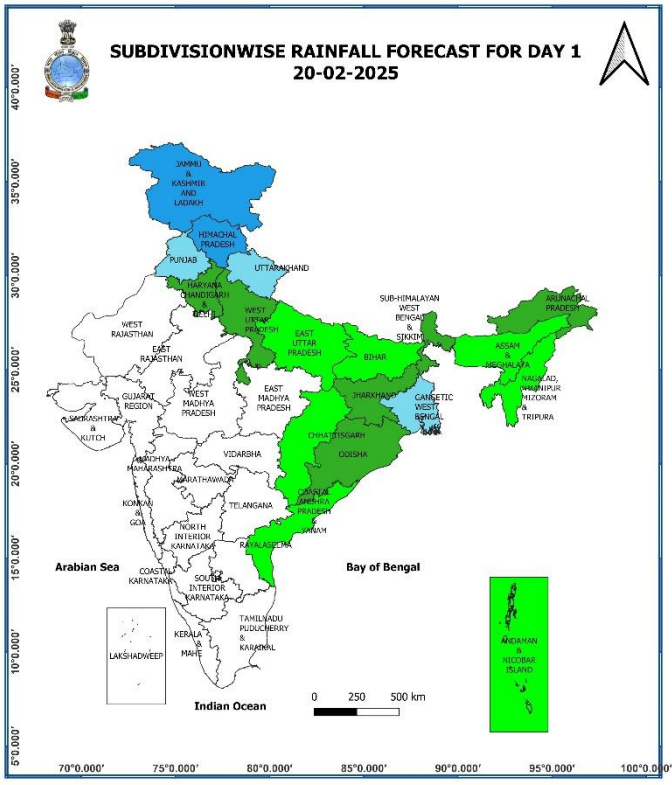
- **Minimum Temperature Departures (as on 20-02-2025):** Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over West Rajasthan, Gujarat Region, Madhya Maharashtra, Odisha; **appreciably above normal (3.1°C to 5.0°C)** at many places over Gangetic West Bengal; at a 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)**. Today, the **lowest minimum temperature** of **9.0°C** is reported at **Nahan (Haryana)** over the plains of the country.

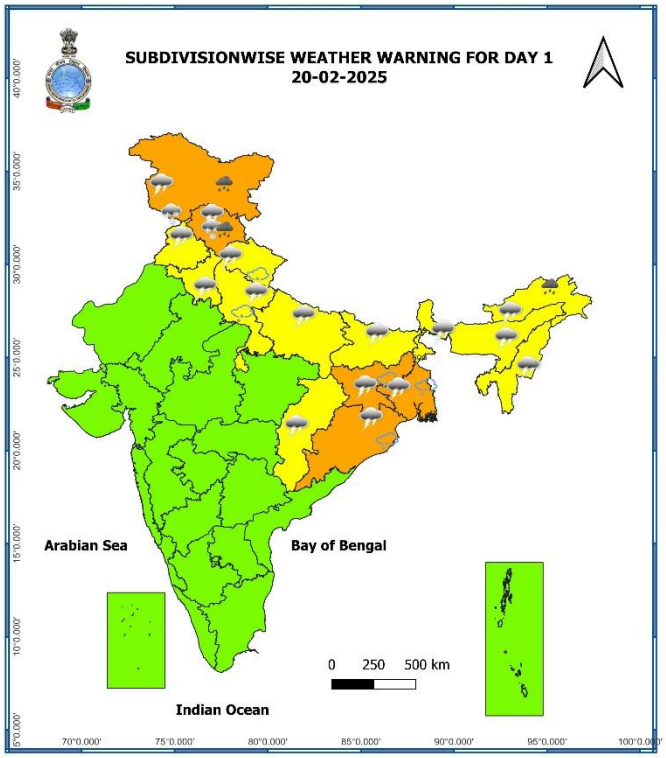
- **Maximum Temperature Departures (as on 19-02-2025**): Maximum temperatures were **markedly above normal (5.1°C or more)** at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at few places over Himachal Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at many places over Haryana-Chandigarh-Delhi, Uttarakhand, Punjab; at few places over West Rajasthan, Gujarat state, West Uttar Pradesh; at isolated places over East Uttar Pradesh, East Rajasthan, Vidarbha, Madhya Maharashtra, Odisha, West Madhya Pradesh; **above normal (1.6°C to 3.0°C)** at most places over Jharkhand, East Madhya Pradesh, Konkan & Goa, North Interior Karnataka, South Interior Karnataka, Chhattisgarh, Bihar, Marathwada, Telangana; at a few places over Coastal Andhra Pradesh & Yanam, Rayalaseema, Nagaland, Manipur, Mizoram & Tripura, Assam & Meghalaya; at isolated places over Gangetic West Bengal, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and near normal over rest parts of the country (Fig. 2). Yesterday, the highest **maximum temperature of 38.6°C** was reported at **PBO Anantapur (Rayalaseema)** over the country.

Meteorological Analysis (Based on 0830 hours IST)

- The **Western Disturbance** is now seen 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. 30°N.
- The **induced cyclonic circulation** now lies over West Rajasthan & neighbourhood and extends upto 1.5 km above mean sea level.
- The **trough** from Gangetic West Bengal to Telangana now runs from north Bangladesh to Telangana across Gangetic West Bengal, interior Odisha & south Chhattisgarh and extends upto 1.5 km above mean sea level.
- A **cyclonic circulation** lies over central Assam & neighbourhood at 1.5 km above mean sea level.
- A fresh **Western Disturbance** is likely to affect Northwest India from 24th February, 2025.
- The **Western Disturbance** as a cyclonic circulation over Jammu & neighbourhood at 3.1 km above mean sea level has moved away.
- The **cyclonic circulation** over northeast Assam & neighbourhood extending upto 1.5 km above mean sea level has become less marked.

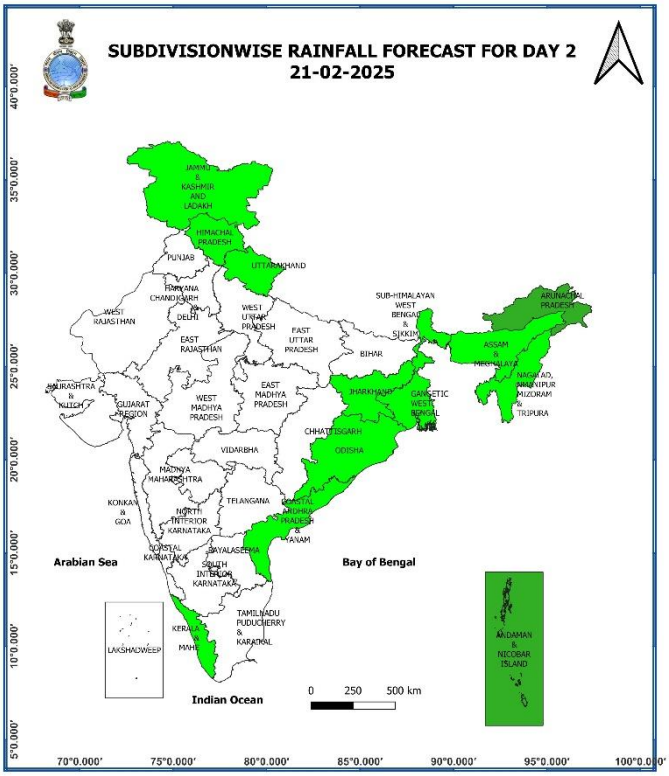
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 27th February, 2025)

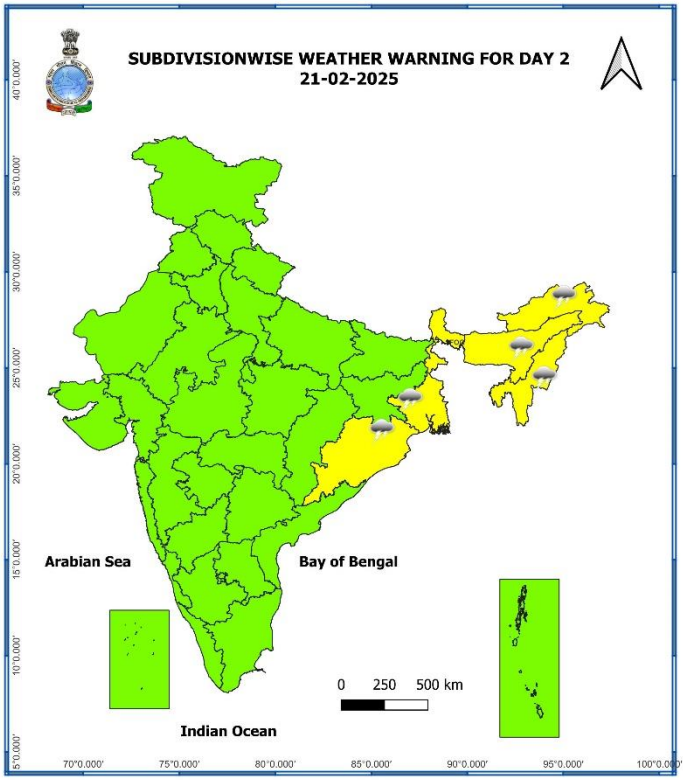




20th February (Day 1):

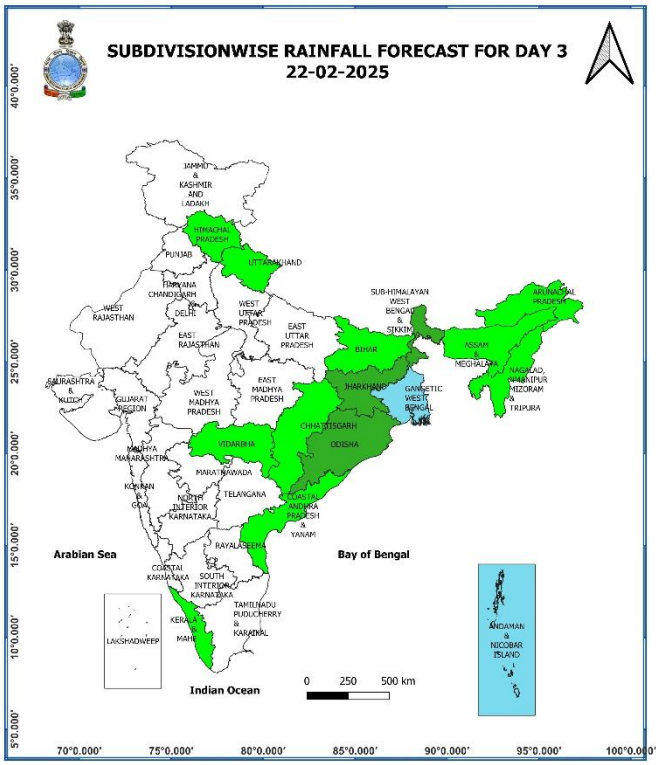
- **Heavy rainfall/snowfall with hail (≥7 cm)** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh.
- **Hailstorm conditions** very likely at isolated places over Uttarakhand, West Uttar Pradesh, Gangetic West Bengal, Jharkhand, Odisha.
- **Thunderstorm accompanied with gusty winds (50-60 kmph) & lightning** very likely at isolated places over Gangetic West Bengal, Odisha; **with gusty winds (40-50 kmph) & lightning** at isolated places over Jharkhand; **with gusty winds (30-40 kmph) & lightning** at isolated places over Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh **and lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Assam & Meghalaya**.**
- **Dense fog conditions** very likely in isolated pockets of Sub-Himalayan West Bengal & Sikkim.

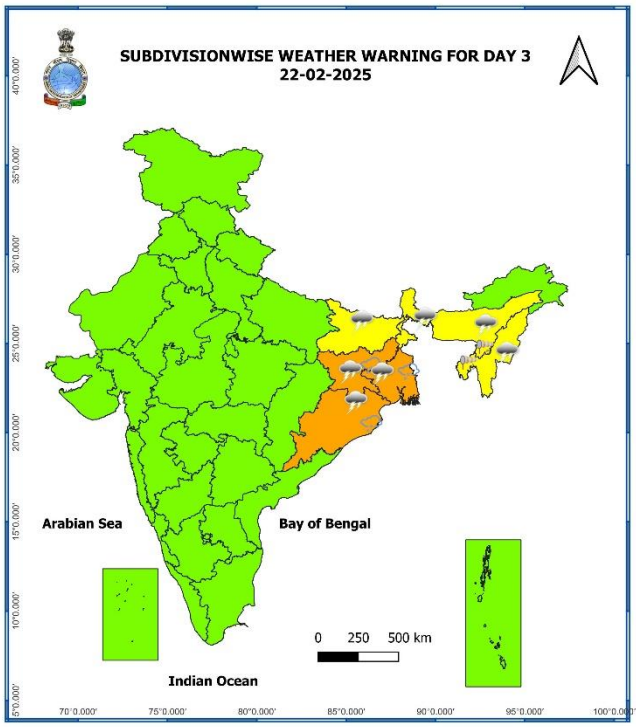




21st February (Day 2):

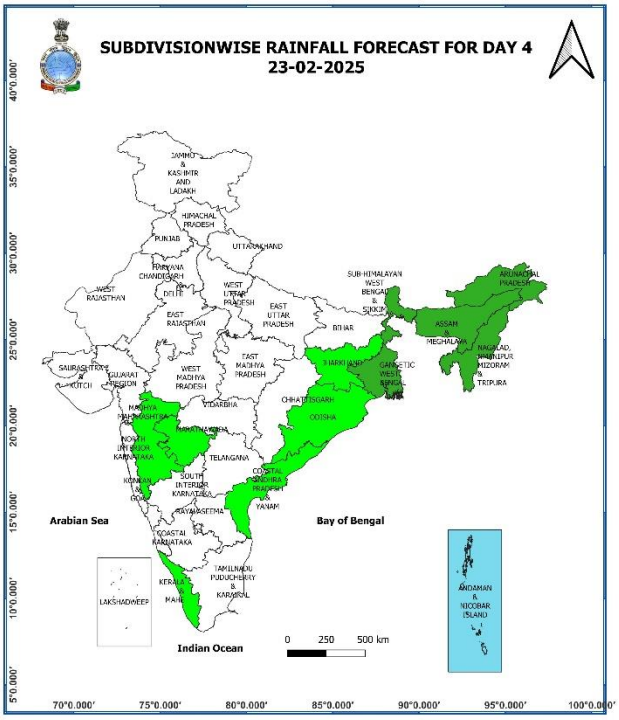
- **Heavy Rainfall (≥ 7 cm)** very likely at isolated places of Arunachal Pradesh**.**
- **Thunderstorm accompanied with lightning** likely at isolated places over Gangetic West Bengal, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura**.**
- **Dense fog conditions**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

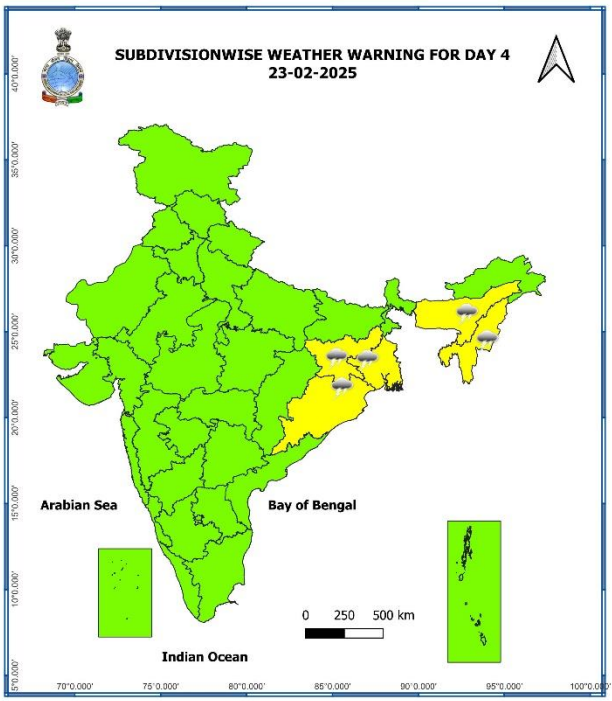




22st February (Day 3):

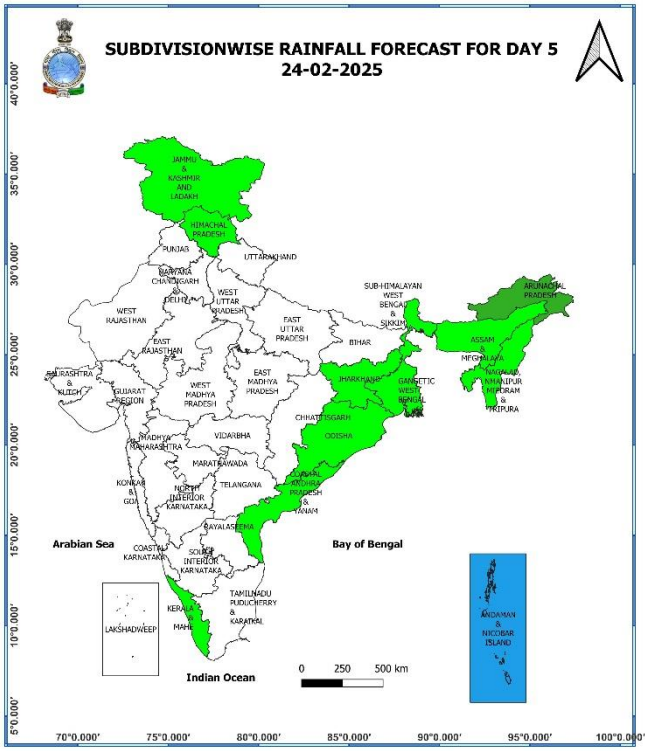
- **Hailstorm conditions** very likely at isolated places over Gangetic West Bengal, Jharkhand, Odisha.
- **Thunderstorm accompanied with gusty winds (40-50 kmph) & lightning** likely at isolated places over Gangetic West Bengal, Jharkhand, Odisha; **with gusty winds (30-40 kmph) & lightning** at isolated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

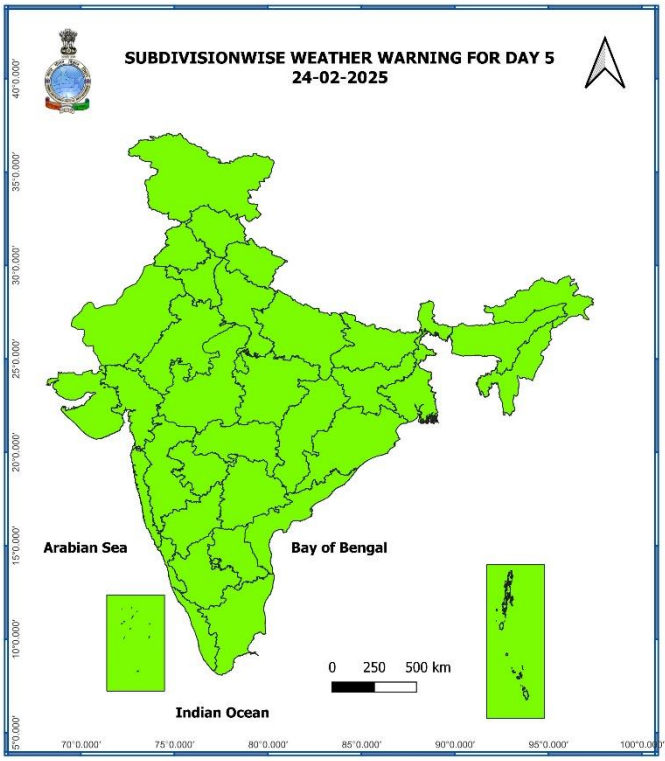




23nd February (Day 4):

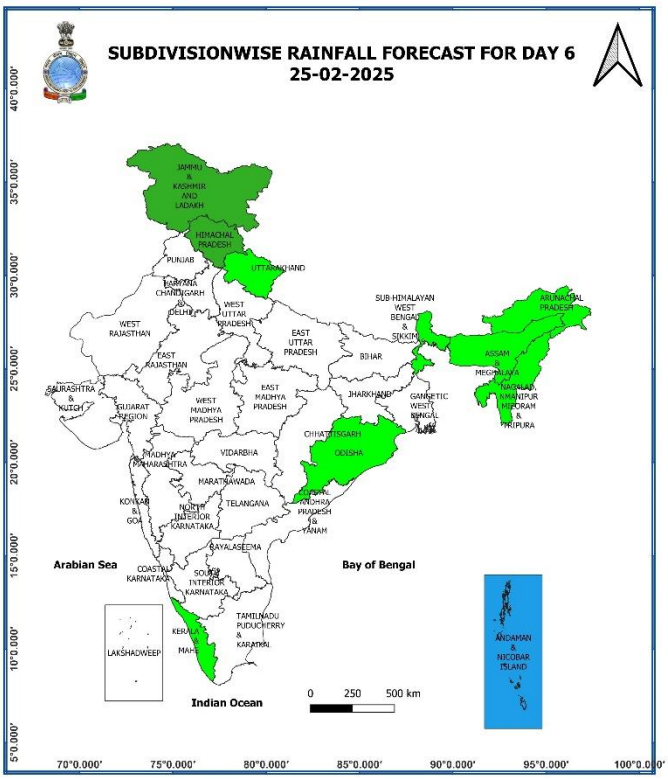
- **Thunderstorm accompanied with gusty winds (30-40 kmph) & lightning** likely at isolated places over Gangetic West Bengal; with **lightning** at isolated places over Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.

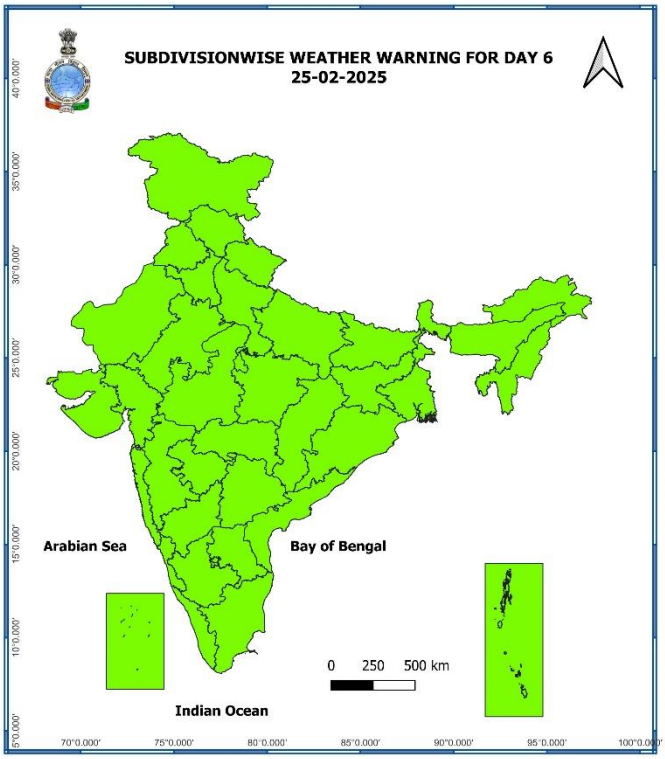




24rd February (Day 5):

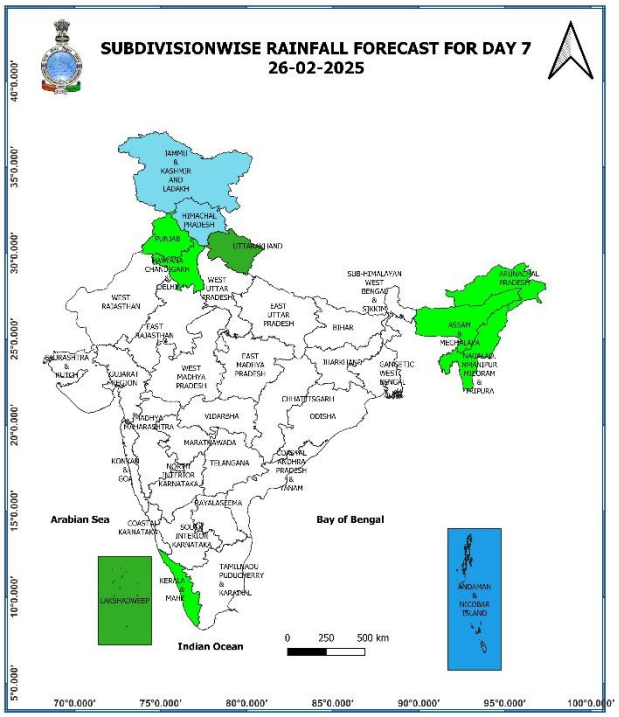
- **No Weather Warning.**

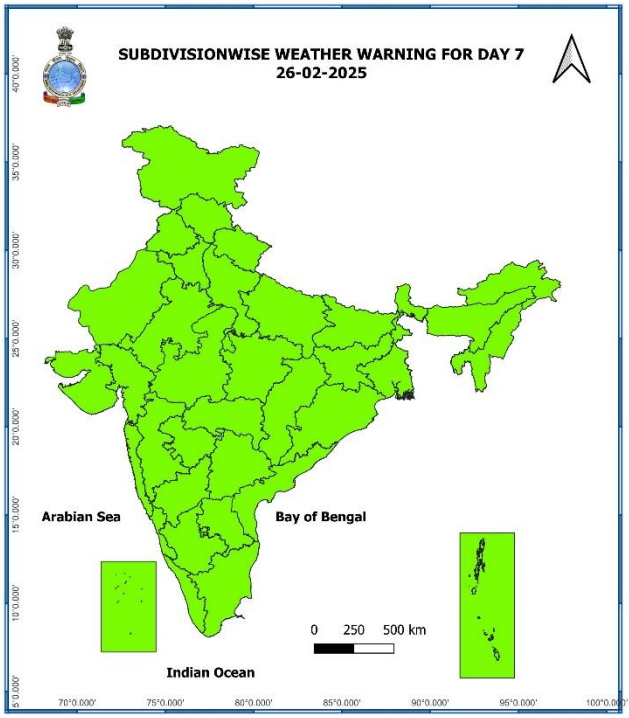




25th February (Day 6):

- **No Weather Warning.**





26th February (Day 7):

- **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 27th February- 29th 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

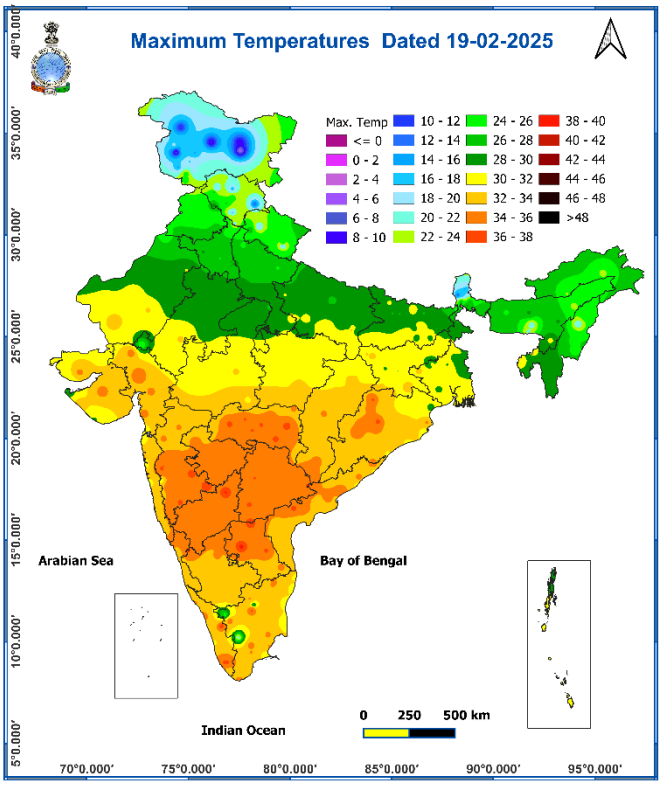


Fig. 2: Departure of Maximum Temperatures

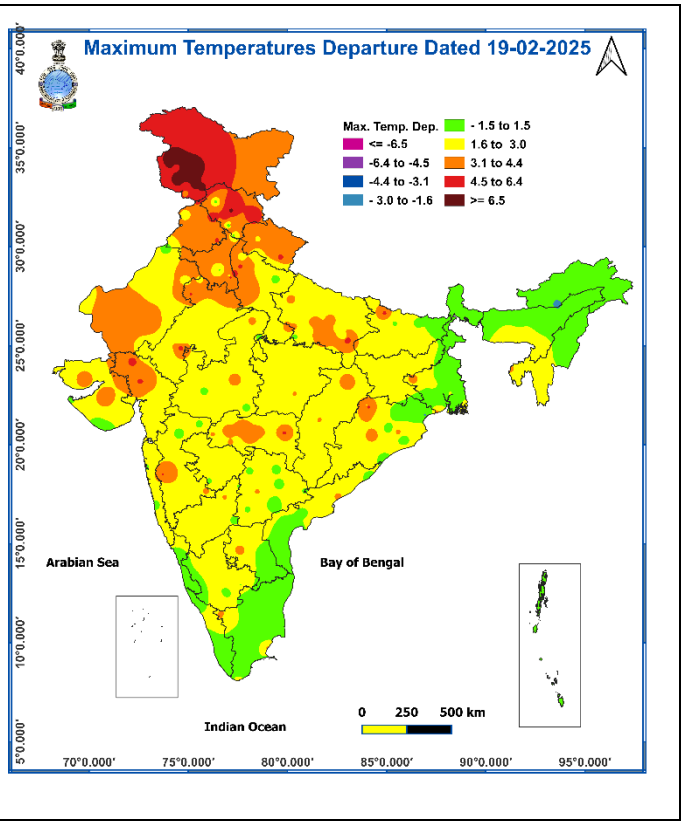


Fig. 3: Minimum Temperatures

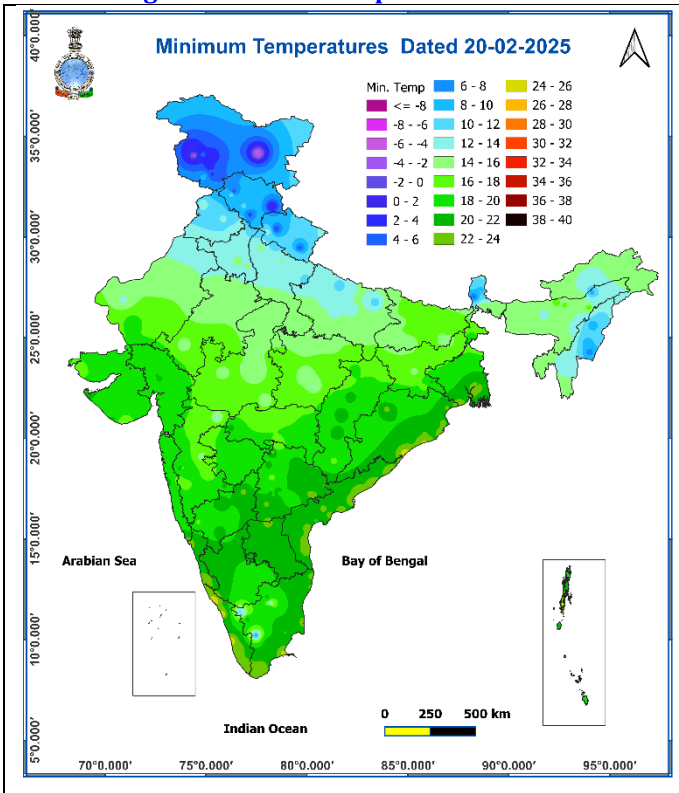
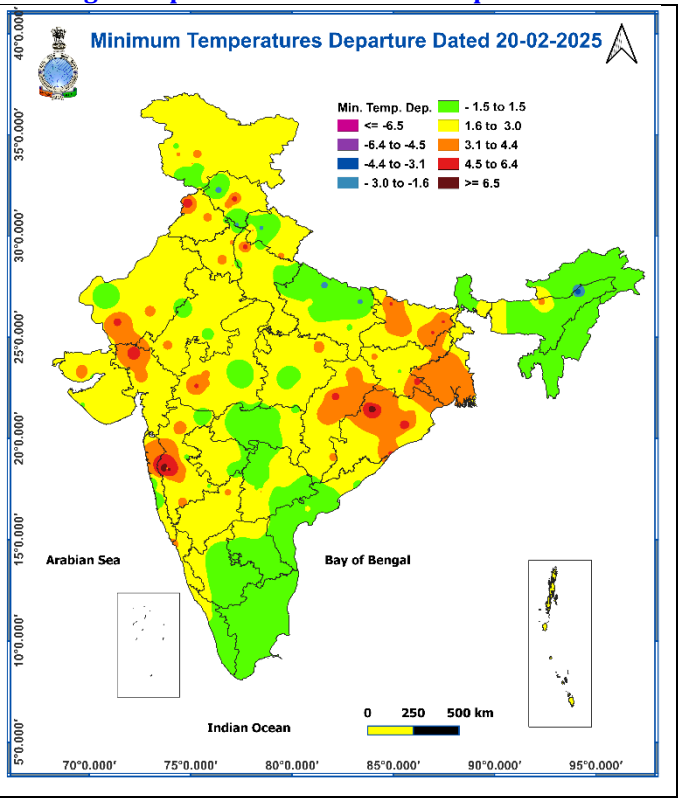


Fig. 4: Departure of Minimum Temperatures



* 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)

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

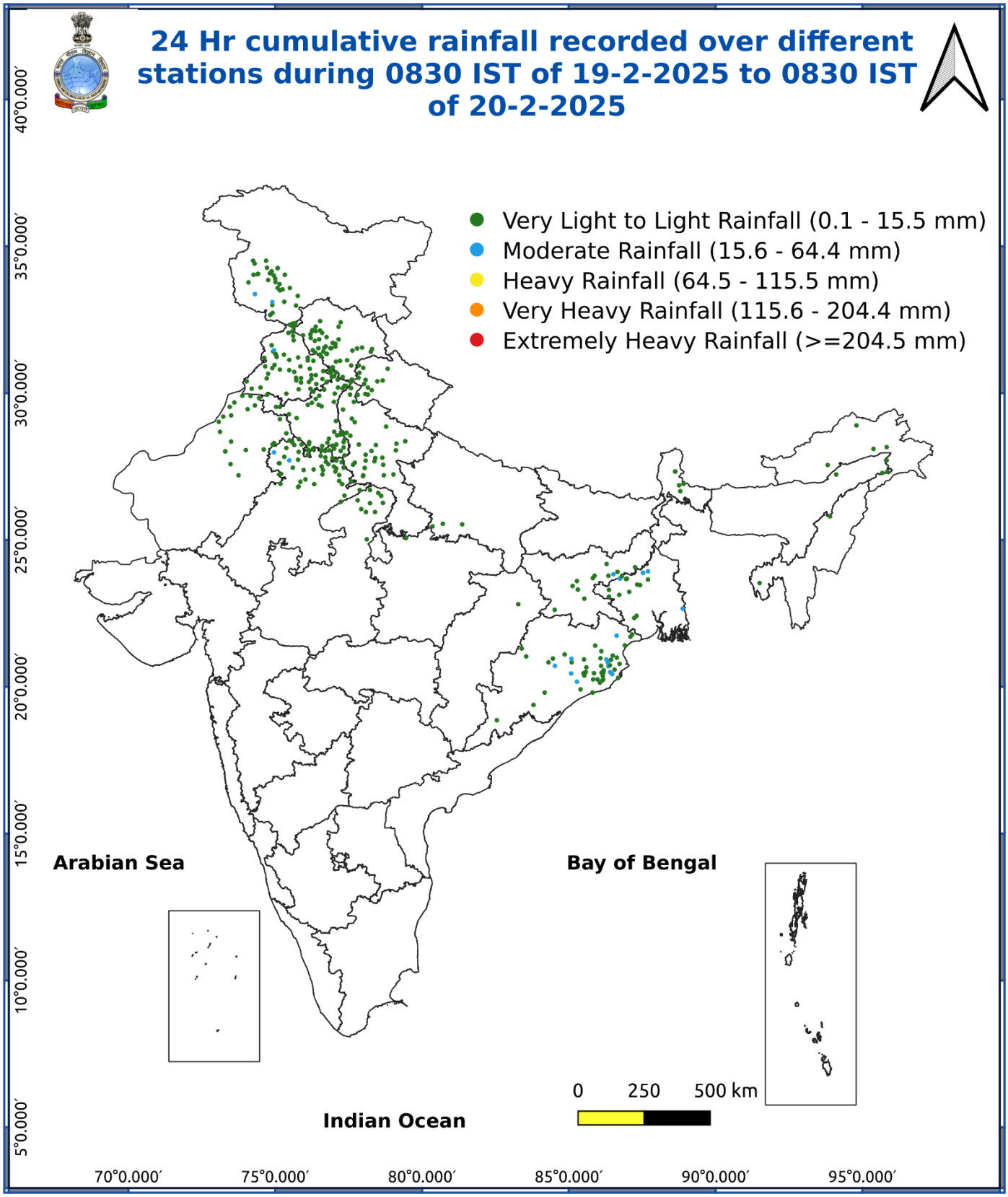
Impact expected:

- 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 kutcha houses/walls and huts.
- Loose objects may fly.

Action suggested:

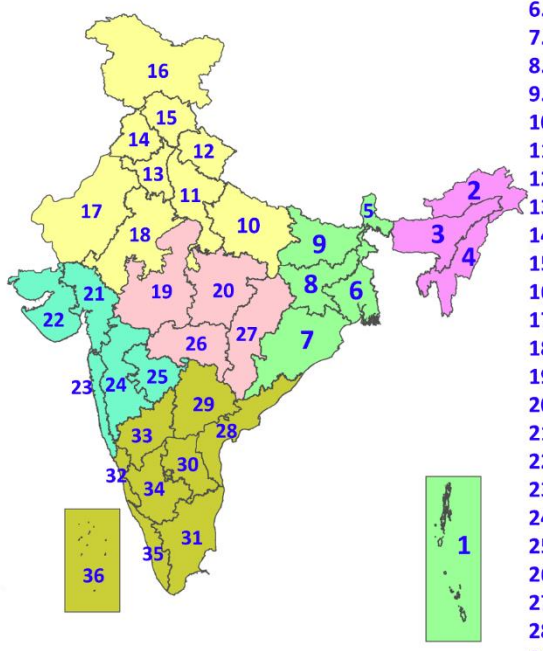
- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the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

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



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

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

* 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.
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(Service to the Nation since 1875)

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 ≥40° C for plains and ≥30° C for hilly regions** **(a) Based on Departure from normal** **Heat Wave:** Maximum Temperature Departure from normal 4.5° C to 6.4° C. **Severe Heat Wave:** Maximum Temperature Departure from normal ≥6.5° C **(b). Based on Actual maximum temperature** **Heat Wave:** When actual maximum temperature ≥45°C. **Severe Heat Wave:** When actual maximum temperature ≥47°C **(c). Criteria for heat wave for coastal stations** When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C
Warm Night	**When maximum temperature remains 40°C** **Warm Night:** When minimum temperature departure 4.5 °C to 6.4 °C. **Severe Warm Night:** When minimum temperature departure >6.4 °C.
Cold Wave	**When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions.** **(a). Based on departure** **Cold Wave:** Minimum Temperature Departure from normal -4.5 °C to -6.4 °C. **Severe Cold Wave:** Minimum Temperature Departure from normal ≤ -6.5 °C **(b) Based on actual Minimum Temperature (for Plains only)** **Cold Wave :** When Minimum Temperature is ≤ 4.0 °C **Severe Cold Wave:** When Minimum Temperature is ≤ 2.0 °C **(c) For Coastal Stations** When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C
Cold Day	**When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions** **Based on departure** **Cold Day:** Maximum Temperature Departure from normal -4.5 °C to -6.4 °C. **Severe Cold Day:** Maximum Temperature Departure from normal ≤ -6.5 °C
Fog	**Phenomenon of small droplets suspended in air and the horizontal visibility < 1km** **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 ≤4°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)

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