

Wednesday, February 19, 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 some places over Jammu-Kashmir, Bihar, Saurashtra & Kutch; at isolated places over Haryana, Assam & Meghalaya, West Madhya Pradesh, Tamilnadu Puducherry & Karaikal. It has fallen by 1-3°C at some places over Odisha; at isolated places over Rajasthan, Uttar Pradesh, Gangetic West Bengal.
- ❖ Day temperatures were **markedly above normal (5°C or more)** at a few places over Jammu-Kashmir; **above normal (2.0°C to 5.0°C)** at many places over Northwest, Central & West India and Odisha; at isolated places over Bihar, Jharkhand and Nagaland, Manipur, Mizoram & Tripura.
- ❖ During past 24 hours, Night temperatures have fallen by 1-4°C at many places over Gujarat State, Rajasthan; at some places over Uttar Pradesh; at isolated places over Uttarakhand, Haryana, Chandigarh & Delhi, West Madhya Pradesh and risen by 1-4°C at many places over East India; at some places over Jammu-Kashmir, East Madhya Pradesh, Maharashtra; at isolated places over Chhattisgarh, Telangana and Interior Karnataka.
- ❖ 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.

Further detailed temperature observations during past 24 hours till 0830 hours IST of today are provided in

Weather Systems, Forecast and warning:

- ❖ A **trough** runs from Gangetic West Bengal to Telangana **and an anti-cyclonic circulation lies over north Bay of Bengal** in lower tropospheric levels. Under its influence,
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning** with **gusty winds (speed 30-40 kmph)** very likely over Gangetic West Bengal on 19th, 20th, 22nd & 23rd; Isolated to scattered light/moderate rainfall accompanied with **thunderstorms, lightning** very likely over Bihar on 20th, 22nd & 23rd; Jharkhand on 19th, 20th, 22nd; Odisha during 19th-23rd February.
 - ✓ **Hailstorm activity also likely at isolated places** over Gangetic West Bengal on 19th & 20th; Jharkhand & Odisha on 19th, 20th & 22nd February.
- ❖ A **Western Disturbance** seen as a cyclonic circulation over Jammu & neighbourhood in lower tropospheric levels. Another Western Disturbance is seen as a trough in lower tropospheric level runs roughly along Long. 60°E to the north of Lat. 30°N. An induced **cyclonic circulation** lies over South Pakistan and adjoining Southwest Rajasthan in lower tropospheric levels. Under their influence;
 - ✓ **scattered to fairly widespread light to moderate rainfall/snowfall accompanied with thunderstorm & lightning over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 19th & 20th and isolated light rainfall/snowfall during 21st-23rd February. Thunderstorm & lightning with isolated hailstorm activity** likely over Uttarakhand on 20th February.
 - ✓ **Heavy rainfall/snowfall** at isolated places likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 20th February.
 - ✓ Isolated to Scattered light to moderate rainfall accompanied with **thunderstorm & lightning with gusty winds (speed 30-40 kmph)** likely over Punjab, Haryana, Chandigarh on 19th & 20th; West Rajasthan on 19th February; with **thunderstorm & lightning** likely over East Rajasthan on 19th; Uttar Pradesh on 20th and isolated light rainfall likely over Vidarbha on 22nd; Chhattisgarh during 20th-22nd 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 on 24th & 25th; Himachal Pradesh and Uttarakhand on 25th February.
- ❖ Isolated light/moderate rainfall accompanied with **thunderstorm & lightning** very likely over Coastal Andhra Pradesh & Yanam on 22nd & 23rd February.
- ❖ 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 19th-25th 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 on 19th, 20th & 23rd; Assam & Meghalaya during 19th -23rd February; with **gusty winds (speed 30-40 kmph)** over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 19th & 20th February.

Temperature & Fog Forecast:

Minimum Temperature:

- ❖ No significant change in minimum temperatures likely over Central India during next 3 days and gradual fall by 2-3°C during subsequent 2 days.
- ❖ No significant change in minimum temperatures likely over rest parts of India during next 4-5 days.

Maximum temperature:

- ❖ Gradual fall in maximum temperatures by 1-2°C likely over Northwest India during next 2 days and gradual rise by 2-4°C during subsequent 2 days.

Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at a few places** over Sub-Himalayan West Bengal & Sikkim; **at isolated places** over West Uttar Pradesh, East Rajasthan, Odisha, Gangetic West Bengal, West Madhya Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today): (in cm): **Arunachal Pradesh:** Kabu Basti (dist West Siang) 3, Tuting (dist Upper Siang) 1, Tuting_ Aws (dist Upper Siang) 1, Tawang_ Aws (dist Tawang) 1; **Assam & Meghalaya:** Lala Arg (dist Hailakandi) 3, Bihubar (dist Sibsagar) 1, Neamatighat (dist Jorhat) 1; **Nagaland, Manipur, Mizoram & Tripura:** Dimapur_ Aws (dist Dimapur) 2.
- ❖ **Fog reported (at 0830 hours IST of today): Shallow fog conditions** reported in isolated pockets of Sub-Himalayan West Bengal & Sikkim, East Uttar Pradesh and Coastal Karnataka.
- ❖ **Visibility reported (at 0830 hours IST of today) (≤ 500 m): Sub-Himalayan West Bengal & Sikkim:** Darjeeling & Gangtok -500 each; **East Uttar Pradesh:** Fursatganj & Balia -500 each; **Coastal Karnataka:** Bajpe -500.
- ❖ **Minimum Temperature Departures (as on 19-02-2025):** Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over West Rajasthan, Konkan & Goad and Madhya Maharashtra; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Gujarat state; at isolated places over East Rajasthan, Gangetic West Bengal, Odisha, West Madhya Pradesh and Jharkhand; **above normal (1.6°C to 3.0°C)** at many places over Bihar, Chhattisgarh, East Madhya Pradesh and Coastal & north Interior Karnataka; at a few places over Nagaland, Manipur, Mizoram & Tripura and Telangana; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, East Uttar Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe and South Interior Karnataka and near normal over rest parts of the country (Fig. 4). Today, the **lowest minimum temperature of 8.4°C** is reported at **Amritsar (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 18-02-2025):** Maximum temperatures were **markedly above normal (5.1°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°C to 5.0°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°C to 3.0°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°C to -3.0°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°C** was reported at **Akola (Vidarbha)** over the country.

* 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.

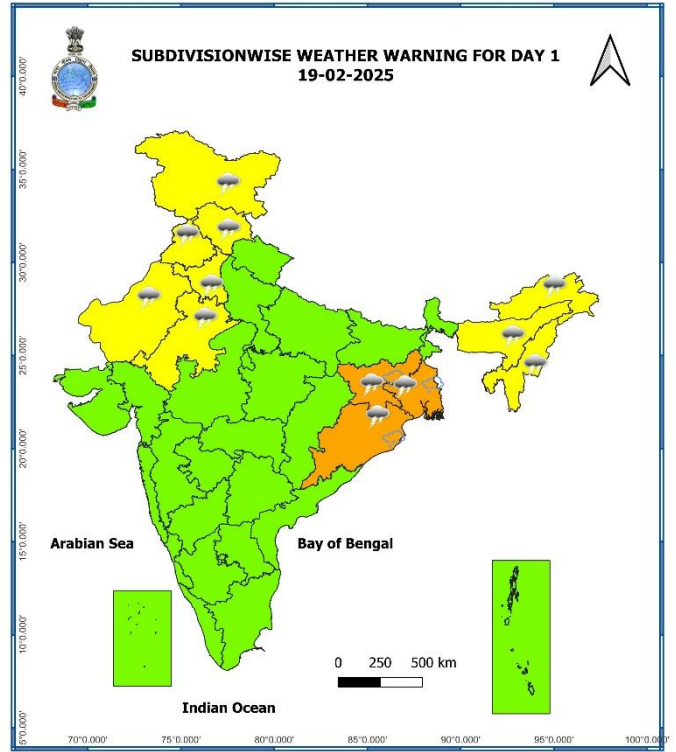
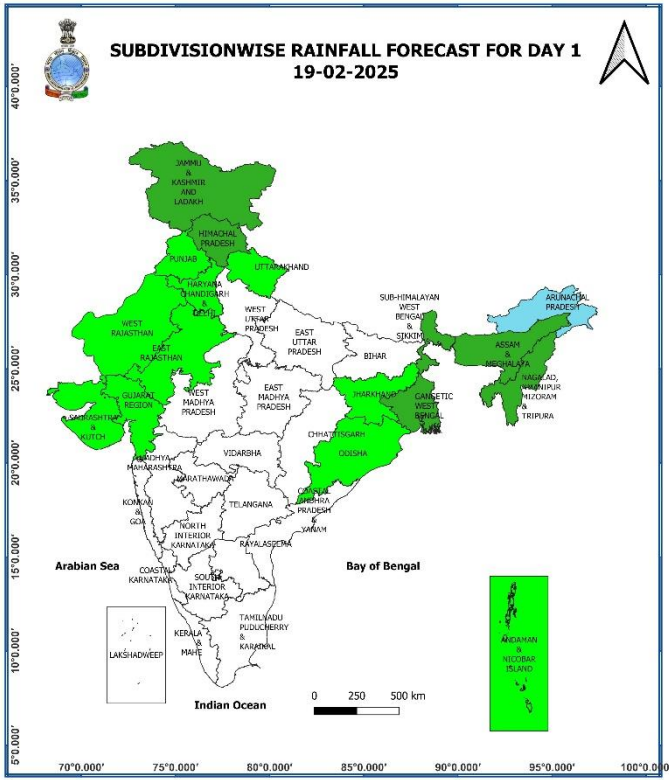
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Meteorological Analysis (Based on 0830 hours IST)

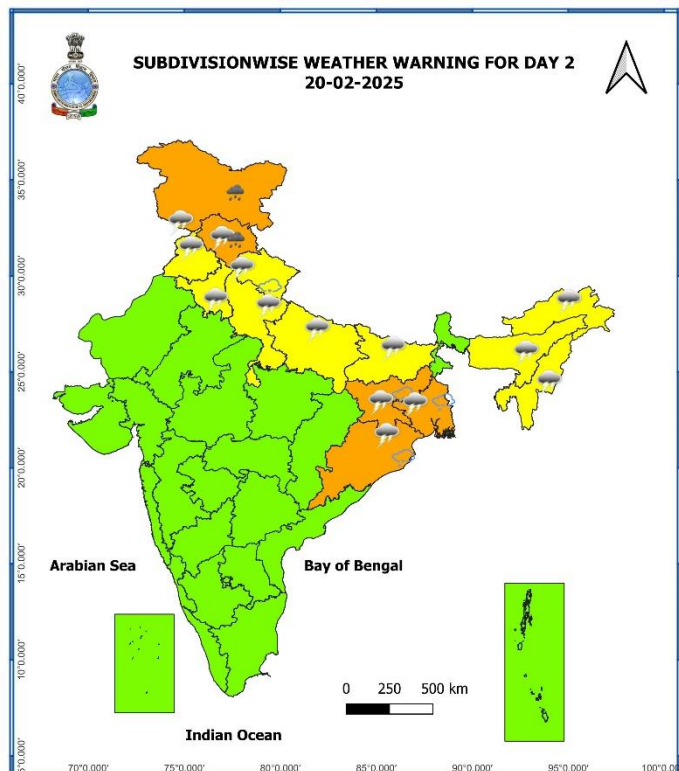
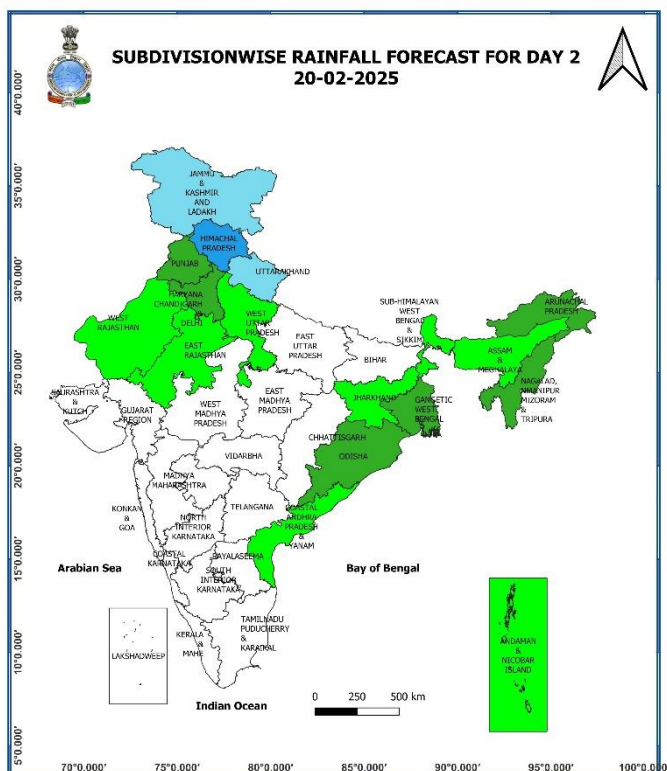
- ❖ The **Western Disturbance** as a cyclonic circulation over Jammu & neighbourhood at 3.1 km above mean sea level persists.
- ❖ Another **Western Disturbance** as a trough in lower tropospheric level with its axis at 3.1 km above mean sea level now runs roughly along Long. 60°E to the north of Lat. 30°N.
- ❖ A **cyclonic circulation** lies over South Pakistan and adjoining Southwest Rajasthan at 1.5 km above mean sea level.
- ❖ The **trough** from Jharkhand to south Odisha now runs from Gangetic West Bengal to Telangana at 0.9 km above mean sea level.
- ❖ The **cyclonic circulation** over northeast Assam & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ A fresh **Western Disturbance** is likely to affect Northwest India from 24th February, 2025.
- ❖ The **Induced cyclonic circulation** over southwest Rajasthan & 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 26th February, 2025)



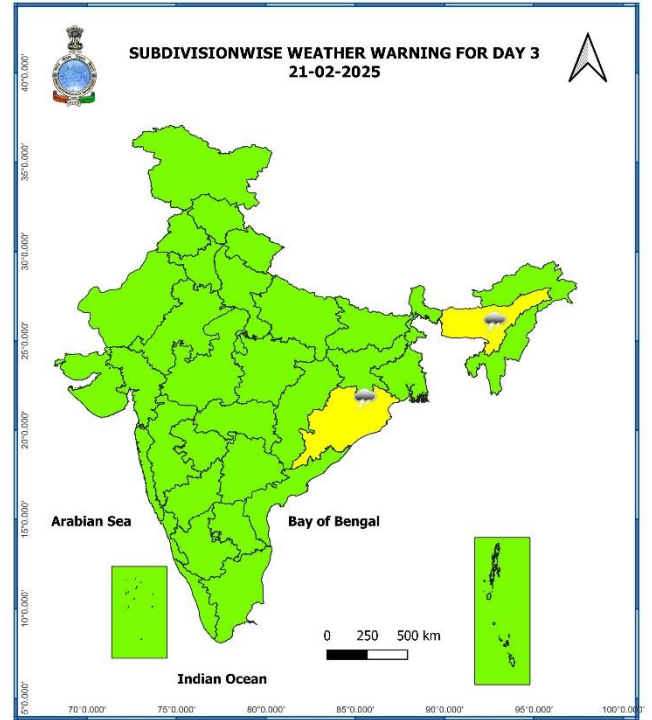
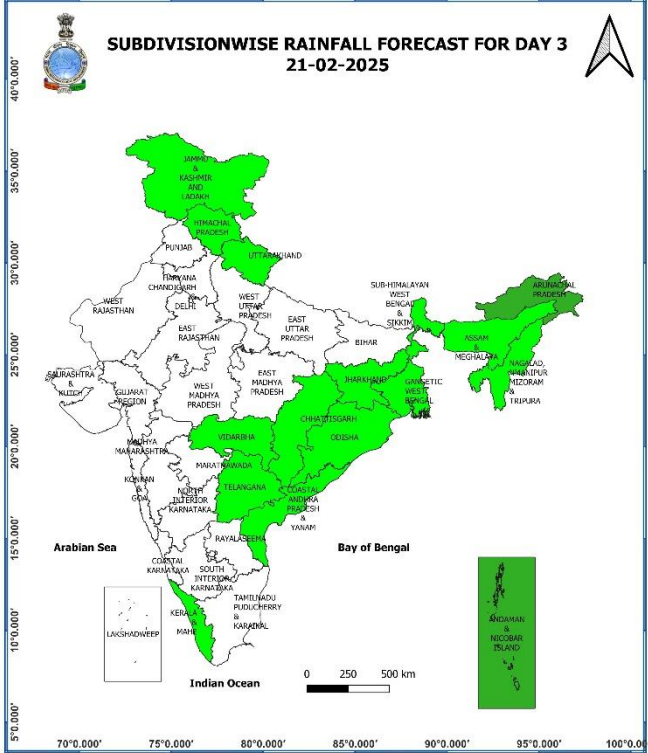
19th February (Day 1):

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



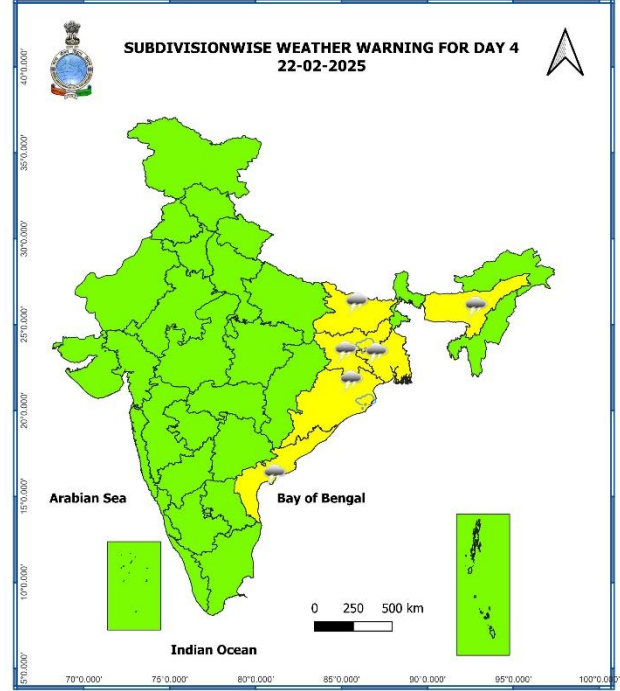
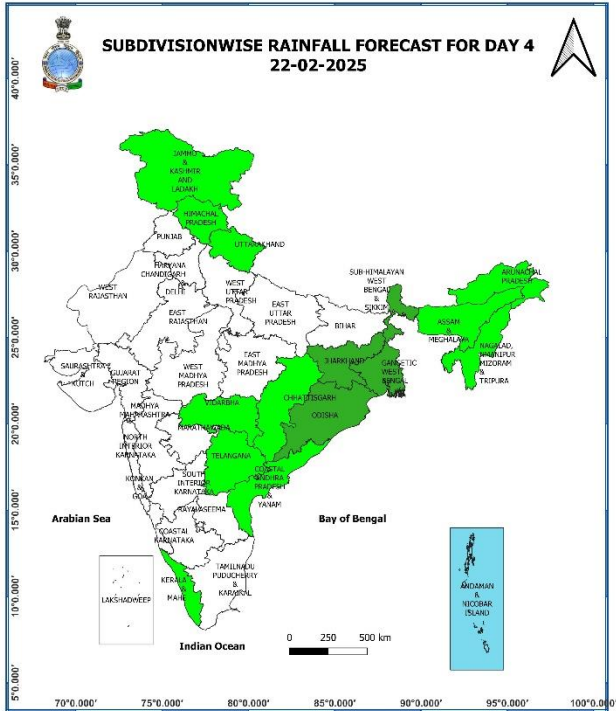
20th February (Day 2):

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



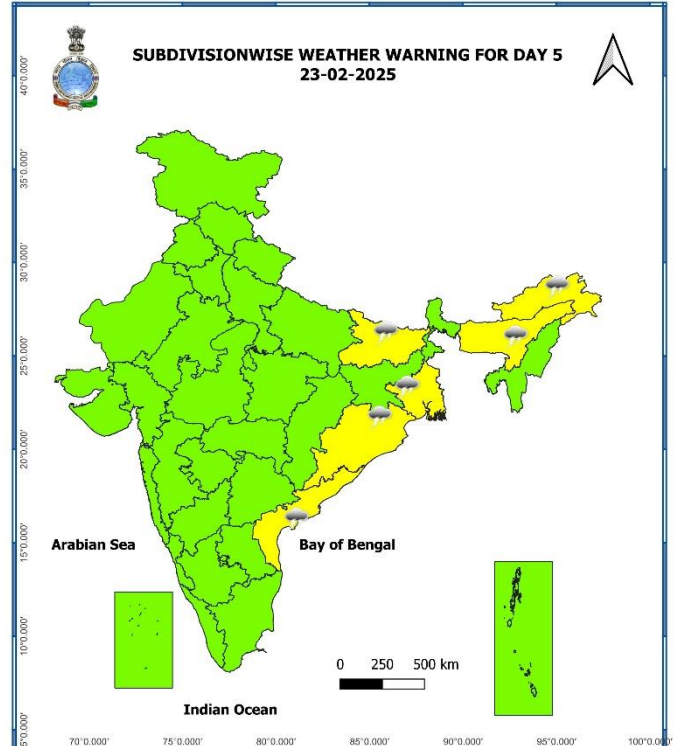
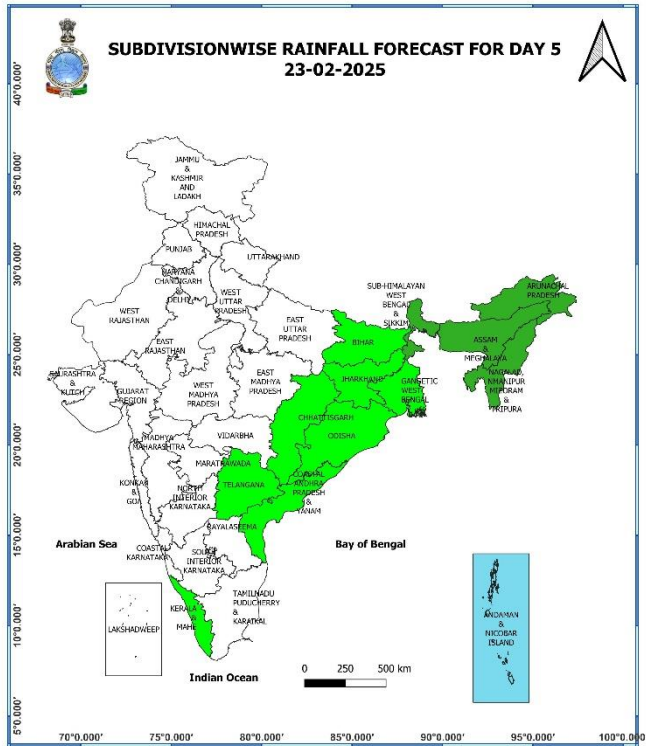
21th February (Day 3):

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Odisha and Assam & Meghalaya.



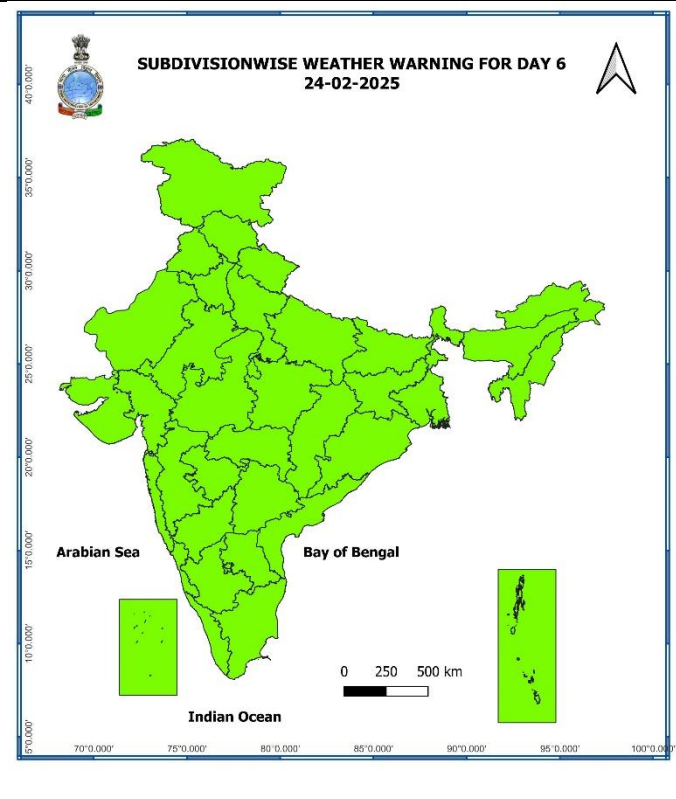
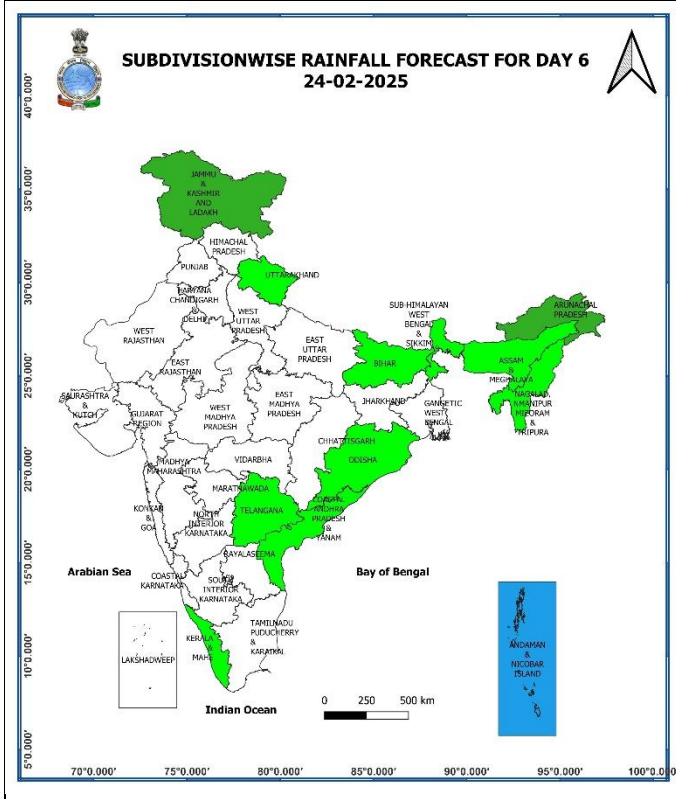
22st February (Day 4):

- ❖ **Heavy rainfall/snowfall with hail (≥ 7 cm)** likely at isolated places over Jharkhand and Odisha.
- ❖ **Thunderstorm accompanied with gusty winds (40-50 kmph) & lightning** likely at isolated places over Gangetic West Bengal; **with lightning** at isolated places over Bihar, Coastal Andhra Pradesh & Yanam and Assam & Meghalaya.



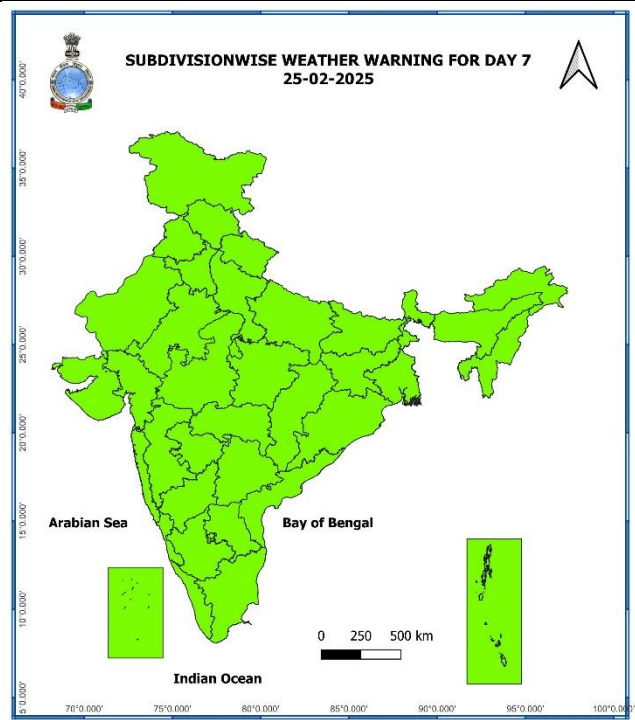
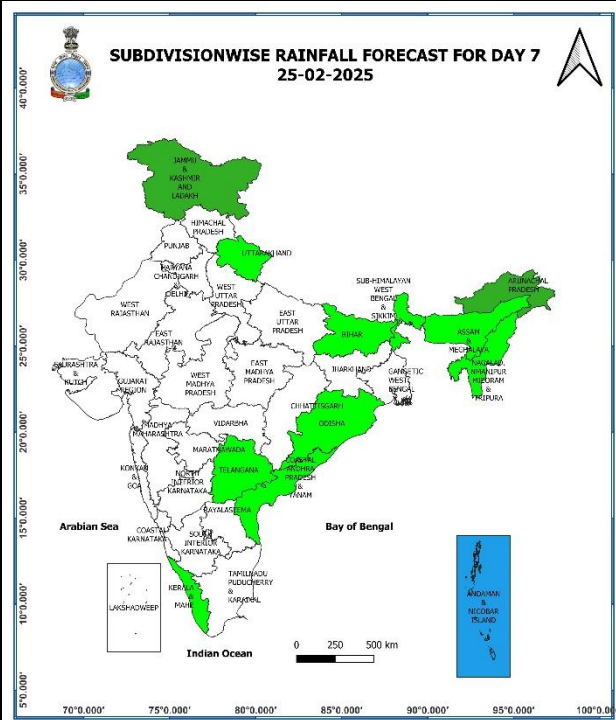
23rd February (Day 5):

- ❖ **Thunderstorm accompanied with lightning likely** at isolated places over Gangetic West Bengal, Bihar, Odisha, Arunachal Pradesh, Assam & Meghalaya and Coastal Andhra Pradesh & Yanam.



24th February (Day 6):

❖ **No Weather Warning.**



25th February (Day 7):

❖ **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 26th February- 28th 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

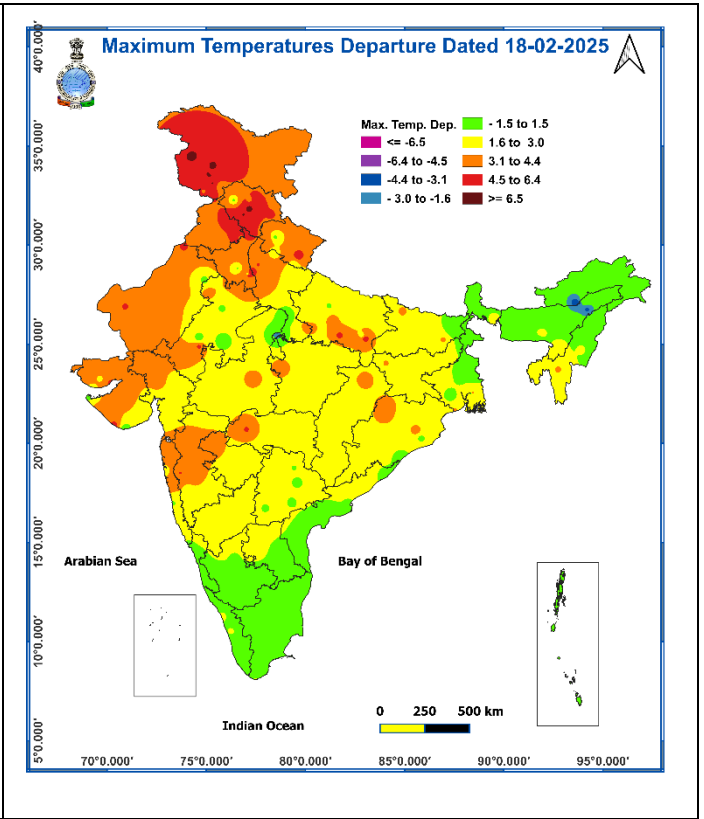
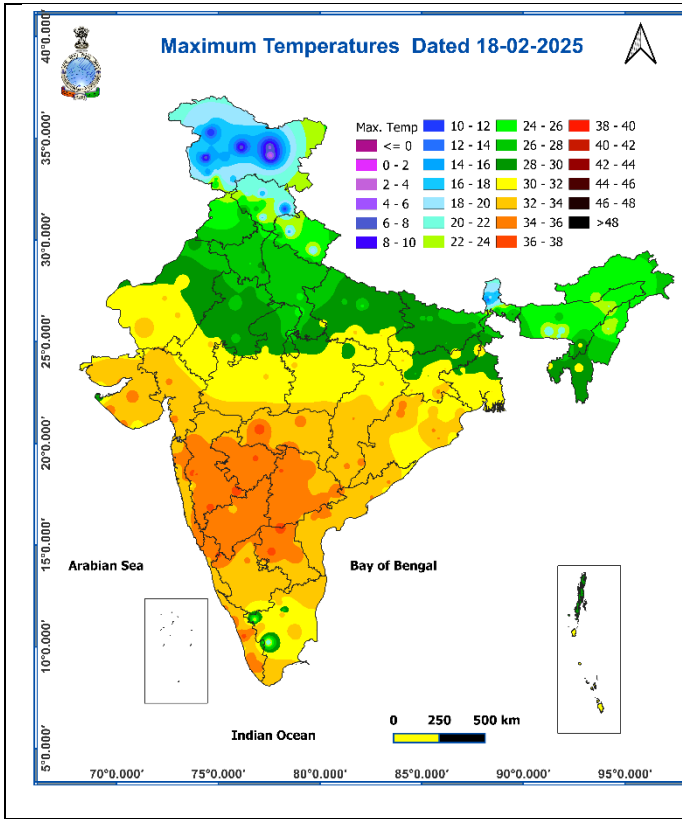
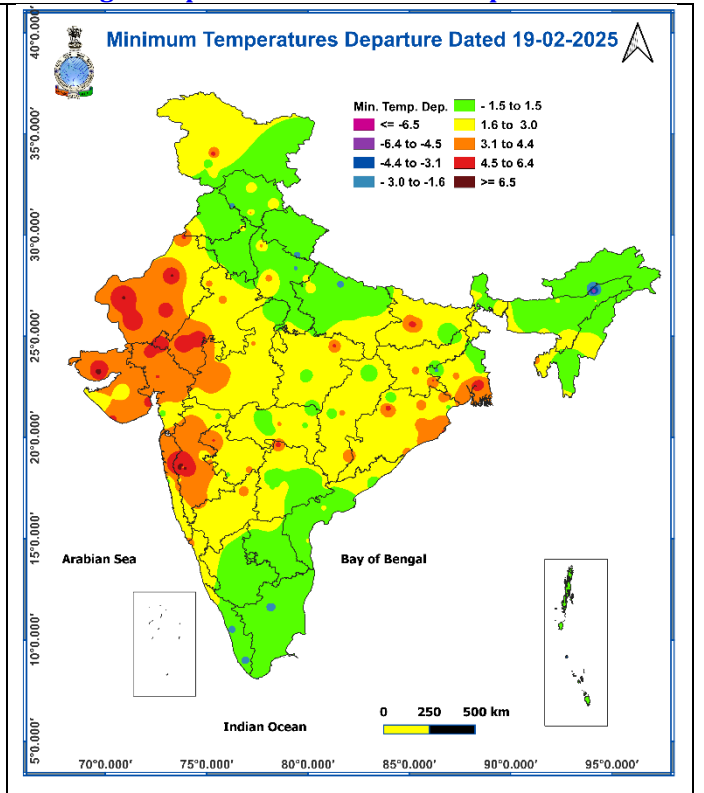
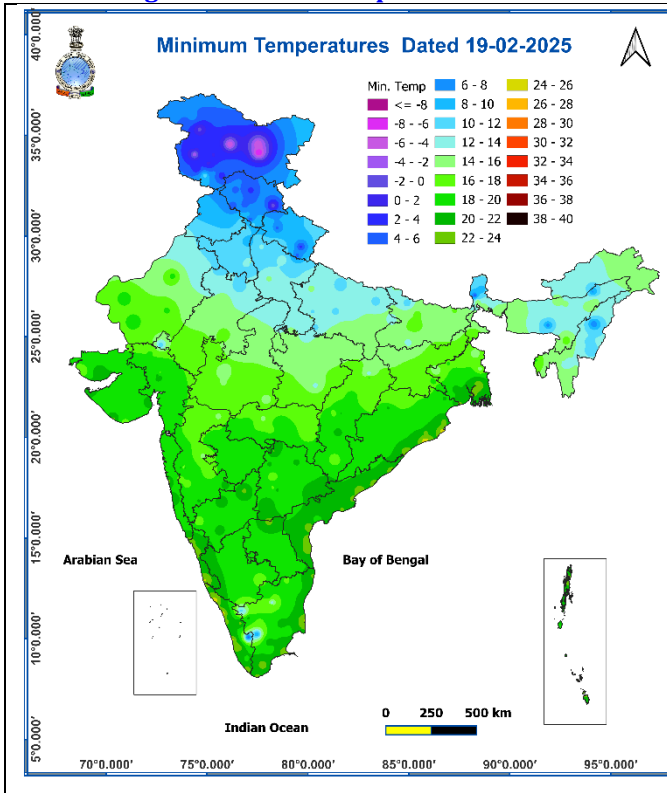


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



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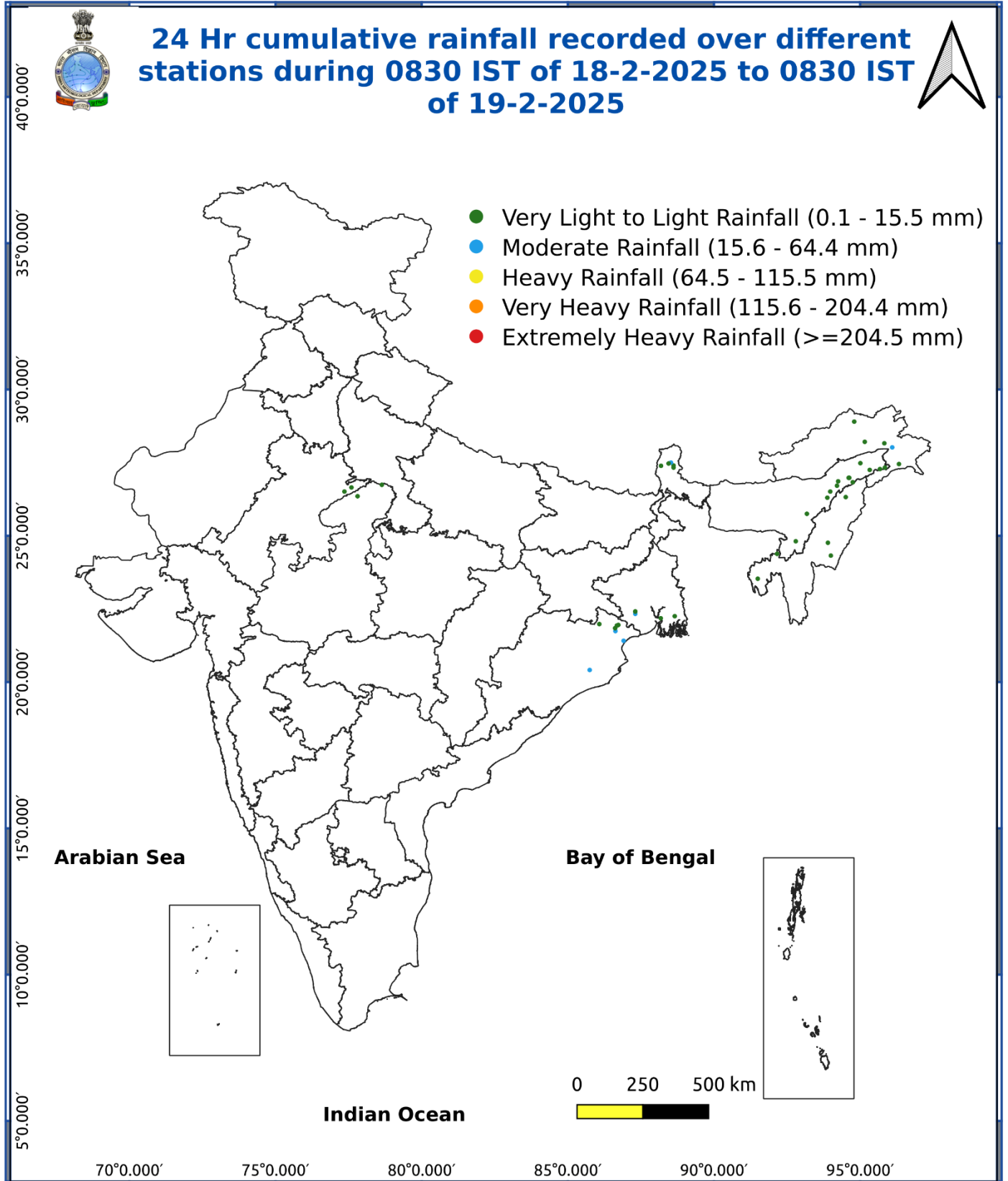
Agromet advisories for likely impact of Heavy Rainfall

- Use hail nets or hail caps in fruit orchards and vegetable plants to protect them from mechanical damage in **Gangetic West Bengal, Odisha, Jharkhand** 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** 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.

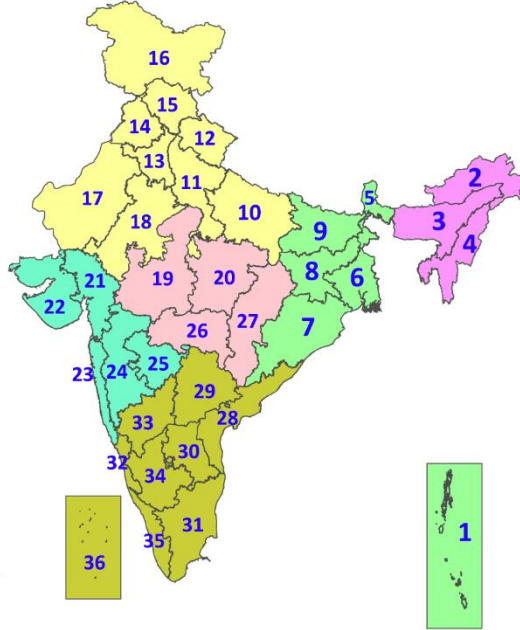
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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LEGENDS

1. अंडमान और निकोबार द्वीपसमूह
2. अरुणाचल प्रदेश
3. असम और मेघालय
4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
5. उप-हिमालयी पश्चिम बंगाल और सिक्किम
6. गंगीय पश्चिम बंगाल
7. ओडिशा
8. झारखंड
9. बिहार
10. पूर्वी उत्तर प्रदेश
11. पश्चिम उत्तर प्रदेश
12. उत्तराखंड
13. हरियाणा, चंडीगढ़ और दिल्ली
14. पंजाब
15. हिमाचल प्रदेश
16. जम्मू और कश्मीर और लद्दाख
17. पश्चिम राजस्थान
18. पूर्वी राजस्थान
19. पश्चिम मध्य प्रदेश
20. पूर्वी मध्य प्रदेश
21. गुजरात
22. सौराष्ट्र
23. कोंकण और गोवा
24. मध्य महाराष्ट्र
25. मराठवाड़ा
26. विदर्भ
27. छत्तीसगढ़
28. तटीय आंध्र प्रदेश और यनम
29. तेलंगाना
30. रायलसीमा
31. तमिलनाडु, पुडुचेरी और कराईकल
32. तटीय कर्नाटक
33. आंतरिक उत्तरी कर्नाटक
34. आंतरिक दक्षिणी कर्नाटक
35. केरल और माहे
36. लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chandigarh & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathwada
26. Vidarbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/A Few Places)
51-75	Fairly Widespread (FWS/Many Places)	1-25	Isolated (ISOL)

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

COLOUR CODED WARNING

No Warning (No Action)
Watch (Be Aware)
Alert (Be Prepared To Take Action)
Warning (Take Action)

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

DEFINITION/CRITERIA

Rain/ Snow *

Heavy: 64.5 to 115.5 mm/cm *
Very Heavy: 115.6 to 204.4 mm/cm*
Extremely Heavy: > 204.4 mm/cm *

Heat Wave

When maximum temperature of a station reaches $\geq 40^\circ\text{C}$ for plains and $\geq 30^\circ\text{C}$ for hilly regions
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°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°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°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°C to -6.4°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°C to -6.4°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)