

Sunday, April 20, 2025
Time of Issue: 1400 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and Warnings:

- ❖ Under the influence of Western **Disturbance** as a trough in middle tropospheric westerlies and an upper air cyclonic circulation over central Pakistan & adjoining northwest Rajasthan in lower tropospheric levels;
 - ✓ **Scattered to fairly widespread** light/moderate rainfall with **thunderstorm, lightning & squally winds (speed 50-60 kmph gusting to 70 kmph)** likely over Himachal Pradesh (Orange colour warning) on 20th; accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph gusting to 60 kmph)** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad (Orange colour warning) on 20th & 21st and over Himachal Pradesh on 20th; with **gusty winds (speed 30-40 kmph gusting to 50 kmph)** over Uttarakhand on 20th April and reduce thereafter.
 - ✓ **Heavy rainfall** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 20th April.
 - ✓ **Isolated Hailstorm** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 20th April.
 - ✓ Isolated light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph gusting to 50 kmph)** likely over Punjab, Haryana and West Uttar Pradesh on 20th April.
- ❖ A north south trough from central Assam to Tripura and 2nd from central Pakistan & adjoining northwest Rajasthan to central parts of Bangladesh; 3rd trough from northeast Madhya Pradesh to Gulf of Mannar in lower tropospheric levels.
- ❖ Under the influence of these systems:
 - ✓ **Fairly widespread to widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over Northeast India during next 5 days.
 - ✓ **Isolated to scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over East India during next 3 days and over Chhattisgarh during 20th -24th April.
 - ✓ **Heavy rainfall** likely over Arunachal Pradesh & Assam & Meghalaya during 22nd-24th with **very heavy rainfall** at isolated places over Assam & Meghalaya on 22nd April.
 - ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe during next 5 days and Telangana during next 5 days; **with lightning** over Tamilnadu Puducherry & Karaikal, Telangana, Coastal Karnataka during next 5 days.
 - ✓ **Heavy rainfall** likely over Kerala & Mahe, Coastal Andhra Pradesh & Yanam and Assam & Meghalaya on 20th April, 2025.
- ❖ **Dust raising winds** very likely in isolated pockets over Gujarat state on 20th April.

Temperature Forecast:

- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Northwest India during next 5 Days and no significant change during subsequent 2 days.
- ❖ No significant change in maximum temperatures likely over Central India and Gujarat State during next 24 hours and gradual rise by 2-3°C during subsequent 6 days.
- ❖ Gradual rise in maximum temperatures by 4-6°C likely over East India during next 4 Days and no significant change during subsequent 3 days.
- ❖ No significant change in maximum temperatures likely over rest parts of the country.

Heat wave, warm night and Hot & Humid weather warning:

- ❖ **Heat wave conditions** very likely in isolated pockets over south Uttar Pradesh, Madhya Pradesh during 22nd -24th; Rajasthan, Haryana on 23rd & 24th; Vidarbha during 21st -23rd April.
- ❖ **Hot & humid weather** is likely to prevail over Madhya Maharashtra, Marathawada on 20th; Tamilnadu Puducherry & Karaikal during 20th -22nd and over Gujarat State during 22nd -24th April.

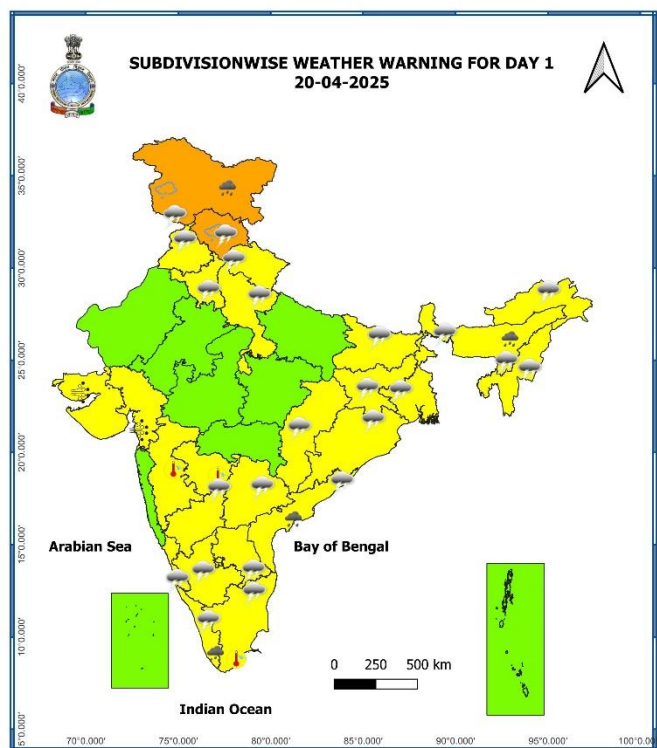
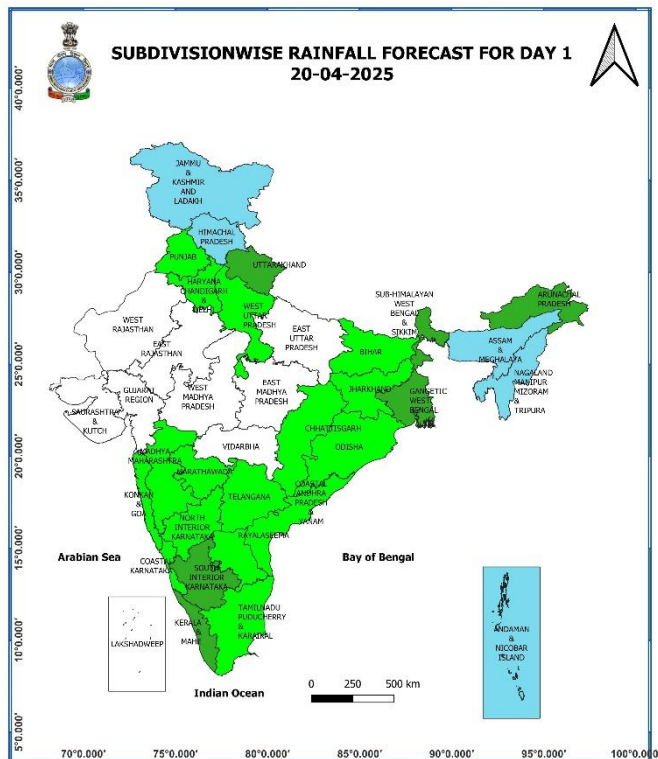
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over Andaman & Nicobar Islands, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at many places over Assam & Meghalaya; at a few places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim; at isolated places over Gangetic West Bengal, Odisha, Bihar, Himachal Pradesh, Punjab, East Uttar Pradesh, Chhattisgarh, Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Govindpura Aws (dist Ramban) 9, Banihal (dist Ramban) 7, Qazi Gund (dist Kulgam) 5, Nowgam (dist Kupwara) 5, Kukernag (dist Anantnag) 4, Khudwani Arg (dist Anantnag) 4, Lolab (dist Kupwara) 4, Kargil (dist Kargil) 4, Buhama (dist Kupwara) 4, Tengmarg (dist Baramula) 4, Raj Pura Arg (dist Poonch) 4, **Tamilnadu Puducherry & Karaikal:** Sivakasi (dist Virudhunagar) 5, Valparai PTO (dist Coimbatore) 4, **Kerala & Mahe:** Poonjar Aws (dist Kottayam) 6, Anayirankal Dam Aws (dist Idukki) 3, Kudulu (dist Kasargod) 3.
- ❖ **Thunderstorm** accompanied with Squally/Gusty winds prevailed at isolated places Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, East Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Odisha, Jharkhand, Bihar, Northeast India, Kerala & Mahe, Tamilnadu Puducherry & Karaikal, Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana.
- ❖ **Hailstorm** occurred at isolated places over Odisha, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Tamilnadu Puducherry & Karaikal, Telangana.
- ❖ **Heavy rainfall** has been recorded at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Heat wave conditions** prevailed at isolated places over East Rajasthan.
- ❖ **Warm night to sever warm night** prevailed at isolated places over Rajasthan.
- ❖ **Minimum Temperature Departures (as on 20-04-2025):** Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over Punjab, Haryana-Chandigarh-Delhi, West Rajasthan, West Uttar Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at many places over Uttarakhand; at a few places over Himachal Pradesh, East Rajasthan; at isolated places over Bihar, East Madhya Pradesh; **above normal (1.6°C to 3.0°C)** at most places over Chhattisgarh, Coastal Andhra Pradesh & Yanam; at many places over East Uttar Pradesh, West Madhya Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Odisha, Marathwada, Vidarbha, Madhya Maharashtra, Sub-Himalayan West Bengal & Sikkim; at a few places over Arunachal Pradesh, Jharkhand, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rayalaseema, Gujarat state, North Interior Karnataka; at isolated places over Gangetic West Bengal, Andaman & Nicobar Islands, Konkan & Goa, Telangana, Tamil Nadu, Puducherry & Karaikal. These are **below normal (-1.6°C to -3.0°C)** at isolated places over Kerala & Mahe and normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature of 19.9°C** is reported at **Mahuva (Saurashtra & Kutch)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 19-04-2025):** Maximum Temperatures were **markedly above normal (5.1°C or more)** at isolated places over Arunachal Pradesh, Assam & Meghalaya; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Madhya Pradesh, East Rajasthan, Haryana-Chandigarh-Delhi; **above normal (1.6°C to 3.0°C)** at most places over Marathwada; at many places over Vidarbha; at a few places over West Rajasthan; at isolated places over Punjab, Himachal Pradesh, Madhya Maharashtra, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Sub-Himalayan West Bengal & Sikkim, Tamil Nadu, Puducherry & Karaikal. These were **markedly below normal (-5.1°C or less)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Bihar, Gangetic West Bengal; **below normal (-3.0°C to -1.6°C)** at many places over Jharkhand; at a few places over East Uttar Pradesh, Andaman & Nicobar Islands; at isolated places over West Uttar Pradesh, Odisha and normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 44.7°C** was reported at **Nagpur (Sonogaon) (Vidarbha)** over the country.

Meteorological Analysis (Based on 0830 hours IST)

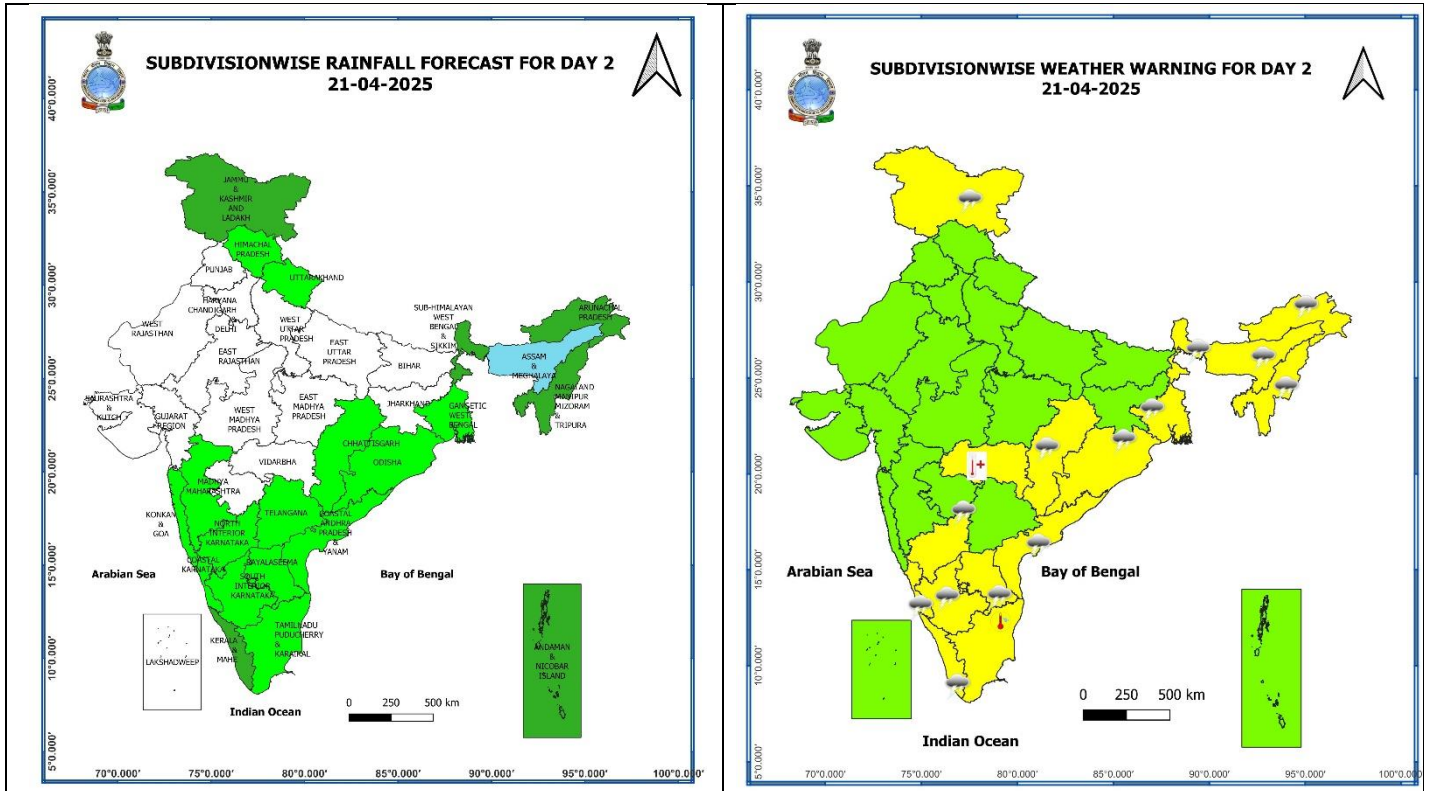
- ❖ The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along long. 70°E to the north of lat. 32°N persists.
- ❖ The upper air **cyclonic circulation** lay over central Pakistan & adjoining northwest Rajasthan and extends upto 1.5 km above mean sea level.
- ❖ The east-west **trough** runs from cyclonic circulation over central Pakistan & adjoining northwest Rajasthan to central Bangladesh across south Uttar Pradesh, Jharkhand and north Gangetic West Bengal at 0.9 km above mean sea level.
- ❖ The north-south **trough** now runs from northeast Madhya Pradesh to Gulf of Mannar across Vidarbha, Telangana, Interior Karnataka & Tamil Nadu at 0.9 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over central Assam extending upto 1.5 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over north Bangladesh & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The north-south trough from west Assam to Tripura across East Bangladesh at 3.1 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over north Haryana & neighbourhood at 1.5 km above mean sea level has become less marked.
- ❖ The upper air **cyclonic circulation** over northwest Jharkhand at 1.5 km above mean sea level has become less marked.

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



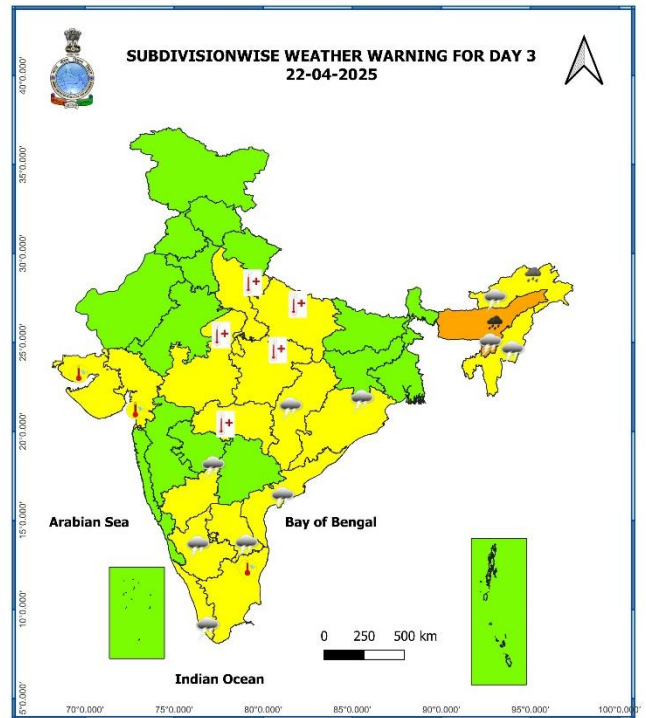
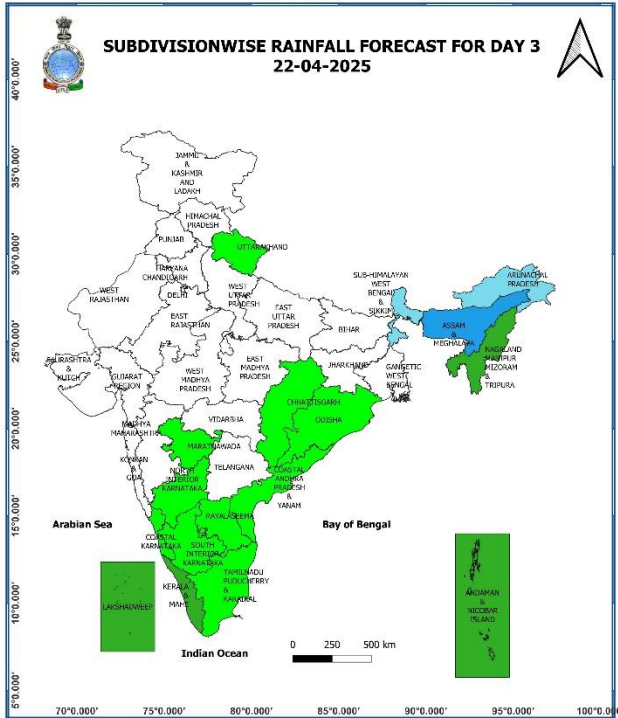
20th April (Day 1):

- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad. **Heavy rainfall** at isolated places over Assam & Meghalaya, Kerala & Mahe, Coastal Andhra Pradesh & Yanam.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph) & hailstorm** very likely at isolated places over Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** at isolated places over Uttarakhand, Coastal Andhra Pradesh & Yanam, Rayalaseema, North Interior Karnataka; **with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** at isolated places over Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, Telangana, South Interior Karnataka; **with lightning** at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka.
- ❖ **Hot and Humid** very likely at isolated places over Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Dust raising wind (20- 30 kmph)** very likely at isolated places over Gujarat state.



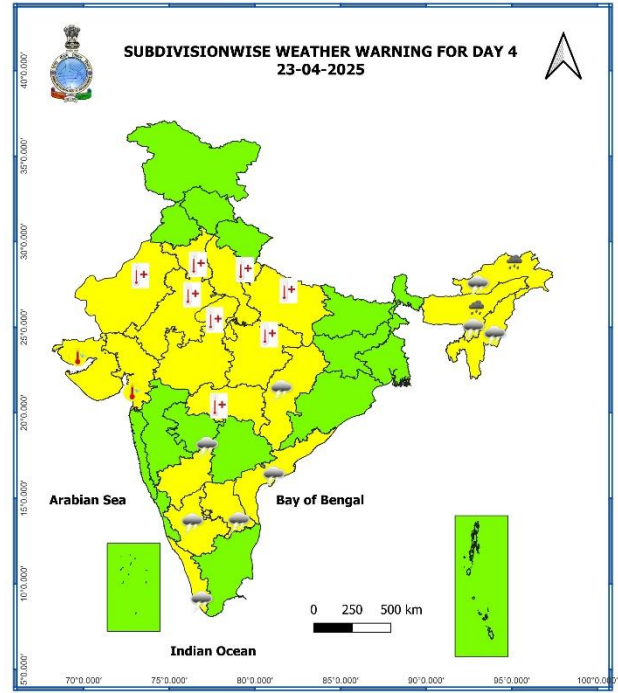
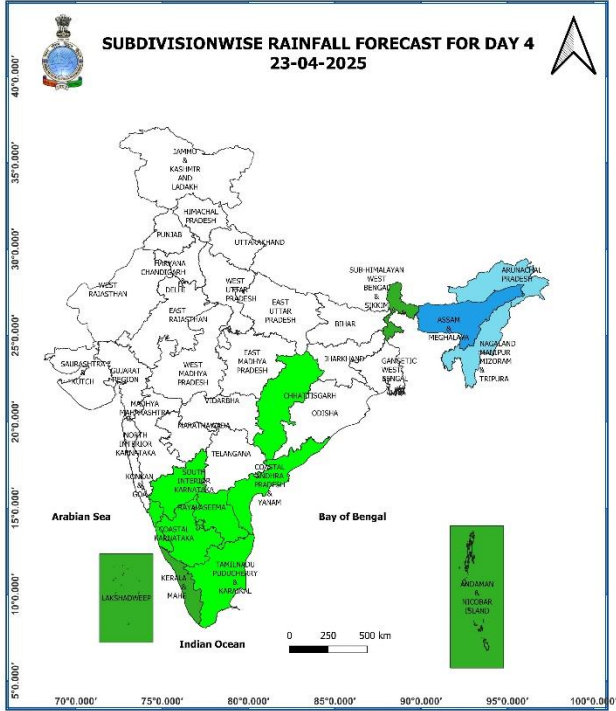
21st April (Day 2):

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph) very likely** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph) at isolated places** Chhattisgarh, Odisha, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka; **with lightning** at isolated places over Arunachal Pradesh, Kerala & Mahe, Coastal Karnataka.
- ❖ **Heat wave conditions** very likely at isolated places over Vidarbha.
- ❖ **Hot and Humid** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind with speed 45-50 kmph gusting to 55 kmph** likely to prevail along and off Odisha & adjoining West Bengal coasts, and adjoining northwest Bay of Bengal. Fishermen are advised not to venture into these areas.



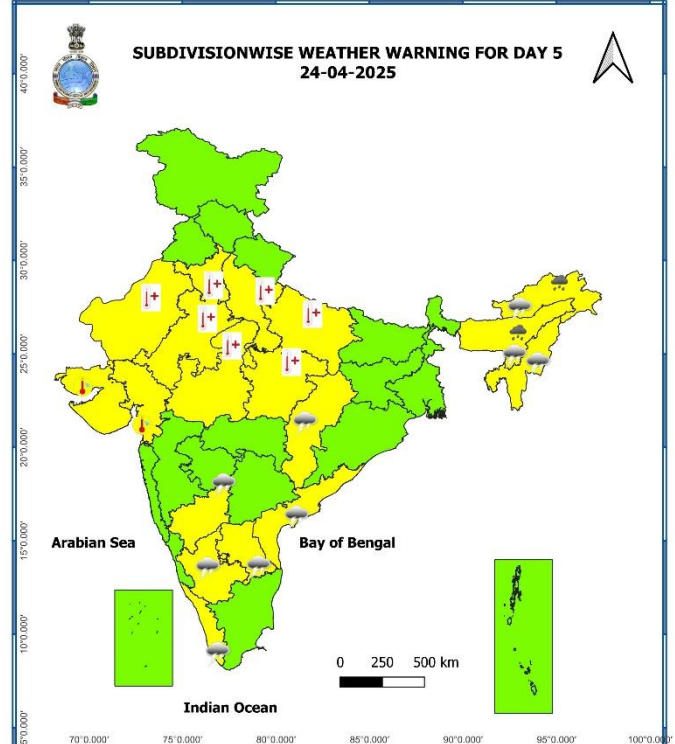
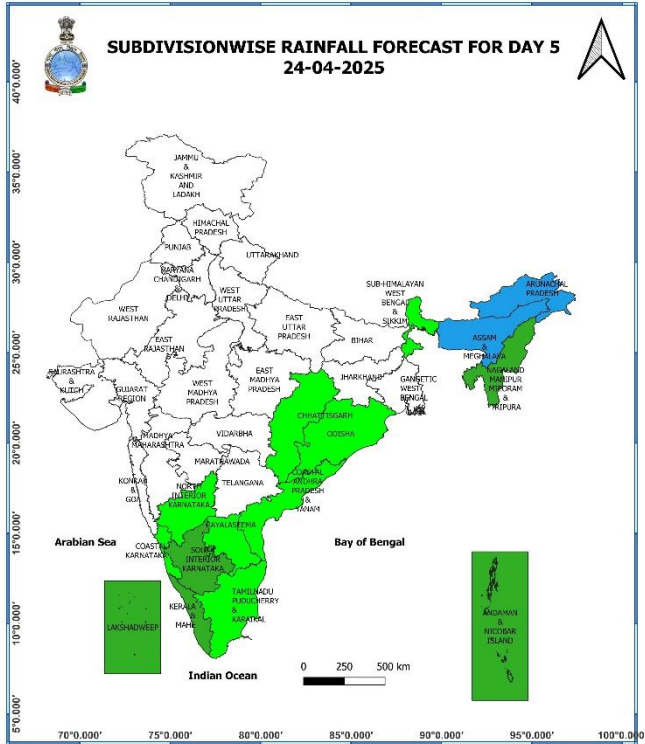
22nd April (Day 3):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Assam & Meghalaya and **heavy rainfall** at isolated places over Arunachal Pradesh
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** likely at isolated places over Assam & Meghalaya; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** isolated places over Odisha, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka; **with lightning** at isolated places over Chhattisgarh, Arunachal Pradesh, Kerala & Mahe.
- ❖ **Heat wave conditions** likely at isolated places over Uttar Pradesh, Madhya Pradesh, Vidarbha.
- ❖ **Hot and Humid** likely at isolated places over Gujarat state and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind with speed 45-50 kmph gusting to 55 kmph** likely to prevail along and off Odisha & adjoining West Bengal coasts, and adjoining northwest Bay of Bengal. Fishermen are advised not to venture into these areas.



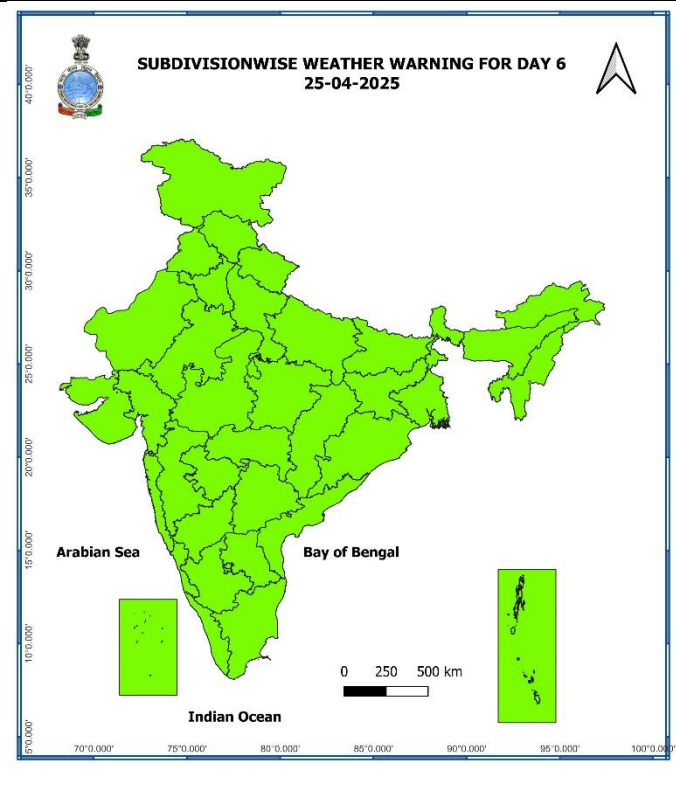
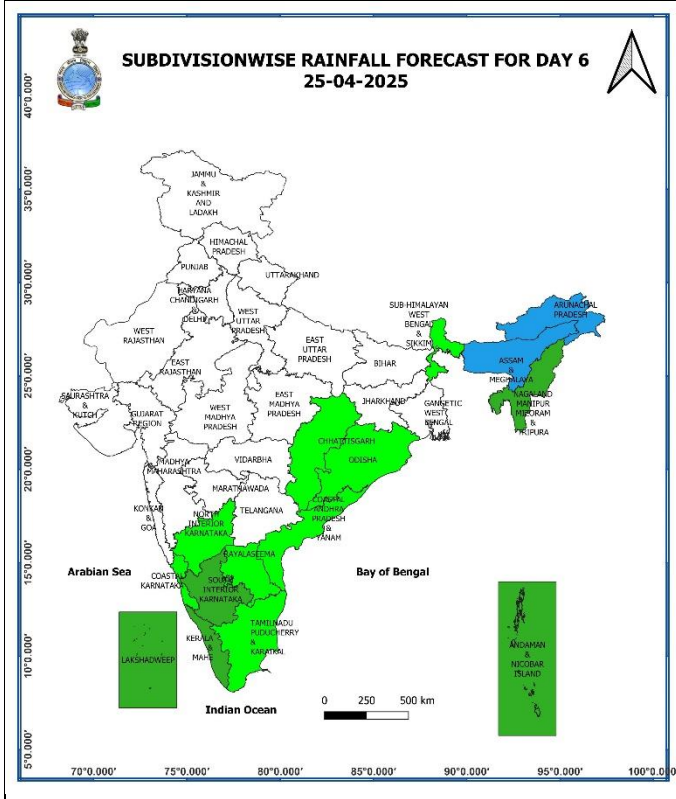
23rd April (Day 4)

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** likely at isolated places over Assam & Meghalaya; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** isolated places over Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka; **with lightning** at isolated places over Chhattisgarh, Arunachal Pradesh, Kerala & Mahe.
- ❖ **Heavy rainfall** likely at isolated places over Assam & Meghalaya and Arunachal Pradesh.
- ❖ **Heat wave conditions** likely at isolated places over Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha.
- ❖ **Hot and Humid** likely at isolated places over Gujarat state.
- ❖ **Squally wind with speed 45-50 kmph gusting to 55 kmph** likely to prevail along and off Odisha & adjoining West Bengal coasts, and adjoining northwest Bay of Bengal. Fishermen are advised not to venture into these areas.



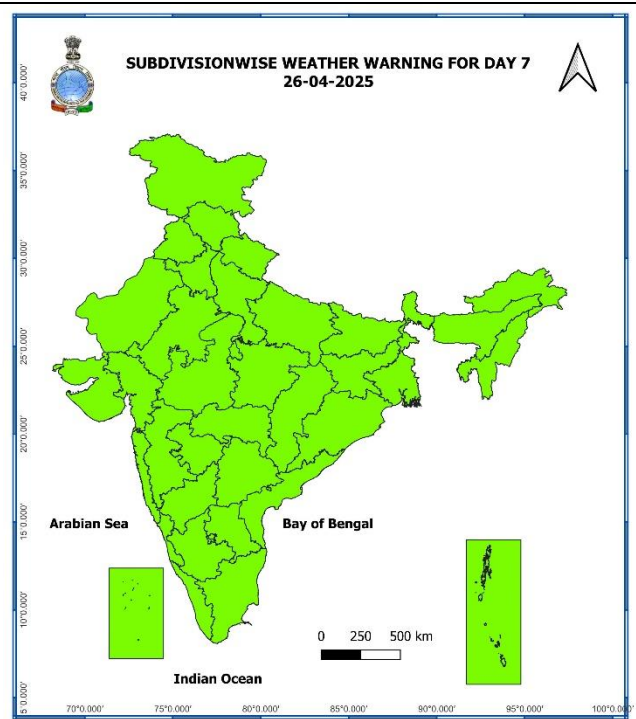
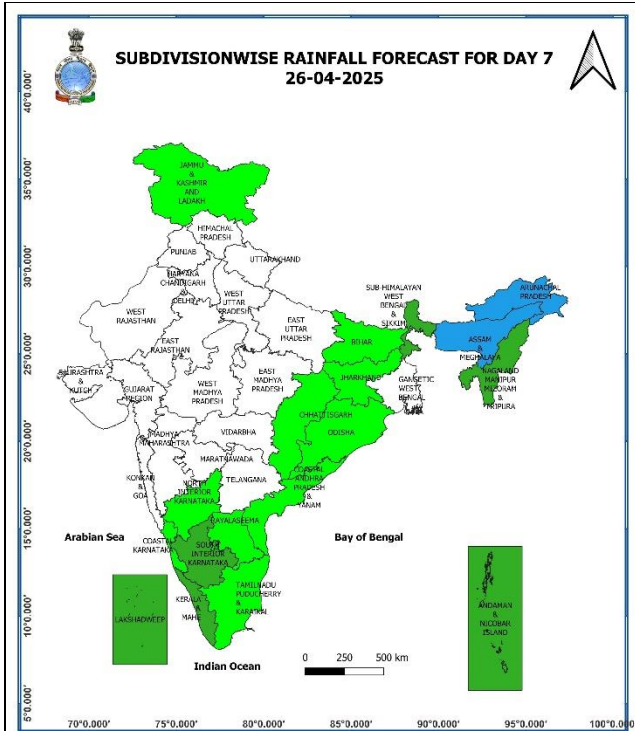
24th April (Day 5)

- ❖ **Heavy rainfall** likely at isolated places over Assam & Meghalaya and Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** likely at isolated places over Assam & Meghalaya; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** isolated places over Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka; **with lightning** at isolated places over Chhattisgarh, Arunachal Pradesh, Kerala & Mahe.
- ❖ **Heavy rainfall** likely at isolated places over Assam & Meghalaya and Arunachal Pradesh.
- ❖ **Heat wave conditions** likely at isolated places over Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh.
- ❖ **Hot and Humid** likely at isolated places over Gujarat state.
- ❖ **Squally wind with speed 45-50 kmph gusting to 55 kmph** likely to prevail along and off Odisha & adjoining West Bengal coasts, and adjoining northwest Bay of Bengal. Fishermen are advised not to venture into these areas.



25th April (Day 6)

❖ **No Weather Warning.**



26th April (Day 7)

❖ **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 27th April- 29th April, 2025)

❖ **Fairly widespread to widespread** rainfall activity likely over east & northeast India, Kerala. **Isolated to scattered** rainfall likely over Western Himalayan region, north Uttar Pradesh remaining parts of south peninsular India 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.**

* 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
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Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

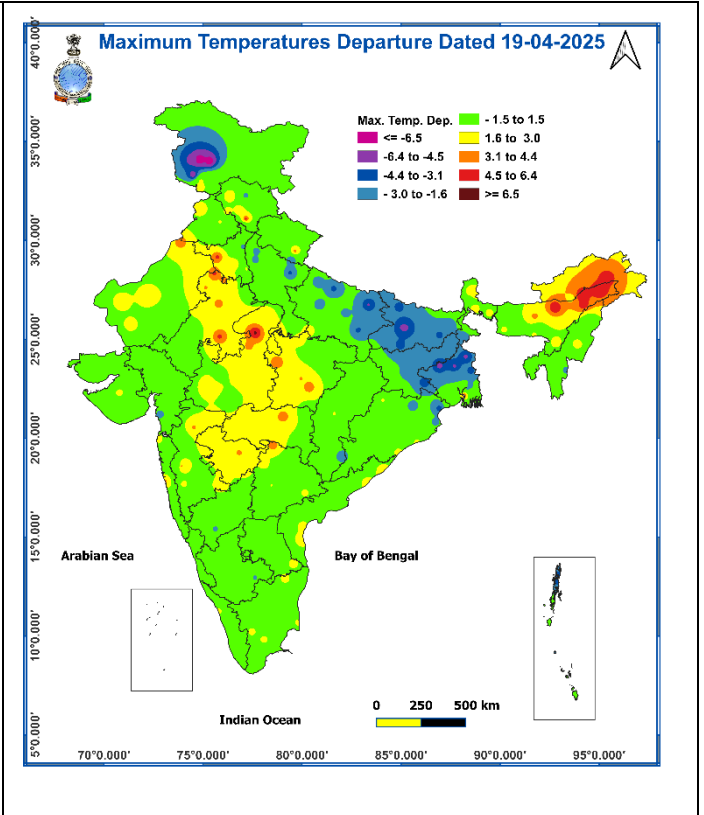
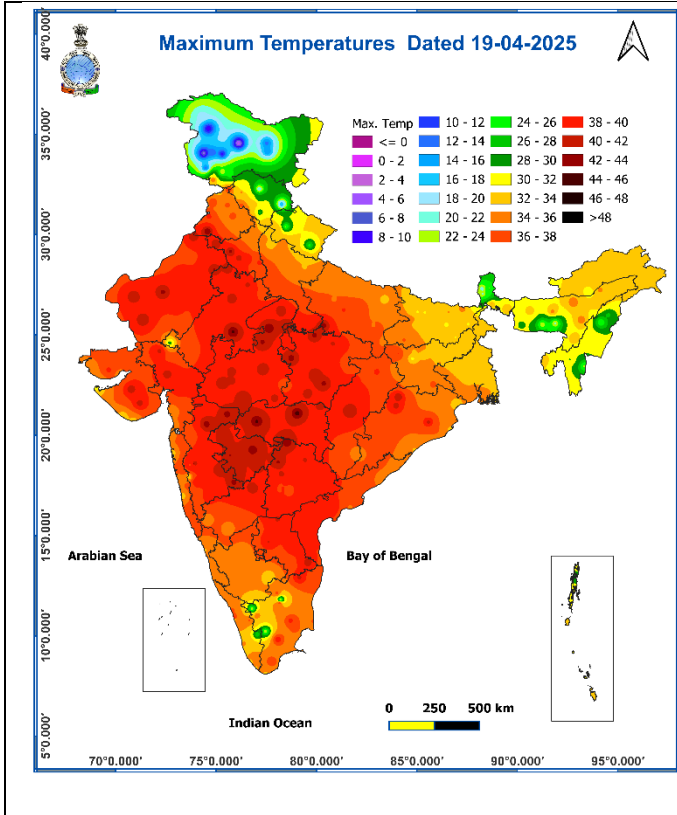


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

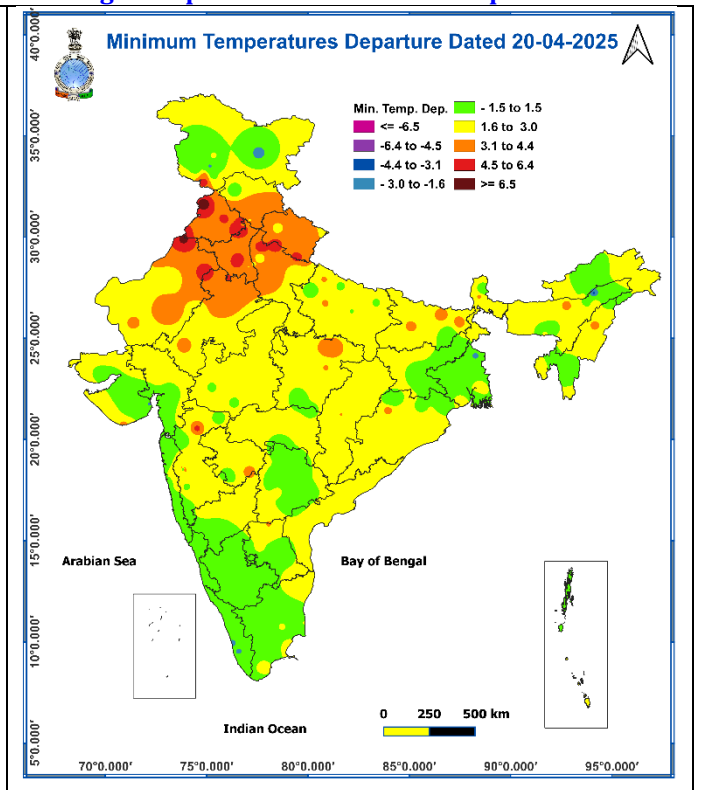
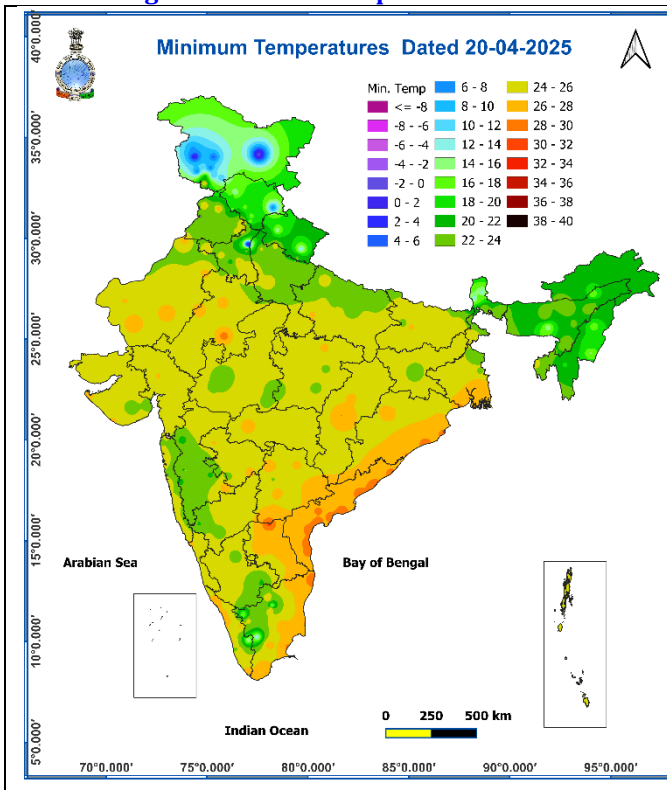
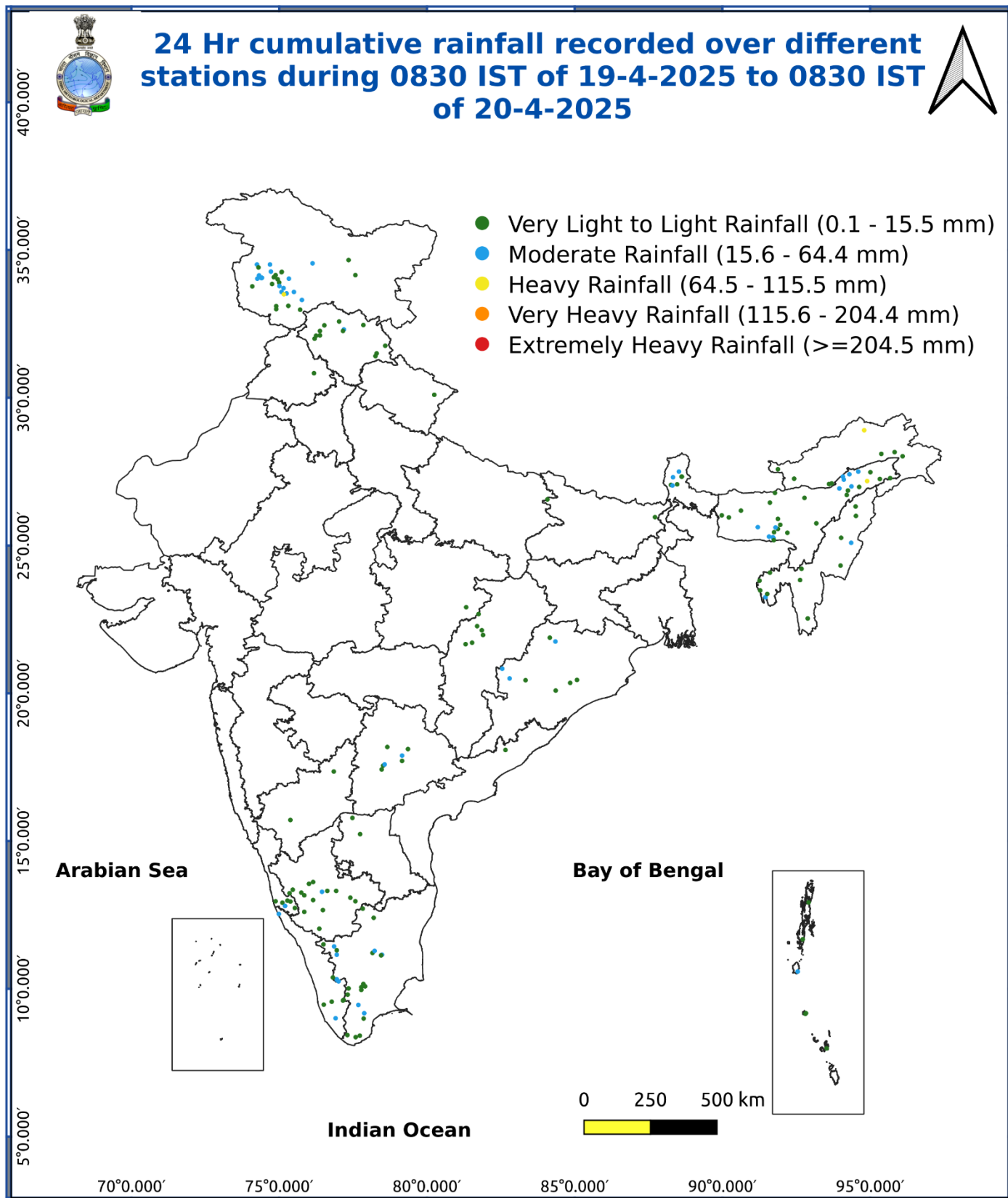


Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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

- ✓ Isolated Hailstorm Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 20th April.

Impact expected:

- Breaking of tree branches, uprooting of large avenue trees. Large dead limbs blown from trees. Damage to Standing crops.
- Minor to Major damage to banana and papaya trees.
- Minor to major damage to power and communication lines due to breaking of branches.
- 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:

- People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places accordingly.
- 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.

Impact expected and action suggested due to Heat wave conditions over south Uttar Pradesh, Madhya Pradesh during 22nd -24th; Rajasthan, Haryana on 23rd & 24th; Vidarbha during 21st -23rd April.

Yellow alert Areas

- Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure.
- Wear lightweight, light colour, loose, cotton clothes.
- Cover your head, use a cloth, hat or umbrella.

Agromet advisories for likely impact of Hailstorm / Heavy Rainfall / Gusty Winds / Heat wave

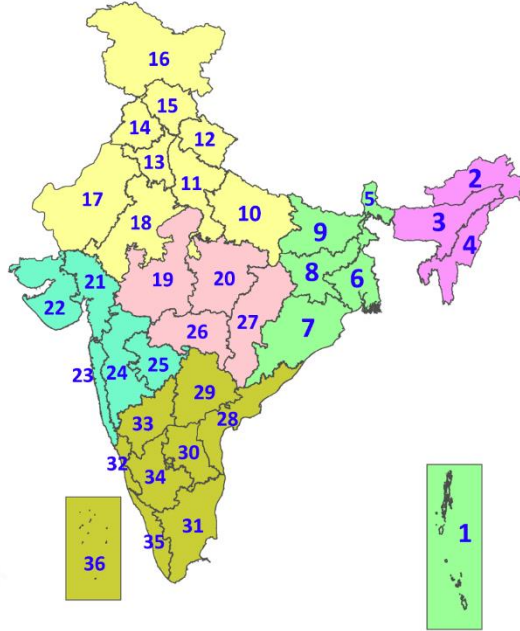
- In **Kerala, Coastal Andhra Pradesh, Arunachal Pradesh** and **Assam and Meghalaya**, make provision to drain out excess water from standing crop and vegetable fields.
- In **Jammu & Kashmir**, use hail net and hail caps to prevent mechanical damage in vegetables and orchards due to possibility of hailstorms. Drain out excess water from standing crops and vegetable fields.
- In **Vidarbha, Rajasthan, Madhya Pradesh, Uttar Pradesh** and **Haryana**, apply light and frequent irrigation to standing crops, vegetables and orchards in the evening to protect them from adverse effects of heat waves and high temperatures.
- Shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields. Tie the harvested crops properly and cover them to minimise the risk of displacement due to strong surface winds.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.

Livestock / Poultry / Fishery

- Keep the animals inside the shed during heavy rainfall / hailstorm and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- To reduce the effect of heat wave/high temperature, cover the roof of poultry sheds with grass. Also, provide clean, hygienic and plenty of drinking water to animals.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.

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>