

Tuesday, April 15, 2025
Time of Issue: 1650 hours IST
(EVENING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and Warnings:

- ❖ An **upper air cyclonic circulation** lies over West Rajasthan, 2nd over central part of south Madhya Pradesh, 3rd over Gulf of Mannar and 4th over southwest Bay of Bengal & adjoining Tamilnadu and 5th over west Assam in lower tropospheric levels.
- ❖ A **trough** runs from cyclonic circulation over central part of south Madhya Pradesh to south Gangetic West Bengal; 2nd trough from cyclonic circulation over central part of south Madhya Pradesh to South Interior Karnataka in lower tropospheric levels.
- ❖ Under the influence of these systems:
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 40-50 kmph)** likely over Northeast & East India during next 5 days.
 - ✓ Isolated to scattered rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 40-50 kmph)** likely over the plains of Central India and Maharashtra on 15th & 16th April.
 - ✓ **Heavy rainfall** likely over Odisha on 15th; Bihar, Nagaland, Manipur, Mizoram & Tripura on 17th; Assam & Meghalaya on 16th & 17th April.
 - ✓ **Isolated Hailstorm** likely over Jharkhand, Odisha and Meghalaya on 15th April.
 - ✓ **Thundersquall (wind speed reaching 50-60 kmph)** very likely at isolated places over Odisha, Jharkhand on 15th; Bihar and Gangetic West Bengal on 17th & 18th April. **Thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over Jharkhand and Odisha during 16th-18th; over Sub-Himalayan West Bengal & Sikkim during 17th-18th; Bihar on 15th and 19th; Gangetic West Bengal on 15th April; Vidarbha and Chhattisgarh on 15th-16th April.
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Tamilnadu Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Karnataka during next 5 days. **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over Kerala & Mahe during 15th-17th.
- ❖ An intense Western Disturbance likely to affect Western Himalayan Region from 16th to 20th April.
 - ✓ **Thunderstorm, lightning & gusty winds (speed 40-50 kmph) with isolated hailstorm** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 18th-19th April.
 - ✓ **Isolated heavy rainfall likely** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, and Himachal Pradesh on 18th-19th April.
 - ✓ Isolated rainfall along with thunderstorm & lightning and gusty winds (speed 30-40 kmph) is likely over adjoining plains of northwest India during 18th to 20th April, 2025. Isolated Duststorm/Thunderstorm likely over West Rajasthan on 16th & over East Rajasthan on 17th April.

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

- ❖ **Heat wave conditions to severe heat wave condition** very likely at many/some places over West Rajasthan during 15th-18th with severe heat wave conditions at isolated/some parts during 15th-18th April.
- ❖ **Heat wave conditions** are very likely at isolated/some places over East Rajasthan during 15th-18th; Gujarat State during 15th-17th April.
- ❖ **Hot & humid** weather is likely to prevail over Konkan & Goa on 15th; Kerala & Mahe, Tamilnadu Puducherry & Karaikal, Coastal Karnataka on 15th & 16th; Gujarat State during 15th-17th; Madhya Maharashtra, Marathawada during 17th-19th April.
- ❖ **Warm Night conditions** are likely at a few places West Rajasthan during 15th -17th; at isolated places over East Rajasthan during 15th-17th; West Madhya Pradesh on 16th & 17th April.

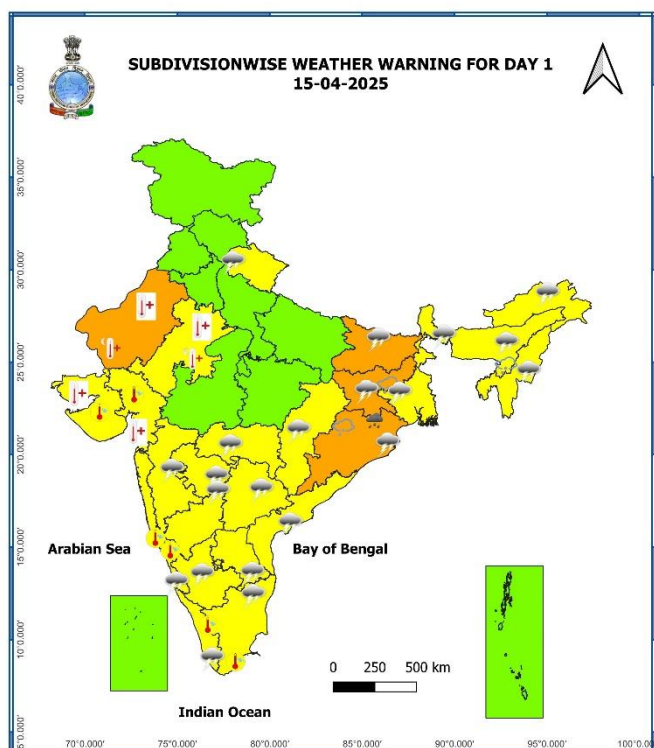
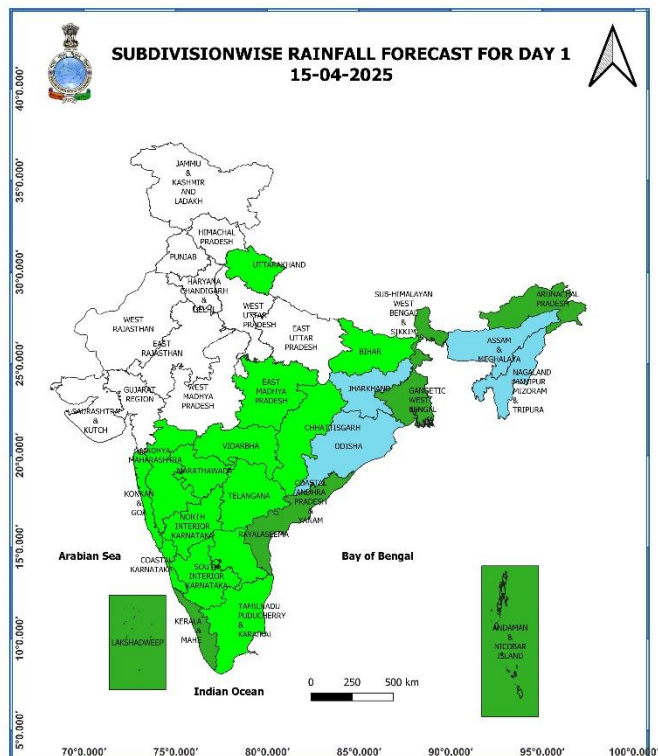
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at many places** over Kerala & Mahe; **at a few places** over Andaman & Nicobar Islands, Gangetic West Bengal, Jharkhand, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Tamilnadu Puducherry & Karaikal, Coastal Karnataka; **at isolated places** over East Uttar Pradesh, East Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Odisha, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Interior Karnataka.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Kerala & Mahe:** Ponnani (dist Malappuram) 7, Kollamkode (dist Palakkad) 4, Karapuzha Aws (dist Wynad) 4, Padannakkad Aws (dist Kasargod) 4, Kollengode Aws (dist Palakkad) 4, Kannur Airport Aws (dist Cannur) 4, Ams Kannur (dist Cannur) 4, Hosdurg (dist Kasargod) 4, Aralam Aws (dist Cannur) 4, Vyanthala Arg (dist Thrissur) 4; **Tamilnadu Puducherry & Karaikal:** Kunda Bridge (dist The Nilgiris) 6, Thalavadi (dist Erode) 5; **Odisha:** Nawapara (dist Nawapara) 4,
- ❖ **Thunderstorm** accompanied with Squally/Gusty winds prevailed at isolated locations over Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Karnataka, Telangana, Rayalaseema, Vidarbha, Chhattisgarh, East Uttar Pradesh, Uttarakhand, Himachal Pradesh, Punjab, Bihar, Gangetic West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hailstorm** occurred at isolated places over Telangana, Jharkhand.
- ❖ **Heavy rainfall** recorded at isolated places over Kerala & Mahe.
- ❖ **Duststorm** recorded at isolated places over East Uttar Pradesh.
- ❖ **Minimum Temperature Departures (as on 15-04-2025):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh; at isolated places over Punjab, Rajasthan, West Uttar Pradesh, West Madhya Pradesh; **above normal (1.6°C to 3.0°C)** at isolated places over Coastal Andhra Pradesh & Yanam, Gujarat state, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura Madhya Maharashtra, Marathwada, East Uttar Pradesh, Haryana-Chandigarh-Delhi, Uttarakhand. These are **appreciably below normal (-5.0°C to -3.1°C)** at many places over Gangetic West Bengal; **below normal (-3.0°C to -1.6°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature of 17.0°C** is reported at **Ludhiana (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 14-04-2025):** Maximum Temperatures were **markedly above normal (5.1°C or more)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Gujarat state; at isolated places over Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam; **above normal (1.6°C to 3.0°C)** at many places over Konkan & Goa; at a few places over Marathwada; at isolated places over Assam & Meghalaya, Arunachal Pradesh, West Madhya Pradesh, Telangana. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over East Uttar Pradesh, Jharkhand, Odisha; **below normal (-3.0°C to -1.6°C)** at a few places over Andaman & Nicobar Islands; at isolated places over Uttarakhand, East Madhya Pradesh, Bihar, Gangetic West Bengal and normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 45.4°C** was reported at **Barmer (West Rajasthan)** over the country.

Meteorological Analysis (Based on 1430 hours IST)

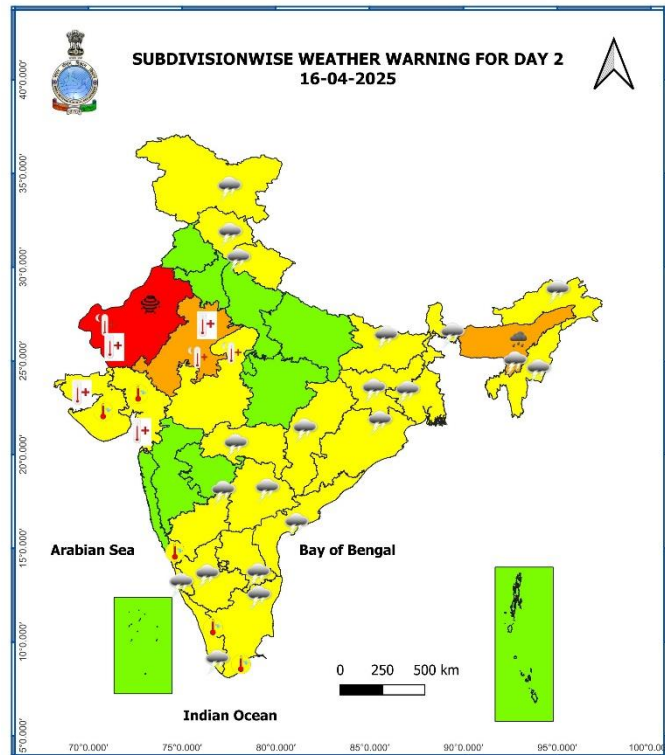
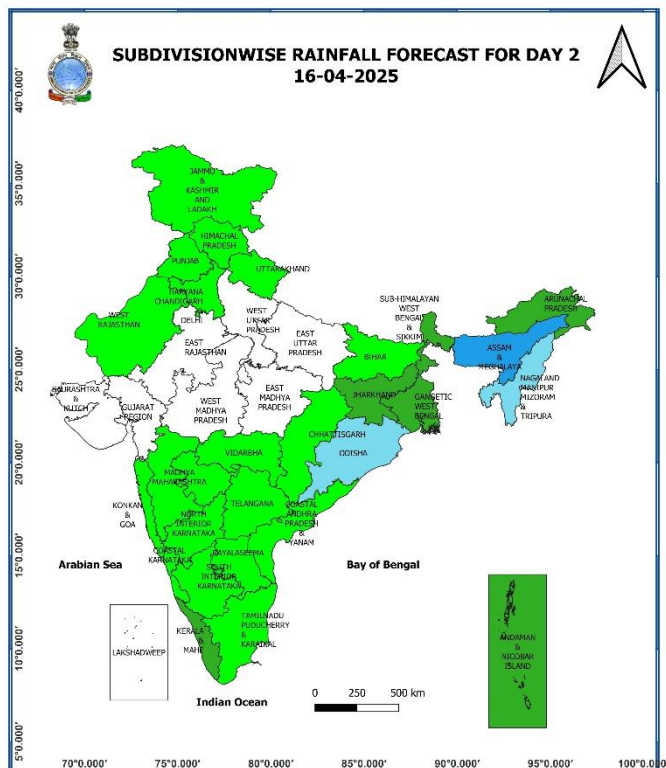
- ❖ The **Western Disturbance** as a trough in middle to upper tropospheric levels with its axis at 5.8 km above mean sea level from north Bihar to north Coastal Andhra Pradesh across Jharkhand and Odisha persists.
- ❖ The upper air **cyclonic circulation** over West Rajasthan & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over central part of south Madhya Pradesh & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ The **trough** from above cyclonic circulation over central part of south Madhya Pradesh to south Gangetic West Bengal across Chhattisgarh, Jharkhand & Odisha and extending upto 1.5 km above mean sea level.
- ❖ The **trough** from the above cyclonic circulation over central part of south Madhya Pradesh to South Interior Karnataka across Vidarbha, Marathwada & North Interior Karnataka extending upto 1.5 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over Gulf of Mannar & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over southwest Bay of Bengal & adjoining Tamil Nadu at 1.5 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over west Assam & neighbourhood at 1.5 km above mean sea level persists.
- ❖ A fresh **Western Disturbance** is likely to affect Western Himalayan region from 16th April, 2025.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 22nd April, 2025)



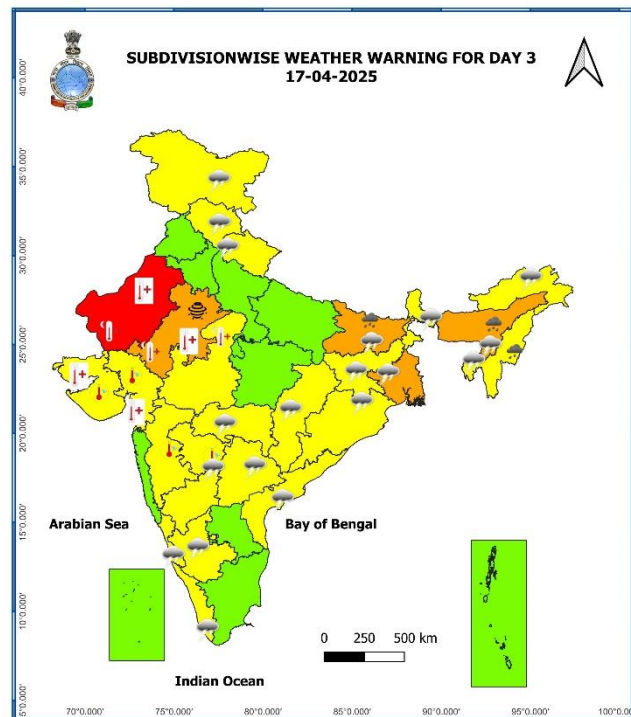
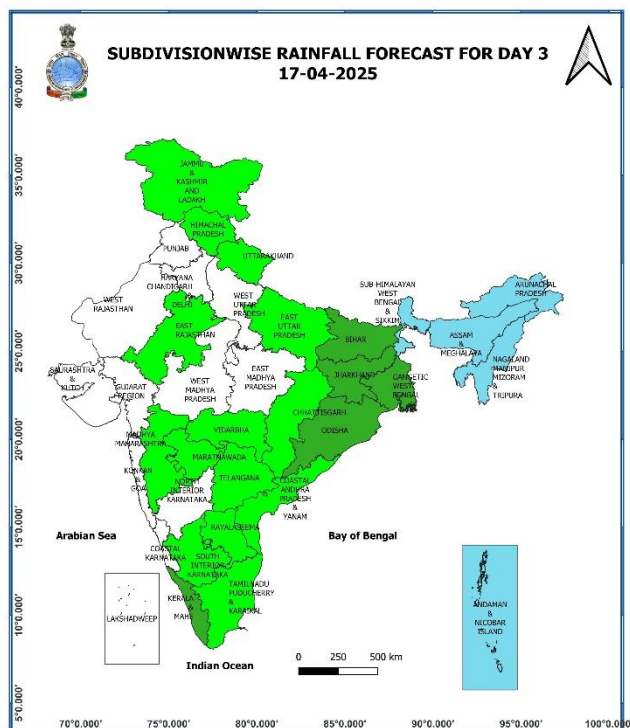
15th April (Day 1):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Odisha.
- ❖ **Thundersquall accompanied with lightning, gusty winds, hailstorm (speed reaching 50 - 60 kmph)** very likely at isolated places over Jharkhand, Odisha; **Thundersquall accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph), Hailstorm** at isolated places over Assam & Meghalaya; **Thundersquall accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph)** at isolated places over Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Kerala & Mahe; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Karnataka; **with lightning** at isolated places over Uttarakhand Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Madhya Maharashtra, Marathwada.
- ❖ **Heat wave at many places with severe Heat wave conditions** very likely at isolated places over West Rajasthan; **Heat wave** in isolated pockets over East Rajasthan, Gujarat State.
- ❖ **Warm night conditions** very likely at a few places over West Rajasthan and at isolated places over East Rajasthan.
- ❖ **Hot and Humid** very likely at isolated places over Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Karnataka and Konkan & Goa.



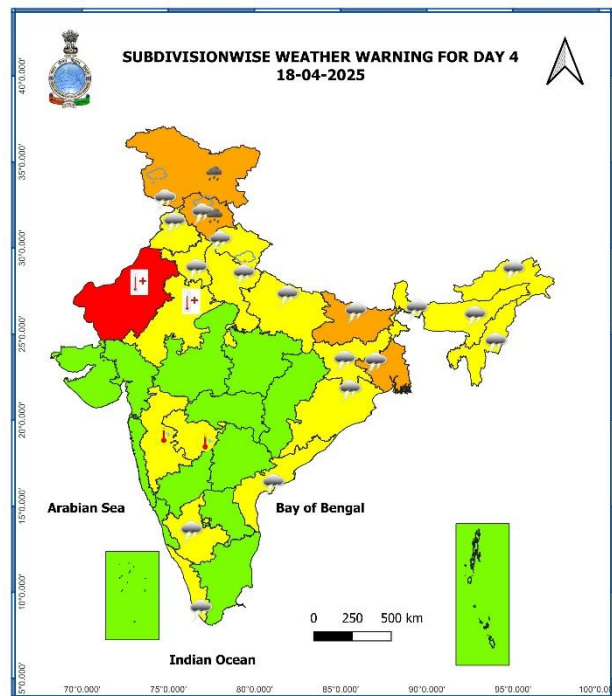
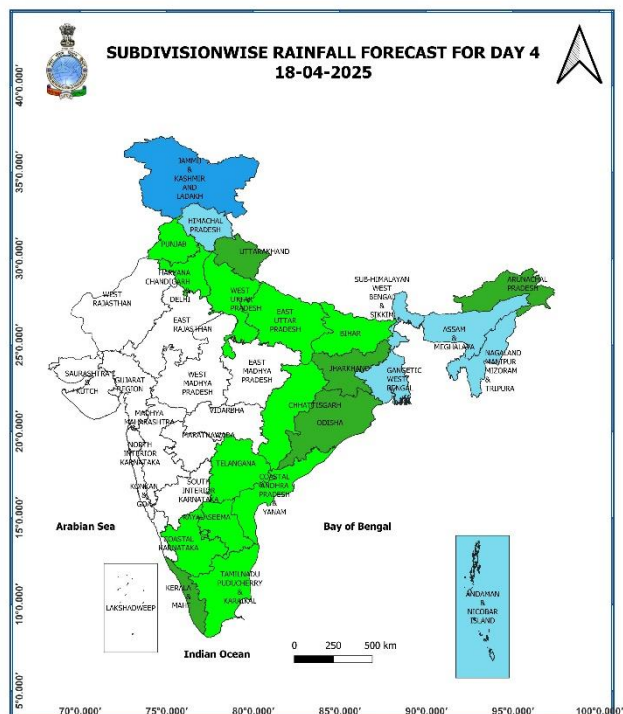
16th April (Day 2):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Assam & Meghalaya.
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph)** very likely at isolated places over Vidarbha, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Chhattisgarh, West Bengal & Sikkim, Bihar, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Karnataka; **with lightning** at isolated places over Uttarakhand, Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Duststorm/ Thunderstorm** very likely at isolated places over West Rajasthan
- ❖ **Heat wave at many places with severe Heat wave conditions** very likely at isolated places over West Rajasthan; **Heat wave conditions** in isolated pockets East Rajasthan, Gujarat state.
- ❖ **Hot and Humid conditions** very likely at isolated places over Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Karnataka.
- ❖ **Warm night conditions** very likely at a few places over West Rajasthan and at isolated places over East Rajasthan, West Madhya Pradesh.



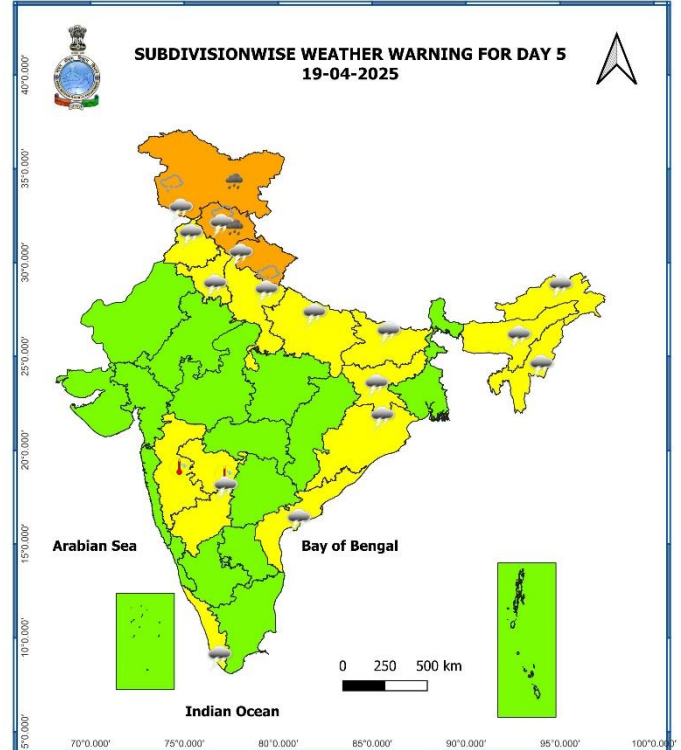
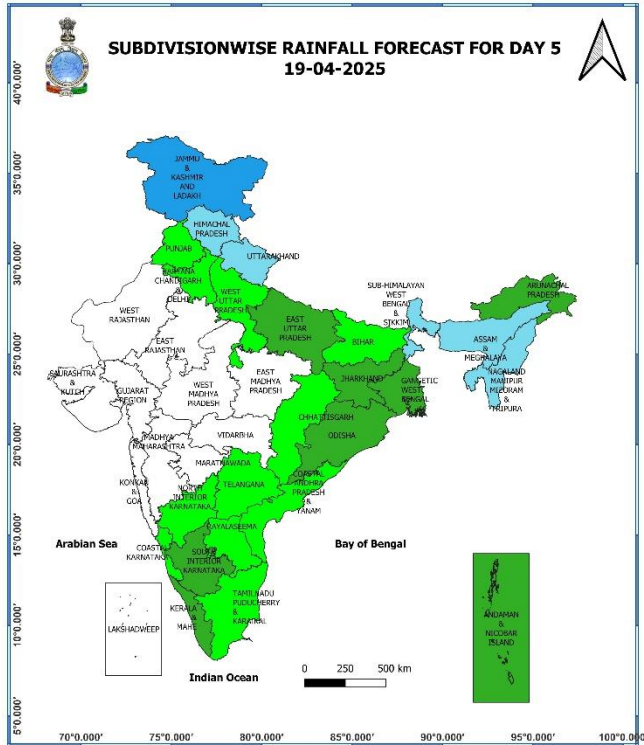
17th April (Day 3):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph)** very likely at isolated places over Gangetic West Bengal, Bihar; **Thundersquall accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph)** at isolated places over Sub-Himalayan West Bengal & Sikkim, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Chhattisgarh, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana, Coastal & North Interior Karnataka; **with lightning** at isolated places Uttarakhand, Vidarbha, Arunachal Pradesh.
- ❖ **Duststorm/ Thunderstorm** very likely at isolated places over West Rajasthan
- ❖ **Heat wave at many places with severe Heat wave conditions** very likely at a few places over West Rajasthan; **Heat wave conditions** at a few places over East Rajasthan; at isolated places over Gujarat state.
- ❖ **Hot and Humid** very likely at isolated places over Madhya Maharashtra, Marathwada & Gujarat state.
- ❖ **Warm night conditions** very likely at a few places over West Rajasthan and at isolated places over East Rajasthan, West Madhya Pradesh.



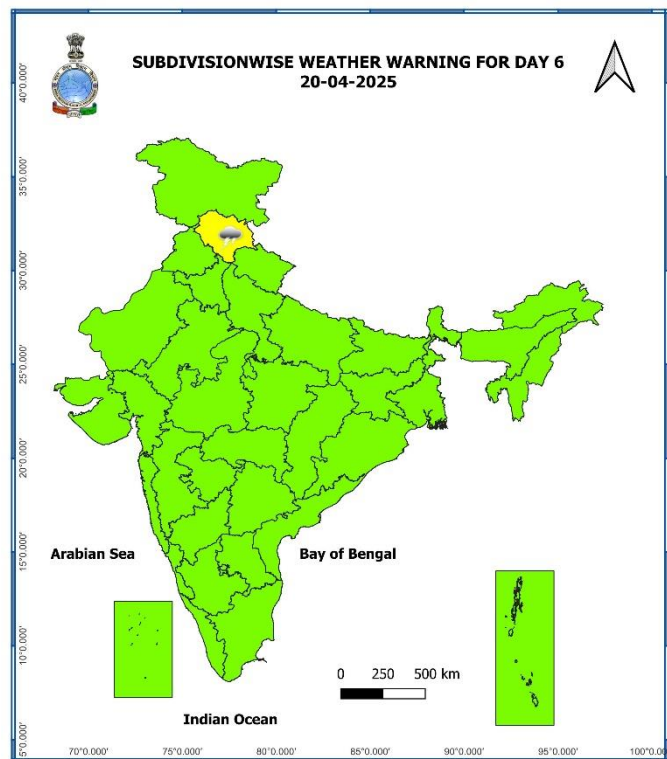
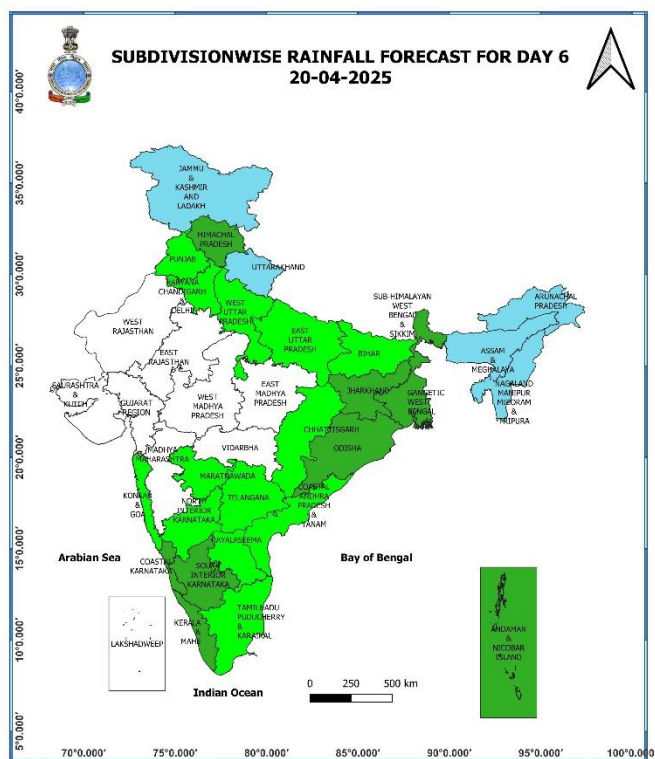
18th April (Day 4):

- ❖ **Heavy rainfall/snowfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh.
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph)** likely at isolated places over Gangetic West Bengal, Bihar; **Thundersquall accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph), Hailstorm** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand; **Thundersquall accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph)** at isolated places over East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Odisha, South Interior Karnataka; **Thundersquall accompanied with lightning, gusty winds, hailstorm (speed reaching 30 - 40 kmph)** at isolated places over Punjab, Haryana, West Uttar Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam; **with lightning** at isolated places over Arunachal Pradesh, Kerala & Mahe.
- ❖ **Heat wave at a few places with severe Heat wave conditions** likely at isolated places of West Rajasthan; **Heat wave conditions** at a few places over East Rajasthan.
- ❖ **Warm night conditions** likely at isolated places over Rajasthan.
- ❖ **Hot and Humid** likely at isolated places over Madhya Maharashtra, Marathwada.



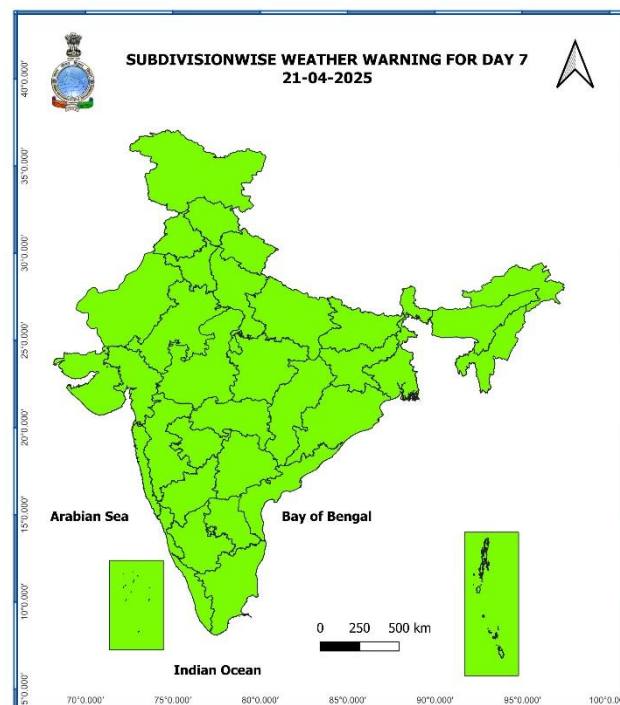
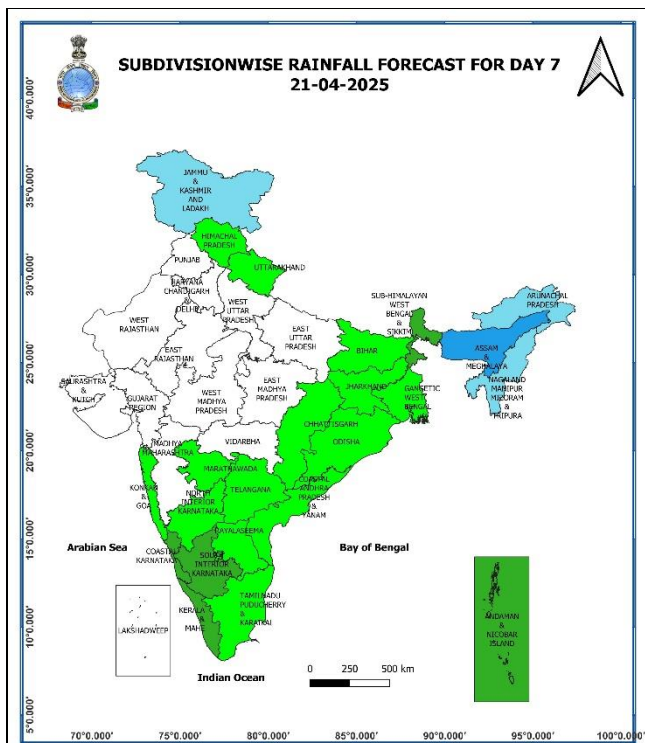
19th April (Day 5):

- ❖ **Heavy rainfall/snowfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Thundersquall accompanied with lightning, gusty winds, hailstorm (speed reaching 40- 50 kmph)** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand; **Thundersquall accompanied with lightning, gusty winds,(speed reaching 40- 50 kmph)** at isolated places over East Uttar Pradesh, Bihar, Jharkhand, North Interior Karnataka; **Thundersquall accompanied with lightning, gusty winds, hailstorm (speed reaching 30 - 40 kmph)** at isolated places over Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam; **with lightning** at isolated places over Odisha, Arunachal Pradesh, Kerala & Mahe.
- ❖ **Hot and Humid** likely at isolated places over Madhya Maharashtra, Marathwada.



20th April (Day 6):

❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph) likely at isolated places over Himachal Pradesh.**



21th April (Day 7):

❖ No warning

Weather Outlook for subsequent 3 days (During 22nd April- 24th 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.

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

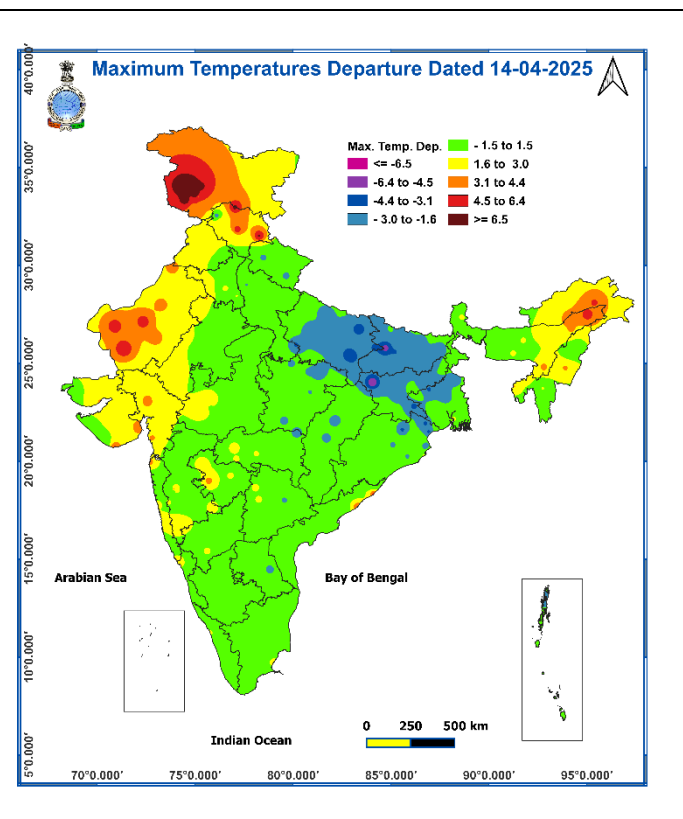
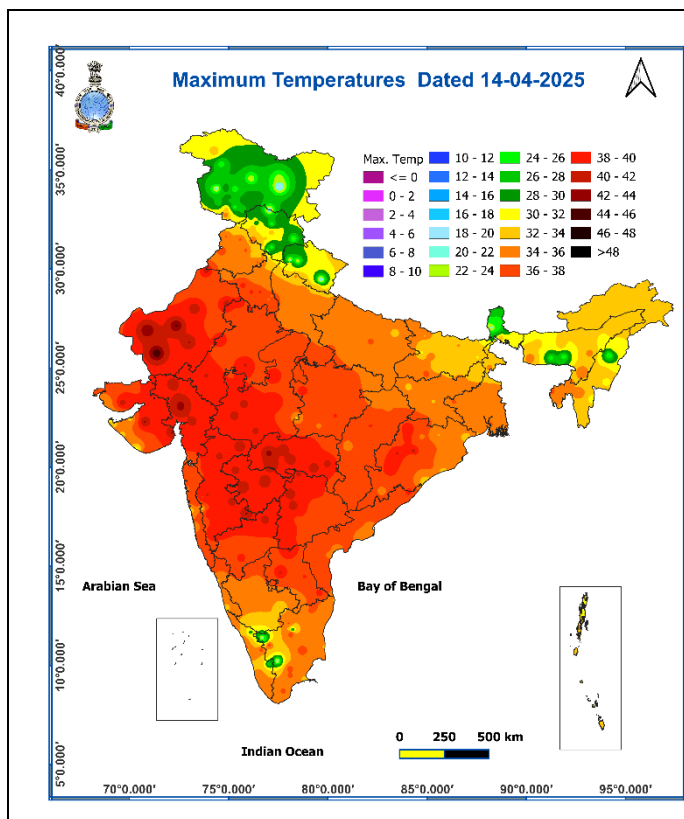
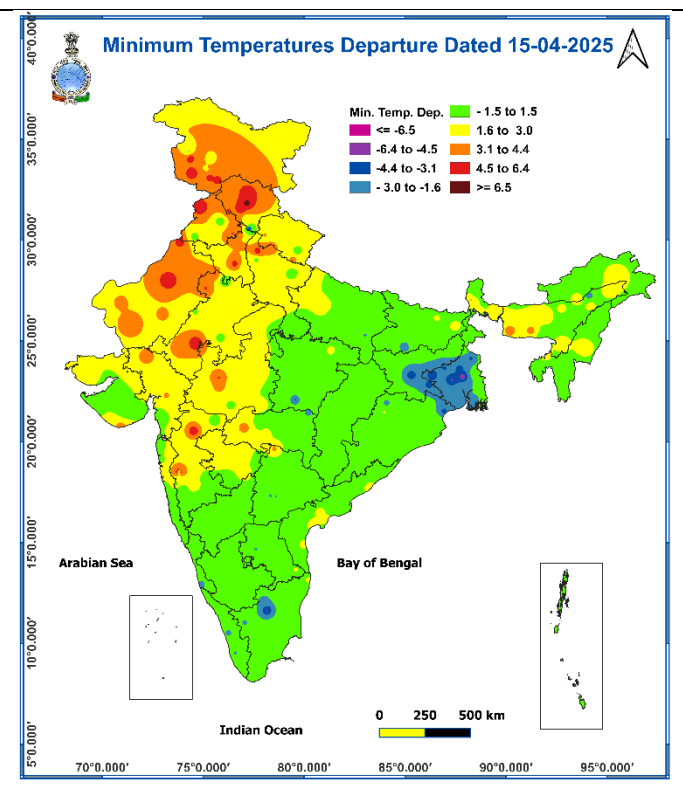
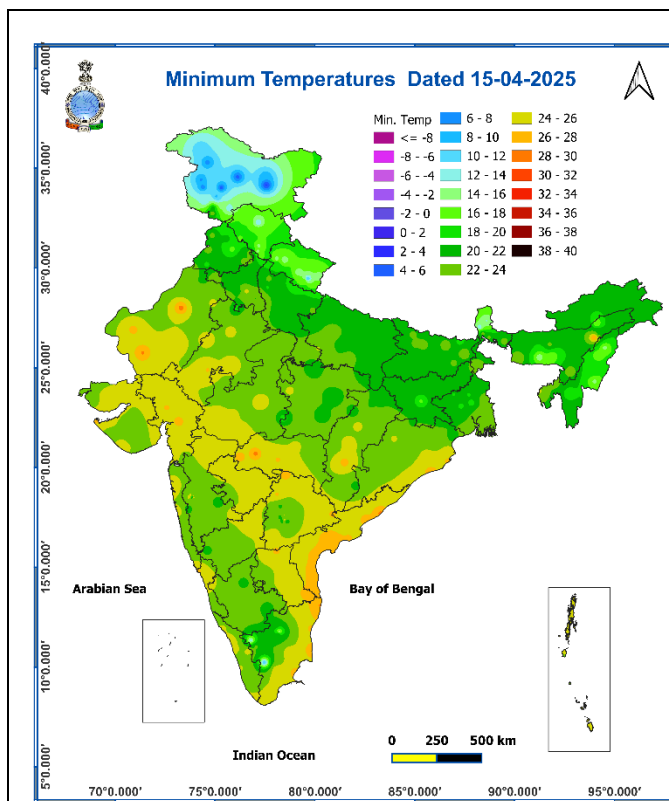


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



Impact expected and action suggested due to isolated thunderstorm with lightning/gusty winds & Hailstorm over Jharkhand, Odisha and Meghalaya on 15th; Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 18th-19th April.

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.

Impact expected and action suggested due to Heat wave to severe heat wave conditions over

1. **Heat wave conditions to severe heat wave condition** very likely at many/some places over West Rajasthan during 15th-18th with severe heat wave conditions at isolated/some parts during 15th-18th April.
2. **Heat wave conditions** are very likely at isolated/some places over East Rajasthan during 15th-19th; Gujarat State during 15th-17th April

Orange alert Areas

- High temperature & increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.
- High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure- keep cool. Avoid dehydration.
- Drink sufficient water- even if not thirsty.
- Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

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 / Heatwave

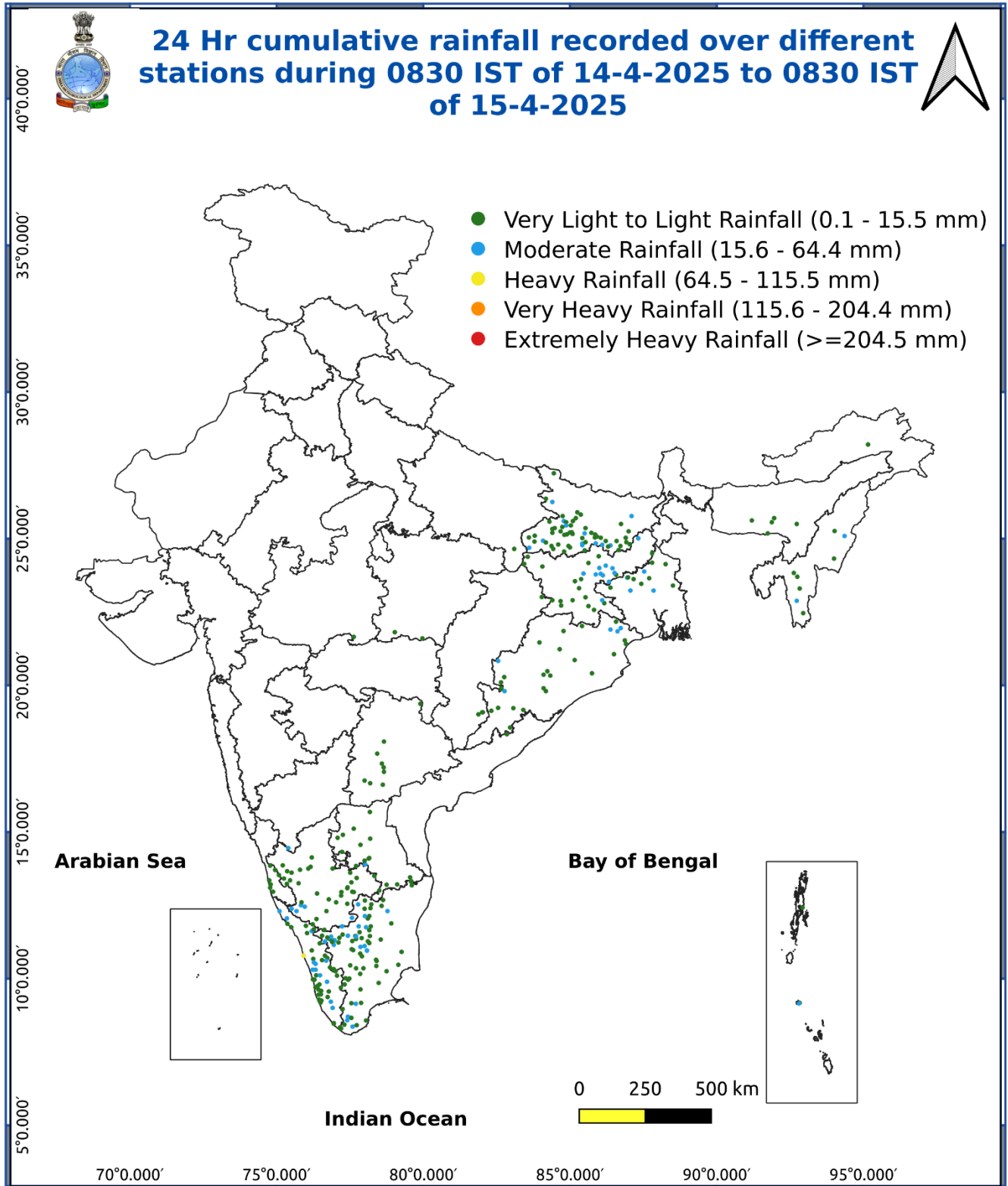
- In **Meghalaya, Odisha and Jharkhand**, immediately shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields to avoid the adverse impact of likely hailstorm. Use hail net and hail caps to prevent mechanical damage in orchards due to hailstorms.
- In **Assam & Meghalaya, Tripura, Odisha and Bihar** immediately harvest the mature crops, fruits and vegetables and shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields. Also make provision to drain out excess water from standing crop and vegetable fields.
- In **Rajasthan, Punjab, Haryana, West Madhya Pradesh and Gujarat**, apply light and frequent irrigation to standing crops in the evening to protect them from heat waves.
- 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.

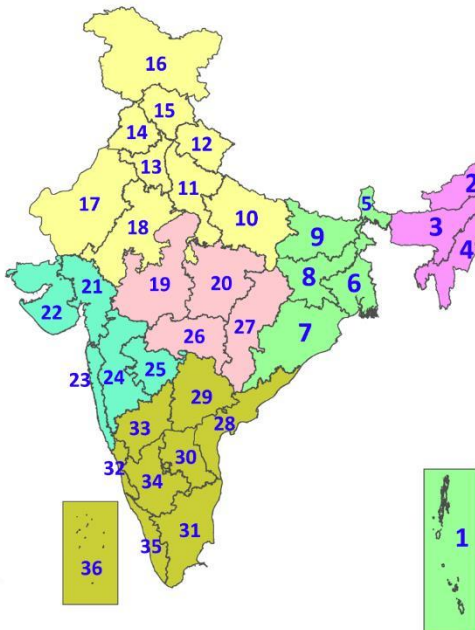
Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.

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 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

* 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)

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)

Hot and Humid: When maximum temperatures remains 3°C above normal along with the above normal relative humidity.