

Saturday, April 19, 2025  
Time of Issue: 1400 hours IST  
(MID-DAY)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### i. Weather Systems, Forecast and Warnings:

- ❖ A **Western Disturbance** as a cyclonic circulation over Afghanistan & neighbourhood seen as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along long. 63°E to the north of lat. 35°N and an upper air cyclonic circulation lies over south Haryana in lower tropospheric levels. Under its influence:
  - ✓ **Light to moderate rainfall at most places accompanied with Thunderstorm, lightning & squally winds (speed 60-70 kmph gusting to 80 kmph)** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 19<sup>th</sup>-21<sup>st</sup> April; **Light to moderate rainfall at most places accompanied with Thunderstorm, lightning & squally winds (speed 50-60 kmph gusting to 70 kmph)** over Himachal Pradesh on 19<sup>th</sup>; Uttarakhand on 19<sup>th</sup> & 20<sup>th</sup>; with **gusty winds (speed 30-40 kmph gusting to 50 kmph)** over Himachal Pradesh on 20<sup>th</sup> April.
  - ✓ **Isolated Hailstorm** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh & Uttarakhand on 19<sup>th</sup> April.
  - ✓ **Isolated heavy rainfall** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 19<sup>th</sup> April.
  - ✓ Isolated rainfall along with **thunderstorm, lightning & squally winds (speed 50-60 kmph gusting to 70 kmph)** likely over Punjab, Haryana on 19<sup>th</sup> and with **gusty winds (speed 40-50 kmph gusting to 60 kmph)** over Uttar Pradesh on 19<sup>th</sup>; with **gusty winds (speed 30-40 kmph gusting to 50 kmph)** over Uttar Pradesh on 20<sup>th</sup> April.
  - Isolated Duststorm/Thunderstorm **gusty winds (speed 30-40 kmph gusting to 50 kmph)** likely over Uttar Pradesh and West Rajasthan on 19<sup>th</sup> April.
- ❖ An **upper air cyclonic circulation** lies over northwest Jharkhand, 2<sup>nd</sup> over north Bangladesh & neighbourhood and 3<sup>th</sup> over central Assam in lower tropospheric levels.
- ❖ A **trough** runs from south Haryana & neighbourhood to north Bangladesh; 2<sup>nd</sup> trough from northeast Vidarbha to Gulf of Mannar 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 gusting to 60 kmph)** likely over Northeast & East India during next 5 days.
  - ✓ **Isolated light to moderate rainfall accompanied with thunderstorm, lightning & gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over East Madhya Pradesh & Madhya Maharashtra on 19<sup>th</sup>; Vidarbha & Chhattisgarh during 19<sup>th</sup>-23<sup>rd</sup> April.
  - ✓ **Heavy rainfall** likely over Arunachal Pradesh & Assam & Meghalaya during 22<sup>nd</sup> -25<sup>th</sup> April.
  - ✓ **Isolated Hailstorm** likely over Jharkhand and Odisha on 19<sup>th</sup> April.
  - ✓ **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** very likely at isolated places over Jharkhand on 20<sup>th</sup> April.
  - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph gusting to 60 kmph)** likely over Kerala & Mahe and **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (wind speed reaching 40-50 kmph gusting to 60 kmph)** likely over Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema during next 5 days and Telangana during 19<sup>th</sup>-21<sup>st</sup>; with **lightning** over Tamilnadu Puducherry & Karaikal on 19<sup>th</sup> & 20<sup>th</sup> April.
  - ✓ **Heavy rainfall** likely over Kerala & Mahe on 19<sup>th</sup> April, 2025.

#### Temperature Forecast:

- ❖ Gradual fall in maximum temperatures by 2-3°C likely over Northwest India (except Uttar Pradesh) during next 2-3 days and gradual rise by 2-3°C during subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over Uttar Pradesh during next 24 hours and gradual rise by 2-4°C during subsequent 5 days.
- ❖ No significant change in maximum temperatures likely over Central India during next 5 days.
- ❖ No significant change in maximum temperatures likely over East India during next 24 hours and gradual rise by 4-5°C during subsequent 4 days.
- ❖ Gradual fall in maximum temperatures by 1-3°C likely over Gujarat State during next 3 days and gradual rise by 2-3°C during subsequent 4 days.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Maharashtra during next 4-5 Days and no significant change thereafter.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over south peninsular India during next 3 days and no significant change thereafter.
- ❖ 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 Rajasthan on 19<sup>th</sup>; Madhya Pradesh on 19<sup>th</sup> & 20<sup>th</sup> and Vidarbha during 21<sup>st</sup> -23<sup>rd</sup> April.
- ❖ **Hot & humid** weather is likely to prevail over Madhya Maharashtra on 19<sup>th</sup> & 20<sup>th</sup>; Gujarat State on 22<sup>nd</sup> & 23<sup>rd</sup>; Tamilnadu Puducherry & Karaikal during 19<sup>th</sup>-21<sup>st</sup> April.
- ❖ **Warm Night conditions** very likely to prevail in isolated pockets over West Uttar Pradesh on 19<sup>th</sup> & 20<sup>th</sup> April.

## Main Weather Observations:

- ❖ **Rainfall distribution**(from 0830 hours IST of yesterday to 0830 hours IST of today): **at most places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Andaman & Nicobar Islands; **at many places** over Himachal Pradesh, Punjab, Gangetic West Bengal, Odisha; at a few places over Uttarakhand, Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, North & South Interior Karnataka; **at isolated places** over Haryana, Chandigarh & Delhi, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Arunachal Pradesh, Assam & Meghalaya, Madhya Maharashtra, Tamilnadu Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Kerala & Mahe:** Thodupuzha (dist Idukki) 9, Vaikom (dist Kottayam) 7, Kanjirappally (dist Kottayam) 5, Kunnathanam Awas (dist Pathanamthitta) 4, Palluruthy Arg (dist Ernakulam) 4; **Tamilnadu Puducherry & Karaikal:** Anaikedanku (dist Kanyakumari) 8, Mambzhathuraiyaru (dist Kanyakumari) 7, Krishnagiri (dist Krishnagiri) 6, Periyanaickenpalayam (dist Coimbatore) 4; **North Interior Karnataka:** Annigere Ars (dist Dharwad) 7, Bilgi (irri.) (dist Bagalkote) 4, Kerur (dist Bagalkote) 2, Raichur Pto (dist Raichur) 2, Alamatti Hms (dist Vijayapura) 2.
- ❖ **Hailstorm** occurred at isolated places over Jammu-Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Jharkhand, Odisha, Chhattisgarh and Vidarbha.
- ❖ **Heavy rainfall** has been recorded at isolated places over North Interior Karnataka, Tamilnadu Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heat wave to severe heat wave conditions** prevailed at isolated places over Rajasthan; **Heat wave conditions** at a few places over Rajasthan.
- ❖ **Minimum Temperature Departures (as on 19-04-2025):** Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over Haryana; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab; at isolated places over Madhya Pradesh, Uttarakhand, West Rajasthan, Madhya Maharashtra; **above normal (1.6°C to 3.0°C)** at many places over Vidarbha, Marathwada; at a few places over Delhi, Coastal Andhra Pradesh & Yanam, Gujarat state; at isolated places over Uttar Pradesh, East Rajasthan, Assam & Meghalaya, Arunachal Pradesh, Telangana, Tamil Nadu, Puducherry & Karaikal, Chhattisgarh. These are below **normal (-1.6°C to -3.0°C)** at a few places over Gangetic West Bengal, Odisha and normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature of 18.0°C** is reported at **Barabanki (East Uttar Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 18-04-2025):** Maximum Temperatures were **markedly above normal (5.1°C or more)** at a few places over Rajasthan; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, West Madhya Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Assam & Meghalaya; at isolated places over Madhya Maharashtra, Punjab, Haryana-Chandigarh-Delhi; **above normal (1.6°C to 3.0°C)** at a few places over Marathwada; at isolated places over Konkan & Goa, Gujarat state, Tamil Nadu, Puducherry & Karaikal. These were **markedly below normal (-5.1°C or less)** at many places over Gangetic West Bengal; at isolated places over Bihar; **below normal (-3.0°C to -1.6°C)** at isolated places over Odisha, Jharkhand, East Uttar Pradesh and normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 45.4°C** was reported at **Churu & Sri Ganganagar (Rajasthan)** over the country.

## Meteorological Analysis (Based on 0830 hours IST)

- ❖ The **Western Disturbance** as a cyclonic circulation over Afghanistan & neighbourhood now seen as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along long. 63°E to the north of lat. 35°N.
- ❖ The upper air **cyclonic circulation** over south Punjab & neighbourhood now lies over south Haryana & neighbourhood at 0.9 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over central parts of south Uttar Pradesh now lies over northwest Jharkhand and extends upto 1.5 km above mean sea level.
- ❖ The **trough** now runs from above cyclonic circulation over south Haryana & neighbourhood to north Bangladesh across central parts of south Uttar Pradesh, cyclonic circulation over northwest Jharkhand & Gangetic West Bengal at 0.9 km above mean sea level.
- ❖ The east-west **trough** from Jharkhand to central Assam across Gangetic West Bengal and cyclonic circulation over north Bangladesh at 0.9 km above mean sea level has merged with above trough.
- ❖ The **trough** from north Madhya Maharashtra to Gulf of Mannar now runs from northeast Vidarbha to Gulf of Mannar across Telangana, Interior Karnataka, Rayalaseema & Tamil Nadu at 1.5 km above mean sea level.
- ❖ An upper air **cyclonic circulation** lies over central Assam and extends upto 1.5 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over north Bangladesh & neighbourhood persists and now seen between 1.5 & 3.1 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over northeast Assam at 3.1 km above mean sea level has become less marked.



राष्ट्रीय मौसम पूर्वानुमान केन्द्र  
भारत मौसम विज्ञान विभाग  
पृथ्वी विज्ञान मंत्रालय



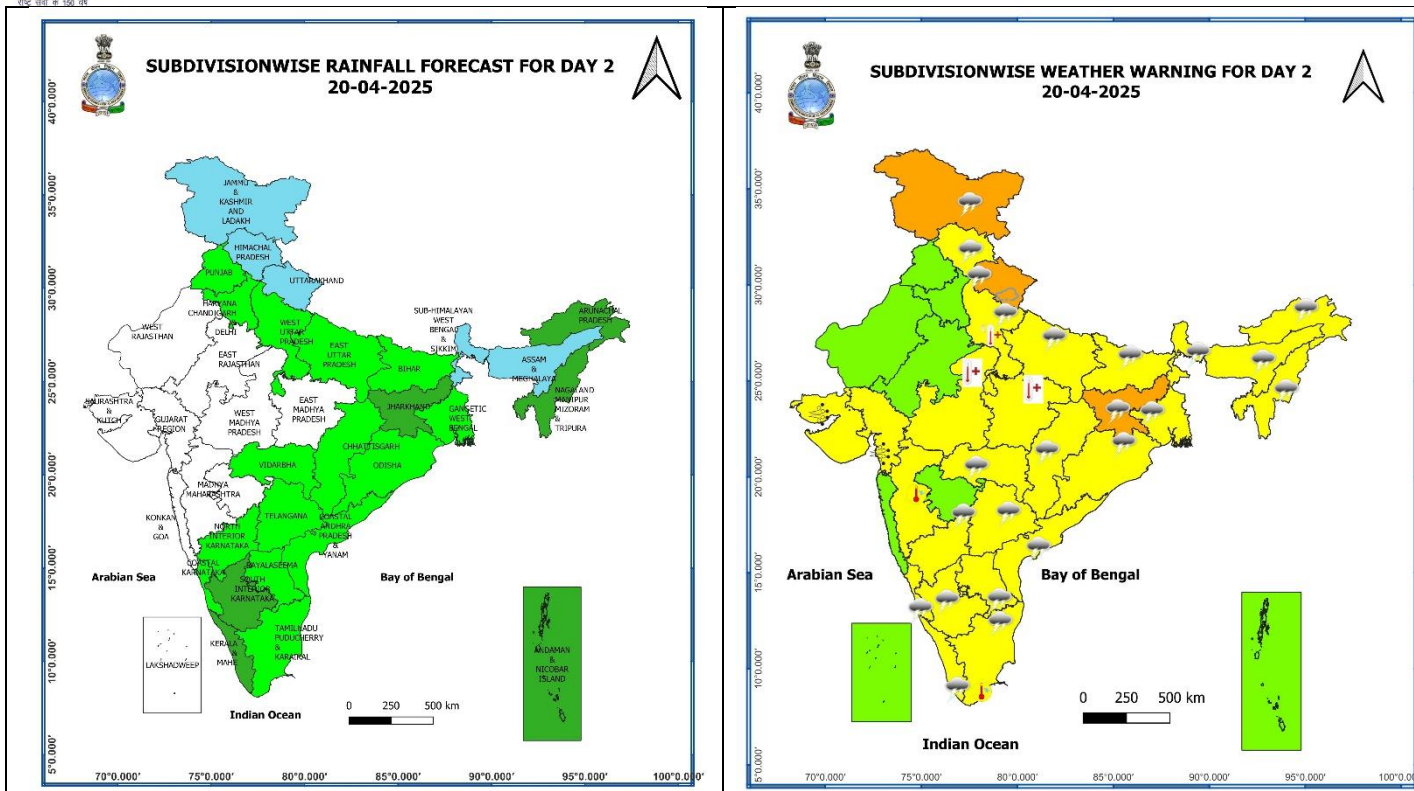
National Weather Forecasting Centre  
India Meteorological Department  
Ministry of Earth Sciences

## Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 26<sup>th</sup> April, 2025)

**\* 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)

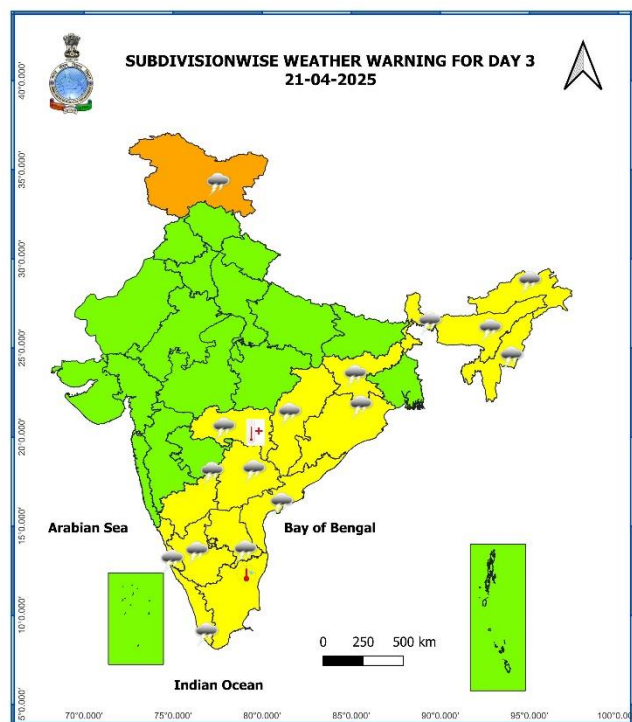
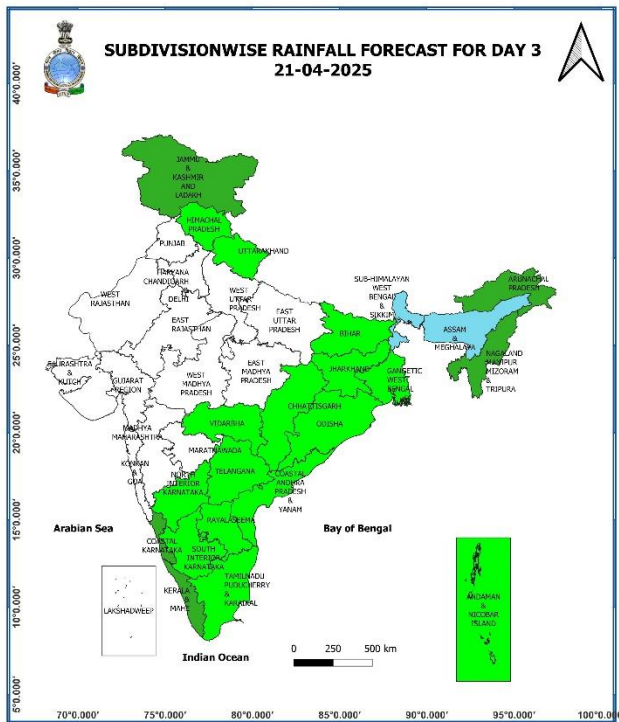






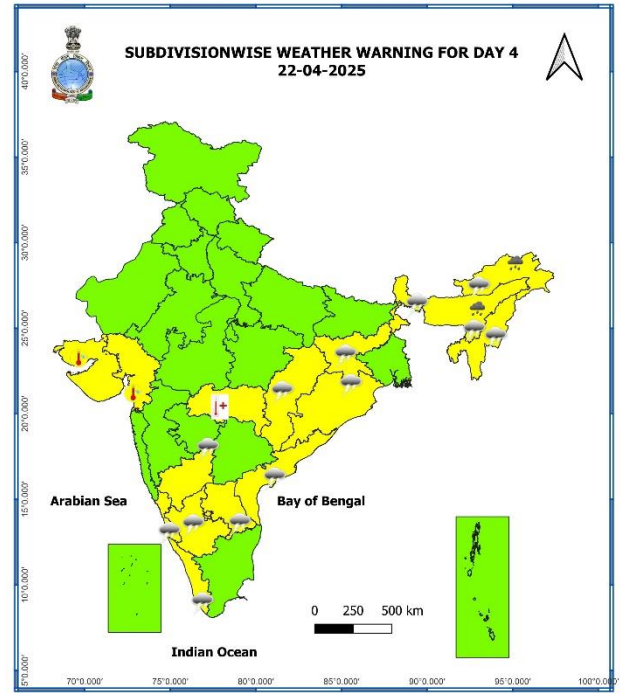
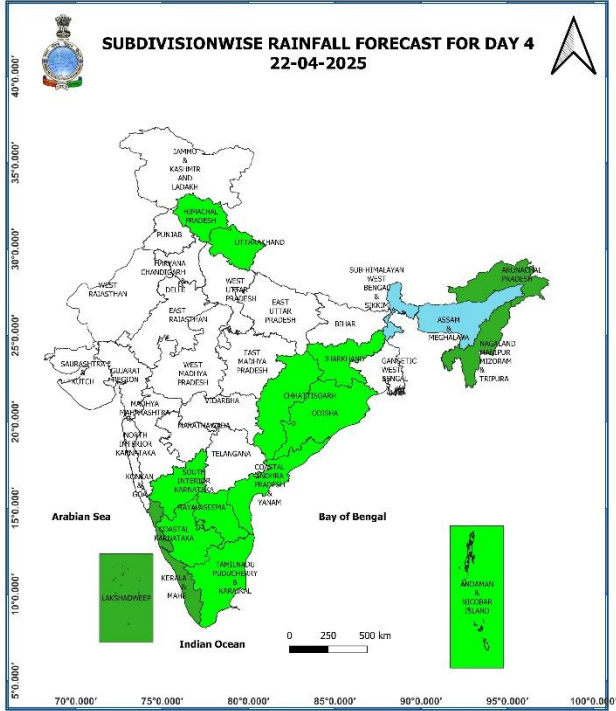
**20<sup>th</sup> April (Day 2):**

- ❖ Heavy rainfall/snowfall very likely at isolated places over Uttarakhand.
- ❖ Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph gusting to 70 kmph) & hailstorm very likely at isolated places over Uttarakhand; Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph gusting to 70 kmph) at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Jharkhand; Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph) at isolated places over Odisha, North Interior Karnataka; Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph) likely at isolated places over Himachal Pradesh, Uttar Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, South Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana; with lightning at isolated places over Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka.
- ❖ Heat wave conditions very likely at isolated places over Madhya Pradesh.
- ❖ Hot and Humid very likely at isolated places over Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal.
- ❖ Dust raising wind (20- 30 kmph) very likely at isolated places over Gujarat state.
- ❖ Warm night conditions very likely at isolated places over West Uttar Pradesh.



### 21st April (Day 3):

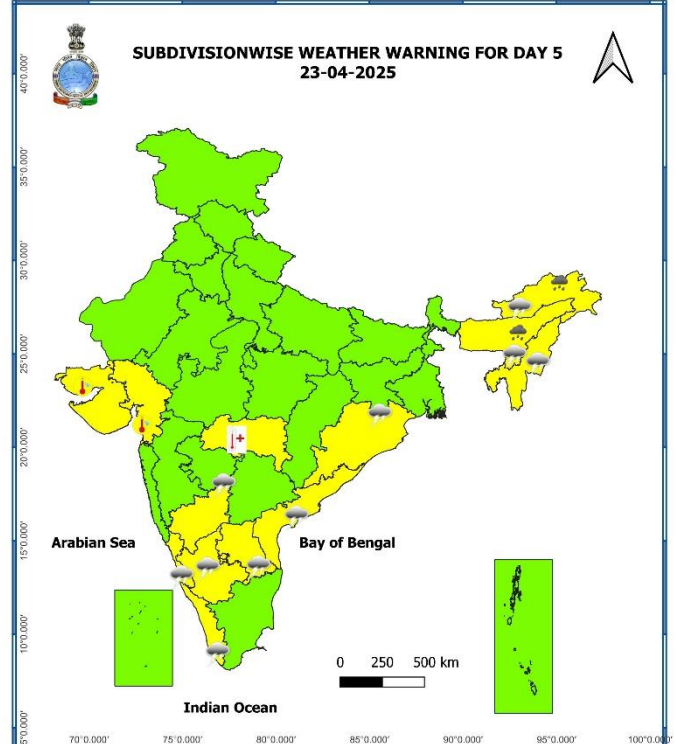
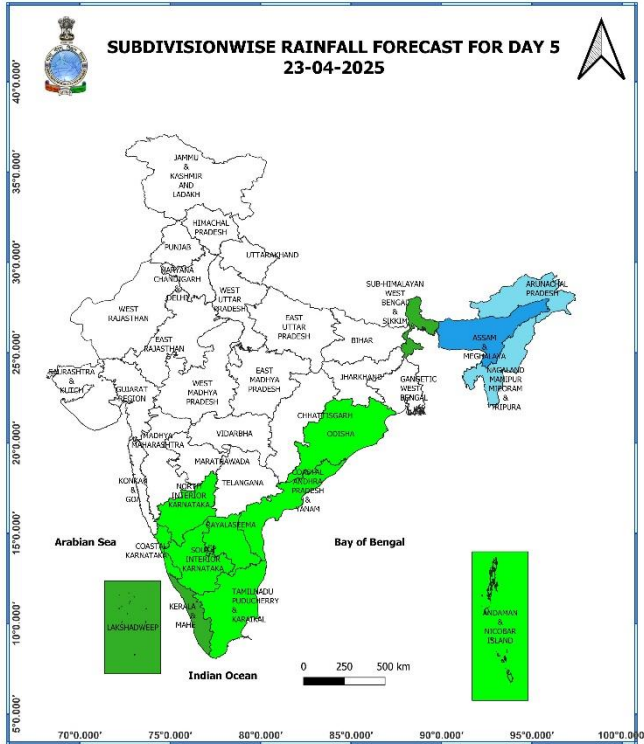
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph gusting to 70 kmph)** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** at isolated places over Vidarbha, Assam & Meghalaya, North Interior Karnataka; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** at isolated places Chhattisgarh, Jharkhand, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana; **with lightning** at isolated places over Odisha, 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 Madhya Maharashtra and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind with 45-50 kmph gusting to 55 kmph** over north west Bay of Bengal, along and of north Odisha and west Bengal coasts.



**22<sup>nd</sup> April (Day 4):**

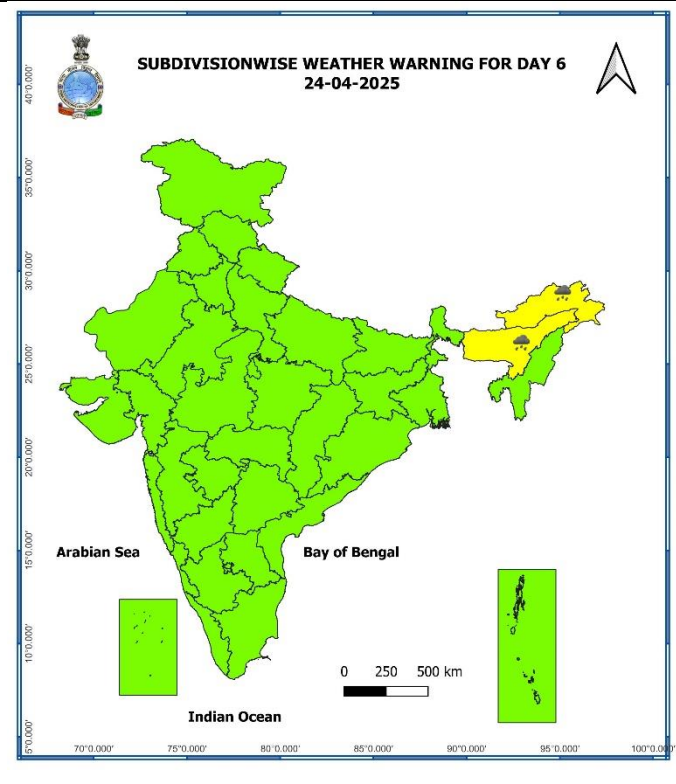
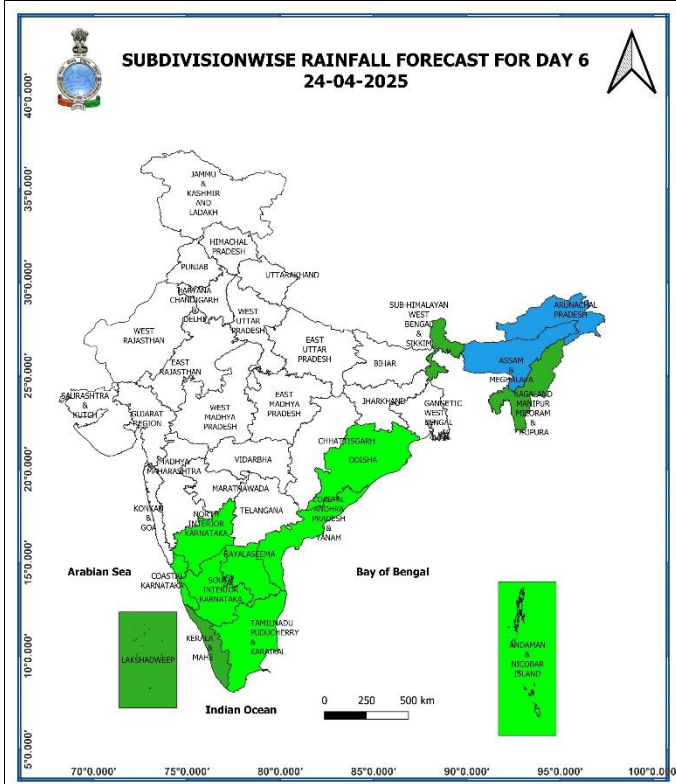
- ❖ **Heavy rainfall** likely at isolated places over Assam & Meghalaya and Arunachal Pradesh
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** likely at isolated places over Assam & Meghalaya, North Interior Karnataka; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** isolated places Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema; **with lightning** at isolated places over Coastal Karnataka, Kerala & Mahe, Arunachal Pradesh, Odisha.
- ❖ **Heat wave conditions** likely at isolated places over Vidarbha.
- ❖ **Hot and Humid** likely at isolated places over Gujarat state
- ❖ **Squally wind with 45-50 kmph gusting to 55 kmph** over north west Bay of Bengal, along and of north Odisha and west Bengal coasts. **squally weather with wind speed 35-45 kmph gusting to 55 kmph** over gulf of Mannar and adjoining Comorin area.





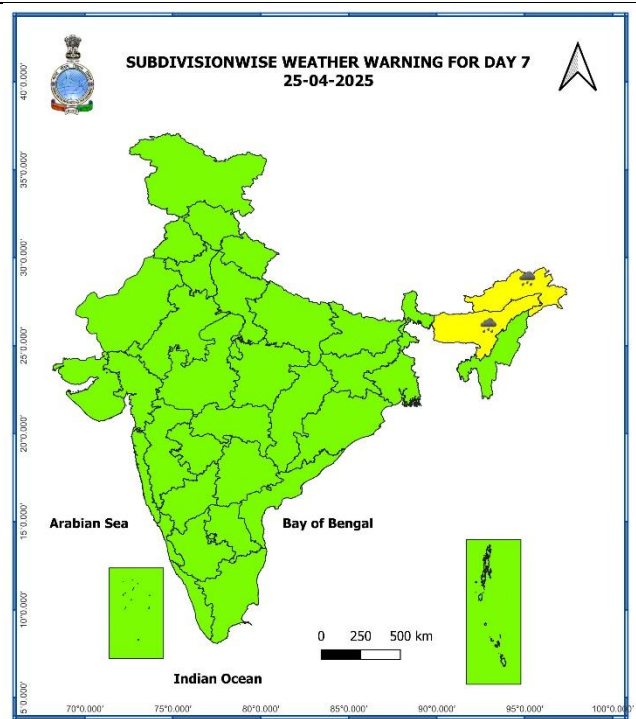
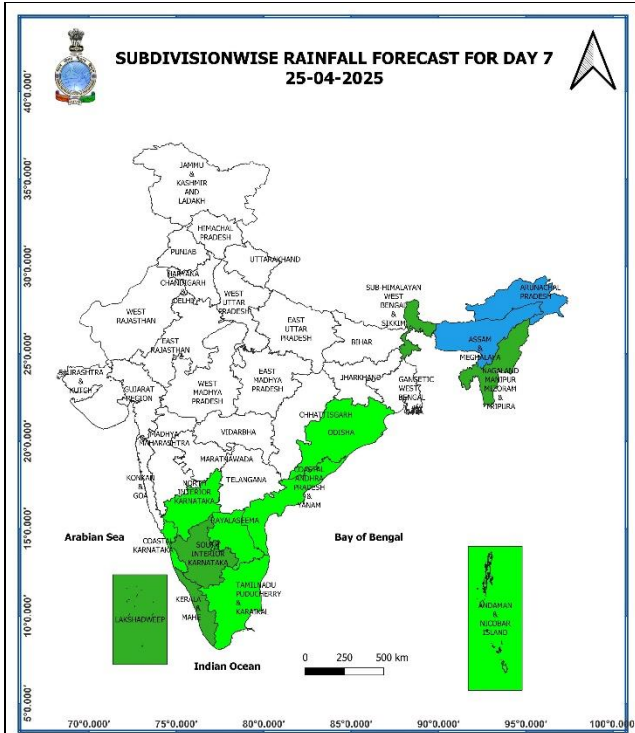
### 23<sup>rd</sup> April (Day 5)

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** likely at isolated places over North Interior Karnataka; **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** isolated places Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema; **with lightning** at isolated places over Coastal Karnataka, Kerala & Mahe, Arunachal Pradesh, Odisha.
- ❖ **Heavy rainfall** likely at isolated places over Assam & Meghalaya and Arunachal Pradesh.
- ❖ **Heat wave conditions** likely at isolated places over Vidarbha.
- ❖ **Hot and Humid** likely at isolated places over Gujarat state.
- ❖ **Squally wind with 45-50 kmph gusting to 55 kmph** over northwest Bay of Bengal, along and of north Odisha and west Bengal coasts.



24<sup>th</sup> April (Day 6)

❖ Heavy rainfall likely at isolated places over Assam & Meghalaya and Arunachal Pradesh.



### 25<sup>th</sup> April (Day 7)

- ❖ Heavy rainfall likely at isolated places over Assam & Meghalaya and Arunachal Pradesh.

### Weather Outlook for subsequent 3 days (During 26<sup>th</sup> April- 28<sup>th</sup> 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

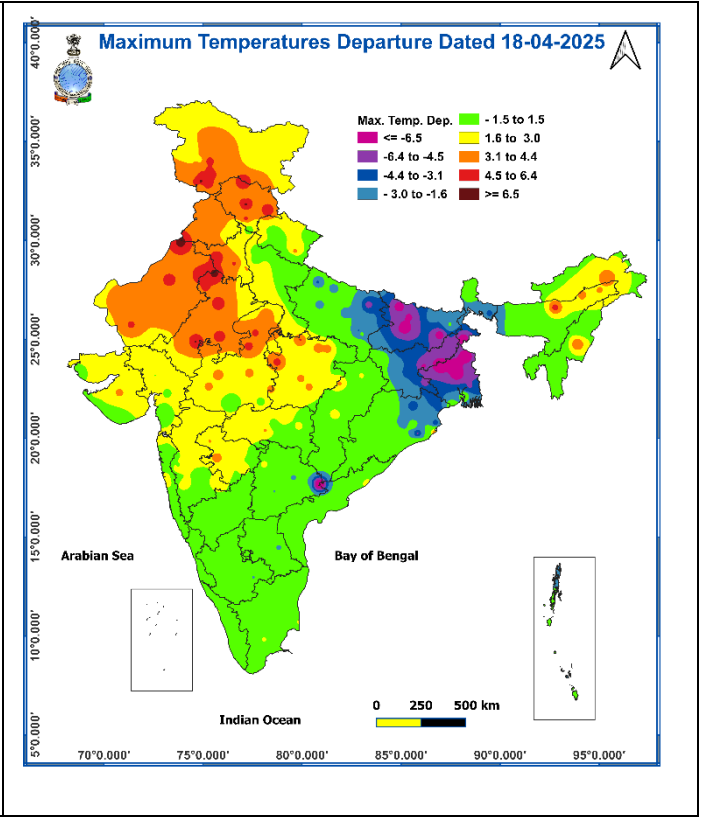
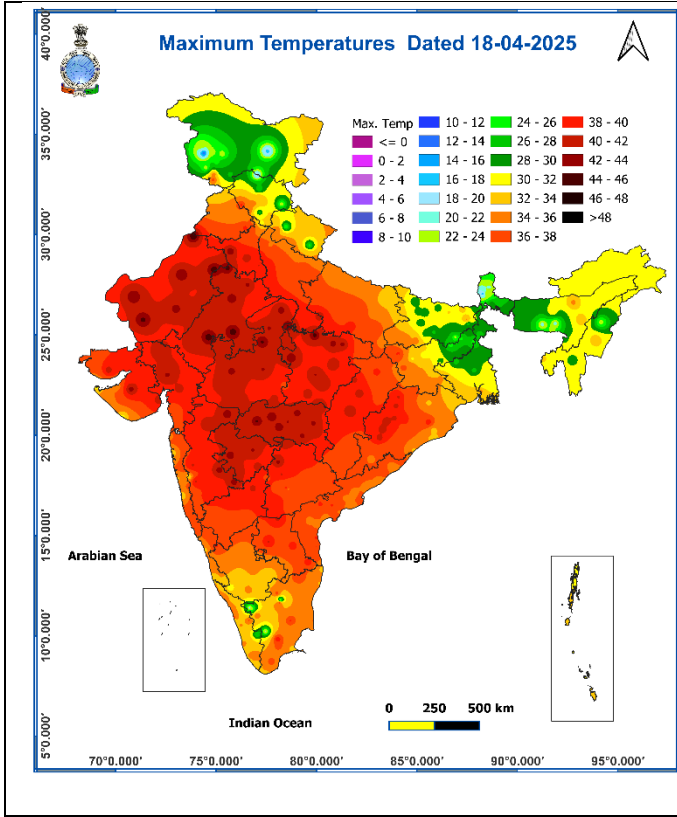


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

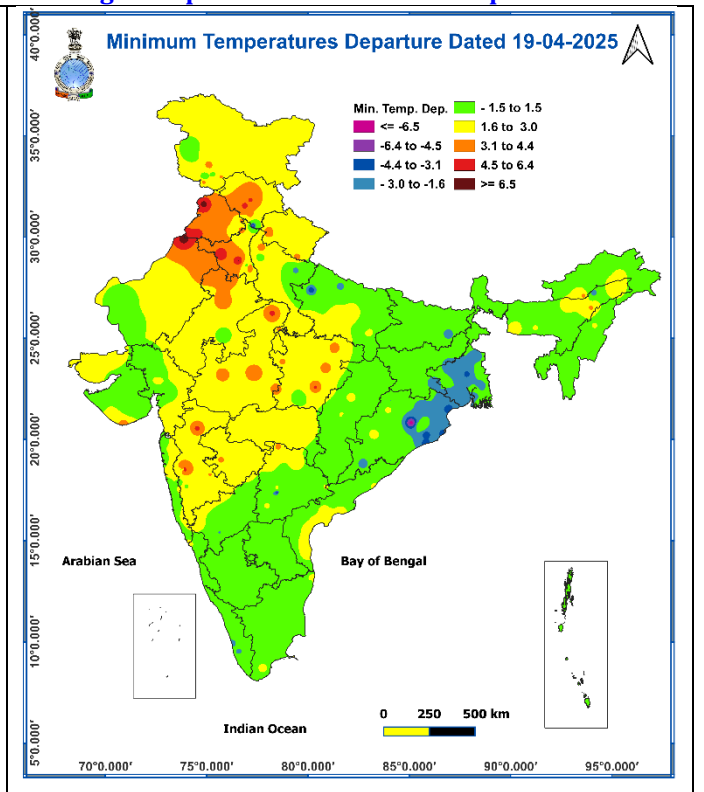
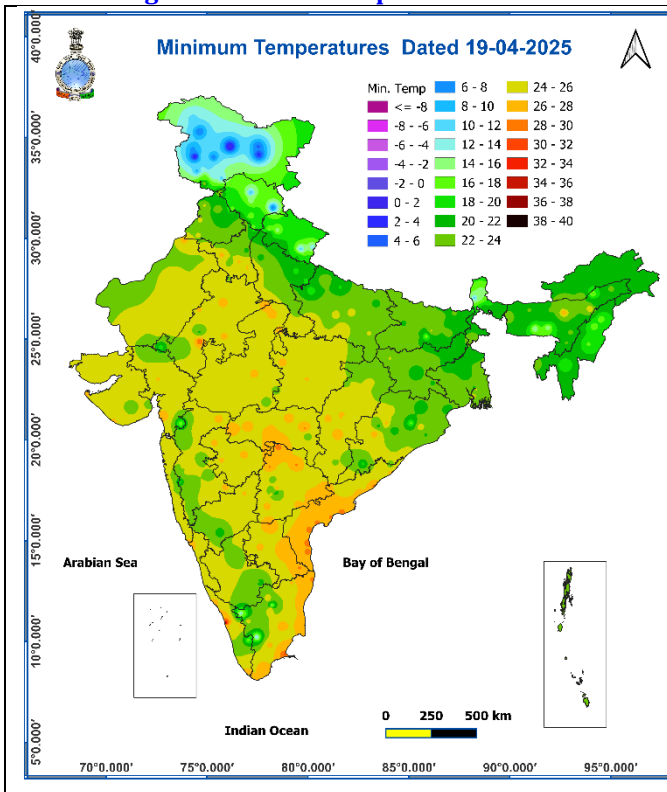
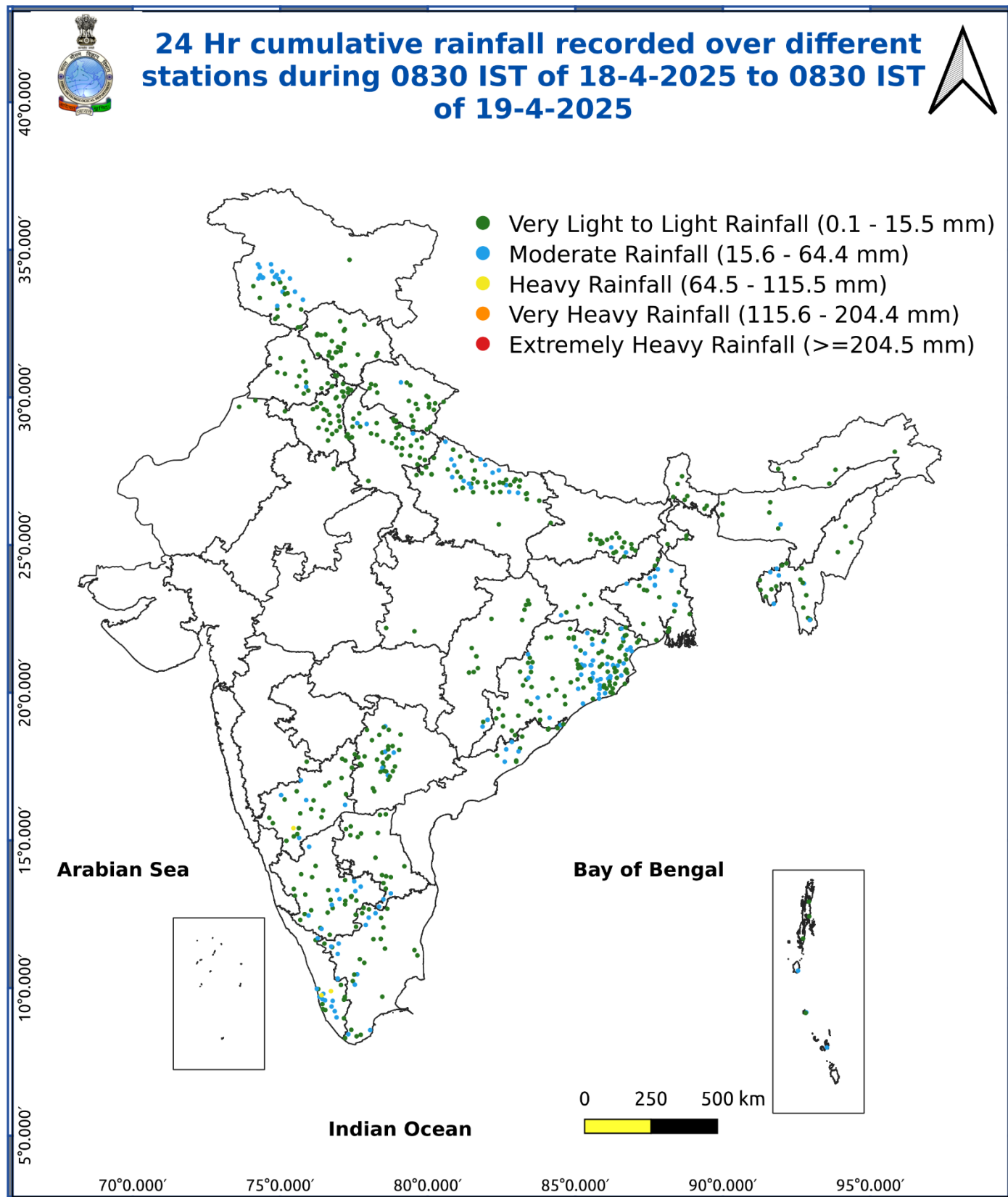




Fig. 5: Accumulated Rainfall (mm) during past 24 hours



\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".  
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.  
For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599  
(Service to the Nation since 1875)

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

- ✓ **Isolated Hailstorm** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Jharkhand & Odisha on 19<sup>th</sup> and Uttarakhand on 19<sup>th</sup> & 20<sup>th</sup> April.
- ✓ **Light to moderate rainfall at most places accompanied with thunderstorm, lightning & squally winds (speed 60-70 kmph gusting to 80 kmph)** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 19<sup>th</sup>; **lightning & squally winds (speed 50-60 kmph gusting to 70 kmph)** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 20<sup>th</sup> & 21<sup>st</sup> April; Himachal Pradesh, Punjab & Haryana on 19<sup>th</sup>; Uttarakhand on 19<sup>th</sup> & 20<sup>th</sup>; Jharkhand on 20<sup>th</sup>; **lightning & squally winds (speed 40-50 kmph gusting to 60 kmph)** over Gangetic West Bengal on 19<sup>th</sup> & Odisha on 19<sup>th</sup> & 20<sup>th</sup> 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

- ❖ **Heat wave conditions** very likely in isolated pockets over Rajasthan on 19<sup>th</sup>; Madhya Pradesh on 19<sup>th</sup> & 20<sup>th</sup> and Vidarbha during 21<sup>st</sup> -23<sup>rd</sup> 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

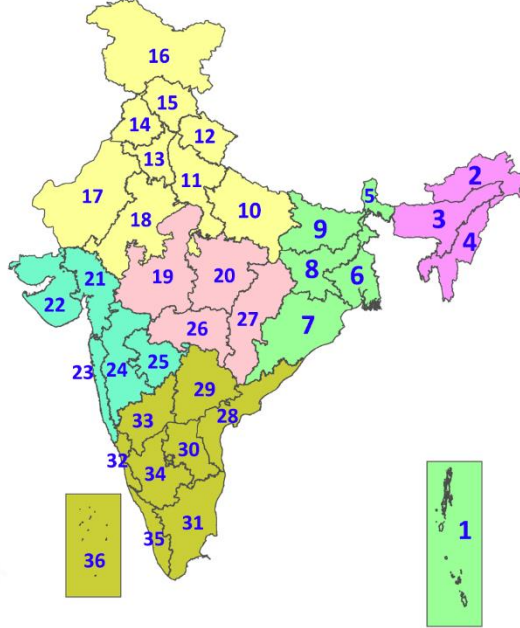
- In **Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Odisha and Jharkhand**, use hail net and hail caps to prevent mechanical damage in vegetables and orchards due to possibility of hailstorms. Drain out excess water from standing crops and vegetable fields.
- In **Rajasthan and Madhya Pradesh**, apply 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

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