

Monday, April 21, 2025  
Time of Issue: 1345 hours IST  
(MID-DAY)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

- ❖ An east- west trough runs from northwest Rajasthan to east Bangladesh and a north-south trough runs from north Chhattisgarh to Gulf of Mannar in lower tropospheric levels. An upper air cyclonic circulation lies over northeast Assam 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 7 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 on 21<sup>st</sup> April.
  - ✓ **Heavy to very heavy rainfall** likely over Assam & Meghalaya during 21<sup>st</sup>-26<sup>th</sup>; Arunachal Pradesh during 22<sup>nd</sup>-26<sup>th</sup> and **heavy rainfall** over Nagaland, Manipur, Mizoram & Tripura on 21<sup>st</sup> & 23<sup>rd</sup> April.
  - ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe; **with lightning** over Tamilnadu Puducherry & Karaikal, Telangana during next 7 days.
  - ✓ **Heavy rainfall** likely over Kerala & Mahe on 21<sup>st</sup> April, 2025.
- ❖ Under the influence of Western **Disturbance** as a cyclonic circulation over north Pakistan in lower & middle tropospheric levels and an upper air cyclonic circulation over central Pakistan & neighbourhood in lower tropospheric levels;
  - ✓ **Isolated to scattered** light/moderate rainfall with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over Western Himalayan Region on 21<sup>st</sup> & 22<sup>nd</sup> April.
  - ✓ Isolated **hailstorm** very likely over Himachal Pradesh today.

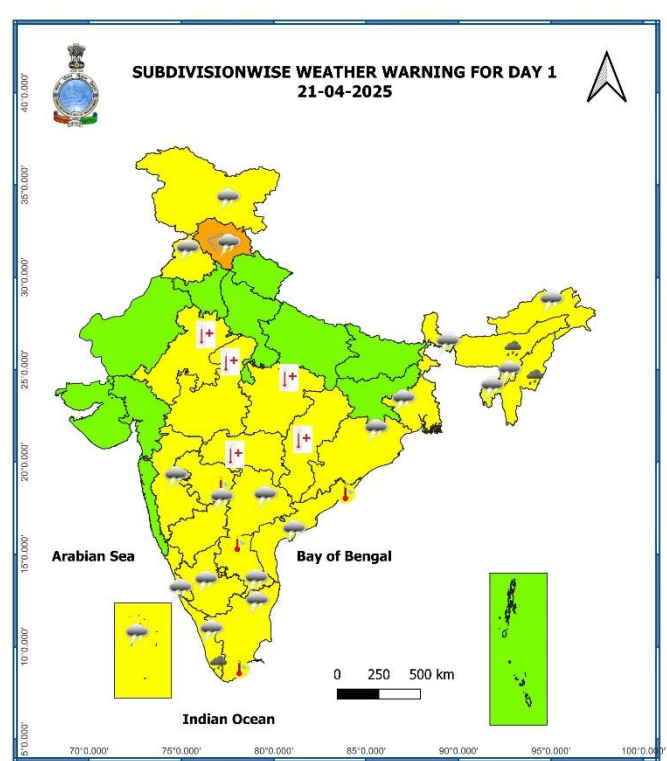
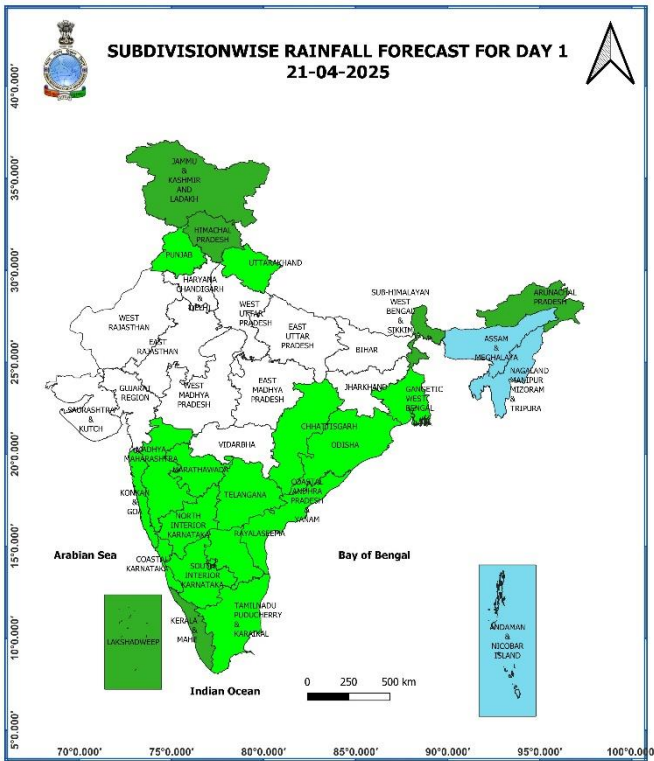
## Main Weather Observations:

- ❖ **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, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka; at a few places over Sub-Himalayan West Bengal & Sikkim, Lakshadweep, Rayalaseema, Coastal Karnataka; at isolated places over Uttarakhand, Punjab, Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha, Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana and North Interior Karnataka.
- ❖ **Heavy to very heavy rainfall** has been recorded at isolated places over Sub-Himalayan West Bengal & Sikkim; **heavy rainfall** at isolated places over Rayalaseema, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Sub-Himalayan West Bengal & Sikkim:** Hasimara (dist Alipurduar) 14, Nagarkata (dist Jalpaiguri) 3; **Nagaland, Manipur, Mizoram & Tripura:** Arundhutinagar (dist West Tripura) 11, Dm Office Arg (dist West Tripura) 11, Khumluwang Arg (dist West Tripura) 9, Bagafa (dist South Tripura) 7, Kvk South (dist South Tripura) 6, Agartala Aero (dist West Tripura) 6; **Rayalaseema:** Atmakur (dist Anantapuramu) 7, Guntakal (dist Anantapuramu) 7, Chenne Kothapalle (dist Sri Sathyasai District) 5, Ramagiri (dist Sri Sathyasai District) 5, Kadiri (dist Sri Sathyasai District) 5, Jupadu Bungalow (dist Nandyal) 5; **South Interior Karnataka:** Channagiri (dist Davangere) 6, Davanagere Pto (dist Davangere) 4, Bargur (dist Tumakuru) 4; **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Govindpura Aws (dist Ramban) 5, Bandipora (dist Bandipore) 3; **Himachal Pradesh:** Pooh (dist Kinnaur) 5, Saloni (dist Chamba) 4, Kothi (dist Kullu) 3, Kalpa (dist Kinnaur) 3, Sangla (dist Kinnaur) 3, Reckong Peo (dist Kinnaur) 3; **Kerala:** Hosdurg (dist Kasargod) 5; **Odisha:** Tikabali (dist Kandhamal) 5, Chakapad (dist Kandhamal) 5, Kashipur (dist Rayagada) 4.
- ❖ **Hailstorm** occurred at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Telangana.
- ❖ **Minimum Temperature Departures (as on 21-04-2025):** Minimum temperatures are **markedly above normal (5.1°C or more)** at a few places over Haryana-Chandigarh; **appreciably above normal (3.1°C to 5.0°C)** at many places over Punjab; at a few places over East Uttar Pradesh; at isolated places over Uttarakhand, West Uttar Pradesh; **above normal (1.6°C to 3.0°C)** at many places over Delhi, Coastal Andhra Pradesh & Yanam; at a few places over East Madhya Pradesh, Assam & Meghalaya, Jharkhand, North Interior Karnataka, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal; at isolated places over East Rajasthan, West Madhya Pradesh, Saurashtra & Kutch, Gangetic West Bengal, Arunachal Pradesh, Nagaland, Mizoram, Kerala & Mahe. These are **below normal (-1.6°C to -3.0°C)** at most places over South Interior Karnataka; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rayalaseema and normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature of 18.1°C** is reported at **Nahan (Haryana)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 20-04-2025):** Maximum Temperatures were **appreciably above normal (3.1°C to 5.0°C)** at few places over Punjab, Haryana-Chandigarh-Delhi, East Rajasthan, Vidarbha, East Madhya Pradesh; isolated places over Assam, Chhattisgarh; **above normal (1.6°C to 3.0°C)** at a few places over Uttarakhand, West Madhya Pradesh, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Coastal Karnataka; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, Uttar Pradesh, Saurashtra & Kutch, Madhya Maharashtra, Marathwada, Telangana. These were **markedly below normal (-5.1°C or less)** at few places over Andaman & Nicobar Islands; **below normal (-3.0°C to -1.6°C)** at isolated places over Bihar, Odisha, Gangetic West Bengal, Meghalaya and normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 44.6°C** was reported at **Chandrapur (Vidarbha)** over the country.

### Meteorological Analysis (Based on 0830 hours IST)

- ❖ The **Western Disturbance** now seen as a cyclonic circulation over north Pakistan & neighbourhood between 3.1 & 5.8 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over central Pakistan & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The east-west **trough** from central Pakistan & adjoining northwest Rajasthan to central Bangladesh now runs from northwest Rajasthan to east Bangladesh across Haryana, West Uttar Pradesh, northeast Madhya Pradesh, Jharkhand & Gangetic West Bengal at 0.9 km above mean sea level.
- ❖ The north-south **trough** from northeast Madhya Pradesh to Gulf of Mannar now runs from north Chhattisgarh to Gulf of Mannar across Telangana, Rayalaseema & Tamil Nadu and extends upto 1.5 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over central Assam now lies over northeast Assam & neighbourhood between 1.5 & 3.1 km above mean sea level.
- ❖ A fresh **Western Disturbance** is likely to affect Western Himalayan region from 24<sup>th</sup> April, 2025.
- ❖ The upper air **cyclonic circulation** over north Bangladesh & neighbourhood at 1.5 km above mean sea level has become less marked.
- ❖ The north-south trough from west Assam to Tripura across East Bangladesh at 3.1 km above mean sea level has become less marked.

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

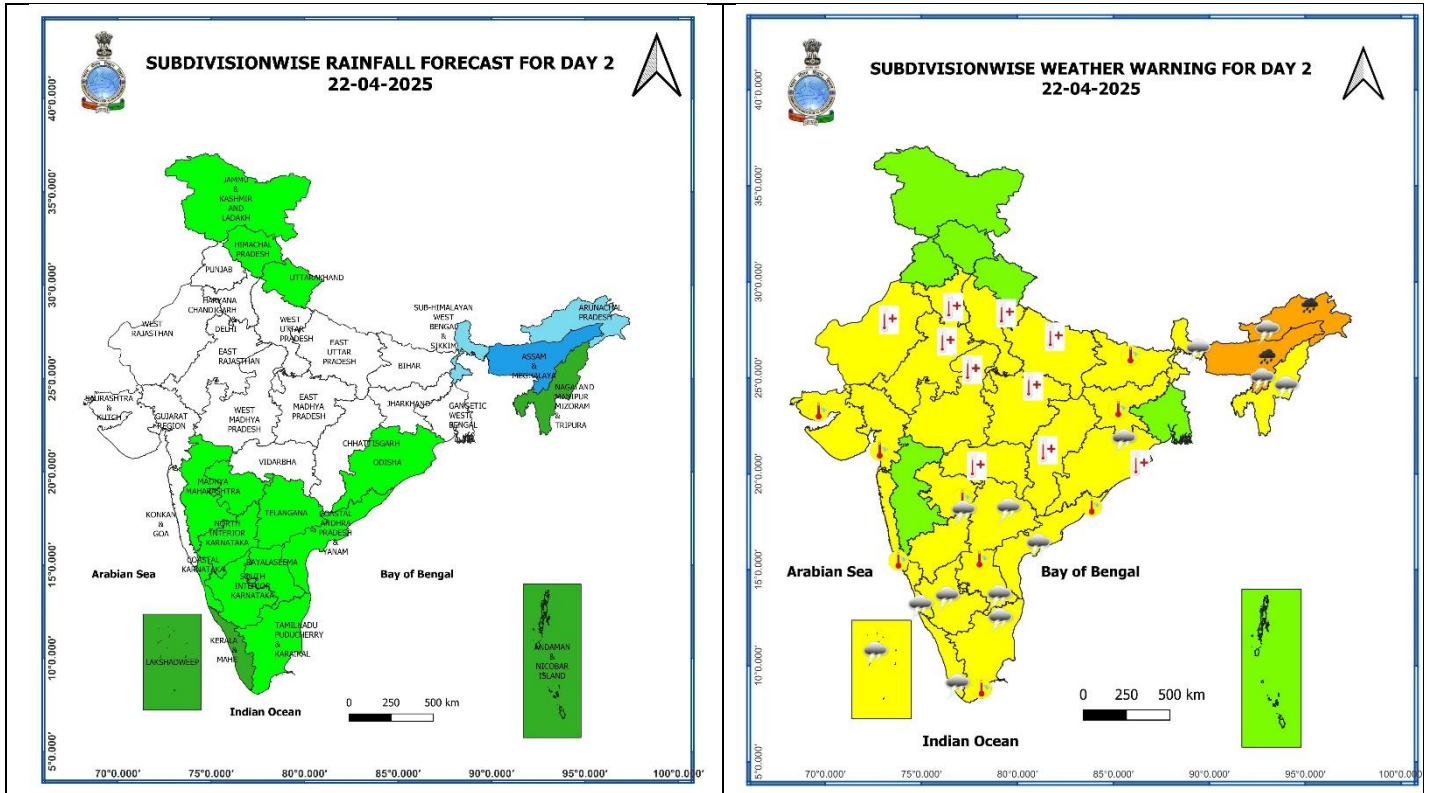


**21<sup>st</sup> April (Day 1):**

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph) and hailstorm** very likely at isolated places over Himachal Pradesh; **with lightning & gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** at isolated places over am, Nagaland, Manipur, Mizoram & Tripura, Telangana and North Interior Karnataka; **with lightning & gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** at isolated places Chhattisgarh, Gangetic West Bengal, Odisha, Kerala & Mahe and South Interior Karnataka; **with lightning** at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Lakshadweep, Coastal Andhra Pradesh & Yanam, Rayalaseema and Coastal Karnataka.
- ❖ **Heavy rainfall** very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe.
- ❖ **Heat wave conditions** very likely in isolated pockets over East Rajasthan, Madhya Pradesh, Vidarbha and Chhattisgarh.
- ❖ **Hot and Humid** very likely at isolated places over Marathwada, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Rayalaseema and Coastal Andhra Pradesh & Yanam.

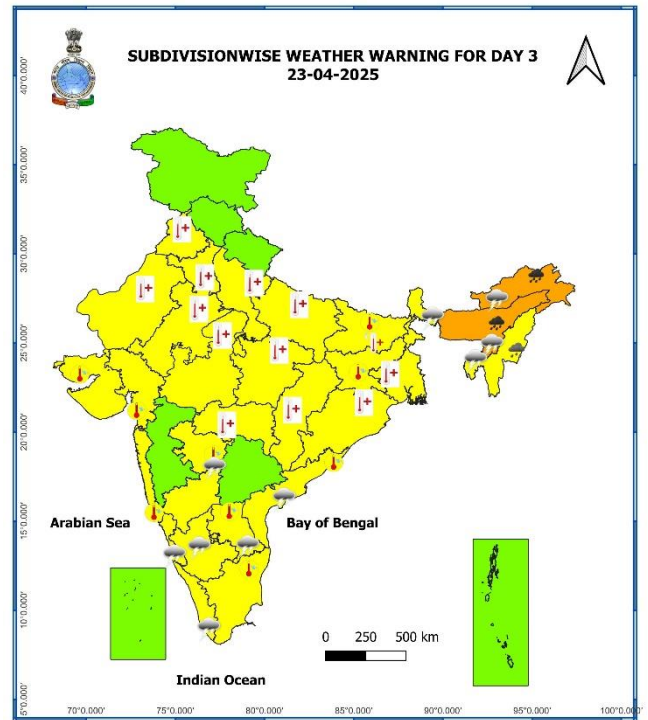
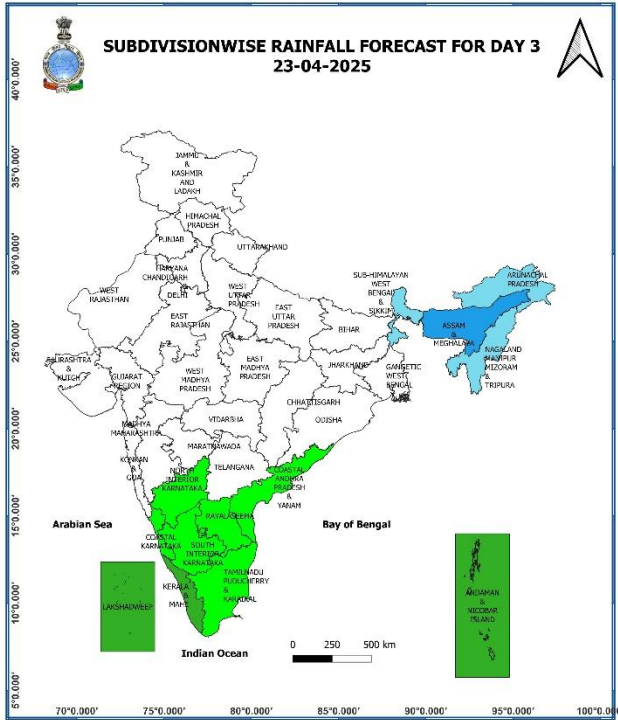
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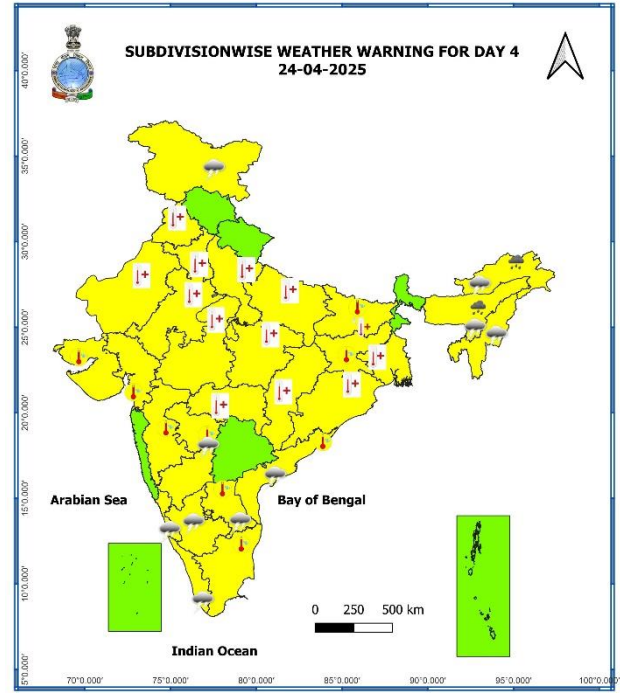
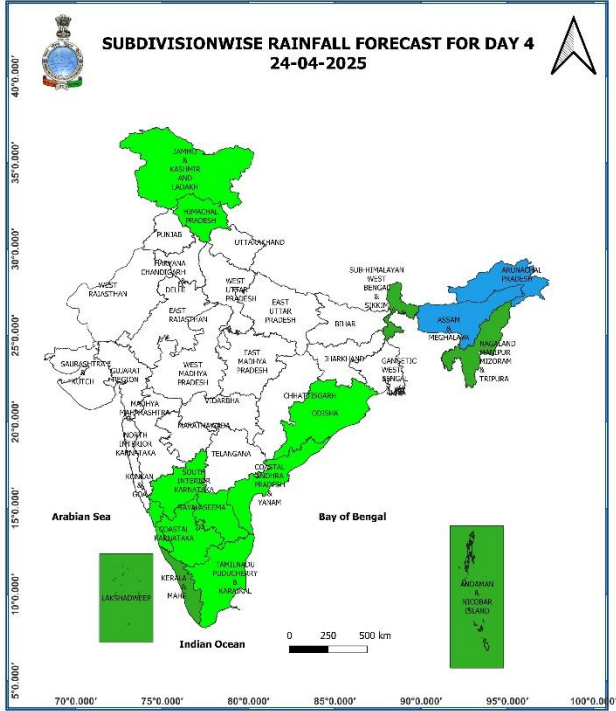
## 22<sup>nd</sup> April (Day 2):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** very likely at isolated places over Assam & Meghalaya; **with lightning & gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** at 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.
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya.
- ❖ **Heat wave conditions** very likely in isolated pockets over Haryana, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha.
- ❖ **Hot and Humid** very likely at isolated places over Bihar, Jharkhand, Konkan & Goa, Marathwada, Gujarat state, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Coastal Andhra Pradesh & Yanam.



### 23<sup>rd</sup> April (Day 3)

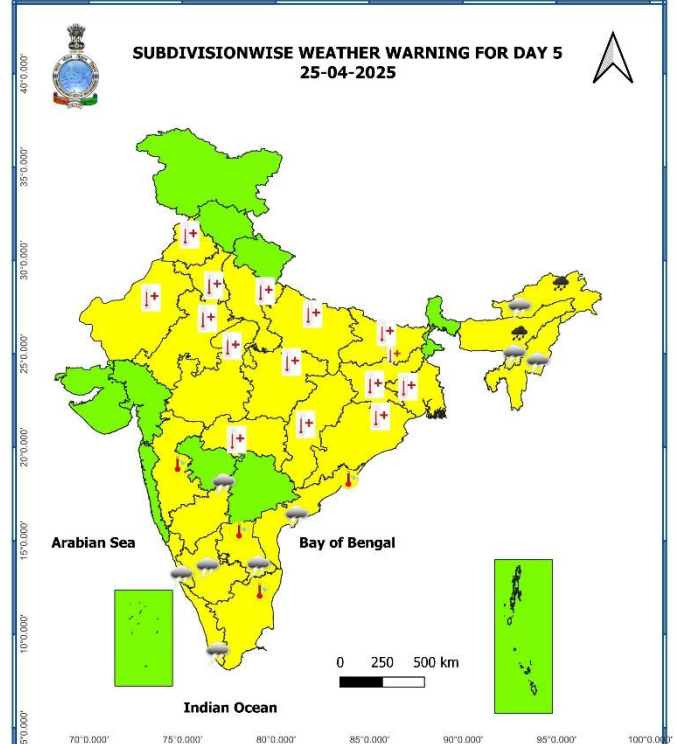
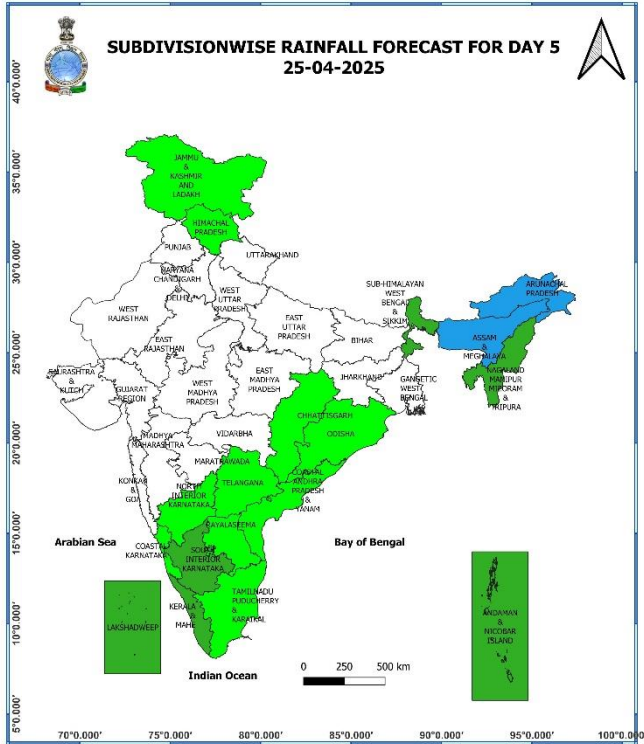
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph gusting to 70 kmph)** very likely at isolated places over Assam & Meghalaya; **with lightning & gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** at isolated places over Nagaland, Manipur, Mizoram & Tripura, North Interior Karnataka; **with lightning & gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** at isolated places over South Interior Karnataka; **with lightning** at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Coastal Karnataka.
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya and **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heat wave conditions** very likely in isolated pockets over Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Odisha.
- ❖ **Hot and Humid** very likely at isolated places over Bihar, Jharkhand, Konkan & Goa, Marathwada, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Rayalaseema and Coastal Andhra Pradesh & Yanam.
- ❖ **Warm Night conditions** very likely at isolated places over Bihar.



### 24<sup>th</sup> 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, North Interior Karnataka; **with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** at isolated places over South Interior Karnataka; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Coastal Karnataka.
- ❖ **Heavy rainfall** likely at isolated places over Assam & Meghalaya and Arunachal Pradesh.
- ❖ **Heat wave conditions** likely in isolated pockets over Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal and Odisha.
- ❖ **Hot and Humid** likely at isolated places over Bihar, Jharkhand, Madhya Maharashtra, Marathwada, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Rayalaseema and Coastal Andhra Pradesh & Yanam.
- ❖ **Warm Night conditions** likely at isolated places over Bihar.

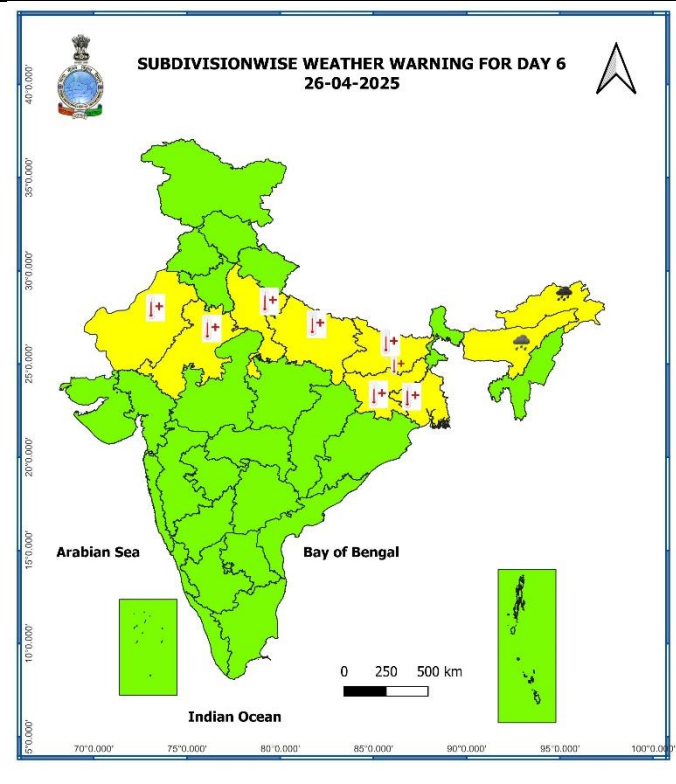
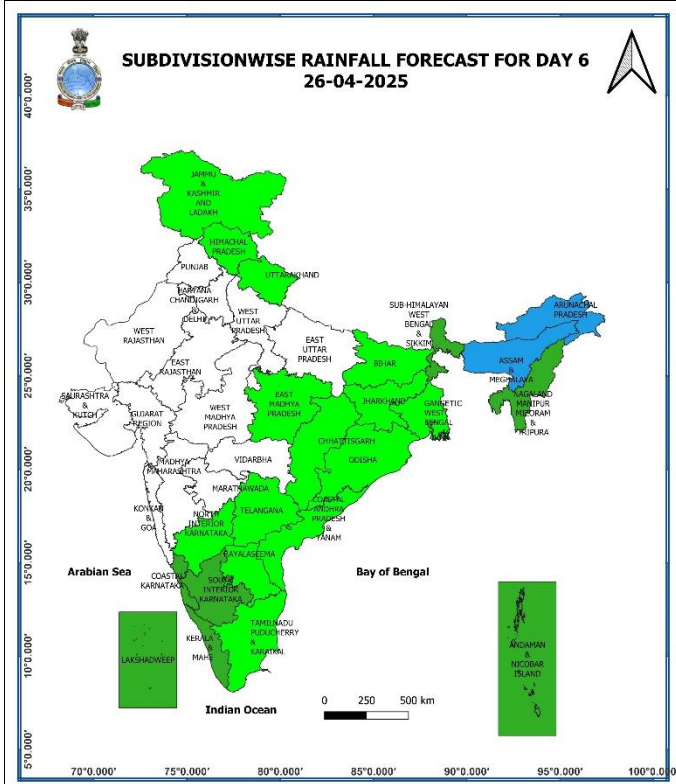




## 25<sup>th</sup> April (Day 5)

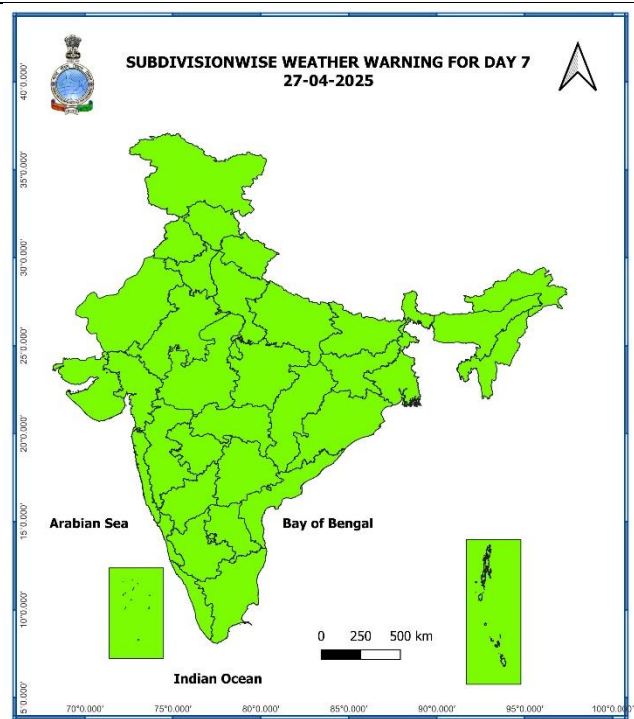
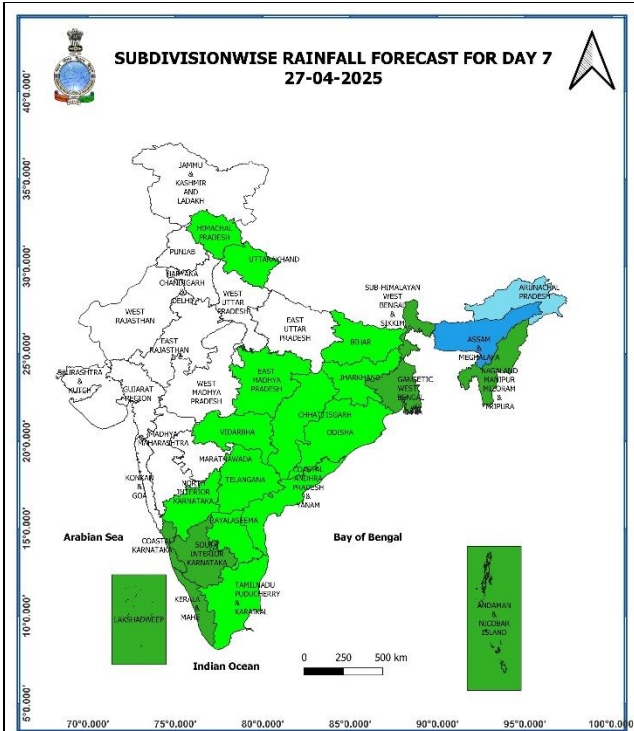
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40 - 50 kmph gusting to 60 kmph)** likely at isolated places over Assam & Meghalaya, North Interior Karnataka; **with lightning, gusty winds (speed reaching 30 - 40 kmph gusting to 50 kmph)** at isolated places over South Interior Karnataka; **with lightning** at isolated places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Coastal Karnataka.
- ❖ **Heavy to very heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya.
- ❖ **Heat wave conditions** likely in isolated pockets over Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Odisha, Jharkhand, Bihar.
- ❖ **Hot and Humid** likely at isolated places over Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Coastal Andhra Pradesh & Yanam.
- ❖ **Warm Night conditions** likely at isolated places over Bihar.





### 26<sup>th</sup> April (Day 6)

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Arunachal Pradesh and **heavy Rainfall** at isolated places over Assam & Meghalaya.
- ❖ **Heat wave conditions** likely at isolated places over Uttar Pradesh, Rajasthan, Gangetic West Bengal, Bihar, Jharkhand.
- ❖ **Warm Night conditions** likely at isolated places over Bihar.



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

❖ No Weather Warning.

## Weather Outlook for subsequent 3 days (During 28<sup>th</sup> April- 30<sup>th</sup> April, 2025)

❖ Fairly widespread to widespread rainfall activity likely over east & northeast India, Kerala. Isolated to scattered rainfall likely over 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

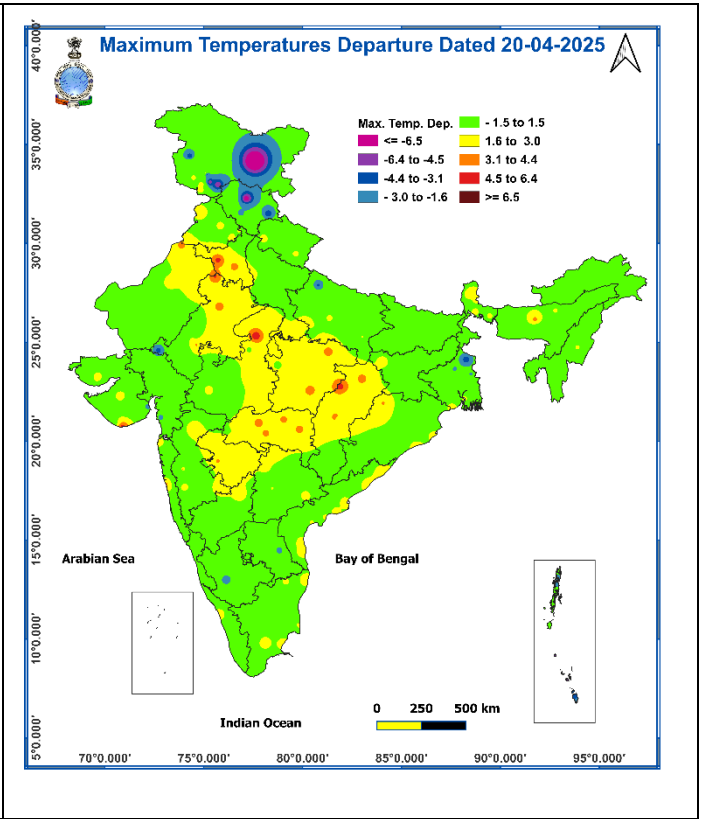
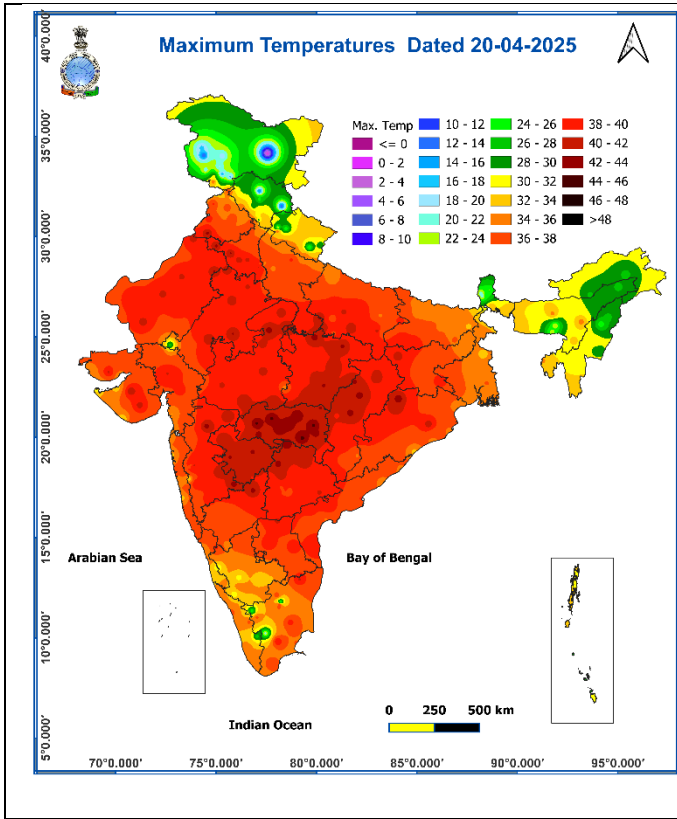


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

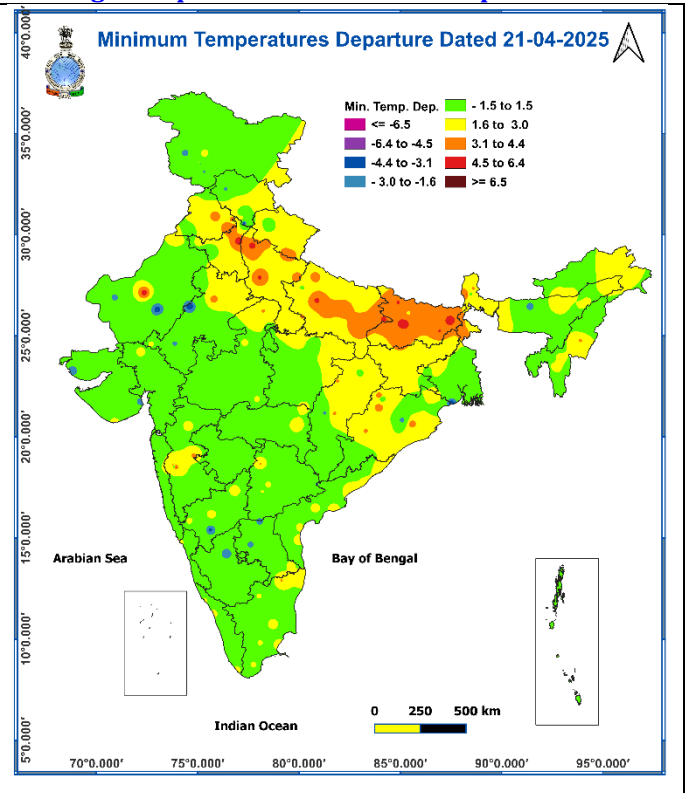
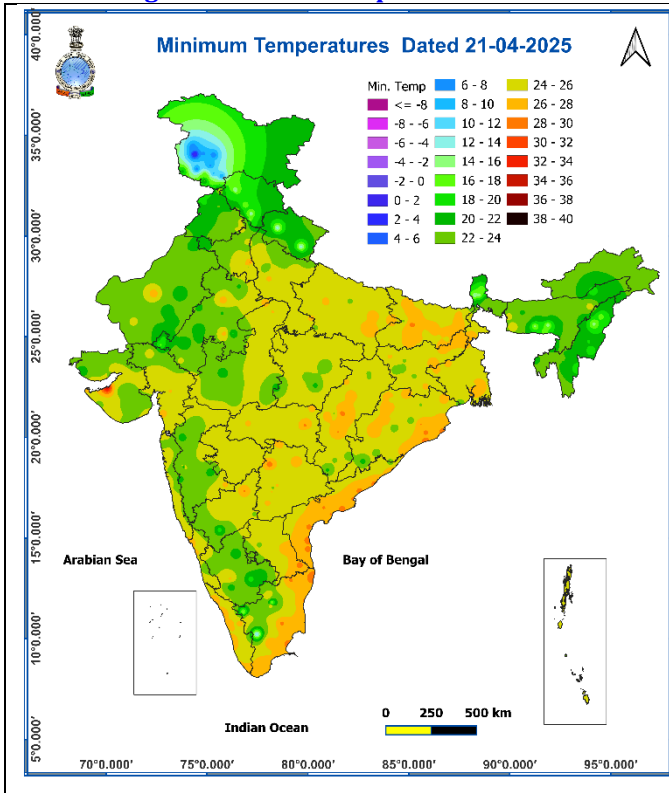
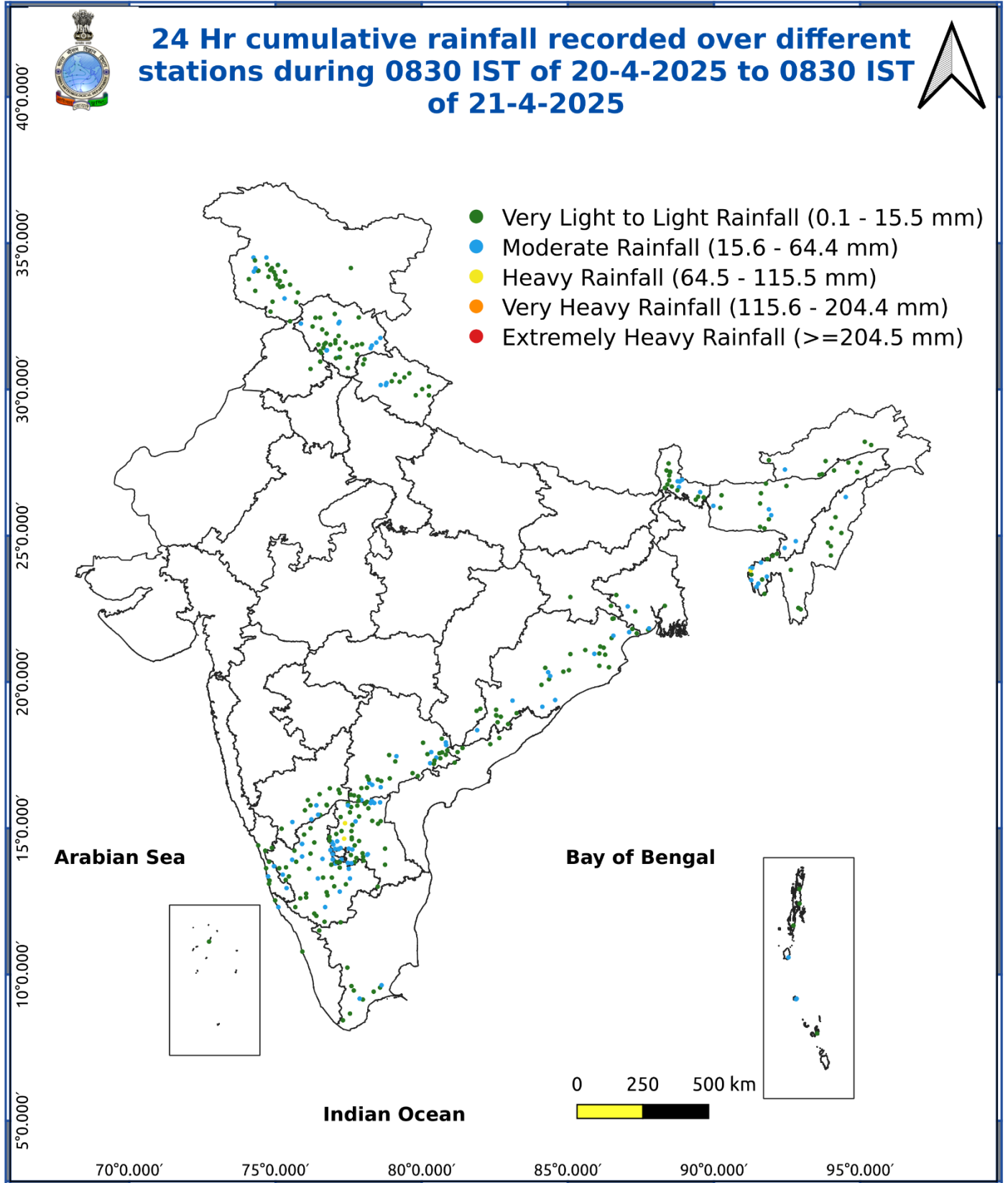


Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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

- ✓ Isolated Hailstorm Himachal Pradesh 21<sup>st</sup> and squally winds over Assam & Meghalaya on 22<sup>nd</sup> & 23<sup>rd</sup> 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 East Rajasthan during 21<sup>st</sup>-26<sup>th</sup>; Madhya Pradesh, Vidarbha, Chhattisgarh during 21<sup>st</sup>-25<sup>th</sup>; Haryana, Odisha during 22<sup>nd</sup>-25<sup>th</sup>; Uttar Pradesh during 22<sup>nd</sup> -26<sup>th</sup>; Punjab during 23<sup>rd</sup>-25<sup>th</sup>; Gangetic West Bengal, West Rajasthan during 23<sup>rd</sup>-26<sup>th</sup> and Bihar, Jharkhand on 25<sup>th</sup> & 26<sup>th</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.

## Impact & Action Suggested due to heavy to very heavy rainfall over Arunachal Pradesh and Assam & Meghalaya on 22<sup>nd</sup> & 23<sup>rd</sup> April.

### Impact Expected

- ❖ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ❖ Occasional reduction in visibility due to heavy rainfall.
- ❖ Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- ❖ Minor damage to kutcha roads.

- ❖ Possibilities of damage to vulnerable structure.
- ❖ Localized Landslides/Mudslides
- ❖ Damage to horticulture and standing crops in some areas due to inundation.
- ❖ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC).

#### Action Suggested

- ❖ Check for traffic congestion on your route before leaving for your destination.
- ❖ Follow any traffic advisories that are issued in this regard.
- ❖ Avoid going to areas that face the water logging problems often.
- ❖ Avoid staying in vulnerable structure.

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

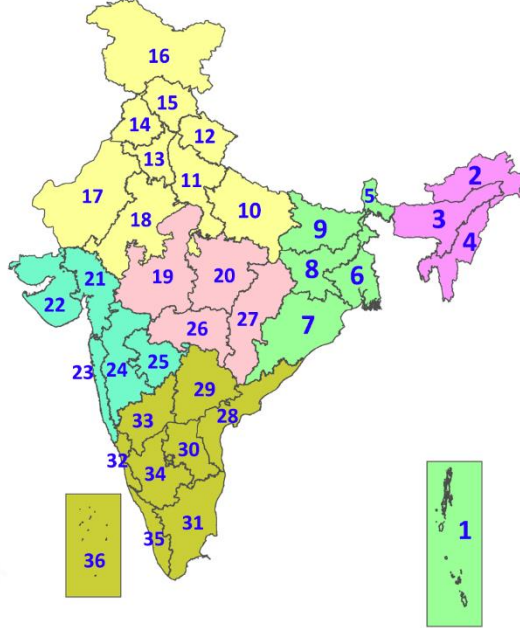
- In **Kerala** and **North Eastern States**, make provision to drain out excess water from standing crop and vegetable fields.
- In **Himachal Pradesh**, use hail net and hail caps to prevent mechanical damage in vegetables and orchards due to possibility of hailstorms. Drain out excess water from standing crops and vegetable fields.
- In **Madhya Pradesh, Chhattisgarh, Vidarbha, Uttar Pradesh, Rajasthan, Haryana, Punjab, Odisha** and **Gangetic West Bengal**, 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>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</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>When maximum temperature remains <math>40^\circ\text{C}</math></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>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.</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>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</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>Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)</p>
<b>Dust/Sand Storm</b>	<p>An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.</p>
<b>Frost</b>	<p>Ice deposits on ground</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>