

Saturday, March 15, 2025  
Time of Issue: 1340 hours IST  
(MID-DAY)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### . Weather Systems, Forecast and Warnings (Annexure III & IV):

- ❖ A **Western Disturbance** seen as a cyclonic circulation over north Pakistan and adjoining Jammu region in lower & middle tropospheric levels. A cyclonic circulation lies over northeast Rajasthan and a trough runs from southwest Uttar Pradesh to southwest Rajasthan in lower tropospheric levels. Under the influence of these systems;
  - ✓ **Fairly widespread to widespread light/moderate rainfall/snowfall accompanied with thunderstorm & lightning** likely over Western Himalayan region on 15<sup>th</sup> & 16<sup>th</sup> March, 2025 and decrease in intensity thereafter.
  - ✓ Isolated **heavy rainfall/snowfall** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 15<sup>th</sup> and over Uttarakhand on 16<sup>th</sup> March.
  - ✓ **Hailstorm activity** very likely at isolated places over Uttarakhand, Haryana, Chandigarh and West Uttar Pradesh on 15<sup>th</sup> March.
  - ✓ **Isolated to scattered light/moderate rainfall accompanied with thunderstorm & lightning, Gusty wind (speed 30-40 kmph)** likely over Punjab, Haryana Chandigarh, Uttar Pradesh, Rajasthan on 15<sup>th</sup> & 16<sup>th</sup> March.
- ❖ A **Cyclonic Circulation** lies over northeast Assam and neighbourhood in lower tropospheric levels. Under its influence;
  - ✓ **Fairly widespread to widespread light/moderate rainfall/snowfall accompanied with thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Arunachal Pradesh and **Scattered to fairly widespread light/moderate rainfall/snowfall accompanied with thunderstorm, lightning & gusty winds (speed 30-50 kmph)** likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 15<sup>th</sup>-19<sup>th</sup> March.
  - ✓ Isolated **heavy rainfall/snowfall** very likely over Arunachal Pradesh during 15<sup>th</sup>-19<sup>th</sup> March **with very heavy rainfall on 17<sup>th</sup> March** and over Assam & Meghalaya on 17<sup>th</sup> March.
  - ✓ Isolated hailstorms also likely over Arunachal Pradesh, Nagaland, Manipur, south & central Assam on 15<sup>th</sup> March.

#### Temperature Forecast:

##### Forecast of temperature:

##### Maximum temperature:

- ❖ Gradual fall in maximum temperatures by about 2-3°C likely over Northwest India during next 2-3 days and gradual rise by about 2-4°C thereafter.
- ❖ Gradual rise in maximum temperatures by about 2°C likely over East India during next 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures likely over Central India during next 24 hours and fall by 2-3°C during subsequent 3-4 days.
- ❖ No significant change in maximum temperatures likely over rest parts of India during next 3-4 days.

#### Heat wave, Warm Night and Hot & Humid weather warning:

- ❖ **Heat wave to Severe heatwave conditions** likely at isolated places over Odisha on 15<sup>th</sup> & 16<sup>th</sup>; Saurashtra & Kutch on 15<sup>th</sup> March.
- ❖ **Heat wave conditions** at isolated places over Vidarbha, Chhattisgarh, Jharkhand, north Telangana on 15<sup>th</sup> & 16<sup>th</sup>; Gangetic West Bengal during 15<sup>th</sup>-17<sup>th</sup>; Saurashtra & Kutch on 16<sup>th</sup> & 17<sup>th</sup>; Odisha on 17<sup>th</sup> & 18<sup>th</sup>; North Interior Karnataka on 18<sup>th</sup> & 19<sup>th</sup> March.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over Odisha during 15<sup>th</sup> to 18<sup>th</sup> March.
- ❖ **Hot & humid conditions** very likely to prevail in isolated pockets over Kerala & Mahe, Coastal Andhra Pradesh & Yanam on 15<sup>th</sup> & 16<sup>th</sup>; Saurashtra & Kutch during 15<sup>th</sup>-19<sup>th</sup> March.

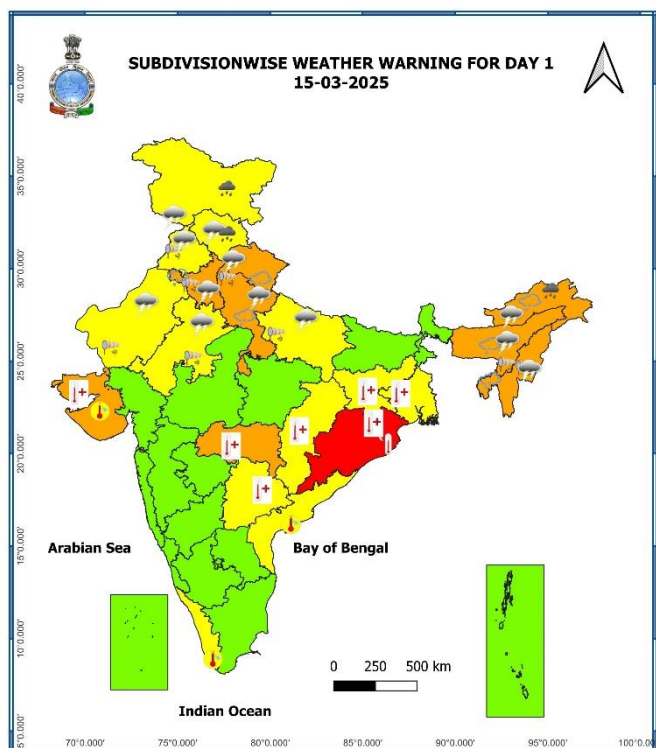
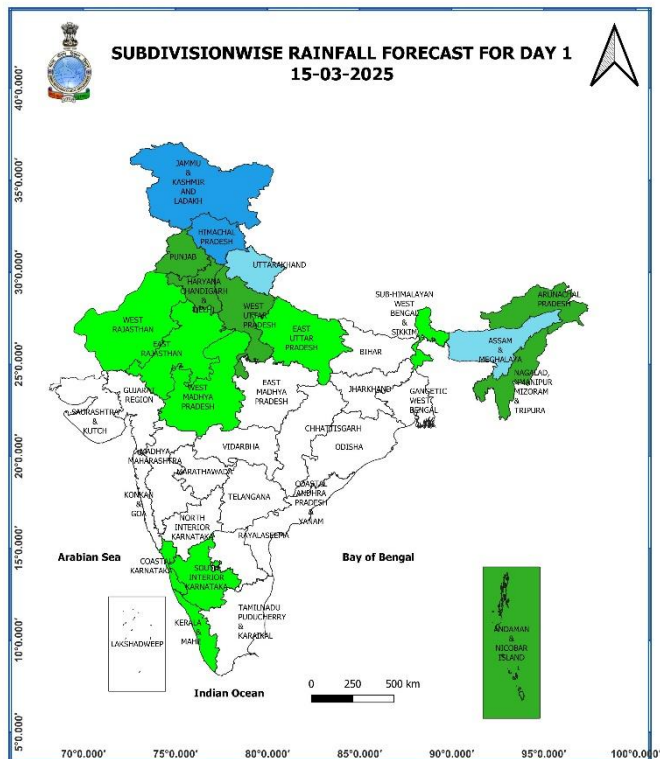
## Main Weather Observations:

- ❖ **Rainfall/snowfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Rainfall/Snowfall** occurred **at most places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Haryana, Assam & Meghalaya; **at many places** over Himachal Pradesh, Arunachal Pradesh; **at a few places** over Punjab, Sub-Himalayan West Bengal & Sikkim; **at isolated places** over Uttar Pradesh, Rajasthan, West Madhya Pradesh, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today): (in cm): **Assam & Meghalaya:** Majuli (dist Jorhat) 7, Sonari\_arg (dist Sibsagar) 6, Algapur Circle AWS (dist Hailakandi) 6; **Uttarakhand:** Almora-6, Chaukhtia, Dwarhat 3each; **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Qazi Gund (dist Kulgam) 5, Banihal (dist Ramban) 4, Gund (dist Ganderbal) 4, Anantnag Aws (dist Anantnag) 4, Khudwani Arg (dist Anantnag) 4; **Arunachal Pradesh:** Longding\_new(aws) (dist Longding) 4, Pakke\_kesang (aws) (dist Pakke Kessang) 3, Miao(aws) (dist Changlang) 3; **West Uttar Pradesh:** Behat (dist Saharanpur) 2, Budhana (dist Muzaffarnagar) 1, Rampur Maniharan (dist Saharanpur) 1.
- ❖ **Hailstorms reported** at isolated locations over Himachal Pradesh, Haryana, Manipur, Nagaland, Arunachal Pradesh, Assam.
- ❖ **Heavy rainfall** reported at isolated places over Assam & Meghalaya.
- ❖ **Thunderstorm with lightning** reported at isolated places over Northwest India, Sub-Himalayan West Bengal & Sikkim and Northeast India.
- ❖ **Heat wave to Severe heat wave conditions** prevailed at a isolated pockets places over Odisha, Saurashtra & Kutch and **Heat wave conditions** at isolated places over Vidarbha.
- ❖ **Minimum Temperature Departures (as on 15-03-2025):** Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over Bihar; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Gangetic West Bengal and Uttar Pradesh; at isolated places over Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at most places over Rajasthan and Gujarat state; at many places over Assam & Meghalaya, Andaman & Nicobar Islands, Haryana-Chandigarh-Delhi, Chhattisgarh and Jharkhand; at a few places over East Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Punjab and Kerala & Mahe; at isolated places over Telangana, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka, Arunachal Pradesh, Himachal Pradesh, Uttarakhand and Madhya Maharashtra. These are **below normal (-3.0°C to -1.6°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and near normal over rest parts of the country **(Fig. 4)**. Today, the **lowest minimum temperature** of **14.1°C** is reported at **Amritsar (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 14-03-2025):** Maximum temperatures were **markedly above normal (5.1°C or more)** at isolated places over West Uttar Pradesh, Haryana-Chandigarh-Delhi, Jharkhand, Odisha, Odisha, Chhattisgarh, Vidarbha, Gangetic West Bengal; **appreciably above normal (3.1°C to 5.0°C)** at most places over West Madhya Pradesh, Gujarat Region; at many places East Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Marathwada; at a few places over Madhya Maharashtra; at isolated places Himachal Pradesh, Uttarakhand, Punjab, West Rajasthan, Bihar, Konkan & Goa, Telangana and North Interior Karnataka; **above normal (1.6°C to 3.0°C)** at many places over Coastal & South Interior Karnataka, Rayalaseema and Coastal Andhra Pradesh & Yanam. These were **markedly below normal (5.1°C or less)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; **below normal (-3.0°C to -1.6°C)** at isolated places over Nagaland, Manipur, Mizoram & Tripura and near normal over rest parts of the country. **(Fig. 2)**. Yesterday, the highest **maximum temperature** of **41.8°C** was reported at **Jharsuguda (Odisha)** over the country.

## Meteorological Analysis (Based on 0830 hours IST)

- ❖ The **Western disturbance** as a cyclonic circulation over north Pakistan & neighbourhood now lies over north Pakistan and adjoining Jammu region between 3.1 & 9.6 km above mean sea level.
  - ❖ The **Cyclonic Circulation** over northeast Rajasthan adjoining south Haryana extending upto 1.5 km above mean sea level persists.
  - ❖ The **trough** from northeast Rajasthan adjoining south Haryana to southwest Rajasthan now runs from southwest Uttar Pradesh to southwest Rajasthan across the cyclonic circulation over northeast Rajasthan adjoining south Haryana at 0.9 km above mean sea level.
- The **Cyclonic Circulation** over northeast Assam & neighbourhood persists and extends up to 3.1 km above mean sea level.

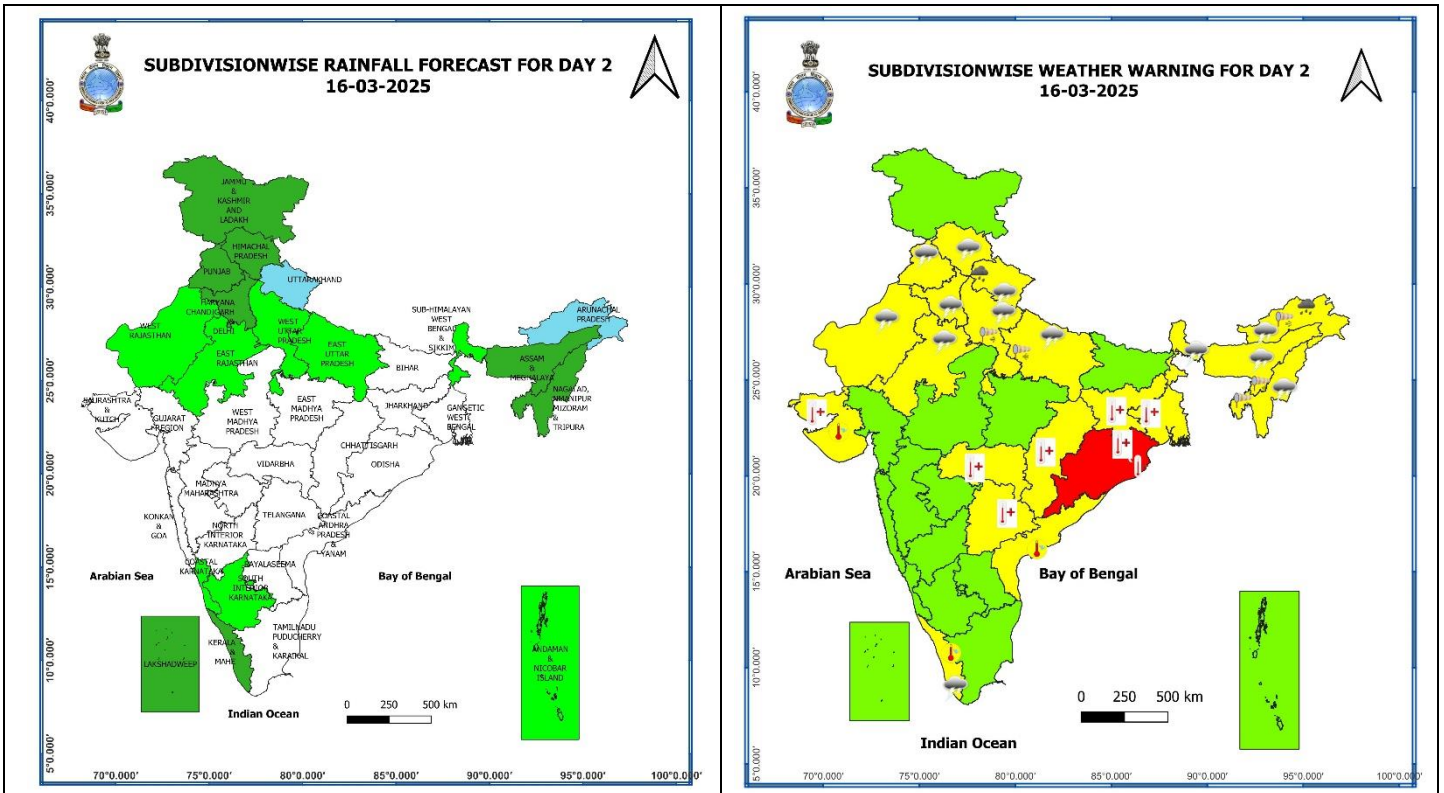
**Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 22<sup>nd</sup> March, 2025)**



**15<sup>th</sup> March (Day 1):**

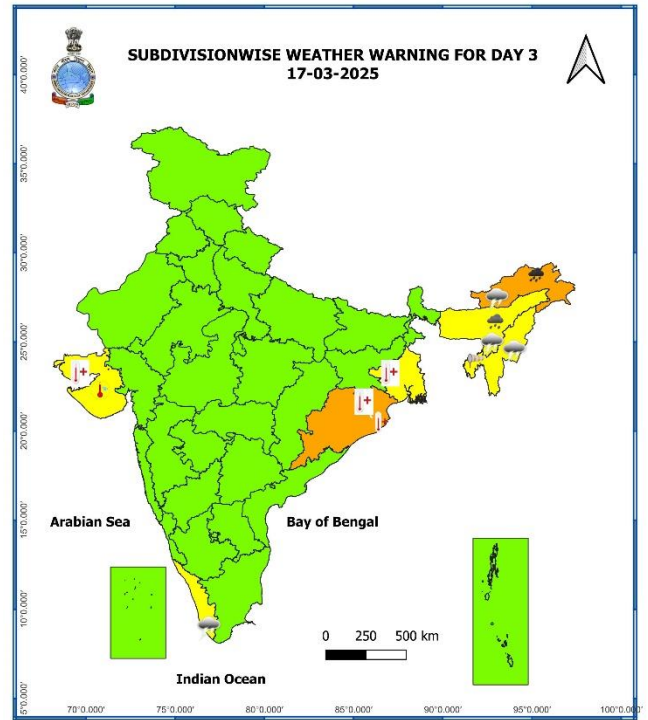
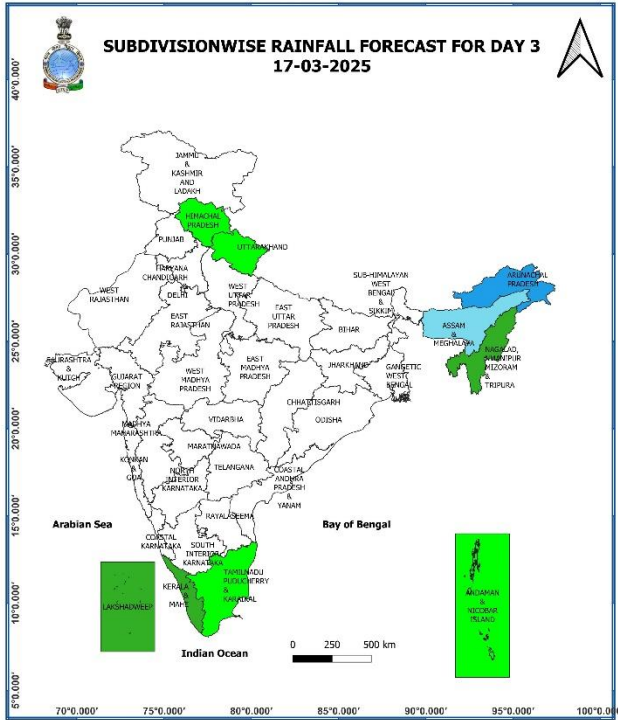
- ❖ **Heavy rainfall ( $\geq 7$  cm)** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with hailstorm, gusty winds (speed reaching 30-40 kmph) & lightning** very likely at isolated places over Arunachal Pradesh, central Assam, Nagaland & Manipur, Uttarakhand, West Uttar Pradesh, Haryana; **Thunderstorm accompanied with gusty winds (speed reaching 30-40 kmph) & lightning** very likely at isolated places over Punjab, East Uttar Pradesh, Rajasthan, and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand.
- ❖ **Heat Wave to severe heat wave Conditions** very likely at isolated places over Saurashtra & Kutch, Odisha; **Heat Wave Conditions** likely at a few places over Vidarbha; at isolated places over Gangetic West Bengal, Jharkhand, Chhattisgarh, Telangana.
- ❖ **Warm Night Conditions** likely at isolated places over Odisha.
- ❖ **Hot and Humid Conditions** likely at isolated places Coastal Andhra Pradesh & Yanam and Kerala & Mahe.





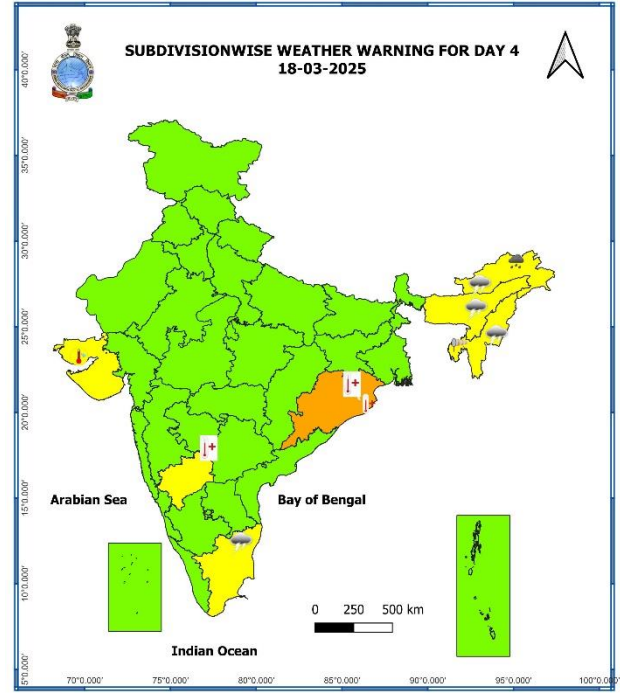
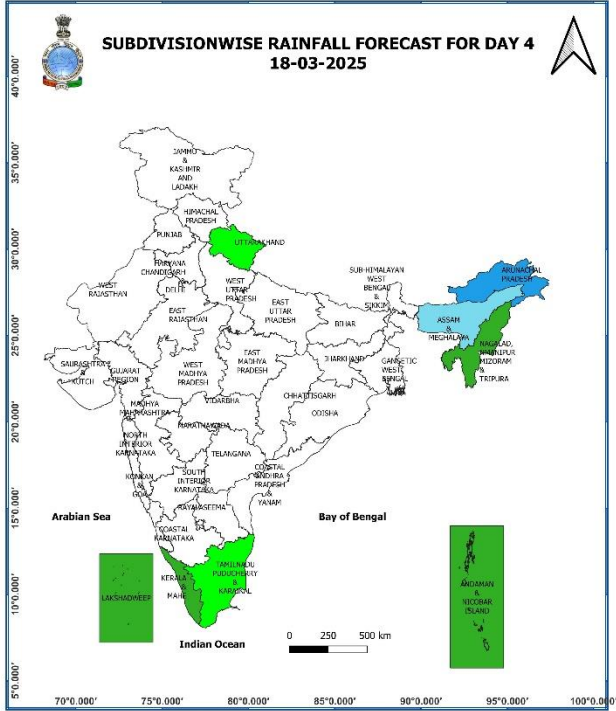
### 16<sup>th</sup> March (Day 2):

- ❖ **Heavy rainfall ( $\geq 7$  cm)** likely at isolated places over Uttarakhand and Arunachal Pradesh.
  - ❖ **Thunderstorm accompanied with gusty winds (speed reaching 40-50 kmph) & lightning** very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura; **Thunderstorm accompanied with gusty winds (speed reaching 30-40 kmph) & lightning** at isolated places over Arunachal Pradesh, Uttar Pradesh; **with lightning** at isolated places over Kerala & Mahe, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, Sub-Himalayan West Bengal & Sikkim.
  - ❖ **Heat Wave to severe heat wave Conditions** very likely at isolated places over Odisha; **Heat Wave Conditions** at isolated places over Gangetic West Bengal, Jharkhand, Vidarbha, Chhattisgarh, Telangana and Saurashtra & Kutch.
  - ❖ **Warm Night Conditions** very likely at isolated places over Odisha.
- Hot and Humid Conditions** very likely at isolated places over Coastal Andhra Pradesh & Yanam and Kerala & Mahe.



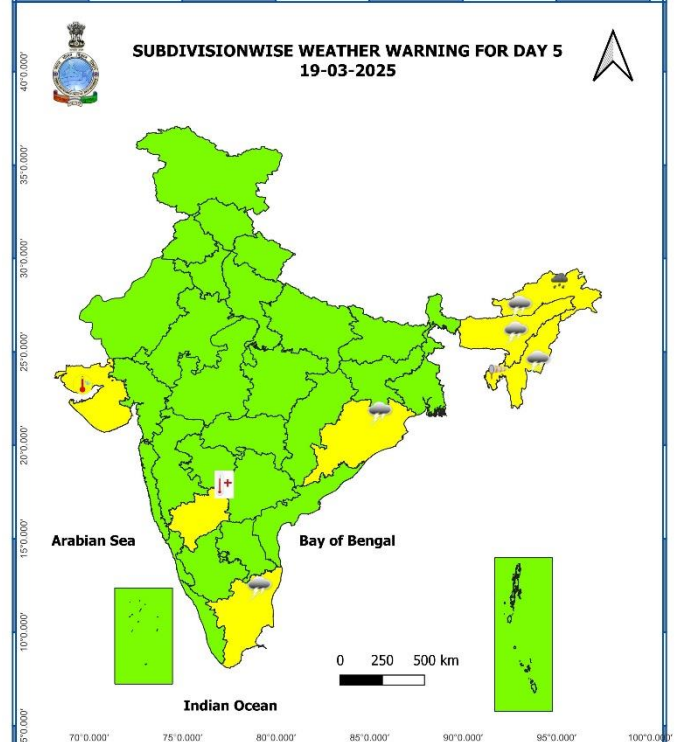
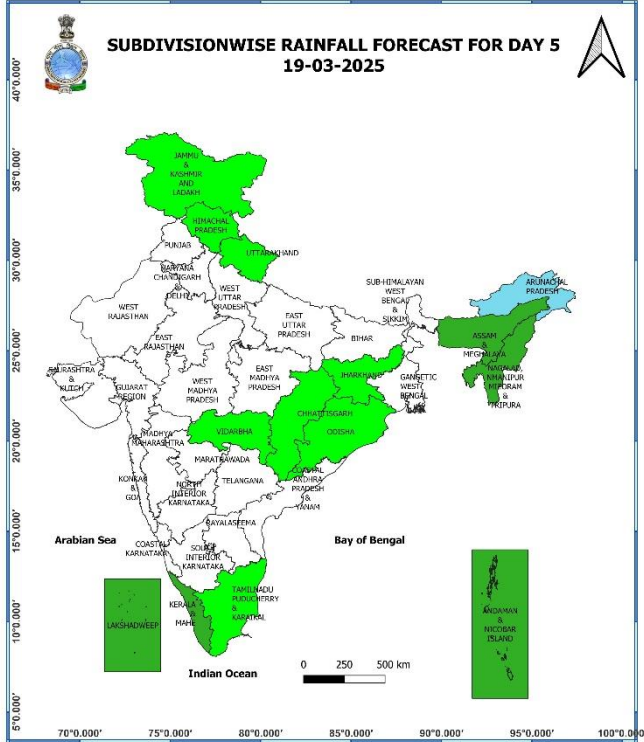
### 17<sup>th</sup> March (Day 3):

- ❖ **Heavy to very heavy rainfall ( $\geq 12$  cm)** very likely at isolated places over Arunachal Pradesh and **Heavy rainfall ( $\geq 7$  cm)** at isolated places over Assam & Meghalaya.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 30-40 kmph) & lightning** very likely at isolated places over Nagaland, Manipur; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya and north Kerala & Mahe.
- ❖ **Heat Wave Conditions** very likely at isolated places over Odisha, Saurashtra & Kutch and Gangetic West Bengal.
- ❖ **Warm Night Conditions** likely at isolated places over Odisha.



### 18<sup>th</sup> March (Day 4):

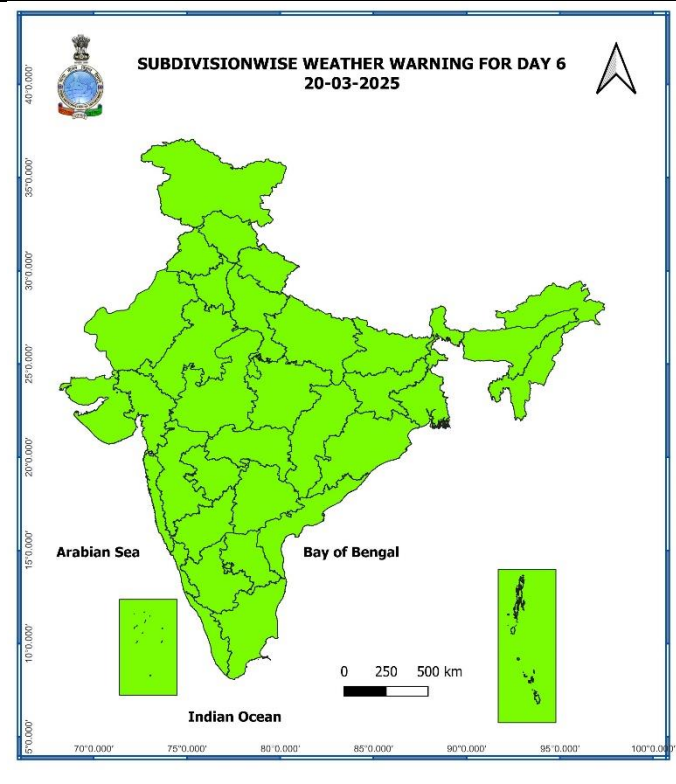
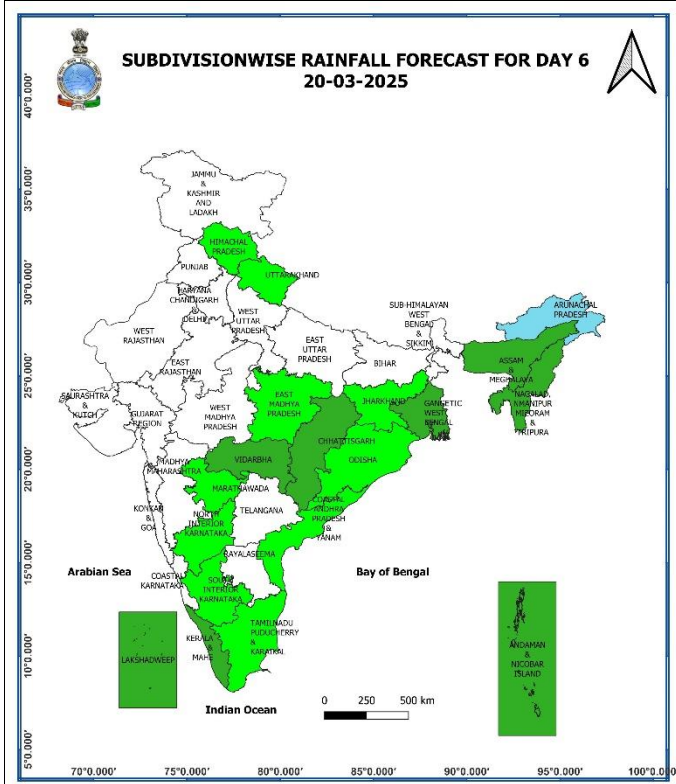
- ❖ **Heavy rainfall ( $\geq 7$  cm)** likely at isolated places over Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 30-40 kmph) & lightning** likely at isolated places over Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat Wave Conditions** likely at isolated places over North Interior Karnataka.
- ❖ **Hot and Humid Conditions** likely at isolated places over Saurashtra & Kutch.
- ❖ **Warm Night Conditions** likely at isolated places over Odisha



### 19<sup>th</sup> March (Day 5):

- ❖ **Heavy rainfall ( $\geq 7$  cm)** likely at isolated places over Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 30-40 kmph) & lightning** likely at isolated places over Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya Tamil Nadu, Puducherry & Karaikal and Odisha.
- ❖ **Heat Wave Conditions** likely at isolated places over North Interior Karnataka.
- ❖ **Hot and Humid Conditions** likely at isolated places over Saurashtra & Kutch.

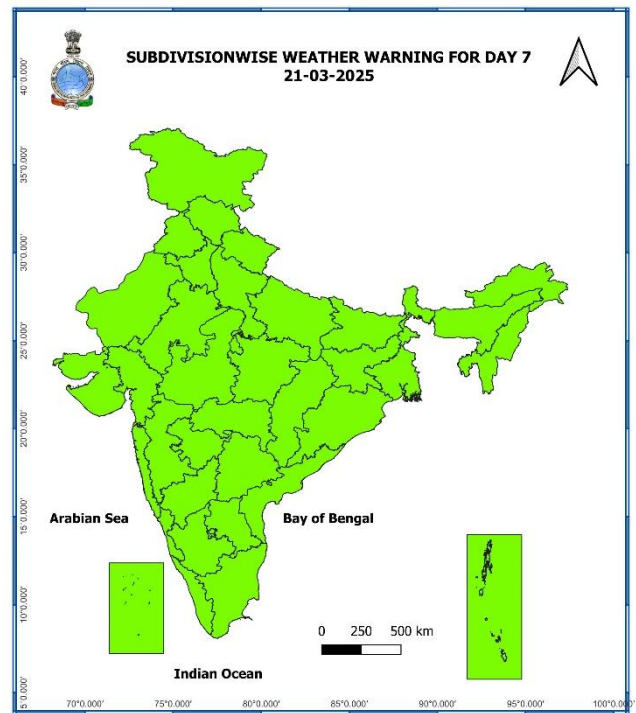
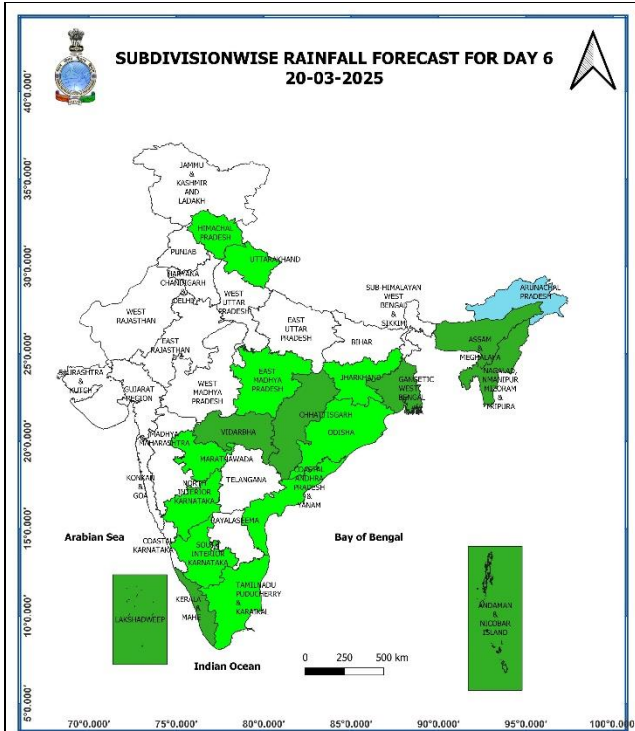




**20<sup>th</sup> March (Day 6):**

❖ **No Weather Warning.**

\* 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)



### 21<sup>th</sup> March (Day 7):

❖ No Weather Warning.

### Weather Outlook for subsequent 3 days (During 22<sup>nd</sup> March- 24<sup>th</sup> March, 2025)

❖ **Isolated to scattered rainfall** likely over Western Himalayan region, Northeast, East & adjoining Central India, south Peninsular India.

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

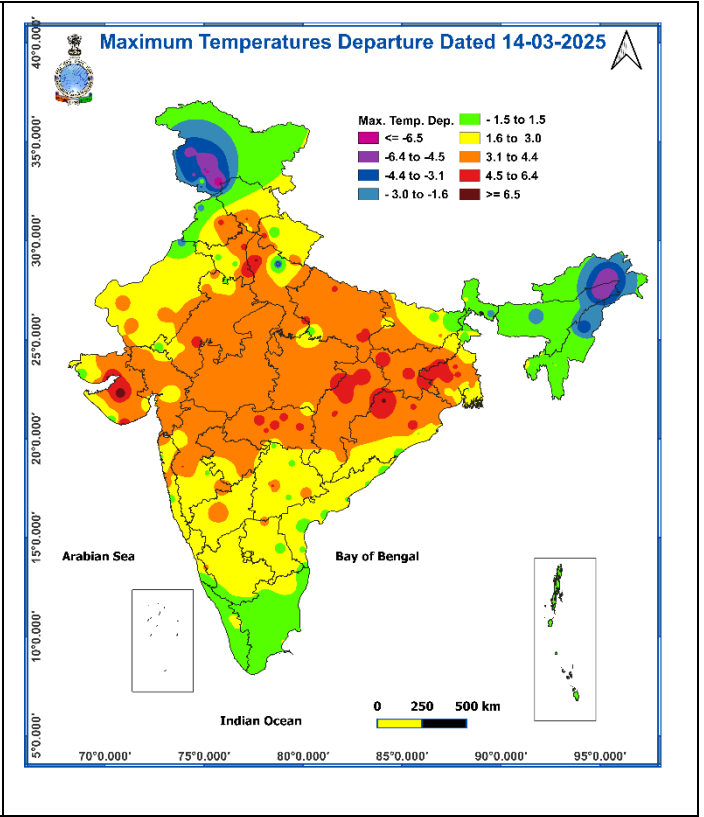
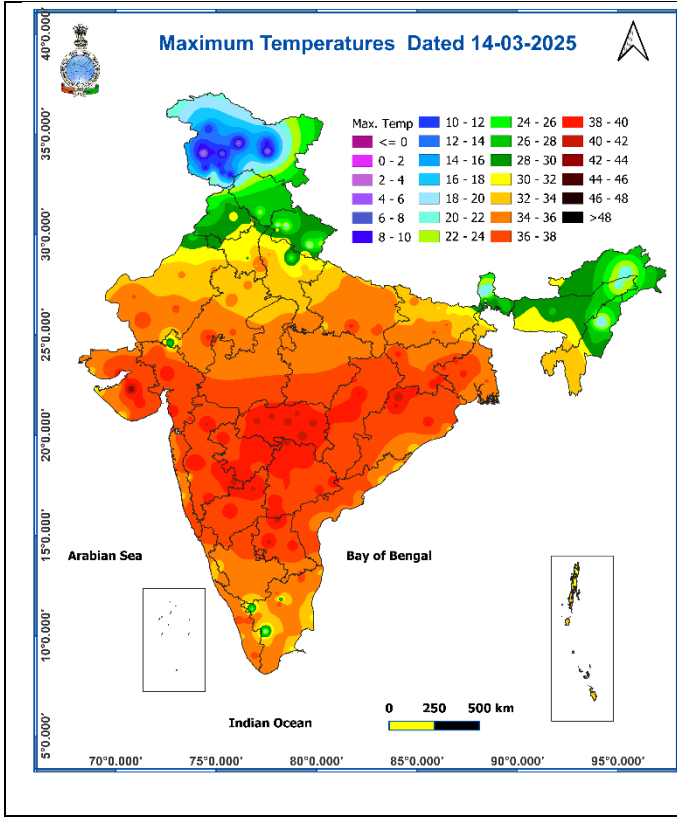
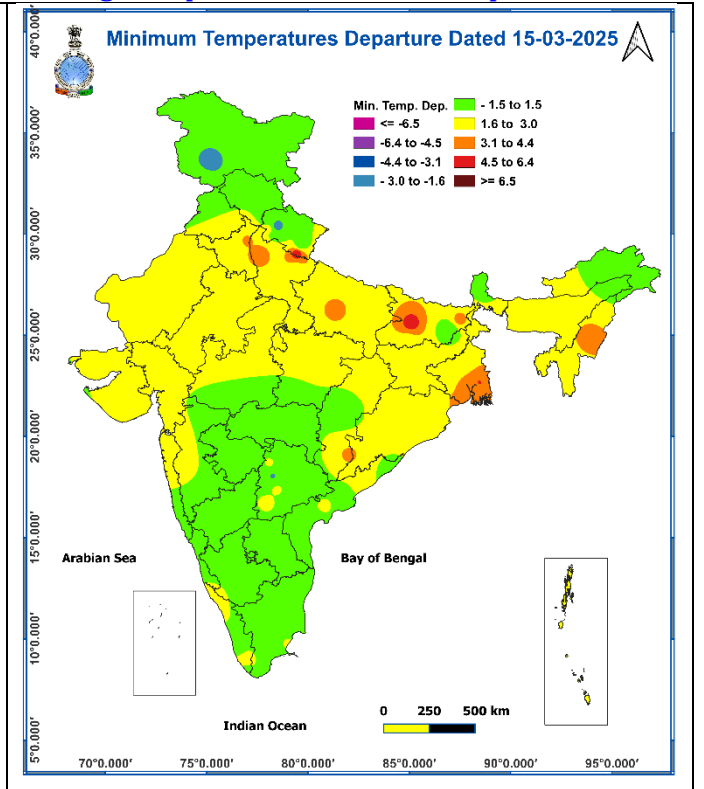
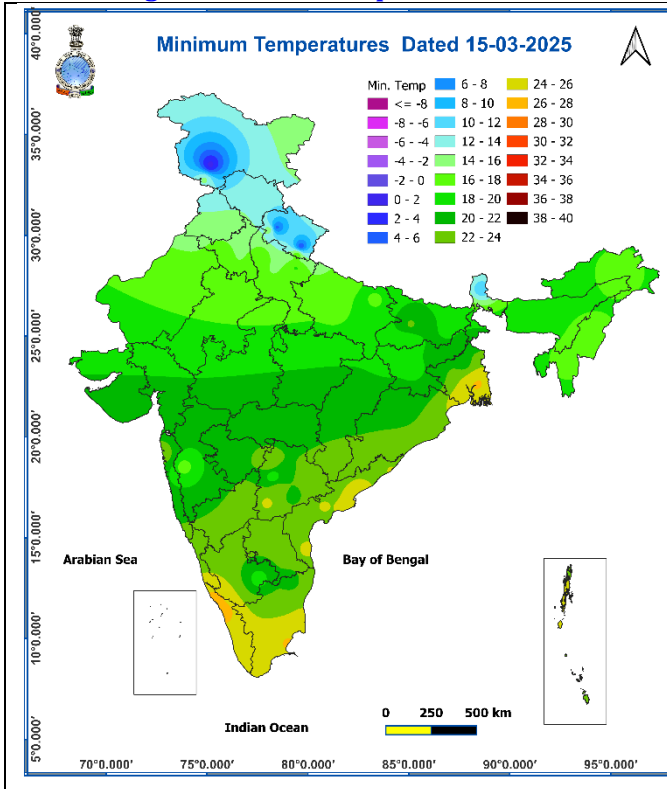


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



**Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds** over Northeast India and Northwest India during next 5 days

❖ **Impact expected:**

- ❖ Strong wind may damage plantation, horticulture and standing crops.
- ❖ 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 & Action Suggested due to heavy rainfall/ snowfall over;**

- (i) **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 15th and over Uttarakhand on 16th March.**
- (ii) **Arunachal Pradesh during 15th-19th March with very heavy rainfall on 17th March and over Assam & Meghalaya on 17th March.**

**A. 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).

**B. 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.



**Impact expected and action suggested due to Heat wave to severe heat wave conditions likely at isolated places over Odisha on 15th & 16th; Saurashtra & Kutch on 15th March.; Heat wave to severe heat wave conditions likely at isolated places over Vidarbha, Chhattisgarh, Jharkhand, north Telangana on 15th & 16th; Gangetic West Bengal during 15th-17th; Saurashtra & Kutch on 16th & 17th; Odisha on 17th & 18th; North Interior Karnataka on 18th & 19th March.**

**Orange alert Areas (Saurashtra & Kutch 15<sup>th</sup>; Odisha during 15-17<sup>th</sup> March)**

- ❖ 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.

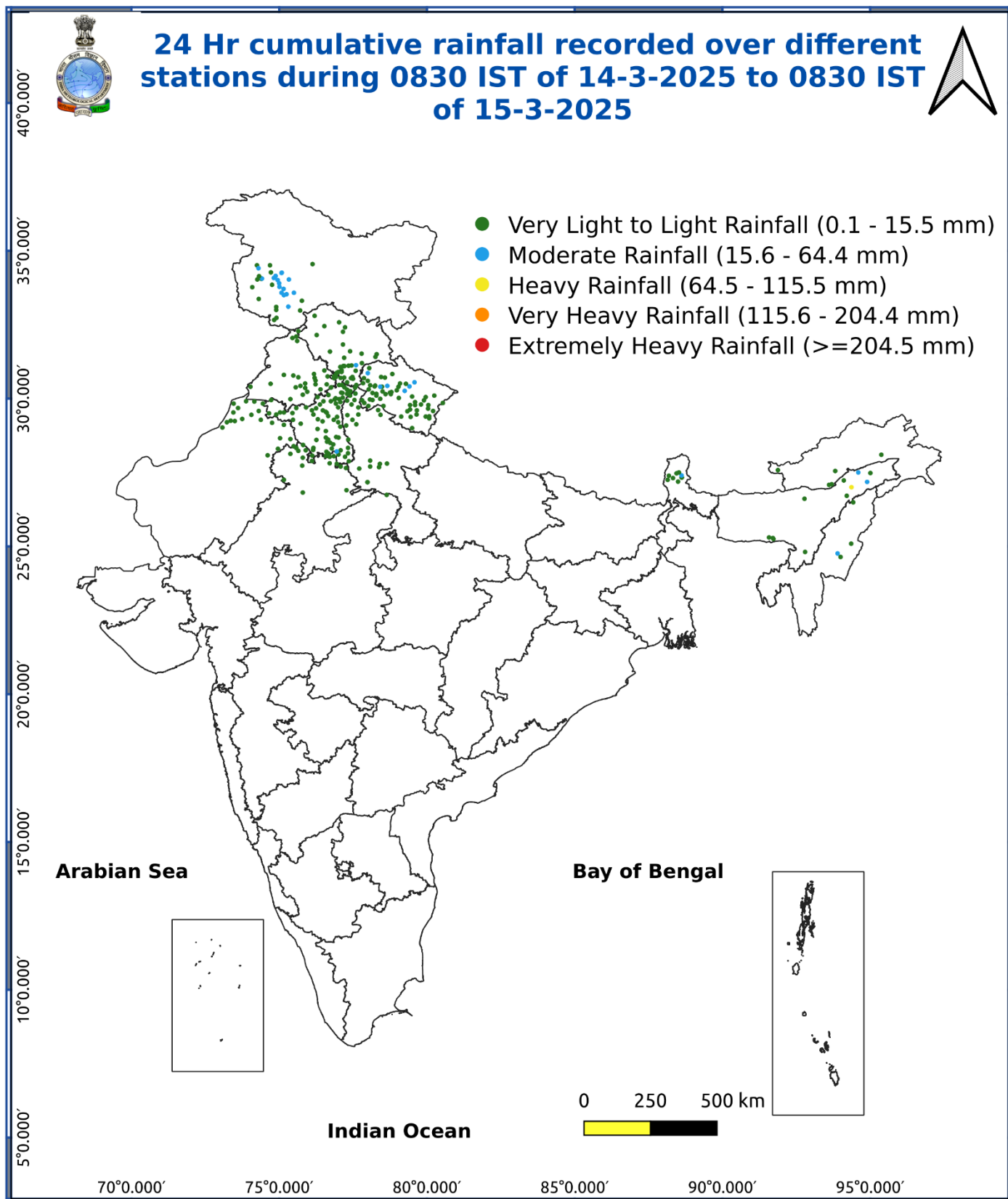
**Agromet advisories for likely impact of Heavy Rainfall / Hailstorm / Heat Wave**

- In **Arunachal Pradesh, Nagaland, Manipur, Uttarakhand, Haryana and West Uttar Pradesh**, use hail net and hail caps to prevent mechanical damage in orchards due to hailstorms.
- In **Arunachal Pradesh, Jammu & Kashmir, Himachal Pradesh and Uttarakhand**, make provision to drain out excess water from standing crop and vegetable fields. Postpone land preparation and sowing of *Jhum* rice and maize in **Arunachal Pradesh**.
- In **Odisha, Jharkhand, Gangetic West Bengal, Saurashtra & Kutch, Vidarbha, Chhattisgarh and North Telangana**, apply light and frequent irrigation to the standing crops, vegetables and orchards in the evening to protect them from adverse impacts of heat wave.
- Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.
- In the regions of heavy snowfall, shake the fruit-bearing trees to remove snow immediately from the branches.

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

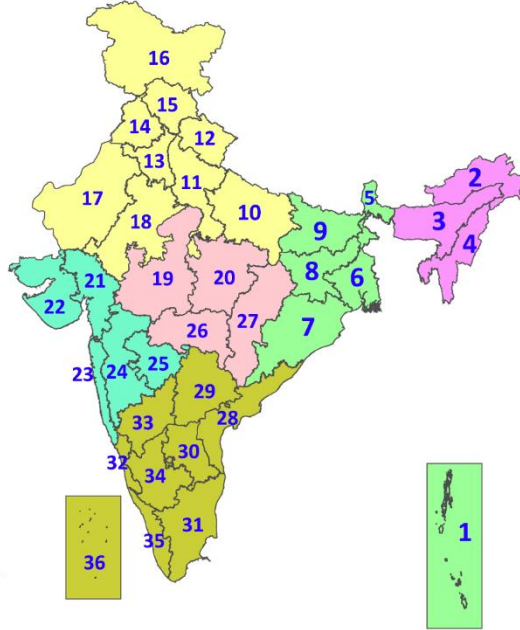
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



\* 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)

## LEGENDS

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



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

## SPATIAL DISTRIBUTION (% of Stations reporting)

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

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

### COLOUR CODED WARNING

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

### Probabilistic Forecast

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



## DEFINITION/CRITERIA

### Rain/ Snow \*

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

### Heat Wave

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

Heat Wave: Maximum Temperature Departure from normal  $4.5^\circ\text{C}$  to  $6.4^\circ\text{C}$ .  
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  $40^\circ\text{C}$

Warm Night: When minimum temperature departure  $4.5^\circ\text{C}$  to  $6.4^\circ\text{C}$ .  
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  $-4.5^\circ\text{C}$  to  $-6.4^\circ\text{C}$ .  
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  $-4.5^\circ\text{C}$  to  $-6.4^\circ\text{C}$ .  
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)