

Wednesday, March 12, 2025  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

**Forecast for Holi:** Generally cloudy sky with possibility of isolated light rain over plains of Northwest India on 14<sup>th</sup> March. Fairly widespread to widespread light to moderate rainfall/snowfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Himachal Pradesh; states of Northeast India; at a few places over Uttarakhand & Sub-Himalayan West Bengal & Sikkim on 14<sup>th</sup> March and dry weather mainly over remaining parts of the country.

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

- ❖ The **Western Disturbance** seen as a cyclonic circulation over West Iran in lower to upper tropospheric levels. An cyclonic circulation lies over southwest Rajasthan & neighbourhood at lower tropospheric levels. Under the influence of these systems;
  - ✓ **Fairly widespread to widespread light/moderate rainfall/snowfall accompanied with thunderstorm & lightning** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh during 12<sup>th</sup>-16<sup>th</sup>; **Scattered to fairly widespread light/moderate rainfall/snowfall accompanied with thunderstorm & lightning** likely over Uttarakhand during 12<sup>th</sup>-16<sup>th</sup> March.
  - ✓ **Isolated heavy rainfall/snowfall very likely over** Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 14<sup>th</sup> March.
  - ✓ **Isolated light/moderate rainfall** likely over Punjab during 12<sup>th</sup>-15<sup>th</sup>; Haryana, West Uttar Pradesh and Rajasthan during 13<sup>th</sup>-15<sup>th</sup>; East Uttar Pradesh on 15<sup>th</sup> March.
  - ✓ **Thunderstorm activity** likely over Punjab, Haryana, West Uttar Pradesh on 13<sup>th</sup> & 14<sup>th</sup> March.
- ❖ A **trough** runs roughly along Long. 93°E to the north of Lat. 23°N in lower tropospheric levels. Under the influence of these systems;
  - ✓ **Fairly widespread to widespread light/moderate rainfall/snowfall accompanied with thunderstorm & lightning** likely over Arunachal Pradesh during 12<sup>th</sup>-15<sup>th</sup>; **Scattered to fairly widespread light/moderate rainfall/snowfall accompanied with thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Sub-Himalayan West Bengal & Sikkim on 12<sup>th</sup>; Assam & Meghalaya on 14<sup>th</sup> & 15<sup>th</sup>; Nagaland, Manipur, Mizoram & Tripura during 12<sup>th</sup>-16<sup>th</sup> with **gusty winds increasing to (speed 40-50 kmph)** over Assam & Meghalaya on 12<sup>th</sup> & 13<sup>th</sup> March; with **thunderstorm & lightning** over Sub-Himalayan West Bengal & Sikkim on 13<sup>th</sup> March.
  - ✓ **Isolated Heavy rainfall likely over Arunachal Pradesh during 12<sup>th</sup>-18<sup>th</sup> and Assam & Meghalaya on 13<sup>th</sup> March with isolated very heavy rainfall on Arunachal Pradesh on 13<sup>th</sup> March.**
- ❖ Under the influence of easterly wave activity and a **trough** of low lies over Southwest Bay of Bengal off Tamil Nadu coast in lower tropospheric levels,
  - ✓ **Scattered to fairly widespread light/moderate rainfall accompanied with thunderstorm & lightning** over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep on 12<sup>th</sup>; Isolated light/moderate rainfall accompanied with **thunderstorm & lightning** likely over South Interior Karnataka on 12<sup>th</sup> March.
  - ✓ **Isolated heavy rainfall over Tamilnadu Puducherry & Karaikal and Kerala & Mahe on 12<sup>th</sup> March.**
  - ✓ Isolated to scattered light to moderate rainfall likely over Andaman & Nicobar Islands during next 7 days.

#### Temperature Forecast:

##### Forecast of temperature:

##### Maximum temperature:

- ❖ No significant change in maximum temperatures likely over Northwest India during next 48 hours and gradual fall by 2-3°C thereafter.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Central India & Maharashtra during next 3-4 days and no significant change thereafter.
- ❖ Gradual rise in maximum temperatures by 2-4°C likely over East India during next 3 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures likely over Gujarat State during next 2 days and gradual fall by 2-4°C 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** in isolated pockets over Gujarat State and Southwest Rajasthan on 12<sup>th</sup>; Vidarbha on 13<sup>th</sup> & 14<sup>th</sup>; Odisha during 13<sup>th</sup>-15<sup>th</sup> March.
- ❖ **Hot and humid weather** very likely to prevail over Konkan and Coastal Karnataka 12<sup>th</sup> March.

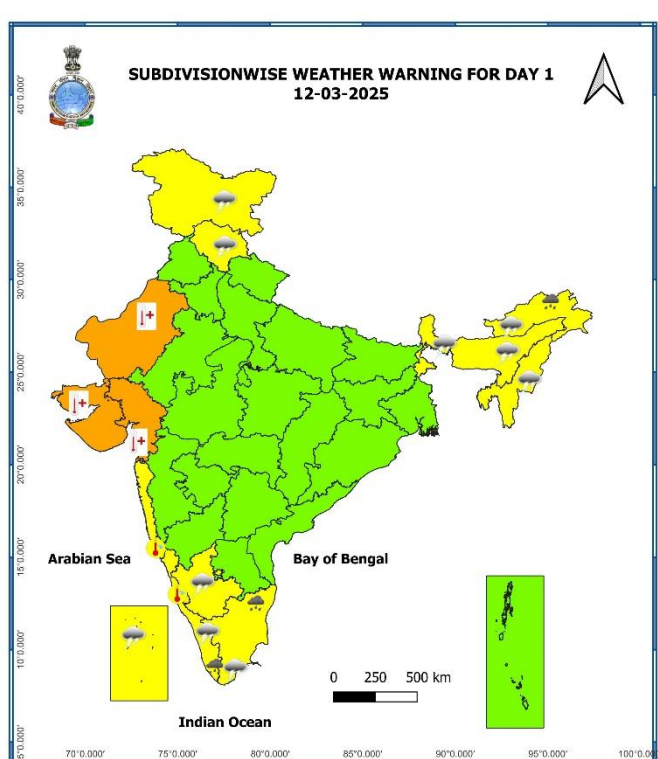
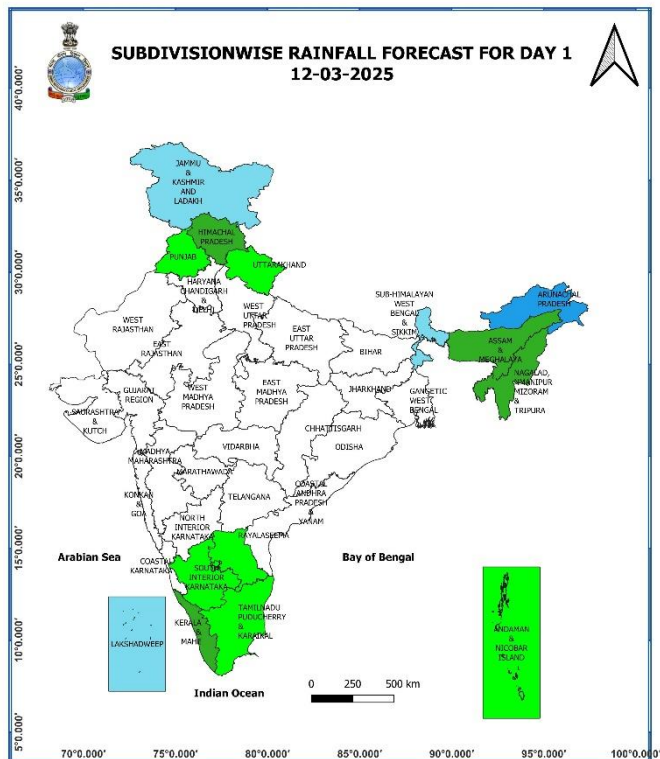
## Main Weather Observations:

- ❖ **Rainfall/snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places over** Tamil Nadu, Puducherry & Karaikal; **at isolated places over** Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Kerala & Mahe.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Tamil Nadu, Puducherry & Karaikal:** Nagapattinam-6; Parangipettai-5; Karaikal, Atiramapattinam & Coimbatore 3 each; Nungambakkam, Thanjavur & Paramathi-2 each.
- ❖ **Yesterday, Heat Wave to Severe heat wave** recorded at many places over Gujarat state.
- ❖ **Minimum Temperature Departures (as on 11-03-2025):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Punjab, West Rajasthan and Sub-Himalayan West Bengal & Sikkim; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Himachal Pradesh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi, East Rajasthan, Bihar, Jharkhand and Andaman & Nicobar Islands; **above normal (1.6°C to 3.0°C)** at most places over Uttarakhand; at many places over West Uttar Pradesh, Madhya Maharashtra and Konkan & Goa; at a few places over East Uttar Pradesh, Marathwada, North Interior Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. These were **below normal (-3.0°C to -1.6°C)** at isolated places over Odisha, Coastal Andhra Pradesh & Yanam, Telangana, South Interior Karnataka and Nagaland, Manipur, Mizoram & Tripura and near normal over rest parts of the country (**Fig. 4**). Yesterday, the **lowest minimum temperature** of 12.4°C was reported at **Ambikapur (Chhattisgarh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 11-03-2025):** Maximum temperatures were **markedly above normal (5.1°C or more)** at most places over Gujarat state; at many places over Delhi, East Rajasthan and Konkan & Goa; at a few places over Punjab, West Rajasthan and West Madhya Pradesh; at isolated places over East Madhya Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Uttarakhand, Vidarbha and Chhattisgarh; at isolated places over Uttar Pradesh, Bihar, Odisha and Gangetic West Bengal; **above normal (1.6°C to 3.0°C)** at a few places over Himachal Pradesh, Haryana-Chandigarh, Jharkhand, Coastal Karnataka and Telangana; at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Lakshadweep. These were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Tamil Nadu, Puducherry & Karaikal; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **below normal (-3.0°C to -1.6°C)** at a few places over Rayalaseema; at isolated places over North Interior Karnataka and near normal over rest parts of the country. (**Fig. 2**). Yesterday, the highest **maximum temperature** of 42.4°C was reported at **Bhuj-Rudramata (Saurashtra & Kutch)** over the country.

## Meteorological Analysis (Based on 0530 hours IST)

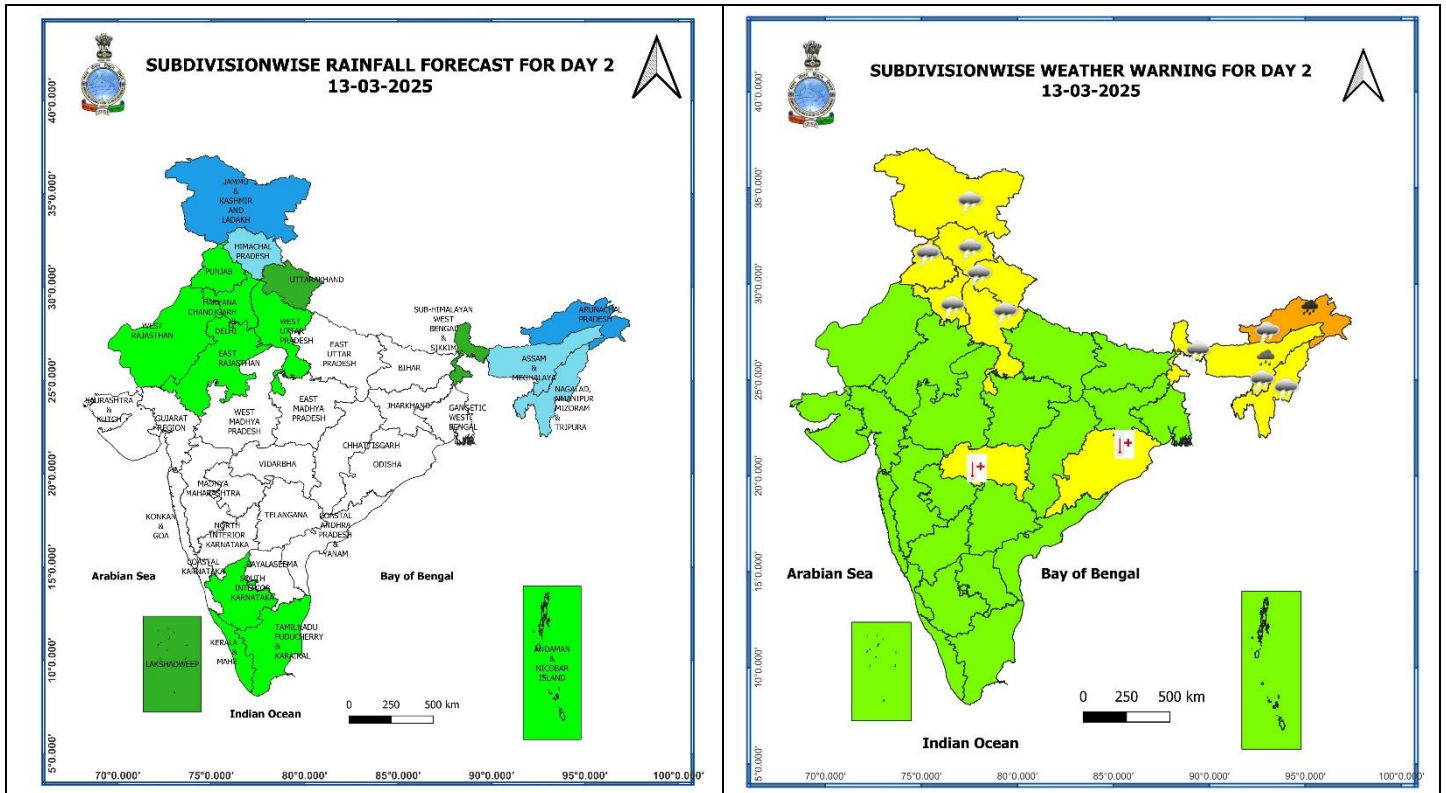
- ❖ The **Western disturbance** as a cyclonic circulation over West Iran & neighbourhood between 3.1 & 9.6 km above mean sea level persists.
- ❖ The **Cyclonic Circulation** over southwest Rajasthan & neighbourhood now extends upto 0.9 km above mean sea level.
- ❖ The **trough** roughly along Long. 93°E to the north of Lat. 23°N now seen between 1.5 km to 5.8 km above mean sea level.
- ❖ The **trough** over Southwest Bay of Bengal off Tamil Nadu coast extending upto 1.5 km above mean sea level persists.
- ❖ The **trough** roughly along Long. 82°E to the north of Lat. 23°N at 5.8 km above mean sea level has become less marked.

**Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 19<sup>th</sup> March, 2025)**



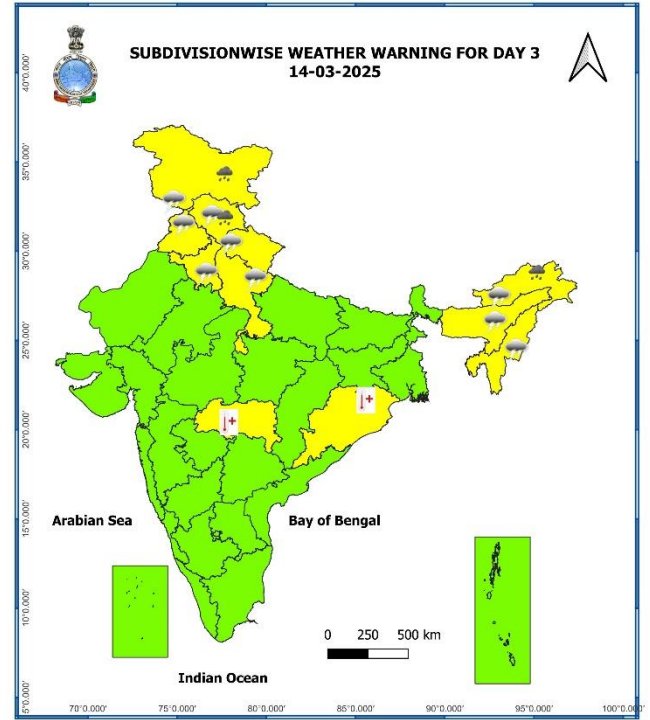
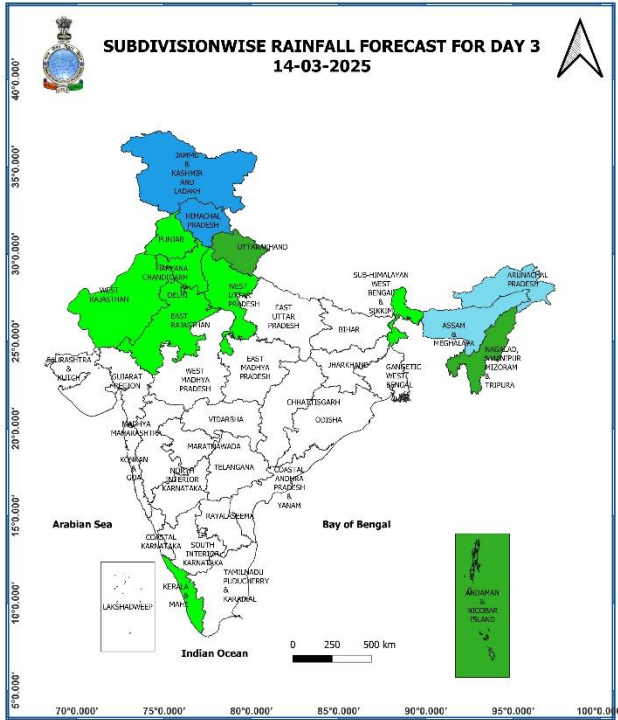
**12<sup>th</sup> March (Day 1):**

- ❖ **Heavy rainfall ( $\geq 7$  cm)** very likely at isolated places over Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Assam & Meghalaya; **with gusty winds (speed reaching 30-40 kmph)** at isolated places over Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim; **with lightning** at isolated places over Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, South Interior Karnataka, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh,
- ❖ **Heat Wave Conditions** very likely at isolated places over West Rajasthan, Gujarat State.
- ❖ **Hot and humid weather** very likely to prevail over Konkan & Goa, Coastal Karnataka.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over along and off South Kerala Coast and adjoining Lakshadweep, Maldives Areas, over Comorin Area, Gulf of Mannar.



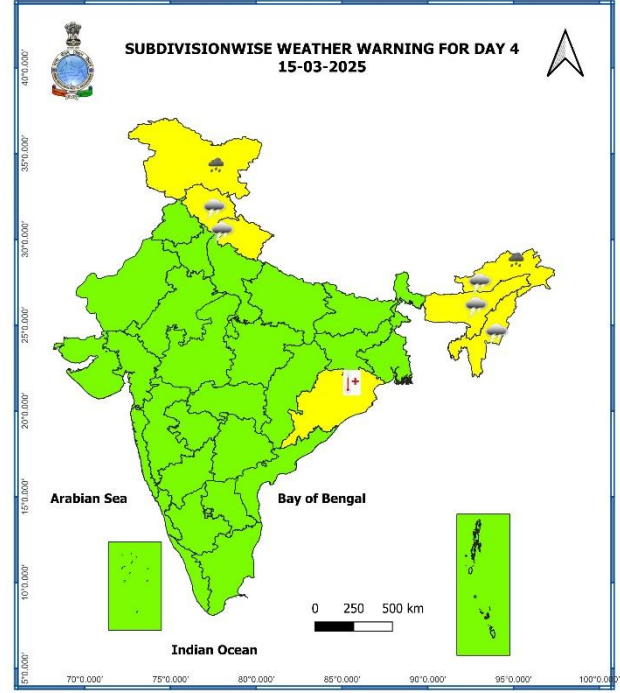
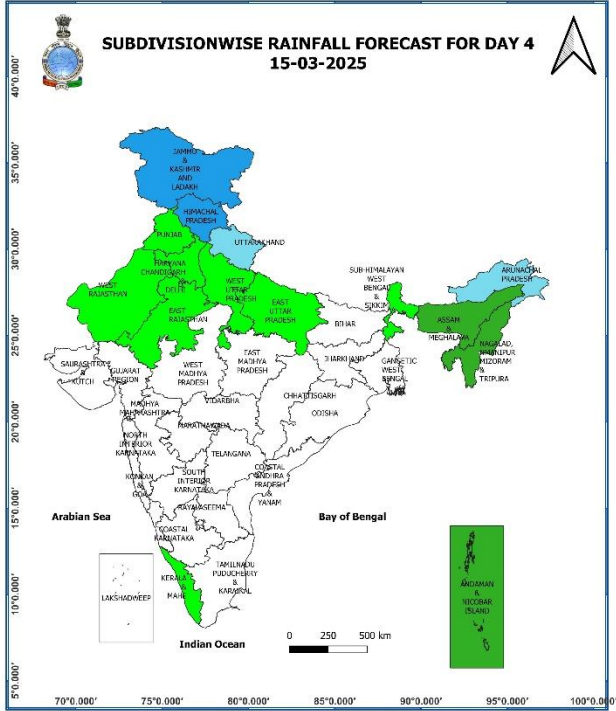
### 13<sup>th</sup> March (Day 2):

- ❖ **Heavy to very heavy rainfall ( $\geq 12$  cm)** very likely at isolated places over Arunachal Pradesh; **Heavy rainfall ( $\geq 7$  cm)** at isolated places over Assam & Meghalaya.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Assam & Meghalaya; **with gusty winds (speed reaching 30-40 kmph)** at isolated places over Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim.
- ❖ **Heat Wave Conditions** very likely at isolated places over Vidarbha and Odisha.



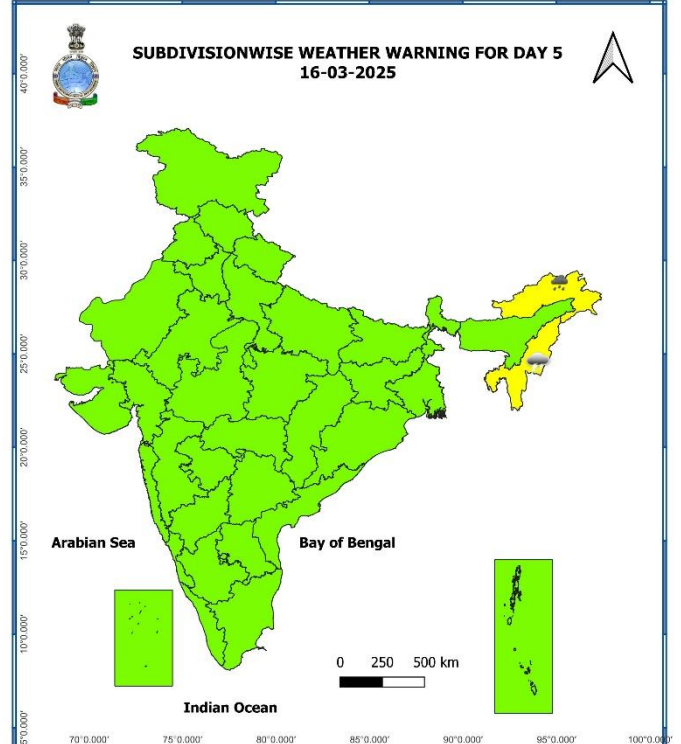
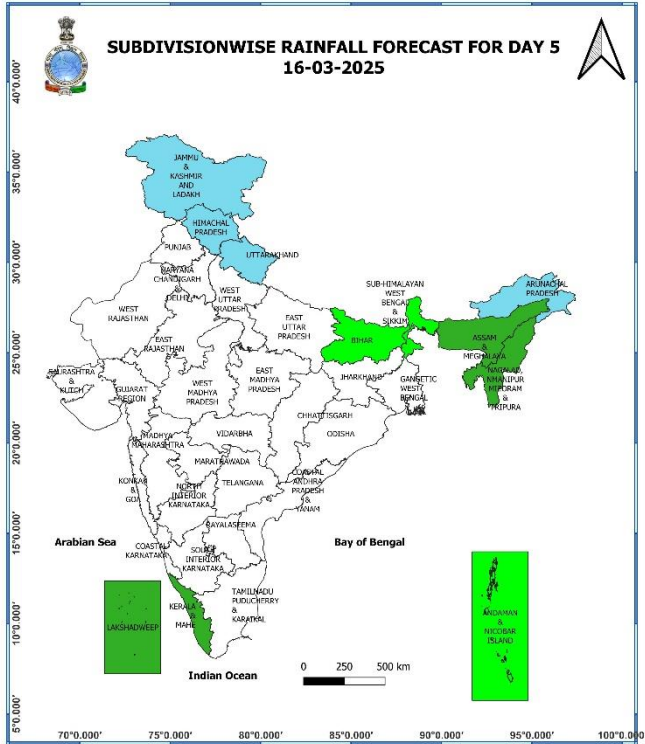
**14<sup>th</sup> March (Day 3):**

- ❖ **Heavy rainfall ( $\geq 7$  cm)** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh,
- ❖ **Heat Wave Conditions** likely at isolated places over Vidarbha, Odisha.



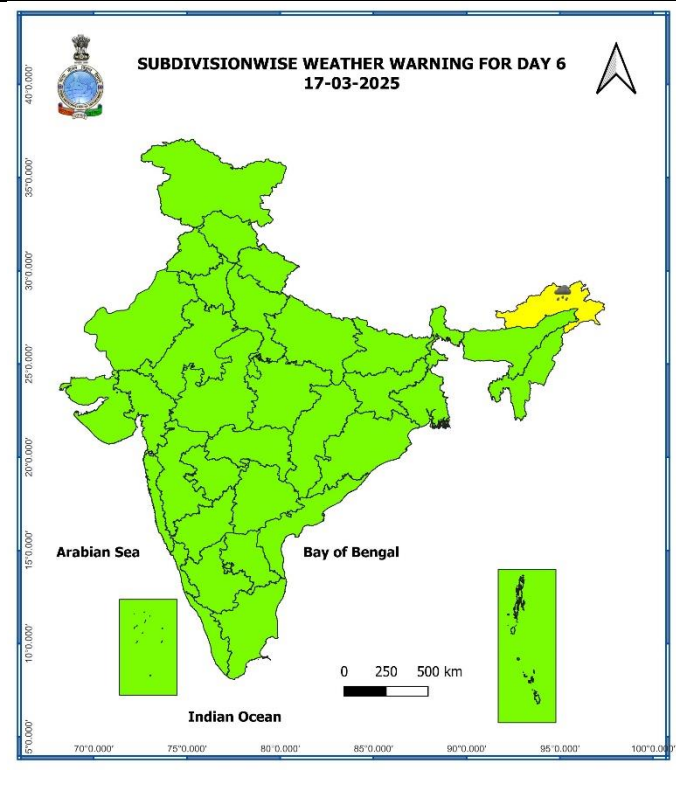
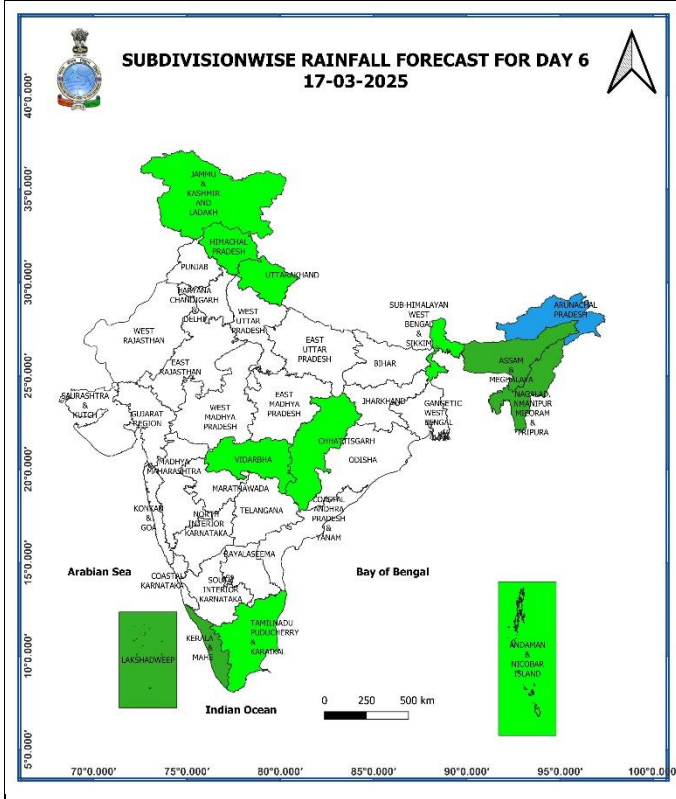
**15<sup>th</sup> March (Day 4):**

- ❖ **Heavy rainfall (≥7 cm)** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh, Himachal Pradesh, Uttarakhand.
- ❖ **Heat Wave Conditions** likely at isolated places over Odisha.



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

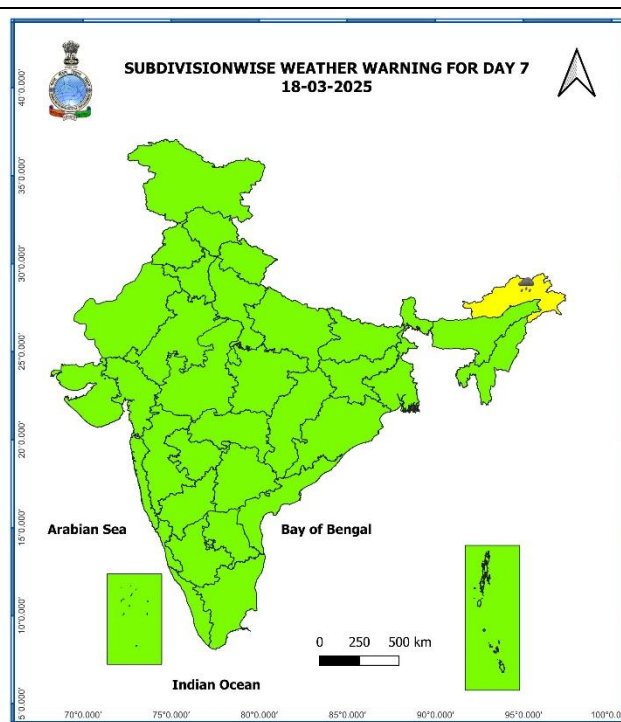
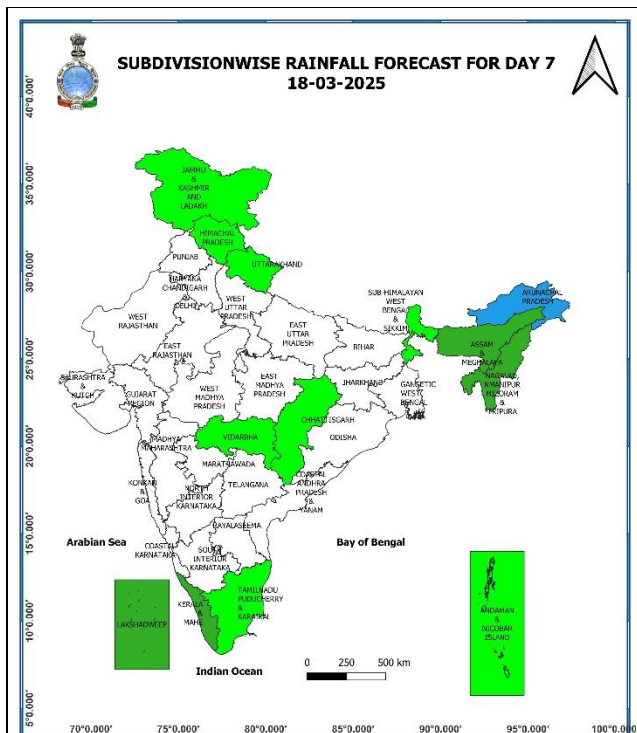
- ❖ Heavy rainfall ( $\geq 7$  cm) likely at isolated places over Arunachal Pradesh.
- ❖ Thunderstorm accompanied with gusty winds (speed reaching 30-40 kmph) likely at isolated places over Nagaland, Manipur, Mizoram & Tripura.



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

- ❖ Heavy rainfall ( $\geq 7$  cm) at isolated places over east Arunachal Pradesh.

\* 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)



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

- ❖ Heavy rainfall ( $\geq 7$  cm) at isolated places over east Arunachal Pradesh.

### Weather Outlook for subsequent 3 days (During 19<sup>th</sup> March- 21<sup>th</sup> March, 2025)

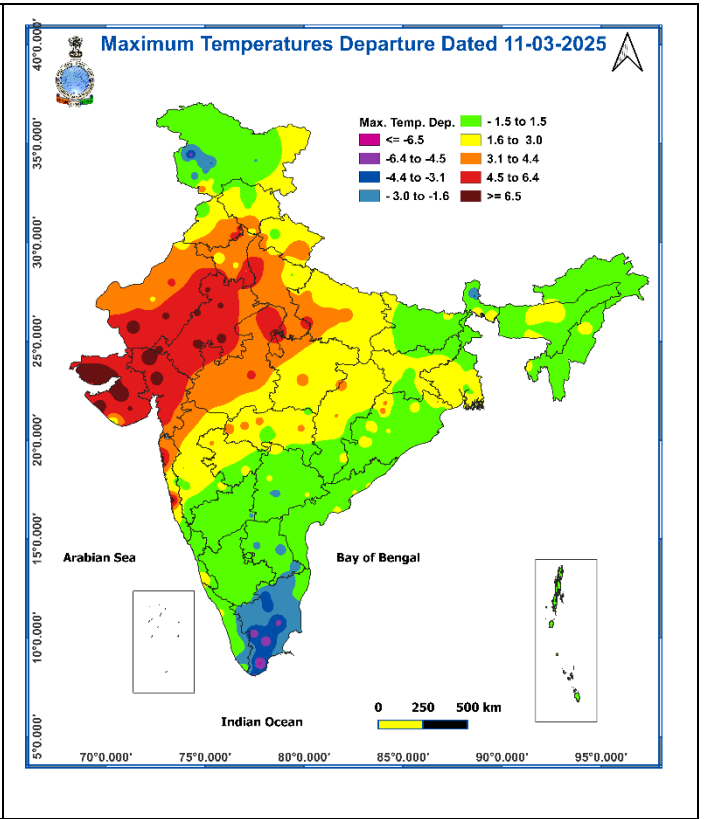
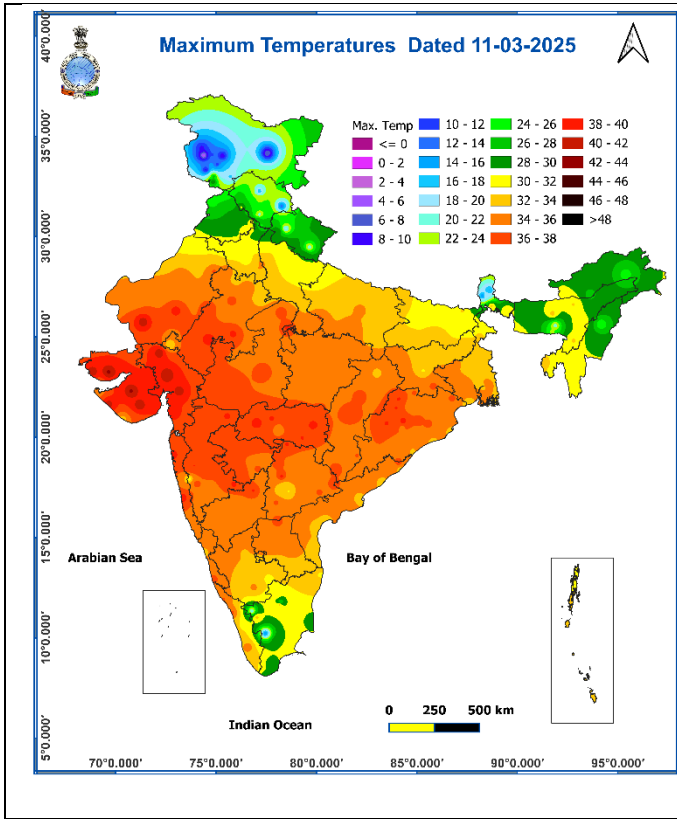
- ❖ Scattered to fairly widespread rainfall/snowfall likely over Western Himalayan region.
- ❖ Isolated to scattered rainfall likely over Northeast, East & adjoining Central India, south Peninsular India.

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.

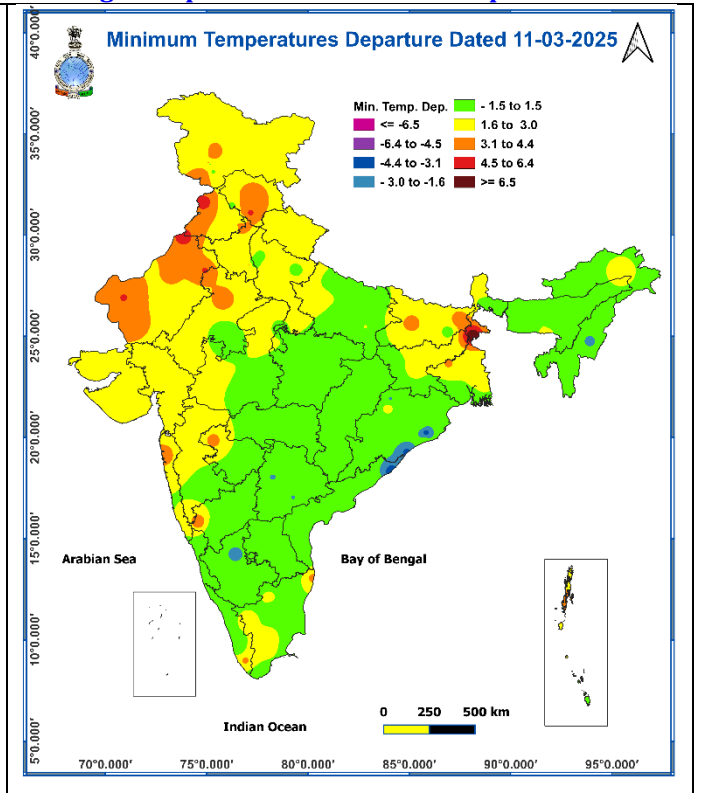
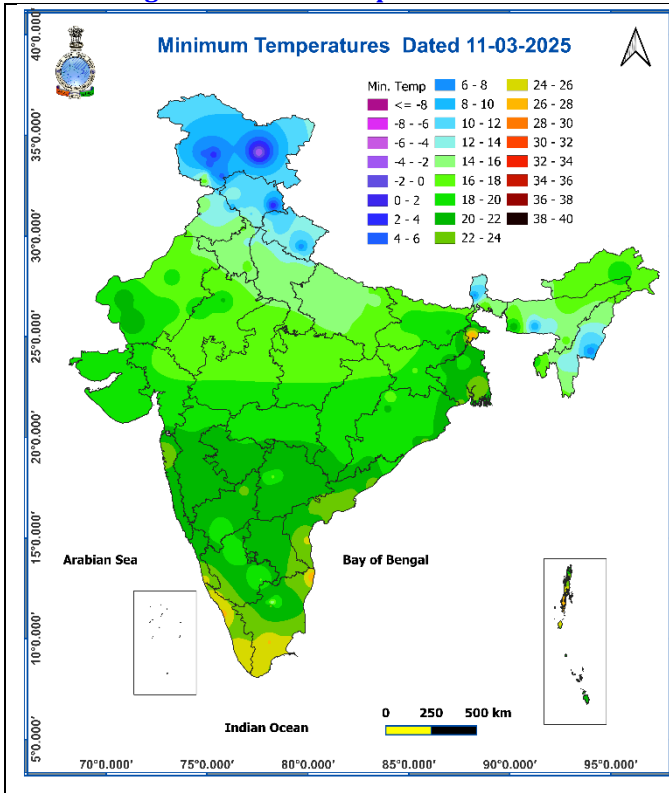
**Fig. 1: Maximum Temperatures**

**Fig. 2: Departure of Maximum Temperatures**



**Fig. 3: Minimum Temperatures**

**Fig. 4: Departure of Minimum Temperatures**



## Agromet advisories for likely impact of Heavy Rainfall / Heat Wave

- Make provision for draining out excess water from standing crop fields and vegetables in **Arunachal Pradesh, Assam, Tamil Nadu and Kerala**.
- In **Gujarat, Konkan, Vidarbha and West Rajasthan**, apply light and frequent irrigation to the standing crops, vegetables and orchards in the evening to protect them from 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.

### Livestock and Fishery

- Keep the animals inside the shed during heavy rainfall 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.

**Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds over Sub-Himalayan West Bengal & Sikkim on 12<sup>th</sup>; Assam & Meghalaya during 12<sup>th</sup>-15<sup>th</sup>; Nagaland, Manipur, Mizoram & Tripura during 12<sup>th</sup>-16<sup>th</sup> March, 2025.**

#### 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 expected and action suggested due to Heat wave conditions over Gujarat State on 12<sup>th</sup>; Southwest Rajasthan on 12<sup>th</sup>; Vidarbha on 13<sup>th</sup> & 14<sup>th</sup>; Odisha during 13<sup>th</sup>-15<sup>th</sup> March.**

#### 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 rainfall/ snowfall over Arunachal Pradesh on 13<sup>th</sup>; heavy rainfall/ snowfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Himachal Pradesh on 14<sup>th</sup>; Arunachal Pradesh during 12<sup>th</sup>-18<sup>th</sup>; Assam on 13<sup>th</sup>; Heavy rainfall over Tamilnadu Puducherry & Karaikal and Kerala & Mahe on 12<sup>th</sup> 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).

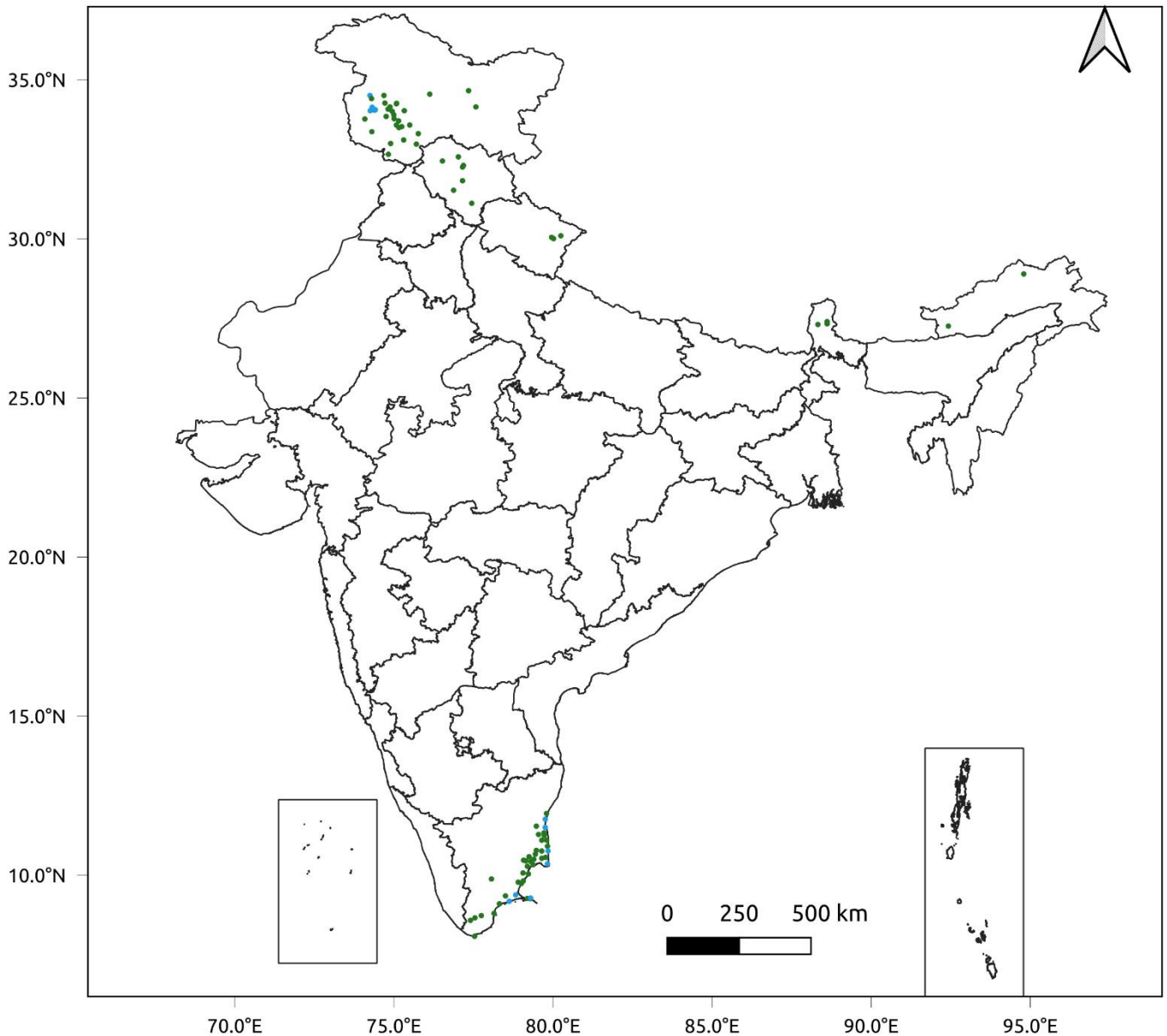
#### **B. Action Suggested**

- ❖ 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.

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



24 Hr cumulative rainfall recorded over different stations during 0830 IST of 10-3-2025 to 0830 IST of 11-3-2025



## Legends

- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall ( $\geq 204.5$  mm)

## 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>