

Wednesday, April 16, 2025  
Time of Issue: 0800 hours IST  
(MORNING)

**All India Impact Based Weather Warning Bulletin**

Weather Warnings for next 7 days is given below:

(Graphics for warnings & rainfall distribution (Table 1) are given below the text:

**16<sup>th</sup> April (Day 1):**

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

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

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

### 18<sup>th</sup> April (Day 3):

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

### 19<sup>th</sup> April (Day 4):

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

### 20<sup>th</sup> April (Day 5):

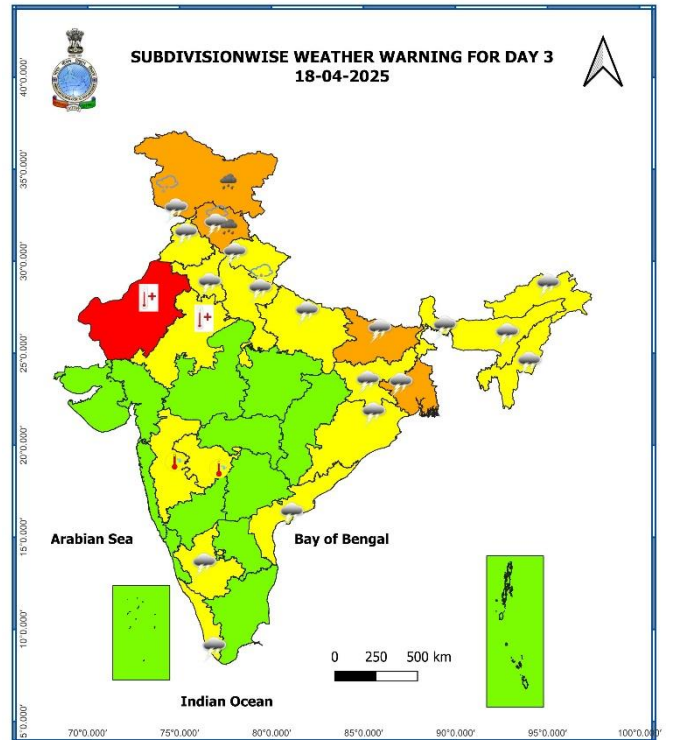
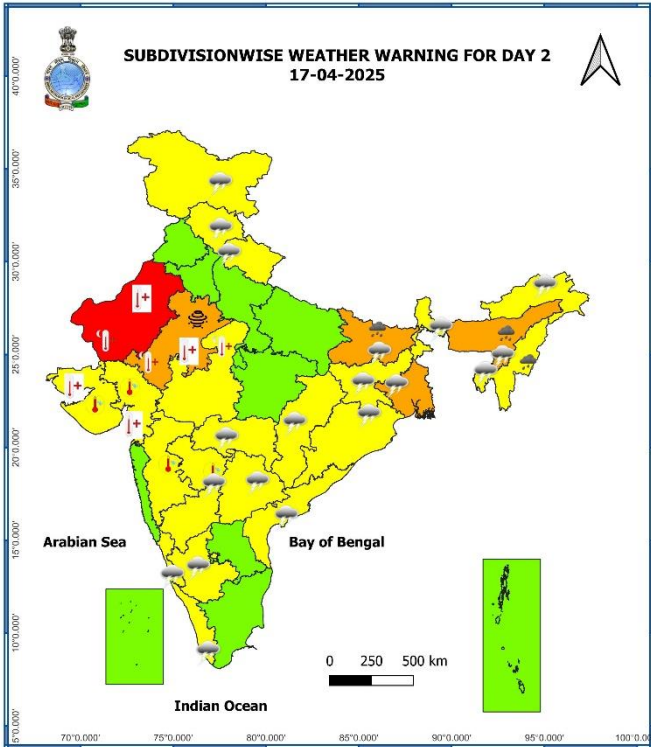
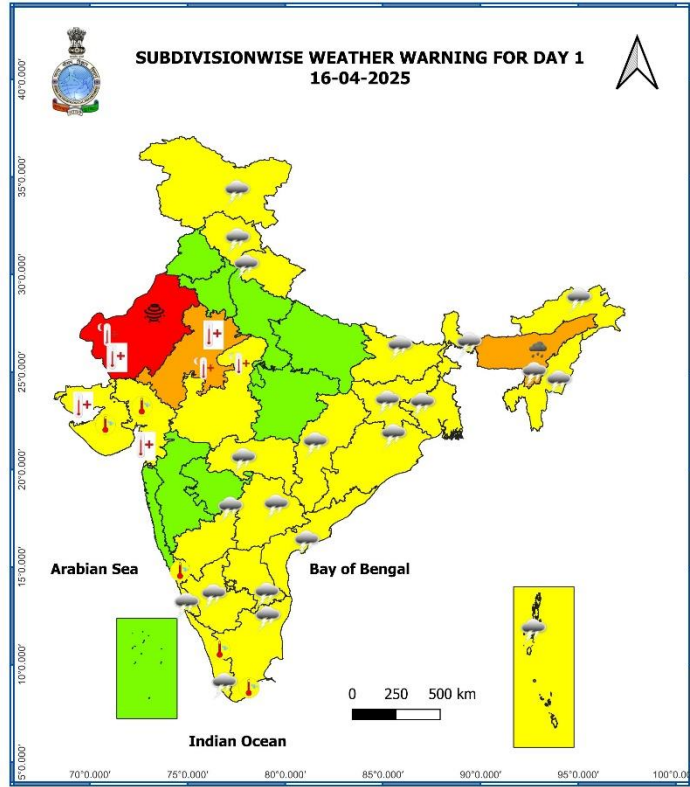
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph)** likely at isolated places over Himachal Pradesh.

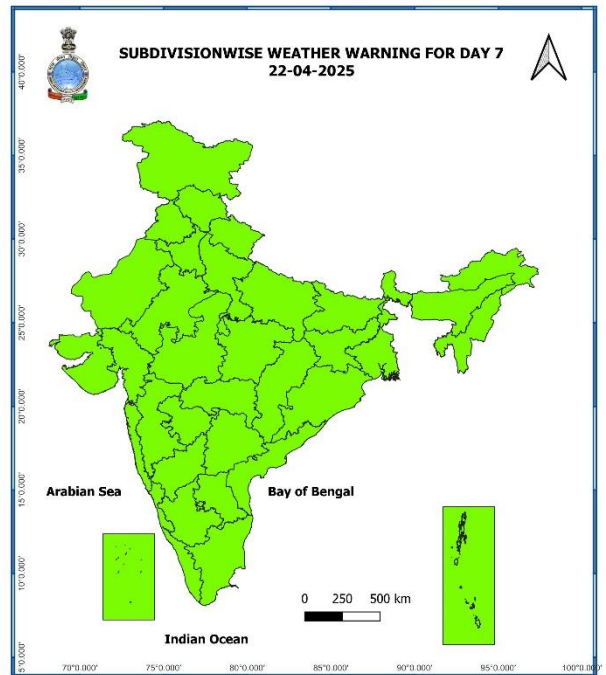
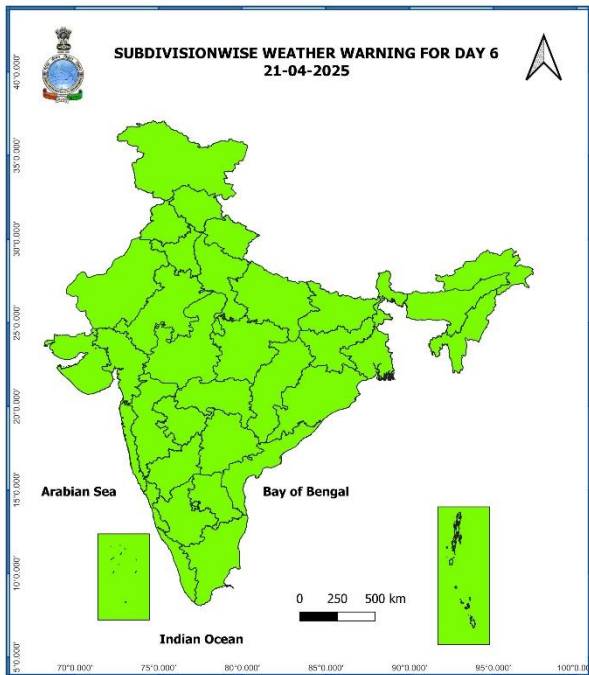
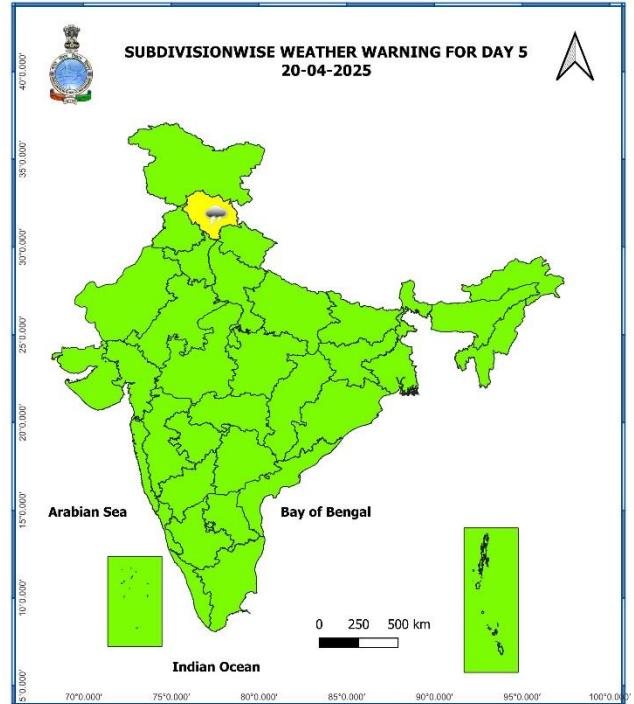
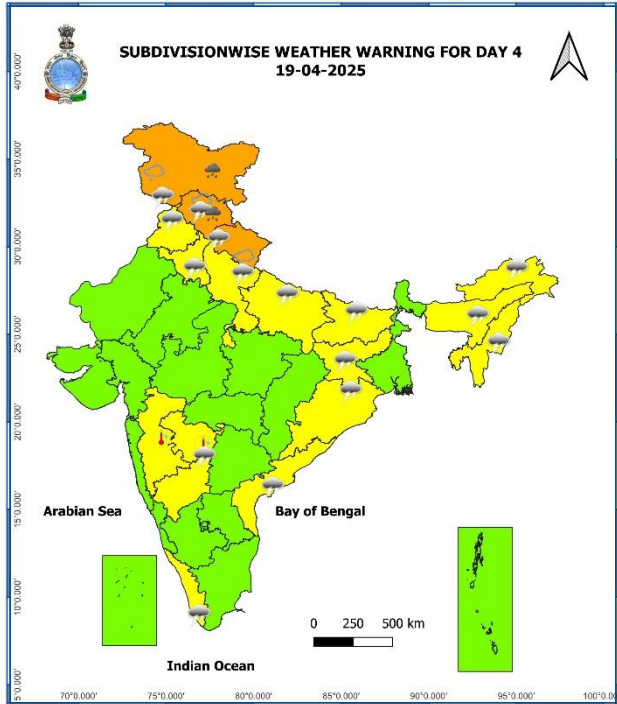
### 21<sup>st</sup> April (Day 6):

- ❖ **No warning.**

### 22<sup>nd</sup> April (Day 7):

- ❖ **No warning.**





- 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.



Table-1

7 Days Rainfall Forecast								
S. No.	Subdivision	16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	FWS	FWS	SCT	SCT	SCT	ISOL
2	ARUNACHAL PRADESH	SCT	FWS	SCT	SCT	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	WS	FWS	FWS	FWS	FWS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	FWS	FWS	FWS	FWS	FWS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	SCT	FWS	FWS	FWS	SCT	SCT	FWS
6	GANGETIC WEST BENGAL	SCT	SCT	FWS	SCT	SCT	ISOL	ISOL
7	ODISHA	FWS	SCT	SCT	SCT	SCT	ISOL	ISOL
8	JHARKHAND	SCT	SCT	SCT	SCT	SCT	ISOL	ISOL
9	BIHAR	ISOL	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
10	EAST UTTAR PRADESH	DRY	ISOL	ISOL	SCT	ISOL	DRY	DRY
11	WEST UTTAR PRADESH	DRY	DRY	ISOL	ISOL	ISOL	DRY	DRY
12	UTTARAKHAND	ISOL	ISOL	SCT	FWS	FWS	ISOL	ISOL
13	HARYANA CHANDIGARH & DELHI	ISOL	DRY	ISOL	ISOL	ISOL	DRY	DRY
14	PUNJAB	ISOL	DRY	ISOL	ISOL	ISOL	DRY	DRY
15	HIMACHAL PRADESH	ISOL	ISOL	FWS	FWS	SCT	ISOL	ISOL
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	WS	WS	FWS	FWS	FWS
17	WEST RAJASTHAN	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	ISOL	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
21	GUJARAT REGION	DRY	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	ISOL	DRY	DRY	DRY	ISOL	ISOL	DRY
24	MADHYA MAHARASHTRA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
25	MARATHAWADA	ISOL	ISOL	DRY	DRY	ISOL	ISOL	DRY
26	VIDARBHA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
27	CHHATTISGARH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	ISOL	DRY	DRY	ISOL	SCT	SCT	SCT
33	NORTH INTERIOR KARNATAKA	ISOL	DRY	DRY	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	SCT	SCT	SCT	FWS
35	KERALA & MAHE	SCT	SCT	SCT	SCT	SCT	SCT	FWS
36	LAKSHADWEEP	DRY	DRY	DRY	DRY	DRY	DRY	DRY

• As the lead period increases forecast accuracy decreases.

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

**Impact expected:**

- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

**Action suggested:**

- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

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

1. **Heat wave conditions to severe heat wave condition** very likely at many/some places over West Rajasthan during 16<sup>th</sup>-18<sup>th</sup> with severe heat wave conditions at isolated/some parts during 16<sup>th</sup>-18<sup>th</sup> April.
2. **Heat wave conditions** are very likely at isolated/some places over East Rajasthan during 16<sup>th</sup>-19<sup>th</sup>; Gujarat State on 16<sup>th</sup> & 17<sup>th</sup> April.

**Red alert Areas**

- Very high likelihood of developing heat illness and heat stroke in all ages.
- Extreme care needed for vulnerable people.

**Orange alert Areas**

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

**Yellow alert Areas**

- Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure.
- Wear lightweight, light colour, loose, cotton clothes.
- Cover your head, use a cloth, hat or umbrella.

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

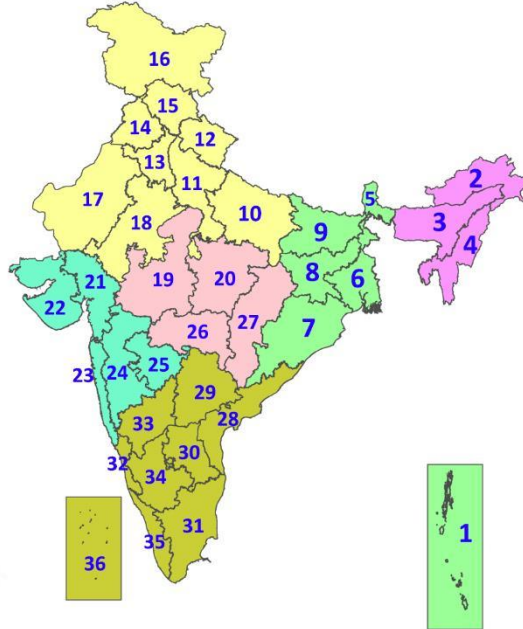
- In **Meghalaya, Odisha and Jharkhand**, immediately shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields to avoid the adverse impact of likely hailstorm. Use hail net and hail caps to prevent mechanical damage in orchards due to hailstorms.
- In **Assam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

### Livestock / Poultry / Fishery

- Keep the animals inside the shed during heavy rainfall / hailstorm and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- To reduce the effect of heat wave/high temperature, cover the roof of poultry sheds with grass. Also provide clean, hygienic and plenty of drinking water to animals.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.

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

\* 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)

**Hot and Humid:** When maximum temperatures remains  $3^{\circ}\text{C}$  above normal along with the above normal relative humidity.