

Thursday, April 17, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and Warnings:

- ❖ An **upper air cyclonic circulation** lies over northwest Rajasthan, 2nd over East Madhya Pradesh and 3rd over east Assam in lower tropospheric levels.
- ❖ A **trough** from northeast Rajasthan to south Tamil Nadu, 2nd trough from East Madhya Pradesh to Gangetic West Bengal; in lower tropospheric levels and 3rd trough in lower & middle tropospheric westerlies from Sikkim to north Odisha.
- ❖ Under the influence of these systems:
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 40-50 kmph)** likely over Northeast & East India during next 5 days.
 - ✓ Isolated to scattered rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 40-50 kmph)** likely over the plains of Vidarbha, Chhattisgarh on 17th & 18th April.
 - ✓ **Heavy rainfall** likely over Bihar, Assam & Meghalaya on 17th and during 20th-22nd; Arunachal Pradesh during 20th-22nd April.
 - ✓ **Thundersquall (wind speed reaching 50-60 kmph)** very likely at isolated places over Gangetic West Bengal, Bihar on 17th & 18th April.
 - ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Tamilnadu Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Karnataka during next 5 days. **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over Kerala & Mahe during 17th-19th April.
- ❖ An intense Western Disturbance likely to affect Western Himalayan Region from 17th to 20th April.
 - ✓ **Thunderstorm, lightning & gusty winds (speed 40-50 kmph) with isolated hailstorm** likely over Western Himalayan Region on 18th & 19th April.
 - ✓ **Isolated heavy rainfall likely** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, and Himachal Pradesh on 18th & 19th April.
 - ✓ Isolated rainfall along with **thunderstorm & lightning and gusty winds (speed 30-40 kmph)** is likely over northwest India during 18th to 20th April, 2025.
 - Isolated Duststorm/Thunderstorm likely over East Rajasthan on 17th April.

Temperature Forecast:

- ❖ Gradual Rise in maximum temperatures by 2-4°C likely over Northwest India during next 3 days, till 18th April and gradual fall by 2-3°C during subsequent 3-4 days.
- ❖ Gradual Rise in maximum temperatures by 2-3°C likely over Central India during next 4 days and no significant change thereafter during subsequent 3 days.
- ❖ No significant change in maximum temperatures likely over Maharashtra during next 24 hours and gradual rise by 2-3°C during subsequent 6 days.
- ❖ No significant change in maximum temperatures likely over Gujarat State during next 2 days and gradual fall by 2-3°C during subsequent 5 days.
- ❖ No significant change in maximum temperatures likely over rest parts of the country.

Heat wave, warm night and Hot & Humid weather warning:

- ❖ **Heat wave condition** very likely at many/some places over West Rajasthan on 17th & 18th; at isolated places on 19th with **severe heat wave conditions** at isolated/some parts on 17th & 18th April.
- ❖ **Heat wave conditions** are very likely at isolated/some places over East Rajasthan during 17th-19th; Gujarat State on 17th April.
- ❖ **Hot & humid** weather is likely to prevail over Gujarat Region, Kerala & Mahe on 17th; Marathawada, Madhya Maharashtra during 17th-20th April.
- ❖ **Warm Night conditions** are likely at isolated places over Rajasthan on 17th; Uttar Pradesh on 17th & 18th April.

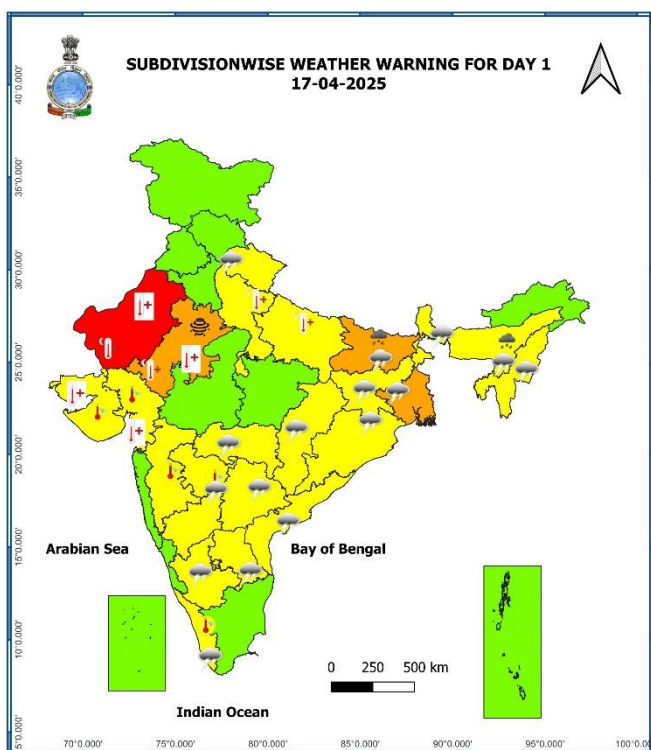
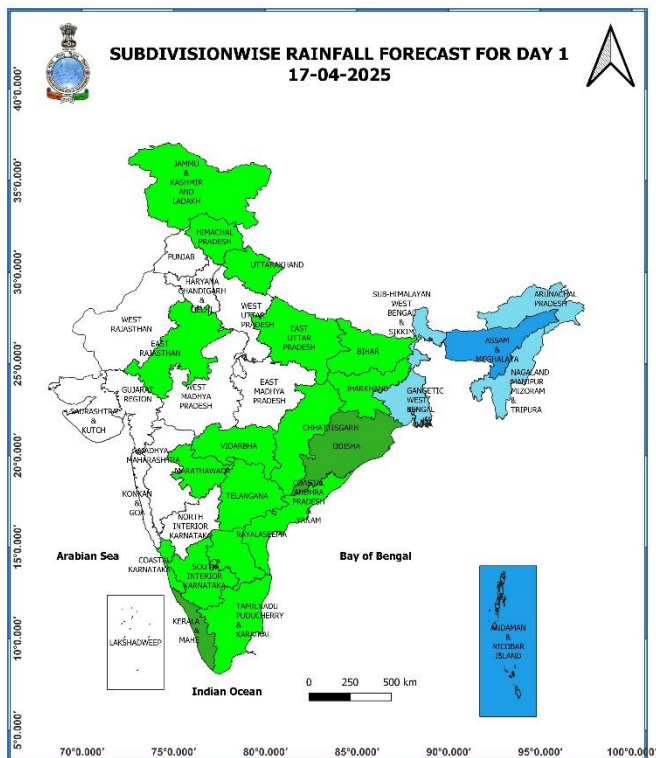
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, South Interior Karnataka; **at isolated places** over West Bengal & Sikkim, Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Odisha, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar Islands.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Tamil Nadu:** Nungambakkam 5, Meenambakkam 3; **Mizoram:** Lengpui 3, Shillong 2; **Tripura:** Agartala 2.
- ❖ **Yesterday, heat wave to severe Heat wave conditions** prevailed in isolated pockets of West Rajasthan.
- ❖ **Minimum Temperature Departures (as on 16-04-2025):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Punjab, Himachal Pradesh, West Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi; at isolated places over West Uttar Pradesh, West Madhya Pradesh; **above normal (1.6°C to 3.0°C)** at many places over Gujarat Region, East Rajasthan; at isolated places over East Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Bihar, Vidarbha, Vidarbha, Marathwada, Madhya Maharashtra and Saurashtra & Kutch. These were **markedly below normal (-5.1°C or less)** at isolated places over Telangana; **below normal (-3.0°C to -1.6°C)** at isolated places over Assam & Meghalaya, Gangetic West Bengal, Jharkhand, Chhattisgarh, East Madhya Pradesh, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and normal over rest parts of the country (**Fig. 4**). Yesterday, the **lowest minimum temperature of 17.9°C** was reported at **Ranchi (Jharkhand)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 16-04-2025):** Maximum Temperatures were **markedly above normal (5.1°C or more)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and West Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Assam; at isolated places over Himachal Pradesh, Haryana-Chandigarh and Saurashtra & Kutch; **above normal (1.6°C to 3.0°C)** at most places over Punjab; at a few places over East Rajasthan, Madhya Maharashtra, Vidarbha, Coastal Karnataka and Lakshadweep; at isolated places over Delhi, Gujarat Region, West Madhya Pradesh, West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa and Marathwada. These were **appreciably below normal (-3.1 to -5.0°C)** at a few places over Andaman & Nicobar Islands; at isolated places over Jharkhand, Odisha and Coastal Andhra Pradesh & Yanam; **below normal (-3.0°C to -1.6°C)** at a few places over East Uttar Pradesh and Bihar; at isolated places over East Madhya Pradesh, Telangana, Meghalaya, Mizoram, Tamil Nadu, Puducherry & Karaikal and normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 46.0°C** was reported at **Jaisalmer (West Rajasthan)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

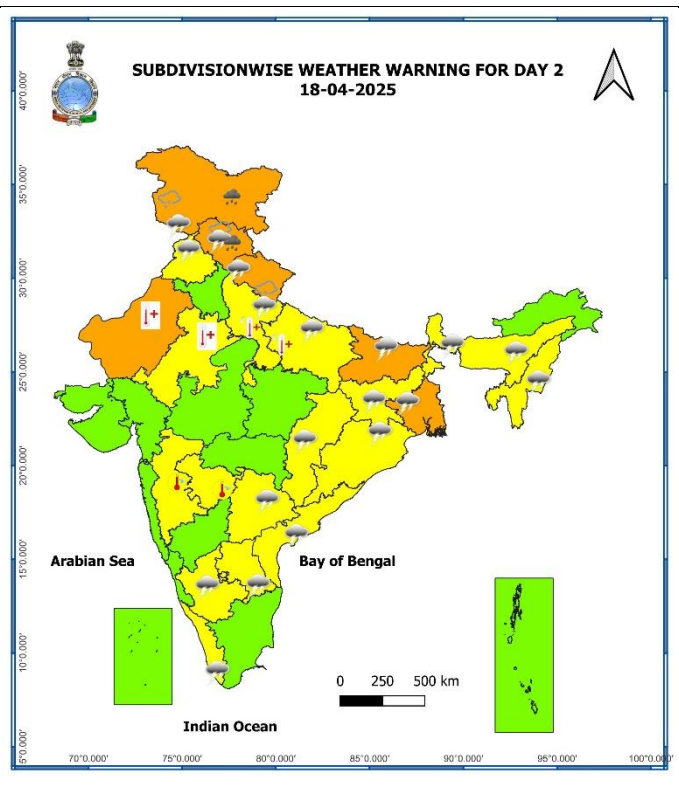
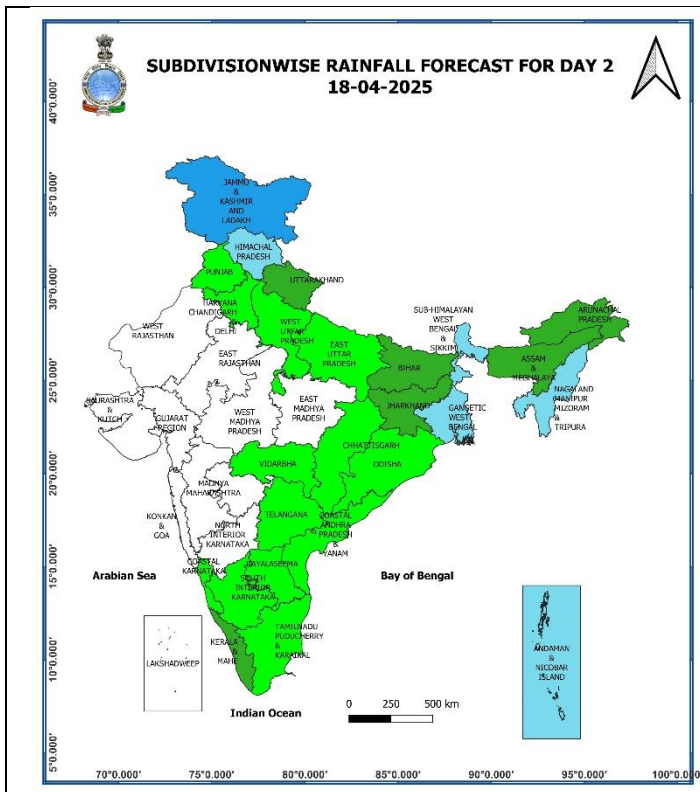
- ❖ The **trough** in westerlies from Sikkim to north Odisha across West Bengal and Jharkhand between 3.1 & 5.8 km above mean sea level persists.
- ❖ The **Western Disturbance** as a cyclonic circulation over Iraq now lies over West Iran & neighbourhood in middle & upper tropospheric level.
- ❖ The upper air **cyclonic circulation** over southwest Rajasthan & neighbourhood now lies over northwest Rajasthan & neighbourhood and extends upto 3.1 km above mean sea level.
- ❖ The **trough** from cyclonic circulation over southwest Rajasthan & neighbourhood to Gulf of Munnar now runs from northeast Rajasthan & neighbourhood to south Tamil Nadu across West Madhya Pradesh, Vidarbha, Telangana, Rayalaseema at 0.9 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over east Assam extending upto 1.5 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over East Madhya Pradesh & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The **trough** from the above cyclonic circulation over East Madhya Pradesh to Gangetic West Bengal across Chhattisgarh, Jharkhand extending upto 1.5 km above mean sea level persists.
- ❖ The **trough** from the above cyclonic circulation over east Madhya Pradesh to South Interior Karnataka across Marathwada & North Interior Karnataka extending upto 1.5 km above mean sea level persists.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 24th April, 2025)



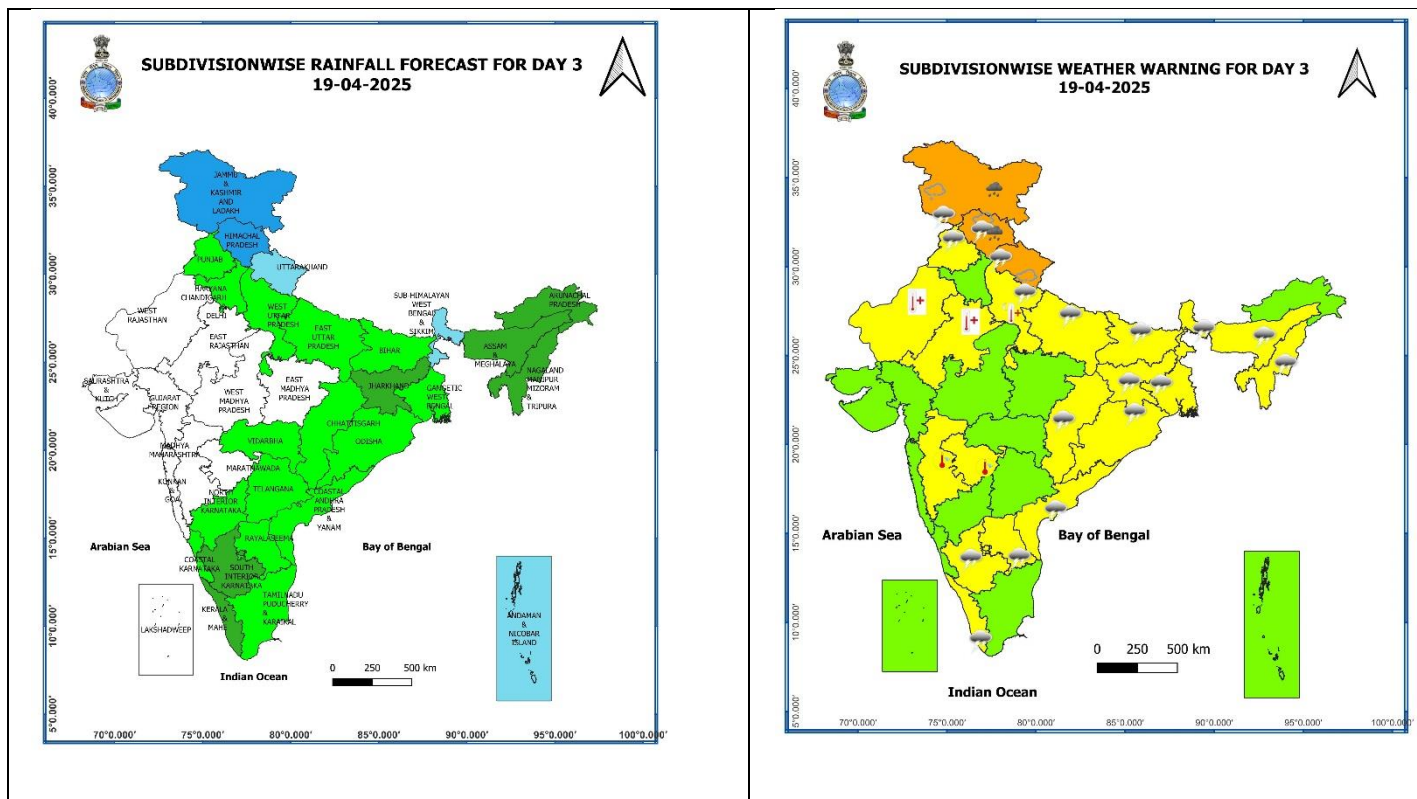
17th April (Day 1):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Bihar, Assam & Meghalaya
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph)** very likely at isolated places over Gangetic West Bengal, Bihar; **Thunderstorm 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, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, South Interior Karnataka; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Vidarbha, Chhattisgarh, Rayalaseema, Telangana, North Interior Karnataka; **with lightning** at isolated places Uttarakhand.
- ❖ **Duststorm/ Thunderstorm** very likely at isolated places over East 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.
- ❖ **Hot and Humid** very likely at isolated places over Kerala & Mahe, Madhya Maharashtra, Marathwada and Gujarat.
- ❖ **Warm night conditions** very likely at a few places over West Rajasthan and at isolated places over East Rajasthan and Uttar Pradesh.



18th April (Day 2):

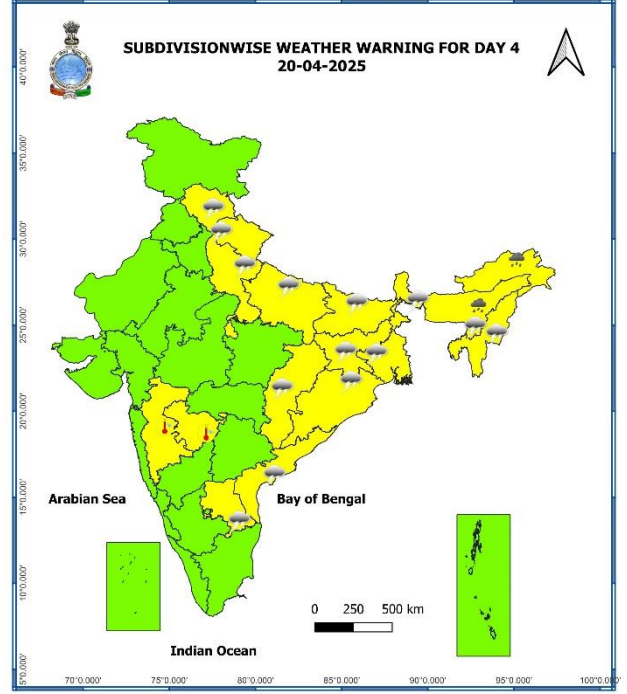
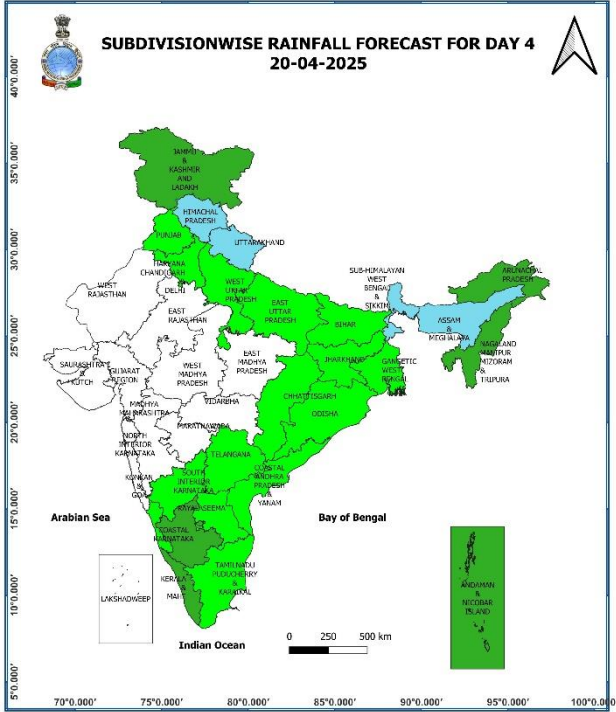
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh.
- ❖ **Thundersquall accompanied with lightning, gusty winds (speed reaching 50 - 60 kmph)** likely at isolated places over Gangetic West Bengal, Bihar; **Thunderstorm accompanied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



19th April (Day 3):

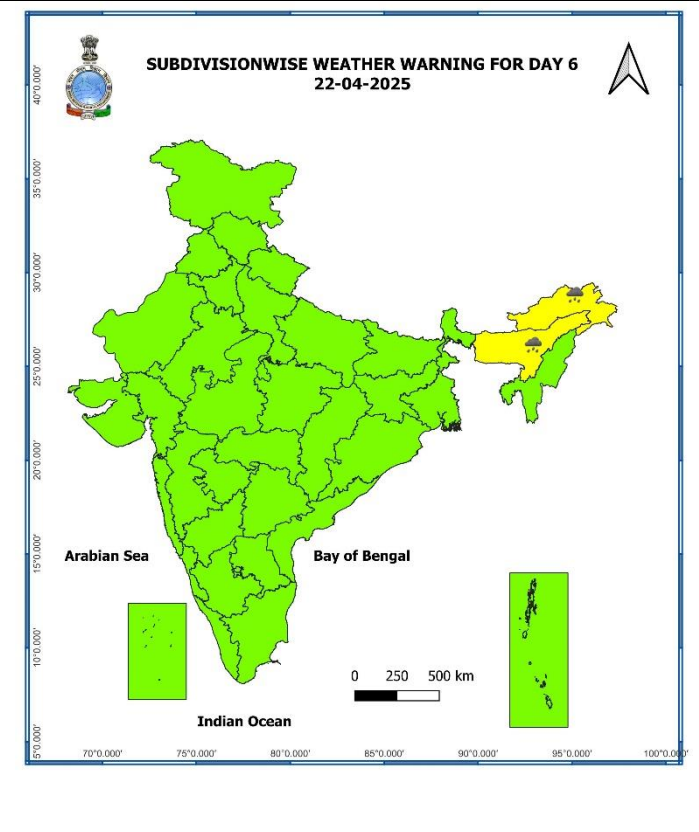
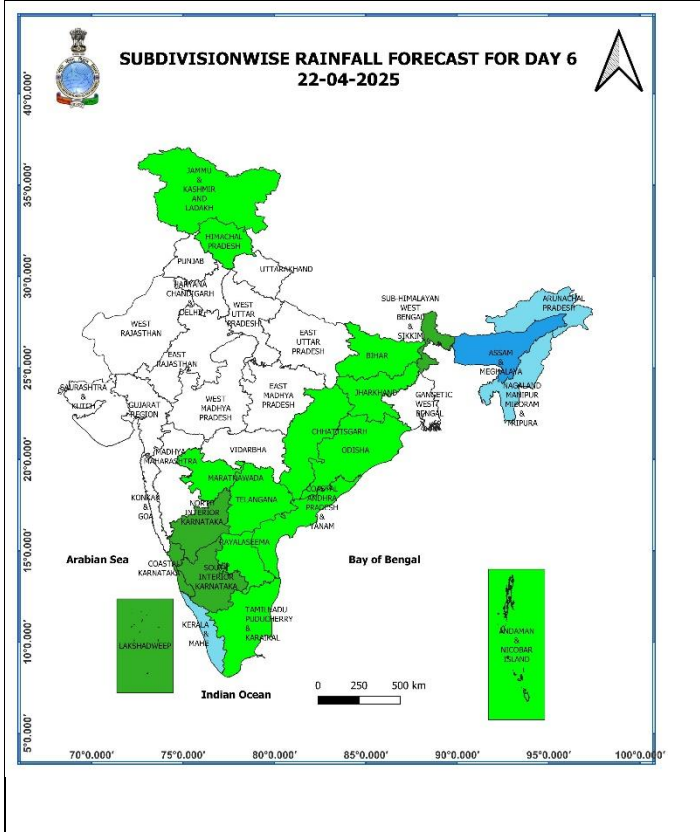
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40- 50 kmph), hailstorm** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad,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

* 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)



20th April (Day 4):

- ❖ **Heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30 - 40 kmph)** likely at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema; **with lightning** at isolated places over West Uttar Pradesh, Chhattisgarh, Gangetic West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hot and Humid** likely at isolated places over Madhya Maharashtra and Marathwada.



22nd April (Day 6):

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

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

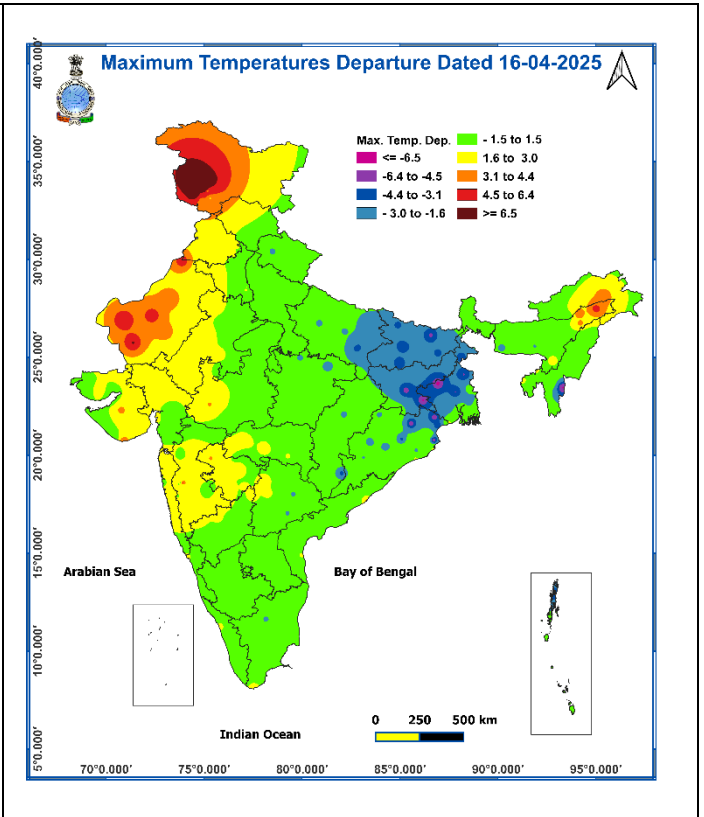
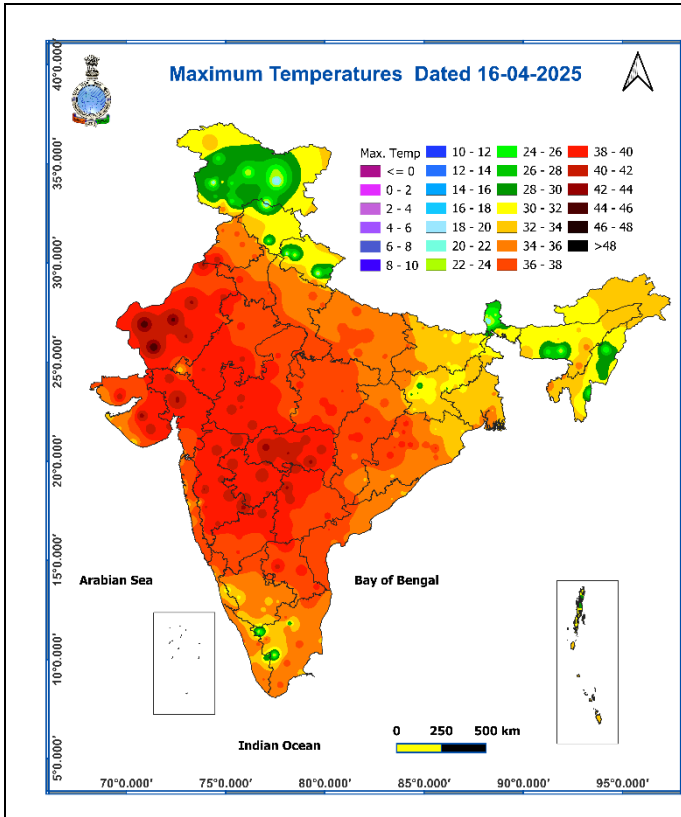
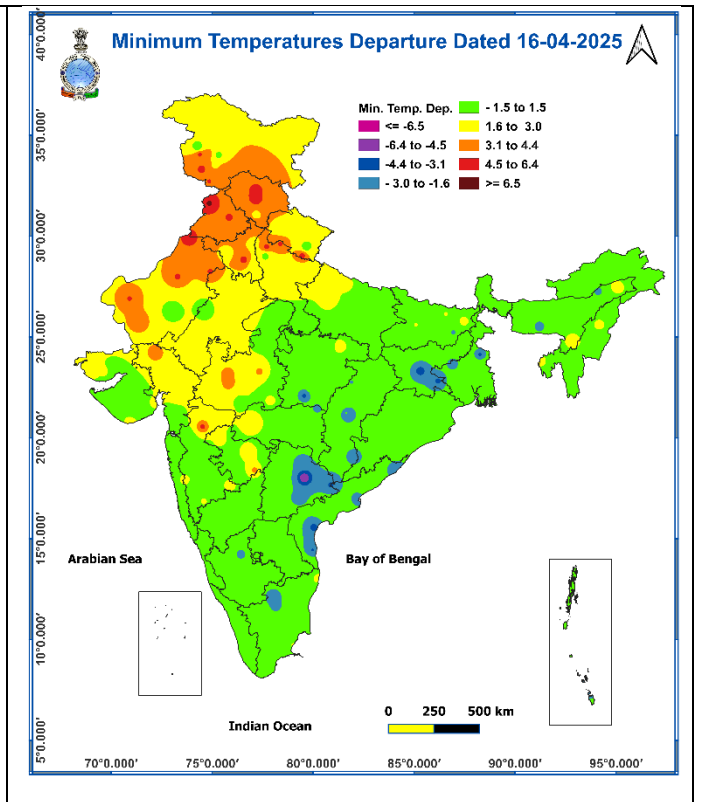
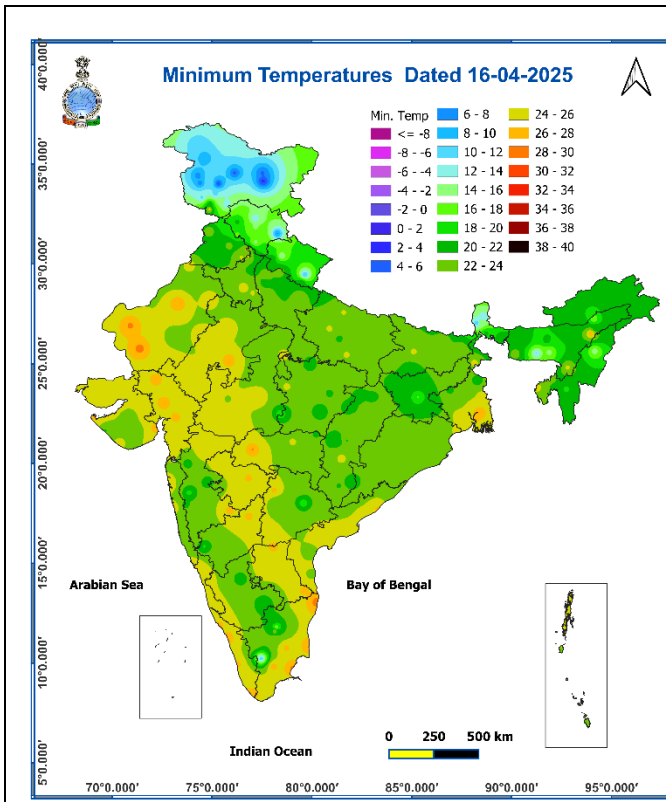


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



Impact expected and action suggested due to isolated thunderstorm with lightning/gusty winds & Hailstorm over Himalayan Region on 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

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

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.

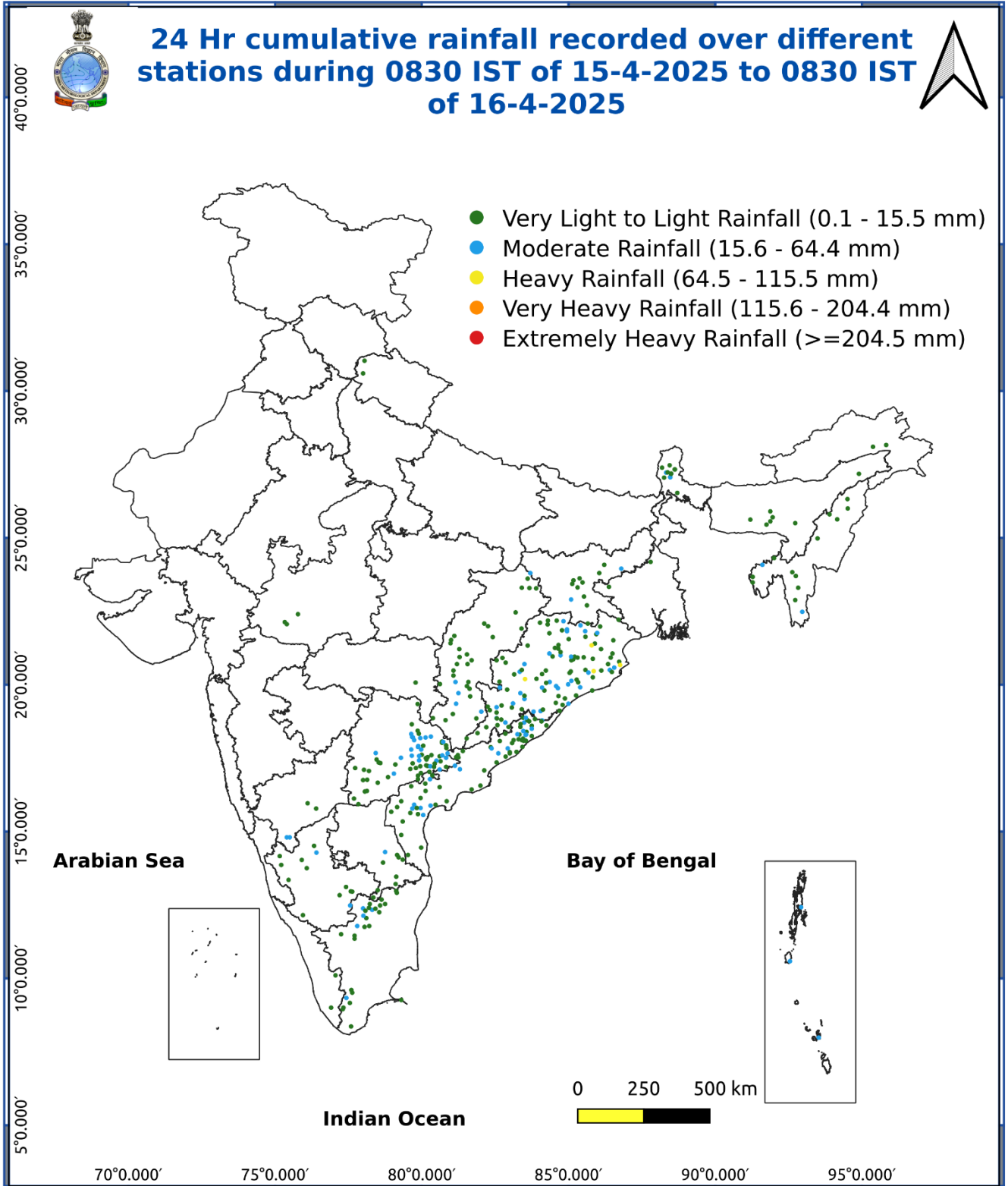
Agromet advisories for likely impact of Hailstorm / Heavy Rainfall / Gusty Winds / Heatwave

- In **Chhattisgarh**, 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, Bihar, Jammu & Kashmir** and **Himachal Pradesh**, 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** 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

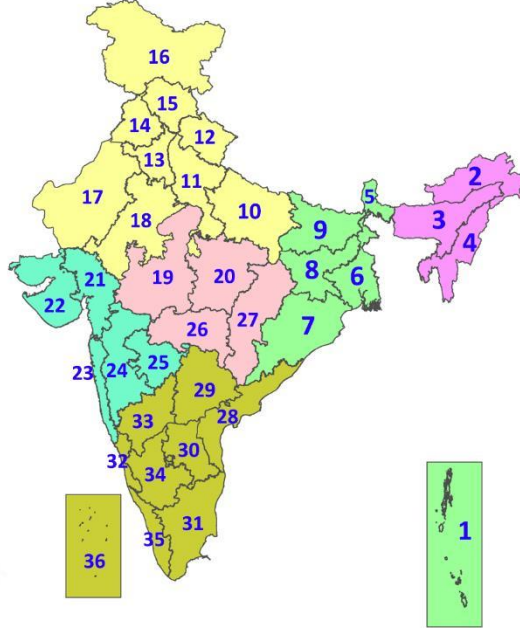
- Keep the animals inside the shed during heavy rainfall / hailstorm and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- To reduce the effect of heat wave/high temperature, cover the roof of poultry sheds with grass. Also provide clean, hygienic and plenty of 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.

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



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

Hot and Humid: When maximum temperatures remains 3°C above normal along with the above normal relative humidity.