



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 17th March, 2025

Time of Issue: 1345 hours IST

- Subject:** i) Heat wave conditions likely to abate from East India except from interior Odisha from tomorrow onwards.
- ii) Light to moderate rainfall accompanied with thunderstorm, lightning, gusty winds & hailstorms likely over east central India during 19th-23rd March with peak activity on 20th & 21st March.
- iii) Light to moderate rainfall accompanied with thunderstorm accompanied with gusty winds likely over northeast India during next 5 days and with isolated heavy rainfall/snowfall over Arunachal Pradesh on 17th March.

i. Realised weather during past 24 hours till 0830 hours IST of today, the 16th March 2025 (Annexure I):

- ❖ **Heavy rainfall/snowfall** reported at isolated places over Arunachal Pradesh and Kerala & Mahe; **Heavy Rainfall** reported over Assam and Kerala.
- ❖ **Hailstorms reported** at isolated locations over Northeast Uttar Pradesh, Uttarakhand, Gangetic West Bengal and Sikkim.
- ❖ **Gusty wind reported** at isolated locations over Himachal Pradesh, Madhya Pradesh, Kerala, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heat wave to Severe heat wave conditions** prevailed at some places over interior Odisha and **Heat wave conditions** at isolated places over Jharkhand & adjoining Gangetic west Bengal, Vidarbha & adjoining north Telangana.
- ❖ For more details of realised weather, kindly refer [Annexure I](#)

Temperature:

- ❖ For temperature observations during past 24 hours till 0830 hours IST of today are provided in [Annexure II](#)

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

- ❖ A **Cyclonic Circulation** lies over northeast Assam and neighbourhood in lower tropospheric levels. Under its influence;
 - ✓ **Scattered to Fairly widespread light/moderate rainfall/snowfall** accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Arunachal Pradesh during next 7 days with Isolated **heavy rainfall/snowfall** on 17th March.
 - ✓ **Isolated to Scattered light/moderate rainfall** accompanied with **thunderstorm, lightning & gusty winds (speed 30-50 kmph)** likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 7days.
- ❖ A trough runs from north Chhattisgarh to Vidarbha in lower tropospheric levels. Under its influence, Isolated to Scattered light/moderate rainfall accompanied with thunderstorm, lightning & gusty winds

(speed 30-50 kmph) likely over West Bengal, Sikkim, Bihar, Jharkhand and Odisha today. **Isolated hailstorms also likely over Gangetic West Bengal today.**

- ❖ Due to trough and wind confluence over East India in lower tropospheric levels, scattered to fairly widespread rainfall accompanied with Thunderstorm, lightning and gusty winds likely over east central India during 19th -23rd with peak activity on 20th & 21st March. **Isolated hailstorms also likely over Gangetic West Bengal, Jharkhand and Odisha on 20th & 21st March.**

Temperature Forecast:

Forecast of temperature:

Maximum temperature:

- ❖ Gradual rise in maximum temperatures by about 3-5°C likely over Northwest India during next 4-5 days
- ❖ No significant change in maximum temperatures likely over East India during next 3 days and fall by 2-4°C during subsequent 2 days.
- ❖ No significant change in maximum temperatures likely over rest parts of India during next 3-4 days.

Heat wave and Hot & Humid weather warning:

- ❖ **Heat wave to Severe heat wave conditions** likely to continue at isolated pockets over interior Odisha on 17th March and heat wave conditions at isolated pockets during subsequent 2 days.
- ❖ **Heat wave conditions** likely to continue at isolated pockets over Jharkhand, Vidarbha & adjoining North Telangana on 17th March
- ❖ **Hot & humid conditions** very likely to prevail in isolated pockets over coastal areas of Gujarat during next 5 days; over Konkan & Goa on 17th & 18th March and over north interior Karnataka during 17th-19th March.

iv. Weather conditions and forecast over Delhi/NCR during 17th March to 20th March. 2025 (Annexure V)

For more details, kindly refer National Weather Bulletin:

https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

For District wise warnings refer: <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

Significant weather reported during past 24 hours till 0830 hours IST of today:

- ❖ Light to moderate **Rainfall/Snowfall** occurred at most places Arunachal Pradesh; at a few places over Himachal Pradesh, Uttarakhand, Sikkim and at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Light to moderate rainfall** at a few places over Gangetic west Bengal, Assam, Lakshadweep and Kerala at isolated places over Uttar Pradesh, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Odisha, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu and South Interior Karnataka.
- ❖ **Thunderstorm with lightning** reported at isolated places over Jammu-Kashmir, Himachal Pradesh, Himachal Pradesh, Uttarakhand, Uttar Pradesh, west Rajasthan, Madhya Pradesh, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Arunachal Pradesh, Assam, Mizoram, Tripura, Tamilnadu Puducherry & Karaikal, Kerala, and Lakshadweep and dry thunderstorm over south interior Karnataka and Chhattisgarh.

Rainfall recorded (in cm):

- ❖ **South Interior Karnataka:** Sargur (dist Mysuru) 6, H D Kote (dist Mysuru) 2.
- ❖ **Kerala & Mahe:** Ottapalam (dist Palakkad) 7, Cheruvanchery(dist Cannur) 6, Kozhikode (dist Kozhikode) 5, Ottapalam(dist Palakkad) 4, Mannarkkad(dist Palakkad) 3, Perumpavur (dist Ernakulam) 3, Mannarkkad (dist Palakkad) 3, Pattembi (dist Palakkad) 3.
- ❖ **Arunchal Pradesh:**Hayuliang Circle AWS (dist Anjaw) 10, Pakke Kesang AWS (dist Pakke Kesang) 7,Miao (dist Changlang) 5, Miao AWS (dist Changlang) 5, Tawang (dist Tawang) 2,
- ❖ **Assam & Meghalaya:**Udaipur (dist Tinsukia) 8, Margherita (dist Tinsukia) 5, Majuli (dist Jorhat) 2,Sonari_arg (dist Sibsagar) 2.
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Bishalgarh (dist Sipahijala) 2, Cti Arg (dist Sipahijala) 1, Budhjongnagar Arg (dist WestTripura) 1, Teliamura AARG (dist Khowai) 1.
- ❖ **Gangetic West Bengal:** Diamond Harbour (dist South 24 Parganas) 5, Mohanpur (dist West Midnapore) 2, Midnapore(cwc) (dist West Midnapore) 1, Midnapore (dist West Midnapore) 1.
- ❖ **Sub-Himalayan West Bengal & Sikkim:** Kabi (dist Mangan) 2, Tadong (dist Gangtok) 1.

Hailstorm reported:

East Uttar Pradesh: Gorakhpur & Basti

Uttarakhand: Mukteshwar and Tehri

Himachal Pradesh: Jot, Shimla and Sundernagar

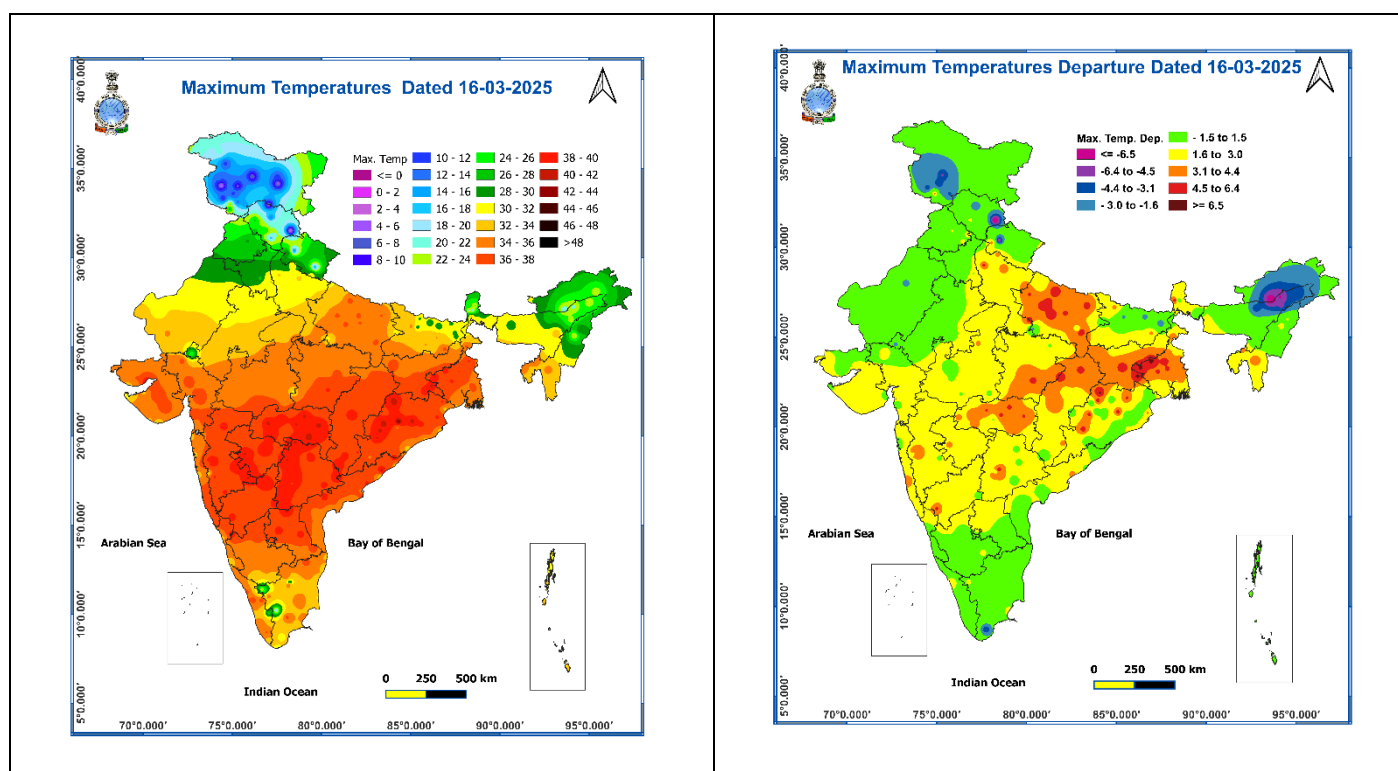
Sikkim: Gangtok

- ❖ Yesterday, the 16th March, the Maximum temperatures were **above normal by 4-7 Deg C** at some places over East Uttar Pradesh, Vidarbha, North interior Odisha, Jharkhand, west Gangetic West Bengal **by 1-3 Deg C** over West Uttar Pradesh, Madhya Pradesh, Gujarat, remaining Maharashtra, North Karnataka, Telangana, Rayalaseema and north coastal Andhra Pradesh, west & south Bihar, Sub-Himalayan West Bengal and Sikkim, Mizoram, Tripura and **normal to below normal** of rest parts of the country. (Fig.2)
- ❖ Yesterday, the 16th March, the Maximum temperatures have shown **falling tendency by 1-3 Deg. C** at most places over Rajasthan, East & central Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Vidarbha, north Konkan, North Marathwada, North Madhya Maharashtra, North interior Odisha, south Gangetic West Bengal, Northeast Assam and Arunachal Pradesh; **rising tendency by 3-6 Deg. C** at most places over Jammu Division, Himachal Pradesh, west Assam and **by 1-3 Deg. C** at many places over Punjab, Uttarakhand, north Haryana & adjoining west Uttar Pradesh, Sikkim, central parts of Gangetic west Bengal, south Telangana, south Konkan & Goa and coastal areas of Saurashtra & Kutch.
- ❖ Yesterday, the 16th March, the Maximum temperatures were in the range of **40-42 Deg. C** (with the highest Tmax 43.6 Deg C at Boudh in interior Odisha) at many places over Vidarbha, North interior Odisha at isolated places over Jharkhand, Telangana, west Gangetic West Bengal and Andhra Pradesh; **35-39 Deg. C** over Gujarat State, Marathwada, Madhya Maharashtra, north interior Karnataka, Madhya Pradesh, Chhattisgarh, southwest Bihar, east Uttar Pradesh, remaining Gangetic West Bengal; **30-35 Deg C** over coastal Karnataka, Konkan & Goa, Kerala, Tamil Nadu, Lakshadweep, Andaman & Nicobar Islands, Rajasthan, west Uttar Pradesh, Bihar, West Assam & Meghalaya, Mizoram & Tripura and **20-30 Deg C** over remaining parts of the country. (Fig.1)

Fig. 1: Maximum Temperatures

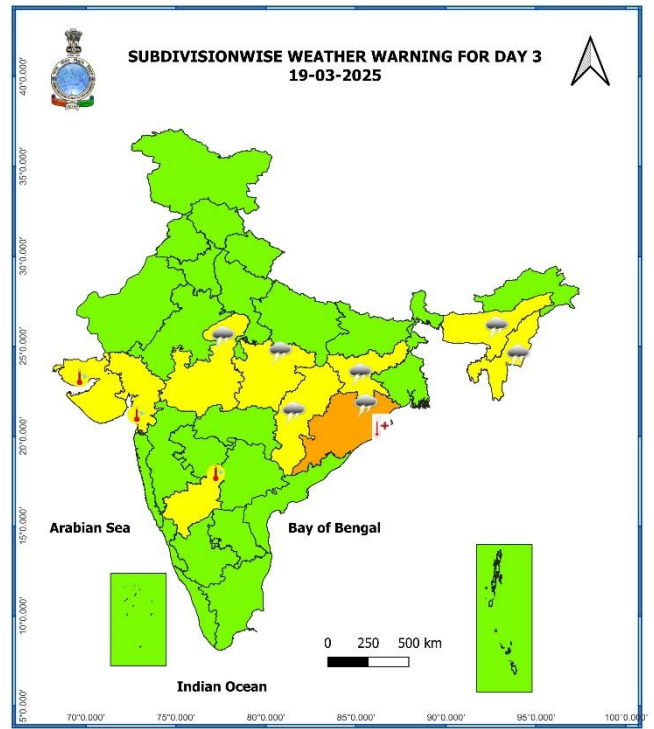
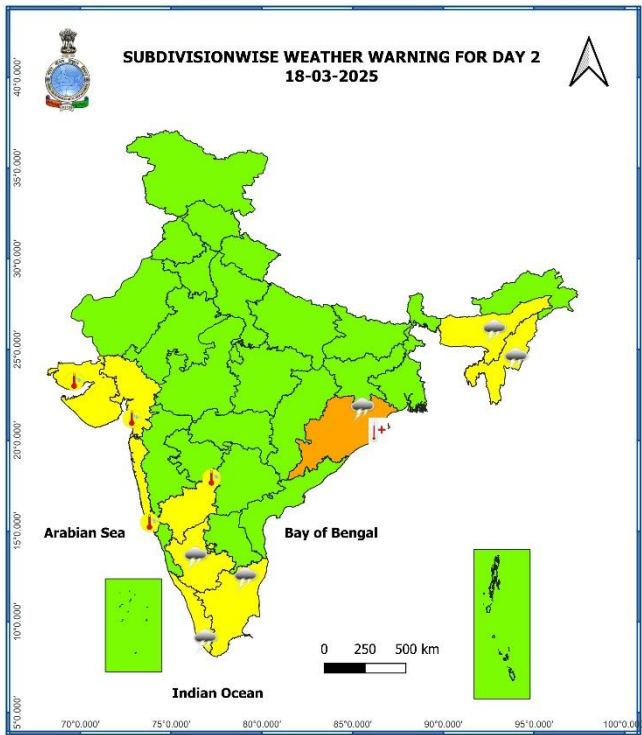
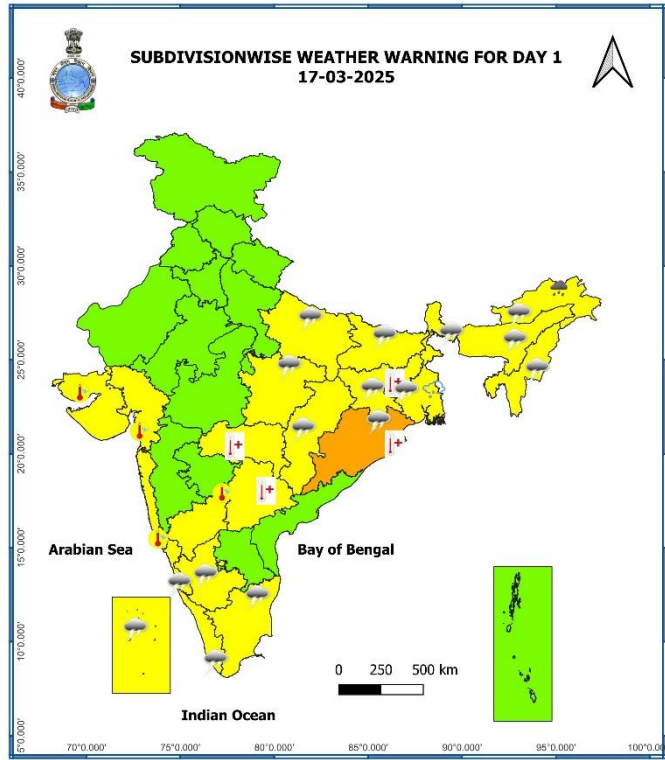
Fig. 2: Departure of Maximum

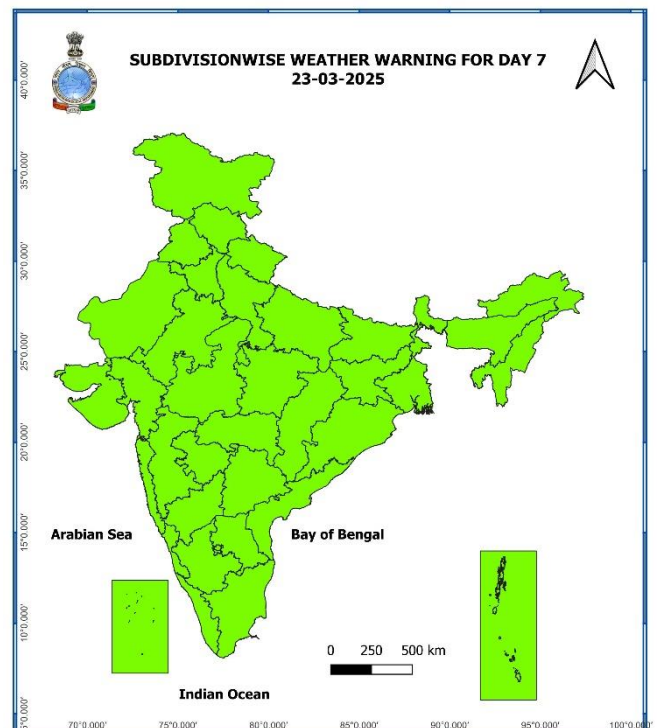
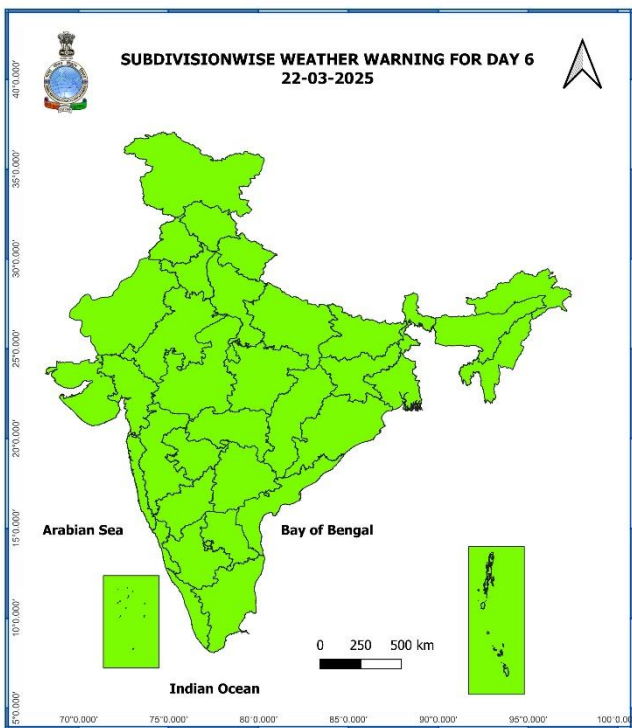
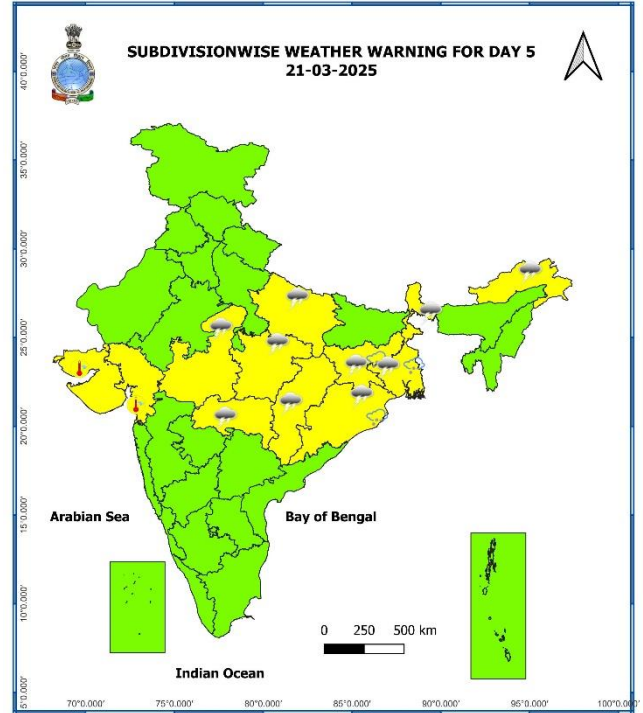
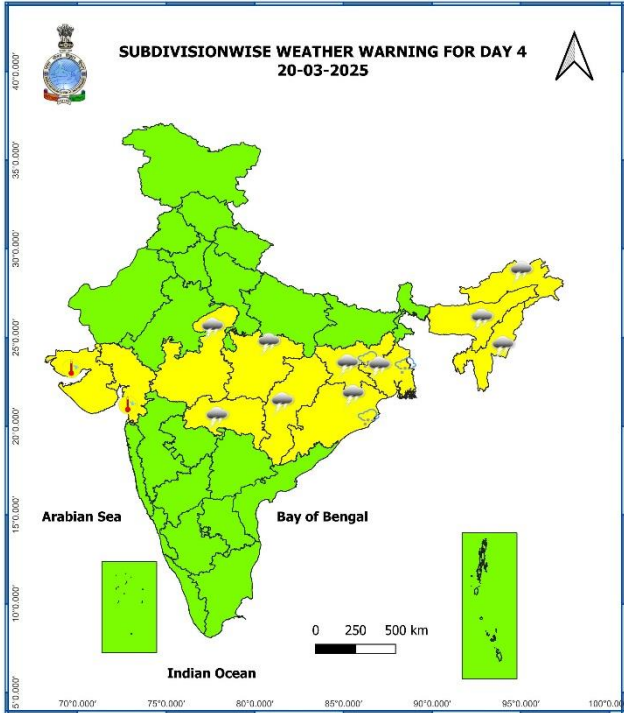
Temperatures



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

- As the lead period increases forecast accuracy decreases.





- 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.

Detailed district wise Multi Hazard weather warning for next five days available at <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

Weather forecast over Delhi/NCR during 17th Mar. to 20th Mar. 2025**Past Weather:**

There has been a fall in minimum and maximum temperatures upto 01°C over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi are in the range of 30 to 32°C and 15 to 17°C respectively. The minimum temperature was near normal and maximum temperature was above normal upto 03°C at most places. Mainly clear sky conditions with predominant surface wind from the variable direction with wind speeds less than 10 to 12 kmph prevailed during the past 24 hours. Mainly clear sky conditions with wind speed less than 12 kmph from the northwest direction prevailed over the region in the forenoon today.

Weather Forecast:

17.03.2025: Partly cloudy sky. Strong surface winds (speed 20-30kmph). The maximum temperature over Delhi is likely to be in the range of 30 to 32°C. The predominant surface wind will likely be from the northwest direction with a wind speed of less than 20 kmph till evening. It would decrease thereafter becoming less than 10 kmph from the north-northwest direction during the night.

18.03.2025: Mainly clear sky. Mist likely in the morning. Strong surface winds (speed 20-30kmph). The maximum and minimum temperatures over Delhi are likely to be in the range of 32 to 34°C and 16 to 18°C respectively. The predominant surface wind will likely be from the north-northwest direction with a wind speed of 10-12 kmph during morning hours. The wind speed will gradually increase thereafter becoming, 16-18 kmph from the northwest direction during the afternoon. It will decrease becoming less than 10 kmph from the north direction during evening and night.

19.03.2025: Partly cloudy sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 34 to 36°C and 17 to 19°C respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 08-10 kmph during morning hours. The wind speed will gradually increase becoming 12-14 kmph from the north direction in the afternoon. It will decrease becoming less than 10 kmph from the northeast direction during evening and night.

20.03.2025: Partly cloudy sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 36 to 38°C and 18 to 20°C respectively. The predominant surface wind will likely be from the northeast direction with a wind speed of 06-08 kmph during morning hours. The wind speed will gradually increase becoming 14-16 kmph from the northwest direction in the afternoon. It will decrease becoming less than 10 kmph from the north direction during evening and night.

Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds over Northeast India during next 5 days and over east India on 17th and over east & central India on 20th & 21st 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 & Action Suggested due to heavy rainfall/ snowfall over Arunachal Pradesh 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

(i) Heat wave to Severe heat wave conditions at isolated pockets over interior Odisha on 17th March and heat wave conditions at isolated pockets during subsequent 2 days.

(ii) Heat wave conditions at isolated pockets over Jharkhand, Vidarbha & adjoining North Telangana on 17th March

Orange alert Areas (Odisha on 17th 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 **Gangetic West Bengal**, use hail net and hail caps to prevent mechanical damage in orchards due to hailstorms.
- In **Arunachal Pradesh**, make provision to drain out excess water from standing crop and vegetable fields. Postpone land preparation and sowing of *Jhum* rice and maize.
- In **Odisha, Jharkhand, Vidarbha**, 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.

Livestock and Fishery

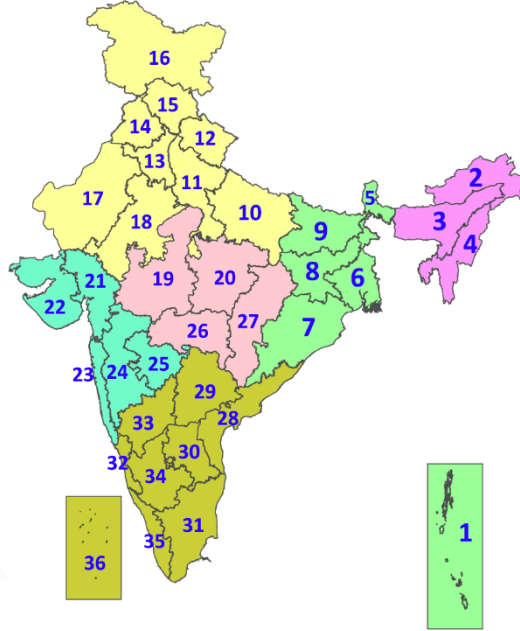
- Keep the animals inside the shed during heavy rainfall/hailstorm and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.
- 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.

Legends & abbreviations:

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office, **Aero:** Aerodrome, **IAF:** Indian Air Force.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathawada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

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

* 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.
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(Service to the Nation since 1875)

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°C to 6.4°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°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°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°C to -6.4°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°C to -6.4°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)

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