



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 21<sup>st</sup> April, 2025

Time of Issue: 1345 hours IST

**Subject: i) Heat wave conditions likely over Central India during 21<sup>st</sup>-25<sup>th</sup>; south Uttar Pradesh, Rajasthan, south Haryana and south Punjab during 22<sup>nd</sup>-26<sup>th</sup> April, 2025; ii) Heavy to very heavy rainfall spell likely to continue over Northeast India till 26<sup>th</sup> April, 2025.**

**i. Realised weather during past 24 hours till 0830 hours IST of today, the 21<sup>st</sup> April 2025 (Annexure I):**

- ❖ **Thunderstorm** accompanied with Squally/Gusty winds prevailed at isolated places Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, East Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Gangetic West Bengal, Northeast India, Kerala & Mahe, Tamilnadu Puducherry & Karaikal, Interior Karnataka, Telangana.
- ❖ **Hailstorm** occurred at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Telangana.
- ❖ **Heavy to very heavy rainfall** has been recorded at isolated places over Sub-Himalayan West Bengal & Sikkim and **heavy rainfall** at isolated paces over Rayalaseema, Nagaland, Manipur, Mizoram & Tripura.

For more details of realised weather, kindly refer **Annexure I**

**Temperature:**

- ❖ Maximum Temperature observations during past 24 hours till 0830 hours IST of today are appended in **Annexure II**.

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

- ❖ An east- west trough runs from northwest Rajasthan to east Bangladesh and a north-south trough runs from north Chhattisgarh to Gulf of Mannar in lower tropospheric levels. An upper air cyclonic circulation lies over northeast Assam in lower tropospheric levels.
- ❖ Under the influence of these systems:
  - ✓ **Fairly widespread to widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over Northeast India during next 7 days.
  - ✓ **Isolated to scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over East India on 21<sup>st</sup> April.
  - ✓ **Heavy to very heavy rainfall** likely over Assam & Meghalaya during 21<sup>st</sup>-26<sup>th</sup>; Arunachal Pradesh during 22<sup>nd</sup>-26<sup>th</sup> and **heavy rainfall** over Nagaland, Manipur, Mizoram & Tripura on 21<sup>st</sup> & 23<sup>rd</sup> April.

- ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe; **with lightning** over Tamilnadu Puducherry & Karaikal, Telangana during next 7 days.
- ✓ **Heavy rainfall** likely over Kerala & Mahe on 21<sup>st</sup> April, 2025.
- ❖ Under the influence of Western **Disturbance** as a cyclonic circulation over north Pakistan in lower & middle tropospheric levels and an upper air cyclonic circulation over central Pakistan & neighbourhood in lower tropospheric levels;
  - ✓ **Isolated to scattered** light/moderate rainfall with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over Western Himalayan Region on 21<sup>st</sup> & 22<sup>nd</sup> April.
  - ✓ Isolated **hailstorm** very likely over Himachal Pradesh today.

#### Temperature Forecast:

- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Northwest India during next 6 days and no significant change during subsequent 24 hours.
- ❖ Rise in maximum temperatures by about 2°C likely over Central India and Gujarat during next 3 Days and no significant change during subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over Central India and Gujarat State during next 24 hours and gradual rise by 2-3°C during subsequent 6 days.
- ❖ Gradual rise in maximum temperatures by 4-6°C likely over East India during next 4 Days and no significant change during subsequent 3 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 conditions** very likely in isolated pockets over East Rajasthan during 21<sup>st</sup>-26<sup>th</sup>; Madhya Pradesh, Vidarbha, Chhattisgarh during 21<sup>st</sup>-25<sup>th</sup>; Haryana, Odisha during 22<sup>nd</sup>-25<sup>th</sup>; Uttar Pradesh during 22<sup>nd</sup> -26<sup>th</sup>; Punjab during 23<sup>rd</sup>-25<sup>th</sup>; Gangetic West Bengal, West Rajasthan during 23<sup>rd</sup>-26<sup>th</sup> and Bihar, Jharkhand on 25<sup>th</sup> & 26<sup>th</sup> April.
- ❖ **Warm night conditions** very likely in isolated pockets over Bihar during 23<sup>rd</sup>-26<sup>th</sup> April.
- ❖ **Hot & humid weather** is likely to prevail over Tamilnadu Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema during 21<sup>st</sup>-25<sup>th</sup>; Marathawada during 21<sup>st</sup>-24<sup>th</sup>; Bihar, Jharkhand during 22<sup>nd</sup>-24<sup>th</sup>; Konkan & Goa on 22<sup>nd</sup> & 23<sup>rd</sup>; Madhya Maharashtra on 24<sup>th</sup> & 25<sup>th</sup> and over Gujarat State during 22<sup>nd</sup> -24<sup>th</sup> April.

#### iv. Weather conditions and forecast over Delhi/NCR during 21<sup>st</sup> April to 24<sup>th</sup> April, 2025 (Annexure V)

For more details, kindly refer National Weather Bulletin:

[https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](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/moderate Rainfall with thunderstorm & lightning observed** at most places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Andaman & Nicobar Islands; at many places over Himachal Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka; at a few places over Sub-Himalayan West Bengal & Sikkim, Lakshadweep, Rayalaseema, Coastal Karnataka; at isolated places over Uttarakhand, Punjab, Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha, Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana and North Interior Karnataka.

**Rainfall recorded (in cm):**

- ❖ **Sub-Himalayan West Bengal & Sikkim:** Hasimara (dist Alipurduar) 14, Nagarkata (dist Jalpaiguri) 3,
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Arundhutinagar (dist West Tripura) 11, Dm Office Arg (dist West Tripura) 11, Khumluwang Arg (dist West Tripura) 9, Bagafa (dist South Tripura) 7, Kvk South (dist South Tripura) 6, Agartala Aero (dist West Tripura) 6,
- ❖ **Rayalaseema:** Atmakur (dist Anantapuramu) 7, Guntakal (dist Anantapuramu) 7, Chenne Kothapalle (dist Sri Sathyasai District) 5, Ramagiri (dist Sri Sathyasai District) 5, Kadiri (dist Sri Sathyasai District) 5, Jupadu Bungalow (dist Nandyal) 5,
- ❖ **South Interior Karnataka:** Channagiri (dist Davangere) 6, Davanagere Pto (dist Davangere) 4, Bargur (dist Tumakuru) 4,
- ❖ **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Govindpura Aws (dist Ramban) 5, Bandipora (dist Bandipore) 3,
- ❖ **Himachal Pradesh:** Pooh (dist Kinnaur) 5, Saloni (dist Chamba) 4, Kothi (dist Kullu) 3, Kalpa (dist Kinnaur) 3, Sangla (dist Kinnaur) 3, Reckong Peo (dist Kinnaur) 3,
- ❖ **Kerala:** Hosdurg (dist Kasargod) 5,
- ❖ **Odisha:** Tikabali (dist Kandhamal) 5, Chakapad (dist Kandhamal) 5, Kashipur (dist Rayagada) 4,

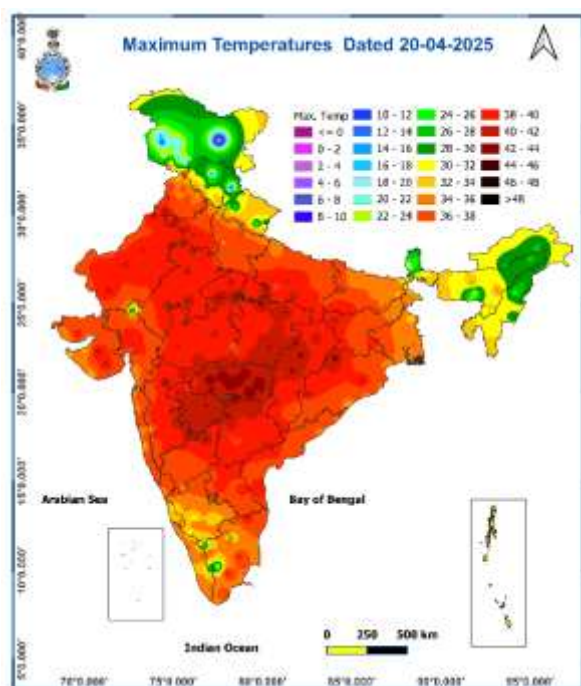
**Realised Gusty Winds (Knot, IST) during past 24hours ending at 0300 UTC of today i.e 21.04.2025 (Received from RMCs/MCs, AWS DATA):**

- ❖ **Himachal Pradesh:** Bilaspur(27,1130), Kufri(24,0615), Bajaura(24,1300),
- ❖ **Punjab:** Sri Anandpur Sahib(24,1715),
- ❖ **Madhya Maharashtra:** Vilholi(25,1445), Kalwan(24,1415), Jalgaon(21,1245)
- ❖ **Jammu & Shrinagar:** Poonch(24,1815),
- ❖ **East Rajasthan:** Anta Baran(24,1330)
- ❖ **West M.P:** Ahmedpur(34,1245),
- ❖ **Jharkhand:** Khunti(332,1500),
- ❖ **Telanagana:** Siddhapur(21,2230), Dullapally(32,1430), Tandur(22,0215), Mojer(52,15630),
- ❖ **Rayalaseema:** Banavasi(28,1800)
- ❖ **Gangetic West Bengal:** Digha(23,2230)
- ❖ **Odisha:** Mayurbhanj(23,1815),
- ❖ **North Interior Karnataka:** Hanuman Matti(33,1730);
- ❖ **SIK:** Davanagere(40,1845), Hiriyr(23,2015), Mudigere(22,0715), Chikballapur(24,1530),
- ❖ **Tamil Nadu:** Kovilpatti(26,1830)
- ❖ **Arunachal Pradesh:** Wakro(25,1200), Assam: Dhekiajuli(29,1815), Guwahati(25,1700), Dullavcherra(22,1000)
- ❖ **NMMT:** Tujangvaichong(26,1500), Sipahijala(34,0315),
- ❖ **Chhattisgarh:** Surajpur(18knot,1530), Koria(23knots,15:30), Korba(17knots,12:00) Dantewada(27knot,17:45)

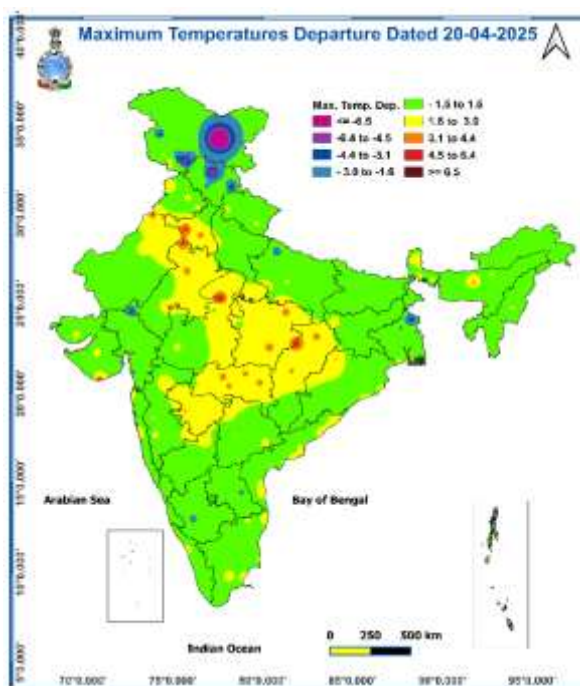
### Temperature observations during past 24 hours till 0830 hours IST of today:

- ❖ **Yesterday**, Maximum Temperatures had risen by 1°C -3°C in some places of Delhi, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Chhattisgarh, Telangana, North Interior Karnataka and they have fallen by 4°C -7°C over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Arunachal Pradesh, Assam & Meghalaya, South Interior Karnataka; by 1°C -3°C at most places of Madhya Pradesh.
- ❖ **Yesterday, Maximum Temperatures** were in the **range of 40°C to 44°C** at most places over Vidarbha, Chhattisgarh, Telangana; some places of Madhya Pradesh, Maharashtra, isolated places of Rajasthan, south Haryana, Saurashtra & Kutch, Rayalaseema; in the **range of 36°C to 39°C** over rest parts of the country except Western Himalayan Region and Northeast India where temperatures were in the range of 20°C to 30°C. Yesterday, **the highest maximum temperature of 44.6°C was reported at Chandrapur (Vidarbha)** over the country.
- ❖ Yesterday, **Maximum Temperatures** were **above normal by 2-4°** at some places over East Rajasthan, Punjab, Haryana Chandigarh & Delhi, East Madhya Pradesh, Vidarbha, Chhattisgarh, Marathwada, Telangana; These **were below normal 3-4°C** at some places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh; **by 1-2°C** at many places over Bihar and Gangetic West Bengal and normal over rest parts of the country (**Fig. 2**)

**Fig. 1: Maximum Temperatures**



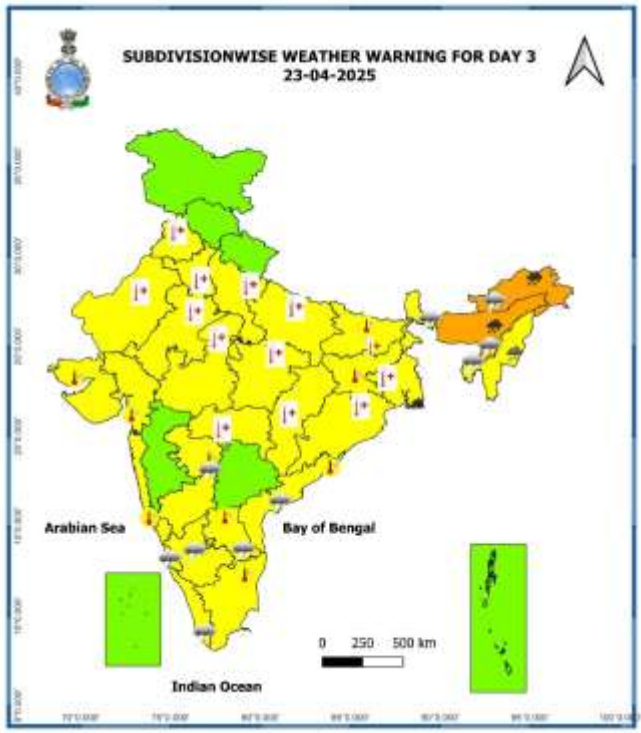
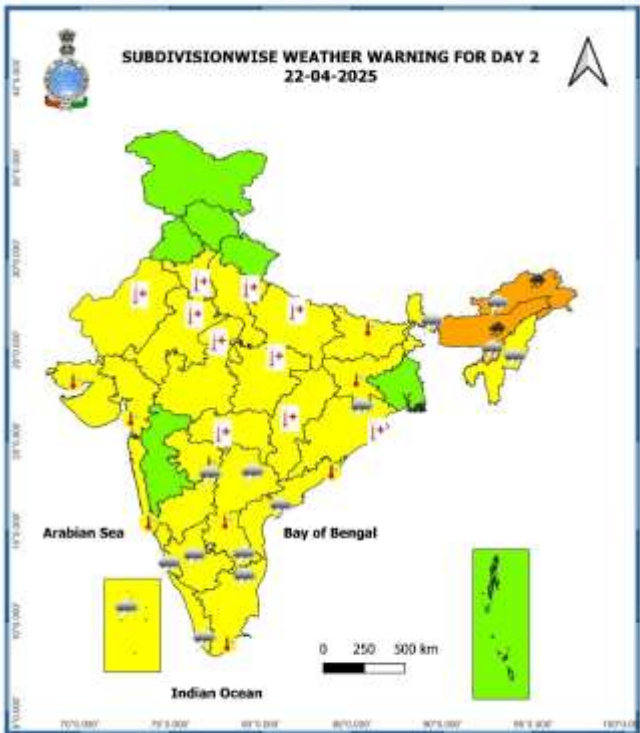
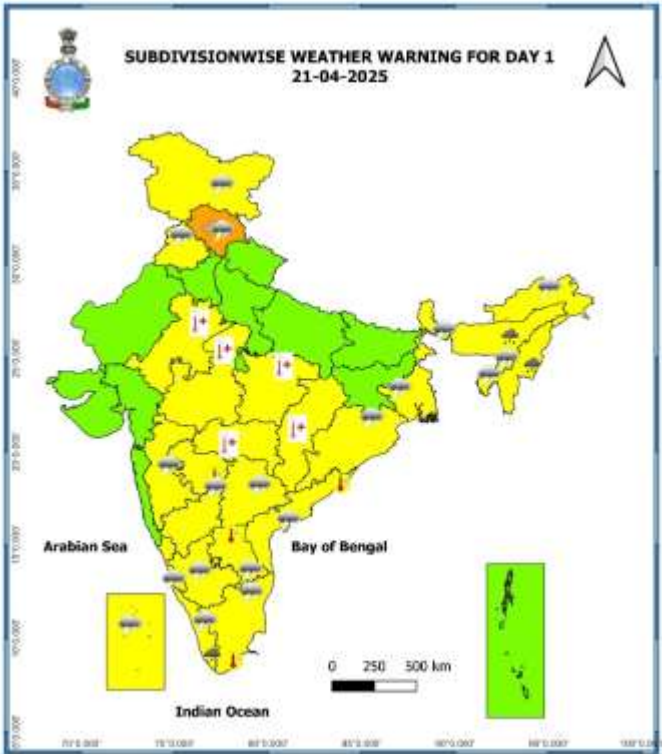
**Fig. 2: Departure of Maximum Temperatures**

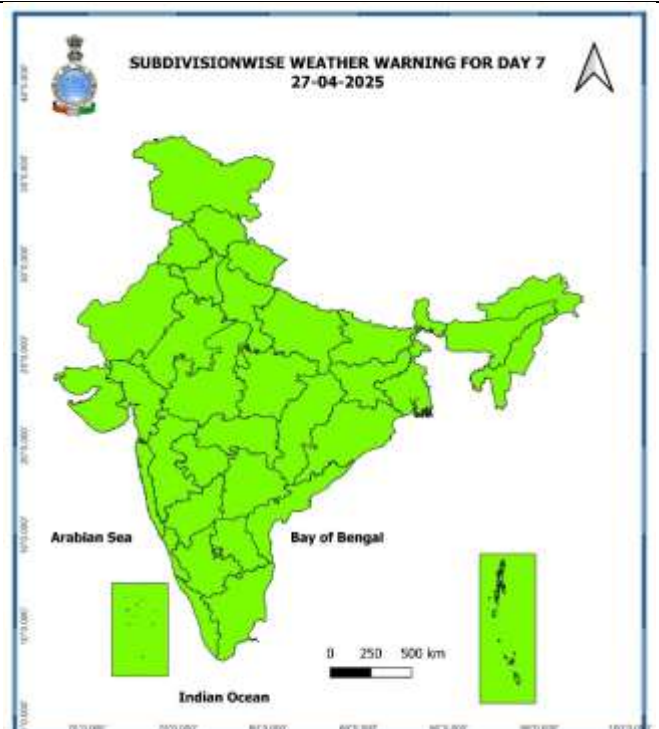
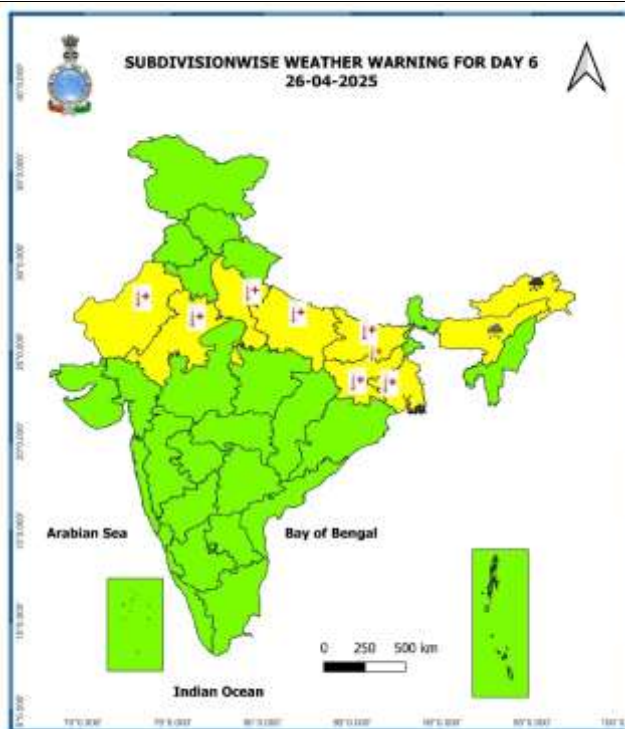
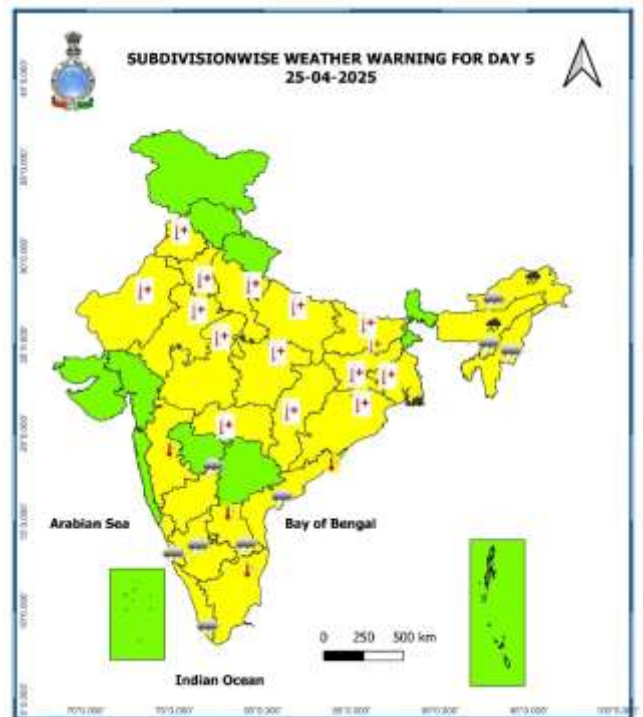
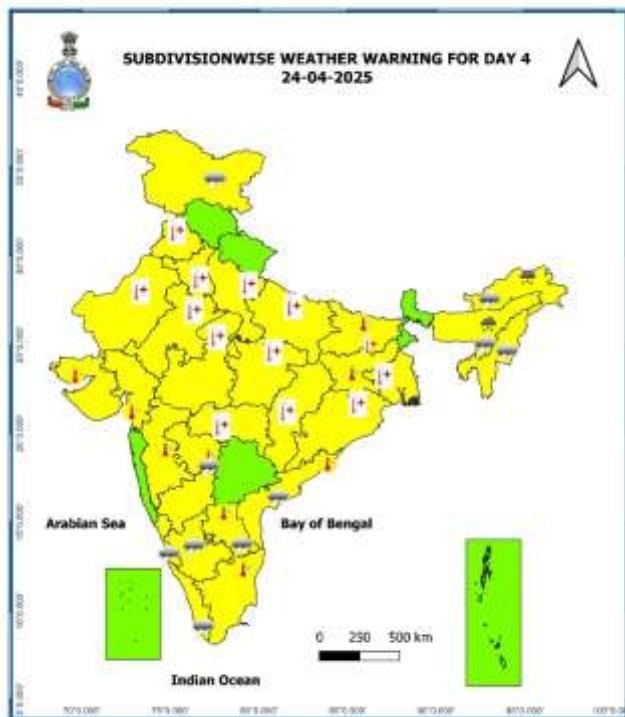


7 Days Rainfall Forecast								
S. No.	Subdivision	21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr	27-Apr
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	SCT	SCT	SCT	SCT	SCT	SCT
2	ARUNACHAL PRADESH	SCT	FWS	FWS	WS	WS	WS	FWS
3	ASSAM & MEGHALAYA	FWS	WS	WS	WS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	SCT	FWS	SCT	SCT	SCT	SCT
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	SCT	FWS	FWS	SCT	SCT	SCT	SCT
6	GANGETIC WEST BENGAL	ISOL	DRY	DRY	DRY	DRY	ISOL	SCT
7	ODISHA	ISOL	ISOL	DRY	ISOL	ISOL	ISOL	ISOL
8	JHARKHAND	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
9	BIHAR	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
10	EAST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	ISOL	ISOL	DRY	DRY	DRY	ISOL	ISOL
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	SCT	ISOL	DRY	ISOL	ISOL	ISOL	ISOL
16	JAMMU & KASHMIR AND LADAKH	SCT	ISOL	DRY	ISOL	ISOL	ISOL	DRY
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	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	ISOL	ISOL
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	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
25	MARATHAWADA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
26	VIDARBHA	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
27	CHHATTISGARH	ISOL	DRY	DRY	DRY	ISOL	ISOL	ISOL
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	ISOL	ISOL	DRY	DRY	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	ISOL	ISOL	ISOL	ISOL	SCT	SCT
33	NORTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	ISOL	SCT	SCT	SCT
35	KERALA & MAHE	SCT	SCT	SCT	SCT	SCT	SCT	SCT
36	LAKSHADWEEP	SCT	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 21 to 24 Apr. 2025**

### **Past Weather:**

There has been no large change in minimum temperature and maximum temperature over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi are in the range of 38 to 40 °C and 25 to 26 °C respectively. The minimum temperature was above normal by 2-4°C and maximum temperature was above normal by 1-3°C. Predominant surface wind from the east direction with wind speeds less than 18 kmph prevailed during the past 24 hours. Mainly clear sky conditions with wind speed less than 10 kmph from the westnorthwest direction prevailed over the region in the forenoon today.

### **Weather Forecast:**

**21.04.2025:** Mainly clear sky becoming partly cloudy sky towards evening. Occasional sustained surface winds (speed 10-20 kmph). The maximum temperature over Delhi is likely to be in the range of 39 to 41°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 becoming less than 15 kmph from the westnorthwest direction during the night.

**22.04.2025:** Mainly clear sky. Occasional sustained surface winds (speed 10-25 kmph). The maximum and minimum temperatures over Delhi are likely to be in the range of 39 to 41°C and 24 to 26°C respectively. The predominant surface wind will likely be from the west direction with a wind speed of 10-15 kmph during morning hours. The wind speed will gradually increase thereafter becoming 10-20 kmph from the northwest direction during the afternoon. It will decrease becoming less than 15 kmph from the northwest direction during evening and night.

**23.04.2025:** Mainly clear sky. Occasional sustained surface winds (speed 10-25 kmph). The maximum and minimum temperatures over Delhi are likely to be in the range of 40 to 42°C and 25 to 27°C respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 10-15 kmph during morning hours. The wind speed will gradually increase becoming 20-30 kmph from the westnorthwest direction in the afternoon. It will decrease becoming less than 15 kmph from the northwest direction during evening and night.

**24.04.2025:** The maximum and minimum temperatures over Delhi are likely to be in the range of 40 to 42°C and 24 to 26°C respectively. The predominant surface wind will likely be from the westnorthwest direction with a wind speed less than 05 kmph during morning hours. The wind speed will gradually increase becoming 15-20 kmph from the westnorthwest direction in the afternoon. It will decrease becoming less than 15 kmph from the west direction during evening and night.



## **Impact expected and action suggested due to isolated thunderstorm with lightning/gusty & Squally winds & Hailstorm over**

- ✓ **Isolated Hailstorm Himachal Pradesh 21<sup>st</sup> and squally winds over Assam & Meghalaya on 22<sup>nd</sup> & 23<sup>rd</sup> April.**

### **Impact expected:**

- Breaking of tree branches, uprooting of large avenue trees. Large dead limbs blown from trees. Damage to Standing crops.
- Minor to Major damage to banana and papaya trees.
- Minor to major damage to power and communication lines due to breaking of branches.
- 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:**

- People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places accordingly.
- 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 East Rajasthan during 21<sup>st</sup>-26<sup>th</sup>; Madhya Pradesh, Vidarbha, Chhattisgarh during 21<sup>st</sup>-25<sup>th</sup>; Haryana, Odisha during 22<sup>nd</sup>-25<sup>th</sup>; Uttar Pradesh during 22<sup>nd</sup> -26<sup>th</sup>; Punjab during 23<sup>rd</sup>-25<sup>th</sup>; Gangetic West Bengal, West Rajasthan during 23<sup>rd</sup>-26<sup>th</sup> and Bihar, Jharkhand on 25<sup>th</sup> & 26<sup>th</sup> April.**

### **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 to very heavy rainfall over Arunachal Pradesh and Assam & Meghalaya on 22<sup>nd</sup> & 23<sup>rd</sup> April.**

### **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).

### 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.

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

- In **Kerala** and **North Eastern States**, make provision to drain out excess water from standing crop and vegetable fields.
- In **Himachal Pradesh**, use hail net and hail caps to prevent mechanical damage in vegetables and orchards due to possibility of hailstorms. Drain out excess water from standing crops and vegetable fields.
- In **Madhya Pradesh, Chhattisgarh, Vidarbha, Uttar Pradesh, Rajasthan, Haryana, Punjab, Odisha** and **Gangetic West Bengal**, apply light and frequent irrigation to standing crops, vegetables and orchards in the evening to protect them from adverse effects of heat waves and high temperatures.
- Shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields. Tie the harvested crops properly and cover them to minimise the risk of displacement due to strong surface winds.
- 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 & 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

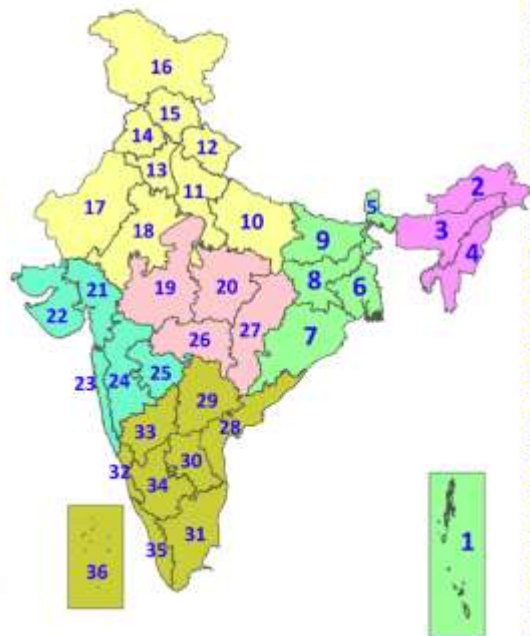
32. तटीय कर्नाटक

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 Rain



Very Heavy Rain



Extremely Heavy Rain



Thunder & Lightning



Hailstorm



Dust Raising Winds



Heavy Snow



Dust Storm



Heat Wave



Warm Night



Hot Day



Hot & Humid



Strong Surface Winds



Cold Wave



Cold Day



Ground Frost

### 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.

For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599

(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  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

Severe Heat Wave: Maximum Temperature Departure from normal  $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature  $\geq 45^{\circ}\text{C}$ .

Severe Heat Wave: When actual maximum temperature  $\geq 47^{\circ}\text{C}$ .

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is  $> 4.5^{\circ}\text{C}$  from normal. Heat Wave may be described provided maximum temperature  $\geq 37^{\circ}\text{C}$ .

### Warm Night

When maximum temperature remains  $40^{\circ}\text{C}$

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

Severe Warm Night: When minimum temperature departure  $> 6.4^{\circ}\text{C}$ .

### Cold Wave

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

Severe Cold Wave: Minimum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave: When Minimum Temperature is  $\leq 4.0^{\circ}\text{C}$

Severe Cold Wave: When Minimum Temperature is  $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is  $\leq -4.5^{\circ}\text{C}$  & actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$

### Cold Day

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions

Based on departure

Cold Day: Maximum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

Severe Cold Day: Maximum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

### Fog

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres

Dense Fog: when the visibility between 50- 200 metres

Very Dense Fog: when the visibility  $< 50$  metres

### Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)

### Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.

### Frost

Ice deposits on ground

Air temperature  $\leq 4^{\circ}\text{C}$  ( over Plains)

### Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph

Severe: Wind speed 62-67 kmph

Very Severe: Wind speed  $> 67$  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 Storm: Wind speed  $> 220$  kmph ( $> 119$  knots)

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