

Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 17th May, 2025

Time of Issue: 1345 hours IST

Subject: i) Heavy to very heavy rainfall accompanied with thunderstorms & lightning likely over Northeast India and over Sub-Himalayan West Bengal & Sikkim during next 5-6 days.

- ii) Heavy Rainfall accompanied with thunderstorms, lightning and gusty winds likely to continue over South Peninsular India during next 5-7 days.
- iii) Heat wave conditions likely over West Rajasthan during 17th-23rd; Uttar Pradesh, & North Madhya Pradesh during 17th-19th; and Jammu division on 17th & 18th May 2025.

Advance of Southwest Monsoon: (Annexure I):

- Southwest Monsoon further advanced over some more parts of south Arabian Sea, Maldives & Comorin area; South Bay of Bengal, remaining parts of Andaman Islands and Andaman Sea; and some parts of eastcentral Bay of Bengal today, the 17th May 2025.
- ❖ The Northern Limit of Monsoon passes through 5°N/65°E, 6°N/70°E, 6.5°N/75°E, 7°N/80°E, 9°N/85°E, 12°N/90°E, 15°N/93°E and 19°N/97°E.
- Conditions are favorable for further advance of southwest Monsoon over some more parts of south Arabian Sea, Maldives & Comorin area; some more parts of South Bay of Bengal; some more parts of central Bay of Bengal, and some parts of northeast Bay of Bengal during next 3-4 days.

Realised weather during past 24 hours till 0830 hours IST of today, the 17th May 2025 (Annexure II):

- * Thunderstorm accompanied with Squally/Gusty winds with speed 60-90 kmph prevailed at isolated places over West Uttar Pradesh, Himachal Pradesh, Uttarakhand, Assam & Meghalaya, Madhya Maharashtra, Tamilnadu Puducherry & Karaikal; with speed 40-60 kmph prevailed at isolated places over Punjab, Haryana Chandigarh & Delhi, East Uttar Pradesh, West Madhya Pradesh, West Bengal & Sikkim, Bihar, Odisha, Nagaland, Manipur, Mizoram & Tripura, Marathawada, Rayalaseema, Telangana, South Interior Karnataka.
- Heavy to very heavy rainfall has been recorded at isolated places over Assam, Madhya Maharashtra; Heavy rainfall at isolated places over Arunachal Pradesh, Tripura, Andaman Islands, Sub-Himalayan West Bengal, Odisha, Tamilnadu.
- **Hailstorm** observed at isolated places over Himachal Pradesh.
- **Duststorm** reported at isolated places over East Uttar Pradesh.
- **Heat Wave conditions** prevailed in isolated pockets of Jammu division.
- **Warm night conditions** prevailed in isolated pockets of East Madhya Pradesh.

For more details of realised weather, kindly refer Annexure II,

Detailed observations of Maximum Temperature during past 24 hours till 0830 hours IST of today are appended in **Annexure III**.

i. Weather Systems, Forecast and Warnings (refer to Annexure IV & V):

- ❖ An upper air cyclonic circulation is likely to form over eastcentral Arabian Sea off Karnataka coast around 21st May. Under its influence, a **Low pressure area** is likely to form over the same region around 22nd May. Thereafter, it is likely to move northwards and intensify further.
- ❖ A Western Disturbance is seen as a trough in lower & middle tropospheric westerlies with its axis at 3.1 km above mean sea level runs roughly along Long. 55°E to the north of Lat. 32°N.
- An **upper** air cyclonic circulation lies over south Punjab and another over northwest Uttar Pradesh in lower tropospheric levels.

- ❖ A **trough** runs from above cyclonic circulation over northwest Uttar Pradesh to east Bangladesh in lower tropospheric levels.
- ❖ An **upper** air cyclonic circulation lies over central Assam in lower tropospheric levels.
- ❖ A **trough** in westerlies runs roughly along Long. 89°E to the north of Lat. 23°N in lower tropospheric levels.
- ❖ An **upper** air cyclonic circulation lies over south Telangana in lower tropospheric levels.
- An upper air **cyclonic circulation** lies over southeast Bay of Bengal in lower & middle tropospheric levels tilting southwestwards with height.
- ❖ A **trough** runs from the above cyclonic circulation over southeast Bay of Bengal to central Coastal Andhra Pradesh & Yanam in lower & middle tropospheric levels tilting southwestwards with height.
- ❖ Under the influence of these systems, the following weather is likely:

Northeast India:

- ✓ **Fairly widespread to widespread** light/moderate rainfall accompanied with **thunderstorm**, **lightning & gusty winds speed reaching 30-50 kmph** likely over Northeast India during next 7 days.
- ✓ **Isolated heavy rainfall** over Arunachal Pradesh during 17th-21st; Assam & Meghalaya during 17th-22nd; Tripura on 17th & 18th with isolated **very heavy rainfall** over Assam & Meghalaya on 17th & 18th and Arunachal Pradesh on 17th May.

South peninsular India:

- ✓ Fairly widespread to widespread light/moderate rainfall accompanied with thunderstorm, lightning & gusty winds speed reaching 30-50 kmph likely over Kerala & Mahe, Lakshadweep, coastal Karnataka; Scattered to fairly widespread accompanied with thunderstorm, lightning & gusty winds speed reaching 30-50 kmph likely over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, interior Karnataka during next 7 days.
- ✓ **Isolated heavy rainfall** likely over Coastal Karnataka, Kerala & Mahe during 18th-23rd; Interior Karnataka during 18th-21st; Tamilnadu Puducherry & Karaikal during 17th-20th; Telangana on 17th & 18th; Rayalaseema on 19th; Lakshadweep on 19th & 20th May with the **Isolated very heavy rainfall** also likely over Kerala & Mahe and Coastal Karnataka on 20th; North Interior Karnataka on 19th & 20th; South Interior Karnataka on 18th & 19th May.

West India:

- ✓ **Isolated to scattered** light/moderate rainfall accompanied with **thunderstorm**, **lightning & gusty winds speed reaching 30-50 kmph** likely over Madhya Maharashtra, Marathawada, Gujarat State during 17th-23rd May and Konkan & Goa during 17th-20th; **Fairly widespread to widespread** light/moderate rainfall accompanied with **thunderstorm**, **lightning & gusty winds speed reaching 40-50 kmph** likely over Konkan & Goa during 21st -23rd May.
- ✓ **Thundersquall wind speed reaching 50-60 kmph gusting to 70 kmph** likely over Madhya Maharashtra on 19th & 20th and Marathawada on 21st May.
- ✓ **Isolated heavy rainfall** likely over south Madhya Maharashtra during 17th -22nd; south Konkan & Goa during 19th -23rd May with **very heavy rainfall** over Konkan and Madhya Maharashtra during 20th 22nd May, 2025.

East & Central India:

- ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm**, **lightning & gusty winds speed reaching 40-50 kmph** likely over West Bengal & Sikkim, Jharkhand; **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm**, **lightning & gusty winds speed reaching 30-50 kmph** likely over Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Bihar during next 7 days.
- ✓ **Thundersquall wind speed reaching 50-60 kmph gusting to 70 kmph** likely over Odisha, West Bengal & Sikkim on 17th; Bihar & Jharkhand on 18th & 19th and Vidarbha & Chhattisgarh during 19th-21st May.
- ✓ **Isolated heavy rainfall** likely over Sub-Himalayan West Bengal & Sikkim during 17th-21st; Gangetic West Bengal and Bihar on 18th May.

Northwest India:

- ✓ **Isolated to Scattered** light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching 30-50 kmph** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 17th-23rd May.
- ✓ Isolated light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching 30-50 kmph** likely over East Uttar Pradesh, East Rajasthan during 17th-23rd; Punjab, Haryana, West Uttar Pradesh on 17th & during 19th-21st May.
- ✓ **Isolated hailstorm** very likely over Himachal Pradesh on 19th May.
- ✓ **Duststorm** very likely at isolated places over Haryana on 17th May.
- ✓ **Strong dust raising winds (30-40 kmph)** very likely over West Rajasthan during 17th-23rd May.

Maximum Temperature Forecast:

- No significant change in maximum temperatures likely over East India during next 24 hours; gradual fall by 2-3°C thereafter for subsequent 3 days and no significant change for subsequent 3 days.
- No significant change in maximum temperatures likely over Central India during next 4 days; gradual fall by about 2°C thereafter for subsequent 3 days.
- No significant change in maximum temperatures likely over Maharashtra region during next 3 days; gradual fall by 2-4°C thereafter for subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over rest parts of the country.

Heat wave and Hot & Humid weather warning:

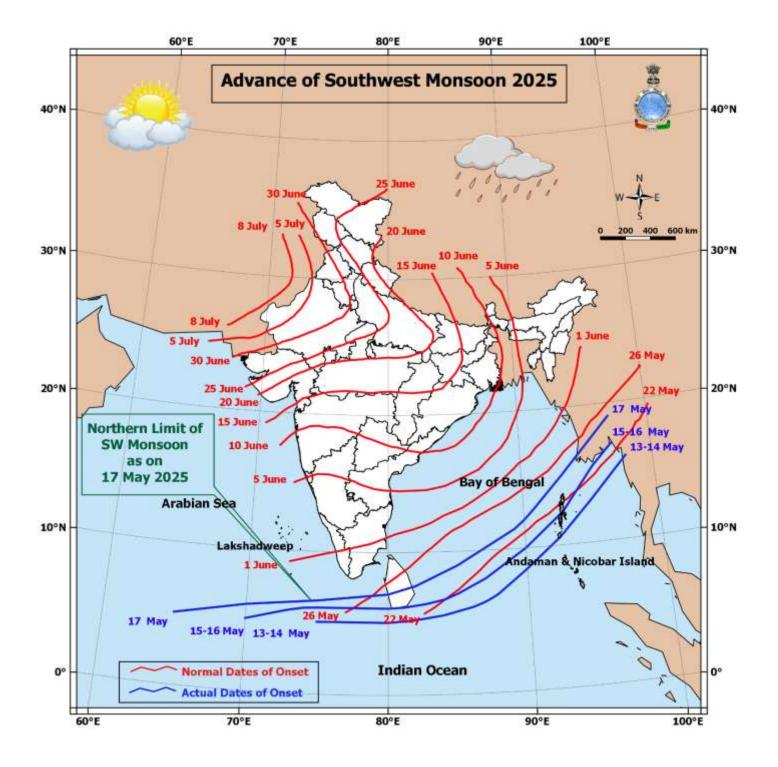
- ❖ Heat wave conditions very likely in isolated pockets of Jammu & Kashmir, East Uttar Pradesh on 17th & 18th; southwest Uttar Pradesh, East Rajasthan, north Madhya Pradesh during 17th-19th; West Rajasthan during 17th-23rd May.
- * Hot & humid weather is likely to prevail over Bihar, Jharkhand and Odisha on 17th May.
- ❖ Warm night conditions very likely in isolated pockets of East Madhya Pradesh on 17th & 18th May.

iv. Weather conditions and forecast over Delhi/NCR during 17th May to 20th May, 2025 (Annexure VI)

For more details, kindly refer National Weather Bulletin:

https://mausam.imd.gov.in/responsive/all_india_forcast_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 Assam & Meghalaya, Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim; at many places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe; at a few places over Uttarakhand, Vidarbha, Konkan & Goa, Tamilnadu Puducherry & Karaikal, Telangana, Rayalaseema, Coastal Karnataka, South Interior Karnataka; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Haryana Chandigarh & Delhi, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Madhya Maharashtra, Marathawada, Gujarat Region, Coastal Andhra Pradesh & Yanam and North Interior Karnataka.

Rainfall recorded (in cm) reported during past 24 hours till 0830 hours IST of today:

- * Madhya Maharashtra: Nandurbar (dist Nandurbar) 16. Pimpalgaonbaswant agri (dist Nashik) 8;
- ❖ Assam & Meghalaya: Melabazar/matunga (dist Nalbari) 13, Bahalpur (dist Dhubri) 9, Goibargaon (dist Baksa) 9, Drf (dist Baksa) 9, Beki Mathungari (dist Barpeta) 7;
- ❖ Nagaland, Manipur, Mizoram & Tripura: Kailashahar Aero (dist Unakoti) 9, Belonia (dist South Tripura) 8, Kailashahar Aws (dist Unakoti) 8, Belonia Arg (dist South Tripura) 7, Arundhutinagar (dist West Tripura) 7, Dm Office Arg (dist West Tripura) 6;
- ❖ Arunachal Pradesh: Tuting (dist Upper Siang) 8, Naharlagun (dist Papumpara) 5;
- ❖ Sub-Himalayan West Bengal & Sikkim: Kurti T.e. (dist Jalpaiguri) 8, Washabari Tea Estate (dist Jalpaiguri) 7, Hilla T.e. (dist Jalpaiguri) 7, Beech Tea Garden (dist Alipurduar) 7, Jiti T.e. (dist Jalpaiguri) 7;
- Odisha: Khajuripada (dist Kandhamal) 8, Bhandaripokhari (dist Bhadrak) 6, Bonth (dist Bhadrak) 6, Dhamnagar (dist Bhadrak) 6, Umarkote (dist Nawarangpur) 5, Jajpur (dist Jajpur) 5;
- ❖ Andaman & Nicobar Islands: Port Blair (dist South Andaman) 7, Maya Bandar (dist North & Middle Andaman) 5, Long Island (dist North & Middle Andaman) 4, Car Nicobar (dist Nicobar) 1, Hut Bay (dist South Andaman) 1;
- ❖ Tamilnadu Puducherry & Karaikal: Chengam, Tiruvannamalai district-10.

Realised Gusty Winds (KMPH) during past 24hours ending at 0300 UTC of today i.e. 17.05.2025;

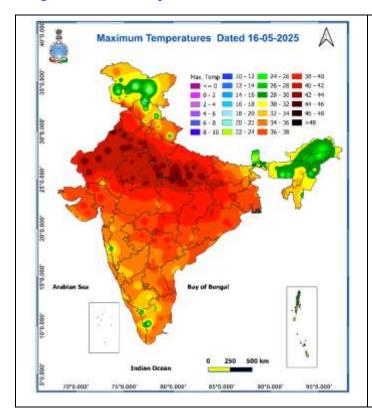
- Chhattisgarh: Balod (Balod 97,16:00) Kanker (Kanker_Kvk,79,11:30) Dantewada (Dantewada_Kvk,73,13:30) Koriya (Koriya_Kvk,64,8:45) Raipur (Raipur,59,16:30), Rajnandgaon (Rajnandgaon_Kvk,55,10:00) Mungeli (Mungeli_Aws400,63,8:45);
- West Uttar Pradesh: Bulandshahr (86,1300), Aligarh (45,1330), Firozabad (48,1145),
- East Rajasthan: Karauli_KVK (68,1200);
- Jharkhand: Simdega (64,1500);
- **❖ Uttarakhand:** Chamoli (64,0945), Tehri_Gharwal (56,1245);
- ❖ Madhya Maharashtra: Shahada (63,1145), Jalgaon (54,1145), Cagmo_ShivajiNagar(50,0745), Parbhani_AMFU (43,1300);
- **Tamil Nadu**: Vamban_KVK (61,1230), Aduthrai_AMFU (48,1145);
- **Assam & Meghalaya:** Mawsynram (61,2000), Lkhep (59,0945), Panchgram (48,2200);
- Jammu-Kashmir: Yokam (59,0730);
- **East Uttar Pradesh:** Pachpedwa_AMFU (57,0845), Bahraich (54,0745);
- **Bihar:** Katihar (55,1645), Sipaya (45,1215), Agwanpur (54,1500), Arrabari (54,1700);
- **❖ North Interior Karnataka:** Bagalkot_KVK (54,1545);
- **❖ Telanagana:** Sircilla (54,1200);
- Nagaland, Manipur, Mizoram & Tripura: Khoupum (53,1800), Sipahijala (41,0030);
- * Rayalaseema: Banavasi_KVK (52,1500);
- ❖ **Delhi:** East_ Delhi (Salwan Public School) 52, South West Delhi (Jafarpur) 50;
- **❖ Himachal Pradesh:** Kothai (50,1345),
- **Punjab:** Rauni (50,1130);
- **Odisha:** Cuttack_KVK (45,1150), Balasore (39,0915), Kendrapara (43,1245);
- **❖ West Madhya Pradesh:** Shajapur (39,1515)

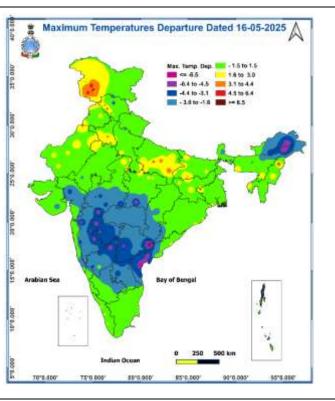
Temperature observations during past 24 hours till 0830 hours IST of today:

- * Yesterday, Maximum Temperatures were in the range of 41-46°C in many parts of Punjab, Rajasthan; in a few parts of Haryana-Chandigarh-Delhi, East Uttar Pradesh, East Madhya Pradesh; in isolated parts of West Uttar Pradesh, West Madhya Pradesh, Bihar, Odisha, Telangana; in the range 35-41°C in many parts of Gangetic West Bengal, Gujarat state, Vidarbha, Chhattisgarh, Rayalaseema; in a few parts of Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal, Konkan & Goa, Marathwada; in isolated parts of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, North Interior Karnataka, Kerala & Mahe, Jharkhand and they were less than 35°C elsewhere over remaining parts of the country. Yesterday, the highest maximum temperature of 46.2°C was reported at Banda (East Uttar Pradesh) over the country.
- Yesterday, Maximum Temperatures were markedly above normal (5.1°C or more) at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; appreciably above normal (3.1°C to 5.0°C) at isolated places over East Uttar Pradesh; above normal (1.6°C to 3.0°C) at a few places 0.over West Rajasthan, Jharkhand, Himachal Pradesh; at isolated places over East Madhya Pradesh, West Uttar Pradesh, Gangetic West Bengal, Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Saurashtra & Kutch, East Rajasthan. These were markedly below normal (-5.1°C or less) at isolated places over Madhya Maharashtra, North Interior Karnataka, Coastal Andhra Pradesh & Yanam; appreciably below normal (-3.1°C to -5.0°C) at isolated places over West Madhya Pradesh, Marathwada, Telangana, Rayalaseema, Gujarat Region; below normal (-1.6°C to -3.0°C) at a few places over Andaman & Nicobar Islands; at isolated place over South Interior Karnataka, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim and normal over rest parts of the country. (Fig. 2).

Fig. 1: Maximum Temperatures

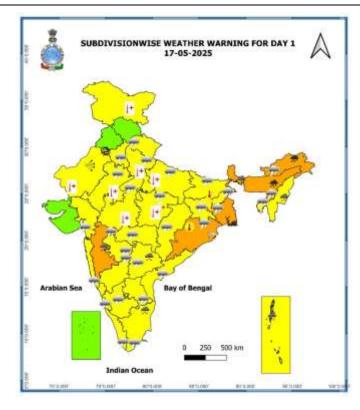


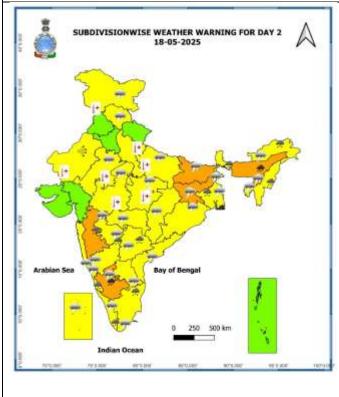


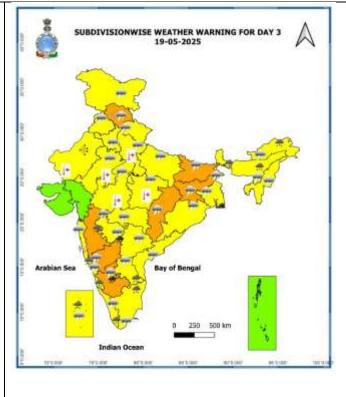


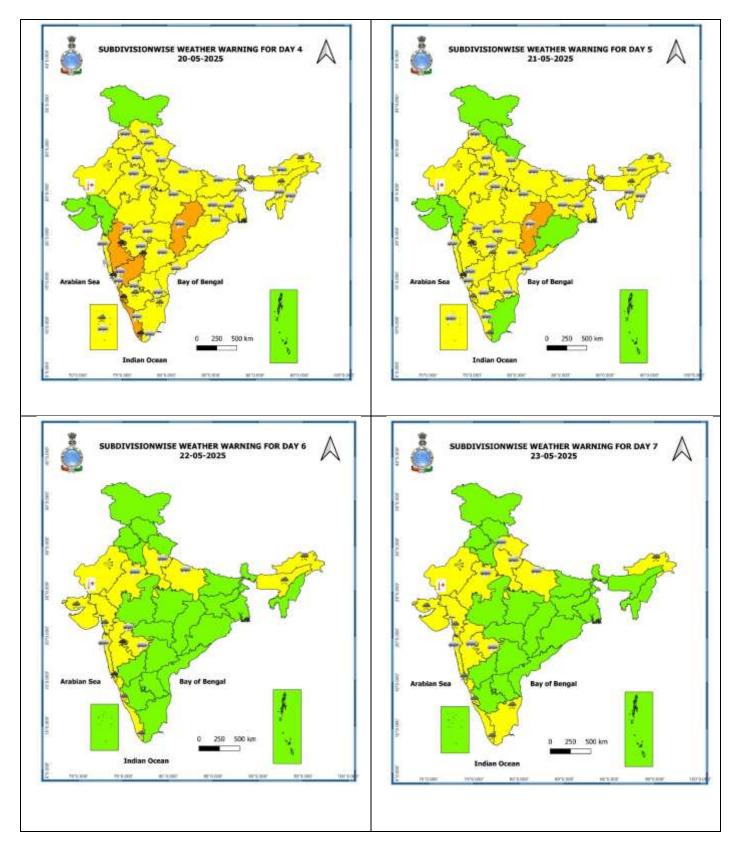
7 Days Rainfall Forecast											
S. No.	Subdivision	17- May	18- May	19- May	20- May	21- May	May	23- May			
1	ANDAMAN & NICOBAR ISLANDS	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7			
2	ARUNACHAL PRADESH	WS	WS FWS	FWS FWS	SCT FWS	SCT FWS	FWS FWS	FWS FWS			
3	ASSAM & MEGHALAYA	WS WS	WS	WS	FWS	FWS	FWS	FWS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

• 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 to 20th May 2025

Past Weather:

There has been fall in minimum temperature up to 02°C and rise in maximum temperature up to 02°C over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi are in the range of 42 to 44°C and 24 to 27°C respectively. The minimum temperature was below normal up to 03°C and the maximum temperature was above normal up to 03°C over Delhi/NCR. Partly cloudy sky conditions with predominant surface wind from the northwest/Southeast direction with wind speeds less than 20 kmph gusting to 72 kmph prevailed during the past 24 hours. Partly cloudy sky conditions with wind speed less than 08 kmph from the northwest direction prevailed over the region in the forenoon today.

Weather Forecast:

17.05.2025: Partly cloudy sky. Very light rain to light rain accompanied with thunderstorm/lighting and gusty winds (speed 30 – 40 kmph) temporarily reaching to 50 kmph during thunderstorm with dust rising surface wind towards afternoon/evening. The maximum temperatures over Delhi are likely to be in the range of 41 to 43°C. The maximum temperature will be above normal up to 01 - 02°C. The predominant surface wind will likely be from the northwest direction with a wind speed of less than 25 kmph till evening. It would decrease becoming less than 20 kmph from the northwest direction during the night.

18.05.2025: Partly cloudy sky. Sustained surface winds (speed 15 - 25 kmph) occasionally gusting to 35 kmph. The maximum and minimum temperatures over Delhi are likely to be in the range of 40 to 42° C and 26 to 28° C respectively. The minimum temperature will be above normal up to $01 - 02^{\circ}$ C and the maximum temperature will be above normal up to $01 - 02^{\circ}$ C. The predominant surface wind will likely be from the northwest direction with a wind speed of 15-20 kmph during morning hours. The wind speed will gradually increase becoming 20-25 kmph from the west direction in the afternoon. It will decrease becoming less than 20 kmph from the northwest direction during evening and night.

19.05.2025: Partly cloudy sky. Very light rain to light rain accompanied with thunderstorm/lighting and gusty winds (speed 30-40 kmph) temporarily reaching to 50 kmph during thunderstorm with dust rising surface wind towards evening/night. The maximum and minimum temperatures over Delhi are likely to be in the range of 38 to 40° C and 27 to 29° C respectively. The minimum temperature will be above normal up to $01-03^{\circ}$ C and the maximum temperature will be below normal up to $01-02^{\circ}$ C. The predominant surface wind will likely be from the northwest direction with a wind speed of less than 20 kmph during the morning hours. The wind speed will gradually decrease becoming 16-20 kmph from the west direction in the afternoon. It will decrease becoming less than 16 kmph from the northwest direction during evening and night.

20.05.2025: Partly cloudy sky. Very light rain to light rain accompanied with thunderstorm/lighting and gusty winds (speed 30 - 40 kmph) temporarily reaching to 50 kmph during thunderstorm with dust rising surface wind. The maximum and minimum temperatures over Delhi are likely to be in the range of 38 to 40° C and 27 to 29° C respectively. The minimum temperature will be above normal up to $01 - 02^{\circ}$ C, and the maximum temperature will be below normal up to $01 - 02^{\circ}$ C. The predominant surface wind will likely be from the northwest direction with a wind speed of less than 16 kmph during the morning hours. The wind speed will gradually increase becoming 16-20 kmph from the west direction in the afternoon. It will decrease becoming less than 18 kmph from the west direction during evening and night.

Impact expected and Action Suggested due to thunderstorm with lightning/gusty winds:

- Be cautious and take precautionary measures, though there is the likelihood of thunderstorm/lightning/dust accompanied by strong surface winds 30 40 kmph gusting to 50 kmph.
- Breaking of tree branches, uprooting of large avenue trees, Large dead limbs blown from trees, Damage to standing crops, Minor to major damage to power and communication lines due to breaking of branches, Partial damage to vulnerable structures due to strong winds, Loose objects may fly.
- 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 & Action Suggested due to very heavy rainfall over

Very heavy rainfall over Arunachal Pradesh on 17th; Assam & Meghalaya during 16th-18th; Konkan & Goa on 21st & 22nd; Kerala & Mahe during 19th -21st; Coastal Karnataka on 20th & 21st May.

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.

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

- ✓ **Thundersquall wind speed reaching 50-60 kmph gusting to 70 kmph** over Odisha, West Bengal & Sikkim on 17th; Bihar & Jharkhand on 18th & 19th; Madhya Maharashtra on 19th & 20th; Marathawada on 21st and Vidarbha & Chhattisgarh during 19th-21st May.
- ✓ **Isolated hailstorm** very likely over Himachal Pradesh on 19th May.

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 Jammu & Kashmir, East Uttar Pradesh on 17th & 18th; southwest Uttar Pradesh, East Rajasthan, north Madhya Pradesh during 17th-19th; West Rajasthan during 17th-23rd May.

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 / Gusty Winds / Heat Wave

- ➤ In the **North Eastern States** and **Tamil Nadu**, drain excess water and ensure proper drainage in fields with standing crops and vegetables.
- In Andaman & Nicobar Islands, West Bengal & Sikkim, Bihar, Konkan & Goa, Madhya Maharashtra, Kerala, Karnataka and Telangana, make provision to drain out excess water from standing crop and vegetable fields.
- > 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.
- ➤ In Jammu & Kashmir, Punjab, Uttar Pradesh, Rajsathan and North Madhya Pradesh, apply light and frequent irrigation in the evening to protect standing crops, vegetables and orchards from the adverse effects of heat waves and high temperatures.

Livestock / Poultry / Fishery

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

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.



राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

LEGENDS



SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Stations Category		% Stations	Cate	gory		
76-100	-100 Widespread (WS/Most Places)		26-50	Scattered (SCT/A Few Places)			
51-75	Fairly Widesp	read (FWS/Many Places)	1-25	isolated (ISOL)			
Fog		Heavy Snow	Cold Wave	COLOUR CO	DED WARNING		
			#	No Warni	No Warning (No Action)		
Heavy Ra	in	⊜ Dust Storm	Cold Day	Watch (B	Watch (Be Aware) Alert (Be Prepared To Take Action)		
Very Heav	y Rain	+ Heat Wave	Ground Fro	Alert (Be			
Extremely Heavy Rain + Warm Night				-Warning (Take Action)			
.	0 1:-ba-:	+ Hot Day			Probabilistic Forecast		
Inunder	& Lightning	4		Terms	Probability of Occurrence (%		
Hailstorm Phot & Humid				Unlikely Likely Very Likely	< 25 25 - 50 50 - 75		
: Dust Raisi	ng Winds	Strong Surface Win	ds	Most Likely	> 75		





DEFINITION/CRITERIA Heavy: 64.5 to 115.5 mm/cm * Very Heavy: 115.6 to 204.4 mm/cm Rain/ Snow * Extremely Heavy: > 204.4 mm/cm When maximum temperature of a station reaches ≥40° C for plains and ≥30° 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 ≥6.5° C **Heat Wave** (b). Based on Actual maximum temperature Heat Wave: When actual maximum temperature ≥45°C Severe Heat Wave: When actual maximum temperature ≥47°C (c). Criteria for heat wave for coastal stations When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C When maximum temperature remains 40°C nimum temperature departure 4.5 °C to 6.4 °C Warm Night: Whe Warm Night Severe Warm Night: When minimum temperature departure >6.4 °C When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C **Cold Wave** (b) Based on actual Minimum Temperature (for Plains only) Cold Wave : When Minimum Temperature is ≤ 4.0 °C Severe Cold Wave: When Minimum Temperature is ≤ 2.0 °C (c) For Coastal Stations When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure Cold Day Cold Day: Maximum Temperature Departure from normal -4.5 °C to -5.4 °C. Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C Phenomenon of small droplets suspended in air and the horizontal visibility < 1km Moderate Fog: When the visibility between 500-200 metres Dense Fog: when the visibility between 50-200 metres Fog Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) Thunderstorm An ensemble of particles of dust or sand energetically lifted to great heights by a strong and **Dust/Sand** turbulent wind. Ice deposits on ground Frost Air temperature s4°C (over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph Squall Severe: Wind speed 62-87 kmph Very Severe: Wind speed >87 kmph 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 Sea State 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) Cyclone Super Cyclone Strom: 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 remain 3°C above normal along with the above normal relative humidity.