

# Government of India Ministry of Earth Sciences India Meteorological Department



Press Release
Date: 20<sup>th</sup>April, 2025

Time of Issue: 1400 hours IST

- Subject: i) Significant reduction in rainfall activities over Western Himalayan region including Jammu and Kashmir from 21st April, 2025
  - ii) A fresh spell of heat wave conditions likely to affect Vidarbha during 21<sup>st</sup> -23<sup>rd</sup>; south Uttar Pradesh, Madhya Pradesh during 22<sup>nd</sup> -24<sup>th</sup>; Rajasthan, south Haryana on 23<sup>rd</sup> & 24<sup>th</sup> April, 2025;
  - iii) A fresh spell of heavy rainfall likely to impact Northeast India from 22<sup>nd</sup> April., 2025.
  - iv) Gradual reduction of thunderstorm activity over Easten parts of India from 21st onwards.

# i. Realised weather during past 24 hours till 0830 hours IST of today, the 20th 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, Gangetic West Bengal, Odisha, Jharkhand, Bihar, Northeast India, Kerala & Mahe, Tamilnadu Puducherry & Karaikal, Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana.
- ❖ Hailstorm occurred at isolated places over Odisha, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Tamilnadu Puducherry & Karaikal, Telangana.
- ❖ Heavy rainfall has been recorded at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- **Heat wave conditions** at isolated places over East Rajasthan.
- **Warm night to sever warm night** prevailed at isolated places over Rajasthan.

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):

- ❖ Under the influence of Western **Disturbance** as a trough in middle tropospheric westerlies and an upper air cyclonic circulation over central Pakistan & adjoining northwest Rajasthan in lower tropospheric levels;
  - ✓ Scattered to fairly widespread light/moderate rainfall with thunderstorm, lightning & squally winds (speed 50-60 kmph gusting to 70 kmph) likely over Himachal Pradesh (Orange colour warning) on 20th; accompanied with thunderstorm, lightning & gusty winds (speed 40-50 kmph gusting to 60 kmph) very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad (Orange colour warning) on 20th & 21st and over

- Himachal Pradesh on 20<sup>th</sup>; with **gusty winds (speed 30-40 kmph gusting to 50 kmph)** over Uttarakhand on 20<sup>th</sup> April and reduce thereafter.
- ✓ **Heavy rainfall** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 20<sup>th</sup> April.
- ✓ **Isolated Hailstorm** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 20<sup>th</sup> April.
- ✓ Isolated light/moderate rainfall accompanied with **thunderstorm**, **lightning & gusty** winds (speed 30-40 kmph gusting to 50 kmph) likely over Punjab, Haryana and West Uttar Pradesh on 20th April.
- ❖ A north south trough from central Assam to Tripura and 2nd from central Pakistan & adjoining northwest Rajasthan to central parts of Bangladesh; 3rd trough from northeast Madhya Pradesh to Gulf of Mannar 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 5 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 during next 3 days and over Chhattisgarh during 20<sup>th</sup> -24<sup>th</sup> April.
  - ✓ **Heavy rainfall** likely over Arunachal Pradesh & Assam & Meghalaya during 22<sup>nd</sup>-24<sup>th</sup> with **very heavy rainfall** at isolated places over Assam & Meghalaya on 22<sup>nd</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 Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe during next 5 days and Telangana during next 5 days; with lightning over Tamilnadu Puducherry & Karaikal, Telangana, Coastal Karnataka during next 5 days.
  - ✓ Heavy rainfall likely over Kerala & Mahe, Coastal Andhra Pradesh & Yanam and Assam & Meghalaya on 20<sup>th</sup> April, 2025.
  - **Dust raising winds** very likely in isolated pockets over Gujarat state on 20<sup>th</sup> April.

# **Temperature Forecast:**

- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Northwest India during next 5 Days and no significant change during subsequent 2 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 south Uttar Pradesh, Madhya Pradesh during 22<sup>nd</sup> -24<sup>th</sup>; Rajasthan, Haryana on 23<sup>rd</sup> & 24<sup>th</sup>; Vidarbha during 21<sup>st</sup> -23<sup>rd</sup> April.
- ❖ Hot & humid weather is likely to prevail over Madhya Maharashtra, Marathawada on 20<sup>th</sup>; Tamilnadu Puducherry & Karaikal during 20<sup>th</sup> -22<sup>nd</sup> and over Gujarat State during 22<sup>nd</sup> -24<sup>th</sup> April.
- iv. Weather conditions and forecast over Delhi/NCR during 20th April to 23rd April, 2025 (Annexure V)

### 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 Andaman & Nicobar Islands, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at many places over Assam & Meghalaya; at a few places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim; at isolated places over Gangetic West Bengal, Odisha, Bihar, Himachal Pradesh, Punjab, East Uttar Pradesh, Chhattisgarh, Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka.

### Rainfall recorded (in cm):

- ❖ Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad: Govindpura Aws (dist Ramban) 9, Banihal (dist Ramban) 7, Qazi Gund (dist Kulgam) 5, Nowgam (dist Kupwara) 5, Kukernag (dist Anantnag) 4, Khudwani Arg (dist Anantnag) 4, Lolab (dist Kupwara) 4, Kargil (dist Kargil) 4, Buhama (dist Kupwara) 4, Tengmarg (dist Baramula) 4, Raj Pura Arg (dist Poonch) 4,
- \* Tamilnadu Puducherry & Karaikal: Sivakasi (dist Virudhunagar) 5, Valparai PTO (dist Coimbatore) 4,
- ❖ Kerala & Mahe: Poonjar Aws (dist Kottayam) 6, Anayirankal Dam Aws (dist Idukki) 3, Kudulu (dist Kasargod) 3,

Realised Gusty Winds (Knot, IST) during past 24hours ending at 0300 UTC of today i.e 20.04.2025 (Received from RMCs/MCs, AWS DATA):

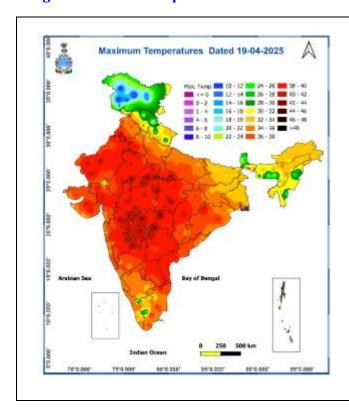
- **❖ Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Jammu (31kts,1545), Leh(48kts,1830), Kargil (35kts,1745), Jammu (31kts,1315);
- **❖ Himachal Pradesh:** Hoshiarpur (26,1500),
- **Chhattisgarh:** Bemetara (37,1745), Mungeli (32,1615)
- **Bihar:** East\_Champaran(24,1045)
- **❖ Jharkhand:** Simdega (23,1600)
- **❖ Meghalaya:** Ri\_Bhoi (31,1415)
- **Telangana:** Adilabad (36,1145), Vikarabad (29,1835), Ranga\_Reddy (23,1545)
- **❖ Tamil\_Nadu:** Thoothukudi (34,1730) Kovilpatti\_Amfu (63kmph, 1730) Thiruchendur(39kmph, 1600)

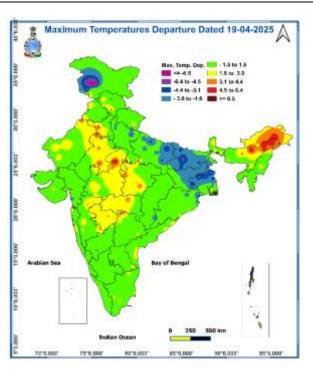
### Temperature observations during past 24 hours till 0830 hours IST of today:

- ❖ Yesterday, Maximum Temperatures had risen by 5°C -7°C in some places of Gangetic West Bengal, Jammu and Kashmir, by 2°C -4°C in some places of Bihar, 1°C -2°C over some places of Vidarbha, isolated places of Assam & Meghalaya, they have fallen by 2°C -4°C at most places of Rajasthan, some places of West Madhya Pradesh, and isolated places of Punjab & Haryana.
- ❖ Yesterday, Maximum Temperatures were in the range of 41°C to 45°C at a few places of Madhya Pradesh, Maharashtra, isolated places of Rajasthan, Chhattisgarh, Odisha, Haryana, Saurashtra & Kutch, Telangana, Rayalaseema, north interior Karnatak, in the range of 36°C to 40°C over many places in Tamil Nadu, at some places of Konkan & Goa, isolated places of coastal Andhra Pradesh, and less than 36 C of most places of Gangetic West Bengal, most places Uttar Pradesh, Bihar, at some places in Jharkhand, Kerla, coastal Karnatak and Nagaland, Manipur, Tripura. Yesterday, the highest maximum temperature of 44.7°C was reported at Nagpur (Sonegaon) (Vidarbha) over the country.
- ❖ Yesterday, Yesterday, Maximum Temperatures were markedly above normal (5.1°C or more) at isolated places over Arunachal Pradesh, Assam & Meghalaya; appreciably above normal (3.1°C to 5.0°C) at isolated places over Madhya Pradesh, East Rajasthan, Haryana-Chandigarh-Delhi; above normal (1.6°C to 3.0°C) at most places over Marathwada; at many places over Vidarbha; at a few places over West Rajasthan; at isolated places over Punjab, Himachal Pradesh, Madhya Maharashtra, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Sub-Himalayan West Bengal & Sikkim, Tamil Nadu, Puducherry & Karaikal. These were markedly below normal (-5.1°C or less) at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Bihar, Gangetic West Bengal; below normal (-3.0°Cto -1.6°C) at many places over Jharkhand; at a few places over East Uttar Pradesh, Andaman & Nicobar Islands; at isolated places over West Uttar Pradesh, Odisha and normal over rest parts of the country (Fig. 2)

Fig. 1: Maximum Temperatures

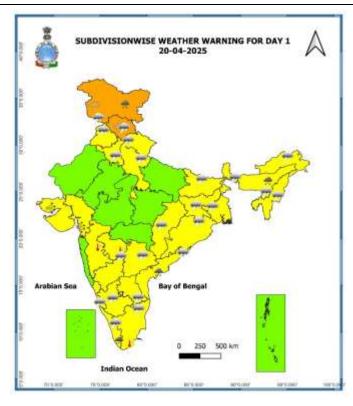


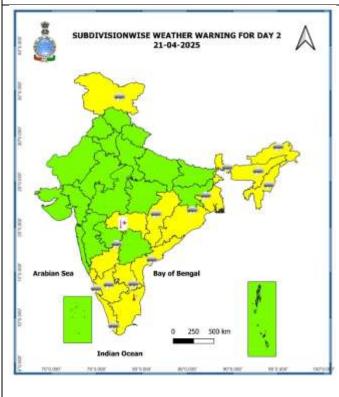


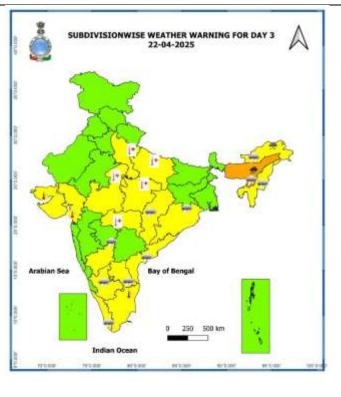


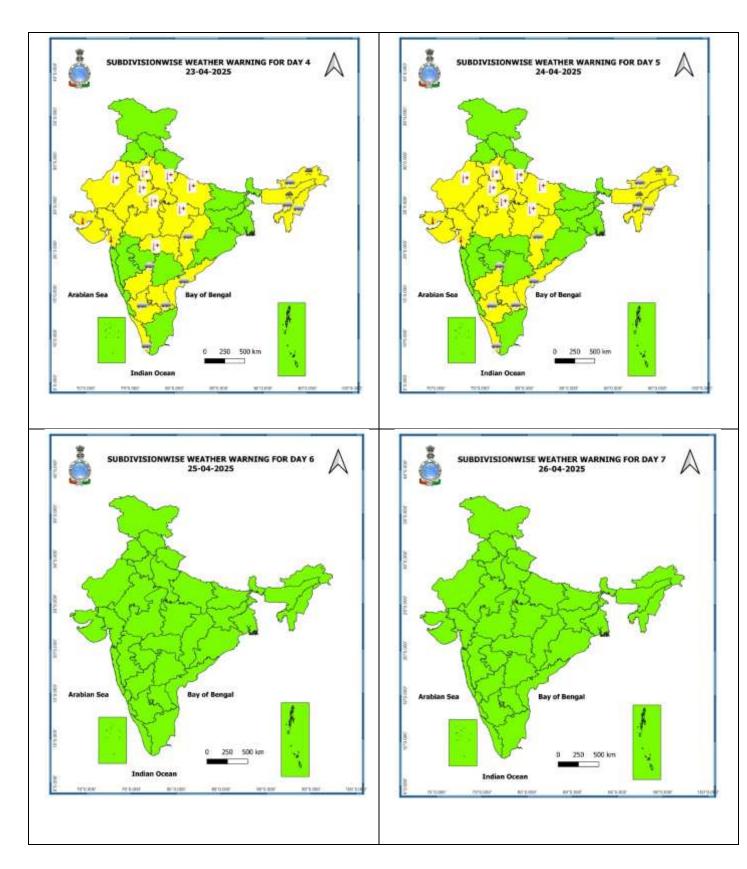
7 Days Rainfall Forecast											
S. No.	Subdivision	20-Apr	21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr			
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7			
1	ANDAMAN & NICOBAR ISLANDS	FWS	SCT	SCT	SCT	SCT	SCT	SCT			
2	ARUNACHAL PRADESH	SCT	SCT	FWS	FWS	WS	WS	WS			
3	ASSAM & MEGHALAYA	FWS	FWS	WS	WS	WS	WS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

<sup>•</sup> 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 <a href="https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php">https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php</a>

# Weather forecast over Delhi/NCR during 20th to 23th Apr. 2025

### **Past Weather:**

There has been no significance change in minimum temperature and fall in maximum temperature upto 01°C over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi are in the range of 38 to 39 °C and 25 to 26 °C respectively. The minimum temperature was above normal upto 04°C and maximum temperature was near normal at many places. Mainly clear sky with predominant surface wind from the southeast direction with wind speeds less than 18 to 20 kmph with gusting to 40 kmph prevailed during the past 24 hours. Mainly clear sky conditions with wind speed less than 10 kmph from the southeast direction prevailed over the region in the forenoon today.

# **Weather Forecast:**

**20.04.2025:** Partly cloudy sky becoming generally cloudy sky towards evening. Very light rain/ drizzle accompanied with thunderstorms, lightning, dust storms and surface wind speed reaching 30 to 40 kmph gusting 50 kmph during evening/ night hours. The maximum temperature over Delhi is likely to be in the range of 38 to 40°C. The predominant surface wind will likely be from the southeast direction with a wind speed of less than 18 kmph till evening. It would decrease becoming less than 12 kmph from the northwest direction during the night.

**21.04.2025:** Partly cloudy sky. Sustained Surface winds (speed 15-25 kmph) gusting to 35kmph. 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 10-12 kmph during morning hours. The wind speed will gradually increase thereafter becoming 16-20 kmph from the west direction during the afternoon. It will decrease becoming less than 14 kmph from the northwest direction during evening and 2night.

**22.04.2025**: Mainly clear sky. Strong surface winds (speed 20-30 kmph) gusting to 40kmph. The maximum and minimum temperatures over Delhi are likely to be in the range of 39 to 41°C and 23 to 25°C respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 10-12 kmph during morning hours. The wind speed will gradually increase becoming 16-20 kmph from the northwest direction in the afternoon. It will decrease becoming less than 14 kmph from the northwest direction during evening and night.

**23.04.2025:** Mainly clear sky. Strong surface winds (speed 20-30 kmph). The maximum and minimum temperatures over Delhi are likely to be in the range of 40 to 42°C and 23 to 25°C respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 10-12 kmph during morning hours. The wind speed will gradually increase becoming 16-20 kmph from the northwest direction in the afternoon. It will increase becoming less than 14 kmph from the northwest direction during evening and night.

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

✓ Isolated Hailstorm Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 20<sup>th</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 south Uttar Pradesh, Madhya Pradesh during 22<sup>nd</sup> -24<sup>th</sup>; Rajasthan, Haryana on 23<sup>rd</sup> & 24<sup>th</sup>; Vidarbha during 21<sup>st</sup> - 23<sup>rd</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.

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

- ➤ In Kerala, Coastal Andhra Pradesh, Arunachal Pradesh and Assam and Meghalaya, make provision to drain out excess water from standing crop and vegetable fields.
- ➤ In **Jammu & Kashmir**, 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 Vidarbha, Rajasthan, Madhya Pradesh, Uttar Pradesh and Haryana, 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.



### 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	Category		% Stations	Cate	gory		
76-100	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		
Heavy Rain			#	No Warni	No Warning (No Action)  Watch (Be Aware)  Alert (Be Prepared To Take Action)		
		<b>⊜</b> Dust Storm	Cold Day	Watch (B			
Very Heavy Rain		+ Heat Wave	Ground Fro	Alert (Be			
Extremely	Heavy Rain	+ Warm Night		Warning	Warning (Take Action)		
<b>.</b>	0 1:-ba-:	+ Hot Day	► Hot Day		bilistic Forecast		
Thunder & Lightning		* in		Terms	Probability of Occurrence (%		
Hailstorm Phot & Humid				Unlikely Likely Very Likely	< 25 25 - 50 50 - 75		
Dust Raising Winds Strong Surface Wind			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.