Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
Date: 04th February, 2024
Time of Issue: 1230 hours IST

Subject: Wet spell is likely to continue over Northwest & adjoining Central India on 04th & 05th February, 2024.

Realized weather during past 24 hours till 0830 hours IST of today: (Details given in Annexure I)

- **Minimum temperatures**: Minimum temperatures are in the range of 9-12°C in many parts of Punjab, Haryana, Chandigarh, Delhi, plains of Uttarakhand, north Rajasthan, north Madhya Pradesh, Uttar Pradesh and Sub-Himalayan West Bengal & Sikkim. These are normal to above normal over northern parts of the country except over many parts of Bihar and isolated parts of East Uttar Pradesh where it is below normal by 1-3°C. **Today, the lowest minimum temperature of 7.6 °C reported at Gaya (Bihar).**
- **Fog conditions observed** (at 0530 & 0830 hours IST of today): **Dense fog** in isolated pockets of Odisha; **Moderate fog** in isolated pockets of Punjab, Himachal Pradesh and Sikkim; **Shallow fog** in isolated pockets of Jammu-Kashmir, Delhi and Assam.
- Light to moderate rainfall/snowfall occurred **at most places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand and **at a few places** over Arunachal Pradesh. Light rainfall occurred **at most places** over Haryana-Chandigarh-Delhi; **at many places** over Punjab, West Uttar Pradesh; **at a few places** over West Rajasthan and **at isolated places** over East Uttar Pradesh, East Rajasthan, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu and Kerala.

Weather Systems and Forecast & Warnings during next 5 days:

- **The Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 69°E to the north Lat. 32°N with an induced cyclonic circulation over northwest Rajasthan & adjoining Pakistan in lower tropospheric levels.** Under the influence of these systems:
  - Light to moderate widespread rainfall/snowfall accompanied by thunderstorm & lightning at isolated places is very likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand on 04th; decreasing to isolated to scattered rainfall/snowfall on 05th & 06th February, 2024 and dry weather thereafter.
  - Isolated **heavy snowfall** likely over higher reaches of Himachal Pradesh and Uttarakhand on 04th February.
  - Isolated **hailstorm** activity also likely over lower reaches of Himachal Pradesh and Uttarakhand on 04th February.
  - Light to moderate scattered to fairly widespread rainfall accompanied by thunderstorm, lightning & gusty winds (30-40 kmph) at isolated places very likely over Punjab, Haryana-Chandigarh-Delhi, Rajasthan, Bihar & Uttar Pradesh on 04th, light isolated rainfall on 05th February, 2024 and dry weather thereafter.

- Light to moderate scattered to fairly widespread rainfall/snowfall very likely over Arunachal Pradesh during 04rd to 07th; isolated to scattered rainfall over West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Mizoram, Manipur & Tripura on 04rd & 07th February, 2024.
- Isolated **thunderstorm accompanied with hailstorm** also likely over Sikkim on 05th February.

Dense fog warning: (graphics in Annexure II)

- **Dense to very dense fog** conditions very likely to prevail in morning hours over some parts of Punjab, Haryana-Chandigarh-Delhi on 05th February and in isolated pockets on 06th February, 2024.
- **Dense fog** conditions very likely to prevail in morning hours in isolated pockets of West Uttar Pradesh, north Rajasthan, Gangetic West Bengal and Assam & Meghalaya on 05th February and over Odisha on 05th & 06th February, 2024.

Minimum Temperature Forecast:

- Rise in minimum temperatures by 2-3°C very likely over many parts of East India during next 3 days and no significant change thereafter.
- Fall in minimum temperatures by 2-4°C very likely over many parts of Northwest India during next 3 days and no significant change thereafter.

For more details kindly refer: https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php

Annexure I

Realized weather during past 24 hours till 0830 hours IST of today:

- Yesterday, **Maximum temperatures** were in the range of 16-20°C in many parts of Punjab, Haryana, Chandigarh, Delhi, plains of Uttarakhand and some parts of West Uttar Pradesh. These were below normal by 1-2°C over south Haryana and Delhi.

- **Visibility recorded (at 0530 hours IST of today) (≤200 metres): Odisha:** Paradip-25, Chandbali-50, Balasore-200, Gopalpur-500; **Bihar:** Purnea-200; **Jammu & Kashmir:** Kupwara & Banihal-500 each; **East Rajasthan:** Jaipur-500; **Gangetic West Bengal**: Digha-500.

- **Visibility recorded (at 0830 hours IST of today) (≤200 metres): Jammu & Kashmir:** Kupwara, Batote & Banihal-500 each; **Punjab:** Ludhiana-200; **Himachal Pradesh:** Shimla-200, Kalpa-500; **Delhi:** Safdarjung-500; **Odisha:** Paradip-50, Chandbali, Balasore, Gopalpur & Puri-500 each; **Sikkim**: Tadong & Gangtok-200 each; **Assam:** Haflong-500.

Impact expected due to dense to very dense fog in the night/morning hours over Punjab and Haryana- Chandigarh-Delhi on 04th & 05th February, 2024.

- **Transport and Aviation:**
  - May affect some airports, highways and railway routes in the areas of met- sub-division.
  - Difficult driving conditions with slower journey times.
  - Unless taken precautionary measures, it may lead to some road traffic collisions.

- **Power Sector:**
  - Chances of Tripping of Power lines in the very dense fog routes.
- **Human Health:**
  - Lung related health impacts: Dense fog contains particulate matter and other pollutants and in case exposed it gets lodged in the lungs, clogging them and decreasing their functional capacity which increases episodes of wheezing, coughing and shortness of breath.
  - Impact on people having asthma bronchitis: Long time exposure to dense fog may cause respiratory problem for people having asthma bronchitis and other lung related health problems.
  - Eye Irritation: Dense fog contains pollutions of various types and these Pollutants in the air if exposed may tend to irritate the membranes of the eye causing various infections leading to redness or swelling of the eye.

Action suggested:

- **Transport and Aviation:**
  - Be careful while driving or outing through any transport.
  - Use fog lights during driving.
  - Be in touch with airlines, railways and state transport for schedule of your journey.
- **Power Sector:**
  - To keep ready Maintenance Team
  - Human Health: To avoid outing until unless emergency and to cover the face.

Impact & Action Suggested due to heavy rainfall/snowfall over: Higher reaches of Himachal Pradesh and Uttarakhand on 04th February

Impacts Expected for Rain/Snow

- Disruption of Electricity.
- Landslide, rock fall and mudslides, Blocking/washout of roads/highways/bridges Nallahs.
- Disruption of traffic flow.
- Damage to Kuccha and unsecured structures.

Suggested Actions

- Avoid roadway underpasses, drainage ditches, low lying areas and areas where water collects – they can unexpectedly flood or overflow.
- Stay away from power lines or electrical wires.
- Don't stay in kuchha houses during heavy rainfall as it may collapse anytime soon
- Drive carefully.

Impact expected and action suggested due to thunderstorm with Hailstorm:

- **04th February:** Himachal Pradesh, Uttarakhand
- **05th February:** Sub-Himalayan West Bengal & Sikkim

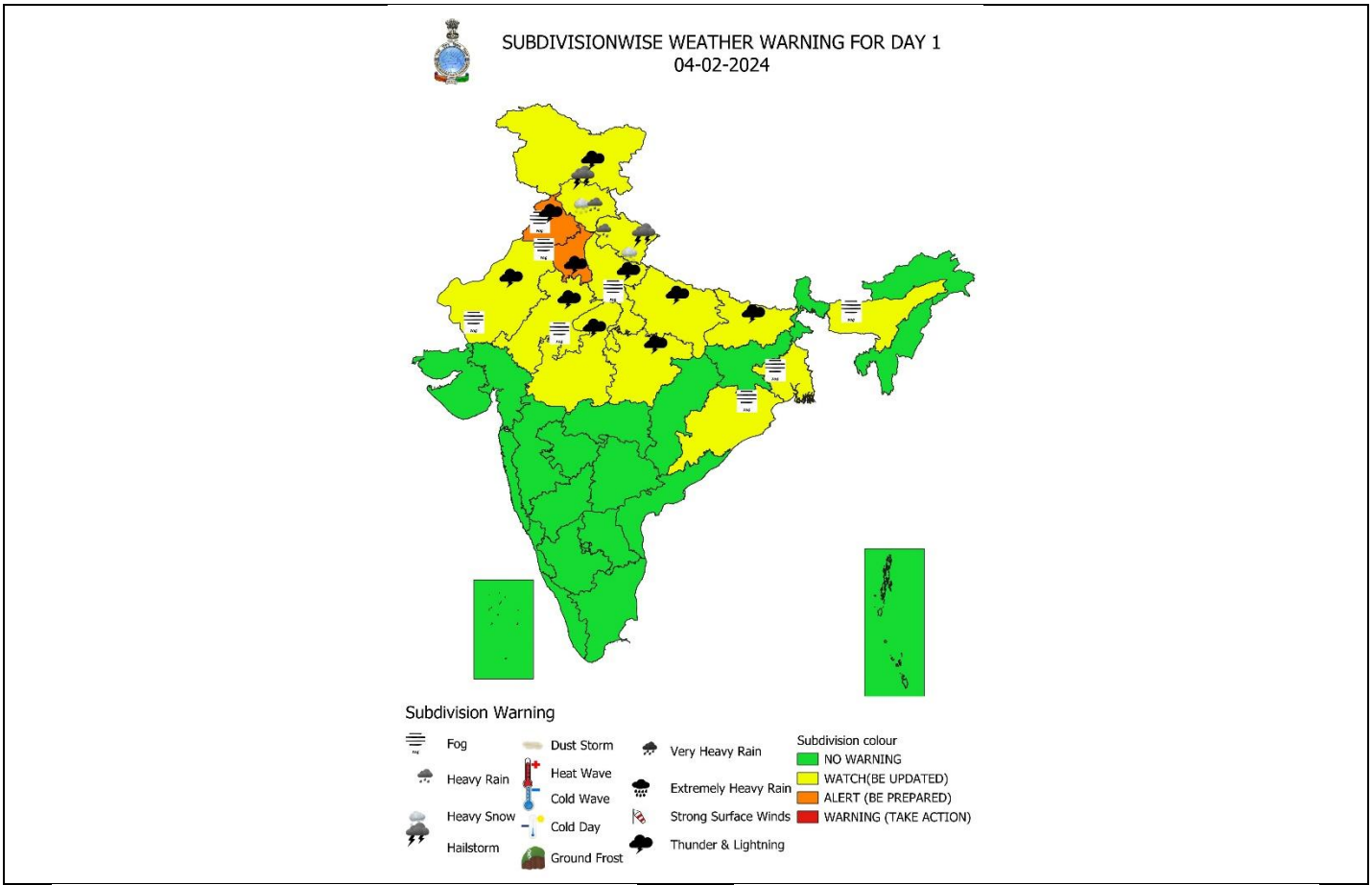
Impact expected:

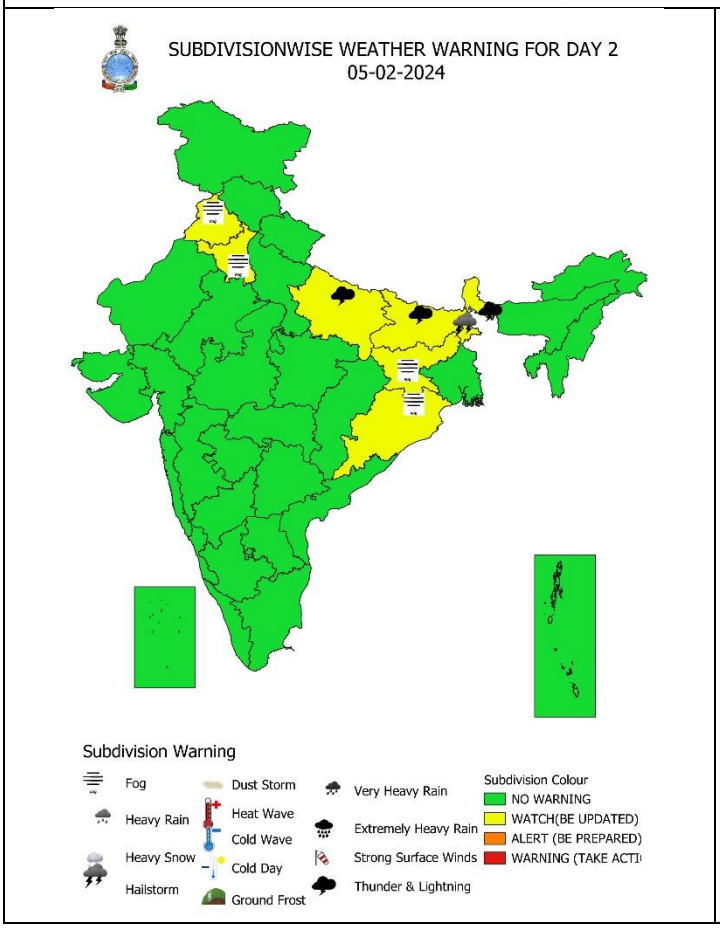
- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

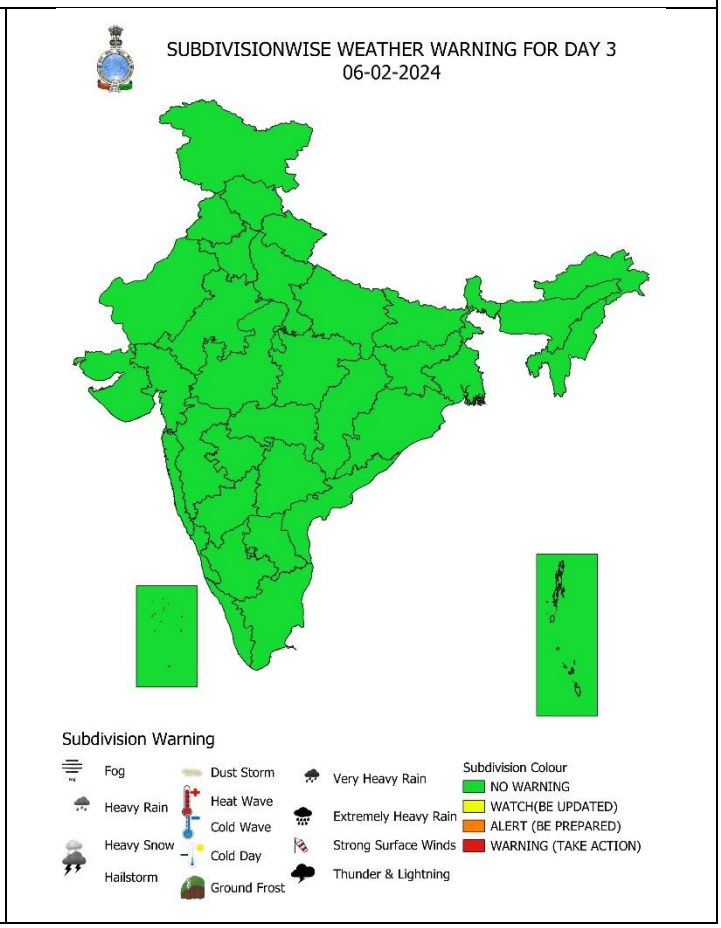
Action suggested:

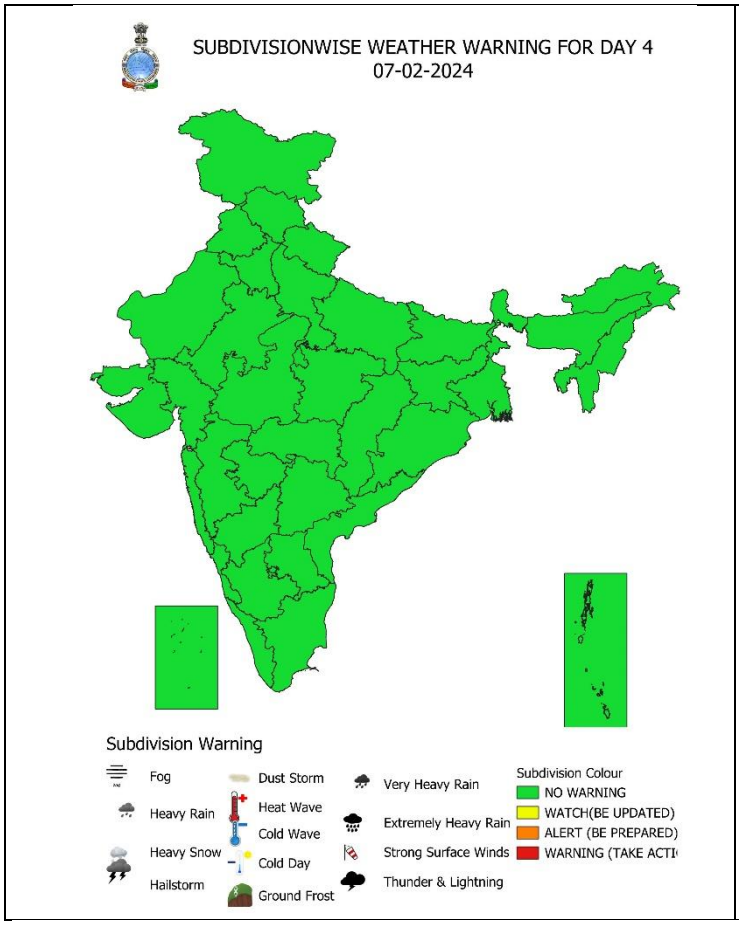
- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

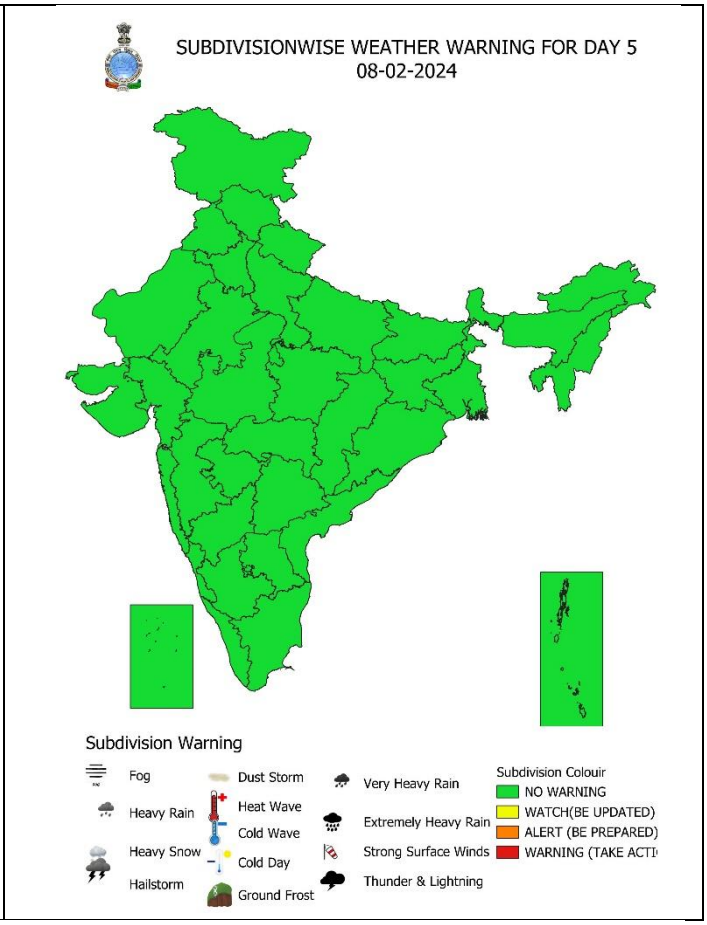
Annexure II


SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
04-02-2024
Subdivision Warning
Fog
Heavy Rain
Heavy Snow
Hailstorm
Dust Storm
Heat Wave
Cold Wave
Cold Day
Ground Frost
Very Heavy Rain
Extremely Heavy Rain
Strong Surface Winds
Thunder & Lightning
Subdivision colour
NO WARNING
WATCH(BE UPDATED)
ALERT (BE PREPARED)
WARNING (TAKE ACTION)


SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
05-02-2024
Subdivision Warning
Fog
Heavy Rain
Heavy Snow
Hailstorm
Dust Storm
Heat Wave
Cold Wave
Cold Day
Ground Frost
Very Heavy Rain
Extremely Heavy Rain
Strong Surface Winds
Thunder & Lightning
Subdivision Colour
NO WARNING
WATCH(BE UPDATED)
ALERT (BE PREPARED)
WARNING (TAKE ACTI


SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
06-02-2024
Subdivision Warning
Fog
Heavy Rain
Heavy Snow
Hailstorm
Dust Storm
Heat Wave
Cold Wave
Cold Day
Ground Frost
Very Heavy Rain
Extremely Heavy Rain
Strong Surface Winds
Thunder & Lightning
Subdivision Colour
NO WARNING
WATCH(BE UPDATED)
ALERT (BE PREPARED)
WARNING (TAKE ACTION)


SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
07-02-2024
Subdivision Warning
Fog
Heavy Rain
Heavy Snow
Hailstorm
Dust Storm
Heat Wave
Cold Wave
Cold Day
Ground Frost
Very Heavy Rain
Extremely Heavy Rain
Strong Surface Winds
Thunder & Lightning
Subdivision Colour
NO WARNING
WATCH(BE UPDATED)
ALERT (BE PREPARED)
WARNING (TAKE ACTI


SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
08-02-2024
Subdivision Warning
Fog
Heavy Rain
Heavy Snow
Hailstorm
Dust Storm
Heat Wave
Cold Wave
Cold Day
Ground Frost
Very Heavy Rain
Extremely Heavy Rain
Strong Surface Winds
Thunder & Lightning
Subdivision Colouir
NO WARNING
WATCH(BE UPDATED)
ALERT (BE PREPARED)
WARNING (TAKE ACTI

Legends:

- **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.
- **Obsy:** Observatory; **AWS:** Automatic Weather Station; **dist:** District: **NH:** National Highway; **KVK**: Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation
- **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 Marathwada.
  - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and 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 Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

Subdivision Warning		Subdivision color
Heavy Rain	Dust Storm	NO WARNING
Heavy Snow	Strong Surface Winds	WATCH(BE UPDATED)
Thunderstorms & Lightning	Heat Wave	ALERT (BE PREPARED)
Hailstorm	Cold wave	WARNING (TAKE ACTION)
	Fog	

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

Flash Flood Risk
High Risk (Take Action)
Moderate Risk (Be Prepared)
Low Risk (Be Updated)

Definition of Cold wave, Cold Day and Fog Conditions:

Cold Wave

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

(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

Cold Day

When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C

Fog

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
- **Very Dense Fog:** when the visibility < 50 metres