Subject: I) Cold Wave and Cold Day conditions over Northwest and Central India very likely to abate from tomorrow.


Weather Observed during past 24 hours ending at 0830 hrs IST of today:

- **Minimum temperatures** are below normal by 4-6°C over most parts of Madhya Pradesh, Marathwada, Odisha and Vidarbha and by 2-4°C over most parts of Haryana-Chandigarh-Delhi, Uttar Pradesh, East Rajasthan, Chhattisgarh, Bihar, Jharkhand and West Bengal.

- **Maximum temperatures** are below normal by 4-6°C over most parts of Madhya Pradesh, Vidarbha, Jharkhand, East Uttar Pradesh, Chhattisgarh, West Bengal & Bihar and by 2-4°C over most parts of Punjab, Haryana, East Rajasthan, West Uttar Pradesh and Odisha.

- **Cold Day conditions** at most places with **Severe Cold Day conditions** at isolated places prevailed over Vidarbha; **Cold day to Severe Cold Day** at a few places over East Uttar Pradesh, Madhya Pradesh & Bihar; **Severe Cold Day conditions** at isolated places over plains of Uttarakhand; Cold Day conditions at most places over Jharkhand and at isolated places over northwest Uttar Pradesh and north Chhattisgarh.

- **Cold Wave conditions** prevailed over most parts of Vidarbha and East Madhya Pradesh; in some parts of Marathwada and West Madhya Pradesh and in isolated pockets of East Rajasthan.

- **Dense to Very Dense Fog** in isolated pockets over East Uttar Pradesh and **Moderate to Dense Fog** in isolated pockets over Himachal Pradesh, Uttarakhand and West Uttar Pradesh.

Weather Systems:

- A feeble Western Disturbance as a trough in middle tropospheric westerlies runs along Long. 64°E to the north of Lat. 34°N. It would move east-northeastwards and affect Jammu-Kashmir-Ladakh with isolated rainfall/snowfall till 01st February, 2022.

- An active Western Disturbance is very likely to affect Northwest India from 02nd February, 2022. An induced cyclonic circulation/low pressure area is likely to form over southwest Rajasthan & neighbourhood on 03rd February, 2022.

Rainfall Forecast & Warnings:

- Isolated to scattered light/moderate rainfall very likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland-Manipur-Mizoram-Tripura during 31st January to 02nd February, 2022.
- Isolated light rainfall very likely over Tamilnadu-Puducherry-Karaikal and Kerala-Mahe during next 2 days and dry weather thereafter.
- Light isolated rainfall/snowfall is likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during next 4 days and increase thereafter.
- Surface winds (speed 15-25 kmph) likely over Punjab, Haryana, Delhi and Uttar Pradesh during next 3 days.
- Under the influence of a fresh active Western Disturbance & its induced cyclonic circulation:
  - Fairly widespread to widespread light/moderate rainfall/snowfall very likely over Western Himalayan Region during 02nd to 04th February. **Isolated heavy rainfall/snowfall is also likely over Jammu, Kashmir, Gilgit, Baltistan & Muzaffarabad and Himachal Pradesh on 03rd February, 2022.**
- Under the influence of interaction between mid-tropospheric southwesterlies associated with the above Western Disturbance and lower level southeasterlies from the Bay of Bengal:
  - Scattered to fairly widespread light/moderate rainfall very likely over Punjab, Haryana, Chandigarh, Delhi and Uttar Pradesh during 02nd to 04th February, 2022.
  - Scattered to fairly widespread light/moderate rainfall with isolated hailstorms likely over Bihar, Jharkhand, West Bengal & Sikkim on 03rd & 04th and over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 04th & 05th February, 2022.

**Cold Wave, Fog and Cold Day Warning:**
- Gradual rise by 4-6°C in minimum temperatures till 03rd February and fall by 3-4°C thereafter very likely over most parts of Northwest & Central India.
- No significant change in minimum temperatures very likely over East India during next 2 days and gradual rise by 2-3°C during next 3 days.
- Gradual rise by 2-4°C in minimum temperatures during next 5 days very likely over Gujarat & Maharashtra.
- Maximum temperatures are very likely to rise by 3-5°C over most parts of Northwest & Central India till 2nd February and fall thereafter.
- **Cold wave conditions** in isolated pockets very likely over Punjab, East Rajasthan and Saurashtra & Kutch during next 24 hours and abate thereafter. **Cold day conditions** in isolated pockets very likely over Uttar Pradesh during next 24 hours and abate thereafter.
- **Cold wave conditions** in isolated pockets very likely over Madhya Pradesh & Odisha during next 2 days; over Chhattisgarh, Jharkhand and West Assam during next 24 hours and gradually abate thereafter. **Cold Day conditions** in isolated pockets very likely over Madhya Pradesh and Bihar during next 24 hours and gradually abate thereafter.
- **Dense Fog conditions** in isolated pockets in night/morning hours very likely over Himachal Pradesh, Uttarakhand and Terai belt of Uttar Pradesh during next 24 hours.

*For more details refer:*
Impact expected and action suggested due to Cold Wave/Cold Day conditions in isolated pockets over Punjab, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Odisha, West Assam and Saurashtra & Kutch during next 24 hours.

Impact expected:
- An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
- Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
- Frostbite can occur due to prolonged exposure to cold. The skin turns pale, hard and numb and eventually black blisters appear on exposed body parts such as fingers, toes, nose and or earlobes. Severe frostbite needs immediate medical attention and treatment.
- Impact on agriculture, crop, livestock, water supply, transport and power sector at some places.

Action suggested:
- Wear several layers of loose fitting, light weight; warm woolen clothing.
- Cover your head, neck, hands and toes adequately as majority of heat loss occurs through these body parts. Wear several layers of loose fitting, light weight; warm woolen clothing rather than one layer of heavy cloth.
- Eat vitamin-C rich fruits & vegetable and drink sufficient fluids preferably warm fluids to maintain adequate immunity.
- Avoid or limit outdoor activities.
- Keep dry, if wet, change cloths immediately to prevent loss of body heat. Wear insulated/waterproof shoes.
- Warm the affected area of the body slowly with lukewarm water; do not rub the skin vigorously.
- If the affected skin area turns black, immediately consult a doctor.
- Maintain ventilation while using Heaters to avoid inhaling toxic fumes.
- Take safety measures while using electrical and gas heating devices.
- Extreme care needed for vulnerable people.
- Seek medical attention as soon as possible for someone suffering from frostbite/ Hypothermia.
- Protect livestock from cold weather. (For details kindly refer NDMA guidelines: https://ndma.gov.in/Resources/awareness/Cold_Wave)
Legends:

Heavy Rain: 64.5 to 115.5 mm; Very Heavy Rain: 115.6 to 204.4 mm; Extremely Heavy Rain: >204.4 mm.

Region wise classification of meteorological Sub-Divisions:
1) **Northwest India:** Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad; Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
2) **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
3) **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
4) **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
5) **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
6) **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.