



**Government of India
Ministry of Earth Sciences
India Meteorological Department**

**Press Release
Date: 16th March, 2023
Time of Issue: 1315 hours IST**

Subject: Rainfall accompanied with thunderstorms/hailstorms over most parts of the country during 16th-20th March.

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

- ❖ **Maximum temperatures** are in the range of **33-37°C** over most places over plains of the country. These are near normal or below normal over most parts of the country.
- ❖ **Light/moderate rainfall/thundershowers** observed over most parts of the country. Details of rainfall are given in Annexure 1).
- ❖ **Hailstorm** observed at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Bihar, Uttarakhand, Himachal Pradesh and Madhya Maharashtra.

Weather Forecast and Warnings (Annexure II):

- ❖ A **Western Disturbance** as a cyclonic circulation lies over Afghanistan & neighbourhood in middle tropospheric levels with an induced cyclonic circulation over southwest Rajasthan in lower tropospheric levels. Another cyclonic circulation lies over northeast Rajasthan & neighbourhood in lower tropospheric levels.
- ❖ A trough runs from Bangladesh to north Coastal Andhra Pradesh and another from Tamilnadu to north Konkan in lower tropospheric levels.
- ❖ Under the influence of above favourable conditions, following weather is expected:
Northwest India: Scattered to fairly widespread light/moderate rainfall with **thunderstorm, lightning & gusty winds and hailstorm** likely over Western Himalayan Region during 16th-20th and over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan on 17th-20th March, 2023. **Isolated hailstorm** also likely over West Uttar Pradesh & northwest Rajasthan on 17th and over northeast Rajasthan during 17th-19th March, 2023.

West & Central India: Scattered to fairly widespread light/moderate rainfall with **thunderstorm, lightning & gusty winds** likely over Gujarat, Maharashtra, Madhya Pradesh, Vidarbha, Chhattisgarh during 16th-19th March, 2023. **Isolated hailstorm** also likely over Madhya Pradesh, Vidarbha and Chhattisgarh on 16th & 17th; over Madhya Maharashtra & Marathwada on 16th March, 2023.

Isolated **heavy rainfall** very likely over Chhattisgarh on 18th March, 2023.

South Peninsular India: Scattered to fairly widespread light/moderate rainfall with **thunderstorm, lightning & gusty winds** likely over north interior Tamil Nadu, Andhra Pradesh, Telangana, Karnataka during 16th-19th March, 2023. **Isolated hailstorm** also likely over Telangana on 16th & 17th March, 2023.

Isolated **heavy rainfall** very likely over Coastal Andhra Pradesh & Telangana on 18th March.

East & Northeast India: Fairly widespread to widespread light/moderate rainfall activity with **thunderstorm, lightning & gusty winds** likely over East and Northeast India during 16th -20th March, 2023. **Isolated hailstorm** also likely over Sub-Himalayan West Bengal, south Assam & Meghalaya on 16th; over Bihar, Jharkhand and Gangetic West Bengal on 16th & 17th and over Odisha on 18th March, 2023.

Maximum Temperatures Forecast during next 5 days:

- ❖ **Maximum temperatures** are very likely to be near normal or below normal over most parts of the country during next 5 days.

Impact expected and action suggested due to Isolated Thunderstorm/lightning/Squall & Hailstorm over

- 16th March: Sub-Himalayan West Bengal, south Assam & Meghalaya, Madhya Pradesh, Vidarbha, Madhya Maharashtra & Marathwada, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad
- 16th & 17th March: Himachal Pradesh, Bihar, Jharkhand and Gangetic West Bengal
- 16th-18th March: Chhattisgarh
- 16th-20th March: Uttarakhand
- 18th March: Odisha
- Over West Uttar Pradesh and northwest Rajasthan on 17th and over northeast Rajasthan during 17th-19th March

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.

Advisory for farmers:

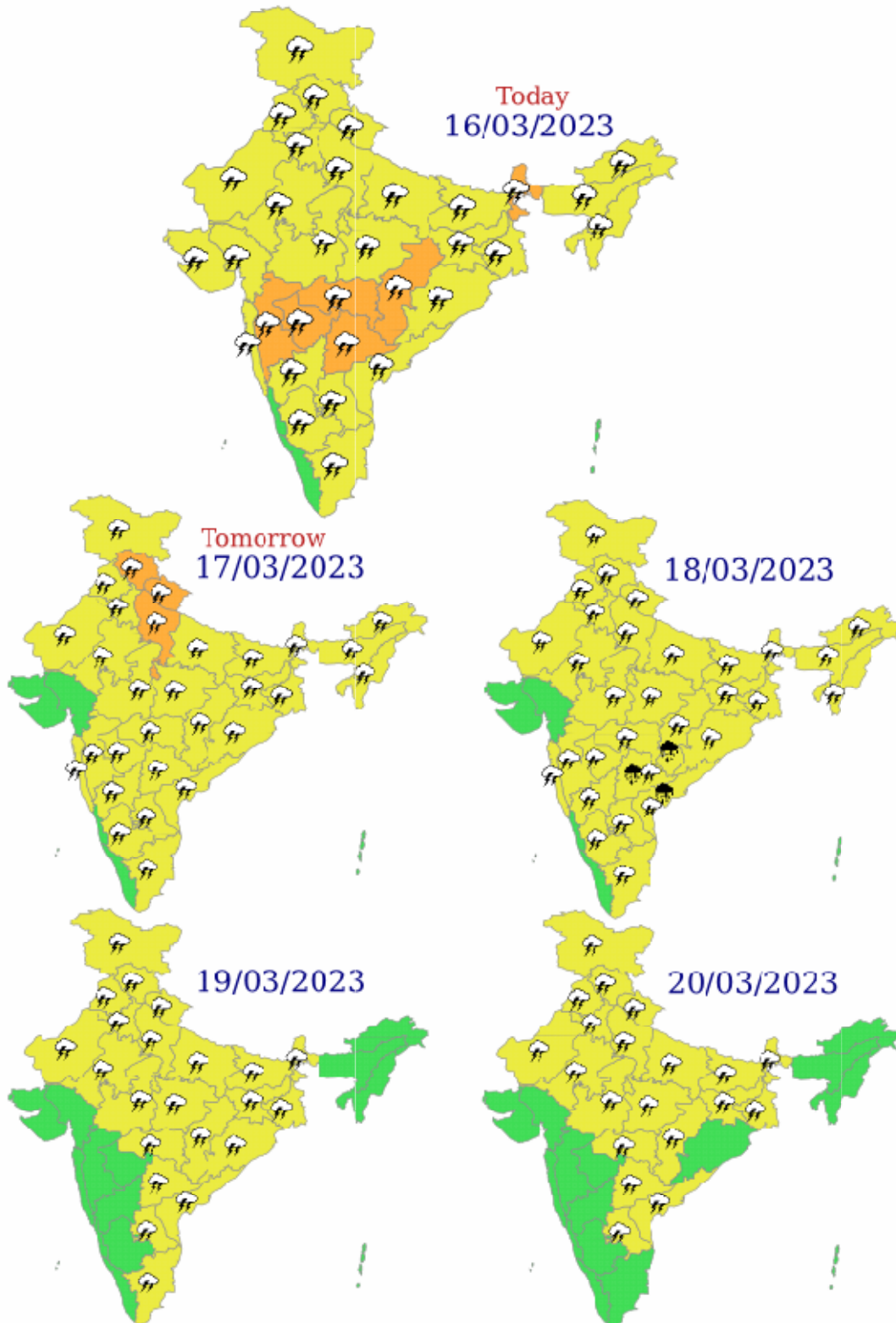
- Postpone harvesting of mustard till cessation of rains in Punjab and Haryana; if already harvested, store at safe places to avoid losses. Withhold irrigation to wheat crop to avoid lodging.
- Postpone harvesting of wheat and pulses in Madhya Maharashtra and Marathwada. Carry out harvesting of grapes at the earliest. Store already harvested produce at safe places to avoid losses. Use the skirting bags or aluminium coated paper for grape bunches to protect from rains.
- Carry out harvesting of matured mustard, chickpea and wheat in Rajasthan and Madhya Pradesh at the earliest and store them in safe place.
- Use hail nets to protect apple, pear, plum and peach orchards in Himachal Pradesh and Uttarakhand and orchards in Madhya Maharashtra and Marathwada.

For more details kindly

refer: https://mausam.imd.gov.in/imd_latest/contents/all_india_forecast_bulletin.php

- ❖ **Light/moderate rainfall/thundershowers** observed over most parts of the country (Annexure 1). **at most places over** Arunachal Pradesh, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim; **at many places over** Nagaland, Manipur, Mizoram & Tripura and Vidarbha; **at a few places over** Uttarakhand, Himachal Pradesh, Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Madhya Maharashtra, Interior Karnataka and Kerala & Mahe and **at isolated places over** Gangetic West Bengal, Odisha, Jharkhand, Bihar, Uttar Pradesh, Haryana, Punjab, Rajasthan, Madhya Pradesh, Gujarat State, Konkan & Goa, Marathwada, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Telangana, Tamil Nadu, Puducherry & Karaikal and Coastal Karnataka.

- ❖ **Significant amount of rainfall (in cm): Punjab:** Ranjit Sagar Dam Site (dist Pathankot) 5, Shahpur Kandi (dist Pathankot) 4; **SHWB & Sikkim:** Alipurduar (dist Jalpaiguri) 4, Neora & Chepan (dist Jalpaiguri) 3, Singhik & Mangan (dist North Sikkim) 3; **Assam & Meghalaya:** Guwahati City Imd (dist Kamrup Metropolitan) 4, Guwahati (dist Kamrup Metropolitan) 3, Gossaigaon (dist Kokrajhar) 3, Sonari (dist Sibsagar) 3, Guwahati (dist Kamrup Metropolitan) 3, Aie Nh Xing (dist Bongaigaon) 3, Dillighat & Nahar Katia (dist Dibrugarh) 3, Morigaon (dist Morigaon) 3, Nalbari (dist Nalbari) 3; **Jammu & Kashmir:** Udhampur (dist Udhampur) 3; **Himachal Pradesh:** Bangana (dist Una) 3; **Kerala:** Kurudamannil (dist Pathanamthitta) 3.



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:**

- **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-Himalaya 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 Widespread (FWS/ Many Places) | 1-25 | Isolated (ISOL) |

WARNING

| |
|------------------------|
| WARNING (TAKE ACTION) |
| ALERT (BE PREPARED) |
| WATCH (BE UPDATED) |
| NO WARNING (NO ACTION) |

Probabilistic Forecast

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



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State