



Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
Date: 26th November, 2023
Time of Issue: 1430 hours IST

Subject: Isolated heavy rainfall accompanied with thunderstorm and hailstorm activities likely over Gujarat state, southeast Rajasthan, southwest Madhya Pradesh, north Konkan, north Madhya Maharashtra, Marathwada on 26th and over Vidarbha on 27th & 28th November, 2023.

❖ **Rainfall recorded during past 24 hours till 0830 hours IST of today: Heavy to very heavy rainfall** at isolated places over Tamil Nadu and heavy rainfall at isolated places over Madhya Maharashtra, Andaman & Nicobar Islands and Kerala & Mahe.

❖ **Significant Rainfall Amount:**

- **Tamil Nadu:** Sethiathope (dist Cuddalore) 17, Lalpet (dist Cuddalore), Kothavacherry (dist Cuddalore), Kollidam (dist Mayiladuthurai), Srimushnam (dist Cuddalore) 11 each, Bhuvanagiri (dist Cuddalore), Kattumannar Koil (dist Cuddalore), Vepur (dist Cuddalore) 9 each, Nalumukku (dist Tirunelveli), Oothu (dist Tirunelveli), Cuddalore Collector Office (dist Cuddalore), Labbaikudikadu (dist Perambalur), Parangipettai (dist Cuddalore) 8 each, Pelandurai (dist Cuddalore), Kakkachi (dist Tirunelveli), Marakkanam (dist Villupuram), Cuddalore (dist Cuddalore), Puducherry (dist Puducherry), Sirkali (dist Mayiladuthurai), Manjolai (dist Tirunelveli), Kurinjipadi (dist Cuddalore) 7 each;
- **Andaman & Nicobar Islands:** Car Nicobar-7;
- **Kerala & Mahe:** Kayamkulam (dist Alapuzha) 8;
- **Madhya Maharashtra: Satara** - Imd Obsy (dist Satara) 7.

Weather Systems and Forecast & Warnings during next 5 days (graphics in Annexure II)

A **Western Disturbance** as a trough in middle & upper tropospheric westerlies runs roughly along Long. 64°E to north of Lat 15°N.

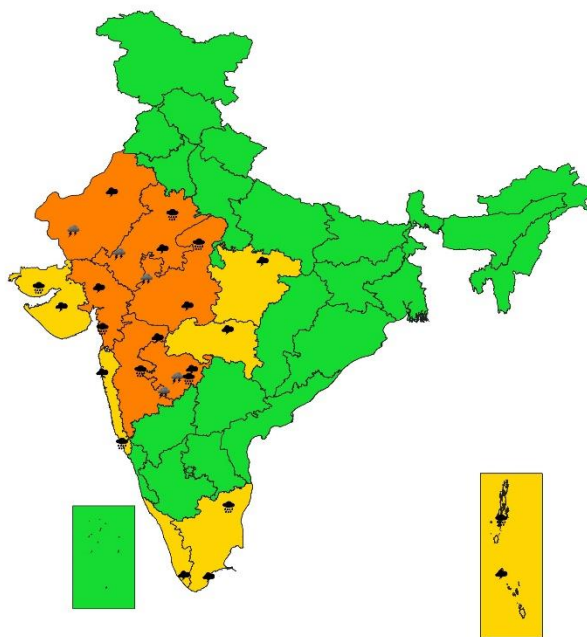
- ✓ An **Induced Cyclonic Circulation** lies over central Pakistan & adjoining West Rajasthan at lower levels.
- ✓ An upper air **Trough** in easterlies runs from Southwest Arabian Sea to Northeast Arabian Sea and extends upto mid-tropospheric levels with an embedded **Cyclonic Circulation** over Northeast Arabian Sea & adjoining Saurashtra & Kutch coasts in the lower tropospheric levels.
- ✓ Thus, there is interactions between the middle latitude westerlies with the lower level trough in easterlies. **Due to such interaction:**

- Light to moderate rainfall at many places accompanied with isolated thunderstorm & lightning is likely over Gujarat State, south Rajasthan on 26th November; over Konkan & Goa, Marathwada and Madhya Maharashtra and south Madhya Pradesh during 26th and 27th and over Vidarbha during 27th to 28th November with significant reduction thereafter.
 - **Isolated heavy rainfall likely over Gujarat state**, southeast Rajasthan, southwest Madhya Pradesh, north Konkan, north Madhya Maharashtra, Marathwada and Tamil Nadu, Puducherry & Karaikal on 26th; over Vidarbha on 27th & 28th November, 2023. **Isolated very heavy rainfall likely over Gujarat region** on 26th November, 2023.
 - **Hailstorm also likely** at isolated places over Uttarakhand, south Rajasthan and north Madhya Maharashtra on 26th; over southwest Madhya Pradesh and north Marathwada on 26th & 27th November and over Uttarakhand, East Madhya Pradesh and Vidarbha on 27th November.
 - Light rainfall at isolated places also likely over Western Himalayan Region and plains of Northwest India during 26th-28th November. **Thunderstorm & lightning** at isolated places over Himachal Pradesh and Uttarakhand on 27th November.
- The **Cyclonic Circulation** over south Thailand & adjoining South Andaman Sea & neighbourhood now lies over South Andaman Sea & adjoining south Thailand and extends upto 5.8 km above mean sea level. Under its influence, a **Low Pressure Area** is likely to form over South Andaman Sea & adjoining Southeast Bay of Bengal around 27th November. It is likely to move west-northwestwards and intensify into a **Depression** over Southeast Bay of Bengal around 29th November, 2023. Under its influence:
- Light to moderate rainfall at many places accompanied with isolated **thunderstorm & lightning** is likely over Andaman & Nicobar Islands during 26th –29th November, 2023. Isolated **heavy rainfall** also likely over Nicobar Islands on 26th; and over Andaman Islands on 27th & 28th. Isolated **very heavy rainfall** very likely over Nicobar Islands on 27th November.
 - **Squally weather (wind speed reaching 40-45 kmph gusting to 55 kmph)** very likely to prevail South and adjoining North Andaman Sea on 27th and **Squally weather (wind speed reaching 45-55 kmph gusting to 65 kmph)** over Southeast Bay of Bengal & adjoining Andaman Sea during 28th-29th November; over Central Bay of Bengal during 29th November to 02nd December. **Fishermen are advised not to venture into these areas. (graphics in Annexure III)**
- ❖ **Minimum temperatures are likely to fall by 2-3°C over most parts of Northwest India from 27th; over most parts of central India from 29th November, 2023.**
- ❖ **No significant weather likely over rest parts of the country.**

For more details kindly refer: [https://mausam.imd.gov.in/responsive/all india forecast bulletin.php](https://mausam.imd.gov.in/responsive/all%20india%20forecast%20bulletin.php) and <https://mausam.imd.gov.in/responsive/cycloneinformation.php>



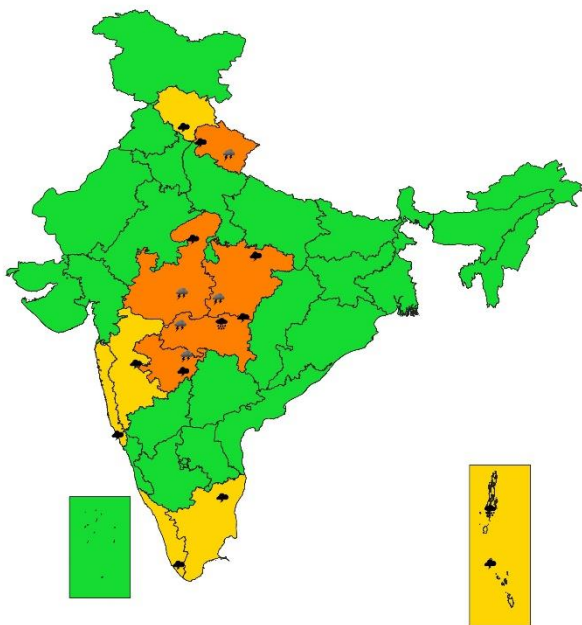
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
(26-11-2023)



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



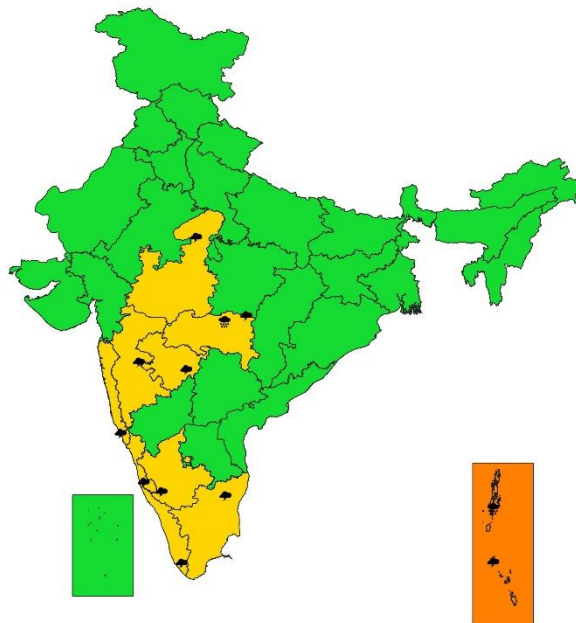
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
(27-11-2023)



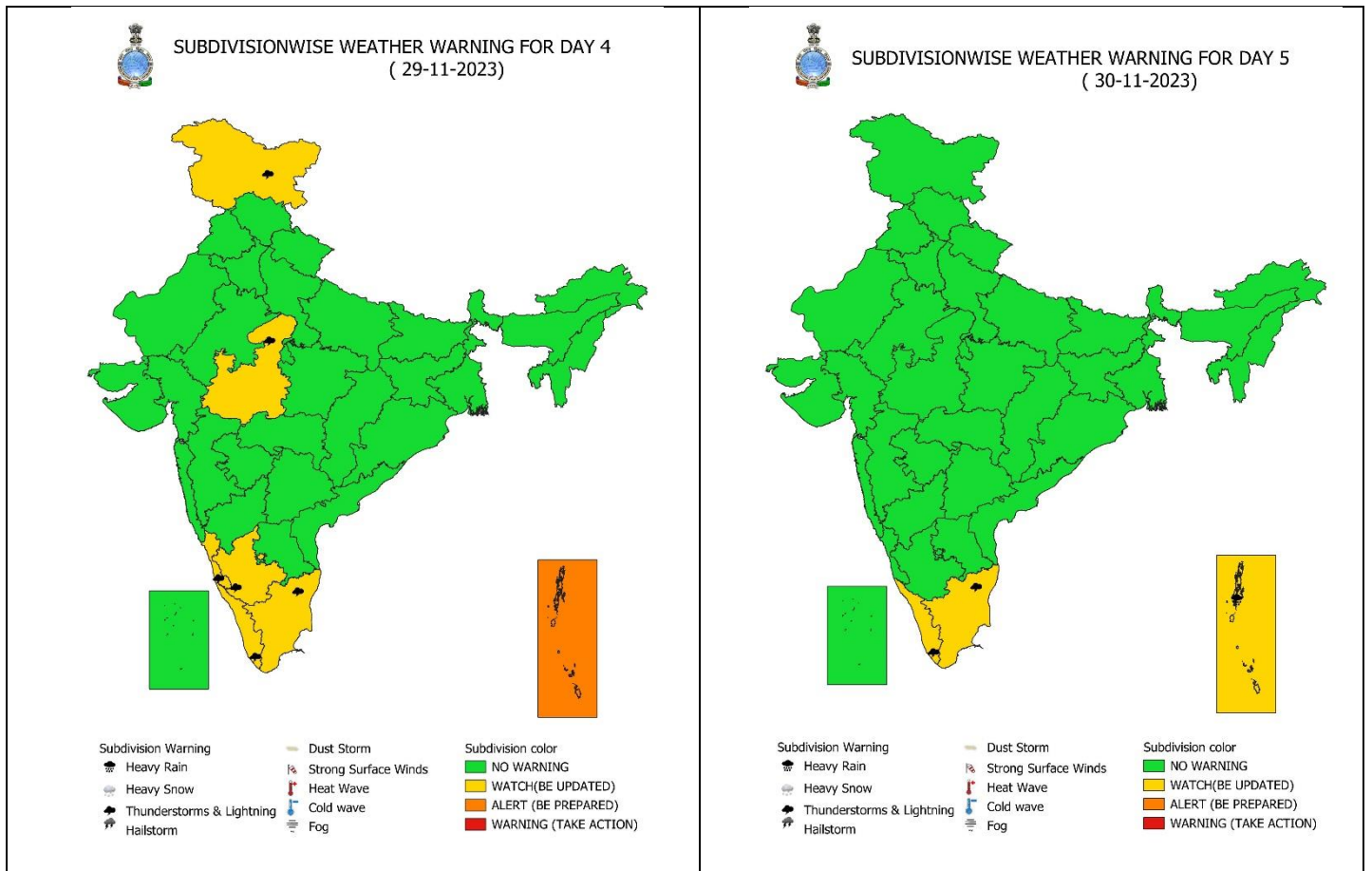
- | | | |
|----------------------------|----------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| Heavy Rain | Strong Surface Winds | NO WARNING |
| Heavy Snow | Heat Wave | WATCH (BE UPDATED) |
| Thunderstorms & Lightning | Cold wave | ALERT (BE PREPARED)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



SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
(28-11-2023)



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



Impact expected and action suggested due to isolated thunderstorm with lightning/gusty winds & Hailstorm over Rajasthan and Madhya Maharashtra on 26th; over West Madhya Pradesh and Marathwada on 26th & 27th and over East Madhya Pradesh on 27th November, 2023.

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:

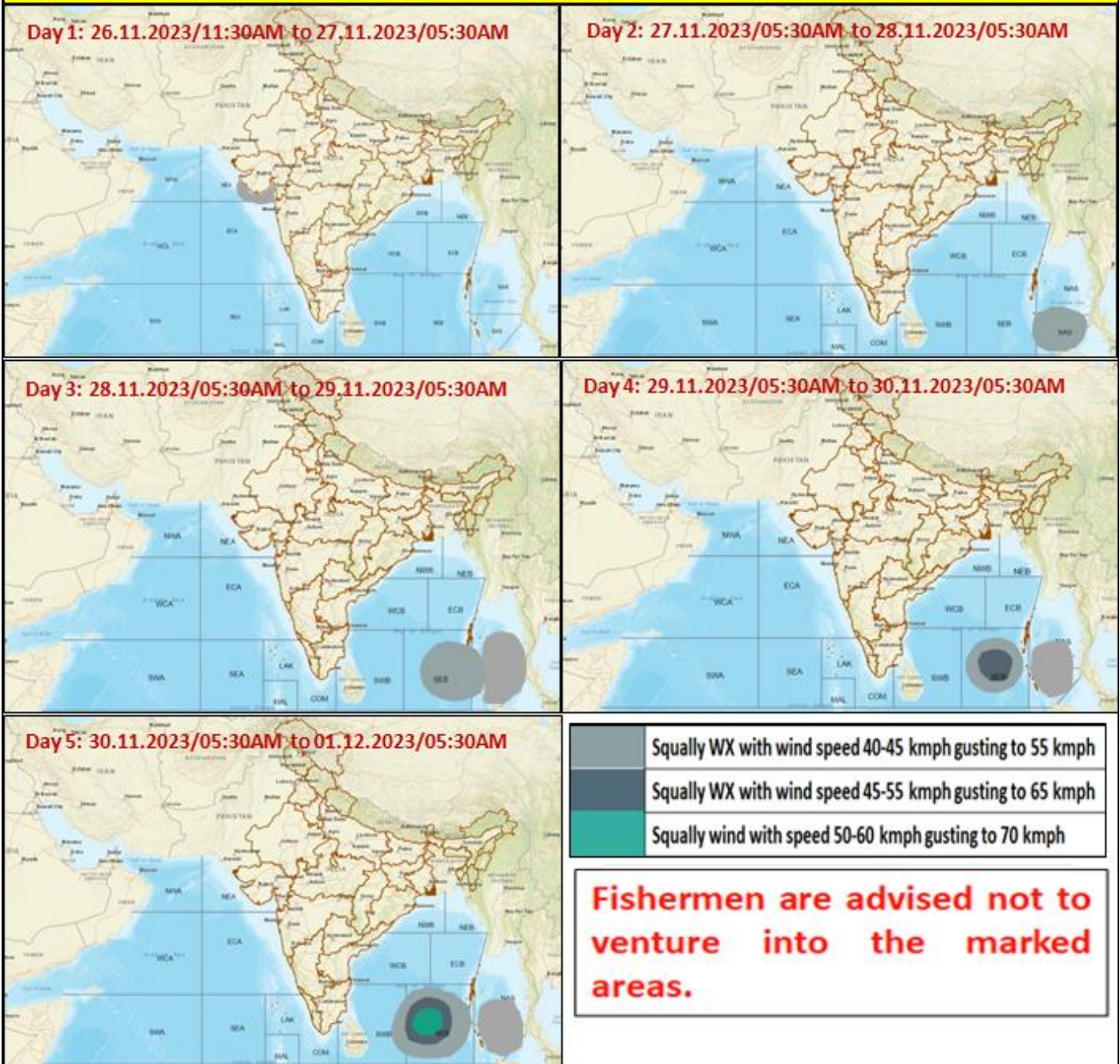
- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the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

Agromet advisories for heavy rainfall, gusty winds and hailstorms likely over various parts of the country

(Based on the IBF and advisories issued by different AMFUs and DAMUs)

- Make necessary arrangements for draining out excess water from crop fields in south Rajasthan, West Madhya Pradesh, north Madhya Maharashtra, north Marathwada, Gujarat region and Andaman & Nicobar Islands.
- Use hail nets in orchards for protection of fruits and provide staking to vegetables in south Rajasthan, Madhya Pradesh, north Madhya Maharashtra and north Marathwada.
- Keep harvested produce in safer places or cover the harvested produce in the fields with tarpaulin/polythene sheets.
- Drain out excess water from standing crop fields to avoid water stagnation in Tamil Nadu and Coastal Andhra Pradesh.
- Provide mechanical support to horticultural crops.














Fishermen warning graphics



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-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)

Subdivision Warning	 Dust Storm	Subdivision color
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 Thunderstorms & Lightning	 Cold wave	 ALERT (BE PREPARED)
 Hailstorm	 Fog	 WARNING (TAKE ACTION)

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)