



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

**Press Release
Date: 10th September, 2023
Time of Issue: 1245 hours IST**

**Subject: 1) Heavy rainfall activity likely over East Rajasthan, Madhya Pradesh & Uttar Pradesh on 10th & 11th and over northeast India during next 3-4 days.
2) Increase in rainfall activity with isolated heavy falls likely over Odisha and Chhattisgarh from 12th September.**

Weather observed during past 24 hours ending at 0830 hours IST of today (Annexure I):

Significant Weather features:

- ❖ Yesterday's cyclonic circulation over central parts of north Madhya Pradesh lies over northwest Madhya Pradesh & adjoining northeast Rajasthan in lower & middle tropospheric.
- ❖ A trough runs from cyclonic circulation over northwest Madhya Pradesh & adjoining northeast Rajasthan to south Chhattisgarh in lower tropospheric levels.
- ❖ The Monsoon Trough lies to the south of its normal position and passes through Jaisalmer, Kota, Sidhi, Jamshedpur, Digha and thence east-southeastwards to Northeast Bay of Bengal.
- ❖ A fresh cyclonic circulation likely to form over northwest & adjoining Westcentral Bay of Bengal around 12th September, 2023.

Weather Forecast and Warnings: (Annexure II)

East India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** activity very likely over Andaman & Nicobar Islands during 10th -13th and over Odisha during 12th-14th; Jharkhand on 13th & 14th and over Gangetic West Bengal on 14th September.

Isolated very heavy rainfall very likely over Andaman & Nicobar Islands on 10th and over Odisha on 14th September.

South India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Kerala & Mahe on 10th & 11th; over Coastal Andhra Pradesh during 10th - 14th and over Telangana on 10th & 14th September.

Central India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Madhya Pradesh on 10th & 11th; Chhattisgarh on 13th & 14th and over Vidarbha on 14th September.

Isolated very heavy rainfall very likely over West Madhya Pradesh on 10th September.

West India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Konkan & Goa and ghat areas of Madhya Maharashtra on 10th

September.

Northeast India: Light/moderate scattered to fairly widespread rainfall/thunderstorm with isolated **heavy rainfall** activity very likely over Assam & Meghalaya during 10th-12th; Nagaland, Manipur, Mizoram & Tripura during 10th-14th and over Arunachal Pradesh on 10th & 11th September.

Northwest India: Light/moderate isolated to scattered rainfall/thunderstorm with isolated **heavy rainfall** activity very likely over East Rajasthan on 10th, Uttar Pradesh on 10th & 11th; Uttarakhand on 10th, 13th & 14th September.

Isolated very heavy rainfall very likely over Uttarakhand and northwest Uttar Pradesh on 10th September.

For more details kindly refer:

https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

Annexure I

Rainfall observations: (from 0830 hours IST of yesterday to 0830 hours IST of today, the 10th September, 2023):

➤ **Extremely heavy rainfall** at isolated places over East Rajasthan; **Heavy to very heavy rainfall** at isolated places over Uttarakhand, Madhya Pradesh, West Uttar Pradesh, Assam & Meghalaya and **heavy rainfall** at isolated places over Konkan & Goa, Madhya Maharashtra, Telangana, Bihar, Odisha, East Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe.

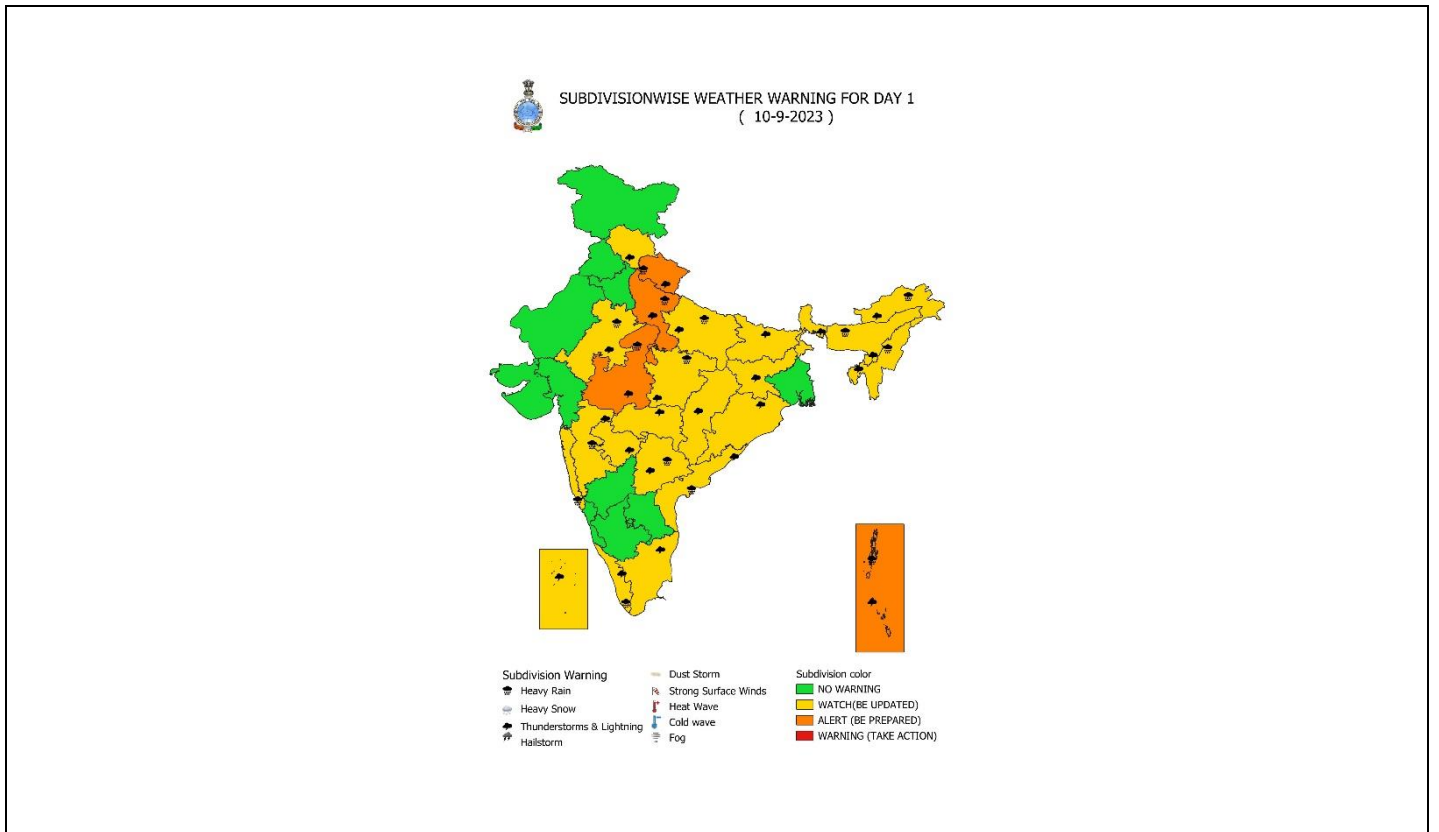
➤ **Significant rainfall recorded (in cm):**

- ✓ **East Rajasthan:** Dholpur Tehsil Sr (dist Dholpur) 23, Banswara Sr (dist Banswara) 15, Kesarpura Sr (dist Banswara) 15,
- ✓ **West Madhya Pradesh:** Morena-aws (dist Morena) 17, Petlawad (dist Jhabua) 10, Narmadapuram (dist Narmadapuram) 10, Tal (dist Ratlam) 9, Alot (dist Ratlam) 9, Bajna (dist Ratlam) 9, Alipur(jaura) (dist Morena) 8, Itarsi (dist Narmadapuram) 8, Pachmarhi (dist Narmadapuram) 8, Sitamau (dist Mandsaur) 7, Goharganj (dist Raisen) 7, Bairad (dist Shivpuri) 7,
- ✓ **West Uttar Pradesh:** Nagina (dist Bijnor) 15, Sikandra Rao (dist Hathras) 12, Baheri (dist Bareilly) 11, Jalesar (dist Etah) 9, Tundla (dist Firozabad) 8, Aligarh (dist Aligarh) 8, Thakurdwara (dist Moradabad) 7, Vrindavan (dist Mathura) 7, Bijnor (dist Bijnor) 7, Budaun (dist Badaun) 7, Jasrana (dist Firozabad) 7, Dhampur (dist Bijnor) 7, Sasani (dist Hathras) 7,
- ✓ **East Madhya Pradesh:** Tamia (dist Chindwara) 14, Parasia (dist Chindwara) 10, Gaurihar (dist Chhatarpur) 7, Chahtarpur-aws (dist Chhatarpur) 7, Chindwara-aws (dist Chindwara) 7,
- ✓ **Assam & Meghalaya:** Barapani (dist Ri Bhoi) 12
- ✓ **Uttarakhand:** Nainital-12; Champawat (Champawat) 9, Lohaghat-7.
- ✓ **Nagaland, Manipur, Mizoram & Tripura:** Saiha (dist Saiha) 8
- ✓ **Konkan & Goa:** Chiplun (dist Ratnagiri) 7, Tala (dist Raigad) 7,
- ✓ **Madhya Maharashtra:** Mahabaleshwar- Imd Obsy (dist Satara) 14, Yaval (dist Jalgaon) 8, Lonavala_agri (dist Pune) 7,
- ✓ **Telangana:** Gopalpet (dist Wanaparthy) 7,
- ✓ **Bihar:** Rajpur (dist Buxar) 8, Sono (dist Jamui) 7, Darbhanga (dist Darbhanga) 7, Rosera (dist Samastipur) 7,
- ✓ **Odisha:** Rajnagar (dist Kendrapara) 7,
- ✓ **East Uttar Pradesh:** Chhibramau (dist Kannauj) 7, Nawabganj Tehsil (dist Barabanki) 7,

- ✓ **Kerala:** Kodungallur (Thrissur district), Kunnathanam AWS (Pathanamthitta district) & Kalamassery AWS (Ernakulam district) 7 each.

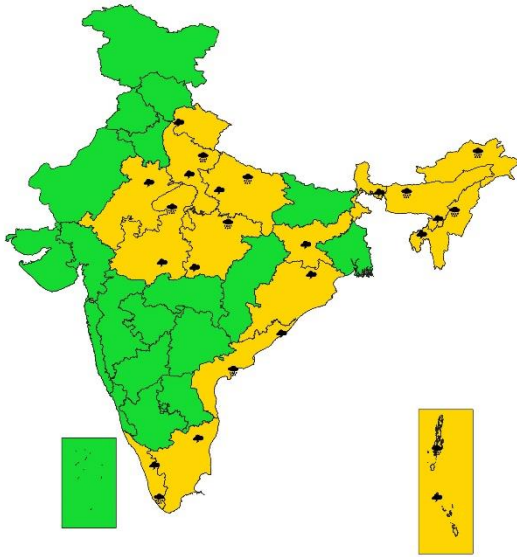
Obsy: Observatory; **AWS:** Automatic Weather Station; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation

Annexure II





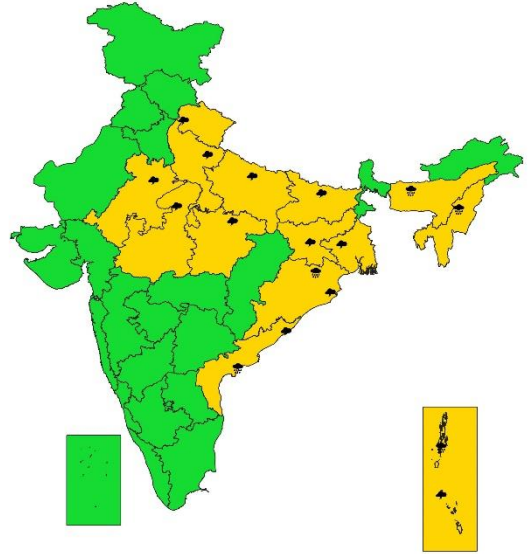
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
(11-9-2023)**



- | | | |
|----------------------------|----------------------|--------------------------|
| 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) |



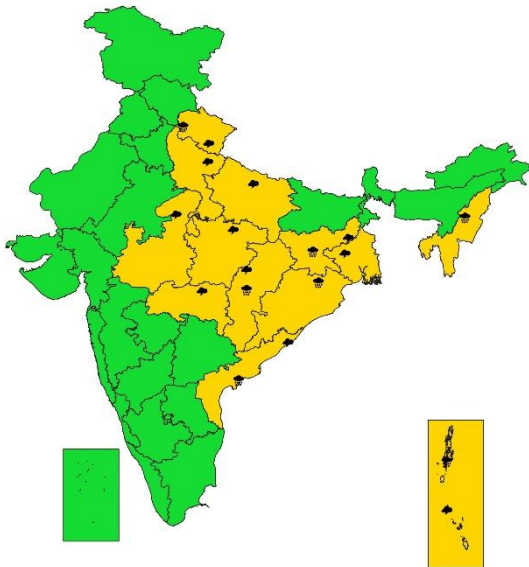
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
(12-9-2023)**



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|----------------------------|----------------------|--------------------------|
| 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) |



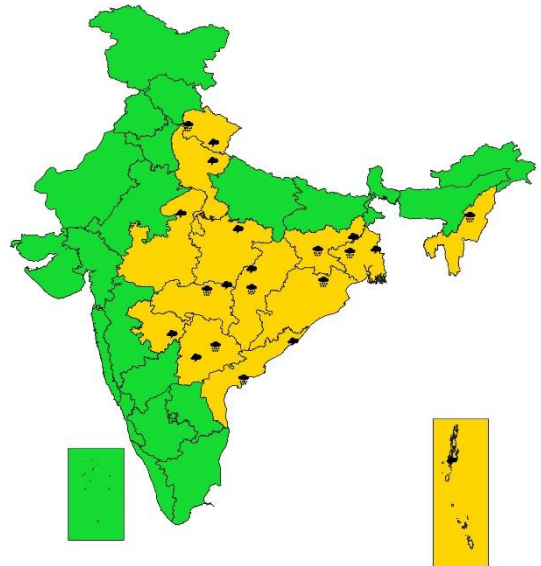
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(13-9-2023)**



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|----------------------------|----------------------|--------------------------|
| 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 RAINFALL FORECAST FOR DAY 5
(14-9-2023)**



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|----------------------------|----------------------|--------------------------|
| 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 & Action Suggested due to very heavy rainfall over Uttarakhand, West Uttar Pradesh, West Madhya Pradesh and Andaman & Nicobar Islands on 10th September.

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.

Legends:

- ❖ **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **AWS:** Automatic Weather Station
- ❖ **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
 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)

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)