



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

Press Release

Date: 23rd August, 2023

Time of Issue: 1330 hours IST

**Subject: (i) Heavy to very heavy rainfall spell likely to continue over Himachal Pradesh, Uttarakhand & Uttar Pradesh during next 2 day and over Bihar, Sub-Himalayan West Bengal-Sikkim & Northeast India during next 3 days.
(ii) Subdued rainfall activity likely over south Peninsular India during next 6-7 days and over central India from 24th August onwards for subsequent 5-6 days.**

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

Significant Weather features:

- ❖ Monsoon Trough lies to the north of its normal position running across northwest Uttar Pradesh to south Assam with embedded cyclonic circulation over northwest Uttar Pradesh in lower tropospheric levels.
- ❖ It is likely to remain north of its normal position or along the foothills of Himalayas during next 7 days.
- ❖ northwest Uttar Pradesh to south Assam with embedded cyclonic circulation over northwest Uttar Pradesh in lower tropospheric levels.
- ❖ The Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 65°E to the north of Lat. 28°N.
- ❖ A cyclonic circulation lies over central parts of south Uttar Pradesh in lower & middle tropospheric levels.

Weather Forecast and Warnings: (Annexure II)

Northwest India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with isolated **heavy rainfall** likely over Himachal Pradesh, Uttarakhand, Uttar Pradesh during 23rd-25th; over Punjab, Haryana-Chandigarh and northeast Rajasthan on 23rd August, 2023.

Isolated very heavy rainfall also likely over East Uttar Pradesh, Himachal Pradesh & Uttarakhand during 23rd to 24th August, 2023.

Isolated extremely heavy rainfall also likely over Himachal Pradesh, Uttarakhand and West Uttar Pradesh on 23rd August, 2023.

Central India: Light/moderate scattered to fairly widespread rainfall/thunderstorm & lightning with isolated **heavy rainfall** likely over Chhattisgarh and Madhya Pradesh on 23rd August.

East India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with

isolated heavy rainfall activity very likely over Sub-Himalayan West Bengal & Sikkim and Bihar during 23rd to 26th; over Gangetic West Bengal, Jharkhand and Odisha during 23rd-25th August, 2023.

Isolated very heavy rainfall also likely over Sub-Himalayan West Bengal & Sikkim and Bihar during 23rd to 25th August.

Isolated extremely heavy rainfall likely over Sub-Himalayan West Bengal-Sikkim on 23rd and over Bihar on 24th August, 2023.

Northeast India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with isolated **heavy rainfall** activity very likely over the region during next 5 days.

Isolated very heavy rainfall also likely over Assam & Meghalaya and Arunachal Pradesh during 23nd-26th August, 2023.

Isolated extremely heavy rainfall likely over Assam & Meghalaya on 23rd & 24th August, 2023

South India: Light/moderate isolated to scattered rainfall/thunderstorm & lightning with isolated **heavy rainfall** activity very likely over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Tamil Nadu, Puducherry & Karaikal on 23rd August, 2023.

No significant weather over rest parts of the country during next 5 days.

For more details kindly refer:

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

Annexure I

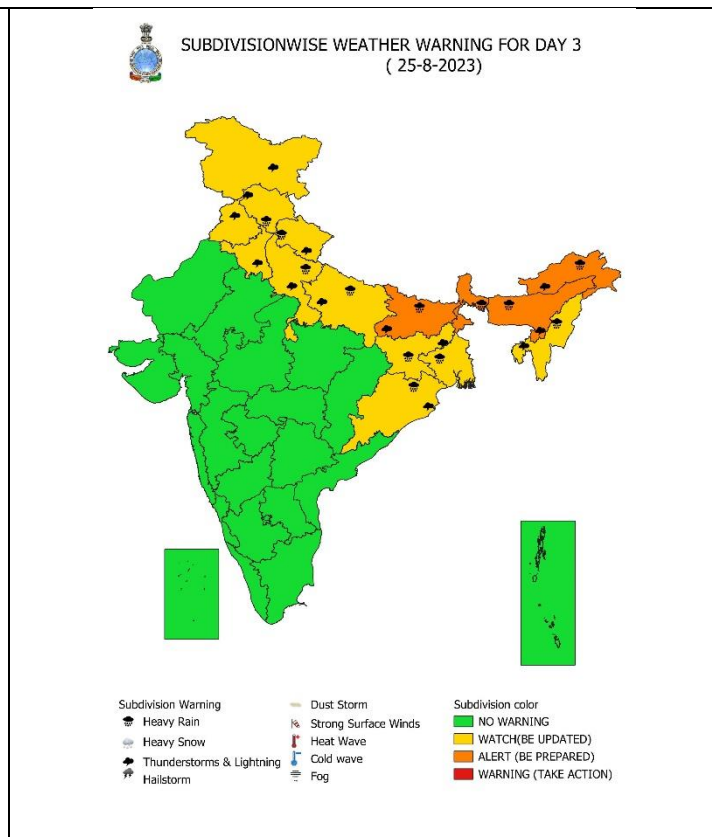
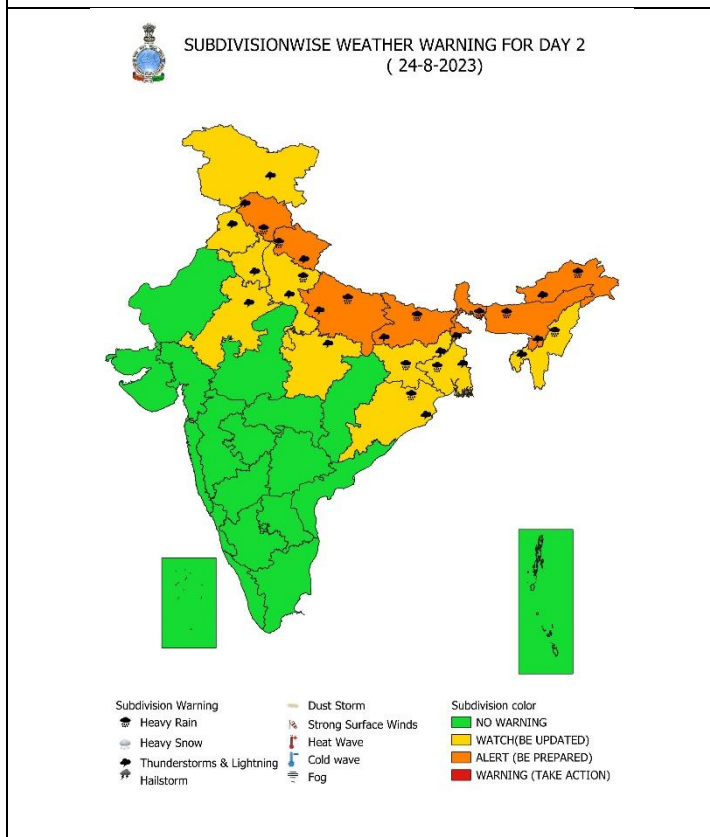
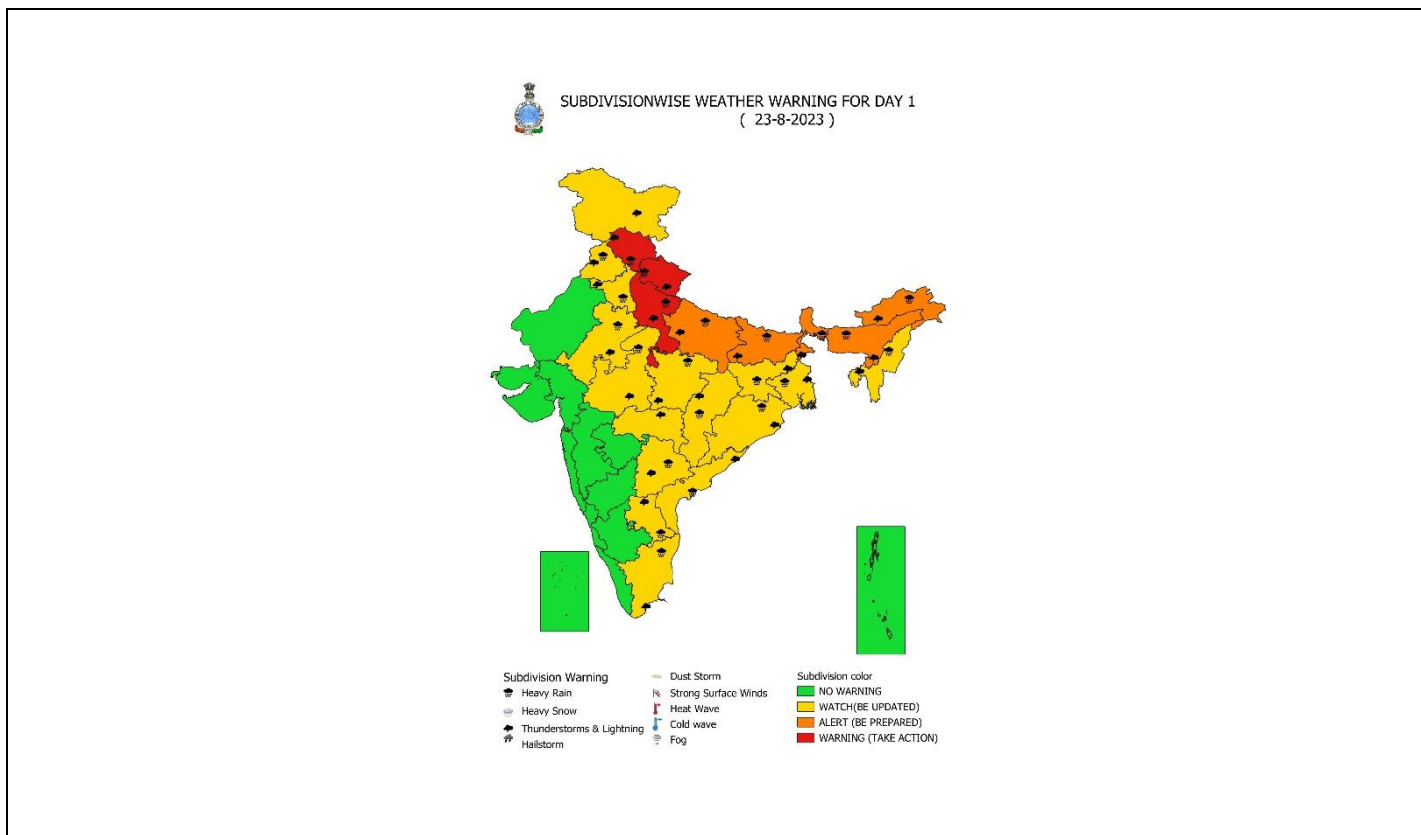
Rainfall observations: (from 0830 hours IST of yesterday to 0830 hours IST of today, the 23rd August, 2023):

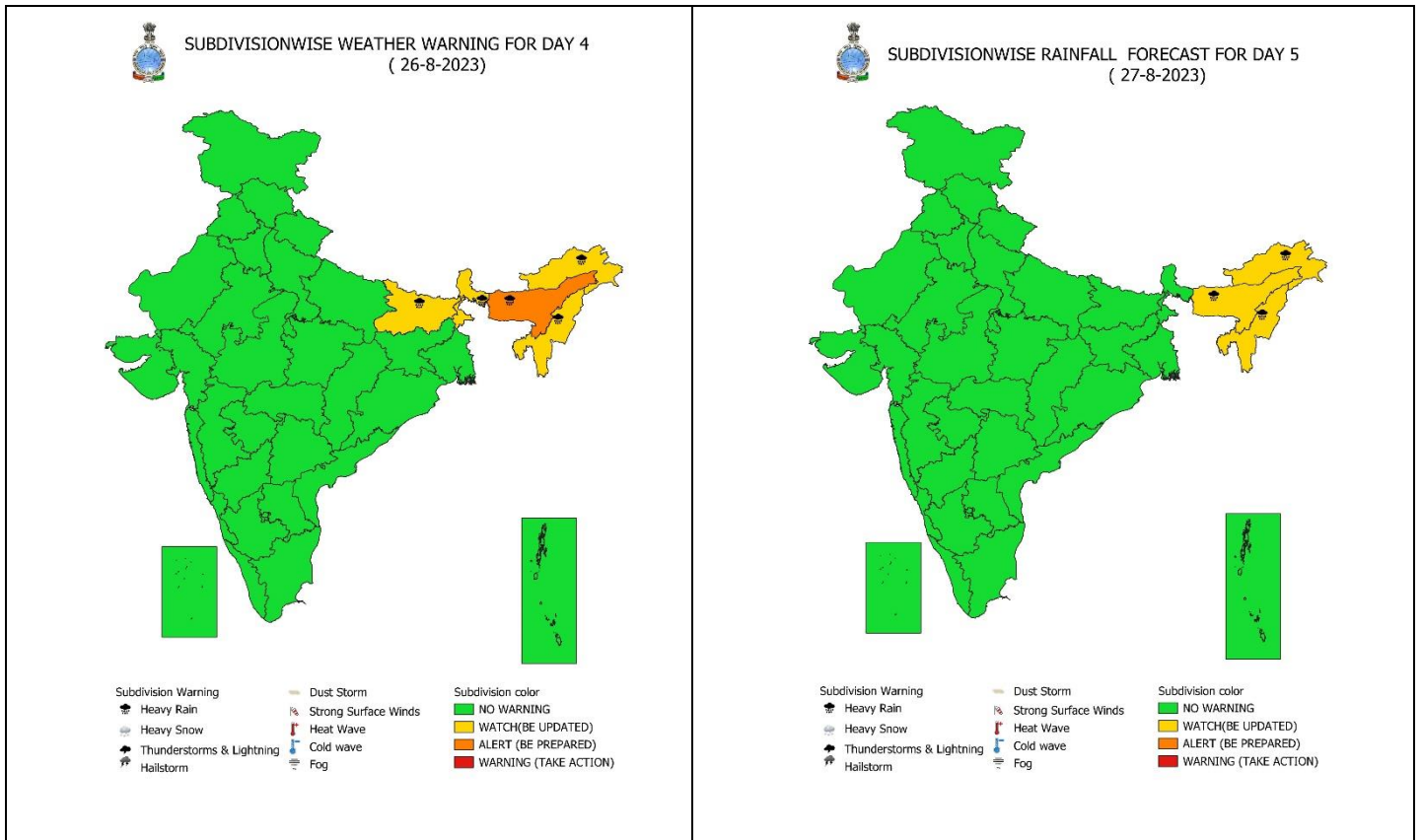
- **Extremely heavy rainfall** at isolated places over Himachal Pradesh, West Uttar Pradesh, Assam & Meghalaya; **Heavy to very heavy rainfall** at isolated places over East Rajasthan, West Madhya Pradesh, Uttarakhand, Bihar, Haryana-Chandigarh, Tamil Nadu, Puducherry & Karaikal and **heavy rainfall** at isolated places over East Uttar Pradesh, Punjab, Rayalaseema, Chhattisgarh, East Madhya Pradesh, Odisha.

- **Significant rainfall recorded (in cm):**
 - ✓ **West Uttar Pradesh:** Muhammadi (dist Kheri) 23, Neemsar (dist Sitapur) 20, Kanpur Teh (dist Kanpur City) 18, Ayoadhya (dist Ayodhya) 18, Hardoi Teh (dist Hardoi) 13, Bhatpurwaghat (dist Sitapur) 13, Hardoi Obsy (dist Hardoi) 13, Chanderdeephghat (dist Gorakhpur) 11, Gaighat (Bla Fmo) (dist Ballia) 11, Kheri Lakhimpur (dist Kheri) 11, Basti Cwc (dist Basti) 11, Basti(t) (dist Basti) 11, Kakerdarighat (dist Shrawasti) 10, Kanpur Obsy (dist Kanpur City) 10, Haidargarh (dist Barabanki) 9, Chhatnag (dist Prayagraj) 9, Sawayajpur (dist Hardoi) 9, Sardanagar (dist Kheri) 8, Dhaurahara (dist Kheri) 8, Bindki (dist Fatehpur) 8, Sidhauri (dist Sitapur) 7, Bahraich (dist Bahraich) 7, Laharpur (dist Sitapur) 7, Elgin Bridge (dist Barabanki) 7, Nawabganj Tehsil (dist Barabanki) 7, Chhibramau (dist Kannauj) 7, Fatehpur Obsy (dist Fatehpur) 7;
 - ✓ **Assam & Meghalaya:** Barpeta (dist Barpeta) 22, Beky Rly. bridge (dist Barpeta) 21, Tamulpur (dist Baksa) 16, Melabazar/matunga (dist Nalbari) 13, Tangla_arg (dist Udalguri) 12, Hazuah (dist Barpeta) 11, Barpeta/sarbhog_aws (dist Barpeta) 9, Aie Nh Xing (dist Bongaigaon) 9, Drf (dist Baksa) 9, Manash Nh Xing (dist Barpeta) 9, Majbat (dist Udalguri) 9, Goibargaon (dist Baksa) 8, Cherrapunji (dist East Khasi Hills) 8, Dhemaji (dist Dhemaji) 8, Panbari (dist Chirang) 8, Mawsynram (dist East Khasi Hills) 8, Gossaigaon (dist Kokrajhar) 7, Tikrikilla (dist West Garo Hills) 7;
 - ✓ **Himachal Pradesh:** Kahu (dist Bilaspur) 21, Bilaspur Sadar (dist Bilaspur) 18, Barthin (dist Bilaspur) 18, Pandoh (dist Mandi) 18, Berthin Agro (dist Bilaspur) 16, Kandaghat (dist Solan) 16, Bangana_r (dist Una) 15, Kasauli (dist Solan) 15, Baldwara (dist Mandi) 14, Simla (dist Shimla) 13, Naina Davi (dist Bilaspur) 13, Mandi (dist Mandi) 12, Sujanpur Tira (dist Hamirpur) 11, Arki (dist Solan) 11, Nadaun (dist Hamirpur) 11, Guler (dist Kangra) 11, Sundarnagar (dist Mandi) 11, Palampur (dist Kangra) 9, Nagrota Surian (dist Kangra) 9, Gohar (dist Mandi) 9, Solan (dist Solan) 8, Aghar (dist Hamirpur) 6;
 - ✓ **East Uttar Pradesh:** Etah (dist Etah) 20, Milak (dist Rampur) 19, Sahaswan (dist Badaun) 18, Bareilly Cwc (dist Bareilly) 18, Sambhal (dist Sambhal) 17, Talbehat (dist Lalitpur) 17, Mirganj (dist Bareilly) 17, Pawayan (dist Shahjahanpur) 14, Gunnaur (dist Sambhal) 13, Bareilly Pbo (dist Bareilly) 13, Jalesar (dist Etah) 13, Budaun (dist Badaun) 12, Bilari (dist Moradabad) 12, Dhampur (dist Bijnor) 11, Jansath (dist Muzaffarnagar) 11, Mainpuri (dist Mainpuri) 11, Sadabad (dist Hathras) 11, Moradabad (dist Moradabad) 11, Anupshahr (dist Bulandshahr) 11, Moradabad Cwc (dist Moradabad) 11, Moradabad Obsy (dist Moradabad) 10, Shahjahanpur (t) (dist Shahjahanpur) 9, Atrauli (dist Aligarh) 9, Muzaffarnagar (dist Muzaffarnagar) 9, Budhana (dist Muzaffarnagar) 9, Agra Obsy (dist Agra) 9, Patiyali (dist Kasganj) 9, Chandausi (dist Sambhal) 9, Shahjahanpur Obsy (dist Shahjahanpur) 8, Bilaspur (dist Rampur) 8, Kirawali (dist Agra) 8, Deoband (dist Saharanpur) 8, Tundla (dist Firozabad) 8, Takha (dist Etawah) 8, Nakur (dist

- Saharanpur) 7, Muzaffarnagar(t) (dist Muzaffarnagar) 7, Garotha (dist Jhansi) 7, Thakurdwara (dist Moradabad) 7;
- ✓ **East Rajasthan:** Sikrai (dist Dausa) 19, Beir Sr (dist Bharatpur) 15, Kotkasim Sr (dist Alwar) 11, Mahwa (dist Dausa) 11, Kishngarhwas Sr (dist Alwar) 11, Alwar Obs (dist Alwar) 10, Bahadurpur Sr (dist Alwar) 10, Bayana (dist Bharatpur) 10, Ramgarh Sr (dist Alwar) 10, Dholpur Tehsil Sr (dist Dholpur) 9, Sapau Sr (dist Dholpur) 9, Karauli (dist Karauli) 9, Kaman (dist Bharatpur) 9, Sarmathura Sr (dist Dholpur) 9, Mandrayal Sr (dist Karauli) 8, Nagar Sr (dist Bharatpur) 8, Hindaun (dist Karauli) 7, Rupbas (dist Bharatpur) 7, Todabhim (dist Karauli) 7;
 - ✓ **West Madhya Pradesh:** Bairad (dist Shivpuri) 18, Sabalgarh (dist Morena) 15, Vijaypur (adp) (dist Sheopur) 14, Pohri (dist Shivpuri) 12, Shivpuri (dist Shivpuri) 11, Bhitwarwar (dist Gwalior) 9, Mau (dist Bhind) 8, Karera (dist Shivpuri) 8, Kolaras (dist Shivpuri) 8, Dabra (dist Gwalior) 6;
 - ✓ **Uttarakhand:** Sama (dist Bageshwar)18, Loharkhet (dist Bageshwar) 14, Kotdwara (dist. Garhwal) and Kashipur dist. 10 each, Karnaprayag (dist. Chamoli) 9;
 - ✓ **Bihar:** Kishanganj (dist Kishanganj) 17, Chargharia (dist Kishanganj) 11, Mahua (dist Vaishali) 11, Thakurganj (dist Kishanganj) 10, Mohania (dist Bhabua) 9, Taibpur (dist Kishanganj) 9, Patepur (dist Vaishali) 8, Mushari (dist Muzaffarpur) 7, Araria (dist Araria) 7;
 - ✓ **Haryana-Chandigarh:** Barara Arg (dist Ambala) 12, Punhana (dist Nuh) 10, Chandigarh (dist Chandigarh)8, Chandigarh Aws (dist Chandigarh) 8, Nagina Rev (dist Nuh) 7, Radaur (dist Yamuna Nagar)7, Jhirka (dist Nuh) 7, Naraingarh (dist Ambala) 7, Sadhaura (dist Yamuna Nagar) 7;
 - ✓ **Tamil Nadu, Puducherry & Karaikal:** Sivakasi (dist Virudhunagar) 12, Tiruttani PTO (dist Tiruvallur) 10, Arakonam (dist Ranipet), R.K.Pet (dist Tiruvallur), Vembakottai (dist Virudhunagar) 9 each, Mayanur (dist Karur), Krishnarayapuram (dist Karur), Tiruttani (dist Tiruvallur), Natham (dist Dindigul) 8 each, Virudhunagar (dist Virudhunagar), Chennai Airport (dist Chennai), Alandur (dist Chennai), Uthukottai (dist Tiruvallur), Andipatti (dist Madurai), Vadipatti (dist Madurai) 7 each;
 - ✓ **Punjab:** Shahpur Kandi (dist Pathankot) 10, Madhopur (dist Pathankot) 5;
 - ✓ **Royalaseema:** Chittoor (dist Chittoor) 10, Palasamudram (dist Chittoor) 9, Nagari (dist Chittoor) 3;
 - ✓ **Chhattisgarh:** Marwahi (dist Bilaspur) 9, Pendra (dist Bilaspur) 6;
 - ✓ **East Madhya Pradesh:** Sihawal (dist Sidhi) 9, Bajag (dist Dindori) 7, Hanumana (dist Rewa) 7, Pushprajgarh (dist Anuppur) 7, Hatta (dist Damoh) 6;
 - ✓ **Odisha:** Kankadahad (dist Dhenkanal) 7, Ghasipura (dist Keonjhar) 6;

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





Impact & Action Suggested due to very heavy/Extremely heavy rainfall over:

1. Uttarakhand, Himachal Pradesh, East Uttar Pradesh and Sub-Himalayan West Bengal & Sikkim during 23rd -24th August.
2. Bihar, Sub-Himalaya West Bengal & Sikkim. Arunachal Pradesh during 23rd- 25th August
3. West Uttar Pradesh on 23rd August.
4. Assam & Meghalaya during 23rd- 26th August.

A. Impact Expected

- ❖ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ❖ Occasional reduction in visibility due to heavy rainfall.
- ❖ Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- ❖ Minor damage to kutcha roads.
- ❖ Possibilities of damage to vulnerable structure.
- ❖ Localized Landslides/Mudslides in the hilly areas.
- ❖ Damage to horticulture and standing crops in some areas due to inundation.
- ❖ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC).

B. Action Suggested

- ❖ Check for traffic congestion on your route before leaving for your destination.
- ❖ Follow any traffic advisories that are issued in this regard.
- ❖ Avoid going to areas that face the water logging problems often.
- ❖ Avoid staying in vulnerable structure.

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) |