



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

Press Release

Date: 20th August, 2023

Time of Issue: 1315 hours IST

Subject: (i) In association with Low pressure area, heavy rainfall activity likely to continue over Madhya Pradesh and East Rajasthan next 2-3 days.

(ii) Heavy to very Heavy rainfall likely over Himachal Pradesh and Uttarakhand next 5 days.

(iii) Increase in rainfall activity over east & northeast India from 22nd August.

**Weather observed during past 24 hours ending at 0830 hours IST of today (Annexure I):
For Flash Flood Guidance (Annexure III)**

Significant Weather features:

- ❖ Yesterday's Low pressure area over north Chhattisgarh & neighbourhood now lies over central parts of north Madhya Pradesh & neighbourhood.
- ❖ Monsoon Trough is active and runs south of its normal position. It is likely to shift gradually northwards from 21st August.
- ❖ A fresh Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 58°E to the north of Lat. 28°N.

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 during 21st -24th; over Uttarakhand during 20st -24th; over West Uttar Pradesh during 21st -23rd and over East Uttar Pradesh during 22nd -24th; over East Rajasthan during 20st -22th August, 2023.

Isolated very heavy rainfall also likely over Uttarakhand during 22nd -24th; over Himachal Pradesh during 21st -24th and over northwest Uttar Pradesh on 22nd & 23rd; over East Rajasthan on 20th August, 2023.

Central India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with isolated **heavy rainfall** activity very likely over Madhya Pradesh during 20th - 22nd; over Vidarbha on 20th and Chhattisgarh on 24th August, 2023.

East India: Light/moderate fairly widespread to widespread rainfall/ thunderstorm & lightning with **isolated heavy rainfall** activity very likely over Sub-Himalayan West Bengal & Sikkim during next 5 days; over Gangetic West Bengal on 24th; over Odisha on 23rd & 24th and over Bihar and Jharkhand on 22nd, 23rd & 24th August, 2023.

Isolated very heavy rainfall also likely over Sub-Himalaya West Bengal & Sikkim on 22nd , 23rd &

24th; over Bihar on 23rd & 24th August.

Northeast India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with isolated **heavy rainfall** activity very likely over Assam & Meghalaya and Arunachal Pradesh during 20th – 24th and over Nagaland, Manipur, Mizoram & Tripura during 21st -24th August, 2023.

Isolated very heavy rainfall also likely over Assam & Meghalaya during 21st – 24th; over Arunachal Pradesh on 22nd, 23rd & 24th; over Nagaland, Manipur, Mizoram & Tripura 24th August, 2023.

South India: Light/moderate scattered to fairly widespread rainfall/thunderstorm & lightning with isolated **heavy rainfall** activity very likely over Tamil Nadu on 21st & 22nd August, 2023.

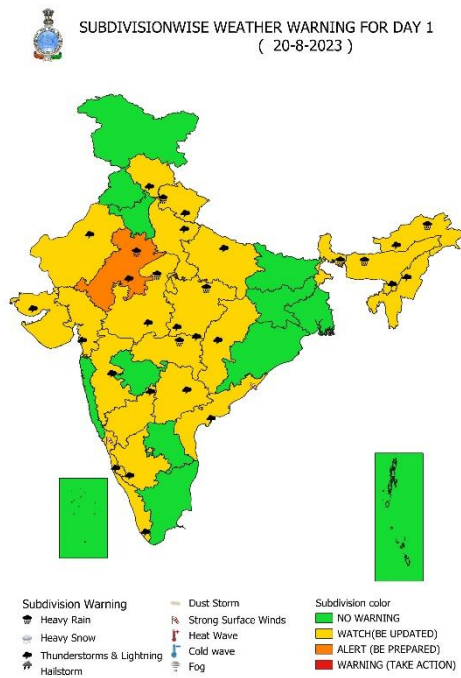
No significant weather over rest parts of the country during next 5 days.

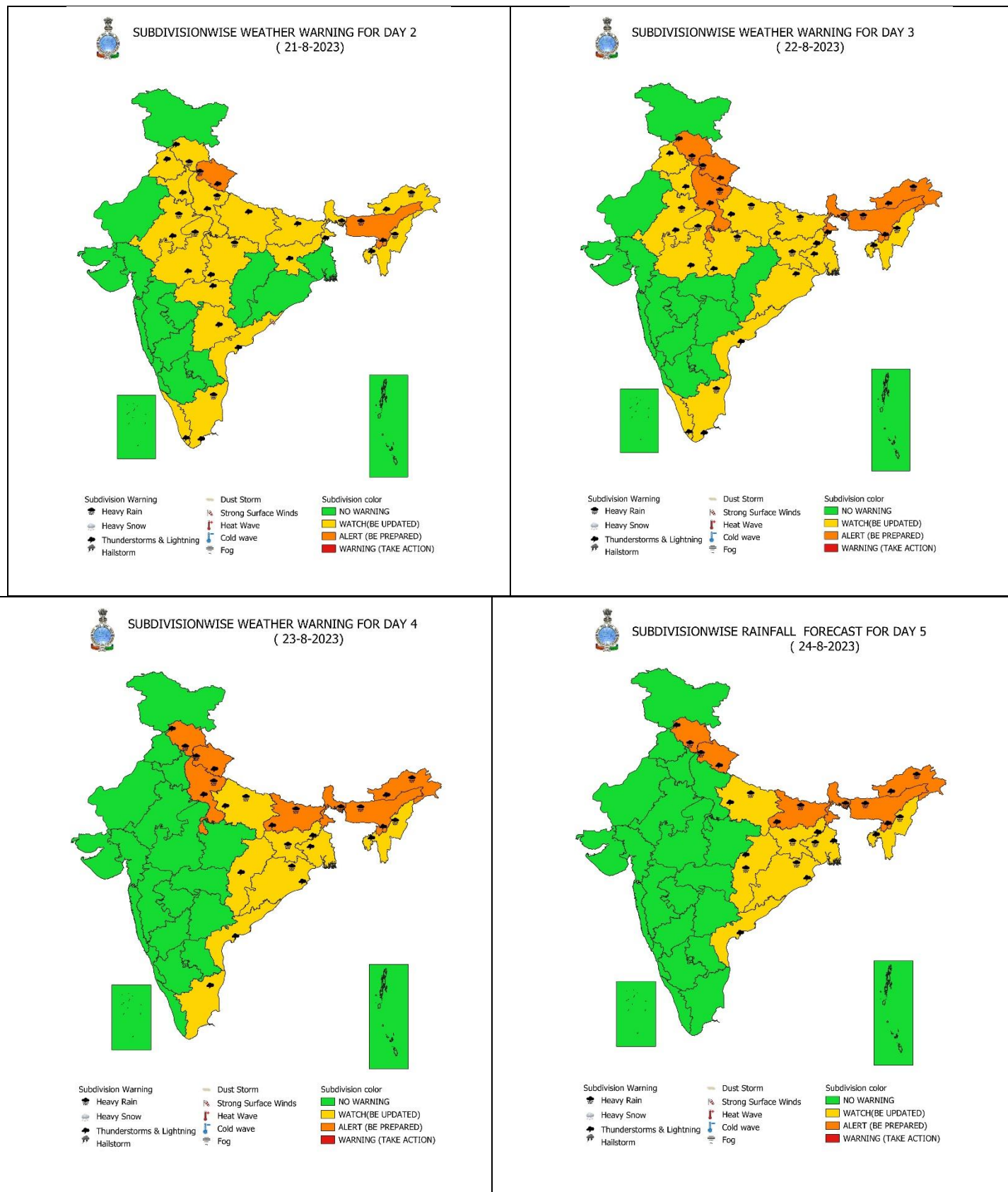
For more details kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

Annexure I

Rainfall observations: (from 0830 hours IST of yesterday to 0830 hours IST of today, the 20th August, 2023):

- **Heavy to very heavy rainfall** at isolated places over West Madhya Pradesh and Coastal Karnataka and **heavy rainfall** at isolated places over East Madhya Pradesh, Sub-Himalaya West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Coastal Karnataka, Madhya Maharashtra and Konkan & Goa.
- **Significant rainfall recorded (in cm):**
 - ✓ **West Madhya Pradesh:** Biaora (dist Rajgarh) 15, Vidisha (dist Vidisha) 15, Kasarwad (dist Khargone) 13, Jaora (dist Ratlam) 11, Bareilly (dist Raisen) 11, Thikri (dist Barwani) 11, Burhanpur (dist Burhanpur) 8, Shamshabad (dist Vidisha) 8, Nateran (dist Vidisha) 7, Bankhedi (dist Narmadapuram) 7, Raisen- awas (dist Raisen) 7, Berasia (dist Bhopal) 7, Pithampur (dist Dhar) 7, Pachmarhi (dist Narmadapuram) 7, Nalchha (dist Dhar) 7, Gogawan (dist Khargone) 7,
 - ✓ **East Madhya Pradesh:** Lalburra (dist Balaghat) 9, Bargi (dist Jabalpur) 9, Tamia (dist Chindwara) 7,
 - ✓ **Vidarbha:** Gadchiroli (dist Gadchiroli) 11, Kuhi (dist Nagpur) 11, Samudrapur (dist Wardha) 10, Pauni (dist Bhandara) 9, Ralegaon (dist Yeotmal) 9, Bhadravati (dist Chandrapur) 9, Chimur (dist Chandrapur) 9, Wardha (dist Wardha) 9, Warora (dist Chandrapur) 9, Hinganghat (dist Wardha) 8, Armori (dist Gadchiroli) 8, Maregaon (dist Yeotmal) 8, Chamorshi (dist Gadchiroli) 8, Mauda (dist Nagpur) 7, Sindewahi (dist Chandrapur) 7, Saoli (dist Chandrapur) 7, Bhandara (dist Bhandara) 7, Desaijanj (dist Gadchiroli) 7, Ner (dist Yeotmal) 7, Kurkheda (dist Gadchiroli) 7,
 - ✓ **Chhattisgarh:** Bhopalpatnam (dist Bijapur) 9,
 - ✓ **Arunachal Pradesh:** Itanagar (Dist. Papumpara) 07, Itanagar Cwc (Dist. Papumpara) 09,
 - ✓ **Assam & Meghalaya:** Hailakandi Awas (Dist. Hailakandi) 07 , North Lakhimpur (Dist. Lakhimpur) 09 ,Harinagar Arg (Dist.Karimganj) 09 , Matizuri (Dist. Hailakandi) 09 , Chouldhowaghat (Dist. Lakhimpur) 11
 - ✓ **Sub-Himalaya West Bengal & Sikkim:** Ghish: 7; Buxaduar: 6
 - ✓ **Konkan & Goa:** Shahapur (dist Thane) 7,
 - ✓ **Madhya Maharashtra:** Mahabaleshwar- Imd Obsy (dist Satara) 9,
 - ✓ **Coastal Karnataka:** Mulki (dist Dakshina Kannada) 13, Panambur Obsy (dist Dakshina Kannada) 11, Mangaluru Ap Obsy (dist Dakshina Kannada) 9, Castle Rock (dist Uttara Kannada) 9, Karkala (dist Udupi) 8, Manki (dist Uttara Kannada) 7, Mani (dist Dakshina Kannada) 7, Udupi (dist Udupi) 7,





Impact & Action Suggested due to very heavy rainfall over:

1. Uttarakhand during 21st -24th August.

2. Himachal Pradesh and Sub-Himalaya West Bengal & Sikkim during 22nd -24th August.
3. West Uttar Pradesh on 22nd & 23rd August.
4. East Rajasthan on 20th August.
5. Bihar on 23rd & 24th August.
6. Arunachal Pradesh during 22nd – 24th August.
7. Assam & Meghalaya during 21st – 24th August and Nagaland, Manipur, Mizoram & Tripura on 24th 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 kutchha 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).

B. Action Suggested

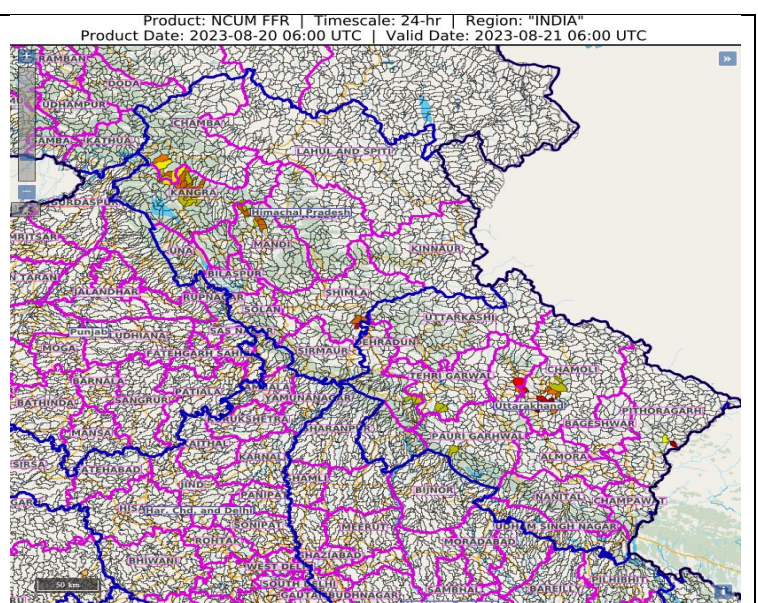
- ❖ Check for traffic congestion on your route before leaving for your destination.
- ❖ Follow any traffic advisories that are issued in this regard.
- ❖ Avoid going to areas that face the water logging problems often.
- ❖ Avoid staying in vulnerable structure.

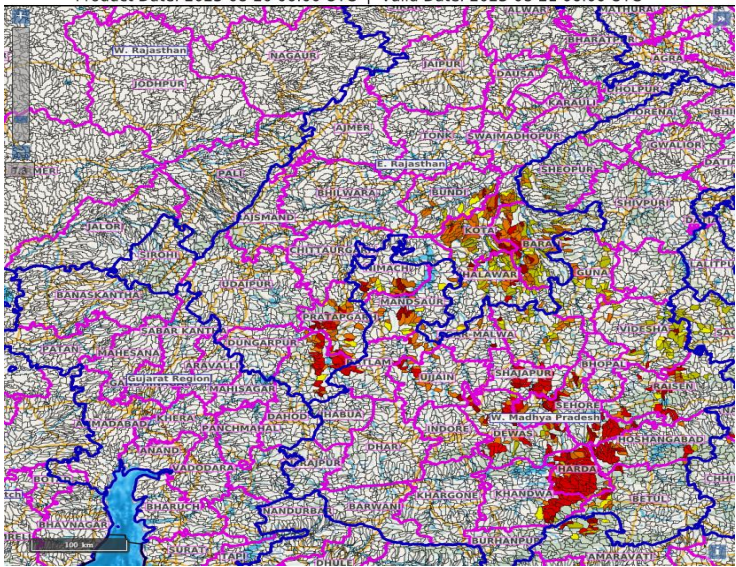
Annexure III

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 21-08-2023 :

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of Uttarakhand adjoining Himachal Pradesh Met Sub-divisions during next 24 hours.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to
















<p>expected rainfall occurrence in next 24 hours.</p>	
<p>24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 21-08-2023 :</p> <p>Low flash flood risk likely over few watersheds & neighbourhoods of West Madhya Pradesh adjoining East Rajasthan Met Sub-divisions during next 24 hours.</p> <p>Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.</p>	<p>Product: WRF FFR Timescale: 24-hr Region: "INDIA" Product Date: 2023-08-20 06:00 UTC Valid Date: 2023-08-21 06:00 UTC</p> 

Legends:


- ❖ **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **y:** ervatory; **::** 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)