



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

**Press Release
Date: 10th July, 2023**

Time of Issue: 1345 hours IST

**Subject: i) Intense rainfall spell over Himachal Pradesh and adjoining areas of north Punjab & Haryana likely to continue today, the 10th July and decrease significantly thereafter.
ii)Extremely heavy rainfall activity over Northeast India & adjoining East India during next 3 days.**

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

Significant Weather features, Forecast and Warning during next 5 days: (Annexure II)

- ❖ A Low Pressure Area lies over northeast Rajasthan & neighbourhood.
- ❖ The monsoon trough is active with its western end to the south of its normal position and eastern end to the north of its normal position.
- ❖ The Western Disturbance in middle & upper tropospheric westerlies runs from north Pakistan to northeast Arabian Sea.
- ❖ The off-shore trough at mean sea level runs from south Gujarat coast to north Kerala coast.

Weather Forecast and Warning:

Northwest India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy to very heavy rainfall** is very likely over Uttarakhand, East Rajasthan & Uttar Pradesh during next 5 days; over Himachal Pradesh, extreme north Punjab and Haryana & Chandigarh, West Rajasthan on 10th and significant reduction thereafter. **Isolated extremely heavy rainfall also very likely over Himachal Pradesh on 10th July. Isolated heavy rainfall is also likely over Delhi today and decrease thereafter.**

East & adjoining Northeast India: Fairly widespread to widespread light/moderate rainfall with isolated **Heavy to very heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur and Bihar during next 3-4 days and isolated heavy rainfall thereafter. Isolated **heavy rainfall** very likely over Odisha during next 5 days; Jharkhand on 12th & 13th July.

Isolated extremely heavy rainfall also very likely over Meghalaya on 10th to 12th, over Arunachal Pradesh and Sub-Himalayan West Bengal & Sikkim on 11th & 12th July.

West India: Light/moderate widespread rainfall with **isolated heavy rainfall** very likely to continue over Konkan & Goa and Gujarat region during next 5 days. **Isolated heavy rainfall** very likely over ghat areas of Madhya Maharashtra on 13th & 14th; Saurashtra & Kutch on 10th July.

Central India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** is very likely over the region during next 5 days. **Isolated heavy to very heavy rainfall** likely over West Madhya Pradesh on 11th & 12th July.

South India: Light/moderate widespread rainfall with **isolated heavy rainfall** very likely to over Coastal Karnataka and Kerala during next 5 days; Coastal Andhra Pradesh on 10th & 11th, Rayalaseema, Tamil Nadu on 10th July.

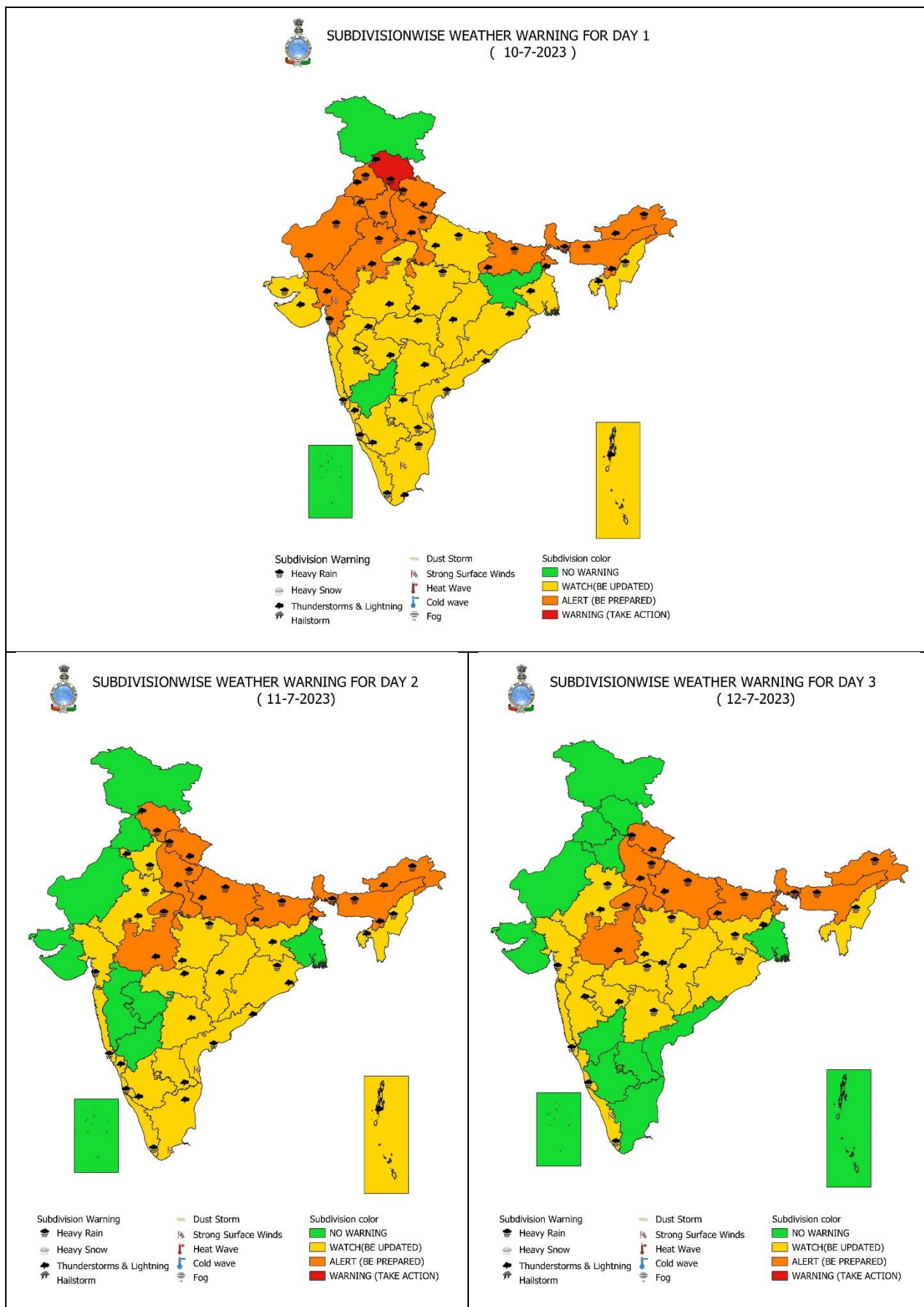
No significant weather likely over rest parts of the country.

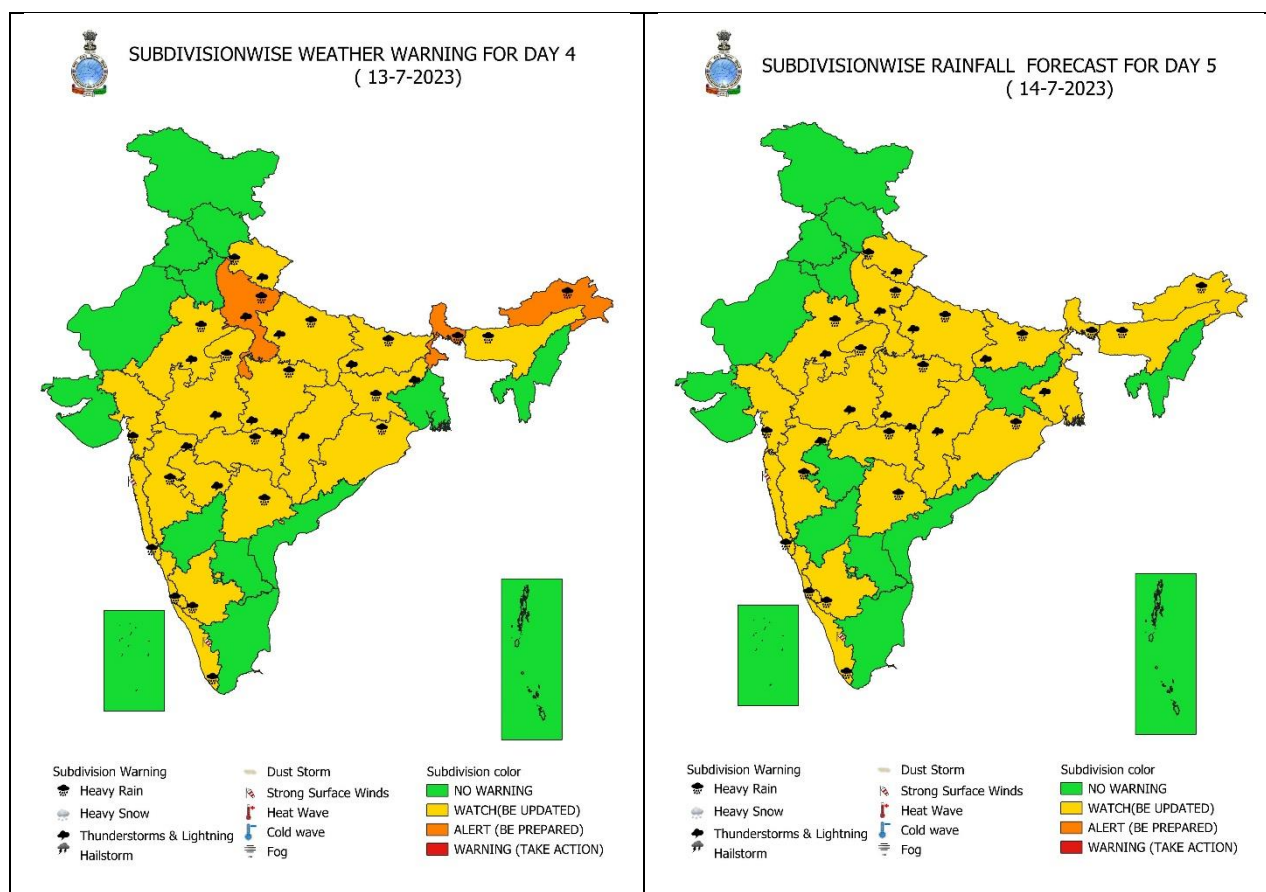
For more details kindly refer:

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

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

- **Heavy Rainfall observed: Extremely heavy rainfall** at isolated places over Himachal Pradesh, Punjab, Haryana, East Rajasthan; **Heavy to Very heavy rainfall** at isolated places over Uttarakhand, Chandigarh, Delhi, West Uttar Pradesh, Gujarat State, East Madhya Pradesh, Konkan & Goa and **Heavy rainfall** at isolated places over West Rajasthan, West Madhya Pradesh, Bihar, Sub-Himalaya West Bengal & Sikkim, Assam & Meghalaya, Andaman & Nicobar Islands, Coastal Andhra Pradesh and Madhya Maharashtra.
- **Significant rainfall recorded (in cm):**
- **Punjab:** Ropar (dist Rupnagar) 35, Rajpura (dist Patiala) 26, Ballawal Saunkri (dist Sbs Nagar) 20, Balachaur Aws (dist Sbs Nagar) 20, Ropar Kvk Aws (dist Rupnagar) 19, Adampur Arg (dist Jalandhar) 19, Fatehgarh Sahib Aws (dist Fatehgarh Sahib) 18, Anandpur Sahib (dist Rupnagar) 17, Nangal (dist Rupnagar) 15, Fatehgarh Sahib (dist Fatehgarh Sahib) 15, Sirhind (dist Fatehgarh Sahib) 15, Balachaur (dist Sbs Nagar) 14, Patiala (dist Patiala) 13, Kharar (dist Sas Nagar (mohali)) 12,
 - **Haryana, Chandigarh:** Ismailabad (dist Kurukshetra) 24, Tajewala (dist Yamuna Nagar) 22, Mandkhola Aws (dist Nuh) 22, Partapnagar Rev (dist Yamuna Nagar) 20, Shahbad (dist Kurukshetra) 19, Pehowa (dist Kurukshetra) 18, Chandigarh Iaf (dist Chandigarh) 16, Ambala Rev (dist Ambala) 16, Sadhaura (dist Yamuna Nagar) 15, Dandh Rev (dist Kaithal) 14, Jhansa Irr (dist Kurukshetra) 14, Dadupur (dist Yamuna Nagar) 13, Kalka (dist Panchkula) 12, Panchkula (dist Panchkula) 12, Naraingarh (dist Ambala) 12
 - **Himachal Pradesh:** Pachhad (dist Sirmaur) 22, Naina Davi (dist Bilaspur) 20, Chuari (dist Chamba) 19, Dharmshala Aws (dist Kangra) 19, Una (dist Una) 17, Solan (dist Solan) 17, Rohru (dist Shimla) 16, Renuka / Dadhau (dist Sirmaur) 16, Sangraha (dist Sirmaur) 15, Nahan (dist Sirmaur) 14, Barthin (dist Bilaspur) 13, Sujanpur Tira (dist Hamirpur) 13, Sarkaghat (dist Mandi) 13, Kasauli (dist Solan) 13, Kandaghat (dist Solan) 12, Chaupal (dist Shimla) 12, Gohar (dist Mandi) 12, Mandi (dist Mandi) 12
 - **East Rajasthan:** Mounntabu Tehsil Sr (dist Sirohi) 23, Abu Road Sr (dist Sirohi) 16, Ajmer Tehsil Sr (dist Ajmer) 14, Sambhar Sr (dist Jaipur) 10, Tonk Tehsil Sr (dist Tonk) 10, Danta Ramgarh (dist Sikar) 9, Pushkar Sr (dist Ajmer) 9, Naraina Sr (dist Jaipur) 8, Ajmer (dist Ajmer) 7, Mangrol (dist Baran) 7, Rupbas (dist Bharatpur) 7
 - **Uttarakhand:** Dehradun: Koti-16, Uttarkashi: Purola-14, Hardwar, Roorkee-8 each, Rishikesh, Chakrata-7 each
 - **West Uttar Pradesh:** Saharanpur-15, Meerut-12, Muzaffarnagar-11, Baghpat-8
 - **Gujarat Region:** Santalpur (dist Patan) 16, Mansa (dist Gandhinagar) 15, Suigam (dist Banaskantha) 13, Nanipalson (dist Valsad) 12, Talod (dist Sabarkantha) 12, Bayad_arg (dist Aravalli) 12, Dahegam (dist Gandhinagar) 10
 - **Saurashtra & Kutch:** Kotdasangani (dist Rajkot) 15, Abdasa (dist Kutch) 13, Khambhalia (dist Devbhoomi Dwarka) 13, Upleta (dist Rajkot) 13, Vanthali (dist Junagadh) 11
 - **East Madhya Pradesh:** Bijadandi (dist Mandla) 14, Sleemanabad (dist Katni) 14, Dhanora (dist Seoni) 12, Bilhari (dist Katni) 11, Badwara (dist Katni) 10, Narayanganj (dist Mandla) 9, Rewa-aws (dist Rewa) 9, Sausar (dist Chindwara) 8, Chhapara (dist Seoni) 8, Bilaspur (dist Umaria) 8, Ghansore (dist Seoni) 7, Shahnagar (dist Panna) 7
 - **Delhi:** Lodhi road-12, Safdarjung-11, President House, Ridge-7 each
 - **Konkan & Goa:** Ulhasnagar (dist Thane) 13, Dahanu - Imd Obsy (dist Palghar) 9, Ambernath (dist Thane) 7
 - **Sub-Himalaya West Bengal & Sikkim:** Jalpaiguri-11, Darzeeling-8
 - **West Rajasthan:** Bagoda Sr (dist Jalore) 10, Bali (dist Pali) 7, Jayal Sr (dist Nagaur) 7
 - **West Madhya Pradesh:** Sheopur-aws (dist Sheopur) 9, Gwalior (dist Gwalior) 7, Badoda (dist Sheopur) 7
 - **Madhya Maharashtra:** Ozharkheda - Fmo (dist Nashik) 8
 - **Bihar:** Forbesganj, Supaul-8 each, Kishanganj-7
 - **Assam & Meghalaya:** Badatighat (dist Lakhimpur) 8
 - **Coastal Andhra Pradesh:** Atchampet (dist Palnadu) 10, Mangalagiri (dist Guntur) 7





Agromet advisories for rainfall, thunderstorms likely over various parts of the country:

- ❖ Drain out excess water from crop fields to avoid water stagnation in Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, Rajasthan, Sub Himalayan West Bengal & Sikkim, Bihar, Madhya Pradesh, Gujarat, Konkan & Goa, Tamil Nadu, Kerala, Coastal Karnataka, Andhra Pradesh and North Eastern States.
- ❖ Postpone transplanting of rice in Arunachal Pradesh, Meghalaya, Uttarakhand, Himachal Pradesh and adjoining districts of Punjab.
- ❖ Postpone sowing of maize, soybean and vegetables in Uttarakhand; maize and kharif pulses in the districts of Punjab and Haryana bordering Himachal Pradesh.
- ❖ Provide staking to vegetables.

Impact & Action Suggested due to very heavy/extremely heavy rainfall and likely Flash Flood (for Flash Flood details, refer below)

10th July: Himachal Pradesh, Uttarakhand, extreme north Punjab & Haryana, Uttar Pradesh, Rajasthan, Sub-Himalaya West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Bihar;

11th July: Himachal Pradesh, Uttarakhand, Arunachal Pradesh, Assam & Meghalaya, Sub-Himalaya West Bengal & Sikkim, Bihar and Uttar Pradesh

12th July: Uttar Pradesh, Sub-Himalaya West Bengal & Sikkim, Bihar, Arunachal Pradesh and Assam & Meghalaya

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
- ❖ 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).

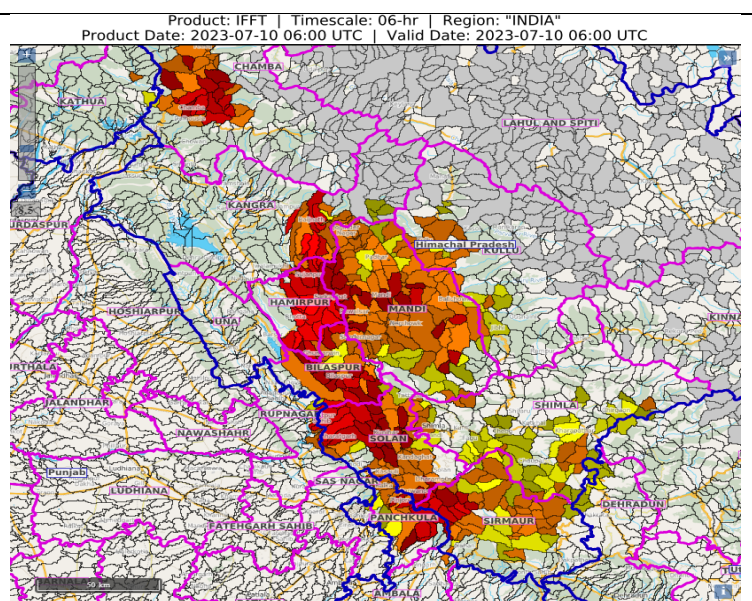
B. Action Suggested

- ❖ 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.

Observed Flash Flood Threat (IFFT) till 1130 IST of 10-07-2023 :

Moderate to High flash flood threat observed over few watersheds & neighbourhoods of following Met Sub-divisions during last 6 hours.

Har - Chd & Delhi - Panchkula district.
Himachal Pradesh - Bilaspur, Chamba, Hamirpur, Kangra, Kullu, Mandi, Shimla, Sirmaur and Solan districts.



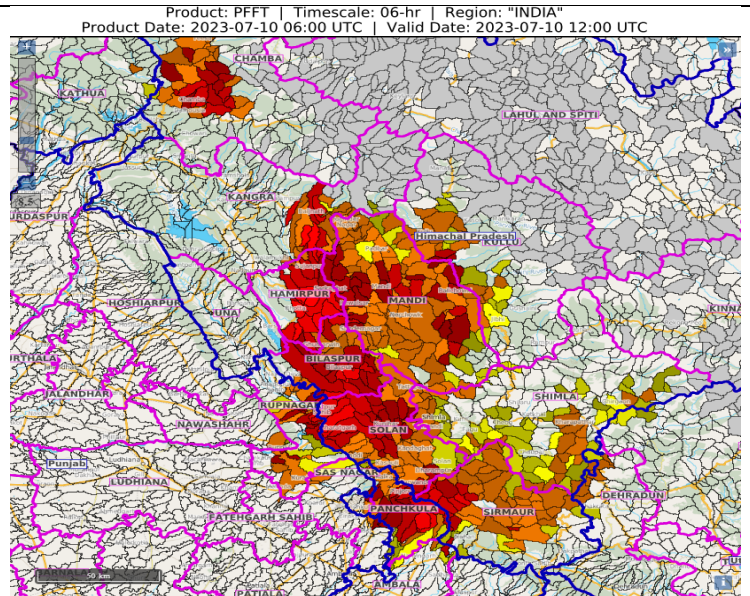
Punjab - Rupnagar district.
Uttarakhand - Dehradun district.

Persistent Flash Flood Threat (PFFT) till
1730 IST of 10-07-2023 :

Moderate to High flash flood threat
likely over few watersheds &
neighbourhoods of following Met Sub-
divisions during next 6 hours.

Haryana - Chandigarh & Delhi -
Chandigarh and Panchkula districts.
Himachal Pradesh - Bilaspur, Chamba,
Hamirpur, Kangra, Kullu, Mandi, Shimla,
Sirmaur and Solan districts.
Punjab – Rupnagar, Nawashahr and Sas
Nagar districts.
Uttarakhand - Dehradun district.

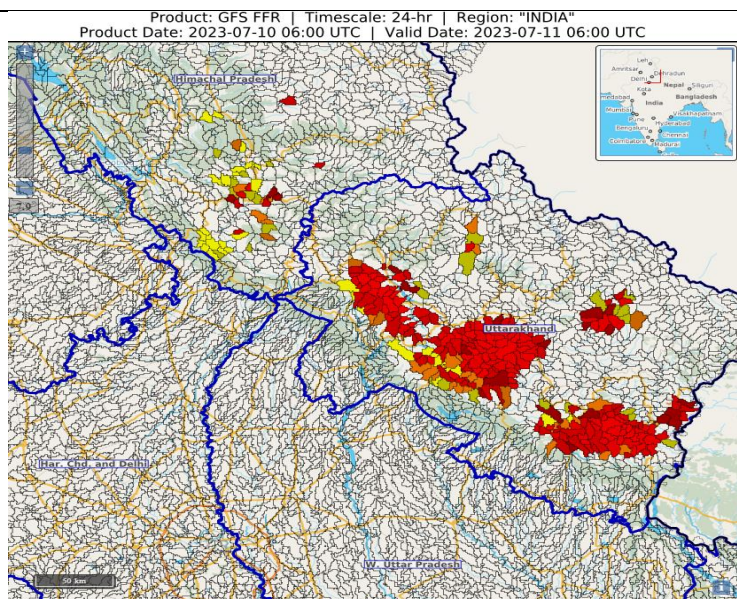
Surface runoff/ Inundation may occur at
some fully saturated soils & low-lying
areas over AoC as shown in map due to
expected rainfall occurrence in next 6
hours.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 11-07-2023 :

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

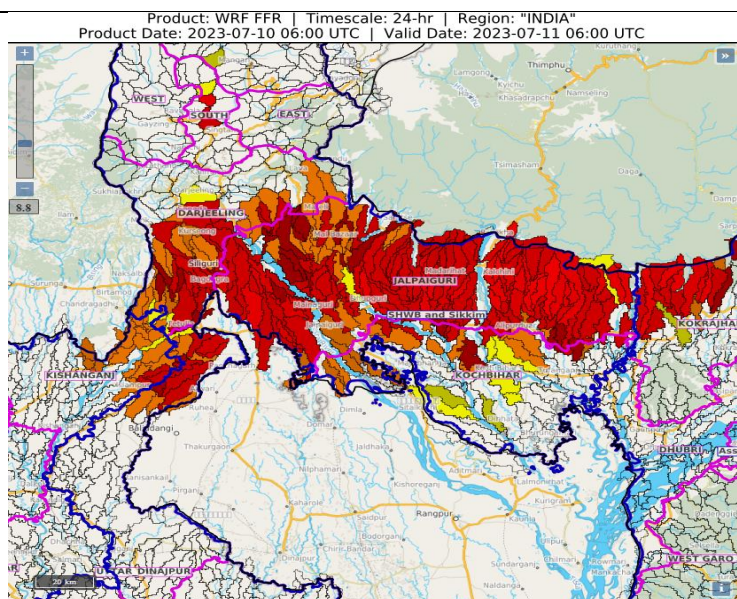
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 11-07-2023 :

Moderate flash flood risk likely over few watersheds & neighbourhoods of SHWB & Sikkim 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 expected rainfall occurrence in next 24 hours.



Legends:

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