



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

Press Release

Date: 24th July, 2023

Time of Issue: 1430 hours IST

**Subject: (i) Isolated very heavy to extremely heavy rainfall activity likely to continue over west coast till 26th July and over Telangana & Andhra Pradesh during 25-27 July.
(ii) Fresh spell of Isolated very heavy to extremely heavy rainfall likely over east central India during 25th-27th July.
(iii) Increase in rainfall activity over northwest India during 26th-27th July and over East India during 28th-30th July.**

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

Significant Weather features:

- ❖ The Monsoon Trough at mean sea level now passes through Deesa, Indore, Damoh, Pendra Road, Gopalpur and thence east-southeastwards to Eastcentral Bay of Bengal and extends upto 1.5 km above mean sea level. It is active and runs to the south of its normal position. The Western end is very likely to shift gradually northwards during next 2-3 days.
- ❖ A cyclonic circulation lies over northwest Madhya Pradesh in lower & middle tropospheric levels.
- ❖ A cyclonic circulation lies over Kutch and neighbourhood and extends upto 3.1 km above mean sea level.
- ❖ A cyclonic circulation lies over Westcentral & adjoining Northwest Bay of Bengal off north Andhra Pradesh-south Odisha coast upto middle tropospheric levels. Under its influence a Low Pressure Area is likely to form over the same region during next 24 hours. The system is likely to concentrate into a depression over the same region around 26th July, 2023. Subsequently, it is likely to move slowly west-northwestwards across north Andhra Pradesh-south Odisha coasts.
- ❖ The shear zone lies roughly along Lat. 20° N in middle tropospheric levels.

Weather Forecast and Warning (Annexure II):

Northwest India: Light/Moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** is very likely over Uttarakhand during 24th-28th; over Himachal Pradesh and East Rajasthan during 24th-27th; over Punjab, Haryana-Chandigarh & West Uttar Pradesh during 26th-28th; over West Rajasthan on 25th & 26th and Jammu and Kashmir on 26th & 27th July, 2023.

Isolated very heavy rainfall also likely over Himachal Pradesh and Uttarakhand on 26th & 27th and over Haryana, West Uttar Pradesh and East Rajasthan on 26th July, 2023.

Central India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** is very likely over Vidarbha and Chhattisgarh during 24th-28th; West Madhya Pradesh on 24th, 27th & 28th; and East Madhya Pradesh on 28th July, 2023.

Isolated very heavy rainfall also likely over Vidarbha and Chhattisgarh on 26th & 27th July, 2023.

West India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy to very heavy rainfall** very likely to continue over Konkan & Goa and ghat areas of Madhya Maharashtra during 24th to 28th and over **isolated heavy rainfall** over Gujarat state on 24th July, 2023.

Isolated extremely heavy rainfall very likely over Konkan & Goa and ghat areas of Madhya Maharashtra on 26th July, 2023.

South India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy to very heavy rainfall** very likely over Coastal Andhra Pradesh & Yanam, Telangana and Coastal Karnataka during 24th-28th and isolated **heavy rainfall** over Rayalaseema and North Interior Karnataka during 24th-26th; over South Interior Karnataka; Kerala & Mahe during 24th-27th and over Tamil Nadu, Puducherry & Karaikal on 24th & 25th June, 2023.

Isolated very heavy rainfall likely over South Interior Karnataka, Ghat areas of Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe on 24th July, 2023.

Isolated extremely heavy rainfall very likely over Coastal Andhra Pradesh & Yanam and Coastal Karnataka on 26th and over Telangana on 25th to 27th July, 2023.

East India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Odisha during 24th-28th; Sub-Himalaya West Bengal & Sikkim on 24th, 27th & 28th July, 2023.

Isolated very heavy rainfall likely over Odisha on 25th & 26th July, 2023.

Light/moderate scattered to fairly widespread rainfall likely over Bihar from 28th July.

Northeast India: Light/moderate fairly widespread rainfall with **isolated heavy rainfall** very likely over and Arunachal Pradesh and Assam & Meghalaya during 24th to 28th and over Nagaland, Manipur, Mizoram & Tripura on 24th, 25th & 28th July, 2023.

Isolated very heavy rainfall likely over Arunachal Pradesh and Assam & Meghalaya on 27th & 28th July, 2023.

For more details kindly refer:

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

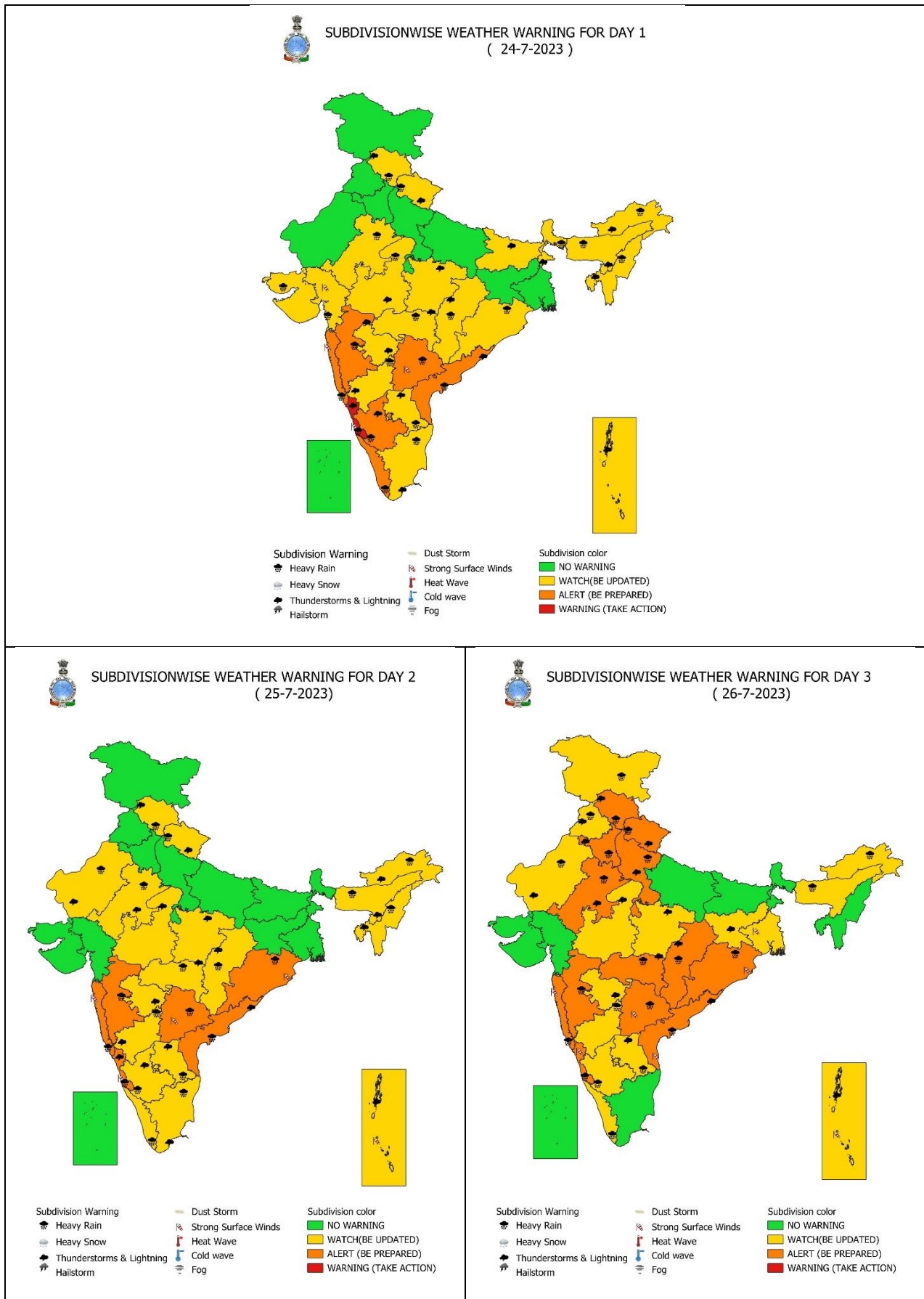
Rainfall Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today, the 24th July 2023):

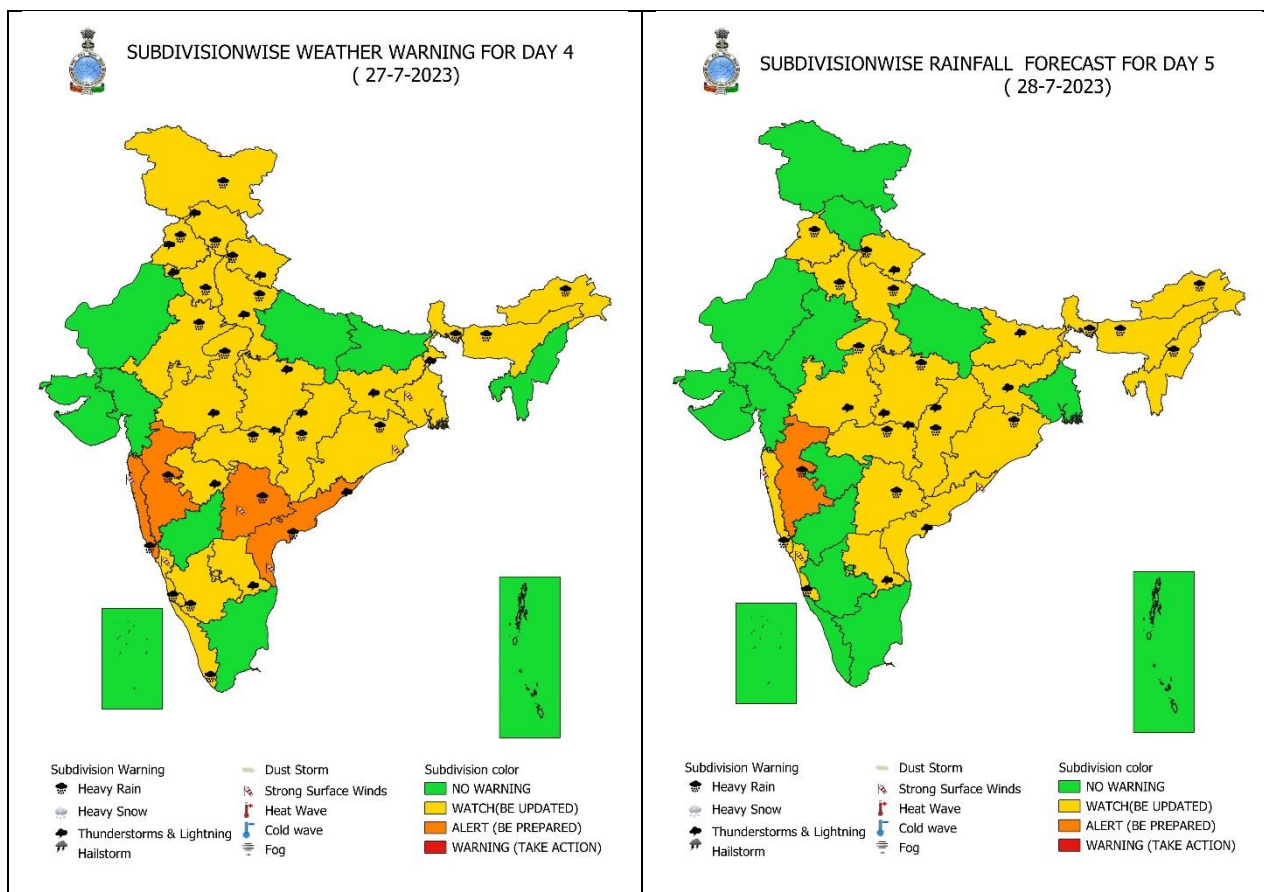
- **Heavy rainfall observed: Heavy to very heavy rainfall** at isolated places over Uttarakhand, Konkan & Goa, Saurashtra & Kutch, Madhya Maharashtra, Coastal & South Interior Karnataka, Coastal Andhra Pradesh, Telangana and **heavy rainfall** at isolated places over East Rajasthan, West Madhya Pradesh, Chhattisgarh, Sub-Himalaya West Bengal & Sikkim, Mizoram, Odisha, Gujarat Region, North Interior Karnataka, Tamil Nadu and Kerala.
- **Significant rainfall recorded (in cm):**
- **Coastal Karnataka:** Siddapur (dist Uttara Kannada) 20, Castle Rock (dist Uttara Kannada) 19, Gersoppa (dist Uttara Kannada) 18, Yellapur (dist Uttara Kannada) 17, Subramanya (dist Dakshina Kannada) 17, Mani (dist Dakshina Kannada) 16, Kadra (dist Uttara Kannada) 14, Kumta (dist Uttara Kannada) 14, Manki (dist Uttara Kannada) 14, Shirali Pto (dist Uttara Kannada) 13, Honavar Obsy (dist Uttara Kannada) 13, Kollur (dist Udupi) 13, Uppinangadi (dist Dakshina Kannada) 12, Siddapura (dist Udupi) 11, Gokarna (dist Uttara Kannada) 11, Manchikere (dist Uttara Kannada) 11, Puttur Hms (dist Dakshina Kannada) 11, Belthangadi (dist Dakshina Kannada) 11, Dharmasthala (dist Dakshina Kannada) 11, Mangaluru Ap Obsy (dist Dakshina Kannada) 10, Karkala (dist Udupi) 9, Kundapur (dist Udupi) 9, Kiravatti (dist Uttara Kannada) 9, Banavasi (dist Uttara Kannada) 9, Ankola (dist Uttara Kannada) 9, Mulki (dist Dakshina Kannada) 8, Belikeri (dist Uttara Kannada) 7, Panambur Obsy (dist Dakshina Kannada) 7, Karwar Obsy (dist Uttara Kannada) 7, Kota (dist Udupi) 7, Mundgod (dist Uttara Kannada) 7,
 - **South Interior Karnataka:** Bhagamandala (dist Kodagu) 20, Kottigehara (dist Chikkamagaluru) 16, Napoklu (dist Kodagu) 15, Hunchadakatte (dist Shivamogga) 14, Murnadu (dist Kodagu) 14, Somwarpet (dist Kodagu) 13, Kammardi (dist Chikkamagaluru) 13, Koppa (dist Chikkamagaluru) 13, Langanamakki Hms (dist Shivamogga) 12, Kalasa (dist Chikkamagaluru) 10, Jayapura (dist Chikkamagaluru) 10, Tyagarthi (dist Shivamogga) 9, Hudakere (dist Kodagu) 9, Ponnampet Pwd (dist Kodagu) 9, Sringeri Hms (dist Chikkamagaluru) 8, Sanivarsante (dist Kodagu) 8, Mandagadde (dist Shivamogga) 8, Mudigere KVK (dist Chikkamagaluru) 8, Balehonnur (dist Chikkamagaluru) 7, N R Pura (dist Chikkamagaluru) 7, Sakleshpura (dist Hassan) 7, Virajpet (dist Kodagu) 7, Anavatti (dist Shivamogga) 7,
 - **Coastal Andhra Pradesh & Yanam:** Chintur (dist Alluri Sitharamaraju) 18, Gudivada (dist Krishna) 9, Masulipatnam Cdr (dist Krishna) 7, Parvathipuram (dist Parvathipuram Manyam) 7,
 - **Madhya Maharashtra:** Mahabaleshwar- Imd Obsy (dist Satara) 18, Lonavala_agri (dist Pune) 17, Radhanagari (dist Kolhapur) 12, Velhe (dist Pune) 11, Gaganbawada (dist Kolhapur) 10, Patan (dist Satara) 8, Shahuwadi (dist Kolhapur) 7, Igatpuri (dist Nashik) 7, Panhala (dist Kolhapur) 7, Ajra (dist Kolhapur) 7,
 - **Konkan & Goa:** Matheran (dist Raigad) 16, Pen (dist Raigad) 16, Mulde_Agri (dist Sindhudurg) 14, Malvan (dist Sindhudurg) 12, Kudal (dist Sindhudurg) 12, Karjat_agri (dist Raigad) 12, Ponda (dist North Goa) 11, Kankavli (dist Sindhudurg) 11, Sawantwadi (dist Sindhudurg) 11, Murbad (dist Thane) 10, Santacruz - Imd Obsy (dist Mumbai Suburban) 10, Valpoi (dist North Goa) 10, Quepem (dist South Goa) 10, Dodamarg (dist Sindhudurg) 9, Sanguem (dist South Goa) 9, Khalapur (dist Raigad) 9, Mangaon (dist Raigad) 9, Canacona (dist South Goa) 9, Ambernath (dist Thane) 9, Mhasla (dist Raigad) 9, Tala (dist Raigad) 9, Chiplun (dist Ratnagiri) 8, Guhagarh (dist

Ratnagiri) 8, Margao (dist South Goa) 8, Palghar_agri (dist Palghar) 8, Pernem (dist North Goa) 7, Vasai (dist Palghar) 7, Tbia Imd Part Time (dist Thane) 7, Sudhagad Pali (dist Raigad) 7, Mandangad (dist Ratnagiri) 7, Rajapur (dist Ratnagiri) 7, Poladpur (dist Raigad) 7, Wakwali_agri (dist Ratnagiri) 7, Panjim - Imd Obsy (dist North Goa) 7, Jawhar (dist Palghar) 7, Dapoli_agri (dist Ratnagiri) 7, Murud (dist Raigad) 7,

- **Uttarakhand:** Gochar (dist Chamoli) 16, Loharkhet (dist Bageshwar) 13, Rudraprayag 10,
- **Saurashtra & Kutch:** Bhavnagar (dist Bhavnagar) 12, Kotdasangani (dist Rajkot) 9, Lalpur (dist Jamnagar) 8, Babra (dist Amreli) 8, Lodhika (dist Rajkot) 8, Khambhalia (dist Devbhoomi Dwarka) 8, Kandla Airport (dist Kutch) 8, Gandhidham (dist Kutch) 8, Kalyanpur (dist Devbhoomi Dwarka) 7, Shihor (dist Bhavnagar) 7, Gadhda (dist Botad) 7,
- **Telangana:** Luxettipet (dist Mancheria) 12, Kasipet (dist Mancheria) 11, Dharmapuri (dist Jagtial) 9, Dandepalle (dist Mancheria) 9, Velagatoor (dist Jagtial) 9, Manthani (dist Peddapalle) 8, Mutharam Mahadevpur (dist J. Bhupalpally) 8, Belampalle (dist Mancheria) 7, Dharmaram (dist Peddapalle) 7, Talamadugu (dist Adilabad) 7,
- **Tamilnadu, Puducherry & Karaikal:** Valparai PTO (dist Coimbatore), Chinnakalar (dist Coimbatore) 11 each, Avalanche (dist Nilgiris) 10, Worth Estate Cherrumulli (dist Nilgiris), Valparai PAP (dist Coimbatore), Valparai Taluk Office (dist Coimbatore), Naduvattam (dist Nilgiris) 9 each, Taluk Office Pandalur (dist Nilgiris) 8, Cincona (dist Coimbatore), Upper Bhavani (dist Nilgiris), Sholayar (dist Coimbatore) 7 each,
- **Kerala & Mahe:** Munnar Kseb (dist Idukki) 11, Vyttili (dist Wynad) 10, Ponnani (dist Malappuram) 9, Palluruthy Arg (dist Ernakulam) 9, Peruvannamuzhi Arg (dist Kozhikode) 9, Thavanur Aws (dist Malappuram) 9, Idukki (dist Idukki) 8, Pothundy Dam Aws (dist Palakkad) 8, Aluva Aws (dist Ernakulam) 7, Piravam (dist Ernakulam) 7, Ernakulam South (dist Ernakulam) 7, Thycattussery Aws (dist Alapuzha) 7, Peermade To (dist Idukki) 7, Choondy Aws (dist Ernakulam) 7, Kalamassery Aws (dist Ernakulam) 7, Kollamkode (dist Palakkad) 7, Mavelikara (dist Alapuzha) 7, Konni (dist Pathanamthitta) 7,
- **Nagaland, Manipur, Mizoram & Tripura:** Lengpui (dist Aizawl) 10, Bishnupur (dist Bishnupur) 8,
- **West Madhya Pradesh:** Shamshabad (dist Vidisha) 9,
- **North Interior Karnataka:** Londa (dist Belagavi) 9, Belagavi Pto (dist Belagavi) 8,
- **Odisha:** Kotpad (dist Koraput) 7,
- **Chhattisgarh:** Lohandiguda (dist Bastar) 7,
- **East Rajasthan:** Patan (dist Bundi) 7,
- **Gujarat Region:** Umerpada (dist Surat) 7.

- ❖ **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **Dist.:** District; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **FMO:** Flood Meteorological Office; **KVK:** Krishi Vigyan Kendra





Agromet advisories for heavy rainfall likely over various parts of the country

- Drain out excess water from crop fields to avoid water stagnation in Himachal Pradesh, Uttarakhand, East Rajasthan, Sub Himalayan West Bengal & Sikkim, Odisha, West Madhya Pradesh, Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Vidarbha, Gujarat State, Tamil Nadu, Kerala, Karnataka, Coastal Andhra Pradesh, Telangana and North Eastern States.
- Postpone transplanting of rice and finger millet in Konkan; rice in Gujarat and ghat regions of Madhya Maharashtra. Postpone direct sowing of rice in Telangana.
- Postpone sowing of castor and pigeon pea in Saurashtra region; groundnut, maize, late sown cotton and red gram in Coastal Karnataka.

Impact & Action Suggested due to very heavy/extremely heavy rainfall Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Telangana during 24th-27th July; Coastal Karnataka during 24th-26th and Odisha on 25th & 26th July; South Interior Karnataka, Kerala and ghat areas of Tamil Nadu on 24th July, 2023.

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).

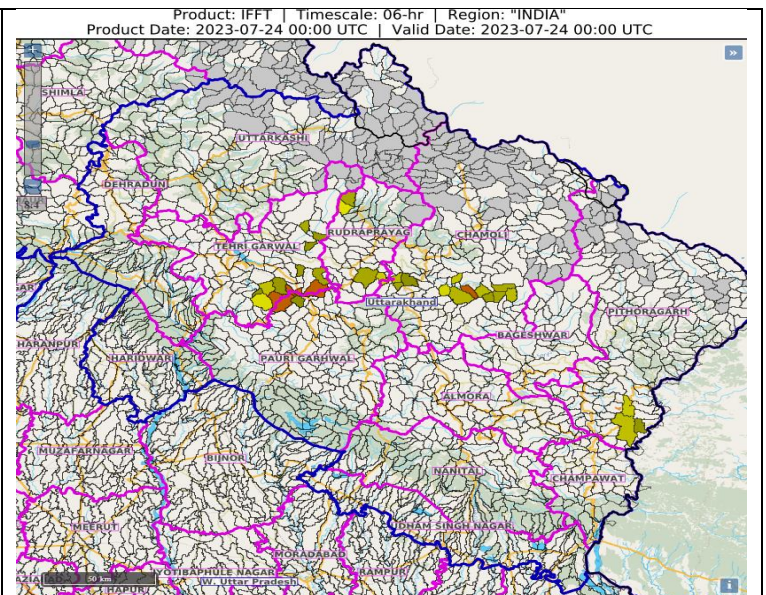
B. Action Suggested

- ❖ 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.

Observed Flash Flood Threat (IFFT) **till 1130 IST of 24-07-2023 :**

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

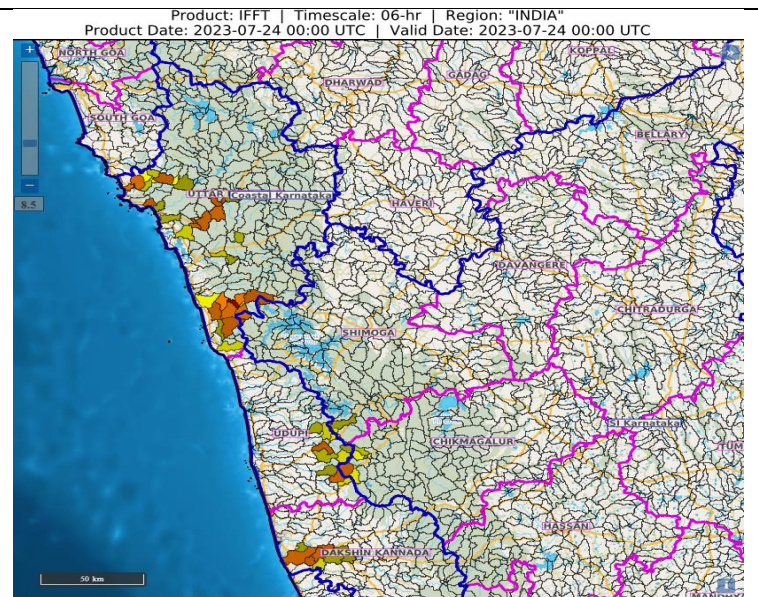
Uttarakhand - Chamoli, Pauri Garhwal, Pithoragarh, Rudraprayag and Tehri Garwal districts.



Observed Flash Flood Threat (IFFT)
till 1130 IST of 24-07-2023 :

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

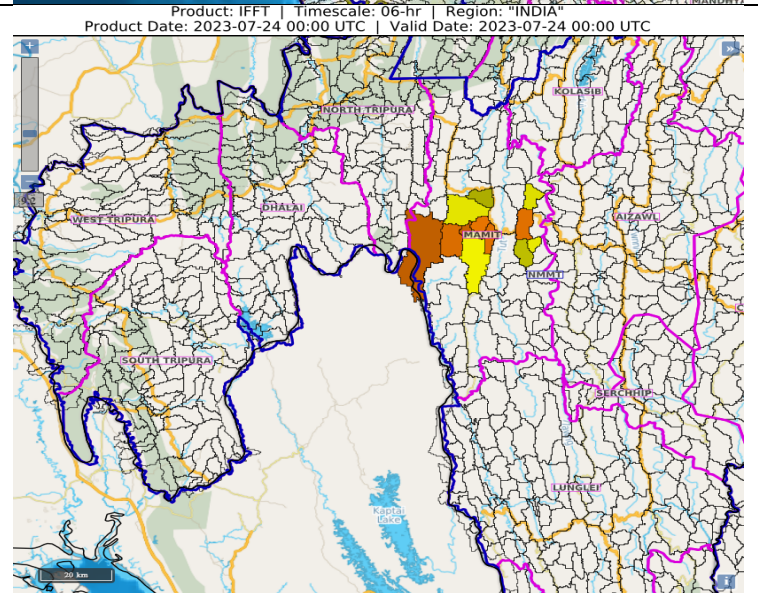
Coastal Karnataka - Dakshin Kannada, Udupi and Uttar Kannada districts.
SI Karnataka – Kodagu & Chikmagalur district.



Observed Flash Flood Threat (IFFT)
till 1130 IST of 24-07-2023 :

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

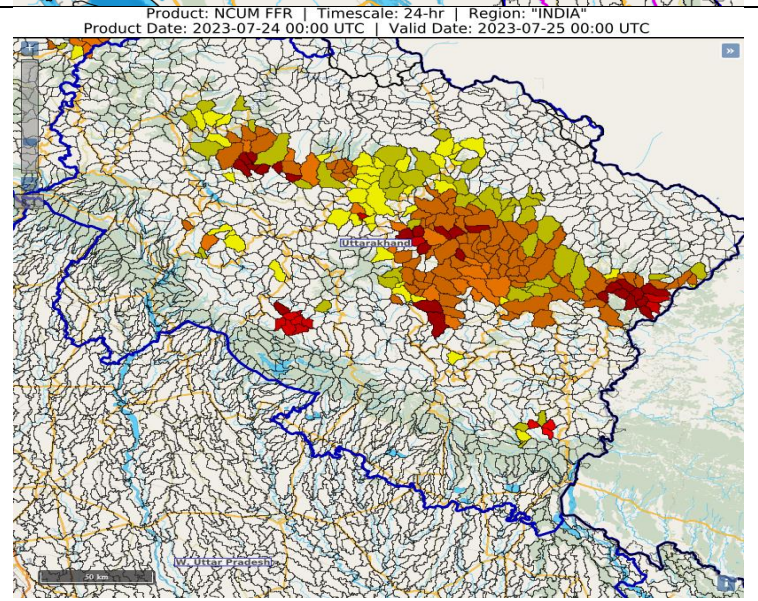
NMMT - Mamit district.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 25-07-2023 :

Moderate flash flood risk likely over few watersheds & neighbourhoods of **Uttarakhand** Met Sub-divisions during next 24 hours.

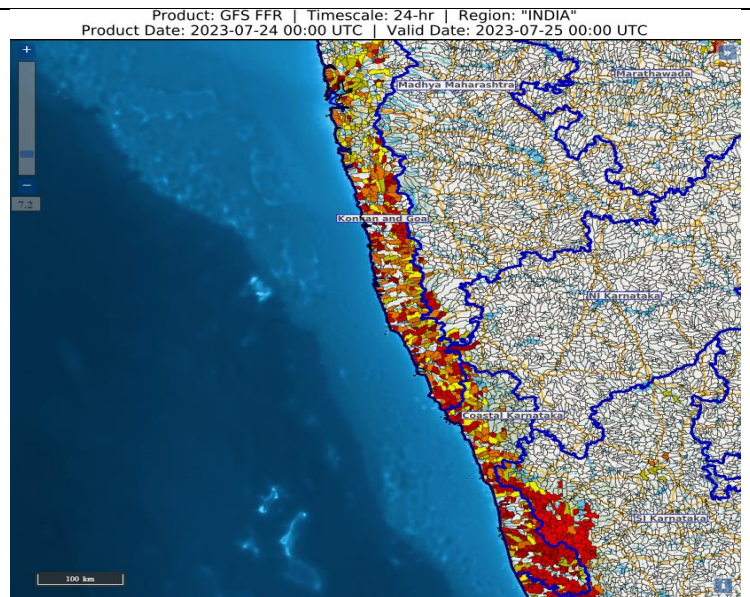
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 25-07-2023 :

Moderate flash flood risk likely over few watersheds & neighbourhoods of **Coastal Karnataka & adjoining SI Karnataka** and **South Konkan & Goa** Met Sub-divisions during next 24 hours.

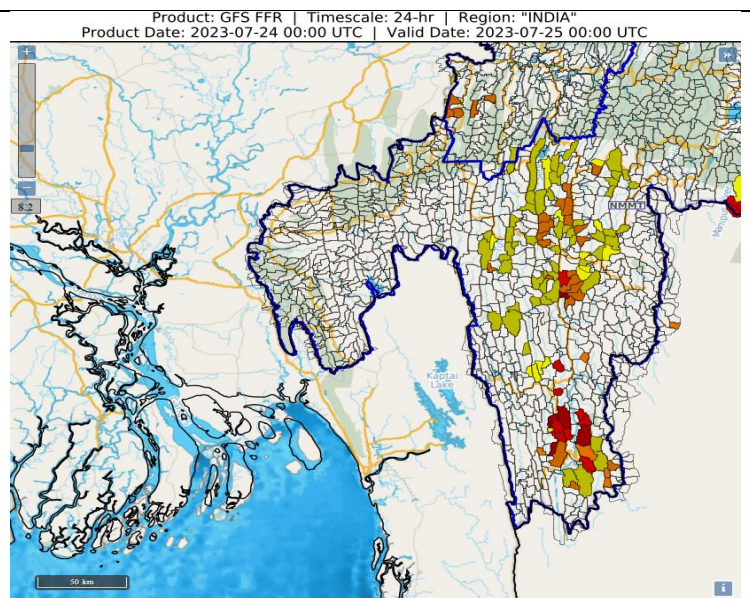
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 25-07-2023 :

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of **NMMT** 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.
- ❖ **Obsy:** Observatory; **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		Subdivision color	
	Heavy Rain		NO WARNING
	Heavy Snow		WATCH(BE UPDATED)
	Thunderstorms & Lightning		ALERT (BE PREPARED)
	Hailstorm		WARNING (TAKE ACTION)
	Dust Storm		
	Strong Surface Winds		
	Heat Wave		
	Cold wave		
	Fog		

Probabilistic Forecast	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75