



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

**Press Release  
Date: 22<sup>nd</sup> July, 2023  
Time of Issue: 1400 hours IST**

**Subject: i) Isolated Extremely heavy rainfall activity likely to continue over Konkan, Ghat areas of Madhya Maharashtra & Gujarat State today, the 22<sup>nd</sup> July and decrease thereafter.  
ii) Isolated heavy to very heavy rainfall activity likely to continue over Himachal Pradesh, Uttarakhand, Punjab, south Rajasthan and southwest Madhya Pradesh today, the 22<sup>nd</sup> July and decrease thereafter.  
iii) Increase in rainfall activity over northwest India and east peninsular India from 25<sup>th</sup> July.**

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

**Significant Weather features:**

- ❖ Yesterday's Low Pressure Area over south Odisha – north Andhra Pradesh coasts and adjoining northwest & westcentral Bay of Bengal moved west-northwestwards and become less marked. However, its remnant cyclonic circulation lies over southeast Vidarbha and adjoining South Chhattisgarh and extends up to middle tropospheric levels.
- ❖ The Monsoon Trough is active and runs to the south of its normal position. It passes through Jaisalmer, Deesa, Ratlam, Betul, Chandrapur, Kondagaon, Gopalpur and thence southeastwards to north Andaman Sea.
- ❖ A cyclonic circulation lies over southwest Madhya Pradesh & adjoining southeast Rajasthan and northeast Gujarat region in lower tropospheric levels.
- ❖ The shear zone lies roughly along Lat. 20° N between 3.1 & 5.8 km above mean sea level.
- ❖ Another cyclonic circulation lies over west-central & adjoining northwest Bay of Bengal and extends up to middle tropospheric levels.
- ❖ A fresh Low Pressure Area is likely to form over Northwest & adjoining Westcentral Bay of Bengal off south Odisha-north Andhra Pradesh coasts around 24th July.
- ❖ The Western Disturbance is seen as a trough with its axis at 5.8 km above mean sea level along Long. 66° E to the north of 32° N.

**Weather Forecast and Warning (Annexure II):**

**Northwest India:** Light/moderate Fairly widespread to widespread rainfall with isolated **heavy rainfall** is very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 22<sup>nd</sup>, over Himachal Pradesh and Uttarakhand on 23<sup>rd</sup> & 24<sup>th</sup>; over Punjab on 25<sup>th</sup> & 26<sup>th</sup>; over Haryana-Chandigarh-Delhi on 22<sup>nd</sup>, 24<sup>th</sup>, 25<sup>th</sup>, 26<sup>th</sup>; over Uttar Pradesh during 24<sup>th</sup> to 25<sup>th</sup>; over West Rajasthan on 25<sup>th</sup>; East Rajasthan on 23<sup>rd</sup>, 24<sup>th</sup> & 26<sup>th</sup> July 2023.

**Isolated very heavy rainfall also very likely over Himachal Pradesh and Uttarakhand on 22<sup>nd</sup>, 25<sup>th</sup> & 26<sup>th</sup>; over Punjab & West Rajasthan on 22<sup>nd</sup>; over East Rajasthan on 22<sup>nd</sup> & 25<sup>th</sup> 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 very heavy rainfall also likely over southwest Madhya Pradesh and Vidarbha on 22<sup>nd</sup> July.**

**West India:** Light/moderate fairly widespread to widespread rainfall with **isolated heavy to very heavy rainfall** very likely to continue over Konkan & Goa, ghat areas of Madhya Maharashtra during 23<sup>rd</sup> to 26<sup>th</sup>; over Marathwada on 22<sup>nd</sup>; over Saurashtra & Kutch on 24<sup>th</sup>; over Gujarat Region on 23<sup>rd</sup> July

**Isolated heavy to very heavy rainfall very likely to continue over Mumbai during next 02 days.**

**Isolated extremely heavy rainfall likely over north Konkan, Madhya Maharashtra and Gujarat Region on 22<sup>nd</sup>; over Saurashtra & Kutch on 22<sup>nd</sup> & 23<sup>rd</sup> July.**

**South India:** Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** very likely over Coastal Andhra Pradesh & Yanam and Telangana during 22<sup>nd</sup> to 24<sup>th</sup>; over Coastal Karnataka and Rayalaseema during 24<sup>th</sup> to 26<sup>th</sup>; over South Interior Karnataka on 22<sup>nd</sup>, 24<sup>th</sup>, 26<sup>th</sup>; over North Interior Karnataka on 22<sup>nd</sup> & 23<sup>rd</sup>; over Tamil Nadu, Puducherry & Karaikal on 23<sup>rd</sup> July.

**Isolated very heavy rainfall very likely over Coastal Karnataka on 22<sup>nd</sup> & 23<sup>rd</sup>; over South Interior Karnataka on 23<sup>rd</sup> over Coastal Andhra Pradesh & Yanam and Telangana on 25<sup>th</sup> & 26<sup>th</sup> July.**

**East India:** Light/moderate Scattered to Fairly widespread rainfall with isolated **heavy rainfall** very likely over Odisha during 22<sup>th</sup> to 24<sup>th</sup> and isolated **heavy rainfall** over Andaman & Nicobar Islands on 22<sup>nd</sup> & 24<sup>th</sup>; over Sub-Himalaya West Bengal & Sikkim during 22<sup>nd</sup> to 24<sup>th</sup> July.

**Isolated very heavy rainfall likely over Odisha on 25<sup>th</sup> & 26<sup>th</sup> July.**

**Northeast India:** Light/moderate Fairly widespread rainfall likely over the region. **Isolated heavy rainfall** likely over Nagaland, Manipur, Mizoram & Tripura during 22<sup>nd</sup> & 26<sup>th</sup>; over Assam & Meghalaya during 22<sup>nd</sup>-24<sup>th</sup> & 26<sup>th</sup> and over Arunachal Pradesh during 22<sup>nd</sup>-24<sup>th</sup> July.

For more details kindly refer: [https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

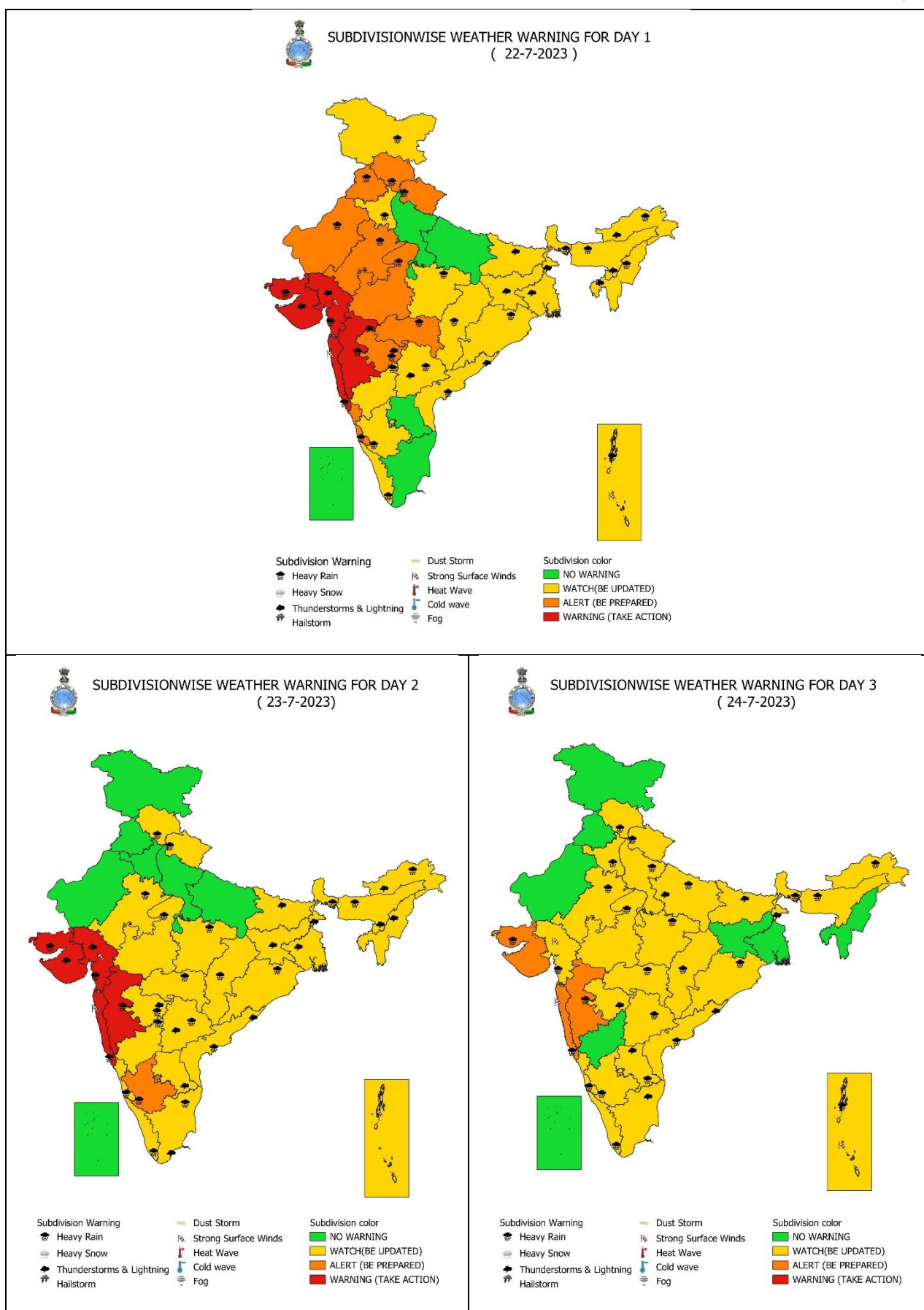
**Rainfall Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today, the 22<sup>nd</sup> July 2023):**

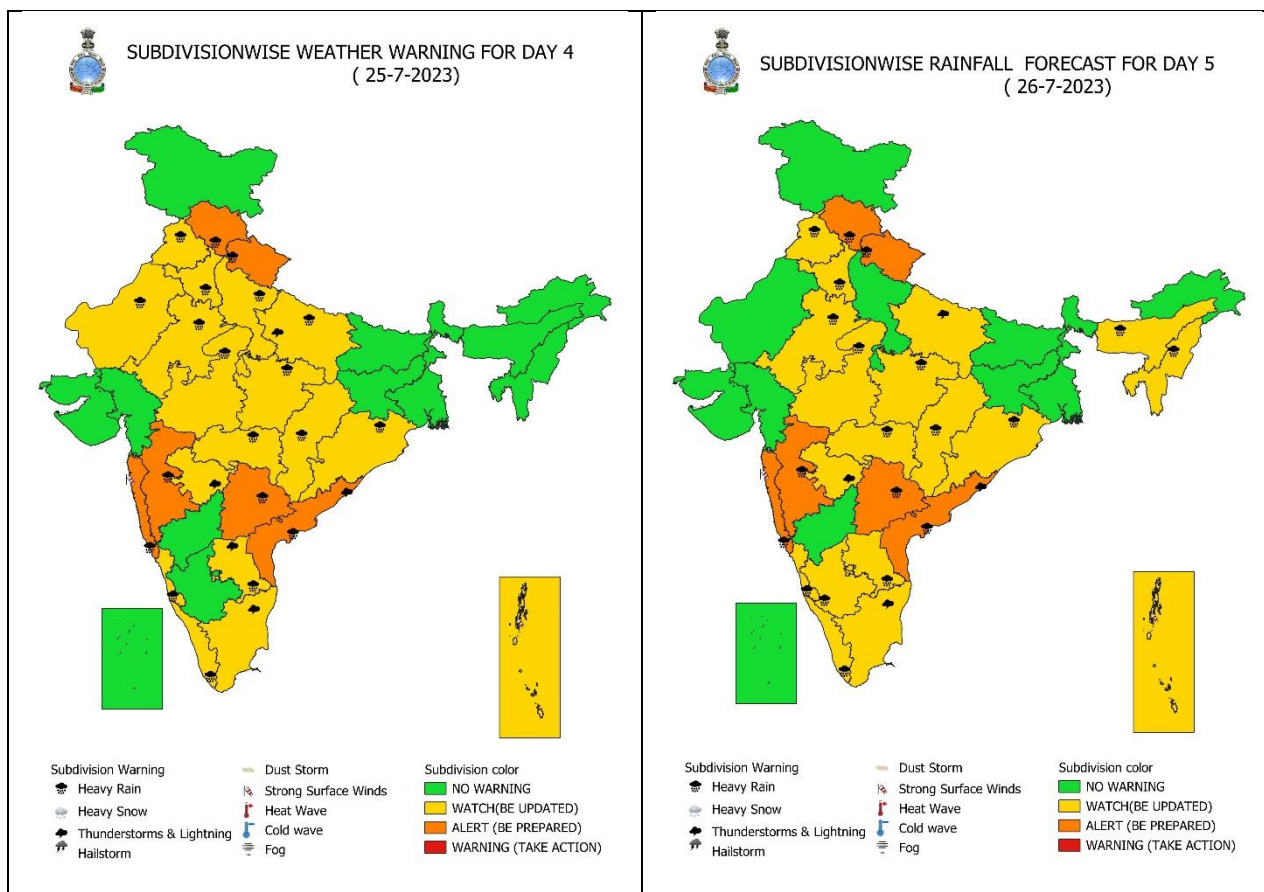
- **Heavy rainfall observed: Heavy to very heavy with isolated Extremely heavy rainfall** at isolated places over Coastal Karnataka, Gujarat Region, Vidarbha, Saurashtra & Kutch, Telangana; **heavy to very heavy at isolated places** observed over Konkan & Goa, Himachal Pradesh, Uttarakhand, Madhya Maharashtra, Marathwada, West Rajasthan, West Madhya Pradesh and **heavy rainfall** at isolated places over Punjab, East Madhya Pradesh, Interior Karnataka, Chhattisgarh, Odisha, Kerala & Mahe, East Rajasthan, Haryana-Chandigarh-Delhi, Sub-Himalaya West Bengal & Sikkim, Andaman & Nicobar Islands.
- **Significant rainfall recorded (from 0830 hours IST of yesterday to 0830 hours IST of today, the 21<sup>st</sup> July 2023): (in cm):**
  - **Coastal Karnataka:** Castle Rock (dist Uttara Kannada) 28, Yellapur (dist Uttara Kannada) 12, Karkala (dist Udupi) 11, Kadra (dist Uttara Kannada) 11, Siddapura (dist Udupi) 11, Siddapur (dist Uttara Kannada) 8, Gersoppa (dist Uttara Kannada) 8, Belthangadi (dist Dakshina Kannada) 8, Puttur Hms (dist Dakshina Kannada) 7;

- **Gujarat Region:** Kaprada (dist Valsad) 26, Khanvel (dist Dadara & Nagar Haveli) 20, Nanipalson (dist Valsad) 18, Vapi (dist Valsad) 17, Madhbun (dist Dadara & Nagar Haveli) 17, Pardi (dist Valsad) 17, Valsad KVK AWS (dist Valsad) 16, Silvassa (dist Dadara & Nagar Haveli) 14, Daman\_ARG (dist Daman) 14, Daman (dist Daman) 12, Daman FMO (dist Daman) 12, Dharampur (dist Valsad) 11, Dolvan (dist Tapi) 11, Padra (dist Vadodara) 9, Umergam (dist Valsad) 9, Valsad (dist Valsad) 9, Chikhli (dist Navsari) 8;
- **Vidarbha:** Yeotmal (dist Yeotmal) 24, Mahagaon (dist Yeotmal) 23, Murtajapur (dist Akola) 19, Arni (dist Yeotmal) 16, Pombhurna (dist Chandrapur) 15, Telhara (dist Akola) 15, Ghatanji (dist Yeotmal) 14, Kalamb (dist Yeotmal) 14, Darwha (dist Yeotmal) 12, Babulgaon (dist Yeotmal) 11, Chamorshi (dist Gadchiroli) 11, Umerkhed (dist Yeotmal) 10, Ralegaon (dist Yeotmal) 10, Pandherikawara (dist Yeotmal) 9, Digras (dist Yeotmal) 9, Deoli (dist Wardha) 9, Ner (dist Yeotmal) 9, Ahiri (dist Gadchiroli) 9, Mul (dist Chandrapur) 9, Lakhandur (dist Bhandara) 8, Narkheda (dist Nagpur) 7, Katol (dist Nagpur) 7, Zarizamni (dist Yeotmal) 7, Saoli (dist Chandrapur) 7, Mulcher dist Gadchiroli) 7, Pusad (dist Yeotmal) 7, Ballarpur (dist Chandrapur) 7, Manora (dist Washim) 7, Kharangha (dist Wardha) 7;
- **Saurashtra & Kutch:** Khambhalia (dist Devbhoomi Dwarka) 22, Visavadar (dist Junagadh) 20, Okha (dist Devbhoomi Dwarka) 9, Kalyanpur (dist Devbhoomi Dwarka) 8;
- **Telangana:** Sirpuru (dist Kumaram Bheem) 22, Jainoor (dist Kumaram Bheem) 18, Boath (dist Adilabad) 12, Adilabad (dist Adilabad) 12, Bazarhathnoor (dist Adilabad) 12, Kerameri (dist Kumaram Bheem) 10, Tamsi (dist Adilabad) 10, Khanpur (dist Nirmal) 9, Pegadapalle (dist Jagtial) 9, Choppadandi (dist Karimnagar) 9, Jagtial (dist Jagtial) 8, Kotgiri (dist Nizamabad) 8, Jannaram (dist Mancherial) 8, Sarangapur (dist Nirmal) 7, Yeda Palle (dist Nizamabad) 7, Talamadugu (dist Adilabad) 7, Mallapur (dist Jagtial) 7, Utnur (dist Adilabad) 7;
- **Konkan & Goa:** Santacruz - Imd Obsy (dist Mumbai Suburban) 20, Mahad (dist Raigad) 16, Pen (dist Raigad) 15, Wada (dist Palghar) 14, Pernem (dist North Goa) 14, Palghar\_agri (dist Palghar) 13, Jawhar (dist Palghar) 13, Mapusa (dist North Goa) 13, Tbia Imd Part Time (dist Thane) 13, Ambernath (dist Thane) 13, Ulhasnagar (dist Thane) 13, Sawantwadi (dist Sindhudurg) 12, Rajapur (dist Ratnagiri) 12, Bhiwandi (dist Thane) 12, Dodamarg (dist Sindhudurg) 12, Roha (dist Raigad) 11, Thane (dist Thane) 11, Murud (dist Raigad) 11, Matheran (dist Raigad) 11, Kalyan (dist Thane) 11, Vasai (dist Palghar) 11, Mulde\_Agri (dist Sindhudurg) 11, Talasari (dist Palghar) 11, Sudhagad Pali (dist Raigad) 11, Vikramgad (dist Palghar) 11, Mangaon (dist Raigad) 11, Colaba - Imd Obsy (dist Mumbai City) 10, Sangameshwar Devrukh (dist Ratnagiri) 10, Shahapur (dist Thane) 10, Panjim - Imd Obsy (dist North Goa) 10, Mhasla (dist Raigad) 10, Karjat\_agri (dist Raigad) 10, Kankavli (dist Sindhudurg) 9, Tala (dist Raigad) 9, Panvel\_agri (dist Raigad) 9, Ponda (dist North Goa) 9, Khalapur (dist Raigad) 9, Vaibhavwadi (dist Sindhudurg) 8, Lanja (dist Ratnagiri) 8, Poladpur (dist Raigad) 8, Sanguem (dist South Goa) 7;
- **Himachal Pradesh:** Renuka / Dadhau (dist Sirmaur) 19, Pachhad (dist Sirmaur) 10, Nahan (dist Sirmaur) 9, Chaupal (dist Shimla) 9, Sundarnagar (dist Mandi) 9, Solan (dist Solan) 9, Arki (dist Solan) 7, Rohru (dist Shimla) 7;
- **Madhya Maharashtra:** Gaganbawada (dist Kolhapur) 17, Mahabaleshwar- Imd Obsy (dist Satara) 15, Lonavala\_agri (dist Pune) 11, Shahuwadi (dist Kolhapur) 9, Peth (dist Nashik) 7;
- **Marathwada:** Kinwat (dist Nanded) 14, Himayatnagar (dist Nanded) 9, Hadgaon (dist Nanded) 9;
- **Uttarakhand:** Haripur 13 Haldwani 12 Mussoorie 11 Berinag, Dunda, Purola, Karnaprayag 9;

- **West Rajasthan:** Kolayat Magra (dist Bikaner) 12, Merta City (dist Nagaur) 9, Gudamalani Sr (dist Barmer) 9, Rohat Sr (dist Pali) 8, Sedwa Sr (dist Barmer) 8, Bhinmal (dist Jalore) 7, Shiv (dist Barmer) 7, Jodhpur Tehsil Sr (dist Jodhpur) 7, Jodhpur (dist Jodhpur) 7;
- **West Madhya Pradesh:** Tonkhurd (dist Dewas) 12, Jharda (dist Ujjain) 12, Harda (dist Harda) 11, Makdone (dist Ujjain) 10, Khachrod (dist Ujjain) 10, Alot (dist Ratlam) 10, Sonkatch (dist Dewas) 9, Mahidpur (dist Ujjain) 9, Depalpur (dist Indore) 9, Bhimpur (dist Betul) 9, Budhni (dist Sehore) 8, Timarni (dist Harda) 8, Jaora (dist Ratlam) 8, Nagda (dist Ujjain) 8, Neapanagar (dist Burhanpur) 8, Ghatiya (dist Ujjain) 8, Barod (dist Agar-malwa) 8, Jawar (dist Sehore) 7, Agar (dist Agar-malwa) 7, Khirkiya-arg (dist Harda) 7, Malhargarh (dist Mandsaur) 7, Sehore-AWS (dist Sehore) 7, Tarana (dist Ujjain) 7, Ujjain-aws (dist Ujjain) 7;
- **Punjab:** Ajanala Arg (dist Amritsar) 10, Dasuya (dist Hoshiarpur) 10, Fatehgarh Sahib (dist Fatehgarh Sahib) 7, Sirhind (dist Fatehgarh Sahib) 7;
- **East Madhya Pradesh:** Sausar (dist Chindwara) 10, Waraseoni (dist Balaghat) 7;
- **South Interior Karnataka:** Sringeri (dist Chikkamagaluru) 10, Koppa (dist Chikkamagaluru) 10, Jayapura (dist Chikkamagaluru) 9, Kammardi (dis Chikkamagaluru) 8, Kottigehara (dist Chikkamagaluru) 8, Somwarpet (dist Kodagu) 8;
- **North Interior Karnataka:** Londa (dist Belagavi) 10;
- **Chhattisgarh:** Gundardehi (dist Balod) 9, Durgkondal (dist Kanker) 8, Takhatpur (dist Bilaspur) 7;
- **Odisha :** Tensa (dist. Sundergarh) 9, Udla (dist. Mayurbanj) 8;
- **Kerala & Mahe:** Vyttiri (dist Wynad) 8, Nilambur (dist Malappuram) 7;
- **East Rajasthan:** Dug (dist Jhalawar) 7;
- **Haryana-Chandigarh-Delhi:** Panchkula AWS (dist Panchkula) 7;
- **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Bandipora ARG (dist Bandipore) 7;
- **Sub-Himalaya West Bengal & Sikkim:** Sankosh-7;
- **Andaman & Nicobar Islands:** Long Islands-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 Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Rajasthan, Andaman & Nicobar Islands, Sub Himalayan West Bengal, Odisha, Madhya Pradesh, Chhattisgarh, Gujarat State, Maharashtra, Kerala, Karnataka, Coastal Andhra Pradesh, Telangana and North Eastern States.
- Postpone transplanting of rice and finger millet in Konkan; rice in ghat regions of Madhya Maharashtra, low-lying areas of Vidarbha and Gujarat. 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** over Konkan & Goa, ghat areas of Madhya Maharashtra during 22nd to 26th; over Marathwada on 22nd; over Saurashtra & Kutch during 22nd to 24th; over Gujarat Region on 22nd & 23rd; over Odisha on 25th & 26th; over Vidarbha & West Madhya Pradesh on 22nd; over Himachal Pradesh and Uttarakhand on 22nd, 25th & 26th; over Punjab and West Rajasthan on 22nd; over East Rajasthan on 22nd & 25th; over Coastal Karnataka on 22nd & 23rd; over South Interior Karnataka on 23rd; over Coastal Andhra Pradesh & Yanam & Telangana on 25th & 26th July.

**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.
- ❖ **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.

<b>SPATIAL DISTRIBUTION</b> (% 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)

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