



Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
Date: 22nd September, 2023
Time of Issue: 1330 hours IST

Subject: 1) Reduced rainfall activity likely to continue over northwest and adjoining westcentral India during next 5 days. Conditions are becoming favourable for withdrawal of Southwest Monsoon from parts of West Rajasthan from around 25th September.

2) Heavy to very heavy rainfall likely to continue over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim and over northeast India on 22nd & 23rd September.

3) Thunderstorm accompanied with lightning very likely over Madhya Pradesh, Vidarbha and Chhattisgarh today.

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

Significant Weather features:

- ❖ **Withdrawal of Southwest Monsoon:**
Due to anti-cyclonic flow developing over northwest India at lower tropospheric levels and dry weather prevailing over parts of southwest Rajasthan, conditions are becoming favourable for withdrawal of Southwest Monsoon from parts of West Rajasthan from around 25th September.
- ❖ **The Low Pressure Area** over Jharkhand & neighbourhood has become less marked. However, the associated cyclonic circulation lies over west Jharkhand & neighbourhood in middle tropospheric levels.
- ❖ Another trough runs from Sikkim to south Madhya Maharashtra across Bihar, cyclonic circulation over west Jharkhand, Chhattisgarh, East Madhya Pradesh, Marathwada in lower & middle tropospheric levels.
- ❖ A cyclonic circulation over south Pakistan and adjoining Kutch and another over south Tamil Nadu in middle tropospheric levels.

Weather Forecast and Warnings: (Annexure II)

East India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Bihar during 22nd-24th; Odisha, Jharkhand, Gangetic West Bengal on 22nd; Jharkhand on 22nd & 23rd and Andaman & Nicobar Islands during 24th-26th September.

Isolated very heavy rainfall very likely over Sub-Himalayan West Bengal & Sikkim on 22nd & 23rd and Bihar on 23rd September.

Isolated extremely heavy rainfall very likely over Bihar today, the 22nd September, 2023.

Northeast India: Light/moderate scattered to fairly widespread rainfall/thunderstorm with isolated **heavy to very heavy rainfall** activity very likely over Arunachal Pradesh, Assam & Meghalaya, Nagaland & Manipur during 22nd-24th September.

Central India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over East Madhya Pradesh during 22nd-24th; West Madhya Pradesh, Vidarbha on 22nd & 23rd and Chhattisgarh on 22nd September.

Isolated very heavy rainfall very likely over Madhya Pradesh and Vidarbha today.

South India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Kerala on 22nd; Tamil Nadu, Coastal Andhra Pradesh, Telangana and Rayalaseema on 22nd & 23rd September.

Northwest India: Light/moderate scattered to fairly widespread rainfall/thunderstorm with isolated **heavy falls** very likely over East Rajasthan on 22nd & 23rd; Jammu division and Uttar Pradesh on 22nd September.

West India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Konkan on 22nd & 26th; Madhya Maharashtra on 22nd, 23rd & 26th; Marathawada on 22nd and Gujarat Region on 23rd September.

Isolated to scattered light/moderate rainfall likely over rest parts of the country during next 5 days.

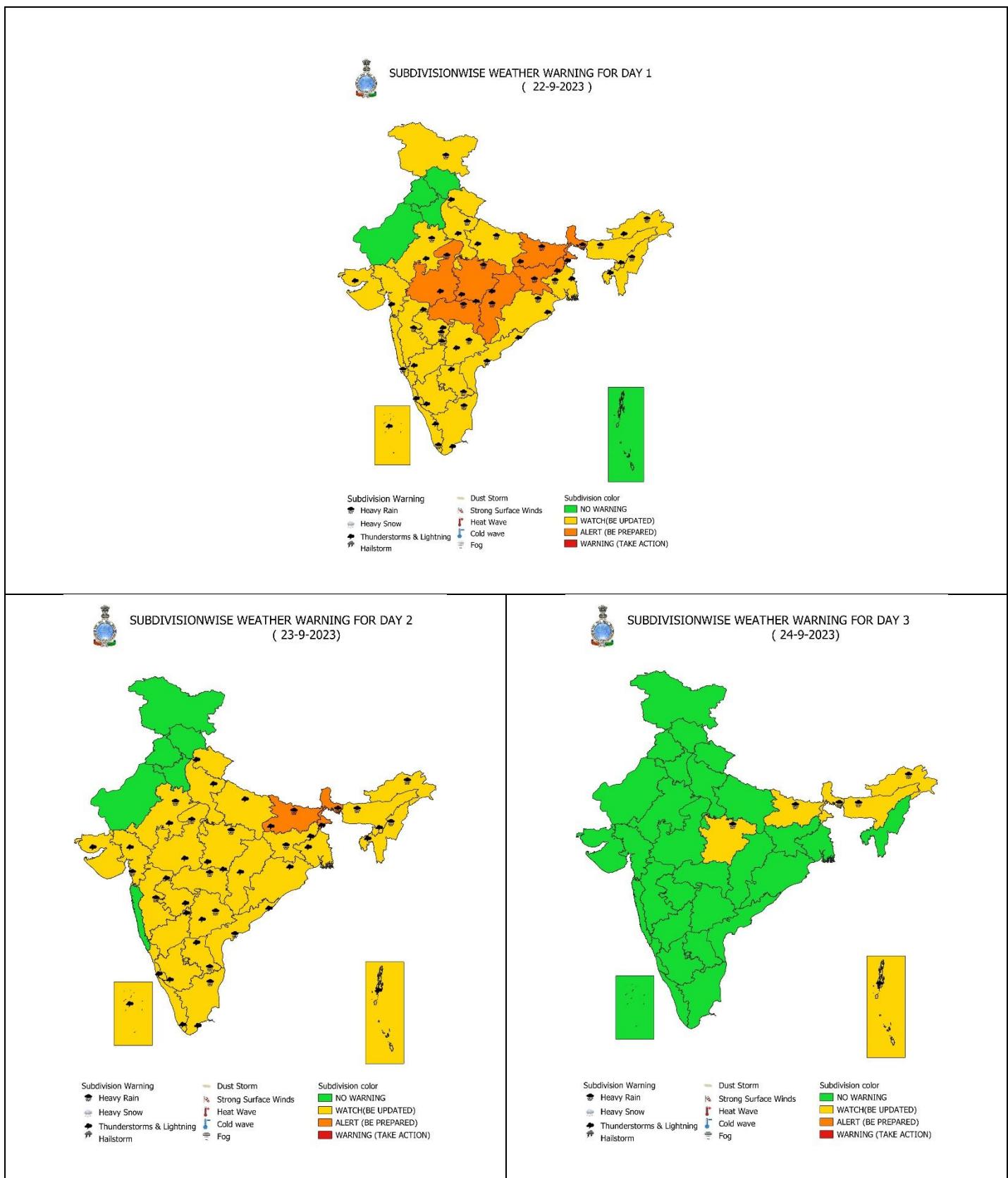
For more details kindly refer:

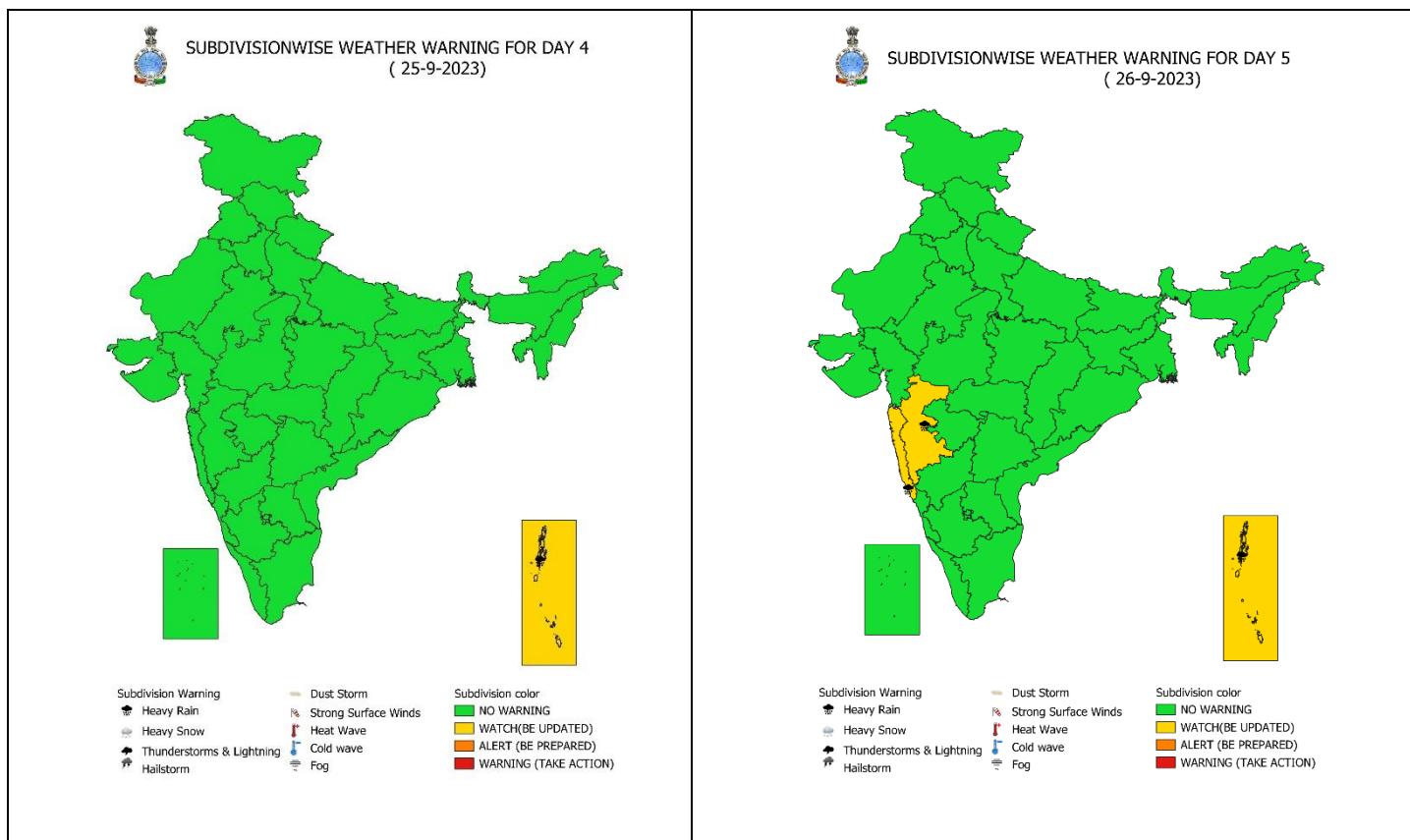
<https://mausam.imd.gov.in/responsive/all india forcast bulletin.php>

Rainfall observations: (from 0830 hours IST of yesterday to 0830 hours IST of today, the 22nd September, 2023):

- **Heavy to very heavy rainfall** at isolated places over Bihar, Jharkhand, Chhattisgarh, Marathawada, West Madhya Pradesh, Assam & Meghalaya and **heavy rainfall** at isolated places over Uttarakhand, East Uttar Pradesh, Gujarat Region, East Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, West Bengal & Sikkim, Odisha, Vidarbha, Mizoram, Arunachal Pradesh, Coastal Andhra Pradesh, Rayalaseema, Kerala and Tamil Nadu.
- **Significant rainfall recorded (in cm):**
- ✓ **Bihar:** Sabour (dist Bhagalpur) 19, Jamui (dist Jamui) 16, Shambhuganj (dist Banka) 15, Bausi (dist Banka) 15, Gogri (dist Khagaria) 15, Sultanganj (dist Bhagalpur) 13, Bhagalpur (dist Bhagalpur) 12, Kursela (dist Katihar) 12, Dharhara (dist Monghyr) 11, Asarganj (dist Monghyr) 11, Sonhaura (dist Bhagalpur) 11, Monghyr (dist Monghyr) 11, Amarpur (dist Banka) 11, Banka (dist Banka) 10, Katoria (dist Banka) 10, Sahebpur Kanal (dist Begusarai) 10, Tarapur (dist Monghyr) 10, Ghurriya (dist Banka) 10, Laxmipur (dist Jamui) 9, Suryagadha (dist Lakhisarai) 9, Halsi (dist Lakhisarai) 9, Sarmera (dist Nalanda) 9, Bariarpur (dist Monghyr) 9, Balrampur (dist Katihar) 9, Sangrampur (dist Monghyr) 9, Chanan (dist Lakhisarai) 8, Barhiya (dist Lakhisarai) 8, Belhar (dist Banka) 8, Barsoi (dist Katihar) 8, Bihpur (dist Bhagalpur) 7, Chandan (dist Banka) 7, Barari (dist Katihar) 7, Sikandara (dist Jamui) 7, Manihari (dist Katihar) 7, Colgaon (dist Bhagalpur) 7, Khagadia (dist Khagaria) 7, Amdabad (dist Katihar) 7, Chakai (dist Jamui) 7, Parbatta (dist Khagaria) 7,
- ✓ **West Madhya Pradesh:** Ashta (dist Sehore) 15, Sehore (dist Sehore) 11, Kannod (dist Dewas) 9, Lahar (dist Bhind) 8, Shegaon (dist Khargone) 8, Burhanpur (dist Burhanpur) 8, Bhagwanpura (dist Khargone) 7, Satwas (dist Dewas) 7, Gogawan (dist Khargone) 7, Bairagarh Airport (dist Bhopal) 7,
- ✓ **Jharkhand:** Deoghar-14; Sahibganj, Godda-12 each; Pakartand, Bolba, Madhupur-11 each; Sujani, Hazaribagh, Koner-10 each; Sikati, Gopikandar, Koner, Simdega, Bansjor, Pathargama-9 each; Hazaribagh, Kairo, Bano, Hazaribagh-8 each; Hendigir, Kurdeg, Dumri, Barkagao, Borio, Jaldega, Garu, Barhi-7 each;
- ✓ **Marathawada:** Gangapur (dist Chh. Sambajinagar) 14, Sambajinagar (dist Chh. Sambajinagar) 10, Ashti (dist Beed) 9, Ambejogai / Mominabad (dist Beed) 7,
- ✓ **Assam & Meghalaya:** Mawkyrwat (Dist: South West Khasi Hills) 13 , Gossaigaon (Dist : Kokrajhar) 11, Bahalpur (Dist: Dhubri) 10, Sohra ARG (Dist: East khasi Hills) 10, Baghmara(Dist: South Garo Hills) 9, Sohra RKM (Dist: East khasi Hills) 8 , Sohra (Dist: East khasi Hills) 8, Khata Laitkroh(Dist: East Khasi Hills) 8 , Goalpara (DIST : Goalpara) 8, Mawplang (Dist :East khasi Hills) 7, Dhubri KV (Dist: Dhubri) 7, AIE N H Xing (Dist: East khasi Hills) 7, Hazuwa (Dist: Barpeta) 7, Manas Xing (Dist :Bongaigaon) 7
- ✓ **Chhattisgarh:** Simga (dist Baloda Bazar) 12, Kharsiya (dist Raigarh) 11, Sakti (dist Janjgir) 11, Seovrinarayan (dist Janjgir) 10, Pamgarh (dist Janjgir) 8, Bhatapara (dist Baloda Bazar) 8, Akaltara (dist Janjgir) 7, Champa (dist Janjgir) 7, Pusaur (dist Raigarh) 7, Gandai (dist Rajnandgaon) 7, Bodla (dist Kabirdham) 7,
- ✓ **Telangana:** Parkal (dist Hanumakonda) 12, Venkatapur (dist Mulugu) 11, Bheemini (dist Mancherial) 10, Parvathagiri (dist Warangal) 10, Gudurwrgl (dist Mahabubabad) 9, Tadwai Mlg (dist Mulugu) 9, Regonda (dist J. Bhupalpally) 9, Govindaraopet (dist Mulugu) 9, Kotapalle (dist Mancherial) 8, Mothey (dist Suryapet) 8, Sirpur (t) (dist Kumaram Bheem) 8, Asifabad (dist Kumaram Bheem) 8, Kalwakurthy (dist Nagarkurnool) 8, Kodada (dist Suryapet) 8, Uttnur (dist Adilabad) 7, Jainoor (dist Kumaram Bheem) 7, Nagarjuna Sagar(arg) (dist Nalgonda) 7, Ramannapeta (dist Y. Bhuvanagiri) 7,
- ✓ **Odisha:** Mundali (dist Cuttack) 11, Banki (dist Cuttack) 10, Naraj (dist Cuttack) 10, Lathikata (dist Sundargarh) 7,
- ✓ **Sub-Himalayan West Bengal:** Alipurduar - 11, Hasimara- 9, Tufanganj-9, Bhutanghat- 8, Majihan- 8, Bagrakote- 7, Nh31-7, Chepan-7, Chepan-7, Jaldhara-7, Sonapur-7,
- ✓ **Tamil Nadu:** Suralacode (dist Kanyakumari) 11, Perunchani Dam (dist Kanyakumari) 10, Puthan Dam (dist Kanyakumari), Kallikudi (dist Madurai), Vedasandur (dist Dindigul) 9 each, Tobacco Station (dist Dindigul), Hogenekal (dist Dharmapuri), Palacode (dist Dharmapuri) 7 each,
- ✓ **East Madhya Pradesh:** Malanjkhanda (dist Balaghat) 10, Dhanora (dist Seoni) 8, Nainpur (dist Mandla) 8, Mehadwani (dist Dindori) 8, Pandhurna (dist Chhindwara) 7,
- ✓ **Arunachal Pradesh:** Tuting (DIST : Upper Siang) 10, MC Itanagar (DIST : Papum Pare) 9, Dollongmuk (DIST : Lower Subansiri) 8, Itanagar CWC (DIST : Papum Pare) 8, Nacho (Dist: Upper Subansiri) 8
- ✓ **Mizoram:** Vairengte (Dist: Kolasib) 9
- ✓ **Uttarakhand:** Pithoragarh: Dharchula-9
- ✓ **Vidarbha:** Chandrapur (dist Chandrapur) 9, Pombhurna (dist Chandrapur) 8,
- ✓ **Kerala:** Piravam (Ernakulam district) 9 each, Ernakulam South 8, Kumarakom (Kottayam district) 7
- ✓ **Rayalaseema:** Rudravaram (dist Nandyal) 9, Atmakur (dist Nandyal) 8,
- ✓ **Konkan & Goa:** Panjim - Imd Obsy (dist North Goa) 9, Sangameshwar Devrukh (dist Ratnagiri) 9, Alibag (dist Raigad) 9, Shriwardhan (dist Raigad) 9, Kudal (dist Sindhudurg) 7,
- ✓ **Madhya Maharashtra:** Nevasa (dist Ahmednagar) 9, Yeola (dist Nashik) 9, Shevgaon (dist Ahmednagar) 7,
- ✓ **Gangetic West Bengal:** Uluberia-8, Digha- 6, Tilaiya- 5, Mankar- 4
- ✓ **Coastal Andhra Pradesh:** Bobbili (dist Vizianagaram) 7,
- ✓ **North Interior Karnataka:** Sedam (dist Kalaburgi) 7,
- ✓ **Gujarat Region:** Dang (dist Dangs) 9, Waghai (dist Dangs) 9, Dangs (ahwa) (dist Dangs) 7,
- ✓ **East Uttar Pradesh:** Amethi: Fursatganj-7

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 rainfall/extremely heavy falls over Jharkhand, East Madhya Pradesh, Vidarbha on 22nd; Bihar and Sub-Himalayan West Bengal & Sikkim on 22nd & 23rd September.

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

Impact expected and action suggested due to isolated thunderstorm with lightning over Madhya Pradesh, Vidarbha and Chhattisgarh on 22nd September.

Impact expected:

- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

Action suggested:

- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

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 Widespred (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) | |