

Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 26th September, 2024

Time of Issue: 1325 hours IST

Subject: (i) Isolated extremely heavy rainfall very likely over Konkan & Goa, Madhya Maharashtra, Gujarat Region and Sub-Himalayan West Bengal & Sikkim on 26th September.
(ii) Enhanced rainfall activity with isolated heavy falls likely over Western Himalayan Region, central, east & northeast India during next 2-3 days.

Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)

Heavy to very Heavy rainfall at a few places with extremely heavy rainfall at isolated places over Konkan & Goa; **Heavy to very Heavy rainfall with extremely heavy rainfall** at isolated places over Uttarakhand; **Heavy to very Heavy rainfall** at isolated places over Gujarat Region, Himachal Pradesh, Odisha, Assam & Meghalaya, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Sub-Himalayan West Bengal & Sikkim; **Heavy rainfall** at isolated places over Gangetic West Bengal, Jharkhand, Haryana, Chhattisgarh, Marathwada, North Interior Karnataka, Madhya Pradesh, Saurashtra & Kutch, Nagaland, Manipur, Mizoram & Tripura, Bihar, West Uttar Pradesh and Arunachal Pradesh.

Weather Systems:

- ✓ **Yesterday's** cyclonic circulation over south Chhattisgarh now lies over north Madhya Maharashtra & neighbourhood extending upto middle tropospheric level.
- ✓ A **trough** runs from the cyclonic circulation over north Madhya Maharashtra to north Bangladesh extending upto middle tropospheric level.

Forecast & Warnings (upto 7 days) (Annexure II & III):

West India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Konkan & Goa during the week; Fairly widespread to widespread light to moderate rainfall over Madhya Maharashtra, Gujarat State during next 3 days & Isolated to Scattered light to moderate rainfall over the same region during subsequent 4 days; Isolated to Scattered light to moderate rainfall over Marathwada during the week.
- ✓ **Heavy to very Heavy rainfall with extremely heavy rainfall at isolated places very likely over Konkan & Goa, Madhya Maharashtra and Gujarat Region on 26th September and heavy to very heavy rainfall at isolated places on 27th September.**
- ✓ **Isolated heavy to very heavy rainfall** also very likely over Saurashtra & Kutch on 26th & 27th September **and Isolated heavy rainfall** very likely over Marathwada on 26th; Madhya Maharashtra, Gujarat Region, Saurashtra & Kutch on 28th September.

East & Northeast India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Northeast India during the next 7 days; Fairly widespread to widespread light/moderate rainfall very likely over East India during next 2 days & Isolated to Scattered light to moderate rainfall during the next subsequent 5 days.
- ✓ **Heavy to very Heavy rainfall with extremely heavy rainfall very likely over Sub-Himalayan West Bengal & Sikkim on 26th September and heavy to very heavy rainfall on 27th September and heavy rainfall on 28th September & 02nd October.**
- ✓ **Isolated heavy to very heavy rainfall** also very likely over Arunachal Pradesh, Assam & Meghalaya, Jharkhand on 26th; Bihar on 26th & 27th September.
- ✓ **Isolated heavy rainfall** very likely over Gangetic West Bengal, Odisha on 26th September; Jharkhand on 27th September; Bihar on 28th September; Nagaland, Manipur, Mizoram & Tripura on 26th & 27th September and during 30th September - 02nd October; Arunachal Pradesh on 27th & 28th September and 01st & 02nd October; Assam & Meghalaya on 27th & 28th September and during 30th September-02nd October.

Central India:

- ✓ Scattered to Fairly widespread light to moderate rainfall over central India during the next 3 days and Isolated to Scattered light to moderate rainfall over the same region during subsequent 4 days.
- ✓ **Isolated heavy rainfall** very likely over East Madhya Pradesh, Vidarbha, Chhattisgarh on 26th; West Madhya Pradesh during 26th -28th September.

Northwest India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Uttarakhand, East Uttar Pradesh during next 3 days & Isolated to Scattered light to moderate rainfall over the remaining region during subsequent 4 days; Scattered to Fairly widespread light to moderate rainfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh during next 2 days & Isolated to Scattered light to moderate rainfall during subsequent 5 days; Isolated to Scattered light to moderate rainfall over the remaining region during the week.
- ✓ **Isolated heavy to very heavy rainfall** very likely Uttarakhand on 26th & 27th; East Uttar Pradesh during 26th-28th; Himachal Pradesh on 27th September.
- ✓ **Isolated heavy rainfall** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 26th; Haryana-Chandigarh on 26th; West Uttar Pradesh on 26th & 27th; Uttarakhand on 28th September.

South Peninsular India

- ✓ Scattered to Fairly widespread light to moderate rainfall over the region during the week.
- ✓ **Isolated heavy rainfall** very likely over Telangana on 26th; Tamil Nadu, Puducherry & Karaikal on 26th, 28th & 29th; Kerala & Mahe during 28th-30th; South Interior Karnataka on 29th; Coastal Karnataka on 30th September.

Southwest Monsoon withdrawal Map (ANNEXURE IV)

For more details, kindly refer:

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

For District wise warnings refer:

<https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

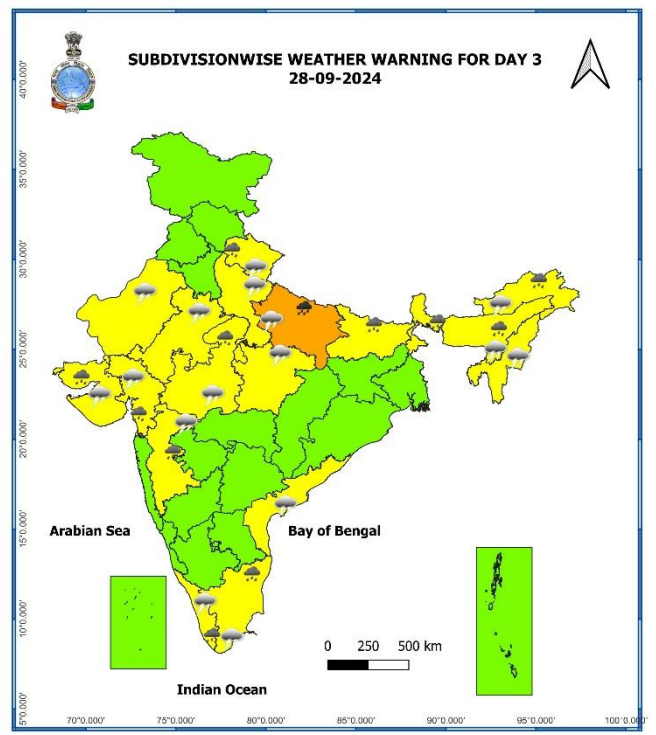
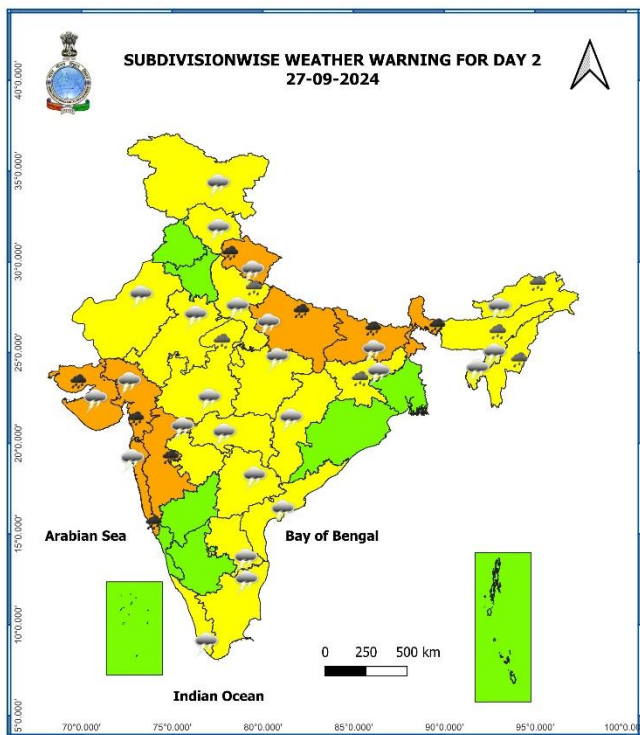
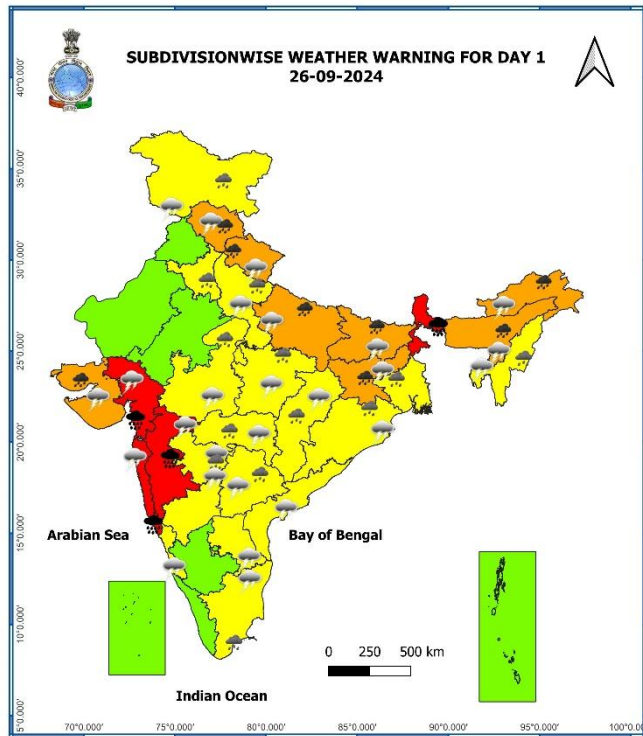
Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 26.09.2024 (in cm):

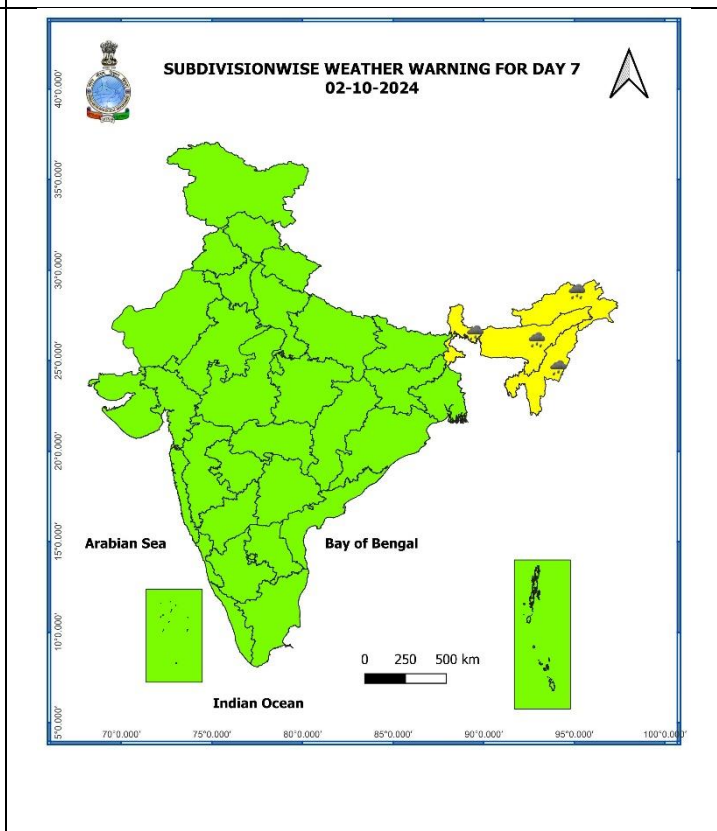
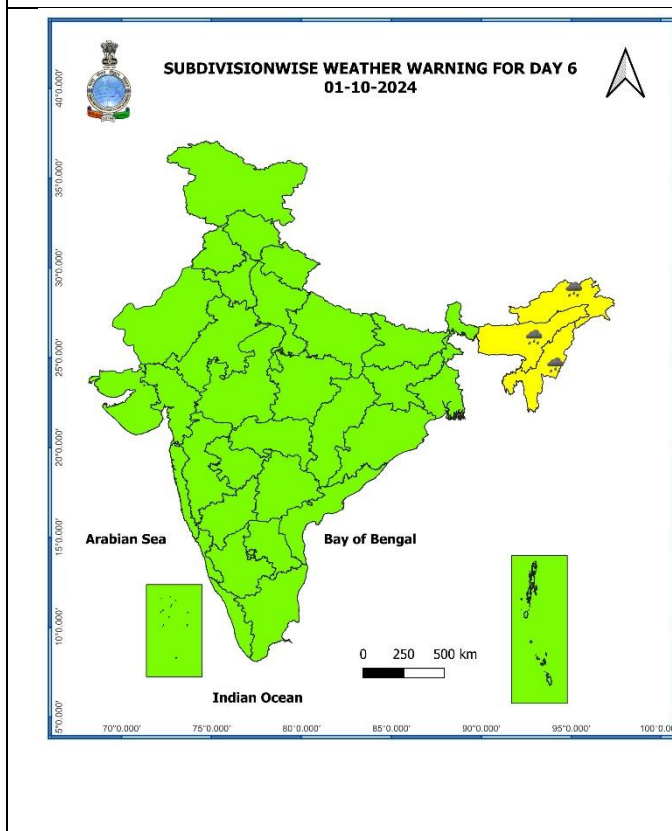
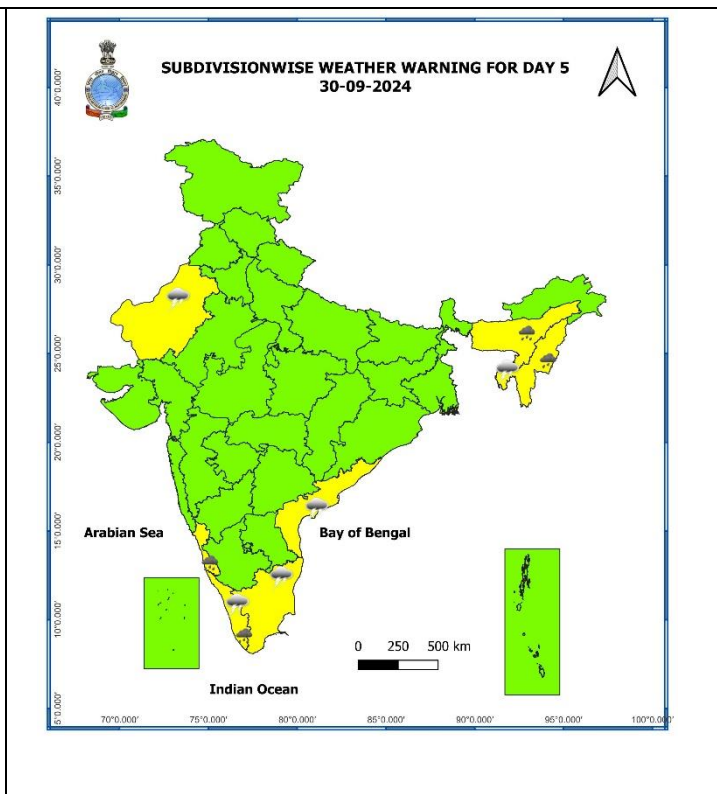
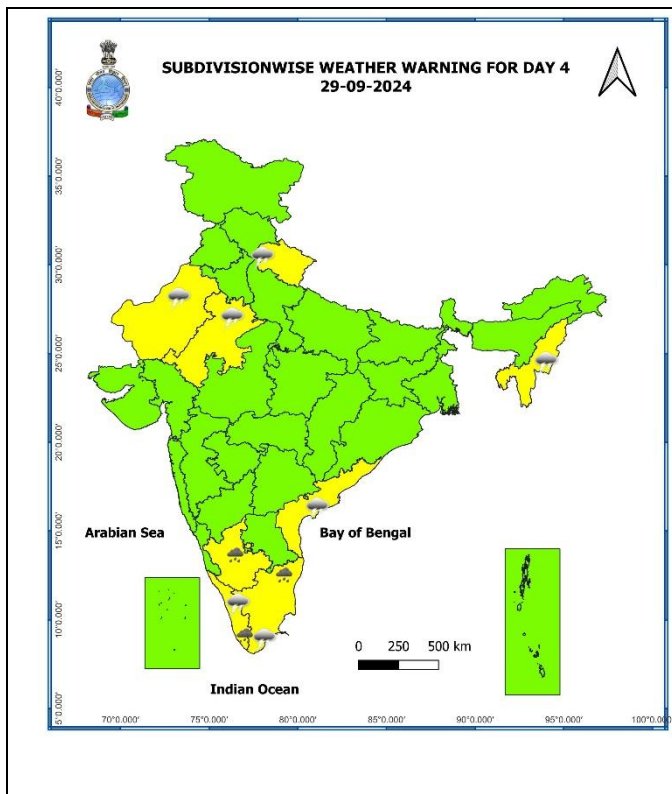
- ❖ **Uttarakhand:** Haripur (Dehradun): 24, Sama (Bageshwar): 20, Loharkhet (Bageshwar): 16, Mussoorie (Dehradun): 16, Rudraprayag (Rudraprayag): 13, Kapkot (Bageshwar): 12, Tehri (Cwc) (Tehri Garhwal): 8, Chakrata (Dehradun): 8, Narendra Nagar (Tehri Garhwal): 8, Jakholi (Rudraprayag): 8, Karnprayag (Chamoli): 7, Dharchula (Pithoragarh): 7, Dhanaulti (Tehri Garhwal): 7;
- ❖ **Konkan & Goa:** Vasai (Dist Palghar) 21, Santacruz - Imd Obsy (Dist Mumbai Suburban) 17, Colaba - Imd Obsy (Dist Mumbai City) 17, Uran (Dist Raigad) 16, Vikramgad (Dist Palghar) 13, Thane (Dist Thane) 11, Palghar_Agri (Dist Palghar) 11, Wada (Dist Palghar) 11, Roha (Dist Raigad) 11, Tala (Dist Raigad) 10, Pen (Dist Raigad) 10, Tbia Imd Part Time (Dist Thane) 10, Sudhagad Pali (Dist Raigad) 10, Karjat_Agri (Dist Raigad) 9, Panvel_Agri (Dist Raigad) 9, Matheran (Dist Raigad) 8, Poladpur (Dist Raigad) 8, Ambernath (Dist Thane) 8, Dahanu - Imd Obsy (Dist Palghar) 7, Mangaon (Dist Raigad) 7, Mahad (Dist Raigad) 7, Mandangad (Dist Ratnagiri) 7;
- ❖ **Gujarat Region:** Umerpada (Dist Surat) 17, Navsari (Dist Navsari) 7, Jetpur Pavi (Dist Chhota Udepur) 7, Chhota Udepur (Dist Chhota Udepur) 7;
- ❖ **Himachal Pradesh:** Paonta (Dist Sirmaur) 17, Guler (Dist Kangra) 13, Nagrota Surian (Dist Kangra) 13, Nahan (Dist Sirmaur) 9, Jogindarnagar (Dist Mandi) 9, Ghamroor (Dist Kangra) 8, Baijnath (Dist Kangra) 7, Bharwain (Dist Una) 7;
- ❖ **Odisha:** Talcher (Angul) 15, Balikuda (Jagatsinghpur) 11, Alipingal (Jagatsinghpur) 10, Jagatsinghpur (Jagatsinghpur) 10, Udala (Mayurbhanj) 9, Kaptipada (Mayurbhanj) 9, Gop (Puri) 9, Keonjhar (Keonjhar) 9, Kankadahad (Dhenkanal) 8, Mohakalapada (Kendrapara) 8, Angul (Angul) 7, Betanati (Mayurbhanj) 7, Naktideul (Sambalpur) 7, Jenapur (Jajpur) 7;
- ❖ **Assam & Meghalaya:** (dist Dibrugarh) 14, Beky Rly.Bridge (dist Barpeta) 12, Majuli (dist Jorhat) 11, Amraghat (dist Cachar) 10, Hazuah (dist Barpeta) 9, Gharmura (dist Hailakandi) 9, Barpeta/sarbhog_aws (dist Barpeta) 9, Kheronighat (dist Karbi Anglong) 9, Panbari (dist Chirang) 8, Bahalpur (dist Dhubri) 8, D/mohanbari Aero (dist Dibrugarh) 8, Goalpara_aws (dist Goalpara) 8, Srijangram Arg (dist Bongaigaon) 8, Manash Nh Xing (dist Barpeta) 8, Williamnagar (dist East Garo Hills) 8, Mohanbari_aws (dist Dibrugarh) 8, Nongstein (dist West Khasi Hills) 8, Barpeta (dist Barpeta) 7, Nalbari/pagladia (dist Nalbari) 7;
- ❖ **Madhya Maharashtra:** Pune City - Imd Obsy (Dist Pune) 13, Chinchwad - Arg (Dist Pune) 13, Pachora (Dist Jalgaon) 9, Mahabaleshwar- Imd Obsy (Dist Satara) 9, Yeola (Dist Nashik) 9, Savlivihir_Agri (Dist Ahmednagar) 8, Bhadgaon (Dist Jalgaon) 7;
- ❖ **Tamilnadu, Puducherry & Karaikal:** Zone 07 Ambattur (Dist Chennai), Avadi (Dist Tiruvallur), Zone 07 U18 D81 Vanagaram (Dist Chennai) 13 Each, Zone 08 Malar Colony (Dist Chennai) 12, Thiruvallangadu (Dist Tiruvallur) 11, Zone 02 Manali (Dist Chennai), Ambathur (Dist Chennai) 10 Each, Zone 06 T.V.K Nagar (Dist Chennai), Jaya Engg College AWS (Dist Tiruvallur), Zone 01 Kathivakkam (Dist Chennai), Ayanavaram Taluk Office (Dist Chennai), Zone 08 Anna Nagar (Dist Chennai), Good Will School Villivakkam ARG (Dist Tiruvallur) 9 Each, Zone 06 D65 Kolathur (Dist Chennai), Zone 10 Kodambakkam (Dist Chennai), Zone 03 Puzhal (Dist Chennai), Chennai(N) AWS (Dist Chennai) 8 Each, Red Hills (Dist Tiruvallur), Zone 05 GCC (Dist Chennai), Zone 05 Royapuram (Dist Chennai), Chennai (N) (Dist Chennai), Zone 01 Thiruvottiyur (Dist Chennai), CD Hospital Tondaiarpur (Dist Chennai), Puzhal ARG (Dist Tiruvallur), Satyabama Uty ARG (Dist Kancheepuram), Chennai Collector Office (Dist Chennai), Panapakkam (Dist Ranipet), Chennai (AP) (Dist Chennai), Alandur (Dist Chennai), Zone 09 Ice House (Dist Chennai), Perambur (Dist Chennai), Ranipet AWS (Dist Ranipet), Zone 12 Alandhur (Dist Chennai), Zone 03 Madhavaram (Dist Chennai), Arakonam (Dist Ranipet), Uthukottai (Dist Tiruvallur), Zone 11 U32 Maduravoyal (Dist Chennai), Sholinganallur (Dist Chennai), Zone 15 Sholinganallur (Dist Chennai), Hindustan_University (Dist Kancheepuram) 7 Each;

- ❖ **Sub-Himalayan West Bengal & Sikkim:** Lava (dist Kalimpong) 13, Algarah (dist Kalimpong) 12, Amfu Kalimpong (dist Kalimpong) 12, Kalimpong (dist Kalimpong) 11, Darjeeling (dist Darjeeling) 10, Pedong (dist Kalimpong) 9, Khanitar (dist Pakyong) 9, Jhallong (dist Kalimpong) 8, Kumargram (dist Alipurduar) 8, Bijonbari (dist Darjeeling) 8, Soreng Arg (dist Soreng) 8, Rongo (dist Kalimpong) 7, Pakyong (dist Pakyong) 7;
- ❖ **Gangetic West Bengal:** Tantloi (dist Birbhum) 11, Mo Saltlake (dist North 24 Parganas) 11, Dum Dum (dist North 24 Parganas) 9, Bankura(cwc) (dist Bankura) 9, Uluberia (dist Howrah) 8, Burnpur (dist Paschim Bardhaman) 8, Contai (dist East Midnapore) 7, Diamond Harbour (dist South 24 Parganas) 7, Durgapur (dist Paschim Bardhaman) 7, Amfu Kakdwip (dist South 24 Parganas) 7, Alipore (dist Kolkata) 7;
- ❖ **Jharkhand:** Messenjoy (dist Dumka) 10, Maharo (dist Dumka) 8, Zrs Dumka (dist Dumka) 7, Kharsema (dist Seraikela-kharsawan) 7, Sikatia (dist Deoghar) 7, Maithon Dvc (dist Dhanbad) 7, Maithon (dist Dhanbad) 7, Koner Dvc (dist Hazaribag) 7, Koner (dist Hazaribag) 7;
- ❖ **Haryana:** Babain Rev (Dist Kurukshetra) 9, Nilokheri (Dist Karnal) 8, Ambala Rev (Dist Ambala) 7, Narayangarh Arg (Dist Ambala) 7, Ladwa (Dist Kurukshetra) 7, Naraingarh (Dist Ambala) 7;
- ❖ **Chhattisgarh:** Sanna (Dist Jashpur) 9, Kunkuri (Dist Jashpur) 8, Durg (Dist Durg) 7, Jashpurnagar (Dist Jashpur) 7, Barpali (Dist Korba) 7, Bagbhar (Dist Jashpur) 7, Bastanar (Dist Bastar) 7, Orcha (Dist Narayanpur) 7;
- ❖ **Marathwada:** Gangapur (Dist Chh. Sambhajinagar) 9, Patoda (Dist Beed) 8, Jafrabad (Dist Jalna) 7, Vaijapur (Dist Chh. Sambhajinagar) 7, Phulambri (Dist Chh. Sambhajinagar) 7;
- ❖ **North Interior Karnataka:** Manthala (dist Bidar) 9;
- ❖ **East Madhya Pradesh:** Lakhnadon (Dist Seoni) 9;
- ❖ **West Uttar Pradesh:** Nakur (dist Saharanpur) 9;
- ❖ **Saurashtra & Kutch:** Lilia (Dist Amreli) 8;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Aizawl (dist Aizawl) 8, Lengpui (dist Aizawl) 8, Mamit Agri (dist Mamit) 8, Kvk Dhalai (dist Dhalai) 7, Dharmanagar/ Panisagar (dist North Tripura) 7;
- ❖ **Bihar:** Udai Kishanganj (dist Madhepura) 8, Kursela (dist Katihar) 8, Banka (dist Banka) 8, Raniganj (dist Araria) 7;
- ❖ **West Madhya Pradesh:** Alirajpur (Dist Alirajpur) 7;
- ❖ **Arunachal Pradesh:** Naharlagun (dist Papumpara) 7;

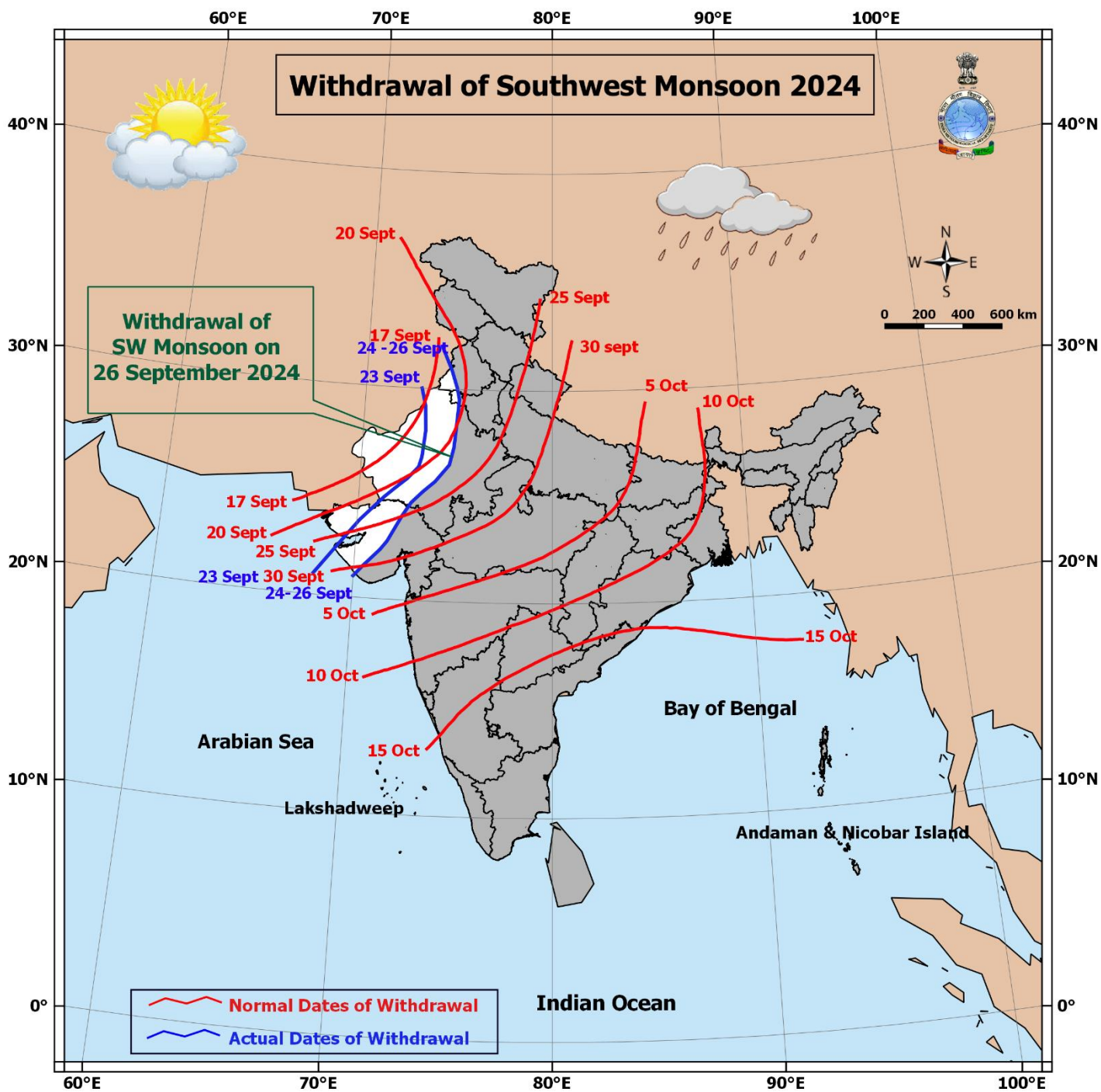
| 7 Days Rainfall Forecast | | | | | | | | |
|--------------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| S. No. | Subdivision | 26-Sep | 27-Sep | 28-Sep | 29-Sep | 30-Sep | 01-Oct | 02-Oct |
| | | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 |
| 1 | ANDAMAN & NICOBAR ISLANDS | FWS | SCT | SCT | SCT | SCT | SCT | SCT |
| 2 | ARUNACHAL PRADESH | WS | FWS | FWS | SCT | SCT | FWS | WS |
| 3 | ASSAM & MEGHALAYA | WS | WS | FWS | FWS | FWS | FWS | WS |
| 4 | NAGALAND, MANIPUR, MIZORAM & TRIPURA | WS | FWS | FWS | FWS | FWS | FWS | FWS |
| 5 | SUB-HIMALAYAN WEST BENGAL & SIKKIM | WS | WS | FWS | SCT | SCT | FWS | FWS |
| 6 | GANGETIC WEST BENGAL | WS | FWS | SCT | ISOL | ISOL | SCT | SCT |
| 7 | ODISHA | FWS | FWS | SCT | ISOL | ISOL | SCT | SCT |
| 8 | JHARKHAND | WS | FWS | SCT | ISOL | ISOL | ISOL | ISOL |
| 9 | BIHAR | WS | WS | FWS | ISOL | ISOL | ISOL | ISOL |
| 10 | EAST UTTAR PRADESH | FWS | WS | FWS | SCT | SCT | ISOL | ISOL |
| 11 | WEST UTTAR PRADESH | SCT | SCT | SCT | ISOL | ISOL | DRY | DRY |
| 12 | UTTARAKHAND | WS | WS | FWS | SCT | ISOL | ISOL | ISOL |
| 13 | HARYANA CHANDIGARH & DELHI | SCT | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 14 | PUNJAB | SCT | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 15 | HIMACHAL PRADESH | WS | SCT | ISOL | ISOL | DRY | DRY | DRY |
| 16 | JAMMU & KASHMIR AND LADAKH | FWS | FWS | ISOL | DRY | DRY | DRY | DRY |
| 17 | WEST RAJASTHAN | ISOL | ISOL | ISOL | ISOL | DRY | DRY | DRY |
| 18 | EAST RAJASTHAN | SCT | FWS | SCT | SCT | ISOL | ISOL | DRY |
| 19 | WEST MADHYA PRADESH | FWS | FWS | FWS | SCT | ISOL | ISOL | ISOL |
| 20 | EAST MADHYA PRADESH | FWS | SCT | SCT | ISOL | ISOL | ISOL | ISOL |
| 21 | GUJARAT REGION | WS | WS | WS | FWS | SCT | ISOL | ISOL |
| 22 | SAURASHTRA & KUTCH | FWS | FWS | FWS | SCT | SCT | ISOL | ISOL |
| 23 | KONKAN & GOA | WS | WS | WS | FWS | FWS | SCT | SCT |
| 24 | MADHYA MAHARASHTRA | WS | WS | FWS | SCT | ISOL | ISOL | ISOL |
| 25 | MARATHAWADA | FWS | SCT | SCT | ISOL | ISOL | ISOL | ISOL |
| 26 | VIDARBHA | WS | WS | FWS | SCT | SCT | SCT | SCT |
| 27 | CHHATTISGARH | FWS | SCT | ISOL | ISOL | SCT | SCT | SCT |
| 28 | COASTAL ANDHRA PRADESH & YANAM | SCT | SCT | SCT | SCT | SCT | FWS | FWS |
| 29 | TELANGANA | FWS | SCT | ISOL | ISOL | SCT | SCT | SCT |
| 30 | RAYALASEEMA | SCT | ISOL | ISOL | ISOL | ISOL | SCT | SCT |
| 31 | TAMILNADU PUDUCHERRY & KARAIKAL | ISOL | ISOL | SCT | SCT | SCT | SCT | SCT |
| 32 | COASTAL KARNATAKA | WS | FWS | SCT | SCT | FWS | FWS | FWS |
| 33 | NORTH INTERIOR KARNATAKA | FWS | SCT | ISOL | ISOL | SCT | SCT | FWS |
| 34 | SOUTH INTERIOR KARNATAKA | SCT | ISOL | ISOL | FWS | FWS | FWS | FWS |
| 35 | KERALA & MAHE | SCT | SCT | FWS | WS | WS | FWS | FWS |
| 36 | LAKSHADWEEP | FWS | FWS | FWS | FWS | WS | FWS | FWS |

- As the lead period increases forecast accuracy decreases.





- Action may be taken based on **ORANGE AND RED COLOUR** warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.



Impact due to

- ✓ **Isolated extremely heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Madhya Maharashtra, Gujarat Region on 26th September.
- ✓ **Isolated heavy to very heavy rainfall** very likely over Arunachal Pradesh, Assam & Meghalaya, Jharkhand, Uttarakhand on 26th; Bihar on 26th & 27th September; East Uttar Pradesh during 26th-28th September; Sub-Himalayan West Bengal & Sikkim, Himachal Pradesh on 27th September.
- ✓ **Moderate flash flood risk** likely over few watersheds & neighbourhoods of Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Bihar, Gujarat Region, Madhya Maharashtra; **Low to Moderate flash flood risk** over few watersheds & neighbourhoods of Uttarakhand and Himachal Pradesh; **Moderate to high flash flood risk likely over few watersheds & neighbourhoods** of Konkan & Goa on 26th & 27th September. (**Annexure V**).

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 and roadways 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/landslips/mud slips/land sinks/mud sinks.
- ✓ Damage to horticulture and standing crops in some areas due to inundation and wind.
- ✓ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

Action Suggested

- ✓ Judicious regulation of surface transports including railways and roadways.
- ✓ 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

Agromet advisories for Heavy Rainfall likely over various parts of the country

- In Madhya Maharashtra and Marathwada regions of **Maharashtra**, postpone harvesting of matured soybean, groundnut, maize and pearl millet. Immediately move the harvested produce to safer places and cover them with plastic sheets or tarpaulin.
- In Konkan region of **Maharashtra**, make arrangements to drain out excess water from rice, finger millet, turmeric, groundnut, vegetables and orchards.
- Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Tamil Nadu, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Gujarat, Maharashtra, Goa, West Bengal, Odisha, Bihar and North Eastern States.
- Keep the harvested produce at safer places.
- ✓ Provide mechanical support to horticultural crops & staking to vegetables.

Flash Flood Warnings:

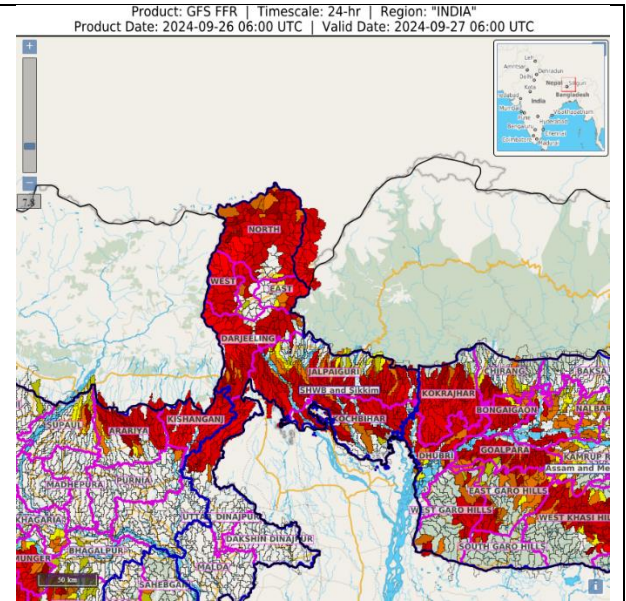
24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 27-09-2024 :

Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions in next 24 hours.

Assam & Meghalaya - Bongaigaon, Goalpara, Kokrajhar, Nalbari, Goalpara, West/East Khasi Hills and Dhubri districts.

SHWB & Sikkim - East Sikkim, North Sikkim, South Sikkim, West Sikkim, Darjeeling, Jalpaiguri, Koch behar and Uttar Dinajpur districts.

Bihar – Kishanganj, Arariya, Purnia and Supaul districts. Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over area of concern as shown in map due to expected rainfall occurrence in next 24 hours.



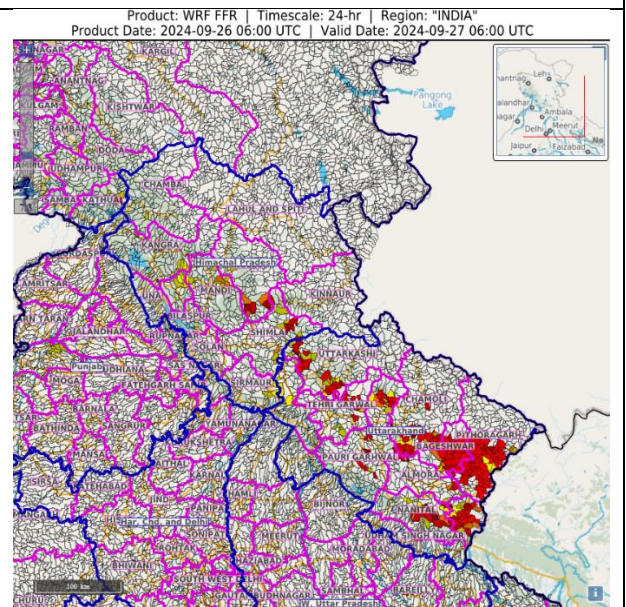
24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 27-09-2024 :

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions in next 24 hours.

Uttarakhand: - Dehradun, Uttarkashi, Tehri Gharwal, Pauri Gharwal, Nainital, Almora, Bageshwar, Rudraprayag, Pithoragarh and Chamoli districts

Himachal Pradesh: - Sirmour, Kangra, Chamba, Solan, Kullu, Shimla and Mandi districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over area of concern 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 27-09-2024 :

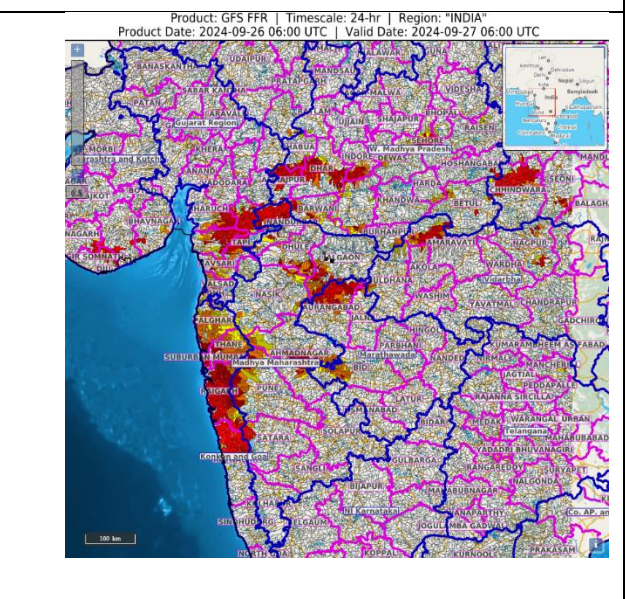
Moderate to high flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions in next 24 hours.

Konkan & Goa - Mumbai City, Palghar, Raigarh, Ratnagiri, Sindhudurg, Suburban Mumbai and Thane districts.

Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions in next 24 hours.

Gujarat Region - Daman, Bharuch, Chhota Udepur, Dangs, Narmada, Navsari, Surat, Tapi, Vadodara and Valsad districts.

Madhya Maharashtra - Ahmadnagar, Dhule, Nandurbar, Jalgaon, Kolhapur, Nasik, Pune and Satara districts.



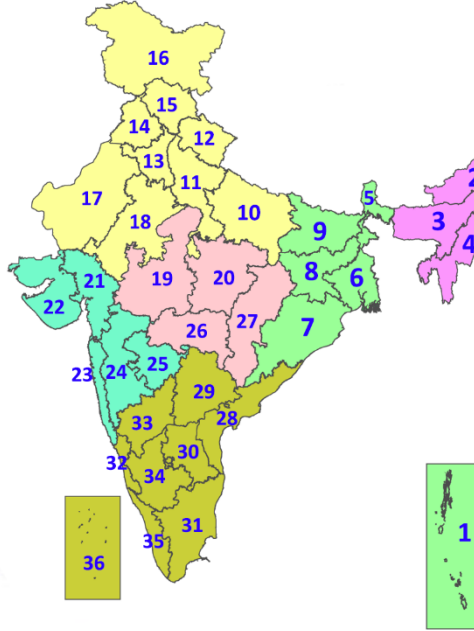
| | |
|---|--|
| Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over area of concern as shown in map due to expected rainfall occurrence in next 24 hours. | |
|---|--|

Legends & abbreviations:

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office, **Aero:** Aerodrome, **IAF:** Indian Air Force.
- ❖ **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-Himalayan 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 Marathawada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

LEGENDS

1. अंडमान और निकोबार द्वीपसमूह
2. अरुणाचल प्रदेश
3. असम और मेघालय
4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
5. उप-हिमालयी पश्चिम बंगाल और सिक्किम
6. गंगीय पश्चिम बंगाल
7. ओडिशा
8. झारखंड
9. बिहार
10. पूर्वी उत्तर प्रदेश
11. पश्चिम उत्तर प्रदेश
12. उत्तराखंड
13. हरियाणा, चंडीगढ़ और दिल्ली
14. पंजाब
15. हिमाचल प्रदेश
16. जम्मू और कश्मीर और लद्दाख
17. पश्चिम राजस्थान
18. पूर्वी राजस्थान
19. पश्चिम मध्य प्रदेश
20. पूर्वी मध्य प्रदेश
21. गुजरात
22. सौराष्ट्र
23. कोंकण और गोवा
24. मध्य महाराष्ट्र
25. मराठवाड़ा
26. विदर्भ
27. छत्तीसगढ़
28. तटीय आंध्र प्रदेश और यनम
29. तेलंगाना
30. रायलसेमा
31. तमिलनाडु, पुडुचेरी और कराईकल
32. तटीय कर्नाटक
33. आंतरिक उत्तरी कर्नाटक
34. आंतरिक दक्षिणी कर्नाटक
35. केरल और माहे
36. लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chandigarh & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathwada
26. Vidarbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. 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) |

- | | | |
|----------------------|----------------------|--------------|
| Fog | Heavy Snow | Cold Wave |
| Heavy Rain | Dust Storm | Cold Day |
| Very Heavy Rain | Heat Wave | Ground Frost |
| Extremely Heavy Rain | Warm Night | |
| Thunder & Lightning | Hot Day | |
| Hailstorm | Hot & Humid | |
| Dust Raising Winds | Strong Surface Winds | |

COLOUR CODED WARNING

- No Warning (No Action)
- Watch (Be Aware)
- Alert (Be Prepared To Take Action)
- Warning (Take Action)

Probabilistic Forecast

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

* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.
For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599
(Service to the Nation since 1875)

DEFINITION/CRITERIA

| | |
|------------------------|--|
| Rain/ Snow * | <p>Heavy: 64.5 to 115.5 mm/cm *</p> <p>Very Heavy: 115.6 to 204.4 mm/cm*</p> <p>Extremely Heavy: > 204.4 mm/cm *</p> |
| Heat Wave | <p>When maximum temperature of a station reaches $\geq 40^\circ\text{C}$ for plains and $\geq 30^\circ\text{C}$ for hilly regions</p> <p>(a) Based on Departure from normal</p> <p>Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C.</p> <p>Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^\circ\text{C}$</p> <p>(b). Based on Actual maximum temperature</p> <p>Heat Wave: When actual maximum temperature $\geq 45^\circ\text{C}$.</p> <p>Severe Heat Wave: When actual maximum temperature $\geq 47^\circ\text{C}$</p> <p>(c). Criteria for heat wave for coastal stations</p> <p>When maximum temperature departure is $>4.5^\circ\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^\circ\text{C}$</p> |
| Warm Night | <p>When maximum temperature remains 40°C</p> <p>Warm Night: When minimum temperature departure 4.5°C to 6.4°C.</p> <p>Severe Warm Night: When minimum temperature departure $>6.4^\circ\text{C}$.</p> |
| Cold Wave | <p>When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions.</p> <p>(a). Based on departure</p> <p>Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^\circ\text{C}$</p> <p>(b) Based on actual Minimum Temperature (for Plains only)</p> <p>Cold Wave : When Minimum Temperature is $\leq 4.0^\circ\text{C}$</p> <p>Severe Cold Wave: When Minimum Temperature is $\leq 2.0^\circ\text{C}$</p> <p>(c) For Coastal Stations</p> <p>When Minimum Temperature departure is $\leq -4.5^\circ\text{C}$ & actual Minimum Temperature is $\leq 15^\circ\text{C}$</p> |
| Cold Day | <p>When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions</p> <p>Based on departure</p> <p>Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^\circ\text{C}$</p> |
| Fog | <p>Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$</p> <p>Moderate Fog: When the visibility between 500-200 metres</p> <p>Dense Fog: when the visibility between 50- 200 metres</p> <p>Very Dense Fog: when the visibility < 50 metres</p> |
| Thunderstorm | <p>Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)</p> |
| Dust/Sand Storm | <p>An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.</p> |
| Frost | <p>Ice deposits on ground</p> <p>Air temperature $\leq 4^\circ\text{C}$ (over Plains)</p> |
| Squall | <p>A strong wind that rises suddenly, lasts for atleast 1 minute.</p> <p>Moderate: Wind speed 52-61 kmph</p> <p>Severe: Wind speed 62-87 kmph</p> <p>Very Severe: Wind speed >87 kmph</p> |
| Sea State | <p>Effect of various waves in the sea over specific area</p> <p>Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre</p> <p>High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre</p> <p>Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre</p> |
| Cyclone | <p>Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)</p> <p>Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)</p> <p>Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)</p> <p>Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)</p> <p>Super Cyclone Strom: Wind speed >220 kmph (>119 knots)</p> |

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