

Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 27th September, 2024

Time of Issue: 1315 hours IST

Subject: (i) Isolated extremely heavy rainfall very likely over Gujarat Region, East Uttar Pradesh, Bihar and Sub-Himalayan West Bengal & Sikkim on 27th September.
(ii) Rainfall activity likely to continue over parts of East India, West India and Western Himalayan region during next 2 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 Bihar, East Uttar Pradesh; **Heavy to very Heavy rainfall with extremely heavy rainfall** at isolated places over Gujarat Region, Chhattisgarh; **Heavy to very Heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Saurashtra & Kutch, West Madhya Pradesh; **Heavy rainfall** at isolated places over West Uttar Pradesh, Gangetic West Bengal, Madhya Maharashtra, Odisha, Jharkhand, Coastal Andhra Pradesh & Yanam, Konkan & Goa, Vidarbha, Uttarakhand, Arunachal Pradesh, Himachal Pradesh, Jammu-Kashmir, East Madhya Pradesh, Assam & Meghalaya.

Weather Systems:

- ✓ Yesterday's cyclonic circulation over north Madhya Maharashtra & neighbourhood now lies over southwest Madhya Pradesh & neighbourhood extending upto middle tropospheric levels.
- ✓ The trough runs from south Gujarat to northwest Bihar across the cyclonic circulation over southwest Madhya Pradesh extending upto middle tropospheric levels.
- ✓ A cyclonic circulation lies over northeast Assam & neighbourhood extending upto middle tropospheric levels.

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

West India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Konkan & Goa, 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 Gujarat Region on 27th September.**
- ✓ **Isolated heavy to very heavy rainfall** also very likely over Konkan & Goa, Madhya Maharashtra, Saurashtra & Kutch on 27th September
- ✓ **Isolated heavy rainfall** very likely over Madhya Maharashtra, Gujarat State on 28th September.

East & Northeast India

- ✓ Scattered to Fairly widespread light to moderate rainfall very likely over East India during next 4 days and Fairly widespread to widespread light/moderate rainfall over the remaining region during subsequent next 3 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, Bihar on 27th September.**
- ✓ **Isolated heavy rainfall** very likely over Jharkhand, Odisha on 27th September; Arunachal Pradesh on 27th September & during 01st-03rd October; Assam & Meghalaya on 27th September & during 29th September-03rd October; Sub-Himalayan West Bengal & Sikkim, Bihar on 28th September; Nagaland, Manipur, Mizoram & Tripura during 30th September-03rd 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 to very heavy rainfall** also very likely over West Madhya Pradesh on 27th September.
- ✓ **Isolated heavy rainfall** very likely over East Madhya Pradesh, Vidarbha, Chhattisgarh on 27th; West Madhya Pradesh on 28th September.

Northwest India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over East Uttar Pradesh during next 3 days & Isolated to Scattered light to moderate rainfall over the same region during subsequent next 4 days; Scattered to Fairly widespread light to moderate rainfall over Uttarakhand during next 2 days & Isolated to Scattered light to moderate rainfall over Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, West Uttar Pradesh during next 3-4 days and dry weather likely to prevail over the same region during subsequent next 3-4 days.
- ✓ **Heavy to very Heavy rainfall with extremely heavy rainfall very likely over East Uttar Pradesh on 27th September.**
- ✓ **Isolated heavy to very heavy rainfall** very likely over East Uttar Pradesh during 28th 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

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Kerala & Mahe, Lakshadweep during the week; Scattered to Fairly widespread light to moderate rainfall over the region during the week.
- ✓ **Isolated heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal during next 27th-29th; Kerala & Mahe during 28th September- 02nd October.

Southwest Monsoon withdrawal Map (ANNEXURE IV)

For more details, kindly refer:

https://mausam.imd.gov.in/responsive/all_india_forecast_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 27.09.2024 (in cm):

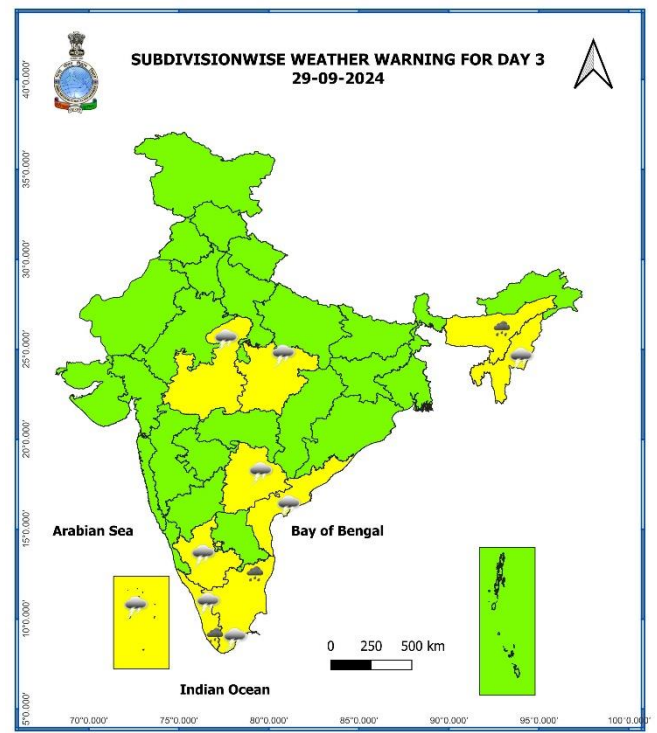
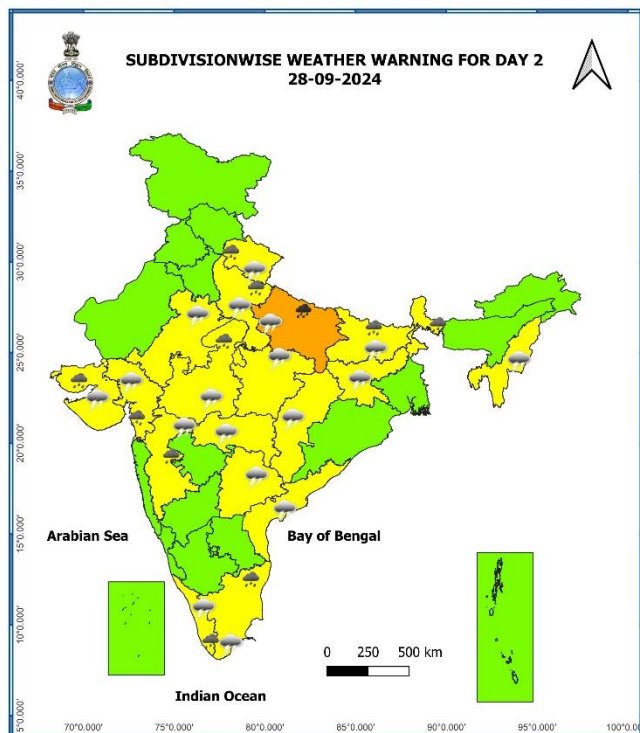
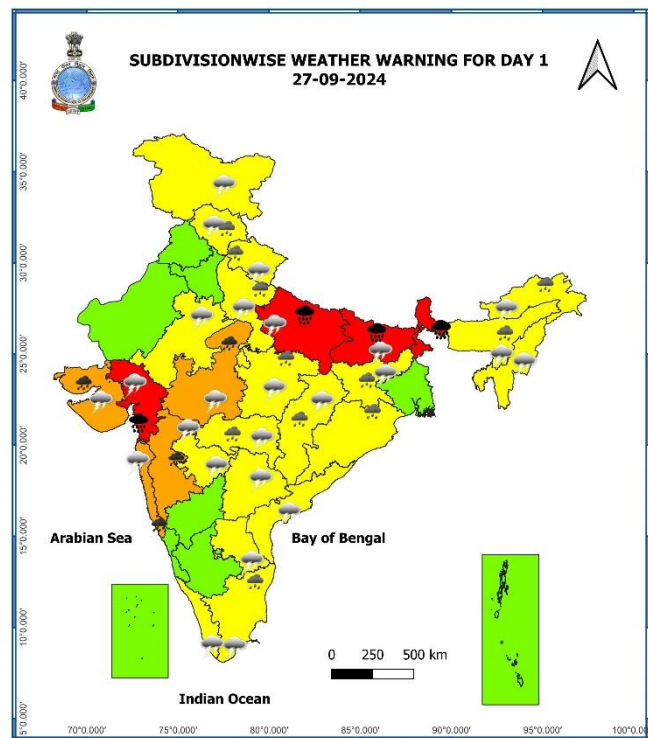
- ❖ **Bihar:** Forbesganj (dist Araria) 34, Jokihat (dist Araria) 31, Chargharia (dist Kishanganj) 29, Palasi (dist Araria) 28, Raniganj (dist Araria) 27, Sikti (dist Araria) 27, Tedhagach (dist Kishanganj) 27, Bahargama (dist Araria) 26, Kochadhaman (dist Kishanganj) 25, Srinagar (dist Purnea) 25, Kursakanta (dist Araria) 23, Kishanganj (dist Kishanganj) 23, Araria (dist Araria) 22, Narpatganj (dist Araria) 20, Dagarua (dist Purnea) 20, Rahghopur (dist Supaul) 20, Taibpur (dist Kishanganj) 20, Bahadurganj (dist Kishanganj) 20, Jalalgarh (dist Purnea) 20, Pothia (dist Kishanganj) 20, Krityanand Nagar (dist Purnea) 20, Dhengraghat (dist Purnea) 19, Thakurganj (dist Kishanganj) 19, Kasba (dist Purnea) 19, Pratapganj (dist Supaul) 18, Mansahi (dist Katihar) 18, Baisa (dist Purnea) 17, Manihari (dist Katihar) 17, Katihar (dist Katihar) 17, Dighalbank (dist Kishanganj) 17, Madhipura (dist Madhepura) 16, Baisi (dist Purnea) 15, Kumarkhand (dist Madhepura) 15, Birpur (dist Supaul) 15, Purnea (dist Purnea) 15, Banmankhi (dist Purnea) 15, Amaur (dist Purnea) 14, Singheshwar (dist Madhepura) 14, Saraigarh Bhaptiyahi (dist Supaul) 14, Andhratharhi (dist Madhubani) 14, Murliganj (dist Madhepura) 13, Supaul (dist Supaul) 13, Tribeniganj (dist Supaul) 13, Darauli (dist Siwan) 13, Raghunathpur (dist Siwan) 13, Kishanpur (dist Supaul) 13, Jhanjharpur (dist Madhubani) 12, Madhepur (dist Madhubani) 12, Madhwapur (dist Madhubani) 12, Basua (dist Supaul) 12, Pipra (dist Supaul) 12, Chhatapur (dist Supaul) 11, Ghoghardiha (dist Madhubani) 11, Nirmali (dist Supaul) 11, Sikta (dist West Champaran) 11, Gualpara (dist Madhepura) 11, Mairwa (dist Siwan) 11, Galgalia (dist Kishanganj) 11, Rajnagar (dist Madhubani) 11, Mushari (dist Muzaffarpur) 10, Dhamdaha (dist Purnea) 10, Bathnaha (dist Sitamarhi) 10, Kucchaikot (dist Gopalganj) 9, Areraj (dist East Champaran) 9, Patarghat (dist Saharsa) 9, Marauna (dist Supaul) 9, Amdabad (dist Katihar) 9, Bhore (dist Gopalganj) 9, Korha (dist Katihar) 9, Ghanharia (dist Madhepura) 9, Sattar Kataiya (dist Saharsa) 9, Ziradei (dist Siwan) 9, Barari (dist Katihar) 9, Siswan (dist Siwan) 8, Sonbarsa (dist Saharsa) 8, Saulighat (dist Madhubani) 8, Ghanshyampur (dist Darbhanga) 8, Ghailadh (dist Madhepura) 8, Benipatti (dist Madhubani) 8, Babubarhi (dist Madhubani) 8, Pachdeuri (dist Gopalganj) 8, Barahar Kothi (dist Purnea) 8, Pandaul (dist Madhubani) 8, Nautan (dist Siwan) 7, Kadwa (dist Katihar) 7, Bokhara (dist Sitamarhi) 7, Hathwa (dist Gopalganj) 7, Kahara (dist Saharsa) 7, Baitunthpur (dist Gopalganj) 7, Lalbegiaghat (dist East Champaran) 7, Runnisaidpur (dist Sitamarhi) 7, Barsoi (dist Katihar) 7, Gopalganj (dist Gopalganj) 7, Phulwaria (dist Gopalganj) 7, Goriakothi (dist Siwan) 7, Lakri Nabiganj (dist Siwan) 7, Uchakagaon (dist Gopalganj) 7, Sursand (dist Sitamarhi) 7, Siwan Sadar (dist Siwan) 7, UdaiKishanganj (dist Madhepura) 7,
- ❖ **East Uttar Pradesh:** Lambhuua (dist Sultanpur) 27, Sultanpur Obsy (dist Sultanpur) 20, Azamgarh (dist Azamgarh) 16, Deogaon Lalganj (dist Azamgarh) 15, Tanda (dist Ambedkar Nagar) 15, Bhanpur (dist Basti) 13, Pratapgarh (t) (dist Pratapgarh) 12, Ayodhya (dist Ayodhya) 12, Patti (dist Pratapgarh) 11, Sultanpur Cwc (dist Sultanpur) 10, Akbarpur Fmo (dist Ambedkar Nagar) 10, Ghazipur Obsy (dist Ghazipur) 9, Phoolpur Teh (dist Azamgarh) 9, Dhanghata (dist Sant Kabir Nagar) 8, Ayodhya (ag) (dist Ayodhya) 8, Ghazipur Cwc (dist Ghazipur) 8, Haraiya (dist Basti) 8, Gorakhpur (dist Gorakhpur) 7, Akbarpur (dist Ambedkar Nagar) 7,
- ❖ **Gujarat Region:** Vyara (dist Tapi) 21, Daman (dist Daman) 16, Songadh (dist Tapi) 16, Daman Fmo (dist Daman) 15, Daman_aws (dist Daman) 12, Pardi (dist Valsad) 11, Vyara_aws (dist Tapi) 10, Umernagar (dist Valsad) 9, Valod (dist Tapi) 8, Navasari_aws (dist Navsari) 8, Jalalpor (dist Navsari) 8, Uchchhal (dist Tapi) 7, Dangs (ahwa) (dist Dangs) 7, Bardoli (dist Surat) 7, Khergam (dist Navsari) 7,
- ❖ **Chhattisgarh:** Kusmi (dist Balrampur) 21, Ramanujnagar (dist Surajpur) 12, Bhatgaon (dist Surajpur) 9, Rajpur (dist Balrampur) 9, Pathalgaon (dist Jashpur) 8,
- ❖ **Saurashtra & Kutch:** Visavadar (dist Junagadh) 16, Ghoga_arg (dist Bhavnagar) 15, Ghogha (dist Bhavnagar) 15, Palitana (dist Bhavnagar) 11, Vallabhipur (dist Bhavnagar) 11, Diu (dist Diu) 10, Una (dist Gir Somnath) 10, Shihor (dist Bhavnagar) 10, Bhesan (dist Junagadh) 9, Chuda (dist Surendranagar) 9, Sayla (dist Surendranagar) 9, Bhavnagar (dist Bhavnagar) 9, Kodinar (dist Gir Somnath) 9, Sutrapada (dist Gir Somnath) 9, Vadia (dist Amreli) 9, Lilia (dist Amreli) 7,

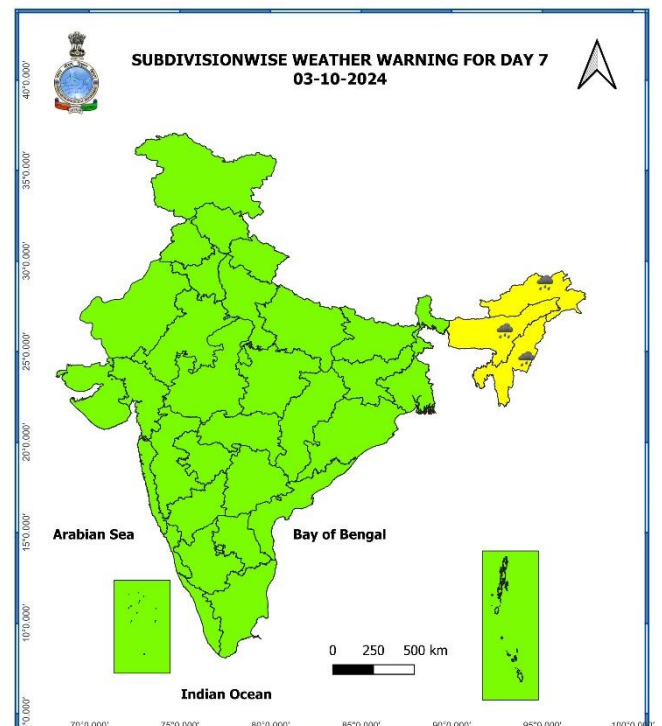
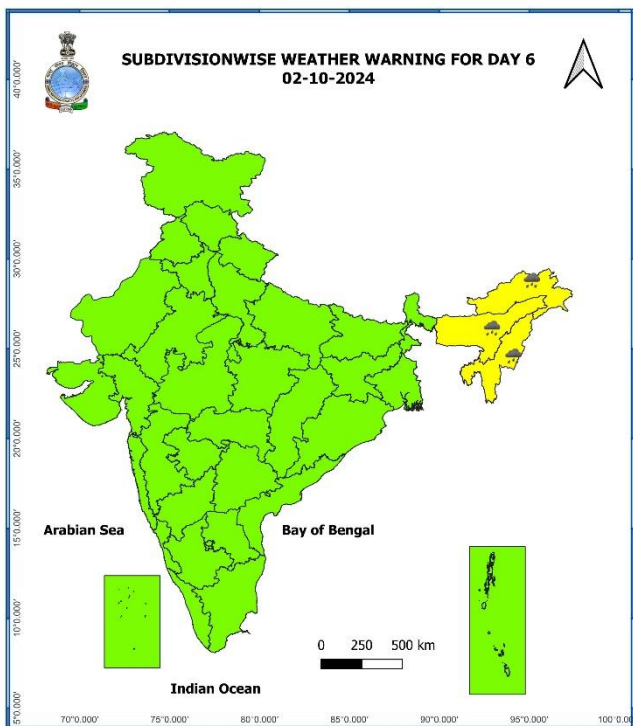
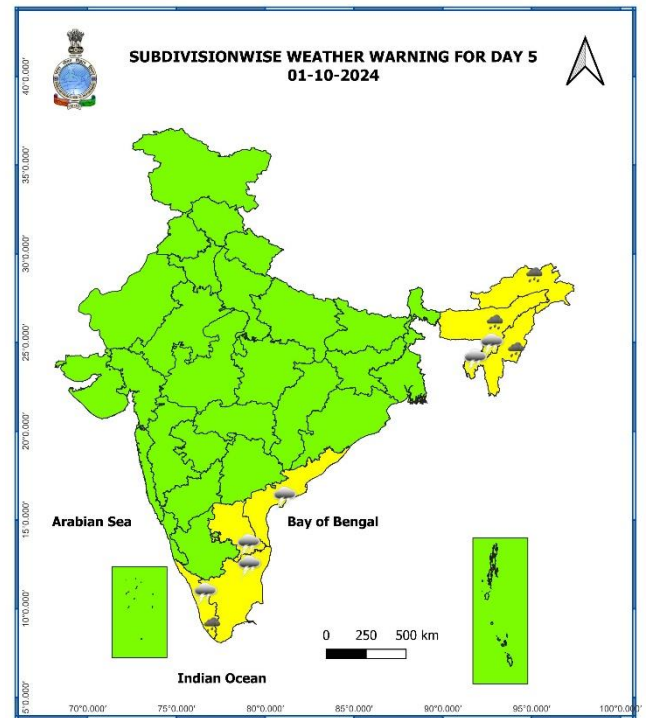
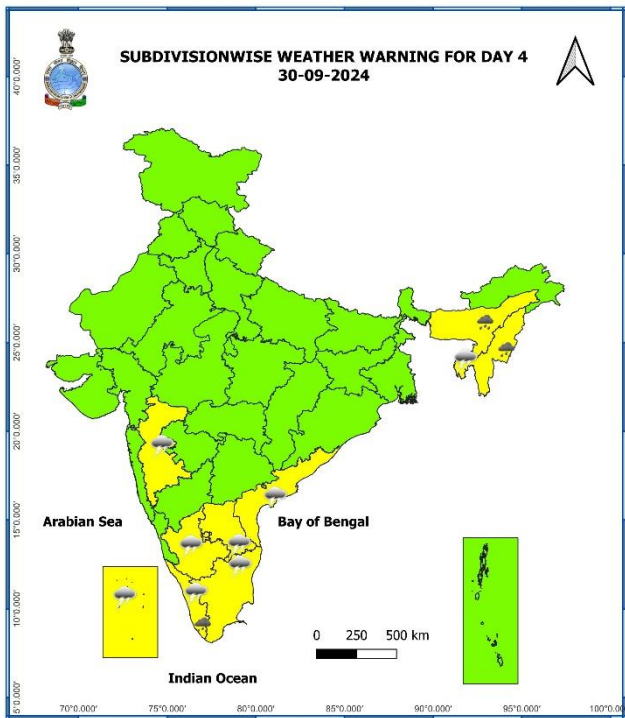
- ❖ **Sub-Himalayan West Bengal & Sikkim:** Raiganj (pto) (dist North Dinajpur) 14, Mekhliganj (dist Cooch Behar) 14, Buxaduar (dist Alipurduar) 14, Balurghat (dist South Dinajpur) 13, Amfu Majhian (dist South Dinajpur) 11, Jalpaiguri (dist Jalpaiguri) 11, Yuksom (dist Gyalshing) 11, Domohani (dist Jalpaiguri) 11, Siliguri Pto (dist Darjeeling) 11, Lava (dist Kalimpong) 10, Hasimara (dist Alipurduar) 10, Falakata (dist Alipurduar) 9, Dinhata (dist Cooch Behar) 9, Damthang (dist Namchi) 9, Munsong (dist Darjeeling) 9, Bhutanghat (dist Alipurduar) 9, Bagdogra Iaf (dist Darjeeling) 9, Champasari (dist Darjeeling) 8, Ravangla Arg (dist Namchi) 8, Majitar (dist Pakyong) 8, Bagrakote (dist Jalpaiguri) 8, Darjeeling (dist Darjeeling) 8, Gajoldoba (dist Jalpaiguri) 8, Kumargram (dist Alipurduar) 7, Gyalsing (pto) (dist Gyalshing) 7, Pakyong (dist Pakyong) 7, Nh31 Bridge (dist Jalpaiguri) 7, Dhupguri (dist Jalpaiguri) 7, Malda (dist Malda) 7, Chengmari/diana (dist Jalpaiguri) 7, Tadong (dist Gangtok) 7, Nagarkata (dist Jalpaiguri) 7, Rongli (dist Pakyong) 7, Soreng Arg (dist Soreng) 7, Bijonbari (dist Darjeeling) 7, Pedong (dist Kalimpong) 7, Barobhisha (dist Alipurduar) 7,
- ❖ **West Madhya Pradesh:** Khirkiya-arg (dist Harda) 12, Depalpur (dist Indore) 8, Udainagar (dist Dewas) 7,
- ❖ **West Uttar Pradesh:** Najibabad (t) (dist Bijnor) 11,
- ❖ **Madhya Maharashtra: Konkan & Goa:** Matheran (dist Raigad) 10, Mhasla (dist Raigad) 9, Palghar_agri (dist Palghar) 9, Mangaon (dist Raigad) 8, Murbad (dist Thane) 8, Dapoli_agri (dist Ratnagiri) 7, Santacruz – Imd Obsy (dist Mumbai Suburban) 7, Poladpur (dist Raigad) 7, Vasai (dist Palghar) 7, Vikramgad (dist Palghar) 7,
- ❖ **Odisha:** Kantapada (Cuttack) 11, Pipili (Puri) 11, Banki (Cuttack) 11, Padampur (Bargarh) 10, Khordha Pto (Khurda) 9, Bhuban (Dhenkanal) 8, Jatni (Khurda) 7, Gop (Puri) 7, Satyabadi (Puri) 7, Niali (Cuttack) 7, Bhograi (Balasore) 7,
- ❖ **Jharkhand:** Sahibganj Kvk Aws (dist Sahibganj) 11, Mahuadnr (dist Latehar) 9, Borio (dist Sahibganj) 8, Nandadih (dist Giridih) 8, Ramgarh (dist Palamu) 7,
- ❖ **Coastal Andhra Pradesh & Yanam:** Kalingapatnam (dist Srikakulam) 10, Visakhapatnam (dist Vishakhapatnam) 9,
- ❖ **Konkan & Goa:** Matheran (dist Raigad) 10, Mhasla (dist Raigad) 9, Palghar_agri (dist Palghar) 9, Mangaon (dist Raigad) 8, Murbad (dist Thane) 8, Dapoli_agri (dist Ratnagiri) 7, Santacruz – Imd Obsy (dist Mumbai Suburban) 7, Poladpur (dist Raigad) 7, Vasai (dist Palghar) 7, Vikramgad (dist Palghar) 7,
- ❖ **Vidarbha:** Nagpur (aws) (dist Nagpur) 10, Wardha (Aws) (dist Wardha) 7, Hingna (dist Nagpur) 7, Gondia Ap (dist Gondia) 7,
- ❖ **Gangetic West Bengal:** Contai (dist East Midnapore) 10;
- ❖ **Uttarakhand:** Banbasa(Champawat) : 9,
- ❖ **Arunachal Pradesh:** Oyan Arg (dist East Siang) 9, Miao (dist Changlang) 7,
- ❖ **Himachal Pradesh:** Jogindarnagar (dist Mandi) 8, Palampur (dist Kangra) 8, Baijnath (dist Kangra) 7,
- ❖ **Jammu-Kashmir:** Bakore Arg (dist Jammu) 7,
- ❖ **East Madhya Pradesh:** Patera (dist Damoh) 7, Patan (dist Jabalpur) 7,
- ❖ **Assam & Meghalaya:** Dhubri_Cwc (dist Dhubri) 7, Williamnagar (dist East Garo Hills) 7,

7 Days Rainfall Forecast

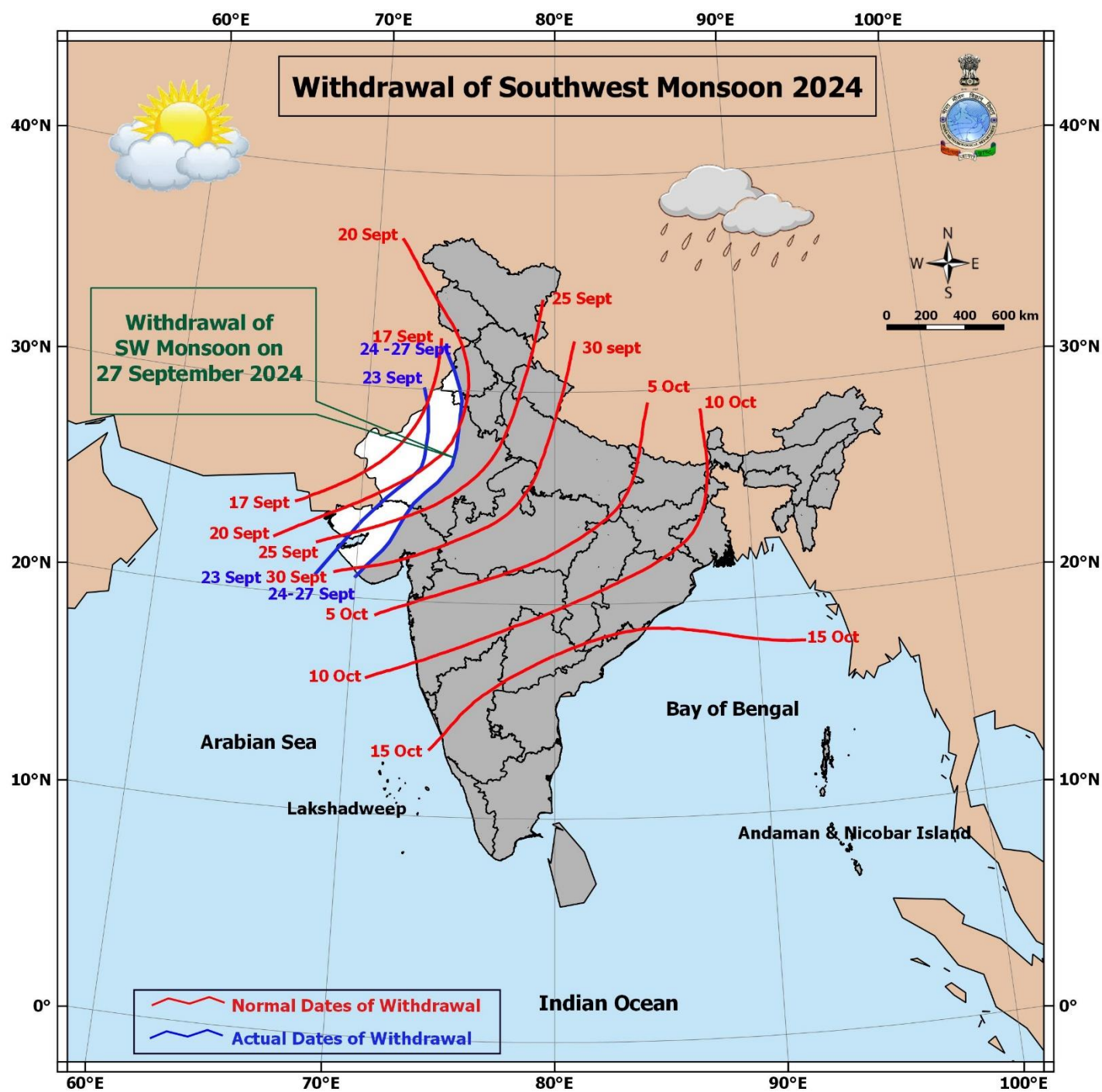
S. No.	Subdivision	27-Sep	28-Sep	29-Sep	30-Sep	01-Oct	02-Oct	03-Oct
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	SCT	SCT	SCT	FWS	FWS	FWS
2	ARUNACHAL PRADESH	FWS	SCT	SCT	SCT	FWS	WS	WS
3	ASSAM & MEGHALAYA	FWS	FWS	FWS	FWS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	SCT	SCT	SCT	SCT	FWS	FWS	FWS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	WS	FWS	SCT	SCT	FWS	FWS	FWS
6	GANGETIC WEST BENGAL	FWS	SCT	ISOL	ISOL	SCT	SCT	SCT
7	ODISHA	FWS	SCT	ISOL	ISOL	SCT	SCT	SCT
8	JHARKHAND	FWS	SCT	ISOL	ISOL	ISOL	SCT	SCT
9	BIHAR	WS	FWS	SCT	ISOL	ISOL	SCT	SCT
10	EAST UTTAR PRADESH	WS	FWS	SCT	SCT	ISOL	ISOL	ISOL
11	WEST UTTAR PRADESH	SCT	SCT	ISOL	ISOL	DRY	DRY	DRY
12	UTTARAKHAND	FWS	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
13	HARYANA CHANDIGARH & DELHI	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	SCT	ISOL	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	SCT	ISOL	ISOL	DRY	DRY	DRY	DRY
16	JAMMU & KASHMIR AND LADAKH	FWS	ISOL	DRY	DRY	DRY	DRY	DRY
17	WEST RAJASTHAN	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	SCT	ISOL	ISOL	ISOL	ISOL	DRY	DRY
19	WEST MADHYA PRADESH	FWS	FWS	SCT	ISOL	ISOL	ISOL	ISOL
20	EAST MADHYA PRADESH	FWS	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
21	GUJARAT REGION	WS	WS	FWS	SCT	ISOL	ISOL	ISOL
22	SAURASHTRA & KUTCH	WS	FWS	SCT	ISOL	ISOL	DRY	DRY
23	KONKAN & GOA	WS	WS	FWS	SCT	SCT	SCT	SCT
24	MADHYA MAHARASHTRA	WS	FWS	ISOL	ISOL	ISOL	ISOL	ISOL
25	MARATHAWADA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
26	VIDARBHA	WS	FWS	FWS	SCT	SCT	ISOL	ISOL
27	CHHATTISGARH	FWS	SCT	ISOL	ISOL	SCT	SCT	SCT
28	COASTAL ANDHRA PRADESH & YANAM	FWS	SCT	SCT	SCT	FWS	FWS	FWS
29	TELANGANA	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
30	RAYALASEEMA	SCT	ISOL	ISOL	ISOL	SCT	SCT	SCT
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	SCT	SCT	ISOL	ISOL	SCT	SCT
32	COASTAL KARNATAKA	FWS	SCT	FWS	FWS	FWS	FWS	FWS
33	NORTH INTERIOR KARNATAKA	SCT	ISOL	ISOL	SCT	FWS	FWS	FWS
34	SOUTH INTERIOR KARNATAKA	ISOL	SCT	FWS	SCT	FWS	FWS	FWS
35	KERALA & MAHE	FWS	WS	WS	WS	FWS	FWS	FWS
36	LAKSHADWEEP	FWS	FWS	WS	WS	FWS	SCT	SCT

- 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 Gujarat Region, Sub-Himalayan West Bengal & Sikkim, Bihar, East Uttar Pradesh on 27th September.
- ✓ **Isolated heavy to very heavy rainfall** very likely over West Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Saurashtra & Kutch on 27th; East Uttar Pradesh on 28th September.
- ✓ **Moderate flash flood risk** likely over few watersheds & neighbourhoods of south Gujarat Region, Konkan & Goa; **Low to Moderate flash flood risk** over few watersheds & neighbourhoods of Madhya Maharashtra, south Saurashtra & Kutch, East Uttar Pradesh, Bihar on 27th & 28th 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 region 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 Tamilnadu, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Gujarat, Goa, West Bengal, Odisha, Bihar and Jharkhand.
- 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 28-09-2024 :**

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

East Uttar Pradesh - Ambedkarnagar, Azamgarh, Sultanpur, Kaushambi, Varansi, Mirzapur, Basti, Sant Kabirnagar, Siddharthnagar, Maharajganj, Kushinagar, Prayagraj and Jaunpur districts.

Bihar - Pashim Champaran, Purbi Champaran, Sithamarhi, Sheopur, Muzaffarpur, Gopalganj, Siwan, Saran, Vaishali, Patna, Jahanabad, Madhubani and Bhojpur districts

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 28-09-2024 :

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

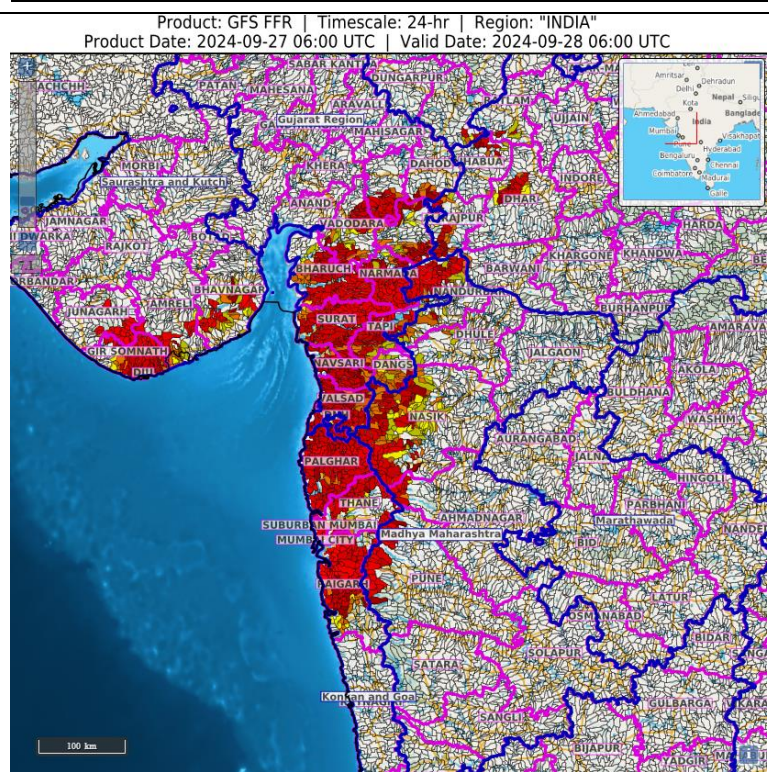
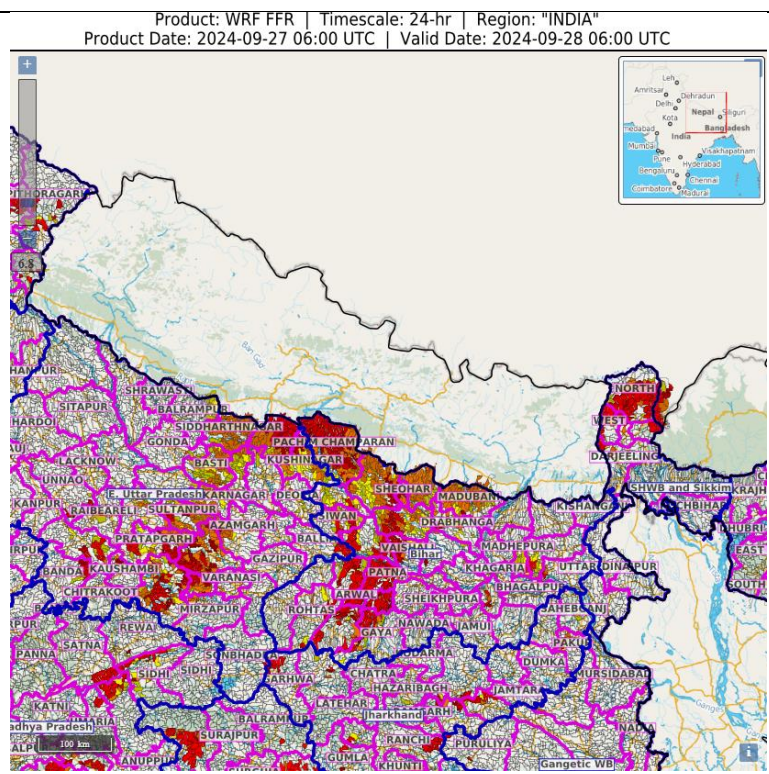
South Gujarat Region - Dadar & Nagar Haveli, Daman, Bharuch, Dangs, Narmada, Navsari, Surat, Tapi and Valsad districts.
Konkan & Goa - Mumbai City, Palghar, Raigarh, Ratnagiri, Suburban Mumbai and Thane districts.

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

Madhya Maharashtra - Ahmadnagar, Dhule, Nandurbar, Nasik districts

South Saurashtra & Kutch - Amreli, Bhavnagar, Gir Somnath and Junagarh districts.

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.

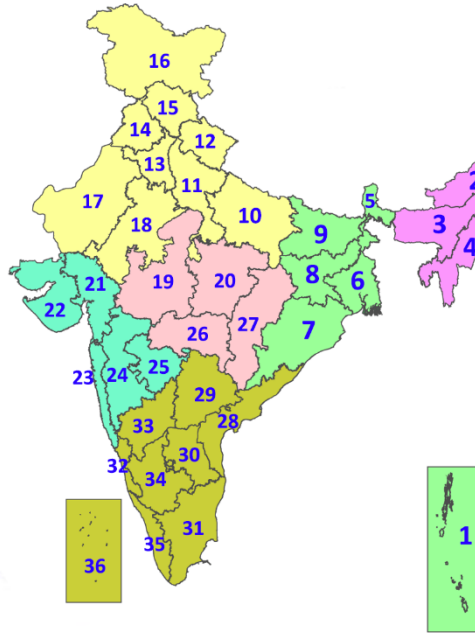


Legends & abbreviations:

- ❖ **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. रायलसीमा
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 *

Heavy: 64.5 to 115.5 mm/cm *
Very Heavy: 115.6 to 204.4 mm/cm*
Extremely Heavy: > 204.4 mm/cm *

Heat Wave

When maximum temperature of a station reaches $\geq 40^\circ \text{C}$ for plains and $\geq 30^\circ \text{C}$ for hilly regions
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C .

Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^\circ \text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^\circ \text{C}$.

Severe Heat Wave: When actual maximum temperature $\geq 47^\circ \text{C}$

(c) Criteria for heat wave for coastal stations

When maximum temperature departure is $> 4.5^\circ \text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^\circ \text{C}$

Warm Night

When maximum temperature remains 40°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°C .

Severe Warm Night: When minimum temperature departure $> 6.4^\circ \text{C}$.

Cold Wave

When minimum temperature of a station $\leq 10^\circ \text{C}$ for plains and $\leq 0^\circ \text{C}$ for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^\circ \text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave: When Minimum Temperature is $\leq 4.0^\circ \text{C}$

Severe Cold Wave: When Minimum Temperature is $\leq 2.0^\circ \text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^\circ \text{C}$ & actual Minimum Temperature is $\leq 15^\circ \text{C}$

Cold Day

When minimum temperature of a station $\leq 10^\circ \text{C}$ for plains and $\leq 0^\circ \text{C}$ for hilly regions

Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^\circ \text{C}$

Fog

Phenomenon of small droplets suspended in air and the horizontal visibility $< 1 \text{ km}$

Moderate Fog: When the visibility between 500-200 metres

Dense Fog: when the visibility between 50- 200 metres

Very Dense Fog: when the visibility < 50 metres

Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)

Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.

Frost

Ice deposits on ground

Air temperature $\leq 4^\circ \text{C}$ (over Plains)

Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph

Severe: Wind speed 62-87 kmph

Very Severe: Wind speed > 87 kmph

Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre

High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre

Phenomenal: Wind speed > 117 kmph (> 63 knots) & Wave height > 14 metre

Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)

Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)

Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)

Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)

Super Cyclone Strom: Wind speed > 220 kmph (> 119 knots)

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