



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 05<sup>th</sup> September, 2024

Time of Issue: 1330 hours IST

**Subject: Heavy to very heavy rainfall likely over Gujarat, Maharashtra & Coastal Andhra Pradesh on today and over East Rajasthan & Uttarakhand during next 3 days and decrease thereafter.**

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

**Heavy to very heavy rainfall** at isolated places Sub-Himalayan West Bengal & Sikkim, East Rajasthan, Telangana & Bihar; **Heavy rainfall** at isolated places over Uttar Pradesh, Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Himachal Pradesh, Haryana-Chandigarh-Delhi, Punjab, West Rajasthan, Chhattisgarh, East Madhya Pradesh, Konkan & Goa, Jharkhand, Odisha, Assam & Meghalaya.

**Weather Systems:**

- ✓ The monsoon trough is active and its western end is near its normal position and eastern end is south of its normal position at mean sea level. It is likely to continue so for next 2-3 days.
- ✓ Under the influence of **cyclonic circulation** over Coastal Andhra Pradesh & neighbourhood in lower & middle tropospheric levels a **low pressure area** has formed over westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh- south Odisha Coast it is likely to move slowly northwards during next 2 days.
- ✓ The cyclonic circulation over Haryana & neighbourhood now lies over northwest Uttar Pradesh & adjoining Haryana tilting southwestwards with height upto mid tropospheric level.

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

❖ **West & Central India:**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over West India & Chhattisgarh; Scattered to Fairly widespread light/moderate rainfall very likely over Central India during the week.
- ✓ Isolated **very heavy rainfall** very likely over Madhya Maharashtra, Gujarat Region, Konkan & Goa on 05<sup>th</sup> September.
- ✓ Isolated **heavy rainfall** very likely over Chhattisgarh during next 7 days; Madhya Maharashtra during 06<sup>th</sup> -10<sup>th</sup>, Konkan & Goa during 05<sup>th</sup> -10<sup>th</sup>; Saurashtra & Kutch on 05<sup>th</sup> & 06<sup>th</sup>; Gujarat Region during 05<sup>th</sup> -08<sup>th</sup>; Madhya Pradesh during 06<sup>th</sup> -08<sup>th</sup>; East Madhya Pradesh on 05<sup>th</sup>; Vidarbha during 08<sup>th</sup> -11<sup>th</sup> September.

❖ **South Peninsular India:**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Coastal Karnataka; Scattered to Fairly widespread

light/moderate rainfall over Lakshadweep, Rayalaseema, Telangana; isolated to scattered rainfall over Tamil Nadu, Puducherry & Karaikal, Interior Karnataka during the week.

- ✓ Isolated **very heavy rainfall** very likely over Coastal Andhra Pradesh & Yanam on 05<sup>th</sup> September.
- ✓ Isolated **heavy rainfall** very likely over Kerala & Mahe during 08<sup>th</sup> -11<sup>th</sup>; Coastal Andhra Pradesh & Yanam during 06<sup>th</sup> -08<sup>th</sup>; Telangana during 05<sup>th</sup> -08<sup>th</sup>; Coastal Karnataka during 05<sup>th</sup>-09<sup>th</sup> September.

#### ❖ **East & Northeast India**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Northeast India, Andaman & Nicobar Islands, Odisha, Sub-Himalayan West Bengal & Sikkim; Scattered to Fairly widespread light/moderate rainfall very likely over Gangetic West Bengal, Bihar & Jharkhand during the week.
- ✓ Isolated **very heavy rainfall** very likely over Arunachal Pradesh on 05<sup>th</sup>; Nagaland, Manipur, Mizoram & Tripura on 11<sup>th</sup>; Assam & Meghalaya on 07<sup>th</sup>; Odisha on 07<sup>th</sup> & 08<sup>th</sup> September.
- ✓ Isolated **heavy rainfall** very likely over Assam & Meghalaya & Nagaland, Manipur, Mizoram & Tripura during next 7 days; Sub-Himalayan West Bengal & Sikkim on 05<sup>th</sup>; Bihar on 05<sup>th</sup> & 06<sup>th</sup>; Jharkhand during 07<sup>th</sup> -09<sup>th</sup>; Odisha during 05<sup>th</sup> -09<sup>th</sup>; Arunachal Pradesh on 05<sup>th</sup>, 06<sup>th</sup>, 10<sup>th</sup> & 11<sup>th</sup> September.

#### ❖ **Northwest India**

- ✓ Scattered to Fairly widespread light/moderate rainfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Uttar Pradesh, East Rajasthan; isolated to scattered rainfall over Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi & West Rajasthan during the week.
- ✓ Isolated **very heavy rainfall** very likely over Uttarakhand on 05<sup>th</sup> & 06<sup>th</sup>; East Rajasthan during 05<sup>th</sup> -07<sup>th</sup> September.
- ✓ Isolated **heavy rainfall** very likely over Uttarakhand during 05<sup>th</sup> -07<sup>th</sup>, West Uttar Pradesh on 05<sup>th</sup>; East Uttar Pradesh on 05<sup>th</sup> & 06<sup>th</sup>; West Rajasthan during 05<sup>th</sup> -07<sup>th</sup>; East Rajasthan during 05<sup>th</sup> -09<sup>th</sup> September.

**For more details, kindly refer to National bulletin on: <https://rsmcnewdelhi.imd.gov.in/>**

**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)**

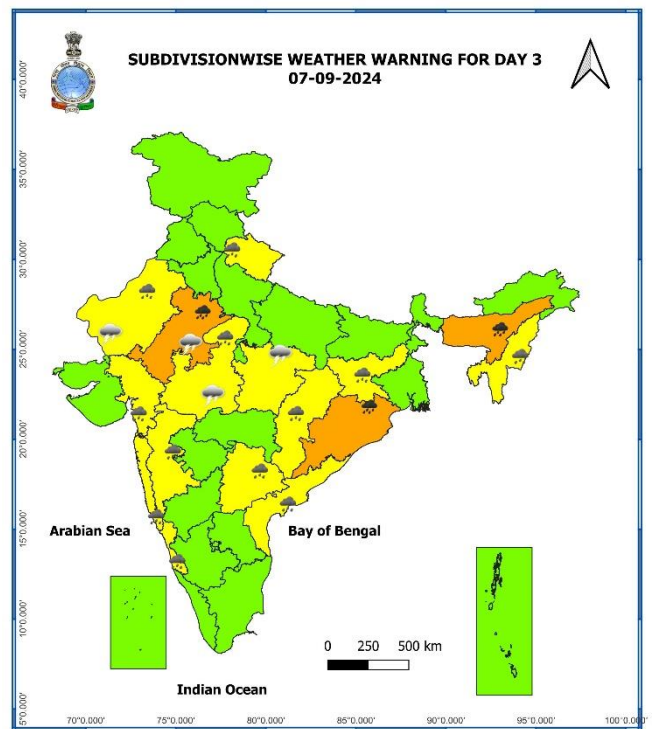
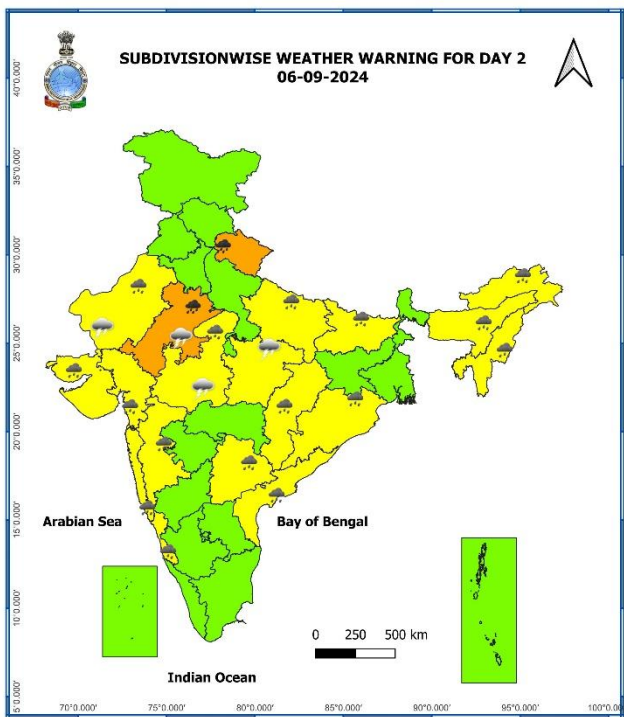
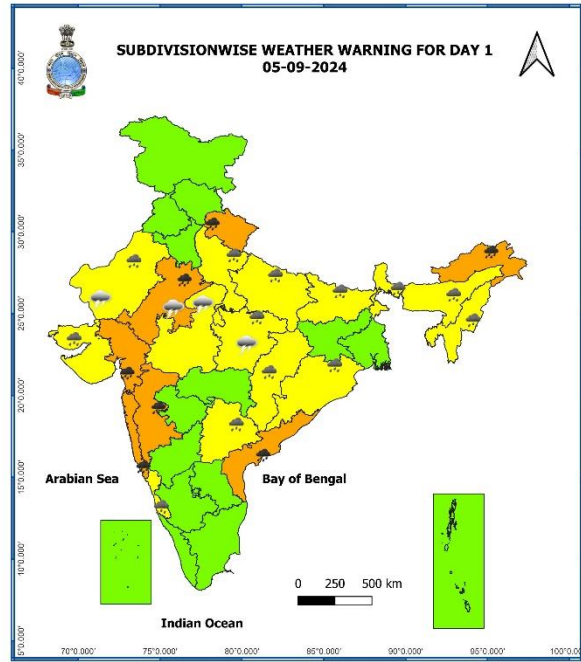
**For District wise warnings refer: <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.ph>**

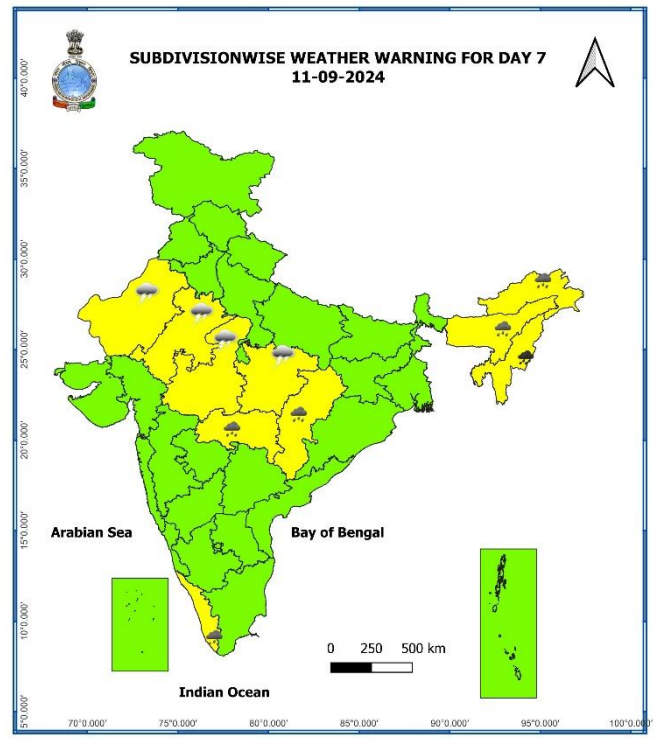
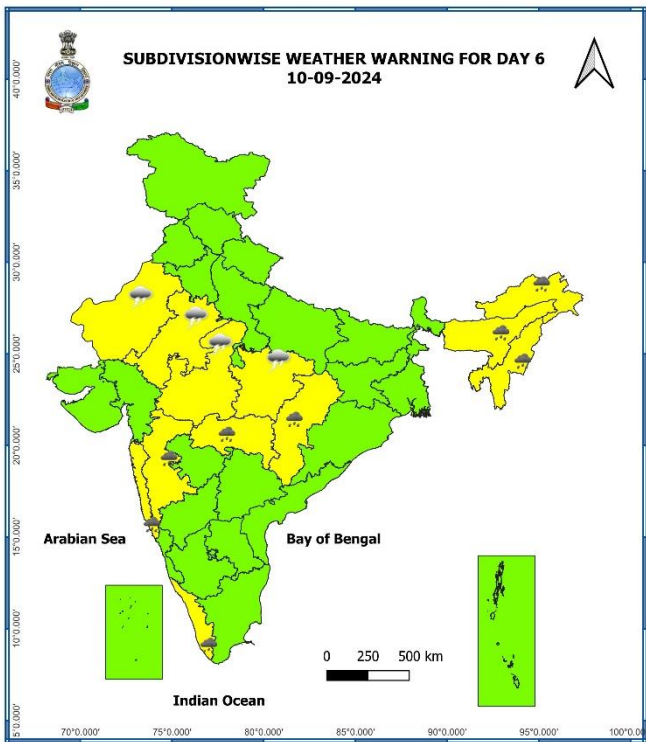
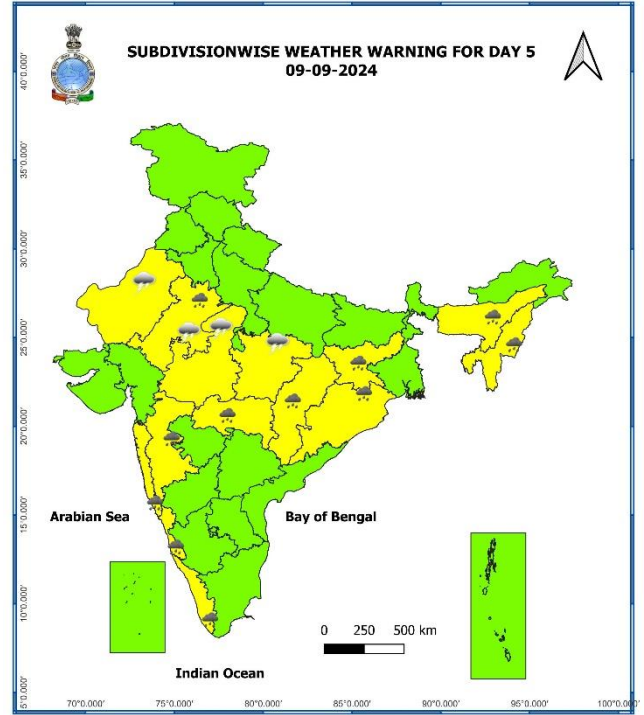
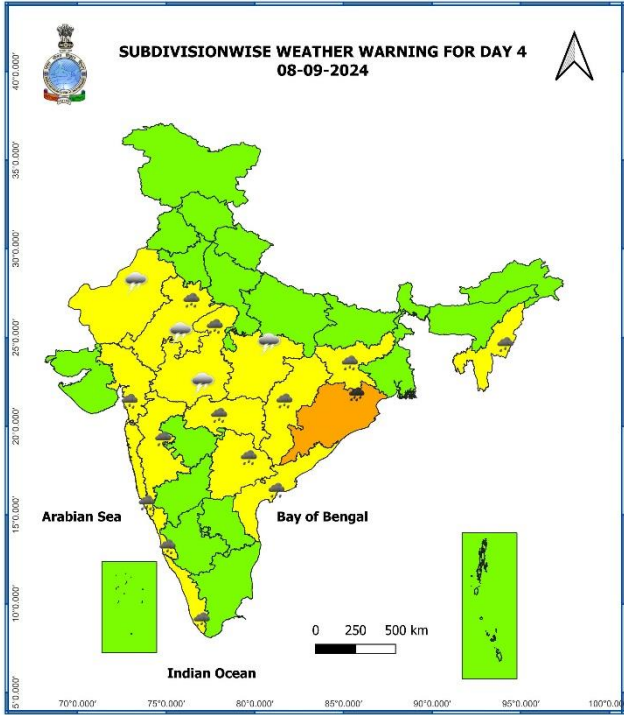
**Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 05.09.2024 (in cm):**

- ❖ **Sub-Himalayan West Bengal & Sikkim:** Sevoke (dist Darjeeling) 19, Yuksom (dist Gyalshing) 11, Soreng Arg (dist Soreng) 7.
- ❖ **East Rajasthan:** Nainwa (dist Bundi) 14, Asind (dist Bhilwara) 10, Sapotra (dist Karauli) 10, Beir Sr (dist Bharatpur) 9, Todabhim (dist Karauli) 9, Hindaun (dist Karauli) 8,
- ❖ **Telangana:** Manuguru (dist B. Kothagudem) 13, Venkatapuram (dist Mulugu) 11, Pinapaka (dist B. Kothagudem) 11, Aswapuram (dist B. Kothagudem) 10, Govindaraopet (dist Mulugu) 7, Gundala (dist B. Kothagudem) 7,
- ❖ **Bihar:** Tarapur (dist Monghyr) 13, Taibpur (dist Kishanganj) 12, Bhawanipur (dist Purnea) 11, Birpur (dist Supaul) 11, Katihar (dist Katihar) 11, Naugachia (dist Bhagalpur) 10, Mansahi (dist Katihar) 9, Alalnagar (dist Madhepura) 9, Shambhuganj (dist Banka) 9, Amaur (dist Purnea) 9, Puraini (dist Madhepura) 9, Kursela (dist Katihar) 9, Asarganj (dist Monghyr) 8, Bihpur (dist Bhagalpur) 8, Sultanganj (dist Bhagalpur) 7, Sangrampur (dist Monghyr) 7, Baltara (dist Khagaria) 7, Parbatta (dist Khagaria) 7, Kadwa (dist Katihar) 7, Gogri (dist Khagaria) 7,
- ❖ **Konkan & Goa:** Murud (dist Raigad) 12, Matheran (dist Raigad) 11, Tala (dist Raigad) 7, Karjat\_agri (dist Raigad) 7, Rajapur (dist Ratnagiri) 7, Chiplun (dist Ratnagiri) 7, Guhagarh (dist Ratnagiri) 7,
- ❖ **Punjab:** Samana (dist Patiala) 12,
- ❖ **Haryana-Chandigarh-Delhi:** Boundkalan Rev (dist Charkhi Dadri) 11, Dadri Toyee Edu Fmo (dist Jhajjar) 9, Jhahhar (dist Jhajjar) 8, Farukhnagar (dist Gurgaon) 8, Nuh (dist Nuh) 8, Tajewala (dist Yamuna Nagar) 7, Dadri (dist Charkhi Dadri) 7, Sohana (dist Gurgaon) 7, Manesar Rev (dist Gurgaon) 7, Kalanaur (dist Rohtak) 7, Ignou University (dist South Delhi) 9, President House (dist New Delhi) 7,
- ❖ **West Uttar Pradesh:** Baheri (dist Bareilly) 11, Khekda (dist Baghpat) 8, Moradabad Obsy (dist Moradabad) 7, Moradabad Cwc (dist Moradabad) 7,
- ❖ **Assam & Meghalaya:** Kokrajhar (dist Kokrajhar) 11, Chouldhuwaghat Arg (dist Lakhimpur) 10, B P Ghat (dist Karimganj) 8, Chauldhowaghat (dist Lakhimpur) 8,
- ❖ **Coastal Andhra Pradesh & Yanam:** Chodavaram (dist Anakapalli) 11, Gudivada (dist Krishna) 7, Masulipatnam Cdr (dist Krishna) 7,
- ❖ **West Rajasthan:** Jodhpur (dist Jodhpur) 9, Sinderi Sr (dist Barmer) 9,
- ❖ **Jharkhand:** Godda (dist Godda) 8, Bariyatu (dist Latehar) 7, Godda Kvk Aws (dist Godda) 7,
- ❖ **Chhattisgarh:** Gangalur (dist Bijapur) 7,
- ❖ **East Madhya Pradesh:** Bina (dist Sagar) 10, Kirnapur (dist Balaghat) 8, Malanjkhanda (dist Balaghat) 7, Mehadwani (dist Dindori) 7,
- ❖ **East Uttar Pradesh:** Muhammadi (dist Kheri) 9, Karwi (dist Chitrakoot) 7,
- ❖ **Himachal Pradesh:** Dharmsala (dist Kangra) 7,
- ❖ **Odisha:** Mathili (dist Malkangiri) 7, Dabugan (dist Nawarangpur) 7, Similiguda (dist Koraput) 7, Jeypore (dist Koraput) 7,
- ❖ **Madhya Maharashtra:** Gaganbawada (dist Kolhapur) 7, Mahabaleshwar- Imd Obsy (dist Satara) 7, Radhanagari (dist Kolhapur) 7,

7 Days Rainfall Forecast								
S. No.	Subdivision	05-Sep	06-Sep	07-Sep	08-Sep	09-Sep	10-Sep	11-Sep
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	WS	WS	WS	WS
2	ARUNACHAL PRADESH	FWS	SCT	SCT	SCT	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	WS	FWS	FWS	FWS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	WS	WS	WS	FWS	WS	WS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	WS	FWS	SCT	SCT	FWS	FWS	FWS
6	GANGETIC WEST BENGAL	SCT	SCT	SCT	SCT	SCT	FWS	WS
7	ODISHA	FWS	FWS	FWS	FWS	FWS	FWS	FWS
8	JHARKHAND	SCT	SCT	SCT	FWS	FWS	WS	WS
9	BIHAR	SCT	SCT	SCT	SCT	SCT	SCT	FWS
10	EAST UTTAR PRADESH	FWS	FWS	SCT	SCT	SCT	SCT	SCT
11	WEST UTTAR PRADESH	FWS	FWS	SCT	ISOL	ISOL	ISOL	ISOL
12	UTTARAKHAND	FWS	FWS	FWS	SCT	SCT	SCT	SCT
13	HARYANA CHANDIGARH & DELHI	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
14	PUNJAB	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
15	HIMACHAL PRADESH	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
16	JAMMU & KASHMIR AND LADAKH	SCT	FWS	SCT	ISOL	ISOL	ISOL	ISOL
17	WEST RAJASTHAN	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	FWS	FWS	FWS	FWS	SCT	SCT	ISOL
19	WEST MADHYA PRADESH	SCT	SCT	SCT	SCT	ISOL	SCT	SCT
20	EAST MADHYA PRADESH	SCT	SCT	SCT	SCT	SCT	SCT	SCT
21	GUJARAT REGION	WS	WS	WS	WS	WS	FWS	FWS
22	SAURASHTRA & KUTCH	WS	WS	WS	FWS	FWS	FWS	FWS
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	FWS	FWS	FWS	FWS	FWS	FWS	FWS
25	MARATHAWADA	SCT	SCT	SCT	SCT	SCT	SCT	SCT
26	VIDARBHA	FWS	FWS	FWS	FWS	SCT	SCT	SCT
27	CHHATTISGARH	FWS	FWS	WS	WS	WS	FWS	FWS
28	COASTAL ANDHRA PRADESH & YANAM	WS	WS	FWS	FWS	SCT	SCT	SCT
29	TELANGANA	FWS	FWS	SCT	SCT	SCT	ISOL	ISOL
30	RAYALASEEMA	FWS	FWS	SCT	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	WS	WS	WS	WS
33	NORTH INTERIOR KARNATAKA	SCT	SCT	SCT	FWS	SCT	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	ISOL	ISOL	SCT	SCT	SCT	ISOL	ISOL
35	KERALA & MAHE	FWS	FWS	FWS	FWS	WS	WS	WS
36	LAKSHADWEEP	SCT	SCT	SCT	FWS	FWS	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

- ✓ **Very heavy rainfall** at isolated over Coastal Andhra Pradesh & Yanam, Arunachal Pradesh, Konkan & Goa, Madhya Maharashtra & Gujarat Region on 05<sup>th</sup>; Odisha on 07<sup>th</sup> & 08<sup>th</sup>; Assam & Meghalaya on 07<sup>th</sup>; Nagaland, Manipur, Mizoram & Tripura on 11<sup>th</sup>; Uttarakhand on 05<sup>th</sup> & 06<sup>th</sup>; East Rajasthan during 05<sup>th</sup> -07<sup>th</sup> September.
- ✓ **Low to Moderate flash flood risk** likely over few watersheds & neighbourhoods of Coastal Andhra Pradesh & Yanam, Telangana, Chhattisgarh & Uttarakhand on 05<sup>th</sup> & 06<sup>th</sup> September.  
**(ANNEXURE IV)**

## 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.
- ✓ Reduction of visibility over sea area due to sea spray induced by strong wind and heavy rainfall.
- ✓ Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- ✓ Minor damage to kutchha 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.
- ✓ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

## Action Suggested

- ✓ Judicious regulation of offshore/onshore Operations
- ✓ 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

- Drain out excess water from field crops and horticultural crops in Assam & Meghalaya, Sub Himalayan West Bengal & Sikkim, Odisha, Jharkhand, Bihar, Himachal Pradesh, Punjab, Haryana, West Uttar Pradesh, Rajasthan, East Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh and Telangana.
- Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Arunachal Pradesh, NMMT, Uttarakhand, East Uttar Pradesh, Chhattisgarh, Gujrat and Coastal Karnataka.
- Drain out excess water from rice, soybean, red gram, maize, cotton and Turmeric in **Telangana** to prevent water logging.
- Provide mechanical support to horticultural crops & staking to vegetables.

**Flash Flood Guidance:****24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 06-09-2024:**

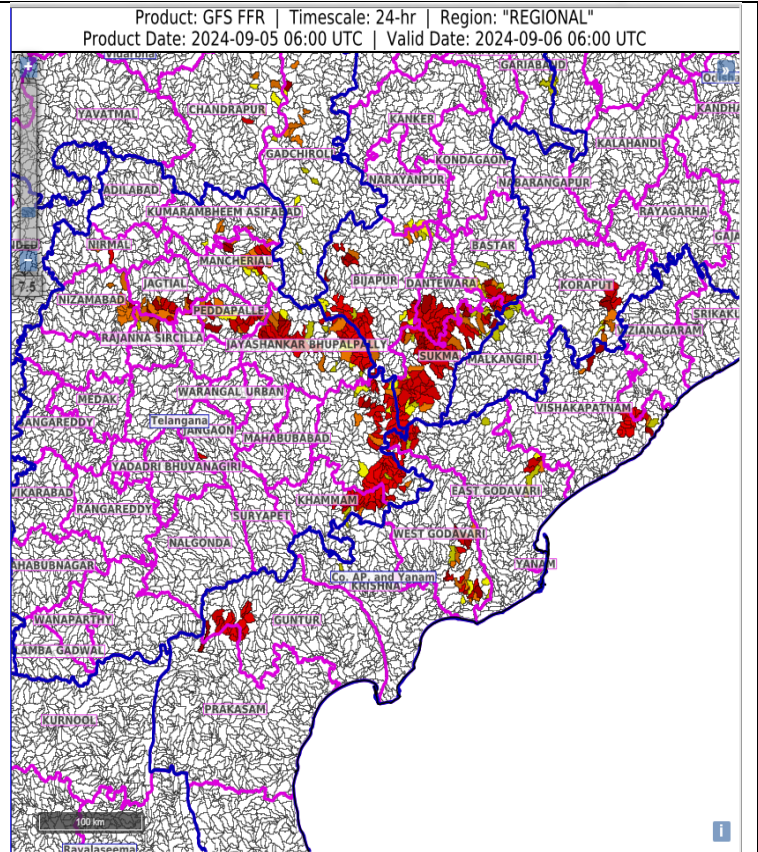
Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours

**Coastal AP & Yanam** - East Godavari, Guntur, Vishakhapatnam and West Godavari districts.

**Telangana** - B. Kothagudem, J. Bhupalpally, Jagtial, Khammam, Mancherial, Nizamabad, Peddapalle and Rajanna Sircilla districts.

**Chhattisgarh** - Bastar, Bijapur, Dantewara and Sukma districts.

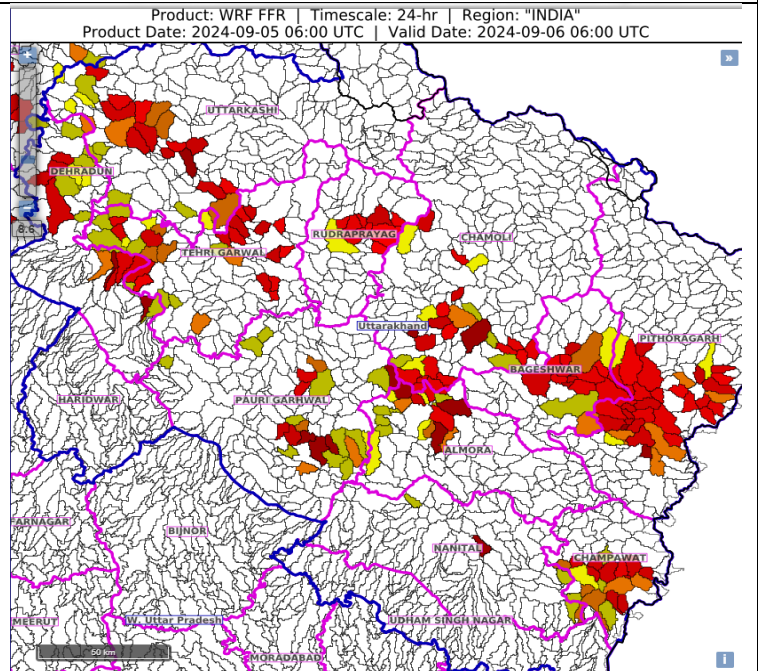
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.

**24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 06-09-2024:**

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

**Uttarakhand** - Almora, Bageshwar, Chamoli, Champawat, Dehradun, Nanital, Pauri Garhwal, Pithoragarh, Rudraprayag, Tehri Garwal and Uttarkashi 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.



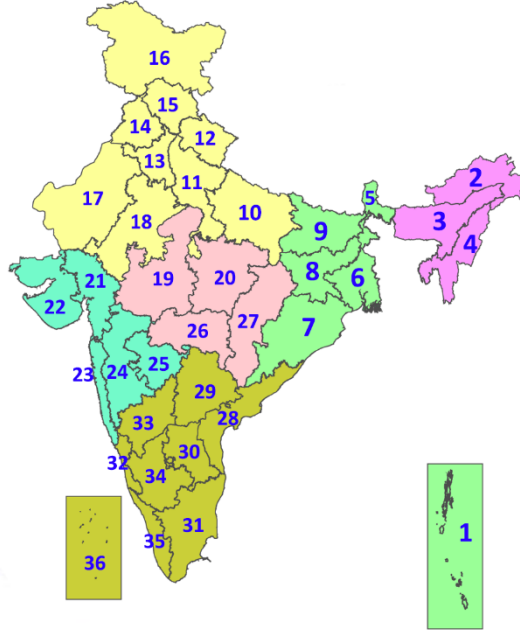


## Legends & abbreviations:

- ❖ **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.

## 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

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

\* 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  
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