

Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 24th September, 2024

Time of Issue: 1330 hours IST

Subject: (i) Southwest monsoon has further withdrawn from some more parts of Rajasthan & Gujarat, some parts of Punjab & Haryana today, the 24th September 2024.

(ii) In association with Low Pressure area, Isolated extremely heavy rainfall very likely over Coastal Karnataka on 24th; Konkan & Goa during 24th - 26th; Madhya Maharashtra on 25th & 26th and Gujarat Region on 26th September, 2024.

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

Heavy to very Heavy rainfall at isolated places over Gujarat Region, West Madhya Pradesh, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka, North Interior Karnataka, Madhya Maharashtra; **Heavy rainfall** at isolated places over East Rajasthan, Jharkhand, Marathwada, Konkan & Goa, Assam & Meghalaya, Odisha, Rayalaseema, Kerala & Mahe.

Weather Systems:

- ✓ **Southwest monsoon** has further withdrawn from some more parts of Rajasthan, Gujarat, some parts of Punjab, Haryana today, the 24th September, 2024. **(Annexure II)**
- ✓ Under the influence of **cyclonic circulation** over Central Bay of Bengal, a low pressure area has formed over Westcentral Bay of Bengal & adjoining Northwest Bay off north Andhra - south Odisha coasts.
- ✓ A **shear zone** runs roughly along 16°N over North Peninsular India between middle & upper tropospheric levels above mean sea level tilting southwards with height.

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

South Peninsular India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Coastal Karnataka, Lakshadweep, Kerala & Mahe; Scattered to Fairly widespread light to moderate rainfall over Interior Karnataka, Coastal Andhra Pradesh & Yanam; Telangana during next 3 days and Isolated to Scattered light to moderate rainfall during next 4 subsequent days; Isolated to Scattered light to moderate rainfall very likely over Tamil Nadu, Puducherry & Karaikal, Rayalaseema during the week.
- ✓ **Isolated extremely heavy rainfall** very likely over Coastal Karnataka on 24th September.
- ✓ Isolated **heavy to very heavy rainfall** very likely over North Interior Karnataka, Coastal Andhra Pradesh & Yanam on 24th; Coastal Karnataka on 24th & 25th; South Interior Karnataka on 24th & 25th September.
- ✓ Isolated **heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal on 24th; Kerala & Mahe on 24th, 25th, 29th & 30th; Coastal Andhra Pradesh & Yanam on 24th & 25th; Rayalaseema on 24th; Telangana, Karnataka on 24th & 25th September.

West India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Konkan & Goa, Gujarat Region, over Madhya Maharashtra & Marathwada during the next 3 days and Scattered to Fairly widespread light to moderate rainfall during the subsequent 4 days over the region; Scattered to Fairly widespread light to moderate rainfall over Saurashtra & Kutch during the week.
- ✓ **Isolated extremely heavy rainfall** very likely over Konkan & Goa during 24th -26th; Madhya Maharashtra on 25th & 26th; Gujarat Region on 26th September.
- ✓ **Isolated heavy to very heavy rainfall** very likely over Marathwada on 24th; Madhya Maharashtra, Konkan & Goa during 24th -26th; Gujarat Region during 24th -27th; Saurashtra & Kutch on 26th & 27th September.
- ✓ **Isolated heavy rainfall** very likely over Madhya Maharashtra, Konkan & Goa during 24th -27th; Gujarat Region during 24th -28th; Marathwada on 24th & 25th; Saurashtra & Kutch during 25th -28th September.

Central India:

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Vidarbha, Chhattisgarh during next 3 days & Scattered to Fairly widespread light to moderate rainfall during subsequent next 4 days; Scattered to Fairly widespread light to moderate rainfall over Madhya Pradesh during the week.
- ✓ **Isolated heavy to very heavy rainfall** very likely over Madhya Pradesh on 24th & 25th; Vidarbha on 25th September.
- ✓ **Isolated heavy rainfall** very likely over Madhya Pradesh during 24th-27th; Vidarbha, Chhattisgarh during 24th -26th September.

East & Northeast India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Northeast India & Sub-Himalayan West Bengal & Sikkim during the next 7 days; Fairly widespread to widespread light/moderate rainfall very likely over Gangetic West Bengal, Bihar, Jharkhand & Odisha during the next 3 days & Scattered to Fairly widespread light to moderate rainfall during the next subsequent 4 days; Scattered to Fairly widespread light to moderate rainfall over Andaman & Nicobar Islands during the week.
- ✓ **Isolated heavy to very heavy rainfall** very likely over Assam & Meghalaya on 25th & 26th; Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim on 26th September.
- ✓ **Isolated heavy rainfall** very likely over Arunachal Pradesh during all the 7 days; Assam & Meghalaya during 24th -29th; Sub-Himalayan West Bengal & Sikkim during 24th -27th; Gangetic West Bengal during, Jharkhand & Odisha during 24th -26th; Nagaland, Manipur, Mizoram & Tripura during 25th -28th; Bihar during 25th -27th September.

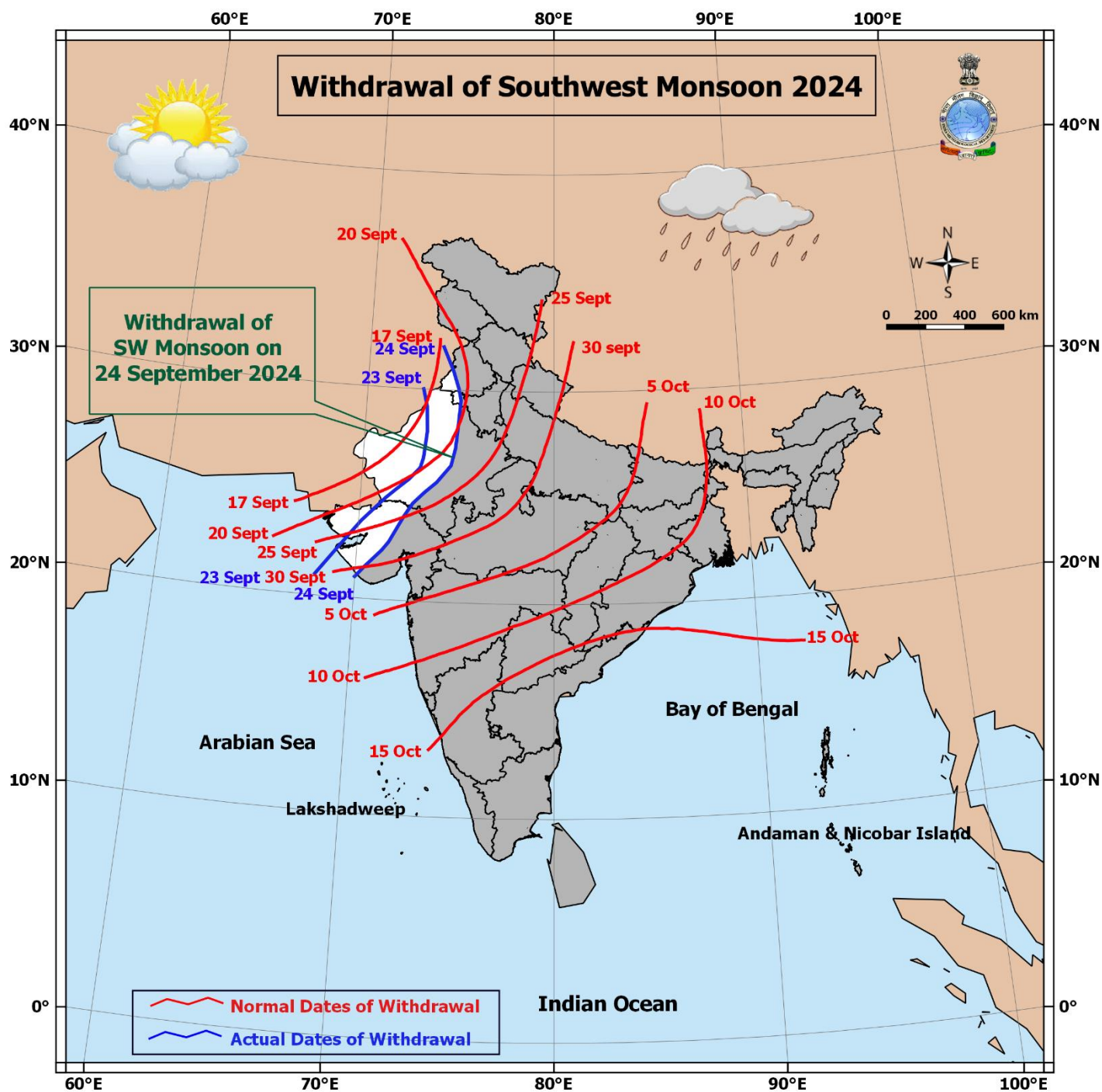
Northwest India

- ✓ Isolated to Scattered light to moderate rainfall very likely over northwest India except East Uttar Pradesh where Isolated to Scattered light to moderate rainfall during next 2 days & Scattered to Fairly widespread light to moderate rainfall during next 5 subsequent days during the week.
- ✓ **Isolated heavy to very heavy rainfall** very likely East Uttar Pradesh on 28th September.
- ✓ **Isolated heavy rainfall** very likely over Himachal Pradesh on 26th; Uttarakhand on 26th & 27th; East Uttar Pradesh during 27th -29th; West Uttar Pradesh on 28th September.

ANNEXURE I

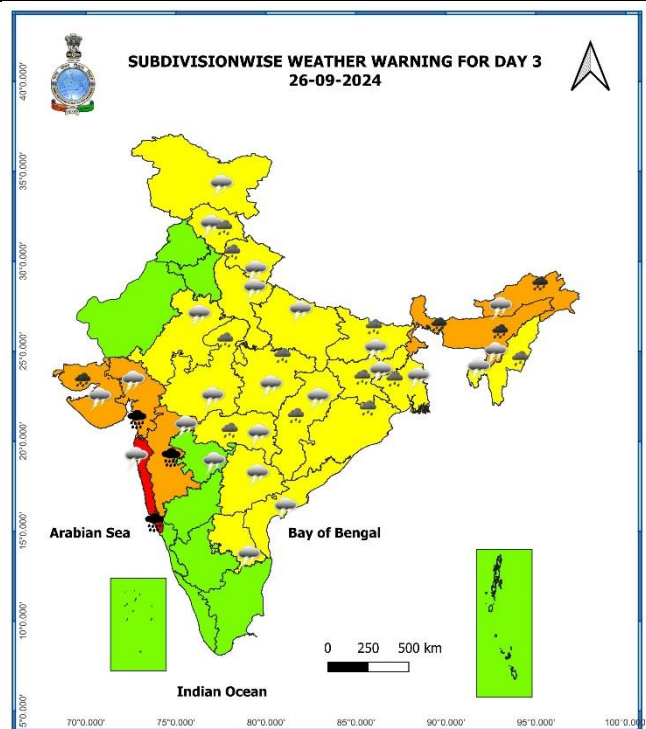
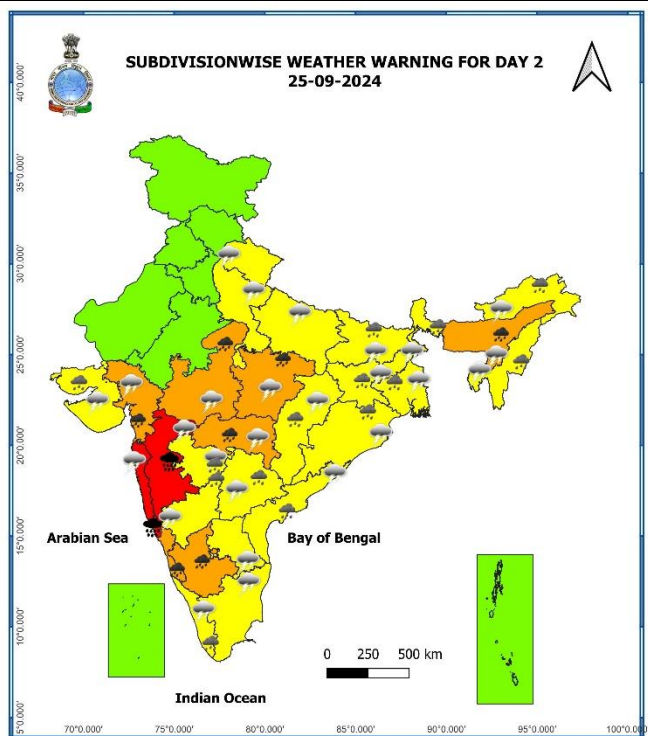
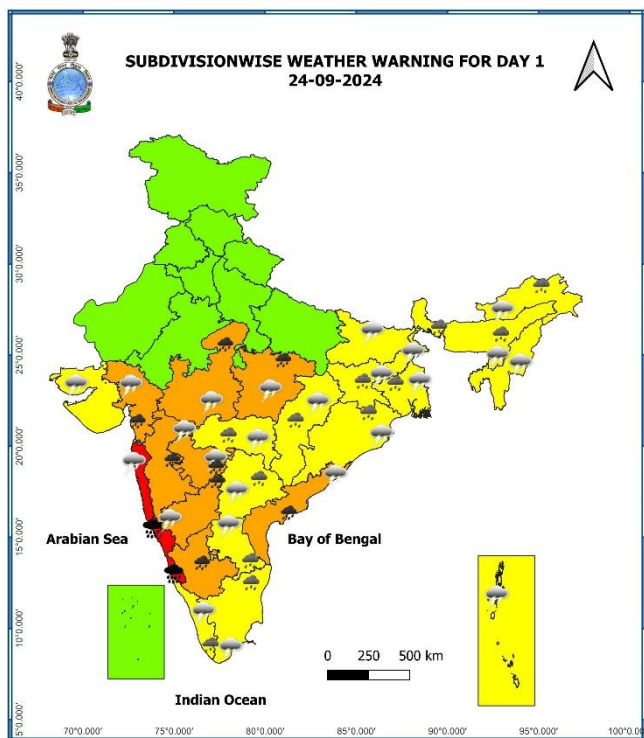
Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 24.09.2024 (in cm):

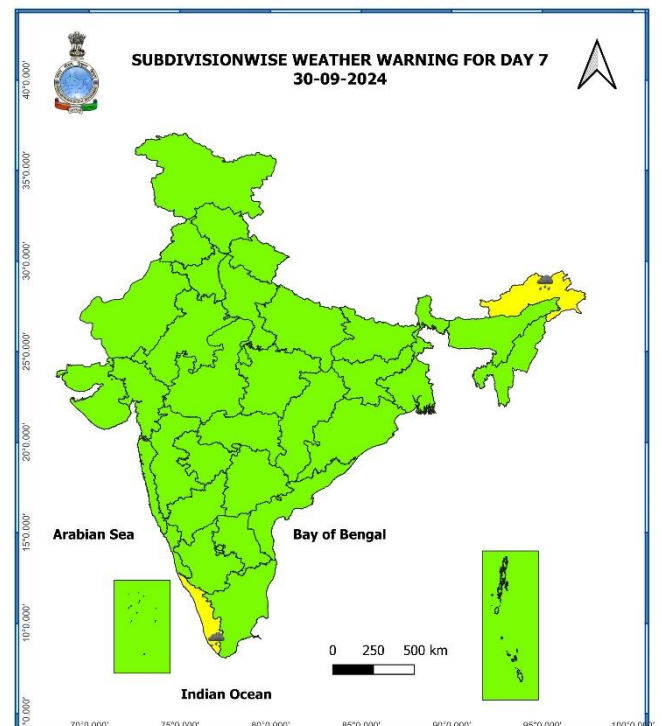
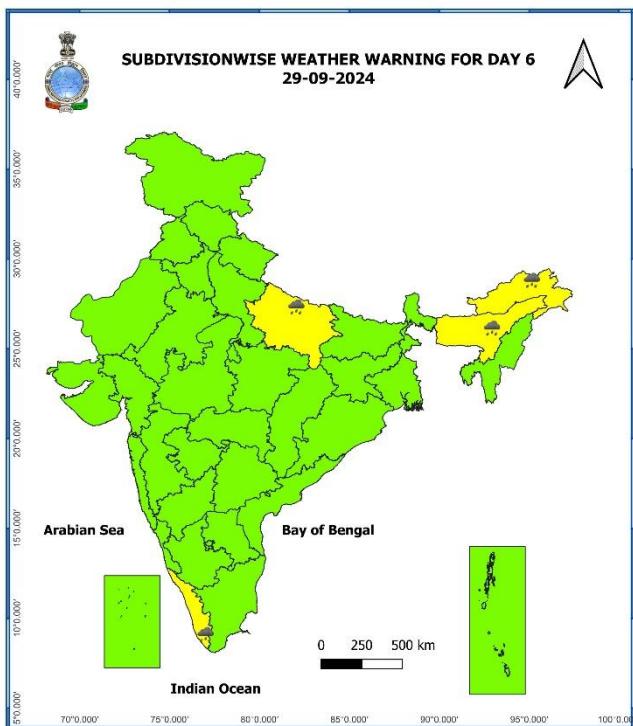
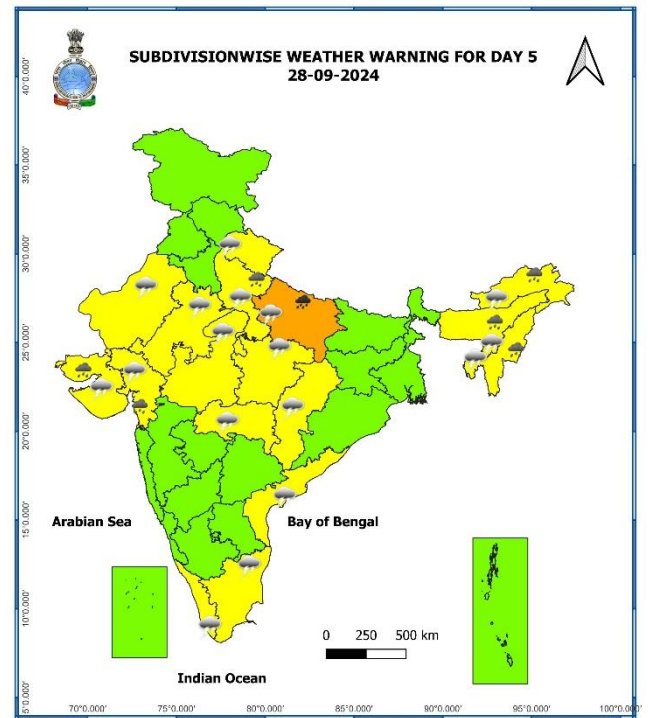
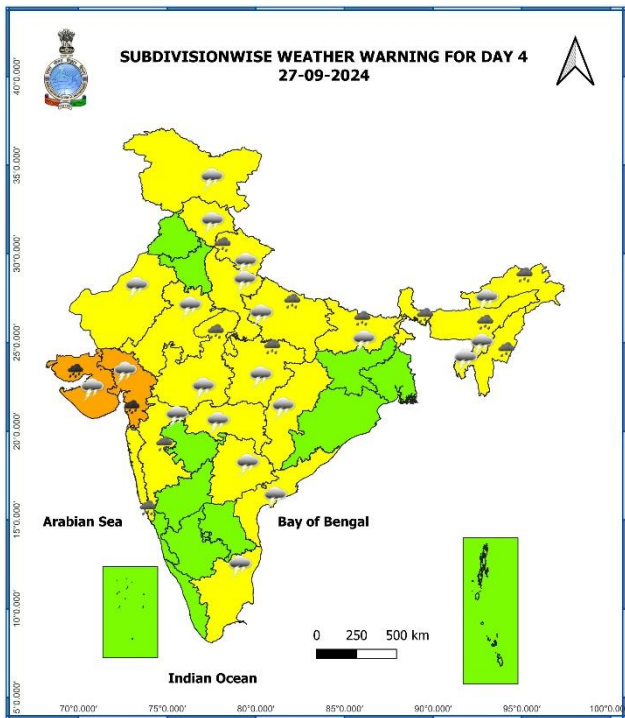
- ❖ **North Interior Karnataka:** Vijayapura Pto (dist Vijayapura) 19, Tikkota (dist Vijayapura) 11, Alamatti Hms (dist Vijayapura) 7, Athni (dist Belagavi) 7, Nalwatwad (dist Vijayapura) 7,
- ❖ **West Madhya Pradesh:** Udaigarh (dist Alirajpur) 16, Bagh (dist Dhar) 16, Ranapur (dist Jhabua) 9, Alirajpur (dist Alirajpur) 7,
- ❖ **Tamil Nadu, Puducherry & Karaikal:** Zone 02 D15 Manali (dist Chennai) 15, Avadi (dist Tiruvallur) 11, Jaya Engg College AWS (dist Tiruvallur) 9, Zone 11 U32 Maduravoyal (dist Chennai), Zone 07 U18 D81 Vanagaram (dist Chennai), Zone 02 Manali (dist Chennai) 8 each, Zone 11 Valasaravakkam (dist Chennai), Ariyalur Taluk Office (dist Ariyalur), Ariyalur PTO (dist Ariyalur), ACS Medical College ARG (dist Kancheepuram) 7 each,
- ❖ **Gujarat Region:** Pardi (dist Valsad) 13, Daman_aws (dist Daman) 7,
- ❖ **Madhya Maharashtra:** Gaganbawada (dist Kolhapur) 12, Sholapur - Imd Obsy (dist Sholapur) 8, Parner (dist Ahmednagar) 8, Chas_agri (dist Ahmednagar) 8,
- ❖ **Coastal Karnataka:** Manki (dist Uttara Kannada) 12, Shirali Pto (dist Uttara Kannada) 12, Gokarna (dist Uttara Kannada) 9,
- ❖ **Assam & Meghalaya:** Udaipur (dist Tinsukia) 11,
- ❖ **Konkan & Goa:** Panvel_agri (dist Raigad) 10, Sangameshwar Devrukh (dist Ratnagiri) 9, Uran (dist Raigad) 9, Vaibhavwadi (dist Sindhudurg) 9, Palghar_agri (dist Palghar) 8, Ponda (dist North Goa) 8, Santacruz - Imd Obsy (dist Mumbai Suburban) 7, Mulde_Agri (dist Sindhudurg) 7, Thane (dist Thane) 7, Alibag - Imd Part Time (dist Raigad) 7,
- ❖ **Odisha:** Binjharpur (Jajpur) 11, Gopalpur (Ganjam) 10, Nuagaon (Nayagarh) 9, Athmalik (Angul) 9, Hinjili (Ganjam) 9, Parjang (Dhenkanal) 9, Odagaon (Nayagarh) 9, Khandapara (Nayagarh) 8, Gania (Nayagarh) 7, Kankadahad (Dhenkanal) 7, Bari (Jajpur) 7, Dhamnagar (Bhadrak) 7,
- ❖ **Rayalaseema:** Nandavaram (dist Kurnool) 10,
- ❖ **East Rajasthan:** Khushalgarh (dist Banswara) 7,
- ❖ **Kerala & Mahe:** Muliyar (dist Kasargod) 7,
- ❖ **Marathwada:** Latur (dist Latur) 7,
- ❖ **Jharkhand:** Baharagoda AWS (dist East Singhbhum) 7,



7 Days Rainfall Forecast								
S. No.	Subdivision	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	FWS	SCT	SCT	SCT	SCT	SCT
2	ARUNACHAL PRADESH	FWS	WS	WS	FWS	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	FWS	WS	WS	FWS	FWS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	WS	WS	FWS	FWS	FWS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	FWS	WS	WS	WS	FWS	FWS	FWS
6	GANGETIC WEST BENGAL	WS	WS	WS	FWS	FWS	SCT	SCT
7	ODISHA	WS	FWS	FWS	SCT	SCT	SCT	SCT
8	JHARKHAND	FWS	WS	WS	FWS	SCT	SCT	SCT
9	BIHAR	SCT	FWS	FWS	FWS	FWS	SCT	SCT
10	EAST UTTAR PRADESH	ISOL	SCT	FWS	FWS	FWS	SCT	SCT
11	WEST UTTAR PRADESH	ISOL	SCT	SCT	SCT	SCT	ISOL	ISOL
12	UTTARAKHAND	ISOL	SCT	FWS	SCT	SCT	DRY	DRY
13	HARYANA CHANDIGARH & DELHI	DRY	SCT	SCT	SCT	ISOL	ISOL	ISOL
14	PUNJAB	DRY	ISOL	SCT	SCT	ISOL	ISOL	ISOL
15	HIMACHAL PRADESH	ISOL	ISOL	SCT	SCT	ISOL	ISOL	DRY
16	JAMMU & KASHMIR AND LADAKH	DRY	ISOL	FWS	FWS	ISOL	DRY	DRY
17	WEST RAJASTHAN	DRY	DRY	ISOL	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	ISOL	ISOL	SCT	SCT	SCT	SCT	ISOL
19	WEST MADHYA PRADESH	FWS	FWS	FWS	FWS	FWS	SCT	SCT
20	EAST MADHYA PRADESH	FWS	FWS	FWS	FWS	FWS	SCT	SCT
21	GUJARAT REGION	WS	WS	WS	WS	WS	FWS	FWS
22	SAURASHTRA & KUTCH	SCT	SCT	FWS	FWS	FWS	SCT	SCT
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	WS	WS	WS	FWS	SCT	SCT	SCT
25	MARATHAWADA	WS	WS	FWS	SCT	SCT	ISOL	ISOL
26	VIDARBHA	WS	WS	WS	FWS	FWS	SCT	SCT
27	CHHATTISGARH	WS	WS	FWS	SCT	SCT	SCT	SCT
28	COASTAL ANDHRA PRADESH & YANAM	WS	WS	FWS	SCT	SCT	SCT	SCT
29	TELANGANA	FWS	FWS	SCT	SCT	ISOL	ISOL	ISOL
30	RAYALASEEMA	FWS	SCT	ISOL	ISOL	ISOL	SCT	SCT
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
32	COASTAL KARNATAKA	WS	WS	WS	FWS	FWS	FWS	WS
33	NORTH INTERIOR KARNATAKA	WS	FWS	SCT	SCT	SCT	SCT	SCT
34	SOUTH INTERIOR KARNATAKA	FWS	SCT	SCT	SCT	FWS	FWS	FWS
35	KERALA & MAHE	WS	FWS	SCT	SCT	FWS	WS	WS
36	LAKSHADWEEP	WS	FWS	SCT	SCT	SCT	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 Coastal Karnataka on 24th; Konkan & Goa during 24th -26th; Madhya Maharashtra on 25th & 26th; Gujarat Region on 26th September.
- ✓ **Isolated heavy to very heavy rainfall** very likely over Madhya Maharashtra, Marathwada, North Interior Karnataka, Coastal Andhra Pradesh & Yanam on 24th; South Interior Karnataka, West Madhya Pradesh during 24th & 25th; Gujarat Region on 24th, 25th & 27th; East Madhya Pradesh, Coastal Karnataka, Vidarbha on 25th; Assam & Meghalaya on 25th & 26th; Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh on 26th; Saurashtra & Kutch on 26th & 27th; East Uttar Pradesh on 28th September.
- ✓ **Moderate flash flood** risk likely over few watersheds & neighbourhoods of Gujarat Region, Coastal Karnataka, Konkan & Goa on 24th & 25th 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, Marathwada and West Vidarbha regions of **Maharashtra**, harvesting of matured soybean, groundnut and pearl millet may only be undertaken during clear weather and immediately move the harvested produce to safer places. Alternatively, cover them with plastic sheets or tarpaulin.
- ✓ Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, Telangana, Madhya Pradesh, Chhattisgarh, Gujarat, Maharashtra, West Bengal, Odisha, Arunachal Pradesh, Assam and Meghalaya.
- ✓ Keep the harvested produce at safer places.
- ✓ Provide mechanical support to horticultural crops & staking to vegetables.

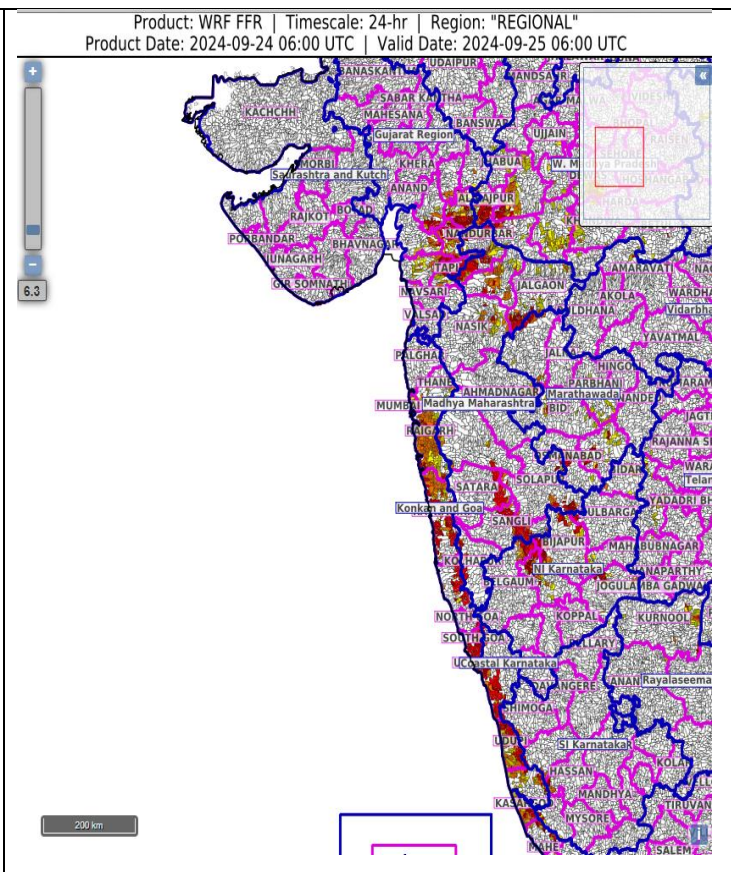
24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 25-09-2024:

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

Gujarat Region: Tapi, Vadodara, Surat, Narmada and Chotta Udaipur districts

Konkan & Goa: Mumbai, Thane, Ratnagiri, Sindhudurg, north & south Goa districts

Coastal Karnataka: Udupi Dakshin Kanada and Uttara Kannada 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.

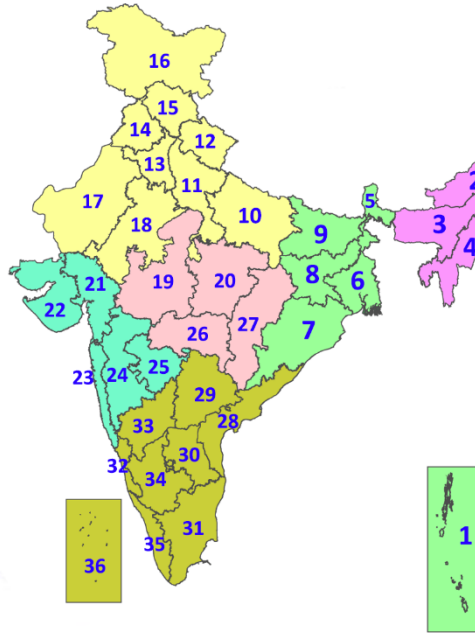


Legends & abbreviations:

- ❖ **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)

* 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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