



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 10th October, 2024

Time of Issue: 1400 hours IST

Subject: (i) The Well marked low pressure area over eastcentral Arabian Sea off Karnataka-Goa coasts is likely to move northwestwards and intensify into a Depression over central Arabian Sea during next 2-3 days.
(ii) Isolated heavy to very heavy rainfall activity very likely over Kerala & Mahe and Tamil Nadu during the week and over Karnataka, Goa, ghat areas of Maharashtra, Gujarat region, Arunachal Pradesh, Assam & Meghalaya during next 3-4 days.

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

Heavy to very Heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim and Tamil Nadu, Puducherry & Karaikal; **Heavy rainfall** at isolated places over North Interior Karnataka, Gujarat Region, Kerala & Mahe and Gangetic West Bengal.

On further Withdrawal of Southwest Monsoon

- ❖ The line of withdrawal of Southwest Monsoon continues to pass through 29°N/84°E, Nautanwa, Sultanpur, Panna, Narmada Puram, Khargaon, Nandurbar, Navsari and 20°N/70°E.
- ❖ Conditions are favourable for further withdrawal of Southwest Monsoon from remaining parts of Gujarat, Madhya Pradesh, Uttar Pradesh, some more parts of Maharashtra and some parts of Bihar & Jharkhand during next 2-3 days.

Weather Systems:

- ✓ Yesterday's low pressure area intensified into a Well Marked Low pressure area and seen over eastcentral Arabian Sea off Karnataka- Goa coasts at 0830 hours IST of today the 10th October 2024. It is likely to move northwestwards and intensify into a Depression over central Arabian Sea during next 2-3 days.
- ✓ The cyclonic circulation over Sri Lanka & neighbourhood is now seen over Southwest Bay of Bengal off Tamil Nadu coast and extends upto middle tropospheric levels tilting southwestwards with height.
- ✓ Another fresh cyclonic circulation very likely to develop over central parts of south Bay of Bengal around 12th October at lower & middle tropospheric levels.
- ✓ The cyclonic circulation over east Assam & neighbourhood at lower tropospheric levels persists.

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

South Peninsular India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Lakshadweep, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Coastal & South Interior Karnataka; Isolated to Scattered light to moderate rainfall very likely over North Interior Karnataka, Rayalaseema, Telangana, Coastal Andhra Pradesh & Yanam during the week.

- ✓ **Isolated heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal during 10th -15th October; over Kerala & Mahe during the week; over Lakshadweep on 10th; over Coastal Andhra Pradesh & Yanam & Rayalaseema during 14th – 16th October; over North Interior Karnataka on 10th & 11th; over South Interior Karnataka during 10th -12th and on 14th October.
- ✓ **Isolated very heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal on 10th and on 13th & 14th October; Kerala & Mahe on 13th & 14th October.

Northeast India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Arunachal Pradesh during next 4 days and Scattered to Fairly widespread light to moderate rainfall over remaining days during the week; Scattered to Fairly widespread light to moderate rainfall very likely over the remaining region during the week.
- ✓ **Isolated heavy rainfall** very likely over Arunachal Pradesh during 10th -12th October and Assam & Meghalaya during 10th -11th October.
- ✓ **Isolated very heavy rainfall** very likely over Arunachal Pradesh on 10th October

West India

- ✓ Scattered to Fairly widespread light to moderate rainfall very likely over Konkan & Goa and Gujarat Region during the week; Isolated to scattered light to moderate rainfall over remaining region during the week.
- ✓ **Isolated very heavy rainfall** very likely over Konkan & Goa on 10th & 11th October.
- ✓ **Isolated heavy rainfall** very likely over Konkan & Goa & Gujarat Region during 10th-13th October, Over Madhya Maharashtra on 10th-12th October; over Saurashtra & Kutch on 11th-13th October.

Northwest, East & Central India:

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Andaman & Nicobar Islands; Scattered to Fairly widespread light to moderate rainfall very likely over Sub-Himalayan West Bengal & Sikkim; Isolated to Scattered light rainfall over the northwest India during the week;
- ✓ No significant rainfall likely over these regions during next one week.

Fishermen warning

- ✓ Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail over Maldives, Lakshadweep Comorin areas, southeast Arabian sea during 10th- 12th October, adjoining southwest Arabian sea, along and off Kerala, Karnataka coasts, off Maharashtra coast, most parts of east central Arabian sea on 11th – 12th. Gulf of Mannar during 10th-14th October, Comorin area and Tamil Nadu Coast during 13th 14th October, South Bay of Bengal during 12th -14th October and many parts of Southwest Bay of Bengal on 13th - 14th October. Fishermen are advised not to venture into these areas during the period.

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>

For Fishermen warnings, kindly refer:

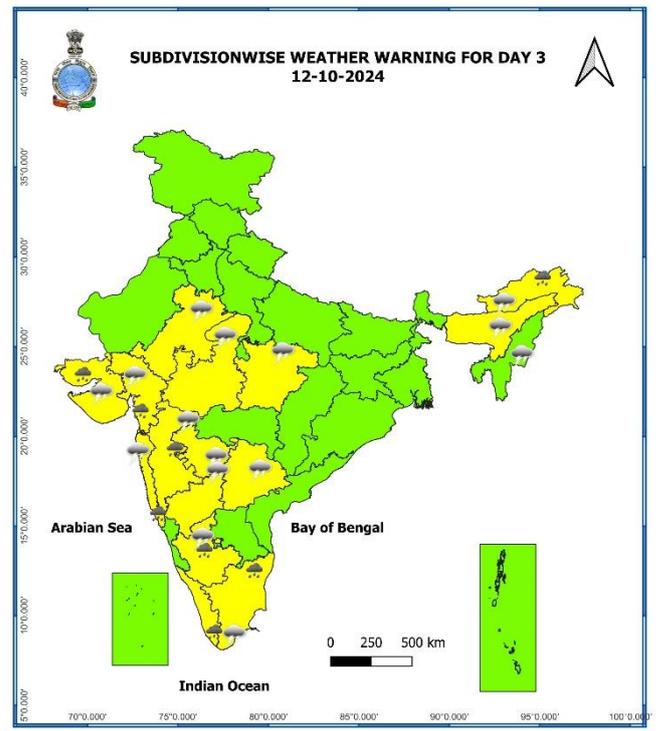
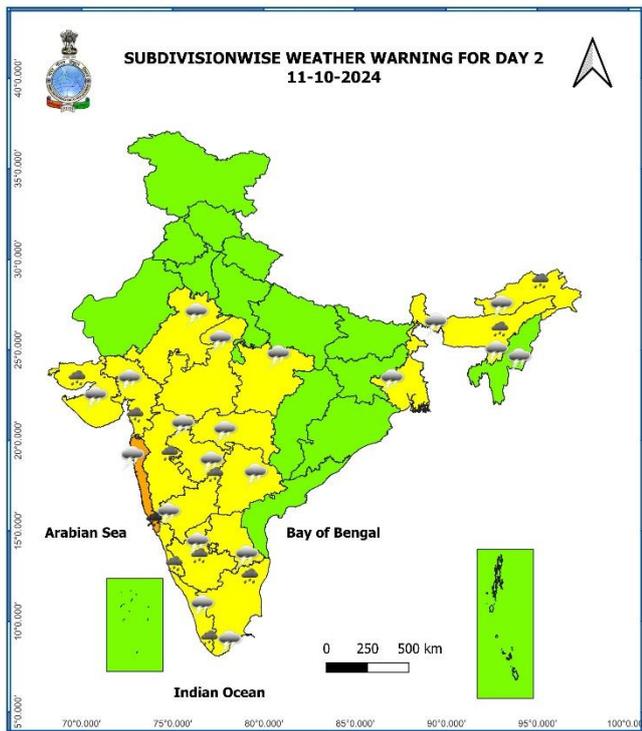
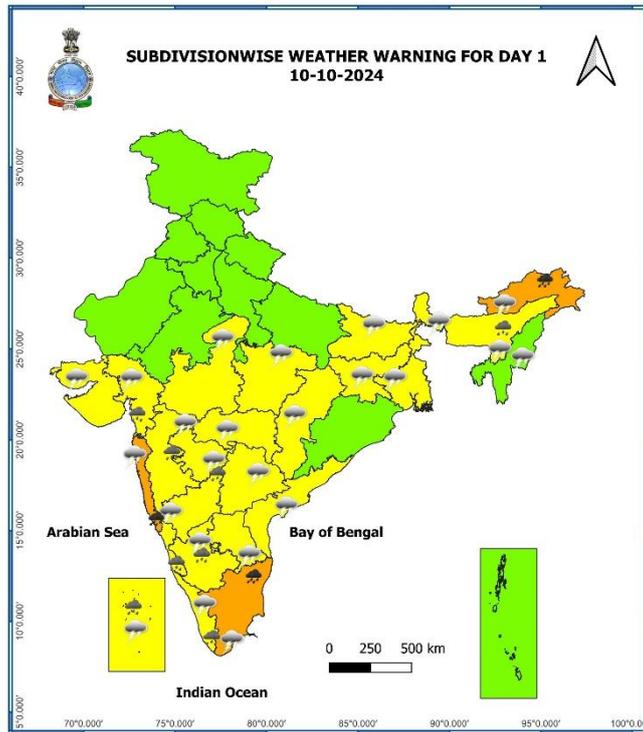
https://rsmcnewdelhi.imd.gov.in/uploads/archive/51/51_bdf575_GRAPHIC.png

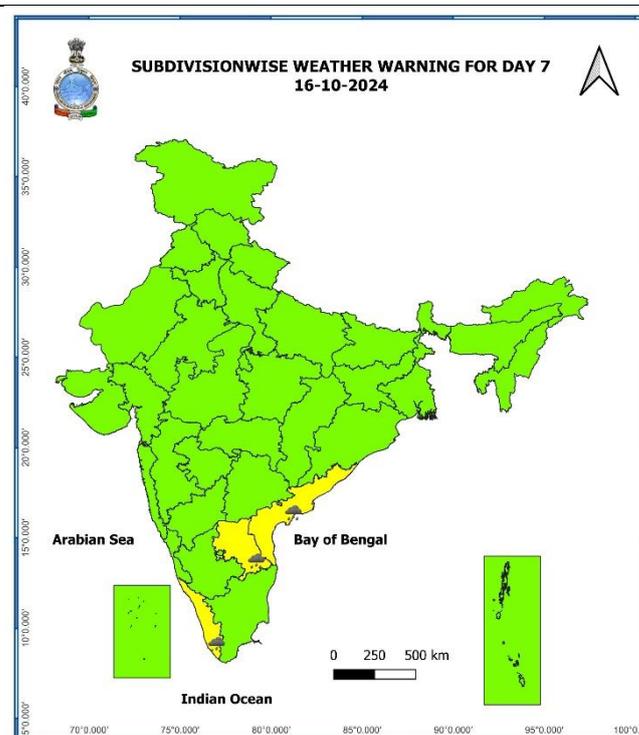
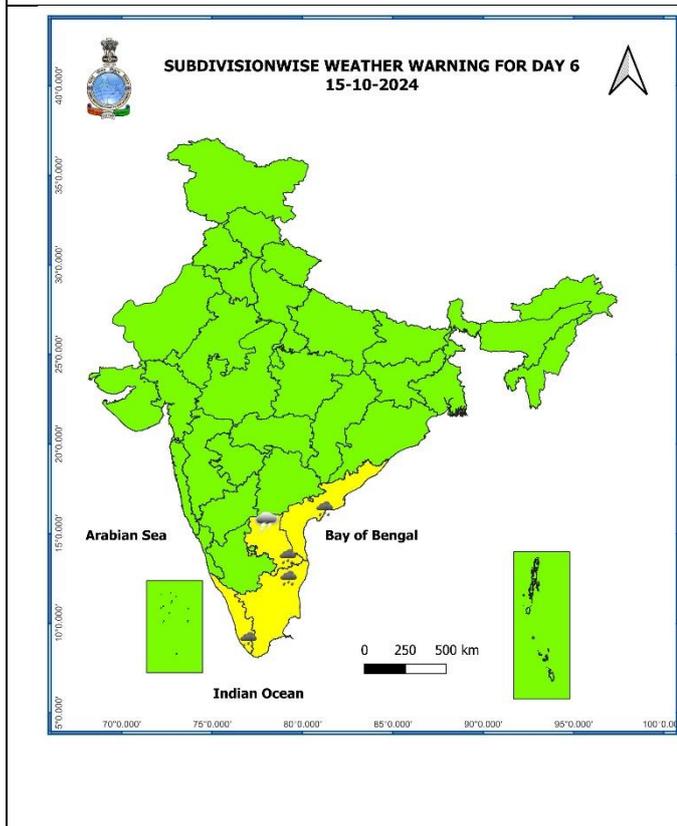
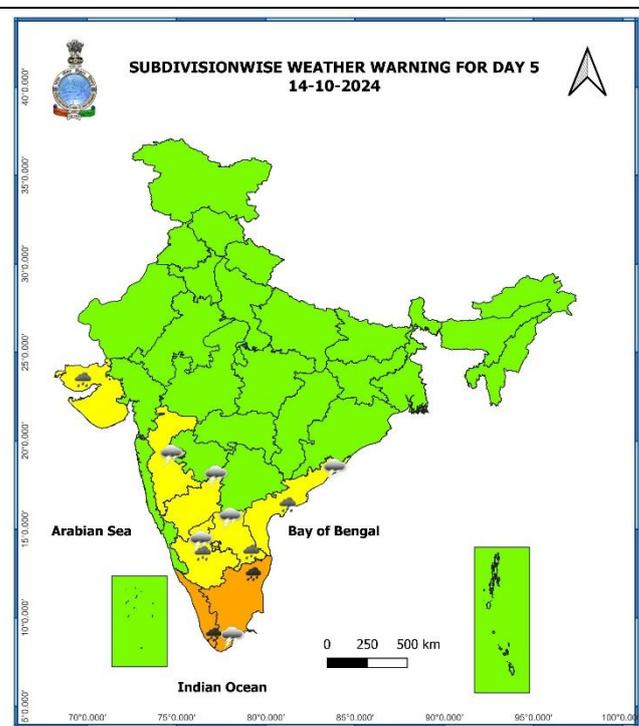
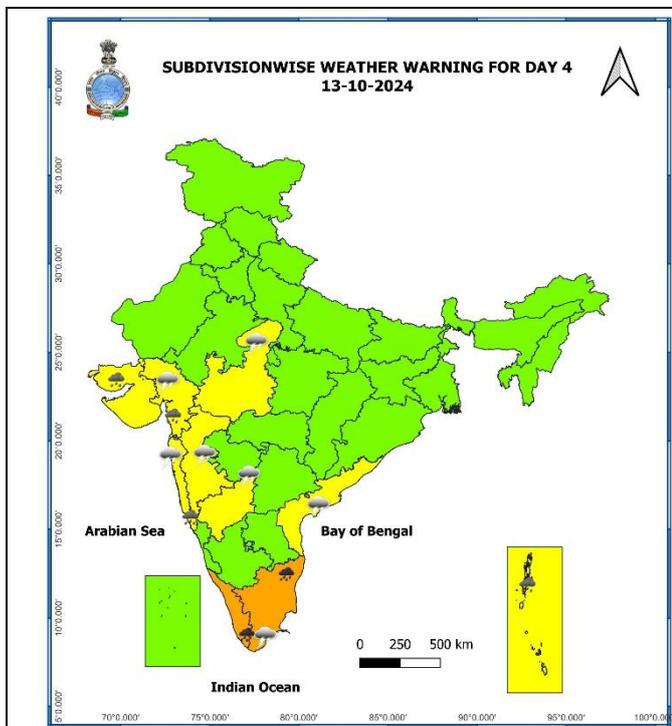
**Significant Rainfall recorded during past 24 hours till 0830 hours IST of today
10.10.2024 (in cm):**

- ❖ **Sub-Himalayan West Bengal & Sikkim:** Mathabhanga (dist Cooch Behar) 12, Jhallong (dist Kalimpong) 11, Rongo (distKalimpong) 10, Alipurduar (pto) (dist Alipurduar) 9, Chepan (dist Alipurduar) 9, Pakyong (distPakyong) 7, Tadong (dist Gangtok) 7, Gangtok (dist Gangtok) 7, Barobhisha (dist Alipurduar) 7;
- ❖ **North Interior Karnataka:** Shiggaon (dist Haveri) 8, Hubballi (dist Dharwad) 7, Dharwad (hos) (dist Dharwad) 7;
- ❖ **Tamil Nadu:** PWD Makkinampatti (dist Coimbatore) 12, Zone 03 Madhavaram (dist Chennai) 9, Nilakottai (dist Dindigul) , Pollachi (dist Coimbatore) , Uthiramerur (dist Kancheepuram) , Zone 13 U39 Adyar (dist Chennai) , RSCL-3 Anandhapuram (dist Villupuram), Kannadaian Anicut (dist Tirunelveli) 7 each;
- ❖ **Gujarat Region:** Dangs (ahwa) (dist Dangs) 10, Umerpada (dist Surat) 7;
- ❖ **Kerala & Mahe:** Ranni(dist Pathanamthitta) 8, Thennala(Malappuram district) 7;
- ❖ **Gangetic West Bengal:** Basirhat(pt) (dist North 24 Parganas) 11;

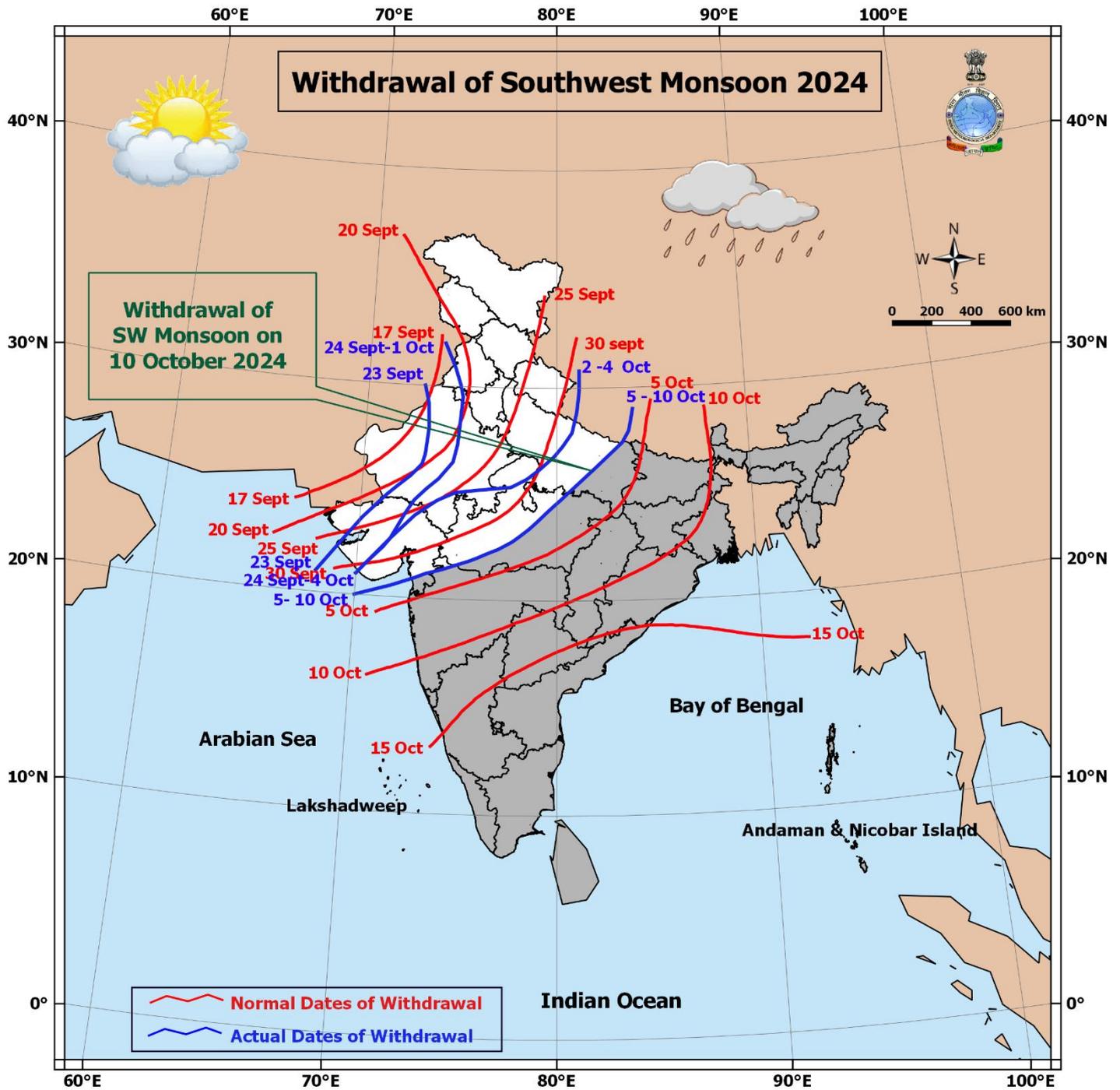
7 Days Rainfall Forecast								
S. No.	Subdivision	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	FWS	WS	WS	FWS	FWS	FWS
2	ARUNACHAL PRADESH	WS	WS	FWS	FWS	SCT	SCT	SCT
3	ASSAM & MEGHALAYA	FWS	FWS	SCT	SCT	SCT	SCT	SCT
4	NAGALAND,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

- 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 heavy to very heavy rainfall** very likely over Arunachal Pradesh on 10th October; Konkan & Goa on 10th & 11th October; Tamil Nadu, Puducherry & Karaikal on 10th, 13th & 14th October; Kerala & Mahe on 13th & 14th October.

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

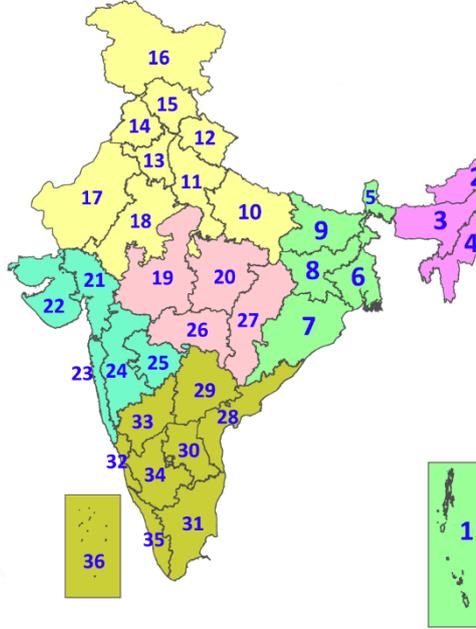
- In **Tamil Nadu**, drain out excess water from rice nurseries and recently transplanted rice fields; postpone harvesting of matured millet crops.
- Make necessary arrangements for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Konkan & Goa, Madhya Maharashtra, Kerala, Lakshadweep, Coastal and South Interior Karnataka and North Eastern States.
- Keep the harvested produce at safer places.
- Provide mechanical support to horticultural crops & staking to vegetables.

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>

* 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)