

Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 15th October, 2024

Time of Issue: 1330 hours IST

Subject: (i) The Northeast Monsoon rainfall activity has commenced over southeast peninsular India today, the 15th October.

(ii) In association with the well marked low pressure area over south Bay of Bengal, isolated very heavy to extremely heavy rainfall likely over Tamil Nadu, Kerala and South Interior Karnataka during 15th to 17th; Rayalaseema and Coastal Andhra Pradesh on 15th & 16th October, 2024.

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

Heavy to very Heavy rainfall at isolated places over Coastal Andhra Pradesh & Yanam, East Madhya Pradesh, Tamil Nadu, Puducherry & Karaikal; **Heavy rainfall** at isolated places over West Madhya Pradesh, Madhya Maharashtra, Rayalaseema, Saurashtra & Kutch, Kerala & Mahe.

Commencement of Northeast Monsoon rainfall activity over southeast peninsular India:

- ❖ Southwest monsoon has withdrawn from the entire country today, the 15th October 2024. Simultaneously, the Northeast Monsoon rainfall activity has commenced over the southeast peninsular India today, the 15th October, in association with following features:
 - (a) A **well marked low pressure area** lies over central part of south Bay of Bengal.
 - (b) Easterly & northeasterly winds set-in over southern peninsular India, south & adjoining central Bay of Bengal and extends upto middle tropospheric levels,
 - (c) Fairly widespread to widespread light to moderate rainfall occurred over southeast peninsula with isolated Heavy to very Heavy rainfall observed over Tamil Nadu & Puducherry, Coastal Andhra Pradesh, Rayalaseema and Kerala.

Weather Systems:

- ❖ The **well marked low pressure area** over the central part of south Bay of Bengal persisted over the same region at 0830 hours IST of today, the 15th October 2024. It is likely to move west-northwestwards and intensify into a depression over southwest Bay of Bengal during next 24 hours. It is likely to continue to move west-northwestwards towards north Tamil Nadu, Puducherry and adjoining south Andhra Pradesh coasts during subsequent 24 hours.
- ❖ Yesterday's **Depression** over westcentral Arabian Sea off Oman coast moved northwestwards with a speed of 18 kmph during past 6 hours, and lay centred at 0830 hours IST of today, the 15th October, 2024 over the same region near latitude 16.8°N and longitude 60.5°E, about 460 km south-southeast of Masirah (Oman), 680 km east of Salalah (Oman) and 900 km east of Al Ghaidah (Yemen). It is likely to move nearly westwards towards Oman coast and weaken gradually into a well-marked low pressure area during next 06 hours.
- ❖ A **cyclonic circulation** lies over westcentral Bay of Bengal off south coastal Andhra Pradesh and extends upto middle tropospheric levels tilting southwestwards with height.

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

South Peninsular India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Kerala & Mahe, Karnataka during the week; Scattered to Fairly widespread light to moderate rainfall very likely over Lakshadweep, Rayalaseema, Coastal Andhra Pradesh & Yanam, Telangana, Tamil Nadu, Puducherry & Karaikal during the week.
- ✓ **Isolated extremely heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal on 15th & 16th; Rayalaseema, Coastal Andhra Pradesh & Yanam on 16th October.
- ✓ **Isolated very heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, South Interior Karnataka during 15th -17th; Rayalaseema, Coastal Andhra Pradesh & Yanam on 15th & 16th; Coastal Karnataka on 16th October.
- ✓ **Isolated heavy rainfall** very likely over Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, South Interior Karnataka during 15th -17th; Coastal Karnataka during 15th-18th; North Interior Karnataka during 16th & 17th October.

West India

- ✓ Scattered to Fairly widespread light to moderate rainfall very likely over Konkan & Goa; Isolated to Scattered light to moderate rainfall over remaining regions of West India except Saurashtra & Kutch where Dry weather is likely to prevail from 17th-21st during the week.
- ✓ **Isolated heavy rainfall** very likely Konkan & Goa during 15th-17th October.

Northwest, Central, Northeast & East India:

- ✓ No significant rainfall likely over these regions during the week.

Fishermen warning:

- ✓ Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph very likely to prevail over many parts of westcentral Arabian sea and adjoining northwest and adjoining eastcentral Arabian sea, along and off Kerala coast and adjoining Lakshadweep and Comorin areas, over gulf of Mannar, along and off Sri Lanka coast, along and off Tamil Nadu, Andhra Pradesh coasts, most parts of south Bay of Bengal, many parts of westcentral Bay of Bengal, few parts of eastcentral Bay of Bengal. Squally weather with wind speed 40 kmph to 50 kmph gusting to 60 kmph is likely to prevail over parts of southeast and southwest Bay of Bengal. Fishermen are advised not to venture into these areas.

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:

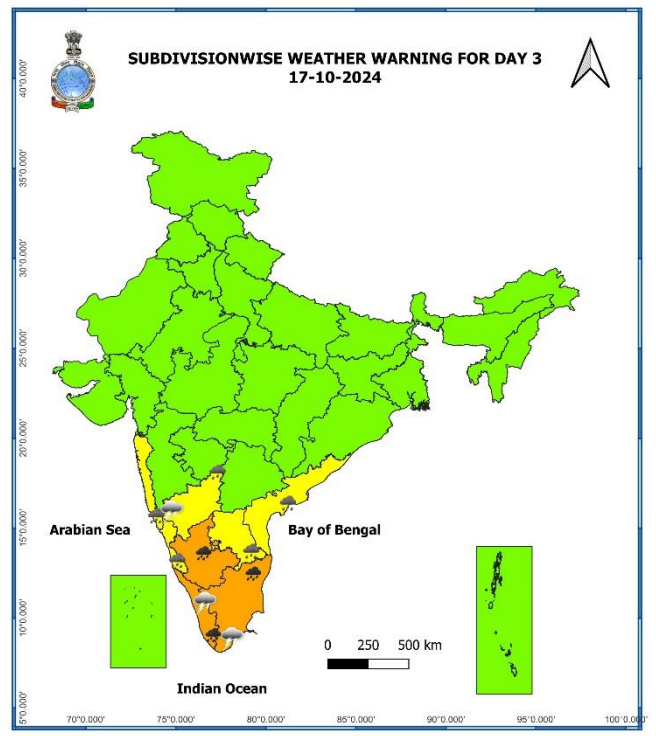
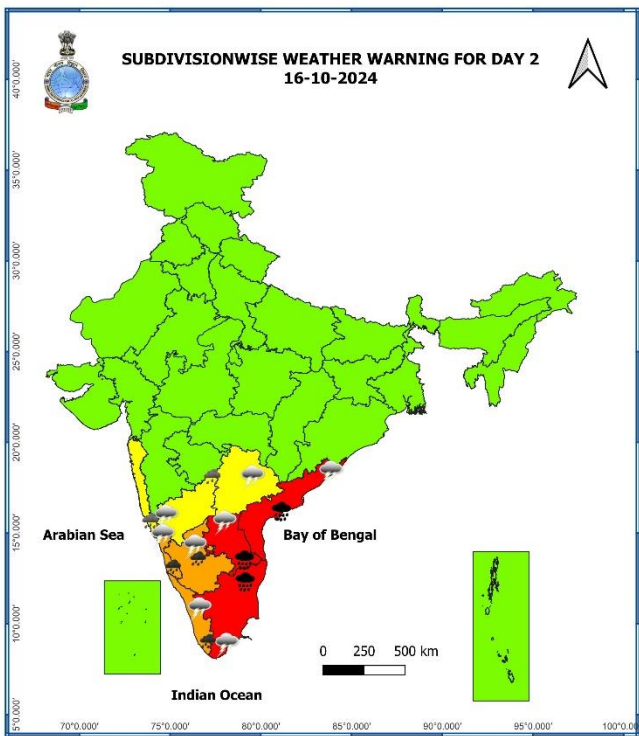
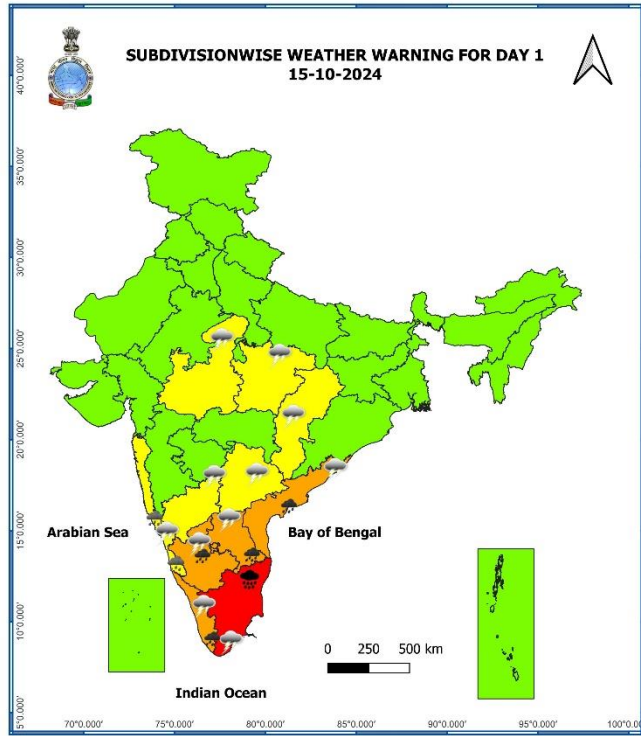
https://rsmcnewdelhi.imd.gov.in/uploads/archive/51/51_bdf575_GRAPHIC.png

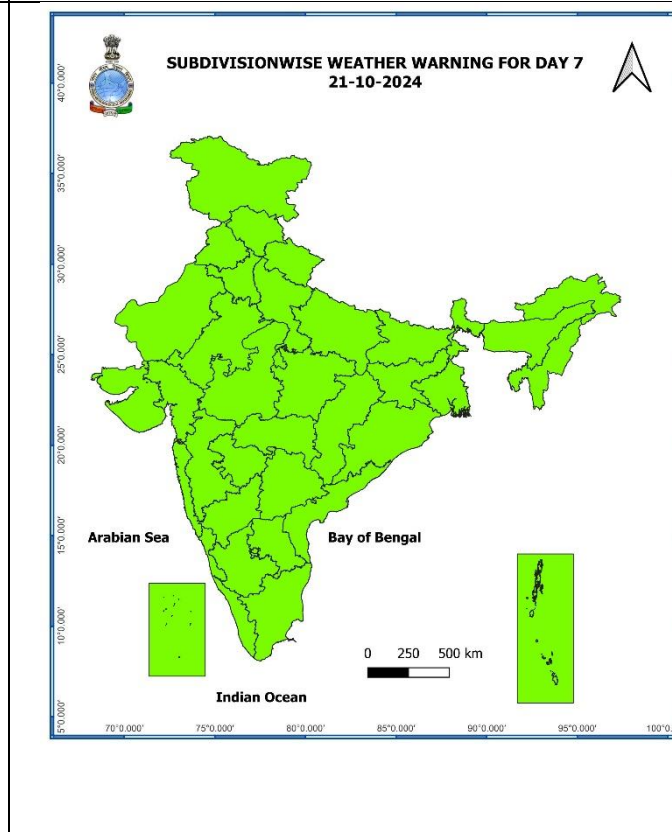
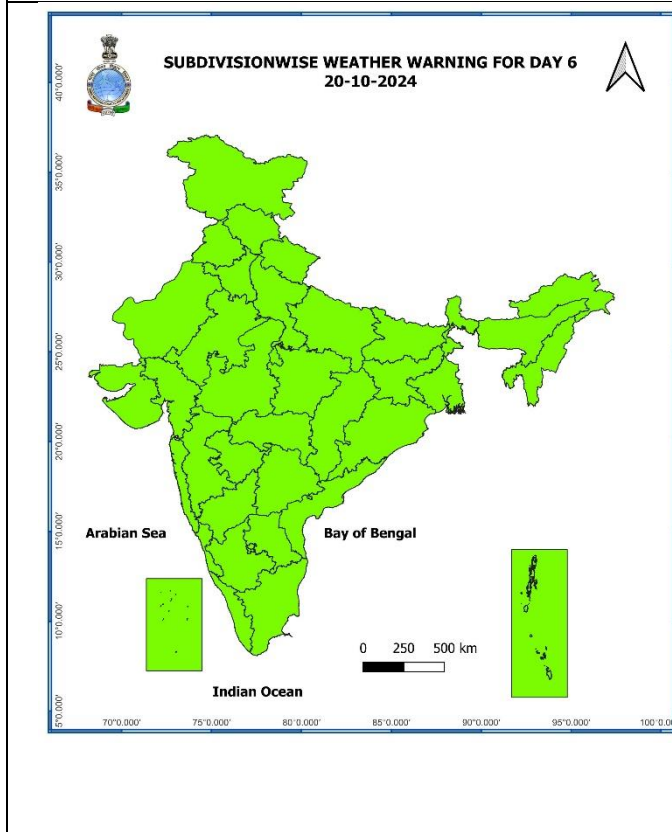
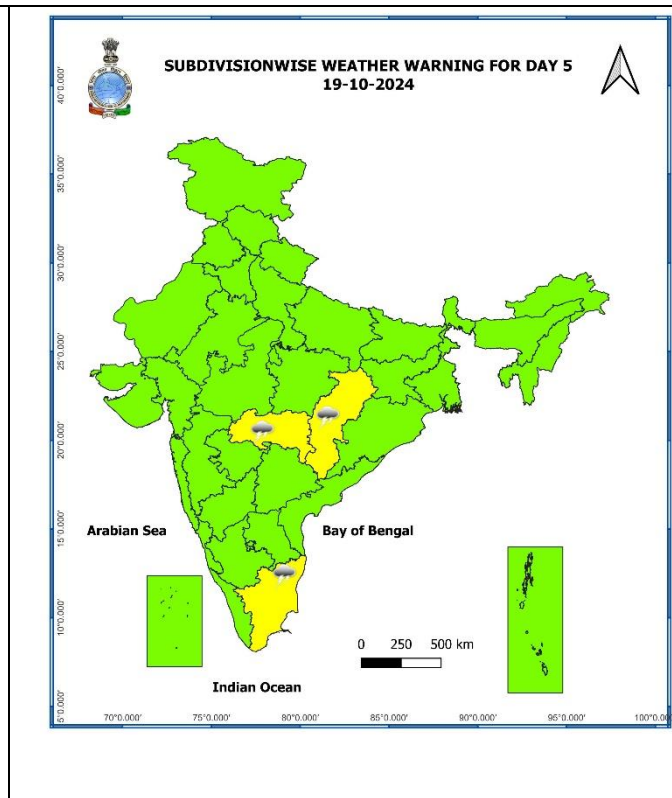
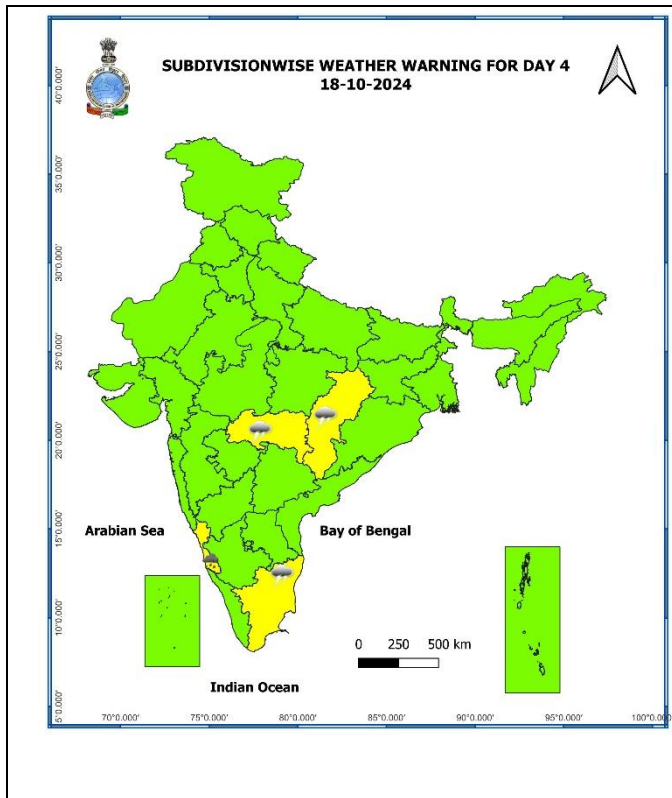
Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 15.10.2024 (in cm):

- ❖ **Coastal Andhra Pradesh & Yanam:** Kavali (dist Spsr Nellore) 15, Addanki (dist Bapatla) 14, Kandukur (dist Spsr Nellore) 12, Yanam (dist Yanam) 9, Atmakur (dist Spsr Nellore) 8, Podili (dist Prakasam) 8, Nellore (dist Spsr Nellore) 8, Ongole (dist Prakasam) 7, Mundlamuru (dist Prakasam) 7, Repalle (dist Bapatla) 7, Vinjamur (dist Spsr Nellore) 7,
- ❖ **Tamil Nadu, Puducherry & Karaikal:** Kudimiyamalai (dist Pudukkottai)13,Gummidipoondi (dist Tiruvallur), Ennore AWS (dist Chennai) 10 each,Zone 02 D15, Manali (dist Chennai), Zone 08 Malar Colony (dist Chennai), Zone 06 D65Kolathur (dist, Chennai), Zone 06 T.V.K Nagar (dist Chennai), Ponneri (dist Tiruvallur), Zone 05Royapuram (dist Chennai) 9 each,Chennai Collector Office (dist Chennai), Zone 10 Kodambakkam (dist Chennai), Good WillSchool Villivakkam ARG (dist Tiruvallur), Zone 07 Ambattur (dist Chennai), Sholinganallur (distChennai), Zone 02 Manali (dist Chennai), Zone 09 Teynampet (dist Chennai) 8 each,Chennai(N) AWS (dist Chennai), Zone 15 Uthandi (dist Chennai), Zone 07 U18 D81 Vanagaram(dist Chennai), Zone 03 Madhavaram (dist Chennai), Chennai (N) (dist Chennai), Perambur (distChennai), Zone 11 U32 Maduravoyal (dist Chennai), Satyabama Uty ARG (dist Kancheepuram),Zone 12 D156 Mugalivakkam (dist Chennai), Coimbatore AWS (dist Coimbatore), Pulipatti (distMadurai), Hindustan_University (dist Kancheepuram), DGP Office (dist Chennai), TNAUCoimbatore (dist Coimbatore), Chittampatti (dist Madurai), Zone 12 Meenambakkam (distChennai), Zone 15 Sholinganallur (dist Chennai), Zone 08 Anna Nagar (dist Chennai), Zone 03Puzhal (dist Chennai), Srivilliputhur (dist Virudhunagar), Ayanavaram Taluk Office (distChennai), Kallandri (dist Madurai), Zone 11 Valasaravakkam (dist Chennai), Zone 09 Ice House(dist Chennai), Meenambakkam AWS (dist Chennai) 7 each,
- ❖ **East Madhya Pradesh:** Bilhari (dist Katni) 12,
- ❖ **Rayalaseema:** Kodur (dist Ysr District) 10, Sullurpeta (dist Tirupati) 7,
- ❖ **Kerala & Mahe:** Tellichery (dist Cannur) 8,
- ❖ **Saurashtra & Kutch:** Bagasra (dist Amreli) 8,
- ❖ **West Madhya Pradesh:** Sardarpur (dist Dhar) 7,
- ❖ **Madhya Maharashtra:** Ambegaon Ghodegaon (dist Pune) 7,

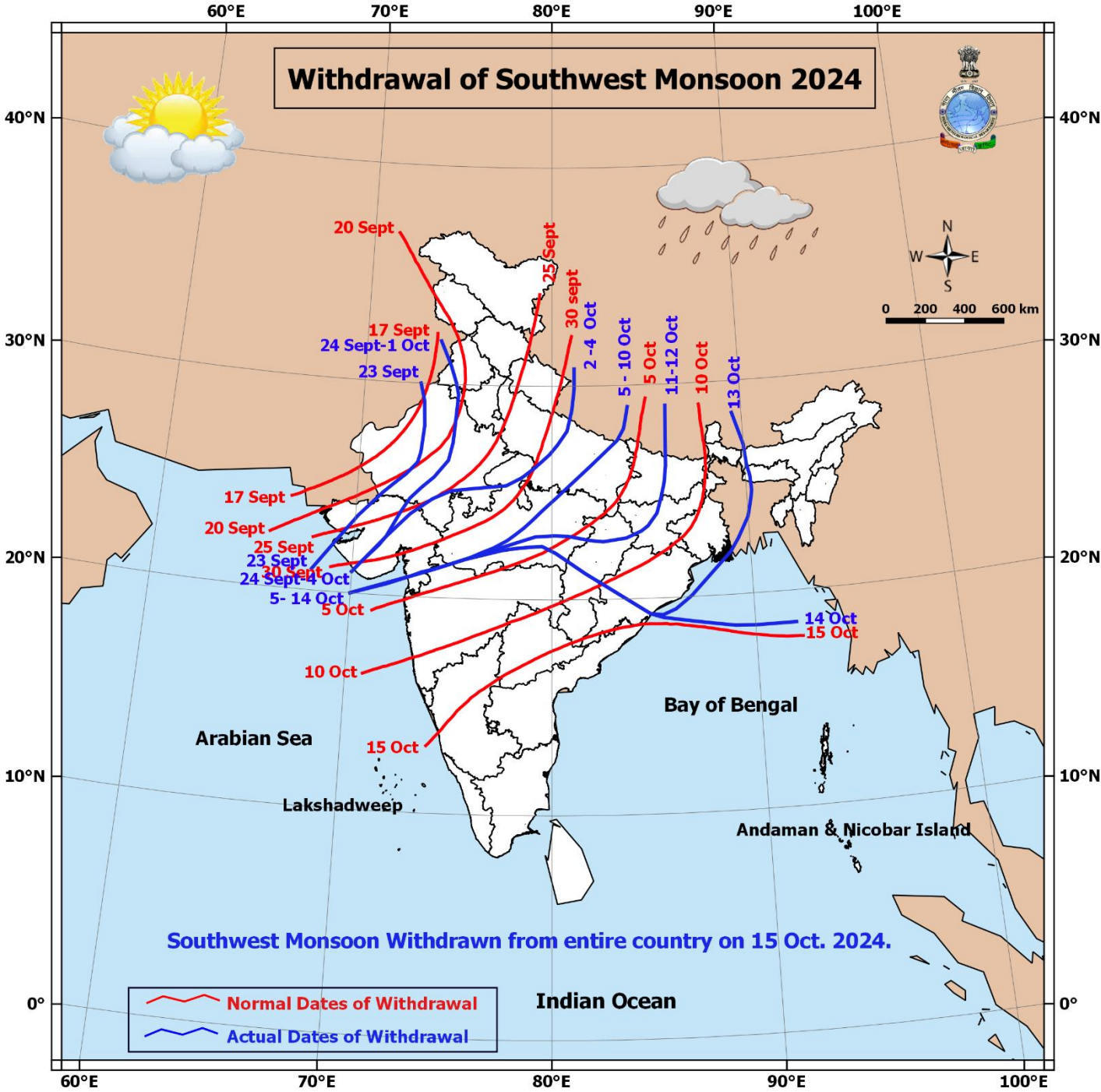
7 Days Rainfall Forecast								
S. No.	Subdivision	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	FWS	FWS	WS	WS	WS	FWS
2	ARUNACHAL PRADESH	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
3	ASSAM & MEGHALAYA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
6	GANGETIC WEST BENGAL	ISOL	ISOL	SCT	SCT	ISOL	ISOL	ISOL
7	ODISHA	ISOL	ISOL	SCT	SCT	SCT	ISOL	ISOL
8	JHARKHAND	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
9	BIHAR	ISOL	ISOL	DRY	ISOL	ISOL	ISOL	DRY
10	EAST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	DRY	DRY	DRY	DRY	DRY	DRY	DRY
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
15	HIMACHAL PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
16	JAMMU & KASHMIR AND LADAKH	DRY	ISOL	ISOL	DRY	DRY	DRY	DRY
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	DRY	DRY
21	GUJARAT REGION	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
22	SAURASHTRA & KUTCH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	FWS	SCT	SCT	FWS	SCT	SCT	SCT
24	MADHYA MAHARASHTRA	SCT	ISOL	ISOL	SCT	SCT	SCT	SCT
25	MARATHAWADA	ISOL	ISOL	ISOL	SCT	SCT	ISOL	ISOL
26	VIDARBHA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
27	CHHATTISGARH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
28	COASTAL ANDHRA PRADESH & YANAM	FWS	FWS	FWS	SCT	SCT	SCT	SCT
29	TELANGANA	SCT	ISOL	ISOL	SCT	FWS	FWS	FWS
30	RAYALASEEMA	WS	WS	FWS	FWS	SCT	SCT	SCT
31	TAMILNADU PUDUCHERRY & KARAIKAL	WS	FWS	SCT	SCT	ISOL	SCT	SCT
32	COASTAL KARNATAKA	WS	WS	WS	WS	FWS	FWS	WS
33	NORTH INTERIOR KARNATAKA	FWS	FWS	FWS	FWS	WS	WS	WS
34	SOUTH INTERIOR KARNATAKA	WS	WS	WS	FWS	FWS	WS	WS
35	KERALA & MAHE	WS	WS	WS	FWS	FWS	FWS	FWS
36	LAKSHADWEEP	FWS	FWS	FWS	SCT	SCT	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 Tamil Nadu, Puducherry & Karaikal on 15th & 16th; Rayalaseema, Coastal Andhra Pradesh & Yanam on 16th October.
- ✓ **Isolated very heavy rainfall** very likely over Kerala & Mahe, South Interior Karnataka during 15th -17th; Rayalaseema, Coastal Andhra Pradesh & Yanam on 15th; Coastal Karnataka on 16th; Tamil Nadu, Puducherry & Karaikal on 17th October.
- ✓ **Low to Moderate flash flood risk** likely over few watersheds & neighbourhoods of Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal during 15th -16th 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 south Coastal Andhra Pradesh, drain out excess water from cotton, pulses, maize and rice fields and postpone sowing of rabi pulses. Immediately harvest matured rice in Nellore district and shift the harvested produce at safer places. In north Coastal Andhra Pradesh, postpone harvesting of groundnut and maize.
- ✓ In Rayalaseema, protect the harvested groundnut produce. Withhold sowing of rabi Bengal gram and groundnut.
- ✓ Drain out excess water from rice and other standing crops and vegetable fields in Kerala, as well as from rice nurseries and fields of rice, maize, pepper, and newly planted turmeric in Tamil Nadu.
- ✓ 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 16-10-2024:**

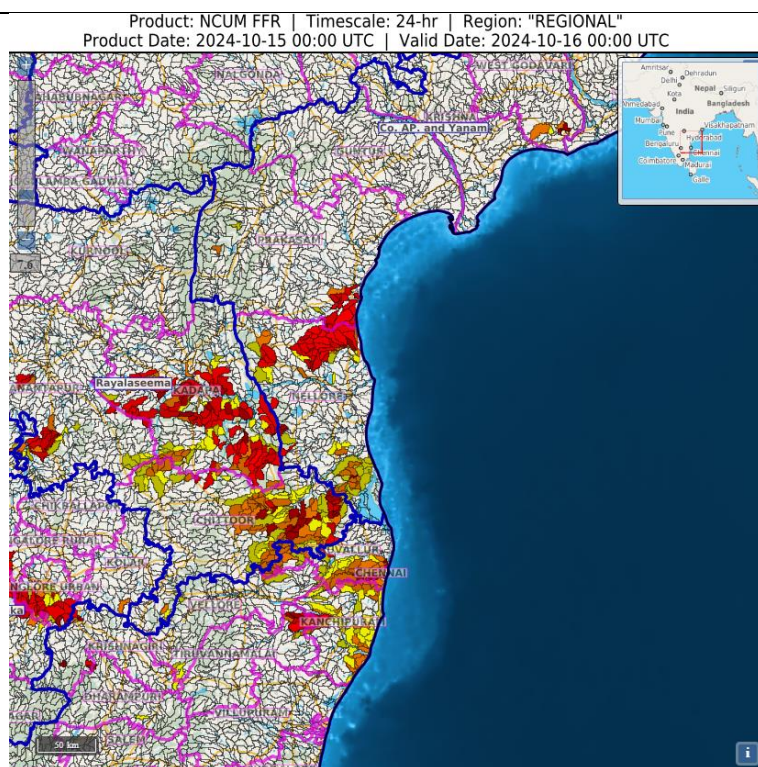
Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours.

Coastal Andhra Pradesh – Nellore and Prakasham district

Rayalaseema – Kadapa and Chittoor districts

Tamil Nadu, Puducherry and Karaikal – Thiruvallur, Thruvanamalai, Chennai and Kanchipuram districts.

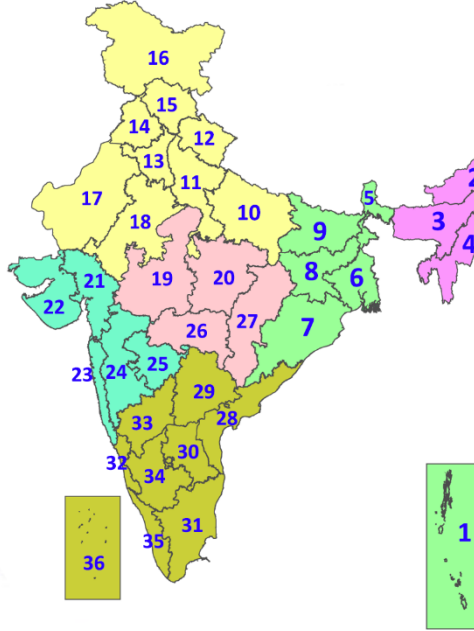
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.

**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 Marathwada.
 - **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)