

Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 19<sup>th</sup> October, 2024

Time of Issue: 1515 hours IST

**Subject:(i) Well marked Low pressure area lies over eastcentral & adjoining westcentral Arabian Sea**

**(ii) Cyclonic circulation lies over southwest and adjoining westcentral Bay of Bengal off north Tamil Nadu coast extending upto mid tropospheric levels.**

**(iii) A fresh low pressure area likely to form over Central Bay of Bengal around 21<sup>nd</sup> October and become more marked thereafter.**

**(iv) Isolated heavy to very heavy rainfall likely over parts of south Peninsular India today; over Andaman & Nicobar Islands on 20<sup>th</sup> & 21<sup>st</sup> and over parts of over Odisha and Gangetic West Bengal during 24<sup>th</sup> -25<sup>th</sup> October 2024.**

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

- ❖ **Heavy to very Heavy rainfall** at isolated places over Odisha, Tamil Nadu, Puducherry & Karaikal; **Heavy rainfall** at isolated places over Gujarat Region, Madhya Maharashtra, Marathwada, Rayalaseema, Coastal Andhra Pradesh & Yanam.
- ❖ **Hailstorm** observed at isolated places over Madhya Maharashtra.

**Weather Systems:**

- ❖ Yesterday's **low pressure area** over eastcentral Arabian Sea lay as a **well marked low pressure area** over eastcentral & adjoining westcentral Arabian Sea at 0830 IST of Today. It is likely to move west-northwestwards away from Indian coast during next 2 days.
- ❖ A **cyclonic circulation** lies over southwest and adjoining westcentral Bay of Bengal off north Tamil Nadu coast and south coastal Andhra Pradesh and extends upto mid tropospheric level tilting southwestwards with height.
- ❖ A **cyclonic circulation** lies over Central Andaman Sea and extends upto mid tropospheric level. Under its influence, a low pressure area is likely to form over Eastcentral Bay of Bengal and adjoining north Andaman Sea around 21<sup>st</sup> October. Thereafter, it is likely to move northwestwards and intensify further into a depression around 23<sup>rd</sup> October.

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

**South Peninsular India**

- ✓ Scattered to Fairly widespread light to moderate rainfall very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Costal Karnataka, South Interior Karnataka, Rayalaseema; Isolated light to moderate rainfall very likely over rest of the region during the week.
- ✓ **Isolated very heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal on 19<sup>th</sup> October.

- ✓ **Isolated heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal during 19<sup>th</sup> -21<sup>st</sup> & 24<sup>th</sup>; North Interior Karnataka during 19<sup>th</sup> -22<sup>nd</sup>; South Interior Karnataka during 19<sup>th</sup> -23<sup>rd</sup>; Rayalaseema on 19<sup>th</sup>; Kerala & Mahe during 20<sup>th</sup> -24<sup>th</sup>; Coastal Andhra Pradesh & Yanam during 19<sup>th</sup>, 20<sup>th</sup>, 23<sup>rd</sup> & 24<sup>th</sup>; Coastal Karnataka on 22<sup>nd</sup> & 23<sup>rd</sup> October.

### East India

- ✓ Fairly widespread to widespread light to moderate rainfall over Andaman & Nicobar Islands; Isolated to Scattered light to moderate rainfall very likely over rest of the region during the week.
- ✓ **Isolated very heavy rainfall** very likely over Andaman & Nicobar Islands on 20<sup>th</sup> & 21<sup>st</sup>; Odisha on 24<sup>th</sup> & 25<sup>th</sup>; Gangetic West Bengal on 25<sup>th</sup> October.
- ✓ **Isolated heavy rainfall** very likely over Andaman & Nicobar Islands during 19<sup>th</sup> -21<sup>st</sup>; Gangetic West Bengal during 23<sup>rd</sup> -25<sup>th</sup>; Odisha on 19<sup>th</sup>, 23<sup>rd</sup>, 24<sup>th</sup> & 25<sup>th</sup> October.

### West India

- ✓ Scattered to Fairly widespread light to moderate rainfall very likely over Konkan & Goa, Madhya Maharashtra; Isolated light to moderate rainfall very likely over rest of the region during the week except Saurashtra & Kutch where dry weather is likely to prevail from 22<sup>nd</sup> -25<sup>th</sup> October.
- ✓ **Isolated heavy rainfall** very likely over Konkan & Goa, Madhya Maharashtra, Saurashtra & Kutch, Gujarat Region on 19<sup>th</sup> & 20<sup>th</sup> October.
- ✓ **Isolated Hailstorm** very likely over Madhya Maharashtra on 19<sup>th</sup> & 20<sup>th</sup> October.

### Northwest, Central & Northeast India:

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

### Fishermen Warning (graphic attached):

#### Wind warning

**Arabian Sea: Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** is likely to prevail over off Maharashtra coast, over eastcentral Arabian sea and adjoining westcentral, northeast Arabian sea today 19<sup>th</sup> Oct; over eastcentral Arabian sea and adjoining westcentral, northeast Arabian sea on 20<sup>th</sup> & 21<sup>st</sup> Oct. Fishermen are advised not to venture into these areas.

**Bay of Bengal and Andaman Sea: Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** is likely to prevail over Andaman sea on today 19<sup>th</sup> Oct and on 20<sup>th</sup> and 21<sup>st</sup> Oct; central & adjoining south Bay of Bengal during 21<sup>st</sup> to 24<sup>th</sup> Oct; over North Bay of Bengal during 23<sup>rd</sup> to 25<sup>th</sup> Oct.

**Fishermen Warning:** In view of likely formation of Low Pressure System on 21<sup>st</sup> October and its intensification into a depression on 23<sup>rd</sup> October, fishermen are advised not to venture into Andaman Sea during 19<sup>th</sup> to 21<sup>st</sup> October; central Bay of Bengal during 21<sup>st</sup> to 24<sup>th</sup> Oct and North Bay of Bengal during 23<sup>rd</sup> to 25<sup>th</sup> Oct.

**Onshore and Offshore** activities and other maritime activities including shipping are advised to be conscious over central Bay of Bengal in view of the likely formation of depression over the area.

**For more details, kindly refer National Weather Bulletin:**

[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.php>

**For Fishermen warnings, kindly refer:**

[https://rsmcnewdelhi.imd.gov.in/uploads/archive/51/51\\_bdf575\\_GRAPHIC.png](https://rsmcnewdelhi.imd.gov.in/uploads/archive/51/51_bdf575_GRAPHIC.png)

## **ANNEXURE I**

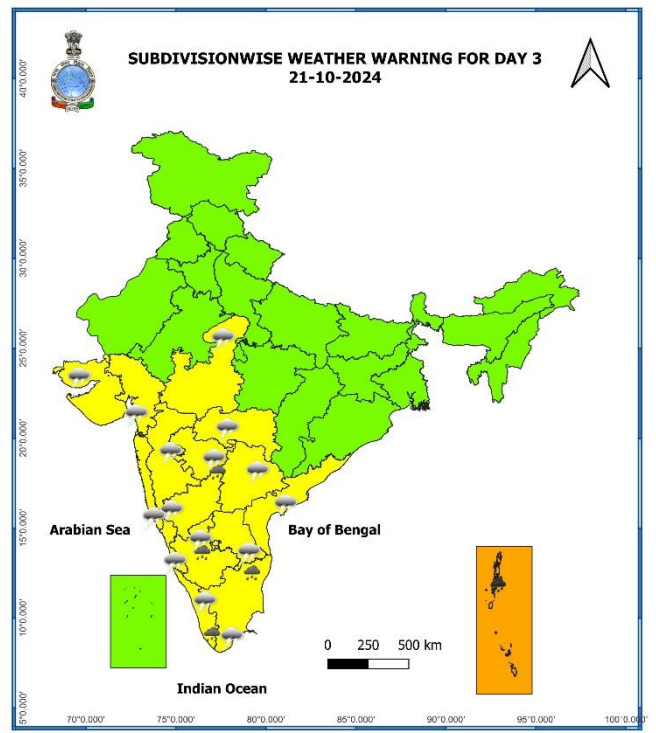
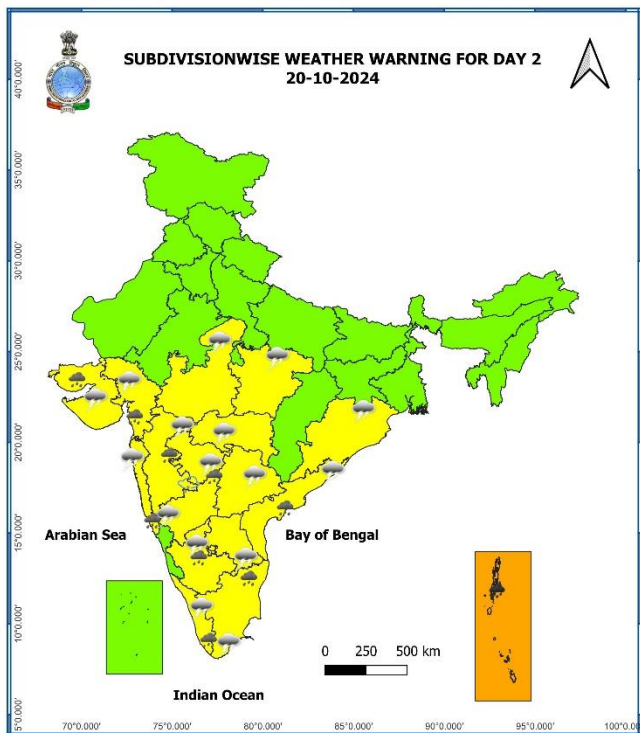
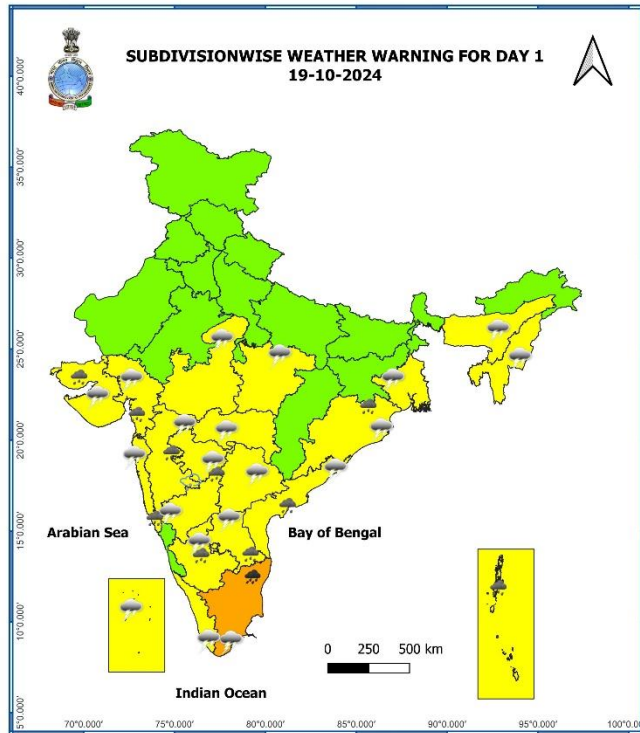
**Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 19.10.2024 (in cm):**

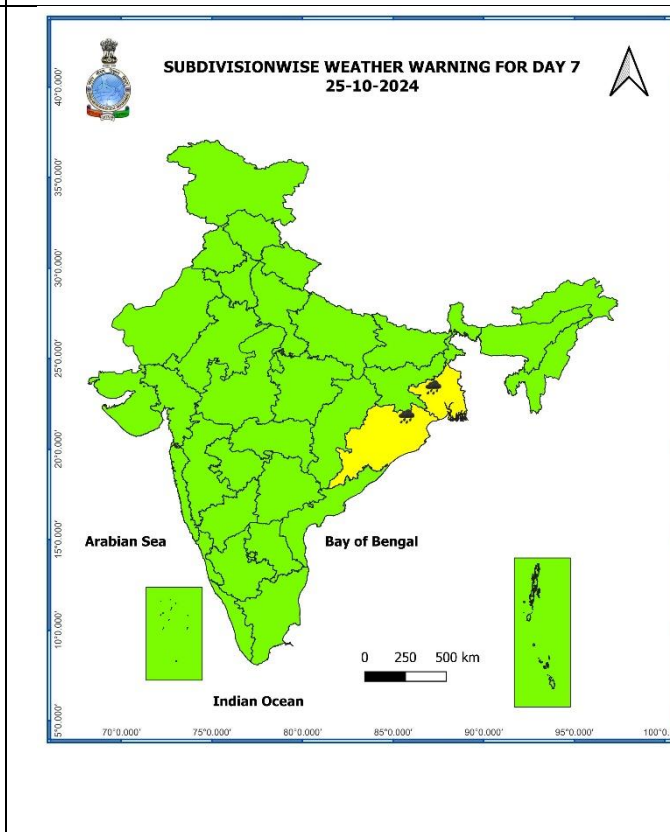
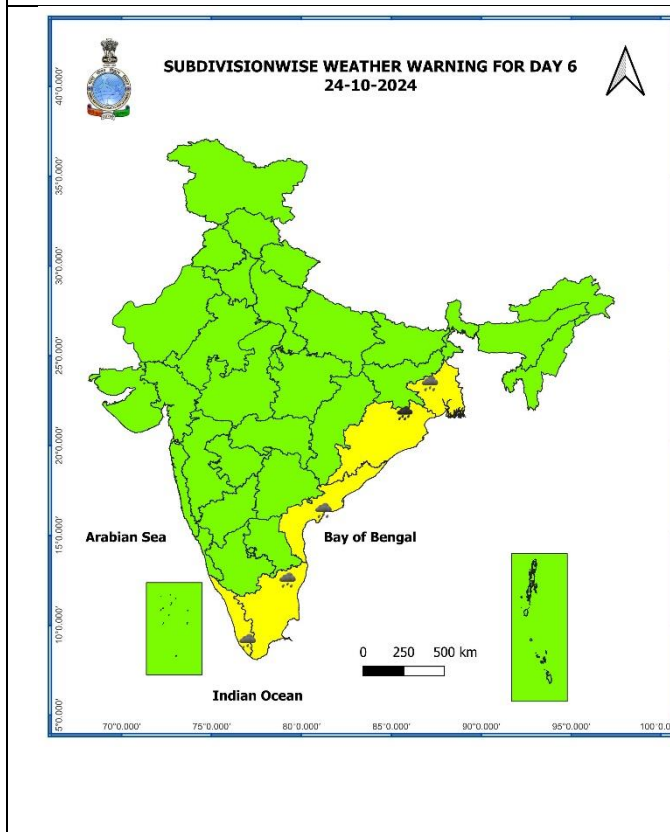
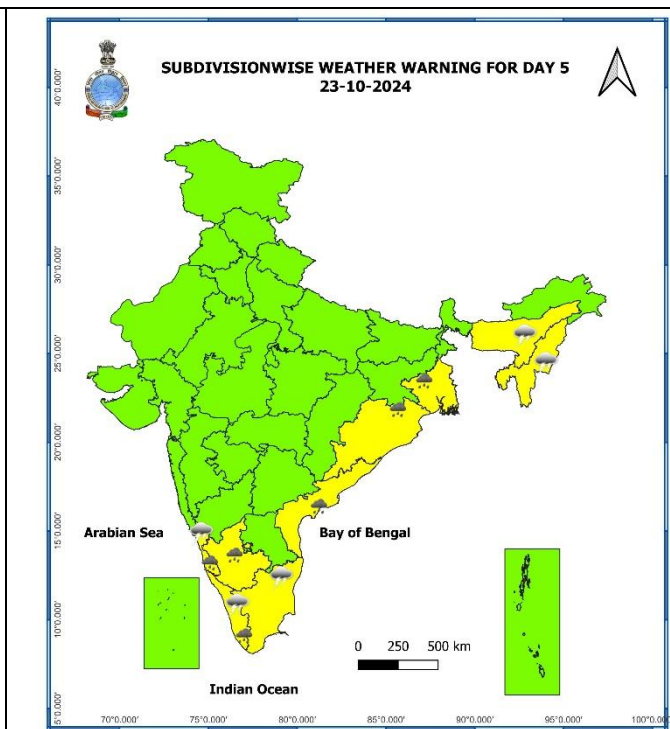
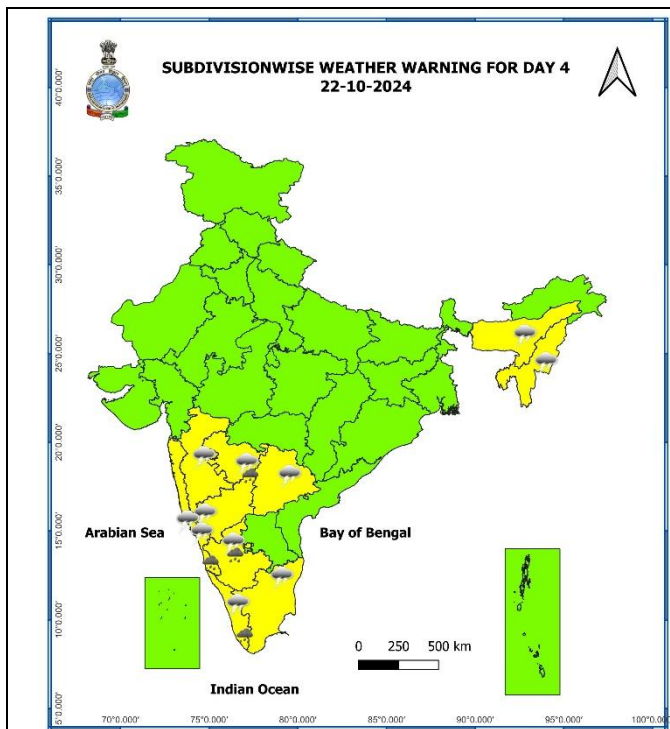
- ❖ **Tamil Nadu, Puducherry & Karaikal:** Kalasapakkam (dist Tiruvannamalai) 17, Arantangi (dist Pudukkottai) 10, Usilampatti (dist Madurai) 9, RSCL-3 Avalurpettai (dist Villupuram), Peravurani (dist Thanjavur) 8 each, Ponneri (dist Tiruvallur), Viralimalai (dist Pudukkottai), Adiramapattinam (dist Thanjavur), Thuvakudi AWS (dist Thiruchirappalli), Thuvakudi Imti (dist Thiruchirappalli) 7 each,
- ❖ **Odisha:** Baripada (dist Mayurbhanj) 14, Suliapada (dist Mayurbhanj) 7,
- ❖ **Madhya Maharashtra:** Bhadgaon (dist Jalgaon) 11, Pachora (dist Jalgaon) 7, Satna Baglan (dist Nashik) 7,
- ❖ **Rayalaseema:** Thottambedu (dist Tirupati) 8, Srikalahasti (dist Tirupati) 7,
- ❖ **Coastal Andhra Pradesh & Yanam:** Vinjamur (dist Spsr Nellore) 7,
- ❖ **Gujarat Region:** Songadh (dist Tapi) 7,
- ❖ **Marathwada:** Soegaon (dist Chh. Sambhajinagar) 7,

## ANNEXURE II

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

- ✓ **Isolated heavy to very heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal on 19<sup>th</sup>; Andaman & Nicobar Islands on 20<sup>th</sup> & 21<sup>st</sup>; Odisha on 24<sup>th</sup> & 25<sup>th</sup>; Gangetic West Bengal on 25<sup>th</sup> 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

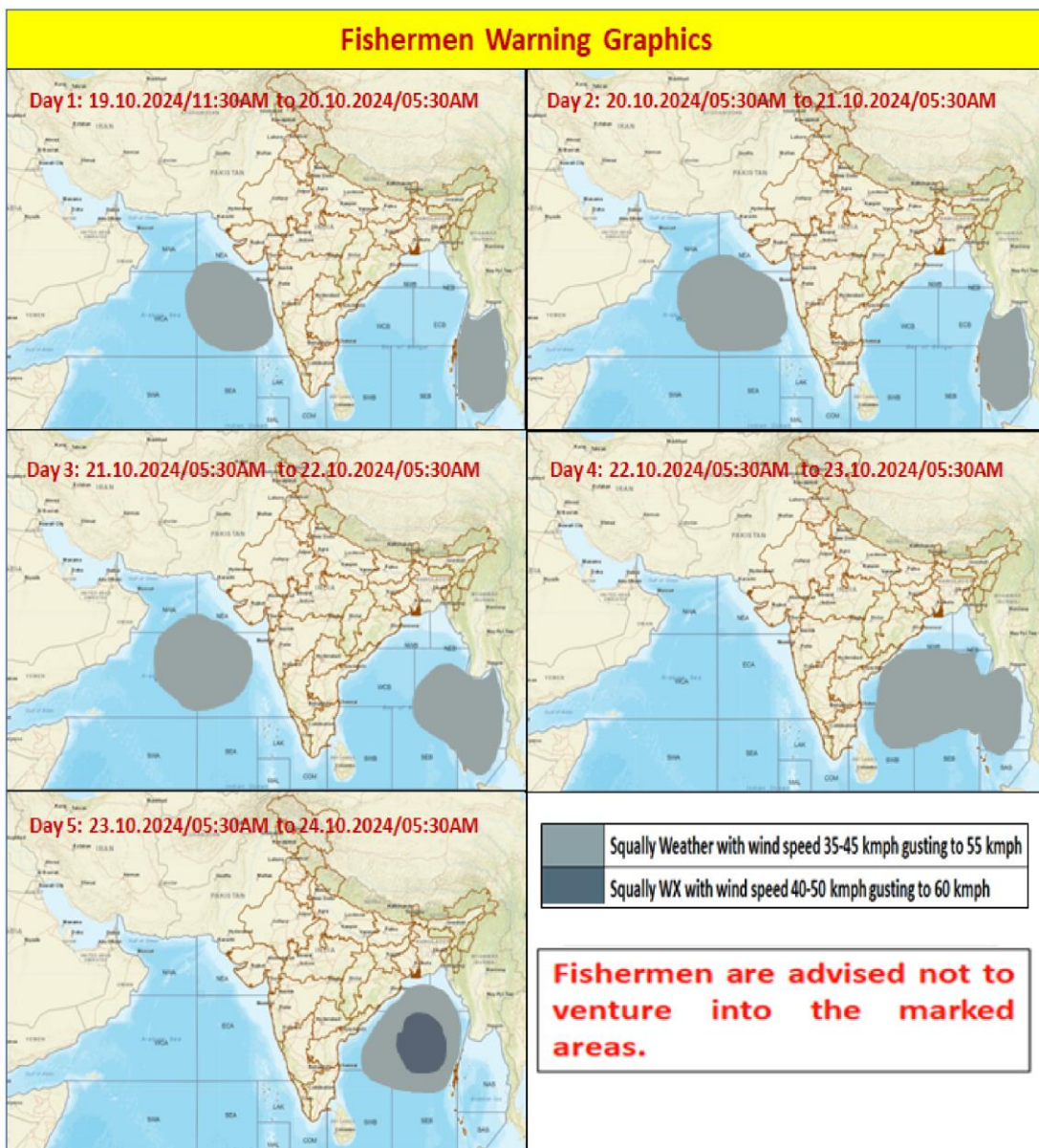
## **In view of likely formation of Low Pressure System on 21<sup>st</sup> October and its intensification into a depression on 23<sup>rd</sup> October:**

- ✓ **Fishermen** are advised not to venture into Andaman Sea during 19<sup>th</sup> to 21<sup>st</sup> Oct; central Bay of Bengal during 21<sup>st</sup> to 24<sup>th</sup> Oct and North Bay of Bengal during 23<sup>rd</sup> to 25<sup>th</sup> Oct.
- ✓ **Onshore and Offshore** activities and other maritime activities including shipping are advised to be conscious for central Bay of Bengal in view of the likely formation of depression over the area.

## Agromet advisories for Heavy Rainfall likely over various parts of the country

- ✓ In **Tamil Nadu**, drain out excess water from rice nurseries and fields of rice, maize, pepper and newly planted turmeric. Undertake detrashing and propping of five-month-old sugarcane to avoid lodging. Provide support to banana plantations.
- ✓ In Andaman and Nicobar Islands, carry out harvesting of matured rice to avoid shattering loss and keep the harvested produce in safe place. Provide adequate drainage in the rice fields (near physiological maturity) to avoid water stagnation.

- ✓ In North Madhya Maharashtra, continue picking of fully opened and matured bolls of cotton and harvesting of matured soybean, maize, pearl millet, groundnut, papaya and banana and keep the harvested produce at safer places.
- ✓ Make necessary arrangements for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Kerala, Interior Karnataka, Andhra Pradesh and Odisha.
- ✓ Keep the harvested produce at safer places.
- ✓ Provide mechanical support to horticultural crops & staking to vegetables



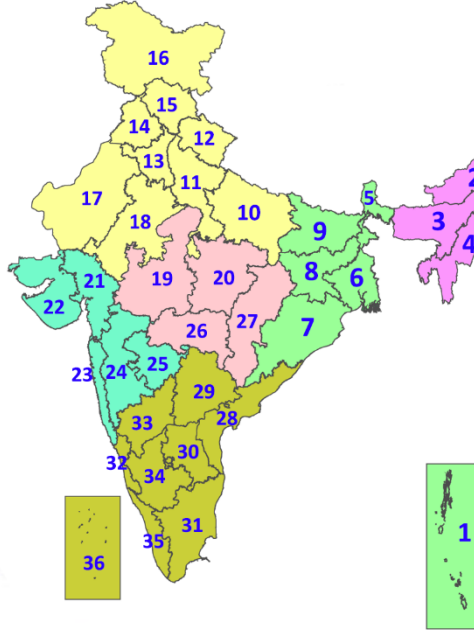


## Legends & abbreviations:

- ❖ **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

<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><b>Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)</b></p>
<b>Dust/Sand Storm</b>	<p><b>An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.</b></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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