



**India Meteorological Department  
(Ministry of Earth Sciences)**

**NATIONAL BULLETIN NO. 2 (BOB/06/2024)**

**TIME OF ISSUE: 1330 HOURS IST**

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**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23093750)  
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CABINET SECRETARIAT (FAX.NO.23012284, 23018638)  
PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)  
SECRETARY, MOES (FAX NO. 24629777)  
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CHIEF SECRETARY, WEST BENGAL (FAX NO. 033-22144328)  
CHIEF SECRETARY, ANDAMAN & NICOBAR ISLANDS (FAX NO. 03192-232656)  
CHIEF SECRETARY, TAMIL NADU (FAX NO. 044-25672304)  
CHIEF SECRETARY, ANDHRA PRADESH (FAX NO. 0863-2441029)  
CHIEF SECRETARY, PUDUCHERRY (FAX NO. 0413-2334145)**

**Subject: Depression over eastcentral Bay of Bengal (Pre-Cyclone Watch for Odisha and West Bengal coasts)**

The depression over Eastcentral Bay of Bengal moved west-northwestwards with a speed of 6 kmph during past 3 hours and lay centred at 0830 hrs IST of today, the 22nd October, over the same region near latitude  $15.5^{\circ}$  N and longitude  $91.0^{\circ}$ E, about 700 km southeast of Paradip (Odisha), 750 km south-southeast of Sagar Island (West Bengal) and 730 km south-southeast of Khepupara (Bangladesh).

It is very likely to move west-northwestwards and intensify into a cyclonic storm by 23rd October, 2024 over eastcentral Bay of Bengal. Thereafter, continuing to move northwestwards, it is very likely to intensify into a severe cyclonic storm over northwest Bay of Bengal by morning of 24th and cross north Odisha and West Bengal coasts between Puri and Sagar Island during night of 24th to morning of 25th October, 2024 as a severe Cyclonic Storm with a wind speed of 100-110 kmph gusting 120 kmph.

Forecast track and intensity are given in the following table:

| Date/Time (IST) | Position<br>(Lat. °N/ Long. °E) | Maximum<br>Sustained Surface Wind<br>Speed (Kmph) | Category Of Cyclonic<br>Disturbance |
|-----------------|---------------------------------|---|-------------------------------------|
| 22.10.24/0830   | 15.5/91.0                       | 40-50 gusting to 60                               | Depression                          |
| 22.10.24/1130   | 15.6/90.7                       | 45-55 gusting to 65                               | Depression                          |
| 22.10.24/1730   | 15.8/90.2                       | 50-60 gusting to 70                               | Deep Depression                     |
| 22.10.24/2330   | 16.1/89.7                       | 55-65 gusting to 75                               | Deep Depression                     |
| 23.10.24/0530   | 16.5/89.2                       | 60-70 gusting to 80                               | Cyclonic Storm                      |
| 23.10.24/1730   | 17.4/88.4                       | 70-80 gusting to 90                               | Cyclonic Storm                      |
| 24.10.24/0530   | 18.7/87.8                       | 85-95 gusting to 105                              | Severe Cyclonic Storm               |
| 24.10.24/1730   | 20.0/87.5                       | 100-110 gusting to 120                            | Severe Cyclonic Storm               |
| 25.10.24/0530   | 21.0/86.8                       | 95-105 gusting to 115                             | Severe Cyclonic Storm               |
| 25.10.24/1730   | 21.5/85.8                       | 70-80 gusting 90                                  | Cyclonic Storm                      |

**(i) Rainfall Warning:**

- ❖ Light to moderate rainfall at most places with **heavy rainfall (07-11 cm)** at isolated places over Andaman Islands on 22<sup>nd</sup> October.
- ❖ Light to moderate rainfall at most places with **heavy rainfall (07-11 cm)** at isolated places is very likely over **Balasore, Bhadrak, Kendrapara, Jagatsingpur, Puri and Khorda**, districts of Odisha on 23<sup>rd</sup> Oct. & **heavy to very heavy rainfall** at a few places and **extremely heavy rainfall ( $\geq 21$  cm)** at isolated places over **Baleswar, Mayurbhanj, Bhadrak, Kendrapara, Jagatsingpur Kendujhar, Jajpur, Cuttack and Dhenkanal, Khorda and Puri** districts of Odisha on 24<sup>th</sup> & 25<sup>th</sup> October.
- ❖ **Light to moderate rainfall at most places with heavy rainfall** at isolated places is very likely on 23<sup>rd</sup> October and heavy to very heavy rainfall at a few places with **extremely heavy rainfall** at isolated places over **South & North 24 Parganas, East & West Medinipur, Jhargram, Howrah, Hooghly, Kolkata and Bankura** districts of Gangetic West Bengal on 24<sup>th</sup> & 25<sup>th</sup> October.
- ❖ Light to moderate rainfall at most places is likely over south Jharkhand with **heavy rainfall** at isolated places on 24<sup>th</sup> and **heavy to very heavy rainfall** at isolated places on 25<sup>th</sup> October.

**(ii) Wind Warning:**

**Eastcentral Bay of Bengal:** Squally wind speed reaching 40-50 kmph gusting to 60 kmph is very likely on 22<sup>nd</sup> October, 50-60 kmph gusting to 70 kmph by 22<sup>nd</sup> night, 70-90 kmph gusting to 100 kmph from 23<sup>rd</sup> evening till 24<sup>th</sup> morning.

**Adjoining areas of Westcentral Bay of Bengal:** Squally wind speed reaching 40-50 kmph gusting to 60 kmph is very likely to commence from 22<sup>nd</sup> evening, 70-80 kmph gusting to 90 kmph from 23<sup>rd</sup> morning to 24<sup>th</sup> afternoon.

**Northwest Bay of Bengal:** Squally wind speed reaching 40-50 kmph gusting to 60 kmph is very likely to commence from 23<sup>rd</sup> morning. It would gradually increase becoming gale wind speed reaching 70-90 kmph gusting to 100 kmph from 23<sup>rd</sup> night to 24<sup>th</sup> morning and 100-110 kmph gusting to 120 kmph from 24<sup>th</sup> Oct evening to 25<sup>th</sup> Oct morning and decrease gradually thereafter.

**Adjoining areas of northeast Bay of Bengal:** Squally wind speed reaching 40-50 kmph gusting to 60 kmph is very likely to commence from 23<sup>rd</sup> night, becoming 50-60 kmph gusting to 70 kmph from 24<sup>th</sup> till 25<sup>th</sup> morning and decrease gradually thereafter.

**Along & off Odisha-west Bengal coasts:** Squally wind speed reaching 40-50 gusting to 60 kmph is very likely to commence from 23<sup>rd</sup> Oct evening. It would gradually increase becoming gale wind speed reaching 60-70 kmph gusting to 80 kmph from 24<sup>th</sup> morning and reaching 100-110 kmph gusting to 120 kmph from 24<sup>th</sup> night till 25<sup>th</sup> Oct morning and decrease gradually thereafter.

**(iii) Sea Condition:**

**Eastcentral Bay of Bengal:** Sea condition is likely to be **Rough to Very Rough** on 22<sup>nd</sup> October, becoming **very rough to high from 23<sup>rd</sup> morning till 24<sup>th</sup> October morning**.

**Adjoining areas of Westcentral Bay of Bengal:** Sea condition is likely to be **Rough to Very Rough** on 23<sup>rd</sup> and very rough to high on 24<sup>th</sup> October.

**Northwest Bay of Bengal:** Sea condition is likely to be **Rough to Very Rough from 23<sup>rd</sup> morning** and would become **High to Very High** from 23<sup>rd</sup> night till 25<sup>th</sup> morning and improve gradually thereafter.

**Adjoining areas of northeast Bay of Bengal:** Sea condition is likely to be **Rough to Very Rough** from 23<sup>rd</sup> night till 25<sup>th</sup> morning and improve gradually thereafter.

**Along & off Odisha-west Bengal coasts:** Sea condition is likely to be **Rough to Very Rough** from **23<sup>rd</sup> evening** and would become **High to Very High** from **24<sup>th</sup> October morning to 25<sup>th</sup> Oct forenoon** and improve gradually thereafter.

**(iv) Fishermen Warning:**

Fishermen are advised not to venture into

- Eastcentral Bay of Bengal during 22<sup>nd</sup> to 24<sup>th</sup> October.
- **Adjoining areas of Westcentral Bay of Bengal on 23<sup>rd</sup> and 24<sup>th</sup> Oct.**
- **North Bay of Bengal** and along & off Odisha, West Bengal and Bangladesh coasts during 23<sup>rd</sup> to 25<sup>th</sup> October.

Fishermen out at sea are advised to return to coasts by today, the 22<sup>nd</sup> Oct.

**(v) Impact Expected over districts of Odisha (Baleswar, Bhadrak, Kendrapara, Jagatsinghpur, Puri, Khorda, Mayurbhanj, Kendujhar, Jajpur, Cuttack, Dhenkanal) and West Bengal (South & North 24 Parganas, East & West Medinipur, Jhargram, Howrah, Hooghly, Kolkata, & Bankura)**

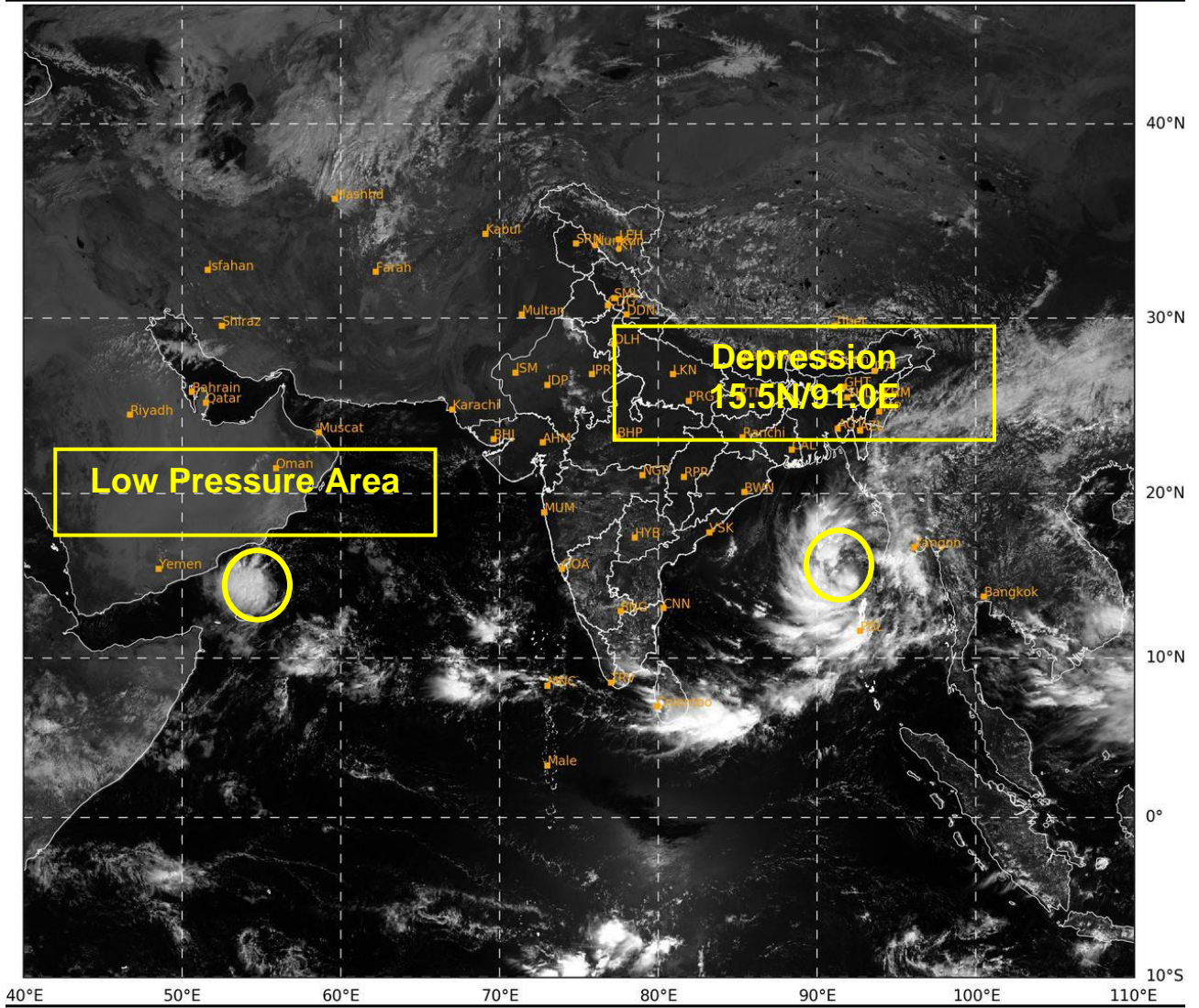
- Major damage to thatched houses/ huts. Roof tops may blow off. Unattached metal sheets may fly.
- Breaking of tree branches and uprooting of trees.
- Damage to power and communication lines.
- Major damage to Kutchha and some damage to Pucca roads. Flooding of escape routes.
- Possibilities of damage to vulnerable structure.
- Major damage to banana and papaya trees. Large dead limbs blown from trees.
- Damage to horticulture and standing crops due to inundation and wind.
- Damage to embankments/ salt pans.
- 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 and

- poor visibility due to heavy rain leading to increased travel time and incidents
  - Localized Landslides/Mudslides/landslips/mud slips/land sinks/mud sinks.
  - Likely disruption of marine and inland water transportation like small boats and trawlers.
  - It may lead to riverine flooding in some river catchments (for riverine flooding please visit Webpage of Central Water Commission)
- ❖ **Action Suggested Baleswar, Bhadrak, Kendrapara, Jagatsinghpur, Puri, Khorda, Mayurbhanj, Kendujhar, Jajpur, Cuttack, Dhenkanal) and West Bengal (South & North 24 Parganas, East & West Medinipur, Jhargram, Howrah, Hooghly, Kolkata & Bankura)**
- Total suspension of fishing operations during 22<sup>nd</sup> to 25<sup>th</sup> Oct over Central and North Bay of Bengal.
  - Fishermen are advised not to venture into
    - ✓ Eastcentral Bay of Bengal during 22<sup>nd</sup> to 24<sup>th</sup> October.
    - ✓ **Adjoining areas of Westcentral Bay of Bengal on 23<sup>rd</sup> and 24<sup>th</sup> Oct.**
    - ✓ **North Bay of Bengal** and along & off Odisha-West Bengal coasts during 23<sup>rd</sup> to 25<sup>th</sup> October morning.
  - Fishermen out at sea are advised to return to coasts by today, the 22<sup>nd</sup> October.
  - Movement in motor boats unsafe
  - Coastal hutment dwellers to be moved to safer places.
  - People in affected areas to remain indoors.
  - Judicious regulation of onshore/offshore, Port and maritime activities including shipping.
  - Judicious regulation of tourism activities in coastal areas.
  - 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.

**Next bulletin will be issued at 1430 hours IST of today, the 22<sup>nd</sup> October, 2024.**

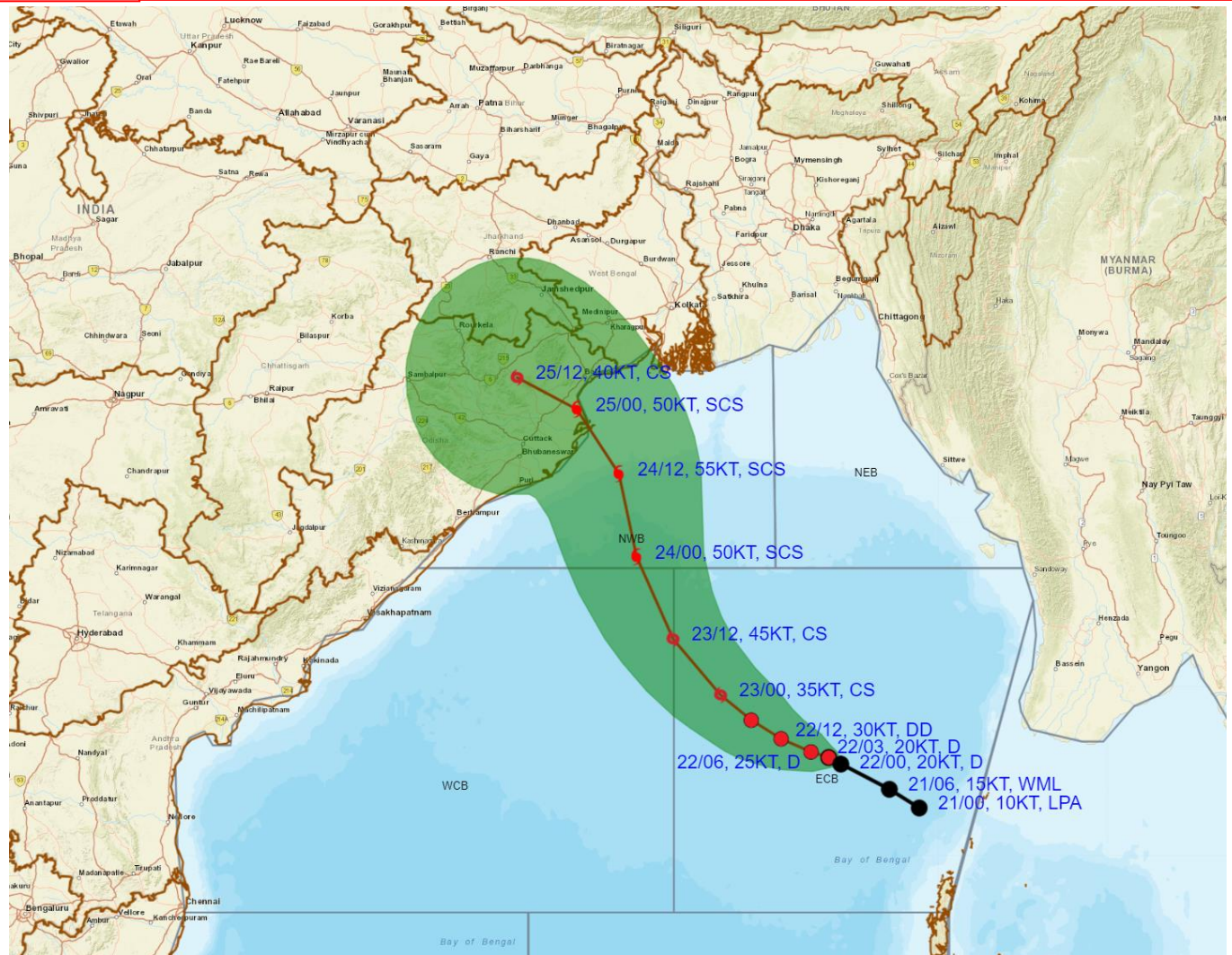
**(Ananda Kumar Das)**  
**Scientist-F, RSMC & IMD, New Delhi**

*Copy to: ACWC Kolkata/ACWC Chennai/CWC Bhubaneswar/CWC Vishakhapatnam/Meteorological Centre Port Blair*





## OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER EASTCENTRAL BAY OF BENGAL BASED ON 0300 UTC (0830 Hrs. IST) OF 22ND OCTOBER 2024

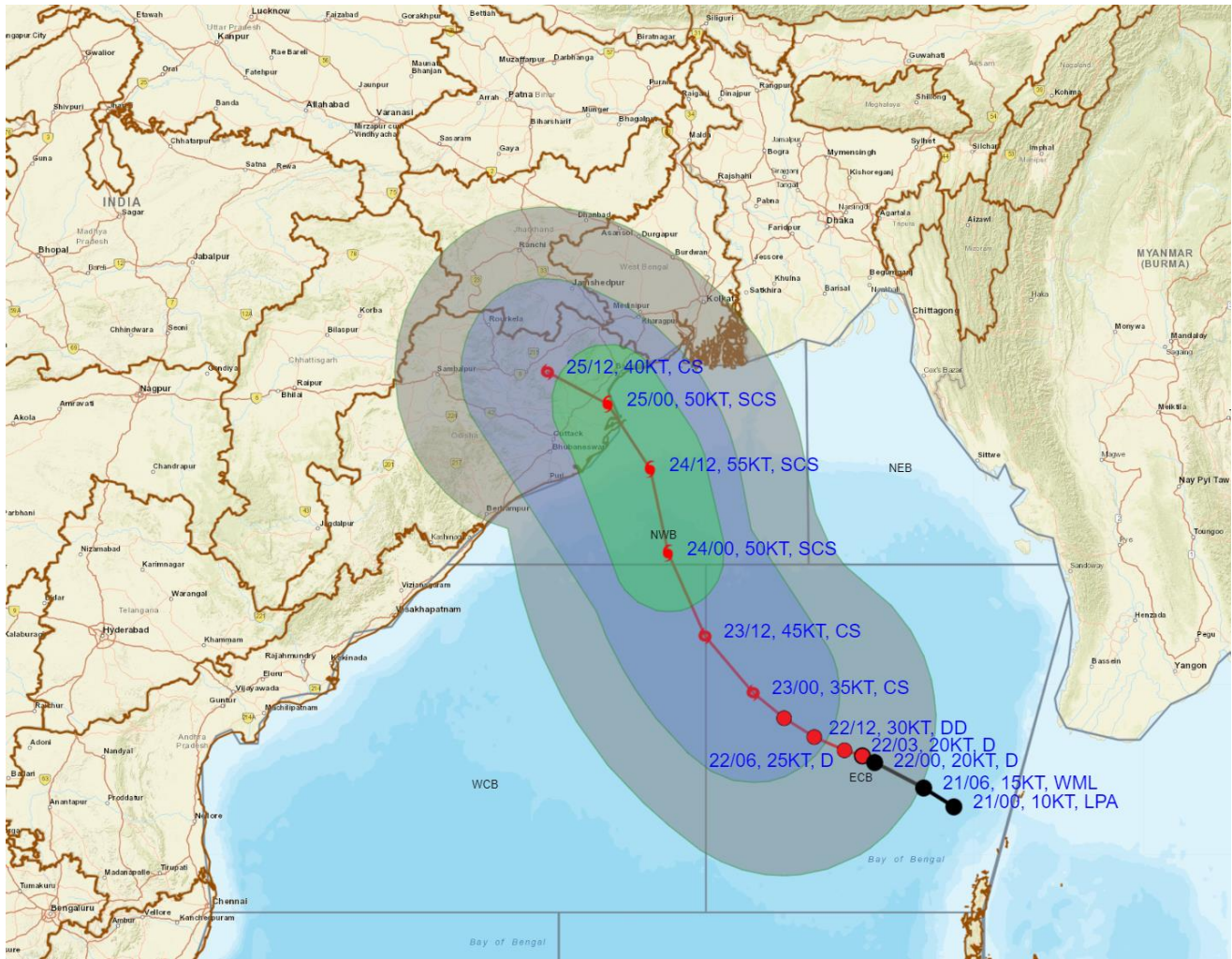


|                  |   |
|------------------|---|
| <b>DATE/TIME</b> | : IN UTC                                      |
| <b>IST</b>       | : UTC + 0530                                  |
| <b>KT</b>        | : NAUTICAL MILE S/HOUR = 1.85 KM/HOUR         |
| <b>LPA</b>       | : LOW PRESSURE AREA                           |
| <b>WML</b>       | : WELL MARKED LOW PRESSURE AREA               |
| <b>D</b>         | : DEPRESSION (17-27 KT)                       |
| <b>DD</b>        | : DEEP DEPRESSION (28-33 KT)                  |
| <b>CS</b>        | : CYCLONIC STORM (34-47 KT)                   |
| <b>SCS</b>       | : SEVERE CYCLONIC STORM (48-63 KT)            |
| <b>VSCS</b>      | : VERY SEVERE CYCLONIC STORM (64-89 KT)       |
| <b>ESCS</b>      | : EXTREMELY SEVERE CYCLONIC STORM (90-119 KT) |
| <b>SuCS</b>      | : SUPER CYCLONIC STORM ( $\geq 120$ KT)       |

- LESS THAN 34 KT**
- 34-47 KT**
- $\geq 48$  KT**
- OBSERVED TRACK**
- FORECAST TRACK**
- CONE OF UNCERTAINTY**



**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEPRESSION OVER EASTCENTRAL BAY OF BENGAL BASED ON 0300 UTC (0830 Hrs. IST) OF 22ND OCTOBER 2024**

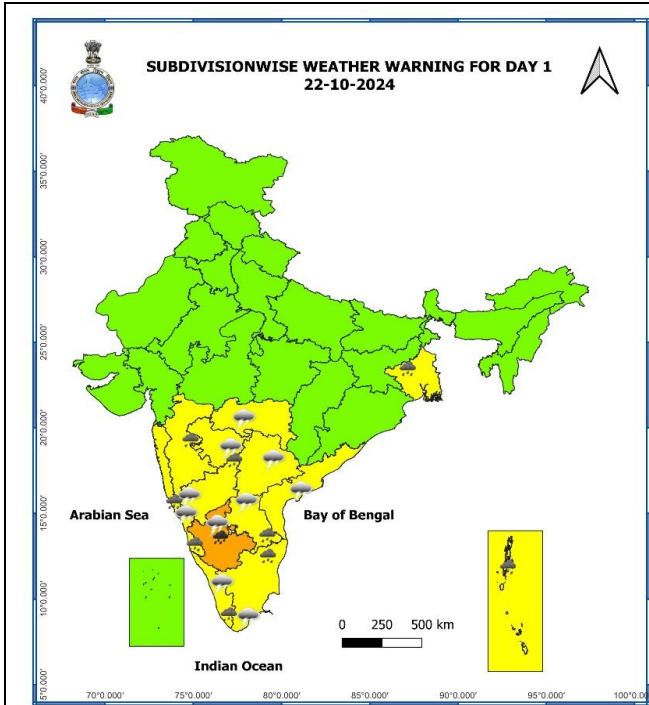


**DATE/TIME** : IN UTC  
**IST** : UTC + 0530  
**KT** : NAUTICAL MILE S/HOUR = 1.85 KM/HOUR  
**LPA** : LOW PRESSURE AREA  
**WML** : WELL MARKED LOW PRESSURE AREA  
**D** : DEPRESSION (17-27 KT)  
**DD** : DEEP DEPRESSION (28-33 KT)  
**CS** : CYCLONIC STORM (34-47 KT)  
**SCS** : SEVERE CYCLONIC STORM (48-63 KT)  
**VSCS** : VERY SEVERE CYCLONIC STORM (64-89 KT)  
**ESCS** : EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)  
**SuCS** : SUPER CYCLONIC STORM (≥120 KT)

● LESS THAN 34 KT  
 ○ 34-47 KT  
 ○ ≥ 48 KT  
 — OBSERVED TRACK  
 — FORECAST TRACK  
 — CONE OF UNCERTAINTY  
**AREA OF MAXIMUM SUSTAINED WIND SPEED:**  
 ■ 28-33 KT (52-61 KMPH)  
 ■ 34-49 KT (62-91 KMPH)  
 ■ 50-63 KT (92-117 KMPH)  
 ■ ≥ 64 KT (≥118 KMPH)

**IMPACT OVER THE SEA**

| MSW (knot/kmph) | Impact                 | Action                                 |
|-----------------|------------------------|--|
| 28-33 (52-61)   | Very rough seas        | Total suspension of fishing operations |
| 34-49 (62-91)   | High to very high seas | Total suspension of fishing operations |
| 50-63 (92-117)  | Very high seas         | Total suspension of fishing operations |
| ≥ 64 (≥118)     | Phenomenal             | Total suspension of fishing operations |



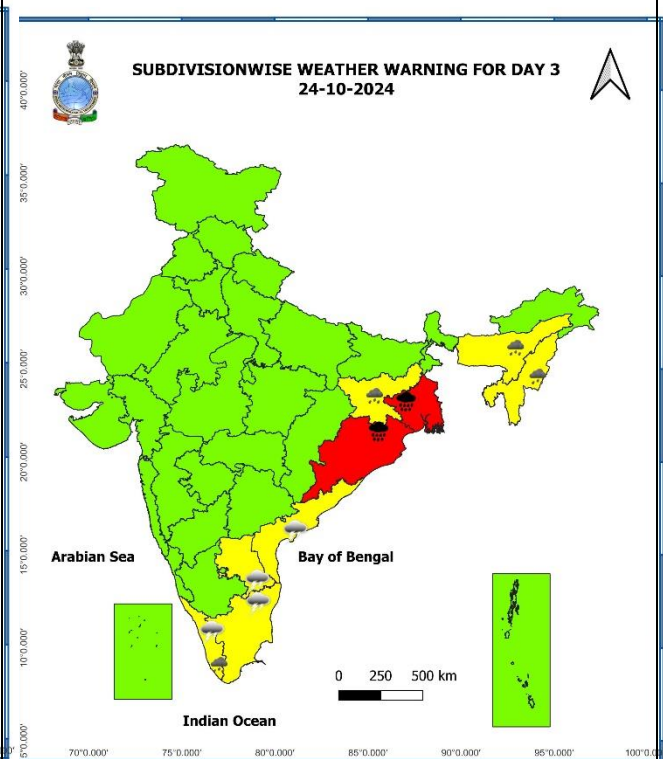
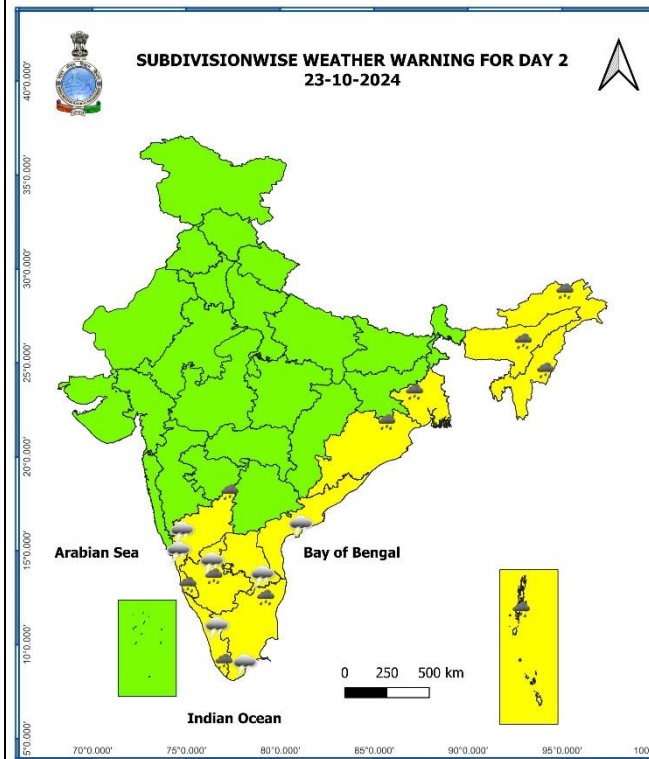
- Heavy Rain
- Very Heavy Rain
- Extremely Heavy Rain

**COLOUR CODED WARNING**

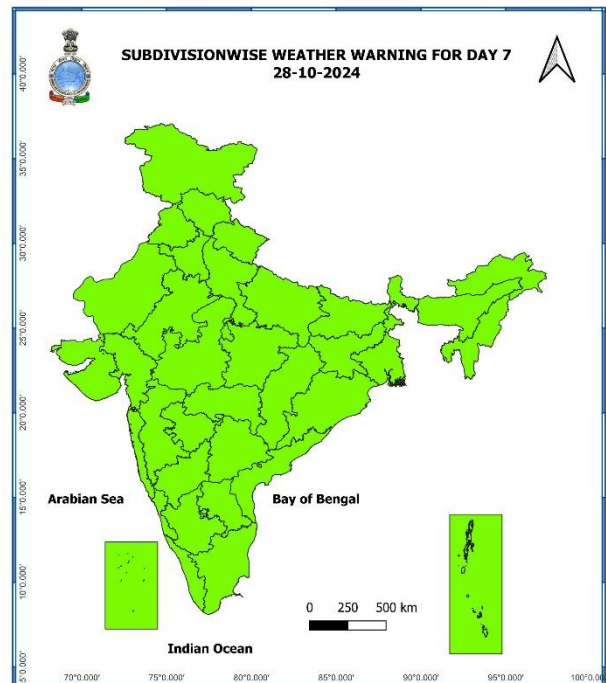
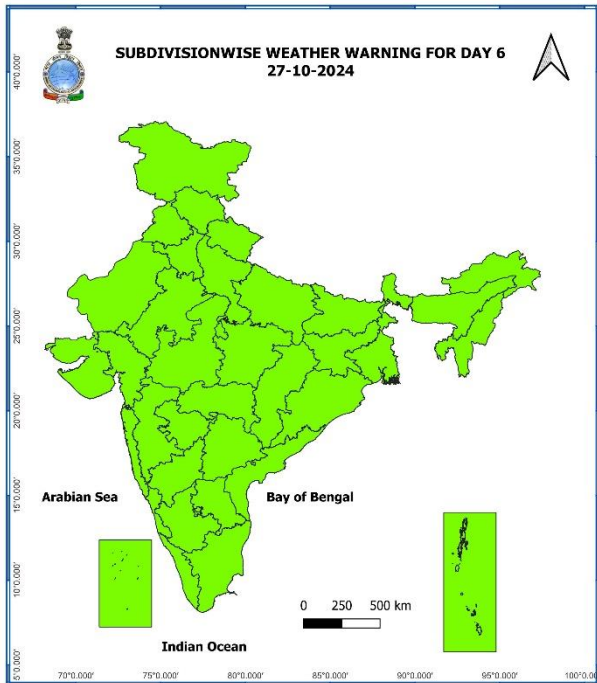
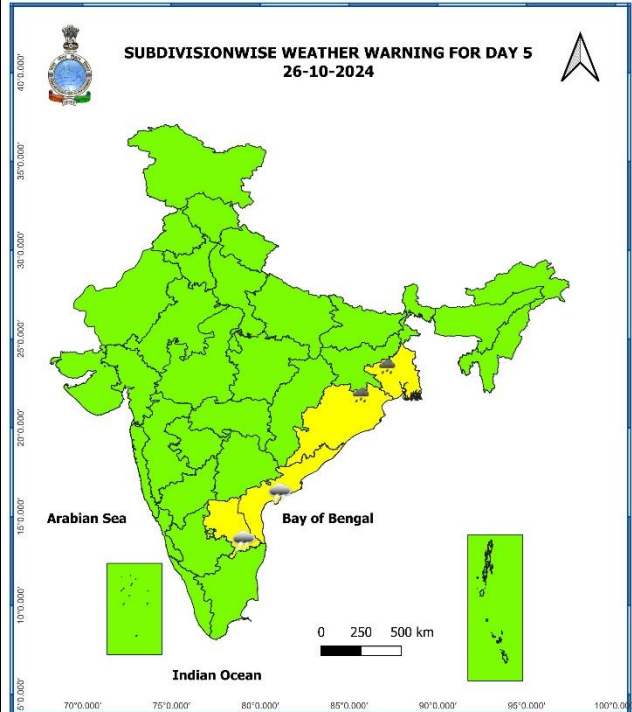
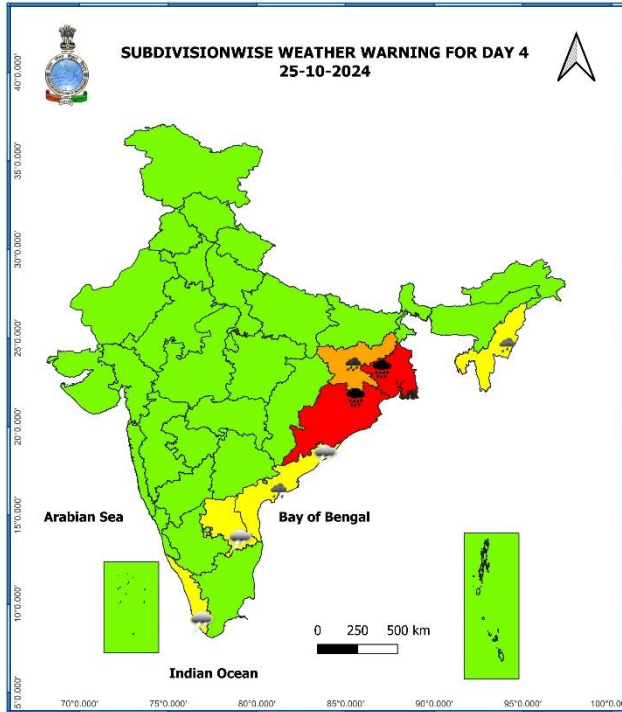
- No Warning (No Action)
- Watch (Be Aware)
- Alert (Be Prepared To Take Action)
- Warning (Take Action)

**Probabilistic Forecast**

| Terms       | Probability of Occurrence (%) |
|-------------|-------------------------------|
| Unlikely    | < 25                          |
| Likely      | 25 - 50                       |
| Very Likely | 50 - 75                       |
| Most Likely | > 75                          |







- 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.

## Fishermen Warning Graphics

