



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

NATIONAL BULLETIN NO. 3 (BOB/06/2024)

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

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

The depression over Eastcentral Bay of Bengal moved slowly west-northwestwards with a speed of 4 kmph during past 6 hours and lay centred at 1130 hrs IST of today, the 22nd October, over the same region near latitude 15.5° N and longitude 91.0° 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 (Lat. °N/ Long. °E)	Maximum Sustained Surface Wind Speed (Kmph)	Category Of Cyclonic Disturbance
22.10.24/1130	15.5/91.0	45-55 gusting to 65	Depression
22.10.24/1730	15.6/90.7	50-60 gusting to 70	Deep Depression
22.10.24/2330	15.8/90.2	55-65 gusting to 75	Deep Depression
23.10.24/0530	16.1/89.7	60-70 gusting to 80	Cyclonic Storm
23.10.24/1130	16.7/89.0	70-80 gusting to 90	Cyclonic Storm
23.10.24/2330	17.9/88.2	80-90 gusting to 100	Cyclonic Storm
24.10.24/1130	19.3/87.6	100-110 gusting to 120	Severe Cyclonic Storm
24.10.24/2330	20.5/87.1	100-110 gusting to 120	Severe Cyclonic Storm
25.10.24/1130	21.4/86.5	70-80 gusting to 90	Cyclonic Storm
25.10.24/2330	21.7/85.7	50-60 gusting to 70	Deep Depression

(i) Rainfall Warning:

- ❖ Light to moderate rainfall at most places with **heavy rainfall (07-11 cm)** at isolated places over Andaman Islands on 22nd 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 23rd Oct. & **heavy to very heavy rainfall** at a few places and **extremely heavy rainfall (≥ 21 cm)** at isolated places over **Baleswar, Mayurbhanj, Bhadrak, Kendrapara, Jagatsingpur Kendujhar, Jajpur, Cuttack and Dhenkanal, Khorda and Puri** districts of Odisha on 24th & 25th October.
- ❖ **Light to moderate rainfall at most places with heavy rainfall** at isolated places is very likely on 23rd 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 24th & 25th October.
- ❖ Light to moderate rainfall at most places is likely over south Jharkhand with **heavy rainfall** at isolated places on 24th and **heavy to very heavy rainfall** at isolated places on 25th October.

(ii) Wind Warning:

Eastcentral Bay of Bengal: Squally wind speed reaching 40-50 kmph gusting to 60 kmph is very likely on 22nd October, 50-60 kmph gusting to 70 kmph by 22nd night, 70-90 kmph gusting to 100 kmph from 23rd evening till 24th 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 22nd evening, 70-80 kmph gusting to 90 kmph from 23rd morning to 24th afternoon.

Northwest Bay of Bengal: Squally wind speed reaching 40-50 kmph gusting to 60 kmph is very likely to commence from 23rd morning. It would gradually increase becoming gale wind speed reaching 70-90 kmph gusting to 100 kmph from 23rd night to 24th morning and 100-110 kmph gusting to 120 kmph from 24th Oct evening to 25th 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 23rd night, becoming 50-60 kmph gusting to 70 kmph from 24th till 25th 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 23rd Oct evening. It would gradually increase becoming gale wind speed reaching 60-70 kmph gusting to 80 kmph from 24th morning and reaching 100-110 kmph gusting to 120 kmph from 24th night till 25th Oct morning and decrease gradually thereafter.

(iii) Sea Condition:

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

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

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

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

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

(iv) Fishermen Warning:

Fishermen are advised not to venture into

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

(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)

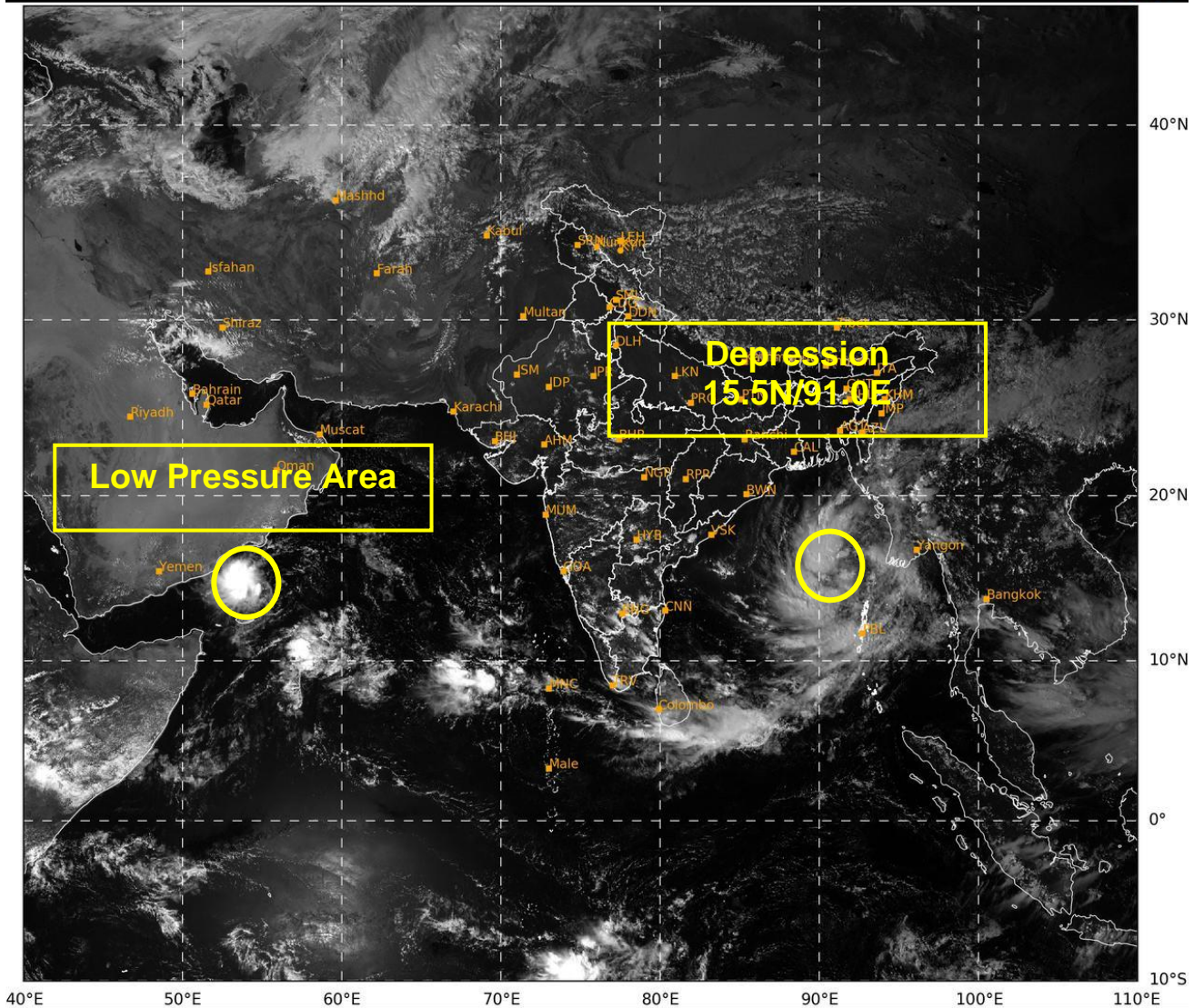
- Major damage to thatched houses/ huts. Roof tops may blow off. Unattached metal sheets may fly.
- Breaking of tree branches and uprooting of trees.
- Damage to power and communication lines.
- Major damage to Kutcha and some damage to Pucca roads. Flooding of escape routes.
- Possibilities of damage 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 22nd to 25th Oct over Central and North Bay of Bengal.
 - Fishermen are advised not to venture into
 - ✓ Eastcentral Bay of Bengal during 22nd to 24th October.
 - ✓ **Adjoining areas of Westcentral Bay of Bengal on 23rd and 24th Oct.**
 - ✓ **North Bay of Bengal** and along & off Odisha-West Bengal coasts during 23rd to 25th October morning.
 - Fishermen out at sea are advised to return to coasts by today, the 22nd 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 2030 hours IST of today, the 22nd 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



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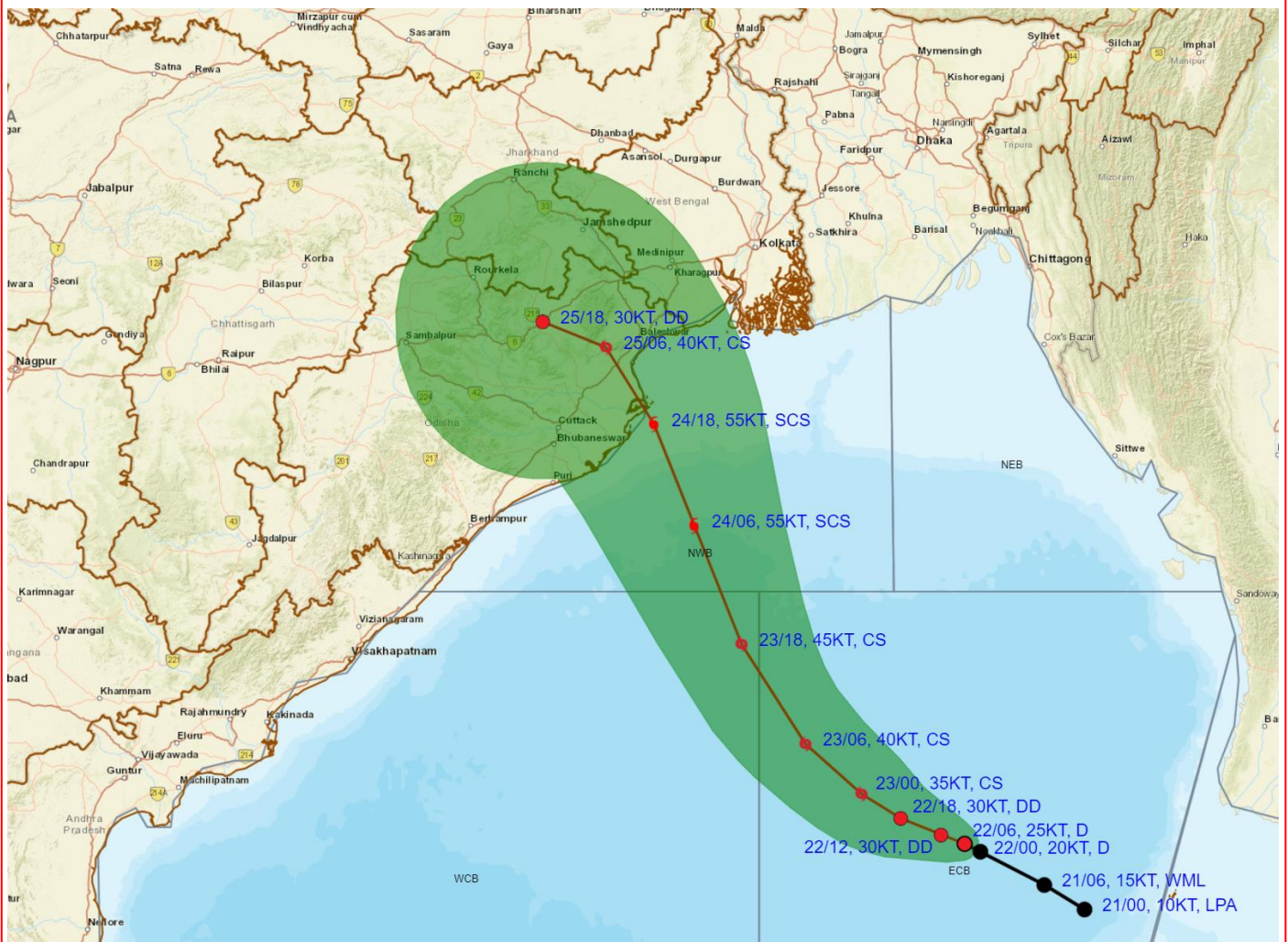
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IMD, DELHI



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER EASTCENTRAL BAY OF BENGAL BASED ON 0600 UTC (1130 Hrs.) OF 22ND OCTOBER 2024

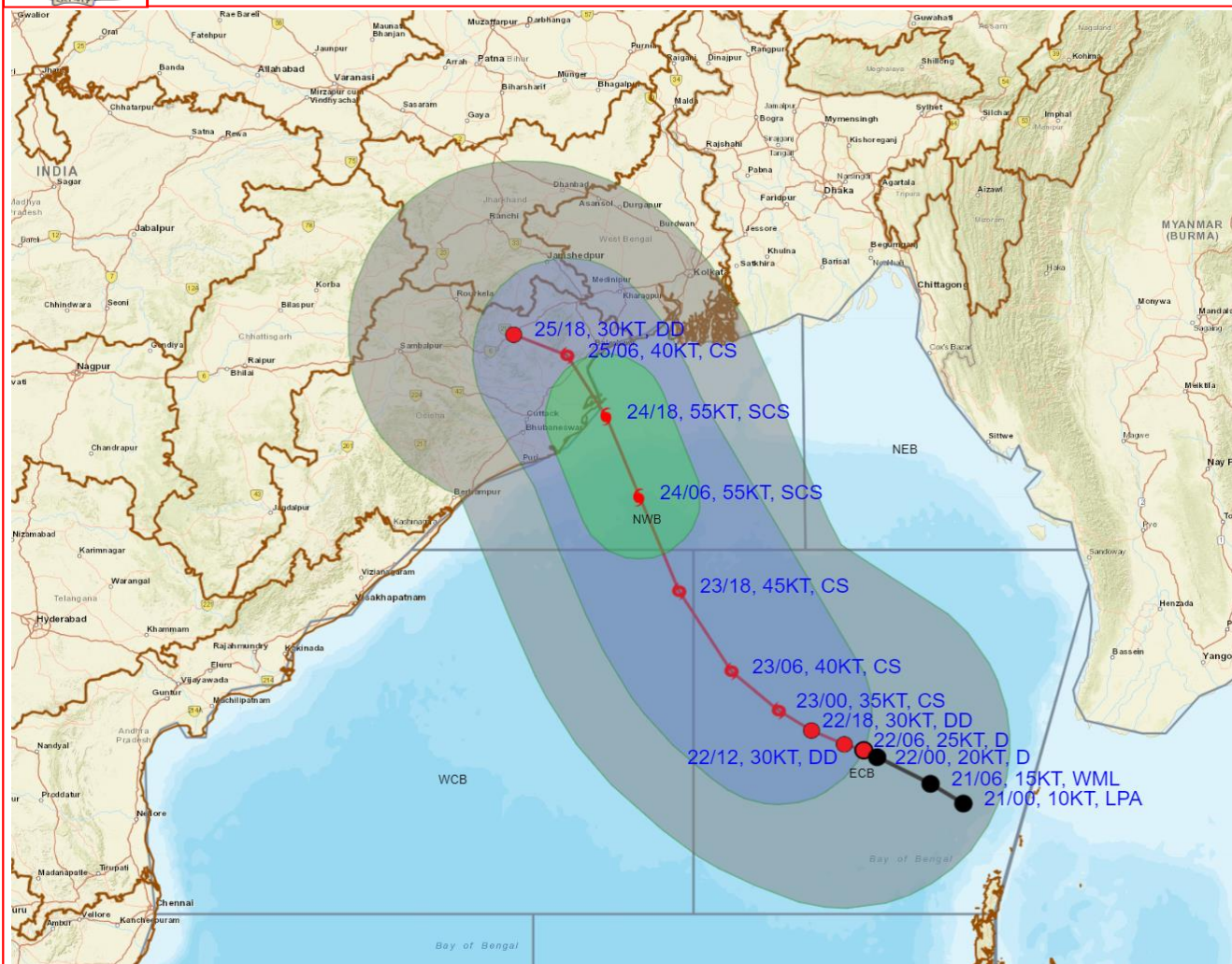


DATE/TIME : IN UTC
IST : UTC + 0530
KT : NAUTICAL MILE S/HOUR = 1.85 KM/HOUR
LPA : LOW PRESSURE AREA
WML : WELL MARKED LOW PRESSURE AREA
D : DEPRESSION (17-27 KT)
DD : DEEP DEPRESSION (28-33 KT)
CS : CYCLONIC STORM (34-47 KT)
SCS : SEVERE CYCLONIC STORM (48-63 KT)
VSCS : VERY SEVERE CYCLONIC STORM (64-89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



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEPRESSION OVER EASTCENTRAL BAY OF BENGAL BASED ON 0600 UTC (1130 Hrs. IST) OF 22ND OCTOBER 2024

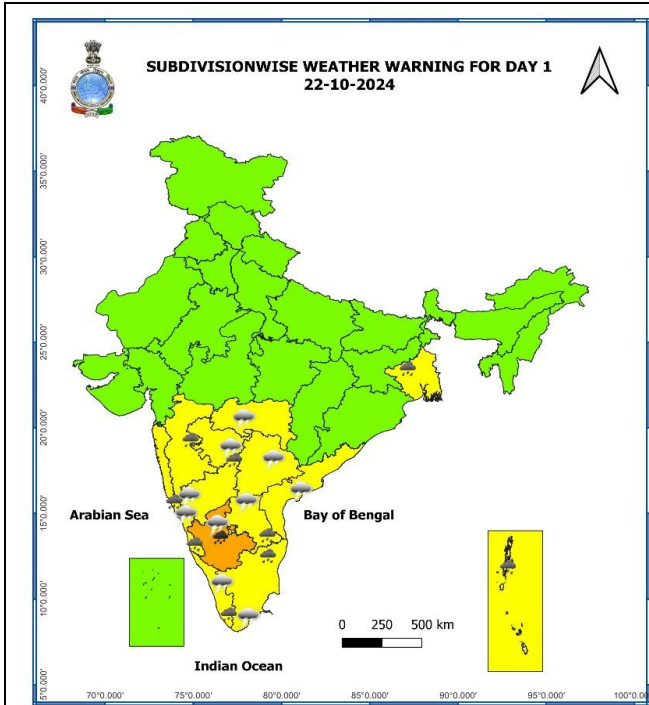


DATE/TIME : IN UTC
IST : UTC + 0530
KT : NAUTICAL MILE S/HOUR = 1.85 KM/HOUR
LPA : LOW PRESSURE AREA
WML : WELL MARKED LOW PRESSURE AREA
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ESCS : EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS : SUPER CYCLONIC STORM (≥120 KT)

● 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



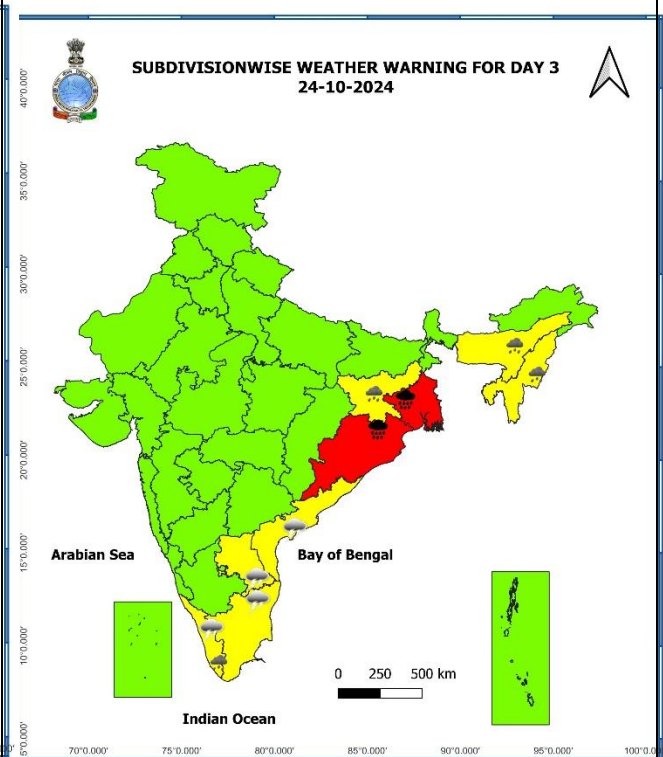
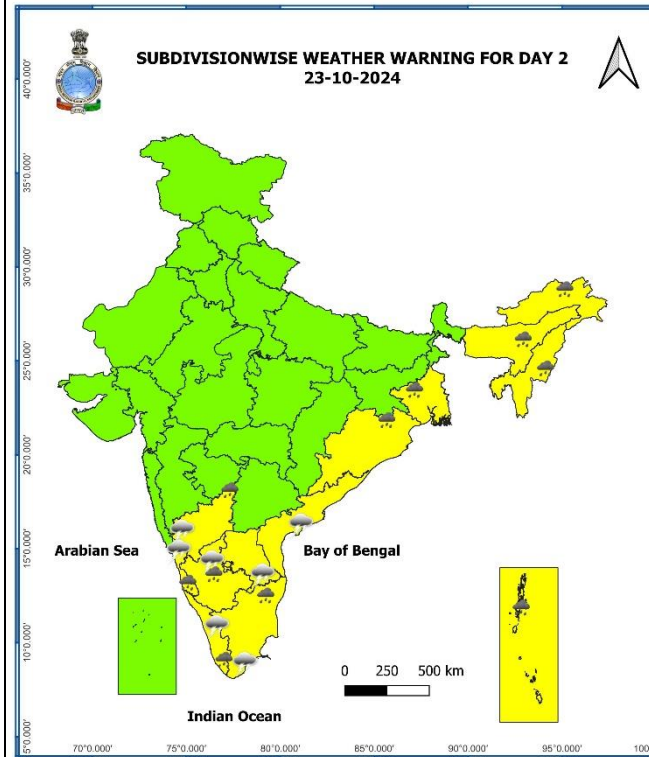
- Heavy Rain
- Very Heavy Rain
- Extremely Heavy Rain

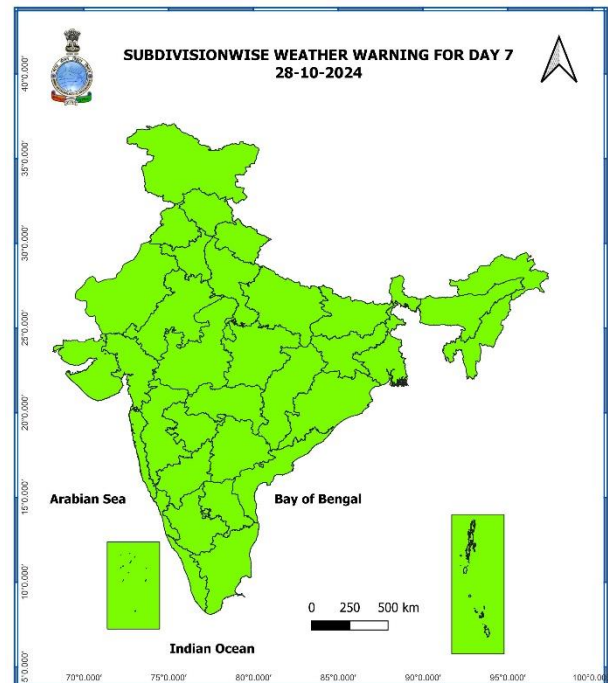
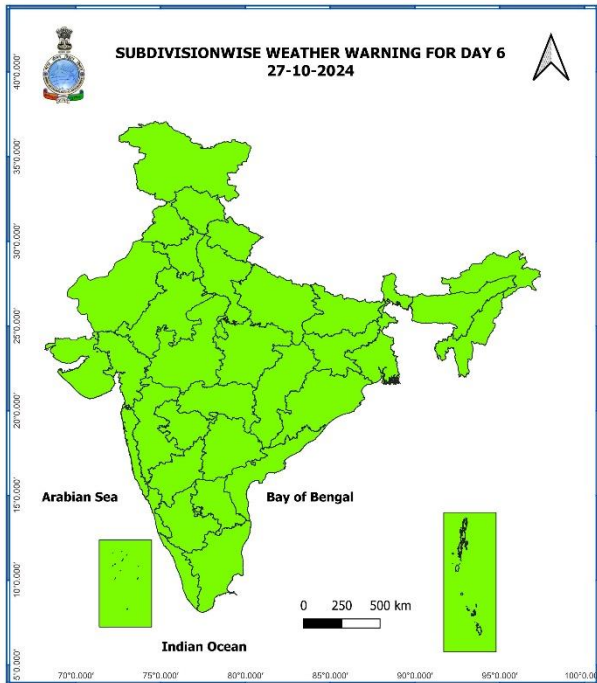
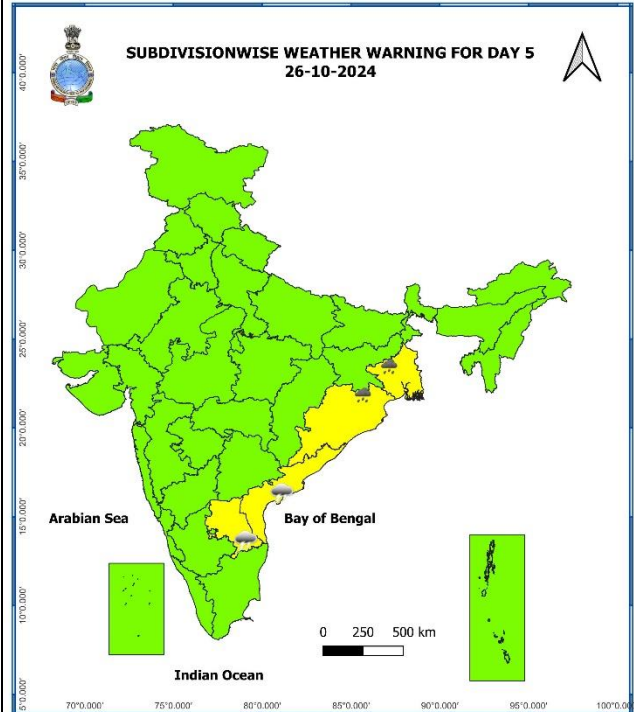
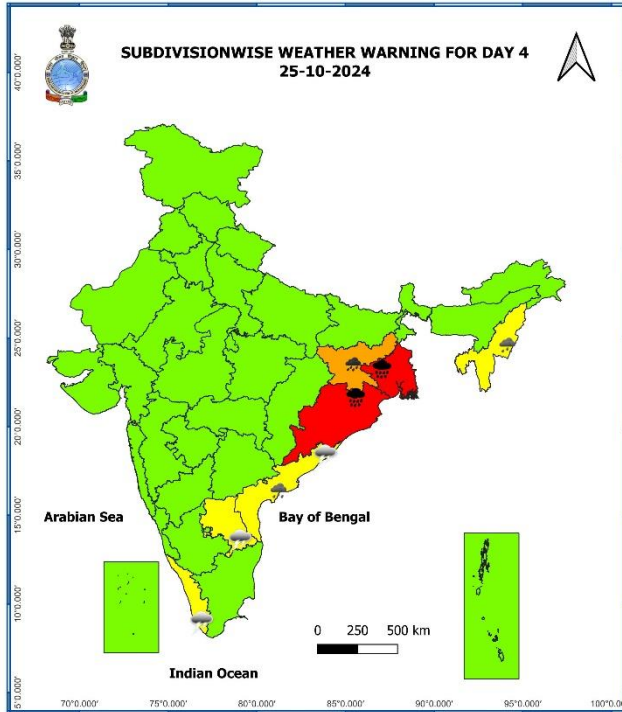
COLOUR CODED WARNING

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

Probabilistic Forecast

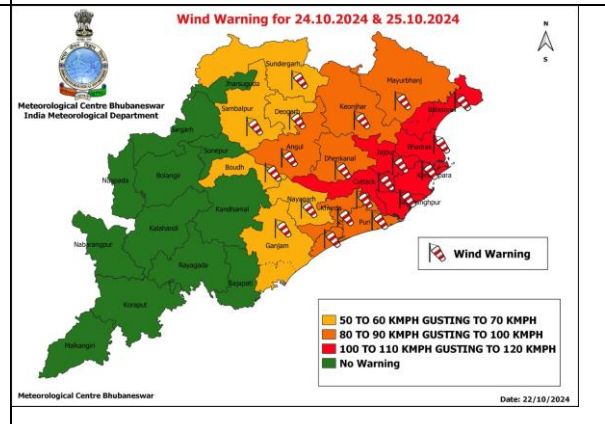
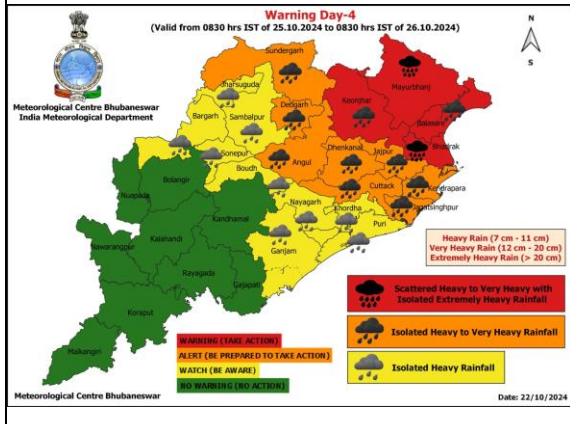
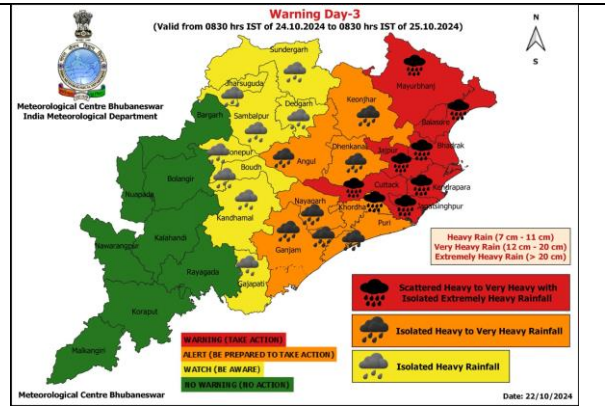
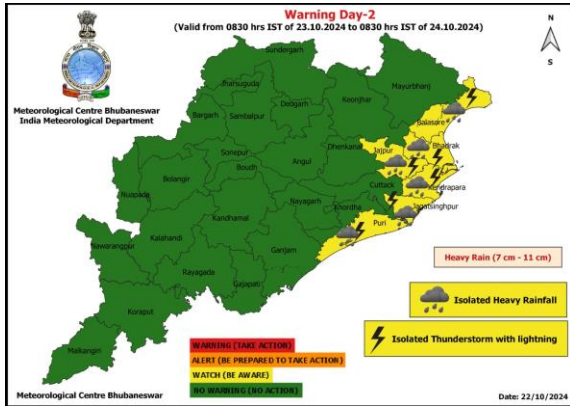
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

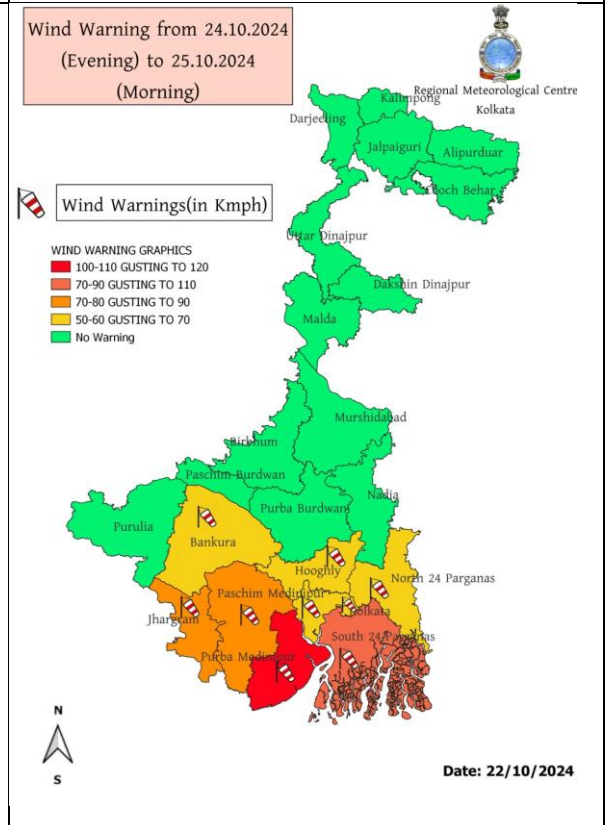
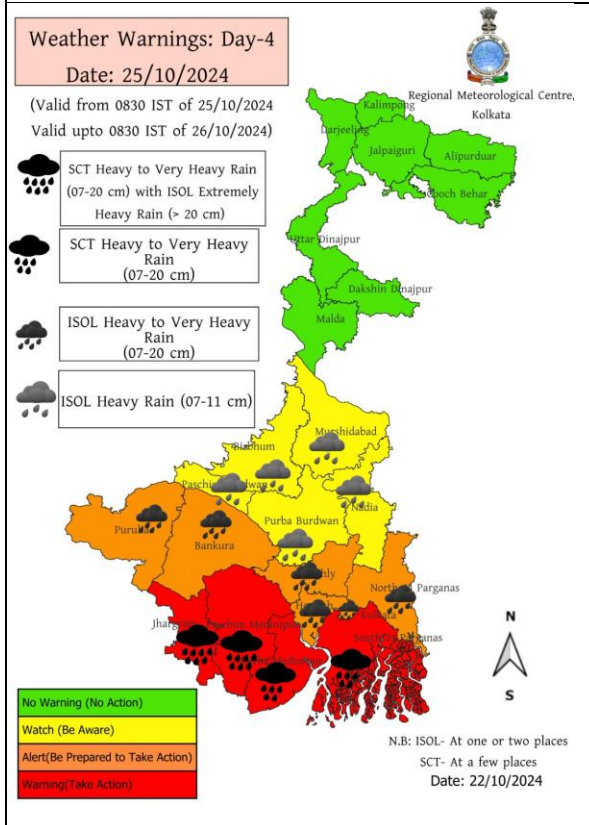
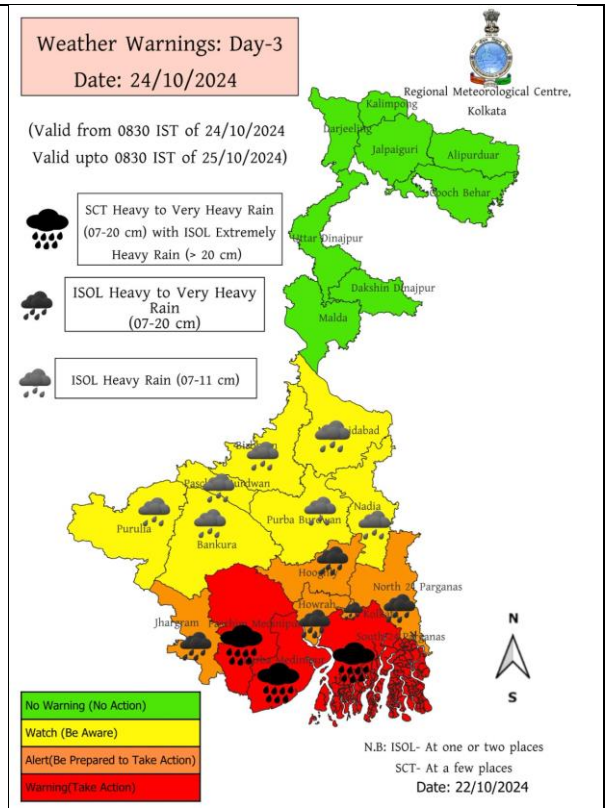
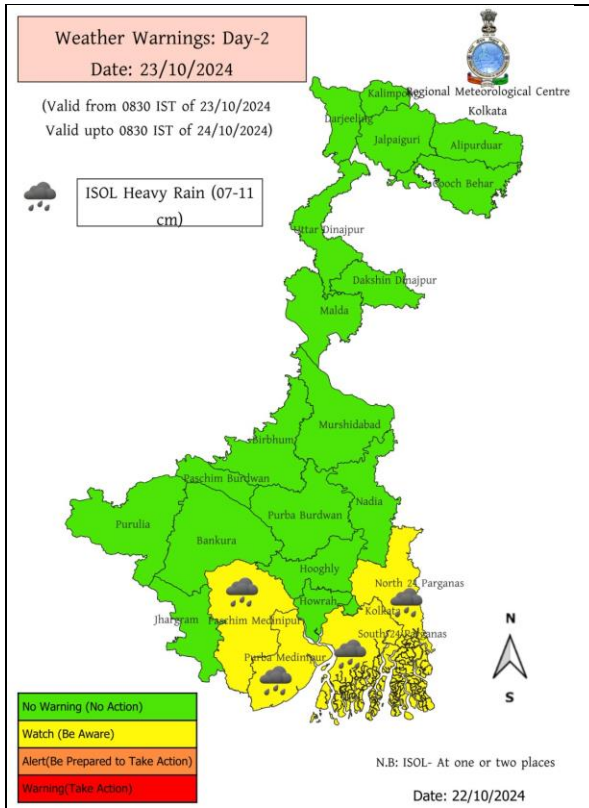




- Action may be taken based on **ORANGE AND RED** COLOUR warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.

District-wise Warning





Fishermen Warning Graphics

