



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

**NATIONAL BULLETIN NO. 06 (BOB/05/2023)**

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

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**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)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, ODISHA (FAX NO. 0674-2536660)**

**CHIEF SECRETARY, WEST BENGAL (FAX NO. 033-22144328)**

**CHIEF SECRETARY, ANDHRA PRADESH (FAX NO. 0863-2441029, 08645-246600)**

**CHIEF SECRETARY, TAMIL NADU (FAX NO 044-25672304)**

**CHIEF SECRETARY, PUDUCHERRY (FAX NO 0413-2334145)**

**ADMINISTRATOR, ANDAMAN & NICOBAR ISLANDS (FAX NO. 03192- 232656)**

**CHIEF SECRETARY, GOVT. OF TRIPURA (FAX NO. 0381-2414013, 2413200)**

**CHIEF SECRETARY, GOVT. OF MIZORAM (FAX NO. 0389-2322745, 2320588)**

**CHIEF SECRETARY, GOVT. OF MANIPUR (FAX NO. 0385-2452629)**

**CHIEF SECRETARY, GOVT. OF NAGALAND (FAX NO. 0370-2270057)**

**CHIEF SECRETARY, GOVT. OF ASSAM (FAX NO. 0361-2260900)**

**CHIEF SECRETARY, GOVT. OF MEGHALAYA (FAX NO. 0364-2225978)**

**Sub: Deep Depression over Westcentral Bay of Bengal**

The Deep Depression over Westcentral Bay of Bengal moved north-northeastwards with a speed of 17 kmph during past 6 hours and lay centred at 0830 hours IST of today, the 16th November over Westcentral Bay of Bengal near latitude 17.4°N and longitude 87.0°E, about 390 km east-southeast of Visakhapatnam (Andhra Pradesh), 320 km south-southeast of Paradip (Odisha), 460 km south-southwest of Digha (West Bengal) and 610 km south-southwest of Khepupara (Bangladesh).

It is likely to continue to move north-northeastwards, intensify further into a cyclonic storm during next 24 hours and cross Bangladesh coast between Mongla and Khepupara with wind speed of 60-70 kmph gusting to 80 kmph by the early hours of 18th November 2023

*Forecast track and intensity are given below:*

<b>Date/Time (IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
16.11.23/0830	17.4/87.0	50-60 kmph gusting to 70 kmph	Deep Depression
16.11.23/1130	17.7/87.2	50-60 kmph gusting to 70 kmph	Deep Depression
16.11.23/1730	18.5/87.6	55-65 kmph gusting to 75 kmph	Deep Depression

16.11.23/2330	19.3/88.0	60-70 kmph gusting to 80 kmph	Cyclonic Storm
17.11.23/0530	20.1/88.5	70-80 kmph gusting to 90 kmph	Cyclonic Storm
17.11.23/1730	21.3/89.3	60-70 kmph gusting to 80 kmph	Cyclonic Storm
18.11.23/0530	22.8/90.2	55-65 kmph gusting to 75 kmph	Deep Depression
18.11.23/1730	24.0/90.5	40-50 kmph gusting to 60 kmph	Depression

### Warnings:

#### **(i) Rainfall Warning (graphics enclosed):**

- Light to moderate rainfall at many places with isolated heavy rainfall is likely over coastal districts of West Bengal on 16<sup>th</sup> & 17<sup>th</sup> and over coastal districts of north Odisha on 16<sup>th</sup> November.
- Light to moderate rainfall at many places with isolated heavy rainfall is likely over Nagaland, Manipur, Mizoram & Tripura during 16<sup>th</sup> to 18<sup>th</sup> November with very heavy rainfall at isolated places over Mizoram & Tripura on 17<sup>th</sup> November.
- Light to moderate rainfall at many places with isolated heavy rainfall is likely over south Assam and east Meghalaya on 17<sup>th</sup> & 18<sup>th</sup> November.

#### **(ii) Wind warning (graphics enclosed):**

- **Squally weather** with wind speed reaching **35-45 kmph gusting to 55 kmph** is likely to prevail over southwest Bay of Bengal along & off Tamil Nadu & Puducherry and Sri Lanka coasts on 16<sup>th</sup> November.
- **Squally wind** speed reaching **50-60 kmph gusting to 70 kmph** is prevailing over Westcentral & adjoining Northwest Bay of Bengal and is likely to increase gradually becoming **60-70 gusting to 80 kmph** over North Bay of Bengal from 16<sup>th</sup> midnight. It would increase further becoming 70-80 gusting to 90 kmph over North Bay of Bengal and decrease over westcentral Bay of Bengal becoming 40-50 gusting to 60 kmph on 17<sup>th</sup> morning. Thereafter, it would decrease becoming **55-65 kmph gusting to 75 kmph** over the North Bay of Bengal from 18<sup>th</sup> morning. **Squally wind** speed reaching **40-50 kmph gusting to 60 kmph** is likely over adjoining central Bay of Bengal from 17<sup>th</sup> evening to 18<sup>th</sup> morning and decrease thereafter.
- **Along & off Andhra Pradesh Coast: Squally wind speed reaching 30-40 kmph gusting 50 kmph** is likely on 16<sup>th</sup> November along & off south Andhra Pradesh coast and **40-50 kmph gusting 60 kmph** during 16<sup>th</sup> to 17<sup>th</sup> morning along & off north Andhra Pradesh coast. It would decrease thereafter.
- **Along & off Odisha Coast: Squally wind speed reaching 45-55 kmph gusting 65 kmph** is prevailing and likely to increase gradually becoming **50-60 kmph gusting 70 kmph** from 16<sup>th</sup> evening till 17<sup>th</sup> evening and decrease thereafter.
- **Along & off West Bengal Coast: Squally wind speed reaching 40-50 kmph gusting 60 kmph** is prevailing. It is likely to increase gradually becoming **55-65 kmph gusting 75 kmph** from 17<sup>th</sup> morning till 18<sup>th</sup> morning and decrease thereafter.
- **Along & off Bangladesh Coast: Squally wind speed reaching 45-55 kmph gusting 65 kmph** is likely from 16<sup>th</sup> evening and increase becoming **60-70 kmph gusting 80 kmph** from 17<sup>th</sup> evening till 18<sup>th</sup> morning and decrease thereafter.

#### **(iii) Sea Condition:**

- **Rough to very rough sea condition** is likely over
  - Southwest Bay of Bengal and along & off Tamil Nadu & Puducherry and Sri Lanka coasts on 16<sup>th</sup> November.
  - Westcentral Bay of Bengal during 16<sup>th</sup>- 17<sup>th</sup> November
  - North Bay of Bengal till midnight of 16<sup>th</sup> November. **It would become very rough to high over North Bay of Bengal from 16<sup>th</sup> midnight to 18<sup>th</sup> morning.**

- **Along & off** north Andhra Pradesh coast during 16<sup>th</sup> to 17<sup>th</sup> November.
- **Along & off Odisha coast during 16<sup>th</sup>-17<sup>th</sup> and West Bengal & Bangladesh coasts** during 16<sup>th</sup> to 18<sup>th</sup> November

**(iv) Fishermen Warning:**

Fishermen are advised not to venture into

- Southwest Bay of Bengal on 16<sup>th</sup> November
- Westcentral Bay of Bengal during 16<sup>th</sup> to 17<sup>th</sup> November
- North Bay of Bengal during 16<sup>th</sup> to 18<sup>th</sup> November
- Along & off Andhra Pradesh Coast during 16<sup>th</sup> to 17<sup>th</sup> November
- Along & off Odisha coast during 16<sup>th</sup>-17<sup>th</sup> November
- Along & off West Bengal and Bangladesh coasts during 16<sup>th</sup> to 18<sup>th</sup> November

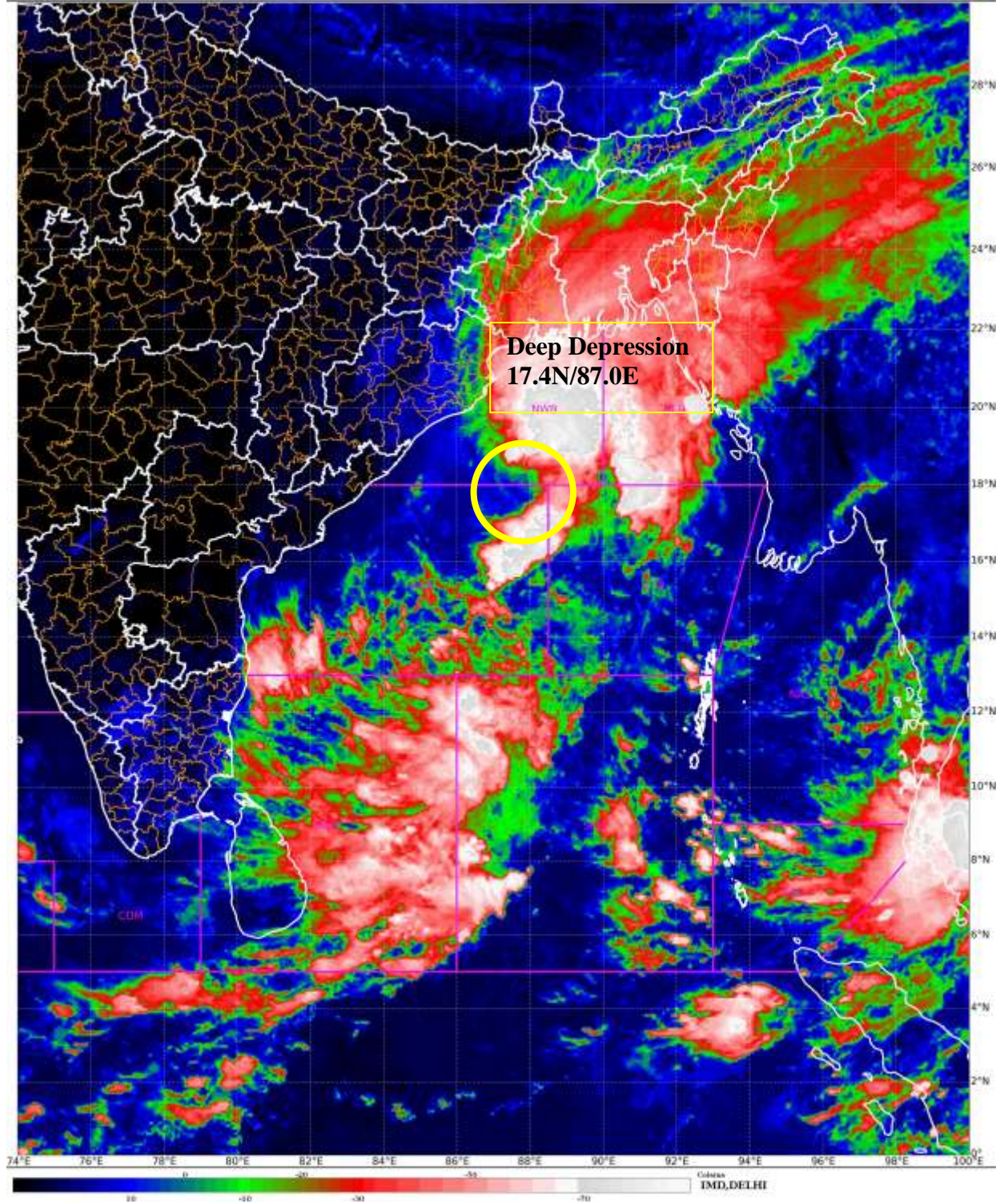
**(v) Damage Expected & Action Suggested for coastal areas of Odisha & West Bengal:**

- Minor damage to loose/unsecured structures.
- Minor damage to small trees like Banana. Papaya and Drumstick and ripe paddy crops.
- Partial Damage to standing crops in coastal areas of Odisha & west Bengal.
- Minor damage to Kutcha embankments.

**The system is under continuous surveillance and the next message will be issued at 1430 hours IST of today, the 16<sup>th</sup> November, 2023.**

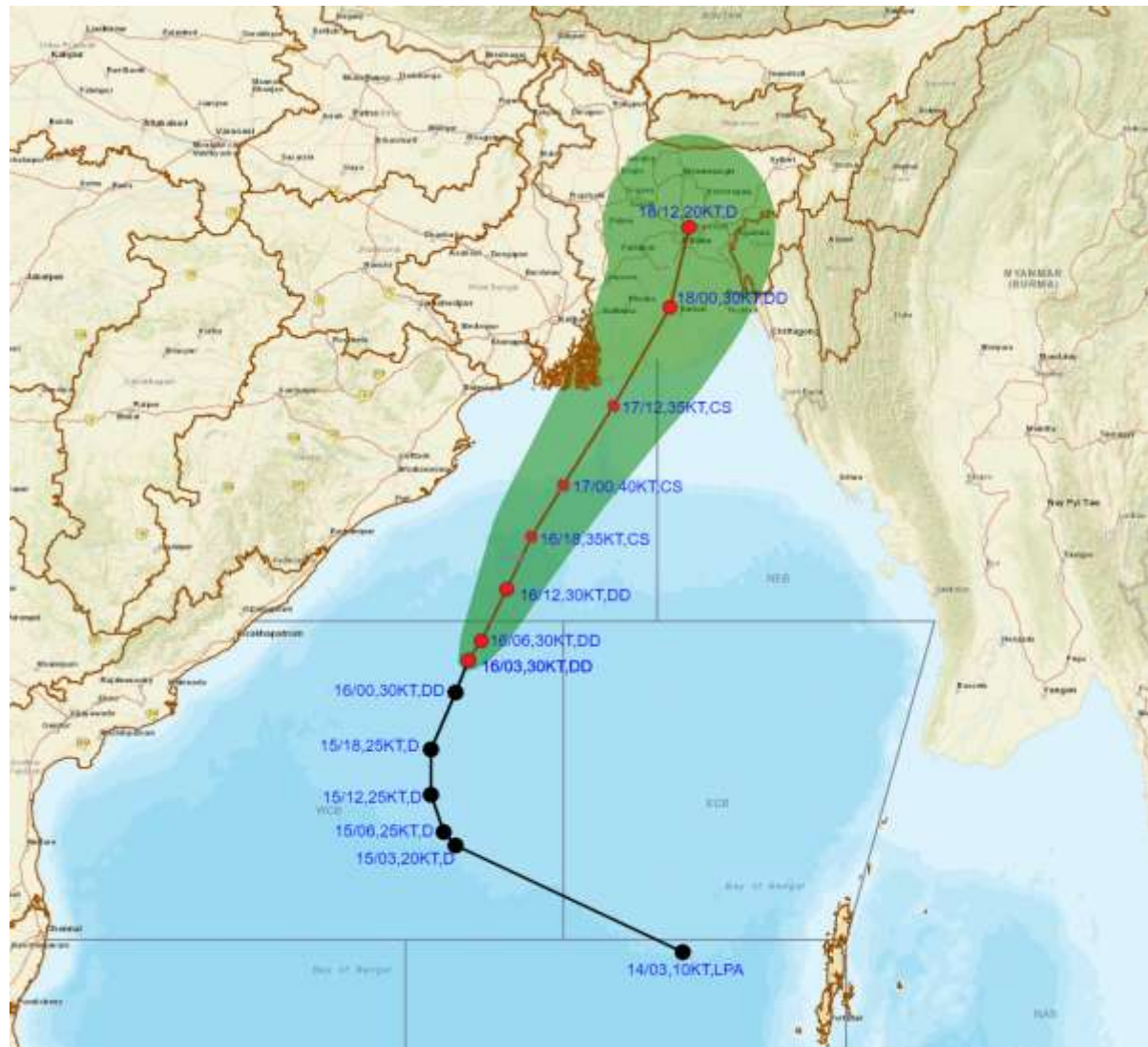
**(M Sharma)**  
**Scientist D, Cyclone Warning, New Delhi**

*Copy to:ACWC Chennai/ ACWC Kolkata/CWC Bhubaneswar/CWC Vishakhapatnam/MC Amravati/ RMC Guwahati/MC Agartala/MC Mizoram/MC Manipur/MC Nagaland/MC Shillong*





**OBSERVED AND FORECAST TRACK AND INTENSITY ALONGWITH CONE OF UNCERTAINTY IN ASSOCIATION WITH DEEP DEPRESSION OVER WESTCENTRAL BAY OF BENGAL BASED ON 0300 UTC (0830 IST) OF 16<sup>TH</sup> NOVEMBER 2023**



DATE/TIME IN UTC

IST=UTC + 0530

L: 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 (48-63KT)

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

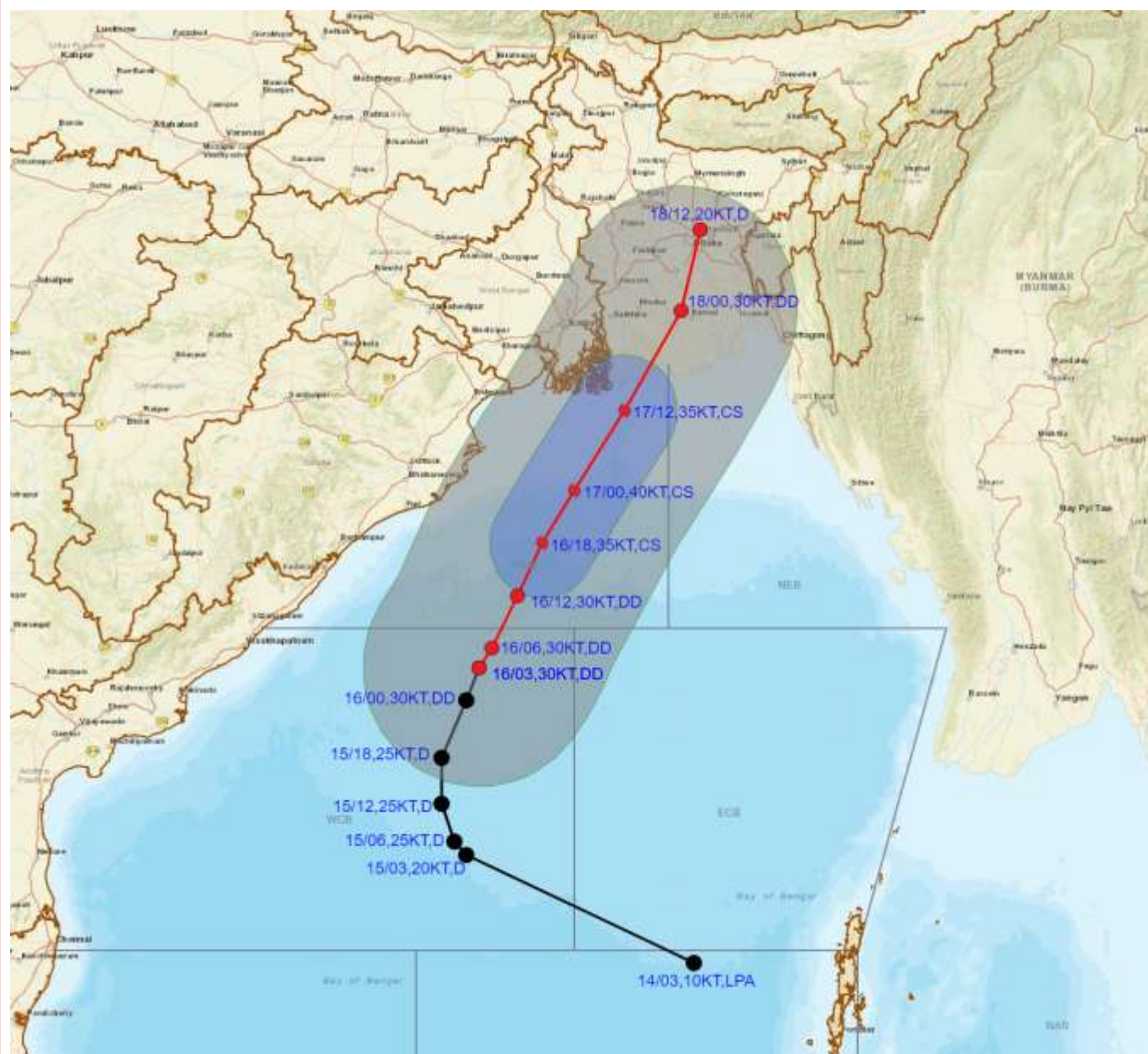
— FORECAST TRACK

▲ CONE OF UNCERTAINTY

Forecast	DISTANCE(KM) AND DIRECTION FROM STATIONS			
Date and Time	PARADIP (CWR)	DIGHA	KHEPUPARA	CHITTAGONG (AMBAGAN)
17.11.23/0000	200, E	190, SSE	270, SW	420, SW
17.11.23/1200	300, ENE	190, E	120, SW	280, WSW
18.11.23/0000	460, NE	310, ENE	90, N	170, WNW



**OBSERVED AND FORECAST TRACK AND INTENSITY ALONG WITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH DEEP DEPRESSION OVER WESTCENTRAL BAY OF BENGAL BASED ON 0300 UTC (0830 IST) OF 16<sup>TH</sup> NOVEMBER 2023.**



DATE/TIME IN UTC

IST=UTC + 0530

L: 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 (48-63KT)

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



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 1  
( 16-11-2023 )**



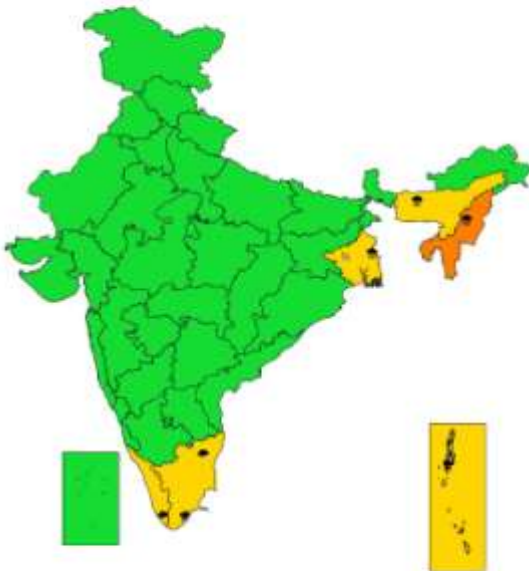
**WARNING**

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED )</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION )</b>

- |  |   |   |
|--|---|---|
| <p><b>Subdivision Warning</b></p> <ul style="list-style-type: none"> <li>● Heavy Rain</li> <li>○ Heavy Snow</li> <li>● Thunderstorms &amp; Lightning</li> <li>⚡ Hailstorm</li> </ul> | <ul style="list-style-type: none"> <li>— Dust Storm</li> <li>h Strong Surface Winds</li> <li>↑ Heat Wave</li> <li>↓ Cold wave</li> <li>☁ Fog</li> </ul> | <p><b>Subdivision color</b></p> <ul style="list-style-type: none"> <li>■ NO WARNING</li> <li>■ WATCH(BE UPDATED)</li> <li>■ ALERT (BE PREPARED)</li> <li>■ WARNING (TAKE ACTION)</li> </ul> |
|--|---|---|



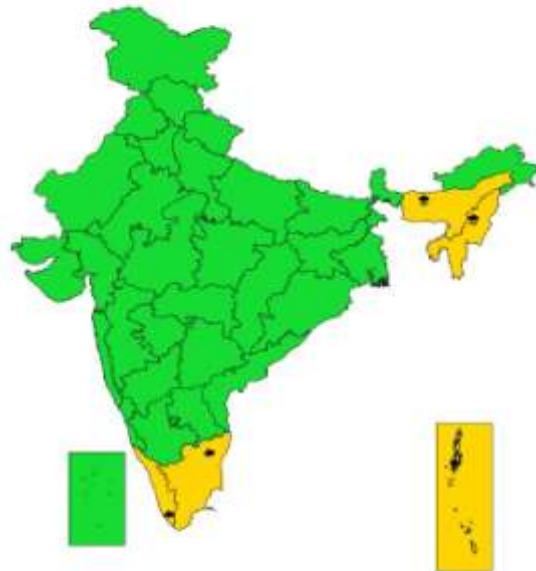
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2  
( 17-11-2023 )**



- |  |   |   |
|--|---|---|
| <p><b>Subdivision Warning</b></p> <ul style="list-style-type: none"> <li>● Heavy Rain</li> <li>○ Heavy Snow</li> <li>● Thunderstorms &amp; Lightning</li> <li>⚡ Hailstorm</li> </ul> | <ul style="list-style-type: none"> <li>— Dust Storm</li> <li>h Strong Surface Winds</li> <li>↑ Heat Wave</li> <li>↓ Cold wave</li> <li>☁ Fog</li> </ul> | <p><b>Subdivision color</b></p> <ul style="list-style-type: none"> <li>■ NO WARNING</li> <li>■ WATCH(BE UPDATED)</li> <li>■ ALERT (BE PREPARED)</li> <li>■ WARNING (TAKE ACTION)</li> </ul> |
|--|---|---|



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3  
( 18-11-2023 )**



- |  |   |   |
|--|---|---|
| <p><b>Subdivision Warning</b></p> <ul style="list-style-type: none"> <li>● Heavy Rain</li> <li>○ Heavy Snow</li> <li>● Thunderstorms &amp; Lightning</li> <li>⚡ Hailstorm</li> </ul> | <ul style="list-style-type: none"> <li>— Dust Storm</li> <li>h Strong Surface Winds</li> <li>↑ Heat Wave</li> <li>↓ Cold wave</li> <li>☁ Fog</li> </ul> | <p><b>Subdivision color</b></p> <ul style="list-style-type: none"> <li>■ NO WARNING</li> <li>■ WATCH(BE UPDATED)</li> <li>■ ALERT (BE PREPARED)</li> <li>■ WARNING (TAKE ACTION)</li> </ul> |
|--|---|---|



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4  
( 19-11-2023)**



- |                             |                        |                         |
|-----------------------------|------------------------|-------------------------|
| Subdivision Warning         | — Dust Storm           | Subdivision color       |
| ● Heavy Rain                | ⚡ Strong Surface Winds | ■ NO WARNING            |
| ☁ Heavy Snow                | 🔥 Heat Wave            | ■ WATCH (BE UPDATED)    |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave            | ■ ALERT (BE PREPARED)   |
| ⚡ Hailstorm                 | 🌫 Fog                  | ■ WARNING (TAKE ACTION) |



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5  
( 20-11-2023)**



- |                             |                        |                         |
|-----------------------------|------------------------|-------------------------|
| Subdivision Warning         | — Dust Storm           | Subdivision color       |
| ● Heavy Rain                | ⚡ Strong Surface Winds | ■ NO WARNING            |
| ☁ Heavy Snow                | 🔥 Heat Wave            | ■ WATCH (BE UPDATED)    |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave            | ■ ALERT (BE PREPARED)   |
| ⚡ Hailstorm                 | 🌫 Fog                  | ■ WARNING (TAKE ACTION) |



**Heavy Rain**



**Heavy Snow**



**Thunderstorm**



**Dust Storm**



**Strong Winds**



**Visibility**



**Cyclone**



**Squall/ Hail**



**Frost**



**Cold Wave**



**Heat Wave**



**Sea State**



## Fishermen warning graphics

Day 1: 16.11.2023/11:30AM to 17.11.2023/05:30AM



Day 2: 17.11.2023/05:30AM to 18.11.2023/05:30AM



Day 3: 18.11.2023/05:30AM to 19.11.2023/05:30AM



Day 4: 19.11.2023/05:30AM to 20.11.2023/05:30AM



Day 5: 20.11.2023/05:30AM to 21.11.2023/05:30AM



Squally WX with wind speed 40-45 kmph gusting to 55 kmph

Squally WX with wind speed 45-55 kmph gusting to 65 kmph

Squally wind with speed 50-60 kmph gusting to 70 kmph

CS with Gale wind speed 60-90 kmph gusting to 110 kmph

**Fishermen are advised not to venture into the marked areas.**