



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES,  
NEW DELHI SPECIAL TROPICAL WEATHER OUTLOOK**

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 14.09.2024**

**SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 0330 UTC OF 14.09.2024 BASED ON 0000 UTC OF 14.09.2024.**

**SUB: DEEP DEPRESSION OVER BANGLADESH AND ADJOINING GANGETIC WEST BENGAL.**

THE DEPRESSION OVER BANGLADESH COAST MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 23 KMPH DURING PAST 6 HOURS, INTENSIFIED INTO A DEEP DEPRESSION AND LAY CENTRED AT 0000 UTC OF TODAY, THE 14TH SEPTEMBER 2024, OVER BANGLADESH AND ADJOINING GANGETIC WEST BENGAL NEAR LATITUDE 22.9°N AND LONGITUDE 89.2°E, 90KM NORTHEAST OF CANNING (42812, WEST BENGAL) AND 100 KM EAST-NORTHEAST OF KOLKATA (42807, WEST BENGAL).

IT IS LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS AND MAINTAIN ITS INTENSITY OF DEEP DEPRESSION TILL 1200 UTC OF TODAY. THEREAFTER, IT WILL MOVE ACROSS GANGETIC WEST BENGAL & JHARKHAND AS DEPRESSION DURING SUBSEQUENT 48 HOURS.

THE DEEP DEPRESSION IS UNDER CONTINUOUS SURVEILLANCE BY THE DOPPLER WEATHER RADAR AT KOLKATA.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME (UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
14.09.24/0000	22.9/89.2	50-60 GUSTING TO 70	DEEP DEPRESSION
14.09.24/0600	23.1/88.0	50-60 GUSTING TO 70	DEEP DEPRESSION
14.09.24/1200	23.2/86.9	50-60 GUSTING TO 70	DEEP DEPRESSION
14.09.24/1800	23.3/85.8	45-55 GUSTING TO 65	DEPRESSION
15.09.24/0000	23.4/84.7	45-55 GUSTING TO 65	DEPRESSION
15.09.24/1200	23.6/82.6	40-50 GUSTING TO 60	DEPRESSION
16.09.24/0000	23.8/80.6	40-50 GUSTING TO 60	DEPRESSION
16.09.24/1200	24.0/78.6	35-45 GUSTING TO 55	DEPRESSION

AT 0000 UTC, AS PER INSAT 3DR IMAGERY, ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER BIHAR, JHARKHAND, WEST BENGAL, ODISHA, TRIPURA MIZORAM, BANGLADESH, NORTH ADJOINING CENTRAL BAY OF BENGAL (MINIMUM CTT MINUS 80-93°C)

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IN ASSOCIATION WITH THE SYSTEM IS 30 KTS GUSTING TO 35 KTS. ESTIMATED CENTRAL PRESSURE IS 990 HPA.

AT 0000 UTC, LOWEST MEAN SEA LEVEL PRESSURES (MSLP) WERE REPORTED AT SATKHIRA 991.3 HPA AND SANDWIP 995.6 HPA.

**WIND WARNING:**

SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH IS PREVAILING OVER NORTH BAY OF BENGAL AND ALONG & OFF BANGLADESH, WEST BENGAL, AND NORTH ODISHA COASTS. IT IS LIKELY TO CONTINUE SO TILL 1500 UTC OF TODAY, THE 14TH SEPTEMBER. IT IS LIKELY TO DECREASE, BECOMING 40-50 KMPH GUSTING TO 60 KMPH THEREAFTER.

**SEA CONDITION:**

ROUGH TO VERY ROUGH SEA CONDITION IS VERY LIKELY TO PREVAIL OVER NORTH BAY OF BENGAL AND ALONG & OFF WEST BENGAL-ODISHA COASTS TILL 1500 UTC OF TODAY, THE 14TH SEPTEMBER.

ROUGH SEA CONDITION IS LIKELY TO PREVAIL OVER NORTH BAY OF BENGAL AND ALONG & OFF WEST BENGAL-ODISHA COASTS FROM 1800 UTC OF 14TH TILL 0300 UTC OF 16TH SEPTEMBER.

**FISHERMEN WARNING:**

FISHERMEN ARE ADVISED NOT TO VENTURE INTO NORTH BAY OF BENGAL AND ALONG & OFF BANGLADESH, WEST BENGAL, AND ODISHA COASTS TILL 0300 UTC OF 16TH SEPTEMBER.

**REMARKS:**

CURRENT ENVIRONMENTAL CONDITIONS INDICATE THAT THE DEEP DEPRESSION OVER BANGLADESH AND ADJOINING GANGETIC WEST BENGAL IS LYING IN A FAVOURABLE ENVIRONMENT. SEA SURFACE TEMPERATURE IS 28-30°C OVER NORTH BOB. TROPICAL CYCLONE HEAT POTENTIAL IS 80-100KJ/CM<sup>2</sup> NEAR SYSTEM LOCATION.

MADDEN JULIAN OSCILLATION (MJO) INDEX IS CURRENTLY IN PHASE 5 WITH AMPLITUDE LESS THAN 1. IT IS LIKELY TO CONTINUE IN SAME PHASE DURING NEXT 2 DAYS AND THEN LIKELY TO MOVE TO PHASE 6. THUS, MJO WOULD SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER NORTH BOB AND ADJOINING AREAS TILL NEXT 2 DAYS.

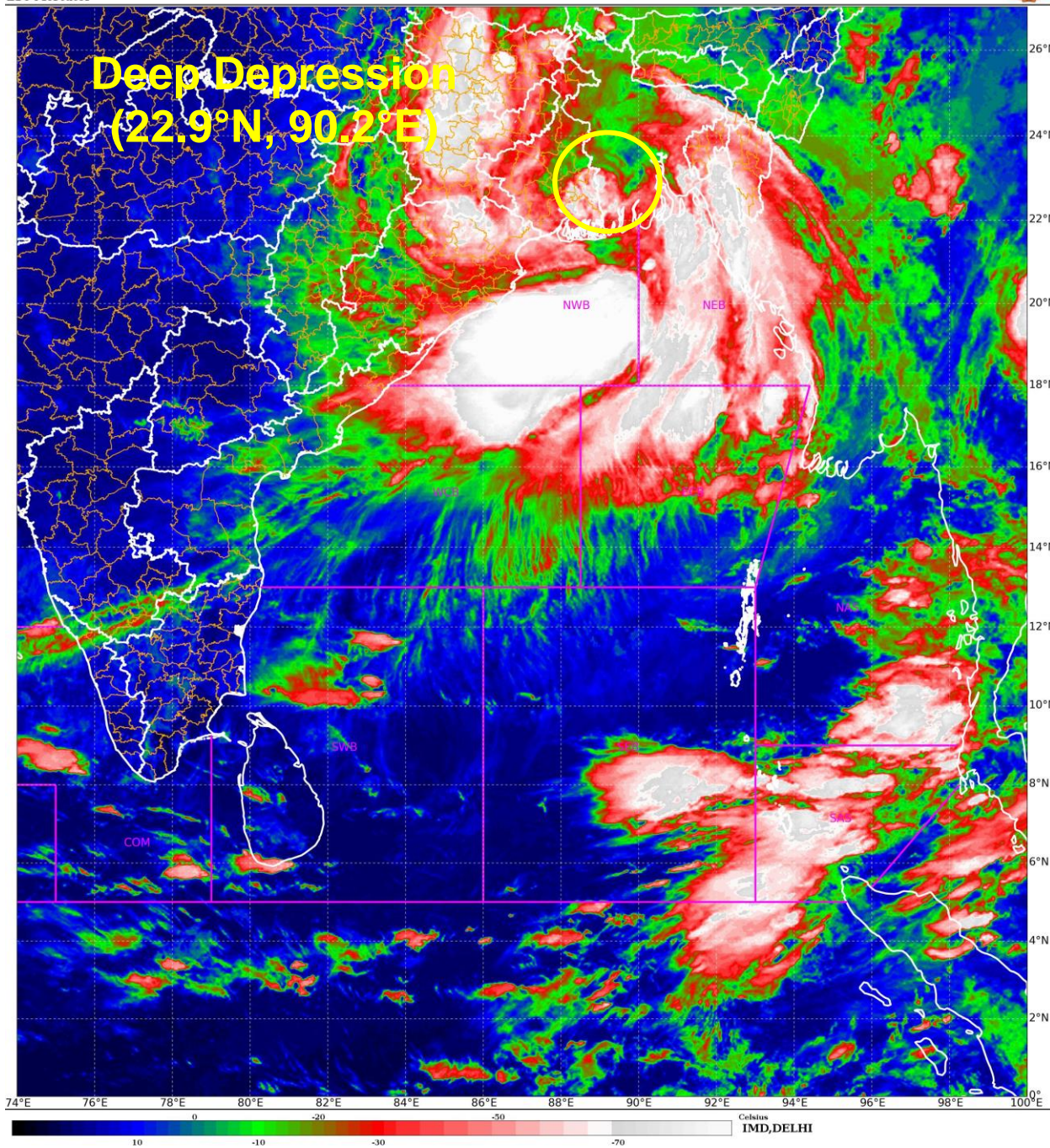
THE LOW LEVEL CONVERGENCE IS AROUND 20-30X10<sup>-5</sup> S<sup>-1</sup> OVER GANGETIC WEST BENGAL AND OVER NORTHEAST BAY OF BENGAL, UPPER LEVEL DIVERGENCE IS AROUND 20-30X10<sup>-5</sup> S<sup>-1</sup> OVER NORTH BAY OF BENGAL ADJOINING AREAS OF WEST BENGAL AND ODISHA. THE WIND SHEAR IS LOW TO MODERATE (10-15 KT) OVER SYSTEM AREA AND INCREASING ALONG THE FORECAST TRACK. VORTICITY AT 850 HPA LEVEL IS AROUND 150X10<sup>-5</sup> S<sup>-1</sup> OVER NORTH BAY OF BENGAL & NEIGHBOUHOOD AND EXTENDS UP TO 200

HPA ( $40 \times 10^{-5} \text{ S}^{-1}$ ). THE SYSTEM IS CURRENTLY IN THE ZONE OF LOW VERTICAL WIND SHEAR AND MAINTAIN ITS INTENSITY OF DEEP DEPRESSION TILL 12 UTC OF TODAY AND LIKELY TO WEAKEN THEREAFTER.

MOST OF THE NWP MODELS INDICATE THAT THE SYSTEM IS LIKELY TO MOVE WEST-NORTHWESTWARDS ACROSS GANGETIC WEST BENGAL & JHARKHAND DURING SUBSEQUENT NEXT 48 HOURS.

DR SHASHI KANT  
SC.-D, RSMC NEW DELHI

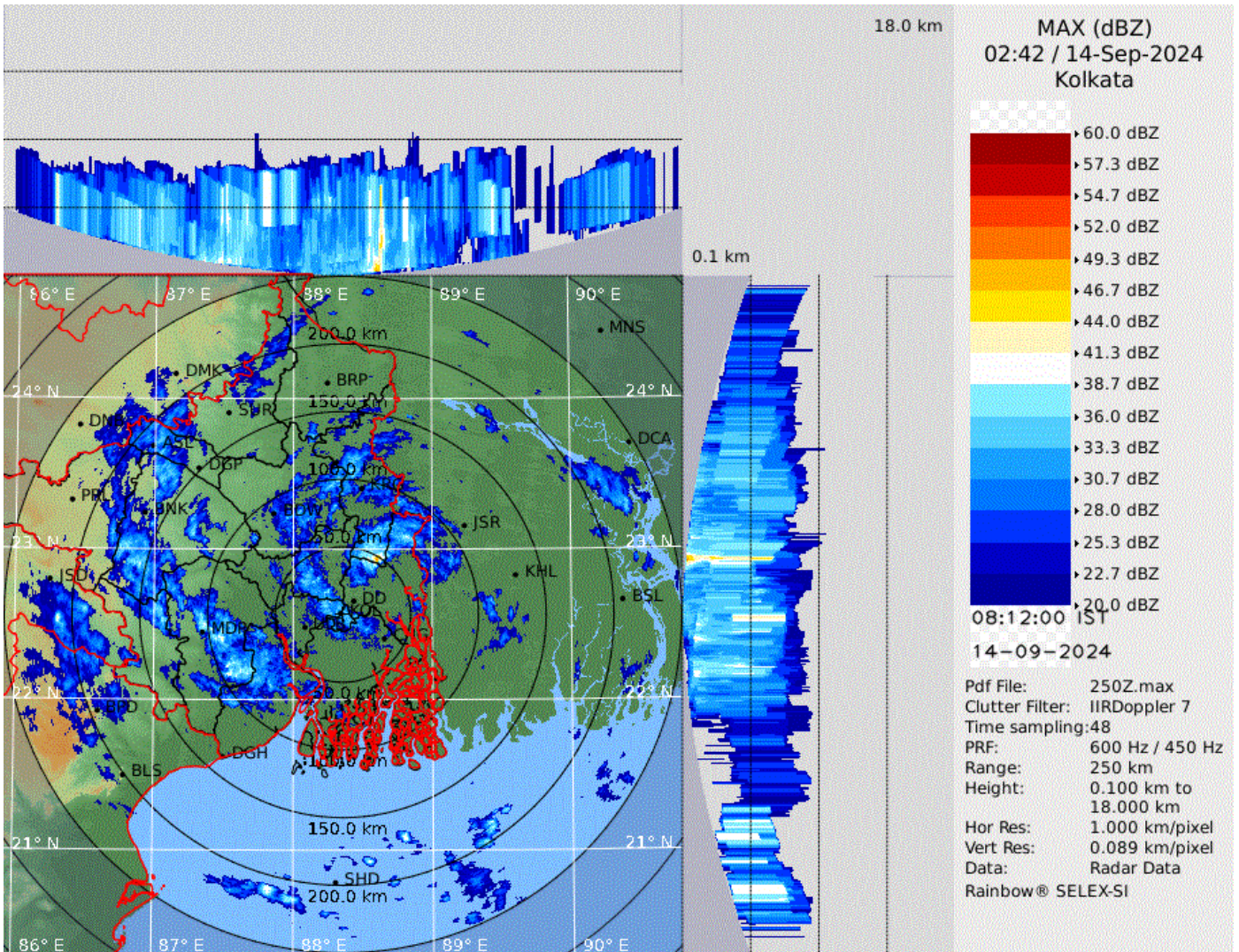




Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C  
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%  
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# Kolkata Radar Image

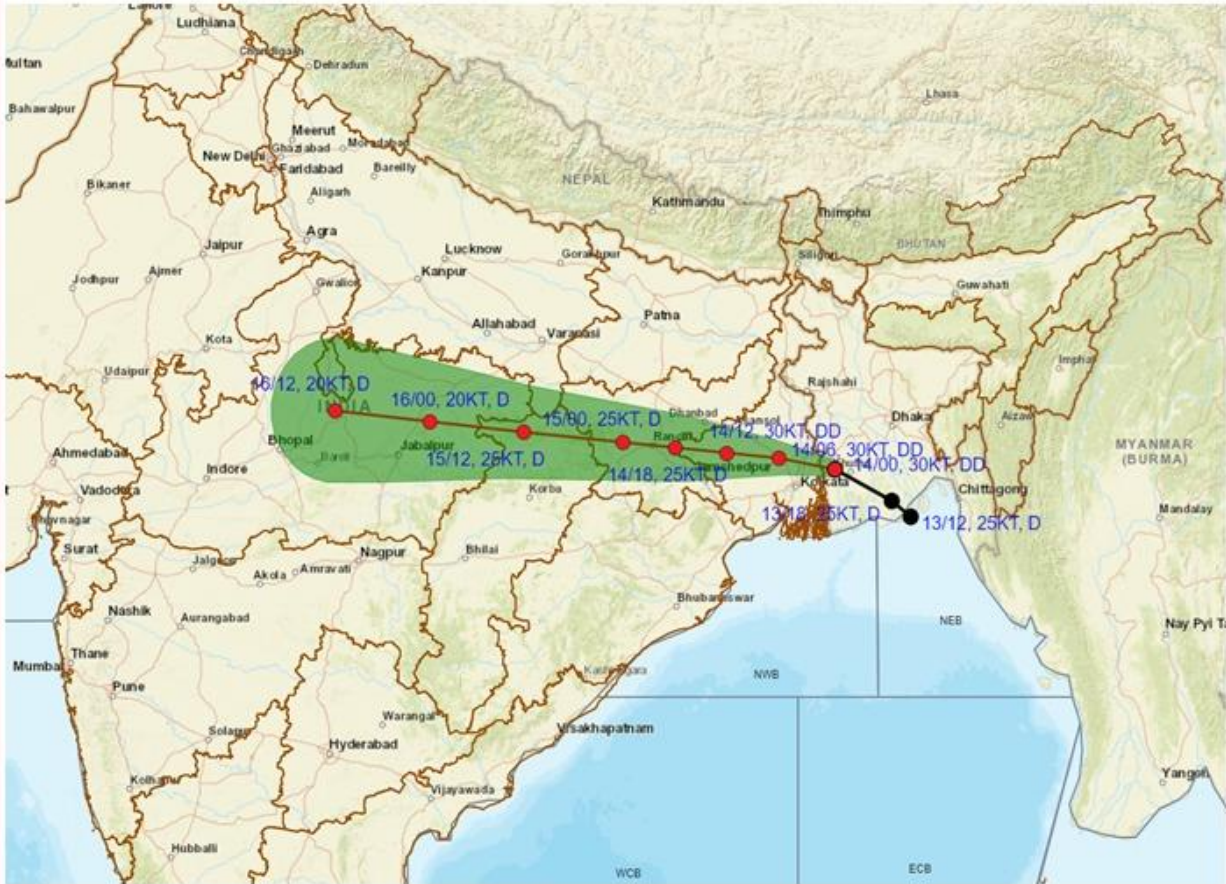


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**OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER BANGLADESH AND ADJOINING WEST BENGAL BASED ON 0000 UTC (0530 IST) OF 14<sup>TH</sup> SEPTEMBER, 2024.**



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)

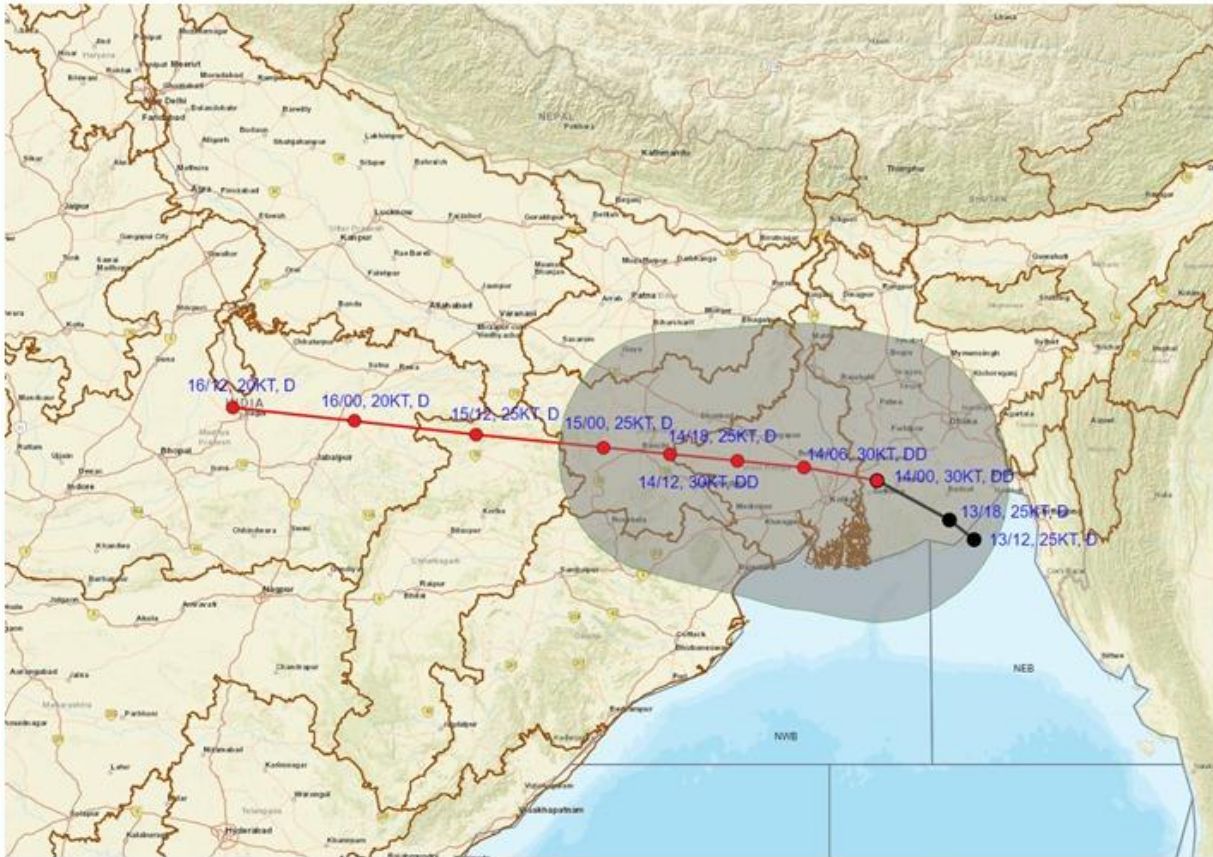
● LESS THAN 34 KT  
 ○ 34-47 KT  
 ○ ≥ 48 KT  
 — OBSERVED TRACK  
 — FORECAST TRACK  
 ■ CONE OF UNCERTAINTY

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**OBSERVED AND FORECAST TRACK ALONG WITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER BANGLADESH AND ADJOINING WEST BENGAL BASED ON 0000 UTC (0530 IST) OF 14<sup>TH</sup> SEPTEMBER, 2024**



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)

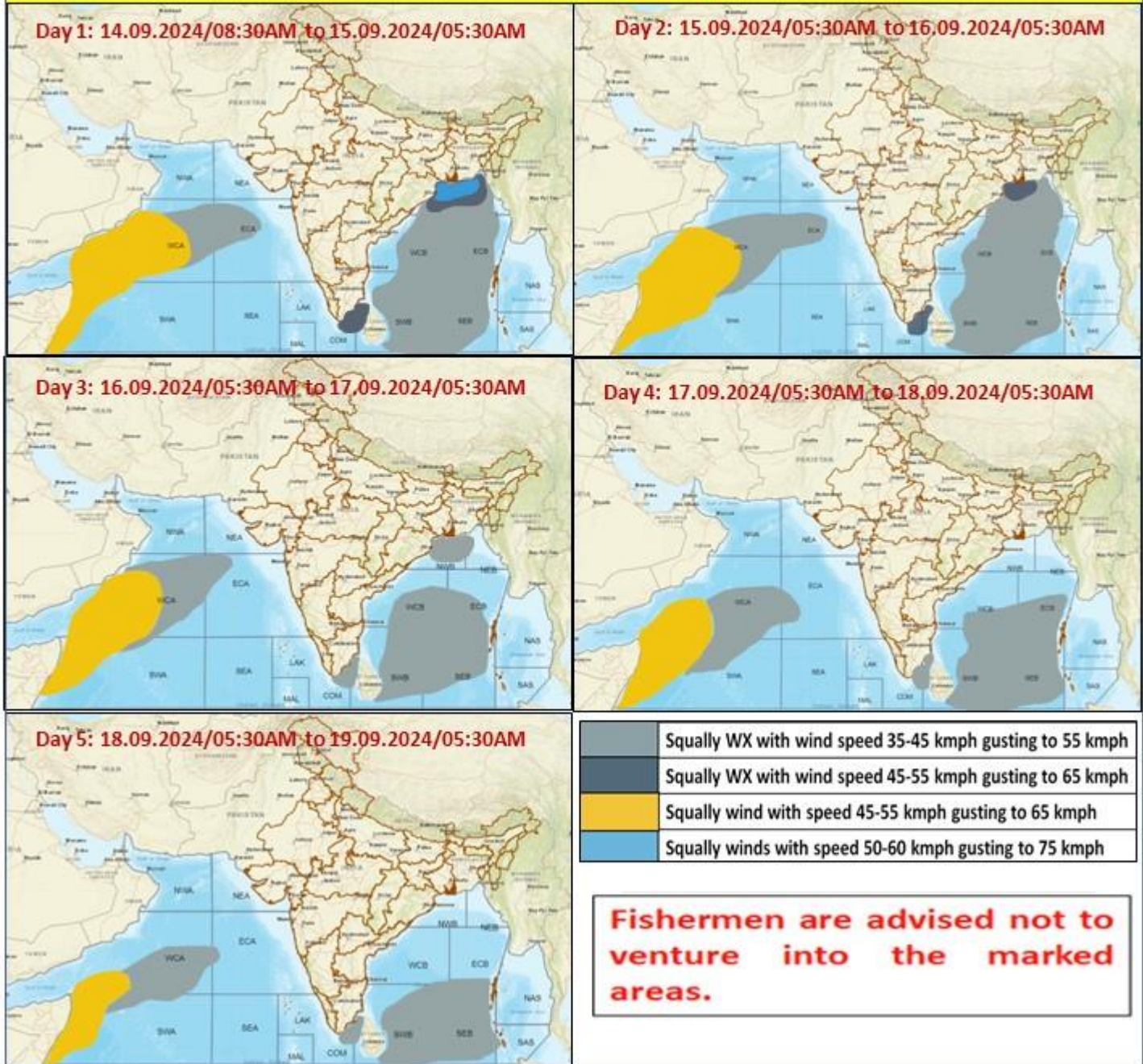
**IMPACT OVER THE SEA**

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

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## Fishermen Warning Graphics



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