



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL CYCLONE ADVISORY**

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 16.06.2023

FROM: RSMC –TROPICAL CYCLONES, NEW DELHI

**TO: STORM WARNING CENTRE, NAYPYI TAW (MYANMAR)
STORM WARNING CENTRE, BANGKOK (THAILAND)
STORM WARNING CENTRE, COLOMBO (SRILANKA)
STORM WARNING CENTRE, DHAKA (BANGLADESH)
STORM WARNING CENTRE, KARACHI (PAKISTAN)
METEOROLOGICAL OFFICE, MALE (MALDIVES)
OMAN METEOROLOGICAL DEPARTMENT, MUSCAT (THROUGH RTH JEDDAH)
YEMEN METEOROLOGICAL SERVICES, REPUBLIC OF YEMEN (THROUGH RTH JEDDAH)
NATIONAL CENTRE FOR METEOROLOGY, UAE (THROUGH RTH JEDDAH)
PRESIDENCY OF METEOROLOGY AND ENVIRONMENT, SAUDI ARABIA (THROUGH RTH JEDDAH)
IRAN METEOROLOGICAL ORGANISATION, (THROUGH RTH JEDDAH)
QATAR METEOROLOGICAL DEPARTMENT (THROUGH RTH JEDDAH)**

TROPICAL CYCLONE ADVISORY NO. 83 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 24 HOURS ISSUED AT 2100 UTC OF 16.06.2023 BASED ON 1800 UTC OF 16.06.2023

SUB: DEEP DEPRESSION (REMNANT OF CYCLONIC STORM “BIPARJOY”) OVER SOUTHEAST PAKISTAN ADJOINING SOUTHWEST RAJASTHAN AND KUTCH

THE CYCLONIC STORM “BIPARJOY” (PRONOUNCED AS “BIPORJOY”) OVER SOUTHEAST PAKISTAN ADJOINING SOUTHWEST RAJASTHAN AND KUTCH MOVED NEARLY NORTHEASTWARDS WITH A SPEED OF 12 KMPH DURING PAST 6-HOURS WEAKENED INTO A DEEP DEPRESSION AND LAY CENTERED AT 1800 UTC OF TODAY, THE 16TH JUNE, 2023 OVER SOUTHEAST PAKISTAN ADJOINING SOUTHWEST RAJASTHAN AND KUTCH NEAR LATITUDE 24.6°N AND LONGITUDE 70.9°E, ABOUT 100 KM NORTHEAST OF DHOLAVIRA (GUJARAT), 140 KM WEST-NORTHWEST OF DEESA (42539) AND 130 KM SOUTH-SOUTHWEST OF BARMER (42435).

IT IS VERY LIKELY TO MOVE NEARLY NORTHEASTWARDS AND WEAKEN FURTHER INTO A DEPRESSION DURING NEXT 12 HOURS.

FORECAST TRACK AND INTENSITY ARE GIVEN BELOW:

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
16.06.23/1800	24.6/70.9	50-60 GUSTING TO 70	DEEP DEPRESSION
17.06.23/0000	25.1/71.8	50-60 GUSTING TO 70	DEEP DEPRESSION
17.06.23/0600	25.6/72.7	40-50 GUSTING TO 60	DEPRESSION
17.06.23/1200	26.1/73.6	30-40 GUSTING TO 50	DEPRESSION

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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AS PER INSAT 3D IMAGERY, ASSOCIATED SCATTERED TO BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH PAKISTAN (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93°C), OVER SOUTHWEST RAJASTHAN, KUTCH (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 80°C) AND MODERATE TO INTENSE CONVECTION OVER NORTHWEST RAJASTHAN, SAURASHTRA, GUJARAT REGION, GULF OF KUTCH AND NORTHEAST ARABIAN SEA (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 65°C).TOTAL PRECIPITABLE WATER IMAGERY INDICATES REDUCTION IN THE TOTAL PRECIPITABLE WATER CONTENT OVER THE SYSTEM.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IS 30 KNOTS GUSTING TO 40 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 990 HPA. SEA CONDITION IS LIKELY TO BE ROUGH TO VERY ROUGH OVER NORTHEAST ARABIAN SEA DURING NEXT 12 HOURS.

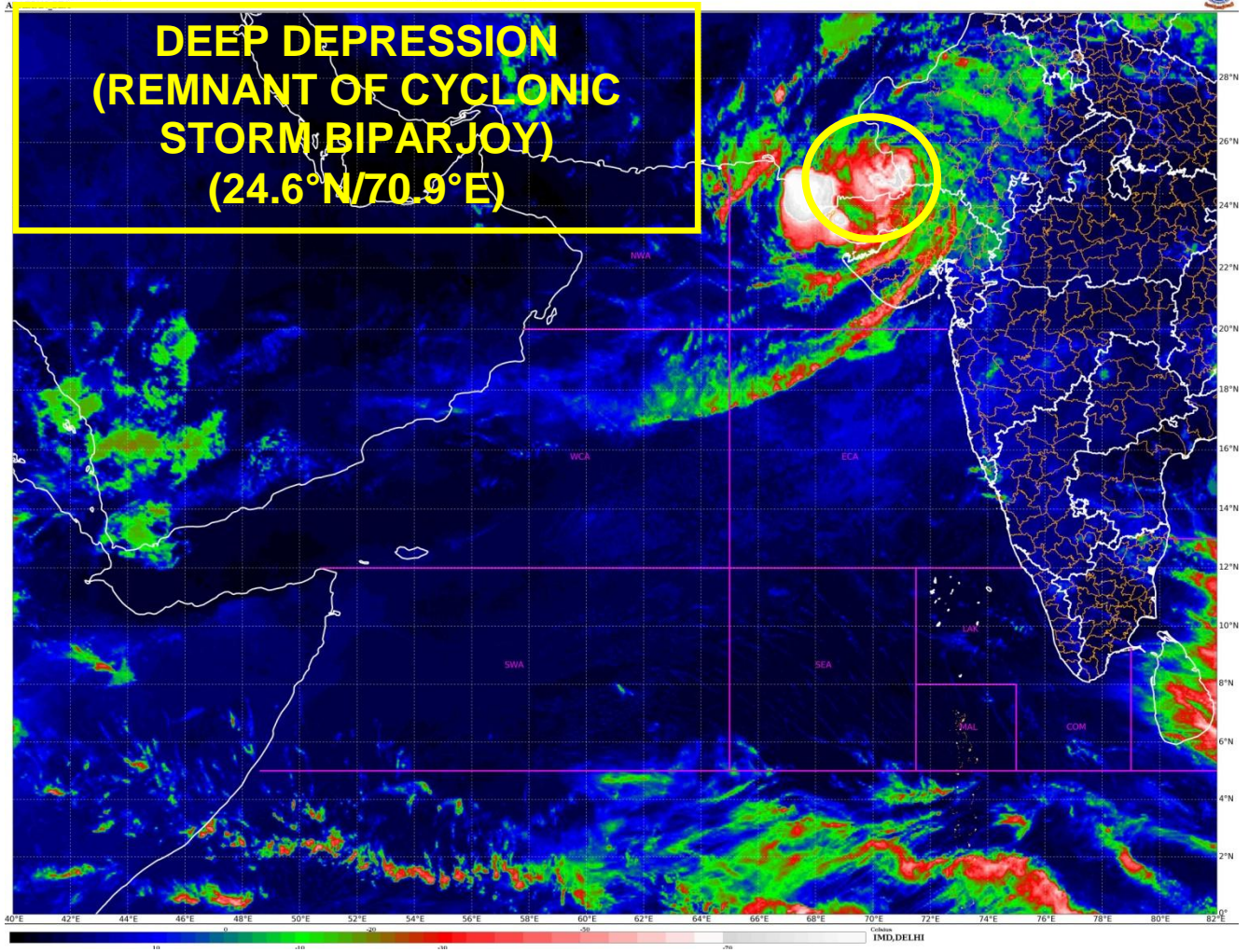
AT 1800 UTC, CHHOR (41768) MEAN SEA LEVEL PRESSURE (MSLP) OF 995.3 HPA, AND MAXIMUM SUSTAINED WIND SPEED (MSW) OF 50°/12.1KT. BARMER (42435) REPORTED MSLP OF 996.0 HPA AND MSW OF 50°/06KT. DEESA (42539) REPORTED MSLP OF 995.6 HPA AND MSW OF 160°/21KT. BHUJ (42634) REPORTED MSLP OF 999.4 HPA AND MSW OF 230°/4.1KT.

REMARKS:

THE LOW LEVEL VORTICITY IS AROUND $200 \times 10^{-6} \text{S}^{-1}$ & IS LOCATED TO THE SOUTHWEST OF THE SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS ABOUT $30 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTH OF THE SYSTEM CENTRE AND UPPER LEVEL DIVERGENCE IS ABOUT $20 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTHWEST OF SYSTEM CENTRE. VERTICAL WIND SHEAR IS MODERATE (10-15 KNOTS) OVER THE SYSTEM AREA. THE RIDGE RUNS ALONG 24.5°N. THE DEEP LAYER MEAN WINDS, INDICATE A WESTERLY TROUGH ALONG 66.5°E TO THE WEST OF SYSTEM CENTRE. THE SYSTEM IS MOVING NEARLY NORTHEASTWARDS UNDER THE INFLUENCE OF WEST-SOUTHWESTERLY WINDS PREVAILING TO THE NORTH OF THE RIDGE AND THE WESTERLY TROUGH. SYSTEM IS STILL IN A MODERATELY FAVOURABLE ENVIRONMENT, THUS IT IS WEAKENING GRADUALLY.

BASED ON ENVIRONMENTAL CONDITIONS AND NWP MULTI-MODEL FORECASTS THE SYSTEM IS VERY LIKELY TO MOVE NEARLY NORTHEASTWARDS AND WEAKEN GRADUALLY INTO A DEPRESSION DURING NEXT 12 HOURS.

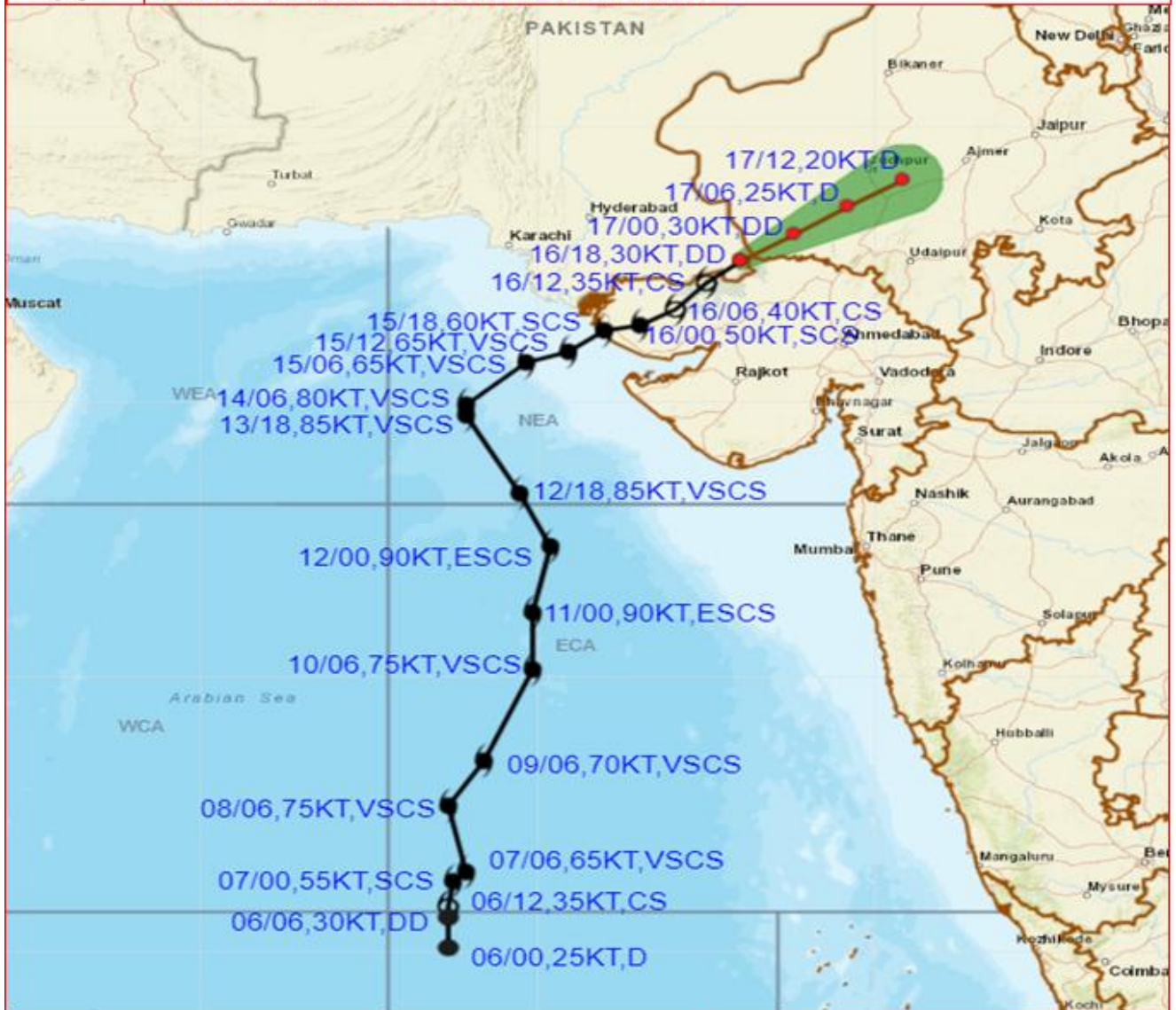
**AKHIL SRIVASTAVA
SCIENTIST C
RSMC NEW DELHI**



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OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION(REMANANT OF CYCLONIC STORM BIPARJOY) OVER SOUTHEAST PAKISTAN ADJOINING SOUTHWEST RAJASTHAN & KUTCH BASED ON 1800 UTC (2330 IST) OF 16TH JUNE 2023.

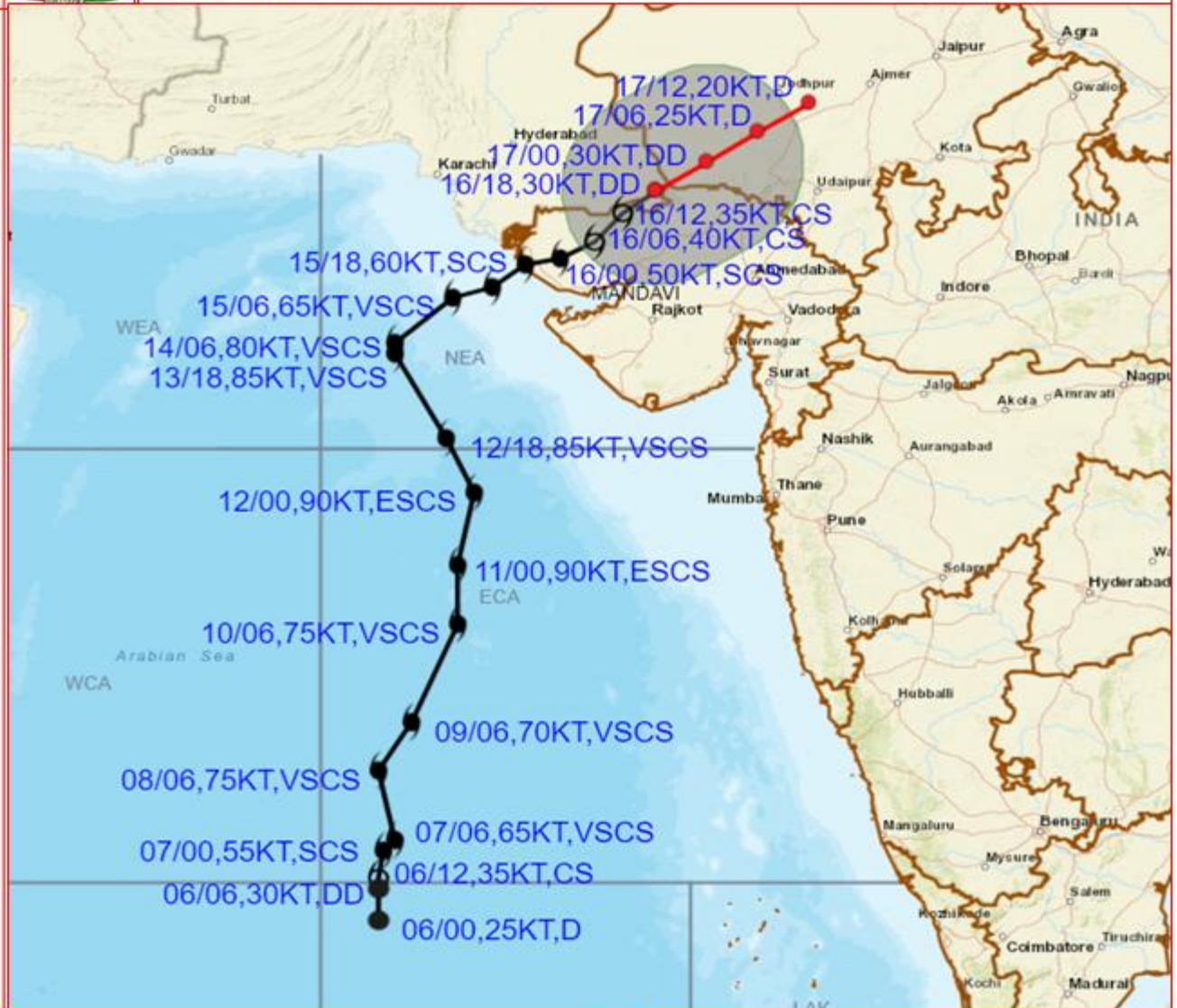


DATE/TIME IN UTC IST=UTC + 0530	● LESS THAN 34 KT
L: LOW PRESSURE AREA	⊙ 34-47 KT
WML: WELL MARKED LOW PRESSURE AREA	⊙ ≥ 48 KT
D: DEPRESSION (17-27 KT)	— OBSERVED TRACK
DD: DEEP DEPRESSION (28-33 KT)	— FORECAST TRACK
CS: CYCLONIC STORM (34-47 KT)	▲ CONE OF UNCERTAINTY
SCS: SEVERE CYCLONIC STORM (48-63KT)	
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)	
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)	
SuCS: SUPER CYCLONIC STORM (≥ 120 KT)	

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OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION(REMANANT OF CYCLONIC STORM BIPARJOY) OVER SOUTHEAST PAKISTAN ADJOINING SOUTHWEST RAJASTHAN & KUTCH BASED ON 1800 UTC (2330 IST) OF 16TH JUNE 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)

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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)

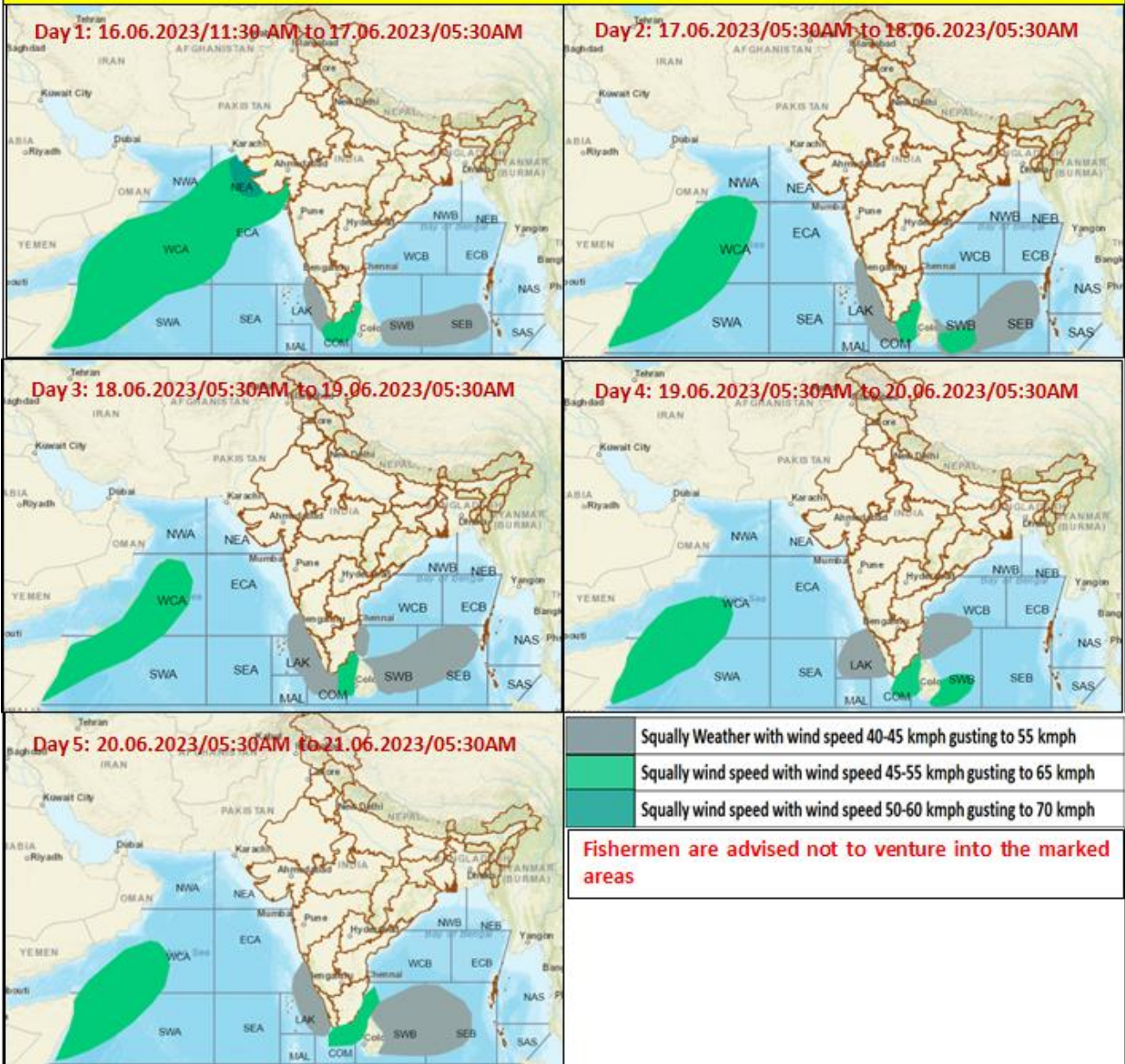
■ ≥ 64 KT (≥ 118 KMPH)

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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