



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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 06.06.2023**

**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. 4 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0000 UTC OF 07.06.2023 BASED ON 2100 UTC OF 06.06.2023**

**SUB: THE CYCLONIC STORM “BIPARJOY” (PRONOUNCED AS “BIPORJOY”) OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA**

THE CYCLONIC STORM “BIPARJOY” (PRONOUNCED AS “BIPORJOY”) OVER EAST CENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA REMAINED PRACTICALLY STATIONARY DURING LAST 3 HOURS AND LAY CENTERED AT 2100 UTC OF 06<sup>TH</sup> JUNE, 2023 OVER SAME REGION NEAR LATITUDE 12.5°N AND LONGITUDE 66.0°E, ABOUT 900 KM WEST-SOUTHWEST OF GOA(43192), 1020 KM SOUTHWEST OF MUMBAI(43057), 1090 KM SOUTH-SOUTHWEST OF PORBANDAR(42830) AND 1380 KM SOUTH OF KARACHI(41780).

IT IS LIKELY TO MOVE NEARLY NORTHWARDS AND INTENSIFY GRADUALLY INTO A SEVERE CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA DURING NEXT 06 HOURS AND FURTHER INTESIFY INTO A VERY SEVERE CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA IN SUBSEQUENT 24 HOURS.

**Forecast track and intensity are given below:**

<b>Date/Time(UTC)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
06.06.23/2100	12.5/66.0	80-90 gusting to 100	Cyclonic Storm
07.06.23/0000	12.7/66.0	90-100 gusting to 110	Severe Cyclonic Storm
07.06.23/0600	13.0/66.0	100-110 gusting to 115	Severe Cyclonic Storm
07.06.23/1200	13.3/65.9	105-115 gusting to 125	Severe Cyclonic Storm
07.06.23/1800	13.6/65.9	110-120 gusting to 130	Severe Cyclonic Storm
08.06.23/0600	14.2/65.8	115-125 gusting to 140	Very Severe Cyclonic Storm
08.06.23/1800	14.8/65.7	125-135 gusting to 150	Very Severe Cyclonic Storm

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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09.06.23/0600	15.5/65.5	135-145 gusting to 160	Very Severe Cyclonic Storm
09.06.23/1800	16.2/65.4	140-150 gusting to 165	Very Severe Cyclonic Storm
10.06.23/0600	17.0/65.2	145-155 gusting to 170	Very Severe Cyclonic Storm
10.06.23/1800	17.9/65.0	145-155 gusting to 170	Very Severe Cyclonic Storm
11.06.23/0600	18.8/64.8	140-150 gusting to 165	Very Severe Cyclonic Storm
11.06.23/1800	19.7/64.6	130-140 gusting to 150	Very Severe Cyclonic Storm

AS PER INSAT 3D IMAGERY INTENSITY OF THE SYSTEM IS T 2.5. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER CENTRAL AND ADJOINING SOUTH ARABIAN SEA BETWEEN LATITUDE 10.0N & 16.0N LONGITUDE 60.0E & 67.0E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93DEG C.

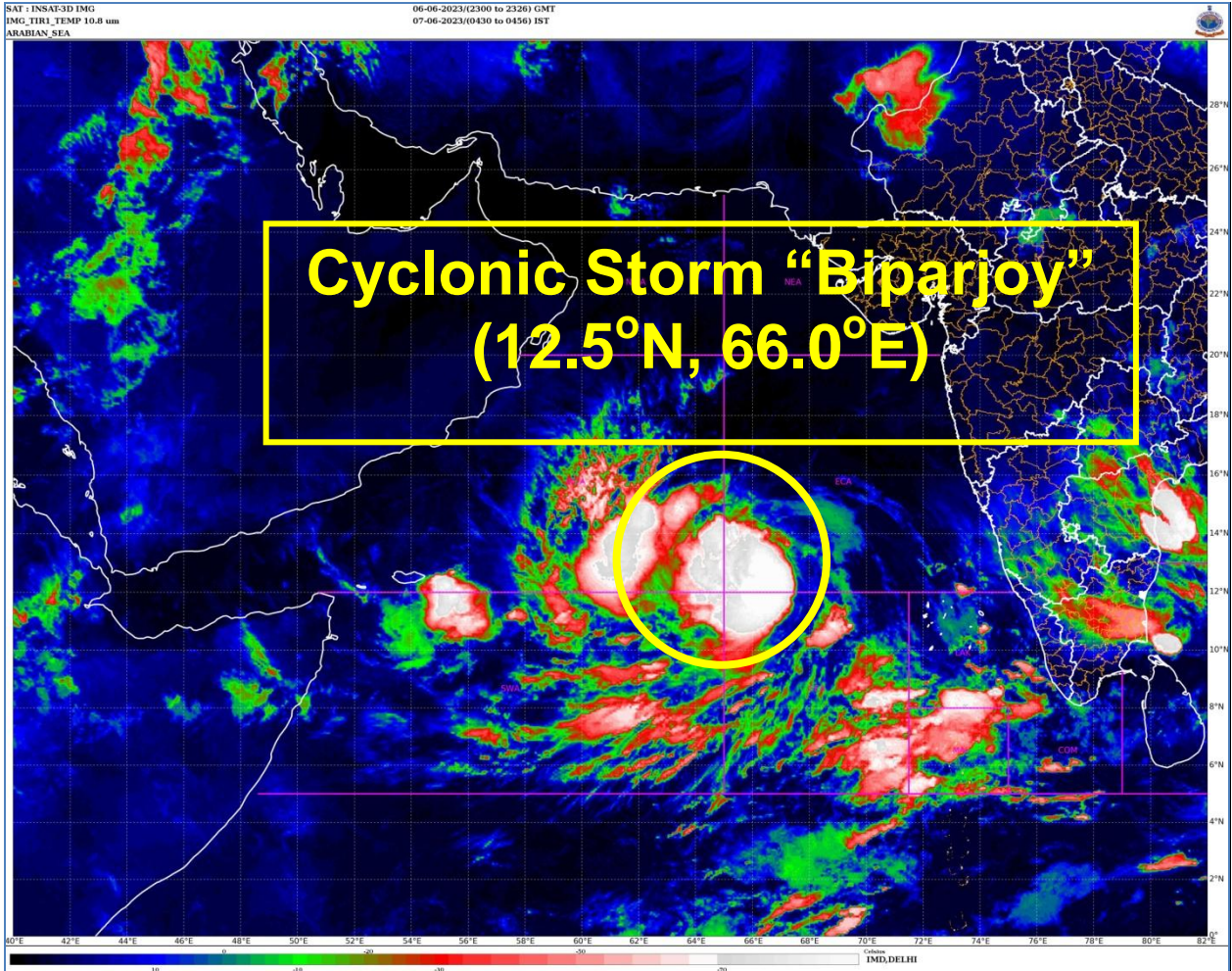
ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 40 KNOTS GUSTING TO 50 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 996 HPA. SEA CONDITION IS LIKELY TO BE HIGH OVER EASTCENTRAL AND ADJOINING EASTCENTRAL ARABIAN SEA.

**REMARKS:** SEA SURFACE TEMPERATURE IS AROUND 30-32°C OVER SOUTH & ADJOINING CENTRAL ARABIAN SEA. THE CYCLONIC STORM "BIPARJOY" (PRONOUNCED AS "BIPORJOY") IS CURRENTLY IN A VERY FAVOURABLE ENVIROMENT WITH POSITIVE LOW LEVEL VORTICITY ( $190 \times 10^{-6} S^{-1}$ ) TO THE SOUTH WEST OF SYSTEM CENTRE, LOW LEVEL CONVERGENCE IS ABOUT  $20-30 \times 10^{-5} S^{-1}$  TO THE WEST OF SYSTEM CENTRE, UPPER LEVEL DIVERGENCE IS ABOUT  $30 \times 10^{-5} S^{-1}$  TO THE SOUTH SOUTHWEST OF SYSTEM CENTRE. WIND SHEAR IS MODERATE OVER SYSTEM AREA (15-20 KNOTS). MJO IS IN PHASE 2 WITH AMPLITUDE CLOSE TO 1 AND EQUATORIAL ROSSBY WAVES, KELVIN WAVES ALONGWITH WESTERLY WINDS (5-7 MPS) ARE ALSO PREVAILING OVER SOUTH AND CENTRAL ARABIAN SEA. TOTAL PRECEIPITABLE WATER IMAGERY INDICATE THE WARM MOIST AIR INCURSION INTO THE SYSTEM.

MOST OF THE MODELS SUCH AS ECMWF, IMDGFS, NCEP GFS, NCUM, IMD MME ARE INDICATING FURTHER INTESIFICATION OF THE SYSTEM AND NEARLY NORTHWARDS MOVEMENT DURING NEXT 5 DAYS AND THERE IS LARGE VARIATION THEREAFTER. ECMWF INDICATING WEAKENING OVER EASTCENTRAL ARABIAN SEA, IMD GFS INDICATING WEAKENING OVER NORTHEAST ARABIAN SEA, NCEP GFS INDICATING LIKELY MOVEMENT TOWARDS OMAN COAST AND NCUM INDICATING MOVEMENT TOWARDS PAKISTAN-IRAN COASTS.

CONSIDERING THE LATEST ENVIRONMENTAL FEATURES AND MODEL GUIDANCE, THE CYCLONIC STORM "BIPARJOY" (PRONOUNCED AS "BIPORJOY") IS LIKELY TO MOVE NEARLY NORTHWARDS AND INTENSIFY GRADUALLY INTO A SEVERE CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA DURING NEXT 06 HOURS AND FURTHER INTESIFY INTO A VERY SEVERE CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA IN SUBSEQUENT 24 HOURS..

**DR JOHNY C J**  
**SC-D**  
**RSMC NEW DELHI**

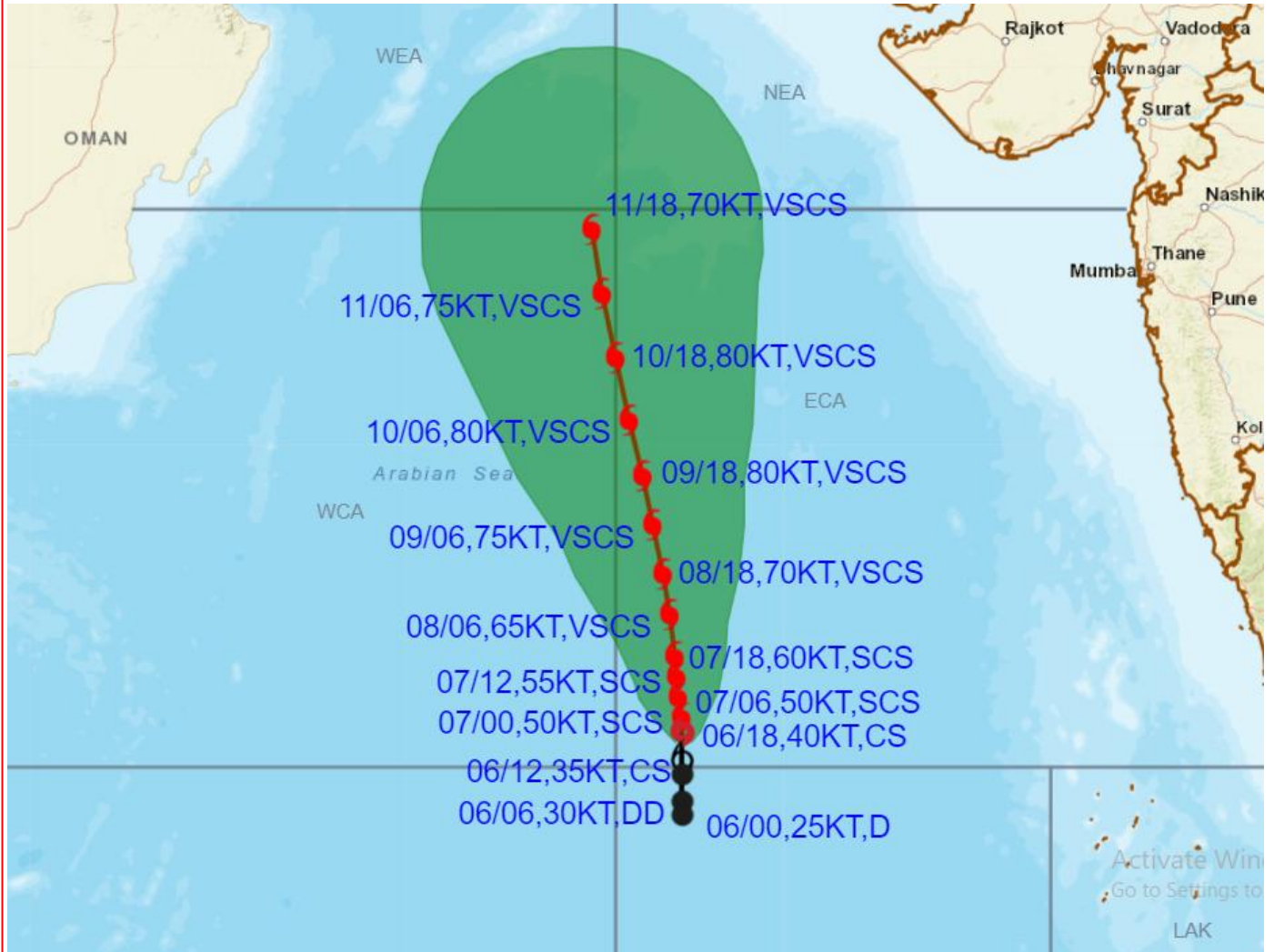


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**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 1800 UTC (2330 IST) OF 06<sup>TH</sup> JUNE 2023.**



**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)

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

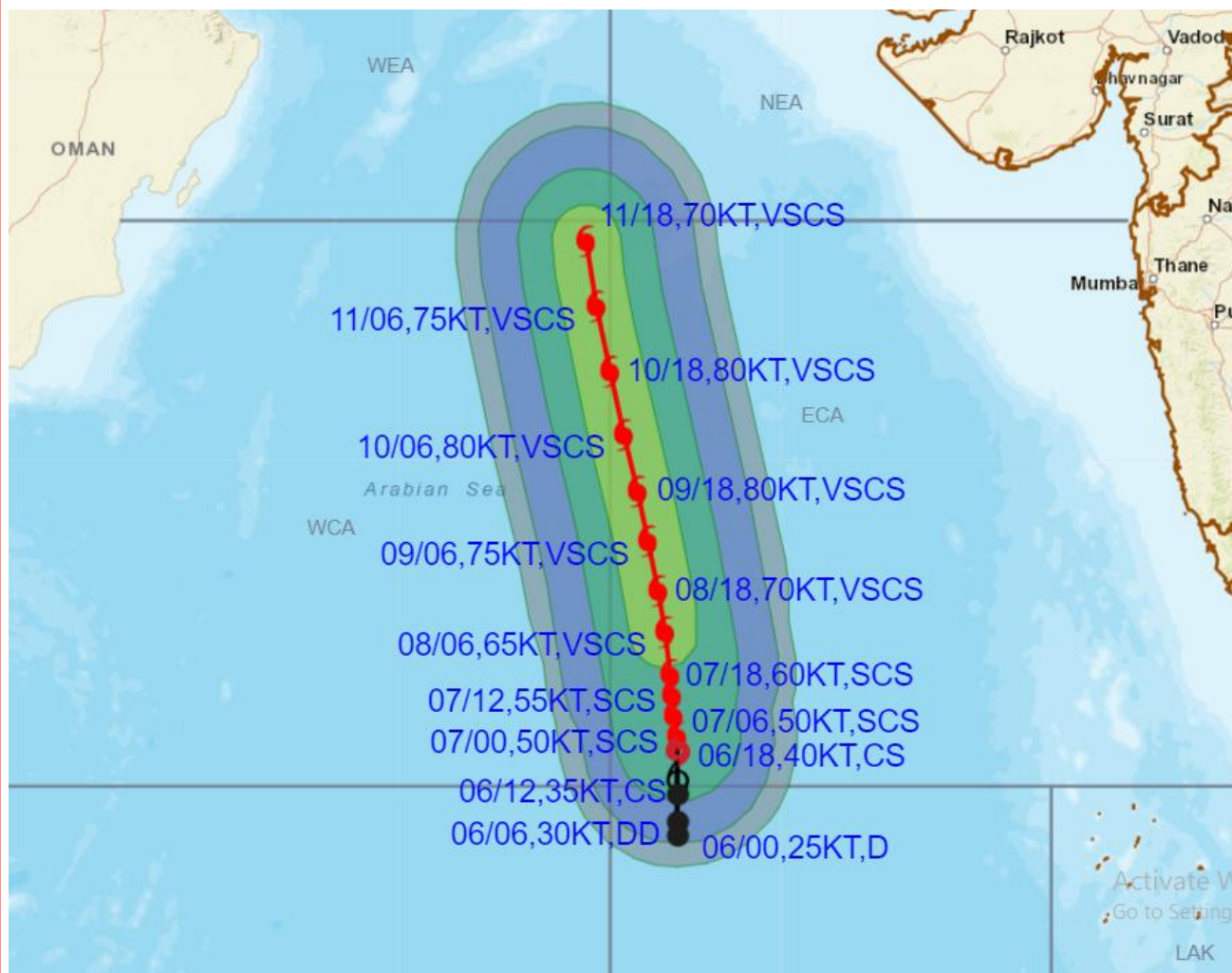
OBSERVED TRACK

FORECAST TRACK

CONE OF UNCERTAINTY



**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 1800 UTC (2330 IST) OF 06<sup>TH</sup> JUNE 2023.**



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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)

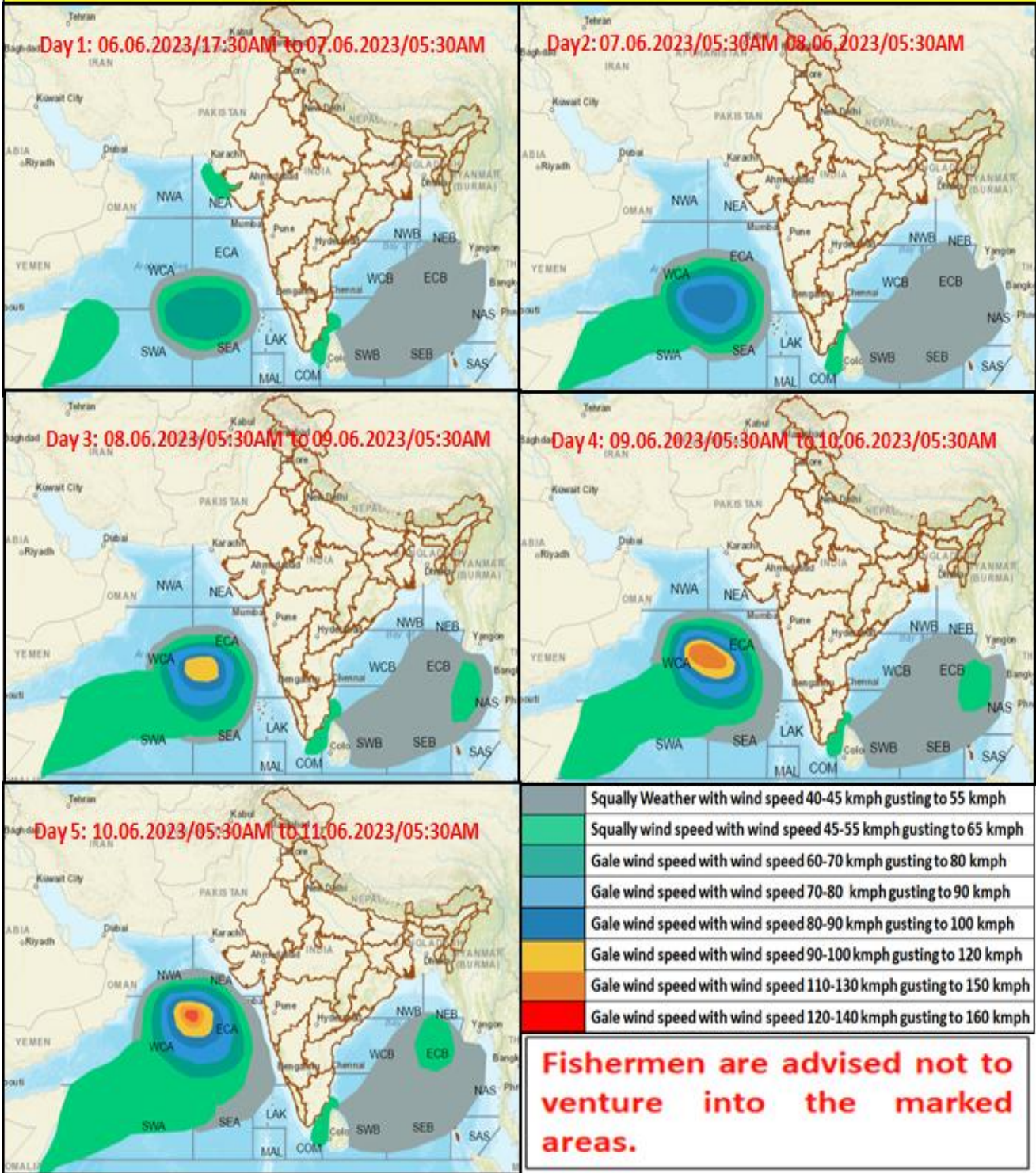
**IMPACT OVER THE SEA**

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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