



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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 07.06.2023**

**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. 7 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0930 UTC OF 07.06.2023 BASED ON 0600 UTC OF 07.06.2023**

**SUB: SEVERE CYCLONIC STORM “BIPARJOY” (PRONOUNCED AS “BIPORJOY”) INTENSIFIED INTO A VERY SEVERE CYCLONIC STORM OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA**

THE SEVERE CYCLONIC STORM “BIPARJOY” (PRONOUNCED AS “BIPORJOY”) OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA MOVED NEARLY NORTH-NORTHEASTWARDS WITH A SPEED OF 5 KMPH DURING LAST 6 HOURS, INTENSIFIED INTO A VERY SEVERE CYCLONIC STORM AND LAY CENTERED AT 0600 UTC OF TODAY, THE 07TH JUNE, 2023 OVER THE SAME REGION NEAR LATITUDE 12.8°N AND LONGITUDE 66.3 °E, ABOUT 860 KM WEST-SOUTHWEST OF GOA (43192), 970 KM SOUTHWEST OF MUMBAI (43057), 1050 KM SOUTH-SOUTHWEST OF PORBANDAR (42830) AND 1350 KM SOUTH OF KARACHI (41780).

IT WOULD MOVE NEARLY NORTHWARDS DURING NEXT 24 HOURS AND THEN NORTH-NORTHWESTWARDS DURING SUBSEQUENT 3 DAYS.

**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
07.06.23/0600	12.8/66.3	115-125 gusting to 140	Very Severe Cyclonic Storm
07.06.23/1200	13.0/66.4	120-130 gusting to 145	Very Severe Cyclonic Storm
07.06.23/1800	13.3/66.3	125-135 gusting to 150	Very Severe Cyclonic Storm
08.06.23/0000	13.7/66.2	130-140 gusting to 155	Very Severe Cyclonic Storm
08.06.23/0600	14.0/66.1	135-145 gusting to 160	Very Severe Cyclonic Storm
08.06.23/1800	14.6/65.9	135-145 gusting to 160	Very Severe Cyclonic Storm
09.06.23/0600	15.3/65.6	145-155 gusting to 170	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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09.06.23/1800	16.0/65.2	145-155 gusting to 170	Very Severe Cyclonic Storm
10.06.23/0600	16.7/64.8	145-155 gusting to 170	Very Severe Cyclonic Storm
10.06.23/1800	17.4/64.4	135-145 gusting to 160	Very Severe Cyclonic Storm
11.06.23/0600	18.2/64.0	130-140 gusting to 155	Very Severe Cyclonic Storm
11.06.23/1800	18.9/63.6	125-135 gusting to 150	Very Severe Cyclonic Storm
12.06.23/0600	19.5/63.1	120-130 gusting to 145	Very Severe Cyclonic Storm

AS PER INSAT 3D IMAGERY INTENSITY OF THE SYSTEM IS T 4.0. 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 10.5N & 15.0N LONGITUDE 62.0E & 67.0E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93DEG C. AS PER MULTISAT WINDS, STRONGER WINDS ARE SEEN IN THE SOUTHEAST SECTOR.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 65 KNOTS GUSTING TO 75 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 983 HPA. SEA CONDITION IS LIKELY TO BE PHENOMENAL OVER EASTCENTRAL AND ADJOINING EASTCENTRAL ARABIAN SEA.

**REMARKS:**

SEA SURFACE TEMPERATURE IS AROUND 30-32°C OVER CENTRAL & ADJOINING SOUTH ARABIAN SEA. THE CYCLONIC STORM "BIPARJOY" IS CURRENTLY IN A VERY FAVOURABLE ENVIROMENT WITH POSITIVE LOW LEVEL VORTICITY ( $200 \times 10^{-6} \text{S}^{-1}$ ) NEAR SYSTEM CENTRE, LOW LEVEL CONVERGENCE OF ABOUT  $40 \times 10^{-5} \text{S}^{-1}$  OVER THE AREA AND UPPER LEVEL DIVERGENCE OF ABOUT  $40 \times 10^{-5} \text{S}^{-1}$  TO THE SOUTH OF SYSTEM CENTRE. WIND SHEAR IS MODERATE OVER SYSTEM AREA (15-20 KNOTS) AND IS WEAK 05-10 KTS ALONG THE FORECASTE TRACK . 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.

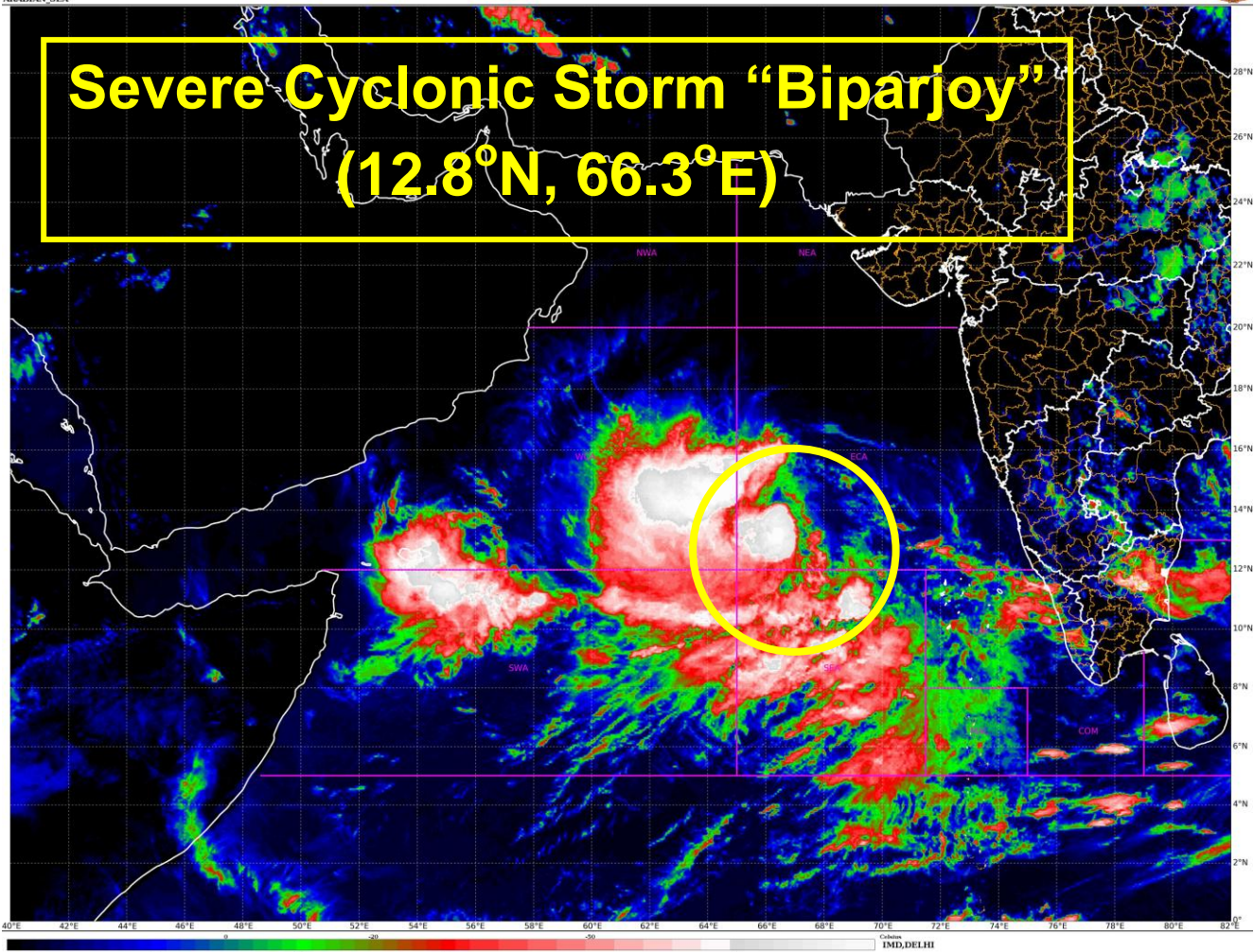
MOST OF THE MODELS SUCH AS ECMWF, IMDGFS, NCEP GFS, NCUM, IMD MME, IMD HWRF ARE INDICATING FURTHER INTESIFICATION OF THE SYSTEM. THE MODELS SUCH AS ECMWF, IMD GFS, NCUM, IMD MME, IMD HWRF ARE INDICATING INITIAL NEAR NORTHWARDS MOVEMENT TILL 8<sup>TH</sup> JUNE AND THEN NORTH-NORTHWESTWARDS MOVEMENT OF THE SYSTEM DURING SUBSEQUENT 3 DAYS. HOWEVER, NCUM IS INDICATING LANDFALL OVER OMAN. THERE IS LARGE VARIATION AMONG VARIOUS MODELS WRT FURTHER MOVEMENT OF THE SYSTEM AFTER 11<sup>TH</sup> JUNE.

CONSIDERING ALL THE ABOVE, VERY SEVERE CYCLONIC STORM "BIPARJOY" IS LIKELY TO INTENSIFY FURTHER DURING NEXT FOUR DAYS AND MOVE NEARLY NORTHWARDS DURING NEXT 24 HOURS & THEN NORTH-NORTHWESTWARDS DURING SUBSEQUENT 3 DAYS.

**M. SHARMA**  
**Scientist-D**  
**RSMC NEW DELHI**



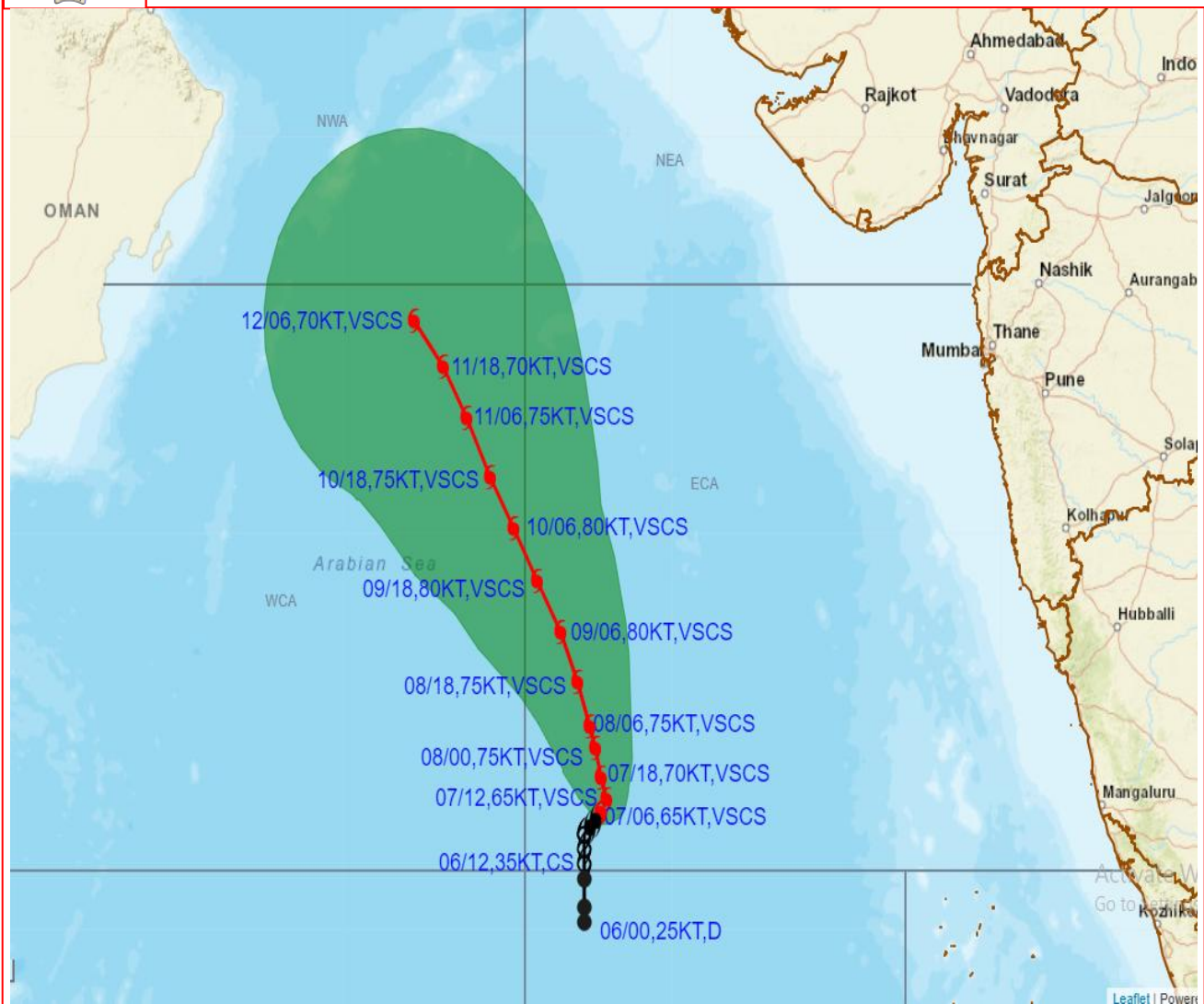
# Severe Cyclonic Storm "Biparjoy" (12.8°N, 66.3°E)



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PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION): NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%  
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**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF VERY SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 0600 UTC (1130 IST) OF 07<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 ( $\geq$  120 KT)

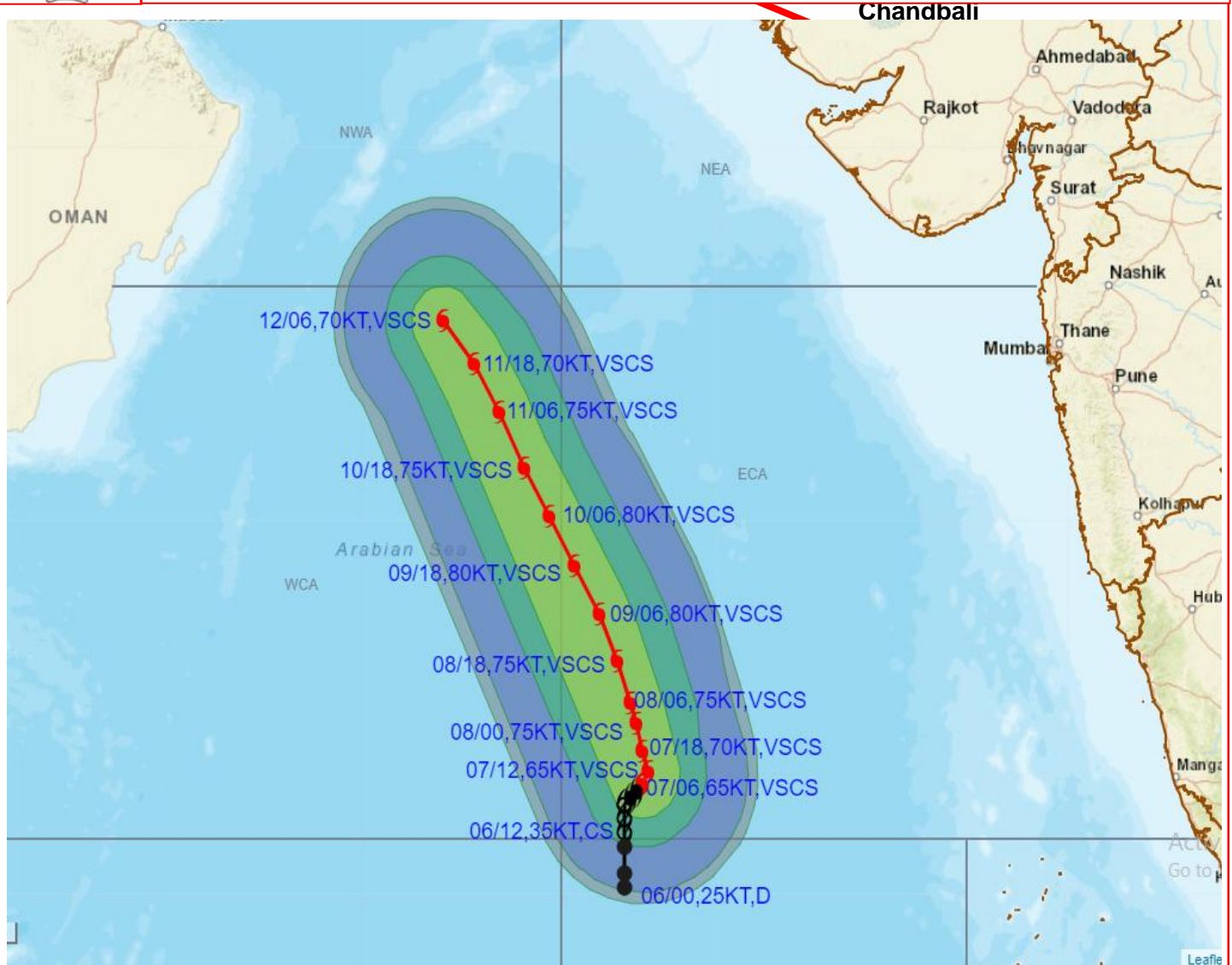
- LESS THAN 34 KT
- 34-47 KT
- $\geq$  48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS		
	08.06.23/0600	09.06.23/0600	10.06.23/0600
PORBANDAR	930, SSW	820, SSW	750, SW
BOMBAY / COLABA	900, SW	870, WSW	880, WSW
GOA/PANJIM	850, W	890, W	970, W
KARACHI AIRPORT	1210, S	1080, S	940, SSW
MASIRAH	1060, SE	920, SE	760, SE

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**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 0600 UTC (1130 IST) OF 07<sup>TH</sup> JUNE 2023**



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 D: DEPRESSION (17-27 KT)  
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 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)

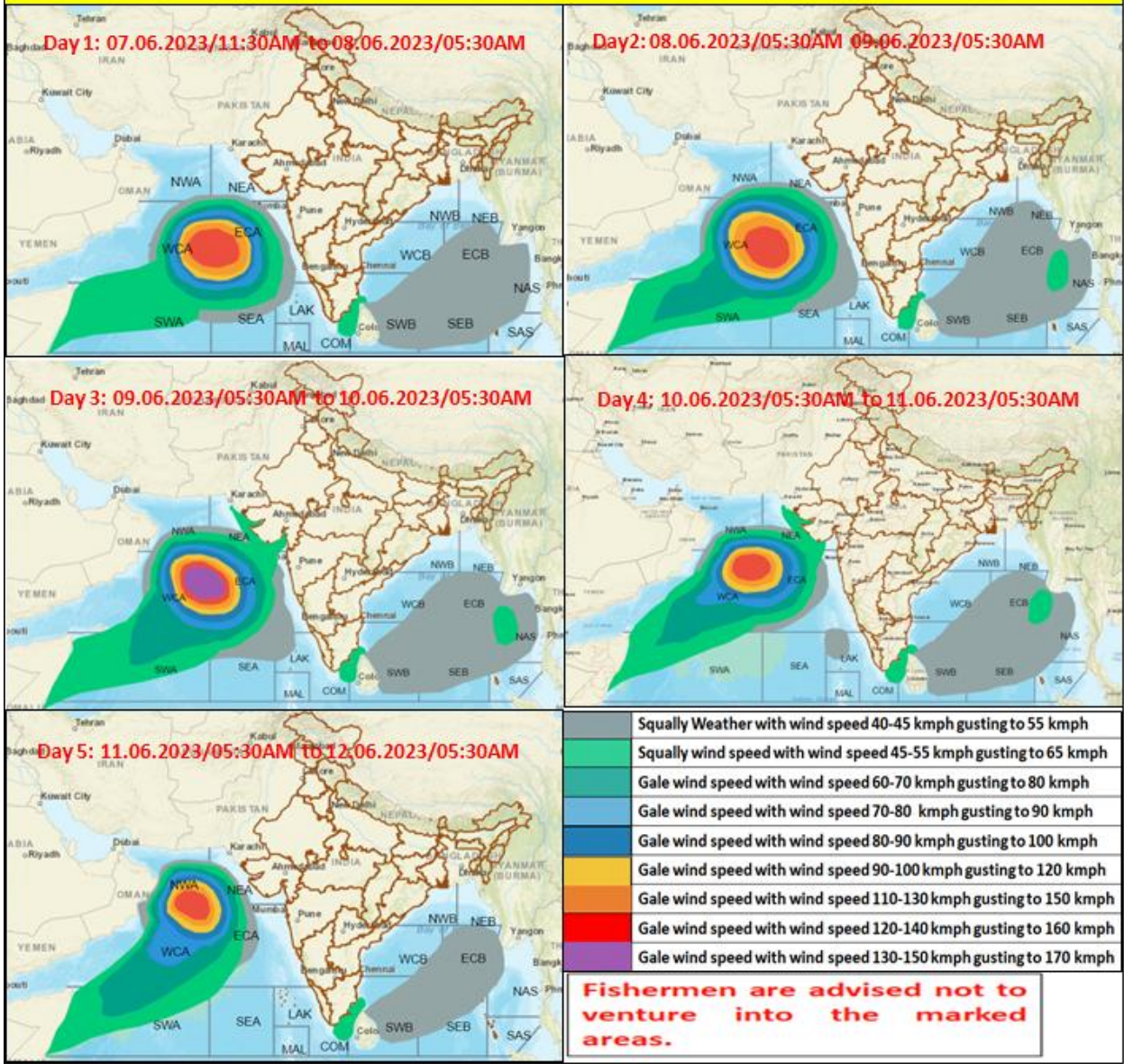
● LESS THAN 34 KT  
 ○ 34-47 KT  
 ⊙ ≥ 48 KT  
 — OBSERVED TRACK  
 — FORECAST TRACK  
 ▲ CONE OF UNCERTAINTY  
 AREA OF MAXIMUM SUSTAINED WIND SPEED:  
 ■ 28-33 KT (52-61 KMPH)  
 ■ 34-49 KT (62-91 KMPH)  
 ■ 50-63 KT (92-117 KMPH)  
 ■ ≥ 64 KT (≥118 KMPH)

**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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