



India Meteorological Department  
(Ministry of Earth Sciences)

BULLETIN NO. 22 (ARB/01/2023)

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**Sub: Very Severe Cyclonic Storm “Biparjoy” (pronounced as “Biporjoy”) over eastcentral Arabian Sea**

The very severe cyclonic storm “**Biparjoy**” (pronounced as “**Biporjoy**”) over eastcentral Arabian Sea moved nearly northwards with a speed of 3 kmph during past 6 hours and lay centered at 2330 hours IST of 08<sup>th</sup> June, 2023 over the same region near latitude 14.6°N and longitude 66.0°E, about 840 km west-southwest of Goa, 870 km west-southwest of Mumbai, 870 km south-southwest of Porbandar and 1150 km south of Karachi.

It would intensify further gradually during next 36 hours and move nearly north-northwestwards during next 2 days.

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

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
08.06.23/2330	14.6/66.0	135-145 gusting to 160	Very Severe Cyclonic Storm
09.06.23/0530	14.9/66.0	145-155 gusting to 170	Very Severe Cyclonic Storm
09.06.23/1130	15.2/65.9	145-155 gusting to 170	Very Severe Cyclonic Storm
09.06.23/1730	15.5/65.8	155-165 gusting to 180	Very Severe Cyclonic Storm
09.06.23/2330	15.8/65.7	155-165 gusting to 180	Very Severe Cyclonic Storm

10.06.23/1130	16.4/65.5	155-165 gusting to 180	Very Severe Cyclonic Storm
10.06.23/2330	17.2/65.3	145-155 gusting to 170	Very Severe Cyclonic Storm
11.06.23/1130	17.8/65.1	145-155 gusting to 170	Very Severe Cyclonic Storm
11.06.23/2330	18.6/64.9	135-145 gusting to 160	Very Severe Cyclonic Storm
12.06.23/1130	19.3/64.7	135-145 gusting to 160	Very Severe Cyclonic Storm
12.06.23/2330	19.9/64.5	125-135 gusting to 150	Very Severe Cyclonic Storm
13.06.23/1130	20.7/64.3	125-135 gusting to 150	Very Severe Cyclonic Storm
13.06.23/2330	21.5/64.1	115-125 gusting to 140	Very Severe Cyclonic Storm

**(i) Wind warning:**

**9<sup>th</sup> June:** Gale wind speed reaching 135-145 kmph gusting to 160 kmph is likely to prevail over eastcentral Arabian Sea and adjoining areas of westcentral Arabian Sea and become 155-160 kmph gusting to 180 kmph over the region from evening of 9<sup>th</sup> June.

Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely over adjoining areas of South Arabian Sea and 40-50 kmph gusting to 60 kmph along & off Karnataka-Goa-Maharashtra coasts.

**10<sup>th</sup> June:** Gale wind speed reaching 155-160 kmph gusting to 180 kmph is likely to prevail over central Arabian Sea and becoming 150-160 kmph gusting to 175 kmph is likely to prevail over the region from evening of 9<sup>th</sup> June and 90-100 kmph gusting to 110 kmph likely to prevail over adjoining areas of north Arabian Sea.

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely over adjoining areas of south Arabian Sea and 35-45 kmph gusting to 55 kmph along & off Goa-Maharashtra coasts.

**11<sup>th</sup> June:** Gale wind speed reaching 145-155 kmph gusting to 170 kmph is likely to prevail over central & adjoining north Arabian Sea and becoming 145-155 kmph gusting to 170 kmph over the region from evening of 20<sup>th</sup> June.

Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph is likely along & off Maharashtra-Gujarat coasts.

**12<sup>th</sup> June:** Gale wind speed reaching 130-140 kmph gusting to 150 kmph is likely to prevail over central & adjoining north Arabian Sea and becoming 125-135 kmph gusting to 145 kmph from evening of 12<sup>th</sup> June.

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely over adjoining areas of south Arabian Sea. Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely along & off Maharashtra-Gujarat coasts.

**13<sup>th</sup> June:** Gale wind speed reaching 125-135 kmph gusting to 145 kmph is likely to prevail over north & adjoining central Arabian Sea and becoming 120-130 kmph gusting to 140 kmph from evening of 13<sup>th</sup> June.

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely along & off Maharashtra-Gujarat coasts.

**(iii) Sea condition**

**9<sup>th</sup> June:** Sea condition is likely to be phenomenal over eastcentral Arabian Sea and adjoining areas of westcentral Arabian Sea. Very rough to rough sea condition is likely to prevail over the adjoining areas of south Arabian Sea. Sea condition is likely to be rough along & off Karnataka-Goa- Maharashtra coasts.

**10<sup>th</sup> June:** Sea condition is likely to be phenomenal over central Arabian Sea. Sea condition is likely to be rough to very rough over adjoining areas of north Arabian Sea and rough along & off Goa- Maharashtra coasts.

**11<sup>th</sup> June & 12<sup>th</sup> June:** Sea condition is likely to be phenomenal to very high over central & adjoining north Arabian Sea. Sea condition is likely to be rough to very rough along & off Maharashtra-Gujarat coasts.

**13<sup>th</sup> June:** Sea condition is likely to be phenomenal to very high over north & adjoining central Arabian Sea. Sea condition is likely to be rough to very rough along & off Maharashtra-Gujarat coasts.

**(iv) Fishermen Warning (Graphics Attached)**

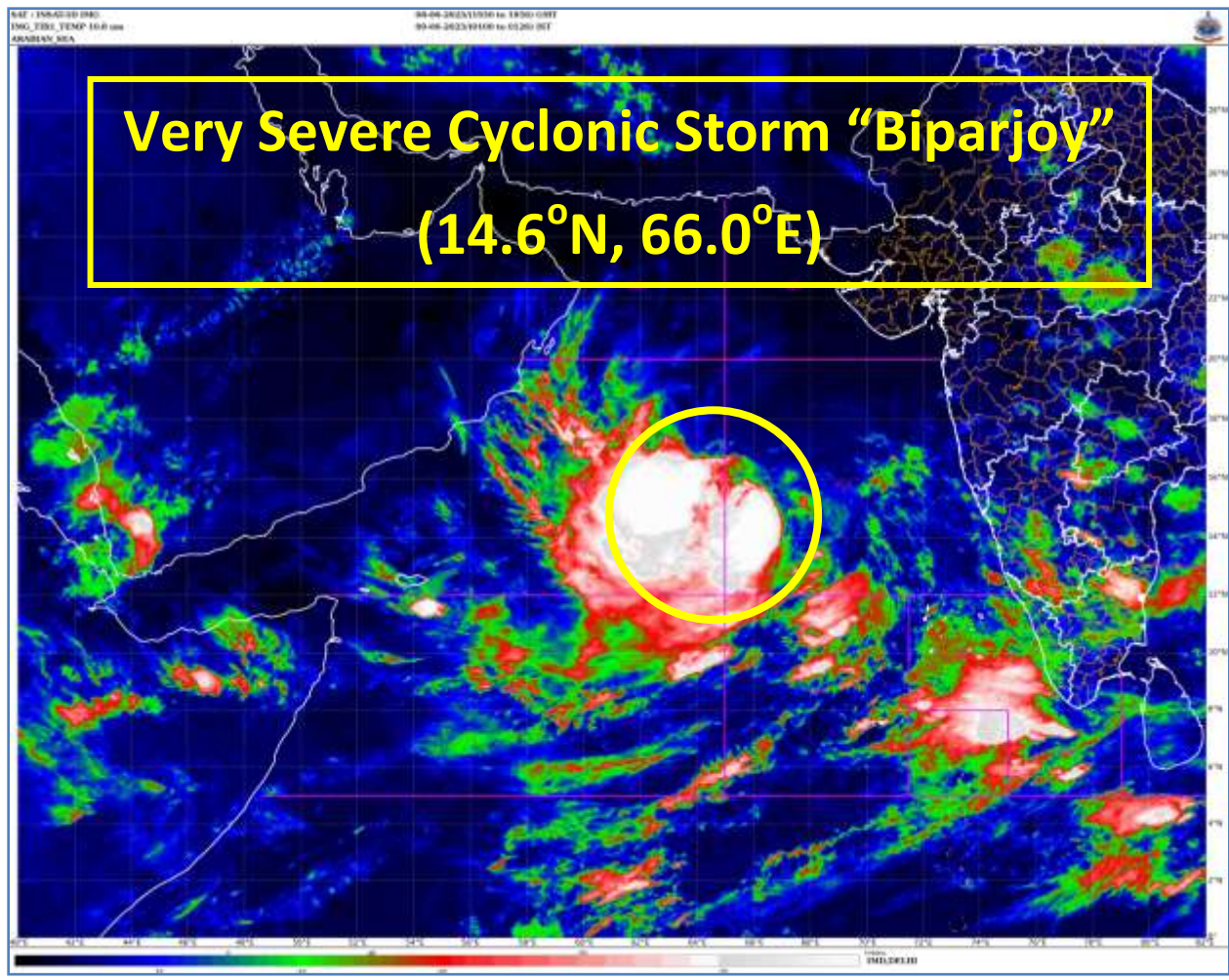
- Total suspension of fishing operations over
  - eastcentral and adjoining westcentral & south Arabian Sea till 12<sup>th</sup> June.
  - north and adjoining central Arabian Sea during 12<sup>th</sup> -14<sup>th</sup> June
- Fishermen are advised not to venture into:
  - Central Arabian Sea till 13<sup>th</sup> June.
  - Adjoining areas of north Arabian Sea during 12<sup>th</sup> -14<sup>th</sup> June.
- Those out at sea are advised to return to coast.

**The system is under continuous surveillance and the next message will be issued at 0530 hours IST of today, the 9<sup>th</sup> June, 2023.**

**(M. T. Bushair)**  
**Scientist C, Cyclone Warning Division, New Delhi**

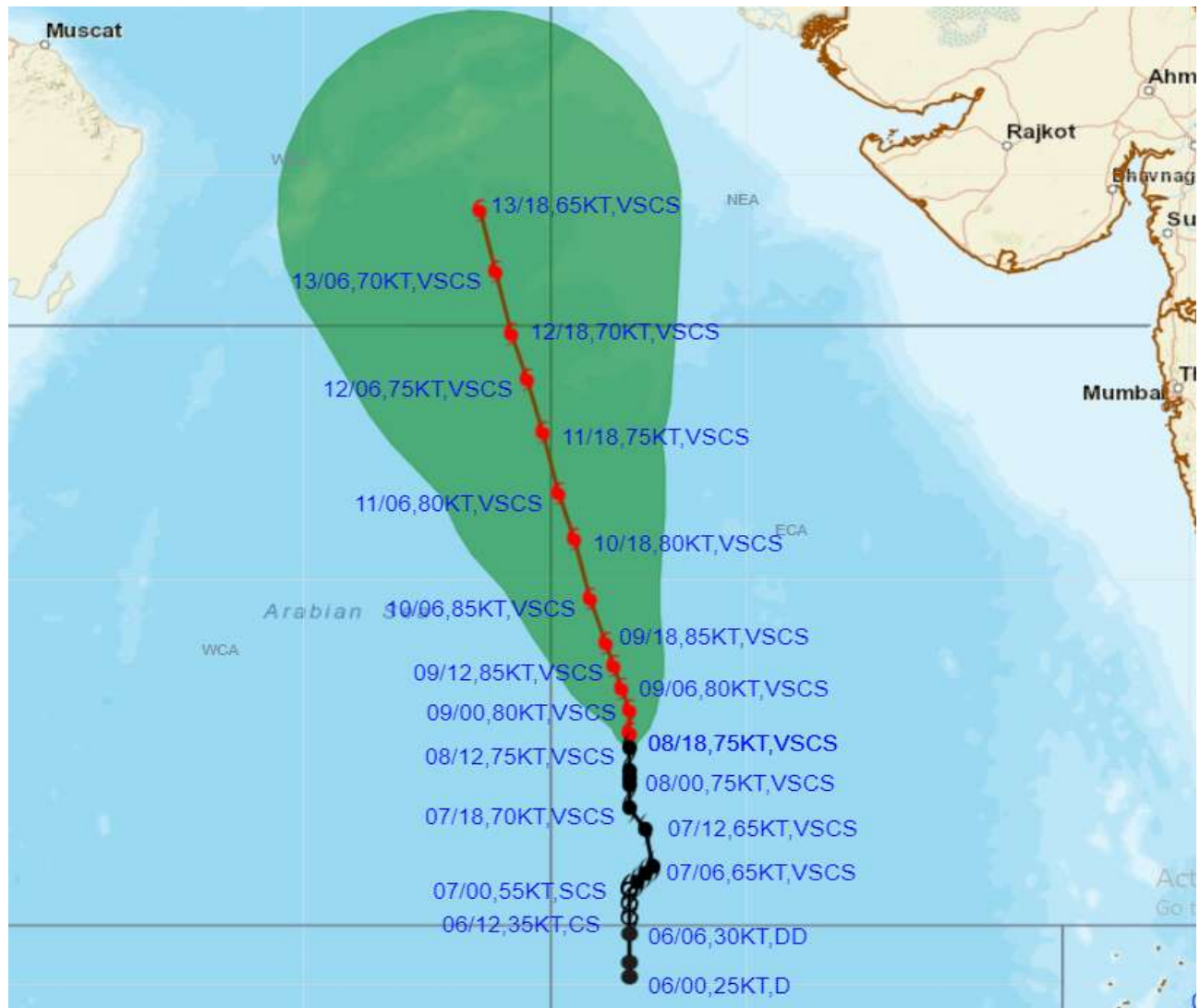
*Copy to: ACWC Kolkata/ ACWC Chennai/ CWC Bhubaneswar/CWCVisakhapatnam/CWC Ahmedabad/ MO Port Blair/MC Raipur/MC Bhopal/MC Hyderabad/RMC Nagpur*

**LEGEND: Heavy Rainfall:** 64.5 to 115.5mm, **Very Heavy Rainfall:** 115.6 to 204.4mm **Most Places:** more than 76% of total stations, **Isolated Places:** Less than 25% of total





**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF VERY SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL ARABIAN SEA BASED ON 1800 UTC (2330 IST) OF 08<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

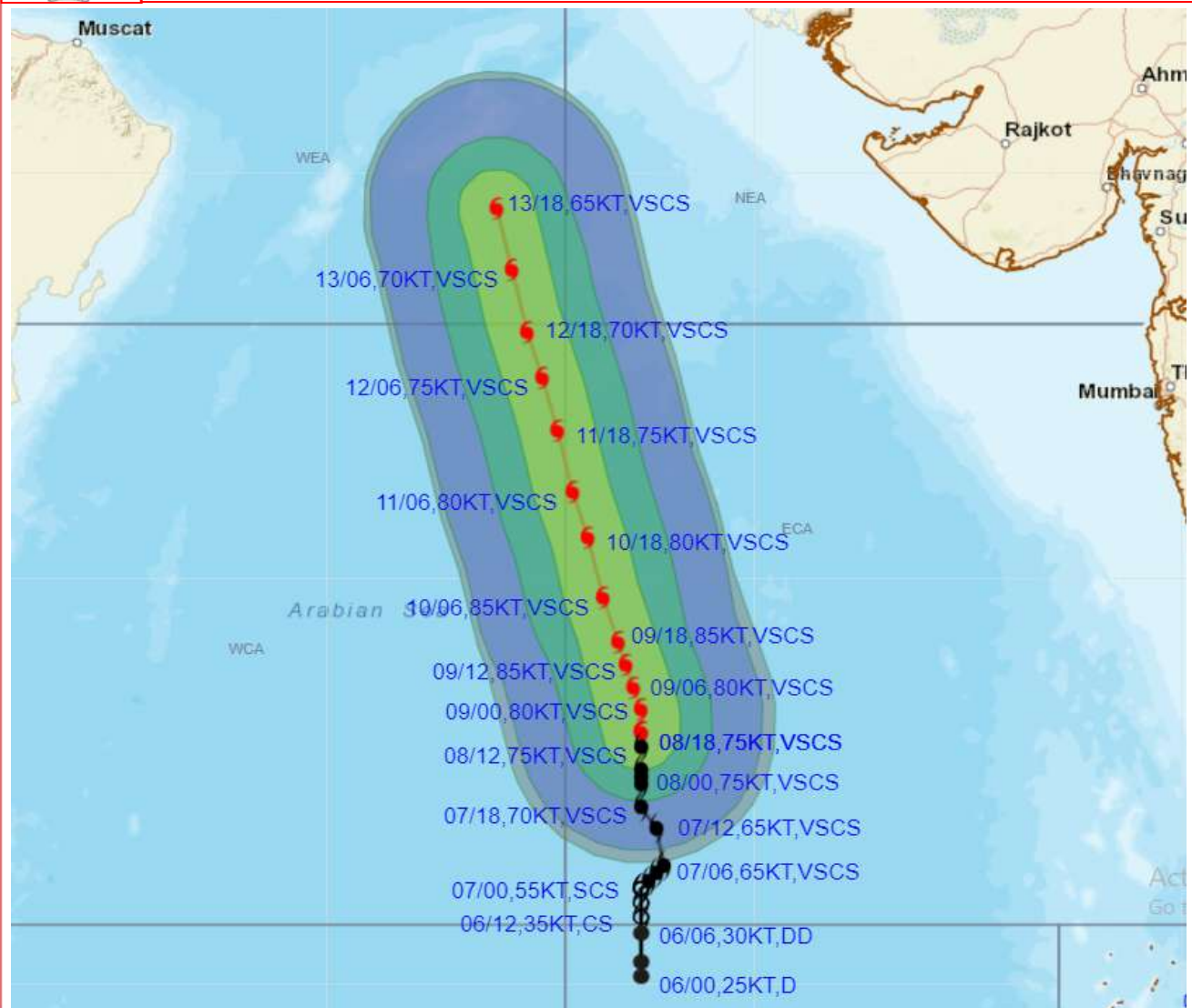
— FORECAST TRACK

▲ CONE OF UNCERTAINTY

STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS		
	09.06.23/1800	10.06.23/1800	11.06.23/1800
PORBANDAR	770, SSW	670, SW	600, SW
BOMBAY / COLABA	830, WSW	820, WSW	830, W
GOA/PANJIM	880, W	930, WNW	1010, WNW
KARACHI AIRPORT	1020, S	870, SSW	730, SSW
MASIRAH	890, SE	770, ESE	660, ESE



**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL ARABIAN SEA BASED ON 1800 UTC (2330 IST) OF 08<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

AREA OF MAXIMUM SUSTAINED WIND SPEED:

■ 28-33 KT (52-61 KMPH)

■ 34-49 KT (62-91 KMPH)

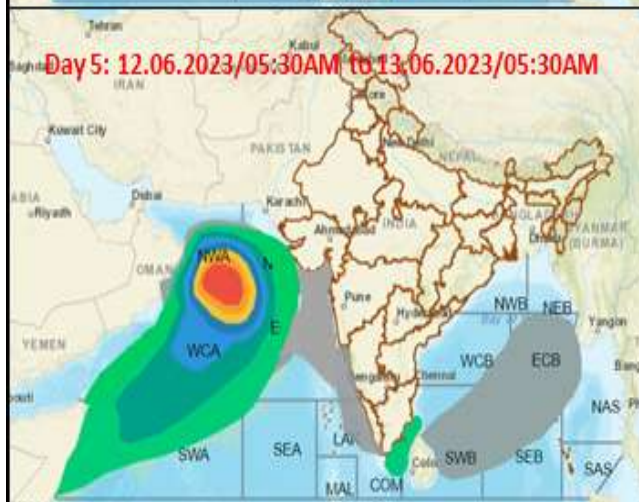
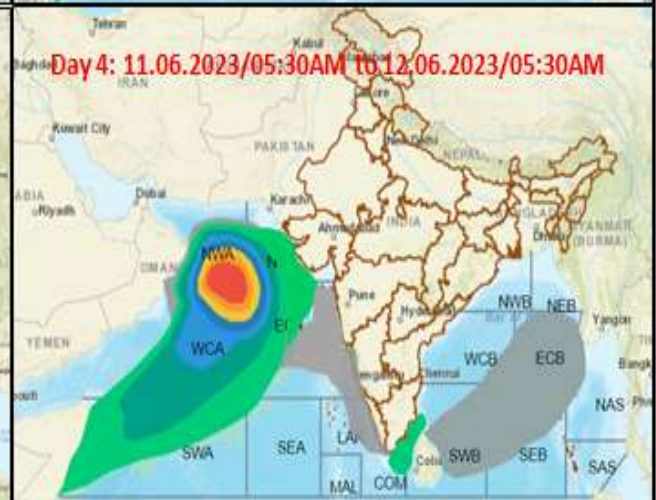
■ 50-63 KT (92-117 KMPH)

■ ≥ 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

## Fishermen warning graphics



	Squally Weather with wind speed 40-45 kmph gusting to 55 kmph
	Squally wind speed with wind speed 45-55 kmph gusting to 65 kmph
	Gale wind speed with wind speed 60-70 kmph gusting to 80 kmph
	Gale wind speed with wind speed 70-80 kmph gusting to 90 kmph
	Gale wind speed with wind speed 80-90 kmph gusting to 100 kmph
	Gale wind speed with wind speed 90-100 kmph gusting to 120 kmph
	Gale wind speed with wind speed 100-120 kmph gusting to 135 kmph
	Gale wind speed with wind speed 120-140 kmph gusting to 155 kmph
	Gale wind speed with wind speed 140-160 kmph gusting to 175 kmph

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