



**India Meteorological Department
(Ministry of Earth Sciences)**

BULLETIN NO. 4 (ARB/01/2023)

TIME OF ISSUE: 2030 HOURS IST **DATED: 06.06.2023**
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Sub: Deep depression intensified into the Cyclonic Storm “Biparjoy” (pronounced as “Biporjoy”) over eastcentral and adjoining southeast Arabian Sea

The deep depression over southeast and adjoining eastcentral Arabian Sea moved nearly northwards with a speed of 4 kmph during last 6 hours, intensified into a cyclonic storm **“Biparjoy” (pronounced as “Biporjoy”)** and lay centered at 1730 hours IST of today, the 06th June, 2023 over eastcentral and adjoining southeast Arabian Sea near latitude 12.1°N and longitude 66.0°E, about 920 km west-southwest of Goa, 1050 km southwest of Mumbai, 1130 km south-southwest of Porbandar and 1430 km south of Karachi.

It is likely to move nearly northwards and intensify gradually into a severe cyclonic storm over eastcentral Arabian Sea during next 24 hours.

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
06.06.23/1730	12.1/66.0	60-70 gusting to 80	Cyclonic Storm
06.06.23/2330	12.4/66.0	70-80 gusting to 90	Cyclonic Storm
07.06.23/0530	12.7/66.0	80-90 gusting to 100	Cyclonic Storm
07.06.23/1130	13.0/66.0	90-100 gusting to 110	Severe Cyclonic Storm
07.06.23/1730	13.3/65.9	95-105 gusting to 115	Severe Cyclonic Storm
08.06.23/0530	13.9/65.8	105-115 gusting to 125	Severe Cyclonic Storm
08.06.23/1730	14.5/65.7	115-125 gusting to 140	Very Severe Cyclonic Storm
09.06.23/0530	15.1/65.6	125-135 gusting to 150	Very Severe Cyclonic Storm
09.06.23/1730	15.8/65.5	135-145 gusting to 160	Very Severe Cyclonic Storm
10.06.23/0530	16.5/65.3	145-155 gusting to 170	Very Severe Cyclonic Storm
10.06.23/1730	17.4/65.1	145-155 gusting to 170	Very Severe Cyclonic Storm
11.06.23/0530	18.3/64.9	145-155 gusting to 170	Very Severe Cyclonic Storm
11.06.23/1730	19.2/64.7	135-145 gusting to 160	Very Severe Cyclonic Storm

(i) Wind warning:

6th June: Gale wind speed reaching 60-70 kmph gusting to 70 kmph is prevailing over eastcentral & adjoining southeast Arabian Sea and it is likely to become Gale wind speed reaching 70-80 kmph gusting to 90 kmph from night of today over Eastcentral Arabian Sea and adjoining areas of westcentral & southeast Arabian Sea.

Squally wind speed reaching 35-45 kmph gusting to 55 kmph is likely over adjoining areas of southwest & westcentral Arabian Sea and along & off Kerala-Karnataka-Goa coasts, Lakshadweep-Maldives areas.

7th June: Gale wind speed reaching 80-90 kmph gusting to 100 kmph is likely to prevail over eastcentral Arabian Sea and adjoining areas of westcentral & southeast Arabian Sea. It is likely to become 95-105 kmph gusting to 115 kmph from evening of 7th June over the same area.

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely over adjoining areas of westcentral & south Arabian Sea and along & off north Kerala-Karnataka-Goa coasts.

8th June: Gale wind speed reaching 105-115 kmph gusting to 125 kmph is likely to prevail over eastcentral Arabian Sea and adjoining areas of westcentral & south Arabian and it is likely to become 115-125 kmph gusting to 140 kmph from evening of 8th June over the same area.

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

9th June: Gale wind speed reaching 125-135 kmph gusting to 150 kmph is likely to prevail over central Arabian Sea and it is likely to become 135-145 kmph gusting to 160 kmph from evening of 9th June over the same area. Squally wind speed reaching 50-60 kmph gusting to 70 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 Karnataka-Goa- Maharashtra coasts.

10th June: Gale wind speed reaching 145-155 kmph gusting to 170 kmph is likely to prevail over central Arabian Sea.

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

(iii) Sea condition

6th June: High Sea condition is prevailing over southeast & adjoining eastcentral Arabian Sea and it is likely to become high to very high from night of today over Eastcentral Arabian Sea and adjoining westcentral & south Arabian Sea.

Sea condition is likely to be rough over adjoining areas of southwest Arabian Sea, along & off Kerala-Karnataka-Goa coasts, Lakshadweep-Maldives areas.

7th June: Sea condition is likely to be high to very high over eastcentral Arabian Sea and adjoining westcentral & southeast Arabian. Sea condition is likely to be rough to very rough over south Arabian Sea, along & off north Kerala-Karnataka-Goa coasts, Lakshadweep-Maldives areas.

8th June:

Sea condition is likely to be very high to phenomenal over central Arabian Sea and adjoining south Arabian and it is likely to become phenomenal from evening of 8th June over the same region.

Sea condition is likely to be rough to very rough over south Arabian Sea, along & off Karnataka-Goa-Maharashtra coasts.

9th 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 South Arabian Sea and along & off Karnataka-Goa- Maharashtra coasts.

10th 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 & South Arabian Sea and along & off Karnataka-Goa- Maharashtra coasts.

(iv) Fishermen Warning (Graphics Attached)

Fishermen are advised not to venture into:

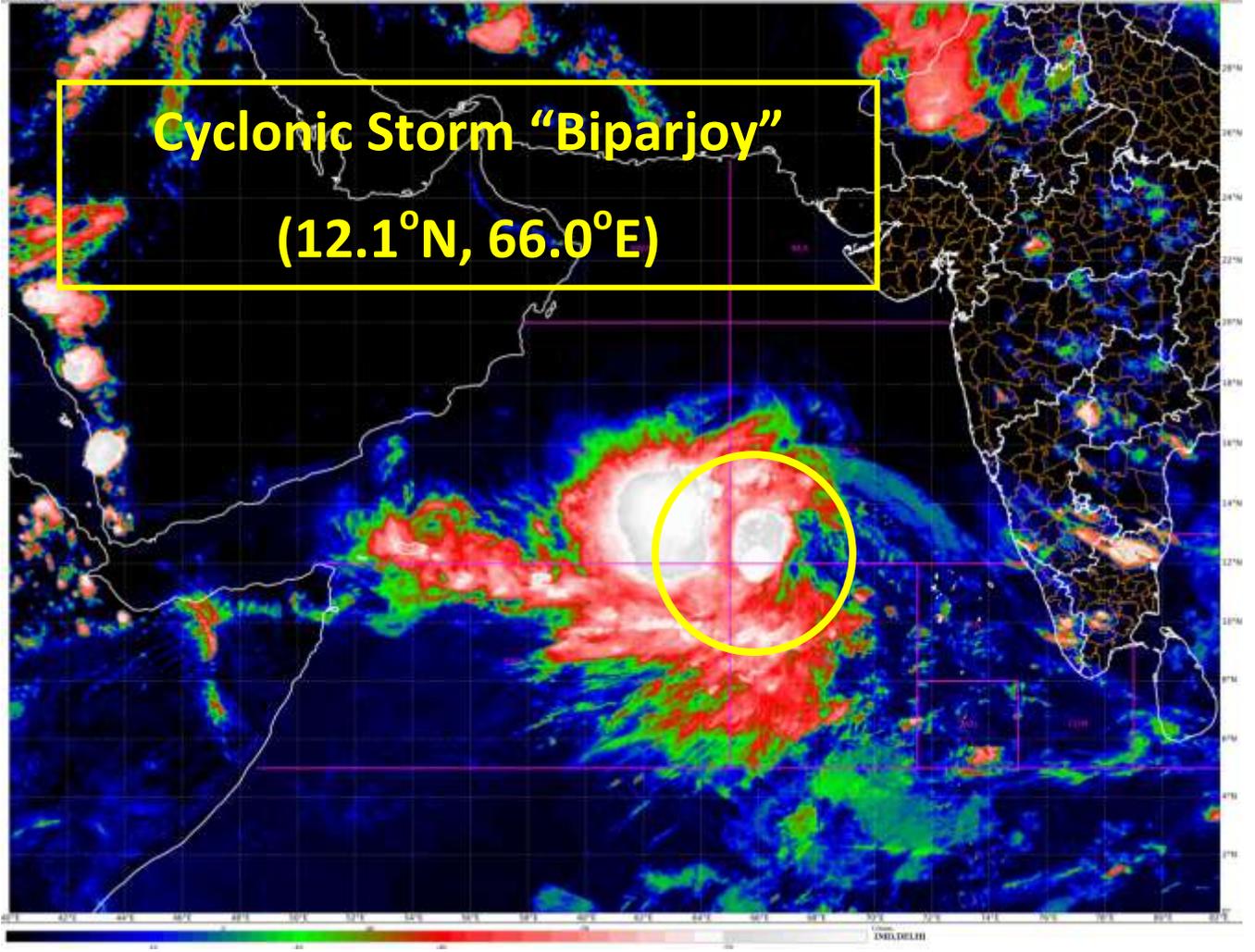
- (i) Southeast and adjoining central & southwest Arabian Sea on 6th June
- (ii) Central and adjoining areas of south Arabian Sea during 7th-9th June
- (iii) Central and adjoining areas of north & south Arabian Sea on 10th June.
- (iv) Along & off along & off Kerala-Karnataka coasts, Lakshadweep-Maldives areas during 6th and 7th and along & off Konkan-Goa- Maharashtra coasts during 8th-10th June.
- (v) Those out at sea are advised to return to coast.

The system is under continuous surveillance and the next message will be issued at 2330 hours IST of today, the 6th June, 2022.

(Ananda Kumar Das)
Scientist F, Cyclone Warning Division, New Delhi

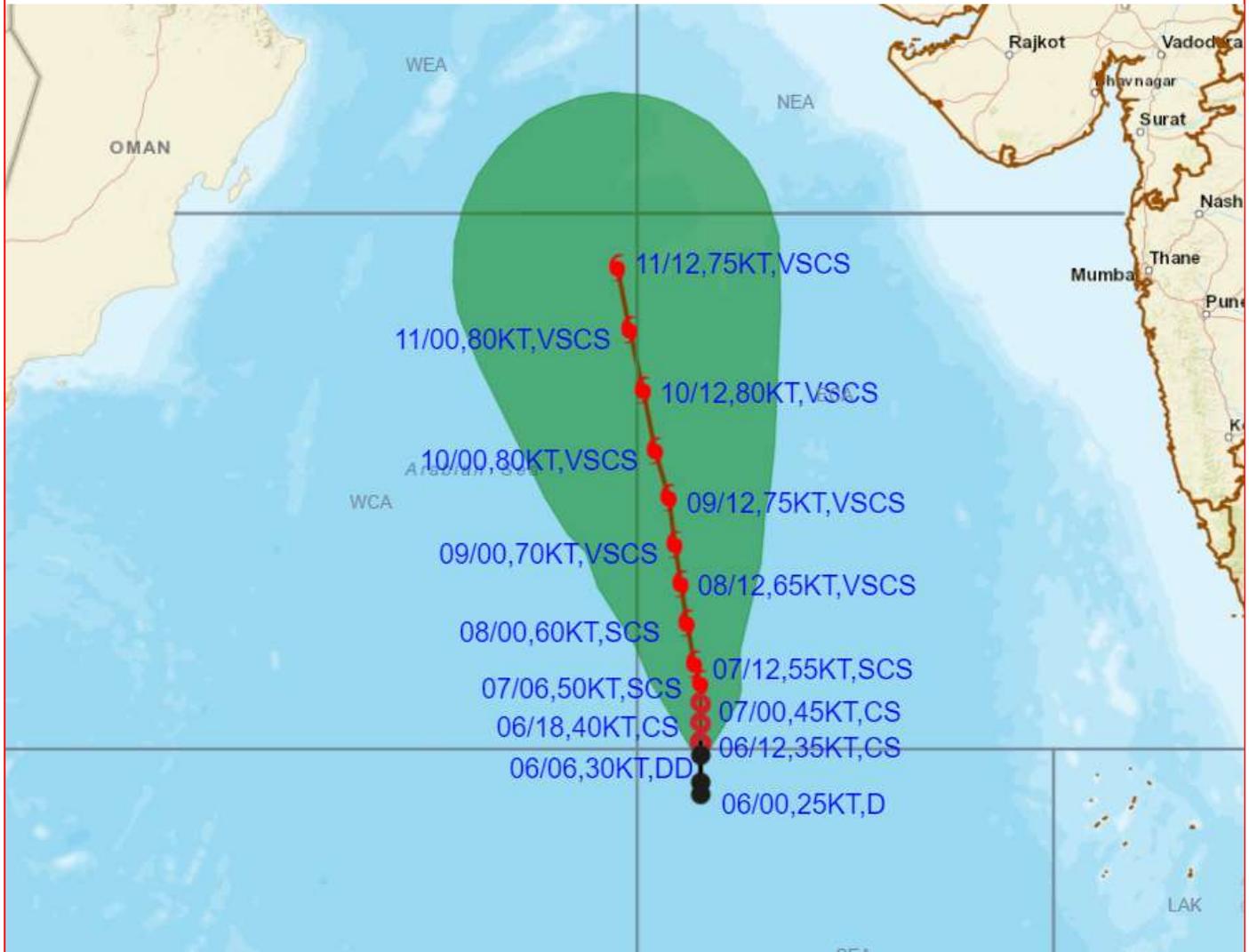
Copy to: ACWC Kolkata/ ACWC Chennai/ CWC Bhubaneswar/CWCVisakhapatnam/CWC Ahmedabad/ MO Port Blair/MC Raipur/MC Bhopal/MC Hyderabad/RMC Nagpur

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 CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 1200 UTC (1730 IST) OF 06TH JUNE 2023.

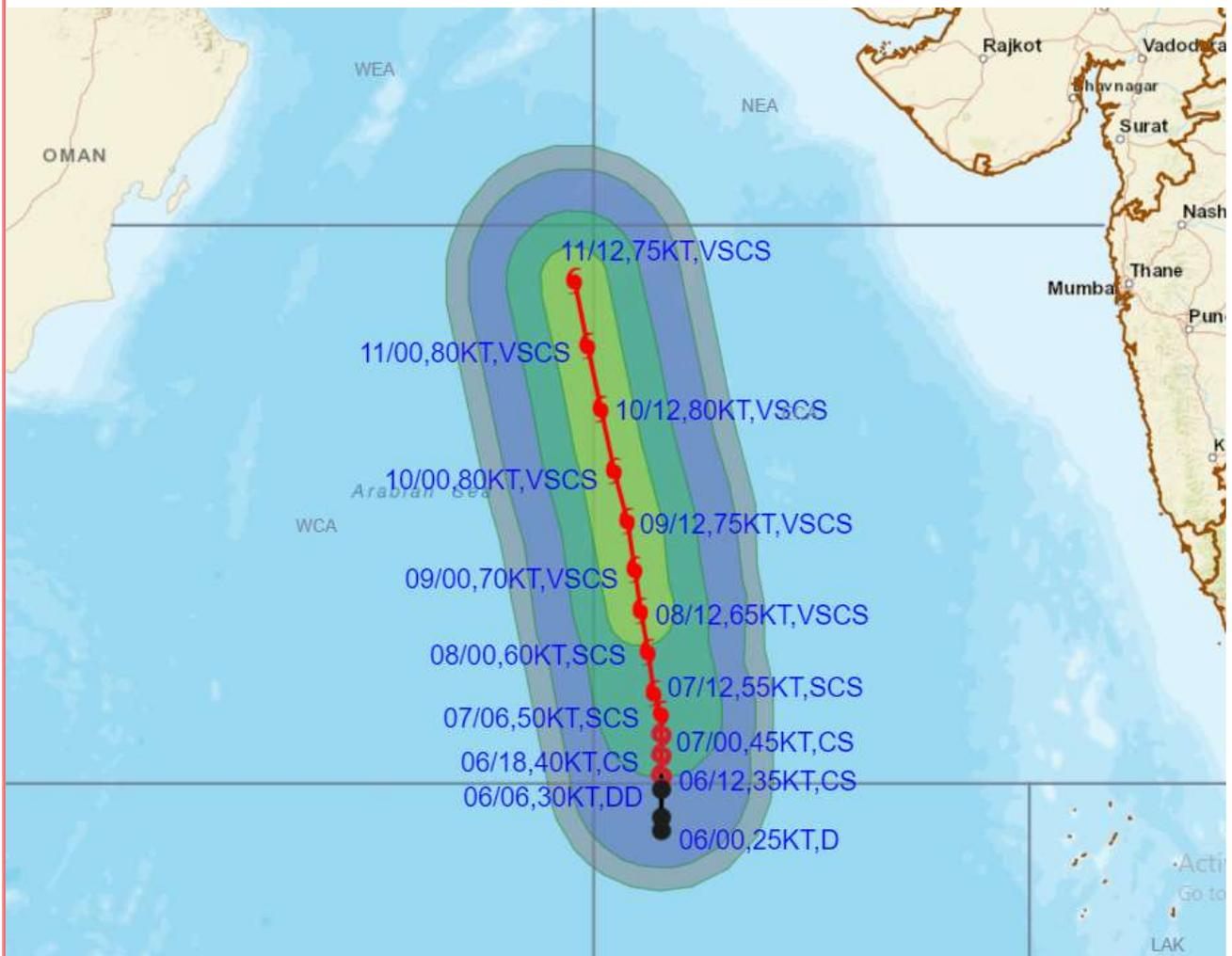


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 1200 UTC (1730 IST) OF 06TH 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

AREA OF MAXIMUM SUSTAINED WIND SPEED:

— 28-33 KT (52-61 KMPH)

— 34-49 KT (62-91 KMPH)

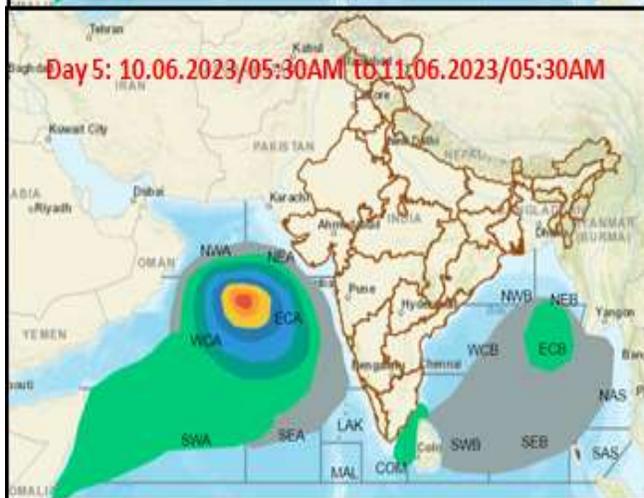
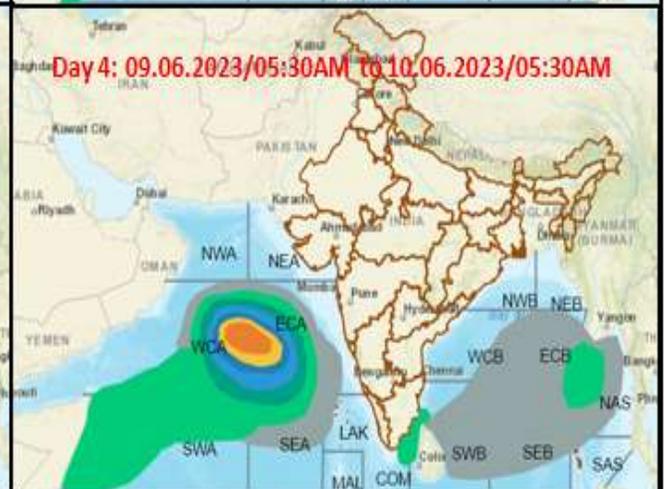
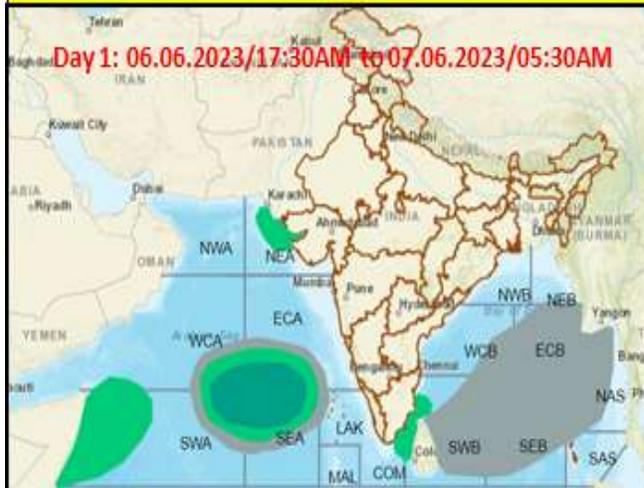
— 50-63 KT (92-117 KMPH)

— \geq 64 KT (\geq 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
\geq 64 (\geq 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 110-130 kmph gusting to 150 kmph
	Gale wind speed with wind speed 120-140 kmph gusting to 160 kmph

Fishermen are advised not to venture into the marked areas.