



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

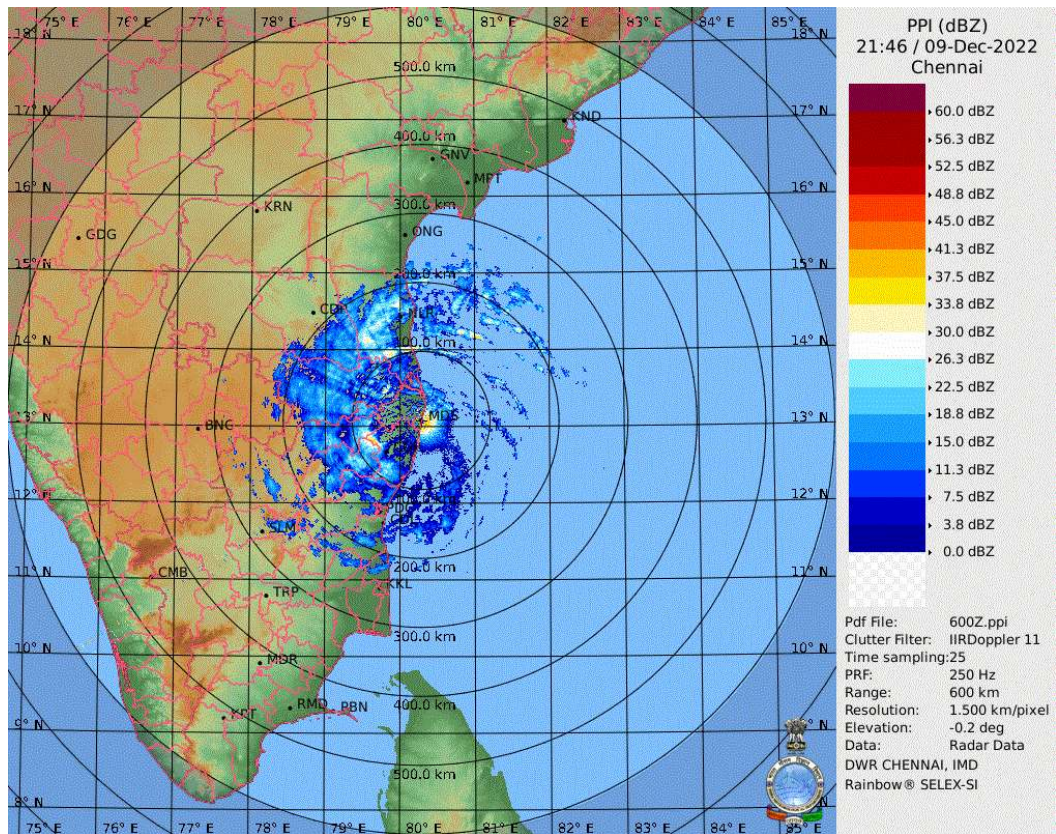
**HOURLY UPDATE ON CYCLONIC STORM “MANDOUS”**

**BULLETIN NO. 10**

DATE: 10-12-2022

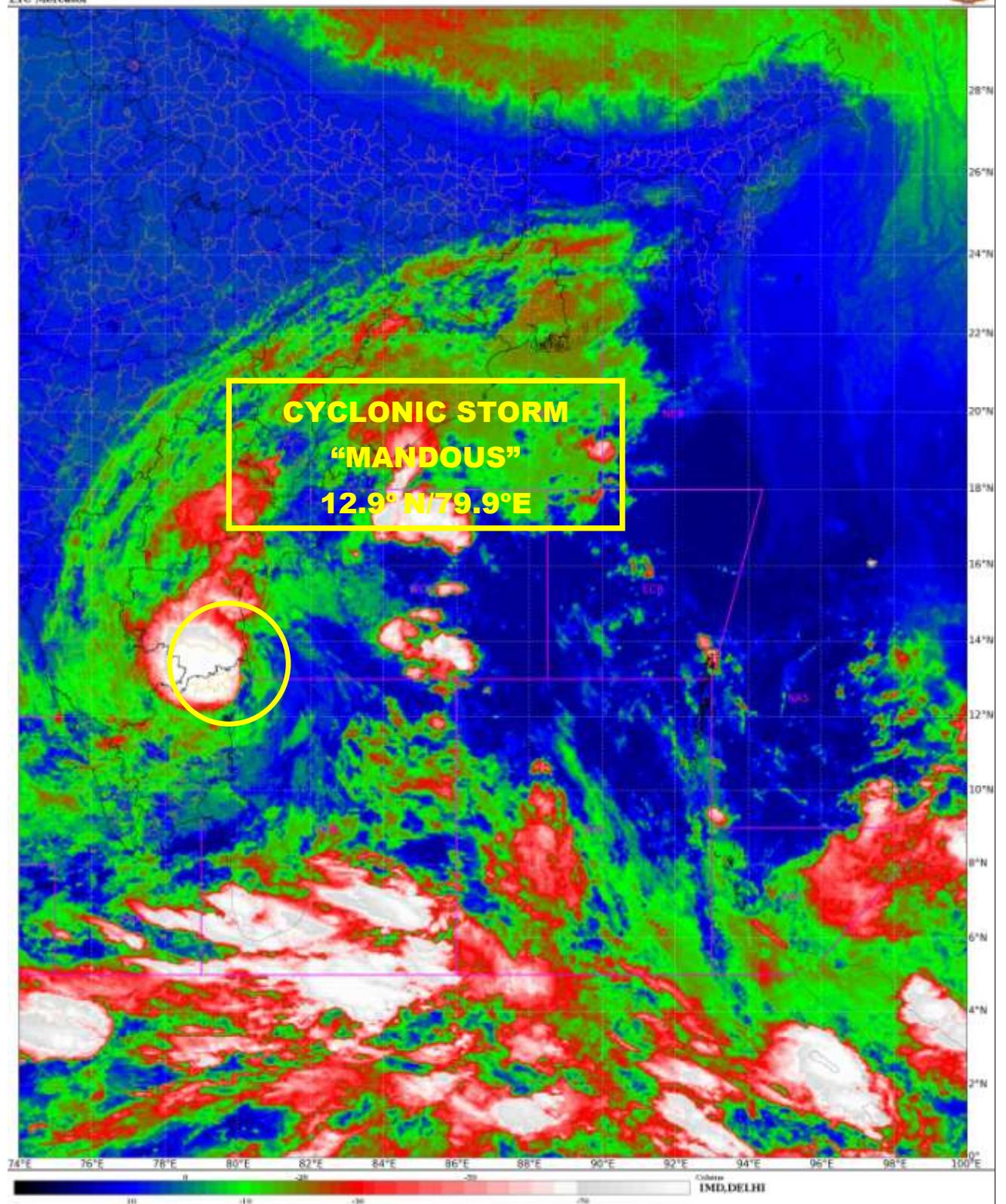
TIME OF ISSUE: 0430 HRS IST

DATE/TIME (IST) OF OBSERVATION	BASED ON 10-12-2022 (0330 HRS IST)
LOCATION LATITUDE/LONGITUDE	THE CYCLONIC STORM “ <b>MANDOUS</b> ” PRONOUNCED AS “MAN-DOUS” OVER NORTH TAMILNADU COAST MOVED FURTHER NORTHWESTWARDS WITH A SPEED OF 8 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 0330 HOURS IST OF 10 <sup>TH</sup> DECEMBER, 2022 OVER NORTH COASTAL TAMILNADU NEAR LATITUDE 12.9°N AND LONGITUDE 79.9°E, 45 KM NORTH-NORTHWEST OF MAMALLAPURAM (MAHABALIPURAM), AND ABOUT 30 KM WEST-SOUTHWEST OF CHENNAI. <b>THE REAR SECTOR OF THE CYCLONE HAS MOVED INTO LAND AND LANDFALL PROCESS HAS COMPLETED.</b>
CURRENT INTENSITY NEAR CENTRE	60-70 KMPH GUSTING TO 80 KMPH.
PAST MOVEMENT	MOVED NORTHWESTWARDS WITH A SPEED OF 8 KMPH DURING PAST 06 HOURS.
FORECAST MOVEMENT, INTENSITY AND LANDFALL	IT IS VERY LIKELY TO MOVE NEARLY WEST-NORTHWESTWARDS AND GRADUALLY WEAKEN INTO A DEEP DEPRESSION DURING NEXT 2 HOURS AND INTO A DEPRESSION BY NOON OF 10 <sup>TH</sup> DECEMBER.
FORECAST WIND	<b>ALONG &amp; OFF TAMIL NADU, PUDUCHERRY AND SOUTH ANDHRA PRADESH COASTS:-</b> GALE WIND, SPEED REACHING 60-70 KMPH GUSTING TO 80 KMPH VERY LIKELY TO PREVAIL DURING NEXT 1 HOURS. IT IS LIKELY TO REDUCE GRADUALLY THEREAFTER BECOMING 55-65 KMPH GUSTING TO 75 KMPH BY EARLY MORNING OF 10TH DECEMBER AND THEN TO 30-40 KMPH GUSTING TO 50 KMPH BY 10TH DECEMBER AFTERNOON.
FORECAST RAINFALL	<b>10<sup>TH</sup> DECEMBER:-</b> IT IS LIKELY TO REDUCE TO LIGHT TO MODERATE RAINFALL AT MOST PLACES WITH <b>HEAVY TO VERY HEAVY RAINFALL</b> AT ISOLATED PLACES OVER NORTH INTERIOR TAMIL NADU AND RAYALASEEMA AND ADJOINING SOUTH ANDHRA PRADESH.
FORECAST STORM SURGE	THE STORM SURGE OF ABOUT 0.5 M HEIGHT ABOVE THE ASTRONOMICAL TIDE LIKELY TO INUNDATE LOW LYING AREAS OF NORTH COASTAL TAMILNADU AND PUDUCHERRY DURING THE TIME OF LANDFALL.



**Image from Doppler Weather Radar Chennai at 0330 Hours IST of 10 December 2022.**







**OBSERVED AND FORECAST TRACK OF CYCLONIC STORM 'MANDOUS' OVER NORTH COASTAL TAMILNADU BASED ON 2100 UTC OF 09<sup>th</sup> DECEMBER, 2022.**



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 'MANDOUS' OVER NORTH COASTAL TAMILNADU BASED ON 2100 UTC OF 09<sup>th</sup> DECEMBER, 2022.**



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 (48-63 KT)  
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