



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**  
**TROPICAL CYCLONE ADVISORY NO. 19**

**FROM: RSMC TROPICAL CYCLONES NEW DELHI DATED 10.12.2022**

**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. 19 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0030 UTC OF 10.12.2022 BASED ON 0000 UTC OF 10.12.2022**

**Sub: Cyclonic Storm “Mandous” pronounced as “Man-Dous” crossed north Tamil Nadu coast close to Mamallapuram (Mahabalipuram).**

THE CYCLONIC STORM “**MANDOUS**” PRONOUNCED AS “**MAN-DOUS**” OVER NORTH COASTAL TAMIL NADU MOVED NORTHWESTWARDS WITH A SPEED OF 15 KMPH DURING PAST 06 HOURS AND WEAKENED INTO A DEEP DEPRESSION OVER NORTH TAMIL NADU AND LAY CENTERED AT 0000 UTC OF 10<sup>TH</sup> DECEMBER NEAR LATITUDE 13.0°N AND LONGITUDE 79.7°E, ABOUT 70 KM NORTHWEST OF MAMALLAPURAM (MAHABALIPURAM) AND 50 KM WEST OF CHENNAI.

IT IS VERY LIKELY TO MOVE NEARLY WEST-NORTHWESTWARDS AND GRADUALLY WEAKEN INTO A DEPRESSION BY NOON OF 10<sup>TH</sup> DECEMBER.

**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
10.12.22/0000	13.0/79.7	55-65 GUSTING TO 75	DEEP DEPRESSION
10.12.22/0600	13.1/79.3	40-50 GUSTING TO 60	DEPRESSION

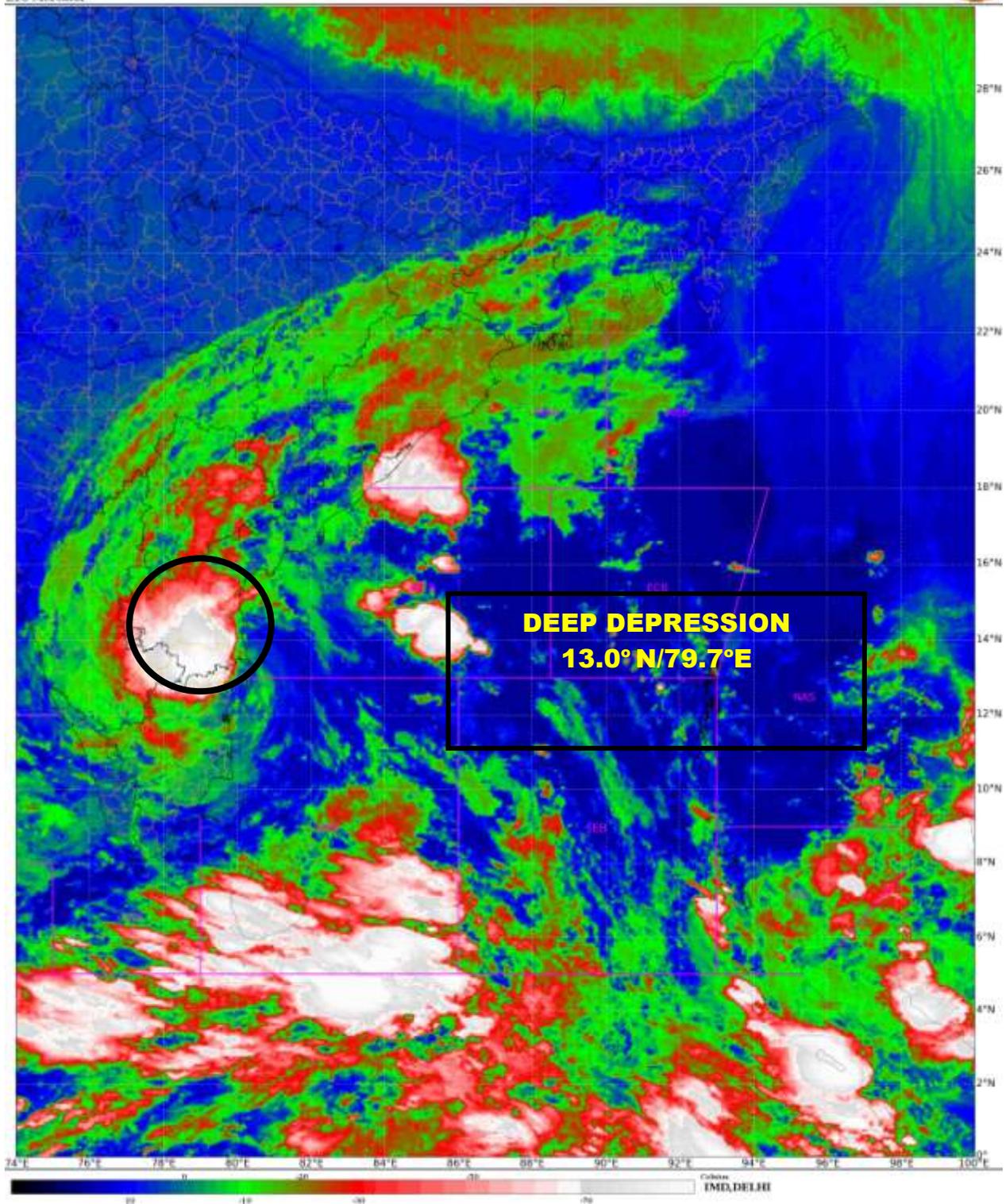
ASSTD BROCKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER NORTHEAST TAMILNADU AND ADJOINING SOUTH ANDRA PRADESH SOUTH RAYALSEEMA AND MODERATE TO INTENSE CONVECTION OVER SOUTH WEST AND ADJOINING WEST CENTRAL BAY OFF NORTH TAMILNADU AND ADJOINING SOUTH ANDRA PRADESH COASTS.

THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 30 KNOTS GUSTING TO 35 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 998 HPA. SEA CONDITION IS HIGH OVER SOUTHWEST BAY OF BENGAL AND ROUGH TO VERY ROUGH OVER ADJOINING AREAS OF WEST CENTRAL BAY OF BENGAL AND GULF OF MANNAR. THE SYSTEM HAS SHOWED WEAKENING TREND DURING LAST 12 HOURS.

***THIS IS THE LAST BULLETIN PERTAINING TO THIS SYSTEM. HOWEVER, UPDATE ON BAY OF BENGAL SYSTEM WILL BE PROVIDED AT 0600 UTC OF TODAY***

**DR. M. T. BUSHAIR**

**SCIENTIST-C, RSMC, NEW DELHI**



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%  
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins



**OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION REMNANT OF CYCLONIC STORM 'MANDOUS' OVER NORTH TAMILNADU BASED ON 0000 UTC OF 10<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

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%  
 This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins



**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION REMNANT OF CYCLONIC STORM 'MANDOUS' OVER NORTH TAMILNADU BASED ON 0000 UTC OF 10<sup>th</sup> DECEMBER, 2022**



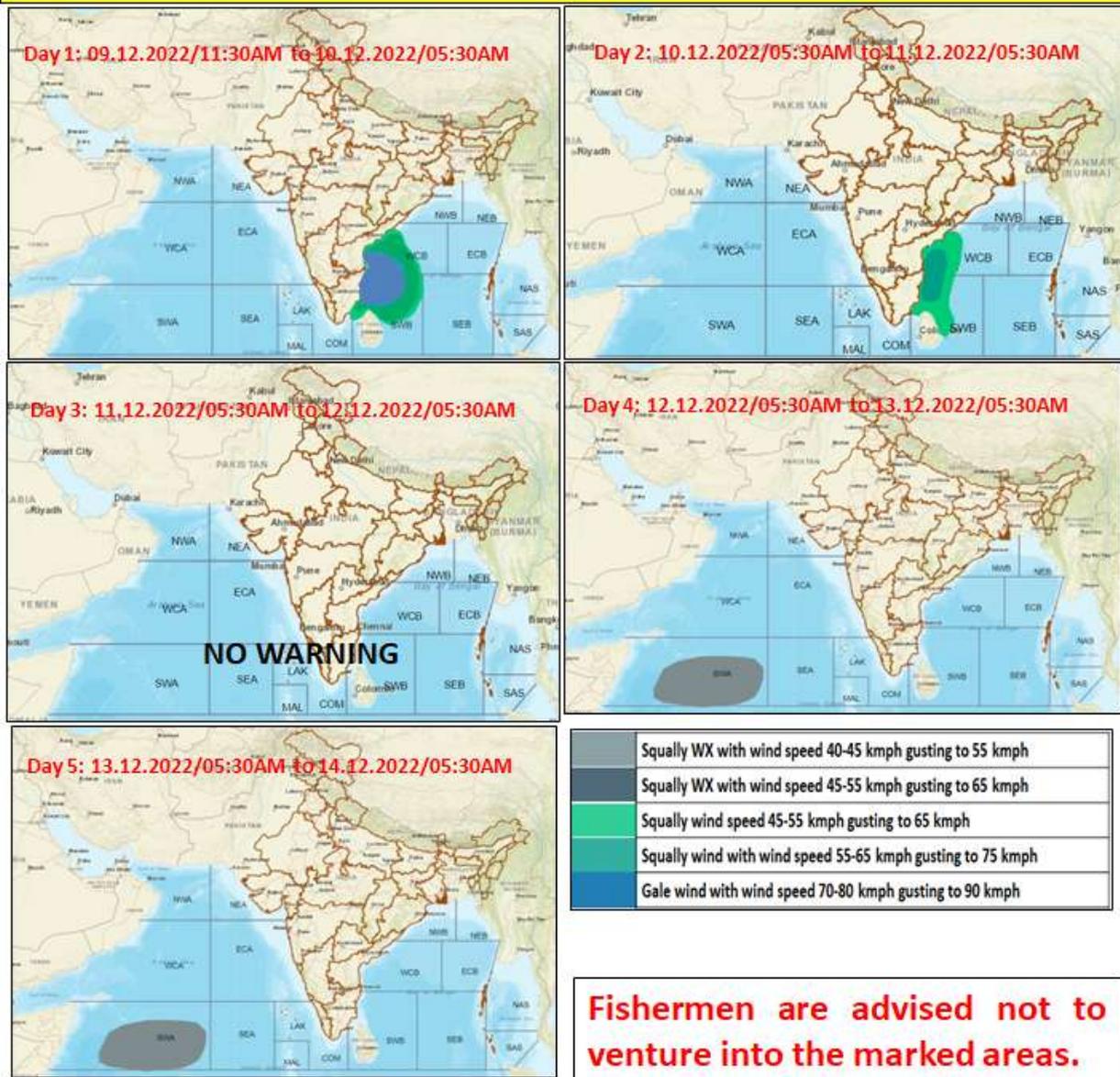
DATE/TIME IN UTC  
 IST=UTC + 0530  
 L: LOW PRESSURE AREA  
 WML: WELL MARKED LOW PRESSURE AREA  
 D: DEPRESSION (17-27 KT)  
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 CS: CYCLONIC STORM (34-47 KT)  
 SCS: SEVERE CYCLONIC STORM (48-63KT)  
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)  
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)  
 SuCS: SUPER CYCLONIC STORM (≥20 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)

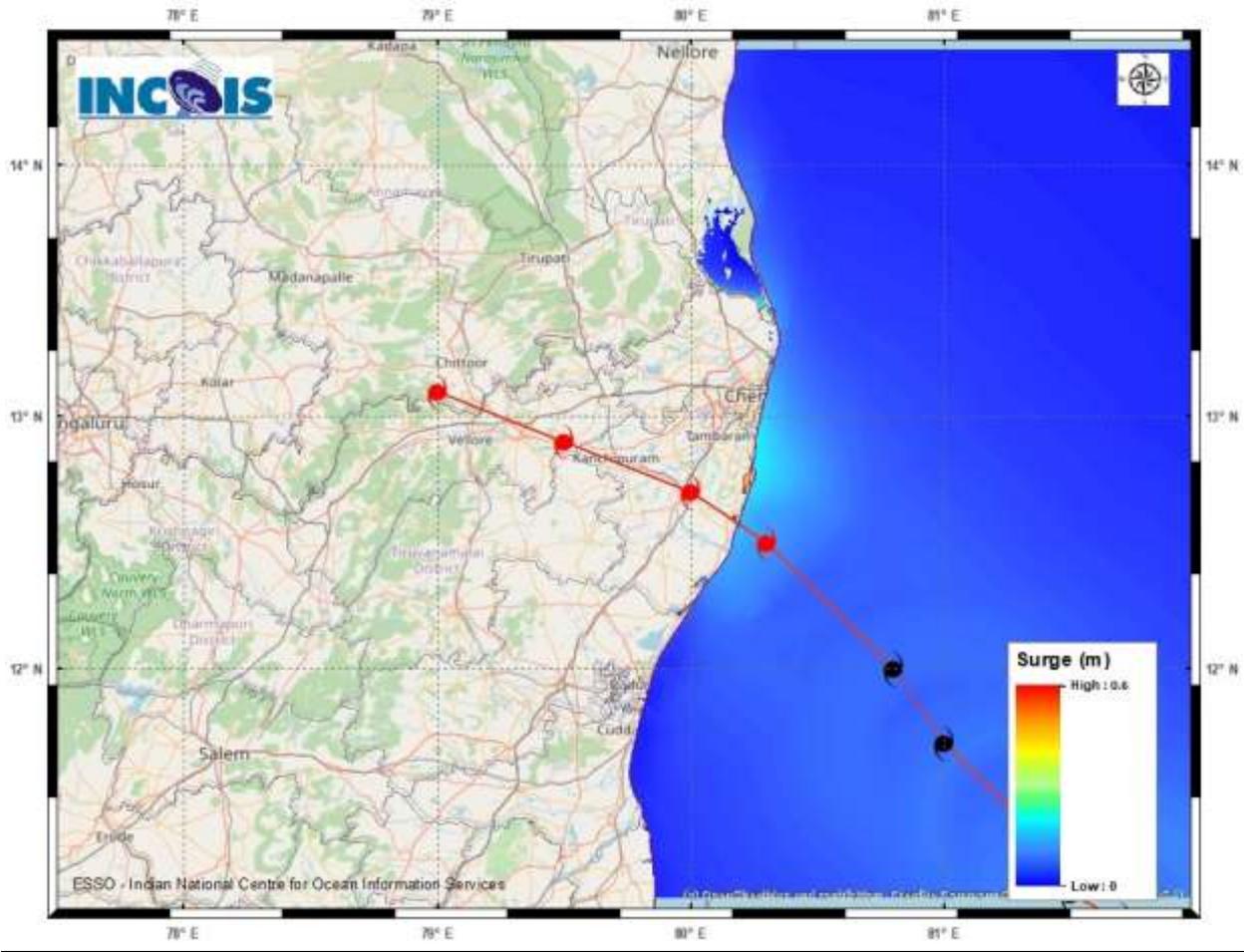
**IMPACT OVER THE SEA**

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



**Storm Surge Guidance**



**STORM SURGE HEIGHT INFORMATION:**

\* The below listed surge heights are over and above astronomical tide.

MANDAL/TALUK	DISTRICT	STATE / UNION TERRITORY	NEAREST PLACE OF HABITATION	STORM SURGE (m) *	EXPECTED INUNDATION EXTENT (km)
Chengalpattu	Kancheepuram	Tamil Nadu	Muthukadu	0.3-0.7	Upto 0.13