



India Meteorological Department  
(Ministry of Earth Sciences)

BULLETIN NO. 25 (BOB/09/2022)

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**Sub.: Cyclonic Storm "Mandous" pronounced as "Man-Dous" weakened into a Deep Depression over north Tamil Nadu.**

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 0530 hrs IST 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(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
10.12.22/0530	13.0/79.7	55-65 gusting to 75	Deep Depression
10.12.22/1130	13.1/79.3	40-50 gusting to 60	Depression

**Warnings:**

**(i) Rainfall (warning graphics enclosed)**

- ❖ **10<sup>th</sup> December:-** Light to moderate rainfall at most places with **heavy to very heavy rainfall** at isolated places over north Tamil Nadu and Rayalaseema and adjoining south Andhra Pradesh.

**(ii) Wind warning:**

- ❖ **Southwest Bay of Bengal:-** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph likely to prevail till 10<sup>th</sup> December morning. It is likely to reduce becoming 30-40 kmph gusting to 50 kmph by 10<sup>th</sup> December afternoon.
- ❖ **Along & off Tamil Nadu, Puducherry and south Andhra Pradesh coasts:-** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph likely to prevail till 10<sup>th</sup> December morning. It is likely to reduce becoming 30-40 kmph gusting to 50 kmph by 10<sup>th</sup> December afternoon.
- ❖ **Gulf of Mannar:-** Squally wind, speed reaching 40-50 kmph gusting to 60 kmph likely to prevail over Gulf of Mannar till 10<sup>th</sup> December morning.
- ❖ **Westcentral Bay of Bengal:-** Squally wind, speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail over adjoining areas of Westcentral Bay of Bengal off south Andhra Pradesh coast till 10<sup>th</sup> December morning and reduce thereafter gradually becoming 30-40 kmph gusting to 50 kmph by 10<sup>th</sup> December afternoon.

**(iii) Sea condition**

- ❖ **Sea condition** likely to be **rough to very rough** over Southwest Bay of Bengal from 10<sup>th</sup> December early morning to evening. The sea condition would be **rough to very rough** over adjoining areas of Westcentral Bay of Bengal till afternoon of 10<sup>th</sup> December.
- ❖ **Sea condition** very likely to be **rough to very rough** along & off north Tamil Nadu and Puducherry coasts till 10<sup>th</sup> December afternoon. It is likely to be **rough to very rough** along and off north Srilanka and south Tamil Nadu coasts till 10<sup>th</sup> December afternoon.

**(iv) Fishermen Warning (warning graphics enclosed)**

Fishermen are advised not to venture into:

- ❖ Southwest Bay of Bengal till 10<sup>th</sup> December evening.
- ❖ Along & off north Sri Lanka coast till 10<sup>th</sup> December forenoon.
- ❖ Along & off Tamilnadu, Puducherry and South Andhra Pradesh coasts and Gulf of Mannar till 10<sup>th</sup> December evening.

**(v) Adverse Weather Warning for onshore and off-shore operations**

- ❖ Regulate on-shore and off-shore operations over Southwest Bay of Bengal; along & off Tamil Nadu-Puducherry-South Andhra Pradesh coasts and Gulf of Mannar till 10<sup>th</sup> December afternoon.

**(vi) Damage expected over north Tamil Nadu, Puducherry and adjoining south Andhra Pradesh during next 3 hours.**

- ❖ Damage to thatched houses/ huts. Unattached metal sheets may fly.
- ❖ Minor damage to power and communication lines leading to partial disruption in power and communication.
- ❖ Major damage to Kutcha and some damage to Pucca roads. Flooding of escape routes.
- ❖ Breaking of tree branches, uprooting of small trees. Dead limbs blown from trees.
- ❖ Damage to banana, papaya trees and near coastal agriculture due to salt spray.
- ❖ Damage to paddy, other standing crops and horticulture crops.
- ❖ Inundation/localized flooding in low lying areas due to heavy rains

- ❖ Traffic may be disrupted due to poor visibility in association with heavy rain

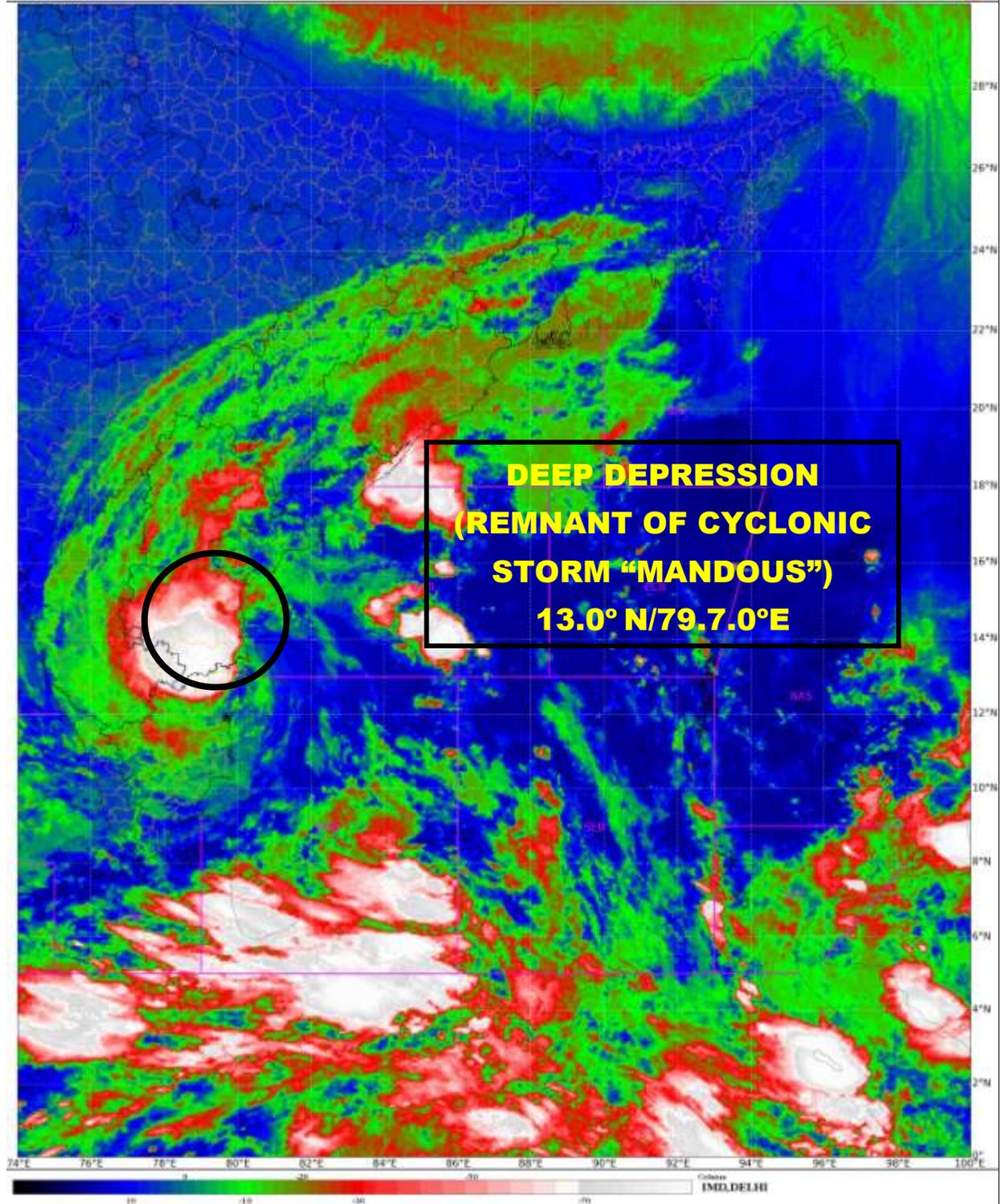
**(vii) Action suggested over north Tamil Nadu, Puducherry and adjoining south Andhra Pradesh**

- ❖ People in north coastal Tamil Nadu and Puducherry to remain in safe places till 10<sup>th</sup> December morning.
- ❖ Total suspension of fishing operations till 10<sup>th</sup> December evening.
- ❖ Regulate onshore and off-shore operations till 10<sup>th</sup> December evening.
- ❖ People are advised to be cautious while going outside.
- ❖ Regulate traffic.
- ❖ People should not move nearby to vulnerable structures.

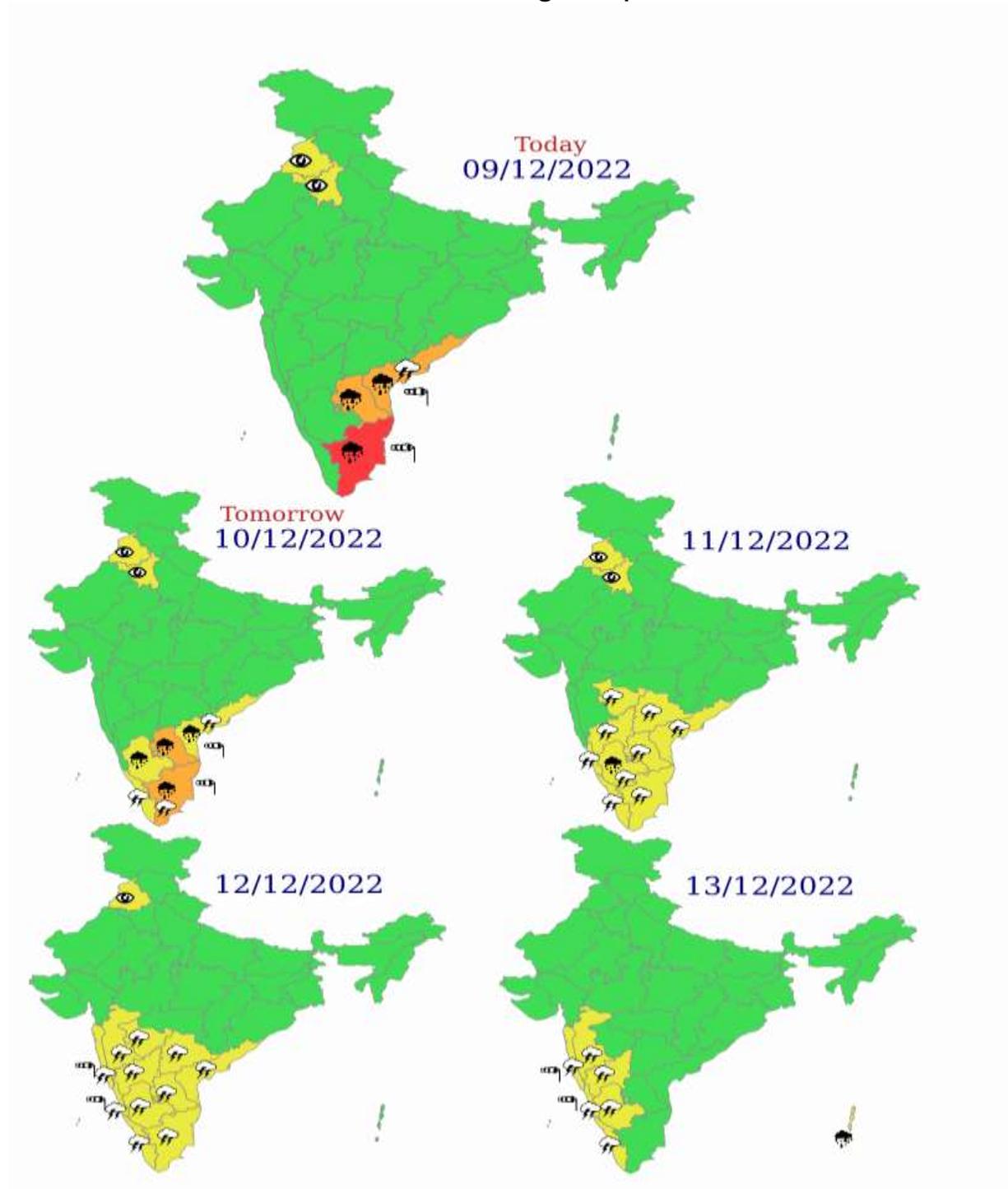
**System is under continuous surveillance and the next bulletin will be issued at 1130 hours IST of 10<sup>th</sup> Dec, 2022.**

**(SHASHI KANT)  
Scientist C, Cyclone Warning Division, New Delhi**

*Copy to: ACWC Kolkata/ ACWC Chennai/ CWC Bhubaneswar/CWCVisakhapatnam/MO Port Blair*



# Multi hazard Warning Graphics



**LEGEND:** Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
 Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

WARNING		Probabilistic Forecast		Heavy Rain		Heavy Snow		Thunderstorm		Dust Storm	
WARNING (TAKE ACTION)		Terms	Probability of Occurrence (%)	Strong Winds		Visibility		Cyclone		Squall/ Hail	
ALERT (BE PREPARED)		Isolated	< 25	Frost		Cold Wave		Heat Wave		Sea State	
WATCH (BE UPDATED)		Likely	25 - 50								
BE WARNED (NO ACTION)		Very Likely	51 - 75								
		Most Likely	> 75								



**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



**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)

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)

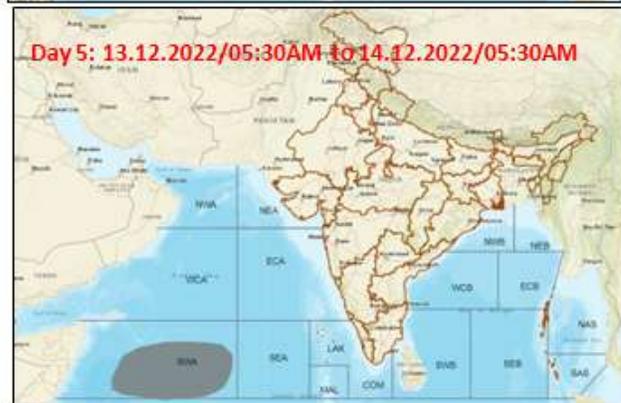
■ 50-63 KT (92-117 KMPH)

■  $\geq 64$  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 WX with wind speed 40-45 kmph gusting to 55 kmph
	Squally WX with wind speed 45-55 kmph gusting to 65 kmph
	Squally wind speed 45-55 kmph gusting to 65 kmph
	Squally wind with wind speed 55-65 kmph gusting to 75 kmph
	Gale wind with wind speed 70-80 kmph gusting to 90 kmph

Fishermen are advised not to venture into the marked areas.