



India Meteorological Department
(Ministry of Earth Sciences)

BULLETIN NO. 07 (BOB/09/2022)

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DATED: 08.12.2022

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Sub: Deep Depression over Southwest and adjoining Southeast Bay of Bengal intensified into a Cyclonic Storm "Mandous" pronounced as "Man-Dous" (Cyclone Alert for north Tamilnadu, Puducherry and south Andhra Pradesh coasts): Yellow Message

The Deep Depression over Southwest & adjoining Southeast Bay of Bengal moved nearly west-northwestwards with a speed of 10 kmph during past 6 hours, intensified into a cyclonic storm "Mandous" pronounced as "Man-Dous" and lay centered at 2330 hours IST of yesterday, the 07th December, 2022 over Southwest Bay of Bengal, near latitude 9.2°N and longitude 84.6°E, about 370 km east-northeast of Trincomalee (Sri Lanka), 500 km east of Jaffna (Sri Lanka), 560 km east-southeast of Karaikal and about 640 km southeast of Chennai.

It is very likely to move west-northwestwards and cross north Tamilnadu, Puducherry and adjoining south Andhra Pradesh coast between Puducherry and Sriharikota with a maximum sustained wind speed of 65-75 kmph gusting to 85 kmph around mid night of 09th 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
07.12.22/2330	9.2/84.6	60-70 gusting to 80	Cyclonic Storm
08.12.22/0530	9.6/84.0	70-80 gusting to 90	Cyclonic Storm
08.12.22/1130	10.1/83.4	80-90 gusting to 100	Cyclonic Storm
08.12.22/1730	10.5/82.8	80-90 gusting to 100	Cyclonic Storm
08.12.22/2330	10.9/82.3	80-90 gusting to 100	Cyclonic Storm
09.12.22/1130	11.7/81.2	70-80 gusting to 90	Cyclonic Storm
09.12.22/2330	12.5/80.8	55-65 gusting to 75	Deep Depression
10.12.22/1130	12.8/79.3	40-50 gusting to 60	Depression

Warnings:

(i) Rainfall (warning graphics enclosed)

- ❖ Light to moderate rainfall at most places with heavy to very heavy falls at isolated places very likely over coastal Tamilnadu, Puducherry & Karaikal and isolated heavy rainfall over adjoining areas of south coastal Andhra Pradesh and Rayalaseema on 08th December.
- ❖ Light to moderate rainfall at most places with heavy to very heavy rainfall at a few places and extremely heavy rainfall at isolated places very likely over north coastal Tamilnadu, Puducherry and adjoining south Coastal Andhra Pradesh and isolated heavy to very heavy rainfall likely over north interior Tamilnadu and adjoining Rayalaseema on 09th December.
- ❖ It is likely to reduce to Light to moderate rainfall at most places with heavy to very heavy rainfall at isolated places likely over north Tamilnadu and Rayalaseema and south Andhra Pradesh on 10th December.

(ii) Wind warning:

- ❖ **Squally wind, speed reaching 40-45 kmph gusting to 55 kmph**, is likely to prevail over Southeast Bay of Bengal **on 8th Dec.**
- ❖ **Gale wind, speed reaching 60-70 kmph gusting to 80 kmph** prevailing over southwest Bay of Bengal. It would further increase becoming **70-80 kmph gusting to 90 kmph**, over the same region from 8th morning and **80-90 kmph gusting to 100 kmph** during 08th forenoon to 08th night. It would decrease thereafter gradually.
- ❖ **Squally wind, speed reaching 40-50 kmph gusting to 60 kmph**, likely to commence along & off Tamilnadu, Puducherry, south Andhra Pradesh and north Sri Lanka coasts coast from 08th December morning, becoming **50-60 kmph gusting to 70 kmph** from 08th December evening, **70-80 kmph gusting to 90 kmph** from 09th December evening to 10th December morning. It is likely to reduce gradually to **50-60 kmph gusting to 70 kmph** by afternoon of 10th December and then to **40-50 kmph gusting to 60 kmph** by 10th December night.
- ❖ **Squally wind, speed reaching 40-50 kmph gusting to 60 kmph**, likely over Gulf of Mannar from 08th December evening becoming **50-60 kmph gusting to 70 kmph** from 09th December evening to 10th December morning. It is likely to reduce gradually thereafter.

(iii) Sea condition

- ❖ **Sea condition likely to be very rough to high** over Southwest and adjoining areas of Westcentral Bay of Bengal till 10th morning and improve gradually thereafter.
- ❖ **Sea condition likely to be rough to very rough** along & off South Andhra Pradesh, Tamil Nadu, Puducherry and Sri Lanka coasts on 08th and 10th and **high** on 9th December.

(iv) Fishermen Warning (warning graphics enclosed)

Fishermen are advised not to venture into:

- ❖ Southeast Bay of Bengal on 08th December.
- ❖ Southwest Bay of Bengal during 08th-10th December

- ❖ Along & off Sri Lanka coast during 08th-09th December.
- ❖ Along & off Tamilnadu, Puducherry and South Andhra Pradesh coasts and Gulf of Mannar during 08th-10th December.
- ❖ Fishermen out at sea should return to the coast or move to the safe area.

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

- ❖ Regulate on-shore and off-shore operations over Southwest Bay of Bengal; along & off Tamilnadu-Puducherry-South Andhra Pradesh coasts and Gulf of Mannar during 08th-10th December.

(vi) Damage expected over Coastal Tamilnadu, Puducherry and adjoining south coastal Andhra Pradesh

- ❖ Damage to thatched houses/ huts. Unattached metal sheets may fly.
- ❖ Minor damage to power and communication lines.
- ❖ 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 and papaya trees and near coastal agriculture due to salt spray. Damage to paddy and other standing 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

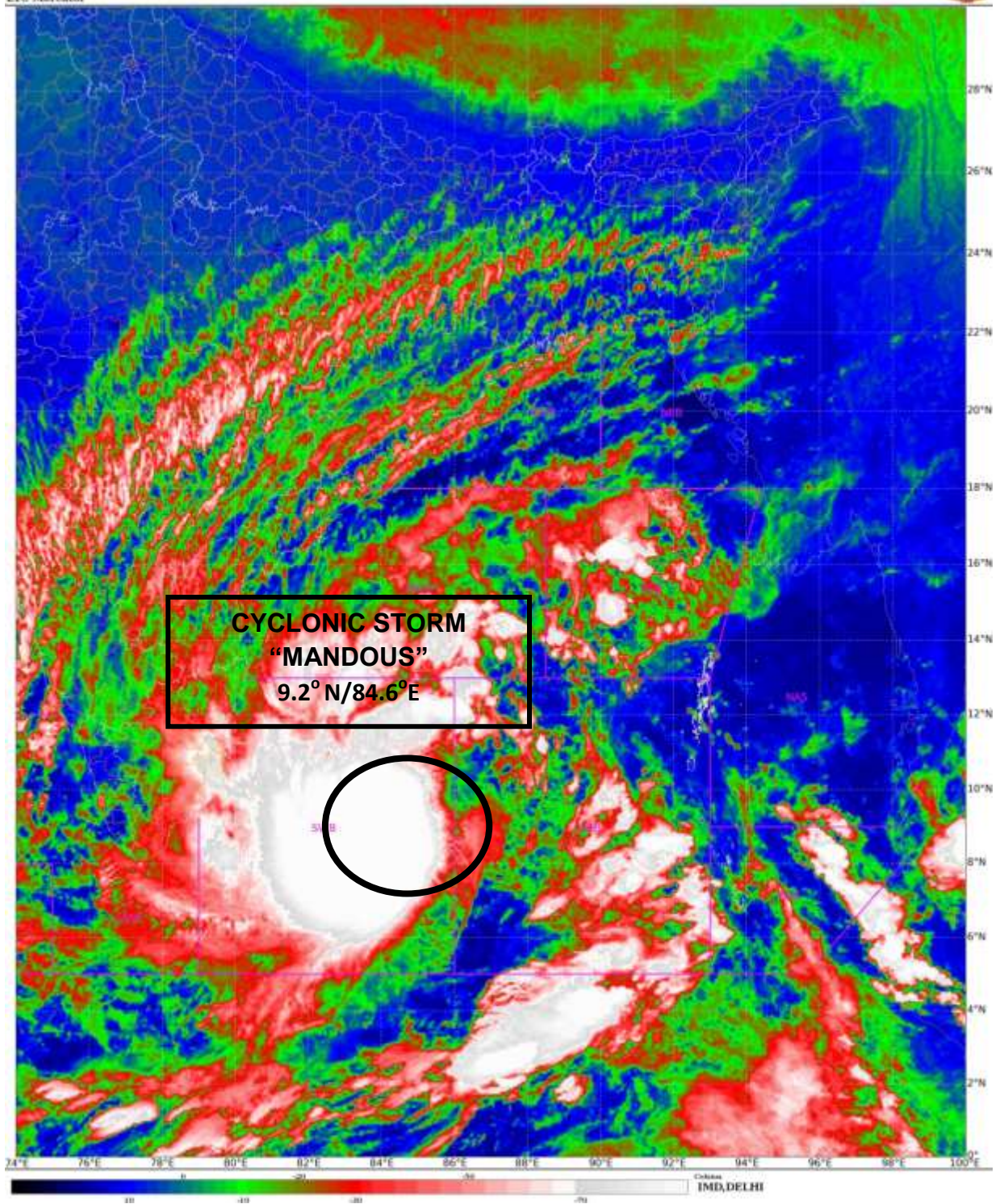
(vii) Action suggested over Coastal Tamilnadu, Puducherry and adjoining south coastal Andhra Pradesh

- ❖ Total suspension of fishing operations during 08th-10th December.
- ❖ Regulate onshore and off-shore operations during 08th-10th December.
- ❖ People are advised to be cautious while going outside.
- ❖ Regulate traffic.
- ❖ People should not move nearby to vulnerable structures.

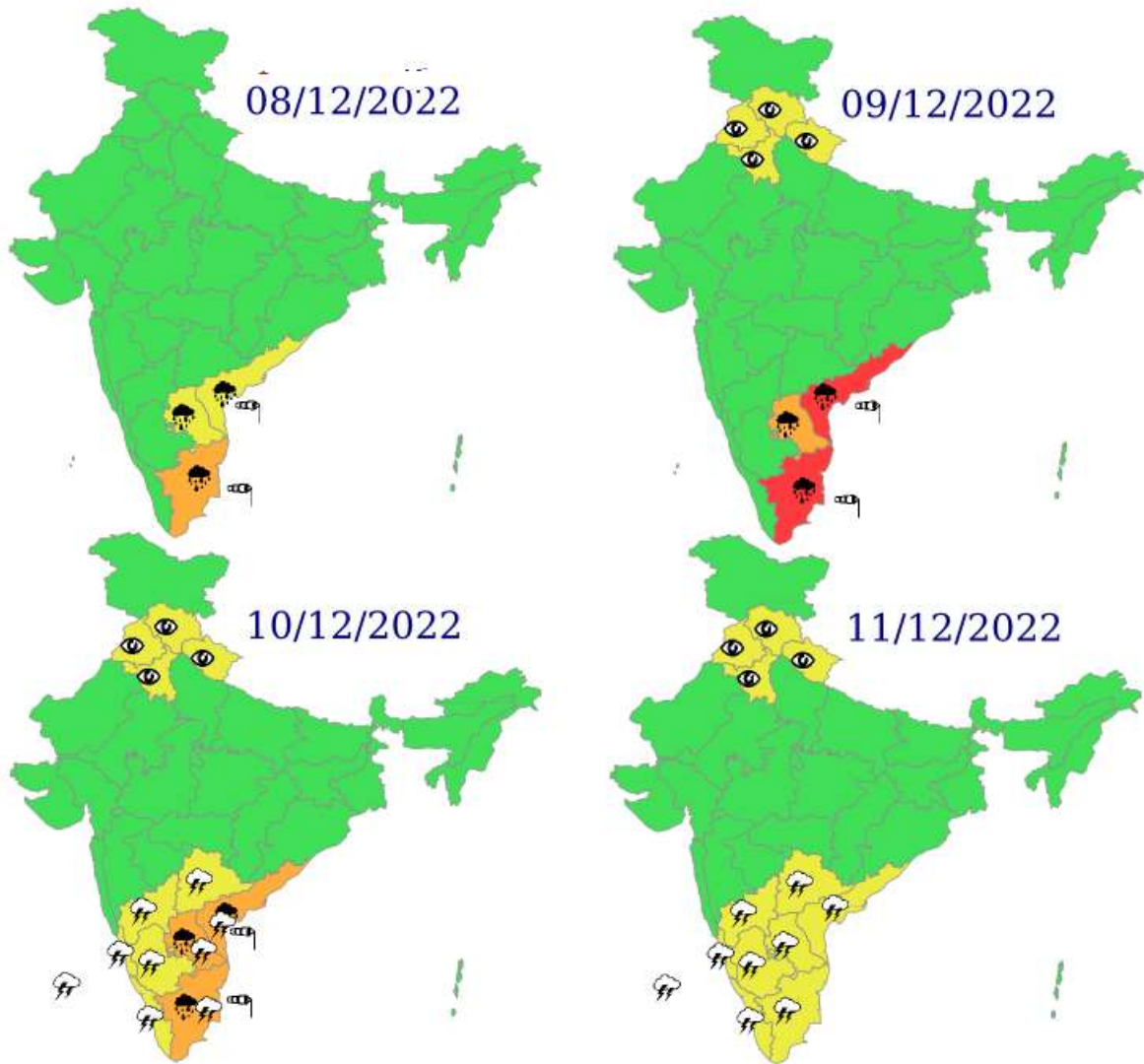
System is under continuous surveillance and the next bulletin will be issued at 0530 hours IST of today, the 08th Dec, 2022.

(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.

- | | | | |
|--|--|--|--|
|  Heavy Rain |  Heavy Snow |  Thunderstorm |  Dust Storm |
|  Strong Winds |  Visibility |  Cyclone |  Squall/ Hail |
|  Frost |  Cold Wave |  Heat Wave |  Sea State |



OBSERVED AND FORECAST TRACK OF CYCLONIC STORM “MANDOUS” OVER SOUTHWEST BAY OF BENGAL BASED ON 1800 UTC OF 07th 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 (≥ 120 KT)

- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM “MANDOUS” OVER SOUTHWEST BAY OF BENGAL BASED ON 1800 UTC OF 07th DECEMBER, 2022.



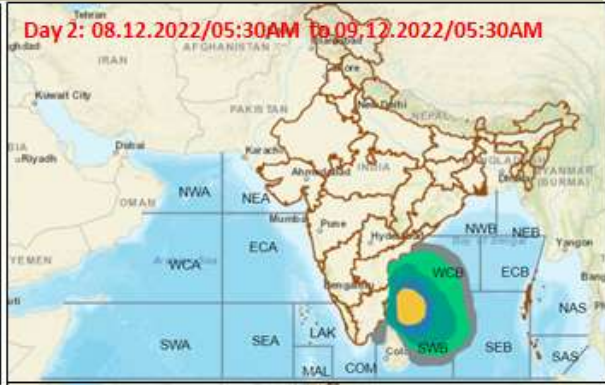
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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
	Gale wind with wind speed 89-90 kmph gusting to 100 kmph

Fishermen are advised not to venture into the marked areas.