

இந்திய அரசு
இந்திய வானிலை ஆய்வு துறை
மண்டல வானிலை ஆய்வு மையம்
6, கல்லூரி சாலை, சென்னை – 600 006
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GOVERNMENT OF INDIA
INDIA METEOROLOGICAL DEPARTMENT
Regional Meteorological Centre
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Date: 08th December 2022

Time of Issue: 15:30 IST

From: REGIONAL METEOROLOGICAL CENTRE, CHENNAI

To:

The Commissioner of Revenue Administration, Govt of Tamilnadu
The Special branch CID, O/o the DGP Campus, Mylapore
The Commissioner of Chennai /IS- INSPECTOR CONTROLROOM /
The Commissioner of Greater Chennai Corporation
(tnstateeoc1@gmail.com, tn.relief@gmail.com, iscrcni@gmail.com,
sbcid.city@gmail.com, commissioner@chennaicorporation.gov.in,
tndgpcontrolroom@gmail.com)
The Commissioner of fisheries
(tnfisheries@nic.in, FisheriesTamilNadu@coffisheries@gmail.com)
The Chief Secretary, Puducherry
The Commissioner-cum-Secretary (Revenue), Puducherry
The Special Secretary to Government-cum- District Collector, Puducherry
The District Collector, Karaikal
(cs.pon@nic.in, secyfin.pon@nic.in, dcrev.pon@nic.in, collr.kkl@nic.in)

Sub: Cyclonic Storm “Mandous” over Southwest Bay of Bengal: Cyclone Warning for north Tamil Nadu, Puducherry and south Andhra Pradesh coasts: Orange Message

The cyclonic storm “Mandous” pronounced as “Man-Dous” over Southwest Bay of Bengal moved nearly west-northwestwards with a speed of 12 kmph during past 6 hours, and lay centered at 1130 hours IST of today, the 08th December, 2022 over Southwest Bay of Bengal, near latitude 9.7°N and longitude 83.5°E, about 280 km east-northeast of Trincomalee (Sri Lanka), 380 km east of Jaffna (Sri Lanka), 420 km east-southeast of Karaikal and about 520 km southeast of Chennai.

It is very likely to move west-northwestwards and intensify further into a **Severe Cyclonic Storm** by evening of today. It will maintain its intensity of severe cyclonic storm till early morning of 9th December and then weaken gradually into a **Cyclonic Storm** tomorrow. It is very likely to cross north Tamilnadu, Puducherry and adjoining south Andhra Pradesh coasts between Puducherry and Sriharikota, around Mahabalipuram with a maximum sustained wind speed of 65-75 kmph gusting to 85 kmph around midnight of 09th December.

Under its influence, light to moderate rainfall at most places is very likely over coastal Tamilnadu, Puducherry & Karaikal with heavy to very heavy falls at isolated places on 8th; heavy to very heavy falls at a few places with extremely heavy falls at isolated places over north coastal

Tamilnadu, Puducherry and Karaikal on 09th; rainfall at many places with heavy to very heavy falls at isolated places likely over north Tamilnadu 10th December 2022.

(i) Heavy rainfall warning:

Date	Warning
08.12.2022	<p>Heavy to very heavy rain is likely to occur at isolated places over Cuddalore, Mayiladuthurai, Nagapattinam, Tiruvarur, Thanjavur and Pudukkottai districts of Tamilnadu and Karaikal area.</p> <p>Heavy rain is likely to occur at isolated places over Kancheepuram, Chengalpattu, Villupuram, Kallakurichi, Perambalur, Ariyalur, Tiruchirappalli, Sivaganga and Ramanathapuram districts of Tamilnadu and Puducherry.</p>
09.12.2022	<p>Heavy to very heavy rain at a few places with extremely heavy falls at one or two places is likely to occur over Kancheepuram, Chengalpattu and Villupuram districts of Tamilnadu and Puducherry.</p> <p>Heavy to very heavy rain is likely to occur at isolated places over Chennai, Tiruvallur, Ranipet, Vellore, Tirupattur, Tiruvannamalai, Kallakurichi and Cuddalore districts of Tamilnadu.</p> <p>Heavy rain is likely to occur at isolated places over Dharmapuri, Salem, Namakkal, Karur, Tiruchirappalli, Perambalur, Ariyalur, Mayiladuthurai, Karaikal, Nagapattinam, Tiruvarur, Thanjavur, Pudukkottai, Sivaganga, Madurai and Dindigul districts of Tamilnadu and Karaikal.</p>
10.12.2022	<p>Heavy to very heavy rain is likely to occur at isolated places over Krishnagiri, Dharmapuri, Tirupattur, Vellore, Ranipet, Tiruvannamalai, Chengalpattu, Kancheepuram, Chennai and Tiruvallur districts of Tamilnadu.</p> <p>Heavy rain is likely to occur at isolated places over Nilgiris, Erode, Salem, Kallakurichi and Villupuram districts of Tamilnadu and Puducherry.</p>

(ii) Wind warning:

(a) over sea:

Sea area	Warning
Southwest Bay of Bengal	Gale wind, speed reaching 75-85 kmph gusting to 95 kmph prevailing over southwest Bay of Bengal. It would further increase becoming 85-95 kmph gusting to 105 kmph during 08 th evening to 09 th early morning. It would decrease thereafter gradually becoming 70-80 kmph gusting to 90 kmph from 9 th December evening.
along & off Tamilnadu, Puducherry, south Andhra Pradesh and	Squally wind, speed reaching 40-50 kmph gusting to 60 kmph , likely to commence along & off Tamil Nadu, Puducherry, south Andhra Pradesh and north Sri Lanka coasts from 08 th December afternoon, becoming 50-60 kmph gusting to 70 kmph from 9 th

north Sri Lanka coasts	December morning and 65-75 kmph gusting to 85 kmph from 09 th December evening to early hours of 10 th December. It is likely to reduce gradually thereafter becoming 55-65 kmph gusting to 75 kmph by morning of 10 th December and then to 30-40 kmph gusting to 50 kmph by 10 th December night.
Gulf of Mannar	Squally wind, speed reaching 40-50 kmph gusting to 60 kmph , likely over Gulf of Mannar from 08 th December evening becoming 50-60 kmph gusting to 70 kmph from 09 th December evening to early hours of 10 th December and 40-50 kmph gusting to 60 kmph by 10 th December morning.
Southeast Bay of Bengal	Squally wind, speed reaching 40-45 kmph gusting to 55 kmph , is likely to prevail over Southeast Bay of Bengal on 8 th December.

(b) over coastal land areas of Tamilnadu, Puducherry & Karaikal

08.12.2022	Strong surface wind with speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over coastal areas of Tamilnadu, Puducherry & Karaikal
09.12.2022	Strong surface wind with speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail over northern parts of coastal areas of Tamilnadu, Puducherry & Karaikal; wind speed is likely to increase gradually to gale wind speed reaching 60-70 kmph gusting to 80 kmph from the evening and continue till 10 th morning. Strong surface wind with speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over southern parts of coastal Tamilnadu.

(iii) Sea condition

Sea area	Sea condition
Southwest and adjoining areas of Westcentral & southeast Bay of Bengal	Likely to be high till 10 th morning over Southwest Bay of Bengal; and rough to very rough over the adjoining areas of Westcentral and southeast Bay of Bengal till 10 th morning and improve gradually thereafter.
along & off Tamil Nadu, Puducherry, South Andhra Pradesh and Sri Lanka coasts	likely to be rough to very rough on 8 th ; high on 9th ; and rough to very rough on 10 th December 2022.

(iv) Storm Surge Warning

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.

(v) Fishermen warning:

Fishermen are advised not to venture into

- ❖ Southeast Bay of Bengal on 08th December;
- ❖ Southwest Bay of Bengal from 08th -10th December;
- ❖ Along & off Sri Lanka coast on 08th09th December;
- ❖ Along & off Tamilnadu, Puducherry and South Andhra Pradesh coast and Gulf of Mannar 08th-10th December 2022.

Fishermen out in the deep sea are advised to return to coast or move to safe area immediately.

(vi) Adverse weather warning for onshore and offshore 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.

(vii) 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

(viii) Action suggested over Coastal Tamil Nadu, 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.

IMD is continuously monitoring the situation and updates would be sent regularly.

Dr.S.BALACHANDRAN
Scientist-G & Head
Regional Meteorological Centre, Chennai

LEGEND:**Spatial rainfall distribution:**

% Stations reporting Rainfall	Category
76-100	Widespread (WS/ most places)
51-75	Fairly Widespread (FWS/ many places)
26-50	Scattered (SCT/ few places)
1 -25	Isolated (ISOL)
No Rain	Dry

Rainfall intensity:

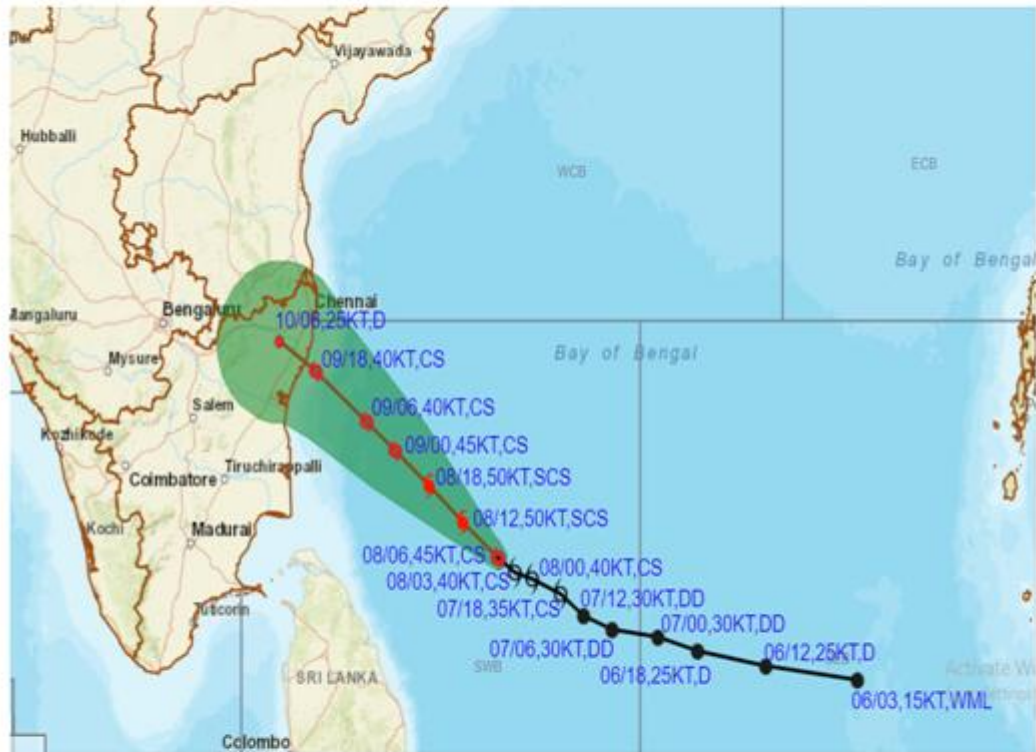
Light rain	0.1-7.6 mm (upto 1 cm)
Moderate rain	7.7-64.4 mm (2- 6 cm)
Heavy rain	64.5 – 115.5 mm (7 – 11 cm)
Very heavy rain	115.6- 204.4 mm (12 - 20 cm)
Extremely heavy rain	>204.4 mm (21 cm or more)

Sea condition:

Descriptive term	Wave height in metres
Slight	0.5-1.25
Moderate	1.25- 2.5
Rough	2.5-4.0
Very rough	4.0-6.0
High	6.0-9.0
Very high	9.0-14.0
Phenomenal	Over 14



OBSERVED AND FORECAST TRACK OF CYCLONIC STORM 'MANDOUS' OVER SOUTHWEST BAY OF BENGAL BASED ON 0600 UTC OF 08th 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

