



India Meteorological Department
(Ministry of Earth Sciences)

BULLETIN NO. 15 (BoB/02/2023)

TIME OF ISSUE: 0500 HOURS IST DATED: 12.05.2023
FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23093750)
CONTROL ROOM NDMA (FAX.NO. 26701729)
CABINET SECRETARIAT (FAX.NO.23012284, 23018638)
PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)
SECRETARY, MOES (FAX NO. 24629777)
H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)
DIRECTOR GENERAL, DOORDARSHAN (23385843)
DIRECTOR GENERAL, AIR (23421105, 23421219)
PIB MOES (FAX NO. 23389042)
UNI (FAX NO. 23355841)
D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)
DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)
CHIEF SECRETARY, ANDAMAN & NICOBAR ISLANDS (FAX NO. 03192- 232656)
CHIEF SECRETARY, GOVT. WEST BENGAL (FAX NO. 033-22144328)
CHIEF SECRETARY, GOVT. OF ODISHA (FAX NO. 0674 -2536660)
CHIEF SECRETARY, GOVT. OF ANDHRA PRADESH (FAX NO. 0863-2441029, 08645-246600)
CHIEF SECRETARY, GOVT. OF TAMIL NADU (FAX NO. 044-25672304)
CHIEF SECRETARY, GOVT. OF PUDUCHERRY (FAX NO. 0413-2337575, 2334145)
CHIEF SECRETARY, GOVT. OF TRIPURA (FAX NO. 0381-2414013, 2413200)
CHIEF SECRETARY, GOVT. OF MIZORAM (FAX NO. 0389-2322745, 2320588)
CHIEF SECRETARY, GOVT. OF ASSAM (FAX NO. 0361-2260900)
CHIEF SECRETARY, GOVT. OF MANIPUR (FAX NO. 0385-2452629)
CHIEF SECRETARY, GOVT. OF NAGALAND (FAX NO. 0370-2270057)

Sub: Severe Cyclonic storm "Mocha" (pronounced as "Mokha") over Southeast adjoining Central Bay of Bengal

The **Severe Cyclonic Storm "Mocha"** (pronounced as "**Mokha**") over Southeast adjoining Central Bay of Bengal moved northwards with a speed of 07 kmph during past 06 hours and lay centered at 0230 hours IST of today, the 12th May 2023 over Southeast adjoining Central Bay of Bengal near latitude 12.9°N and longitude 88.1°E, about 520 km west-northwest of Port Blair, 1030 km south-southwest of Cox's Bazar (Bangladesh) and 950 km south-southwest of Sittwe (Myanmar).

It is very likely to move north-northeastwards and intensify into a **Very Severe Cyclonic Storm** during next 06 hours over Central Bay of Bengal. Thereafter, it is likely to continue to move north-northeastwards with further intensification. It is likely to cross southeast Bangladesh and north Myanmar coasts between Cox's Bazar (Bangladesh) and Kyaukpyu (Myanmar), close to Sittwe (Myanmar) around noon of 14th May, 2023 as a **Very Severe Cyclonic Storm with maximum sustained wind speed of 150-160 kmph gusting to 175 kmph.**

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
12.05.23/0230	12.9/88.1	100-110 gusting to 120	Severe Cyclonic Storm
12.05.23/0530	13.1/88.2	115-125 gusting to 135	Very Severe Cyclonic Storm
12.05.23/1130	13.8/88.3	125-135 gusting to 150	Very Severe Cyclonic Storm
12.05.23/1730	14.5/88.6	135-145 gusting to 160	Very Severe Cyclonic Storm
12.05.23/2330	15.2/89.0	140-150 gusting to 165	Very Severe Cyclonic Storm
13.05.23/1130	16.7/90.0	145-155 gusting to 170	Very Severe Cyclonic Storm
13.05.23/2330	18.3/91.2	150-160 gusting to 175	Very Severe Cyclonic Storm
14.05.23/1130	20.0/92.6	150-160 gusting to 175	Very Severe Cyclonic Storm
14.05.23/2330	22.4/94.6	60-70 gusting to 80	Cyclonic Storm
15.05.23/1130	24.8/97.0	30-40 gusting to 50	Depression

Warnings:

(i) Rainfall (warning graphics enclosed)

- ❖ **Andaman & Nicobar Islands:** Rainfall at most places with Heavy to very heavy rainfall at isolated places is likely on 12th May and heavy rainfall at isolated places during 13th-14th May.
- ❖ **Tripura & Mizoram:** Rainfall at most places with Heavy rainfall at isolated places is likely on 13th May and heavy to very heavy rainfall at isolated places on 14th May.
- ❖ **Nagaland, Manipur & south Assam:** Rainfall at many places with Heavy rainfall at isolated places is on 14th May.

(ii) Wind warning:

- ❖ **Andaman Islands:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail on 12th May.
- ❖ **Tripura, Mizoram & south Manipur:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is very likely to prevail on 14th May.
- ❖ **Andaman Sea:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail over North Andaman Sea on 12th May.
- ❖ **Southeast Bay of Bengal:**
Gale wind speed reaching 100-110 kmph gusting to 120 kmph is prevailing and likely to become Gale wind speed reaching 115-125 kmph gusting to 135 kmph during next 06 hours and continue till evening and decrease thereafter becoming squally wind speed reaching 55-65 kmph gusting to 75 kmph on 13th May.
- ❖ **Adjoining areas of southwest Bay of Bengal:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail during next 24 hours and decrease thereafter.
- ❖ **Eastcentral Bay of Bengal:**
Gale wind speed reaching 100-110 kmph gusting to 120 kmph is prevailing and likely to become Gale wind speed reaching 115-125 kmph gusting to 135 kmph during next 06 hours, 140-150 kmph gusting to 165 kmph from 12th May evening and 150-160 kmph gusting to 175 kmph till 14th May morning and gradually decrease thereafter.

❖ **Westcentral Bay of Bengal:**

Gale wind speed reaching 100-110 kmph gusting to 120 kmph is prevailing, likely to become 115-125 kmph gusting to 135 kmph during next 06 hours and 135-145 gusting to 160 kmph till 13th May morning. It will decrease gradually becoming 90-100 kmph gusting to 110 kmph by 13th May evening and significantly decreased thereafter.

❖ **Northeast Bay of Bengal:**

Squally wind speed reaching 55-65 kmph gusting to 75 kmph is likely from forenoon of 12th May becoming 70-80 gusting to 90 kmph from 12th May evening.

Gale wind speed reaching 90-100 kmph gusting to 110 kmph is likely to commence from 13th May morning and gradually increase and becoming 150-160 kmph gusting 175 kmph from 13th evening till 14th May noon. It is likely to decrease rapidly after the land fall.

❖ **Adjoining areas of Northwest Bay of Bengal:**

Gale wind speed reaching 60-70 kmph gusting to 80 kmph is likely to prevail from 13th May to 14th May forenoon and decrease gradually thereafter.

(iii) Sea condition

❖ **Andaman Sea:**

Very rough to rough over north Andaman Sea during 12th-13th May.

❖ **Southeast Bay of Bengal:**

High to very high sea condition is likely to prevail during next 24 hours.

Very rough to rough on 13th May.

❖ **Eastcentral Bay of Bengal:**

Very High sea condition is prevailing and is likely to become phenomenal from the morning hours of today, the 12th May till 14th May forenoon. It will improve thereafter.

❖ **Adjoining areas of Westcentral Bay of Bengal:**

Very high sea condition is prevailing and likely to become phenomenal from 12th May morning to 13th May morning. It will gradually improve thereafter.

❖ **Northeast Bay of Bengal:**

Rough to very rough from 12th May morning and likely to become very rough to high from 12th May evening and high to very high from early morning hours of 13th May. It will be Phenomenal during 13th evening to 14th May.

❖ **Adjoining areas of Northwest Bay of Bengal:**

Rough to very rough during 13th-14th May.

(iv) Fishermen Warning (warning graphics enclosed)

❖ Fishermen, ships, boats and trawlers are advised not to venture into southeast Bay of Bengal till 12th May, central Bay of Bengal and north Andaman Sea till 14th May and into northeast Bay of Bengal during 12th-14th May.

❖ Those over central Bay of Bengal and north Andaman Sea are advised to return to coast.

(v) Damage expected & Action suggested: Mizoram, Tripura, and South Manipur

❖ Minor Damage to loose/unsecured structures

❖ Some breaches in kutcha road due to heavy rain with the possibility of landslide, in vulnerable areas

❖ Uprooting of small trees and breaking of tree branches.

❖ Damage to small trees like Banana, Drum stick and Papaya etc.

❖ Damage to standing crops

Action Suggested

- ❖ Immediately harvest mature fruits and crops.
- ❖ Provide staking and cover to vegetables nurseries, fruit orchards.
- ❖ Avoid application of fertilizers and pesticides.
- ❖ Keep livestock inside sheds

(vi) Damage expected & Action suggested: Marine community (shipping, offshore industries, Tourism etc. over Bay of Bengal, Andaman Sea & Andaman & Nicobar Islands)

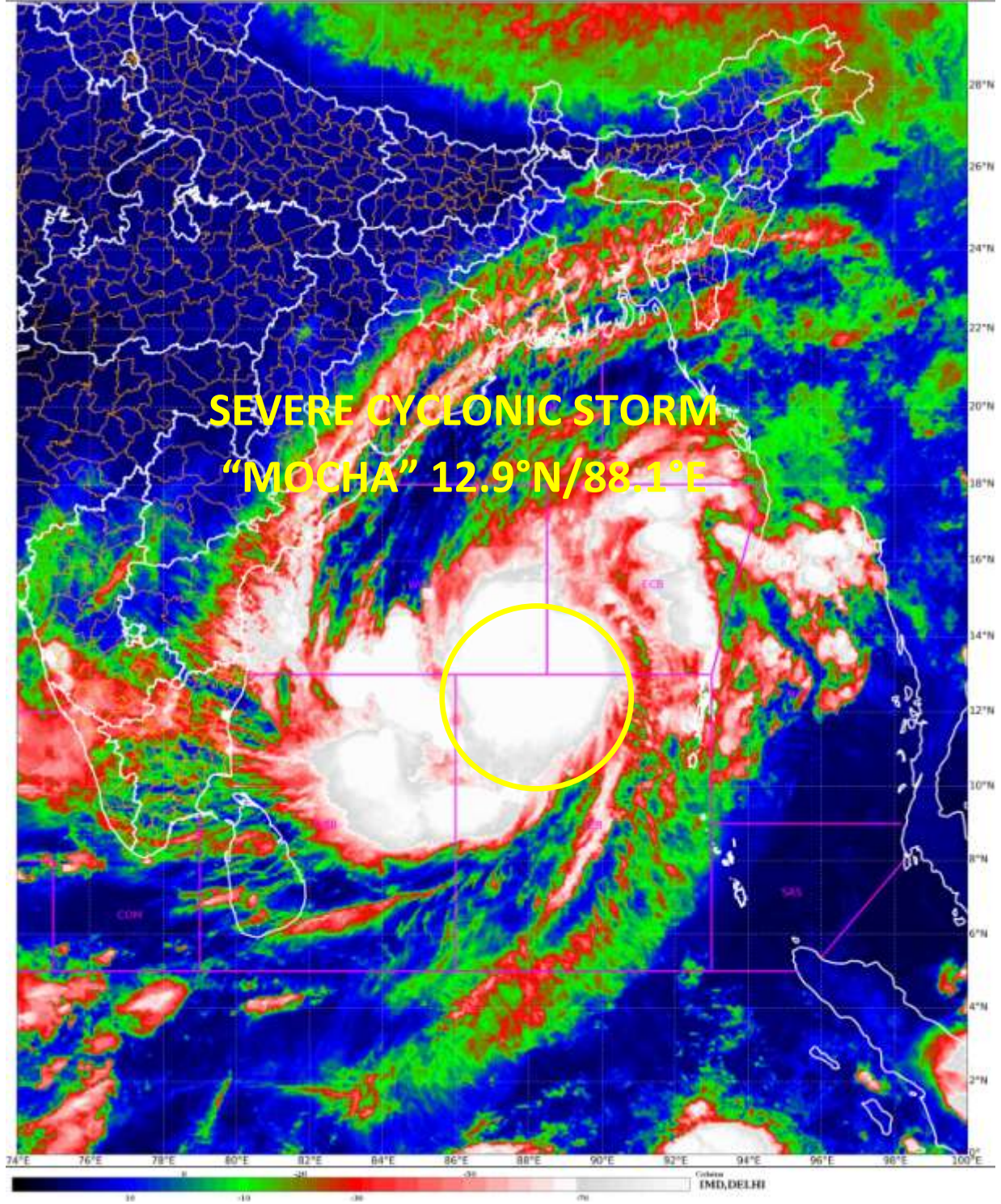
- ❖ Very rough to phenomenal sea could effect marine operation and offshore activities.
- ❖ Regulation of tourism and offshore activities and shipping near Andaman & Nicobar Islands till 13th May.
- ❖ Regulation of shipping activity over the sea areas of southeast Bay of Bengal and Andaman Sea till 12th May, eastcentral Bay of Bengal till 14th May, and westcentral Bay of Bengal till 13th May.
- ❖ Regulation of shipping activity over the sea areas of northeast Bay of Bengal during 12th-14th May.

The system is under continuous surveillance and the next message will be issued at 0830 hours IST of today, the 12th May 2023.

(Krishna Mishra)

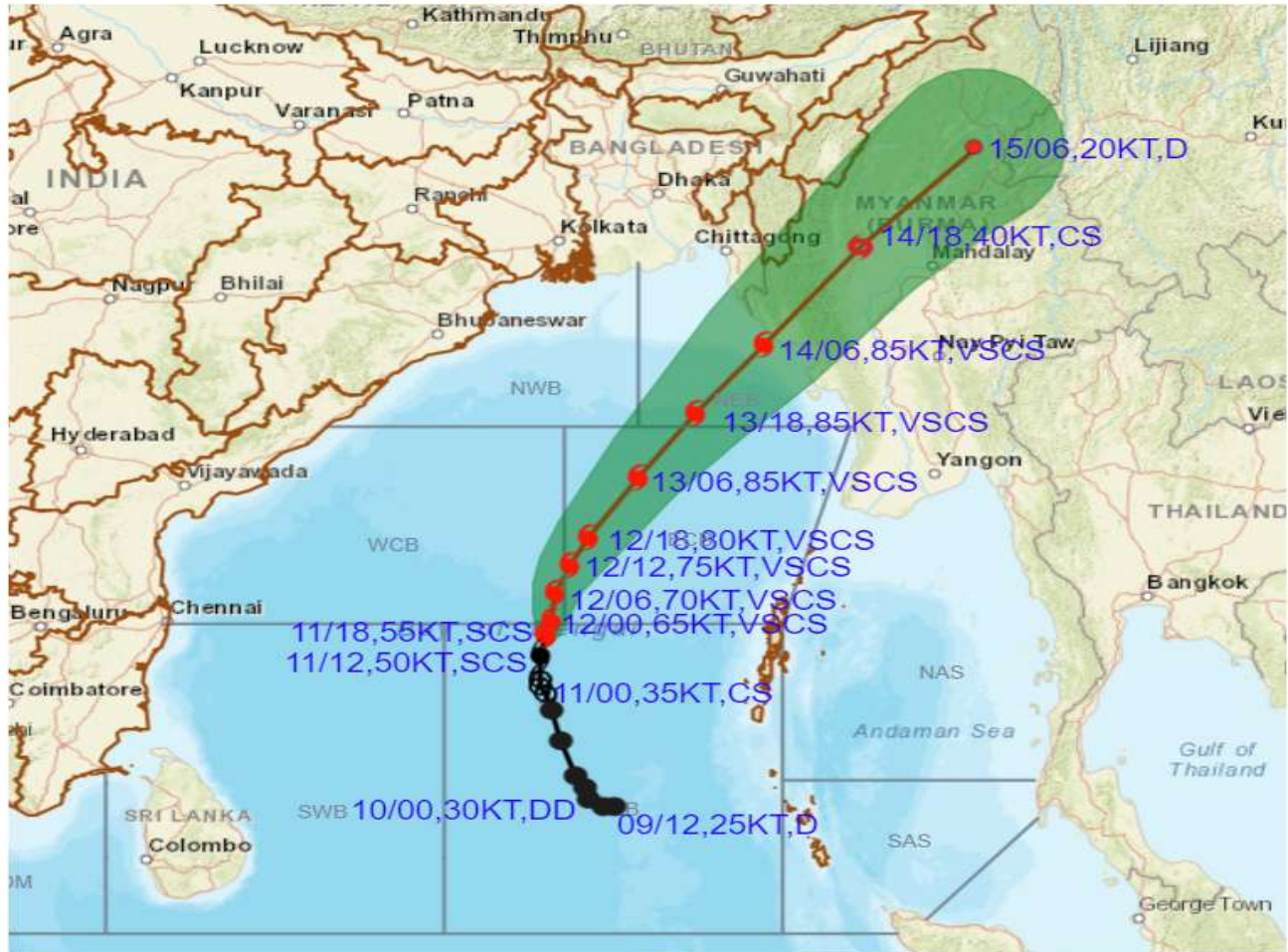
Scientist C, Cyclone Warning Division, New Delhi

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





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF SEVERE CYCLONE MOCHA OVER SOUTHEAST BAY OF BENGAL BASED ON 1800 UTC (2330 IST) OF 11TH MAY 2023.



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

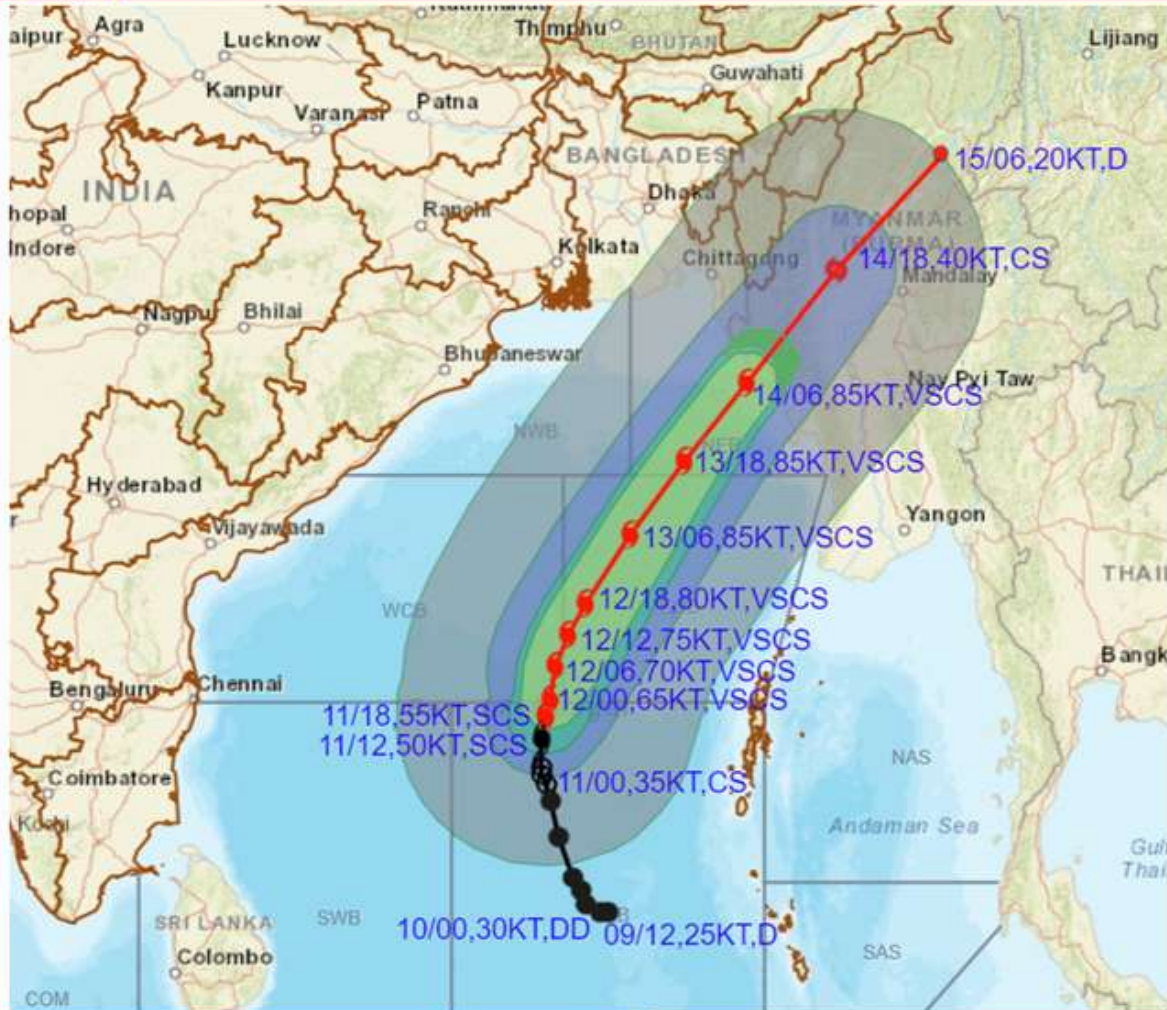
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF SEVERE CYCLONE MOCHA OVER SOUTHEAST BAY OF BENGAL BASED ON 1800 UTC (2330 IST) OF 11TH MAY 2023.



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)

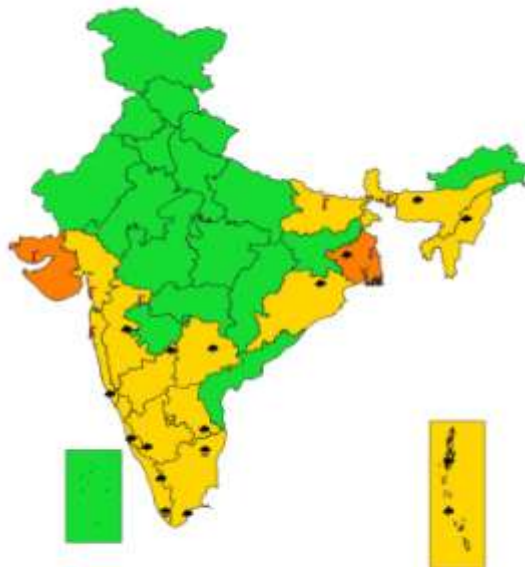
■ ≥ 64 KT (≥ 118 KMPH)

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



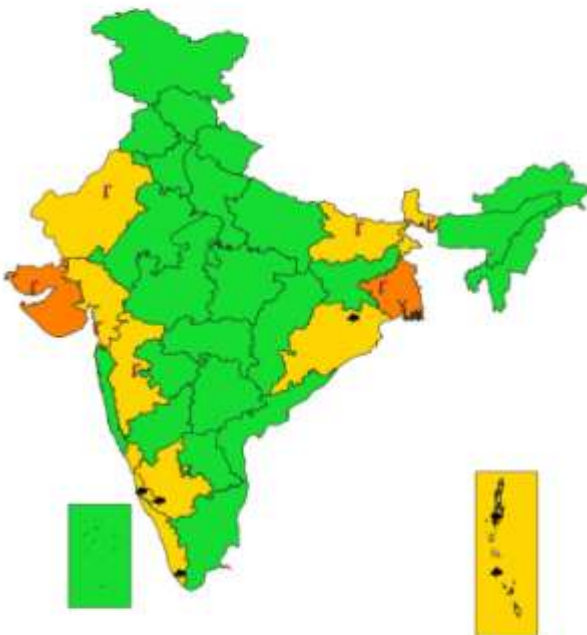
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
(11-5-2023)



- | | | |
|-----------------------------|-------------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| ☁️ Heavy Rain | 🌪️ Strong Surface Winds | 🟢 NO WARNING |
| ☁️ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH (BE UPDATED) |
| ⚡ Thunderstorms & Lightning | ❄️ Cold wave | 🟠 ALERT (BE PREPARED) |
| 🌨️ Hailstorm | 🌫️ Fog | 🔴 WARNING (TAKE ACTION) |



SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
(12-5-2023)



- | | | |
|-----------------------------|-------------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| ☁️ Heavy Rain | 🌪️ Strong Surface Winds | 🟢 NO WARNING |
| ☁️ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH (BE UPDATED) |
| ⚡ Thunderstorms & Lightning | ❄️ Cold wave | 🟠 ALERT (BE PREPARED) |
| 🌨️ Hailstorm | 🌫️ Fog | 🔴 WARNING (TAKE ACTION) |



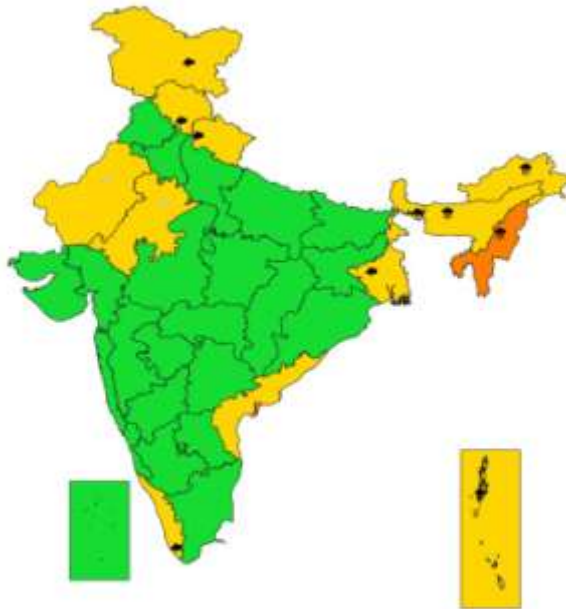
SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
(13-5-2023)



- | | | |
|-----------------------------|-------------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| ☁️ Heavy Rain | 🌪️ Strong Surface Winds | 🟢 NO WARNING |
| ☁️ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH (BE UPDATED) |
| ⚡ Thunderstorms & Lightning | ❄️ Cold wave | 🟠 ALERT (BE PREPARED) |
| 🌨️ Hailstorm | 🌫️ Fog | 🔴 WARNING (TAKE ACTION) |



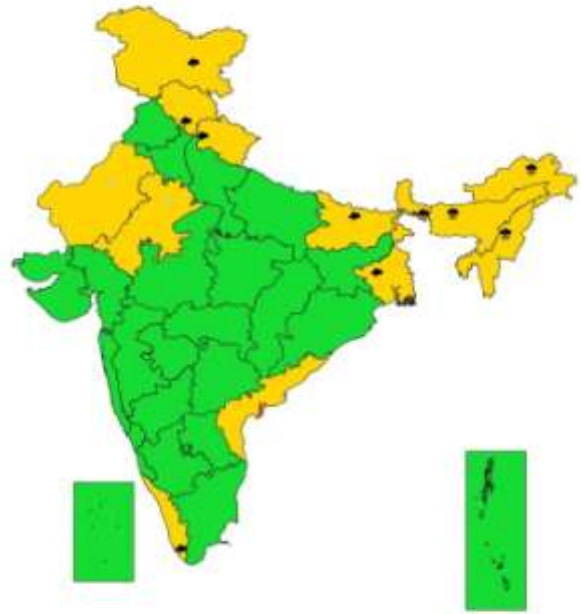
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(14-5-2023)**



- | | | |
|-----------------------------|------------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| ☁ Heavy Rain | ☁ Strong Surface Winds | 🟢 NO WARNING |
| ❄ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH (BE UPDATED) |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave | 🟠 ALERT (BE PREPARED) |
| ☁ Hailstorm | 🌫 Fog | 🔴 WARNING (TAKE ACTION) |

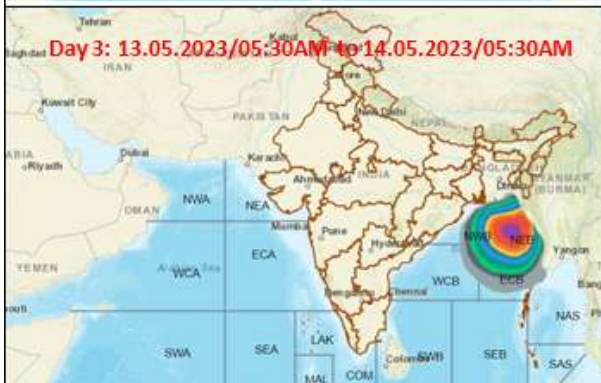
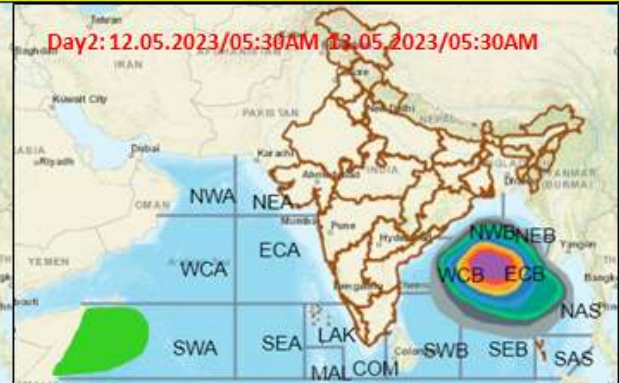
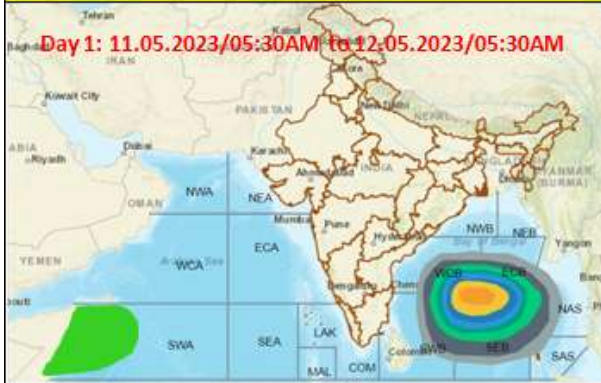


**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
(15-5-2023)**



- | | | |
|-----------------------------|------------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| ☁ Heavy Rain | ☁ Strong Surface Winds | 🟢 NO WARNING |
| ❄ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH (BE UPDATED) |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave | 🟠 ALERT (BE PREPARED) |
| ☁ Hailstorm | 🌫 Fog | 🔴 WARNING (TAKE ACTION) |

Fishermen warning graphics



	Squally WX with wind speed 40-50 kmph gusting to 60 kmph
	Squally WX with wind speed 50-60 kmph gusting to 70 kmph
	Gale wind speed 60-70 kmph gusting to 80 kmph
	Gale wind with wind speed 70-80 kmph gusting to 90 kmph
	Gale wind with wind speed 80-90 kmph gusting to 100 kmph
	Gale wind with wind speed 90-100 kmph gusting to 110 kmph
	Gale wind with wind speed 100-110 kmph gusting to 120 kmph
	Gale wind with wind speed 110-120 kmph gusting to 140 kmph
	Gale wind with wind speed 130-140 kmph gusting to 150 kmph
	Gale wind with wind speed 140-150 kmph gusting to 160 kmph

FISHERMEN ARE ADVISED NOT TO VENTURE INTO THE MARKED AREAS