



India Meteorological Department
(Ministry of Earth Sciences)

BULLETIN NO. 24 (BoB/02/2023)

TIME OF ISSUE: 0900 HOURS IST DATED: 13.05.2023
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: Extremely Severe Cyclonic Storm “Mocha” (pronounced as “Mokha”) over Eastcentral Bay of Bengal

The **Extremely Severe Cyclonic Storm “Mocha”** (pronounced as “Mokha”) over Eastcentral Bay of Bengal moved nearly northeastwards with a speed of 8 kmph during past 06 hours and lay centered at 0530 hours IST of today, the 13th May 2023 over the same region near latitude 15.4°N and longitude 89.1°E, about 570 km north-northwest of Port Blair, 730 km south-southwest of Cox’s Bazar (Bangladesh) and 660 km southwest of Sittwe (Myanmar).

It is very likely to move north-northeastwards and 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
13.05.23/0530	15.4/89.1	180-190 gusting to 210	Extremely Severe Cyclonic Storm
13.05.23/1130	16.3/89.8	190-200 gusting to 220	Extremely Severe Cyclonic Storm
13.05.23/1730	17.2/90.5	190-200 gusting to 220	Extremely Severe Cyclonic Storm
13.05.23/2330	18.2/91.1	180-190 gusting to 210	Extremely Severe Cyclonic Storm
14.05.23/0530	19.2/91.8	170-180 gusting to 200	Extremely Severe Cyclonic Storm
14.05.23/1130	20.2/92.6	150-160 gusting to 175	Very Severe Cyclonic Storm
14.05.23/1730	21.3/93.6	115-125 gusting to 140	Very Severe Cyclonic Storm
15.05.23/0530	23.3/95.5	55-65 gusting to 75	Deep Depression
15.05.23/1730	25.4/97.4	40-50 gusting to 60	Depression

Warnings:

(i) Rainfall (warning graphics enclosed)

- ❖ **Andaman & Nicobar Islands:** Light to moderate Rainfall at most places are likely on 13th 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:

- ❖ **Tripura, Mizoram & south Manipur:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is very likely to prevail on 14th May.
- ❖ **North Andaman Sea:**
Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail till 13th May night.
- ❖ **Southeast Bay of Bengal:**
Gale wind speed reaching 115-125 kmph gusting to 145 kmph is prevailing and likely to continue till early morning of 13th May and decrease thereafter becoming squally wind speed reaching 55-65 kmph gusting to 75 kmph till 13th May evening.
- ❖ **Adjoining areas of southwest Bay of Bengal:**
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail till 13th May morning.
- ❖ **Eastcentral Bay of Bengal:**
Gale wind speed reaching 180-190 kmph gusting to 210 kmph is prevailing over the region. It is very likely to increase becoming 190-200 kmph gusting to 220 kmph till 13th May night and gradually decrease thereafter.
- ❖ **Westcentral Bay of Bengal:**
Gale wind speed reaching 180-190 kmph gusting to 210 kmph is prevailing over the region and would continue over southeastern sector of the region till 13th May evening. It will decrease gradually becoming 100-110 kmph gusting to 120 kmph by 14th May morning and significantly decrease thereafter.

❖ **Northeast Bay of Bengal:**

Gale wind speed reaching 80-90 kmph gusting to 100 kmph is prevailing and it would gradually increase becoming 190-200 kmph gusting 220 kmph from 13th evening till 14th May morning. It is likely to decrease thereafter to 150-160 kmph gusting to 175 kmph at the time of landfall. It is likely to decrease rapidly after the landfall.

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

Gale wind speed reaching 60-70 kmph gusting to 80 kmph is likely to prevail over southeast sector of the region and 45-55 kmph gusting to 65 kmph over the remaining areas of northwest Bay of Bengal from 13th May to 14th May forenoon and decrease gradually thereafter.

(iii) Sea condition

❖ **Andaman Sea:**

Very rough to rough over north Andaman Sea on 13th May.

❖ **Southeast Bay of Bengal:**

Very rough to rough on 13th May.

❖ **Eastcentral Bay of Bengal:**

Phenomenal sea condition is prevailing and would continue till 14th May morning. It will improve gradually thereafter.

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

Phenomenal sea condition is prevailing and would continue till 13th May evening. It will gradually improve thereafter.

❖ **Northeast Bay of Bengal:**

Very rough to high is likely till 13th May evening and very high to phenomenal till 14th May afternoon.

❖ **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 13th May, central Bay of Bengal and north Andaman Sea till 14th May and into northeast Bay of Bengal during 13th-14th May.

❖ Those over central & northeast 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 kutchra 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)

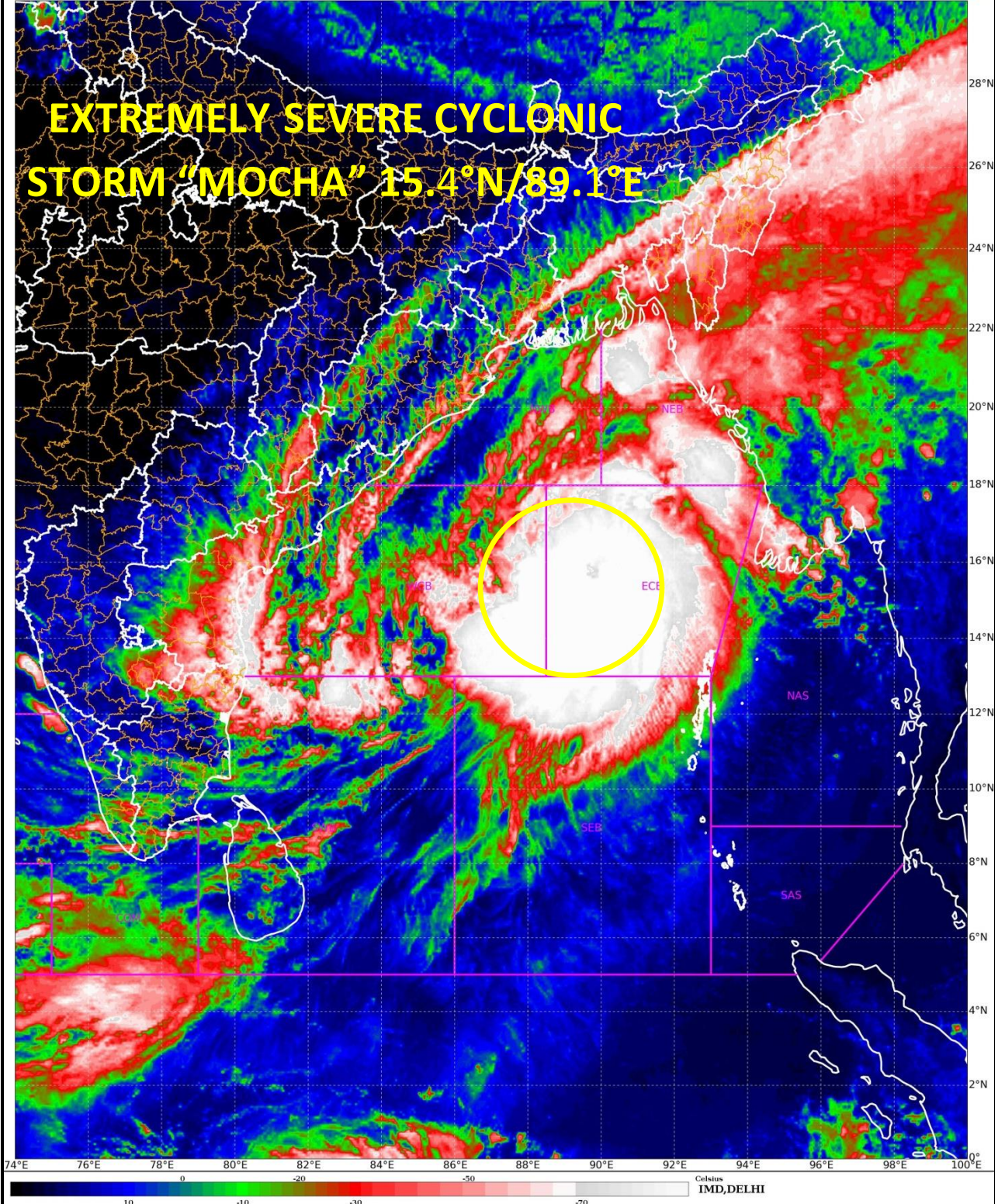
- ❖ Very rough to phenomenal sea could effect marine operation and offshore activities.
- ❖ Regulation of tourism and offshore activities and shipping near Andaman & Nicobar Islands till 13th May.
- ❖ Regulation of shipping activity over the sea areas of southeast Bay of Bengal and Andaman Sea till 13th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

The system is under continuous surveillance and the next message will be issued at 1130 hours IST of today, the 13th May 2023.

(Dr. Ananda Kumar Das)

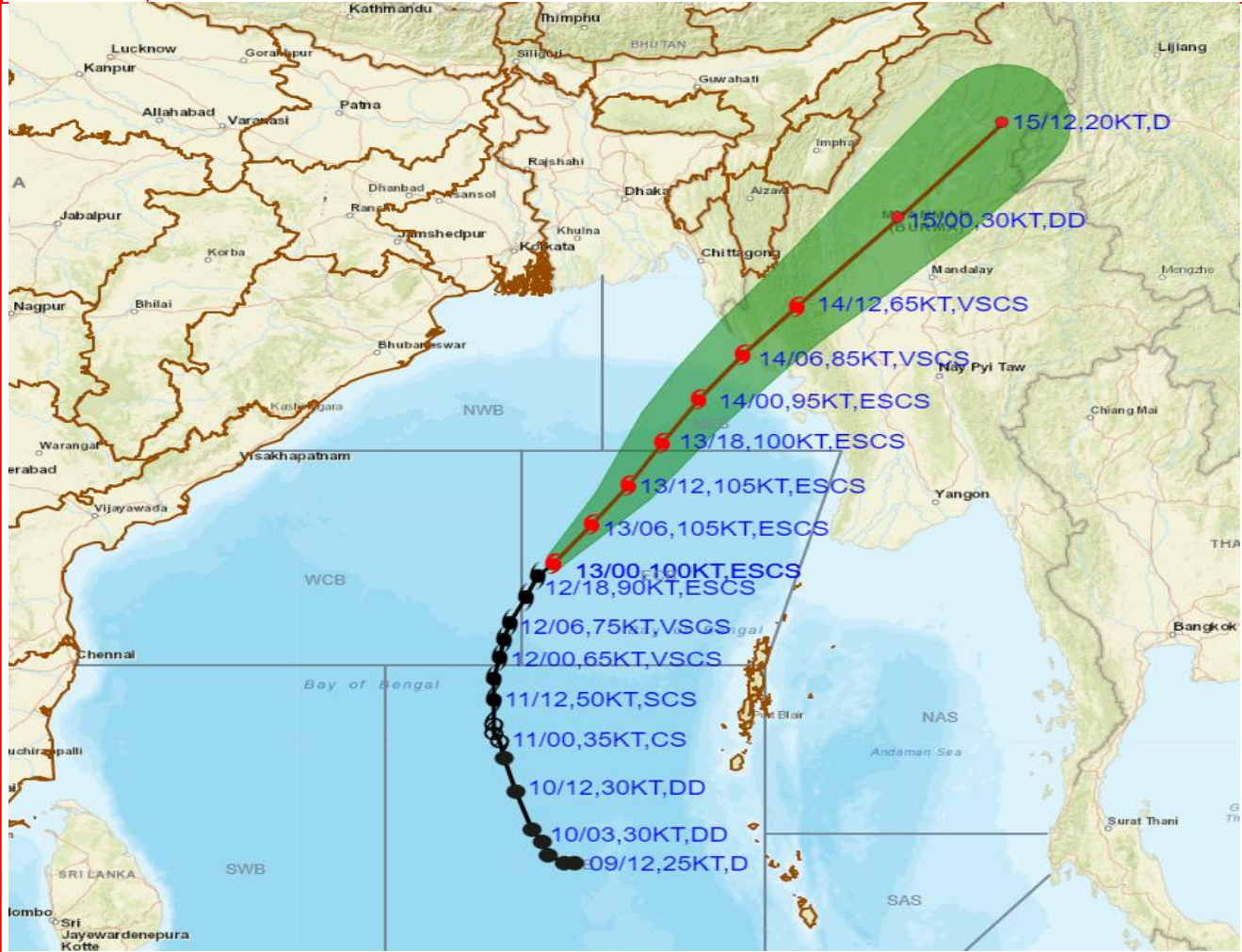
Scientist F, Cyclone Warning Division, New Delhi

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





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF EXTREMELY SEVERE CYCLONIC STORM MOCHA OVER EASTCENTRAL BAY OF BENGAL BASED ON 0000 UTC (0530 IST) OF 13TH 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 (\geq 120 KT)

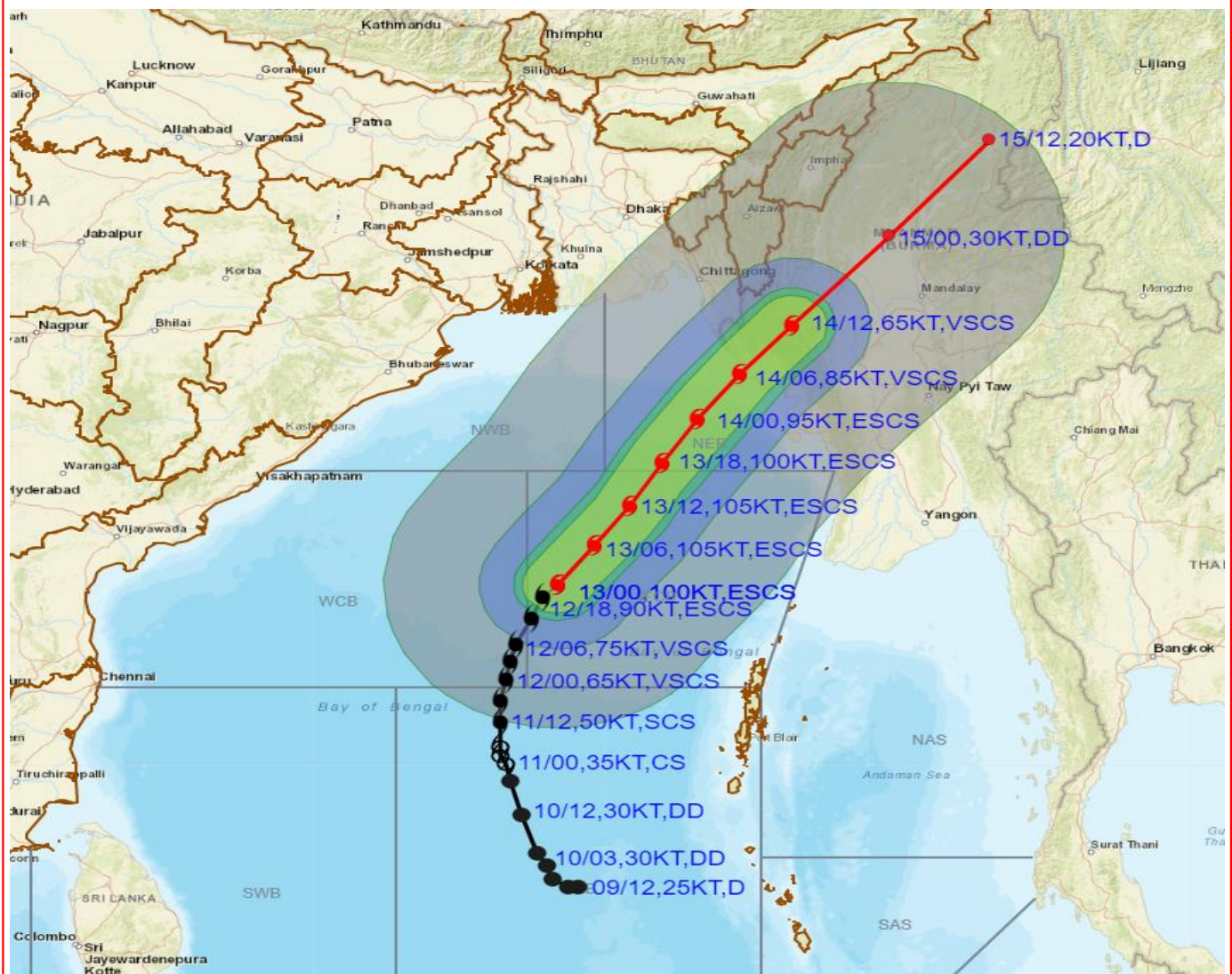
- LESS THAN 34 KT
- 34-47 KT
- \geq 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

Forecast distance (km) and direction of the centre from nearest 5 coastal stations

Forecast Date and Time	Lead Period	Lat	Lon	Station 1	Station 2	Station 3	Station 4	Station 5
13.05.23/0000	0	15.4	89.1	COCO ISLAND (481,WNW)	MAYA BANDAR (496,NW)	LONG ISLAND (531,NW)	PORT BLAIR (571,NW)	PURI (601,SE)
14.05.23/0000	24	19.2	91.8	SITTWE (154,SW)	KYAUKPYU (185,W)	TEKNAF (193,SSW)	KYAUKTAW (203,SSW)	MANAUNG (207,W)
15.05.23/0000	48	23.3	95.5	SHWEBO (83,NNW)	PINLEBU (88,S)	MAWLAIK (117,ESE)	KALEWA (123,E)	KATHA (129,SW)



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF EXTREMELY SEVERE CYCLONIC STORM MOCHA OVER EASTCENTRAL BAY OF BENGAL BASED ON 0000 UTC (0530 IST) OF 13TH 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

AREA OF MAXIMUM SUSTAINED WIND SPEED:

— 28-33 KT (52-61 KMPH)

— 34-49 KT (62-91 KMPH)

— 50-63 KT (92-117 KMPH)

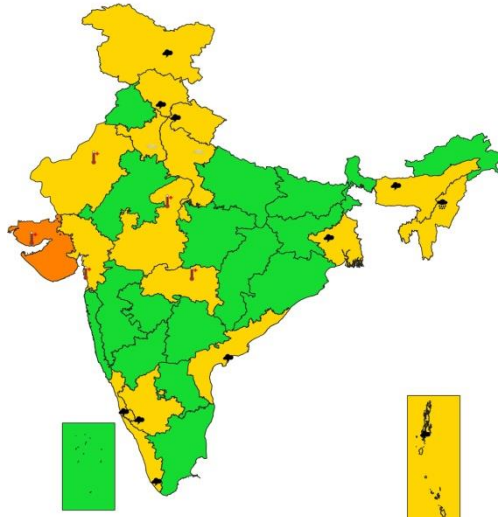
— ≥ 64 KT (≥118 KMPH)

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



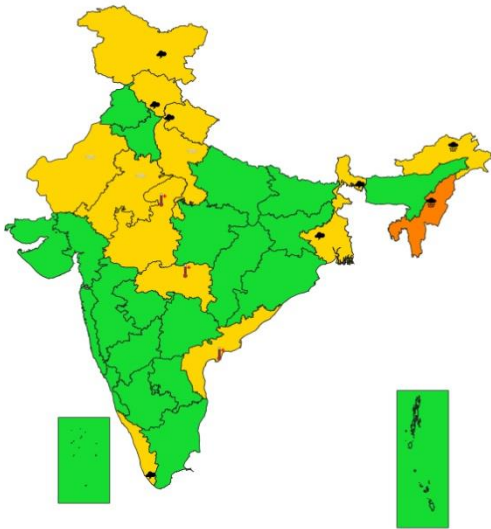
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
(13-5-2023)



- | | | |
|--|--|---|
| <p>Subdivision Warning</p> <ul style="list-style-type: none"> ☁ Heavy Rain ❄ Heavy Snow ⚡ Thunderstorms & Lightning ☃ Hallstorm | <p>Dust Storm</p> <ul style="list-style-type: none"> 🌪 Strong Surface Winds 🔥 Heat Wave ❄ Cold wave 🌫 Fog | <p>Subdivision color</p> <ul style="list-style-type: none"> 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
|--|--|---|



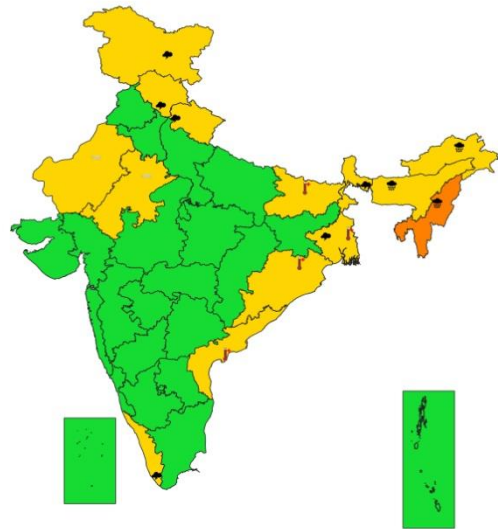
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
(14-5-2023)



- | | | |
|--|--|---|
| <p>Subdivision Warning</p> <ul style="list-style-type: none"> ☁ Heavy Rain ❄ Heavy Snow ⚡ Thunderstorms & Lightning ☃ Hallstorm | <p>Dust Storm</p> <ul style="list-style-type: none"> 🌪 Strong Surface Winds 🔥 Heat Wave ❄ Cold wave 🌫 Fog | <p>Subdivision color</p> <ul style="list-style-type: none"> 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
|--|--|---|



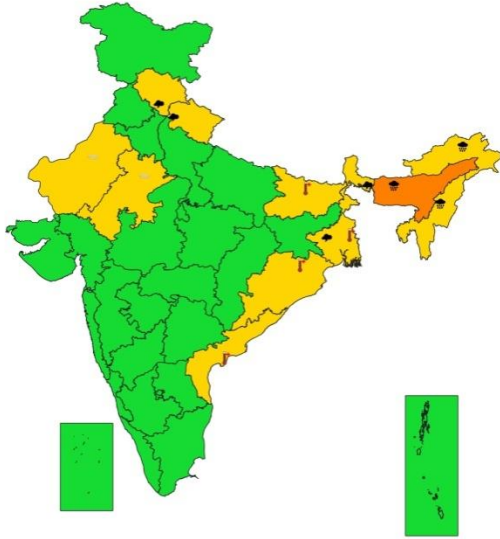
SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
(15-5-2023)



- | | | |
|--|--|---|
| <p>Subdivision Warning</p> <ul style="list-style-type: none"> ☁ Heavy Rain ❄ Heavy Snow ⚡ Thunderstorms & Lightning ☃ Hallstorm | <p>Dust Storm</p> <ul style="list-style-type: none"> 🌪 Strong Surface Winds 🔥 Heat Wave ❄ Cold wave 🌫 Fog | <p>Subdivision color</p> <ul style="list-style-type: none"> 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
|--|--|---|



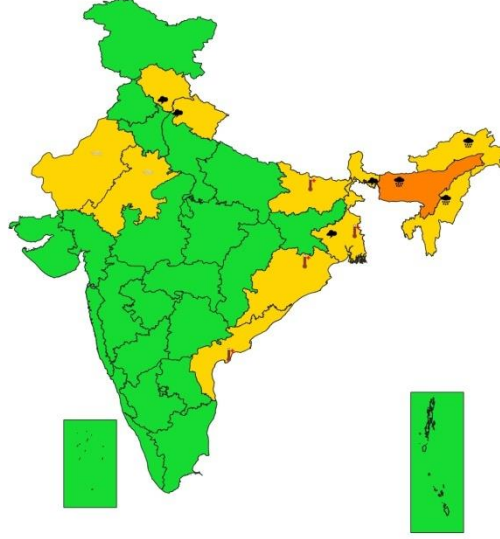
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(16-5-2023)**



- | | | |
|----------------------------|----------------------|--------------------------|
| 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
(17-5-2023)**



- | | | |
|----------------------------|----------------------|--------------------------|
| 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

