



India Meteorological Department  
(Ministry of Earth Sciences)

BULLETIN NO. 26 (BoB/02/2023)

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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)  
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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 20 kmph during past 06 hours and lay centered at 1130 hours IST of today, the 13th May 2023 over the same region near latitude 16.0°N and longitude 90.0°E, about 560 km north-northwest of Port Blair, 630 km south-southwest of Cox’s Bazar (Bangladesh) and 550 km south-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 an Extremely Severe Cyclonic Storm with maximum sustained wind speed of 170-180 kmph gusting to 200 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
13.05.23/1130	16.0/90.0	190-200 gusting to 220	Extremely Severe Cyclonic Storm
13.05.23/1730	16.8/90.7	200-210 gusting to 230	Extremely Severe Cyclonic Storm
13.05.23/2330	17.9/91.2	200-210 gusting to 230	Extremely Severe Cyclonic Storm
14.05.23/0530	19.1/91.8	190-200 gusting to 220	Extremely Severe Cyclonic Storm
14.05.23/1130	20.2/92.6	170-180 gusting to 200	Extremely Severe Cyclonic Storm
14.05.23/2330	22.5/94.4	90-100 gusting to 110	Severe Cyclonic Storm
15.05.23/1130	24.8/96.7	50-60 gusting to 70	Depression

### **Warnings:**

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

- ❖ **Andaman & Nicobar Islands:** Light to moderate Rainfall at most places are likely on 13<sup>th</sup> May.
- ❖ **Tripura & Mizoram:** Rainfall at most places with Heavy rainfall at isolated places is likely on 13<sup>th</sup> May and heavy to very heavy rainfall at isolated places on 14<sup>th</sup> May.
- ❖ **Nagaland, Manipur & south Assam:** Rainfall at many places with Heavy rainfall at isolated places is on 14<sup>th</sup> 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 14<sup>th</sup> May.
- ❖ **North Andaman Sea:**  
Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail till 14<sup>th</sup> May forenoon.
- ❖ **Southeast Bay of Bengal:**  
Squally wind speed reaching 55-65 kmph gusting to 75 kmph would prevail till 14<sup>th</sup> morning.
- ❖ **Eastcentral Bay of Bengal:**  
Gale wind speed reaching 190-200 kmph gusting to 220 kmph is prevailing over the region. It is very likely to increase becoming 200-210 kmph gusting to 230 kmph from 13<sup>th</sup> May evening. It would become 80-90 kmph gusting to 100 kmph from 14<sup>th</sup> morning till evening and gradually decrease further thereafter.
- ❖ **Adjoining areas of Westcentral Bay of Bengal:**  
Gale wind speed reaching 100-110 kmph gusting to 120 kmph is likely to prevail over the region till 13<sup>th</sup> May night. It will decrease gradually thereafter becoming squally wind speed reaching 40-50 gusting to 60 kmph till 14<sup>th</sup> noon.
- ❖ **Northeast Bay of Bengal:**  
Gale wind speed reaching 80-90 kmph gusting to 100 kmph is prevailing and it would gradually increase becoming 200-210 kmph gusting to 230 kmph from 13<sup>th</sup> night till 14<sup>th</sup> 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 till 14<sup>th</sup> May morning and decrease gradually thereafter.

#### **(iii) Sea condition**

- ❖ **Andaman Sea:**  
Very rough to rough over north Andaman Sea is likely to prevail till 14<sup>th</sup> May morning.
- ❖ **Southeast Bay of Bengal:**  
Very rough to rough is likely to prevail till 14<sup>th</sup> May morning.

- ❖ **Eastcentral Bay of Bengal:**  
Phenomenal sea condition is prevailing and would continue till 14<sup>th</sup> May morning. It will improve gradually thereafter.
- ❖ **Adjoining areas of Westcentral Bay of Bengal:**  
Very high sea condition is prevailing and would continue till 13<sup>th</sup> May evening. It will gradually improve thereafter.
- ❖ **Northeast Bay of Bengal:**  
High to very high sea condition is prevailing and would become phenomenal from 13<sup>th</sup> May night till 14<sup>th</sup> May afternoon.
- ❖ **Adjoining areas of Northwest Bay of Bengal:**  
Rough to very rough sea condition is likely during 13<sup>th</sup>-14<sup>th</sup> May.

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

- ❖ Fishermen, ships, boats and trawlers are advised not to venture into southeast Bay of Bengal till 13<sup>th</sup> May, eastcentral and adjoining westcentral Bay of Bengal and north Andaman Sea till 14<sup>th</sup> May and into northeast Bay of Bengal during 13<sup>th</sup>-14<sup>th</sup> 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 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 13<sup>th</sup> May.
- ❖ Regulation of shipping activity over the sea areas of southeast Bay of Bengal and Andaman Sea till 13<sup>th</sup> May, eastcentral Bay of Bengal till 14<sup>th</sup> May, and westcentral Bay of Bengal till 13<sup>th</sup> May.
- ❖ Regulation of shipping activity over the sea areas of northeast Bay of Bengal during 13<sup>th</sup>-14<sup>th</sup> May.

**The system is under continuous surveillance and the next message will be issued at 1730 hours IST of today, the 13<sup>th</sup> May 2023.**

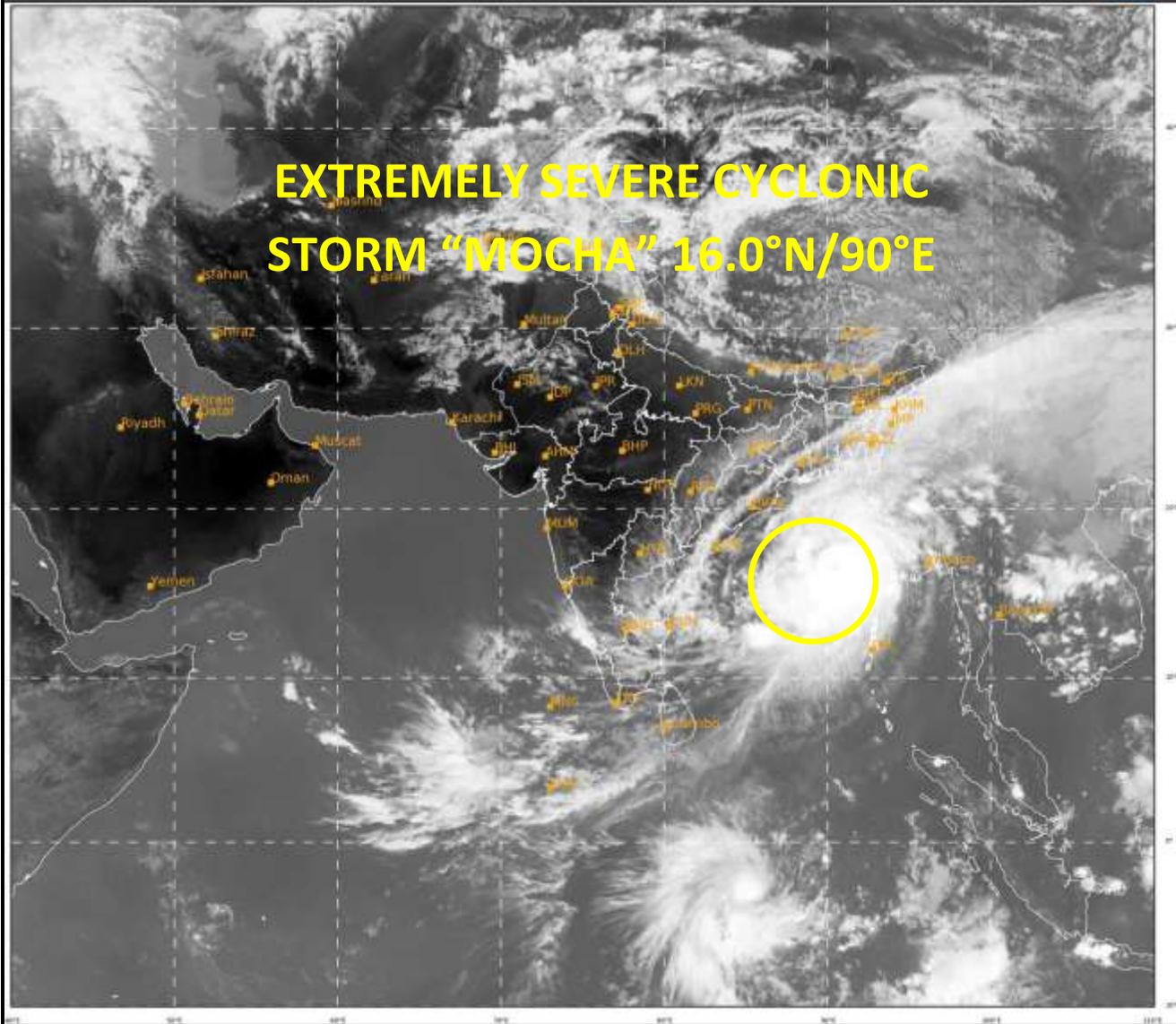
**(Dr. Ananda Kumar Das)**

**Scientist F, Cyclone Warning Division, New Delhi**

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



# EXTREMELY SEVERE CYCLONIC STORM "MOCHA" 16.0°N/90°E



235

944

IMD,DELHI



**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF EXTREMELY SEVERE CYCLONIC STORM MOCHA OVER EASTCENTRAL BAY OF BENGAL BASED ON 0600 UTC (1130 IST)**



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)

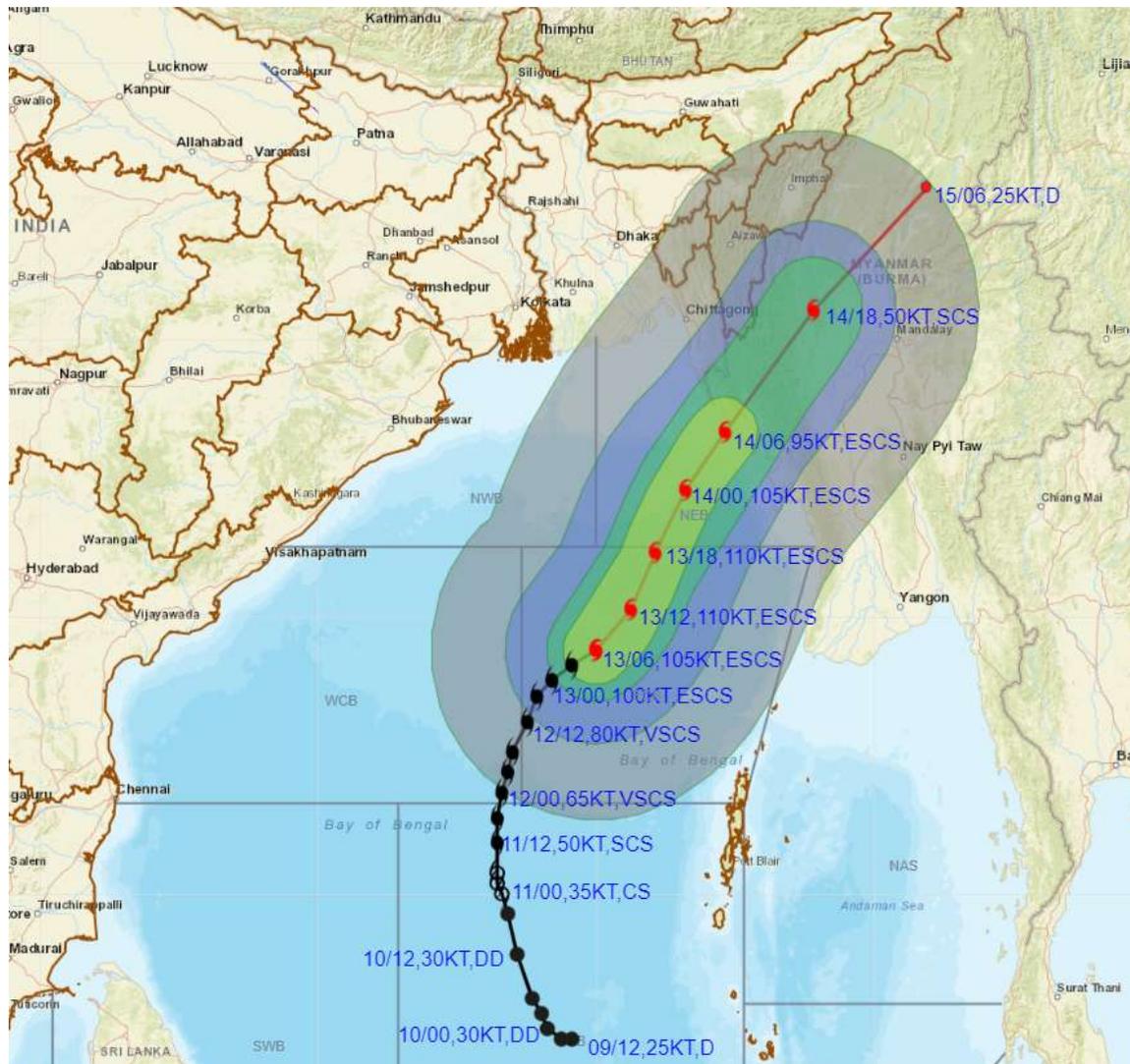
- LESS THAN 34 KT
- ⊙ 34-47 KT
- ⊙  $\geq$  48 KT
- ▬ OBSERVED TRACK
- ▬ FORECAST TRACK
- ◀ CONE OF UNCERTAINTY

**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
13.05.23/0600	0	16.0	90.0	COCO ISLAND (418,WNW)	MAYA BANDAR (465,NW)	MANAUNG (508,SW)	LONG ISLAND (509,NW)	PATHEIN (516,W)
14.05.23/0600	24	20.2	92.6	SITTWE (31,WNW)	KYAUKTAW (72,S)	TEKNAF (81,SSE)	KYAUKPYU (132,NW)	COX'S BAZAR (154,SSE)
15.05.23/0600	48	24.8	96.7	BHAMO (78,NW)	KATHA (80,NNE)	MYITKYINA (95,SW)	PINLEBU (157,ENE)	HKAMTI (167,SE)



**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF EXTREMELY SEVERE CYCLONIC STORM MOCHA OVER EASTCENTRAL BAY OF BENGAL BASED ON 0600 UTC (1130 IST) OF 13<sup>TH</sup> 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 (34.7 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)

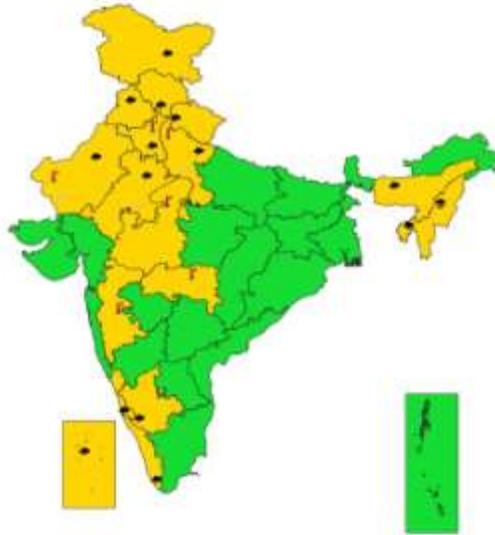
● LESS THAN 34 KT  
 ○ 34.7 KT  
 ●  $\geq$  48 KT  
 — OBSERVED TRACK  
 — FORECAST TRACK  
 — CONE OF UNCERTAINTY  
 AREA OF MAXIMUM SUSTAINED WIND SPEED:  
 ■ 28-33 KT (52-61 KMPH)  
 ■ 34.49 KT (62-91 KMPH)  
 ■ 50-63 KT (92-117 KMPH)  
 ■  $\geq$  64 KT ( $\geq$ 118 KMPH)

**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



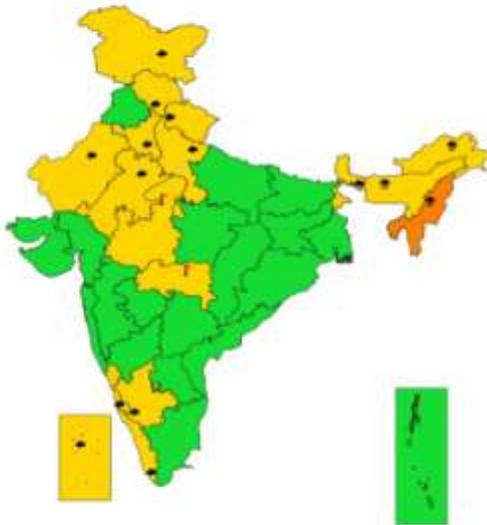
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1  
( 13-5-2023 )



- |                             |                        |                          |
|-----------------------------|------------------------|--------------------------|
| <b>Subdivision Warning</b>  | <b>Dust Storm</b>      | <b>Subdivision color</b> |
| ● Heavy Rain                | ☼ Strong Surface Winds | ■ NO WARNING             |
| ⊖ Heavy Snow                | ☀ Heat Wave            | ■ WATCH/BE UPDATED       |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave            | ■ ALERT (BE PREPARED)    |
| ⚡ Hailstones                | 🌫 Fog                  | ■ WARNING (TAKE ACTION)  |



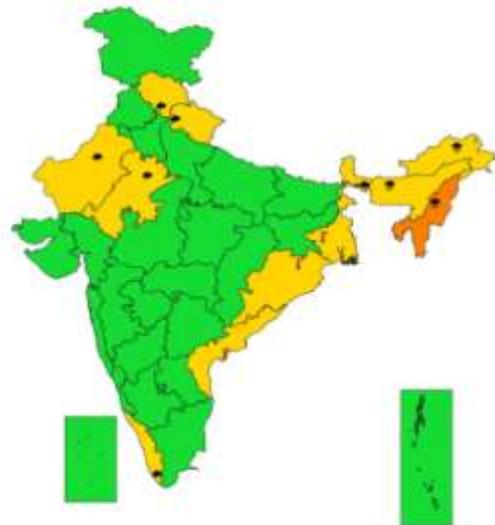
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2  
( 14-5-2023 )



- |                             |                        |                          |
|-----------------------------|------------------------|--------------------------|
| <b>Subdivision Warning</b>  | <b>Dust Storm</b>      | <b>Subdivision color</b> |
| ● Heavy Rain                | ☼ Strong Surface Winds | ■ NO WARNING             |
| ⊖ Heavy Snow                | ☀ Heat Wave            | ■ WATCH/BE UPDATED       |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave            | ■ ALERT (BE PREPARED)    |
| ⚡ Hailstones                | 🌫 Fog                  | ■ WARNING (TAKE ACTION)  |



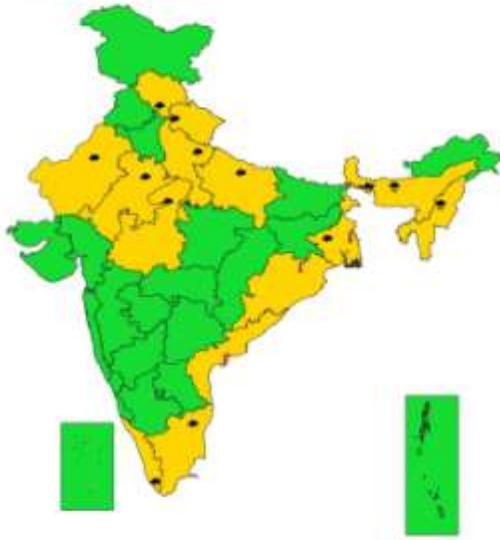
SUBDIVISIONWISE WEATHER WARNING FOR DAY 3  
( 15-5-2023 )



- |                             |                        |                          |
|-----------------------------|------------------------|--------------------------|
| <b>Subdivision Warning</b>  | <b>Dust Storm</b>      | <b>Subdivision color</b> |
| ● Heavy Rain                | ☼ Strong Surface Winds | ■ NO WARNING             |
| ⊖ Heavy Snow                | ☀ Heat Wave            | ■ WATCH/BE UPDATED       |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave            | ■ ALERT (BE PREPARED)    |
| ⚡ Hailstones                | 🌫 Fog                  | ■ WARNING (TAKE ACTION)  |



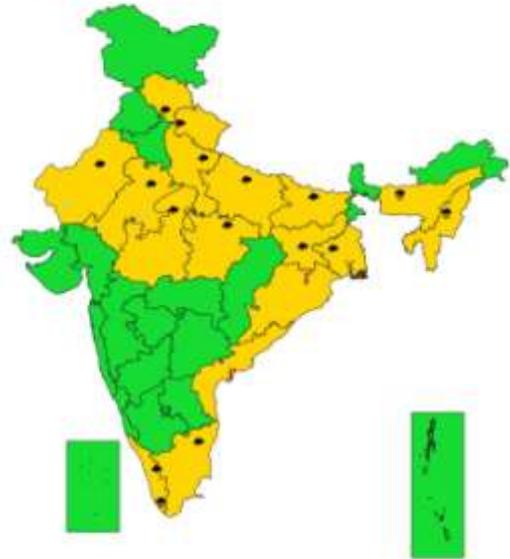
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4  
( 16-5-2023)**



- |                             |                        |                          |
|-----------------------------|------------------------|--------------------------|
| <b>Subdivision Warning</b>  | <b>Dust Storm</b>      | <b>Subdivision color</b> |
| ● 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)**



- |                             |                        |                          |
|-----------------------------|------------------------|--------------------------|
| <b>Subdivision Warning</b>  | <b>Dust Storm</b>      | <b>Subdivision color</b> |
| ● 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

