



India Meteorological Department
(Ministry of Earth Sciences)

BULLETIN NO. 33 (BoB/02/2023)

TIME OF ISSUE: 1230 HOURS IST DATED: 14.05.2023
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Sub: Extremely Severe Cyclonic Storm “Mocha” (pronounced as “Mokha”) over Northeast and adjoining Eastcentral Bay of Bengal

The **Extremely Severe Cyclonic Storm “Mocha”** (pronounced as “**Mokha**”) over Northeast and adjoining East central Bay of Bengal moved nearly north-northeastwards with a speed of 21 kmph during past 06 hours and lay centered at 0830 hours IST of today, the 14th May 2023 over the same region near latitude 19.3°N and longitude 91.9°E, about 130 km southwest of Sittwe (Myanmar), 230 km south of Cox’s Bazar (Bangladesh) and 850 km north-northwest of Port Blair.

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) during 1230 to 1430 hours IST of today, the 14th May, 2023 as an Extremely Severe Cyclonic Storm with maximum sustained wind speed of 180-190 kmph gusting to 210 kmph.

The heavy rainfall along with the strong winds is occurring over the north Myanmar-Bangladesh coasts and the spiral band has entered into these coastal areas. The landfall process will commence within a few hours.

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
14.05.23/0830	19.3/91.9	205-215 gusting to 235	Extremely Severe Cyclonic Storm
14.05.23/1130	19.9/92.4	180-190 gusting to 210	Extremely Severe Cyclonic Storm
14.05.23/1730	21.2/93.5	130-140 gusting to 155	Very Severe Cyclonic Storm
14.05.23/2330	23.0/94.8	50-60 gusting to 70	Deep Depression
15.05.23/0530	24.6/96.1	40-50 gusting to 60	Depression

Warnings:

(i) Rainfall (warning graphics enclosed)

- ❖ **Tripura & Mizoram:** Rainfall at most places with 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.
- ❖ **Eastcentral Bay of Bengal:**
Gale wind speed reaching 110-120 kmph gusting to 130 kmph is prevailing over the region. It would decrease gradually to become 80-90 kmph gusting to 100 kmph till evening of 14th May. It would decrease rapidly thereafter.
- ❖ **Adjoining areas of Westcentral Bay of Bengal:**
Squally wind speed reaching 40-50 gusting to 60 kmph would prevail by 14th evening.
- ❖ **Northeast Bay of Bengal:**
Gale wind speed reaching 200-210 kmph gusting to 230 kmph is prevailing and it would continue till 14th May noon. It is likely to decrease thereafter to 180-190 kmph gusting to 210 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 prevailing over southeast sector of the region and 45-55 kmph gusting to 65 kmph over the remaining areas of northwest Bay of Bengal. It is likely to decrease rapidly after the landfall.

(iii) Sea condition

- ❖ **Eastcentral Bay of Bengal:**
High to Very High sea condition is prevailing and would continue till 14th May noon. It will improve gradually thereafter.
- ❖ **Adjoining areas of Westcentral Bay of Bengal:**
rough to very rough sea condition is prevailing and would continue till 14th May noon. It will gradually improve thereafter.
- ❖ **Northeast Bay of Bengal:**
Phenomenal sea condition is prevailing and would continue till 14th May afternoon.
- ❖ **Adjoining areas of Northwest Bay of Bengal:**
Very Rough to high sea condition is prevailing and would continue till afternoon of 14th May.

(iv) Fishermen Warning (warning graphics enclosed)

- ❖ Fishermen, ships, boats and trawlers are advised not to venture into northeast Bay of Bengal, eastcentral and adjoining westcentral Bay of Bengal and north Andaman Sea on 14th May.
- ❖ Those over northeast & 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 affect marine operation and offshore activities.
- ❖ Regulation of tourism and offshore activities and shipping near North Andaman Islands till 14th May.
- ❖ Regulation of shipping activity sea areas of northeast and adjoining eastcentral Bay of Bengal till 14th May.

The system is under continuous surveillance and the next message will be issued at 1430 hours IST of today, the 14th May 2023.

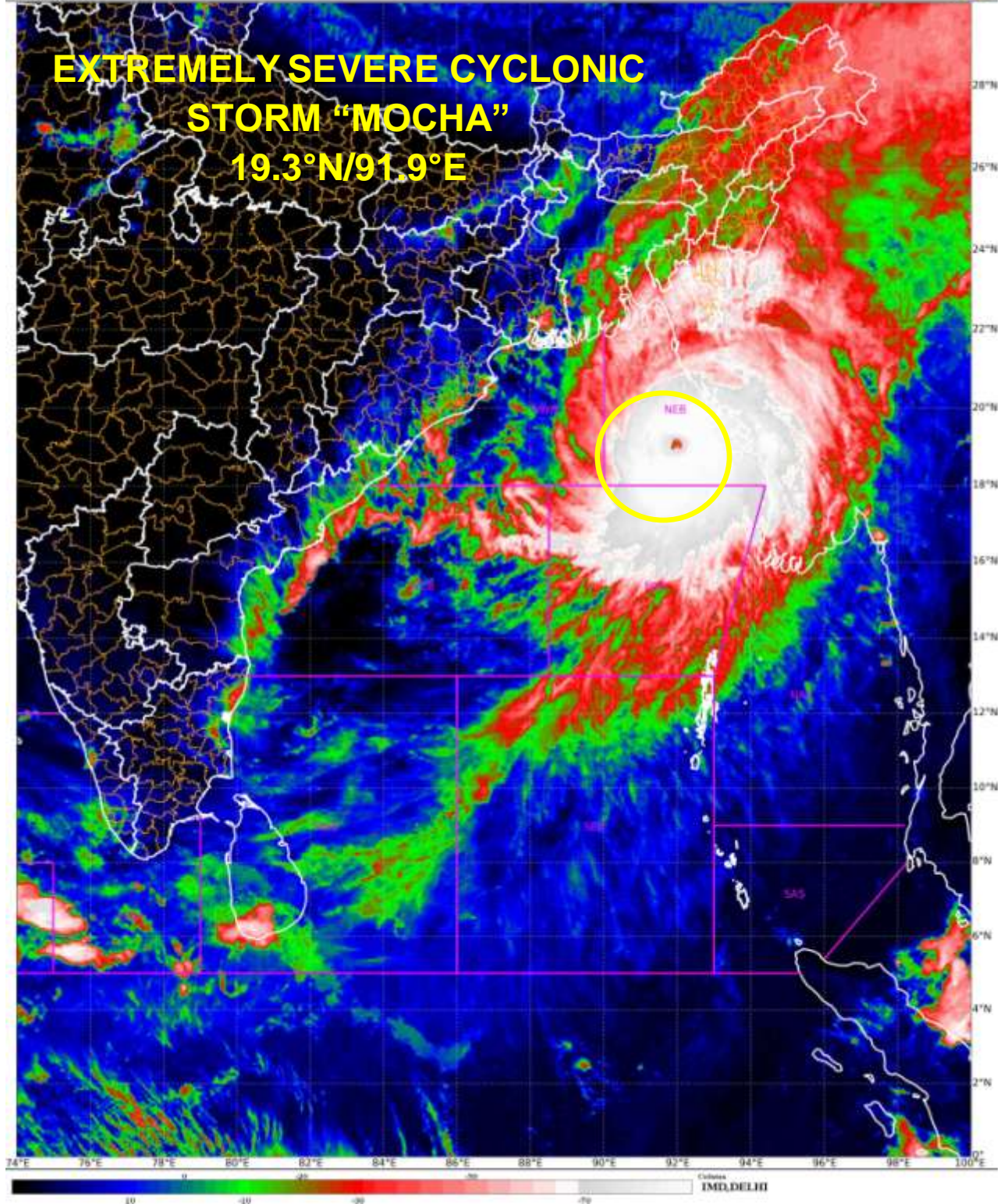
(Dr. R. K. Jenamani)

Scientist G, Cyclone Warning Division, New Delhi

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

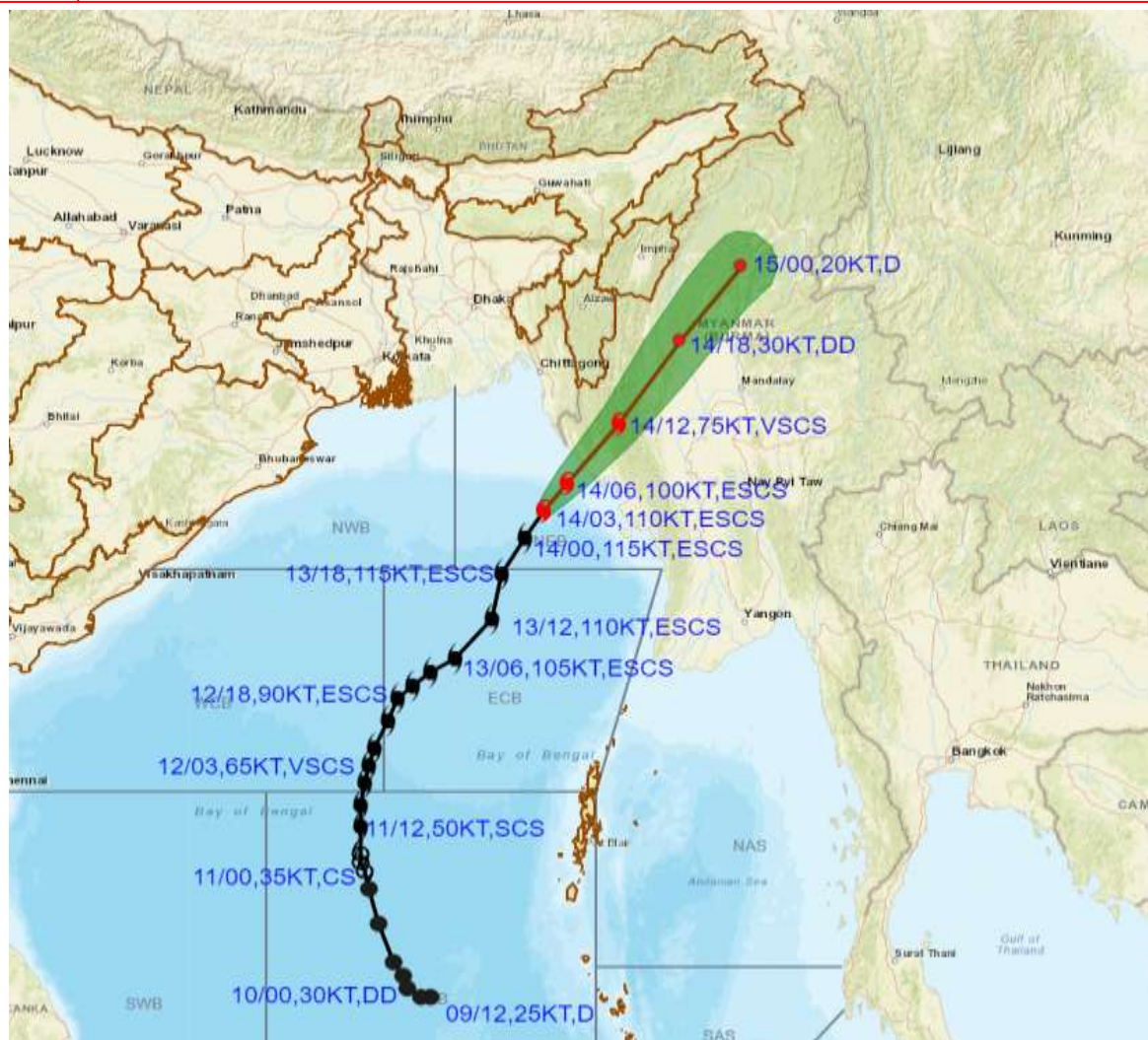


**EXTREMELY SEVERE CYCLONIC
STORM "MOCHA"
19.3°N/91.9°E**





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF EXTREMELY SEVERE CYCLONIC STORM MOCHA OVER NORTHEAST AND ADJOINING EASTCENTRAL BAY OF BENGAL BASED ON 0300 UTC (0830 IST) OF 14TH 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)

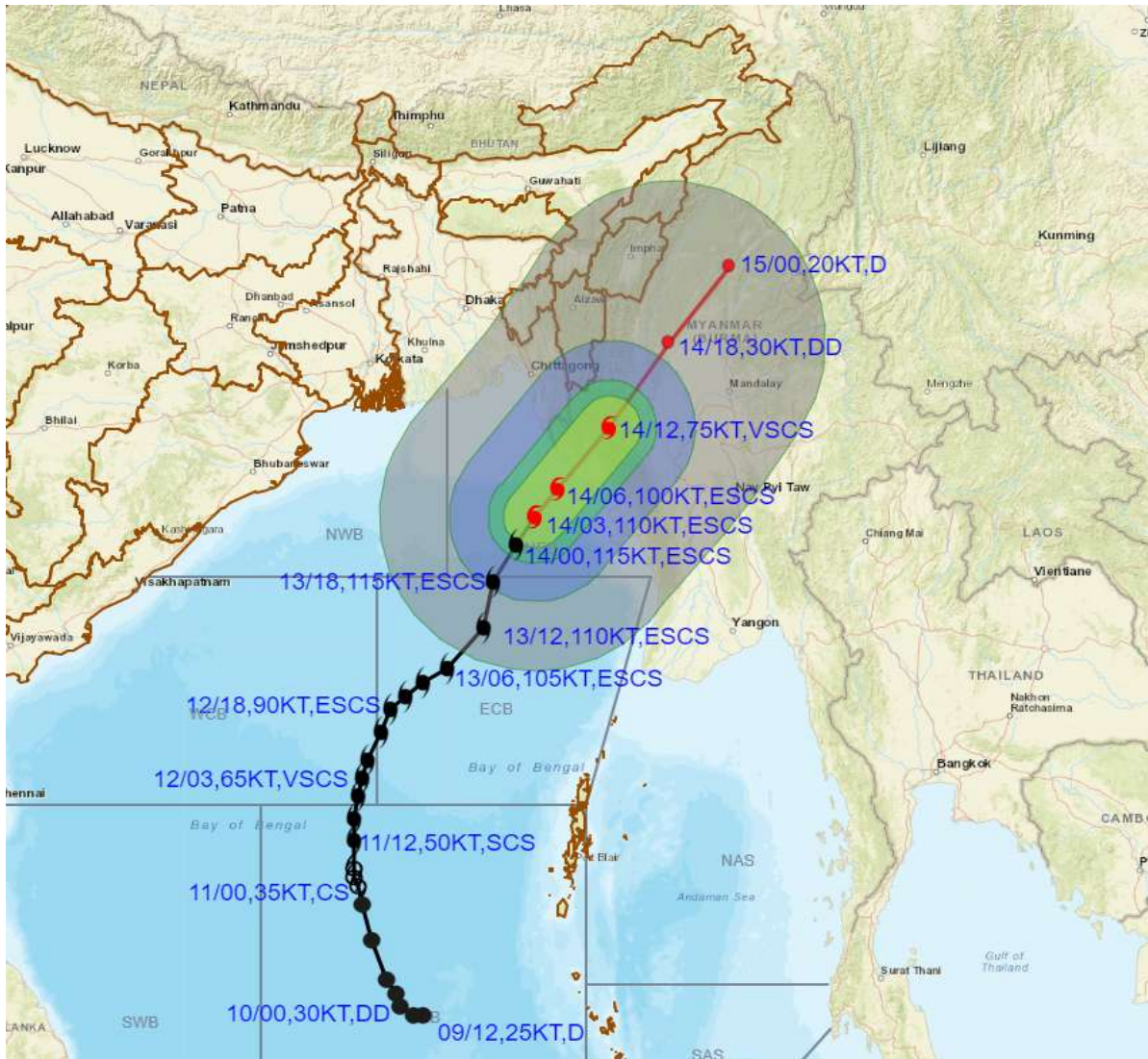
- LESS THAN 34 KT
- 34-47 KT
- \geq 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

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
14.05.23/0300	0	19.3	91.9	SITTWE (139,SW)	KYAUKPYU (174,W)	TEKNAF (179,SSW)	KYAUKTAW (189,SSW)	MANAUNG (199,WNW)
15.05.23/0000	21	24.6	96.1	KATHA (54,NNW)	PINLEBU (94,NE)	BHAMO (117,WNW)	HOMALIN (123,ESE)	MYITKYINA (156,WSW)



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF EXTREMELY SEVERE CYCLONIC STORM MOCHA OVER NORTHEAST AND ADJOINING EASTCENTRAL BAY OF BENGAL BASED ON 0300 UTC (0830 IST) OF 14TH 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)

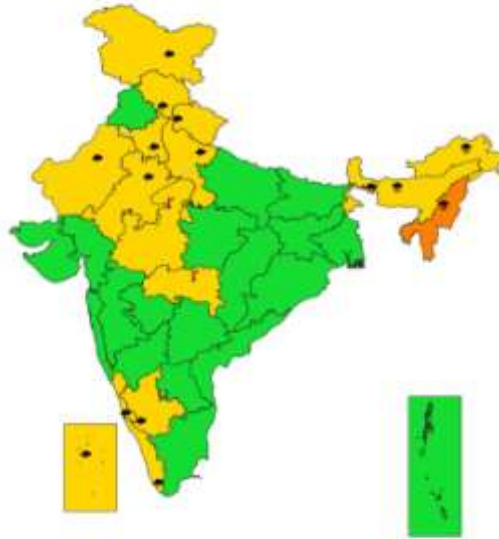
● LESS THAN 34 KT
 ○ 34-47 KT
 ● ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 — CONE OF UNCERTAINTY
 AREA OF MAXIMUM SUSTAINED WIND SPEED:
 ■ 28-33 KT (52-61 KMPH)
 ■ 34-49 KT (62-91 KMPH)
 ■ 50-63 KT (92-117 KMPH)
 ■ ≥ 64 KT (≥118 KMPH)

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
(14-5-2023)**



- | | | |
|-----------------------------|------------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| ● Heavy Rain | X Strong Surface Winds | ■ NO WARNING |
| ○ Heavy Snow | H Heat Wave | ■ WATCH/BE UPDATED |
| ⚡ Thunderstorms & Lightning | C Cold wave | ■ ALERT (BE PREPARED) |
| ■ Hailstorm | F Fog | ■ WARNING (TAKE ACTION) |



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
(15-5-2023)**



- | | | |
|-----------------------------|------------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| ● Heavy Rain | X Strong Surface Winds | ■ NO WARNING |
| ○ Heavy Snow | H Heat Wave | ■ WATCH/BE UPDATED |
| ⚡ Thunderstorms & Lightning | C Cold wave | ■ ALERT (BE PREPARED) |
| ■ Hailstorm | F Fog | ■ WARNING (TAKE ACTION) |



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
(16-5-2023)**



- | | | |
|-----------------------------|------------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| ● Heavy Rain | X Strong Surface Winds | ■ NO WARNING |
| ○ Heavy Snow | H Heat Wave | ■ WATCH/BE UPDATED |
| ⚡ Thunderstorms & Lightning | C Cold wave | ■ ALERT (BE PREPARED) |
| ■ Hailstorm | F Fog | ■ WARNING (TAKE ACTION) |



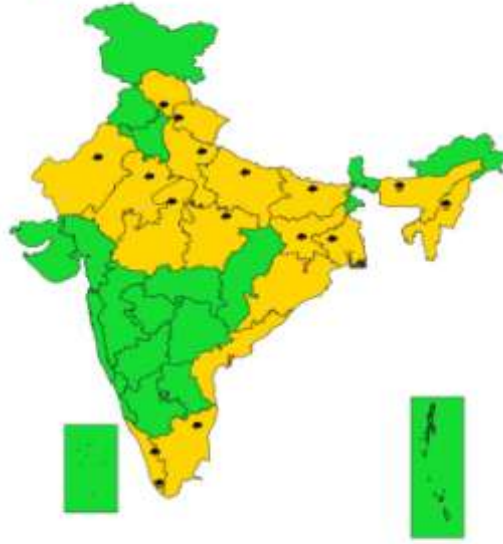
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(17-5-2023)**



- | | | |
|-----------------------------|------------------------|--------------------------|
| 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) |



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
(18-5-2023)**



- | | | |
|-----------------------------|------------------------|--------------------------|
| 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 45-55 kmph gusting to 65 kmph
	Squally wind 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 80-100 kmph gusting to 110 kmph
	Gale wind with wind speed 100-120 kmph gusting to 135 kmph
	Gale wind with wind speed 120-140 kmph gusting to 155 kmph
	Gale wind with wind speed 140-160 kmph gusting to 180 kmph
	Gale wind with wind speed 160-180 kmph gusting to 200 kmph
	Gale wind with wind speed 180-200 kmph gusting to 220 kmph
	Gale wind with wind speed 200-220 kmph gusting to 240 kmph

FISHERMEN ARE ADVISED NOT TO VENTURE INTO THE MARKED AREAS