



**Government of India  
Ministry of Earth Sciences  
India Meteorological Department**

**Press Release  
Date: 14<sup>th</sup> May, 2023  
Time of Issue: 1415 hours IST**

**Subject: (i) Heavy to very heavy rainfall over Northeastern states in association with the Extremely Severe Cyclonic storm “Mocha” (pronounced as “Mokha”) over Northeast Bay of Bengal on 14<sup>th</sup> May.**

**Weather observed during past 24 hours ending at 0830 hrs IST of today: (Refer Annexure I)**

**Significant Meteorological features:**

- ❖ Yesterday’s **Extremely Severe Cyclonic Storm** over Eastcentral Bay of Bengal continued to move north-northeastwards and lay centered at 1130 hours IST of today, the 14th May 2023 over Northeast adjoining Eastcentral Bay of Bengal near latitude 19.9°N and longitude 92.5°E, about 170 km south-southeast of Cox’s Bazar (Bangladesh) and 40 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) within a few hours as an Extremely Severe Cyclonic Storm with maximum sustained wind speed of 180-190 kmph gusting to 210 kmph. The landfall process has commenced. The heavy rainfall along with the gale wind is occurring over the north Myanmar-Bangladesh coasts and forward sector of the eye wall is entering into these coastal areas.***

**Extremely Severe Cyclonic Storm “Mocha” (pronounced as “Mokha”) is making landfall over Myanmar-Bangladesh coasts: Landfall process started:**

**Warnings:**

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

- ❖ **Tripura & Mizoram:** Rainfall at most places with 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.
- ❖ **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 14<sup>th</sup> May. It would decrease rapidly thereafter.

❖ **Northeast Bay of Bengal:**

Gale wind speed reaching 180-190 kmph gusting to 210 kmph would continue to prevail till afternoon and it is likely to decrease rapidly thereafter.

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

Squally wind speed reaching 50-60 kmph gusting to 70 kmph would prevail over southeast sector of the region till afternoon and 45-55 kmph gusting to 65 kmph thereafter till night.

**(iii) Sea condition**

❖ **Northeast Bay of Bengal:**

Phenomenal sea condition is prevailing and would continue till 14<sup>th</sup> May evening and improve gradually thereafter.

❖ **Eastcentral Bay of Bengal:**

High to Very High sea condition would continue to prevail till afternoon and it will improve gradually thereafter.

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

Rough to Very Rough condition is prevailing and would continue till night of 14<sup>th</sup> 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 14<sup>th</sup> 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 14<sup>th</sup> May.
- ❖ Regulation of shipping activity sea areas of northeast and adjoining eastcentral Bay of Bengal till 14<sup>th</sup> May.

**Forecast and warning over rest parts of the country during next 5 days:**

**Northeast India:**

- ❖ Light/moderate fairly widespread to widespread rainfall very likely over Northeast India during next 05 days.
- ❖ **Heavy rainfall** very likely at isolated places over Arunachal Pradesh on 14<sup>th</sup> to 16<sup>th</sup>; over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 14<sup>th</sup> to 18<sup>th</sup> May.
- ❖ Isolated **very heavy falls** also likely over Assam & Meghalaya on 15<sup>th</sup>, 16<sup>th</sup> & 18<sup>th</sup> and over Nagaland, Manipur, Mizoram & Tripura during 14<sup>th</sup> to 17<sup>th</sup> May, 2023.

**No significant weather likely over rest parts of the country.**

**Observed Maximum Temperatures and Heat Wave conditions:**

- ❖ Yesterday, Maximum Temperatures were in the range of 44-46°C over many parts of West Rajasthan, some parts of Madhya Pradesh and Vidarbha; in the range of 41-44°C over rest parts of northwest & central India and some parts of north Peninsular India.
- ❖ Maximum Temperatures were above normal by 2-4°C over parts of northwest, central & northeast India.
- ❖ Yesterday, **Heat wave conditions** prevailed in some pockets over West Rajasthan, isolated pockets of West Madhya Pradesh, Madhya Maharashtra and Vidarbha.

**Maximum Temperatures, its Forecast and Heat Wave Warnings (Graphics in Annexure II):**

- ❖ Maximum temperatures are very likely to rise by 2-4°C over many parts of east India during next 3 days and no significant change thereafter; to rise by 2-3°C over many parts of south India during next 5 days; fall by about 2°C over Northwest India during next 3 days and no significant change thereafter; fall by about 2-3°C over Gujarat during next 5 days and no significant change over rest parts of India.
- ❖ Heat wave in isolated pockets is very likely over West Madhya Pradesh and Vidarbha on today; Odisha during 15<sup>th</sup> to 17<sup>th</sup> and Gangetic West Bengal on 16<sup>th</sup> May.
- ❖ Due to humid air and high temperature, Hot and Discomfort weather is very likely over Konkan and Gujarat coast today.

For more details kindly refer:

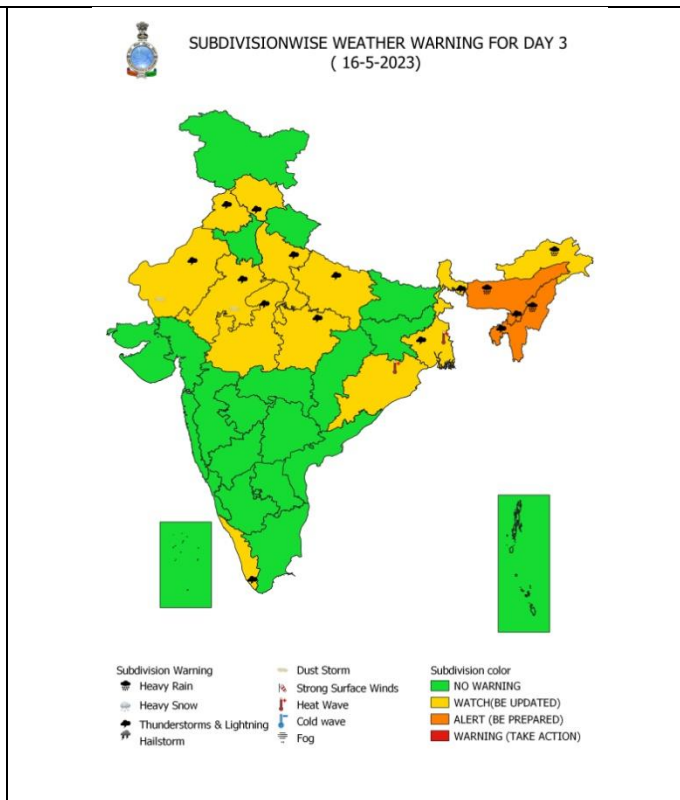
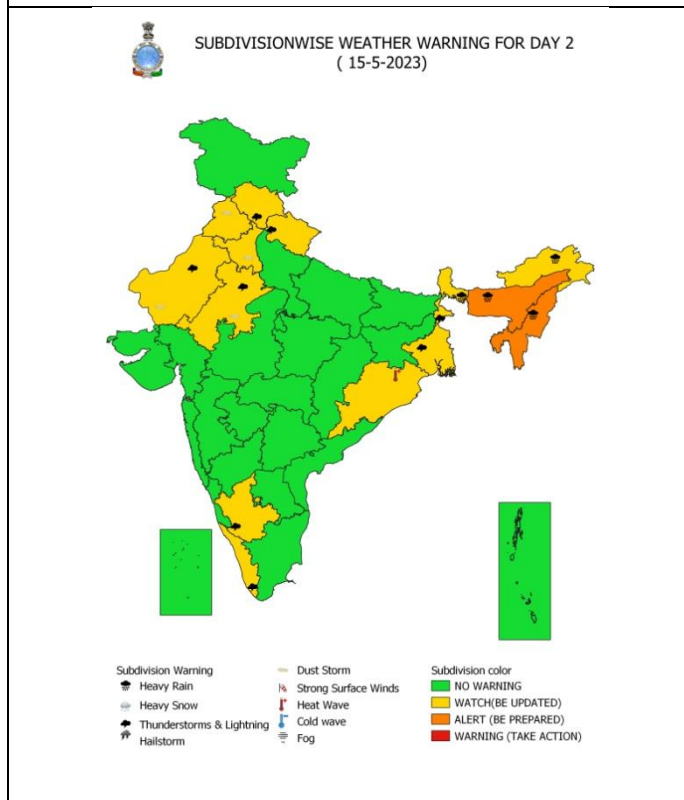
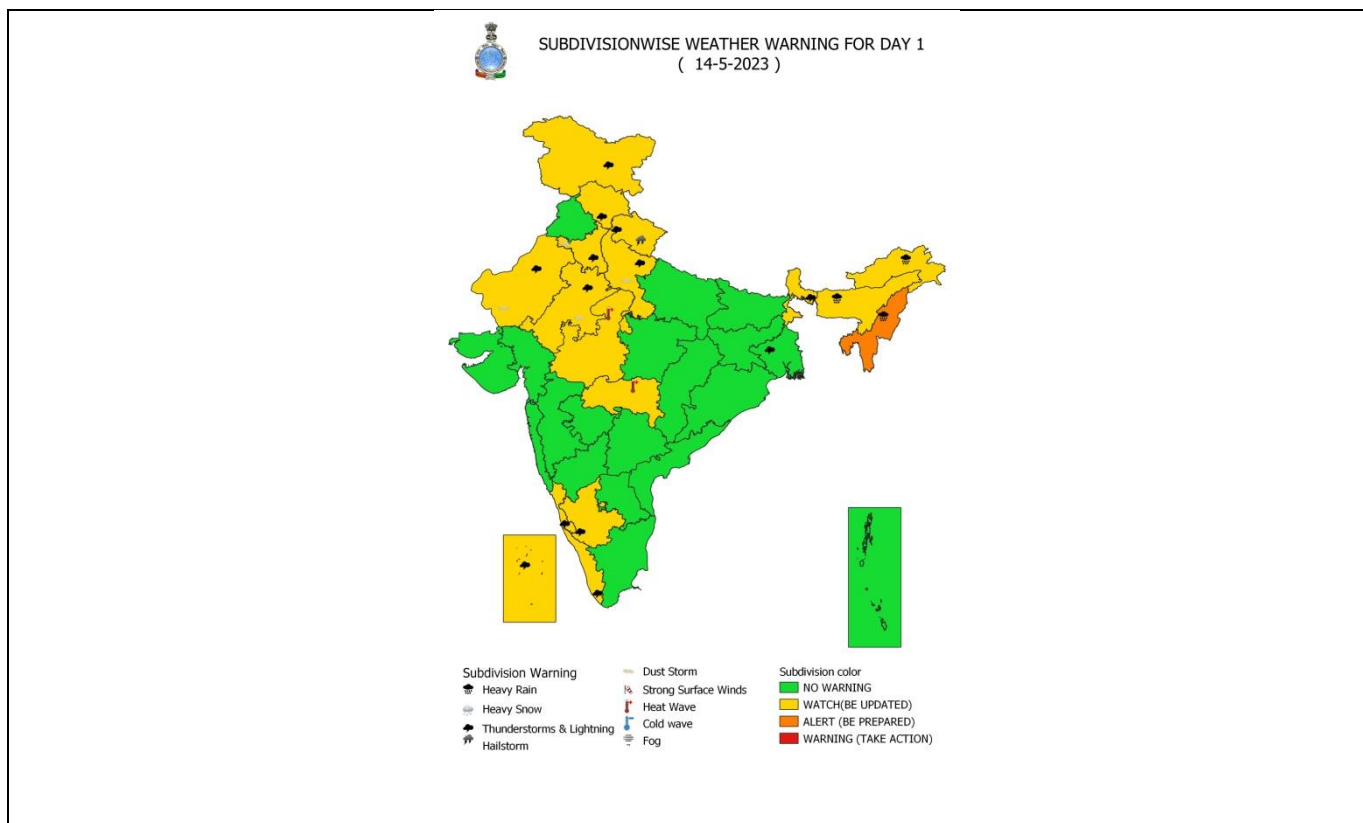
[https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

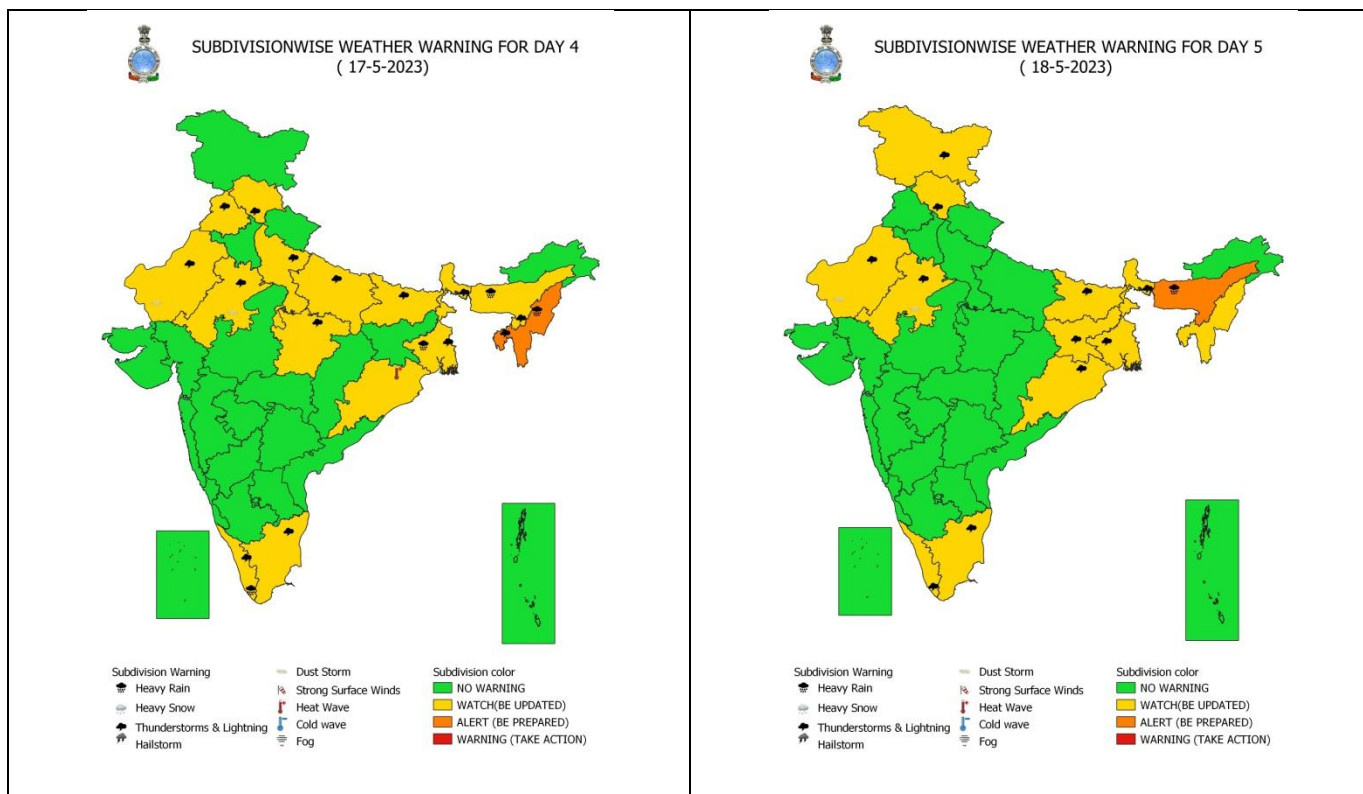
<https://mausam.imd.gov.in/responsive/districtWiseNowcast.php>

**Annexure I**

**Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today):**

- **Rainfall/thundershowers observed at many places** over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad; **at a few places** over Andaman & Nicobar Islands, Kerala & Mahe and **at isolated places** over Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, West Rajasthan, Madhya Maharashtra, West Bengal & Sikkim, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal.
- **Significant rainfall recorded** (in cm): **Nagaland, Manipur, Mizoram & Tripura:** Champai\_ Aws (dist Champhai) 2, Lawngtlai Agri (dist Lawngtlai) 2; **Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad:** Gulmarg-2





**IMPACT & ACTION SUGGESTED due to Heat Wave:**

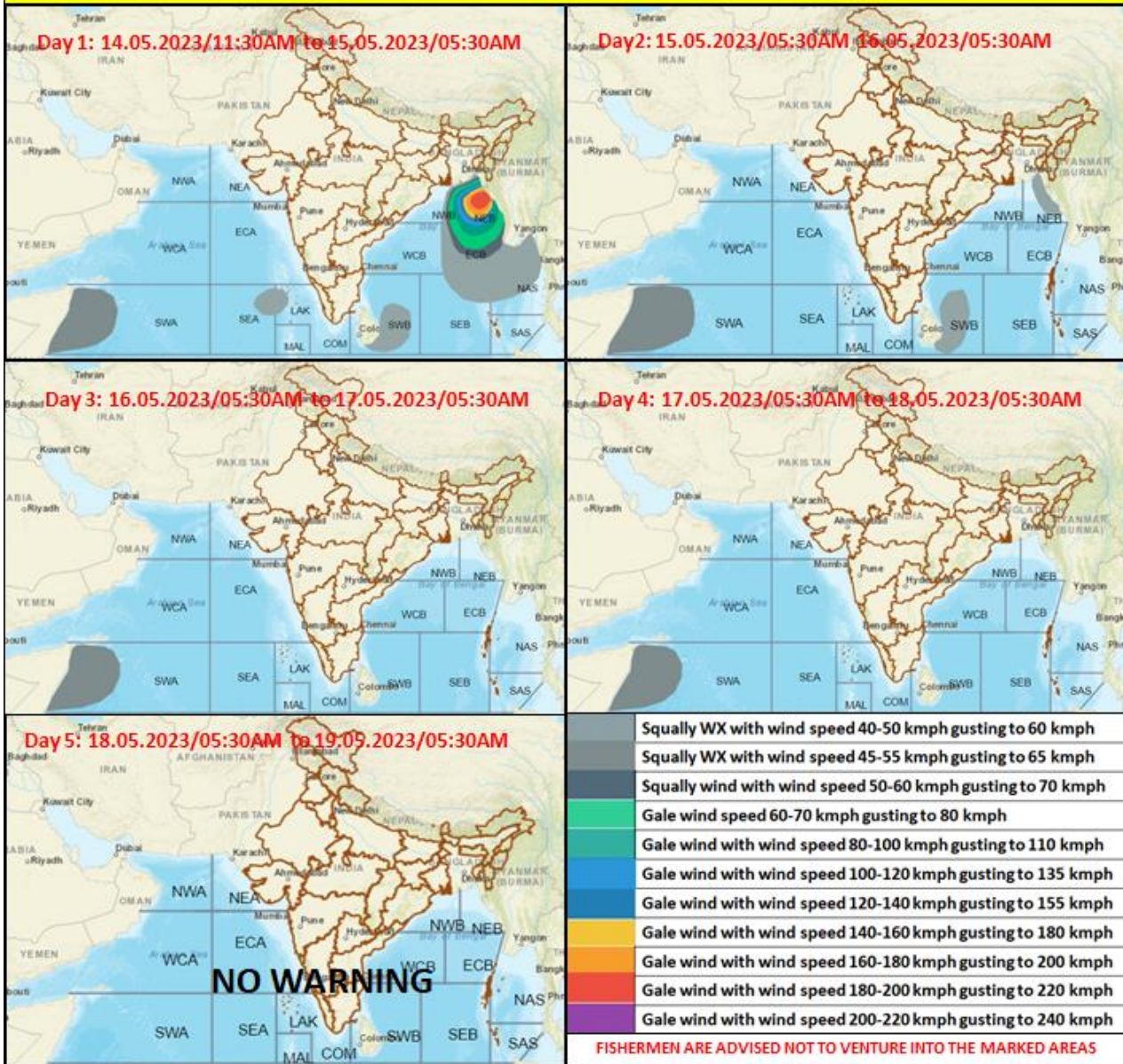
**❖ Yellow alert Areas:**

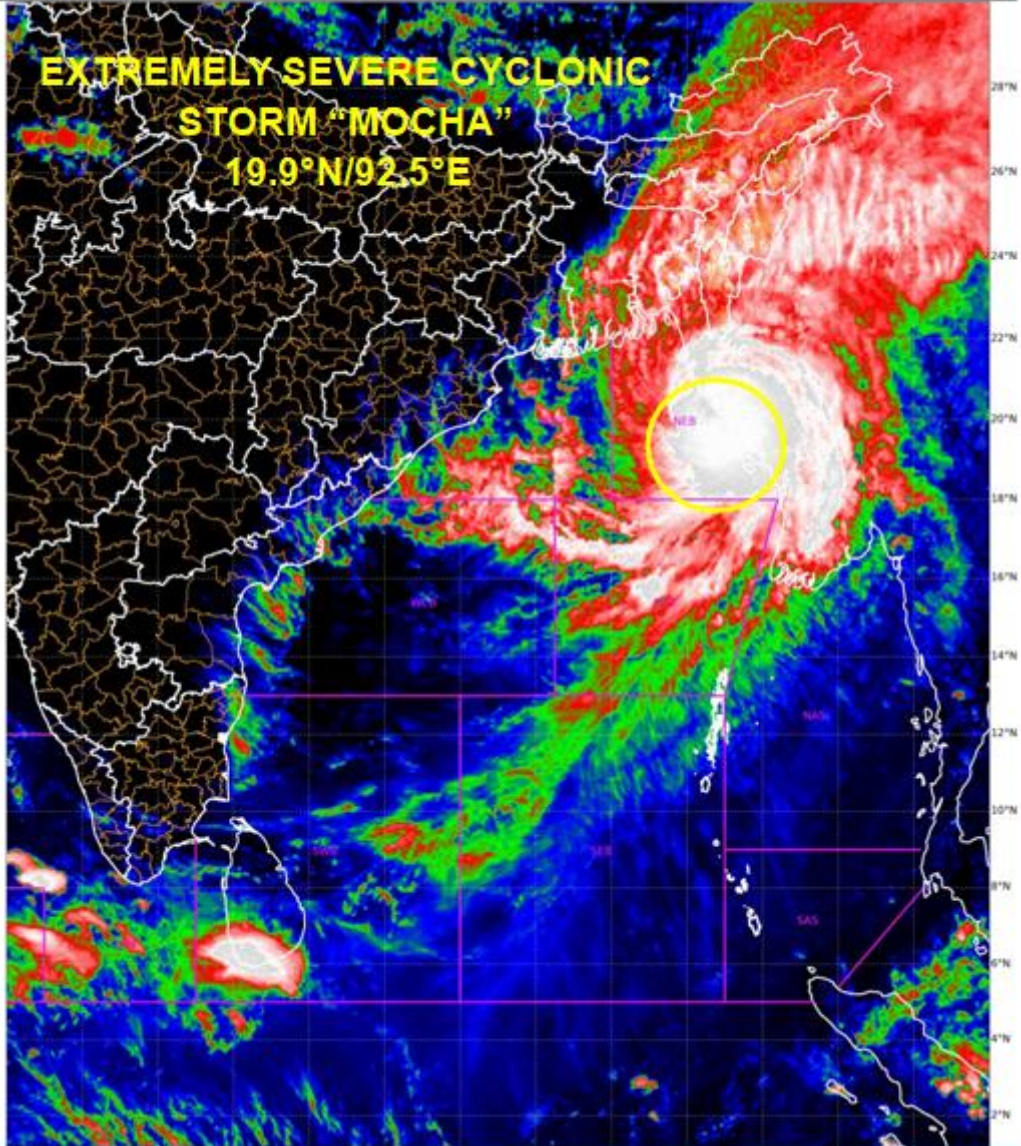
- (1) Moderate temperature, Heat is tolerable for general public but moderate health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- (2) Avoid heat exposure, Wear lightweight, light coloured, loose, cotton clothes, Cover your head, use a cloth, hat or umbrella.

**❖ Orange alert Areas:**

- (1) High temperature, Increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work. High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- (2) Drink sufficient water- even if not thirsty, Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

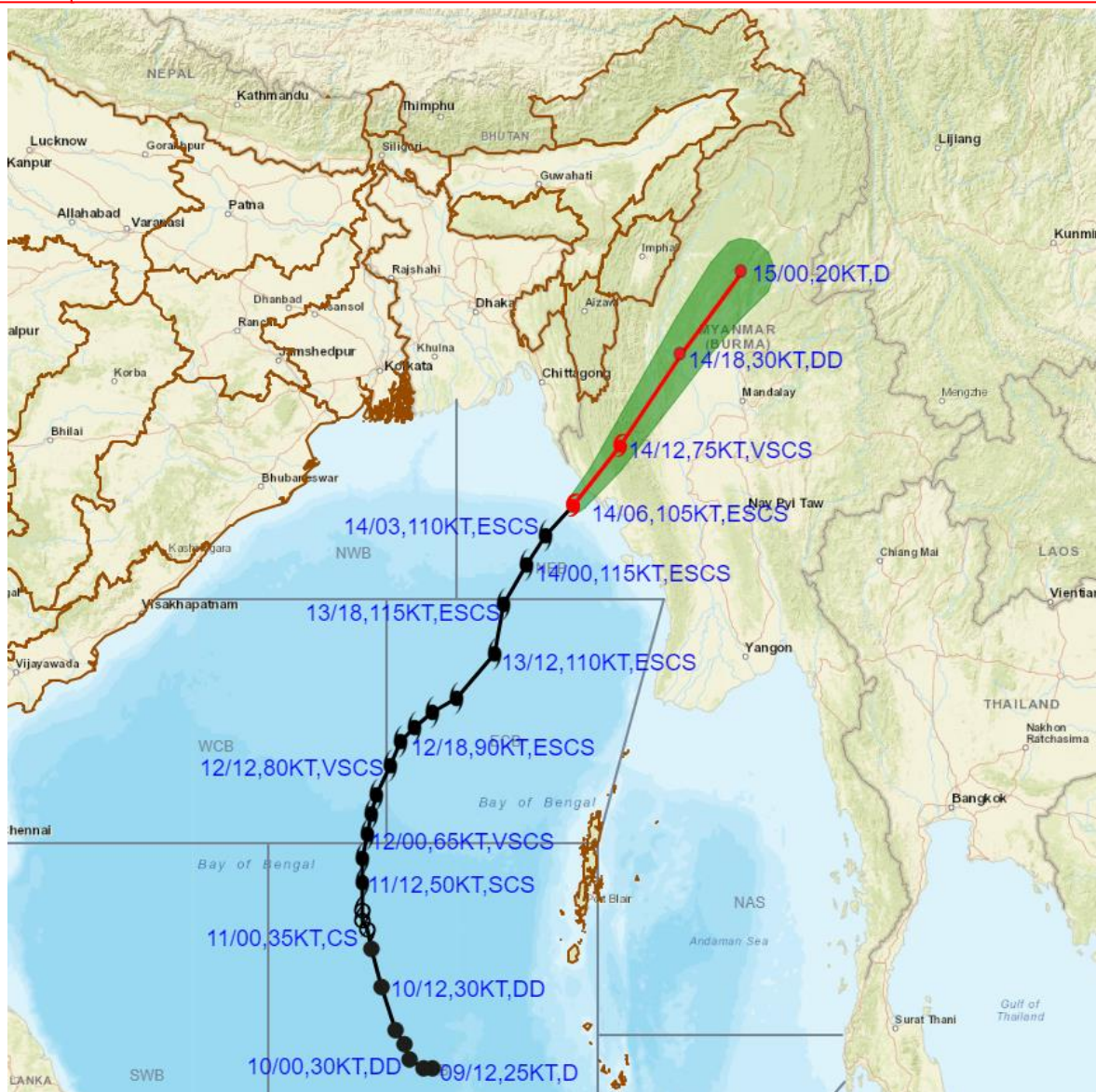
## Fishermen warning graphics







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

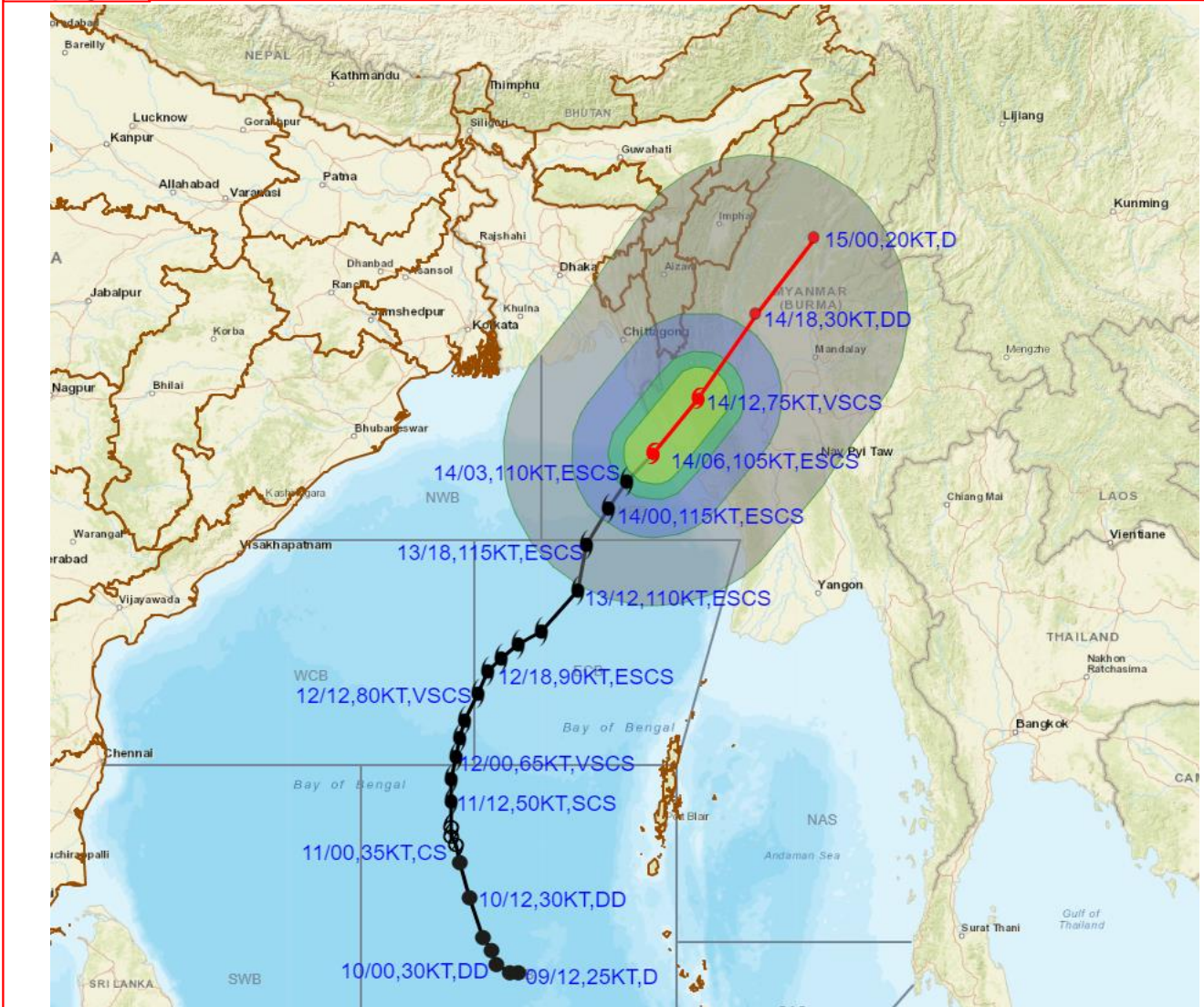
**Forecast distance (km) and direction of the centre from nearest 5 coastal stations**

Forecast Date and Time	Lead Period	Lat	Lon	Station 1	Station 2	Station 3	Station 4	Station 5
14.05.23/0600	0	19.9	92.5	SITTWE (48,WSW)	KYAUKTAW (107,S)	TEKNAF (110,S)	KYAUKPYU (123,WNW)	MANAUNG (174,NW)





**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF EXTREMELY SEVERE CYCLONIC STORM MOCHA OVER NORTHEAST BAY OF BENGAL BASED ON 0600 UTC (1130 IST) OF 14<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 (34-47 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  
 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














## Legends:

❖ **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.

### ❖ Region wise classification of meteorological Sub-Divisions:

- **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
- **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
- **East India:** Bihar, Jharkhand, Sub-Himalaya West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
- **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
- **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamilnadu, Puducherry & Karaikal and Lakshadweep.

SPATIAL DISTRIBUTION (% of Stations reporting)			
% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

Subdivision Warning		Subdivision color	
 Heavy Rain	 Dust Storm	 NO WARNING	
 Heavy Snow	 Strong Surface Winds	 WATCH(BE UPDATED)	
 Thunderstorms & Lightning	 Heat Wave	 ALERT (BE PREPARED)	
 Hailstorm	 Cold wave	 WARNING (TAKE ACTION)	
	 Fog		

Probabilistic Forecast	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75