



**India Meteorological Department
(Ministry of Earth Sciences)**

NATIONAL BULLETIN NO.21 (BOB/01/2024)

TIME OF ISSUE: 0830 HOURS IST

DATED: 27.05.2024

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Sub: Severe Cyclonic Storm “Remal” (pronounced as “Re-Mal”) weakened into a Cyclonic Storm over Coastal Bangladesh and adjoining Coastal West Bengal

The Severe Cyclonic Storm “Remal” (pronounced as “Re-Mal”) over Coastal Bangladesh and adjoining Coastal West Bengal moved nearly northwards, with a speed of 15 kmph during past 06 hours, **weakened into a Cyclonic Storm** and lay centered at 0530 hrs IST of today, the 27th May, 2024 over the same region, near **latitude 22.5°N** and **longitude 89.3°E** about 150 km northeast of Sagar Islands (West Bengal), 110 km northwest of Khepupara (Bangladesh), 70 km northeast of Canning (West Bengal) and 30km west-southwest of Mongla (Bangladesh).

The system is initially likely to move north-northeastwards, subsequently northeastwards and gradually weaken further.

Forecast track and intensity are given in the following table:

Date/Time (IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
27.05.24/0530	22.5/89.3	80-90 gusting to 100	Cyclonic Storm
27.05.24/1130	23.4/89.8	60-70 gusting to 80	Cyclonic Storm
27.05.24/1730	24.2/90.4	50-60 gusting to 70	Deep Depression
27.05.24/2330	25.0/91.1	40-50 gusting to 60	Depression
28.05.24/0530	25.7/91.9	35-45 gusting to 55	Depression
28.05.24/1730	26.3/92.8	20-30 gusting to 40	Well Marked Low Pressure Area

Warnings (Graphics Attached):

Heavy Rainfall Warning:

- (a) **West Bengal:** Light to moderate rainfall at most places with **heavy to very heavy rainfall** at a few places is likely over coastal districts of West Bengal and eastern districts of Gangetic West Bengal adjacent to Bangladesh on 27th May. The peak rainfall activity is likely till noon of 27th May.

Light to moderate rainfall at most places with **heavy to very heavy rainfall** at isolated places likely over eastern districts of Sub-Himalayan West Bengal on 27th and 28th May.

- (b) **Northeastern States:** Light to moderate rainfall at most places with **heavy to very heavy rainfall** at isolated places is likely over Assam, Meghalaya, Arunachal Pradesh, Nagaland, Mizoram, Manipur & Tripura on 27th & 28th May. Isolated **extremely heavy rainfall** (≥ 20 cm) is also likely over Assam, Meghalaya on 27th & 28th May, Arunachal Pradesh on 28th May and Mizoram & Tripura on 27th May.

Wind Warning:

(a) Bay of Bengal

- ❖ **Gale wind speed reaching 80-90 kmph gusting to 100 kmph** is prevailing over North Bay of Bengal. It is likely to decrease becoming 60-70 kmph gusting to 80 kmph by noon of 27th May and squally wind speed reaching 45-55 kmph gusting to 65 kmph by evening of 27th May.

- ❖ **Squally wind speed reaching 40-50 kmph gusting to 60 kmph** will continue to prevail over adjoining central Bay of Bengal till noon of 27th May.

(b) Along & off Bangladesh and West Bengal coasts

- ❖ **Gale wind speed reaching 80-90 kmph gusting to 100 kmph** will continue to prevail along & off Bangladesh and adjoining West Bengal coasts during next 3 hours. It is likely to decrease becoming 60-70 kmph gusting to 80 kmph by noon, squally wind 50-60 kmph gusting to 70 kmph by evening of 27th May and decrease gradually thereafter.

- ❖ **Gale wind speed reaching 60-70 kmph gusting to 80 kmph** will continue to prevail over Howrah, Hoogly & Kolkata, over East Medinipur during next 6 hours and decrease gradually thereafter.

(c) Along & off North Odisha coasts

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail during next 6 hours and decrease gradually thereafter.

(d) Northeastern States

Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely over Mizoram Tripura & south Manipur on 27th May and **40-50 kmph gusting to 60 kmph** is likely over South Assam and Meghalaya on 27th May.

Sea condition warning:

(a) North Bay of Bengal

High Sea condition is likely over North Bay of Bengal till noon and gradually improve becoming very rough to rough by evening of 27th May and gradually improve thereafter.

(b) Along & off Bangladesh and West Bengal coasts

High sea condition is likely along & off Bangladesh and West Bengal coasts till noon and gradually improve becoming very rough to rough by evening of 27th May and gradually improve thereafter.

(c) Along & off North Odisha coast

Rough sea condition is likely along & off North Odisha coast during next 6 hours and improve thereafter.

(d) Central Bay of Bengal

Rough sea condition is likely to prevail over central Bay of Bengal during next 6 hours and improve thereafter.

Damage Expected over South & North 24 Parganas, Howrah, Hoogly, Kolkata & adjoining East Medinipur districts of west Bengal:

- Major damage to thatched houses/ huts. Possibilities of damage to vulnerable structure.
- Unattached metal sheets may fly.
- Breaking of tree branches, uprooting of trees. Major damage to banana and papaya trees. Dead limbs may blow off from trees.
- Damage to power and communication lines due to breaking of branches and uprooting of trees.
- Damage to Kutcha and minor damage to Pucca roads due to heavy rain.
- Damage to paddy crops, horticultural crops and orchards.
- Inundation of low-lying areas and localized flooding
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic due to water logging and squally winds

Action Suggested for South & North 24 Parganas, Howrah, Hoogly, Kolkata & adjoining East Medinipur districts of West Bengal:

- Total suspension of fishing operations.
- Surface transport and shipping operations need to be regulated
- Onshore & Offshore operation need to be regulated as per guidelines
- Coastal hutment dwellers to move to safer places.
- People in affected areas to remain indoors.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

Fishermen Warning (graphics attached):

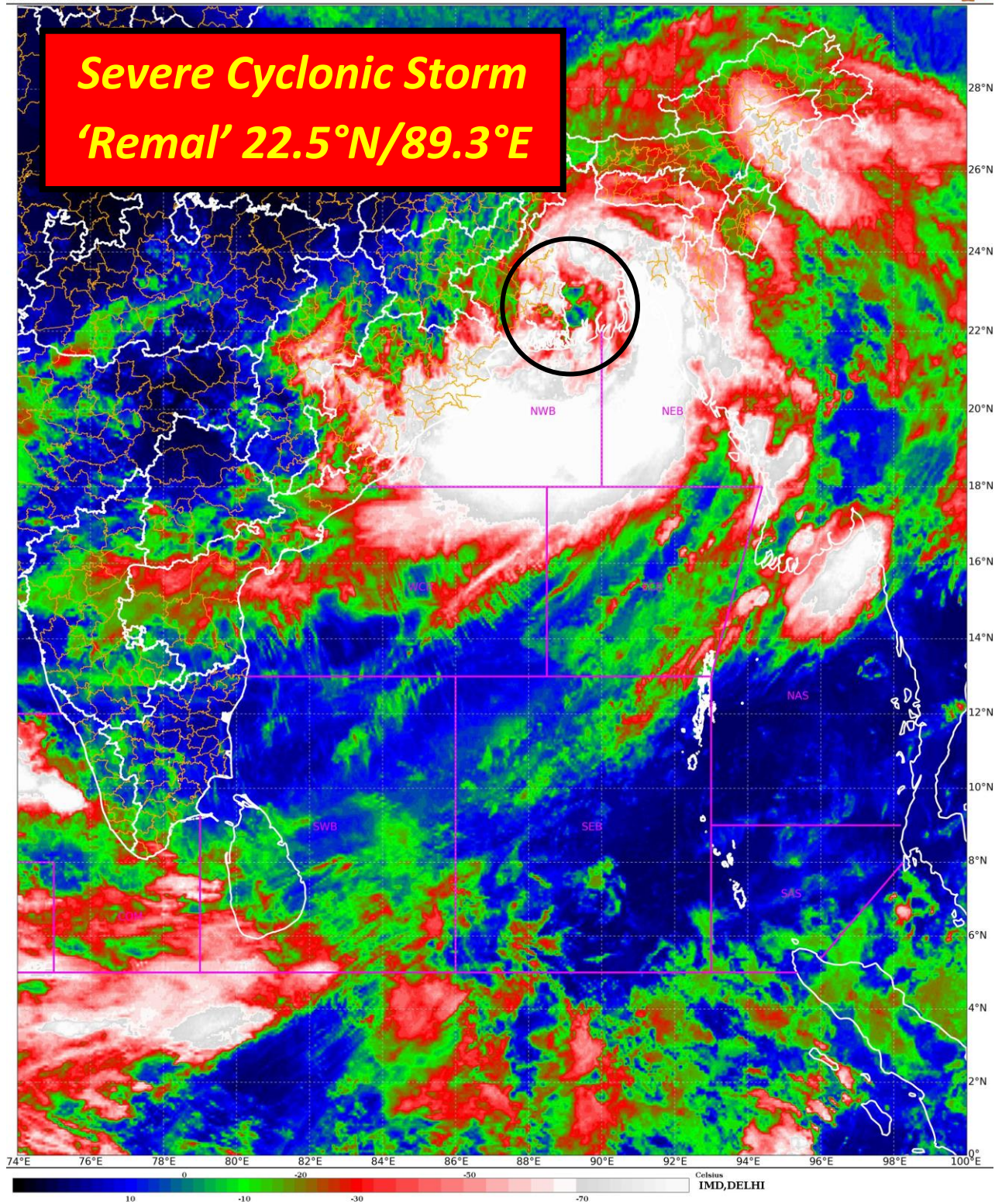
Fishermen are advised not to venture into North Bay of Bengal along and off West Bengal and Bangladesh coasts on 27th May.

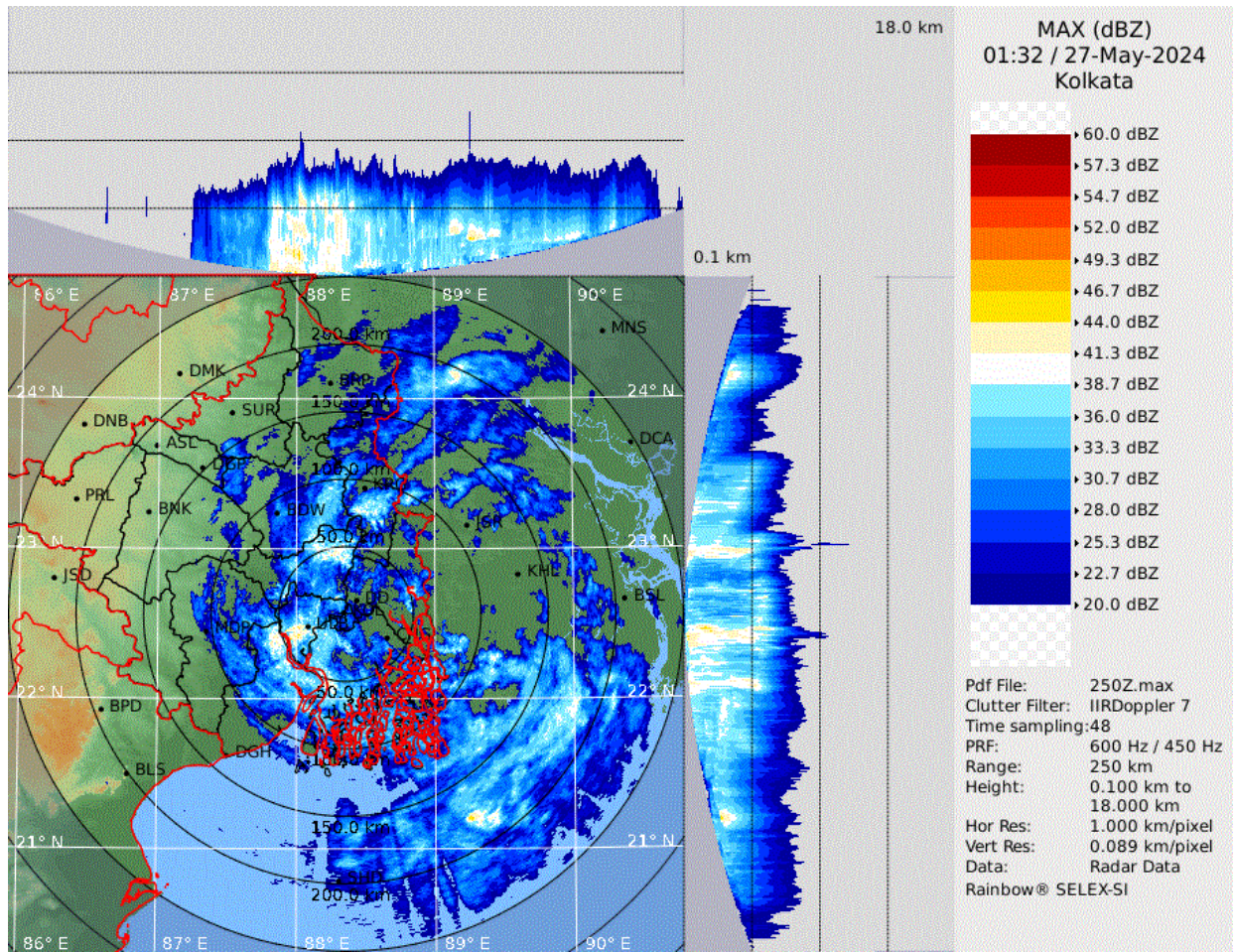
The system is under continuous surveillance and the next message will be issued at 1130 hours IST of today, the 27th May, 2024.

(Dr. Shashi Kant)

Scientist D, Cyclone Warning Division, New Delhi

*Copy to: ACWC Kolkata/ ACWC Chennai/ CWC Bhubaneswar/CWC Visakhapatnam/MO
Port Blair/RMC Guwahati*

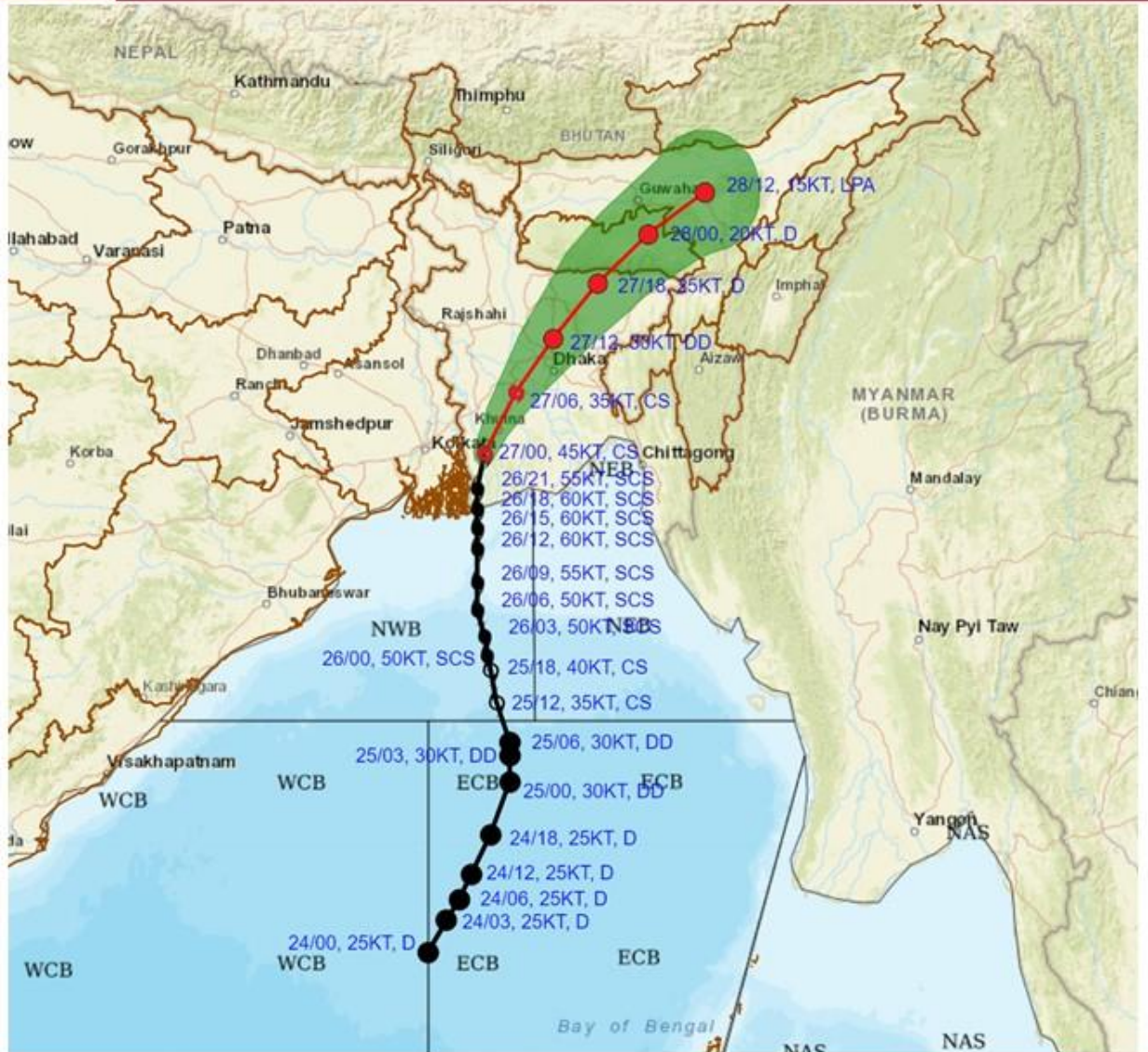




Kolkata Radar Image 0702 hrs IST of today, the 27th May



FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY IN ASSOCIATION WITH CYCLONIC STORM 'REMAL' OVER COASTAL BANGLADESH AND ADJOINING COASTAL WEST BENGAL BASED ON 0000 UTC (0530 IST) OF 27TH MAY 2024.



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

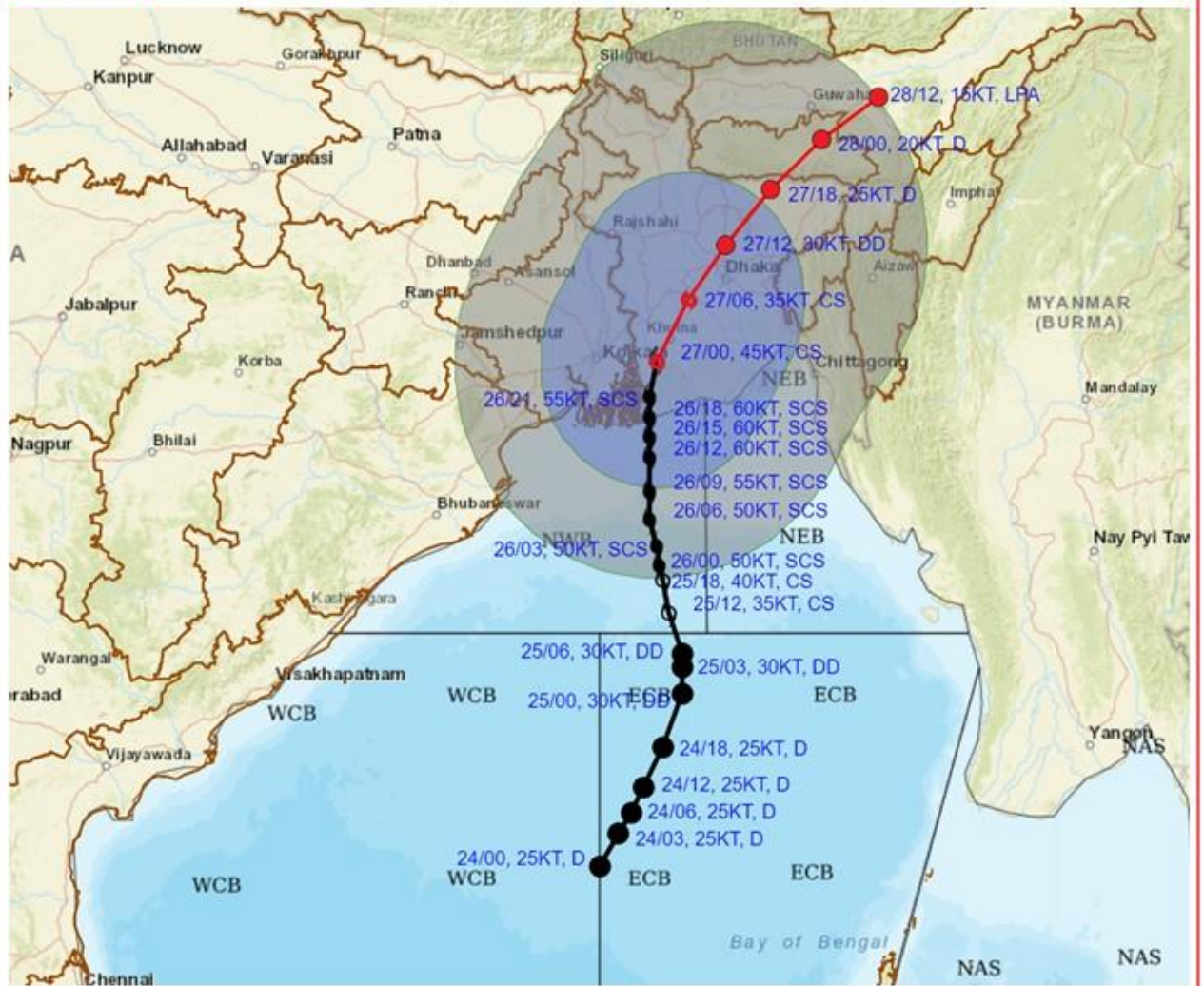
— FORECAST TRACK

▲ CONE OF UNCERTAINTY

Forecast	DISTANCE (KM) AND DIRECTION FROM STATIONS			
Date and Time (UTC)	Canning	Khepupara	Sagar Island	Mongla
27.05.24/0000	70, NE	110, NW	150, NE	30, WSW
27.05.24/0600	165, NE	160, NNW	250, NE	94, NNE



FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH CYCLONIC STORM 'REMAL' OVER COASTAL BANGLADESH AND ADJOINING COASTAL WEST BENGAL BASED ON 0000 UTC (0530 IST) OF 27TH MAY 2024.



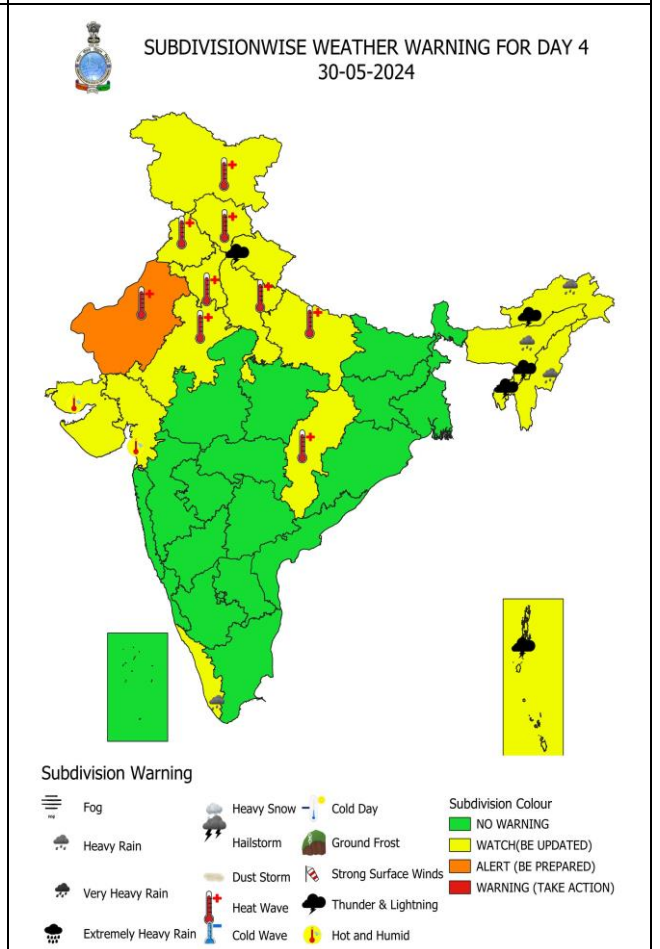
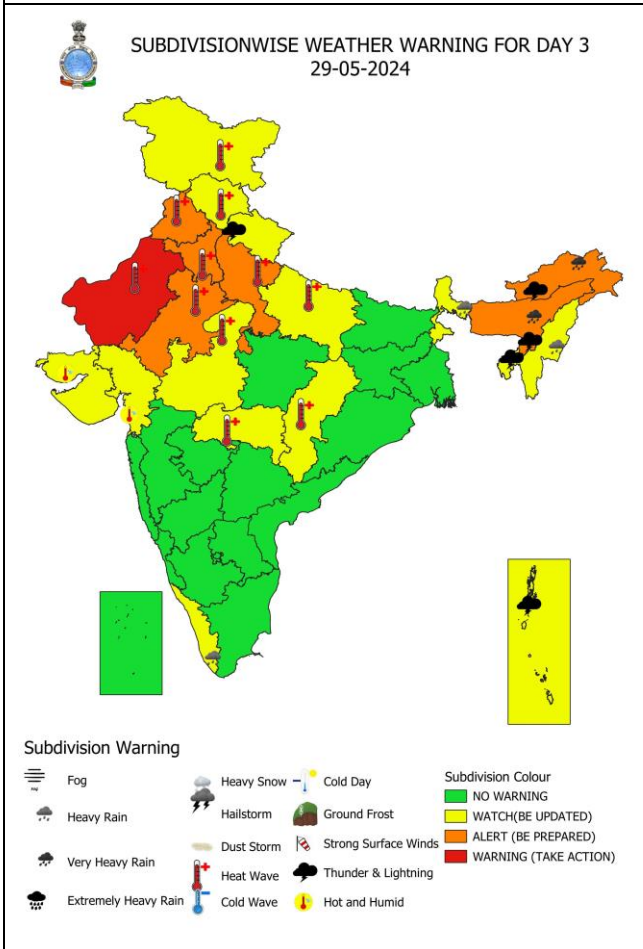
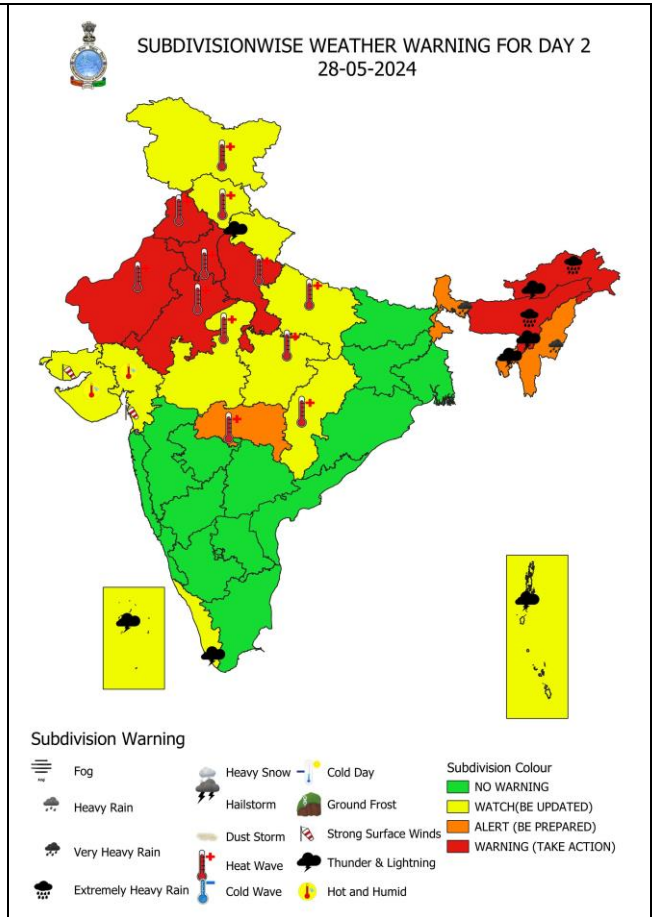
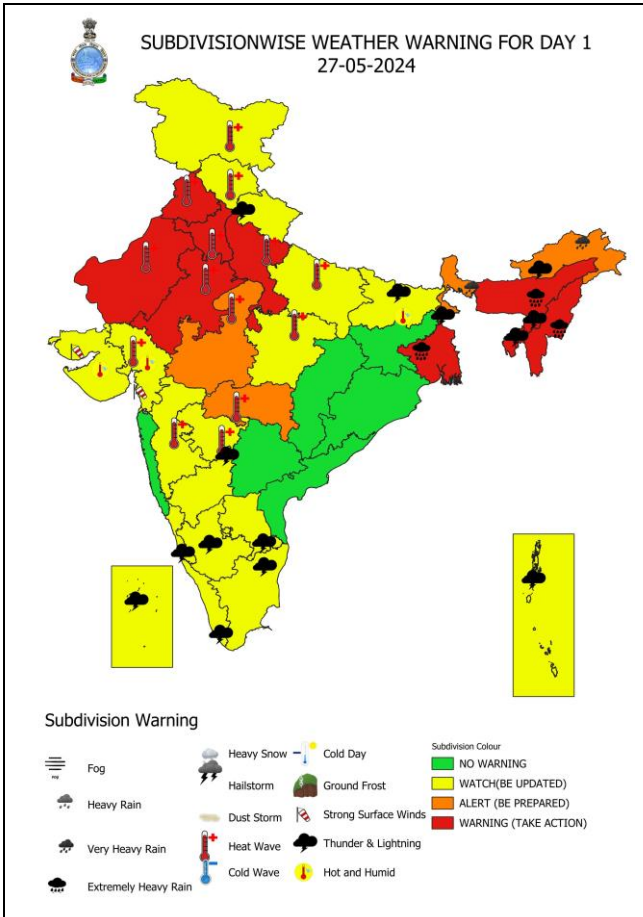
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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)

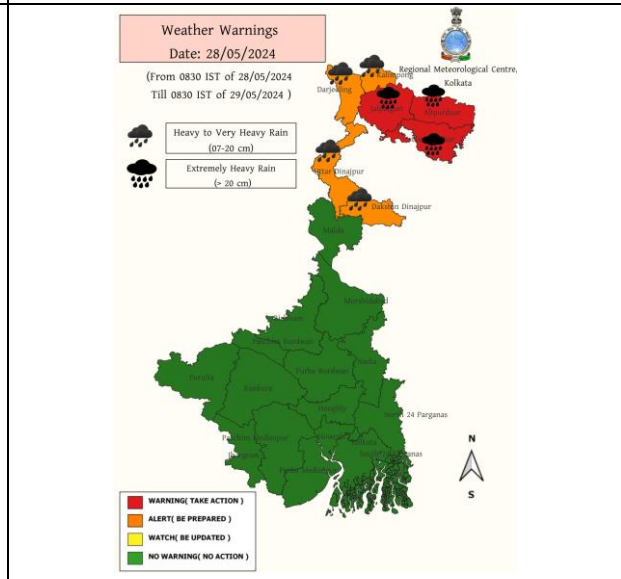
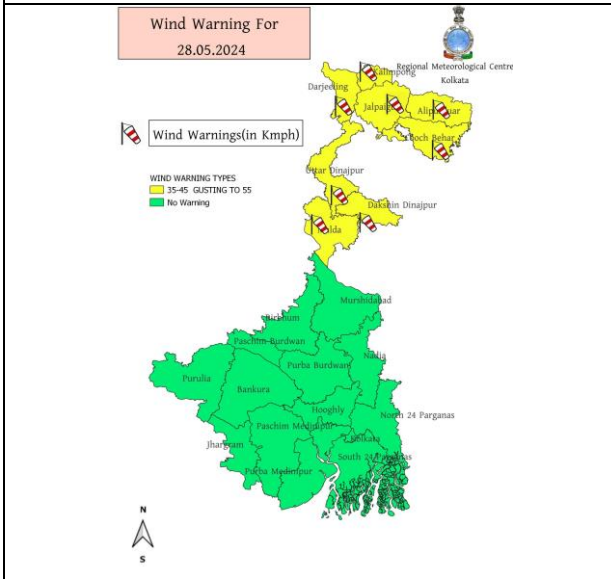
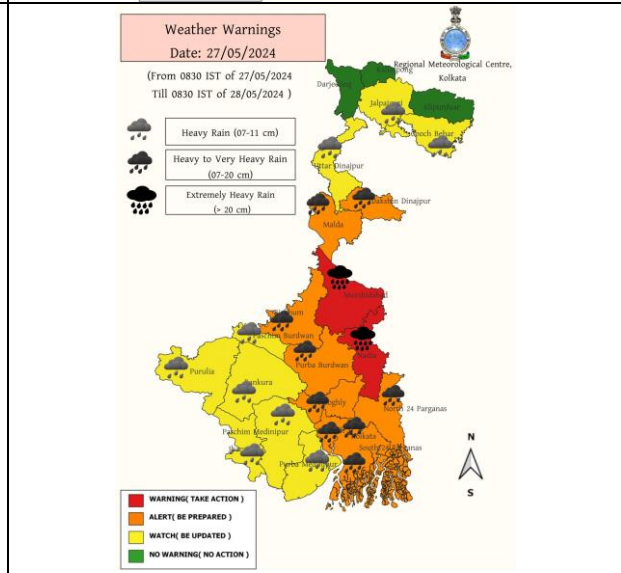
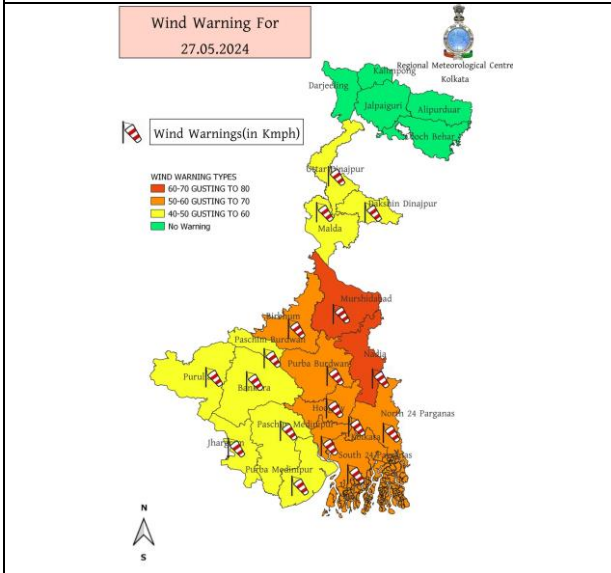
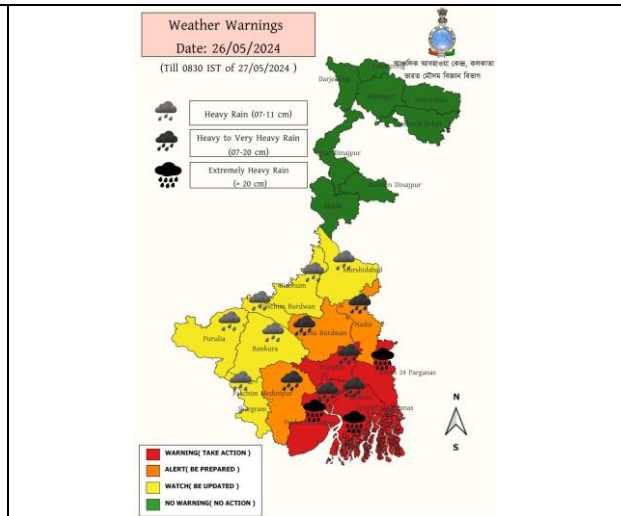
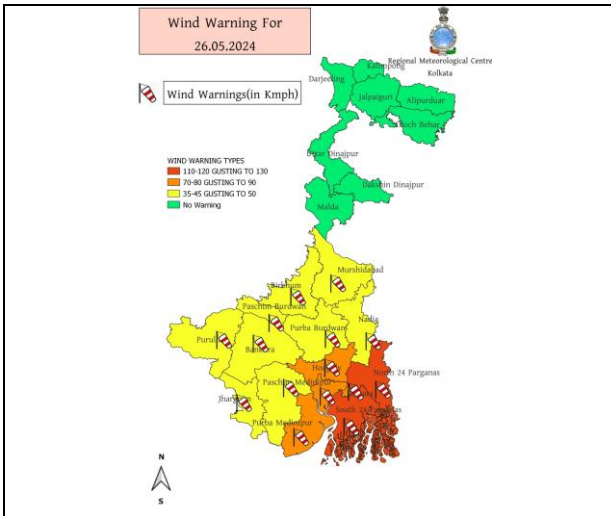
IMPACT OVER THE SEA

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

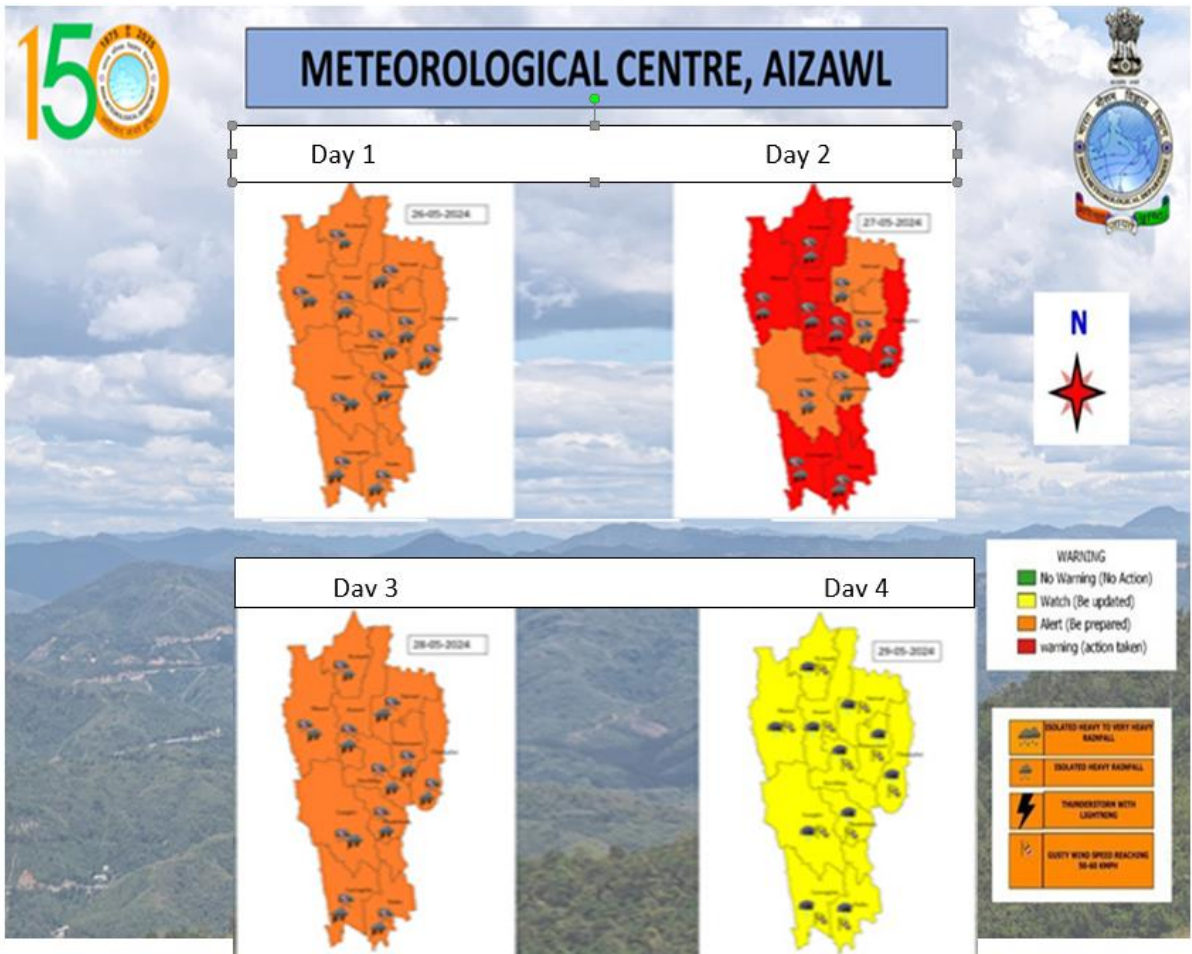
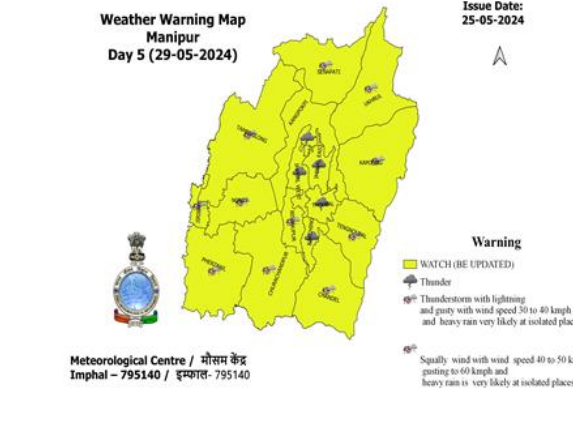
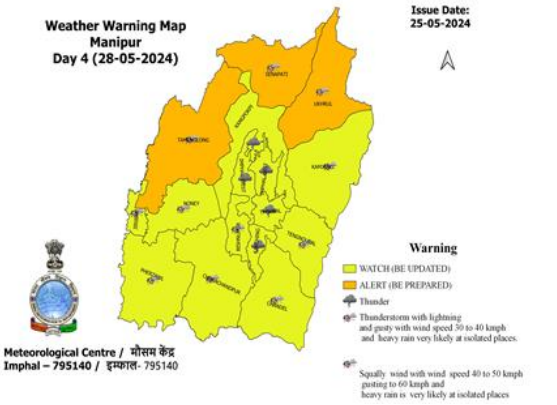
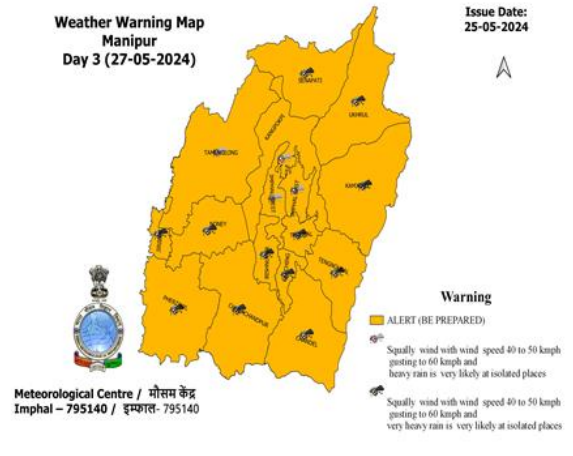
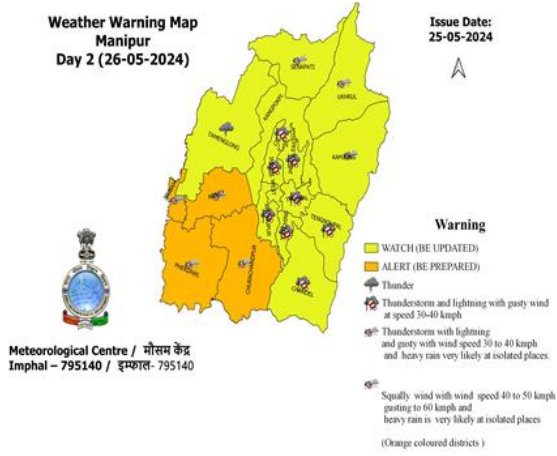
All India Warning Graphics



Warning Graphics of West Bengal



Warning Graphics of North-eastern States of India

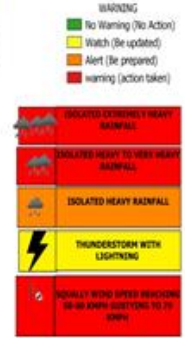




সতর্কতা
26-05-2024
(Valid from 0830 hrs IST of 26.05.2024 to 0830 hrs IST of 27.05.2024)



সতর্কতা
27-05-2024
(Valid from 0830 hrs IST of 27.05.2024 to 0830 hrs IST of 28.05.2024)



সতর্কতা
28-05-2024
(Valid from 0830 hrs IST of 28.05.2024 to 0830 hrs IST of 29.05.2024)

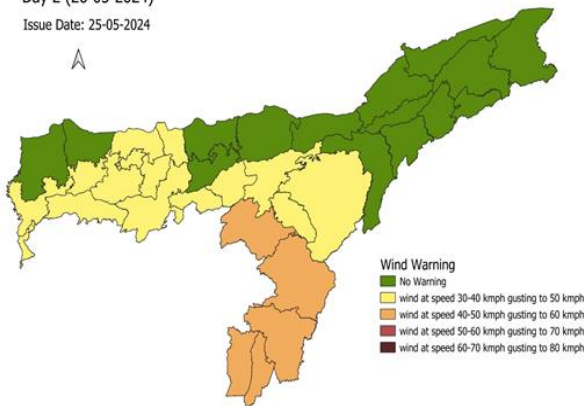


সতর্কতা
29-05-2024
(Valid from 0830 hrs IST of 29.05.2024 to 0830 hrs IST of 30.05.2024)



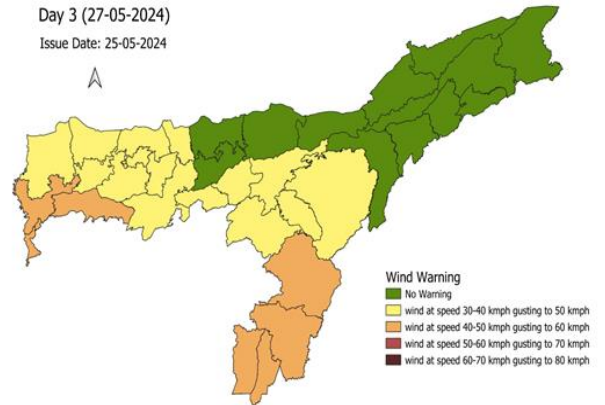
DISTRICT LEVEL WIND WARNING : ASSAM

Day 2 (26-05-2024)
Issue Date: 25-05-2024



DISTRICT LEVEL WIND WARNING : ASSAM

Day 3 (27-05-2024)
Issue Date: 25-05-2024





भारत सरकार/ Government of India
 पृथ्वी विज्ञान मंत्रालय/ Ministry of Earth Sciences
 भारत मौसम विज्ञान विभाग/ India Meteorological Department
 मौसम विज्ञान केन्द्र/ Meteorological Centre
 शिलांग, मेघालय - ७९३००५/ Shillong, Meghalaya-793005

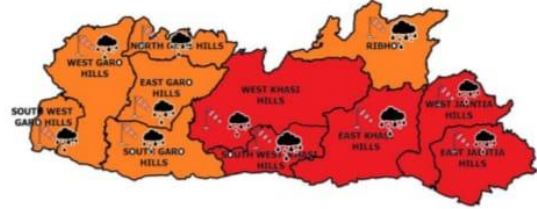


DISTRICT LEVEL WEATHER WARNING MAP FOR MEGHALAYA

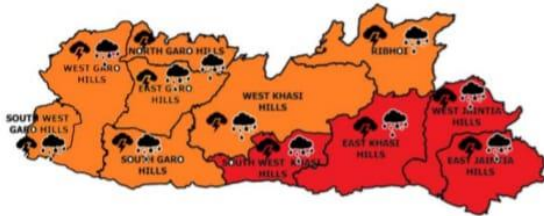
Weather Warning Map
 Meghalaya
 Day-1 (26-05-2024) Issue Date: 26-05-2024



Weather Warning Map
 Meghalaya
 Day-2 (27-05-2024) Issue Date: 26-05-2024



Weather Warning Map
 Meghalaya
 Day-3 (28-05-2024) Issue Date: 26-05-2024



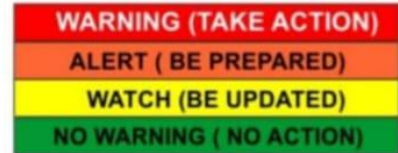
Weather Warning Map
 Meghalaya
 Day-4 (29-05-2024) Issue Date: 26-05-2024



Weather Warning Map
 Meghalaya
 Day-5 (30-05-2024) Issue Date: 26-05-2024



WARNING



INTENSITY	RAINFALL (mm)
Heavy Rain	64.5 to 115.5
Very Heavy Rain	115.6 to 204.4
Extremely Heavy rain	>204.4

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



Heavy Rainfall



Cyclone



Thunderstorm with Lightning



Squall/Hail



Strong Winds



Visibility



Lightning



Dense Fog

Fishermen Warning Graphics

Day 1: 27.05.2024/05:30 AM to 28.05.2024/05:30AM



Day 2: 28.05.2024/05:30AM to 29.05.2024/05:30AM



Day 3: 29.05.2024/05:30AM to 30.05.2024/05:30AM



Day 4: 30.05.2024/05:30AM to 31.05.2024/05:30AM



Day 5: 31.05.2024/05:30AM to 01.06.2024/05:30AM



	Squally WX with wind speed 35-45 kmph gusting to 55 kmph
	Squally WX with wind speed 45-55 kmph gusting to 65 kmph
	Squally wind with speed 45-55 kmph gusting to 65 kmph
	Squally wind with speed 50-60 kmph gusting to 70 kmph
	CS with Gale wind speed 60-90 kmph gusting to 110 kmph

Fishermen are advised not to venture into the marked areas.

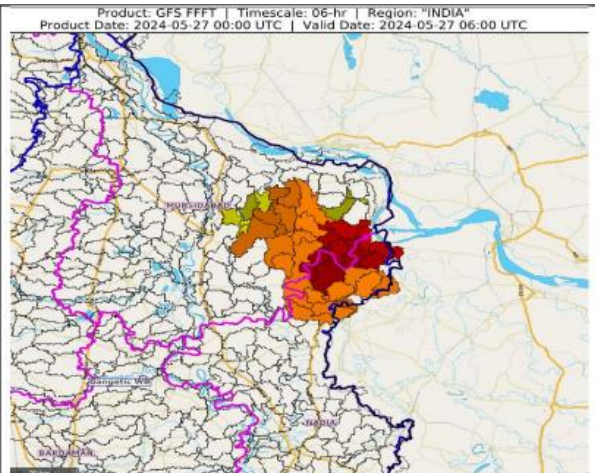
Flash Flood Guidance for West Bengal

Persistent Flash Flood Threat (PFFT) till 1130 IST of 27-05-2024 :

Low flash flood threat likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 6 hours.

Gangetic West Bengal - Mursidabad and Nadia districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 6 hours.

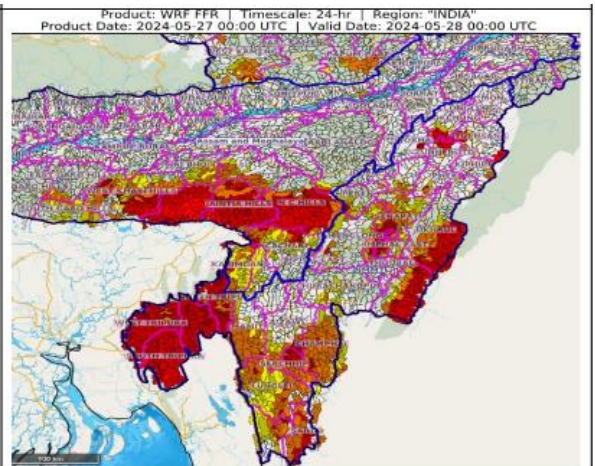








Flash Flood Guidance for Northeastern States

24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 28-05-2024 :

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of **Assam & Meghalaya** and NMMT Met Sub-divisions during next 24 hours.

Surface runoff/ Inundation may occur on low lying areas due to persistent rainfall under the influence of impending Cyclonic Storm "Remal" in next 24 hours.



Flash Flood Threat	Flash Flood Risk
 High Threat (Take Action)	 High Risk (Take Action)
 Moderate threat (Be Prepared)	 Moderate Risk (Be Prepared)
 Low Threat (Be Updated)	 Low Risk (Be Updated)