



## India Meteorological Department

(Ministry of Earth Sciences)

NATIONAL BULLETIN NO.: 07 (BOB/03/2023)

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### Sub: Deep Depression over Gangetic West Bengal

The Deep Depression over Gangetic West Bengal moved west-northwestwards with a speed of 20 kmph during past 6 hours and lay centred at 0830 hours IST of 02<sup>nd</sup> August, 2023 over the same region near latitude 23.2°N and longitude 87.1°E, close to Bankura (West Bengal), about 70 km east-southeast of Purulia (West Bengal) and 180 km east of Ranchi.

It is likely to move west-northwestwards across Jharkhand and weaken gradually into a Depression during next 12 hours and into a Well Marked Low Pressure Area during subsequent 24 hours.

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
02.08.23/0830	23.2/87.1	50-60 gusting to 70	Deep Depression
02.08.23/1130	23.3/86.6	50-60 gusting to 70	Deep Depression
02.08.23/1730	23.5/85.6	45-55 gusting to 65	Depression
02.08.23/2330	23.7/84.6	40-50 gusting to 60	Depression
03.08.23/0530	23.9/83.6	35-45 gusting to 55	Depression

### Warnings:

#### (i) Rainfall warning

**Odisha:** Light to moderate rainfall at most places with isolated heavy to very heavy rainfall over Odisha and isolated extremely heavy rainfall also likely over north Odisha on 2<sup>nd</sup> August. Heavy rainfall at isolated places is likely on 3<sup>rd</sup> August.

**Gangetic West Bengal:** Light to moderate rainfall at most places with isolated heavy rainfall over Gangetic West Bengal on 2<sup>nd</sup> August.

**Spatial rainfall distribution:** Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

**Rainfall amount (mm):** Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

**Jharkhand:** Light to moderate rainfall at most places with isolated heavy to very heavy rainfall on 2<sup>nd</sup> August.

**Bihar:** Light to moderate rainfall at most places with isolated heavy rainfall on 2<sup>nd</sup> August.

**Chhattisgarh:** Light to moderate rainfall at most places with isolated heavy to very heavy rainfall over Chhattisgarh on 2<sup>nd</sup> & 3<sup>rd</sup> August and extremely heavy rainfall over north Chhattisgarh on 2<sup>nd</sup> August. Heavy rainfall at isolated places is likely on 4<sup>th</sup> August.

**East Madhya Pradesh:** Light to moderate rainfall at most places with isolated heavy to very heavy rainfall during 2<sup>nd</sup> to 4<sup>th</sup> and extremely heavy rainfall on 2<sup>nd</sup> & 3<sup>rd</sup> August. Heavy rainfall at isolated places is likely on 5<sup>th</sup> August.

**West Madhya Pradesh:** Light to moderate rainfall at most places with isolated heavy to very heavy rainfall on 2<sup>nd</sup> & 3<sup>rd</sup> and extremely heavy rainfall on 3<sup>rd</sup> August. Heavy rainfall at isolated places is likely on 4<sup>th</sup> August.

**East Uttar Pradesh:** Light to moderate rainfall at most places with isolated heavy to very heavy rainfall on 2<sup>nd</sup> & 3<sup>rd</sup> August and heavy rainfall during 4<sup>th</sup> to 6<sup>th</sup> August.

#### **(ii) Wind warning**

Squally wind speed reaching 45-55 kmph gusting to 65 kmph is prevailing over North Bay of Bengal and adjoining Bangladesh-West Bengal coasts and it is likely to become 35-45 kmph gusting to 55 kmph from afternoon to night of today, the 2<sup>nd</sup> August. It is likely to decrease gradually thereafter.

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail along & off North Odisha coast till today afternoon and it is likely to become 35-45 kmph gusting to 55 kmph from afternoon of today, the 2<sup>nd</sup> August. It is likely to decrease gradually thereafter.

**(iii) Sea Condition:** Rough to very rough sea condition very is prevailing over North Bay of Bengal and adjoining Bangladesh-West Bengal-North Odisha coasts and it is likely to become rough to moderate sea conditions from afternoon of today, the 2<sup>nd</sup> August. It is likely to improve gradually thereafter.

#### **(iv) Fishermen Warning**

Fishermen are advised not to venture into North Bay of Bengal and adjoining Bangladesh-West Bengal-North Odisha coasts till afternoon of today, the 2<sup>nd</sup> August.

#### **(v) Damage Expected over Gangetic West Bengal**

- Minor damage to loose / unsecured structures.
- Some breaches in Kutcha road due to flooding.
- Minor damage to Banana trees and near coastal agriculture.
- Damage to standing agriculture & horticulture crops.
- Minor damage to Kutcha embankments.

***The next bulletin will be issued at 1430 hrs IST of 2<sup>nd</sup> August, 2023.***

**(Ananda Kumar Das)**  
**Scientist-F, RSMC, New Delhi**

*Copy to: CRS, Pune/ACWC Kolkata/Chennai/CWC Bhubaneswar/CWC Visakhapatnam/MO Port Blair*

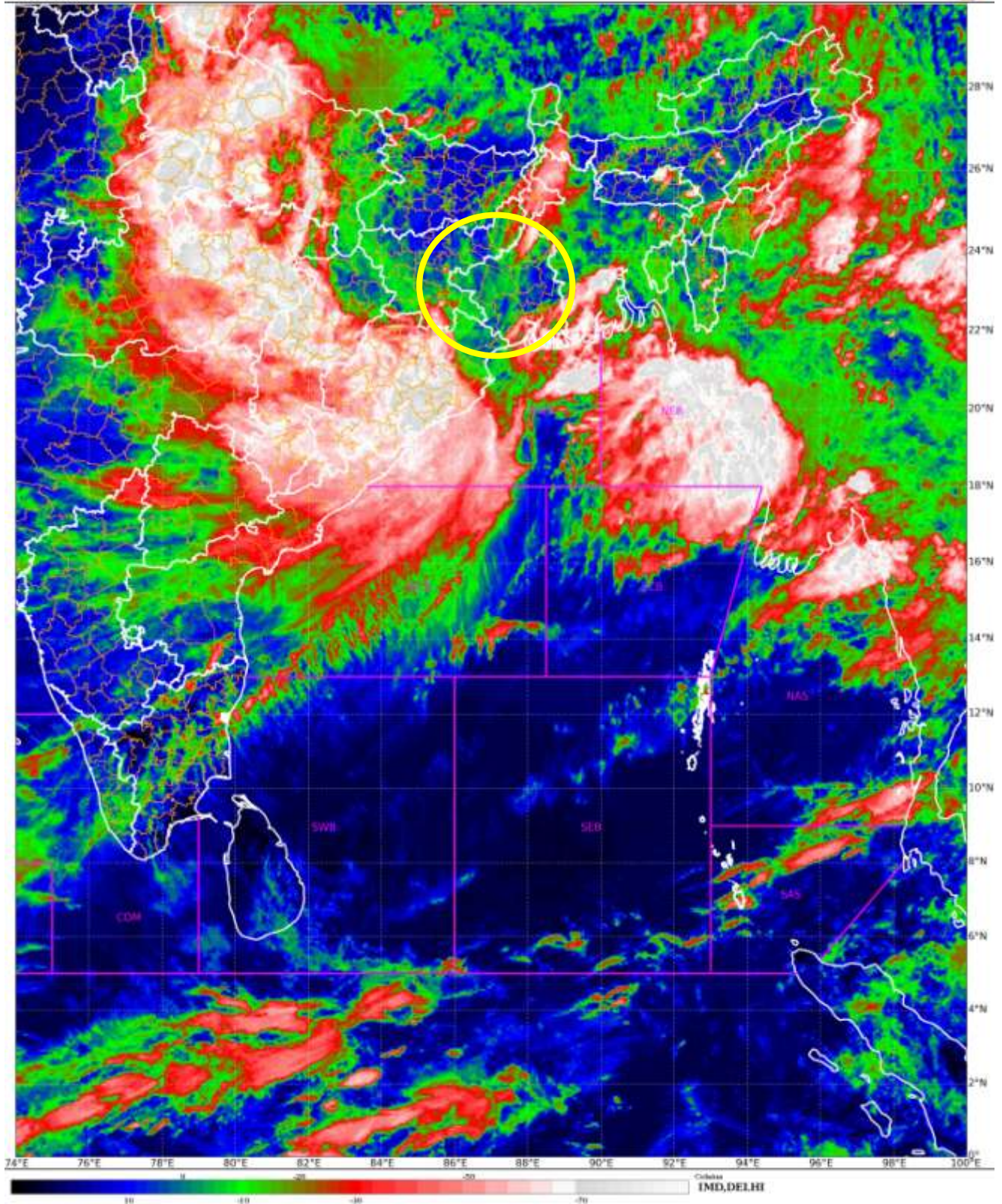
Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



## Deep Depression (23.2°N, 87.1°E)

SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
LIC Mercator

02-08-2023/(0530 to 0557) GMT  
02-08-2023/(1100 to 1127) IST

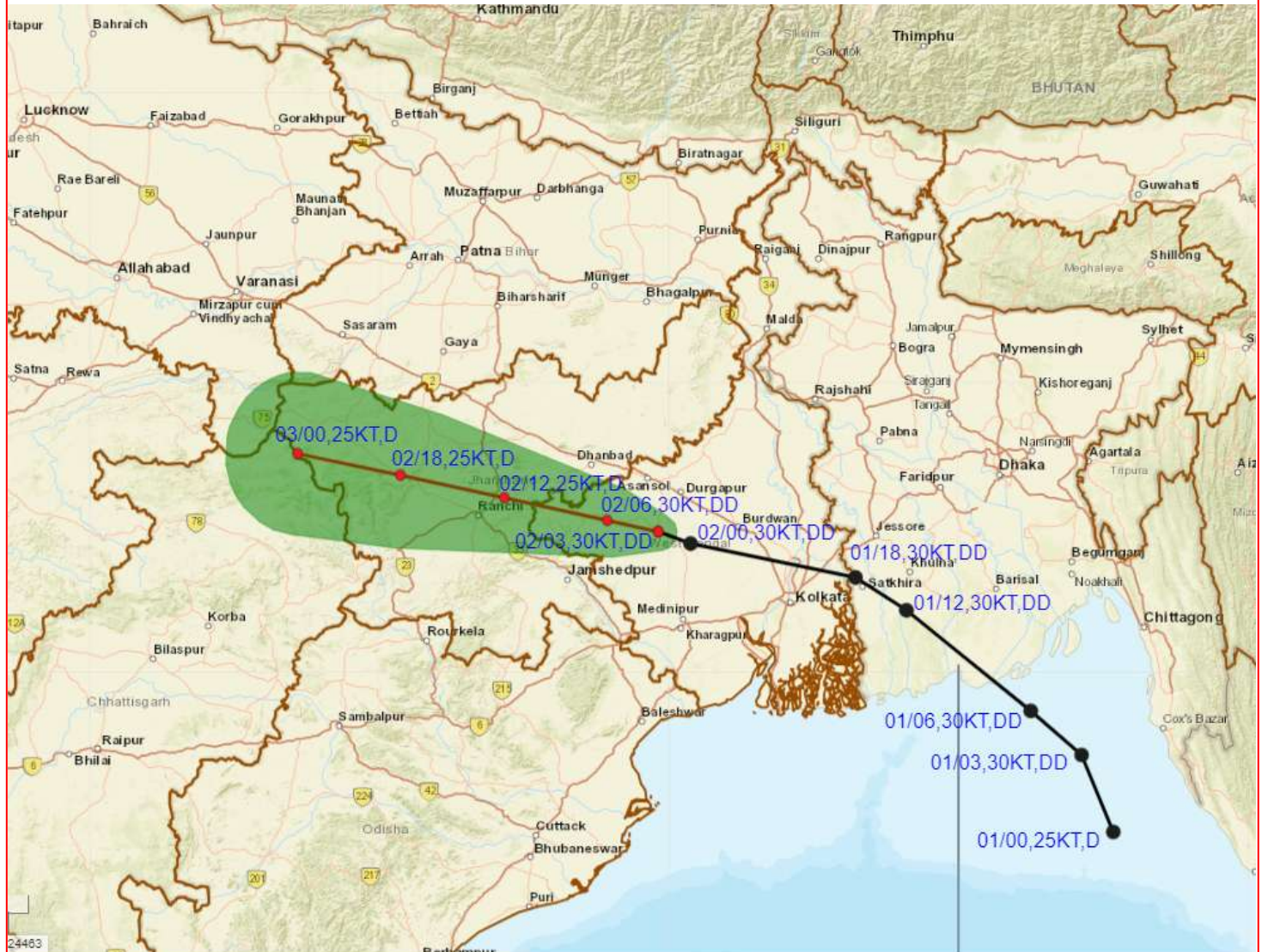


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Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.





# OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER GANGETIC WEST BENGAL BASED ON 0300 UTC (0830 IST) OF 02<sup>ND</sup> AUGUST 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

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.





# **OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER GANGETIC WEST BENGAL BASED ON 0300 UTC (0830 IST) OF 02<sup>ND</sup> AUGUST 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)

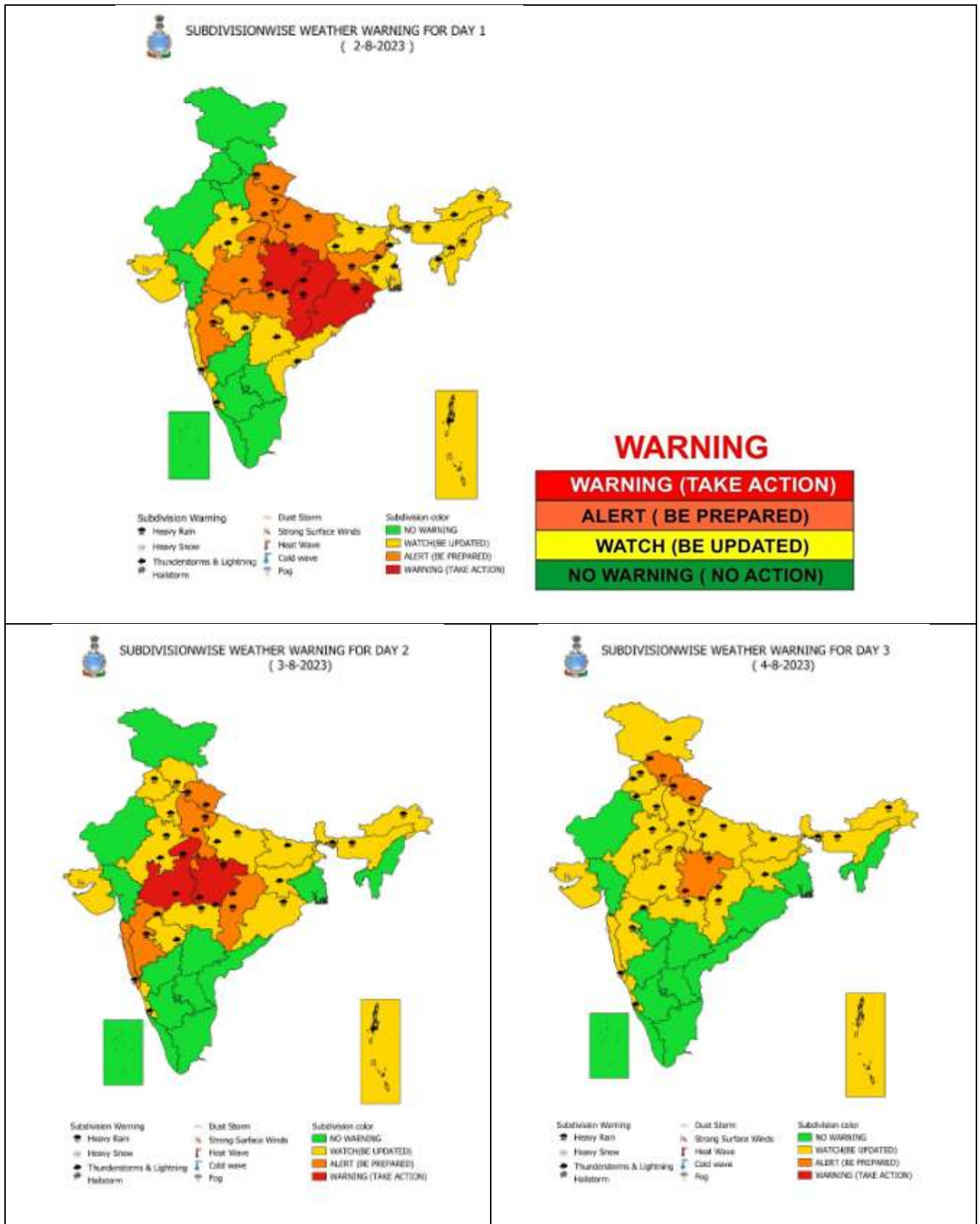
## **IMPACT OVER THE SEA**

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

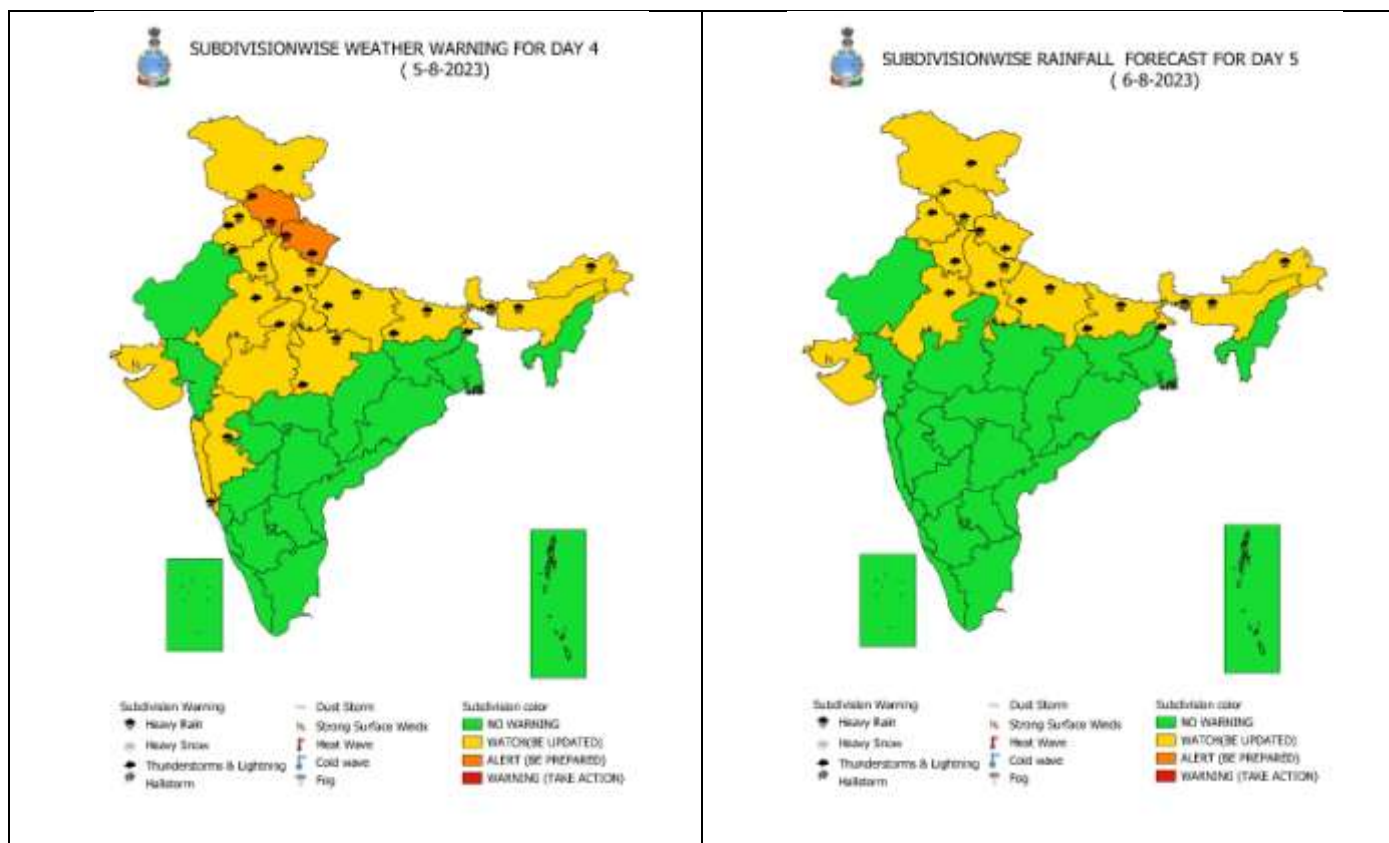
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Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

## Weather Warning Graphics



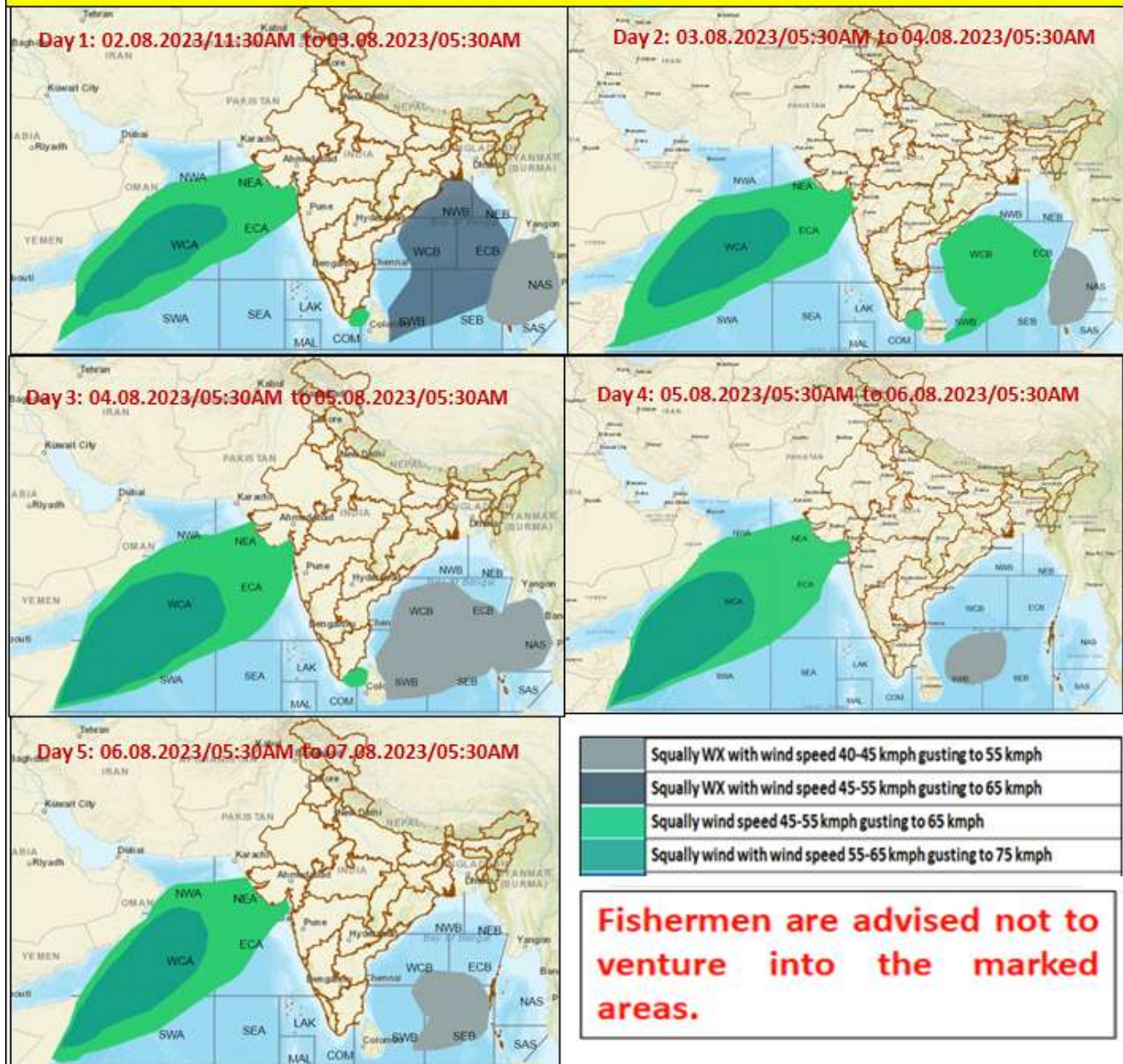
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**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



## Fishermen warning graphics



Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
 Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

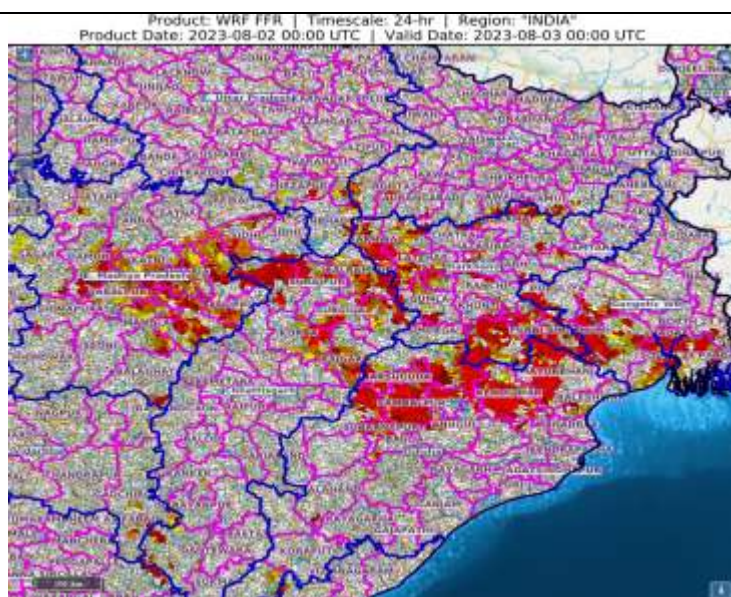


## Flash Flood Guidance

### **24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 03-08-2023 :**

**Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of North Chhattisgarh & adjoining South-East Uttar Pradesh, Jharkhand, East Madhya Pradesh, North Odisha & adjoining Gangetic West Bengal Met Sub-divisions during next 24 hours.**

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 24 hours.



Flash Flood Threat	Flash Flood Risk
<span style="display: inline-block; width: 20px; height: 10px; background-color: red; margin-right: 5px;"></span> <b>High Threat (Take Action)</b>	<span style="display: inline-block; width: 20px; height: 10px; background-color: red; margin-right: 5px;"></span> <b>High Risk (Take Action)</b>
<span style="display: inline-block; width: 20px; height: 10px; background-color: orange; margin-right: 5px;"></span> <b>Moderate threat (Be Prepared)</b>	<span style="display: inline-block; width: 20px; height: 10px; background-color: orange; margin-right: 5px;"></span> <b>Moderate Risk (Be Prepared)</b>
<span style="display: inline-block; width: 20px; height: 10px; background-color: yellow; margin-right: 5px;"></span> <b>Low Threat (Be Updated)</b>	<span style="display: inline-block; width: 20px; height: 10px; background-color: yellow; margin-right: 5px;"></span> <b>Low Risk (Be Updated)</b>

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.