



India Meteorological Department

(Ministry of Earth Sciences)

NATIONAL BULLETIN NO.: 08 (BOB/03/2023)

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DATED: 02.08.2023

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Sub: Deep Depression over Gangetic West Bengal and adjoining Jharkhand

The Deep Depression over Gangetic West Bengal moved west-northwestwards with a speed of 19 kmph during past 6 hours and lay centred at 1130 hours IST of 02nd August, 2023 over Gangetic West Bengal and adjoining Jharkhand near latitude 23.3°N and longitude 86.3°E, close to Purulia (West Bengal), about 50 km north-northeast of Jamshedpur (Jharkhand) and 100 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
02.08.23/1130	23.3/86.3	50-60 gusting to 70	Deep Depression
02.08.23/1730	23.4/85.4	45-55 gusting to 65	Depression
02.08.23/2330	23.6/84.4	40-50 gusting to 60	Depression
03.08.23/0530	23.8/83.4	35-45 gusting to 55	Depression
03.08.23/1130	24.0/82.4	30-40 gusting to 50	Well Marked Low Pressure Area

Realized Rainfall on 1st August, 2023:

24 hours accumulated heavy rainfall (≥ 7 cm) during 0830 hrs IST of 1st to 0830 hrs IST of 2nd August is placed at [Annexure-I](#)

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.

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 2nd August. Heavy rainfall at isolated places is likely on 3rd August.

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

Jharkhand: Light to moderate rainfall at most places with isolated heavy to very heavy rainfall on 2nd August.

Bihar: Light to moderate rainfall at most places with isolated heavy rainfall on 2nd August.

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

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

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

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

(v) Damage Expected over Jharkhand and adjoining areas

- 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 2030 hrs IST of 2nd August, 2023.

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

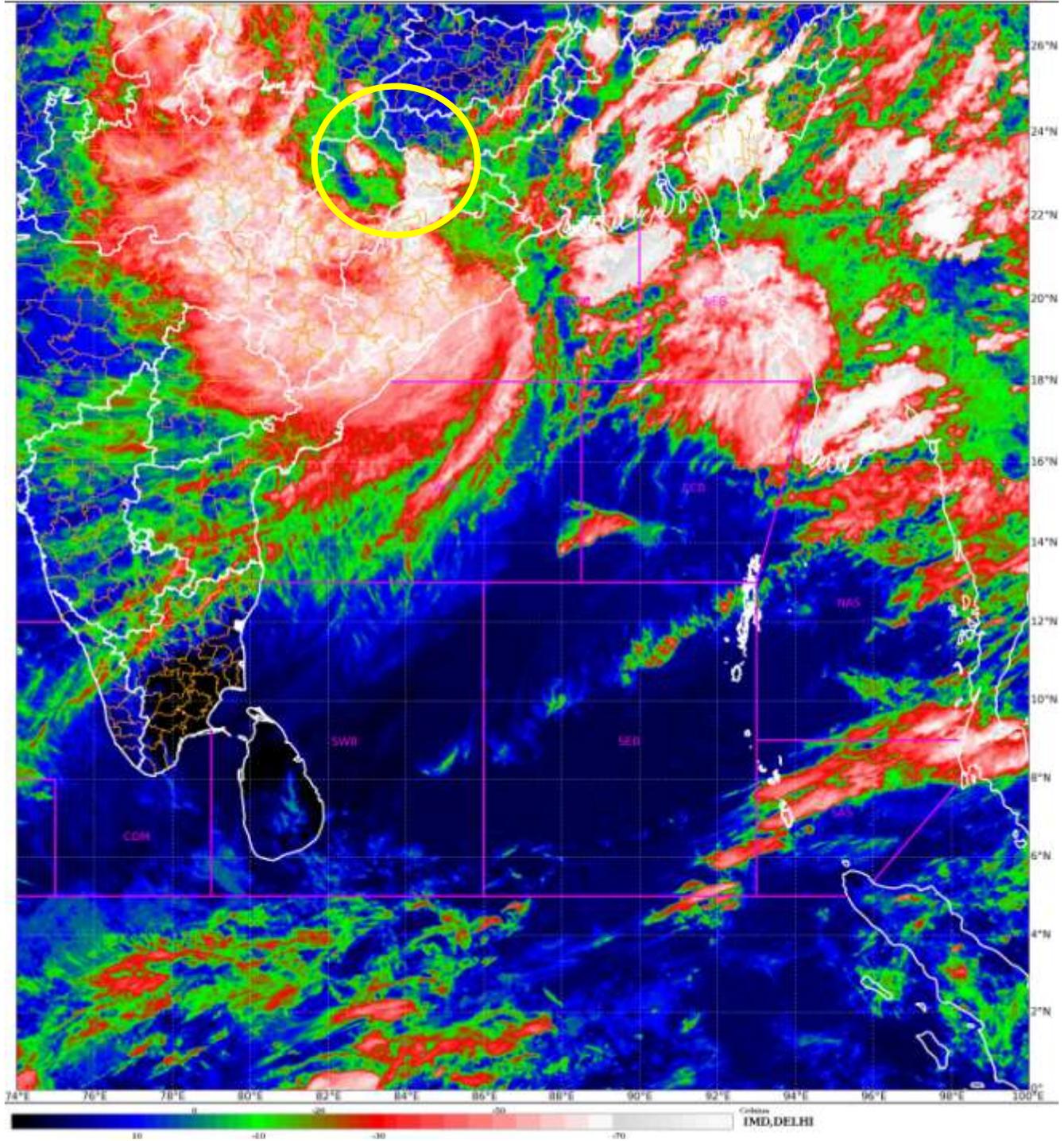
Copy to: CRS, Pune/ACWC Kolkata/Chennai/CWC Bhubaneswar/CWC Visakhapatnam/MO Port Blair

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 (23.3°N, 86.3°E)

SAT : INSAT-3DR IMG
IMG_TIR1_TEMP 10.8 um
LIC Mercator

02-08-2023/(0815 to 0842) GMT
02-08-2023/(1345 to 1412) IST



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 OF DEEP DEPRESSION OVER GANGETIC WEST BENGAL AND ADJOINING JHARKHAND BASED ON 0600 UTC (1130 IST) OF 02ND 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 AND ADJOINING JHARKHAND BASED ON 0600 UTC (1130 IST) OF 02ND 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
 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)

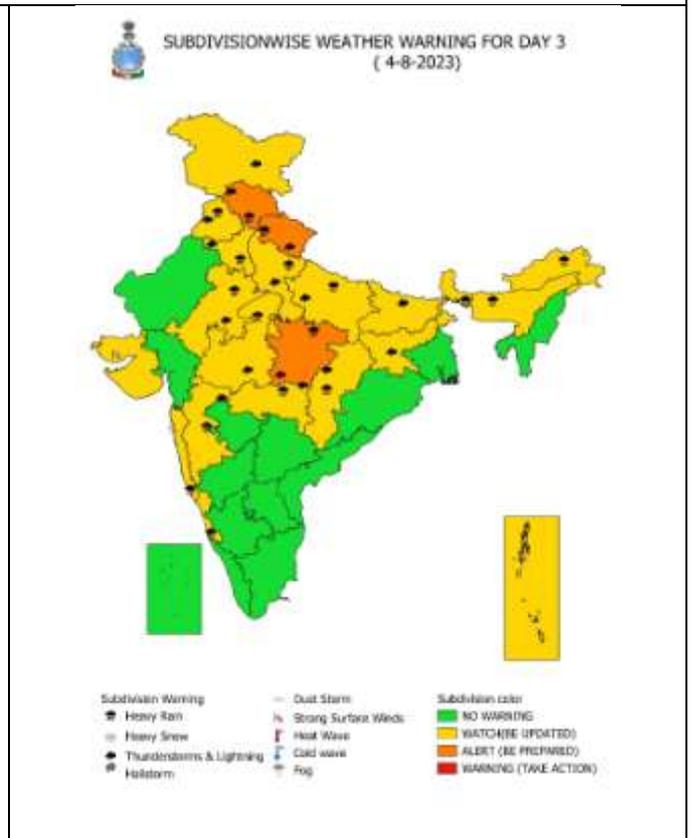
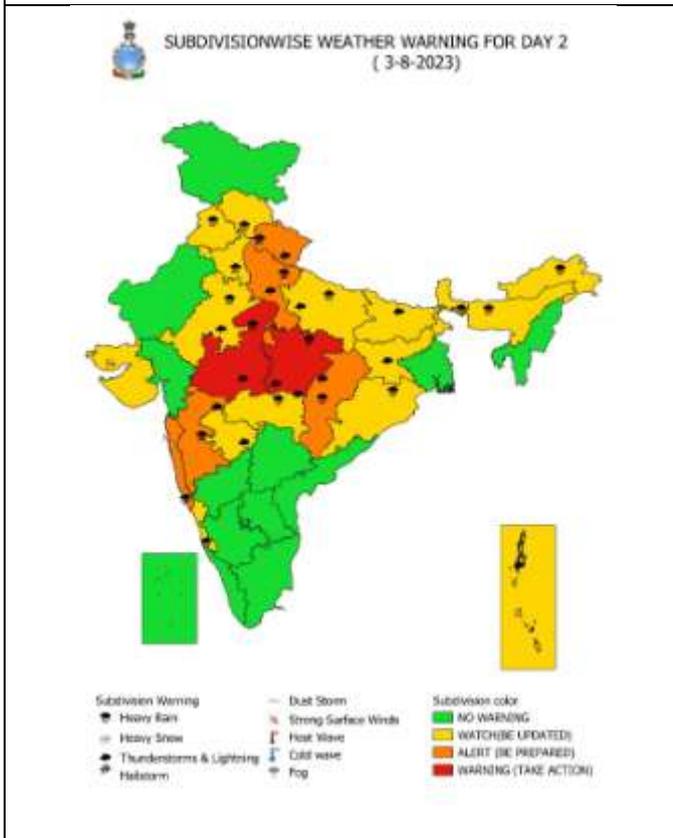
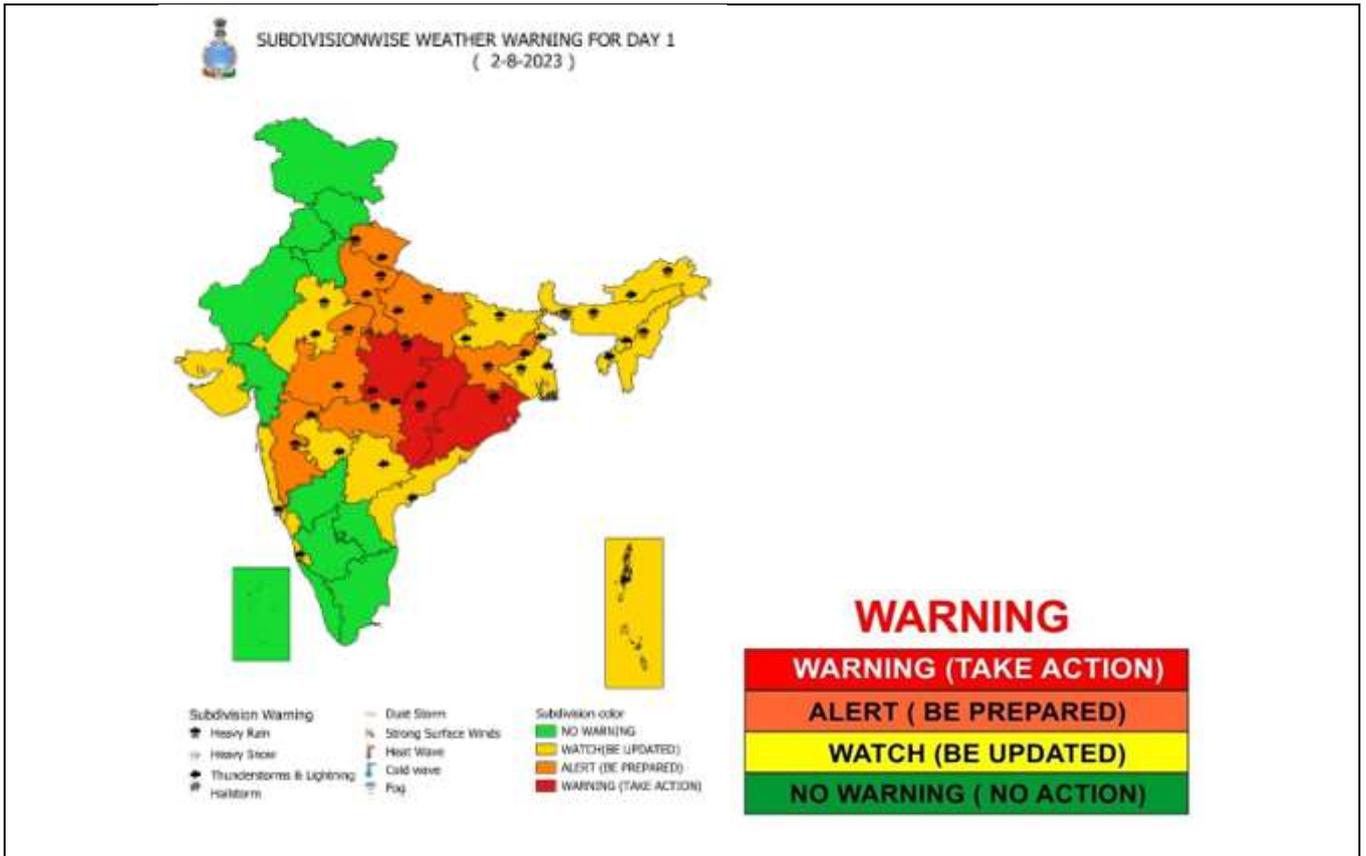
IMPACT OVER THE SEA

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

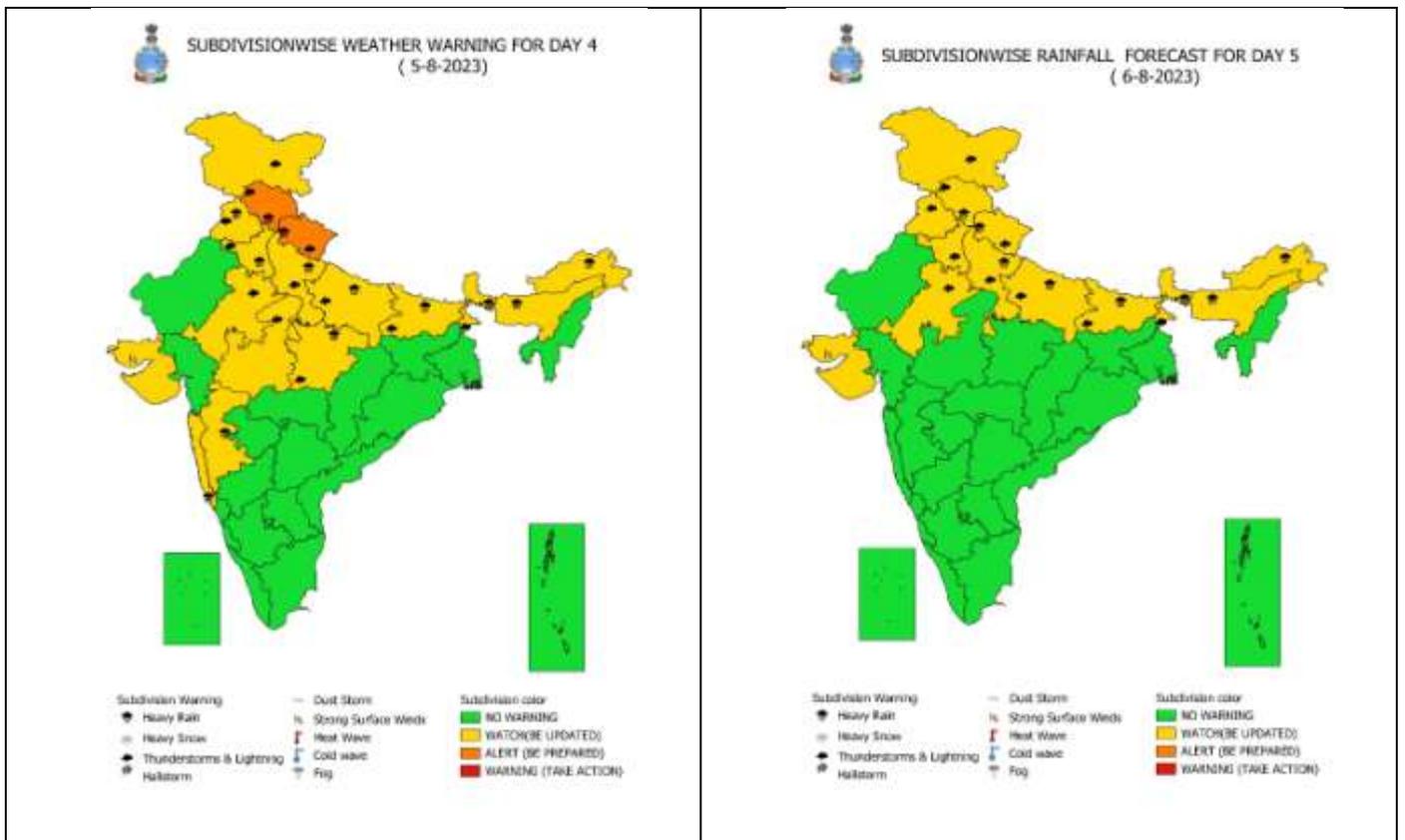
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Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

Weather Warning Graphics

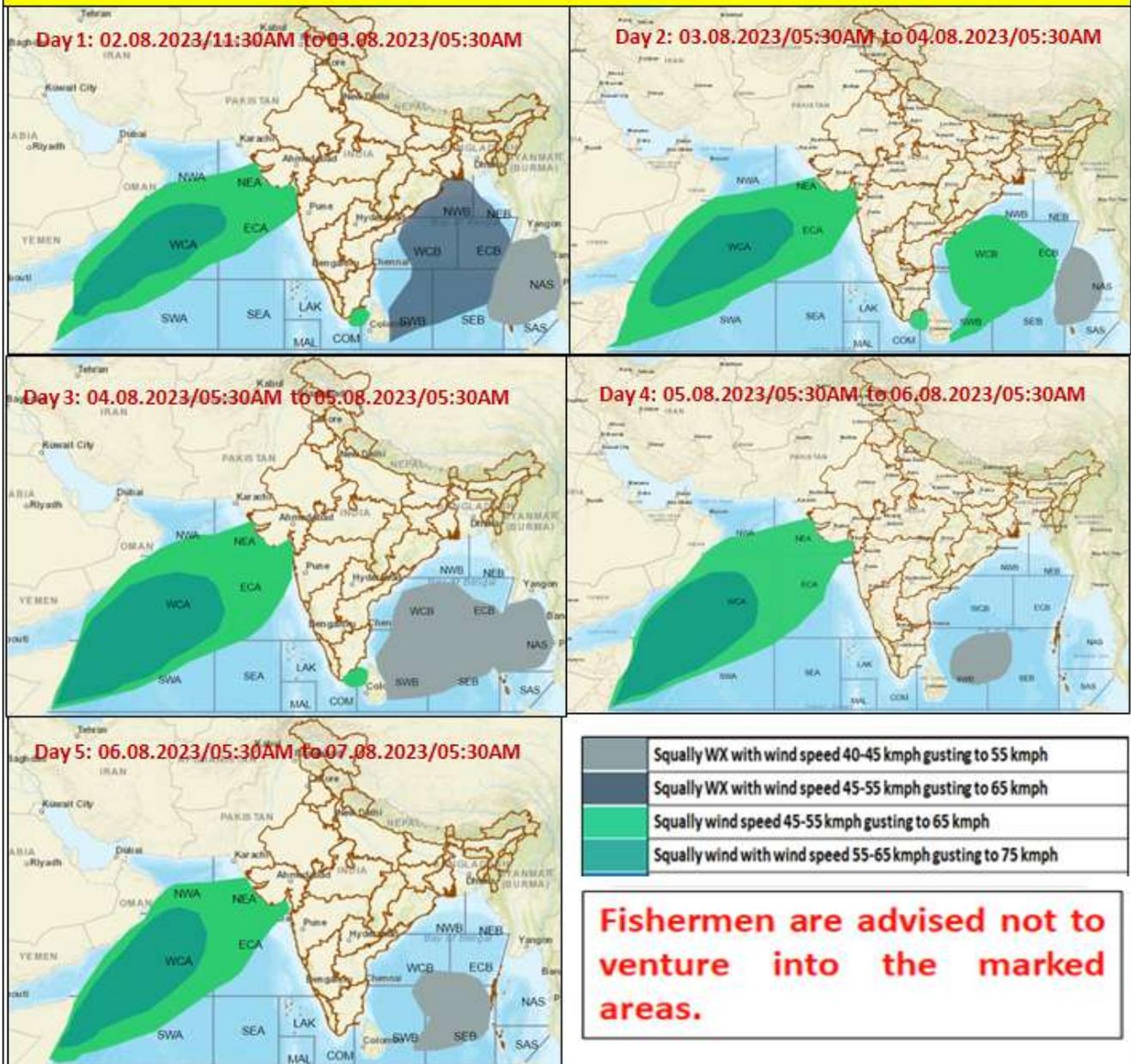


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Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%
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Fishermen warning graphics



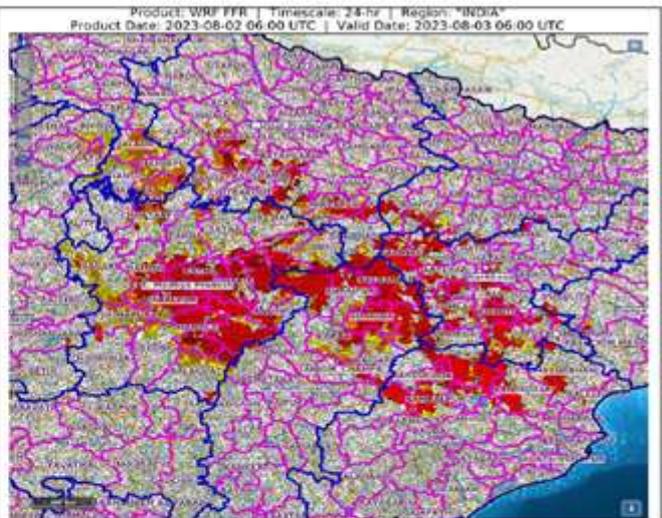
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Flash Flood Guidance

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 03-08-2023 :

Moderate flash flood risk likely over few watersheds & neighbourhoods of East Uttar Pradesh, South-Eastern part of West Uttar Pradesh, North Chhattisgarh, East Madhya Pradesh, North-West Odisha and adjoining Jharkhand 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 Risk

 **High Risk (Take Action)**

 **Moderate Risk (Be Prepared)**

 **Low Risk (Be Updated)**

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.

Realized Rainfall on 1st August, 2023 in association with deep depression

24 hours accumulated heavy rainfall (≥ 7 cm) during 0830 hrs IST of 1st to 0830 hrs IST of 2nd August

Gangetic West Bengal: Durgachack-16, Euluberia-11, Diamond Harbour-10, Canning & Bankura-9 each, Alipore & Digha-8 each, Durgapur-7

Odisha: Boudhgarh (dist Boudhgarh) 39, Jujumura (dist Sambalpur) 36, Rairakhol (dist Sambalpur) 35, Karanjia (dist Mayurbhanj) 30, Sharpada (dist Keonjhar) 28, Birmaharajpur (dist Sonepur) 27, Thakurmunda (dist Mayurbhanj) 26, Ullunda (dist Sonepur) 26, Athmalik (dist Angul) 23, Rajkishorenagar (dist Angul) 23, Binika (dist Sonepur) 23, Agalpur (dist Bolangir) 22, Phiringia (dist Kandhamal) 22, Khairamal (dist Boudhgarh) 22, Joshipur (dist Mayurbhanj) 22, Sonepur (dist Sonepur) 21, Dunguripalli (dist Sonepur) 21, Raruana (dist Mayurbhanj) 21, Baliguda (dist Kandhamal) 21, Sukruli (dist Mayurbhanj) 21, K Nuagaon (dist Kandhamal) 21, Phulbani (dist Kandhamal) 21, Salebhatta (dist Bolangir) 20, Madanpur Rampur (dist Kalahandi) 19, Kirmira (dist Jharsuguda) 19, Kolabira (dist Jharsuguda) 19, Kusumi (dist Mayurbhanj) 19, Telkoi (dist Keonjhar) 19, Khaira (dist Balasore) 19, Bijepur (dist Bargarh) 19, Jamda (dist Mayurbhanj) 19, Tensa (dist Sundargarh) 17, Bolangir (dist Bolangir) 17, Swam-patna (dist Keonjhar) 17, Gaisilet (dist Bargarh) 17, Ambadola (dist Rayagada) 17, Kantamal (dist Boudhgarh) 16, Pallahara (dist Angul) 16, Oupada (dist Balasore) 16, Bangamunda (dist Bolangir) 16, Laikera (dist Jharsuguda) 16, Tarva (dist Sonepur) 16, Belgaon (dist Bolangir) 15, Keonjhar (dist Keonjhar) 15, Angul (dist Angul) 15, Kaptipada (dist Mayurbhanj) 15, Barpalli (dist Bargarh) 15, Daitari (dist Keonjhar) 15, Talcher (dist Angul) 15, Chakapad (dist Kandhamal) 15, Banspal (dist Keonjhar) 15, Bhuban (dist Dhenkanal) 15, Bhawanipatna (dist Kalahandi) 15, Bahalda (dist Mayurbhanj) 15, Soro (dist Balasore) 14, Harabhanga (dist Boudhgarh) 14, Naktideul (dist Sambalpur) 14, Komna (dist Nawapara) 14, Balasore (dist Balasore) 14, Kotagarh (dist Kandhamal) 14, Bhograi (dist Balasore) 13, Khajuripada (dist Kandhamal) 13, Chendipada (dist Angul) 13, Nh5 Gobindpur (dist Balasore) 13, Sohela (dist Bargarh) 13, Tikabali (dist Kandhamal) 13, Hindol (dist Dhenkanal) 13, Rajghat (dist Balasore) 13, Gudvela (dist Bolangir) 13, Kantapada (dist Cuttack) 12, Loisingha (dist Bolangir) 12, Narla (dist Kalahandi) 12, Ghatagaon (dist Keonjhar) 12, Basudevpur (dist Bhadrak) 12, Padampur (dist Bargarh) 12, Padmapur (dist Rayagada) 12, Raikia (dist Kandhamal) 12, Danagadi (dist Jajpur) 12, Joda (dist Keonjhar) 12, Lanjigarh (dist Kalahandi) 12,

Jharkhand: Majhgaon-15; Palganj-14; Manjhari-12; Chakulia-11; Noamundi-9; Hatgamharia, Nala-8 each; Bargar, Ghatsila, Tonto Sadar, Chaibasa, Jaganathpur Bau, Bhandaria, Deoghar & Dhalbhumgarh-7 each;

Chhattisgarh: Kusmi (dist Balrampur) 18, Rajpur (dist Balrampur) 9, Ambikapur (dist Surguja) 9, Pratappur (dist Surajpur) 9, Saraipali (dist Mahasamund) 9, Shankargarh (dist Balrampur) 9, Basana (dist Mahasamund) 9, Pithora (dist Mahasamund) 8, Premnagar (dist Surajpur) 8, Janakpur (dist Koriya) 7, Arang (dist Raipur) 7,

East Madhya Pradesh: Jabalpur (dist Jabalpur) 17, Chandia (dist Umaria) 15, Umaria-aws (dist Umaria) 15, Kumdam (dist Jabalpur) 14, Sihora (dist Jabalpur) 14, Bijadandi (dist Mandla) 13, Majholi (dist Jabalpur) 13, Badwara (dist Katni) 11, Gohparu (dist Shahdol), Karkeli (dist Umaria), Mehadwani (dist Dindori) & Mohgaon (dist Mandla) 10 each, Mauganj (dist Rewa), Patan (dist Jabalpur) & Semariya (dist Rewa) 8 each, Beohari (dist Shahdol), Mawai (dist Mandla), Panagar (dist Jabalpur) & Mandla (dist Mandla) 7 each,

West Madhya Pradesh: Satwas (dist Dewas) 12

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