



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

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**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)
TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23093750)
CONTROL ROOM NDMA (FAX.NO. 26701729)
CABINET SECRETARIAT (FAX.NO.23012284, 23018638)
PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)
SECRETARY, MOES (FAX NO. 24629777)
H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)
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DIRECTOR GENERAL, AIR (23421105, 23421219)
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UNI (FAX NO. 23355841)
D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)
DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)
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CHIEF SECRETARY, BIHAR (FAX NO. 0612-2217085)
CHIEF SECRETARY, WEST BENGAL (FAX NO. 033-22144328)
CHIEF SECRETARY, ODISHA (FAX NO. 0674-2536660)
CHIEF SECRETARY, CHHATTISGARH (FAX NO. 0771-2221206)
CHIEF SECRETARY, UTTAR PRADESH (FAX NO. 0522-2239283)
CHIEF SECRETARY, TRIPURA (FAX NO. 0381-2414013, 2413200)
CHIEF SECRETARY, MIZORAM (FAX NO. 0389-2322745, 2320588)
CHIEF SECRETARY, ASSAM (FAX NO. 0361-2260900)
CHIEF SECRETARY, MEGHALAYA (FAX NO. 0364-2225978)**

Sub: Deep Depression over Gangetic West Bengal

The deep depression over Gangetic West Bengal moved slowly northwestward with a speed of 3 Kmph during past 6 hours and lay centered at 0530 hours IST of today, the 16th September 2024, over the same region near latitude 23.0° N and longitude 87.0° E, 40 km south of Bankura (West Bengal), 90 km east-northeast of Jamshedpur (Jharkhand) and 180 km east of Ranchi (Jharkhand).

It is likely to move slowly west-northwestwards across Gangetic West Bengal and weaken into a depression during next 12 hours. Thereafter, it will continue to move west-northwestwards across Jharkhand and North Chhattisgarh during subsequent 24 hours.

The deep depression is under continuous surveillance by the Doppler Weather Radar at Kolkata.

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.

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
16.09.24/0530	23.0/87.0	50-60 gusting to 70	Deep Depression
16.09.24/1730	23.3/85.9	50-60 gusting to 70	Deep Depression
17.09.24/0530	23.6/84.4	45-55 gusting to 65	Depression
17.09.24/1730	24.2/82.9	35-45 gusting to 55	Depression

Warnings:

(i) Rainfall warning

Jharkhand: Light to moderate rainfall at most places with **heavy to very heavy rainfall and extremely heavy falls** at isolated places very likely over Jharkhand 16th September.

Gangetic West Bengal: Light to moderate rainfall at most places is very likely with **heavy to very heavy rainfall** at isolated places over western parts of Gangetic West Bengal on 16th September.

Odisha: Light to moderate rainfall at most places is very likely with **heavy to very heavy rainfall** at isolated places over North Odisha on 16th September.

Bihar: Light to moderate rainfall at most places with **heavy to very heavy rainfall** at isolated places very likely over south Bihar on 16th and **heavy rainfall** at isolated places on 17th September.

Chhattisgarh: Light to moderate rainfall at most places with **heavy to very heavy rainfall** at a few places on 16th September and **heavy rainfall** at isolated places on 17th September.

Madhya Pradesh: Light to moderate rainfall at most places with **heavy rainfall** at isolated places over East Madhya Pradesh on 16th & **heavy to very heavy rainfall** at isolated places on 17th September. Light to moderate rainfall at many places with **heavy rainfall** at isolated places over northwest Madhya Pradesh on 17th September.

Uttar Pradesh: Light to moderate rainfall at many places with **heavy rainfall** at isolated places over southeast Uttar Pradesh on 16th and over South Uttar Pradesh on 17th & 18th September.

Mizoram & Tripura: Light to moderate rainfall at most places is very likely with isolated **heavy rainfall** on 16th September.

(ii) Flash Flood Guidance: (Graphics Attached)

Outlook for the Flash Flood Risk (FFR) till 1730 IST of 16-09-2024:

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours.

Odisha - Keonjhar, Mayurbhanj, Deogarh, Baragarh, Jharsuguda, Subarnpur, Sambalpur and Sundargarh districts.

Chhattisgarh - Balarampur, Jashpur, Korea, Surajpur and Surguja districts.

Jharkhand - Bokaro, Chatra, Deoghar, Dhanbad, Dumka, East Singhbhum, Garhwa, Giridih, Godda, Gumla, Hazaribagh, Jamtara, Khunti, Koderma, Latehar, Lohardaga, Pakur, Palamu, Ramgarh, Ranchi, Sahebganj, Saraikela and West Singhbhum districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over Area of Concern due to expected rainfall occurrence in next 24 hours.

(iii) Wind warning:

Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail along & off Bangladesh, West Bengal, and north Odisha coasts adjoining north Bay of Bengal during next 6

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

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hours. Thereafter, it is likely to become 40-50 kmph gusting to 60 kmph till evening of 16th September and decrease further.

Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail over Gangetic West Bengal and adjoining Jharkhand & north Odisha till evening of 16th September. Thereafter, it is likely to decrease gradually becoming 40-50 kmph gusting to 60 kmph over Jharkhand and adjoining Gangetic West Bengal & North Chhattisgarh and to prevail till evening of 17th September and decrease thereafter.

(iv) Sea Condition:

Rough to very rough sea condition is very likely to prevail over north Bay of Bengal and along & off West Bengal-Odisha coasts during next 6 hours.

Subsequently, Rough Sea condition is likely to prevail over north Bay of Bengal and along & off West Bengal-Odisha coasts from afternoon of 16th September and improve thereafter.

(iv) Fishermen Warning:

Fishermen are advised not to venture into north Bay of Bengal and along & off Bangladesh, West Bengal, and Odisha coasts till 16th September.

Impact Expected (Western parts of Gangetic West Bengal, North Odisha, South Bihar, Jharkhand, North Chhattisgarh and Northeast Madhya Pradesh due to heavy rainfall and strong winds)

- ✓ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ✓ Occasional reduction in visibility due to heavy rainfall.
- ✓ Disruption of traffic in major cities and roadways due to water logging in roads and poor visibility due to heavy rain leading to increased travel time and incidents
- ✓ Likely disruption of marine and inland water transportation like small boats and trawlers.
- ✓ Minor damage to kutch roads.
- ✓ Possibilities of damage to vulnerable structure.
- ✓ Localized Landslides/Mudslides/landslips/mud slips/land sinks/mud sinks.
- ✓ Damage to horticulture and standing crops in some areas due to inundation and wind.
- ✓ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

Action Suggested (Gangetic West Bengal, North Odisha, South Bihar, Jharkhand, North Chhattisgarh, South Uttar Pradesh and Northeast Madhya Pradesh due to heavy rainfall)

- ✓ Fishermen are advised not to venture into north Bay of Bengal till 16th September.
- ✓ Judicious regulation of surface transports including railways and roadways and onshore/offshore activities.
- ✓ Check for traffic congestion on your route before leaving for your destination.
- ✓ Follow any traffic advisories that are issued in this regard.
- ✓ Avoid going to areas that face the water logging problems often.
- ✓ Avoid staying in vulnerable structure.

Agromet advisories for Heavy Rainfall likely over various parts of the country

- ✓ Provide mechanical support to horticultural crops & staking to vegetables.
- ✓ Keep the harvested produce at safer places.

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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.

Significant amount of rainfall (from 0830 hours IST of yesterday, the 15th September to 0530 hours IST of today, the 16th September, 2024) (in cm).

Odisha: Balasore-10.

Jharkhand: Jamshedpur-9, Daltonganj-6, Ranchi-3;

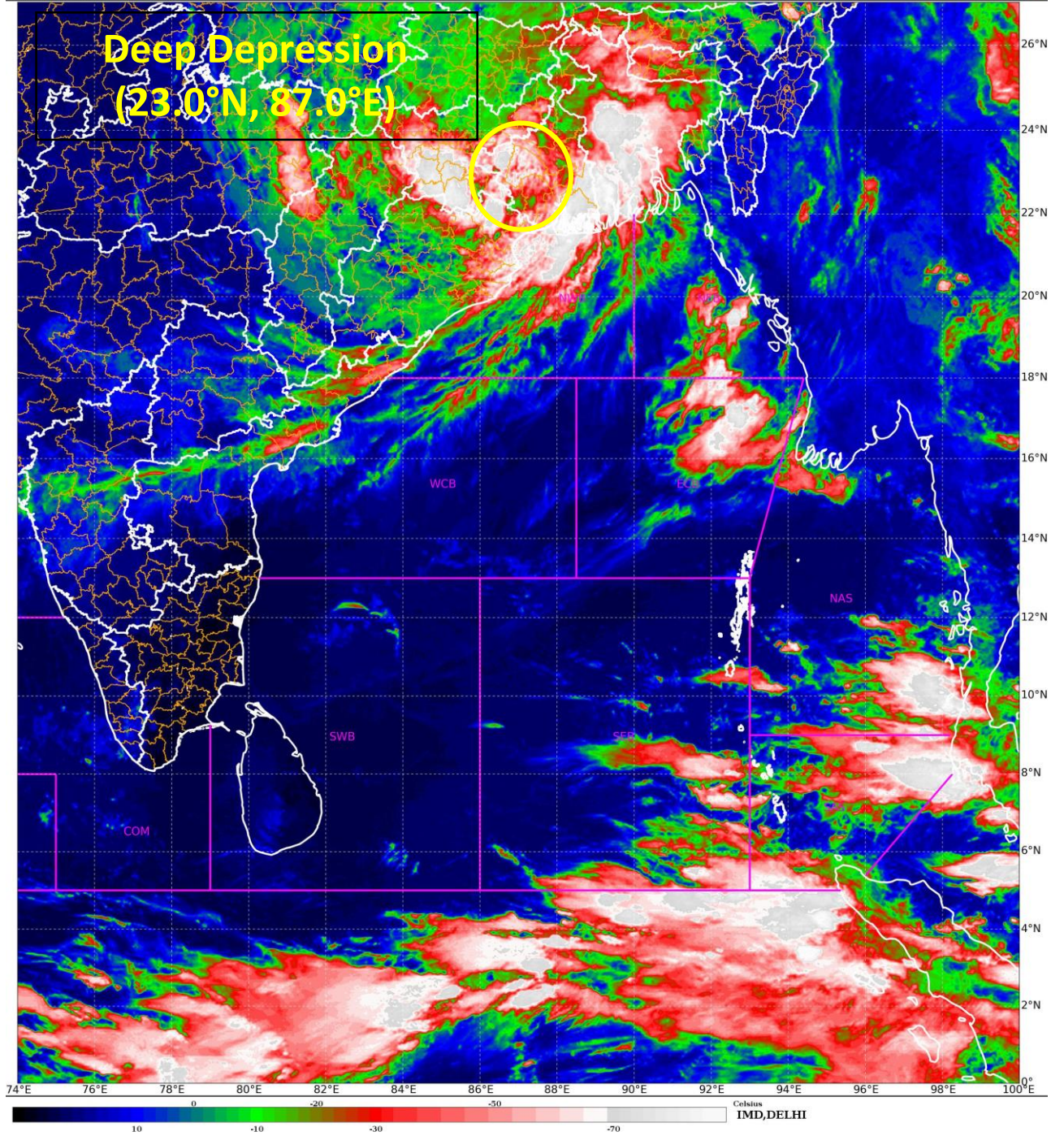
Gangetic West Bengal: Bankura-8, Kolkata (Alipore)-3, Digha-5, Malda-2;

Chhattisgarh: Ambikapur-5;

The next bulletin will be issued at 1230 hrs IST of today, the 16th September, 2024.

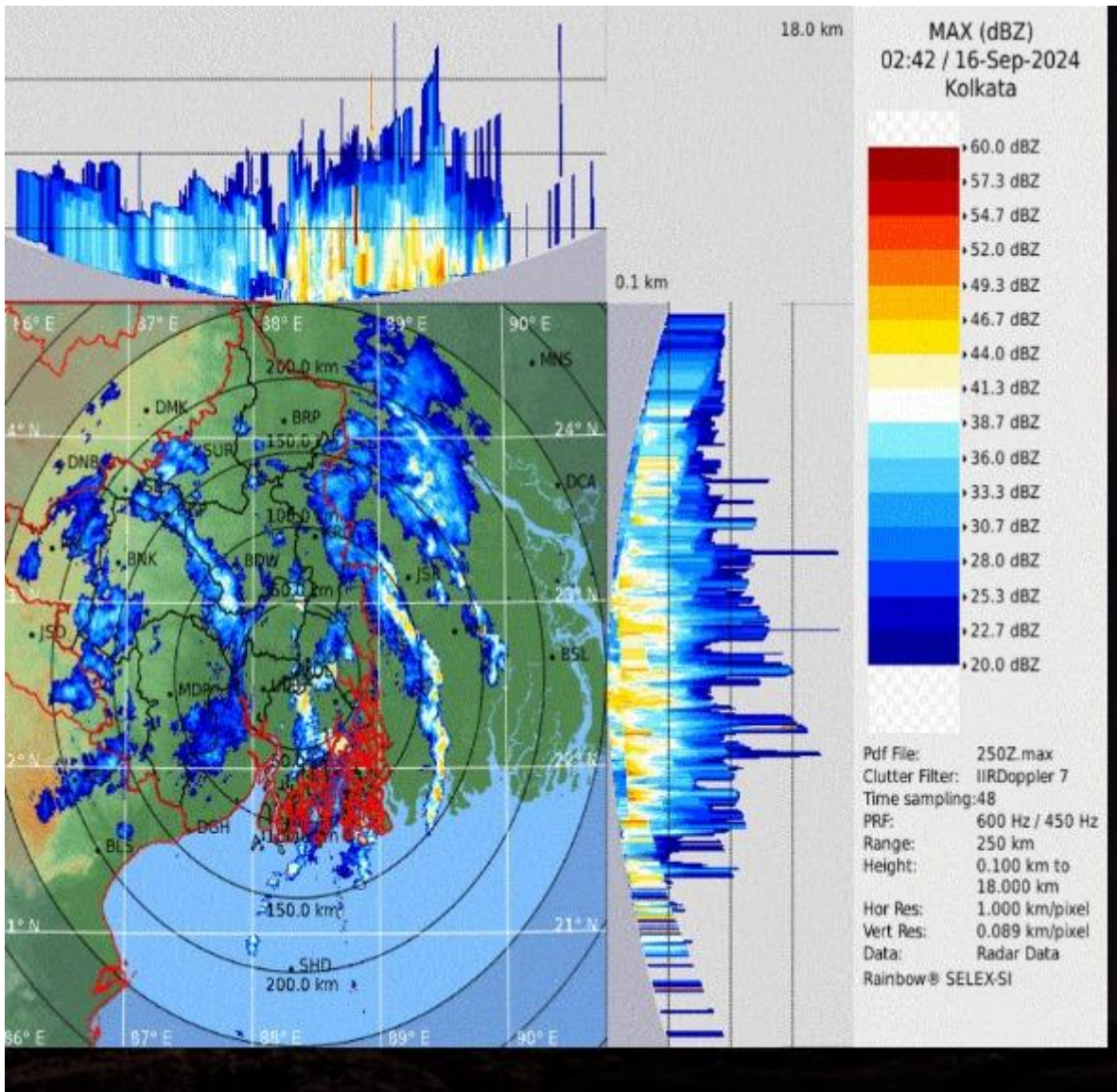
**(Dr. Shashi Kant)
Scientist-D, RSMC, New Delhi**

Copy to: CRS, Pune/RMC Chennai /RMC Kolkata/RMC Guwahati/MC Bhubaneswar/MC Ranchi/MC Patna/MC Raipur/ MC Agartala/ MC Shillong/MC Aizawl/Mc, Bhopal/MC Lucknow



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Kolkata Radar Image



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OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER GANGETIC WEST BENGAL BASED ON 0000 UTC (0530 IST) OF 16TH SEPTEMBER, 2024.



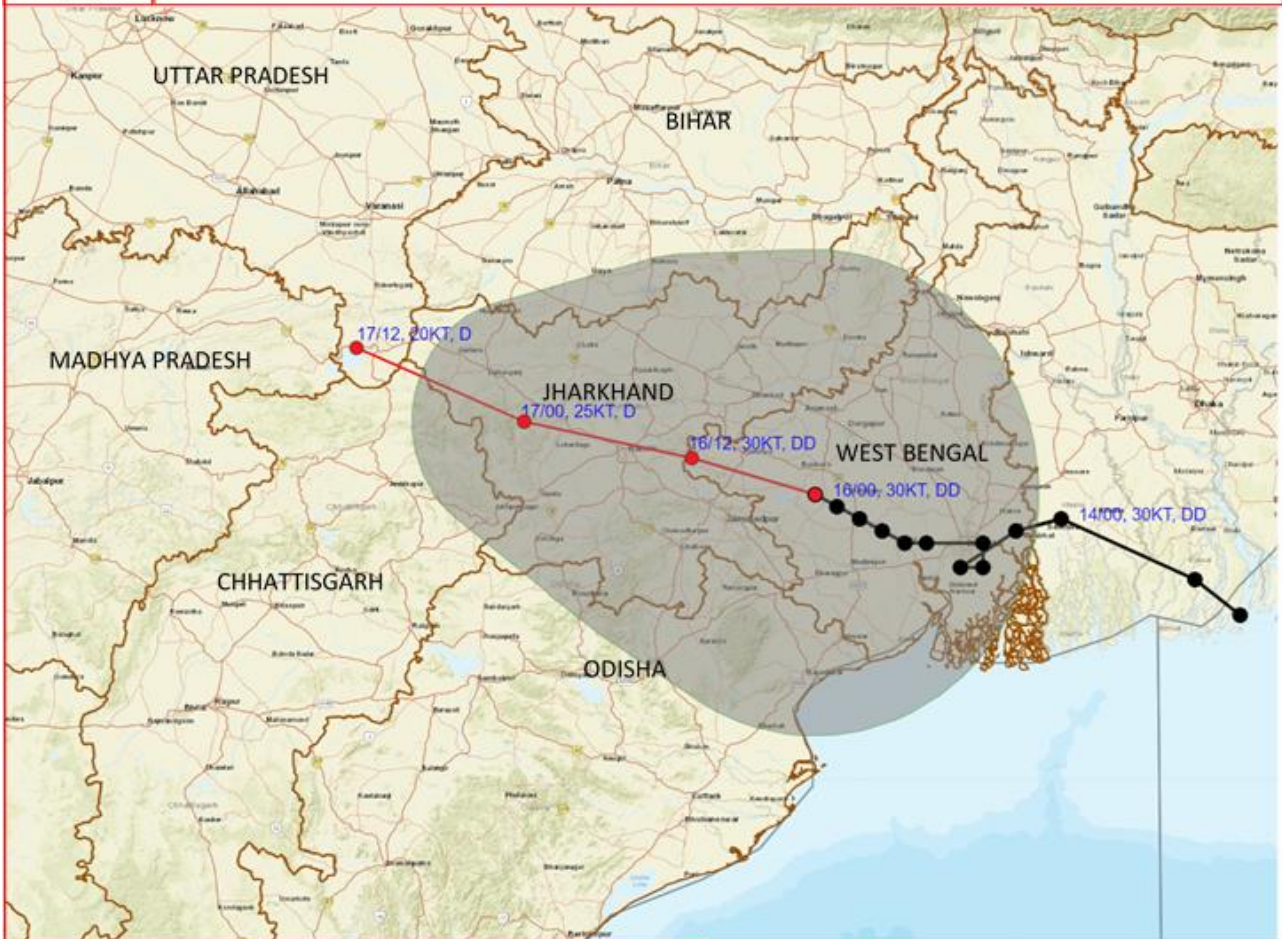
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (≥20 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 ALONG WITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER GANGETIC WEST BENGAL BASED ON 0000 UTC (0530 IST) OF 16TH SEPTEMBER, 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)

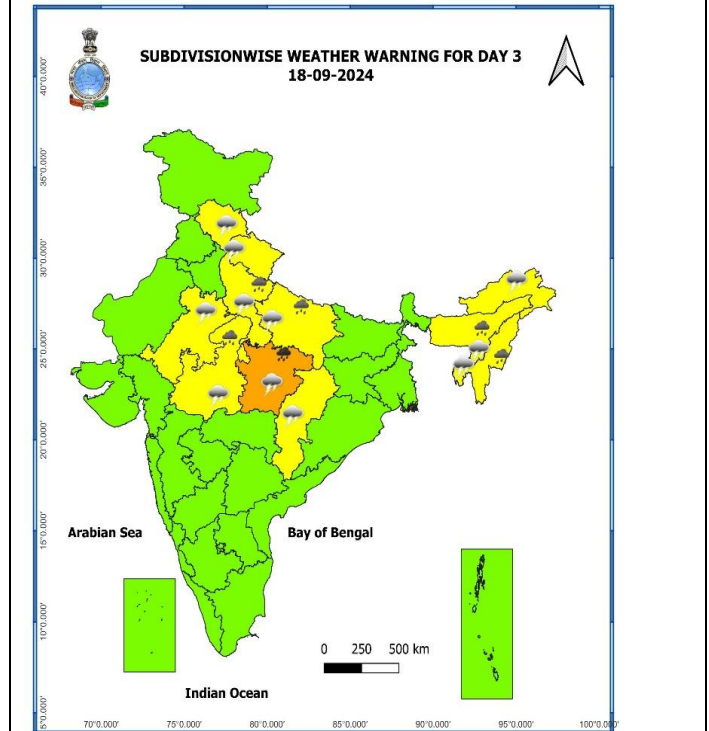
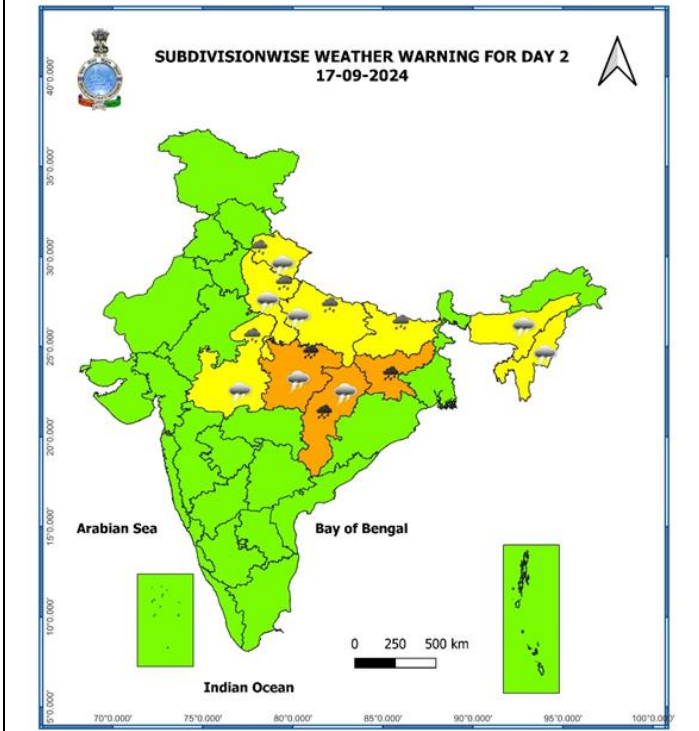
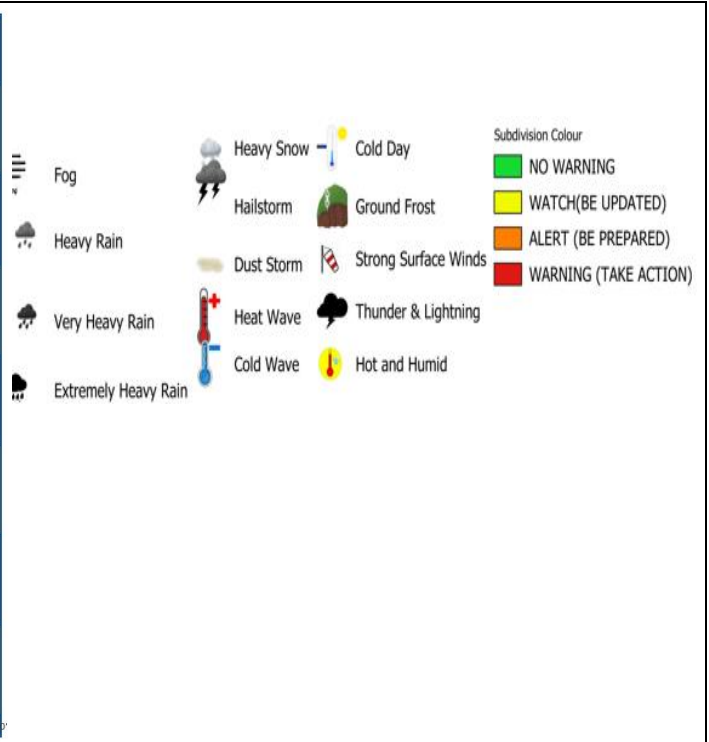
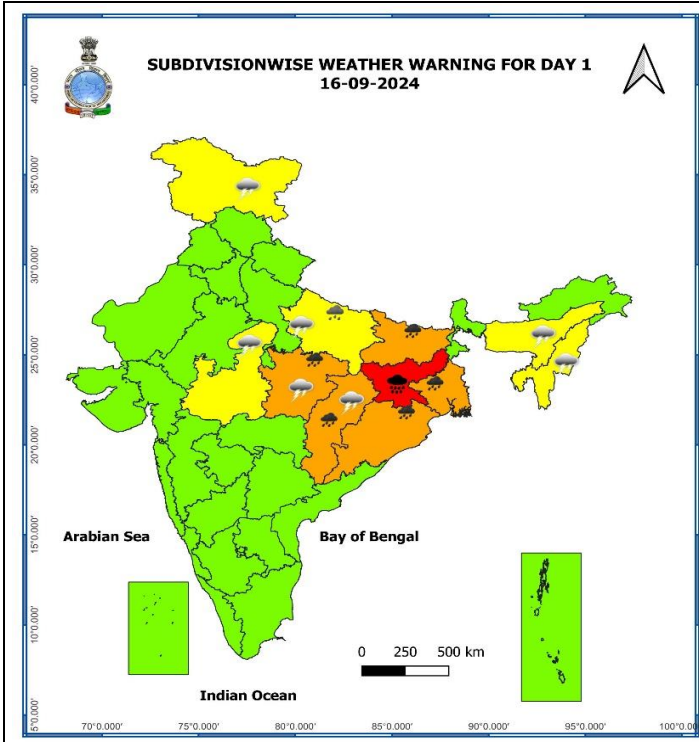
■ ≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

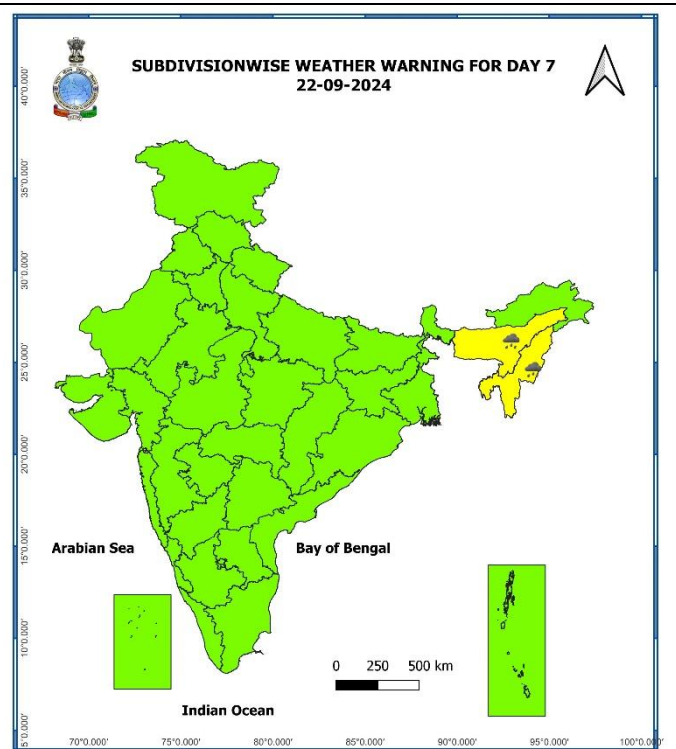
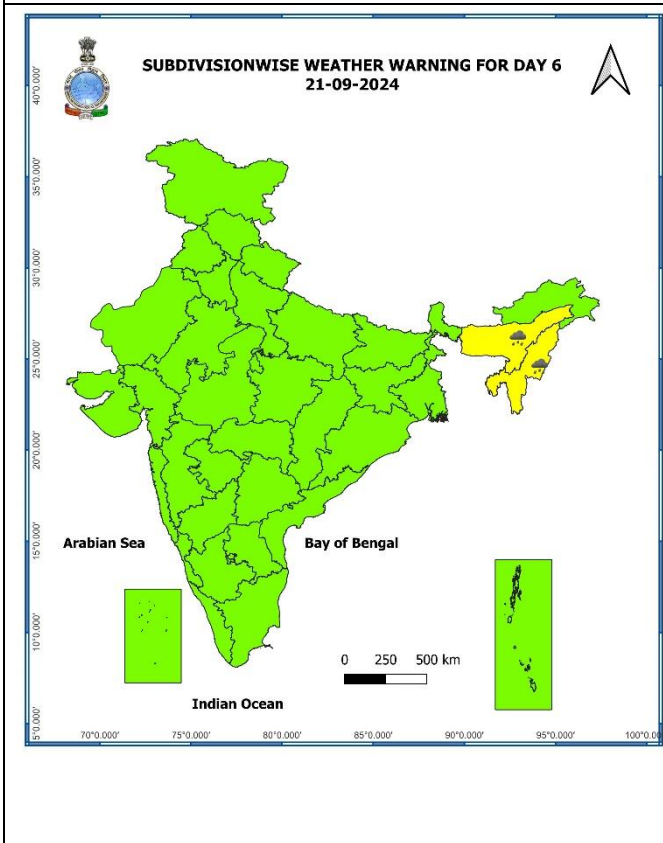
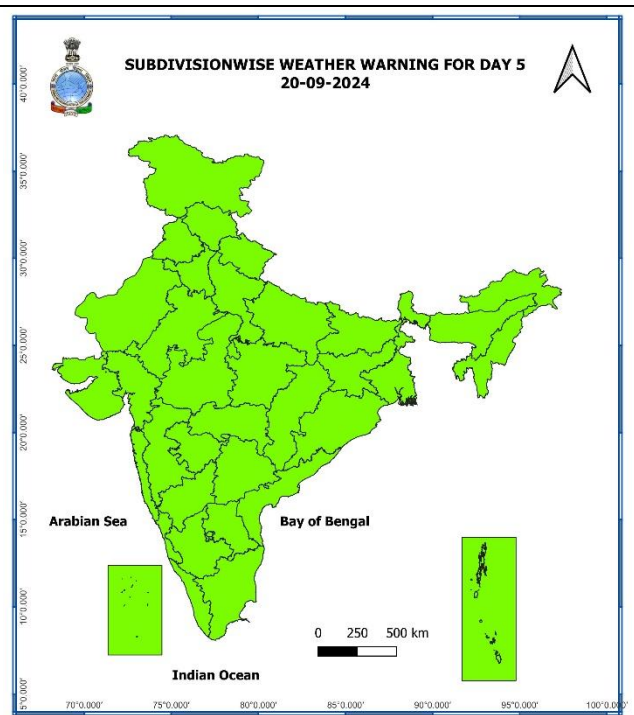
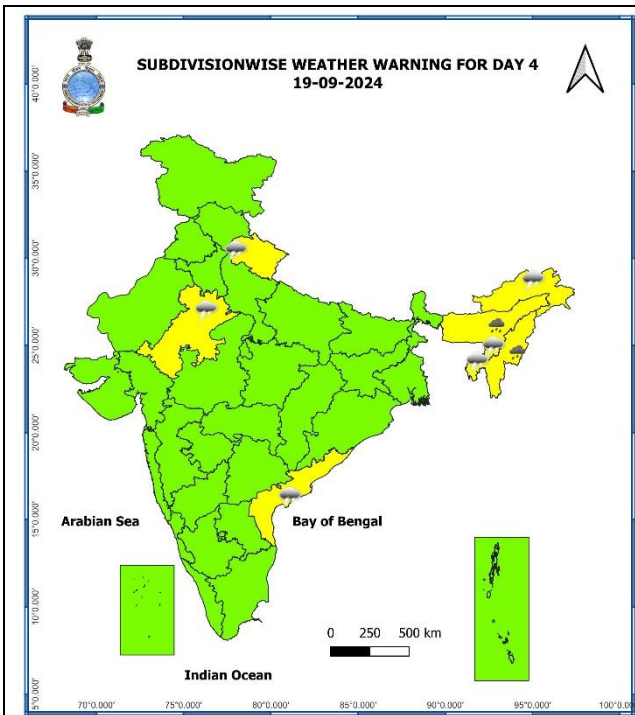
MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

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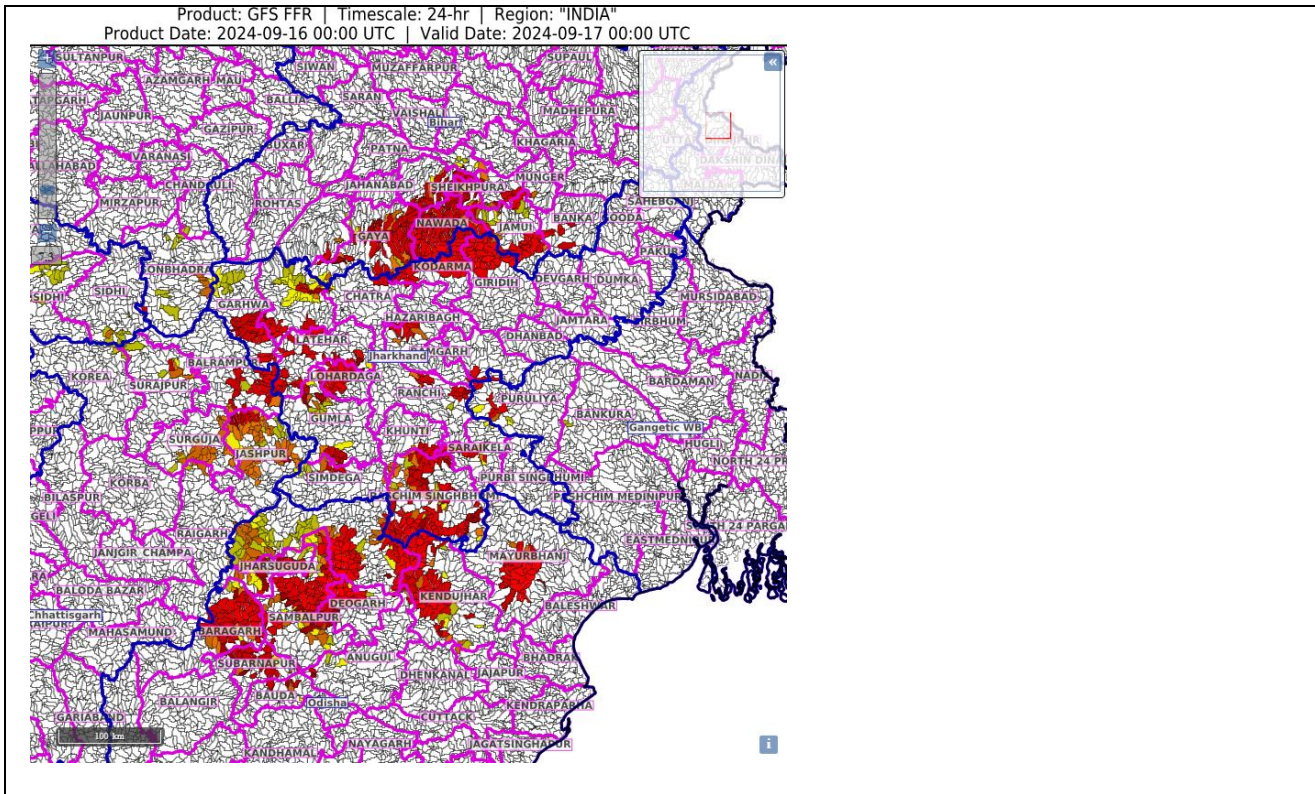
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- Action may be taken based on **ORANGE AND RED** COLOUR warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases

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Flash Flood Guidance



Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours.

Odisha - Keonjhar, Mayurbhanj, Deogarh, Baragarh, Jharsuguda, Subarnpur, Sambalpur and Sundargarh districts.

Chhattisgarh - Balarampur, Jashpur, Korea, Surajpur and Surguja districts.

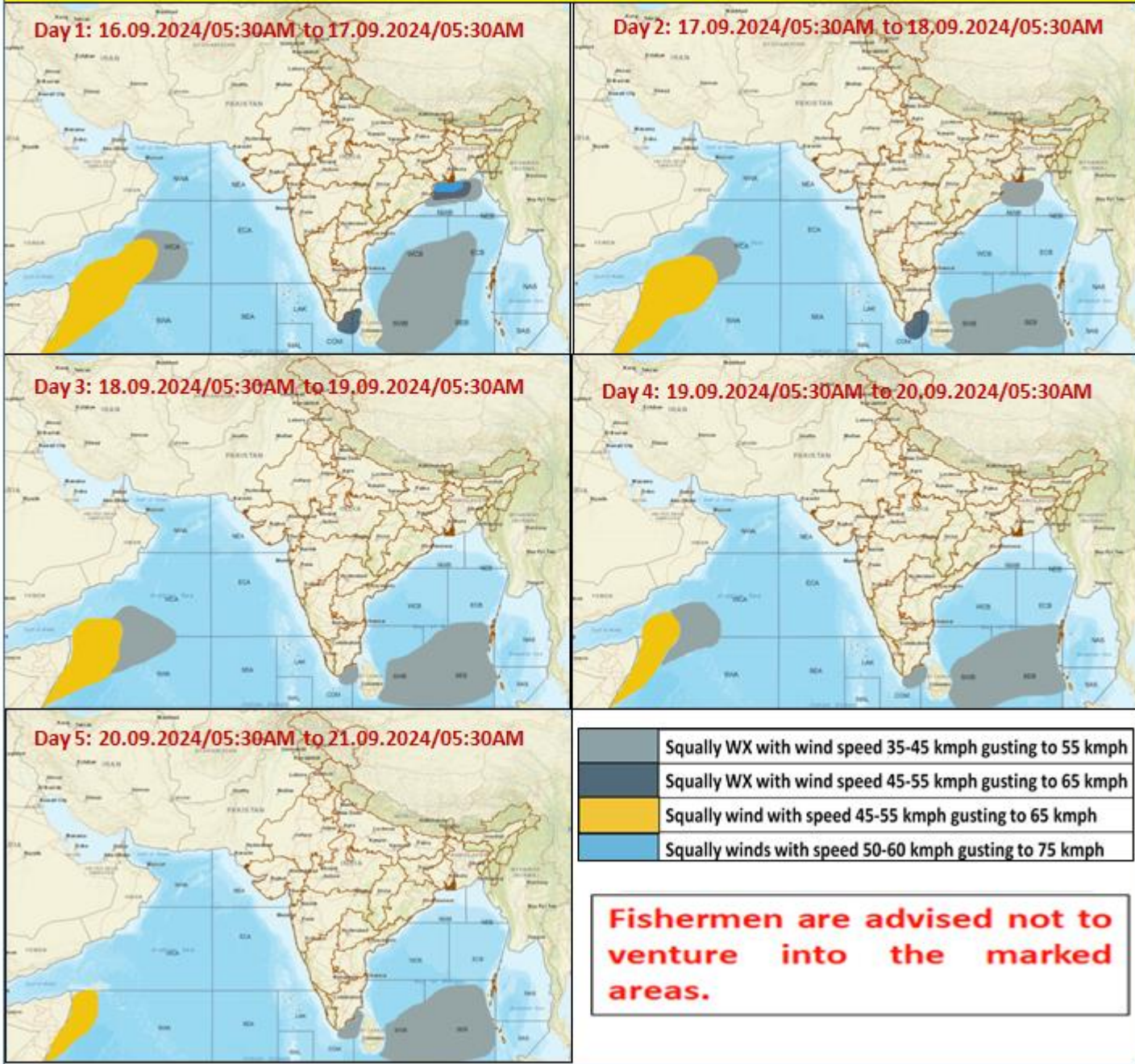
Jharkhand - Bokaro, Chatra, Deoghar, Dhanbad, Dumka, East Singhbhum, Garhwa, Giridih, Godda, Gumla, Hazaribagh, Jamtara, Khunti, Koderma, Latehar, Lohardaga, Pakur, Palamu, Ramgarh, Ranchi, Sahebganj, Saraikela and West Singhbhum districts.

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 24 hours.

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Fishermen Warning Graphics



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