

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

#### NATIONAL BULLETIN NO. 9 (LAND/01/2024)

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FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

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Sub: (A) Deep Depression over northeast Madhya Pradesh and adjoining South Uttar Pradesh

(B) Low Pressure Area over Southwest Rajasthan & adjoining south Pakistan

#### (A) Deep Depression over northeast Madhya Pradesh and adjoining South Uttar Pradesh

The deep depression over northeast Madhya Pradesh and neighbourhood moved west-northwestwards with a speed of 08 kmph during past 6 hours and lay centered at 0830 hours IST of today, the 4<sup>th</sup> August over northeast Madhya Pradesh and adjoining South Uttar Pradesh near latitude 25.0°N and longitude 80.7°E, about 60 km south-southeast of Banda (Uttar Pradesh), 120 km west-southwest of Khajuraho (Madhya Pradesh) and 220 km east-southeast of Jhansi (Uttar Pradesh).

It is likely to continue to move west-northwestwards across north Madhya Pradesh and adjoining South Uttar Pradesh and weaken gradually into a depression during next 12 hours.

#### (B) Low Pressure Area over Southwest Rajasthan & adjoining South Pakistan

The low pressure area over West Rajasthan and adjoining Pakistan moved nearly westwards and lay over **Southwest Rajasthan & adjoining South Pakistan** at 0830 hours IST of today, the 4<sup>th</sup> August, 2024. It is likely to continue to move nearly westwards during next 12 hours.

#### Warnings (Graphics Attached):

### (i) Rainfall Warning:

### East Madhya Pradesh:

Light to moderate rainfall at most places with heavy to very heavy rainfall at a few places during 4<sup>th</sup>-6<sup>th</sup> August.

# West Madhya Pradesh:

Light to moderate rainfall at most places with heavy to very heavy rainfall at a few places during 4<sup>th</sup>-6<sup>th</sup> August with extremely heavy rainfall at isolated places is very likely on 4<sup>th</sup> August.

### East Uttar Pradesh:

Light to moderate rainfall at most places is very likely with **heavy to very heavy rainfall** at isolated places over East Uttar Pradesh on 4<sup>th</sup> August and isolated heavy rainfall is likely during 5<sup>th</sup>-6<sup>th</sup> August.

#### West Uttar Pradesh:

Light to moderate rainfall at many places is very likely with **heavy rainfall** at isolated places over West Uttar Pradesh during 4<sup>th</sup>-5<sup>th</sup> August and very heavy rainfall at isolated places over Southwest Uttar Pradesh on 4<sup>th</sup> August.

# East Rajasthan:

Light to moderate rainfall at most places with **heavy to very heavy & extremely heavy rainfall** at isolated places on 4<sup>th</sup> August. Light to moderate rainfall at most places with isolated heavy rainfall is very likely at isolated places on 5<sup>th</sup> August.

#### West Rajasthan:

Light to moderate rainfall at most places with **heavy to very heavy rainfall** at isolated places very likely during 4<sup>th</sup> - 6<sup>th</sup> August.

#### Gujarat region:

Light to moderate rainfall at most places is very likely with heavy to very heavy rainfall at isolated places on 4<sup>th</sup> and 5<sup>th</sup> August and heavy rainfall at isolated places on 6<sup>th</sup> August.

#### Saurashtra & Kutch:

Light to moderate rainfall at most places is very likely with heavy rainfall at isolated places on  $4^{th}$  and  $5^{th}$  August.

#### Madhya Maharashtra:

Light to moderate rainfall at most places is very likely with **heavy rainfall** at a few places during 4<sup>th</sup> to 6<sup>th</sup> August, **very heavy rainfall** at isolated places on 5<sup>th</sup> August and **extremely heavy rainfall** at isolated places on 4<sup>th</sup> August.

#### Konkan & Goa:

Light to moderate rainfall at most places with **heavy rainfall** at a few places is very likely during 4<sup>th</sup> to 6<sup>th</sup> August and **extremely heavy rainfall** at isolated places on 4<sup>th</sup> August.

# Vidarbha:

Light to moderate rainfall at most places is very likely with **heavy rainfall** at isolated places on 4<sup>th</sup> August.

# (ii) Wind warning:

- Strong wind speed reaching 40-50 kmph gusting to 60 kmph is very likely over north Madhya Pradesh and adjoining south Uttar Pradesh during next 12 hours and gradually decrease thereafter.
- Strong wind speed reaching 35-45 kmph gusting to 55 kmph is very likely over West Madhya Pradesh and adjoining East Rajasthan & West Uttar Pradesh on 5<sup>th</sup> August.

#### (iii) Flash Flood Guidance (Graphics Attached):

Low to Moderate flash flood risk is likely over few watersheds & neighbourhoods of western parts of East Madhya Pradesh, West Madhya Pradesh, Vidarbha, Marathawada, North Madhya Maharashtra, South Gujarat Region and North Konkan & Goa Met Sub-divisions during next 24 hours.

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

#### (iii) Impact Expected

- 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 due to water logging in roads leading to increased travel time.
- > Surface runoff/ inundation may occur at some fully saturated soils & low-lying areas
- > Minor damage to kutcha 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.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

#### (iv) Action Suggested

- > 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.

#### (v) Agromet advisories for Heavy Rainfall likely over various parts of the country

- Make provision for draining out excess water from crop fields to avoid water stagnation in West Bengal, Sub Himalayan West Bengal, Odisha, Jharkhand, Bihar, Rajasthan, Madhya Pradesh, Chhattisgarh.
- > Provide mechanical support to horticultural crops and staking to vegetables.

#### Next bulletin will be issued at 1430 hours IST of today, the 4<sup>th</sup> August, 2024.

#### (Ananda Kumar Das) Scientist-F, Cyclone Warning Division, New Delhi

Copy to: ACWC Kolkata/RMC, New Delhi/RMC, Nagpur/MC, Ranch/MC, Raipur/MC, Patna/MC, Bhopal/MC, Jaipur/CWC Bhubaneswar/MC, Lucknow

#### Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 04.08.2024 (in cm):

**Madhya Pradesh:**-Katni -24, Badwara (Katni) - 20, Garhakota (Sagar) - 19, Ramnagar (Maihar) - 19, Sihora (Jabalpur) - 19, Vijayraghavgarh (Katni) - 18, Majholi (Jabalpur) - 18, Singodi (Katni) - 18, Jaisinagar (Shahdol) - 18, Devsar (Singrouli) - 17, Tendukheda (Damoh) - 17, Maihar - 16, Barhi (Katni) - 16, Bilharli (Katni) - 16, Deemarkheda (Katni) - 16, Umariyapan (Katni) - 16, Beohari (Shahdol) - 16, Bichhiya (Mandla) - 16, Mada (Singrouli) - 15, Patan (Jabalpur) - 15, Shahpura (Jabalpur) - 15

**Konkan & Goa:** Matheran (dist Raigad) 29, Thane (dist Thane) 15, Karjat\_agri (dist Raigad) 13, Talasari (dist Palghar) 13, Murbad (dist Thane) 12, Ulhasnagar (dist Thane) 12, Khalapur (distRaigad) 11, Kalyan (dist Thane) 11, Bhiwandi (dist Thane) 11, Mokheda - Fmo (dist Palghar) 10, Jawhar (dist Palghar) 10, Panvel\_agri (dist Raigad) 10, Santacruz - Imd Obsy (dist MumbaiSuburban) 10, Wada (dist Palghar) 9, Poladpur (dist Raigad) 9, Tbialmd Part Time (dist Thane)9, Ambernath (dist Thane) 8, Vikramgad (dist Palghar) 8, Shahapur (dist Thane) 8, Canacona(dist South Goa) 8, Mangaon (dist Raigad) 7, Mahad (dist Raigad) 7, Quepem (dist South Goa)7, Pen (dist Raigad) 7, Uran (dist Raigad) 7

**Madhya Maharashtra**: Igatpuri (dist Nashik) 24, Lonavala\_agri (dist Pune) 24, Surgana (dist Nashik) 17,Trimbakshwar (dist Nashik) 16, Mahabaleshwar- Imd Obsy (dist Satara) 14, Akole (distAhmednagar) 13, Ozharkheda - Fmo (dist Nashik) 13, Harsul - Fmo (dist Nashik) 12, Velhe (distPune) 11, Peth (dist Nashik) 11, Nashik - Imd Obsy (dist Nashik) 7, Chandgad (dist Kolhapur) ,Shahuwadi (dist Kolhapur) 7, Vani-arg (dist Nashik) 7

**Chhattisgarh:** Janakpur Bharatpur (dist ManendragarhBharatpur) 23, Wandrafnagar (dist Balrampur)17, Doura Kochali (dist Balrampur) 15, Ramanujganj (dist Balrampur) 13, Biharpur (dist Surajpur)13, Kotadol (dist ManendragarhBharatpur) 11, Bhatgaon (dist Surajpur) 11, Kukdur (distKabirdham) 10, Balrampur (dist Balrampur) 8, Raghunath Nagar (dist Balrampur) 8,Ramchandrapur (dist Balrampur) 8, Odagi (dist Surajpur) 7, Chalgali(dist Balrampur) 7, Belgahna (dist Bilaspur) 7, Ramanujnagar (dist Surajpur) 7

**Gujarat Region**: Vansda (dist Navsari) 18, Waghai (dist Dangs) 16, Nanipalson (dist Valsad) 14, Dharampur (dist Valsad) 14, Kaprada (dist Valsad) 14, Dolvan (dist Tapi) 13, Dangs (ahwa) (distDangs) 13, Dang\_kvk Aws (dist Dangs) 13, Silvassa (dist Dadara& Nagar Haveli) 12, Khergam (distNavsari) 12, Vapi (dist Valsad) 12, Khanvel (dist Dadara& Nagar Haveli) 11, Dholka\_arg (distAhmedabad) 11, Songadh (dist Tapi) 11, Valsad\_ Kvk Aws (dist Valsad) 11, Chikhli (dist Navsari)10, Umerpada (dist Surat) 10, Subir (dist Dangs) 10, Madhbun (dist Dadara& Nagar Haveli) 10,Mahuva (dist Surat) 9, Valod (dist Tapi) 9, Godra\_aws (dist Panchmahal) 9, Godhra (distPanchmahal) 9, Gandevi (dist Navsari) 9, Padra (dist Vadodara) 8, Vyara (dist Tapi) 8, Pardi (distValsad) 7, Vijaynagar (dist Sabarkantha) 7, Sagbara (dist Narmada) 7, Dhanera (dist Banaskantha)7

**East Rajasthan**: Arai (dist Ajmer) 10, Kekri (dist Ajmer) 9, Nithuwa (dist Dungarpur) 7, MounntAbu (dist Sirohi) 7;

**West Rajasthan**: Gudamalani (dist Barmer) 9, Sum (dist Jaisalmer) 8, Raniwada (dist Jalore)7 Ramsar (dist Barmer) 7, Bagoda (dist Jalore) 7

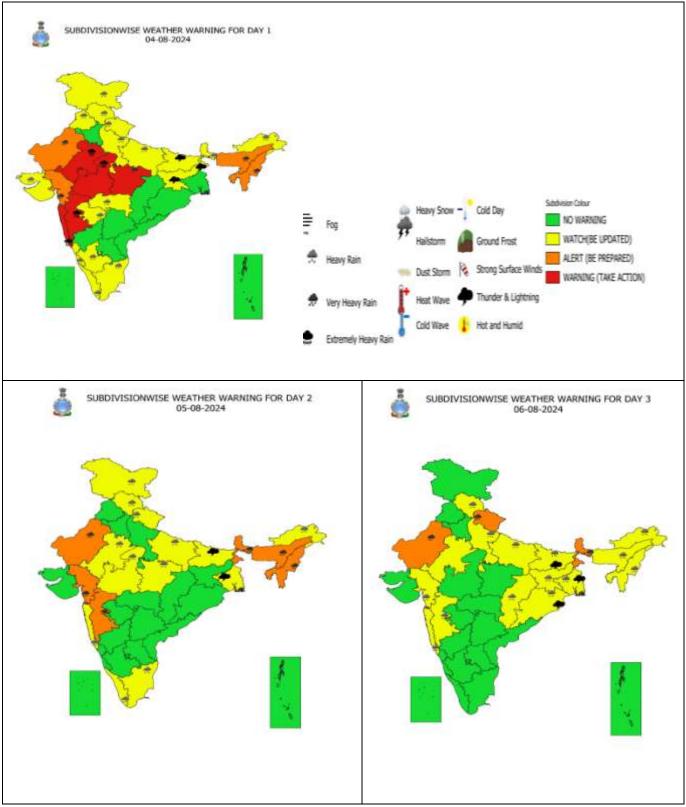
Jharkhand: Messenjor (dist Dumka) 9, Daltonganj (dist Palamu) 7, Dhurki (dist Garhwa) 7

Bihar: Mansahi (dist Katihar) 9, Amdabad (dist Katihar) 9, Katihar (dist Katihar) 7

East Uttar Pradesh: Dudhi (Sonbhadra) 6, Prayagraj PBO (PRAYAGRAJ) 5, Churk (Sonbhadra) 5,

SAT : INSAT-3DR IMG 04-08-2024/(0615 to 0642) GMT Visible Count 0.65 um 04-08-2024/(1145 to 1212) IST L1C Mercator 40°N **Deep Depression** Low Pressure Area 30°N 0°N 80.7 20\*N 10°N 0.0 10°5 50°E 100°E 40°E 60°E 70°E 80°E 90°E 110\*E 33 649 IMD, DELHI

# **Warning Graphics**



- 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.

# **Flash Flood Guidance**

# 24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 05-08-2024 :

Low to Moderate flash flood risk likely over few watersheds &neighbourhoods of Western parts of East Madhya Pradesh, West Madhya Pradesh, Vidarbha,Marathawada, North Madhya Maharashtra,South Gujarat Region and North Konkan & GoaMet 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.

