



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 04th August, 2024

Time of Issue: 1445 hours IST

Subject: (i) Under the influence of Deep Depression over northeast Madhya Pradesh & neighbourhood, isolated extremely heavy rainfall likely over West Madhya Pradesh, East Rajasthan, Gujarat and Maharashtra on 04th August.
(ii) Monsoon conditions are likely to be active over central & adjoining northwest India during next 2 days

Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)

Heavy to very heavy rainfall with **extremely heavy rainfall** occurred at isolated places over Konkan & Goa, Madhya Maharashtra, East Madhya Pradesh, Chhattisgarh; **Heavy to very heavy rainfall** at isolated places over Gujarat Region, West Madhya Pradesh; **Heavy rainfall** at isolated places over Uttarakhand, Rajasthan, East Uttar Pradesh Bihar, Jharkhand, Bihar, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Coastal Karnataka, South Interior Karnataka and Kerala.

Weather Systems

- ✓ The **deep depression** lay centered at 0830 hours IST of today, the 4th August over northeast Madhya Pradesh & 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 of (Uttar Pradesh). It is likely to move nearly westwards across north Madhya Pradesh and adjoining south Uttar Pradesh and weaken gradually into a depression during next 12 hours. **(refer Fig 1 for track and forecast of Deep depression)**
- ✓ The **low pressure** area now lies over southwest Rajasthan & adjoining south Pakistan. It is likely to move nearly westwards during next 12 hours.
- ✓ The **Monsoon trough** is active and south of the normal position at mean sea level.
- ✓ The **off-shore trough** at mean sea level runs along South Gujarat to north Kerala coast.

Forecast & Warnings: (upto 7 days):

(Rainfall distribution and Graphics for warning are given in Annexure II & III respectively)

❖ **Forecast warning for Northwest India**

- ✓ Fairly widespread to widespread light/moderate rainfall **accompanied with thunderstorm & lightning** very likely over Jammu-Kashmir, Himachal Pradesh, Uttarakhand & Rajasthan; scattered to fairly widespread rainfall over Uttar Pradesh; isolated to scattered rainfall over Punjab, Haryana-Chandigarh-Delhi during the week.
- ✓ Isolated **extremely heavy rainfall** very likely over East Rajasthan on 04th August.
- ✓ Isolated **very heavy rainfall** also likely over West Rajasthan during 04th -06th, Uttarakhand on 06th & 07th August.
- ✓ Isolated **heavy rainfall** very likely over Jammu-Kashmir during 04th, 05th & 07th; Himachal Pradesh during 04th -10th, Haryana-Chandigarh-Delhi on 07th & 08th, Punjab on 04th, Uttarakhand on 04th & 05th

& during 08th -10th, West Uttar Pradesh during 06th -10th, East Uttar Pradesh during 05th -10th, West Rajasthan on 09th& 10th, East Rajasthan on 05th & during 7th -10th August.

❖ West & Central India

- ✓ Fairly widespread to widespread light to moderate rainfall **accompanied with thunderstorm & lightning** very likely over the region Konkan & Goa & Gujarat Region during the week; scattered to fairly widespread rainfall over Madhya Maharashtra, Marathwada & Saurashtra & Kutch during the week.
- ✓ Isolated **extremely heavy rainfall** very likely over West Madhya Pradesh, Gujarat Region. Konkan & ghat area Madhya Maharashtra on 04th August.
- ✓ **Heavy to very heavy rainfall** very likely at isolated places over East Madhya Pradesh on 04th, Gujarat Region on 04th & 05th, Madhya Maharashtra on 05th August.
- ✓ **Heavy rainfall** very likely at isolated places over West Madhya Pradesh during 05th -10th, East Madhya Pradesh on 05th, 07th, 09th & 10th, Gujarat Region during 06th -10th, Konkan & Goa on 05th, 06th & during 08th -10th, Madhya Maharashtra on 06th & during 08th -10th, Vidarbha, Marathwada & Saurashtra & Kutch on 04th August, Chhattisgarh on 06th -10th August.

❖ East & Northeast India

- ✓ Fairly widespread to widespread light to moderate rainfall **accompanied with thunderstorm, lightning** very likely over East & Northeast India during the week.
- ✓ **Very heavy rainfall** very likely at isolated places over Arunachal Pradesh on 7th -09th, Assam & Meghalaya on 04th -06th & 09th, Nagaland, Manipur, Mizoram & Tripura on 05th, Sub-Himalayan West Bengal & Sikkim on 05th & 06th August.
- ✓ Isolated **heavy rainfall** very likely over Arunachal Pradesh during 04th -06th & 10th, Assam & Meghalaya on 07th, 08th & 10th, Nagaland, Manipur, Mizoram & Tripura during 04th & 06th -10th, Sub-Himalayan West Bengal & Sikkim 04th, 07th & 08th, Gangetic West Bengal, Odisha & Jharkhand on 06th & 07th August.

❖ South Peninsular India:

- ✓ Fairly widespread to widespread light to moderate rainfall over Kerala & Mahe, Lakshadweep, & Coastal Karnataka and isolated to scattered rainfall over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Telangana, interior Karnataka and Rayalaseema during next 5 days.
- ✓ **Heavy rainfall** very likely at isolated places over Kerala & Mahe & Tamil Nadu during 04th -05th; Coastal Karnataka during 04th -06th; South Interior Karnataka on 04th August.

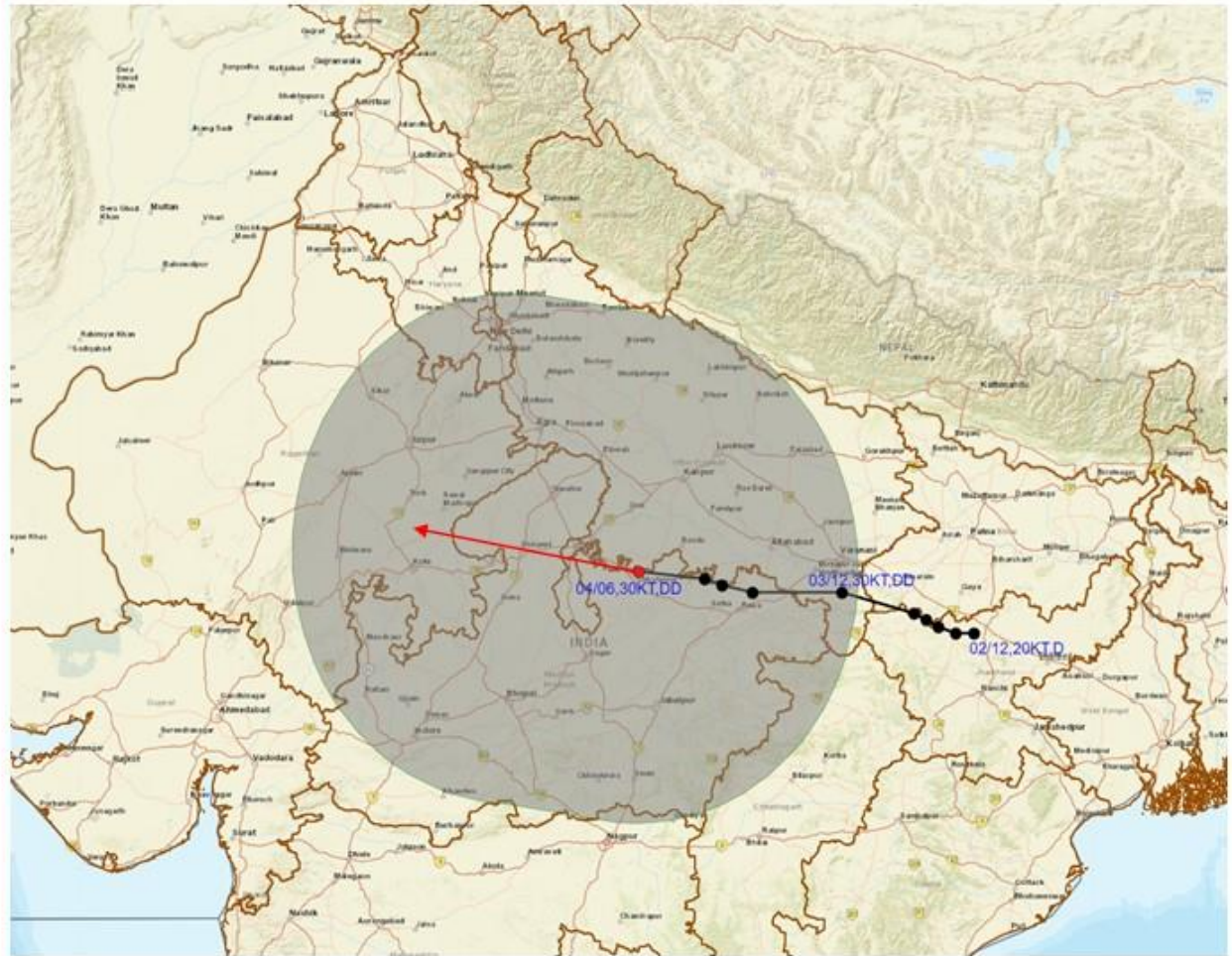
For more details, kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

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

- ❖ **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 (dist Raigad) 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 Mumbai Suburban) 10, Wada (dist Palghar) 9, Poladpur (dist Raigad) 9, Tbia Imd 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 (dist Ahmednagar) 13, Ozharkheda - Fmo (dist Nashik) 13, Harsul - Fmo (dist Nashik) 12, Velhe (dist Pune) 11, Peth (dist Nashik) 11, Nashik - Imd Obsy (dist Nashik) 7, Chandgad (dist Kolhapur), Shahuwadi (dist Kolhapur) 7, Vani-arg (dist Nashik) 7;
- ❖ **EAST MADHYA PRADESH:-** Katni(mudwara) (dist Katni) 23, Pawai (dist Panna) 21, Shahnagar (dist Panna) 21, Amanganj (dist Panna) 20, Badwara (dist Katni) 20, Garhakota (dist Sagar) 19, Ramnagar (dist Satna) 19, Sihora (dist Jabalpur) 19, Vijayraghgarh (dist Katni) 18, Chandia (dist Umariya) 18, Majholi (dist Jabalpur) 18, Simariya (dist Panna) 18, Singodi (dist Katni) 18, Jaisingh Nagar (dist Shahdol) 17, Devser (dist Singrauli) 17, Tendukheda (dist Damoh) 17, Maihar (dist Satna) 16, Bilhari (dist Katni) 16, Dheemarkheda (dist Katni) 16, Barhi (dist Katni) 16, Umariyapan (dist Katni) 16, Beohari (dist Shahdol) 16, Bichhia (dist Mandla) 16, Mada (dist Singrauli) 15, Patan (dist Jabalpur) 15, Shahpura (dist Jabalpur) 15, Deori (dist Sagar) 14, Sarai (dist Singrauli) 14, Rehli (dist Sagar) 14, Kesli (dist Sagar) 14, Rampur (dist Sidhi) 14, Rithi (dist Katni) 14, Khurai (dist Sagar) 13, Damoh-aws (dist Damoh) 13, Rewa-aws (dist Rewa) 13, Gonour (dist Panna) 13, Churhat (dist Sidhi) 13, Jabalpur-aws (dist Jabalpur) 13, Mohgaon (dist Mandla) 13, Narayanganj (dist Mandla) 13, Kumdam (dist Jabalpur) 13, Amarpatan (dist Satna) 12, Kusmi (dist Sidhi) 12, Patharia (dist Damoh) 11, Sagar-aws (dist Sagar) 11, Hanumana (dist Rewa) 11, Satna (raghurajnagar) (dist Satna) 11, Raipura (dist Panna) 11, Chitrangi (dist Singrauli) 11, Bina (dist Sagar) 11, Bahri (dist Sidhi) 11, Nowrozabad (dist Umariya) 11, Bilaspur (dist Umariya) 11, Sidhi (gopadbanas) (dist Sidhi) 10, Bargi (dist Jabalpur) 10, Amarapur (dist Dindori) 10, Karkeli (dist Umariya) 10, Mawai (dist Mandla) 10, Umariya-aws (dist Umariya) 10, Pali (dist Umariya) 10, Manpur (dist Umariya) 10, Bijadandi (dist Mandla) 10, Nagode (dist Satna) 10, Singrauli-aws (dist Singrauli) 9, Jaisinagar (dist Sagar) 9, Banda (dist Sagar) 9, Mangawan (dist Rewa) 9, Amarkantak (dist Anuppur) 9, Khajuraho Aero (dist Chhatarpur) 9, Matiyari (dist Mandla) 9, Samnapur (dist Dindori) 9, Sihawal (dist Sidhi) 9, Shahpura (dist Dindori) 9, Mehadwani (dist Dindori) 8, Tamia (dist Chindwara) 8, Panagar (dist Jabalpur) 8, Unchehra (dist Satna) 8, Palera (dist Tikamgarh) 8, Benibari (dist Anuppur) 8, Bahoriband (dist Katni) 8, Malthone (dist Sagar) 7, Gotegaon (dist Narsinghpur) 7, Ranjhi (dist Jabalpur) 7, Dindori-aws (dist Dindori) 7, Huzur (dist Rewa) 7, Gudh (dist Rewa) 7, Bajag (dist Dindori) 7, Lidhora (dist Tikamgarh) 7, Sohawal (dist Satna) 7, Sleemanabad (dist Katni) 7, Majhauri (dist Sidhi) 7;
- ❖ **CHHATTISGARH:** Janakpur Bharatpur (dist Manendragarh Bharatpur) 23, Wandrafnagar (dist Balrampur) 17, Doura Kochali (dist Balrampur) 15, Ramanujanj (dist Balrampur) 13, Biharpur (dist Surajpur) 13, Kotadol (dist Manendragarh Bharatpur) 11, Bhatgaon (dist Surajpur) 11, Kukdur (dist Kabirdham) 10, Balrampur (dist Balrampur) 8, Raghunath Nagar (dist Balrampur) 8, Ramchandrapur (dist Balrampur) 8, Rajpur (dist Balrampur) 8, Odagi (dist Surajpur) 7, Chalgali (dist Balrampur) 7, Belgahna (dist Bilaspur) 7, Ramanujanagar (dist Surajpur) 7;
- ❖ **GUJARAT REGION:** Vandsa (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) (dist Dangs) 13, Dang_kvks Aws (dist Dangs) 13, Silvassa (dist Dadara & Nagar Haveli) 12, Khergam (dist Navsari) 12, Vapi (dist Valsad) 12, Khanvel (dist Dadara & Nagar Haveli) 11, Dholka_arg (dist Ahmedabad) 11, Songadh (dist Tapi) 11, Valsad_kvks 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 (dist Panchmahal) 9, Gandevi (dist Navsari) 9, Padra (dist Vadodara) 8, Vyara (dist Tapi) 8, Pardi (dist Valsad) 7, Vijaynagar (dist Sabarkantha) 7, Sagbara (dist Narmada) 7, Dhanera (dist Banaskantha) 7;
- ❖ **WEST MADHYA PRADESH:** Pathari (dist Vidisha) 16, Kurwai (dist Vidisha) 13, Jabot (dist Alirajpur) 10, Maksudangarh (dist Guna) 9, Begumganj (dist Raisen) 8, Mungaoli (dist Ashoknagar) 8, Udaipura (dist Raisen) 7, Deori (dist Raisen) 7, Ganjbasoda (dist Vidisha) 7;
- ❖ **COASTAL KARNATAKA:** Manki (dist Uttara Kannada) 11, Castle Rock (dist Uttara Kannada) 7, Gersoppa (dist Uttara Kannada) 7; Kadra (dist Uttara Kannada) 7;
- ❖ **ASSAM & MEGHALAYA:** Cherrapunji(rkm) (dist East Khasi Hills) 11, Mawsynram (dist East Khasi Hills) 10, Cherrapunji (dist East Khasi Hills) 8, Mawkyrwat (dist South West Khasi Hills) 8, Williamnagar (dist East Garo Hills) 7;
- ❖ **SOUTH INTERIOR KARNATAKA:** Agumbe Emo (dist Shivamogga) 10;
- ❖ **UTTARAKHAND:** Dehradun (Dehradun) 9;
- ❖ **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;
- ❖ **ARUNACHAL PRADESH:** Miao (dist Changlang) 9, Namsai (dist Lohit) 7;
- ❖ **KERALA:** Cherthala (dist Alapuzha) 7;
- ❖ **EAST UTTAR PRADESH:** Chopan Fmo (dist Sonbhadra) 7, Rihand Dam Fmo (dist Sonbhadra) 7, Dudhi (Sonbhadra) 6;
- ❖ **Gangetic West Bengal:** Rajnagar (dist Birbhum) 8



OBSERVED AND FORECAST TRACK ALONGWITH WIND DISTRIBUTION IN ASSOCIATION WITH DEEP DEPRESSION OVER NORTHEAST MADHYA PRADESH AND ADJOINING SOUTH UTTAR PRADESH BASED ON 0600 UTC OF 04th AUGUST, 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:
 — 40-50 KMPH GUSTING TO 60 KMPH

Figure 1: Observed and forecast track of deep depression

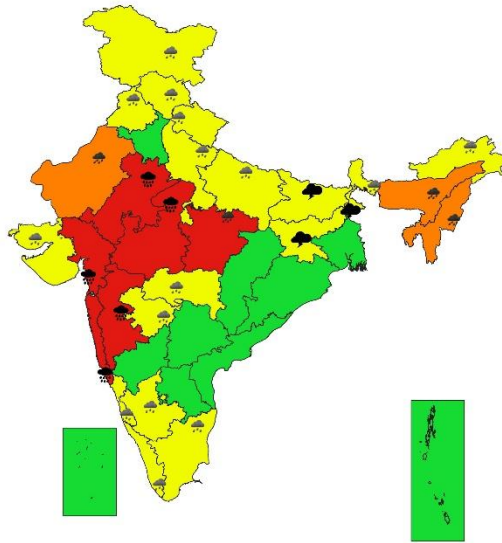
7 Days Rainfall Forecast

S. No.	Subdivision	04-Aug	05-Aug	06-Aug	07-Aug	08-Aug	09-Aug	10-Aug
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	FWS	FWS	FWS	FWS
2	ARUNACHAL PRADESH	FWS	FWS	FWS	FWS	WS	WS	WS
3	ASSAM & MEGHALAYA	FWS	FWS	FWS	FWS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	FWS	FWS	WS	WS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	WS	WS	WS	WS	WS	FWS	FWS
6	GANGETIC WEST BENGAL	FWS	FWS	WS	WS	WS	FWS	FWS
7	ODISHA	SCT	SCT	FWS	WS	WS	FWS	FWS
8	JHARKHAND	FWS	FWS	WS	WS	WS	WS	FWS
9	BIHAR	FWS	WS	WS	WS	WS	FWS	FWS
10	EAST UTTAR PRADESH	SCT	SCT	FWS	WS	FWS	FWS	FWS
11	WEST UTTAR PRADESH	SCT	SCT	FWS	WS	FWS	FWS	FWS
12	UTTARAKHAND	FWS	FWS	WS	WS	WS	WS	WS
13	HARYANA CHANDIGARH & DELHI	ISOL	SCT	SCT	WS	WS	SCT	SCT
14	PUNJAB	ISOL	ISOL	SCT	FWS	WS	WS	SCT
15	HIMACHAL PRADESH	FWS	FWS	WS	WS	WS	WS	WS
16	JAMMU & KASHMIR AND LADAKH	FWS	FWS	FWS	FWS	WS	WS	WS
17	WEST RAJASTHAN	FWS	WS	WS	SCT	SCT	FWS	FWS
18	EAST RAJASTHAN	WS	WS	FWS	FWS	FWS	WS	WS
19	WEST MADHYA PRADESH	WS	WS	FWS	FWS	FWS	FWS	FWS
20	EAST MADHYA PRADESH	WS	FWS	FWS	FWS	FWS	WS	WS
21	GUJARAT REGION	WS	WS	FWS	FWS	FWS	WS	WS
22	SAURASHTRA & KUTCH	FWS	FWS	SCT	SCT	SCT	FWS	FWS
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	WS	FWS	SCT	SCT	SCT	SCT	SCT
25	MARATHAWADA	FWS	SCT	SCT	SCT	ISOL	ISOL	ISOL
26	VIDARBHA	WS	WS	FWS	FWS	FWS	FWS	FWS
27	CHHATTISGARH	FWS	SCT	FWS	WS	WS	WS	WS
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	SCT	FWS	SCT	SCT	ISOL	ISOL
29	TELANGANA	SCT	SCT	SCT	SCT	SCT	ISOL	ISOL
30	RAYALASEEMA	ISOL	SCT	SCT	SCT	SCT	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	SCT	SCT	SCT	SCT	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	WS	FWS	FWS	FWS
33	NORTH INTERIOR KARNATAKA	SCT	SCT	FWS	FWS	SCT	SCT	SCT
34	SOUTH INTERIOR KARNATAKA	SCT	FWS	FWS	FWS	SCT	SCT	SCT
35	KERALA & MAHE	WS	WS	WS	FWS	FWS	FWS	FWS
36	LAKSHADWEEP	WS	WS	WS	FWS	SCT	SCT	SCT

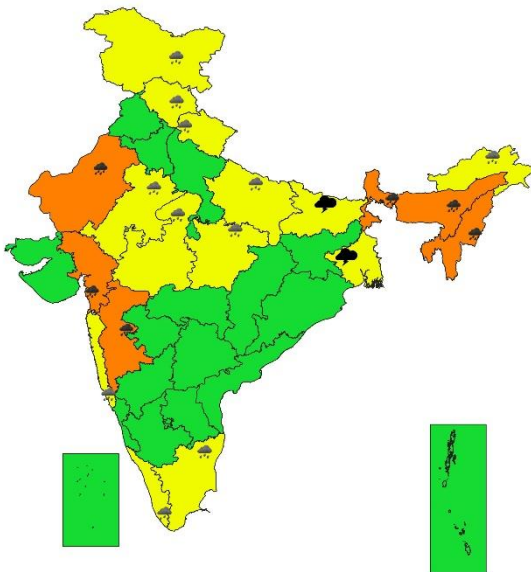
- As the lead period increases forecast accuracy decreases.



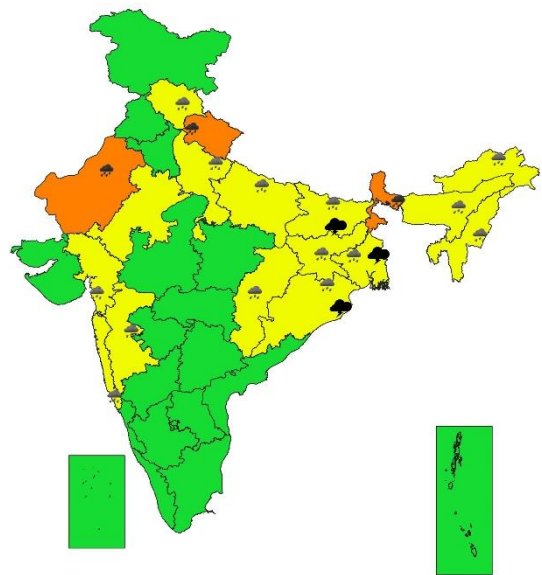
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
04-08-2024



SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
05-08-2024

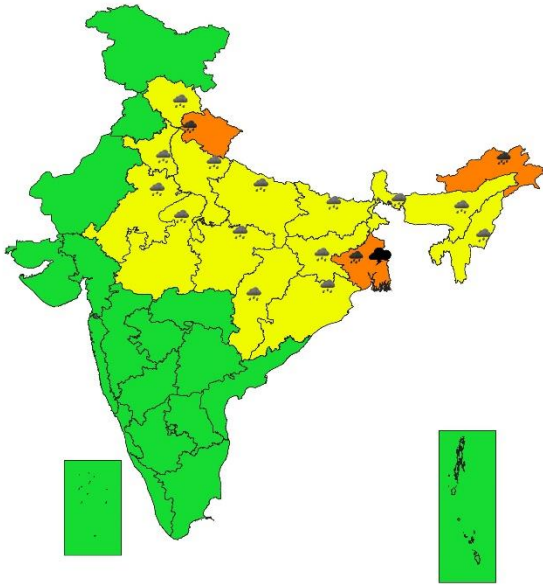


SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
06-08-2024

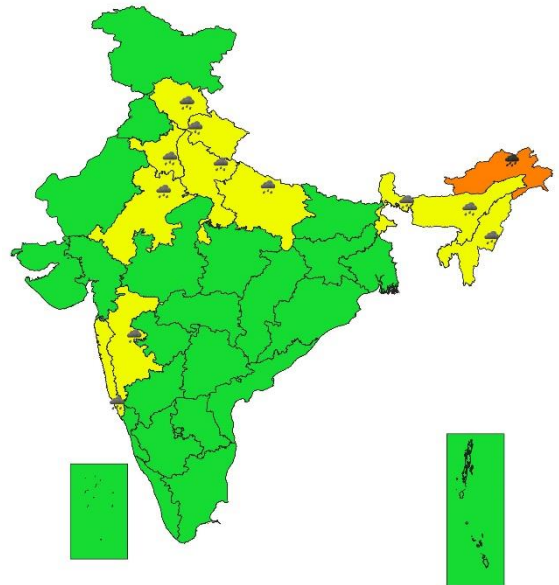




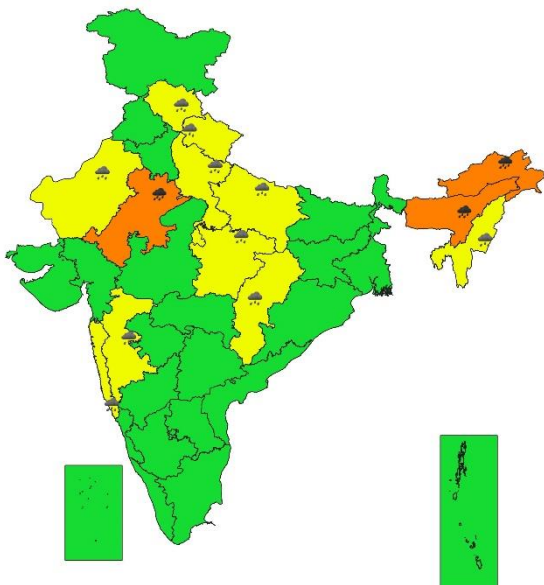
SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
07-08-2024



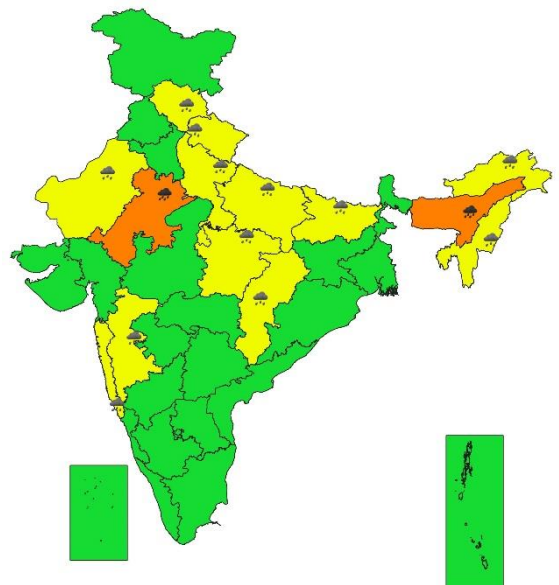
SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
08-08-2024



SUBDIVISIONWISE WEATHER WARNING FOR DAY 6
09-08-2024



SUBDIVISIONWISE WEATHER WARNING FOR DAY 7
10-08-2024



- 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.

Impact due to

- Isolated extremely heavy rainfall very likely over Madhya Pradesh, ghat areas of Madhya Maharashtra, Konkan & Goa, East Rajasthan on 04th August.
- Isolated very heavy rainfall also likely over Gujarat Region on 04th & 05th, West Rajasthan during 04th-06th, Assam & Meghalaya on 04th & 05th and 09th & 10th, Nagaland, Manipur, Mizoram & Tripura on 04th & 05th; Uttarakhand on 06th & 07th, Arunachal Pradesh during 07th-09th, East Rajasthan on 09th & 10th, Sub-Himalayan West Bengal & Sikkim on 05th & 06th, Madhya Maharashtra on 05th August.
- ✓ Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of Uttarakhand Met Sub-divisions, South Gujarat Region, North Konkan & Goa, North Madhya Maharashtra, Marathawada and adjoining Vidarbha Met Sub-divisions, West Madhya Pradesh and adjoining East Rajasthan Met Sub-divisions on 04th & 05th August. (ANNEXURE IV)
- ✓ 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.
- ✓ 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)

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.

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

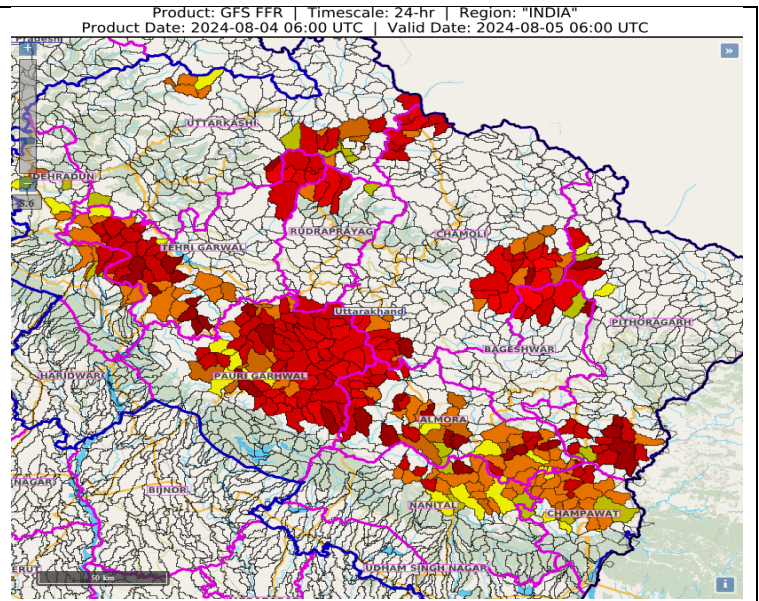
- Drain out excess water from rice, soybean, maize, cotton, sugarcane, pigeon pea, black gram, green gram, vegetables and orchards in **Madhya Pradesh**; rice, maize, green gram, black gram, pigeon pea and vegetables in **Chhattisgarh**; rice nurseries, maize, jute, ginger, vegetables and orchards in **Jharkhand**; rice, sugarcane, cowpea, cluster bean, vegetables and orchards in **South Gujarat**; pearl millet, groundnut, cotton, cluster bean, green gram, black gram, sesame, soybean, moth bean and orchards in **Rajasthan**; rice and finger millet in **Konkan** and *ghat* areas of **Madhya Maharashtra**.
- Make provision for draining out excess water from crop fields to avoid water stagnation in North Eastern states, Sub-Himalayan West Bengal, Himachal Pradesh, Uttarakhand, Gujarat region, Tamil Nadu, Kerala, Coastal Karnataka and South Interior Karnataka.
- Provide mechanical support to horticultural crops & staking to vegetables.

Flash Flood Guidance:

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 05-08-2024:

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

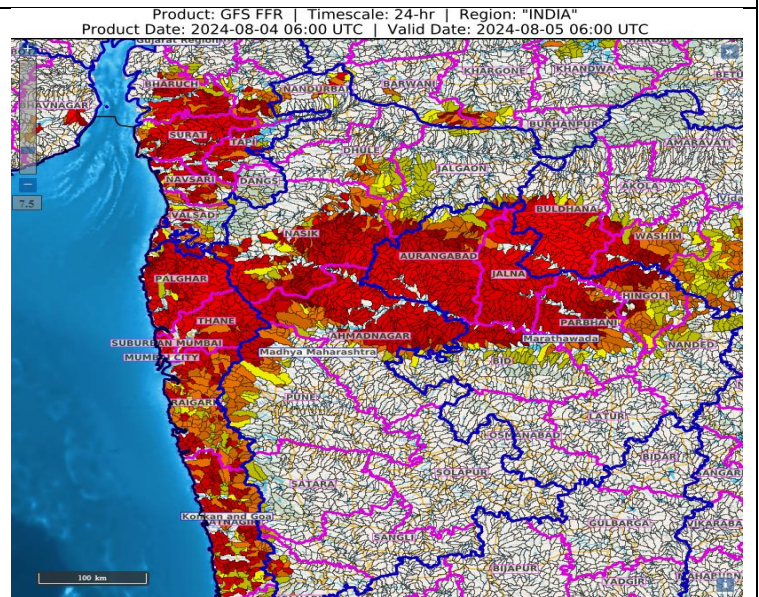
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 05-08-2024:

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

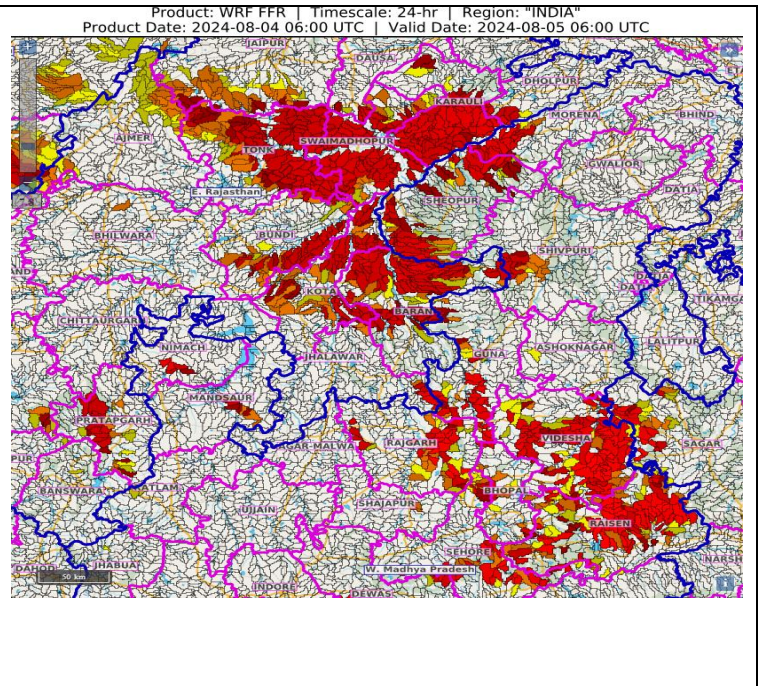
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 05-08-2024:

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of West Madhya Pradesh and adjoining East Rajasthan 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.



Legends & abbreviations:

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office, **Aero:** Aerodrome, **IAF:** Indian Air Force.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathawada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

SPATIAL DISTRIBUTION			
(% of Stations reporting)			
% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

 Fog  Heavy Rain  Very Heavy Rain  Extremely Heavy Rain	 Heavy Snow  Hailstorm  Dust Storm  Heat Wave  Cold Wave	 Cold Day  Ground Frost  Strong Surface Winds  Thunder & Lightning  Hot and Humid	<p style="font-size: small;">Subdivision Colour</p> <table style="width: 100%; border: none;"> <tr><td style="background-color: #00FF00; width: 20px; height: 15px; display: inline-block;"></td> NO WARNING</tr></table>	

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

LEGENDS

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

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



Rain/ Snow *

Heavy: 64.5 to 115.5 mm/cm *
Very Heavy: 115.6 to 204.4 mm/cm*
Extremely Heavy: > 204.4 mm/cm *



Heat Wave

When maximum temperature of a station reaches $\geq 40^{\circ}\text{C}$ for plains and $\geq 30^{\circ}\text{C}$ for hilly regions

(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C .
Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^{\circ}\text{C}$.
Severe Heat Wave: When actual maximum temperature $\geq 47^{\circ}\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is $>4.5^{\circ}\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^{\circ}\text{C}$



Warm Night

When maximum temperature remains 40°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°C .
Severe Warm Night: When minimum temperature departure $>6.4^{\circ}\text{C}$.



Cold Wave

When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C .
Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is $\leq 4.0^{\circ}\text{C}$
Severe Cold Wave: When Minimum Temperature is $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^{\circ}\text{C}$ & actual Minimum Temperature is $\leq 15^{\circ}\text{C}$



Cold Day

When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions

Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C .
Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$



Fog

Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres
Dense Fog: when the visibility between 50- 200 metres
Very Dense Fog: when the visibility < 50 metres



Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Frost

Ice deposits on ground

Air temperature $\leq 4^{\circ}\text{C}$ (over Plains)



Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph
Severe: Wind speed 62-87 kmph
Very Severe: Wind speed >87 kmph



Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre
High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre
Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre



Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)
Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)
Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)
Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)
Super Cyclone Storm: Wind speed >220 kmph (>119 knots)