



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release
Date: 08th August, 2024
Time of Issue: 1330 hours IST

Subject: (i) Fairly widespread to widespread rainfall with isolated heavy rainfall very likely over Northeast India and Western Himalayan Region during next 7 days and over East India during next 3-4 days.
(ii) Subdued rainfall activity likely over Peninsular India during next 7 days.

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

Heavy to very heavy rainfall at isolated places over East Rajasthan, Jammu & Kashmir, Chhattisgarh, East Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Odisha; **Heavy rainfall** at isolated places over Coastal Andhra Pradesh, Haryana, Delhi, West Madhya Pradesh, Himachal Pradesh, Telangana, Tamil Nadu, Uttar Pradesh, Vidarbha, Bihar, Arunachal Pradesh, Assam & Meghalaya.

Weather Systems

- ✓ A cyclonic circulation lies over west Jharkhand & neighbourhood extending upto middle tropospheric levels tilting southwestwards with height.
- ✓ The **Monsoon trough** is near its normal position at mean sea level.
- ✓ The feeble **off-shore trough** at mean sea level runs along South Gujarat to north Kerala coasts.
- ✓ A cyclonic circulation lies over south Haryana & neighbourhood in lower tropospheric levels.

Forecast & Warnings: (upto 7 days):

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

❖ **Northwest India**

- ✓ Fairly widespread to widespread light/moderate rainfall **accompanied with thunderstorm & lightning** very likely over Himachal Pradesh, Uttarakhand & East Rajasthan; scattered to fairly widespread rainfall over Jammu-Kashmir, Uttar Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Rajasthan during the week.
- ✓ Isolated **very heavy rainfall** also likely over East Rajasthan on 08th; Himachal Pradesh on 10th; Uttarakhand on 10th & 14th August.
- ✓ Isolated **heavy rainfall** very likely over Himachal Pradesh, Uttarakhand, East Rajasthan during 08th-14th; Haryana-Chandigarh on 08th & 09th; Uttar Pradesh during 08th - 12th; West Rajasthan during 09th - 14th; Punjab on 10th; Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 10th & 11th August.

❖ **West & Central India**

- ✓ Fairly widespread to widespread light to moderate rainfall **accompanied with thunderstorm & lightning** very likely over Madhya Pradesh, Vidarbha, Chhattisgarh, Konkan & Goa, Gujarat Region during the week; scattered to fairly widespread rainfall over Madhya Maharashtra, Marathwada, Saurashtra & Kutch during the week.
- ✓ **Very heavy rainfall** at isolated places over East Madhya Pradesh on 08th August.

- ✓ **Heavy rainfall** very likely at isolated places over Chhattisgarh on 08th; West Madhya Pradesh, Konkan & Goa on 08th & 09th; East Madhya Pradesh, Madhya Maharashtra during 08th – 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 08th & 09th; Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim on 08th, Bihar on 10th August.
- ✓ Isolated **heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim during 08th-10th; Jharkhand during 08th-12th; Assam & Meghalaya during 08th-13th; Bihar, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura during 08th-14th; Gangetic West Bengal on 08th, 10th & 13th; Odisha on 08th, 09th & 13th August.

❖ **South Peninsular India:**

- ✓ Scattered to fairly widespread light to moderate rainfall over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Karnataka and isolated to scattered rainfall over Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema during the week.
- ✓ **Heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal on 08th, 11th & 12th; Kerala & Mahe during 10th – 13th 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 08.08.2024(in cm):

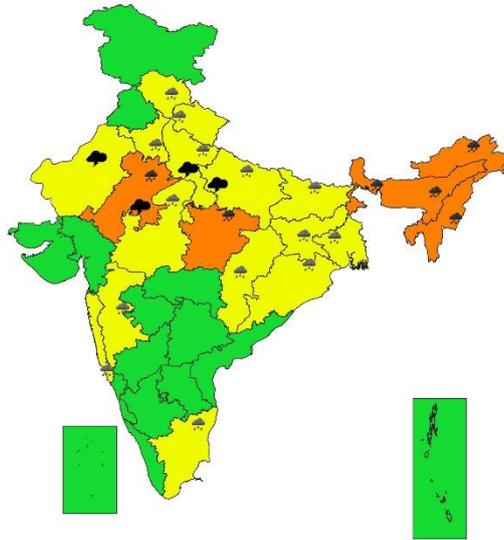
- ❖ **East Rajasthan:** Dholpur(dist Dholpur) 20, Nadbai (dist Bharatpur) 15, Bari (dist Dholpur) 15, Sarmathura(dist Dholpur) 14, Karauli (dist Karauli) 12, Nagar (dist Bharatpur) 10, Mahwa (dist Dausa) 9, Kathumer (dist Alwar) 9, Pilani (dist Jhunjhunu) 8, Baseri (dist Dholpur) 7, Rajgarh (dist Alwar) 7,
- ❖ **Jammu-Kashmir:** Jammu (dist Jammu) 16, Jammu (dist Jammu) 10, Jammu (dist Jammu) 10, Chatha (dist Jammu) 9,
- ❖ **Jharkhand:** Simdega (dist Simdega) 16, Bano Simdega Kvk Aws (dist Simdega) 13, Raidih (dist Gumla) 7,
- ❖ **Odisha:** Nawarangpur (Nawarangpur) 13, Balisankara (Sundargarh) 10, Nandahandi (Nawarangpur) 8, Nawarangpur(Nawarangpur) 7, Kirmira (Jharsuguda) 7, Kusumi (Mayurbhanj) 7
- ❖ **Sub-Himalayan West Bengal & Sikkim:** Murti (dist Jalpaiguri) 13, Buxaduar (dist Alipurduar) 9, Jhallong (dist Kalimpong) 8, Neora (dist Jalpaiguri) 7;
- ❖ **Chhattisgarh:** Pondi Bachra (dist Koriya) 12, Katghora (dist Korba) 11, Baloda (dist Janjgir) 11, Manendragarh (dist Manendragarh Bharatpur) 10, Janjgir (dist Janjgir) 10, Bhairamgarh (dist Bijapur) 10, Patna (dist Koriya) 10, Pali (dist Korba) 9, Odagi (dist Surajpur) 9, Chirmiri (dist Manendragarh Bharatpur) 9, Kotadol (dist Manendragarh Bharatpur) 9, Premnagar (dist Surajpur) 9, Baikunthpur (dist Koriya) 9, Champa (dist Janjgir) 8, Kelhari (dist Manendragarh Bharatpur) 8, Khadgava (dist Manendragarh Bharatpur) 7, Kutaru (dist Bijapur) 7, Konta (dist Sukma) 7,
- ❖ **East Madhya Pradesh:** Waraseoni (dist Balaghat) 12, Panagar (dist Jabalpur) 11, Singrauli (dist Singrauli) 11, Bijawar (dist Chhatarpur) 9, Mada (dist Singrauli) 9, Bargi (dist Jabalpur) 9, Ranjhi (dist Jabalpur) 9, Paraswada (dist Balaghat) 8, Ghansore (dist Seoni) 8, Sihawal (dist Sidhi) 8, Katangi (dist Balaghat) 7, Badamalhera (dist Chhatarpur) 7, Churhat (dist Sidhi) 7, Bahri (dist Sidhi) 7, Matiyari (dist Mandla) 7, Sarai (dist Singrauli) 7, Mandla (dist Mandla) 7, Badagaon Dhasan (dist Tikamgarh) 7, Kirnapur (dist Balaghat) 7, Prithvipur (dist Niwari) 7,
- ❖ **Coastal Andhra Pradesh & Yanam:** Koyyalagudem (dist Eluru) 11, Kukunoor (dist Eluru) 10, Chintalapudi (dist Eluru) 8, Kakinada (dist Kakinada) 8, Chintur (dist Alluri Sitharamaraju) 7, Kunavaram (dist Alluri Sitharamaraju) 7, Polavaram (dist Eluru) 7,
- ❖ **Haryana:** Bhadra Rev (dist Charkhi Dadri) 10, Bahadurgarh (dist Jhajjar) 7,
- ❖ **West Uttar Pradesh:** Khairagarh (dist Agra) 10, Budaun (dist Badaun) 9,
- ❖ **Arunachal Pradesh:** Pasighat (dist East Siang) 10,
- ❖ **West Madhya Pradesh:** Bajna (dist Ratlam) 9, Kolaras (dist Shivpuri) 8, Raoti (dist Ratlam) 8, Dabra (dist Gwalior) 7, Bhitwar (dist Gwalior) 7,
- ❖ **Himachal Pradesh:** Shillaro (dist Shimla) 9,
- ❖ **Delhi:** Najafgarh (dist West Delhi) 9,
- ❖ **Telangana:** Aswaraopeta (dist B. Kothagudem) 9, Kothagudem (dist B. Kothagudem) 9, Sathupalle (dist Khammam) 9, Bayyaram (dist Mahabubabad) 8, Chandrugonda (dist B. Kothagudem) 8, Palawancha (dist B. Kothagudem) 8, Perur(arg) (dist J. Bhupalpally) 7, Mahabubabad (dist Mahabubabad) 7,
- ❖ **East Uttar Pradesh:** Mau Tehsil (dist Chitrakoot) 9, Karwi (dist Chitrakoot) 8, Muhammadi (dist Kheri) 7, Hardoi Teh (dist Hardoi) 7, Churk (dist Sonbhadra) 7, Balrampur(t) (dist Balrampur) 7,
- ❖ **Assam & Meghalaya:** Cherrapunji (dist East Khasi Hills) 9, Khanapara (dist Kamrup Metropolitan) 9, Cherrapunji (dist East Khasi Hills) 8, Mawsynram (dist East Khasi Hills) 7, D/mohanbari (dist Dibrugarh) 7, Khetri (dist Kamrup (rural)) 7,
- ❖ **Tamil Nadu:** Perungalur (dist Pudukkottai) 8; Aruppukottai (dist Virudhunagar), Tirumayam (dist Pudukkottai), Kovilankulam (dist Virudhunagar) 7 each;
- ❖ **Vidarbha:** Gondia (dist Gondia) 7,
- ❖ **Bihar:** Beldaur (dist Khagaria) 7, Puraini (dist Madhepura) 7.

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

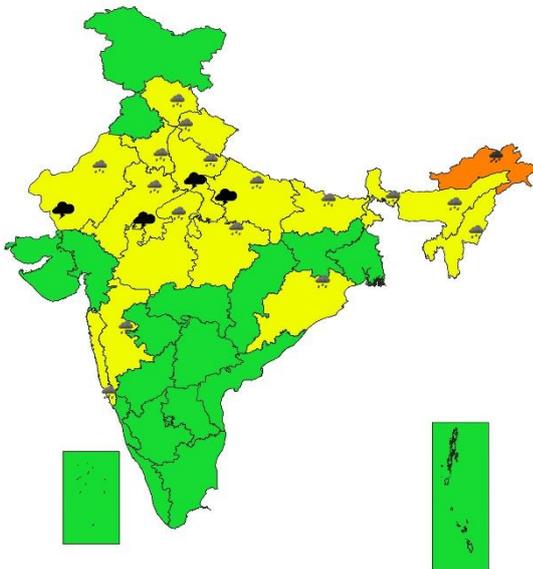
- As the lead period increases forecast accuracy decreases.



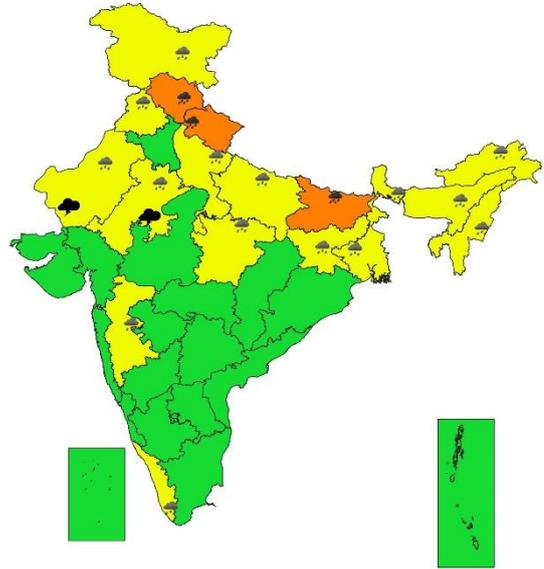
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
08-08-2024



SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
09-08-2024

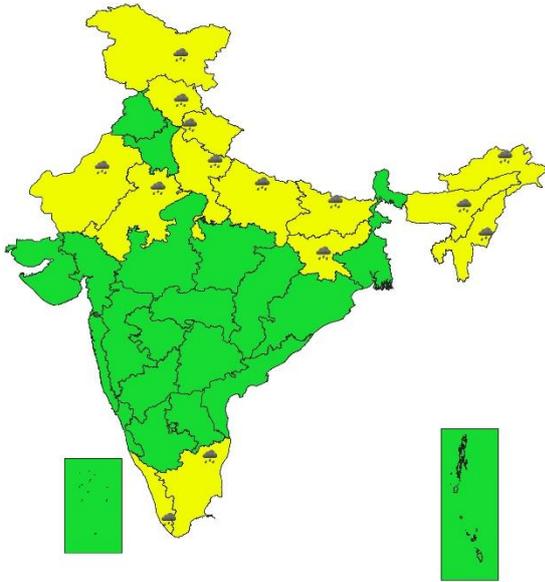


SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
10-08-2024

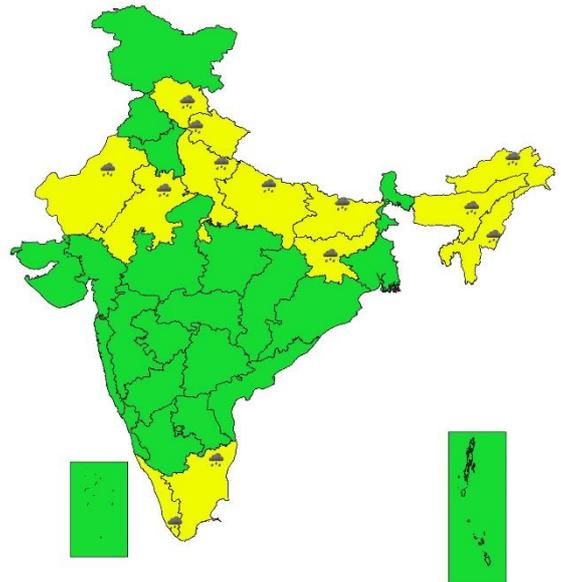




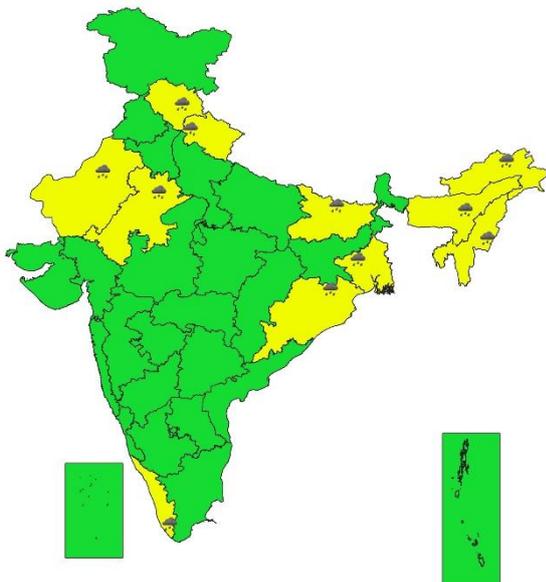
SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
11-08-2024



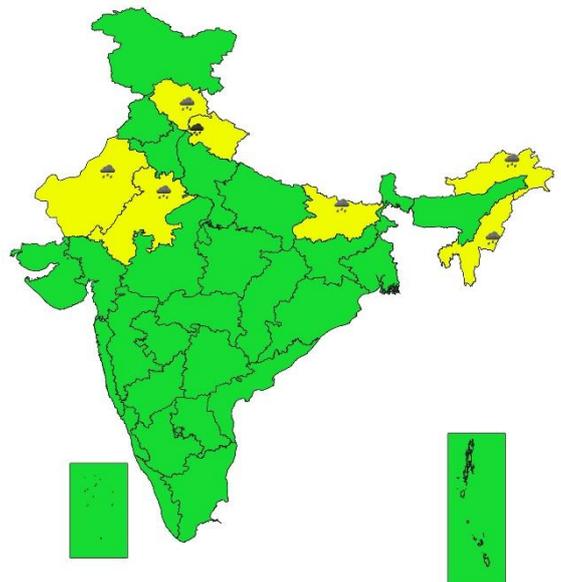
SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
12-08-2024



SUBDIVISIONWISE WEATHER WARNING FOR DAY 6
13-08-2024



SUBDIVISIONWISE WEATHER WARNING FOR DAY 7
14-08-2024



- 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

- **Very heavy rainfall** at isolated places over East Rajasthan, East Madhya Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim on 08th; Arunachal Pradesh on 08th & 09th; Bihar, Himachal Pradesh on 10th; Uttarakhand on 10th & 14th August.
- **Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of Madhya Pradesh, Himachal Pradesh, Uttarakhand Met Sub-divisions on 08th & 09th 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

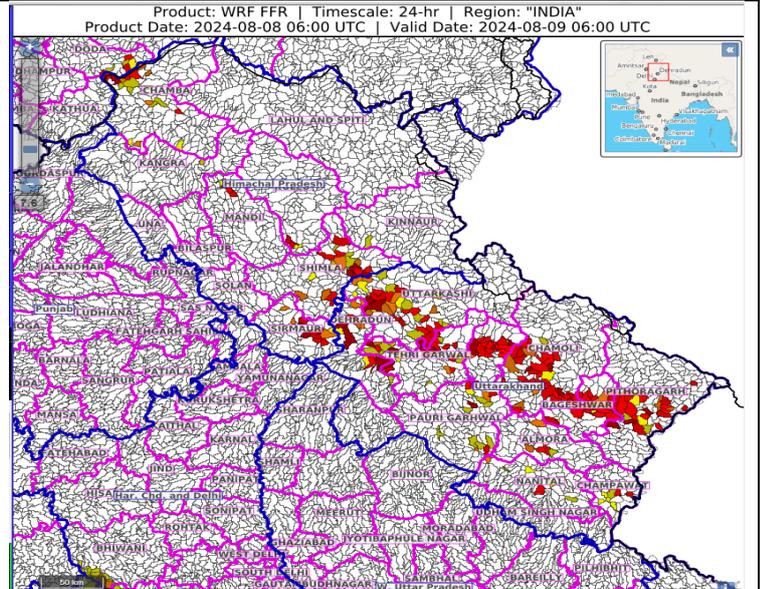
- Drain out excess water from field crops and horticultural crops in Odisha, Jharkhand, Bihar, Sub-Himalayan West Bengal, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Rajasthan, Madhya Pradesh, Chhattisgarh, Konkan & Goa, Madhya Maharashtra (ghat areas), Tamil Nadu, Coastal Andhra Pradesh and Telangana.
- Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in North Eastern states, Haryana and Uttar Pradesh
- Provide mechanical support to horticultural crops & staking to vegetables.
- In Arunachal Pradesh, make proper arrangement for runoff management in Jhum rice fields by putting obstacles across the slopes.
- In Assam, provide mulching in ginger and turmeric.

Flash Flood Guidance:

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 09-08-2024 :

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

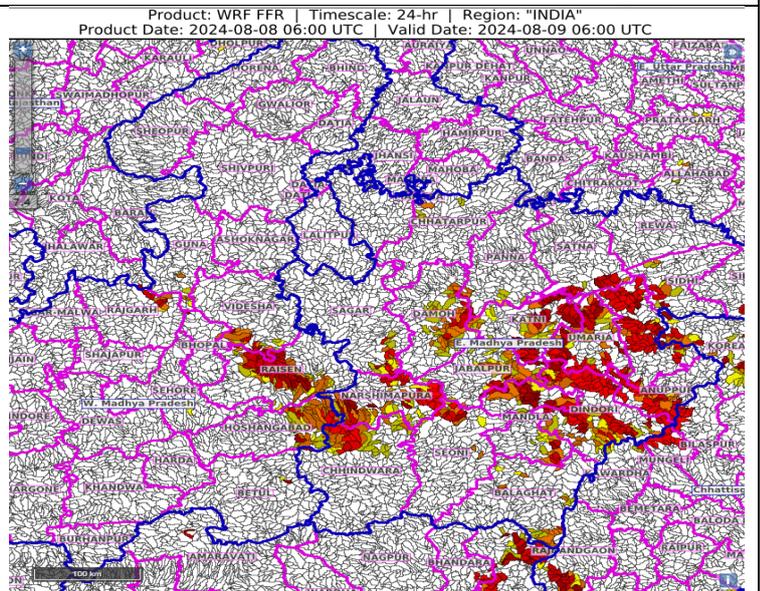
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 09-08-2024 :

Moderate flash flood risk likely over few watersheds & neighbourhoods of East Madhya Pradesh and West Madhya Pradesh 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 Snow		Cold Day	Subdivision Colour  NO WARNING  WATCH(BE UPDATED)  ALERT (BE PREPARED)  WARNING (TAKE ACTION)
	Heavy Rain		Hailstorm		Ground Frost	
	Very Heavy Rain		Dust Storm		Strong Surface Winds	
	Extremely Heavy Rain		Heat Wave		Thunder & Lightning	
			Cold Wave		Hot and Humid	

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)