

Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 13th July, 2025 Time of Issue: 1400 hours IST

Subject: i) Likely Formation of two Low pressure systems; one over northwest Madhya Pradesh and neighbourhood and another over northwest Bay of Bengal and adjoining coastal areas of West Bengal and Odisha during next 24 Hours.

ii) Heavy to very heavy rainfall with isolated extremely heavy likely over west Madhya Pradesh on 13th July, East Rajasthan during 13th to15th July, West Rajasthan on 14th & 15th 2025.
iii) Heavy to very heavy rainfall likely over east India during next 2-3 days.

Realised weather during past 24 hours till 0830 hours IST of today, the 13th July, 2025:

- ✤ Heavy to very heavy rainfall with isolated extremely heavy rainfall (≥21 cm) has been recorded over East Madhya Pradesh.
- Heavy to very heavy rainfall (7-20 cm) has been recorded at isolated places over Uttar Pradesh, Gujarat Region; Heavy rainfall (7-11 cm) at isolated places over Odisha, Jharkhand, Rajasthan, West Madhya Pradesh, Saurashtra & Kutch, Coastal Karnataka.

For more details of realised weather, kindly refer Annexure I.

i. Weather Systems, Forecast and Warnings (refer to Annexure II & III):

- The Monsoon trough is active; with its western end runs to the south of its normal position and eastern end near its normal position at mean sea level.
- An upper air cyclonic circulation lay over north Bay of Bengal and extends upto middle tropospheric levels tilting southwestwards with height. Under its influence, a low-pressure area is likely to form over northwest Bay of Bengal and adjoining coastal areas of West Bengal and Odisha during next 24 hours.
- Another upper air Cyclonic circulation lay over central parts of north Madhya Pradesh & neighbourhood and extends upto middle tropospheric levels. Under its influence, another low-pressure area is likely to form over northwest Madhya Pradesh and neighbourhood during next 24 hours.
- ☆ A fresh Western Disturbance seen as a trough in middle tropospheric levels with roughly along Long. 62°E to the north of Lat. 30°N.

Under the influence of these systems, the following weather is likely:

Northwest India:

- ✓ Extremely heavy rainfall (≥21 cm) very likely at isolated places over East Rajasthan during 13th-15th July and West Rajasthan on 14th & 15th July
- ✓ Isolated heavy rainfall likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh during 13th-17th; Uttarakhand during 13th-19th; Punjab on 16th; Haryana, Chandigarh & Delhi on 13th & 14th; West Uttar Pradesh on 13th, 17th & 18th; East Uttar Pradesh during 15th 18th; Rajasthan during 13th-18th July with very heavy rainfall over East Uttar Pradesh on 16th, Rajasthan during 13th-16th July.
- ✓ Light/moderate rainfall at most/many places accompanied with thunderstorm, lightning likely over western Himalayan region and some/many places over the plains during next 7 days.

East & Central India:

- ✓ Extremely heavy rainfall (≥21 cm) very likely at isolated places over west Madhya Pradesh on 13th July.
- ✓ Isolated heavy rainfall very likely to continue over West Madhya Pradesh during 13th-17th, East Madhya Pradesh, Odisha during 13th-19th, Chhattisgarh, Bihar during 14th-17th, Vidarbha on 17th, Andaman & Nicobar Islands during 14th-16th, West Bengal & Sikkim during 13th-15th, Jharkhand during 13th-16thJuly with very heavy

rainfall over West Madhya Pradesh on 13th, 14th, East Madhya Pradesh on 13th and during 17th-19th, Gangetic West Bengal on 14th, Jharkhand during 14th-16th, Odisha on 13th & 14th July.

✓ Light/moderate rainfall at most/many places accompanied with accompanied with thunderstorm & lightning likely over the region during next 7 days.

West India:

- Heavy rainfall likely at isolated places over Konkan & Goa, Ghat areas of Madhya Maharashtra, Saurashtra & Kutch on 13th & 14th and Gujarat Region during 13th -16th July with very heavy rainfall over Gujarat Region on 13th & 14th July.
- ✓ Light/moderate rainfall at many/some places very likely over the region during next 5 days.

Northeast India:

- ✓ Light/moderate rainfall at many places accompanied with thunderstorm, lightning likely to continue over Northeast India during next 7 days.
- ✓ Isolated heavy rainfall very likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh during 13th-19th July with very heavy rainfall over Meghalaya on 15th July.

South Peninsular India:

- ✓ Isolated heavy rainfall likely over Kerala & Mahe, Coastal & South Interior Karnataka during 13th-19th; Tamil Nadu during 15th-19th, Lakshadweep, Coastal Andhra Pradesh & Yanam, Rayalaseema on 18th & 19th July with very heavy rainfall over Kerala & Mahe, and Coastal Karnataka during 16th-18th July.
- ✓ **Strong surface winds** (speed reaching 40-50 kmph) very likely over South Peninsular India during next 5 days.
- ✓ Light/moderate rainfall at many/some places over Kerala & Mahe, Lakshadweep, Karnataka, Rayalaseema; isolated to scattered rainfall over Coastal Andhra Pradesh & Yanam, Telangana during next 7 days.

Hot & Humid weather Warnings:

Hot & Humdi weather conditions very likely in isolated pockets of Tamil Nadu on 13th & 14th; Coastal Andhra Pradesh & Yanam and Rayalaseema during 13th-15th July.

Fishermen Warnings:

Fishermen are advised to avoid venturing into the following from 13th July to 18th July 2025 to the following Areas:

Bay of Bengal:

North and adjoining central BoB off Odisha, Gangetic West Bengal for 13th July; Along and off Odisha-West Bengal coasts, North Bay of Bengal for 14th July; Some parts of westcentral Bay of Bengal and southwest Bay of Bengal, some southern parts of south Bay of Bengal for (13th to 16th July), few parts of westcentral and southwest Bay of Bengal day 5 (17th July), some southern parts of southwest Bay of Bengal for day 5 (16th to 18th July); over Andaman Sea on 17th July. Over Gulf of Mannar for day 1 to day 5 (13th to 18th July);

Arabian Sea:

Along and off Gujarat coasts for 14th to 16th July, Konkan & Goa on 14th July; along and off Kerala coasts and Lakshadweep area on 13th July and Kerala, Karnataka coasts & adjoining sea areas, Lakshadweep area for (14th to 18th July). Along and off the Somalia coast and adjoining sea areas, Oman and adjoining Yemen coast & adjoining sea areas during 13th to 18th July; most part of northeast Arabian Sea for 14th and 15th July; most parts of central Arabian Sea, northern parts of south Arabian Sea; over parts of Comorin area, for (13th to 18th July).

Total suspension of fishing operations is suggested over above mentioned areas and dates.

ii. Weather conditions and forecast over Delhi/NCR during 13th to 16th July, 2025 (Annexure IV)

For more details, kindly refer National Weather Bulletin:

<u>https://mausam.imd.gov.in/responsive/all india forcast bulletin.php</u> **For District wise warnings refer:** <u>https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php</u>

Rainfall recorded (in cm) during past 24 hours till 0830 hours IST of today, the 13th July:

- East Madhya Pradesh: Bijawar (dist Chhatarpur) 30; Tikamgarh-aws (dist Tikamgarh) 21; Orchha (dist Niwari), Mohangarh (dist Tikamgarh), Lidhora (dist Tikamgarh) 20 Each; Baldevgarh (dist Tikamgarh), Khargapur (dist Tikamgarh) 19 Each; Nowgong (dist Chhatarpur), Badamalhera (dist Chhatarpur) 17 Each; Khajuraho AP (dist Chhatarpur), Palera (dist Tikamgarh) 16 Each; Rahatgarh (dist Sagar) 13; Prithvipur (dist Niwari) 12; Chahtarpur-aws (dist Chhatarpur), Jatara (dist Tikamgarh), Niwari (dist Niwari) 11 Each; Banda (dist Sagar) 10; Khurai (dist Sagar), Badagaon Dhasan (dist Tikamgarh) 9 Each; Jaisinagar (dist Sagar) 8; Rajnagar (dist Chhatarpur), Shahgarh (dist Sagar) 7 Each;
- Gujarat Region: Dantiwada (dist Banaskantha) 17; Palanpur (dist Banaskantha), Dantewada AWS (dist Banaskantha) 13 Each; Deesa (dist Banaskantha) 12; Vadgam (dist Banaskantha), Danta (dist Banaskantha) 8 Each;
- West Uttar Pradesh: Mahroni (dist Lalitpur) 16; Lalitpur (dist Lalitpur) 15; Auraiya (CWC) (dist Auraiya) 10; Talbehat (dist Lalitpur) 9; Bijnor (dist Bijnor), Jhansi (dist Jhansi) 8 Each;
- East Uttar Pradesh: Fatehpur Tehsil (dist Barabanki) 14; Ankinghat (dist Kanpur City) 12; Beberu (dist Banda) 11; Kannauj (dist Kannauj), Lalganj Aara (dist Pratapgarh) 9 Each; Varanasi/Bab AP (dist Varanasi) 7;
- East Rajasthan: Manohar Thana (dist Jhalawar) 11; Sallopat SR (dist Banswara) 9; Sapau SR (dist Dholpur) 7;
- West Madhya Pradesh: Khaniyadana (dist Shivpuri), Pathari (dist Vidisha) 10 Each; Chanderi (dist Ashoknagar), Biaora (dist Rajgarh), Karera (dist Shivpuri), Pichhore (dist Shivpuri), Mau (dist Bhind) 9 Each; Kurwai (dist Vidisha) 8; Ashoknagar-aws (dist Ashoknagar), Sironj (dist Vidisha), Mihona (dist Bhind), Ghatigaon (dist Gwalior), Bamori (dist Guna) 7 Each;
- West Rajasthan: Jaswantpura (dist Jalore) 8;
- Haryana-Chandigarh-Delhi: Manethi REV (dist Rewari) 8;
- **Jharkhand**: Manoharpur Phc (dist West Singbhum) 8;
- Coastal Karnataka: Udupi (dist Udupi), Siddapura (dist Udupi), Gokarna (dist Uttara Kannada), Manki (dist Uttara Kannada) 7 Each;
- Saurashtra & Kutch: Palitana (dist Bhavnagar), Umrala (dist Bhavnagar) 7 Each.

Realised Gusty Winds (kmph) During Past 24hours ending at 0830 hrs IST of today the 13th July:

- Himachal Pradesh: Kukumseri-56;
- Gujarat Region: Deesa (Dantiwada AFMU) 46 kmph;
- ✤ Manipur: ADC MOREH=43;
- **& Konkan**: Dapoli (Ratnagiri) 43 kmph;
- **Uttarakhand**: Jollygrant-41, Chamoli-35, Pantnagar-31;
- Arunachal Pradesh: LOWERTATO=50, BOMDILA=35;

ANNEXURE II

	Table							
7 Days Rainfall Forecast 13- Jul 14- Jul 15- Jul 16- Jul 17- Jul 18- Jul 19- Jul								
S.No.	Subdivision							
		Day 1	and the second se	Day 3	Day 4	Day 5	Day 6	Day
	ANDAMAN & NICOBAR ISLANDS	FWS		ELLO	0.07	0.07	E MO	E MAR
	ARUNACHAL PRADESH	SCT	FWS	FWS				FW
	ASSAM & MEHGHALAYA	SCT	FWS	FWS				N. N.
	NAGALAND, MANIPUR, MIZORAM AND TRIPURA		FWS	FWS		FWS		
	SUB HIMALAYAN WEST BENGAL & SIKKIM	FWS	FWS	FWS		FWS		
	GANGETIC WEST BENGAL	WB	WB	WS	FWS	FWS		SC
7		- WS	WS	FWS	FWS	FWS		SC
8	JHARKHAND	WS	WE	WIS .	342	FWS		SC
9		SCT	SCT	FWS	and the second	SCT	ISOL	SC
10		SCT	FWS	FWS		FWS	and the second se	FW
11	WEST UTTAR PRADESH	FWS	SCT	FWS	FWS	FWS	SCT	SC
12	UTTARAKHAND	W/S	1975	//S	WS	WS.	98/5	YY
13	HARYANA, CHANDIGARH & DELHI	FWS	FWS	SCT	SCT	SCT	ISOL	ISO
14	PUNJAB	SCT	SCT	SCT	SCT	SCT	ISOL	ISO
15	HIMACHAL PRADESH	FWS	FWS	FWS	W.S	WS	FWS	FW
16	JAMMU AND KASHMIR AND LADAKH	SCT	SCT	FWS	FWS	FWS	SCT	SC
17		SCT	FWS	FWS	FWS	SCT	ISOL	ISO
18	EAST RAJASTHAN	WB	With	FWS		SCT	ISOL	ISO
19		WS	FWS	FWS		SCT		SC
20		We	FWS	FWS		SCT	FWS	FW
21	Construction of the	11/10	W/S		FWS	FWS	FWS	FW
22		FWS	FWS	FWS		FWS		FW
23		1110		FWS		SCT		FW
24		SCT	SCT	ISOL	and the second se	ISOL	and the second se	ISO
25		ISOL	ISOL	ISOL	and the second second second second	ISOL	ISOL	ISO
26		SCT	SCT	SCT	and the second se	FWS	and the second sec	and the second se
27		SCT	SCT		SCT	FWS		FW
28		ISOL	ISOL	ISOL	ISOL	SCT		FW
29		ISOL	ISOL	ISOL	ISOL	ISOL	and the second se	SC
30		and the second se	ISOL	ISOL	the second se	Conception of the local division of the loca	FWS	FW
-	a na seconda da seconda da seconda da seconda de la sec	ISOL	and the second secon	the second se	SCT	SCT	SCT	
31		ISOL	ISOL	ISOL	301	SCT	301	SC
32		10.01	POT	11.5	E MAR	E MAR	14.25	100
33		ISOL		SCT	FWS	FWS		ISC
34		FWS	FWS	FWS	FWS	FWS	W S	
35		W8	YKS	WS	- WE	WS	WE	
36	LAKSHADWEEP	. WG	WS	W9	1	94.5	W3	M M

• As the lead period increases forecast accuracy decrease.





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

DetaileddistrictwiseMultiHazardweatherwarningfornextfivedaysavailableat https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php

Weather forecast over Delhi/NCR during 13th to 16th July 2025

Past Weather:

There has been fall in the minimum temperature up to 1°C and rise in maximum temperature up to 1 to 2°C over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi were around 34 to 35°C and 24 to 26°C respectively. The minimum temperature was below normal up to 1 to 2°C and the maximum temperature was below normal up to 1 to 2°C. Partly cloudy sky conditions with predominant surface wind from the southwest direction with wind speeds up to 16 kmph prevailed during the past 24 hours. Light rainfall has been recorded in most places with isolated place moderate rainfall of Delhi. Generally cloudy sky conditions with a windspeed of less than 12 kmph from the northeast direction prevailed over the region in the forenoon today.

Weather Forecast:

13.07.2025: Generally cloudy sky. Light to moderate rain accompanied with thunderstorms/lightning. The maximum temperatures over Delhi are likely to be in the range of 32 to 34°C. The maximum temperature will be below normal up to 1 to 2°C. The predominant surface wind will likely be from the southeast direction with a wind speed of less than 15 kmph in the afternoon. The wind speed will gradually decrease becoming 08-12 kmph from the southeast direction during evening and night.

14.07.2025: Generally cloudy sky. Light to moderate rain accompanied with thunderstorms/lightning. The maximum and minimum temperatures over Delhi are likely to be in the range of 32 to 34°C and 25 to 27°C respectively. The minimum temperature will be below normal up to 1 to 2°C, and the maximum temperature will be below normal up to 1 to 2°C. The predominant surface wind will likely be from the southeast direction with a wind speed of less than 15 kmph during the morning hours. The wind speed will gradually increase becoming less than 20 kmph from the southeast direction in the afternoon. It will decrease becoming less than 18 kmph from the southeast direction during the evening and night.

15.07.2025: Partly cloudy sky. Light rain accompanied with thunderstorms/lightning. The maximum and minimum temperatures over Delhi are likely to be in the range of 33 to 35°C and 25 to 27°C, respectively. The minimum temperature will be below normal up to 1 to 2°C, and the maximum temperature will be below normal up to 1 to 2°C. The predominant surface wind will likely be from the southeast direction with a wind speed of less than 18 kmph during the morning hours. The wind speed will gradually increase becoming less than 20 kmph from the southeast direction in the afternoon. It will decrease becoming less than 15 kmph from the southeast direction during the evening and night.

16.07.2025: Partly cloudy sky. Light rain accompanied with thunderstorms/lightning. The maximum and minimum temperatures over Delhi are likely to be in the range of 32 to 34°C and 22 to 24°C respectively. The minimum temperature will be below normal up to 2 to 4°C and the maximum temperature will be below normal up to 1 to 2°C. The predominant surface wind will likely be from the southwest direction with a wind speed of less than 12 kmph during the morning hours. The wind speed will gradually increase becoming less than 18 kmph from the southeast direction in the afternoon. It will increase becoming less than 20 kmph from the southeast direction during the evening and night.

Impact expected and Action Suggested due to light rainfall with thunderstorm/lightning:

- Be cautious and take precautionary measures, though there is the likelihood of thunderstorms/lightning.
- Damage to standing crops, Minor to major damage to power and communication lines due to breaking of branches, Partial damage to vulnerable structures due to strong winds, Loose objects may fly.
- People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places
 accordingly, stay indoors, close windows & doors and avoid travel if possible, take safe shelters; do not take shelter
 under trees, do not lie on concrete floors and do not lean against concrete walls, unplug electrical/ electronic
 appliances, immediately get out of water bodies, keep away from all the objects that conduct electricity.

Impact & Action Suggested

- ✓ Extremely heavy rainfall (≥21 cm) very likely at isolated places over West Rajasthan on 14th & 15th, East Rajasthan during 13th-15th and West Madhya Pradesh on 13th July.
- Very heavy rainfall very likely at isolated places over Rajasthan during 13th-16th July. West Madhya Pradesh, Gujarat Region on 13th & 14th, East Madhya Pradesh on 13th and during 17th-19th, Gangetic West Bengal on 14th, Jharkhand during 14th-16th, Odisha on 13th & 14th, East Uttar Pradesh on 16th, Kerala & Mahe, and Coastal Karnataka during 16th-18th July

Impact Expected

- Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of (Rajasthan and West Madhya Pradesh) 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/mudslips/landsinks/mudsinks.
- > 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 likely impact of Heavy / Heavy to Very Heavy Rainfall

- In East Rajasthan, ensure proper drainage of excess water from rice nurseries and fields of maize, soybean, and black gram in the Southeastern Humid Plain Zone. In Flood-Prone Eastern Plain Zone, provide drainage in fields of pearl millet, sesame, black gram, and vegetables. In Southern Humid Plain Zone, postpone the sowing of soybean, maize, cotton, and groundnut, and ensure drainage of excess water from standing crops. In Sub-Humid Southern Plains Zone, postpone sowing of maize, soybean, green gram, black gram, and groundnut, and ensure drainage of excess water from standing crops. In Sub-Humid Southern Plains Zone, postpone sowing of maize, soybean, green gram, black gram, and groundnut, and ensure drainage of excess water from standing crops. In West Rajasthan, postpone sowing of green gram, clsuter bean, moth bean, sesame etc and make provision to drain out excess water from *kharif crops* in Transitional Plain of Luni basin.
- In Madhya Pradesh, postpone sowing of *kharif* crops in regions with excessive rainfall. Drain out excess water from rice nurseries and fields of soybean, maize and vegetables in Kymore Plateau and Satpura Hill Zone; and from rice nurseries and sugarcane in Central Narmada Valley Zone. Ensure proper drainage facilities in the fields of maize, soybean and vegetables in Satpura Plateau zone; soybean and vegetables in Vindhya Plateau Zone; soybean and pearl millet in Malwa Plateau Zone; and soybean, maize, cotton and back gram in Jhabua Hills Zone. In Central Narmada Valley Zone, avoid sowing of soybean and maize crop till the cessation of heavy rains.
- In Uttar Pradesh, make proper arrangements for drainage in standing crops and vegetable nurseries in Eastern Plain Zon; fields of rice, pulses (black gram, pigeon pea etc.) and groundnut in Central Plain Zone; and fields of paddy, spring sugarcane, pigeon pea, maize and vegetables in South Western Semi-Arid Zone. In Chitrakoot district, avoid sowing of sesame and pearl millet and nursery sowing of vegetables (chilli, brinjal, tomato, cabbage and bitter gourd) during heavy rainfall.
- In Coastal Karnataka, drain out excess water from rice nurseries, transplanted rice fields and plantations of arecanut and coconut in Coastal Zone; and from rice nurseries and fields of maize, cotton and ginger and plantations of arecanut in Hill Zone.
- > In **Odisha**, ensure proper drainage from already sown rice nurseries, fields of maize and vegetables to prevent waterlogging.
- In Jharkhand, make necessary arrangements to drain out excess water from maize fields, rice and vegetable nurseries. Cover the vegetable nurseries with polythene sheets.
- In Gujarat region, drain out excess water from rice nurseries, sugarcane fields, banana and mango plantations to prevent waterlogging. Provide support to sugarcane with strong bamboo or tie the leaves together to prevent lodging. In Saurashtra & Kutch, drain out excess water from fields of groundnut, soybean, cotton and vegetables and horticultural plantations. Undertake propping in sugarcanes with strong bamboo or tie the leaves together in a clump to protect against wind and heavy rain.

Livestock / Fishery

> Keep the animals inside the shed during heavy rainfall and provide them balanced feed.

- Store feed and fodder in a safe place to prevent spoilage.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.

Agromet advisories for likely impact of Thunderstorm / Gusty Winds / Squally Winds

Provide mechanical support to horticultural crops and staking or support to vegetables and young fruit plants / fruit-bearing plants to avoid lodging due to strong winds.

Flash flood guidance:

24-hr | Region: "REGIONAL" Valid Date: 2025-07-14 06:00 LITC Product: NCUM Fi 24 hours Outlook for the Flash Flood Product Date Risk (FFR) till 1130 IST of 14-07-2025 : Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours. East Rajasthan - Ajmer, Banswara, Baran, Bhilwara, Bundi, Chittaurgarh, Dungarpur, Jhalawar, Kota, Pratapgarh, Rajsmand, Sirohi, Tonk Udaipur and districts. West Rajasthan - Jalor and Pali districts. West Madhya Pradesh - Agar-Malwa, Dhar. Guna, Indore, Jhabua, Mandsaur, Nimach, Rajgarh, Ratlam and Ujjain districts. Gujarat Region - Aravalli, Banaskantha, Dahod, Mahisagar, Panchmahal and Sabar Kantha districts. 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. Region: "INDIA" a: 2025-07-14 06:00 UTC 24 hours Outlook for the Flash Flood Product Dat 65 Risk (FFR) till 1130 IST of 14-07-2025 : Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours. Himachal Pradesh - Mandi, Shimla, Sirmaur Solan districts. and Uttarakhand - Almora, Bageshwar, Chamoli, Champawat, Dehradun, Nanital, Pauri Garhwal, Pithoragarh, Tehri Garwal and Uttarkashi districts. 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.

Legends & abbreviations:

- Heavy Rain:64.5-115.5mm; Very Heavy Rain:115.6-204.4mm; Extremely Heavy Rain: >204.4mm.
- Obsy: Observatory; 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.



राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences



* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action". Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.

For more details, kindly visit https://mausam.imd.gov.in or contact: 011-2434-459 (Service to the Nation since 1875)





National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

	Heavy: 64.5 to 115.5 mm/cm *					
ain/ Snow *	Very Heavy: 115.6 to 204.4 mm/cm* Extremely Heavy: > 204.4 mm/cm *					
	When maximum temperature of a station reaches ≥40° C for plains and ≥30° C for hilly regi (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 ≥6.5° C					
leat Wave	(b). Based on Actual maximum temperature					
	Heat Wave: When actual maximum temperature ≥45°C. Severe Heat Wave: When actual maximum temperature ≥47°C					
	(c). Criteria for heat wave for coastal stations When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C					
	When maximum temperature remains 40°C					
arm Night	Warm Night: When minimum temperature departure 4.5 °C to 8.4 °C.					
00000000000000000000000000000000000000	Severe Warm Night: When minimum temperature departure >6.4 °C.					
	When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C					
Cold Wave	(b) Based on actual Minimum Temperature (for Plains only)					
	Cold Wave : When Minimum Temperature is \$ 4.0 °C					
	Severe Cold Wave: When Minimum Temperature is ≤ 2.0 °C					
	(c) For Coastal Stations When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C					
	When minimum temperature departure is \$4.5 C & actual withhum temperature is \$15 C					
	Based on departure					
Cold Day	Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C.					
	Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C					
	Phenomenon of small droplets suspended in air and the horizontal visibility < 1km					
-	Moderate Fog: When the visibility between 500-200 metres					
Fog	Very Dense Fog: when the visibility between 50- 200 metres Very Dense Fog: when the visibility < 50 metres					
understorm	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.					
12000-01-0	Ice deposits on ground					
Frost	Air temperature ≤4*C (over Plains)					
	A strong wind that rises suddenly, lasts for atleast 1 minute.					
-	Moderate: Wind speed 52-61 kmph					
Squall	Severe: Wind speed 62-67 kmph					
	Very Severe: Wind speed >87 kmph					
	Effect of various waves in the sea over specific area					
Con State	Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre					
Sea State	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					
	Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots) Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)					
Cyclone	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 Strom: Wind speed >220 kmph (>119 knots)					

Hot and Humid: When maximum temperatures remain 3°C above normal along with the above normal relative humidity.