

Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 01st August, 2024

Time of Issue: 1400 hours IST

- Subject:** 1) Monsoon is likely to be active over Northwest India during next 3 days and over Central India during next 4-5 days.
- 2) Isolated extremely heavy rainfall likely over Madhya Maharashtra during 01st-03rd; Coastal Karnataka on 01st; East Madhya Pradesh on 02nd & 03rd; Konkan & Goa & West Madhya Pradesh on 03rd August.
- 3) Isolated heavy to very rainfall likely to continue along west coast during most days of the week.
- 4) Widespread rainfall with isolated heavy to very heavy falls likely over Northwest, Central & East India during next 3 days.

Realised weather during past 24 hours till 0830 hours IST of today, 01st August: (Annexure I)

- ✓ **Heavy to very heavy rainfall** with **extremely heavy rainfall** occurred at isolated places over Uttarakhand, Coastal Karnataka; **Heavy to very heavy rainfall** at isolated places over Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, East Uttar Pradesh, Konkan & Goa, Madhya Maharashtra, Odisha, Gangetic West Bengal, Bihar, Jharkhand, South Interior Karnataka; **Heavy rainfall** at isolated places over Jammu & Kashmir, West Uttar Pradesh, Tamil Nadu, Kerala, Chhattisgarh, Marathwada, North Interior Karnataka, Arunachal Pradesh, Assam & Meghalaya and Tripura.

Weather Systems

- ✓ The **Monsoon trough** is active and near of its normal position at mean sea level. It is likely to persist near its normal position during next 4-5 days.
- ✓ The **off-shore trough** at mean sea level runs along South Gujarat to Kerala coast.
- ✓ A **cyclonic circulation** over Gangetic West Bengal & adjoining south Bangladesh in lower & middle tropospheric tilting southwards with height and a **trough** from above cyclonic circulation to northeast Bihar in lower tropospheric levels.
- ✓ A **cyclonic circulation** lies over northeast Rajasthan & neighbourhood in lower tropospheric levels.
- ✓ A **trough** runs from West Uttar Pradesh to cyclonic circulation over Gangetic West Bengal in lower & middle tropospheric levels.
- ✓ A **cyclonic circulation** lies over Punjab & neighbourhood in lower & middle tropospheric levels.

Forecast & Warnings: (Annexure II)

❖ **West & Central India**

- ✓ Fairly widespread to widespread light/moderate rainfall **accompanied with thunderstorm & lightning** very likely over the region during the week.

- ✓ **Isolated extremely heavy rainfall very likely over Madhya Maharashtra during 01st-03rd August; East Madhya Pradesh on 02nd & 03rd; Konkan & Goa, West Madhya Pradesh and Gujarat Region on 03rd August.**
- ✓ **Heavy to very heavy rainfall very likely at isolated places over Konkan & Goa, Madhya Maharashtra, Gujarat Region during 01st-05th; Madhya Pradesh during 01st-04th; Vidarbha, Chhattisgarh during 01st-03rd and Saurashtra & Kutch on 03rd August.**
- ✓ **Heavy rainfall** very likely at isolated places over Marathwada on 03rd and Saurashtra & Kutch on 04th August.

❖ **Northwest India**

- ✓ Fairly widespread to widespread light to moderate rainfall **accompanied with thunderstorm & lightning** very likely over Jammu-Kashmir, Himachal Pradesh, Uttarakhand; scattered to fairly widespread rainfall over Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh and Rajasthan during the week.
- ✓ **Isolated very heavy rainfall also likely over Himachal Pradesh, Punjab, Haryana-Chandigarh, West Uttar Pradesh, West Rajasthan on 01st; Uttarakhand during 01st-03rd; East Rajasthan during 01st-04th August.**
- ✓ Isolated **heavy rainfall** very likely over Jammu-Kashmir and Rajasthan during 01st-05th; Himachal Pradesh and Uttarakhand during 01st-07th; Uttar Pradesh during 01st - 03rd, 6th & 7th; Punjab, Haryana-Chandigarh on 01st & 02nd August.

❖ **South Peninsular India:**

- ✓ Fairly widespread to widespread light to moderate rainfall over Coastal Karnataka, Lakshadweep and Kerala & Mahe, Karnataka and isolated to scattered rainfall over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema during the week.
- ✓ **Isolated extremely heavy rainfall very likely over Coastal Karnataka on 01st August.**
- ✓ **Very heavy rainfall very likely at isolated places over South Interior Karnataka 01st & 02nd; Kerala on 01st and Coastal Karnataka on 02nd August.**
- ✓ **Heavy rainfall** very likely at isolated places over Coastal & South Interior Karnataka during 01st-04th; Kerala & Mahe on 02nd & 03rd; Tamil Nadu, Telangana on 01st August and North Interior Karnataka on 01st & 02nd 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 Jharkhand, Odisha, Gangetic West Bengal on 01st; Assam & Meghalaya on 01st & 02nd; Manipur, Mizoram on 01st and Sub-Himalayan West Bengal & Sikkim on 05th August.**
- ✓ Isolated **heavy rainfall** very likely over Jharkhand, Odisha, Gangetic West Bengal on 01st & 02nd August; Bihar, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura during 01st-07th August.

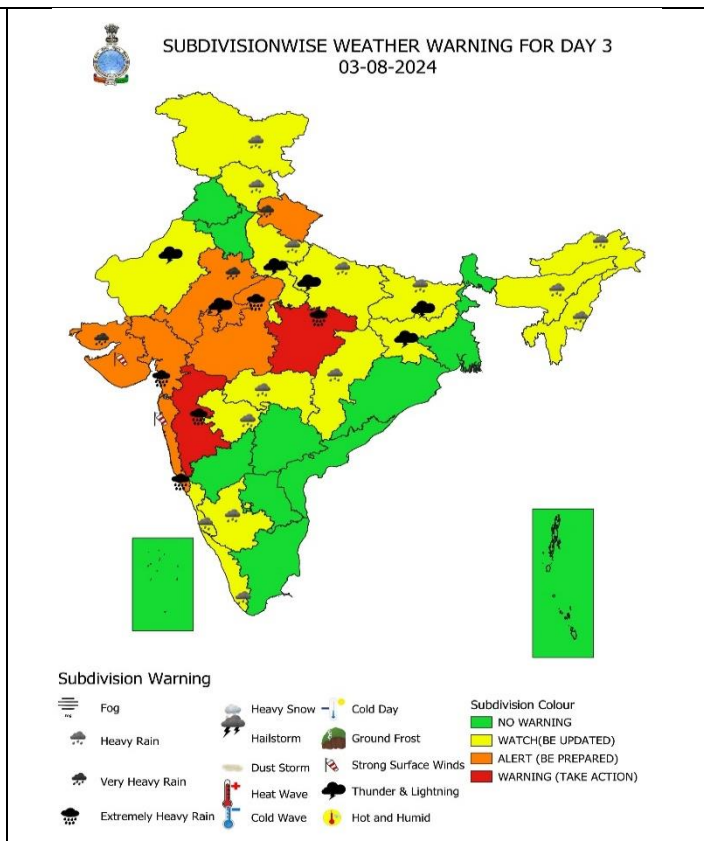
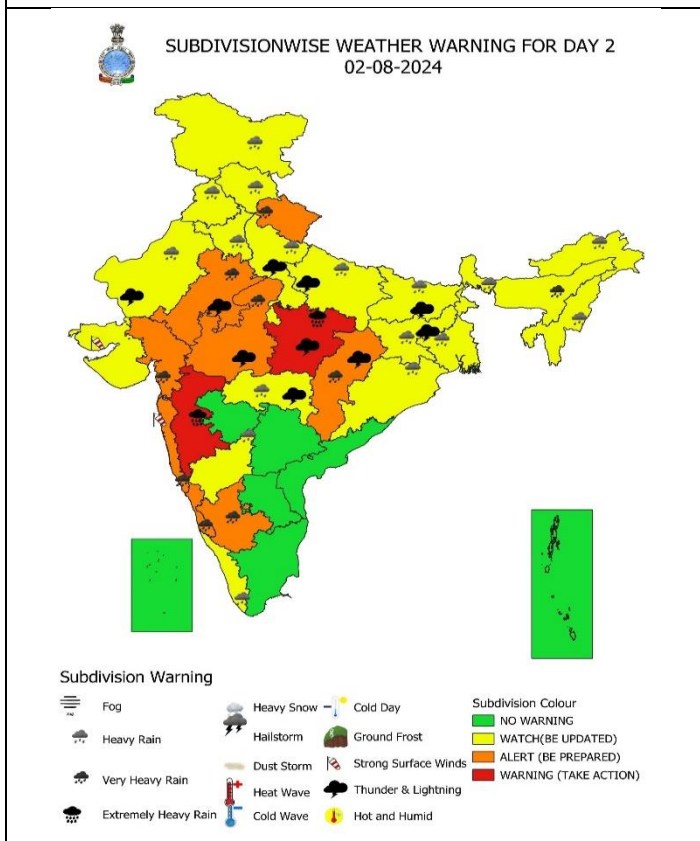
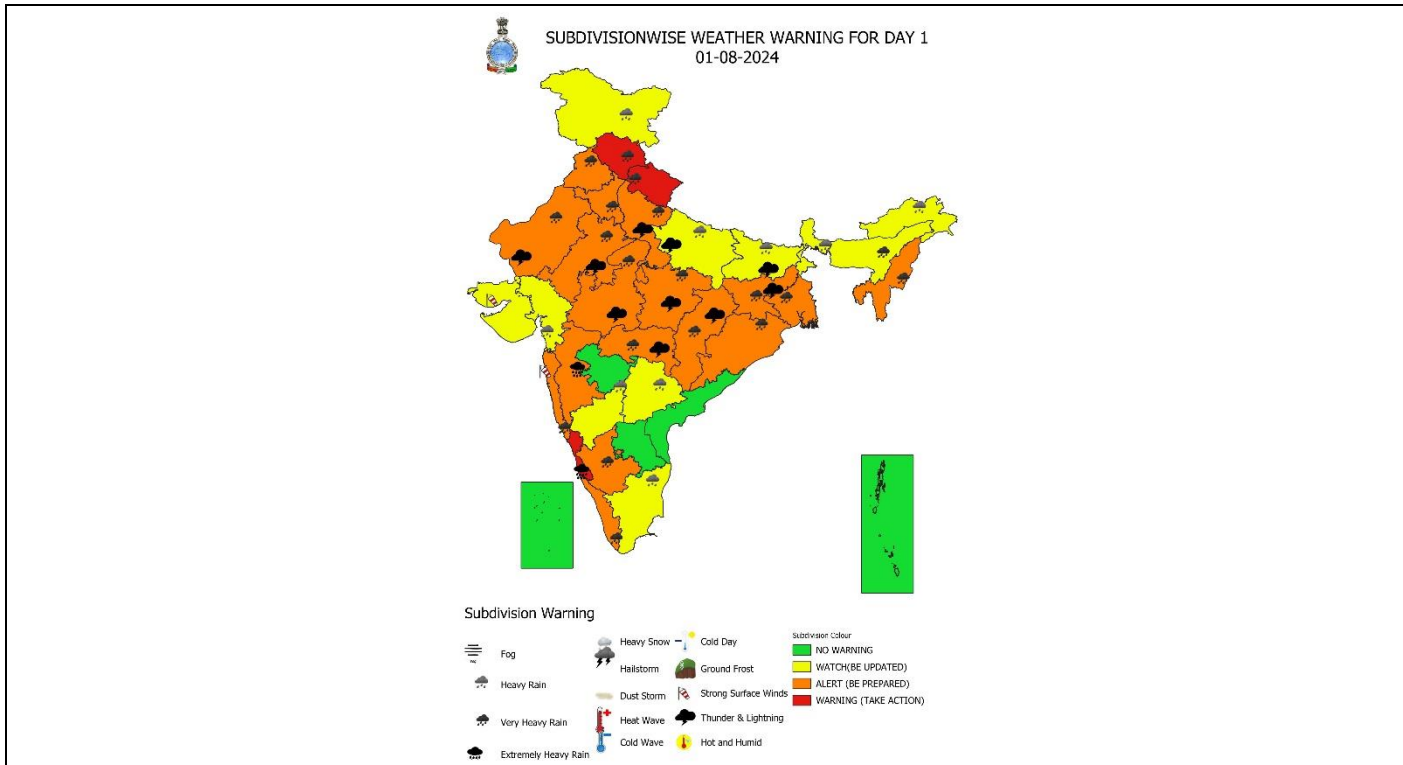
For more details, kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

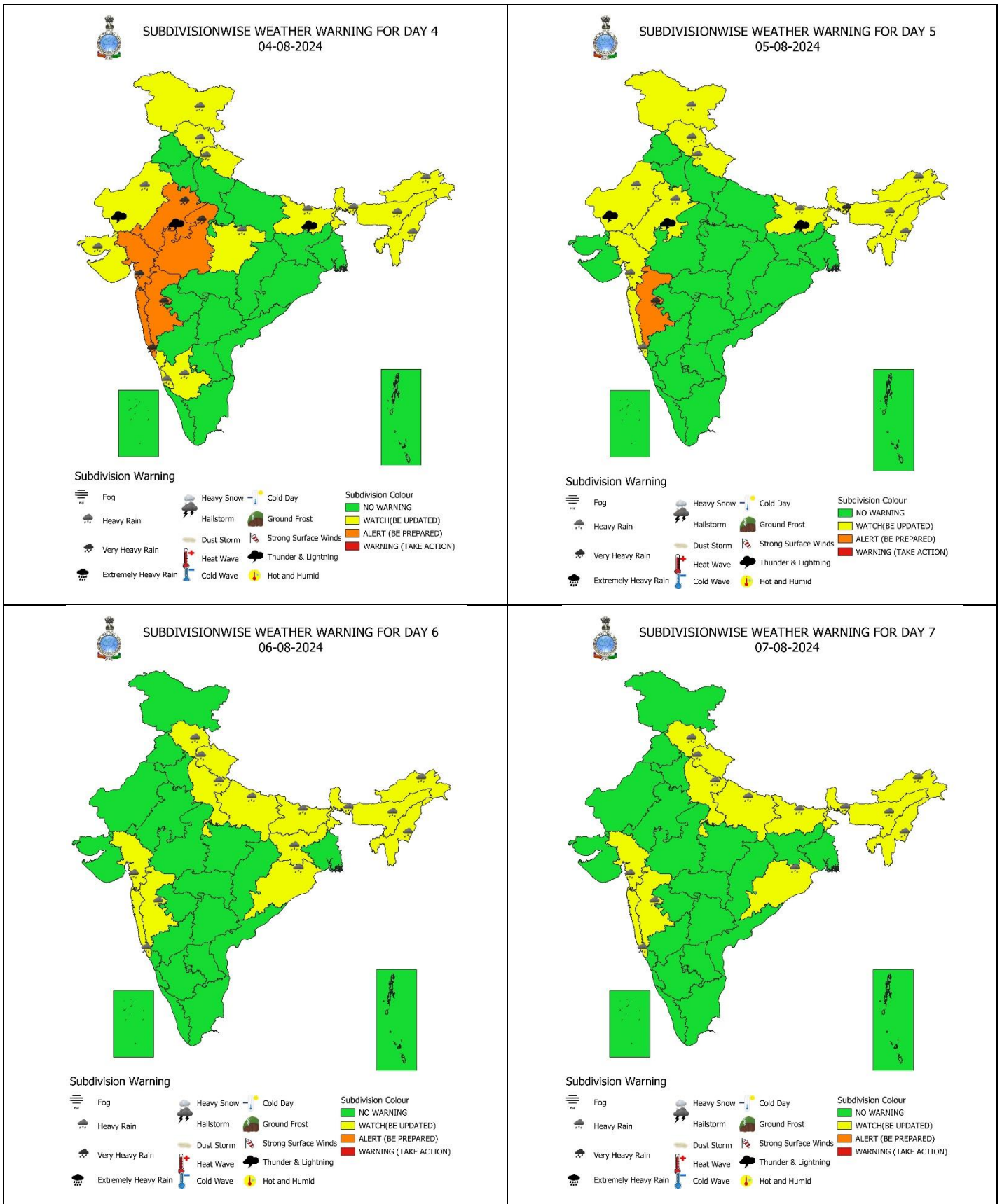
Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 01st August (in cm):

- ❖ **Uttarakhand:** Haripur (Dehradun)24, Roshnabad (Haridwar) 21, Dehradun (Dehradun) 17, Haridwar (Haridwar)15, Jollygrant (Dehradun) 12, Narendra Nagar (Tehri Garhwal) 11, Dhanaulti (Tehri Garhwal) 10, Bhagwanpur (Haridwar) 9, Chakrata (Dehradun) 9, Loharkhet (Bageshwar) 9, Haldwani (Nainital) 8, Roorkee (Haridwar) 8, Khatima (Udham Singh Nagar) 7, Kotdwar (Pauri Garhwal) 6, Nainital (Nainital) 6, **Coastal Karnataka:** Karkala (dist Udipi) 23, Ankola (dist Uttara Kannada) 20, Castle Rock (dist Uttara Kannada) 20, Siddapura (dist Udipi) 17, Mulki (dist Dakshina Kannada) 16, Kadra (dist Uttara Kannada) 16, Dharmasthala (dist Dakshina Kannada) 15, Belthangadi (dist Dakshina Kannada) 15, Kundapur (dist Udipi) 15, Gokarna (dist Uttara Kannada) 15, Kumta (dist Uttara Kannada) 14, Shirali Pto (dist Uttara Kannada) 13, Gersoppa (dist Uttara Kannada) 13, Manki (dist Uttara Kannada) 13, Karwar Obsy (dist Uttara Kannada) 12, Uppinangadi (dist Dakshina Kannada) 11, Honavar Obsy (dist Uttara Kannada) 11, **Himachal Pradesh:** Palampur (dist Kangra) 21, Chuari (dist Chamba) 20, Dharmasala (dist Kangra) 18, Jogindarnagar (dist Mandi) 16, Dharmshala Aws (dist Kangra) 15, Kangra Aero (dist Kangra) 15, Sujampur Tira (dist Hamirpur) 14, Baijnath (dist Kangra) 13, Paonta (dist Sirmaur) 12, Nadaun (dist Hamirpur) 10, Nahan (dist Sirmaur) 10, Pandoh (dist Mandi) 9, Kataula (dist Mandi) 9, Kufri Aws (dist Shimla) 9, Ghumarwin (dist Bilaspur) 8, Arki (dist Solan) 8, Pachhad (dist Sirmaur) 8, Solan (dist Solan) 7, Guler (dist Kangra) 7, Simla (dist Shimla) 7, **Konkan & Goa:** Quepem (dist South Goa) 20, Sanguem (dist South Goa) 17, Ponda (dist North Goa) 14, Mormugao - Pmo Imd (dist South Goa) 14, Margao (dist South Goa) 14, Panjim - Imd Obsy (dist North Goa) 12, Dodamarg (dist Sindhudurg) 12, Awalegaon - Arg (dist Sindhudurg) 12, Mapusa (dist North Goa) 11, Sawantwadi (dist Sindhudurg) 11, Dabolim N.a.s.- Navy (dist South Goa) 11, Vengurla Arg (dist Sindhudurg) 9, Canacona (dist South Goa) 9, Lanja (dist Ratnagiri) 8, Pawarwadi - Arg (dist Ratnagiri) 8, Mandangad (dist Ratnagiri) 7, **Haryana:** Ambala Cantt (dist Ambala) 18, Ambala (dist Ambala) 14, Mulana (dist Ambala) 13, Nahar Rev (dist Rewari) 13, Kosli (dist Rewari) 13, Gurgaon Aws (dist Gurgaon) 12, Ambala Rev (dist Ambala) 11, Jhirka (dist Nuh) 11, Sahlawas (dist Jhajjar) 11, Gurgaon Rev (dist Gurgaon) 11, Palhawas Rev (dist Rewari) 10, Madluda Rev (dist Panipat) 10, Mahendragarh Aws (dist Mahendragarh) 9, Ujha Panipat Aws (dist Panipat) 9, Mahendragarh (dist Mahendragarh) 9, Nagina Rev (dist Nuh) 9, Bahadurgarh (dist Jhajjar) 9, Dhauj (dist Faridabad) 9, Narnaul Rev (dist Mahendragarh) 9, Beri (dist Jhajjar) 8, Kanina (dist Mahendragarh) 8, Punhana (dist Nuh) 8, Ismailabad (dist Kurukshetra) 8, Dadri Teye Edu Fmo (dist Jhajjar) 8, Manesar Rev (dist Gurgaon) 7, Farukhnagar (dist Gurgaon) 7, Jagdishpur Aws (dist Sonapat) 7, Shahbad (dist Kurukshetra) 7, Jhahhar (dist Jhajjar) 7, Badli Rev (dist Jhajjar) 7, Jhansa Irr (dist Kurukshetra) 7, Chhachhrauli (dist Yamuna Nagar) 7, Pilukhera (dist Jind) 7, Naraingarh (dist Ambala) 7, Bilaspur (dist Yamuna Nagar) 7, **East Madhya Pradesh:** Sleemanabad (dist Katni) 17, Bichhia (dist Mandla) 17, Umariyapan (dist Katni) 16, Samnapur (dist Dindori) 11, Sihora (dist Jabalpur) 11, Amarpur (dist Dindori) 11, Narayananj (dist Mandla) 10, Gadarwara (dist Narsinghpur) 9, Matiyari (dist Mandla) 9, Mehadwani (dist Dindori) 9, Bilaspur (dist Umariya) 9, Dheemarkheda (dist Katni) 9, Buxwaha (dist Chhatarpur) 8, Mohgaon (dist Mandla) 8, Jaitpur (dist Shahdol) 7, Jaisingh Nagar (dist Shahdol) 7, Shahgarh (dist Sagar) 7, **East Rajasthan:** Jaipur Tehsil (dist Jaipur) 17, Chomu (dist Jaipur) 16, Karauli (dist Karauli) 16, Jaipur Aero (dist Jaipur) 16, Niwai (dist Tonk) 14, Bonli (dist Sawai Madhopur) 14, Kotkasim Sr (dist Alwar) 13, Phagi (dist Jaipur) 13, Ramgarhshekhatan (dist Sikar) 13, Sanganer Tehsil Sr (dist Jaipur) 13, Bahadurpur (dist Alwar) 13, Alwar (dist Alwar) 12, Khandar (dist Sawai Madhopur) 11, Todabhim (dist Karauli) 11, Nadoti (dist Karauli) 11, Malsisar (dist Jhunjhunu) 11, Mahwa (dist Dausa) 11, Shahpura (dist Jaipur) 10, Piplu (dist Tonk) 10, Chaksu (dist Jaipur) 10, Kishngarhwas (dist Alwar) 9, Kaman (dist Bharatpur) 9, Sambhar Sr (dist Jaipur) 9, Jamwaramgarh (dist Jaipur) 9, Bassi (dist Jaipur) 9, Malerainadunger (dist Sawai Madhopur) 9, Malpura (dist Tonk) 9, Fatehpur (dist Sikar) 8, Hindaun (dist Karauli) 8, Bansur (dist Alwar) 8, Dholpur Tehsil (dist Dholpur) 8, Atru (dist Baran) 8, **South Interior Karnataka:** Agumbe Emo (dist Shivamogga) 17, Bhagamandala (dist Kodagu) 11, Linganamakki Hms (dist Shivamogga) 7, **East Uttar Pradesh:** Mahsi (dist Bahraich) 16, Mohammedabad (Y) (dist Ghazipur) 13, Muhammadi (dist Kheri) 11, Nanpara (dist Bahraich) 9, Nighasan (dist Kheri) 9, **Jharkhand:** Bhawnathpur (dist Garhwa) 16, Majhgaon (dist West Singhbhum) 10, Panchet (dist Dhanbad) 9, Manoharpur Phc (dist West Singhbhum) 9, Panchet Dvc (dist Dhanbad) 9, Daltonganj (dist Palamu) 9, Palamu Dtg Kvk Aws (dist Palamu) 8, Hazaribagh (dist Hazaribagh) 8, Manoharpur (dist West Singhbhum) 8, Anandpur (dist West Singhbhum) 8, Shilaichak (dist Chatra) 7, Parsabad (dist Koderma) 7, Goilkeria (dist West Singhbhum) 7, Hazaribagh Dvc (dist Hazaribagh) 7, **Odisha:** Baripada (Mayurbhanj) 16, Jamda (Mayurbhanj) 13, Champua (Keonjhar) 13, Chandua Kuliana (Mayurbhanj) 13, Betanati (Mayurbhanj) 13, Sarasakana (Mayurbhanj) 12, Rairangpur (Mayurbhanj) 12, Kusumi (Mayurbhanj) 10, Banspal (Keonjhar) 10, Chandanpur (Mayurbhanj) 10, Jamankira (Sambalpur) 9, Pipili (Puri) 8, Bolangir (Bolangir) 8, Bangiriposi (Mayurbhanj) 8, Bijatala (Mayurbhanj) 7, Gurundia (Sundargarh) 7, Jamsolaghat (Mayurbhanj) 7, Samakhunta (Mayurbhanj) 7, Raruana (Mayurbhanj) 7, Jajpur (Jajpur) 7, Bahalda (Mayurbhanj) 7, **Punjab:** Pathankot Iaf (dist Pathankot) 16, Taran Taran (dist Tarn Taran) 14, Phangota (dist Pathankot) 12, Amritsar (dist Amritsar) 9, Jandiala Irr (dist Amritsar) 9, Bhuchar Irr (dist Tarn Taran) 9, Rasulpur Irr (dist Tarn Taran) 8, Valtoha Irr (dist Tarn Taran) 8, Manihala Irr (dist Tarn Taran) 8, Malikpur (dist Pathankot) 7, Ranjit Sagar Dam Site (dist Pathankot) 6, Bul Irr (dist Ludhiana) 5, **Delhi:** Green Field Ps (dist North East Delhi) 15, Sps Mayur Vihar (dist East Delhi) 14, President House (dist New Delhi) 14, Najafgarh Aws (dist West Delhi) 11, Delhi Ridge (dist North Delhi) 11, Delhi University Obs (dist North Delhi) 11, Safdarjung (dist New Delhi) 11, Lodi Road Aws (dist New Delhi) 11, Lodi Road (dist New Delhi) 11, Delhi University Aws (dist North Delhi) 11, Pusa Aws (dist Central Delhi) 9, Aya Nagar (dist South Delhi) 7, Palam (dist South West Delhi) 7, Dhansa (dist South West Delhi) 7, **Madhya Maharashtra:** Shahuwadi (dist Kolhapur) 14, Mahabaleshwar- Imd Obsy (dist Satara) 9, Chandgad (dist Kolhapur) 9, **West Rajasthan:** Taranagar / Reni (dist Churu) 13, Churu (dist Churu) 13, Churu Tehsil (dist Churu) 12, Ratangarh (dist Churu) 11, Sardarshahar (dist Churu) 10, Bhadra (dist Hanumangarh) 8, Nawa (dist Nagaur) 7, **West Madhya Pradesh:** Pichhore (dist Shivpuri) 12, Ghatigaon (dist Gwalior) 11, Khaniyadana (dist Shivpuri)

11, Alipur(jaura) (dist Morena) 11, Badoda (dist Sheopur) 11, Chanderi (dist Ashoknagar) 9, Kurwai (dist Vidisha) 9, Sheopur-aws (dist Sheopur) 9, Pathari (dist Vidisha) 8, Bamori (dist Guna) 8, Gairatgang (dist Raisen) 7, Pachmarhi (dist Narmadapuram) 7, Gohad (dist Bhind) 7, Narwar (dist Shivpuri) 7, **Kerala:** Vadakara AWS (Kozhikode district) 11, Vadakara (Kozhikode district) 10, Kannur, Mahe (Puducherry UT) & Muliya AWS (Kasargod district) 8 each, Taliparamba & Kannur Icar AWS (both in Kannur district) & Padannakkad AWS (Kasargod district) 7 each; **Jammu & Kashmir:** Jammu Aero (dist Jammu) 11, Chatha_agro Aws (dist Jammu) 9, Burmal Arg (dist Kathua) 8, Reasi Arg (dist Reasi) 7, Reasi Kvk Aws (dist Reasi) 7, Katra (dist Reasi) 7, Jammu Aws (dist Jammu) 5, Bakore Arg (dist Jammu) 5, Jammu (dist Jammu) 5, **West Uttar Pradesh:** Sardhana (dist Meerut) 10, Kalpi Tehsil (dist Jalaun) 9, Baghpat (dist Baghpat) 8, Sikandarabad (dist Bulandshahar) 7, Bijnor (dist Bijnor) 7, Sahabad (dist Rampur) 7, Pawayan (dist Shahjahanpur) 7, Najibabad (t) (dist Bijnor) 7, Hapur (dist Hapur) 7, Nagina (dist Bijnor) 7, Mahroni (dist Lalitpur) 7, **Gangetic West Bengal:** Jhargram (pto) (dist Jhargram) 10, Harinkhola (dist Hooghly) 8, **Assam & Meghalaya:** Ranganadi Nt Xing (dist Lakhimpur) 10, N.lakhimpur/lilabari (dist Lakhimpur) 7, **Chhattisgarh:** Doundi (dist Balod) 9, Khadgaon (dist Mohala Manpur Chowki) 8, Chando (dist Balrampur) 8, Baikunthpur (dist Koriya) 7, Katghora (dist Korba) 7, Rajnandgaon (dist Rajnandgaon) 7, Simga (dist Baloda Bazar) 7, **North Interior Karnataka:** Londa (dist Belagavi) 8, **Arunachal Pradesh:** Pasighat_ Aero (dist East Siang) 8, **Tripura:** Bagafa (dist South Tripura) 8, **Tamil Nadu:** The Nilgiris-7; **Marathwada:** Palam (dist Parbhani) 7,

ANNEXURE I





- 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 & ACTION SUGGESTED due to

- ✓ **Isolated extremely heavy rainfall very likely over Coastal Karnataka on 01st; Madhya Maharashtra during 01st-03rd August; East Madhya Pradesh on 02nd & 03rd; Konkan & Goa, West Madhya Pradesh and Gujarat Region on 03rd August.**
- ✓ **Heavy to very heavy rainfall very likely at isolated places over Konkan & Goa, Madhya Maharashtra, Gujarat Region during 01st-05th; Madhya Pradesh during 01st-04th; Vidarbha, Chhattisgarh during 01st-03rd and Saurashtra & Kutch on 03rd August.**
- ✓ **Isolated very heavy rainfall also likely over Himachal Pradesh, Punjab, Haryana-Chandigarh, West Uttar Pradesh, West Rajasthan, Jharkhand, Odisha, Gangetic West Bengal, Kerala on 01st; Uttarakhand during 01st-03rd; East Rajasthan during 01st-04th; South Interior Karnataka 01st & 02nd; on 01st and Coastal Karnataka on 02nd August.**
 - 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

- Make provision for draining out excess water from crop fields to avoid water stagnation in Assam & Meghalaya, NMMT, Gangetic West Bengal, Odisha, Jharkhand, Bihar, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, Vidarbha, Konkan & Goa, Ghat areas of Madhya Maharashtra, Gujarat State, Tamilnadu, Kerala and Karnataka.
- Provide mechanical support to horticultural crops & staking to vegetables.

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

Subdivision Colour

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

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)