

Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 08th September, 2024 Time of Issue: 1415 hours IST

Subject: (i) Depression over Westcentral and adjoining Northwest Bay of Bengal (ii) Under its influence, heavy to very heavy rainfall at a few places and extremely heavy rainfall at isolated places over Coastal Andhra Pradesh & Yanam on 08th and 9th Sept and heavy to very heavy rainfall at isolated places over Odisha on 08th, heavy to very heavy rainfall at a few places and extremely heavy rainfall at isolated places over south Odisha on 9th Sept.

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

Heavy to very heavy rainfall at isolated places Odisha and Telangana; **Heavy rainfall** at isolated places over Haryana, Madhya Pradesh, East Rajasthan, Coastal Andhra Pradesh, Madhya Maharashtra, Konkan & Goa, Gujarat Region and Chhattisgarh.

Weather Systems:

- ✓ Yesterday's **well-marked low pressure area** over northwest & central Bay of Bengal concentrated into a **depression** at 0530 hours IST of today, the 8th September, 2024 over westcentral and adjoining northwest Bay of Bengal. It moved north-northwestwards with a speed of 13 kmph during past 3 hours and lay centered at 0830 hours IST of today, the 8th September, 2024 over the same region near latitude 18.2°N and longitude 86.8°E, about 280 km east of Kalingapatnam (Andhra Pradesh), 230 km east-southeast of Gopalpur (Odisha), 260 km south-southeast of Paradip (Odisha) and 390 km south of Digha (West Bengal). It is very likely to move nearly northwards towards north Odisha-West Bengal coasts and intensify into a **deep depression** during next 24 hours. Thereafter, it is very likely to move west-northwestwards and cross Odisha and adjoining West Bengal coasts between Puri and Digha around evening/night of 9th September. Continuing to move further west-northwestwards, it is likely to move across Odisha & adjoining Gangetic West Bengal and Iharkhand & adjoining north Chhattisgarh during subsequent 2 days.
- ✓ The **monsoon trough** is south of its normal position at mean sea level. It is likely to continue so for next 3-4 days.
- ✓ A cyclonic circulation lies over central Rajasthan & neighbourhood and extends upto middle tropospheric levels.

Forecast & Warnings (upto 7 days) (Annexure II & III):

South Peninsular India:

✓ Fairly widespread to widespread light/moderate rainfall very likely over Coastal Karnataka, Kerala & Mahe, Lakshadweep; Scattered to Fairly widespread light/moderate rainfall over Coastal Andhra Pradesh & Yanam, Telangana; isolated to scattered rainfall

- over Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Interior Karnataka during the
- ✓ Isolated extremely heavy rainfall very likely over Coastal Andhra Pradesh & Yanam on 08th & 09th September.
- ✓ Isolated **very heavy rainfall** very likely over Coastal Karnataka on 08th and Telangana on 08th & 09th September.
- ✓ Isolated **heavy rainfall** very likely over Telangana, South Interior Karnataka, Kerala & Mahe during 08th-10th; Coastal Andhra Pradesh & Yanam during 08th -12th; Coastal Karnataka during 08th -11th September.

East & Northeast India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, West Bengal & Sikkim during the week; Scattered to Fairly widespread light/moderate rainfall very likely over Arunachal Pradesh, Bihar during the week and scattered to widespread light/moderate rainfall over Jharkhand and Odisha during the week.
- ✓ Isolated extremely heavy rainfall very likely over Odisha on 09th September.
- ✓ Isolated very heavy rainfall very likely over Odisha on 08th; Jharkhand on 10th & 11th; Gangetic West Bengal on 09th; Assam & Meghalaya on 11th &12th; Nagaland, Manipur, Mizoram & Tripura during 10th 12th September.
- ✓ Isolated **heavy rainfall** very likely over Nagaland, Manipur, Mizoram & Tripura during next 7 days; Assam & Meghalaya during 09th-13th; Odisha during 08th -10th; Arunachal Pradesh during 10th -12th; Gangetic West Bengal on 09th & 10th; Sub-Himalayan West Bengal & Sikkim during 09th, 11th & 12th; Bihar during 12th-14th; Jharkhand during 09th-12th September.

❖ West & Central India:

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over West and Central India during the week.
- ✓ Isolated very heavy rainfall very likely over West Madhya Pradesh on 11th & 12th; East Madhya Pradesh on 09th & 10th, Chhattisgarh during 08th-10th and Vidarbha on 09th September.
- ✓ Isolated **heavy rainfall** very likely over West Madhya Pradesh during 08th-12th & 14th; East Madhya Pradesh during 08th-10th; Gujarat Region, Konkan & Goa, Vidarbha, Chhattisgarh during 08th-11th; Madhya Maharashtra during 08th-12th September.

❖ Northwest India

- ✓ Scattered to Fairly widespread light/moderate rainfall very likely over Uttarakhand, Uttar Pradesh, East Rajasthan; isolated to scattered rainfall over the remaining region during the week.
- ✓ Isolated **very heavy rainfall** very likely over East Rajasthan on 12th & 13th September.
- ✓ Isolated **heavy rainfall** very likely over Uttar Pradesh during 10th-12th; Haryana, West Rajasthan on 08th & 09th; Uttarakhand during 09th -14th; East Uttar Pradesh on 10th & 11th; East Rajasthan during 08th -09th and on 13th September.

For more details, kindly refer:

https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php

For District wise warnings refer:

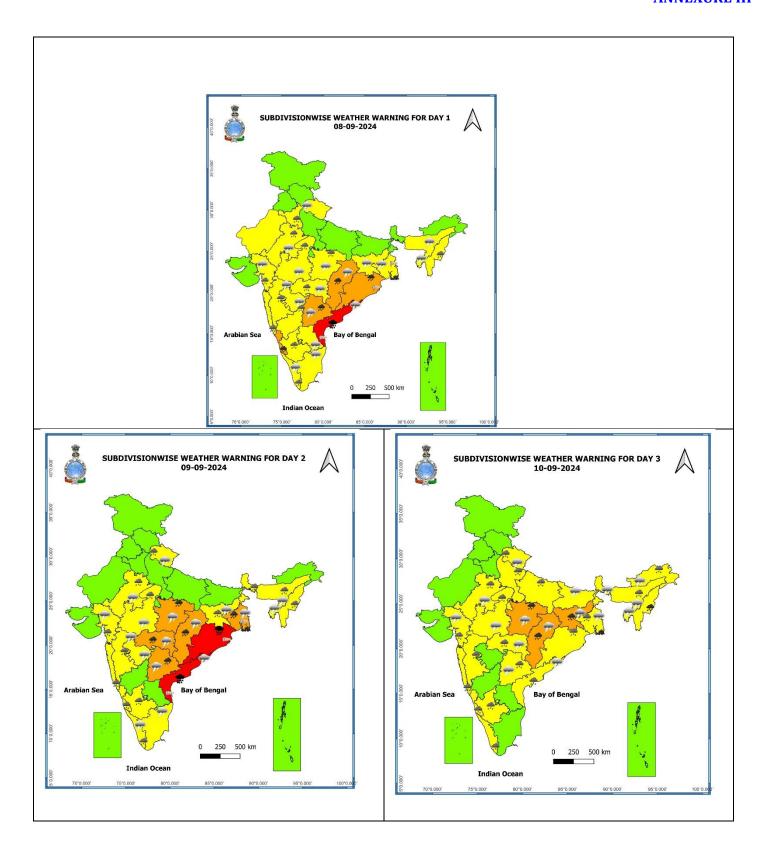
https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.ph

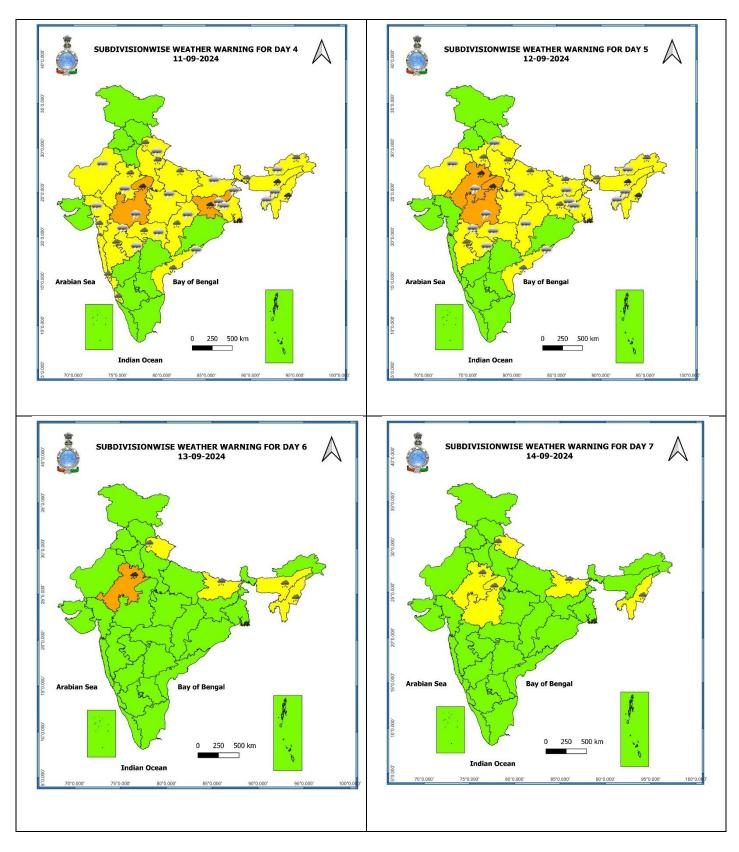
Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 08.09.2024 (in cm):

- ❖ Telangana: Mahabubabad (dist Mahabubabad) 17, Thollada (dist Khammam) 13, Bayyaram (dist Mahabubabad) 12, Dornakal (dist Mahabubabad) 9, Wyra Kvk(agro) (dist Khammam) 9, Konijerla (dist Khammam) 9, Tekulapalle (dist B. Kothagudem) 9, Garla (dist Mahabubabad) 8, Bomraspeta (dist Vikarabad) 8, Aswaraopeta (dist B. Kothagudem) 8,
- Odisha: Jeypore (Koraput) 12, Tihidi (Bhadrak) 9, Mundali (Cuttack) 7, Begunia (Khurda)
 7, Madanpur Rampur (Kalahandi) 7, Borigumma (Koraput) 7,
- ❖ East Rajasthan: Kathumer (dist Alwar) 11, Deoli (dist Tonk) 9, Behror (dist Alwar) 9, Rupbas (dist Bharatpur) 8, Mandawar (dist Alwar) 8, Kaman (dist Bharatpur) 7, Mount Abu Tehsil Sr (dist Sirohi) 7, Patan (dist Bundi) 7, Malakhera Sr (dist Alwar) 7, Baran (dist Baran) 7,
- Coastal Andhra Pradesh: Vizianagaram (dist Vizianagaram) 11, Tiruvuru (dist Ntr District) 10, Kalingapatnam (dist Srikakulam) 10, Nellimarla (dist Vizianagaram) 9, Denkada (dist Vizianagaram) 9, Bheemunipatnam (dist Vishakhapatnam) 9, Bondapalle (dist Vizianagaram) 8, Gajapathinagaram (dist Vizianagaram) 8, Gantyada (dist Vizianagaram) 7, Visakhapatnam (dist Vishakhapatnam) 7, Garividi (dist Vizianagaram) 7,
- ❖ West Madhya Pradesh: Vijaypur (adp) (dist Sheopur) 11, Khategaon (dist Dewas) 9, Kathiwada (dist Alirajpur) 8,
- Chhattisgarh: Belargaon (dist Dhamtari) 10, Bijapur (dist Bijapur) 7, Gangalur (dist Bijapur) 7,
- Gujarat Region: Valia (dist Bharuch) 9, Bharuch (dist Bharuch) 7,
- ❖ Haryana: Nuh (dist Nuh) 9, Babain Rev (dist Kurukshetra) 7,
- **East Madhya Pradesh:** Bilaspur (dist Umaria) 8,
- Madhya Maharashtra: Gaganbawada (dist Kolhapur) 8,
- ❖ Konkan & Goa: Matheran (dist Raigad) 7.

	7 Day	s Rainfa	I Foreca	st				
6 11	6.1.11.11	08-Sep	09-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep
S. No.	Subdivision	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	FWS	WS	WS	WS	WS	WS
2	ARUNACHAL PRADESH	SCT	SCT	FWS	FWS	FWS	FWS	SCT
3	ASSAM & MEGHALAYA	SCT	FWS	FWS	WS	WS	FWS	SCT
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	SCT	FWS	WS	WS	WS	FWS	FWS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	FWS	FWS	WS	WS	WS	FWS
6	GANGETIC WEST BENGAL	FWS	WS	WS	WS	WS	WS	FWS
7	ODISHA	WS	WS	FWS	SCT	SCT	SCT	SCT
8	JHARKHAND	SCT	FWS	WS	WS	WS	SCT	SCT
9	BIHAR	ISOL	ISOL	SCT	SCT	FWS	FWS	FWS
10	EAST UTTAR PRADESH	ISOL	SCT	FWS	FWS	FWS	FWS	SCT
11	WEST UTTAR PRADESH	SCT	SCT	SCT	FWS	FWS	FWS	SCT
12	UTTARAKHAND	FWS	FWS	FWS	SCT	SCT	WS	WS
13	HARYANA CHANDIGARH & DELHI	SCT	ISOL	ISOL	ISOL	SCT	ISOL	ISOL
14	PUNJAB	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
15	HIMACHAL PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
17	WEST RAJASTHAN	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	WS	FWS	FWS	SCT	FWS	FWS	FWS
19	WEST MADHYA PRADESH	FWS	FWS	FWS	WS	WS	FWS	FWS
20	EAST MADHYA PRADESH	FWS	FWS	WS	WS	FWS	FWS	FWS
21	GUJARAT REGION	WS	WS	WS	WS	FWS	FWS	FWS
22	SAURASHTRA & KUTCH	WS	WS	FWS	FWS	FWS	FWS	FWS
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	SCT	SCT	SCT	FWS	FWS	FWS	SCT
25	MARATHAWADA	WS	FWS	SCT	FWS	FWS	SCT	SCT
26	VIDARBHA	WS	WS	WS	FWS	FWS	FWS	SCT
27	CHHATTISGARH	WS	WS	WS	FWS	FWS	SCT	SCT
28	COASTAL ANDHRA PRADESH & YANAM	WS	FWS	SCT	SCT	ISOL	ISOL	ISOL
29	TELANGANA	FWS	FWS	SCT	SCT	SCT	ISOL	ISOL
30	RAYALASEEMA	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	WS	WS	WS	WS
33	NORTH INTERIOR KARNATAKA	FWS	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	FWS	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	WS	WS	WS	WS	FWS	FWS	SCT
36	LAKSHADWEEP	WS	WS	WS	FWS	FWS	FWS	SCT

• As the lead period increases forecast accuracy decreases.





- 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 Coastal Andhra Pradesh & Yanam on 08th & 09th; Odisha on 09th September.
- ✓ **Very heavy rainfall** at isolated over East Rajasthan on 12th & 13th; Chhattisgarh during 08th-10th; Vidarbha, Gangetic West Bengal on 09th; Telangana on 08th & 09th; Odisha, Coastal Karnataka on 08th; East Madhya Pradesh on 09th & 10th; Jharkhand on 10th & 11th; Assam & Meghalaya, West Madhya Pradesh during 11th 12th; Nagaland, Manipur, Mizoram & Tripura during 10th -12th September.
- ✓ **Low to moderate flash flood risk** likely over few watersheds & neighbourhoods of Coastal Andhra Pradesh & Yanam, Telangana, Chhattisgarh & Odisha on 08th & 09th September. **(ANNEXURE IV)**

Impact Expected

- ✓ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ✓ Occasional reduction in visibility due to heavy rainfall.
- ✓ Reduction of visibility over sea area due to sea spray induced by strong wind and 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

- ✓ Judicious regulation of offshore/onshore Operations
- ✓ Judicious regulation of surface transports including railways and roadways.
- ✓ 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

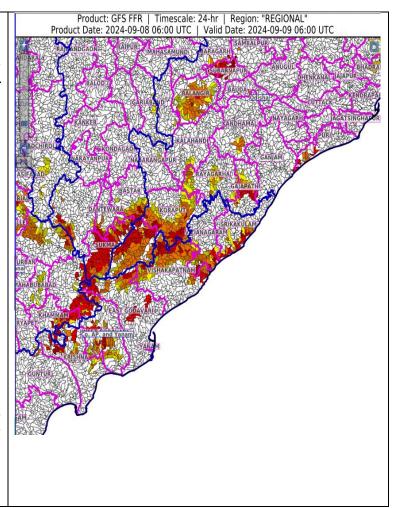
- > Postpone transplanting of rice in North Coastal **Andhra Pradesh**.
- > Drain out excess water from rice, soybean, red gram, maize, cotton and turmeric in **Telangana**; from rice, finger millet, maize and groundnut in **Odisha**; from rice, maize, sugarcane, black gram, horse gram and niger crops in **Chhattisgarh** to prevent water logging.
- ➤ Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Uttarakhand, Haryana, East Rajasthan, Gangetic West Bengal, Sub Himalayan West Bengal, Jharkhand, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Vidarbha, Gujrat region, Kerala, and Karnataka.
- ➤ Provide mechanical support to horticultural crops & staking to vegetables.
- ➤ Keep the harvested produce at safer place.

Flash Flood Guidance:

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

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

Coastal AP & Yanam - East Godavari, Srikakulam, Vishakhapatnam, Krishna. Vizianagaram and West Godavari districts. Telangana Khammam district. **Chhattisgarh** Bastar, Bijapur, Dantewara, Gariaband, Mahasamund and Sukma districts. Odisha Anugul, Baragarh, Bauda, Cuttack, Dhenkanal, Gajapathi, Ganjam, Kalahandi. Khordha. Malkangiri, Nayagarh, Nuaparha, Puri, Rayagarha and Subarnapur districts. 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.



राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre India Meteorological Department **Ministry of Earth Sciences**

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4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा 5. उप-हिमालयी पश्चिम बंगाल और सिक्किम

6. गंगीय पश्चिम बंगाल



8. झारखंड

9. बिहार

10. पूर्वी उत्तर प्रदेश

11. पश्चिम उत्तर प्रदेश

12. उत्तराखंड

13. हरियाणा, चंडीगढ़ और दिल्ली

14. पंजाब

15. हिमाचल प्रदेश

16. जम्मू और कश्मीर और लद्दाख

17. पश्चिम राजस्थान

18. पूर्वी राजस्थान

19. पश्चिम मध्य प्रदेश

20. पूर्वी मध्य प्रदेश

21. गुजरात

22. सौराष्ट्र

23. कोंकण और गोवा

24. मध्य महाराष्ट्र

25. मराठवाड़ा

26. विदर्भ

27. छत्तीसगढ़

28. तटीय आंध्र प्रदेश और यनम

29. तेलंगाना

30. रायलसीमा

31. तमिलनाडु, पुडुचेरी और कराईकल

32. तटीय कर्नाटक

33. आतंरिक उत्तरी कर्नाटक

Sust Raising Winds

34. आतंरिक दक्षिणी कर्नाटक

35. केरल और माहे

36. लक्षद्वीप



2. Arunachal Pradesh

3. Assam & Meghalaya

4. Nagaland, Manipur, Mizoram & Tripura

5. Sub-Himalayan West Bengal & Sikkim

6. Gangetic West Bengal

7. Odisha

8. Jharkhand

9. Bihar

10. East Uttar Pradesh

11. West Uttar Pradesh

12. Uttarakhand

13. Haryana, Chandigarh & Delhi

14. Puniab

15. Himachal Pradesh

16. Jammu & Kashmir and Ladakh

17. West Rajasthan

18. East Rajasthan

19. West Madhya Pradesh

20. East Madhya Pradesh

21. Gujarat

22. Saurashtra

23. Konkan & Goa

24. Madhya Maharashtra

25. Marathwada

26. Vidarbha

27. Chhattisgarh

28. Coastal Andhra Pradesh & Yanam

29. Telangana

30. Rayalaseema

31. Tamilnadu, Puducherry & Karaikal

32. Coastal Karnataka

33. North Interior Karnataka

34. South Interior Karnataka

35. Kerala & Mahe

36. 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)



Strong Surface Winds

Probability of Occurrence (%) Very Likely 50 - 75 Most Likely > 75





DEFINITION/CRITERIA

	DEFINITION/CRITERIA
	Heavy: 64.5 to 115.5 mm/cm *
Rain/ 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 regions (a) Based on Departure from normal
Heat Wave	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
	(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
Warm Night	Warm Night: When minimum temperature departure 4.5 °C to 6.4 °C.
	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 Ways Minimum Temperature Departure from partial, 4.5 °C to 6.4 °C.
	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	
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 of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure
Cold Day	Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C.
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
Cold Day	Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C
Cold Day	Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C Phenomenon of small droplets suspended in air and the horizontal visibility < 1km
Fog	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
	Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C Phenomenon of small droplets suspended in air and the horizontal visibility < 1km
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Fog	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres
Fog Thunderstorm Dust/Sand	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and
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Fog Thunderstorm Dust/Sand Storm	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.
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Fog Thunderstorm Dust/Sand Storm	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground
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Fog Thunderstorm Dust/Sand Storm Frost	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph
Fog Thunderstorm Dust/Sand Storm Frost	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph Severe: Wind speed 52-87 kmph Very Severe: Wind speed >87 kmph
Fog Thunderstorm Dust/Sand Storm Frost	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) 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 Effect of various waves in the sea over specific area
Fog Thunderstorm Dust/Sand Storm Frost	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) 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 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
Fog Thunderstorm Dust/Sand Storm Frost Squall	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph Severe: Wind speed 52-87 kmph Very Severe: Wind speed >87 kmph Effect of various waves in the sea over specific area Rough to very rough: Wind speed 41-62 kmph (32-33 knots) & Wave height 6-14 metre High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre
Fog Thunderstorm Dust/Sand Storm Frost Squall	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) 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 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
Fog Thunderstorm Dust/Sand Storm Frost Squall	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph Severe: Wind speed 52-87 kmph Very Severe: Wind speed >87 kmph Effect of various waves in the sea over specific area Rough to very rough: Wind speed 41-62 kmph (32-33 knots) & Wave height 6-14 metre High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre
Fog Thunderstorm Dust/Sand Storm Frost Squall	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) 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 62-87 kmph 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 >117 kmph (>63 knots) & Wave height 5-14 metre Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre
Fog Thunderstorm Dust/Sand Storm Frost Squall	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) 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 Effect of various waves in the sea over specific area Rough to very rough: 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)
Fog Thunderstorm Dust/Sand Storm Frost Squall Sea State	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 Dense Fog: when the visibility between 50-200 metres Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Air temperature ≤4°C (over Plains) 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 58-7 kmph 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 6-14 metre Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots) Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)