



All India Impact Based Weather Warning Bulletin

Tuesday 14 September 2021
Time of Issue: 2000 hours IST

(Night)

14 September (Day 1): ♦ **Heavy to very heavy rainfall** with **extremely heavy falls** at isolated places very likely over East Madhya Pradesh and Chhattisgarh; **Heavy to very heavy rainfall** at isolated places over West Madhya Pradesh, Gangetic West Bengal, Interior Odisha, Gujarat State, north Madhya Maharashtra and north Konkan and **heavy rainfall** at isolated places over Uttarakhand, East Uttar Pradesh, Vidarbha, East Rajasthan, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Coastal Karnataka and Tamilnadu, Puducherry & Karaikal.

♦ **Thunderstorm accompanied with lightning** very likely at isolated places over Uttarakhand, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Vidarbha, Chhattisgarh, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam and Telangana.

♦ **Strong wind** (speed 40-50 kmph to gusting 60 kmph) very likely over the Southwest & Westcentral Arabian Sea; Northeast Arabian Sea and along & off Gujarat-north Maharashtra coasts, Westcentral Bay of Bengal along & off north Andhra Pradesh-Odisha coasts. Fishermen are advised not to venture into these areas.

15 September (Day 2): ♦ **Heavy to very heavy rainfall** with **extremely heavy falls** at isolated places very likely over Madhya Pradesh and Gujarat State; **Heavy to very heavy rainfall** at isolated places over north Konkan and **heavy rainfall** at isolated places over Uttarakhand, Uttar Pradesh, East Rajasthan, Chhattisgarh, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra and Coastal Karnataka.

♦ **Thunderstorm accompanied with lightning** very likely at isolated places over Uttarakhand, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana and Tamilnadu, Puducherry & Karaikal.

♦ **Strong surface wind** (speed reaching 30-40 kmph) very likely at isolated places over Uttar Pradesh, Haryana and northeast Rajasthan.

♦ **Strong wind** (speed 40-50 kmph to gusting 60 kmph) very likely over the Southwest & Westcentral Arabian Sea; Northeast Arabian Sea and along & off Gujarat-north Maharashtra coasts. Fishermen are advised not to venture into these areas.

16 September (Day 3): ♦ **Heavy to very heavy rainfall** very likely at isolated places over East Rajasthan, West Madhya Pradesh and Gujarat State and **heavy rainfall** at isolated places over Uttarakhand, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Rajasthan, East Madhya Pradesh, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and north Konkan.

♦ **Thunderstorm accompanied with lightning** very likely at isolated places over Uttarakhand, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Tamilnadu, Puducherry & Karaikal.

♦ **Strong surface wind** (speed reaching 30-40 kmph) very likely at isolated places over Uttar Pradesh, Haryana and northeast Rajasthan.

♦ **Strong wind** (speed 40-50 kmph to gusting 60 kmph) likely over the Southwest & Westcentral Arabian Sea. Fishermen are advised not to venture into these areas.

*** Red color warning does not mean "Red Alert" Red color warning means "Take Action".**

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17 September (Day 4): ♦ **Heavy to very heavy rainfall** likely at isolated places over Rajasthan and **heavy rainfall** at isolated places over Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Gujarat State and Konkan & Goa.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Tamilnadu, Puducherry & Karaikal.

♦ **Strong wind** (speed 40-50 kmph to gusting 60 kmph) likely over the East central Bay of Bengal & adjoining north Andaman sea. Fishermen are advised not to venture into these areas.

18 September (Day 5): ♦ **Heavy to very heavy rainfall** likely at isolated places over West Rajasthan and **heavy rainfall** at isolated places over East Rajasthan, Odisha, Gujarat Region and Konkan & Goa.

♦ **Thunderstorm accompanied with lightning** likely at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan and Tamilnadu, Puducherry & Karaikal.

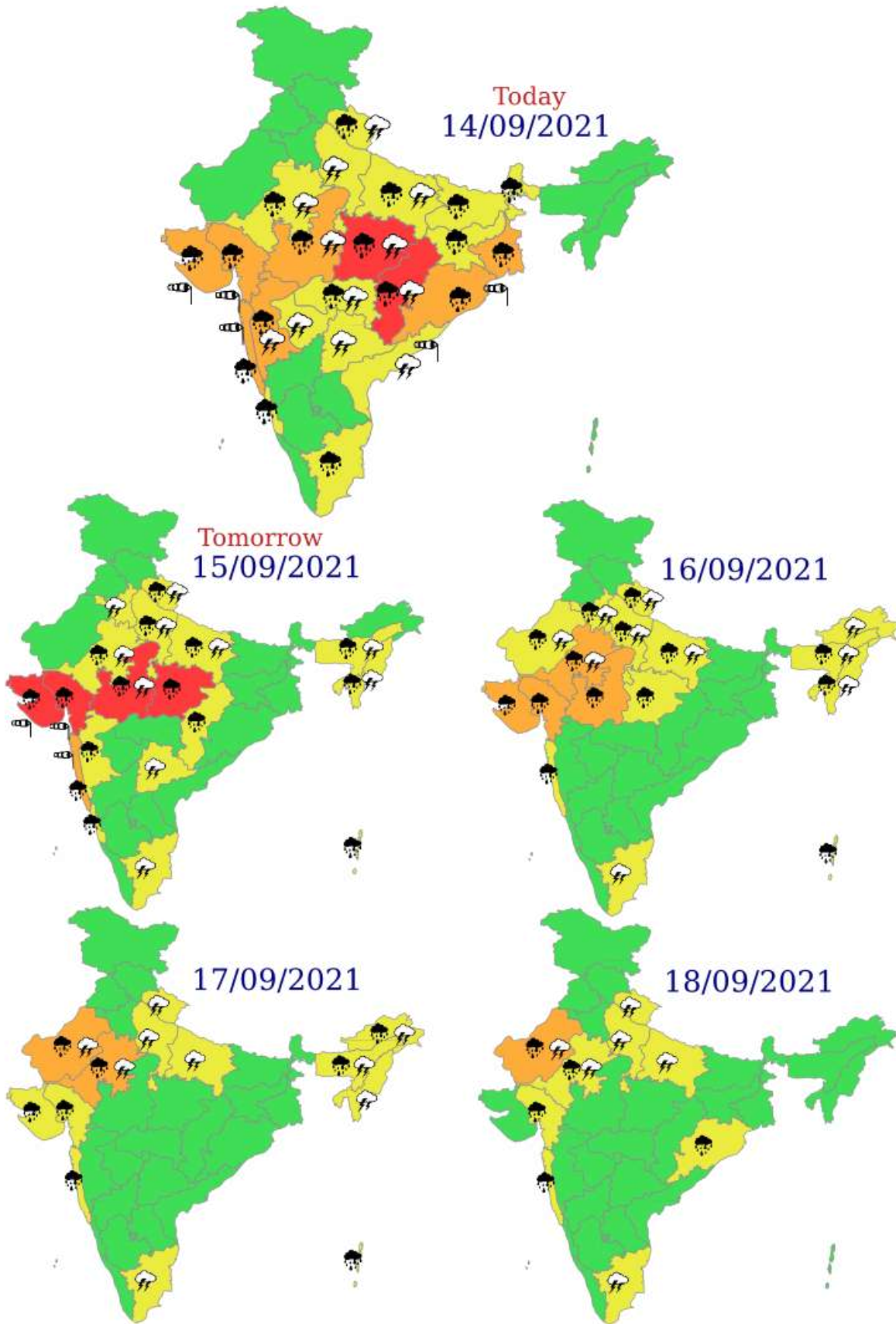
♦ **Strong wind** (speed 40-50 kmph to gusting 60 kmph) likely over the East central Bay of Bengal & adjoining north Andaman sea. Fishermen are advised not to venture into these areas.

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EXPECTED IMPACT & ACTION SUGGESTED due to very Heavy/Extremely heavy Rainfall over Gujarat State, West Madhya Pradesh during 14th-16th; north Konkan, East Madhya Pradesh on 14th & 15th; over Madhya Maharashtra, Interior Odisha, Chhattisgarh and Gangetic West Bengal on 14th; over East Rajasthan on 16th & 17th September 2021.

A. Impact Expected

- Localized Flooding of roads, inundation and 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
- 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)

B. 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.

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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



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



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 $\geq 37^{\circ}\text{C}$



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 $> 6.4^{\circ}\text{C}$.



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 $\geq -6.5^{\circ}\text{C}$

(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 $\leq -4.5^{\circ}\text{C}$ or actual Minimum Temperature is $\leq 15^{\circ}\text{C}$



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 $\leq -6.5^{\circ}\text{C}$



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



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 $\leq 4^{\circ}\text{C}$ (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
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)
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)

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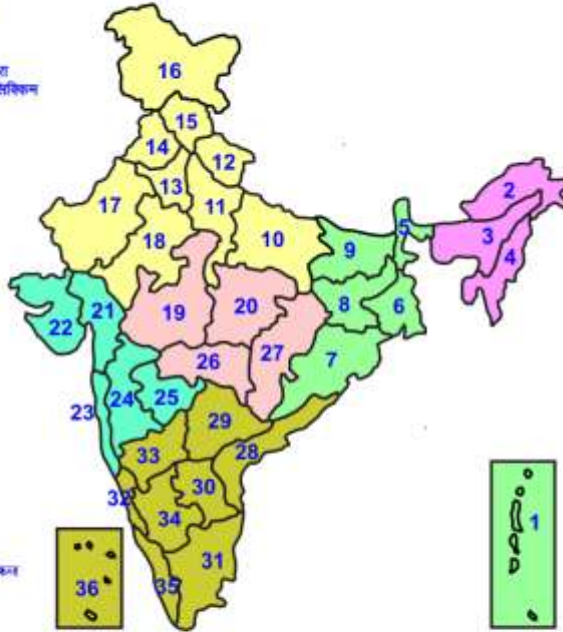
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LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल, एंगम, सिक्किम
- 6 गंगेयिक पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा, चंडीगढ़, पंजाब, दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर, एंगम, लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात
- 22 सौराष्ट्र
- 23 कर्नाटक
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 उत्तर प्रदेश, पश्चिम बंगाल एवं कर्नाटक
- 29 तमिलनाडु
- 30 केरल
- 31 पश्चिम बंगाल, पश्चिम तमिलनाडु एवं कर्नाटक
- 32 केरल
- 33 उत्तर प्रदेश, पश्चिम बंगाल एवं कर्नाटक
- 34 केरल एवं मद्रास
- 35 केरल एवं मद्रास
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Maryana, Chd & Delhi
14. Punjab
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. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yarnam
29. Telangana
30. Rayalseema
31. Tamilnadi, 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)

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Heavy Rain	Heavy Snow	Thunderstorm	Dust Storm
Strong Winds	Visibility	Cyclone	Squall/ Hail
Frost	Cold Wave	Heat Wave	Sea State

Kindly download [MAUSAM APP](#) for location specific forecast & warning, [MEGHDOOT APP](#) for Agromet advisory and [DAMINI APP](#) for Lightning Warning & visit state MC/RMC websites for district wise warning.

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