



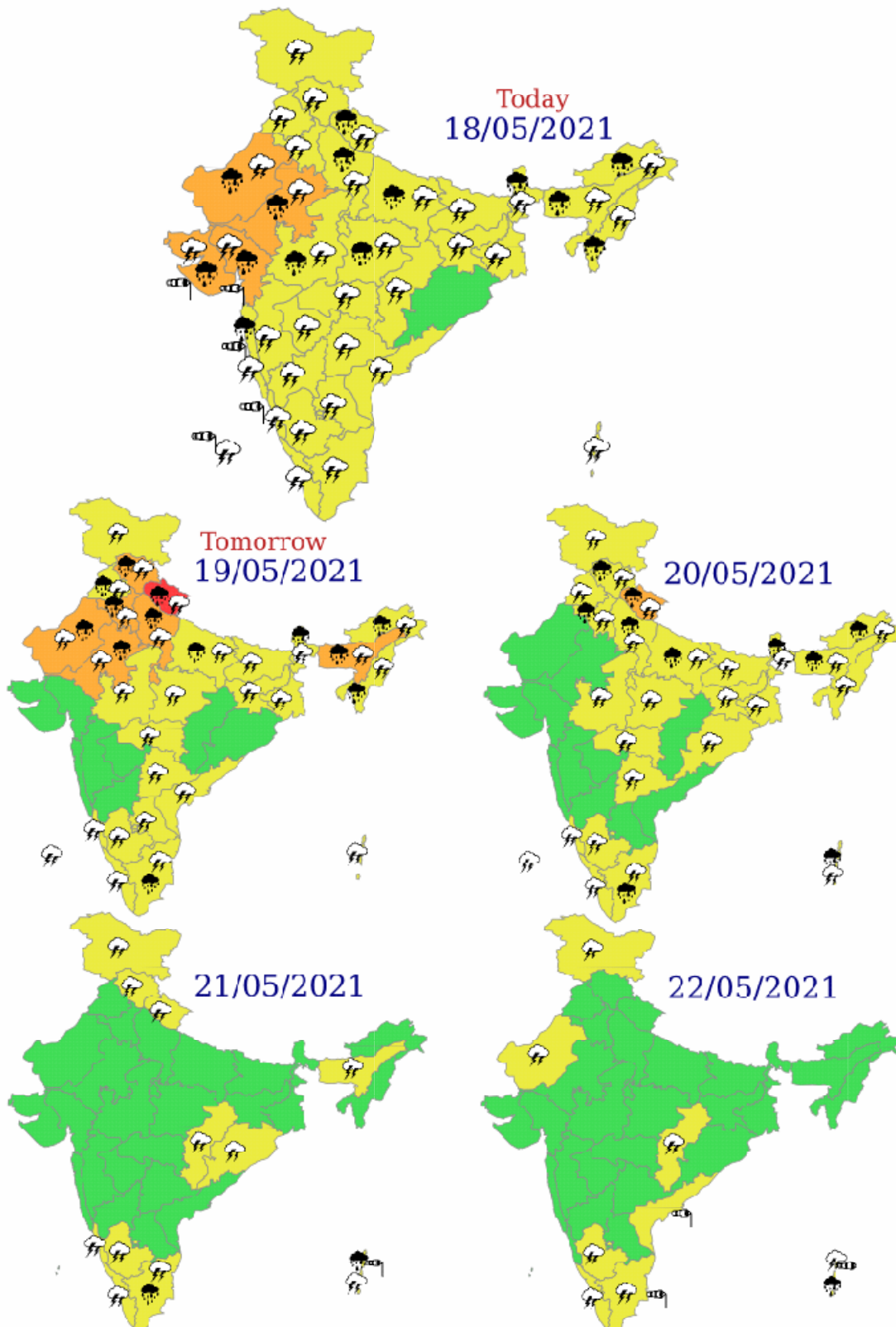
**Government of India
Earth System Science Organization
Ministry of Earth Sciences
India Meteorological Department**

**Press Release
Date: 18th May, 2021
Time of Issue: 1600 hrs IST**

Subject: Wet spell over Western Himalayan Region & plains of Northwest India during 18 to 20 May, 2021

- A **Cyclonic Storm “Tauktae” (pronounced as Tau’Te)** lay centred at 1430 hours IST of today, the 18th May, 2021 over Saurashtra & adjoining Gujarat region near latitude 22.5°N and longitude 71.8°E, about 190 km south-southwest of Deesa (Gujarat), and 105 km south-southwest of Ahmedabad and 35 km southwest of Surendranagar (Gujarat). It is very likely to move north-northeastwards and weaken gradually into a Deep Depression during next 03 hours and into a Depression during the subsequent 06 hours. The remnant of the system is very likely to move northeastwards across Rajasthan to west Uttar Pradesh during 19th & 20th May, 2021.
- A Western Disturbance as a trough in middle & upper tropospheric westerlies runs along longitude 65°E to the north of latitude 26°N.
- **The Cyclonic Storm “Tauktae” (pronounced as Tau’Te) & its remnant** would interact with the above Western Disturbance. As a result, light/moderate scattered to fairly widespread rainfall/thundershower is very likely over northwest & central India on 18th with possibility of **heavy to very heavy rainfall at isolated places over south Rajasthan and heavy rainfall at isolated places over Uttarakhand, Uttar Pradesh and Madhya Pradesh.**
- **The interaction zone of remnant Low/ Cyclonic Circulation with westerly trough associated with Western Disturbance is very likely to occur over Haryana & adjoining Himalayan region on 19th May. In addition, high moisture feeding from Arabian Sea is also likely over northwest India.** As a result, fairly widespread to widespread rainfall activity likely over northwest India (except Jammu & Kashmir) **with heavy to very heavy rainfall with extremely heavy falls at isolated places over Uttarakhand; heavy to very heavy rainfall at isolated places over Himachal Pradesh, Haryana, Chandigarh & Delhi, West Uttar Pradesh; and heavy rainfall at isolated places over Punjab, East Uttar Pradesh and north Rajasthan on 19 May, 2021.**
- Rainfall activity is very likely to decrease from 20 May with scattered to fairly widespread rainfall over Haryana, Chandigarh & Delhi, Uttar Pradesh, Himachal Pradesh and Uttarakhand with possibility of **heavy to very heavy rainfall at isolated places over Uttarakhand and heavy rainfall at isolated places over Himachal Pradesh, Haryana, Chandigarh & Delhi and Uttar Pradesh** on 20th May. Rainfall activity is very likely to decrease significantly over the region from 21st May, 2021.
- **Multi-Hazard warnings for next 5 days are given in following page:**

Multi-Hazard warnings for next 5 days are given below:



Impact based warning & Action suggested for areas likely to be affected

◆ Heavy to Very heavy falls at isolated places with extremely heavy falls at isolated places over Uttarakhand on 19th Heavy to Very heavy falls at isolated places on 20th. Heavy to Very heavy falls at isolated places over Himachal Pradesh, Haryana, Chandigarh & Delhi and West Uttar Pradesh on 19th May, 2021.

A. 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.
- Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- Minor damage to kutchha roads.
- Possibilities of damage to vulnerable structure.
- Localized Mudslides(for plain areas) and Landslides (for hill and vulnerable areas)
- 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.

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 $\geq 38^{\circ}\text{C}$ 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 $\geq -4.5^{\circ}\text{C}$ or 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 < 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



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

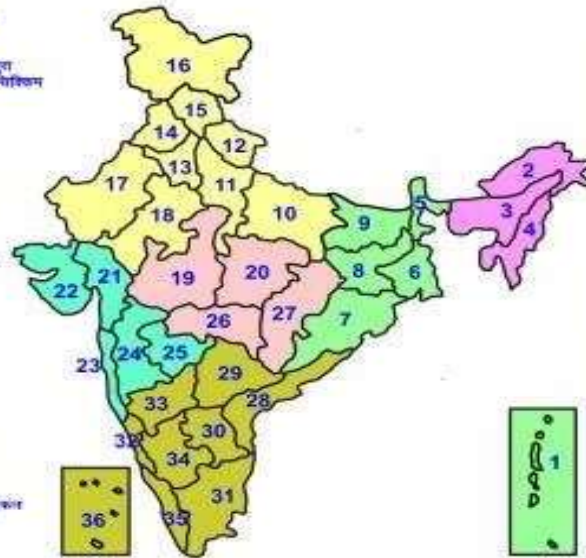


Cyclone

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)

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 एवं सिक्किम
- 6 गंगोत्री पश्चिम बंगाल
- 7 ओडिसा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखण्ड
- 13 हरियाणा, दिल्ली एवं चंडीगढ़
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात
- 22 गुजरात
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 तमिलनाडु
- 31 तमिलनाडु, पुदुचेरी एवं केरल
- 32 तटीय केरल
- 33 आन्ध्र प्रदेश केरल
- 34 आन्ध्र प्रदेश केरल
- 35 केरल एवं माह
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangeic West Bengal
7. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, 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 & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnada, 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.