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

Press Release
Date: 20th May, 2021
Time of Issue: 1215 hrs IST

Subject: Wet spell over Western Himalayan Region & plains of North India on 20 May 2021 and significant decrease thereafter

- Yesterday's Depression moved north-eastwards, weakened further into a Well Marked Low Pressure Area over East Rajasthan & adjoining West Madhya Pradesh on 1730 hours IST of yesterday, now lies as a Low Pressure Area over southwest Uttar Pradesh & neighbourhood at 0830 hours IST of today. The Western Disturbance now seen as a trough in middle tropospheric levels along longitude 73°E and north of latitude 27°N. In addition, a trough runs from the cyclonic circulation over southwest Uttar Pradesh associated with Low Pressure Area to Eastcentral Arabian Sea at 3.1 Km above mean sea level.
- Under the influence of yesterday's Depression **(remnant of the Extremely Severe Cyclonic Storm "Tauktae")** over southeast Rajasthan and its interaction with Western Disturbance, **widespread rainfall with isolated heavy to very heavy falls occurred over Haryana, Chandigarh & Delhi, Uttarakhand and Uttar Pradesh; fairly widespread with isolated heavy falls over and Rajasthan. The chief amount of rainfall (in mm) is as follow:**
  - **Uttarakhand:** Nainital-117.0; Mussoorie-103.0; Mukteshwar-85.0; Haldwani-83.0
  - **Haryana, Chandigarh & Delhi:** Jhajjar-117.0; Gurgaon-115.0; Mewat-84.0; Faridabad-80.0; Narnaul-77.0
  - **West Uttar Pradesh:** Bareilly-146.0; Meerut-85.9; Aligarh-71.6; Muzzafarnagar-69.0
  - **East Uttar Pradesh:** Gorakhpur-80.6; Varanasi-82.8; Sultanpur-73.4; Mirzapur-72.0; Jaunpur-68.0
  - **West Rajasthan:** Nagaur-68.0
  - **East Rajasthan:** Dholpur-103.0; Alwar-90.0; Jaipur-80.0; Dausa-70.0; Sikar-70.0
- Due to northeastward shift of the above mentioned systems, rainfall activity will decrease significantly over Haryana, Chandigarh & Delhi and Rajasthan, **however, fairly widespread to widespread rainfall with isolated heavy falls very likely Uttarakhand, Uttar Pradesh and Bihar on today, the 20th May, 2021.**
- **It is very likely to decrease significantly over the region from 21st May, 2021.**

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 >40° C for plains and >30° 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 ≥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

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 °C.

Cold Wave

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

(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 or acual Minimum Temperature is ≤ 15 °C

Cold Day

When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °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 ≤4°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 Strom:** Wind speed >220 kmph (>119 knots)

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.