



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

**Press Release
Date: 09th March, 2020
Time of Issue: 1630 hrs IST**

Subject: An active wet spell over northwest & adjoining Central India during 10th to 13th March, 2020.

- ❖ A Western Disturbance (WD) as a cyclonic circulation lies over Afghanistan & adjoining Iran in middle tropospheric levels. Under its influence, an induced cyclonic circulation very likely to form over southwest Rajasthan & neighbourhood in lower tropospheric levels by tomorrow, the 10th March, 2020. The WD is very likely to move eastwards and intensify further due to strengthening in the jet stream winds at upper tropospheric levels.
- ❖ In addition, there is very likely high moisture feeding from Arabian Sea to northwest India at lower & middle tropospheric levels mainly during 10th to 12th March. Subsequently, low level easterlies from Bay of Bengal are very likely to penetrate upto plains of northwest India & central India during 11th to 13th March. As a result:
 - Isolated rainfall/snowfall is most likely over Western Himalayan Region (Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Himachal Pradesh and Uttarakhand) till 10th March, 2020. Its intensity & spread very likely to increase thereafter with light/moderate fairly widespread to widespread rainfall/snow over Western Himalayan Region during 11th to 13th March and **decrease significantly thereafter. Isolated heavy rainfall/snowfall** is likely over Jammu & Kashmir, Gilgit-Baltistan and Himachal Pradesh on 12th March; and over Himachal Pradesh & Uttarakhand on 13th March.
 - Isolated rainfall/thundershower is most likely over plains of northwest India (Punjab, Haryana, Chandigarh, Delhi, Uttar Pradesh and Rajasthan) on 10th March, 2020. Its intensity & spread very likely to increase thereafter with light/moderate fairly widespread to widespread rainfall/snow over the above region during 11th to 13th March and **decrease significantly thereafter. Isolated heavy rainfall** is very likely over Punjab on 12th March and over Haryana, Chandigarh and West Uttar Pradesh on 13th March 2020.
 - **Thunderstorm accompanied with lightning** very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and West Rajasthan on 10th March; **Thunderstorm accompanied with lightning hail & gusty wind** (speed reaching 30-40 kmph or more) over entire plains of northwest India from 11th to 13th March 2020.
- ❖ Due to confluence between westerly winds associated with the Western Disturbance and moist low level easterly wind from Bay of Bengal over central & east India, moderate isolated to scattered rainfall with isolated **thunderstorm, lightning/hail/gusty wind (speed reaching 30-40 kmph)** very likely over Vidarbha, Chhattisgarh, Madhya Pradesh, Bihar, Jharkhand and Odisha during 10th-13th March 2020.

❖ Detailed forecast & warnings are given in following page:

Sub-Divisions	10 March, 2020*	11 March 2020*	12 March 2020*	13 March 2020*
Jammu, Kashmir, Ladakh & Gilgit-Baltistan	Rain/snowfall at isolated places	Rain/snowfall at many places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rain/snowfall at most places with isolated heavy rainfall/snowfall, thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rain/snowfall at most places
Himachal Pradesh	Rain/snowfall at isolated places	Rain/snowfall at many places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rain/snowfall at most places with isolated heavy rainfall/snowfall, thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rain/snowfall at most places with isolated heavy rainfall/snowfall, thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)
Uttarakhand	Rain/snowfall at isolated places	Rain/snowfall at a few places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rain/snowfall at many places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 45-55 kmph)	Rain/snowfall at most places with isolated heavy rain, thunderstorm, lightning, hail & gusty wind (speed reaching 45-55 kmph)
Punjab	Rainfall at isolated places with isolated thunderstorm & lightning	Rainfall at many places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at most places with isolated heavy rain, thunderstorm, lightning, hail & gusty wind (speed reaching 40-50 kmph)	Rainfall at many places with isolated thunderstorm, lightning & gusty wind (speed reaching 30-40 kmph)
Haryana, Chandigarh & Delhi	Rainfall at isolated places with isolated thunderstorm & lightning	Rainfall at many places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at most places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 40-50 kmph)	Rainfall at many places with isolated heavy rainfall, thunderstorm, lightning & gusty wind (speed reaching 30-40 kmph)
West Uttar Pradesh	Rainfall at isolated places with isolated thunderstorm & lightning	Rainfall at a few places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at a few places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at many places with isolated heavy rainfall, thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)
East Uttar Pradesh	Rainfall at isolated places	Rainfall at a few places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at a few places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at many places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)
West Rajasthan	Rainfall at isolated places with isolated thunderstorm, lightning & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places

East Rajasthan	Dry	Rainfall at isolated places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Dry
West Madhya Pradesh	Rainfall at isolated places	Rainfall at isolated places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm, lightning & gusty wind (speed reaching 30-40 kmph)
East Madhya Pradesh	Rainfall at isolated places with isolated thunderstorm, lightning & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at a few places with isolated thunderstorm, lightning & gusty wind (speed reaching 30-40 kmph)
Bihar	Dry	Rainfall at isolated places with isolated thunderstorm, lightning & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places
Jharkhand	Rainfall at isolated places with isolated thunderstorm & lightning	Rainfall at many places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at many places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at many places with isolated thunderstorm & lightning
Chhattisgarh	Rainfall at a few places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at a few places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at a few places with isolated thunderstorm, lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at a few places with isolated thunderstorm & lightning
Odisha	Rainfall at isolated places with isolated thunderstorm & lightning	Rainfall at a few places with isolated heavy rainfall, thunderstorm & lightning, hail & gusty wind (speed reaching 30-40 kmph)	Rainfall at a few places with isolated thunderstorm & lightning & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm & lightning
Gangetic West Bengal	Dry	Rainfall at isolated places with isolated thunderstorm & lightning & gusty wind (speed reaching 30-40 kmph)	Rainfall at a few places with isolated thunderstorm & lightning & gusty wind (speed reaching 30-40 kmph)	Rainfall at isolated places with isolated thunderstorm, lightning & gusty wind (speed reaching 30-40 kmph)

Note: * Rainfall till 0830 IST of next day.

Legends: **Green: No warning**, **Yellow: Be updated**, **Orange- Be prepared**; **Red- Take action**,

Heavy rain: 64.5-115.5 mm/day; isolated rain ($\leq 25\%$ of stations gets rain), scattered or at a few places rain (26 to 50% of stations gets rain), at many places or fairly widespread rain (51–75% of stations gets rain) and at most places or wodespread rain ($>75\%$ of stations gets rain)

For further details and forecast updates kindly visit websites of IMD, New Delhi:

<http://www.imd.gov.in/pages/allindiawxfcbulletin.php>

For district level warning, kindly visit website of Meteorological Centres/Regional Meteorological Centres of IMD at state levels.