



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

**Press Release
Date: 29th December, 2019
Time of Issue: 1800 hrs IST**

**Subject: (a) Wet spell over northwest & central India during 31st December, 2019 to 3rd January, 2020 and over east & northeast India during 1st to 3rd January, 2020
(b) Severe cold wave & cold day conditions over northern parts of India**

(a) Wet spell over northwest & central India during 31st December, 2019 to 3rd January, 2020 and over east & northeast India during 1st to 3rd January, 2020

- Under the influence of a fresh Western Disturbance and likely its interaction with easterlies at lower levels, Jammu & Kashmir and Himachal Pradesh is very likely to experience light/moderate scattered precipitation from 31st December to 3rd January, 2020 and scattered to fairly widespread over Uttarakhand during same period. Isolated to scattered light/moderated rainfall is also likely over Punjab, Haryana, Chandigarh & Delhi and north Rajasthan; scattered to fairly widespread over Uttar Pradesh on 1st & 2nd January, 2020.
- Light to moderate isolated/scattered rainfall is also very likely over Madhya Pradesh, Chhattisgarh, Vidarbha and Marathwada during 31st December, 2019 to 2nd January, 2020; and over Odisha, Bihar, Jharkhand, West Bengal & northeastern states during 1st to 3rd January, 2020.
- Thunderstorm accompanied with **hail & lightning** likely at isolated places very likely over south Haryana & Delhi, Uttar Pradesh, northeast Rajasthan, East Madhya Pradesh, Vidarbha and Chhattisgarh; with lightning at isolated places over West Madhya Pradesh, Coastal Andhra Pradesh & Yanam, Telangana and Punjab mainly on 1st & 2nd January, 2020.

(b) Severe cold wave & cold day conditions over northern parts of India

- During past 3-4 days (i.e. 26-29 December 2019), minimum temperatures has fallen significantly over northern & central parts of India leading to cold wave to severe cold wave conditions over Rajasthan, Delhi, Haryana and west Uttar Pradesh and North Madhya Pradesh. Significant lowest values of minimum temperatures are given in **Table 1**.
- Cold day to severe cold day conditions are also continued to prevail over many to most parts of northern India since 15th December and these conditions have further intensified in last 3-4 days with most of stations over northern India reported 8-12 °C below normal maximum temperature (**Table 2**).

Forecast and Warning for next 5-days

- Considering minimum temperatures & its trend, cold wave to severe cold wave conditions very likely in some pockets over Punjab, Haryana, Chandigarh & Delhi and cold wave conditions in some pockets over Sub-Himalayan West Bengal & Sikkim and in isolated pockets over Odisha, Jharkhand, Bihar, Himachal Pradesh, Uttar Pradesh, Rajasthan, Madhya Pradesh and Vidarbha on 30th December, 2019 morning and Cold wave conditions very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, Sub-Himalayan West Bengal & Sikkim, Odisha, Jharkhand, Bihar and East Rajasthan **on 31st morning hours and abate thereafter.**
- Due to persistence of cold northwesterly winds in lower levels on today and likely weak easterly winds tomorrow, the 30th December, 2019 over northern India and considering other favourable meteorological conditions, cold day to severe cold day conditions very likely in most pockets over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh; in many pockets over Bihar; in isolated pockets over north Rajasthan, West Madhya Pradesh and cold day in some pockets over Sub-Himalayan West Bengal & Sikkim; at isolated pockets over Uttarakhand and East Madhya Pradesh on 29th & 30th December, 2019. **It is likely to abate thereafter due to increase in easterly wind speed over northern parts of the country.**
- Dense to very dense fog in some pockets over Punjab, Haryana, Chandigarh & Delhi; in isolated pockets over north Rajasthan, north Madhya Pradesh, Bihar, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and dense fog in isolated pockets over Uttarakhand, Himachal Pradesh and Uttar Pradesh on 29th night/30th morning and 30th night/31st morning hours. **Its intensity very likely to decrease significantly due to increase in wind speed at lower levels from 31st December afternoon.**
- Forecast & warning for next 5 days in graphic format is as follow:

Today
29/12/2019



Fog:- Dense to very dense fog in some pockets over Punjab, Haryana, Chandigarh & Delhi; in isolated pockets over north Rajasthan, north Madhya Pradesh, Bihar, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and dense fog in isolated pockets over Uttarakhand, Himachal Pradesh and Uttar Pradesh.

Cold day conditions :- Cold day to severe cold day conditions very likely in most pockets over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh; in many pockets over Bihar; in isolated pockets over north Rajasthan, West Madhya Pradesh and cold day in some pockets over Sub-Himalayan West Bengal & Sikkim; at isolated pockets over Uttarakhand and East Madhya Pradesh.

Cold wave condition:- Cold wave to severe cold wave conditions very likely in some pockets over Punjab, Haryana, Chandigarh & Delhi and cold wave conditions in some pockets over Sub-Himalayan West Bengal & Sikkim and in isolated pockets over Odisha, Jharkhand, Bihar, Himachal Pradesh, Uttar Pradesh, Rajasthan, Madhya Pradesh and Vidarbha.

Tomorrow
30/12/2019

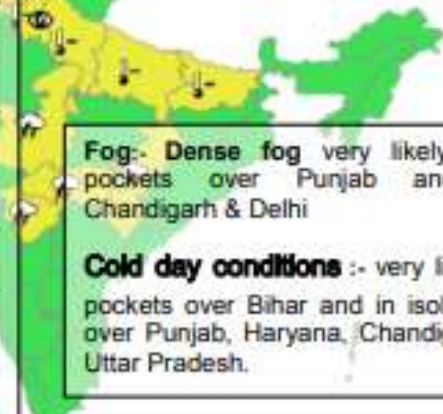


Fog:- Dense to very dense fog in some pockets over Punjab, Haryana, Chandigarh & Delhi; in isolated pockets over north Rajasthan, Bihar and Assam & Meghalaya and dense fog in isolated pockets over Uttarakhand, Himachal Pradesh, Uttar Pradesh, north Madhya Pradesh and Nagaland, Manipur, Mizoram & Tripura.

Cold day conditions:- Cold day to severe cold day conditions very likely in many pockets over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Bihar and cold day in isolated pockets over Rajasthan, Uttarakhand and West Madhya Pradesh.

Cold wave condition:- very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, Sub-Himalayan West Bengal & Sikkim, Odisha, Jharkhand, Bihar and East Rajasthan.

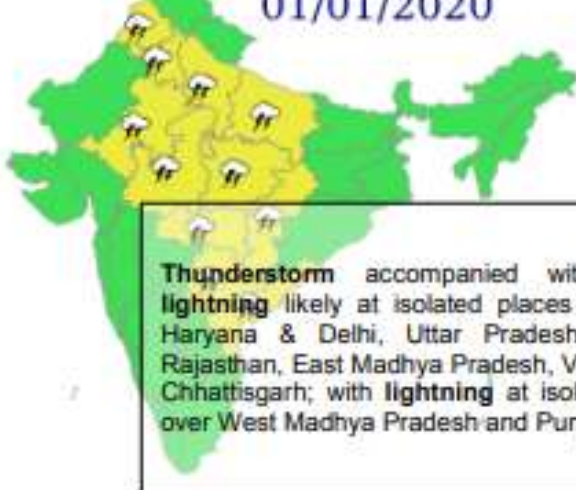
31/12/2019



Fog:- Dense fog very likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi

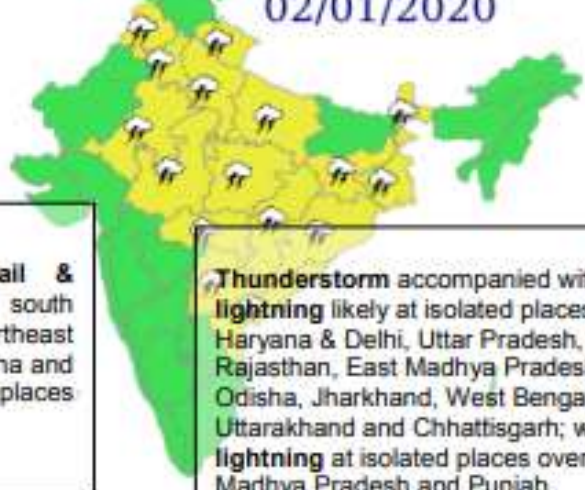
Cold day conditions :- very likely in many pockets over Bihar and in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh.

01/01/2020



Thunderstorm accompanied with hail & lightning likely at isolated places over south Haryana & Delhi, Uttar Pradesh, northeast Rajasthan, East Madhya Pradesh, Vidarbha and Chhattisgarh; with lightning at isolated places over West Madhya Pradesh and Punjab.

02/01/2020



Thunderstorm accompanied with hail & lightning likely at isolated places over south Haryana & Delhi, Uttar Pradesh, northeast Rajasthan, East Madhya Pradesh, Vidarbha, Odisha, Jharkhand, West Bengal & Sikkim, Uttarakhand and Chhattisgarh; with lightning at isolated places over West Madhya Pradesh and Punjab.

Legends: **Yellow: Be updated**, **Orange- Be prepared**; **Red- Take action**, **Green: No warning**
 Heavy rain: 64.5-115.5 mm/day; Very heavy rain: 115.6-204.4 mm/day; Extremely heavy rain: more than 204.4 mm/day

Dense Fog: 50 to 199 m, **Very Dense Fog: less than 50 m**

Cold Day conditions when Minimum Temperature of a Station $\leq 10^{\circ}\text{C}$ in plains:

Cold Day : Maximum Temperature departure from normal -4.5°C to -6.4°C

Severe Cold Day: Maximum Temperature departure from normal $\leq -6.4^{\circ}\text{C}$

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

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

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

Table 1: Lowest Minimum Temperatures during 26th December, 2019 to 29th December, 2019

Name of Station	26-12-2019	27-12-2019	28-12-2019	29-12-2019
Delhi-Palam	5.6	4.2	3.1	3.2
Delhi- Safdarjung	5.8	4.2	2.4	3.4
Delhi-Lodhi Road	5.1	4.0	1.7	2.8
Sikar	0.0	0.0	-1.0	0.0
Pilani	0.5	0.5	0.6	1.6
Mount Abu	1.0	1.0	-1.5	-3.0
Churu	1.3	1.3	1.1	1.2
Narnaul	2.5	2.5	0.5	1.5
Hisar	3.3	0.3	0.2	0.2
Rohtak	3.4	3.2	1.8	1.6
Ganganagar	3.9	1.4	2.1	5.5
Umaria	-	2.9	1.9	1.3

Table 2: Lowest Maximum Temperatures during 26th December, 2019 to 28th December, 2019

26-12-2019	27-12-2019	28-12-2019
Amritsar-8.4 °C, Ludhiyana-10.7 °C, Ambala-9.1 °C, Karnal-9.2 °C, Chandigarh-8.8 °C, Rohtak-11.0 °C, Najibabad-10.0 °C, Bareilly-10.6 °C, Shahjahanpur-11.0 °C, Hardoi-10.8 °C, Bahraich-10.0 °C, Varanasi-11.0 °C, Delhi Safdarjung- 14.4 °C and Palam-12.9 °C	Ganganagar-9.8 °C, Amritsar-8.8 °C, Ludhiyana-8.7 °C, Ambala-10.2 °C, Karnal-9.4 °C, Jhansi-9.9 °C, Delhi Safdarjung- 14.4 °C and Palam-12.9 °C	Ganganagar-8.5 °C, Amritsar-8.2 °C; Najibabad-9.5 °C, Bareilly-8.3 °C, Shahjahanpur-9.8 °C, Agra-9.5 °C, Orai-9.0 °C. & Delhi Safdarjung- 13.3 °C and Palam-11.0 °C