

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 04 January 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- An active Western Disturbance lies as a middle and upper level cyclonic circulation over Central Pakistan & neighbourhood with its induced cyclonic circulation over southwest Rajasthan & neighbourhood at lower levels. A north-south zone of wind confluence continues to exist from North Punjab to Northeast Arabian Sea, with strong interaction between south westerly in association with the above Western Disturbance and lower level moist southeasterlies.
- All these favorable meteorological features likely to persist till 05th January, 2021 and continue to cause moderate to intense wet spell with fairly widespread to widespread precipitation accompanied with thunderstorm, lightning and hailstorm at isolated over northwest India till night of 5th January with peak activities on 4th over the Plains (Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and north Rajasthan) and on 4th and 5th Jan 2021 over western Himalayan region (Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand).
- After cessation of wet spell, fresh northerly-northwesterly winds likely to set in over Plains of northwest India causing cold wave to severe cold wave conditions at isolated places over Punjab, Haryana and north Rajasthan from 7th January 2021 onwards.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830 hours IST to 1730 hours IST of yesterday): at most places over Uttarakhand; at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, West Uttar Pradesh, Punjab and Tamilnadu, Puducherry & Karaikal; at a few places over Himachal Pradesh and Haryana, Chandigarh & Delhi and at isolated places over Kerala & Mahe.
- Rainfall recorded (from 0830 hours IST to 1730 hours IST of yesterday) (1cm or more): Qazigund, Banihal, Kokernag, Batote, Mukteshwar Kumaon, Delhi (Lodhi

Road) and Meerut-2 each; Pahalgaon, Srinagar, Baderwah, Delhi (Safdarjung, Ridge & Ayanagar), Aligarh, Najibabad, Puducherry, Atiramapattinam, Tondi, Coonoor and Periakulum-1 each.

- Thunderstorm recorded (from 2030 hours IST of yesterday to 0530 hours IST of today): at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, West Uttar Pradesh and East Rajasthan.
- Yesterday, cold wave conditions observed in isolated pockets over Punjab and West Uttar Pradesh.
- Yesterday, cold day conditions observed in isolated pockets over Haryana, Chandigarh & Delhi.
- Fog observed (at 0530 hours IST of today): Very dense fog in isolated pockets over West Rajasthan and Dense fog in isolated pockets over Haryana, Delhi and East Uttar Pradesh.
- Visibility recorded (at 0530 hours IST of today, 200 m or less): Ganganagar and Churu-25 each; Hissar and Delhi (Palam, Safdarjung) 50 each and Ajmer-200.
- Maximum Temperature Departures as on 03-01-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over Jharkhand; at many Places over East Madhya Pradesh, East Uttar Pradesh and Chhattisgarh and at a few places over West Madhya Pradesh and Odisha; above normal (1.6°C to 3.0°C) at most places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura; at many places over Himachal Pradesh and Vidarbha; at a few places over Punjab, East Rajasthan, Konkan & Goa and Bihar and at isolated places over Madhya Maharashtra. They were markedly below normal (-5.1°C or less) at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; appreciably below normal (-3.1°C to -5.0°C) at many places over West Rajasthan and Saurashtra & Kutch; at a few places over Gujarat region and West Uttar Pradesh; at isolated places over Uttarakhand; below normal (-1.6°C to -3.0°C) at many places over Haryana, Chandigarh & Delhi; at a few places over Gangetic West Bengal, Andaman & Nicobar Islands and Tamilnadu, Puducherry & Karaikal and at isolated places over Kerala & Mahe and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.8°C was reported at Karwar (Coastal Karnataka) over the country.
- Minimum Temperature Departures as on 03-01-2021: Minimum temperatures were markedly above normal (5.1°C or more) at a few places over East Rajasthan, Madhya Pradesh and at isolated places over Himachal Pradesh, Punjab, West Rajasthan and Madhya Maharashtra; appreciably above normal (3.1 °C to 5.0 °C) at most places over Uttarkhand; at many places over West Uttar Pradesh, Vidharbha and Coastal

Karnataka; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, East Uttar Pradesh, Jharkhand, Rayalaseema, Tamilnadu, Puducherry & Karaikal and Andaman & Nicobar Islands; above normal (1.6°C to 3.0°C) at a few places over Chhattisgarh, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and at isolated places over South Interior Karnataka. They were appreciably below normal (-3.1°C to -5.0°C) at a few places over Saurashtra & Kutch; at isolated places over Gangetic West Bengal; below normal (-1.6°C to -3.0°C) at a few places over Sub- Himalayan West Bengal & Sikkim and at isolated places over Assam & Meghalaya, Odisha and Gujarat Region and near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 5.4°C reported at Banda (West Uttar Pradesh) over the plains of the country.

Weather Warning during next 5 days (IMD)

- **04 January (Day 1):** Heavy rain/Snow very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad and Himachal Pradesh.
- Heavy rainfall very likely at isolated places over Punjab and Haryana & Chandigarh.
- Thunderstorm accompanied with lightning and hail at isolated places very likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Rajasthan and West Madhya Pradesh; with lightning over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Kerala & Mahe and Lakshadweep.
- Cold Wave conditions very likely in isolated pockets over Saurashtra & Kutch.
- Cold Day Conditions very likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi.
- Dense fog very likely at isolated places over West Rajasthan and Odisha.
- **05 January (Day 2):** Heavy rain/Snow very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Uttarakhand and Himachal Pradesh.
- Heavy rainfall very likely at isolated places over Tamilnadu, Puducherry & Karaikal.
- Thunderstorm accompanied with lightning and hail at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Uttarakhand and West Uttar Pradesh; with lightning over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.
- Cold Wave conditions very likely in isolated pockets over Saurashtra & Kutch.

- Dense fog very likely at isolated places over West Rajasthan and Odisha.
- **06 January (Day 3):** Dense Fog likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi, West Uttar Pradesh and Rajasthan.
- Heavy rainfall likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- Thunderstorm accompanied with lightning at isolated places over Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.
- Cold Wave to severe cold wave conditions likely in isolated pockets over Saurashtra & Kutch; Cold Wave conditions likely over Punjab, Haryana and Rajasthan.
- **07 January (Day 4):** Dense Fog likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan.
- Thunderstorm accompanied with lightning at isolated places over Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, and Kerala & Mahe.
- Cold Wave to severe cold wave conditions likely in isolated pockets over Saurashtra & Kutch; Cold Wave conditions likely over Punjab, Haryana and Rajasthan.
- **08 January (Day 5):** Dense Fog likely in isolated pockets over Punjab and Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan.
- Thunderstorm accompanied with lightning at isolated places over Coastal Karnataka and Kerala & Mahe.
- Cold Wave to severe cold wave conditions likely in isolated pockets over Punjab, Haryana and Rajasthan
- The weather outlook for the period of seven days *i.e* 04 January to 12 January 2021 forecasted (*Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>*) (Fig. 2).

Agricultural activities (AICRPAM-CRIDA)

Gujarat

Weather condition:

- The actual maximum temperature was 1.6 °C lower and Actual minimum temperature was 1.0 °C higher as compared to its normal.

Contingency measure:

- Wheat is at CRI/tillering stage. To control termite apply chlorpyrifos 20 EC 2 to 2.5 litre/ha with irrigation water. To avoid moisture stress irrigate crop after 21 days of sowing. Carried out weeding and interculturing operations.
- Mustard is at reproductive stage. Apply irrigation according to soil type and climatic condition. In case of aphid, apply 500 g (5% arc) neem seed powder or 20 ml (1 EC) to 40 ml (0.15 EC) neem based readymade solution in 10 litre of water in evening time.
- Tobacco: inter-culturing and weeding is advised. Carried out topping operation at flowering initiation stage.
- Tomato is at vegetative growth. There is possibility of incidence of spotted wilt virus, spray Carbendazim (50% WP) 5 g in 10 litre water at 10 to 12 days interval.
- Gram is at vegetative stage. Inter-culturing and hand weeding should be done. Apply irrigation, if required. Nipping should be done.

SAT : INSAT-3D IMG
IMG_TIR1 10.8 um
L1C Mercator

04-01-2021/(0630 to 0657) GMT
04-01-2021/(1200 to 1227) IST

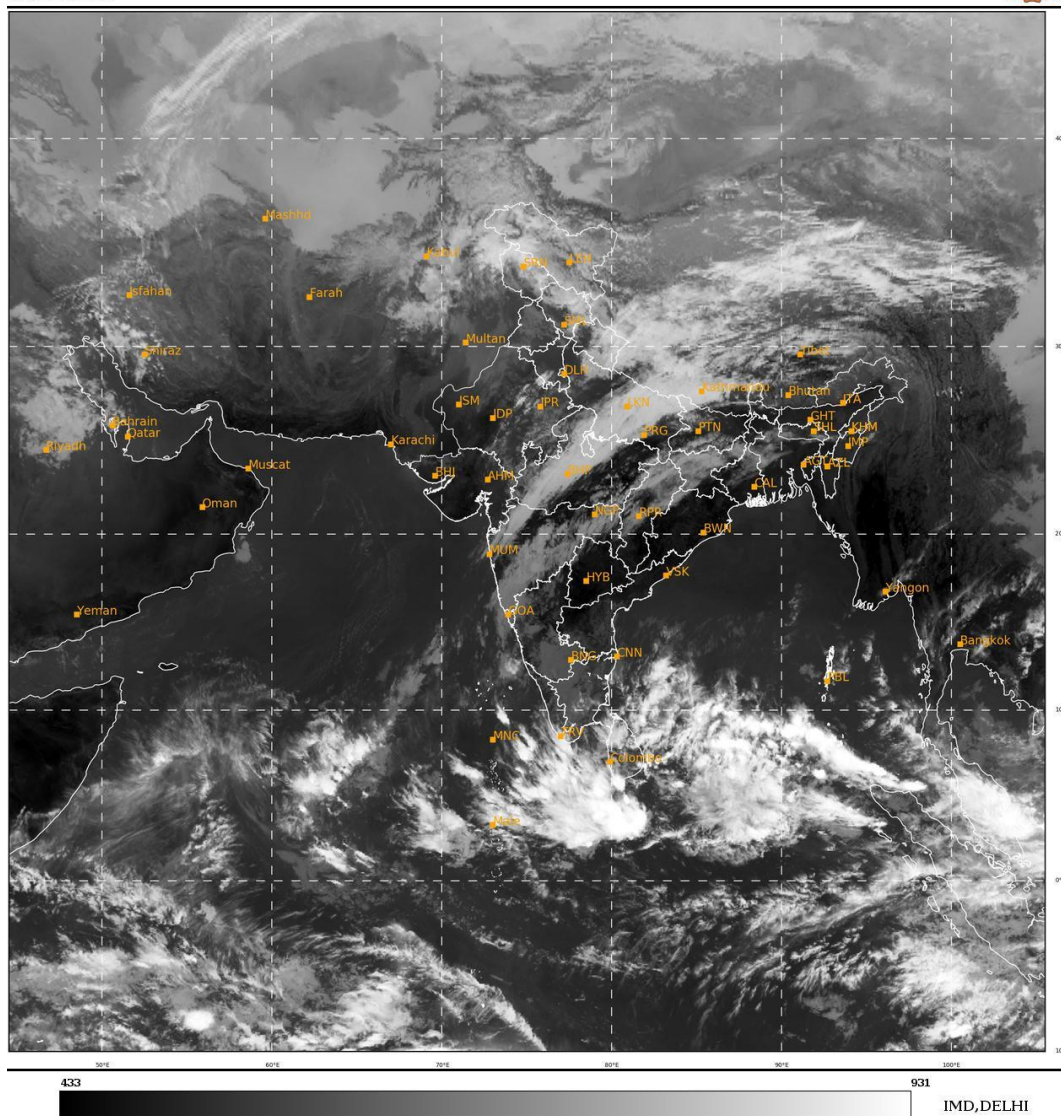


Figure: 1. Latest available satellite picture as on 04 January 2021 at 12:00-12:26 Hrs (IST).
(Source: IMD).

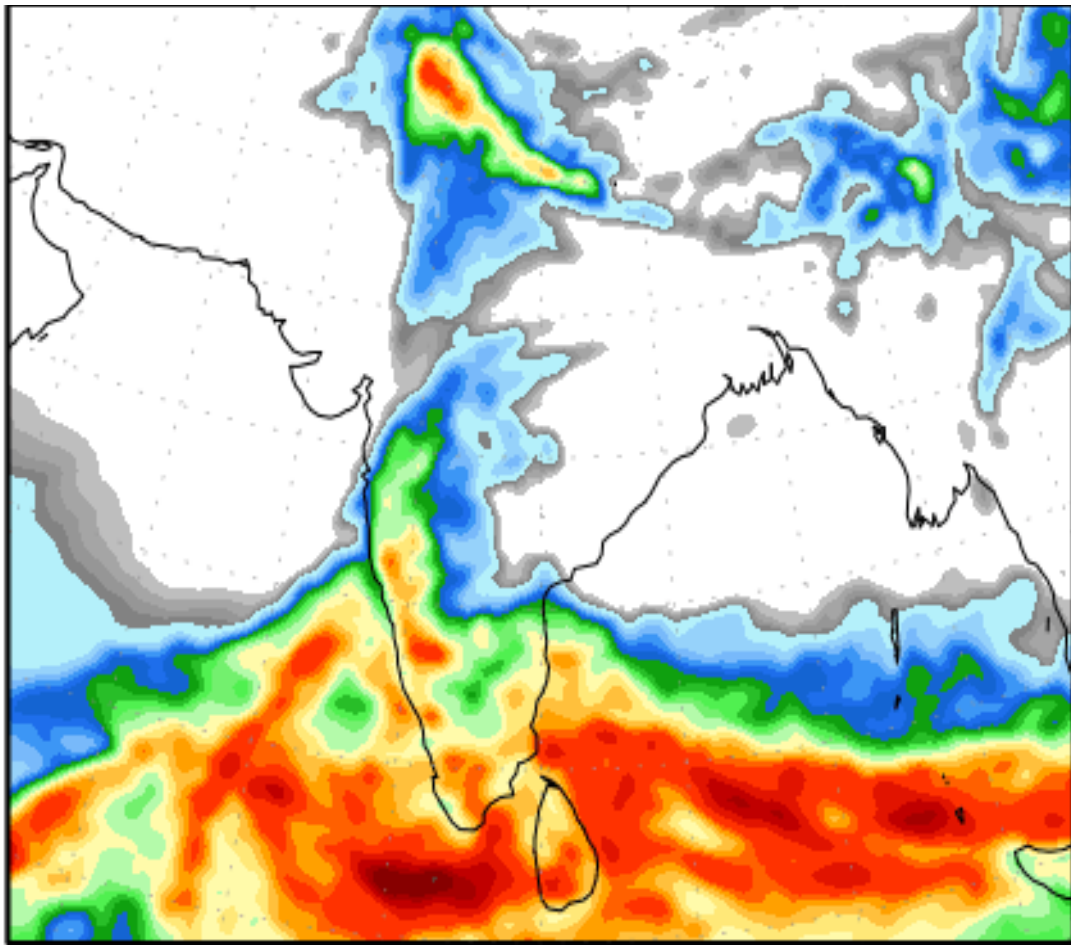


Figure: 2. Precipitation forecast for 04 January -12 January 2021 (Source: NOAA NCEP).