

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 28 January 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- Dry northwesterly winds over plains of North India & adjoining parts of central India are likely to prevail during next 3-4 days.
- Under its influence:-
 - (i) Cold Day to Severe Cold Day conditions in isolated/some pockets very likely over Uttarakhand, Uttar Pradesh and Bihar during next 2- 3 days.
 - (ii) Cold Wave to Severe Cold Wave conditions in some/many pockets very likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and East Rajasthan during next 2 days and decrease in spatial distribution and intensity thereafter. Cold Wave conditions in isolated pockets very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, West Rajasthan and Madhya Pradesh,during next 2-3 days.
 - (iii) Ground Frost conditions in isolated places very likely over Punjab, Haryana, Chandigarh & Delhi, Himachal Pradesh, Uttarakhand, West Uttar Pradesh and north Rajasthan during next 2 days.
- Dense to Very Dense Fog in isolated/some/many pockets very likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, SubHimalayan West Bengal & Sikkim and Bihar during next 2 days and decrease in spatial distribution and intensity thereafter. Dense Fog in isolated pockets also very likely over Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 2-3 days and over Odisha during 29th-31st January, 2021.
- A fresh Western Disturbance is likely to affect Western Himalayan Region from 31st January night onwards. Under its influence isolated to scattered rain/snow with moderate thunderstorm & lightning likely over the region during 01st-03rd February, 2021.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Andaman & Nicobar Islands.
- Rainfall recorded (from 0830 hours IST of yesterday to 0830 hours IST of today) (1 cm or more): Nil.
- Today, Cold Wave conditions observed in many pockets over Punjab and Haryana, Chandigarh & Delhi; in some pockets over East Rajasthan, East Uttar Pradesh and East Madhya Pradesh and in isolated pockets over Saurashtra & Kutch and West Uttar Pradesh.
- Yesterday, Cold Day to Severe Cold Day conditions observed in many pockets of East Uttar Pradesh and Bihar; in some pockets over West Uttar Pradesh and Cold Day conditions in some pockets of Madhya Pradesh and in isolated pockets of East Rajasthan and Uttarakhand.
- Fog observed (at 0830 hours IST of today): Dense to Very Dense Fog in some pockets over Punjab and East Uttar Pradesh; Moderate to Dense Fog in many pockets over West Uttar Pradesh and in isolated pockets over Haryana, Bihar and Sub-Himalayan West Bengal & Sikkim and Moderate Fog in isolated pockets over Delhi, Uttarakhand and Tripura.
- Maximum Temperature Departures as on 27-01-2021: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Himachal Pradesh; above normal (1.6°C to 3.0°C) at many places over Uttarakhand; at a few places over Coastal Andhra Pradesh & Yanam; at isolated places over Telangana and Odisha. They were markedly below normal (-5.1°C or less) at most places over East Uttar Pradesh and Bihar; at a few places over West Uttar Pradesh; at isolated places over Madhya Pradesh and West Bengal & Sikkim; appreciably below normal (-3.1°C to -5.0°C) at many places over Gujarat region; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and East Rajasthan; at isolated places over Saurashtra & Kutch; below normal (-1.6°C to -3.0°C) at many places over Haryana, Chandigarh & Delhi and at isolated places over Madhya Maharashtra, Konkan & Goa, Kerala & Mahe, Andaman & Nicobar Islands and Tamilnadu, Puducherry & Karaikal and are near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.2°C was reported at Sholapur (Madhya Maharashtra) over the country.
- Minimum Temperature Departures as on 28-01-2021: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at a few places over Chhattisgarh and North Interior Karnataka; at isolated places over Coastal Andhra Pradesh & Yanam and Telangana; above normal (1.6°C to 3.0°C) at most places over

Marathawada; at many places over Vidarbha; at a few places over Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura and Lakshadweep; at isolated places over Madhya Maharashtra, Odisha and Rayalaseema. They are markedly below normal (-5.1°C or below) at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, East Rajasthan, East Madhya Pradesh and Haryana, Chandigarh & Delhi; appreciably below normal (-3.1°C to -5.0°C) at a few places over West Uttar Pradesh, West Madhya Pradesh, Gujarat and Bihar; at isolated places over Himachal Pradesh, West Rajasthan and Gangetic West Bengal; below normal (-1.6°C to -3.0°C) at most places over Punjab; at many places over Konkan & Goa; at a few places over Sub-Himalayan West Bengal & Sikkim; at isolated places over Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country. The lowest minimum temperature of 1.8°C reported at Bhilwara (East Rajasthan) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 28 January (Day 1): Dense to Very Dense Fog in some pockets very likely over East Uttar Pradesh and Bihar; in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and Sub-Himalayan West Bengal & Sikkim and Dense Fog in isolated pockets over Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Cold Day to Severe Cold Day conditions in many pockets very likely over East Uttar Pradesh; in some pockets over Bihar; in isolated pockets over West Uttar Pradesh and Uttarakhand and Cold Day conditions in isolated pockets over Madhya Pradesh and northwest Jharkhand. Cold Wave to Severe Cold Wave conditions in many pockets very likely over Punjab, Haryana, Chandigarh & Delhi; in some pockets over East Rajasthan; in isolated pockets over Uttar Pradesh and Cold Wave conditions in isolated pockets over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, West Rajasthan and Madhya Pradesh. Ground Frost conditions at isolated places very likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and north Rajasthan.
- 29 January (Day 2): Dense to Very Dense Fog in some pockets very likely over East Uttar Pradesh; in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and Sub-Himalayan West Bengal & Sikkim and Dense Fog in isolated pockets over Bihar, Odisha and Tripura. Cold Day to Severe Cold Day conditions in some pockets very likely over East Uttar Pradesh; in isolated pockets over West Uttar Pradesh and Uttarakhand and Cold Day conditions in isolated pockets over Bihar. Cold Wave to Severe Cold Wave conditions in many

pockets very likely over Punjab and Haryana, Chandigarh & Delhi; in some pockets over East Rajasthan; in isolated pockets over Uttar Pradesh and Cold Wave conditions in isolated pockets over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, West Rajasthan and Madhya Pradesh. Ground Frost conditions at isolated places very likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and north Rajasthan. Thunderstorm accompanied with lightning and hail at isolated places very likely over Arunachal Pradesh and thunderstorm accompanied with lightning at isolated places over Assam & Meghalaya.

- 30 January (Day 3): Dense Fog in isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Bihar, Tripura and Odisha. Cold Day conditions in isolated pockets very likely over Uttar Pradesh and Bihar. Cold Wave conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and East Rajasthan and in isolated pockets likely over Uttar Pradesh, Madhya Pradesh and West Rajasthan. Thunderstorm accompanied with lightning and hail at isolated places very likely over Arunachal Pradesh and thunderstorm accompanied with lightning at isolated places over Assam & Meghalaya.
- 31 January (Day 4): Dense Fog in isolated pockets likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Odisha. Cold Day conditions in isolated pockets likely over East Uttar Pradesh. Cold Wave conditions in isolated pockets likely over Punjab, Haryana, Chandigarh & Delhi, East Rajasthan and Uttar Pradesh.
- 01 February (Day 5): Dense Fog in isolated pockets likely over Uttar Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Cold Wave conditions in isolated pockets likely over Uttar Pradesh.
- The weather outlook for seven days i.e., 28 January to 05 February 2021 forecasted (Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>) rain/thundershower may occur over Some parts of Extreme northern parts of India. (Fig. 2).

Agricultural activities (AICRPAM-CRIDA)

Maharashtra-Vidarbha

Weather condition:

Weekly average means (04 MW) at AICRPAM Akola centre: T max 31.1°C (normal 30.8°C), T min 14.8°C (normal 11.9°C). RH I 70% (normal 66 %), RH II 29% (normal 26 %). Evaporation rate 5.1 mm (normal 5.0 mm), Wind speed 1.4 km/hr (normal 4.1 km/hr) and BSH 8.0 hrs (normal 8.7 hrs). Maximum temperature across the week was 0.4°C above normal with a deviation of -2.1 to 2.4°C from normal. Minimum temperature across the week 2.9°C above normal with a deviation of 0.9 to 6.8°C from normal.

Contingency measure:

- The forecast (IMD) indicates mainly dry weather during 21-25 January.
- In chickpea install pheromone traps (hexalure) @ 5/ha for monitoring the incidence of pod borer (*Helicoverpa*) and also undertake control measures if 8 to 10 adult moths are observed in the trap over 3 consecutive days. For management of pod borer (*Helicoverpa*) in chickpea undertake first spray at 50% flowering stage with 5% NKSE OR Azadirachtin 1500 PPM @ 25 ml OR HaNPV (1x10⁹ POB/ml) 500 LE/ha, OR quinolphos 25% EC @ 20 ml per 10 litres of water. After 15 days of first spray undertake second spray of Emamectin benzoate 5% SG @ 3 g OR Ethion 50% EC @ 25ml OR Flubendiamide 20% WG @ 5 g OR Chlorantraniliprole 18.5 % SG @ 2.5 g per 10 litres of water.
- After completion of cotton picking, terminate the crop immediately. Ratooning should be discouraged. Infested/unopened/poorly opened bolls on cotton plants should be destroyed. Removal and destruction of cotton crop residues is advisable immediately after last harvest to avoid carryover of the pest (PBW) to the next season.
- In late sown irrigated wheat at crown root initiation stage, irrigation is advisable followed by (3-4 days after) top dressing (broadcasting) of nitrogenous fertilizer (@ 50 kg N/ha). Undertake weeding in earlier sown wheat as initial 30-40 days is critical period for weed control.
- Monitor for incidence of sap sucking aphids particularly in irrigated / late sown safflower crop and for above ETL level incidence (30% infested plants) undertake spray with dimethoate 30% EC @ 13 ml/10 litres of water.
- With assured irrigation facility, sowing of summer groundnut (TAG 24) can normally be undertaken from second fortnight of January onwards when optimum temperature range for germination prevails (minimum temperature

>15oC) preferably BBF sowing with sprinkler irrigation is advisable for summer groundnut and also seed treatment with Trichoderma 5g/kg seed and rhizobium and PSB (each 250g / 10-15 kg seed) is advisable.

- Sowing of summer sunflower can normally be undertaken during first week of February. Seed treatment with Trichoderma 4g/kg is advisable. Normal sowing of summer sesame can be undertaken during first fortnight of February.
- Ensure seed (3 to 4 kg/ha) and fertilizer (25:25:0 NPK/ha, N in 2 splits) inputs for cultivation of summer sesame (AKT 101, PKV-NT-11). Seed treatment with carbendazim @ 3g/kg seed and Trichoderma viridii 4g/kg is advisable.
- In mandarin orange, release of soil water stress period imposed for induction of flowering (ambia bahar) be followed by manuring/fertilization. Basin mulching with about 2 inch thickness layer of organic residues is advisable to conserve moisture and maintain thermal regime.
- Considering irrigation facility and market response, cultivation of leafy vegetables (fenugreek, spinach, coriander, etc.), radish, carrot, okra, cluster bean, tinda, etc can be initiated during this period.
- Keep close vigil to detect any unusual poultry bird death. In view of bird flu scare follow a set of do's and don'ts issued by the local health department. For livestock green feed, with availability of irrigation water, undertake sowing of fodder crops. In sheep and goat preventive vaccination for Bulkandi disease (Rinderpest) is advisable.

28-01-2021/(0800 to 0826) GMT
28-01-2021/(1330 to 1356) IST

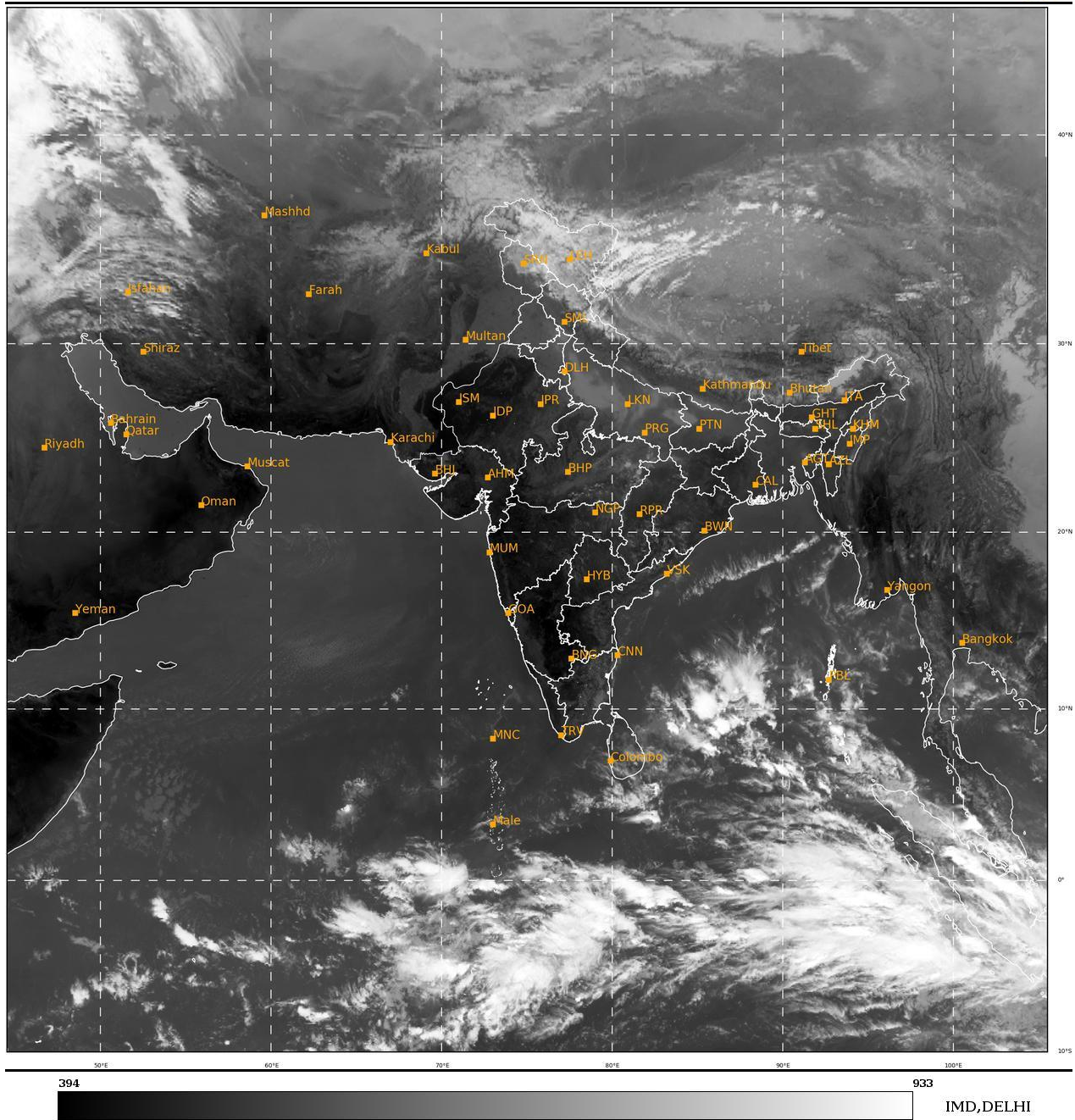


Figure: 1. Latest available satellite picture as on 28 January 2021 at 1356 Hrs (IST). (Source: IMD).

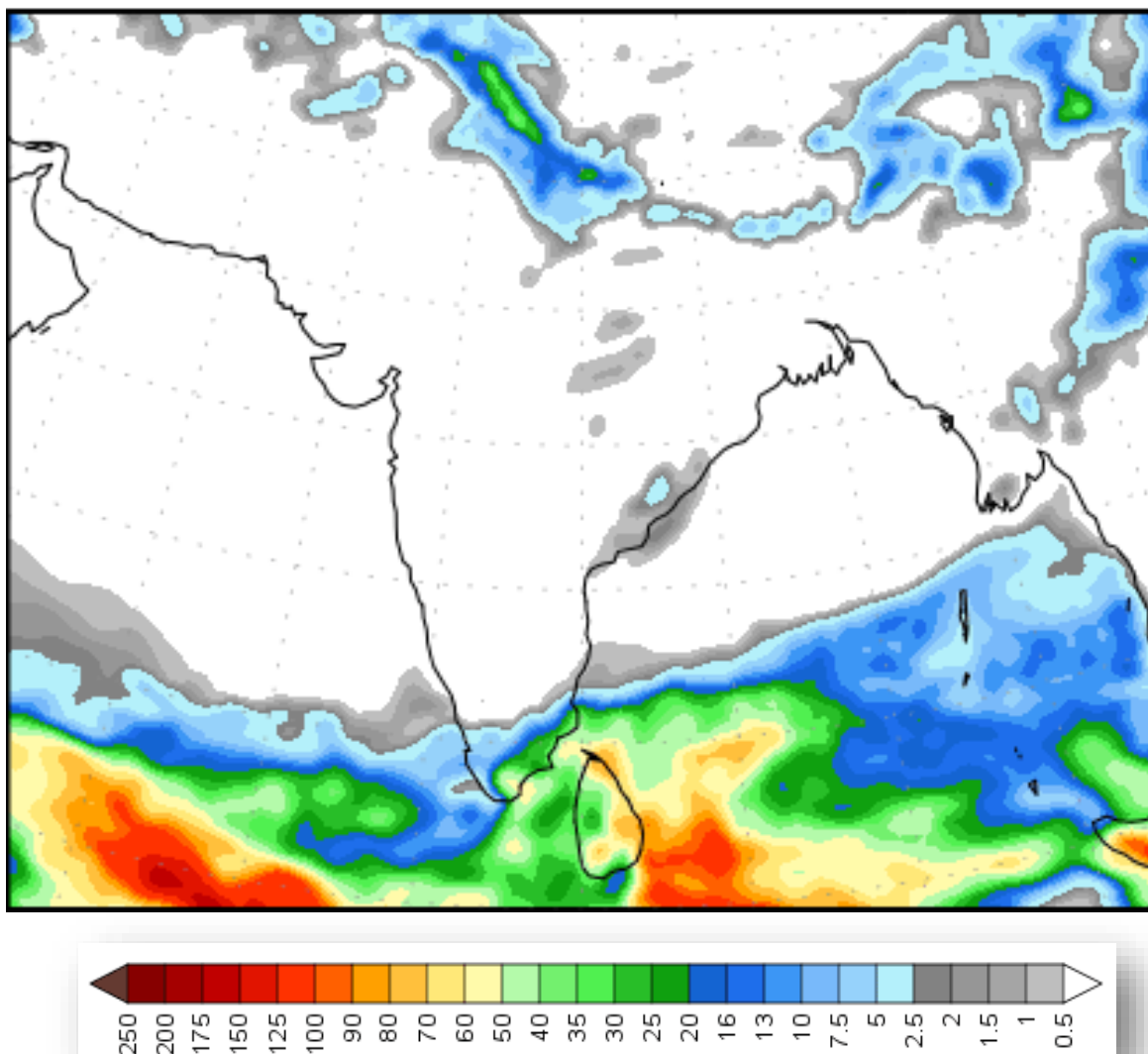


Figure:2. Precipitation forecast for 28 Jan to 05 February 2021 (Source: NOAA NCEP).

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