

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 22 December 2021

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Significant Weather Features (IMD)

- Wet spell over Western Himalayan Region and plains of Northwest India:
- Under the influence of a Western Disturbance as a cyclonic circulation over north Pakistan & neighbourhood at lower tropospheric levels, isolated rainfall/snowfall very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Himachal Pradesh on 22nd & 23rd December.
- Thereafter, two Western Disturbances in quick succession, the 1st from 24th and 2nd from 26th December are very likely to influence northwest India. Under their influence;
 - 1) Light isolated to scattered rainfall/snowfall very likely over Western Himalayan Region on 24th & 25th and light isolated rainfall over northern parts of Punjab & Haryana during same period.
 - 2) Thereafter under the influence of intense fresh Western Disturbance from 26th; precipitation activity is very likely to increase further over northwest India with Light/moderate scattered to widespread rainfall/snowfall over Western Himalayan Region during 26th to 29th December with possibility of isolated heavy falls over Kashmir region and Himachal Pradesh on 27th December.
 - 3) Light/moderate isolated to scattered rainfall is also likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan during 26th to 29th and over Madhya Pradesh, Chhattisgarh, Bihar and Jharkhand during 27th to 29th December, 2021.
- Abatement of Cold Wave Conditions from Northwest & Central India:
- Gradual rise in minimum temperatures by 3-5°C very likely over most parts of Northwest & Central India during next 3 days and no significant change thereafter. No significant change in minimum temperatures over most parts of East India during next 24 hours and rise by 2-4°C thereafter.
- Cold Wave conditions in isolated pockets very likely over Odisha during next 48 hours and over East Madhya Pradesh during next 24 hours and abatement thereafter.

- Dense fog in the morning hours in isolated pockets very likely over Punjab and Haryana on 24th & 25th and over northwest Rajasthan on 25th December, 2021.
- Wet spell over Northeast India: Under the influence of cyclonic circulation over south Bangladesh & neighbourhood at lower tropospheric levels, light to moderate isolated/scattered rainfall very likely over Arunachal Pradesh during next 3 days and over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 2 days with isolated thunderstorm & lightning over the region on today, the 22nd December. Isolated hailstorm also likely over Assam & Meghalaya and Nagaland, Manipur on today, the 22nd December, 2021.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rainfall observed (from 0830 of Yesterday to 0830 hours IST of today): at isolated places over Nagaland, Manipur, Mizoram & Tripura.
- Fog observed (at 0830 hours IST of today): Dense fog in isolated pockets over north Punjab and Shallow fog in isolated pockets over Delhi, Uttar Pradesh, Jharkhand and Saurashtra & Kutch.
- Cold Wave Conditions prevailed in some parts over Odisha and in isolated pockets over Madhya Pradesh, Punjab, East Rajasthan, West Uttar Pradesh, Telangana and Vidarbha.
- Cold Day Conditions prevailed in isolated pockets over Madhya Pradesh.
- Minimum Temperature Departures (as on 22-12-2021): Minimum temperatures are above normal (1.6°C to 3.0°C) at many places over Nagaland, Manipur, Mizoram & Tripura; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and at isolated places over West Rajasthan. They are markedly below normal (-5.1°C or less) at many places over Odisha; at isolated places over East Madhya Pradesh, Telangana and Coastal Andhra Pradesh & Yanam; appreciably below normal (-3.1°C to -5.0°C) at most places over Jharkhand & Chhattisgarh; at a few places over East Uttar Pradesh, West Madhya Pradesh and Vidharbha; at isolated places over Gangetic West Bengal, West Uttar Pradesh, Haryana, Chandigarh & Delhi and Interior Karnataka; below normal (-1.6°C to -3.0°C) at many places over Gujarat Region, Rayalaseema and Andaman & Nicobar Islands; at a few places over Jharkhand and Saurashtra & Kutch; at isolated places over Himachal Pradesh, East Rajasthan and Madhya Maharashtra and near normal over rest parts of the country. Today, the Lowest minimum temperature of 3.0°C reported at Hissar (Haryana) over the plains of the country.

- Maximum Temperature Departures (as on 21-12-2021): Maximum temperatures were above normal (1.6°C to 3.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and West Rajasthan; at a few places over Tamil Nadu, Puducherry & Karaikal; at isolated places over SubHimalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh, Kerala & Mahe, East Rajasthan and Andaman & Nicobar Islands. They were appreciably below normal (-3.1°C to -5.0°C) at a few places over Gangetic West Bengal, Madhya Pradesh and Odisha; at isolated places over Jharkhand, Vidarbha, East Uttar Pradesh and East Madhya Pradesh; below normal (-1.6°C to -3.0°C) at most places over Chhattisgarh; at a few places over Saurashtra & Kutch, Coastal Karnataka and Madhya Maharashtra and at isolated places over Bihar, Telangana and West Uttar Pradesh and near normal at rest parts of the country. Yesterday, the highest maximum temperature of 35.4°C was reported at Alapuzha (Kerala & Mahe).

Weather Warning during the next 5 days (IMD)

- 22 December (Day 1): Cold wave conditions in isolated pockets very likely over East Madhya Pradesh and Odisha. Thunderstorm accompanied with lightning & hail at isolated places very likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and with lightning at isolated places over Arunachal Pradesh.
- 23 December (Day 2): Cold wave conditions in isolated pockets very likely over Odisha. Dense fog in isolated pockets very likely over Punjab, West Uttar Pradesh and Haryana.
- 24 December (Day 3): Dense fog in isolated pockets very likely over Punjab, West Uttar Pradesh, Haryana and northwest Rajasthan.
- 25 December (Day 4): Nil.
- 26 December (Day 5): Thunderstorm accompanied with lightning & hail at isolated places likely over Jammu and Himachal Pradesh and with lightning at isolated places over Uttarakhand and north Punjab.
- The weather outlook for seven days i.e., 22 Dec to 30 Dec 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)

Punjab

Weather condition:

The maximum temperature during the week ranged between 19.8-23.4 °C and minimum temperature ranged between 4.6-7.6°C. The morning and evening relative humidity during the week varied between 94-97 and 34-52%, respectively. The sunshine hours during the week ranged between 0.0-8.7 hrs/day. The evaporation rate during the week ranged between 1.0-1.4 mm day⁻¹. Daily average wind speed varied from 0.3-1.7 kmhr⁻¹.

Contingency measure:

- **Field Crops Wheat:** Under late sown conditions, late sown varieties PBW 752 and PBW 757 and PBW 771 should be sown and apply 55 kg DAP or 155 kg single super-phosphate per acre at the time of sowing. Use only recommended dose of weedicide for effective control. Apply first dose of 45 kg urea per acre with first irrigation. If yellowing of leaves appear due to manganese deficiency in wheat crop, spray the crop with manganese sulphate. If symptoms of sulphur deficiency noticed, broadcast one quintal gypsum/acre followed by a light irrigation or if the soil is in proper moisture condition, this may be mixed by hoeing.
- **Vegetables:** Regularly survey the potato crop during these days and rogue out virus affected potato plants from the seed crop. To protect potato crop from late blight, spray Indofil M-45/Mass M-45/Markzeb/ Antracol/ Kavach @ 500- 700 g or Copper Oxychloride 50 WP/Mark copper @ 750- 1000 g/acre in 250- 350 litres of water at 7 days interval. Sowing of cucumber can be done under low tunnel technology to get early yield.
- **Fruits:** Efforts can be started to protect the young evergreen fruit plants from cold weather. For management of canker in citrus, spray streptomycin 50 g + 25 g copper sulphate in 500 litres of water per acre or Bordeaux mixture (2:2:250) during this month. Powdery mildew in ber can be managed with spray of wettable sulphur @ 2.5 g per litre of water and black spot disease in ber can be managed with spray of Bordeaux mixture (2:2:250) during this month. Apply one irrigation to ber orchards at this time as the trees are laden with fruits. Planning, layout and other preparations can be started for establishment of new orchards of pear, peach, plum, grapes, fig, etc. For management of mango mealy bug, alkathane sheet can be fixed around the tree trunks.
- **Animal Husbandary:** Calves should be protected from cold weather as they can easily catch pneumonia at this time. Keep the animals inside the covered sheds at night and in sunlight during the day. Take care to keep animals in a dry and clean place. After milking, do not allow the animals to sit on the floor for at least half an hour so that germs may not gain entry into the udder through open pores. To protect milch animals from mastitis use teat dips after milking.

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

22-12-2021/(0900 to 0926) GMT
22-12-2021/(1430 to 1456) IST

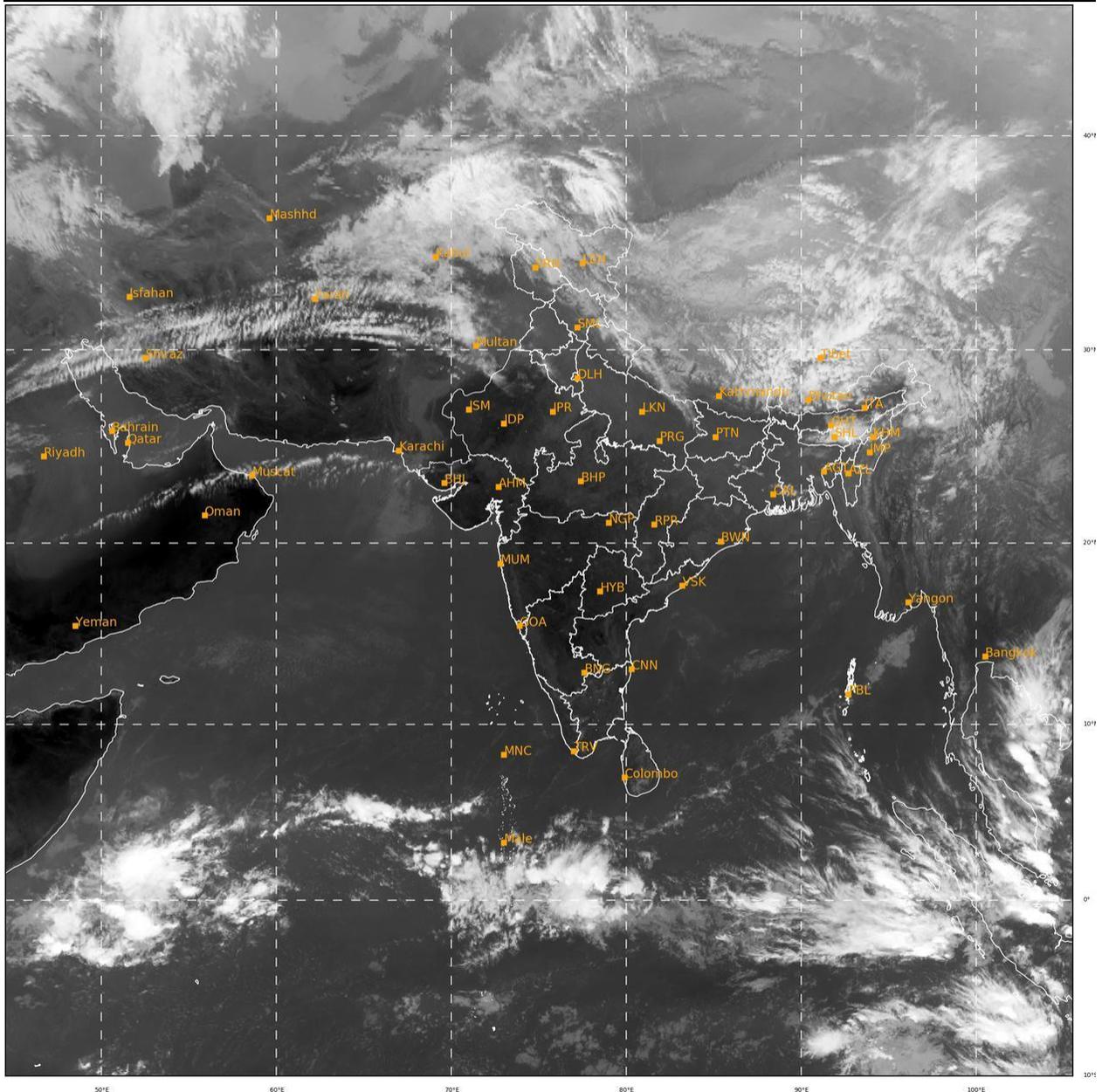


Figure: 1. Latest available satellite picture as on 22 Dec 2021 at 1456 Hrs (IST). (Source: IMD).

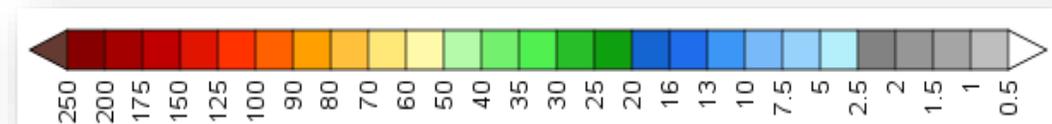
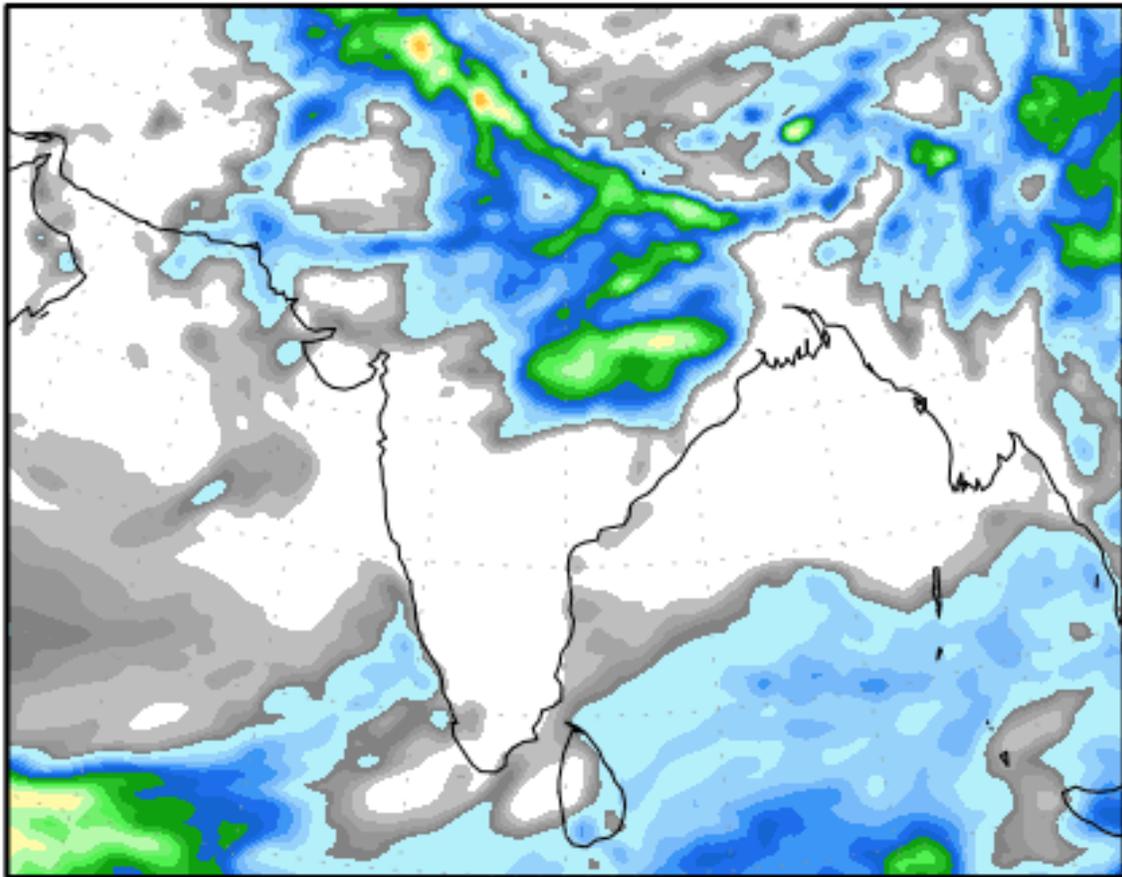


Figure:2. Precipitation forecast for 22 Dec to 30 Dec 2021 (Source: NOAA NCEP).

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