

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 31 December 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- I. Isolated heavy to very heavy rainfall activity over coastal Tamilnadu, Puducherry & Karaikal during next 2 days and decrease thereafter.
- Strong northeasterly winds are prevailing off the coast off Tamilnadu in the lower levels.
- A cyclonic circulation lies over southwest Bay of Bengal off Sri Lanka coast at middle tropospheric level.
- Under its influence, fairly widespread rainfall with isolated heavy to very heavy rainfall activity is very likely to continue over coastal Tamilnadu during next 2 days and decrease thereafter.
- II. Minimum Temperatures, Cold Wave and Fog:
 - i) Minimum temperatures are in the range of 2-6°C over Punjab, north Rajasthan, Haryana and adjoining West UP. During last 24-hours, no significant change has been observed over these areas.
 - ii) No significant change in minimum temperatures over Northwest India very likely during next 2 days & over Madhya Pradesh till tomorrow and gradual rise by 2-4°C thereafter.
 - iii) Gradual fall in minimum temperatures by 3-5°C over East India during next 4-5 days.
 - iv) Gradual rise in minimum temperatures by 2-4°C over Gujarat during next 3-4 days.
 - v) No significant change in minimum temperatures over rest parts of the country during next 5 days.
 - vi) Cold Wave conditions in isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and Rajasthan during next 2 days and over Jammu & Kashmir & Himachal Pradesh during next 24 hours.
 - vii) Cold Day conditions in isolated pockets very likely over Madhya Pradesh during next 2 days.
 - viii) Dense fog in isolated pockets in night/morning hours very likely over East Uttar Pradesh, Madhya Pradesh, Chhattisgarh and northeast India next 2 days.

- III. A fresh spell of rainfall/snowfall activity over Western Himalayan Region during 04th to 07th (with possibility of isolated heavy falls on 05th & 06th) and over plains of northwest India during 05th to 07th January, 2022:
- A fresh deep Western Disturbance and its associated induced cyclonic circulation is likely to affect Northwest Indian region from 04th January 2022. Under its influence,
- a. Fairly widespread rainfall/snowfall during 04th to 07th with possibility of isolated heavy falls on 05th & 06th January, 2022 over Jammu & Kashmir and Himachal Pradesh.
- b. Light/moderate scattered to fairly widespread rainfall over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan & West Uttar Pradesh during 05th to 07th and light isolated rainfall is also likely over Madhya Pradesh, south Rajasthan & Gujarat on 06th & 07th January, 2022.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rainfall/thundershower observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at many places over Tamil Nadu, Puducherry & Karaikal and Arunachal Pradesh; at a few places over Gangetic West Bengal and at isolated places over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Odisha, Vidarbha, Chhattisgarh, Assam & Meghalaya, Coastal Andhra Pradesh, Jharkhand, Rayalaseema and South Interior Karnataka.
- Heavy to very heavy rainfall observed at many places with extremely heavy falls at isolated places over north Coastal Tamilnadu.
- Cold wave to Severe Cold Wave conditions observed in isolated pockets over East Rajasthan and Cold wave conditions observed in isolated pockets over Jammu & Kashmir, Himachal Pradesh, Haryana & Delhi, West Rajasthan and Madhya Pradesh.
- Cold Day Conditions observed in some pockets with Severe Cold Day Conditions in isolated pockets over Madhya Pradesh.
- Fog observed (at 0830 hours IST of today): Very Dense fog (visibility 25m) over Gwalior in northwest Madhya Pradesh; Dense fog (visibility 50m) over Bareilly, Bahraich, Lucknow, Sultanpur, Gorakhpur & Varanasi in Uttar Pradesh and Ambikapur in Odisha and Moderate fog (visibility 200m) over Fursatganj, Nowgong & Jhansi in Uttar Pradesh and Tikamgarh, Damoh & Sagar in East Madhya Pradesh.

- Minimum Temperature Departures (as on 31-12-2021): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at many places over Jharkhand, Madhya Maharashtra and Andaman & Nicobar Islands; at a few places over Bihar and Telangana; above normal (1.6°C to 3.0°C) at many places over Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Marathwada and Gujarat region; at a few places over Assam & Meghalaya, Odisha, Saurashtra & Kutch, Konkan & Goa, Vidarbha, Coastal Andhra Pradesh, Rayalaseema, Karnataka, Kerala & Mahe and Tamilnadu Puducherry & Karaikal; at isolated places over East Uttar Pradesh. They are appreciably below normal (-3.1°C to -5.0°C) at isolated places over Madhya Pradesh and Haryana, Chandigarh & Delhi; below normal (-1.6°C to -3.1°C) at many places over Sub-Himalayan West Bengal & Sikkim; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad and Himachal Pradesh and near normal over rest parts of the country. Today, the Lowest minimum temperature of 2.2°C reported at Hissar (Haryana) over the plains of the country.
- Maximum Temperature Departures (as on 30-12-2021): Maximum temperatures were above normal (1.6°C to 3.0°C) at a few places over Kerala & Mahe; at isolated places over Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Konkan & Goa and Tamilnadu, Puducherry & Karaikal. They were markedly below normal (-5.1°C or less) at many places over East Madhya Pradesh; at a few places over West Madhya Pradesh and Vidarbha; at isolated places over Uttar Pradesh, Chhattisgarh, Odisha, Jharkhand and East Rajasthan; appreciably below normal (-3.1°C to -5.0°C) at many places over Gujarat Region, Marathwada and Madhya Maharashtra; at isolated places over Uttarakhand, Bihar, Saurashtra & Kutch and Gangetic West Bengal; below normal (- 1.6°C to -3.0°C) at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Haryana, Chandigarh & Delhi, Telangana and Andaman & Nicobar Islands; at isolated places over Himachal Pradesh, West Rajasthan and Sub-Himalayan West Bengal & Sikkim and near normal at rest parts of the country. Yesterday, the highest maximum temperature of 35.5°C was reported at Cannur (Kerala).

Weather Warning during the next 5 days (IMD)

- 31 December (Day 1): Cold Wave to severe cold wave conditions in isolated pockets very likely over East Rajasthan and cold wave conditions in isolated pockets over Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, West Rajasthan and West Uttar Pradesh. Cold day conditions in isolated pockets very likely over Madhya Pradesh. Ground frost in isolated pockets very likely over south Punjab, lower region of Uttarakhand,

Haryana, North Rajasthan and West Uttar Pradesh. Dense fog in isolated pockets very likely over East Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Heavy to very heavy rainfall at isolated places very likely over Coastal Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning at isolated places very likely over south Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal.

- 01 January (Day 2): Cold Wave conditions in isolated pockets very likely over Rajasthan, Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh. Cold day conditions in isolated pockets very likely over Madhya Pradesh. Ground frost in isolated pockets very likely over south Punjab, lower region of Uttarakhand, Haryana, North Rajasthan and West Uttar Pradesh. Dense fog in isolated pockets very likely over East Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Heavy to very heavy rainfall at isolated places very likely over Coastal Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning at isolated places very likely over Tamil Nadu, Puducherry & Karaikal.
- 02 January (Day 3): Thunderstorm accompanied with lightning at isolated places very likely over Tamil Nadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph) very likely over Comorin area. Fishermen are advised not to venture into this area.
- 03 January (Day 4): Cold Wave conditions in isolated pockets likely over Odisha. Strong winds (speed 40-50 kmph) likely over Comorin area. Fishermen are advised not to venture into this area.
- 04 January (Day 5): Cold Wave conditions in isolated pockets likely over Odisha. Strong winds (speed 40-50 kmph) likely over Comorin area. Fishermen are advised not to venture into this area.
- The weather outlook for seven days i.e., 31 Dec to 08 Jan 2022 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)

Western U.P

Weather condition:

Weather will be cloudy and cold wave condition in the night and morning, 15.2 mm cumulative rainfall forecast from 29 December to 02 January, 2022. Maximum temperature expected 1-2 0C higher to its normal and minimum temperature expected also 1-2 0C higher to its normal due to cloudy night. North-Easterly /North-Westerly winds may be prevailing on 4.0 to 12.0 km/hr which is 3-4 kmph above to its normal during these days as per forecast.

Contingency measure:

- **Wheat:**Sowing must be completed in this week if not sown suitable late sown varieties under irrigated condition such as Malviya-234, K-7903, K-9162, K-9533, UP-2338, UP-2425, HD-2643, HP-1744, NW-1014, NW-1076, NW-2036, DVW-14, PVW-524 and NW-1076 with 125 kg/ha of seed and 100 :50:50 kg /ha fertilizer. Light irrigation should be taken up at CRI and tillering which is critical stages of the crop. Top dressed $\frac{1}{4}$ Urea after irrigation at optimum moisture during CRI stage . If seen deficiency of Zinc spray 5.0kg ZnSo₄ with 2% Urea solution/ ha. For control of grassy leaved weed spray Clodinafop-propargyl 15% WP @ 400 g/ha, grassy and broad leaved weed spray Sulphosulphuron 75% wp @ 33g/ha with 500-600 lt of water. Sulphosulphuron 75% wp @ 33g/ha + metsulphuron methyl 20% wp@ 4 g/ha with 300 lt of water solution is to be applied for control of mixed weed flora. **Barley:**Light rain occurred on 29 December 2021 farmers are advised top dressed 60 kg/ha Urea after first irrigation at optimum moisture. Used 4.0 g/ha Metsulfuron or 2,4-D 500g/ha or Corpentrazan 20 g/ha with 300 lt. water spray after first irrigation at optimum moisture for control of broad leaf weeds.
- **Rabi maize:**Weeding should be done.
- **Pigeon pea:**No need of irrigation farmers are advised to protect from frost spray 1% Kcl.
- **Gram:**8.6 mm rainfall occurred on 29 December farmers are advised weeding and nipping should be taken up 42 - 45 DAS. To protect from frost spray 1% Kcl.
- **Pea:**8.6 mm rainfall occurred on 29 December farmers are advised weeding should be taken up after 20-25 DAS. **Lentil:**No need of irrigation farmers are advised weeding should be taken up after 20-25 DAS. To protect from frost spray 1% Kcl.
- **Toria:**Farmers are advised to harvest mature crop of toria and make bundles of the crop and left out bundles from the field.
- **Mustard:**If seen Hairy caterpillar used 5% Mailathyan dust 20-25 kg/ ha at morning.
- **Linseed:**Weeding and hoeing can be taken up.

- Brinjal / Chilies: To protect from frost spray 2% Urea or light irrigation should be taken up. Pick up mature fruits in standing crop, watching insect & pest if need used Neem based.
- Leafy Vegetable: Cutting , marketing.
- Potato: Dig out early sown crop. Take precaution from late blight, spray 2.0 g Mancozeb or 1.5 to 2.5 g Metalexil with 1.0 lt. water solution as per present weather conditions.
- Barseem: First cutting should be taken up and moisture should be added after first cutting. Top dressed 40 kg/ha Urea.
- Animal: To protect from the cold of cow/ buffalo/ calf .Balanced diet should be given for milch animal. Wheat straw should be added with 50 % green fodder. Used paddy straw or ash as litter in animal houses. Cover door and windows with Jut bags. The routine immunization of animals becomes necessary since disease decrease milk production capacity among milch animals if need concerned near Veterinary hospital.

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

31-12-2021/(0830 to 0856) GMT
31-12-2021/(1400 to 1426) IST

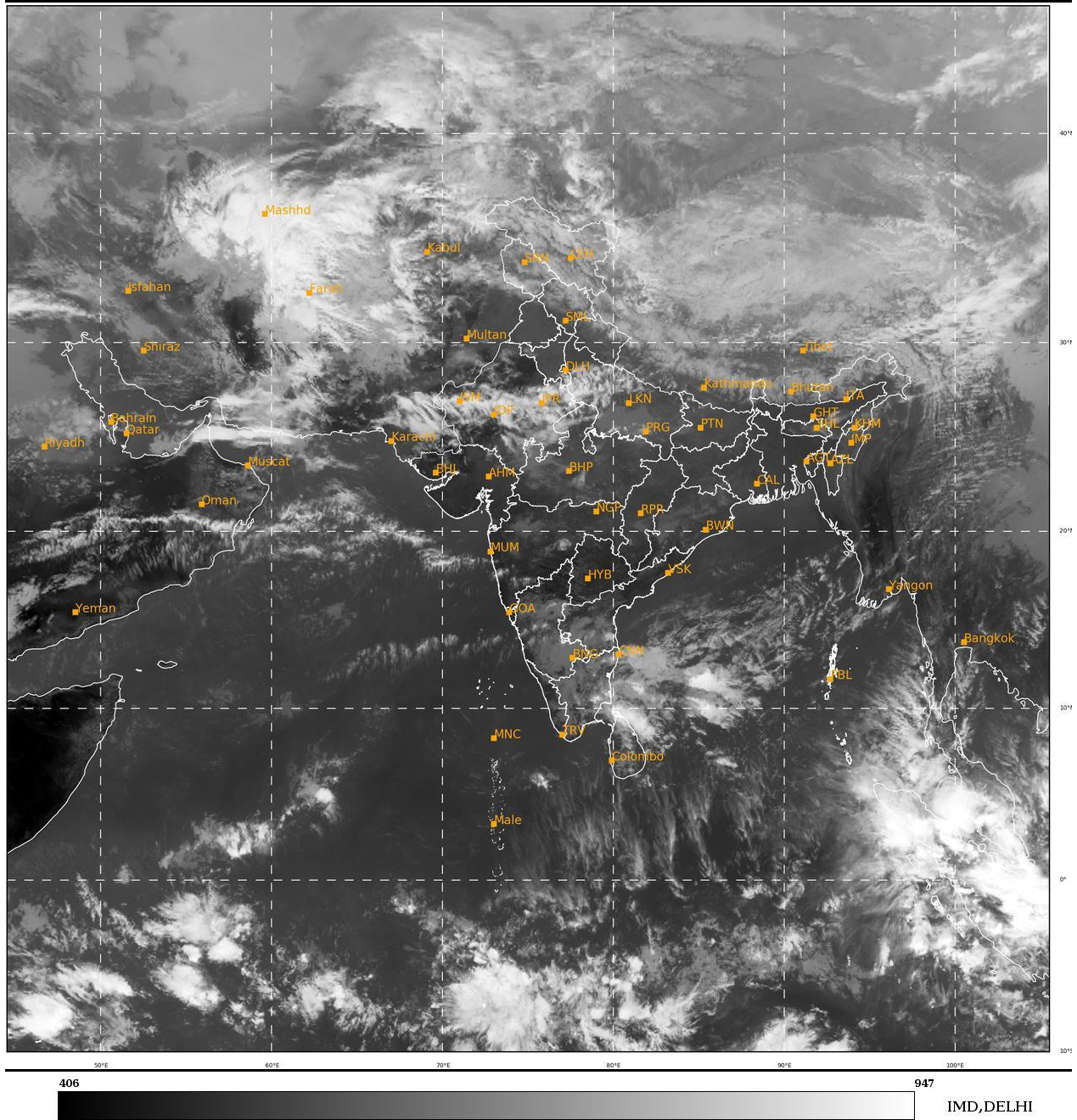


Figure: 1. Latest available satellite picture as on 31 Dec 2021 at 1426 Hrs (IST). (Source: IMD).

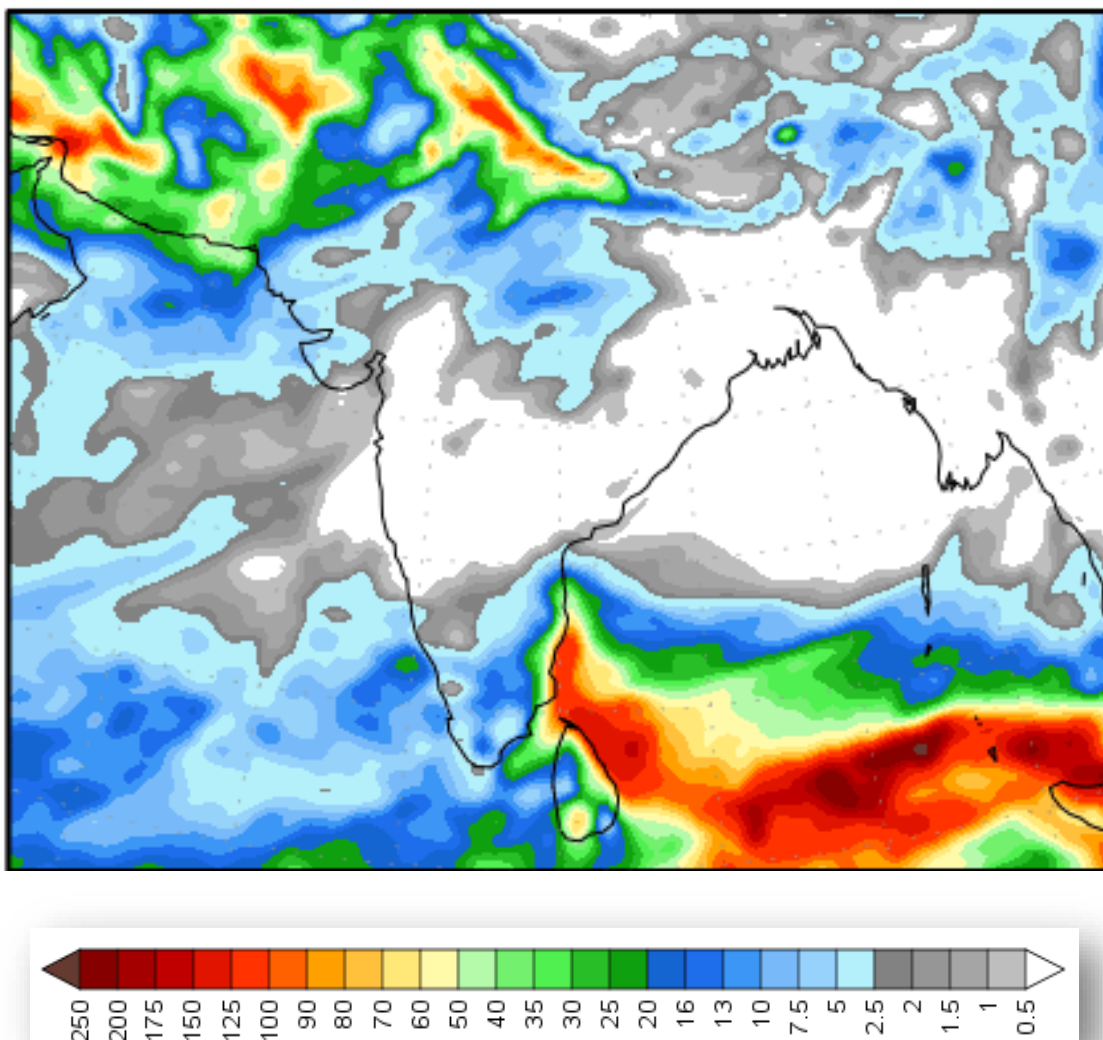


Figure:2. Precipitation forecast for 31 Dec to 08 Jan 2022 (Source: NOAA NCEP).

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