

All India Coordinated Research Project on Agrometeorology

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Daily Crop Weather Information as on 23 December 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- Wet spell over Western Himalayan Region and plains of Northwest India:
- A Western Disturbance as a cyclonic circulation over north Pakistan and adjoining Jammu & Kashmir and an induced cyclonic circulation over Northwest Rajasthan at lower tropospheric levels.
- Another Western Disturbance seen as a trough roughly along Long. 57 ° E and to the north of Lat. 27 ° N at 3.1 km above mean sea level. Under the influence of above systems:
 - 1) Isolated to scattered rainfall/snowfall very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Himachal Pradesh from 23rd to 25th and over Uttarakhand on 23rd December.
 - 2) Isolated rainfall very likely over Punjab, Haryana & Chandigarh from 23rd to 25th December.
- A fresh intense Western Disturbance and its induced cyclonic circulation is very likely to influence northwest India from 26th and central India from 27th December. Under their influence;
 - 1) Fairly widespread to widespread rainfall/snowfall very likely over Western Himalayan Region on 26th to 28th and isolated to scattered on 29th December. Isolated heavy rainfall/snowfall over Jammu & Kashmir on 26th & 27th and Himachal Pradesh on 27th December.
 - 2) Light/moderate scattered to fairly widespread rainfall is very likely over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh and isolated rainfall over Rajasthan on 26th & 27th and over Madhya Pradesh, Chhattisgarh, Vidarbha, Bihar and Jharkhand during 27th to 29th December.
 - 3) Isolated Hailstorm also likely over Jammu division, lower Himachal Pradesh, northern parts of Punjab & Haryana on 26th and over Uttarakhand & northwest Uttar Pradesh on 26th & 27th December, 2021.
- Minimum Temperatures and Fog:

- Gradual rise in minimum temperatures by 2-4°C very likely over most parts of Northwest, East & Central India during next 2 days and no significant change thereafter.
- Dense fog in the morning hours in isolated pockets very likely over Punjab, Haryana and northeast India on 24th & 25th and over northwest Rajasthan on 25th & 26th December, 2021.
- No Cold Wave Conditions likely to prevail over the country except Odisha (where cold wave in isolated pockets may occur during next 24 hours) during next 7 days.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rainfall observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at many places over Nagaland, Manipur, Mizoram & Tripura and at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Punjab, Chandigarh, Andaman & Nicobar Islands, Arunachal Pradesh and Assam & Meghalaya.
- Fog observed (at 0830 hours IST of today): Moderate fog in isolated pockets over Punjab, Delhi, East Uttar Pradesh, Assam, Mizoram and Tripura and Shallow fog in isolated pockets over West Uttar Pradesh and east Bihar.
- Cold Wave Conditions prevailed in isolated pockets over Odisha.
- Cold Day Conditions prevailed in isolated pockets over East Madhya Pradesh.
- Minimum Temperature Departures (as on 23-12-2021): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at many places over West Rajasthan; above normal (1.6°C to 3.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; at a few places over Himachal Pradesh and Saurashtra & Kutch; at isolated places over Punjab, East Rajasthan and Madhya Maharashtra. They are appreciably below normal (- 3.1°C to -5.0°C) at many places over Telangana; at a few places over Bihar, Odisha, East Madhya Pradesh, Vidharbha and Coastal Andhra Pradesh & Yanam; at isolated places over Gangetic West Bengal, West Madhya Pradesh and Uttar Pradesh; below normal (-1.6°C to -3.0°C) at most places over Jharkhand and Chhattisgarh; at many places over Rayalaseema and Interior Karnataka; at a few places over Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar Islands; at isolated places over Gujarat Region, Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya and near normal over rest parts of the country. Today, the Lowest

minimum temperature of 4.0°C reported at Meerut (West Uttar Pradesh) & Kanpur (East Uttar Pradesh) over the plains of the country.

- Maximum Temperature Departures (as on 22-12-2021): Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over West Rajasthan; above normal (1.6°C to 3.0°C) at most places over East Rajasthan; at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand; at a few places over Saurashtra & Kutch and Assam & Meghalaya; at isolated places over Haryana, Chandigarh & Delhi, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. They were appreciably below normal (-3.1°C to -5.0°C) at isolated places over Gangetic West Bengal and Madhya Pradesh; below normal (-1.6°C to -3.0°C) at many places over Jharkhand; at a few places over Odisha, Konkan & Goa and Andaman & Nicobar Islands; at isolated places over Bihar, Vidarbha and East Uttar Pradesh and near normal at rest parts of the country. Yesterday, the highest maximum temperature of 34.8°C was reported at Alapuzha (Kerala).

Weather Warning during the next 5 days (IMD)

- 23 December (Day 1): Cold wave conditions in isolated pockets very likely over Odisha. Dense fog in isolated pockets very likely over Punjab, Haryana, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 24 December (Day 2): Dense fog in isolated pockets very likely over Punjab, Haryana, Northwest Rajasthan, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 25 December (Day 3): Dense fog in isolated pockets very likely over Northwest Rajasthan.
- 26 December (Day 4): Heavy rainfall/snowfall at isolated places likely over Jammu & Kashmir. Thunderstorm accompanied with lightning & hail at isolated places likely over Jammu division, Uttarakhand, lower Himachal Pradesh, north Haryana, northwest Uttar Pradesh and north Punjab.
- 27 December (Day 5): Heavy rainfall/snowfall at isolated places likely over Jammu & Kashmir and Himachal Pradesh. Thunderstorm accompanied with lightning & hail at isolated places likely over Uttarakhand and northwest Uttar Pradesh.
- The weather outlook for seven days i.e., 23 Dec to 31 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)

Kerala

Weather condition:

In Vellanikkara, the maximum temperature ranges from 31.7 to 33.3 Deg C, minimum temperature ranges from 24.0 to 25.4 Deg C. Morning relative humidity ranges from 073% to 076% and afternoon relative humidity ranges from 049% to 065%. Wind speed ranges from 5.9 to 10.3 km/h. Evaporation ranges from 4.4 to 5.7 mm. Sunshine hours range from 6.7 to 9.8 hours. 5 cm morning soil temperature ranges from 24.8 to 25.6 Deg C and afternoon soil temperature ranges from 34.9 to 36.4 Deg C.

Contingency measure:

- Mundakan Rice in Panicle Emergence- Rice bug- There is a chance of rice bug attack in paddy. To control, keep the field and bunds free of weeds and grasses. Avoid over lapping cultivation in an area. Spray fish jaggery extract (20 ml/litre of water) or spray chitin based *Pseudomonas fluorescens* 20 gram in one litre of water. If the attack was severe, spray Azadirachtin 10 ml or Malathion 2 ml per litre of water. Pesticides application should be done either before 9 am or after 3 pm. Otherwise, the pesticide application will adversely affect the pollination.
- Coconut- Bud rot- To control the Bud rot in coconut, chisel out the affected area and apply 10% Bordeaux paste. Care should be taken to protect the affected area.
- Vegetables- Sucking Pest- Due to increase in atmospheric temperature, the attack of sucking pest was increased. They can be controlled by applying 2% neem oil emulsion once in a week or by spraying *Lecanicillium lecanii* at 20 g per litre of water.
- Animal Husbandry- Deworm the animals after dung examination. Vaccinate animals against foot and mouth disease. Care should be taken to avoid ecto parasitic infestation.

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

23-12-2021/(0800 to 0827) GMT
23-12-2021/(1330 to 1357) IST

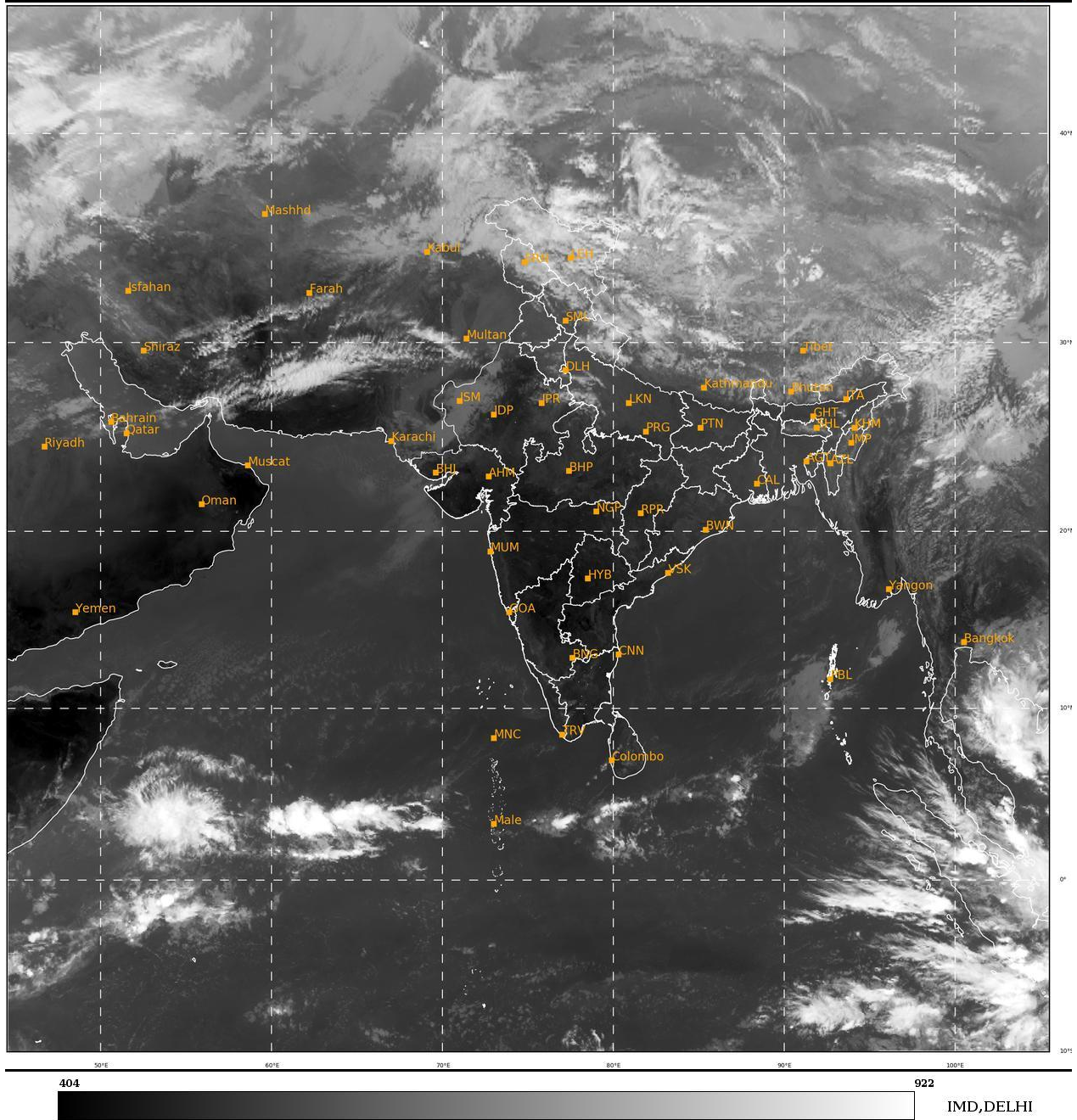


Figure: 1. Latest available satellite picture as on 23 Dec 2021 at 1357 Hrs (IST). (Source: IMD).

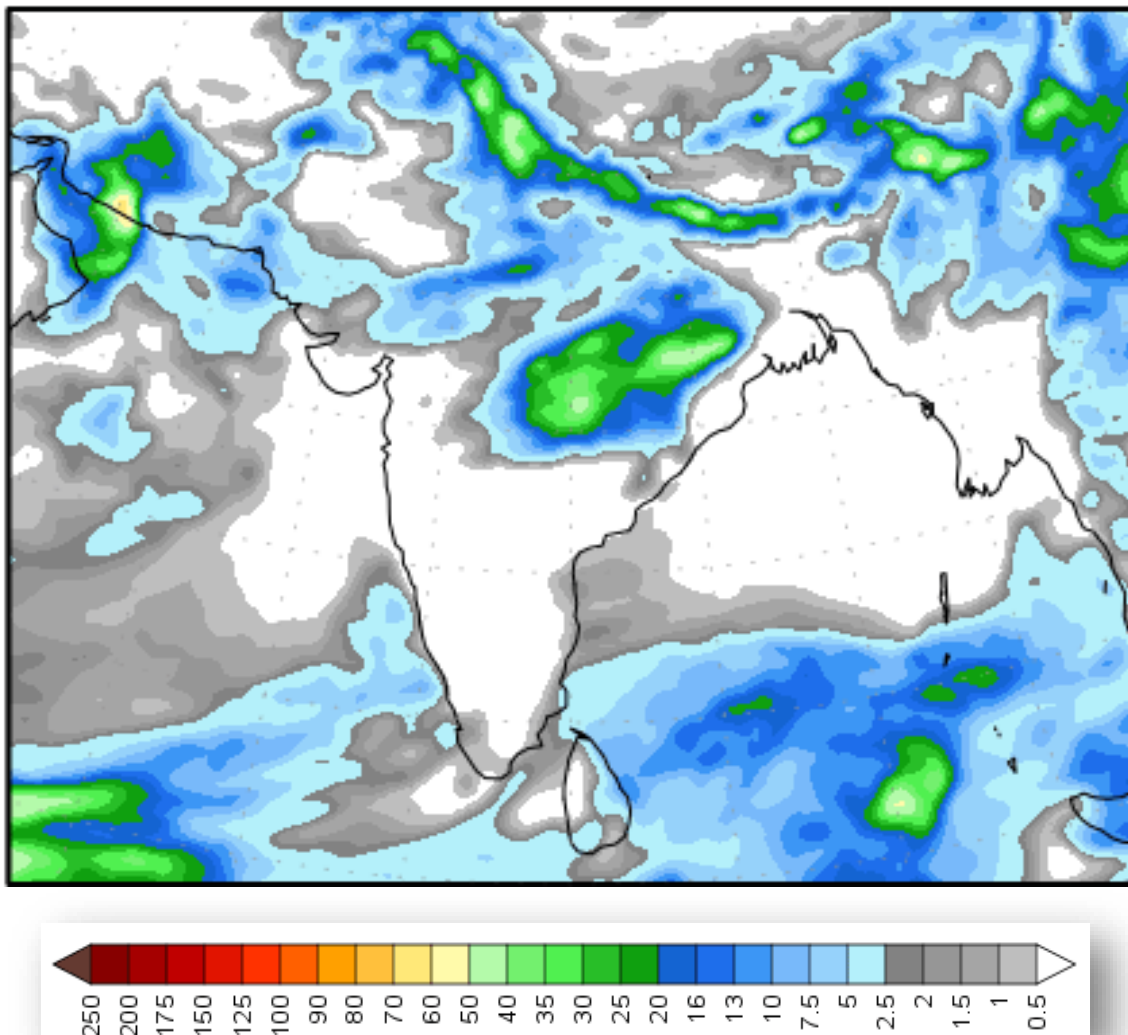


Figure:2. Precipitation forecast for 23 Dec to 31 Dec 2021 (Source: NOAA NCEP).

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