

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 18 December 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- Gradual fall in minimum temperatures by 2-3°C over most parts of Northwest India and Maharashtra; by 3-5°C over most parts of Central India during next 3 days.
- Cold wave conditions very likely over Jammu, Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand, Punjab, Haryana & Chandigarh during next 3 days; over north Rajasthan during next 4 days; over Gujarat state during next 2 days and over West Uttar Pradesh during 19th-21st. Severe cold wave conditions also very likely over north Rajasthan during next 2 days and over Punjab and Haryana & Chandigarh on 19th & 20th December, 2021.
- Dense to Very dense fog in the morning hours in isolated pockets very likely over Punjab during 19th-20th; over Haryana & Chandigarh on 19th and Dense fog in isolated pockets over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 19th December, 2021.
- Ground frost conditions in the morning hours in isolated pockets very likely over Punjab, Haryana & Chandigarh and north Rajasthan during next 2 days.
- A Low Pressure Area lies over Southeast Bay of Bengal & adjoining Equatorial Indian Ocean with the associated cyclonic circulation extending upto 5.8 km above mean sea level. It is likely to move east-northeastwards and become more marked during next 48 hours. Under its influence:
 - (i) Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over Southeast Bay of Bengal & adjoining South Andaman Sea on 18th & 19th December, 2021. Fishermen are advised not to venture into these areas.
 - (ii) Light to moderate rainfall at a few/many places over Andaman & Nicobar Islands during 18th-20th December and Heavy rainfall over Nicobar Islands on 19th & 20th December, 2021.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rainfall/Snowfall observed (from 0830-1730 hours IST of yesterday): Nil.
- Fog observed (at 0530 hrs IST of today): Dense fog in isolated pockets over Haryana & Chandigarh and Shallow fog in many pockets over Punjab and in isolated pockets over Delhi, north Rajasthan, Bihar and Nagaland, Manipur, Mizoram & Tripura.
- Minimum Temperature Departures (as on 17-12-2021): Minimum temperatures were markedly above normal (5.1°C or more) at a few place over Madhya Maharashtra and Madhya Pradesh; above normal (1.6°C to 3.0°C) at many places over Marathwada and Kerala & Mahe; at a few places over East Rajasthan, Konkan & Goa, Karnataka, Tamil Nadu, Puducherry & Karaikal, East Uttar Pradesh, Lakshadweep and Andaman & Nicobar Islands; at isolated places over Rayalaseema. They were markedly below normal (5.1°C or less) at isolated places over Saurashtra & Kutch and Jammu & Kashmir, Ladakh, Gilgit, Baltistan, Muzaffarabad; appreciably below normal (- 3.1°C to -5.0°C) at a few places over Haryana, Chandigarh & Delhi and West Rajasthan and at isolated places over Odisha; below normal (-1.6°C to -3.0°C) at most place over Uttarakhand; at many places over Gujarat Region; at a few places over Gangetic West Bengal and at isolated places over Coastal Andhra Pradesh & Yanam and Telangana and near normal over rest parts of the country. Yesterday, the Lowest minimum temperature of 0.0°C was reported at Churu (West Rajasthan) over the plains of the country.
- Maximum Temperature Departures (as on 17-12-2021): Maximum temperatures were above normal (1.6°C to 3.0°C) at many places over Assam & Meghalaya; at a few places over Kerala & Mahe and at isolated places over East Madhya Pradesh. They were markedly below normal (5.1°C or less) at a few places over Himachal Pradesh and West Madhya Pradesh and at isolated places over Haryana, Chandigarh & Delhi and East Rajasthan; appreciably below normal (-3.1°C to -5.0°C) at most places over Gujarat region; at many places over West Rajasthan and Saurashtra & Kutch; at a few places over Punjab and at isolated places over Jammu & Kashmir, Ladakh, Gilgit, Baltistan, Muzaffarabad and East Uttar Pradesh; below normal (-1.6°C to -3.0°C) at a few places over West Uttar Pradesh, Konkan & Goa, Odisha and Gangetic West Bengal and at isolated places over Uttarakhand, Madhya Maharashtra and Andaman & Nicobar Islands and near normal at rest parts of the country. Yesterday, the highest maximum temperature of 35.9°C was reported at Cannur (Kerala & Mahe).

Weather Warning during the next 5 days (IMD)

- 18 December (Day 1): Dense to Very Dense fog in isolated pockets very likely over Punjab and Dense fog in isolated pockets over Haryana & Chandigarh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Cold Wave to severe cold wave conditions in a few pockets very likely over Punjab, Haryana & Chandigarh and north Rajasthan and Cold wave conditions in isolated pockets over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, West Uttar Pradesh and Gujarat state. Cold Day conditions in isolated pockets very likely over Punjab and Haryana & Chandigarh. Ground frost conditions in the morning hours in isolated pockets very likely over north Rajasthan, Punjab and Haryana. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over Southeast Bay of Bengal & adjoining South Andaman Sea. Fishermen are advised not to venture into these areas.
- 19 December (Day 2): Dense fog in isolated pockets very likely over Punjab. Cold Wave to severe cold wave conditions in a few pockets very likely over Punjab, Haryana & Chandigarh and north Rajasthan and Cold wave conditions in isolated pockets over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, West Uttar Pradesh and Gujarat state. Ground frost conditions in the morning hours in isolated pockets very likely over north Rajasthan, Punjab and Haryana. Heavy rainfall in isolated pockets very likely over Nicobar Islands. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over Southeast Bay of Bengal & adjoining South Andaman Sea. Fishermen are advised not to venture into these areas.
- 20 December (Day 3): Cold Wave in isolated pockets over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana & Chandigarh, north Rajasthan and West Uttar Pradesh. Heavy rainfall in isolated pockets very likely over Nicobar Islands.
- 21 December (Day 4): Cold Wave conditions in isolated pockets likely over north Rajasthan.
- 22 December (Day 5): No Weather Warning
- The weather outlook for seven days i.e., 18 Dec to 26 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)

Tamil nadu

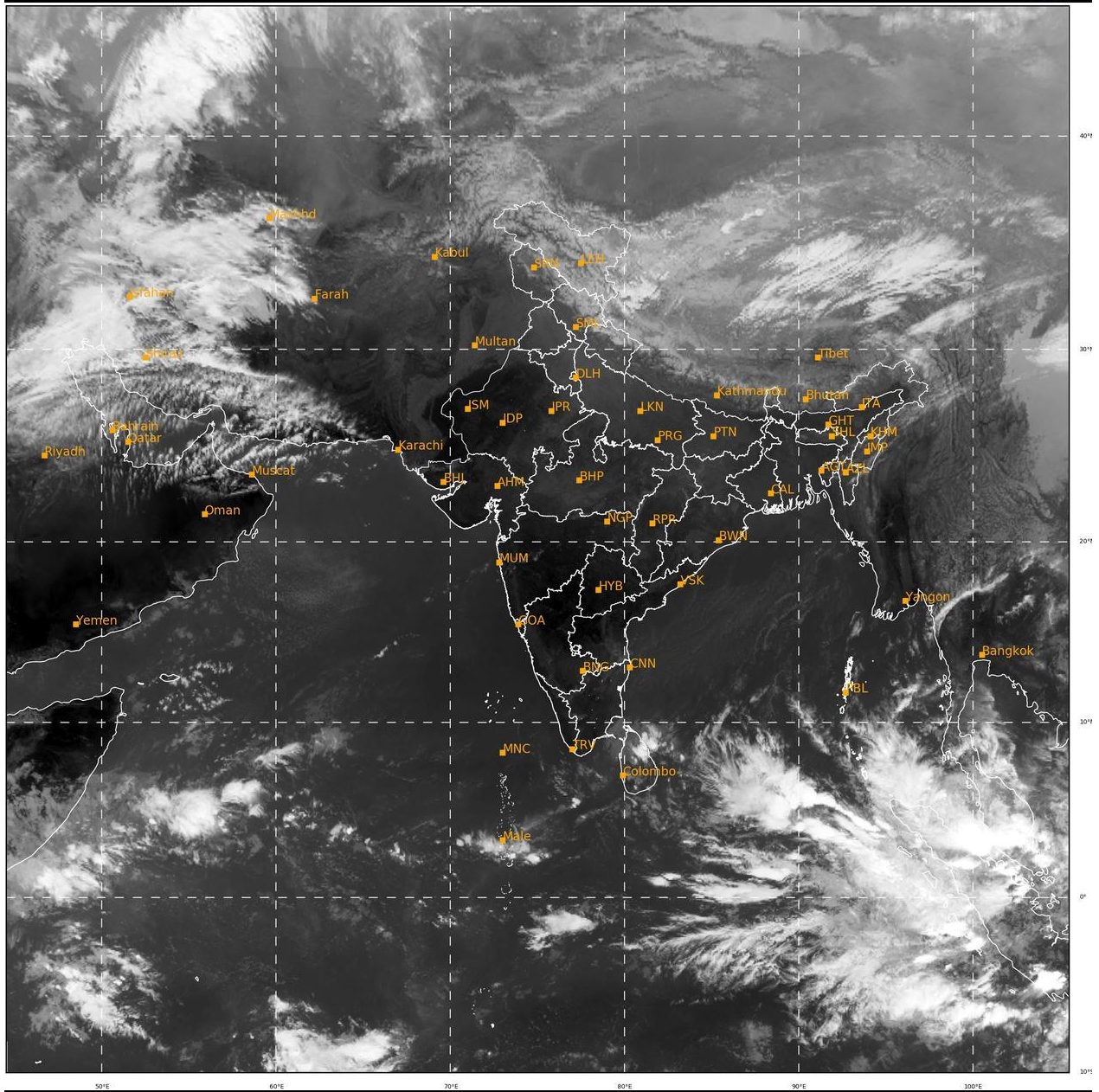
Weather condition:

Maximum temperature: 30.6°C (normal 30.9°C), minimum temperature: 22.7°C (normal 19.6°C), rainfall: 10.4 mm (normal 18.3 mm). The maximum and minimum temperature was 0.3°C and 3.1°C below & With respect to daily rainfall, rainfall occurred at a few places over Tamil Nadu on 10.12.2021, 12.12.2021, 13.12.2021, 14.12.2021, 15.12.2021, at isolated places over Tamil Nadu on 11.12.2021 during this week.→ Minimum temperature range of 19°C-27°C prevailed over the state except Kodaikanal and Uthagamandalam (06°C-09°C) during the period under report. → Maximum temperature range of 27°C-33°C prevailed over the state except Kodaikanal and Uthagamandalam (14°C-20°C) during the period under report. →above normal respectively and the rainfall was 7.9 mm below normal across the week. General weather situation in Tamil Nadu:

Contingency measure:

- Block level forecast. -Wind speed of 10-26 kmph is predicted for next five days
Irrigated crops -Water management- As light rainfall is predicted for next two days. If required/ based on soil moisture, irrigation may be given.
- Rainfed and Irrigated crops -All the stage Based on the location specific weather, spraying of pesticide, herbicide and application of fertilizer is recommended. Intercultural operation Mulching is recommended to increase infiltration, decreased runoff and greater soil water availability.
- Maize: 50-60 DAS- Even though rainfall splash helps to control the pest incidence. Farmers are advised to monitor the Fall army worm incidence regularly. If Fall army worm incidence noticed with the prevailed weather. To control spray any one of the following insecticides / biopesticide (use manually operated or battery-operated high-volume knapsack sprayer only with a spray volume of 500 lit. /ha.) Emamectin Benzoate 5 SG @4grams for 10 litre of water. or Spinetoram 11.7 SC @ 5 ml/10 lit or Novaluron 10 EC @ 10 ml/10 lit.
- Green gram:Vegetative to flowering stage - High humidity favours leaf spot disease development. Spray Carbendazim 500 g/ha or Mancozeb 1000g /ha at initiation of the disease and 10 days later Prevail weather favours pod borer incidence. To control spray Chlorantraniliprole 18.5% SC 100ml/ha.
- Pulses: Vegetative stage to pod development stage- High RH favours Powdery mildew diseases incidence. To control Spray NSKE 5% or Neem oil 3% twice at 10 days interval from initial disease appearance (or) Spray Carbendazim 500 g or wettable sulphur 1500g/ha at initiation of the disease and 10 days later.

- Cotton: Square to flowering stage -In the prevail weather stem weevil damage noticed. Drenching collar region with chlorpyrifos 50 EC @ 1200 ml/ha + Earthing up. (or) carbofuran 3G @33.3kg/ha.
- Sorghum: Vegetative to harvest stage -Rain (30-50mm/week), Cool moist weather with free water on leaf, low night temperature favours leaf blight. To control spray mancozeb 2g/ litre.
- Chilli: Vegetative stage - Increasing day temperature favours thrips. Spray Imidacloprid 17.8 % SL @3.0 ml/10 lit.
- Livestock: December month Disease Risk Forecast Peste des petits ruminants ? Goat and sheep -Very High Risk
- Management measures: Vaccination of susceptible animals of above 3 months old age. Restriction on animal movement, strict biosecurity measures and proper disposal of carcass.
- Coconut: High wind speed may damage the crop; Drainage and earthing up may be practiced to avoid lodging.



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Figure: 1. Latest available satellite picture as on 18 Dec 2021 at 1357 Hrs (IST). (Source: IMD).

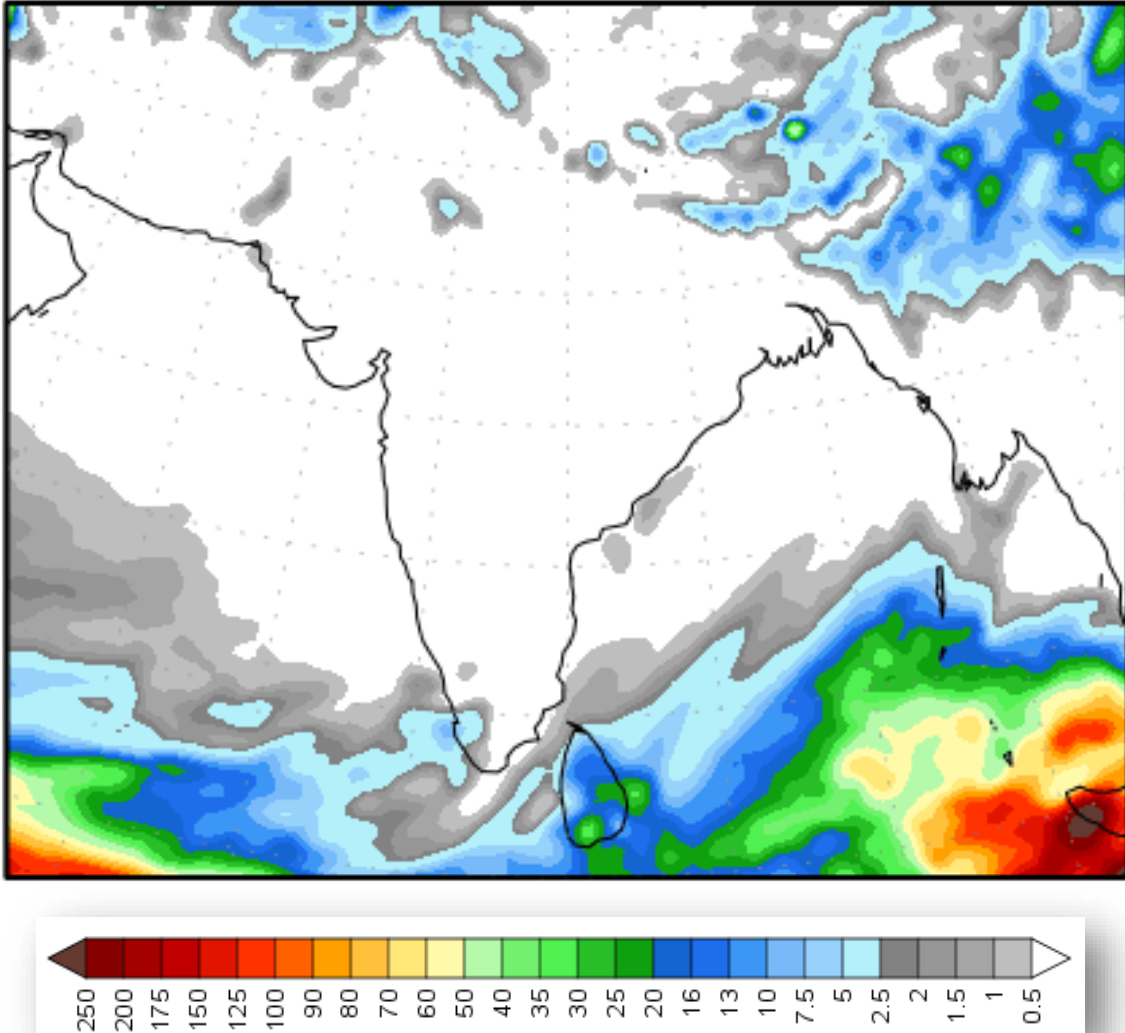


Figure:2. Precipitation forecast for 18 Dec to 26 Dec 2021 (Source: NOAA NCEP).

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