

All India Coordinated Research Project on Agrometeorology CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 01 February 2022

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- An active Western Disturbance is very likely to affect Northwest India from 02nd February, 2022. An induced cyclonic circulation is very likely to form over West Rajasthan & neighbourhood on 03rd February, 2022. In addition, moisture feeding from Arabian Sea and Bay of Bengal to northwest India at lower & middle tropospheric levels is also very likely on 02nd & 03rd February, 2022.
- High moisture feeding from Bay of Bengal at lower tropospheric levels to East & adjoining northeast India very likely on 03rd & 04th February, 2022.
- Another Western Disturbance likely to affect Western Himalayan Region from 06th February, 2022.
- Rainfall Forecast & Warnings:
- Under the influence of north-south trough along Long. 90°E to the north of Lat. 24°N in lower tropospheric levels, scattered rainfall with isolated hailstorm over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh & northeast Assam on today, the 01st February, 2022.
- Under the influence of a fresh active Western Disturbance & its induced cyclonic circulation:
 - i) Fairly widespread to widespread light/moderate rainfall/snowfall very likely over Western Himalayan Region during 02nd to 04th February. Isolated hailstorm likely over Himachal Pradesh on 02nd & 03rd February and over Uttarakhand on 03rd & 04th February, 2022.
 - ii) Isolated heavy rainfall/snowfall also very likely over Himachal Pradesh and Uttarakhand on 03rd February, 2022.
 - iii) Scattered light rainfall very likely over Punjab, Haryana & Chandigarh on 02nd; fairly widespread to widespread light/moderate rainfall very likely over Punjab, Haryana, Chandigarh, Delhi and Uttar Pradesh 03rd & 04th February with its peak intensity on 03rd February, 2022.
- Due to confluence between lower levels westerlies associated Western Disturbance and lower level southeasterlies from the Bay of Bengal at lower tropospheric levels: i) Scattered to fairly widespread light/moderate rainfall with

thunderstorm/lightning likely over Bihar, Jharkhand, West Bengal & Sikkim and Odisha on 03rd & 04th with possibility of isolated hailstorm over the region 04th February. Isolated heavy rainfall also likely over Bihar and West Bengal & Sikkim on 04th February, 2022.

ii) Fairly widespread to widespread light/moderate rainfall with thunderstorm/lightning likely over northeast India 04th & 05th February, 2022. Isolated heavy rainfall/snowfall likely over Arunachal Pradesh on 04th February, 2022.

- Cold day to severe cold day conditions in isolated pockets very likely over north Uttar Pradesh; and Cold day conditions over Punjab, Haryana next 48 hours and abate thereafter.
- Dense to very dense Fog conditions in isolated/some pockets in night/morning hours very likely over Uttar Pradesh during next 48 hours; over Bihar during next 24 hours and dense fog in isolated pockets over Himachal Pradesh, Uttarakhand, Punjab, Haryana and north Rajasthan during next 24 hours and over Odisha on 03rd February, 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 a few places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya and at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad.
- Cold Day to Severe Cold Day conditions prevailed in some parts of Uttar Pradesh and in isolated pockets of Punjab and Haryana.
- Fog observed (at 0830 hours IST of today): Dense to very dense fog in many parts of Punjab; in some parts of Haryana, Chandigarh & Delhi and Uttar Pradesh and in isolated pockets over northwest Rajasthan; Dense fog in some parts of west Bihar and Moderate fog in isolated pockets over Sikkim, Assam and Saurashtra & Kutch.
- Minimum Temperature Departures (as on 01-02-2022): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at a few places over Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at many places over Rajasthan and Kerala & Mahe; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Rayalaseema and Tamilnadu, Puducherry & Karaikal; at isolated places over Gujarat Region. They are appreciably below normal (-3.1°C to -5.0°C) at many places over Vidarbha; at isolated places over Odisha, Madhya

Maharashtra and Konkan & Goa; below normal (-1.6°C to -3.0°C) at many places over Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Telangana and Marathawada; at a few places over Himachal Pradesh, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam and Sub-Himalayan West Bengal & Sikkim; at isolated places over Gangetic West Bengal and Madhya Pradesh and near normal over rest parts of the country. Today, the Lowest minimum temperature of 3.5°C reported at Meerut (West Uttar Pradesh) over the plains of the country.

- Maximum Temperature Departures (as on 31-01-2022): Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Himachal Pradesh; at isolated places over West Rajasthan and Tamilnadu, Puducherry & Karaikal.; above normal (1.6°C to 3.0°C) at many places over Kerala & Mahe and Jharkhand; at a few places over Jammu-Kashmir, Coastal Karnataka and East Rajasthan; at isolated places over Haryana, East Madhya Pradesh, Vidarbha, Telangana and Coastal Andhra Pradesh & Yanam. They were markedly below normal (-5.1 or less) at many places over West Uttar Pradesh; at isolated places over East Uttar Pradesh; appreciably below normal (-3.1°C to -5.0°C) at a few places over Nagaland, Manipur, Mizoram & Tripura; at isolated places over SubHimalayan West Bengal & Sikkim; below normal (-1.6°C to -3.0°C) at a few places over Uttarakhand, Bihar and Gangetic West Bengal; at isolated places over Saurashtra & Kutch, Assam & Meghalaya and West Madhya Pradesh and near normal over rest parts of the country. Yesterday, the Highest maximum temperature of 36.6°C was reported at Punalur (Kerala) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 1 February (Day 1): Dense to very Dense Fog in some parts very likely over Punjab, Haryana, Uttar Pradesh; in isolated pockets over Bihar and Dense Fog in isolated pockets over Himachal Pradesh, Uttarakhand and north Rajasthan. Cold Day to Severe Cold Day conditions in isolated pockets of Punjab, Haryana, Chandigarh and Uttar Pradesh. Thunderstorm accompanied with lightning & hail at isolated places very likely over SubHimalayan West Bengal & Sikkim, Arunachal Pradesh and northeast Assam.
- 2 February (Day 2): Dense to very Dense Fog in isolated pockets very likely over East Uttar Pradesh and Dense Fog in isolated pockets over West Uttar Pradesh and Odisha. Cold Day conditions in isolated pockets of Punjab, Haryana, Chandigarh and Uttar Pradesh. Thunderstorm accompanied with lightning & hail at isolated places very likely over Himachal Pradesh and with lightning at isolated places over Jammu Division and north Punjab. Strong Winds (speed

reaching 40-50 kmph gusting to 60 kmph) very likely over Northeast Arabian Sea and along & off north Gujarat coast. Fisherman are advised not to venture in these area.

- 3 February (Day 3): Heavy rainfall/snowfall at isolated places very likely over Himachal Pradesh and Uttarakhand. Thunderstorm accompanied with lightning and hail at isolated places likely over Himachal Pradesh, Uttarakhand, north Chhattisgarh and with lightning at isolated places over Jammu Division, Punjab, Haryana, Uttar Pradesh, East Madhya Pradesh, Bihar, Jharkhand, West Bengal & Sikkim and Odisha. Strong Winds (speed reaching 40-50 kmph gusting to 60 kmph) very likely over Northeast Arabian Sea and along & off north Gujarat coast. Fisherman are advised not to venture in these area.
- 4 February (Day 4): Heavy rainfall/snowfall at isolated places likely over Arunachal Pradesh and heavy rainfall at isolated places over Bihar and West Bengal & Sikkim. Thunderstorm with lightning and hail at isolated places likely over Uttarakhand, Bihar, Jharkhand, West Bengal & Sikkim and Odisha and with lightning at isolated places over Uttar Pradesh, Chhattisgarh, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 5 February (Day 5): Thunderstorm with lightning at isolated places likely over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- The weather outlook for seven days i.e., 01 Feb to 09 Feb 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)

Maharashtra-Vidarbha

Weather condition:

Weekly average means (04 MW) at AICRPAM Akola centre: T max 25.3°C (normal 30.8°C), T min 8.4°C (normal 11.9°C). RH I 75% (normal 66 %), RH II 34% (normal 26 %). Evaporation rate 4.2 mm (normal 5.0 mm), Wind speed 2.3 km/hr (normal 4.1 km/hr) and BSH 7.9 hrs (normal 8.7 hrs). Maximum temperature across the week was 5.4°C below normal with a deviation of -7.7 to -1.8°C from normal. Minimum temperature across the week 3.5°C below normal with a deviation of -7.8 to +2.3°C from normal.

Contingency measure:

- Block level forecast (Akola) indicates prevalence of mainly dry weather during 28 January- 01 February with warning of cold day and cold wave conditions on 28-

29 January.

- After complete harvesting of cotton, destroy the plants with infested/unopened/poorly opened bolls, shred the cotton stalks with tractor drawn cotton stalk shredder and turn back the biomass into the soil or use for composting. Deep ploughing of harvested cotton fields to expose the insect larvae and pupa to sun and predator birds is advisable.
- For monitoring pod borer in late sown chickpea, install pheromone trap (Helilure) @ 5 nos./ ha. Place bird perches above crop canopy at regular interval in the field of chickpea @ 8 to 10 /acre to attract predatory birds. For control of infestation (1 to 2 caterpillar per meter row length or 5% pod damage) in chickpea, undertake spray of azadirachtin 300 ppm @ 50 ml per 10 litres of water and ETL based spray of Quinalphos 25 EC 20 ml or Emamectin benzoate 5 SG @ 3 g or Chlorantraniliprole 18.5 SC @ 2.5 ml per 10 lit of water.
- In timely sown irrigated wheat ensure irrigation at anthesis (65-70 days stage). In late sown irrigated wheat ensure irrigation at late jointing stage (45-50 days).
- Ensure irrigation at seed filling stage (80 days stage) in irrigated safflower. Avoid over irrigation/water stagnation to prevent incidence of safflower wilt. In late sown safflower for control of above ETL level incidence (30% infested plants) of aphids ,undertake spray with dimethoate 30% EC @ 10 ml per 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 >15°C). Sowing of summer groundnut can normally be undertaken up to first week of February. Seed treatment with Trichoderma 5 g/kg seed and Rhizobium and PSB (each 250g / 10-15 kg seed) is advisable for summer groundnut. BBF sowing with sprinkler irrigation is advisable for summer groundnut.
- Sowing of summer sunflower can normally be undertaken from last week January to first week of February. Seed treatment with Trichoderma 4g/kg is advisable for summer sunflower.
- Normal sowing of summer sesame can be done 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 for summer sesame.
- To moderate the impact of cold weather across these periods, application of organic mulches in tree basins/soil surface, covering of nursery and young fruit plants with thatches of straw, creating air blanket of smoke in orchards by burning dried weeds/wood etc., and light irrigation during evening hours is

advisable. Creating air blanket of smoke over the field by burning waste materials/weeds and crop residues in the evening/ night will trap the outgoing long wave radiation and the fall in temperature is reduced to a great extent.

- It is advisable to keep the animals in closed shelter and take special care of young cattle to protect from cold during night/early morning. Shelter floor should be covered with straw litter which provides a thermal mulch. Protect poultry birds/chicks from cold winds by hanging curtain/clothing from outside the poultry shed. Use of electric bulbs (5-6 hrs) for heat is advisable.

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

01-02-2022/(0800 to 0826) GMT
01-02-2022/(1330 to 1356) IST

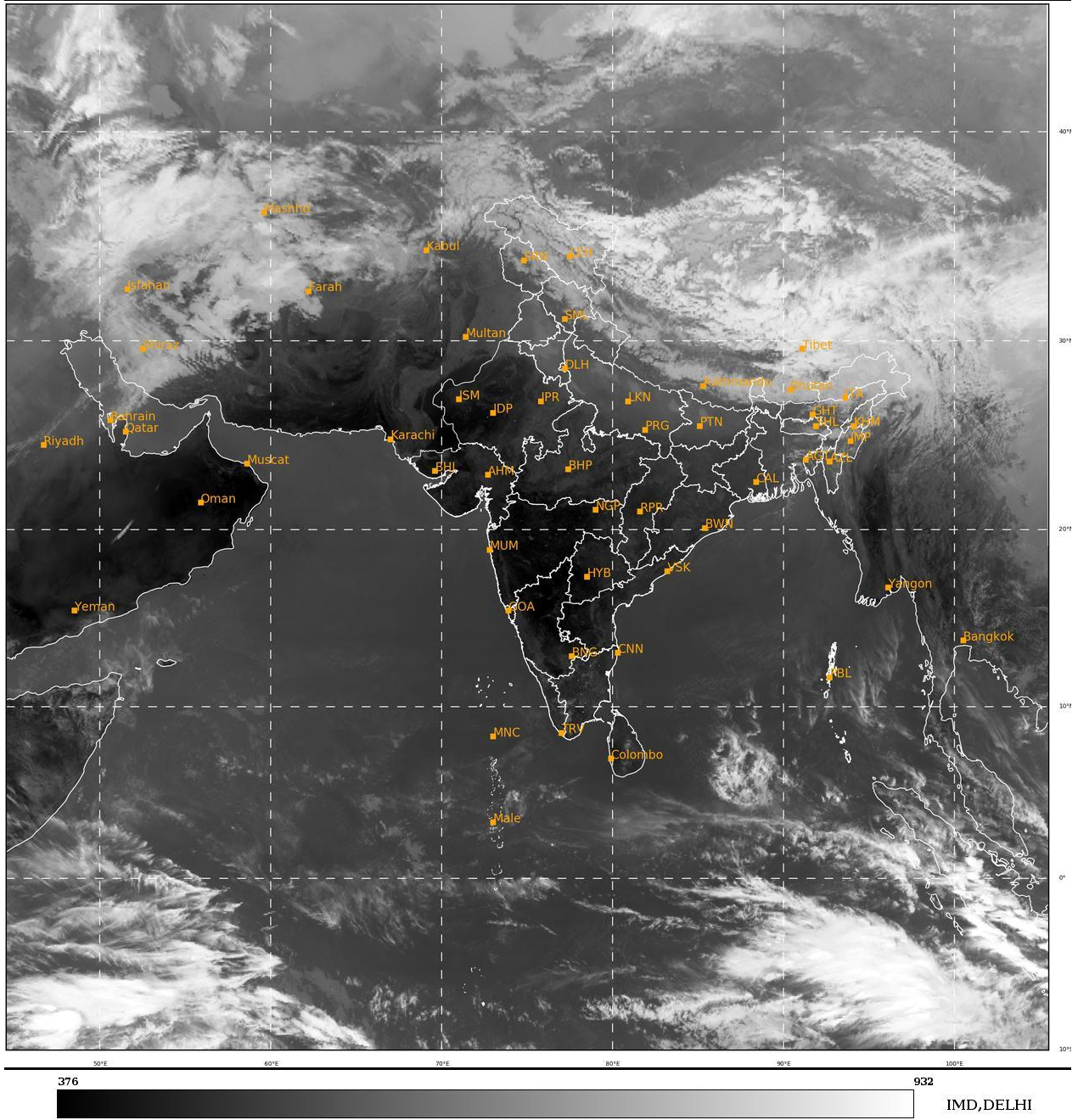


Figure: 1. Latest available satellite picture as on 01 Feb 2022 at 1356 Hrs (IST). (Source: IMD).

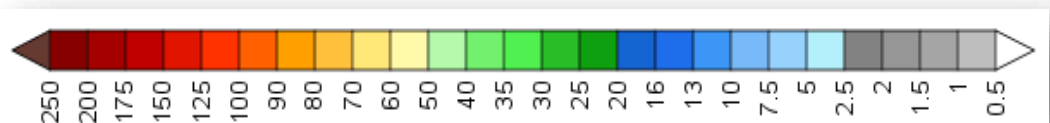
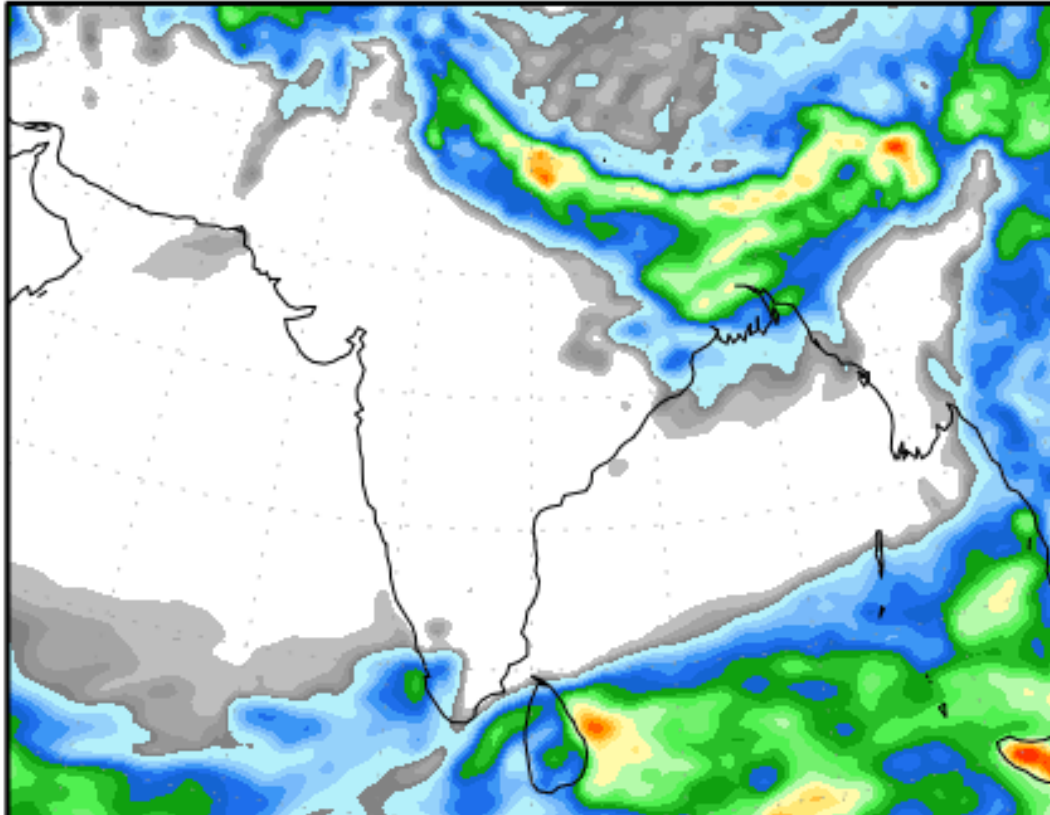


Figure:2. Precipitation forecast for 01 Feb to 09 Feb 2022 (Source: NOAA NCEP).

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