

# **All India Coordinated Research Project on Agrometeorology**

## **CRIDA, Santoshnagar, Hyderabad – 500 059**

### **Daily Crop Weather Information as on 05 January 2022**

**Attention: Rajiv Maheshwari, OSD, ICAR**

#### **Significant Weather Features (IMD)**

- Wet spell over northwest & central India till 9th January:
- The Western Disturbance lies as a cyclonic circulation over Afghanistan & neighbourhood extending at lower tropospheric levels with a trough aloft in westerlies in middle tropospheric levels with its axis along Long.65°E to the north of Lat.25°N. An induced cyclonic circulation lies over southwest Rajasthan & adjoining Pakistan in lower tropospheric levels. There is moisture feeding from Arabian Sea over northwest India. Under its influence:
  - i) Fairly widespread to widespread light/moderate rainfall/snowfall very likely to continue over Western Himalayan Region on 05th and scattered on 06th January. Isolated heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh & Uttarakhand on 05th January.
  - ii) Scattered to fairly widespread light/moderate rainfall very likely over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan, West Uttar Pradesh and isolated to scattered over south Rajasthan, Gujarat state, West Madhya Pradesh and East Uttar Pradesh on 05th & 06th January.
  - iii) Isolated heavy rainfall is very likely over Punjab on 05th January.
- Thereafter, an intense Western Disturbance is very likely to affect Northwest India from the night of 06th January, 2022 onwards. Under its influence, an induced cyclonic circulation very likely to form over southwest Rajasthan & neighbourhood on 07th January, 2022. High moisture feeding from Arabian Sea is also very likely over northwest & central India during 07th to 09th January, 2022. Under its influence:
  - i) Fairly widespread to widespread rainfall/snowfall very likely over Western Himalayan Region during 07th to 09th January and decrease thereafter.
  - ii) Isolated heavy rainfall/snowfall likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 07th & 08th and over Himachal Pradesh & Uttarakhand on 08th January, 2022.

iii) Scattered to fairly widespread light/moderate rainfall over plains of northwest & adjoining central India during 07th to 09th January.

iv) Isolated heavy rainfall is very likely over Punjab and Haryana & Chandigarh on 08th January.

v) Isolated thunderstorm activity accompanied with Hailstorms very likely over Madhya Pradesh on 08th & 09th; over Vidarbha on 09th January, 2022.

- Dense to very dense Fog in isolated pockets in night/morning hours very likely over East Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim and dense Fog in isolated pockets over Odisha, Gangetic West Bengal, west Assam & Meghalaya, Manipur, Mizoram and Tripura during next 2 days.
- 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 most places over Jammu & Kashmir, Ladakh, GilgitBaltistan, Muzaffarabad, Himachal Pradesh; at many places over Andaman & Nicobar Islands, Uttarakhand, West Rajasthan; at a few places over Punjab and at isolated places over Arunachal Pradesh, Haryana, Chandigarh & Delhi, East Rajasthan and Saurashtra & Kutch.
- Fog observed (at 0830 hours IST of today): Dense to Very Dense fog in many pockets over East Uttar Pradesh and in isolated pockets over Sub-Himalayan West Bengal, Bihar; Dense fog in isolated pockets over West Uttar Pradesh, Gangetic West Bengal, Odisha, Tripura and Moderate fog in isolated pockets over West Rajasthan, Haryana, Chandigarh & Delhi, Uttarakhand, Assam & Meghalaya and Manipur.
- Minimum Temperature Departures (as on 05-01-2022): Minimum temperatures are markedly above normal (5.1°C or more) at many places over Gujarat State, East Rajasthan and in isolated places over Punjab, Haryana, Chandigarh & Delhi, West Rajasthan and West Madhya Pradesh; appreciably above normal (3.1°C to 5.0°C) at a few places over Himachal Pradesh and Uttarakhand; above normal (1.6°C to 3.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, East Madhya Pradesh, Vidarbha; at a few places over Konkan & Goa, Marathwada and Kerala & Mahe and at isolated places over Uttar Pradesh, Madhya Maharashtra, Andaman & Nicobar Islands and Telangana. They are below normal (-1.6°C to -3.1°C) at isolated places over Coastal Andhra Pradesh & Yanam, South Interior Karnataka and Tamilnadu Puducherry & Karaikal and near normal over rest parts of the country. Today, the Lowest minimum

temperature of 7.0°C reported at Nowgong (East Madhya Pradesh) and Itanagar (Arunachal Pradesh) over the plains of the country.

- Maximum Temperature Departures (as on 04-01-2022): Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over Haryana, Chandigarh & Delhi, Uttar Pradesh, Madhya Pradesh and Kerala & Mahe; above normal (1.6°C to 3.0°C) at many places over Assam & Meghalaya, Rajasthan, Gujarat state, Konkan & Goa and Vidarbha; at a few places over Arunachal Pradesh, Uttarakhand and Coastal Karnataka and at isolated places over Sub-Himalayan West Bengal & Sikkim, Jharkhand, Odisha and Coastal Andhra Pradesh & Yanam. They were markedly below normal (-5.0°C or less) at many places over Bihar; at a few places over Himachal Pradesh and at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; appreciably below normal (-3.1°C to -5.0°C) at isolated places over Gangetic West Bengal; below normal (-1.6°C to -3.0°C) at a few places over Rayalaseema and Tamilnadu, Puducherry & Karaikal and near normal at rest parts of the country. Yesterday, the highest maximum temperature of 36.0°C was reported at Alapuzha (Kerala)

#### **Weather Warning during the next 5 days (IMD)**

- 05 January (Day 1): Heavy rainfall/snowfall at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand and heavy rainfall at isolated places over Punjab. Thunderstorm accompanied with lightning at isolated places very likely over East Rajasthan. Dense to very dense fog in some parts very likely over Sub-Himalayan West Bengal & Sikkim; in isolated pockets over Bihar, East Uttar Pradesh and dense fog in isolated pockets over West Uttar Pradesh, Odisha, Gangetic West Bengal, West Assam & Meghalaya, Manipur, Mizoram and Tripura. Cold day conditions at isolated places very likely over Bihar. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over Gulf of Mannar and Comorin area. Fishermen are advised not to venture into this area.
- 06 January (Day 2): Thunderstorm accompanied with lightning at isolated places very likely over West Madhya Pradesh. Dense to very dense fog in some parts very likely over Sub-Himalayan West Bengal & Sikkim; in isolated pockets over Bihar, East Uttar Pradesh and dense fog in isolated pockets over West Uttar Pradesh, Odisha, Gangetic West Bengal, West Assam & Meghalaya, Manipur, Mizoram and Tripura. Cold day conditions at isolated places very likely over Bihar. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over Gulf of Mannar and Comorin area. Fishermen are advised not to venture into this area.

- 07 January (Day 3): Heavy rainfall/snowfall at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad. Thunderstorm accompanied with lightning at isolated places very likely over Punjab, Haryana, Chandigarh & Delhi, Rajasthan and West Madhya Pradesh.
- 08 January (Day 4): Heavy rainfall/snowfall at isolated places likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand and heavy rainfall at isolated places over Punjab and north Haryana. Thunderstorm accompanied with lightning & hail at isolated places likely over Madhya Pradesh and with lightning at isolated places over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Vidarbha and Tamilnadu, Puducherry & Karaikal.
- 09 January (Day 5): Thunderstorm accompanied with lightning & hail at isolated places likely over East Madhya Pradesh, Vidarbha and with lightning at isolated places over Telangana, Chhattisgarh and Tamilnadu, Puducherry & Karaikal.
- The weather outlook for seven days i.e., 05 Jan to 13 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)**

### **Maharashtra-Vidarbha**

#### **Weather condition:**

Weekly average means (52 MW) at AICRPAM Akola centre: T max 27.2°C (normal 29.0°C), T min 12.5°C (normal 10.8°C). RH I 87 % (normal 72 %), RH II 45 % (normal 31 %). Evaporation rate 3.2 mm (normal 3.9 mm), Wind 1.2 km/hr (normal 3.5 km/hr) and BSH 5.5 hrs (normal 8.0 hrs). Maximum temperature across the week was 1.7°C below normal with a deviation of -6.8 to +0.6°C from normal. Minimum temperature across the week was 1.7°C above normal with a deviation of +0.1 to +3.0°C from normal.

#### **Contingency measure:**

- Block level forecast (Akola) indicates prevalence of mainly dry weather during 31 December to 4 January. Regional forecast indicates fall in minimum temperature by 2 to 4°C over Vidarbha during next 3 days and thereafter gradual rise by 2 to 3°C. Drain out excess water from standing crop field in areas that recently received high intensity rainfall.
- Post recent rain spell, allow the drenched burst cotton bolls on crop to dry and undertake clean picking of burst cotton bolls without drenching/soiling and

store in a safe place after proper drying. To avoid pink boll worm carry over to next season, farmers are advised to complete harvesting /picking of cotton by the month end of December. After harvesting remove cotton stalks from field. Ratooning should be discouraged, instead sowing of very late sown wheat by 7 January OR vegetable crop may be preferred.

- In harvest ready pigeonpea crop affected/lodged due to recent rains, allow the crop to dry completely for potential recovery before harvesting. Spread the harvested pigeonpea bundles drenched in the recent rain spell on field bunds / drying floors to quicken drying. Thresh pigeonpea bundles after they are dried properly.
- In timely sown rabi sorghum for control of stem borer and fall armyworm undertake spray of Thiamethoxam 12.6 % + Lambdacyhalothrin 9.5 ZC @ 5 ml or Spinetoram 11.7 SC @ 4 ml per 10 litres of water.
- Prevailing intermittent cloudy weather and lower minimum temperature favours aphid incidence in safflower. Safflower Crop should be protected from the attack of aphids by using 5 % NSKE or Dimethoate 30 EC 10 ml per 10 lit of water.
- Intermittent cloudy weather and lowering night time temperature favour infestation of pod borer in chickpea crop. IPM practices should be followed for the control of *Helicoverpa* in chickpea crop by using 5 Pheromone traps per hectare, one spray of 5 % NSKE at chickpea flowering stage 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.
- For very late sowing of irrigated wheat (December 15-January 7), use varieties - AKAW 4627 and PDKV Sardar (AKAW 4210-6). Follow seed treatment with carbendazim @ 2.5 g/kg wheat seed and also Azotobacter and PSB each @ 250 g per 10-12 kg of seed. Use recommended seed rate for very late wheat sowing @ 150 kg/ha. Use fertilizer @ 40:40:40 kg NPK/ha at sowing of wheat and remaining N @ 40 kg/ha at 18-20 days stage at first irrigation.
- In orchards affected with rains/hail storm, resort to field sanitation by removing detached fruits and other plant parts to avoid disease spread and infestation. Damaged orchard branches should be pruned and cut ends be smeared with Bordeaux paste (1:1:10). Also apply Bordeaux paste up to one metre height from the base of the affected trees. To induce re-growth of defoliated trees in orchards spraying of gibberlic acid 1 g+ 1kg urea per 100 litres of water is advisable.
- Undertake clean harvesting of matured/market ready vegetables. With fall in minimum temperature next few days and with prevalence of cold weather it is advised to keep the animals in closed shelter and take special care of young cattle

to protect from cold. Shelter floor should be covered with straw litter which provides 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  
L1C Mercator

05-01-2022/(0800 to 0827) GMT  
05-01-2022/(1330 to 1357) IST

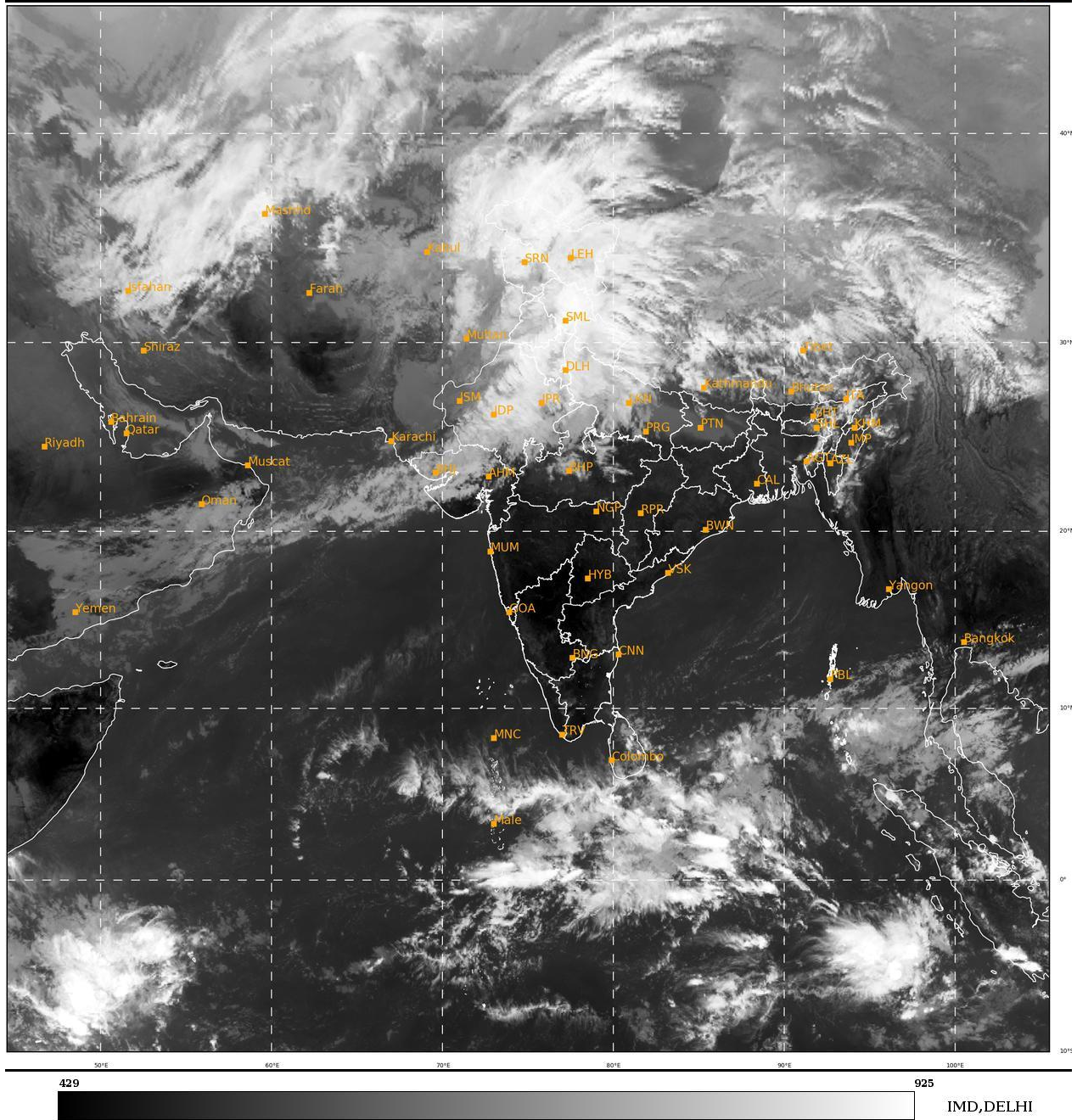
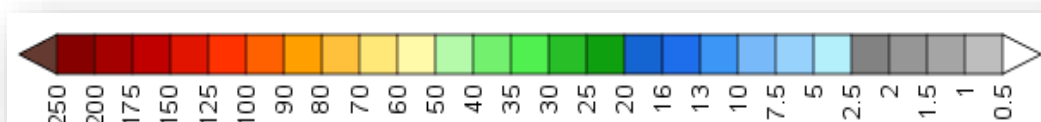
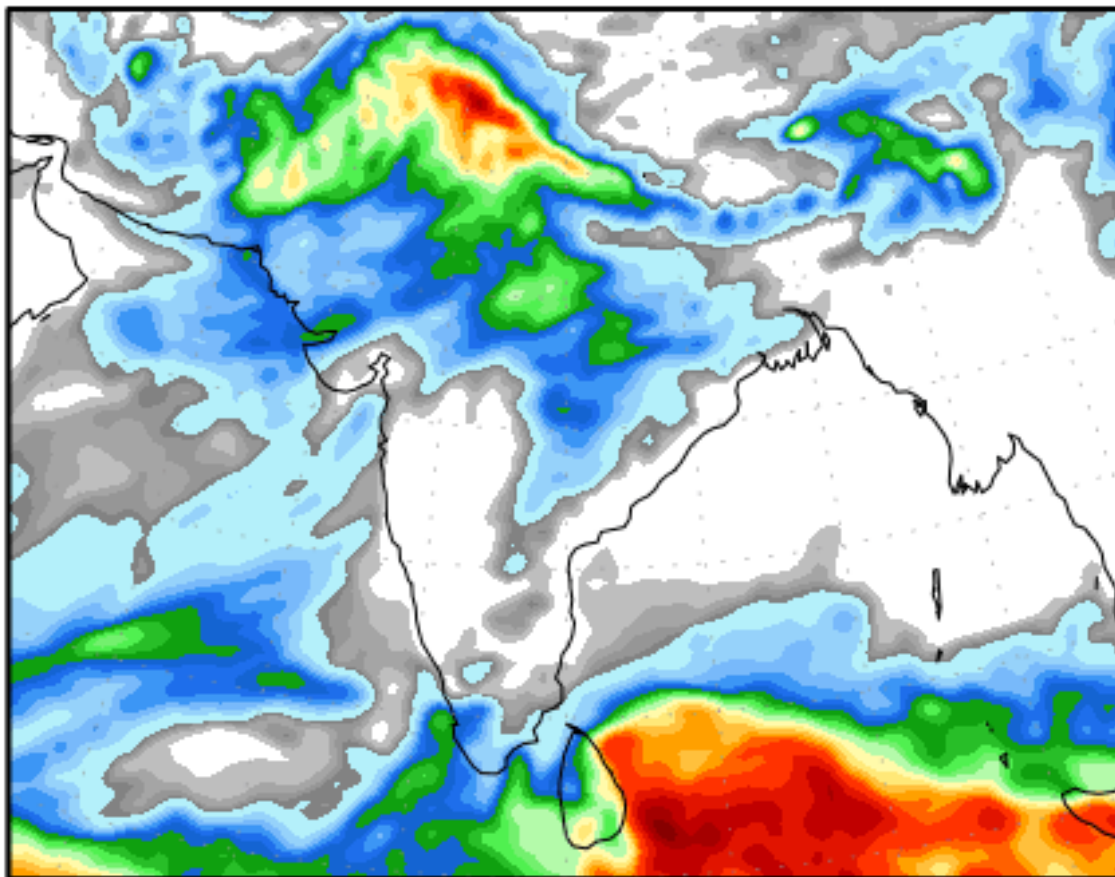


Figure: 1. Latest available satellite picture as on 05 Jan 2022 at 1357 Hrs (IST). (Source: IMD).



**Figure:2. Precipitation forecast for 05 Jan to 13 Jan 2022 (Source: NOAA NCEP).**

*Disclaimer: The predictability of weather depends on many dynamic factors. The success of Agromet advisories provided here depends on the accuracy of the forecasts. In no event will India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) be liable to the user or any third party for any direct, indirect, incidental, consequential, special or exemplary damages or lost profit resulting from any use or misuse of the information on this bulletin.*