All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 17 December 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- No significant change in minimum and maximum temperatures over Northwest India during next 2 days and rise by 2-3°C in minimum temperatures & 5-6°C in maximum temperatures during subsequent 3 days.
- Fall in minimum temperatures by 3-5°C over East Madhya Pradesh, Vidarbha and Chhattisgarh and by 4-6°C over East India during next 3 days.
- Fall in minimum temperatures by 2-3°C over West India during next 48 hours. No significant change in minimum temperatures over remaining parts of the country during next 2 days.
- Cold Wave to Severe Cold Wave conditions very likely in some pockets over Punjab, Haryana & Chandigarh, West Uttar Pradesh and north Rajasthan during next 3 days and decrease thereafter.
- Cold Day to Severe Cold Day conditions very likely in some to many pockets over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan and northwest Uttar Pradesh during next 2 days and decrease thereafter.
- Dense Fog in isolated pockets very likely over Assam & Meghalaya and Tripura & Mizoram during next 3 days.
- Under the influence of the easterly wave, scattered to fairly widespread rain/thundershowers very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep area during next 3 days. Isolated heavy to very heavy rainfall very likely over Tamil Nadu, Puducherry & Karaikal on 17th December and isolated heavy falls on 18th & 19th December and over Kerala & Mahe on 18th December and over Lakshadweep on 19th & 20th December, 2020.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (during 0830 hours IST yesterday to 0830 hours IST of today): at most places over Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar Islands; at a few places over East Madhya Pradesh and Arunachal Pradesh

and at isolated places over Kerala & Mahe, South Interior Karnataka, Andhra Pradesh & Yanam, East Uttar Pradesh and Bihar.

- Fog observed (at 0530 and 0830 hours IST of today): Dense to very Dense fog in isolated pockets over West Rajasthan, Punjab and Chhattisgarh and Dense fog in isolated pockets over East Rajasthan, Uttarakhand, Sub-Himalayan West Bengal, Tripura, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, West Uttar Pradesh and Assam.
- Cold Wave conditions in some pockets with Severe Cold Wave condition were observed in isolated pockets over West Rajasthan; Severe Cold Wave conditions in isolated pockets over East Rajasthan and Cold Wave conditions in isolated pockets over south Haryana, Delhi and West Uttar Pradesh.
- Maximum Temperature Departures as on 16-12-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over Vidarbha, Chhattisgarh and Marathwada; above normal (1.6°C to 3.0°C) at many places over Odisha and Telangana and a few places over Madhya Maharashtra and North Interior Karnataka. They were markedly below normal (-5.1°C or less) at most places over Punjab, Haryana, Chandigarh & Delhi and West Rajasthan; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Madhya Pradesh and at isolated places over East Rajasthan and Uttar Pradesh; appreciably below normal (-3.1°C to -5.0°C) at a few places over Himachal Pradesh, Gujarat, Andaman & Nicobar Islands, Bihar and Jharkhand; below normal (-1.6°C to -3.0°C) at many places over Tamil Nadu, Puducherry & Karaikal; at a few places over Konkan & Goa and at isolated places over Kerala & Mahe and West Bengal & Sikkim and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.0°C was reported at Karwar (Coastal Karnataka) over the country.
- Minimum Temperature Departures as on 17-12-2020: Minimum temperatures are markedly above normal (5.0°C or more) at many places over Chhattisgarh; at a few places over Marathwada, East Madhya Pradesh and Vidarbha; at isolated places over West Madhya Pradesh and Madhya Maharashtra; appreciably above normal (3.1°C to 5.0°C) at most places over Jharkhand and Rayalseema; at many places over Odisha, Karnataka, Telangana and Assam & Meghalaya; at a few places over Gangetic West Bengal and Nagaland, Manipur, Mizoram & Tripura; above normal (1.6°C to 3.0°C) at most place over Arunachal Pradesh and Coastal Andhra Pradesh & Yanam; at many places over Bihar, Sub-Himalayan West Bengal & Sikkim, Telangana, Kerala & Mahe, Tamil Nadu, Puducherry, Konkan & Goa. They are markedly below normal (-5.0°C or less) at isolated places over Jammu & Kashmir, Ladakh, GilgitBaltistan & Muzaffarabad and Himachal Pradesh; appreciably below

normal (-3.1°C to -5.0°C) at a few places over West Rajasthan and West Uttar Pradesh and at isolated places over East Rajasthan, East Uttar Pradesh, Saurashtra & Kutch and Haryana, Chandigarh & Delhi; below normal (-1.6°C to -3.0°C) at a few places over Punjab and Uttarakhand and near normal over rest parts of the country. Today, the lowest minimum temperature of 0.5°C is reported at Sikar (East Rajasthan) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 17 December (Day 1): Heavy to very heavy rainfall very likely at isolated places over Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep. Cold Wave to Severe Cold Wave conditions very likely in some pockets over West Uttar Pradesh and Cold Wave conditions in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan and East Uttar Pradesh. Cold Day to Severe Cold Day conditions very likely in many pockets over Punjab, Haryana, Chandigarh & Delhi, northwest Uttar Pradesh and north Rajasthan and Cold Day conditions in isolated pockets over Jammu division, Himachal Pradesh and Uttarakhand. Dense fog very likely in isolated pockets over Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 18 December (Day 2): Heavy rainfall very likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Lakshadweep and Kerala & Mahe. Cold Wave to Severe Cold Wave conditions very likely in some pockets over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and north Rajasthan and Cold Wave conditions in isolated pockets over East Uttar Pradesh and Madhya Pradesh. Cold Day to Severe Cold Day conditions very likely in a few pockets over Punjab, Haryana, Chandigarh & Delhi, northwest Uttar Pradesh and north Rajasthan. Dense fog very likely in isolated pockets Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 19 December (Day 3): Heavy rainfall very likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Lakshadweep. Thunderstorm accompanied with lightning very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Lakshadweep and Kerala & Mahe. Cold Wave to Severe Cold Wave conditions very likely in some pockets over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and north Rajasthan and Cold Wave conditions in

isolated pockets over East Uttar Pradesh and Madhya Pradesh. Cold Day conditions very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, northwest Uttar Pradesh and north Rajasthan.. Dense fog very likely in isolated pockets over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

- 20 December (Day 4): Heavy rainfall very likely at isolated places over Lakshadweep. Thunderstorm accompanied with lightning very likely at isolated places over Lakshadweep. Cold Wave conditions very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and north Rajasthan.
- 21 December (Day 5): Dense fog very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh
- The weather outlook for seven days i.e., 17 December to 25 December 2020 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)

Maharastra-Vidarbha

Weather condition:

Weekly average means (49 MW) at AICRPAM Akola centre: Tmax 29.9°C (normal 30.2°C), Tmin 17.8°C (normal 11.6 °C). RH I 82% (normal 70 %), RH II 36% (normal 30 %). Evaporation rate 3.8 mm (normal 4.1 mm), Wind speed 1.1 km/hr (normal 3.4 km/hr) and BSH 4.3 hrs (normal 8.2 hrs). Maximum temperature across the week was 0.3°C above normal with a deviation of -2.0 to +2.8°C from normal. Minimum temperature across the week 6.9°C above normal with a deviation of 4.2 to 8.7°C from normal.

Contingency measure:

- The forecast suggests mainly dry weather will remain for next five days over Vidharbha.
- In chickpea install pheromone traps (hexalure) @ 5/ha for monitoring the incidence of pod borer (Helicoverpa and also undertake control measures if 8 to 10 adult moths are observed in the trap over 3 consecutive days. For management of pod borer (Helicoverpa) in chickpea undertake first spray at 50% flowering stage with 5% NKSE OR Azadirachtin 1500 PPM @ 25 ml OR HaNPV (1x109 POB/ml) 500 LE/ha, OR quinolphos 25%EC @ 20 ml per 10 litres of water. After 15 days of first spray undertake second spray of Emamectin benzoate 5% SG @ 3 g OR Ethion 50% EC @ 25ml OR Flubendiamide 20% WG @ 5 g OR Chlorantraniliprole 18.5 % SG @ 2.5 g per 10 litres of water.
- To manage the incidence of pod borer (Helicoverpa) in pigeonpea at flowering stage/pod formation (3/plant or 5 to 10% pod damage) undertake first spray of 5% NKSE OR Azadirachtin 300 PPM @ 50 ml per 10 litres of water OR Azadirachtin 1500 PPM @ 25 ml OR HaNPV (1x109 POB/ml) 500 LE/ha, OR quinolphos 25% EC @ 20 ml OR Thiodicarb 75% WP @ 20 g per 10 litres of water. After 15 days of first spray undertake second spray of Chlorantraniliprole 18.5% SC @ 3 ml OR Indoxacarb15.8% EC @ 6.6 ml OR Lambdacyhalothrin 5% EC @ 10ml OR Flubendiamide 20% WG @ 5 g OR Emamectin benzoate 5% SG @ 4.4 g OR Chlorantraniliprole 9.3% + Lambdacyhalothrin 4.6% zc @ 4 ml per 10 litres of water. Undertake all spraying operations during clear and calm weather.
- 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 seed and also Azotobacter and PSB each @ 250 g per 10-12 kg of seed. Use recommended seed rate for very late sowing @ 150kg/ha. Use

fertilizer @ 40:40:40 kg NPK/ha at sowing and remaining N @ 40 kg/ha at 18-20 days stage at first irrigation.

- At cotton collection and storage centers cleanliness and mass trapping for pink boll worm through pheromone trap is advisable to reduce carry over in next season. For better nutrition of hasta bahar bearing kagzi lime undertake spray of zinc sulphate, ferrous sulphate and manganese sulphate each @ 50 g + lime 40 g in 10 litres of water.
- Transplanting of 4-6 week old seedlings of tomato, brinjal, cabbage and cauliflower and seed sowing radish carrot, leafy vegetables can be initiated during this period.
- For livestock green feed, according to the availability of water, undertake sowing of fodder crops.

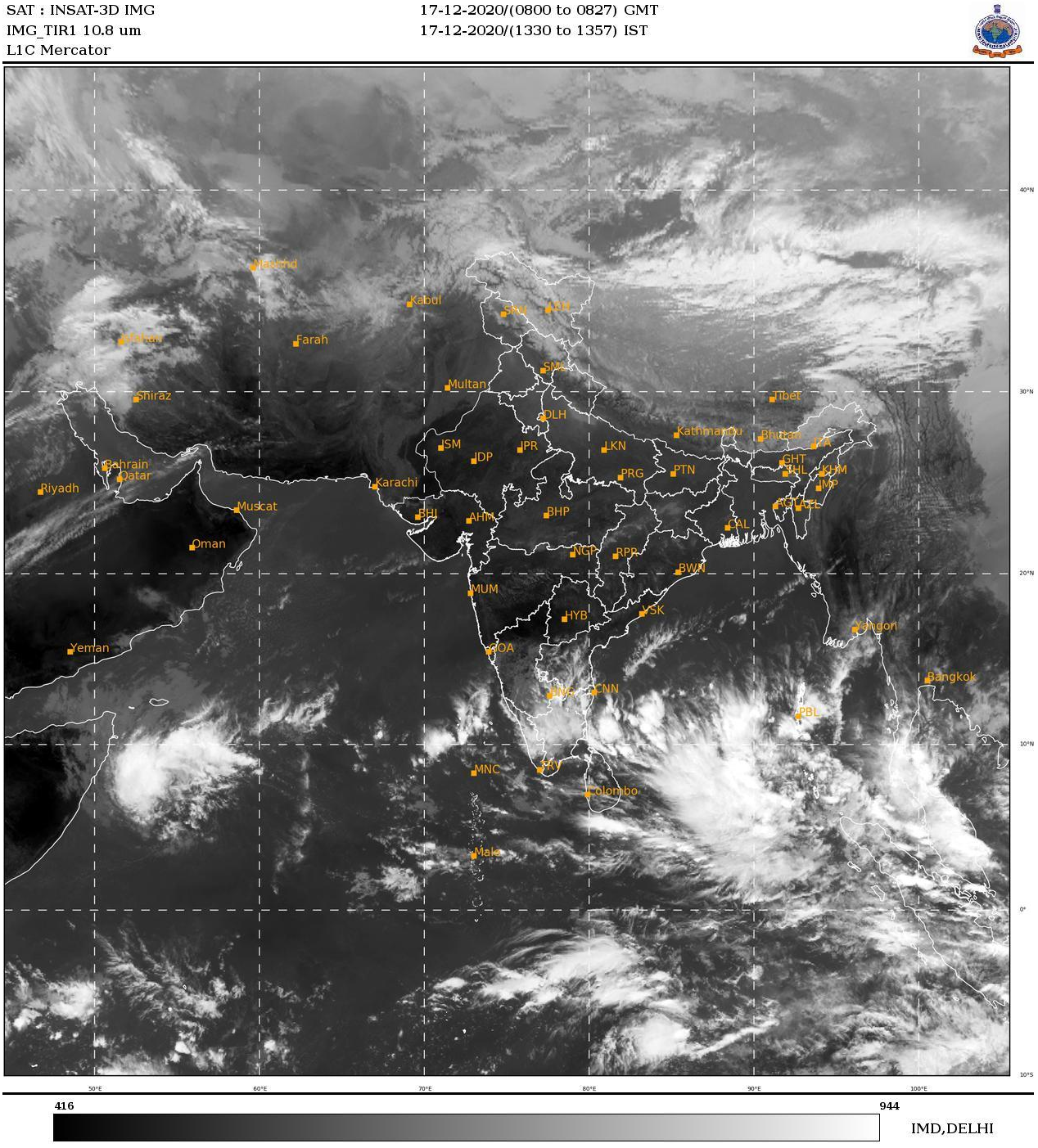

Figure: 1. Latest available satellite picture as on 17 December 2020 at 1357 Hrs (IST). (Source: IMD).

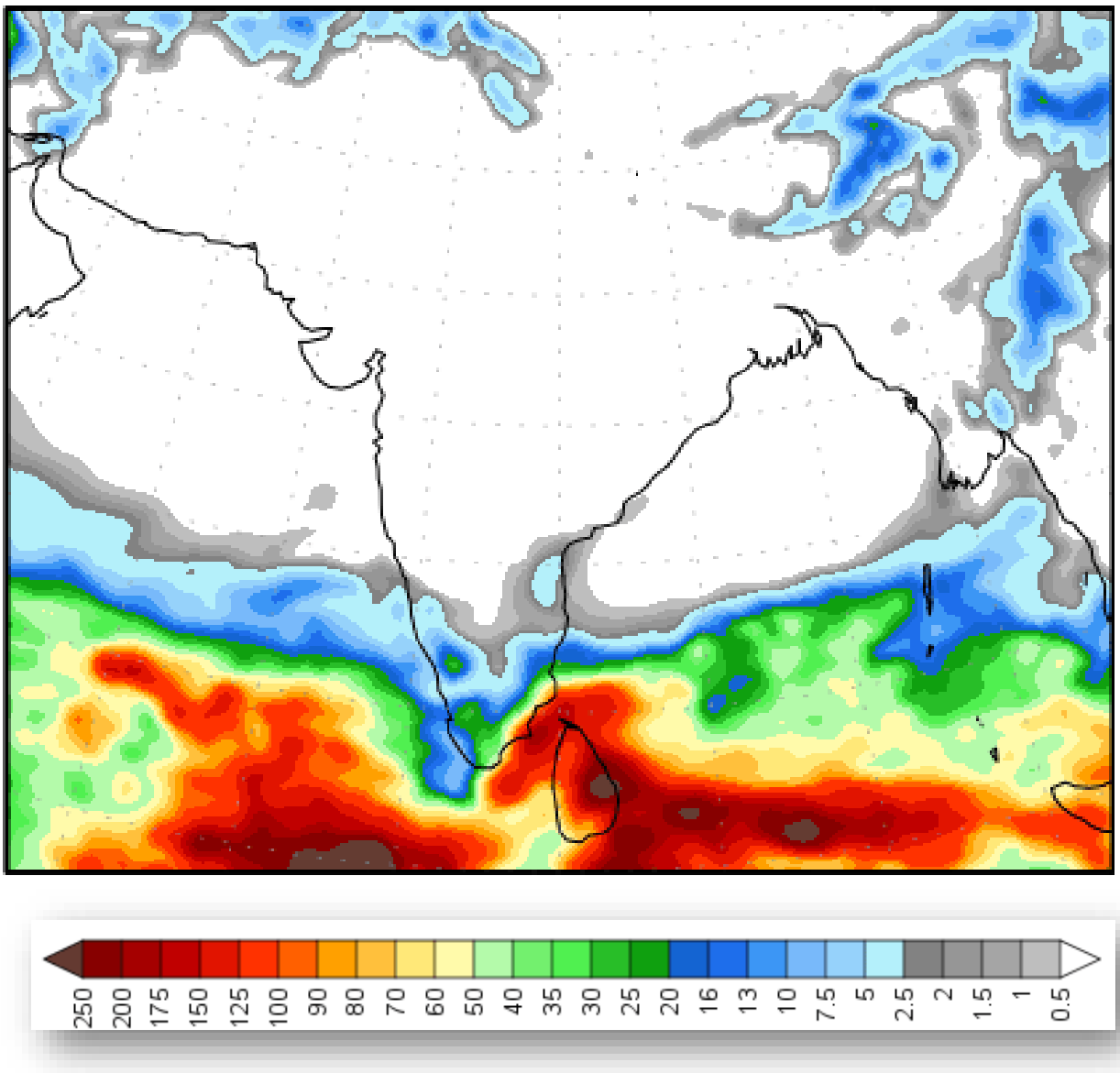

Figure:2. Precipitation forecast for 17 to 25 December 2020 (Source: NOAA NCEP).

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