

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 07 January 2019

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The depression over southeast Bay of Bengal & adjoining eastcentral Bay of Bengal near Andaman Islands moved nearly northwards and lay centred at 0830 hours IST of today, the 07th January 2019 near Latitude 12.8°N and Longitude 92.0°E, about 150 km north northwest of Port Blair. It is very likely to move northwards for some more time and then recurve northeastwards towards Myanmar coast. It is likely to weaken into a well marked low pressure area during next 12 hours. Fishermen are advised not to venture into Myanmar coast and adjoining areas of eastcentral Bay of Bengal and north Andaman Sea during next 48 hours, in view of likely squally weather over the regions.
- The rain/snow over Jammu & Kashmir, Himachal Pradesh and Uttarakhand has reduced significantly at present as the western disturbance has moved away from the region. A fresh Western Disturbance is very likely to cause isolated to scattered rain/snow over the western Himalayan region during next 48 hours. This is very likely to be followed by another western disturbance in quick succession which could cause fairly widespread to widespread rain/snowfall, once again over western Himalayan region during 10-12 January.
- Dense to very dense fog in the morning hours is very likely to prevail at a few places over Haryana and at a isolated places over rest of the northern plains and lower reaches of Himachal Pradesh during next 2 days.
- The images showing the latest satellite picture in figure. 1.

Main Weather Observations (IMD)

- Rainfall observed (from 0830 hours IST of yesterday to 0830 hours IST of today): Rain/snow observed at most places over Himachal Pradesh; at many places over Uttarakhand and at a few places over Jammu & Kashmir. Rainfall observed at most places over Andaman & Nicobar Islands; at many places over East Uttar Pradesh; at a few places over Punjab and Haryana, Chandigarh & Delhi and at isolated places over West Uttar Pradesh and East Madhya Pradesh. Heavy rainfall occurred at a few places over Andaman Islands.

- Dense to very dense fog observed at many places over Haryana, Chandigarh & Delhi; at isolated places over Himachal Pradesh, north Rajasthan and Madhya Pradesh and moderate fog at isolated places over Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Punjab, Uttarakhand, West Uttar Pradesh and Vidarbha at 0830 hours IST of today. Visibility:- Pilani, Churu, Sundernagar, Hissar, Bhopal-25 M each; New Delhi (Palam), Karnal and Tikamgarh-50 M each; New Delhi (Safdarjung), Sikar, Ganganagar, Ludhiana, Tehri, Indore, Brahmapuri-200 M each; Gwalior-400 M, New Delhi (Ayanagar), New Delhi (Ridge), Amritsar, Solan, Aligarh, Agra, Datia, Khajuraho, Ujjain, Hirakud, Majbat and Agartala-500 M each.
- Maximum temperature departures as on 06.01.2019: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at many places over Jharkhand; at a few places over East Madhya Pradesh and Chhattisgarh; above normal (1.6°C to 3.0°C) at most places over Bihar; at many places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Marathwada, Vidarbha and Lakshadweep; at a few places over Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura and Madhya Maharashtra; at isolated places over Saurashtra & Kutch, Telangana, North Interior Karnataka and Tamilnadu & Puducherry. They were markedly below normal (below -5.1°C) at most places over Himachal Pradesh; appreciably below normal (-3.1°C to -5.0°C) at many places over Jammu & Kashmir; below normal (-1.6°C to -3.0°C) at most places over Uttarakhand and Rajasthan; at many places over Punjab and Haryana, Chandigarh & Delhi; at a few places over Gujarat Region and Andaman & Nicobar Islands; at isolated places over Kerala and West Uttar Pradesh and near normal over rest parts of the country.
- Yesterday, the highest maximum temperature of 34.6°C was recorded at Karwar (Coastal Karnataka) over the plains of the country.
- Minimum temperature departures as on 07-01-2019: Minimum temperatures are below normal (-1.6°C to -3.0°C) at most places over Jammu & Kashmir, Himachal Pradesh, Odisha, Gangetic West Bengal, and Coastal & South Interior Karnataka; at many places over Sub-Himalayan West Bengal & Sikkim, Gujarat Region, Konkan & Goa, Rayalaseema, Kerala and Lakshadweep; at a few places over Uttarakhand, East Rajasthan, West Madhya Pradesh, Chhattisgarh, Madhya Maharashtra, Vidarbha, Coastal Andhra Pradesh and Tamilnadu & Puducherry and at Isolated places over Assam & Meghalaya, Saurashtra & Kutch and West Rajasthan. They are above normal (1.6°C to 3.0°C) at most places over East Uttar Pradesh; at many places over Andaman & Nicobar Islands and at a few places over East Madhya Pradesh and near normal over rest parts of the country.
- The lowest minimum temperature of 3.0°C was recorded at Amritsar (Punjab) over the plains of the country.

Weather Warning during next 5 days (IMD)

- 07 January (Day 1): Heavy rain very likely at isolated places over Andaman Islands. Squally winds speed reaching 50-60 Kmph gusting to 70 Kmph very likely to prevail over Southeast Bay of Bengal, Andaman Islands and adjoining Andaman Sea & eastcentral Bay of Bengal and 40-50 Kmph gusting to 60 Kmph very likely to prevail over eastcentral Bay of Bengal and adjoining Andaman Sea during next 12 hours. Sea condition is likely to be rough to very rough over these areas. Fishermen are advised not to venture into Sea over these areas. Dense to very dense fog very likely at few places over Haryana and isolated pockets over Punjab, Chandigarh, Delhi, lower reaches of Himachal Pradesh, West Uttar Pradesh, north Rajasthan and Madhya Pradesh and Dense fog at isolated pockets over Bihar and Sub-Himalayan West Bengal.
- 08 January (Day 2): Dense to very dense fog very likely at few places over Haryana and isolated pockets over Punjab, Chandigarh, Delhi, lower reaches of Himachal Pradesh, West Uttar Pradesh, north Rajasthan and Madhya Pradesh. Squally weather is very likely over Myanmar coast & adjoining eastcentral Bay of Bengal and north Andaman Sea. Fishermen are advised not to venture into sea over these areas.
- 09 January (Day 3): No Weather Warning.
- 10 January (Day 4): No Weather Warning.
- 11 January (Day 5): No Weather Warning.
- The weather outlook for the period of seven days i.e 07 to 14 January 2019 forecasted (*Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>*) rain/thundershower may occur over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Madhya Pradesh and Andaman & Nicobar Islands. (Fig. 2).

Agricultural activities (AICRPAM-CRIDA)

Himachal Pradesh

Weather condition:

Light rainfall received in Himachal Pradesh state during past few days.. The maximum temperature during the week ranged between 7.0 to 19.0°C and minimum temperature between 2.5 to 6.0°C which was below normal by 0.7 to 4.9°C.

Contingency measure:

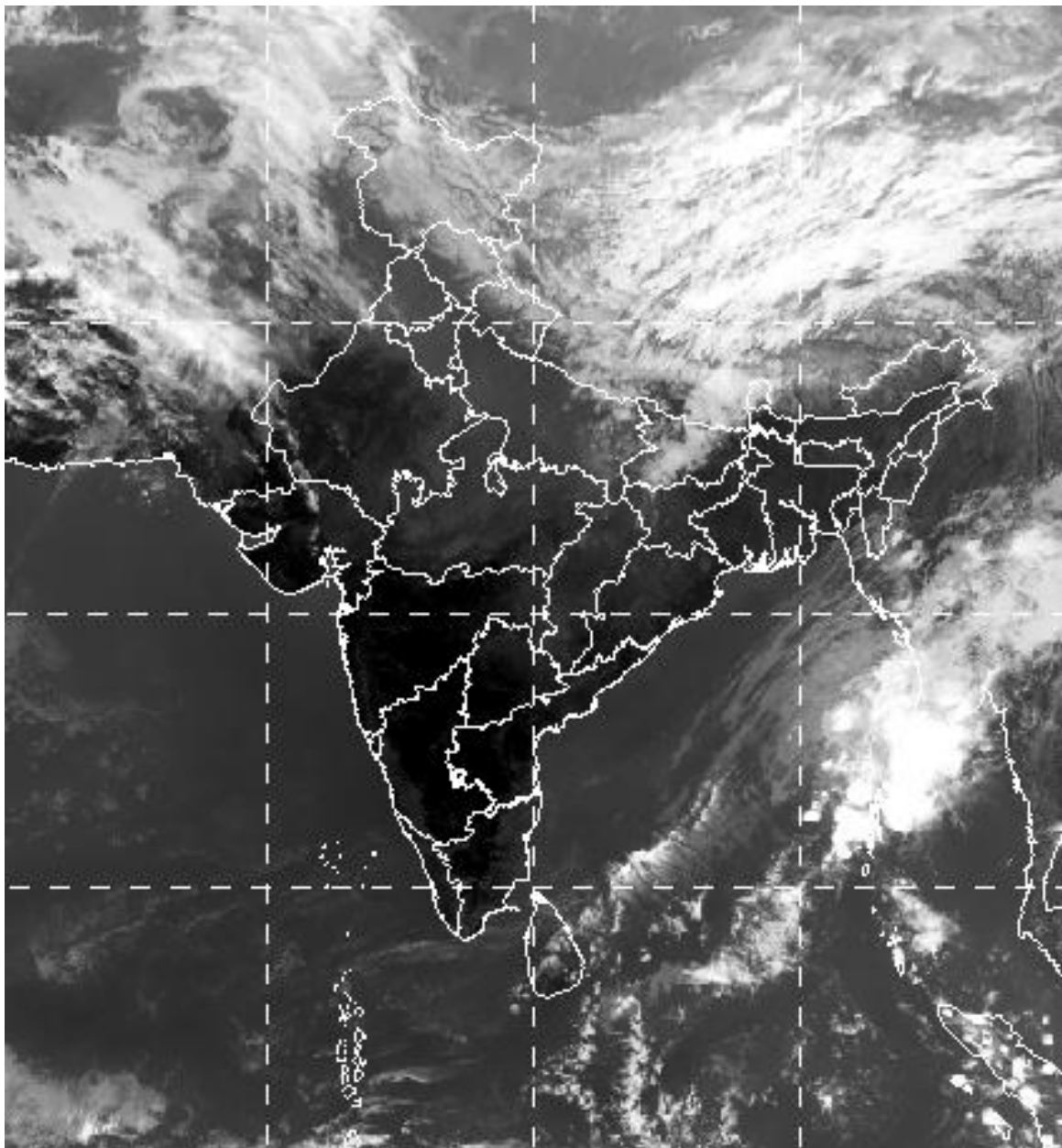
- **RABI CROPS:** For chemical weed control in wheat, spray isoproturon (75WP) @ 70 gm + 2,4D (80 WP) @ 50 gm or clodinafop @ 24 g (10WP) or 16 g (15 WP) per kanal after 35-40 days of sowing i.e. 2-3 leaf stage of weed. After 2-3 days of clodinafop spray, apply 2,4-D @ 50 gm/Kanal. Use 30 litres of water for making a solution for one hectare. In areas where symptoms of yellow rust are appears in the wheat crop in the form of yellow powder/stripes on the leaves or susceptible varieties then the farmers are advised to spray the fungicides with the appearance of the symptoms. These are tilt (Propiconazole) 25 EC/folicure (Tebuconazole) 25 EC/bayletan 25 WP @ 0.1% i.e., 30ml or 30 g per 30 litres of water per kanal and repeat the spray after 15 days interval. Thinning and weeding is recommended in timely sown mustard crop. For pod borer in the gram crop, installation of Pheromone trap @ 3-4 traps per acre is advised if flowering has reached 10- 15%. T shaped bird perches in and around crop field to be installed for controlling insect population.
- **Vegetable Crops:** In present weather, termites may damage crops and vegetables. Add mulch material in space between two rows of vegetables crops for conservation of soil moisture and maintaining the soil temperature.
- **Tomato, Chilli, Capsicum and Brinjal:** It is time for planting of onion bulbs in 30X 10 cm spacing for harvesting green onion. Farmers are advised to monitor their fields regularly. Spray of Imidacloprid 17.8 % SC@ 1.0 ml / 3 lit of water is recommended against white flies and other sucking pests in all crop and vegetables when sky is clear. In vegetables (brinjal, cauliflower, cabbage, tomato etc), for monitoring of borer insect, farmers are advised to use pheromone trap @ 3-4/acre. For control spraying of Spinosad 1.0 ml/4 litre of water is advised against fruit borer, diamond back moth. Weeding and hoeing in all crops and vegetables should be done for optimum growth. For shoot and fruit borer in brinjal and tomato crops, infested fruits and shoots should be collected and buried inside the soil. Also install pheromone trap @25 per hectare If pest population is high, spraying of spinosad 48 EC @ 1 ml /4 litres of water is advised when sky is clear. In present weather conditions, rouging of viral infested crop should be done in chilli. Infected crop should be uprooted and buried in the soil. After rouging, spraying of Imidacloprid @ 0.3 ml per litre of water is advised to control the vector.
- **Radish, Turnip, Onion & Peas:** Onion crop against attack of thrips. Spraying of Carbaryl @ 2 gram/ litre of water with sticky material (Tipol 1.0 gram /litre) is advised. Onion crop against infection of purple blotch should also be done. Need based spraying of Diethane M -45 @ 3 grams per litre of water with sticky material (Tipol 1.0 gram /litre) are advised. Intercultural operations of radish, carrot, turnip, spinach and fenugreek, carrot, broccoli, lettuce can be done. For the control of damping off disease in vegetable crop mix thoroughly Dithane M 45 dust 10-15 g in 1X3metre beds. For control of powdery mildew in peas, spray celfex@25 g per 10

litres of water or karathane@5 ml per 10 litres of water. Spraying of 2 % urea or potassium sulphate is advised for proper growth of pods this also protect pea crop from frost injury. For pod borer in pea and fruit borer in tomato, installation of pheromone traps @ 3-4 traps per acre is advised. Spraying of 2 % urea is advised for proper growth of pods in the pea crop.

- Cauliflower and Other Vegetables: In present weather, termites may damage crops and vegetables. Add mulch material in space between two rows of vegetables crops for conservation of soil moisture and maintaining the soil temperature. For Leaf feeders in cole crop Spray of Spinosad @1 ml \ 3 litre of water when sky remains clear. The downy mildew is expected in cruciferous vegetables, for control spray redomil M-Z @ 25 g per litres of water at 15 days interval. Intercultural operations in vegetables are advised to remove the weeds. Application of remaining doses of fertilizer in 15-25 days old crop should be done. In cauliflower, Add 2-3 Kg urea per kanal. The downy mildew is expected in cruciferous vegetables, for control spray redomil M-Z @ 25 g per litres of water at 15 days interval. Powdery mildew expected in peas spray celfex@25 g per 10 litres of water or karathane@5 ml per 10 litres of water.
- Potato: Farmers are advised to start earthing-up in potato if crop has attained a height of 15-22 cm. If so required, the practice may be repeated after 15 days. Due to high relative humidity, infection of blight may occur in potato and tomato. Constant monitoring is advised. If symptoms appears than spray of Carbandizam @ 1.0 gm / litre of water or Dithane-M-45 @ 2.0 gm / litre of water is recommended.
- Poly House Agriculture: In polyhouse crops like tomato, Powdery mildew is expected, for control spray haxaconazol 1ml per litres of water in 10 days interval. Make preparation for sowing of green coriander, radish turnip in next month .Top reaper seedling of early cucurbitaceous crops, seedling may be prepared in small polythene bags in poly houses.
- Tea: Training, skiffing and cleaning work can be completed in the tea. The skiffed material may be used to prepare compost so that it could be applied in next season.
- Horticulture: Wrapping of plastic sheets around mango trunk should be done for preventing climbing of young mealy bugs. Apply grease to seal any cracks in the polythene sheets. If the stem borer problem is there in spray insecticide or control them with applying kerosene oil. Keep the basins of the plants free from weeds. If the stem borer problem is there in spray insecticide or control them with applying kerosene oil. Irrigation should be done in all orchards. The ensuing weather is conducive for the attack of leaf minor in Citrus. For its control, spray 10 ml Matasystox or Malathion 10 ml in 10 litre of water. For the control of Citrus canker spray Streptocycline Sulphate 500 ppm solution. Remove the shoots below the graft

or bud unions. Prepare the pits for planting the winter plants like peanut, walnut, almond plum and peach.

- Mushroom: Dingri can be sown in closed room, maintain temperature of 25-28 degree Celsius and relative humidity of 80-85 % for good crop. Advised to fill compost bags with span for button mushrooms.
- Livestock: Temperature is falling and a cold wave has gripped the area, so protect the newly born calves and animals from cold. Feed pregnant and lactating cows and buffaloes with balance feed including mineral mixture. Also keep the cowshed clean and do not allow the water to stagnate in the cow shed. Provide dry bedding to animals and save them from cold winds. Increase energy contents of concentrate mixture by adding 5-10 per cent more of cereal grains. Feed well-chaffed legumes mixed with wheat-straw in the ratio of 10:1. Deworming of calves should be continued against ascaris with piperazine liquid 4ml/10 kg body weight. New-born calves need special care against severe winters as they are susceptible to pneumonia. So keep them warm by providing dry bedding and protection against cold winds. Give them vitamin A concentrate 1ml daily in milk for three days, to be repeated after a month. While feeding animals on dry roughages, provide 40 g mineral mixture (ISI mark) to every milk giving cow or buffalo.



**Figure: 1. Latest available satellite picture as on 07 January 2019 at 0230 Hrs (IST).
(Source: IMD).**

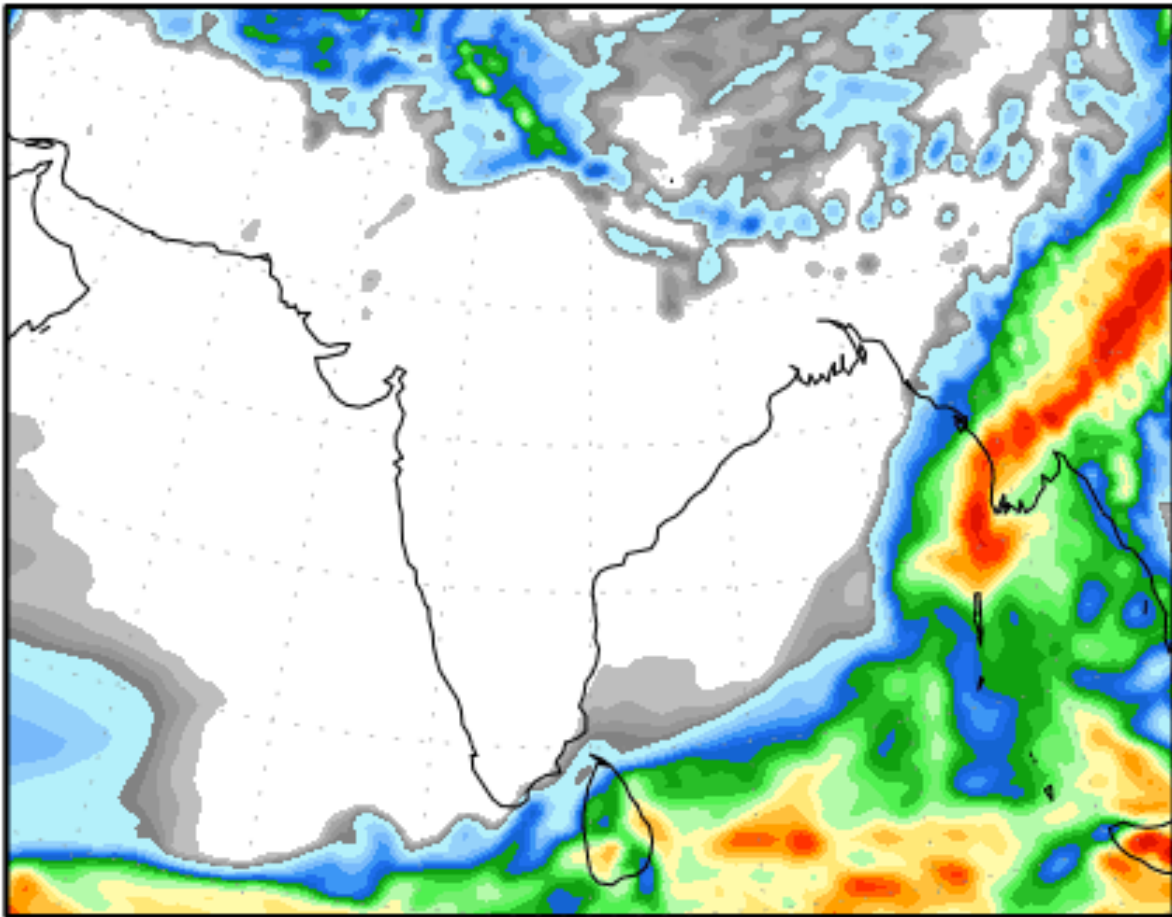


Figure: 2. Precipitation forecast for 07 to 14 January 2019 (Source: NOAA NCEP).