

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 24 July 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The western end of the monsoon trough at mean sea level lies close to the foothills of the Himalayas and eastern end is near its normal position. A cyclonic circulation lies over Bangladesh & adjoining Gangetic West Bengal upto mid-tropospheric levels. In addition, there is a convergence of moist southerly/southwesterly winds from Bay of Bengal over Northeast & adjoining East India.
- Under the influence of the above meteorological conditions: i) Fairly widespread to widespread rainfall with isolated heavy falls most likely to occur over east & northeast India during next 5 days. Fairly widespread to widespread rainfall with isolated heavy falls also very likely over Odisha, West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura during next 24 hours and over Konkan & Goa and Madhya Pradesh during next 4-5 days. ii) light to moderate isolated/scattered rainfall very likely over most parts of northwest India till 25th July. Its intensity & distribution very likely to increase thereafter due to southwards shift of western end of the monsoon trough.
- Intense thunderstorm & lightning potential zone: Moderate to severe thunderstorm & lightning at isolated places very likely over Madhya Pradesh, Madhya Maharashtra, East Rajasthan and Bihar during 12 hours.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830 hours IST to 1730 hours IST of yesterday): at most places over Chhattisgarh, West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Assam & Meghalaya, Jharkhand and Andaman & Nicobar Islands; at many places over Vidarbha, East Madhya Pradesh, Telangana, Nagaland, Manipur, Mizoram & Tripura & Lakshadweep; at a few places over Arunachal Pradesh, Rayalaseema and Bihar and at isolated places over Saurashtra & Kutch, East Rajasthan, Himachal Pradesh, East Uttar Pradesh, West Madhya

Pradesh, Marathawada, Konkan & Goa, North interior Karnataka and Rayalaseema.

- Heavy rainfall observed at isolated places over Jharkhand.
- Thunderstorm observed (from 1130 hours IST of yesterday to 0530 hours IST of today): at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad Uttarakhand, East Uttar Pradesh, Rajasthan, Gujarat Region, Madhya Pradesh, Vidarbha, Marathwada, Madhya Maharashtra, Bihar, Jharkhand, Gangetic west Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema, North Interior Karnataka, Kerala & Mahe and Coastal Andhra Pradesh & Yanam.
- Maximum Temperature Departures as on 23-07-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over East Rajasthan and Gujarat region; at many places over West Madhya Pradesh; at a few places over East Madhya Pradesh, South Interior Karnataka and Saurashtra & Kutch; and at isolated places over Madhya Maharashtra; above normal (1.6°C to 3.0°C) at most places over Coastal Karnataka, Kerala & Mahe and Konkan & Goa; at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad and West Rajasthan; at a few place over Himachal Pradesh and Lakshadweep; and at isolated places over East Uttar Pradesh, Andaman & Nicobar Islands and Vidarbha. They were markedly below normal (- 5.1°C or less) at many places over Telangana; appreciably below normal (-3.1°C to -5.0°C) at a few places over Coastal Andhra Pradesh & Yanam; below normal (-1.6°C to -3.0°C) at many places over Odisha; at a few places over Bihar and Gangetic West Bengal and at isolated places over Assam & Meghalaya and were near normal over rest parts of the country. Yesterday, the highest maximum temperature of 39.9°C was reported at Barmer (West Rajasthan).
- Minimum Temperature Departures as on 23-07-2020: Minimum temperatures were above normal (1.6°C to 3.0°C) at most places over Gujarat Region and Lakshadweep; at many places over East Rajasthan and Kerala & Mahe; at a few places over West Rajasthan, Saurashtra & Kutch, West Madhya Pradesh, Karnataka and Coastal Andhra Pradesh & Yanam; at isolated places over Uttarakhand, East Madhya Pradesh, Bihar, Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar Islands. They were appreciably below normal (-3.1°C to -5.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; at isolated places over Telangana; below normal (-1.6°C to -3.0°C) at many places over Odisha and Gangetic West Bengal; at a few places over Himachal Pradesh; at isolated places

over Haryana, Chandigarh & Delhi, West Uttar Pradesh, Jharkhand and Assam & Meghalaya and were near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 18.0°C reported at Chandrapur (Vidarbha) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 24 July (Day 1): Heavy rainfall at isolated places very likely over Uttarakhand, East Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat State, Konkan & Goa, Madhya Maharashtra, Marathwada, Telangana, Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightening very likely at isolated places over West Madhya Pradesh, Vidarbha, Jharkhand, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Southeast Arabian sea, Lakshadweep-Maldives areas and along & off Kerala-Karnataka coasts. Fishermen are advised not to venture into Sea over these areas.
- 25 July (Day 2): Heavy rainfall at isolated places very likely over Uttarakhand, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Gujarat State, Konkan & Goa and Madhya Maharashtra. Thunderstorm accompanied with lightening very likely at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan and Jharkhand. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Eastcentral Arabian sea and along & off Maharashtra coast. Fishermen are advised not to venture into Sea over these areas.
- 26 July (Day 3): Heavy to very heavy rainfall at isolated places likely over East Uttar Pradesh and Sub-Himalayan West Bengal & Sikkim; heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, West Uttar Pradesh, East Rajasthan, Madhya Pradesh, Andaman & Nicobar Islands, Assam & Meghalaya, Gujarat State and Konkan & Goa. Thunderstorm accompanied with lightning likely at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Eastcentral Arabian sea and along & off Maharashtra coast. Fishermen are advised not to venture into Sea over these areas.

- 27 July (Day 4): Heavy to very heavy rainfall at isolated places likely over East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya; heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Madhya Pradesh, Bihar, Andaman & Nicobar Islands and Arunachal Pradesh. Thunderstorm accompanied with lightning likely at isolated places over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya. Strong Wind (speed reaching 50-60 kmph) likely over Southwest Arabian Sea. Fishermen are advised not to venture into Sea over these areas.
- 28 July (Day 5): Heavy to very heavy rainfall at isolated places likely over East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim , Arunachal Pradesh and Assam & Meghalaya; heavy rainfall at isolated places over Konkan & Goa, Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Madhya Pradesh, Bihar, Andaman & Nicobar Islands and Arunachal Pradesh. Thunderstorm accompanied with lightning likely at isolated places over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya. Strong Wind (speed reaching 50-60 kmph) likely over Southwest Arabian Sea. Fishermen are advised not to venture into Sea over these areas.
- The weather outlook for seven days i.e., 24 July to 01 Aug 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)

Himachal Pradesh

Weather condition:

The maximum ranged between 28.0 to 29.5 °C C which was above normal by 2.1 to 3.6 °C except 22nd July and minimum temperature ranged between 16.5 to 20.0 °C which was below normal by 0.7 to 3.3 °C. 107.0 mm rainfall was received during the week against the normal of 161.9 mm. The relative humidity varied between 77-95% and sunshine hours between 0-7 hrs/day with variable sky conditions (Octa 5-8). The evaporation rate varied 1.5-3.9 mm per day.

Contingency measure:

- *KHARIF CROPS RICE NURSERY*: Farmers are advice to transplant 20-25 days old paddy seedling in prepared fields. Farmers are advised to make bund for conserving rain water in the field. Bund should be higher and wider so that more rain water can be conserved in the field. Monitor Paddy nursery for rice blast if seen the advised recommended chemical. Also monitor the color of the plants in nursery, if it is yellow, it may lack iron element. If the upper leaves of plants are yellow and the

bottom is green, then it shows deficiency of iron element. For this, spray 0.5% ferrous sulphate +0.25% lime solution when the sky is clear. Prepare for transplantation of paddy. Make proper bunds for water conservation in the rice field. Hoeing and weeding should be done in all *Kharif* crops, it improves the root growth and save the water consumption. At places where maize crop is 2 or 3 weeks old, time for weeding.

- GENERAL PRACTICES: In view of the rain, the farmer should prepare field bunds which should be high. Advised to add FYM, compost (manure compost, compost) to increase the water holding capacity and nutrients. Heavy rainfall expected ensure proper drainage in the field Farmers are also advised to increase the amount of potash it helps in minimizing the losses due to the moisture stress. In rain fed areas, use of mulches is beneficial for conservation of moisture in the soil.
- STORED GRAINS: Weather is conducive for attack of stored grains pests like rice weevil, lesser grain borer and rice moth. In Grain store bins put one pouch of cellphos (3g) or quickphos (12g) or Fumino pouch in a wet cloth in the middle of bin and keep the bin airtight for some time. Keep the grain storage air sealed Tuber moth affected potato should not be stored but should be buried in the pits outside the fields.
- FODDER CROPS: Advised to sowing of fodder maize along with cowpeas and soybean in irrigated areas. In mid hill regions one cut of berseem can be taken.
- PULSES: Complete the sowing of Kidney Beans (Rajmah) after seed treatment with recommended fungicides and rhizobium culture to prevent seed-borne diseases in the monsoon crop. Control weed in other pulses crops Advise *Kharif* pulses mung mash and Kulthi sowing. Ensure spray for weed control, Soybean and cowpeas sowing is advised.
- TOMATO, CHILLI, CAPSICUM AND BRINJAL: Shoot and fruit borer in brinjal and tomato crops expected, infested fruits and shoots should be collected and buried inside the soil. Installation of bird perches in tomato, pea, brinjal and gram crops is advised to control fruit borer insect. Installation of pheromone trap @ 2-3 traps per acre of crop field is advised for monitoring the fruit borer. Constant monitoring of the chilli crop against attack of mites is advised.
- POLY HOUSE AGRICULTURE: Open the side and top for temperature control. During rains top and side bent should be closed Mites expected in polyhouse spray recommended chemical .Donot harvest vegetable atleast for seven days of the spray.Sowing of green coriander, raddish turnipIn Tomato and capsicum crops do provide support with ropes.

- **TEA:** Advised lopping of tree for more sunlight for higher productivity and picking in tea at 8-9 days interval to maintain the quality and productivity. Monitor for mites and Milli bug in the orchards, spray recommended chemicals.
- **AGRO FORESTRY:** Transplant after onset of monsoon babul, subabul, khair, amla and prosopis nursery plant green in polythene bags. The saplings of eucalyptus and bamboo can also be transplanted.
- **LIVESTOCK:** Ecto-parasite attack is expected in this weather for control spray Butox @ 2ml per litre in cowshed Give mixture of hay & green fodder. Ensure cleanliness in cows having advanced pregnancy to avoid mastitis. Monitor the animals for FMD and advised Protect calves against parasites, get them dewormed with piperazine liquid @ 4 ml/kg body weight, first at 10 days of age, then 15 days and then monthly upto three months of age and then quarterly upto one year of age.
- **POULTRY:** Temperature is rising, so ensure proper ventilation in poultry houses and protect birds from heavy rains. Make sure to deworm your older flocks every month against round-worms. Replace the poultry houses with fresh litter and keep the houses clean and ensure drinking water to the birds. Increase protein by 2% in poultry diet. Ensure vaccination against Ranikhet disease.
- **HORTICULTURE:** The ensuing weather is conducive for the attack of leaf minor in new growth of citrus. For its control, spray recommended chemicals. The new growth appearing below bud union may be cut. Time for plantation of evergreen plants like Mango, litchi, guava, citru, laquat and amla For control citrus canker, spray malathion 10 ml or metasystox 10 ml per 10.1 water. Advised recommended spray of chemicals For planting new fruits, dig pits and leave them open so that harmful germs and weed seeds etc. are destroyed. Monitor pomegranate butterfly and fruit borer in pomegranate and lychee. Keep an eye on the mealybug pest. Treat peach leaf curls before flowering, create moisture in tree weeds in mangoes, kinnows, etc.
- **MUSHROOMS:** Maintain room temperature 18-22°C and relative humidity around 85% for successful cultivation of dingri.
- **WATER MANAGEMENT:** Farmers are advised make arrangement for storing rain water in pond made in the field. This water can be used for irrigation in the crops at suitable time during dry spell. Mulch material may also be arranged to use during dry spell Farmers are also advised to increase the amount of potash it helps in minimizing the losses due to the moisture stress during dry spell. In rain fed areas, use of mulches is beneficial for conservation of moisture in the soil. Farmers are advised to do proper arrangement for storing rain water at one portion in the field. This water can be used for irrigation in the crops at suitable time during dry spell.

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

24-07-2020/(0430 to 0457) GMT
24-07-2020/(1000 to 1027) IST

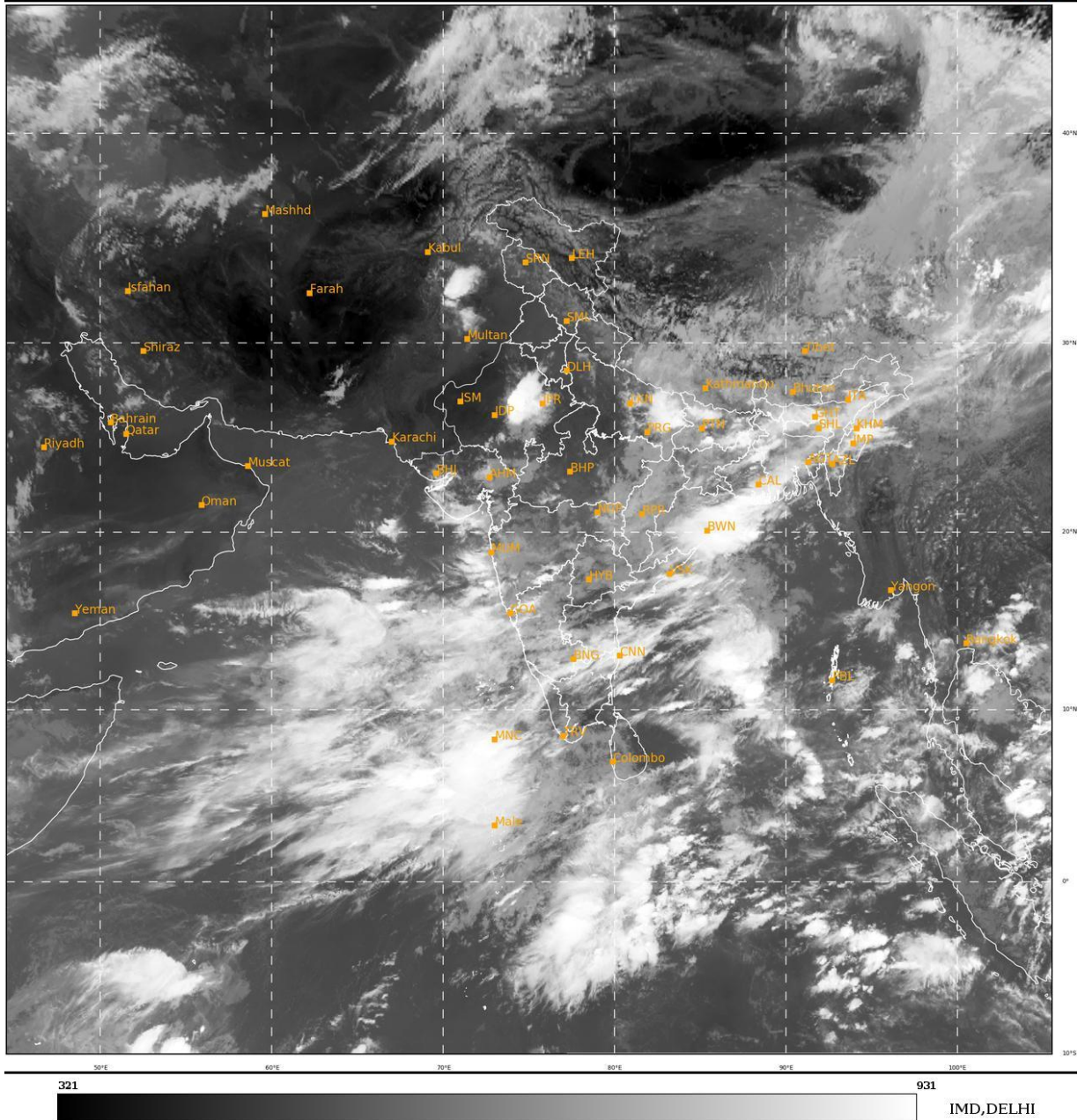


Figure: 1. Latest available satellite picture as on 24 July 2020 at 1027 Hrs (IST). (Source: IMD).

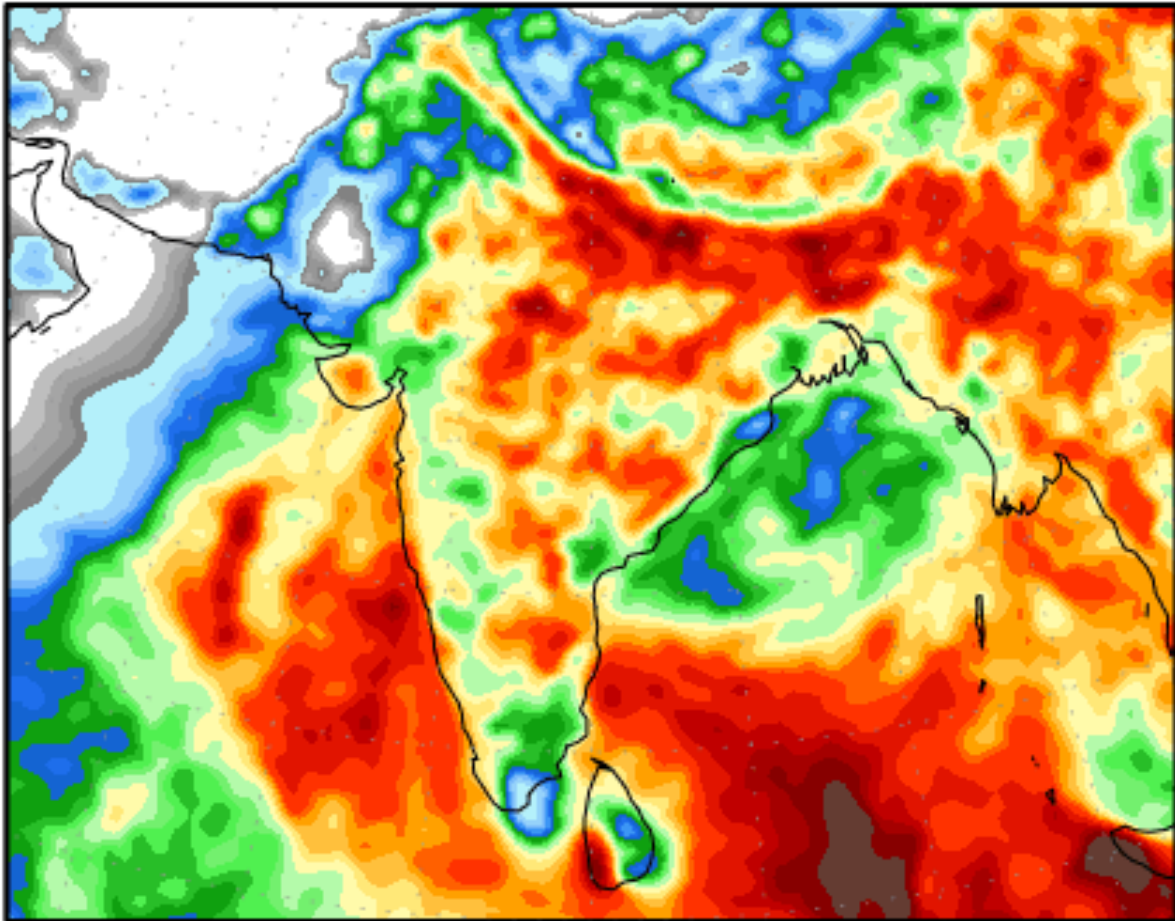


Figure:2. Precipitation forecast for 24 July to 01 Aug 2020 (Source: NOAA NCEP).

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