

All India Coordinated Research Project on Agrometeorology

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Daily Crop Weather Information as on 19 Jul 2021

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Significant Weather Features (IMD)

- The western end of monsoon trough at mean sea level continues to run close to its normal position and is likely to shift gradually northwards from 20th July. Its eastern end lies north of its normal position and is likely to continue there during next 2 days and shift southwards thereafter.
- Subsequently, a Low Pressure Area is likely to form over Northwest Bay of Bengal around 23rd July.
- An off-shore trough at mean sea level runs from Maharashtra coast to Karnataka coast. It is likely to persist during next 3-4 days.
- A shear zone runs along Lat. 17°N in middle tropospheric levels and likely to persist till 20th July. Under the influence of above system:
- Present spell of heavy to very heavy Rainfall activity is very likely to continue till 20th with fairly widespread to widespread rainfall with isolated heavy to very heavy falls very likely over Western Himalayan Region (Jammu, Kashmir & Ladakh, Himachal Pradesh and Uttarakhand) and adjoining northwest India (Punjab, Haryana, East Rajasthan, West Uttar Pradesh and northwest Madhya Pradesh). Decrease in rainfall activity over the same regions thereafter.
- Isolated extremely heavy falls very likely over Jammu Division, Himachal Pradesh, Uttarakhand and Haryana on 19th July and heavy to very heavy rainfall on 20th July over the same areas.
- Moderate rainfall at most places with isolated intense spells very likely over Delhi during next 24 hours.
- Widespread rainfall with isolated heavy to very heavy falls very likely to continue over west coast and adjoining inland areas during next 4-5 days. Isolated extremely heavy falls also very likely over Konkan & Goa & adjoining Ghat areas of Madhya Maharashtra on 19th and on 21st & 22nd July. Isolated heavy to very heavy rainfall over south Gujarat region on 19th July, 2021.
- Fairly Widespread to widespread rainfall with isolated heavy falls likely over east and adjoining central India on 22nd & 23rd July.

- Moderate to Severe thunderstorm with lightning very likely at isolated places over Uttar Pradesh, north Madhya Pradesh and East Rajasthan during next 24 hours.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over Jammu, Kashmir, Ladakh, GilgitBaltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Andaman & Nicobar Islands, Haryana, Chandigarh & Delhi, Uttar Pradesh, Karnataka, Konkan & Goa, Madhya Maharashtra, Marathwada, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe; at many places over Punjab, East Rajasthan, Bihar, Jharkhand, Gujarat, Vidarbha, Nagaland, Manipur, Mizoram & Tripura, Assam & Meghalaya, Rayalaseema and Telangana; at a few places over Chhattisgarh, Madhya Pradesh, Gangetic West Bengal, Odisha and Tamil Nadu, Puducherry & Karaikal and at isolated places over West Rajasthan and Lakshadweep.
- Heavy Rainfall recorded (from 0830 hours IST of yesterday to 0830 hours IST of today): Heavy to very heavy Rainfall with extremely heavy falls at isolated places over Konkan & Goa; heavy to very heavy rainfall at isolated places over Haryana, Chandigarh & Delhi, West Uttar Pradesh; heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, Punjab, East Uttar Pradesh, Bihar, Nagaland, Manipur, Mizoram & Tripura, Odisha, Chhattisgarh, Gujarat region, Coastal Karnataka, Madhya Maharashtra and Andaman & Nicobar Islands.
- Thunderstorm observed (from 1730 hours IST of yesterday to 0830 hours IST of today): at a few places over Coastal Andhra Pradesh & Yanam and Telangana; at isolated places over Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttarakhand, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Marathwada, West Rajasthan, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Assam Meghalaya, East Madhya Pradesh, Odisha, Chhattisgarh and North Interior Karnataka.
- Maximum Temperature Departures as on 18-07-2021: Maximum temperatures were markedly above normal (5.1°C or more) at Isolated places over Madhya Pradesh; appreciably above normal (3.1°C to 5.0°C) at many places over Odisha and Chhattisgarh; at a few places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Gangetic West Bengal, Gujarat Region and Vidarbha; at isolated places over Haryana, Chandigarh & Delhi and West Rajasthan; above normal

(1.6°C to 3.1°C) at a few places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Himachal Pradesh, Madhya Maharashtra and Telangana and at isolated places over Punjab, East Rajasthan, Saurashtra & Kutch and Andaman & Nicobar Islands. They were markedly above normal (5.1°C or more) at isolated places Uttar Pradesh; appreciably below normal (-3.1°C to -5.0°C) at many places over Coastal & South Interior Karnataka and Rayalaseema; at a few places over Kerala & Mahe and at isolated places over Tamilnadu, Puducherry & Karaikal; below normal (-1.6°C to -3.0°C) at many places over North Interior Karnataka; at a few places over Coastal Andhra Pradesh & Yanam and at isolated places over Konkan & Goa and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 42.5°C was reported at Ganganagar (West Rajasthan).

- Minimum Temperature Departures as on 19-07-2021: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at isolated places over West Rajasthan; above normal (1.6°C to 3.0°C) at many places over Gangetic West Bengal and Lakshadweep; at a few places over Himachal Pradesh, East Rajasthan, West Madhya Pradesh and Odisha; at isolated places over East Madhya Pradesh, Vidarbha and Sub-Himalayan West Bengal & Sikkim. They are below normal (-1.6°C to -3.0°C) at a few places over Tamilnadu, Puducherry & Karaikal; at isolated places over Haryana, Chandigarh & Delhi, Telangana and Coastal Andhra Pradesh & Yanam and near normal over rest parts of the country. Today, the lowest minimum temperature of 15.8°C reported at Coonoor (Tamilnadu).

Weather Warning during the next 5 days (IMD)

- 19 July (Day 1): Heavy to Very Heavy Rainfall at a few places with Extremely Heavy Falls at isolated places very likely over Konkan & Goa; heavy to Very Heavy Rainfall with Extremely Heavy Falls at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Haryana, Ghat Areas of Madhya Maharashtra; Heavy to Very Heavy Rainfall at isolated places over Punjab, West Uttar Pradesh, East Rajasthan, West Madhya Pradesh, SubHimalayan West Bengal & Sikkim and Gujarat region and Heavy rainfall at isolated places over East Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Telangana, Rayalaseema, Karnataka and ghat area of Tamil Nadu. Thunderstorm accompanied with lightning & Squall (40-50 kmph) very likely at isolated places over Andaman & Nicobar Islands; with lightning & gusty winds (30-40 kmph)

very likely at isolated places over Coastal Andhra Pradesh & Yanam and Telangana and with lightning at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema, Lakshadweep and Tamil Nadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over North Arabian Sea and along & off Gujarat-Maharashtra-Goa coasts; Southeast Arabian Sea and along & off Karnataka-Kerala coasts & Lakshadweep area; South Bay of Bengal & south Andaman Sea and along & off south Tamil Nadu coast. Fishermen are advised not to venture into these areas.

- 20 July (Day 2): Heavy to Very Heavy Rainfall at a few places very likely over Konkan & Goa; at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Madhya Maharashtra and Heavy rainfall at isolated places over Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat region, Coastal Karnataka, Kerala & Mahe and ghat area of Tamil Nadu. Thunderstorm accompanied with lightning & gusty winds (30-40 kmph) very likely at isolated places over Coastal Andhra Pradesh & Yanam and Telangana and with lightning at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema, Lakshadweep and Tamil Nadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over North Arabian Sea and along & off Gujarat-Maharashtra-Goa coasts; Southeast Arabian Sea and along & off Karnataka-Kerala coasts & Lakshadweep area; South & adjoining Central Bay of Bengal & south Andaman Sea and along & off south Tamil Nadu coast. Fishermen are advised not to venture into these areas.
- 21 July (Day 3): Heavy to Very Heavy Rainfall at a few places with Extremely Heavy Falls at isolated places very likely over Konkan & Goa; heavy to Very Heavy Rainfall with Extremely Heavy Falls at isolated places over Ghat Areas of Madhya Maharashtra; Heavy to Very Heavy Rainfall at isolated places over Odisha, Coastal Andhra Pradesh & Yanam and Coastal Karnataka and Heavy rainfall at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh,

Jharkhand, Gangetic West Bengal, Andaman & Nicobar Islands, Gujarat region, Telangana, South Interior Karnataka, Kerala & Mahe and ghat area of Tamil Nadu. Thunderstorm accompanied with lightning & gusty winds (30-40 kmph) very likely at isolated places over Coastal Andhra Pradesh & Yanam and Telangana and with lightning at isolated places over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands. Strong winds (speed 40-50 kmph gusting to 60 kmph) likely over North Arabian Sea and along & off Gujarat-Maharashtra-Goa coasts; South & adjoining Central Bay of Bengal & south Andaman Sea and along & off south Tamil Nadu coast. Fishermen are advised not to venture into these areas.

- 22 July (Day 4): Heavy to Very Heavy Rainfall at a few places with Extremely Heavy Falls at isolated places very likely over Konkan & Goa; heavy to Very Heavy Rainfall with Extremely Heavy Falls at isolated places over Ghat Areas of Madhya Maharashtra; Heavy to Very Heavy Rainfall at isolated places over Chhattisgarh, Telangana, Kerala & Mahe, Odisha, Coastal Andhra Pradesh & Yanam and Coastal Karnataka and Heavy rainfall at isolated places over Uttarakhand, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Jharkhand, Nagaland, Manipur, Mizoram & Tripura, Marathawada, Gujarat region, Interior Karnataka and ghat area of Tamil Nadu. Thunderstorm accompanied with lightning & gusty winds (30-40 kmph) likely at isolated places over Coastal Andhra Pradesh & Yanam and Telangana and with lightning at isolated places over Jharkhand, Sub-Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands. Strong winds (speed 40-50 kmph gusting to 60 kmph) likely over North Arabian Sea and along & off Gujarat-Maharashtra-Goa coasts; South & adjoining Central Bay of Bengal & south Andaman Sea and along & off south Tamil Nadu coast. Fishermen are advised not to venture into these areas.
- 23 July (Day 5): Heavy to Very Heavy Rainfall at a few places likely over Konkan & Goa; at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Ghat Areas of Madhya Maharashtra, Telangana, Coastal & South Interior Karnataka and Kerala & Mahe and Heavy rainfall at isolated places over Uttarakhand, East Rajasthan, West Madhya Pradesh, Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura, Gujarat region, Marathawada, Coastal Andhra Pradesh & Yanam, Rayalaseema, North Interior Karnataka and ghat area of Tamil Nadu. Thunderstorm accompanied with lightning & gusty winds (30-40 kmph) likely at isolated places over Coastal Andhra Pradesh & Yanam and Telangana and with lightning at isolated places over Jharkhand, Sub-

Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands. Strong winds (speed 40-50 kmph gusting to 60 kmph) likely over North Arabian Sea and along & off Gujarat-Maharashtra-Goa coasts; South & adjoining Central Bay of Bengal & south Andaman Sea and along & off south Tamil Nadu coast. Fishermen are advised not to venture into these areas.

- The weather outlook for seven days i.e., 19 Jul to 27 Jul 2021 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)

Assam

Weather condition:

Weather during the last week was mainly clear to cloudy. Daily average maximum temperature was 30.5°C which was 1.8°C below normal and the average daily minimum temperature was 24.8°C which was 0.2°C below normal for the week. Total BSSH was 8.9 hrs with an average of 1.3 hrs/day. The daily average evaporation rate was 1.8 mm/day and the average daily wind speed during the week was 2.7 kmph. Daily average RH during morning and afternoon hour was 97.7% and 87.0%, respectively.

Contingency measure:

- Sali rice (Main field preparation): Farmers may continue main field preparation by thoroughly ploughing the field 4 to 5 times followed by harrowing and laddering. Apply FYM or compost @ 13 quintals in per bigha land and mix thoroughly. During final land preparation apply recommended fertilizer dose Urea, SSP and MOP at the rate of 18kg, 17kg and 9kg for semi dwarf varieties and 6kg, 8kg and 2kg for tall varieties. To control infestation of stem borers in the sali rice seedlings in nursery bed, spray Fipronil @ 7.5 ml per 10 lit of water under fair weather condition. Before transplanting in main field go for root dip treatment by uprooted seedlings in a solution of Flubendiamide or Chlorpyrifos (1 ml/lit of water) along with 10 g urea for 3 hours as a protective measure against stem borer, gall midge and hoppers.
- Sugarcane (Grand growth phase): To prevent lodging in sugarcane crops during this rainy season, it is advised to provide with mechanical support to the canes by using bamboo sticks or by tying up the leaves of 4-5 canes together.
- Summer vegetables (Plant protection measures): To control fruit and shoot borer and Jassids pests infestation in Okra crop, apply spray of solution of Malathion @ 2ml/ lit water during fair weather condition. In addition, high humidity coupled

with light to moderate level of rainfall during the past week may cause incidence of fruit fly and leaf hopper in gourds. As a preventive measure, prepare a solution of Emamectin Benzoate 4.5g along with 100g jaggery mixed in 10 litres of water and spray thoroughly in the crops at an interval. However spraying may be withheld during the rainy weather condition.

- Sesamum (Land preparation): Sowing of sesamum seeds may be done from July to first fortnight of August. Maintain a spacing of 30cm and 15cm between rows and columns. Seed rate of 550g is recommended for sowing one bigha area. Before sowing, seeds should be treated with Carbendazim or Captan @ 2g per kg seeds against stem rot and phytophthora blight. To avoid losses, sowing operation may be done in fair weather only.
- Livestock (Various): To protect the goats and sheep from Contagious Ecthyma disease, immunize them at 6-8 weeks of age with vaccines after proper consultation with a veterinary doctor. Furthermore, in consultation with local veterinarian, care should be taken to provide proper de-worming medicine along with mixtures of essential body salts so as to cure the farm animals from appetite loss disorders.
- Fishery (various): Rise embankment of fish ponds so as to prevent the escape of fish during heavy rainfall causing a situation of deluge. For composite fish farming, 750 nos. of Rahu, 1000 nos. of Silver Carp, 750 nos. of Catla, 1000 nos. of Mrigal, 500 nos. of Grass Carp and 1000 nos. of Common Carp can be stocked in per hectare water area.



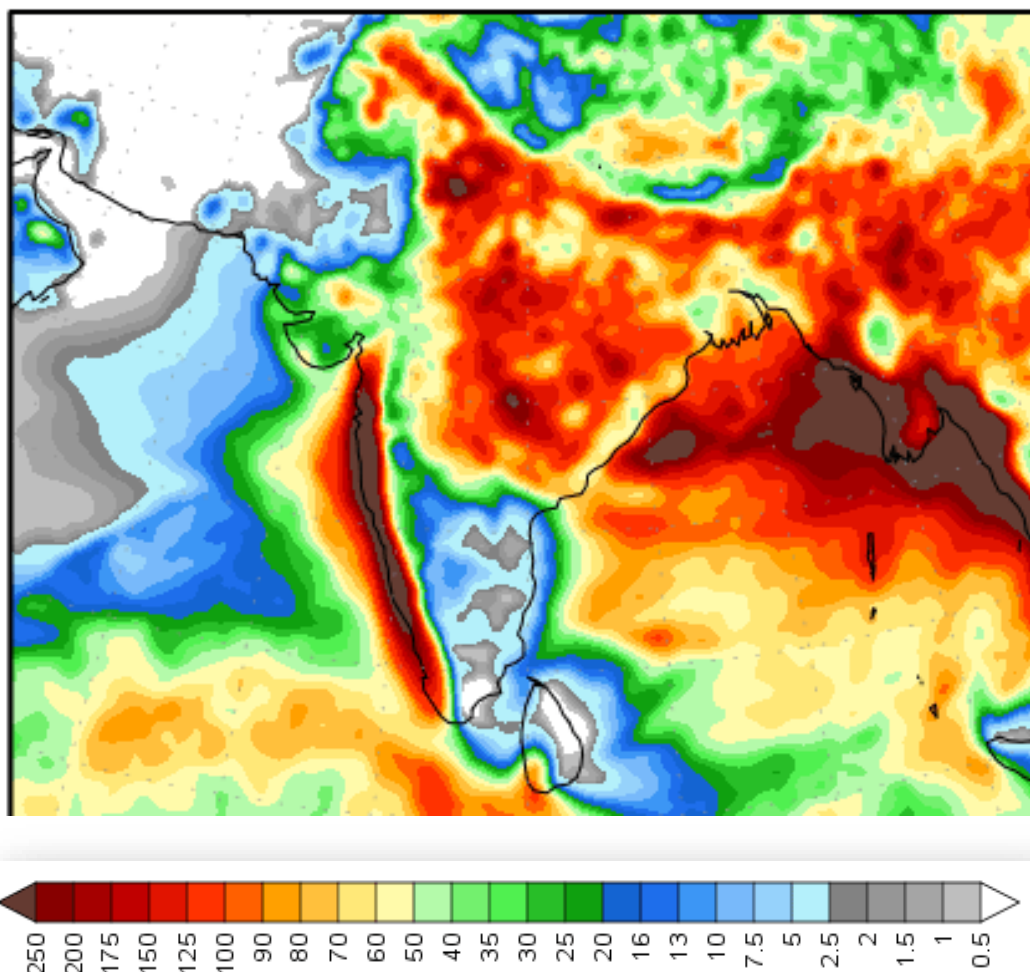


Figure:2. Precipitation forecast for 19 Jul to 27 Jul 2021 (Source: NOAA NCEP).

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