

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 20 Jul 2021

Attention: Rajiv Maheshwari, OSD, ICAR

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 today onwards. Its eastern end lies north of its normal position and is likely to continue there during next 24 hours 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. 18°N in middle tropospheric levels and likely to persist till today, the 20th July. Under the influence of above systems:
- Fairly widespread to widespread rainfall with heavy to very heavy falls at isolated places over Western Himalayan Region (Jammu, Kashmir & Ladakh, Himachal Pradesh and Uttarakhand) and adjoining plains of northwest India (Punjab, Haryana, Uttar Pradesh and northwest Madhya Pradesh) likely during next 24 hours and decrease in rainfall activity thereafter.
- 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 interior areas during next 4-5 days. Isolated extremely heavy falls also very likely over Konkan & Goa and adjoining Ghat areas of Madhya Maharashtra during 20th-23rd July. Isolated heavy rainfall over south Gujarat region till 23rd July which is likely to increase to isolated heavy to very heavy falls from 24th July.
- Fairly Widespread to widespread rainfall with isolated heavy to very heavy falls likely over east and adjoining central India during 22nd-24th July.
- Moderate to Severe thunderstorm with lightning very likely at isolated places over Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, 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, Haryana, Chandigarh & Delhi, Uttar Pradesh, Jharkhand, West Bengal & Sikkim, Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa and Coastal & South Interior Karnataka; at many places over Punjab, West Madhya Pradesh, Vidarbha, Bihar, Arunachal Pradesh, Assam & Meghalaya, Gujarat Region, Madhya Maharashtra, Marathwada, Lakshadweep and Kerala & Mahe; at a few places over East Rajasthan, East Madhya Pradesh, Chhattisgarh, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and at isolated places over West Rajasthan and Tamil Nadu, Puducherry & Karaikal.
- Heavy Rainfall recorded (from 0830 hours IST of yesterday to 0830 hours IST of today): Extremely heavy rainfall at isolated places over Uttarakhand, Haryana, West Uttar Pradesh and Konkan & Goa; very heavy Rainfall at isolated places over Punjab, East Uttar Pradesh, East Rajasthan, Gujarat Region, Madhya Maharashtra, West Bengal & Sikkim, Andaman & Nicobar Islands and South Interior Karnataka and heavy rainfall at isolated places over Jammu, Himachal Pradesh, Delhi, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Odisha and Coastal Karnataka.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Bihar, Jharkhand, West Bengal & Sikkim, Assam Meghalaya, Vidarbha, Coastal Andhra Pradesh & Yanam, Odisha, Coastal Karnataka and East Madhya Pradesh.
- Maximum Temperature Departures as on 19-07-2021: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at many places over Odisha; at a few places over Chhattisgarh and East Madhya Pradesh; at isolated places over Gangetic West Bengal; above normal (1.6°C to 3.1°C) at a few places over Assam & Meghalaya, West Madhya Pradesh, Vidarbha and Kerala & Mahe and at isolated places over Gujarat region, Telangana, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal. They were markedly below normal (-5.1°C or less) at most places over Haryana, Chandigarh & Delhi; at isolated places over East Rajasthan and West Uttar Pradesh; appreciably below normal (-3.1°C to -5.0°C) at many places over Punjab, Himachal Pradesh and Uttarakhand; at isolated places over West Rajasthan and North Interior Karnataka; below normal

(-1.6°C to -3.0°C) at many places over Konkan & Goa and Andaman & Nicobar Islands; at a few places over Madhya Maharashtra and Coastal Karnataka and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 40.8°C was reported at Ganganagar (West Rajasthan).

- Minimum Temperature Departures as on 20-07-2021: Minimum temperatures are above normal (1.6°C to 3.0°C) at many places over Sub-Himalayan West Bengal & Sikkim; at a few places over East Rajasthan, Arunachal Pradesh, Bihar, Odisha, Kerala & Mahe and Lakshadweep; at isolated places over Madhya Pradesh, Jharkhand, Assam & Meghalaya, Saurashtra & Kutch, Telangana and Coastal Andhra Pradesh & Yanam. They are below normal (-1.6°C to -3.0°C) at a few places over Haryana, Chandigarh & Delhi; at isolated places over West Uttar Pradesh, Madhya Maharashtra, Coastal & South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country. Today, the lowest minimum temperature of 18.6°C was reported at Bidar (North Interior Karnataka) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 20 July (Day 1): Heavy to Very Heavy Rainfall with Extremely heavy falls at isolated places very likely over Konkan & Goa; Heavy to Very Heavy Rainfall at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, Andaman & Nicobar Islands and ghat areas of Madhya Maharashtra and Heavy rainfall at isolated places over Jammu & Kashmir, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat region and Coastal & South Interior Karnataka. Moderate rainfall at most places with isolated intense spells very likely over Delhi. Thunderstorm accompanied with lightning very likely at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, north Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema, Coastal Andhra Pradesh & Yanam, Telangana and Tamil Nadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest & Westcentral Arabian Sea; 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 Gulf of Mannar. Fishermen are advised not to venture into these areas.

- 21 July (Day 2): 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 and Coastal Andhra Pradesh & Yanam and Heavy rainfall at isolated places over Himachal Pradesh, Uttarkhand, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Andaman & Nicobar Islands, Gujarat region, Telangana, Coastal & South Interior Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning very likely at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttar Pradesh, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema, Coastal Andhra Pradesh & Yanam, Telangana and Tamil Nadu, Puducherry & Karaikal. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest & Westcentral Arabian Sea; North Arabian Sea and along & off GujaratMaharashtra-Goa coasts; Southeast Arabian Sea and along & off Karnataka-Kerala coasts & Lakshadweep area; South & adjoining Central Bay of Bengal & south Andaman Sea, Gulf of Mannar and Tamil Nadu-south Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.
- 22 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 Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam, Telangana and Coastal & South Interior Karnataka and Heavy rainfall at isolated places over Uttarkhand, Uttar Pradesh, Jharkhand, Gangetic West Bengal, Nagaland, Gujarat region, Marathwada, Rayalaseema, North Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning very likely at isolated places over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Rayalaseema, Coastal Andhra Pradesh & Yanam and Telangana. Strong winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest & Westcentral Arabian Sea; North Arabian Sea and along & off GujaratMaharashtra-Goa coasts; Southeast Arabian Sea and along & off Karnataka-Kerala coasts & Lakshadweep area; South & adjoining Central Bay of Bengal & south Andaman Sea, Gulf of Mannar and Tamil Nadu-south Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.

- 23 July (Day 4): Heavy to Very Heavy Rainfall at a few places with Extremely Heavy Falls at isolated places likely over Konkan & Goa; Heavy to Very Heavy Rainfall at isolated places over Madhya Pradesh, Chhattisgarh, Ghat Areas of Madhya Maharashtra, Telangana and Coastal & South Interior Karnataka and Heavy rainfall at isolated places over East Rajasthan, Vidarbha, Gangetic West Bengal, Odisha, Nagaland, Gujarat region, Marathwada, Coastal Andhra Pradesh & Yanam, North Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning likely at isolated places over Uttar Pradesh, Rajasthan, Jharkhand, Andaman & Nicobar Islands, Rayalaseema, Coastal Andhra Pradesh & Yanam and Telangana. Strong winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest & Westcentral Arabian Sea; 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, Gulf of Mannar and Tamil Nadu-south Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.
- 24 July (Day 5): Heavy to Very Heavy Rainfall at isolated places likely over Gujarat region and Konkan & Goa and Heavy rainfall at isolated places over Rajasthan, Madhya Pradesh, Chhattisgarh, Odisha, Madhya Maharashtra, Telangana, Coastal & South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Thunderstorm accompanied with lightning likely at isolated places over Uttar Pradesh, Rajasthan, Andaman & Nicobar Islands, Rayalaseema, Coastal Andhra Pradesh & Yanam and Telangana. Strong winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest & Westcentral Arabian Sea; 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, Gulf of Mannar and Tamil Nadu-south Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.
- The weather outlook for seven days i.e., 20 Jul to 28 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)

Maharashtra-Vidarbha

Weather condition:

Weekly average means (28 MW) at AICRPAM Akola centre: T max 30.9°C (normal 32.6°C), T min 23.6°C (normal 24.1°C). RH I 93 % (normal 82 %), RH II 70 % (normal 59 %). Evaporation rate 2.3 mm (normal 5.6 mm), Wind 2.4 km/hr (normal 10.7 km/hr) and BSH 3.2 hrs (normal 4.0 hrs). Maximum temperature across the week was 1.7°C below normal with a deviation of -5.1 to +1.2°C from normal. Minimum temperature across the week 0.4° below normal with a deviation of -0.5 to +0.5°C from normal.

Contingency measure:

- Block level forecast (Akola) indicates light to moderate rainfall during 15-19 July. Warning includes thunderstorm with lightning very likely to occur at isolated during 15-16 July. Taking advantage of realized rainfall during past week and further forecast of scattered to fairly widespread light to moderate rainfall in next three days, complete remaining kharif sowings immediately judging a clear weather. Seed treatment is advisable at the time of sowing with bio-fungicide and crop specific bio-fertilizer.
- In earlier sown kharif crops undertake inter culture operation (weeding/hoeing) during clear weather, for management of weeds and improved soil aeration. For weed control in earlier sown soybean and cotton, alternative option of recommended early post emergence herbicidal spray (with label claim) at proper stage should be undertaken only during clear weather. In view of sufficient to excess realized widespread rainfall last three days, immediately drain out excess water from orchards, standing crops and vegetable fields. With realized rainfall past week and further forecast of fairly widespread to widespread light to moderate rainfall next three days complete remaining cotton sowings immediately, judging a clear weather. Use recommended early duration cotton varieties/hybrids preferably. Feasible risk minimizing intercropping systems include cotton + greengram/blackgram (1:1), cotton + sorghum + pigeon pea + sorghum (3:1:1:1/6:1:1:1/9:1:1:1), cotton+ soybean+ pigeonpea+ soybean (3:2:2:2).
- With realized rainfall past week and further forecast of fairly widespread to widespread light to moderate rainfall next three days complete remaining pigeonpea sowing immediately, judging a clear weather. Recommended varieties include PKV-Tara, BSMR-736, BSMR-853, Asha. Under delayed sowing (beyond July 7), as far as possible avoid sowing of greengram and blackgram as sole crop, instead include them as intercrop with higher seed rate. Judging a clear weather remaining sorghum sowing can be completed preferably with early duration 100-105 days (CSH-14,CSH-17, CSH-30) and medium duration 110-115 days (CSH-35, SPH-1635,CSH-9) varieties. Feasible risk minimizing intercropping systems include sorghum + green gram/pigeon pea (3:3) and cotton + sorghum +

pigeonpea+sorghum (3:1:1:1).

- In mandarin and sweet orange orchards, dead twigs be removed and cut ends be smeared with bordeaux paste (1 kg lime+ 1 kg CuSo4 + 10 litre water). Also apply bordeaux paste at the base of the tree up to 1 m above ground level. During this month there is rapid spread of citrus canker in acid lime (lemon). Affected leaves, branches should be pruned and burnt. Spray copper oxychloride 180 g with streptocycline 6 g in 60 litres of water. Drain out excess water from waterlogged areas of vegetable field immediately. As forecast warning includes thunderstorm with lightning very likely to occur at isolated places, keep farm animals indoor during thunderstorm/lightning.

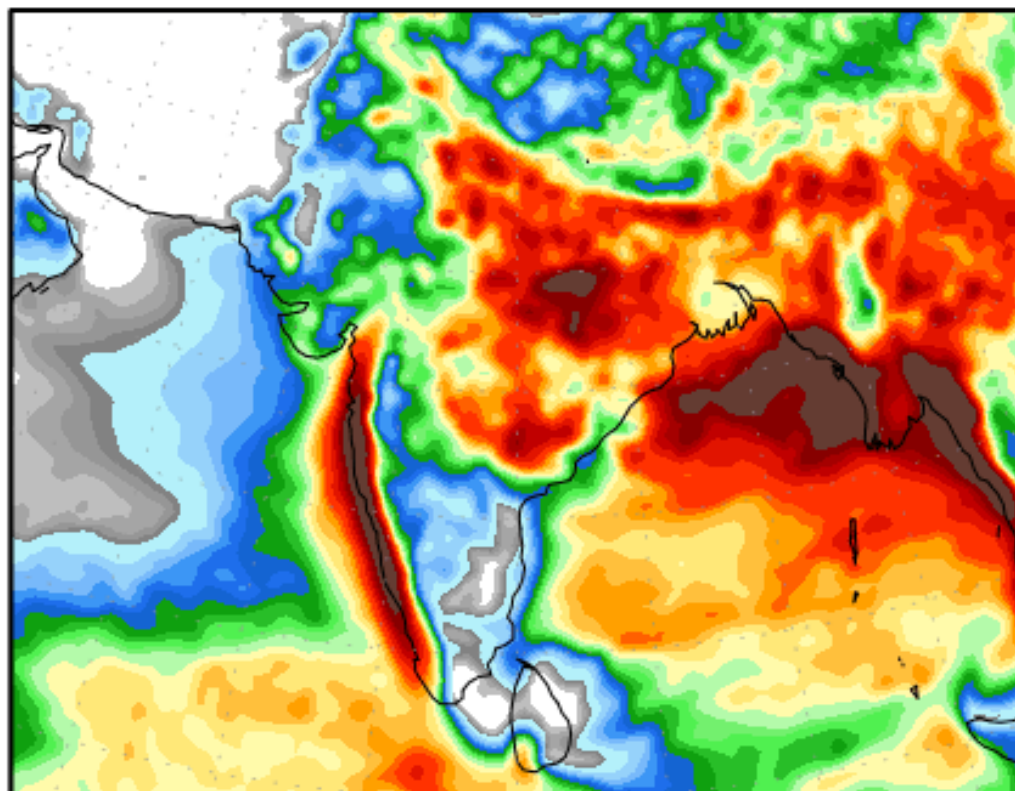


Figure:2. Precipitation forecast for 20 Jul to 28 Jul 2021 (Source: NOAA NCEP).

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