

All India Coordinated Research Project on Agrometeorology

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Daily Crop Weather Information as on 23 July 2019

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- At present, the major rainfall activity is mainly confined to south peninsular India and northeast India. Strong convergence of monsoon westerlies are likely to continue over the southern most states of Kerala, Karnataka and adjoining ghat districts of Tamil Nadu during next 24 hours causing widespread rainfall with isolated heavy to very heavy and extremely heavy falls during the period. Presence of monsoon trough across Sub-Himalayan West Bengal and Assam towards Nagaland is likely to cause widespread rainfall with isolated heavy to very heavy and extremely heavy falls over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Arunachal Pradesh during next 24 hours.
- The monsoon trough is very likely to shift southwards from its current position and deepen gradually from tomorrow. In this scenario, the rainfall activity is very likely to increase over central India, adjoining northern parts of peninsular India and also along the northern plains from 24th July for the subsequent 3-4 days. Hence fairly widespread to widespread rainfall with isolated heavy falls are likely over Madhya Pradesh, Chhattisgarh, Odisha, Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab, Rajasthan, Maharashtra & Goa during this period.
- The images showing the latest satellite picture in figure. 1.

Main Weather Observations (IMD)

- Rain/Thunder showers observed (from 0830 hrs IST to 1730 hrs IST of yesterday): at most places over Coastal Karnataka, Arunachal Pradesh and Kerala & Mahe; at many places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Andaman & Nicobar Islands; at a few places over Bihar, Jharkhand, Madhya Maharashtra, South Interior Karnataka, Rayalaseema and Tamil Nadu, Puducherry & Karaikal and at isolated places over Himachal Pradesh, Jammu & Kashmir, Punjab, Uttar Pradesh, Rajasthan, East Madhya Pradesh, Vidarbha, Saurashtra & Kutch, Konkan & Goa, Chhattisgarh, Odisha, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam and North Interior Karnataka.

- Yesterday, heavy rainfall observed at a few places over Coastal Karnataka and at isolated places over Saurashtra & Kutch and Sub-Himalayan West Bengal & Sikkim.
- Thunder storm observed (from 0830 hours IST of yesterday to 0530 hours IST of day): at a few places over Sub-Himalayan West Bengal & Sikkim and at isolated places over Jammu & Kashmir, Uttarakhand, Rajasthan, West Madhya Pradesh, Saurashtra & Kutch, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Bihar, Jharkhand, Chhattisgarh, Odisha, Nagaland, Manipur, Mizoram & Tripura and Assam & Meghalaya.
- Maximum temperature departures as on 22-07-2019: Maximum temperatures were markedly above normal (5.1°C or more) at most places over West Madhya Pradesh; at many places over East Madhya Pradesh and Jharkhand; at a few places over Gangetic West Bengal and East Rajasthan; at isolated places over Chhattisgarh; appreciably above normal (3.1°C to 5.0°C) at many places over Uttarakhand, East Uttar Pradesh, Bihar, Odisha and Gujarat; at a few places over Himachal Pradesh, Marathwada and Telangana; at isolated places over West Uttar Pradesh and Madhya Maharashtra; above normal (1.6°C to 3.0°C) at most places over Jammu & Kashmir; at many places over Konkan & Goa; at a few places over North Interior Karnataka, Coastal Andhra Pradesh & Yanam and Andaman & Nicobar Islands; at isolated places over Nagaland, Manipur, Mizoram & Tripura. They were markedly below normal (-5.1°C or less) at isolated places over Tamil Nadu, Puducherry & Karaikal; appreciably below normal (-3.1°C to -5.0°C) at many places over Arunachal Pradesh; at isolated places over Assam & Meghalaya; below normal (-1.6°C to -3.0°C) at most places over Coastal Karnataka; at many places over Kerala & Mahe; at a few places over Sub-Himalayan West Bengal & Sikkim; at isolated places over Rayalaseema and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 41.2°C was recorded at Jaisalmer (West Rajasthan).
- Minimum temperature departures as on 22-07-2019: Minimum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Bihar and Sub-Himalayan West Bengal & Sikkim and at isolated places over East Rajasthan and East Madhya Pradesh; above normal (1.6°C to 3.0°C) at most places over Gangetic West Bengal; at many places over Uttarakhand, Punjab, West Rajasthan, West Madhya Pradesh and Jharkhand; at a few places over Jammu & Kashmir, Gujarat state, Vidarbha, Telangana, Odisha, Madhya Maharashtra and Coastal Andhra Pradesh & Yanam and at isolated places over Uttar Pradesh, Chhattisgarh and Tamil Nadu, Puducherry & Karaikal. They were below normal (-1.6°C to -3.0°C) at a few places over Himachal Pradesh and isolated places over Assam & Meghalaya and near normal over rest parts of the country.

Weather Warning during next 5 days (IMD)

- 23 July (Day 1): Heavy to very heavy rainfall very likely at a few places with extremely heavy falls at isolated places over Kerala & Mahe and Coastal Karnataka; Heavy to very heavy rainfall with extremely heavy falls at isolated places over South Interior Karnataka and Sub-Himalayan West Bengal & Sikkim; Heavy to very heavy rainfall at isolated places over Assam & Meghalaya, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal and heavy rainfall at isolated places over Arunachal Pradesh, Bihar, East Rajasthan, East Uttar Pradesh, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Rayalaseema, North Interior Karnataka and Lakshadweep. Thunder storm accompanied with lightning very likely at isolated places over north Rajasthan, Uttar Pradesh, Haryana, Chandigarh & Delhi, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand and Sub-Himalayan West Bengal & Sikkim. Strong winds, speed reaching 40-50 kmph, are likely to prevail over south Bay of Bengal and southwest & central Arabian Sea. Rough to very rough sea conditions along & off Goa-Karnataka-Kerala and south Tamil Nadu coasts and Andaman & Nicobar and Lakshadweep Islands. Fishermen are advised not to venture into these areas.
- 24 July (Day 2): Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Konkan & Goa; Heavy Rainfall at a few places with Very heavy falls at isolated places over Coastal Karnataka; Heavy to very heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim, Uttar Pradesh, Interior Karnataka and Kerala & Mahe and Heavy Rainfall at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bihar, Odisha, East Rajasthan, Haryana, Chandigarh & Delhi, Himachal Pradesh, Punjab, Uttarakhand, Madhya Pradesh, Madhya Maharashtra and Telangana. Thunderstorm accompanied with lightning very likely at isolated places over Odisha. Strong winds, speed reaching 40-50 kmph, are likely to prevail over southwest & west central Arabian Sea. Fishermen are advised not to venture into these areas.
- 25 July (Day 3): Heavy to very heavy rainfall with extremely heavy falls at isolated places likely over Konkan & Goa; Heavy to very heavy rainfall at isolated places over Nagaland, Manipur, Mizoram & Tripura, West Uttar Pradesh, Haryana, Chandigarh & Delhi, East Rajasthan and Madhya Maharashtra and heavy rainfall at isolated places over Assam & Meghalaya, Odisha, Gangetic West Bengal, East Uttar Pradesh, Jammu & Kashmir, Himachal Pradesh, Punjab, Uttarakhand, Chhattisgarh, Madhya Pradesh, Telangana, Karnataka and Kerala & Mahe. Strong winds, speed reaching 40-50 kmph, are likely to prevail over southwest & west central Arabian Sea. Fishermen are advised not to venture into these areas.
- 26 July (Day 4): Heavy to very heavy rainfall at isolated places likely over Konkan & Goa, Madhya Maharashtra, Haryana, Chandigarh & Delhi and East Rajasthan and heavy rainfall at isolated places over Assam & Meghalaya, Jharkhand, Odisha, West

Rajasthan, Uttar Pradesh, Jammu & Kashmir, Himachal Pradesh, Punjab, Uttarakhand, Chhattisgarh, Madhya Pradesh, Gujarat region, Telangana, Karnataka and Kerala & Mahe. Strong winds, speed reaching 40-50 kmph, are likely to prevail over southwest & west central Arabian Sea. Fishermen are advised not to venture into these areas.

- 27 July (Day 5): Heavy to very heavy rainfall at isolated places likely over East Rajasthan, northwest Madhya Pradesh, Konkan & Goa, Coastal Karnataka, Chhattisgarh and Odisha and heavy rainfall at isolated places over Haryana, Chandigarh & Delhi, Assam & Meghalaya, Gangetic West Bengal, Bihar, Jharkhand, East Uttar Pradesh, Vidarbha, Madhya Maharashtra and Interior Karnataka. Strong winds, speed reaching 40-50 kmph, are likely to prevail over southwest & west central Arabian Sea. Fishermen are advised not to venture into these areas.
- The weather outlook for the period of seven days *i.e.*, 23 to 31 July 2019 forecasted (*Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>*) rain/thunder shower may occur over Sub-Himalayan West Bengal & Sikkim, Bihar, Madhya Pradesh, Odisha, Konkan & Goa, Vidarbha, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh, Rayalaseema, North Interior Karnataka, Coastal & South Interior Karnataka, Kerala, Tamil Nadu & Puducherry, Lakshadweep, Andaman & Nicobar Islands and North Eastern States. (Fig. 2).

Agricultural activities (AICRPAM-CRIDA)

Tamil Nadu

Weather condition:

No rainfall received in isolated places in Tamil Nadu state during past few days. The maximum temperature was ranged between 36-39°C and minimum temperature was ranged between 24-29°C

Contingency measure:

- Horticulture crops - Cover the tree basin with mulch materials of previously harvested agricultural crops to conserve the soil moisture.
- Animal husbandry - Rainfall Carry out Butax spray for control of external parasites. Proper hygiene and sanitation of the animal shed. The fodder may be stored properly for future. Cotton - Boll bursting stage - Prevailing weather condition, Cotton aphid is noticed. To control spray Dimethoate 30 EC @500ml/ha or Acetamiprid 20% SP @50 g/ha.

- Transplanted irrigated sorghum - Vegetative stage - In the prevailing weather condition sucking pest - Thrips occurrence is noticed. Symptoms- Leaf shows discoloration and rolling. Yellow (or) silvery streaks on the leaves of young seedlings. Terminal rolling and drying of leaves from tip to base. Spray Azadirachtin 0.15% W/W 1500-2500 g/ha. (or) Thiamethoxam 25% WG 100 g/ha.
- Banana - All stage - Moderate rainfall is expected in coming days, open deep trenches between the plant rows for improving the drainage condition of the land. In the prevailing weather condition Wilt appearance is noticed. To control soil drenching of Carbendazim 0.1 per cent solution around the pseudostem at bimonthly intervals starting from five months after planting.
- Rice - Active Tillering & Panicle Initiation stage - In the prevailing weather condition Paddy stem borer incidence is noticed. ETL: 25% Dead heart symptoms. Farmers are advised to spray Neem seed kernel extract controls stem borer (or) Azadirachtin 0.03% 1000 ml/ha (or) insecticides Chlorpyrifos 20% EC 1.25 l/ha (or) Chlorantraniliprole 18.5% SC 150 ml/ha.
- Irrigated kharif pulse - Flowering stage - In the prevailing weather condition Yellow mosaic virus is noticed. spray Dimethoate 30 EC @500 ml / ha or Thiamethoxam 75 WS @1 g/ litre at rainless days

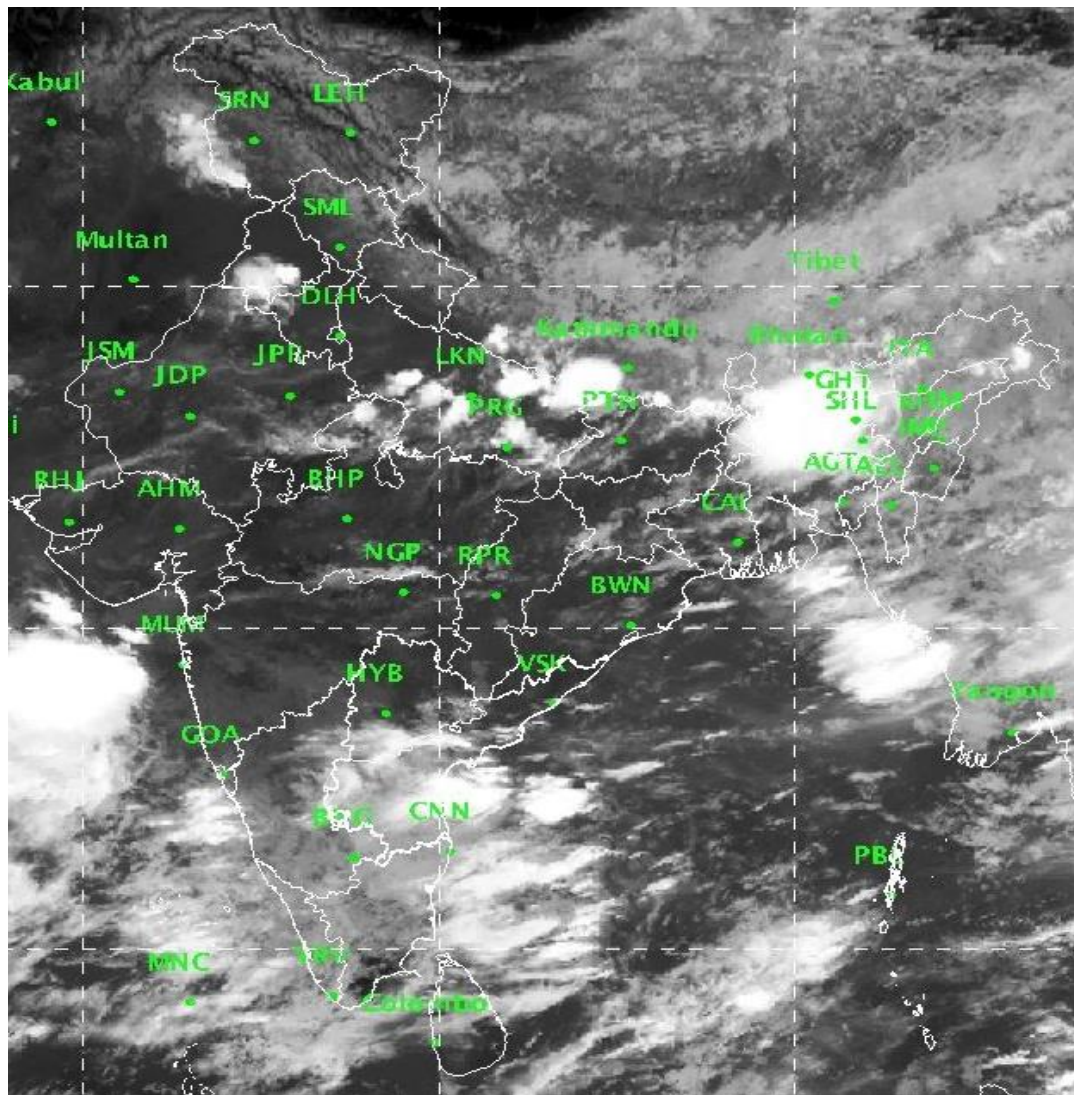


Figure: 1. Latest available satellite picture as on 20 July 2019 at 8:30 Hrs (IST).

(Source: IMD).

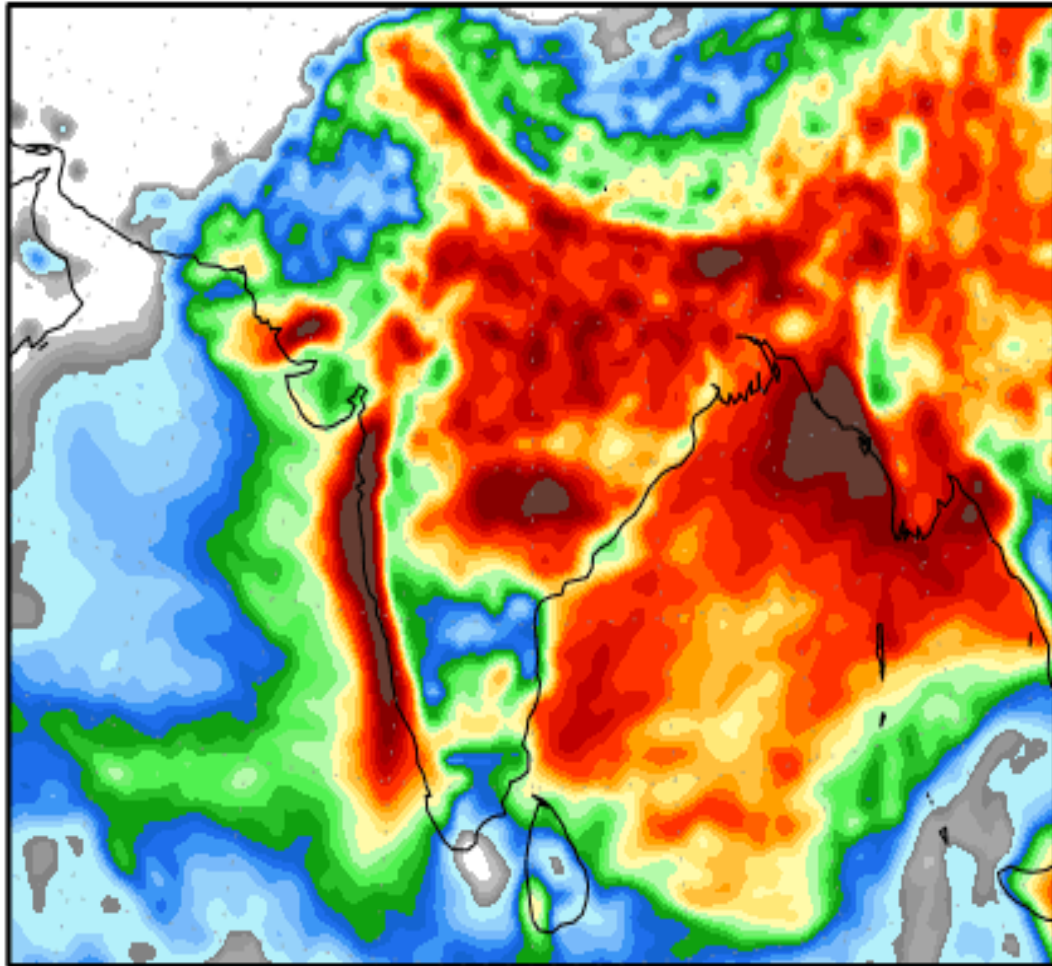


Figure: 2. Precipitation forecast for 23 to 31 July 2019 (Source: NOAA NCEP).