

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 22 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 48 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 48 hours.
- The monsoon trough is very likely to shift southwards from its current position and deepen gradually from 24th July. 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 of yesterday to 0830 hrs IST of today): at most places over Arunachal Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Saurashtra & Kutch, Konkan & Goa, Coastal Karnataka, Kerala & Mahe, Lakshadweep; at many places over Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, North Interior Karnataka; at a few places over Uttarakhand, East Uttar Pradesh, Himachal Pradesh, Jammu & Kashmir, Rajasthan, West Madhya Pradesh, Vidarbha, Andhra Pradesh & Yanam, Telangana, South Interior Karnataka and at isolated places over Gangetic West Bengal, Jharkhand, Bihar,

Odisha, West Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab, East Madhya Pradesh, Marathwada, Chhattisgarh, Tamil Nadu, Puducherry & Karaikal.

- Heavy to very heavy rainfall observed at a few places with extremely heavy falls at isolated places over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Kerala & Mahe and Coastal Karnataka. Heavy rainfall observed at isolated places over East Uttar Pradesh, Haryana, Chandigarh & Delhi, Assam & Meghalaya, Saurashtra & Kutch, East Rajasthan and Konkan & Goa.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Haryana, Chandigarh & Delhi, Rajasthan, Saurashtra & Kutch and Madhya Maharashtra.
- Maximum temperature departures as on 21-07-2019: Maximum temperatures were markedly above normal (5.1°C or more) at many places over West Rajasthan and West Uttar Pradesh; at a few places over East Rajasthan, Bihar and Gangetic West Bengal; appreciably above normal (3.1°C to 5.0°C) at most places over Jharkhand; at a few places over Himachal Pradesh, East Uttar Pradesh, Gujarat, Chhattisgarh and Odisha; at isolated places over Jammu & Kashmir, Madhya Maharashtra, Telangana and Nagaland, Manipur, Mizoram & Tripura; above normal (1.6°C to 3.0°C) at most places over Vidarbha; at many places over Sub-Himalayan West Bengal & Sikkim, Marathwada and Rayalaseema; at a few places over Punjab, Assam & Meghalaya and Tamil Nadu, Puducherry & Karaikal; at isolated places over West Uttar Pradesh. They were markedly below normal (-5.1°C or less) at many places over Arunachal Pradesh; below normal (-1.6°C to -3.0°C) at a few places over Coastal Karnataka and Lakshadweep; at isolated places over Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 42.8°C was recorded at Jaisalmer (West Rajasthan).
- Minimum temperature departures as on 22-07-2019: Minimum temperatures are 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 are 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)

- 22 July (Day 1): Heavy to very heavy rainfall very likely at a few places with extremely heavy falls at isolated places over Kerala & Mahe, Coastal Karnataka and Sub-Himalayan West Bengal & Sikkim; Heavy to very heavy rainfall with extremely heavy falls at isolated places over South Interior Karnataka and Assam & Meghalaya; Heavy to very heavy rainfall

at isolated places over Arunachal Pradesh, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal and heavy rainfall at isolated places over north Rajasthan, Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab, Gujarat state, south Madhya Maharashtra, Rayalaseema, North Interior Karnataka and Lakshadweep. Thunderstorm accompanied with lightning very likely at isolated places over north Rajasthan, Uttar Pradesh, Haryana, Chandigarh & Delhi, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Odisha and 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.

- 23 July (Day 2): 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. Thunderstorm 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 3): Heavy to very heavy rainfall with extremely heavy falls at isolated places 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 4): Heavy to very heavy rainfall with extremely heavy falls at isolated places 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 5): 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.
- The weather outlook for the period of seven days *i.e.*, 22 to 30 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)

Chhattisgarh

Weather condition:

Very light to moderate rainfall is received in Chhattisgarh state during past few days. The maximum temperature was ranged between 32-38°C and minimum temperature was ranged between 25-28°C.

Contingency measure:

- To select healthy seeds for rice crop, seeds should be kept in salt solution of 17%. After the bold seed have settled down, these should be taken out of water. The seeds should be washed with clean water, dried in shade and should be sown after seed treatment. Seed treatment of rice seeds can be done by Azotobacter 5 gm. PSB 5 gm. and Carbendazim (Bavistn) @ 1.5 gram per Kg. of seed. 3-4 weeks aged rice nursery should be transplanted after treatment with Carbofuran G. treatment @ 20 Kg./ acre of nursery and this application should be done 3-4 days before nursery uprooting. After that nursery uprooting should be done and transplanting

should be completed. The germination efficiency can be increased even in the rainless situation by line sowing method. For line sowing, tractor and bullock drawn plough can be hired from state Agricultural Engineering Dept. For control of narrow leaved and broad leaved weeds in rice crop under transplanted condition, Butachlor 3 litres + 500 litres of water should be sprayed within 7 days of transplanting. In line sowing direct seeded rice, Pre-emrgence herbicide like Pendimethalin should be sprayed @ 3 litres per ha. mixed in 500 litres of water. Proper bunding should be done of the rice fields. In rainless situation, seed rate should be increased by 25 percent. In the upland areas where rainfall has been less, rice crop early varieties like Tulsi, Aditya, Kalinga-3, Samleshwari, Vanprabha, Indira R-1 (Rajeshwari), Indira Barani Dhan-1 should be selected and sown in lines. The seeds of these varieties are available in Krishi Vigyan Kendras and research centre of IGKV. The areas where sowing has not been possible due to rainless situation, farmers are advised to go for sowing of moong (variety Pusa Vishal and HUM-1) and Urad crop (TU 94-2, TAU-2, KU 96-3, Indira Urad-1) etc. Apply nitrogenous fertilizer 7 days after transplanting. 11. Farmers are advised for transplanting of rice crop wherever irrigation facilities are available.

- Fruits & Vegetables: Looking to the present weather condition farmers are advised for planting of vegetable crops. Prepare seedlings for kharif vegetables. Seeds of pumpkin, bitter gourd and bottle guard should be sown by vegetable growers in the fields. Weed management should be done in Brinjal, Tomato, Lady finger and cauliflower.
- Animal husbandry: If cattle are not fed with wormicide medicine then cattle should be given (Panacur /albomore Nilzan/zenil @ 3 grams bolls and small cattle either should be fed 1.5 gram on empty stomach. New born calves should be given Piprazine salt/Helmicide medicine @ 30ml/ months up to 3 months. Dairy animal should not be allowed to suffer from rain drenching. Cattle shed should be kept dry as far as possible to prevent from foot rot disease. In case of gestric problem, cattle and buffaloes should be given Blotocil / Blotinofen @100 ml. For control of flies, cattle sheds flours should be cleared with phenyl water.

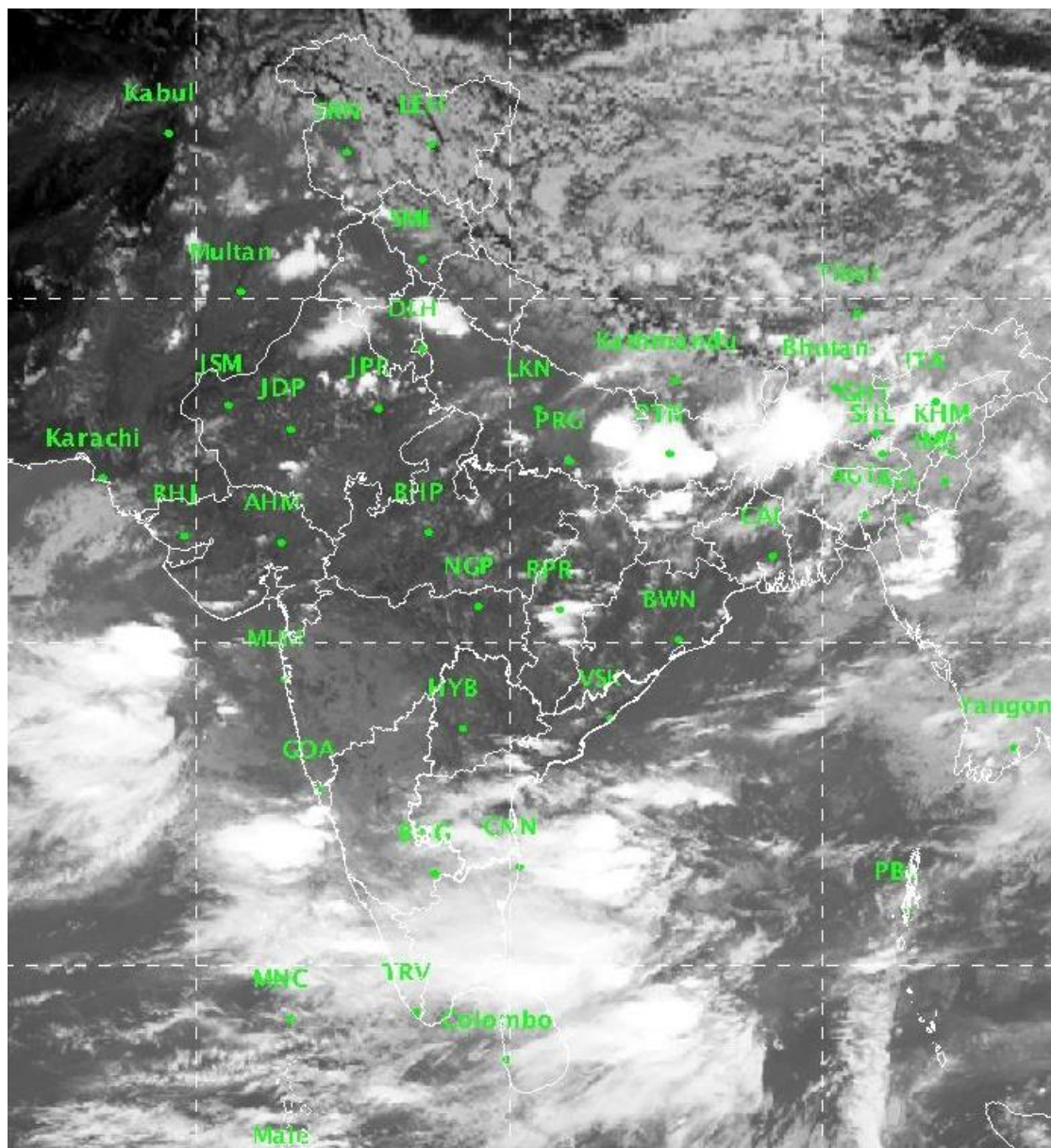


Figure: 1. Latest available satellite picture as on 22 July 2019 at 1300Hrs (IST).

(Source: IMD).

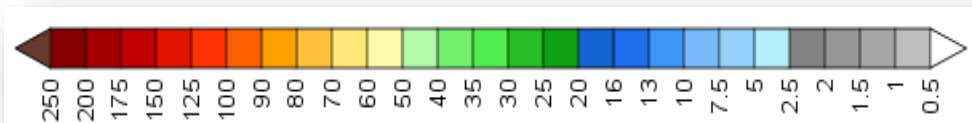
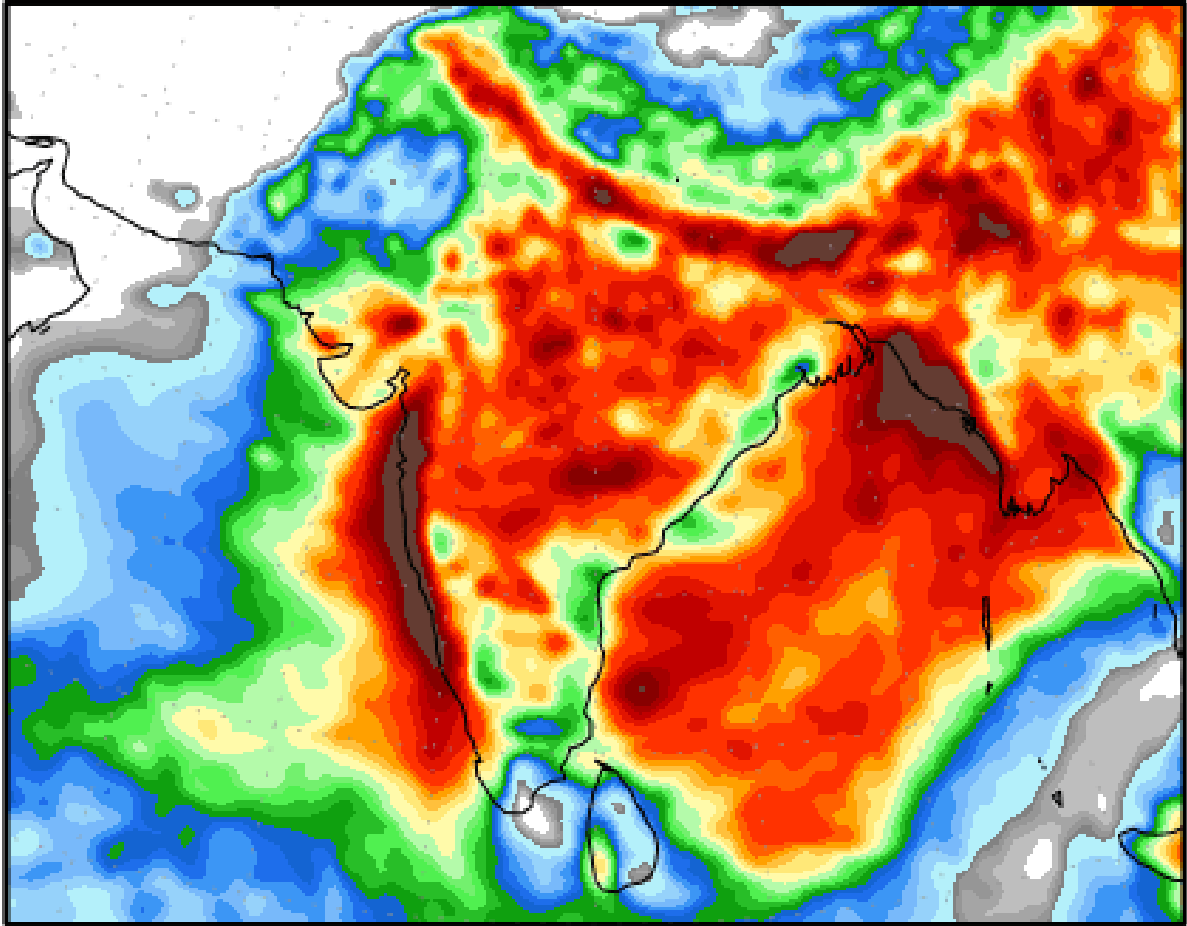


Figure:2. Precipitation forecast for 22 to 30 July 2019 (Source: NOAA NCEP).