

All India Coordinated Research Project on Agrometeorology

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Daily Crop Weather Information as on 12 June 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- Southwest Monsoon has further advanced into some more parts Madhya Maharashtra & Marathwada, remaining parts of Telangana, some parts of Vidarbha, some more parts of Chhattisgarh, remaining parts of Bay of Bengal, Arunachal Pradesh and Assam & Meghalaya, most parts of Odisha & West Bengal and entire Sikkim.
- The Northern Limit of Monsoon (NLM) now passes through Lat.18°N/Long.60°E, Lat.18°N/Long.70°E, Harnai, Baramati, Beed, Wardha, Raipur, Sambalpur, Baripada, Bardhaman, Siliguri, Lat.27°N/Long.87.5°E.
- Conditions are becoming favourable for further advance of Southwest Monsoon into some more parts of Central Arabian Sea, remaining parts of Maharashtra (including Mumbai), Odisha and West Bengal, some more parts of Chhattisgarh and some parts of south Gujarat State, south Madhya Pradesh, Jharkhand & Bihar during next 48 hours.
- The low pressure area over north Coastal Andhra Pradesh and adjoining Coastal Odisha & neighbourhood with associated cyclonic circulation extending upto 7.6 km above mean sea level, tilting southwestwards with height persists.
- Under the influence of this Low Pressure Area, scattered heavy to very heavy with isolated extremely heavy rainfall likely over Konkan & Goa and Isolated heavy to very heavy rainfall over Madhya Maharashtra, Marathawada, Coastal Andhra Pradesh & Yanam, North Interior Karnataka, Chhattisgarh, Telangana, Vidarbha, Assam & Meghalaya during next 24 hours; scattered heavy to very heavy with isolated extremely heavy rainfall likely over Vidarbha and Isolated heavy to very heavy rainfall over Coastal Karnataka, Madhya Maharashtra, Chhattisgarh, Telangana, Assam & Meghalaya during subsequent 24 hours.
- With the strengthening of the low level southwesterly flow along the west Peninsular coast of India isolated heavy to very heavy rainfall is likely over Coastal Karnataka during next 2 days.
- 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 Andaman & Nicobar Islands, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, West Bengal & Sikkim, Odisha, Konkan & Goa, Marathwada, Vidarbha, Chhattisgarh, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Karnataka and Kerala & Mahe; at many places over Jharkhand, Madhya Maharashtra and Lakshadweep; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Saurashtra & Kutch and West Madhya Pradesh; at isolated places over Bihar, Uttar Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Punjab, Rajasthan, East Madhya Pradesh, Gujarat Region and Tamil Nadu, Puducherry & Karikal.
- Heavy to very heavy rainfall recorded at isolated places over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Telangana and Konkan & Goa; heavy rainfall at isolated places over Odisha, West Madhya Pradesh, Marathwada, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka, Rayalaseema, Chhattisgarh and Kerala & Mahe.
- Thunderstorm observed (from 1730 hours IST yesterday to 0530 hours IST of today): at isolated places over Assam & Meghalaya, Uttarkhand, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, West Bengal & Sikkim, Rajasthan, Madhya Pradesh, Saurashtra & Kutch, Chhattisgarh, Jharkhand, Marathwada, Telangana, Coastal Karnataka, Odisha, Coastal Andhra Pradesh and Assam & Meghalaya.
- Maximum Temperature Departures as on 11-06-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at many places over Sub-Himalayan West Bengal & Sikkim; above normal (1.6°C to 3.0°C) at most places over West Rajasthan; at many places over Arunachal Pradesh; at a few places over Assam &, Saurashtra & Kutch, Kerala & Mahe, West Madhya Pradesh, Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura; They were appreciably below normal (-3.1°C to -5.0°C) at most places over Telangana, Rayalaseema and Coastal Andhra Pradesh & Mahe and at isolated places over Gujarat region and Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and below normal (-1.6°C to -3.0°C) at a few places over Marathawada, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Gangetic west Bengal and Jharkhand and at isolated places over East Uttar Pradesh, East Madhya Pradesh, Bihar, East Rajasthan, Punjab, Himachal Pradesh and Gujarat region and near

normal over rest parts of the country. Yesterday, the highest Maximum temperature of 44.8°C was reported at Bikaner (West Rajasthan).

- Minimum Temperature Departures as on 12-06-2020: Minimum temperatures are above normal (1.6°C to 3.0°C) at most places over Uttarakhand, SubHimalayan West Bengal & Sikkim and Lakshadweep; at many places over Haryana, Chandigarh & Delhi, Uttar Pradesh and Andaman & Nicobar Islands; at a few places over West Rajasthan; at isolated places over East Rajasthan. They are markedly below normal (-5.1°C or less) at isolated places over Telangana and Assam & Meghalaya; appreciably below normal (-3.1°C to -5.0°C) at most places over Marathwada; at a few places over Vidarbha; below normal (- 1.6°C to -3.0°C) at many places over Coastal Andhra Pradesh & Yanam; at a few places over Jammu & Kashmir, Ladakh, Gilgit- Baltistan, Muzaffarabad, Odisha and Rayalaseema; at isolated places over Madhya Pradesh, Chhattisgarh and Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country. The lowest minimum temperature of 19.0°C reported at Medak (Telangana) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 12 June (Day 1): Thunderstorm accompanied with lightning & gusty wind (speed reaching 30-40 kmph) very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit- Baltistan, Muzaffarabad, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan; with lightning at isolated places over Uttarakhand, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat State, Madhya Maharashtra, Marathwada, Konkan & Goa, Rayalaseema and Coastal Karnataka. 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 at Isolated places over Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha, Assam & Meghalaya, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana and Coastal & North Interior Karnataka and heavy rainfall at isolated places over Gangetic West Bengal, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema, South Interior Karnataka and Kerala & Mahe. Strong Wind (wind speed reaching 50-60 kmph) very likely over Southwest & adjoining Westcentral Arabian Sea; (wind speed reaching 40-50 kmph) over East central Arabian, along & off Karnataka-Goa-south Maharashtra Coasts, Central Bay of Bengal. Squally weather (wind speed reaching 40-50 kmph) along & off Andhra

Pradesh-Odisha coasts. Fishermen are advised not to venture into sea over these areas.

- 13 June (Day 2): Thunderstorm accompanied with lightning & gusty wind (speed reaching 30-40 kmph) very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit- Baltistan, Muzaffarabad, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan; with lightning at isolated places over Madhya Pradesh, Bihar, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat State, Rayalaseema and Coastal Karnataka. Heavy to very heavy rainfall at a few places with extremely heavy falls at isolated places very likely over Konkan & Goa; Heavy rainfall at a few places with very heavy to extremely heavy falls at isolated places over Vidarbha; heavy to very heavy rainfall at Isolated places over Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Madhya Maharashtra, Telangana and Coastal Karnataka and heavy rainfall at isolated places over Madhya Pradesh, Gangetic West Bengal, Odisha, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Gujarat State, Marathwada, Interior Karnataka and Kerala & Mahe. Heat wave conditions very likely at isolated places over West Rajasthan. Strong Wind (wind speed reaching 50-60 kmph) very likely over Southwest & adjoining Westcentral Arabian Sea; (wind speed reaching 40-50 kmph) over East central Arabian, along & off Karnataka-Goa-Maharashtra Coasts. Fishermen are advised not to venture into sea over these areas.
- 14 June (Day 3): Thunderstorm accompanied with lightning, hail & gusty wind (speed reaching 30-40 kmph) very likely at isolated places over Uttarakhand; with lightning & gusty wind (speed reaching 30-40 kmph) at isolated places over Uttar Pradesh and Rajasthan; with lightning at isolated places over Bihar, Jharkhand, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura. Heavy to very heavy rainfall very likely at a few places over Konkan & Goa; at isolated places over Sub-Himalayan West Bengal & Sikkim, Gujarat State, Madhya Maharashtra and heavy rainfall at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Odisha, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka and Kerala & Mahe. Heat wave conditions very likely at isolated places over West Rajasthan. Strong Wind (wind speed reaching 50-60 kmph) very likely over Southwest & adjoining Westcentral Arabian Sea; (wind speed reaching 40-50 kmph) over East central Arabian, along & off Karnataka-

Goa-Maharashtra Coasts. Fishermen are advised not to venture into sea over these areas.

- 15 June (Day 4): Thunderstorm accompanied with lightning & gusty wind (speed reaching 30-40 kmph) very likely at isolated places over Uttarakhand, Uttar Pradesh and Rajasthan; with lightning at isolated places over Bihar, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura. Heavy rainfall at a few places with very heavy falls likely at isolated places over Konkan & Goa; Heavy to very heavy rainfall at isolated places over Gujarat State and heavy rainfall at isolated places over Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Chhattisgarh, Andaman & Nicobar Islands, Assam & Meghalaya, Madhya Maharashtra, Coastal Karnataka and Kerala & Mahe. Heat wave conditions likely at isolated places over West Rajasthan. Strong Wind (wind speed reaching 50-60 kmph) very likely over Southwest & adjoining Westcentral Arabian Sea; (wind speed reaching 40-50 kmph) over East central Arabian, along & off Karnataka-Goa-Maharashtra Coasts. Fishermen are advised not to venture into sea over these areas.
- 16 June (Day 5): Thunderstorm accompanied with lightning & gusty wind (speed reaching 30-40 kmph) very likely at isolated places over Uttar Pradesh and Rajasthan; with lightning at isolated places over Uttarakhand, Bihar, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura. Heavy rainfall at isolated places likely over Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat State, Konkan & Goa, Coastal Karnataka and Kerala & Mahe. Heat wave conditions likely at isolated places over West Rajasthan. Strong Wind (wind speed reaching 50-60 kmph) very likely over Southwest & adjoining Westcentral Arabian Sea; (wind speed reaching 40-50 kmph) over East central Arabian, along & off Karnataka-Goa-Maharashtra Coasts. Fishermen are advised not to venture into sea over these areas.
- The weather outlook for seven days i.e., 12 to 20 June 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)

North Karnataka

Weather condition:

Partly cloudy condition with slightly high wind speed condition prevailed and light rainfall has been received at some places in the region during the previous week.

Contingency measure:

- Weather Based advisories: Plant Protection: As per the forecast given by the India Meteorological Department, light to moderate rainfall is expected at some places in the district during the next five days. Plant protection measures in horticultural may be taken up carefully in the morning hours, mixing adhesive gum in the spray mixture. Land preparation: Light rainfall has been received at some places during the previous week. Taking advantage of this situation, land should be kept ready and also keep the seeds, fertilizers and other inputs ready to take up sowing.
- *Kharif* sowing: wherever, rainfall has been received in the previous week, and soil moisture is sufficient, take up sowing of the following crops, immediately. As per the forecast moderate rainfall is expected at some places during the next five days. Taking advantage of the situation, sowing of *Kharif* crops may be taken up immediately.
- Shallow black soil and red soils: Sowing of Greengram, redgram, Bajra, Sesamum, Niger, Navane and groundnut (bunch type), Horsegram, Castor, may be taken up in preference. To make efficient use of available soil and water resources and to get higher returns, intercropping systems of Bajra + Groundnut (bunch); Bajra + Redgram; Bajra + Castor; Groundnut (bunch) + Redgram, Bajra + Groundnut (bunch type) may be taken up.
- Medium deep and deep black soils: Sowing of Greengram, redgram, Bajra, Navane and groundnut (bunch type), Castor, Onion, Chilli may be taken up in preference. To make efficient use of available soil and water resources and to get higher returns, intercropping systems of Bajra + Groundnut (bunch) in 2:4 row proportion; Bajra + Redgram; Bajra + Castor; Bajra + Groundnut (bunch type) may be taken up. Use short duration varieties of redgram for sowing .Use wilt resistant variety TS-3R. To induce drought tolerance in greengram, redgram and gajra, soak the seeds in Calcium Chloride solution (as per recommendation), dry the seeds in the shade and take up sowing. Grow two thick rows of bajra or maize as catch crops, in the borders of the Onion and groundnut field which helps in managing insect pests in the later stages. Mix some quantity of tall sorghum seeds with redgram seeds which facilitate in the management of pod borer in the later stages.

- Seed treatment: Treat the seeds of groundnut, redgram, greengram with Rhizobium and that of sorghum and bajra with Azetobactor + PSB before sowing. Treat the seeds of all the crops with Capton or Thiram or Carbandizeme at the rate of 2 gram per Kg of seeds or Trichoderma at the rate of 4 gram per Kg of seed before sowing.
- Soil and moisture conservation: Sow the crop in rows across the slope. This will facilitate better conservation of moisture in the soil. Repair of bunds, water retention structures should be taken up. Plough the land across the slope which is to be spared for sowing of Rabi crops so as facilitate better conservation of Soil and soil moisture.
- Live stock management: Vaccinate livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) and Haemorrhagic Septcaemia. Care should be taken that excess moisture is not there in the Vermin-compost pits. Vaccinate (ET vaccine) sheep and goats against Enterotoximia. Maintain sufficient moisture in the vermicompost pits. Agro- advisories.
- FIELD CROPS: Sugarcane: Take up intercultivation at 80 and 95 Days after planting and earthing up should be done at 120 days after planting. Heavy and early earthingup of ratoons ensure optimum plant density with good yield and quantity. Since monsoon rains have started, to facilitate good vegetative growth, top dress the crop with Nitrogen and Potash fertilizers. To manage striga weed , irrigate the crop, spread sugarcane trash in between the rows and take up spraying of 1 kg of 2,4 D dissolved in 500 liter on the weed.
- HORTICULTURAL CROPS : Citrus: To manage Bacterial blight disease, spray the crop with 3 gram Copper Oxy-chloride or 1 per cent Bordo mixture dissolved in one liter of water or 300 ppm Streptomycin (3 gram in 10 liters of water).
- Grapes: After April pruning, to manage Feea beetle, take up spraying of 1.7 ml Dimethoate or 0.5 ml Phosphomedon or 1 ml Monocrotophos or 2 ml Quinolphos dissolved in one liter of water.
- Pomegranate: To manage sucking pests, take up spraying of 0.3 ml Imidacloprid or 0.25 ml Thiamethaxam dissolved in one liter of water. To manage Bacterial blight disease, spray the crop with streptomycin sulphate 0.5 g. + copper oxychloride 2 g. dissolved in one liter water. Then take up spraying of micro nutrients viz., 1 g. Zinc Sulphate + 1 g. Magnesium Sulphate + 1 g. Barax + 1 g. Calcium dissolved in one liter of water.
- Watermillon, Bhendi and tomato: To manage sucking pests in watermillon, Bhendi and tomato, take up spraying of 1.7 ml Dimethoate or 2 ml Melathion and 1 per Jogger syrup dissolved in one liter of water.
- Brinjal: To manage branch cutting and fruit borer in Brinjal, remove the infested branch along with the larva and burn. After this spray the crop with Carbaryl 4 g. or

Melathion 2 ml or Quinolphos 2 ml dissolved in one liter of water. Repeat the same spray at 15 days interval.

SAT : INSAT-3D IMG
IMG_TIR1 10.8 um
L1C Mercator

12-06-2020/(0900 to 0926) GMT
12-06-2020/(1430 to 1456) IST

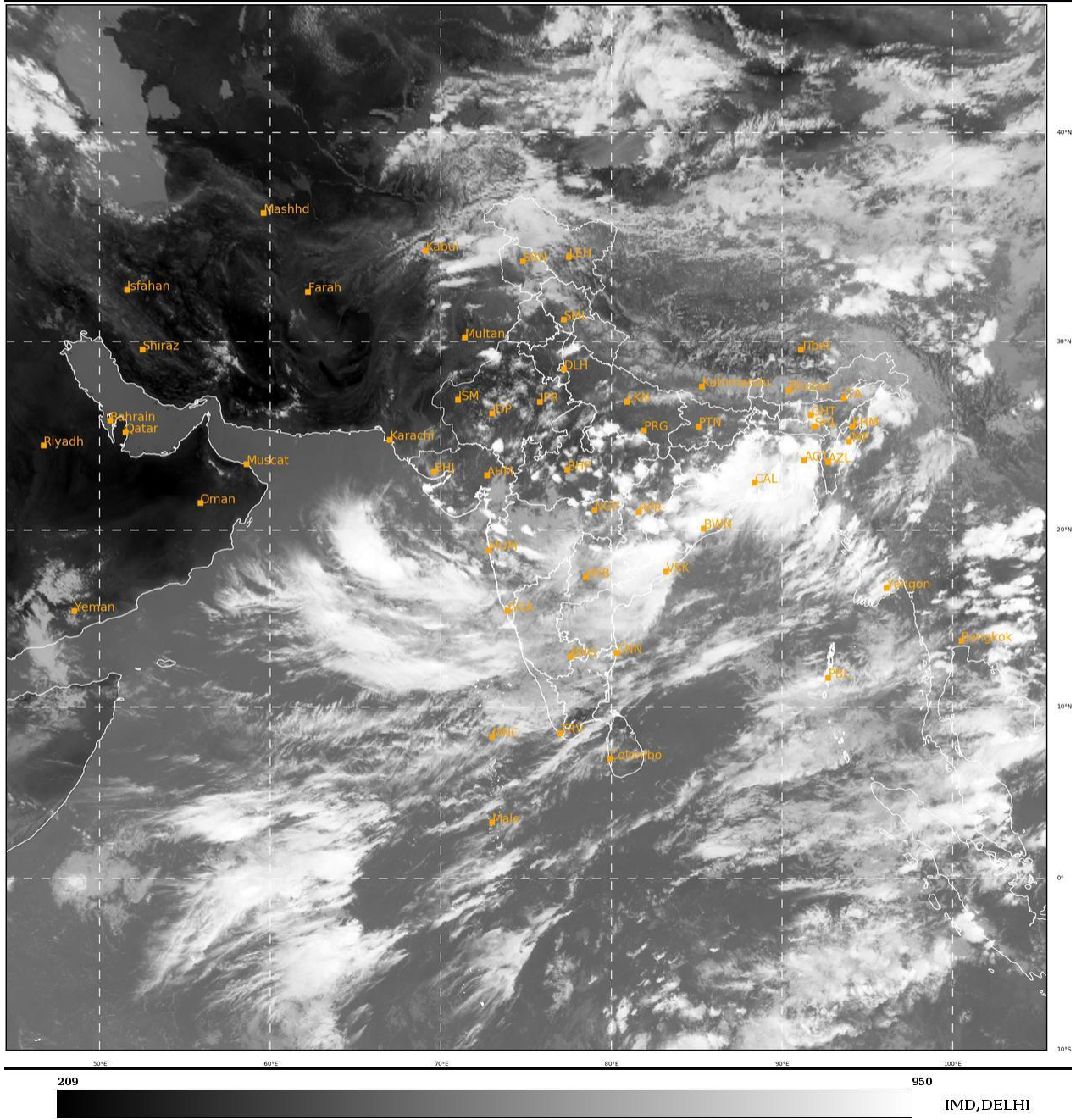


Figure: 1. Latest available satellite picture as on 12 June 2020 at 1456 Hrs (IST). (Source: IMD).

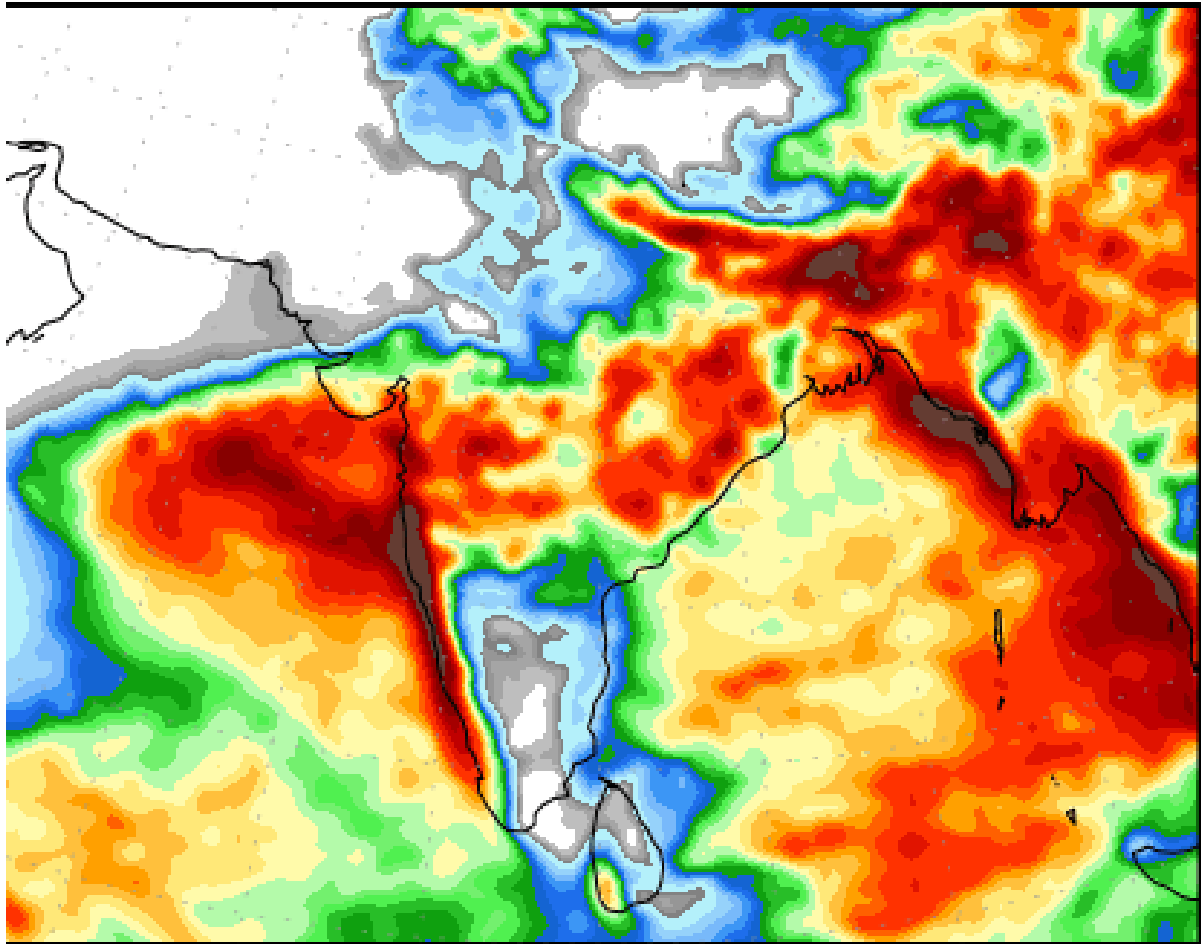


Figure:2. Precipitation forecast for 12 to 20 June 2020 (Source: NOAA NCEP).

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