

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 28 July 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The Monsoon trough continues to run close to the foothills of Himalayas. It is very likely to shift southwards from tomorrow, the 29th July onwards. In addition, there is convergence of strong southerly/southwesterly from Arabian Sea over northwest India at lower levels and same is very likely to continue till 31st July, 2020.
- A cyclonic circulation lies over Sub-Himalayan West Bengal & neighbourhood at mid-tropospheric levels.
- Another cyclonic circulation lies over Southeast & adjoining southwest Bay of Bengal upto mid tropospheric levels.
- Under the influence of above meteorological conditions, widespread rainfall with isolated heavy to very heavy falls very likely over Uttarakhand, Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim and northeastern states (mainly over Arunachal Pradesh and Assam & Meghalaya) during 28th-30th July; over Punjab, Haryana, Chandigarh, Delhi, Himachal Pradesh and Madhya Pradesh during 29th - 31st July; Isolated extremely heavy falls are also likely over Sub-Himalayan West Bengal & Sikkim during 28th-30th July and over Uttarakhand and Bihar today, the 28th July, 2020. Fairly widespread to widespread rainfall with isolated heavy to very heavy falls very likely over Karnataka, Tamil Nadu and Kerala during next 4-5 days.
- Moderate to severe thunderstorm accompanied with lightning at isolated places very likely over Jammu & Kashmir, Ladakh, GilgitBaltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Uttar Pradesh, Gangetic West Bengal, Jharkhand and Bihar during next 12 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 Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland,

Manipur, Mizoram & Tripura, Bihar and Coastal Karnataka; at many places over Gangetic West Bengal, Jharkhand, Uttarakhand, Himachal Pradesh, Konkan & Goa and Kerala & Mahe; at a few places over Odisha, Uttar Pradesh, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Saurashtra & Kutch, Chhattisgarh, Tamil Nadu, Puducherry & Karaikal and Interior Karnataka and at isolated places over Haryana, Chandigarh & Delhi, Punjab, Rajasthan, Madhya Pradesh, Gujarat Region, Madhya Maharashtra, Marathwada, Vidarbha, Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema.

- Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places observed over Sub-Himalayan West Bengal & Sikkim; heavy to very heavy rainfall at isolated places Uttarakhand and heavy rainfall at isolated places over Odisha, Bihar, Assam & Meghalaya, Gujarat Region, Konkan & Goa and Coastal Karnataka.
- Thunderstorm observed (from 1130 hours IST of yesterday to 0830 hours IST of today): at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, East Uttar Pradesh, West Rajasthan, West Madhya Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura, Chhattisgarh, Odisha, Coastal Karnataka, North Interior Karnataka, Konkan & Goa, Coastal Andhra Pradesh, Tamil Nadu, Puducherry & Karaikal & Yanam and Kerala & Mahe.
- Maximum Temperature Departures as on 27-07-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over East Rajasthan, Madhya Pradesh, Vidarbha, Kerala & Mahe and Odisha; at many places over West Uttar Pradesh, Uttarakhand, Chhattisgarh and Gangetic West Bengal; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Gujarat region; above normal (1.6°C to 3.0°C) at most places over Punjab, West Rajasthan, East Uttar Pradesh, Bihar and Telangana; at many places over Coastal Andhra Pradesh & Yanam, North interior Karnataka, Saurashtra & Kutch, Madhya Maharashtra, Marathawada, Jharkhand and Nagaland, Manipur, Mizoram & Tripura; at a few places over Lakshadweep, Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar Islands; and at isolated places over Konkan & Goa and Coastal & South interior Karnataka. They were below normal (-1.6°C to -3.0°C) at isolated places over and Assam & Meghalaya and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 40.4°C was reported at Ganganagar (West Rajasthan).

- Minimum Temperature Departures as on 28-07-2020: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at a few places over West Rajasthan; at isolated places over Himachal Pradesh, Uttarakhand and East Rajasthan; above normal (1.6°C to 3.0°C) at most places over Punjab, Haryana, Chandigarh & Delhi, Gujarat Region and Lakshadweep; at many places over West Uttar Pradesh and Madhya Pradesh; at a few places over East Uttar Pradesh, Saurashtra & Kutch, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal; at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Odisha, Gangetic West Bengal, Marathwada and South Interior Karnataka and near normal over rest parts of the country. The lowest minimum temperature of 20.5°C reported at Khargone (West Madhya Pradesh) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 28 July (Day 1): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, north Bihar and Uttarakhand; heavy to very heavy rainfall at isolated places over north Assam & Meghalaya, East Uttar Pradesh, south Gujarat Region and Kerala & Mahe and heavy rainfall at isolated places over Jammu Division, Himachal Pradesh, West Uttar Pradesh, north Madhya Pradesh, Konkan & Goa, ghat areas of Madhya Maharashtra, north Chhattisgarh, north Jharkhand, north Gangetic West Bengal, north Odisha, Andaman & Nicobar Islands, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka, south Tamil Nadu, Puducherry & Karaikal. Moderate to severe thunderstorm accompanied with lightning at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Uttar Pradesh, Gangetic West Bengal, Jharkhand and Bihar. Thunderstorm accompanied with lightning at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over South Bay of Bengal, Andaman Sea, Comorin area and along & off Kerala-Karnataka coasts & Lakshadweep-Maldives areas. Fishermen are advised not to venture into these areas.
- 29 July (Day 2): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places very likely over Sub-Himalayan West Bengal &

Sikkim; heavy rainfall at a few places with very heavy falls at isolated places over Kerala & Mahe; heavy to very heavy rainfall at isolated places over Arunachal Pradesh, Assam & Meghalaya, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Madhya Pradesh, Bihar and Tamil Nadu, Puducherry & Karaikal and heavy rainfall at isolated places over Gujarat State, Konkan & Goa, Madhya Maharashtra, Vidarbha, Chhattisgarh, Jharkhand, Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema and Karnataka. Thunderstorm accompanied with lightning at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Punjab, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Bihar, Vidarbha, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Southwest Bay of Bengal, Andaman Sea, Comorin area and along & off Kerala-Karnataka coasts & Lakshadweep-Maldives areas. Fishermen are advised not to venture into these areas.

- 30 July (Day 3): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places very likely over Sub-Himalayan West Bengal & Sikkim; heavy rainfall at a few places with very heavy falls at isolated places over Kerala & Mahe; heavy to very heavy rainfall at isolated places over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Rajasthan and Coastal & South Interior Karnataka and heavy rainfall at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, West Rajasthan, West Madhya Pradesh, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra, Bihar, Jharkhand, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Telangana, Rayalaseema, North Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Punjab, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Jharkhand, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed reaching 50-60 kmph) very likely over Southwest Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Southwest Bay of Bengal, Andaman Sea and along &

off Kerala-Karnataka coasts & Lakshadweep-Maldives areas. Fishermen are advised not to venture into these areas.

- 31 July (Day 4): Heavy to very heavy rainfall at isolated places likely over East Rajasthan and heavy rainfall at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Rajasthan, West Madhya Pradesh, Gujarat State, Konkan & Goa, Madhya Maharashtra, Marathwada, Bihar, Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Assam & Meghalaya, Coastal & South Interior Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning at isolated places likely over Jharkhand, Odisha, Madhya Maharashtra and Marathwada. Strong Wind (speed reaching 50-60 kmph) likely over Southwest & adjoining Westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Andaman Sea and along & off Kerala-Karnataka coasts & Lakshadweep-Maldives areas. Fishermen are advised not to venture into these areas.
- 01 August (Day 5): Heavy rainfall at isolated places likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, East Rajasthan, Gujarat State, Konkan & Goa, Madhya Maharashtra, Marathwada, Andaman & Nicobar Islands, Assam & Meghalaya, Coastal Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning at isolated places likely over Jharkhand, Madhya Maharashtra and Marathwada. Strong Wind (speed reaching 50-60 kmph) likely over Southwest & adjoining Westcentral Arabian Sea. Squally weather (wind speed reaching 40-50 kmph) over Andaman Sea. Fishermen are advised not to venture into these areas.
- The weather outlook for seven days i.e., 28 July to 05 Aug 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)

Jharkhand

Weather condition:

During this week only 15.6 mm rainfall has been received, which is very low as compared to normal rainfall i.e. 87.1 mm. Maximum and minimum temperature range between 29.4 to 35. and 21.6 to 25.4 respectively. Maximum and minimum actual average temperatures are 32.3 and 23.9, whereas normal maximum and minimum temperature are 29.2 and 22.9 respectively.

Contingency measure:

- General: To conserve soil moisture and control weeds, inter culture operation must be performed in various crops. In rainy season, spray any type of pesticide during clear weather and mix Tipol or Sandovit in the solution @ 5ml per 10 liter of solution. In the absence, of Tipol or Sandovit, prepare the solution in soap water. This practice makes the solution sticky and does not wash out completely even after light rain.
- Maize: In fallow field of medium land sow the minimum duration variety (which matures in 80 ? 90 days) of maize. After 2 ? 3 days of sowing, spray weedicide Utraziner @ 4 gm per liter of water to control various weeds. Apply 8-10 grains of granular insecticide Furadon in each leaf sheath of 15-20 days old plant to control the insect stem borer. Broadcast urea @ 30 kg per acre in 25 - 30 days old crops after earthing up.
- Rice: In 10-15 days old rice seedlings, broadcast urea @ 2 kg per 100 square meter area of nursery bed. Farmers having seedlings of about 18 - 20 days, but sufficient water is not available for puddling may collect rain water flowing from upland as runoff as the good amount of rain is expected during next few days and start transplanting. Most of the low land (Don-1), has sufficient water for puddling. Farmers may start transplanting and they have to select seedlings of long duration variety for first phase of transplanting. Nursery bed should be flooded, at the time of uprooting of seedlings, so that roots of seedlings may not be damaged. At the time of puddling apply 25 kg Urea, 32 kg Di Ammonium Phosphate (D.A.P.) and 20 kg Muriate of Potash per acre. 2 - 3 seedlings should be transplanted at shallow depth at a distance of 20 cm (row to row) and 15 cm (plant to plant). To stagnate rain water in rice field, bunds must be strengthened as well as field must be ploughed. Stagnation of water will help in rotting of weeds of the field.
- Fodder Maize: Farmers may proceed for cultivation of green fodder of Maize (var.- African tall or J-100), Lobia (var.-P.C. 4200) or Moth (Var.- Vidhaan-1).
- Mango: Purchase the fruit/timber seedlings from recognised nursery and plant them in pit. Before plantation each pit should be filled with 8- 10 kg cow dung manure, 2 kg karanj cake, 1 kg DAP, 500 gram Muriate of potash and 100 gm. methyl parathion dust. Water stagnation near root zone of newly planted seedling must be avoided.
- Cow: Present weather is conducive for infectious disease in animals. Hence, do not allow them to move freely in open field where they may drink contaminated water during grazing.

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

28-07-2020/(0730 to 0757) GMT
28-07-2020/(1300 to 1327) IST

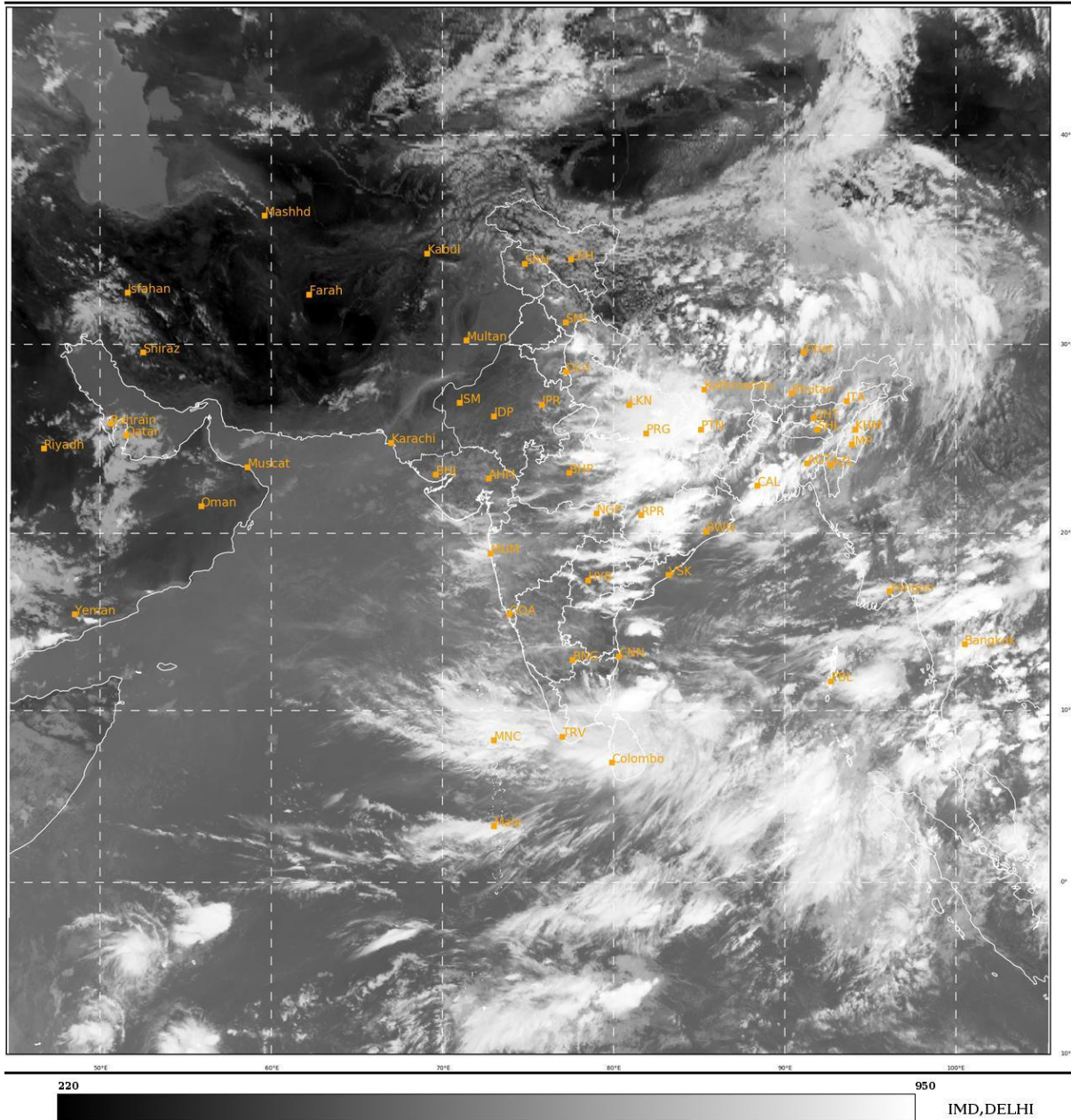


Figure: 1. Latest available satellite picture as on 28 July 2020 at 1327 Hrs (IST). (Source: IMD).

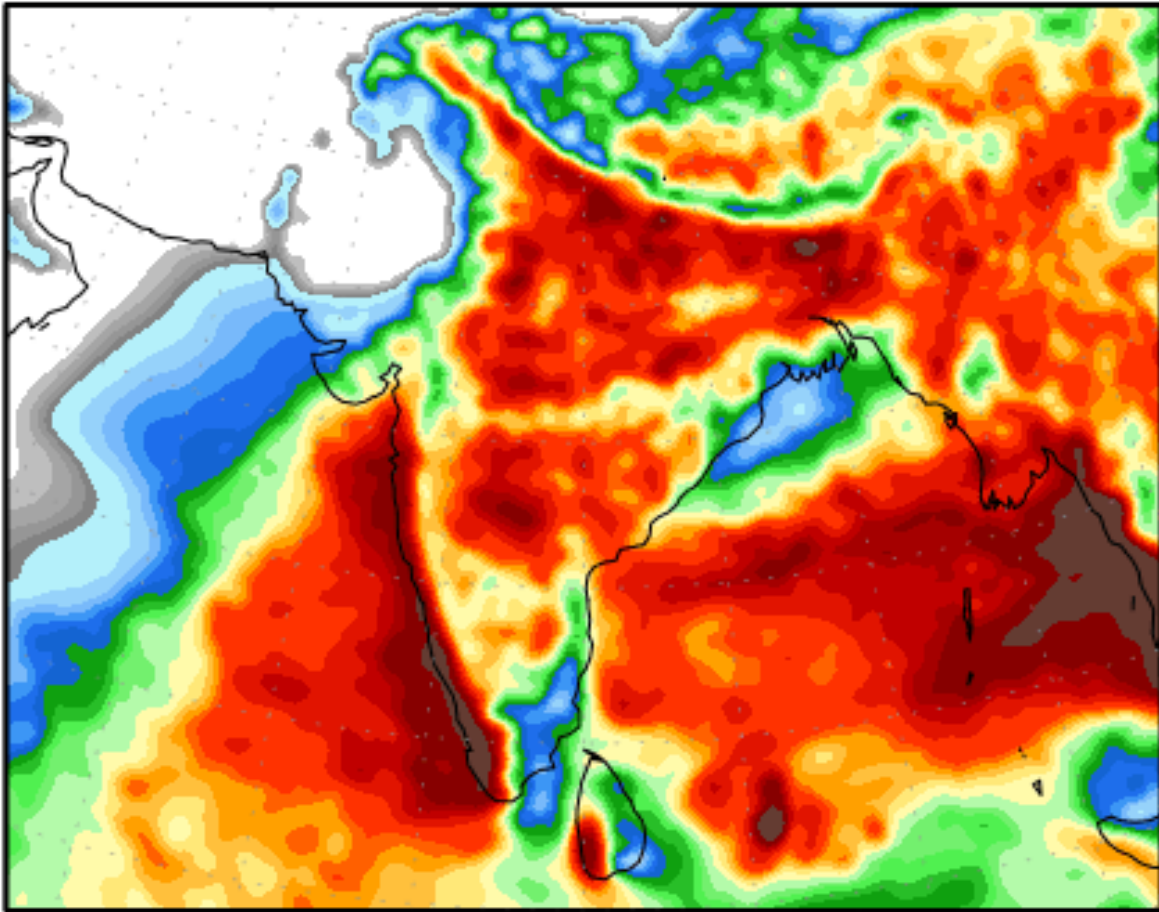


Figure:2. Precipitation forecast for 28 July to 05 Aug 2020 (Source: NOAA NCEP).

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