

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 01 Jul 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The northern Limit of southwest monsoon (NLM) continues to pass through Lat. 26°N / Long. 70°E, Barmer, Bhilwara, Dholpur, Aligarh, Meerut, Ambala and Amritsar.
- Prevailing meteorological conditions, large scale atmospheric features and the forecast wind pattern by dynamical models suggest that no favourable conditions are likely to develop for further advance of southwest monsoon into remaining parts of Rajasthan, west Uttar Pradesh, Haryana, Chandigarh & Delhi and Punjab during next 6-7 days. Hence, subdued rainfall activity is very likely to continue to prevail over Northwest, Central and Western parts of Peninsular India during next 6-7 days. Isolated/scattered thunderstorm activity accompanied with lightning & rainfall is also likely over these regions during this period.
- Under the influence of strong moist southwesterly winds at lower tropospheric levels from Bay of Bengal to northeast & adjoining east India; fairly widespread to widespread rainfall with isolated heavy rainfall very likely over Bihar, West Bengal & Sikkim and Northeastern states during next 6-7 days. Isolated heavy to very heavy rainfall very likely over Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura during next 3 days. Isolated extremely falls also likely over Assam & Meghalaya on 01st July; over Bihar during 01-02nd July and over Sub-Himalayan West Bengal & Sikkim on 02nd & 03th July, 2021.
- Due to strengthening of moist easterly winds along the northern Uttar Pradesh and Uttrakhand from tomorrow, the 1 July, 2021, enhanced rainfall activity with isolated heavy falls very likely over East Uttar Pradesh during next 5 days: over Uttarakhand from 01st to 04th July and over West Uttar Pradesh on 02 July, 2021. Isolated very heavy rainfall also likely over Uttarakhand on 02nd July, 2021.
- Due to likely dry westerly/southwesterly winds from Pakistan to northwest India at lower levels, Heat wave conditions in isolated/some pockets over Punjab, Haryana, Chandigarh & Delhi, Rajasthan, West Uttar Pradesh and West Madhya Pradesh during next 24 hours.

- Strong surface winds (speed reaching 20-30 kmph occasionally) over Haryana and West Uttar Pradesh during next 24 hours.
- Moderate to severe thunderstorm accompanied by frequent cloud to ground lightning very likely over Bihar, Jharkhand, Madhya Pradesh, Vidarbha and Telangana during next 24 hours. This may cause injuries leading to casualties to people and animals staying outdoors.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830-1730 hours IST of yesterday): at most places over Konkan & Goa, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura; at many places over Andaman & Nicobar Islands and Assam & Meghalaya; at a few places over Saurashtra & Kutch, Gangetic West Bengal and Odisha and at isolated places over Madhya Maharashtra, Coastal Karnataka, Lakshadweep, East Rajasthan, Bihar, Jharkhand, East Madhya Pradesh, Vidarbha, Chhattisgarh and Coastal Andhra Pradesh & Yanam
- Severe Heat Wave Conditions observed in isolated places over Jammu division, Punjab and Delhi and Heat Wave Conditions in many places over Punjab, Haryana & Chandigarh and West Uttar Pradesh and in isolated places over Jammu division, Northwest Rajasthan and Northwest Madhya Pradesh.
- Thunderstorm observed (from 1730 hrs IST of yesterday to 0530 hrs IST today): at isolated places over Assam & Meghalaya, Odisha, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Chhattisgarh and East Rajasthan.
- Maximum Temperature Departures as on 30-06-2021: Maximum temperatures were markedly above normal (5.0°C or more) at many places over Haryana, Chandigarh & Delhi and West Uttar Pradesh; at a few places over East Uttar Pradesh and at isolated places over West Rajasthan, West Madhya Pradesh and Punjab; appreciably above normal (3.1°C to 5.0°C) at most places over Uttarakhand, Himachal Pradesh, Jharkhand and South Interior Karnataka; at many places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, East Madhya Pradesh, Vidarbha, Kerala & Mahe and Coastal Karnataka; at a few places over East Rajasthan, Odisha, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Madhya Maharashtra and Chhattisgarh; above normal (1.6°C to 3.0°C) at most places over North Interior Karnataka, Telangana and Rayalseema; at many places over Saurashtra & Kutch and Gangetic West Bengal; at a few places over Konkan & Goa, Marathwada and Andaman & Nicobar

Islands. They were appreciably below normal (-3.1°C to -5.0°C) at a few places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; below normal (-1.6°C to -3.0°C) at many places over Bihar and at a few places over Nagaland, Manipur, Mizoram & Tripura and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 44.4°C was reported at Pilani (East Rajasthan).

- Minimum Temperature Departures as on 30-06-2021: Minimum temperatures were above normal (1.6°C to 3.0°C) at many places over East Uttar Pradesh, Gangetic west Bengal, Jharkhand, Madhya Pradesh, Kerala; at a few places over Uttarakhand, Himachal Pradesh, Punjab, Haryana, Odisha, Chattisgarh, Rayalseema; isolated places over South Interior Karnataka. They were appreciably below normal (-3.1°C to -5.0°C) at a few places over Rajasthan and below normal (-1.6°C to -3.0°C) at a isolated places over Gujarat region and near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 21.0°C is reported at Narsingpur (East Madhya Pradesh).

Weather Warning during the next 5 days (IMD)

- 01 July (Day 1): Heavy to Very Heavy Rainfall with extremely heavy falls at isolated places very likely over Bihar and Assam & Meghalaya; Heavy to Very Heavy Rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura and Heavy Rainfall at isolated places over Uttarakhand, East Uttar Pradesh, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Tamilnadu, Puducherry & Karaikal. Thunderstorm with lightning & gusty winds (speed reaching 30-40 kmph) very likely at isolated places over Himachal Pradesh, Uttarakhand, Vidarbha, Bihar, Jharkhand, Gangetic West Bengal, Telangana and East Uttar Pradesh and with lightning at isolated places over Punjab, Haryana, Chandigarh & Delhi, Madhya Pradesh, Chhattisgarh, Odisha, Andaman & Nicobar Islands, Coastal Andhra Pradesh & Yanam, Rayalaseema and Tamilnadu, Puducherry & Karaikal. Heat Wave conditions in isolated pockets over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Rajasthan and northwest Madhya Pradesh. Strong Winds (speed 40-50 kmph gusting to 60 kmph) very likely over Southwest and Westcentral Arabian Sea, North Arabian sea and along & off Gujarat coast. Fishermen are advised not to venture into these areas.
- 02 July (Day 2): Heavy to Very Heavy Rainfall with extremely heavy falls at isolated places very likely over Bihar and SubHimalayan West Bengal & Sikkim; Heavy to Very Heavy Rainfall at isolated places over Uttarakhand and Assam &

Meghalaya and Heavy Rainfall at isolated places over Himachal Pradesh, Uttar Pradesh, Gangetic West Bengal, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Telangana and Tamilnadu, Puducherry & Karaikal. Thunderstorm with lightning & gusty winds (speed reaching 30-40 kmph) very likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and with lightning at isolated places over East Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Tamilnadu, Puducherry & Karaikal. Strong Winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest and Westcentral Arabian Sea, North Arabian sea and along & off Gujarat coast. Fishermen are advised not to venture into these areas.

- 03 July (Day 3): Heavy to Very Heavy Rainfall with extremely heavy falls at isolated places likely over Sub-Himalayan West Bengal & Sikkim and Heavy Rainfall at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Bihar, Arunachal Pradesh, Assam & Meghalaya and Tamilnadu, Puducherry & Karaikal. Thunderstorm with lightning & gusty winds (speed reaching 30-40 kmph) likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and with lightning at isolated places over East Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam and Tamilnadu, Puducherry & Karaikal. Strong Winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest and Westcentral Arabian Sea, Northwest Arabian sea. Fishermen are advised not to venture into these areas.
- 04 July (Day 4): Heavy to Very Heavy Rainfall likely at isolated places over Sub-Himalayan West Bengal & Sikkim and Heavy Rainfall at isolated places over Uttarakhand, east Uttar Pradesh, Bihar, Assam & Meghalaya and Tamilnadu, Puducherry & Karaikal. Thunderstorm with lightning & gusty winds (speed reaching 30-40 kmph) likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and with lightning at isolated places over Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam and Tamilnadu, Puducherry & Karaikal. Strong Winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest and Westcentral Arabian Sea, Northwest Arabian sea. Fishermen are advised not to venture into these areas.

- 05 July (Day 5): Heavy to Very Heavy Rainfall likely at isolated places over Sub-Himalayan West Bengal & Sikkim and Heavy Rainfall at isolated places over Uttarakhand, east Uttar Pradesh, Bihar, Assam & Meghalaya and Kerala Mahe. Thunderstorm with lightning & gusty winds (speed reaching 30-40 kmph) likely at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh and with lightning at isolated places over Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam and Tamilnadu, Puducherry & Karaikal. Strong Winds (speed 40-50 kmph gusting to 60 kmph) likely over Southwest and Westcentral Arabian Sea, Northwest Arabian sea. Fishermen are advised not to venture into these areas.
- The weather outlook for seven days i.e., 01 Jul to 09 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 (25 MW) at AICRPAM Akola centre: T max 34.0°C (normal 35.3°C), T min 24.4°C (normal 25.0°C). RH I 76 % (normal 75 %), RH II 48 % (normal 48 %). Evaporation rate 6.5 mm (normal 8.7 mm), Wind 8.0 km/hr (normal 13.7 km/hr) and BSH 5.3 hrs (normal 5.4 hrs). Maximum temperature across the week was 1.3°C below normal with a deviation of -4.5 to +0.8°C from normal. Minimum temperature across the week 0.6°C below normal with a deviation of -1.6 to 0.8°C from normal.

Contingency measure:

- The forecast (IMD) indicates widespread rainfall with heavy falls on 24 June and scattered rainfall during 25-28 June very likely to occur at isolated places over Vidarbha. Sowing of kharif crops should be undertaken only when there is sufficient ongoing moisture for germination in the soil, when about 75-100 mm monsoon rainfall has occurred across two to three days. Avoid sowing under insufficient soil moisture condition. All remaining preparatory tillage of fields for kharif sowing should be completed immediately. For effective in situ moisture conservation, preparatory tillage operations should be along the contour and across the field slope.
- Ensure the availability of biofertilizers for soybean, pigeon pea, green gram and black gram seed treatment before sowing (Rhizobium + PSB @25 gm and Tricoderma + Thiram @ 4 gm per kg seed). For use of own seeds for crop like soybean to test seed viability conduct a simple germination test well in advance.
- Crop rotation to be followed in cotton fields that were heavily infested with pink bollworm during last season to break the life cycle of pink bollworm. In kharif planning for cotton crop recommended deshi varieties include AKA-5, AKA-7 and AKA-8 with seed rate of 12 to 15kg/ha and spacing of 60 x 15 cm. American improved varieties include AKH-081 (60x15cm with seed rate 15 to 20 kg/ha), AKH-09-5 (Suvarna Shubhra), PKV Rajat and AKH 8828 (60x30cm with seed rate 10 to 12 kg/ha). Cotton deshi hybrid PKVDH-1, PKV-Suvarna is recommended with seed rate @ 3.0 to 3.5 kg/ha and spaced at 60x45 cm. Recommended Bt cotton varieties may also be preferred.
- Pigeon pea varieties to be chosen as per the soil type are - early duration varieties for medium soil type (TAT-10, ICPL 87, AKT-8811), medium duration varieties for medium to heavy soil type (BSMR-736, PKV Tara, BSMR-853) and long duration varieties for heavy soil type (ICPL-87119, C-11).

- Recommended green gram varieties are PKV- green gold, PKV mug-8802, PKV- AKM-4 and for black gram PKV udid-15, TAU-1, TAU-2 and PDKV black gold (AKU-10-1). Under rainfed condition feasible risk minimizing intercropping systems include cotton + green gram/black gram (1:1), soybean + pigeon pea (4:2, 6:2, 5:1), pigeon pea + green gram/black gram (2:4), sorghum+greengram/pigeonpea (3:3) and cotton+sorghum+ pigeonpea+sorghum (3:1:1:1), cotton+soybean+pigeonpea+soybean (3:2:2:2).
- For the ensuing kharif season ensure the availability and registration of improved varieties of new fruit trees from government nursery and ensure other inputs (fertilizers / biofertilizers) in advance. Dug pits (1x1x1m), for planting new orchards (orange, mango, sapota, custard apple, aonla, and guava), that were kept exposed to sun heat past days may be filled up to 10-15 cm above surface level with mixture of 1 part FYM, 2 part soil, 2 kg single super phosphate and 100 g chlorpyrifos powder. Planting shall be undertaken upon receipt of sufficient monsoon rains. Undertake nursery seed sowing of vegetables like chilli, tomato and brinjal for kharif transplanting. Seed treatment with bio-fungicide Trichoderma is advisable. As forecast warning includes thunderstorm with lightning very likely to occur at isolated places, keep farm animals indoor during thunderstorm/lightning.

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

01-07-2021/(0830 to 0856) GMT
01-07-2021/(1400 to 1426) IST

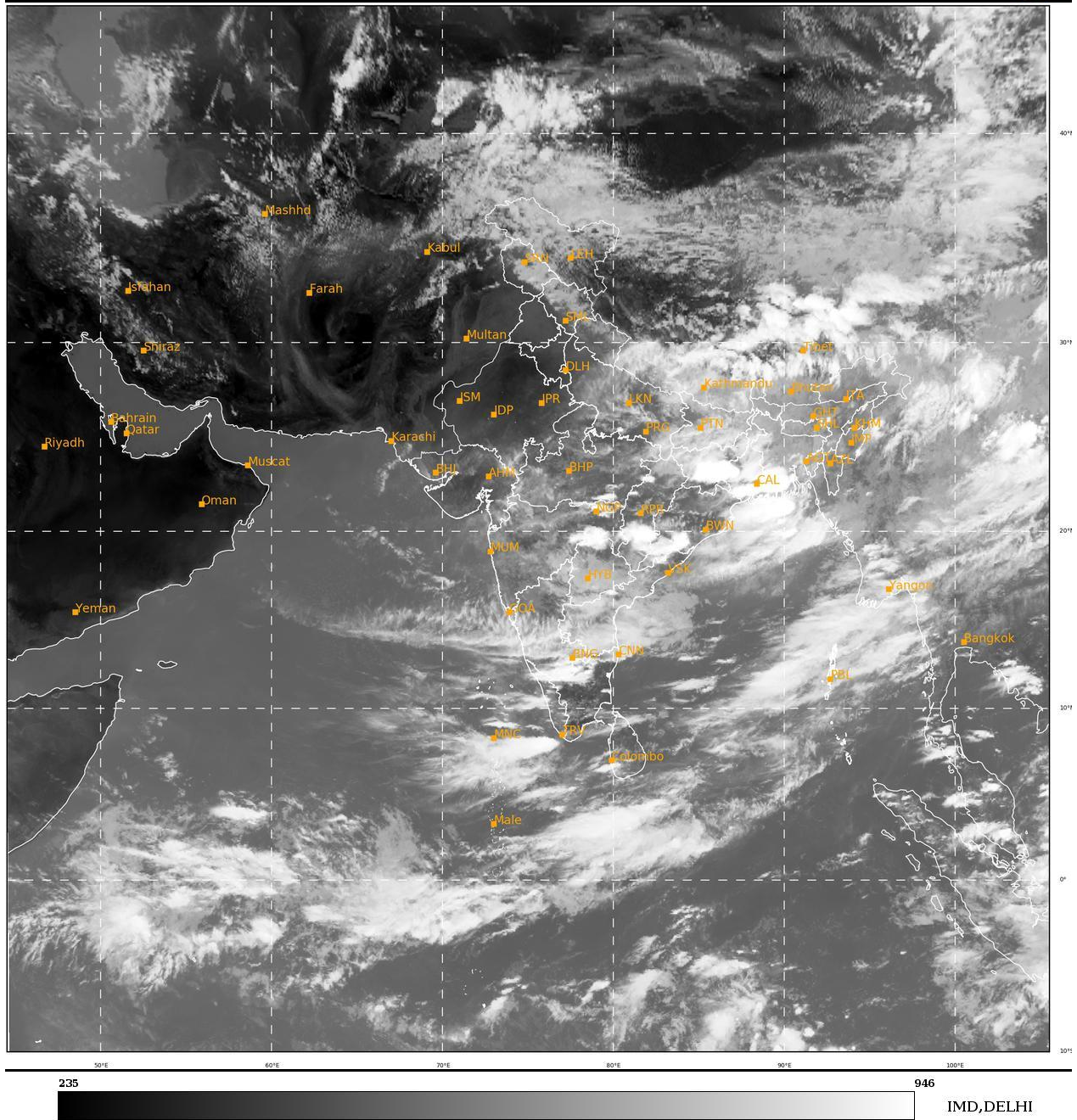


Figure: 1. Latest available satellite picture as on 01 Jul 2021 at 1426 Hrs (IST). (Source: IMD).

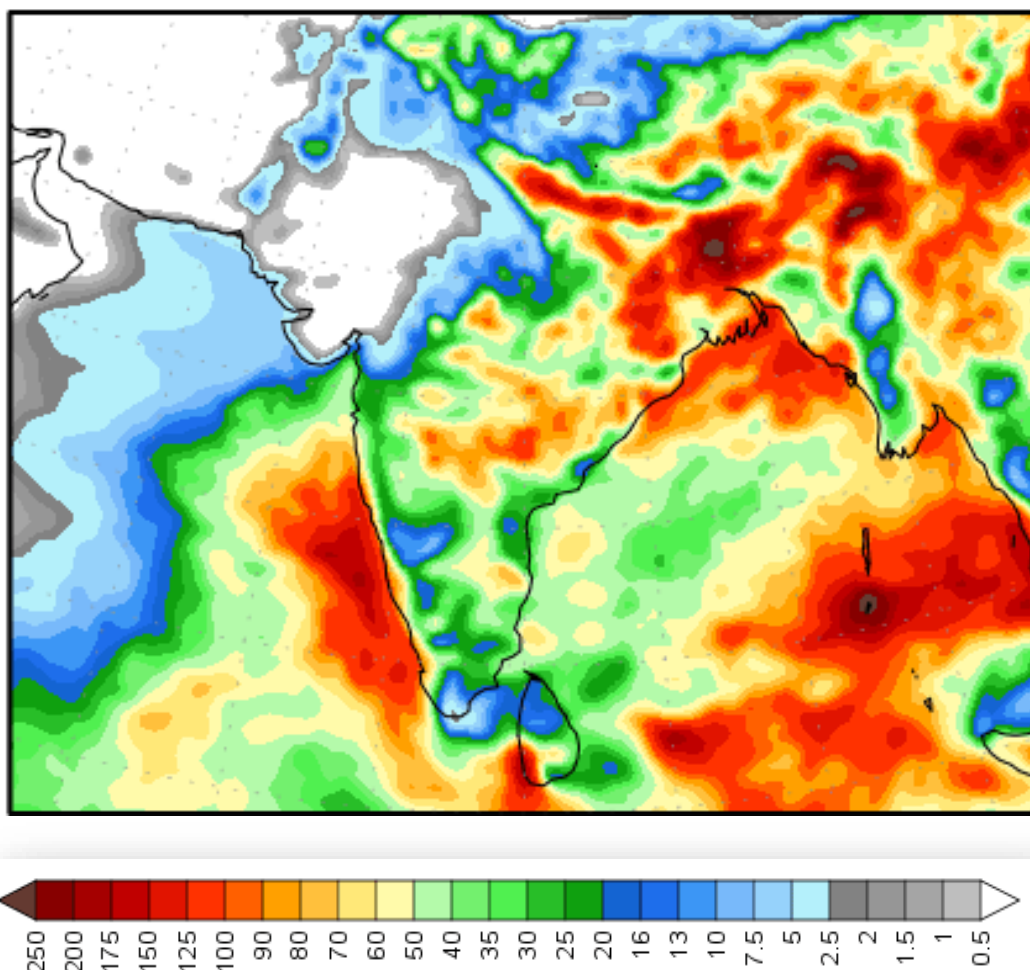


Figure:2. Precipitation forecast for 01 Jul to 09 Jul 2021 (Source: NOAA NCEP).

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