

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 29 Jun 2022

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- **Advance of Southwest Monsoon:**
- Conditions are favourable for further advance of Southwest Monsoon into remaining parts of Bihar, some more parts of Uttar Pradesh and some parts of Uttarakhand, Himachal Pradesh and Jammu & Kashmir today, the 29th July.
- Conditions would continue to become favourable for further advance of Southwest Monsoon into remaining parts of Arabian Sea & Gujarat; some parts of Rajasthan; remaining parts of Madhya Pradesh, Uttar Pradesh, Uttarakhand, Himachal Pradesh and Jammu & Kashmir; some parts of Punjab, Haryana-Chandigarh and Delhi during next 48 hours (between 30th June & 01st July).
- Rainfall/thunderstorm Forecast & Warnings:
- An east-west trough runs from northwest Rajasthan to westcentral Bay of Bengal off south Odisha coast. It is very likely to strengthen gradually during next 2-3 days. Due to this trough and moist winds from Bay of Bengal and Arabian Sea over northern parts of the country in lower tropospheric levels:
 - **Isolated extremely heavy rainfall likely over Uttarakhand on 30th and heavy to very heavy rainfall likely over Himachal Pradesh on 29th & 30th; Uttarakhand on 28th & 29th; West Uttar Pradesh on 30th; East Uttar Pradesh during 29th-30th and East Rajasthan on 30th June & 01st July, 2022.**
 - **Moderate thunderstorm/lightning and isolated heavy rainfall very likely over Madhya Pradesh on 29th; Chhattisgarh and Vidarbha during 29th-30th. Isolated heavy to very heavy rainfall also likely over West Madhya Pradesh during 30th**
- **June-02nd July; East Madhya Pradesh on 30th June & 01st July, 2022.**
 - **Isolated heavy rainfall likely over Odisha during 29th June-03rd July; Jharkhand on 29th & 30th; Bihar on 30th; Gangetic West Bengal on 29th June. Isolated extremely heavy rainfall likely over Bihar on 29th June. Isolated heavy to very heavy rainfall likely over Sub-Himalayan West Bengal & Sikkim on 29th June, 2022.**

- Under the influence of the off-shore trough at mean sea level from north Maharashtra coast to north Kerala coast and the shear zone across north peninsular India roughly along 19°N in middle tropospheric levels:
- o **Thunderstorm/lightning** with isolated heavy to very heavy rainfall very likely over Konkan & Goa, Coastal Karnataka and Kerala & Mahe during next 5 days; **Isolated heavy rainfall over Gujarat Region during 30th June-02nd July; South Interior Karnataka, Coastal Andhra Pradesh, Tamil Nadu and Telangana during next 2 days.**
- Under the influence of southerly/southwesterly winds in lower levels from Bay of Bengal to Northeast & adjoining East India:
 - o Fairly widespread to widespread rainfall with isolated **heavy rainfall & thunderstorm/lightning** very likely over Northeast India during next 5 days. **Isolated extremely heavy rainfall likely over Assam & Meghalaya on 29th June, 2022.**
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rainfall/thundershower observed (from 0830 hours IST to 1730 hours IST of yesterday): at most places over Arunachal Pradesh, Lakshadweep and Kerala & Mahe; at many places over Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Konkan & Goa and Marathwada; at a few places over West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, East Madhya Pradesh, Madhya Maharashtra, Coastal & North Interior Karnataka, Telangana, Coastal Andhra Pradesh & Yanam and Andaman & Nicobar Islands; at isolated places over Uttarakhand, Gangetic West Bengal, Gujarat State, East Rajasthan, West Madhya Pradesh, Tamilnadu, Puducherry & Karaikal, Chhattisgarh, Odisha and East Uttar Pradesh.
- Yesterday, Very heavy rainfall occurred at isolated places over Sub-Himalayan West Bengal & Sikkim.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal & Sikkim, East Rajasthan, Madhya Pradesh, Uttar Pradesh, Bihar, Marathawada, Telangana, Coastal Andhra Pradesh & Yanam and Odisha.
- Yesterday, Heat Wave observed in isolated pockets over West Rajasthan.
- Maximum Temperature Departures (as on 28-06-2022): Maximum temperatures were appreciably above normal (3.0°C to 5.0°C) at most places over West Rajasthan and Haryana, Chandigarh & Delhi; at a few place over East Uttar Pradesh; at isolated places over East Rajasthan; above normal (1.6°C to 3.0°C) at

most places over East Madhya Pradesh and Jharkhand; at many places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and Andaman & Nicobar Islands; at a few places over West Madhya Pradesh, Gangetic West Bengal, Odisha, Coastal Karnataka and Kerala & Mahe; at isolated places over Saurashtra & Kutch, Vidarbha, Tamilnadu, Puducherry & Karaikal and Madhya Maharashtra. They were markedly below normal (-5.1°C or more) at a few places over Coastal Andhra Pradesh & Yanam; appreciably below normal (-3.0°C to -5.0°C) at most places over Arunachal Pradesh; at many places over Bihar and at a few places over Assam & Meghalaya, Telangana and Rayalaseema; below normal (-1.6°C to -3.0°C) at most places over Sub-Himalayan West Bengal & Sikkim; at a few places over Konkan & Goa and at isolated places over Tamilnadu, Puducherry & Karaikal and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 45.7°C was reported at Ganganagar (West Rajasthan).

- Minimum Temperature Departures (as on 28-06-2022): Minimum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over Punjab and Haryana, Chandigarh & Delhi; at a few places over Himachal Pradesh; at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and East Madhya Pradesh; above normal (1.6°C to 3.0°C) at most places over Uttar Pradesh and Rajasthan; at a few places over Uttarakhand, West Madhya Pradesh and Odisha; at isolated places over Bihar. They were appreciably below normal (-3.1°C to -5.0°C) at a few places over Coastal Andhra Pradesh & Yanam; below normal (-1.6°C to -3.0°C) at a few places over Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Lakshadweep and near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 20.8°C was reported at Khargone (West Madhya Pradesh) over the plains of the country

Weather Warning during the next 5 days (IMD)

- 29 June (Day 1): Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely Bihar and Assam & Meghalaya; heavy to very heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa, Coastal Karnataka and Kerala & Mahe and heavy rainfall at isolated places over West Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh, Telangana, Tamilnadu, Puducherry & Karaikal and South Interior Karnataka. Thunderstorm accompanied with lightning at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana,

Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off south Maharashtra, Goa, Karnataka and Kerala coasts. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea, Comorin area, Gulf of Mannar, south west Bay of Bengal along and off southern Sri Lanka coast. Fishermen are advised not to venture into these seas.

- 30 June (Day 2): Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely Uttarakhand; heavy to very heavy rainfall at isolated places over Himachal Pradesh, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Assam & Meghalaya, Konkan & Goa, Coastal Karnataka and Kerala & Mahe and heavy rainfall at isolated places over Haryana, Chandigarh & Delhi, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, Interior Karnataka and Tamilnadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Marathwada, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off south Maharashtra, Goa, Karnataka and Kerala coasts. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea, Comorin area, Gulf of Mannar, coastal Tamil Nadu, south west Bay of Bengal along and off Sri Lanka coast. Fishermen are advised not to venture into these seas.
- 01 July (Day 3): Heavy to very heavy rainfall at isolated places very likely East Rajasthan, Madhya Pradesh and Konkan & Goa and heavy rainfall at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Rajasthan, Chhattisgarh, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Coastal & South Interior Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-

Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off south Maharashtra, Goa, Karnataka coasts. Strong winds of 50- 60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea. Fishermen are advised not to venture into these seas.

- 02 July (Day 4): Heavy to very heavy rainfall at isolated places very likely West Madhya Pradesh and Konkan & Goa and heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Coastal Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning at isolated places very likely over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off coastal Karnataka. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea. Fishermen are advised not to venture into these seas.
- 03 July (Day 5): Heavy to very heavy rainfall at isolated places very likely Konkan & Goa and heavy rainfall at isolated places over Himachal Pradesh, Uttarakhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka and Kerala & Mahe. Thunderstorm accompanied with lightning at isolated places very likely over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off coastal Karnataka. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea. Fishermen are advised not to venture into these seas.
- The weather outlook for seven days i.e., 29 Jun to 07 Jul 2022 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)

Punjab

Weather condition:

The maximum temperature during the week ranged between 28.0-37.0 °C and minimum temperature ranged between 22.4-25.0°C. The morning and evening relative humidity during the week varied between 63-93 and 30-72%, respectively. The sunshine hours during the week ranged between 1.2-12.6 hrs/day. The evaporation rate during the week ranged between 1.1-5.9 mm day⁻¹. Daily average wind speed varied from 3.3-7.9 kmhr⁻¹.

Contingency measure:

- Weather based Advisories:
- Field Crops: Rice: Farmers are advised to complete the transplanting of rice and manage weeds according to the recommendations of PAU. It is optimum time for the sowing of nursery of basmati varieties CSR 30 and Pusa basmati 1509. Apply need based irrigation to paddy nursery and fields. Apply second dose of nitrogen @ 26 kg urea/acre to the nursery sown during mid May. For the management of root-knot nematode, apply mustard cake @40 g per square metre 10 days before sowing of nursery with last preparatory tillage operation after rauni.
- Cotton: The crop must not be allowed to suffer from water stress during the flowering and fruiting stages. Eradicate the weeds like kanghibuti, peelibuti, puthkanda etc growing on cotton field bunds, waste lands, road side and irrigation channels/canals to avoid further spread of whitefly to cotton field. Regular survey of whitefly should be done on cotton and on other alternate host crops like moong. To control the attack of pink bollworm, use Sticka/Delta traps with at least 10 micro litre of gossyplure and place it at 15 cm above crop canopy. Replace the lure after 15 days and use 1 trap/ha.
- Moong/Mash: Egg masses and young larvae of tobacco caterpillar feeding gregariously should be collected along with leaves and destroyed.
- Fodder Maize: For effective management of Maize borer attacked plants should be uprooted and destroyed after 2-3 weeks of sowing. Spray with 40 ml Coragen 18.5SC (chlortraniliprole) in 60-80 lt of water per acre. Don't feed the fodder for atleast 21 days after the spray of Coragen.
- Vegetables: Harvest the cucurbits and other vegetables like tomato, chilli, brinjal and okra at regular intervals to get maximum yield. Irrigate crops regularly at the interval of 4-5 days to avoid water stress.
- Fruits: To protect the fruit pants from summer heat, apply light irrigations at regular intervals especially to citrus, pear, litchi, mango orchards bearing fruit in

this season. White wash mixture can be applied on the main trunks of the fruit trees to protect them from intense heat. Thatches or coverings can be erected to save the young fruit plants from intense heat with straw or date palm leaves. Apply frequent watering to young as well as nursery plants also. Paddy straw mulching in guava orchards can be done in this month to suppress weeds and to conserve water. Before mulching apply recommended dose of inorganic fertilizers to plants. Avoid cultivation of orchard soil in this month except guava and ber orchards. Integrated weed management practices can be adopted to suppress the weed growth.

- **Animal Husbandary:** Animals should be protected from ticks, mites and flies because they not only consume animal blood but spread many diseases also. Whenever using a medicine on the animal or inside a shed, certain precautions are must. At places where there is any wound on animal skin, tick medicine should not be applied. Mites hide at places like folds of neck, around udder and below the tail, so medicine should be carefully applied at these places. whenever spray is used in sheds, feed mangers should be covered and if possible animals should be driven out of shed for some time so that they may not lick the medicine.

29-06-2022/(0800 to 0826) GMT
29-06-2022/(1330 to 1356) IST

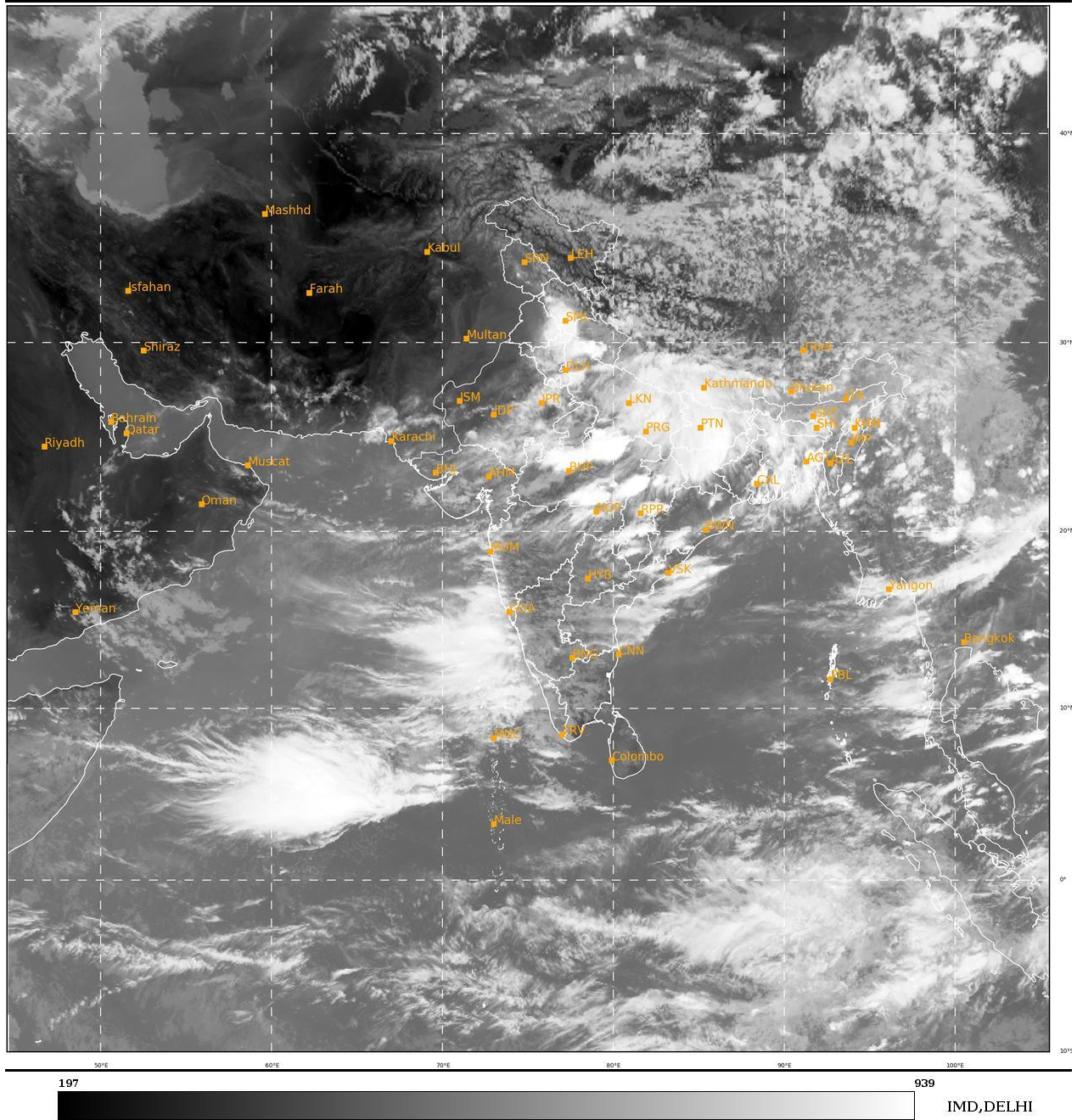


Figure: 1. Latest available satellite picture as on 29 Jun 2022 at 1356 Hrs (IST). (Source: IMD).

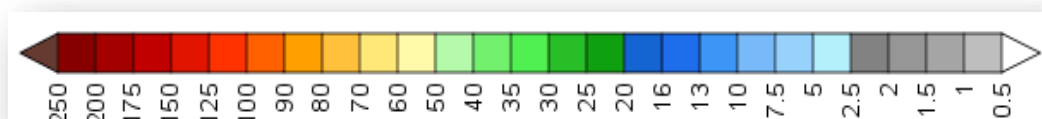
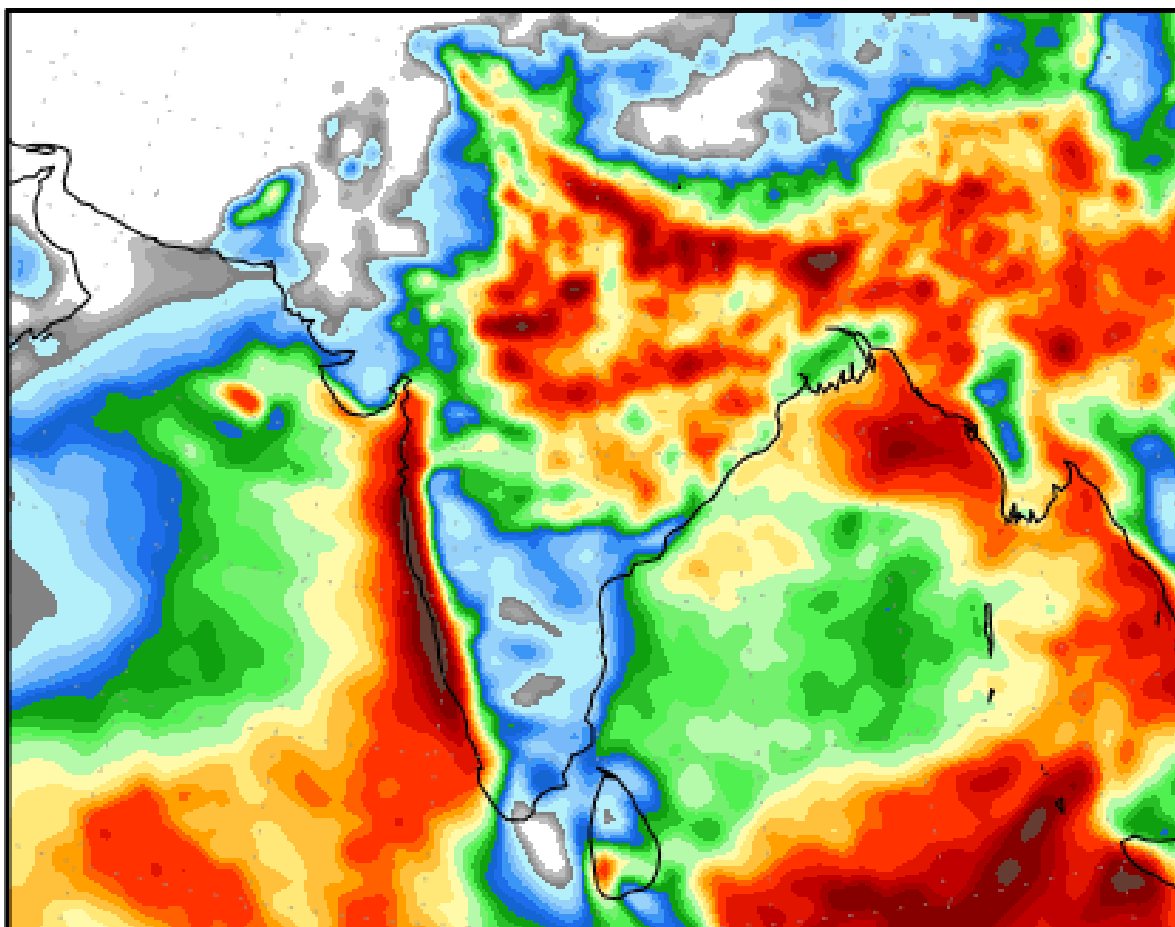


Figure:2. Precipitation forecast for 29 Jun to 07 Jul 2022 (Source: NOAA NCEP).

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