

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 19 September 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- An east-west shear zone runs roughly along Latitude 16°N across peninsular India in mid & upper tropospheric levels tilting southwards with height. Strengthening of lower level winds and its convergence along the west coast is also likely during next 3-4 days. Under its influence, fairly widespread to widespread rainfall with isolated heavy to very heavy falls very likely over Kerala, Karnataka and Konkan & Goa during 19th-22nd September. Isolated extremely heavy falls also very likely over Coastal Karnataka during 19th-21st; over Ghat sections of South Interior Karnataka and north Kerala on 19th & 20th; over south Konkan & Goa on 21st & 22nd September, 2020.
- Under the influence of likely formation of a Low Pressure Area over Northeast Bay of Bengal, fairly widespread to widespread rainfall with Isolated heavy to very heavy falls likely over Andaman & Nicobar Islands on 19th & 20th; over Odisha, Coastal Andhra Pradesh & Yanam and Telangana during 19th-21st and over Gangetic West Bengal during 20th-22nd September, 2020.
- Due to convergence of strong moist winds in lower tropospheric levels from Bay of Bengal, fairly widespread to widespread rainfall with heavy to very heavy falls also likely over Sub-Himalayan West Bengal & Northeastern state during 21st-23rd September. Isolated extremely heavy falls also likely over Arunachal Pradesh and Assam & Meghalaya on 22nd and over Sub-Himalayan West Bengal & Sikkim on 22nd & 23rd September, 2020.
- Thundersquall (speed 50-60 kmph) accompanied with lightning very likely at isolated places over Andaman & Nicobar Islands and thunderstorm with lightning & hail at isolated places over Uttarkhand during next 24 hours. Moderate thunderstorm with lightning very likely at isolated places over Odisha, Gangetic West Bengal, East Uttar Pradesh, Madhya Pradesh, Marathawada, North Interior Karnataka, Telangana, Rayalaseema and Coastal Andhra Pradesh & Yanam 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, Rayalaseema and Coastal Karnataka, Kerala & Mahe and Lakshadweep; at many places over Sub-Himalayan West Bengal & Sikkim, Bihar, Konkan & Goa, Madhya Maharashtra, Marathwada, Vidarbha, Coastal Andhra Pradesh & Yanam, Telangana and North Interior Karnataka; at a few places over Gangetic West Bengal, Odisha, Jharkhand, Madhya Pradesh, Chhattisgarh, Tamil Nadu, Puducherry & Karaikal and South Interior Karnataka and at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Uttar Pradesh, Uttarakhand, Rajasthan and Gujarat State.
- Heavy to very heavy rainfall observed at isolated places over Marathwada and Rayalaseema and heavy rainfall at isolated places over Assam & Meghalaya, Odisha, Bihar, East Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Telangana, Coastal & North Interior Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- Thunderstorm observed (from 0830 hrs IST of yesterday to 0830 hours IST of today): at isolated places over Uttar Pradesh, Madhya Pradesh, Jharkhand, Bihar, Chhattisgarh, Vidarbha, Odisha, Gangetic West Bengal, Gujarat Region, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Kerala & Mahe.
- Maximum Temperature Departures as on 18-09-2020: Maximum temperatures were markedly above normal (5.1°C or more) at isolated places over Himachal Pradesh and West Madhya Pradesh; appreciably above normal (3.1°C to 5.0°C) at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Uttarakhand; at a few places over Punjab and East Madhya Pradesh; at isolated places over Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Odisha, Gangetic West Bengal and Tamil Nadu, Puducherry & Karaikal; above normal (1.6°C to 3.0°C) at many places over Coastal Andhra Pradesh & Yanam; at a few places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. They were appreciably below normal (-3.1°C to -5.0°C) at isolated places over Telangana and Andaman & Nicobar Islands; below normal (-1.6°C to -3.0°C) at most places over Sub-Himalayan West Bengal & Sikkim and Coastal Karnataka; at many places over Marathwada and Rayalaseema; at a few places over Madhya Maharashtra and North Interior Karnataka; at isolated places over Bihar, Gujarat Region, Konkan & Goa and Kerala & Mahe and near normal over

rest parts of the country. Yesterday, the highest maximum temperature of 40.7°C was reported at Churu (West Rajasthan).

- Minimum Temperature Departures as on 19-09-2020: Minimum temperatures are markedly above normal (5.1°C or more) at isolated places over East Rajasthan; appreciably above normal (3.1°C to 5.0°C) at most places over Punjab; at many places over Haryana, Chandigarh & Delhi, West Uttar Pradesh and West Rajasthan; at a few places over East Uttar Pradesh, West Madhya Pradesh and Saurashtra & Kutch; at isolated places over East Madhya Pradesh; above normal (1.6°C to 3.0°C) at most places over Uttarakhand; at many places over Jharkhand, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Gujarat Region; at a few places over Himachal Pradesh, Odisha and Arunachal Pradesh; at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Gangetic West Bengal, Madhya Maharashtra and Tamil Nadu, Puducherry & Karaikal. They were below normal (-1.6°C to -3.0°C) at isolated places over Rayalaseema and near normal over rest parts of the country. The lowest minimum temperature of 19.6°C reported at Chandrapur (Vidarbha) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 19 September (Day 1): Heavy to very heavy rainfall at a few places with extremely heavy falls at isolated places very likely over north Kerala; heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places over Coastal Karnataka & ghat sections of South Interior Karnataka; heavy to very heavy rainfall at isolated places over Andaman & Nicobar Islands, south Konkan & Goa, Coastal Andhra Pradesh & Yanam and Rayalaseema and heavy rainfall at isolated places over south Chhattisgarh, Odisha, Madhya Maharashtra, Marathwada, Telangana, North Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Thundersquall (speed 50-60 kmph) accompanied with lightning very likely at isolated places over Andaman & Nicobar Islands; thunderstorm with lightning & hail at isolated places over Uttarkhand and thunderstorm with lightning at isolated places over East Uttar Pradesh, southeast Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Gangetic West Bengal, Odisha, Madhya Maharashtra, Marathwada, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed reaching 45-55 kmph) very likely over Southwest Arabian Sea, along & off Kerala-Karnataka coasts and Lakshadweep area, Gulf of Mannar, South & adjoining Central Bay of Bengal and Andaman Sea. Squally Weather (speed reaching 45-55 kmph) over Eastcentral Arabian Sea along & off

south Maharashtra-Goa coasts. Fishermen are advised not to venture into these areas.

- 20 September (Day 2): Heavy to very heavy rainfall at a few places with extremely heavy falls at isolated places very likely over Coastal Karnataka and north Kerala; heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places over ghat sections of South Interior Karnataka; heavy to very heavy rainfall at isolated places over Odisha, south Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana and Tamil Nadu, Puducherry & Karaikal and heavy rainfall at isolated places over Andaman & Nicobar Islands, south Chhattisgarh, Jharkhand, Gangetic West Bengal, Tripura, Madhya Maharashtra, Marathwada, Rayalaseema and North Interior Karnataka. Thundersquall (speed 50-60 kmph) accompanied with lightning very likely at isolated places over Andaman & Nicobar Islands and thunderstorm with lightning at isolated places over Uttarakhand, East Uttar Pradesh, southeast Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Madhya Maharashtra, Marathwada, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed reaching 45-55 kmph) very likely over Southwest Arabian Sea, along & off Kerala-Karnataka coasts and Lakshadweep area, South & adjoining Central Bay of Bengal along & off West Bengal-Odisha coasts and Andaman Sea. Squally Weather (speed reaching 45-55 kmph) over Eastcentral Arabian Sea along & off south Maharashtra-Goa coasts. Fishermen are advised not to venture into these areas.
- 21 September (Day 3): Heavy to very heavy rainfall at a few places with extremely heavy falls at isolated places very likely over Coastal Karnataka; heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places over south Konkan & Goa; heavy to very heavy rainfall at isolated places over West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Interior Karnataka and Kerala & Mahe and heavy rainfall at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Marathwada, Coastal Andhra Pradesh & Yanam and Telangana. Moderate thunderstorm accompanied with lightning very likely at isolated places over East Uttar Pradesh and thunderstorm with lightning at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. Strong Wind (speed

reaching 50-60 kmph) very likely over Southwest, Central and North Bay of Bengal; (speed reaching 45-55 kmph) very likely over Southwest Arabian Sea, along & off Kerala-Karnataka coasts and Lakshadweep area and along & off West Bengal-Odisha coasts. Squally Weather (speed reaching 45-55 kmph) over Eastcentral Arabian Sea along & off Maharashtra-Goa coasts. Fishermen are advised not to venture into these areas.

- 22 September (Day 4): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and south Konkan & Goa; heavy to very heavy rainfall at isolated places over Bihar and Coastal Karnataka and heavy rainfall at isolated places over East Madhya Pradesh, Chhattisgarh, Jharkhand, Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Interior Karnataka and Kerala & Mahe. Moderate thunderstorm accompanied with lightning likely at isolated places over Uttar Pradesh and thunderstorm with lightning at isolated places over Uttarakhand, northeast Rajasthan, West Madhya Pradesh, Chhattisgarh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Interior Karnataka. Strong Wind (speed reaching 45-55 kmph) likely over Southwest Arabian Sea and Westcentral Bay of Bengal along & off West Bengal-Odisha coasts. Squally Weather (speed reaching 45-55 kmph) over Eastcentral Arabian Sea along & off Maharashtra-Goa coasts. Fishermen are advised not to venture into these areas.
- 23 September (Day 5): Heavy to very heavy rainfall at isolated places with extremely heavy falls at isolated places likely over Sub-Himalayan West Bengal & Sikkim; heavy to very heavy rainfall at isolated places over Arunachal Pradesh, Assam & Meghalaya and Bihar and heavy rainfall at isolated places over Madhya Pradesh, north Chhattisgarh, Jharkhand and Konkan & Goa. Thunderstorm accompanied with lightning & hail likely at isolated places over Uttarakhand; moderate thunderstorm accompanied with lightning at isolated places over Uttar Pradesh and thunderstorm with lightning at isolated places over northeast Rajasthan, West Madhya Pradesh, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Strong Wind (speed reaching 45-55 kmph) likely over Southwest Arabian Sea. Fishermen are advised not to venture into these areas.
- The weather outlook for seven days i.e., 19 to 27 Sep 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)

Punjab

Weather condition:

The maximum temperature during the week ranged between 35.0-35.4 °C and minimum temperature ranged between 24.6-28.0 °C. The morning and evening relative humidity during the week varied between 85-90 and 44-58%, respectively. The sunshine hours during the week ranged between 8.2-10.6 hrs/day. The evaporation rate ranged between 4.0-4.4 mm day⁻¹. Daily average wind speed varied from 2.0-2.7kmhr⁻¹.

Contingency measure:

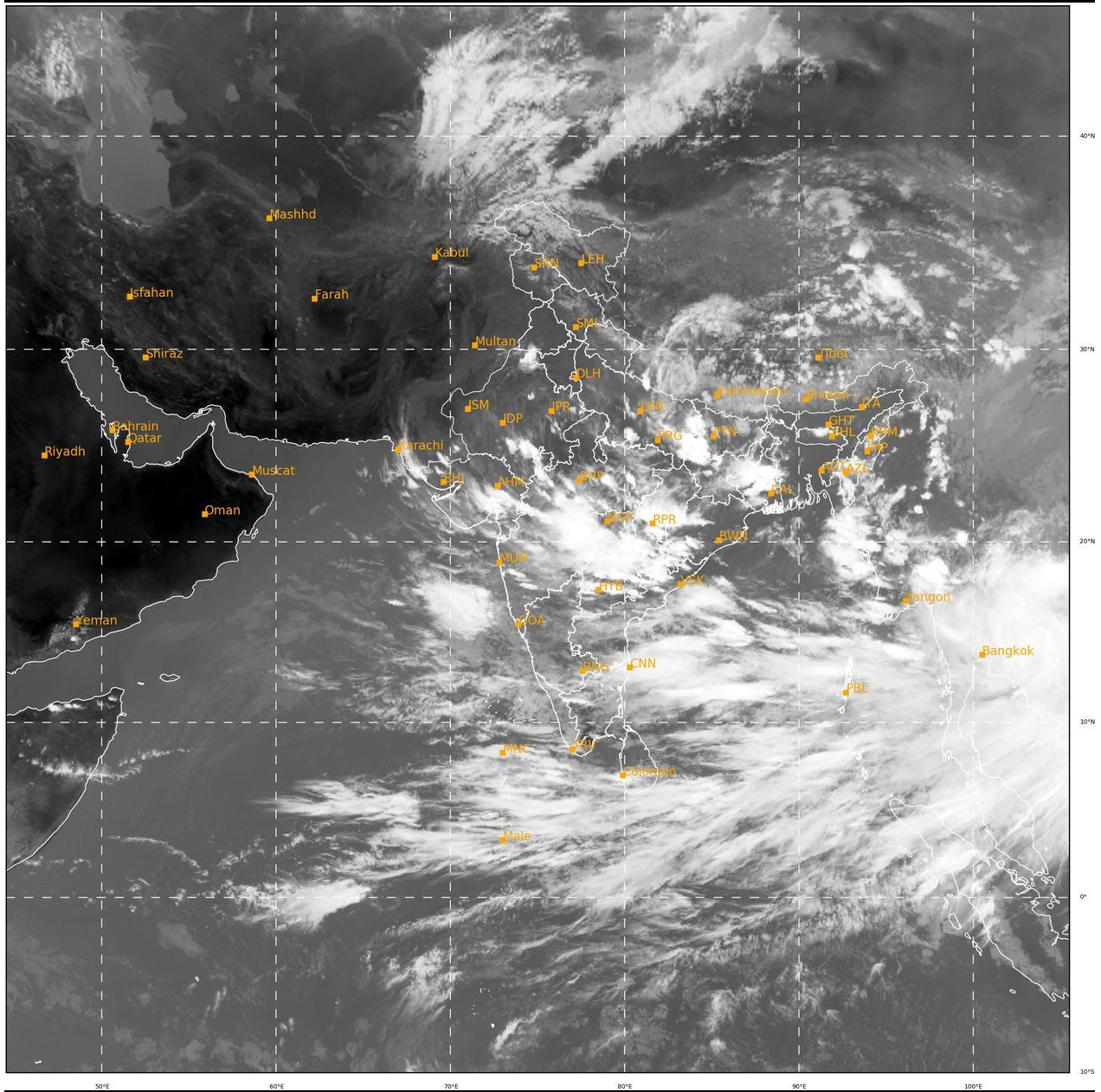
- Isolated cloudy weather is likely to prevail in the coming days. Weather parameters are likely to remain as follows: Maximum Temperature 35-35.4°C, Minimum Temperature 24.6-28.0 °C. Wind speed 2-2.7 km/h.
- RICE: Apply irrigation to paddy crop, two days after the ponded water has infiltrated into the soil. Care should be taken that the field does not develop cracks. Eradicate the weeds growing on paddy field. Prevailing weather is favourable for the onset of false smut. Farmers are advised to protect their crop by spraying 500 ml Kocide in 200 litres of water per acre at boot stage. To save the rice crop from sheath blight, keep the bunds of the field clean by removing grasses. If the symptoms of disease of observed in the field than spray the crop with Amistar Top or Tilt/Bumper or Folicur Orius @ 200ml or Nativo @ 80g or Moncern @ 200 ml in 200 litres of water per acre. Direct the spray towards the base of the plants. Survey the rice field for stem borer and leaf folder infestation. If the damage by stem borer and leaf folder exceeds the economic threshold level (5% dead hearts and 10% damaged leaves, respectively), spray the crop with fame 480 SC @ 20ml /acre or Mortar 75 SG @170 g/acre or Dursban /Durmet /Coroban 20 EC @1 liter/acre. Regularly monitor the rice fields for plant hopper infestation. If 5 or more plant hoppers per hill are observed, spray the crop with Chess 50 WG @ 170 g/acre or Confidor 200 SL @ 40 ml/acre.
- BASMATI: Survey basmati field for stem borer and leaf folder infestation. If stem borer damage exceeds ETL i.e 2 % dead hearts, apply insecticides in rice like Coragen 18.5 SC @ 60 ml/acre or Ferterra 0.4 GR @ 4 Kg/acre or Padan / Caldan /Nidan 4G @ 10 kg/acre or Regent /Mortel 0.3 G @ 6 Kg / acre. These insecticides also control leaf folder.
- COTTON: Do not allow rainwater to stand in the cotton fields. Spray against whitefly should be done when population reaches 6 adults/leaf in the upper canopy

of the plant before 10 AM. Give first spray of PAU neem extract @ 1200 ml or neem based biopesticide, nimbecidine/achook @ 1 litre/acre. If high incidence of whitefly adults was observed, spray Ulala 50 WG (flonicamid) @ 80 g or Polo/Ruby/Craze/Ludo/Shoku 50 WP (diafenthiuron) @ 200 g or Osheen 20 SG (dinotefuran) @ 60 g/acre. If high incidence of whitefly nymphs observed, spray Lano 10 EC (pyriproxyfen) @ 500 ml or Oberon/Voltage 22.9 SC (spiromesifen) @ 200 ml/acre. Initiate spray against Jassid when some of the fully formed leaves in upper canopy showing yellowing and curling at the margins on 50 per cent of the plants. To manage Jassid, spray Ulala 50 WG @80 g or Osheen 20 SG @ 60 g or Actara/Extrasuper/Dotara 25 WG @ 40 g or Imidacel/Markdor 17.8 SL or Confidor 200 SL @ 40 ml in 150 litres of water per acre.

- MAIZE: Do not allow rainwater to stand in the maize fields.
- VEGETABLES: Prevailing weather is favourable for the development and spread of fruit rot in chilli. Farmers are advised to give 3-4 sprays of Folicur @ 250 ml of Indofil M-45 or blitox 50 WP @ 750 gm/acre at 10 days interval during clear weather.
- FRUIT PLANTS: The excess rain water when stagnates for several days is harmful to the orchard trees. Adopt prompt measures to drain out excess rain water from the orchard.

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

18-09-2020/(0930 to 0956) GMT
18-09-2020/(1500 to 1526) IST



274

953

IMD, DELHI

Figure: 1. Latest available satellite picture as on 19 September 2020 at 1526 Hrs (IST).
(Source: IMD).

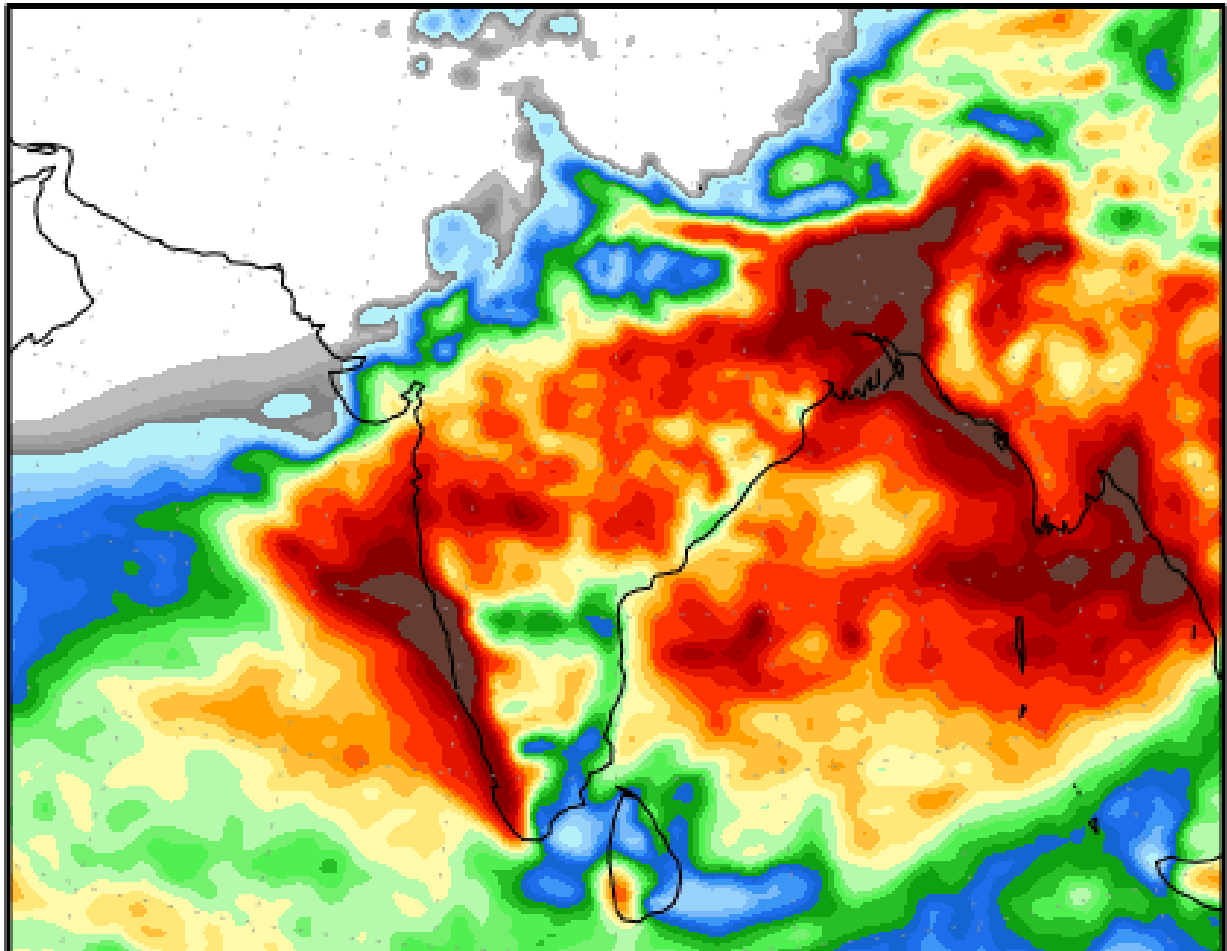


Figure:2. Precipitation forecast for 19 to 27 Sep 2020 (Source: NOAA NCEP).

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