

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 01 December 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The Deep Depression over Southwest & adjoining Southeast Bay of Bengal moved nearly westwards with a speed of 11 kmph during past 06 hours and lay centered at 0830 hours IST of today, the 01st December, 2020 over the same region near Lat. 7.8°N and Long. 85.7°E, about 500 km east-southeast of Trincomalee (Sri Lanka) and 900 km east-southeast of Kanyakumari (India). It is very likely to intensify further into a Cyclonic Storm during next 24 hours. It is very likely to move west-northwestwards and cross Sri Lanka coast between Latitudes 7.5°N and 9.0°N close to Trincomalee during evening/night of 02nd December. It is very likely to move nearly westwards thereafter, emerge into Gulf of Mannar & adjoining Comorin area on 03rd December morning and move westwards towards south Tamil Nadu coast.
- Under the influence of the above system: i) Heavy to very heavy rainfall at a few places with isolated Extremely heavy falls very likely over south Tamil Nadu (Kanyakumari, Tirunelveli, Thoothukudi, Tenkasi, Ramanathapuram and Sivagangai) on 2nd and 3rd December, 2020 and over south Kerala (Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzah) on 3rd December. Isolated heavy to very heavy rainfall likely over south Kerala on 2nd & 4th December, 2020; isolated heavy rainfall over south Tamil Nadu on 1st, 4th & 5th December and over south Kerala on 5th December, 2020. ii) Heavy to very heavy rainfall at Isolated places very likely over north Tamil Nadu, Puducherry & Karaikal and north Kerala & Mahe on 2nd & 3rd December; isolated heavy rainfall likely over north coastal Tamil Nadu on 1st December and over north Kerala & Mahe on 4th December. iii) Heavy to very heavy rainfall at isolated places very likely over Lakshadweep during 3rd and 4th December; heavy rainfall at isolated places likely over south Coastal Andhra Pradesh during 2nd & 3rd December, over Rayalaseema on 3rd December and over Lakshadweep on 5th December, 2020.
- Fishermen are advised not to venture into southeast Bay of Bengal during 1st December, southwest Bay of Bengal and along & off east Sri Lanka coast from 1st

to 3rd December; Comorin Area, Gulf of Mannar and south Tamil Nadu-Kerala coasts from 2nd to 4th December, over Lakshadweep-Maldives area & adjoining southeast Arabian Sea from 3rd to 4th December. Fishermen out at Sea are advised to return to the coast by today. Total suspension of fishing operation during 1st- 4th December over these areas.

- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830 hrs IST of yesterday to 0830 hours IST of today): at a few places over Andaman & Nicobar Islands and at isolated places over Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- Maximum Temperature Departures as on 30-11-2020: Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, West Madhya Pradesh and Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at most places over Vidarbha, Marathawada and Nagaland, Manipur, Mizoram & Tripura; at many places over Himachal Pradesh, Uttarakhand, Rajasthan, Gujarat region, Chhattisgarh, Odisha, Jharkhand, Sub-Himalayan west Bengal & Sikkim, Kerala & Mahe, Konkan & Goa and Coastal Karnataka; at a few places over East Madhya Pradesh, Madhya Maharashtra and Telangana; at isolated places over Tamil Nadu, Puducherry & Karaikal. They were below normal (-1.6°C to -3.0°C) at many places over Haryana, Chandigarh & Delhi; at isolated places over West Uttar Pradesh, Gangetic West Bengal and Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, The highest maximum temperature of 37.0°C was reported at Mangalore (Coastal Karnataka).
- Minimum Temperature Departures as on 01-12-2020: Minimum temperatures are markedly above normal (5.1°C and above) at isolated places over Madhya Maharashtra; appreciably above normal (3.1°C to 5.0°C) at many places over Gujarat state and Konkan & Goa; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Coastal Karnataka and Andaman & Nicobar Islands; above normal (1.6°C to 3.0°C) at many places over Sub-Himalayan West Bengal & Sikkim, Lakshadweep, Kerala & Mahe and Vidarbha; at a few places over West Rajasthan, Nagaland, Manipur, Mizoram & Tripura and West Madhya Pradesh and at isolated places over Assam & Meghalaya. They are below normal (-1.6°C to -3.0°C) at many places over Bihar and Gangetic West Bengal; at a few places over Haryana, Chandigarh & Delhi,

East Madhya Pradesh, Jharkhand and Chhattisgarh and at isolated places over Odisha and near normal over rest parts of the country. Today, the lowest minimum temperature of 5.5°C is reported at Churu (West Rajasthan) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 01 December (Day 1): Heavy rainfall very likely at isolated places over Tamil Nadu, Puducherry & Karaikal. Thunderstorm with lightning very likely at isolated places over Tamil Nadu, Puducherry & Karaikal. Squally Wind (speed 50-60 kmph gusting to 70 kmph) very likely over central parts of South Bay of Bengal and would gradually increase becoming Gale winds (speed reaching 60-70 kmph gusting to 80 kmph) over Southwest & adjoining Southeast Bay of Bengal from evening. Sea condition is very likely to be rough to very rough over Southeast Bay of Bengal and very rough to high over Southeast & adjoining Southwest Bay of Bengal and along & off east Sri Lanka coast. Fishermen are advised not to venture into these areas.
- 02 December (Day 2): Heavy to very heavy rainfall with extremely heavy falls at isolated places likely over south Tamil Nadu; heavy to very heavy rainfall at isolated places over Kerala & Mahe; heavy rainfall at isolated places over south Coastal Andhra Pradesh & Yanam. Thunderstorm with lightning likely at isolated places over Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Gale Winds (speed reaching 70-80 kmph gusting to 90 kmph) very likely over Southwest Bay of Bengal along & off Sri Lanka coast and (speed reaching 45-55 kmph gusting to 65 kmph) over Comorin Area, Gulf of Mannar and south Tamilnadu-Kerala coasts. Sea condition is very likely to be very rough to high over Southeast & adjoining Southwest Bay of Bengal and along & off east Sri Lanka coast and rough to very rough over Comorin Area, Gulf of Mannar & along & off south Tamil Nadu-Kerala coasts. Fishermen are advised not to venture into these areas.
- 03 December (Day 3): Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over south Tamil Nadu and south Kerala; Heavy to very heavy rainfall at isolated places over Lakshadweep and heavy rainfall at isolated places over Andaman & Nicobar Islands, south Coastal Andhra Pradesh & Yanam and Rayalseema. Thunderstorm with lightning likely at isolated places over Coastal Andhra Pradesh & Yanam, Rayalaseema, Andaman & Nicobar Islands, South Interior Karnataka, Lakshadweep, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Squally Winds (speed reaching 55-65 kmph gusting to 75

kmph) over Gulf of Mannar, along & off south Tamil Nadu-Kerala coasts, Comorin area, Lakshadweep-Maldives areas and adjoining Southeast Arabian Sea in morning and (speed reaching 70-80 kmph gusting to 90 kmph) from evening for subsequent 24 hours. Sea condition is very likely to be rough to very rough over Comorin Area, Gulf of Mannar & along & off south Tamil Nadu-Kerala coasts and Lakshadweep-Maldives areas & adjoining Southeast Arabian Sea. Fishermen are advised not to venture into these areas.

- 04 December (Day 4): Heavy to very heavy rainfall at isolated places over Kerala & Mahe and Lakshadweep and heavy rainfall at isolated places over Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar Islands. Thunderstorm with lightning likely at isolated places over Coastal Andhra Pradesh & Yanam, Rayalaseema, Andaman & Nicobar Islands, South Interior Karnataka, Lakshadweep, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Squally Winds (speed reaching 70-80 kmph gusting to 90 kmph) over Gulf of Mannar, along & off south Tamil Nadu-Kerala coasts, Comorin area, Lakshadweep-Maldives areas and adjoining Southeast Arabian Sea. Sea condition is very likely to be rough to very rough over Comorin Area, Gulf of Mannar & along & off south Tamil Nadu-Kerala coasts and Lakshadweep-Maldives areas & adjoining Southeast Arabian Sea. Fishermen are advised not to venture into these areas.
- 05 December (Day 5): Heavy rainfall at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep. Thunderstorm with lightning likely at isolated places over Lakshadweep, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- The weather outlook for seven days i.e., 01 December to 09 December 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)

Maharashtra-Vidarbha

Weather condition:

Akola centre: Weekly average means (47 MW) at AICRPAM Akola centre: T max 32.1 °C (normal 30.8 °C), T min 13.8 °C (normal 13.0°C). RH I 88% (normal 72%), RH II 34% (normal 29%). Evaporation rate 4.8 mm (normal 3.1 mm), Wind speed 0.9 km/hr (normal 3.1 km/hr) and BSH 7.2 hrs (normal 8.3 hrs). Maximum temperature across the week was 1.3°C above normal with a deviation of +4.3 to -1.5 °C from normal and the

minimum temperature was 0.8°C above normal with a deviation of +4.7 to -1.6°C from normal. In Vidarbha subdivision rainfall from 1 June to 30 September amounted to 1044.8mm (+9%), Whereas rainfall during October 1 to November 24 amounted to 51.2 mm (-27%). At Akola centre rainfall during 01 June to 30 September amounted to 741.8 mm (+13%) and during October 1 to November 25, total rains amounted 37.5 mm (-44%).

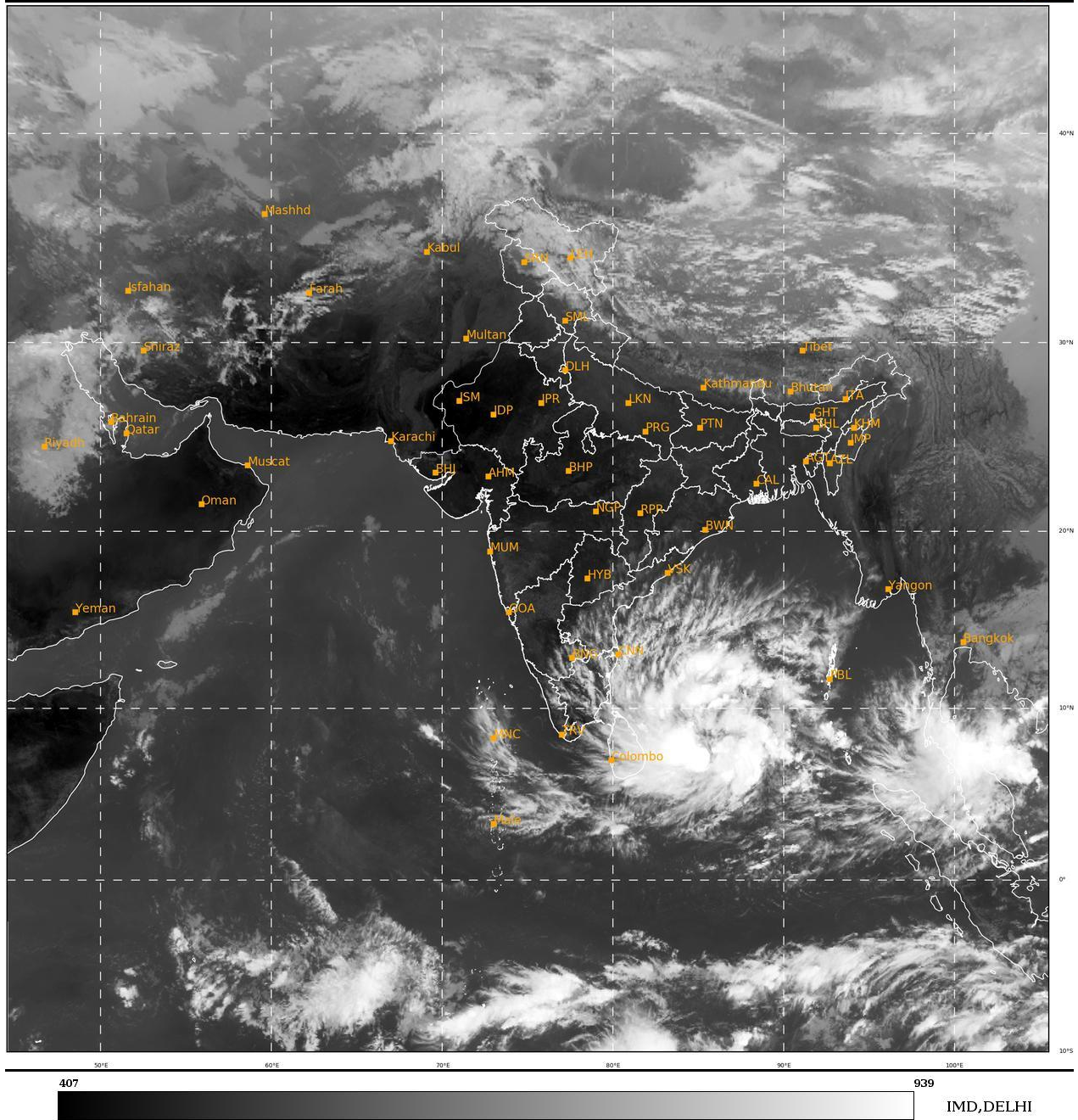
Contingency measure:

- The forecast indicates mainly dry weather during 24-25 and forecast of light to moderate rainfall at isolated places during on 26-27 November.
- At boll formation stage, inspect for presence and damage of pink bollworm from randomly selected plants. If infestation is 5 to 10% undertake spray of thiodicarb 75% WP@ 25g OR quinalphos 25% AF @ 25 ml OR chlorpyrifos 25% EC @ 25 ml OR Profenofos 50% EC @ 30 ml OR indoxacarb 15.8% EC @ 10 ml OR deltamethrin 2.8% EC @ 10 ml per 10 litres of water. If infestation is more than 10% undertake spray of ready mix formulation of Triazophos 35% EC+ Deltamethrin 1% EC @ 17 ml OR Chlorantraniliprole 9.3% + Lambdacyhalothrin 4.6% zc @ 5 ml OR Chlorpyrifos 50% + Cypermethrin 5% EC @ 20 ml OR Indoxacarb 14.5% + Acetamaprid 7.7% SC @ 10 ml per 10 litres of water.
- Prevailing weather conditions of partly cloudiness and lower night time temperature are congenial for pod borer incidence in pigeonpea. To manage the incidence of pod borer (*Helicoverpa*) at flowering stage/pod formation (3/plant or 5 to 10% pod damage) undertake spray first spray of 5% NKSE OR Azadirachtin 300 PPM @ 50 ml per 10 litres of water OR Azadirachtin 1500 PPM @ 25 ml OR HaNPV (1x10⁹ POB/ml) 500 LE/ha, OR quinalphos 25%EC @ 20 ml OR Thiodicarb 75% WP @ 20 g per 10 litres of water. After 15 days of first spray undertake second spray of Chlorantraniliprole 18.5% SC @ 3 ml OR Indoxacarb 15.8% EC @ 6.6 ml OR Lambdacyhalothrin 5% EC @ 10ml OR Flubendiamide 20% WG @ 5 g OR Emamectin benzoate 5% SG @ 4.4 g OR Chlorantraniliprole 9.3% + Lambdacyhalothrin 4.6% zc @ 4 ml.
- For delayed sowing of irrigated wheat (November 15-December 15) use varieties PDKV Sardar (AKAW 4210-6), AKW-1071(Purna). Follow seed treatment with Carbendazim @ 2.5 g / kg seed. Also, seed treatment with Azotobacter and PSB @ 25 g each / kg seed treatment is advisable. Use fertilizer @ 40:40:40 kg NPK/ha at sowing and remaining N @ 40 kg/ha at 18-20 days stage at first irrigation. Need based protective irrigation is advisable in earlier sown chickpea. For delayed sowing of irrigated wheat (November 15-December 15) use varieties PDKV Sardar (AKAW 4210-6), AKW-1071(Purna).

- Follow seed treatment with Carbendazim @ 2.5 g / kg seed. Also, seed treatment with Azotobacter and PSB @ 25 g each / kg seed treatment is advisable. Use fertilizer @ 40:40:40 kg NPK/ha at sowing and remaining N @ 40 kg/ha at 18-20 days stage at first irrigation.
- Apply top dressing of nitrogen fertilizer @ 40 kg N/ha to 25-30 days old Rabi sorghum/Rabi maize crop at adequate soil moisture under protective irrigation. Monitor for incidence of sap sucking aphids particularly in irrigated / late sown safflower crop and for above ETL level incidence (30% infested plants) undertake spray with dimethoate 30% EC @ 13 ml per 10 litres of water.
- For management of hasta bahar in acid lime undertake spray of potassium nitrate 2% at release of moisture stress. Undertake recommended manuring/fertilization as per age of orchard trees.
- Transplanting of brinjal, tomato, cabbage cauliflower and seed sowing of radish, carrot, leafy vegetables can be initiated during this period.
- Screening of farm livestock, draught / milch animals for diseases be considered and they be vaccinated for foot and mouth disease (FMD). With decrease in night temperature protect newly born calf and milch animals from evening/morning cold.

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

01-12-2020/(0800 to 0827) GMT
 01-12-2020/(1330 to 1357) IST



**Figure: 1. Latest available satellite picture as on 01 December 2020 at 1357 Hrs (IST).
 (Source: IMD).**

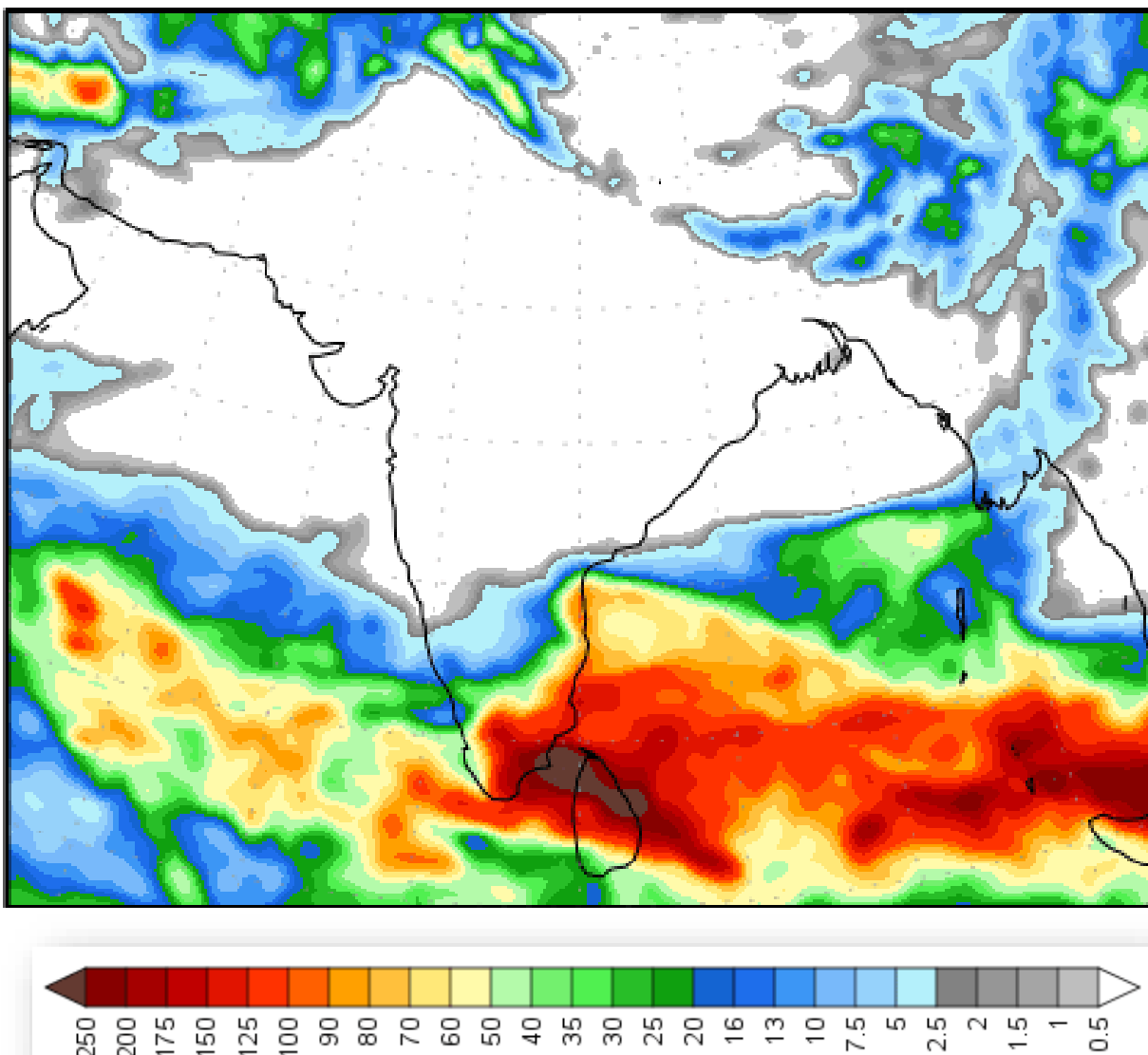


Figure:2. Precipitation forecast for 01 to 09 December 2020 (Source: NOAA NCEP).

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