

# All India Coordinated Research Project on Agrometeorology

## CRIDA, Santoshnagar, Hyderabad – 500 059

### Daily Crop Weather Information as on 27 May 2020

**Attention: Rajiv Maheshwari, OSD, ICAR**

#### Significant Weather Features (IMD)

- Due to prevailing dry northwesterly winds over plains of northwest India, Central India & adjoining interior parts of eastern India, present heat wave conditions very likely to continue to prevail mainly during next 24 hours.
- Meteorological sub-division wise, isolated severe heat wave conditions with heat wave at many places very likely over Vidarbha during next 24 hours. Heat wave conditions likely at a few places over Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Rajasthan and Madhya Pradesh and at isolated places over Punjab and East Uttar Pradesh also during the same period. Isolated heat wave conditions also likely over Bihar, Jharkhand, Odisha, Marathwada and Madhya Maharashtra during next 2-3 days.
- Under the influence of a Western Disturbance and formation of east-west trough in lower levels and likely occurrence of rain/thunderstorm from 28th-29th May, maximum temperatures over plains of north India likely to recede from 28th onwards with substantial reduction of Heat wave conditions from 29th May. Under favourable wind conditions over parts of central & adjoining eastern parts of India, heat wave conditions also likely to reduce from these areas from 29th May.
- Due to strong southerly wind from Bay of Bengal to northeast India at lower tropospheric levels; Heavy to very heavy rainfall with extremely heavy falls likely at isolated places over parts of Assam & Meghalaya during next 4-5 days. Heavy to very heavy rainfall likely at isolated places over Nagaland, Manipur, Mizoram & Tripura during next 5 days and over adjoining parts of east India during next 24 hours. Heavy rainfall at isolated places over parts of south peninsular India during 27th-30th May, 2020.
- The Northern Limit of Monsoon (NLM) continues to pass through Lat.5°N/Long.85°E, Lat.8°N/Long.90°E, Car Nicobar, Lat.11°N/Long.95°E.
- The images showing the latest satellite picture in the figure. 1.

## Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830 hours IST to 1730 hours IST of yesterday): at most places over Arunachal Pradesh, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim; at many places over Nagaland, Manipur, Mizoram & Tripura and at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Uttarakhand and Tamilnadu, Puducherry & Karaikal.
- Thunderstorm observed (from 0830 hours IST of yesterday to 0530 hours IST of today) at many places over Assam & Meghalaya; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and at isolated places over Sub-Himalayan West Bengal & Sikkim and Uttarakhand.
- Yesterday, heat wave conditions were reported in some parts with severe heat wave in isolated pockets over West Rajasthan, Haryana, Delhi and East Uttar Pradesh. Heat wave conditions at most parts over Vidarbha, North Madhya Pradesh, West Uttar Pradesh; at some parts over East Rajasthan, and Marathawada and at isolated pockets of Saurashtra.
- Maximum Temperature Departures as on 26-05-2020: Maximum temperatures were markedly above normal (5.1°C or more) at isolated places over Saurashtra & Kutch; appreciably above normal (3.1°C to 5.0°C) at most places over Punjab, Haryana, Chandigarh & Delhi, Rajasthan, East Uttar Pradesh and Marathawada; at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Vidarbha, Rayalaseema and North Interior Karnataka; at a few places over Jharkhand, West Madhya Pradesh, Gujarat State, Madhya Maharashtra, Chhattisgarh, Telangana, South Interior Karnataka and at isolated places over Tamilnadu, Pudducherry and Karaikal; above normal (1.6°C to 3.0°C) at most places over Kerala & Mahe and Lakshadweep; at many places over Konkan & Goa; at a few places over Andaman & Nicobar Islands. They were markedly below normal (-5.0°C or less) at most places over Arunachal Pradesh; at many places over Assam & Meghalaya; at a few places over Sub-Himalayan West Bengal & Sikkim; below normal (-1.6°C to -3.0°C) at a few places over Coastal Andhra Pradesh & Yanam; at isolated places over Odisha, Gangetic West Bengal and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 50.0°C reported at Churu (West Rajasthan) and 2nd highest maximum temperature of 48.0°C reported at Hissar (Haryana) and Banda(East Uttar Pradesh).
- Minimum Temperature Departures as on 26-05-2020: Minimum temperatures were appreciably above normal (3.1°C to 5.0°C) at many places over Rajasthan; at

a few places over Telangana; at isolated places over West Uttar Pradesh and Madhya Maharashtra; above normal (1.6°C to 3.0°C) at most places over Jharkhand, Marathwada and Coastal Karnataka; at many places over Andaman & Nicobar Islands; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Haryana, Chandigarh & Delhi, Gangetic West Bengal, Tamilnadu, Puducherry & Karaikal, odisha and Madhya Pradesh; at isolated places over East Uttar Pradesh, Vidarbha, Interior Karnataka, Kerala & Mahe, Rayalaseema and Lakshadweep. They were below normal (-1.6°C to -3.0°C) at a few places over Assam & Meghalaya and near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 20.0°C reported at Datia (West Madhya Pradesh) over the plains of the country.

### **Weather Warning during the next 5 days (IMD)**

- 27 May (Day 1): Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) very likely at isolated places over Gangetic West Bengal; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka, Tamil Nadu, Puducherry & Karikal and Kerala & Mahe and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Odisha, Telangana and Arunachal Pradesh. Heavy to very heavy rainfall with extremely heavy falls very likely at isolated places over Assam & Meghalaya; Heavy to very heavy rainfall at isolated places over Nagaland, Manipur, Mizoram & Tripura and heavy rainfall at isolated places over South Interior Karnataka, Kerala & Mahe and Arunachal Pradesh. Heat wave conditions at many places with severe heat wave in isolated pockets very likely over Vidarbha; Heat wave conditions at a few places with severe heat wave in isolated pockets over West Rajasthan; heat wave conditions in some pockets over Haryana, Chandigarh & Delhi, West Uttar Pradesh, Madhya Pradesh and East Rajasthan and in isolated pockets over Punjab, Bihar, Jharkhand, Odisha, Saurashtra & Kutch, Madhya Maharashtra, Marathwada, Telangana and North Interior Karnataka. Strong wind speed reaching 40-50 kmph likely to prevail over north & Southwest Arabian Sea, northwest Bay of Bengal and along & off Odisha-West Bengal coasts. Fishermen are advised not to venture into this area.
- 28 May (Day 2): Thunderstorm accompanied with lightning, hail & squall (speed reaching 50-60 kmph) very likely at isolated places over Uttarakhand; with lightning & squall (speed reaching 50-60 kmph) at isolated places over Gangetic

West Bengal; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Bihar; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Jammu & Kashmir, Ladakh, GilgitBaltistan, Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Chhattisgarh, Jharkhand, South Interior Karnataka, Tamil Nadu, Puducherry & Karikal and Kerala & Mahe and with lightning at isolated places over Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana and Arunachal Pradesh. Heavy to very heavy rainfall with extremely heavy falls very likely at isolated places over Assam & Meghalaya; Heavy to very heavy rainfall at isolated places over Nagaland, Manipur, Mizoram & Tripura and heavy rainfall at isolated places over South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal. Heat wave conditions likely in some pockets over Vidarbha and in isolated pockets over Rajasthan, Chhattisgarh, Odisha, Madhya Pradesh and Telangana. Duststorm/Thunderstorm with squall (speed reaching 50-60 kmph) very likely at isolated places over Uttar Pradesh. Strong wind speed reaching 45-55 kmph likely to prevail over north, Southeast & Southwest Arabian Sea and Lakshadweep. Fishermen are advised not to venture into this area.

- 29 May (Day 3): Thunderstorm accompanied with lightning, hail & squall (speed reaching 50-60 kmph) very likely at isolated places over Uttarakhand; with lightning & squall (speed reaching 50-60 kmph) at isolated places over Punjab and Haryana, Chandigarh & Delhi; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Gangetic West Bengal, Bihar and Jharkhand; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Madhya Pradesh, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, Lakshadweep, South Interior Karnataka, Tamil Nadu, Puducherry & Karikal and Kerala & Mahe and with lightning at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema and Arunachal Pradesh. Heavy to very heavy rainfall likely at isolated places over Assam & Meghalaya and heavy rainfall at isolated places over Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka and Kerala & Mahe. Heat wave conditions likely in isolated pockets over Vidarbha and Telangana. Duststorm/Thunderstorm with squall (speed reaching 50-60 kmph) very likely at isolated places over Uttar Pradesh and Rajasthan. Strong wind speed reaching 45-55 kmph likely to prevail over north, Southeast & Southwest Arabian Sea and Lakshadweep. Fishermen are advised not to venture into this area.

- 30 May (Day 4): Thunderstorm accompanied with lightning & squall (speed reaching 50-60 kmph) likely at isolated places over Uttarakhand, Punjab and Haryana, Chandigarh & Delhi; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Bihar and Jharkhand; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Odisha, Lakshadweep, Karnataka, Tamil Nadu, Puducherry & Karikal and Kerala & Mahe and with lightning at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema and Arunachal Pradesh. Duststorm/Thunderstorm with squall (speed reaching 50-60 kmph) likely at isolated places over Uttar Pradesh and with gusty winds (speed reaching 30-40 kmph) at isolated places over Rajasthan. Heavy rainfall likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Karnataka, Tamilnadu, Puducherry & Karikal and Kerala & Mahe. Strong wind speed reaching 45-55 kmph likely to prevail over north, Southeast & Southwest Arabian Sea and Lakshadweep. Fishermen are advised not to venture into this area.
- 31 May (Day 5): Thunderstorm accompanied with lightning & squall (speed reaching 50-60 kmph) likely at isolated places over Uttarakhand, Punjab and Haryana, Chandigarh & Delhi; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Bihar and Jharkhand; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Odisha, Lakshadweep, Karnataka, Tamil Nadu, Puducherry & Karikal and Kerala & Mahe and with lightning at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema and Arunachal Pradesh. Duststorm/Thunderstorm with squall (speed reaching 50-60 kmph) likely at isolated places over Uttar Pradesh and with gusty winds (speed reaching 30-40 kmph) at isolated places over Rajasthan. Heavy rainfall likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Karnataka, Tamilnadu, Puducherry & Karikal and Kerala & Mahe. Strong wind speed reaching 45-55 kmph likely to prevail over north, Southeast & Southwest Arabian Sea and Lakshadweep. Fishermen are advised not to venture into this area.
- The weather outlook for seven days i.e., 27 May to 04 June 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:**

Weekly average means (21 MW) at AICRPAM Akola centre: T max 44.4 °C (normal 42.2 °C), T min 29.1 °C (normal 28.0 °C). RH I 35% (normal 50 %), RH II 9% (normal 21%). Evaporation rate 18.0 mm (normal 16.0 mm), Wind speed 8.1km/hr (normal 14.5 km/hr) and BSH 9.6 hrs (normal 9.2 hrs). Maximum temperature across the week was 2.3°C above normal and the minimum temperature was 1.2°C above normal. In Vidarbha subdivision rainfall from March 1 to 25 May amounted to 41.7 mm (+85). Akola recorded the highest maximum temperature of 47.4 degree Celsius on 25th May 2020. Severe Heat wave conditions occurred at many places over Vidarbha.

#### **Contingency measure:**

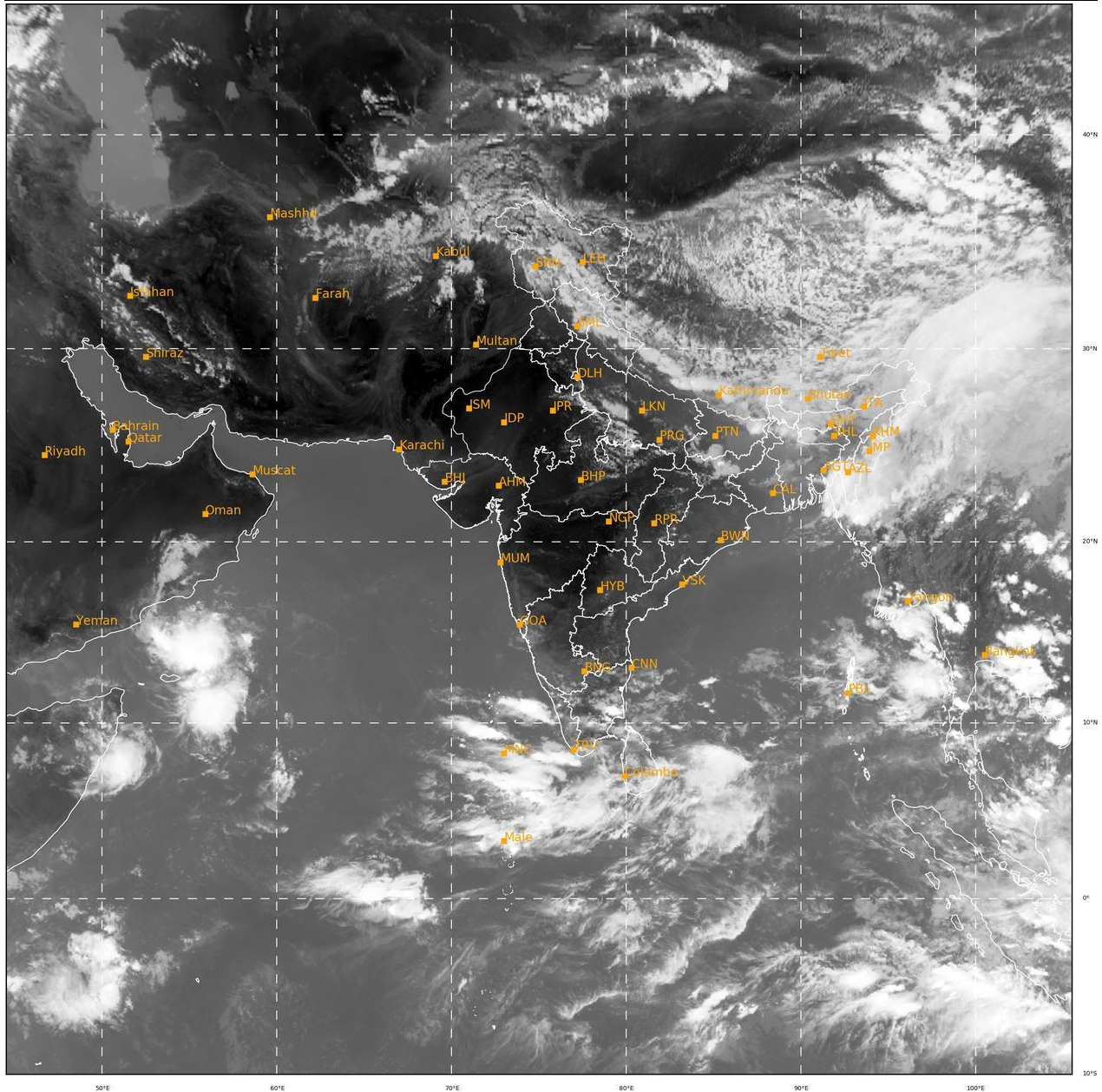
- Forecast suggest heat wave likely to occur at isolated places during 05 -06 May. Mainly dry weather to prevail during 05 -09 May. Farmers are advised to strictly follow the health advisory set out by the health officials for self, family and farm laborers during the prevailing health anxiety situation due to corona virus. Adequate personal safety measures as advised to be taken for everyone during farm operations and also at market place. Adequate precautions be followed during crop protection in handling of inputs and washing of equipment and personal safety.
- Deep summer ploughing of harvested fields to expose the hibernating insects, larvae/pupa to sun and predator birds is advisable. Avoid in-situ burning of crop residues.
- Undertake the necessary precautions to help reduce the incidence of fires at the farm under the prevailing very hot and dry weather conditions. In view of prevailing heat wave conditions and evaporative demand (10-12 mm/day) apply light and frequent irrigation to summer crops, vegetables and orchards, irrigating at an interval of 5 to 6 days, in the early morning or evening hours. Maintain adequate moisture in the soil profile to reduce the impact of heat stress on groundnut at pod development stage and sesamum at capsule development stage, irrigating in the crop early morning or late evening. For control of tikka disease in groundnut undertake spray of Chlorothalonil 75%WP @20 g OR Propiconazole 25% EC 10 ml OR Tebuconazole 25.9% EC @ 10 ml per 10 litres of water.



- Undertake need based timely irrigation to orange orchards with ambia bahar fruit bearing, wherever possible follow drip irrigation. Basin mulching with organic residues is advisable to conserve soil moisture, maintain thermal regime and reduce solar heat stress. Spraying of NAA 1gm (10PPM) or GA 1.5gm (15PPM) + Urea 1kg (1%) + Carbendazim 100gm (0.1%) in 100 litter of water on pea sized fruits of mandarin orange (ambia bahar) and sweet lime is advisable to reduce fruit drop due to heat impact. At an interval of 15 days alternat spay including GA or NAA is advisable. Make provision of shade/thatches (made of harvested cotton/pigeonpea stalks or dried grass or green net) to individual young/new plantation. Considering irrigation facility and market response, cultivation of summer vegetables like bitter gourd, tinda, ridge gourd, smooth gourd, bottle gourd, cowpea, clusterbean, coriander, etc can be initiated during this period.
- Ensure availability of sufficient feed/forage, proper working/grazing time (morning/evening), provision of enough drinking water as well as shelter with proper ventilation and periodic water sprinkling during summer heat conditions for farm/ draught livestock.

SAT : INSAT-3D IMG  
IMG\_TIR1 10.8 um  
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27-05-2020/(0800 to 0827) GMT  
27-05-2020/(1330 to 1357) IST



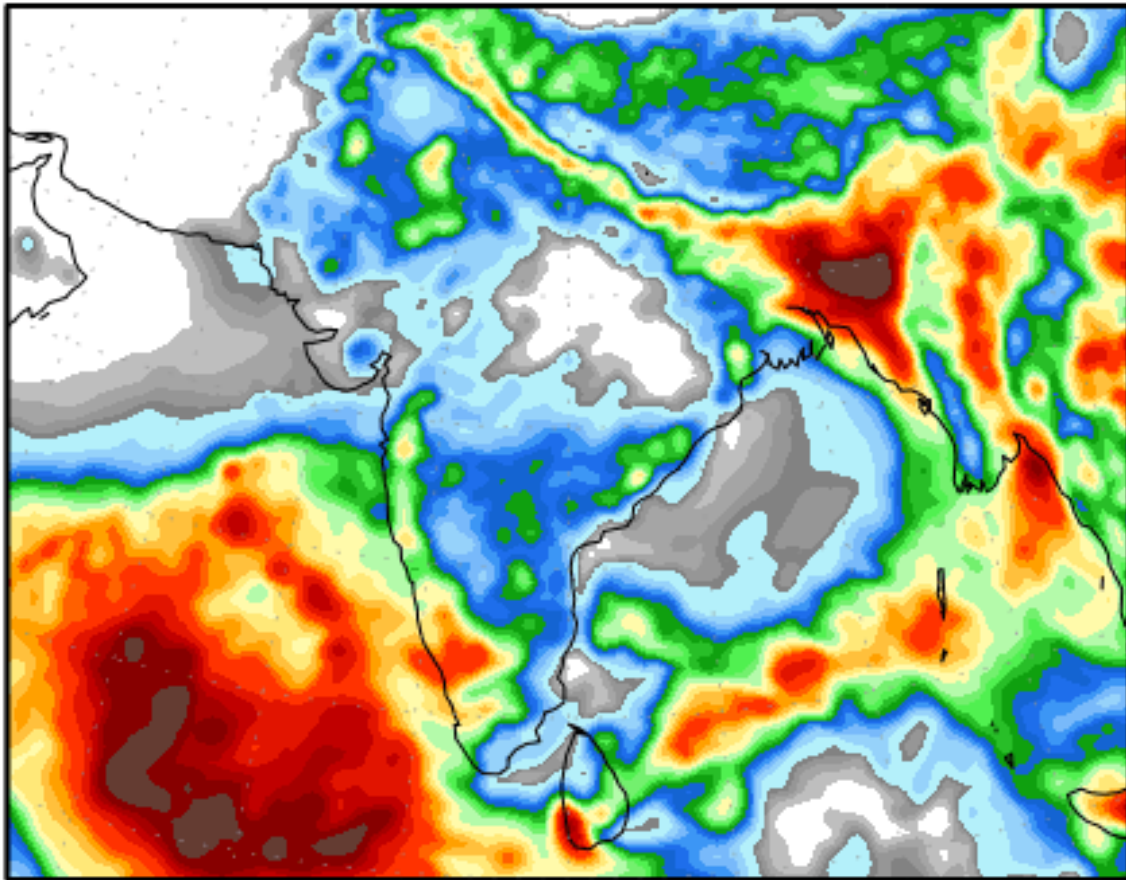
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IMD, DELHI

Figure: 1. Latest available satellite picture as on 27 May 2020 at 1357 Hrs (IST). (Source: IMD).





**Figure:2. Precipitation forecast for 27 May to 04 June 2020 (Source: NOAA NCEP).**

*Disclaimer: The predictability of weather depends on many dynamic factors. The success of Agromet advisories provided here depends on the accuracy of the forecasts. In no event will India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) be liable to the user or any third party for any direct, indirect, incidental, consequential, special or exemplary damages or lost profit resulting from any use or misuse of the information on this bulletin.*