

# All India Coordinated Research Project on Agrometeorology

## CRIDA, Santoshnagar, Hyderabad – 500 059

### Daily Crop Weather Information as on 28 May 2020

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

#### Significant Weather Features (IMD)

- The Southwest Monsoon has further advanced into some parts of Maldives-Comorin area, some more parts of south Bay of Bengal, remaining parts of Andaman Sea and Andaman & Nicobar Islands. Conditions are becoming favourable for further advance of Southwest Monsoon into some more parts of Maldives-Comorin area during next 48 hours.
- The Northern Limit of Monsoon (NLM) now passes through Lat.5°N/Long.72°E, Lat.6°N/Long.79°E, Lat.8°N/Long.86°E, Lat.11°N/Long.90°E, Lat.14°N/Long.93°E and Lat.16°N/Long.95°E.
- In view of likely formation of a Low Pressure Area over southeast & adjoining eastcentral Arabian Sea during 31st May-4th June, conditions are likely to become favourable for onset of Southwest Monsoon over Kerala around 1st June, 2020.
- Under the influence of the cyclonic circulation over westcentral and adjoining southwest Arabian Sea, a low pressure area has formed over Westcentral Arabian Sea and associated cyclonic circulation extends upto mid tropospheric level. It is very likely to concentrate into a Depression over the same region during next 48 hours. It is likely to move northwestwards towards south Oman & east Yemen coast during next 72 hours.
- Under the influence of a Western Disturbance and an east-west trough in lower tropospheric levels; rain/thunderstorm accompanied with lightning, hail & squall at isolated places very likely over Western Himalaya Region & adjoining plains during 28th-30th May, 2020. As a result, maximum temperatures over plains of north India and central & west India very likely to fall by 3-4°C during next 3-4 days. Hence the prevailing heat wave conditions are very likely to occur at isolated pockets of northwest & central India on today and abate thereafter.
- Heavy to very heavy rainfall at isolated places over Tripura and Mizoram during next 24hours and Heavy rainfall over Assam & Meghalaya. Heavy rainfall at isolated places over parts of south peninsular India during 28th-31th May, 2020 with isolated Heavy to Very Heavy Rainfall over Kerala and Lakshadweep during 30th-31st May 2020.

- 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 Nagaland, Manipur, Mizoram & Tripura and Gangetic West Bengal; at many places over Assam & Meghalaya, Arunachal Pradesh and Kerala & Mahe; at a few places over Sub-Himalayan West Bengal & Sikkim, Bihar, Uttarakhand, South Interior Karnataka, Lakshadweep and Andaman & Nicobar Islands and at isolated places over Odisha, Haryana, Uttar Pradesh, Odisha, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, East Rajasthan, East Madhya Pradesh, Coastal Andhra Pradesh, Telangana, Rayalaseema and Puducherry & Karaikal.
- Heavy rainfall occurred at isolated places over Gangetic West Bengal and Nagaland, Manipur, Mizoram & Tripura.
- Thunderstorm observed (from 0530 hours IST to 0830 hours IST of today): at isolated places over Odisha, Uttarakhand, Bihar, Jharkhand, Kerala & Mahe, Gangetic West Bengal and Lakshadweep.
- Yesterday Severe heat wave conditions were observed over some parts of West Rajasthan and at one or two pockets of East Rajasthan. Heat wave conditions observed at many parts of Vidarbha; over some parts of Haryana, Chandigarh & Delhi, East Uttar Pradesh, West Rajasthan & East Madhya Pradesh; at one or two pockets of West Uttar Pradesh, West Madhya Pradesh, East Rajasthan and Telangana.
- Maximum Temperature Departures as on 27-05-2020: Maximum temperatures were markedly above normal (5.1°C or more) at a few places over West Rajasthan; at isolated places over Haryana, Chandigarh & Delhi, Uttarakhand and Saurashtra & Kutch; appreciably above normal (3.1°C to 5.0°C) at most places over Punjab ; at many places over East Rajasthan; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Uttar Pradesh and at isolated places over Himachal Pradesh; above normal (1.6°C to 3.0°C) at most places over Madhya Pradesh, Vidarbha, Marathwada, Telangana, Rayalaseema, Gujarat region and Jharkhand; at a few places over Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Karnataka, Lakshadweep and Andaman & Nicobar Islands; at isolated places over Tamil Nadu, Puducherry & Karaikal. They were markedly below normal (-5.0°C or less) ; at many places over Assam & Meghalaya and Bihar ; at a few places over Arunachal Pradesh and Sub-Himalayan West

Bengal & Sikkim and at isolated places over Nagaland, Manipur, Mizoram & Tripura and Odisha; below normal (-1.6°C to -3.0°C) Gangetic West Bengal and Coastal Andhra Pradesh & Yanam and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 49.6.0°C was reported at Churu (West Rajasthan).

- Minimum Temperature Departures as on 28-05-2020: Minimum temperatures are markedly above normal (5.1°C or more) at a few places over West Rajasthan; appreciably above normal (3.1°C to 5.0°C) at many places over East Rajasthan; at a few places over Andaman & Nicobar Islands; at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Haryana, Madhya Pradesh and Telangana; above normal (1.6°C to 3.0°C) at most places over Chhattisgarh, Coastal Karnataka and Lakshadweep; at many places over Uttarakhand; at a few places over Punjab, Tamil Nadu, Puducherry & Karaikal and Coastal Andhra Pradesh; at isolated places over West Uttar Pradesh, Marathwada, Madhya Maharashtra, Kerala & Mahe and Rayalaseema. They are markedly below normal (-5.1°C or less) at isolated places over Gangetic West Bengal; appreciably below normal (-3.1°C to -5.0°C) at a few places over Assam & Meghalaya; at isolated places over East Uttar Pradesh, Odisha and Arunachal Pradesh; below normal (-1.6°C to -3.0°C) at most places over Bihar; at a few places over Himachal Pradesh, Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim; at isolated places over Jharkhand and near normal over rest parts of the country. The lowest minimum temperature of 20.5°C reported at Dehri (Bihar) over the plains of the country.

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

- 28 May (Day 1): Thunderstorm accompanied with lightning, hail & squall (speed reaching 50-60 kmph) very likely at isolated places over Uttarakhand; with lightning, hail & gusty winds (speed reaching 30-40 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Himachal Pradesh; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Bihar, and Gangetic West Bengal, Odisha and Nagaland, Manipur, Mizoram & Tripura; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Punjab, Haryana, Chandigarh & Delhi, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Telangana, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep and with lightning at isolated places over East Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Rayalaseema.

Duststorm/Thunderstorm with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Rajasthan and Uttar Pradesh. Heavy to very heavy rainfall very likely at isolated places over Nagaland, Manipur, Mizoram & Tripura and heavy rainfall at isolated places over Gangetic West Bengal, Odisha, Assam & Meghalaya, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep and Andaman & Nicobar Islands. Heat wave conditions with severe heat wave in isolated pockets very likely over West Rajasthan; heat wave conditions in isolated pockets over Punjab, Haryana & Delhi, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Telangana and Vidarbha. Strong wind speed reaching 40-50 kmph likely to prevail over westcentral, northeast & southwest Arabian Sea and Gulf of Mannar. Squally weather speed reaching 40-50 kmph likely to prevail over southeast & eastcentral Arabian Sea and north Bay of Bengal. Fishermen are advised not to venture into these areas.

- 29 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 40-50 kmph) at isolated places over Punjab and Haryana, Chandigarh & Delhi; with lightning, hail & gusty winds (speed reaching 40-50 kmph) at isolated places over Himachal Pradesh; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Bihar, Jharkhand and Gangetic West Bengal; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Sub-Himalayan West Bengal & Sikkim, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep and with lightning at isolated places over Madhya Pradesh, Chhattisgarh, Rayalaseema, Coastal Karnataka and Coastal Andhra Pradesh & Yanam. Duststorm/Thunderstorm with lightning, hail & squall (speed reaching 50-60 kmph) at isolated places over West Uttar Pradesh; with lightning, hail & squall (speed reaching 50-60 kmph) at isolated places over Rajasthan and with lightning & squall (speed reaching 40-50 kmph) at isolated places over East Uttar Pradesh. Heavy to very heavy rainfall very likely at isolated places over South Interior Karnataka and heavy rainfall at isolated places over Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Assam & Meghalaya and Andaman & Nicobar Islands. Heat wave conditions very likely in isolated pockets over Vidarbha and Telangana. Strong wind speed reaching 40-50 kmph likely to prevail over westcentral, northeast & southwest Arabian Sea. Squally weather speed reaching

40-50 kmph likely to prevail over southeast & eastcentral Arabian Sea and north Bay of Bengal. Fishermen are advised not to venture into these areas.

- 30 May (Day 3): Thunderstorm accompanied with lightning & squall (speed reaching 50-60 kmph) very likely at isolated places over Assam & Meghalaya; with lightning & squall (speed reaching 40-50 kmph) at isolated places over Punjab and Haryana, Chandigarh & Delhi; with lightning, hail & gusty winds (speed reaching 40-50 kmph) at isolated places over Himachal Pradesh and Uttarakhand; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Madhya Pradesh, Jharkhand and Nagaland, Manipur, Mizoram & Tripura; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Vidarbha, Chhattisgarh, West Bengal & Sikkim, Odisha, Coastal & South Interior Karnataka, Kerala & Mahe and Lakshadweep and with lightning at isolated places over North Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Telangana, Rayalaseema and Coastal Andhra Pradesh & Yanam. Duststorm/Thunderstorm with lightning & squall (speed reaching 50-60 kmph) at isolated places over Rajasthan and with lightning & squall (speed reaching 40-50 kmph) at isolated places over Uttar Pradesh. Heavy to very heavy rainfall very likely at isolated places over Kerala & Mahe and Lakshadweep and heavy rainfall at isolated places over Coastal & South Interior Karnataka. Strong wind speed reaching 50-60 kmph likely to prevail over westcentral and southwest Arabian Sea and wind speed reaching 40-50 kmph over northeast Arabian Sea. Squally weather speed reaching 45-55 kmph likely to prevail over southeast & eastcentral Arabian Sea. Fishermen are advised not to venture into these areas.
- 31 May (Day 4): Thunderstorm accompanied with lightning, hail & gusty winds (speed reaching 30-40 kmph) likely at isolated places over Uttarakhand; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over East Madhya Pradesh, Vidarbha and Chhattisgarh; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, West Madhya Pradesh, Jharkhand, Gangetic West Bengal, Odisha, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Karnataka, Kerala & Mahe and Lakshadweep and with lightning at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana, Rayalseema and Tamil Nadu, Puducherry & Karaikal. Heavy to very heavy rainfall likely at isolated places over Kerala & Mahe and Lakshadweep and heavy rainfall at isolated places over Odisha,

Konkan & Goa and Coastal & South Interior Karnataka. Strong wind speed reaching 50-60 kmph likely to prevail over westcentral and southwest Arabian Sea. Squally weather speed reaching 45-55 kmph likely to prevail over southeast & eastcentral Arabian Sea. Fishermen are advised not to venture into these areas.

- 01 June (Day 5): Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) likely at isolated places over Vidarbha; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Odisha, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh, Telangana, Karnataka, Kerala & Mahe and Lakshadweep and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema and Tamilnadu, Puducherry & Karaikal. Heavy rainfall likely at isolated places over Coastal Karnataka, Kerala & Mahe, Lakshadweep, Nagaland, Manipur, Mizoram & Tripura, Assam & Meghalaya and Konkan & Goa. Strong wind speed reaching 50-60 kmph likely to prevail over westcentral and southwest Arabian Sea. Squally weather speed reaching 45-55 kmph likely to prevail over southeast & eastcentral Arabian Sea. Fishermen are advised not to venture into these areas.
- The weather outlook for seven days i.e., 28 May to 05 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)**

### **Gujarat**

#### **Weather condition:**

The actual maximum temperature was 3.1 °C higher and Actual minimum temperature was 0.1 °C lower as compared to their normals. Total BSS was 79.7 hrs. with an average of 11.4 hrs. The daily average evaporation and wind speed was 10.8 mm and 6.0 km/hr respectively. The daily average RH during morning and afternoon was 70.0 % and 26.9 % respectively.

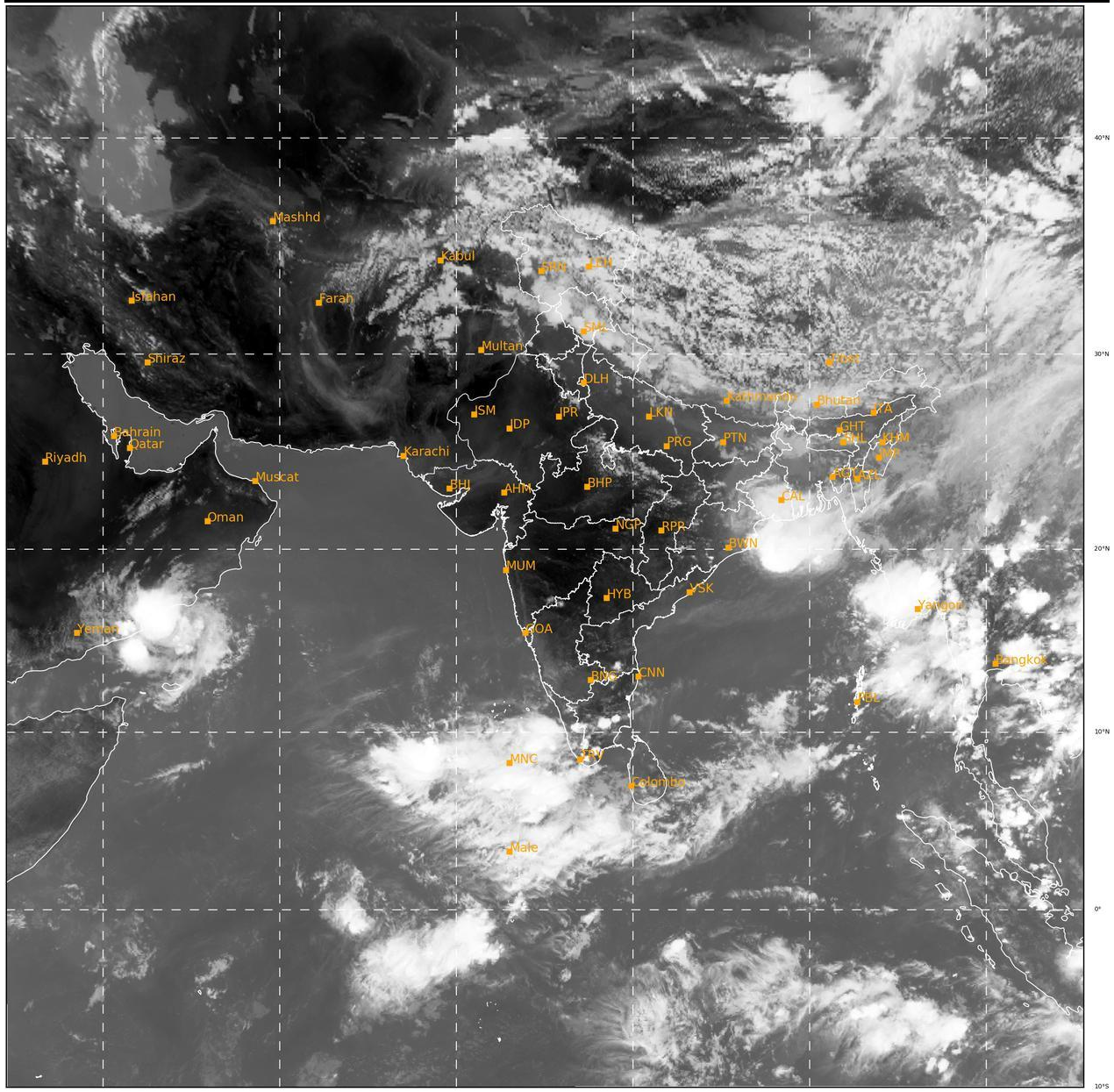
#### **Contingency measure:**

- Irrigation should be done in summer crops like pearl millet, green gram, cow pea, okra etc. as and when required. In greengram, yellow mosaic virus is transmitted by whitefly. For effective control of whitefly infestation spray imidacloprid 3ml per 10 liter of water.

- Brinjal: Growth: Fruit and Shoot borer: If infestation found install 40 pheromone trap. Change lure at 21 day interval. And spray Diclorovos 76 EC 7 ml or Deltamethrin 1% + Triazophos 36% EC 10 ml in 10 lit water.
- Vegetable Crop: Growth: Thrips and Mite: Due to hot and dry condition if mite and thrips incidence occurs spray Methyl-o-dematone 25 EC 10 ml in 10 lit water.
- MANGO: Reduction of high temperature effect of mango fruits can be managed by irrigating the orchard. Apply half dose of nitrogen (750 g urea or 1750 g Ammonium sulphate) followed by two irrigations at 20-25 days interval. Install nauroji fruit fly trap @ 10 trap per ha in mango orchard nearby to sapota orchard.
- Cattle: Under present weather condition keep animals in sheds during noon hours, provide plenty of cool water mixed with minerals for drinking and shower the animals with cold water two to three times in a day. Vaccination should be done for Brucellosis of cattle.

SAT : INSAT-3D IMG  
IMG\_TIR1 10.8 um  
LIC Mercator

28-05-2020/(0830 to 0856) GMT  
28-05-2020/(1400 to 1426) IST



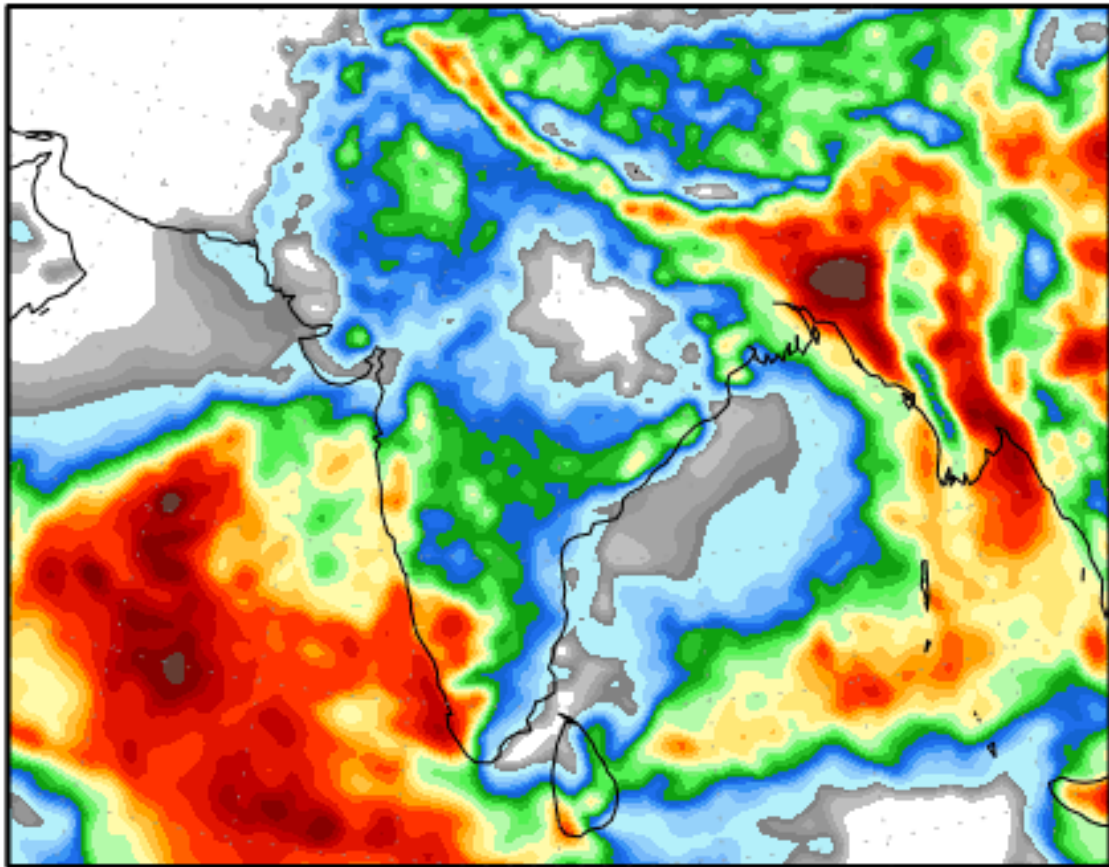
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IMD, DELHI

Figure: 1. Latest available satellite picture as on 28 May 2020 at 1426 Hrs (IST). (Source: IMD).





**Figure:2. Precipitation forecast for 28 May to 05 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.*