

# All India Coordinated Research Project on Agrometeorology

## CRIDA, Santoshnagar, Hyderabad – 500 059

### Daily Crop Weather Information as on 10 June 2019

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

#### Significant Weather Features (IMD)

- The depression over Southeast and adjoining Lakshadweep & Eastcentral Arabian Sea moved northwards and lay centred at 0830 hours IST of today, the 10th June , 2019 over eastcentral & adjoining southeast Arabian Sea and Lakshadweep area, near Lat. 12.5 °N and Long. 71.0°E, about 240 km northwest of Amini Divi, 760 km south-southwest of Mumbai and 930 km south-southeast of Veraval. It is very likely to intensify further into a deep depression during next 06 hours; into a cyclonic storm during the subsequent 24 hours and into a severe cyclonic storm thereafter. It is likely to move north-northwestwards during next 72 hours.
- Fishermen are advised not to venture into southeast Arabian Sea, Lakshadweep area along & off Kerala and Karnataka coasts on 10th & 11th June; eastcentral Arabian Sea along & off Maharashtra coast on 11th & 12th June and over northeast Arabian Sea and along & off Gujarat coast on 12th & 13th June. Those who are out in the deep sea areas are advised to return to the coast.
- Southwest Monsoon has further advanced into remaining parts of south Arabian Sea & Lakshadweep area, most parts of Kerala, some more parts of Tamilnadu, remaining parts of southeast Bay of Bengal, most parts of southwest & eastcentral Bay of Bengal, some more parts of northeast Bay of Bengal, some parts of westcentral Bay of Bengal, most parts of Mizoram and some parts of Manipur.
- Northern Limit of Monsoon (NLM) now passes through Lat. 12°N/Long. 60°E, Lat. 12°N/Long. 70°E, Kannur, Madurai, Lat. 12°N/Long. 83°E, Lat. 14°N/Long. 86°E, Lat. 17°N/Long. 89°E, Lat. 20°N/Long. 91°E, Aizwal, Lat. 24°N/Long. 93°E and Lat. 25°N/Long. 95°E.
- Heat wave to severe heat wave conditions very likely to prevail over Rajasthan, Madhya Pradesh, Vidarbha, southern parts of Haryana and Uttar Pradesh during next 2 days. Intensity and spatial extent of heating is very likely to reduce substantially thereafter.
- The images showing the latest satellite picture in 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 Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Kerala & Mahe and Lakshadweep; at many places over Sub-Himalayan West Bengal & Sikkim and North Interior Karnataka; at a few places over Madhya Maharashtra, Marathwada and Tamilnadu & Puducherry; at isolated places over Odisha, Madhya Pradesh, Vidarbha, Konkan & Goa, Coastal & South Interior Karnataka and Rayalaseema.
- Heavy to very heavy with extremely heavy falls observed at isolated places over Andaman & Nicobar Islands, Heavy to very heavy rainfall at isolated places over Assam & Meghalaya and Heavy rainfall at isolated places over Kerala. Thunderstorm observed (from 1130 hours IST of yesterday to 0830 hours IST of today): at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bihar, Coastal Andhra Pradesh, Rayalaseema, North Interior Karnataka, Madhya Maharashtra, Marathwada, Konkan & Goa, East Madhya Pradesh, Odisha and Kerala.
- Yesterday, Severe Heat Wave conditions were observed in many parts over West Rajasthan and at isolated pockets over East Rajasthan. Heat wave in many parts with severe heat wave in isolated pockets over Madhya Pradesh. Heat Wave Conditions in some parts with severe heat wave in isolated pockets over East Uttar Pradesh and in isolated pockets over Haryana, Chandigarh & Delhi , Bihar, Saurashtra & Kutch, Madhya Maharashtra and Vidarbha.
- Maximum temperature departures as on 09.06.2019: Maximum temperatures were markedly above normal (5.1°C or more) at many places over East Rajasthan; at a few places over West Rajasthan and Madhya Pradesh; appreciably above normal (3.1°C to 5.0°C) at most places over Haryana, Chandigarh & Delhi and Vidarbha; at many places over Chhattisgarh; at a few places over Himachal Pradesh, Uttar Pradesh, Gujarat, Bihar, Gangetic West Bengal, Madhya Maharashtra and Marathwada and at isolated places over Jammu & Kashmir; above normal (1.6°C to 3.0°C) at most places over Konkan & Goa, Karnataka, Telangana and Rayalaseema and at isolated places over Odisha and Kerala. They were appreciably below normal (-3.1°C to -5.0°C) at most places over Andaman & Nicobar islands; below normal (-1.6°C to -3.0°C) at isolated places over Assam & Meghalaya and near normal over rest parts of the country.
- Yesterday, the highest maximum temperature of 48.5°C was recorded at Ganganagar ( West Rajasthan).

- Minimum temperature departures as on 09.06.2019: Minimum temperatures are markedly above normal (5.1°C or more) at isolated places over East Rajasthan, Vidarbha and West Madhya Pradesh; appreciably above normal (3.1°C to 5.0°C) at a few places over West Rajasthan and Telangana; at isolated places over East Madhya Pradesh, Madhya Maharashtra, Coastal Andhra Pradesh and Sub- Himalayan West Bengal & Sikkim; above normal (1.6°C to 3.0°C) at most places over Jharkhand and Bihar; at many places over Gangetic west Bengal; at a few Places over Uttarakhand, Odisha, Konkan & Goa, Gujarat region, Karnataka and Chhattisgarh; at isolated places over Punjab, Uttar Pradesh, Assam & Meghalaya, Nagaland, Mizoram, Manipur & Tripura and Tamilnadu & Puducherry and near normal over rest parts of the country.

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

- 10 Jun (Day 1): Thunderstorm accompanied with lighting and gusty winds (40-50 kmph) at isolated places very likely over Madhya Pradesh, Madhya Maharashtra, Coastal Andhra Pradesh, Telangana and Rayalaseema; gusty winds (30-40 Kmph) at isolated places over Vidarbha, Chhattisgarh, Bihar, Odisha, Marathawada, Konkan & Goa, Interior Karnataka and Tamilnadu & Puducherry. Heavy to very heavy rainfall at isolated places very likely over Coastal Karnataka and Lakshadweep; Heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Coastal Andhra Pradesh, Telangana, Interior Karnataka and Kerala. Heat Wave conditions in most parts with severe heat wave in many parts very likely over Rajasthan; Heat wave in many parts with severe heat wave in isolated pockets over Madhya Pradesh; heat wave conditions in some parts with severe heat wave in isolated pockets over Haryana, Chandigarh & Delhi; Heat wave to severe heat wave in isolated pockets over Uttar Pradesh; Heat wave in isolated pockets over Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh, Telangana, Rayalaseema and Tamilnadu. Squally weather with winds, speed reaching 50-60 kmph gusting to 70 kmph very likely to prevail over eastcentral & adjoining southeast Arabian Sea and Lakshadweep area; strong winds speed reaching 35-45 kmph gusting to 55 kmph along and off Kerala-Karnataka coasts and 35-45 kmph over SW & SE Bay of Bengal. Fishermen are advised not to venture into these areas.
- 11 Jun (Day 2): Thundersquall & lighting accompanied with hail and gusty winds (50-60 kmph) at isolated places very likely over Uttarakhand; Thunderstorm accompanied with lighting , hail & gusty winds (40-50 kmph) at isolated places over Himachal Pradesh. Thunderstorm accompanied with lighting and gusty winds (40-50 kmph) at isolated places very likely over Jammu & Kashmir and Madhya Pradesh, Madhya; gusty winds (30-40 Kmph) at isolated places over Vidarbha, Chhattisgarh, Bihar, Odisha, Madhya Maharashtra, Marathawada, Coastal Andhra

Pradesh, Telangana, Interior Karnataka and Tamilnadu & Puducherry; with dust storm & gusty winds (30-40 Kmph) at isolated places over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan. Heavy rainfall at isolated places over Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Coastal Karnataka and Kerala. Heat Wave conditions in many parts with severe heat wave in some parts very likely over West Rajasthan; Heat wave in many parts with severe heat wave in isolated pockets over East Rajasthan and Madhya Pradesh; Heat wave to severe heat wave in isolated pockets over Uttar Pradesh; Heat wave in isolated pockets over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh, Telangana, Rayalaseema and Tamilnadu. Gale winds speed reaching 65-75 kmph gusting to 85 kmph very likely to prevail over eastcentral & adjoining southeast Arabian Sea; 40-50 kmph gusting to 60 kmph over Lakshadweep area, Kerala, Karnataka and south Maharashtra coasts and over & around Lakshadweep; 35-45 kmph over SW & SE Bay of Bengal. Fishermen are advised not to venture into these areas.

- 12 Jun (Day 3): Thundersquall & lighting accompanied with hail and gusty winds (50-60 kmph) at isolated places very likely over Uttarakhand; Thunderstorm accompanied with lighting, hail & gusty winds (40-50 kmph) at isolated places over Himachal Pradesh. Thunderstorm accompanied with lighting and gusty winds (40-50 kmph) at isolated places very likely over Jammu & Kashmir, Gujarat region and South Interior Karnataka; gusty winds (30-40 Kmph) at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Odisha and Tamilnadu & Puducherry; with dust storm & squall (50-60 Kmph) at isolated places over West Uttar Pradesh; with dust storm & gusty winds (30-40 Kmph) at isolated places over Punjab, Haryana, Chandigarh & Delhi, East Uttar Pradesh and Rajasthan. Heavy to very heavy rainfall at isolated places very likely over Kerala; Heavy rainfall at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Saurashtra & Kutch, Konkan & Goa and Coastal Karnataka. Heat Wave conditions in many parts with severe heat wave in isolated pockets likely over East Madhya Pradesh; Heat wave in some parts over West Rajasthan and West Madhya Pradesh; in isolated pockets over East Uttar Pradesh, East Rajasthan, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh, Telangana, Rayalaseema and Tamilnadu. Gale winds speed reaching 90-100 kmph gusting to 115 kmph very likely to prevail over EC & adjoining NE Arabian Sea; 50-60 kmph gusting to 70 kmph over south Gujarat and Maharashtra coasts and 35-45 kmph over SW Bay of Bengal. Fishermen are advised not to venture into these areas.
- 13 Jun (Day 4): Thunderstorm accompanied with lighting and gusty winds (40-50 kmph) at isolated places very likely over Gangetic West Bengal and Gujarat region; gusty winds (30-40 Kmph) at isolated places over East Madhya Pradesh, Chhattisgarh and Odisha; with dust storm & gusty winds (30-40Kmph) at isolated

places over East Uttar Pradesh and Rajasthan. Heavy to very heavy rainfall at isolated places very likely over Saurashtra & Kutch; Heavy rainfall at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Coastal Karnataka and Kerala. Heat wave in some parts over Madhya Pradesh; in isolated pockets over Rajasthan and Odisha. Gale winds speed reaching 110-120 kmph gusting to 130 kmph likely to prevail over north Arabian Sea; 65-75 kmph gusting to 85 kmph over along & off Gujarat coast and 35-45 kmph over south & central Arabian Sea and along & off Maharashtra-Goa-Karnataka coasts. Fishermen are advised not to venture into these areas.

- 14 Jun (Day 5): Thunderstorm accompanied with lighting and gusty winds (30-40 kmph) at isolated places very likely over Chhattisgarh and Odisha. Heavy to very heavy rainfall at isolated places very likely over Nagaland, Manipur, Mizoram & Tripura; Heavy rainfall at isolated places over Arunachal Pradesh, Assam & Meghalaya, Saurashtra & Kutch and Kerala. Heat wave in some parts over Madhya Pradesh; in isolated pockets over West Rajasthan.
- The weather outlook for the period of seven days *i.e* 10 to 17 June 2019 forecasted (*Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>*) rain/thundershower may occur over Sub-Himalayan West Bengal & Sikkim, Bihar, Madhya Pradesh, Odisha, Konkan & Goa, Vidarbha, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh, Rayalaseema, North Interior Karnataka, Coastal & South Interior Karnataka, Kerala, Tamilnadu & Puducherry, Lakshadweep, Andaman & Nicobar Islands and North Eastern States. (Fig. 2).

## Agricultural activities (AICRPAM-CRIDA)

### Assam

#### Weather condition:

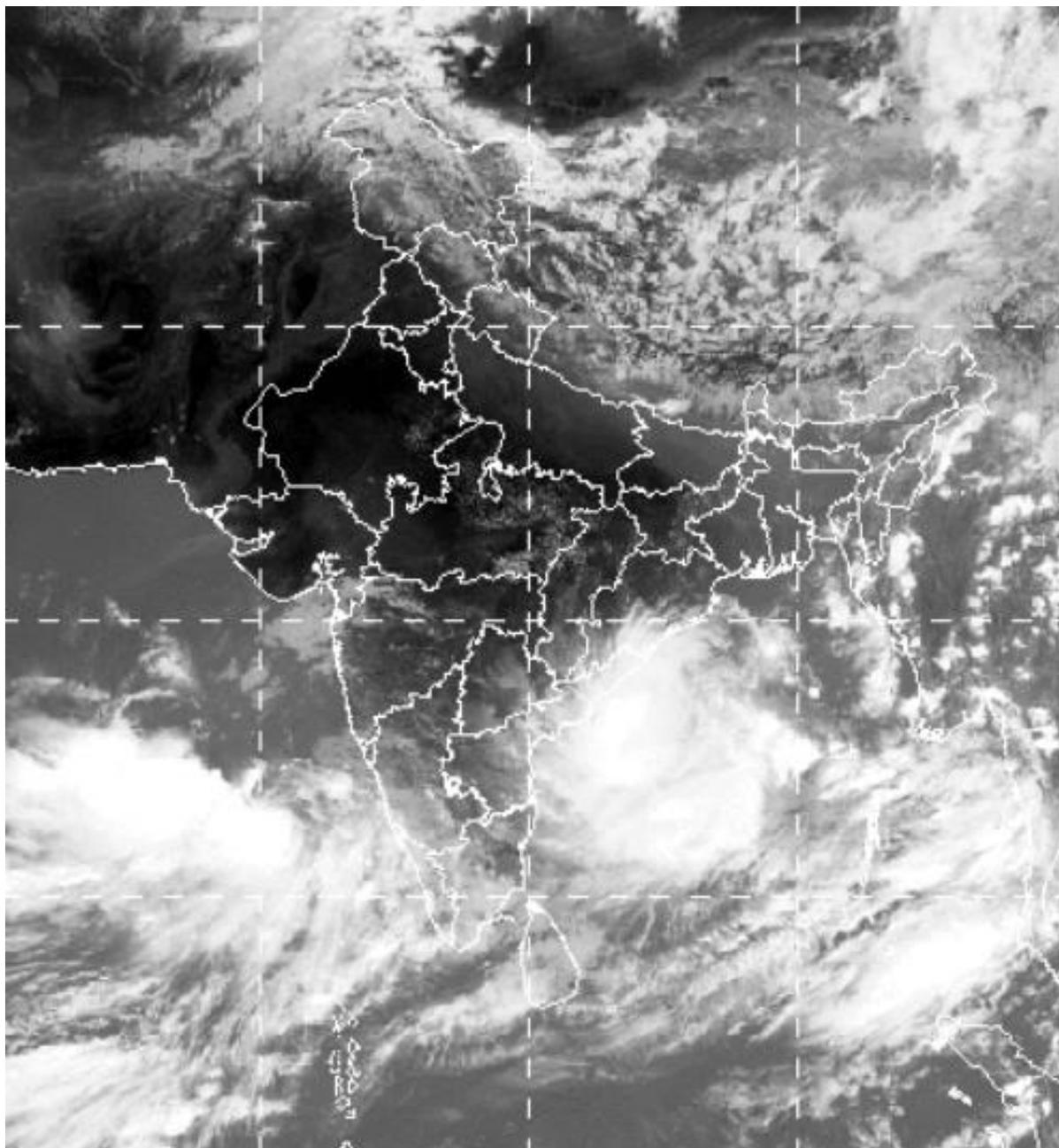
Light rainfall received in Assam state during past few days. Daily average maximum temperature was 32.2°C which was 0.5°C above normal and the average daily minimum temperature was 24.9°C which was 0.9°C above normal.

#### Contingency measure:

- Sali rice: Farmers are advised to collect information on varieties, sources of seeds and seed selection. These information can be procured from KVK's, District Agriculture Office, AAU, Kisan Call Centre, seed dealers and other NGO's or agencies. Additionally, farmers practicing rice-rice double cropping can select short to

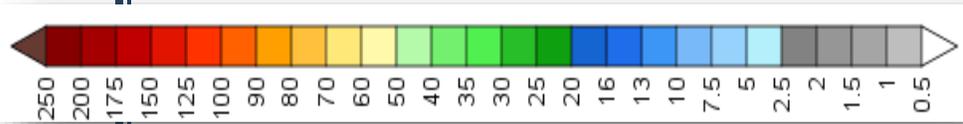
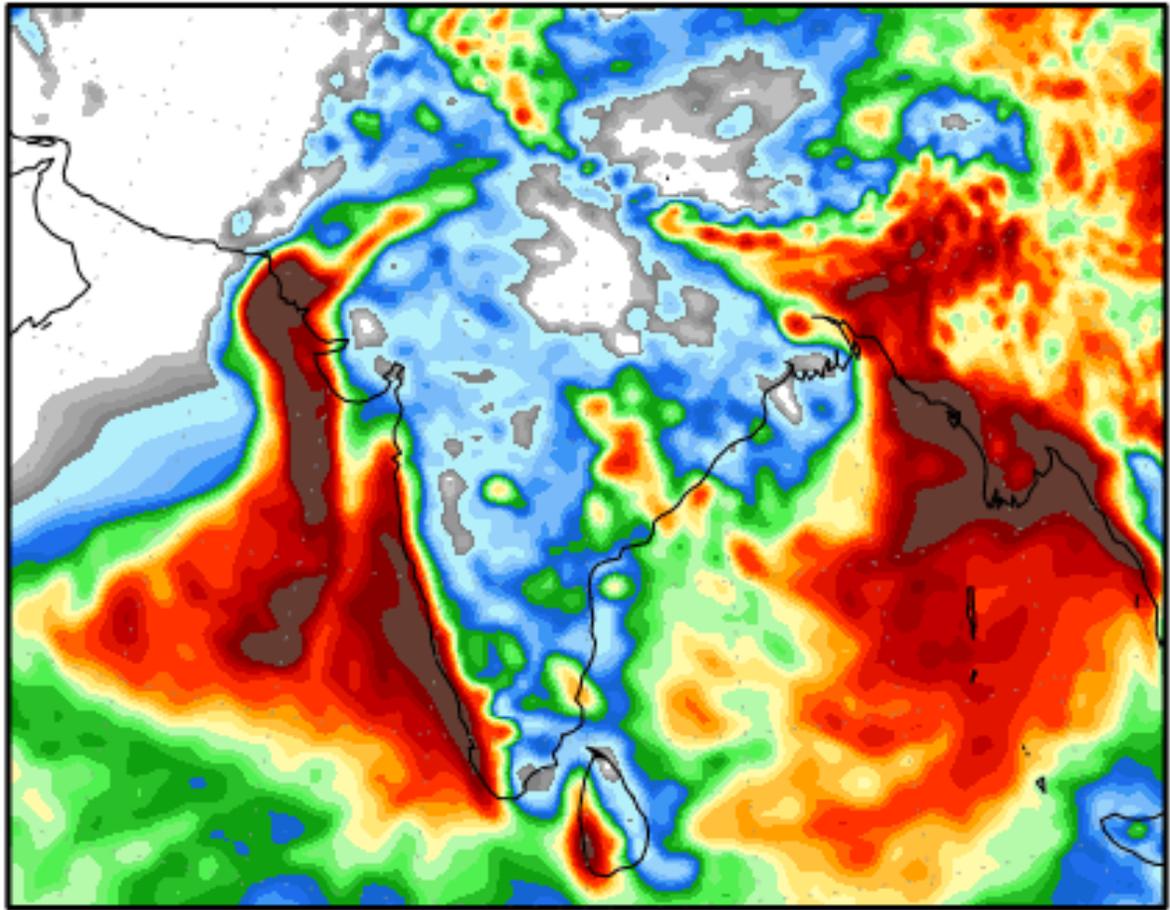
medium duration varieties like Satya and Basundhara. Manohar Sali, Biraj, Solpona etc is recommended for post flood transplanting. Jalashree and Jalkunwari recommended for chronically flood affected areas.

- Seed bed: Land should be thoroughly puddle and seed beds of 10 m length and 1.25 m breadth should be prepared with 30 cm gap in between the beds. The length of the bed may vary according to convenience. Seed treatment and seed rate: Seeds should be put in plain water, stirred well, sunk seeds selected and the floated ones rejected. After selection, the seeds should be soaked directly in either Mancozeb/Captan/Carbendazim @ half spoon/kg seed/lit of water for 24 hours. One liter of fungicide solution is required to treat 1 kg of seed. Treated seeds should be kept for incubation for 48 hrs. 5 kg of seeds are required for transplanting 1 bigha land. Well germinated seeds are to be sown @ 650 g to 1 kg per bed depending on grain size. Requirement of seeds for transplanting one bigha of main field is 5 kg.
- Manures and fertilizers: In each seed bed 20-30 kg cow dung/compost, 80 g urea, 80 g SSP and 40 g MOP is to be applied and mixed well with the soil. B. Sugarcane: A light earthing up should be given to fill trenches/furrows within 45 to 60 days after planting. Spread of stem borer can be checked by burying/burning of infested canes. D. Papaya: Papaya seedlings may be planted from the month of April to June. Prepare pits of 45cm x 45cm x 45cm at a spacing of 1.8 m x 1.8 m.
- The recommended varieties are Washington, Ranchi, Halflong, Solo Papayas etc. Ensure proper drainage to drain excess water. E. Fishery: Prepare the fingerling rearing tanks and nurseries by cleaning them and applying agricultural lime at the rate of 65-70 gm per sq.m for raising fingerlings. Apply cow dung at the rate of 500 gm per sq m at least 15 days ahead of releasing fingerlings into the tanks.



**Figure: 1. Latest available satellite picture as on 10 June 2019 at 0230 Hrs (IST).**

**(Source: IMD).**



**Figure: 2. Precipitation forecast for 10 to 17 June 2019 (Source: NOAA NCEP).**