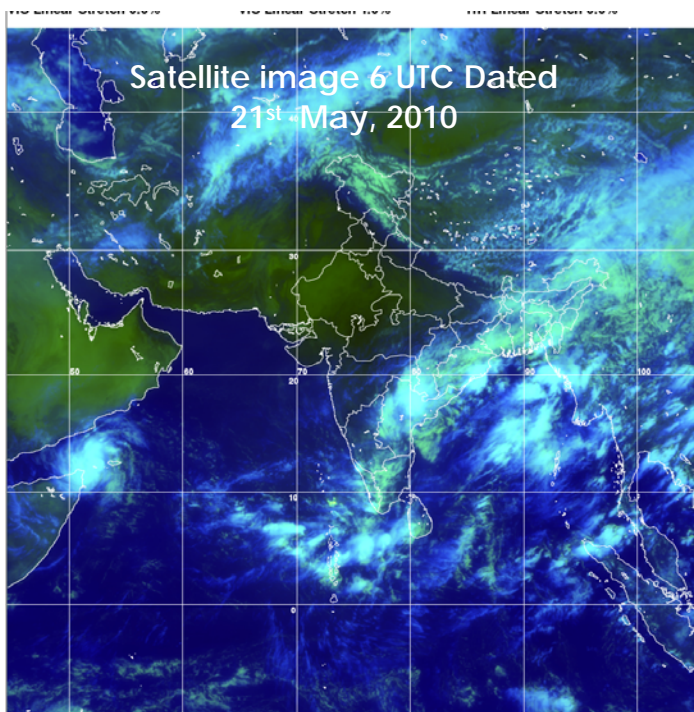




National Agromet Advisory Bulletin

Thursday, 20th May, 2010

(For the period 20th to 24th May, 2010)



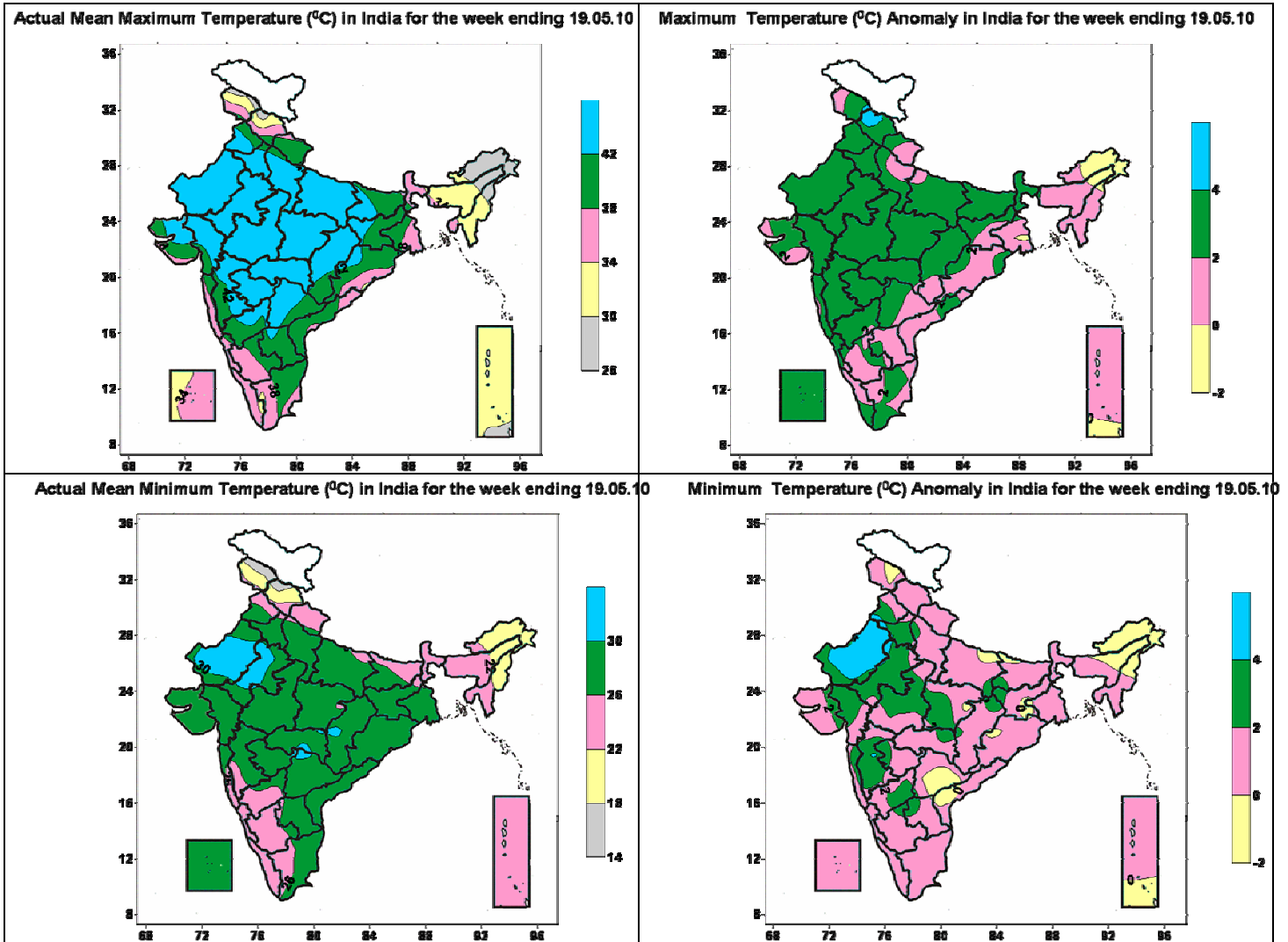
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National Agrometeorological Advisory Service Centre
Agricultural Meteorology Division
India Meteorological Department
Shivajinagar
Pune.

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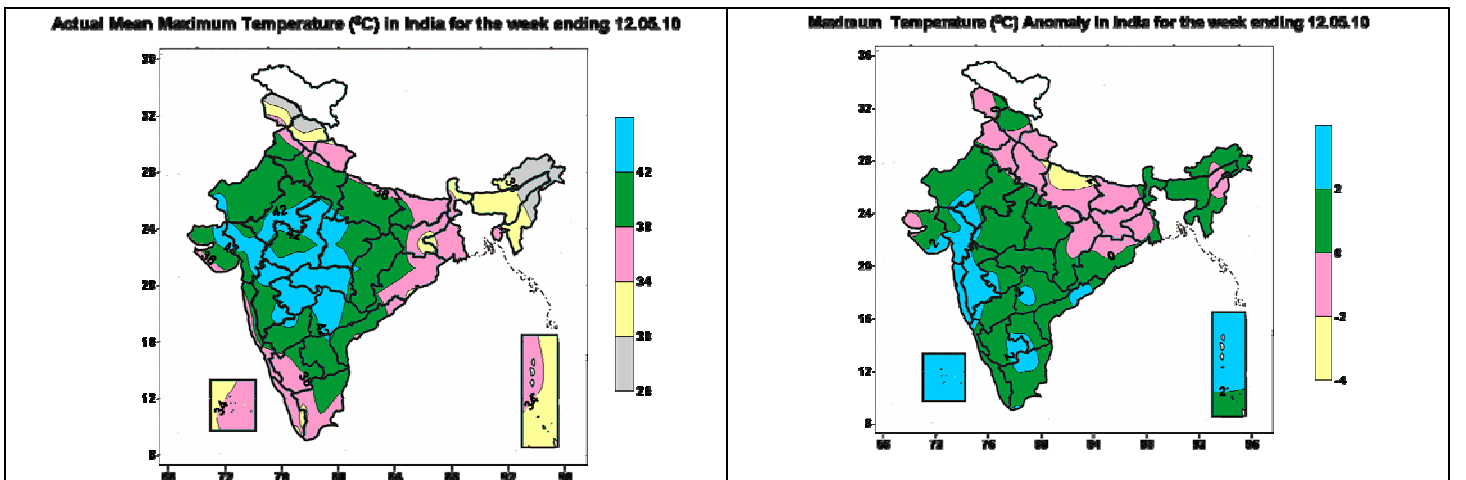
Executive Summary

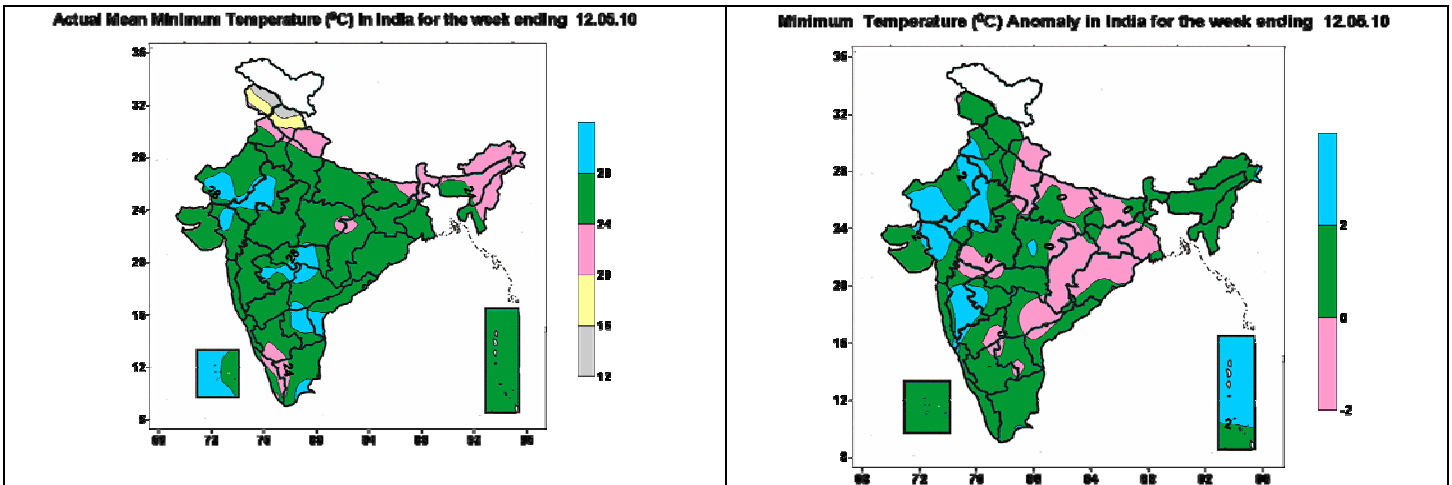
Significant Past Weather

Contour maps of Maximum and Minimum temperatures for the week ending 19.05.10



Contour maps of Maximum and Minimum temperatures for the week ending 12.05.10





- Actual Mean Maximum temperature anomaly ranged between 4°C and above over some parts of Himachal Pradesh, 2 to 4°C over most parts of North East India, West India, Central India, Bihar, Sub Himalayan West Bengal and Sikkim, Coastal Karnataka, Lakshdweep Islands, some parts of South India.
- Maximum temperature anomaly has increased in most parts of the country, as compared to the last week except Andhra Pradesh, Tamil Nadu where it remained unchanged and decrease in extreme North East India, Andaman Nicobar Island.
- Rainfall occurred in most of the districts of Arunachal Pradesh, Assam, Jammu & Kashmir, Gangetic West Bengal, South Interior Karnataka, Tamil Nadu, some districts of Himachal Pradesh, Chattisgarh, Uttarakhand, Bihar, Orissa, Sub-Himalayan West Bengal, North Interior Karnataka, Coastal Karnataka, Coastal Andhra Pradesh, Rayalaseema during last week. No significant rainfall occurred or dry or mainly dry weather prevailed in remaining parts of the country.

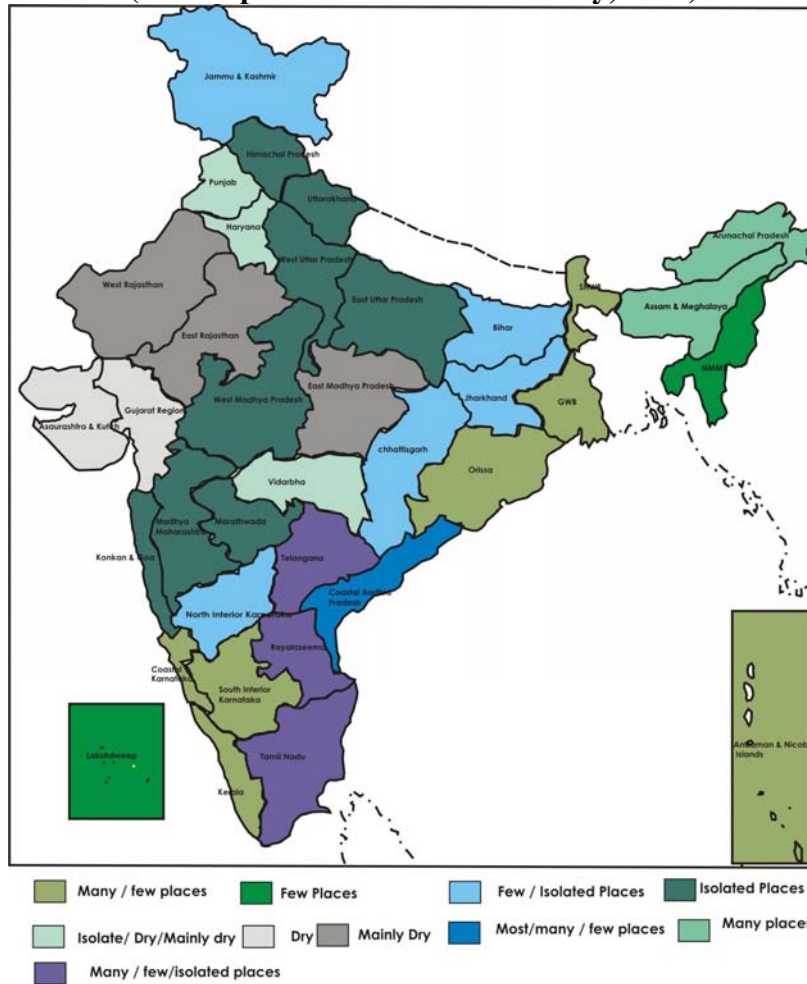
**Rainfall situation in some of the States in the country for the week ending
19.05.2010**

State/ Districts	Actual	19.05.10
Arunachal Pradesh		
Changlang	95.8	2
East Siang	140.4	41
Papumpara	148.6	174
Tawang	158.2	210
Upper Siang	114.2	-3
Upper Subansiri	47.6	-12
West Kameng	39.2	14
Assam		
Barpeta	92.9	23
Bongaigaon	99.8	6
Cachar	141.5	48
Dhubri	167.8	99
Dibrugarh	137.2	104
East Khasi Hills	203.3	6
Golghat	101.1	56
Jorhat	72.7	0
Kamrup	60.9	-10
Karbi Analog	33.9	42
Kokrajhar	119.2	27
Lakhimpur	116.7	12
Morigaon	47.7	16
Nalbari	123.3	82
Nowgong	68.8	67
Sibsagar	97.0	37
Sonitpur	142.6	115
Tinsukia	164.6	177
Himachal Pradesh		
Kinnaur	46.5	170
Kullu	25.2	48
Lahaul and Spiti	44.2	61
Jammu & Kashmir		
Anantnag	82.6	214
Badgam	47.9	100
Doda	23.4	15
Jammu	13.2	131
Kupwara	105.8	328
Ladakh(Leh)	5.1	200
Pulwama	40.0	70
Srinagar	46.9	146
Chattisgarh		
Durg	5.3	42
UttaraKhand		
Garhwal Tehri	21.7	68
Bihar		
Rohtas	18.2	304
Orissa		
Kandhamal	19.4	42
Malkangiri	20.0	79
Nayagarh	24.7	209
Rayagada	26.1	71

State/ Districts	Actual	19.05.10
West Bengal		
GWB		
Bankura	27.0	69
Hooghly	45.1	65
Murshidabad	22.0	9
24 Pargana (N)	25.6	56
Purulia	27.9	179
West Midnapore	39.1	75
SHWB		
Coochbehar	150.6	104
Jalpaiguri	78.5	37
North Sikkim	90.9	-1
Karnataka		
Coastal Karnataka		
Udupi	36.8	14
Uttar Kannada	28.6	46
North Interior Karnataka		
Haveri	23.6	16
Koppal	23.3	43
South Interior Karnataka		
Bangalore Rural	26.5	-7
Bangalore Urban	57.1	79
Bellary	24.1	65
Chickmagalur	28.0	2
Chitradurga	39.6	96
Hassan	24.8	-7
Shimoga	37.4	92
Tumkur	23.3	-10
Tamil Nadu		
Chennai	74.8	476
Cuddalore	20.2	-17
Erode	25.9	-8
Kanchipuram	32.9	146
Karur	25.6	23
Krishnagiri	43.2	38
Madurai	12.8	-15
Nagapattinam	28.9	51
Perambalur	22.3	-13
Pondicherry	31.8	458
Pudukottai	35.8	146
Thanjavur	32.9	87
Tirunelveli	8.8	-3
Tiruvallur	19.0	41
Tiruvannamalai	23.9	-15
Tiruvarur	41.6	170
Trichy	32.1	66
Andhra Pradesh		
Coastal Andhra Pradesh		
Telangana		
Karimnagar	9.3	85
Nalgonda	22.8	386
Warangal	11.9	49
Rayalaseema		
Anantapur	19.7	44
Cuddapah	15.1	7

Weather Forecast

(Valid upto 1430 hours of 23rd May, 2010)



Rainfall is likely to occur at many places in Arunachal Pradesh, Assam & Meghalaya, at a few places in Nagaland, Manipur, Mizoram, Tripura, Lakshadweep Island, at isolated places in East Uttar Pradesh, Uttarakhnad, Himachal Pradesh, East Madhya Pradesh, Maharashtra (except Vidarbha), most places in Coastal Andhra Pradesh during next 24 hours and many / few places thereafter, at many places during next 48 hours in Gangetic West Bengal, Orissa and few places thereafter, many places in Telangana, Rayalaseema, Tamil Nadu & Pondicherry, Coastal Karnataka, South Interior Karnataka, Kerala and at a few places next 24 hours and thereafter isolated.

Warning

- Scattered heavy to very heavy falls and isolated extremely heavy falls would occur over coastal Andhra Pradesh and Telangana during next 24 hours.
- Maximum gale force winds with speed reaching 100-110 kmph gusting to 120 Kmph are likely along and off Andhra Pradesh coast during next 12 hours. Sea condition will be very high along and off Andhra Pradesh coast during next 12 hours. Fishermen are advised not to venture into the sea off this coast.
- Storm surge of 1.5 to 2.0 meters above the astronomical tide is likely to inundate the coastal areas of Guntur, Krishna and West & East Godavari districts of Andhra Pradesh at the time of landfall of storm.
- Heavy to very heavy rainfall may occur over northeastern states south & coastal Orissa and Sub-Himalayan West Bengal & Sikkim during next 48 hours.
- Thundersqualls would occur at some places over east Uttar Pradesh, Bihar, Jharkhand, Chhattisgarh, east Madhya Pradesh, Orissa, West Bengal & Sikkim and northeastern states, during next 48 hours

Major crops in different States

- Summer rice is at maturity / harvesting in Orissa.
- *Boro* rice is at grain formation / early maturity / maturity stage in Chhattisgarh, West Bengal and Assam.
- *Ahu* rice (transplanting / tillering panicle initiation) in Assam.
- *Jhum* / WRC rice and pulses (sowing) and maize (sowing / vegetative) in Arunachal Pradesh.
- Rice is at grain maturity in Tamil Nadu and harvesting in Karnataka and nursery sowing in Kerala..
- Potato is at tuberization stage and *rabi* potato is at / maturity / harvesting in Sikkim.
- Summer green gram and black gram is at early vegetative / vegetative / flowering stage in Uttarakhand, Punjab, Haryana, Delhi, Rajasthan, at flowering / pod formation / early maturity / maturity stage in Jharkhand, Orissa, West Bengal.
- Jute is at sowing / early vegetative stage in West Bengal and Orissa, at sowing / early vegetative / vegetative in Assam.
- Maize is at early vegetative in Uttarakhand, Assam.

Salient advisories

NORTH WEST INDIA

- As Kinnaur, Kullu, Lahaul and Spiti districts of Himachal Pradesh, Garhwal Tehri district of Uttarakhand, and all the districts of Jammu & Kashmir except Kathua and Udhampur districts received good rainfall during last week, postpone irrigation to the crops in these districts. Apply irrigation to the standing crops in remaining districts of the region as there is less possibility of rainfall during coming days.
- In view of prevailing high temperature in most parts of Haryana, New Delhi, Uttar Pradesh and Rajasthan and in some parts of Punjab, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
- Farmers in Rajouri, Doda and Udhampur districts in Jammu & Kashmir are advised to protect the harvested crop from intermittent rains expected during the period.
- Prevailing weather conditions may be favorable for fruit borer in tomato, brinjal and bhindi crop in Jammu and Kashmir. Farmers are advised to spray the crop with endosulphan @ 0.07% or carbaryl @ 0.1% on a non rainy day.

NORTHEAST INDIA

- As there was rainfall during last couple of weeks in most of the districts of this region and there is also possibility of rain / thundershower over the region for next three days, postpone irrigation to the standing crops. In view of rainfall to be likely at many places along with heavy to very heavy rainfall in Assam and Arunachal Pradesh, arrange for draining out excess water from the fields to avoid water stagnation in these two States.
- As there is possibility of rainfall at many places in Assam and Arunachal Pradesh during the period, farmers are also advised to postpone intercultural operation, application of fertilizers and plant protection measures to the crops.
- Farmers in Arunachal Pradesh are advised to postpone sowing of maize, vegetable crops and pulse crops as heavy to very heavy rainfall will occur over the state during next 48 hours.
- Postpone harvesting of summer rice as there is chance of rainfall during next three days in Lower Brahmaputra Valley zone in Assam. Sowing of *Sali* rice nursery may be withheld at the time of heavy rainfall.
- Transplanting of *ahu* rice may also be withheld at the time of heavy rainfall in Barrack Valley zone in Assam

EAST INDIA

- Rain is likely at many places during next three days in West Bengal and Orissa and at a few places in Sub Himalayan West Bengal and Sikkim during next two days and at many places thereafter, postpone irrigation, intercultural operation fertilizer application and spraying operations. Provide adequate drainage facilities in south & coastal Orissa and Sub-Himalayan West Bengal & Sikkim to avoid water logging in standing crops as heavy to very heavy rainfall is likely during next 48 hours in these regions.

- Farmers are advised to harvest already matured maize crop in Bihar on bright sunny days. Farmers may delay harvesting of summer rice, maize, green gram, black gram and groundnut in Orissa, summer rice, sesame and green gram in West Bengal as heavy rainfall is expected. Already harvested crops may be kept in safer place.
- Farmers are advised to prepare land for nursery bed for *aus* rice in West Bengal and field preparation for sowing of *khari* maize in Sikkim after current spells of rain.
- Under prevailing weather there is chance of infestation of white fly and fruit borer in brinjal in New Alluvial zone of West Bengal. Apply 1 gram Kritap or Padan or 1.5 to 2 ml monocrotophos per lit of water after current spells of rain. There are also chances of attack of little leaf of brinjal. To control the disease, remove the infected plant from the field.

WEST INDIA

- As there was no significant rain during last week in most of the districts of the region and no significant rain is likely to occur during next five days, apply protective irrigation to the standing crops.
- As heat wave conditions are prevailing over parts of Vidarbha and Marathwada of Maharashtra, farmers are advised to apply light and frequent irrigation to the crops over these regions.
- Maintain 5-8 cm water level in the rice field at grain formation stage in east Vidarbha to meet the high evaporation rate.
- As the wind speed is expected to increase beyond 17 Kmph in Narmada and Surat districts of Gujarat, susceptible crops like banana may be provided staking and propping for sugarcane may be done to avoid lodging of crops.
- In view of high temperature, keep milch animals under shade in Gujarat and provide fresh drinking water. Put wetted curtains on west direction in poultry house to protect the birds against hot winds.
- Due to higher temperature infestation of jassids, aphids, white fly and mites are likely to be increased in brinjal in Maharashtra, spray Carbosulfan @ 10 ml in 10 litres of water.
- Due to high temperature vegetables are likely to be infested by viral diseases through sucking pests in Maharashtra; spray 5% Neemark to control the disease

SOUTH INDIA

- Due to the impact of severe cyclonic storm 'Laila', heavy rainfall occurred over north coastal Tamil Nadu and Coastal Andhra Pradesh. In Guntur, Prakasam, East and West Godavari districts of Andhra Pradesh, storm surge is likely to inundate coastal areas. Farmers in this region are advised to arrange for extensive drainage facilities to avoid inundation of water in the crop fields which are at maturity / harvesting stage.
- As monsoon is approaching, farmers are advised to raise rice nursery for first crop in Kerala and procure certified seeds of cowpea, green gram, black gram, sesamum, sorghum and cotton for sowing in Karnataka.
- As there was no sufficient rainfall during last week in North Interior Karnataka apply irrigation to the standing crops. Postpone irrigation in the remaining regions as there are chances of rainfall in the next three days.
- Farmers in Southern zone of Kerala are advised to undertake sowing of bhendi, chilli and brinjal utilizing the recent rainfall.
- As there was rainfall in Coastal zone in Karnataka, farmers are advised to undertake sowing of rice nursery. Select among MO 4 and Champaka. Follow SRI cultivation for more yield.
- Sugarcane is suffering from moisture stress in Belgaum district in Karnataka. Farmers are advised to undertake spraying of MOP @ 2.5 g/litre of water at 10-15 days interval
- Prevailing weather conditions in Cauvery Delta zone of Tamil Nadu are congenial for the incidence of jassids, thrips, hopper and white fly in cotton. To control the pests, spray Triazophos or Profenophos @ 2 ml/litre of water.

CENTRAL INDIA

- Day temperatures are higher and there was no rainfall in the last few weeks and there are chances of no significant rainfall in the next three days over Madhya Pradesh. Farmers are advised to apply light and

frequent irrigation to summer forage crops like maize, sorghum, jowar, cowpea, etc to meet the excess evaporative demands.

- At present the potential evapotranspiration rates are higher due to higher temperature, wind speed, low humidity as well as higher bright sunshine hours over Chhattisgarh and it is being recorded around 6 mm/day, which has increased the water requirements of summer crops like vegetables and green gram. Hence, it is advised to reduce the interval between two irrigations and irrigate the crops as per requirement for proper water management in these crops.
- Farmers in Kymore Plateau zone and Jhabua Hills zone in Madhya Pradesh are advised to harvest summer green gram and black gram immediately to avoid shattering of grains due to high temperature conditions.
- Looking to the expected thunder-squalls over Chhattisgarh and East Madhya Pradesh, farmers are requested to shift the harvested produce from the field to the safer place as early as possible.

Zonewise Agromet Advisories

NORTH WEST INDIA [J & K, H. P., UTTARAKHAND, PUNJAB, HARYANA, DELHI, UP, RAJASTHAN]

- **Realised Rainfall:** Rainfall occurred at most places in Jammu & Kashmir during last week. No significant rainfall occurred in remaining states.
- **Rainfall Forecast:** Rainfall is likely at isolated places in Jammu & Kashmir during next two days and at a few places thereafter. Either isolated rain will occur or mainly dry weather will prevail over the remaining States of this region during the period. Thundersqualls would occur at some places over east Uttar Pradesh during next 48 hours
- **Major Crops:**
 - Vegetables (sowing / nursery sowing / vegetative) in Himachal Pradesh.
 - Wheat (harvesting), vegetable crops (flowering / fruiting / harvesting) in Jammu & Kashmir.
 - Maize (early vegetative), black gram and green gram (early vegetative / vegetative / flowering) in Uttarakhand.
 - Sugarcane (vegetative), black gram and green gram (early vegetative), sunflower (early vegetative) in Punjab.
 - Sugarcane (vegetative), black gram and green gram (early vegetative) in Haryana.
 - Green gram and black gram (early vegetative) and vegetable crops (vegetative / flowering / fruiting / harvesting) in Delhi.
 - Sugarcane (vegetative), sunflower, black gram and green gram (vegetative / flowering), vegetable crops (sowing) in Uttar Pradesh.
 - Green gram (vegetative), vegetable crops (flowering / fruiting / harvesting) in Rajasthan.
- **Advisory:**
 - As Kinnaur, Kullu, Lahaul and Spiti districts of Himachal Pradesh, Garhwal Tehri district of Uttarakhand, and all the districts of Jammu & Kashmir except Kathua, Udhampur received good rainfall during last week, postpone irrigation to the crops in these districts. Apply irrigation to the standing crops in remaining districts of the region as there is less possibility of rainfall during coming days.
 - In view of prevailing high temperature in most parts of Haryana, New Delhi, Uttar Pradesh and Rajasthan and in some parts of Punjab, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
 - Undertake sowing of recommended varieties of cotton under irrigated conditions in Haryana and Rajasthan during morning and evening hours.
 - Present weather conditions are favourable for nursery preparation for early cauliflower in Delhi. Farmers are advised to carry out solarization of prepared nursery beds by covering with thin plastic sheets of 20-30mm thickness.
 - Farmers in Rajasthan are advised to undertake sowing of chilli and Shimla mirchi seeds in nursery. Select varieties like Pusa Jwala, N.P.46-A, PantC-2, Pusa Sadabahar, G-3, G-5 and RCH-1. Varieties for Shimla Mirch are yellow wonder, California wonder, Bulnose and Arka Mohini.

- Farmers in Rajouri, Doda and Udhampur districts in Jammu & Kashmir are advised to protect the harvested crop from intermittent rains expected over the next five days.
- Farmers in Punjab, Uttar Pradesh and Uttarakhand are advised to prepare the field for sowing of rice in nursery. Farmers may use recommended varieties i. e. PAU 201, PR 120, PR 118, PR 116, PR 114, PR 113, PR 111, PR 115 etc in Punjab, early and medium varieties of paddy like Govind, Ratna, Narendra -118, Narendra-97, Aswani, Narendra-80, Manhar, Saket-4, Pant-10, 12,4 in Uttar Pradesh.
- Farmers are advised to undertake field preparation and nursery raising of rice in sub tropical areas of Jammu under irrigated condition. Select varieties like IET-1410, K-39, Ratna, PC-19, Jaya RR-8585, Basmati 370 and Ranbir Basmati).Undertake sowing of brinjal (var.PPL, PPC & PPR) and chillies (NP-46A, Pusa jawala).
- To avoid the adverse effect of hot weather on fruit trees in Punjab and Jammu & Kashmir, apply whitewash on the trunk of trees, if not done earlier. Apply frequent irrigations to peach and plum trees for proper development of fruit size and better quality. Apply irrigation at weekly intervals to grapes during this month.
- Prevailing weather conditions may be favorable for fruit borer in tomato, brinjal and bhindi crop. Spray the crop with endosulphan @ 0.07% or carbaryl @ 0.1%.

Animal Husbandry:

- Change the water frequently to provide cool water to poultry birds. White washing of poultry shed from outside will be helpful in reflecting the sun rays back from the shed.

EAST INDIA [JHARKHAND, BIHAR, ORISSA, WEST BENGAL & SIKKIM]

- **Realised Rainfall:** Rohtas district of Bihar, Kandhamal, Malkangiri, Nayagarh, Rayagada districts of Orissa, Bankura, Hooghly, Murshidabad, 24 Pargana (N), Purulia, West Midnapore, Coochbehar, Jalpaiguri districts of West Bengal and North district of Sikkim received good rainfall during last week. No significant rain occurred over remaining parts of the region.
- **Rainfall Forecast:** Rain is likely to occur at many places over Gangetic West Bengal and Orissa during next two days and at a few places thereafter. Rain is likely at a few places in Sub Himalayan West Bengal and Sikkim during next two days and at many places thereafter. Rain is likely at a few/isolated places over Bihar and Jharkhand. Heavy to very heavy rainfall may occur over south & coastal Orissa and Sub-Himalayan West Bengal & Sikkim during next 48 hours. Thundersqualls would occur at some places over Bihar, Jharkhand, Orissa, West Bengal & Sikkim during next 48 hours.
- **Major Rabi Crops:**
 - Maize (maturity / harvesting) and moong (flowering / pod formation / maturity) in Bihar.
 - Green gram and black gram (flowering / pod formation / maturity) in Jharkhand.
 - Black gram and green gram (pod formation / maturity), groundnut (early maturity / maturity), maize (maturity) and summer rice (early maturity / maturity / harvesting) in Orissa.
 - Sugarcane (vegetative), vegetable crops (vegetative / flowering / fruiting / harvesting), *boro* rice (early maturity / maturity / harvesting), black gram and green gram (grain formation / early maturity / maturity / harvesting), sunflower (seed formation / early maturity / maturity) and sesame (seed formation / early maturity / maturity / harvesting) in West Bengal.
 - High hills (1500- 2000 m) in Sikkim: large cardamom (vegetative / primary flowering / secondary flowering), seed potato (tuberization), summer potato (Very High Hills) (tuberization), *kharif* vegetables & off season vegetables (transplanting / vegetative), maize (sowing / germination / early vegetative / vegetative); Medium hills (1000 - 1500 m): large cardamom (vegetative / primary flowering / secondary flowering), *Rabi* potatoes (maturity / harvesting), maize (early vegetative / vegetative / tasseling / silking / cob formation), *kharif* vegetable (transplanting / vegetative), ginger (sowing / germination), rice (sowing / nursery sowing); Low Hills (Below 1000 m): large cardamom (vegetative / primary flowering / secondary flowering), *Rabi* potatoes (maturity / harvesting), wheat (harvesting), maize (early vegetative / vegetative / tasseling / silking / cob formation), *kharif* vegetable (transplanting / vegetative), ginger (sowing / germination).
- **Advisories:**
 - Rain is likely at many places during next three days in West Bengal and Orissa with heavy to very heavy rainfall in south & coastal Orissa and Sub-Himalayan West Bengal & Sikkim during next 48 hours, postpone

irrigation, intercultural operation fertilizer application and spraying operations. Provide adequate drainage facilities to avoid waterlogging in standing crops due to heavy rainfall.

- Farmers are advised to harvest already matured maize crop in Bihar on bright sunny days. Farmers may delay harvesting of summer rice, maize, green gram, black gram and groundnut in Orissa, summer rice, sesame and green gram in West Bengal. as heavy rainfall is expected. Already harvested crops may be removed from the field to the safer place.
- Farmers are advised to keep the harvested produce in safer places in view of thunder squall over the region during next 48 hours.
- Sowing operation for direct sown *aus* rice must be completed at the earliest utilizing the recent rainfall in West Bengal. Also prepare the land for nursery bed for *aus* rice.
- Farmers in Sikkim are advised to start land preparation for sowing of *kharif* maize after current spells of rain.
- Under prevailing weather there is chance of infestation of white fly and borer in brinjal in New Alluvial zone of West Bengal. Apply 1 gram Kritap or Padan or 1.5 to 2 ml monocrotophos per lit of water. Moreover, there is a chance of the attack of little leaf of brinjal. To control the disease, remove the infected plant from the field.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM & T, ASSAM, MEGHALAYA]

- **Realised Rainfall:** Rainfall occurred in most of the districts of Assam and Arunachal Pradesh during last week.
- **Rainfall Forecast:** Rainfall is likely to occur at many places in Arunachal Pradesh and Assam and at a few places in Nagaland, Manipur, Mizoram and Tripura during the period. Heavy to very heavy rainfall will occur over northeaster states during next 48 hours.
- **Major Crops:**
 - Vegetables (vegetative / flowering / fruiting / harvesting), *ahu* rice (transplanting / tillering / panicle initiation), sugarcane (vegetative), maize, jute and mesta (early vegetative / vegetative) in Assam. This is proper time for nursery sowing of *Sali* rice.
 - *Jhum* / WRC rice, pulses and vegetables (sowing) and maize (sowing / vegetative) in Arunachal Pradesh.
- **Advisory:**
 - As there was rainfall during last couple of weeks in most of the districts of this region and there is also possibility of rain / thundershower over the region for next three days, postpone irrigation to the standing crops. In view of rainfall to be likely at many places along with heavy to very heavy rainfall in Assam and Arunachal Pradesh, arrange for draining out excess water from the fields to avoid water stagnation in these two States.
 - As there is possibility of rainfall at many places in Assam and Arunachal Pradesh during the period, farmers are also advised to postpone intercultural operation, application of fertilizers and plant protection measures to the crops.
 - Farmers in Arunachal Pradesh are advised to postpone sowing of maize, vegetable crops and pulse crops as heavy to very heavy rainfall will occur over the state during next 48 hours.
 - Postpone harvesting of summer rice due to excess rainfall received during last few weeks in Lower Brahmaputra Valley zone. Sowing of *Sali* rice nursery may be withheld at the time of heavy rainfall in Assam.
 - Transplanting of *ahu* rice may also be withheld at the time of heavy rainfall in Barrack Valley zone in Assam
 - Drain out excess water from green gram and black gram crop fields immediately to protect the crop from stagnant water.
 - Release of fish prawn in the ponds may be carried out as there was sufficient rainfall during previous fortnight.
 - Undertake vaccination of cattle against Black Quarter and Foot and Mouth Disease.

SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS]

- **Realised Rainfall:** Udupi in Coastal Karnataka, Bangalore, Chitradurga and Shimoga in South Interior Karnataka, Malappuram and Pathanamthitta in Kerala and Chennai, Kanchipuram, Krishnagiri, Thiruvapur in Tamil Nadu and Puduchery received rainfall during last week.

- **Rainfall Forecast:** Rain is likely to occur at most places over Coastal Andhra Pradesh and at many places over the region for the next three days except in North Interior Karnataka where rainfall is likely to occur at a few places during next 24 hours. Widespread rain/ thundershowers would occur over Coastal Andhra Pradesh, fairly widespread over Telangana, Rayalaseema, Coastal & South Interior Karnataka, Kerala, Tamilnadu and scattered over North Interior Karnataka during next 24 hours and decrease thereafter. Scattered heavy to very heavy falls and isolated extremely heavy falls would occur over coastal Andhra Pradesh and Telangana during next 24 hours.
- **Major Crops:**
 - Chilli, sunflower and maize (harvesting) and vegetable crops (flowering / fruiting) in Andhra Pradesh.
 - Rice (harvesting), pigeon pea and sunflower (harvesting), summer groundnut (pod maturity / harvesting) and vegetables (flowering / fruiting / harvesting) in Karnataka. This is proper time for sowing of cowpea, green gram, black gram, sesamum, sorghum and cotton.
 - Rice (nursery sowing for first crop), Vegetables (flowering / fruiting / harvesting) and plantation crops (coconut, arecanut, pepper and cashew) in Kerala.
 - Rice (grain maturity), pulses (pod maturity) and cotton (picking) in Tamil Nadu.
- **Advisories:**
 - Due to the impact of severe cyclonic storm 'Laila', heavy rainfall occurred over north coastal Tamil Nadu and isolated pockets of Coastal Andhra Pradesh. In Guntur, Prakasam, East and West Godavari districts of Andhra Pradesh, storm surge is likely to inundate coastal areas. Farmers in this region are advised to arrange for extensive drainage facilities to avoid inundation of water in the crop fields which are at maturity / harvesting stage.
 - As monsoon is approaching, farmers are advised to raise rice nursery for first crop in Kerala and procure certified seeds of cowpea, green gram, black gram, sesamum, sorghum and cotton for sowing in Karnataka.
 - As there was no sufficient rainfall during last week in North Interior Karnataka, apply irrigation to the standing crops. Postpone irrigation in the remaining region, as there are chances of rainfall in the next three days.
 - Undertake nursery sowing of first crop of rice in Northern Zone and southern Zone in Kerala as chances of rain are there. Select among Athira, Aiswarya, Jyothi and Harsha for Northern zone. Raise nursery for vegetable crops for planting during monsoon season in Northern zone
 - Farmers in Southern zone of Kerala are advised to undertake sowing of bhendi, chilli and brinjal utilizing the recent rainfall.
 - Farmers in Problem Area zone in Kerala are advised to continue sowing of upland/semidry rice and planting of coconut seedlings. In homestead gardens, undertake planting of ginger, turmeric and colocasia.
 - As there was rainfall in Coastal zone in Karnataka, farmers are advised to undertake sowing of rice nursery. Select among MO 4 and Champaka. Follow SRI cultivation for more yield.
 - Sugarcane is suffering from moisture stress in Belgaum district in Karnataka. Farmers are advised to undertake spraying of MOP @ 2.5 g/litre of water at 10-15 days interval
 - Farmers in Cauvery Delta zone of Tamil Nadu are advised to nursery sowing of *kuruvai* rice. Select among ADT – 36, 43, 45, 47.
 - Due to forecast of rainfall and high velocity winds in Western zone of Tamil Nadu, farmers are advised to postpone irrigation and spraying of chemicals.
 - Farmers in North western zone of Tamil Nadu are advised to undertake sowing of groundnut, black gram and green gram with the receipt of recent rainfall.
 - Prevailing weather conditions in Cauvery Delta zone of Tamil Nadu are congenial for the incidence of jassids, thrips, hopper and white fly in cotton. To control the pests, spray Triazophos or Profenophos @ 2 ml/litre of water.

Animal Husbandry:

- Undertake vaccination of animals before monsoon season for Black Quarter and Foot and Mouth Disease in Kerala and Karnataka. Also undertake ET vaccination in sheep and goats.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** No significant rain occurred in most of the districts of the States of this region.
- **Rainfall Forecast:** Either isolated rain will occur or mainly dry weather will prevail over the States of this region during the period.
- **Major Crops:**
 - Maharashtra: Vegetables (vegetative/flowering/fruited/harvesting) and summer rice (grain maturity/harvesting in North Konkan and grain formation/ maturity in East Vidarbha), summer groundnut (pod maturity/ harvesting), summer sunflower (seed maturity/ harvesting in Latur division & seed maturity in other divisions), summer maize (cob maturity / harvesting) summer bajra (grain maturity / harvesting).
 - Gujarat: Green gram (pod maturity / harvesting), summer groundnut (pegging / pod development), sugarcane (vegetative) and vegetables (vegetative / flowering / fruited / harvesting).
- **Advisory:**
 - As mainly dry weather is prevailing for last few weeks and also likely to prevail during next five days along with persistent high temperature, apply irrigation to groundnut, sugarcane and vegetable crops etc. in Gujarat.
 - As there was no significant rain during last week in most of the districts of Maharashtra and no significant rain is likely to occur during next five days, apply protective irrigation to the standing crops. As heat wave conditions are prevailing over parts of Vidarbha and Marathwada, farmers are advised to apply light and frequent irrigation over these regions.
 - To control water loss through evaporation from soil from sugarcane fields in Gujarat, spread dry leaves of sugarcane in between two rows of sugarcane.
 - As the wind speed is expected to increase beyond 17 Kmph in Narmada and Surat districts of Gujarat, susceptible crops like banana may be provided staking and propping may be done for sugarcane to avoid lodging of crops.
 - Taking the advantage of dry weather, undertake harvesting of already matured summer rice, groundnut, maize, sunflower & summer bajra in Maharashtra and also undertake harvesting of matured crops of green gram, maize etc. in Gujarat.
 - Maintain 5-8 cm water level in the rice field at grain formation stage in east Vidarbha to meet the high evaporation rate.
 - Farmers in Maharashtra are advised to undertake sowing of irrigated cotton with variety like Phule-492 and NHH-44 (Nanded 44). Sowing may be done at spacing 90 x 90 cm in medium & at 120 x 90 cm in black soil respectively. Sowing of Bt cotton may not be done after 25th May.
 - In view of high temperature, make arrangement of shade for milch animals in Gujarat and provide fresh drinking water. Put wetted curtains on west direction in poultry house to protect the birds against hot winds to avoid heat stress.
 - Due to higher temperature infestation of jassids, aphids, white fly and mites are likely to be increased in brinjal in Maharashtra, spray Carbosulfan @ 10 ml in 10 litres water.
 - Due to high temperature vegetables are likely to be infested by viral diseases through sucking pests in Maharashtra; spray 5% Neemark to control.

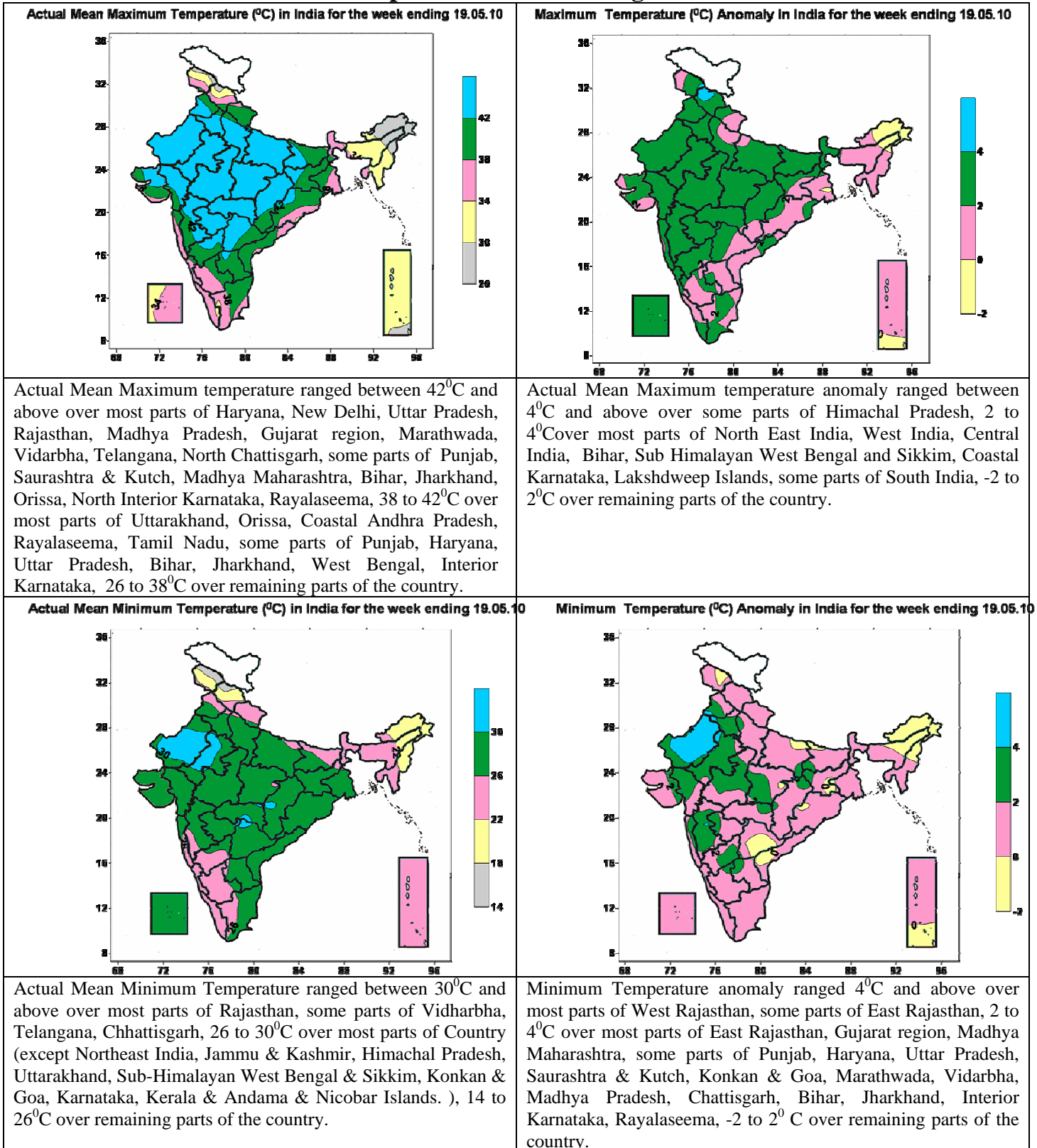
CENTRAL INDIA [M.P., CHHATTISGARH]

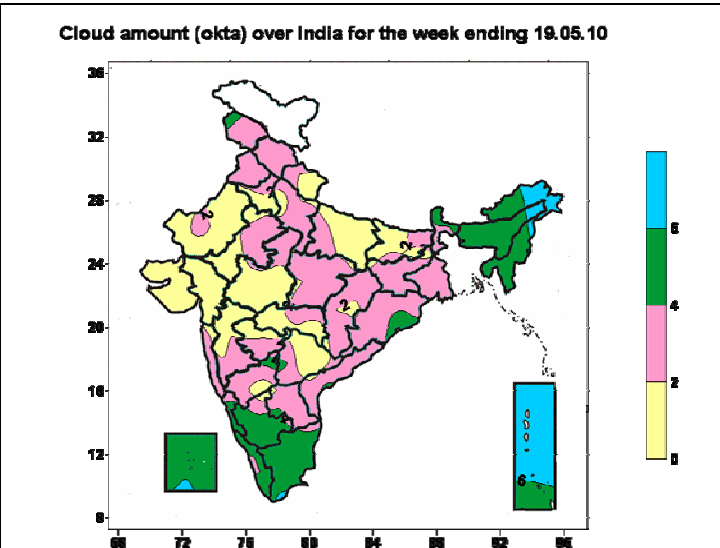
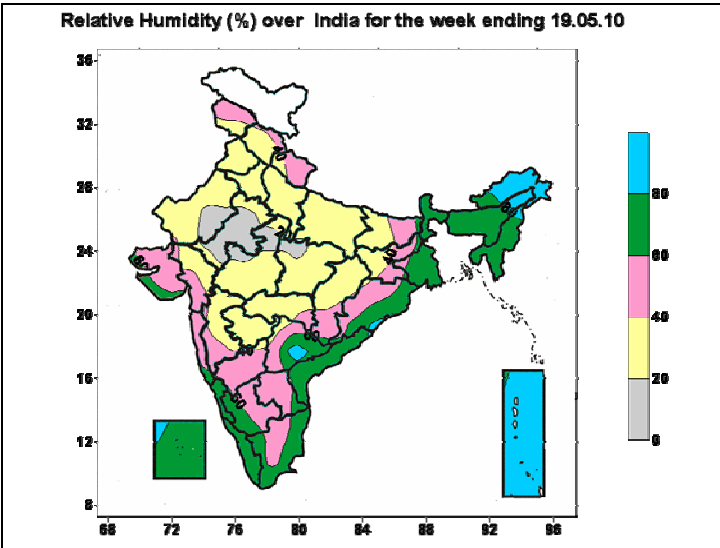
- **Realised Rainfall:** No significant rainfall occurred over the States during the period.
- **Rainfall Forecast:** Either isolated rain will occur or mainly dry / dry weather will prevail over the region except in Chhattisgarh where rain is likely at a few places during next 48 hours.
- **Major Crops:**
 - Summer urd, mung and sunflower (maturity/harvesting), sugarcane (cane development) and vegetable crops (vegetative / flowering / fruited) in Madhya Pradesh.

- *Boro* rice (grain development / early maturity / maturity), sesame (pod formation / seed formation / early maturity) in Chhattisgarh.
- **Advisory:**
 - Day temperatures are higher and there was no rainfall in the last few weeks and there are chances of no significant rainfall in the next five days over Madhya Pradesh. Farmers are advised to apply light and frequent irrigation to summer forage crops like maize, sorghum, jowar, cowpea, etc to meet the excess evaporative demands.
 - At present the potential evapotranspiration rates are higher due to higher temperature, wind speed, low humidity as well as higher bright sunshine hours over Chhattisgarh and it is being recorded around 6 mm/day, which has increased the water requirements of summer crops like vegetables and green gram. Hence, it is advised to reduce the interval between two irrigations and irrigate the crops as per requirement for proper water management in these crops.
 - Farmers in Kymore Plateau zone and Jhabua Hills zone in Madhya Pradesh are advised to harvest summer green gram and black gram immediately to avoid shattering of grains due to high temperature conditions.
 - Presently the maximum temperature is more than 45°C and due to hot and dry winds banana and papaya fruits may be damaged because of sun scorching in Chhattisgarh. Hence, farmers are advised to cover the fruits by using leaves or Jute bags to protect the fruits from sun scorching. It is also advised to provide wind breaks in west / north-west direction.
 - Looking to the expected thunder-squalls over Chhattisgarh and East Madhya Pradesh, farmers are requested to shift the harvested produce from the field to the safer place as early as possible.
 - Farmers are advised to undertake deep ploughing after harvesting of *rabi* crops so that disease pathogens and insect's larvae and eggs will come in contact with solar radiation and may get killed.
- **Animal Husbandry**
 - As high temperature conditions prevail during these days, avoid grazing of animals under direct sun. Farmers are advised to provide clean drinking water to cattle 3 – 4 times a day. Also protect young calves from scorching sun. Cover the windows and doors with gunny bags of poultry sheds and wet it regularly to minimize the effect of the dry wind.

Annexure I

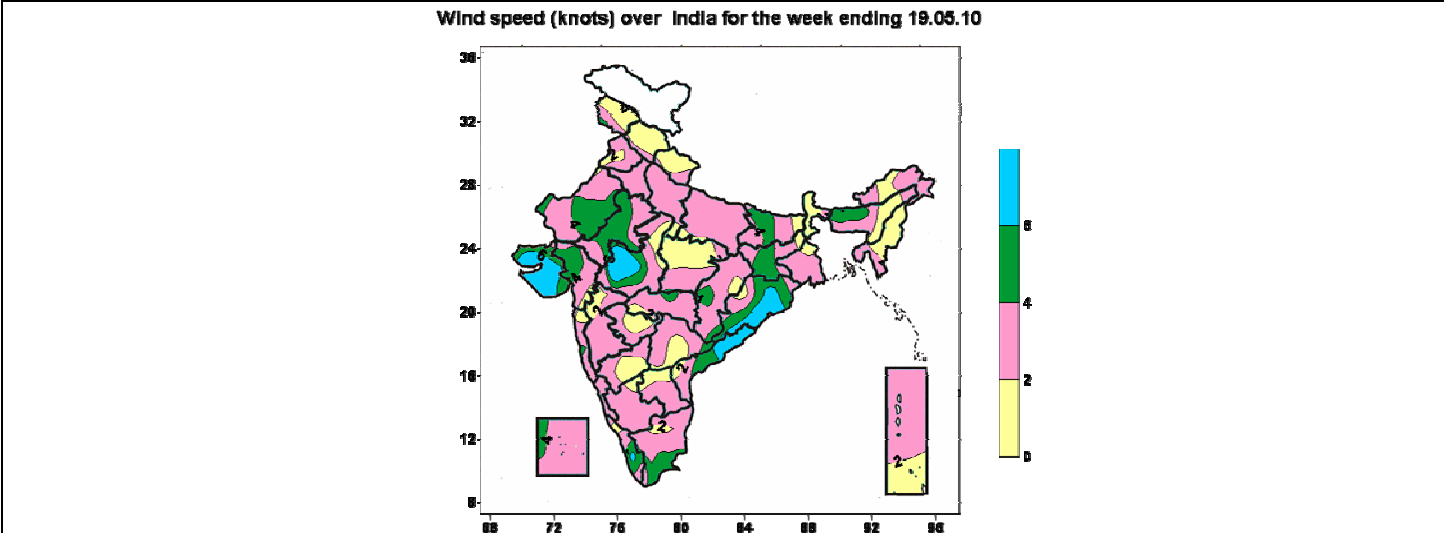
Contour maps for the week ending 19.05.10





Relative humidity between 80% and above over most parts of Arunachal Pradesh, Andaman & Nicobar Islands, some parts of Assam, Nagaland, Orissa, Telangana, Lakshdweep 60 to 80% over most parts North East India, West Bengal, Sikkim, Coastal Orissa, Coastal Andhra Pradesh, Coastal Tamil Nadu, Kerala, Coastal Karnataka, Lakshadweep Islands, some parts of South Interior Karnataka, Konkan & Goa, Saurashtra & Kutch, Telangana, Rayalaseema, 0 to 60% over remaining parts of the country.

Cloud amount 6 okta and above over most parts of Andaman & Nicobar Islands, some parts of Assam, Arunachal Pradesh, Nagaland Lakshdweep Islands. 4 to 6 okta over most parts of North East India, Sikkim, South Interior Karnataka, Coastal Karnataka, Kerala, Tamil Nadu, Lakshdweep, some parts of Jammu & Kashmir, Orissa, West Bengal, Telangana, Raylaseema, North Interior Karnataka, 0 to 4 okta over remaining parts of the country.



Wind speed ranged between 6 knots and above over most parts of Saurashtra, Kutch, some parts of West Madhya Pradesh, Orissa, North Coastal Andhra Pradesh, Kerala, 4 to 6 knots over some parts of Jammu & Kashmir, Rajasthan, Gujarat, Saurashtra & kutch, West Madhya Pradesh, Konkan & Goa, Vidarbha, Bihar, Jharkhand, Assam, Orissa, Chattisgarh, North Coastal Andhra Pradesh, South Coastal Tamil Nadu, Kerala, Lakshadweep, 0 to 4 knots over remaining parts of the country.