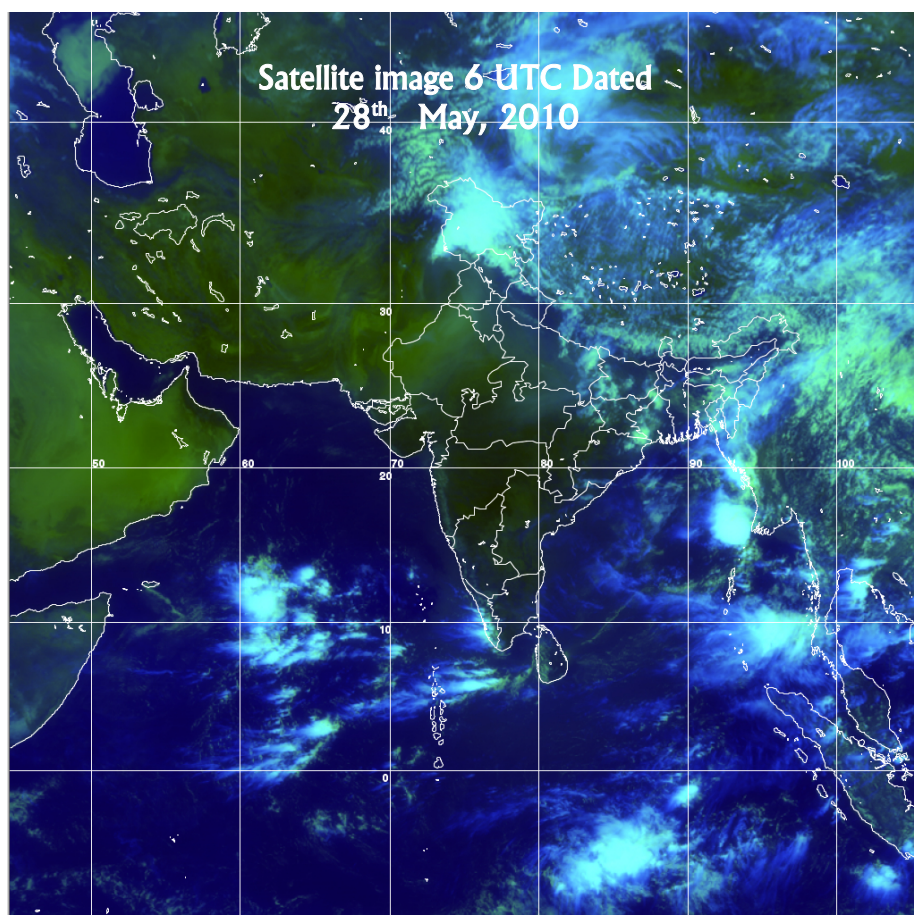




# National Agromet Advisory Bulletin

Wednesday, 26<sup>th</sup> May, 2010

**(For the period 26<sup>th</sup> to 30<sup>th</sup> May, 2010)**



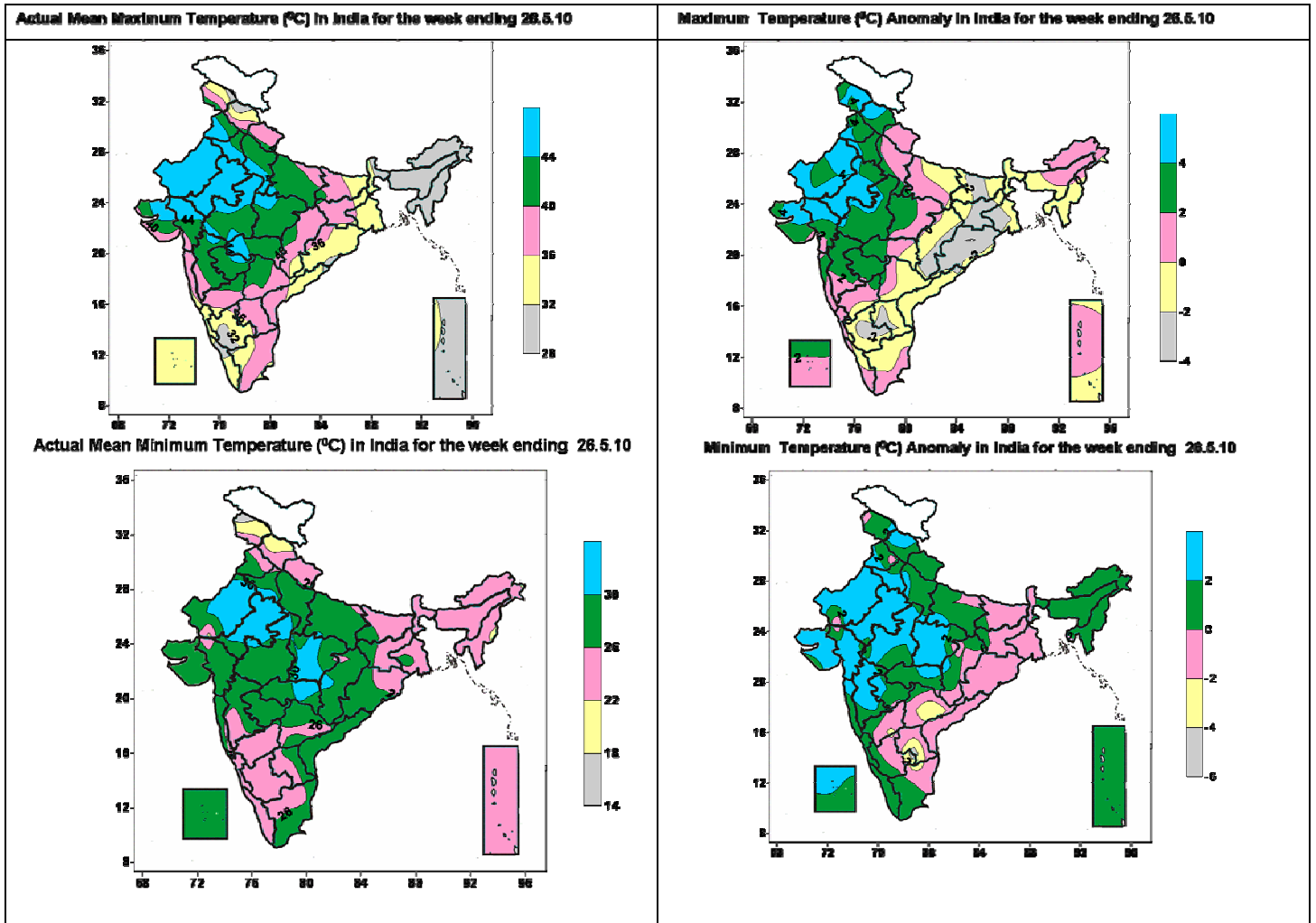
**Issued by**  
**National Agrometeorological Advisory Service Centre**  
**Agricultural Meteorology Division**  
**India Meteorological Department**  
**Shivajinagar**  
**Pune.**

The bulletin is also displayed in the website (<http://www.imdagrimet.gov.in>) of the Division

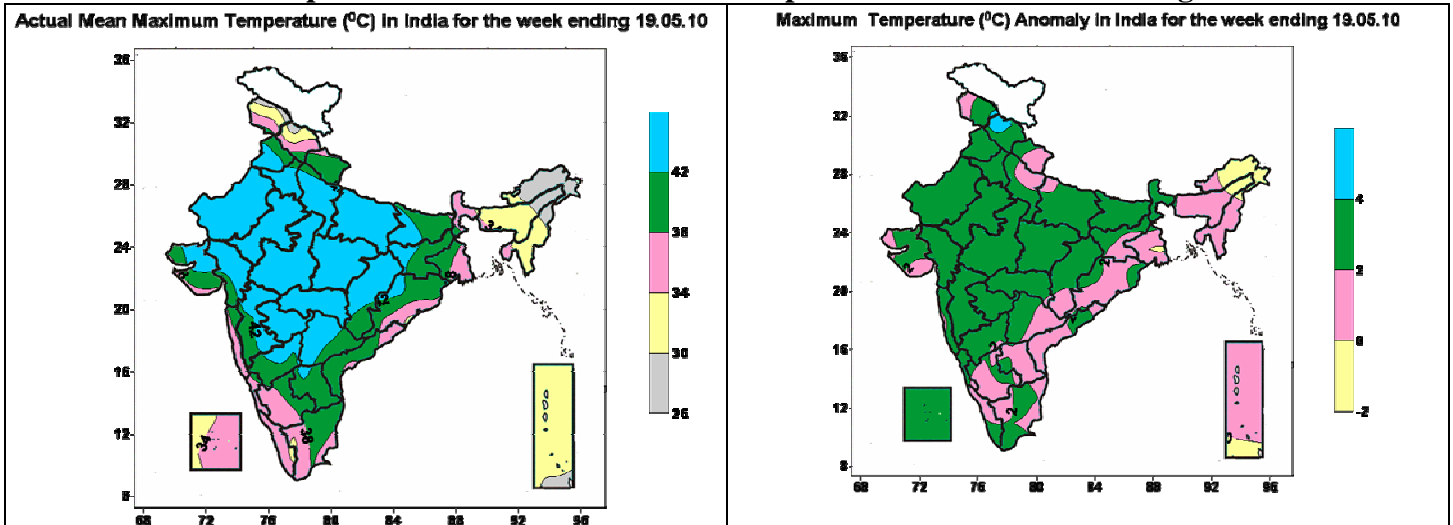
# Executive Summary

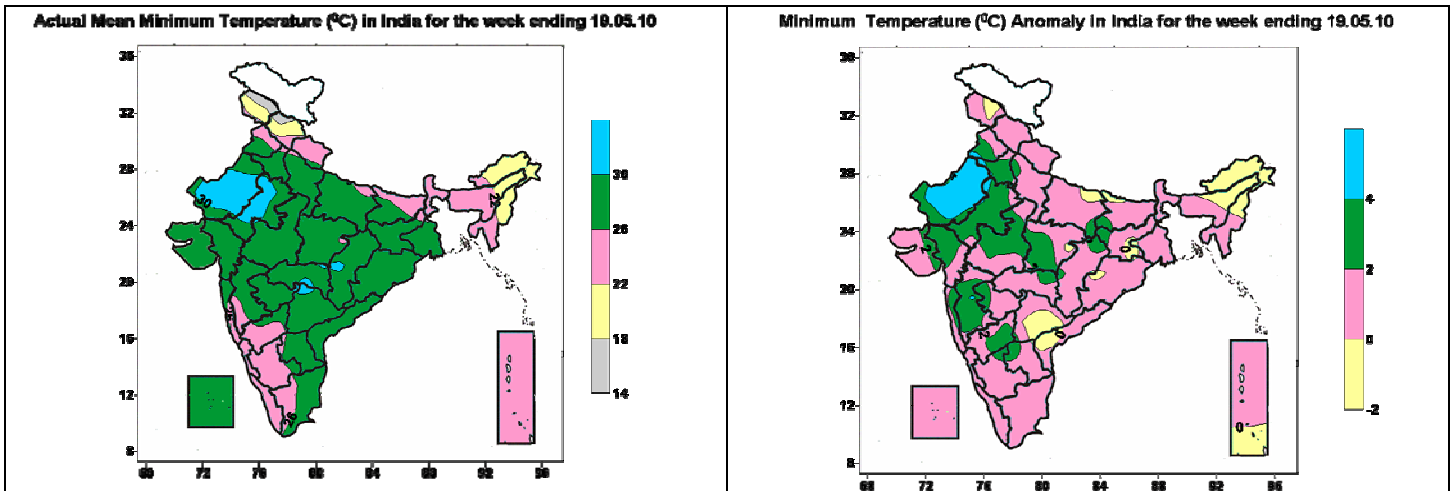
## Significant Past Weather

Contour maps of Maximum and Minimum temperatures for the week ending 26.05.10



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





- Actual Mean Maximum temperature anomaly ranged between  $4^{\circ}\text{C}$  and above over most parts of Rajasthan, some parts of Jammu & Kashmir, Punjab, Himachal Pradesh, Haryana, Gujarat, Saurashtra & Kutch, West Madhya Pradesh 2 to  $4^{\circ}\text{C}$  over most parts of Punjab, Haryana, Delhi, West Madhya Pradesh, North Maharashtra, some parts of Jammu & Kashmir, Himachal Pradesh, Uttar Pradesh, East Madhya Pradesh, Telangana, North Interior Karnataka, Lakshadweep Islands India (detail in Annexure I).
- Maximum temperature anomaly has increased in Rajasthan, Jammu & Kashmir, Punjab, Haryana, Himachal Pradesh, Gujarat, Saurashtra & Kutch, as compared to the last week and decrease in Uttarakhand, Uttar Pradesh, East India, South India, East Madhya Pradesh, Vidarbha, South Konkan & Goa, South Madhya Maharashtra, Andaman Nicobar Island. (detail in Annexure I)
- Rainfall occurred in most of the districts of Arunachal Pradesh, Assam, Bihar, Sub Himalayan West Bengal, Orissa, South Interior Karnataka, Coastal Andhra Pradesh, Rayalaseema, some districts of Gangetic West Bengal, Telangana, Kerala, North Interior Karnataka and Tamil Nadu 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  
26.05.2010**

State/District	Actual Rainfall (mm)	% Departure
<b>Arunachal Pradesh</b>		
East Siang	82.2	-17
Lohit	118.7	66
Papumpara	105.1	95
Upper Subansiri	53.6	-1
West Kameng	120.7	300
West Siang	61.0	28
<b>Assam</b>		
Barpeta	136.9	57
Cachar	252.9	186
Dhubri	234.6	133
Dibrugarh	65.2	-5
East Garo Hills	187.8	250
East Khasi Hills	294.2	67
Goalpara	159.9	39
Golghat	81.5	76
Hailakandi	117.4	6
Jorhat	71.2	3
Kamrup	75.4	16
Karbi Analog	63.8	71
Karimganj	131.5	-11
Kokrajhar	197.9	27
Morigaon	105.6	132
Nalbari	107.6	65
Nowgong	68.5	50
Sibsagar	95.0	45
Sonitpur	103.0	68
Tinsukia	65.8	18
<b>Jammu &amp; Kashmir</b>		
Kupwara	21.0	-15
<b>Chattisgarh</b>		
Bastar	27.7	412
<b>UttaraKhand</b>		
Pithorgarh	20.2	20
<b>Bihar</b>		
Araria	50.4	46
Bhagalpur	39.1	198
East Champaran	187.0	1698
Khagadia	22.4	267
Madhepura	111.0	542
Muzaffarpur	40.6	220
Patna	36.8	484
Purnea	83.2	248
Samstipur	24.9	109
Saran	40.1	537
Supaul	141.2	978
<b>Orissa</b>		
Angul	72.0	811
Balasore	69.9	282

State/District	Actual Rainfall (mm)	% Departure
Bhadrak	55.1	196
Boudh	561.3	567
Cuttack	93.9	402
Deogarh	35.8	795
Dhenkanal	96.8	591
Gajapati	104.4	574
Ganjam	121.9	686
Jagatsingpur	100.5	437
Jajpur	77.5	285
Kalahandi	41.9	565
Kandhamal	75.1	876
Kendrapara	58.7	178
Keonjhar	64.5	316
Khurda	113.0	811
Koraput	50.3	191
Malkangiri	30.0	253
Mayurbhanj	45.0	75
Nawarangpur	59.2	259
Nayagarh	116.8	1478
Puri	116.3	1151
Rayagada	62.6	262
<b>West Bengal</b>		
<b>GWB</b>		
Bankura	26.9	92
Howrah	34.0	32
East Midnapore	47.8	167
Murshidabad	26.0	17
24 Pargana (N)	23.2	-16
24 Pargana (S)	89.5	326
West Midnapore	23.4	8
<b>SHWB</b>		
Coochbehar	193.3	64
Darjeeling	137.6	221
Jalpaiguri	164.9	104
Malda	125.3	376
Dinajpur (S)	55.3	45
North Sikkim	103.3	20
<b>Karnataka</b>		
<b>Coastal Karnataka</b>		
<b>North Interior Karnataka</b>		
Bagalkote	35.0	85
Bijapur	21.8	32
Gadag	41.8	77
Haveri	24.6	-8
Koppal	59.6	272
<b>South Interior Karnataka</b>		
Bangalore Rural	41.6	45
Bellary	58.5	208
Chickmagalur	32.6	14
Chitradurga	85.8	259

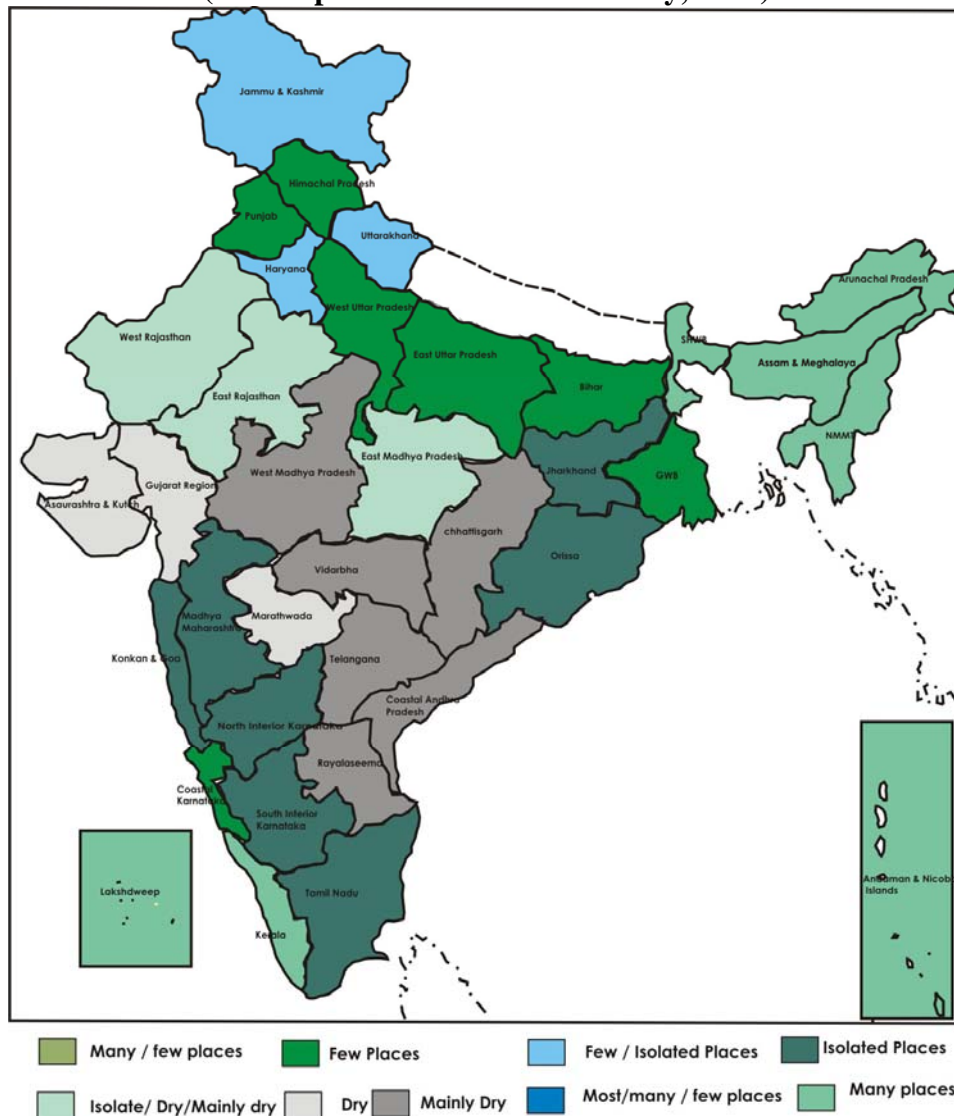


State/District	Actual Rainfall (mm)	% Departure
Davangere	28.6	14
Hassan	32.8	29
Kolar	69.3	190
Mandya	45.3	34
Mysore	39.7	5
Tumkur	40.5	63
<b>Kerala</b>		
Alappuzha	127.6	35
Ernakulam	136.9	31
Kollam	99.3	31
Kottayam	143.3	61
Pathanamthitta	130.6	90
Thiruvananthapuram	81.1	34
<b>Tamil Nadu</b>		
Chennai	106.9	592
Dharmapuri	23.8	5
Erode	42.3	108
Kanchipuram	39.5	273
Kanyakumari	67.2	223
Krishnagiri	40.4	55
Tiruvallur	100.9	582
Tiruvannamalai	35.7	110
Vellore	59	189

State/District	Actual Rainfall (mm)	% Departure
<b>Andhra Pradesh</b>		
<b>Coastal Andhra Pradesh</b>		
East Godavari	157.3	908
Guntur	161.4	969
Krishna	197.8	1482
Nellore	99.6	515
Prakasam	259.0	1380
Sirkakulam	162.0	995
Visakhapatnam	166.7	875
Vizianagram	113.9	496
West Godavari	164.1	1478
<b>Telangana</b>		
Khammam	114.6	674
Nalgonda	24.1	191
Warangal	37.5	582
<b>Rayalaseema</b>		
Anantapur	70.2	290
Chittoor	54.6	207
Cuddapah	29.0	73
Kurnool	35.9	109

## Weather Forecast

(Valid upto 1430 hours of 29<sup>th</sup> May, 2010)



Rainfall is likely to occur at many places in North East India, Sub Himalayan West Bengal & Sikkim, Kerala, Lakshadweep, Andaman & Nicobar Islands at a few places in Gangetic West Bengal, Bihar, Uttar Pradesh, Coastal Karnataka, at isolated places in Orissa, Jharkhand, Konkan & Goa, Madhya Maharashtra, Tamil Nadu & Pondicherry, Interior Karnataka, at a few places after 24 hours in Punjab, Himachal Pradesh, Jammu & Kashmir, after 48 hours in Uttarakhand, Haryana, Chandigarh, Delhi, at isolated places after 24 hours in Rajasthan, East Madhya Pradesh. Dry/mainly dry weather is likely to prevail over rest of the region.

### Warning

- Isolated heavy rainfall may occur over northeastern states during next 48 hours.
- Thundersqualls may occur at isolated places over Uttar Pradesh, Bihar, Jharkhand, West Bengal & Sikkim and northeastern states during next 48 hours.
- Heat wave conditions would continue over parts of Rajasthan, Madhya Pradesh and interior Maharashtra during next 48 hours.

## Major crops in different States

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

## Salient advisories

### NORTH WEST INDIA

- As dry weather conditions prevailed in most of the districts of the States in the region except in Kupwara district in Jammu & Kashmir and Pithoragarh district in Uttarakhand, farmers are advised to apply irrigation to the standing crops. Postpone irrigation in the above mentioned districts as there was rainfall during last week.
- In view of prevailing high temperature in parts of Haryana, Delhi and Punjab and heat wave conditions in Rajasthan, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
- Complete the sowing of rajmash in Himachal Pradesh as temperature is optimum for germination.
- Prevailing weather conditions are favorable for incidence of aphids in rose in Himachal Pradesh, spray rogor @ 1 ml per litre of water on a non rainy day to control the pest.

### NORTH EAST 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 isolated heavy rainfall, arrange for draining out excess water from the fields to avoid water stagnation.
- 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.
- Due to forecast of rainfall along with isolated heavy rainfall postpone harvesting of summer rice in the region.
- Sowing of *Sali* rice nursery may be postponed in Hill zone, Lower and Upper Brahmaputra valley zone of Assam due to forecast of isolated heavy rainfall during next 48 hours. Transplanting of *ahu* rice may also be withheld at the time of heavy rainfall in Barrack Valley zone.
- Farmers are also advised to drain out excess water from maize fields and from the root zone of all the cucurbitaceous crops to avoid fungal diseases likely to occur in these prevailing rainy days.

### EAST INDIA

- As most of the districts of Bihar, Orissa, Gangetic West Bengal and North Sikkim district of Sikkim received good rainfall during last week, postpone irrigation to the crops in these regions. Apply irrigation to the standing crops in remaining region as there is less possibility of rainfall during coming days.

- Due to forecast of rain likely to occur at many places over Sub Himalayan West Bengal and Sikkim postpone irrigation to the crops.
- Undertake harvesting of summer rice, maize, green gram, black gram and groundnut in Orissa on bright sunny days and postpone harvesting of maize crop in Bihar, summer rice, sesame and green gram in West Bengal as there is chance of rainfall during next three days.
- Due to good rain in coastal saline zone in West Bengal, moisture is sufficient in the soil. Farmers are advised to plough and harrow the field for sowing of long duration and deep water paddy (direct sown).
- Transplanting of early *aus* rice must be completed at the earliest utilizing recent rainfall in West Bengal.
- Farmers in new alluvial zone are advised to continue sowing of *aman* rice in the seed bed with the help of last week rain.
- Land preparation may be started for sowing of *kharif* maize and rice in Sikkim utilizing rainfall during last week.

#### **WEST INDIA**

- As mainly dry weather is prevailing for last few weeks and also likely to prevail during next three 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 three days, apply protective irrigation to the standing crops. As heat wave conditions are prevailing over parts of interior Maharashtra, farmers are advised to apply light and frequent irrigation over these region.
- Taking the advantage of dry weather, undertake harvesting of already matured summer paddy, groundnut and bajra in Maharashtra and harvesting of matured crops of green gram and vegetables etc. in Gujarat.
- Farmers in Maharashtra are advised to continue sowing of irrigated cotton, fodder maize, lucerne grass and berseem grass.
- In view of high temperature, put curtains on west direction in poultry house and spray water on them during noon hours to avoid heat stress.

#### **SOUTH INDIA**

- Due to forecast of rainfall likely at many places over Kerala, farmers are advised to postpone irrigation to the crops.
- Excess rainfall occurred over Coastal Andhra Pradesh and Rayalaseema in Andhra Pradesh and North Coastal Tamil Nadu. Farmers in this region are advised to postpone irrigation to the crops and arrange for drainage facilities to avoid inundation of water in the crop fields which are at maturity / harvesting stage.
- Utilizing the recent rainfall, farmers in Kerala are advised to raise rice nursery for first crop. As monsoon is approaching, farmers are advised to procure certified seeds of cowpea, green gram, black gram, sesamum, sorghum and cotton for sowing in Karnataka.
- Farmers in Hill zone of Karnataka are advised to take up sowing of cowpea, green gram, sesamum and ragi crops as good amount of rainfall was received during last week.
- Due to forecast of high velocity winds in Hill zone of Karnataka and Southern zone of Tamil Nadu, farmers are advised to provide staking to banana to prevent from lodging.
- Farmers in Cauvery Delta zone of Tamil Nadu are advised for nursery sowing of *kuruvai* rice. Select among ADT – 36, 43, 45, 47.
- Due to high humidity in High Altitude zone of Kerala, there are chances of Sigatoka leaf spot in banana and leaf rust in coffee. Undertake plant protection measures after spells of rain.

#### **CENTRAL INDIA**

- Heat wave conditions prevail 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.



- Due to higher temperature, wind speed, low humidity as well as higher bright sunshine hours over Chhattisgarh evaporation rates are higher and it is being recorded around 12 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 Jhabua Hills zone in Madhya Pradesh are advised to complete harvesting of summer green gram and black gram immediately to avoid shattering of grains due to high temperature conditions.
- Looking to the high wind speed over Chhattisgarh, farmers are advised to undertake propping of sugarcane to prevent from lodging.

## Zonewise Agromet Advisories

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

- **Realised Rainfall:** No significant rainfall occurred in the region except Kupwara district in Jammu & Kashmir and Pithorgarh district in Uttarakhand during last week.
- **Rainfall Forecast:** Rainfall is likely at a few places in Uttar Pradesh during next three days. Either isolated rain will occur or mainly dry weather will prevail over the Punjab, Himachal Pradesh and Jammu & Kashmir during next 24 hours and at few places thereafter. Either isolated rain will occur or mainly dry weather will prevail over Uttarakhand, Haryana and Delhi during next 48 hours and at few places thereafter. Either isolated rain will occur or mainly dry weather will prevail over the remaining States of this region during the period. Scattered thunderstorms/duststorm will occur over Haryana, Delhi, Punjab and Uttar Pradesh from tomorrow. Heat wave conditions would continue over parts of Rajasthan during next 48 hours.
- **Major Crops:**
  - Vegetables (sowing / nursery sowing / vegetative) in Himachal Pradesh.
  - Vegetable crops (flowering / fruiting / harvesting) in Jammu & Kashmir.
  - Maize (early vegetative), black gram and green gram (early vegetative / vegetative / flowering) in Uttarakhand.
  - Sugarcane (vegetative), cotton, maize (early vegetative), black gram and green gram (early vegetative/vegetative), sunflower (early vegetative) in Punjab.
  - Sugarcane (vegetative), black gram and green gram (flowering / pod formation) in Haryana.
  - Green gram and black gram (flowering / pod formation) and vegetable crops (flowering / fruiting / harvesting) in Delhi.
  - Sugarcane (vegetative), sunflower, black gram and green gram (flowering), vegetable crops (sowing) in Uttar Pradesh.
  - Green gram (flowering / pod formation), vegetable crops (flowering / fruiting / harvesting) in Rajasthan.
- **Advisory:**
  - As dry weather conditions prevailed in most of the districts of the States in the region except in Kupwara district in Jammu & Kashmir and Pithorgarh district in Uttarakhand, farmers are advised to apply irrigation to the standing crops. Postpone irrigation in the above mentioned districts as there was rainfall during last week.
  - In view of prevailing high temperature in parts of Haryana, Delhi, Uttar Pradesh, Rajasthan and 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 Delhi, Haryana and Rajasthan during morning and evening hours.
  - Due to prevailing hot weather conditions in Punjab irrigate the sugarcane crop at 8-10 days interval for getting better growth of the crop. Moisture conservation may be done by spreading mulch in between cane rows. Provide rice straw/wheat straw/rice husk for mulch in between rows.
  - Complete sowing of rajmah and other crops in Himachal Pradesh as temperature is optimum for germination.
  - Farmers are advised to undertake transplanting of vegetable crops like tomato, brinjal, capsicum and chillies, sowing of ageti bhindi (var. Prabhini kranti, Arka anamika,) and direct sowing of Khira, bitter

gourd, tori in Himachal Pradesh. Also undertake nursery sowing and transplanting of brinjal (Arka Nidhi, PPC), Shimla mirch (California wonder), pepper (Surjmukhi) and tomato in polyhouses is advised in view of ensuing weather. It is time for sowing of nursery in areas where summer vegetables like brinjal Shimla mirch, pepper and tomato are taken as rainfed crop during rainy season. It is also time for sowing of ginger, arbi, amaranthus and turmeric.

- Continue nursery preparation for early cauliflower in Delhi. Farmers are advised to carry out solarization of nursery beds by covering with thin plastic sheets of 20-30mm thickness. Undertake sowing of guar, maize, tur, bajra, cluster bean as fodder crops may be done during this week.
- Farmers in Rajasthan are advised to undertake sowing of chilli and Shimla mirchi seeds in nursery and prepare field for sowing of groundnut as optimum time of sowing of irrigated groundnut is from first week to second week of June.
- Farmers in Uttarakhand may undertake sowing of finger millet utilizing the light rainfall during last week and expected rainfall. Select medium duration varieties like VL- Mandua-124 and VL-149 and short duration varieties like VL- Mandua-204, Pant Mandua-3, PES-176, PES-110, VL- Mandua-146.
- Farmers are advised to continue field preparation and nursery sowing 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) due to chance of rainfall during next three days.
- To avoid the adverse effect of hot weather on fruit trees in Punjab and Jammu & Kashmir, whitewash 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 are favorable for mild incidences of aphids in rose, for control spray rogor @ 1 ml per litre of water on anon rainy day.
- **Animal Husbandry:**
- Keep the animals in shade and provide clean fresh drinking water. Animal should not be made to work during peak hours of summer. Due to stroke or if an animal starts bleeding from nose, do not disturb it much and pour ice cold water over face and head and keep its head lifted.

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

- **Realised Rainfall:** Most of the districts of Bihar, Orissa, West Bengal and North Sikkim 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 Sub Himalayan West Bengal and Sikkim and at a few places over Gangetic West Bengal and Bihar during next three days. Isolated rainfall is likely over Jharkhand and Orissa during the next three days. Scattered thunderstorms/duststorm will occur over Bihar from tomorrow. Thundersqualls may occur at isolated places over Bihar, Jharkhand, West Bengal & Sikkim during next 48 hours.
- **Major Rabi Crops:**
  - Maize (maturity / harvesting) and moong (pod formation / maturity) in Bihar.
  - Green gram and black gram (pod formation / maturity) in Jharkhand.
  - Black gram and green gram (pod formation / maturity), groundnut (maturity), maize (maturity) and late summer rice (early maturity) 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:**

- As most of the districts of Bihar, Orissa, Gangetic West Bengal and North Sikkim district of Sikkim received good rainfall during last week, postpone irrigation to the crops in these regions. Apply irrigation to the standing crops in remaining region as there is less possibility of rainfall during coming days.
- As rain is likely to occur at many places over Sub Himalayan West Bengal and Sikkim, postpone irrigation to the crops in these regions.
- Undertake harvesting of summer rice, maize, green gram, black gram and groundnut in Orissa on bright sunny days and postpone harvesting of maize crop in Bihar, summer rice, sesame and green gram in West Bengal as there is chance of rainfall during next three days.
- Take precaution for the harvested and threshed crops and keep the harvested produce at safer place in view of thunder squall over the region during next 48 hours.
- Due to the good pre monsoon rain in coastal saline zone in West Bengal, moisture is sufficient in the soil. Farmers are advised to plough and harrow the field for sowing of long duration and deep water paddy (direct sown).
- With the help of last week rain in new alluvial zone sowing of *aman* rice in the seed bed may be continued in West Bengal.
- Land preparation may be started for sowing of *kharif* maize and rice in Sikkim utilizing rainfall during last week.

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

- **Realised Rainfall:** Rainfall occurred in most of the districts of Arunachal Pradesh except in Lower Subansiri, Tawang and Tirap districts and Assam during last week.
- **Rainfall Forecast:** Rainfall is likely to occur at many places in the region during the period. Isolated heavy rainfall and thundersquall will occur over northeaster states during next 48 hours.
- **Major Crops:**
  - Vegetables (flowering / fruiting / harvesting), *ahu* rice (tillering panicle initiation), sugarcane (vegetative), maize, jute, mesta (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 isolated heavy rainfall, arrange for draining out excess water from the fields to avoid water stagnation.
  - 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.
  - Due to forecast of rainfall along with isolated heavy rainfall will occur postpone harvesting of summer rice in the region.
  - Sowing of *Sali* rice nursery may be postponed in Hill zone, Lower and Upper Brahmaputra valley zone of Assam due to forecast of isolated heavy rainfall during next 48 hours. Transplanting of *ahu* rice may also be withheld at the time of heavy rainfall in Barrack Valley zone.
  - Farmers are also advised to drain out excess water from maize fields and from the root zone of all the cucurbitaceous crops to avoid fungal diseases likely to occur in these prevailing rainy days.
  - Release of fish prawn in the ponds may be carried out as there was sufficient rainfall during previous fortnight.

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

- **Realised Rainfall:** All the districts except Kasaragod, Malappuram and Palakkad in Kerala, North Coastal Tamil Nadu and Coastal Andhra Pradesh and Rayalaseema in Andhra Pradesh received rainfall during last week.
- **Rainfall Forecast:** Rain is likely to occur at many places over Kerala. Either dry weather or isolated rain is likely over the remaining region except in Coastal Karnataka where rainfall is likely to occur at a few places.
- **Major Crops:**
  - Chilli (harvesting) and vegetable crops (flowering / fruiting / harvesting) in Andhra Pradesh.
  - Summer groundnut (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 (harvesting), pulses (harvesting) and cotton (picking) in Tamil Nadu.
- **Advisories:**
  - Due to forecast of rainfall likely at many places over Kerala, farmers are advised to postpone irrigation to the crops.
  - Excess rainfall occurred over Coastal Andhra Pradesh and Rayalaseema in Andhra Pradesh and North Coastal Tamil Nadu. Farmers in this region are advised to postpone irrigation to the crops and arrange for drainage facilities to avoid inundation of water in the crop fields which are at maturity / harvesting stage.
  - Utilizing the recent rainfall, farmers in Kerala are advised to raise rice nursery for first crop. As monsoon is approaching, farmers are advised to 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 Karnataka apply irrigation to the standing crops.
  - Farmers in Problem Area zone in Kerala are advised to continue wet seeding of rice and planting of coconut seedlings. In homestead gardens, undertake planting of ginger, turmeric and colocasia.
  - Farmers in High Altitude zone of Kerala are advised to harvest rice immediately due to forecast of rainfall. Undertake planting of coconut, arecanut and pepper.
  - Farmers in Hill zone of Karnataka are advised to take up sowing of cowpea, green gram, sesamum and ragi crops as good amount of rainfall was received during last week.
  - Due to forecast of high velocity winds in Hill zone of Karnataka and Southern zone of Tamil Nadu, farmers are advised to provide staking to banana to prevent from lodging.
  - 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
  - As monsoon is expected one week earlier, farmers in Scarce Rainfall zone of Andhra Pradesh are advised to start land preparation and arrange for inputs for sowing of groundnut.
  - Farmers in Cauvery Delta zone of Tamil Nadu are advised for nursery sowing of *kuruvai* rice. Select among ADT – 36, 43, 45, 47.
  - Due to high humidity in High Altitude zone of Kerala, there are chances of Sigatoka leaf spot in banana and leaf rust in coffee. Undertake plant protection measures after spells of rain.
- **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 sheeps 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. Heat wave conditions would continue over parts of interior Maharashtra during next 48 hours



- **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 in North Konkan & Latur division and pod development/ pod maturity in other region), summer sunflower (seed maturity in Latur division & head formation in other divisions), summer maize (cob maturity / harvesting in Latur division & cob initiation in other divisions ), 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 interior Maharashtra, farmers are advised to apply light and frequent irrigation over this region.
  - To control water loss through evaporation from soil from sugarcane fields in Gujarat, spread dry leaves of sugarcane in between tow rows of sugarcane.
  - 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 continue sowing of irrigated cotton with variety like Phule-492 and NHH-44 (Nanded 44). Sowing of maize (African tall), lucerne grass, and berseem grass may be done.
  - Undertake deep ploughing in the fields for soil solarization to kill fungal spores and other pathogens taking advantage of dry condition. Undertake preparatory tillage operations like deep ploughing, harrowing, hoeing, cleaning etc. Apply FYM in field and mix it well in soil.
  - In view of high temperature, put curtains on west direction in poultry house and spray water on them during noon hours to avoid heat stress.
  - Due to cloudy weather, infestation of jassids, aphids, white fly and mites are likely to be increased in brinjal, spray Imidachloprid @ 4 ml or Carbosulfan @ 10 ml in 10 litres of water.

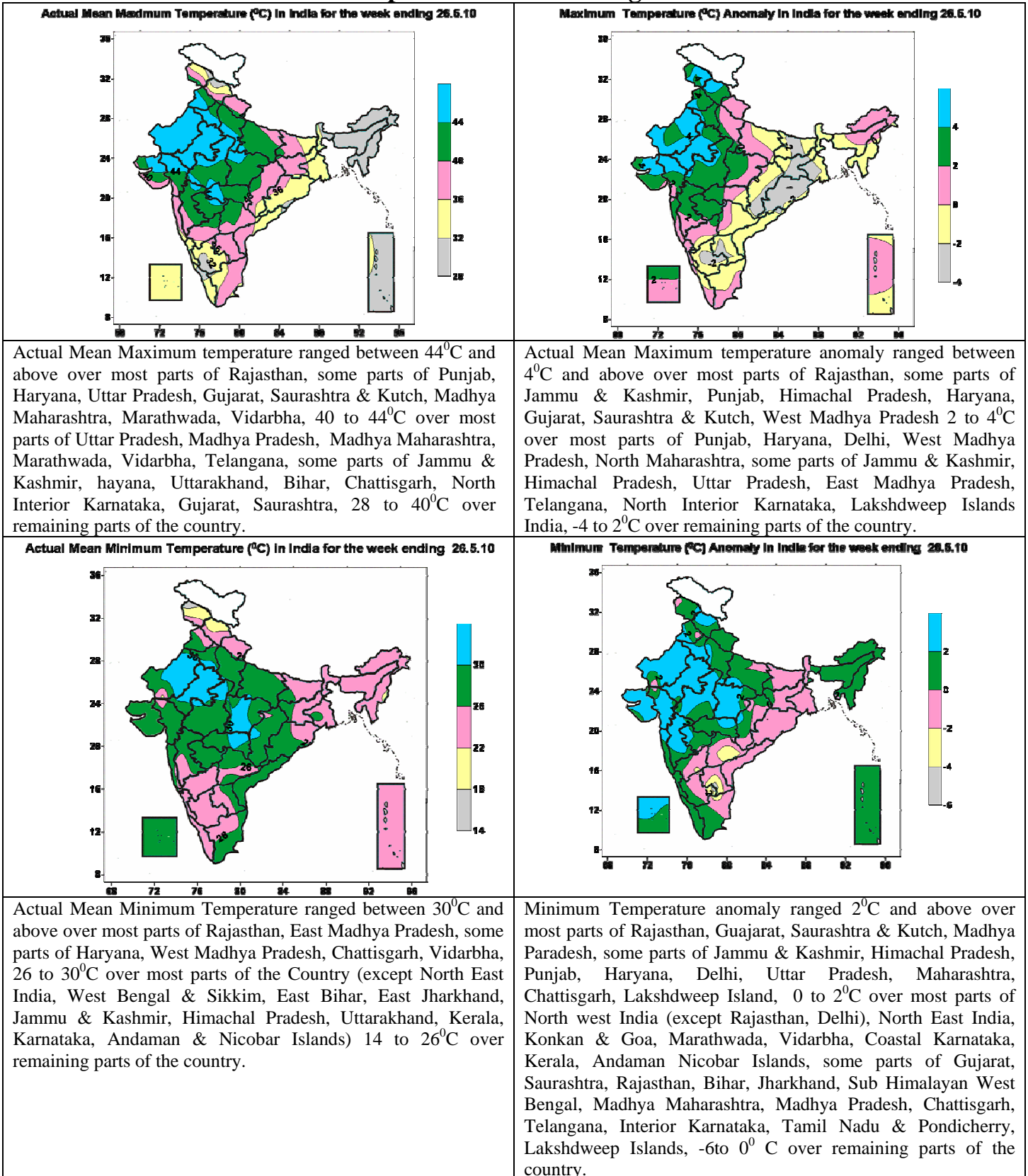
#### CENTRAL INDIA [M.P., CHHATTISGARH]

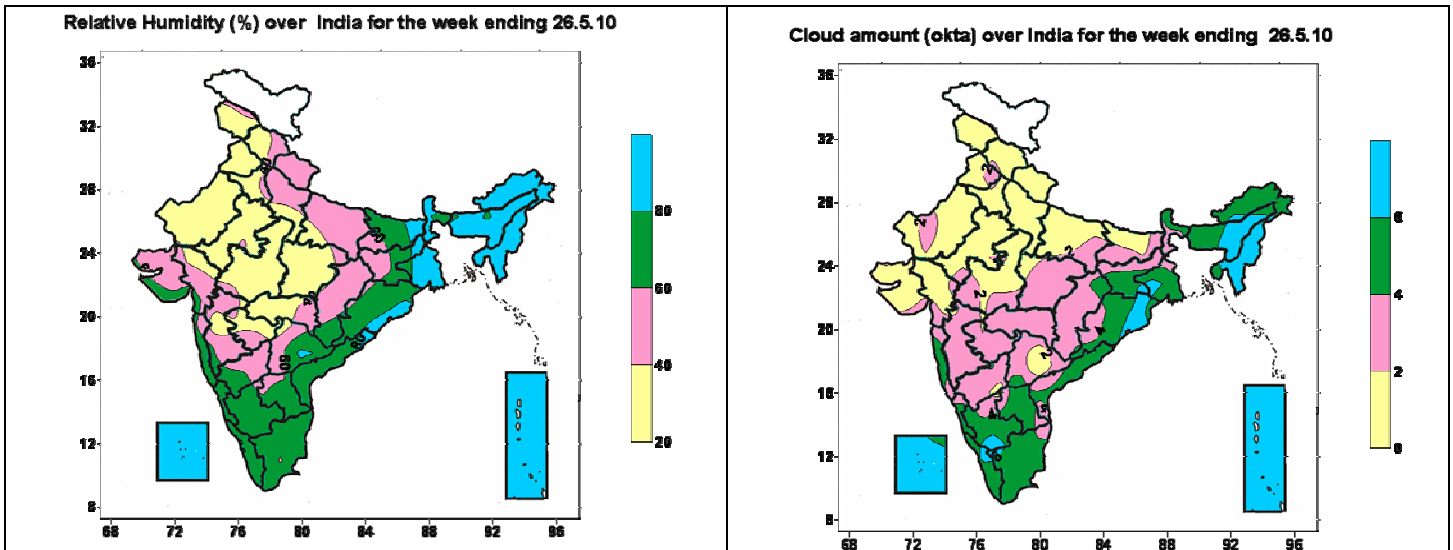
- **Realised Rainfall:** No significant rainfall occurred over the States during the period.
- **Rainfall Forecast:** Either isolated rain will occur or mainly dry / dry weather will prevail over the region.
- **Major Crops:**
  - Summer urd, mung and sunflower (harvesting), sugarcane (cane development) and vegetable crops (vegetative / flowering / fruited) in Madhya Pradesh.
  - *Boro* rice (grain development / early maturity / maturity), summer rice, sunflower and groundnut (harvesting), sesame (pod formation / seed formation / early maturity) in Chhattisgarh.
- **Advisory:**
  - Heat wave conditions prevail 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.
  - Due to higher temperature, wind speed, low humidity as well as higher bright sunshine hours over Chhattisgarh evaporation rates are higher and it is being recorded around 12 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 Jhabua Hills zone in Madhya Pradesh are advised to complete harvesting of summer green gram and black gram immediately to avoid shattering of grains due to high temperature conditions.

- Looking to the high wind speed over Chhattisgarh, farmers are advised to undertake propping of sugarcane to prevent from lodging.
- 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, farmers are advised to provide clean drinking water to cattle 3 – 4 times a day. 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

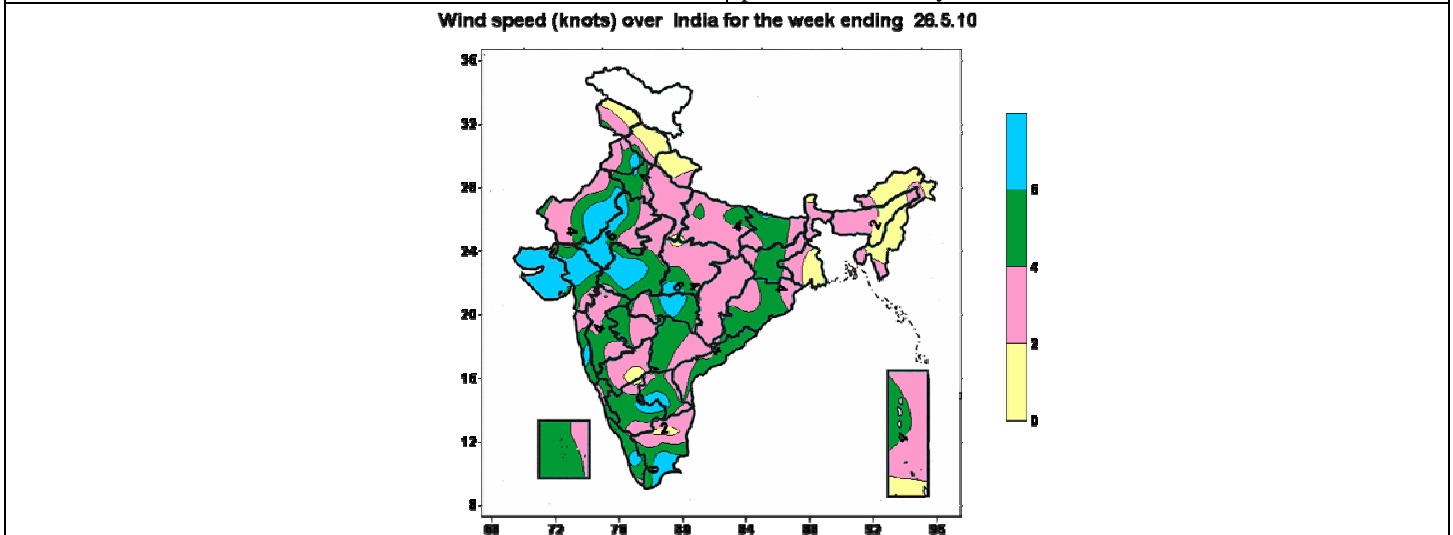
### Contour maps for the week ending 26.05.10





Relative humidity between 80% and above over most parts of North East India, West Bengal, Andaman & Nicobar, Lakshdweep Island, some parts of Bihar, Jharkhand, Orissa, Telangan, 60 to 80% over most parts Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Coastal Karnataka, South Interior Karnataka, Konkan & Goa, some parts of Bihar, Jharkhand, Chattisgarh, North Interior Karnataka, Gujarat, Saurashtra & Kutch, 20 to 60% over remaining parts of the country.

Cloud amount 6 okta and above over most parts of Nagaland, Manipur, Mizoram, Lakshdweep, Andaman & Nicobar Island, some parts of Arunchal Pradesh, Assam & Meghalaya, Gangetic West Bengal, Orissa, South Interior Karnataka, Kerala, 4 to 6 okta over most parts of Jharkhand, Arunachal Pradesh, Tripura, Gangetic West Bengal, Orissa, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, Kerala, South Interior Karnataka, Konkan & Goa, some parts of Sub Himalayan West Bengal & Sikkim, Chhattisgarh, Telangana, Lakshadweep Island, Coastal Orissa, 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 Gujarat, Saurashtra, Kutch, some parts of Punjab, Haryana, Rajasthan, Madhya Pradesh, Konkan, Vidarbha, South interior Karnataka, Rayalaseema, Kerala, Tamil Nadu, 4 knots to 6 over most parts of Punjab, Haryana, Bihar, Jharkhand, Orissa, Andhra Pradesh, Maharashtra, Coastal & South Interior Karnataka, Kerala, Lakshdweep Islands, some parts of Jammu & Kashmir, East Uttar Pradesh, Rajasthan, Gujarat, Madhya Pradesh, Tamil Nadu, Kerala, North Interior Karnataka, Andaman & Nicobar Islands, 0 to 4 knots over remaining parts of the country.