



# Summary of Agromet Advisory Services for different States of the country

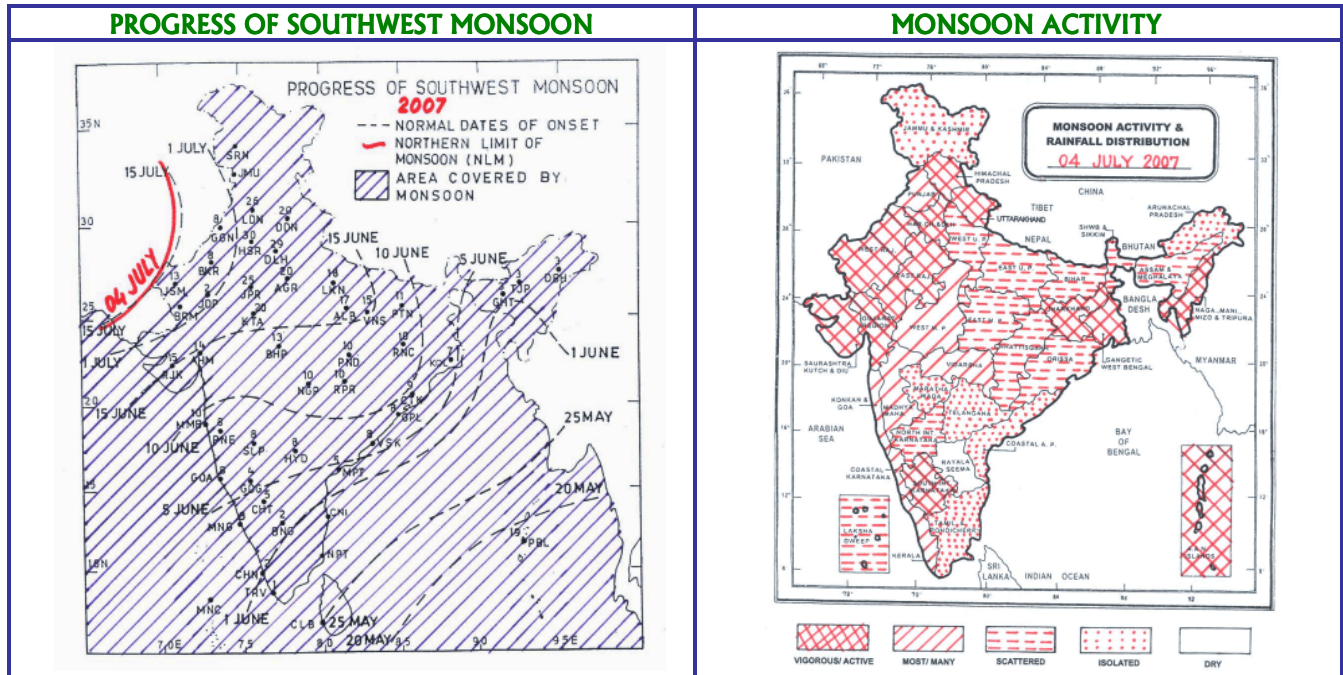
Issued by

Agricultural Meteorology Division, India Meteorological  
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**Thursday, 5<sup>th</sup> July, 2007**

(For the period 5<sup>th</sup> July to 9<sup>th</sup> July, 2007)

The extended version of the bulletin is also available at <http://imdagrmet.org>



## Agromet Advisory

### Southern Region (AP, Tamilnadu, Karnataka and Kerala)

#### Kerala

Southwest monsoon was active over the State from 2<sup>nd</sup> to 4<sup>th</sup> July. Rain occurred at most places during this period.

Rain / thunder showers are likely at many places over the State.

#### Advisories

- Continue land preparation and transplanting *virippu* rice seedlings. In areas where crop loss is reported, direct sowing may be undertaken.
- Rain/thundershower is likely to occur at many places over the state for the next three days. Under the circumstance, postpone irrigation to plantation crops viz., coconut, areca nut, rubber and banana.
- Crop loss due to heavy rain and flooding of rice fields at many places is reported. Arrange for drainage facilities to remove excess water from the field.
- Undertake intercultural operations, application of fertilizers and pesticides in plantation crops after current spells of rain.
- Monitor *virippu* rice for gall midge. Spray Chlorpyrifos @ 0.02% after current spells of rain to control if the pest population crosses ETL.
- Attack of Rhinoceros beetle, red palm weevil, bud rot and mite is reported in coconut. Fill leaf axil with 25 gm Sevidol 8G and fine sand 200 g to control rhinoceros beetle and red palm weevil. Spray 1% Bordeaux mixture to control bud rot. Spray 2% neem oil and garlic emulsion may be done in the crown and bunches to control Eriophyid mite. Spraying of chemicals may be undertaken after spells of rain.

- Attack of quick wilt is reported in pepper. Spray 1% Bordeaux mixture after current spells of rain to control the disease.
- Attack of bunchy top disease is reported in banana. Apply 25 gm phorate 10G or 20 gm carbofuran 3G per pit 20 days after planting around the rhizome.

### **Tamilnadu**

Rainfall occurred at one or two places over the State on 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> July.

Isolated rain / thundershowers are likely over the State.

#### **Advisories**

- Undertake transplanting of *kuruvai* rice in the main field. Apply zinc sulphate @ 10 kg / acre before planting. Apply pre-emergence herbicide Butachlor @ 1 litre / acre.
- As there was sufficient rainfall in Kanyakumari, Nilgiris and Tirunelveli districts and rain / thundershowers are likely at a few places over the State for the next three days, postpone irrigation to sugarcane and cotton. Apply irrigation in the remaining districts.
- Monitor cotton for boll worm and if the pests population crosses ETL, spray Endosulfan @ 2 litres / ha or Monocrotophos @ 1 litre / ha.
- Continue field preparation and sowing of maize and hybrid cumbu.

### **Karnataka**

On 2<sup>nd</sup> July monsoon was active over South Interior Karnataka. Rainfall occurred at most places over Coastal Karnataka and at isolated places over North Interior Karnataka. On 3<sup>rd</sup> & 4<sup>th</sup> July rainfall occurred at most places over Coastal Karnataka and at a few places over Interior Karnataka.

Rain / thundershowers are likely at many places over Coastal Karnataka and at a few places over Interior Karnataka.

#### **Advisories**

- Continue field preparation and sowing of *kharif* jowar, ragi, maize, cotton, groundnut and sunflower. Undertake seed treatment with biofertilizers before sowing.
- Postpone irrigation to summer sugarcane, *Kharif* ragi, jowar, maize, cotton, groundnut and sunflower as rain/thundershowers is likely to occur at many places over Coastal Karnataka for the next three days and most of the districts in Interior Karnataka received excess rainfall during last two weeks. Provide drainage facilities to avoid water logging.
- Monitor sugarcane for wooly aphids and army worm and if the pest population crosses ETL, release *Dipha* sp, adopt wider spacing, inter-cropping with soyabean and pulses of short duration as plant protection measures against wooly aphids in Mysore, Mandya and Hassan districts and army worm in Bidar and Bagalkote districts.

### **Andhra Pradesh**

Southwest monsoon was vigorous over Coastal Andhra Pradesh on 28<sup>th</sup> & 29<sup>th</sup> June, over Rayalaseema on 28<sup>th</sup> June, active over Telangana on 28<sup>th</sup> June. Rain occurred at many places over Rayalaseema on 29<sup>th</sup> June, at a few places over Coastal Andhra Pradesh on 30<sup>th</sup> June & 1<sup>st</sup> July, over Telangana on 29<sup>th</sup> & 30<sup>th</sup> June. Isolated rain occurred over Coastal Andhra Pradesh on 4<sup>th</sup> July, over Telangana on 1<sup>st</sup>, 2<sup>nd</sup> & 4<sup>th</sup> July. Mainly dry / dry weather prevailed elsewhere over the State during the week.

Rain / thundershowers are likely at isolated places over the State.

#### **Advisories**

- Continue nursery sowing, main field preparation and transplanting of *kharif* rice. Transplant rice seedlings at proper age.
- Continue sowing of *kharif* crops viz., groundnut, cotton, maize, green gram and black gram. Undertake seed

treatment with *Rhizobium* for groundnut, green gram and black gram and with *Azospirillum* for maize before sowing.

## **Eastern Region (Assam, Arunachal Pradesh, Bihar, Jharkhand, Sikkim, West Bengal)**

### **Assam**

Light to moderate rain occurred at many places on 3<sup>rd</sup> July and at a few places on 2<sup>nd</sup> & 4<sup>th</sup> July over the State.

Rain / thundershowers are likely at a few places over the State.

#### **Advisories**

- As there is sufficient moisture in the field, farmers are advised to prepare land and sow *Sali* rice (early varieties of *Sali* rice: Pankaj, Ranjit, Masuri etc.).
- As most of the districts of the State received sufficient rain during last few weeks and rain / thundershowers are likely at a few places over the State for next three days, postpone irrigation to the crops.
- Maintain 3 – 5 cm water in field of early and regular *ahu* rice.
- Since maize crop is highly susceptible to water logging, provision for surface drainage should be made in the field.
- The sugarcane should be provided with mechanical support to prevent lodging.
- Mild incidence of Hispa in regular *ahu* rice is reported in a few localities.
- Monitor the infestation of Hispa in regular *ahu* rice and if population exceeds economic threshold level, apply Monochrotophos 40 EC @ 1.5 ml per litre of water or Chloropyriphos 20 EC @ 2 ml per litre of water when one adult per hill is noticed. Apply plant protection measures on a non-rainy day.
- There is mild chance of attack of hairy caterpillar, semilopper, yellow mite and stem weevil in jute. If insect population exceeds economic threshold level, apply fenitrothion 50 EC @ 1 ml in one litre of water or endosulphan 35 EC @ 2 ml per litre of water. Apply plant protection measures on a non-rainy day.
- There is mild chance of attack of stem borer in maize. If insect population exceeds economic threshold level, apply fenitrothion 50 EC @ 2 ml per litre of water on a non-rainy day.

### **Arunachal Pradesh**

Sky remained partly cloudy to cloudy over the State during the period. Light to Moderate rain / thundershowers occurred at a few places on 2<sup>nd</sup> and 3<sup>rd</sup> July and at one or two places on 4<sup>th</sup> July.

Rain / thundershowers are likely at a few places over the State.

#### **Advisories**

- There was no significant rainfall during last week in most of the districts and rain / thundershowers are likely at a few places over the State for next three days, apply irrigation to summer vegetables, millet, maize, *jhum* rice and ginger crops. As there was sufficient rain in Papumpara, Tirap and West Kameng districts during last few weeks, postpone irrigation in these districts.
- Continue weeding, spraying and intercultural operations, millet and ginger on a non rainy day.

### **Bihar**

Rain/thundershowers are likely at most places over the State.

**Warning:** Isolated heavy to very heavy falls are likely over the State during next 48 hrs.

#### **Advisories**

- Continue nursery sowing and transplanting of *khariif* rice after current spells of rain. Select short duration varieties i.e. Pusa 2-21, Saket-4, Prabhat, IR 64 or scented paddy, Pusa basmati, R Subhasni, Kasturi.
- As rain/thundershowers are likely at most places over the State with isolated heavy to very heavy falls during next 48 hrs, postpone irrigation to vegetables, maize, sugarcane. Provide adequate drainage facilities to avoid water logging.
- Monitor the mango for mealy bug or hopper & if exceeds economic threshold level, then spray with Carboryl

@ 2g/litre of water after current spells of rain.

## Jharkhand

Rain or thundershower occurred at many places.

Rain/thundershowers are likely at most places over the State.

**Warning:** Scattered heavy to very heavy rainfall with isolated extremely heavy fall is likely over the State during next 48 hrs.

### Advisories

- Postpone nursery sowing /transplanting of *Kharif* rice and sowing of upland crops viz. maize, arhar, groundnut, soybean, urad, and rice. Provide adequate drainage facilities to avoid water logging in the already sown crops.
- As rain/thundershowers are likely at most places over the State with scattered heavy to very heavy rainfall with isolated extremely heavy fall during next 48 hrs, postpone irrigation to vegetables. Provide adequate drainage facilities to avoid water logging.
- To prevent from powdery mildew of small fruits in Mango and Litchi, spray sulfex@ 2gm/litre of water after current spells of rain.

## Sikkim

Sky remained generally cloudy during the period. Moderate rainfall occurred at many places over East Sikkim on 29<sup>th</sup> and 30<sup>th</sup> June & 1<sup>st</sup> July, very light rain on 2<sup>nd</sup> & 4<sup>th</sup> July and light rain on rest of the days. Rainfall was deficient during the period.

Rain/thundershowers are likely at many places over the State.

### Advisories

- Continue main field preparation and transplanting of 20-30 days old rice seedlings.
- Undertake planting of new crop of orange and continue planting of suckers in the nurseries of large cardamom.
- As rain / thundershowers are likely at many places over the State for next three days, postpone irrigation and intercultural operation to large cardamom, orange, vegetables, maize and ginger.
- Rouge out Chirkey and Foorkey affected large cardamom plants and destroy completely by burning. Collect leaf eating caterpillars and destroy to prevent further spread.
- Monitor ginger for rhizome rot and bacterial wilt and rouge out the affected plants and destroy completely to prevent further damage.
- Monitor orange for leaf miner and trunk borer. Plug trunk borer holes with cotton soaked with kerosene and later with mud to prevent trunk borer.

## West Bengal

During the said period rainfall occurred at a few places on 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> July over Sub Himalayan West Bengal. But rainfall occurred at a few places on 2<sup>nd</sup> July and at most places rainfall occurred with heavy to very heavy rainfall at a few places on 3<sup>rd</sup> and 4<sup>th</sup> July over Gangetic West Bengal.

Rain / thundershowers are likely at most places over Gangetic West Bengal and at many places over rest region.

**Heavy Rainfall Warning:** Scattered heavy to very heavy rainfall with isolated extremely heavy fall is likely over Gangetic West Bengal during next 48 hours.

### Advisories

- Prepare land with the advantage of recent monsoon rain and continue sowing of groundnut. Select varieties from improved varieties like JL-24, JL-11, A-K-12-24. Seedrate is 110-125 kg / ha. Apply 20-25 carts compost, 15 kg N, 30 kg P<sub>2</sub>O<sub>5</sub> and 45 kg K<sub>2</sub>O at the time of land preparation. Line to line distance is 12 inches and seed

to seed distance is 6 inches.

- Arhar can be grown in high land where there is no water logging. Prepare land with the advantage of recent monsoon rain and continue sowing. Select varieties from high yielding varieties like B-7, UPS-A-120 etc. Seedrate is 20-25 kg / ha. Apply 20-25 carts compost, 20 kg N and 40 kg P<sub>2</sub>O<sub>5</sub> at the time of land preparation. Maintain line to line distance of 30 inches for sowing.
- Complete preparation of land and transplanting of *aus* rice. Maintain 3 – 5 cm water at tillering stage.
- Undertake preparation of land for nursery sowing of *aman* rice. One kattah land is required for transplanting of 1 bigha of land. Apply 3 kg Super phosphate, 1 kg urea and 800 g MOP in the nursery bed.
- Apply 15 kg urea per bigha as top dressing on a non-rainy day in 3 months old crops of sugarcane.
- Apply 2<sup>nd</sup> dose of 6 – 7 kg urea per bigha as top dressing on a non-rainy day in 5 – 6 weeks old crops of jute.
- Postpone intercultural operation and fertilizer application to the crops in Gangetic West Bengal.
- As most of the districts received sufficient rain during last week and rain / thundershowers are likely at many places over Gangetic West Bengal and at a few places over rest of the State, postpone irrigation to sugarcane and jute.

### **Central Region (Gujarat, Chhattisgarh, Maharashtra, MP & Orissa)**

#### **Gujarat**

Monsoon was vigorous over Gujarat state, Diu, Daman, Dadra Nagar Haveli on 2<sup>nd</sup> & 3<sup>rd</sup> July. Monsoon was vigorous over Gujarat region, Daman, Dadra Nagar Haveli and active over Saurashtra, Kutch, Diu on 4<sup>th</sup> July.

Rain/thunder showers are likely to occur at many places over north Gujarat region at a few places over the rest region.

#### **Advisories**

- There was excess rain during last week in all the districts of the State and more rain is also expected during next three days, postpone irrigation to sugarcane and pre-monsoon cotton. Arrange for draining out excess water from the field to avoid stagnation of water.
- Also postpone land preparation and nursery sowing of rice and sowing of *kharif* groundnut, *kharif* cotton, *kharif* bajra and *kharif* maize. Make arrangement for draining out excess water from the fields of already sown crops.

#### **Chhattisgarh**

Rainfall occurred at a few places on 2<sup>nd</sup>, 4<sup>th</sup> and 5<sup>th</sup> July and at one or two places on 3<sup>rd</sup> July.

Rain / thundershowers are likely at many places over the State.

**Warning:** Isolated heavy to very heavy falls are likely over the State during next 48hrs.

#### **Advisories**

- As rain / thundershowers are likely at many places over the State for next three days along with isolated heavy to very heavy rainfalls during next 48 hrs, postpone land preparation and nursery sowing of *kharif* rice and sowing of black gram, groundnut and soybean. Arrange for draining out of excess water from the field of already sown crops.
- Under the prevailing weather condition, postpone irrigation, intercultural operation and application of plant protection measures to sugarcane, maize and vegetables. Arrange for draining out of excess water from the field.

#### **Maharashtra**

Monsoon was vigorous in North Madhya Maharashtra on 3<sup>rd</sup> July & active on 4<sup>th</sup> July. Monsoon was also active in North Konkan on 3<sup>rd</sup> July. Rain occurred at most places in Konkan & Madhya Maharashtra, at many places in Vidarbha & at a few places in Marathwada during the period.

Rain/thundershowers are likely at many places over Konkan & Goa and Madhya Maharashtra and at a few places over the rest region.

#### **Advisories**

- Continue land preparation and sowing of *Kharif* Jowar, *Kharif* Bajra, *Kharif* Groundnut, *Kharif* Sunflower, *Kharif* Green gram, *Kharif* Cotton, *Kharif* Tur and *Kharif* Soyabean and nursery sowing of *kharif* rice in Marathwada and Vidarbha. As rain / thundershowers are likely to occur at many places over Konkan and Madhya Maharashtra for next three days, postpone sowing of crops.
- As sufficient rain occurred in most of the districts of the State during last two weeks and rain / thundershowers are likely to occur at many places over Konkan and Madhya Maharashtra & at a few places over Marathwada & Vidarbha for next three days, postpone irrigation to sugarcane (pre-seasonal), sugarcane (*suru*) and irrigated cotton. Arrange for draining out of excess water from the field in Madhya Maharashtra.
- Postpone intercultural operation to sugarcane (pre-seasonal), sugarcane (*suru*) and irrigated cotton in Madhya Maharashtra.
- Mild incidence of White Woolly Aphids in Pune and Aurangabad division in Sugarcane (Preseasonal) & Army worm in Sindhudurga district in *kharif* Rice is reported.
- Monitor the crop for white woolly aphids in Sugarcane (Preseasonal) & if exceeds economic threshold level, for effective control spray 500 ml endosulphan 35 % + 1000 ml metasystox & 500 ml Sticker or 500 gm detergent powder / ha in 500 liters of water. For the biological control of white woolly aphids, release 25000 larvae of *chrysoperla Carnea* or *Dipha Aphidivora* / ha as predator after 15 days from the above dose.
- Monitor the crop for Army worm in nursery bed & if exceeds economic threshold level, spray 25 % Cypermethrin 120 ml or 36 % Monocrotophos 700 ml/ha in 500 liters water.
- Apply plant protection measures on a non-rainy day in Marathwada and Vidarbha and after current spells of rain in Madhya Maharashtra.

### Madhya Pradesh

Monsoon has been active in South West M.P. on 2<sup>nd</sup> and 4<sup>th</sup> July. Rainfall occurred at most places in North West M.P. on 4<sup>th</sup> July, at many places in South East and North West M.P. on 2<sup>nd</sup> July, South East and West M.P. on 3<sup>rd</sup> July and South East M.P. on 4<sup>th</sup> July and at isolated places in North East M.P. from 2<sup>nd</sup> to 4<sup>th</sup> July.

Rain / thundershowers are likely at many places over West Madhya Pradesh and at a few places over remaining region of the State.

### Advisories

- Prepare land and continue sowing of *kharif* crops like soybean, cotton, maize, *urd* and jowar and nursery sowing of rice taking the advantage of recent monsoon rain. Make arrangement for draining out excess water from the field.
- As rain / thundershowers are likely at many places over West Madhya Pradesh and at a few places over remaining region of the State for next three days and fairly wide spread rainfall activity is likely for another two days, postpone irrigation to sugarcane and already sown cotton.
- Undertake intercultural operation in sugarcane and already sown cotton in East MP on a non-rainy day to keep the field weed free and postpone the same in West MP.

### Orissa

Rain fall occurred at many places over North Orissa on 4<sup>th</sup> July at a few places over Orissa on 2<sup>nd</sup> July at isolated places over Orissa on 1<sup>st</sup> & 3<sup>rd</sup> July, over South Orissa on 4<sup>th</sup> July. Heavy to very heavy rainfall occurred at isolated places over North Orissa on 4<sup>th</sup> July.

Rain/thundershowers are likely at most places over the State.

**Warning:** Scattered heavy to very heavy rainfalls with isolated extremely heavy falls are likely over North Orissa and isolated heavy to very heavy falls are likely over South Orissa during next 48 hours.

### Advisories

- As rain/thundershowers are likely at most places over the State with scattered heavy to very heavy rainfall with isolated extremely heavy fall during next 48 hrs, postpone irrigation and application of fertilizers, pesticides, intercultural operations, spraying and sowing / transplanting of crops.

- Make arrangements for excess water drainage to avoid waterlogging.

## **North West India (Haryana, Punjab, Rajasthan, Uttar Pradesh, Delhi, Himachal Pradesh, Jammu & Kashmir and Uttarakhand)**

### **Punjab**

Rainfall occurred at many places on 4<sup>th</sup> July, at a few places on 3<sup>rd</sup> July and at isolated places on 2<sup>nd</sup> July.

Rain/thundershowers are likely to occur at isolated places over the State during next 48hrs. and increase thereafter.

### **Advisories**

- Prepare mainfield and continue transplanting of *kharif* rice.
- Continue field preparation and sowing of *kharif* groundnut and arhar. Rainfed groundnut variety i.e. 548 may be preferred for sowing.
- As there was no significant rainfall in most of the districts during last week and rain/thundershowers are likely at isolated places over the State during next 48hrs. and increase thereafter, apply irrigation to *summer* sunflower, sugarcane, cotton, pulses, groundnut(early sown crop)and Horticultural crops. Postpone irrigation in Amritsar, Bhatinda, Gurdaspur, Moga, Nawashahar and Ropar districts as there was excess rainfall during last week.
- Weeding and intercultural operations may be continued in sugarcane, vegetables and *kharif* pulse crops.
- Monitor the sugarcane crop for stem borer infestation & if exceeds economic threshold level, for effective control sprinkle Endosulfan 5 percent granules in the leaf whorls and axils.

### **Haryana**

Rainfall occurred at many places on 4<sup>th</sup> July, at isolated places on 2<sup>nd</sup> and 3<sup>rd</sup> July.

Rain/thundershowers is likely at a few places over the State.

### **Advisories**

- As there was no significant rainfall over the State during last week and rain/thundershowers are likely at a few places over the State for the next three days, apply irrigation to *summer* sunflower, sugarcane, cotton, pulses, groundnut(early sown crop)and Horticultural crops. Postpone irrigation in Gurgaon, Jhajjar, Jind, Karnal, and Yamunanagar districts as there was sufficient rain during last week.
- Weeding and intercultural operations may be continued in a non rainy day in sugarcane, vegetables and *kharif* pulse crops.
- Prepare mainfield and transplant of *kharif* rice.
- Continue field preparation and sowing of *kharif* groundnut Rainfed groundnut variety i.e. 548 may be preferred for sowing.
- Incidence of thrips on cotton, white fly on moong, and shoot borer in sugarcane reported below ETL. Monitor the crop & if exceeds economic threshold level, for effective control of cotton thrips, spray 250ml Rogor 30EC per hectare, Metasystox 25EC 1ml/l of water to control white fly in moong, and sprinkle Endosulfan 5 percent granules in the leaf whorls and axils for effective control of shoot borer in sugarcane in a non rainy day.

### **Rajasthan**

Light to moderate rain / thundershowers occurred at many places with heave rain at isolated places in Ajmer, Jaipur, Kota, Udaipur divisions and at isolated places in Jodhpur, Bikaner divisions. .

Rain / thundershowers are likely at most places over East Rajasthan and at many places over Southwest Rajasthan.

**Warning:** Isolated heavy to very heavy rainfall are likely over East & Southwest Rajasthan during next 48 hours.

## Advisories

- Farmers are advised to postpone field preparation and sowing of *khraif* crops, viz., bajra, groundnut and maize, Guar, moong, moth bean, urd in East and south west Rajasthan and may be continued in remaining parts of the State. Provide adequate drainage facilities in the already sown crops in East and south west Rajasthan .
- As rain/thundershowers are likely at most places over East Rajasthan, and at many places over Southwest Rajasthan for the next three days, with isolated heavy to very heavy rainfall are likely over East & Southwest Rajasthan during next 48 hours, postpone irrigation to cotton crop.
- Undertake earthing up in early sown *desi* and *American* cotton in irrigated areas after current spells of rain to keep the field weed free.

## Uttar Pradesh

Light rain occurred at isolated places in Allhabad and Jhansi divisions and weather was mainly dry in remaining divisions of U.P. on 2<sup>nd</sup> July. Moderate to rather heavy rain occurred in all divisions of U.P. on 3<sup>rd</sup> July. Weather was mainly dry in Moradabad ,Meerut ,Agra ,Jhansi divisions and light to moderate rain occurred at few places in remaining divisions of U.P. on 4<sup>th</sup> July.

Rain/thundershowers are likely at a few places over west U.P. and at many places over East U.P during next 48hrs. and decrease thereafter.

**Warning:** Heavy to very heavy falls are likely at isolated places over East U.P. during next 48 hours.

## Advisories

- Continue nursery sowing and transplanting of *Kharif* rice in west U.P and postpone in East U.P. Aswani, Saket-U, Govind, Narendra-118, Narendra-97 varieties may be selected.
- Continue sowing of til and soybean in west U.P and postpone in East U.P. Provide adequate drainage facilities in the already sown crops.
- As rain/thundershowers are likely at a few places over west U.P. and at many places over East U.P during next 48hrs. and decrease thereafter, with heavy to very heavy falls are likely at isolated places over East U.P. during next 48 hours, postpone irrigation, to sugarcane crop in East U.P. Also provide adequate drainage facilities to avoid waterlogging. Apply irrigation in west U.P as there was no significant rainfall during last week in most of the districts except Aligarh, Bareilly, Bijnour and Hamirpur and postpone irrigation in the above mentioned districts.
- To control top borer insect in sugarcane, apply Furadon 3G granules@ 33kg/ha near the drains of sugarcane field after current spells of rain.

## Himachal Pradesh

Precipitation occurred at many places in the State.

Rain / thundershowers are likely at a few places over the State.

## Advisories

- Continue land preparation and nursery sowing and transplanting of cauliflower and cabbage in low and mid hills.
- Continue land preparation and nursery sowing of rice. Before sowing the nursery, 3.7 kg of seeds should be soaked in 25 litres of water having 2.5 g common salt. Discard the floated seeds and wash rest of the seeds properly, dry in shade and sow after treatment with Bavistin @ 2.5 g / kg of seeds. In seed bed of size 10 cm high of 8x1.25 m dimension apply 20-30 kg FYM, 65 g urea and 150 g super phosphate per bed and mix it thoroughly in the upper 5 cm layer of the bed. Sow 400 g good quality treated seeds in each bed, in rows, 10 cm apart. Four such beds are sufficient for one Bigha.
- Continue preparation of land and sowing of maize by ploughing and mixing biological manures properly. Take advantage of recent monsoon rain for sowing.
- As sufficient rain occurred during last week and rain / thundershowers are likely at a few places over the State for next three days, postpone irrigation to vegetables and potato.



- There is mild chance of attack of powdery mildew in vegetables. If attack crosses economic threshold level, spray carbendazime 0.5% on a non-rainy day to control the disease.

### **Uttarakhand**

Moderate to heavy rain was recorded at many places on 28<sup>th</sup> June, 2<sup>nd</sup> & 4<sup>th</sup> July, at a few places on 1<sup>st</sup> July and very light to light rain was recorded at many places on 3<sup>rd</sup> July and at a few places on 29 & 30<sup>th</sup> June. Sky remained partly to mainly cloudy during the period.

Rain/thundershowers are likely at a few places over the State.

#### **Advisories**

- As excess rainfall occurred at many places over the State during last week and Rain/thundershowers are likely at few places over the state in next 3-4 days, Under the circumstances, postpone irrigation and application of fertilizers, pesticides to crops.
- Continue field preparation and transplanting of rice.
- Make arrangements for excess water drainage (in those areas where soil is saturated) in ginger.
- Undertake intercultural operations to keep the field weed free in sugarcane and potato.
- Harvest the matured crops of Mango and Litchi. Maintain cleanliness in the orchards.

### **Jammu & Kashmir**

Light to moderate rain / thundershowers occurred at many places on 2<sup>nd</sup> July and at isolated places on 4<sup>th</sup> July. Moderate to rather heavy rain again occurred at few places on 3<sup>rd</sup> July.

Rain/thundershowers are likely to occur at isolated places over the State during next 48hrs. and increase thereafter.

#### **Advisories**

- Continue land preparation and transplanting of rice in the main field. Transplant healthy seedlings at 3-4 leaf stage, 3 seedlings /hill in 15x15 to 20x15 cm row to row and plant to plant spacing.
- There was sufficient rain in the State during last week and rain/thunder showers is likely at isolated places over the State for the next three days. Under the circumstances, postpone irrigation to maize, vegetable and fruit crops in Kashmir division.
- Transplanting of seedlings of tomato, chilli, capsicum etc. has to be continued in Kashmir division.
- Undertake mulching in orchards in order to conserve moisture in the field. This will also control weeds. White wash bottom portion of trees to prevent termite attack. Undertake new planting in orchards.
- Apply top dressing of fertilizers in maize after weeding.
- Start field preparation and sowing pulses like moong, beans and fodder bajra.

### **Delhi**

Light to moderate rain occurred on 3<sup>rd</sup> and 4<sup>th</sup> July at most places. Weather remained mainly dry on 2<sup>nd</sup> July.

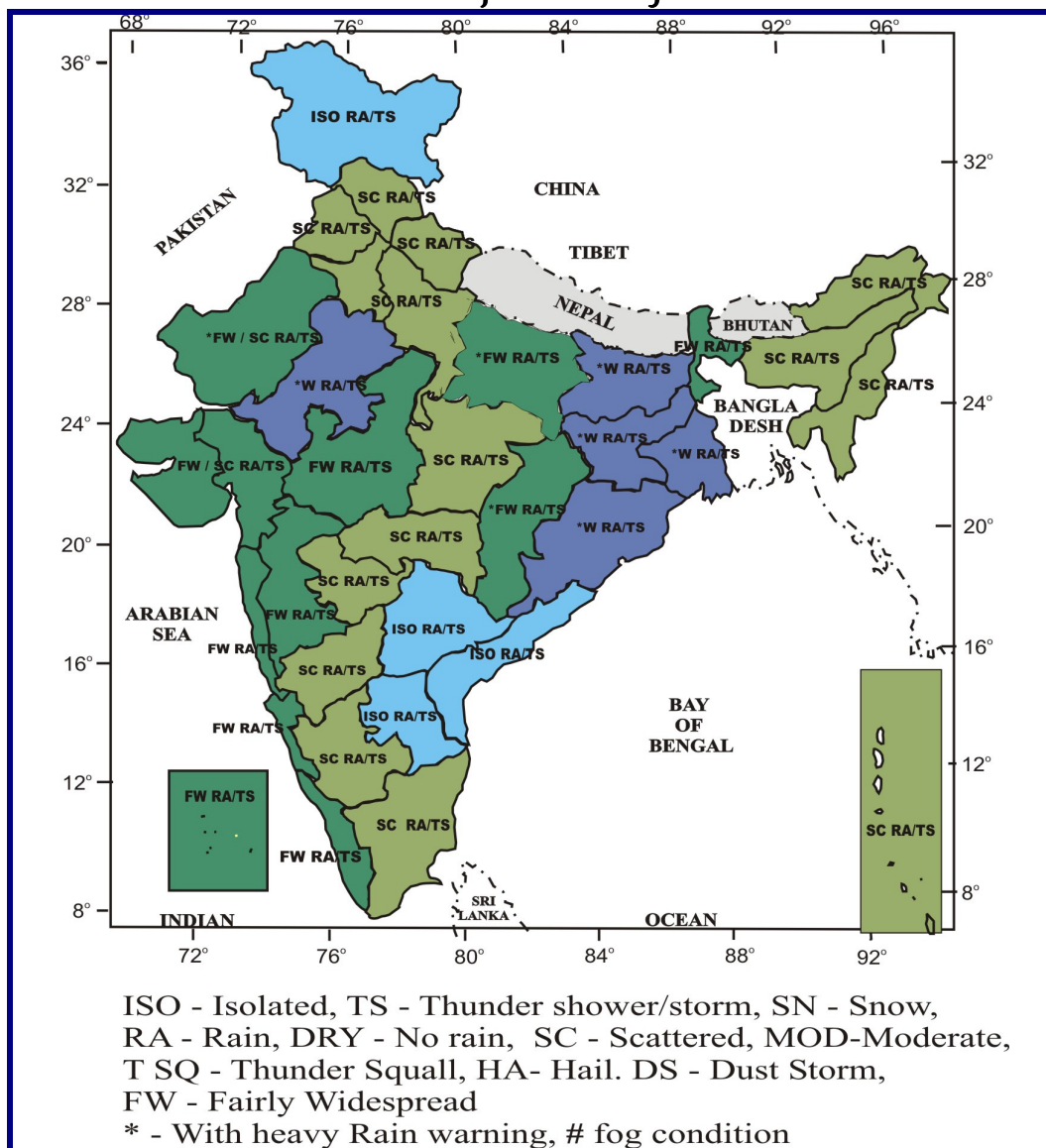
Rain / thundershowers are likely at a few places over the State.

#### **Advisories**

- As sufficient rain occurred during last week and rain / thundershowers are likely at a few places over the State for next three days, postpone irrigation to vegetables and also to early sown arhar and maize.
- Prepare land and perform sowing of arhar, bajra, maize, fodder crops like jowar, bajra and mixed maize and lobia and transplanting of cauliflower, cabbage, tomato, brinjal, chilly and rice taking advantage of recent monsoon rain.
- Perform transplanting of 5 – 6 weeks old early cauliflower and cabbage plants and ready varieties of plants like Pusa Early Dwarf of tomato, Pusa Kranti of Brinjal and Pusa Jwala of chilly in the main field.
- Select varieties from Upas – 120 and Manak for sowing of arhar.
- Select varieties from Ganga-5, Ganga White, Vikram and Kissan for sowing of maize.

- Prepare the main field by paddling method and transplant 25 – 30 days old rice seedlings in the field.

## Forecast Map Valid upto 8<sup>th</sup> July 07



### *Salient weather features for the week ending 04/07/07*

#### MONSOON WATCH

- Southwest monsoon further advanced into the remaining parts of Madhya Pradesh & Uttar Pradesh, most parts of East Rajasthan, some parts of West Rajasthan and some more parts of Haryana including Delhi and Punjab on 28th June. It advanced into the remaining parts of East Rajasthan and some more parts of West Rajasthan on 30th June. Southwest monsoon further advanced into the remaining parts of Rajasthan, Haryana & Punjab and thus covered the entire country on 4th July (Map enclosed).

#### METEOROLOGICAL ANALYSIS

- Last week's well marked low pressure area over north & adjoining central Bay of Bengal concentrated into a depression in the early morning of 28th June over northwest & adjoining west-central Bay of Bengal near lat. 18.5 °N/ long. 87.0° E about 200 km southeast of Puri. It remained practically stationary, and further intensified into a deep depression at 0830 hrs. IST of same day. It moved northwestwards and crossed Orissa coast near Puri between 0530 & 0630 hrs. IST of 29th June. It lay

centred at 0830 hrs. IST of the same day east of Bhubaneswar. The system moved west-northwestwards and weakened into a depression and lay centred at 0830 hrs. IST of 30th June over East Madhya Pradesh and adjoining Chhattisgarh about 150 kms southeast of Jabalpur. It moved westwards and further weakened into a well marked low pressure area over northwest Madhya Pradesh and neighbourhood at 2030 hrs. IST of the same day. It lay over southeast Rajasthan & neighbourhood in the morning of 1st July. It further weakened and lay as a low pressure area over the same region in the morning of 2nd July. It lay over south Rajasthan & neighbourhood on 3rd July and over central parts of Rajasthan on 4th July.

- A low pressure area formed over northeast Bay of Bengal and neighbourhood on 3rd morning and became well marked at 1430 hrs. IST of the same day. It concentrated into a depression and lay centred at 0830 hrs. IST of 4th July, over Bangladesh coast near lat. 22.0°N/long.89.5°E about 150 km southeast of Kolkata.
- An off-shore trough extended from Maharashtra coast to Kerala coast during the week.
- An upper air cyclonic circulation lay over Jammu & Kashmir & neighbourhood
- During 28th to 30th June. It lay over Himachal Pradesh & neighbourhood during 1st to 3rd July and became less marked afterwards.
- An upper air cyclonic Circulation lay over central Pakistan and adjoining West Rajasthan between 0.9 to 2.1 km a.s.l. on 28th & 29th June.
- Strong westerly/southwesterly winds prevailed over south Peninsular India in the lower level during the week.

## **RAINFALL**

Under the influence of the above systems

- Southwest Monsoon was vigorous/active over Uttarakhand, Gujarat, Konkan & Goa and Karnataka on many day of the week. It was also vigorous/active over West Uttar Pradesh, Haryana, Jammu & Kashmir, Himachal Pradesh, East Uttar Pradesh, Orissa, Gangetic West Bengal, Jharkhand, Nagaland, Manipur, Mizoram & Tripura, Chhattisgarh, Vidarbha, West Madhya Pradesh, east Rajasthan, Madhya Maharashtra, Rajasthan, Andhra Pradesh and Kerala on one or two days of the week.
- Scattered heavy to very heavy rainfall with isolated extremely heavy falls occurred over Chhattisgarh, East Madhya Pradesh, Madhya Maharashtra, Konkan & Goa, Gujarat region and South Interior Karnataka during few days of the week.
- Isolated heavy to very heavy rainfall also occurred over Jammu & Kashmir, Uttarakhand, Himachal Pradesh, Orissa, Bihar, Gangetic West Bengal, Jharkhand, North Madhya Pradesh, Chhattisgarh, East Madhya Pradesh, Vidarbha, south Madhya Pradesh, Kerala and Coastal Karnataka during few days of the week.
- Fairly widespread to widespread rainfall occurred over East, Northeast and Central India during the week.
- Fairly widespread to widespread rainfall occurred over west India outside northwest Rajasthan where isolated to scattered rainfall occurred.
- Fairly widespread to widespread rainfall occurred during 28th & 29th June and 3rd July and isolated to scattered on remaining days of the week over northwest India.
- Fairly widespread to widespread rainfall occurred over south India outside Tamil Nadu, Andhra Pradesh where it was isolated to scattered during the week.

## **RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 4<sup>TH</sup> JULY, 2007)**

**Rainfall was excess/normal in 26, deficient/scanty in 10 out of 36 meteorological sub-divisions (Actual: 90.1 mm, Normal: 59.0 mm and Departure: +53%).**

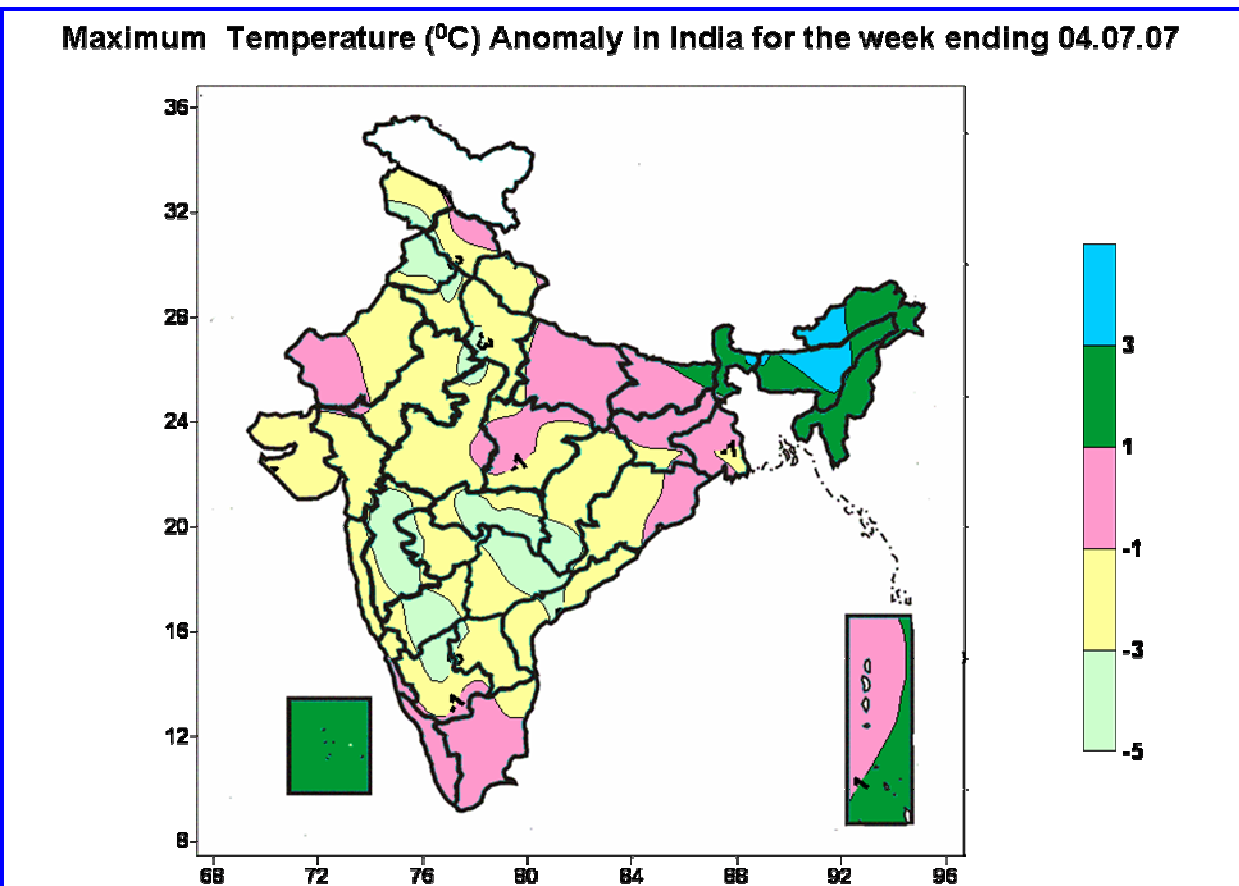
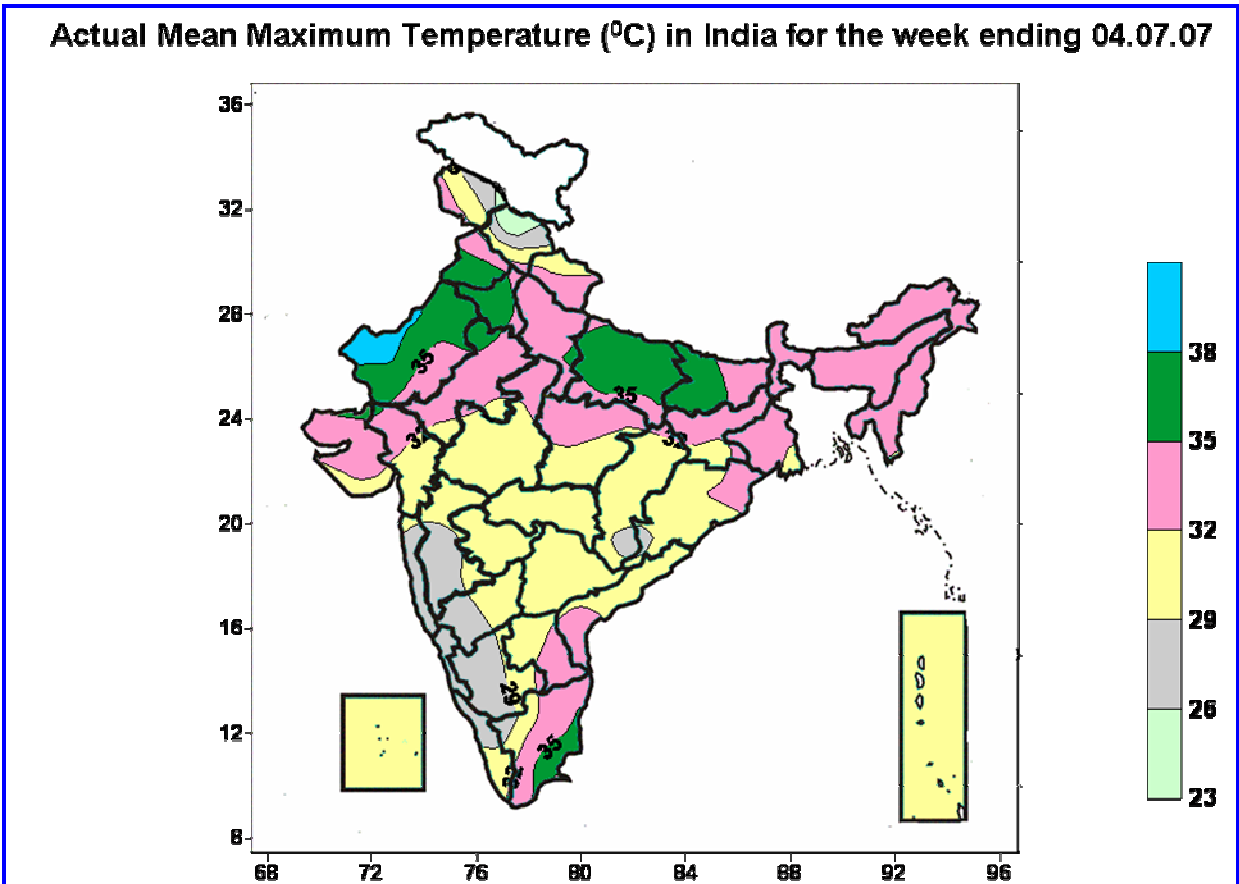
## **CUMULATIVE SEASONAL RAINFALL (1<sup>ST</sup> JUNE TO 4<sup>TH</sup> JUNE, 2007)**

**Rainfall was excess/normal in 31 and deficient/scanty in 5 out of 36 meteorological sub-divisions. (Actual: 237.6 mm, Normal: 197.5 mm and Departure: +20%).**

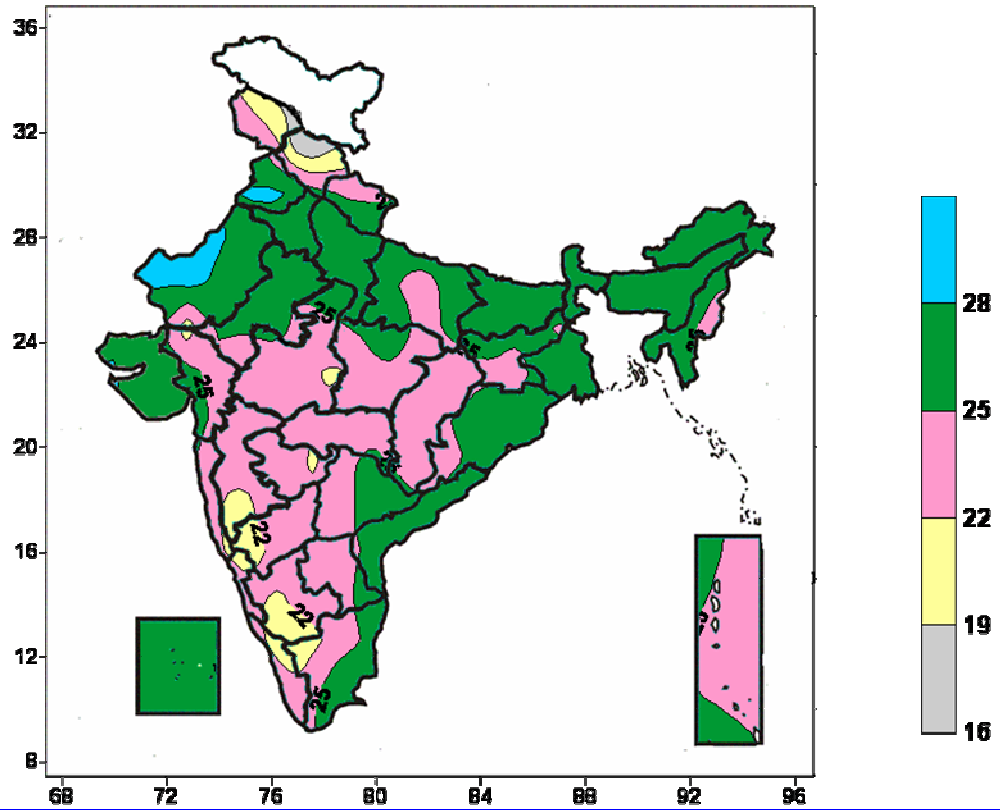
## **OUTLOOK FOR THE WEEK ENDING ON 11<sup>TH</sup> JULY, 2007.**

- Enhanced rainfall activity is likely over east India during first half of the week and subsequently shift to central India & adjoining northern plains.
- Widespread rainfall with heavy fall is likely over Gujarat, Konkan & Goa, Madhya Maharashtra from 8th July onwards.
- Fairly widespread rainfall activity is likely over Rajasthan during first half of the week.

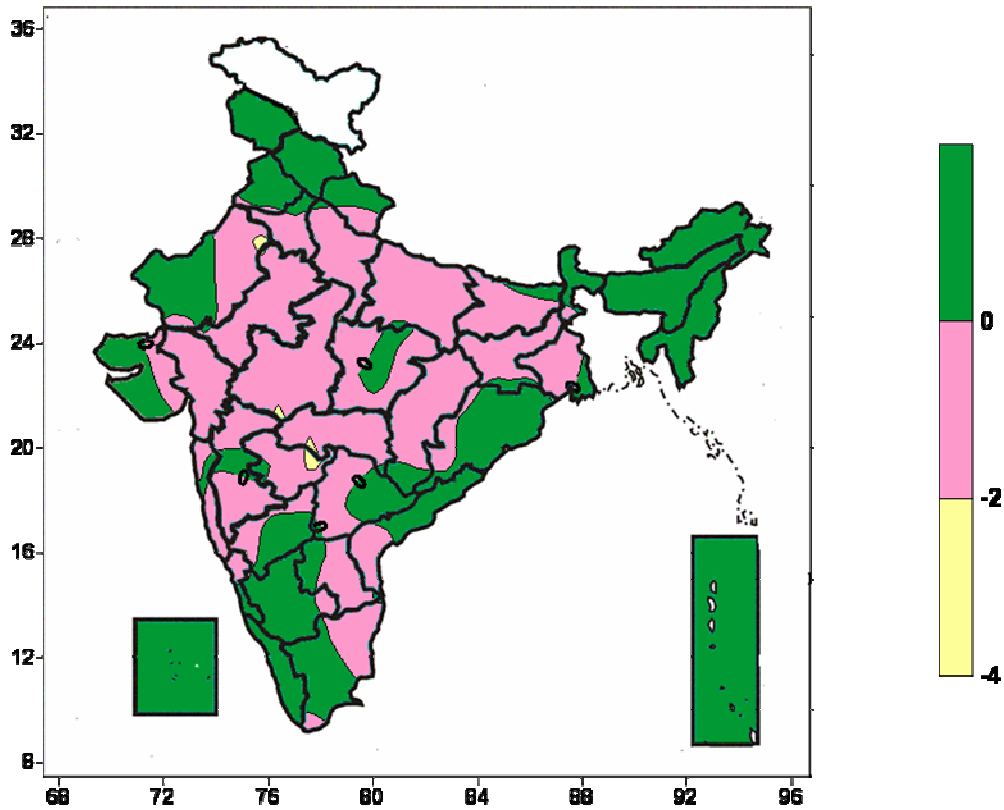
## Contour maps for the week ending 04<sup>th</sup> July, 2007



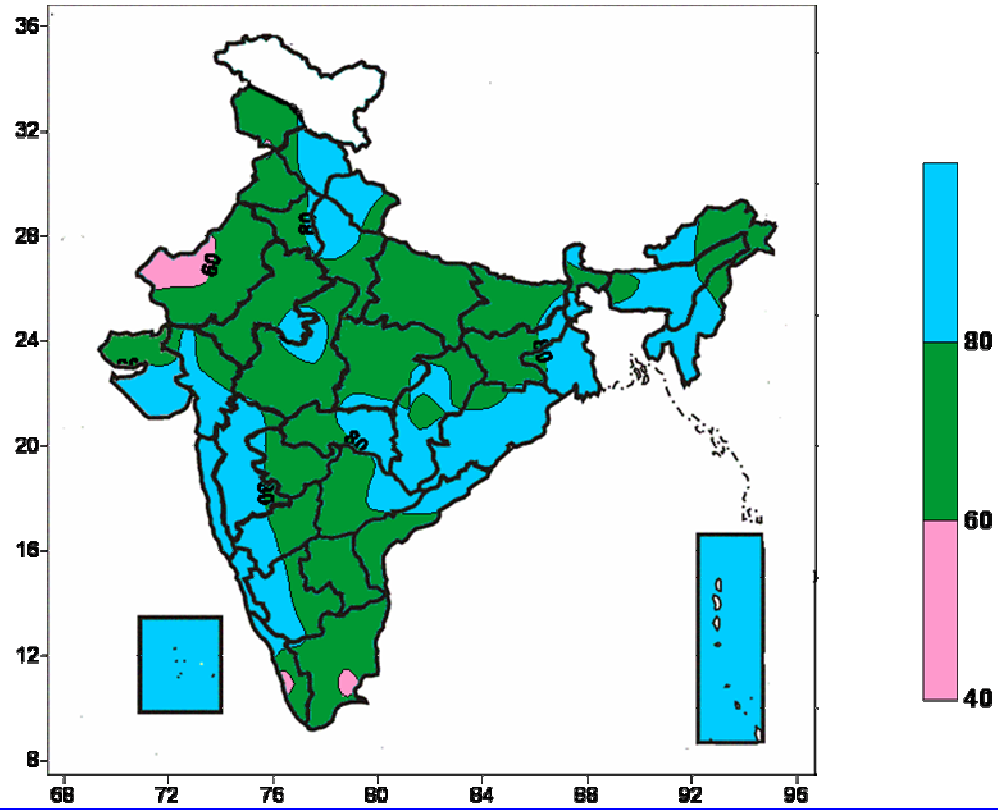
**Actual Mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 04.07.07**



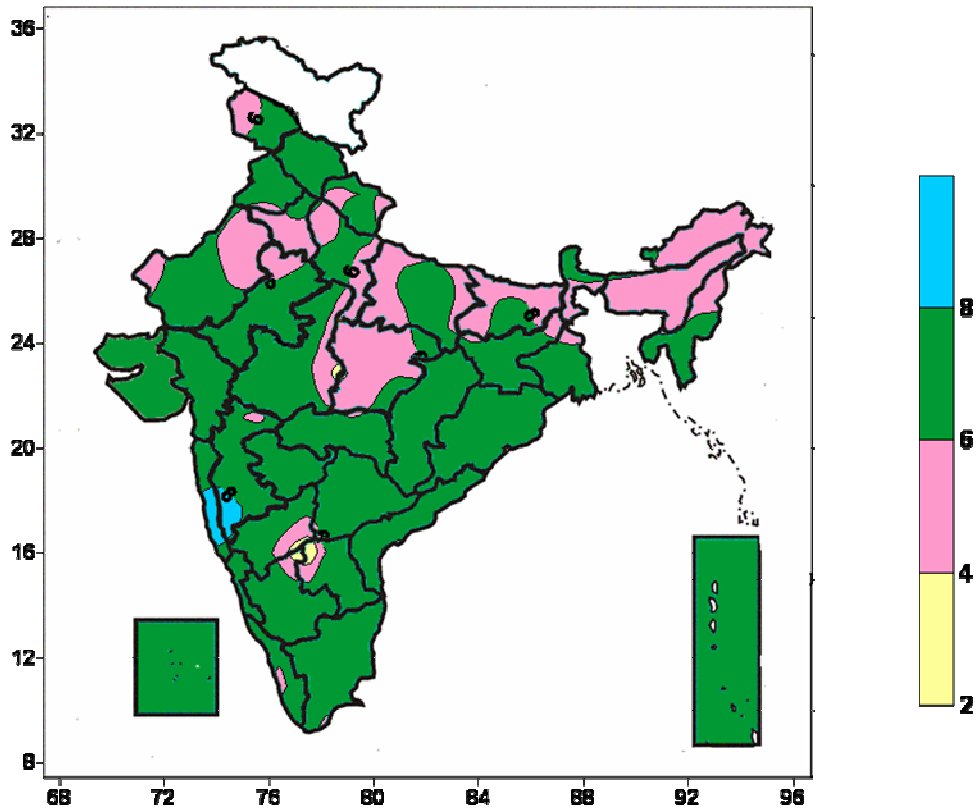
**Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 04.07.07**



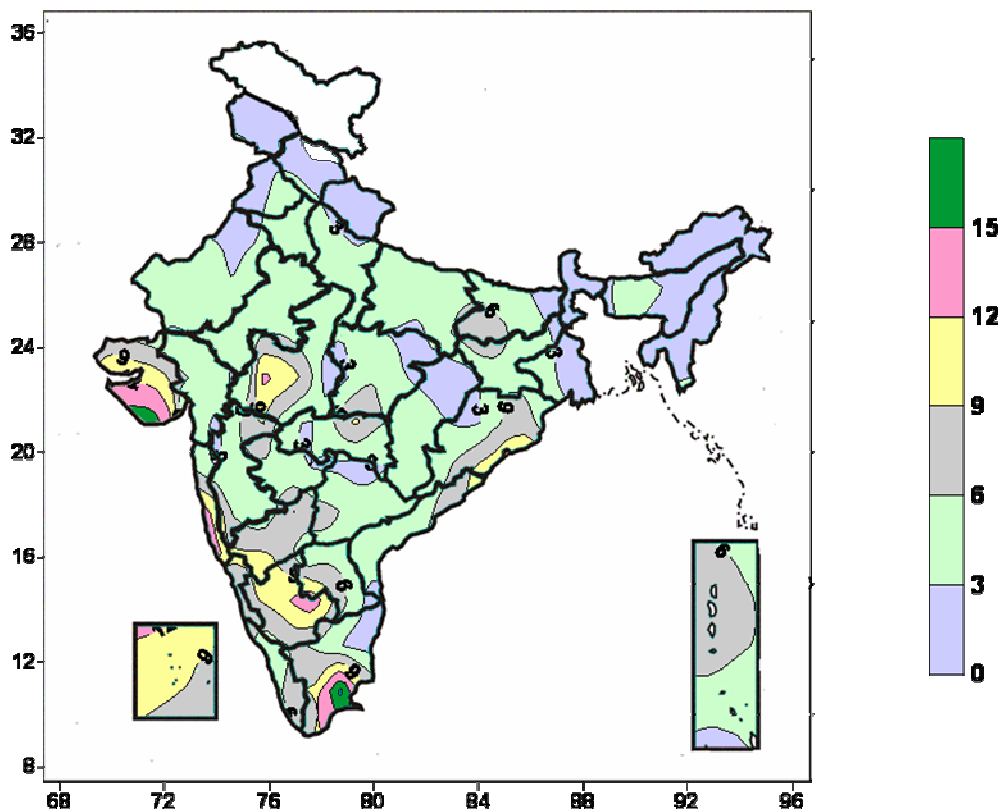
Relative Humidity (%) over India for the week ending 04.07.07



Cloud amount (okta) over India for the week ending 04.07.07



## Wind speed (knots) over India for the week ending 04.07.07



## Desert Locust Forecasting



### Rainfall (mm)

Station Name	28.06.07	29.06.07	30.06.07	01.07.07	02.07.07	03.07.07	04.07.07
Amritsar	-	30.8	-	-	-	-	-
Barmer	1.1	-	9.7	-	-	-	10.7
Sriganganagar	-	0.7	-	-	13.6	-	4.0
Jaisalmer	-	-	0.7	-	-	-	-
Kota	-	-	-	-	-	-	-
Deesa	-	-	4.2	-	-	23.1	268.8
Churu	-	1.1	6.3	-	-	-	0.4

### Temperature (degree Celcius)

Station Name	28.06.07	29.06.07	30.06.07	01.07.07	02.07.07	03.07.07	04.07.07
Amritsar	32.0	29.5	-	-	-	-	-
Barmer	30.0	-	27.5	34.5	36.0	35.0	33.5
Sriganganagar	34.0	32.5	31.5	33.5	33.5	32.5	32.5
Jaisalmer	31.0	33.0	32.0	33.5	-	36.5	35.0
Kota	31.5	27.5	31.5	32.5	29.5	28.0	27.0
Deesa	28.0	31.0	32.5	33.0	-	31.0	25.0
Churu	-	-	-	-	-	-	-

Prevailing winds could carry swarms from NE Somalia to India. Under the prevailing favourable weather conditions, there is chance of increase in the pest population, due to heavy rains in Gujarat and Rajasthan. All efforts should be made to monitor the developing and potentially dangerous situation closely and carefully and take appropriate plant protection measures.

## CROP – STATE – STAGE

### Delhi

Vegetables	Early sown summer vegetable crops	Rice	Arhar	Early sown Arhar
Transplanting	Vegetative / early vegetative	Transplanting	Land preparation / Sowing	Germination / early vegetative
Maize	Early sown Maize	Fodder	Bajra	
Land preparation / Sowing	Germination / early vegetative	Land preparation/Sowing	Land preparation / Sowing	

### Haryana

Sugarcane	Oilseeds	Horticultural crop	Cotton	Paddy
Vegetative	Seed formation / maturity	Vegetative	Seedling/early vegetative	Main field preparation / Transplanting
Kharif Groundnut	Early sown Kharif Groundnut	Kharif Pulses		
Field preparation and Sowing	Early vegetative	Early vegetative		

### Himachal Pradesh

Summer vegetables (Cauliflower, Cabbage in low and mid hills)	Vegetables (Tomato, brinjal, ladies finger, Bhindi)	Onion	Potato	Maize
Nursery sowing / transplanting	Vegetative / Flowering/ fruiting / harvesting	Bulb maturity/Harvesting	Vegetative	Land preparation and sowing
Apple	Rice			
Fruit development	Nursery sowing			

### Jammu & Kashmir

Vegetable crops	Rice	Early sown Rice	Maize	Pulses
Fruiting/harvesting–in Kashmir Div.	Transplanting	Early vegetative	Vegetative/knee high	Sowing
Fodder Bajra				
Sowing				

### Punjab

Sugarcane	Sunflower	Horticultural crop	Cotton	Paddy
Vegetative	Seed formation / maturity	Vegetative	Early vegetative	Field preparation / transplanting
Kharif Groundnut	Early sown Kharif Groundnut	Kharif pulses	Arhar	
Field preparation / Sowing	Early vegetative	Early vegetative	Sowing	

### Rajasthan

Kharif crops	Zaide Fodder	Cotton		
Sowing	Vegetative	Vegetative		

### Uttar Pradesh

Sugarcane	Summer Vegetables	Turmeric / ginger, other kharif vegetables	Kharif oilseeds	Mango
Early vegetative	Harvesting	Sowing/Transplanting	Nursery preparation/Sowing	Harvesting
			Kharif Rice	
			Nursery preparation/Sowing	

### Uttarakhand

Potato	Mango/Litchi/ Apple	Sugarcane	Kharif Rice	Ginger
Vegetative growth	Fruit development/ maturity	Vegetative	Seedling in nursery	Vegetative
Finger Millet/ Amranthus				
Germination				

### Assam

Vegetables	Early Ahu rice	Jute	Maize	Sugarcane
Vegetative/ Flowering / Fruiting / Harvesting	Grain formation/Maturity	Vegetative	Tasseling / silking/cob formation	Vegetative



<b>Arhar</b>	<b>Regular Ahu Rice</b>	<b>Sali rice</b>		
Early vegetative / vegetative	Tillering	Land preparation / sowing		

**Arunachal Pradesh**

<b>Summer vegetables</b>	<b>Ginger</b>	<b>Millet</b>	<b>Jhum Paddy</b>	<b>Maize</b>
Late Harvesting	Rhizome formation	Vegetative/Flowering	Vegetative	Cob formation / Maturity
<b>WRC Rice</b>				
Vegetative				

**Bihar**

<b>Summer Vegetables</b>	<b>Maize</b>	<b>Mango &amp; Litchi</b>	<b>Kharif rice</b>	<b>Sugarcane</b>
Vegetative	Vegetative/Flowering	Fruit Development	Nursery sowing/transplanting	Early vegetative
	<b>Arhar</b>			
	Seedling / early vegetative			

**Jharkhand**

<b>Khrif rice</b>	<b>Summer vegetables (Tomato, Brinjal and Bhendi)</b>	<b>Upland crops (Maize, arhar, groundnut, soybean, urad, rice)</b>	
Nursery sowing /Transplanting	Vegetative	Field preparation/Sowing	

**Sikkim**

<b>Maize</b>	<b>Orange</b>	<b>Vegetables</b>	<b>Large Cardomom</b>	<b>Ginger</b>
Cob formation	Fruiting New planting in some places	Vegetative	Capsule formation	Vegetative
<b>Rice</b>	<b>Early transplanted Rice</b>			
Transplanting	Early tillering			

**West Bengal**

<b>Sugarcane</b>	<b>Green gram</b>	<b>Jute</b>	<b>Aus rice</b>	<b>Arhar</b>
Vegetative	Pod maturity / Harvesting	Vegetative	Early tillering / tillering	Land preparation / sowing
<b>Kharif Groundnut</b>	<b>Aman rice</b>			
land preparation / sowing	Land preparation / nursery sowing			

**Chattisgarh**

<b>Sugarcane</b>	<b>Black gram</b>	<b>Soybean</b>	<b>Kharif Rice</b>	<b>Maize</b>
Vegetative	Land preparation / sowing	Land preparation / sowing	Preparation of nursery beds / Sowing	Vegetative

**Gujarat**

<b>Sugarcane</b>	<b>Kharif Maize</b>	<b>Kharif Bajra</b>	<b>Kharif Rice</b>	
Vegetative	Land preparation and Sowing	Land preparation and Sowing	Preparation of rice nursery	
<b>Kharif Groundnut</b>	<b>Kharif Cotton</b>	<b>Pre monsoon Cotton</b>		
Land preparation & sowing	Land preparation & sowing	Vegetative		

**Maharashtra**

<b>Sugarcane Preseasonal (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Sugarcane (Suru) (Madhya Maharashtra, Marathwada and Vidarbha)</b>	<b>Irrigated cotton (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Jowar (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Bajra (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
Early vegetative / active growth	Early vegetative/active growth	Early vegetative	Land preparation & sowing	Land preparation & sowing
<b>Kharif Groundnut (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Sunflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Green Gram (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>		
Land preparation & sowing	Land preparation & sowing	Land preparation & sowing		

<b>Kharif Rice (Konkan)</b>	<b>Kharif Rice (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Cotton (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Tur (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Soyabean (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
Sowing /Germination	Nursery bed preparation & Sowing in Marathwada & Vidarbha and Sowing / Germination in South Madhya Maharashtra.	Preparation of land & sowing	Preparation of land & sowing	Land preparation & sowing in Marathwada & East Vidarbha and sowing / germination in south Madhya Maharashtra.

**Madhya Pradesh**

<b>Sugarcane</b>	<b>Cotton</b>	<b>Early sown Cotton</b>	<b>Kharif crops (Soybean, maize, urd and jowar)</b>	<b>Kharif rice</b>
Vegetative	Sowing	Germination	Sowing	Nursery sowing

**Orissa**

<b>Summer Vegetables</b>	<b>Kharif rice</b>	<b>Sugarcane</b>	<b>Jute</b>	<b>Arhar</b>
Vegetative/Fruiting	Sowing	Vegetative	Vegetative	Sowing / Seedling / early vegetative

**Andhra Pradesh**

<b>Kharif Rice</b>	<b>Kharif Maize</b>	<b>Kharif Cotton</b>	<b>Kharif Groundnut</b>	<b>Kharif Black gram, Green gram</b>
Land preparation / Sowing Early sown crop at germination stage	Land preparation / Sowing Early sown crop at germination stage	Land preparation / Sowing Early sown crop at germination stage	Land preparation / Sowing Early sown crop at germination stage	Land preparation / Sowing Early sown crop at germination stage

**Karnataka**

<b>Sugarcane (Ratoon crop)</b>	<b>Kharif Jowar/Maize/Groundnut/Sunflower</b>	<b>Early sown Kharif Jowar/Maize/Groundnut/Sunflower</b>		
Grand growth	Sowing	Germination / early vegetative		

**Kerala**

	<b>Rubber</b>	<b>Virippu rice</b>	<b>Early sown Virippu rice</b>	
	Tapping	Transplanting	Tillering	

**Tamil Nadu**

<b>Rice (Kuruvai)</b>	<b>Hybrid cumbu</b>	<b>Cotton</b>	<b>Sugarcane (Early, Mid and Late season)</b>	<b>Maize</b>
Transplanting	Sowing	Boll development	Vegetative	Sowing

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