



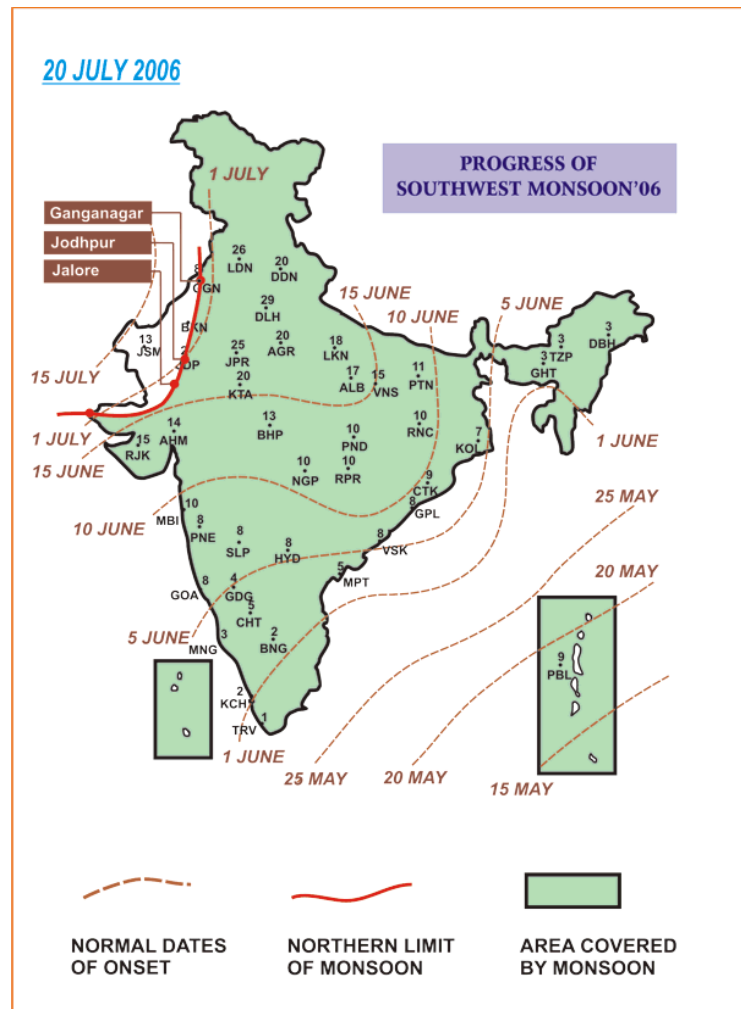
Summary of Agromet Advisory Services for different States of the country
Issued by
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Thursday, 20th July, 2006

(For the period 20th to 24th July, 2006)

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

Progress of Southwest Monsoon



Southwest monsoon has further advanced into remaining parts of East Rajasthan and some more parts of West Rajasthan.

The Northern Limit of Monsoon as on 20th July passes through Jalore, Jodhpur and Ganganagar.

North West India (Haryana, Punjab, Rajasthan, Uttar Pradesh, Delhi, Himachal Pradesh, Jammu & Kashmir, Uttaranchal)

Punjab & Haryana

Rainfall occurred at isolated places on 19th July. Weather remained mainly dry during the rest days of the period in Punjab. Rain / thundershowers occurred at isolated places on 18th and 19th July and weather

remained mainly dry on 17th in **Haryana**.

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

Advisories

- Most of the districts in the State received either scanty or deficient rainfall during last week and rain / thundershowers are likely at a few places over the State. Under this circumstances irrigate the sugarcane fields depending on rainfall situation.
- As prevailing weather conditions i.e. rainfall, high humidity, cloudiness may favour the further spreading of the incidences of top and shoot borer in the standing crop, recommended plant protection measures i.e. 12 kg carbofuran 36 or phorate 10 kg may be taken on non-rainy days.
- This is proper time for sowing of groundnut and *kharif* pulses. Continue sowing of healthy seeds of these crops with light irrigation.
- Complete transplanting of short duration dwarf varieties providing required irrigation.
- Prevailing weather conditions are favourable for further spread of Jassids, Bollworm and other leaf eating caterpillar. Adopt adequate plant protection measures on non-rainy days.
- Keep your animal clean by properly brushing or washing. Dirty and neglected animals are more prone to maggot wound in monsoon. Treat your cattle for lice and ticks which suck blood of animal and spread diseases.

Rajasthan

Light to moderate rainfall recorded at many places in **Udaipur** division, at a few places in **Jaipur & kota** divisions, light rainfall at isolated places in **Bikaner** and **Ajmer** divisions. Weather remained mainly dry in **Jodhpur** division.

Rain / Thundershowers are likely at many places over East Rajasthan and at a few places over west Rajasthan.

Advisories

- Continue sowing of *kharif* crops like **groundnut, bajra, maize, soyabean** and **pulses** crops with the help of advanced monsoon rain.
- Rain or thundershowers are likely to occur at many places over East Rajasthan for the next three days. Under the circumstances postpone irrigation to ***kharif* cotton** in East Rajasthan.
- There was no significant rainfall during last week in west Rajasthan and rain / thundershowers are likely at a few places. Under the circumstances, apply irrigation to ***kharif* cotton** depending on rainfall situation.

Uttar Pradesh

Rain occurred at many places in **Kanpur, Lucknow, Bareilly** divisions and at a few places in the remaining divisions of the State on 17th July. Rain occurred at many places in **Varanasi, Kanpur, Lucknow, Bareilly** and at a few places in the remaining divisions of the State on 18th July. Rain occurred at many places in **Faizabad, Kanpur, Lucknow, Jhansi** divisions and at few places in remaining divisions of the State on 19th July.

Rain / thundershowers are likely at many places over East U.P and at a few places over west U.P.

Isolated heavy to very heavy falls likely over East U.P.

Advisories

- Postpone irrigation to **summer sugarcane, vegetables** and **mango** crops in East Uttar Pradesh as rain or thundershowers are likely to occur at many places over this region.
- There was no significant rainfall in west U.P except in **Azamgarh, Bahraich, Banda, Barabanki, Gonda, Hardoi, Jaunpur, Kanpur City, Kanpur Dehat, Kheri, RaiBareilly, Shrawasti, and Unnao**

districts during last week and rain / thundershowers are likely at a few places over west U.P. Under the circumstances, apply irrigation to **summer sugarcane, vegetables and mango** crops depending on rainfall situation. Apply irrigation in the above mentioned districts depending on the stored soil moisture.

- Continue sowing of **rice, maize, jowar, bajra, kharif pulses and oilseeds.**
- Continue harvesting of **sunflower, gram, urad, and mung** after current spells of rain.
- Make arrangement for quick drainage of excess water in standing crops in East U.P, if rains are heavy.

Himachal Pradesh

Precipitation occurred at a few places in the State.

Rain / thundershowers are likely at many places over the State. Isolated heavy to very heavy falls likely over the State.

Advisories

- As rain / thundershowers are likely at many places over the State with heavy to very heavy rainfall at isolated places, postpone intercultural operation, irrigation and application of fertilizer and plant protection measures to **maize, moong, apple and early sown vegetable** crops.
- Also continue land preparation on a non-rainy day and sowing of **bhindi** (var. Prabhani Kranti, Arka Anamika) and **frenchbean** (var. Conender) and transplanting of **brinjal** (Arka Nidhi, PPC), **Capsicum** (California wonder) and **tomato.**
- Drain out excess water from the field and continue preparation of land and transplanting of **rice** in the main field.

Uttaranchal

Light to moderate rain was recorded at many places on 13th & 14th, 18th July at a few places on 19th July, at isolated places on 15th, 16th & 17th July. Sky remained partly to overcast.

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

Isolated heavy to very heavy falls likely over the State.

Fairly widespread rainfall activity over the State is likely to continue.

Advisories

- Rain / thunder showers are likely at many places over the State with heavy to very heavy rainfall at isolated places, for the next three days. Under the circumstances, postpone irrigation to **mango, apple, sugarcane and vegetable** crops.
- Continue nursery sowing and transplanting of **rice & cauliflower.**
- Arrange for drainage facilities in case of heavy rainfall.

Jammu & Kashmir

Light to moderate rain / thundershowers occurred at isolated places on 19th July. Weather remained mainly dry over the State on 17th and 18th July.

Rain / thundershowers likely to occur at few places over the State.

Advisories

- Continue transplanting of **rice** in Jammu division by utilizing monsoon showers.
- If nursery sowing cannot be undertaken, farmers are advised to go for direct sowing of rice in **Jammu** division.
- Light to moderate rainfall occurred at isolated places in the State during last week and rain/thundershowers are likely to occur at a few places in the State. Under the circumstances, apply irrigation to **summer vegetables, pulses, rice and maize** depending on rainfall situation.

Delhi

Light to moderate rain occurred on 19th July at most places. Light rain occurred on 18th July at isolated places. Weather remained mainly dry on 17th July.

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

Advisories

- As there was no significant rain during last week and rain / thundershowers are likely at a few places over the State for next three days, apply irrigation to **early sown summer vegetable crops, green gram, black gram, fodder crops and early sown arhar, maize and bajra** depending on rainfall situation.
- Maintain 2 – 3 cm of standing water after 2 – 3 days of transplanting of **rice** and 3 – 5 cm of water in the **rice** field wherever crops are at vegetative stage.
- Prepare land and complete sowing of **arhar, maize, bajra**, and transplanting of **rice**. Also continue sowing of **fodder crops** and transplanting of **cauliflower, cabbage, brinjal, tomato and chilly**.
- Select **arhar** varieties like Upas – 120, Manak and T21 and **maize** varieties like Ganga, Vikram and Kissan for sowing.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

South west monsoon was weak over Kerala on 17th July. Rain occurred at most places on 17th, 18th & 19th July.

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

Advisories

- Attack of **leaf folder, stem borer, gall fly, and sheath rot** is reported in **rice**. Spray Quinalphos 25 EC @ 750 ml / litre after current spells of rain to control **leaf folder** and **stem borer**. Spray Sevin 50% @ 3gm or Ekalux 25% @ 2ml / litre of water after current spells of rainfall to control **gall fly**. Spray Hinosan 200 ml/acre in 200 litre of water after current spells of rainfall to control **sheath rot**.
- Attack of **spindle bug, bud rot and fruit rot (Mahali) diseases** is reported in **arcanut**. Spray the crowns with Carbaryl 50% WP @ 20gm/100 litre of water after current spells of rainfall to control the bug. Continue spraying Bordeaux mixture 1% after current spells of rain to control the diseases.
- Attack of **Sigatoka leaf spot, bunchy top and pseudo stem weevil** is reported in **banana**. Spray 1 % Bordeaux mixture to control **leaf spot** after current spells of rain. Eradicate bunchy top affected plants to reduce the spread of the disease. Fill the leaf axils with chlorophyriphos @ 2.5 ml / litre of water to control **pseudo stem weevil**.
- Attack of **pollu beetle and quick wilt** disease is reported in **pepper**. Spray Quinalphose 0.5 % to control the pest after current spells of rainfall. Apply Bordeaux mixture @ 1% after current spells of rainfall to control **quick wilt**.
- Attack of **mahali disease, coried bug and red palm weevil** is reported in **coconut**. Spray blitox @ 4 gm / litre / palm after current spells of rain to control **mahali disease**. Spray entire crown of the young bunches with Carbaryl @ 2 gm / litre of water excluding leaves and older bunches. Spraying may be avoided to the receptive phase of the female flowers. Apply neem cake @ 5 kg/ palm. Spraying of chemicals may be undertaken after spells of rain to control **coried bug**. Use Pheromone trap after current spells of rainfall for controlling **red palm weevil**.
- Rainfall is likely to occur at many places in the State for the next three days. Under the circumstances, postpone irrigation to **plantation crops and pepper**. Arrange for drainage facilities to avoid water stagnation due to excess rainfall.
- Continue fertilizer application in **pepper, rubber and banana** after current spells of rain.

Tamilnadu

Rainfall occurred at isolated places over the State on 17th, 18th and 19th July.

Rain / thundershowers are at isolated places over the region.

Subdued rainfall activity likely over the region.

Advisories

- There was no significant rainfall in the State except in **Chennai** and **Thirunelveli** districts and rainfall is likely to occur only at isolated places over the State for the next three days. Under the circumstances, apply required irrigation to **cotton**, **early / mid sugarcane** and **millets** to bring the soil moisture to its field capacity. Apply irrigation depending on the soil profile stored moisture in **Chennai** and **Thirunelveli** districts as there was excess rainfall during last week.
- Harvesting of late season **sugarcane** may be continued.
- Farmers are advised to prepare the field and take up sowing of *kharif* crops like **black gram**, **green gram**, **groundnut** and *kar / kuruvai* rice nursery.
- Incidence of **internode borer** has been reported in **sugarcane**. Release *Trichogramma* parasite to control the pest.
- **Stem borer** egg masses and leaf sucking insects have been reported in already sown **nursery in rice (kar/kuruvai)**. Adopt recommended plant protection measures.

Karnataka

Monsoon was weak over Coastal Karnataka on 17th July. Over North Interior Karnataka it was weak on 17th & 18th July.

Rainfall occurred at most places on all the days over Coastal Karnataka. Over North Interior Karnataka, rainfall occurred at a few places on 19th July and at isolated places on 17th & 18th July. Over South Interior Karnataka, rainfall occurred at a few places on all the days.

Rain / thundershowers are likely at many places over Coastal Karnataka and isolated over the rest part of the State.

Isolated heavy rainfall also likely over Coastal Karnataka. Subdued rainfall activity over rest of the region.

Advisories

- Postpone irrigation and top dressing of Nitrogen in **sugarcane** in coastal Karnataka as rain / thundershowers are likely to occur at many places. These operations may be continued in interior Karnataka.
- Farmers are advised to continue sowing of *kharif* rice by utilizing the monsoon showers. Arrange for drainage facilities to avoid water stagnation in case of heavy rainfall in coastal Karnataka
- Release predators like *Dipha* sp, adopt wider spacing and intercropping with soyabean and pulses of short duration for ratoon crop in **Mysore**, **Mandya**, **Hassan** districts to control **wooly aphids** in sugarcane. Continue these operations in **Bidar & Bagalkote** districts also.
- Incidences of **aphids** and **sucking** insects are reported. Spraying of chemicals may be undertaken after current spells of rain in coastal Karnataka. It may be undertaken in interior Karnataka.

Andhra Pradesh

Rain occurred at a few places over Coastal Andhra Pradesh on 15th and 19th July and over Telangana on 19th July. It was isolated over Coastal Andhra Pradesh on 13th, 14th, and 16th to 18th July, over Telangana on 13th, 15th, 17th & 18th July and over rayalaseema on 13th to 15th & 17th & 18th July. Weather was mainly dry over Telangana on 16th July and dry over Rayalaseema on 16th & 19th July.

Isolated rain is likely to occur over Andhra Pradesh.

Advisories

- As rain/thunder showers are likely to occur only at isolated places for the next three days, sowing of *kharif crops* may be continued with assured irrigation facilities.
- Due to prolonged dry spell, *early sown kharif crops* are showing withering symptoms. Supplementary irrigation may be arranged to safeguard the crops.
- Iron deficiency is noticed in *rice* nursery. Spray FeSO_4 to overcome the deficiency.

Eastern Region (Assam, Bihar, Sikkim, West Bengal)

Assam

Light to moderate rain occurred at many places during the period with isolated heavy falls on 17th & 18th over the State.

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

Advisories

- As rain / thundershowers are likely at many places over the State, postpone irrigation, inter-cultural operation and application of fertilizer and plant protection measures to *sugarcane, summer vegetables, jute, maize, regular ahu rice* and *early sown arhar*.
- Make arrangement for draining out excess water from the crop fields under prevailing weather condition. Maintain 5 – 7 cm water in *regular ahu rice* fields.
- Postpone harvesting of matured crops of *early ahu rice* under prevailing weather condition.
- Drain out excess water and continue sowing of *arhar* and sowing / transplanting of *Sali rice*. Select variety T-21 for sowing of *arhar*.

West Bengal

South-west monsoon has been weak over the Sub Himalayan West Bengal (SHWB) on 17th July, but it was active over the State on 19th July. Rainfall occurred at isolated places on 17th, at a few places on 18th and most places on 19th over SHWB. Rainfall occurred at many places on 17th, 18th and 19th over Gangetic West Bengal (GWB). Heavy rainfall occurred at isolated places on 19th July over the State.

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

Isolated heavy to very heavy falls likely over Gangetic West Bengal.

Fairly widespread rainfall activity likely to continue over the State.

Advisories

- Due to heavy rain during last week, crops were affected in some parts of Murshidabad and Nadia districts. The farmers over these areas are advised to prepare rice nurseries in relatively upland areas and the aged seedlings may be transplanted in the field after the receding of flood water. Short duration varieties of rice and groundnut may also be used if receding of flood water will be delayed.
- As rain / thundershowers are likely at most places over Gangetic West Bengal and at many places over rest of the State, postpone inter-cultural operation, irrigation and application of fertilizer and plant protection measures to *sugarcane, green gram, aus rice* and *jute*.
- Drain out excess water and maintain 5 – 7 cm water in the *aus rice* field.
- Continue land preparation on a non-rainy day and sowing of *groundnut* and nursery sowing / transplanting of *aman rice*. Make arrangement for draining out excess water from the field.

Bihar

Rain occurred at a few places over the State during last week. Heavy rainfall occurred at one or two places on 13th & 14th July.

Rain / thundershowers likely to occur at many places over Bihar.

Fairly widespread rainfall activity likely to continue.

Advisories

- As rain / thundershowers are likely to occur at many places over the State for the next three days, postpone irrigation to **vegetables, maize, pulses, and oilseed** crops.
- Postpone application of top dressed Nitrogen in **maize, pulses and oilseeds**.
- In flood affected areas the farmers are advised to prepare **rice** nurseries in relatively upland areas and the aged seedlings may be transplanted in the field after the receding of flood water. Short duration varieties of rice may also be used if receding of flood water will be delayed.
- Make arrangement for quick drainage of excess water in standing crops.

Jharkhand

Rain occurred at many places.

Rain or thundershowers are likely to occur at most places. Heavy to very heavy rainfall is likely to occur at isolated places.

Fairly widespread rainfall activity likely to continue.

Advisories

- Nursery sowing / transplanting of **rice** may be continued.
- Continue sowing of upland crops like **rice, maize, finger millet, groundnut, arhar, and urad** etc.
- Arrange to provide drainage in standing crops.

Sikkim

Sky remained generally cloudy during the period.

Moderate to nearly heavy rain occurred at most places on 18th & 19th July. Light rain occurred at a few places on 17th July during the period over East Sikkim. Rainfall was normal during the period.

Rain / thundershowers will occur at many places over the State.

Fairly wide spread rainfall activity likely to continue.

Advisories

- Rain / thundershowers are likely to occur at many places over the State for the next three days. Under the circumstance, postpone irrigation to **orange, maize, potato and large cardamom** crops.
- Monitor **ginger** crop for **rhizome rot** and **bacterial wilt** due to heavy rains.
- Rouge out **chirke** and **foorkey** affected **large cardamom** plants and destroy them by burning.
- Continue transplanting **rice** seedlings by utilizing the monsoon showers in low hill areas.
- Arrange for drainage facilities in case of excess rainfall.

Arunachal Pradesh

Rain / thundershower occurred at most places on 18th July, at many places on 13th, 14th, 15th, 16th and at a few places on 17th and 19th July.

Sky remained mainly cloudy over the State during the week.

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

Advisories

- Continue harvesting of matured **maize** crop in bright sunny days.
- Maintain required depth of standing water in **wet seeded rice** field.
- Continue sowing of new **ginger** crop in some parts of high altitude, middle area and foothills of Arunachal

Pradesh.

Central Region (Gujarat, Chattisgarh, Maharashtra, MP & Orissa)

Gujarat

Monsoon was subdued over the Gujarat region & Rainfall occurred at isolated places over Gujarat region on 17th July.

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

Advisories

- As there was no significant rain in all the districts of the State during last week and rain / thundershowers are likely at a few places over the State for next three days, apply irrigation to **sugarcane, Kharif groundnut, Kharif bajra, Kharif maize, pre-monsoon irrigated cotton and Kharif cotton** wherever crops are at vegetative stage depending on rainfall situation.
- Heavy earthing up operation may be carried out in **sugarcane** after 5–6 months from sowing. Apply remaining 4th dose of N @ 87.5 kg / ha to the crop. Perform these operations on a non-rainy day under prevailing weather condition.
- Undertake intercultural operation and hoeing in early sown crops on a non-rainy day to keep the field weed free.

Chattisgarh

The state received normal rain during last week. Bastar, Dantewara, Jashpurnagar, Raigarh, Kanker and Rajandgaon districts of the State received scanty / deficient rain and other districts received normal / excess rainfall during last week.

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

Advisories

- As rain / thundershowers are likely at most places over the State with heavy to very heavy rainfall at isolated places, postpone intercultural operation, irrigation and application of fertilizer and plant protection measures to **sugarcane and early sown summer vegetables, green gram and black gram**.
- Continue land preparation on a non-rainy day and sowing of **Kharif vegetables, red gram, green gram, black gram, soybean, groundnut** and nursery sowing of **Kharif rice** with the use of monsoon rain.
- Select early varieties like IR 36, MTU 1010, Purnima, Danteshwari etc or medium varieties like IR 64, Mahamaya, Bambleswar, MTU 1001 etc for **rice** and varieties like Asha, B.D.N-2, Laxmi -148, C-11 of **red gram**, J- 851, Pusa Vishal, BM-4, Malvia Jyoti 12 of **green gram**, KU – 96-3 TPU -4, TU -94-2, PU -30 of **black gram**, JS – 335, JS – 93-05, JS – 80-21 and Indira Soya – 9 of **soybean** and SB11, AK-24, TAG-26, AK- 159 of **groundnut** for sowing.

Maharashtra

Monsoon was vigorous in Vidarbha & active in South Madhya Maharashtra on 18th July. Rainfall occurred at most places over South Konkan, at many places over Madhya Maharashtra & East Vidarbha, at a few places over West Vidarbha, North Konkan and Marathwada.

Rain / thundershowers are likely at many places over Konkan & Goa and at a few places over rest of the State.

Advisories

- As there was excess rain in **Nagpur** district of the State during last week, postpone irrigation to **Sugarcane, Cotton (irrigated)** and also to **early sown Jowar, Kharif groundnut, bajra, soybean, sunflower, kharif cotton, tur and moong** in this district. As there was no significant rain in remaining districts of Madhya Maharashtra, Marathwada and Vidarbha and rain / thundershowers are likely at a few places over these regions, apply irrigation to the crops depending on rainfall situation.
- Mild incidence of **white wooly aphids** in the Division of **Kolhapur** is reported. For the control of White Wooly Aphids in **sugarcane** release 2500 eggs or larvae of *Chrysoperla Carnea* or *Konobatra*

aphidivora parasite on the leaves or spray Endosulphan @ 1 ml. plus Metasistox @ 1 ml. mixed in 1 liter water on a non-rainy day.

- Complete sowing of **jowar**, **Kharif groundnut**, **bajra**, **soybean**, **sunflower**, **kharif cotton**, **tur** and **moong** in Madhya Maharashtra, Marathwada and Vidarbha.
- Select the hybrid varieties from CSH 1, 5, 6, 9, 14, 17, 18, 23, CSH 8 R, SPV 86, 462, 946, PKV 801, 809 and SPH 388 for **jowar** and the varieties from SB 11, Phule Pragati, TMV 10, TAG 26, JL 24, JL 2620 and TPG 41 for **kharif groundnut**.
- Select the varieties from Saburi, BJ 104, BK 560, BD 763, WCC 75 and ICTP 8203 for **bajra**, from PKV 1, TAMS 38, MAUS 47, 61, 71 or 81, Phule Kalyani and Samruddhi for **soybean** and from EC 68414, Morden, SS 56, KBSH 11, Surya, PKV SF 9, or 27, SCH 35 for **sunflower**.
- Select the varieties from PA 402, American PH 348, Phule 492 or 388, JLH 168, JLA 794, Ganga, Parbhani Sona for **kharif cotton**, from T – Vishakha 1, TAT 10, Akola Hybrid 1, Vaishali 853, IPPL 87, AKT 8811, BDN 1& Vipula for **tur** and from TAP 7, TARM 2 or 18, AKM 8802 or 8803 for **moong**.
- Undertake intercultural operation in early sown crops on a non-rainy day to keep the field weed free.

Madhya Pradesh

Monsoon was vigorous in South East M.P. on 18th July, active in East M.P. on 17th July, North East and South West M.P. on 19th July. Rainfall also occurred at many places in South west M.P. on 17th July, North East M.P. and South West M.P. on 18th July, North west M.P. and South East M.P. on 19th July at a few places in North West M.P. on 18th July and at isolated places in North West M.P. on 17th July.

Rain / thundershowers likely to occur at most places over the State.

Advisories

- Continue sowing of **rice** and **other kharif crops viz., cotton, maize, soyabean, urad, rice, jowar**.
- As rain / thundershowers are likely at most places over Madhya Pradesh for next three days, postpone irrigation to **sugarcane** and **moong**.
- Make arrangements to drain out excess water from the fields of standing crops.

Orissa

Rain fall occurred at most places over the State on 17th July, at a few places on 18th July & at isolated places on 19th July.

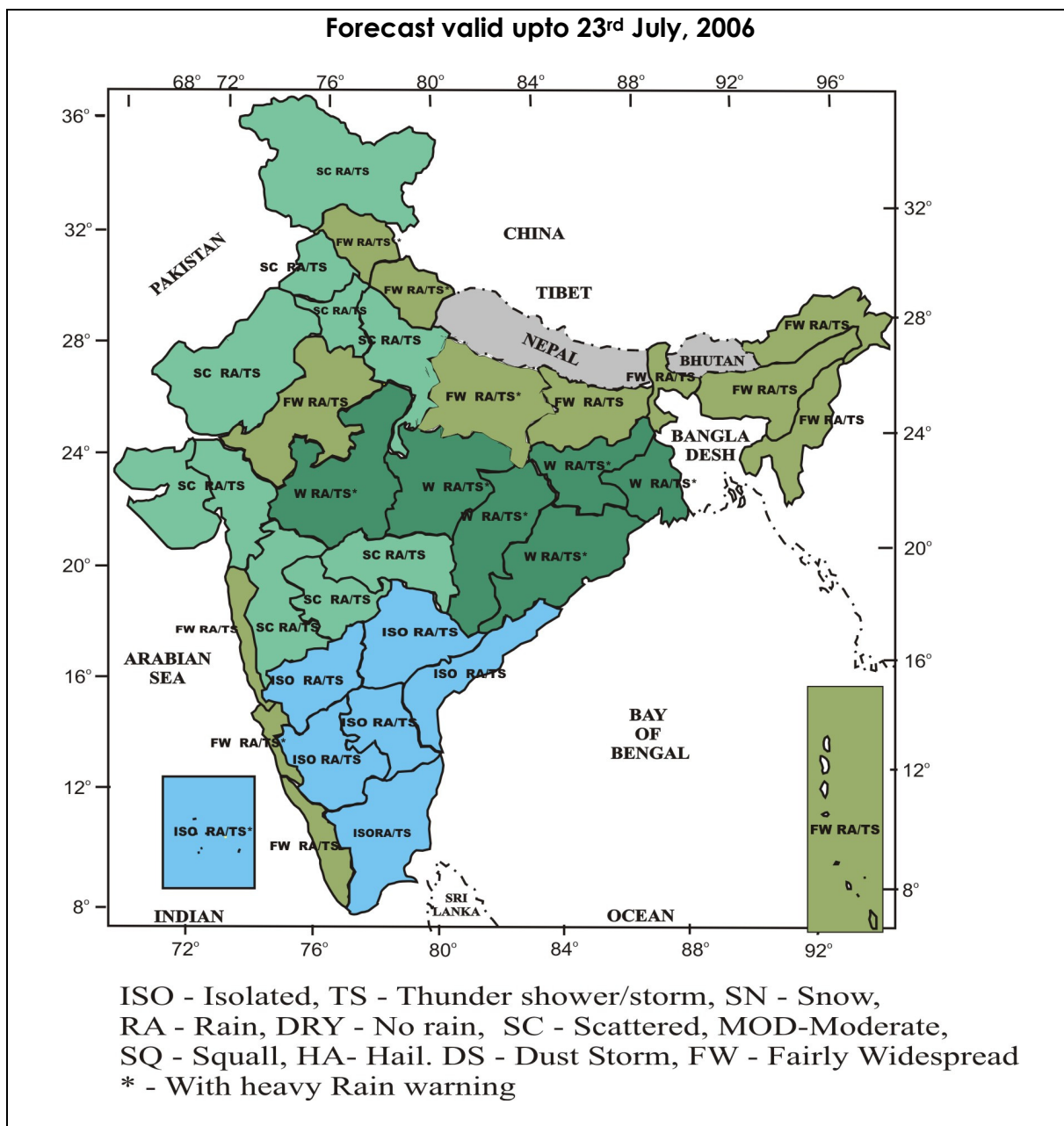
Heavy to very heavy rain falls occurred at isolated places over the State on 17th July.

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

Isolated heavy to very heavy falls likely over the State.

Advisories

- Farmers are advised to continue land preparation and sowing of **kharif** crops like **rice, groundnut** and **pulses** after current spells of rain.
- Rain / thundershowers are likely at most places over the State for next three days. Under the circumstances, postpone irrigation to **vegetables, sugarcane** and **jute** crops.
- At five months stage of sugarcane crop perform propping by combining plants of two rows so that the crops do not lodge by wind.



Salient weather features for the week ending 19/07/06

CHIEF FEATURES: Subdued rainfall activity prevailed over the country in general, with isolated very heavy rainfall giving rise to flood situations in localised areas.

WEEK'S RAINFALL: Week's rainfall was excess in Gangetic West Bengal and east Madhya Pradesh; normal in Sub-Himalayan West Bengal & Sikkim, Jharkhand, Bihar, east Uttar Pradesh, Uttaranchal, Jammu & Kashmir, Chattisgarh, coastal & south interior Karnataka, Kerala and Lakshadweep. It was scanty over the rest of the country outside Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland-Manipur-Mizoram-Tripura, Orissa, west Uttar Pradesh, Punjab, west Madhya Pradesh, Madhya Maharashtra and Vidarbha, where it was deficient.

PRINCIPAL AMOUNTS OF RAINFALL (in cms) DURING THE WEEK.

July 2006

- 13 Patna, Hosdurg 16, Shirali 13, Chanchal 12, Sripalpur 10, Dhabra, Somipat, Karipur 8, Balimundali, Kandi, Basua 7, Agathi 6.
- 14 Mangalore 21, Amritsar, Jalpaiguri 13, Bahraich, Baruipur 11, Hosdurg 10, Gular, Kolkata 9, Kathua, Indrapuri 8, Cannur, Jaleswar 7.
- 15 Sidhi 21, Dabri 19, Raipur, Agumbe 12, Bhograi 11, Tenghat, Bhind, Jaleswar, Purihansa, Jhawa 9, Munnar, Diana, Bahraich 8.
- 16 Jamshedpur, Jaleswar 14, Champa 13, Rajghat, Ranchi 9, Purihansa 7, Mahabaleshwar 5.
- 17 Laikera 22, Dhamtari 11, Jorhat, Deogaon 10, Narsingarh, Jharsuguda 8, Sidhi, Idukki, Silchar 7, Radhanagari, Kahu 6.
- 18 Ambajhar 29, Seoni 18, Nagpur 17, Betul 12, Pontoha, Bokajan 9, Agumbe, Mahabaleshwar, Bhira, Radhanagari 7, Tajewala 6.
- 19 Nowgaon 20, Harda 15, Canning Town 12, Gaganavda 11, Sevoke 10, Bhira 9, Uttar Kashi 8, Radhanagari, Laxmangarh 7.

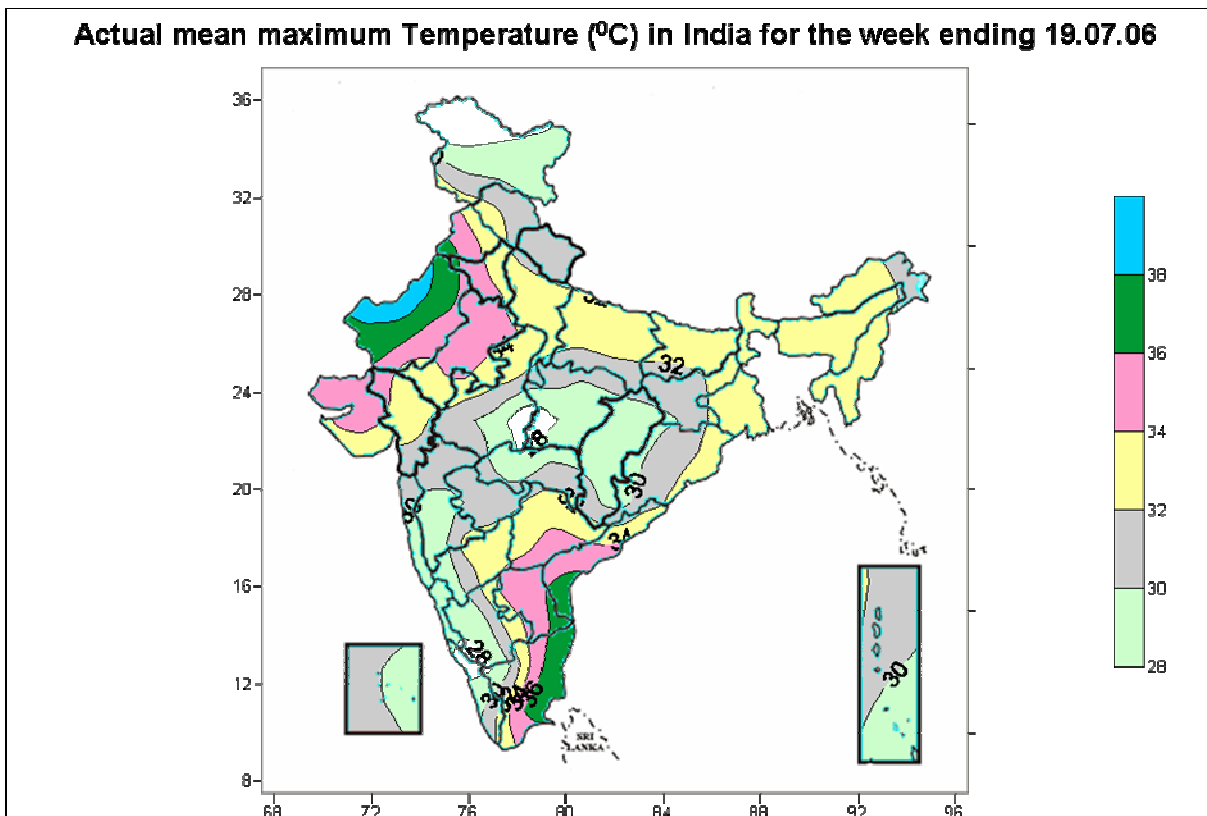
SEASON'S RAINFALL (01-06-2006 to 19-07-2006): Seasons rainfall was excess in Madhya Maharashtra. It was normal over the rest of the country outside Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Uttaranchal, Himachal Pradesh, Rajasthan, Madhya Pradesh, Chattisgarh, Telangana and Tamil Nadu, where it was deficient.

TEMPERATURES: In west Rajasthan, where the monsoon is yet to set in; day temperatures were: appreciably below normal on 2 days and below normal on 1 day.

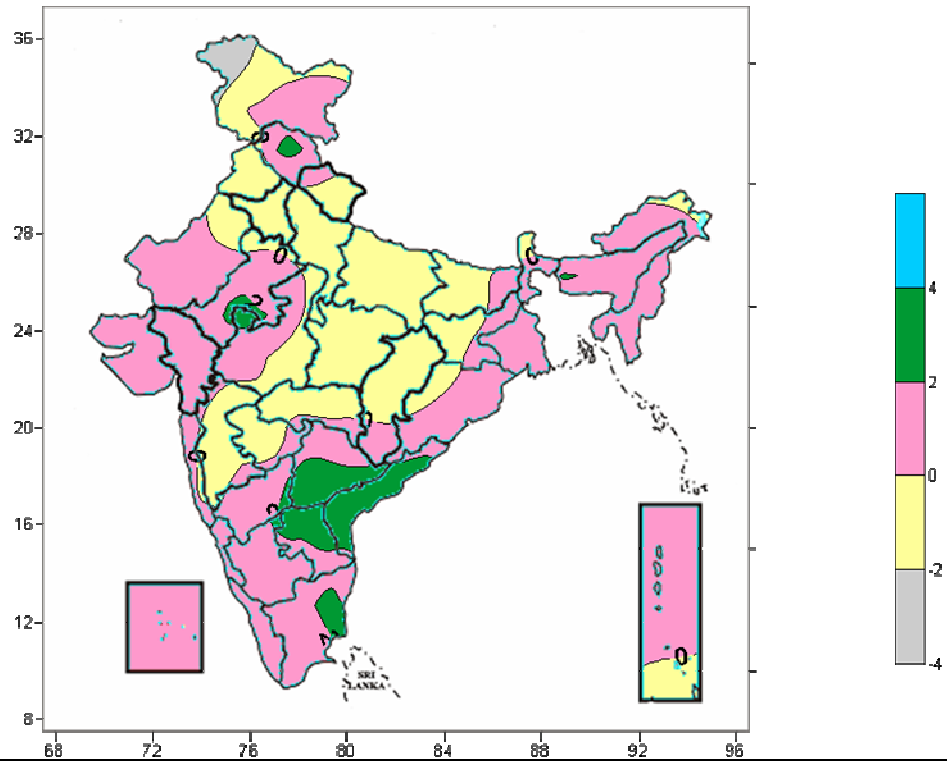
WEATHER AND ASSOCIATED SYNOPTIC FEATURES: (1) The seasonal east-west trough at sea level generally passed through Rajasthan, Uttar Pradesh, Bihar, Gangetic West Bengal and thence to the north Bay/ the east central Bay. (2) The offshore trough at sea level extended from: south Gujarat to Kerala coasts till 16th; Karnataka to Kerala coasts on 17th; north Maharashtra to Kerala coasts on 18th and again from south Gujarat to Kerala coasts on 19th. (3) The upper air cyclonic circulation over Gangetic West Bengal and neighbourhood lay over Gangetic West Bengal and adjoining Jharkhand on 13th and became less marked on 14th. (4) An upper air cyclonic circulation lay over the northwest Bay on 14th. Under its influence, a low pressure area formed over the north Bay and adjoining Bangladesh and Gangetic West Bengal on 15th. It lay over: Gangetic West Bengal and neighbourhood on 16th; Jharkhand and adjoining northern parts of Orissa on 17th and became less marked after moving over to Chattisgarh and adjoining Jharkhand on 18th. However, the associated upper air cyclonic circulation extending upto 3.6 km a.s.l. lay over east Madhya Pradesh and neighbourhood on 18th and over the central parts of Madhya Pradesh on 19th. (5) Another upper air cyclonic circulation lay between 3.6 & 7.6 km a.s.l. over Gangetic West Bengal and adjoining northwest Bay on 19th. (6) Yet another upper air cyclonic circulation lay in the middle levels over the east central Arabian Sea off north Maharashtra-south Gujarat coasts on 18th and over the northeast Arabian Sea off Saurashtra coast on 19th. (7) The upper air cyclonic circulation over Punjab and adjoining Haryana lay over central parts of Uttar Pradesh on 13th and became less marked on 14th. (8) An upper air cyclonic circulation extending upto 3.1 km a.s.l. lay over west Uttar Pradesh and adjoining Uttaranchal on 16th & 17th and became less marked on 18th. (9) Another upper air cyclonic circulation lay between 1.5 & 3.6 km a.s.l. over Haryana and neighbourhood on 19th. (10) Last week's upper air cyclonic circulation over Jammu & Kashmir and neighbourhood moved away northeastwards on 13th. A fresh upper air cyclonic circulation extending upto 4.5 km a.s.l. lay over north Pakistan and adjoining Jammu & Kashmir during 13th to 15th which also moved away northeastwards across Jammu & Kashmir on 19th. Another upper air cyclonic circulation extending upto mid tropospheric levels lay over north Pakistan and adjoining Jammu & Kashmir on 19th.

The southwest monsoon has been active on 1 to 3 days in West Bengal & Sikkim, Orissa, Jharkhand, Bihar, east Uttar Pradesh, Madhya Pradesh, Telangana and coastal Karnataka. Very heavy rain occurred on 4 days in coastal Karnataka and on 1 to 3 days in Orissa, Jharkhand, Bihar, Uttar Pradesh, Punjab, Madhya Pradesh, Vidarbha, coastal Karnataka and Kerala. Heavy rain also occurred on 4 to 5 days in West Bengal & Sikkim and west Madhya Pradesh and on 1 to 3 days in Arunachal Pradesh, Assam & Meghalaya, Orissa, Jharkhand, Bihar, east Uttar Pradesh, Uttaranchal, Haryana, Himachal Pradesh, Jammu & Kashmir, east Rajasthan, east Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Chattisgarh, Karnataka and Kerala. Rain or thundershowers occurred at most places on 5 days each in Konkan & Goa and coastal Karnataka and on 1 to 3 days in Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, West Bengal & Sikkim, Uttar Pradesh, Uttaranchal, Punjab, Jammu & Kashmir, east Madhya Pradesh, Vidarbha and Chattisgarh; at many places on 4 days each in Arunachal Pradesh, Assam & Meghalaya and Uttar Pradesh and on 1 to 3 days in Andaman & Nicobar Islands, West Bengal & Sikkim, Orissa, Jharkhand, Bihar, Uttaranchal, Haryana, Himachal Pradesh, Jammu & Kashmir, west Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada and coastal & south interior Karnataka and at a few places on 5 to 7 days in Nagaland-Manipur-Mizoram-Tripura and Madhya Maharashtra and on 1 to 3 days in Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, West Bengal & Sikkim, Orissa, Jharkhand, Bihar, east Uttar Pradesh, Uttaranchal, Haryana, Punjab, Himachal Pradesh, east Rajasthan, Madhya Pradesh, Gujarat region, Marathwada, Vidarbha, Chattisgarh, coastal Andhra Pradesh, Telangana and south interior Karnataka.

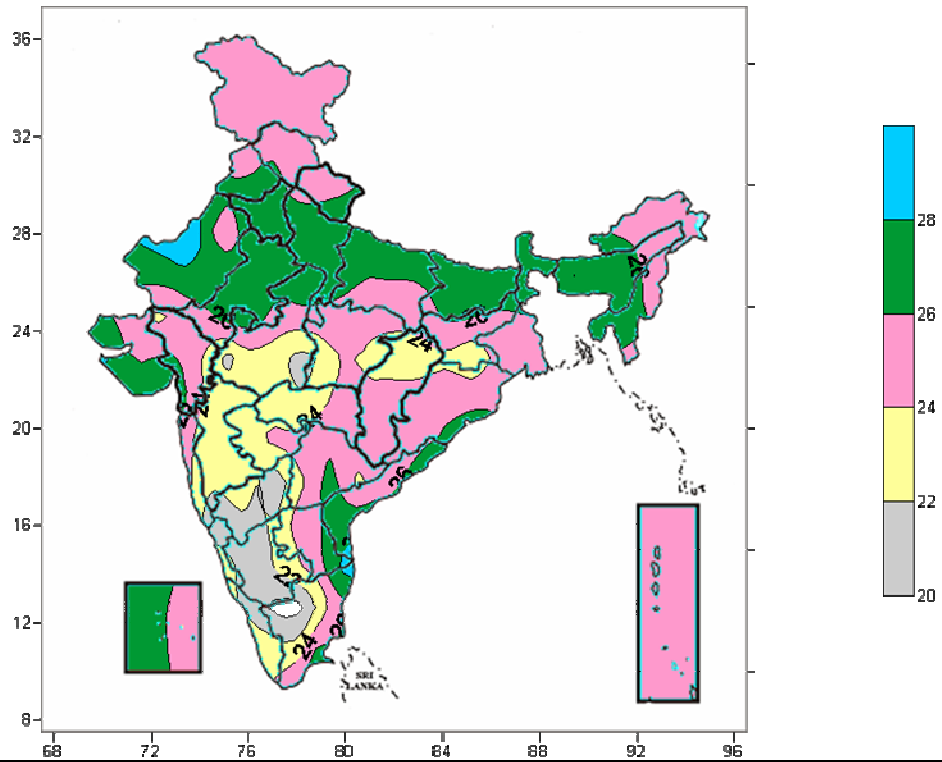
Media reports: The current spell of floods claimed 11 lives and affected around 3 lakh people in Bihar. Parts of Vidarbha also were under flood situations due to the extremely heavy rainfall that occurred in the neighbouring areas of Nagpur.



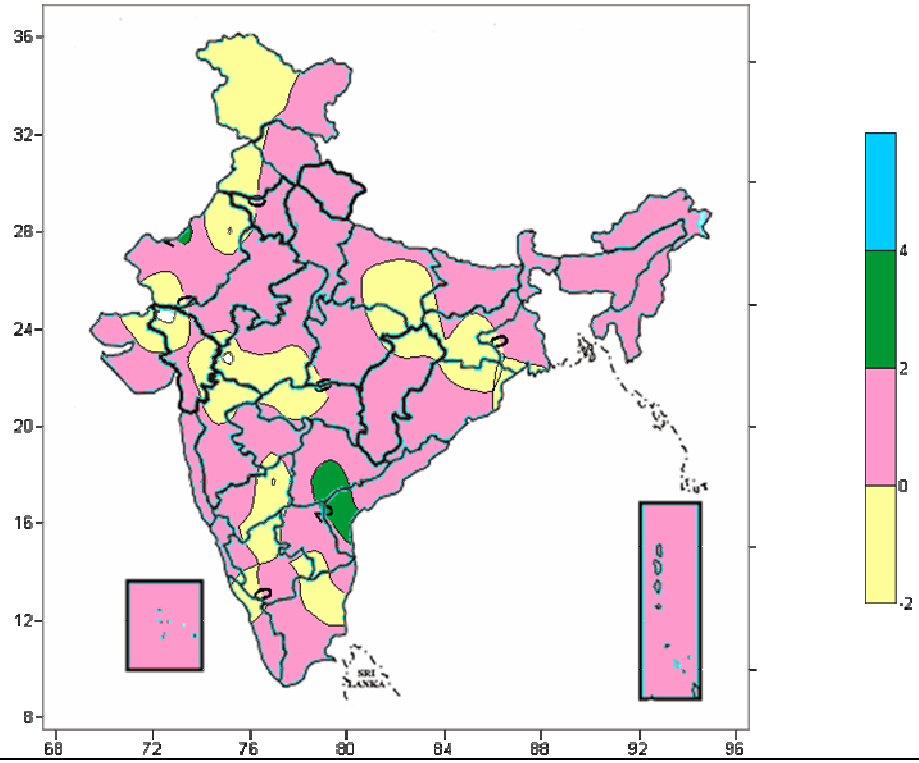
Maximum Temperature (°C) Anomaly in India for the week ending 19.07.06



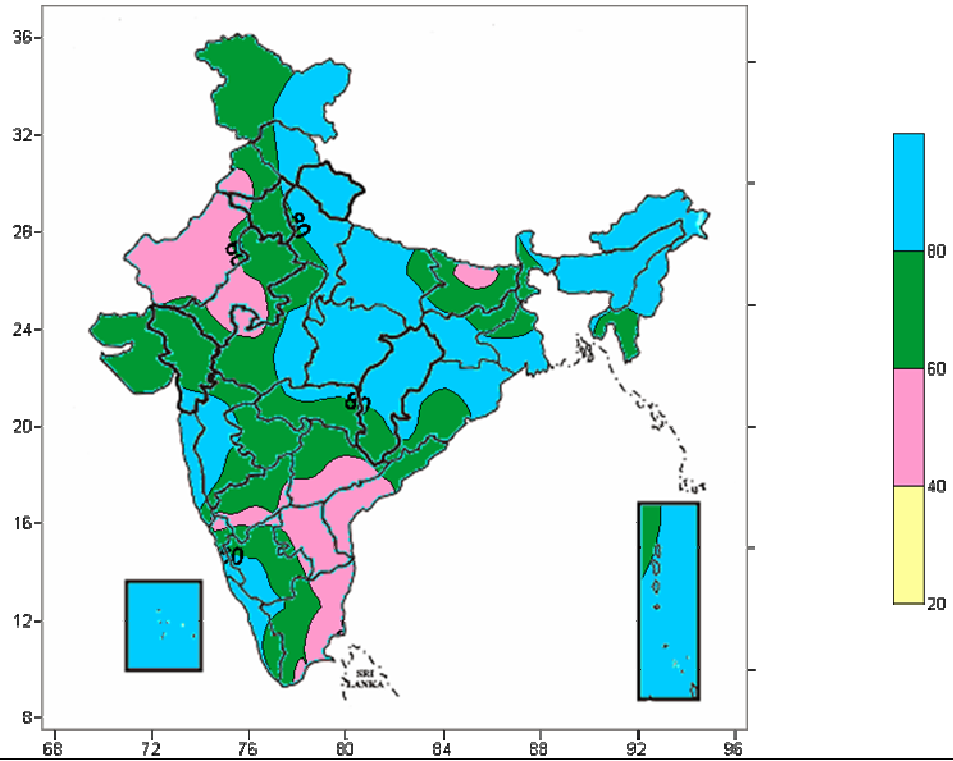
Actual mean Minimum Temperature (°C) in India for the week ending 19.07.06



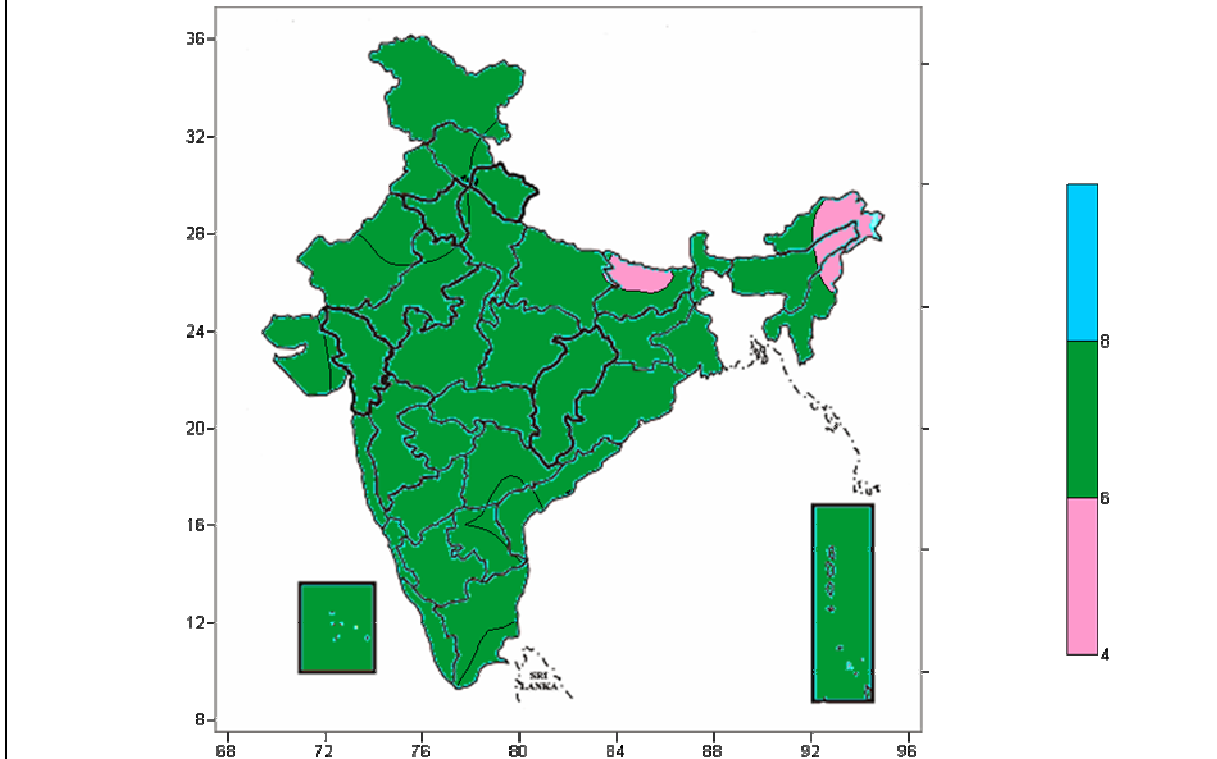
Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 19.07.06



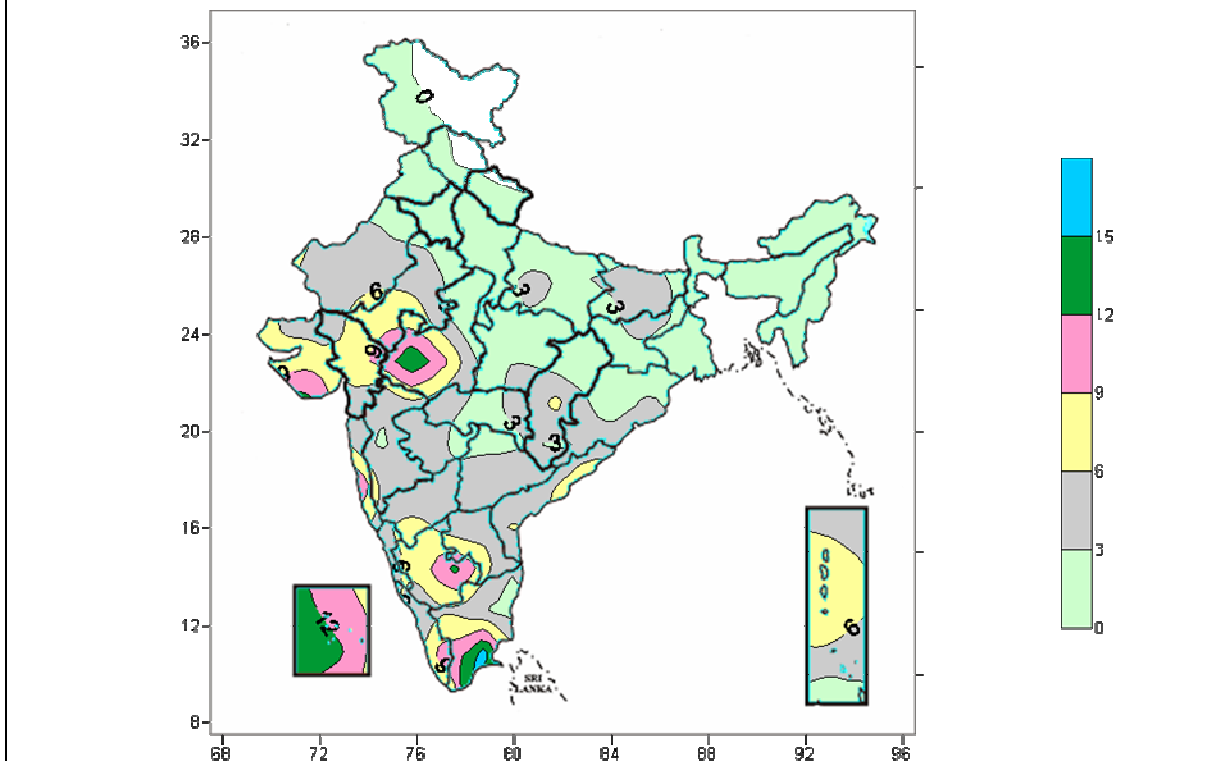
Relative humidity (%) over India for the week ending 19.07.06



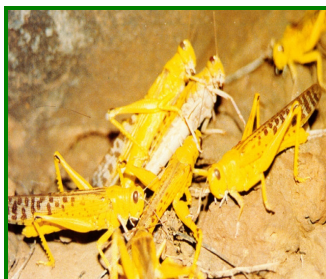
Cloud amount (okta) over India for the week ending 19.07.06



Wind speed (knots) over India for the week ending 19.07.06



Desert Locust Forecasting



Rainfall (mm)							
Station Name	13.7.06	14.7.06	15.7.06	16.7.06	17.7.06	18.7.06	19.7.06
Amritsar	-	13.3	-	-	-	-	-
Barmer	-	-	-	-	-	-	-
Sriganganagar	-	-	-	-	-	-	-
Jaisalmer	-	-	-	-	-	-	-
Kota	-	-	-	-	-	-	-
Dessa	-	-	-	-	-	-	-
Churu	0.7	-	-	4.8	-	-	-

Temperature (degree celcius)							
Station Name	13.7.06	14.7.06	15.7.06	16.7.06	17.7.06	18.7.06	19.7.06
Amritsar	28	20	28	29.5	31.5	32.5	36
Barmer	30.5	30	29.5	31.5	31.5	32	34
Sriganganagar	33	32	30.5	32.5	34.0	35.5	36
Jaisalmer	32	32	31.5	32.5	33.0	34.0	34.8
Kota	30.5	32	31.5	32.5	33.0	34.0	33.5
Dessa	28	33	27.5	28.5	29.0	29.5	31.5
Churu	-	-	-	-	-	-	-

Wind														
Station Name	13.7.06		14.7.06		15.7.06		16.7.06		17.7.06		18.7.06		19.7.06	
	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.
Amritsar	13	SW	-	-	-	-	-	-	03	SSW	08	SSE	02	W
Barmer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sriganganagar	-	-	-	-	-	-	-	-	-	-	11	ESE	03	WNW
Jaisalmer	-	-	-	-	-	-	-	-	04	E	06	SSW	10	S
Kota	15	WNW	20	WSW	-	-	-	-	22	NNW	07	N	14	NW
Dessa	-	-	-	-	-	-	-	-	-	-	02	WSW	-	-
Churu	02	WSW	13	WSW	-	-	-	-	05	WNW	05	NNE	05	N

So far, monsoon rains have been poor along the **Indo-Pakistan** border which may limit summer breeding this year.

As rainfall was reported in some parts of Punjab & Rajasthan in this week there is mild chance of occurrence of locust incidence. It is advised to make continuous monitoring of the incidence of locust in north-western region of the country.

CROP – STATE – STAGE

Delhi				
Vegetable crops	Summer vegetables	Arhar	Early sown arhar	Green gram, black gram
Vegetative / flowering / fruiting / harvesting	transplanting	sowing	Germination / early vegetative/vegetative	Vegetative / flowering/pod formation
Fodder (jowar, bajra)	Fodder (Mixed maize , Lobia)	Maize	Early sown maize	Rice
sowing	vegetative	Land preparation & sowing	Germination / seedling / early vegetative	Land preparation for transplanting
Bajra	Early sown bajra	Summer vegetables	Transplanted rice	Early sown maize
Land preparation & sowing	Germination / seedling / early vegetative	Transplanting	Early vegetative	germination / seedling / early vegetative

Haryana				
Sunflower	Sugarcane	Paddy	Maize	Cotton
Harvesting	Vegetative	Transplanting	Sowing / Germination	Vegetative
Bajra	Kharif pulses / groundnut	Horticultural crop		
Sowing	sowing	vegetative/fruiting		

Himachal Pradesh				
Rice	Maize	Apple	Tomato, brinjal, ladies finger	Fodder crops
Transplanting	early vegetative/vegetative	Maturity / harvesting	Vegetative/flowering/fruiting / harvesting	vegetative
Moong / Mash	Fruit plants			
Flowering / pod formation	fruiting			

Jammu & Kashmir				
Vegetables crops	Rice	Maize	Kharif crops	
Early vegetative / vegetative	Vegetative/early tillering	Vegetative	Early vegetative / vegetative	

Punjab				
Sugarcane	Paddy	Maize	Cotton	Kharif pulses / groundnut
Vegetative	Transplanting	Sowing / germination	Vegetative	Sowing

Rajasthan				
cotton	Groundnut	Bajra / Maize / Soyabean / Pulses		
Vegetative	Germination	Sowing		

Uttar Pradesh				
Pulses (Gram, Urad, Moong)	Kharif Pulses (Urad & Moong)	Sugarcane	Kharif Vegetables	Summer vegetables
Harvesting	Sowing	vegetative	Sowing	Vegetative/ fruiting / harvesting
Mango	New Mango	Kharif rice	Oilseeds	Kharif Oilseeds (Til, Soybean, Groundnut)
Harvesting	Active growth	Sowing/transplanting	Harvesting	Sowing
Kharif Maize, Jowar, Bajra				
Sowing				

Uttaranchal				
Rice & cauliflower	Mango	Lady's finger / French Bean	Sugarcane	Chilli & Tomato
Seedling	Maturity	Fruiting	Tillering	Fruiting / maturity
Apple				
Fruit growth/maturity				

Assam				
Maize	Sugarcane	jute	Summer vegetables	Early <i>ahu</i> rice
cob formation / maturity	Vegetative	Vegetative/maturity	vegetative / flowering / fruiting / harvesting	grain maturity / harvesting

Early Arhar	Arhar	Sali rice	Regular ahu rice	
Germination/seedling/early vegetative	Sowing	sowing / transplanting	tillering / panicle initiation / flowering / grain formation	

Arunachal Pradesh

maize	ginger	millet		
Harvesting	Sowing	Grain maturity		

Bihar

Vegetables	Rice	Maize	Pulses and Oil seeds	
Early vegetative	Sowing/ Seedling/ Transplanting	Vegetative	Early vegetative	

Jharkhand

Rice	Upland crops (rice, maize, groundnut, arhar, urad)	Finger millet	Maize	
Sowing/transplanting	Sowing	Sowing	Sowing	
Kharif vegetables (Tomato, Cabbage, Cauliflower, Brinjal, Chilli)				
Sowing				

Sikkim

Orange	Rice	Large Cardamom	Kharif vegetables	Potato
fruiting	Early vegetative (low hills) Early tillering (high hills)	Seed development	vegetative	Tuber Maturity / harvesting (in low & mid hills)
Maize	Ginger			
grain formation	Vegetative			

West Bengal

Aus rice	sugarcane	Jute	Green Gram	Aman rice
Tillering/ panicle initiation/ flowering	vegetative	Vegetative	Vegetative / Flowering	Nursery sowing / transplanting
Groundnut				
Sowing				

Chattisgarh

Chilly, Brinjal, Ladies finger,	Kharif Vegetables	Sugarcane	Kharif rice	Soybean
(summer veg.- Vegetative / flowering / fruiting / harvesting)	Sowing / transplanting	Vegetative	Land preparation & nursery sowing / transplanting	Sowing
Green gram / Black gram(early sown)	Blackgram / Greengram	Groundnut	Red Gram	Kharif vegetables
Vegetative / flowering / pod formation	sowing	Sowing	sowing	sowing / transplanting
Kharif rice				
Land preparation/nursery sowing/transplanting				

Gujarat

Kharif Maize	Premonsoon irrigated Cotton	Kharif groundnut	Early sown groundnut	Sugarcane
Germination/ seedling/ early vegetative	Vegetative	Germination/seedling/early vegetative	Germination/ seedling/ early vegetative	Vegetative / elongation
Kharif Cotton	Early sown cotton	Kharif bajra	Early sown bajra	Kharif Rice
Germination/ early vegetative	Germination/ early vegetative	Germination/ seedling/ early vegetative	Germination/ seedling/ early vegetative	Transplanting

Maharashtra

Kharif Groundnut / Cotton / sunflower	Earlier sown Groundnut / cotton / sunflower	Irrigated Cotton	Sugarcane (Seasonal)	
Sowing	Germination/early vegetative	vegetative	Early vegetative	
Bajra / Jowar	Soybean	Earlier sown Soyabean	Kharif rice (Konkan)	Kharif rice (Madhya Maharashtra,

				Marathwada & Vidarbha)
Sowing	Sowing	Germination/early vegetative	Seedling / transplanting	germination / seedling / transplanting
Earlier sown Bajra / Jowar	Tur	Earlier sown Tur	Moong	Earlier sown Moong
Germination/early vegetative	Sowing	Germination/early vegetative	Sowing	Germination/early vegetative

Madhya Pradesh

Sugarcane	Moong	Kharif crops (Maize, jowar, cotton, urad, tur)	Kharif Soyabean	Kharif rice
vegetative	Vegetative / flowering	Seedling	Seedling	Sowing/germination

Orissa

Vegetables	Earlier sown vegetables	Early sown Groundnut	Groundnut	Sugarcane (pre-seasonal)	
Sowing / nursery	Flowering / fruiting / harvesting	Germination / early vegetative	Sowing	Vegetative/tillering	
Kharif rice	Pulses	Early sown Pulses		jute	
Sowing / nursery sowing / transplanting	Sowing	Germination / early vegetative		Vegetative	

Andhra Pradesh

	Kharif rice	Kharif crops (Groundnut/Maize/Chillies/Cotton /Tur)		
	Nursery sowing	Sowing		

Karnataka

Early planted sugarcane	Sugarcane	Kharif crops (jowar, maize, cotton)	Kharif rice	Early sown rice
vegetative	Vegetative - ratoon crop	Germination / seedling / vegetative	Nursery sowing	transplanting
New sugarcane planting	Groundnut			
	Vegetative stage			

Kerala

Rubber	Virippu Rice			
Tapping	Tillering			

Tamil Nadu

Rice (Navarai)	Millets	Summer irrigated cotton	Early & mid sugarcane	Late season sugarcane
Grain Maturity/harvesting	Vegetative	Flowering / boll formation	Vegetative / Grand growth	Maturity / Harvesting
Rice (Kuruvai)	Pulses	Groundnut		
Nursery / Transplanting	sowing	sowing		