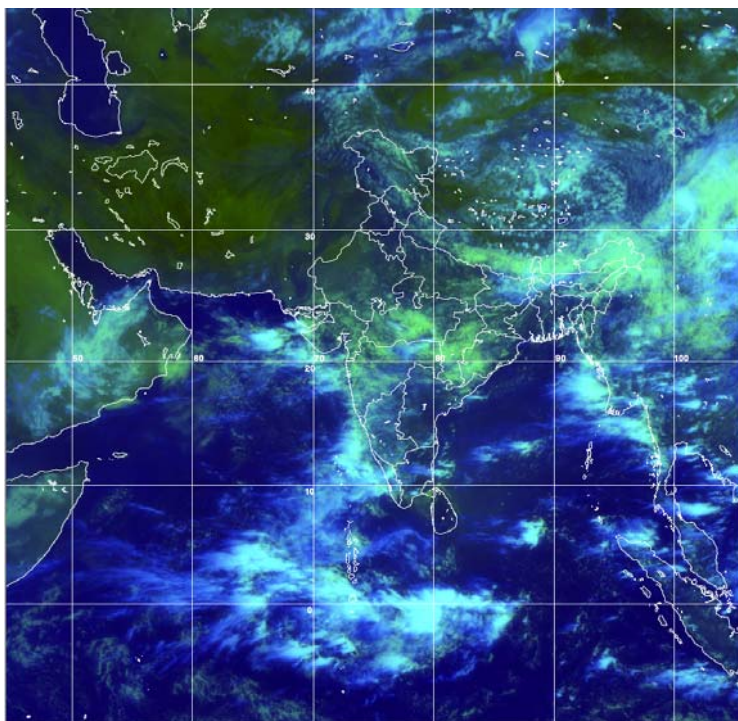




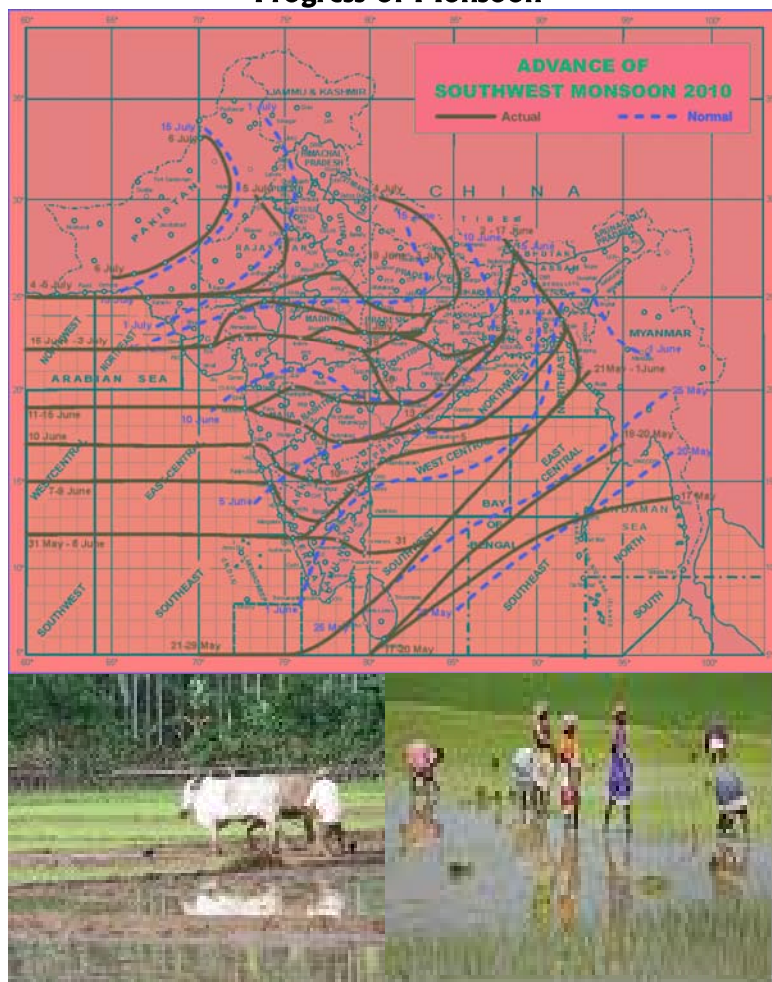
National Agromet Advisory Bulletin

Thursday, 8th July, 2010
(For the period 8th to 12th July, 2010)

Satellite image 6 UTC Dated
9th July, 2010



Progress of Monsoon



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

Status of Progress of Monsoon:

- South-west monsoon has further advanced into remaining parts of Rajasthan, on 6th July, 2010 and thus covering the entire country about 10 days earlier than the normal date.

Numerical Weather Prediction (NWP) Guidance

- A fresh western disturbance may affect Western Himalayan region from 10th onwards.
- Monsoon trough would shift northwards close to foothills of Himalayas after 24 hours.

Weather Outlook (upto 1430 hours IST of 13th July, 2010)

- Increase in rainfall activity over west coast and northwest India.

Distribution of rainfall (% departure from normal) of the districts receiving subdued rainfall due to delayed onset of monsoon in Uttar Pradesh, Bihar, Jharkhand and Madhya Pradesh for last five weeks

Uttar Pradesh					
State/ Districts	09.06.10	16.06.10	23.06.10	30.06.10	07.07.10
More than 3 weeks continuously deficient to no rain					
East Uttar Pradesh					
Allahabad	-100	-100	-100	-81	-89
Ballia	-100	-94	-69	-55	-100
Banda	-100	-100	-100	-83	-30
Barabanki	-100	-22	-100	-82	-54
Basti	-100	-73	-100	-68	-83
Farrukhabad	-100	-100	-100	-100	-53
Fatehpur	-100	-100	-100	-98	-33
Gazipur	-100	-100	-100	-92	-88
Hardoi	-90	-36	-100	-81	-45
Jaunpur	-100	-100	-100	-87	-100
Maharajganj	-98	-89	-64	-40	-90
Mau	-100	-100	-100	-62	-97
Mirzapur	-100	-100	-100	-100	-99
Pratapgarh	-100	-100	-100	-100	-84
RaiBareilly	-100	-100	-100	-89	-88
Sant Ravidas Nagar	-100	-100	-100	-100	-100
Shrawasti	-100	-100	-33	-27	-46
Sidharthnagar	-100	-74	-50	-78	-33
Sitapur	-100	-58	-100	-66	-32
Sonbhadra	-100	-100	-84	-72	-79
Varanasi	-92	-94	-99	-59	-99
West Uttar Pradesh					
Etawah	-100	-100	-100	-83	-21
Firozabad	-45	-100	-100	-82	-28
Ghaziabad	-100	-100	-100	-100	-38
Hamirpur	-100	-50	-100	-66	-78
Jhansi	-72	-80	-100	-54	-47
Lalitpur	-100	-100	-100	-56	-35
Mainpuri	-89	-100	-100	-72	-77
Pilibhit	-100	-92	-100	-53	-47
Shahjahanpur	-100	-57	-100	-85	-52
3 weeks continuously deficient to no rain					
East Uttar Pradesh					
Gorakhpur	-100	59	-57	-44	-84
2 weeks continuously deficient to no rain					
East Uttar Pradesh					
Kushi nagar	-100	-92	-9	-86	-85
Bihar/ Jharkhand					
More than 3 weeks continuously deficient to no rain					
Bihar					
Bhabua	-100	-100	-100	-88	-97
Buxar	-100	-74	-48	-89	-99
East Champaran	-89	-84	-46	-29	-52
Samstipur	-100	-100	-30	-81	-79
Jharkhand					

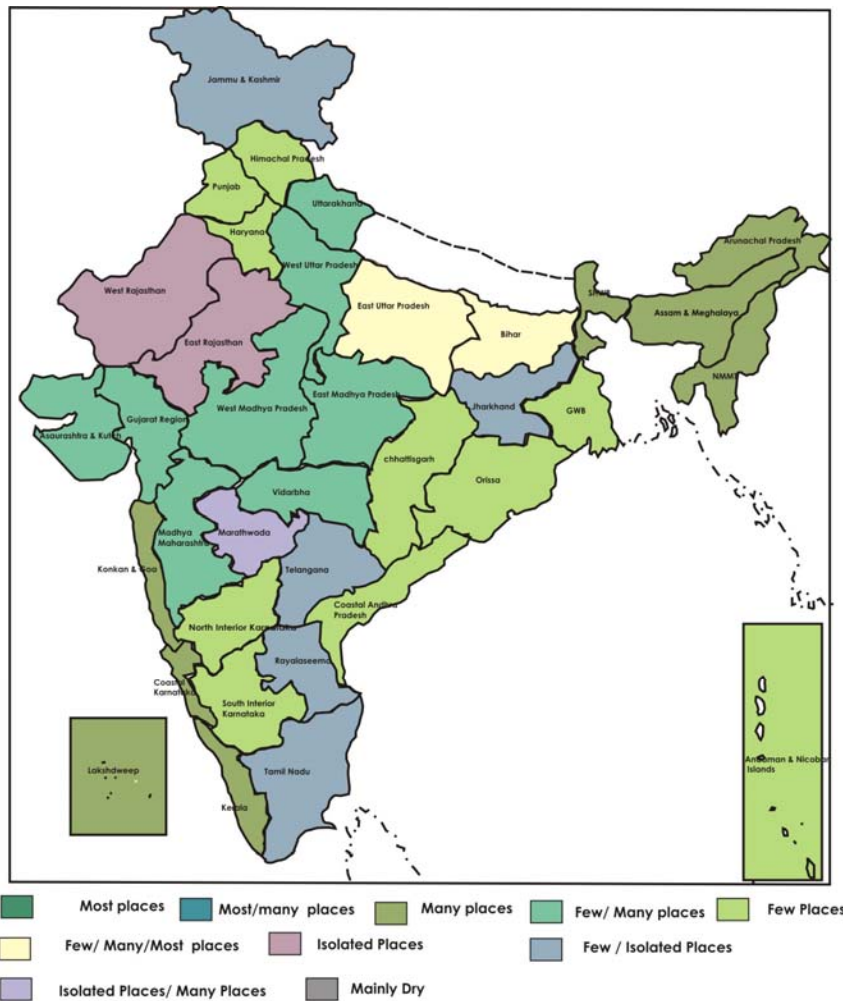
Bokaro	-94	-100	-59	-55	-35
East Singbhum	-96	-60	-57	-94	-70
Lohardagga	**	-93	-20	-75	-62
Palamau	-97	-100	-78	-29	-95
Ranchi	-100	-76	-57	-66	-43
West Singbhum	-100	-86	-39	-72	-68
2 weeks continuously deficient to no rain					
Bihar					
Araria	-100	-97	308	-80	-28
Aurangabad	-100	-53	-19	-70	-85
Bhagalpur	-100	-47	-3	-50	-78
Darbhanga	**	**	113	-41	-75
Khagadia	-100	-95	19	-28	-91
Madhepura	-100	-52	41	-55	-93
Madhubani	-39	-100	-17	-70	-64
Nalanda	-100	-100	30	-26	-53
Jharkhand					
Hazaribagh	-100	-100	75	-57	-99
Madhya Pradesh					
More than 3 weeks continuously deficient to no rain					
East Madhya Pradesh					
Damoh	-100	-84	-95	-91	-22
Dindori	-100	-100	-60	-100	-60
Jabalpur	-95	-88	-75	-41	-51
Katni	-100	-93	-59	-100	-74
Satna	-71	-96	-100	-78	-58
Shahdol	-100	-66	-87	-88	-85
Tikamgarh	-71	-100	-100	-91	-42
West Madhya Pradesh					
Hosangabad	-100	-66	-57	-61	-22
Jhabua	-100	-100	-100	-37	-84
Rajgarh	-100	-24	-90	-97	-36
Sehore	-100	-100	-96	-54	-25
Sheopur Kalani	162	-83	-100	-57	-21
3 weeks continuously deficient to no rain					
West Madhya Pradesh					
Raisen	-95	212	-54	-96	-96

LEGEND

- EXCESS 20% OR MORE
- NORMAL +19% TO - 19%
- DEFICIENT - 20% TO - 59%
- SCANTY - 60% TO - 99%
- NO RAIN - 100%
- ** DATA NOT AVAILABLE

Weather Forecast

(Valid upto 1430 hours of 11th July, 2010)



- Rainfall is likely to occur at many places over North East India, Sub Himalayan West Bengal, Sikkim, Konkan & Goa, Coastal Karnataka, Kerala, Lakshdweep, few places over Gangetic West Bengal, Orissa, Haryana, Chandigarh & Delhi, Himachal Pradesh, Punjab, Chhattisgarh, Coastal Andhra Pradesh, North and South Interior Karnataka and Andaman & Nicobar Islands, at many/few places over West Uttar Pradesh, Uttarakhand, Madhya Pradesh, Vidarbha, Gujarat, Saurashtra, Kutch, Madhya Maharashtra, at a few places over Bihar, East Uttar Pradesh for next 24 hours and increase thereafter, at many/isolated places over Marathwada, at few/isolated places over Jharkhand, Telangana, Jammu & Kashmir, Rayalaseema, Tamil Nadu & Pondicherry, at isolated places over Rajasthan.

Warning

- Isolated heavy rainfall would occur over Konkan & Goa during next 24 hours.
- Isolated heavy to very heavy rainfall would occur over Assam & Meghalaya and Arunachal Pradesh during next 48 hours.

Weekly Summary of Agromet Advisory Services in India

- There is significant improvement in the sowing of *kharif* crops, particularly in central and northern parts of the country.
- Because of relatively subdued rainfall in four states i.e., Bihar, Jharkhand, Madhya Pradesh and Uttar Pradesh, sowing operation was delayed in some districts; however, due to modest rainfall during last couple of days and rainfall is likely to occur in this week, normal sowing will be continued even in these states also.
- Cut off dates for sowing of crops in these States still persist; although, some of the districts particularly in UP and MP, where prolonged dry spell prevailed, contingent planning like thinning of plants and adoption of short duration varieties of rice and alternate crops like maize, yellow gram, soyabean, black gram, green gram and sesame has also been started.
- Farmers are advised to undertake sowing of maize, sesamum, sunflower, groundnut, soybean, castor, black gram, green gram, arhar and vegetables like tomato, cabbage, ladies finger, French bean etc. in Bihar as rain likely to occur during next few days.
- As sowing time of long and medium duration varieties of rice in the nursery is almost over in Bihar and Jharkhand due to poor rain during earlier days, short duration varieties and photosensitive tall local varieties should be sown in the nursery, as soon as possible, in Bihar utilizing expected rainfall likely during next few days and also in Jharkhand using irrigation facilities.
- In view of poor rain in most of the districts of Jharkhand during the season and as there is less possibility of sufficient rain during next few days, farmers are advised to wait for sowing of *kharif* crops like maize, sesamum, sunflower, groundnut, soybean, castor, black gram, green gram, arhar and vegetables, as the cut off dates of sowing of major crops still persists. The cut off dates of sowing of different crops are upto 15th July in the State.
- Farmers are advised to undertake transplanting of rice in North Western Plain zone (Aligarh, Badaun, Bhagpat, Bareilly, Bijnor, Bulandshahar, Farrukhabad, Gaziabad, Jyotiba Phule, Meerut, Moradabad, Muzzaffarnagar, Noida, Pilibhit, Rampur, Saharanpur, Shahajahanpur districts), nursery sowing of short duration and medium duration rice varieties, maize, jowar, pigeon pea + black gram, green gram, groundnut and sesamum in Central Plain Zone (Allhabad, Chitrkut, Fatehpur and Kaushambhi districts) and sowing of black gram green gram, jowar, bajra, groundnut, sesamum and lobia in Bundelkhand zone of Uttar Pradesh utilizing monsoon rainfall during last week.
- As sufficient rainfall received in Madhya Pradesh during last week after long dry spell, farmers are advised to resume land preparation and sowing of crops like sesamum, red gram and other pulse crops in Bhundelkhand Zone and green gram, black gram, red gram and soyabean in Vindya Plateau Zone.
- In other States of the country, where monsoon has reached earlier and performance of rainfall is good, sowing operation is continued normally. For example nursery sowing of *sali* rice in Assam, sowing of *aus* rice in West Bengal and sowing of groundnut in Telengana are almost completed.
- As there was excess rainfall and flooding in Ludhiana, Patiala districts of Punjab, Ambala and Kurukshetra districts of Haryana, farmers in these districts are advised to arrange adequate drainage facilities in the already sown crops to avoid crop damage due to waterlogging.
- Farmers are advised to withhold sowing in Konkan & Goa, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura during next 48 hours in view of likely occurrence of isolated heavy rainfall and continue sowing after that.
- Early sown crops like green gram, black gram, red gram etc. were under moisture stress due to prolonged dry spell conditions prevailed in some parts of Bidar, Raichur, Koppal, Bellary, Dharwad, Gadag and Davanagere districts in Karnataka. Recent rainfall was helpful early sown rainfed crops to recover. Farmers are advised to resume sowing of rainfed crops with recent rainfall.

- Heavy rainfall conditions in Kerala, particularly in Problem Area Zone (Kottayam, Kollam and Alapuzha), damaged crops like rice, banana and vegetable crops. Farmers are advised to drain out excess water to avoid water stagnation and spread of diseases.
- As there was good rainfall in most of the districts during last couple of weeks, farmers are advised to undertake field preparation and nursery sowing / direct sowing / transplanting of rice and also sowing of maize, ragi, cotton, pulses (green gram, black gram, arhar, cow pea, rice bean), oilseeds (groundnut, soybean, sesamum, niger), vegetable crops etc. in Orissa utilizing recent rainfall.
- Farmers are advised to complete wet nursery bed for *aman* rice and start transplanting with 21 – 25 days old seedlings in New Alluvial Zone, Coastal Saline Zone and Laterite and Red Soil Zone and also to complete transplanting of *aus* rice in New Alluvial Zone and direct sowing of *aus* rice in Laterite and Red Soil Zone and to sow arhar and also vegetables like brinjal, okra, pumpkin, bitter gourd, sponge gourd and ridge gourd in upland situation of West Bengal utilizing recent monsoon rainfall as well as rainfall likely to occur during next few days.
- Farmers are advised to transplant *sali* rice and to sow sesame and cotton in Hill zone, to transplant *sali* rice and to sow jute (for seed purpose), pigeon pea and sesame in Lower Brahmaputra Valley Zone, to transplant *sali* rice and to sow sesame in Upper Brahmaputra Valley Zone, to transplant *sali* rice and to sow early semi dwarf Autumn rice and sesame in Barak Valley Zone, to sow *sali* rice in Central Brahmaputra Valley Zone and to sow *sali* rice, sesame and early varieties of cauliflower in North Bank Plain Zone in Assam. As sufficient rain received, farmers are advised to transplant 25 to 30 days old seedlings of *Sali* rice in the main fields.
- In view of rainfall occurred during last few weeks and likely occurrence of rainfall during next few days, farmers in Maharashtra are advised to undertake transplanting of *kharif* rice and sowing of *kharif* crops by selecting improved & high yielding varieties of bajra, groundnut, sunflower, *kharif* cotton, red gram, green gram etc.
- As rain occurred in most of the districts of Saurashtra and Kutch and some districts of Gujarat region and rainfall is also expected over the State during next few days, farmers are advised to undertake sowing of the *kharif* crops like groundnut, cotton, castor, maize, bajra, pigeon pea, soybean, sesamum, green gram and black gram.
- Due to insufficient rainfall in Chhattisgarh, sowing of *kharif* crops was delayed by one week. However, rainfall was received in all the districts except Surguja. Farmers are advised to resume sowing of rainfed crops with recent rainfall. Select early and medium duration rice varieties in lieu of long duration rice varieties.
- Farmers are advised to undertake sowing of bajra, jowar, mung, cluster bean, sesamum and groundnut in Flood Prone Eastern Plain Zone (Alwar, Bharatpur, Dholpur, Karauli, Sawai, Madhopur districts), maize, soybean and mung in Sub Humid Southern Plain and Aravali Hill Zone (Bhilwara, Chittorgarh, Sirohi, Rajasmund districts), sowing of pearl millet, sorghum, maize, green gram, moth bean, cowpea and cluster bean, cucurbits like khira, bottle gourd, ridge gourd, bitter gourd, radish sweet potato, cucumber and nursery sowing for mid season cauliflower in Semi Arid Eastern Plain Zone (Dausa, Ajmer, Tonk, Jaipur districts) in Rajasthan utilizing the monsoon rain during last week.
- Blight in tomato and leaf folder in upland rice in Wokha district and damping off in French bean and blister beetle in okra in Dimapur district in Nagaland have been reported. Apply plant protection measures to control these pests after current spells of rain.
- Due to intermittent rainfall and high temperature prevailing in Coimbatore, Erode and Thiruppur in Tamil Nadu, there are chances of incidences of mealy bug in papaya, tapioca and mulberry. Farmers are advised to be vigil and undertake plant protection measures on a non rainy day to avoid further spread of the pest.

Zonewise Agromet Advisories

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

- **Realised Rainfall:** Rain occurred in all districts in Himachal Pradesh, Fatehgarh Saheb, Hoshiarpur, Jalandhar, Ludhiana, Nawashahar, Patiala, Ropar, Sangrur and Kapurthala districts in Punjab, most of the districts in Haryana, Delhi, Ambedkar nagar, Bahraich, Balrampur, Banda, Faizabad, Fatehpur, Gonda, Shraswati, Sidharthnagar, Sitapur, Sultanpur, Unnao in East Uttar Pradesh, most of the districts in West Uttar Pradesh, all the districts in Uttarakhand and most of the districts in Rajasthan. No significant rainfall occurred in the remaining parts of the region during last week.
- **Rainfall Forecast: Rainfall Forecast:** Rainfall is likely at a few places in Uttar Pradesh during next 24 hours and at many/most places thereafter. Rainfall is likely at a few places during next 48 hours in Uttarakhand and at many places thereafter. Rainfall is likely at a few places in Haryana, Delhi, Punjab and Himachal Pradesh. Either isolated rain or scattered rain will occur over Jammu & Kashmir, West Rajasthan and East Rajasthan during the period.
- **Major Crops:**
 - Vegetables (Sowing/transplanting / vegetative) in Himachal Pradesh.
 - Vegetable crops (flowering / fruiting / harvesting), rice(transplanting/early vegetative), maize, groundnut and sunflower(sowing) in Jammu & Kashmir.
 - Sugarcane (vegetative), rice (transplanting), soybean, jowar, bajra, pigeon pea and ground nut(sowing) in Uttarakhand.
 - Sugarcane (vegetative), cotton, maize (early vegetative), rice (nursery sowing/transplanting), mung, mash(sowing) in Punjab.
 - Sugarcane (vegetative), cotton (early vegetative), rice, guar, bajra(sowing) in Haryana.
 - Vegetable crops (fruiting / harvesting) in Delhi, rice and pigeon pea and maize(sowing)
 - Sugarcane (vegetative), vegetable crops (sowing), black gram, green gram, jowar, bajra, groundnut, sesamum, lobia, maize, pigeon pea + pulses, groundnut and sesamum(sowing) in Uttar Pradesh.
 - Sugarcane(Vegetative), vegetable crops (flowering / fruiting / harvesting), maize, soybean, bajra, jowar, mung, cluster bean, sesamum and groundnut in Rajasthan.
- **Advisory:**
 - As rain occurred in all districts in Himachal Pradesh, Fatehgarh Saheb, Hoshiarpur, Jalandhar, Ludhiana, Nawashahar, Patiala, Ropar, Sangrur and Kapurthala districts in Punjab, most of the districts in Haryana, Delhi, Ambedkar nagar, Bahraich, Balrampur, Banda, Faizabad, Fatehpur, Gonda, Shraswati, Sidharthnagar, Sitapur, Sultanpur, Unnao in East Uttar Pradesh, most of the districts in West Uttar Pradesh, all the districts in Uttarakhand and most of the districts in Rajasthan, postpone irrigation to the crops in these States/districts. In view of no significant rainfall in remaining districts of the States in the region, farmers are advised to apply irrigation to the standing crops.
 - As there was excess rainfall in all the districts of Himachal Pradesh and Uttarakhand, Jalandhar, Ludhiana, Nawashahar, Patiala, Ropar and Sangrur districts of Punjab, Ambala, Bhiwani, Chandigarh, Gurgaon, Jind, Katihal, Karnal, Kurukshetra, Yamunanagar districts of Haryana, Bareilly, Bijnor, Etah, Jotirba Phule Nagar, Mahamaya Nagar, Bareilly, Bijnor, Etah, Jotirba Phule Nagar, Mahamaya Nagar, Meerut, Moradabad and Saharanpur districts in West Uttar Pradesh, Alwar, Baran, Bharathpur, Dholpur, Jhalawar, Sikar, Sirohi, Udaipur and Jalore districts in Rajasthan, farmers in these districts are advised to arrange drainage facilities.
 - Farmers in Delhi are advised to continue nursery sowing of rice and pigeon pea and maize(varieties in Annexure I).
 - Farmers in Delhi are advised to undertake transplanting of rice, tomato, chilli and brinjal and sowing of cluster bean, spinach, amaranthus and ladyfinger.

- Farmers in Mid Hill Sub-tropical Sub-humid zone (Shimla, Solan and Sirmour districts) in Himachal Pradesh are advised to undertake sowing of ladyfinger, brinjal, cucurbits and beans utilizing the monsoon rainfall during last week(varieties in Annexure I).
- Undertake nursery sowing of summer vegetables like brinjal, Shimla mirch, pepper and tomato in rainfed conditions in Sub-Montane and Low Hills Sub-Tropical Zone in Himachal Pradesh(Chamba, Hamirpur, Una and Kangra districts) and undertake sowing of ginger, arbi, amaranthus and turmeric. Also undertake sowing of Rajmash, Ragi, Phafra and amaranthus in high altitude.
- Farmers in Flood Prone Eastern Plain Zone (Alwar, Bharatpur, Dholpur, Karauli, Sawai, Madhopur districts) in Rajasthan are advised to undertake sowing of bajra, jowar, mung, cluster bean, sesamum and groundnut utilizing the monsoon rain during last week(varieties in Annexure I).
- Undertake sowing of maize, soybean and mung in Sub Humid Southern Plain and Aravali Hill Zone (Bhilwara, Chittorgarh, Sirohi, Rajasmund districts) in Rajasthan utilizing monsoon rainfall during last week.
- Farmers in Semi Arid Eastern Plain Zone (Dausa, Ajmer, Tonk, Jaipur districts) in Rajasthan are advised to undertake sowing of pearl millet, sorghum, maize, green gram, moth bean, cowpea and cluster bean. Also undertake sowing of rainy season cucurbits like khira, bottle gourd, ridge gourd, bitter gourd, radish sweet potato, cucumber and nursery for mid season cauliflower.
- In Southern Humid Plain Zone (Banswara district) in Rajasthan, undertake sowing of maize, soybean and cotton utilising monsoon rainfall during last week.
- Farmers in Uttarakhand are advised to continue sowing of soybean(varieties in Annexure I) and gahat utilising the rainfall during last week.
- Farmers in Uttarakhand are advised to undertake transplanting of rice utilizing the monsoon rainfall during the last week. Undertake land preparation and sowing of *kharif* crops like jowar, bajra, pigeon pea and ground nut utilizing the rainfall received during last week.
- Farmers in Sub Tropical Zone (Jammu, Kathua, Reasi) in Jammu & Kashmir are advised to undertake transplanting of rice and vegetables and sowing of maize and groundnut utilizing monsoon rainfall during last week.
- Farmers in Valley Temperate Zone (Srinagar, Anantnag, Kupwara, Budgam districts) in Jammu & Kashmir are advised to undertake sowing of sunflower in rainfed conditions utilizing monsoon rainfall during last week.
- Undertake land preparation in Intermediate Zone (Doda, Rajouri, Udhampur districts) in Jammu & Kashmir for sowing of mash and moong crops utilizing monsoon rainfall during last week.
- Farmers in North Western Plain zone in Uttar Pradesh (Aligarh, Badaun, Bhagpat, Bareilly, Bijnor, Bulandshahar, Farrukhabad, Gaziabad, Jyotiba Phule, Meerut, Moradabad, Muzzaffarnagar, Noida, Pilibhit, Rampur, Saharanpur, Shahajahanpur districts) are advised to start transplanting of rice utilizing the monsoon rainfall during last week, but transplant 3 to 4 plants/hill, if the age of seedlings are more than 30 days old and also reduce distance between rows. Also undertake sowing of soybean.
- Farmers in Central Plain Zone in Uttar Pradesh (Alhabad, Chitrkut, Fatehpur and Kaushambhi districts) are advised to undertake nursery sowing of short duration and medium duration rice varieties utilizing monsoon rainfall during last week. Also undertake sowing of maize, jowar, pigeon pea + black gram, green gram, groundnut and sesamum utilizing monsoon rainfall during last week.
- Farmers in Bundelkhand zone in Uttar Pradesh are advised to undertake sow crops like black gram green gram, jowar, bajra, groundnut, sesamum and lobia utilizing monsoon rainfall during last week.
- Farmers in Punjab are advised to complete transplanting of rice in western zone(Bhatinda, Moga, Muksar, Mansa, sangrur districts), Central Plain Zone (Amritsar, Kapurthala, Fatehgarh Sahib, Ludhiana, Jalandhar districts) and undertake of transplanting of basmati rice varieties in western plain zone (Firozpur and Faridkot districts). Also undertake sowing of mash and moong in western zone.
- Farmers in Haryana are advised to start the sowing of rice and also undertake sowing of guar and bajra in rainfed areas utilizing monsoon rainfall during last week.

- Undertake fertilizer application, spraying and intercultural operations on a non rainy day in Haryana, Delhi, Punjab and Himachal Pradesh as rainfall is likely at a few places in these States and postpone the above mentioned operations in Uttar Pradesh and Uttarakhand as rainfall is likely at many/most places during next five days.

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

- **Realised Rainfall:** Araria, East Champaran, Kathihar, Kishanganj, Monghyar, Purnea, Saharsha, Saran, Supaul and West Champaran districts of Bihar, Bokaro, Gumla and Ranchi districts of Jharkhand, Howrah, East Midnapore, Nadia, 24 Pargana (N), 24 Pargana (S) and West Midnapore districts of Gangetic West Bengal, all the districts of Sub-Himalayan West Bengal except Dinajpur (S), all the districts in Orissa and Sikkim received good rainfall during last week. Many of the remaining districts of Bihar, Jharkhand and Gangetic West Bengal also received some rain during last week. No significant rain occurred over remaining parts of the region.
- **Rainfall Forecast:** Rain is likely to occur at many places in Sub Himalayan West Bengal and Sikkim, at a few places in Orissa and Gangetic West Bengal and at isolated or at a few places in Jharkhand during the period. Rain is likely to occur at a few places during next 24 hours, at many places after that upto 48 hours and at most places thereafter in Bihar.
- **Major Rabi Crops:**
 - Rice, maize, sesamum, sunflower, groundnut, soybean, castor, black gram, green gram, arhar and vegetables like tomato, cabbage, ladies finger, French bean etc. (land preparation / sowing) in Bihar and Jharkhand.
 - Rice (nursery sowing / direct sowing) and maize, groundnut, pulses, soybean, sesamum, ragi, cotton, vegetable crops (sowing / germination) in Orissa.
 - Sugarcane (vegetative), vegetable crops (vegetative / flowering / fruiting / harvesting), jute (vegetative), *aus* rice (transplanting / early tillering), *aman* rice (nursery sowing / transplanting), pulses and vegetables (sowing / germination) in West Bengal.
 - Large cardamom (capsule formation / transplanting of suckers from nursery), orange (transplanting of seedling from nursery / early fruiting), seed potato and summer potato (tuberization), maize (tasseling & silking / flowering & cob filling / cob harvesting), *kharif* vegetable and off season vegetables (late vegetative / harvesting), ginger (early vegetative / vegetative), rice (Medium Hills) (early tillering), rice (Low Hills) (transplanting / early tillering) in Sikkim.
- **Advisories:**
 - As rain is likely to occur at many places in Sub Himalayan West Bengal and Sikkim during the period and after 24 hours onwards in Bihar, postpone intercultural operation, irrigation and application of plant protection measures and fertilizer to the standing crops in these regions.
 - As there was no significant rain in most of the districts of Jharkhand during last few weeks and sufficient rain is not likely to occur during next few days, apply irrigation to the standing crops.
 - As there was good rainfall in most of the districts during last couple of weeks, farmers are advised to undertake field preparation and nursery sowing / direct sowing / transplanting of rice and also sowing of maize, ragi, cotton, pulses (green gram, black gram, arhar, cow pea, rice bean), oilseeds (groundnut, soybean, sesamum, niger), vegetable crops etc. in Orissa utilizing recent rainfall.
 - Farmers are advised to undertake sowing of maize, sesamum, sunflower, groundnut, soybean, castor, black gram, green gram, arhar and vegetables like tomato, cabbage, ladies finger, French bean etc. in Bihar as rain likely to occur during next few days.
 - As sowing time of long and medium duration varieties of rice in the nursery is almost over in Bihar and Jharkhand due to poor rain during earlier days, short duration varieties and photosensitive tall local varieties should be sown in the nursery, as soon as possible, in Bihar utilizing expected rainfall likely during next few days and also in Jharkhand using irrigation facilities.

- In view of poor rain in most of the districts of Jharkhand during the season and as there is less possibility of sufficient rain during next few days, farmers are advised to wait for sowing of *kharif* crops like maize, sesamum, sunflower, groundnut, soybean, castor, black gram, green gram, arhar and vegetables, as the cut off dates of sowing of major crops still persists. The cut off dates of sowing of different crops are upto 15th July in the State.
- Farmers are advised to complete wet nursery bed for *aman* rice and start transplanting with 21 – 25 days old seedlings in New Alluvial Zone, Coastal Saline Zone and Laterite and Red Soil Zone and also to complete transplanting of *aus* rice in New Alluvial Zone and direct sowing of *aus* rice in Laterite and Red Soil Zone and to sow arhar and also vegetables like brinjal, okra, pumpkin, bitter gourd, sponge gourd and ridge gourd in upland situation of West Bengal utilizing recent monsoon rainfall as well as rainfall likely to occur during next few days.
- Also start planting of fruit crops like coconut, mango and guava in Coastal Saline Zone of West Bengal.
- Recommended varieties of major crops to be sown in different States of the region are mentioned in Annexure I.
- Due to cloudy weather and high humidity, attack of fruit rot fungus may be prevalent in pointed gourd in New Alluvial Zone of West Bengal. Remove the infected fruits from the land. Spray Blitox (4 g per litre of water) or Blue-copper oxide on a non-rainy day.

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

- **Realised Rainfall:** Rainfall occurred in most of the districts of the states in the region during last week.
- **Rainfall Forecast:** Rainfall is likely to occur at many places in the region during the period along with isolated heavy to very heavy rainfall over Assam, Meghalaya and Arunachal Pradesh during next 48 hours.
- **Major Crops:**
 - Vegetables (flowering / fruiting / harvesting), sugarcane (cane development), maize, jute, mesta (vegetative), *sali* rice (nursery sowing / transplanting), *ahu* rice (transplanted summer rice) (panicle initiation) and arhar, cotton and sesamum (sowing) in Assam.
 - *Jhum* / WRC rice, pulses, sesame and vegetables (sowing) and maize (sowing / vegetative) in Arunachal Pradesh.
 - Upland rice (tillering), *aman* rice (nursery sowing / transplanting) and vegetables like pumpkin, ridge gourd, cucumber, ladies finger (sowing / vegetative) in Tripura.
 - *Sali* rice and transplanted *ahu* rice (transplanting), arhar and potato (sowing / planting), ladies finger, bottle gourd, pumpkin, ridge gourd, cucumber, bitter gourd, snake gourd etc. (sowing / germination), tomato, chilli and brinjal (transplanting) and maize (vegetative) in Meghalaya.
- **Advisory:**
 - As there was rainfall during last few weeks in most of the districts of this region and there is also possibility of rain / thundershower at many places over the region during the period, postpone irrigation, intercultural operation, application of fertilizers and plant protection measures to maize, sugarcane, jute, green gram, black gram, ginger, turmeric and vegetable crop fields. As there is possibility of isolated heavy to very heavy rainfall over Assam, Meghalaya and Arunachal Pradesh during next 48 hours, arrange for draining out excess water from the fields of these crops.
 - Farmers are also advised to withhold sowing and transplanting in Assam, Meghalaya and Arunachal Pradesh in view of likely heavy to very heavy rainfall during next 48 hours.
 - Farmers are advised to transplant *sali* rice and to sow sesame and cotton in Hill zone, to transplant *sali* rice and to sow jute (for seed purpose), pigeon pea and sesame in Lower Brahmaputra Valley Zone, to transplant *sali* rice and to sow sesame in Upper Brahmaputra Valley Zone, to transplant *sali* rice and to sow early semi dwarf Autumn rice and sesame in Barak Valley Zone, to sow *sali* rice in Central Brahmaputra Valley Zone and to sow *sali* rice, sesame and early varieties of cauliflower in North Bank Plain Zone in Assam. As sufficient rain received, farmers are advised to transplant 25 to 30 days old seedlings of *Sali* rice in the main field at a spacing of 15 x 20 cm.

- Farmers of chronically flood affected areas of Upper and Central Brahmaputra Valley Zone and North Bank Plain Zone in Assam may prepare nursery beds with suitable rice varieties which can withstand flood for several days.
- Farmers are advised to start preparatory tillage for cultivation of early semi dwarf autumn rice under medium land situation in Assam as sufficient rainfall occurred during last fortnight.
- Farmers in Arunachal Pradesh are advised to undertake sowing of *jhum* / WRC rice, maize, vegetable crops like ridge gourd, bitter gourd, bottle gourd, pumpkin, okra, etc. and pulses like black gram, green gram, French bean, etc. and sesame.
- Recommended varieties of major crops to be sown in different States of the region are mentioned in Annexure I.
- Farmers are advised to drain out excess water from green gram and black gram crop fields immediately as the crop can not withstand stagnant water.
- Farmers in Assam should provide proper support and drain out excess water to reduce the probable damage to fruit crops like papaya and banana due to high wind speed.
- Due to higher relative humidity, the citrus plants may be infested by 'Gummosis' disease in Hill zone and North Bank Plain Zone in Assam. The affected portion should be cleaned nicely and washed with 'potash water' and Bordeaux mixture. As preventive measure draining out of excess water from the area is essential.
- As there is chance of infestation of stem borer in sugarcane crop in Upper Brahmaputra Valley Zone in Assam due to cloudy sky, continuous light to moderate rainfall, high humidity, make frequent visits to the field to destroy the egg masses. Stem borer infestation may also be checked by burying or burning the infested canes. Postpone application of chemical pesticides as there is chance of getting rainfall during next 5 days.
- Blight in tomato and leaf folder in upland rice in Wokha district and damping off in French bean and blister beetle in okra in Dimapur district in Nagaland have been reported. Apply plant protection measures to control these pests after current spells of rain.
- In present weather conditions, to prevent skin infection in Arunachal Pradesh, animals should be washed with neem leaf extract. Neem leaf extract can be prepared by soaking crushed neem leaves overnight in a container.

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

- **Realised Rainfall:** All the districts in Kerala, Andhra Pradesh except Anantapur, Chittoor, Cuddappah districts, Bidar, Gulbarga, Raichur, Chikmagalur, Chitradurga, Davagare, Kodagu and Shimoga districts in Karnataka and Coimbatore and Nilgiris in Tamil Nadu received rainfall during last week.
- **Rainfall Forecast:** Rain is likely to occur at many places over Kerala and Coastal Karnataka and at a few places over South Interior Karnataka, North Interior Karnataka, Coastal Andhra Pradesh during next three days. Rain is likely at a few places over Telangana, Rayalaseema and Tamil Nadu for the next 24 hours and isolated thereafter.
- **Major Crops:**
 - *Kharif* crops viz., cotton, rice, groundnut, red gram, castor, etc. (sowing) in Andhra Pradesh. Early sown crops are at early vegetative stage.
 - *Kharif* crops viz., red gram, ragi, green gram, black gram, jowar, soybean, maize and groundnut (sowing) and sugarcane (cane development) in Karnataka. Early sown crops are at early vegetative stage.
 - *Virippu* rice (early vegetative/vegetative), bhindi (sowing), upland rice (sowing), coconut, cashew, ginger and turmeric (planting) and plantation crops (coconut, arecanut, pepper and cashew – various stages) in Kerala.
 - *Kuruvai* rice (early vegetative), green gram and groundnut (flowering), maize (cob formation) and sorghum (milking) in Tamil Nadu.

➤ **Advisories:**

- Early sown crops like green gram, black gram, red gram, etc were under moisture stress due to prolonged dry spell conditions prevailed in some parts of Bidar, Raichur, Koppal, Bellary, Dharwad, Gadag and Davanagere districts in Karnataka. Recent rainfall was helpful early sown rainfed crops to recover. Farmers are advised to resume sowing of rainfed crops with recent rainfall
- Heavy rainfall conditions prevailed in Kerala particularly in Problem Area Zone (Kottayam, Kollam and Alapuzha) damaged crops like rice, banana and vegetable crops. Farmers are advised to drain out excess water to avoid water stagnation and spread of diseases.
- Rain is likely to occur at many places over Kerala and Coastal Karnataka, farmers are advised to postpone irrigation to plantation crops and vegetable crops.
- As there was rainfall in all the districts of Andhra Pradesh except Anantapur, Chiththoor, Cuddappah districts, Bidar, Gulbarga, Raichur, Chikmagalur, Chitradurga, Davangare, Kodagu and Shimoga districts in Karnataka and Coimbatore and Nilgiris in Tamil Nadu, farmers are advised to postpone irrigation to standing crops.
- Farmers are advised to undertake sowing of red gram and ragi in Eastern Dry Zone, green gram, black gram, soybean and pigeonpea in North East Transition zone and rice, cotton, maize and ginger in Southern Transition Zone in Karnataka utilizing the monsoon showers.
- Taking advantage of rains received at most of the places during last week, farmers are advised to undertake sowing of green gram, red gram, bajra and sesamum, navane in North Dry Zone (Bijapur), rice (drill sown), maize and soybean and groundnut in North Transition Zone (Belgum, Haveri, Dharwad) in Karnataka.
- Farmers in North Transition Zone are also advised to undertake contingent measures like thinning, gap filling, re-sowing and conserving soil moisture if prolonged dry spell occurs (15-20 days) after sowing.
- As sufficient rainfall received during last week, farmers are advised to undertake sowing of rice in nursery/transplanting in main field in Coastal Zone (Udupi and Dakshi Kannada) and sowing of groundnut, sunflower, redgram, maize and jowar in Hill Zone (Devangere, Chitradurga, Kodagu, Tumkur) in Karnataka.
- Farmers in Southern Telangana Zone (Medak, Nalgonda, Rengareddy and Warrangal) of Andhra Pradesh are advised to undertake sowing of jowar, green gram, groundnut, redgram and castor. Farmers in Southern Telangana Zone are advised to continue nursery sowing of short and medium duration rice varieties and sowing of bhendi, bitter gourd, ridge gourd, bottle gourd, snake gourd and cotton with monsoon showers received in the region. Farmers in Anantapur and Kurnool are advised to continue sowing of groundnut (varieties in Annexure I) with groundnut planter to cover more area.
- Farmers in Krishna Godavari Zone (West Godavari, Guntur, Krishna and Prakasam districts) are advised to undertake sowing of pulse crops like green gram and black gram and nursery sowing of rice with the rains received(varieties in Annexure I). Farmers in Guntur may start land preparation and sowing of cotton during second fortnight of June to second fortnight of July and short duration rice varieties in the nursery.
- As sufficient rainfall was received in remaining parts of Andhra Pradesh, farmers are advised to continue sowing of kharif crops like rice in the nursery, pulse crops, groundnut, etc.
- As high wind speed is expected in Hill Zone of Karnataka, farmers are advised to provide mechanical support to banana and sugarcane crops to prevent from lodging.
- Farmers are advised to undertake planting of coconut and cashew in Northern Zone, planting of ginger and turmeric in Central zone and transplanting of chilli and brinjal in Southern zone in Kerala utilizing the monsoon showers.
- Temperature coupled with intermittent rainfall favours the development of mites in citrus in Hill Zone of Karnataka. Undertake spraying of Diofol (2.5ml/lit) on a non rainy day
- Prevailing weather conditions are congenial for the incidence of white fly in sugarcane and sucking pests in vegetables in Southern Telangana Zone. Undertake plant protection measures on a non rainy day to control the pests.

- Due to intermittent rainfall and high temperature prevailing in Coimbatore, Erode and Thiruppur in Tamil Nadu, there are chances of incidences of mealy bug in papaya, tapioca and mulberry. Farmers are advised to be vigilant and undertake plant protection measures on a non-rainy day to avoid further spread of the pest.
- Prevailing humid and cloudy conditions in Problem Area Zone in Kerala are congenial for the incidences of Sigatoka leaf spot in banana and bacterial and Fusarium wilt in cowpea. Undertake plant protection measures after current spells of rain.

Animal husbandry:

- Prevailing weather conditions are congenial for the occurrence of Hemorrhagic Septicemia, Foot and mouth disease in cattle, ET and sheep pox in sheep and Ranikhet disease in poultry in Andhra Pradesh. To prevent the diseases, vaccinate the animals at the earliest.
- Vaccinate the livestock against Foot and mouth disease (FMD vaccination), Hemorrhagic Septicemia, Black Quarter. Vaccinate sheep and goats against Enterotoxaemia (ET vaccine) in Karnataka.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Most of the districts of Maharashtra State (Except Pune, Sangli & Satara districts of Madhya Maharashtra) and Saurashtra and Kutch and also Broach, Daman, Navsari, Surat and Valsad districts of Gujarat region received rain during last week. Many of the remaining districts of Gujarat region also received some rain during last week. No significant rain occurred in remaining parts of the region.
- **Rainfall Forecast:** Rain is likely at many places in Konkan and Goa along with isolated heavy rainfall during next 24 hours. Rain is likely at many places during next 24 hours over remaining parts of the region and decrease thereafter.
- **Major Crops:**
 - *Kharif* rice (nursery sowing / germination in East Vidarbha and seedling / transplanting in South Konkan, Kolhapur, Nashik and Pune (western parts) divisions), jowar (germination), soyabean, bajra, cotton, sunflower and groundnut (sowing / germination / early vegetative), red gram and moong (sowing / germination) and irrigated cotton (early vegetative / vegetative) in Maharashtra.
 - Gujarat: Rice, groundnut, cotton, castor, maize, bajra, pigeon pea, soybean, sesamum, green gram and black gram (land preparation / sowing / germination / early vegetative).
- **Advisory:**
 - As rain is likely to occur in Konkan and Goa at many places along with isolated heavy rain during next 24 hours, postpone irrigation intercultural operation and application of fertilizer and plant protection measures to the crops. Also withhold sowing operation for 24 hours and arrange for draining out excess water from the fields to avoid water stagnation.
 - As rain is likely to occur in most of the remaining districts of the States in this region during next 24 hours, postpone irrigation, intercultural operation and application of fertilizer and plant protection measures to the crops. Start these operations in these districts after 24 hours again.
 - In view of rainfall occurred during last few weeks and likely occurrence of rainfall during next few days, farmers in Maharashtra are advised to undertake transplanting of *kharif* rice and sowing of *kharif* crops by selecting improved & high yielding varieties of bajra, groundnut, sunflower, *kharif* cotton, red gram, green gram etc.
 - As rain occurred in most of the districts of Saurashtra and Kutch and some districts of Gujarat region and rainfall is also expected over the State during next few days, farmers are advised to undertake sowing of the *kharif* crops like groundnut, cotton, castor, maize, bajra, pigeon pea, soybean, sesamum, green gram and black gram.
 - Recommended varieties of major crops to be sown in different States of the region are mentioned in Annexure I.
 - Due to favourable weather condition, there is possibility of attack of mealy bug on irrigated cotton crop in Madhya Maharashtra; for control apply *Metavyrazium anasoli* or *Verticillium leconii* 4 g per litre of

water along with 1 g detergent powder. If there is more incidences, spray Dimethoate 30% @ 10 ml or Methyl Dimeton 25% @ 25 ml or Dichlorovos 76% @ 1 ml or Chloropyrifos @ 20 ml or Acitaprid 20% @ 20 g per 10 litres of water.

- Due to cloudy and high humid weather, there is possibility of infestation of 'buckeye' disease in tomato in Maharashtra, spray Metalaxyl MZ @ 2 g per litre of water along with sticker.
- Apply plant protection measures after current spells of rain in Konkan & Goa and from 24 hours onwards on a non rainy day in remaining parts of Maharashtra.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Rain occurred over all the districts of Madhya Pradesh except Katni, Shahdol, Indore, Jabua, Raisen and Ratlam and all the districts in Chhattisgarh except Surguja district during the period.
- **Rainfall Forecast:** Rain is likely at many places over Madhya Pradesh for the next 24 hours and at a few places thereafter; at a few places over Chhattisgarh for the next three days.
- **Major Crops:**
 - *Kharif* crop like soyabean, maize, sorghum, green gram and black gram (sowing) in Madhya Pradesh. Early sown crops are at germination/pre-emergence stage.
 - *Kharif* crops like black gram, green gram, soyabean, maize, etc (sowing), Rice (nursery sowing) and Sugarcane (cane development) in Chhattisgarh. Early sown crops are at germination/pre-emergence stage.
- **Advisory:**
 - Due to insufficient rainfall in Chhattisgarh, sowing of *kharif* crops was delayed by one week. However rainfall was received in all the districts except Surguja. Farmers are advised to resume sowing of rainfed crops with recent rainfall. Select early and medium duration rice varieties in lieu of long duration rice varieties.
 - Farmers are advised to continue land preparation and sowing of *kharif* crops like soybean, maize, sorghum etc. in Malwa Plateau Zone (varieties in Annexure I) and transplanting of brinjal, tomato, chilli, etc in Satpura Hill Zone and Jabua Hills Zone in Madhya Pradesh utilizing the monsoon rainfall.
 - As sufficient rainfall received in Madhya Pradesh during last week after long dry spell, farmers are advised to resume land preparation and sowing of crops like sesamum, red gram and other pulse crops in Bhundelkhand Zone (Tikamgarh, Chattarpur, Datia) and green gram, black gram, red gram and soyabean in Vindya Plateau Zone (Bhopal, Sehore, Vidisha) (varieties in Annexure I).
 - Postpone intercultural operations and application of fertilizers and pesticides in Madhya Pradesh as rain is likely at many places.
 - Farmers in Chhattisgarh Plain and Bastar Plateau Zones are advised to continue field preparation and sowing of rice in nursery / transplanting in the main field. Farmers in the upland of these zones are advised to continue sowing of soybean, groundnut, sesame, pigeon pea (varieties in Annexure I). Also undertake sowing of bottle gourd, okra, snake gourds, bitter gourd in the main field as sufficient rainfall received during last week.

Annexure I

Delhi

Rice: Hybrid varieties- KRH 2, PHB 71, Arich 6444, Pant hybrid Dhan1, Narendra hybrid Dhan 1 and PRH 10; High yielding varieties - Pusa Sughand 5, Pusa Improved Basmati, Pusa 44, Pusa Sughand 4, Pant Dhan 10, Pant Dhan 4, Narendra Dhan 359, Pusa 834, Ranvir Basmati and Taravadi Basmati.

Pigeon pea: Pusa 2001, Pusa 991 and Pusa 992, Paras, Manak and UPAS 120

Uttarakhand

Soybean: Brag, PK-262, PK-327, VL Soya-2 and VL Soya-21, Pant Soybean-1024, Pant Soybean-1042, Pant Soybean-1092, Pant Soybean-1347

Ghagat: VLG-1

Jammu & Kashmir

Rice: Jaya, RR-8585, PC-19, IET-1410 and Ratna

Groundnut: Punjab No.1, M-13 & JL-24

Maize: GS-2, super composite, mansar, C-6, C-8 and local varieties

Uttar Pradesh

Rice: Taravadi, Bansmati, Bansmati-370, Pant-15 & Pusa Bansmati-1, Pusa-1121, Sugandh-4, Narendra 118, Narendra-97, Ashwini, Saket-4, Pantdhan-12, Govind, Ratna, Saket-4, Pant-10, 12, Narendra-118, Ashwini, Manhor & Narendra-80

Groundnut: Type-64, Chandra, Kaushal, Prakash & Amber

Soybean: Pant soyabean-1024, Pant Soyabean-1092, PK-262, PK-472, PK -416, PS -564

Jowar: Hybrid: Vasha, CSH-16, CSH-9, CSH-14, Sankul: CSV-13, CSV-15, Bundela, CSV-13, CSV-15, CSV-17

Maize: Hybrid: Ganga-2, Ganga-1, Sankul: Navin, Kanchan, Sweta, Azad, Surya, Uttam, Desi:Meerut Pili.

Bajra: Hybrid: Pusa-322, Pusa-23, ISMH-451, Sankul: ICMV-155, WCC-75, ICTP-8203, Raj-171, Desi: Mainpuri

Pigeon pea : Bahar, Narendra arhar, Azad, malviya vikas, malviya chatmatkar

Black gram: Azad- 1 & 2 , Uttra, Narendra, urd -1, Pant urd-31

Green gram : Samrat, Narendra moong-1, T-44

Sesamum: Shekhar, Pragati

Punjab

Rice: PR-120, PR-118, PR-116, PR-114, PR-111 and PR-113

Rajasthan

Maize : Him – 129, Aravali Makka, PEHM-1, PEHM- 2, Pratap Makka-1, Pratap Makka-3, Pratap Makka-5

Jowar : CSV – 15, CSV – 17, Pratap Jowar – 1430, CSH – 13, CSH – 14, CSH-16

Soybean : JS–335, MACS–13, PK – 472, MACS–58, PS – 16, JS – 71 – 05, Pratap Soya-1

Moong : K 851, RMG – 62, K – 851, Pusa Baisakhi, RMG 268 and Ganga

Urd : Krishna, T – 9, PU – 19 and Barkha.

Pearmillet: Pusa 334, Pusa 383, HHB 67, HHB 94, Raj 171, ICMH 356, ICTP 820 and RHB 121

Cleaster bean: RGC 936, RGC 986, RGC 1002, RGC 1003, RGC 1017, M83 and HG 365

Sesamum: Pratap,TC 25, RT 46, RT 54, RT 103, RT 125 and Tt 13

Ground nut: GG 2, GG 7, HNG 10, Prakash and M 13

Radish: Pusa Chetki

Cauliflower: Improved Japanese, Pusa hybrid-2 & Himjoyti

Assam

Sali rice: Ranjit, Bahadur, Vasundhara, Kushal, Piyoli, Moniram, Rangali, Bhogali, Ketkijaha etc. (Long duration), Satya and Basundhara (medium duration).

Rice for flood affected areas: Jalashree, Plaban, Jalkonwari.

Red gram: T-21.

Sesamum: AST-1, Madhavi, Vinayak, Punjab Til -1, Gauri, SG 1981, RT-1 etc.

Cotton: J-34, MCU-1, MCU-4, Khaki etc.

Jute (for seed purpose): Tarun.

Early varieties of cauliflower: Pusa Keteki, Pusa Dipalee, Early Kowari, Jowahar Moti etc.

Bihar

Rice:

Short duration varieties: Pusa 2-21, IR-36, Saket, Prabhat.

Photosensitive tall local varieties: Katarni, Kamini, Sugandha, Tulsi Munjari etc.

Kharif maize: Ganga -11, Shaktiman 1, 2, Devki and Suwan etc.

Jharkhand

Rice:

Medium land: IR – 36, IR – 64, Rajendra Dhan 202, Kanak, Sugandha, Lalat, BR 10, Birsa Vikar Sugandh Dhan 2, Birsa Vikas Dhan 203, Birsamati, Pro Agro 6444, Birsa Dhan 202, Rajshree etc.

Low land: Birsa Dhan 202, Rajshree, Suvarna (MTU 7029), Sambha Mahsoori (BPT 5204).

Kharif maize: Suwan Composite – 1, HQMP – 1, Birsa Makai – 1, Kanchan, Birsa Vikas–2 etc.

Black gram: T-9, PU-19.

Green gram: K-851, Pusa Vishal.

Groundnut: Birsa Groundnut 2, 3, Verginia, BAU 13.

Soybean: Birsa Soybean, JS 335, Birsa safed soybean 2.

Arhar: Birsa Arhar 1, Bahar.

Orissa

Rice:

Up land: Khandagiri, Vandana, ZHU XI-26, Parijat, Annada, Heera.

Medium land: Lalat, Konark, Surendra, Naveen, Swarna, Kharavela, Pratikhya, MTU-1001 and Geetanjali (aromatic rice).

Low land: Mahanadi, Moti, Indravati and aromatic rice like Dubraj and Ketakijoha.

Maize:

Composites: Navjot, Megha, Pratap, Shakti 1, Pragati.

Hybrids: Decan 103, Decan 109, Decan 115, Bio 9681, Pro 311, Ganga II, Cargil 900 M, Cargil 633, Sartaj.

Ragi:

Early varieties: Dibyasinha, VL 149.

Medium varieties: Bhairavi, Subhra, Godavari, Chilika.

Cotton: Bunny, Sri Tulasi, Bhaskar and Atal.

Arhar: Mahak, UPAS 120, Asha, Laxmi, Jagruti, Maruti.

Green gram: PDM-54, HUM 1, TARM 1, TARM 2, K 851, Dhauli.

Black gram: Sarala, Pant U 30, Pant U 35, KU 301, KU 300

Cowpea: SEB 2, FS 68, Swarna, SGL 1.

Soybean: JS-72-44, PK-73-163, T-49, Ankur.

Ground nut: AK-12-24, Kisan, Jawan, Smruti.

Sesamum: Uma, Usha, Prachi, Kanaka, Kalika.

Nizer: GA-10 (Deomali), IGP-76 (Sahayadri).

Brinjal: Utkal madhury, Utkal tarrini, Utkal keshari, Pusa kranti

Chilli: Utkal rashmi, Utkal ava, Pusa jwala, Pant C 1, NP 46A

Tomato: Utkal pallavi, Utkal dipti, Panjab chhuara, Pusa hybrid-1

Onion: N 53, Arka kalyan, Agrifound dark red, Arka pragati

Radish: Pusa chetki, Pusa rashmi, Japanese white.

Cowpea: Pusa barsati, Arka garima, Utkal manik, Pusa dofasali.

West Bengal

Aman rice: IET-4094, 2233, Ratna, Bikash, Kitish, Sasya-shree, IR-42, Swarna, Mashuri, IET-8002, IET-5656, IET-4694, IET-4786, IET-1444, MTU-7029 etc.

Arhar: JSA-59, Pusa-9, Bahar etc.

Coconut: East Coastal, Hazari.

Mango: Himsagar, Bombai, Langra, Amrapali, Mallika.

Guava: Safeda, L-49.

Banana: Joint Governor, Robusta, Kabuli, Mortaman.

Gujarat

Groundnut: GAUG-10, GG-11, GG-12, GG-13, GG-20 for groundnut (spreading), GAUG-1, GG-2, GG-4, GG-5 for groundnut (bunch).

Castor: GAUCH-1, GCH-2, GCH-4, GCH-5.

Maize: GM-3, GM-4, GM-6, Ganga Safed-2, Farm sameri, Narmda Moti.

Bajra: GHB-183, GHB-215, GHB-316, GHB-528.

Green gram: GM-3, GM-4 and K-851.

Black gram: T-9 and GU-1.

Cowpea: Gujarat cowpea-1, 2, 4 and Pusa Falguni.

Pegion pea: BDN-2, GTH-1, GT-100 and GT-101.

Sesamum: GT-2 or GT-3 for sesamum.

Soybean: Guj. Soyabean-1, Guj. Soyabean-2.

Maharashtra

Bajra: Shardha (RHRBH-8609), Saburi (RHRBH-8924) and ICTP-8203.

Groundnut: SB-11, Phule Pragati (JL-24), TG-26, Phule Vyas (JL-220), Phule Unap and TGP-41 for Madhya Maharashtra, Konkan Gaurav and Trombay Konkan (Tapora) for Konkan.

Red gram: ICPL-87, Vipula, B.M.S.R.-853 & BSMR-736 in Madhya Maharashtra.

Cotton: Indian improved varieties AKA-5, 7 and 8, Indian hybrid varieties like PKV DH-1, American improved varieties AKH-081, PKV-Rajat and AKH-8828 for Vidarbha.

Green gram: Vaibhav, Kopergaon-1 and B.P.M.R-145, Jalgaon 781, S-8, PhuleM-2.

Sunflower: EC-68414, Modern, SS-56, K.B.S.H-1, Bhanu, Phule Raviraj.

Andhra Pradesh

Groundnut: K-6, K-9, Narayani etc

Green gram (upland): ML 267, LGG 450, LGG 460, LGG 407, Pusa 105, PDM 54

Black gram: LBG 20, T 9, LBG 623, WBG 26.

Rice: MTU1010, MTU1081, Swarna and BPT 5204 .

Karnataka

Red gram: TTB-7, BRG-1 and Hyd-3C

Ragi: Indaf-8, MR-1

Kerala

Bhundi: Arka anamika and Susthira

Brinjal: Haritha

Chilli: Anugraha

Madhya Pradesh

Paddy:

Early: JR-201, Poornima, JRH-5, JRH-8 (Hybrid)

Medium: IR-36, IR-64, Pusa sugandha-5, MTU-1001, Pusa basmati-1, Mahamaya, Kranti

Late: Syamla, Swarna

Jowar: JJ-741, JJ-938, JJ-1022, JJ-1041 and CSV-15

Arhar: Laxmi, Pragti, Asha, Jagrati, JKM-7 and JKM-189

Soybean: JS-95-60, JS-93-05, JS-97-52, JS-80-21, JS-335, NRC-37

Green gram: K-851, JHawahar moong-721, Pant Moong-4, TJM -3,

Black gram: Pant U 30, RBU – 38, Jawahar Urd-3, JU 86.

Chhattisgarh

Rice:

Matasi soil- Samleshwari, Aditya, Poornima, Annada, Danteshwari.

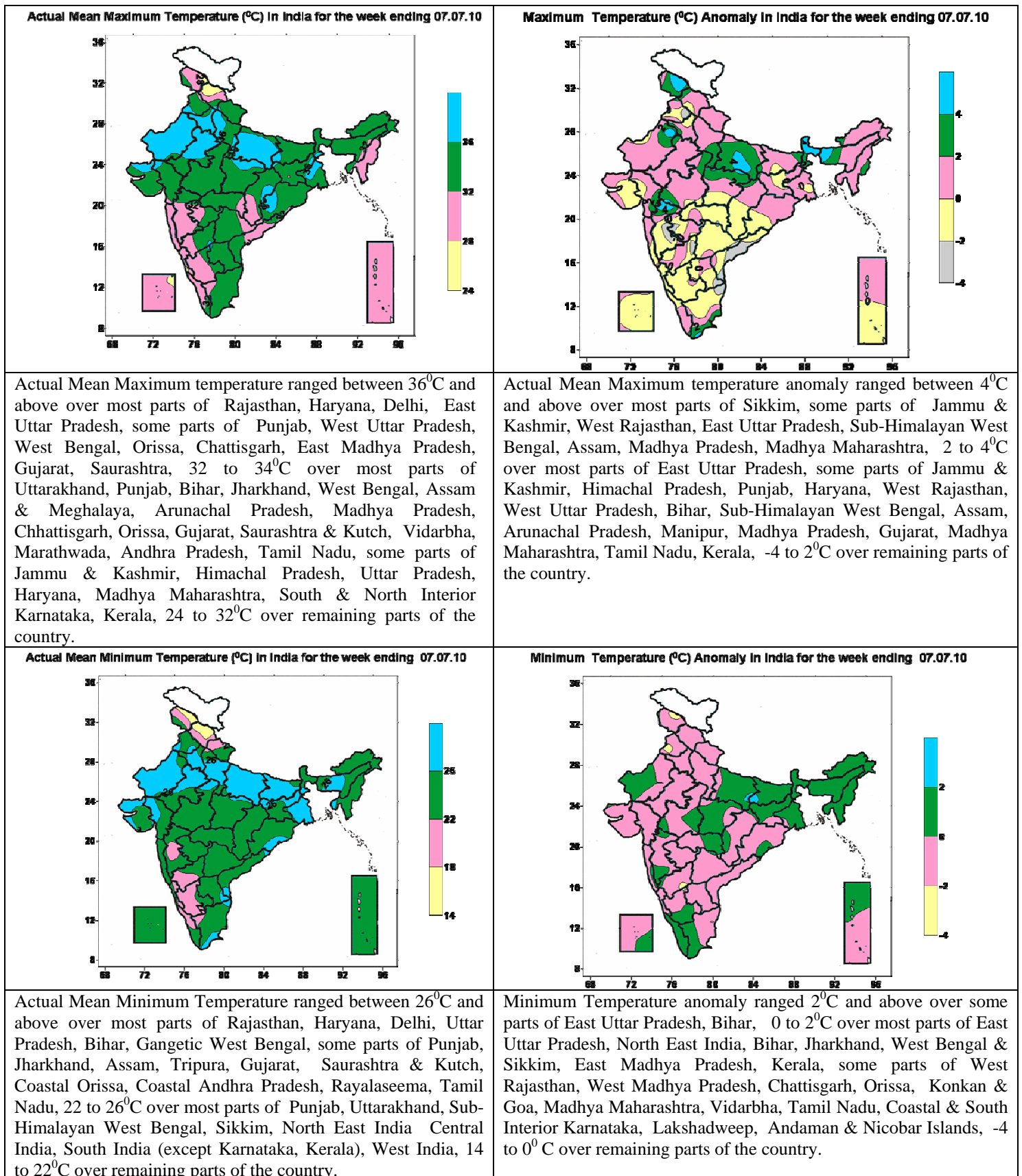
Dorsa soil- MTU 1010, IR – 36, IR-64.

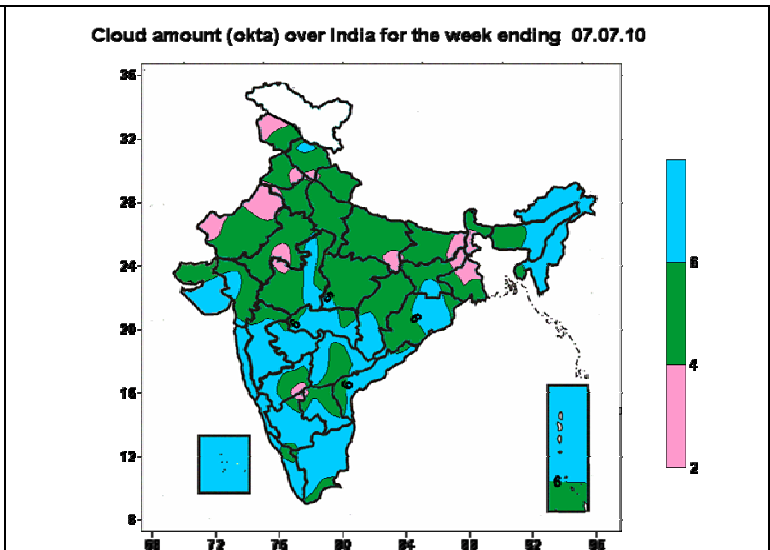
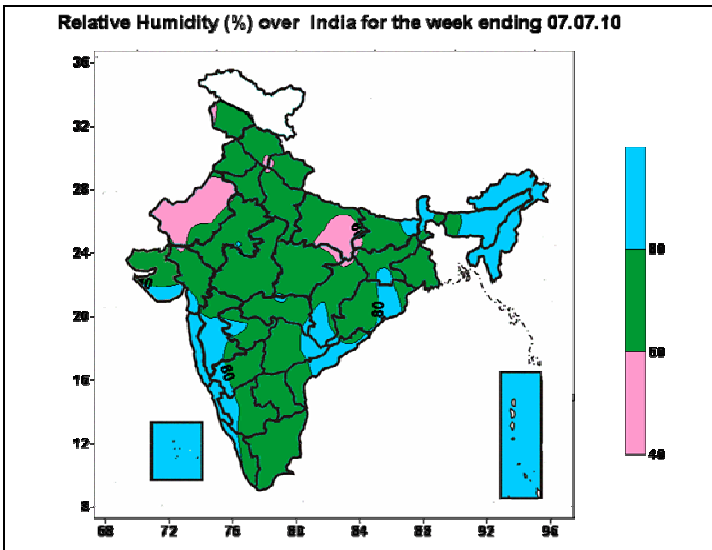
Kanhar soil- Mahamaya, Karma Masuri, MTU 1001, etc.

Soybean: JS 335, Indira, Soya-09, JS 93-05.

Annexure II

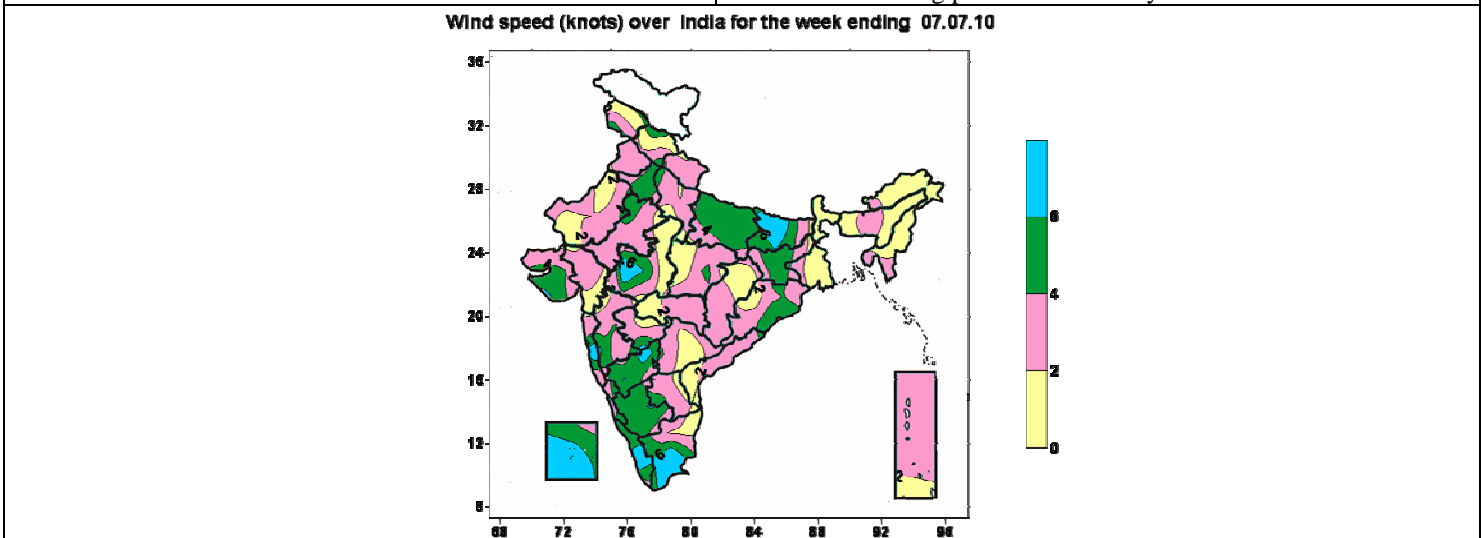
Contour maps for the week ending 07.07.10





Relative humidity between 80% and above over most parts of North East India, Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, Andaman & Nicobar and Lakshadweep Island, some parts of Bihar, Jharkhand, Orissa, Gujarat, Kutch, Marathwada, Vidarbha, Coastal Andhra Pradesh, Telangana, North & South Interior Karnataka, Kerala, 60 to 80% over most parts of North India, East India, Central India, Andhra Pradesh, Tamil Nadu, South & North Interior Karnataka, Kerala, Madhya Maharashtra, Marathwada, Vidarbha, 40 to 60% over remaining parts of the country.

Cloud amount 6 to 8 okta over most parts of North East India, North Orissa, Kutch, Maharashtra, South Chattisgarh, Coastal Andhra Pradesh, South India (except North Interior Karnataka, Telangana, Rayalaseema), some parts of Himachal Pradesh, Jharkhand, Madhya Pradesh, Gujarat, 4 to 6 okta over most parts North India Bihar, Jharkhand, Orissa, Gangetic West Bengal, Sikkim, Madhya Pradesh, Chhattisgarh, Gujarat, Saurashtra, Telangana, Rayalaseema, North Interior Karnataka, some parts of Sub-Himalayan West Bengal, Assam, Tripura, Madhya Maharashtra, Marathwada, Vidarbha, Coastal Andhra Pradesh, South Interior Karnataka, Tamil Nadu, Kerala, Andman & Nicobar Islands, 0 to 4 okta over remaining parts of the country.



Wind speed ranged between 6 knots and above over most parts of Lakshadweep Islands, some parts of Bihar, West Madhya Pradesh, Konkan, North Interior Karnataka, Kerala, Tamil Nadu, 4 to 6 knots over most parts of Haryana, East Uttar Pradesh, Jharkhand, Kutch, North & South Interior Karnataka, Kerala, some parts of Jammu & Kashmir, Himachal Pradesh, West Uttar Pradesh, Rajasthan, Bihar, Orissa, Madhya Pradesh, Saurashtra, Konkan, Madhya Maharashtra, Marathwada, Coastal Karnataka, Rayalaseema, Tamil Nadu, Lakshadweep Islands, 0 to 4 knots over remaining parts of the country.