

National Agromet Advisory Service Bulletin

Friday 11th April 2014

(For the period 11th to 15th April 2014)



Issued by

National Agrometeorological Advisory Service Centre,

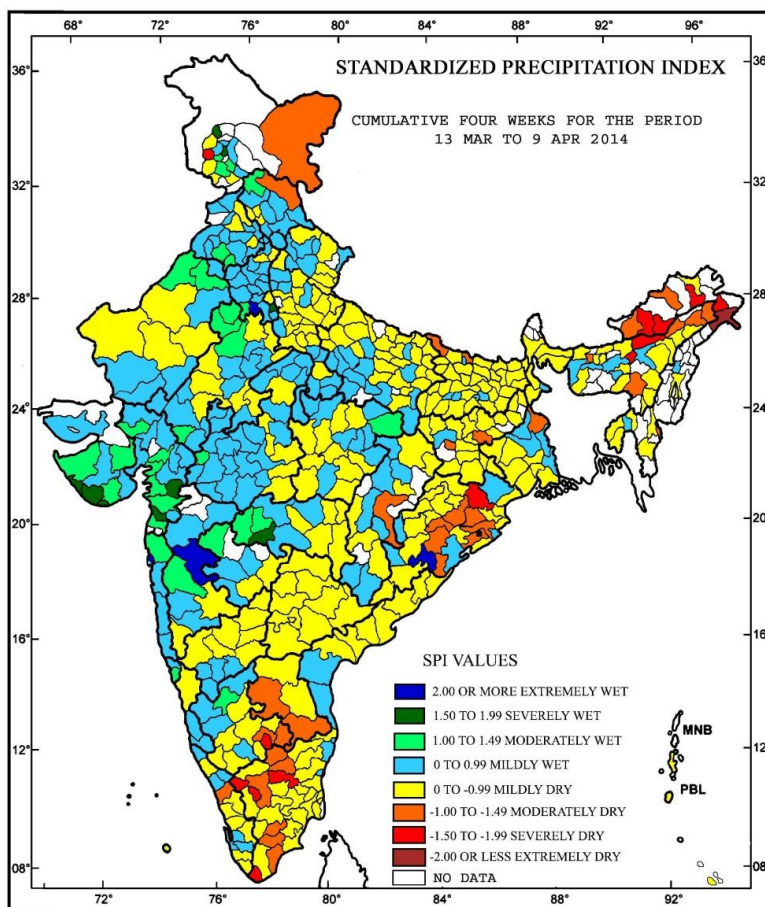
Agricultural Meteorology Division,

India Meteorological Department, Shivajinagar, Pune.



**Standardised Precipitation Index
Four Weekly
for the Period 13 March to 9 April 2014**

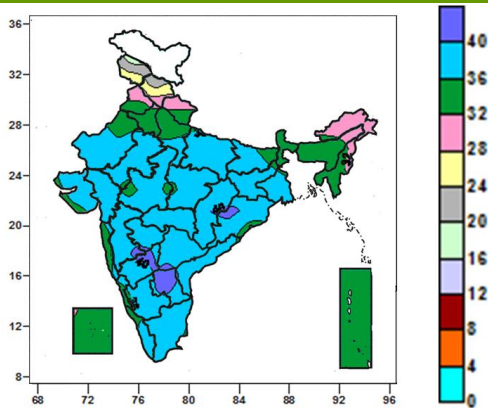
MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE



- Extremely wet/severely wet conditions experienced over Rayagada district of Odisha; Faridabad, Rewari districts of Haryana; Pulwama and Srinagar districts of Jammu & Kashmir; Narmada and Navsari districts of Gujarat; Ahmednagar, Mumbai suburban and Washim districts of Maharashtra.
- Moderately/ severely dry conditions experienced over some parts of North East India, Odisha and Tamil Nadu, Poonch district of Jammu & Kashmir, Lahaul & Spiti district of Himachal Pradesh, West Chamaparan and Sitamarhi districts of Bihar, Murshidabad district of West Bengal, Bokaro and Lohardagga districts of Jharkhand, Raipur district of Chhattisgarh, Bangalore rural, Bangalore Urban and Kolar districts of Karnataka, Chittoor and Anantapur districts of Andhra Pradesh and Mallappuram district of Kerala.
- Rest of the country experienced mild wet/dry conditions.

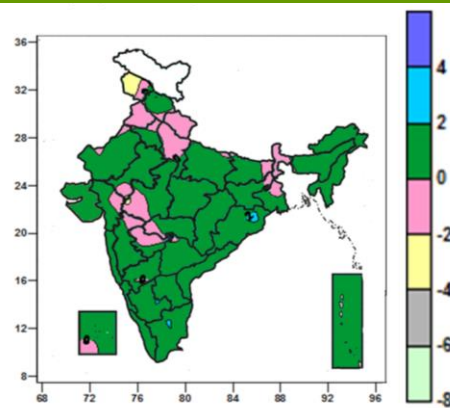
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 09.04.2014

Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 09.04.2014



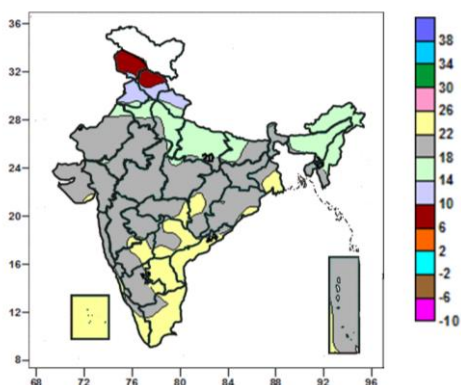
- 40 to 44 $^{\circ}\text{C}$ over many parts of Rayalaseema, some parts of Telangana, North Interior Karnataka, Madhya Maharashtra, Marathwada, Odisha, Chhattisgarh.
- 32 to 40 $^{\circ}\text{C}$ over all parts of country except many parts of Himachal Pradesh, Jammu & Kashmir, Arunachal Pradesh, Rayalaseema, some parts of Telangana, North Interior Karnataka, Madhya Maharashtra, Marathwada, Odisha, Chhattisgarh, Punjab, Uttarakhand, Assam & Meghalaya, Manipur.
- 24 to 32 $^{\circ}\text{C}$ over many parts of Himachal Pradesh, Arunachal Pradesh, some parts of Punjab, Uttarakhand, Assam & Meghalaya, Manipur.
- 16 to 24 $^{\circ}\text{C}$ over many parts of Jammu & Kashmir, some parts of Himachal Pradesh.

Mean Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 09.04.2014



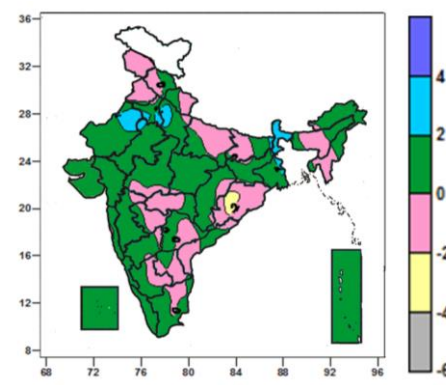
- 2 to 4 $^{\circ}\text{C}$ over some parts of Odisha, Tamil Nadu, South Interior Karnataka.
- 0 to 2 $^{\circ}\text{C}$ over all parts of country except many parts of Jammu & Kashmir, Uttarakhand, Punjab, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, some parts of Himachal Pradesh, Haryana, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Telangana, North Interior Karnataka, Madhya Maharashtra, Marathwada, Vidarbha, West Madhya Pradesh, Gujarat, Rajasthan, Lakshadweep Islands.
- -2 to 0 $^{\circ}\text{C}$ over many parts of Uttarakhand, Punjab, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, some parts of Jammu & Kashmir, Himachal Pradesh, Haryana, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Telangana, North Interior Karnataka, Madhya Maharashtra, Marathwada, Vidarbha, West Madhya Pradesh, Gujarat, Rajasthan, Lakshadweep Islands.
- -4 to -2 $^{\circ}\text{C}$ over many parts of Jammu & Kashmir some parts of East Rajasthan, West Madhya Pradesh.

Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 09.04.2014



- 6 to 10 $^{\circ}\text{C}$ over many parts of Jammu & Kashmir, Himachal Pradesh.
- 10 to 14 $^{\circ}\text{C}$ many parts of Uttarakhand, Punjab, some parts of Jammu & Kashmir, Himachal Pradesh.
- 14 to 22 $^{\circ}\text{C}$ over all parts of country except many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand,

Mean Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 09.04.2014



- -4 to -2 $^{\circ}\text{C}$ over some parts of Odisha.
- -2 to 2 $^{\circ}\text{C}$ over all parts of country except many parts of Sub-Himalayan West Bengal & Sikkim, some parts of Haryana, Delhi, West Uttar Pradesh, Bihar, Gangetic West Bengal, Rajasthan, Odisha.
- 2 to 4 $^{\circ}\text{C}$ over many parts of Sub-Himalayan West Bengal &

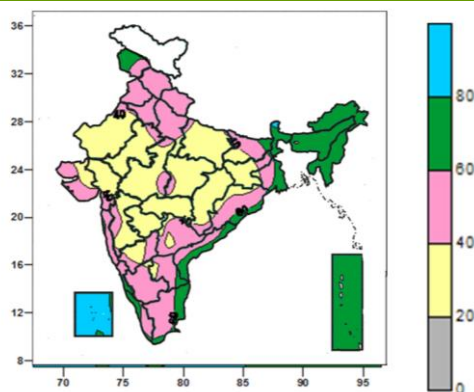
Punjab, Andhra Pradesh, Tamil Nadu, Kerala, Lakshadweep Islands some parts of Gangetic West Bengal, Odisha, Chhattisgarh, Vidarbha, Madhya Maharashtra, Interior Karnataka, Saurashtra, Andaman & Nicobar Islands.

- 22 to 26^oC over many parts of Andhra Pradesh, Tamil Nadu, Kerala, Lakshadweep Islands some parts of Gangetic West Bengal, Odisha, Chhattisgarh, Vidarbha, Madhya Maharashtra, Interior Karnataka, Saurashtra, Andaman & Nicobar Islands.

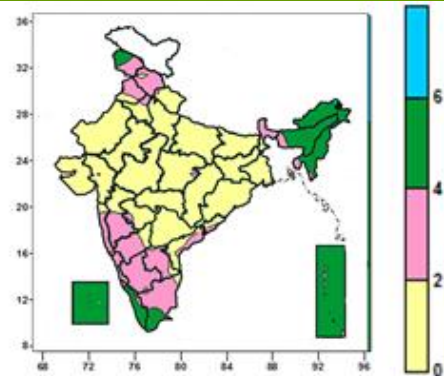
Sikkim, some parts of Haryana. Delhi, West Uttar Pradesh, Bihar, Gangetic West Bengal, Odisha, Rajasthan.

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 09.04.2014

Relative Humidity (%) over India for the week ending 09.04.2014



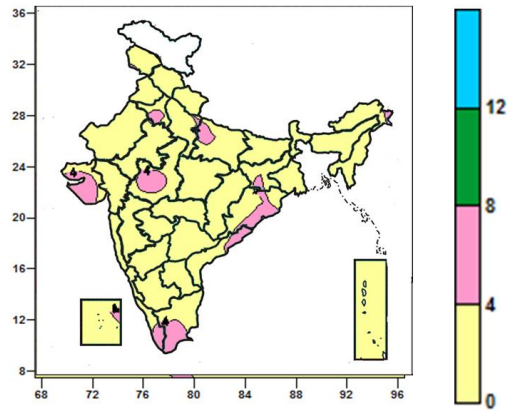
Cloud amount (okta) over India for the week ending 09.04.2014



- 80 to 100% over many parts of Lakshadweep Islands, some parts of Sikkim.
- 60 to 80% over many parts of Jammu & Kashmir, North East India, Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar, Islands Some parts of Bihar, Jharkhand, Gangetic West Bengal, Rajasthan, Coastal Odisha, Rayalaseema, Coastal Karnataka, Coastal Andhra Pradesh, Coastal Tamil Nadu, Kerala, Lakshadweep Islands.
- 40 to 60% over many parts of Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Punjab, Haryana, Delhi, Bihar, Gangetic West Bengal, Odisha, Andhra Pradesh, Tamil Nadu, South Interior Karnataka, Konkan & Goa, Saurashtra & Kutch, some parts of Jammu & Kashmir, East Uttar Pradesh, Gangetic West Bengal, Rajasthan, Jharkhand, Chhattisgarh, Madhya Pradesh, Madhya Maharashtra, Coastal & North Interior Karnataka, Gujarat.
- 20 to 40% over many parts of East Uttar Pradesh, Rajasthan, Gujarat, Central India, Jharkhand, Madhya Maharashtra, Marathwada, Vidarbha, North Interior Karnataka, some parts of West Uttar Pradesh, Bihar, Gangetic West Bengal, Odisha, Telangana, Rayalaseema, Saurashtra & Kutch.

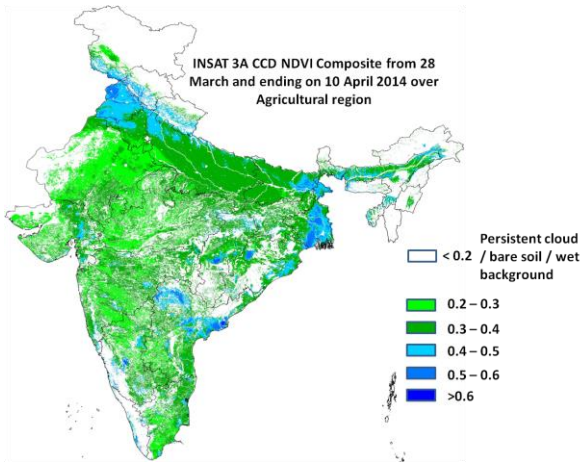
- 4 to 6 okta over many parts of North East India, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Tamil Nadu.
- 0 to 4 okta over entire country except many parts of North East India, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Tamil Nadu.

Wind speed (knots) over India for the week ending 09.04.2014



- 4 to 8 knots over many parts of Saurashtra & Kutch, some parts of Haryana, Delhi, Uttar Pradesh, Jharkhand, Coastal Odisha, West Madhya Pradesh, Coastal Andhra Pradesh, Kerala, Tamil Nadu and Lakshadweep Islands.
- 0 to 4 knots over entire country except many parts of Saurashtra & Kutch, some parts of Haryana, Delhi, Uttar Pradesh, Jharkhand, Coastal Odisha, West Madhya Pradesh, Coastal Andhra Pradesh, Kerala, Tamil Nadu and Lakshadweep Islands.

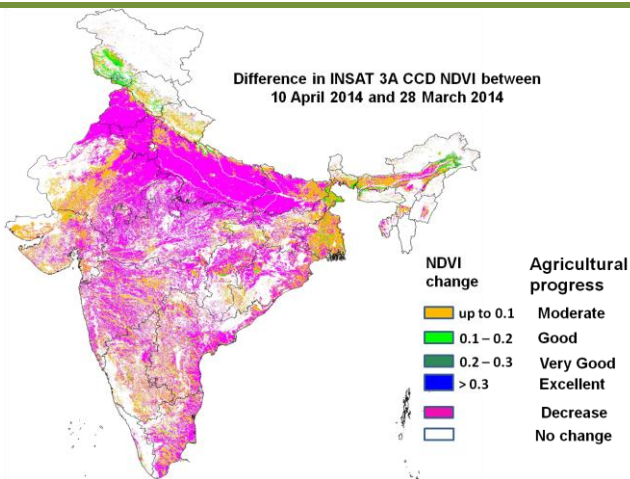
INSAT 3A CCD NDVI COMPOSITE OVER AGRICULTURAL REGION 28th March - 10th April 2014



Source: SAC, Ahmedabad

Agricultural vigour is moderate over pockets of north Punjab, central Bengal, and north AP. as NDVI vary between 0.4 to 0.5 upto 27th March 2014. The NDVI remains within the range of 0.2 to 0.4 over rest of India.

Difference in INSAT 3A CCD NDVI between 10th April 2014 and 28th March 2014



Source: SAC, Ahmedabad

Agricultural progress was found to be moderate over few pockets of central West Bengal. Major part of India showed decay in agricultural vigour as compared to past week may be due to maturity of *rabi* crop.

Weather Forecast

Weather Forecast for next 3 days (upto 0830 hours IST of 14th April, 2014)

- Rain/thundershowers would occur at isolated places over Jammu & Kashmir on 11th and at a few places on 12th and at many places thereafter.
- Mainly dry weather would prevail over Himachal Pradesh and Uttarakhand on 11th and rain/thundershowers would occur at isolated places on 12th and at a few places thereafter.
- Mainly dry weather would prevail over Punjab and Andaman & Nicobar Islands on 11th and rain/thundershowers would occur at isolated places thereafter.
- Dry weather would prevail over west Uttar Pradesh, Rajasthan during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
- Mainly dry weather would prevail over Haryana & Delhi during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
- Mainly dry/dry weather would prevail over east Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Madhya Pradesh, Gujarat, Coastal Karnataka, Konkan & Goa, Madhya Maharashtra and Marathwada during the period.
- Rain/thundershowers would occur at isolated places over Sub-Himalayan West Bengal & Sikkim, Odisha, Coastal Andhra Pradesh, Telangana, Rayalaseema, Tamil Nadu, South Interior Karnataka and Lakshadweep during the period.
- Rain/thundershowers would occur at isolated places over Chhattisgarh, Vidarbha and North Interior Karnataka during next 48 hours and mainly dry thereafter.
- Rain/thundershowers would occur at a few places over Kerala during next 3 days.
- Rain/thundershowers would occur at a few places over Arunachal Pradesh on 11th and at isolated places thereafter.
- Rain/thundershowers would occur at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura during next 3 days.
- Maximum temperatures would rise by 2-3°C over many parts of northwest & adjoining central India during next 2-3 days.

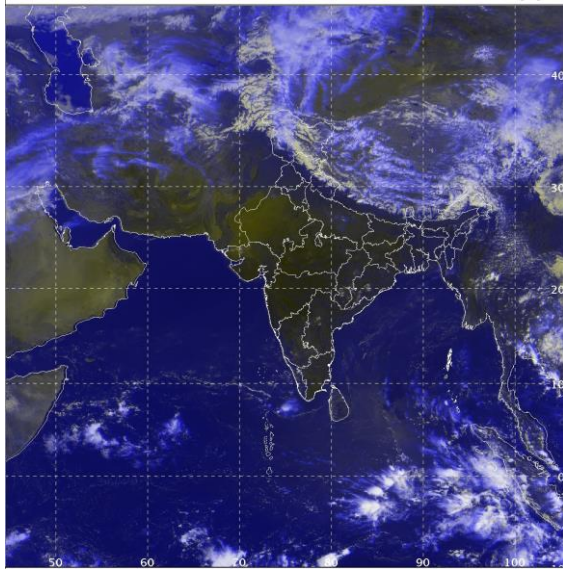
Weather Warning during next 3 days

- **11 April (Day1):** Moderate thundersquall would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **12 April (Day2):** Moderate thundersquall would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **13 April (Day 3):** No weather warning.

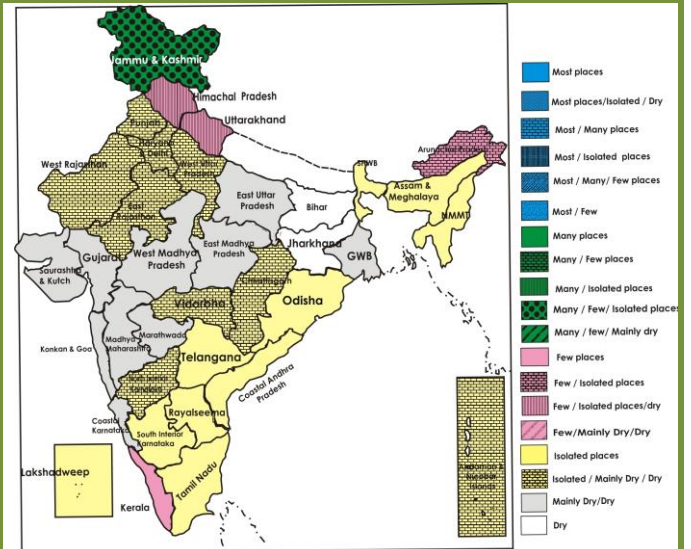
Weather Outlook for subsequent 4 days from 14th April to 18th April, 2014

- Rain/thundershowers would occur at isolated places over western Himalayan region.
- Rain/thundershowers would occur at a few places over northeastern states and isolated over south peninsular India.
- Weather would be mainly dry over rest of the country.

Satellite image dated 11.04.2014, 0600 UTC



Weather Forecast Map (Valid upto 0830 hours of 14th April, 2014)



Salient Advisories

- As rain/ thundershowers would occur at many places over **Jammu & Kashmir** on 13th April, postpone irrigation, application of fertilizers and plant protection measures in standing crops.
- Undertake seedbed preparation for nursery sowing of vegetables like *capsicum* and tomato in Mid-Hills Sub-Humid Zone of **Himachal Pradesh** utilising the realised rainfall.
- Due to humid conditions, there may be attack of leaf miner in peas at pod formation stage in Mid-Hills Sub-Humid Zone and Sub-Montane & Low Hills Sub-Tropical Zone of **Himachal Pradesh**. For control, spray 100 ml Methyl Demeton per 100 litres of water on a non rainy day.
- As moderate thunder squall would occur at isolated places over **Assam and Meghalaya** on 11th and 12th April, provide mechanical support to banana, fruit crops and vegetables.
- As moderate thunder squall would occur at isolated places **over Nagaland, Manipur, Mizoram & Tripura** on 11th and 12th April, provide mechanical support to banana, fruit crops and vegetables.
- Due to high temperature, moisture stress is observed in rainfed sugarcane crop which is at knee high stage in some areas in the North East Transition Zone of **Karnataka**. To overcome the situation, undertake the following measures:
 - Mulching by dry leaves and grasses may be done to conserve soil moisture.
 - Hoeing in inter row spacing may be undertaken to create dust mulch to break soil capillaries for checking surface moisture loss. If irrigation is available, apply 50kg potash fertilizer per hectare with irrigation. Adopt alternate furrow irrigation method where irrigation water is scarce.
- As mainly dry weather is prevailing, apply irrigation in summer groundnut, sesame and green gram in South Saurashtra Zone of **Gujarat**. Undertake mulching with crop residues or soil mulching in crop fields to conserve moisture.

Detailed Zonewise Agromet Advisories

NORTH INDIA [Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh & Rajasthan]



Wheat

Sugarcane

Peas

Onion

- **Realised Rainfall:** Significant rainfall occurred in Chamba, Kinnaur, Kullu, Shimla and Solan districts of Himachal Pradesh; Anantnag, Badgam, Baramula, Doda, Ganderbal, Kathua, Kulgam, Kupwara, Pulwama, Rajouri, Ramban, Reasi, Shopian and Srinagar districts of Jammu & Kashmir and Chamoli district of Uttarakhand. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Jammu & Kashmir on 11th, at a few places on 12th and at many places thereafter. Mainly dry weather would prevail over Himachal Pradesh and Uttarakhand on 11th and rain/thundershowers would occur at isolated places on 12th and at a few places thereafter. Mainly dry weather would prevail over Punjab on 11th and rain/thundershowers would occur at isolated places thereafter. Dry weather would prevail over west Uttar Pradesh and Rajasthan during next 48 hours and rain/thundershowers would occur at isolated places thereafter. Mainly dry weather would prevail over Haryana & Delhi during next 48 hours and rain/thundershowers would occur at isolated places thereafter. Maximum temperatures would rise by 2-3°C over many parts of the region during next 2-3 days.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over western Himalayan region. Weather would be mainly dry over rest of the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - As rain/ thundershowers would occur at many places over Jammu & Kashmir on 13th April, postpone irrigation, application of fertilizers and plant protection measures in standing crops.
 - Due to cloudy and humid weather, there is chance of attack of thrips and pod borer in peas in Sub-Tropical Zone of Jammu & Kashmir. For control, spray 0.05% Malathion (50EC) on a non rainy day.
 - Due to cloudy and humid weather, there is chance of attack of downy mildew in onion in Sub-Tropical Zone of Jammu & Kashmir. For control, spray Dithane M-45 3g /litre of water +1g Bavistin per litre of water on a non rainy day. Repeat the spray after 10 days.
 - **Himachal Pradesh:**
 - Undertake seedbed preparation for nursery sowing of vegetables like *capsicum* and tomato in Mid-Hills Sub-Humid Zone of **Himachal Pradesh** utilising the realised rainfall.
 - Due to humid conditions, there may be attack of leaf miner in peas at pod formation stage in Mid-Hills Sub-Humid Zone and Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh. For control, spray 100 ml Methyl Demeton per 100 litres of water on a non rainy day.
 - Due to prevailing humid conditions, there are chances of stalk rot in cabbage and cauliflower in Mid-Hills Sub-Humid Zone of Himachal Pradesh. Remove the diseased part (leaf/fruit) and spray Bavistin-50 (50g /100 litres of water) or Dithane M-45 (250 g /100 litres of water) on a non rainy day.
 - **Uttarakhand:**
 - As mainly dry weather would prevail, undertake intercultural operation and application of plant protection measures and fertilizers in the standing crops in Bhabar and Tarai Zone of Uttarakhand. Also continue harvesting of matured crops like wheat, barley, lentil and French bean.
 - Due to increasing temperature, cracking in lemon fruits is observed in Bhabar and Tarai Zone of Uttarakhand, spray Giberalllic acid @ 10 ppm in plants with lemon fruits on a non rainy day.
 - Due to increased temperature and wind conditions, there is fruit dropping in mango in Bhabar and Tarai Zone of Uttarakhand. To control fruit dropping, spray 40 PPM Naphthalene Acetic Acid (NAA) solution on trees on a non rainy day.
 - **Punjab, Haryana and Delhi:**
 - Taking advantage of prevailing weather, undertake sowing of cucurbits namely round gourd, sponge gourd and other summer vegetables viz. okra and cluster bean in Western Zone of Punjab and complete sowing of moong

in Undulating Plain Zone of Punjab.

- Undertake harvesting of linseed, lentil, raya and gobhi sarson during clear weather in Sub Montane Undulating Zone of Punjab.
- In view of the increasing temperature, protect fruit trees from strong wind and sun injury in Central Plain Zone of Punjab. White wash the trunk, provide shelter to young trees and give light and frequent irrigation to young as well as fruit bearing trees.
- In view of increasing temperature and prevailing dry weather, apply light irrigation in wheat crop at milk and dough stage in the evening hours in Delhi. Undertake harvesting of timely sown wheat in clear weather.
- As mainly dry weather would prevail, undertake harvesting of matured wheat in Eastern Zone of Haryana.
- Due to rise in temperature, incidence of sucking pests may increase in horticultural crops in Central Plain Zone of Punjab. To control citrus psylla, spray Rogor 30 EC 1250 ml or Confidor 17.8 SL @ 200 ml in 500 litre water.

▪ **Uttar Pradesh:**

- As mainly dry weather is prevailing, apply irrigation in wheat, in late sown barley crop at milk stage, in onion and other vegetable crops. Also undertake harvesting of matured mustard, pea and timely sown wheat in Central Plain Zone of Uttar Pradesh.
- Due to rise in temperature, there are chances of fruit dropping in mango in Central Plain Zone of Uttar Pradesh. For control, spray Nephthalin Acetic Acid, 20 ml per litre of water or Plenofix 5ml per 10 litres of water. Also due to prevailing hot weather, there are chances of attack of mango hopper in mango. To control the attack, spray Chlorpyrifos 20 E.C. @ 2 ml per litre of water or Monochrotophos 40 E.C. @15 ml per litre of water.

▪ **Rajasthan:**

- As dry weather is prevailing, apply irrigation in the early sown summer cucurbits like bottle gourd, ridge gourd, pumpkin, bitter gourd, tinda etc. in Semi Arid Eastern Plain Zone and also in late sown wheat at milk stage in Sub-Humid and Southern Plain and Aravali Hill Zone of Rajasthan.
- Due to rise in temperature, there is chance of attack of thrips on onion and garlic in Arid Western Plain Zone of Rajasthan. For control, spray Methyl Demeton 25 EC or Malathion 50 EC @ 1 ml per litre of water.
- Due to rise in temperature, there is chance of attack of stem and fruit borer in brinjal in Transitional Plain Zone of Inland Drainage and Semi-Arid Eastern Plain Zone of Rajasthan. To manage, destroy the affected fruits and stems and spray Acephate 75 SP @ 1.5 g per litre water
- In view of rise in temperature, leaf curl and mosaic diseases may affect papaya crop in Semi-Arid Eastern Plain Zone of Rajasthan. At the initial appearance of these diseases uproot and burn the affected plants and to check further spread of disease, spray Dimethoate 30 EC or Methyl demeton 25 EC @ 1.0 ml per litre water.

• **Animal Husbandry**

- Due to prevailing hot weather, give salt and minerals in addition to dry/green fodder to the cattle in Central Plain Zone and Western Plain Zone of Uttar Pradesh.
- In Punjab, feed intake of cattle will be reduced due to effect of high temperature. Hence, protein level in the feed need to be increased by increasing oilseed cakes by 5-7 per cent.

• **Poultry**

- Due to prevailing hot weather conditions, give balanced feed to the poultry birds in Central Plain Zone of Uttar Pradesh. Make proper ventilation in poultry sheds and keep the sheds clean. White wash the poultry shed from outside especially the roof. This will help to reflect the sun rays.

• **Floriculture**

- Due to rise in temperature, attack of aphids is observed in rose in Mid-Hills Sub-Humid Zone of Himachal Pradesh. For control, spray Rogor @1 ml per litres of water.

CENTRAL INDIA [M.P., CHHATTISGARH]



Wheat



Sugarcane



Chilli



Green Gram

- **Realised Rainfall:** No significant rainfall occurred over the region.
- **Weather forecast:** Rain/thundershowers would occur at isolated places over Chhattisgarh during next 48 hours and mainly dry thereafter. Weather would be mainly dry/dry over Madhya Pradesh.

Maximum temperatures would rise by 2-3°C over central India adjoining to northwest India during next 2-3 days.

- **Weather Warning:** No weather warning.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - As mainly dry weather would prevail, continue harvesting wheat in Malwa Plateau Zone, Kymore Plateau Zone and Vindhya Plateau Zone and maize in Jhabua Hill Zone of Madhya Pradesh.
 - As mainly dry weather would prevail, harvest wheat and lentil crops in Bundelkhand Zone of Madhya Pradesh.
 - Due to prevailing hot weather, there is possibility of attack of red pumpkin beetle and fruit fly in cucurbitaceous crops in Bundelkhand Zone of Madhya Pradesh. Spray Trizophos 40 E.C. @ 2 ml per litre of water.
 - Due to prevailing hot weather, there is possibility of attack of mango hopper, aphids and powdery mildew in mango in Jhabua Hill Zone of Madhya Pradesh. For control, spray 2 g Carbaryl dust and 3 g Sulphex per litre of water.
 - **Chhattisgarh:**
 - As mainly dry weather would prevail complete harvesting of matured gram and continue harvesting of wheat, pea and rajma in North Hill Zone of Chhattisgarh. Also dig out tubers like potato and onion.
 - As mainly dry weather would prevail, apply irrigation to summer rice, maize, sugarcane and summer vegetable crops in North Hill Zone of Chhattisgarh.
 - As mainly dry weather would prevail, harvest wheat and potato in Bastar Plateau Zone of Chhattisgarh.
 - Due to prevailing hot weather, there is possibility of attack of stem borer in summer rice in Plain Zone and North Hill Zone of Chhattisgarh. Spray Carbofuran @33 kg/ha for control.
- **Animal Husbandry**
 - Vaccinate cattle for Anthrax and for foot and mouth disease in Kymore Plateau Zone of Madhya Pradesh during the period.
 - Vaccinate poultry birds with F-1 or Lasota strain vaccine against Ranikhet disease and cattles against FMD disease during the season in Jhabua Hill Zone of Madhya Pradesh.
 - Due to prevailing high temperature, special attention should be given to milch animals with regard to feed and water in North Hill Zone of Chhattisgarh. Provide lots of clean water to the animals and keep them in the shaded place.

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



Wheat



Sugarcane



Green Gram



Onion

- **Realised Rainfall:** Significant rainfall occurred in east Sikkim. Weather remained mainly dry over rest parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Odisha, Sub- Himalayan West Bengal & Sikkim during next 3 days. Mainly dry/dry weather would prevail over Gangetic West Bengal, Bihar and Jharkhand.
- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
 - **Odisha:**
 - As no significant rainfall is expected, apply irrigation in groundnut in Mid Central Table Land Zone and maintain 5-8 cm of water level in summer rice in North Eastern Coastal Plain Zone of Odisha.
 - Due to prevailing high temperature and dry conditions, apply light irrigation in onion in North Eastern Plateau Zone of Odisha.
 - Prevailing dry weather is conducive for occurrence of white grub and termite in groundnut in Mid Central Table Land Zone of Odisha Zone of Odisha. For control, apply Chloripyriphos @2 ml/litre of water.
 - Increased difference between daily maximum and minimum temperature favours incidence of blast in rice in East and South Eastern Coastal Plain Zone of Orissa. For control, spray 1 g Beam/ litre of water.
 - High temperature condition may favour egg laying of stem borer in rice in the main fields in Mid Central Table

Land and in North Eastern Plateau Zone of Odisha. To attract the butterflies, place 4 Pheromone Traps per acre, collect the adults and destroy them by burning them or by burying.

▪ **West Bengal:**

- Prevailing hot and humid weather condition is favourable for outbreak of blast disease in *boro* rice at tillering / panicle initiation stages in Laterite and Red Soil Zone and New Alluvial Zone of West Bengal. To control, apply Tricyclazole @ 7g/ 10 litre of water. Also apply Carbofuran 3G granule @25 kg/ha to prevent attack of stem borer.
- Due to increase in temperature, red spider mite attack may occur in brinjal and okra in Coastal Saline Zone of West Bengal. Spray Properzite @ 0.5 ml / liter of water along with sticker like tipol or soap solution.
- In the prevailing hot and humid weather conditions, there is possibility of increased attack of Anthracnose leading to black spot in mango in Laterite and Red Soil Zone and in New Alluvial Zone of West Bengal. Spray 1 ml Carbendazim per litre of water for control. Also there is chance of fungal fruit rot & stem rot diseases in summer vegetables. To control it, apply Carbendazim @ 1g per litre of water at 7 days intervals.

▪ **Bihar:**

- In North West Alluvial Plain Zone of Bihar, as dry weather would prevail, continue harvesting of wheat and lentil and apply irrigation in sugarcane and summer vegetables.
- As dry weather would prevail, apply irrigation in maize and continue harvesting of wheat in South Bihar Alluvial Zone.
- As dry weather is prevailing, apply regular irrigation in sugarcane and light irrigation in onion in North East Alluvial Plain Zone of Bihar. Also undertake harvesting of wheat.

▪ **Jharkhand:**

- As dry weather would prevail, apply irrigation in moong and late sown wheat crop which is at grain filling /hardening stage in Western Plateau Zone of Jharkhand. Also apply irrigation to mango and litchi
- As dry weather would prevail in Central & North Eastern Plateau Zone of Jharkhand, continue harvesting of potato and apply irrigation to wheat crop at milk /dough stage.
- As dry weather would prevail, apply irrigation to moong and continue harvesting of matured wheat crop in South Eastern Plateau Zone of Jharkhand.

• **Animal Husbandry**

- In view of hot weather in North West Alluvial Plain Zone of Bihar, provide lot of clean water to animals and keep them in the shade during noon hours.
- In Western Plateau Zone of Jharkhand, rise in day temperature may cause heat stroke in animals. Hence, keep them in the shade during noon hours. If animals are already suffering with heat stroke, take proper management like bathing the animals with cool water, keeping ice crystal on their head and nose and in the worst case vaccinate the animals with Avil.

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



Green Gram



Rice



Okra



Sugarcane

- **Realised Rainfall:** Significant rainfall occurred in Changlang, Tawang, Tirap districts of Arunachal Pradesh, Baksa, Barpeta, Cachar, Darrang, Dhubri, Dibrugarh, Golghat, Hailakandi, Kamrup(Rural), Karimganj, N.C.Hills, Nowgaon, Sibsagar districts of Assam, East Khasi Hills, Ri-bhoi, West Garo Hills, West Khasi Hills districts of Meghalaya, Imphal West and Churachandpur districts of Manipur, Kephire, Kohima and Mokokchung districts of Nagaland and in all districts of Tripura.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Arunachal Pradesh on 11th and at isolated places thereafter. Rain/thundershowers would occur at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura during next 3 days.
- **Weather Warning:** Moderate thundersquall would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 11th and 12th April.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over the region.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - As moderate thunder squall would occur at isolated places over Assam and Meghalaya on 11th and 12th April,

provide mechanical support to banana, fruit crops and vegetables.

- In Temperate Sub Alpine Zone of Meghalaya, continue sowing of direct seeded *ahu* rice, maize, cucurbits and okra utilizing the realised rainfall.
- In Sub Tropical Hill Zone of Arunachal Pradesh, continue sowing of *jhum* rice, summer vegetables, maize, soybean, black gram, green gram and planting of banana utilising the realised rainfall.
- Under prevailing weather conditions, continue sowing of jute, early *ahu*, summer sesame, okra and planting of spring sugarcane, ginger and turmeric in Lower Brahmaputra Valley Zone of Assam.
- In Upper Brahmaputra Valley Zone of Assam, continue sowing of different summer vegetable like ridge gourd, sponge gourd, ash gourd, pumpkin, okra, bitter gourd and cucumber and planting of sugarcane, ginger and turmeric, banana utilising the realised rainfall.
- In Central Brahmaputra Valley Zone of Assam, continue harvesting of matured wheat crop during clear weather. Under prevailing weather condition, continue sowing of summer vegetables, summer green gram and black gram, *capsularis* jute and *bao* rice, early *ahu* rice and planting of spring sugarcane, papaya, ginger and turmeric.
- **Nagaland, Manipur, Mizoram and Tripura:**
 - As moderate thunder squall would occur at isolated places over Nagaland, Manipur, Mizoram & Tripura on 11th and 12th April, provide mechanical support to banana, fruit crops and vegetables.
 - In Manipur, continue transplanting of early *kharif* rice and okra and undertake land preparation for sowing of soybean, groundnut and black gram utilising the realised rainfall.
 - As mainly dry weather is prevailing in Mid Tropical Hill Zone of Mizoram, provide banana shading and irrigation to transplanted seedling of brinjal, okra, French bean and pumpkin .
 - In Mild Tropical Hill Zone of Nagaland, continue sowing of *jhum* rice, summer maize, summer vegetables like okra, cucurbitaceous crops like pumpkin, ridge gourd, ash gourd etc. utilizing the realised rainfall.
 - In Mild Tropical Plain Zone of Tripura, continue land preparation and sowing of *jhum* rice with the help of pre-monsoon rain.
 - In the prevailing temperature conditions, there may be chance of attack of yellow stem borer in *boro* rice in Mild Tropical Plain Zone of Tripura. Apply Chloropyrifos @ 10 kg per ha twice or Fipronil @ 2g per litre of water to manage the yellow stem borer attack. Continue land preparation and sowing of *jhum* rice with the help of pre-monsoon rain.
- **Animal Husbandry**
 - In Northeastern States, keep cattle/goats indoors during thundersquall period.
 - In Assam, Manipur and Tripura, vaccinate to control swine fever in pigs, FMD in cattle and ranikhet disease in poultry during this period.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Rice



Groundnut



Green Gram



Grape vine

- **Realised Rainfall:** Mainly dry weather prevailed over Maharashtra. Dry weather prevailed over Gujarat State.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Vidarbha during next 48 hours and mainly dry thereafter. Mainly dry weather would prevail over Gujarat, Konkan & Goa, Madhya Maharashtra and Marathwada.
- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, as mainly dry weather is expected; undertake intercultural operations and application of fertilizer in summer vegetables, rice, finger millet and orchards. Apply irrigation to groundnut, coconut, cashew orchards, vegetable crops and pulses. Mango is at fruit formation stage. Considering the crop canopy, apply 150-200 litres of water per tree at 15 days interval to avoid fruit dropping due to increase in temperature. If mango fruits are at maturity stage (80-85 % maturity), harvest the fruits early in the morning and in the evening. Apply irrigation to maintain around 10 cm water level in rice fields at grain formation stage. Some rice varieties are at

maturity stage, drain out water from fields at least 8-10 days before harvesting. New graft and newly planted fruit crops may be protected from sun burn by erecting temporary shed.

- In Madhya Maharashtra in view of prevailing mainly dry weather, apply irrigation to summer groundnut, bajra, sugarcane and vegetable crops. Continue intercultural operations and application of fertilizer in sugarcane, summer groundnut and vegetables. Apply irrigation to sugarcane by alternate furrow method in water stress condition. Apply 20 litres water to each banana plant/day (flood irrigation) or 9-10 litres water/dripper. Cover banana bunch with white plastic (100 gauge and 6% porous) or dried banana leaves to protect from scorching sun. Considering prevailing high temperature in Western Ghat region, spray 2 % Urea solution to avoid mango dropping.
- As mainly dry weather is prevailing in Marathwada, apply irrigation to summer groundnut, sugarcane, orchard crops like banana, pomegranate, fig and vegetable crops. Due to high temperature and dry weather, there may be fruit dropping in mango, spray Planofix @10 ppm to avoid premature fruit dropping. Continue intercultural operations and application of fertilizer in orchards (banana, fig, pomegranate, sweet lime, guava), sugarcane, summer groundnut and vegetables.
- In Vidarbha, as no significant rain is expected; apply irrigation to water melon, summer vegetables, summer groundnut and summer green gram. Maintain upto 10 cm water level in already transplanted rice field in Gondia, Bhandara, Chandrapur and Gadchiroli districts. Continue intercultural operations and application of fertilizers in orchards, summer groundnut and summer green gram.
- Due to partly cloudy weather condition, there is chance of infestation of anthracnose on developing mango fruits in South Konkan; spray Carbendazim @10g / 10 litres of water on whole tree.
- Due to rise in day temperature, there may be attack of white fly and aphids in summer chilli, tomato, okra and papaya in Pune region; spray Imidacloprid@ 4ml per 10 litres of water.
- **Gujarat:**
 - As mainly dry/dry weather is prevailing, apply irrigation in summer groundnut, sesame and green gram in South Saurashtra Zone. Undertake mulching with crop residues or soil mulching in crop fields to conserve moisture. Carry out intercultural operations and hand weeding in these crops.
 - As mainly dry/dry weather is prevailing, apply irrigation in summer groundnut at flowering stage in North Saurashtra Zone. Mango is at fruiting stage; apply light irrigation in mango orchard.
 - As mainly dry/dry weather is prevailing, continue harvesting of matured spikes of castor, wheat and complete threshing of cumin crop in North West Zone; irrigate pearl millet and green gram at regular intervals and carry out weeding and intercultural operations to conserve soil moisture.
 - As mainly dry/dry weather is prevailing, apply light irrigation in summer groundnut in Middle Gujarat Zone. Undertake mulching with crop residues or soil mulching in crop fields to conserve moisture.
 - As mainly dry weather would prevail, apply irrigation in sugarcane crop at an interval of 10 to 12 days in South Gujarat Heavy Rainfall Zone; carry out mulching in sugarcane crop with the help of crop residues. Irrigate groundnut crop at pegging stage.
 - As mainly dry/dry weather is prevailing, apply irrigation in bajra, cluster bean and green gram at regular intervals in North Gujarat Zone, carry out weeding and intercultural operations in groundnut, green gram, bajra and cluster bean to conserve soil moisture.

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



Rice



Sugarcane(cane maturity)



Onion (bulb development)



Okra

- **Realised Weather:** Significant rainfall occurred in all districts in Kerala except Kannur, Idukki, Kasaragod, Malappuram, Palakkad and Thrissur and in Tirunelveli district in Tamil Nadu. No significant rainfall occurred over remaining parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Kerala during next 3 days. Rain/thundershowers would occur at isolated places over Coastal Andhra Pradesh, Telangana, Rayalaseema, Tamil Nadu, South Interior Karnataka during next 3 days. Rain/thundershowers would occur at isolated places over North Interior Karnataka during next 48 hours and mainly dry thereafter. Mainly dry weather would prevail over Coastal Karnataka.

- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over South Peninsular India.
- **Advisory:**
 - **Karnataka:**
 - Due to high temperature, moisture stress is observed in rainfed sugarcane crop which is at knee high stage in some areas in the North East Transition Zone of Karnataka. To overcome the situation, undertake the following measures:
 - Mulching by dry leaves and grasses may be done to conserve soil moisture.
 - Hoeing in inter row spacing may be undertaken to create dust mulch to break soil capillaries for checking surface moisture loss. If irrigation is available, apply 50kg potash fertilizer per hectare with irrigation. Adopt alternate furrow irrigation method where irrigation water is scarce.
 - As no significant rainfall is expected, apply irrigation in arecanut, coconut and black pepper gardens either by furrow or drip irrigation in the Hill Zone of Karnataka and also apply irrigation to groundnut which is at flowering stage.
 - Weather conditions are favourable for the incidence of cob borer in maize in Easter Dry Zone. Monitor the crop for the pest and undertake spraying of Indoxycarb @ 1.5 ml /liter of water.
 - Due to prevailing high temperature, stem borer/thrips infestation is observed in rice and likely to continue in the Southern Dry Zone of Karnataka. To manage the pests, spray Chlorophyriphos @ 2ml/litre of water or application of Phorate @ 8kg/litre of water.
 - **Andhra Pradesh:**
 - As no significant rainfall is expected, provide irrigation to late sown maize to avoid water stress at sensitive stages in Kurnool district in Scarce Rainfall Zone of Andhra Pradesh.
 - Prevailing dry weather conditions are congenial for the incidence of thrips and *Helicoverpa* in tomato in Scarce Rainfall Zone of Andhra Pradesh. Spray Acephate @1.5 g/litre or Fipronil @ 2ml/litre of water to manage thrips and Novaluron in early stages and Thiodicarb @ 1g/litre of water in later stages to manage *Helicoverpa*.
 - Prevailing dry weather conditions are congenial for the incidence of thrips, hoppers and anthracnose in mango in Telangana. Spray Fipronil @ 2 ml per litre of water to manage thrips, Monocrotophos @ 1.6 ml + Carbendazim @ 1 g or Hexaconazole @ 2ml to manage hoppers and anthracnose.
 - **Tamil Nadu:**
 - As no significant rainfall is expected, provide irrigation in sesame, sugarcane, banana, groundnut, summer cotton and rice fallow cotton, undertake planting of sugarcane and sowing of summer season black gram in the Cauvery Delta Zone of Tamil Nadu.
 - In rice fallow cotton, incidences of aphid, thrips, mite, hoppers and white flies are being noticed due to the prevailing hot weather in the Cauvery Delta Zone of Tamil Nadu. Use yellow trap smeared with castor oil or white grease and spray Azadirachtin 0.03% (3 ml/litre) along with sticking agent in the morning or evening using hand sprayer to manage the pests.
 - As mainly dry weather is prevailing, provide irrigation to coconut and banana according to moisture status in the Western Zone of Tamil Nadu. Prevailing dry weather condition is congenial for mealy bug attack in tapioca and papaya. Monitor the crops and spray neem oil 2% or neem seed kernel extract @ 5% or Profenophos @ 2ml /liter of water.
 - **Kerala:**
 - Prevailing hot and humid conditions are favourable for attack of rice leaf folder rice in the Southern Zone of Kerala. If the attack is more, apply Quinalphos (Ekalux 25EC) @ 750ml per ha on a non rainy day.
 - Present humid weather is congenial for the incidence of mosaic disease in cucurbits. If mosaic disease is observed, rouging out of affected plants is recommended to prevent further spread of disease.
 - Due to the increase in temperature, there is chance of root wilt disease in coconut in the Central Zone of Kerala. Severely affected palms may be cut and replaced by high yielding resistant varieties. Undertake mulching in the coconut basins with green/dry leaves and burying of fresh or dried coconut husk around the palm in order to add organic matter to the soil and reduce the soil temperature.
- **Animal Husbandry**
 - Prevailing high day time temperature (around 39-40°C) will induce heat stress and heat stroke in poultry in the North Western Zone of Tamil Nadu. Increase amino acid level in feed and supplementation of vitamin C and avoid feeding the birds between 10 am to 6 pm and provide cool drinking water throughout the day.
 - Due to increase in day temperature (around 40°C) there is a probability of drop in feed intake in poultry in the North East Transition Zone of Karnataka. Maintain optimum temperature by applying 4-6 inch thick hay thatch as a roofing material. Cool water should be made available to the birds. Addition of electrolytes is highly recommended in the feed as well as in water.

Districtwise realised rainfall and % departure for past three weeks is given below in Annexure I

Annexure I

Week by week Rainfall Distribution

State/Districts	26.03.14		02.04.14		09.04.14	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	6.4	-94	31.1	-67	24.5	-85
Dibang Valley	30.0	-46	24.0	-79	7.0	-93
East Kameng	0.5	-98	0.0	-100	4.5	-87
East Siang	19.5	-29	13.0	-63	13.8	-69
Kurung Kumey	**	**	**	**	**	**
Lohit	6.9	-86	60.4	2	13.8	-88
Lower Dibang Valley	34.0	-39	66.6	-42	3.1	-97
Lower Subansari	**	**	**	**	**	**
Papumpara	17.0	-54	7.0	-69	6.2	-86
Tawang	42.0	146	75.0	259	47.0	267
Tirap	1.1	-97	22.0	-62	28.2	-59
Upper Siang	77.0	-5	33.2	-58	8.5	-93
Upper Subansari	20.8	-23	29.4	20	1.8	-91
West Kameng	2.4	-86	0.0	-100	2.4	-81
West Siang	36.0	186	50.5	47	13.5	-61
Assam						
Baksa	15.0	-3	5.0	-84	20.9	-14
Barpeta	13.2	-15	0.6	-98	28.3	16
Bongaigaon	6.8	-62	0.0	-100	16.6	-34
Cachar	32.7	-38	38.1	-44	66.7	24
Chirang	13.5	-25	0.5	-98	14.5	-42
Darrang	15.0	-1	3.0	-85	23.0	-16
Dhemaji	40.0	83	13.0	-53	0.0	-100
Dhubri	29.1	169	1.3	-95	24.9	107
Dibrugarh	7.2	-79	13.4	-67	24.5	-44
Goalpara	41.3	163	3.6	-86	19.2	-27
Golghat	2.9	-85	27.7	-8	30.8	27
Hailakandi	27.7	-43	10.9	-79	53.2	29
Jorhat	5.3	-75	41.1	12	18.4	-55
Kamrup(Rural)	15.5	-16	0.6	-97	60.4	211
Kamrup(Metro)	7.0	-62	1.9	-91	11.4	-41
Karbi Anglong	32.7	149	0.7	-97	11.3	-23
Karimganj	4.0	-91	6.4	-92	25.4	-66
Kokrajhar	7.7	-32	2.4	-94	12.6	-30
Lakhimpur	15.4	-29	12.1	-56	5.1	-84
Morigaon	2.3	-85	0.3	-99	10.6	-27
N.C.Hills	39.6	-45	0.0	-100	23.4	-38
Nowgong	14.5	-4	0.4	-98	37.0	99
Nalbari	32.7	153	1.4	-96	14.7	-53
Sonitpur	6.0	-62	3.4	-84	3.3	-88
Sibsagar	5.4	-78	26.9	22	27.8	20

Tinsukia	7.0	-84	29.5	-32	13.5	-74
Udalgiri	5.9	-61	7.4	-62	7.1	-74
Meghalaya						
East Garo Hills	5.0	-36	0.0	-100	4.3	-89
East Khasi Hills	35.5	0	1.3	-97	105.3	106
Jaintia Hills	19.0	-32	2.0	-95	6.0	-90
Ribhoi	37.2	104	1.6	-92	25.1	49
South Garo Hills	0.0	-100	0.0	-100	0.0	-100
West Garo Hills	15.0	63	0.0	-100	20.8	-14
West Khasi Hills	56.0	160	0.0	-100	31.0	96
Mizoram						
Aizwal	27.9	-25	2.4	-95	19.1	-16
Champhai	14.0	-53	0.0	-100	6.0	-57
Kolasib	1.0	-97	0.0	-100	0.0	-100
Lawngtlai	**	**	**	**	**	**
Lunglei	27.0	-23	0.0	-100	5.0	-64
Mamit	35.0	-6	0.0	-100	18.0	-21
Saiha	7.0	-79	0.0	-100	1.0	-92
Serchhip	10.0	-77	0.0	-100	6.0	-69
Manipur						
Bishnupur	23.0	6	3.0	-93	2.0	-93
Chandel	18.0	96	7.0	-46	12.0	-48
Churachandpur	**	**	21.0	-17	44.0	-8
Imphal east	29.4	28	8.7	-68	12.0	-70
Imphal west	11.5	-35	44.6	134	41.5	40
Senapati	23.0	59	2.0	-91	11.0	-68
Tamenglong	**	**	**	**	**	**
Thoubal	17.0	105	3.0	-75	16.0	-25
Ukhrul	2.0	-79	0.0	-100	0.0	-100
Nagaland						
Dimapur	21.0	64	3.5	-79	18.5	-14
Kephire	15.0	-26	0.0	-100	36.0	-14
Kohima	38.6	166	0.0	-100	24.3	74
Longleng	**	**	**	**	**	**
Mokokchung	5.0	-81	19.0	-13	52.0	215
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	33.0	128	0.0	-100	15.0	7
Tuensang	**	**	**	**	**	**
Wokha	6.0	-75	2.0	-95	8.0	-71
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	40.9	27	0.0	-100	71.4	55
North tripura	36.8	7	0.0	-100	68.2	32
South tripura	3.6	-88	0.0	-100	22.5	-6
West tripura	11.9	-47	0.0	-100	40.5	45
Himachal Pradesh						
Bilaspur	8.9	-23	3.6	-69	5.3	-11
Chamba	44.9	37	47.5	296	36.4	160

Hamirpur	13.2	-12	3.1	-58	5.4	-23
Kangra	23.9	-1	8.7	-12	11.4	-10
Kinnaur	6.9	-80	32.6	72	42.6	73
Kullu	35.6	3	30.7	49	36.4	48
Lahaul and Spiti	7.4	-84	3.0	-90	16.9	-38
Mandi	17.0	-21	5.4	-53	13.0	0
Shimla	23.6	-1	13.6	24	40.2	237
Sirmaur	9.4	-23	1.0	-85	19.6	461
Solan	16.1	-10	12.1	69	31.8	368
Una	8.0	-24	0.0	-99	0.6	-88
Punjab						
Amritsar	10.0	-11	1.1	-68	2.2	-66
Barnala	10.1	237	0.0	-100	4.9	172
Bhatinda	21.0	377	1.0	-23	5.0	117
Faridkot	27.5	391	0.5	-62	0.0	-100
Fatehgarh Sahib	0.0	-100	0.0	-100	0.0	-100
Ferozpur	17.7	132	0.0	-100	0.5	-84
Gurdaspur	24.2	49	4.4	-11	10.5	90
Hoshiarpur	7.0	-41	0.0	-100	2.5	-49
Jalandhar	4.2	-56	0.0	-100	0.0	-100
Kapurthala	16.0	135	0.2	-88	0.7	-72
Ludhiana	6.8	-22	1.3	-53	1.7	-31
Mansa	12.4	300	0.0	-100	7.0	268
Moga	12.9	162	2.0	54	0.0	-100
Muktesar	24.8	265	0.0	-100	1.0	-52
Nawashahar	8.6	-30	1.6	-66	0.4	-88
Patiala	8.9	46	3.5	105	3.9	225
Ropar	6.4	-59	0.4	-78	1.9	-54
Sangrur	9.9	102	2.4	57	1.8	-8
Mohali	6.5	-24	3.0	87	6.0	140
TarnTaran	11.7	79	0.3	-81	0.8	-70
Haryana						
Ambala	7.7	24	0.7	-64	2.6	53
Bhiwani	6.2	131	4.4	390	1.3	-7
Chandigarh	5.4	-49	5.2	135	6.1	89
Faridabad	5.0	213	18.0	1285	0.0	-100
Fatehabad	2.5	-36	1.3	-22	2.2	20
Gurgaon	0.8	-56	6.6	1000	0.0	-100
Hissar	11.4	225	0.0	-100	3.0	57
Jhajar	4.3	95	3.7	106	0.0	-100
Jind	10.1	529	2.9	614	1.0	-55
Katihah	8.2	122	0.2	-86	2.4	500
Karnal	6.3	-8	0.0	-100	1.1	-50
Kurukshetra	3.5	-42	0.0	-100	0.0	-100
Mahendragarh	12.0	380	3.1	124	0.0	-100
Mewat	2.5	76	0.4	-52	0.0	-100
Palwal	0.2	-88	0.0	-100	0.0	-100
Panchkkula	3.7	-61	2.3	-10	4.5	150
Panipat	5.4	55	5.0	197	3.4	13

Rewari	11.8	973	15.4	2100	0.0	-100
Rohtak	6.2	48	0.4	-85	2.0	54
Sirsa	6.7	156	0.0	-100	3.8	322
Sonepat	6.1	105	2.4	87	3.0	26
Yamunanagar	6.5	-3	0.0	-100	1.4	-62
Delhi						
Central Delhi	2.0	-43	5.0	138	0.0	-100
East Delhi	2.0	-43	3.0	43	0.0	-100
New Delhi	1.8	-49	4.0	88	0.1	-95
North Delhi	2.6	-27	7.6	262	4.0	111
North East Delhi	0.0	-100	0.0	-100	0.0	-100
North West Delhi	0.5	-86	0.0	-100	0.0	-100
South Delhi	8.4	140	6.4	205	1.2	-37
South West Delhi	2.5	-29	1.9	-10	0.0	-100
West Delhi	4.0	14	4.0	90	0.0	-100
Jammu & Kashmir						
Anantnag	26.3	-27	42.2	77	93.2	194
Badgam	10.3	-63	22.9	73	56.7	226
Bandipore	**	**	**	**	**	**
Baramula	33.6	-70	24.7	-20	54.7	35
Doda	30.4	-46	26.8	0	87.4	229
Ganderbal	72.2	148	90.4	511	58.6	192
Jammu	16.2	-25	1.0	-86	8.9	5
Kargil	0.0	-100	0.0	-100	0.0	-100
Kathua	30.0	73	9.6	66	21.2	94
Kistwar	**	**	**	**	**	**
Kulgam	27.1	-25	44.0	84	63.8	101
Kupwara	88.4	75	68.3	82	81.3	97
Ladakh(Leh)	0.0	-100	0.2	-91	0.0	-100
Poonch	0.0	-100	0.0	-100	0.0	-100
Pulwama	15.3	-47	19.9	46	58.1	162
Rajouri	41.4	117	5.3	-54	26.5	128
Ramban	36.8	-35	34.7	30	93.7	252
Reasi	51.9	16	7.3	-53	62.2	294
Samba	15.1	-30	0.9	-87	12.9	52
Shopian	17.0	-41	25.0	84	66.0	197
Srinagar	15.8	-46	30.0	103	66.4	230
Udhampur	24.5	-45	5.8	-63	14.5	-8
East Madhya Pradesh						
Anuppur	0.0	-100	0.0	-100	0.0	-100
Balaghat	0.0	-100	0.0	-100	0.0	-100
Chhatarpur	3.6	160	0.0	-100	0.0	-100
Chindwara	0.0	-100	0.0	-100	0.0	-100
Damoh	0.0	-100	0.0	-100	0.0	-100
Dindori	0.0	-100	0.0	-100	0.0	-100
Jabalpur	0.0	-100	0.0	-100	0.0	-100
Katni	0.0	-100	0.0	-100	0.0	-100
Mandla	0.0	-100	0.0	-100	0.0	-100
Narsingpur	0.0	-100	0.0	-100	0.0	-100

Panna	0.0	-100	0.0	-100	0.0	-100
Rewa	0.5	-83	0.0	-100	0.0	-100
Sagar	0.6	-71	0.0	-100	0.0	-100
Satna	0.8	-71	0.0	-100	0.0	-100
Seoni	0.0	-100	0.0	-100	0.0	-100
Shahdol	0.0	-100	0.0	-100	0.0	-100
Sidhi	0.0	-100	0.0	-100	0.0	-100
Singrauli	0.0	-100	0.0	-100	0.0	-100
Tikamgarh	0.0	-100	0.0	-100	0.0	-100
Umaria	0.0	-100	0.0	-100	0.0	-100
West Madhya Pradesh						
Alirajpur	0.0	-100	0.0	-100	0.0	-100
Asoknagar	0.0	-100	0.0	-100	0.0	-100
Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	0.0	-100	0.0	-100	0.0	-100
Bhind	4.4	192	0.0	-100	0.0	-100
Bhopal	0.0	-100	0.0	-100	0.0	-100
Burhanpur	0.0	-100	0.0	-100	0.0	-100
Datia	4.0	111	0.0	-100	0.0	-100
Dewas	0.0	-100	0.0	-100	0.0	-100
Dhar	0.0	-100	0.0	-100	0.0	-100
Guna	0.1	-95	0.0	-100	0.0	-100
Gwalior	4.6	360	0.0	-100	0.0	-100
Harda	0.0	-100	0.0	-100	0.0	-100
Hosangabad	0.0	-100	0.0	-100	0.0	-100
Indore	0.0	-100	0.0	-100	0.0	-100
Jhabua	0.0	-100	0.0	-100	0.0	-100
Khandwa	0.0	-100	0.0	-100	0.0	-100
Khargone	0.0	-100	0.0	-100	0.0	-100
Mandsaur	0.0	-100	0.0	-100	0.0	-100
Morena	0.0	-100	0.0	-100	0.0	-100
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	0.0	-100	0.0	-100	0.0	-100
Rajgarh	0.0	-100	0.0	-100	0.0	-100
Ratlam	0.0	-100	0.0	-100	0.0	-100
Sehore	0.0	-100	0.0	-100	0.0	-100
Shajapur	0.0	-100	0.0	-100	0.0	-100
Sheopur Kalani	0.0	-100	0.0	-100	0.0	-100
Shivpuri	0.0	-100	0.0	-100	0.0	-100
Ujjain	0.0	-100	0.0	-100	0.0	-100
Vidisha	0.0	-100	0.0	-100	0.0	-100
Chhattisgarh						
Bastar	0.0	-100	0.0	-100	0.6	-95
Bijapur	0.0	-100	0.0	-100	0.0	-100
Bilaspur	0.0	-100	0.0	-100	0.0	-100
Dantewara	0.0	-100	0.0	-100	0.0	-100
Dhamtari	0.0	-100	0.0	-100	0.0	-100
Durg	0.0	-100	0.0	-100	0.0	-100
Janjgir	0.0	-100	0.0	-100	0.0	-100

Jashpurnagar	0.0	-100	0.0	-100	0.0	-100
Kanker	0.0	-100	0.0	-100	0.0	-100
Korba	0.0	-100	0.0	-100	0.0	-100
Koriya	0.0	-100	0.0	-100	0.0	-100
Kawardha	0.0	-100	0.0	-100	0.0	-100
Mahasumund	0.0	-100	0.0	-100	0.0	-100
Narayanpur	0.0	-100	0.0	-100	0.0	-100
Raigarh	0.0	-100	0.0	-100	0.0	-100
Raipur	0.0	-100	0.0	-100	0.0	-100
Rajandgaon	0.0	-100	0.0	-100	0.0	-100
Surguja	0.0	-100	0.0	-100	0.0	-100
East Uttar Pradesh						
Allahabad	0.7	-70	0.0	-100	0.0	-100
Ambedkar Nagar	0.0	-100	0.0	-100	0.0	-100
Azamgarh	0.0	-100	0.0	-100	0.0	-100
Bahraich	0.0	-100	0.0	-100	0.0	-100
Ballia	0.0	-100	0.0	-100	0.0	-100
Balrampur	0.0	-100	0.0	-100	0.0	-100
Banda	2.8	10	0.0	-100	0.0	-100
Barabanki	0.6	-74	0.0	-100	0.0	-100
Basti	0.0	-100	0.0	-100	0.0	-100
Chandauli	0.7	-68	0.0	-100	0.0	-100
Deoria	0.0	-100	0.0	-100	0.0	-100
Faizabad	0.0	-100	0.0	-100	0.0	-100
Farrukhabad	0.0	-100	0.0	-100	0.0	-100
Fatehpur	3.5	84	0.0	-100	0.0	-100
Gazipur	0.0	-100	0.0	-100	0.0	-100
Gonda	0.0	-100	0.0	-100	0.0	-100
Gorakhpur	0.0	-100	0.0	-100	0.0	-100
Hardoi	0.0	-100	0.0	-100	0.0	-100
Jaunpur	0.0	-100	0.0	-100	0.0	-100
Kannauj	0.0	-100	0.0	-100	0.0	-100
Kanpur City	8.4	425	0.0	-100	0.0	-100
Kanpur Dehat	2.4	41	0.0	-100	0.0	-100
Kaushambi	0.6	-83	0.0	-100	0.0	-100
Kheri	0.0	-100	0.0	-100	0.0	-100
Kushi nagar	0.0	-100	0.0	-100	0.0	-100
Lucknow	1.7	-21	0.0	-100	0.0	-100
Maharajganj	0.0	-100	0.0	-100	0.0	-100
Mau	0.0	-100	0.0	-100	0.0	-100
Mirzapur	0.0	-100	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	0.0	-100
RaiBareilly	0.0	-100	0.0	-100	0.0	-100
Sahuji Maharajnagar	0.6	-81	0.0	-100	0.0	-100
Sant Kabirnnagar	0.0	-100	0.0	-100	0.0	-100
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	**	**	**	**	**	**
Sidharthnagar	0.0	-100	0.0	-100	0.0	-100
Sitapur	0.0	-100	0.0	-100	0.0	-100

Sonbhadra	0.0	-100	0.0	-100	0.0	-100
Sultanpur	0.0	-100	0.0	-100	0.0	-100
Unnao	2.5	47	0.0	-100	0.0	-100
Varanasi	0.0	-100	0.0	-100	0.0	-100
West Uttar Pradesh						
Agra	1.8	-13	0.0	-100	0.0	-100
Aligarh	1.7	-51	0.1	-96	0.0	-100
Auraiya	1.0	-52	0.0	-100	0.0	-100
Badaun	0.0	-100	0.4	-69	2.0	300
Baghpat	3.7	7	2.7	-7	0.7	-36
Bareilly	0.5	-90	1.0	-44	0.4	-26
Bijnor	0.5	-92	0.0	-100	4.0	111
Bulandsahar	1.7	-52	2.0	25	0.0	-100
Etah	0.7	-75	0.0	-100	0.0	-100
Etawah	3.0	-3	0.0	-100	0.0	-100
Firozabad	0.7	-69	0.0	-100	0.0	-100
GBNagar	0.0	-100	3.0	2900	3.0	150
Ghaziabad	0.0	-100	2.6	18	1.0	-38
Hamirpur	1.7	8	0.0	-100	0.0	-100
Jalaun	1.0	-38	0.0	-100	0.0	-100
Jhansi	3.0	114	0.0	-100	0.0	-100
Jotiba Phule Nagar	0.3	-94	0.8	-68	0.0	-100
Kanshiramnagar	2.0	-55	0.0	-100	0.0	-100
Lalitpur	0.0	-100	0.0	-100	0.0	-100
Mahamaya Nagar	0.0	-100	0.0	-100	0.0	-100
Mahoba	3.0	200	0.0	-100	0.0	-100
Mainpuri	2.0	-23	0.0	-100	0.0	-100
Mathura	2.0	-38	6.0	400	0.0	-100
Meerut	1.3	-71	5.4	67	1.2	-71
Moradabad	0.3	-93	1.5	-32	4.2	361
Muzaffarnagar	3.1	-39	1.9	-37	7.7	411
Pilibhit	0.0	-100	0.0	-100	1.3	117
Rampur	0.0	-100	0.0	-100	3.0	114
Saharanpur	0.7	-92	0.0	-100	2.0	54
Shahjahanpur	0.0	-100	0.0	-100	0.0	-100
Uttarakhand						
Almora	0.0	-100	0.0	-100	14.1	88
Bageshwar	0.0	-100	0.0	-100	17.9	139
Chamoli	12.7	-45	0.0	-100	25.1	137
Champawat	0.0	-100	1.5	-72	5.0	35
Dehradun	4.3	-69	2.0	-78	15.1	148
Garhwal Pauri	2.7	-73	0.0	-100	10.6	324
Garhwal Tehri	3.6	-73	0.2	-99	16.6	118
Haridwar	5.5	-33	0.0	-100	1.3	-55
Nainital	0.1	-99	0.0	-100	4.3	14
Pithorgarh	18.8	-10	0.0	-100	19.9	192
Rudraprayag	6.9	-69	0.0	-100	14.7	47
Udham Sing Nagar	0.0	-100	0.0	-100	1.3	18
Uttarkashi	8.8	-61	0.0	-100	16.8	53

Bihar						
Araria	0.0	-100	0.0	-100	0.6	-54
Arwal	0.0	-100	0.0	-100	0.0	-100
Aurangabad	0.0	-100	0.0	-100	0.0	-100
Banka	0.0	-100	0.0	-100	0.0	-100
Begusarai	0.0	-100	0.0	-100	0.0	-100
Bhabua	0.0	-100	0.0	-100	0.0	-100
Bhagalpur	0.0	-100	0.0	-100	0.0	-100
Bhojpur	0.0	-100	0.0	-100	0.0	-100
Buxar	0.0	-100	0.0	-100	0.0	-100
Darbhanga	0.0	-100	0.0	-100	0.0	-100
East Champaran	0.0	-100	0.0	-100	0.0	-100
Gaya	0.0	-100	0.0	-100	0.0	-100
Gopalganj	0.0	-100	0.0	-100	0.0	-100
Jahanabad	0.0	-100	0.0	-100	0.0	-100
Jamui	0.0	-100	0.0	-100	0.0	-100
Kathihar	0.0	-100	0.0	-100	0.0	-100
Khagadia	0.0	-100	0.0	-100	0.0	-100
Kishanganj	0.0	-100	0.0	-100	0.0	-100
Lakhisarai	0.0	-100	0.0	-100	0.0	-100
Madhepura	0.0	-100	0.0	-100	0.0	-100
Madhubani	0.0	-100	0.0	-100	0.0	-100
Monghyar	0.0	-100	0.0	-100	0.0	-100
Muzaffarpur	0.0	-100	0.0	-100	0.0	-100
Nalanda	0.0	-100	0.0	-100	0.0	-100
Nawada	0.0	-100	0.0	-100	0.0	-100
Patna	0.0	-100	0.0	-100	0.0	-100
Purnea	0.0	-100	0.0	-100	0.4	-84
Rohtas	0.0	-100	0.0	-100	0.0	-100
Saharsha	0.0	-100	0.0	-100	0.0	-100
Samstipur	0.0	-100	0.0	-100	0.0	-100
Saran	0.0	-100	0.0	-100	0.0	-100
Sheikpura	0.0	-100	0.0	-100	0.0	-100
Sheohar	0.0	-100	0.0	-100	0.0	-100
Sitamarhi	0.0	-100	0.0	-100	0.0	-100
Siwan	0.0	-100	0.0	-100	0.0	-100
Supaul	0.0	-100	0.0	-100	0.0	-100
Vaishali	0.0	-100	0.0	-100	0.0	-100
West Champaran	0.0	-100	0.0	-100	0.0	-100
Jharkhand						
Bokaro	0.0	-100	0.0	-100	0.0	-100
Chatra	0.0	-100	0.0	-100	0.0	-100
Deoghar	0.0	-100	0.0	-100	0.0	-100
Dhanbad	1.6	-72	0.0	-100	0.0	-100
Dumka	0.0	-100	0.0	-100	0.0	-100
East Singbhum	1.1	-80	0.3	-94	0.0	-100
Garhwa	0.0	-100	0.0	-100	0.0	-100
Giridih	0.0	-100	0.0	-100	0.0	-100
Godda	0.0	-100	0.0	-100	0.0	-100

Gumla	**	**	0.0	-100	**	**
Hazaribagh	0.0	-100	0.0	-100	0.0	-100
Jamtara	0.0	-100	0.0	-100	0.0	-100
Khunti	0.0	-100	0.0	-100	0.0	-100
Koderna	0.0	-100	0.0	-100	0.0	-100
Latehar	0.0	-100	0.0	-100	0.0	-100
Lohardagga	0.0	-100	0.0	-100	0.0	-100
Pakur	**	**	0.0	-100	0.0	-100
Palamau	0.0	-100	0.0	-100	0.0	-100
Ramgarh	0.0	-100	0.0	-100	0.0	-100
Ranchi	0.0	-100	0.0	-100	0.0	-100
Sahebganj	0.0	-100	0.0	-100	0.0	-100
Saraikela	0.0	-100	0.0	-100	0.0	-100
Simdega	0.0	-100	0.0	-100	0.0	-100
West Singbhum	0.0	-100	0.0	-100	0.0	-100
East Rajasthan						
Ajmer	0.0	-99	0.0	-100	0.0	-100
Alwar	0.0	-100	0.0	-100	0.0	-100
Banswara	0.0	-100	0.0	-100	0.0	-100
Baran	0.0	-100	0.0	-100	0.0	-100
Bharatpur	0.0	-100	0.0	-100	0.0	-100
Bhilwara	0.0	-100	0.0	-100	0.0	-100
Bundi	0.0	-100	0.0	-100	0.0	-100
Chittorgarh	0.0	-100	0.0	-100	0.0	-100
Dausa	3.4	386	0.0	-100	0.0	-100
Dholpur	0.0	-100	0.0	-100	0.0	-100
Dungarpur	0.0	-100	0.0	-100	0.0	-100
Jaipur	8.8	778	0.0	-100	0.0	-100
Jhalawar	0.0	-100	0.0	-100	0.0	-100
Jhunjhunu	8.7	314	2.9	167	0.1	-91
Karauli	0.0	-100	0.0	-100	0.0	-100
Kota	0.0	-100	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	0.0	-100
Rajsamand	0.0	-100	0.0	-100	0.0	-100
Sawai Madhopur	0.0	-100	0.0	-100	0.0	-100
Sikar	11.5	619	0.0	-100	0.0	-100
Sirohi	0.0	-100	0.0	-100	0.0	-100
Tonk	0.2	-86	0.0	-100	0.0	-100
Udaipur	0.0	-100	0.0	-100	0.0	-100
West Rajasthan						
Barmer	0.0	-100	0.0	-100	0.0	-100
Bikaner	0.0	-100	0.0	-100	0.6	20
Churu	3.3	44	1.3	84	2.1	131
Hanumangarh	12.1	331	0.0	-100	6.0	445
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	0.0	-100	0.0	-100	0.0	-100
Pali	0.0	-100	0.0	-100	0.0	-100

Sri Ganganagar	20.7	474	0.0	-100	0.0	-99
Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	0.0	-100
Anand	0.0	-100	0.0	-100	0.0	-100
Banaskantha	0.0	-100	0.0	-100	0.0	-100
Baroda	0.0	-100	0.0	-100	0.0	-100
Broach	0.0	-100	0.0	-100	0.0	-100
DNH	**	**	**	**	**	**
Dahod	0.0	-100	0.0	-100	0.0	-100
Daman	**	**	**	**	**	**
Dangs	0.0	-100	0.0	-100	0.0	-100
Gandhinagar	0.0	-100	0.0	-100	0.0	-100
Kheda	0.0	-100	0.0	-100	0.0	-100
Mehsana	0.0	-100	0.0	-100	0.0	-100
Narmada	0.0	-100	0.0	-100	0.0	-100
Navsari	0.0	-100	0.0	-100	0.0	-100
Panchmahal	0.0	-100	0.0	-100	0.0	-100
Patan	0.0	-100	0.0	-100	0.0	-100
Sabarkantha	0.0	-100	0.0	-100	0.0	-100
Surat	0.0	-100	0.0	-100	0.0	-100
Tapi	0.0	-100	0.0	-100	0.0	-100
Valsad	0.0	-100	0.0	-100	0.0	-100
S K & Diu region						
Amreli	0.0	-100	0.0	-100	0.0	-100
Bhavnagar	0.0	-100	0.0	-100	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	0.0	-100
Junagarh	0.0	-100	0.0	-100	0.0	-100
Kutch	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.0	-100
Rajkot	0.0	-100	0.0	-100	0.0	-100
Surendranagar	0.0	-100	0.0	-100	0.0	-100
Maharashtra						
Konkan & Goa						
Goa	0.0	-100	0.0	-100	1.4	12
Mumbai	0.0	-100	0.0	-100	0.0	-100
Raigad	0.0	-100	0.0	-100	0.0	-100
Ratnagiri	0.0	-100	0.0	-100	0.0	-100
Sindhudurg	0.0	-100	0.0	-100	0.0	-100
Thane	0.0	-100	0.0	-100	0.0	-100
Madhya Maharashtra						
Ahmednagar	0.0	-100	0.0	-100	0.0	-100
Dhule	0.0	-100	0.0	-100	**	**
Jalgaon	0.0	-100	0.0	-100	0.0	-100
Kolhapur	0.0	-100	0.0	-100	0.7	-86
Nandurbar	0.0	-100	0.0	-100	**	**
Nasik	0.0	-100	0.0	-100	0.0	-100
Pune	0.0	-100	0.0	-100	0.0	-100
Sangli	0.0	-100	0.0	-100	7.7	75

Satara	1.5	69	0.0	-100	0.8	-60
Solapur	0.0	-100	0.0	-100	0.0	-100
Marathwada						
Aurangabad	0.0	-100	0.0	-100	0.0	-100
Beed	0.0	-100	0.0	-100	0.0	-100
Hingoli	0.0	-100	0.0	-100	**	**
Jalna	0.0	-100	0.0	-100	**	**
Latur	0.0	-100	0.0	-100	0.0	-100
Nanded	0.0	-100	0.0	-100	0.0	-100
Usmanabad	0.0	-100	0.0	-100	0.9	-50
Parbhani	0.0	-100	0.0	-100	0.0	-100
Vidarbha						
Akola	0.0	-100	0.0	-100	0.0	-100
Amraoti	0.0	-100	0.0	-100	0.0	-100
Bhandara	0.0	-100	0.0	-100	0.0	-100
Buldhana	0.0	-100	0.0	-100	0.0	-100
Chandrapur	0.0	-99	0.0	-100	0.0	-100
Gadchiroli	0.1	-97	0.0	-100	0.0	-100
Gondia	0.0	-100	0.0	-100	0.0	-100
Nagpur	1.1	-42	0.0	-100	0.0	-100
Wardha	0.0	-100	0.0	-100	0.0	-100
Washim	0.0	-100	0.0	-100	0.0	-100
Yeotmal	0.1	-97	0.0	-100	0.0	-100
Odisha						
Angul	0.0	-100	0.2	-96	0.0	-100
Balasore	6.0	-18	0.5	-96	0.0	-100
Bargarh	0.0	-100	0.0	-100	0.0	-100
Bhadrak	0.0	-100	1.3	-85	0.0	-100
Bolangir	0.0	-100	0.0	-100	0.0	-100
Boudh	0.0	-100	0.0	-100	0.0	-100
Cuttack	0.0	-100	0.0	-100	0.0	-100
Deogarh	0.0	-100	0.0	-100	0.0	-100
Dhenkanal	0.0	-100	0.3	-96	0.0	-100
Gajapati	3.0	-83	0.0	-100	0.7	-95
Ganjam	27.7	576	1.4	-82	0.7	-91
Jagatsingpur	30.0	456	0.0	-100	0.0	-100
Jajpur	0.0	-100	0.3	-95	0.0	-100
Jharsuguda	0.0	-100	0.0	-100	0.0	-100
Kalahandi	0.0	-100	0.0	-100	0.0	-100
Kandhamal	0.0	-100	0.0	-100	0.0	-100
Kendrapara	0.0	-100	0.0	-100	0.0	-100
Keonjhar	0.0	-100	0.1	-98	0.0	-100
Khurda	0.0	-100	0.1	-99	0.0	-100
Koraput	0.0	-100	0.0	-100	0.0	-100
Malkangiri	0.0	-100	0.0	-100	0.0	-100
Mayurbhanj	22.8	74	0.1	-99	0.0	-100
Nawapara	0.0	-100	0.0	-100	0.6	-91
Nawarangpur	16.0	471	0.1	-97	0.1	-99
Nayagarh	0.0	-100	1.0	-84	0.0	-100

Puri	0.0	-100	0.2	-93	0.0	-100
Rayagada	117.8	1450	0.0	-100	0.1	-99
Sambalpur	7.5	63	0.0	-100	0.0	-100
Sonepur	0.0	-100	0.0	-100	0.0	-100
Sundargarh	0.0	-100	0.0	-100	0.0	-100
West Bengal						
GWB						
Bankura	2.8	-60	0.0	-100	0.0	-100
Birbhum	14.9	166	0.0	-100	0.0	-100
Burdwan	12.8	120	0.0	-100	0.0	-100
East Midnapore	1.4	-90	0.0	-100	0.0	-100
Hooghly	13.2	6	0.0	-100	0.0	-100
Howrah	20.6	96	0.0	-100	0.0	-100
Kolkata	16.3	44	0.0	-100	0.0	-100
Murshidabad	0.0	-100	0.0	-100	0.0	-100
Nadia	15.4	117	0.0	-100	0.0	-100
24 Pargana (N)	19.4	53	0.0	-100	0.0	-100
Purulia	0.5	-93	0.0	-100	0.0	-100
24 Pargana (S)	25.6	92	0.0	-100	0.0	-100
West Midnapore	12.0	26	0.0	-100	0.9	-92
SHWB						
Cooch Behar	18.5	97	0.0	-100	2.7	-80
Darjeeling	13.9	-6	0.0	-100	1.3	-93
East Sikkim	34.2	146	8.9	-51	25.7	-21
Jalpaiguri	12.2	16	0.1	-99	16.8	43
Malda	0.0	-100	0.0	-100	1.3	-34
North Dinajpur	0.0	-100	0.0	-100	0.0	-100
North Sikkim	73.0	43	28.4	-28	17.7	-76
South Dinajpur	0.0	-100	0.0	-100	17.8	157
South Sikkim	43.5	213	0.0	-100	1.1	-97
West Sikkim	26.3	-49	3.0	-92	12.8	-82
Karnataka						
Coastal Karnataka						
Dakshin Kannada	0.0	-100	2.0	-34	10.4	39
Udupi	0.0	-100	0.0	-100	5.0	7
Uttar Kannada	0.8	-3	0.0	-100	0.9	-76
N I Karnataka						
Bagalkote	0.0	-100	0.3	-90	0.0	-100
Belgaum	0.0	-100	0.0	-100	2.8	-59
Bidar	0.0	-100	2.9	-38	0.0	-100
Bijapur	0.0	-100	0.0	-100	0.0	-100
Dharwad	0.0	-100	0.0	-100	8.1	47
Gadag	0.0	-100	4.2	48	0.7	-81
Gulbarga	0.0	-100	0.5	-88	0.6	-87
Haveri	0.0	-100	3.1	17	5.1	-20
Koppal	0.0	-100	2.8	253	0.3	-88
Raichur	0.0	-100	0.8	-72	0.0	-100
Yadgir	0.0	-100	0.5	-87	0.0	-100
S I Karnataka						

Bangalore Rural	0.0	-100	0.0	-100	0.0	-100
Bangalore Urban	0.0	-100	0.0	-100	0.0	-100
Bellary	0.0	-100	1.3	-7	3.7	10
Chamarajnagar	0.0	-100	0.0	-100	9.6	11
Chichballapur	0.0	-100	0.0	-100	0.0	-100
Chickmagalur	0.7	-68	2.3	-52	13.1	20
Chitradurga	0.0	-100	0.6	-71	0.3	-93
Davangere	0.0	-100	16.4	556	2.4	-54
Hassan	0.0	-100	1.5	-64	2.9	-66
Kodagu	1.9	-64	8.8	3	3.5	-78
Kolar	0.0	-100	0.0	-100	0.0	-100
Mandya	0.0	-100	0.0	-100	7.5	18
Mysore	0.0	-100	0.0	-100	13.5	96
Ramnagara	0.0	-100	0.0	-100	1.6	-68
Shimoga	0.0	-100	1.0	-72	5.7	-6
Tumkur	0.0	-100	0.0	-100	0.9	-75
Kerala						
Alappuzha	30.3	180	0.0	-100	37.8	29
Kannur	0.0	-100	0.0	-100	5.6	-21
Ernakulam	13.1	47	0.0	-100	30.6	72
Idukki	10.3	1	0.0	-100	17.1	-43
Kasaragod	0.0	-100	0.0	-100	14.5	245
Kollam	8.4	-43	0.0	-100	20.1	-36
Kottayam	40.7	311	0.0	-100	40.5	22
Kozhikode	0.0	-100	0.5	-88	33.5	182
Malappuram	0.0	-100	0.0	-100	7.0	-56
Palakkad	1.5	-81	0.0	-100	5.3	-71
Pathanamthitta	9.4	-52	0.0	-100	110.9	190
Thiruvananthapuram	5.3	-47	0.0	-100	20.3	-18
Thrissur	1.1	-78	0.0	-100	14.9	-8
Wayanad	0.0	-100	2.9	-65	25.2	71
Tamil Nadu						
Ariyalur	0.0	-100	0.0	-100	0.0	-100
Chennai	0.0	-100	0.0	-100	0.0	-100
Coimbatore	0.7	-76	0.0	-100	7.4	4
Cuddalore	0.0	-100	0.0	-100	0.0	-100
Dharmapuri	0.0	-100	0.0	-100	0.0	-100
Dindigul	2.8	-39	0.0	-100	4.4	-60
Erode	0.0	-100	0.0	-100	0.0	-100
Kanchipuram	0.0	-100	0.0	-100	0.0	-100
Kanyakumari	0.8	-92	0.0	-100	10.5	-61
Karikal	0.0	-100	0.0	-100	0.0	-100
Karur	0.0	-100	0.0	-100	0.4	-93
Krishnagiri	0.0	-100	0.0	-100	0.0	-100
Madurai	0.4	-90	0.0	-100	0.0	-100
Nagapattinam	0.0	-100	0.0	-100	0.0	-100
Namakkal	0.0	-100	0.0	-100	0.0	-100
Nilgiris	1.3	-75	0.0	-100	1.2	-93
Perambalur	0.0	-100	0.0	-100	0.0	-100

Puducherry	0.0	-100	0.0	-100	0.0	-100
Pudukottai	0.0	-100	0.0	-100	0.0	-100
Ramanathapuram	0.0	-100	0.0	-100	6.3	-37
Salem	0.0	-100	0.0	-100	0.0	-100
Sivaganga	0.0	-100	0.0	-100	0.0	-100
Thanjavur	0.0	-100	0.0	-100	0.0	-100
Theni	15.9	130	0.0	-100	8.7	-52
Tirunelveli	7.6	6	0.0	-100	21.7	8
Tirupur	0.0	-100	0.0	-100	0.0	-100
Tiruvallur	0.0	-100	0.0	-100	0.0	-100
Tiruvannamalai	0.0	-100	0.0	-100	0.0	-100
Tiruvarur	0.0	-100	0.0	-100	0.3	-94
Toothukudi	0.0	-100	0.0	-100	2.1	-86
Trichy	0.0	-100	0.0	-100	0.0	-100
Vellore	0.0	-100	0.0	-100	0.0	-100
Villupuram	0.0	-100	0.0	-100	0.0	-100
Virudhunagar	0.6	-91	0.0	-100	0.7	-96
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0.0	-100	0.0	-100
Guntur	0.0	-100	0.0	-100	0.0	-100
Krishna	0.0	-100	0.0	-100	0.0	-100
Nellore	0.0	-100	0.0	-100	0.0	-100
Prakasam	0.0	-100	0.0	-100	0.0	-100
Sirkakulam	1.5	-62	0.0	-100	3.6	-45
Visakhapatnam	0.3	-93	0.0	-100	0.0	-100
Vizianagram	0.0	-100	0.0	-100	0.0	-100
West Godavari	0.0	-100	0.0	-100	0.0	-100
Telangana						
Adilabad	0.5	-75	0.0	-100	0.0	-100
Hyderabad	0.0	-100	0.0	-100	1.2	-70
Karimnagar	0.0	-100	0.0	-100	0.4	-89
Khammam	0.0	-100	0.0	-100	0.0	-100
Mehabubnagar	0.0	-100	0.9	-37	1.1	-62
Medak	0.0	-100	3.5	52	0.0	-100
Nalgonda	0.0	-100	1.4	-30	1.7	-30
Nizamabad	0.0	-100	0.3	-90	0.0	-100
Rangareddy	0.0	-100	0.9	-74	0.5	-78
Warangal	0.0	-100	0.0	-100	4.1	52
Rayalaseema						
Anantapur	0.0	-100	0.0	-100	0.0	-100
Chittoor	0.0	-100	0.0	-100	0.0	-100
Cuddapah	0.0	-100	0.0	-100	0.0	-100
Kurnool	0.0	-100	0.1	-92	0.0	-100

	(20% or more) excess rainfall		(-60 to -99 %) scanty rainfall
	(-19 to +19%) normal rainfall		(-100%) no rainfall
	(-20 to -59%) deficient rainfall	**	Data not available