

National Agromet Advisory Service Bulletin

Friday 25th April 2014

(For the period 25th to 29th April 2014)



Issued by

National Agrometeorological Advisory Service Centre,

Agricultural Meteorology Division,

India Meteorological Department, Shivajinagar, Pune.



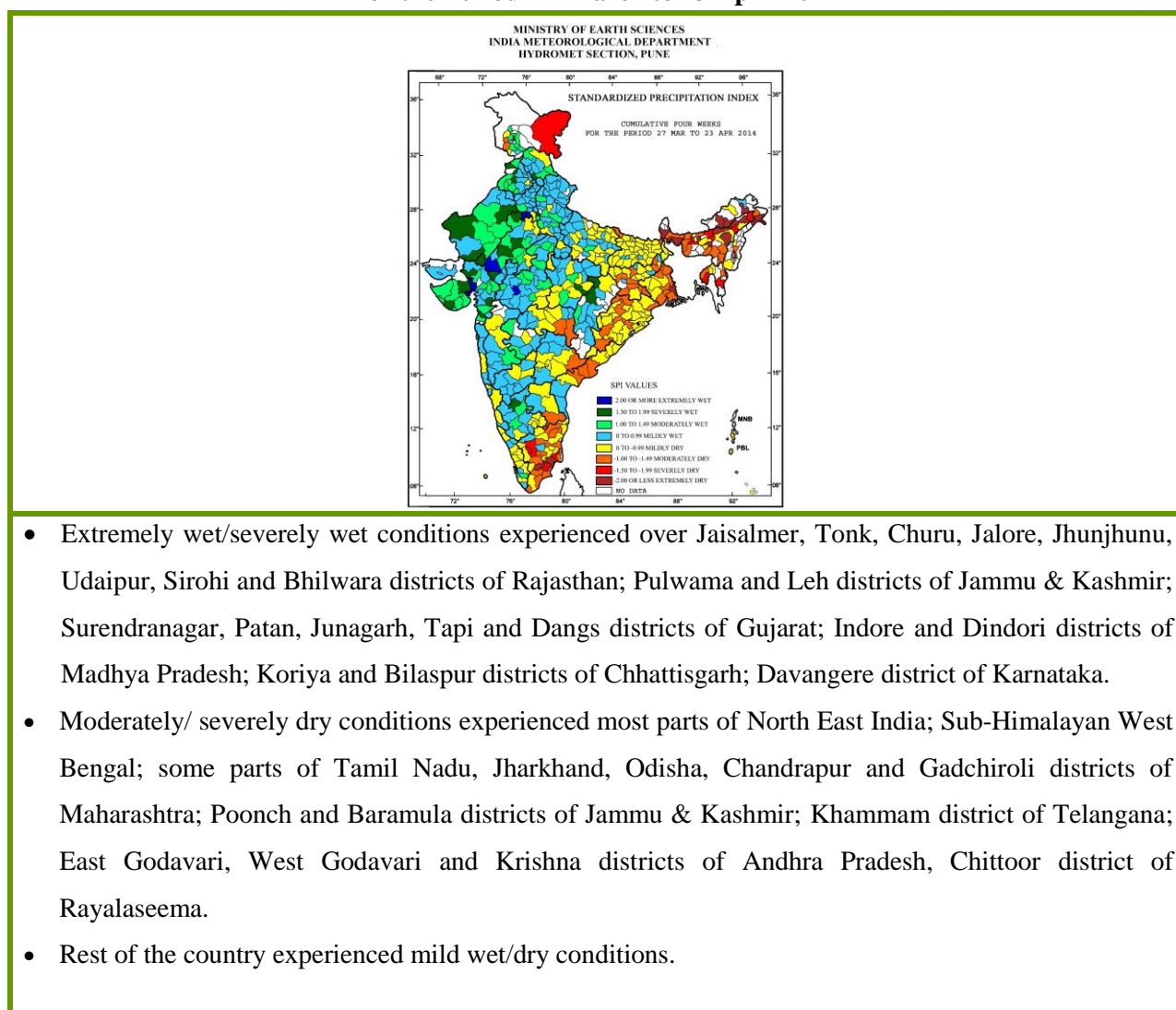
ESSO-IMD's Operational Long Range Forecast for the 2014 Southwest Monsoon Rainfall

(a) Quantitatively, the monsoon seasonal rainfall is likely to be 95% of the Long Period Average (LPA) with a model error of $\pm 5\%$. The LPA of the season rainfall over the country as a whole for the period 1951-2000 is 89 cm.

(b) The 5 category probability forecasts for the Seasonal (June to September) rainfall over the country as a whole is given below:

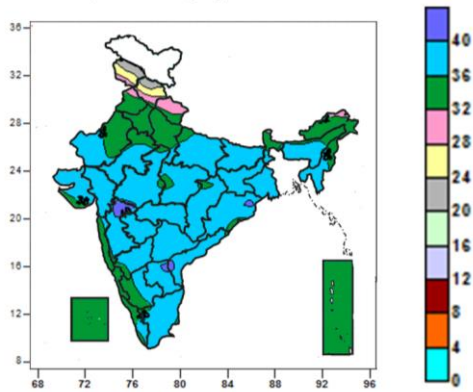
Category	Rainfall Range (% of LPA)	Forecast Probability (%)	Climatological Probability (%)
Deficient	< 90	23	16
Below Normal	90 - 96	33	17
Normal	96 -104	35	33
Above Normal	104 -110	8	16
Excess	> 110	1	17

Standardised Precipitation Index Four Weekly for the Period 27 March to 23 April 2014

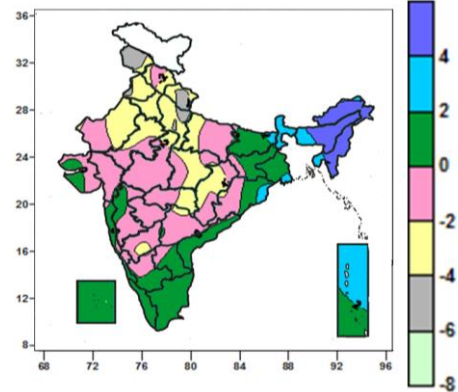


Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 23.04.2014

Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 23.04.2014



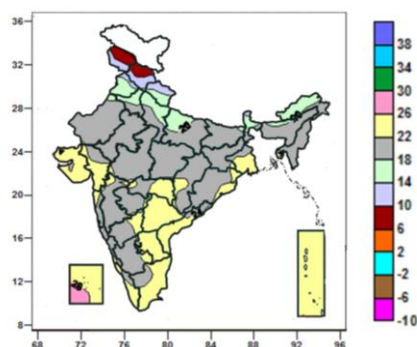
Mean Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 23.04.2014



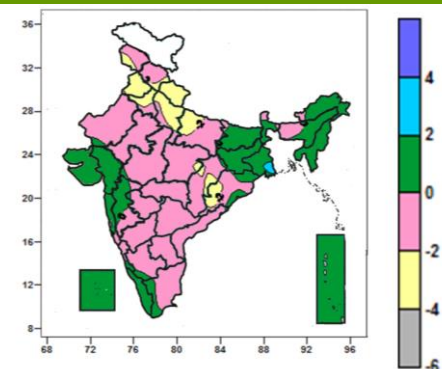
- 40 to 44 $^{\circ}\text{C}$ over some parts of Madhya Maharashtra, Coastal Andhra Pradesh, Rayalaseema, Odisha.
- 36 to 40 $^{\circ}\text{C}$ over East Uttar Pradesh, Rajasthan, Bihar, Jharkhand, Gangetic West Bengal, Assam & Meghalaya, Mizoram, Tripura, Odisha, Central India, West India (except Konkan & Goa, South India (except Coastal & South Interior Karnataka, Kerala), some parts of West Uttar Pradesh, South Interior Karnataka, Kerala.
- 32 to 36 $^{\circ}\text{C}$ over many places of Punjab, Haryana, Delhi, West Uttar Pradesh, West Rajasthan, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Konkan & Goa, Coastal & South Interior Karnataka, Andaman & Nicobar Islands, some parts of Uttarakhand, East Uttar Pradesh, Assam, Manipur, Saurashtra, Central India, Odisha, North Interior Karnataka, Kerala.
- 28 to 32 $^{\circ}\text{C}$ over many parts of Uttarakhand, some parts of Jammu & Kashmir, Himachal Pradesh, Punjab, Sikkim, Arunachal Pradesh.
- 24 to 28 $^{\circ}\text{C}$ over some parts of Jammu & Kashmir, Himachal Pradesh.

- 4 to 6 $^{\circ}\text{C}$ over many parts of North East India.
- 2 to 4 $^{\circ}\text{C}$ over many parts of Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, some parts of Bihar, Gangetic West Bengal, Assam, Tripura, Odisha.
- -2 to 2 $^{\circ}\text{C}$ over all parts of country except many parts of North India, North East India, East Madhya Pradesh, Chhattisgarh, Andaman & Nicobar Islands some parts of, Odisha, Vidarbha, Telangana, North Interior Karnataka.
- -4 to -2 $^{\circ}\text{C}$ over many parts of Punjab, Haryana, West Uttar Pradesh, Rajasthan, East Madhya Pradesh, Chhattisgarh, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Vidarbha, Telangana, North Interior Karnataka..
- -6 to -4 $^{\circ}\text{C}$ over many parts of Jammu & Kashmir, Uttarakhand, some parts of East Uttar Pradesh.

Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 23.04.2014



Mean Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 23.04.2014



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

- -4 to -2 $^{\circ}\text{C}$ over many parts of Uttarakhand, Punjab, Haryana, West Uttar Pradesh, some parts of Jammu & Kashmir, Himachal Pradesh, Delhi, East Uttar Pradesh, Odisha, Chhattisgarh, East Madhya Pradesh.
- -2 to 2 $^{\circ}\text{C}$ over all parts of country except many parts of Uttarakhand, Punjab, Haryana, West Uttar Pradesh, some parts of Jammu & Kashmir, Himachal Pradesh,

Saurashtra & Kutch, Vidarbha, Andhra Pradesh, Tamil Nadu, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Haryana, Delhi, Uttar Pradesh, Jharkhand, Odisha, Chhattisgarh, Maharashtra, Karnataka.

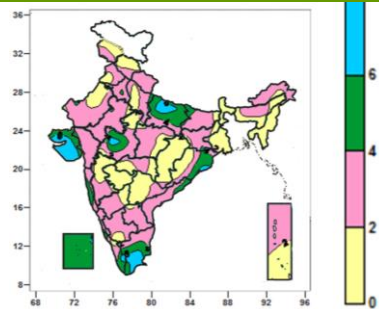
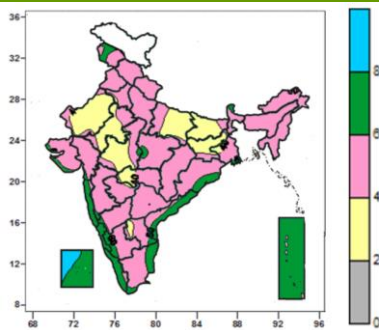
Delhi, East Uttar Pradesh, Odisha, Chhattisgarh, East Madhya Pradesh.

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

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 23.04.2014

Relative Humidity (%) over India for the week ending 23.04.2014

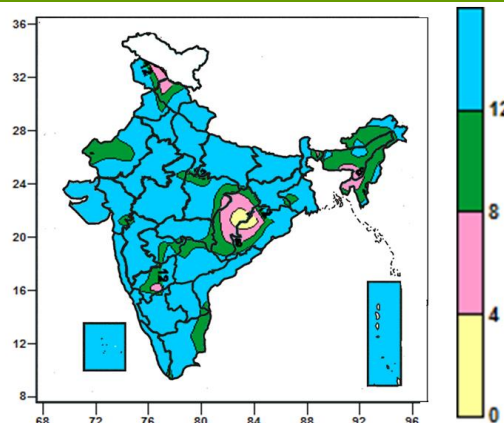
Cloud amount (okta) over India for the week ending 23.04.2014



- 80 to 100% over some parts of Lakshadweep Islands.
- 60 to 80% over many parts of Konkan & Goa, Coastal Karnataka, Kerala, Coastal Andhra Pradesh, Lakshadweep, Andaman & Nicobar Islands, Some parts of Jammu & Kashmir, Sikkim, Coastal Odisha, Madhya Pradesh, Coastal Tamil Nadu, Rayalaseema, Interior Karnataka, Saurashtra & Kutch, Madhya Pradesh.
- 40 to 60% over entire country except many parts of East Uttar Pradesh, Rajasthan, Bihar, Jharkhand, West Madhya Pradesh, Konkan & Goa, Coastal Karnataka, Kerala, Coastal Andhra Pradesh, Lakshadweep, Andaman & Nicobar Islands, Some parts of Jammu & Kashmir, Sikkim, Coastal Odisha, Coastal Tamil Nadu, Rayalaseema, Interior Karnataka, Saurashtra & Kutch, West Madhya Pradesh, Haryana, Gangetic West Bengal, Vidarbha, Marathwada
- 20 to 40% over many parts of East Uttar Pradesh, Rajasthan, Bihar, Jharkhand, West Madhya Pradesh, some parts of Haryana, Gangetic West Bengal, Rayalaseema, Vidarbha, Marathwada.

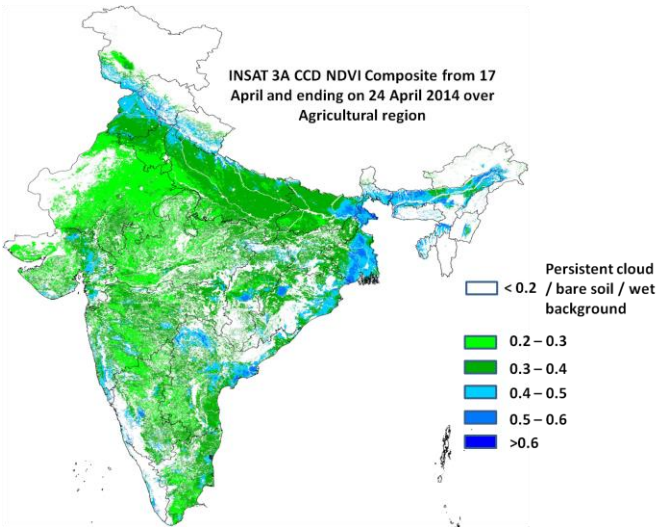
- 6 to 8 okta over many parts of Saurashtra & Kutch, some parts of East Uttar Pradesh, West Madhya Pradesh, Coastal Odisha, Tamil Nadu, Kerala.
- 4 to 6 okta over many parts of East Uttar Pradesh, Lakshadweep Islands, some parts of Bihar, Odisha, West Madhya Pradesh, Saurashtra & Kutch.
- 0 to 4 okta over entire country except many parts of Saurashtra & Kutch, East Uttar Pradesh, Lakshadweep Islands, some parts of Bihar, Odisha, Saurashtra & Kutch, East Uttar Pradesh, West Madhya Pradesh, Coastal Odisha, Tamil Nadu, Kerala.

Wind speed (knots) over India for the week ending 23.04.2014



- 8 to 16 knots over entire country except many parts of Chhattisgarh, some parts of Jammu & Kashmir, Himachal Pradesh, Assam, Tripura, Odisha, East Madhya Pradesh, South Interior Karnataka.
- 4 to 8 knots over many parts of Chhattisgarh, some parts of Jammu & Kashmir, Himachal Pradesh, Assam, Tripura, Odisha, East Madhya Pradesh, South Interior Karnataka.
- 0 to 4 knots over some parts of Chhattisgarh, Odisha.

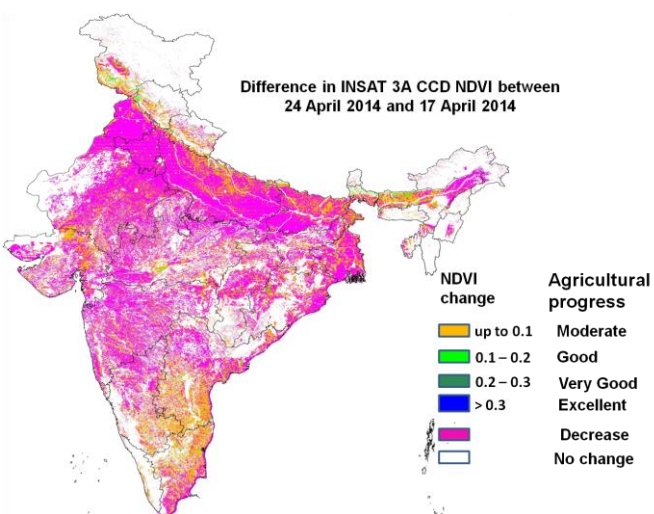
INSAT 3A CCD NDVI COMPOSITE OVER AGRICULTURAL REGION 17th -24th April 2014



Source: SAC, Ahmedabad

Agricultural vigour is moderate over pockets of West Bengal and pockets of north and coastal AP as NDVI vary between 0.4 to 0.5 upto 24th April 2014. The NDVI remains within the range of 0.2 to 0.4 over rest of India.

Difference in INSAT 3A CCD NDVI between 24th April 2014 and 17th April 2014



Source: SAC, Ahmedabad

Agricultural progress was found to be moderate over few pockets of north east India. Major part of India showed decay in agricultural vigour as compared to past week which may be due to maturity of *rabi* crops.

Weather Forecast

Weather Forecast for next 3 days (upto 0830 hours IST of 28th April, 2014)

- Rain/thundershowers would occur at a few places over Jammu & Kashmir during next 48 hours at isolated places thereafter.
- Rain/thundershowers would occur at isolated places over Arunachal Pradesh and Assam & Meghalaya during next 48 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over Himachal Pradesh, Odisha, Tamil Nadu & Pudduchery, South Interior Karnataka and Kerala during the period.
- Rain/thundershowers would occur at isolated places over Uttarakhand, Punjab, Haryana & Delhi, Coastal Andhra Pradesh, Telangana, Rayalaseema, North Interior Karnataka and Lakshadweep during next 48 hours and mainly dry thereafter.
- Rain/thundershowers would occur at isolated places over Rajasthan, Chhattisgarh, Andaman & Nicobar Islands during next 24 hours and mainly dry thereafter.
- Mainly dry/dry weather would prevail over Nagaland, Manipur, Mizoram and Tripura during next 24 hours and over Bihar, Jharkhand, West Bengal & Sikkim during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
- Mainly dry/dry weather would prevail over Uttar Pradesh, Madhya Pradesh, Gujarat State, Coastal Karnataka, Maharashtra during the period.
- Rise in maximum temperatures by 1-2°C over central, adjoining northwest and east India during next 24 hours.

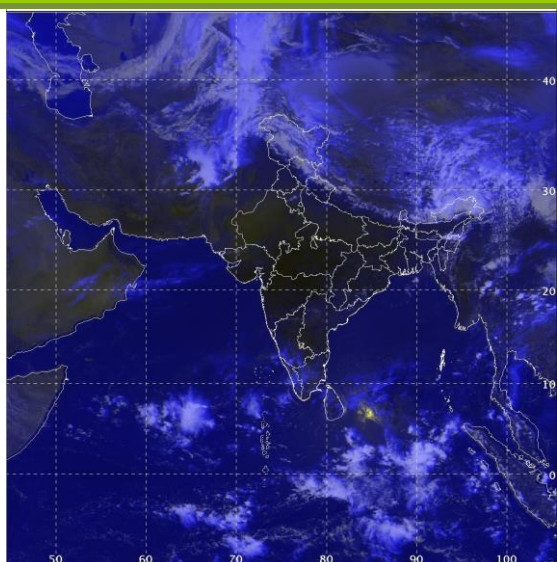
Weather Warning during next 3 days

- **25 April (Day 1):** Heat wave conditions would prevail over Gangetic West Bengal and interior Odisha. Moderate thundersquall would occur at isolated places over Assam & Meghalaya.
- **26 April (Day 2):** Thundersquall would occur at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bihar, Jharkhand and Sub-Himalayan West Bengal.
- **27 April (Day 3):** Thundersquall would occur at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bihar, Jharkhand and Sub-Himalayan West Bengal.

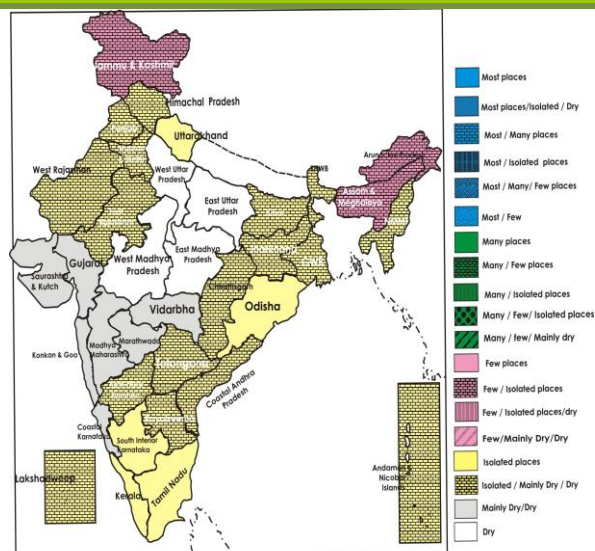
Weather Outlook for subsequent 4 days from 28th April 2014 to 02nd May 2014

- Rain/thundershowers would occur at a few places over northeastern states.
- Rain/thundershowers would occur at isolated places over Odisha, Jharkhand, West Bengal & Sikkim and extreme south peninsular India.
- Rise in temperatures over northwest and central India.
- Weather would be mainly dry over rest of the country.

Satellite image dated 25.04.2014, 0600 UTC



Weather Forecast Map (Valid upto 0830 hours of 28th April, 2014)



Salient Advisories

- As heat wave conditions would prevail over **interior Odisha and Gangetic West Bengal** on 25th April, it is advised to apply light and frequent irrigation to the standing crops or do soil mulching/ mulching with straw/polythene to cope up with the excess evaporative demand due to high temperature.
- As thundersquall would occur at isolated places over **Bihar, Jharkhand and Sub-Himalayan West Bengal** on 26th and 27th April, provide mechanical support to vegetables and young fruit plants. Also undertake propping up in sugarcane.
- As moderate thundersquall would occur at isolated places over **Assam & Meghalaya** during the period and over **Nagaland, Manipur, Mizoram and Tripura** on 26th and 27th April, provide mechanical support to banana, young fruit plants and vegetables.
- In view of the prevailing high temperature, apply irrigation in vegetable crops in South Gujarat Heavy Rainfall Zone of **Gujarat**.
- In Madhya **Maharashtra**, in view of prevailing mainly dry weather, apply irrigation to summer groundnut, bajra, sugarcane and vegetable crops. As high temperature is prevailing, apply mulch of crop residues and other plant waste product in the orchards and sugarcane trash in sugarcane. 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.

Detailed Zonewise Agromet Advisories

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



Wheat



Sugarcane



Peas



Onion

- **Realised Rainfall:** Rainfall occurred in all districts except Jammu, Kargil, Ladakh(Leh), Poonch and Rajouri in Jammu & Kashmir, in Amritsar, Faridkot, Ferozpur, Gurdaspur, Hoshiarpur, Kapurthala, Moga, Muktesar, Nawashahar and Tarn Taran districts of Punjab, in Mahendragarh district of Haryana, in all districts except Lahaul & Spitti and Sirmaur of Himachal Pradesh, in Chamoli and Uttarkashi districts of Uttarakhand. Mainly dry weather prevailed over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Jammu & Kashmir during next 48 hours at isolated places thereafter. Rain/thundershowers would occur at isolated places over Himachal Pradesh during the period. Rain/thundershowers would occur at isolated places over Uttarakhand, Punjab, Haryana & Delhi, during next 48 hours and over Rajasthan during next 24 hours and mainly dry thereafter. Mainly dry/dry weather would prevail over rest parts of the region.
Rise in maximum temperatures by 1-2°C over northwest India adjoining to central India during next 24 hours.
- **Weather Warning:** No weather warning.
- **Weather Outlook:** Rise in temperatures over the region. Weather would be mainly dry over the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - Taking advantage of the realised rainfall, continue nursery bed preparation of rice and sowing of beans, bottle gourd, bitter gourd, bhindi, radish and planting of potato and turmeric in Intermediate Zone of Jammu & Kashmir.
 - Due to humid weather, there is chance of attack of fruit fly and red pumpkin beetle in cucumber, bottle gourd and ridge gourd in Sub-Tropical Zone of Jammu & Kashmir. For control, spray Malathion @1.5ml/litre of water at weekly interval on a non rainy day.
 - **Himachal Pradesh:**
 - In Himachal Pradesh, as mainly dry weather would prevail, continue intercultural operation and application of

plant protection measures and fertilizers in the standing crops. Also continue harvesting of matured wheat and oilseeds.

- Undertake sowing of cucumber, bitter gourd, bottle guard and summer squash and transplanting of tomato, chilli, capsicum and brinjal in Mid-Hills Sub-Humid Zone of Himachal Pradesh utilizing the realised rainfall.
- Due to hot and humid weather conditions, there is chance of infestation of apple scab at pink bud stage in apple in Mild-Hills sub-Humid Zone of Himachal Pradesh. For control, spray mixture of 100 g of Carbendazim + 400 ml of Chlorpyrifos + 200 g of Boric acid in 200 litres of water.
- Due to humid conditions, there are chances of attack of mango hopper in mango Mid-Hills sub-Humid Zone and Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh. To control the attack, spray Chlorpyrifos 20 EC @ 2 ml per litre of water or Monochrotophos 40 EC @ 1.5 ml per litre of water.

▪ **Uttarakhand:**

- In Uttarakhand, as mainly dry weather would prevail, continue intercultural operation and application of plant protection measures and fertilizers in the standing crops. Also continue harvesting of matured wheat, barley, lentil and French bean.
- Due to increase in temperature conditions, yellow mosaic disease is expected in moong and urad crops at flowering & pod formation stage in Bhabar and Tarai Zone of Uttarakhand. To control, spray Metasystox @400 ml/400 litres of water per acre.
- Due to hot weather conditions, there is chance of mango hopper in mango in Sub-tropical Sub-Humid Zone of Uttarakhand. To control mango hopper, spray Dimethoate @ 2 ml /litre of water or Imidacloprid @ 0.3 ml/ litre of water.

▪ **Punjab, Haryana and Delhi:**

- Taking advantage of prevailing dry weather, continue harvesting of wheat, linseed and lentil in Sub Montane Undulating Zone of Punjab.
- In Central Plain Zone of Punjab it is advised to harvest matured wheat crop as weather is expected to remain dry in next 2-3 days. It is advised to protect fruit trees from sun injury. White wash the trunk, provide shelter to young trees and give light and frequent irrigation to young as well as fruit bearing trees. Irrigate the tomato crop to encourage maximum fruit setting and development of fruits. Apply irrigation in *Kharif* onion nursery sown in March.
- As dry weather would prevail, apply light and frequent irrigation in all vegetable crops and new horticultural plantations in Eastern Zone of Haryana. Irrigation should be done in the morning or evening hours. Continue harvesting of matured wheat crop.
- In Delhi, present temperature is favourable for sowing of hybrid cluster bean and direct sowing of amaranthus, lady finger, bottle gourd and summer radish.

▪ **Uttar Pradesh:**

- As dry weather is prevailing, apply irrigation in sugarcane and vegetables in East Uttar Pradesh. Also undertake harvesting of matured timely sown wheat in Central Plain Zone and Western Plain Zone of Uttar Pradesh.
- Continue sowing of moong, urad, ladies finger, lobia and cucubitious crops utilizing the available moisture in Western Plain Zone of Uttar Pradesh.
- Due to hot weather condition there is chance of attack of green hopper in sunflower in Central Plain Zone of Uttar Pradesh. To control the attack, spray Phosphamidon @ 250 ml per hectare.
- Due to hot weather condition, there is chance 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 @ 5 ml per 10 litres of water. Also due to prevailing hot weather, there is chance 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. @ 1.5 ml per litre of water.

▪ **Rajasthan:**

- Due to hot weather conditions, fruit fly may attack summer vegetables like bitter gourd, ridge gourd, muskmelon and watermelon in Semi Arid Eastern Plain Zone of Rajasthan. To control fruit fly, pick up the affected fruits and bury them in soil. Spray Malathion 50 EC or Dimethoate 30 EC @ 1 ml per litre water.
- In view of hot weather conditions, 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 ml per litre of 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.

• **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**

- Continue nursery preparation for summer flowers like gladiolus, portulaca, gomphrina and china aster and sowing of the seeds of crysanthemum in Mid-Hills Sub-Humid Zone of Himachal Pradesh utilizing the realized rainfall.

CENTRAL INDIA [M.P., CHHATTISGARH]



Wheat



Sugarcane



Chilli



Green Gram

- **Realised Rainfall:** Rainfall occurred in Dindori and Seoni districts of east Madhya Pradesh, Bastar and Bilaspur districts of Chhattisgarh. Weather was mainly dry over rest of the region.
- **Weather forecast:** Rain/thundershowers would occur at isolated places over Chhattisgarh during next 24 hours and mainly dry thereafter. Weather would be mainly dry/dry over rest of the region. Rise in maximum temperatures by 1-2°C over central India during next 24 hours.
- **Weather Warning:** No weather warning.
- **Weather Outlook:** Rise in temperatures over central India. Weather would be mainly dry over the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - As dry weather would prevail, continue harvesting of wheat in Bundelkhand Zone of Madhya Pradesh.
 - As dry weather would prevail, apply irrigation in summer moong and urad in Kymore Plateau Zone and Jhabua Hill Zone of Madhya Pradesh. Also apply irrigation in mango and guava orchards in Grid Zone of Madhya Pradesh.
 - As dry weather would prevail, apply irrigation in sugarcane and maize in Central Narmada Valley Zone and in summer vegetables in Jhabua Hill Zone of Madhya Pradesh.
 - Due to increase in temperature, there is chance of fruit dropping in mango orchards in Kymore Plateau Zone and Vindhya Plateau Zone of Madhya Pradesh; spray Planofix solution for prevention.
 - Due to prevailing hot weather, there is possibility of attack of stem and fruit borer in tomato and brinjal in Bundelkhand Zone of Madhya Pradesh. Spray Melathion @ 1 ml. per litre of water for its control.
 - Due to prevailing hot weather, there is possibility of attack of sucking pest in moong & urad in Kymore Plateau Zone and Jhabua Hill Zone of Madhya Pradesh; spray Thiomithaxim @ 0.3 g/litre of water for control.
 - Due to prevailing hot weather, there is possibility of attack of pyrilla in sugarcane in Vindhya Plateau Zone of Madhya Pradesh. Apply Melathion 50 E.C. @ 1.5 litres in 700-800 litres of water.
 - **Chhattisgarh:**
 - As mainly dry weather would prevail continue harvesting of wheat, pea and rajma in North Hill Zone of Chhattisgarh. Also dig out tubers like potato, onion and garlic.
 - As mainly dry weather would prevail, apply irrigation in summer rice, maize, sugarcane, summer vegetables and mango and litchi orchards in North Hill Zone of Chhattisgarh.
 - Due to prevailing hot weather, there is possibility of attack of stem borer in summer rice in North Hill Zone of Chhattisgarh. Apply Carbofuran @33 kg/ha for control.
- **Animal Husbandry**
 - 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 plenty 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:** Rainfall occurred in Sahibganj district of Jharkhand; in North Sikkim and South Sikkim district of Sikkim. Mainly dry/dry weather prevailed over rest part of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Odisha during the period. Mainly dry/dry weather would prevail over Bihar, Jharkhand, West Bengal & Sikkim during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
Rise in maximum temperatures by 1-2°C over east India during next 24 hours.
- **Weather Warning:** Heat wave conditions would prevail over Gangetic West Bengal and interior Odisha on 25th April. Thundersquall would occur at isolated places over Bihar, Jharkhand and Sub-Himalayan West Bengal on 26th and 27th April.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over Odisha, Jharkhand, West Bengal & Sikkim. Weather would be mainly dry over rest of the region.
- **Advisories:**
 - **Odisha:**
 - As heat wave conditions would prevail over interior Odisha on 25th April, it is advised to apply light and frequent irrigation to the standing crops or do soil mulching/ mulching with straw/polythene to cope up with the excess evaporative demand due to high temperature.
 - As mainly dry weather would prevail, continue harvesting of green gram, black gram and groundnut.
 - High diurnal variation of 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 or burying.
 - Prevailing temperature conditions are congenial for thrips infestation in groundnut in East and South Eastern Coastal Plain Zone of Odisha. Spray Dimethoate @ 400 ml or Imidachloprid @ 50 ml in 200 litre water per acre.
 - In the present weather Gundhi bug infestation may become severe in rice during milk and soft dough stage in Western Undulating Zone of Odisha.
 - High difference between day and night temperatures may aggravate whitefly problem in green gram at flowering to pod formation stage in North Eastern Coastal Plain Zone of Odisha. Use yellow sticky traps and spray Dimethoate/Triazophos @ 2ml/litre of water to control whitefly population.
 - **West Bengal:**
 - As heat wave conditions would prevail over Gangetic West Bengal on 25th April, it is advised to apply light and frequent irrigation to the standing crops or do soil mulching/ mulching with straw/polythene to cope up with the excess evaporative demand due to heat wave.
 - As thundersquall would occur at isolated places over Sub- Himalayan West Bengal on 26th and 27th April, provide mechanical support to banana, vegetables and young fruit plants.
 - As dry weather would prevail, undertake harvesting of matured *boro* rice in Laterite and Red soil Zone and New Alluvial Zone of West Bengal.
 - Due to increase in temperature, red spider mite attack may occur in brinjal and okra in Coastal Saline Zone of West Bengal. Spray Properzta @ 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 New Alluvial Zone of West Bengal. Spray 1 ml Carbendazim per litre of water for control. Also high temperature and humidity may cause fungal fruit rot & stem rot diseases in summer vegetables. To control it, apply Carbendazim @ 1g or Blitox @ 4g/ litre of water.
 - **Bihar:**
 - As thundersquall would occur at isolated places over Bihar on 26th and 27th April, provide mechanical support to vegetables and young fruit plants. Also undertake propping up in sugarcane.
 - As dry weather would prevail, apply irrigation in sugarcane, onion, sunflower, gram, summer vegetables, mango and litchi and continue harvesting of wheat, lentil and pea in North West Alluvial Plain Zone of Bihar.
 - As dry weather would prevail, apply irrigation to maize in South Bihar Alluvial Zone. Also undertake harvesting

of wheat.

- As dry weather is prevailing, apply regular irrigation in sugarcane, *boro rice*, moong and onion in North East Alluvial Plain Zone of Bihar. Also continue harvesting of wheat and maize.
- **Jharkhand:**
- As thundersquall would occur at isolated places over Jharkhand on 26th and 27th April, provide mechanical support to vegetables and young fruit plants. Also undertake propping up in sugarcane.
- As dry weather would prevail, apply irrigation in moong, in mango and litchi orchards in Western Plateau Zone of Jharkhand.
- As dry weather would prevail, apply irrigation to moong and summer rice in South Eastern Plateau Zone of Jharkhand.
- High difference in day and night temperature favours occurrence of blast disease in rice in South Eastern Plateau Zone of Jharkhand; for control, spray Tricyclazole @ 0.5 g per litre of water.
- **Animal Husbandry**
- As heat wave conditions would prevail in interior Odisha and Gangetic West Bengal, keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Make arrangement of curtains and proper ventilation in poultry house.
- Prevailing high temperature may adversely affect the milk production of milch animals in North West Alluvial Plain Zone of Bihar. Provide plenty 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.

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



Green Gram

Rice

Okra

Sugarcane

- **Realised Rainfall:** Rainfall occurred in Lower Dibang Valley, Upper Siang, Upper Subansiri and West Siang districts of Arunachal Pradesh; in Bongaigaon and Chirang districts of Assam. Mainly dry/dry weather prevailed over rest parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Arunachal Pradesh and Assam & Meghalaya during next 48 hours and at a few places thereafter. Mainly dry/dry weather would prevail over Nagaland, Manipur, Mizoram and Tripura during next 24 hours and rain/thundershowers would occur at isolated places thereafter.
- **Weather Warning:** Moderate thundersquall would occur at isolated places over Assam & Meghalaya on 25th and over Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura 26th and 27th April.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over northeastern states.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - As moderate thundersquall would occur at isolated places over Assam and Meghalaya during the period, provide mechanical support to banana, young fruit plants and vegetables.
 - As no significant rainfall is expected, apply irrigation in *boro rice* in Central Brahmaputra Valley Zone of Assam.
 - **Nagaland, Manipur, Mizoram and Tripura:**
 - As moderate thundersquall would occur at isolated places over Nagaland, Manipur, Mizoram and Tripura on 26th and 27th April, provide mechanical support to banana, young fruit plants and vegetables.
 - As mainly dry weather is prevailing, provide banana shading and irrigation to young seedlings of brinjal, okra, French bean and pumpkin in Mid Tropical Hill Zone of Mizoram.
 - As mainly dry weather is prevailing, carry out mulching in summer vegetables with locally available dry grasses/leaves/straw to conserve the soil moisture in Mild Tropical Hill Zone of Nagaland.
 - In Mild Tropical Plain Zone of Tripura, as dry weather is prevailing apply mulching in green gram, cow pea and in maize. Also maintain water level at 5 cm in *boro rice* during panicle initiation/flowering stage.
 - Present weather is conducive for attack of fruit & shoot Borer in summer brinjal and tomato in Mild Tropical Plain Zone of Tripura. To manage the attack, apply Cypermethrin @ 1.5ml or Flubendamid 0.5 ml per litre of water.

- **Animal Husbandry**

- In northeastern states, keep animals indoors during thundersquall period.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Rice

Groundnut

Green Gram

Grape vine

- **Realised Rainfall:** Weather remained mainly dry/dry over the region.
- **Weather Forecast:** Mainly dry/dry weather would prevail over the region.
- **Weather Warning:** No weather warning.
- **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. 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. As high temperature is prevailing, apply mulch of crop residues and other plant waste product in the orchards and sugarcane trash in sugarcane. 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.
 - As mainly dry weather is prevailing in Marathwada, apply irrigation to summer groundnut, sugarcane, orchard crops like banana, pomegranate, fig and vegetable crops. As day temperature is around 38-40°C, apply mulch of crop residues and other plant waste product in the orchards and sugarcane trash in sugarcane. Cover banana bunch with dried banana leaves or paper/ gunny bags to protect from scorching sun.
 - 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. Considering the prevailing high temperature (above 40°C), reduce duration between two irrigations. Apply mulch of plant waste product in orange and sweet lime orchards.
 - Due to partly cloudy weather condition in Konkan, there may be incidence of anthracnose and fruit fly on developing mango; spray Carbendazim @10 g/10 litres water on whole tree to control anthracnose and install 4 fruit fly traps per ha against fruit fly. Dropped and infested fruits may be collected and destroyed to avoid further damage.
 - Due to partly cloudy weather and rise in temperature during last week, there may be attack of thrips and mite in summer chilli in Western Maharashtra Scarcity Zone; spray Methyl Demeton 25 EC @ 15 ml + Sulphur 80 % @ 20 g per 10 litres water.
 - **Gujarat:**
 - In view of the prevailing high temperature, apply irrigation in vegetable crops in South Gujarat Heavy Rainfall Zone of Gujarat.
 - In South Gujarat Zone due to increase in temperature, it is advised to protect banana bunch with plastic sheet. New grafts and newly planted fruit crops should be protected from sun burn by erecting temporary shed. For effective utilization of available water, drip irrigation system should be adopted for irrigating the fruit crops during summer season.
 - As mainly dry/dry weather condition is prevailing, apply irrigation in groundnut at pegging / pod filling stages and in green gram in North Gujarat Zone and North Saurashtra Zone of Gujarat. Continue harvesting of matured spikes of castor and matured fennel in North Gujarat Zone.
 - In view of increasing temperature, apply mulch in mango orchards with dry leaves or paddy straw to reduce the impact of heat in Bhal and Coastal Zone of Gujarat.
 - In Middle Gujarat Zone as temperature is increasing there will be dropping of flowers and poor fruit setting in

sapota. Undertake mulching in orchards to reduce temperature.

- Due to rise in temperature infestation of thrips and whitefly are observed in sesame in North Saurashtra Zone which is likely to increase. Spray Acetamiprid 20 % SP @ 5 g and Emamectin Benzoate @ 7 g/10 liter of water to control.
- **Animal Husbandry**
- In view of the prevailing high temperature in Gujarat, keep animals under shade or in shed during noon hours and provide plenty of water mixed with minerals for drinking. Make arrangement of curtains and proper ventilation in poultry house. Sprinkle water on curtains during noon time.
- In Maharashtra considering the prevailing high temperature, provide clothing from outside the poultry shed and sprinkle it with water. Cover the roof with grass or gunny bags.

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



Rice

Sugarcane(cane maturity)

Onion (bulb development)

Okra

- **Realised Rainfall:** Rainfall was received in Davangere and Hassan districts of South Interior Karnataka; in Alapuzha, Idukki, Kollam, Kottayam, Pathanamthitta, Thiruvananthapuram and Wynad districts of Kerala during the week. Mainly dry weather prevailed over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Tamil Nadu, South Interior Karnataka and Kerala during the period. Rain/thundershowers would occur at isolated places over Coastal Andhra Pradesh, Telangana, Rayalaseema, North Interior Karnataka during next 48 hours and mainly dry thereafter. Mainly dry/dry weather would prevail over rest of the region.
- **Weather Warning:** No weather warning.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over extreme south peninsular India.
- **Advisories:**
 - **Karnataka:**
 - Prevailing dry weather are conducive for cob borer on Maize in Eastern Dry Zone of Karnataka. Spray Spinosad @1.0ml/litre of water or Indoxycarb @ 1.5 ml/litre of water.
 - Prevailing dry weather is congenial Blast and sheath blight and Brown leaf spot on rice in Southern Transition Zone of Karnataka. Spray Tricyclozole @0.6 g/litre or Carbandizim 1g/lit for blast, for sheath blight spray Hexaconozol @ 1 ml/lit, spray Mancozeb 2 g/litre or for Brown leaf spot.
 - **Andhra Pradesh:**
 - Due to prevailing high temperatures, *Erwinia* rhizome rot was observed in banana in Anantapur district in Scarce rainfall zone of Andhra Pradesh. Spray and drench the crop with bleaching powder @ 20g/lit of water.
 - Prevailing high night temperature is congenial for early shoot borer in sugarcane in North Coastal Zone of Andhra Pradesh. Spray Chlorpyrifos @ 2.5 ml per litre of water to manage it.
 - Prevailing high temperatures are conducive for occurrence of sucking pests and mites in vegetables in Southern Telangana Zone of Andhra Pradesh. To control, spray Acephate @ 1.5 g or Fipronil @ 2 ml per litre of water for sucking pests and Propargite @ 2 ml per litre of water for mites.
 - As no significant rainfall is expected, provide irrigation to rice to avoid water stress at flowering and milky stages in the North Telangana Zone of Andhra Pradesh.
 - Prevailing dry weather in Southern zone of Andhra Pradesh is conducive for incidence of Thrips on summer groundnut. Spray Monochrotophos 1.6 ml per litre of water to control it.
 - **Tamil Nadu:**
 - As dry weather is prevailing, provide irrigation to sesame, sugarcane, banana, groundnut, summer cotton and rice fallow cotton, undertake planting of sugarcane and sowing of black gram and undertake harvesting of matured *samba* rice in Cauvery Delta Zone of Tamil Nadu.
 - Prevailing dry weather condition is favourable for mite attack in vegetables in Western Zone of Tamilnadu. Monitor the crop and spray Dicofol @ 2.5 ml or wettable Sulphur @ 3.5 g per litre of water.
 - **Kerala:**
 - Undertake soil mulching in summer vegetables which are in flowering to fruit bearing stages to prevent

evaporation loss in Northern Zone of Kerala.

- Prevailing hot and humid conditions are favourable for fruit fly on vegetables in Central Zone of Kerala. Remove and destroy affected and decayed fruits. Use special pheromone traps for vegetable fruit fly or Thulasi /fruit traps. If the attack is not reduced, apply Malathion 0.2% suspension containing sugar or jaggery at 10 g/liter at fortnightly intervals at flowering and fruit initiation stage.
- **Animal Husbandry**
- Calves above 3 months and sheep and goat above 2 months should be vaccinated against Foot and Mouth disease in the Cauvery Delta Zone and North Eastern Zone of Tamilnadu.
- In order to mitigate the heat stress due to high temperature provide clean and cool drinking water to milch animals, sheep, goat and poultry birds in the South Zone of Tamilnadu
- Prevailing high temperatures conditions are favorable for Enterotoxaemia in livestock in Scarce Rainfall Zone of Andhra Pradesh. Farmers are advised to vaccinate the animals.

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

Annexure I

Week by week Rainfall Distribution

State/Districts	09.04.14		16.04.14		23.04.14	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	24.5	-85	2.8	-97	9.4	-90
Dibang Valley	7.0	-93	6.0	-88	10	-78
East Kameng	4.5	-87	2.3	-94	0	-100
East Siang	13.8	-69	29.7	-24	10.9	-77
Kurung Kumey	**	**	**	**	**	**
Lohit	13.8	-88	32.7	-56	19.1	-73
Lower Dibang Valley	3.1	-97	16.1	-68	27	-41
Lower Subansari	**	**	**	**	**	**
Papumpara	6.2	-86	2.4	-93	0	-100
Tawang	47.0	267	22.0	-26	11	-74
Tirap	28.2	-59	1.0	-99	11.4	-81
Upper Siang	8.5	-93	104.6	73	134.8	64
Upper Subansari	1.8	-91	24.3	34	69.2	346
West Kameng	2.4	-81	0.0	-100	**	**
West Siang	13.5	-61	15.2	-76	22	-63
Assam						
Baksa	20.9	-14	1.8	-94	2	-95
Barpeta	28.3	16	3.3	-89	11	-75
Bongaigaon	16.6	-34	3.2	-89	29	-51
Cachar	66.7	24	9.6	-83	1.1	-98
Chirang	14.5	-42	7.3	-75	38.4	-34
Darrang	23.0	-16	1.0	-98	10	-71
Dhemaji	0.0	-100	1.0	-97	5	-87
Dhubri	24.9	107	0.7	-97	0.8	-98
Dibrugarh	24.5	-44	13.3	-74	5.6	-90
Goalpara	19.2	-27	3.1	-92	2	-96
Golghat	30.8	27	0.0	-100	6.1	-82
Hailakandi	53.2	29	37.0	-24	2.5	-95
Jorhat	18.4	-55	0.0	-100	2.2	-95
Kamrup(Rural)	60.4	211	7.0	-79	5	-88
Kamrup(Metro)	11.4	-41	0.5	-98	0	-100
Karbi Anglong	11.3	-23	0.0	-100	1.3	-96
Karimganj	25.4	-66	3.2	-95	0	-100
Kokrajhar	12.6	-30	0.0	-100	10.4	-83
Lakhimpur	5.1	-84	8.1	-75	4.8	-88
Morigaon	10.6	-27	0.4	-98	4.2	-85
N.C.Hills	23.4	-38	3.3	-95	0	-100
Nowgong	37.0	99	6.5	-77	13.8	-61
Nalbari	14.7	-53	2.1	-94	5.9	-80
Sonitpur	3.3	-88	4.4	-87	4.4	-86
Sibsagar	27.8	20	1.4	-95	9	-76
Tinsukia	13.5	-74	12.5	-67	9.3	-82

Udalgiri	7.1	-74	6.6	-86	5.2	-85
Meghalaya						
East Garo Hills	4.3	-89	0.0	-100	0	-100
East Khasi Hills	105.3	106	8.0	-89	8.2	-89
Jaintia Hills	6.0	-90	0.0	-100	13	-80
Ribhoi	25.1	49	0.0	-100	0	-100
South Garo Hills	0.0	-100	0.0	-100	0	-100
West Garo Hills	20.8	-14	0.0	-100	0	-100
West Khasi Hills	31.0	96	2.0	-93	3	-92
Mizoram						
Aizwal	19.1	-16	17.3	-48	0.3	-99
Champhai	6.0	-57	2.0	-93	0	-100
Kolasib	0.0	-100	0.0	-100	0	-100
Lawngtlai	**	**	**	**	**	**
Lunglei	5.0	-64	0.0	-100	4	-86
Mamit	18.0	-21	6.0	-82	0	-100
Saiha	1.0	-92	37.0	123	0	-100
Serchhip	6.0	-69	7.0	-84	0	-100
Manipur						
Bishnupur	2.0	-93	0.0	-100	1	-96
Chandel	12.0	-48	0.0	-100	0	-100
Churachandpur	44.0	-8	2.0	-95	0	-100
Imphal east	12.0	-70	0.8	-98	0.5	-98
Imphal west	41.5	40	7.2	-72	0	-100
Senapati	11.0	-68	1.0	-97	0	-100
Tamenglong	**	**	**	**	**	**
Thoubal	16.0	-25	1.0	-97	0	-100
Ukhrul	0.0	-100	0.0	-100	0	-100
Nagaland						
Dimapur	18.5	-14	0.0	-100	0	-100
Kephire	36.0	-14	0.0	-100	0	-100
Kohima	24.3	74	12.2	-34	0	-100
Longleng	**	**	**	**	**	**
Mokokchung	52.0	215	0.0	-100	7	-76
Mon	**	**	**	**	**	**
Paran	**	**	**	**	**	**
Phek	15.0	7	15.0	-19	1	-95
Tuensang	**	**	**	**	**	**
Wokha	8.0	-71	0.0	-100	2	-94
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	71.4	55	5.7	-87	2.7	-96
North tripura	68.2	32	12.4	-82	4.8	-93
South tripura	22.5	-6	0.0	-100	0	-100
West tripura	40.5	45	10.2	-75	5.9	-89
Himachal Pradesh						
Bilaspur	5.3	-11	2.1	-61	21.3	525
Chamba	36.4	160	2.7	-62	50.3	262
Hamirpur	5.4	-23	2.2	-72	29.5	491

Kangra	11.4	-10	0.8	-92	40.6	472
Kinnaur	42.6	73	29.5	56	25.4	67
Kullu	36.4	48	8.9	-45	41.6	134
Lahaul and Spiti	16.9	-38	1.0	-96	14.8	-36
Mandi	13.0	0	5.4	-59	37.1	317
Shimla	40.2	237	14.5	8	27.4	174
Sirmaur	19.6	461	4.2	-13	17.8	166
Solan	31.8	368	4.4	-39	30.4	316
Una	0.6	-88	1.4	-76	26	1427
Punjab						
Amritsar	2.2	-66	0.6	-90	33.9	815
Barnala	4.9	172	0.0	-100	10.7	327
Bhatinda	5.0	117	4.0	48	4.5	309
Faridkot	0.0	-100	0.0	-100	31	2483
Fatehgarh Sahib	0.0	-100	0.0	-100	0	-100
Ferozpur	0.5	-84	0.0	-100	21.9	1465
Gurdaspur	10.5	90	0.0	-100	42	1005
Hoshiarpur	2.5	-49	0.0	-100	26.3	1283
Jalandhar	0.0	-100	0.2	-96	10.8	442
Kapurthala	0.7	-72	1.0	-74	46.8	4580
Ludhiana	1.7	-31	0.0	-99	15.8	557
Mansa	7.0	268	0.0	-100	12.5	862
Moga	0.0	-100	0.0	-100	44.9	1939
Muktesar	1.0	-52	0.0	-100	20.9	1800
Nawashahar	0.4	-88	0.5	-90	22.8	850
Patiala	3.9	225	0.5	-88	9	592
Ropar	1.9	-54	0.2	-96	19.1	536
Sangrur	1.8	-8	0.0	-100	11.9	378
Mohali	6.0	140	1.0	-80	11	479
TarnTaran	0.8	-70	0.5	-86	40.8	2447
Haryana						
Ambala	2.6	53	0.7	-71	9.7	866
Bhiwani	1.3	-7	0.1	-94	5.5	400
Chandigarh	6.1	89	0.7	-86	13.2	238
Faridabad	0.0	-100	0.0	-100	6.5	1200
Fatehabad	2.2	20	0.8	-68	0.5	-67
Gurgaon	0.0	-100	0.0	-100	0	-100
Hissar	3.0	57	1.8	-37	3	168
Jhajar	0.0	-100	0.0	-100	4.9	205
Jind	1.0	-55	0.0	-100	0.3	-78
Katihah	2.4	500	0.0	-100	7.4	722
Karnal	1.1	-50	0.3	-91	9.9	330
Kurukshetra	0.0	-100	0.0	-100	0	-100
Mahendragarh	0.0	-100	0.0	-100	23	2200
Mewat	0.0	-100	0.0	-100	0	-100
Palwal	0.0	-100	0.0	-100	15	1775
Panchkkula	4.5	150	0.0	-100	5.5	129
Panipat	3.4	13	0.1	-96	2.1	53
Rewari	0.0	-100	0.0	-100	6.7	2122

Rohtak	2.0	54	1.4	-48	5.2	225
Sirsa	3.8	322	0.2	-86	0.2	-90
Sonepat	3.0	26	0.5	-86	1.8	15
Yamunanagar	1.4	-62	1.7	-60	11	479
Delhi						
Central Delhi	0.0	-100	2.0	-69	8	344
East Delhi	0.0	-100	2.0	-69	6	233
New Delhi	0.1	-95	2.5	-61	7.3	306
North Delhi	4.0	111	3.8	-41	5.3	194
North East Delhi	0.0	-100	0.0	-100	0	-100
North West Delhi	0.0	-100	0.0	-100	0	-100
South Delhi	1.2	-37	1.2	-81	13.5	650
South West Delhi	0.0	-100	1.2	-81	4.8	167
West Delhi	0.0	-100	1.0	-84	8	344
Jammu & Kashmir						
Anantnag	93.2	194	17.5	-34	42.7	66
Badgam	56.7	226	20.7	17	26.9	36
Bandipore	**	**	**	**	**	**
Baramula	54.7	35	7.1	-78	33.9	-23
Doda	87.4	229	10.2	-63	87.4	318
Ganderbal	58.6	192	23.2	22	67.4	253
Jammu	8.9	5	2.5	-71	14.9	170
Kargil	0.0	-100	0.0	-100	0	-100
Kathua	21.2	94	0.0	-100	38	1420
Kistwar	**	**	**	**	**	**
Kulgam	63.8	101	6.7	-75	20	-22
Kupwara	81.3	97	21.5	-35	47.7	50
Ladakh(Leh)	0.0	-100	0.0	-100	0	-100
Poonch	0.0	-100	0.0	-100	0	-100
Pulwama	58.1	162	14.5	-19	34.8	51
Rajouri	26.5	128	1.2	-82	19.6	158
Ramban	93.7	252	6.2	-78	48.4	131
Reasi	62.2	294	2.8	-85	36	267
Samba	12.9	52	0.0	-100	20.4	271
Shopian	66.0	197	10.0	-44	30	30
Srinagar	66.4	230	20.3	7	29	52
Udhampur	14.5	-8	15.5	-14	37.4	282
East Madhya Pradesh						
Anuppur	0.0	-100	0.0	-100	0	-100
Balaghat	0.0	-100	5.1	464	2.8	76
Chhatarpur	0.0	-100	0.0	-100	4.6	562
Chindwara	0.0	-100	0.0	-100	1.7	8
Damoh	0.0	-100	0.0	-100	2.6	73
Dindori	0.0	-100	6.5	3150	26.2	1538
Jabalpur	0.0	-100	0.0	-100	1	-5
Katni	0.0	-100	0.4	0	0	-100
Mandla	0.0	-100	0.0	-100	0	-100
Narsingpur	0.0	-100	0.0	-100	0	-100
Panna	0.0	-100	0.0	-100	0	-100

Rewa	0.0	-100	0.0	-100	3	400
Sagar	0.0	-100	0.0	-100	3.3	552
Satna	0.0	-100	0.0	-100	1.2	36
Seoni	0.0	-100	3.4	36	25.7	1250
Shahdol	0.0	-100	7.2	1340	2.4	41
Sidhi	0.0	-100	0.0	-100	3.6	260
Singrauli	0.0	-100	0.0	-100	0	-100
Tikamgarh	0.0	-100	0.0	-100	0	-100
Umaria	0.0	-100	0.0	-100	0.3	-81
West Madhya Pradesh						
Alirajpur	0.0	-100	0.0	-100	0	-100
Asoknagar	0.0	-100	0.0	-100	0	-100
Badwani	0.0	-100	0.0	-100	0	-100
Betul	0.0	-100	0.0	-100	0.6	-36
Bhind	0.0	-100	0.0	-100	0	-100
Bhopal	0.0	-100	0.0	-100	5.6	1300
Burhanpur	0.0	-100	0.0	-100	0	-100
Datia	0.0	-100	0.0	-100	9.2	2967
Dewas	0.0	-100	0.0	-100	0	-100
Dhar	0.0	-100	0.0	-100	0	-100
Guna	0.0	-100	0.0	-100	3.5	775
Gwalior	0.0	-100	0.0	-100	10.7	1429
Harda	0.0	-100	0.0	-100	0	-100
Hosangabad	0.0	-100	0.0	-100	0.8	33
Indore	0.0	-100	0.0	-100	5.4	2600
Jhabua	0.0	-100	0.0	-100	0	-100
Khandwa	0.0	-100	0.0	-100	4	1233
Khargone	0.0	-100	0.0	-100	0	-100
Mandsaur	0.0	-100	0.0	-100	0	-100
Morena	0.0	-100	0.0	-100	1.4	244
Neemuch	0.0	-100	0.0	-100	0	-100
Raisen	0.0	-100	0.0	-100	8.2	8100
Rajgarh	0.0	-100	0.0	-100	5.5	2640
Ratlam	0.0	-100	0.0	-100	0	-100
Sehore	0.0	-100	0.0	-100	0	-100
Shajapur	0.0	-100	0.0	-100	6.6	6500
Sheopur Kalani	0.0	-100	0.0	-100	8.5	8400
Shivpuri	0.0	-100	0.0	-100	2	900
Ujjain	0.0	-100	0.0	-100	0.5	400
Vidisha	0.0	-100	0.0	-100	1.1	273
Chhattisgarh						
Bastar	0.6	-95	19.1	267	22	120
Bijapur	0.0	-100	**	**	12.4	97
Bilaspur	0.0	-100	26.5	1295	30	1011
Dantewara	0.0	-100	**	**	**	**
Dhamtari	0.0	-100	11.4	533	5.2	160
Durg	0.0	-100	3.6	260	7.5	367
Janjgir	0.0	-100	**	**	0	-100
Jashpurnagar	0.0	-100	**	**	0	-100

Kanker	0.0	-100	23.0	576	0	-100
Korba	0.0	-100	5.0	52	0	-100
Koriya	0.0	-100	18.5	200	7.4	1139
Kawardha	0.0	-100	**	**	**	**
Mahasumund	0.0	-100	**	**	0	-100
Narayanpur	0.0	-100	**	**	8.8	49
Raigarh	0.0	-100	**	**	**	**
Raipur	0.0	-100	2.4	33	11.9	493
Rajandgaon	0.0	-100	3.8	138	17.2	1047
Surguja	0.0	-100	1.4	75	1.8	-17
East Uttar Pradesh						
Allahabad	0.0	-100	0.0	-100	0	-100
Ambedkar Nagar	0.0	-100	0.0	-100	2	18
Azamgarh	0.0	-100	0.0	-100	0	-100
Bahraich	0.0	-100	0.0	-100	0.1	-97
Ballia	0.0	-100	0.0	-100	1.4	-33
Balrampur	0.0	-100	0.0	-100	0.5	-87
Banda	0.0	-100	0.0	-100	0.1	-98
Barabanki	0.0	-100	0.0	-100	1.8	-1
Basti	0.0	-100	0.0	-100	0	-100
Chandauli	0.0	-100	0.0	-100	2	-5
Deoria	0.0	-100	0.0	-100	0	-100
Faizabad	0.0	-100	0.0	-100	0.5	-75
Farrukhabad	0.0	-100	0.0	-100	8.6	473
Fatehpur	0.0	-100	0.0	-100	0	-100
Gazipur	0.0	-100	0.0	-100	0	-100
Gonda	0.0	-100	0.0	-100	0	-100
Gorakhpur	0.0	-100	0.0	-100	0	-100
Hardoi	0.0	-100	0.0	-100	11.2	461
Jaunpur	0.0	-100	0.0	-100	0	-100
Kannauj	0.0	-100	0.0	-100	1.8	29
Kanpur City	0.0	-100	0.0	-100	3	233
Kanpur Dehat	0.0	-100	0.0	-100	0.8	-38
Kaushambi	0.0	-100	0.0	-100	0	-100
Kheri	0.0	-100	0.0	-100	4.9	143
Kushi nagar	0.0	-100	0.0	-100	0	-100
Lucknow	0.0	-100	0.0	-100	0	-100
Maharajganj	0.0	-100	0.0	-100	0	-100
Mau	0.0	-100	0.0	-100	0	-100
Mirzapur	0.0	-100	0.0	-100	0	-100
Pratapgarh	0.0	-100	0.0	-100	6	1100
RaiBareilly	0.0	-100	0.0	-100	0.4	-20
Sahuji Maharajnagar	0.0	-100	0.0	-100	0	-100
Sant Kabirnnagar	0.0	-100	0.0	-100	0	-100
Sant Ravidas Nagar	0.0	-100	0.0	-100	0	-100
Shrawasti	**	**	**	**	0	-100
Sidharthnagar	0.0	-100	0.0	-100	0	-100
Sitapur	0.0	-100	0.0	-100	3.6	79
Sonbhadra	0.0	-100	0.0	-100	1.9	-23

Sultanpur	0.0	-100	0.0	-100	0.8	-59
Unnao	0.0	-100	0.0	-100	0	-100
Varanasi	0.0	-100	0.0	-100	0.1	-94
West Uttar Pradesh						
Agra	0.0	-100	0.0	-100	1.9	19
Aligarh	0.0	-100	0.0	-100	5.8	379
Auraiya	0.0	-100	0.0	-100	6	757
Badaun	2.0	300	0.0	-100	4.3	442
Baghpat	0.7	-36	3.1	82	2.4	9
Bareilly	0.4	-26	0.0	-100	9	307
Bijnor	4.0	111	0.0	-100	2.5	56
Bulandsahar	0.0	-100	0.0	-100	3.8	436
Etah	0.0	-100	0.0	-100	9	543
Etawah	0.0	-100	0.0	-100	0	-100
Firozabad	0.0	-100	0.0	-100	2.3	25
GBNagar	3.0	150	0.0	-100	5	163
Ghaziabad	1.0	-38	0.0	-100	1.1	-15
Hamirpur	0.0	-100	0.0	-100	3.3	270
Jalaun	0.0	-100	0.0	-100	0	-100
Jhansi	0.0	-100	0.0	-100	6.7	642
Jotiba Phule Nagar	0.0	-100	0.0	-100	0	-100
Kanshiramnagar	0.0	-100	0.0	-100	11	686
Lalitpur	0.0	-100	0.0	-100	0	-100
Mahamaya Nagar	0.0	-100	0.0	-100	5.5	450
Mahoba	0.0	-100	0.0	-100	0	-100
Mainpuri	0.0	-100	0.0	-100	1.8	64
Mathura	0.0	-100	0.0	-100	2.5	150
Meerut	1.2	-71	0.6	-47	3.1	239
Moradabad	4.2	361	1.1	167	4.5	180
Muzzaffarnagar	7.7	411	0.0	-100	10.5	950
Pilibhit	1.3	117	0.0	-100	3.7	68
Rampur	3.0	114	0.0	-100	3.7	15
Saharanpur	2.0	54	0.3	-76	5	614
Shahjahanpur	0.0	-100	0.0	-100	2.8	31
Uttarakhand						
Almora	14.1	88	9.2	119	6	-10
Bageshwar	17.9	139	8.6	105	7.6	13
Chamoli	25.1	137	14.4	30	20.1	116
Champawat	5.0	35	1.5	-77	2.5	-68
Dehradun	15.1	148	7.0	45	11.3	151
Garhwal Pauri	10.6	324	4.0	11	2.8	-43
Garhwal Tehri	16.6	118	4.1	-45	12	64
Haridwar	1.3	-55	1.0	-76	5.5	175
Nainital	4.3	14	3.5	-21	7.7	42
Pithoragarh	19.9	192	13.1	22	8.9	-23
Rudraprayag	14.7	47	5.0	-60	11	4
Udham Sing Nagar	1.3	18	0.2	-88	7.4	116
Uttarkashi	16.8	53	13.7	10	25.1	124
Bihar						

Araria	0.6	-54	0.0	-100	0.0	-100
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	0.4	-84	5.2	8	0.0	-100
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	0.4	-87	0.1	-99
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	2.0	11	3.2	-46
Chatra	0.0	-100	0.0	-100	0	-100
Deoghar	0.0	-100	0.0	-100	0	-100
Dhanbad	0.0	-100	2.0	18	0	-100
Dumka	0.0	-100	0.0	-100	0	-100
East Singbhum	0.0	-100	0.0	-100	0.5	-95
Garhwa	0.0	-100	0.0	-100	0	-100
Giridih	0.0	-100	0.7	-76	0.7	-89
Godda	0.0	-100	0.0	-100	0	-100
Gumla	**	**	0.0	-100	0	-100

Hazaribagh	0.0	-100	0.0	-100	0.2	-96
Jamtara	0.0	-100	9.3	748	0	-100
Khunti	0.0	-100	0.0	-100	0	-100
Koderrna	0.0	-100	0.0	-100	0	-100
Latehar	0.0	-100	0.0	-100	0	-100
Lohardagga	0.0	-100	17.2	310	0	-100
Pakur	0.0	-100	0.0	-100	0	-100
Palamau	0.0	-100	0.0	-100	0.8	-68
Ramgarh	0.0	-100	3.6	-27	0	-100
Ranchi	0.0	-100	0.2	-93	2.1	-72
Sahebganj	0.0	-100	0.0	-100	29.6	385
Saraikela	0.0	-100	0.0	-100	0	-100
Simdega	0.0	-100	0.0	-100	0	-100
West Singhbhum	0.0	-100	0.0	-100	2.1	-76
East Rajasthan						
Ajmer	0.0	-100	0.0	-100	4.9	1542
Alwar	0.0	-100	0.0	-100	1.7	57
Banswara	0.0	-100	0.0	-100	0.5	200
Baran	0.0	-100	0.0	-100	0	-100
Bharatpur	0.0	-100	0.0	-100	0.2	-71
Bhilwara	0.0	-100	0.0	-100	10.7	1233
Bundi	0.0	-100	0.0	-100	5.7	1789
Chittorgarh	0.0	-100	0.0	-100	9.9	1873
Dausa	0.0	-100	0.0	-100	0	-100
Dholpur	0.0	-100	0.0	-100	4.3	983
Dungarpur	0.0	-100	0.0	-100	3.6	3483
Jaipur	0.0	-100	0.0	-100	5	893
Jhalawar	0.0	-100	0.0	-100	3	1418
Jhunjhunu	0.1	-91	0.0	-98	15.3	1289
Karauli	0.0	-100	0.0	-100	4.5	1025
Kota	0.0	-100	0.0	-100	3.6	1713
Pratapgarh	0.0	-100	0.0	-100	0.4	-20
Rajsamand	0.0	-100	0.0	-100	4.9	710
Sawai Madhopur	0.0	-100	0.0	-100	6.9	2196
Sikar	0.0	-100	0.0	-100	11.7	1364
Sirohi	0.0	-100	0.0	-100	9.2	1214
Tonk	0.0	-100	0.0	-100	17.5	4281
Udaipur	0.0	-100	0.0	-100	15	2890
West Rajasthan						
Barmer	0.0	-100	0.0	-100	0.7	47
Bikaner	0.6	20	0.4	-67	8.9	1018
Churu	2.1	131	0.1	-95	12	759
Hanumangarh	6.0	445	1.7	1	0.4	-61
Jaisalmer	0.0	-100	0.0	-100	12	1402
Jalore	0.0	-100	0.0	-100	8.1	2608
Jodhpur	0.0	-100	0.0	-100	10.8	1704
Nagaur	0.0	-100	0.0	-100	6.8	1033
Pali	0.0	-100	0.0	-100	4.3	514
Sri Ganganagar	0.0	-99	2.2	4	2.4	63

Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	5.1	4993
Anand	0.0	-100	0.0	-100	0	-100
Banaskantha	0.0	-100	0.0	-100	0	-100
Baroda	0.0	-100	0.0	-100	0	-100
Broach	0.0	-100	0.0	-100	0	-100
DNH	**	**	**	**	**	**
Dahod	0.0	-100	0.0	-100	0	-100
Daman	**	**	**	**	**	**
Dangs	0.0	-100	0.0	-100	0	-100
Gandhinagar	0.0	-100	0.0	-100	13.2	4300
Kheda	0.0	-100	0.0	-100	0.2	82
Mehsana	0.0	-100	0.0	-100	0	-100
Narmada	0.0	-100	0.0	-100	0	-100
Navsari	0.0	-100	0.0	-100	0	-100
Panchmahal	0.0	-100	0.0	-100	0.1	200
Patan	0.0	-100	0.0	-100	3	200
Sabarkantha	0.0	-100	0.0	-100	0.2	-78
Surat	0.0	-100	0.0	-100	0	-100
Tapi	0.0	-100	0.0	-100	0	-100
Valsad	0.0	-100	0.0	-100	0	-100
S K & Diu region						
Amreli	0.0	-100	0.0	-100	1	200
Bhavnagar	0.0	-100	0.0	-100	0	-100
Diu	0.0	-100	0.0	-100	0	-100
Jamnagar	0.0	-100	0.0	-100	0	-100
Junagarh	0.0	-100	0.0	-100	0.6	200
Kutch	0.0	-100	0.0	-100	0	-100
Porbandar	0.0	-100	0.0	-100	0	-100
Rajkot	0.0	-100	0.0	-100	0.4	326
Surendranagar	0.0	-100	0.0	-100	4	200
Maharashtra						
Konkan & Goa						
Goa	1.4	12	0.0	-100	0	-100
Mumbai	0.0	-100	0.0	-100	0	-100
Raigad	0.0	-100	0.0	-100	0	-100
Ratnagiri	0.0	-100	0.0	-100	0	-100
Sindhudurg	0.0	-100	0.0	-100	1.4	38
Thane	0.0	-100	0.0	-100	0.1	-33
Madhya Maharashtra						
Ahmednagar	0.0	-100	0.0	-100	0.1	-87
Dhule	**	**	0.0	-100	0	-100
Jalgaon	0.0	-100	0.0	-100	0.2	-12
Kolhapur	0.7	-86	0.0	-100	18.2	230
Nandurbar	**	**	0.0	-100	0	-100
Nasik	0.0	-100	0.0	-100	0	-100
Pune	0.0	-100	0.0	-100	4.3	231
Sangli	7.7	75	6.9	40	10.6	97
Satara	0.8	-60	0.0	-100	10.1	274

Solapur	0.0	-100	0.4	-84	15	1146
Marathwada						
Aurangabad	0.0	-100	0.0	-100	7.6	987
Beed	0.0	-100	1.1	-41	8.3	536
Hingoli	**	**	0.0	-100	8.3	361
Jalna	**	**	0.0	-100	15.4	1827
Latur	0.0	-100	0.0	-100	10.3	268
Nanded	0.0	-100	1.0	-70	8.7	479
Usmanabad	0.9	-50	2.0	-20	16.1	1913
Parbhani	0.0	-100	1.0	-57	1.3	-26
Vidarbha						
Akola	0.0	-100	0.0	-100	7.6	533
Amraoti	0.0	-100	0.0	-100	1.4	55
Bhandara	0.0	-100	5.8	205	0	-100
Buldhana	0.0	-100	0.0	-100	3.8	379
Chandrapur	0.0	-100	0.1	-95	0.5	-84
Gadchiroli	0.0	-100	0.4	-85	0	-100
Gondia	0.0	-100	6.0	141	1.7	-25
Nagpur	0.0	-100	2.7	27	0	-99
Wardha	0.0	-100	0.3	-83	0	-100
Washim	0.0	-100	0.0	-100	7.2	1100
Yeotmal	0.0	-100	0.0	-100	1.5	46
Odisha						
Angul	0.0	-100	2.2	-66	3.4	-54
Balasore	0.0	-100	1.5	-86	5	-74
Bargarh	0.0	-100	0.0	-100	0.5	-83
Bhadrak	0.0	-100	7.8	-39	7.8	-29
Bolangir	0.0	-100	1.6	-63	4	-32
Boudh	0.0	-100	0.0	-100	0	-100
Cuttack	0.0	-100	3.2	-33	0	-100
Deogarh	0.0	-100	0.0	-100	1	-74
Dhenkanal	0.0	-100	6.3	-13	0.2	-98
Gajapati	0.7	-95	22.0	107	7.7	-65
Ganjam	0.7	-91	4.4	-51	3.4	-71
Jagatsingpur	0.0	-100	8.3	145	0	-100
Jajpur	0.0	-100	0.4	-95	10.9	7
Jharsuguda	0.0	-100	0.0	-100	3.2	-51
Kalahandi	0.0	-100	0.0	-100	0	-100
Kandhamal	0.0	-100	7.3	66	3.4	-62
Kendrapara	0.0	-100	0.3	-94	0	-100
Keonjhar	0.0	-100	6.8	-23	11.1	38
Khurda	0.0	-100	0.0	-100	4.8	-11
Koraput	0.0	-100	1.5	-82	4	-74
Malkangiri	0.0	-100	0.0	-100	5.8	-51
Mayurbhanj	0.0	-100	11.7	27	11.4	-31
Nawapara	0.6	-91	0.0	-100	5.6	8
Nawarangpur	0.1	-99	0.8	-80	11.5	-64
Nayagarh	0.0	-100	0.0	-100	0.4	-96
Puri	0.0	-100	0.3	-87	0	-100

Rayagada	0.1	-99	3.9	-72	9.7	-35
Sambalpur	0.0	-100	0.0	-100	0.8	-79
Sonepur	0.0	-100	1.8	-13	0	-100
Sundargarh	0.0	-100	0.0	-99	1.2	-63
West Bengal						
GWB						
Bankura	0.0	-100	0.1	-97	5.7	-55
Birbhum	0.0	-100	0.1	-98	0	-100
Burdwan	0.0	-100	1.0	-84	0.4	-97
East Midnapore	0.0	-100	0.0	-100	2.3	-75
Hooghly	0.0	-100	0.0	-100	0.1	-99
Howrah	0.0	-100	0.0	-100	1	-94
Kolkata	0.0	-100	0.0	-100	0.1	-99
Murshidabad	0.0	-100	0.0	-100	0	-100
Nadia	0.0	-100	0.0	-100	0	-100
24 Pargana (N)	0.0	-100	0.0	-100	0.1	-99
Purulia	0.0	-100	0.1	-96	3.1	-74
24 Pargana (S)	0.0	-100	0.0	-100	0	-100
West Midnapore	0.9	-92	0.0	-100	8.6	-52
SHWB						
Cooch Behar	2.7	-80	0.0	-100	0	-100
Darjeeling	1.3	-93	0.1	-99	2.3	-93
East Sikkim	25.7	-21	28.6	-39	21	-46
Jalpaiguri	16.8	43	0.0	-100	5.4	-84
Malda	1.3	-34	1.0	-85	4.1	-65
North Dinajpur	0.0	-100	4.0	264	0	-100
North Sikkim	17.7	-76	51.5	8	64	26
South Dinajpur	17.8	157	0.0	-100	0	-100
South Sikkim	1.1	-97	0.0	-100	0.8	-98
West Sikkim	12.8	-82	12.7	-74	8.7	-83
Karnataka						
Coastal Karnataka						
Dakshin Kannada	10.4	39	15.5	71	3.8	-56
Udupi	5.0	7	0.0	-100	1.6	-77
Uttar Kannada	0.9	-76	2.4	-49	6	50
N I Karnataka						
Bagalkote	0.0	-100	3.4	-36	11.5	75
Belgaum	2.8	-59	3.1	-47	12	97
Bidar	0.0	-100	2.1	-63	3.2	-35
Bijapur	0.0	-100	4.9	-5	4.3	12
Dharwad	8.1	47	7.3	-35	12	14
Gadag	0.7	-81	5.4	-36	9.8	33
Gulbarga	0.6	-87	6.0	24	13.1	265
Haveri	5.1	-20	13.8	69	6.5	-37
Koppal	0.3	-88	9.7	98	6.2	29
Raichur	0.0	-100	4.4	14	3.8	-26
Yadgir	0.0	-100	3.1	3	2.6	-44
S I Karnataka						
Bangalore Rural	0.0	-100	11.7	59	0	-100

Bangalore Urban	0.0	-100	7.8	-12	0.1	-99
Bellary	3.7	10	13.1	135	1.7	-77
Chamarajnaragar	9.6	11	17.7	13	12.8	-38
Chichballapur	0.0	-100	9.5	41	2	-72
Chickmagalur	13.1	20	22.3	81	13.7	3
Chitradurga	0.3	-93	20.6	329	14.8	146
Davangere	2.4	-54	11.6	59	21.8	207
Hassan	2.9	-66	20.4	82	43.1	232
Kodagu	3.5	-78	38.3	97	14	-39
Kolar	0.0	-100	0.0	-100	3.5	-60
Mandya	7.5	18	24.4	130	9.2	-17
Mysore	13.5	96	18.2	36	7.1	-58
Ramnagara	1.6	-68	20.2	119	16.2	18
Shimoga	5.7	-6	6.3	-15	10.3	11
Tumkur	0.9	-75	9.1	6	6.5	-28
Kerala						
Alappuzha	37.8	29	32.2	7	38	23
Kannur	5.6	-21	2.1	-87	13.6	-12
Ernakulam	30.6	72	21.7	-22	11.3	-56
Idukki	17.1	-43	31.2	-2	21.1	-49
Kasaragod	14.5	245	0.1	-99	4	-69
Kollam	20.1	-36	41.9	20	47.1	18
Kottayam	40.5	22	38.6	7	33.3	23
Kozhikode	33.5	182	16.8	-21	0	-100
Malappuram	7.0	-56	31.1	46	2.9	-87
Palakkad	5.3	-71	23.5	-5	2.7	-89
Pathanamthitta	110.9	190	85.1	100	52.3	16
Thiruvananthapuram	20.3	-18	40.0	46	31.2	22
Thrissur	14.9	-8	24.1	22	1.9	-90
Wayanad	25.2	71	50.2	176	30.7	25
Tamil Nadu						
Ariyalur	0.0	-100	0.0	-100	0	-100
Chennai	0.0	-100	0.0	-100	0	-100
Coimbatore	7.4	4	8.2	-24	3.5	-81
Cuddalore	0.0	-100	0.0	-100	0	-100
Dharmapuri	0.0	-100	14.4	45	0	-100
Dindigul	4.4	-60	8.8	-30	0.6	-97
Erode	0.0	-100	2.6	-73	1.3	-90
Kanchipuram	0.0	-100	0.0	-100	0	-100
Kanyakumari	10.5	-61	9.5	-61	8.4	-63
Karikal	0.0	-100	0.0	-100	0	-100
Karur	0.4	-93	0.0	-100	0	-100
Krishnagiri	0.0	-100	3.7	-56	3.1	-75
Madurai	0.0	-100	0.0	-100	0	-100
Nagapattinam	0.0	-100	0.0	-100	0	-100
Namakkal	0.0	-100	18.7	89	2.7	-79
Nilgiris	1.2	-93	13.8	-26	19.4	-14
Perambalur	0.0	-100	0.0	-100	0	-100
Puducherry	0.0	-100	0.0	-100	0	-100

Pudukottai	0.0	-100	0.0	-100	0	-100
Ramanathapuram	6.3	-37	0.0	-100	0.3	-98
Salem	0.0	-100	3.6	-71	0	-100
Sivaganga	0.0	-100	0.0	-100	0	-100
Thanjavur	0.0	-100	0.0	-99	0	-100
Theni	8.7	-52	11.6	-10	0.4	-98
Tirunelveli	21.7	8	3.9	-76	2.5	-84
Tirupur	0.0	-100	0.0	-100	0	-100
Tiruvallur	0.0	-100	0.0	-100	0	-100
Tiruvannamalai	0.0	-100	0.0	-100	0	-100
Tiruvarur	0.3	-94	0.0	-100	0	-100
Toothukudi	2.1	-86	0.5	-96	2.7	-77
Trichy	0.0	-100	1.2	-86	0	-100
Vellore	0.0	-100	0.5	-83	0	-100
Villupuram	0.0	-100	0.0	-100	0	-100
Virudhunagar	0.7	-96	3.4	-78	1.4	-92
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0.0	-100	0	-100
Guntur	0.0	-100	0.3	-87	0	-100
Krishna	0.0	-100	0.0	-100	0	-100
Nellore	0.0	-100	9.3	749	0	-100
Prakasam	0.0	-100	7.8	359	0	-100
Sirkakulam	3.6	-45	4.5	-19	0	-100
Visakhapatnam	0.0	-100	6.6	-13	6.3	-53
Vizianagram	0.0	-100	7.1	17	0	-100
West Godavari	0.0	-100	0.0	-100	0	-100
Telangana						
Adilabad	0.0	-100	1.0	-66	10.8	260
Hyderabad	1.2	-70	5.1	21	0	-100
Karimnagar	0.4	-89	0.0	-100	8.5	98
Khammam	0.0	-100	1.2	-68	1.5	-82
Mehabubnagar	1.1	-62	10.1	188	2.9	-26
Medak	0.0	-100	0.1	-97	0.4	-93
Nalgonda	1.7	-30	4.4	62	0	-100
Nizamabad	0.0	-100	1.6	-54	11.8	336
Rangareddy	0.5	-78	3.1	-42	2.9	-43
Warangal	4.1	52	0.0	-100	0	-100
Rayalaseema						
Anantapur	0.0	-100	12.2	212	0.8	-86
Chittoor	0.0	-100	2.4	-29	0	-99
Cuddapah	0.0	-100	6.5	171	0	-100
Kurnool	0.0	-100	6.6	74	1	-82

Legends

	(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
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