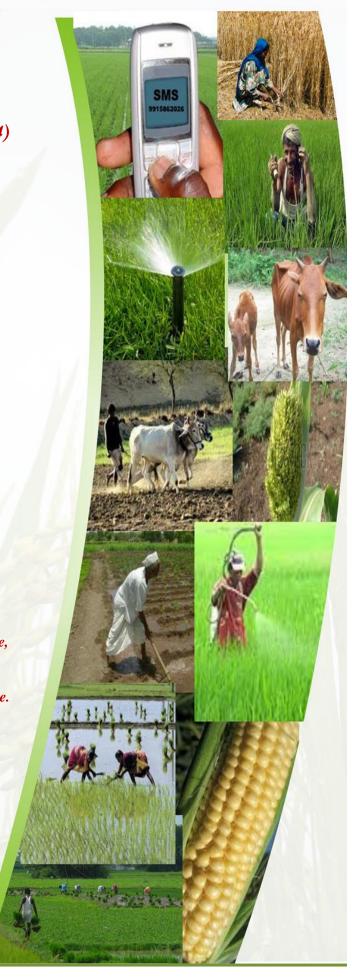
National Agromet Advisory Service Bulletin

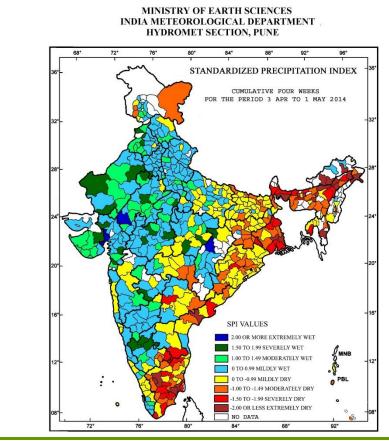
Friday 02^{nd} May 2014(For the period 02^{nd} to 06^{th} May 2014)



Issued by

National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.



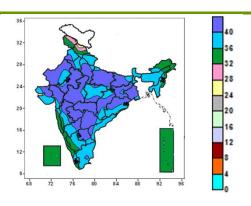


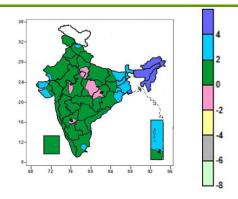
- Extremely wet/severely wet conditions experienced over Jaisalmer, Tonk, Churu, Jalore, Jhunjhunu, and Udaipur districts of Rajasthan; Surendranagar, Patan, Ahmedabad, Narmada and Navsari districts of Gujarat; Shajapur, Indore, Raisen, Datia, Seoni and Dindori districts of Madhya Pradesh; Koriya and Bilaspur districts of Chhattisgarh; Shimoga, Davangere and Chitradurga districts of Karnataka; Amritsar, Kapurthala and Moga districts of Punjab; Mahendragarh district of Haryana; Osmanabad district of Maharashtra.
- Moderately/ severely dry conditions experienced most parts of North East India; Tamil Nadu and West Bengal; some parts of Bihar, Jharkhand, Odisha, Andhra Pradesh, Chandrapur and Gadchiroli districts of Maharashtra; Poonch and Rajouri districts of Jammu & Kashmir;
- 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 30.04.2014

Actual Mean Maximum Temperature ($^{\circ}$ C) in India for the week ending 30.04.2014

Mean Maximum Temperature (°C) Anomaly in India for the week ending 30.04.2014



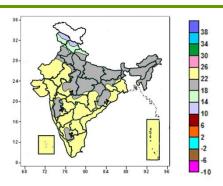


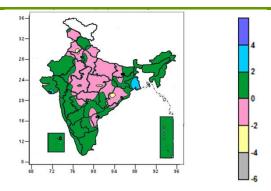
- 40 to 44°C over many parts of Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Chhattisgarh, West Madhya Pradesh, Gujarat, Vidarbha, Marathwada, Telangana, Rayalaseema, some parts of Punjab, Haryana, Delhi, East Madhya Pradesh, Odisha, Coastal Andhra Pradesh, Madhya Maharashtra, Saurashtra & Kutch, North Interior Karnataka and Tamil Nadu.
- 36 to 40°C over many parts of Uttarakhand, Punjab, Haryana, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Mizoram, Tripura, East Madhya Pradesh, Coastal Andhra Pradesh, Tamil Nadu, Interior Karnataka, some parts of Himachal Pradesh, Uttar Pradesh, Rajasthan, Bihar, Jharkhand, Gangetic West Bengal, Arunachal Pradesh, Manipur, Mizoram, Odisha, Chhattisgarh, West Madhya Pradesh, Saurashtra & Kutch, Konkan, Madhya Maharashtra, Telanagana, Rayalaseema and Kerala.
- 32 to 36°C over many places Arunachal Pradesh, Nagaland, Konkan & Goa, Coastal Karnataka, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam, Manipur and South Interior Karnataka.
- 24 to 32^oC over some parts of Jammu & Kashmir and Himachal Pradesh.

- 4 to 6⁰C over many parts of North East India.
- 2 to 4⁰C over many parts of Bihar, West Bengal & Sikkim, Saurashtra & Kutch, Andaman & Nicobar Islands, some parts of Himachal Pradesh, West Rajasthan, Jharkhand, Odisha and Tamil Nadu.
- 0 to 2⁰C over all parts of country except many parts of North East India, Bihar, West Bengal & Sikkim, Saurashtra & Kutch, West Madhya Pradesh, Andaman & Nicobar Islands, some parts of Himachal Pradesh, West Rajasthan, Jharkhand, Odisha, Tamil Nadu, West Uttar Pradesh, East Madhya Pradesh, Chhattisgarh and North Interior Karnataka.
- -2 to 0°C over many parts of West Madhya Pradesh, some parts of West Uttar Pradesh, East Madhya Pradesh, Chhattisgarh and North Interior Karnataka.

Actual Mean Minimum Temperature (°C) in India for the week ending 30.04.2014

Mean Minimum Temperature (°C) Anomaly in India for the week ending 30.04.2014





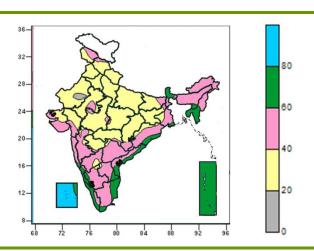
- 22 to 26^oC over many parts of Rajasthan, Gangetic West Bengal, Gujarat, Saurashtra & Kutch, Chhattisgarh, Vidarbha, Marathwada, Andhra Pradesh, Coastal & North Interior Karnataka, Tamil Nadu, Kerala, Lakshadweep, Andaman & Nicobar Islands,
- 2 to 4°C over many parts of Gangetic West Bengal, some parts of Saurashtra.
- 0 to 2°C over many parts of West Rajasthan, Himachal Pradesh, Bihar, Jharkhand, Sub-Himalayan West Bengal &

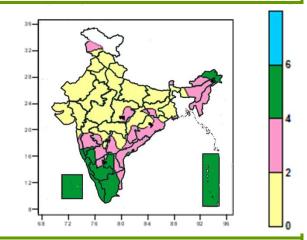
- some parts of Jharkhand, Tripura, Odisha, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, South Interior Karnataka.
- 18 to 22⁰C over many parts of Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, North East India, Odisha, Madhya Pradesh, Madhya Maharashtra, South Interior Karnataka, some parts of Rajasthan, Chhattisgarh and Konkan.
- 10 to 18^oC over many parts of Jammu & Kashmir and Himachal Pradesh.
- Sikkim, North East India, Andhra Pradesh, Tamil Nadu, Karnataka, Kerala, West India(except Vidarbha), Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Uttarakhand, East Rajasthan, Delhi, West Uttar Pradesh, Gangetic West Bengal, Odisha, Chhattisgarh, East Madhya Pradesh and Vidarbha.
- -2 to 0^oC over many parts of Jammu & Kashmir, Uttarakhand, Punjab, Haryana, Delhi, East Rajasthan, Uttar Pradesh, Central India, Odisha, Vidarbha, some parts of Bihar, Jharkhand, East Rajasthan, Madhya Maharashtra, Marathwada and Andhra Pradesh.
- -4 to -2⁰C over some parts of Punjab, Haryana, Madhya Pradesh and Odisha.

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 30.04.2014

Relative Humidity (%) over India for the week ending 30.04.2014

Cloud amount (okta) over India for the week ending 30.04,2014

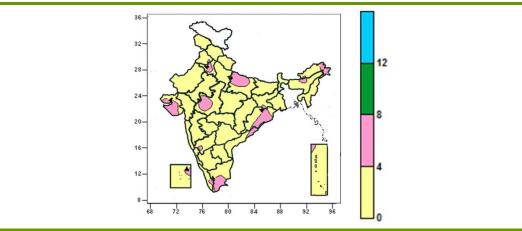




- 80 to 100% over many parts of Lakshadweep Islands.
- 60 to 80% over many parts of Sub-Himalayan West Bengal & Sikkim, Tripura, Coastal Andhra Pradesh, Coastal Karnataka, Kerala, Andaman & Nicobar Islands, Some parts of Gangetic West Bengal, Assam, Mizoram, Coastal Odisha, Rayalaseema, Coastal Tamil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

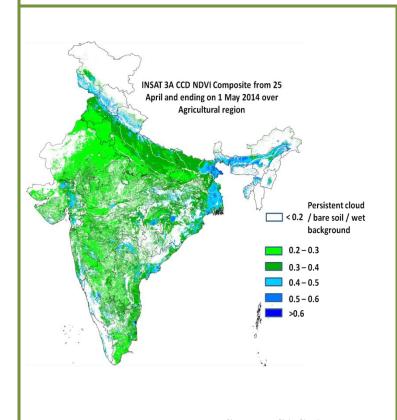
- 4 to 6 okta over many parts of Tamil Nadu, Kerala, Rayalaseema, Coastal & South Interior Karnataka, Goa, Lakshadweep, Andaman & Nicobar Islands, some parts of Arunachal Pradesh, North Interior Karnataka, Madhya Maharashtra, Konkan, Telangana.
- 0 to 4 okta over entire country except many parts of Tamil Nadu, Kerala, Rayalaseema, Coastal & South Interior Karnataka, Goa, Lakshadweep, Andaman & Nicobar Islands, some parts of Arunachal Pradesh, North Interior Karnataka, Madhya Maharashtra, Konkan, Telangana.

Wind speed (knots) over India for the week ending 30.04.2014



- 4 to 8 knots over many parts of East Uttar Pradesh, Saurashtra & Kutch, Odisha, some parts of Punjab, Haryana, Arunachal Pradesh, Assam, West Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh, North Interior Karnataka, Tamil Nadu, Kerala, Lakshadweep, Andaman & Nicobar Islands.
- 0 to 4 knots over entire parts of country except many parts of East Uttar Pradesh, Saurashtra & Kutch, Odisha, some parts of Punjab, Haryana, Arunachal Pradesh, Assam, West Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh, North Interior Karnataka, Tamil Nadu, Kerala, Lakshadweep, Andaman & Nicobar Islands.

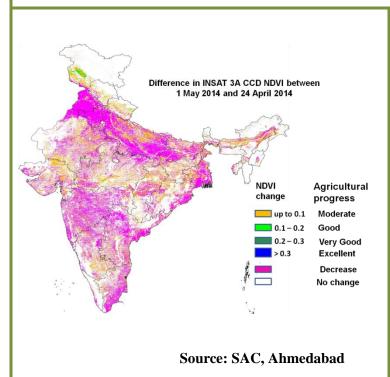
INSAT 3A CCD NDVI COMPOSITE OVER AGRICULTURAL REGION 25th April-1st May 2014



Agricultural vigour is moderate over pockets of West Bengal, central Gujarat and pockets of north and coastal AP as NDVI vary between 0.4 to 0.5 upto 1st May 2014. The NDVI remains within the range of 0.2 to 0.4 over rest of India.

Source: SAC, Ahmedabad

Difference in INSAT 3A CCD NDVI between 1st May and 24th April 2014



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 5th May, 2014)

- Rain/thundershowers would occur at a few places over norhteastern states during next 24 hours and at many places thereafter.
- Rain/thundershowers would occur at isolated places over Sub-Himalayan West Bengal & Sikkim during next 24 hours; over South Interior Karnataka and Gangetic West Bengal during next 48 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over Himachal Pradesh, Jammu & Kashmir, Uttarakhand, Odisha, Bihar, Jharkhand, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh, Tamil Nadu & Pudduchery, Coastal Karnataka, North Interior Karnataka, Kerala and Lakshadweep during the period.
- Rain/thundershowers would occur at isolated places over Andaman & Nicobar Islands during next 24 hours; over east Uttar Pradesh during next 48 hours and mainly dry thereafter.
- Mainly dry weather would prevail over Telangana during next 24 hours; over Punjab, west Uttar Pradesh, west Rajasthan, Rayalaseema during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
- Mainly dry/dry weather would prevail over Haryana & Delhi, east Rajasthan, Madhya Pradesh, Gujarat State, Konkan & Goa, Vidarbha and Chhattisgarh during the period.
- Heat wave conditions would continue to prevail over some parts of northwest India during next 48 hours.

Weather Warning during next 3 days

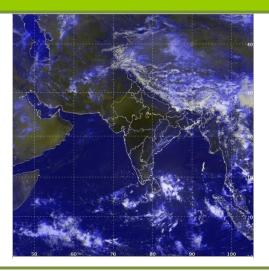
- **02 May (Day 1):** Heat wave conditions would prevail over some parts over Rajasthan.
 - Moderate thundersquall would occur at isolated places over West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bihar and Jharkhand.
 - Dust storm/thunderstorm would occur at isolated places over Haryana & Delhi, Punjab and north Rajasthan.
- 03 May (Day 2): Moderate thundersquall would occur at isolated places over West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bihar and Jharkhand.
- **04 May (Day 3):** Moderate thundersquall would occur at isolated places over Bihar and West Bengal & Sikkim, Assam & Meghalaya and Nagaland Manipur, Mizoram & Tripura.

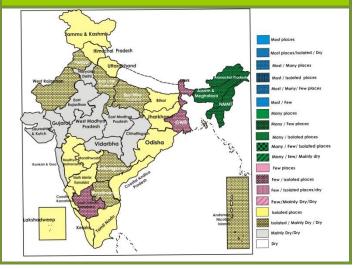
Weather Outlook for subsequent 4 days from 05th May 2014 to 09th May 2014

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

Satellite image dated 02.05.2014, 0600 UTC

Weather Forecast Map (Valid upto 0830 hours of 5th May, 2014)





Salient Advisories

- As dust storm/thunderstorm would occur at isolated places over **Punjab**, **Haryana** and **Delhi** on 2nd May, provide mechanical support to young fruit plants, vegetables and undertake propping up in sugarcane.
- As heat wave conditions would prevail over some parts of **Rajasthan** on 2nd May; it is advised to apply light and frequent irrigation to the standing crops or do soil mulching/ mulching with straw or polythene to cope up with the excess evaporative demand due to high temperature.
- As dust storm/thunderstorm would occur at isolated places over **north Rajasthan** on 2nd May, provide mechanical support to young fruit plants and vegetables.
- As moderate thundersquall would occur at isolated places over **Bihar**, **West Bengal** and **Sikkim** during the period and over **Jharkhand** on 2nd and 3rd May, provide mechanical support to banana, vegetables and young fruit plants. Also undertake propping up in sugarcane in Bihar and Jharkhand.
- As rain/thundershowers would occur at many places over **Assam and Meghalaya**, **Arunachal Pradesh**, **Nagaland**, **Manipur**, **Mizoram and Tripura**, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
- As moderate thundersquall would occur at isolated places over **Assam** and **Meghalaya**, **Nagaland**, **Manipur**, **Mizoram** and **Tripura** during the period, provide mechanical support to banana, young fruit plants and vegetables.

Detailed Zonewise Agromet Advisories

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









Sugarcane Peas Bottle Gourd Onion

- **Realised Rainfall:** Mainly dry weather prevailed over the region.
- Weather Forecast: Rain/thundershowers would occur at isolated places over Himachal Pradesh, Jammu & Kashmir, Uttarakhand during the period. Rain/thundershowers would occur at isolated places over east Uttar Pradesh during next 48 hours and mainly dry thereafter. Mainly dry weather would prevail over Punjab, west Uttar Pradesh, west Rajasthan during next 48 hours and rain/thundershowers would occur at isolated places thereafter. Mainly dry/dry weather would prevail over Haryana & Delhi, east Rajasthan during the period.
 - Heat wave conditions would continue to prevail over some parts of northwest India during next 48 hours.
- **Weather Warning:** Heat wave conditions would prevail over some parts of Rajasthan and dust storm/thunderstorm would occur at isolated places over Haryana & Delhi, Punjab and north Rajasthan on 2nd May.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over western Himalayan region. Weather would be mainly dry over rest of the region.
- Advisories:
 - Jammu & Kashmir:
 - ➤ Due to hot 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.
 - ➤ Due to hot weather conditions, there is chance of attack of aphids and mites on peach, plum and apricot in Intermediate Zone of Jammu & Kashmir. To control, spray Chloropyriphos 20 EC @ 100ml per 100 litres of water.

Himachal Pradesh:

- As mainly dry weather would prevail, continue harvesting of matured wheat, peas and onion in Mid-Hills Sub-Humid Zone & Sub-Montane & Low Hills Sub-Humid Zone of Himachal Pradesh.
- > Due to prevailing mainly dry weather condition, undertake mulching in fruit crops to conserve moisture in Sirmaur district of Mid-Hills Sub-Humid Zone of Himachal Pradesh.

➤ Due to hot 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 100g of Carbendazim + 400 ml of Chlorpyriphos + 200 g of Boric acid in 200 litres of water. For the control of attack of defoliating caterpillars and beetles in apple, spray Malathion @ 200 ml per 200 litres of water.

• Uttarakhand:

- As mainly dry weather would prevail, apply irrigation in vegetable crops and onion in Hill Zone of Uttarakhand. Continue intercultural operations and application of plant protection measures and fertilizers in the standing crops.
- ➤ Due to increase in temperature, there may be incidence of yellow mosaic virus disease in moong and urad crops at flowering & pod formation stage in Bhabar and Tarai Zone of Uttarakhand. To control whiteflies which act as vector of the disease, spray Metasystox @400 ml/400 litres of water per acre.

Punjab, Haryana and Delhi:

- As dust storm/thunderstorm would occur at isolated places over Punjab, Haryana and Delhi on 2nd May, provide mechanical support to young fruit plants, vegetables and undertake propping up in sugarcane.
- As mainly dry weather is prevailing apply irrigation in spring maize, sugarcane, sunflower, tomato in Sub Montane Undulating Zone of Punjab.
- As temperature is increasing and mainly dry weather is likely to prevail, apply irrigation to sunflower at flowering stage in Central Plain Zone of Punjab. Also 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 tomato crop to encourage maximum fruit setting and development of fruits.
- 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, in view of increasing temperature, light irrigation is advised in all vegetable crops. Irrigation should be done in the morning or evening hours.

Uttar Pradesh:

- As mainly dry weather is prevailing, apply irrigation in sugarcane, vegetables and fruit crops and intercultural operations in sugarcane in East Uttar Pradesh. Also undertake harvesting of matured wheat in Central Plain Zone and Western Plain Zone of Uttar Pradesh.
- ➤ Due to prevailing dry weather, there is chance of attack of stem borer in brinjal in Central Plain Zone of Uttar Pradesh. To control the attack, spray Nimgiri @ 4% at 10 days interval.
- ➤ Due to hot weather condition there is chance of incidence of *stemphylium* blight and purple blotch disease in onion in Central Plain Zone of Uttar Pradesh. Spray Mancozeb @ 0.25% for its control.
- Due to hot weather condition, there is chance of attack of mango hopper and fruit fly in mango in Central Plain Zone of Uttar Pradesh. To control the attack of hopper, spray Imidacloprid @ 0.5 ml per litre of water. For control of fruit fly, apply Propanophos @ 0.5 ml per litre of water.

Raiasthan:

- As heat wave conditions would prevail over some parts of Rajasthan on 2nd May, it is advised to apply light and frequent irrigation to the standing crops or do soil mulching/ mulching with straw or polythene to cope up with the excess evaporative demand due to high temperature.
- As dust storm/thunderstorm would occur at isolated places over north Rajasthan on 2nd May, provide mechanical support to young fruit plants and vegetables.
- ➤ Due to prevailing hot weather, there is possibility of attack of stem and fruit borer in okra in Sub Humid Southern Plain and Aravali Hill Zone of Rajasthan. To control, spray of Malathion @ 2 ml or Thioron @1 ml in one litre of water.
- Due to rise in temperature, there is possibility of attack of sucking pests in tomato in nursery in Flood Prone Eastern Plain Zone of Rajasthan. To control, spray Imidacloprid @ 1ml per 3 litres of water.

• Animal Husbandry

- ➤ In Punjab, Haryana & Delhi and north Rajasthan keep cattle/goats indoors during thunderstorm period.
- In East Uttar Pradesh, Uttarakhand and West Rajasthan, due to prevailing high temperature, grazing /feeding of cattle/goats may be done during morning/ evening hours. Keep animals under shade or in sheds during noon hours and provide plenty of water mixed with minerals for drinking. Also provide balanced feed & adopt vaccination schedule.

• Poultry

- > Due to prevailing hot weather conditions, give balanced feed to the poultry birds in Central Plain Zone of Uttar Pradesh and Rajasthan. 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.
- Due to rise in temperature, make proper ventilation in poultry houses in Mid-Hills Sub-Humid Zone of Himachal Pradesh. Replace the poultry houses with fresh litter and keep the houses clean and provide plenty of drinking

CENTRAL INDIA [M.P., CHHATTISGARH]





Chilli





Sugarcane

Okra Green Gram

- **Realised Rainfall:** Weather was mainly dry over the region.
- Weather forecast: Weather would be mainly dry over the region.
- Weather Warning: Nil.
- Weather Outlook: Weather would be mainly dry over the region.
- Advisories:
 - Madhya Pradesh:
- As prevailing temperature is high, apply light and frequent irrigation in standing crops in Madhya Pradesh.
- As mainly dry weather would prevail, harvest matured cauliflower, tomato, brinjal, chilli, *capsicum*, pea etc. in Satpura Plateau Zone and Kymore Plateau Zone of Madhya Pradesh.
- As mainly dry weather would prevail, apply irrigation in mango, guava and lemon orchards in Gird 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 and Satpura Plateau Zone of Madhya Pradesh. Spray Malathion @ 1 ml. per litre of water for its control.
- ➤ Due to prevailing hot weather, there is possibility of attack of pyrilla in sugarcane in Vindhya Plateau Zone of Madhya Pradesh. Apply Malathion 50 E.C. @ 1.5 litres in 700-800 litres of water.

Chhattisgarh:

- ➤ In Chhattisgarh, as prevailing temperature is high, apply light and frequent irrigation in standing crops.
- 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.
- As high temperature is prevailing, apply irrigation in summer vegetables in Plain Zone of Chhattisgarh.
- ➤ Due to hot weather; there is possibility of attack of yellow vain mosaic in okra in North Hill Zone of Chhattisgarh, spray Imidachloropid @ 0.5 ml/ litre 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. Also protect chicks against high temperature and provide cold and clean water to animals for drinking 3 times a day in 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]









Mango Sugarcane Green Gram Onion

- **Realised Rainfall:** Rainfall occurred in East Sikkim, North Sikkim and West Sikkim districts of Sikkim; in Nawarangpur district of Odisha. Weather remained mainly dry/dry over rest parts of the region.
- Weather Forecast: Rain/thundershowers would occur at isolated places over Sub-Himalayan West Bengal & Sikkim during next 24 hours; over Gangetic West Bengal during next 48 hours and at a few places thereafter. Rain/thundershowers would occur at isolated places over Odisha, Bihar and Jharkhand during the period.
- **Weather Warning:** Moderate thundersquall would occur at isolated places over Bihar, West Bengal & Sikkim on 2nd, 3rd and 4th May and over Jharkhand on 2nd and 3rd May.
- Weather Outlook: Rain/thundershowers would occur at isolated places over east India.

• Advisories:

Odisha:

- In Odisha, as prevailing temperature is high, apply light and frequent irrigation in standing crops.
- ➤ High diurnal variation of temperature favours incidence of blast in rice in East and South Eastern Coastal Plain Zone of Odisha. For control, spray 1 g Beam/ litre of water.
- ➤ Present weather favours infestation of *alternaria* blight in tomato and cole crops in North Central Plateau Zone of Odisha. Spray Dethane-M-45 @ 3 g in 1 litre water for control.
- ➤ In the present weather Gundhi bug infestation may become severe in rice during milk and soft dough stage in Western Undulating Zone of Odisha; spray Monocrotophos @ 2ml/litre of water
- ➤ High diurnal variation of temperature 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 moderate thundersquall would occur at isolated places over West Bengal and Sikkim during the period, provide mechanical support to banana, vegetables and young fruit plants.
- ➤ Due to increase in temperature, red spider mite attack may occur in brinjal and okra in Coastal Saline Zone of West Bengal. Spray Properzte @ 0.5 ml / liter of water along with sticker like tipol or soap solution. Coconut plant may be attacked by black headed caterpillar. Apply neem oil@2.5ml with 1liter water at 15 days interval.
- In the prevailing hot 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:

- In Bihar, as prevailing temperature is high, apply light and frequent irrigation in standing crops.
- As moderate thundersquall would occur at isolated places over Bihar during the period, provide mechanical support to vegetables and young fruit plants. Also undertake propping up in sugarcane.
- As mainly 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 mainly dry weather would prevail, apply irrigation to maize in South Bihar Alluvial Zone.
- As mainly dry weather is prevailing, apply regular irrigation in sugarcane, *boro rice*, moong and onion in North East Alluvial Plain Zone of Bihar.

• Jharkhand:

- ➤ In Jharkhand, in view of prevailing high temperature, apply light and frequent irrigation in standing crops.
- As moderate thundersquall would occur at isolated places over Jharkhand on 2nd and 3rd May, provide mechanical support to vegetables and young fruit plants. Also undertake propping up in sugarcane.
- As no significant rainfall is expected, apply irrigation in moong, vegetables and in mango and litchi orchards in Western Plateau Zone of Jharkhand.
- As no significant rainfall is expected, apply irrigation to moong and summer rice in South Eastern Plateau Zone of Jharkhand.
- ➤ High difference in day and night temperature may favour occurrence of blast disease in rice in South Eastern Plateau Zone of Jharkhand; for control, spray Tricyclazole @ 0.5 g per litre of water. High day and night temperature also favours production of case worms, leaf folders or hispa, brown plant hopper and stem borer eggs and their infestation are also being seen in rice; spray Monocrotophos @ 1 ml per liter of water. For the management of stem borer apply, arrange 8-10 nos. of Pheromone trap and apply Carbofuran 3 G @ 12 kg or Phorate 10 G @ 4 kg per acre.

• Animal Husbandry

- > In West Bengal & Sikkim, Bihar and Jharkhand, keep cattle indoor during thundersquall period.
- 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, high day temperature may cause heat stroke in animals. Hence, keep them in the shade during noon hours. To keep the sheds cool, jute bags may be hanged as curtain in the windows and it

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









Green Gram Rice Okra Sugarcane

- Realised Rainfall: Rainfall occurred in Changlang, Lohit, Lower Dibang Valley, Tawang, Upper Siang and Upper Subansari districts of Arunachal Pradesh; Cachar, Chirang, Darrang, Dhubri, Hailakandi, Karimganj, Nowgaon and Udalgiri districts of Assam; East Garo Hills, Jaintia Hills, South Garo Hills and West Garo Hills districts of Meghalaya; Aizwal and Mamit districts of Mizoram, Imphal West district of Manipur, Kohima district of Nagaland, Dhalai, North Tripura and West Tripura districts of Tripura.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over norhteastern states during next 24 hours at many places thereafter.
- **Weather Warning:** Moderate thundersquall would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 2nd, 3rd and 4th May.
- Weather Outlook: Rain/thundershowers would occur at many places over northeastern states.
- Advisories:
 - Assam & Meghalaya, Arunachal Pradesh:
 - As rain/thundershowers would occur at many places over Assam, Meghalaya and Arunachal Pradesh, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - 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.
 - In Central Bramhaputra Valley Zone of Assam, continue sowing of early *ahu* rice, *bao* rice, jute, and planting of sugarcane, ginger and turmeric taking advantage of expected rainfall.
 - ➤ In North Bank Plain Zone of Assam, continue transplanting of normal *ahu* rice, sowing *bao* rice, planting of sugarcane, ginger, turmeric and banana utilizing the expected rainfall.
 - ➤ Due to increase in temperature, there is chance of occurrence of blast disease in *Ahu* rice in Central Bramhaputra Valley Zone of Assam. Spray Bavistin @ 1 g per litre of water after current spells of rain.
 - As rain is expected at many places, continue nursery sowing of *ahu* rice and sowing of *okra* in Barak Valley Zone of Assam.
 - > In Sub Tropical Hill Zone of Arunachal Pradesh, continue land preparation and sowing of *jhum* rice utilizing the expected rainfall.
 - In Temparate Sub Alpine Zone of Meghalaya, undertake sowing of maize, direct seeded *ahu* and *jhum* rice utilizing the expected rainfall.
 - Nagaland, Manipur, Mizoram and Tripura:
 - As rain/thundershowers would occur at many places over Nagaland, Manipur, Mizoram and Tripura, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - As moderate thundersquall would occur at isolated places over Nagaland, Manipur, Mizoram and Tripura during the period, provide mechanical support to banana, young fruit plants and vegetables.
 - As rain/thundershowers would occur at many places, undertake land preparation for sowing of soy bean, black gram and maize in Sub Tropical Plain Zone of Manipur.
 - Warm and humid conditions may cause cercospora /sigatoka leaf spot in banana in Mid Tropical Hill Zone of Mizoram. Spray Mancozeb+ Carbendazim @ 2g/litre of water after current spells of rain.
 - ➤ 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 after current spells of rain.
 - Animal Husbandry
 - In northeastern states, keep animals indoor during thundersquall period.









Rice Groundnut Green Gram Mango

- Realised Rainfall: Weather remained mainly dry/dry over the region.
- Weather Forecast: Rain / thundershowers would occur at isolated places over Madhya Maharashtra and Marathwada during the period. Weather will be mainly dry over rest of the region.
- Weather Warning: Nil.
- Weather Outlook: Weather would be mainly dry over the region.
- Advisories:
 - Maharashtra:
 - In Konkan, as mainly dry weather is expected; apply irrigation to coconut, cashew orchards and vegetable crops and apply grass mulch in mango orchards to avoid the water loss. Mango is at fruit development / maturity stage; harvest the 80-85% matured fruits early in the morning and in the evening. Considering the high temperature, keep the harvested fruits in shade to prevent the spongy tissue diseases and transport the harvested fruits during night hours.
 - In Madhya Maharashtra, in view of prevailing mainly dry weather, apply irrigation to summer groundnut, sugarcane and vegetable crops. As day temperature is prevailing around 38-42°C, 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. Continue intercultural operations and fertilizer application in sugarcane and vegetables
 - As no significant rain is expected, apply irrigation to summer groundnut, sugarcane, orchard crops like banana, pomegranate, fig and vegetable crops in morning and evening hours in Marathwada. Continue intercultural operations and fertilizer application in orchards (banana, fig, pomegranate, sweet lime, guava), sugarcane and vegetables. As day temperature is above 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 and apply 25-30 micron polythene mulch.

Gujarat:

- ➤ In South Gujarat Heavy Rainfall Zone, as high temperature is prevailing, apply light and frequent irrigation in vegetable crops and also irrigate green gram at pod filling stage.
- 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 weather condition is prevailing, apply irrigation in groundnut at pegging / pod filling stages in North Gujarat Zone and North Saurashtra Zone of Gujarat.
- ➤ In Vidarbha, considering the prevailing high temperature (above 40°C), reduce the duration between two irrigations as well as apply mulch of plant waste product in orange and sweet lime orchards. Newly planted fruit crops may be protected from sun burn by erecting temporary shed. As no significant rain is expected, apply irrigation to water melon, musk 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 fertilizer application in orchards and summer green gram.
- As partly cloudy weather prevailed, there may be attack of fruit fly in mango in South Konkan; install 4 *Rakshak* fruit fly traps per ha.
- Partly cloudy weather in Kolhapur region is congenial for attack of fruit fly in creeper vegetables; use 4-5 pheromone traps per ha.
- Due to rise in temperature, there may be attack of white fly, aphids, jassids and red mites in summer okra in Western Maharashtra Scarcity Zone; spray Imidacloprid @ 4 ml per 10 litres water.
- In view of increasing temperature, apply mulch in mango orchard with dry leave residues or paddy husk to avoid impact of heat in Bhal and Coastal Zone of Gujarat.
- ➤ Due to rise in temperature there may be incidence of blast disease on summer rice in Middle Gujarat Zone. Apply Carbendazim @10g/10 litres of water 2-3 times at an interval of 10 days.

- As hot and dry weather is prevailing, apply irrigation in summer groundnut at flowering / pegging stage in North Saurashtra Zone of Gujarat.
- ➤ 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 @ 5.0 g and Emamectin Benzoate 7 g/10 liter of water to control.

• Animal Husbandry

- ➤ Due to prevailing high temperature, keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking in Gujarat. Make arrangement of curtains and proper ventilation in poultry house.
- ➤ Keep animals under shade during noon hours in South Gujarat Heavy Rainfall Zone and provide clean drinking water. Put curtains on south-west side of poultry house and 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 Onion Okre

- Realised Rainfall: Rainfall occurred over Dakshin and Uttar Kannada districts in Coastal Karnataka, Haveri district in North Interior Karnataka; Chickmagalur, Davangere, Kodagu and Shimoga districts in South Interior Karnataka and most of the districts in Kerala except Kannur, Idukki, Kasaragod, Malappuram, Palakkad and Thrissur during the week. Mainly dry weather prevailed over rest of the region.
- Weather Forecast: Rain/thundershowers would occur at isolated places over South Interior Karnataka during next 48 hours and at a few places thereafter. Rain/thundershowers would occur at isolated places over Coastal Andhra Pradesh, Tamil Nadu & Pudduchery, Coastal Karnataka, North Interior Karnataka and Kerala during the period. Mainly dry weather would prevail over Telangana during next 24 hours; over Rayalaseema during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
- Weather Warning: Nil.
- Weather Outlook: Rain/thundershowers would occur at isolated places over south peninsular India.
- Advisories:
 - Karnataka:
 - ➤ Prevailing dry weather is congenial for nut weevil and anthracnose incidence in mango in the Eastern Dry Zone of Karnataka. Spray Carbaryl WP @ 4 g/ litre of water to manage nut weevil incidence and Carbendazim @ 1 g/ litre or Confidor @ 0.5 ml/ litre of water to manage anthracnose.
 - Due to prevailing high day temperature $(38 40^{\circ} \text{ C})$, infestation of stem borer and thrips in rice in most of the districts is noticed and likely to continue in the Southern Dry Zone of Karnataka. Spray Chlorophyriphas @ 2ml/litre of water to manage the pest.
 - ➤ Prevailing dry weather is congenial for blast, sheath blight and brown leaf spot on rice in the Southern Transition Zone of Karnataka. Spray Trycyclozole @0.6 g/litre or Carbandizim @ 1g/litre for blast, for sheath blight spray Hexaconozol @ 1 ml/litre and 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 the Scarce Rainfall Zone of Andhra Pradesh. Spray and drench the crop with bleaching powder @ 20g/litre of water.
- ➤ Prevailing high temperatures are congenial for occurrence of sucking pests and mites in vegetables and fruit fly in mango in the Southern Telangana Zone of Andhra Pradesh. To control, spray Acephate @ 1.5 g or Fipronil @ 2 ml per litre of water for sucking pests, spray Propargite @ 2 ml per litre of water to control mites and hang the plastic containers with mixture of Methyl Eugenol @ 2 ml + Carbofuran 3G @ 3g per litre of water to manage fruit fly.

■ Tamil Nadu:

As no significant rainfall is expected, provide irrigation to sesame, sugarcane, banana, groundnut, summer cotton and rice fallow cotton in the Cauvery Delta Zone of Tamil Nadu. In rice fallow cotton, undertake spraying of

NAA @ 40 ppm to increase boll setting. Reapeat after 15 days.

- As mainly dry weather is prevailing, apply irrigation in coconut and banana in the Western Zone of Tamil Nadu. For newly planted sugarcane, provide frequent irrigation to initiate germination of buds.
- ➤ Due to the prevailing hot weather condition, incidence of pod borer, shoot and leaf webber is noticed in summer sesame in Cauvery Delta Zone of Tamil Nadu. For control, spray Quinalphos 25EC @ 400 ml/acre or Neem oil 2%.

Kerala:

- Undertake soil mulching in summer vegetables which are at flowering to fruit bearing stages to prevent evaporation loss and continue harvesting of matured vegetables in the Northern Zone of Kerala.
- Prevailing hot and humid conditions are congenial for mealy bug and leaf eating caterpillar in vegetables and pseudostem weevil in bananas in the Central Zone of Kerala. Spray Quinalphos @ 2ml /litre of water to manage mealy bug and leaf eating caterpillar. Apply 2% neem oil-garlic-soap emulsion to manage pseudostem weevil in banana in the initial stage. In case of severe attack, apply Chlorpyrifos @ 3ml/liter of water on the pseudostem mixing with gum.

• Animal Husbandry

- 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 Tamil Nadu.
- Prevailing high temperatures conditions are favorable for Enterotoxaemia in livestock in the 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

	16.04.14		23.04.14		30.04.14	
State/Districts	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	2.8	-97	9.4	-90	25.4	-84
Dibang Valley	6.0	-88	10	-78	4.0	-97
East Kameng	2.3	-94	0	-100	6.6	-84
East Siang	29.7	-24	10.9	-77	11.1	-84
Kurung Kumey	**	**	**	**	**	**
Lohit	32.7	-56	19.1	-73	45.7	-42
Lower Dibang Valley	16.1	-68	27	-41	37.8	-70
Lower Subansari	**	**	**	**	**	**
Papumpara	2.4	-93	0	-100	17.4	-75
Tawang	22.0	-26	11	-74	70.0	64
Tirap	1.0	-99	11.4	-81	14.1	-83
Upper Siang	104.6	73	134.8	64	49.4	-56
Upper Subansari	24.3	34	69.2	346	37.8	-3
West Kameng	0.0	-100	**	**	2.4	-94
West Siang	15.2	-76	22	-63	9.3	-82
Assam					7,0	
Baksa	1.8	-94	2	-95	2.0	-97
Barpeta	3.3	-89	11	-75	15.0	-77
Bongaigaon	3.2	-89	29	-51	10.4	-82
Cachar	9.6	-83	1.1	-98	55.0	-22
Chirang	7.3	-75	38.4	-34	22.5	-61
Darrang	1.0	-98	10	-71	27.0	-50
Dhemaji	1.0	-97	5	-87	7.0	-86
Dhubri	0.7	-97	0.8	-98	20.1	-61
Dibrugarh	13.3	-74	5.6	-90	16.7	-73
Goalpara	3.1	-92	2	-96	15.9	-77
Golghat	0.0	-100	6.1	-82	6.8	-80
Hailakandi	37.0	-24	2.5	-95	37.4	-53
Jorhat	0.0	-100	2.2	-95	11.6	-79
Kamrup(Rural)	7.0	-79	5	-88	13.1	-74
Kamrup(Metro)	0.5	-98	0	-100	3.5	-93
Karbi Anglong	0.0	-100	1.3	-96	1.3	-96
Karimganj	3.2	-95	0	-100	26.7	-74
Kokrajhar	0.0	-100	10.4	-83	19.1	-74
Lakhimpur	8.1	-75	4.8	-88	7.3	-86
Morigaon	0.4	-98	4.2	-85	0.4	-99
N.C.Hills	3.3	-95	0	-100	5.6	-86
Nowgong	6.5	-77	13.8	-61	23.4	-38
Nalbari	2.1	-94	5.9	-80	19.9	-73
Sonitpur	4.4	-87	4.4	-86	4.8	-89
Sibsagar	1.4	-95	9	-76		-58
Tinsukia	12.5	-67	9.3	-82	12.3 11.7	-79

Udalgiri	6.6	-86	5.2	-85	30.5	-43
Meghalaya						
East Garo Hills	0.0	-100	0	-100	30.1	-70
East Khasi Hills	8.0	-89	8.2	-89	9.0	-91
Jaintia Hills	0.0	-100	13	-80	33.0	-65
Ribhoi	0.0	-100	0	-100	16.8	-69
South Garo Hills	0.0	-100	0	-100	46.0	-36
West Garo Hills	0.0	-100	0	-100	24.2	-66
West Khasi Hills	2.0	-93	3	-92	0.0	-100
Mizoram						
Aizwal	17.3	-48	0.3	-99	26.7	-63
Champhai	2.0	-93	0	-100	0.0	-100
Kolasib	0.0	-100	0	-100	1.0	-98
Lawngtlai	**	**	**	**	**	**
Lunglei	0.0	-100	4	-86	3.0	-93
Mamit	6.0	-82	0	-100	30.0	-58
Saiha	37.0	123	0	-100	2.0	-94
Serchhip	7.0	-84	0	-100	1.0	-98
Manipur						
Bishnupur	0.0	-100	1	-96	2.0	-91
Chandel	0.0	-100	0	-100	8.0	-55
Churachandpur	2.0	-95	0	-100	12.0	-75
Imphal east	0.8	-98	0.5	-98	14.2	-57
Imphal west	7.2	-72	0	-100	34.0	83
Senapati	1.0	-97	0	-100	15.0	-37
Tamenglong	**	**	**	**	**	**
Thoubal	1.0	-97	0	-100	9.0	-30
Ukhrul	0.0	-100	0	-100	0.0	-100
Nagaland						
Dimapur	0.0	-100	0	-100	6.5	-66
Kephire	0.0	-100	0	-100	2.0	-96
Kohima	12.2	-34	0	-100	45.3	51
Longleng	**	**	**	**	**	**
Mokokchung	0.0	-100	7	-76	0.0	-100
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	15.0	-19	1	-95	14.0	-53
Tuensang	**	**	**	**	**	**
Wokha	0.0	-100	2	-94	0.0	-100
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	5.7	-87	2.7	-96	26.2	-61
North tripura	12.4	-82	4.8	-93	29.3	-55
South tripura	0.0	-100	0	-100	3.0	-95
West tripura	10.2	-75	5.9	-89	22.8	-62
Himachal Pradesh						
Bilaspur	2.1	-61	21.3	525	0.0	-100
Chamba	2.7	-62	50.3	262	0.0	-100
Hamirpur	2.2	-72	29.5	491	0.2	-97

Kangra	0.8	-92	40.6	472	0.0	-99
Kinnaur	29.5	56	25.4	67	1.0	-94
Kullu	8.9	-45	41.6	134	2.1	-87
Lahaul and Spiti	1.0	-96	14.8	-36	0.0	-100
Mandi	5.4	-59	37.1	317	0.1	-99
Shimla	14.5	8	27.4	174	0.3	-97
Sirmaur	4.2	-13	17.8	166	0.0	-100
Solan	4.4	-39	30.4	316	0.0	-100
Una	1.4	-76	26	1427	0.0	-100
Punjab						
Amritsar	0.6	-90	33.9	815	0.9	-79
Barnala	0.0	-100	10.7	327	0.0	-100
Bhatinda	4.0	48	4.5	309	0.0	-100
Faridkot	0.0	-100	31	2483	0.0	-100
Fatehgarh Saheb	0.0	-100	0	-100	0.0	-100
Ferozpur	0.0	-100	21.9	1465	0.0	-100
Gurdaspur	0.0	-100	42	1005	0.0	-100
Hoshiarpur	0.0	-100	26.3	1283	0.0	-100
Jalandhar	0.2	-96	10.8	442	0.0	-100
Kapurthala	1.0	-74	46.8	4580	0.0	-100
Ludhiana	0.0	-99	15.8	557	0.0	-100
Mansa	0.0	-100	12.5	862	0.0	-100
Moga	0.0	-100	44.9	1939	0.5	-82
Muktesar	0.0	-100	20.9	1800	0.0	-100
Nawashahar	0.5	-90	22.8	850	0.4	-92
Patiala	0.5	-88	9	592	0.0	-100
Ropar	0.2	-96	19.1	536	0.0	-100
Sangrur	0.0	-100	11.9	378	0.0	-100
Mohali	1.0	-80	11	479	0.0	-100
TarnTaran	0.5	-86	40.8	2447	0.0	-100
Haryana	0.2		10.0		0.0	
Ambala	0.7	-71	9.7	866	0.0	-100
Bhiwani	0.1	-94	5.5	400	0.0	-100
Chandigarh	0.7	-86	13.2	238	0.0	-100
Faridabad	0.0	-100	6.5	1200	0.0	-100
Fatehabad	0.8	-68	0.5	-67	0.0	-100
Gurgaon	0.0	-100	0	-100	16.0	789
Hissar	1.8	-37	3	168	0.0	-100
Jhajar	0.0	-100	4.9	205	0.0	-100
Jind	0.0	-100	0.3	-78	0.0	-100
Katihal	0.0	-100	7.4	722	0.0	-100
Karnal	0.3	-91	9.9	330	0.0	-100
Kurukshetra	0.0	-100	0	-100	0.0	-100
Mahendragarh	0.0	-100	23	2200	0.0	-100
Mewat	0.0	-100	0	-100	0.0	-100
Palwal	0.0	-100	15	1775	0.4	33
Panchkkula	0.0	-100	5.5	129	0.0	-100
Panipat	0.1	-96	2.1	53	0.0	-100
Rewari	0.0	-100	6.7	2122	0.0	-100

Rohtak	1.4	-48	5.2	225	0.0	-100
Sirsa	0.2	-86	0.2	-90	0.0	-100
Sonepat	0.5	-86	1.8	15	0.0	-100
Yamunanagar	1.7	-60	11	479	0.0	-100
Delhi						
Central Delhi	2.0	-69	8	344	0.0	-100
East Delhi	2.0	-69	6	233	0.0	-100
New Delhi	2.5	-61	7.3	306	0.0	-100
North Delhi	3.8	-41	5.3	194	0.0	-100
North East Delhi	0.0	-100	0	-100	0.0	-100
North West Delhi	0.0	-100	0	-100	0.0	-100
South Delhi	1.2	-81	13.5	650	0.0	-100
South West Delhi	1.2	-81	4.8	167	0.0	-100
West Delhi	1.0	-84	8	344	0.0	-100
Jammu & Kashmir						
Anantnag	17.5	-34	42.7	66	3.7	-87
Badgam	20.7	17	26.9	36	2.0	-92
Bandipore	**	**	**	**	**	**
Baramula	7.1	-78	33.9	-23	6.0	-85
Doda	10.2	-63	87.4	318	8.2	-68
Ganderbal	23.2	22	67.4	253	12.0	-50
Jammu	2.5	-71	14.9	170	0.0	-100
Kargil	0.0	-100	0	-100	0.0	-100
Kathua	0.0	-100	38	1420	0.0	-100
Kistwar	**	**	**	**	**	**
Kulgam	6.7	-75	20	-22	1.0	-96
Kupwara	21.5	-35	47.7	50	2.2	-95
Ladakh(Leh)	0.0	-100	0	-100	0.0	-100
Poonch	0.0	-100	0	-100	0.0	-100
Pulwama	14.5	-19	34.8	51	5.1	-79
Rajouri	1.2	-82	19.6	158	2.1	-43
Ramban	6.2	-78	48.4	131	1.5	-94
Reasi	2.8	-85	36	267	0.0	-100
Samba	0.0	-100	20.4	271	0.0	-100
Shopian	10.0	-44	30	30	2.0	-92
Srinagar	20.3	7	29	52	1.7	-93
Udhampur	15.5	-14	37.4	282	0.0	-100
East Madhya Pradesh						
Anuppur	0.0	-100	0	-100	0.0	-100
Balaghat	5.1	464	2.8	76	0.0	-100
Chhatarpur	0.0	-100	4.6	562	0.0	-100
Chindwara	0.0	-100	1.7	8	0.0	-100
Damoh	0.0	-100	2.6	73	0.0	-100
Dindori	6.5	3150	26.2	1538	0.0	-100
Jabalpur	0.0	-100	1	-5	0.0	-100
Katni	0.4	0	0	-100	0.0	-100
Mandla	0.0	-100	0	-100	0.0	-100
Narsingpur	0.0	-100	0	-100	0.0	-100
Panna	0.0	-100	0	-100	0.0	-100

Rewa	0.0	-100	3	400	0.0	-100
Sagar	0.0	-100	3.3	552	0.0	-100
Satna	0.0	-100	1.2	36	0.0	-100
Seoni	3.4	36	25.7	1250	0.0	-100
Shahdol	7.2	1340	2.4	41	0.0	-100
Sidhi	0.0	-100	3.6	260	0.0	-100
Singrauli	0.0	-100	0	-100	0.0	-100
Tikamgarh	0.0	-100	0	-100	0.0	-100
Umaria	0.0	-100	0.3	-81	0.0	-100
West Madhya Pradesh						
Alirajpur	0.0	-100	0	-100	0.0	-100
Asoknagar	0.0	-100	0	-100	0.0	-100
Badwani	0.0	-100	0	-100	0.0	-100
Betul	0.0	-100	0.6	-36	0.0	-100
Bhind	0.0	-100	0	-100	0.0	-100
Bhopal	0.0	-100	5.6	1300	0.0	-100
Burhanpur	0.0	-100	0	-100	0.0	-100
Datia	0.0	-100	9.2	2967	0.0	-100
Dewas	0.0	-100	0	-100	0.0	-100
Dhar	0.0	-100	0	-100	0.0	-100
Guna	0.0	-100	3.5	775	0.0	-100
Gwalior	0.0	-100	10.7	1429	0.2	-62
Harda	0.0	-100	0	-100	0.0	-100
Hosangabad	0.0	-100	0.8	33	0.0	-100
Indore	0.0	-100	5.4	2600	0.0	-100
Jhabua	0.0	-100	0	-100	0.0	-100
Khandwa	0.0	-100	4	1233	0.0	-100
Khargone	0.0	-100	0	-100	0.0	-100
Mandsaur	0.0	-100	0	-100	0.0	-100
Morena	0.0	-100	1.4	244	0.0	-100
Neemuch	0.0	-100	0	-100	0.0	-100
Raisen	0.0	-100	8.2	8100	0.0	-100
Rajgarh	0.0	-100	5.5	2640	0.0	-100
Ratlam	0.0	-100	0	-100	0.0	-100
Sehore	0.0	-100	0	-100	0.0	-100
Shajapur	0.0	-100	6.6	6500	0.0	-100
Sheopur Kalani	0.0	-100	8.5	8400	0.0	-100
Shivpuri	0.0	-100	2	900	0.0	-100
Ujjain	0.0	-100	0.5	400	1.0	400
Vidisha	0.0	-100	1.1	273	0.0	-100
Chhattisgarh						
Bastar	19.1	267	22	120	15.6	90
Bijapur	**	**	12.4	97	0.0	-100
Bilaspur	26.5	1295	30	1011	0.0	-100
Dantewara	**	**	**	**	0.0	-100
Dhamtari	11.4	533	5.2	160	0.0	-100
Durg	3.6	260	7.5	367	1.2	9
Janjgir	**	**	0	-100	0.0	-100
Jashpurnagar	**	**	0	-100	0.0	-100

Kanker	23.0	576	0	-100	0.0	-100
Korba	5.0	52	0	-100	**	**
Koriya	18.5	200	7.4	1139	0.0	-100
Kawardha	**	**	**	**	**	**
Mahasumund	**	**	0	-100	0.0	-100
Narayanpur	**	**	8.8	49	0.0	-100
Raigarh	**	**	**	**	**	**
Raipur	2.4	33	11.9	493	0.1	-95
Rajandgaon	3.8	138	17.2	1047	0.0	-100
Surguja	1.4	75	1.8	-17	0.0	-100
East Uttar Pradesh						
Allahabad	0.0	-100	0	-100	0.0	-100
Ambedkar Nagar	0.0	-100	2	18	0.0	-100
Azamgarh	0.0	-100	0	-100	0.0	-100
Bahraich	0.0	-100	0.1	-97	0.0	-100
Ballia	0.0	-100	1.4	-33	0.0	-100
Balrampur	0.0	-100	0.5	-87	0.0	-100
Banda	0.0	-100	0.1	-98	0.0	-100
Barabanki	0.0	-100	1.8	-1	0.0	-100
Basti	0.0	-100	0	-100	0.0	-100
Chandauli	0.0	-100	2	-5	0.0	-100
Deoria	0.0	-100	0	-100	0.0	-100
Faizabad	0.0	-100	0.5	-75	0.0	-100
Farrukhabad	0.0	-100	8.6	473	0.0	-100
Fatehpur	0.0	-100	0	-100	0.0	-100
Gazipur	0.0	-100	0	-100	0.0	-100
Gonda	0.0	-100	0	-100	0.0	-100
Gorakhpur	0.0	-100	0	-100	0.0	-100
Hardoi	0.0	-100	11.2	461	0.0	-100
Jaunpur	0.0	-100	0	-100	0.0	-100
Kannauj	0.0	-100	1.8	29	0.0	-100
Kanpur City	0.0	-100	3	233	0.2	-67
Kanpur Dehat	0.0	-100	0.8	-38	0.0	-100
Kaushambi	0.0	-100	0	-100	0.0	-100
Kheri	0.0	-100	4.9	143	0.0	-100
Kushi nagar	0.0	-100	0	-100	0.0	-100
Lucknow	0.0	-100	0	-100	0.0	-100
Maharajganj	0.0	-100	0	-100	0.0	-100
Mau	0.0	-100	0	-100	0.0	-100
Mirzapur	0.0	-100	0	-100	0.0	-100
Pratapgarh	0.0	-100	6	1100	0.0	-100
RaiBarelly	0.0	-100	0.4	-20	0.0	-100
Sahuji Maharajnagar	0.0	-100	0	-100	0.0	-100
Sant Kabirnnagar	0.0	-100	0	-100	0.0	-100
Sant Ravidas Nagar	0.0	-100	0	-100	0.0	-100
Shrawasti	**	**	0	-100	0.0	-100
Sidharthnagar	0.0	-100	0	-100	0.0	-100
Sitapur	0.0	-100	3.6	79	0.0	-100
Sonbhadra	0.0	-100	1.9	-23	0.0	-100

Sultanpur	0.0	-100	0.8	-59	0.0	-100
Unnao	0.0	-100	0	-100	0.0	-100
Varanasi	0.0	-100	0.1	-94	0.0	-100
West Uttar Pradesh			***			
Agra	0.0	-100	1.9	19	0.2	-70
Aligarh	0.0	-100	5.8	379	0.0	-100
Auraiya	0.0	-100	6	757	0.0	-100
Badaun	0.0	-100	4.3	442	0.0	-100
Baghpat	3.1	82	2.4	9	0.0	-100
Bareilly	0.0	-100	9	307	0.0	-100
Bijnor	0.0	-100	2.5	56	0.0	-100
Bulandsahar	0.0	-100	3.8	436	0.0	-100
Etah	0.0	-100	9	543	0.0	-100
Etawah	0.0	-100	0	-100	0.0	-100
Firozabad	0.0	-100	2.3	25	0.0	-100
GBNagar	0.0	-100	5	163	0.0	-100
Ghaziabad	0.0	-100	1.1	-15	0.0	-100
Hamirpur	0.0	-100	3.3	270	0.0	-100
Jalaun	0.0	-100	0	-100	0.0	-100
Jhansi	0.0	-100	6.7	642	0.0	-100
Jotiba Phule Nagar	0.0	-100	0	-100	0.0	-100
Kanshiramnagar	0.0	-100	11	686	0.0	-100
Lalitpur	0.0	-100	0	-100	0.0	-100
Mahamaya Nagar	0.0	-100	5.5	450	0.0	-100
Mahoba	0.0	-100	0	-100	0.0	-100
Mainpuri	0.0	-100	1.8	64	0.0	-100
Mathura	0.0	-100	2.5	150	0.0	-100
Meerut	0.6	-47	3.1	239	0.0	-100
Moradabad	1.1	167	4.5	180	0.0	-100
Muzzaffarnagar	0.0	-100	10.5	950	0.0	-100
Pilibhit	0.0	-100	3.7	68	0.0	-100
Rampur	0.0	-100	3.7	15	0.0	-100
Saharanpur	0.3	-76	5	614	0.0	-100
Shahjahanpur	0.0	-100	2.8	31	0.0	-100
Uttarakhand						
Almora	9.2	119	6	-10	0.0	-100
Bageshwar	8.6	105	7.6	13	0.0	-100
Chamoli	14.4	30	20.1	116	1.4	-85
Champawat	1.5	-77	2.5	-68	0.0	-100
Dehradun	7.0	45	11.3	151	0.0	-100
Garhwal Pauri	4.0	11	2.8	-43	0.0	-100
Garhwal Tehri	4.1	-45	12	64	0.0	-100
Haridwar	1.0	-76	5.5	175	0.0	-100
Nainital	3.5	-21	7.7	42	0.0	-100
Pithorgarh	13.1	22	8.9	-23	0.0	-100
Rudraprayag	5.0	-60	11	4	0.0	-100
Udham Sing Nagar	0.2	-88	7.4	116	0.0	-100
Uttarkashi	13.7	10	25.1	124	2.2	-80
Bihar						

Araria	0.0	-100	0.0	-100	9.7	-43
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	7.4	-70
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	5.2	8	0.0	-100	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	0.4	-87	0.1	-99	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	2.0	11	3.2	-46	0.0	-100
Chatra	0.0	-100	0	-100	0.0	-100
Deoghar	0.0	-100	0	-100	0.0	-100
Dhanbad	2.0	18	0	-100	0.0	-100
Dumka	0.0	-100	0	-100	0.0	-100
East Singbhum	0.0	-100	0.5	-95	0.0	-100
Garhwa	0.0	-100	0	-100	0.0	-100
Giridih	0.7	-76	0.7	-89	0.0	-100
Godda	0.0	-100	0	-100	0.0	-100
Gumla	0.0	-100	0	-100	0.0	-100

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

Gujarat Region						
Ahmedabad	0.0	-100	5.1	4993	0.0	-100
Anand	0.0	-100	0	-100	0.0	-100
Banaskantha	0.0	-100	0	-100	0.0	-100
Baroda	0.0	-100	0	-100	0.0	-100
Broach	0.0	-100	0	-100	0.0	-100
DNH	**	**	**	**	**	**
Dahod	0.0	-100	0	-100	0.0	-100
Daman	**	**	**	**	**	**
Dangs	0.0	-100	0	-100	0.0	-100
Gandhinagar	0.0	-100	13.2	4300	0.0	-100
Kheda	0.0	-100	0.2	82	0.0	-100
Mehsana	0.0	-100	0	-100	0.0	-100
Narmada	0.0	-100	0	-100	0.0	-100
Navsari	0.0	-100	0	-100	0.0	-100
Panchmahal	0.0	-100	0.1	200	0.0	-100
Patan	0.0	-100	3	200	0.0	-100
Sabarkantha	0.0	-100	0.2	-78	0.0	-100
Surat	0.0	-100	0	-100	0.0	-100
Tapi	0.0	-100	0	-100	0.0	-100
Valsad	0.0	-100	0	-100	0.0	-100
S K & Diu region						
Amreli	0.0	-100	1	200	0.0	-100
Bhavnagar	0.0	-100	0	-100	0.0	-100
Diu	0.0	-100	0	-100	0.0	-100
Jamnagar	0.0	-100	0	-100	0.0	-100
Junagarh	0.0	-100	0.6	200	0.0	-100
Kutch	0.0	-100	0	-100	0.0	-100
Porbandar	0.0	-100	0	-100	0.0	-100
Rajkot	0.0	-100	0.4	326	0.0	-100
Surendranagar	0.0	-100	4	200	0.0	-100
Maharashtra						
Konkan & Goa						
Goa	0.0	-100	0	-100	1.0	-64
Mumbai	0.0	-100	0	-100	0.0	-100
Raigad	0.0	-100	0	-100	0.0	-100
Ratnagiri	0.0	-100	0	-100	0.0	-100
Sindhudurg	0.0	-100	1.4	38	0.0	-100
Thane	0.0	-100	0.1	-33	0.0	-100
Madhya Maharashtra					~	
Ahmednagar	0.0	-100	0.1	-87	0.0	-100
Dhule	0.0	-100	0.1	-100	0.0	-100
Jalgaon	0.0	-100		-12		-100
Kolhapur	0.0	-100	0.2	230	3.4	-63
Nandurbar	0.0	-100	18.2	-100		-100
Nasik	0.0	-100	0	-100	0.0	-100
Pune	0.0	-100	0	231	0.0	-100
Sangli	6.9	40	4.3	97	0.0	-75
Sangn	0.9	40	10.6	91	1.8	-/5

Solapur	0.4	-84	15	1146	1.6	-26
Marathwada						
Aurangabad	0.0	-100	7.6	987	0.0	-100
Beed	1.1	-41	8.3	536	1.3	-22
Hingoli	0.0	-100	8.3	361	0.0	-100
Jalna	0.0	-100	15.4	1827	1.3	157
Latur	0.0	-100	10.3	268	2.3	1
Nanded	1.0	-70	8.7	479	0.0	-100
Usmanabad	2.0	-20	16.1	1913	4.5	124
Parbhani	1.0	-57	1.3	-26	0.0	-100
Vidarbha						
Akola	0.0	-100	7.6	533	0.0	-100
Amraoti	0.0	-100	1.4	55	0.0	-100
Bhandara	5.8	205	0	-100	0.0	-100
Buldhana	0.0	-100	3.8	379	0.0	-100
Chandrapur	0.1	-95	0.5	-84	0.6	-76
Gadchiroli	0.4	-85	0	-100	0.0	-100
Gondia	6.0	141	1.7	-25	0.0	-100
Nagpur	2.7	27	0	-99	0.1	-90
Wardha	0.3	-83	0	-100	0.0	-100
Washim	0.0	-100	7.2	1100	0.0	-100
Yeotmal	0.0	-100	1.5	46	0.0	-100
Odisha			100			
Angul	2.2	-66	3.4	-54	0.1	-99
Balasore	1.5	-86	5	-74	16.0	-9
Bargarh	0.0	-100	0.5	-83	0.0	-100
Bhadrak	7.8	-39	7.8	-29	3.3	-84
Bolangir	1.6	-63	4	-32	3.3	-31
Boudh	0.0	-100	0	-100	0.0	-100
Cuttack	3.2	-33	0	-100	0.0	-100
Deogarh	0.0	-100	1	-74	0.0	-100
Dhenkanal	6.3	-13	0.2	-98	0.0	-100
Gajapati	22.0	107	7.7	-65	12.1	-61
Ganjam	4.4	-51	3.4	-71	2.3	-78
Jagatsingpur	8.3	145	0	-100	0.0	-100
Jajpur	0.4	-95	10.9	7	0.0	-100
Jharsuguda	0.0	-100	3.2	-51	0.0	-100
Kalahandi	0.0	-100	0	-100	2.5	-68
Kandhamal	7.3	66	3.4	-62	0.2	-98
Kendrapara	0.3	-94	0	-100	0.3	-97
Keonjhar	6.8	-23	11.1	38	4.7	-81
Khurda	0.0	-100	4.8	-11	0.0	-100
Koraput	1.5	-82	4	-74	4.5	-65
Malkangiri	0.0	-100	5.8	-51	10.0	18
Mayurbhanj	11.7	27	11.4	-31	7.8	-63
Nawapara	0.0	-100	5.6	8	0.9	-85
Nawarangpur	0.8	-80	11.5	-64	20.9	237
Nayagarh	0.0	-100	0.4	-96	0.0	-100
Puri	0.3	-87	0	-100	0.0	-100

Rayagada	3.9	-72	9.7	-35	16.1	32
Sambalpur	0.0	-100	0.8	-79	0.0	-100
Sonepur	1.8	-13	0.8	-100	0.2	-95
Sundargarh	0.0	-99	1.2	-63	0.0	-100
West Bengal			1,2	30	0,0	200
GWB						
Bankura	0.1	-97	5.7	-55	0.0	-100
Birbhum	0.1	-98	0	-100	0.0	-100
Burdwan	1.0	-84	0.4	-97	0.0	-100
East Midnapore	0.0	-100	2.3	-75	0.0	-100
Hooghly	0.0	-100	0.1	-99	0.0	-100
Howrah	0.0	-100	1	-94	0.0	-100
Kolkata	0.0	-100	0.1	-99	0.0	-100
Murshidabad	0.0	-100	0	-100	0.0	-100
Nadia	0.0	-100	0	-100	0.0	-100
24 Pargana (N)	0.0	-100	0.1	-99	0.0	-100
Purulia	0.1	-96	3.1	-74	0.0	-100
24 Pargana (S)	0.0	-100	0	-100	0.0	-100
West Midnapore	0.0	-100	8.6	-52	0.0	-100
SHWB			0,0		0,0	
Cooch Behar	0.0	-100	0	-100	7.0	-88
Darjeeling	0.1	-99	2.3	-93	19.3	-61
East Sikkim	28.6	-39	21	-46	21.4	-57
Jalpaiguri	0.0	-100	5.4	-84	12.3	-76
Malda	1.0	-85	4.1	-65	2.0	-86
North Dinajpur	4.0	264	0	-100	0.0	-100
North Sikkim	51.5	8	64	26	32.8	-41
South Dinajpur	0.0	-100	0	-100	10.2	-63
South Sikkim	0.0	-100	0.8	-98	8.1	-84
West Sikkim	12.7	-74	8.7	-83	25.7	-54
Karnataka						
Coastal Karnataka						
Dakshin Kannada	15.5	71	3.8	-56	25.3	87
Udupi	0.0	-100	1.6	-77	12.7	13
Uttar Kannada	2.4	-49	6	50	20.7	125
N I Karnataka						
Bagalkote	3.4	-36	11.5	75	7.1	2
Belgaum	3.1	-47	12	97	13.6	32
Bidar	2.1	-63	3.2	-35	5.7	19
Bijapur	4.9	-5	4.3	12	6.9	1
Dharwad	7.3	-35	12	14	15.9	-15
Gadag	5.4	-36	9.8	33	10.1	-22
Gulbarga	6.0	24	13.1	265	14.9	171
Haveri	13.8	69	6.5	-37	41.3	132
Koppal	9.7	98	6.2	29	8.6	20
Raichur	4.4	14	3.8	-26	8.3	86
Yadgir	3.1	3	2.6	-44	8.7	38
S I Karnataka						
Bangalore Rural	11.7	59	0	-100	0.0	-100

Bangalore Urban	7.8	-12	0.1	-99	0.0	-100
Bellary	13.1	135	1.7	-77	12.8	40
Chamarajnagar	17.7	13	12.8	-38	3.5	-85
Chichballapur	9.5	41	2	-72	0.0	-100
Chickmagalur	22.3	81	13.7	3	29.7	36
Chitradurga	20.6	329	14.8	146	19.8	83
Davangere	11.6	59	21.8	207	36.9	162
Hassan	20.4	82	43.1	232	14.4	-29
Kodagu	38.3	97	14	-39	21.0	-23
Kolar	0.0	-100	3.5	-60	0.0	-100
Mandya	24.4	130	9.2	-17	0.5	-97
Mysore	18.2	36	7.1	-58	2.1	-89
Ramnagara	20.2	119	16.2	18	0.0	-100
Shimoga	6.3	-15	10.3	11	47.6	240
Tumkur	9.1	6	6.5	-28	8.1	-25
Kerala						
Alappuzha	32.2	7	38	23	38.4	4
Kannur	2.1	-87	13.6	-12	1.9	-90
Ernakulam	21.7	-22	11.3	-56	27.2	-26
Idukki	31.2	-2	21.1	-49	17.3	-57
Kasaragod	0.1	-99	4	-69	4.1	-77
Kollam	41.9	20	47.1	18	45.2	-3
Kottayam	38.6	7	33.3	23	35.7	5
Kozhikode	16.8	-21	0	-100	27.1	18
Malappuram	31.1	46	2.9	-87	9.7	-62
Palakkad	23.5	-5	2.7	-89	4.3	-85
Pathanamthitta	85.1	100	52.3	16	39.4	-20
Thiruvanantapuram	40.0	46	31.2	22	45.2	32
Thrissur	24.1	22	1.9	-90	7.1	-68
Wayanad	50.2	176	30.7	25	33.7	47
Tamil Nadu						
Ariyalur	0.0	-100	0	-100	0.0	-100
Chennai	0.0	-100	0	-100	0.0	-100
Coimbatore	8.2	-24	3.5	-81	0.8	-95
Cuddalore	0.0	-100	0	-100	0.0	-100
Dharmapuri	14.4	45	0	-100	0.0	-100
Dindigul	8.8	-30	0.6	-97	1.3	-92
Erode	2.6	-73	1.3	-90	0.0	-100
Kanchipuram	0.0	-100	0	-100	0.0	-100
Kanyakumari	9.5	-61	8.4	-63	12.8	-52
Karikal	0.0	-100	0	-100	0.0	-100
Karur	0.0	-100	0	-100	0.0	-100
Krishnagiri	3.7	-56	3.1	-75	0.0	-100
Madurai	0.0	-100	0	-100	3.5	-75
Nagapattinam	0.0	-100	0	-100	0.0	-100
Namakkal	18.7	89	2.7	-79	0.0	-100
Nilgiris	13.8	-26	19.4	-14	1.4	-93
Perambalur	0.0	-100	0	-100	0.0	-100
Puducherry	0.0	-100	0	-100	0.0	-100

Pudukottai	0.0	-100	0	-100	0.3	-96
Ramanathapuram	0.0	-100	0.3	-98	0.4	-97
Salem	3.6	-71	0	-100	1.5	-90
Sivaganga	0.0	-100	0	-100	0.1	-99
Thanjavur	0.0	-99	0	-100	0.1	-99
Theni	11.6	-10	0.4	-98	7.4	-63
Tirunelveli	3.9	-76	2.5	-84	11.3	-22
Tirupur	0.0	-100	0	-100	0.0	-100
Tiruvallur	0.0	-100	0	-100	0.0	-100
Tiruvannamalai	0.0	-100	0	-100	0.0	-100
Tiruvarur	0.0	-100	0	-100	0.0	-100
Toothukudi	0.5	-96	2.7	-77	0.6	-93
Trichy	1.2	-86	0	-100	0.0	-100
Vellore	0.5	-83	0	-100	0.1	-99
Villupuram	0.0	-100	0	-100	0.0	-100
Virudhunagar	3.4	-78	1.4	-92	15.2	-3
Andhra Pradesh			17			
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0	-100	0.0	-100
Guntur	0.3	-87	0	-100	0.0	-100
Krishna	0.0	-100	0	-100	0.0	-100
Nellore	9.3	749	0	-100	0.0	-100
Prakasam	7.8	359	0	-100	0.0	-100
Sirkakulam	4.5	-19	0	-100	1.0	-86
Visakhapatnam	6.6	-13	6.3	-53	13.9	7
Vizianagram	7.1	17	0	-100	0.0	-100
West Godavari	0.0	-100	0	-100	4.5	-33
Telangana						
Adilabad	1.0	-66	10.8	260	0.0	-100
Hyderabad	5.1	21	0	-100	2.7	-47
Karimnagar	0.0	-100	8.5	98	0.2	-94
Khammam	1.2	-68	1.5	-82	0.0	-100
Mehabubnagar	10.1	188	2.9	-26	5.1	-15
Medak	0.1	-97	0.4	-93	0.2	-96
Nalgonda	4.4	62	0	-100	0.0	-100
Nizamabad	1.6	-54	11.8	336	0.5	-72
Rangareddy	3.1	-42	2.9	-43	8.0	26
Warangal	0.0	-100	0	-100	0.9	-61
Rayalaseema						
Anantapur	12.2	212	0.8	-86	2.2	-65
Chittoor	2.4	-29	0	-99	0.0	-100
Cuddapah	6.5	171	0	-100	0.0	-100
Kurnool	6.6	74	1	-82	0.0	-100

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