

National Agromet Advisory Service Bulletin

Friday 21st March 2014

(For the period 21st to 25th March 2014)



Issued by

National Agrometeorological Advisory Service Centre,

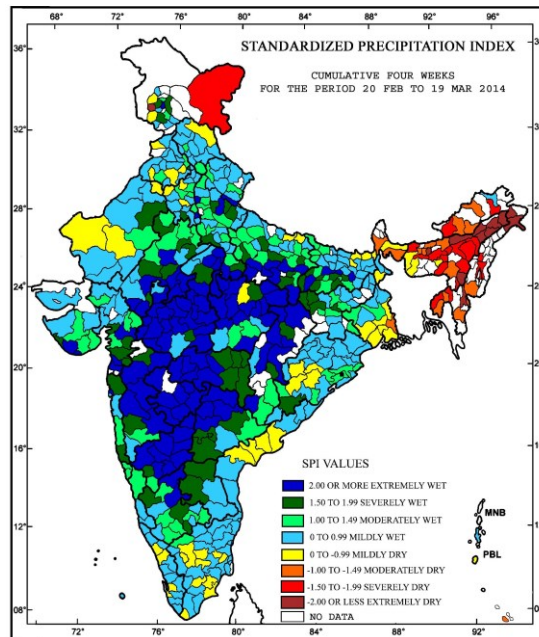
Agricultural Meteorology Division,

India Meteorological Department, Shivajinagar, Pune.



**Standardised Precipitation Index
Four Weekly
for the Period 20th February to 19th March 2014**

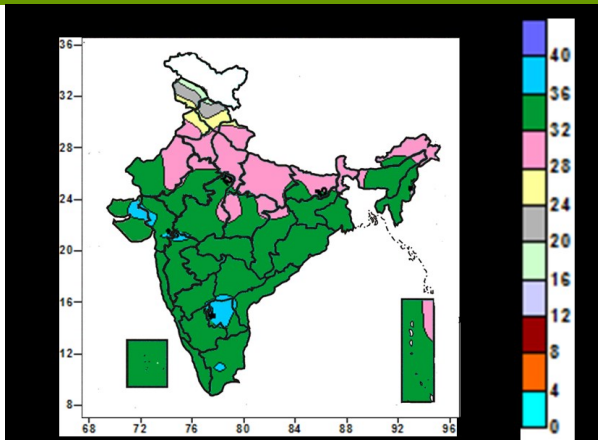
MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE



- Extremely wet/severely wet conditions experienced over most parts of Madhya Pradesh, Chhattisgarh, Maharashtra, Karnataka, some parts of Bihar, Uttar Pradesh, Rajasthan, Gujarat, Jharkhand and Andhra Pradesh, Rewari and Faridabad districts of Haryana, Koraput district of Odisha and Anantnag, Pulwama, Badgam and Reasi districts of Jammu & Kashmir.
- Moderately/ severely dry conditions experienced over most parts of Northeast region.
- Extremely dry conditions experienced over some part of Assam, Poonch district of Jammu & Kashmir.
- Rest of the country experienced mild wet/dry conditions.

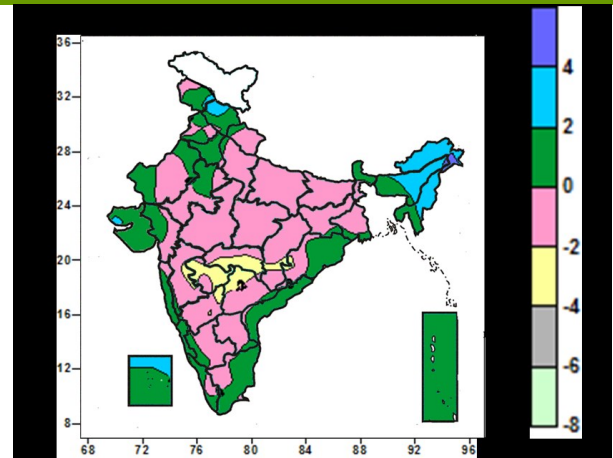
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 19.03.2014

Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 19.03.2014



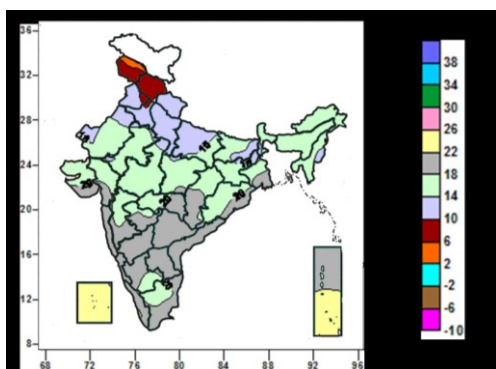
- 36 to 40 $^{\circ}\text{C}$ over some parts of Saurashtra & Kutch, Gujarat, Andhra Pradesh, Madhya Maharashtra and Tamil Nadu.
- 28 to 36 $^{\circ}\text{C}$ over all parts of country except many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, some parts of Saurashtra & Kutch, Gujarat, Andhra Pradesh, Madhya Maharashtra and Tamil Nadu.
- 20 to 28 $^{\circ}\text{C}$ over many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand and Punjab.
- 16 to 20 $^{\circ}\text{C}$ over some parts of Jammu & Kashmir and Himachal Pradesh.

Mean Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 19.03.2014



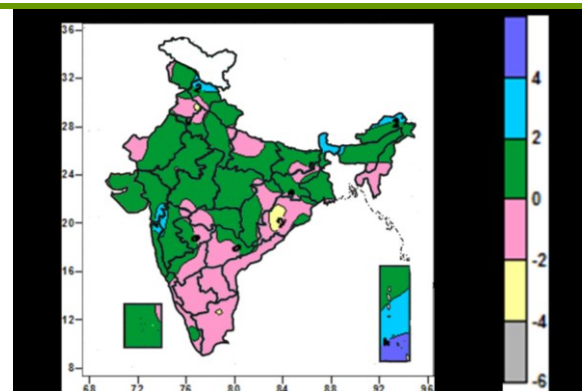
- 2 to 4 $^{\circ}\text{C}$ over many parts of Arunachal Pradesh, Assam, Nagaland, Manipur, some parts of Jammu & Kashmir, Himachal Pradesh, Kutch, Andaman & Nicobar Islands.
- 0 to 2 $^{\circ}\text{C}$ over all parts of country except many parts of Arunachal Pradesh, Assam, Nagaland, Manipur, Marathwada, Vidarbha, some parts of Jammu & Kashmir, Himachal Pradesh, Saurashtra, Chhattisgarh, Odisha, Madhya Maharashtra, North Interior Karnataka, Telangana Andaman & Nicobar Islands.
- -4 to -2 $^{\circ}\text{C}$ over many parts of Marathwada, Vidarbha, some parts of Chhattisgarh, Odisha, Madhya Maharashtra, North Interior Karnataka and Telangana.

Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 19.03.2014



- 2 to 6 $^{\circ}\text{C}$ over some parts of Jammu & Kashmir.
- 6 to 10 $^{\circ}\text{C}$ over many parts of Jammu & Kashmir, Himachal Pradesh, some parts of Punjab & Haryana.
- 10 to 18 $^{\circ}\text{C}$ over many parts of Rajasthan, Punjab, Haryana, Delhi, Uttar Pradesh, East India, North East India, Madhya Pradesh, Saurashtra & Kutch, Gujarat, some parts of Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, South Interior Karnataka and Tamil Nadu.
- 18 to 26 $^{\circ}\text{C}$ many parts of Konkan & Goa, Andhra Pradesh,

Mean Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 19.03.2014



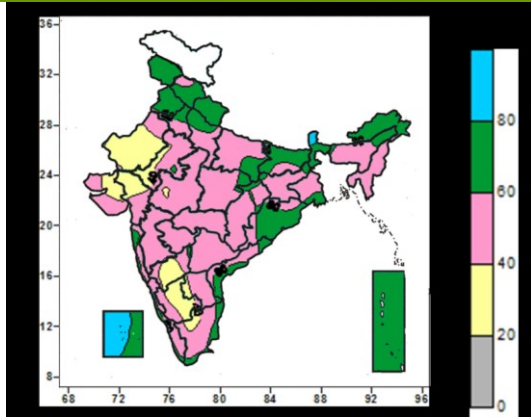
- -4 to -2 $^{\circ}\text{C}$ over some parts of Odisha, Tamil Nadu, Punjab.
- -2 to 2 $^{\circ}\text{C}$ over all parts of country except many parts of Sikkim, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Gujarat, Konkan, Sub-Himalayan West Bengal, Arunachal Pradesh and Odisha.
- 2 to 6 $^{\circ}\text{C}$ over many parts of Sikkim, Andaman & Nicobar Islands, some parts of Jammu & Kashmir,

Karnataka, Tamil Nadu, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Coastal Odisha, Chhattisgarh, West India, East Madhya Pradesh, Gangetic West Bengal.

Himachal Pradesh, Gujarat, Konkan, Sub-Himalayan West Bengal and Arunachal Pradesh.

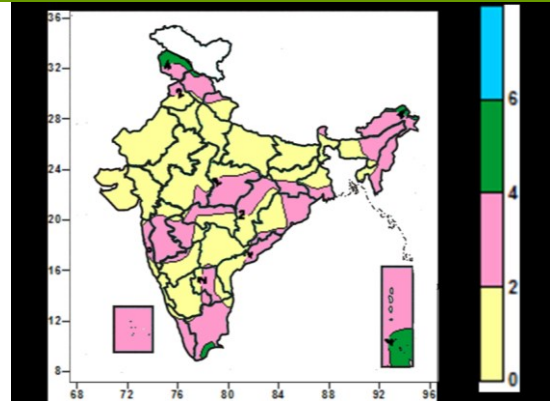
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 19.03.2014

Relative Humidity (%) over India for the week ending 19.03.2014



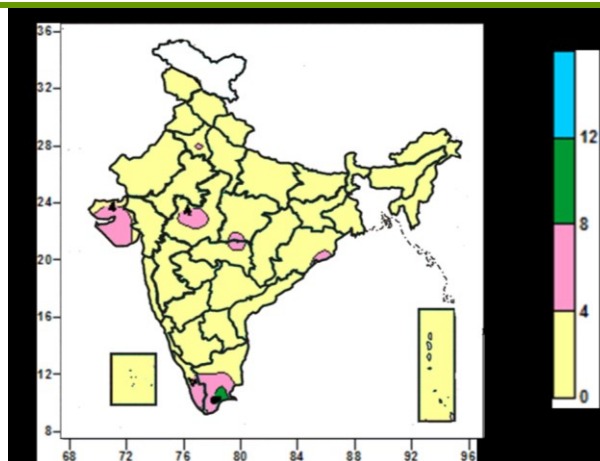
- 80 to 100% over many parts of Sikkim, Lakshadweep Islands.
- 40 to 80% over entire country except many parts of West Rajasthan, Kutch, Interior Karnataka, Lakshadweep Islands, some parts of Saurashtra, Gujarat, East Rajasthan, West Madhya Pradesh and Tamil Nadu.
- 20 to 40% over many parts of West Rajasthan, Kutch, Interior Karnataka, some parts of Saurashtra, Gujarat, East Rajasthan, West Madhya Pradesh and Tamil Nadu.

Cloud amount (okta) over India for the week ending 19.03.2014



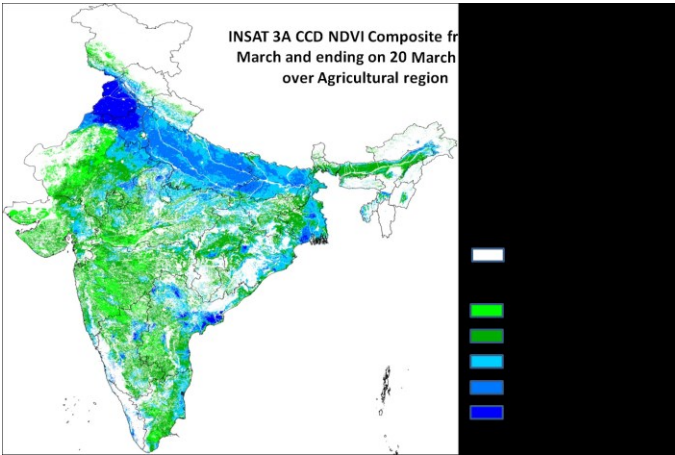
- 4 to 6 okta over some parts of Jammu & Kashmir, Himachal Pradesh, Tamil Nadu and Andaman & Nicobar Islands.
- 0 to 4 okta over entire country except some parts of Jammu & Kashmir, Himachal Pradesh and Andaman & Nicobar Islands.

Wind speed (knots) over India for the week ending 19.03.2014



- 8 to 12 knots over some parts of Coastal Tamil Nadu.
- 4 to 8 knots over many parts of Saurashtra & Kutch, Tamil Nadu, Kerala, some parts of West Madhya Pradesh and North Vidarbha.
- 0 to 4 knots over entire country except many parts of Saurashtra & Kutch, Tamil Nadu, Kerala, some parts of West Madhya Pradesh and North Vidarbha.

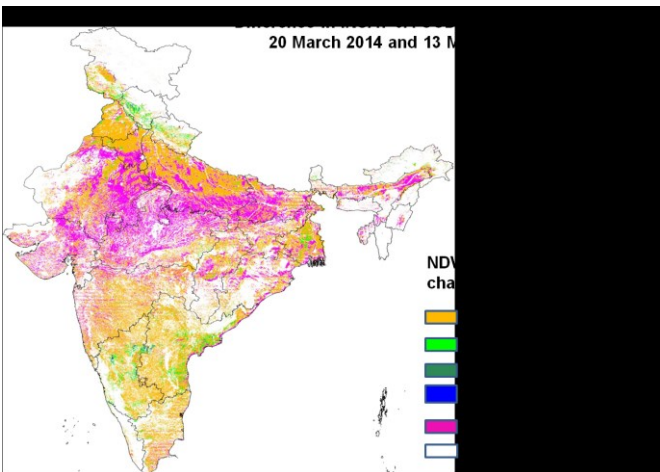
INSAT 3A CCD NDVI COMPOSITE OVER AGRICULTURAL REGION 14th – 20th March 2014



Source: SAC, Ahmedabad

Agricultural vigour is in generally very good over whole Punjab and part of Haryana few pockets of eastern Rajasthan, part central and eastern UP and western and eastern Bihar, southern West Bengal and pockets of coastal AP as NDVI exceeds 0.5. Agricultural vigour is moderate in north and south belt of UP, central Bihar, eastern MP, coastal Odisha, central Gujarat and few pockets of north MP where, NDVI is in the range of 0.4 to 0.5 upto 13th March 2014. The NDVI was observed low over major part of Rajasthan, MP and Maharashtra and it varied between 0.2 and 0.3. The NDVI remains within the range of 0.2 to 0.4 over rest of India.

Difference in INSAT 3A CCD NDVI between 20th March and 13th March 2014



Source: SAC, Ahmedabad

Agricultural progress was found to be good over eastern Karnataka and coastal AP. The moderate progress was observed over Punjab, north part of Haryana, western and central UP and few pockets of Chhattisgarh, West Bengal and central Maharashtra. The major decrease in NDVI was observed in Rajasthan, major part of MP, eastern UP and adjacent Bihar, eastern and central Maharashtra as compared to previous week. Rest of India showed decay in agricultural vigour as compared to past week.

Weather Forecast

Weather Forecast for next 3 days (upto 0830 hours IST of 24th March, 2014)

- Rain/snow would occur at a few places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand during next 48 hours and decrease thereafter.
- Rain/thundershowers would occur at isolated places over Punjab, Haryana and north Rajasthan during next 24 hours and mainly dry thereafter.
- Rain/thundershowers would occur at isolated places over West Bengal & Sikkim during next 48 hours and mainly dry thereafter.
- Rain/thundershowers would occur at isolated places over Odisha during next 24 hours and mainly dry thereafter.
- Rain/thundershowers would occur at a few places over Arunachal Pradesh and Assam & Meghalaya during next 24 hours and decrease thereafter.
- Rain/thundershowers would occur at a few places over Nagaland, Manipur, Mizoram & Tripura.
- Rain/thundershowers would occur at isolated places over Tamilnadu and Lakshadweep during next 24 hours and mainly dry thereafter.
- Rain/thundershowers would occur at isolated places over Kerala.
- Maximum temperatures would rise by 2-4°C at many places over northwest and central India.
- Mainly dry/dry weather would prevail over rest of the country.

Weather Warning during next 3 days

21 March (Day 1): Isolated thundersquall/hailstorm would occur over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

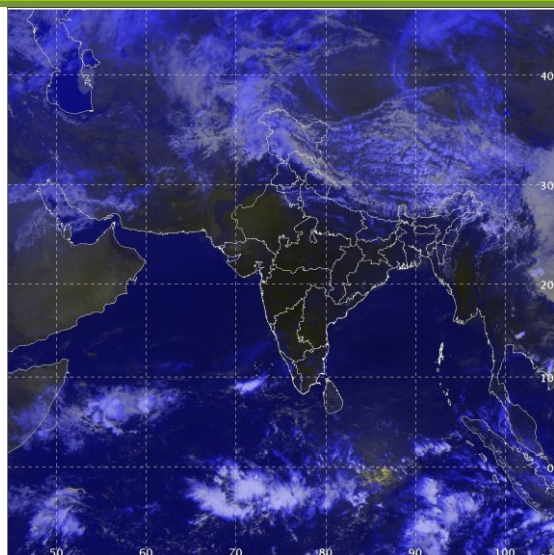
22 March (Day 2): Isolated thundersquall/hailstorm would occur over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

23 March (Day 3): Isolated thundersquall/hailstorm would occur over Jammu division of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

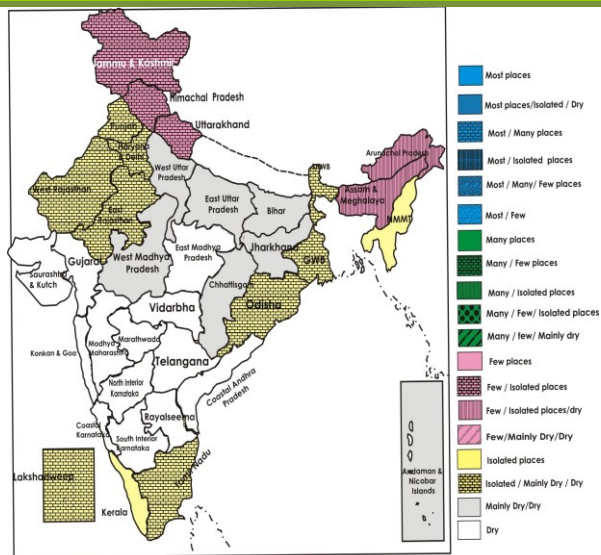
Weather Outlook for subsequent 4 days from 24th to 28th March, 2014

- Rain/snow would occur at many places over Jammu & Kashmir and at a few places over Himachal Pradesh and Uttarakhand.
- Rain/thundershowers would occur at isolated places over Punjab and north Rajasthan on 23rd.
- Rain/thundershowers would occur at a few places over northeastern states and isolated places over extreme south peninsular India.
- Weather would be mainly dry over rest of the country.

Satellite image dated 21.03.2014, 0600 UTC



Weather Forecast Map (Valid upto 0830 hours of 24th March, 2014)



Salient Advisories

- As isolated thundersquall / hailstorm would occur over Jammu division of **Jammu & Kashmir**, **Himachal Pradesh** and **Uttarakhand** on 23rd March, use hail net for orchard crops to protect from mechanical damage. Also provide mechanical support to fruit crops and vegetables.
- As isolated thundersquall / hailstorm would occur over **northeastern states** during next three days, use hail net for orchard crops to protect from mechanical damage. Also provide mechanical support to banana, fruit crops and vegetables.
- As dry weather would prevail over **Madhya Pradesh**, undertake harvesting of matured gram and wheat in Malwa Plateau Zone, in Vindhya Plateau Zone and gram, mustard and maize in Jhabua Hill Zone.
- Prevailing temperature favours thrips infestation in groundnut in Ganjam district of East and South Eastern Coastal Plain Zone of **Odisha**. Spray 400 ml Dimethoate or 50 ml Imidachloprid in 200 litre water per acre for control.
- **In Madhya Maharashtra and Marathwada**, as mainly dry weather would prevail, complete the harvesting of already matured gram, wheat and jowar at the earliest. Apply irrigation in summer groundnut, sugarcane and vegetable crops.
- In the Scarce Rainfall Zone of **Andhra Pradesh**, rice crops affected by hail storms during first week of March may be sprayed with booster dose of urea and if the crop is in the grain formation stage, 2nd dose of urea may be applied to prevent damage.

Detailed Zonewise Agromet Advisories

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



Wheat



Sugarcane



Late blight on potato



Mustard

- **Realised Rainfall:** Significant rainfall occurred in Chamba, Kinnaur, Kullu, Mandi, Sirmaur and Solan districts of Himachal Pradesh; in Dehradun, Rudraprayag and Uttarkashi districts of Uttarakhand; in many districts of Jammu & Kashmir except Jammu, Kargil, Kathua, Ladhak(leh), Poonch and Samba. Mainly dry weather prevailed over rest of the region.
- **Weather Forecast:** Rain/snow would occur at a few places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand during next 48 hours and decrease thereafter. Rain/thundershowers would occur at isolated places over Punjab, Haryana and north Rajasthan during next 24 hours and mainly dry thereafter. Maximum temperatures would rise by 2-4°C at many places over northwest India. Mainly dry/dry weather would prevail over rest of the region.
- **Weather Warning:** Isolated thundersquall/hailstorm would occur over Jammu division of Jammu & Kashmir, Himachal Pradesh, Uttarakhand on 23rd March.
- **Weather Outlook:** Rain/snow would occur at many places over Jammu & Kashmir and at a few places over Himachal Pradesh and Uttarakhand. Rain/thundershowers would occur at isolated places over Punjab and north Rajasthan on 23rd. Weather would be mainly dry over rest of the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - As isolated thundersquall / hailstorm would occur over Jammu division of Jammu & Kashmir on 23rd March, use hail net for orchard crops to protect from mechanical damage. Also provide mechanical support to fruit crops and vegetables.
 - In Sub Tropical & Intermediate Zone of Jammu & Kashmir, apply nitrogenous fertilizer as top dressing in khol khol, garlic, cabbage and onion on a non rainy day.
 - In Sub Tropical Zone of Jammu & Kashmir, due to humid weather, there is chances of brown rust in wheat; spray Propaconazole @ 25 ml in 25 litres of water on a non rainy day. In case yellowing of lower leaves is observed, spray 3% urea (900 g urea in 30 litres of water).

▪ **Himachal Pradesh:**

- As isolated thundersquall / hailstorm would occur over Himachal Pradesh on 23rd March, use hail net for orchard crops to protect from mechanical damage. Also provide mechanical support to fruit crops and vegetables.
- In Mid-Hills Sub-Humid Zone and Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh, undertake sowing of ageti bhindi and French bean utilising the realised rainfall.
- Due to increase in humidity, there are chances of occurrence of yellow rust in wheat in Mid-Hills Sub-Humid Zone and Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh. For control, spray Tilt @ 1 ml per litre of water on a non rainy day.
- Due to high soil moisture, there are chances of stalk rot in cabbage and cauliflower in Mid-Hills Sub-Humid Zone of Himachal Pradesh. Remove the diseased part (leaf/fruit) and spray Bavistin-50 (50g /100 litres of water) or Dithane M-45 (250 g /100 litres of water) on a non rainy day.

▪ **Uttarakhand:**

- As isolated thundersquall / hailstorm would occur over Uttarakhand on 23rd March, use hail net for orchard crops to protect from mechanical damage. Also provide mechanical support to fruit crops and vegetables.
- In Bhabar and Tarai Zone of Uttarakhand, undertake harvesting of matured mustard and pea on bright sunny day. In Sub-Humid Sub-Tropic Zone of Uttarakhand, due to prevailing high humidity, there is chance of rust infestation in wheat. If brown or yellow strip/patches appear on leaf surface, spray fungicide Propiconazole 25% EC with 500-600 liter water on a non rainy day for effective control.

▪ **Punjab, Haryana and Delhi:**

- In Western Plain Zone and Undulating Plain Zone of Punjab, undertake sowing of summer moong and summer mash utilising the available moisture.
- In Western Zone of Punjab, undertake transplanting of chilli and sowing of cucurbits namely muskmelon, watermelon, bottle gourd, round gourd, sponge gourd, pumpkin, bitter gourd and other summer vegetables viz. okra, cowpea, cluster bean utilising the available moisture.
- Due to partly cloudy and humid weather, there is chance of incidence of powdery mildew disease in wheat crop in Western Zone of Punjab; spray Karathane 40EC @ 0.05% (100 ml in 200 litres of water) or Tilt 25EC @ 200ml in 200 litres of water per acre.
- As mainly dry weather would prevail, harvest matured mustard crop in Undulating Plain Zone of Punjab.
- As mainly dry weather would prevail in Eastern Zone of Haryana, complete harvesting of sugarcane and undertake planting of spring sugarcane.
- As mainly dry weather would prevail, harvest the matured early sown mustard and early sown gram crop in Western Zone of Haryana.
- As dry weather would prevail in Delhi, undertake harvesting of the matured mustard crop. Present temperature is suitable for sowing of maize, hybrid cluster bean, hybrid cultivar of baby corn and direct sowing of French bean, amaranths, vegetable lobia, okra, bottle gourd, cucumber, ridge gourd, summer radish, green gram and black gram.

▪ **Uttar Pradesh:**

- In Western Plain Zone of Uttar Pradesh, continue sowing of moong, urad, lobia, bhindi and cucurbits and planting of tomato, brinjal and chilli utilizing the available moisture.
- Due to rise in temperature, there may be attack of mango hopper in mango in Central Plain Zone of Uttar Pradesh; to control, spray Monocrotophose 1ml/litre of water.
- In Western Plain Zone of Uttar Pradesh, due to high humidity, there is chance of attack of yellow rust in wheat. For control, spray Propiconazole 25 EC @ 1 mm per litre of water.

▪ **Rajasthan:**

- As dry weather is prevailing, apply irrigation in the early sown summer cucurbits like bottle gourd, ridge gourd, pumpkin, bitter gourd, tinda etc. in Semi Arid Eastern Plain Zone of Rajasthan.
- In Sub-Humid and Southern Plain and Aravali Hill Zone of Rajasthan, apply irrigation in late sown wheat at milk stage.
- In Transitional Plain Zone of Inland Drainage and Semi-Arid Eastern Plain Zone, due to rise in temperature there is chance of incidence of thrips in onion and garlic. To control this insect, spray Methyl Demeton 25 EC or Malathion 50 EC @ 1 ml per litre water.

• **Animal Husbandry**

- In Jammu division of Jammu & Kashmir, in Himachal Pradesh and in Uttarakhand, keep cattle indoor during thundersquall/ hail storm period.



Wheat

Sugarcane

Chilli

Mustard

- **Realised Rainfall:** Weather remained mainly dry/dry over the region.
- **Weather forecast:** Mainly dry/dry weather would prevail over the region. Maximum temperatures would rise by 2-4°C at many places over central India.
- **Weather Warning:** Nil
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - As dry weather would prevail, undertake harvesting of matured gram and wheat in Malwa Plateau Zone and Vindhya Plateau Zone, gram, mustard and maize in Jhabua Hill Zone of Madhya Pradesh.
 - In Grid Zone and Bundelkhand Zone of Madhya Pradesh, as mainly dry weather would prevail, harvest matured mustard and potato.
 - In Nimar Valley Zone of Madhya Pradesh, due to the prevailing humid weather, there is possibility of attack of stem borer in maize. Apply Methyl-o-Demeton 25 EC @ 10 ml or Carbaryl 50% W.P. @ 40 g in 10 litres of water.
 - **Chhattisgarh:**
 - As dry weather is prevailing in Plain Zone of Chhattisgarh, undertake harvesting of matured gram, black gram and linseed.
 - As dry weather is prevailing, apply irrigation in vegetables and apply mulch or paddy straw in between the rows of summer moong to reduce evapotranspiration rate.
 - In North Hill Zone of Chhattisgarh, as mainly dry weather would prevail, harvest matured wheat, mustard and arhar crop. As temperature conditions are favourable, continue sowing of vegetables like pumpkin, cucumber, sponge-gourd etc. and planting of spring planted sugarcane and continue sowing of summer maize.

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



Mustard

Sugarcane

Cole crops

Onion

- **Realised Rainfall:** Significant rainfall occurred over East Sikkim and North Sikkim districts of Sikkim. Mainly dry/dry weather prevailed over rest parts of the region.
- **Weather forecast:** Rain/thundershowers would occur at isolated places over West Bengal & Sikkim during next 48 hours and mainly dry thereafter. Rain/thundershowers would occur at isolated places over Odisha during next 24 hours and mainly dry thereafter. Mainly dry/dry weather would prevail over rest of the region.
- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
 - **Odisha:**
 - As mainly dry weather would prevail, continue harvesting of green gram, black gram and arhar in Western Undulating Zone of Odisha.
 - As mainly dry weather would prevail, complete the earthing up in groundnut crop before it starts flowering in North Eastern Plateau Zone of Odisha.
 - In North Eastern Coastal Plain Zone of Odisha, as weather would be mainly dry, apply irrigation in summer

rice and maintain 5 cm of water. Apply 50% N as top dressing at 21 days after transplanting.

- In Ganjam district of East and South Eastern Coastal Plain Zone of Odisha, current temperature favours thrips infestation in groundnut. Spray 400 ml Dimethoate or 50 ml Imidachloprid in 200 litres of water per acre for control.
- In North Central Plateau Zone of Odisha, increasing day temperature is conducive for Powdery mildew occurrence on green gram and black gram which has been reported in sporadic patches. Spray wettable Sulphur @ 3g/litre of water for its control. Repeat the spray after 10-15 days depending on the severity.
- **West Bengal**
- In Laterite and Red Soil Zone of West Bengal, as mainly dry weather is prevailing, undertake harvesting of potato and apply irrigation to *boro* rice.
- In New Alluvial Zone of West Bengal, as mainly dry weather is prevailing, undertake harvesting of potato and apply irrigation to *boro* rice and sunflower.
- As mainly dry weather would prevail, apply irrigation to *boro* rice in Old Alluvial Zone of West Bengal. Temperature conditions are favourable for sowing of summer vegetables such as pointed gourd, lady's finger, brinjal, chilli etc.
- In Laterite and Red Soil Zone of West Bengal, prevailing humid weather is congenial for *Anthracnose* in mango. For control, spray 1 ml Carbendazim per litre of water.
- In Coastal Saline Zone of West Bengal, due to rise in temperature, seedlings of *boro* rice may be attacked by brown spot; spray Carbendazim 50WP @ 1 g/litre of water.
- In New Alluvial Zone of West Bengal, humid weather is conducive for root rot disease in sunflower and attack of stem borer in *boro* rice at tillering stage. To control root rot apply Brassicol @ 1 g per litre of water and to control stem borer, apply Cartap 4 G @ 25 kg/ha or Phorate 10 G @ 10 kg/ha.
- In Terai Zone of West Bengal, due to increase in temperature there are chances of leaf curling due to mite attack in chilli; spray Dicofol 3 ml/litre of water or Fenazaquin 1-1.5 ml /litre of water.
- **Bihar:**
- In North West Alluvial Plain Zone of Bihar, as mainly dry weather would prevail, continue harvesting of tobacco, potato and mustard crop and also apply irrigation to sugarcane, wheat and summer vegetable crops. As present temperature condition is favourable, continue sowing of green gram and black gram.
- In North East Alluvial Plain Zone of Bihar, as mainly dry weather would prevail, undertake harvesting of mustard and rapeseed.
- **Jharkhand:**
- In Western Plateau Zone of Jharkhand, as mainly dry weather would prevail, continue harvesting of potato, sowing of summer moong and vegetables and apply irrigation to wheat crop.
- In Central & North Eastern Plateau Zone of Jharkhand, as mainly dry weather would prevail, continue harvesting of toria, potato, pigeon pea and gram and apply irrigation to wheat crop at milk /dough stage.
- In South Eastern Plateau Zone of Jharkhand, as present temperature condition is favourable, continue sowing of summer moong. As mainly dry weather would prevail, apply irrigation to wheat, vegetables and undertake harvesting of matured chickpea, mustard, pigeon pea and also wheat crop (November sown crop).
- In South Eastern Plateau Zone of Jharkhand, in late sown mustard (at flowering stage), there are chances of more infestation of white rust because of favourable weather condition (high night temperature); spray Bordeaux mixture or Copper Oxychloride @ 0.25 per cent or Blitox 50 @ 0.30 percent solution.
- **Animal Husbandry**
- In North West Alluvial Plain Zone of Bihar, provide lot of clean water to the animals and keep them in the shade.

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



Chilli



Rice



cole crops



Late blight in Potato

- **Realised Rainfall:** Significant rainfall occurred in Tawang district in Arunachal Pradesh. Weather remained mainly dry/dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Arunachal Pradesh and Assam &

Meghalaya during next 24hours and decrease thereafter. Rain/thundershowers would occur at a few places over Nagaland, Manipur, Mizoram & Tripura.

- **Weather Warning:** Isolated thundersquall/hailstorm would occur over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 21st, 22nd and 23rd March.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over northeastern states.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - As isolated thundersquall / hailstorm would occur over Assam, Meghalaya and Arunachal Pradesh on 21st, 22nd and 23rd March, use hail net for orchard crops to protect from mechanical damage. Also provide mechanical support to fruit crops and vegetables.
 - In North Bank Plain Zone of Assam, soil and air temperatures are becoming favourable for the attack of stem borer in *boro* rice. If the pests are noticed, apply Darsban or Monocrotophos @ of 2 teaspoon per 5 litre of water in the field.
 - In Upper Bramhaputra, Lower Bramhaputra and central Bramhaputra Valley Zone of Assam, as temperature conditions are favourable, continue land preparation and sowing of different summer vegetable like ridge gourd, sponge gourd, ash gourd, pumpkin, okra, bitter gourd etc. and sowing of green gram and black gram.
 - Under prevailing weather conditions, continue land preparation for sowing of jute, okra and planting of summer sugarcane in Lower Bramhaputra Valley Zone of Assam.
 - Undertake land preparation and sowing of summer green gram and black gram, cucurbits and bhindi in the Hill Zone of Assam utilizing the expected rainfall.
 - In Central Bramhaputra Valley Zone of Assam, in the prevailing humid weather conditions there is chance of attack of blast disease in wheat. Spray 2 g Bavistin /litre of water for control. Also under present temperature condition undertake sowing of *capsularis* jute, summer green gram, black gram and vegetables.
 - **Nagaland, Manipur, Mizoram and Tripura:**
 - As isolated thundersquall / hailstorm would occur over Nagaland, Manipur, Mizoram and Tripura on 21st, 22nd and 23rd March, use hail net for orchard crops to protect from mechanical damage. Also provide mechanical support to banana, fruit crops and vegetables.
 - In Mild Tropical Hill Zone of Nagaland, undertake sowing of summer vegetables like lady's finger, cucurbitaceous crops like gourd, pumpkin, ridge gourd, ash gourd etc. utilizing the expected rainfall.
 - In Mild Tropical Plain Zone of Tripura, in the prevailing temperature conditions, there may be chances of attack of yellow stem borer in *Boro* rice. Apply Fipronil @ 2g per litre of water to manage the yellow stem borer attack on a non rainy day.
- **Animal Husbandry**
 - In Assam, Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram and Tripura, keep cattle indoor during thundersquall/ hail storm period.
 - In Assam, Manipur and Tripura, undertake vaccination to control swine fever in pigs, FMD in cattle and ranikhet disease in poultry during this period.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Rice



Groundnut



Cotton



Grape vine

- **Realised Rainfall:** Significant rainfall occurred in Washim district of Vidarbha, mainly dry / dry weather prevailed over rest parts of the Maharashtra State during last week. Dry weather prevailed over Gujarat State during last week.
- **Weather Forecast:** Mainly dry / dry weather would prevail over the region.
- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
 - **Maharashtra:**
 - As mainly dry weather is expected in Konkan; undertake intercultural operations and fertilizer application in

vegetables, rice, finger millet and orchards. Apply irrigation to groundnut, 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. Apply irrigation to maintain around 10 cm water level in transplanted rice field before and after 10 days of panicle initiation stage.

- In Madhya Maharashtra, as mainly dry weather would prevail, complete the harvesting of already matured gram, wheat and jowar at the earliest. Apply irrigation in summer groundnut, bajra, sugarcane and vegetable crops. Continue intercultural operations and fertilizer application in sugarcane, summer groundnut and vegetables.
- In Marathwada, as dry weather would prevail, complete the harvesting of already matured gram, wheat and jowar at the earliest. Continue intercultural operations and fertilizer application in orchards (banana, fig, pomegranate, sweet lime, guava), sugarcane, summer groundnut and vegetables. Apply irrigation in summer groundnut, sugarcane and vegetable crops.
- As dry weather is expected in Vidarbha, complete the harvesting of already matured gram, wheat and jowar at the earliest. Maintain water level upto 8 cm in already transplanted rice field in Gondia, Bhandara, Chandrapur and Gadchiroli districts. Due to cloudy and humid weather in Pune region, there may be incidence of oily spot in pomegranate; collect the infested fruits, leaves and branches and destroy them and spray 1 % Bordeaux mixture or Copper Oxychloride @ 25 g per 10 litre water.
- Due to cloudy weather, there may be incidence of thrips in premature mango fruits in South Konkan; spray Spinosad 45 % @ 2.5 ml per 10 liters of water on whole tree.
- **Gujarat:**
 - in Bhal and Coastal Zone, taking advantage of dry weather, undertake picking of matured spikes of castor during early morning hours.
 - In view of increasing temperature in North Gujarat Zone, apply first irrigation in groundnut after 18 to 20 DAS and carry out weeding and intercultural operations to conserve soil moisture, provide irrigation at 5 to 9 days interval by making double ring in papaya orchard and also apply irrigation to other horticulture crops (mango, pomegranate, sapota and lemon).
 - As mainly dry weather would prevail, carry out harvesting of matured wheat crop, matured spikes of castor in North Gujarat Zone and undertake harvesting of mustard in North West Zone and Middle Gujarat Zone.
 - As mainly dry weather prevailed and mainly dry/dry weather is expected, apply irrigation in vegetables and fruit crops in South Gujarat Zone. Dry weather conditions are favourable for dropping of unripe fruits of Mango. Spray NAA @ 2 g or Gybrelic acid 1 g + 2 kgs urea /100 liters of water solution.
 - Due to increase in temperature, there are chances of outbreak of leaf miner in groundnut in South Gujarat Heavy Rainfall Zone. Spray DDVP 76 EC @ 5 ml/ 10 litre water for control.

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



Rice



Sugarcane(cane maturity)



Onion (bulb development)



Sucking pest on Groundnut

- **Realised Rainfall:** No significant rainfall occurred over the region during last week.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Tamilnadu and Lakshadweep during next 24 hours and mainly dry thereafter. Rain/thundershowers would occur at isolated places over Kerala. Mainly dry/dry weather would prevail over rest of the region.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over extreme south peninsular India.
- **Advisory:**
 - **Karnataka:**
 - As mainly dry weather would prevail, continue harvesting of chickpea, wheat/Dicocum wheat and *rabi* sorghum in the North Dry Zone of Karnataka.
 - In the North Transition Zone of Karnataka, continue harvesting of crops like Bengal gram, wheat and *rabi* sorghum.
 - Apply irrigation in arecanut, coconut and black pepper gardens either by furrow or drip irrigation, as there is increase in temperature and no rainfall in the Central Dry Zone of Karnataka and apply irrigation to groundnut

which is at flowering stage.

- **Andhra Pradesh**

- In Telangana, prevailing humid weather conditions are congenial for incidence of Turicum leaf blight and stalk rot in maize. Spray Mancozeb @ 2 g per litre of water to manage Turicum leaf blight in maize and drench soil with Carbendazim @ 1 g or Copper Oxychloride @ 3 g per litre of water to manage stalk rot.
- In the Scarce Rainfall Zone of Andhra Pradesh, rice crops affected with hail storms during first week of March may be sprayed with booster dose of urea and if the crop is in the grain formation stage, 2nd dose of urea may be applied to prevent damage.

- **Tamil Nadu:**

- As mainly dry weather would prevail, continue harvesting of matured *samba* and *thaladi* rice and provide irrigation to sesame, sugarcane, banana, groundnut and summer cotton in the Cauvery Delta Zone of Tamil Nadu.
- In the Western Zone of Tamil Nadu, as the wind speed is expected to be above 8 knots, undertake propping up in wind susceptible crops like 5 months and above old banana and eight months old sugarcane to avoid lodging. Also prevailing continuous dry weather is favourable for increase in sucking pest in tomato crop. Hence monitor for the pest load and apply fish oil rosin soap 25 g/litre of water.

- **Kerala:**

- Due to high temperature, there are chances of attack of white fly, hopper and aphid in vegetables in the Central Zone of Kerala. Apply 20 g Verticillium per one litre of water. 5 ml sunflower oil or castor oil along with 10 g of jaggery can be added to the spray solution to make the spray more effective.
- Increased humidity may accelerate the incidence of fungal diseases in cucurbitaceous vegetables in the Southern Zone of Kerala. Apply Indofil M 45 4g/ litre of water to manage fungal diseases. In cow pea, apply Copper oxy Chloride 4g / litre of water as a prophylactic measure to manage *Anthraco*.
- In the Southern Zone of Kerala, irrigate banana plants, as scarcity of water will lead to the formation of weak banana bunches. Also apply mulching in banana basins to conserve moisture.

- **Animal Husbandry:**

- In the North Eastern Zone of Tamil Nadu, dairy animals must be protected from high temperature by sprinkling water on the body three times daily during hot part of the day. Vaccinate calves above 3 months and sheep and goat above 2 months against Foot and Mouth disease.
- Avoid grazing of cattle during afternoon hours in the Problem Area Zone of Kerala to protect them from heat stroke. Provide clean water for drinking to the animals.

Annexure I

Week by week Rainfall Distribution

State/Districts	05.03.14		12.03.14		19.03.14	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	2.0	-96	0.0	-100	0.7	-99
Dibang Valley	47.0	4	4.0	-94	7.0	-92
East Kameng	0.0	-100	0.0	-100	0.0	-100
East Siang	22.4	14	0.2	-99	0.0	-100
Kurung Kumey	**	**	**	**	**	**
Lohit	1.3	-95	0.0	-100	5.5	-88
Lower Dibang Valley	10.4	-77	0.0	-100	0.0	-100
Lower Subansari	**	**	**	**	**	**
Papumpara	0.0	-100	0.0	-100	2.0	-95
Tawang	0.0	-100	9.0	-22	37.0	157
Tirap	0.5	-97	0.2	-99	0.2	-99
Upper Siang	103.2	58	33.5	-62	13.4	-84
Upper Subansari	28.0	133	0.0	-100	0.0	-100
West Kameng	0.2	-97	0.0	-100	0.0	-100
West Siang	22.5	33	1.5	-93	5.0	-73
Assam						
Baksa	1.0	-80	0.0	-100	0.0	-100
Barpeta	0.0	-100	0.0	-100	0.0	-100
Bongaigaon	0.0	-100	0.0	-100	0.0	-100
Cachar	0.0	-100	0.0	-100	0.0	-100
Chirang	0.5	-90	0.0	-100	0.0	-100
Darrang	0.0	-100	0.0	-100	0.0	-100
Dhemaji	10.0	-19	2.0	-85	1.0	-95
Dhubri	0.6	-90	0.0	-100	0.0	-100
Dibrugarh	0.6	-96	4.1	-78	1.0	-97
Goalpara	0.0	-100	0.0	-100	0.0	-100
Golghat	0.0	-100	0.0	-100	0.0	-100
Hailakandi	0.0	-100	0.0	-100	0.0	-100
Jorhat	0.0	-100	0.0	-100	0.0	-100
Kamrup(Rural)	0.0	-100	0.0	-100	0.0	-100
Kamrup(Metro)	0.0	-100	0.0	-100	0.0	-100
Karbi Anglong	0.0	-100	0.0	-100	0.0	-100
Karimganj	0.0	-100	0.0	-100	0.0	-100
Kokrajhar	0.3	-90	0.0	-100	0.0	-100
Lakhimpur	0.0	-100	0.0	-100	1.0	-95
Morigaon	1.8	-50	0.0	-100	0.0	-100
N.C.Hills	0.0	-100	0.0	-100	0.0	-100
Nowgong	1.3	-70	0.0	-100	0.0	-100
Nalbari	0.5	-90	0.0	-100	0.0	-100
Sonitpur	0.0	-100	0.0	-100	0.0	-100
Sibsagar	0.0	-100	0.0	-100	0.0	-100

Tinsukia	3.1	-80	1.3	-91	8.4	-76
Udalgiri	0.0	-100	0.0	-100	0.0	-100
Meghalaya						
East Garo Hills	2.8	-85	0.0	-100	0.0	-100
East Khasi Hills	0.3	-97	2.4	-92	1.1	-95
Jaintia Hills	0.0	-100	0.0	-100	0.0	-100
Ribhoi	0.7	-77	0.0	-100	0.3	-97
South Garo Hills	0.0	-100	0.0	-100	0.0	-100
West Garo Hills	0.4	-96	0.0	-100	0.0	-100
West Khasi Hills	2.0	-67	0.0	-100	0.0	-100
Mizoram						
Aizwal	0.0	-100	0.0	-100	0.0	-100
Champhai	0.0	-100	0.0	-100	0.0	-100
Kolasib	0.0	-100	0.0	-100	0.0	-100
Lawngtlai	0.0	-100	0.0	-100	0.0	-100
Lunglei	0.0	-100	0.0	-100	0.0	-100
Mamit	0.0	-100	0.0	-100	0.0	-100
Saiha	0.0	-100	0.0	-100	0.0	-100
Serchhip	0.0	-100	0.0	-100	0.0	-100
Manipur						
Bishnupur	0.0	-100	0.0	-100	0.0	-100
Chandel	0.0	-100	0.0	-100	0.0	-100
Churachandpur	0.0	-100	0.0	-100	0.0	-100
Imphal east	0.0	-100	0.0	-100	0.0	-100
Imphal west	0.0	-100	0.0	-100	0.0	-100
Senapati	0.0	-100	0.0	-100	0.0	-100
Tamenglong	**	**	**	**	**	**
Thoubal	0.0	-100	0.0	-100	0.0	-100
Ukhrul	0.0	-100	0.0	-100	0.0	-100
Nagaland						
Dimapur	0.0	-100	0.0	-100	0.0	-100
Kephire	0.0	-100	0.0	-100	0.0	-100
Kohima	0.0	-100	0.0	-100	0.0	-100
Longleng	**	**	**	**	**	**
Mokokchung	0.0	-100	0.0	-100	0.0	-100
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	0.0	-100	0.0	-100	0.0	-100
Tuensang	**	**	**	**	**	**
Wokha	0.0	-100	0.0	-100	0.0	-100
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	0.0	-100	0.0	-100	0.0	-100
North tripura	0.0	-100	0.0	-100	0.0	-100
South tripura	0.0	-100	0.0	-100	0.0	-100
West tripura	0.0	-100	0.0	-100	0.0	-100
Himachal Pradesh						
Bilaspur	41.1	169	12.9	16	13.1	10
Chamba	50.7	9	64.4	165	50.3	103

Hamirpur	61.5	246	16.0	37	17.4	40
Kangra	25.4	25	23.8	44	18.7	-17
Kinnaur	30.1	31	29.3	25	29.0	8
Kullu	30.0	12	40.2	30	46.8	26
Lahaul and Spiti	12.6	-67	52.4	40	18.9	-59
Mandi	32.3	84	23.5	36	28.1	27
Shimla	29.8	73	35.6	110	19.5	-5
Sirmaur	33.8	213	20.5	138	20.9	105
Solan	51.1	195	30.0	120	21.7	54
Una	26.3	158	19.9	134	13.6	54
Punjab						
Amritsar	0.8	-89	7.3	6	7.8	-13
Barnala	4.5	61	0.0	-100	2.0	-35
Bhatinda	13.6	312	2.5	-26	3.0	0
Faridkot	9.0	246	1.0	-57	0.0	-100
Fatehgarh Sahib	0.0	-100	2.0	-53	0.0	-100
Ferozpur	3.7	-1	2.0	-49	5.0	0
Gurdaspur	7.6	-50	34.1	207	8.2	-37
Hoshiarpur	2.9	-71	5.9	-37	11.0	18
Jalandhar	1.0	-88	4.9	-25	6.3	-5
Kapurthala	0.2	-97	15.3	163	6.0	2
Ludhiana	7.4	-10	5.9	11	7.5	67
Mansa	6.2	77	11.0	400	0.0	-100
Moga	1.5	-32	2.8	-26	10.5	184
Muktesar	1.0	-69	1.0	-63	0.0	-100
Nawashahar	20.4	124	9.1	5	11.0	72
Patiala	10.8	69	4.4	-20	9.7	214
Ropar	23.2	183	5.2	-68	9.7	-20
Sangrur	20.6	338	2.9	1	1.0	-72
Mohali	27.0	238	11.0	45	6.5	12
TarnTaran	0.0	-100	3.6	-22	4.6	0
Haryana						
Ambala	16.1	102	10.0	112	6.3	-23
Bhiwani	7.9	242	4.6	109	0.7	-33
Chandigarh	40.8	334	17.1	155	13.8	79
Faridabad	8.8	99	43.9	1272	0.0	-100
Fatehabad	0.0	-100	1.8	2	0.7	-72
Gurgaon	4.0	18	33.4	1988	0.0	-100
Hissar	1.6	-41	9.2	385	1.4	24
Jhajar	9.7	137	4.4	77	0.0	-100
Jind	15.3	89	17.0	254	1.0	-63
Katihah	1.0	-72	6.2	128	1.6	-36
Karnal	27.7	530	13.5	255	1.5	-65
Kurukshetra	7.5	53	4.3	-11	0.0	-100
Mahendragarh	2.6	-24	8.1	238	0.0	-100
Mewat	0.0	-100	15.3	800	0.0	-100
Palwal	5.0	61	11.0	633	0.0	-100
Panchkkula	23.5	147	11.5	135	4.0	11
Panipat	21.0	338	10.0	319	1.0	-47

Rewari	0.0	-100	36.4	2500	0.6	-50
Rohtak	4.0	-41	3.0	-32	0.0	-100
Sirsa	0.3	-85	0.0	-100	0.0	-100
Sonepat	17.6	251	7.7	78	0.4	-84
Yamunanagar	19.7	134	18.2	142	5.8	-38
Delhi						
Central Delhi	28.0	409	6.0	50	2.0	-20
East Delhi	26.0	373	9.0	125	0.0	-100
New Delhi	20.2	267	18.7	366	0.2	-92
North Delhi	17.7	222	6.8	70	1.5	-40
North East Delhi	0.0	-100	0.0	-100	0.0	-100
North West Delhi	23.5	327	1.0	-75	0.0	-100
South Delhi	7.9	44	26.8	570	1.0	-60
South West Delhi	24.4	344	17.0	325	0.7	-72
West Delhi	15.0	173	3.0	-25	6.0	140
Jammu & Kashmir						
Anantnag	9.4	-71	199.7	419	27.5	-24
Badgam	7.7	-60	100.8	391	53.0	139
Bandipore	**	**	**	**	**	**
Baramula	17.0	-62	65.5	40	33.7	-58
Doda	29.6	-44	139.6	169	49.2	3
Ganderwal	21.0	9	62.7	167	63.6	162
Jammu	4.2	-75	62.1	300	7.3	-38
Kargil	0.0	-100	0.0	-100	0.0	-100
Kathua	11.2	138	44.8	95	12.2	3
Kistwar	**	**	**	**	**	**
Kulgam	12.9	-45	154.8	302	26.5	-27
Kupwara	19.4	-50	119.9	118	101.9	95
Ladakh(Leh)	0.3	-73	0.0	-100	0.1	-92
Poonch	0.0	-100	3.0	-95	0.0	-100
Pulwama	5.5	-62	117.9	431	46.4	112
Rajouri	24.8	179	94.3	816	27.2	213
Ramban	30.9	-38	146.5	183	39.3	-18
Reasi	17.6	-13	133.5	313	22.2	-25
Samba	1.3	-92	42.7	175	9.8	-16
Shopian	5.0	-76	39.0	76	59.0	169
Srinagar	4.7	-76	140.0	496	26.9	11
Udhampur	12.2	-64	142.0	340	34.0	15
East Madhya Pradesh						
Anuppur	40.3	423	0.0	-100	10.2	293
Balaghat	34.3	909	8.0	151	0.8	-65
Chhatarpur	51.8	2778	5.2	162	0.0	-100
Chindwara	11.7	125	1.6	-64	5.7	49
Damoh	35.2	1114	1.0	-67	0.0	-100
Dindori	11.5	62	1.0	-76	0.0	-100
Jabalpur	50.1	1374	9.2	475	0.0	-100
Katni	46.4	1189	2.0	186	0.0	-100
Mandla	17.5	178	2.6	-48	5.5	30
Narsingpur	32.2	939	10.0	1329	0.0	-100

Panna	0.0	-100	0.0	-100	0.0	-100
Rewa	43.0	1493	1.6	-16	1.4	-18
Sagar	39.1	1348	12.2	455	0.0	-100
Satna	28.5	996	4.4	120	0.0	-100
Seoni	7.0	27	11.1	108	10.4	88
Shahdol	66.0	1304	0.0	-100	10.4	593
Sidhi	69.2	2463	0.0	-100	3.6	64
Singrauli	43.6	1182	0.0	-100	8.0	471
Tikamgarh	26.0	1900	11.0	1275	0.0	-100
Umaria	42.7	600	29.8	705	14.4	380
West Madhya Pradesh						
Alirajpur	0.0	-100	38.3	38233	0.0	-100
Asoknagar	52.8	8700	1.5	67	0.0	-100
Badwani	3.3	725	0.0	-100	0.0	-100
Betul	10.0	213	19.3	1187	0.0	-100
Bhind	15.4	756	0.0	-100	0.0	-100
Bhopal	7.0	367	1.8	150	0.0	-100
Burhanpur	0.0	-100	0.0	-100	0.0	-100
Datia	9.2	667	4.2	500	0.0	-100
Dewas	0.3	-67	0.0	-100	0.0	-100
Dhar	8.5	4150	0.0	-100	0.0	-100
Guna	20.2	1583	8.9	536	0.0	-100
Gwalior	36.8	2065	1.2	-25	0.0	-100
Harda	0.0	-100	0.0	-100	0.0	-100
Hosangabad	17.0	507	5.9	247	0.0	-100
Indore	2.4	700	0.0	-100	0.0	-100
Jhabua	0.0	-100	0.0	-100	0.0	-100
Khandwa	0.7	-65	7.8	767	7.9	621
Khargone	0.4	-33	1.7	767	1.1	278
Mandsaur	12.2	1933	0.0	-100	0.0	-100
Morena	15.3	467	0.0	-100	0.0	-100
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	28.0	1374	3.6	355	0.0	-100
Rajgarh	17.9	1527	1.0	67	0.0	-100
Ratlam	2.0	300	2.6	2500	0.0	-100
Sehore	7.8	388	5.6	1767	0.0	-100
Shajapur	5.8	480	0.0	-100	0.0	-100
Sheopur Kalani	4.0	344	0.0	-100	0.0	-100
Shivpuri	8.5	431	4.0	300	0.0	-100
Ujjain	1.2	20	1.2	200	0.0	-100
Vidisha	38.7	3418	0.0	-100	0.0	-100
Chhattisgarh						
Bastar	3.4	-3	27.4	996	0.1	-97
Bijapur	19.3	3760	38.6	3409	0.0	-100
Bilaspur	56.9	898	7.0	49	16.3	339
Dantewara	4.7	488	5.1	1611	0.0	-100
Dhamtari	19.4	619	0.8	14	0.0	-100
Durg	45.4	1095	0.0	-100	2.5	47
Janjgir	58.1	1903	0.0	-100	0.0	-100

Jashpurnagar	36.0	471	0.0	-100	1.0	-44
Kanker	0.0	-100	**	**	0.0	-100
Korba	40.5	553	0.0	-100	8.5	400
Koriya	40.8	3609	0.0	-100	9.0	275
Kawardha	17.0	315	0.0	-100	**	**
Mahasumund	1.0	-64	0.0	-100	**	**
Narayanpur	0.2	-95	**	**	**	**
Raigarh	0.0	-100	**	**	**	**
Raipur	52.3	1276	1.4	-28	0.0	-100
Rajandgaon	19.0	476	0.0	-100	0.0	-100
Surguja	42.2	955	0.2	-95	3.8	35
East Uttar Pradesh						
Allahabad	45.3	1518	0.0	-99	3.0	275
Ambedkar Nagar	18.0	592	0.0	-100	0.0	-100
Azamgarh	17.5	400	0.0	-100	0.0	-100
Bahraich	0.3	-90	1.4	-70	0.0	-100
Ballia	17.7	1262	0.0	-100	0.0	-100
Balrampur	0.0	-100	0.0	-100	0.0	-100
Banda	66.5	2791	0.0	-100	0.0	-100
Barabanki	21.9	852	0.0	-100	2.6	338
Basti	4.5	87	0.0	-100	0.0	-100
Chandauli	27.2	988	0.0	-100	1.2	-74
Deoria	8.8	418	0.0	-100	0.0	-100
Faizabad	5.5	129	0.0	-100	0.0	-100
Farrukhabad	17.5	629	3.2	28	0.0	-100
Fatehpur	32.2	1510	0.0	-100	0.0	-100
Gazipur	47.4	2157	0.0	-100	0.0	-100
Gonda	0.0	-100	0.0	-100	0.0	-100
Gorakhpur	16.2	604	0.0	-100	0.0	-100
Hardoi	11.3	253	5.0	85	0.0	-100
Jaunpur	33.7	1432	0.0	-100	0.0	-100
Kannauj	12.0	344	1.0	-55	0.0	-100
Kanpur City	13.3	600	0.0	-100	0.0	-100
Kanpur Dehat	10.0	456	0.6	-14	0.0	-100
Kaushambi	48.6	2013	0.0	-100	1.1	-5
Kheri	11.0	224	1.2	-63	0.0	-100
Kushi nagar	3.0	30	0.0	-100	0.0	-100
Lucknow	5.5	162	0.0	-100	0.0	-100
Maharajganj	1.3	-35	0.0	-100	0.0	-100
Mau	20.8	700	0.0	-100	0.0	-100
Mirzapur	25.0	468	0.0	-100	0.0	-100
Pratapgarh	62.7	2312	0.0	-100	0.0	-100
RaiBareilly	7.9	427	0.0	-100	0.0	-100
Sahuji Maharajnagar	28.8	1340	0.0	-100	0.0	-100
Sant Kabirnnagar	6.5	242	0.0	-100	0.0	-100
Sant Ravidas Nagar	15.0	500	0.0	-100	6.0	30
Shrawasti	**	**	**	**	0.0	-100
Sidharthnagar	0.0	-100	0.0	-100	0.0	-100
Sitapur	15.8	285	3.4	11	0.0	-100

Sonbhadra	35.7	1131	8.8	132	5.5	358
Sultanpur	16.3	676	0.0	-100	0.0	-100
Unnao	16.0	662	0.0	-100	0.0	-100
Varanasi	25.9	685	0.0	-100	1.2	-25
West Uttar Pradesh						
Agra	11.2	387	6.1	111	0.0	-100
Aligarh	15.9	563	3.4	13	0.0	-100
Auraiya	0.0	-100	0.0	-100	0.0	-100
Badaun	26.8	688	1.6	-63	0.0	-100
Baghpat	30.6	955	22.5	562	0.8	-60
Bareilly	37.3	908	4.2	24	0.0	-100
Bijnor	33.7	316	7.8	34	2.0	-51
Bulandsahar	15.3	394	15.2	253	0.0	-100
Etah	16.3	394	1.0	-69	0.0	-100
Etawah	1.0	-57	0.0	-100	0.0	-100
Firozabad	2.7	80	2.8	20	0.0	-100
GBNagar	27.0	391	13.0	713	0.0	-100
Ghaziabad	29.7	440	6.7	205	0.0	-100
Hamirpur	16.7	626	1.1	7	0.0	-100
Jalaun	4.7	236	3.0	173	0.0	-100
Jhansi	25.7	1613	4.9	348	0.0	-100
Jotiba Phule Nagar	68.0	1559	16.0	400	0.0	-100
Kanshiramnagar	21.5	727	1.0	-68	0.0	-100
Lalitpur	48.0	2900	4.5	150	0.0	-100
Mahamaya Nagar	18.5	671	3.0	-14	0.0	-100
Mahoba	42.6	2030	1.0	-17	0.0	-100
Mainpuri	11.5	448	2.1	-21	0.0	-100
Mathura	17.0	486	7.0	126	0.0	-100
Meerut	34.3	453	9.1	194	3.0	3
Moradabad	63.5	1280	16.6	452	0.0	-100
Muzaffarnagar	17.8	394	8.2	228	1.0	-63
Pilibhit	20.6	506	0.5	-86	0.0	-100
Rampur	41.6	420	7.7	92	0.0	-100
Saharanpur	30.3	719	24.3	466	0.3	-94
Shahjahanpur	13.2	326	0.3	-95	0.0	-100
Uttarakhand						
Almora	53.7	310	25.1	122	2.4	-64
Bageshwar	52.4	300	23.9	112	0.0	-100
Chamoli	33.9	71	38.2	111	15.7	-19
Champawat	73.5	682	11.0	45	2.0	-67
Dehradun	66.8	549	18.8	63	20.4	71
Garhwal Pauri	20.8	151	12.7	81	7.4	-3
Garhwal Tehri	36.3	134	27.0	87	17.8	73
Haridwar	38.0	249	17.0	136	5.0	-2
Nainital	49.3	408	17.8	134	2.7	-56
Pithorgarh	55.8	329	20.4	10	15.7	57
Rudraprayag	23.9	19	31.9	47	20.9	10
Udham Sing Nagar	75.9	2517	18.4	458	0.0	-100
Uttarkashi	33.5	99	41.7	109	22.5	7

Bihar						
Araria	1.0	-47	0.0	-100	0.0	-100
Arwal	14.2	1191	0.0	-100	0.0	-100
Aurangabad	28.5	956	0.0	-100	0.0	-100
Banka	9.1	355	0.0	-100	0.0	-100
Begusarai	1.3	-59	0.0	-100	0.0	-100
Bhabua	21.5	532	0.0	-100	0.0	-100
Bhagalpur	8.3	277	0.0	-100	0.0	-100
Bhojpur	22.9	1105	0.0	-100	0.0	-100
Buxar	21.2	715	0.0	-100	0.0	-100
Darbhanga	6.2	226	0.0	-100	0.0	-100
East Champaran	10.9	990	0.0	-100	0.0	-100
Gaya	15.2	744	0.0	-100	0.0	-100
Gopalganj	12.6	800	0.0	-100	0.0	-100
Jahanabad	17.0	1208	0.0	-100	0.0	-100
Jamui	13.3	478	0.0	-100	0.0	-100
Kathihar	5.3	212	0.0	-100	0.0	-100
Khagadia	1.4	133	0.0	-100	0.0	-100
Kishanganj	0.5	-81	0.0	-100	0.0	-100
Lakhisarai	9.3	221	0.0	-100	0.0	-100
Madhepura	2.7	80	0.0	-100	0.0	-100
Madhubani	4.4	144	0.0	-100	0.0	-100
Monghyar	41.4	1328	0.0	-100	0.0	-100
Muzaffarpur	10.3	636	0.0	-100	0.0	-100
Nalanda	21.7	486	0.0	-100	0.0	-100
Nawada	20.7	696	0.0	-100	0.0	-100
Patna	36.0	1700	0.0	-100	0.0	-100
Purnea	9.7	506	0.0	-100	0.0	-100
Rohtas	54.2	1104	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	7.7	267	0.0	-100	0.0	-100
Sheikpura	14.5	383	0.0	-100	0.0	-100
Sheohar	2.0	122	0.0	-100	0.0	-100
Sitamarhi	4.5	400	0.0	-100	0.0	-100
Siwan	14.0	483	0.0	-100	0.0	-100
Supaul	3.1	82	0.0	-100	0.0	-100
Vaishali	5.6	331	0.0	-100	0.0	-100
West Champaran	10.0	456	0.0	-100	0.0	-100
Jharkhand						
Bokaro	25.0	1090	0.0	-100	0.0	-100
Chatra	8.1	326	0.0	-100	0.0	-100
Deoghar	15.2	1069	0.0	-100	0.0	-100
Dhanbad	15.8	285	0.0	-100	0.0	-100
Dumka	**	**	0.0	-100	0.0	-100
East Singbhum	48.1	791	0.0	-100	1.1	-75
Garhwa	25.0	1463	0.0	-100	0.0	-100
Giridih	15.8	464	0.0	-100	0.4	-90
Godda	6.3	186	0.0	-100	0.0	-100

Gumla	**	**	**	**	**	**
Hazaribagh	19.1	416	0.0	-100	0.5	-79
Jamtara	17.6	780	0.0	-100	**	**
Khunti	15.5	128	0.0	-100	4.0	-33
Koderma	8.0	344	0.0	-100	0.0	-100
Latehar	19.1	366	0.0	-100	18.7	484
Lohardagga	37.4	648	0.0	-100	0.0	-100
Pakur	7.8	202	0.0	-100	0.0	-100
Palamau	14.2	468	0.0	-100	1.6	13
Ramgarh	35.0	821	0.0	-100	0.0	-100
Ranchi	35.0	430	0.0	-100	2.8	-21
Sahebganj	5.4	575	0.0	-100	0.0	-100
Saraikela	**	**	0.0	-100	1.3	-72
Simdega	**	**	0.0	-100	3.2	146
West Singbhum	29.2	295	0.0	-100	2.7	-12
East Rajasthan						
Ajmer	3.9	875	0.4	118	0.0	-100
Alwar	12.1	348	7.4	336	0.0	-100
Banswara	1.9	850	0.0	-100	0.0	-100
Baran	23.6	4620	0.0	-100	0.0	-100
Bharatpur	16.6	538	1.7	13	0.0	-100
Bhilwara	1.6	100	0.7	567	0.0	-100
Bundi	4.3	617	0.0	-100	0.0	-100
Chittorgarh	9.6	3100	0.0	-100	0.0	-100
Dausa	13.0	665	0.8	-38	0.0	-100
Dholpur	9.2	268	0.9	-46	0.0	-100
Dungarpur	6.8	6700	0.0	-100	0.0	-100
Jaipur	13.2	1000	2.0	388	0.0	-100
Jhalawar	18.6	2557	0.0	-100	0.0	-100
Jhunjhunu	17.0	710	0.3	-83	0.0	-100
Karauli	13.7	706	5.4	288	0.0	-100
Kota	13.8	1433	0.0	-100	0.0	-100
Pratapgarh	7.4	1750	0.4	200	0.0	-100
Rajsamand	2.0	400	0.3	-58	0.0	-100
Sawai Madhopur	6.2	288	0.8	11	0.0	-100
Sikar	15.3	750	1.7	90	0.0	-100
Sirohi	0.0	-100	0.7	200	0.0	-100
Tonk	11.2	762	10.0	2411	0.0	-100
Udaipur	1.8	800	0.0	-100	0.0	-100
West Rajasthan						
Barmer	0.0	-100	0.0	-100	0.0	-100
Bikaner	4.5	137	0.0	-100	0.0	-100
Churu	19.9	1006	4.7	288	0.3	-66
Hanumangarh	5.1	219	3.7	210	0.0	-100
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	8.4	664	0.0	-100	0.0	-100
Pali	0.0	-100	0.0	-100	0.0	-100

Sri Ganganagar	4.7	147	0.6	-65	0.5	-78
Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	0.0	-100
Anand	0.0	-100	0.0	-100	0.0	-100
Banaskantha	0.0	-100	0.0	-100	0.0	-100
Baroda	0.0	-100	0.1	200	0.0	-100
Broach	0.0	-100	0.0	-100	0.0	-100
DNH	**	**	**	**	**	**
Dahod	0.0	-100	0.0	-100	0.0	-100
Daman	**	**	**	**	**	**
Dangs	2.5	200	3.0	200	0.0	-100
Gandhinagar	0.0	-100	0.0	-100	0.0	-100
Kheda	0.0	-100	0.0	-100	0.0	-100
Mehsana	0.0	-100	0.0	-100	0.0	-100
Narmada	0.0	-100	0.0	-100	0.0	-100
Navsari	0.0	-100	0.0	-100	0.0	-100
Panchmahal	0.0	-100	0.0	-100	0.0	-100
Patan	0.0	-100	0.0	-100	0.0	-100
Sabarkantha	0.0	-100	0.0	-100	0.0	-100
Surat	0.0	-100	0.0	-100	0.0	-100
Tapi	2.4	200	0.0	-100	0.0	-100
Valsad	0.0	-100	0.0	-100	0.0	-100
S K & Diu region						
Amreli	0.0	-100	0.0	-100	0.0	-100
Bhavnagar	0.0	-100	0.0	-100	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	0.0	-100
Junagarh	0.0	-100	1.1	200	0.0	-100
Kutch	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.0	-100
Rajkot	0.0	-100	0.3	200	0.0	-100
Surendranagar	0.0	-100	0.0	-100	0.0	-100
Maharashtra						
Konkan & Goa						
Goa	0.0	-100	0.0	-100	0.0	-100
Mumbai	0.0	-100	0.0	-100	0.0	-100
Raigad	0.0	-100	0.3	200	0.0	-100
Ratnagiri	0.0	-100	0.0	-100	0.0	-100
Sindhudurg	0.0	-100	0.0	-100	0.0	-100
Thane	0.0	-100	0.0	-100	0.7	200
Madhya Maharashtra						
Ahmednagar	6.3	950	8.3	1963	18.5	3605
Dhule	0.0	-100	1.2	200	2.3	150
Jalgaon	9.5	956	28.9	3113	2.7	195
Kolhapur	1.8	500	0.3	-72	0.7	6
Nandurbar	**	**	0.2	200	0.0	-100
Nasik	0.4	0	17.9	200	3.8	3731
Pune	0.1	0	11.1	5429	7.1	2250
Sangli	3.1	3000	2.1	313	0.0	-100

Satara	0.6	200	1.7	463	5.8	859
Solapur	16.0	2567	27.5	13657	0.1	-92
Marathwada						
Aurangabad	14.3	1489	48.6	12044	10.6	1075
Beed	14.2	1478	44.7	5485	6.5	491
Hingoli	27.1	1406	60.4	5938	6.1	152
Jalna	19.1	2288	37.8	3682	14.7	819
Latur	41.8	1990	49.9	2396	1.1	-43
Nanded	29.6	3189	50.3	1297	2.8	99
Usmanabad	29.8	2383	30.7	6049	1.7	83
Parbhani	27.0	1488	72.6	3356	2.5	37
Vidarbha						
Akola	40.2	2771	14.4	525	13.7	755
Amraoti	29.7	1550	4.2	282	11.7	349
Bhandara	46.7	1359	3.3	-42	1.8	-45
Buldhana	24.8	1967	39.3	2359	12.3	921
Chandrapur	32.8	681	34.5	916	0.8	-67
Gadchiroli	21.3	788	20.3	479	0.0	-100
Gondia	38.7	868	2.0	-54	0.3	-91
Nagpur	39.6	1177	4.2	-18	6.5	92
Wardha	45.3	1194	5.9	180	3.9	10
Washim	13.5	694	61.9	3768	27.1	2359
Yeotmal	32.1	1589	37.2	1277	10.9	303
Odisha						
Angul	27.9	213	4.2	-41	0.0	-100
Balasore	27.7	152	0.5	-94	2.0	-39
Bargarh	3.7	-31	0.5	-78	8.4	250
Bhadrak	36.3	332	0.5	-95	0.0	-100
Bolangir	0.5	-91	1.2	-66	4.1	24
Boudh	0.0	-100	0.0	-100	0.0	-100
Cuttack	47.2	497	1.6	-77	0.0	-100
Deogarh	2.0	-63	7.4	45	0.0	-100
Dhenkanal	22.3	175	0.4	-96	0.0	-100
Gajapati	15.6	123	42.8	185	0.9	-93
Ganjam	17.3	170	13.7	80	0.0	-100
Jagatsingpur	18.7	192	7.9	-14	0.0	-100
Jajpur	54.8	249	0.0	-100	2.4	-44
Jharsuguda	8.5	33	0.0	-100	0.4	-81
Kalahandi	1.2	-59	4.9	52	4.3	39
Kandhamal	0.5	-95	4.3	-51	0.0	-100
Kendrapara	66.1	382	0.0	-100	0.0	-100
Keonjhar	20.8	25	3.4	-54	0.0	-100
Khurda	51.8	482	5.0	-28	0.0	-100
Koraput	3.5	-8	39.6	1101	0.3	-92
Malkangiri	9.0	543	3.4	-19	0.8	-33
Mayurbhanj	36.4	178	0.3	-97	4.1	-20
Nawapara	0.0	-100	0.0	-100	12.8	433
Nawarangpur	0.0	-100	26.6	336	7.0	438
Nayagarh	57.6	555	14.9	193	0.0	-100

Puri	10.9	153	10.2	160	0.0	-100
Rayagada	11.5	121	16.2	72	7.4	17
Sambalpur	21.5	298	1.8	-64	0.9	-64
Sonepur	0.2	-96	2.5	-43	0.3	-88
Sundargarh	20.1	247	0.0	-100	1.5	-12
West Bengal						
GWB						
Bankura	26.5	464	0.0	-100	0.0	-100
Birbhum	25.8	892	0.0	-100	0.0	-100
Burdwan	31.4	614	0.0	-100	0.0	-100
East Midnapore	4.5	-34	0.1	-99	0.2	-95
Hooghly	0.5	-85	0.0	-100	0.0	-100
Howrah	0.0	-100	0.0	-100	0.0	-100
Kolkata	0.0	-100	0.0	-100	0.0	-100
Murshidabad	14.0	338	0.0	-100	0.0	-100
Nadia	2.7	-7	0.0	-100	0.0	-100
24 Pargana (N)	0.1	-97	0.0	-100	0.0	-100
Purulia	38.5	655	0.0	-100	0.6	-86
24 Pargana (S)	0.9	-92	0.0	-100	0.0	-100
West Midnapore	9.7	43	0.0	-100	0.0	-100
SHWB						
Cooch Behar	0.8	-74	0.0	-100	0.0	-100
Darjeeling	0.1	-99	0.0	-100	2.7	-76
East Sikkim	6.1	-53	2.6	-79	20.0	14
Jalpaiguri	0.4	-91	0.1	-99	0.8	-89
Malda	6.2	210	0.0	-100	0.0	-100
North Dinajpur	3.0	76	0.0	-100	0.0	-100
North Sikkim	32.2	42	7.0	-83	57.9	-5
South Dinajpur	10.2	292	0.0	-100	0.0	-100
South Sikkim	0.5	-96	0.5	-96	10.1	-43
West Sikkim	0.7	-97	0.0	-100	11.3	-81
Karnataka						
Coastal Karnataka						
Dakshin Kannada	0.6	-14	1.6	-16	0.0	-100
Udupi	0.0	-100	0.3	-60	0.0	-100
Uttar Kannada	0.0	-100	3.8	1168	0.0	-100
N I Karnataka						
Bagalkote	10.4	1200	28.4	5580	0.0	-100
Belgaum	5.9	1867	20.4	3303	0.0	-100
Bidar	41.6	5843	32.3	1098	0.7	-65
Bijapur	21.6	1562	26.9	5276	0.0	-100
Dharwad	3.8	322	12.4	2993	0.0	-100
Gadag	19.9	4875	12.3	4001	0.0	-100
Gulbarga	19.5	4775	19.4	1841	0.0	-100
Haveri	2.1	600	7.4	1388	0.0	-100
Koppal	14.4	3500	26.3	3662	0.0	-100
Raichur	10.6	1414	23.2	2481	0.0	-100
Yadgir	2.7	238	36.2	4428	0.0	-100
S I Karnataka						

Bangalore Rural	0.9	-61	20.7	1052	0.0	-100
Bangalore Urban	3.2	68	9.7	410	0.0	-100
Bellary	11.2	3633	16.1	1917	0.0	-100
Chamarajnagar	12.3	547	11.4	308	0.0	-100
Chichballapur	4.7	161	9.4	450	0.0	-100
Chickmagalur	0.6	-54	7.2	117	0.0	-100
Chitradurga	7.8	1014	16.8	1298	0.0	-100
Davangere	0.6	20	7.6	989	0.0	-100
Hassan	4.9	172	11.0	213	0.0	-100
Kodagu	0.7	-22	5.5	25	0.0	-100
Kolar	1.8	0	11.9	465	0.0	-100
Mandya	9.1	658	12.3	411	0.0	-100
Mysore	5.9	556	11.1	343	0.0	-100
Ramnagara	30.4	2071	16.0	596	0.0	-100
Shimoga	2.2	450	9.3	614	0.0	-100
Tumkur	7.5	341	23.9	987	0.0	-100
Kerala						
Alappuzha	2.4	-61	0.0	-100	0.0	-100
Kannur	0.0	-100	0.0	-100	0.0	-100
Ernakulam	2.6	-16	6.8	11	0.0	-100
Idukki	12.4	46	5.0	-27	0.0	-100
Kasaragod	0.0	-100	0.0	-100	0.0	-100
Kollam	21.6	96	20.5	69	0.9	-94
Kottayam	1.9	-49	0.8	-93	0.0	-100
Kozhikode	0.0	-100	0.8	-72	0.0	-100
Malappuram	0.0	-100	0.0	-100	0.0	-100
Palakkad	0.4	-64	3.8	-7	0.0	-100
Pathanamthitta	0.0	-100	26.0	82	1.0	-93
Thiruvananthapuram	28.9	502	1.0	-78	0.0	-100
Thrissur	0.5	-64	1.5	-45	0.0	-100
Wayanad	0.0	-100	12.6	404	0.0	-100
Tamil Nadu						
Ariyalur	0.0	-100	0.0	-100	0.0	-100
Chennai	0.0	-100	0.0	-100	0.0	-100
Coimbatore	1.6	-41	17.9	135	0.0	-100
Cuddalore	0.0	-100	0.0	-99	0.0	-100
Dharmapuri	0.4	-84	0.0	-100	0.0	-100
Dindigul	5.2	21	3.3	-45	0.0	-100
Erode	2.0	-17	0.0	-100	0.0	-100
Kanchipuram	0.0	-100	0.0	-100	0.0	-100
Kanyakumari	4.9	-20	1.4	-80	0.0	-100
Karikal	0.0	-100	0.0	-100	0.0	-100
Karur	0.0	-100	0.0	-100	0.0	-100
Krishnagiri	2.4	33	5.3	69	0.0	-100
Madurai	0.0	-100	0.0	-100	0.0	-100
Nagapattinam	0.0	-100	0.0	-100	0.0	-100
Namakkal	0.0	-100	0.0	-100	0.0	-100
Nilgiris	13.5	93	17.6	30	0.0	-100
Perambalur	0.0	-100	0.0	-100	0.0	-100

Puducherry	0.0	-100	0.0	-100	0.0	-100
Pudukottai	0.0	-100	0.0	-100	0.0	-100
Ramanathapuram	2.3	-68	0.0	-99	0.0	-100
Salem	1.5	-55	5.3	76	0.0	-100
Sivaganga	1.8	-65	0.0	-100	0.0	-100
Thanjavur	0.0	-100	0.0	-100	0.0	-100
Theni	21.0	208	2.1	-76	0.0	-100
Tirunelveli	48.7	283	4.0	-60	0.0	-100
Tirupur	0.0	-100	0.0	-100	0.0	-100
Tiruvallur	0.0	-100	0.0	-100	0.0	-100
Tiruvannamalai	0.0	-100	0.0	-100	0.0	-100
Tiruvarur	0.0	-100	0.0	-100	0.0	-100
Toothukudi	13.3	55	6.3	-6	0.0	-100
Trichy	0.1	-98	0.1	-99	0.0	-100
Vellore	5.6	276	0.0	-100	0.0	-100
Villupuram	0.0	-100	0.0	-100	0.0	-100
Virudhunagar	13.7	180	0.0	-100	0.0	-100
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0.0	-100	0.0	-100
Guntur	0.3	-82	0.0	-100	0.0	-100
Krishna	0.0	-100	0.0	-100	0.0	-100
Nellore	0.0	-100	0.0	-100	0.6	-63
Prakasam	0.8	-53	0.0	-100	3.0	87
Sirkakulam	9.2	129	20.0	365	1.0	-66
Visakhapatnam	0.6	-75	9.6	160	5.3	43
Vizianagram	2.1	-49	21.0	401	0.0	-100
West Godavari	1.1	-50	0.0	-100	0.0	-100
Telangana						
Adilabad	27.0	771	69.7	3070	0.0	-100
Hyderabad	53.3	5227	2.2	-51	0.0	-100
Karimnagar	34.3	1613	34.9	869	0.0	-100
Khammam	15.1	621	2.4	-15	1.3	-44
Mehabubnagar	3.8	375	18.2	910	0.0	-100
Medak	51.3	3106	32.5	1020	0.0	-100
Nalgonda	6.2	343	0.0	-100	0.0	-100
Nizamabad	57.4	4685	52.6	1544	0.0	-98
Rangareddy	24.5	12157	12.5	494	0.0	-100
Warangal	40.8	3975	1.3	-68	0.0	-100
Rayalaseema						
Anantapur	5.8	221	9.3	365	0.0	-100
Chittoor	11.2	434	0.7	-63	0.0	-100
Cuddapah	7.3	635	0.4	-70	0.0	-100
Kurnool	12.3	1021	7.4	252	0.0	-100

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