

# National Agromet Advisory Service Bulletin

**Friday 14<sup>th</sup> March 2014**

**(For the period 14<sup>th</sup> to 18<sup>th</sup> March 2014)**



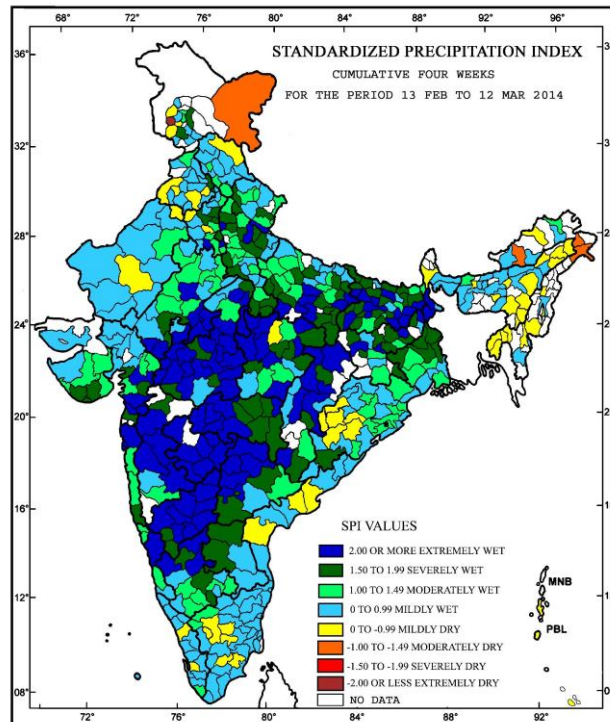
**Issued by**

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



**Standardised Precipitation Index  
Four Weekly  
for the Period 13<sup>th</sup> February to 12<sup>th</sup> March 2014**

MINISTRY OF EARTH SCIENCES  
INDIA METEOROLOGICAL DEPARTMENT  
HYDROMET SECTION, PUNE

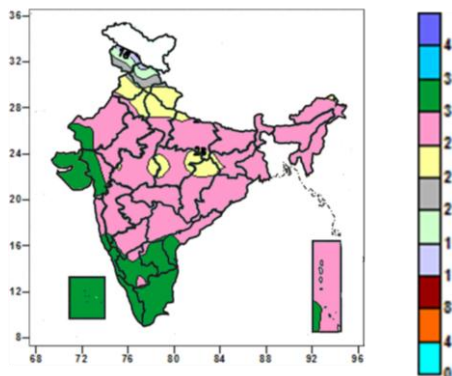


- Extremely wet/severely wet conditions experienced over most parts of Bihar, Madhya Pradesh, Uttar Pradesh, Jharkhand, Chhattisgarh, Maharashtra, Karnataka, some parts of Rajasthan, Gujarat, West Bengal and Andhra Pradesh, Mohali district of Punjab, Faridabad, Jind, Panchkula, Rewari and Karnal districts of Haryana, Haridwar, Dehradun and Almora districts of Uttarakhand, Koraput district of Odisha and Anantnag and Reasi districts of Jammu & Kashmir.
- Moderately dry condition experienced over East Kameng, Lohit and Changlang districts of Arunachal Pradesh.
- Extremely dry conditions experienced over Poonch district of Jammu & Kashmir.
- Rest of the country experienced mild wet/dry conditions.

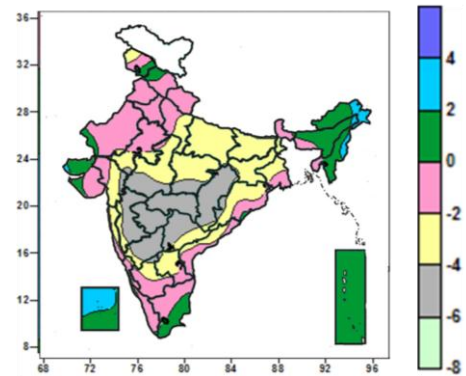


## Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 12.03.2014

**Actual Mean Maximum Temperature (°C) in India for the week ending 12.03.2014**



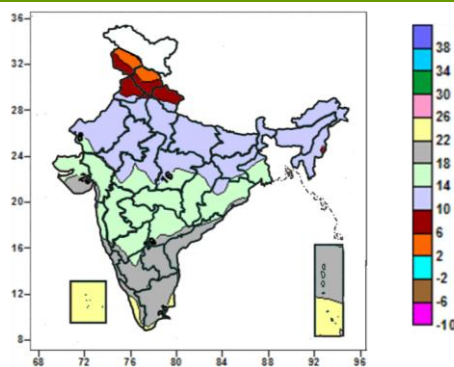
**Mean Maximum Temperature (°C) Anomaly in India for the week ending 12.03.2014**



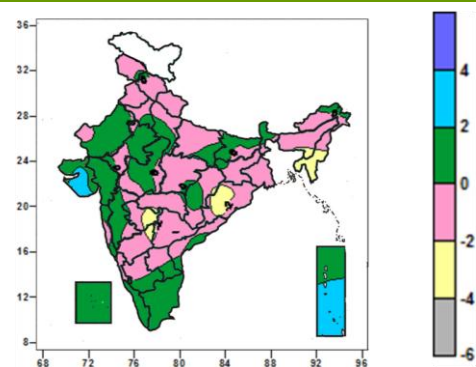
- 32 to 36°C over many parts of Saurashtra & Kutch, Rayalaseema, Tamil Nadu, Kerala, Coastal & North Interior Karnataka, Goa, Saurashtra & Kutch, Gujarat and Lakshadweep Islands, some parts of Konkan, Coastal Andhra Pradesh and West Rajasthan.
- 24 to 32°C over many parts of Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, Rajasthan, East India, North East India, Central India, West India, Rayalaseema, Coastal Andhra Pradesh, Andaman & Nicobar Islands, some parts of North Interior Karnataka.
- 16 to 24°C over many parts of Jammu & Kashmir, Himachal Pradesh, some parts of Punjab.
- 12 to 16°C over some parts of Jammu & Kashmir and Himachal Pradesh.

- 2 to 4°C over some parts of Arunachal Pradesh, Assam, Nagaland, Manipur.
- 0 to 2°C over many parts of North East India, Andaman & Nicobar Islands some parts of Jammu & Kashmir, Himachal Pradesh, West Rajasthan, Saurashtra & Kutch, Coastal Odisha, Coastal Tamil Nadu and Lakshadweep Islands.
- -4 to 0°C over many parts of North India, East India, Gujarat, Madhya Pradesh, Konkan & Goa, Coastal & South Interior Karnataka, Rayalaseema, Coastal Andhra Pradesh, Tamil Nadu, Kerala, some parts of Saurashtra & Kutch, Madhya Maharashtra, Telanagana, Chhattisgarh, Assam, Tripura.
- -6 to -4°C over many places in Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, North Interior Karnataka, Telanagana, some parts of East Rajasthan, Gujarat, Madhya Pradesh and Odisha.

**Actual Mean Minimum Temperature (°C) in India for the week ending 12.03.2014**



**Mean Minimum Temperature (°C) Anomaly in India for the week ending 12.03.2014**



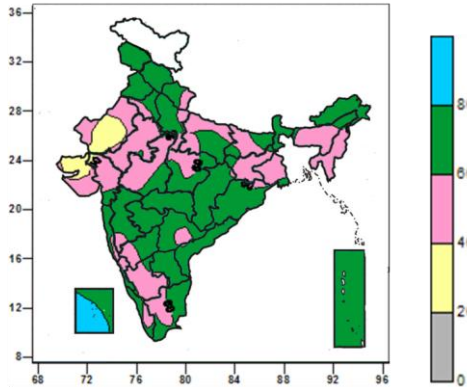
- 2 to 6°C over many parts of Jammu & Kashmir, Himachal Pradesh.
- 6 to 10°C over many parts of Uttarakhand, Punjab, some parts of Jammu & Kashmir, Himachal Pradesh.
- 10 to 18°C over many parts of Rajasthan, Haryana, Delhi, Uttar Pradesh, East India, North East India, Central India, West India, North Interior Karnataka, Telanagana, some parts of Punjab, South Interior Karnataka.
- 18 to 26°C many parts of Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, Coastal & South Interior Karnataka,

- -4 to -2°C over many parts of Mizoram, Tripura, some parts of Assam, Manipur, Odisha, Marathwada, North Interior Karnataka.
- -2 to 2°C over all parts of country except many parts of Mizoram, Tripura, Saurashtra & Kutch. Andaman & Nicobar Islands, some parts of Assam, Manipur, Odisha, Marathwada, North Interior Karnataka.
- 2 to 4°C over many parts of Saurashtra & Kutch, Andaman & Nicobar Islands.

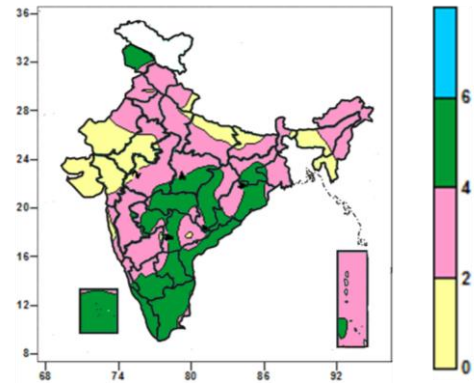
Goa, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Coastal Odisha, Telanagana, North Interior Karnataka, Konkan and Saurashtra & Kutch.

**Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 12.03.2014**

**Relative Humidity (%) over India for the week ending 12.03.2014**



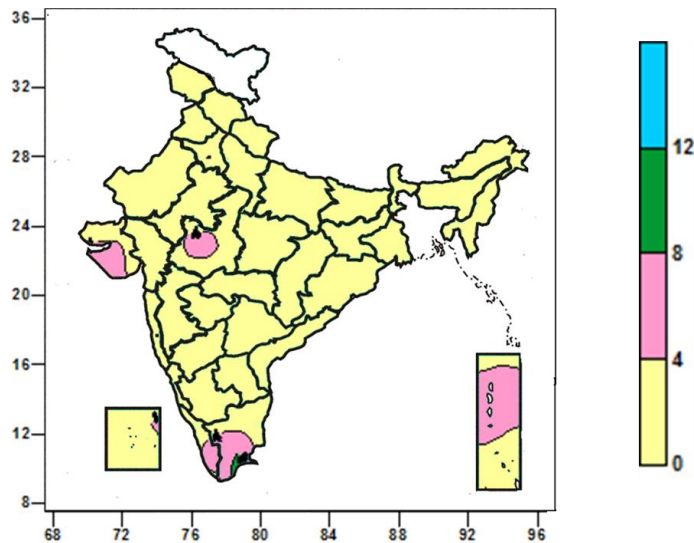
**Cloud amount (okta) over India for the week ending 12.03.2014**



- 80 to 100% over many parts of Lakshadweep Islands.
- 40 to 80% over entire country except many parts of West Rajasthan, Kutch, Lakshadweep Islands, some parts of Saurashtra.
- 20 to 40% over many parts of West Rajasthan, Kutch, some parts of Saurashtra.

- 4 to 6 okta over many parts of Jammu & Kashmir, Jharkhand, Chhattisgarh, East Madhya Pradesh, Odisha, Vidarbha, Marathwada, Andhra Pradesh, Tamil Nadu, Kerala, South Interior Karnataka, Lakshadweep Islands, some parts of Gangetic West Bengal, West Madhya Pradesh and Andaman & Nicobar Islands.
- 0 to 4 okta over entire country except many parts of Jammu & Kashmir, Jharkhand, Chhattisgarh, East Madhya Pradesh, Odisha, Vidarbha, Marathwada, Andhra Pradesh, Tamil Nadu, Kerala, South Interior Karnataka, Lakshadweep Islands, some parts of Gangetic West Bengal, West Madhya Pradesh and Andaman & Nicobar Islands..

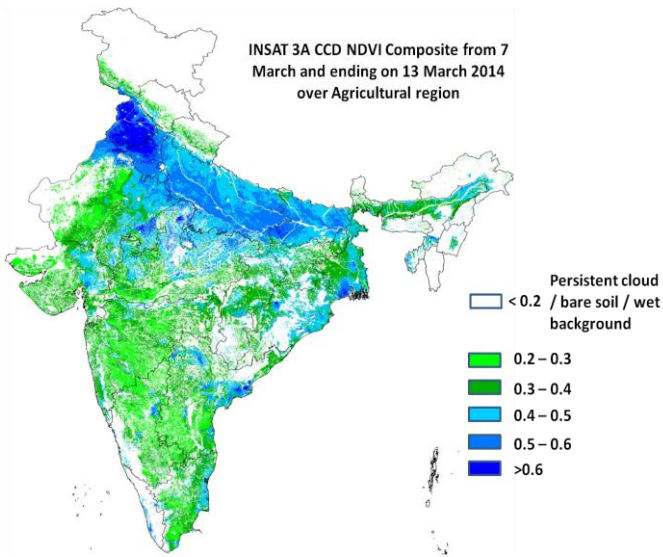
**Wind speed (knots) over India for the week ending 12.03.2014**



- 4 to 8 knots over many parts of Saurashtra & Kutch, Andaman & Nicobar Islands, some parts of West Madhya Pradesh, North Interior Karnataka, Tamil Nadu, Kerala and Lakshadweep Islands.
- 0 to 4 knots over entire country except many parts of Saurashtra & Kutch, Andaman & Nicobar Islands, some parts of West Madhya Pradesh, North Interior Karnataka, Tamil Nadu, Kerala and Lakshadweep Islands.

## INSAT 3A CCD NDVI COMPOSITE OVER AGRICULTURAL REGION

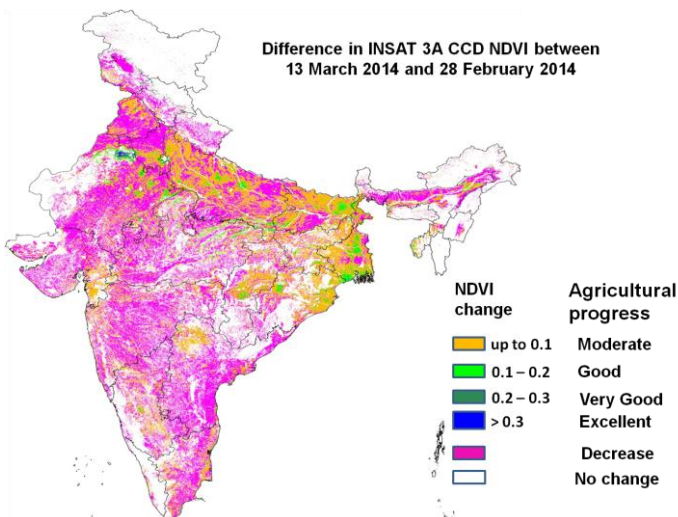
7<sup>th</sup> – 13<sup>th</sup> March 2014



Source: SAC, Ahmedabad

Agricultural vigour is in generally very good over whole Punjab and Haryana few pockets of north and eastern Rajasthan, major part of UP, north MP and adjacent Rajasthan, southern West Bengal and pockets of coastal AP as NDVI exceeds 0.5. Agricultural vigour is moderate in north belt of UP and few pockets of central and eastern MP, Bihar, central and north Gujarat and coastal Odisha where NDVI is in the range of 0.4 to 0.5 upto 13<sup>th</sup> March 2014. The NDVI remains within the range of 0.2 to 0.4 over rest of India.

## Difference in INSAT 3A CCD NDVI between 28<sup>th</sup> February and 13<sup>th</sup> March 2014



Source: SAC, Ahmedabad

Agricultural progress was found to be good over eastern Bihar, few pockets of central UP and pockets of West Bengal. North Punjab, western UP and Bihar, few pockets of eastern MP, central Chhattisgarh and part of Odisha showed moderate agricultural progress. Rest of India showed decay in agricultural vigour as compared to past week.

Different pockets in India showed a sudden decrease in NDVI as compared to peak NDVI in the previous weeks due to the impact of untimely hailstorm and rainfall over north India, central India and Maharashtra. The sudden decrease in NDVI value of 10 to 15% from previous weeks was noticed over central Punjab, central, north and south-west Madhya Pradesh along with major parts of central and east Maharashtra.



## Weather Forecast

### Weather Forecast for next 3 days (upto 0830 hours IST of 17<sup>th</sup> March, 2014)

- Rain/snow would occur at isolated places over Jammu & Kashmir during next 24 hours and at many places thereafter.
- Rain/snow would occur at a isolated places over Himachal Pradesh and Utrakkhand on 15<sup>th</sup> and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over east Madhya Pradesh, Vidarbha, Chhattisgarh, Madhya Maharashtra and Marathwada during next 24 hours and mainly dry thereafter.
- Rain/thundershowers would occur at isolated places over Sub-Himalayan West Bengal & Sikkim during next 24 hours & over Andaman & Nicobar Islands from 15<sup>th</sup>.
- Rain/thundershowers would occur at isolated places over Arunachal Pradesh and Odisha.
- Rain/thundershowers would occur at isolated places over Konkan & Goa, Telangana and north interior Karnataka during next 24 hours and Mainly dry thereafter.
- Mainly dry/dry weather would prevail over rest of the country.
- Maximum temperatures would rise by 2-4°C over many parts of northwest & adjoining central India.

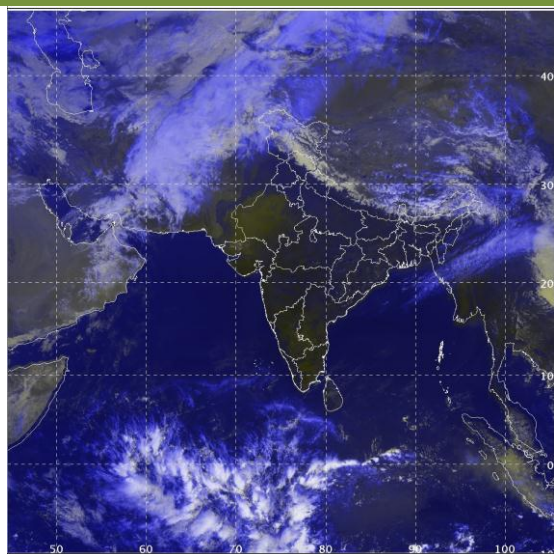
### Weather Warning during next 3 days

- **14 March (Day1):** No weather warning.
- **15 March (Day 2):** Heavy rain/snow would occur at isolated places over Jammu & Kashmir.
- **16 March (Day 3):** Heavy rain/snow would occur at isolated places over Jammu & Kashmir.

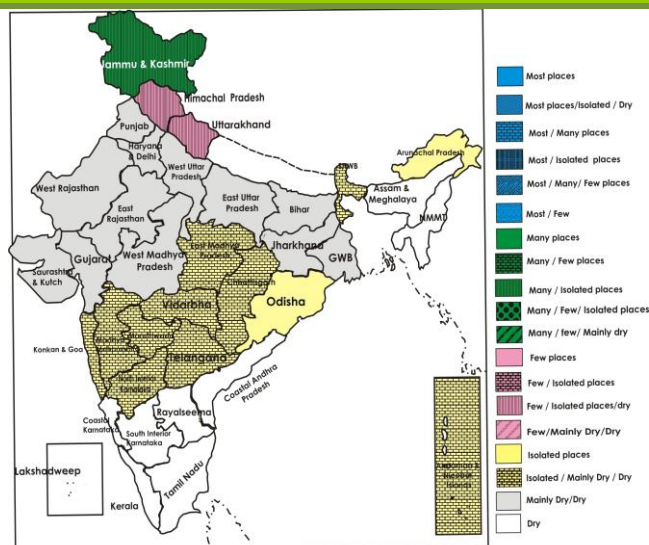
### Weather Outlook for subsequent 4 days from 17<sup>th</sup> to 21<sup>st</sup> March, 2014

- Rain/snow would occur at many places over Jammu & Kashmir and Himachal Pradesh and at a few places over Utrakkhand upto 18<sup>th</sup> and decreases thereafter.
- Rain/thundershowers would occur at isolated places over plains of Punjab, Haryana & Delhi, west Uttar Pradesh, Nicobar islands and Arunachal Pradesh.
- Weather would be mainly dry over rest of the country.

Satellite image dated 14.03.2014, 0600 UTC



Weather Forecast Map (Valid upto 0830 hours of 17<sup>th</sup> March, 2014)



## Areas affected and crop damage due to unseasonal rain/hailstorm/gusty winds

### Punjab

**Stages:** Wheat: Milky/Dough stage, Vegetables/Fruit crops: Flowering / fruiting

**Standing crops affected:** Wheat, vegetables and fruits

**Areas affected:** Lodging of wheat crop in the districts of Ferozepur, Gurdaspur, Pathankot, Nawanshahar, Mohali, Tarn Taran.

### Haryana

**Stages:** Wheat: Milky stage/Dough stage, Vegetables: Flowering / fruiting

**Standing crops affected:** Wheat, Sugarcane and vegetables

**Areas affected:** Lodging of wheat and sugarcane at several places in the districts of Ambala, Karnal, Kurushetra, Panipat, Palwal and Yamunanagar.

### Himachal Pradesh

**Stages:** Wheat: Milky stage/Dough stage, Potato: Active vegetative, Vegetables: Flowering / fruiting

**Areas and crop affected :**Wheat, orchard crops and vegetables in Chamba, Kangra, Una, Hamirpur. Fruits like Apple, Cherry, Almond, Pear, Plum, Apricot and other stone fruits are affected in Kullu and Shimla districts.

### Madhya Pradesh

**Stages:**Wheat: Milking stage/Dough stage, Gram: Pod development-Pod maturity, Mustard: Capsule maturity/ Harvesting, Lentil: Pod development/ Pod maturity, Vegetables: Flowering / fruiting.

**Standing Crops affected :** Severe damage in Wheat, Gram , Lentil, Mustard and Vegetables and moderate damage in Potato.

**Areas affected:** Crops in a total of 30,000 villages were affected.

### Uttar Pradesh

**Stages:**Wheat: Milky stage/Dough stage, Gram: Pod development-Pod maturity, Mustard: Capsule maturity/ Harvesting, Potato: Tuber development, Mango: Flowering/Pea size, Vegetables: Flowering / fruiting.

**Standing Crops affected:** Moderate damage in Wheat, Mustard, Chickpea, Potato, Vegetables(Cauliflower/cabbage/bringal/tomato/table pea), Mango.

**Areas affected:** Agra, Varanasi and Baghpat districts.

### Rajasthan

Rapeseed crop has been affected due to unseasonal rain along with hailstorm in Ajmer and Jaipur regions of Rajasthan. The early sown crop has been affected more than the late sown crop.

### Uttarakhand

**Stages:** Wheat: Flowering/Grain Formation, Mustard: Capsule formation Pea and Lentil: Pod Formation/Maturity, Mango: Flowering

**Area affected and crop damage:** Severe damage in Mustard and moderate damage in Wheat, Pea and lentil in Roorkee and Laksar Tehsils of Hardwar District.

### Maharashtra

**Area affected and crop damage:** Unseasonal rain and hailstorm damaged crops like gram, wheat, sorghum maize, grapes, vegetables and other orchard crops in some parts of Ahmednagar, Beed, Bhandhara, Chandrapur, Dhule, Gadchiroli, Gondia, Jalgoan, Jalna, Kolhapur, Nasik, Pune, Satara, Sangli and Solapur districts. Maximum damage was noticed in wheat, gram, maize and *rabi* jowar grapes and other fruit crops and in vegetables.

## Salient Advisories

- In **Jammu & Kashmir**, as rain/snow is likely to occur at many places along with isolated heavy rain/snow on 15<sup>th</sup> and 16<sup>th</sup> March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers in the standing crops. Postpone harvesting of crops and store the already harvested produce at safe place. Arrange for adequate drainage in standing crop fields to avoid water stagnation in the crop fields.
- In Mid-Hills Sub-Humid Zone and Sub-Montane & Low Hills Sub-Tropical Zone of **Himachal Pradesh**, due to increase in humidity, there are chances of occurrence of yellow rust in wheat. For control, spray Tilt @ 1 ml per litre of water. Also there are chances of downy mildew in onion and cole crops, spray Redomil M-Z 25 g per litre of water on a non rainy day.
- In **Punjab, Haryana** and **Himachal Pradesh**, straighten the lodged crops and provide mechanical support. Also provide mechanical support to orchard crops and vegetable crops.
- Untimely rains and hailstorms in large areas in **Madhya Pradesh** in the previous weeks have caused damage to mustard and chickpea, it is advised to undertake harvesting of matured mustard and chickpea to avoid further damage in clear weather. Do not keep harvested produce in the open, keep it in safe places. Straighten lodged crops and provide mechanical support.
- As there was untimely rain accompanied with isolated hailstorms in **Madhya Maharashtra, Marathwada** as well as in **Vidarbha**, damage was reported in wheat, gram, jowar and in orchards like mango, grapes, papaya, pomegranate, orange and vegetables; collect and destroy the infested dropped fruits and leaves in the orchards to avoid further spread of pest and disease. Undertake harvesting of matured wheat, gram and Jowar to avoid further damage. Straighten lodged crops and provide mechanical support to orchard crops and vegetable crops.
- Considering cloudy weather and rain in Nasik district in **Maharashtra**, there may be incidence of powdery mildew in grapes; spray Sulphur (WP 80%) @ 20 g/10 litres water.



## *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 all the districts of Himachal Pradesh except Hamirpur, Una, Bilaspur, in all districts of Jammu & Kashmir except Kargil, Ladhak(leh), Poonch; in South Delhi in Delhi; in all districts of Uttarakhand except Champawat, Dehradun, Garhwal Pauri, Haridwar, Nainital, Udham Singh Nagar; in Faridabad, Gurgaon and Rewari districts of Haryana; in Gurdaspur district of Punjab; in Baghpat and Saharanpur districts of West Uttar Pradesh. Mainly dry/dry weather prevailed over rest of the region.
- **Weather Forecast:** Rain/snow would occur at isolated places over Jammu & Kashmir during next 24 hours and at many places thereafter. Rain/snow would occur at a isolated places over Himachal Pradesh and Utrtrahand on 15th and at a few places thereafter. Mainly dry/dry weather would prevail over rest of the region. Maximum temperatures would rise by 2-4°C over many parts of northwest India.
- **Weather Warning:** Heavy rain/snow would occur at isolated places over Jammu & Kashmir on 15<sup>th</sup> and 16<sup>th</sup> March.
- **Weather Outlook:** Rain/snow would occur at many places over Jammu & Kashmir and Himachal Pradesh and at a few places over Utrtrahand upto 18<sup>th</sup> and decreases thereafter. Rain/thundershowers would occur at isolated places over plains of Punjab, Haryana & Delhi, west Uttar Pradesh. Weather would be mainly dry over rest of the region.
- **Advisories:**
  - **Jammu & Kashmir:**
    - In Jammu & Kashmir, as rain/snow is likely to occur at many places along with isolated heavy rain/snow on 15<sup>th</sup> and 16<sup>th</sup> March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers in the standing crops. Postpone harvesting of crops and store the already harvested produce at safe place. Arrange for adequate drainage in standing crop fields to avoid water stagnation in the crop fields.
    - In Sub Tropical & Intermediate Zone of Jammu & Kashmir, avoid water stagnation in wheat and vegetable fields. Apply nitrogenous fertilizer as top dressing in khol khol, garlic, cabbage and onion after current spells of rain.
  - **Himachal Pradesh:**
    - As significant rainfall occurred in all the districts except Hamirpur, Una, Bilaspur during last week and rainfall is also expected at a few places, postpone irrigation in the standing crops. Straighten the lodged crops and provide mechanical support. Also provide mechanical support to orchard crops and vegetable crops.
    - 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 utilizing the realized rainfall.
    - In Mid-Hills Sub-Humid Zone and Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh, due to increase in humidity, there are chances of occurrence of yellow rust in wheat. For control, spray Tilt @ 1 ml per litre of water. Also there are chances of downy mildew in onion and cole crops, spray Redomil M-Z 25 g per litre of water on a non rainy day.
    - In Mid-Hills Sub-Humid Zone of Himachal Pradesh, due to high soil moisture, there are chances of stalk rot in cabbage and cauliflower. Remove the diseased part (leaf/fruit) and spray Bavistin-50 (50g/100 l water) or Dithane M-45 (250 g/100l water) on a non rainy day.
  - **Uttarakhand:**
    - As significant rainfall occurred during last week, postpone irrigation to wheat crop in Bhabar & Tarai Zone of Uttarakhand. As timely sown wheat crop is at milking to grain filling stage, the realised rainfall would be very useful in increasing grain size, thus increasing wheat yield.
    - Due to prevailing high humidity, there is chances of attack of aphid in mustard crop in Sub-Humid Sub-Tropic Zone of Uttarakhand. For control, spray Phosphomidone 40% SL or Dimethoate 30 EC. Also there is more probability of attack of powdery mildew disease in pea crop, spray Sulphur fungicide Kerathane on a non rainy day for control.

▪ **Punjab, Haryana and Delhi:**

- In Punjab and Haryana, due to rain and gusty winds lodging of standing crop is noticed. Straighten the lodged crops and provide mechanical support. Also provide mechanical support to orchard crops and vegetable crops.
- In Western Zone of Punjab, taking advantage of realised rain, undertake transplanting of chilli and sowing of cucurbits like muskmelon, watermelon, bottle gourd, round gourd, sponge gourd, pumpkin, bitter gourd and other summer vegetables viz. okra, cowpea, cluster bean.
- In Western Zone of Haryana, as dry weather would prevail; undertake harvesting of the matured early sown mustard crop. Undertake sowing of the green gram and black gram and transplanting of tomato, chilli and cole crop.
- In Western Zone of Punjab due to cloudy weather and rise in humidity, there is chance of incidence of powdery mildew disease in wheat crop, spray Karathane 40EC @ 0.05% (100ml in 200 litres of water) or Tilt 25EC 200ml in 200 liter of water per acre.
- In Western Zone of Haryana, in the prevailing humid weather condition , there is possibility of white rust in the mustard crop, spray 0.2% Redomil M Z or Mancozeb.
- In Delhi, undertake sowing of green gram and black gram, cucurbitaceous crop, lady's finger, French bean, cluster bean, summer radish as present temperature is suitable for germination of seeds. Also undertake transplanting of young seedlings of tomato, chilli cole crops and marigold seedling in fields utilizing the realised rainfall.

▪ **Uttar Pradesh:**

- In Western Plain Zone of Uttar Pradesh, undertake sowing of moong, urad, lobia, bhindi and cucurbits and planting of tomato, brinjal and chilli utilizing the realized rainfall.
- In Central Plain zone of Uttar Pradesh, due to high humidity there are chances of aphid infestation in mustard. For control, spray Methyl Dematon 25 EC or Dimethoate 30 EC@ 2.0 ml per litre of water. Also there are chances of attack of fruit borer in arhar at grain formation stage due to high humidity. For control, spray Monocrotophos 0.75 litre in 700-800 litres 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. and also second dose of Nitrogen through urea top dressing in wheat and barley crop.
- In Sub Humid Southern Plain and Aravali Hill Zone of Rajasthan, as dry weather would prevail, apply irrigation in wheat at milking and grain formation stage.
- In Semi Arid Eastern Plain Zone of Rajasthan, due to rise in temperature, there may be attack of mango hopper in mango at flowering stage. For control, spray Malathion 50 EC@ 1.0 ml per litre of water.

**CENTRAL INDIA [M.P., CHHATTISGARH]**



*Wheat*

*Sugarcane*

*Chilli*

*Mustard*

- **Realised Rainfall:** Significant rainfall occurred in Umaria district of east Madhya Pradesh; in Alirajpur district of west Madhya Pradesh; in Bastar and Bijapur districts of Chhattisgarh. Weather remained mainly dry/dry over remaining parts of the region.
- **Weather forecast:** Rain/thundershowers would occur at isolated places over east Madhya Pradesh and Chhattisgarh during next 24 hours and mainly dry thereafter. Mainly dry/dry weather would prevail over rest of the region. Maximum temperatures would rise by 2-4°C over many parts of central India adjoining to northwest India.
- **Weather Warning:** Nil
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
  - **Madhya Pradesh:**
    - Untimely rains and hailstorms in large areas in Madhya Pradesh in the previous weeks have caused damage to

mustard and chickpea, it is advised to undertake harvesting of matured mustard and chickpea to avoid further damage in clear weather. Do not keep harvested produce in the open, keep it in safe places. Straighten lodged crops and provide mechanical support.

- In Satpura Plateau Zone of Madhya Pradesh, undertake harvesting of gram, mustard, wheat and maize crop in clear weather condition.
- In Jhabua Hill Zone of Madhya Pradesh harvest matured crops gram, mustard and maize in clear weather.
- In Grid Zone and Bundelkhand Zone of Madhya Pradesh, as mainly dry weather would prevail, harvest matured crops of 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 litre of water.
- In Bundelkhand Zone of Madhya Pradesh, in the present cloudy and humid weather conditions, it is advised to monitor wheat crop against black smut disease. If diseased ear heads (turning black colour) are found, then cut them by cover paper or polythene and bury them in the soil to prevent the disease from spreading.
- In Jhabua Hill Zone of Madhya Pradesh due to cloudy weather in past week there is possibility of attack of mango hopper, aphid and powdery mildew in mango plants, spray 2.0 gm of Carboril dust and 3.0 g of Sulphex per litre of water solution.
- **Chhattisgarh:**
  - In Plain Zone of Chhattisgarh undertake harvesting of matured gram, black gram and linseed in clear weather.
  - In North Hill Zone of Chhattisgarh, as mainly dry weather would prevail, harvest matured wheat, mustard and arhar crop. As temperature conditions are favourable, undertake 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 in Gajapati, Koraput and Nawarangpur districts of Odisha. Weather remained mainly dry/dry over rest of the region.
- **Weather forecast:** Rain/thundershowers would occur at isolated places over Sub-Himalayan West Bengal & Sikkim during next 24 hours. Rain/thundershowers would occur at isolated places over Odisha. 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, undertake 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 will remain dry, apply irrigation in summer rice and maintain 5cm of water. Apply 50% N as top dressing at 21 days after transplanting.
    - In Western Undulating Zone of Odisha, warm day and cool nights are conducive for spread of powdery mildew on green gram and black gram crops 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, humid weather is conducive for outbreak of late blight in late planted potato. To protect the crop, apply Cymoxanil 8% + Mancozeb 64% @ 3.0 g per litre of water.
    - In Laterite and Red Soil Zone of West Bengal, hot and humid weather may cause attack of hopper in mango at flowering stage. To protect, apply Carbaryl @ 2g/litre of water + Diethane M-45 @ 2.5g/litre of water. As mainly dry weather is prevailing, apply irrigation in *boro* rice, groundnut and maize.
    - 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. Also as present temperature conditions are favourable, undertake sowing of improved varieties of sesame and moong.

- 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 Terai Zone of West Bengal, warm and humid conditions are congenial for foliar blight complex disease in wheat at flowering stage. To control, spray Tebuconazole or Propiconazole 1.5 ml/ lt of water. Also to prevent shedding of flower and fruits in chilli, spray Triaccontanol 1ml/5 lt 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 summer vegetable crops and undertake sowing of green gram, black gram and planting of sugarcane and papaya.
  - In South Bihar Alluvial Zone, as mainly dry weather would prevail, complete harvesting of mustard and potato crop and also apply irrigation to late sown winter maize. As present temperature condition is favourable, complete sowing of sweet potato and summer vegetables.
  - In North East Alluvial Plain Zone of Bihar, as present temperature condition is favourable complete planting of spring sugarcane, transplanting of *garma* rice, sowing of vegetables and continue transplanting of onion, sowing of maize and moong.
- **Jharkhand:**
  - In Western Plateau Zone of Jharkhand, as mainly dry weather would prevail, continue harvesting of potato crop and sowing of summer mung and vegetable crop.
  - In Central & North Eastern Plateau Zone of Jharkhand, as mainly dry weather would prevail, continue harvesting of toria, potato and pigeon pea and apply irrigation to wheat crop at milking stage/ dough stage). As present temperature is favourable continue sowing of summer maize and moong.
  - In South Eastern Plateau Zone of Jharkhand, as present temperature condition is favourable, undertake sowing of summer vegetables and summer moong. As mainly dry weather would prevail, apply irrigation to wheat and undertake harvesting of chickpea.
  - 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 (cloudy and high night temperature); spray Bordeaux mixture or Copper Oxylchloride @ 0.25 per cent or Blitox 50 @ 0.30 percent solution.

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



*Chilli*



*Rice*



*cole crops*



*Late blight in Potato*

- **Realised Rainfall:** Significant rainfall occurred in Upper Siang district in Arunachal Pradesh. Weather remained mainly dry/dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Arunachal Pradesh. Mainly dry/dry weather would prevail over rest of the region.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over Arunachal Pradesh. Weather would be mainly dry over rest of the region.
- **Advisories:**
  - **Assam & Meghalaya:**
    - 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. Temperature condition is favourable for sowing of ridge gourd and sponge gourd and early *ahu* rice.
    - In Upper Bramhaputra Lower Bramhaputra and central Bramhaputra Valley Zone of Assam, as temperature condition are favourable, undertake land preparation for sowing of different summer vegetable like ridge gourd, sponge gourd, ash gourd, pumpkin, okra, bitter gourd etc.

- In Lower Brahmaputra Valley Zone of Assam, as temperature condition is favourable undertake land preparation for sowing of *capsularis* jute, summer green gram and black gram.
- In Hill Zone of Assam, prevailing temperature conditions are suitable for sowing of summer green gram and black gram, cucurbits and bhindi.
- In Central Brahmaputra 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:**
- In Mild Tropical Hill Zone of Nagaland, present weather is favourable for sowing of summer vegetables like lady's finger, cucurbitaceous crops like gourd, pumpkin, ridge gourd, ash gourd etc.
- In Sub Tropical Plain Zone of Manipur, taking advantage of dry weather conditions continue harvesting of matured rapeseed and mustard. Apply light irrigation in horticulture crops to maintain required soil moisture.
- In Mild Tropical Plain Zone of Tripura, as mainly dry weather is prevailing, apply irrigation in banana to maintain the moisture and remove extra suckers in upland condition.
- In Mild Tropical Hill Zone of Mizoram, apply irrigation in regular intervals in vegetable crops, as mainly dry weather is prevailing.
- In Mild Tropical Plain Zone of Tripura, in the prevailing temperature conditions, there may be chances of attack of yellow stem borer in rice. Apply Fipronil @ 2g per liter of water to manage the yellow stem borer attack.
- **Animal Husbandry**
- 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 Buldhana, Chandrapur, Gadchiroli, Washim and Yeotmal districts in Vidarbha, Jalgaon and Sholapur districts in Madhya Maharashtra and in all districts of Marathwada. No significant rainfall occurred in Gujarat and Konkan and Goa during last week. Mainly dry/dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Maharashtra State 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:**
  - **Maharashtra:**
  - As there was untimely rain accompanied with isolated hailstorms in Madhya Maharashtra, Marathwada as well as in Vidarbha, damage was reported in wheat, gram, jowar and in orchards like mango, grapes, papaya, pomegranate, orange and vegetables; collect and destroy the infested dropped fruits and leaves in the orchards to avoid further spread of pest and disease. Undertake harvesting of matured wheat, gram and Jowar to avoid further damage. Straighten lodged crops and provide mechanical support to orchard crops and vegetable crops.
  - 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 (marble size), 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, continue intercultural operations and fertilizer application in sugarcane, summer groundnut and vegetables.
  - In Marathwada, continue intercultural operations and fertilizer application in orchards (banana, fig, pomegranate, sweet lime, guava), sugarcane, summer groundnut and vegetables as mainly dry weather would prevail.

- In Vidarbha, as mainly dry weather would prevail, maintain upto 5 cm water level in already transplanted rice fields in Gondia, Bhandara, Chandrapur and Gadchiroli districts. Undertake sowing of summer green gram.
- Considering cloudy weather and rain in Nasik district, there may be incidence of powdery mildew in grapes; spray Sulphur (WP 80%) @ 20 g/10 litres water.
- Due to humid weather in Pune region, there may be incidence of powdery mildew and thrips in mango; spray 5 % Fipronil @ 15 ml + Hexaconazole 5 % @ 10 ml per 10 litres of water. To avoid fruit dropping spray 1 % Potassium Nitrate.
- **Gujarat:**
  - As dry weather is prevailing in South Gujarat Heavy Rainfall Zone, apply regular irrigation and carryout hand weeding and intercultural operations in timely sown crops (wheat, groundnut etc.).
  - Under mainly clear sky condition in North Gujarat Zone, carryout harvesting of matured spikes of castor and keep for drying. Continue harvesting of already matured tubers of potato and complete harvesting of already matured mustard.
  - As mainly dry / dry weather prevailed and no significant rainfall is expected, apply irrigation in wheat at dough stage in North Gujarat Zone and in vegetables and fruit crops in South Gujarat Zone.
  - Due to rise in temperature, attack of thrips in onion and garlic is noticed in South Gujarat Heavy Rainfall Zone. Spray Dimethoate @ 30 EC 10 ml or Prophenophos 40% + Cyarpermethrin 4% (Polytrin 44 EC) 10 ml in 10 liter of water for control of thrips.
  - Due to rise in day temperature (32-34°C), heavy infestation of thrips was observed in groundnut in North Saurashtra Zone and likely to spread . Monitor the crops and spray Imidacloprid 30.5 % SC, 5 ml/10 litre of water.

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



*Rice*

*Sugarcane( cane maturity)*

*Onion (bulb development)*

*Sucking pest on Groundnut*

- **Realized Rainfall:** Significant rainfall occurred over Srikakulam and Vizianagaram districts in Coastal Andhra Pradesh, Adilabad, Karimnagar, Medak and Nizamabad districts in Telangana in Andhra Pradesh; Kollam and Pathanamthita districts in Kerala; Bagalkote, Belgam, Bidar, Bijapur, Koppal, Raichur and Yadgir districts in North Interior Karnataka and Bangalore Rural and Tumkur districts in South Interior Karnataka. Mainly dry/dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Telangana and north interior Karnataka during next 24 hours and mainly dry thereafter. Rain/thundershowers would occur at isolated places over Andaman & Nicobar Islands from 15<sup>th</sup> March. Mainly dry/dry weather would prevail over remaining parts of the region.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over Nicobar islands. Weather would be mainly dry over rest of the region.
- **Advisory:**
  - **Karnataka:**
    - Continue harvesting of chickpea, safflower and *rabi* sorghum in the North Dry Zone of Karnataka in clear weather.
    - In North East Transition zone, in the prevailing temperature, mango hoppers are noticed in mango crop, for control spray 4 g Carbaryl 50WP or 2 ml Malathion 50EC or 1.5 ml Monocrotophos 36SL or 0.5 ml Phosphamidon 40EC in one litre of water.
    - As mainly dry weather is prevailing, apply irrigation in groundnut which is at flowering stage in the Central Dry Zone of Karnataka.
  - **Andhra Pradesh**
    - As significant rainfall occurred over most of the districts of Telanagana, postpone irrigation to the standing crops.
    - In Telanagana, prevailing wet and humid weather conditions are congenial for incidence of *Tursicum* leaf blight and stalk rot in maize. Spray Mancozeb @ 2 g per litre of water to manage *Tursicum* leaf blight in maize



and drench soil with Carbendazim @ 1 g or Copper Oxochloride @ 3 g per litre of water to manage stalk rot.

▪ **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 rice fallow cotton in the Cauvery Delta Zone of Tamil Nadu.
- Provide irrigation to maize, gingelly and vegetable crops in Coimbatore and Erode districts in the Western Zone of Tamil Nadu in view of the prevailing dry weather.
- As dry weather is expected in the coming days, provide irrigation to banana, chilli and cotton in the South Zone of Tamil Nadu. Undertake land preparation for nursery sowing of pearl millet.
- In the South Zone of Tamil Nadu, woolly aphid infestation is observed in 4 to 6 months old sugarcane crop. Spray Acephate 2 g or Monocrotophos 2 ml per litre of water, two times at 15 days interval to manage the pest.

▪ **Kerala:**

- Due to hot and humid weather, there is chance of yellowing in banana (Erwinia Rot) in the Central Zone of Kerala. Mix 25g of Kocide and 6 g of Streptocycline in 25 ml of water and apply 5 litre of solution to each banana basin to manage Erwinia Rot. Apply Pseudomonas culture (2.5 kg/acre) and organic fertilizers in severely affected areas.

• **Animal Husbandry:**

- Prevailing dry weather condition will create heat stress in poultry in the Western Zone of Tamil Nadu. Hang wet gunny bags on the side walls of the poultry shed.

## Annexure I

## Week by week Rainfall Distribution

State/Districts	26.02.14		05.03.14		12.03.14	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
<b>Arunachal Pradesh</b>						
Anjaw	**	**	**	**	**	**
Changlang	0.0	-100	2.0	-96	0.0	-100
Dibang Valley	12.0	-82	47.0	4	4.0	-94
East Kameng	0.0	-100	0.0	-100	0.0	-100
East Siang	0.0	-100	22.4	14	0.2	-99
Kurung Kumey	**	**	**	**	**	**
Lohit	0.0	-100	1.3	-95	0.0	-100
Lower Dibang Valley	3.7	-94	10.4	-77	0.0	-100
Lower Subansari	**	**	**	**	**	**
Papumpara	0.0	-100	0.0	-100	0.0	-100
Tawang	0.0	-100	0.0	-100	9.0	-22
Tirap	0.0	-100	0.5	-97	0.2	-99
Upper Siang	14.5	-74	103.2	58	33.5	-62
Upper Subansari	3.0	-79	28.0	133	0.0	-100
West Kameng	0.0	-100	0.2	-97	0.0	-100
West Siang	0.5	-98	22.5	33	1.5	-93
<b>Assam</b>						
Baksa	0.0	-100	1.0	-80	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	0.0	-100	0.5	-90	0.0	-100
Darrang	0.0	-100	0.0	-100	0.0	-100
Dhemaji	0.0	-100	10.0	-19	2.0	-85
Dhubri	0.0	-100	0.6	-90	0.0	-100
Dibrugarh	0.0	-100	0.6	-96	4.1	-78
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	0.0	-100	0.3	-90	0.0	-100
Lakhimpur	0.0	-100	0.0	-100	0.0	-100
Morigaon	0.0	-100	1.8	-50	0.0	-100
N.C.Hills	0.0	-100	0.0	-100	0.0	-100
Nowgong	0.0	-100	1.3	-70	0.0	-100
Nalbari	0.0	-100	0.5	-90	0.0	-100
Sonitpur	0.0	-100	0.0	-100	0.0	-100
Sibsagar	0.0	-100	0.0	-100	0.0	-100

Tinsukia	0.0	-100	3.1	-80	1.3	-91
Udalgiri	0.0	-100	0.0	-100	0.0	-100
<b>Meghalaya</b>						
East Garo Hills	0.0	-100	2.8	-85	0.0	-100
East Khasi Hills	0.0	-100	0.3	-97	2.4	-92
Jaintia Hills	0.0	-100	0.0	-100	0.0	-100
Ribhoi	0.0	-100	0.7	-77	0.0	-100
South Garo Hills	0.0	-100	0.0	-100	0.0	-100
West Garo Hills	0.0	-100	0.4	-96	0.0	-100
West Khasi Hills	0.0	-100	2.0	-67	0.0	-100
<b>Mizoram</b>						
Aizwal	0.0	-100	0.0	-100	0.0	-100
Champhai	0.0	-100	0.0	-100	0.0	-100
Kolasib	1.0	-94	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
<b>Manipur</b>						
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
<b>Nagaland</b>						
Dimapur	1.0	25	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	**	**	**	**	**	**
<b>Tripura</b>						
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
<b>Himachal Pradesh</b>						
Bilaspur	4.8	-73	41.1	169	12.9	16
Chamba	18.2	-31	50.7	9	64.4	165



Hamirpur	4.9	-59	61.5	246	16.0	37
Kangra	18.6	-16	25.4	25	23.8	44
Kinnaur	10.5	-55	30.1	31	29.3	25
Kullu	7.1	-73	30.0	12	40.2	30
Lahaul and Spiti	12.0	-67	12.6	-67	52.4	40
Mandi	2.5	-83	32.3	84	23.5	36
Shimla	5.6	-68	29.8	73	35.6	110
Sirmaur	13.6	22	33.8	213	20.5	138
Solan	1.7	-89	51.1	195	30.0	120
Una	8.0	-32	26.3	158	19.9	134
<b>Punjab</b>						
Amritsar	1.5	-82	0.8	-89	7.3	6
Barnala	1.0	-84	4.5	61	0.0	-100
Bhatinda	10.0	100	13.6	312	2.5	-26
Faridkot	2.0	-35	9.0	246	1.0	-57
Fatehgarh Sahib	0.0	-100	0.0	-100	2.0	-53
Ferozpur	1.0	-72	3.7	-1	2.0	-49
Gurdaspur	14.0	-1	7.6	-50	34.1	207
Hoshiarpur	7.1	-33	2.9	-71	5.9	-37
Jalandhar	10.0	16	1.0	-88	4.9	-25
Kapurthala	11.0	224	0.2	-97	15.3	163
Ludhiana	5.8	-14	7.4	-10	5.9	11
Mansa	1.0	-80	6.2	77	11.0	400
Moga	2.0	-53	1.5	-32	2.8	-26
Muktesar	0.0	-100	1.0	-69	1.0	-63
Nawashahar	3.8	-61	20.4	124	9.1	5
Patiala	0.3	-96	10.8	69	4.4	-20
Ropar	5.0	-41	23.2	183	5.2	-68
Sangrur	0.2	-96	20.6	338	2.9	1
Mohali	0.5	-92	27.0	238	11.0	45
TarnTaran	1.0	-86	0.0	-100	3.6	-22
<b>Haryana</b>						
Ambala	1.6	-77	16.1	102	10.0	112
Bhiwani	0.0	-100	7.9	242	4.6	109
Chandigarh	1.4	-81	40.8	334	17.1	155
Faridabad	0.0	-100	8.8	99	43.9	1272
Fatehabad	2.0	-41	0.0	-100	1.8	2
Gurgaon	0.0	-100	4.0	18	33.4	1988
Hissar	7.7	114	1.6	-41	9.2	385
Jhajar	0.0	-100	9.7	137	4.4	77
Jind	0.2	-94	15.3	89	17.0	254
Katihah	0.4	-91	1.0	-72	6.2	128
Karnal	7.8	29	27.7	530	13.5	255
Kurukshetra	6.0	25	7.5	53	4.3	-11
Mahendragarh	0.0	-100	2.6	-24	8.1	238
Mewat	0.0	-100	0.0	-100	15.3	800
Palwal	0.0	-100	5.0	61	11.0	633
Panchkkula	1.7	-82	23.5	147	11.5	135
Panipat	0.0	-100	21.0	338	10.0	319

Rewari	0.0	-100	0.0	-100	36.4	2500
Rohtak	0.0	-100	4.0	-41	3.0	-32
Sirsa	0.0	-100	0.3	-85	0.0	-100
Sonepat	0.0	-100	17.6	251	7.7	78
Yamunanagar	16.0	82	19.7	134	18.2	142
<b>Delhi</b>						
Central Delhi	**	**	28.0	409	6.0	50
East Delhi	**	**	26.0	373	9.0	125
New Delhi	**	**	20.2	267	18.7	366
North Delhi	**	**	17.7	222	6.8	70
North East Delhi	**	**	0.0	-100	0.0	-100
North West Delhi	**	**	23.5	327	1.0	-75
South Delhi	**	**	7.9	44	26.8	570
South West Delhi	**	**	24.4	344	17.0	325
West Delhi	**	**	15.0	173	3.0	-25
<b>Jammu &amp; Kashmir</b>						
Anantnag	22.7	-26	9.4	-71	199.7	419
Badgam	4.5	-79	7.7	-60	100.8	391
Bandipore	**	**	**	**	**	**
Baramula	5.0	-92	17.0	-62	65.5	40
Doda	17.1	-66	29.6	-44	139.6	169
Ganderwal	6.4	-63	21.0	9	62.7	167
Jammu	1.4	-93	4.2	-75	62.1	300
Kargil	0.0	-100	0.0	-100	0.0	-100
Kathua	26.8	40	11.2	138	44.8	95
Kistwar	**	**	**	**	**	**
Kulgam	22.8	-26	12.9	-45	154.8	302
Kupwara	2.6	-92	19.4	-50	119.9	118
Ladakh(Leh)	0.0	-100	0.3	-73	0.0	-100
Poonch	0.0	-100	0.0	-100	3.0	-95
Pulwama	7.5	-49	5.5	-62	117.9	431
Rajouri	6.4	-61	24.8	179	94.3	816
Ramban	28.6	-44	30.9	-38	146.5	183
Reasi	7.8	-77	17.6	-13	133.5	313
Samba	1.8	-91	1.3	-92	42.7	175
Shopian	10.0	-32	5.0	-76	39.0	76
Srinagar	3.9	-77	4.7	-76	140.0	496
Udhampur	32.0	-7	12.2	-64	142.0	340
<b>East Madhya Pradesh</b>						
Anuppur	48.0	2298	40.3	423	0.0	-100
Balaghat	20.8	992	34.3	909	8.0	151
Chhatarpur	7.6	281	51.8	2778	5.2	162
Chindwara	0.0	-100	11.7	125	1.6	-64
Damoh	25.6	1319	35.2	1114	1.0	-67
Dindori	0.0	-100	11.5	62	1.0	-76
Jabalpur	22.2	1377	50.1	1374	9.2	475
Katni	14.7	674	46.4	1189	2.0	186
Mandla	33.1	1476	17.5	178	2.6	-48
Narsingpur	10.3	832	32.2	939	10.0	1329

Panna	0.0	-100	0.0	-100	0.0	-100
Rewa	16.4	993	43.0	1493	1.6	-16
Sagar	18.5	610	39.1	1348	12.2	455
Satna	3.2	37	28.5	996	4.4	120
Seoni	28.0	804	7.0	27	11.1	108
Shahdol	48.0	2724	66.0	1304	0.0	-100
Sidhi	16.4	720	69.2	2463	0.0	-100
Singrauli	0.0	-100	43.6	1182	0.0	-100
Tikamgarh	19.0	1627	26.0	1900	11.0	1275
Umaria	4.4	110	42.7	600	29.8	705
<b>West Madhya Pradesh</b>						
Alirajpur	0.0	-100	0.0	-100	38.3	38233
Asoknagar	18.8	1467	52.8	8700	1.5	67
Badwani	4.5	1017	3.3	725	0.0	-100
Betul	36.3	1350	10.0	213	19.3	1187
Bhind	21.6	1247	15.4	756	0.0	-100
Bhopal	39.6	2375	7.0	367	1.8	150
Burhanpur	0.0	-100	0.0	-100	0.0	-100
Datia	33.7	2708	9.2	667	4.2	500
Dewas	46.3	9167	0.3	-67	0.0	-100
Dhar	0.0	-100	8.5	4150	0.0	-100
Guna	22.2	1750	20.2	1583	8.9	536
Gwalior	2.9	38	36.8	2065	1.2	-25
Harda	28.2	13975	0.0	-100	0.0	-100
Hosangabad	44.6	3613	17.0	507	5.9	247
Indore	40.4	40300	2.4	700	0.0	-100
Jhabua	15.0	14900	0.0	-100	0.0	-100
Khandwa	34.0	4757	0.7	-65	7.8	767
Khargone	18.2	4438	0.4	-33	1.7	767
Mandsaur	4.1	1250	12.2	1933	0.0	-100
Morena	0.0	-100	15.3	467	0.0	-100
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	33.0	4025	28.0	1374	3.6	355
Rajgarh	7.0	900	17.9	1527	1.0	67
Ratlam	16.3	3160	2.0	300	2.6	2500
Sehore	48.0	4700	7.8	388	5.6	1767
Shajapur	11.0	3567	5.8	480	0.0	-100
Sheopur Kalani	2.5	317	4.0	344	0.0	-100
Shivpuri	8.5	673	8.5	431	4.0	300
Ujjain	22.6	22500	1.2	20	1.2	200
Vidisha	25.5	1721	38.7	3418	0.0	-100
<b>Chhattisgarh</b>						
Bastar	0.0	-100	3.4	-3	27.4	996
Bijapur	0.0	-100	19.3	3760	38.6	3409
Bilaspur	20.8	844	56.9	898	7.0	49
Dantewara	0.0	-100	4.7	488	5.1	1611
Dhamtari	10.4	593	19.4	619	0.8	14
Durg	18.0	1700	45.4	1095	0.0	-100
Janjgir	6.7	158	58.1	1903	0.0	-100



Jashpurnagar	**	**	36.0	471	0.0	-100
Kanker	0.0	-100	0.0	-100	**	**
Korba	24.0	1400	40.5	553	0.0	-100
Koriya	48.3	2741	40.8	3609	0.0	-100
Kawardha	0.0	-100	17.0	315	0.0	-100
Mahasumund	7.0	141	1.0	-64	0.0	-100
Narayanpur	0.0	-100	0.2	-95	**	**
Raigarh	**	**	0.0	-100	**	**
Raipur	16.4	761	52.3	1276	1.4	-28
Rajandgaon	5.1	143	19.0	476	0.0	-100
Surguja	21.0	709	42.2	955	0.2	-95
<b>East Uttar Pradesh</b>						
Allahabad	7.8	334	45.3	1518	0.0	-99
Ambedkar Nagar	12.3	310	18.0	592	0.0	-100
Azamgarh	3.2	19	17.5	400	0.0	-100
Bahraich	10.4	225	0.3	-90	1.4	-70
Ballia	3.1	107	17.7	1262	0.0	-100
Balrampur	7.6	12	0.0	-100	0.0	-100
Banda	4.9	75	66.5	2791	0.0	-100
Barabanki	17.6	487	21.9	852	0.0	-100
Basti	6.7	319	4.5	87	0.0	-100
Chandauli	4.4	193	27.2	988	0.0	-100
Deoria	14.0	43	8.8	418	0.0	-100
Faizabad	9.5	313	5.5	129	0.0	-100
Farrukhabad	4.3	88	17.5	629	3.2	28
Fatehpur	19.0	492	32.2	1510	0.0	-100
Gazipur	9.5	459	47.4	2157	0.0	-100
Gonda	19.5	926	0.0	-100	0.0	-100
Gorakhpur	10.4	395	16.2	604	0.0	-100
Hardoi	13.2	324	11.3	253	5.0	85
Jaunpur	4.0	100	33.7	1432	0.0	-100
Kannauj	11.0	244	12.0	344	1.0	-55
Kanpur City	19.0	442	13.3	600	0.0	-100
Kanpur Dehat	8.0	176	10.0	456	0.6	-14
Kaushambi	5.5	62	48.6	2013	0.0	-100
Kheri	4.3	29	11.0	224	1.2	-63
Kushi nagar	1.9	73	3.0	30	0.0	-100
Lucknow	18.4	458	5.5	162	0.0	-100
Maharajganj	2.4	74	1.3	-35	0.0	-100
Mau	10.5	250	20.8	700	0.0	-100
Mirzapur	8.5	347	25.0	468	0.0	-100
Pratapgarh	1.0	-58	62.7	2312	0.0	-100
RaiBareilly	8.6	310	7.9	427	0.0	-100
Sahuji Maharajnagar	7.3	127	28.8	1340	0.0	-100
Sant Kabirnnagar	2.5	47	6.5	242	0.0	-100
Sant Ravidas Nagar	14.0	833	15.0	500	0.0	-100
Shrawasti	**	**	**	**	**	**
Sidharthnagar	0.3	-84	0.0	-100	0.0	-100
Sitapur	13.5	365	15.8	285	3.4	11

Sonbhadra	7.2	156	35.7	1131	8.8	132
Sultanpur	13.9	829	16.3	676	0.0	-100
Unnao	10.0	122	16.0	662	0.0	-100
Varanasi	12.0	362	25.9	685	0.0	-100
<b>West Uttar Pradesh</b>						
Agra	15.2	531	11.2	387	6.1	111
Aligarh	0.1	-98	15.9	563	3.4	13
Auraiya	8.0	135	0.0	-100	0.0	-100
Badaun	1.2	-59	26.8	688	1.6	-63
Baghpat	0.0	-100	30.6	955	22.5	562
Bareilly	0.5	-84	37.3	908	4.2	24
Bijnor	0.0	-100	33.7	316	7.8	34
Bulandsahar	0.0	-100	15.3	394	15.2	253
Etah	2.3	-27	16.3	394	1.0	-69
Etawah	13.0	491	1.0	-57	0.0	-100
Firozabad	9.1	435	2.7	80	2.8	20
GBNagar	0.0	-100	27.0	391	13.0	713
Ghaziabad	0.0	-100	29.7	440	6.7	205
Hamirpur	9.0	190	16.7	626	1.1	7
Jalaun	10.3	158	4.7	236	3.0	173
Jhansi	12.5	524	25.7	1613	4.9	348
Jotiba Phule Nagar	1.0	-71	68.0	1559	16.0	400
Kanshiramnagar	0.0	-100	21.5	727	1.0	-68
Lalitpur	19.0	1483	48.0	2900	4.5	150
Mahamaya Nagar	0.0	-100	18.5	671	3.0	-14
Mahoba	0.0	-100	42.6	2030	1.0	-17
Mainpuri	7.8	255	11.5	448	2.1	-21
Mathura	0.0	-100	17.0	486	7.0	126
Meerut	0.0	-100	34.3	453	9.1	194
Moradabad	0.4	-91	63.5	1280	16.6	452
Muzzaffarnagar	0.0	-100	17.8	394	8.2	228
Pilibhit	1.3	-66	20.6	506	0.5	-86
Rampur	0.0	-100	41.6	420	7.7	92
Saharanpur	0.0	-100	30.3	719	24.3	466
Shahjahanpur	3.0	-3	13.2	326	0.3	-95
<b>Uttarakhand</b>						
Almora	0.0	-100	53.7	310	25.1	122
Bageshwar	0.0	-100	52.4	300	23.9	112
Chamoli	0.6	-97	33.9	71	38.2	111
Champawat	0.0	-100	73.5	682	11.0	45
Dehradun	5.6	-51	66.8	549	18.8	63
Garhwal Pauri	0.0	-100	20.8	151	12.7	81
Garhwal Tehri	0.2	-98	36.3	134	27.0	87
Haridwar	0.0	-100	38.0	249	17.0	136
Nainital	0.0	-100	49.3	408	17.8	134
Pithoragarh	2.5	-84	55.8	329	20.4	10
Rudraprayag	0.0	-100	23.9	19	31.9	47
Udham Sing Nagar	0.0	-100	75.9	2517	18.4	458
Uttarkashi	0.0	-100	33.5	99	41.7	109

<b>Bihar</b>						
Araria	0.0	-100	1.0	-47	0.0	-100
Arwal	2.8	20	14.2	1191	0.0	-100
Aurangabad	9.8	600	28.5	956	0.0	-100
Banka	3.5	46	9.1	355	0.0	-100
Begusarai	3.0	-17	1.3	-59	0.0	-100
Bhabua	10.5	425	21.5	532	0.0	-100
Bhagalpur	2.1	-18	8.3	277	0.0	-100
Bhojpur	3.1	-9	22.9	1105	0.0	-100
Buxar	6.2	933	21.2	715	0.0	-100
Darbhanga	1.3	-21	6.2	226	0.0	-100
East Champaran	5.2	108	10.9	990	0.0	-100
Gaya	8.1	287	15.2	744	0.0	-100
Gopalganj	1.5	-17	12.6	800	0.0	-100
Jahanabad	5.9	103	17.0	1208	0.0	-100
Jamui	7.8	187	13.3	478	0.0	-100
Kathihar	0.8	-68	5.3	212	0.0	-100
Khagadia	0.9	0	1.4	133	0.0	-100
Kishanganj	0.0	-100	0.5	-81	0.0	-100
Lakhisarai	6.0	150	9.3	221	0.0	-100
Madhepura	1.9	-12	2.7	80	0.0	-100
Madhubani	0.1	-98	4.4	144	0.0	-100
Monghyar	4.2	75	41.4	1328	0.0	-100
Muzaffarpur	0.7	-64	10.3	636	0.0	-100
Nalanda	7.3	506	21.7	486	0.0	-100
Nawada	6.8	260	20.7	696	0.0	-100
Patna	7.2	140	36.0	1700	0.0	-100
Purnea	0.4	-88	9.7	506	0.0	-100
Rohtas	10.0	270	54.2	1104	0.0	-100
Saharsha	0.0	-100	0.0	-100	0.0	-100
Samstipur	13.0	348	0.0	-100	0.0	-100
Saran	4.2	91	7.7	267	0.0	-100
Sheikpura	2.9	7	14.5	383	0.0	-100
Sheohar	**	**	2.0	122	0.0	-100
Sitamarhi	1.2	-48	4.5	400	0.0	-100
Siwan	4.2	83	14.0	483	0.0	-100
Supaul	0.3	-89	3.1	82	0.0	-100
Vaishali	2.2	16	5.6	331	0.0	-100
West Champaran	9.0	200	10.0	456	0.0	-100
<b>Jharkhand</b>						
Bokaro	2.7	-35	25.0	1090	0.0	-100
Chatra	5.7	59	8.1	326	0.0	-100
Deoghar	0.0	-100	15.2	1069	0.0	-100
Dhanbad	0.7	-80	15.8	285	0.0	-100
Dumka	**	**	**	**	0.0	-100
East Singbhum	0.0	-100	48.1	791	0.0	-100
Garhwa	15.5	1007	25.0	1463	0.0	-100
Giridih	1.2	-44	15.8	464	0.0	-100
Godda	3.2	-1	6.3	186	0.0	-100

Gumla	**	**	**	**	**	**
Hazaribagh	10.0	233	19.1	416	0.0	-100
Jamtara	0.8	-64	17.6	780	0.0	-100
Khunti	2.5	-56	15.5	128	0.0	-100
Koderna	6.2	19	8.0	344	0.0	-100
Latehar	16.1	324	19.1	366	0.0	-100
Lohardagga	15.0	369	37.4	648	0.0	-100
Pakur	0.0	-100	7.8	202	0.0	-100
Palamau	20.7	697	14.2	468	0.0	-100
Ramgarh	7.8	169	35.0	821	0.0	-100
Ranchi	7.0	18	35.0	430	0.0	-100
Sahebganj	0.0	-100	5.4	575	0.0	-100
Saraikela	0.0	-100	**	**	0.0	-100
Simdega	3.5	-46	**	**	0.0	-100
West Singbhum	0.0	-100	29.2	295	0.0	-100
<b>East Rajasthan</b>						
Ajmer	0.8	41	3.9	875	0.4	118
Alwar	0.0	-100	12.1	348	7.4	336
Banswara	4.1	200	1.9	850	0.0	-100
Baran	3.6	418	23.6	4620	0.0	-100
Bharatpur	0.0	-100	16.6	538	1.7	13
Bhilwara	8.3	931	1.6	100	0.7	567
Bundi	4.8	2317	4.3	617	0.0	-100
Chittorgarh	0.5	52	9.6	3100	0.0	-100
Dausa	5.4	200	13.0	665	0.8	-38
Dholpur	1.2	-47	9.2	268	0.9	-46
Dungarpur	0.0	-100	6.8	6700	0.0	-100
Jaipur	2.6	31	13.2	1000	2.0	388
Jhalawar	11.3	2718	18.6	2557	0.0	-100
Jhunjhunu	0.0	-100	17.0	710	0.3	-83
Karauli	1.2	-35	13.7	706	5.4	288
Kota	8.3	1283	13.8	1433	0.0	-100
Pratapgarh	0.0	-100	7.4	1750	0.4	200
Rajsamand	0.0	-100	2.0	400	0.3	-58
Sawai Madhopur	0.1	-90	6.2	288	0.8	11
Sikar	0.0	-100	15.3	750	1.7	90
Sirohi	0.0	-100	0.0	-100	0.7	200
Tonk	2.0	125	11.2	762	10.0	2411
Udaipur	0.0	-100	1.8	800	0.0	-100
<b>West Rajasthan</b>						
Barmer	0.0	-100	0.0	-100	0.0	-100
Bikaner	0.0	-100	4.5	137	0.0	-100
Churu	0.0	-100	19.9	1006	4.7	288
Hanumangarh	0.0	-100	5.1	219	3.7	210
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	0.0	-100	8.4	664	0.0	-100
Pali	0.0	-100	0.0	-100	0.0	-100



Sri Ganganagar	1.8	-6	4.7	147	0.6	-65
<b>Gujarat Region</b>						
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	1.9	200	0.0	-100	0.1	200
Broach	0.0	-100	0.0	-100	0.0	-100
DNH	**	**	**	**	**	**
Dahod	0.4	200	0.0	-100	0.0	-100
Daman	**	**	**	**	**	**
Dangs	0.5	-38	2.5	200	3.0	200
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	0.4	200	0.0	-100	0.0	-100
Navsari	0.0	-100	0.0	-100	0.0	-100
Panchmahal	0.0	-100	0.0	-100	0.0	-100
Patan	0.0	-100	0.0	-100	0.0	-100
Sabarkantha	0.0	-100	0.0	-100	0.0	-100
Surat	0.0	-100	0.0	-100	0.0	-100
Tapi	0.0	-100	2.4	200	0.0	-100
Valsad	0.0	-100	0.0	-100	0.0	-100
<b>S K &amp; Diu region</b>						
Amreli	0.0	-100	0.0	-100	0.0	-100
Bhavnagar	0.0	-100	0.0	-100	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	0.0	-100
Junagarh	0.0	-100	0.0	-100	1.1	200
Kutch	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.0	-100
Rajkot	0.0	-100	0.0	-100	0.3	200
Surendranagar	0.0	-100	0.0	-100	0.0	-100
<b>Maharashtra</b>						
<b>Konkan &amp; Goa</b>						
Goa	0.0	-100	0.0	-100	0.0	-100
Mumbai	0.0	-100	0.0	-100	0.0	-100
Raigad	0.0	-100	0.0	-100	0.3	200
Ratnagiri	0.0	-100	0.0	-100	0.0	-100
Sindhudurg	0.0	-100	0.0	-100	0.0	-100
Thane	0.0	-100	0.0	-100	0.0	-100
<b>Madhya Maharashtra</b>						
Ahmednagar	0.0	-100	6.3	950	8.3	1963
Dhule	6.5	2067	0.0	-100	1.2	200
Jalgaon	24.2	2320	9.5	956	28.9	3113
Kolhapur	0.0	-100	1.8	500	0.3	-72
Nandurbar	1.6	200	**	**	0.2	200
Nasik	5.2	1194	0.4	0	17.9	200
Pune	1.0	200	0.1	0	11.1	5429
Sangli	0.0	-100	3.1	3000	2.1	313

Satara	0.0	-100	0.6	200	1.7	463
Solapur	0.0	-100	16.0	2567	27.5	13657
<b>Marathwada</b>						
Aurangabad	0.0	-100	14.3	1489	48.6	12044
Beed	0.0	-100	14.2	1478	44.7	5485
Hingoli	3.9	177	27.1	1406	60.4	5938
Jalna	**	**	19.1	2288	37.8	3682
Latur	2.7	21	41.8	1990	49.9	2396
Nanded	0.9	-56	29.6	3189	50.3	1297
Usmanabad	0.0	-100	29.8	2383	30.7	6049
Parbhani	14.7	2350	27.0	1488	72.6	3356
<b>Vidarbha</b>						
Akola	13.6	491	40.2	2771	14.4	525
Amraoti	6.9	284	29.7	1550	4.2	282
Bhandara	18.8	549	46.7	1359	3.3	-42
Buldhana	11.7	960	24.8	1967	39.3	2359
Chandrapur	0.0	-100	32.8	681	34.5	916
Gadchiroli	0.0	-100	21.3	788	20.3	479
Gondia	29.9	1257	38.7	868	2.0	-54
Nagpur	14.2	470	39.6	1177	4.2	-18
Wardha	5.7	149	45.3	1194	5.9	180
Washim	1.7	-25	13.5	694	61.9	3768
Yeotmal	0.0	-99	32.1	1589	37.2	1277
<b>Odisha</b>						
Angul	2.2	-50	27.9	213	4.2	-41
Balasore	0.3	-95	27.7	152	0.5	-94
Bargarh	0.0	-100	3.7	-31	0.5	-78
Bhadrak	0.0	-100	36.3	332	0.5	-95
Bolangir	0.5	-76	0.5	-91	1.2	-66
Boudh	0.0	-100	0.0	-100	0.0	-100
Cuttack	0.0	-100	47.2	497	1.6	-77
Deogarh	4.2	14	2.0	-63	7.4	45
Dhenkanal	0.0	-100	22.3	175	0.4	-96
Gajapati	0.0	-100	15.6	123	42.8	185
Ganjam	0.0	-100	17.3	170	13.7	80
Jagatsingpur	0.0	-100	18.7	192	7.9	-14
Jajpur	0.0	-100	54.8	249	0.0	-100
Jharsuguda	6.5	28	8.5	33	0.0	-100
Kalahandi	0.0	-100	1.2	-59	4.9	52
Kandhamal	0.0	-100	0.5	-95	4.3	-51
Kendrapara	0.0	-100	66.1	382	0.0	-100
Keonjhar	0.3	-97	20.8	25	3.4	-54
Khurda	0.0	-100	51.8	482	5.0	-28
Koraput	0.0	-100	3.5	-8	39.6	1101
Malkangiri	0.0	-100	9.0	543	3.4	-19
Mayurbhanj	0.0	-100	36.4	178	0.3	-97
Nawapara	0.0	-100	0.0	-100	0.0	-100
Nawarangpur	0.0	-100	0.0	-100	26.6	336
Nayagarh	0.0	-100	57.6	555	14.9	193

Puri	0.0	-100	10.9	153	10.2	160
Rayagada	0.0	-100	11.5	121	16.2	72
Sambalpur	6.7	82	21.5	298	1.8	-64
Sonepur	1.1	-43	0.2	-96	2.5	-43
Sundargarh	1.4	-69	20.1	247	0.0	-100
<b>West Bengal</b>						
<b>GWB</b>						
Bankura	0.0	-100	26.5	464	0.0	-100
Birbhum	0.3	-92	25.8	892	0.0	-100
Burdwan	0.0	-100	31.4	614	0.0	-100
East Midnapore	0.0	-100	4.5	-34	0.1	-99
Hooghly	0.0	-100	0.5	-85	0.0	-100
Howrah	0.0	-100	0.0	-100	0.0	-100
Kolkata	0.0	-100	0.0	-100	0.0	-100
Murshidabad	0.0	-100	14.0	338	0.0	-100
Nadia	0.0	-100	2.7	-7	0.0	-100
24 Pargana (N)	0.0	-100	0.1	-97	0.0	-100
Purulia	0.0	-100	38.5	655	0.0	-100
24 Pargana (S)	0.0	-100	0.9	-92	0.0	-100
West Midnapore	0.0	-100	9.7	43	0.0	-100
<b>SHWB</b>						
Cooch Behar	0.0	-100	0.8	-74	0.0	-100
Darjeeling	0.0	-100	0.1	-99	0.0	-100
East Sikkim	0.0	-99	6.1	-53	2.6	-79
Jalpaiguri	0.0	-100	0.4	-91	0.1	-99
Malda	0.1	-99	6.2	210	0.0	-100
North Dinajpur	0.0	-100	3.0	76	0.0	-100
North Sikkim	7.0	-76	32.2	42	7.0	-83
South Dinajpur	0.0	-100	10.2	292	0.0	-100
South Sikkim	0.0	-100	0.5	-96	0.5	-96
West Sikkim	0.0	-100	0.7	-97	0.0	-100
<b>Karnataka</b>						
<b>Coastal Karnataka</b>						
Dakshin Kannada	0.0	-100	0.6	-14	1.6	-16
Udupi	0.0	-100	0.0	-100	0.3	-60
Uttar Kannada	0.0	-100	0.0	-100	3.8	1168
<b>N I Karnataka</b>						
Bagalkote	0.0	-100	10.4	1200	28.4	5580
Belgaum	0.0	-100	5.9	1867	20.4	3303
Bidar	0.0	-100	41.6	5843	32.3	1098
Bijapur	0.0	-100	21.6	1562	26.9	5276
Dharwad	2.1	95	3.8	322	12.4	2993
Gadag	0.0	-100	19.9	4875	12.3	4001
Gulbarga	0.0	-100	19.5	4775	19.4	1841
Haveri	0.0	-100	2.1	600	7.4	1388
Koppal	0.0	-100	14.4	3500	26.3	3662
Raichur	0.0	-100	10.6	1414	23.2	2481
Yadgir	0.0	-100	2.7	238	36.2	4428
<b>S I Karnataka</b>						

Bangalore Rural	0.1	-95	0.9	-61	20.7	1052
Bangalore Urban	0.2	-95	3.2	68	9.7	410
Bellary	0.0	-100	11.2	3633	16.1	1917
Chamarajnagar	1.9	-48	12.3	547	11.4	308
Chichballapur	0.0	-100	4.7	161	9.4	450
Chickmagalur	2.0	67	0.6	-54	7.2	117
Chitradurga	0.0	-100	7.8	1014	16.8	1298
Davangere	0.0	-100	0.6	20	7.6	989
Hassan	0.3	-83	4.9	172	11.0	213
Kodagu	0.0	-100	0.7	-22	5.5	25
Kolar	0.0	-100	1.8	0	11.9	465
Mandya	0.1	-93	9.1	658	12.3	411
Mysore	2.3	44	5.9	556	11.1	343
Ramnagara	0.2	-95	30.4	2071	16.0	596
Shimoga	6.7	2121	2.2	450	9.3	614
Tumkur	0.5	-58	7.5	341	23.9	987
<b>Kerala</b>						
Alappuzha	17.9	88	2.4	-61	0.0	-100
Kannur	0.0	-100	0.0	-100	0.0	-100
Ernakulam	10.4	27	2.6	-16	6.8	11
Idukki	13.5	36	12.4	46	5.0	-27
Kasaragod	0.0	-100	0.0	-100	0.0	-100
Kollam	15.7	32	21.6	96	20.5	69
Kottayam	16.3	120	1.9	-49	0.8	-93
Kozhikode	0.0	-100	0.0	-100	0.8	-72
Malappuram	0.5	-83	0.0	-100	0.0	-100
Palakkad	2.7	-34	0.4	-64	3.8	-7
Pathanamthitta	35.8	70	0.0	-100	26.0	82
Thiruvananthapuram	10.8	48	28.9	502	1.0	-78
Thrissur	4.4	-6	0.5	-64	1.5	-45
Wayanad	4.2	-11	0.0	-100	12.6	404
<b>Tamil Nadu</b>						
Ariyalur	1.0	-69	0.0	-100	0.0	-100
Chennai	0.1	-98	0.0	-100	0.0	-100
Coimbatore	0.2	-96	1.6	-41	17.9	135
Cuddalore	12.5	178	0.0	-100	0.0	-99
Dharmapuri	5.2	8	0.4	-84	0.0	-100
Dindigul	4.1	-23	5.2	21	3.3	-45
Erode	0.0	-100	2.0	-17	0.0	-100
Kanchipuram	0.1	-98	0.0	-100	0.0	-100
Kanyakumari	8.1	11	4.9	-20	1.4	-80
Karikal	1.0	-91	0.0	-100	0.0	-100
Karur	0.0	-100	0.0	-100	0.0	-100
Krishnagiri	1.7	-37	2.4	33	5.3	69
Madurai	0.0	-100	0.0	-100	0.0	-100
Nagapattinam	8.0	10	0.0	-100	0.0	-100
Namakkal	0.6	-85	0.0	-100	0.0	-100
Nilgiris	12.8	-13	13.5	93	17.6	30
Perambalur	0.0	-100	0.0	-100	0.0	-100



Puducherry	25.6	200	0.0	-100	0.0	-100
Pudukottai	4.6	31	0.0	-100	0.0	-100
Ramanathapuram	9.8	76	2.3	-68	0.0	-99
Salem	1.1	-64	1.5	-55	5.3	76
Sivaganga	2.3	-46	1.8	-65	0.0	-100
Thanjavur	10.5	155	0.0	-100	0.0	-100
Theni	4.8	-52	21.0	208	2.1	-76
Tirunelveli	6.8	-21	48.7	283	4.0	-60
Tirupur	0.0	-100	0.0	-100	0.0	-100
Tiruvallur	0.0	-100	0.0	-100	0.0	-100
Tiruvannamalai	6.5	97	0.0	-100	0.0	-100
Tiruvarur	13.2	175	0.0	-100	0.0	-100
Toothukudi	3.9	-45	13.3	55	6.3	-6
Trichy	3.5	41	0.1	-98	0.1	-99
Vellore	0.2	-85	5.6	276	0.0	-100
Villupuram	13.5	611	0.0	-100	0.0	-100
Virudhunagar	1.2	-90	13.7	180	0.0	-100
<b>Andhra Pradesh</b>						
<b>Coastal Andhra Pradesh</b>						
East Godavari	0.0	-100	0.0	-100	0.0	-100
Guntur	0.0	-100	0.3	-82	0.0	-100
Krishna	0.0	-100	0.0	-100	0.0	-100
Nellore	0.0	-100	0.0	-100	0.0	-100
Prakasam	0.0	-100	0.8	-53	0.0	-100
Sirkakulam	0.0	-100	9.2	129	20.0	365
Visakhapatnam	0.0	-100	0.6	-75	9.6	160
Vizianagram	0.0	-100	2.1	-49	21.0	401
West Godavari	0.0	-100	1.1	-50	0.0	-100
<b>Telangana</b>						
Adilabad	0.3	-86	27.0	771	69.7	3070
Hyderabad	0.0	-100	53.3	5227	2.2	-51
Karimnagar	0.0	-100	34.3	1613	34.9	869
Khammam	0.0	-100	15.1	621	2.4	-15
Mehabubnagar	0.0	-100	3.8	375	18.2	910
Medak	0.0	-100	51.3	3106	32.5	1020
Nalgonda	0.0	-100	6.2	343	0.0	-100
Nizamabad	0.0	-100	57.4	4685	52.6	1544
Rangareddy	0.0	-100	24.5	12157	12.5	494
Warangal	0.0	-100	40.8	3975	1.3	-68
<b>Rayalaseema</b>						
Anantapur	0.0	-100	5.8	221	9.3	365
Chittoor	0.0	-100	11.2	434	0.7	-63
Cuddapah	0.0	-100	7.3	635	0.4	-70
Kurnool	0.0	-100	12.3	1021	7.4	252

	(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