

National Agromet Advisory Service Bulletin

Friday 14th February 2014

(For the period 14th to 18th February 2014)



Issued by

National Agrometeorological Advisory Service Centre,

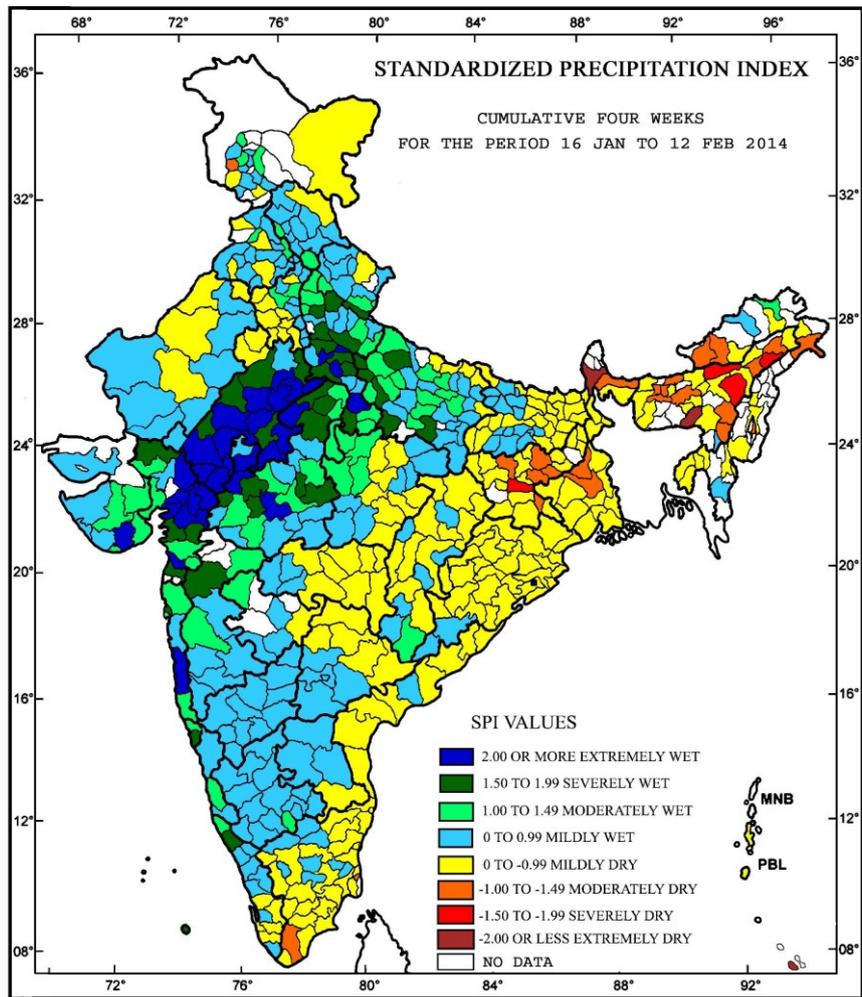
Agricultural Meteorology Division,

India Meteorological Department, Shivajinagar, Pune.



**Standardised Precipitation Index
Four Weekly
for the Period 16th January to 12th February 2014**

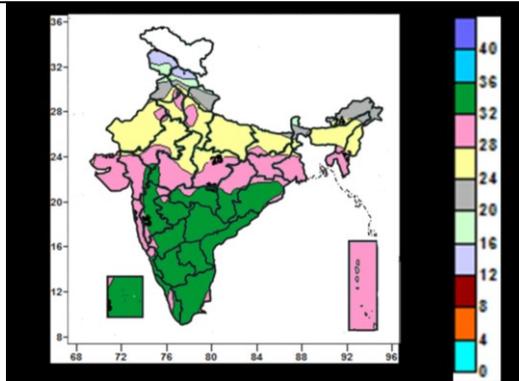
**MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE**



- Extremely wet/severely wet conditions experienced over many parts of West Madhya Pradesh, East Rajasthan, some parts of Uttar Pradesh and Gujarat, Nasik and Ratnagiri districts of Maharashtra, South Goa and Kannur district of Kerela.
- Moderately dry/ severely dry conditions experienced over some parts of North East India, Jharkhand, West Bengal, Poonch district of Jammu & Kashmir and Tirunelveli district of Tamil Nadu.
- Rest of the country experienced mild wet/dry conditions.

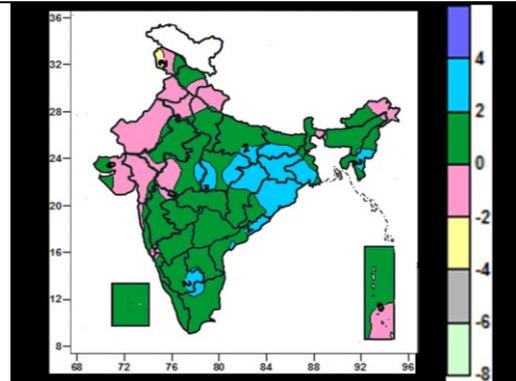
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 12.02.2014

Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 12.02.2014



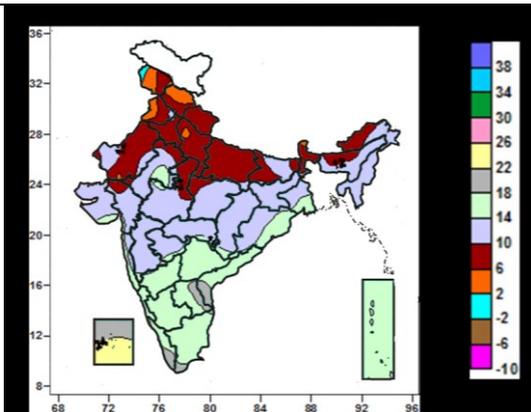
- 32 to 36 $^{\circ}\text{C}$ over many parts of South India, Madhya Maharashtra, Marathwada, Vidarbha, Odisha, South Chattisgarh, Lakshadweep Island, some parts of Gujarat, East Rajasthan, West Madhya Pradesh.
- 28 to 32 $^{\circ}\text{C}$ over many parts of Gujarat, Saurashtra & Kutch, Konkan & Goa, Madhya Pradesh, Jharkhand, Gangetic West Bengal, Tripura, some parts of Punjab, Haryana, Delhi, East Uttar Pradesh, Rajasthan, Bihar, Assam, Mizoram, Odisha, Kerala, Coastal Karnataka, Tamil Nadu, Lakshadweep Islands.
- 20 to 28 $^{\circ}\text{C}$ over many parts of Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, Rajasthan, Bihar, Sub-Himalayan West Bengal, Assam, Arunachal Pradesh, Nagaland, Manipur, some parts of Gujarat, Madhya Pradesh, Mizoram.
- 12 to 20 $^{\circ}\text{C}$ over many parts of Jammu & Kashmir, Himachal Pradesh, Sikkim.

Mean Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 12.02.2014



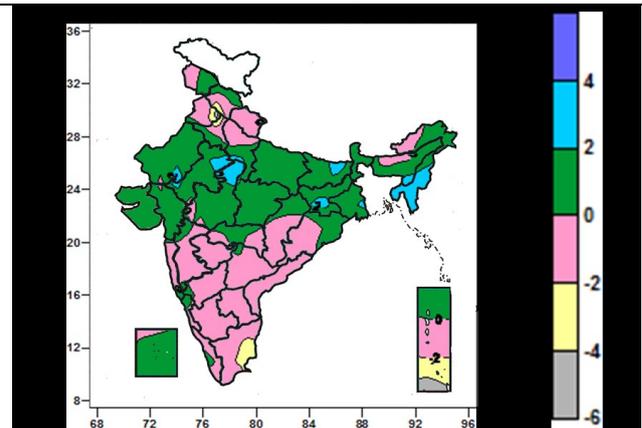
- 2 to 4 $^{\circ}\text{C}$ over many parts of Jharkhand, Odisha, Gangetic West Bengal, some parts of East Uttar Pradesh, Bihar, Mizoram, Tripura, Chattisgarh, Madhya Pradesh, Coastal Andhra Pradesh, Tamil Nadu, South Interior Karnataka.
- -2 to 2 $^{\circ}\text{C}$ over all over country except Jharkhand, Odisha, Gangetic West Bengal, some parts of East Uttar Pradesh, Bihar, Mizoram, Tripura, Chattisgarh, Madhya Pradesh, Coastal Andhra Pradesh, Tamil Nadu, South Interior Karnataka.
- -4 to -2 $^{\circ}\text{C}$ over some parts of Jammu & Kashmir.

Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 12.02.2014



- -2 to 2 $^{\circ}\text{C}$ over some parts of Jammu & Kashmir.
- 2 to 6 $^{\circ}\text{C}$ over many parts of Jammu & Kashmir, Himachal Pradesh, some parts of Haryana, West Uttar Pradesh, West Rajasthan, Sikkim.
- 6 to 10 $^{\circ}\text{C}$ over many parts of Himachal Pradesh, Uttarakhand, Haryana, Punjab, Uttar Pradesh, West Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, some parts of Jammu & Kashmir, East Rajasthan, Assam and Gujarat.
- 10 to 18 $^{\circ}\text{C}$ over many parts of East Rajasthan, West India, Central India, Jharkhand, Gangetic West Bengal, NorthEast India except some parts of Arunachal Pradesh, South India,

Mean Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 12.02.2014



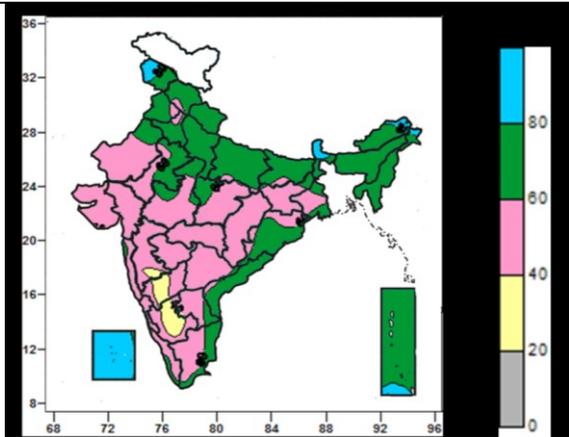
- -6 to -2 $^{\circ}\text{C}$ over some parts of Himachal Pradesh, Haryana, Punjab, Tamil Nadu, Andaman & Nicobar Islands.
- -2 to 2 $^{\circ}\text{C}$ over all parts of country except many parts of Manipur, Mizoram, Tripura, some parts of Rajasthan, West Madhya Pradesh, Bihar, Jharkhand, Assam, Himachal Pradesh, Haryana, Punjab, Tamil Nadu, Andaman & Nicobar Islands.
- 2 to 4 $^{\circ}\text{C}$ over many parts of Manipur, Mizoram, Tripura, some parts of Rajasthan, West Madhya Pradesh, Bihar, Jharkhand, Assam.

Andaman & Nicobar Islands, some parts of Punjab, Bihar, West Rajasthan, Lakshadweep Islands. Andaman & Nicobar Islands.

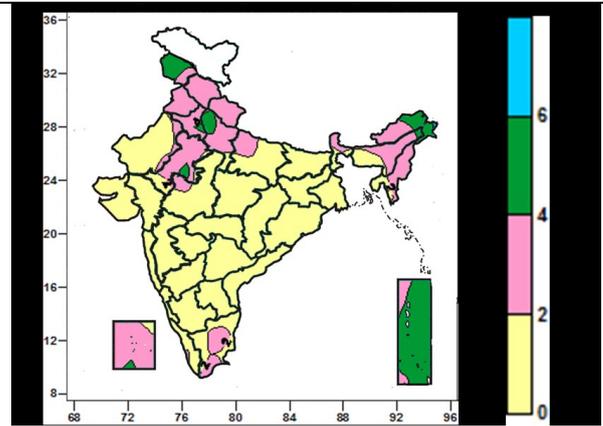
- 18 to 26^oC many parts of Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Andhra Pradesh, Tamil Nadu Lakshadweep Islands.

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 12.02.2014

Relative Humidity (%) over India for the week ending 12.02.2014



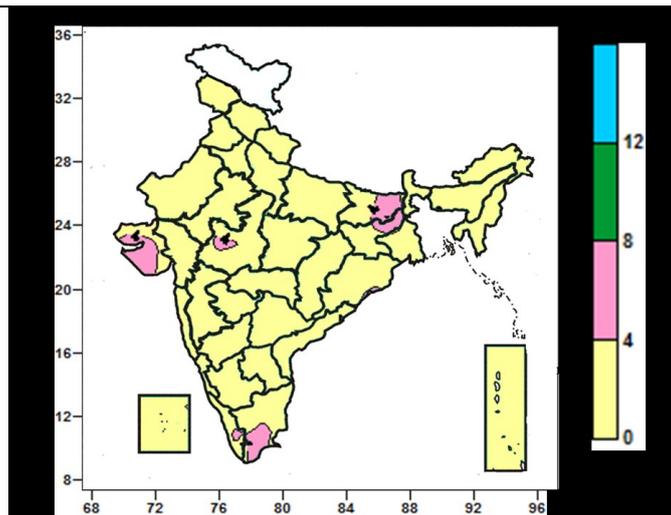
Cloud amount (okta) over India for the week ending 12.02.2014



- 80 to 100% over many parts of Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Arunachal Pradesh, Andaman & Nicobar Islands.
- 40 to 80% over entire country except many parts of Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Arunachal Pradesh, Andaman & Nicobar Islands.

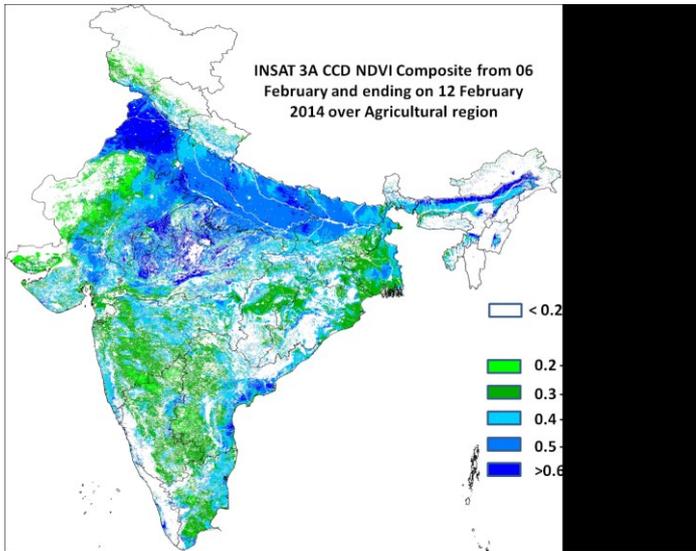
- 4 to 6 okta over many parts of Jammu & Kashmir, Andaman & Nicobar Islands some parts of Haryana, Delhi, West Uttar Pradesh, East Rajasthan, Arunachal Pradesh, Assam, Nagaland.
- 0 to 4 okta over entire country except many parts of Jammu & Kashmir, Andaman & Nicobar Islands some parts of Haryana, Delhi, West Uttar Pradesh, East Rajasthan, Arunachal Pradesh, Assam, Nagaland.

Wind speed (knots) over India for the week ending 12.02.2014



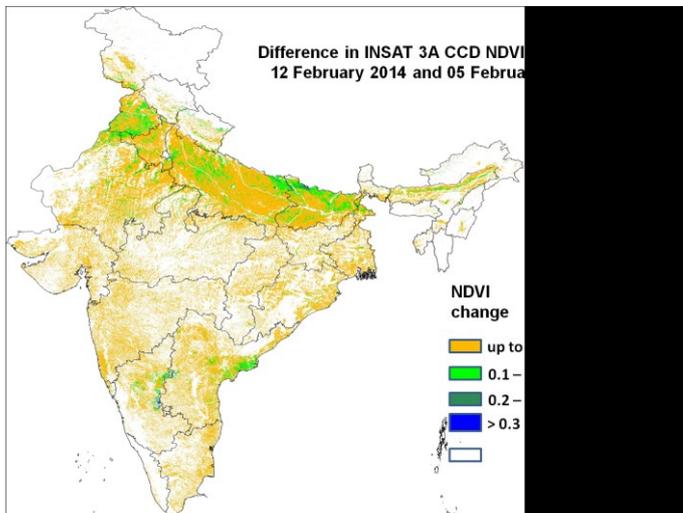
- 4 to 8 knots over many parts of Saurashtra & Kutch, some parts of Bihar, Jharkhand, Tamil Nadu, Kerala.
- 0 to 4 knots over entire country except many parts of Saurashtra & Kutch, some parts of Bihar, Jharkhand, Tamil Nadu, Kerala.

INSAT 3A CCD NDVI COMPOSITE OVER AGRICULTURAL REGION 06th February 2014 – 12th February 2014



Source: SAC, Ahmedabad

Agricultural vigour is in general very good over whole Punjab and Haryana, central and eastern UP, pockets of eastern and west Bihar, Major Part of MP and Central Gujarat and pockets of eastern, few pockets of eastern Rajasthan as NDVI exceeds 0.5. Agricultural vigour is moderate in major part of UP and few pockets of MP, central West Bengal, eastern Maharashtra, parts of eastern West Bengal, coastal belt of Tamil Nadu where NDVI is in the range of 0.4 to 0.5 upto 12th February 2014. The NDVI remains low within the range of 0.2 to 0.3 over rest of India.



Source: SAC, Ahmedabad

Agricultural progress was found to be good over major part of Punjab, north and eastern Rajasthan, north MP, pockets of western and north Bihar, pockets of central West Bengal, pockets of central UP and pockets of Haryana, eastern Rajasthan, coastal AP and eastern Karnataka where NDVI showed positive change from previous week of the order of 0.1 to 0.2. Rest of India shows moderate progress.

Weather Forecast

Weather Forecast for next 3 days (upto 0830 hours IST of 17th February, 2014)

- Rain/snow would occur at a few places over Jammu & Kashmir.
- Rain/snow would occur at many places over Himachal Pradesh and Uttarakhand on during next 48 hours and decrease thereafter.
- Rain/thundershowers would occur at isolated places over Punjab on during next 48 hours and mainly dry weather thereafter.
- Rain/thundershowers would occur at a few places over Haryana during next 48 hours and at isolated places thereafter.
- Rain/thundershowers would occur at isolated places over Uttar Pradesh during next 24 hours and many places thereafter.
- Rain/thundershowers would occur at isolated places over Rajasthan during next 48 hours and mainly dry thereafter.
- Rain/thundershowers would occur at a few places over West Bengal & Sikkim and Jharkhand during next 48 hours and at isolated places over Odisha on 15th.
- Rain/thundershowers would occur at isolated places over Bihar, east Madhya Pradesh and Chhattisgarh during next 24 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over west Madhya Pradesh and Vidarbha during next 48 hours.
- Rain/thundershowers would occur at isolated places over Arunachal Pradesh during next 48 hours and many places thereafter.
- Rain/thundershowers would occur at isolated places over Assam & Meghalaya during next 24 hours and increase thereafter.
- Rain/thundershowers would occur at isolated places over at isolated places over Nagaland, Manipur, Mizoram and Tripura during next 24 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over Gujarat and north Konkan during next 24 hours.
- Rain/thundershowers would occur at isolated places over Telangana during during next 48 hours.
- Weather would be mainly dry/dry over rest parts of the country.
- Minimum temperatures would rise by 2-4°C over Indo Gangetic plains and adjoining central India and fall in maximum temperatures by 2-3°C over the same region.

Weather Warning during next 3 days

- **14 February (Day 1):** Hailstorm at isolated places over Himachal Pradesh, Uttarakhand, Haryana, Uttar Pradesh, east Madhya Pradesh and Chhattisgarh. Isolated heavy rain/snow would occur over Uttarakhand.
- **15 February (Day 2):** Hailstorm at isolated places over Himachal Pradesh, Uttarakhand, Haryana, Uttar Pradesh, east Madhya Pradesh and Chhattisgarh. Isolated heavy rain/snow would occur over Uttarakhand. Isolated heavy rain/thundershowers would occur Assam & Meghalaya and Arunachal Pradesh.
- **16 February (Day 3):** No weather warning.
- **Weather Outlook for subsequent 4 days from 17th to 21st February, 2014:**
- Rain/thundershowers would occur at a few places over east and adjoining central India on 16th and mainly dry weather thereafter.
- Rain/thundershowers would occur at a few places over northeast India till 17th February and decrease thereafter.
- Generally mainly dry/dry weather would prevail over rest parts of the country.

Salient Advisories

North Region

- **Jammu & Kashmir:**
 - In Jammu & Kashmir, due to high humidity there are chances of infestation of yellow rust in wheat. For control, apply Propaconazole @ 25ml in 25 litres of water.
 - Undertake smudging to increase the temperature around the orchards in Subtropical Zone.
- **Himachal Pradesh:**
 - In Himachal Pradesh, as rain/snow would occur at many places during next 48 hours, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also as hailstorm would occur at isolated places over Himachal Pradesh, use hail net for orchard crops to protect from mechanical damage.
- **Uttarakhand:**
 - As rain/snow would occur at many places during next 48 hours, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in the fields standing crop. Also, as hailstorm would occur at isolated places, use hail net for orchard crops to protect from mechanical damage.
 - In Bhabar and Tarai Zone, undertake transplanting of brinjal & capsicum utilizing the expected rainfall.
- **Punjab, Haryana and Delhi:**
 - In view of high humidity in Punjab and Haryana, it is advised to monitor wheat for incidence of yellow rust; apply Tilt or Shine or Bumper @ 200 ml in 200 litres of water or Bayleton @ 200 gram in 200 litres of water.
 - In Western Zone of Haryana, due to high humidity, there is a possibility of white rust in the mustard crop; spray 0.2% Redomil M Z or Mancozeb.
 - In Delhi, due to favourable temperature, undertake sowing of cucurbitaceous crops as well as sowing of chilli, tomato and brinjal crops in the nursery.
- **Uttar Pradesh:**
 - As rain/snow would occur at many places from 15th February, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - As hailstorm would occur at isolated places during next 48 hours, use hail net for orchard crops to protect from mechanical damage.
 - In Central Plain Zone of Uttar Pradesh, due to high humidity, there are chances of attack of purple blotch in onion. For control, spray 0.2% Mancozeb per litre of water after current spells of rain.
- **Rajasthan:**
 - As low temperature is prevailing in some parts of west Rajasthan, apply light and frequent irrigation in the standing crops to safeguard from cold injury.
 - In West Rajasthan, as dry weather is prevailing, apply irrigation in wheat crops at milk stage.

Northeast Region:

- **Assam & Meghalaya:**
 - As rain/thundershowers would occur at isolated places during next 24 hours and increase thereafter over Assam and Meghalaya with isolated heavy spells on 15th February, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also arrange for adequate drainage to avoid water stagnation in the crop fields.
 - In Central Bramhaputra Valley Zone of Assam, cloudy and humid weather condition is congenial for appearance and spread of leaf blight disease in potato. For control, spray Mancozeb 75% a.i. @ 2.5 g / litre of water on a non-rainy day.
- **Arunachal Pradesh:**
 - As rain/thundershowers would occur at isolated places over Arunachal Pradesh during next 48 hours and many places there after with isolated heavy spells on 15th February, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also arrange for adequate drainage to avoid water stagnation in the crop fields.
- **Nagaland, Manipur, Mizoram and Tripura:**
 - In Mild Tropical Hill Zone of Nagaland, continue harvesting of matured cabbage and vegetables on bright sunny days.
 - In Sub Tropical Plain Zone of Manipur, in cloudy and high humid condition, there may be chances of attack of pod borer and hairy caterpillar in rapeseed and mustard. For control of pod borer spray Imidachloprid @ 0.25 ml / litre of water and for hairy caterpillar, spray Quinalphos or Chloropyriphos @ 2 ml / litre of water on a non rainy day.
 - In Mild Tropical Plain Zone of Tripura, in cloudy and humid weather conditions, there may be attack of hopper in mango plant. Spray Malathion @ 2 ml per litre of water on a non-rainy day to manage the attack.

Cloudy weather is conducive for the attack of yellow stem borer in *boro* rice at tillering stage. To manage the attack, apply combination of Chloropyrophos and Cypermethrin @ 2 ml per liter of water on a non-rainy day.

Central Region:

▪ Madhya Pradesh:

- As hailstorm would occur at isolated places over east Madhya Pradesh on 15th February, it is advised to use hail net for orchard crops to protect from mechanical damage.
- In Kymore Plateau Zone of Madhya Pradesh, as dry weather is prevailing, apply irrigation in wheat and vegetables. Also harvest matured tomato, brinjal and chilies.

▪ Chhattisgarh:

- As hailstorm would occur at isolated places over Chhattisgarh on 15th February, it is advised to use hail net for orchard crops to protect from mechanical damage.
- In North Hill Zone, as dry weather is prevailing and rain is likely to occur only at a few places from 15th onwards for 48 hours, apply irrigation in wheat. Harvest matured arhar and potato on bright sunny days.
- In Chhattisgarh Plain Zone, in view of prevailing dry weather and likely occurrence of rainfall only at a few places, apply irrigation in rice nursery and in vegetables. As temperature conditions are favourable undertake planting of sugarcane.

East Region

▪ Odisha:

- As mainly dry weather is prevailing, apply irrigation in sugarcane, sunflower and vegetable crops in Western Undulating Zone and apply irrigation in sorghum and maize in Eastern Coastal Plain Zone of Odisha.
- In North Eastern Ghat High Land Zone of Odisha, as temperature conditions are favourable, continue sowing of green gram.
- In North Eastern Plateau Zone Odisha, due to prevailed dry weather during last week, there is chance of attack of thrips in groundnut; apply Imidachloprid 17.8 SL @ 50 ml in 200 liters of water per acre.

▪ West Bengal:

- In New Alluvial Zone of West Bengal, as dry weather prevailed during last week and rain is likely to occur only at a few places, apply irrigation in wheat during panicle initiation stage.
- In Laterite and Red soil Zone of West Bengal, in view of dry weather during last week and likely occurrence of rainfall only at a few places, apply irrigation in wheat at panicle initiation stage as well as in potato and in vegetable crops. Humid weather is conducive for leaf-blight in cabbage; apply 2.5 to 3 g Blitox per litre of water on a non-rainy day at an interval of 20 days for control.

▪ Bihar:

- In North West Alluvial Plain Zone of Bihar, as present temperature condition is favourable, undertake planting of spring sugarcane and sowing of sweet potato and summer vegetables.
- In North East Alluvial Plain Zone of Bihar, as dry weather prevailed during last week and rain is likely to occur only at a few places, apply irrigation to wheat, maize and vegetables. Present temperature condition is favourable to undertake planting of spring sugarcane, transplanting of onion and complete transplanting of *boro* rice and nursery sowing of *garma* rice.
- In North East Alluvial Plain Zone of Bihar, due to partial cloudy sky and prevailing temperature condition there are chances of aphid infestation in mustard; spray Dimethoate @ 2.5 ml / litre of water in evening time on a non rainy day.

▪ Jharkhand:

- In Jharkhand, in view of dry weather during last week and likely occurrence of rainfall only at a few places, apply irrigation to wheat and as temperature condition is favourable undertake sowing of vegetables.
- In Western Plateau Zone of Jharkhand, undertake harvesting of rapeseed on bright sunny days and keep the harvest at safer place.
- In South Eastern Plateau Zone of Jharkhand, due to dry weather during previous weeks, concentric and radial slit or crackings are being seen on tomato fruit; as there is possibility of rainfall only at a few places, apply light to moderate irrigation at regular interval along with mulching.
- In Central & North Eastern Plateau Zone of Jharkhand, cool and dry weather during last week is favourable for powdery mildew disease in green pea; spray Karathen @ 1 ml per litre of water or Sulfex @ 3 g per litre of water on a non-rainy day.

West Region

▪ Maharashtra

- As dry weather prevailed during last week and rain would occur only at isolated places during next 48 hours in north Konkan; apply irrigation to groundnut at 10-12 days interval, orchards, vegetable crops and pulses. As mango is at fruit formation stage (pea size), considering the crop canopy, apply 150-200 litres of water per tree at 15 days interval. Maintain up to 5 cm water level in transplanted rice field at tillering stage.

- In view of prevailing dry weather condition in Madhya Maharashtra and Marathawada, apply irrigation in late sown gram at pod development stage, wheat at milk / dough stage, jowar at grain formation stage as well as in sugarcane, vegetable crops and maize.
- As prevailing temperature is favourable, undertake sowing of summer groundnut in Central Vidarbha Zone and undertake planting of water melon and musk melon in East Vidarbha on raised beds.
- Humid weather (RH morning around 80-85%) is favourable for spread of downy mildew in grapes in Nasik region in Maharashtra; spray Delan (Dithianon 75% WP) @ 15 g in 10 litres of water.
- **Gujarat:**
- In view of prevailing dry weather in Middle Gujarat Zone, apply irrigation in groundnut at flowering stage and wheat at heading and dough stage.
- As dry weather is prevailing, apply irrigation in wheat at milk / dough stage in Saurashtra Zone and South Gujarat Heavy Rainfall Zone, flowering / grain formation stage in North West Zone and at jointing stage in North Gujarat Zone.
- As dry weather is prevailing and sky would be mainly clear in Bhal and Coastal Zone of Gujarat, apply irrigation in mustard crop during pod development stage.
- Due to high temperature, there are chances of aphid infestation in mustard in Middle Gujarat Zone. Apply Dimethoate 0.03% in addition with Imidacloprid 90 mg 0.014 % (2 gm in 10 liter of water).

South region

- **Karnataka:**
- Undertake harvesting of chickpea, safflower and *rabi* sorghum in the North Dry Zone and undertake harvesting of wheat and Bengal gram in the North East Transition Zone as dry weather is prevailing.
- Undertake harvesting of cotton and Bengal gram in the North East Dry Zone of Karnataka taking the advantage of prevailing dry weather.
- **Andhra Pradesh:**
- Prevailing dry weather condition is suitable for harvesting of pulses in the Krishna Godavari Zone of Andhra Pradesh.
- Prevailing weather conditions (increasing day temperatures) are congenial for incidence of pink borer in maize crop and nut weevil in mango crop in the Scarce Rainfall Zone of Andhra Pradesh. Apply Carbofuran 3G @ 3 Kg per acre when the crop is 25-30 days old to manage pink borer and spray Carbaryl @ 3 g per litre of water to manage nut weevil.
- **Tamil Nadu:**
- As dry weather is prevailing and is also expected in coming days, spray 2 % DAP + 1 % Potassium Chloride solution (20 g DAP + 10 g Potassium Chloride / litre of water) using hand sprayer for withstanding dry condition in cotton in the South Zone of Tamil Nadu.
- Taking the advantage of dry weather, undertake harvesting of matured *samba* paddy and undertake sowing of rice fallow pulses with residual soil moisture in the Cauvery Delta Zone of Tamil Nadu. In canal dependent areas, where water scarcity is prevalent, foliar application of Pink Pigmented Facultative Methylophs (PPFM) @ 200 ml / acre is recommended to mitigate the water stress in standing *samba* / *thaladi* rice for 10-12 days.
- Incidence of black headed caterpillar in coconut is increasing due to rise in temperature in the Western Zone of Tamil Nadu. Braconid parasitoids may be released @ 2100 / acre in the initial stages and Monocrotophos @ 10 ml in 10 ml of water and root feeding may be done in the advanced stages.
- **Kerala:**
- As dry weather is prevailing, in the Southern Zone of Kerala, undertake mulching in coconut fields to retain water in the fields. Provide irrigation to banana, shade to small rubber plants.

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 districts of Himachal Pradesh, Gurdaspur in Punjab, Chamoli, Dehradun, Garhwal Tehri, Pithorgarh, Rudraprayag, Uttarkashi in Uttarakhand, many districts in Jammu & Kashmir except Badgam, Jammu, Kargil, Kathua, Kistwar, Ladakh (leh), Poonch, Samba, Shopian, Udhampur. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/snow would occur at a few places over Jammu & Kashmir. Rain/snow would occur at many places over Himachal Pradesh and Uttarakhand on during next 48 hours and decrease thereafter. Rain/thundershowers would occur at isolated places over Punjab on during next 48 hours and mainly dry weather thereafter. Rain/thundershowers would occur at a few places over Haryana during next 48 hours and at isolated places thereafter. Rain/thundershowers would occur at isolated places over Uttar Pradesh during next 24 hours and many places thereafter. Rain/thundershowers would occur at isolated places over Rajasthan during next 48 hours and mainly dry thereafter.
- **Weather Warning:** Hailstorm would occur at isolated places over Himachal Pradesh, Uttarakhand, Haryana and Uttar Pradesh on 14th and 15th February. Isolated heavy rain/snow would occur over Uttarakhand on 14th and 15th February also.
- **Weather Outlook:** Mainly dry/dry weather would prevail over the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - In Jammu & Kashmir, due to high humidity there are chances of infestation of yellow rust in wheat. For control, apply Propaconazole @ 25ml in 25 litres of water.
 - Undertake smudging to increase the temperature around the orchards in Subtropical Zone.
 - **Himachal Pradesh:**
 - In Himachal Pradesh, as rain/snow would occur at many places along with isolated heavy spells during next 48 hours, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also as hailstorm would occur at isolated places over Himachal Pradesh, use hail net for orchard crops to protect from mechanical damage.
 - **Uttarakhand:**
 - As rain/snow would occur at many places during next 48 hours, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in the fields standing crop. Also, as hailstorm would occur at isolated places, use hail net for orchard crops to protect from mechanical damage.
 - In Bhabar and Tarai Zone, undertake transplanting of brinjal & capsicum utilizing the expected rainfall.
 - **Punjab, Haryana and Delhi:**
 - As hailstorm would occur at isolated places over Haryana on 14th and 15th February, use hail net for orchard crops to protect from mechanical damage.
 - In view of high humidity in Punjab and Haryana, it is advised to monitor wheat for incidence of yellow rust; apply Tilt or Shine or Bumper @ 200 ml in 200 litres of water or Bayleton @ 200 gram in 200 litres of water.
 - Under the present weather conditions, in Western Plain Zone of Punjab, undertake sowing of sugarcane and in Undulating Plain Zone, undertake planting of fruit plants like peach, plum, pear, grapes, pomegranate and phalsa.
 - In Western Zone of Haryana, temperature is favourable for transplanting of tomato, chilli and other vegetables.
 - In Western Zone of Haryana, due to high humidity, there is a possibility of white rust in the mustard crop; spray 0.2% Redomil M Z or Mancozeb.
 - In Delhi, due to favourable temperature, undertake sowing of cucurbitaceous crops as well as sowing of chilli, tomato and brinjal crops in the nursery.
 - **Uttar Pradesh:**
 - As rain/snow would occur at many places from 15th February, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - As hailstorm would occur at isolated places during next 48 hours, use hail net for orchard crops to protect from mechanical damage.

- In Central Plain Zone of Uttar Pradesh, due to high humidity, there are chances of attack of purple blotch in onion. For control, spray 0.2% Mancozeb per litre of water after current spells of rain.
- **Rajasthan:**
- As low temperature is prevailing in some parts of west Rajasthan, apply light and frequent irrigation in the standing crops to safeguard from cold injury.
- In West Rajasthan, as dry weather is prevailing, apply irrigation in wheat crops at milk stage.
- Due to continuous cool and humid weather in Western Plain Zone and Flood Prone Eastern Plain Zone of Rajasthan, Alternaria blight (black spot) disease may attack mustard crop in some pockets; destroy the infested plants spray Iprodione or Mancozeb @ 2 kg/800 litre of water. Repeat the spray in 15 days interval.
- **Animal Husbandry**
- In Sub-Tropical Zone of Jammu & Kashmir, protect the pregnant and milch animal from cold and feed them with mineral mixture regularly. Keep the animals inside the sheds/ shelters during night hours and take them out during sunshine hours in the day time. Cover the poultry shed with gunny bags in order to protect the birds from cold weather.
- In Himachal Pradesh, due to prevailing low temperatures, protect the newly born calves and animals and the birds from cold and increase the feed by 10%.

CENTRAL INDIA [M.P., CHHATTISGARH]



Wheat



Sugarcane



Chilli



Mustard

- **Realised Rainfall:** Weather remained mainly dry/dry over the region.
- **Weather forecast:** Rain/thundershowers would occur at isolated places over east Madhya Pradesh and Chhattisgarh during next 24 hours and at a few places thereafter. Rain/thundershowers would occur at isolated places over west Madhya Pradesh during next 48 hours. Minimum temperatures would rise by 2-4°C over central India adjoining to Indo Gangetic plains and fall in maximum temperatures by 2-3°C over the same region.
- **Weather Warning during next three days:** Hailstorm at isolated places over east Madhya Pradesh and Chhattisgarh on 14th and 15th.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over central adjoining to east India on 16th and mainly dry weather thereafter.
- **Advisories:**
 - **Madhya Pradesh:**
 - As hailstorm would occur at isolated places over Chhattisgarh on 15th February, it is advised to use hail net for orchard crops to protect from mechanical damage.
 - In Satpura Plateau Zone of Madhya Pradesh due to prevailing dry weather, apply irrigation in wheat and cotton. Carry out picking of matured cotton boll. In Narmada Valley Zone, apply irrigation to wheat, sugarcane and maize crop.
 - In Jhabua Hill Zone of Madhya Pradesh due to prevailing dry weather, apply irrigation to wheat and maize crop.
 - In Bundelkhand Zone of Madhya Pradesh, continue weeding and hoeing in onion and garlic crops taking advantage of prevailing dry weather.
 - In Kymore Plateau Zone of Madhya Pradesh, as dry weather is prevailing, apply irrigation in wheat and vegetables. Also harvest matured tomato, brinjal and chilies.
 - In Narmada Valley Zone of Madhya Pradesh, dry weather is congenial for attack of leaf eating caterpillar and pod borer in gram. Spray of Profanophos 50 E.C. @ 1.5 litre of water or Quinolphos 25 EC @ 1litre of water for control.
 - **Animal Husbandry**
 - In Bundelkhand Zone of Madhya Pradesh, provide fresh water for drinking and balanced diet should be given to the buffaloes and cows so that milk production will not be affected by the fluctuating weather.
 - **Chhattisgarh:**
 - As hailstorm would occur at isolated places over Chhattisgarh on 15th February, it is advised to use hail net for orchard crops to protect from mechanical damage.
 - In Chhattisgarh North Hill Zone, as dry weather is prevailing and rain is likely to occur only at a few places from 15th onwards for 48 hours, apply irrigation in wheat. Harvest matured arhar and potato on bright sunny days.

- In Chhattisgarh Plain Zone, in view of prevailing dry weather and likely occurrence of rainfall only at a few places, apply irrigation in rice nursery and in vegetables. As temperature conditions are favourable undertake planting of sugarcane.

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



Mustard

Sugarcane

Transplanting of rice

Cole crops

Onion

- **Realised rainfall:** Weather remained mainly dry/dry over the region.
- **Weather forecast:** Rain/thundershowers would occur at a few places over West Bengal & Sikkim and Jharkhand during next 48 hours and at isolated places over Odisha on 15th. Rain/thundershowers would occur at isolated places over Bihar during next 24 hours and at a few places thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over east India on 16th and mainly dry weather thereafter.
- **Advisories:**
 - **Odisha:**
 - As mainly dry weather is prevailing, apply irrigation in sugarcane, sunflower and vegetable crops in Western Undulating Zone and apply irrigation in sorghum and maize in Eastern Coastal Plain Zone of Odisha.
 - In North Eastern Ghat High Land Zone of Odisha, as temperature conditions are favourable, continue sowing of green gram.
 - In East and South Eastern Coastal Plain Zone of Odisha, maximum and minimum temperature conditions are congenial for occurrence of termites, thrips and aphids in groundnut. For termites, treat the soil with Sevidol granules @ 20 kg or Methyl parathion 2% D dust @ 25 kg/ha and maintain moisture in the field. For thrips, apply Imidacloprid 17.8 SL @ 125 ml in 500 litres of water per hectare. For aphids, spray Dimethoate @ 1 litre / ha in 500 litres of water.
 - In North Eastern Plateau Zone Odisha, due to prevailed dry weather during last week, there is chance of attack of thrips in groundnut; apply Imidachloprid 17.8 SL @ 50 ml in 200 liters of water per acre.
 - **West Bengal:**
 - In New Alluvial Zone of West Bengal, as dry weather prevailed during last week and rain is likely to occur only at a few places, apply irrigation in wheat during panicle initiation stage.
 - In Laterite and Red soil Zone of West Bengal, in view of dry weather during last week and likely occurrence of rainfall only at a few places, apply irrigation in wheat at panicle initiation stage as well as in potato and in vegetable crops. Humid weather is conducive for leaf-blight in cabbage; apply 2.5 to 3 g Blitox per litre of water on a non-rany day at an interval of 20 days for control.
 - In Terai Zone of West Bengal, as temperature is increasing, there is a possibility of aphid attack in mustard. To control aphid, spray Imidacloprid 17.8 SL @ 1 ml/4 lt of water or Dimethoate@ 2 ml/ litre of water.
 - In Coastal Saline Zone of West Bengal, prepare land for sowing of sesame as temperature conditions are favourable.
 - **Bihar:**
 - In North West Alluvial Plain Zone of Bihar, as present temperature condition is favourable, undertake planting of spring sugarcane and sowing of sweet potato and summer vegetables.
 - In North East Alluvial Plain Zone of Bihar, as dry weather prevailed during last week and rain is likely to occur only at a few places, apply irrigation to wheat, maize and vegetables. Present temperature condition is favourable to undertake planting of spring sugarcane, transplanting of onion and complete transplanting of *boro* rice and nursery sowing of *garma* rice.
 - In North East Alluvial Plain Zone of Bihar, due to partial cloudy sky and prevailing temperature condition there are chances of aphid infestation in mustard; spray Dimethoate @ 2.5 ml / litre of water in evening time on a non rainy day.
 - **Jharkhand:**
 - In Jharkhand, in view of dry weather during last week and likely occurrence of rainfall only at a few places, apply irrigation to wheat and as temperature condition is favourable undertake sowing of vegetables.

- In Western Plateau Zone of Jharkhand, undertake harvesting of rapeseed on bright sunny days and keep the harvest at safer place.
- In South Eastern Plateau Zone of Jharkhand, due to dry weather during previous weeks, concentric and radial slit or crackings are being seen on tomato fruit; as there is possibility of rainfall only at a few places, apply light to moderate irrigation at regular interval along with mulching.
- In Central & North Eastern Plateau Zone of Jharkhand, cool and dry weather during last week is favourable for powdery mildew disease in green pea; spray Karathen @ 1 ml per litre of water or Sulfex @ 3 g per litre of water on a non-rainy day.

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



Chilli



Transplanting of rice



cole crops



Late blight in Potato

- **Realised Rainfall:** Significant rainfall occurred in Dibang valley, East Siang, Lohit, Upper Siang, Upper Subansiri and West Siang in Arunachal Pradesh. Weather remained mainly dry over rest parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places Arunachal Pradesh during next 48 hours and many places thereafter. Rain/thundershowers would occur at isolated places over Assam & Meghalaya during next 24 hours and increase thereafter and at isolated places over Nagaland, Manipur, Mizoram and Tripura on during next 24 hours and at a few places thereafter.
- **Weather Warning:** Isolated heavy rain/thundershowers would occur Assam & Meghalaya and Arunachal Pradesh on 15th.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over northeast India till 17th February and decrease thereafter.
- **Advisories:**
 - **Assam & Meghalaya:**
 - As rain/thundershowers would occur at isolated places during next 24 hours and increase thereafter over Assam and Meghalaya with isolated heavy spells on 15th February, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also arrange for adequate drainage to avoid water stagnation in the crop fields.
 - In Upper Brahmaputra Valley Zone of Assam, due to low temperature and high relative humidity, there is possibility of occurrence of late blight disease in potato. Closely monitor the leaves of potato plant and for control, apply 0.25% solution of Mancozeb 75WP (2g/l) after current spells of rain.
 - In Central Brahmaputra Valley Zone of Assam, cloudy and foggy weather condition is congenial for appearance and spread of leaf blight disease in potato. Against late blight, spraying with Mancozeb 75% a.i. @ 2.5 g/litre of water is recommended.
 - In Central Brahmaputra Valley Zone of Assam, prevailing temperature conditions are suitable for sowing of pointed gourd, summer green gram and black gram.
 - **Arunachal Pradesh:**
 - As rain/thundershowers would occur at isolated places over Arunachal Pradesh during next 48 hours and many places there after with isolated heavy spells on 15th February, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also arrange for adequate drainage to avoid water stagnation in the crop fields.
 - **Nagaland, Manipur, Mizoram and Tripura:**
 - In Mild Tropical Hill Zone of Nagaland, continue harvesting of matured cabbage and vegetables on bright sunny days.
 - In Sub Tropical Plain Zone of Manipur, in cloudy and high condition, there may be chances of attack of pod borer and hairy caterpillar in rapeseed and mustard. For control of pod borer spray Imidachloprid @ 0.25 ml / litre of water and for hairy caterpillar, spray Quinalphos or Chloropyriphos @ 2 ml / litre of water on a non rainy day.
 - In Mild Tropical Plain Zone of Tripura, in cloudy and humid weather conditions, there may be attack of hopper in mango plant. Spray Malathion @ 2 ml per litre of water on a non-rainy day to manage the attack. Cloudy weather is conducive for the attack of yellow stem borer in *boro* rice at tillering stage. To manage the attack, apply combination of Chloropyrophos and Cypermethrin @ 2 ml per liter of water on a non-rainy day.

- **Animal Husbandry**

- In North Bank Plain Zone, Central Brahmaputra Valley and Upper Brahmaputra Valley Zone of Assam, protect poultry birds from cold by using electric bulbs (300 Watt for 100 sq. ft.) to prevent *Coryza* disease. Vaccination to control the ranikhet disease in poultry may be done during this period.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Transplanting of rice

Groundnut

Cotton

Grape vine

- **Realised Weather:** Dry weather prevailed over the region during last week.
- **Weather Forecast:** Rain / thundershowers would occur at isolated places over Vidarbha during next 48 hours. Rain/thundershowers would occur at isolated places over Gujarat and north Konkan during next 24 hours. Weather would be mainly dry/dry over rest parts of the region.
- **Weather Warning during next three days:** Nil.
- **Weather Outlook:** Generally dry weather would prevail over the region.
- **Advisories:**
 - **Maharashtra:**
 - As dry weather prevailed during last week and rain would occur at isolated places during next 48 hours in north Konkan; undertake intercultural operations like weeding and fertilizer application in groundnut, pulses and vegetables. Apply irrigation to groundnut at 10-12 days interval, orchards, vegetable crops and pulses. Mango is at fruit formation stage (pea size), considering the crop canopy, apply 150-200 litres of water per tree at 15 days interval. Maintain up to 5 cm water level in transplanted rice field at tillering stage.
 - In view of prevailing dry weather condition in North Madhya Maharashtra, apply irrigation in late sown gram at pod development stage, wheat at milk / dough stage, jowar at grain formation stage as well as in sugarcane, vegetable crops and maize. Under prevailing dry weather conditions, continue harvesting of already matured gram and jowar during morning hours. Under prevailing dry weather conditions, continue harvesting of already matured gram and jowar during morning hours.
 - As dry weather prevailed during last few weeks and is likely to continue in Marathwada, apply irrigation to gram at pod development stage, wheat at milking / dough stage, jowar at grain formation stage, sugarcane, vegetable crops and maize. Undertake intercultural operations like weeding and fertilizer application in orchards (banana, fig, pomegranate, sweet lime, guava), sugarcane and vegetables. Under prevailing weather continue planting of *suru* sugarcane, sowing of summer groundnut and harvesting of already matured gram and jowar during morning hours.
 - As prevailing temperature is favourable, undertake sowing of summer groundnut in Central Vidarbha Zone and undertake planting of water melon and musk melon in East Vidarbha on raised beds.
 - Humid weather (RH morning around 80-85%) is favourable for spread of downy mildew in grapes in Nasik region in Maharashtra; spray Delan (Dithianon 75% WP) @ 15 gm in 10 litres of water.
 - There may be incidence of aphids on pulses in North Konkan due to cloudy weather and rise in temperature; spray Dimethoate 20 ml in 10 litres of water.
 - Due to partial cloudy weather in South Konkan, there may be incidence of hoppers and powdery mildew in mango; spray Thiamethoxam @ 1 gm + Carbendazim 10 gm per 10 litres of water.
 - **Gujarat:**
 - In view of prevailing dry weather in Middle Gujarat Zone, apply irrigation in groundnut at flowering stage and wheat at heading and dough stage.
 - As dry weather is prevailing, apply irrigation in wheat at milk / dough stage in South Saurashtra Zone, North Saurashtra Zone and South Gujarat Heavy Rainfall Zone, flowering / grain formation stage in North West Zone and at jointing stage in North Gujarat Zone.
 - As dry weather is prevailing and sky would be mainly clear in Bhal and Coastal Zone of Gujarat, apply irrigation in mustard crop during pod development stage.
 - Due to high temperature, there are chances of aphid infestation in mustard in Middle Gujarat Zone. Apply Dimethoate 0.03% in addition with Imidacloprid 90 mg 0.014 % (2 gm in 10 liter of water).

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



Pulses (flowering/pod formation)



Sugarcane (cane maturity)



Onion (bulb development)



Sucking pest on Groundnut

- **Realized rainfall:** Weather remained mainly dry/dry over the region.
- **Rainfall Forecast:** Rain/thundershowers would occur at isolated places over Telangana during next 48 hours. Weather would be mainly dry/dry over rest parts of the region.
- **Weather Warning during the next three days:** Nil.
- **Weather Outlook:** Generally mainly dry/dry weather would prevail over the region.
- **Advisory:**
 - **Karnataka:**
 - Undertake harvesting of chickpea, safflower and *rabi* sorghum in the North Dry Zone and undertake harvesting of wheat and Bengal gram in the North East Transition Zone as dry weather is prevailing.
 - Undertake intercultivation in late sown chickpea in North Dry Zone to conserve soil moisture.
 - Undertake harvesting of cotton and Bengal gram in the North East Dry Zone of Karnataka taking the advantage of prevailing dry weather.
 - In North Transition Zone, wheat crop is at grain filling stage. To mitigate prevailing dry conditions and moisture stress effect on the crop, spray KH_2PO_4 @ 10 kg / ha. Similarly, jowar crop is also at grain filling stage. Arrange for supplementary irrigation.
 - **Andhra Pradesh:**
 - Prevailing dry weather condition is suitable for harvesting of pulses in the Krishna Godavari Zone of Andhra Pradesh.
 - Prevailing weather conditions (increasing day temperatures) are congenial for incidence of pink borer in maize crop and nut weevil in mango crop in the Scarce Rainfall Zone of Andhra Pradesh. Apply Carbofuran 3G @ 3 Kg per acre when the crop is 25-30 days old to manage pink borer and spray Carbaryl @ 3 g per litre of water to manage nut weevil.
 - **Animal Husbandry:**
 - Give good quality water after return from fields and avoid grazing of cattle in the afternoon time in the Krishna Godavari Zone of Andhra Pradesh, since there is slight increase in the temperatures.
 - **Tamil Nadu:**
 - As dry weather is prevailing and is also expected in coming days, spray 2 % DAP + 1 % Potassium Chloride solution (20 g DAP + 10 g Potassium Chloride / litre of water) using hand sprayer for withstanding dry condition in cotton in the South Zone of Tamil Nadu.
 - Taking the advantage of dry weather, undertake harvesting of matured *samba* paddy and undertake sowing of rice fallow pulses with residual soil moisture in the Cauvery Delta Zone of Tamil Nadu. In canal dependent areas, where water scarcity is prevalent, foliar application of Pink Pigmented Facultative Methylophils (PPFM) @ 200 ml / acre is recommended to mitigate the water stress in standing *samba* / *thaladi* rice for 10-12 days.
 - Incidence of black headed caterpillar in coconut is increasing due to rise in temperature in the Western Zone of Tamil Nadu. Braconid parasitoids may be released @ 2100 / acre in the initial stages and Monocrotophos @ 10 ml in 10 ml of water and root feeding may be done in the advanced stages. Since relative humidity become low, water requirement of the crops may be increasing; therefore irrigate the crops. In wide spaced crops like coconut, mulching is advised to arrest the evopotranspiration losses.
 - In rice fallow black gram, powdery mildew disease would be more pronounced due to dew in the morning time in the Cauvery Delta Zone of Tamil Nadu. Spray Carbendazim 100 g / acre or wettable Sulphur 1 kg / acre for the management of powdery mildew.
 - **Kerala:**
 - Provide irrigation to banana and undertake mulching of the soils with dried leaves to conserve soil moisture in coconut basins in the Problem Area Zone of Kerala. Since dry weather is prevailing, increase frequency of irrigation in vegetables.
 - As dry weather is prevailing, in the Southern Zone of Kerala, undertake mulching in coconut fields to retain water in the fields. Provide irrigation to banana, shade to small rubber plants.

Annexure I
Week by week Rainfall Distribution

State/Districts	29.01.14		05.02.14		12.02.14	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	0.0	-100	0.0	-100	8.0	-79
Dibang Valley	0.0	-100	0.0	-100	80.0	140
East Kameng	0.0	-100	0.0	-100	0.0	-100
East Siang	0.0	-100	0.0	-100	48.7	141
Kurung Kumey	**	**	**	**	**	**
Lohit	0.0	-100	0.0	-100	30.8	157
Lower Dibang Valley	0.0	-100	0.0	-100	19.2	-42
Lower Subansari	**	**	**	**	**	**
Papumpara	0.0	-100	0.0	-100	11.6	36
Tawang	12.0	35	0.0	-100	12.0	5
Tirap	0.0	-100	0.0	-100	2.5	-75
Upper Siang	30.1	23	0.0	-100	87.1	137
Upper Subansari	0.0	-100	0.0	-100	43.4	578
West Kameng	0.0	-100	0.0	-100	0.0	-100
West Siang	0.0	-100	0.0	-100	50.8	218
Assam						
Baksa	0.0	-100	0.0	-100	0.4	-85
Barpeta	0.0	-100	0.0	-100	0.1	-97
Bongaigaon	0.0	-100	0.0	-100	0.0	-100
Cachar	0.0	-100	0.0	-100	1.1	-79
Chirang	0.0	-100	0.0	-100	0.0	-100
Darrang	0.0	-100	0.0	-100	0.0	-100
Dhemaji	0.0	-100	0.0	-100	14.0	63
Dhubri	0.0	-100	0.0	-100	0.0	-100
Dibrugarh	0.0	-100	0.0	-100	6.9	-23
Goalpara	0.0	-100	0.0	-100	0.0	-100
Golghat	0.0	-100	0.0	-100	1.0	-87
Hailakandi	0.0	-100	0.0	-100	9.9	219
Jorhat	0.0	-100	0.0	-100	1.2	-86
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	1.0	-86
Kokrajhar	0.0	-100	0.0	-100	0.0	-100
Lakhimpur	0.0	-100	0.0	-100	15.0	74
Morigaon	0.0	-100	0.0	-100	0.0	-100
N.C.Hills	0.0	-100	0.0	-100	0.0	-100
Nowgong	0.0	-100	0.0	-100	0.0	-100
Nalbari	0.0	-100	0.0	-100	1.2	-73
Sonitpur	0.0	-100	0.0	-100	0.1	-98

Sibsagar	0.0	-100	0.0	-100	0.0	-100
Tinsukia	0.0	-100	0.0	-100	13.0	30
Udalgiri	0.0	-100	0.0	-100	4.6	-23
Meghalaya						
East Garo Hills	0.0	-100	0.0	-100	0.0	-100
East Khasi Hills	0.0	-100	0.0	-100	0.0	-100
Jaintia Hills	0.0	-100	0.0	-100	0.0	-100
Ribhoi	0.0	-100	0.0	-100	0.0	-100
South Garo Hills	0.0	-100	0.0	-100	0.0	-100
West Garo Hills	0.0	-100	0.0	-100	0.0	-100
West Khasi Hills	0.0	-100	0.0	-100	0.0	-100
Mizoram						
Aizwal	0.0	-100	0.0	-100	3.5	86
Champhai	0.0	-100	0.0	-100	0.0	-100
Kolasib	0.0	-100	0.0	-100	4.0	82
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	6.0	216
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	2.0	-89
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	1.0	-88
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	2.0	150
Kephire	0.0	-100	0.0	-100	0.0	-100
Kohima	0.0	-100	0.0	-100	0.3	-93
Longleng	**	**	**	**	**	**
Mokokchung	0.0	-100	0.0	-100	5.0	25
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	3.5	-53
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	40.9	94	0.4	-98	30.5	194

Chamba	24.5	-29	19.9	-45	49.1	126
Hamirpur	35.3	60	0.5	-98	45.3	254
Kangra	47.8	123	3.7	-82	37.5	123
Kinnaur	31.0	10	8.1	-74	36.3	48
Kullu	19.2	-29	15.3	-24	61.7	226
Lahaul and Spiti	19.0	-52	19.2	-42	55.9	83
Mandi	31.6	38	2.4	-87	53.2	329
Shimla	25.2	30	4.5	-74	35.0	138
Sirmaur	36.9	143	0.7	-96	25.5	114
Solan	36.8	55	1.3	-94	27.0	179
Una	73.9	487	0.2	-99	34.4	377
Punjab						
Amritsar	3.8	-55	0.1	-99	3.5	-40
Barnala	0.0	-100	0.0	-100	0.0	-100
Bhatinda	11.0	168	0.0	-100	2.0	-17
Faridkot	4.0	-34	1.0	-67	5.0	43
Fatehgarh Sahib	33.0	197	0.0	-100	**	**
Ferozpur	0.5	-88	1.0	-71	7.0	192
Gurdaspur	40.8	149	1.0	-94	21.2	143
Hoshiarpur	28.9	154	0.3	-97	16.0	107
Jalandhar	0.0	-100	0.3	-96	2.5	-52
Kapurthala	20.3	83	0.4	-95	13.8	159
Ludhiana	18.3	123	0.2	-98	2.5	-29
Mansa	16.0	233	0.0	-100	2.4	-17
Moga	8.4	45	0.0	-100	9.0	500
Muktesar	0.0	-100	0.0	-100	6.2	210
Nawashahar	40.1	188	0.0	-100	7.5	14
Patiala	17.3	66	0.7	-92	6.0	40
Ropar	32.3	147	0.0	-100	9.1	23
Sangrur	7.3	14	0.5	-92	1.7	-48
Mohali	29.5	154	0.0	-100	9.5	48
TarnTaran	5.6	-24	0.0	-100	5.4	126
Haryana						
Ambala	22.2	178	1.0	-93	7.9	27
Bhiwani	1.8	-69	0.0	-100	0.7	-39
Chandigarh	24.2	67	0.2	-99	6.8	58
Faridabad	1.5	-72	0.0	-100	0.0	-100
Fatehabad	4.0	-40	0.0	-100	0.2	-92
Gurgaon	0.0	-100	0.0	-100	0.0	-100
Hissar	0.6	-75	0.1	-97	1.6	23
Jhajar	0.0	-100	0.0	-100	0.0	-100
Jind	0.0	-100	0.0	-100	0.0	-100
Katihah	20.8	230	0.0	-100	0.0	-100
Karnal	22.6	148	0.0	-100	4.4	7
Kurukshetra	0.3	-97	0.0	-100	0.0	-100
Mahendragarh	0.0	-100	0.0	-100	0.0	-100
Mewat	0.0	-100	0.0	-100	0.0	-100
Palwal	1.0	-67	0.0	-100	0.0	-100
Panchkkula	27.5	105	0.5	-97	7.7	28

Panipat	5.6	-16	0.0	-100	0.7	-78
Rewari	0.0	-100	0.0	-100	0.0	-100
Rohtak	1.0	-84	0.0	-100	1.0	-50
Sirsa	0.0	-100	0.0	-100	0.0	-100
Sonepat	3.7	-35	0.3	-95	0.8	-67
Yamunanagar	30.2	136	0.1	-99	8.5	-11
Delhi	6.1	-11	0.1	-96	0.3	-86
Jammu & Kashmir						
Anantnag	41.7	43	13.4	-47	35.6	141
Badgam	83.7	253	6.1	-51	16.0	5
Bandipore	**	**	**	**	**	**
Baramula	14.5	-72	29.3	-15	45.7	-19
Doda	58.6	37	31.4	-18	35.6	34
Ganderwal	18.4	-14	25.8	50	21.0	64
Jammu	22.8	17	6.0	-56	4.4	-39
Kargil	0.0	-100	0.0	-100	0.0	-100
Kathua	62.2	231	5.8	-70	23.6	195
Kistwar	**	**	0.0	-100	0.0	-100
Kulgam	18.5	-37	20.5	-18	23.8	61
Kupwara	6.4	-75	74.5	185	52.0	141
Ladakh(Leh)	0.2	-88	0.0	-100	1.1	-49
Poonch	0.0	-100	0.0	-100	3.0	-92
Pulwama	29.3	138	4.2	-61	22.1	108
Rajouri	3.2	-74	12.6	-44	44.1	549
Ramban	38.6	-10	37.7	-2	63.9	140
Reasi	28.6	-25	8.8	-71	48.4	159
Samba	6.0	-69	2.9	-79	10.2	40
Shopian	22.0	79	12.0	10	13.0	23
Srinagar	39.1	82	6.1	-64	21.8	70
Udhampur	26.0	-32	6.5	-78	12.5	-33
East Madhya Pradesh						
Anuppur	0.0	-100	0.0	-100	0.0	-100
Balaghat	0.0	-100	0.0	-100	0.0	-100
Chhatarpur	15.2	121	0.0	-100	0.0	-100
Chindwara	12.4	235	0.0	-100	0.0	-100
Damoh	9.1	28	0.0	-100	0.0	-100
Dindori	0.0	-100	0.0	-100	0.0	-100
Jabalpur	1.7	-65	0.0	-100	0.0	-100
Katni	0.0	-100	0.0	-100	0.0	-100
Mandla	0.0	-100	0.0	-100	0.0	-100
Narsingpur	3.1	-23	0.0	-100	0.0	-100
Panna	0.0	-100	0.0	-100	0.0	-100
Rewa	0.0	-100	0.0	-100	0.0	-100
Sagar	16.1	275	0.0	-100	0.0	-100
Satna	1.2	-83	0.0	-100	0.0	-100
Seoni	0.0	-100	0.0	-100	0.0	-100
Shahdol	0.0	-100	0.0	-100	0.0	-100
Sidhi	0.0	-100	0.0	-100	0.0	-100
Singrauli	1.0	-70	0.0	-100	0.0	-100

Tikamgarh	33.5	468	0.0	-100	0.0	-100
Umariya	1.4	-85	0.0	-100	0.0	-100
West Madhya Pradesh						
Alirajpur	0.0	-100	0.0	-100	0.0	-100
Asoknagar	23.5	1708	0.0	-100	0.0	-100
Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	0.0	-100	0.0	-100	0.0	-100
Bhind	10.8	315	0.0	-100	0.0	-100
Bhopal	43.1	1290	0.0	-100	0.0	-100
Burhanpur	2.3	483	0.0	-100	0.0	-100
Datia	13.0	398	0.0	-100	0.0	-100
Dewas	33.9	3662	0.0	-100	0.0	-100
Dhar	2.1	436	0.0	-100	0.0	-100
Guna	13.7	356	0.0	-100	0.0	-100
Gwalior	12.9	289	0.0	-100	0.0	-100
Harda	1.0	-38	0.0	-100	0.0	-100
Hosangabad	4.4	40	0.0	-100	0.0	-100
Indore	18.8	1463	0.0	-100	0.0	-100
Jhabua	2.3	200	0.0	-100	0.0	-100
Khandwa	6.7	852	0.0	-100	0.0	-100
Khargone	11.2	2692	0.0	-100	0.0	-100
Mandsaur	1.7	83	0.0	-100	0.0	-100
Morena	3.0	3	0.0	-100	0.0	-100
Neemuch	1.0	100	0.0	-100	0.0	-100
Raisen	34.9	1952	0.0	-100	0.0	-100
Rajgarh	1.8	-22	0.0	-100	0.0	-100
Ratlam	3.8	650	0.0	-100	0.0	-100
Sehore	33.0	1471	0.0	-100	0.0	-100
Shajapur	17.0	844	0.0	-100	0.0	-100
Sheopur Kalani	9.0	291	0.0	-100	0.0	-100
Shivpuri	12.5	213	0.0	-100	0.0	-100
Ujjain	11.6	1193	0.0	-100	0.0	-100
Vidisha	31.6	1115	0.0	-100	0.0	-100
Chattisgarh						
Bastar	0.0	-100	0.0	-100	0.0	-100
Bijapur	0.0	-100	0.0	-100	0.0	-100
Bilaspur	0.0	-100	0.0	-100	0.0	-100
Dantewara	0.0	-100	0.0	-100	0.0	-100
Dhamtari	0.0	-100	0.0	-100	0.0	-100
Durg	0.0	-100	0.0	-100	0.0	-100
Janjgir	0.0	-100	0.0	-100	0.0	-100
Jashpurnagar	0.0	-100	0.0	-100	0.0	-100
Kanker	0.0	-100	0.0	-100	0.0	-100
Korba	0.0	-100	0.0	-100	0.0	-100
Koriya	0.0	-100	0.0	-100	0.0	-100
Kawardha	0.0	-100	0.0	-100	0.0	-100
Mahasumund	0.0	-100	0.0	-100	0.0	-100
Narayanpur	0.0	-100	0.0	-100	0.0	-100
Raigarh	0.0	-100	0.0	-100	0.0	-100

Raipur	0.0	-100	0.0	-100	0.0	-100
Rajandgaon	0.0	-100	0.0	-100	0.0	-100
Surguja	0.0	-100	0.0	-100	0.0	-100
East Uttar Pradesh						
Allahabad	0.1	-99	0.0	-100	0.0	-100
Ambedkar Nagar	0.0	-100	0.0	-100	0.0	-100
Azamgarh	0.0	-100	0.0	-100	0.0	-100
Bahraich	0.5	-91	0.0	-100	1.8	-70
Ballia	0.0	-100	0.0	-100	0.0	-100
Balrampur	0.0	-100	0.0	-100	0.0	-100
Banda	5.6	-11	0.0	-100	0.0	-100
Barabanki	0.2	-96	0.0	-100	0.8	-82
Basti	0.0	-100	0.0	-100	0.0	-100
Chandauli	0.0	-100	0.0	-100	0.0	-100
Deoria	0.0	-100	0.0	-100	0.0	-100
Faizabad	0.0	-100	0.0	-100	0.0	-100
Farrukhabad	7.3	74	0.0	-100	4.7	52
Fatehpur	4.5	-33	0.0	-100	0.0	-100
Gazipur	0.0	-100	0.0	-100	0.0	-100
Gonda	0.0	-100	0.0	-100	0.0	-100
Gorakhpur	0.0	-100	0.0	-100	0.0	-100
Hardoi	7.5	32	0.0	-100	6.4	83
Jaunpur	0.0	-100	0.0	-100	0.0	-100
Kannauj	9.0	73	0.0	-100	4.0	8
Kanpur City	10.8	126	0.0	-100	0.2	-88
Kanpur Dehat	13.0	261	0.0	-100	0.0	-100
Kaushambi	1.0	-84	0.0	-100	0.0	-100
Kheri	3.2	-46	0.0	-100	1.5	-71
Kushi nagar	0.0	-100	0.0	-100	0.0	-100
Lucknow	2.9	-44	0.0	-100	0.5	-79
Maharajganj	0.0	-100	0.0	-100	0.0	-100
Mau	0.0	-100	0.0	-100	0.0	-100
Mirzapur	0.0	-100	0.0	-100	0.0	-100
Pratapgarh	0.7	-87	0.0	-100	0.0	-100
RaiBareilly	0.4	-91	0.0	-100	0.0	-100
Sahuji Maharajnagar	0.0	-100	0.0	-100	0.0	-100
Sant Kabirnnagar	0.0	-100	0.0	-100	0.0	-100
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	**	**	0.0	-100	**	**
Sidharthnagar	0.0	-100	0.0	-100	0.0	-100
Sitapur	9.3	73	0.0	-100	9.5	197
Sonbhadra	0.0	-100	0.0	-100	0.0	-100
Sultanpur	0.7	-83	0.0	-100	0.0	-100
Unnao	4.0	-25	0.0	-100	0.0	-100
Varanasi	0.0	-100	0.0	-100	0.0	-100
West Uttar Pradesh						
Agra	9.9	86	0.0	-100	0.1	-98
Aligarh	8.0	86	0.0	-100	1.2	-25
Auraiya	0.0	-100	0.0	-100	0.0	-100

Badaun	8.6	169	0.0	-100	5.6	65
Baghpat	12.8	137	0.0	-100	0.0	-100
Bareilly	4.6	-24	0.0	-100	2.8	-50
Bijnor	3.5	-67	0.0	-100	5.4	4
Bulandsahar	3.7	-35	0.0	-100	0.0	-100
Etah	5.7	53	0.0	-100	1.8	-27
Etawah	7.0	56	0.0	-100	0.0	-100
Firozabad	16.6	349	0.0	-100	8.7	293
GBNagar	3.0	-46	0.0	-100	0.0	-100
Ghaziabad	3.6	-51	0.0	-100	14.7	819
Hamirpur	8.3	65	0.0	-100	0.0	-100
Jalaun	22.1	532	0.0	-100	0.0	-100
Jhansi	16.0	290	0.0	-100	0.0	-100
Jotirba Phule Nagar	2.5	-57	0.0	-100	1.5	-35
Kanshiramnagar	8.0	54	0.0	-100	4.0	208
Lalitpur	33.0	432	0.0	-100	0.0	-100
Mahamaya Nagar	7.5	88	0.0	-100	1.5	36
Mahoba	4.0	-25	0.0	-100	0.0	-100
Mainpuri	9.8	180	0.0	-100	1.5	-32
Mathura	0.0	-100	0.0	-100	9.0	592
Meerut	11.7	55	0.0	-100	0.0	-100
Moradabad	7.7	26	0.0	-100	4.5	-34
Muzzaffarnagar	10.5	18	0.0	-100	6.7	109
Pilibhit	1.7	-66	0.0	-100	1.3	-71
Rampur	11.5	83	0.0	-100	4.5	-12
Saharanpur	23.0	153	0.0	-100	13.0	103
Shahjahanpur	5.1	38	0.0	-100	3.1	-27
Uttarakhand						
Almora	4.4	-65	0.0	-100	10.8	24
Bageshwar	2.1	-83	0.0	-100	13.9	60
Chamoli	0.7	-95	1.0	-95	37.1	165
Champawat	0.0	-100	0.0	-100	7.5	-15
Dehradun	14.5	-3	0.2	-99	32.6	279
Garhwal Pauri	4.5	-62	0.0	-100	15.5	168
Garhwal Tehri	7.6	-59	0.0	-100	39.5	299
Haridwar	36.5	217	0.0	-100	3.0	-68
Nainital	2.2	-83	0.0	-100	13.8	97
Pithorgarh	3.5	-78	1.8	-88	30.2	259
Rudraprayag	3.1	-81	0.0	-100	48.4	204
Udham Sing Nagar	0.7	-93	0.0	-100	1.1	-79
Uttarkashi	16.3	-6	0.5	-97	41.3	187
Bihar						
Araria	0.0	-100	0.0	-100	0.0	-100
Arwal	0.0	-100	0.0	-100	0.0	-100
Aurangabad	0.0	-100	0.0	-100	0.0	-100
Banka	0.0	-100	0.0	-100	0.0	-100
Begusarai	0.0	-100	0.0	-100	0.0	-100
Bhabua	0.0	-100	0.0	-100	0.0	-100
Bhagalpur	0.0	-100	0.0	-100	0.0	-100

Bhojpur	0.0	-100	0.0	-100	0.0	-100
Buxar	0.0	-100	0.0	-100	0.0	-100
Darbhanga	0.0	-100	0.0	-100	0.0	-100
East Champaran	0.0	-100	0.0	-100	0.0	-100
Gaya	0.0	-100	0.0	-100	0.0	-100
Gopalganj	0.0	-100	0.0	-100	0.0	-100
Jahanabad	0.0	-100	0.0	-100	0.0	-100
Jamui	0.0	-100	0.0	-100	0.0	-100
Kathihar	0.0	-100	0.0	-100	0.0	-100
Khagadia	0.0	-100	0.0	-100	0.0	-100
Kishanganj	0.0	-100	0.0	-100	0.0	-100
Lakhisarai	0.0	-100	0.0	-100	0.0	-100
Madhepura	0.0	-100	0.0	-100	0.0	-100
Madhubani	0.0	-100	0.0	-100	0.0	-100
Monghyar	0.0	-100	0.0	-100	0.0	-100
Muzaffarpur	0.0	-100	0.0	-100	0.0	-100
Nalanda	0.0	-100	0.0	-100	0.0	-100
Nawada	0.0	-100	0.0	-100	0.0	-100
Patna	0.0	-100	0.0	-100	0.0	-100
Purnea	0.0	-100	0.0	-100	0.0	-100
Rohtas	0.0	-100	0.0	-100	0.0	-100
Saharsha	0.0	-100	0.0	-100	0.0	-100
Samstipur	0.0	-100	0.0	-100	0.0	-100
Saran	0.0	-100	0.0	-100	0.0	-100
Sheikpura	0.0	-100	0.0	-100	0.0	-100
Sheohar	0.0	-100	0.0	-100	0.0	-100
Sitamarhi	0.0	-100	0.0	-100	0.0	-100
Siwan	0.0	-100	0.0	-100	0.0	-100
Supaul	0.0	-100	0.0	-100	0.0	-100
Vaishali	0.0	-100	0.0	-100	0.0	-100
West Champaran	0.0	-100	0.0	-100	0.0	-100
Jharkhand						
Bokaro	0.0	-100	0.0	-100	0.0	-100
Chatra	0.0	-100	0.0	-100	0.0	-100
Deoghar	0.0	-100	0.0	-100	0.0	-100
Dhanbad	0.0	-100	0.0	-100	0.0	-100
Dumka	**	**	**	**	**	**
East Singbhum	0.0	-100	0.0	-100	0.0	-100
Garhwa	0.0	-100	0.0	-100	0.0	-100
Giridih	0.0	-100	0.0	-100	0.0	-100
Godda	0.0	-100	0.0	-100	0.0	-100
Gumla	**	**	**	**	**	**
Hazaribagh	0.0	-100	0.0	-100	0.0	-100
Jamtara	0.0	-100	0.0	-100	0.0	-100
Khunti	0.0	-100	0.0	-100	0.0	-100
Kodernna	0.0	-100	0.0	-100	0.0	-100
Latehar	0.0	-100	0.0	-100	0.0	-100
Lohardagga	0.0	-100	0.0	-100	0.0	-100
Pakur	0.0	-100	0.0	-100	0.0	-100

Palamau	0.0	-100	0.0	-100	0.0	-100
Ramgarh	0.0	-100	0.0	-100	0.0	-100
Ranchi	0.0	-100	0.0	-100	0.0	-100
Sahebganj	0.0	-100	0.0	-100	0.0	-100
Saraikele	0.0	-100	0.0	-100	0.0	-100
Simdega	0.0	-100	0.0	-100	0.0	-100
West Singhbhum	0.0	-100	0.0	-100	0.0	-100
East Rajasthan						
Ajmer	1.4	170	0.0	-100	0.0	-100
Alwar	2.6	0	0.0	-100	0.1	-87
Banswara	0.8	171	0.0	-100	0.0	-100
Baran	30.4	2070	0.0	-100	0.0	-100
Bharatpur	5.6	107	0.0	-100	1.4	17
Bhilwara	1.1	81	0.0	-100	0.0	-100
Bundi	0.7	-33	0.0	-100	0.0	-100
Chittorgarh	0.0	-100	0.0	-100	0.0	-100
Dausa	3.4	127	0.0	-100	2.2	267
Dholpur	10.2	498	0.0	-100	0.0	-100
Dungarpur	0.0	-100	0.0	-100	0.0	-100
Jaipur	0.6	-43	0.0	-100	0.3	-31
Jhalawar	18.3	1310	0.0	-100	0.0	-100
Jhunjhunu	0.0	-100	0.0	-100	0.0	-96
Karauli	3.0	36	0.0	-100	0.0	-100
Kota	4.3	326	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	0.0	-100
Rajsamand	0.0	-100	0.0	-100	0.0	-100
Sawai Madhopur	0.4	-77	0.0	-100	0.0	-100
Sikar	1.6	12	0.0	-100	0.3	-74
Sirohi	0.0	-100	0.0	-100	0.0	-100
Tonk	0.0	-100	0.0	-100	0.0	-100
Udaipur	0.0	-100	0.0	-100	0.0	-100
West Rajasthan						
Barmer	0.0	-100	0.0	-100	0.0	-100
Bikaner	0.0	-100	0.0	-100	0.0	-100
Churu	6.5	444	0.1	-92	0.2	-74
Hanumangarh	2.6	12	0.0	-100	2.0	54
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	0.6	-33	0.0	-100	0.0	-100
Pali	0.0	-100	0.0	-100	0.0	-100
Sri Ganganagar	0.0	-99	0.0	-100	1.5	-7
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	0.1	200	0.0	-100	0.0	-100
Broach	0.3	200	0.0	-100	0.0	-100
DNH	**	**	**	**	**	**

Dahod	0.1	-38	0.0	-100	0.0	-100
Daman	**	**	**	**	**	**
Dangs	0.5	-44	0.0	-100	0.0	-100
Gandhinagar	0.0	-100	0.0	-100	0.0	-100
Kheda	0.0	-100	0.0	-100	0.0	-100
Mehsana	0.0	-100	0.0	-100	0.0	-100
Narmada	0.0	-100	0.0	-100	0.0	-100
Navsari	0.3	200	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	3.2	200	0.0	-100	0.0	-100
Tapi	0.0	-100	0.0	-100	0.0	-100
Valsad	1.2	200	0.0	-100	0.0	-100
S K & Diu region						
Amreli	0.0	-100	0.0	-100	0.0	-100
Bhavnagar	0.0	-100	0.0	-100	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	0.0	-100
Junagarh	0.0	-100	0.0	-100	0.0	-100
Kutch	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.0	-100
Rajkot	0.0	-100	0.0	-100	0.0	-100
Surendranagar	0.0	-100	0.0	-100	0.0	-100
Maharashtra						
Konkan & Goa						
Goa	0.0	-100	0.0	-100	0.0	-100
Mumbai	0.0	-100	0.0	-100	0.0	-100
Raigad	0.0	-100	0.0	-100	0.0	-100
Ratnagiri	0.0	-100	0.0	-100	0.0	-100
Sindhudurg	0.0	-100	0.0	-100	0.0	-100
Thane	0.0	-100	0.0	-100	0.0	-100
Madhya Maharashtra						
Ahmednagar	0.1	200	0.0	-100	0.0	-100
Dhule	9.2	1050	0.0	-100	**	**
Jalgaon	10.9	1713	0.0	-100	0.0	-100
Kolhapur	0.0	-100	0.0	-100	0.0	-100
Nandurbar	6.0	1400	0.0	-100	**	**
Nasik	5.2	2485	0.0	-100	0.0	-100
Pune	1.2	200	0.0	-100	0.0	-100
Sangli	0.0	-100	0.0	-100	0.0	-100
Satara	0.0	-100	0.0	-100	0.0	-100
Solapur	0.0	-100	0.0	-100	0.0	-100
Marathwada						
Aurangabad	4.4	631	0.0	-100	0.0	-100
Beed	0.0	-100	0.0	-100	0.0	-100
Hingoli	0.0	-100	0.0	-100	0.0	-100
Jalna	5.2	1622	**	**	**	**
Latur	0.0	-100	0.0	-100	0.0	-100

Nanded	0.0	-100	0.0	-100	0.0	-100
Usmanabad	0.0	-100	0.0	-100	0.0	-100
Parbhani	0.0	-100	0.0	-100	0.0	-100
Vidarbha						
Akola	0.0	-100	0.0	-100	0.0	-100
Amraoti	0.0	-100	0.0	-100	0.0	-100
Bhandara	0.0	-100	0.0	-100	0.0	-100
Buldhana	8.9	712	0.0	-100	0.0	-100
Chandrapur	0.0	-100	0.0	-100	0.0	-100
Gadchiroli	0.0	-100	0.0	-100	0.0	-100
Gondia	0.0	-100	0.0	-100	0.0	-100
Nagpur	0.0	-100	0.0	-100	0.0	-100
Wardha	0.0	-100	0.0	-100	0.0	-100
Washim	0.9	-38	0.0	-100	0.0	-100
Yeotmal	0.0	-100	0.0	-100	0.0	-100
Odisha						
Angul	0.0	-100	0.0	-100	0.0	-100
Balasore	0.0	-100	0.0	-100	0.0	-100
Bargarh	0.0	-100	0.0	-100	0.0	-100
Bhadrak	0.0	-100	0.0	-100	0.0	-100
Bolangir	0.0	-100	0.0	-100	0.0	-100
Boudh	0.0	-100	0.0	-100	0.0	-100
Cuttack	0.0	-100	0.0	-100	0.0	-100
Deogarh	0.0	-100	0.0	-100	0.0	-100
Dhenkanal	0.0	-100	0.0	-100	0.5	-69
Gajapati	0.0	-100	0.0	-100	0.0	-100
Ganjam	0.0	-100	0.0	-100	0.0	-100
Jagatsingpur	0.0	-100	0.0	-100	0.1	-98
Jajpur	0.0	-100	0.0	-100	1.0	-84
Jharsuguda	0.0	-100	0.0	-100	0.0	-100
Kalahandi	0.0	-100	0.0	-100	0.0	-100
Kandhamal	0.0	-100	0.0	-100	0.0	-100
Kendrapara	0.0	-100	0.0	-100	0.0	-100
Keonjhar	0.0	-100	0.0	-100	0.3	-94
Khurda	0.0	-100	0.0	-100	0.0	-100
Koraput	0.0	-100	0.0	-100	0.0	-100
Malkangiri	0.0	-100	0.0	-100	0.0	-100
Mayurbhanj	0.0	-100	0.0	-100	0.0	-100
Nawapara	0.0	-100	0.0	-100	0.0	-100
Nawarangpur	0.0	-100	0.0	-100	0.0	-100
Nayagarh	0.0	-100	0.0	-100	0.0	-100
Puri	0.0	-100	0.0	-100	0.0	-100
Rayagada	0.0	-100	0.0	-100	0.0	-100
Sambalpur	0.0	-100	0.0	-100	0.0	-100
Sonepur	0.0	-100	0.0	-100	0.0	-100
Sundargarh	0.0	-100	0.0	-100	0.0	-100
West Bengal						
GWB						
Bankura	0.0	-100	0.0	-100	0.0	-100

Birbhum	0.0	-100	0.0	-100	0.0	-100
Burdwan	0.0	-100	0.0	-100	0.0	-100
East Midnapore	0.0	-100	0.0	-100	0.0	-100
Hooghly	0.0	-100	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	0.0	-100	0.0	-100	0.0	-100
Nadia	0.0	-100	0.0	-100	0.0	-100
24 Pargana (N)	0.0	-100	0.0	-100	0.0	-100
Purulia	0.0	-100	0.0	-100	0.0	-100
24 Pargana (S)	0.0	-100	0.0	-100	0.0	-100
West Midnapore	0.0	-100	0.0	-100	0.0	-100
SHWB						
Cooch Behar	0.0	-100	0.0	-100	0.0	-100
Darjeeling	0.0	-100	0.0	-100	0.0	-100
East Sikkim	0.0	-100	0.0	-100	0.2	-99
Jalpaiguri	0.0	-100	0.0	-100	0.0	-100
Malda	0.0	-100	0.0	-100	0.0	-100
North Dinajpur	0.0	-100	0.0	-100	0.0	-100
North Sikkim	0.0	-100	0.0	-100	9.4	-60
South Dinajpur	0.0	-100	0.0	-100	0.0	-100
South Sikkim	0.0	-100	0.0	-100	0.0	-100
West Sikkim	0.0	-100	0.0	-100	0.0	-100
Karnataka						
Coastal Karnataka						
Dakshin Kannada	0.0	-100	0.0	-100	0.0	-100
Udupi	0.0	-100	0.0	-100	0.0	-100
Uttar Kannada	0.0	-100	0.0	-100	0.0	-100
N I Karnataka						
Bagalkote	0.0	-100	0.0	-100	0.0	-100
Belgaum	0.0	-100	0.0	-100	0.0	-100
Bidar	0.0	-100	0.0	-100	0.0	-100
Bijapur	0.0	-100	0.0	-100	0.0	-100
Dharwad	0.0	-100	0.0	-100	0.0	-100
Gadag	0.0	-100	0.0	-100	0.0	-100
Gulbarga	0.0	-100	0.0	-100	0.0	-100
Haveri	0.0	-100	0.0	-100	0.0	-100
Koppal	0.0	-100	0.0	-100	0.0	-100
Raichur	0.0	-100	0.0	-100	0.0	-100
Yadgir	0.0	-100	0.0	-100	0.0	-100
S I Karnataka						
Bangalore Rural	0.0	-100	0.0	-100	0.0	-100
Bangalore Urban	0.0	-100	0.0	-100	0.0	-100
Bellary	0.0	-100	0.0	-100	0.0	-100
Chamarajnagar	0.0	-100	0.0	-100	0.0	-100
Chichballapur	0.0	-100	0.0	-100	0.0	-100
Chickmagalur	0.0	-100	0.0	-100	0.0	-100
Chitradurga	0.0	-100	0.0	-100	0.0	-100
Davangere	0.0	-100	0.0	-100	0.0	-100

Hassan	0.0	-100	0.0	-100	0.0	-100
Kodagu	0.0	-100	0.0	-100	0.1	-93
Kolar	0.0	-100	0.0	-100	0.0	-100
Mandya	0.0	-100	0.0	-100	0.0	-100
Mysore	0.0	-100	0.0	-100	0.0	-100
Ramnagara	0.0	-100	0.0	-100	0.0	-100
Shimoga	0.0	-100	0.0	-100	0.0	-100
Tumkur	0.0	-100	0.0	-100	0.0	-100
Kerala						
Alappuzha	0.0	-100	0.0	-100	0.0	-100
Kannur	0.0	-100	0.0	-100	3.5	100
Ernakulam	0.0	-100	0.0	-100	0.0	-100
Idukki	0.0	-100	0.0	-100	0.0	-100
Kasaragod	0.0	-100	0.0	-100	0.0	-100
Kollam	0.0	-100	0.0	-100	0.0	-100
Kottayam	0.0	-100	0.0	-100	0.4	-93
Kozhikode	0.0	-100	0.0	-100	0.0	-100
Malappuram	0.0	-100	0.0	-100	0.0	-100
Palakkad	0.0	-100	0.0	-100	0.0	-100
Pathanamthitta	0.0	-100	0.0	-100	0.0	-100
Thiruvananthapuram	6.6	16	0.0	-100	0.0	-100
Thrissur	0.0	-100	0.0	-100	0.0	-100
Wyanad	0.0	-100	0.0	-100	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	0.0	-100	0.0	-100	0.0	-100
Cuddalore	0.0	-100	0.0	-100	0.0	-100
Dharmapuri	0.0	-100	0.0	-100	0.0	-100
Dindigul	0.0	-100	0.0	-100	0.0	-100
Erode	0.0	-100	0.0	-100	0.0	-100
Kanchipuram	0.0	-100	0.0	-100	0.0	-100
Kanyakumari	0.0	-100	0.0	-100	0.0	-100
Karikal	0.0	-100	0.0	-100	0.0	-100
Karur	0.0	-100	0.0	-100	0.0	-100
Krishnagiri	0.0	-100	0.0	-100	0.0	-100
Madurai	0.0	-100	0.0	-100	0.0	-100
Nagapattinam	0.3	-94	0.0	-100	0.0	-100
Namakkal	0.0	-100	0.0	-100	0.0	-100
Nilgiris	0.0	-100	0.0	-100	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	0.2	-92	3.7	1	0.0	-100
Salem	0.0	-100	0.0	-100	0.0	-100
Sivaganga	0.0	-100	0.0	-100	0.0	-100
Thanjavur	0.0	-100	0.0	-100	0.0	-100
Theni	0.0	-100	0.0	-100	0.0	-100
Tirunelveli	0.0	-100	0.0	-100	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	0.0	-100	0.0	-100	0.0	-100
Trichy	0.0	-100	0.0	-100	0.0	-100
Vellore	0.0	-100	0.0	-100	0.0	-100
Villupuram	0.0	-100	0.0	-100	0.0	-100
Virudhunagar	0.0	-100	0.0	-100	0.0	-100
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0.0	-100	0.0	-100
Guntur	0.0	-100	0.0	-100	0.0	-100
Krishna	0.0	-100	0.0	-100	0.0	-100
Nellore	0.0	-100	0.0	-100	0.1	-95
Prakasam	0.0	-100	0.0	-100	0.0	-100
Sirkakulam	0.0	-100	0.0	-100	0.0	-100
Visakhapatnam	0.0	-100	0.0	-100	0.0	-100
Vizianagram	0.0	-100	0.0	-100	0.0	-100
West Godavari	0.0	-100	0.0	-100	0.0	-100
Telangana						
Adilabad	0.0	-100	0.0	-100	0.0	-100
Hyderabad	0.0	-100	0.0	-100	0.0	-100
Karimnagar	0.0	-100	0.0	-100	0.0	-100
Khammam	0.0	-100	0.0	-100	0.0	-100
Mehabubnagar	0.0	-100	0.0	-100	0.0	-100
Medak	0.0	-100	0.0	-100	0.0	-100
Nalgonda	0.0	-100	0.0	-100	0.0	-100
Nizamabad	0.0	-100	0.0	-100	0.0	-100
Rangareddy	0.0	-100	0.0	-100	0.0	-100
Warangal	0.0	-100	0.0	-100	0.0	-100
Rayalaseema						
Anantapur	0.0	-100	0.0	-100	0.0	-100
Chittoor	0.0	-100	0.0	-100	0.0	-100
Cuddapah	0.0	-100	0.0	-100	0.0	-100
Kurnool	0.0	-100	0.0	-100	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