



National Agromet Advisory Service Bulletin

Friday 15th April 2016
(For the period 15th to 19th April 2016)



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

Weblink For

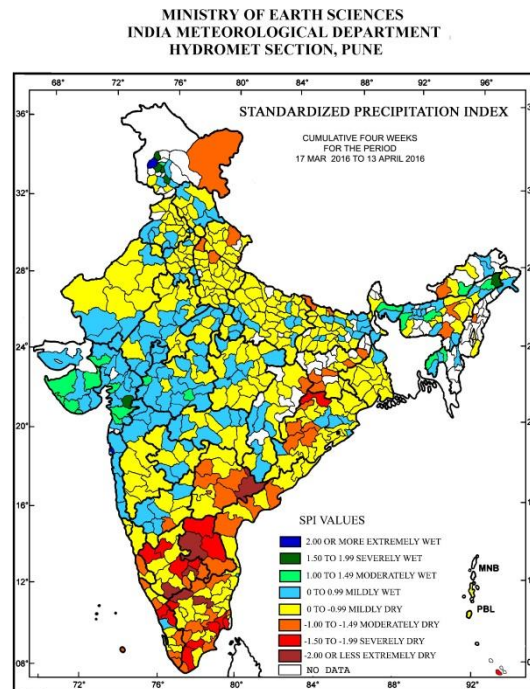
District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>

State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Long Range Forecast for the 2016 Southwest monsoon rainfall

Quantitatively, the monsoon seasonal rainfall is likely to be **106%** of the Long Period Average (LPA) with a model error of $\pm 5\%$. The LPA of the seasonal rainfall over the country as a whole for the period 1951-2000 is 89 cm.

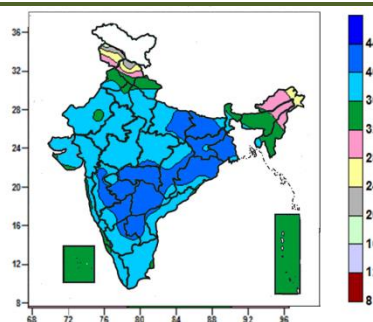
Standardised Precipitation Index Four Weekly for the Period 17th March to 13th April 2016



- Extremely/severely wet conditions experienced in few districts of Jammu & Kashmir; Tinsukia district of Assam; Narmada district of Gujarat Region; Mumbai Suburban district of Konkan & Goa.
- Extremely/Severely dry conditions experienced in Sundargarh district of Odisha; Anantapur, Cuddapah, Kurnool districts of Rayalaseema; Khammam district of Telangana; Nilgiri, Pudukkottai, Salem, Thanjavur, Tirunelveli, Tiruvarur, Virudhunagar districts of Tamil Nadu; Bangalore Rural, Chamarajanagar, Davangere, Mysore, Shimoga, Tumkur, Chickballapur districts of Karnataka; Malappuram, Palakkad districts of Kerala.
- Moderately dry conditions experienced in many districts of Telangana; few districts of Coastal Andhra Pradesh; West Kameng district of Arunachal Pradesh; Nagaon district of Assam; Jaintia Hills districts of Meghalaya; Bolangir, Boudhgarh, Jharsuguda, Kalahandi, Kandhamal districts of Odisha; Dhanbad, Dumka, Gumla, Ranchi, Simdega districts of Jharkhand; West Champaran, Sitamarhi districts of Bihar; Bijnor, Saharanpur districts of Uttar Pradesh; Chamoli, Champawat districts of Uttarakhand; Ladakh (Leh) districts of Jammu & Kashmir; Jashpur districts of Chhattisgarh; Chittoor district of Rayalaseema; Dindigul, Kanyakumari, Nagapattinam, Ramanathapuram, Theni, Trichy, Vellore, Krishnagiri districts of Tamil Nadu; Udupi, Koppal, Kolar, Ramanagara districts of Karnataka; Kozhikode, Kollam, Trivandrum, Idukki, Kasargod districts of Kerala; Lakshadweep district of Lakshadweep.
- Rest of the country experienced moderately wet/ mildly dry/mildly wet conditions.

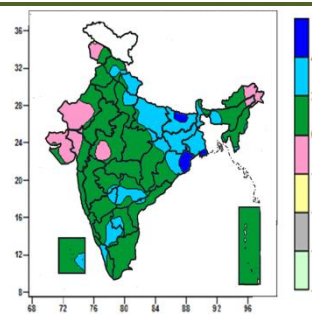
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 13.04.2016

Actual Mean Maximum Temperature (°C) in India for the week ending 13.04.2016



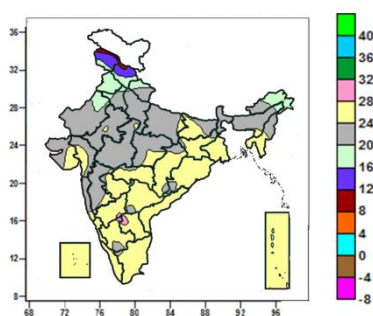
- Mean maximum temperature was between 40 to 44°C over Vidarbha, many parts of East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Telangana, Marathwada, Madhya Maharashtra, North Interior Karnataka, Rayalaseema, some parts of Chhattisgarh, South Interior Karnataka and isolated pockets of East Madhya Pradesh and Coastal Andhra Pradesh.
- Mean maximum temperature was between 32 to 40°C over rest of the country except Jammu & Kashmir, many parts of Himachal Pradesh, Arunachal Pradesh, Assam, Nagaland where it was between 20 to 32°C.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 13.04.2016



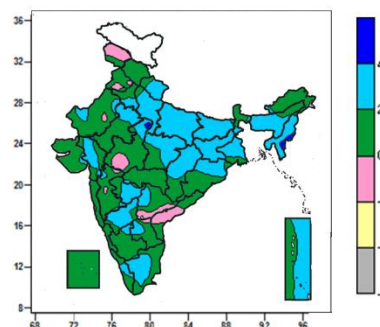
- Mean maximum temperature was above normal by 4 to 6°C over some parts of Bihar, Odisha and isolated pockets of Jharkhand and Gangetic West Bengal.
- Mean maximum temperature was above normal by 2 to 4°C over many parts of Uttarakhand, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, some parts of Himachal Pradesh, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Chhattisgarh, Odisha, Telangana, Interior Karnataka, Rayalaseema, Kerala, Lakshadweep and isolated pockets of East Madhya Pradesh, Marathwada, Coastal Andhra Pradesh, Manipur, Mizoram, Tripura.
- It was normal to near normal in remaining parts of the Country.

Actual Mean Minimum Temperature (°C) in India for the week ending 13.04.2016



- Mean minimum temperature was between 8 to 12°C over isolated pockets of Jammu & Kashmir and Himachal Pradesh.
- Mean minimum temperature was between 12 to 16°C over many parts of Jammu & Kashmir, Himachal Pradesh.
- Mean minimum temperature was between 16 to 20°C over Punjab, many parts of Arunachal Pradesh, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, West Rajasthan and isolated pockets of Haryana and Assam.
- Mean minimum temperature was between 20 to 28°C over rest of the country except isolated pockets of Interior Karnataka and Rayalaseema where it was between 28 to 32°C.

Mean Minimum Temperature (°C) Anomaly in India for the week ending 13.04.2016

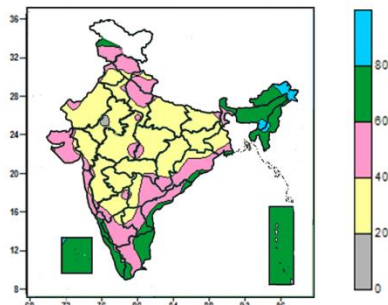


- Mean minimum temperature was above normal by 4°C over some parts of Manipur and Mizoram and isolated pockets of West Madhya Pradesh.
- Mean minimum temperature was above normal by 2 to 4°C over East Uttar Pradesh, Jharkhand and Tripura, many parts of Uttarakhand, West Uttar Pradesh, Bihar, Assam & Meghalaya, Nagaland Manipur Mizoram, East Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Gujarat Region, Marathwada, North Interior Karnataka, Tamil Nadu and Andaman & Nicobar Islands, some parts of Rajasthan, West Madhya Pradesh, Odisha, Telangana, South Interior Karnataka, Rayalaseema and Kerala and isolated pockets of Sub-Himalayan West Bengal, Arunachal Pradesh, Saurashtra,

- Madhya Maharashtra and Vidarbha.
- Mean minimum temperature was normal to near normal over rest of the country.

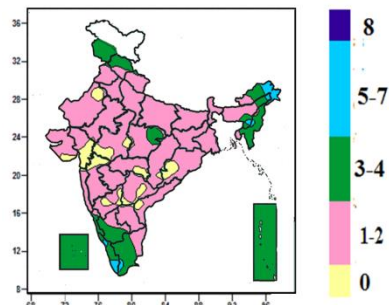
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 13.04.2016

Relative Humidity (%) over India for the week ending 13.04.2016



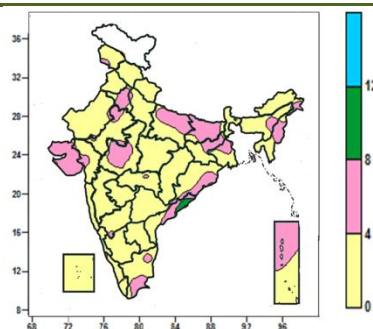
- Mean Relative humidity was above 80% over some parts of Arunachal Pradesh, Assam & Meghalaya, Manipur, Mizoram and isolated pocket of Lakshadweep.
- Mean Relative humidity was between 60 to 80% over Nagaland, Tripura, Andaman & Nicobar Islands, many parts of Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Manipur, Mizoram, Tamil Nadu, Coastal Karnataka, Kerala and Lakshadweep, some parts of Jammu & Kashmir, Coastal Andhra Pradesh, Rayalaseema and isolated pockets of Gangetic West Bengal, Odisha, South Interior Karnataka.
- Mean Relative humidity was between 20 to 60% over rest of the country except isolated pockets East Rajasthan where it was between 0 to 20%.

Cloud amount (okta) over India for the week ending 13.04.2016



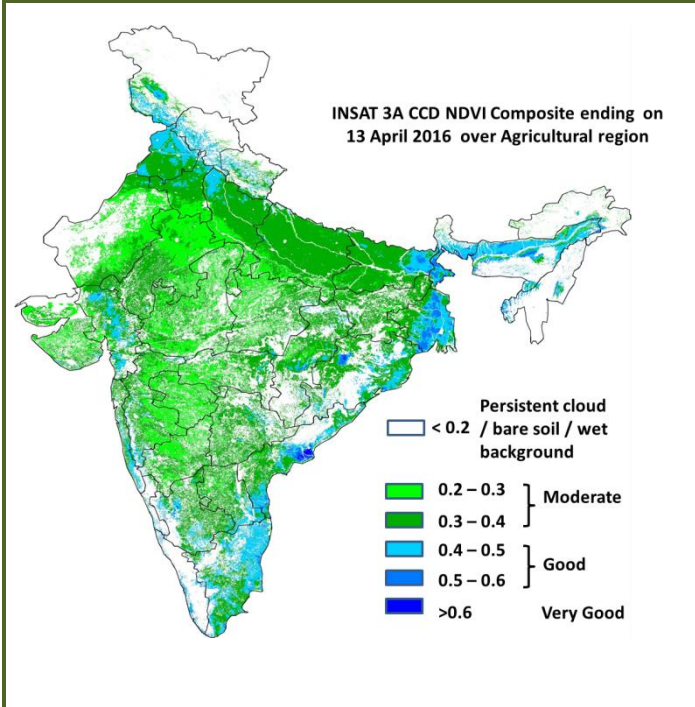
- Sky remained generally cloudy (5-7 okta) over some parts of Arunachal Pradesh and Kerala, isolated pockets of Assam & Meghalaya, Manipur, Tamil Nadu.
- Sky remained partly cloudy/mainly clear (3-4 okta/1 to 2) over rest of the country except some parts of West Rajasthan, Gujarat region, West Madhya Pradesh, Madhya Maharashtra, Vidarbha, Odisha isolated pockets of Saurashtra, East Madhya Pradesh, Chhattisgarh, Telangana, North Interior Karnataka and Coastal Andhra Pradesh where it was clear sky (0 okta).

Wind speed (knots) over India for the week ending 13.04.2016



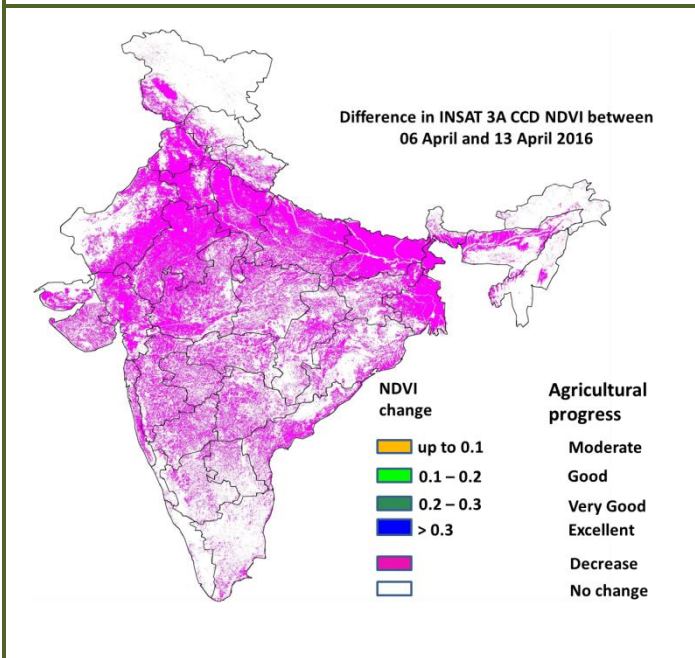
- Mean wind speed was 8 to 12 knots over some parts of Coastal Andhra Pradesh.
- Mean wind speed was 4 to 8 knots over many parts of Haryana & Delhi, Bihar, Manipur, Saurashtra & Kutch, some parts of East Uttar Pradesh, Assam, Jharkhand, Gangetic West Bengal, East Rajasthan, West Madhya Pradesh, Odisha, Coastal Andhra Pradesh, Tamil Nadu, Andaman & Nicobar Islands and isolated pockets of Jammu and Kashmir, West Rajasthan, Gujarat Region, Sub-Himalayan West Bengal, Arunachal Pradesh, Vidarbha and North Interior Karnataka.
- Mean wind speed was less than 4 knots over rest of the country.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 13th April 2016 OVER AGRICULTURAL REGION OF INDIA



- Agricultural vigour is good over North Punjab, Gujarat, patches in north west Uttar Pradesh, Coastal Andhra Pradesh, patches in Bihar, West Bengal, coastal Odisha, Assam and Tamil Nadu where NDVI varies from 0.4 to 0.6. Agricultural growth was moderate 0.2 to 0.4 over most parts of Haryana, Uttar Pradesh, Rajasthan, Madhya Pradesh, Gujarat, Telangana, Maharashtra, Karnataka and Odisha.

Difference in INSAT 3A CCD NDVI between 6th and 13th April 2016



- Decrease in NDVI is observed over entire region of India.

- INSAT 3A CCD NDVI composite maps for the week ending on 13th April 2016 for different States are given below in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 20th April 2016

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.
- Maximum temperatures likely to rise by 2-3°C over plains of northwest India & central India and by 1-2°C over West India, Telangana and Rayalaseema during next 2-3 days.

5 Day Rainfall Forecast (MID DAY) 15th April 2016

Met Sub-divisions	15 April	16 April	17 April	18 April	19 April
1. Andaman & Nicobar Islands	DRY	DRY	DRY	DRY	DRY
2. Arunachal Pradesh	FWS	FWS	WS	WS	FWS
3. Assam & Meghalaya	SCT	WS	WS	WS	FWS
4. N.M.M. & T.	SCT	WS	WS	WS	FWS
5. S.H. West Bengal & Sikkim	SCT	FWS	FWS	FWS	FWS
6. Gangetic West Bengal	DRY	DRY	DRY	DRY	DRY
7. Odisha	DRY	DRY	DRY	DRY	ISOL
8. Jharkhand	DRY	DRY	DRY	DRY	DRY
9. Bihar	DRY	DRY	ISOL	ISOL	ISOL
10. East Uttar Pradesh	DRY	DRY	DRY	DRY	ISOL
11. West Uttar Pradesh	DRY	DRY	DRY	ISOL	ISOL
12. Uttarakhand	DRY	ISOL	ISOL	SCT	SCT
13. Haryana, Chd & Delhi	DRY	DRY	ISOL	ISOL	ISOL
14. Punjab	DRY	DRY	ISOL	ISOL	DRY
15. Himachal Pradesh	DRY	ISOL	SCT	WS	SCT
16. Jammu & Kashmir	ISOL	SCT	WS	WS	WS
17. West Rajasthan	DRY	DRY	DRY	ISOL	ISOL
18. East Rajasthan	DRY	DRY	DRY	ISOL	ISOL
19. West Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
20. East Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
21. Gujarat Region	DRY	DRY	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	DRY	DRY	DRY	DRY	DRY
24. Madhya Maharashtra	DRY	DRY	DRY	DRY	DRY
25. Marathwada	DRY	DRY	DRY	DRY	DRY
26. Vidarbha	DRY	DRY	DRY	DRY	DRY
27. Chhattisgarh	DRY	DRY	DRY	DRY	DRY
28. Coastal Andhra Pradesh	DRY	ISOL	DRY	DRY	ISOL
29. Telangana	DRY	DRY	ISOL	DRY	DRY
30. Rayalaseema	DRY	DRY	DRY	DRY	DRY
31. Tamil Nadu & Puducherry	ISOL	ISOL	DRY	DRY	DRY
32. Coastal Karnataka	DRY	DRY	DRY	DRY	DRY
33. North Interior Karnataka	DRY	DRY	DRY	DRY	ISOL
34. South Interior Karnataka	ISOL	ISOL	ISOL	DRY	ISOL
35. Kerala	ISOL	ISOL	ISOL	ISOL	ISOL
36. Lakshadweep	DRY	DRY	DRY	DRY	DRY

% Station Reporting Rainfall

% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		

Weather Warning during next 5 days

- **15 April (Day 1):** Heat wave conditions likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, Rajasthan, West Madhya Pradesh, Vidarbha, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Telangana, Rayalaseema and interior Tamilnadu. Thunderstorm accompanied with squall/hail likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **16 April (Day 2):** Heat wave conditions likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, Rajasthan, West Madhya Pradesh, Vidarbha, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Madhya Maharashtra, Marathwada, Telangana and Rayalaseema. Heavy to very heavy rainfall likely at isolated places over Assam & Meghalaya and heavy at isolated places over Nagaland, Manipur, Mizoram & Tripura. Thunderstorm accompanied with squall/hail likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Dust/thunderstorm

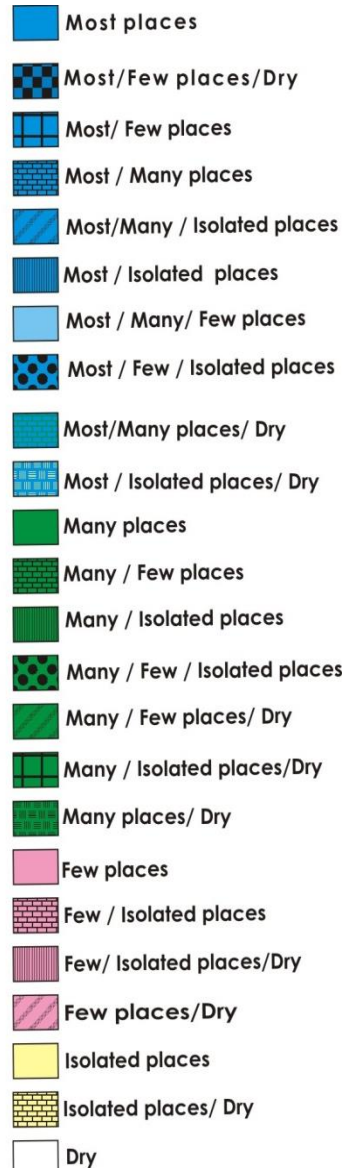
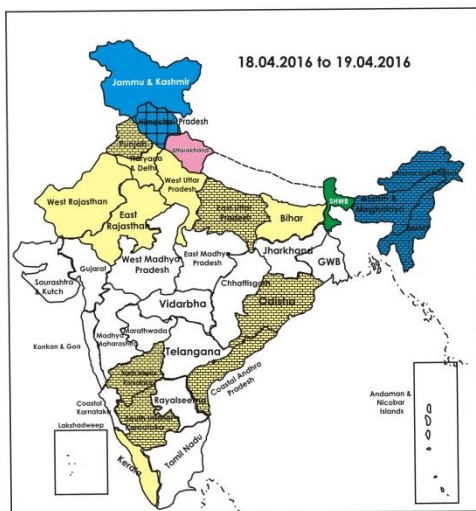
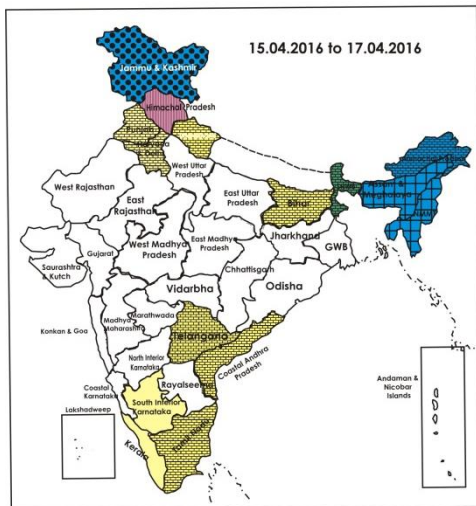
accompanied with squall likely at isolated places over Punjab, Haryana, Chandigarh & Delhi and Rajasthan.

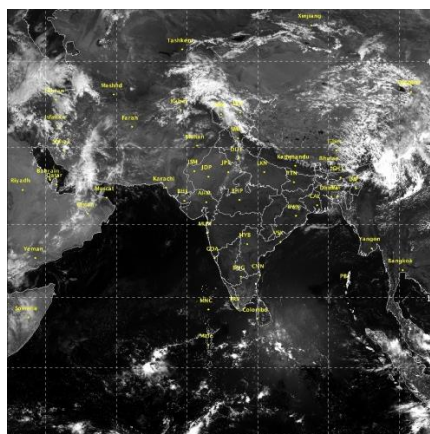
- **17 April (Day 3):** Heat wave conditions likely at isolated places over Madhya Maharashtra and Marathwada. Heavy rain/snow likely at isolated places over Jammu & Kashmir. Heavy to very heavy rainfall likely at isolated places over Assam & Meghalaya and heavy at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura. Dust/thunderstorm accompanied with squall likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh and Rajasthan.
- **18 April (Day 4):** Heavy rainfall likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Dust/thunderstorm accompanied with squall likely at isolated places over West Uttar Pradesh.
- **19 April (Day 5):** Heavy rainfall likely at isolated places over Sub-Himalayan West Bengal & Sikkim.

Weather Outlook for subsequent 2 days from 20th to 22nd April 2016

- Rain/thunderstorms likely at many places over northeastern states; at a few places over Sub-Himalayan West Bengal & Sikkim and at isolated places over east and south peninsula India.
- Rain/snow very likely at a few places over Western Himalayan region.

Weather Forecast Map (Valid upto 0830 hours of 20th April, 2016)





Salient Advisories

- As heat wave conditions prevailed over **Gangetic West Bengal** and **Odisha** and heat wave conditions likely to prevail at isolated places over **Punjab, Haryana, Chandigarh & Delhi, Rajasthan, West Madhya Pradesh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Vidarbha, Telangana** and **Royalaseema** on 15th & 16th, over interior **Tamil Nadu** on 15th and over **Madhya Maharashtra and Marathwada** on 16th & 17th April, adopt the following measures for **livestock**:
 - Cattles/goats may preferably be allowed for grazing during early morning and late evening to avoid exposure to extreme hot conditions and during hot hours, they must be tied and fed in shaded place or under the tree.
 - Sprinkle cold water 2-3 times a day on the body of the animal to overcome the heat. Apply 4-6 inch thick hay thatch as a roofing material. Undertake spraying of water on floor and roof of animal shelter periodically during peak hot hours which lowers the temperature and consequently reduces the heat load on animals.
 - Proper ventilation should be maintained for free circulation of air in the sheds.
 - Provide plenty of clean drinking water to animals and water troughs should be regularly cleaned.
 - **In poultry:** Cover water tank and lines with gunny bags to provide cool water, use foggers/fans and sprinklers to reduce temperature and to increase air flow, cover roofs of the sheds with coconut tree leaves or grass, white wash roofs and water tanks to reduce heat absorption, ensure proper cross ventilation to avoid ammonia accumulation and provide feed during cooler parts of the day (early morning or late evening). Add electrolytes and vitamin-C in drinking water.
- As heat wave conditions likely at isolated places over **Punjab, Haryana, Chandigarh & Delhi, Rajasthan, West Madhya Pradesh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Vidarbha, Telangana** and **Royalaseema** on 15th & 16th, over interior **Tamil Nadu** on 15th and over **Madhya Maharashtra and Marathwada** on 16th & 17th April, apply light and frequent irrigation to standing crops to cope up with the excess evaporative demand. Young saplings may be protected by erecting temporary shade. Undertake soil mulching/mulching with straw/polythene to conserve soil moisture in dry land areas.
- As heat wave conditions very likely at isolated places over **Madhya Maharashtra and Marathwada** on 16th & 17th April and over **Vidarbha** on 15th and 16th April;
 - In **Madhya Maharashtra**, to reduce the impact of heat wave conditions apply light and frequent irrigation preferably by drip irrigation in the evening hours to summer crops and orchards. Apply mulch of farm waste, dry grass, leaves and twigs in orchards (fig, pomegranate, sweet lime, guava) and vegetable crops to avoid loss of water due to evaporation. Undertake mulching with trash in seasonal and ratoon sugarcane crops and apply irrigation by alternate furrow method considering water stress condition. Farmers are advised to spray kaolin @ 8% in orchards like pomegranate, sweet lime and banana.
 - In **Marathwada**, to reduce the impact of heat wave conditions, apply light and frequent irrigation in the

evening hours to summer crops and orchards. Apply mulch of sugarcane trash, dried grasses or black plastic film (poly-ethylene) to summer crops and orchards to avoid loss of water due to evaporation. Make arrangement for shade to protect newly planted mango trees from sunlight. Cover banana bunch with perforated plastic bags to protect from bright sunshine. Apply irrigation to summer groundnut by sprinkler method. Make arrangement for shade for vegetable crops to protect from scorching sun. To prevent fruit dropping in mango, spray Urea @ 2 % (20 gm per liter of water) + NAA 20 PPM (20 ml per litre of water). Farmers are advised to spray kaolin @ 8% in orchards like pomegranate, sweet lime and banana.

- In **Vidarbha**, to reduce the impact of heat wave conditions, apply light and frequent irrigation in the evening hours to summer crops and orchards. Farmers are advised to spray Kaolin @ 8% in orchards like sweet lime and orange. Apply mulch of sugarcane trash, dried grasses or black plastic film (poly-ethylene) to summer crops and orchards to conserve soil moisture. Cover banana bunch with perforated plastic bags to protect from bright sunshine.
- As thunderstorm accompanied with squall/hail likely at isolated places over **Sub Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura** on 15th & 16th April and over on farmers are advised to provide hail net/hail caps in orchard crops, arrange mechanical support to banana, young fruit plants and staking of vegetables to prevent the crops from lodging due to strong winds. Keep already harvested produces at safer places.
- As dust/thunderstorm accompanied with squall likely at isolated places over **Punjab, Haryana, Chandigarh & Delhi** and **Rajasthan** on 16th and 17th and over **West Uttar Pradesh** on 17th & 18th April, farmers are advised to provide mechanical support to young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds. Undertake propping in sugarcane and keep harvested produce at safer places.
- As rain/thundershowers likely at most/many places over **Arunachal Pradesh** during the period and over **Assam, Meghalaya, Nagaland, Manipur, Mizoram & Tripura** and **Sub Himalayan West Bengal & Sikkim** from 16th to 19th April, along with heavy rain at isolated places over Sub Himalayan West Bengal & Sikkim from 17th to 19th, over Arunachal Pradesh on 17th & 18th and heavy/ heavy to very heavy rainfall at isolated places over Assam & Meghalaya from 16th to 18th and over Nagaland, Manipur, Mizoram & Tripura from 16th to 18th April, farmers are advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops fields.
- As rain/snow would occur at most places over **Jammu & Kashmir** from 17th to 19th and over **Himachal Pradesh** on 18th April, along with heavy rain/snow likely at isolated places over Jammu & Kashmir on 17th, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of matured crops in Jammu & Kashmir and keep already harvested produces at safe places. Provide adequate drainage in standing crop fields in Jammu & Kashmir.
- Undertake land preparation/sowing of the following summer crops:
 - In **Assam**, postpone sowing of *Capsularis* jute, summer green gram & black gram and transplanting of *ahu* rice till the end of current spells of heavy rain.
 - In **West Bengal**, postpone transplanting of chilli and sowing of maize, bhindi and French bean in Sub Himalayan West Bengal & Sikkim and in New Alluvial Zone, continue land preparation and sowing of jute.
 - In **Odisha**, in East and South Eastern Coastal Plain Zone, continue land preparation and sowing of jute and in North Eastern Ghat Zone, continue sowing summer sunflower and groundnut.
 - In **Uttar Pradesh**, continue sowing of cowpea, maize, urad and mung.
 - In **Bihar**, continue sowing of summer maize and vegetables and in **Jharkhand**, continue sowing of green gram/ black gram, maize and vegetables.
- As mainly dry weather would prevail, continue harvesting of wheat and lentil in **Uttar Pradesh**, wheat in **Madhya Pradesh, Bihar, Rajasthan and Haryana**. Continue harvesting of rice in Problem Area Zone of **Kerala** and in the North Coastal Zone of **Andhra Pradesh**, continue harvesting of rice and harvesting of *rabi* groundnut in the Southern Zone and Scarce Rainfall Zone.

Detailed Zonewise Agromet Advisories

SOUTH INDIA [TAMIL NADU, TELANGANA, ANDHRA PRADESH, KARNATAKA, KERALA]



Banana



Groundnut



Sugarcane



Cotton

- **Realised Rainfall:** Rainfall occurred in Ernakulum, Idukki, Kottayam, Pathanamthitta, Thiruvananthapuram and Thrissur districts of Kerala. Weather remained mainly dry/dry over rest of the region.

- **Advisories:**

- As heat wave conditions likely at isolated places over Telangana and Rayalseema on 15th & 16th and over interior Tamil Nadu on 15th April, apply light and frequent irrigation to standing crops to cope up with the excess evaporative demand. Young saplings may be protected by erecting temporary shade. Undertake soil mulching/mulching with straw/polythene to conserve soil moisture in dry land areas.

- **Tamil Nadu:**

- In the Cauvery Delta Zone, continue cultivation of blackgram (ADT 5 variety) under irrigated conditions, harvesting of matured rice fallow black gram and provide irrigation to sesame, sugarcane and rice fallow cotton crops.
- In the Western Zone, considering the increase in temperature and low soil moisture, irrigation may be provided to *Navarai* rice at milking stage and sesame at flowering/capsule formation stage and undertake gap filling in recently sown irrigated bajra.
- In the High Rainfall Zone, continue providing irrigation to banana, coconut and pepper at regular interval and mulching in coconut gardens for moisture conservation.
- In Karaikal, prevailing dry weather is congenial for incidence of stem weevil in cotton. To manage, uproot the affected plants and burn it. If damage is severe, follow earthing up and soil application of Carbofuran 3G @ 33 kg/ha.
- In the Western Zone, considering the dry weather, apply Carbofuran @ 3G granules 12 kg/acre and provide earthing up for 30 days old cotton to arrest cotton stem weevil.
- In the South Zone, fruit borer incidence may occur in bhendi, in the prevailing hot weather condition. To control this pest, release egg parasitoid *Trichogramma chilonis* @ 1 lakh / ha or spray Azadirachtin @ 0.03% WSP (300 ppm) 5.0 g/litre of water (or) Phosalone 35 % EC 1.5 ml / litre of water.
- In the North Western Zone, due to high temperature, sucking pest attack will increase in vegetable crops. To control aphids, place yellow sticky traps @ 20 nos/acre and for thrips, place blue sticky traps @ 20 nos/acre at 10 meters spacing and at 1 feet above the height of the crop.
- Suitable varieties for sowing are given in Annexure III.

- **Andhra Pradesh:**

- In the Scarce Rainfall Zone, since heat wave conditions are likely to prevail over Rayalaseema during next 2 days, provide light irrigation through drip or check basin method mango, banana, sweet orange and vegetable fields, spray Potassium Nitrate @ 10g/litre of water in the morning hours and undertake mulching of the tree basin with organic mulch to conserve the moisture in mango, banana, sweet orange and vegetable fields in order to protect the crops from high temperature conditions. In banana, cover the fruit bunch/peduncle with flag leaf to avoid the direct incidence of the sunrays/ to avoid the scorching effect. Spray potassium nitrate @ 10g/litre at early hours. In sweet orange, spray calcium carbonate on the fruits @ 10-15 g/litre to avoid the sun scorching and direct radiation effect on the fruits.
- In the Krishna Godavari Zone, continue harvesting of Bengal gram and *rabi* black gram. In view of the prevailing hot weather, continue providing irrigation to *rabi* jowar at flowering to grain formation stage.
- In the North Coastal Zone, continue harvesting of rice and planting of sugarcane using single budded setts/bud chip seedlings and give irrigations at frequent interval to keep the soil moist.
- In the Southern Zone, continue harvesting of *rabi* groundnut.
- In the Southern Zone, prevailing dry and hot weather conditions are congenial for attack of mealy bug in horticultural crops. To control, spray Dimethioate @ 2 ml.+ Sandowit @ 1 ml/litre of water.
- In the North Coastal Zone, prevailing dry hot weather conditions are congenial for incidence of YMV (yellow mosaic virus) in summer pulses. To control, spray remove the affected plants and spray Dimethoate @ 2 ml/litre of water for control of vectors.
- In the Scarce Rainfall Zone, leaf blast and sheath rot incidence is noticed in rice. Spray Tricyclazole 75 % 0.6g/

Isoprothiolin 40% @ 1.5ml @ 2.5ml/litre of water to control leaf blast and Validamycin @ 2ml/litre of water or Propiconazole @ 2ml/litre of water for sheath rot.

▪ **Telangana:**

- In the Southern Telangana Zone, irrigate the ID crops during the evening hours to protect crops from prevailing heat wave conditions.
- In the Northern Telangana Zone, continue harvesting of bhendi and tomato. Due to the prevailing dry weather conditions, give frequent irrigations in mango orchards to get synchronized flowering.
- In the Northern Telangana Zone, sucking pests incidence is noticed in groundnut. To control, spray Monocrotophos @ 1.6 ml/litre of water or Dimethoate @ 2 ml/litre of water.
- In the Southern Telangana Zone, prevailing high temperatures are congenial for incidence of fruit fly in mango. To trap the flies in the container, hang the plastic containers with mixture of Methyl Eugenol @ 2 ml + Carbofuran 3G @ 3g per litre of water in the orchard.

▪ **Karnataka:**

- In Eastern Dry Zone of Karnataka, procure seeds for sowing and store for pre monsoon season sowing; cowpea, sesame, black gram and green gram are recommended for sowing during month of May. Agricultural implements and seeds may be kept ready for sowing of above crops. Mulching and weeding is recommended in mango orchard to conserve soil moisture. Provide irrigation to vegetables and other crops.
- In North East Transition Zone and North East Dry Zone, continue summer deep ploughing. Provide irrigation to mango at 15-20 days interval from fruit setting till maturity for the better development of fruits and provide irrigation to sugarcane.
- In North Transition Zone of Karnataka, spray NAA (Naphthalene acetic acid) at 20 ppm twice at an interval of 15 days to control mango fruit drop. Continue summer ploughing, picking of matured fruits of sapota.
- In Hill Zone, provide irrigation to areca nut, coconut and black pepper gardens either in furrows or by drip irrigation.
- In North East Transition Zone, early shoot borer was noticed in sugarcane; to control, spray Chlorpyrifos 20 EC @ 2 ml/litre of water.
- Due to cloudy weather during last week, thrips and mites are observed in chilli crop in Southern Dry Zone; to control, spray Roger @ 1.7 ml + Dicotal @ 2.5 ml/litre of water.

▪ **Kerala:**

- In the Problem Area Zone, continue harvesting of matured rice and pepper. Continue mulching with dried leaves for reducing evapotranspiration loss and provide shade to newly planted coconut seedlings.
- In the High Altitude Zone, continue sowing of vegetables like bhindi, bitter gourd and amaranthus. Undertake planting of ginger and pepper and nursery preparation for cardamom.
- In the Northern Zone, continue planting of Nendran bananas (Robusta, Poovan, Njalipoovan, Palayankodan varieties), precautionary measures to conserve water in rice fields to tackle drought and cultivation of vegetables as inter crops in coconut gardens.
- In the Southern Zone, undertake planting of bhindi, brinjal, pepper, bottle gourd, bitter gourd and cucumber and continue new planting of coconut and bananas (Robusta, Palayankodan and Njalipoovan) in Kollam and Pathanamthitta districts and complete planting of turmeric. As prevailing atmospheric temperature is very high, provide irrigation to Nendran bananas and wait for few good showers before resuming tapping of rubber.
- In the Southern Zone, fairly high humidity and high temperature conditions are congenial for attack of serpentine leaf minor in vegetables. To control, spray Neem oil – Soap emulsion is an effective control measure.
- In the Problem Area Zone, prevailing hot weather condition is congenial for incidences of sucking pest like mites and thrips in vegetables. To control, spray Oberon @ 0.6g/litre of water on a non rainy day. Monitor for white fly attack in vegetables. Yellow sticky trap must be installed in fields to control the attack.
- In the Central Zone, prevailing increase in temperature is congenial for incidences of sheath blight in rice and fruit borer in vegetables. To control sheath blight, Apply Propiconazole 25 EC @ 500 ml per 1 hectare and apply 2% Neem Kernel Suspension to control fruit borer.

• **Animal Husbandry**

- In the Krishna Godavari Zone of Andhra Pradesh, due to rise in temperature, avoid grazing of animals during day time, provide good thatched sheds for cooling, increase the frequency of drinking water facility and provide ragi and horsegram malts.
- In the Scarce Rainfall Zone, since heat wave conditions are likely to prevail over Rayalaseema in the coming two days, cover water tank and lines may be covered with gunny bags to provide cool water, ensure cool drinking water available throughout the day, use foggers and sprinklers to reduce temperature, cover roofs with coconut tree leaves or grass, white wash the roofs and water tanks to reduce heat absorption, ensure proper cross ventilation to avoid ammonia accumulation use, use pedestrian fans to increase air flow and distribute feed in cooler parts of the day (early morning or late evening).
- In the Southern and Northern Telangana Zone, due to prevailing heat wave conditions, protect the poultry birds by arranging fans and foggers in sheds, cover the sheds with paddy straw and arrange sprinklers, feed with wet mash to increase the feed intake and provide cool water for drinking and provide green fodder to milch animals to improve the butter percentage in the milk.

- In the Western Zone of Tamil Nadu, since there is increase both maximum and minimum temperature, animals may be fed with cool drinking water @ 80-100 litres per day per animal in four splits.
- In the South Zone of Tamil Nadu, provide adequate cool drinking water and green fodder and spray water on gunny bags surrounding the cattle shed in order to mitigate the effect of high temperature on animals.
- In the North Western Zone, prevailing increase in temperature will cause stress in poultry even during night hours. Avoid excess protein and balance amino acids, reduce cereals and add oil to balance energy in feed to manage summer stress.
- In North East Transition Zone and North Dry Zone of Karnataka, due to increase in day temperature (41 to 42°C) there is probability of drop in feed intake in poultry birds; maintain optimum temperature by applying 4 - 6 inch thick hay thatch as a roofing material. Water can be used for spraying the floor and roof of shelter periodically during peak hot hours which lowers the temperature in poultry sheds. Provide cold water for poultry birds. Add electrolytes (KCl, NaCl and NaCO₃) in feed and water. Leave the buffaloes in ponds during afternoon hours or sprinkle the cold water 2-3 times a day on the body of the animal to overcome the heat. Apply 4-6 inch thick hay thatch as a roofing material. Water can be used for spraying the floor and roof of shelter periodically during peak hot hours which lowers the temperature and consequently reduces the heat load on animals.
- In North East Dry Zone and Eastern Dry Zone of Karnataka, conserve fodder (hay, silage and in large heaps) to meet the fodder requirement during approaching lean period.
- In Southern Dry Zone of Karnataka, make drinking water available for animals and birds in and around home as well as in the farm fields.

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



Banana



Rice



Okra



Cabbage

- **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh except East Kameng, West Kameng and West Siang; all districts of Assam except Dhemaji, Dhubri, Golpara, Golaghat, Kamrup(Metro), Karbi Anglong, Kokrajhar, Morigaon, Nagaon and Sonitpur; East Garo and East Khasi Hills districts of Meghalaya; Imphal West district of Manipur. Weather remained mainly dry over rest of the region.

- **Advisories:**

- As thunderstorm accompanied with squall/hail likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 15th & 16th April, farmers are advised to provide hail net/hail caps in orchard crops, arrange mechanical support to banana, young fruit plants and staking of vegetables to prevent the crops.
- As rain/thundershowers likely at most/many places over Arunachal Pradesh during the period and over Assam, Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Sub Himalayan West Bengal & Sikkim from 16th to 19th April, along with heavy rain at isolated places over Sub Himalayan West Bengal & Sikkim from 17th to 19th, over Arunachal Pradesh on 17th & 18th and heavy/ heavy to very heavy rainfall at isolated places over Assam & Meghalaya from 16th to 18th and over Nagaland, Manipur, Mizoram & Tripura from 16th to 18th April, farmers are advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops fields.

- **Assam, Meghalaya & Arunachal Pradesh:**

- In Assam, drain out excess water from rice nursery, maize, green gram, black gram and vegetable fields. Undertake sowing of *baor* rice and *Capsularis* jute after current spells of heavy rain.
- In Hill Zone of Assam, continue sowing of maize, bhindi, bottle guard, bitter guard after current spells of heavy rain. Continue transplanting of normal *ahu* rice. Also collect healthy sword suckers of Dwarf Cavendish (Dwarf Cultivar), Cheni Champa, Malbhog (Medium Tall cultivars), etc. for planting of banana.
- In Lower Brahmaputra Valley Zone of Assam, continue sowing of cow pea and planting of spring sugarcane, banana, ginger and turmeric at optimum soil moisture conditions. Undertake replanting of dead hills within 7-10 days of transplanting of transplanted early *ahu* rice. Undertake sowing of *ahu* rice with selection of right varieties like Rasi, IR-36 of normal direct seeded/transplanted *ahu* rice after current spells of heavy rain.
- In Upper Brahmaputra Valley Zone of Assam, continue planting of spring sugarcane and complete planting of banana suckers with first fortnight of April.
- In Barak Valley Zone of Assam, undertake planting of lemon.
- In Central Brahmaputra Valley Zone of Assam, continue land preparation and sowing of early *ahu* rice, green gram/black gram, summer vegetables and *Capsularis* jute and planting of ginger, turmeric and spring sugarcane after current spells of heavy rain.

- In North Bank Plain Zone of Assam, farmers are advised to continue transplanting of early *ahu* rice, planting of the high yielding varieties of ginger & turmeric, sugarcane and banana and sowing of maize after current spells of heavy rain.
- In Meghalaya, continue sowing of maize in high and mid altitude region and continue sowing of bottle guard and ash guard and nursery bed preparation for brinjal and tomato after current spells of heavy rain. Continue land preparation and sowing of *jhum* rice after current spells of heavy rain.
- In Arunachal Pradesh, postpone sowing of summer vegetables like cucumber, sponge gourd, bottle gourd and ladies finger as they are likely to spoil during rain. Right time for transplantation of vegetables. Prepare half moon terraces in fruit crops (orange/banana/apple/peach) grown in steep slopes to prevent nutrient loss during heavy downpour and follow proper drainage and earthing up practices in low land/plain areas to avoid water stagnation in fruit orchards. Undertake nursery sowing/ transplanting of rice after current spells of heavy rain.
- In Hill Zone of Assam, there is chance of attack of rice blast in transplanted early *ahu* rice at tillering stage due to the prevailing weather conditions. Spray Carbendazim @ 1g/litre.
- In Lower Brahmaputra Valley Zone of Assam, in the prevailing weather, there is chance of attack of rice bug in *boro* rice at booting to heading stage. Spray Malathion 5% dust @ 2.5-3kg/bigha against rice bug after current spells of rain.
- In North Bank Plain Zone of Assam, spray Mencozeb (Dithene M-45) @ 2g/litre or Carbendazim (Dirosol) @ 1g/litre of water for controlling blast disease in *boro* rice at grain formation stage after current spells of rain.
- In Barak Valley Zone of Assam, there may be stem borer attack in the *boro* rice fields; to control the pest apply Chloropyrifos @ 1 ml/litre of water after current spells of rain.
- In Meghalaya, there may be attack of blast, rice Gandhi bug and stem borer in *boro* rice during flowering /milking stage. To control blast spray Carbendazim @ 1g/litre of water, Spray Malathion 5% dust @ 6.25kg/ha against rice gandhi bug and Chloropyrifos @ 0.02% or Monocrotophos @ 0.04% against stem borer after current spells of rain. Spray Chlorpyrifos 20 EC @ 1ml/litre for control of cut worms in potato.
- **Nagaland, Manipur, Mizoram and Tripura:**
- In Nagaland, undertake sowing of okra, cowpea and cucurbits after current spells of heavy rain. Undertake pit preparation for plantation of fruit crops after current spells of heavy rain.
- In Manipur, complete transplanting of 35-40 days of old seedlings of pre-*kharif* rice at the earliest and maintain water depth of 2-3cm in the field after transplanting. Continue land preparation for planting of ginger/turmeric and land preparation for sowing of soybean, groundnut, black gram and pit preparation for fruit plants like banana, lime, lemon, orange, kiwi after current spells of heavy rain.
- In Mizoram, continue transplanting of brinjal and chilli in the main fields and sowing of French bean, cow pea and maize after current spells of heavy rain.
- In Tripura, complete land preparation for sowing of *Jhum* rice. Keep water level in the fields of *boro* rice 5 cm during flowering stage.
- In Nagaland, there is chance of attack of red pumpkin beetle in cucurbits and fruit borer in tomato shoot and fruit borer in brinjal to control red pumpkin beetle, undertake dusting of mixture of kerosene oil + ash in adequate proportion after current spells of rain. To control fruit borer in tomato, shoot and fruit borer in brinjal establish pheromone trap @ 12 nos per acre collect infested fruits and shoots and bury it in the soil.
- In Manipur, apply few granules of Carbofuran 3G at maize whorl at vegetative stage against stem borer after current spells of rain.
- In Tripura, there is chance of attack fruit and shoot borer on summer brinjal and tomato. Apply Cypermethrin @ 1.5ml or Flubendamid 0.5 ml per litre of water to manage the attack after current spells of rain.
- Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry:**
- In Hill Zone of Assam, undertake vaccination against Ranikhet disease in poultry during this time and proper sanitary measures in poultry house and incubators.
- In Barak Valley Zone of Assam, provide coccidiostatic like Amprolium @ 25-65 mg/kg feed once a day as a preventive measure against coccidiosis and to control the Ranikhet disease vaccinate the poultry birds with F1/Lasota vaccine (1 drop) at the age of 4-7 days old and 35 days old through eye and nostril of poultry.
- In Meghalaya, due to increased in temperature, keep the poultry house well ventilated during day time.
- In Manipur, undertake vaccination against ranikhet disease in poultry. Vaccinate cattle against black quarter, haemorrhagic septicaemia and foot and mouth disease.
- In Tripura, undertake vaccination against swine fever in pig and deworming in calves.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Green gram



Sugarcane



Groundnut



Wheat

- **Realised Rainfall:** Weather remained dry over the region.
- **Advisories:**
 - **Maharashtra:**
 - As heat wave conditions very likely at isolated places over Madhya Maharashtra, Marathwada on 16th & 17th and over Vidarbha on 15th and 16th April;
 - In Madhya Maharashtra, to reduce the impact of heat wave conditions, apply light and frequent irrigation to summer groundnut, sugarcane, vegetables and mango orchards. Apply irrigation by drip or sprinkler method. Cover banana bunch with perforated plastic bags to protect from bright sunshine. Also prepare artificial windbreaks with the help of stover of sorghum or sugarcane thrash and apply on the border of banana orchard to protect from heat wave. Apply mulch of farm waste, dry grass, leaves and twigs in orchards (fig, pomegranate, sweet lime, guava) and vegetable crops to avoid loss of water due to evaporation. Undertake mulching with trash in seasonal and ratoon sugarcane crops and apply irrigation by alternate furrow method considering water stress condition. Undertake April pruning in vineyards. Farmers are advised to spray Kaolin @ 8% in orchards like pomegranate, sweet lime and banana to reduce evapotranspiration.
 - In Marathwada, to reduce the impact of heat wave conditions, apply light and frequent irrigation summer groundnut, sugarcane, vegetables and mango orchards. Apply irrigation by sprinkler method. Cover banana bunch with perforated plastic bags to protect from bright sunshine. Also prepare artificial windbreaks with the help of stover of sorghum or sugarcane thrash and apply on the border of banana orchard to protect from heat wave. Apply mulch of sugarcane trash, dried grasses or black plastic film (polyethylene) to summer crops and orchards to avoid loss of water due to evaporation. Make arrangement for shade to protect newly planted mango trees and vegetable crops from scorching sun. To prevent mango fruit dropping, spray Urea @ 2 % (20 gm per liter of water) + NAA 20 PPM (20 ml per litre of water). Farmers are advised to spray Kaolin @ 8% in orchards like pomegranate, sweet lime and banana to reduce evapotranspiration. Continue April pruning in vineyards.
 - In Vidarbha, to reduce the impact of heat wave conditions, apply light and frequent irrigation summer groundnut, vegetables, sugarcane, rice and mango orchards. Cover banana bunch with perforated plastic bags to protect from bright sunshine. Also prepare artificial windbreaks with the help of stover of sorghum or sugarcane thrash and apply on the border of banana orchard to protect from heat wave. Farmers are advised to spray Kaolin @ 8% in orchards like sweetlime and orange to reduce evaporation. Apply mulch of sugarcane trash, dried grasses or black plastic film (polyethylene) to summer crops and orchards to avoid loss of water due to evapotranspiration. Maintain water level of 5-8 cm in summer rice field in East Vidarbha.
 - In Konkan, as high temperature is prevailing, apply light irrigation to groundnut, vegetable crops and pulses to meet excess evaporative demand. In Sindhudurg, apply irrigation to maintain around 10 cm water level in rice field at grain filling stage. Some varieties are at maturity stage, drain out water from field at least 8-10 days before harvesting. Continue harvesting of already matured crop. Apply irrigation to mango and cashew orchards. At a few places where mango fruits are at maturity stage (80-85% Maturity), harvest the fruits early in the morning and in the evening. Keep the harvested fruits in shade to prevent spongy tissue disease and from heat. New graft and newly planted fruit crops may be protected from sun burn by erecting temporary shed.
 - Due to prevailing temperature in Western Maharashtra Scarcity zone, there may be attack of sucking pest like whitefly, thrips in tomato; spray Imidachloprid @ 4 ml per 10 litres of water at an interval of 10-15 days.
 - Due to prevailing temperature in Marathwada region, there may be attack of aphids, thrips and whitefly in watermelon; spray Thiamethoxam @ 4 g or Carbosulfan @ 10 ml per 10 litres of water.
 - **Gujarat:**
 - In North Saurashtra Zone, there are chance of rise in maximum and minimum temperature by 1-2 °C; apply light and frequent irrigation to groundnut (flowering), mango (gram grain size) orchards, vegetables crops and in lemon orchard.
 - In South Saurashtra Zone, apply irrigation in green gram, black gram and groundnut at regular interval.
 - In South Gujarat Zone, spray 2 % urea solution in guava orchard for getting early production and to reduce the harvest time up to 1 to 4 weeks. To control evaporation from sugarcane field, spread dry leaves of sugarcane in

between two rows of sugarcane. Spray NAA @ 2g or Gibberlic acid 1 g + 2kgs Urea /100 litres of water solution to overcome dropping of unripe fruits in Mango orchards.

- In North West Zone of Gujarat, continue weeding and inter cultural operations in timely sown pearl millet, groundnut, green gram, cow pea and vegetable crops. Apply irrigation at 8-10 days interval in pearl millet, cluster bean and green gram. Continue picking of cotton during morning time and harvesting of gram. Apply Nitrogenous fertilizer or Ammonium Sulphate @ 2 kg/plant followed by irrigation for development of mango fruits.
- In Middle Gujarat Zone, continue harvesting of matured castor. Carry out intercultural operations in summer crops like black gram, green gram and apply irrigation.
- In North Gujarat Zone, apply irrigation in green gram crop at 9 to 10 days interval. Continue weeding and inter cultural operations in timely sown ground nut, green gram, cluster bean and pearl millet. Continue picking of cotton during morning time.
- In Bhal and Coastal Zone, carry out weeding and inter cultural operations in timely sown pearl millet, cluster bean and green gram and apply irrigation.
- In South Gujarat Heavy Rainfall Zone, Continue intercultural operations in vegetable crops, rice, groundnut and green gram. Apply irrigation in sugarcane, green gram, groundnut, sweet corn as per requirement. Continue harvesting of early sweet potato.
- In North Gujarat Zone and North West Zone, forecasted weather condition is favourable for transmission of leaf curl disease and sucking pests like mites and thrips in chilli and tomato. Leaf curl disease is transmitted through whitefly; to control it, spray Imidachloprid 17.8% S.L. @ 2.8 ml or Methyl-o-Dematone 25% E.C. @10 ml/10 litres of water. After picking the fruits, alternate spray should be done at 10 to 12 days interval. For control of sucking pests like mite and thrips, apply Carbofuran 3% granular @ 30 kg/hectare; after 20 days.
- Due to hot weather condition. there is chance of attack of mite and thrips in bitter gourd, long melon, pointed gourd (parwal), snake gourd, ash gourd (petha), bush squash, watermelon in Middle Gujarat Zone; if observed, spray Methyl-o-Dematone 25EC @ 10 ml in 10 litres of water for control.
- Under present weather condition infestation of thrips, whiteflies and prodenia were observed in summer groundnut and sesame in North Saurashtra Zone; spray Acetamiprid 20 % SP @ 5 g and Emamectin Benzoate 7 g/10 litres of water for control.
- **Animal Husbandry**
 - In Maharashtra, Keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Grazing / feeding of cattle/goats may be done during morning/ evening hours. Avoid feeding between 1100 to 1500 hours. To reduce the impact of hot and dry weather, poultry sheds may be surrounded with moist gunny bags.
 - In Gujarat, provide plenty of cool drinking water for cattle thrice a day. Due to high temperature, keep animals under shade during noon hours and avoid feeding between 11 AM to 3 PM. Make arrangement of curtains for poultry house.

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



Rice



Wheat



Maize



Green gram

- **Realised Rainfall:** Weather remained mainly dry/dry over the region.

- **Advisories:**

- As heat wave conditions likely at isolated places over Gangetic West Bengal, Bihar, Jharkhand and Odisha on 15th & 16th April, apply light and frequent irrigation to standing crops to cope up with the excess evaporative demand. Young saplings may be protected by erecting temporary shade. Undertake soil mulching/mulching with straw/polythene to conserve soil moisture in dry land areas.
 - **West Bengal:**
 - As rain/thundershowers would occur at many places over Sub-Himalayan West Bengal & Sikkim from 17th to 19th April along with heavy rain at isolated places, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Undertake harvesting of matured crops immediately and keep harvested produce at safer places. Provide adequate drainage in standing crop fields.
 - As thunderstorm accompanied with squall/hail likely at isolated places over Sub Himalayan West Bengal & Sikkim on 15th & 16th April and over on farmers are advised to provide hail net/hail caps in orchard crops, arrange mechanical support to banana, young fruit plants and staking of vegetables to prevent the crops from

lodging due to strong winds. Keep already harvested produces at safer places.

- In New Alluvial Zone, continue land preparation and sowing of improved variety of jute. Apply 2 tonnes of compost or FYM before first ploughing. Before sowing treat the seeds with *Tricoderma viridae* 10 gm per kg of seed.
- In Laterite and Red soil zone, maintain the water level up to 2cm in the rice field by giving irrigation. Give one or two light irrigations in groundnut field to maintain the optimum moisture content in the soil.
- In Coastal Saline Zone, in clear weather, complete the harvesting of boro paddy. After the harvesting of boro paddy keep for sun drying and threshing.
- In Hill Zone, postpone sowing of maize, bhindi and French bean and planting of round chilli. Weeding should be done in French bean at seedling stage after current spells of rain.
- In Coastal Saline Zone, due to rise in temperature and humidity, there may be attack of red spider mite in okra at fruiting stage and pod borer attack in mung. For control of spider mite attack, Spray Properz (Omite) @ 0.5ml/litre of water along with sticker like tipol or soap solution. For pod borer attack in moong Spray spinosad @ 1g/litre of water.
- In Laterite and Red soil Zone, due to hot weather condition, there may be attack of gundhi bug and sheath blight in rice at flowering stage. To control gundhi bug spray Dusting with Methyl parathion 2% (Dispersible Powder) @ 25kg/ha twice, the first during flowering and second a week later. To control sheath blight Spray Carbendazim (Bavistin) @ 1g/litre.
- In Hill Zone, in the prevailing weather condition, there may be white fly attack in tomato and gerbera. Use yellow sticky traps for controlling white fly.
- In Terai and Old Alluvial Zone, weather is congenial for attack of fruit and shoot borer in brinjal. Use 6-8 pheromone traps/bigha or apply Acephate + Fenvelarate mixture @ 1ml/litre water with 2g of detergent powder as sticker after current spells of rain.
- In Old Alluvial Zone, under this weather condition brown spot of rice observed in the rice field. To control this disease, spray Carbendazim (Bavistin) @ 1g/litre water or Tricyclonazole (Beam) @ 0.5g/litre water after current spells of rain.
- **Andaman and Nicobar Islands:**
- In South, North and Middle Andaman, Mix 1:10:100 ratio of trichoderma, neem cake and farm yard manure and apply in vegetables for protecting from major soil born diseases.
- In South, North and Middle Andaman, continue preparation of small basin around the nutmeg and clove of hilly land and mulch with crop residue for moisture conservation.
- In Nicobar, clean the crown portion of coconut to avoid pest incidence and mulch with crop residue around the trunk for moisture conservation.
- **Odisha:**
- In East and South Eastern Coastal Plain Zone, complete sowing of maize, green gram and black gram. Weather is optimum for sowing of jute. Grow the recommended variety JRO-524 (Naveen).
- In East and South Eastern Coastal Plain Zone, early stem borer infestation has been found. If it crosses the ETL level (5% dead heart). Go for hoeing, weeding and apply 4 kg phorate or 12 kg Carbofuran or 10 kg Cartap followed by earthing up or spray 400 ml Monocrotophos/Tryozophos/Profenophos. Possibility of high temperature need careful water management.
- In North Eastern Ghat Zone, continue sowing summer sunflower (PAC-36, MSFH-8 & SFH-17) and groundnut (Smurti, Phule Pragati, ICGS-44, TAG-24, TG-3, TMV-2 & TG-38).
- As mainly dry weather along with high temperature is prevailing, apply light and frequent irrigation in maize at tasseling stage in North Eastern Coastal Plain Zone and in sugarcane crop during the tillering stage in Western Undulating Zone.
- In Western Undulating Zone, there is chance of early shoot borer attacks during the tillering stage of sugarcane crop, spray Triazophos/Profenophos @ 2ml/litre of water for control.
- In Mid Central Table Land Zone, Due to sudden rise and fall in temperature there is possibility of stem borer attack. To control stem borer use Pheromone trap @ 20-25 numbers per hectare to assess the population of the pest. Apply Triazophos @ 2ml/litre of water when population crosses ETL.
- In North Eastern Coastal Plain Zone, due to abrupt rise and fall in temperature, the pest problem is likely to aggravate. The stem borer attack has been widely noticed. Use pheromone trap @ 20-25 no. per hectare to notice its population. Apply Fipronil or Triazophos @ 2ml/litre of water when pest population reaches at ETL level.
- In East and South Eastern Coastal Plain Zone, flowering of early planted groundnut has been started. Do not disturb the soil to avoid disturbances in pegging. Increased temperature may aggravate the white ant and white grub attack in groundnut. Go for thorough soil drenching with Chloropyriphos solution @ 2ml/litre water. For row crops alternate rows may be irrigated.
- In North Central Plateau Zone, to control powdery mildew and leaf spot of pulses spray Carbendazim 50% WP @ 1g/litre of water. To control aphid in pulses spray Imidacloprid 17.8% SL @ 0.25ml/litre of water.
- **Bihar:**
- In South Bihar Alluvial zone, complete harvesting of matured wheat and store the grains after threshing in safe place.
- In North West Alluvial Plain Zone, continue sowing of elephant foot yam and complete the sowing of green gram

and black gram. Continue harvesting wheat, rabi maize and Pigeon Pea crop. Farmers are advised to provide light and frequent irrigation in summer maize, sunflower, fodder crop and summer vegetables such as lady's finger, pumpkin, cucumber, sponge gourd etc.

- In North East Alluvial Zone, undertake land preparation for sowing of jute. Maintain minimum water level of 2-3cm in boro rice fields. Undertake harvesting of wheat and after harvesting, drying, threshing and winnowing and store grain 8-10% moisture level.
- In North East Alluvial Zone, prevailing temperature and humidity is congenial for incidence of yellow stem borer in rice and maize. For control, apply Fipronil 0.3% GR @ 20-25 Kg/ha or Chlorantraniliprole 0.4% GR @ 10Kg/hectare. To control fruit & shoot borer in Brinjal or tomato fruit borer, apply Indoxicarb 15.8 EC @ 1ml/litre of water.

▪ **Jharkhand:**

- In Western Plateau Zone, continue sowing of vegetables like sponge gourd, bottle gourd, pumpkin, water melon, musk melon etc. utilizing the realized rainfall. Continue sowing of green gram and broadcasting of urea in standing vegetable crops. To conserve the moisture, undertake intercultural operations in vegetables.
- In South Eastern Plateau Zone, continue sowing of summer moong.
- In Western Plateau Zone, harvest matured gram and lentil crops immediately, otherwise high wind speed & temperature may cause shattering of pods.
- In Western Plateau Zone, as mainly dry weather is prevailing, irrigate the fruit bearing trees at regular interval. Spray Planofix @ 5 ml per 10 litre of water to check dropping of tiny fruits. Spray Sulfex @ 2 g per litre of water against Powdery mildew disease.
- In South Eastern Plateau, Central and North Eastern Plateau Zone, prevailing high wind speed, humidity and cloudy sky, which favours the movement of loose smut spores hence, there is a chance of spread of disease (loose smut) in wheat in a more speedy way. If loose smut is seen on earhead, uproot the affected plants and bury it deep in the soil.
- In South Eastern Plateau Zone, humid weather during morning hours and later on sunny weather favours infestation of white rust in late sown mustard (at flowering stage) crop and attack of aphids in timely sown crop at pod development stage. Monitor the crops frequently. In early stage, farmers are advised to remove and destroy the infected parts of the plants.
- In South Eastern Plateau Zone, to control hoppers in Mango, Litchi and Jack fruit, spray Metasystox @ 1ml or Kung-fu or Karate or Matador (Lambda Cyhalothrin) @ 2 g along with 0.5g Carbendazim per litre of water before or just after flowering in to minimize the attack.
- Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry**

- As heat wave conditions very likely at isolated places over Gangetic West Bengal, Bihar and Odisha on 15th & 16th April, keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Grazing/feeding of cattle/goats may be done during morning/evening hours. Leave the buffaloes in ponds during afternoon hours or sprinkle the cold water 2-3 times a day on the body of the animal to overcome the heat. Apply 4-6 inch thick hay thatch as a roofing material. Water can be used for spraying the floor and roof of shelter periodically during peak hot hours which lowers the temperature and consequently reduces the heat load on animals. Proper ventilation should be maintained for free circulation of air in the sheds. Provide plenty of clean drinking water to animals and water troughs should be regularly cleaned.
- In Coastal Saline Zone of West Bengal, due to increasing temperature, feed intake of poultry bird may be reduced. Increase amino acid level by feeding them Electrolyte or Sodium Bi-Carbonate by mixing with the feed.
- In North-East Alluvial Zone of Bihar, during summer season animals may be kept in shaded places and provide sufficient amount of water approximately 30-35 litres water per day. The cattle and buffalo may be vaccinated against Black Quarter Disease, monovalent vaccine @ 2.5-3.0 ml S/C (Subcutaneously).

CENTRAL INDIA [M.P., CHHATTISGARH]



Cauliflower



Green gram



Okra



Wheat

- **Realised Rainfall:** Weather remained dry over the region.

• **Advisories:**

▪ **Madhya Pradesh:**

- As heat wave conditions likely at isolated places over **West Madhya Pradesh** on 15th & 16th April, apply light and

frequent irrigation to standing crops to cope up with the excess evaporative demand. Young saplings may be protected by erecting temporary shade. Undertake soil mulching/mulching with straw/polythene to conserve soil moisture in dry land areas.

- In Satpura Plateau Zone, continue harvesting of wheat and matured vegetables. Continue sowing of summer moong and maize. Apply irrigation in summer crops.
- In Malwa Plateau Zone, apply irrigation in vegetables and mango, orange and pomegranate orchards. Apply irrigation and undertake hand weeding in moong and urad at germination stage.
- In Kymore Plateau and Satpura Hill Zone, apply irrigation in cucurbit crops. Continue sowing of summer moong and urad.
- In Central Narmada Valley Zone, as dry weather would prevail, apply irrigation in moong and vegetables. Undertake harvesting of matured tomato, brinjal and onion.
- In Jhabua Hill Zone, apply irrigation in tomato, chilli, brinjal, okra, onion crops. Continue harvesting of vegetable and matured onion. Apply irrigation in moong.
- In Vindya Plateau Zone, continue sowing of summer moong and harvesting of vegetables.
- In Jhabua Hill Zone, to control fruit dropping in mango due to prevailing dry weather, spray NAA @ 20-25 ppm (0.020-0.025 g/litre) or Planofix @ 2 ml/litre of water and Kerathion @ 2 g/litre of water.
- In the prevailing temperature conditions, there are chances of attack of red pumpkin beetle and fruit fly in cucurbits in Bundelkhand Zone and Grid Zone. Spray Triazophos 40 E.C. @ 2 ml per litre of water or Malathion 50 E.C. @ 1ml per litre of water for their control.
- In Nimar Valley Zone due to rise in temperature, there may be chances of attack of sucking pests in green gram. Spray Dimethoate 30 EC or Profenophos 50 EC @ 200 ml/100 litre of water per acre.
- Suitable varieties for sowing are given in Annexure III.
- **Chhattisgarh:**
 - In North Hill Zone, continue harvesting of matured wheat and lentil. Continue intercultural operations in cucurbit crops and apply irrigation in summer rice, moong and vegetables.
 - In Bastar Plateau Zone, continue intercultural operations in cucurbit crops.
 - In Chhattisgarh Plain Zone, continue sowing of green gram, sesame and black gram. Apply irrigation in summer rice and orchards.
 - In Plain Zone, there are chances of attack of stem borer in summer rice at tillering stage. Apply granular insecticides Cartap @ 20 kg/ha or Rynexypyr (Fertera) @10 kg/ha in the fields. Maintain about 5 cm standing water in the fields while applying the granular insecticides and do not allow the water to go out of the field at least for 24 hours.
 - In Bastar Plateau Zone, present weather condition is favourable for incidence of powdery mildew disease in bottle gourd, snake gourd, pumpkin and ridge gourd, for control spray Karathan @ 1g/litre of water.
- **Animal Husbandry**
 - In Madhya Pradesh and Chhattisgarh, due to prevailing high temperature special attention should be given to milch animals, provide adequate water and green fodder to animals and keep them in shade.

NORTH INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]



Wheat



Sugarcane



Cauliflower



Okra

- **Realised Rainfall:** Rainfall occurred in Anantnag, Badgam, Baramula, Doda, Ganderbal, Kulgam, Kupwara, Pulwama, Ramban and Srinagar districts of Jammu & Kashmir; Kinnaur and Kullu districts of Himachal Pradesh; (Delhi) Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - As heat wave conditions likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, Rajasthan, West Madhya Pradesh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Vidarbha, Telangana and Rayalseema on 15th & 16th, over interior Tamil Nadu on 15th and over Madhya Maharashtra and Marathwada on 16th & 17th April, apply light and frequent irrigation to standing crops to cope up with the excess evaporative demand. Young saplings may be protected by erecting temporary shade. Undertake soil mulching/mulching with straw/polythene to conserve soil moisture in dry land areas.
 - As dust/thunderstorm accompanied with squall likely at isolated places over Punjab, Haryana, Chandigarh & Delhi and Rajasthan on 16th and 17th and over West Uttar Pradesh on 17th & 18th April, farmers are advised to provide

mechanical support to young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds. Undertake propping in sugarcane and keep harvested produce at safer places.

- As rain/snow would occur at most places over Jammu & Kashmir from 17th to 19th and over Himachal Pradesh on 18th April, along with heavy rain/snow likely at isolated places over Jammu & Kashmir on 17th, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of matured crops in Jammu & Kashmir and keep already harvested produces at safe places. Provide adequate drainage in standing crop fields in Jammu & Kashmir.

- **Jammu & Kashmir:**

- In Sub Tropical Zone, continue land preparation for sowing of summer moong and mash in irrigated areas. Continue sowing of summer fodder (maize+cowpea+charri) and bajra.
- In Intermediate Zone, continue transplanting of tomato, brinjal, cucumber, bottle gourd and bitter gourd and sowing of okra. Undertake transplanting of seedling of chilli after dipping in 2% Bavistine solution in well drained fields to avoid wilt attack on the crop.
- In Valley Temperate Zone continue sowing of solanaceous crops in open beds and planting of potato.
- In cold Arid Zone of Jammu and Kashmir, continue harvesting of cabbage, broccoli, Chinese cabbage, beet leaf, lettuce, spinach, coriander in clear weather.
- In Intermediate Zone, keep strict vigil on yellow rust infestation in the wheat crop. If observed, spray Propiconazole (Tilt) 25 E.C. @ 1ml per litre of weather after current spells of rain and repeat the spray after 10-15 days interval if the disease persists.
- In Sub Tropical Zone there may be incidence of powdery mildew on pea and wilt attack on gram. To control powdery mildew spray Karathane 50 g in 25 litres of water per kanal and to control wilt attack apply Bavistin/Carbendazim @ 3g/litre of water after current spells of rain.

- **Uttarakhand:**

- In Bhabar and Tarai Zone, continue harvesting of mustard and tomato on bright sunny days.
- In Hill Zone, undertake nursery sowing of tomato crop. Continue sowing of French bean and okra.
- In Hill Zone, as a precautionary measure against pest/diseases on apple and pear tree, spray mixture of Triol @ 300 ml in 10 litres of water, Copper Oxychloride @ 30gm and Chlorpyrifos @ 25ml on a non rainy day.

- **Himachal Pradesh:**

- In Sub-Montane and Low Hills Sub-Tropical Zone, complete sowing of sunflower and fodder crops such as maize, cowpea, chari and bajra in irrigated areas. Continue sowing of cucurbits such as cucumber, bitter gourd, bottle gourd and summer squash, ageti okra, French bean and radish. Complete sowing of zaid moong and mash in irrigated areas. Continue transplanting of tomato, brinjal, chilli and capsicum.
- In Mid Hills sub-Humid Zone, continue sowing of bhindi, cucurbits, French bean, moong and mash and nursery raising and transplanting of tomato, chilli, capsicum and brinjal and. Continue sowing of fodder crops like maize, cowpea and soybean.
- In Sub-Montane and Low Hills Sub-Tropical Zone, under prevailing weather conditions, there may be chances of attack of yellow rust in wheat, attack of caterpillars in gram and downey mildew in cruciferous vegetables. For control of yellow rust, spray Tilt @ 1ml per litre of water, spray Carbaryl-50WP @ 2 g per litre of water for caterpillars and spray Redomil M-Z @ 25 g per litres of water at 15 days interval. Undertake plant protection measures after current spells of rain.
- In Mid Hills sub-Humid Zone, weather is conducive for attack of pod borer in pea crop, apply Carbaryl @ 2 g/litre of water after current spells of rain.
- In Mid Hills sub-Humid Zone, weather is conducive for attack of caterpillars in gram crop, for control spray Carbaryl 50 WP @ 2 g per litre of water after current spells of rain.
- In Mid Hills sub-Humid Zone, weather is conducive for attack of moth in potato crop, for control spray Cypermethrin 25 EC @ 1 ml per litre of water after current spells of rain.
- In Sub-Montane and Low Hills Sub-Tropical Zone, under prevailing weather conditions, there may be chances of incidence of dieback disease in onion is observed in some pockets for control spray Indofil-M45 @ 25 gm. per 10 litres of water or Redomil MZ @ 25 g per 10 litres of water after current spells of rain.

- **Rajasthan:**

- In East Rajasthan, continue field preparation for sowing of zaidmoong and planting of sugarcane, apply irrigation in maize in Southern Humid Plain Zone. In Flood Prone Eastern Plain Zone, continue harvesting of matured wheat and gram continue raising of nursery summer chilli, summer marigold, sowing of okra and leafy vegetables like spinach and amarathus and also transplanting of tomato.
- In Southern Humid Plain Zone, complete sowing of mung, groundnut and fodder like SSG-59-3, MP chari, Rajasthan chari, Pratap maize chari-6A.
- In Semi-Arid Eastern Plain Zone. Continue sowing of summer bhindi.
- In Sub Humid Southern Plain and Aravali Hill Zone, apply irrigation in vegetables. Complete harvesting of matured normal sown wheat and barley crop in clear weather and keep harvested produce at safer places. Continue sowing of cucurbits also papaya in nursery. Continue earthing up of summer groundnut.
- In Arid Western Plain Zone, continue harvesting of matured crops like cumin, coriander, fennel and isabgol at ripening stage. Undertake transplanting of chilli. Continue sowing of green fodder viz. sorghum and pearl millet. Apply irrigation in cucurbits in Barmer, Churu, Jalore, Jodhpur and Pali districts.

- In Irrigated North Western Plain Zone, undertake harvesting of matured wheat and gram. Undertake sowing of cotton. Continue sowing of zaid moong (SML668). Continue land preparation for sowing of summer moong.
- In Flood Prone Eastern Plain Zone, due to prevailing weather condition, there may be chances of attack of mosaic in bhindi and chilli, for control spray Malathion 50 EC @ 1 ml per litre of water.
- In Arid Western Plain Zone, due to prevailing weather condition there may be chances of attack of fruit fly in watermelon and muskmelon, for control spray Malathion 50 EC @ 1 ml per litre of water.
- In Semi-Arid Eastern Plain Zone, due to prevailing weather condition there may be chances of attack of fruit fly in summer cucurbits like bitter gourd, ridge gourd, muskmelon & watermelon, for control, spray Malathion 50 EC or Dimethoate 30 EC @ 1 ml per litre water.
- In Semi-Arid Eastern Plain Zone, due to prevailing weather condition there may be chances of attack of fruit borer in tomato and brinjal, for control, spray Carbaryl 50 WP @ 4 g or Acephate 75 SP @ 1.5 g per litre water.
- **Punjab, Haryana and Delhi:**
- In Western Plain Zone of Punjab, continue sowing of cotton, complete sowing of summer mung and mash, continue sowing of okra, spring maize and planting of sugarcane. Continue transplanting of chilli and cucurbits on the ridges. Apply light and frequent irrigations to newly planted fruit orchards.
- In Central and Undulating Plain Zone of Punjab, continue planting of sugarcane and summer pulses.
- In Central, Western and Undulating Plain Zone of Punjab, continue planting of peach, plum, pear, pomegranate and ber plants.
- In Western Zone of Punjab, undertake transplanting of chilli, tomato, bell pepper. Undertake sowing of cotton, cucurbits, round gourd, sponge gourd, and other summer vegetables viz. okra, and cluster bean.
- In Undulating Plain Zone of Punjab, complete the harvesting/threshing of matured oilseed crops and store the product in proper place. In Central Plain Zone of Punjab, continue harvesting/threshing of mustard crop.
- In Western Zone of Haryana, undertake harvesting and threshing of wheat crop and continue harvesting and threshing of matured mustard crop. Continue sowing of green gram and black gram. Continue sowing of bhindi, bottle gourd, cucumber, ridge gourd and summer radish. Undertake the sowing of cotton. In Eastern Zone, complete the planting of sugarcane and undertake harvesting of wheat crop.
- In Western Semi-Arid Zone of Delhi, apply irrigation in vegetables, apply light irrigation in the evening hours in wheat at grain filling stage, continue sowing of green gram, black gram and transplanting of marigold, brinjal, chilli in flat beds and direct sowing of cucurbits may be done in Hill channel method. Irrigation should be done after transplanting. Undertake sowing of okra, French bean, cluster bean, baby corn and fodder crops such as sorghum, bajra and maize.
- In Western Zone of Punjab, due to prevailing weather condition, there may be chances of attack of fruit borer in tomato and bell pepper, for control spray Profenofos @ 600ml per acre or Decis @ 160 ml per acre or Fame @ 30 ml per acre in 100 litres of water at 14 days of intervals.
- In Western Zone of Punjab, due to prevailing weather condition, there may be chances of attack of red pumpkin beetle in cucurbits, for control spray Carbaryl @ 75 to 150 gm per acre in 50 to 100 litres of water and repeat after 10 days intervals.
- In Undulating Plain Zone of Punjab, due to prevailing weather condition, there may be chances of attack of fruit borer larvae in tomato, for control spray Fame 480 SL @ 30 ml or Fenvalerate 20 EC @ 100 ml or Deltamethrin 2.8 EC @ 160 ml or Cypermethrin 25 EC @ 80 ml. in 80 to 100 litres of water per acre.
- In Western Semi-Arid Zone of Delhi, monitor timely sown onion crop against attack of thrips. If symptoms appear, spray Imidacloprid @ 0.5 ml per litre of water with sticky material (Tipol@ 1.0 gram /litre) for effective control.
- **Uttar Pradesh:**
- In Central Plain Zone, continue harvesting of matured wheat, barley, pea, oat and gram. Continue planting of sugarcane. Continue sowing of summer fodder crops like cowpea, maize and sowing of urad, mung, lobia, bhindi as inter crop in sugarcane, land preparation and sowing of cowpea, maize, garlic, turmeric. Continue sowing of sunhemp and dhaincha for green manuring. Continue nursery sowing of brinjal and kharif onion.
- In Eastern Plain Zone, continue sowing of bhindi, tinda, torai, cucurbits, and bottle guard and radish. Continue sowing of lobia, maize, urad, mung and transplanting of onion. Continue sowing of fodder crops lobia, bajra, m.p.chari, maize.
- In Western Plain Zone, continue harvesting of matured wheat and sowing baby corn and summer fodder crops jowar, bajra, lobia, maize. Continue transplanting of tomato, chilli and sowing of bhindi, cucurbits, planting of autumn sugarcane and sowing of sunflower, urad, mung, maize.
- In Bundelkhand Zone, continue sowing of mung, bhindi, torai, cucurbits and transplanting of cabbage, cauliflower, tomato, brinjal and chilli.
- In Central Plain Zone, due to prevailing weather condition, there may be chances of attack of thrips in onion, for control, spray Mencozeb 0.2 % or Dimethoate @ 1 ml per litre of water.
- In Central Plain Zone, due to prevailing weather condition, there may be chances of attack of fruit borer/leaf sheath in vegetables, for control, spray Neem oil @ 1.5 ml to 2 ml per litre of water, 3 to 4 times at 8 to 10 days of intervals.
- In Central Plain Zone, due to prevailing weather condition, there may be chances of incidence of yellow vein

- mosaic in bhindi, for control, spray Dimethoate 30 E.C. @ 1.5 ml per litre of water.
- In North eastern plain Zone, due to prevailing weather condition, there may be chances of attack of blight and aphids in bhindi, for control, spray mixture of 0.2% Redomil MZ and 0.2% Monocrotophos @ 200 ml in 200 litres of water per acre.
 - In Central Plain Zone, due to prevailing weather condition, there may be chances of attack of shoot fly in maize, for control, spray Methyl-O-Demeton 25 EC or Monocrotophos36 EC @ 1 litre in 700 to 800 litres of water per hectare.
 - Suitable varieties for sowing are given in Annexure III.
 - **Horticulture:**
 - In Central Plain Zone of Uttar Pradesh, continue transplanting of papaya plants in new orchard.
 - In North Eastern Plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of mango hopper and mealy bug in mango trees for control spray mixture of 0.2 % Emidacloprid @ 400 ml and 0.2 % Carbendazim @ 400 g per 200 litres of water per 20 plants.
 - In Western Plain Zone, of Uttar Pradesh, due to prevailing weather condition, there may be chances of fruit drop in mango, for control spray N.A.A. @ 15 mg per litre of water.
 - In Central Plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of fruit cracking in citrus plants, for control, spray Gibberellic Acid @ 100 mg. in 10 litres of water.
 - In Mid Hills Sub-Humid Zone of Himachal Pradesh, there is a chance of attack of bacterial canker in pomegranate, for control spray Bordeaux mixture (copper sulphate 1.6 Kg + Lime 1.6 Kg) in 200 litres of water after current spells of rain.
 - In Semi-Arid Eastern Plain Zone of Rajasthan, due to prevailing weather condition there may be chances of attack of leaf curl and mosaic diseases in papaya, for control, spray Dimethoate 30 EC or Methyl Demeton 25 EC @ 1 ml per litre water.
 - In Semi-Arid Eastern Plain Zone of Rajasthan, due to prevailing weather condition there may be chances of attack of mango hopper in mango, for control, spray Malathion 50 EC @ 1 ml per litre of water.
 - In Southern Humid Plain Zone of Rajasthan, there is a chance of attack of powdery mildew in mango, for control, spray Sulphur @ 4gm. per litre of water in mango trees.
 - **Animal Husbandry**
 - In Sub-Montane and Low Hills Sub-Tropical Zone of Himachal Pradesh, for milch animals, follow schedule of 1 kg feed+50 g mineral mixtures per 2 litres of milk. Get the animals vaccinated against Foot and Mouth disease.
 - In Western Zone of Punjab, keep poultry shed clean, dry, cool and well ventilated and maintain optimum temperature inside the shed. Use economic and balanced diet for poultry breeds to avoid stress conditions. Avoid the over feeding in layers and Ad.Lib. feeding in Broilers. Avoid the feeding during extreme hot period of the day time.
 - **Floriculture**
 - In sub tropical Zone of Jammu Kashmir undertake nursery land preparation for summer annuals. Collect seeds from winter annuals (Calendula, pansy etc) which are at harvesting stage. Undertake transplanting of marigold seedling in fields for summer crop after current spells of rain.
 - In Valley Temperate Zone of Jammu & Kashmir, undertake land preparation for planting liliun,gladiolus and dahlia.
 - **Apiculture:**
 - In Intermediate Zone of Jammu & Kashmir, farmers are advised to inspect honey bees colonies at weekly interval to check insect pest attack particularly mite infestation and brood to avoid mortality of honey bees.

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

Annexure I
Week by week Rainfall Distribution

Sub-Divisions	30.03.16		06.04.16		13.04.16	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	14.6	-80	57.1	-62	193.7	55
Dibang Valley	25.0	-61	27.0	-79	32.0	-57
East Kameng	10.2	-55	20.0	-46	16.1	-50
East Siang	14.7	-39	57.6	26	188.5	356
Kurung Kumey	**	**	**	**	**	**
Lohit	36.5	-19	12.6	-87	118.1	30

Lower Dibang Valley	43.8	-31	29.8	-76	565.3	663
Lower Subansari	**	**	**	**	**	**
Papumpare	23.0	13	44.6	24	132.9	311
Tawang	21.0	10	20.0	30	127.0	457
Tirap	8.8	-79	33.4	-52	214.4	186
Upper Siang	65.4	-8	19.6	-82	76.0	-12
Upper Subansari	6.2	-73	6.8	-70	82.2	558
West Kameng	0.8	-96	0.1	-99	0.0	-100
West Siang	4.0	-76	1.0	-98	5.0	-95
Assam&Meghalaya						
Assam						
Baksa	48.6	135	26.4	-8	57.8	84
Barpeta	37.7	82	58.1	103	60.7	93
Bongaigaon	42.8	110	67.6	155	46.0	55
Cachar	18.8	-66	135.4	126	41.3	-32
Chirang	33.4	64	112.8	326	28.8	-3
Darrang	**	**	**	**	**	**
Dhemaji	3.0	-84	2.0	-94	0.0	-100
Dhubri	69.5	383	98.9	321	0.8	-96
Dibrugarh	8.8	-70	32.3	-35	152.0	232
Goalpara	77.6	275	57.0	153	2.4	-94
Golghat	19.4	-14	30.9	12	14.0	-51
Hailakandi	22.9	-57	256.6	440	37.2	-23
Jorhat	15.2	-37	22.6	-49	64.5	45
Kamrup(Rural)	46.8	150	90.7	322	62.9	121
Kamrup(Metro)	19.2	3	35.6	65	9.2	-68
Karbi Anglong	18.7	-11	29.7	70	3.7	-82
Karimganj	34.3	-35	227.1	165	87.3	22
Kokrajhar	108.5	350	15.2	-49	3.7	-92
Lakhimpur	15.4	-19	40.4	22	73.8	116
Morigaon	35.2	82	14.6	-31	11.0	-46
N.C.Hills	27.0	-64	49.3	27	44.7	-13
Nagaon	19.2	12	7.7	-62	6.6	-75
Nalbari	53.3	135	46.4	35	77.1	89
Sonitpur	33.1	157	32.9	32	9.4	-71
Sibsagar	12.1	-42	32.9	58	69.7	122
Tinsukia	17.2	-45	114.2	91	152.9	247
Udalgiri	26.5	79	35.3	46	62.9	78
Meghalaya						
East Garo Hills	35.8	122	44.4	-8	20.8	-48
East Khasi Hills	43.3	33	92.8	80	183.2	202
Jaintia Hills	4.0	-89	1.0	-98	5.0	-91
Ribhoi	20.1	-21	46.5	189	0.0	-100
South Garo Hills	28.0	49	39.0	26	0.0	-100
West Garo Hills	39.2	109	50.8	64	0.0	-100
West Khasi Hills	26.0	1	12.0	-20	7.0	-72
NMMT						
Mizoram						
Aizwal	35.0	-26	167.5	409	4.5	-85

Champhai	**	**	**	**	**	**
Kolasib	1.0	-98	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	4.0	-90	11.0	-63	0.0	-100
Serchhip	**	**	**	**	0.0	-100
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	14.0	33	42.0	135	3.0	-78
Churachandpur	**	**	**	**	**	**
Imphal east	12.2	-46	48.3	40	13.6	-63
Imphal west	19.7	56	151.4	431	38.0	64
Senapati	**	**	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	**	**	28.0	49	10.0	-68
Ukhrul	0.0	-100	0.0	-100	1.0	-95
Nagaland						
Dimapur	7.0	-67	45.3	148	3.3	-86
Kephire	**	**	**	**	**	**
Kohima	1.9	-90	13.0	-25	0.6	-97
Longleng	**	**	**	**	**	**
Mokokchung	0.0	-100	1.0	-92	0.0	-100
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	3.0	-84	27.0	55	0.0	-100
Tuensang	**	**	**	**	**	**
Wokha	14.0	-60	62.0	99	3.0	-90
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	95.4	202	135.4	148	8.2	-81
NorthTripura	69.0	82	226.4	311	18.8	-65
SouthTripura	68.0	155	67.3	136	0.0	-100
West Tripura	84.1	204	144.2	364	0.0	-100
Himachal Pradesh						
Bilaspur	0.0	-100	0.3	-95	2.0	-65
Chamba	2.6	-86	19.0	18	18.2	194
Hamirpur	0.0	-100	0.8	-85	0.0	-100
Kangra	0.7	-96	2.2	-77	1.9	-81
Kinnaur	10.0	-63	5.6	-74	49.0	154
Kullu	8.1	-68	14.8	-31	23.3	19
Lahaul and Spiti	8.2	-80	17.5	-32	13.8	-49
Mandi	0.6	-96	4.2	-62	6.0	-55
Shimla	1.3	-92	6.6	-42	17.1	47
Sirmaur	0.0	-100	2.0	-55	7.7	120
Solan	0.0	-100	5.0	-20	6.5	-5
Una	0.0	-100	0.0	-100	0.2	-96
Punjab						
Amritsar	0.8	-87	0.0	-100	0.0	-100

Barnala	0.0	-100	0.0	-100	0.0	-100
Bhatinda	0.0	-100	0.0	-100	0.0	-100
Faridkot	0.0	-100	0.0	-100	0.0	-100
Fatehgarh Saheb	0.0	-100	0.0	-100	0.0	-100
Ferozpur	0.0	-100	0.0	-100	0.0	-100
Gurdaspur	0.9	-92	0.0	-100	5.1	-32
Hoshiarpur	0.0	-100	0.0	-100	1.4	-68
Jalandhar	0.0	-100	0.0	-100	0.0	-100
Kapurthala	0.0	-100	0.0	-100	0.0	-100
Ludhiana	0.0	-100	0.0	-100	0.0	-100
Mansa	0.0	-100	0.0	-100	0.0	-100
Moga	0.0	-100	0.0	-100	0.0	-100
Muktesar	0.0	-100	0.0	-100	0.0	-100
Nawashahar	0.0	-100	0.0	-100	0.3	-94
Patiala	0.0	-100	0.0	-100	0.7	-63
Ropar	0.0	-100	0.0	-100	0.3	-90
Sangrur	0.0	-100	0.0	-100	0.0	-100
Mohali	0.0	-100	0.0	-100	2.0	-29
TarnTaran	0.0	-100	0.0	-100	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	0.0	-100	0.0	-100	4.2	90
Bhiwani	0.0	-100	0.0	-100	0.0	-100
Chandigarh	0.0	-100	14.8	573	0.6	-78
Faridabad	0.0	-100	0.0	-100	0.0	-100
Fatehabad	0.0	-100	0.0	-100	0.0	-100
Gurgaon	0.0	-100	0.3	-77	0.0	-100
Hissar	0.0	-100	0.0	-100	0.0	-100
Jhajar	0.0	-100	0.0	-100	0.0	-100
Jind	0.0	-100	0.0	-100	0.0	-100
Katihah	0.0	-100	0.0	-100	0.0	-100
Karnal	0.0	-100	0.0	-100	0.7	-76
Kurukshetra	0.0	-100	0.0	-100	0.8	-53
Mahendragarh	0.0	-100	0.0	-100	0.0	-100
Mewat	0.0	-100	0.0	-100	0.0	-100
Palwal	0.0	-100	0.0	-100	0.0	-100
Panchkkula	0.0	-100	0.5	-67	4.2	145
Panipat	0.0	-100	0.0	-100	0.0	-100
Rewari	0.0	-100	0.0	-100	0.0	-100
Rohtak	0.0	-100	0.0	-100	0.0	-100
Sirsa	0.0	-100	0.0	-100	0.0	-100
Sonepat	0.0	-100	0.0	-100	0.0	-100
Yamunanagar	0.0	-100	0.0	-100	5.2	52
Delhi						
Central Delhi	0.0	-100	0.0	-100	0.0	-100
East Delhi	0.0	-100	0.0	-100	0.0	-100
New Delhi	0.0	-100	0.0	-100	0.0	-100
North Delhi	0.0	-100	0.0	-100	0.0	-100
North East Delhi	0.0	-100	0.0	-100	0.0	-100

North West Delhi	0.0	-100	0.0	-100	0.0	-100
South Delhi	0.0	-100	0.0	-100	0.0	-100
South West Delhi	0.0	-100	0.0	-100	0.0	-100
West Delhi	0.0	-100	0.0	-100	0.0	-100
Jammu & Kashmir						
Anantnag	30.5	6	43.3	45	32.0	27
Badgam	36.0	101	13.4	-14	32.9	114
Bandipore	**	**	**	**	**	**
Baramula	50.7	39	71.5	187	40.1	-6
Doda	24.8	-33	16.4	-34	34.5	29
Ganderbal	36.5	78	62.0	263	49.6	164
Jammu	1.1	-92	0.0	-100	5.8	-33
Kargil	**	**	**	**	**	**
Kathua	5.6	-48	0.5	-95	4.7	-45
Kistwar	**	**	**	**	**	**
Kulgam	37.8	32	49.8	67	28.9	15
Kupwara	58.0	38	53.1	21	33.3	16
Ladakh(Leh)	0.0	-100	0.3	-50	0.0	-100
Poonch	**	**	**	**	**	**
Pulwama	26.5	39	17.6	-6	24.5	29
Rajouri	20.4	15	10.2	-7	10.4	117
Ramban	16.9	-54	17.6	-29	49.0	83
Reasi	5.8	-77	0.6	-96	13.8	-25
Samba	0.0	-100	0.0	-100	1.6	-81
Shopian	**	**	**	**	**	**
Srinagar	32.9	60	12.6	-26	43.0	129
Udhampur	0.0	-100	0.0	-100	5.9	-68
East Madhya Pradesh						
Anuppur	0.0	-100	0.0	-100	0.0	-100
Balaghat	2.5	-21	0.0	-100	0.1	-93
Chhatarpur	0.0	-100	0.0	-100	0.0	-100
Chindwara	2.1	-46	0.0	-100	0.0	-100
Damoh	0.7	-70	0.0	-100	0.0	-100
Dindori	0.0	-100	0.0	-100	0.0	-100
Jabalpur	6.5	67	0.0	-100	0.0	-100
Katni	0.0	-100	0.0	-100	0.0	-100
Mandla	2.6	-57	0.0	-100	1.3	-37
Narsingpur	4.6	142	0.0	-100	0.0	-100
Panna	0.0	-100	0.0	-100	0.0	-100
Rewa	0.5	-87	0.0	-100	0.0	-100
Sagar	0.0	-100	0.0	-100	0.0	-100
Satna	0.8	-65	0.0	-100	0.0	-100
Seoni	0.5	-92	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	0.0	-100	0.0	-100	0.0	-100
Tikamgarh	0.5	-72	0.0	-100	0.0	-100
Umaria	0.8	-80	0.0	-100	0.0	-100

West Madhya Pradesh						
Agar	0.0	-100	0.0	-100	0.0	-100
Alirajpur	0.0	-100	0.0	-100	0.0	-100
Asoknagar	0.0	-100	0.0	-100	0.0	-100
Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	9.8	277	0.0	-100	0.0	-100
Bhind	0.0	-100	0.0	-100	0.0	-100
Bhopal	0.2	-93	0.0	-100	0.0	-100
Burhanpur	0.0	-100	0.0	-100	0.0	-100
Datia	0.0	-100	0.0	-100	0.0	-100
Dewas	0.0	-100	0.0	-100	0.0	-100
Dhar	0.0	-100	0.0	-100	0.0	-100
Guna	0.0	-100	0.0	-100	0.0	-100
Gwalior	0.3	-79	0.0	-100	0.0	-100
Harda	0.0	-100	0.0	-100	0.0	-100
Hosangabad	2.0	5	0.0	-100	0.0	-100
Indore	0.0	-100	0.0	-100	0.0	-100
Jhabua	0.0	-100	0.0	-100	0.0	-100
Khandwa	0.0	-100	0.0	-100	0.0	-100
Khargone	0.0	-100	0.0	-100	0.0	-100
Mandsaur	0.0	-100	0.0	-100	0.0	-100
Morena	0.0	-100	0.0	-100	0.0	-100
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	0.0	-100	0.0	-100	0.0	-100
Rajgarh	0.0	-100	0.0	-100	0.0	-100
Ratlam	0.0	-100	0.0	-100	0.0	-100
Sehore	0.0	-100	0.0	-100	0.0	-100
Shajapur	0.0	-100	0.0	-100	0.0	-100
Sheopur Kalani	0.0	-100	0.0	-100	0.0	-100
Shivpuri	0.0	-100	0.0	-100	0.0	-100
Ujjain	0.0	-100	0.0	-100	0.0	-100
Vidisha	0.0	-100	0.0	-100	0.0	-100
Chhattisgarh						
Bastar	3.6	-12	13.9	28	0.2	-97
Bijapur	0.0	-100	0.0	-100	0.0	-100
Bilaspur	6.5	59	1.2	-75	0.5	-89
Dantewara	3.0	100	0.0	-100	0.0	-100
Dhamtari	1.6	-68	9.7	169	0.0	-100
Durg	7.0	94	0.0	-100	0.0	-100
Janjgir	**	**	0.8	-78	0.0	-100
Jashpurnagar	0.0	-100	0.0	-100	0.0	-100
Kanker	**	**	0.0	-100	0.0	-100
Korba	0.0	-100	1.5	-63	0.0	-100
Koriya	0.0	-100	0.0	-100	**	**
Kawardha	**	**	0.0	-100	0.0	-100
Mahasumund	**	**	0.0	-100	0.0	-100
Narayanpur	0.0	-100	0.0	-100	0.5	-92
Raigarh	0.4	-90	0.5	-87	0.0	-100
Raipur	1.1	-66	1.0	-64	0.0	-100

Rajnandgaon	7.0	56	1.0	-63	0.2	-91
Surguja	0.5	-85	0.2	-92	0.5	-73
East Uttar Pradesh						
Allahabad	0.0	-100	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	0.0	-100	0.0	-100	0.0	-100
Ballia	0.0	-100	0.0	-100	0.0	-100
Balrampur	0.0	-100	0.0	-100	0.0	-100
Banda	0.0	-100	0.0	-100	0.0	-100
Barabanki	0.0	-100	0.0	-100	0.0	-100
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	0.0	-100	0.0	-100	0.0	-100
Fatehpur	3.3	52	0.0	-100	0.0	-100
Gazipur	0.1	-96	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	0.0	-98	0.0	-100	0.0	-100
Jaunpur	0.0	-100	0.0	-100	0.0	-100
Kannauj	0.0	-100	0.0	-100	0.0	-100
Kanpur City	1.6	-4	0.0	-100	0.0	-100
Kanpur Dehat	0.0	-100	0.0	-100	0.0	-100
Kaushambi	0.0	-100	0.0	-100	0.0	-100
Kheri	0.0	-100	0.0	-100	0.0	-100
Kushi nagar	0.0	-100	0.0	-100	0.0	-100
Lucknow	0.5	-73	0.0	-100	0.0	-100
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	0.0	-100	0.0	-100	0.0	-100
RaiBareilly	0.1	-93	0.0	-100	0.0	-100
Sahuji Maharajnagar	0.0	-100	0.0	-100	0.0	-100
Sant Kabirnmagar	0.0	-100	0.0	-100	0.0	-100
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	**	**	**	**	**	**
Sidharthnagar	0.0	-100	0.0	-100	0.0	-100
Sitapur	0.0	-100	0.0	-100	0.0	-100
Sonbhadra	0.0	-100	0.0	-100	0.0	-100
Sultanpur	0.0	-100	0.0	-100	0.0	-100
Unnao	0.0	-100	0.0	-100	0.0	-100
Varanasi	0.0	-100	0.0	-100	0.0	-100
West Uttar Pradesh						
Agra	0.0	-100	0.0	-100	0.0	-100
Aligarh	0.0	-100	0.0	-100	0.0	-100
Auraiya	0.0	-100	0.0	-100	0.0	-100

Badaun	0.0	-100	0.0	-100	0.0	-100
Baghpat	0.0	-100	0.0	-100	0.0	-100
Bareilly	0.0	-100	0.0	-100	0.1	-89
Bijnor	0.0	-100	0.0	-100	0.0	-100
Bulandsahar	0.0	-100	0.0	-100	0.0	-100
Etah	0.0	-100	0.0	-100	0.0	-100
Etawah	0.0	-100	0.0	-100	0.0	-100
Firozabad	0.0	-100	0.0	-100	0.0	-100
GBNagar	0.0	-100	0.0	-100	0.0	-100
Ghaziabad	0.0	-100	0.0	-100	0.0	-100
Hamirpur	1.3	-17	0.0	-100	0.0	-100
Jalaun	0.0	-100	0.0	-100	0.0	-100
Jhansi	0.4	-82	0.0	-100	0.0	-100
Jotiba Phule Nagar	0.0	-100	0.0	-100	0.0	-100
Kanshiramnagar	0.0	-100	0.0	-100	0.0	-100
Lalitpur	0.0	-100	0.0	-100	0.0	-100
Mahamaya Nagar	0.0	-100	0.0	-100	0.0	-100
Mahoba	0.0	-100	0.0	-100	0.0	-100
Mainpuri	0.0	-100	0.0	-100	0.0	-100
Mathura	0.0	-100	0.0	-100	0.0	-100
Meerut	0.0	-100	0.0	-100	0.0	-100
Moradabad	0.0	-100	0.0	-100	0.1	-80
Muzzaffarnagar	0.0	-100	0.0	-100	4.7	211
Pilibhit	0.0	-100	0.0	-100	0.0	-100
Rampur	0.0	-100	0.0	-100	0.0	-100
Saharanpur	0.0	-100	0.0	-100	0.0	-100
Shahjahanpur	0.0	-100	0.0	-100	0.0	-100
Uttarakhand						
Almora	0.0	-100	0.0	-100	5.2	-22
Bageshwar	0.0	-100	0.0	-100	2.8	-59
Chamoli	5.0	-69	8.5	-15	5.1	-54
Champawat	0.0	-100	0.0	-100	0.0	-100
Dehradun	0.0	-100	0.5	-93	4.5	-21
Garhwal Pauri	0.0	-100	0.0	-100	6.0	114
Garhwal Tehri	0.0	-100	0.0	-100	11.3	64
Haridwar	0.0	-100	0.0	-100	0.5	-78
Nainital	2.1	-78	0.7	-87	4.3	18
Pithorgarh	0.3	-98	7.6	-5	4.5	-38
Rudraprayag	0.0	-100	4.4	-57	11.4	-1
Udham Sing Nagar	0.0	-100	0.0	-100	0.5	-29
Uttarkashi	0.0	-100	5.1	-46	7.2	-43
Bihar						
Araria	27.9	389	1.2	-71	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	**	**
Bhabua	0.0	-100	0.0	-100	0.0	-100
Bhagalpur	0.0	-100	7.2	411	0.0	-100

Bhojpur	0.0	-100	0.0	-100	0.0	-100
Buxar	**	**	**	**	**	**
Darbhanga	2.0	-50	4.6	130	0.0	-100
East Champaran	0.0	-100	1.9	93	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	**	**
Jamui	0.0	-100	0.0	-100	0.0	-100
Kathihar	0.0	-100	13.6	750	0.0	-100
Khagadia	0.0	-100	17.5	200	0.0	-100
Kishanganj	4.6	-13	0.0	-100	0.0	-100
Lakhisarai	0.0	-100	0.0	-100	0.0	-100
Madhepura	0.0	-100	16.0	517	0.0	-100
Madhubani	4.0	-5	0.0	-100	0.0	-100
Monghyar	**	**	**	**	**	**
Muzaffarpur	0.0	-100	11.4	777	0.0	-100
Nalanda	0.0	-100	0.0	-100	**	**
Nawada	0.0	-100	0.0	-100	**	**
Patna	0.0	-100	0.0	-100	0.0	-100
Purnea	6.8	44	22.0	547	0.0	-100
Rohtas	0.0	-100	0.0	-100	0.0	-100
Saharsha	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	**	**
Sheohar	0.0	-100	0.0	-100	**	**
Sitamarhi	0.0	-100	0.0	-100	0.0	-100
Siwan	0.0	-100	0.0	-100	**	**
Supaul	0.0	-100	28.1	1379	0.0	-100
Vaishali	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
Deoghar	**	**	0.0	-100	0.0	-100
Dhanbad	0.0	-100	0.0	-100	0.0	-100
Dumka	0.0	-100	0.0	-100	0.0	-100
East Singbhum	0.0	-100	0.2	-96	2.4	-52
Garhwa	**	**	0.0	-100	0.0	-100
Giridih	0.0	-100	0.0	-100	0.0	-100
Godda	**	**	1.8	25	0.0	-100
Gumla	0.5	-94	0.0	-100	0.7	-87
Hazaribagh	**	**	0.0	-100	0.0	-100
Jamtara	0.0	-100	0.4	-93	0.0	-100
Khunti	**	**	0.0	-100	0.0	-100
Koderrna	**	**	0.0	-100	0.0	-100
Latehar	**	**	0.0	-100	0.0	-100
Lohardagga	**	**	0.0	-100	0.0	-100
Pakur	**	**	14.2	284	0.0	-100

Palamau	0.0	-100	0.0	-100	0.1	-88
Ramgarh	0.0	-100	0.0	-100	0.0	-100
Ranchi	0.0	-100	0.0	-100	0.0	-100
Sahebganj	**	**	12.6	404	0.0	-100
Saraikela	0.0	-100	0.0	-100	2.5	-25
Simdega	0.0	-100	0.0	-100	0.0	-100
West Singhbhum	0.0	-100	0.0	-100	0.0	-100
East Rajasthan						
Ajmer	0.0	-100	0.0	-100	0.0	-100
Alwar	0.0	-100	0.0	-100	0.0	-100
Banswara	0.0	-100	0.0	-100	0.0	-100
Baran	0.0	-100	0.0	-100	0.0	-100
Bharatpur	0.0	-100	0.0	-100	0.0	-100
Bhilwara	0.0	-100	0.0	-100	0.0	-100
Bundi	0.0	-100	0.0	-100	0.0	-100
Chittorgarh	0.0	-100	0.0	-100	0.0	-100
Dausa	0.0	-100	0.0	-100	0.0	-100
Dholpur	0.2	-91	0.0	-100	0.0	-100
Dungarpur	0.0	-100	0.0	-100	0.0	-100
Jaipur	0.0	-100	0.0	-100	0.0	-100
Jhalawar	0.0	-100	0.0	-100	0.0	-100
Jhunjhunu	0.0	-100	0.0	-100	0.0	-100
Karauli	0.0	-100	0.0	-100	0.0	-100
Kota	0.0	-100	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	0.0	-100	0.0	-100	0.0	-100
Sikar	0.0	-100	0.0	-100	0.0	-100
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	0.0	-100	0.0	-100	0.0	-100
Hanumangarh	0.0	-100	0.0	-100	0.0	-100
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	0.0	-100	0.0	-100	0.0	-100
Pali	0.0	-100	0.0	-100	0.0	-100
Sri Ganganagar	0.0	-100	0.1	-92	0.9	-23
Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	0.0	-100
Anand	0.0	-100	0.0	-100	0.0	-100
Banaskantha	0.0	-100	0.0	-100	0.0	-100
Baroda	0.0	-100	0.0	-100	0.0	-100
Broach	0.0	-100	0.0	-100	0.0	-100
DNH	**	**	**	**	**	**

Dahod	0.0	-100	0.0	-100	0.0	-100
Daman	0.0	-100	0.0	-100	0.0	-100
Dangs	0.0	-100	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	0.0	-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	0.0	-100	0.0	-100
Valsad	0.0	-100	0.0	-100	0.0	-100
S K & Diu region						
Amreli	0.0	-100	0.0	-100	0.0	-100
Bhavnagar	0.0	-100	0.0	-100	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	0.0	-100
Junagarh	0.0	-100	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						
Mumbai City	0.0	-100	0.0	-100	0.0	-100
Mumbai Suburban	0.0	-100	0.0	-100	0.0	-100
North Goa	0.0	-100	0.0	-100	0.0	-100
Raigad	0.0	-100	0.0	-100	0.0	-100
Ratnagiri	0.0	-100	2.0	567	0.0	-100
Sindhudurg	0.0	-100	0.0	-100	0.0	-100
South Goa	0.0	-100	0.0	-100	0.1	-86
Thane	0.0	-100	0.0	-100	0.0	-100
Madhya Maharashtra						
Ahmednagar	0.0	-100	0.0	-100	0.0	-100
Dhule	0.0	-100	0.0	-100	0.0	-100
Jalgaon	0.0	-100	0.1	-31	0.0	-100
Kolhapur	0.5	-68	1.9	-46	2.6	-51
Nandurbar	0.0	-100	0.0	-100	0.0	-100
Nasik	3.9	1827	0.0	-100	0.0	-100
Pune	0.0	-100	0.6	-40	0.0	-100
Sangli	0.0	-100	2.0	-48	0.4	-91
Satara	0.4	-69	0.2	-90	0.3	-89
Solapur	0.0	-99	0.8	-68	4.3	65
Marathwada						
Aurangabad	0.1	-93	0.0	-93	0.0	-100
Beed	0.4	-62	0.6	-52	0.6	-71

Hingoli	2.1	48	0.1	-88	2.5	7
Jalna	0.0	-100	0.0	-100	0.2	-70
Latur	0.9	-55	1.7	-39	5.1	130
Nanded	0.8	-64	0.6	-72	1.3	-53
Usmanabad	0.0	-100	1.8	18	2.4	9
Parbhani	1.4	-10	0.0	-100	0.8	-53
Vidarbha						
Akola	1.0	-62	0.0	-100	0.0	-100
Amraoti	0.0	-100	0.0	-100	0.0	-100
Bhandara	10.3	172	0.8	-79	1.4	-48
Buldhana	0.3	-79	0.0	-100	0.0	-100
Chandrapur	0.0	-100	6.5	102	0.0	-100
Gadchiroli	4.4	23	1.3	-66	0.0	-100
Gondia	13.3	203	4.7	60	0.2	-90
Nagpur	3.8	-6	0.0	-100	3.6	62
Wardha	1.0	-65	0.0	-100	0.0	-100
Washim	0.1	-94	0.0	-100	0.0	-100
Yeotmal	1.5	-41	2.6	-4	0.0	-99
Odisha						
Angul	10.6	165	11.3	141	0.0	-100
Balasore	0.0	-100	2.6	-75	7.6	-24
Bargarh	0.0	-100	4.0	14	0.0	-100
Bhadrak	0.0	-100	5.4	-31	0.0	-100
Bolangir	0.0	-100	0.1	-99	0.1	-98
Boudh	0.7	-87	19.3	142	0.0	-100
Cuttack	0.2	-97	2.3	-70	0.0	-100
Deogarh	0.0	-100	0.7	-83	0.0	-100
Dhenkanal	6.7	20	14.2	89	0.0	-100
Gajapati	2.3	-87	16.8	13	0.1	-99
Ganjam	0.0	-100	2.2	-77	0.1	-99
Jagatsingpur	0.0	-100	3.3	-69	0.0	-100
Jajpur	0.0	-100	20.3	178	0.0	-100
Jharsuguda	0.0	-99	0.0	-100	0.0	-100
Kalahandi	0.0	-100	0.3	-94	0.0	-100
Kandhamal	0.0	-100	0.4	-95	0.0	-100
Kendrapara	0.0	-100	5.2	125	0.0	-100
Keonjhar	0.0	-100	13.0	54	0.0	-100
Khurda	0.0	-100	0.4	-96	0.0	-100
Koraput	7.0	59	12.0	9	0.0	-100
Malkangiri	0.0	-100	0.0	-100	0.0	-100
Mayurbhanj	0.0	-100	14.1	17	2.0	-75
Nawapara	2.4	-14	0.0	-100	0.0	-100
Nawarangpur	2.9	51	10.9	34	0.8	-92
Nayagarh	0.0	-100	0.0	-100	2.2	-66
Puri	0.5	-88	0.0	-100	0.1	-95
Rayagada	0.0	-100	9.1	-37	5.7	-47
Sambalpur	0.2	-96	4.3	11	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 & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	0.0	-100	0.0	-100	4.4	-78
North & Middle Andaman	0.0	-100	0.0	-100	0.0	-100
South Andaman	0.0	-100	18.2	264	0.0	-100
GWB						
Bankura	0.0	-100	8.9	46	0.0	-100
Birbhum	0.1	-98	11.1	158	0.0	-100
Burdwan	0.0	-100	9.3	68	0.0	-100
East Midnapore	0.0	-100	0.0	-100	5.1	11
Hooghly	0.0	-100	4.7	-11	0.0	-100
Howrah	0.0	-100	4.2	-49	0.0	-100
Kolkata	0.0	-100	1.6	-78	0.0	-100
Murshidabad	0.0	-100	24.0	314	0.0	-100
Nadia	0.0	-100	3.2	-48	0.0	-100
24 Pargana (N)	0.0	-100	3.5	-44	0.0	-100
Purulia	0.0	-100	0.0	-100	0.0	-100
24 Pargana (S)	0.0	-100	8.1	-7	0.0	-100
West Midnapore	0.0	-100	14.4	21	3.4	-58
SHWB & Sikkim						
Cooch Behar	44.2	220	85.4	336	2.0	-86
Darjeeling	40.9	205	17.0	-1	0.0	-100
East Sikkim	14.1	-4	33.8	13	19.9	-54
Jalpaiguri	85.7	472	60.1	276	1.1	-93
Malda	0.0	-100	21.6	575	0.0	-100
North Dinajpur	**	**	**	**	**	**
North Sikkim	25.5	-36	57.2	27	8.6	-88
South Dinajpur	0.0	-100	12.3	108	0.0	-100
South Sikkim	10.3	-29	5.9	-80	0.0	-100
West Sikkim	11.0	-73	26.0	-42	1.0	-99
Karnataka						
Coastal Karnataka						
Dakshina Kannada	0.0	-100	3.3	-48	0.4	-95
Udupi	0.0	-100	0.0	-100	0.0	-100
Uttara Kannada	0.0	-100	0.7	-77	1.1	-74
NI Karnataka						
Bagalkote	0.0	-100	8.3	124	11.2	167
Belagavi	5.4	100	6.2	16	4.1	-32
Bidar	4.2	4	1.7	-69	7.1	30
Dharwad	4.9	69	12.3	156	3.2	-61
Gadag	0.0	-100	6.3	81	17.5	166
Haveri	4.0	152	2.5	-50	7.8	3
Kalaburgi	1.1	-69	6.6	41	4.2	24
Koppal	0.0	-100	0.0	-100	0.0	-100
Raichur	0.0	-100	0.0	-100	2.9	-22
Vijayapura	0.0	-100	6.4	88	0.8	-79
Yadgir	0.1	-98	0.0	-100	1.1	-75
SI Karnataka						

Ballari	0.0	-100	4.2	26	0.0	-100
Bangalore Rural	0.0	-100	0.0	-100	0.0	-100
Bangalore Urban	0.0	-100	0.0	-100	1.9	-68
Chamarajanagar	0.0	-100	0.0	-100	2.6	-79
Chikaballapur	0.0	-100	0.0	-100	0.0	-100
Chikkamagaluru	2.8	-26	5.6	-38	6.5	-41
Chitradurga	0.6	-65	2.9	-1	1.1	-77
Davangere	0.0	-100	0.0	-100	0.0	-100
Hassan	0.0	-100	1.8	-78	13.9	47
Kodagu	4.3	-28	14.0	-5	5.8	-70
Kolar	0.0	-100	0.0	-100	0.0	-100
Mandya	0.0	-100	0.0	-100	5.9	-30
Mysuru	0.0	-100	0.0	-100	4.1	-65
Ramanagara	0.0	-100	0.0	-100	2.8	-66
Shivamogga	0.0	-100	0.3	-95	0.5	-93
Tumakuru	0.0	-100	0.0	-100	0.0	-100
Kerala						
Alappuzha	14.2	2	1.7	-93	4.2	-87
Kannur	0.0	-100	0.0	-100	1.0	-92
Ernakulam	1.5	-82	2.1	-87	30.8	21
Idukki	1.5	-88	4.2	-84	21.6	-27
Kasaragod	0.0	-100	0.1	-99	0.0	-100
Kollam	23.9	37	4.2	-85	11.1	-65
Kottayam	18.1	46	12.7	-58	25.2	-30
Kozhikode	0.0	-100	5.4	-44	0.3	-99
Malappuram	0.0	-100	0.0	-100	4.6	-79
Palakkad	0.0	-100	0.0	-100	1.6	-93
Pathanamthitta	10.7	-57	14.4	-59	34.1	-13
Thiruvananthapuram	3.6	-70	2.2	-88	28.0	4
Thrissur	0.0	-100	0.0	-100	35.2	91
Wayanad	2.8	-58	9.1	-23	4.4	-77
Tamil Nadu						
Ariyalur	0.0	-100	0.0	-100	0.0	-100
Chennai	0.0	-100	0.0	-100	0.0	-100
Coimbatore	3.0	-18	0.0	-100	19.1	105
Cuddalore	0.4	-84	0.0	-100	0.0	-100
Dharmapuri	0.0	-100	0.0	-100	0.0	-100
Dindigul	0.5	-91	0.0	-100	6.0	-45
Erode	0.0	-100	0.0	-100	11.9	60
Kanchipuram	0.0	-100	0.0	-100	0.0	-100
Kanyakumari	6.9	-39	13.3	-37	16.0	-30
Karikal	0.0	-100	0.0	-100	0.0	-100
Karur	0.0	-100	0.0	-100	1.9	-75
Krishnagiri	0.0	-100	0.0	-100	1.2	-78
Madurai	0.3	-94	0.0	-100	14.5	25
Nagapattinam	0.0	-100	0.0	-100	0.0	-100
Namakkal	0.0	-100	0.0	-100	5.3	-23
Nilgiris	0.0	-99	0.0	-100	7.6	-64
Perambalur	0.0	-100	0.0	-100	0.0	-100

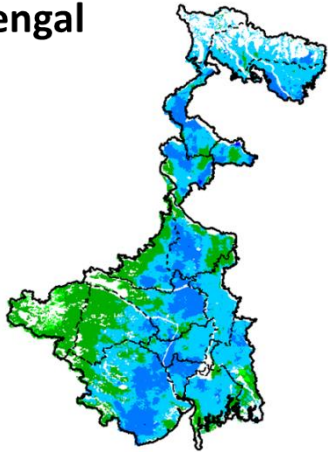
Puducherry	0.0	-100	0.0	-100	0.0	-100
Pudukottai	0.0	-100	0.0	-100	0.0	-100
Ramanathapuram	0.8	-83	0.0	-100	6.5	-39
Salem	0.0	-100	0.0	-100	0.0	-100
Sivaganga	0.1	-95	0.0	-100	12.5	47
Thanjavur	0.0	-100	0.0	-100	0.0	-100
Theni	3.7	-52	0.0	-100	7.6	-46
Tirunelveli	11.7	13	0.0	-100	2.0	-89
Tirupur	0.0	-100	0.0	-100	12.5	67
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	15.9	184	0.2	-98	3.5	-71
Trichy	0.0	-100	0.0	-100	0.8	-87
Vellore	0.1	-98	0.0	-100	0.0	-100
Villupuram	0.0	-100	0.0	-100	0.0	-100
Virudhunagar	0.6	-91	0.0	-100	1.3	-92
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	0.6	-29
Prakasam	0.0	-100	0.0	-100	0.0	-100
Sirkakulam	0.0	-100	3.3	-55	1.1	-71
Visakhapatnam	0.0	-100	8.3	4	0.0	-100
Vizianagram	0.0	-100	7.0	-5	1.0	-80
West Godavari	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	0.3	-90	0.0	-100
Telangana						
Adilabad	2.0	-48	1.4	-51	1.0	-57
Hyderabad	0.0	-100	0.0	-100	0.0	-100
Karimnagar	0.0	-100	4.3	14	0.0	-100
Khammam	0.0	-100	0.0	-100	0.1	-98
Mehabubnagar	0.0	-100	2.6	11	0.0	-100
Medak	0.0	-100	0.1	-98	0.0	-100
Nalgonda	0.0	-100	0.6	-78	0.0	-100
Nizamabad	0.0	-100	1.3	-55	0.1	-97
Rangareddy	0.0	-100	4.2	31	0.0	-100
Warangal	0.0	00	0.2	-94	0.0	-100

Legends

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

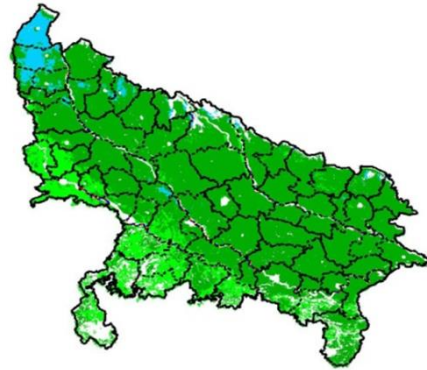
**INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
13th April 2016 FOR DIFFERENT STATES**

West Bengal



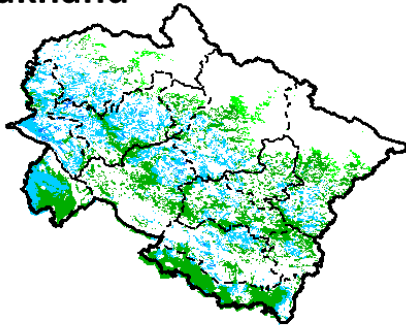
Agricultural vigour is good in West Bengal, whereas western region of the state shows moderate NDVI.

Uttar Pradesh



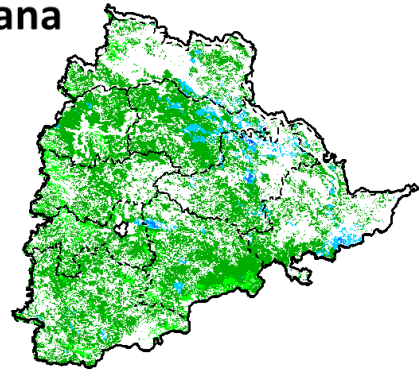
Agricultural vigour is moderate over entire state of Uttar Pradesh whereas, the northern western part shows good NDVI

Uttarakhand



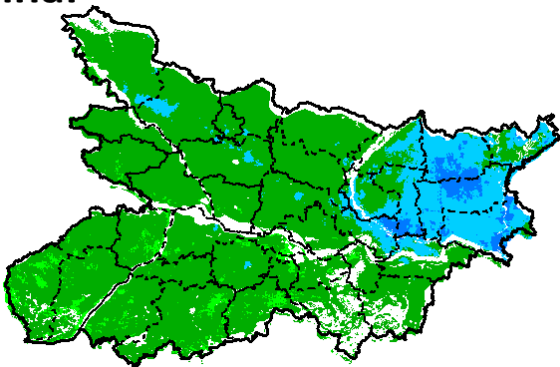
Agricultural vigour is moderate over entire state of Uttarakhand.

Telangana



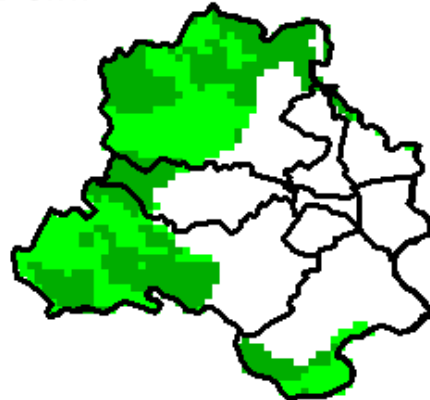
Agriculture vigour is moderate over most parts of Telangana. Few patches in eastern region shows good values of NDVI.

Bihar



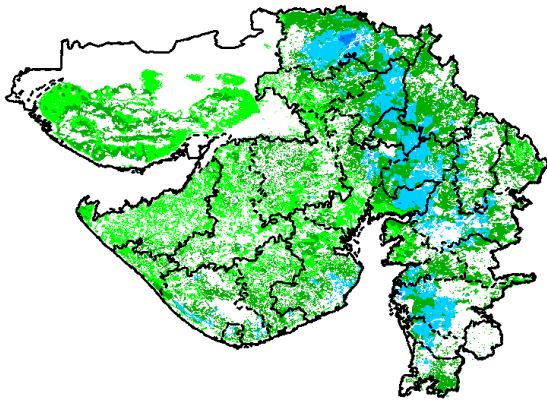
Agriculture vigour is moderate over major parts of Bihar whereas eastern part shows patches of good NDVI values.

Delhi



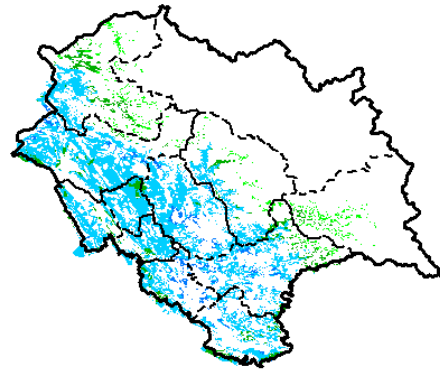
Agriculture vigour is moderate all over Delhi.

Gujarat



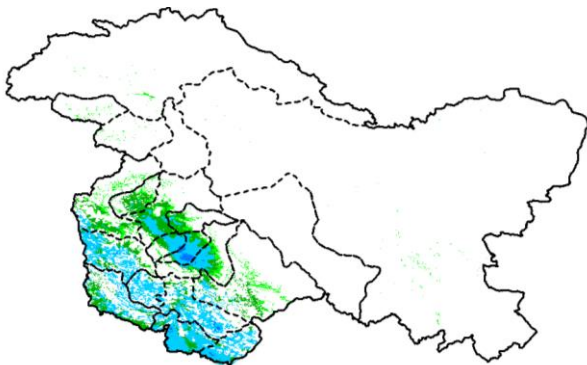
Agriculture vigour is moderate in Kutch and Saurashtra whereas, good agricultural vigour is observed over patches in Gujarat region

Himachal Pradesh



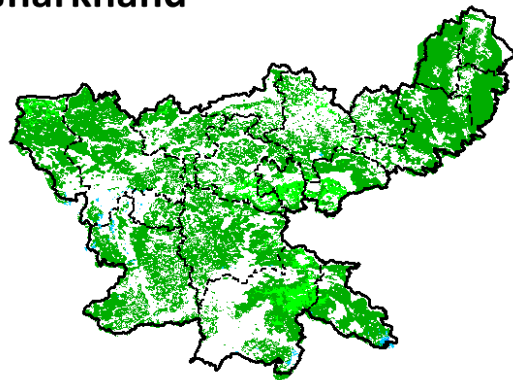
Agriculture vigour is good over western and southern parts of Himachal Pradesh, whereas rest of the state shows moderate values of NDVI.

Jammu & Kashmir



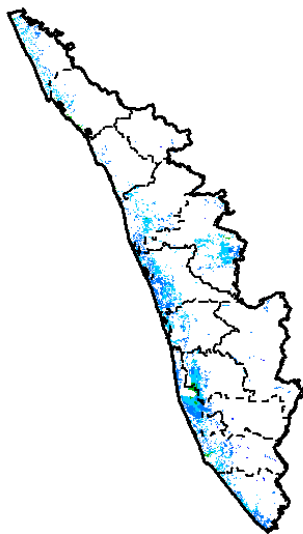
Agriculture vigour is good over southern part of Jammu & Kashmir, whereas the remaining region shows moderate NDVI.

Jharkhand



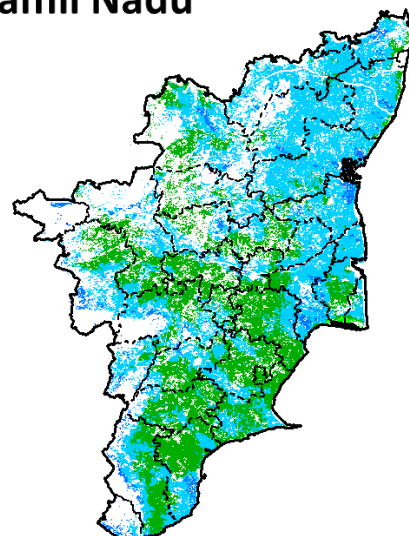
Agriculture vigour is moderate over entire state of Jharkhand.

Kerala



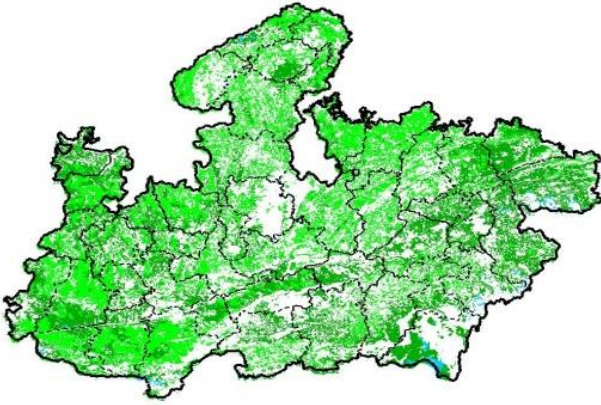
Agriculture vigour is good over entire state of Kerala.

Tamil Nadu



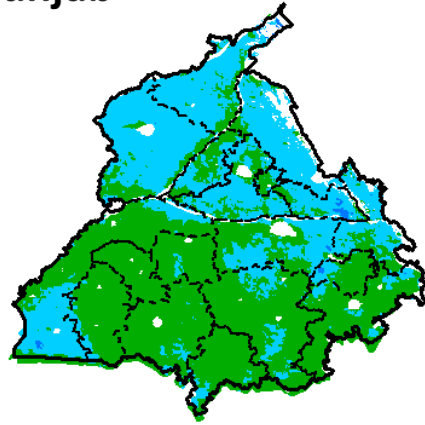
Agricultural vigour is good over major part of Tamil Nadu, except for southern part shows moderate NDVI.

Madhya Pradesh



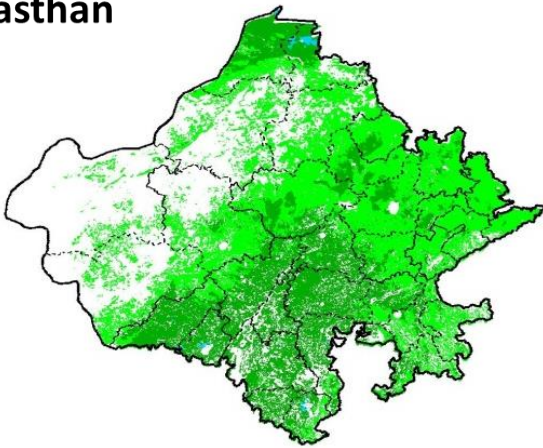
Agriculture vigour shows moderate values of NDVI over entire state of Madhya Pradesh.

Punjab



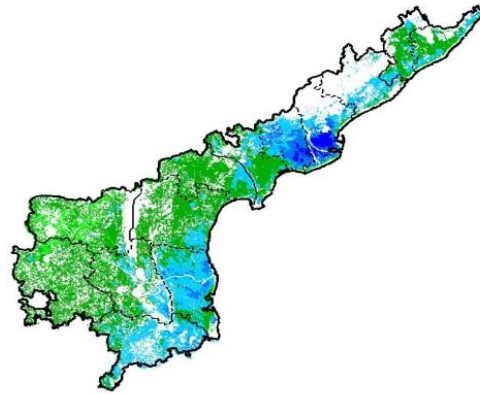
Agricultural vigour is good over northern and western parts of Punjab whereas, the remaining region shows moderate NDVI.

Rajasthan



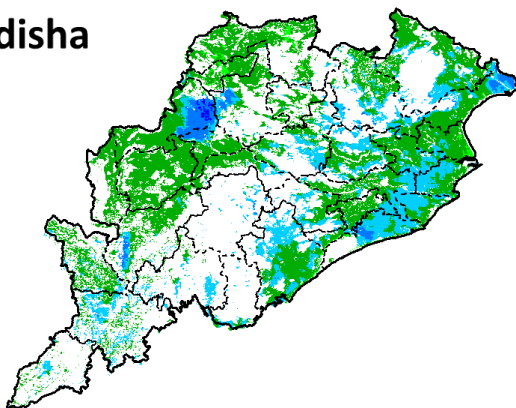
Agriculture vigour is moderate over the entire state of Rajasthan.

Andhra Pradesh



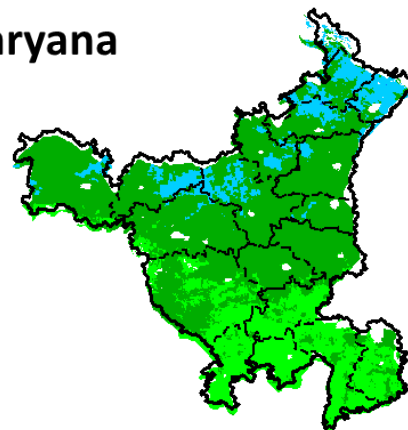
Agriculture vigour is very good over coastal part of Andhra Pradesh whereas other regions shows moderate values.

Odisha



Agricultural vigour is good in patches of coastal and western parts of Odisha where rest of region shows moderate NDVI.

Haryana



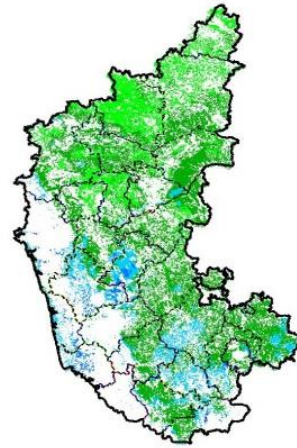
Agriculture vigour is moderate over entire state of Haryana.

Chhattisgarh



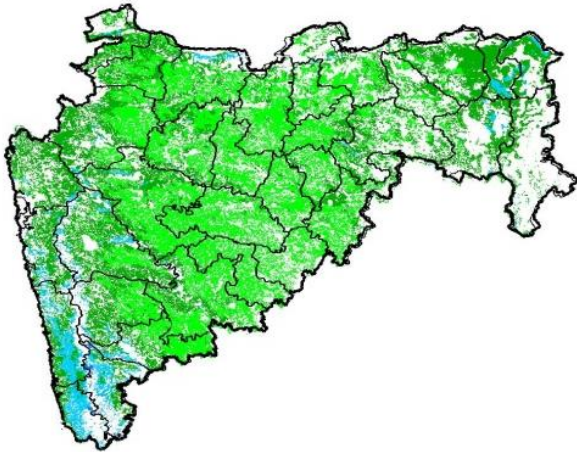
Agriculture vigour is moderate in the state of Chhattisgarh with few patches showing good NDVI in central region.

Karnataka



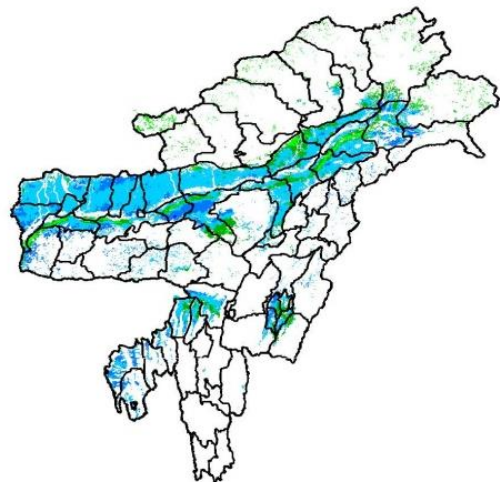
Agriculture vigour is good over central and southern part of Karnataka state. Rest of the state shows moderate values of NDVI.

Maharashtra

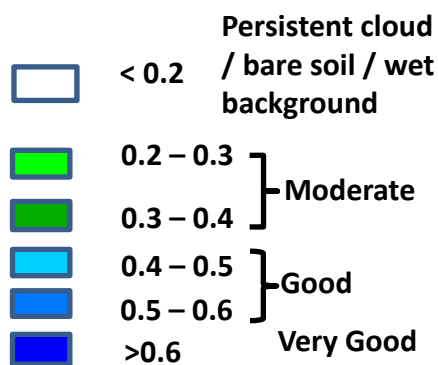


Agricultural vigour is moderate over entire state of Maharashtra.

North East Region



Agriculture vigour is good in patches in Assam whereas, NDVI is moderate over rest of the regions of North-East



Annexure III

Assam

Early *ahu* rice: semi dwarf *ahu* rice varieties like Luit, Kopilee, Cauvery, Culture -1, Rasi, Banglami, Puthichapali, Nilajee, Hasakumra.

Early *ahu* rice (for low lying area): IR-50, Pusa 2-21, Rasi, Culture -1, Luit, Kopilee (Semi-dwarf varieties); Rongadoria, Dubaichenga, Nilajee (Tall varieties).

Transplanted normal *ahu* rice: Gobind, IR-36, IR-50.

Bao rice: Maguri, Kekua Bao, Negheri Bao, Tara Bao.

***Kharif* maize:** Hybrid variety like Ganga 5, Hi starch and Composite variety like NLD, Dhawal, Naviot, Diara.

Capsularis jute: JRC 321 and UPC 94.

Green gram:Pratap, T-44, Kopergaon, AAU-39, K-851 and ML-55.

Black gram:T-9, Pant-U-19, UG-157.

Sugarcane: Kolong, Luhit, Dhansiri, Co 1148, CO-Jor- 1, CO-Jor- 2.

Okra:Pusa Sawani, Arka Anamika, Parbhdani Kranti.

Ridge gourd: Pusa Nashdar or other local varieties like AAU-1, AAU-2, AAU-3 etc.

Sponge gourd: Pusa Chikni or other local varieties.

Tapioca: H-43, H-97, H-165, S-865, H-2304.

Maize: Ganga 5, Navjot.

Banana: Dwarf Cavendish (Dwarf Cultivar), Cheni Champa, Malbhog (Medium Tall cultivars).

Okra:Parvani Kranti, Arka Anamica.

Ginger: Nadia, Karkai, Maran, Jorhat, chaina etc.

Turmeric: Shillong type, CL-24, PTS-38, PCT-13, VK-145.

Meghalaya

Brinjal :Local Umroi, Muta Kesh, Narrow.

Bottle gourd: Pusa Summer, Prolific Long, Prolific Round, Pusa Meghdoot, Pusa Hybrid 2.

Manipur

Pre-*kharif* rice: RC Maniphou 4, 5 and 12.

Tripura

***Jhum*rice :**Garo Malati, Binnietc.

Odisha

Sugarcane: Nilamadhaha, Sabitri, Co 7508, Co 7704, Co 62175, Co 740, Co 7219, CoJ 8201, Co 975, Co 7706, Co 8402, Co 62175.

Groundnut:Smruti, AK 12-24 TAG

Jharkhand

Lentil: P.L.-406, P.L.-639, K.L.S -218,K-75

Barley: Jyoti,Ratna,D.L.-36,B.R.-32

Linseed: Sweta,Shubhra, T-397

Onion: N-53,Pusa red,Arka niketan, Arka kalian

Jammu & Kashmir

Cabbage: Golden Acre, Pride of India and PusaMukta.

Cauliflower: Giant Snow Ball, Pant Gobh 2 & 3 and Pusa Synthetic.

Uttarakhand

Sugarcane:Pant 84211, Co-238, Co-241, Co Pant 3220, COS-8436, COS-88230 etc. and medium to late sown varieties like Co Pant 90223, Co Pant-96219, COS-97222, COS-767, COS-1148, COS-96268 etc.

Capsicum:California Vander, Pus Dipti, Anupam. Heera, Indira, Supriya & Bharat.

Brinjal: (brinjal-4, ARU-1 etc) and potato (Kufri Jyoti, Kufri Ashok & Kufri Anand etc.

Tomato: Tomato-3, Pant T-3, Him Sona, Him Shikhar etc variety in nursery).

Himachal Pradesh

Cauliflower: snowball and Giant snowball.

Radish:Japanese white, Chinese pink and mino early white

Turnip: PTWG-1

Carrot:Pusakesar

Fenugreek :I.C. 74, kasoori.

Peas :Mater ageta-6 (early variety).

Cabbage:Pride of India, golden achor and hybrid

East Uttar Pradesh

Sugarcane: coj-64, cos-96268, cos-98231, cos-767, cos-84, cos-32, copant-84212, Ko.Sha.-88230, 95255, Ko.Sha.-95436, 01235.

Tomato: pusa early, pusa ruby, HS 101, Pant Ta-2, Azad Ta-2, Narendra Tamatar-1,2,4,5,6

Cauliflower: pusaDipali.
Okra: PusaSawani, VarsaUphar, Azad kranti.
Brinjal: Pant Samrat, Pant Rituraj, Pusa hybrid-6.
Cabbage: Japani, PusaDieepali, PusaKartiki
cowpea: Lobia-263 & Pusa phaguni
Chilli: Pant C-1, Jwala and Sadabahar etc.
Grapes: parlet, beauty seedless, pusa seedless.
Maize: nawjyoti, kanchan, gaurav, surya, navin, shweta, Azad uttam, prakash, dikalb-7074, payridikalp-8144, dakkan-115, mmh-135, pro-4212, ganga-11, pusa, makka-2, J.H.-3459,
Urad: TA-9, narendra urad-1, Azad urad-1, Uttara, azad urad-2, shekhar-2, pant. u. 19, pant u. 30, pant u. 35, P.D.U.-1
Mung: k-851 and JM-721, Narendra mung-1, Malviya jagruti, Janpriya, Meha, H.U.M.-16, Malviya Jyoti, T.M.V.-37, Samrat, P.D.M.-139, H.U.M.-12, pusa vaishakhi, T.A.-44, Pant mung 12, pusa vishal, pusa-9531, P.D.M.-11, S.M.L.668
Onion: Agrifound light red, Nashik selection-1
Radish: pusa chetaki, pusa himani, pusa saris, pusa reshmi, japanis white radish.

West Uttar Pradesh

Ladies finger: VRO-6, VRO-5.
Sugarcane: ko.sha 88230, ko.sha 8436, ko 0238, ko.sha 07250 or U.P. 0512.
Barseem: V.L.1, V.L.10, maskavi, jai, K-8027, K-9565, Mandakini.
Onion: pusa red, pusa white.
Sugarcane: The mid and late maturing varieties of sugarcane: CO Pant 211, Co Sa 687 and Co Sa 8436.
 The varieties recommended in areas with poor water drainage: B.O.54 and B.O.91.
Baby corn: M.H.-4

Punjab

Sugarcane: CoJ-85, CoJ-83, CoJ-64 (early maturing), COH-119, CoJ-88, CoS-8436 for and CoJ-89, CO118, COJ85, COJ64.
Rice: Pusa-44, T.R-112 and T.R-113.
Onion: Punjab Naroya, Punjab White and PRO 6.
Radish: Punjab Pasand and Japanese white.
Turnip: L-1.
Carrot: Punjab Black Beauty, Punjab Carrot Red and PC-34.
Tomato: TH-1, Punjab Ratta, Punjab NR 7, Punjab Chuhara, Punjab Upma, Castle Rock.

Delhi

Oat : J.H.O-822, O.L.-9, Pusa oat-5.
Barseem: Vardan, Buland Barseem-1, Masakavi, J.B-3;
Radish: Japani White, Hill queen, French Radish;
Spinach: PusaBharti.
Amaranths: PusalalChaulai, PusaKiran.
Ladyfinger: Pusa A-4.
Radish: Japani White, Hill queen, French Radish.
Spinach: All Green, PusaBharti;
Fenugreek: PusaKasuri;
Coriander: PantHaritama, Hybrids.
Turnip: Pusa Swati, Local Red variety.

West Rajasthan

Isabgol: RI 89 & GI-2.
Fenugreek: RMt 1 & RMt 305.
Barley: RD 2052, RD 2035 (suitable for saline and alkali soils) and RD 2715 (dual purpose), RD2058, 2503, 103, NDB1173.
cumin: GC 4, RZ -19, RZ 223, RZ19, 209, 223 and GC4b.
Cowpea: RC-19, RC-101, RCP-27.
Oat: OS 6, OS 9.
Berseem: BL 10, BL 22.
Cauliflower: Pusa snow ball K-1, Hisar-1, Dania and Selection-7.
Radish: PusaRashmi.
Carrot: PusaKeshar.
Zaid moong: K-851, PDM-11, SML-668 Pusa Baisakhi, RMG-62, RMG-268 etc.
Tinda: Bikaneri green, dilpasand
Cucurbit: Lakhnau ageti and Arkasital,
Muskmelon: Durgapura madhu, Punjab sunehri, Punjab hybrid and pusa madhuras
Watermelon: sugar baby, Durgapura mitha, Durgapura lal and khira
Sugarcane: CO-6617, 7717; COS- 95255, 767
 Desi cotton: RG-8, 18, HD-123, hyb Raj- DH 9

East Rajasthan

Muskmelon: Durgapura madhu, Punjab sunehri, Punjab hybrid, arkajeet, hara madhu, pusa madhuras.
Water melon: Sugar baby, Durgapura meetha, durgapura kesar, arka jyoti (hybrid), madhu (hybrid).
Tinda: Beekaneri green, Dil pasand, arka tinda.

Kakri: Lucknow ageti and arka sheetal.

Zaid Pearl millet (fodder):raj bajra chari, rajko Zaint, L-72, L-74.

Zaid sorghum (fodder): Raj chari-3, Raj chari-1, Raj chari-2 for single cutting and SSG59-3, M.P. chari for many cutting.

Okra:Pusa Savani, Arka anamika, Arka Abhya, Aajad kranti, Prabhni kranti, Pusa-A-4,Pusa Makhmali.

Cowpea: Short durC-152, RS-9, FS-68, RC-19 and RC-101, C-152, RS-9.

Onion: Punjab safed goal, Udaipur 102, nasik red.

Lucerne :Anand-2, LLC-3, RL-88 & Type-9.

Berseem:Muskavivardan and PusaJiant.

Summer groundnut:T.A.G.24, T.G.37A, G.G.2, D.H.86.

Madhya Pradesh

Okra: Pusa Makhamali, Pusa Sawani, A-4, Parbhani Kranti.

Moong: HUM -1, PDM -139,TJM-3, SML-668.

Tamil Nadu

Cotton: Surabhi and SVPR-2