



National Agromet Advisory Service Bulletin



Friday 6th November 2015

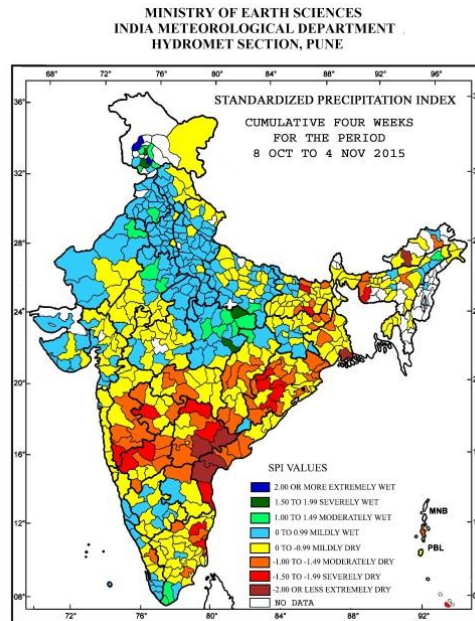
(For the period 6th to 10th November 2015)



Issued by

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

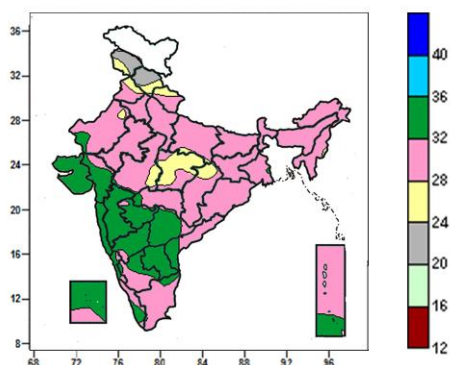
Standardised Precipitation Index Four Weekly for the Period 8th October to 4th November 2015



- Extremely/severely wet conditions experienced in few districts of Jammu & Kashmir; Dindori, Rewa, Sidhi districts of Madhya Pradesh.
- Extremely/Severely dry conditions experienced in few districts of Telangana; East Kameng district of Arunachal Pradesh; West Garo Hills district of Meghalaya; Howrah, South 24 Parganas districts of West Bengal; Bargarh, Boudhgarh, Kandhamal, Rayagada districts of Odisha; Darbhanga, Jamui districts of Bihar; Kolhapur, Beed districts of Maharashtra; Guntur, Nellore, Prakasam districts of Andhra Pradesh; Cuddalore, Tiruvannamalai district of Tamil Nadu, Karaikal district of Puducherry; Belgam, Bijapur districts of Karnataka.
- Moderately dry conditions experienced in few districts of Odisha; Maharashtra; Chhattisgarh; Andhra Pradesh; Telangana; East Siang district of Arunachal Pradesh; Nagaon, Dhubri, Kokrajhar districts of Assam; Bankura, Birbhum districts of West Bengal; Deoghar, Dhanbad, Dumka, Godda districts of Jharkhand; Araria, Madhubani, Monghyr, Nawada districts of Bihar; Mumbai City district of Konkan & Goa; Bagalkote, Gulbarga, Haveri, Raichur, Yadgir districts of Karnataka; Palakkad district of Kerala.
- Rest of the country experienced moderately wet/mildly dry/wet conditions.

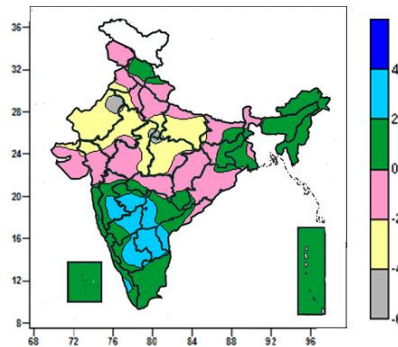
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 04.11.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 04.11.2015



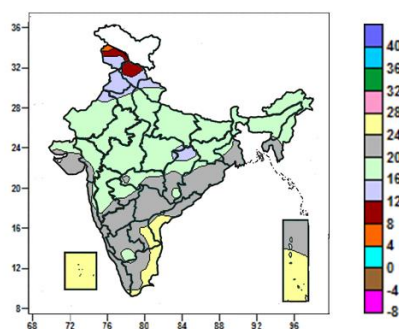
- Mean maximum temperature was between 32 to 36°C over Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra, many parts of Gujarat region, Marathwada, Telangana, Rayalaseema, Coastal Karnataka, Lakshadweep, some parts of Coastal Andhra Pradesh, Kerala, Andaman & Nicobar Islands and isolated pockets of West Rajasthan and Vidarbha.
- It was between 20 to 32°C over remaining parts of the country.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 04.11.2015



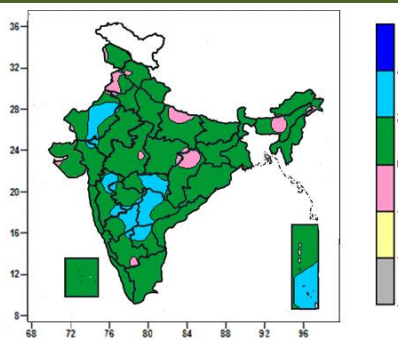
- Mean maximum temperature were above normal by 2 to 4°C over many parts of Madhya Maharashtra, Marathwada, Rayalaseema, Interior Karnataka, Telangana, some parts of Coastal Andhra Pradesh and isolated pockets of Kerala.
- Mean maximum temperature were below normal by 4 to 6°C over isolated pockets of Rajasthan, West Uttar Pradesh and Madhya Pradesh.
- Mean maximum temperature were below normal by 2 to 4°C over many parts of Rajasthan, East Uttar Pradesh, East Madhya Pradesh, some parts of Punjab, Haryana, West Uttar Pradesh and West Madhya Pradesh and isolated pockets of Gujarat region, Kutch.
- It was normal to near normal in remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 04.11.2015



- Mean minimum temperature was 4 to 8°C over isolated pockets of Jammu & Kashmir.
- Mean minimum temperature was 8 to 12°C over many parts of Himachal Pradesh and some parts of Jammu & Kashmir.
- Mean minimum temperature was 12 to 16°C over Punjab, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Chhattisgarh and isolated pockets of Haryana, West Rajasthan, East Madhya Pradesh.
- It was 16 to 28°C over rest of the country.

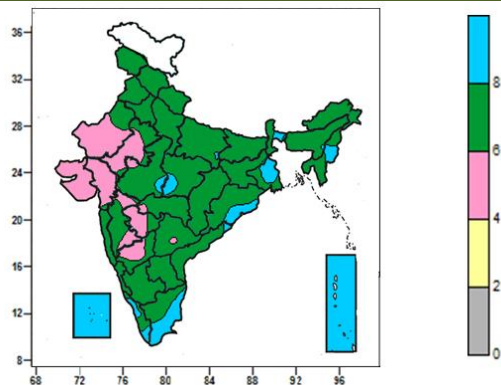
Mean Minimum Temperature (°C) Anomaly in India for the week ending 04.11.2015



- Mean minimum temperature was above normal by 2 to 4°C over many parts of Telangana, North Interior Karnataka, some parts of West Rajasthan, Vidarbha, Madhya Maharashtra, Rayalaseema, Andaman & Nicobar Islands and isolated pockets of Gujarat region, Marathwada, South Interior Karnataka.
- It was normal to near normal in remaining parts of the country.

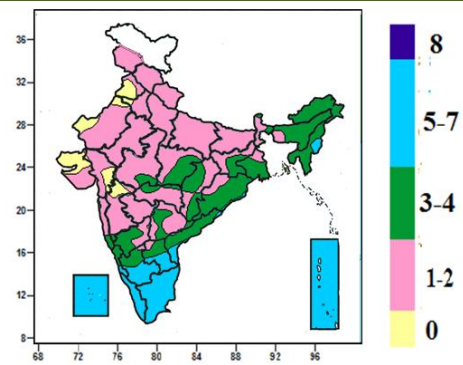
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 04.11.2015

Relative Humidity (%) over India for the week ending 04.11.2015



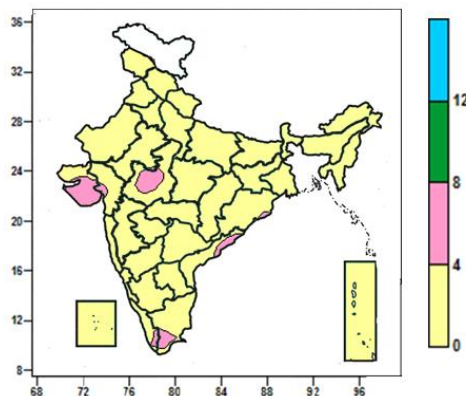
- Mean Relative humidity was above 80% over Lakshadweep and Andaman & Nicobar Islands, many parts of Gangetic West Bengal, Manipur and Tamil Nadu, some parts of Odisha, Kerala and isolated pockets of Madhya Pradesh, Sub-Himalayan West Bengal and Coastal Andhra Pradesh.
- Mean Relative humidity was 60 to 80% over rest of the country except many parts of Gujarat, Rajasthan, Marathwada and North Interior Karnataka, some parts of Madhya Maharashtra and isolated pockets of West Madhya Pradesh, Vidarbha and Telangana.

Cloud amount (okta) over India for the week ending 04.11.2015



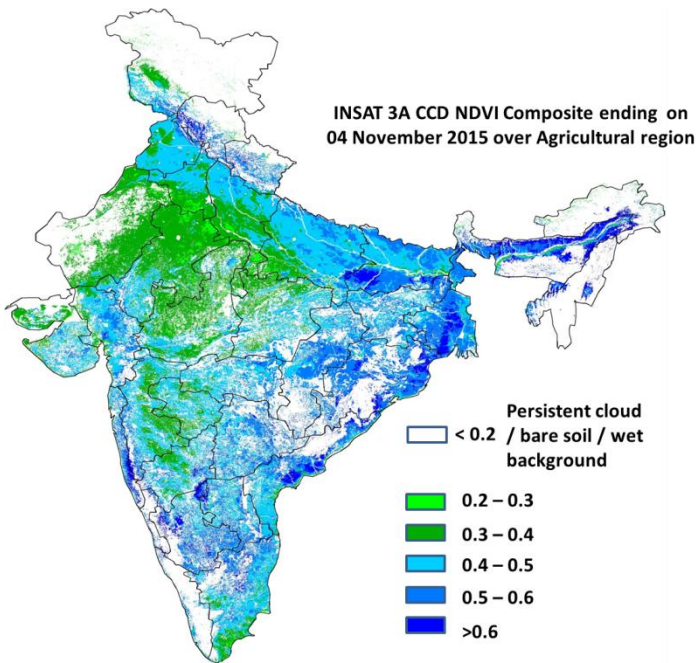
- Sky remained cloudy (5-7okta) over Kerala, Tamil Nadu, Lakshadweep and Andaman & Nicobar Islands many parts of South Interior Karnataka, some parts of Manipur, Coastal Andhra Pradesh, Rayalaseema and isolated pockets of Coastal Karnataka.
- Sky remained partly cloudy/mainly clear/clear sky (3 to 4/ 1 to 2/0 okta) over rest of the country.

Wind speed (knots) over India for the week ending 04.11.2015



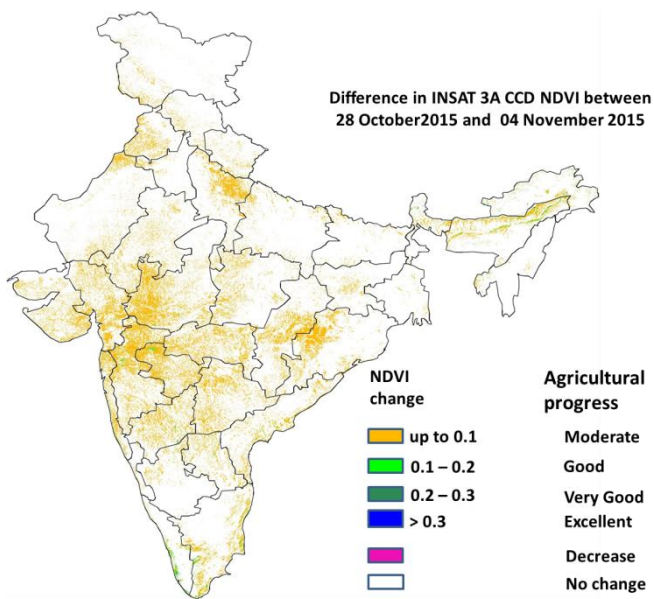
- Mean wind speed was 4 to 8 knots over many parts of Saurashtra & Kutch, some parts of West Madhya Pradesh and isolated pockets of Odisha, Tamil Nadu, Kerala and Coastal Andhra Pradesh.
- It was less than 4 knots over rest of the country.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 4th November 2015 OVER AGRICULTURAL REGION OF INDIA



- Agricultural vigour is very good (NDVI > 0.6) over some patches in Bihar, Coastal Andhra Pradesh, Odisha, West Bengal and Coastal Maharashtra. Agricultural vigour is good in northern Haryana, Punjab, Uttar Pradesh, Bihar, south-east Rajasthan, East Madhya Pradesh, remaining parts of Coastal Andhra Pradesh, Odisha and West Bengal, Karnataka, Jharkhand Vidarbha, Marathwada, Gujarat and Telangana where NDVI varies from 0.4 to 0.6. Agricultural growth was moderate 0.2 to 0.3 over most parts of West Rajasthan, West Madhya Pradesh and some patches in South West Uttar Pradesh and East Rajasthan.

Difference in INSAT 3A CCD NDVI between 28th October and 4th November 2015



- No change in NDVI values was observed over many parts in India. A moderate progress (up to 0.1) in NDVI over patches in west Uttar Pradesh, Gujarat, West Madhya Pradesh, Northern parts of Rajasthan, Maharashtra, Telangana, Kerala, North Interior Karnataka, Coastal Tamil Nadu, Coastal Andhra and Odisha.

- INSAT 3A CCD NDVI composite maps for the week ending on 4th November 2015 for different States are given below in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 11th November 2015

- Fall in night temperatures by 2-3°C over plains of northwest and adjoining central India on 6th & 7th November.

5 Day Rainfall Forecast (MORNING) 6th November 2015

| Met Sub-divisions | 06 Nov | 07 Nov | 08 Nov | 09 Nov | 10 Nov |
|------------------------------|--------|--------|--------|--------|--------|
| 1. Andaman & Nicobar Islands | SCT | SCT | SCT | SCT | SCT |
| 2. Arunachal Pradesh | ISOL | ISOL | DRY | DRY | DRY |
| 3. Assam & Meghalaya | ISOL | DRY | DRY | DRY | DRY |
| 4. N. M. M. & T. | DRY | DRY | DRY | DRY | DRY |
| 5. S.H. West Bengal & Sikkim | ISOL | DRY | DRY | DRY | DRY |
| 6. Gangetic West Bengal | DRY | DRY | DRY | DRY | DRY |
| 7. Orissa | DRY | DRY | DRY | DRY | DRY |
| 8. Jharkhand | DRY | DRY | DRY | DRY | DRY |
| 9. Bihar | ISOL | DRY | DRY | DRY | DRY |
| 10. East Uttar Pradesh | ISOL | DRY | DRY | DRY | DRY |
| 11. West Uttar Pradesh | ISOL | DRY | DRY | DRY | DRY |
| 12. Uttarakhand | DRY | DRY | ISOL | ISOL | ISOL |
| 13. Haryana, Chd & Delhi | ISOL | DRY | DRY | DRY | DRY |
| 14. Punjab | ISOL | DRY | DRY | DRY | DRY |
| 15. Himachal Pradesh | ISOL | DRY | DRY | SCT | SCT |
| 16. Jammu & Kashmir | ISOL | DRY | DRY | FWS | FWS |
| 17. West Rajsthan | DRY | DRY | DRY | DRY | DRY |
| 18. East Rajasthan | DRY | DRY | DRY | DRY | DRY |
| 19. West Madhya Pradesh | DRY | DRY | DRY | DRY | DRY |
| 20. East Madhya Pradesh | DRY | DRY | DRY | DRY | DRY |
| 21. Gujrat Region | DRY | DRY | DRY | DRY | DRY |
| 22. Saurashtra & Kutch | DRY | DRY | DRY | DRY | DRY |
| 23. Konkan & Goa | DRY | DRY | DRY | ISOL | ISOL |
| 24. Madhya Maharashtra | DRY | DRY | DRY | DRY | DRY |
| 25. Marathawada | DRY | DRY | DRY | DRY | DRY |
| 26. Vidharbha | DRY | DRY | DRY | DRY | DRY |
| 27. Chhattisgarh | DRY | DRY | DRY | DRY | DRY |
| 28. Coastal Andhra Pradesh | ISOL | ISOL | ISOL | DRY | DRY |
| 29. Telangana | ISOL | ISOL | ISOL | DRY | DRY |
| 30. Rayalaseema | ISOL | ISOL | ISOL | ISOL | ISOL |
| 31. Tamilnadu & Puducherry | FWS | FWS | WS | WS | WS |
| 32. Coastal Karnataka | ISOL | ISOL | ISOL | ISOL | ISOL |
| 33. North Interior Karnataka | DRY | DRY | DRY | DRY | DRY |
| 34. South Interior Karnataka | SCT | SCT | ISOL | ISOL | SCT |
| 35. Kerala | FWS | FWS | FWS | FWS | FWS |
| 36. Lakshadweep | FWS | FWS | FWS | FWS | FWS |

% 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

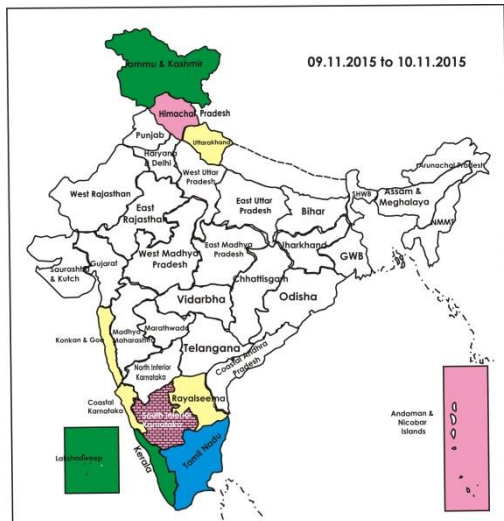
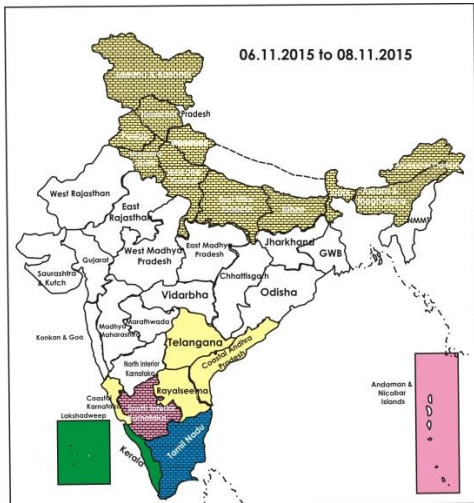
- 06 November (Day1):** Heavy rain would occur at isolated places over Tamilnadu and Kerala.
- 07 November (Day 2):** Heavy rain would occur at isolated places over Tamilnadu and Kerala.
- 08 November (Day 3):** Heavy rain would occur at isolated places over Tamilnadu and Kerala.

- **09 November (Day 4):** Heavy to very heavy rain would occur at isolated places over Tamilnadu and isolated heavy rain would occur over Kerala.
- **10 November (Day 5):** Heavy to very heavy rain would occur at isolated places over Tamilnadu.

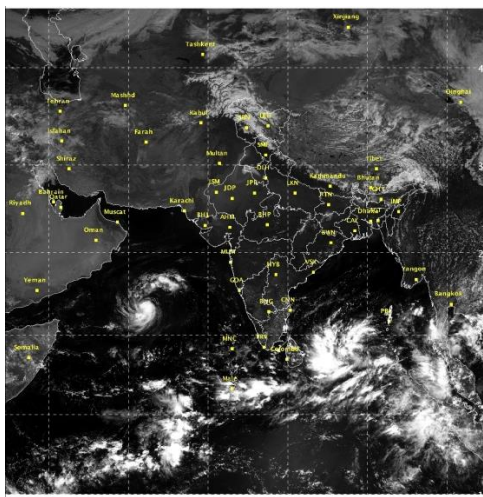
Weather Outlook for subsequent 2 days from 11th to 13th November 2015

- Increase in northeast monsoon rainfall activity over extreme south peninsular India with possibility of heavy falls.
- Rain /thundershowers would occur at isolated places over northeastern state and rest peninsular India.
- Rain/snow would occur at isolated places over Western Himalayan Region.

Weather Forecast Map (Valid upto 0830 hours of 11th November, 2015)



- Most places
- Most places/few places
- Most / Many places
- Most/many places/ isolated places
- Most / Isolated places
- Most / Many/ Few places
- Most / Few places/ isolated places
- Most / Few
- Many places
- Many / Few places
- Many / Isolated places
- Many / Few/ Isolated places
- Many / few/ Mainly dry
- Many / Isolated/ Mainly dry
- Few places
- Few / Isolated places
- Few / Isolated places/dry
- Few/Mainly Dry/Dry
- Isolated places
- Isolated / Mainly Dry / Dry
- Mainly Dry/Dry
- Dry



Salient Advisories

- As rain/thundershowers would occur at most/many places over **Tamil Nadu** and at many places over **Kerala** during the period alongwith heavy/ heavy to very heavy rain at isolated places over Tamil Nadu and heavy rain at isolated places over Kerala, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of matured crops and keep already harvested produces at safer places. Provide adequate drainage in standing crop fields.
- In the Cauvery Delta Zone of **Tamil Nadu**, continue transplanting of *thaladi* rice after current spells of heavy rain. In the South Zone, as isolated heavy rainfall is expected in the coming days, provide adequate drainage in chilli nurseries and in cotton, sorghum, maize, blackgram and greengram crop fields to prevent water stagnation.
- In **Kerala**, continue transplanting of *Mundakan* rice, cultivation of Nendran banana and winter vegetables after current spells of heavy rain. Postpone harvesting of *Viruppu* rice in Northern Zone.
- In **North Interior Karnataka**, continue sowing of jowar, Bengal gram (JG-11, Annegiri-1, ICCV-10) and safflower in the North East Dry Zone. In North Transition Zone, continue sowing of sorghum, safflower, chickpea and wheat. In **South Interior Karnataka**, continue sowing of medium to short duration varieties of finger millet, maize, sunflower, Bengal gram, field bean, horse gram, niger and black gram in Eastern Dry Zone.
- In **Madhya Maharashtra**, as dry weather would prevail during the period, undertake sowing of pre-seasonal sugarcane with assured irrigation. Apply irrigation to vegetable crops, *adsali* sugarcane and in orchards like banana, grapes and pomegranate. Continue sowing of irrigated wheat and green pea. In **Marathwada**, apply drip irrigation instead of flood irrigation to sugarcane and banana orchards. Also apply irrigation to vegetable crops. Continue sowing of *rabi* gram, sunflower and fodder crops like jowar by applying light irrigation. In **Central Vidarbha region**, apply irrigation to vegetable crops and orchards like orange and sweet lime. Continue sowing of *rabi* safflower. Maintain 8-10 cm water level in rice fields in East Vidarbha, wherever the crops are at flowering/grain formation stage.
- Continue sowing of Bengal gram in **Gujarat, Madhya Pradesh, Rajasthan, Punjab and Uttar Pradesh** and continue land preparation and sowing of mustard/rapeseed in **Assam & Meghalaya, Bihar, Jharkhand, Odisha, Rajasthan, Madhya Pradesh, Chhattisgarh, Uttar Pradesh and Uttarakhand** with irrigation facilities. Undertake land preparation for sowing of wheat in **Punjab, Rajasthan, Madhya Pradesh, Gujarat and Himachal Pradesh**.
- As dry weather would prevail, apply irrigation and maintain water level of 5-7 cm in rice at grain formation/grain filling stage in **Uttar Pradesh, Bihar and East Madhya Pradesh**. Also apply irrigation in already sown toria in **Bihar and Uttar Pradesh**.
- Taking advantage of prevailing dry weather, continue harvesting of matured *Aman* rice in Laterite and Red Soil Zone and New Alluvial Zone of **Gangetic West Bengal** and undertake harvesting of rice in **Coastal Karnataka**.

Detailed Zonewise Agromet Advisories

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



Maize



Groundnut



Land preparation



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Coastal Karnataka; Bidar district of North Interior Karnataka; all districts of South Interior Karnataka except Ballari; all districts of Kerala; all districts of Tamil Nadu except Perambalur and Salem; Nellore, Srikakulam, Vishakapatnam and Vizianagaram districts of Coastal Andhra Pradesh; all districts of Rayalaseema except Kurnool; Medak district of Telangana. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers would occur at most/many places over Tamil Nadu and at many places over Kerala during the period alongwith heavy/ heavy to very heavy rain at isolated places over Tamil Nadu and heavy rain at isolated places over Kerala, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of matured crops and keep already harvested produces at safer places. Provide adequate drainage in standing crop fields.
 - **Andhra Pradesh:**
 - In the Scarce Rainfall Zone, continue land preparation for sowing of safflower and Bengal gram (desi and kabuli varieties).
 - Prevailing weather conditions are congenial for incidence of rust, ring spot and white fly in cotton in the North Coastal Zone. To control, spray Profenophos @ 2.0 ml/litre of water.
 - In the Southern Zone, undertake sowings of *rabi* crops like jowar, ragi, horsegram and short duration pulses like Bengal gram, green gram and blackgram. Undertake nursery sowing of rice (N.L.R – 145, NLR-3041, NLR-34449, MTU-1001, BPT-5204, CR-1009, JGL-1798 and NDLR-8).
 - Prevailing weather conditions are congenial for incidence of helicoverpa in tomato in the Southern Zone. To control, spray neem oil @ 5ml/litre of water. If the pest incidence is more, spray Thiodicarb @ 1g or Novaluron @ 1ml/litre of water.
 - **Telangana:**
 - In the Southern Telangana Zone, continue sowing of chickpea and safflower crops under residual moisture conditions in black soils and sowing of *rabi* crops like maize, sorghum, groundnut and sunflower under irrigated conditions.
 - In the Northern Telangana Zone, undertake sowing of sunflower (KBSH-1, NDSH-1, DRSB-1, APSH-66) and continue sowing of Bengal gram (JG 11, Swetha, Annigeri, K.A.K. 2).
 - In the Northern Telangana Zone, prevailing partially cloudy weather conditions are congenial for incidences of sucking pests in groundnut (Jassids, Aphids and Thrips). Undertake spraying of Monocrotophos @ 1.6 ml/litre or Dimethoate @ 2.0 ml/litre of water.
 - In the Southern Telangana Zone, incidence of grey mildew disease is noticed in cotton. To control, spray Wettable Sulphur @ 3g per litre of water.
 - **Karnataka:**
 - Continue sowing of medium to short duration varieties of finger millet - Indaf-7, Indaf-9, Indaf-15, ML-365, maize – Deccan-103, Vijaya composite, NAH-1137 and Ganga-11, sunflower: Morden, KBSH-1, KBSH-41, KBSH-42, KBSH-44 and KBSH-53, Bengal gram: JJ-11, KAK-2 and Vishal, field bean: HA-3 and HA-4, horse gram: KBH-1 and PHG-9, niger: KBN-1, black gram: Rashmi in Eastern Dry Zone.
 - Continue sowing of sorghum (DSH-4, M-35-1, Muguthi, DSV-5), safflower (A-1), niger (No. 71, RCR-18) wheat (HD-2189, DWR-162, 195, 225, 185. 1006, 415, UAS-304, 428) and planting of sugarcane after receipt of sufficient rainfall in North East Transition Zone.
 - Undertake harvesting of rice in Coastal Zone, during harvesting time, leave about 15 cm height of straw from ground surface, to decompose and add nutrients in the soil.
 - In North Dry Zone, continue sowing of short duration, drought resistant *rabi* sorghum (var. Maldandi and Mugati), chickpea (var. A-1, JG-11 and Jaki-9218) and safflower (var. A-1), sunflower using the realized and expected rainfall and intercropping of *rabi* sorghum + chickpea (2: row proportion); chickpea + safflower (4:2 row proportion).
 - In North Transition Zone, continue sowing of sorghum, safflower, chickpea and wheat.
 - In Central Dry Zone, undertake sowing of Bengalgram (Var: JG-11, Annigeri-1) after receipt of sufficient rainfall.

- In North East Dry Zone, brown plant hopper on rice and mealy bugs on cotton are noticed. For control, undertake spraying Chloropyriphos @ 2.0 ml or Monocrotophos @ 1.5 ml dissolved in one litre of water on rice and on cotton, undertake spraying of Monocrotophos @ 2 ml or Profenophos @ 2 ml/litre of water.
- Leaf eating caterpillar mence was noticed in Ragi crop at H.D.Kote taluk of Mysore district in Southern Dry Zone, to manage this pest, undertake spraying of Chloropyriphose @ 2 ml/litre of water, on a non rainy day.
- **Kerala:**
 - In the Southern Zone, continue nursery sowing of rice in Kollam district after current spells of heavy rain.
 - Continue sowing of *Mundakan* rice and cultivation of cool season vegetables in the Central Zone after current spells of heavy rain.
 - Continue land preparation for second rice crop (*Uma* variety) and harvesting of *Virrupu* rice in the Problem Area Zone after current spells of heavy rain.
 - Prevailing weather conditions are congenial for incidence of downy mildew in cucurbitaceous vegetables in the Central Zone. To control, practice crop rotation, burn the residue of previous crop and apply Mancozeb(0.3%) Dithane M45 @ 3g/litre water after current spells of rain.
 - Leaf eating caterpillar attack may be severe under high humidity forecasted in the Southern Zone. Cut and burn the infested leaves and in case of severe infestation, spray the undersurface of the fronds with Quinalphos @ 0.05% or Malathion @ 0.1 % after current spells of rain.
- **Tamil Nadu:**
 - In the Cauvery Delta Zone, continue transplanting of *thaladi* rice after current spells of heavy rain. Provide adequate drainage facilities in the rice fields to drain out the excess water to improve better aeration in the root zone.
 - Undertake land preparation for medium duration rice in Karaikal and Puducherry after current spells of heavy rain.
 - In the South Zone, as isolated heavy rainfall is expected in the coming days, provide adequate drainage in chilli nurseries and in cotton, sorghum, maize, blackgram and greengram crop fields to prevent water stagnation.
 - Continue cultivation of groundnut crop (TMV-13 and Co-7) in the North Western Zone after current spells of heavy rain.
 - In the Western Zone, incidence of grey mildew was observed in winter irrigated Cambodia cotton due to heavy rainfall from both past week and present week along with high relative humidity. Spray Carbendazim @ 250g dissolved in 500 litres of water per hectare. In grapes, high relative humidity, present minimum temperature and continuous wet spell may cause infestation of both powdery mildew and downy mildew. Spray 0.3% wettable Sulphur for powdery mildew and 1% Bordeaux mixture for downy mildew. Undertake plant protection methods after current spells of rain.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - Prevailing weather conditions are congenial for the occurrence of ET, sheep pox and PPR in sheep and Hemorrhagic Septicemia, foot and mouth disease in cattle and buffaloes in Southern Telangana. To prevent the diseases, vaccinate the animals.
 - Prevailing weather conditions are favourable for blue tongue disease in sheep and goats in the Scarce Rainfall Zone of Andhra Pradesh. Vaccinate animals to prevent the disease.
 - In the Western Zone of Tamil Nadu, because of the continuous wet spell, cattle and poultry feeds may get contaminated with fungus. During this season, keep the feeds the dry to prevent occurrence of dysentery and diarrhoea.

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



Greengram



Land preparation



Okra



Rice

- **Realised Rainfall:** Rainfall occurred in Upper Siang district of Arunachal Pradesh; N C Hills and Karimganj districts of Assam; Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Assam, Meghalaya & Arunachal Pradesh:**
 - In Lower Bramhaputra Valley Zone, undertake sowing of *rabi* maize and winter vegetables and land preparation for sowing of rapeseed & mustard, onion and garlic and planting of potato.
 - In Barak Valley Zone, continue nursery bed preparation for cauliflower, cabbage, knol khol and land preparation

for planting of potato.

- In Central Brahmaputra Valley Zone of Assam, continue land preparation for sowing of wheat *rabi* pulses, rapeseed & mustard, planting of potato and nursery sowing of cole crops.
- In North Bank Plain Zone, continue land preparation for sowing of rapeseed & mustard and nursery sowing of cabbage, cauliflower, brinjal, tomato and knol khol and planting of potato.
- In Upper Brahmaputra Valley Zone of Assam, undertake land preparation for planting of early potato and toria in upland area.
- In Hill Zone of Assam, continue transplanting of winter vegetables, sowing of carrot and French bean and undertake land preparation and sowing of rapeseed & mustard.
- In Arunachal Pradesh, continue land preparation for sowing of pea and transplanting of Cole crops (cabbage, cauliflower, broccoli, knolkhol, etc.)
- In Meghalaya, continue sowing of rapeseed and mustard, pea, carrot and radish, nursery preparation of cabbage, cauliflower, tomato and broccoli and sowing of pea in high altitude regions and continue land preparation for sowing of mustard/rapeseed and planting of potato in mid to low altitude regions.
- In Central Brahmaputra Valley Zone and North Bank Plain Zone, in prevailing weather condition, Gundhi bug infestation is observed in *Sali* rice at panicle emergence stage to milk/dough stage. For control, apply Malathion 5% dust @ 20 kg/ha if the pest population is above ETL.
- **Manipur, Mizoram, Nagaland and Tripura:**
 - In Manipur, undertake land preparation for sowing of rapeseed/mustard, field pea, garden pea and nursery sowing of onion and continue land preparation of planting of potato. Continue harvesting of *kharif* rice. Undertake transplanting 25-30 days old seedling of cabbage and cauliflower.
 - In Mizoram, continue nursery sowing of brinjal and chilli. Continue sowing of pea, mustard and toria. Undertake harvesting of banana and passion fruit.
 - In Nagaland, continue harvesting of matured wetland paddy. Continue land preparation for sowing of chickpea, lentil, linseed, mustard and maize. Transplanting of mature seedlings of cauliflower, cabbage, broccoli, tomato etc may be done in raised bed.
 - In Tripura, undertake sowing of toria, sesame and lentil and land preparation for planting of potato. After harvesting of *Aman* rice, undertake sowing of winter vegetables. Apply mulching in between rows of early cauliflower, radish, brinjal, bitter gourd & pointed gourd to retain moisture.
 - Suitable varieties are given in Annexure III.
- **Animal Husbandry**
 - In Tripura, the present weather condition is favourable for HS, FMD diseases in animals. Vaccinate the animals against this diseases.
 - In Lower Brahmaputra Valley Zone of Assam, poultry birds should be regularly observed and fed with antibiotics and vitamins after consulting veterinary doctors.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Cotton



Sugarcane



Rice



Land preparation

- **Realised Rainfall:** Rainfall occurred in Sindhudurg district of Konkan & Goa. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, as dry weather would prevail, continue harvesting of mid late rice variety and *nagli* crop. Maintain water level of 8-10 cm in rice fields (late maturing variety). Undertake intercultural operations like weeding and earthing up around newly planted fruit crops like mango and cashew. Continue preliminary operations for vegetable nursery of chilli, brinjal, cabbage, knol-khol on raised bed nursery.
 - In Madhya Maharashtra, continue sowing of pre-seasonal sugarcane with assured irrigation. Continue sowing of irrigated wheat, gram, sunflower and fodder crops like jowar, maize, oats (suitable varieties are given in Annexure I) by applying light irrigation. Continue sowing of green pea. Apply Capton or carbendazim 3 gm per kg of seed for treating the seeds. Continue the harvesting of matured rice. Apply irrigation to vegetable crops, *adsali* sugarcane and orchards like banana, grapes and pomegranate. Undertake intercultural operations such as light hoeing in *rabi* crops to control evaporation losses from soil. Also to conserve moisture in orchards use farm

trash as mulch. Continue transplanting for *rabi* onion.

- In Marathwada, as dry weather would prevail during the period, undertake intercultural operations such as light hoeing in *rabi* crops like jowar and sunflower to control evaporation losses from soil. Also to conserve moisture in orchards use farm trash as mulch. Undertake picking of cotton in interval of 15-20 days. Dry the boll and keep it in clean and dry place. Apply drip irrigation to red gram in flowering stage under water stress condition. Cover the north and west side of banana orchards with net to protect from cold winds.
- In Vidarbha, as dry weather is expected during next 5 days, apply irrigation to vegetable crops sugarcane and orchards like orange and sweet lime in Central Vidarbha region. Undertake intercultural operations such as light hoeing in *rabi* crops to control evaporation losses from soil. Also to conserve moisture in orchards use farm trash as mulch. Maintain 8-10 cm water level in rice fields in East Vidarbha, wherever the crops are at flowering/grain formation stage. Continue sowing of *rabi* safflower and gram in Central Vidarbha region.
- Due to cold weather during morning hours and rise in temperature during afternoon in Western Maharashtra Scarcity zone, there may be attack of sap sucking pests in ragi crop; spray Imidachloprid @4 ml or Thiomethoxam @ 4 g per 10 litres of water using knapsack spray pump. Remove and destroy affected fruits after picking and spray Deltamethrin or Sypermethrin @ 7 ml per 10 litres of water using knapsack spray pump. Also spray 4% Neem extract at an intermittent interval.
- **Gujarat:**
 - Undertake sowing of wheat; continue sowing of chickpea, onion, garlic, carrot and pea (for vegetable purpose), cumin, coriander in North Saurashtra Zone.
 - Undertake land preparation for sowing of *rabi* crops like wheat, chick pea, onion, cumin, coriander, garlic in South Saurashtra Zone.
 - Undertake sowing of wheat in South Gujarat Zone. In North Gujarat Zone, undertake land preparation for sowing of potato. Forecasted temperature is most suitable for sowing of *rabi* crops; undertake sowing of gram; continue sowing of mustard, onion, carrot, radish, fenugreek, coriander, fennel amaranths and lucerne and nursery sowing/transplanting of cabbage, cauliflower and brinjal under irrigation. Continue harvesting of sorghum, matured fruits of cluster apple and picking of matured cotton bolls.
 - In North West Zone, as forecasted temperature range is most suitable for sowing of *rabi* crops; undertake sowing of gram; undertake land preparation for sowing of mustard and lucerne and nursery sowing/transplanting of cabbage, cauliflower brinjal, onion, carrot and radish under irrigation. Undertake harvesting of matured fruits of custard apple and picking of matured cotton bolls.
 - In Bhal and Coastal Zone, continue sowing of wheat and mustard; undertake sowing of chickpea; continue land preparation for sowing of fennel and for nursery sowing of cabbage, cauliflower and brinjal; under water stress condition, apply irrigation in alternate row at 8 - 10 days interval in cotton for development of cotton bolls and carryout intercultural operations and weeding in castor. Continue picking of matured cotton bolls.
 - In Middle Gujarat Zone, continue land preparation for sowing of *rabi* crops; plan for *rabi* sowing according to availability of irrigation water. Sundry the harvested paddy to bring down the moisture content to the level of 12-14% and kept in safe storage.
 - In South Gujarat Heavy Rainfall Zone, undertake sowing of *rabi* gram at proper soil moisture condition; continue planting of sugarcane, transplanting of cabbage and cauliflower, harvesting of rice, ragi at physiological maturity and sundry the harvested rice to bring down the moisture content to 12-14 %.
 - Under present weather condition heavy infestation of jassid and white fly is observed in cotton in North Saurashtra Zone; spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g in 10 litres of water for control.
 - The weather condition is favourable for attack of mealy bug in cotton crop in South Gujarat Zone; spray Profenophos 50 EC @ 10 ml or Carbaril 50 WP @ 40 g or Trizophos 40 EC @ 25 ml/10 litres of water for control.
 - In South Gujarat Heavy Rainfall Zone, undertake precautionary spray of Imidacloprid @ 2.8 ml or Fenobucarb 50 EC @ 20 ml or Deltamethrin 2.8 EC @ 3.0 ml /10 litres of water on mango tree trunk to manage the mango hopper.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - Provide 6-8 kg good quality dry roughage with 15-20 kg green fodder, arrange adequate amount of fresh drinking water for cattle in Gujarat.

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



Groundnut



Cotton



Land preparation



Rice

- **Realised Rainfall:** Rainfall occurred in Nicobar and South Andaman districts of Andaman & Nicobar Islands, North Sikkim district of Sikkim. Gopalganj district of Bihar; East Singhum, Gumla, Lohardaga, Ranchi, Simdega and West Singhum districts of Jharkhand; Ganjam, Jagatsinghpur, Kendrapara, Malkangiri and Puri districts of Odisha. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **West Bengal:**
 - Taking advantage of prevailing dry weather, continue harvesting of matured *Aman* rice in Laterite and Red Soil Zone and New Alluvial Zone of Gangetic West Bengal.
 - In Old Alluvial Zone, continue land preparation and sowing of lentil, potato and mustard.
 - In Terai Zone and Old Alluvial Zone, undertake seedbed preparation of winter vegetables. Before sowing, seed treatment with *Trichoderma viridae* @ 4g/kg seed should be done.
 - In Hill Zone, continue transplanting of cole crops and undertake weeding followed by earthing up in ginger fields.
 - In Coastal Saline Zone, complete sowing of early mustard within first week of November for avoiding aphid problem.
 - In Laterite and Red soil Zone, undertake land preparation for sowing of wheat and potato after harvesting of *Aman* rice.
 - In New Alluvial Zone, undertake land preparation for sowing of mustard in early harvested paddy fields. Also undertake land preparation for nursery sowing for late varieties of cauliflower and cabbage.
 - In Coastal Saline Zone, due to hot and humid weather condition there may be chance of attack of gundhi bug in rice at milking to grain filling stage. To control, spray Quinalphos dust or Chlorpyrifos dust @ 3.3kg/bigha.
 - In Laterite and Red soil Zone, in the present weather condition, there is chance of occurrence of leaf spot in chilli. Remove and destroy the affected parts and spray Mancozeb @ 0.25% twice at 10-15 days interval.
 - In New Alluvial Zone, under hot and humid weather situation, there is a chance of attack of gundhi bug in rice, spray Carbosulfan 25 EC @ 2ml/litre or Profenphos 40% + Cypermethrin 4% @ 1ml /litre of water.
 - **Andaman and Nicobar Islands:**
 - In North, Middle and South Andaman and Nicobar, undertake harvesting of rice in clear weather.
 - **Odisha:**
 - In East and South Eastern Coastal Plain Zone, complete harvesting of matured kharif green gram and black gram. Undertake land preparation and sowing of *rabi* crops such as mustard, groundnut, Bengal gram sunflower etc., in fallow up-medium lands and land preparation for nursery sowing of cole crops.
 - In Western Undulating Zone, continue sowing of improved varieties of black gram vari. Sarala, Ujala, PU-30, T-9, Prasad, green gram varieties like Tarm-1, Dhauli, Durga, Kamdev Jyoti, PDM-54, PDM-11, Samrat, PM-1, PM-2 @ 6-8 kg/acre and cow pea vari. Utkala manika, Pusa Barsati and SEB- 2 @ 8kg/acre in fallow uplands.
 - In North Central Plateau Zone, it is optimum time for sowing of mustard under rainfed conditions. In Eastern Ghat High Land Zone and South Eastern Ghat Zone, this is the optimum time for sowing of horse gram (Kulthi), black gram (Biri) and green gram.
 - In East and South Eastern Coastal Plain Zone and South Eastern Ghat Zone, humid and cloudy weather favours infestation of blast and Bacterial Leaf blight in rice. For control of blast, spray Beam @ 1 g and Hinosan @ 1.5 g in 2 litres of water twice at 15 days interval. For Bacterial Leaf blight, spray Copper Oxychloride @ 20g along with Plantomycine @ 10 g in 20 litres of water.
 - In East and South Eastern Coastal Plain Zone, red hairy caterpillar and leaf minor has been found in groundnut. Spray DDVP @ 200 ml per acre for control of hairy caterpillar and spray Chloropyrifos @ 2 ml/litre of water to control leaf minor.
 - In Western Undulating Zone, case worm and stem borer infestation noticed in paddy crop at milking stage in some areas. Spray Triazophos or Monocrotophos or Profenophos @ 2ml/litre of water.
 - In Mid Central Table Land Zone, the present weather condition i.e. high humidity and low temperature along with cloudy weather favours blast attack in rice. To control, spray Tricyclazole @ 0.5g/litre at 15 days interval.
 - In North Eastern Ghat Zone, rice crop has been affected by Bacterial Leaf Blight. Undertake spraying of Plantomycin @ 200 g or Streptocyclin @ 20 g in 200 litres of water per acre for control.

▪ **Bihar:**

- In South Alluvial Plain Zone, undertake field preparation for sowing of chickpea and lentil, continue sowing of toria & fodder crops, undertake harvesting of matured rice crop.
- In North West Alluvial Plain Zone, continue planting of potato, continue land preparation for sowing of rabi crops such as maize, garlic, lentil, pea, coriander, sunflower & rajma and nursery preparation for rabi onion. Undertake harvesting and threshing of rice crop and weeding in vegetables crops, 25-30 days old garlic crop and early sown pea crop.
- In North West Alluvial Plain Zone, present weather condition is conducive for the attack of borer/leaf cutting caterpillar in cauliflower, to control, use pheromone trap @ 3-4/acre. If insect population is above ETL, then, spraying of Spinosad @ 1 ml/4 litre of water is advised.
- In North East Alluvial Plain Zone, present weather is conducive for attack of shoot borer in sugarcane crops, to control, spray with Chlorpyrifos 20EC @ 3ml/litre of water.
- In North West Alluvial Plain Zone, present weather is conducive for the occurrence of viral infection in tomato & chilli crops. Infected plant should be uprooted and buried in the soil and undertake spraying of Imidacloprid @0.3ml/litre of water.

▪ **Jharkhand:**

- In South Eastern Plateau Zone, continue land preparation for cultivation of short duration of early potato & mustard, nursery raising of onion & cultivation of vegetables like tomato, early cabbage, cauliflower & short duration French bean and leafy vegetables. Continue intercultural operation in horse gram, toria, pigeon pea, safflower, lobia, urad and moong bean and undertake harvesting of matured medium and low land rice crop.
- In North Eastern Plateau Zone, undertake land preparation for cultivation of improved wheat variety in irrigated condition, complete sowing of early potato and green peas and continue transplanting of papaya, tomato, cabbage, cauliflower & brinjal. Continue sowing of improved varieties of toria, mustard and gram as single crop or intercropping with linseed or mustard. Undertake harvesting of matured rice crops.
- In Western Plateau Zone, continue harvesting of rice, sowing of lentil, continue land preparation for cultivation of gram, linseed, mustard & rapeseed, barley, pea & rainfed wheat and continue transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato & brinjal, Continue sowing of radish, turnip, spinach, carrot, toria, green pea and planting of potato.
- In North Eastern Plateau Zone, present weather is conducive for the occurrence of hairy caterpillars in urad/horsegram, to control, collect and destroy the egg and young larvae, by dusting 2% Methylparathion dust @ 25-30 kg/ha.
- In South Eastern Plateau Zone, due to partly cloudy weather, early and late blight intensity will become more in potato crop, to control, spray, Krilaksil or Ridomil @ 1.5 g per litre of water.
- In South Eastern Plateau Zone, present weather is conducive for the occurrence of YVM in okra, to control, spray Imidacloprid @ 0.5 ml per liter of water at an interval of 10-15 days.
- Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry:**

- In Sub-Himalayan West Bengal & Bihar, provide concentrate feed to milch animals mixed with dry and green fodders to ensure rich diet having protein, carbohydrate, fat and vitamins.

CENTRAL INDIA [M.P., CHHATTISGARH]



Cauliflower



Land preparation



Okra



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of East Madhya Pradesh except Balaghat, Chhatarpur, Mandla, Panna, Sagar and Tikamgarh; Hoshangabad district of West Madhya Pradesh; Jashpur, Koriya and Surguja districts of Chhattisgarh. Weather remained mainly dry over rest of the region.

• **Advisories:**

▪ **Madhya Pradesh:**

- In Satpura Plateau Zone, undertake field preparation and sowing of wheat, mustard and planting of sugarcane. Continue planting of potato and garlic.
- In Malwa Plateau Zone, undertake land preparation for sowing of wheat crop, transplanting of winter vegetables like, cauliflower, cabbage, tomato, chilli and brinjal and prepare the nursery of improved varieties of onion crop. Complete harvesting of matured soybean and maize. Continue field preparation and sowing of potato, pea, garlic

and gram.

- Complete sowing of toria, sweet corn and fodder crops like berseem and harvesting of matured sesame, moong and urad in Kymore Plateau and Satpura Hill Zone. Also continue nursery preparation for cabbage and cauliflower. Continue sowing of lentil, linseed and green pea.
- Continue field preparation and sowing of pea, chickpea, lentil and transplanting of vegetables like brinjal, tomato, chilli, cauliflower and cabbage on raised bed in Bundelkhand Zone. Undertake field preparation for sowing of wheat in areas where irrigation facilities are available.
- Continue nursery preparation for onion and garlic and vegetables like tomato, chilli, brinjal, cabbage and cauliflower, sowing of green peas and planting of potato in Vindhya Plateau Zone.
- Undertake field preparation and sowing of wheat and transplanting of vegetables like cauliflower, cabbage, tomato, chilli and brinjal in Jhabua Hill Zone. Continue sowing of vegetable pea and field preparation for sowing of gram and mustard. Apply irrigation in cotton under moisture stress condition.
- Continue field preparation for planting of potato in Grid Zone. Continue sowing of mustard, gram and green pea under optimum temperature conditions.
- In Jhabua Hill Zone, present weather is congenial for incidence of shoot borer in ginger and turmeric. To control of shoot borer, spray Trizophos @ 2.0 ml/litre of water.

▪ **Chhattisgarh:**

- In North Hill Zone, continue raising seedlings of onion and land preparation and sowing of gram, lentil, linseed, toria, mustard, pea, garlic and planting of potato and also complete harvesting of matured rice. Undertake transplanting of winter vegetables.
- In Plain Zone of Chhattisgarh, complete harvesting of rice and continue nursery preparation for cauliflower, cabbage, onion and capsicum. Complete planting of onion and winter sugarcane. Undertake land preparation and sowing of gram, lentil, linseed and safflower.
- Continue sowing of Bengal gram after treated with Bavistin (3g) or Vitavax (2g) and also prepare the land for sowing of chickpea, safflower, lentil, linseed & fodder crop like oat, barseem. Continue harvesting of rice in midland and lowland areas and sowing of gram, pulses, pea and safflower and nursery preparation for vegetables like cabbage, cauliflower, chilli, planting of potato and sowing of sweet potato in Bastar Plateau Zone.
- Suitable varieties are given in Annexure III.
- **Animal Husbandry**
- Vaccinate animals against foot and mouth disease in Madhya Pradesh. Provide concentrate feed to milch animals by mixing dry and green fodder enriched with protein, carbohydrate, fat, vitamins etc. in Chhattisgarh.

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



Cotton



Land preparation



Maize



Cabbage

- **Realised Rainfall:** Rainfall occurred in Kupwara district of Jammu & Kashmir; Deoria, Ghazipur, Mirzapur, Sonbhadra and Varanasi districts of East Uttar Pradesh. Mainly dry weather prevailed over rest of the region.

• **Advisories:**

▪ **Jammu & Kashmir:**

- In Sub Tropical Zone, continue sowing of mustard after seed treatment with Captan or Thiram @ 3g/kg seed before sowing and continue land preparation for sowing of *rabi* pulses viz. pea, chickpea, lentil and early sowing of wheat, nursery raising of onion and planting of potato.
- In Valley Temperate Zone of Jammu & Kashmir, continue land preparation for sowing of leafy vegetables and planting of bulb crops. Continue sowing of wheat and oat, brown sarson, peas, pulses, lentil and berseem as fodder crops.
- In Intermediate Zone, continue sowing of wheat, oat higher Zones under adequate moisture conditions and treat the seeds with Carboxin (Vitavax), Carbendazim (2g/kg seed) or Tebuconazole (1.25g/kg seed) for managing the seed borne disease like loose smut, flag smut and Karnal bunt before sowing .
- In Cold Arid Zone, undertake transplanting of cabbage, cauliflower, KnolKhol, Kale, broccoli and lettuce in green houses. Continue sowing of garlic (var. Parvati) in trenches, low tunnels. Cover the trenches and low tunnels with

polythene in the night to avoid loss due to sudden temperature dip below -5°C .

- In Sub Tropical Zone, due to congenial weather condition, there may be attack of saw fly in toria. To control, spray Cypermethrin @ 1ml/litre of water on a non rainy day.
- **Uttarakhand:**
 - In Bhabar and Tarai Zone, continue sowing of wheat, barley, oats and planting of potato under optimum soil moisture, continue sowing of mustard, onion, coriander, spinach, radish, fenugreek etc. and planting of Autumn sugarcane, garlic & vegetable pea.
 - In Hill Zone, continue sowing of vegetable pea, radish, palak, methi, carriander, cabbage, cauliflower, garlic, and toria. Also continue nursery sowing of onion, planting of potato.
 - In Sub humid Sub tropic Zone, continue harvesting of matured rice crops and prepare the land for sowing of wheat and other *rabi* crops.
- **Himachal Pradesh:**
 - In Sub-Montane and Low Hills Sub-Tropical Zone, continue sowing of wheat, barley, gobhisarson and peas and transplanting of tomato in raised bed and cauliflower (early group & late group), cabbage, KnolKhol, Broccoli and Chinese cabbage and also continue direct sowing of radish, carrot, turnip, palak and methi in mid hill areas, planting of potato in lower and mid hills regions.
 - In Mid Hills sub-Humid Zone, continue nursery sowing of cauliflower, sowing of carrot and cruciferous vegetables (at a distance of 30x10cm), early variety of pea (at a distance of 30x10cm). Continue transplanting of early variety of cauliflower at a distance of 45x30cm and of onion at a distance of 15x10cm. Continue harvesting of tomato, cucumber and capsicum in higher region.
 - Under prevailing weather condition, there are chances of attack of cutworms in vegetables in Sub-Montane and Low Hills Sub-Tropical Zone. For control, spray Chlorpyriphos 20 EC @ 2.5 ml/litre of water. For the control of damping off disease in vegetable crops mix thoroughly Dithane M 45 dust @ 10-15 g in 1X 3metre beds.
- **Rajasthan:**
 - In West Rajasthan, continue field preparation for sowing of wheat, continue sowing of gram, garlic, fenugreek, mustard, barley and fennel, onion, carrot, lucern, taramira and continue field preparation for sowing of cumin and isabgol in Arid Western Plain Zone. Continue harvesting of guar and bajra crops and continue sowing of lucern, taramira in Transitional Plain Zone of Inland Drainage. Undertake harvesting of sugarcane sown in February/March in Irrigated Northwestern Plain Zone.
 - In East Rajasthan, continue sowing of gram, mustard, and lentil and field preparation for planting of potato in Flood Prone Eastern Plain Zone and sowing of chickpea, rabi maize in Southern Humid Plain Zone.. Undertake field preparation of wheat, continue transplanting of late cauliflower, cabbage and *rabi* onion in Semi-Arid Eastern Plain Zone.
 - Continue harvesting of urad, soybean and maize and apply irrigation in rice, sugarcane and vegetable crops in South-eastern Humid Plain Zone. Continue field preparation for sowing of wheat, early pea, complete sowing of garlic in Sub Humid Southern Plain and Aravali Hill Zone.
 - In Semi-Arid Eastern Plain Zone and in the present weather, there are chances of attack of mealy bug on mango, guava and pomegranate. To control, apply mix of Quinalphos 1.5 % or Methyl parathion 2% dust @ 50-100 g per tree pit in soil at a depth of 10-25 cm.
 - In Southern Humid Plain Zone, in the present weather, there are chances of attack of mealy bug on horticulture crops, spray Profenophos@ 1.25 litre/ha (add 1spoon washing powder as sticker).
 - In Irrigated Northwestern Plain Zone, to prevent dropping of *kinnow* fruits due to rise in temperature in *kinnow* orchards, spray Propineb 70 WP @ 2 g /litre of water.
- **Punjab, Haryana and Delhi:**
 - In Western Plain Zone of Punjab, continue sowing of wheat, gram, kabuli gram, mustard, radish, carrot, turnip, planting of sugarcane and sowing of toria, gobhisarson, pea, gram, potato, cabbage, radish, garlic as intercrops in sugarcane.
 - In Western Zone of Punjab, continue harvesting of matured rice, picking of cotton and nursery sowing of *rabi* onion, tomato and sowing of radish, turnip and carrot, land preparation for sowing of potato and transplanting of cauliflower and cabbage.
 - In Undulating Plain Zone of Punjab, continue sowing of wheat, raya. planting of fruit plants viz citrus, mango, litchi, guava, loquat, ber, amla and papaya. Complete planting of autumn sugarcane,
 - In Central Plain Zone of Punjab, continue sowing of wheat, lentil, raya, gram, onion, pea, fodder crops lucerne, oats and senji.
 - In Sub-Montane Undulating Zone of Punjab, continue sowing of raya, gobi sarson and taramira.
 - In Western zone of Haryana, continue sowing of mustard and berseem and oat as fodder crops. Continue harvesting of matured early sown basmati rice. Continue field preparation for sowing of wheat, Bengal gram kabuli chana and vegetables like pea, potato and carrot. Complete picking of cotton after sunrise when dew is completely evaporated.
 - In Western Semi-Arid Zone of Delhi, undertake sowing of *rabi* onion, before sowing seeds should be treated with

Captan @ 2.5 g/ kg of seed, continue harvesting of paddy, sowing of gram, early mustard, sarson sag, spinach, coriander, fenugreek, turnip, radish, carrot, pea and wheat (late sown var. H.D. 2687, H.D. 2851, H.D. 2894, H.D. 2967, D.B.W.-17). Continue transplanting of tomato, cabbage, broccoli and early cauliflower on ridges, planting of early potato, winter sugarcane. Also continue field sanitization for rabi crops and sowing of garlic-G-1,41,50,282 in raised bed.

▪ **Uttar Pradesh:**

- In Central Plain Zone, continue land preparation / sowing of wheat. Continue sowing of autumn sugarcane, vegetable pea, garlic, barley, linseed, lentil, kabuli gram, toria, gram, pea, mustard, pointed gourd, parval gourd, radish and planting of potato and turmeric, fenugreek, coriander, carrot, spinach. Continue planting of cabbage, capsicum, chilli, brinjal, tomato and cauliflower. Undertake sowing of rabi onion. Apply irrigation to winter maize.
- In Eastern Plain Zone, undertake harvesting of rice, continue sowing of gram, lentil and mustard. Continue sowing of fodder crop berseem and barley. Continue sowing of vegetable pea and toria and sowing of winter vegetables, fenugreek, coriander, garlic, carrot, radish, spinach and planting of potato. Continue transplanting of cauliflower, brinjal, cabbage, chilli and tomato. Continue planting of sweet potato and parval.
- In Western Plain Zone, continue harvesting of matured rice. Continue picking of cotton. Continue sowing of linseed, gram, mustard, barseem and nursery sowing of tomato, cauliflower, onion, planting of autumn sugarcane and potato. Continue sowing of toria and transplanting of brinjal and tomato.
- In Bundelkhand Zone, continue harvesting of matured urad, moong, soybean, paddy and groundnut. Continue sowing of linseed, flaxseed, mustard, pea, gram, lentil, jou and land preparation for sowing of wheat. Continue sowing of vegetable pea, palak, coriander, carrot, and planting/transplanting of cauliflower, cabbage, tomato, chilli and brinjal.
- In Central Plain Zone, under prevailing weather condition, there may be chances of attack of gundhi bug in rice at flowering stage, for control, spray Malathion 5% EC @ 20-25 kg per ha.
- Suitable varieties for sowing are given in Annexure III.
- **Horticulture**
- In Mild Hills Sub Humid Zone of Himachal Pradesh, weather is conducive for infestation of root borer in the apple trees. To control the infested trees apply 0.05% Chlorpyrifos @ 5ml /litre of water.
- In Western Zone of Punjab, there may be attack of powdery mildew in ber trees for control spray Wettable Sulphur @ 250 g in 100 litres of water or Karathane 40 EC @ 50-80 ml in 100 litres of water.
- **Floriculture**
- Blue beetle attack is seen in roses and balsam in Sub Montane and Low Hills Sub Humid Zone of Himachal Pradesh. For control spray Cypermethrin @ 0.05 ml per litre of water.
- **Animal Husbandry**
- In Sub-Montane and Low Hills Sub-tropical Zone of Himachal Pradesh, humid weather is conducive for ticks and mites attack on animals. For control, spray Butox @ 2ml per litre of water.

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

Annexure I

Week by week Rainfall Distribution

| Sub-Divisions | 21.10.15 | | 28.10.15 | | 04.11.15 | |
|--------------------------|-------------|--------|-------------|--------|-------------|--------|
| | Actual (mm) | % dep. | Actual (mm) | % dep. | Actual (mm) | % dep. |
| Arunachal Pradesh | | | | | | |
| Anjaw | ** | ** | ** | ** | ** | ** |
| Changlang | 0.0 | -100 | 20.8 | -36 | 0.4 | -97 |
| Dibang Valley | ** | ** | ** | ** | ** | ** |
| East Kameng | 0.0 | -100 | 3.4 | -84 | 0.0 | -100 |
| East Siang | 0.0 | -100 | 4.3 | -87 | 9.6 | 28 |
| Kurung Kumey | ** | ** | ** | ** | ** | ** |
| Lohit | 4.2 | -88 | 12.7 | -4 | 0.0 | -100 |
| Lower Dibang Valley | 0.0 | -100 | 3.9 | -80 | 1.8 | -80 |
| Lower Subansari | ** | ** | ** | ** | ** | ** |

| | | | | | | |
|----------------------------|------|------|------|------|------|------|
| Papumpara | 4.4 | -93 | 2.2 | -35 | 4.2 | -79 |
| Tawang | 26.0 | -44 | 0.0 | -100 | ** | ** |
| Tirap | 3.8 | -92 | 0.0 | -100 | 1.4 | -88 |
| Upper Siang | 1.2 | -98 | 17.2 | -58 | 28.8 | 138 |
| Upper Subansari | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Kameng | 0.0 | -100 | 9.0 | -58 | 4.2 | -49 |
| West Siang | ** | ** | ** | ** | ** | ** |
| Assam&Meghalaya | | | | | | |
| Assam | | | | | | |
| Baksa | 0.7 | -98 | 10.2 | -16 | 1.6 | -62 |
| Barpeta | 0.0 | -100 | 0.0 | -100 | 14.9 | 254 |
| Bongaigaon | 0.0 | -100 | 0.0 | -100 | 16.4 | 178 |
| Cachar | 0.0 | -100 | 0.0 | -100 | 6.2 | -63 |
| Chirang | 4.2 | -88 | 0.0 | -100 | 8.2 | 39 |
| Darrang | ** | ** | ** | ** | ** | ** |
| Dhemaji | ** | ** | ** | ** | ** | ** |
| Dhubri | 0.0 | -100 | 7.1 | -45 | 4.3 | -53 |
| Dibrugarh | 42.9 | 61 | 12.7 | -8 | 15.5 | 39 |
| Goalpara | 0.0 | -100 | 18.5 | 106 | 0.0 | -100 |
| Golghat | 12.3 | -32 | 11.5 | -25 | 9.0 | -34 |
| Hailakandi | 0.0 | -100 | 0.0 | -100 | 14.9 | 10 |
| Jorhat | 3.6 | -83 | 17.1 | 20 | 13.5 | 11 |
| Kamrup(Rural) | 0.0 | -100 | 7.3 | -22 | 14.4 | 55 |
| Kamrup(Metro) | 1.6 | -94 | 0.0 | -100 | 2.6 | -72 |
| Karbi Anglong | 0.9 | -97 | 0.1 | -99 | 3.3 | -26 |
| Karimganj | 0.0 | -100 | 0.0 | -100 | 20.0 | -11 |
| Kokrajhar | 0.1 | -99 | 2.3 | -58 | 4.4 | -44 |
| Lakhimpur | 1.8 | -94 | 0.1 | -99 | 12.7 | 31 |
| Morigaon | 0.4 | -99 | 0.0 | -100 | 13.2 | 67 |
| N.C.Hills | 0.0 | -100 | 0.0 | -100 | 24.7 | -59 |
| Nowgong | 1.0 | -96 | 3.3 | -83 | 1.9 | -72 |
| Nalbari | 0.0 | -100 | 4.8 | -34 | 7.3 | -25 |
| Sonitpur | 1.2 | -95 | 15.2 | 12 | 13.3 | 64 |
| Sibsagar | 49.1 | 128 | 30.1 | 246 | 4.7 | -73 |
| Tinsukia | 6.0 | -82 | 14.5 | 29 | 3.9 | -67 |
| Udalgiri | 0.5 | -97 | 41.7 | 192 | 19.0 | 192 |
| Meghalaya | | | | | | |
| East Garo Hills | 0.0 | -100 | 0.0 | -100 | 13.4 | 26 |
| East Khasi Hills | 13.9 | -71 | 0.2 | -99 | 7.8 | -62 |
| Jaintia Hills | 23.0 | -78 | 0.0 | -100 | ** | ** |
| Ribhoi | 6.7 | -86 | 12.1 | -21 | 41.0 | 719 |
| South Garo Hills | ** | ** | ** | ** | ** | ** |
| West Garo Hills | 0.0 | -100 | 0.2 | -99 | 3.0 | -41 |
| West Khasi Hills | 8.0 | -77 | 1.0 | -93 | ** | ** |
| NMMT | | | | | | |
| Mizoram | | | | | | |
| Aizwal | 1.9 | -95 | 0.0 | -100 | 4.8 | -85 |
| Champhai | ** | ** | ** | ** | ** | ** |
| Kolasib | ** | ** | ** | ** | ** | ** |

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|-------------------------|------|------|------|------|------|------|
| Lawngtlai | ** | ** | ** | ** | ** | ** |
| Lunglei | ** | ** | ** | ** | ** | ** |
| Mamit | ** | ** | ** | ** | ** | ** |
| Saiha | ** | ** | ** | ** | ** | ** |
| Serchhip | ** | ** | ** | ** | 3.0 | -81 |
| Manipur | | | | | | |
| Bishnupur | ** | ** | ** | ** | ** | ** |
| Chandel | ** | ** | ** | ** | ** | ** |
| Churachandpur | ** | ** | ** | ** | ** | ** |
| Imphal east | 6.0 | -57 | 0.0 | -100 | 11.8 | -54 |
| Imphal west | 0.0 | -100 | 0.0 | -100 | 2.6 | -91 |
| Senapati | ** | ** | ** | ** | ** | ** |
| Tamenglong | ** | ** | ** | ** | ** | ** |
| Thoubal | 0.0 | -100 | 0.0 | -100 | ** | ** |
| Ukhrul | ** | ** | ** | ** | ** | ** |
| Nagaland | | | | | | |
| Dimapur | 21.7 | 133 | 0.2 | -99 | 19.8 | 50 |
| Kephire | ** | ** | ** | ** | ** | ** |
| Kohima | 60.8 | 163 | 0.0 | -100 | 2.4 | -85 |
| Longleng | ** | ** | ** | ** | ** | ** |
| Mokokchung | 3.0 | -88 | 0.0 | -100 | ** | ** |
| Mon | ** | ** | ** | ** | ** | ** |
| Paren | ** | ** | ** | ** | ** | ** |
| Phek | ** | ** | ** | ** | ** | ** |
| Tuensang | ** | ** | ** | ** | ** | ** |
| Wokha | 23.0 | -3 | 0.0 | -100 | ** | ** |
| Zunheboto | ** | ** | ** | ** | ** | ** |
| Tripura | | | | | | |
| Dhalai | 26.1 | -17 | 0.0 | -100 | 3.2 | -87 |
| NorthTripura | 1.4 | -95 | 11.4 | -44 | 11.4 | -48 |
| SouthTripura | 1.5 | -95 | 0.8 | -96 | 4.5 | -80 |
| West Tripura | 3.9 | -84 | 2.4 | -89 | 0.2 | -99 |
| Himachal Pradesh | | | | | | |
| Bilaspur | 4.4 | -18 | 10.3 | 280 | 0.2 | -94 |
| Chamba | 18.2 | 107 | 9.6 | 33 | 0.0 | -100 |
| Hamirpur | 7.4 | 41 | 8.1 | 213 | 0.0 | -100 |
| Kangra | 15.5 | 253 | 11.4 | 179 | 0.0 | -100 |
| Kinnaur | 4.5 | -43 | 0.0 | -100 | 0.0 | -100 |
| Kullu | 11.5 | -2 | 4.0 | -2 | 0.0 | -100 |
| Lahaul and Spiti | 2.7 | -70 | 7.5 | 27 | 0.0 | -100 |
| Mandi | 20.1 | 204 | 8.8 | 203 | 0.1 | -97 |
| Shimla | 9.3 | 21 | 4.6 | 15 | 1.2 | -68 |
| Sirmaur | 2.6 | -52 | 4.8 | 83 | 0.0 | -100 |
| Solan | 11.0 | 44 | 12.3 | 324 | 0.0 | -100 |
| Una | 12.7 | 430 | 11.9 | 323 | 0.0 | -100 |
| Punjab | | | | | | |
| Amritsar | 11.3 | 151 | 7.6 | 655 | 0.0 | -100 |
| Barnala | 20.5 | 1608 | 3.0 | 114 | 0.0 | -100 |
| Bhatinda | 0.0 | -100 | 4.0 | 3900 | 0.0 | -100 |

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|--------------------------|------|------|------|------|-----|------|
| Faridkot | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Fatehgarh Saheb | 2.5 | 25 | 6.7 | 852 | 0.0 | -100 |
| Ferozpur | 0.0 | -100 | 1.0 | 233 | 0.0 | -100 |
| Gurdaspur | 14.3 | 285 | 9.4 | 249 | 0.0 | -100 |
| Hoshiarpur | 3.3 | 6 | 8.7 | 691 | 0.0 | -100 |
| Jalandhar | 3.0 | 100 | 0.0 | -100 | 0.0 | -100 |
| Kapurthala | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ludhiana | 3.3 | -11 | 5.0 | 729 | 0.0 | -100 |
| Mansa | 0.0 | -100 | 2.2 | 1000 | 0.0 | -100 |
| Moga | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Muktesar | 0.0 | -100 | 3.0 | 233 | 0.0 | -100 |
| Nawashahar | 5.9 | 48 | 6.2 | 464 | 0.0 | -100 |
| Patiala | 2.0 | -47 | 5.3 | 485 | 0.0 | -98 |
| Ropar | 6.0 | 30 | 9.7 | 785 | 0.0 | -100 |
| Sangrur | 0.4 | -83 | 4.3 | 760 | 0.0 | -100 |
| Mohali | 2.0 | -57 | 5.0 | 2400 | 0.0 | -100 |
| TarnTaran | 0.0 | -100 | 5.0 | 900 | 0.0 | -100 |
| Haryana,Chd,Delhi | | | | | | |
| Haryana | | | | | | |
| Ambala | 2.6 | -40 | 3.2 | 144 | 0.0 | -100 |
| Bhiwani | 0.0 | -100 | 0.3 | -63 | 1.0 | 11 |
| Chandigarh | 4.1 | 27 | 13.6 | 467 | 0.0 | -100 |
| Faridabad | 2.3 | 50 | 0.0 | -100 | 0.0 | -100 |
| Fatehabad | 1.3 | -60 | 1.7 | 1567 | 0.0 | -100 |
| Gurgaon | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hissar | 0.0 | -100 | 4.1 | 312 | 0.0 | -100 |
| Jhajar | 0.0 | -100 | 0.0 | -100 | 2.8 | 133 |
| Jind | 1.7 | -51 | 0.3 | -84 | 1.5 | -12 |
| Katihah | 2.7 | -5 | 1.7 | 1567 | 0.0 | -100 |
| Karnal | 1.7 | -49 | 2.1 | 9 | 1.8 | -27 |
| Kurukshetra | 4.0 | 8 | 0.0 | -100 | 0.0 | -100 |
| Mahendragarh | 0.0 | -100 | 0.0 | -100 | 7.2 | 552 |
| Mewat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Palwal | 5.3 | 209 | 0.0 | -100 | 0.0 | -100 |
| Panchkkula | 2.5 | -51 | 2.0 | 150 | 0.0 | -100 |
| Panipat | 3.6 | 12 | 0.0 | -100 | 0.8 | -46 |
| Rewari | 0.0 | -100 | 0.8 | 14 | 4.6 | 411 |
| Rohtak | 3.2 | -3 | 0.0 | -100 | 3.3 | 63 |
| Sirsa | 0.0 | -100 | 8.3 | 8150 | 0.0 | -100 |
| Sonepat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Yamunanagar | 0.0 | -100 | 1.8 | 8 | 0.0 | -100 |
| Delhi | | | | | | |
| Central Delhi | 0.0 | -100 | 0.0 | -100 | ** | ** |
| East Delhi | 1.0 | -58 | 0.0 | -100 | ** | ** |
| New Delhi | 0.1 | -94 | 0.0 | -100 | 0.0 | -100 |
| North Delhi | 0.3 | -90 | 0.0 | -100 | 0.0 | -100 |
| North East Delhi | 0.0 | -100 | 0.0 | -100 | ** | ** |
| North West Delhi | 0.0 | -100 | 0.0 | -100 | ** | ** |
| South Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|----------------------------|------|-------|------|------|------|-------|
| South West Delhi | 0.4 | -85 | 0.0 | -100 | 0.0 | -100 |
| West Delhi | 0.0 | -100 | 0.0 | -100 | ** | ** |
| Jammu & Kashmir | | | | | | |
| Anantnag | 53.6 | 476 | 34.6 | 339 | 2.6 | -70 |
| Badgam | 39.4 | 861 | 37.7 | 259 | 8.2 | -23 |
| Bandipore | ** | ** | ** | ** | ** | ** |
| Baramula | 72.5 | 383 | 85.0 | 804 | 10.9 | -26 |
| Doda | 27.8 | 181 | 51.2 | 783 | 0.0 | -100 |
| Ganderbal | 17.2 | 153 | 42.0 | 432 | 11.8 | 79 |
| Jammu | 33.8 | 1888 | 14.6 | 329 | 2.9 | 21 |
| Kargil | ** | ** | ** | ** | ** | ** |
| Kathua | 23.6 | 11700 | 10.0 | 194 | 0.0 | -100 |
| Kistwar | ** | ** | ** | ** | ** | ** |
| Kulgam | 37.7 | 305 | 25.5 | 223 | 5.6 | -35 |
| Kupwara | 78.7 | 584 | 91.2 | 624 | 23.3 | 108 |
| Ladakh(Leh) | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Poonch | ** | ** | ** | ** | ** | ** |
| Pulwama | 39.1 | 574 | 25.6 | 197 | 5.9 | 11 |
| Rajouri | 47.8 | 5875 | 38.8 | 1517 | 0.0 | -100 |
| Ramban | 67.5 | 582 | 58.4 | 907 | 7.9 | 21 |
| Reasi | 51.0 | 1033 | 28.6 | 767 | 5.6 | 51 |
| Samba | 16.8 | 888 | 9.0 | 165 | 0.0 | -100 |
| Shopian | ** | ** | ** | ** | ** | ** |
| Srinagar | 45.3 | 566 | 29.9 | 278 | 12.4 | 87 |
| Udhampur | 21.2 | 371 | 16.0 | 385 | 1.6 | -57 |
| East Madhya Pradesh | | | | | | |
| Anuppur | 0.6 | -90 | 2.1 | -72 | 27.0 | 1826 |
| Balaghat | 0.0 | -100 | 0.0 | -100 | 7.0 | 340 |
| Chhatarpur | 0.0 | -100 | 4.7 | 124 | 14.6 | 713 |
| Chindwara | 0.8 | -83 | 15.0 | 200 | 25.6 | 574 |
| Damoh | 0.3 | -92 | 4.1 | 116 | 36.5 | 836 |
| Dindori | 0.0 | -100 | 1.5 | -81 | 96.7 | 2586 |
| Jabalpur | 0.0 | -100 | 0.0 | -100 | 23.5 | 804 |
| Katni | 0.0 | -100 | 3.2 | 45 | 38.2 | 1058 |
| Mandla | 0.0 | -100 | 8.6 | 21 | 17.7 | 609 |
| Narsingpur | 0.0 | -100 | 0.0 | -100 | 31.2 | 767 |
| Panna | 0.0 | -100 | 3.9 | 225 | 14.8 | 573 |
| Rewa | 0.0 | -100 | 3.9 | 1189 | 54.4 | 2265 |
| Sagar | 0.0 | -100 | 1.4 | -49 | 15.4 | 451 |
| Satna | 0.0 | -100 | 6.7 | 733 | 34.4 | 2763 |
| Seoni | 0.0 | -100 | 20.1 | 214 | 23.9 | 647 |
| Shahdol | 0.0 | -100 | 0.0 | -100 | 48.0 | 2724 |
| Sidhi | 0.0 | -100 | 11.8 | 462 | 84.2 | 5163 |
| Singrauli | 0.0 | -100 | 0.0 | -100 | 52.0 | 25900 |
| Tikamgarh | 0.0 | -100 | 1.0 | -55 | 4.5 | 650 |
| Umariya | 0.0 | -100 | 2.1 | -30 | 46.4 | 2478 |
| West Madhya Pradesh | | | | | | |
| Agar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|---------------------|------|------|------|------|------|------|
| Alirajpur | 0.0 | -100 | 3.0 | 36 | 0.0 | -100 |
| Asoknagar | 0.0 | -100 | 5.5 | 244 | 14.5 | 200 |
| Badwani | 0.0 | -100 | 20.3 | 821 | 0.0 | -100 |
| Betul | 0.0 | -100 | 6.4 | 25 | 9.5 | 187 |
| Bhind | 0.0 | -100 | 6.6 | 2083 | 4.5 | 305 |
| Bhopal | 0.0 | -100 | 3.2 | 45 | 0.0 | -100 |
| Burhanpur | 0.0 | -100 | 0.0 | -100 | 3.0 | -38 |
| Datia | 0.0 | -100 | 2.9 | 139 | 7.1 | 607 |
| Dewas | 0.0 | -100 | 0.0 | -100 | ** | ** |
| Dhar | 0.0 | -100 | 16.4 | 582 | 0.0 | -100 |
| Guna | 0.0 | -100 | 0.1 | -97 | 0.7 | -36 |
| Gwalior | 0.0 | -100 | 19.2 | 2033 | 15.4 | 923 |
| Harda | 0.0 | -100 | 0.0 | -100 | 3.7 | 367 |
| Hosangabad | 0.0 | -100 | 0.9 | -59 | 24.6 | 748 |
| Indore | 0.0 | -100 | 2.3 | 44 | 0.7 | -83 |
| Jhabua | 0.0 | -100 | 10.5 | 274 | 0.0 | -100 |
| Khandwa | 0.0 | -100 | 3.0 | 3 | 15.0 | 369 |
| Khargone | 0.0 | -100 | 1.0 | -47 | 7.1 | 342 |
| Mandsaur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Morena | 0.0 | -100 | 1.3 | 79 | 13.6 | 3287 |
| Neemuch | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Raisen | 0.0 | -100 | 0.4 | -88 | 3.5 | 169 |
| Rajgarh | 0.0 | -100 | 0.0 | -100 | 1.6 | -13 |
| Ratlam | 0.0 | -100 | 3.4 | 240 | 0.0 | -100 |
| Sehore | 0.0 | -100 | 4.2 | 56 | 0.6 | -63 |
| Shajapur | 0.0 | -100 | 2.6 | 44 | 0.0 | -100 |
| Sheopur Kalani | 0.0 | -100 | 4.0 | 567 | 15.0 | 2900 |
| Shivpuri | 0.0 | -100 | 22.5 | 1945 | 8.3 | 725 |
| Ujjain | 0.0 | -100 | 0.2 | -91 | 0.0 | -100 |
| Vidisha | 0.0 | -100 | 3.9 | 87 | 6.4 | 436 |
| Chhattisgarh | | | | | | |
| Bastar | 0.0 | -100 | 2.3 | -84 | 9.9 | 60 |
| Bijapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bilaspur | 3.5 | -64 | 2.5 | -74 | 6.4 | 64 |
| Dantewara | 4.0 | -77 | 0.0 | -100 | 0.0 | -100 |
| Dhamtari | 3.6 | -63 | 0.0 | -100 | 8.6 | 514 |
| Durg | 0.0 | -100 | 0.3 | -97 | 0.0 | -100 |
| Janjgir | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jashpurnagar | 11.6 | 7 | 0.0 | -100 | 22.1 | 401 |
| Kanker | 7.6 | -45 | 0.0 | -100 | 1.3 | -70 |
| Korba | 0.0 | -100 | 0.0 | -100 | 9.0 | 190 |
| Koriya | 0.0 | -100 | 0.0 | -100 | 53.2 | 3225 |
| Kawardha | 20.4 | 196 | 0.0 | -100 | 1.2 | -65 |
| Mahasumund | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Narayanpur | 0.0 | -100 | 0.0 | -100 | 3.6 | -45 |
| Raigarh | 8.6 | -2 | 0.0 | -100 | 5.7 | 112 |
| Raipur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rajandgaon | 0.0 | -100 | 0.2 | -98 | 0.0 | -100 |
| Surguja | 0.0 | -100 | 0.1 | -99 | 31.7 | 1074 |

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|---------------------------|------|------|------|------|------|------|
| East Uttar Pradesh | | | | | | |
| Allahabad | 0.0 | -100 | 0.0 | -100 | 19.9 | 284 |
| Ambedkar Nagar | 0.0 | -100 | 2.0 | 82 | 18.0 | 718 |
| Azamgarh | 0.0 | -100 | 0.0 | -100 | 3.9 | 17 |
| Bahraich | 12.7 | 135 | 0.0 | -100 | 0.5 | -48 |
| Ballia | 3.1 | -59 | 0.0 | -100 | 6.8 | 94 |
| Balrampur | 3.3 | -66 | 0.0 | -100 | 0.3 | -73 |
| Banda | 0.0 | -100 | 0.0 | -100 | 9.0 | 1020 |
| Barabanki | 0.0 | -100 | 0.0 | -100 | 1.3 | -11 |
| Basti | 4.9 | -35 | 0.0 | -100 | 1.1 | 13 |
| Chandauli | 0.0 | -100 | 0.0 | -100 | 8.2 | 156 |
| Deoria | 0.0 | -100 | 0.0 | -100 | 21.5 | 877 |
| Faizabad | 0.0 | -100 | 0.0 | -100 | 0.3 | -63 |
| Farrukhabad | 0.0 | -100 | 1.2 | 20 | 8.5 | 611 |
| Fatehpur | 0.0 | -100 | 0.0 | -100 | 4.8 | 269 |
| Gazipur | 0.0 | -100 | 0.0 | -100 | 22.4 | 523 |
| Gonda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gorakhpur | 0.9 | -92 | 0.0 | -100 | 1.1 | -68 |
| Hardoi | 1.4 | -70 | 0.0 | -100 | 11.5 | 1053 |
| Jaunpur | 0.0 | -100 | 0.0 | -100 | 3.9 | 19 |
| Kannauj | 1.3 | -75 | 4.0 | 400 | 10.5 | 1212 |
| Kanpur City | 0.1 | -98 | 5.4 | 350 | 5.8 | 429 |
| Kanpur Dehat | 1.1 | -75 | 3.8 | 283 | 11.2 | 1772 |
| Kaushambi | 0.0 | -100 | 0.0 | -100 | 6.1 | 144 |
| Kheri | 0.0 | -100 | 0.0 | -100 | 4.7 | 567 |
| Kushi nagar | 0.0 | -100 | 0.0 | -100 | 1.0 | -71 |
| Lucknow | 0.0 | -100 | 0.0 | -100 | 0.8 | -41 |
| Maharajganj | 0.0 | -100 | 0.0 | -100 | 13.5 | 650 |
| Mau | 0.0 | -100 | 0.0 | -100 | 5.0 | 47 |
| Mirzapur | 0.0 | -100 | 0.0 | -100 | 35.5 | 1084 |
| Pratapgarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| RaiBareilly | 0.0 | -100 | 0.0 | -100 | 4.7 | 847 |
| Sahuji Maharajnagar | 0.0 | -100 | 0.0 | -100 | 11.6 | 263 |
| Sant Kabirnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sant Ravidas Nagar | 0.0 | -100 | 0.0 | -100 | 2.0 | -37 |
| Shrawasti | 6.3 | 17 | 0.0 | -100 | 0.0 | -100 |
| Sidharthnagar | 1.0 | -87 | 0.0 | -100 | 5.5 | 447 |
| Sitapur | 0.3 | -96 | 0.0 | -100 | 0.0 | -100 |
| Sonbhadra | 0.0 | -100 | 0.0 | -100 | 25.4 | 1850 |
| Sultanpur | 0.0 | -100 | 0.0 | -100 | 1.2 | 23 |
| Unnao | 0.0 | -100 | 0.5 | 25 | 0.8 | -25 |
| Varanasi | 0.0 | -100 | 0.0 | -100 | 22.4 | 505 |
| West Uttar Pradesh | | | | | | |
| Agra | 0.4 | -94 | 1.3 | 213 | 12.3 | 1950 |
| Aligarh | 5.3 | 32 | 0.0 | -100 | 9.9 | 2383 |
| Auraiya | 0.0 | -100 | 14.5 | 3525 | 3.7 | 23 |
| Badaun | 0.0 | -100 | 0.0 | -100 | 0.2 | -86 |
| Baghpat | 0.9 | -10 | 0.0 | -100 | 0.0 | -100 |

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|--------------------|------|------|-----|------|------|--------|
| Bareilly | 0.0 | -100 | 0.0 | -100 | 5.1 | 237 |
| Bijnor | 0.0 | -100 | 0.0 | -100 | 1.0 | -63 |
| Bulandsahar | 1.6 | -59 | 0.0 | -100 | 4.9 | 308 |
| Etah | 0.0 | -100 | 0.3 | -63 | 8.3 | 1289 |
| Etawah | 0.0 | -100 | 3.9 | 200 | 2.8 | 29 |
| Firozabad | 0.0 | -100 | 0.7 | 40 | 1.1 | 1000 |
| GBNagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ghaziabad | 2.7 | 23 | 0.0 | -100 | 0.0 | -100 |
| Hamirpur | 0.0 | -100 | 0.8 | 275 | 9.8 | 3150 |
| Jalaun | 0.0 | -100 | 0.8 | 275 | 18.3 | 1937 |
| Jhansi | 0.0 | -100 | 2.0 | 900 | 9.5 | 960 |
| 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 | 2.0 | 33 | 1.0 | 100 |
| Mahamaya Nagar | 1.5 | -62 | 0.0 | -100 | 11.0 | 109900 |
| Mahoba | 0.0 | -100 | 0.0 | -100 | 12.6 | 4100 |
| Mainpuri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mathura | 0.5 | -62 | 1.0 | 67 | 0.0 | -100 |
| Meerut | 0.5 | -83 | 0.0 | -100 | 0.3 | -92 |
| Moradabad | 0.0 | -100 | 0.0 | -100 | 8.0 | 283 |
| Muzzaffarnagar | 2.0 | -9 | 0.0 | -100 | 0.0 | -100 |
| Pilibhit | 0.0 | -100 | 0.0 | -100 | 7.8 | 169 |
| Rampur | 0.0 | -100 | 0.0 | -100 | 5.0 | 66 |
| Saharanpur | 0.0 | -100 | 0.0 | -100 | 7.3 | 47 |
| Shahjahanpur | 0.8 | -81 | 0.0 | -100 | 6.9 | 200 |
| Uttarakhand | | | | | | |
| Almora | 13.2 | 132 | 0.0 | -100 | 0.8 | -78 |
| Bageshwar | 23.5 | 312 | 0.0 | -100 | 0.0 | -100 |
| Chamoli | 7.5 | -17 | 0.0 | -100 | 1.7 | -57 |
| Champawat | 0.0 | -100 | 0.0 | -100 | 8.8 | 82 |
| Dehradun | 10.1 | 60 | 1.7 | -63 | 0.0 | -100 |
| Garhwal Pauri | 5.0 | 4 | 0.0 | -100 | 0.0 | -100 |
| Garhwal Tehri | 5.2 | -39 | 0.0 | -100 | 0.0 | -100 |
| Haridwar | 0.2 | -94 | 0.7 | 17 | 3.2 | 23 |
| Nainital | 11.2 | 7 | 0.0 | -100 | 3.0 | -9 |
| Pithoragarh | 22.0 | 136 | 0.0 | -100 | 0.0 | -100 |
| Rudraprayag | 13.6 | 156 | 0.0 | -100 | 0.9 | -79 |
| Udham Sing Nagar | 0.0 | -100 | 0.0 | -100 | 2.5 | 32 |
| Uttarkashi | 9.8 | 71 | 0.0 | -100 | 0.0 | -100 |
| Bihar | | | | | | |
| Araria | 2.0 | -89 | 0.0 | -100 | 0.0 | -100 |
| Arwal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Aurangabad | 0.0 | -100 | 0.0 | -100 | 2.9 | -1 |
| Banka | 7.9 | -30 | 0.0 | -100 | 0.0 | -100 |
| Begusarai | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhabua | 0.0 | -100 | 0.0 | -100 | 3.7 | 83 |
| Bhagalpur | 8.1 | -53 | 0.0 | -100 | 0.5 | -90 |
| Bhojpur | 5.1 | -9 | 0.0 | -100 | 2.5 | 19 |
| Buxar | 0.0 | -100 | 0.0 | -100 | 6.3 | 117 |

| | | | | | | |
|------------------|------|------|-----|------|------|------|
| Darbhanga | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Champaran | 0.0 | -100 | 0.0 | -100 | 9.8 | 389 |
| Gaya | 0.0 | -100 | 0.0 | -100 | 0.8 | -65 |
| Gopalganj | 0.0 | -100 | 0.0 | -100 | 22.7 | 809 |
| Jahanabad | 0.0 | -100 | 0.0 | -100 | 0.7 | -12 |
| Jamui | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kathihar | 0.0 | -100 | 0.0 | -100 | 0.8 | -79 |
| Khagadia | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kishanganj | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lakhisarai | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Madhepura | 1.3 | -88 | 0.0 | -100 | 0.0 | -100 |
| Madhubani | 0.3 | -98 | 0.0 | -100 | 0.0 | -100 |
| Monghyar | 0.0 | -100 | 0.0 | -100 | 0.4 | -88 |
| Muzaffarpur | 0.0 | -100 | 0.0 | -100 | 9.6 | 199 |
| Nalanda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nawada | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Patna | 0.5 | -94 | 0.0 | -100 | 8.3 | 263 |
| Purnea | 0.2 | -99 | 0.0 | -100 | 0.5 | -76 |
| Rohtas | 0.0 | -100 | 0.0 | -100 | 9.3 | 415 |
| Saharsha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Samstipur | 2.2 | -39 | 0.0 | -100 | 0.0 | -100 |
| Saran | 5.0 | -50 | 0.0 | -100 | 3.6 | 30 |
| Sheikpura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sheohar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sitamarhi | 0.0 | -100 | 0.0 | -100 | 12.4 | 359 |
| Siwan | 0.0 | -100 | 0.0 | -100 | 1.1 | -57 |
| Supaul | 12.7 | -12 | 0.0 | -100 | 0.0 | -100 |
| Vaishali | 0.0 | -100 | 0.0 | -100 | 10.8 | 315 |
| West Champaran | 6.3 | -42 | 0.0 | -100 | 10.9 | 241 |
| Jharkhand | | | | | | |
| Bokaro | 0.2 | -98 | 0.0 | -100 | 8.6 | 87 |
| Chatra | 0.0 | -100 | 0.0 | -100 | 1.3 | -30 |
| Deoghar | 0.0 | -100 | 0.0 | -100 | 1.2 | -82 |
| Dhanbad | 0.0 | -100 | 0.0 | -100 | 4.6 | -30 |
| Dumka | 3.2 | -79 | 0.0 | -100 | 0.0 | -100 |
| East Singbhum | 0.0 | -100 | 0.0 | -100 | 24.1 | 372 |
| Garhwa | 0.0 | -100 | 0.3 | -84 | 9.5 | 252 |
| Giridih | 0.0 | -100 | 0.0 | -100 | 4.0 | 0 |
| Godda | 0.0 | -100 | 0.0 | -100 | 1.7 | -44 |
| Gumla | 0.0 | -100 | 0.0 | -100 | 35.6 | 401 |
| Hazaribagh | 0.0 | -100 | 0.0 | -100 | 12.5 | 399 |
| Jamtara | 0.6 | -97 | 0.0 | -100 | 2.3 | -80 |
| Khunti | 0.0 | -100 | 0.0 | -100 | 12.0 | 107 |
| Koderrna | 0.0 | -100 | 0.0 | -100 | 0.7 | -85 |
| Latehar | 3.2 | -68 | 0.0 | -100 | 19.8 | 631 |
| Lohardagga | 0.0 | -100 | 0.0 | -100 | 20.1 | 457 |
| Pakur | 18.3 | -29 | 0.0 | -100 | 8.9 | 20 |
| Palamau | 0.0 | -100 | 1.0 | -76 | 7.0 | 190 |
| Ramgarh | 1.0 | -92 | 0.0 | -100 | 13.6 | 325 |

| | | | | | | |
|-----------------------|------|------|------|------|------|-------|
| Ranchi | 1.8 | -89 | 0.0 | -100 | 27.3 | 284 |
| Sahebganj | 22.0 | 79 | 0.0 | -100 | 0.0 | -100 |
| Saraikela | 0.0 | -100 | 0.0 | -100 | 9.4 | 203 |
| Simdega | 0.8 | -93 | 0.0 | -100 | 25.3 | 449 |
| West Singbhum | 0.0 | -100 | 0.0 | -100 | 37.0 | 1132 |
| East Rajasthan | | | | | | |
| Ajmer | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Alwar | 0.0 | -100 | 0.8 | -36 | 4.5 | 353 |
| Banswara | 0.0 | -100 | 0.7 | -35 | 0.0 | -100 |
| Baran | 0.0 | -100 | 0.5 | -50 | 0.0 | -100 |
| Bharatpur | 0.0 | -100 | 3.0 | 500 | 13.1 | 3175 |
| 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 | 1.4 | 1300 | 13.3 | 2122 |
| Dholpur | 0.0 | -100 | 0.0 | -100 | 15.3 | 15186 |
| Dungarpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jaipur | 0.3 | -61 | 4.6 | 475 | 12.2 | 1431 |
| Jhalawar | 0.0 | -100 | 1.4 | 14 | 0.0 | -100 |
| Jhunjhunu | 0.0 | -100 | 0.9 | -26 | 4.1 | 195 |
| Karauli | 0.0 | -100 | 1.3 | 48 | 10.6 | 2557 |
| 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 | 1.1 | 41 | 21.0 | 20900 |
| Sikar | 0.0 | -100 | 0.3 | -82 | 5.9 | 318 |
| Sirohi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tonk | 0.1 | -90 | 0.0 | -100 | 0.7 | 260 |
| 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 | 1.9 | 219 | 0.0 | -100 |
| Churu | 0.0 | -100 | 1.7 | 145 | 0.0 | -100 |
| Hanumangarh | 0.0 | -100 | 12.4 | 200 | 0.0 | -100 |
| Jaisalmer | 0.0 | -100 | 0.1 | -88 | 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 | 1.1 | 250 | 0.0 | -100 |
| 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 | 0.5 | -68 | 0.0 | -100 |
| Broach | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| DNH | 0.0 | -100 | 1.5 | -50 | 0.0 | -100 |
| Dahod | 0.0 | -100 | 1.1 | -40 | 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 | 1.2 | 100 | 0.0 | -100 |
| Navsari | 0.3 | -93 | 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 | 1.0 | -63 | 0.0 | -100 |
| Valsad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| S K & Diu region | | | | | | |
| Amreli | 1.2 | -61 | 0.0 | -100 | 0.0 | -100 |
| Bhavnagar | 0.2 | -94 | 0.3 | -94 | 0.0 | -100 |
| Diu | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jamnagar | 5.6 | -14 | 0.8 | -36 | 0.0 | -100 |
| Junagarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kutch | 3.9 | -29 | 0.0 | -100 | 0.0 | -100 |
| Porbandar | 1.0 | -80 | 0.0 | -100 | 0.0 | -100 |
| Rajkot | 1.6 | -62 | 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 | 0.7 | -84 | 0.0 | -100 |
| North Goa | 10.2 | -63 | 0.0 | -100 | 5.3 | -60 |
| Raigad | 0.0 | -100 | 2.1 | -81 | 0.0 | -100 |
| Ratnagiri | 3.3 | -86 | 0.0 | -100 | 0.1 | -98 |
| Sindhudurg | 9.1 | -66 | 0.0 | -100 | 42.2 | 314 |
| South Goa | 6.2 | -80 | 0.0 | -100 | 1.9 | -85 |
| Thane | 0.0 | -100 | 1.2 | -78 | 0.0 | -100 |
| Madhya Maharashtra | | | | | | |
| Ahmednagar | 0.0 | -100 | 0.5 | -95 | 0.0 | -100 |
| Dhule | 0.0 | -100 | 3.2 | -14 | 0.0 | -100 |
| Jalgaon | 0.0 | -100 | 0.7 | -86 | 1.9 | -42 |
| Kolhapur | 1.5 | -94 | 0.0 | -100 | 0.0 | -100 |
| Nandurbar | 0.0 | -100 | 2.5 | -16 | 0.0 | -100 |
| Nasik | 0.1 | -99 | 7.8 | 8 | 0.0 | -100 |
| Pune | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sangli | 0.8 | -95 | 0.0 | -100 | 4.2 | -42 |
| Satara | 0.1 | -99 | 0.0 | -100 | 0.0 | -100 |
| Solapur | 0.1 | -99 | 0.1 | -99 | 0.0 | -100 |
| Marathwada | | | | | | |
| Aurangabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Beed | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hingoli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jalna | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|--|------|------|-----|------|-------|------|
| Latur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nanded | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Usmanabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Parbhani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Vidarbha | | | | | | |
| Akola | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Amraoti | 0.0 | -100 | 0.1 | -99 | 0.9 | -58 |
| Bhandara | 0.0 | -100 | 0.0 | -100 | 1.4 | -54 |
| Buldhana | 0.0 | -100 | 0.0 | -100 | 1.6 | -53 |
| Chandrapur | 0.0 | -100 | 0.0 | -100 | 6.8 | 197 |
| Gadchiroli | 0.0 | -100 | 0.0 | -100 | 17.7 | 321 |
| Gondia | 0.0 | -100 | 0.0 | -100 | 2.8 | 0 |
| Nagpur | 0.0 | -100 | 0.2 | -98 | 12.9 | 329 |
| Wardha | 0.0 | -100 | 0.0 | -100 | 7.8 | 100 |
| Washim | 0.0 | -100 | 0.4 | -95 | 0.0 | -100 |
| Yeotmal | 0.0 | -100 | 0.0 | -100 | 1.9 | -54 |
| Odisha | | | | | | |
| Angul | 3.1 | -90 | 0.0 | -100 | 0.2 | -98 |
| Balasore | 10.1 | -70 | 1.0 | -96 | 0.9 | -97 |
| Bargarh | 0.2 | -99 | 0.0 | -100 | 0.0 | -100 |
| Bhadrak | 0.1 | -99 | 0.0 | -100 | 11.3 | -66 |
| Bolangir | 0.3 | -98 | 0.0 | -100 | 0.0 | -100 |
| Boudh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Cuttack | 6.7 | -78 | 0.0 | -100 | 5.9 | -78 |
| Deogarh | 2.7 | -78 | 0.0 | -100 | 5.0 | -15 |
| Dhenkanal | 2.4 | -92 | 0.0 | -100 | 0.0 | -100 |
| Gajapati | 11.0 | -73 | 0.0 | -100 | 15.2 | -53 |
| Ganjam | 12.2 | -77 | 0.7 | -98 | 28.3 | -34 |
| Jagatsingpur | 14.3 | -67 | 0.0 | -100 | 22.8 | -53 |
| Jajpur | 3.0 | -91 | 0.0 | -100 | 3.4 | -85 |
| Jharsuguda | 0.0 | -100 | 0.0 | -100 | 2.9 | -41 |
| Kalahandi | 0.0 | -100 | 0.0 | -100 | 0.6 | -89 |
| Kandhamal | 2.7 | -89 | 0.0 | -100 | 0.0 | -100 |
| Kendrapara | 0.0 | -100 | 0.0 | -100 | 24.7 | -34 |
| Keonjhar | 16.3 | -49 | 0.0 | -100 | 0.4 | -97 |
| Khurda | 7.2 | -79 | 0.0 | -100 | 5.4 | -83 |
| Koraput | 1.6 | -95 | 0.0 | -100 | 4.4 | -74 |
| Malkangiri | 0.0 | -100 | 0.0 | -100 | 109.0 | 1085 |
| Mayurbhanj | 5.5 | -80 | 0.0 | -100 | 2.5 | -85 |
| Nawapara | 0.0 | -100 | 0.0 | -100 | 0.6 | -89 |
| Nawarangpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nayagarh | 8.5 | -70 | 0.0 | -100 | 7.3 | -78 |
| Puri | 2.4 | -94 | 0.3 | -99 | 43.6 | 49 |
| Rayagada | 9.4 | -68 | 0.0 | -99 | 5.3 | -70 |
| Sambalpur | 0.4 | -97 | 0.0 | -100 | 1.0 | -84 |
| Sonepur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sundargarh | 2.5 | -78 | 0.0 | -100 | 5.5 | 98 |
| West Bengal & Andaman Nicobar Islands | | | | | | |

| | | | | | | |
|--------------------------|------|------|------|------|-------|------|
| A & N ISLAND | | | | | | |
| Nicobar | 20.9 | -70 | 67.4 | 13 | 46.6 | -38 |
| North & Middle Andaman | 3.2 | -93 | 22.5 | -52 | 14.8 | -72 |
| South Andaman | 14.3 | -73 | 45.3 | -20 | 76.1 | 24 |
| GWB | | | | | | |
| Bankura | 0.0 | -100 | 0.0 | -100 | 4.5 | -29 |
| Birbhum | 3.1 | -85 | 0.0 | -100 | 1.9 | -86 |
| Burdwan | 2.5 | -87 | 0.0 | -100 | 0.4 | -95 |
| East Midnapore | 26.3 | -4 | 0.0 | -100 | 11.4 | -57 |
| Hooghly | 9.1 | -47 | 0.0 | -100 | 0.0 | -100 |
| Howrah | 2.3 | -89 | 0.0 | -100 | 0.0 | -100 |
| Kolkata | 5.3 | -82 | 0.0 | -100 | 0.0 | -100 |
| Murshidabad | 18.2 | -22 | 0.0 | -100 | 7.8 | -40 |
| Nadia | 2.3 | -85 | 0.0 | -100 | 0.0 | -100 |
| 24 Pargana (N) | 10.7 | -57 | 0.0 | -100 | 4.1 | -70 |
| Purulia | 2.7 | -87 | 0.0 | -100 | 8.6 | 3 |
| 24 Pargana (S) | 5.9 | -83 | 0.0 | -100 | 4.2 | -88 |
| West Midnapore | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| SHWB & Sikkim | | | | | | |
| Cooch Behar | 0.0 | -100 | 6.7 | 15 | 11.6 | 111 |
| Darjeeling | 5.5 | -77 | 8.6 | 6 | 3.6 | -62 |
| East Sikkim | 10.7 | -27 | 18.0 | 26 | 15.7 | 84 |
| Jalpaiguri | 3.2 | -91 | 10.8 | 24 | 10.7 | 95 |
| Malda | 39.0 | 152 | 0.0 | -100 | 0.0 | -100 |
| North Dinajpur | 0.0 | -100 | ** | ** | 0.0 | -100 |
| North Sikkim | 8.4 | -79 | 42.5 | 24 | 43.4 | 193 |
| South Dinajpur | 5.1 | -56 | 0.5 | -95 | 17.3 | 104 |
| South Sikkim | 6.9 | -53 | 16.4 | 15 | 3.0 | -65 |
| West Sikkim | 4.0 | -90 | 7.0 | -80 | ** | ** |
| Karnataka | | | | | | |
| Coastal Karnataka | | | | | | |
| Dakshina Kannada | 10.1 | -79 | 16.5 | -63 | 124.5 | 289 |
| Udupi | 22.1 | -47 | 0.9 | -98 | 88.9 | 184 |
| Uttara Kannada | 3.8 | -87 | 0.0 | -100 | 37.8 | 159 |
| N I Karnataka | | | | | | |
| Bagalkote | 0.0 | -100 | 0.0 | -100 | 0.4 | -96 |
| Belagavi | 0.0 | -100 | 0.0 | -100 | 2.3 | -80 |
| Bidar | 0.0 | -100 | 0.0 | -100 | 24.1 | 198 |
| Dharwad | 1.8 | -93 | 0.0 | -100 | 6.5 | -42 |
| Gadag | 0.0 | -100 | 0.0 | -100 | 3.3 | -66 |
| Haveri | 0.0 | -100 | 0.0 | -100 | 15.3 | 35 |
| Kalaburgi | 0.0 | -100 | 0.0 | -100 | 0.1 | -99 |
| Koppal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Raichur | 2.1 | -88 | 0.0 | -100 | 0.2 | -98 |
| Vijayapura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Yadgir | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| S I Karnataka | | | | | | |
| Ballari | 0.6 | -97 | 0.0 | -100 | 0.3 | -97 |
| Bangalore Rural | 0.0 | -100 | 0.0 | -100 | 74.7 | 199 |

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|--------------------|------|------|-------|------|-------|-----|
| Bangalore Urban | 0.0 | -100 | 4.5 | -83 | 76.6 | 230 |
| Chamarajanagar | 0.0 | -100 | 0.0 | -100 | 40.3 | 56 |
| Chikaballapur | 1.7 | -94 | 0.0 | -100 | 79.0 | 206 |
| Chikkamagaluru | 2.2 | -94 | 0.0 | -100 | 98.9 | 371 |
| Chitradurga | 0.0 | -100 | 0.0 | -100 | 30.1 | 114 |
| Davangere | 0.0 | -100 | 0.0 | -100 | 42.7 | 181 |
| Hassan | 0.0 | -100 | 0.0 | -100 | 85.3 | 308 |
| Kodagu | 3.8 | -91 | 4.1 | -89 | 59.8 | 121 |
| Kolar | 0.0 | -100 | 2.8 | -89 | 64.9 | 153 |
| Mandya | 0.0 | -100 | 0.7 | -98 | 88.5 | 299 |
| Mysuru | 0.0 | -100 | 0.0 | -100 | 54.1 | 179 |
| Ramanagara | 0.0 | -100 | 1.0 | -97 | 66.7 | 171 |
| Shivamogga | 0.0 | -100 | 0.0 | -100 | 65.6 | 433 |
| Tumakuru | 0.0 | -100 | 1.0 | -97 | 82.5 | 323 |
| Kerala | | | | | | |
| Alappuzha | 30.1 | -57 | 107.0 | 38 | 61.9 | -18 |
| Kannur | 4.4 | -90 | 23.8 | -53 | 73.2 | 66 |
| Ernakulam | 43.0 | -33 | 45.4 | -33 | 71.3 | 15 |
| Idukki | 16.9 | -80 | 26.7 | -64 | 74.1 | 7 |
| Kasaragod | 7.6 | -79 | 21.9 | -56 | 50.3 | 22 |
| Kollam | 21.6 | -74 | 30.3 | -63 | 147.2 | 58 |
| Kottayam | 42.9 | -30 | 103.1 | 36 | 83.5 | 14 |
| Kozhikode | 0.1 | -99 | 29.9 | -52 | 42.3 | -26 |
| Malappuram | 10.5 | -86 | 26.0 | -55 | 71.6 | 21 |
| Palakkad | 8.6 | -87 | 5.6 | -90 | 51.1 | -21 |
| Pathanamthitta | 79.7 | -1 | 179.0 | 91 | 78.1 | -2 |
| Thiruvananthapuram | 22.7 | -68 | 50.2 | -21 | 148.0 | 94 |
| Thrissur | 14.4 | -80 | 19.1 | -70 | 36.6 | -41 |
| Wayanad | 3.4 | -93 | 4.5 | -92 | 69.1 | 134 |
| Tamil Nadu | | | | | | |
| Ariyalur | 2.8 | -94 | 30.2 | -35 | 27.6 | -41 |
| Chennai | 0.1 | -99 | 19.9 | -77 | 133.6 | 56 |
| Coimbatore | 8.2 | -79 | 17.1 | -61 | 72.2 | 73 |
| Cuddalore | 16.9 | -72 | 7.9 | -87 | 37.7 | -44 |
| Dharmapuri | 1.5 | -96 | 2.5 | -93 | 32.9 | -4 |
| Dindigul | 5.9 | -89 | 0.7 | -99 | 59.4 | 27 |
| Erode | 19.4 | -53 | 8.5 | -77 | 52.3 | 43 |
| Kanchipuram | 2.0 | -97 | 23.3 | -68 | 97.3 | 38 |
| Kanyakumari | 85.3 | 31 | 42.1 | -28 | 178.0 | 168 |
| Karikal | 23.4 | -64 | 8.9 | -91 | 82.0 | -25 |
| Karur | 3.2 | -92 | 1.4 | -95 | 62.5 | 82 |
| Krishnagiri | 0.0 | -100 | 6.8 | -80 | 30.8 | 0 |
| Madurai | 19.5 | -67 | 2.4 | -95 | 59.0 | 8 |
| Nagapattinam | 17.6 | -77 | 4.0 | -95 | 93.4 | 12 |
| Namakkal | 14.7 | -64 | 10.9 | -64 | 26.2 | -18 |
| Nilgiris | 9.7 | -82 | 14.8 | -75 | 78.0 | 51 |
| Perambalur | 0.8 | -98 | 0.0 | -100 | 15.1 | -65 |
| Puducherry | 1.5 | -97 | 19.5 | -82 | 46.7 | -52 |
| Pudukottai | 16.4 | -65 | 4.4 | -87 | 58.4 | 58 |

| | | | | | | |
|-------------------------------|------|------|------|------|-------|------|
| Ramanathapuram | 13.0 | -77 | 26.9 | -49 | 80.0 | 35 |
| Salem | 14.2 | -70 | 4.8 | -88 | 19.5 | -48 |
| Sivaganga | 12.3 | -77 | 5.5 | -89 | 68.9 | 47 |
| Thanjavur | 2.2 | -96 | 16.4 | -66 | 53.0 | -3 |
| Theni | 12.9 | -72 | 4.2 | -91 | 64.0 | 31 |
| Tirunelveli | 57.2 | 32 | 52.8 | 5 | 154.5 | 156 |
| Tirupur | 10.6 | -74 | 0.7 | -98 | 48.5 | 35 |
| Tiruvallur | 1.1 | -98 | 10.2 | -83 | 91.1 | 25 |
| Tiruvannamalai | 6.8 | -85 | 1.0 | -98 | 20.6 | -54 |
| Tiruvarur | 9.3 | -85 | 5.8 | -89 | 68.7 | 10 |
| Toothukudi | 45.2 | -4 | 27.0 | -38 | 99.6 | 92 |
| Trichy | 3.2 | -93 | 10.2 | -71 | 32.4 | -14 |
| Vellore | 0.5 | -99 | 0.3 | -99 | 52.7 | 48 |
| Villupuram | 2.0 | -96 | 4.8 | -90 | 38.2 | -20 |
| Virudhunagar | 15.7 | -69 | 6.3 | -87 | 64.5 | 16 |
| Andhra Pradesh | | | | | | |
| Coastal Andhra Pradesh | | | | | | |
| East Godavari | 20.3 | -56 | 13.4 | -64 | 19.2 | -32 |
| Guntur | 3.7 | -90 | 2.4 | -92 | 0.4 | -99 |
| Krishna | 5.2 | -88 | 21.2 | -30 | 2.9 | -90 |
| Nellore | 0.0 | -100 | 7.0 | -91 | 39.6 | -56 |
| Prakasam | 0.0 | -100 | 0.3 | -99 | 11.1 | -76 |
| Sirkakulam | 10.5 | -80 | 1.1 | -97 | 53.4 | 41 |
| Visakhapatnam | 16.1 | -66 | 1.7 | -96 | 77.3 | 264 |
| Vizianagram | 14.2 | -72 | 1.1 | -97 | 24.5 | 20 |
| West Godavari | 13.7 | -70 | 11.8 | -68 | 8.7 | -67 |
| Rayalaseema | | | | | | |
| Anantapur | 0.0 | -100 | 0.0 | -100 | 28.9 | 84 |
| Chittoor | 0.9 | -97 | 0.2 | -99 | 78.3 | 77 |
| Cuddapah | 0.0 | -100 | 1.0 | -96 | 21.5 | -27 |
| Kurnool | 0.2 | -99 | 0.0 | -100 | 1.8 | -85 |
| Telangana | | | | | | |
| Adilabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hyderabad | 0.8 | -96 | 0.0 | -100 | 0.0 | -100 |
| Karimnagar | 0.0 | -100 | 0.0 | -100 | 5.5 | -44 |
| Khammam | 1.6 | -92 | 0.0 | -99 | 0.2 | -98 |
| Mehabubnagar | 0.0 | -100 | 0.0 | -100 | 3.9 | -56 |
| Medak | 0.0 | -100 | 0.0 | -100 | 23.2 | 172 |
| Nalgonda | 0.2 | -99 | 0.0 | -100 | 0.0 | -100 |
| Nizamabad | 0.0 | -100 | 0.0 | -100 | 12.8 | 49 |
| Rangareddy | 0.3 | -98 | 0.0 | -100 | 1.2 | -86 |
| Warangal | 1.8 | -90 | 0.5 | -97 | 0.3 | -97 |

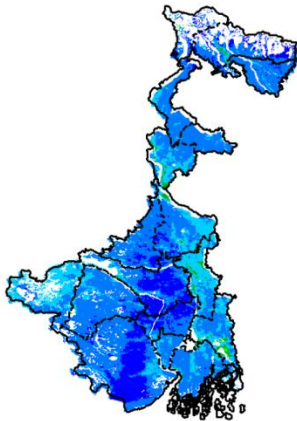
Legends

| | | | |
|--|----------------------------------|----|--------------------------------|
| | (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 |

Annexure II

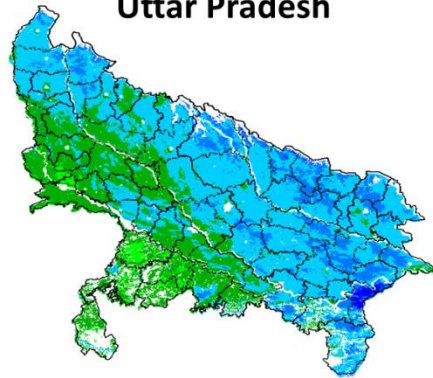
**INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
4th November 2015 FOR DIFFERENT STATES**

West Bengal



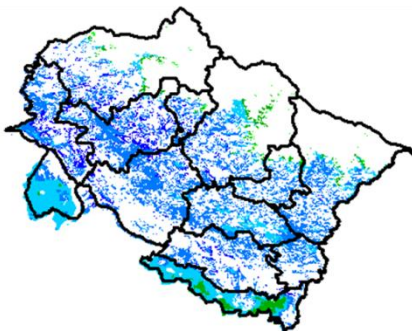
Agricultural vigour is good in all parts of West Bengal where NDVI varying from 0.4-0.6, whereas few patches in North and central part shows higher values of NDVI (>0.6).

Uttar Pradesh



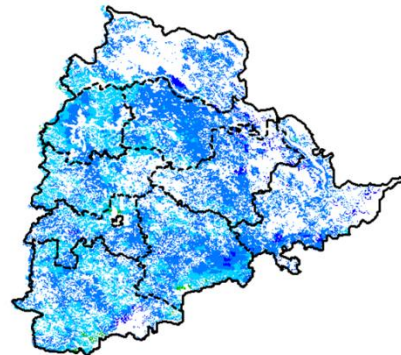
Agricultural vigour is good over the entire state of Uttar Pradesh where NDVI value varies from 0.4 - 0.6. whereas south and south-eastern part shows moderate values of NDVI (0.3-0.4)

Uttarakhand



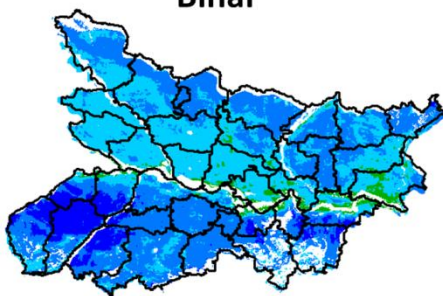
Agriculture vigour is good over entire state of Uttarakhand with NDVI value varies from 0.5-0.6. whereas few patches in south-east part shows moderate values of NDVI (0.3 - 0.4).

Telangana



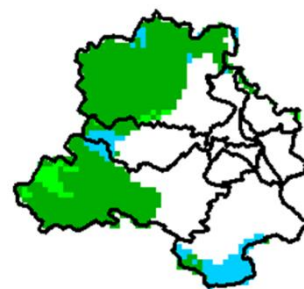
Agriculture vigour is good over entire state of Telangana between 0.4 – 0.6.

Bihar



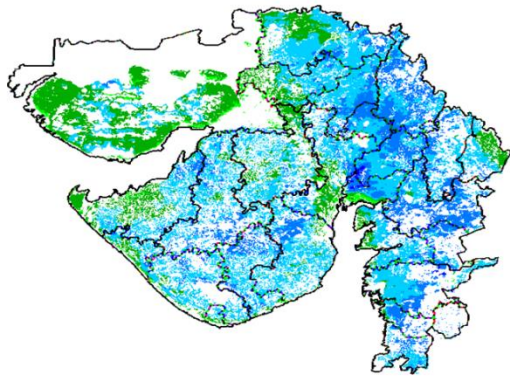
South-eastern part of Bihar shows comparatively a high value (>0.6) of NDVI, whereas NDVI varies from 0.4-0.6 over the remaining parts of the state.

Delhi



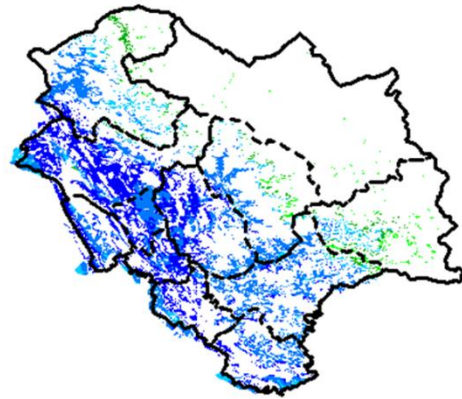
Agriculture vigour is moderate all over Delhi where NDVI value lies between 0.3-0.5.

Gujarat



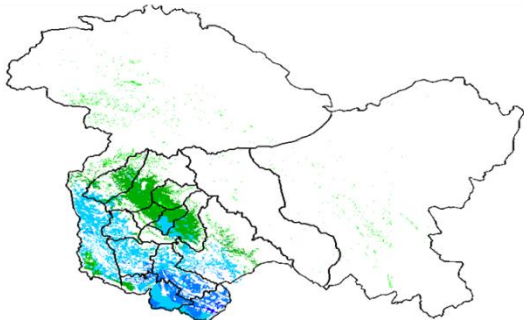
Agriculture vigour is normal in some patches Kutch region whereas, good agricultural vigour is observed over Gujarat and Saurashtra region where NDVI value lies between 0.4-0.6.

Himachal Pradesh



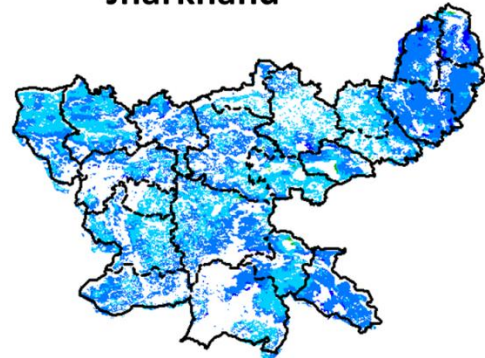
Agriculture vigour is very good over Himachal Pradesh where NDVI values are > 0.6 except few patches in east shows normal values of NDVI (0.2 – 0.3)

Jammu & Kashmir



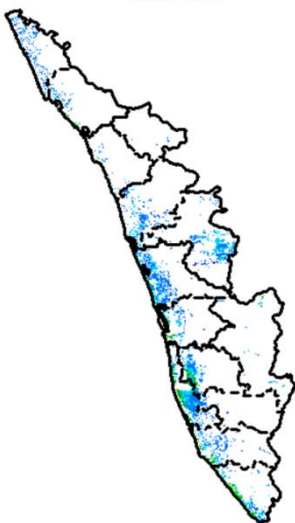
Agriculture vigour is good over south-western part Jammu and Kashmir where NDVI value vary in between 0.4-0.6 whereas rest of the part shows normal values of NDVI (0.2 – 0.4).

Jharkhand



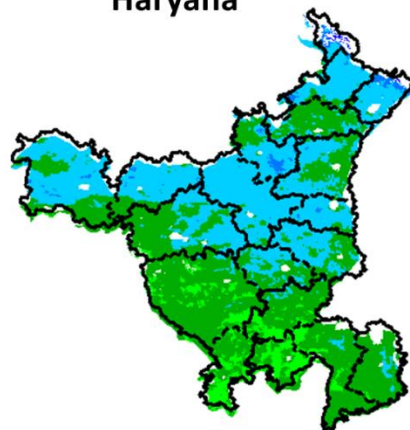
Agriculture vigour is good over entire state of Jharkhand, NDVI value varies from 0.4 - 0.6.

Kerala



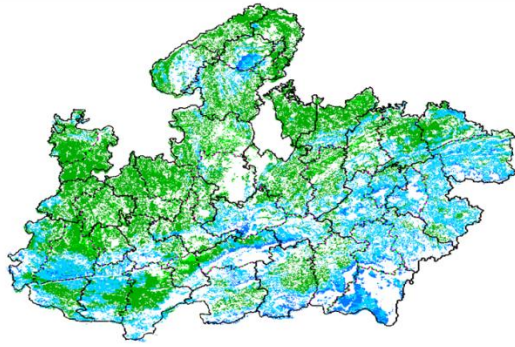
Agriculture vigour is good over central and northern Kerala where NDVI value lies between 0.4 – 0.5 whereas southern coast showing normal values of NDVI (0.2 – 0.3).

Haryana



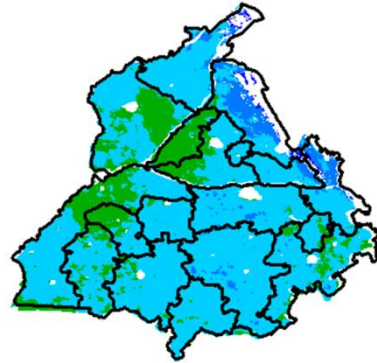
Agriculture vigour is good over central and northern part of the Haryana. NDVI values vary between 0.4-0.6. Southern part of state showing moderate NDVI values between 0.3 – 0.4.

Madhya Pradesh



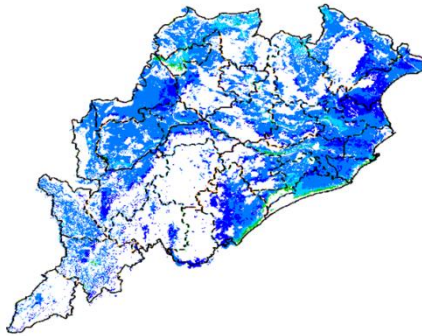
Agriculture vigour is good over southern and eastern part of Madhya Pradesh. NDVI varies from 0.4-0.5 and rest of the part shows moderate values of NDVI (0.2 – 0.4).

Punjab



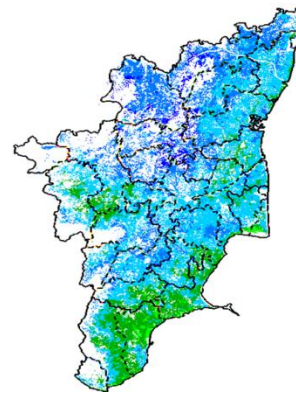
Agricultural vigour is good over entire state of Punjab, showing NDVI values between 0.5 - 0.6, whereas normal values are NDVI observed in western part of the state.

Odisha



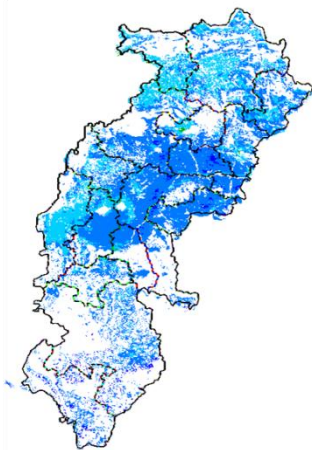
Agricultural vigour is good over entire state of Odisha with NDVI value ranging between 0.4 – 0.6 whereas higher values of NDVI (>6) are observed in eastern part of the state.

Tamil Nadu



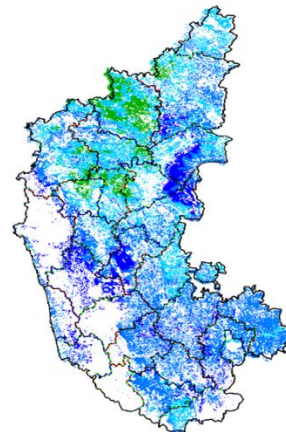
Agricultural vigour is good over Tamil Nadu with NDVI values varying from 0.4 - 0.6 whereas normal values of NDVI (0.2 – 0.3) are observed in southern and western part of the state.

Chhattisgarh



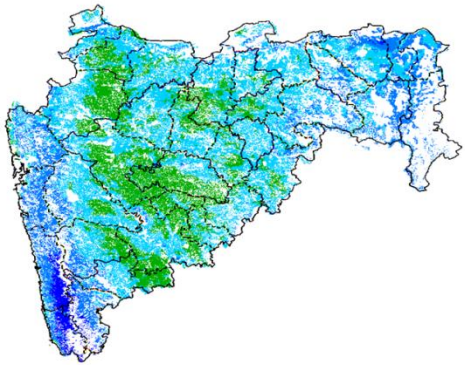
Agriculture vigour is good over entire state of Chhattisgarh where NDVI value are between 0.4-0.6.

Karnataka



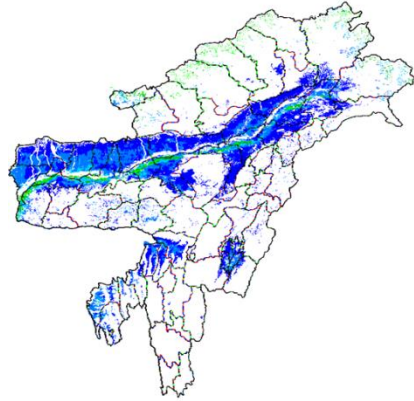
The agriculture vigor is good over the entire state. Higher values of NDVI are observed in interior, southern and eastern part of the State (>6) whereas few patches in north-west shows normal values of NDVI.

Maharashtra



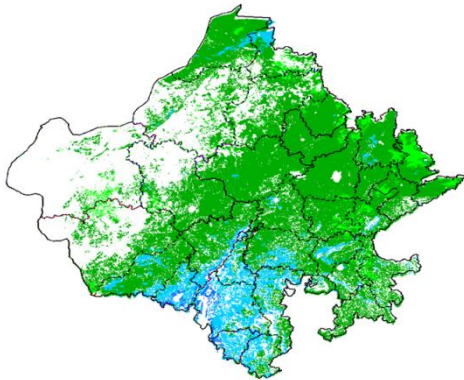
Agricultural vigour is very good over South Western Maharashtra region with NDVI values greater than 0.6, whereas NDVI is good over other parts of Maharashtra, (0.4 – 0.5). Few patches in Marathwada and North Maharashtra region show moderate values of NDVI (0.2-0.4).

North East Region



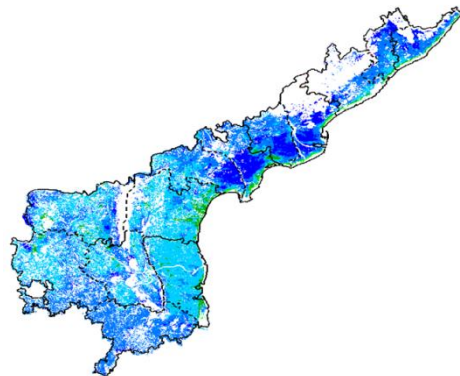
Agriculture vigour is very good in North-East states which covers valley part of Assam and Manipur where NDVI values are greater than 6 whereas, agricultural vigour is normal(0.2-0.4) in the northern and eastern states of North-East.

Rajasthan



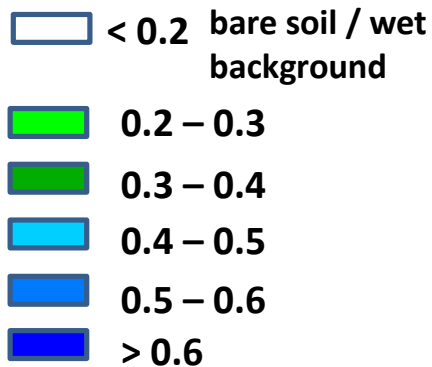
Agriculture vigour is good (0.4-0.6) over southern part of Rajasthan whereas moderate values of NDVI are observed over the entire state (0.2-0.4).

Andhra Pradesh



Agriculture vigour is good over entire state of Andhra Pradesh between 0.4-0.5. Increase values of NDVI observed in central part of the state (>6) whereas costal part shows normal values of NDVI (0.2-0.3).

Persistent cloud /



Annexure III

List of varieties

North Interior Karnataka

Pearl millet: ICTP 8203 and ICMV 221

Horse gram :KBH-1, PHG-9

Rabi sorghum :Maldandi and Mugati

Chickpea: A-1, JG-11, Jaki-9218

Safflower: A-1

Ragi: Indaf-7, 9 and 15

Sunflower: Morden, KBSH-1, KBSH-41, KBSH-42, KBSH-44 and KBSH-53.

Maize: Deccan-103, Vijaya composite and Ganga-11

Cowpea: TVX-944, KBC-1 , KM-8 and PKB-4 (vegetable purpose)

Field bean : HA-1,3 and 4

Horse gram :KBH-1, PHG-9

Tamil Nadu

Late Samba/ Thaladi rice: (ADT 38, ADT 46, ADT 49, Improved white Ponni, IR 20, ASD 19, Paiyur1, TRY 1, TRY 3, Co 48, Co 49, BPT 5204 and Co 50)

Kerala

Rice: Mundakan

Banana:Nendran

Telangana

Rabi red gram:(LRG 41, ICPL 87119, MRG 66, ICPL 85063, WRG 27,

MRG 1004, WRG 53, WRG-65)

Greengram:(MGG-295, MGG-348, MGG-347 WGG-2, WGG-37, LGG-460, TM-96-2)

Black gram:(LBG-20 (Teja), , LBG-623, WBG-26 (Usha), PBG-1, LBG-752, MBG-207,PU 31)

Assam

Early cauliflower: Pusa Katki, Pusa Deepali and Early Kunwari.

Mid cauliflower :Pusa Snowball.

Brinjal : Pusa Kranti, Pusa Purple Long, Pusa Purple Cluster, Pusa Bhairav, JC-2, BWR-12.

Califlower :Japanese, Pusa synthetic, Pusa snowball and Main Crop Patna.

Cabbage: Golden Acre, Pride of India, Pusa Mukta.

Tomato : Punjab Chhuhara, S-12, Punjab Kesri, Pusa Early Dwarf, Sioux,Pusa Ruby, VC- 48-1, Arka Abha (BWR-1), Arka Alok (BWR-5), BT-1, Bilahi-1, Bilahi-2.

Potato :Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Badshah, Kufri Sindhuri.

Broccoli : Early Danish Giant, De Cicco Green Bud, Sparton Early, Coastal and Atlantic.

Black gram : KU 301, USJD 113, PU 19, T-9, T-27, Pant U-19, T-122, Saonia mah.

Green gram : Pratap, SG 21-5, T-44, Kopergaon, K-851, ML-56, ML-131,SG-1 (Pratap).

Kharifsesame : Gauri, Madhabi, ST-1683, Punjab Til No.1.

Radish :Pusa Desi, Pusa Chetki, Pusa Himani.

Knolkhol: White Vienna, Purple Vienna.

Carrot :Nantes, Pusa Kesar.

Onion :Pusa Red, Pusa Ratnar, Pusa white (Round), Pusa white (Flat), N-53, Agrifound Light Red, Punjab Red Round, Pusa Madhuri, Arka Niketan.

Meghalaya

Cauliflower: Meghalaya Local.

Cabbage : Meghalaya: H-139, Pride of India.

Pea: Arkel (for vegetables), TRC P8, TRC P9, Prakash, Rachna.

French bean : Naga Local.

Potato: Kufri Joyti, Kufri Megha, Kufri Giriraj, Kufri Girdhari, Kufri Himsona, Kufri Himalini.

Broccoli : Puspa, Aiswarya.

Carrot : New Karoda, Nantesh.

Radish : Local genotype.

Mustard : Varuna, Krishna, TM 4; Rapeseed- M 27, TS 38, TR 48, TR 67.

Manipur

Cauliflower: White shot, adopt White flash.

Cabbage: Rareball.

French bean : Pant Anupam, Anupam, Tangkhul Hawaii (local).

Pea: Arkel or Azad.

Onion : Nasik Red.

West Bengal:

Mango: Himsagar, Mallicka, Langra

Guava: Safeda, L-49

Coconut: Eastcoastal, Hazari

Banana :- Mortoman, Chapa, Kathali, Singapuri,

Mustard:- Agrani(B-54), Panchali (T.W.C.-3), B-9, Rai-5 and Bhagirothi (R.W.-351).

Bihar

Potato: KufriJyoti.Kufri Ashoka,Pukharaj

Toria: R.A.U.T.S.17, Panchali,P.T.303

Rapeseed: RAUTS-17, Panchali,PT-303 ,Bhawani

Pulses: K-75,PL77,KLS-218

Lentil: BR-25,Pant L 406,Malika,Arun

Rai: Varuna pusa,Kranti

Maize: Dhml17,Shaktiman-1,Dewki&Lakshmi

Kidney Pea: PDR-14,IIDR 96-4,IIPR 98-5

Rai: Varuna,Pusabold,Kranti

Sarson: RajendraSarson,Swarna

Peas: Ratna,Apnharbajan Malbai mater15

Garlic: Jamuna Safed-2(G-50),Jamuna safed-3(G-282) Jamuna-4(G-323)

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

Mustard: Panchali, Bhavani, Pusa Jaikisan, Sivani, Varuna& Kranti

Toria: BR-23,T.-9,P.T.-303

Chick Pea: Birsa chana-3,B.G.-372,256,K WR-108

Field Pea: Rachna,DDR-23, Swarnrekha

ONION: N-53,Pusa red,Arka nicketan, Arka kalian

Gram: KAK-2, ICC-2,Pusa 256, Pusa-372

Odisha:

Mango: Baiganpalli, Totapuri, Bombay green, Suvarnarekha, Neelam, Himsagar,, Langra, Dusheri, Amrapalli, Mallika, Ratna, Ramkella, Alphonso and Keshar, etc.

Cashewnut: Vengrulla-1.4, BPP-4, Bhubaneswar-1, VRI-2, Hybrid 2-17

Green gram:K 851, PDM 11, PDM 54, OUM 115.

Black gram:T 9, PU 11, PU 19 and PU 30.

Horse gram: Urmi.

Jammu & Kashmir

Cabbage: Golden Acre, Pride of India and PusaMukta.

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

Pea : AP-1, Bonnevillea, Rachna and Arkel);

Chickpea : K-468, Gourav);

Lentil : L-4147, L-9/12,PL-406)

Wheat : PBW-175, PBW-396, RSP-81(Jitto)

Mustard : Pusa Bold, RSPR-01, RSPR-03, Kranti.

Uttarakhand

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

Barley : Jyoti, Vijaya, or Jagrati

Oat : UPO-50, UPO-212, JHO-822, Kent

Himachal Pradesh

Wheat:Hs-277, HPW-251 and VL-616

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

Sorghum: Pusa chari-23, SSG-98-8MFSH-3, Pant-5 and MP chari
Lobia: Russian Joint , UPC-5286, UPC-5287, NP-3, Bundhel lobia-2, UPC-9202 and UPC-4200
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.
Cauliflower: pusa Dipali.
Pearl Millet: Raj WCC-75, ICMB-155, Pusa-322,23, ICMH-451.
Seasame: T-4,78, Shekhar, Pragati, Tarun.
Pigeon Pea: Bahar, Narendra Arhar-1, Azad, Pusa-9.
Jute: Jute Reshma, NDC (2007), NDC-2028, NDC-9102.
Okra: PusaSawani, VarsaUphar, Azad kranti.
Brinjal: Pant Samrat, Pant Rituraj, Pusa hybrid-6.
Guava: Sardar(Lucknow-49).
Kabuli gram: chamatkar, Puse-1003, Subhra
Pea: Rachna, Pantmatar-5, Aparna, Malviya Matar-2, Malviya Matar-15, Shikha and Sapna.
Cabbage: Japani, Pusa Dieepali, Pusa Kartiki
Toria: TA-9, Bhawani, PT-30 and PT-507
Potato: Kufri Chandramukhi, Kufri Sadabahar, Kufri Ashoka

West Uttar Pradesh

Ladies finger: VRO-6, VRO-5.
Pigeon pea: T-21, UPAS 120.
Cotton: H777, Dhanalakshami, HD107.
For fodder Jowar: JS 120, Lobia 88.
gram: P.D.G.-3, G.P.F.-2, C-235, Gourav, KGD-1168, JG-16, Avrodhi
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.
onion: pusa red, pusa white.
Mustard: Varuna, Narendra-Rai 8501, Rohoni (timely sowing),
Aashirwaad and Vardan (late sowing), Vaibhav, Maya.
Jou: Manjula, Jagruti, Gitanjali.
Pea: Azad P-3, Jai, Indra, Prakash.
Lentil: KLB-320, K-75, DPL-62.
Linseed: Padmini, Sharda, Laxmi.

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.
Pea: Punjab 89 and MithiPhali, Matar Ageta-7, Arkel and Matar Ageta-6.
Gram : PDG-4, PDG-3, GPF-2, PBG 5 and PBG-1, PBG-7.
Kabuli gram (L 552, L 550 & BG-1053)
Mustard: PBR 357, RLC-1, PBR-210, RLM-619, PBR-91, PBR-97, RLC-1, PBR 210 and PBR 91,
Gobhi sarson GSC-7, GSC-6, GSL-1, GSL-2, Hyola (PAC-401), African sarson PC-5.
Radish: Punjab Pasand and Japanese white.
Turnip: L-1.
Carrot: Punjab Black Beauty, Punjab Carrot Red and PC-34.

Delhi

Mustard: Pusa Sarson-25, Pusa Sarson-26, PusaAgrni, PusaTaraka and PusaMahak, Pusa Jai Kisan, Pusa Jagannath, Pusa Sarson-25,
Pusa Sarson-26, Pusa Agrni, Pusa Taraka, Pusa Mahak. Pusa Saag-1; Bathua- Pusa Bathua-1
Radish: PusaChetki.
Spinach: PusaBharti.
Amaranths: PusalalChaulai, PusaKiran.
Ladyfinger: Pusa A-4.
early potato: Kufri Badshah, Kufri Surya.
Pea: Pusa Pragati, Arkel
Carrot: Pusa Rudhira-;
Radish: Japani White, Hill queen, French Radish;
Spinach: All Green, Pusa Bharti;
Fenugreek: Pusa Kasuri;
Coriander: Pant Haritama, Hybrids;
Turnip: Pusa Swati, Local Red variety

East Rajasthan

Radish: PusaChetki,Japanese white & hill queen.

Carrot: PusaKeshar

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

Mustard: Pusa Jai Kisan (Bio-902), PR-15 (Kranti), T-59 (Varuna),Giriraj, RGN-73, Bio-902 (PusaJaikisan), RH-9304 (Vasundhara), RH-9802 (SwarnJyoti), RH-8812 (Laxmi), RB-50.

Gram: RSG-888 (Anubhav), CSJD-884 (Aakash), RSG-44, Pusa-209, C-235, H-208,Pratap raj chana, RSG-888, Dahod yellow, ICCV-10 and Pratap Chana-1.

Cauliflower:Pusa snow ball K-1, Hisar-1, Dania andSelection-7

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

West Rajasthan

Cowpea:RC-19, RC-101, RCP-27.

Mustard: PusaJai Kisan,RH-30,RH-8812,Pusa Gold and PR-15,RGN-13,73,268226,48,Laxmi, Bio-902, T-59, Pusa bold, Arawali and RGN-48 and late sown RGN145,236.

Gram: GNG-469, 466,GNG-663, RSG-888, RSG-44, RSG-945, RSG-807, GNG-1581 and C-235,GNG-1466,236.

Oat :OS 6, OS 9

Berseem: BL 10, BL 22

Cauliflower:Pusa snow ball K-1, Hisar-1, Dania andSelection-7

Radish: (PusaRashmi).

Carrot: PusaKeshar

Madhya Maharashtra

Rabi jowar:Selection-3, Phule Mauli, Phule Chitra, Phule Mauli, Maldandi- 35-1, Phule Vasudha, Phule Yashoda, C.S.V.-22, Phule Yashoda, Phule Vasudha, C.S.V. 22.

Marathwada

Rabi jowar: Selection 3, Phule Malauli, Phule Anuradhada, Phule Vasudha, Phule Yeshodha, Parbhani Moti, CSV-22, PKV-Kranti, CSH-15, CSH-19.

Safflower: Shardha, Parbhani-12, Parbhani-40, Nari-6, Annegiri-1, Phule Kusum.

Gram:BDN-9-3, BDNG-979, Vishwas, Phule G-12, Vijay, Vishal, Digvijay.

Fodder jowar: Ruchira R-4-11, Nilva, MP chari, Pusa Chari, IS 4776, SG-14, MKV Chari.

Vidarbha

Gram:Saki 9516, Hirva chafa, Vijay, ICCV-10.

Gujarat

Wheat: GW 496, GW 273, GW 173, GW 1 (unirrigated), Lok-1, GW-366, GW- 190.

Chickpea: Gujarat chana-2 (unirrigated), Gujarat Gram-1, Gujarat Gram-3 (irrigated), Dahod Pila, ICC-4.

Mustard: Varuna, Gujarat Mustard 1, 2, 3 (in high temperature), 4.

Garlic: Gujarat Garlic-3, 4 or Local.

Pea (vegetable): Pusa Pragati, Pusa Rudhira.

Onion:Junagadh local (pili patti), Talaja red, Agri found dark red, Pusa White flat, Pusa Red, Nashik Lal, N 53 & H 48.

Cumin: Guj. Cumin- 2 and 4.

Coriander: Guj. Cor. -1 & 2.

Carrot: Patan Local, Pusa Kesar and Pusa Chamdagni.

Raddish: Pusa Hemadri, White ICL, Japanees White, Pusa Rashmi, Pusa Chetaki.

Cabbage: Kranti, Golden Acaire Pride of India, Coppen Market.

Cauliflower: Pusa Early, Pusa Dipali, Pusa Kartiki, Early Kuvari for early maturity and for medium duration select the Pusa synthetic, Early Snowball, Snowball.

Brinjal: Guj. Brinjal 6, P.L.R. 1, Junagadh Lambagoal, Mahicco-11, 16.

Fennel: Gujarat fennel-2, 11 and 12.

Lucern: Anand Lucerne 2 or 3.

Madhya Pradesh

Wheat: JW 1203, JW1215, HI 1544 (Irrigated).

JW 3288, JW 3211, JW 3020, HI 1531(1 or 2 irrigation).

JW 3288, JW 3173 (non irrigated).

Gram: JG 130, JG 11, JG 315, JG 16, JG 218, JG 6, KAK 2, JGK 1, JG-12, JG-63.

Lentil: RVL 31, JL 2.

Garlic: G 282 and G 223.

Green pea: Arkil, Jawahar Matar 3 & 4.

Mustard: RVM -2, RGN-73 and Pusa Jay Kisan.