



National Agromet Advisory Service Bulletin



Friday, 1st January 2016
(For the period 1st to 5th January 2016)

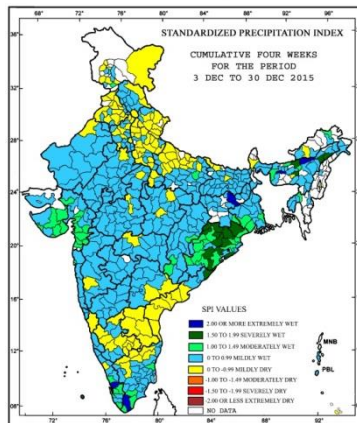


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State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Standardised Precipitation Index Four Weekly for the Period 3rd December to 30th December 2015

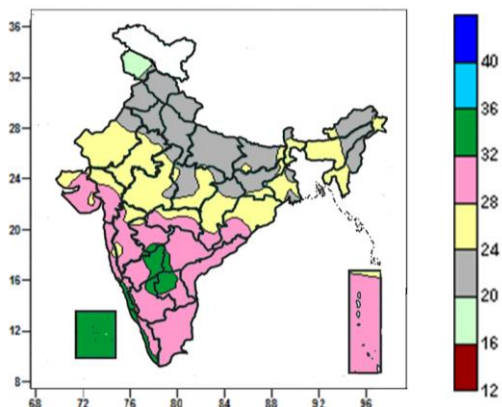
MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE



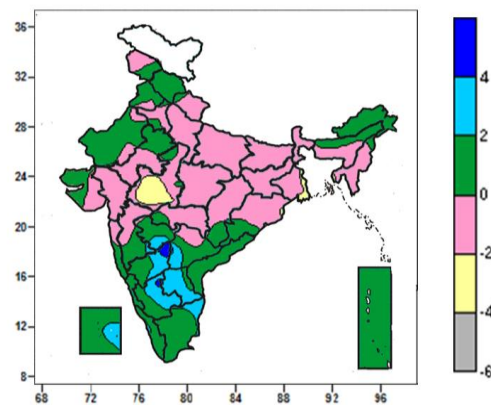
- Extremely/severely wet conditions experienced in few districts of Assam and Odisha. Dhanbad, Giridih districts of Jharkhand; Srikakulam district of Andhra Pradesh; Tirunelveli district of TamilNadu; Ernakulam district of Kerala; Lakshadweep district of Lakshadweep.
- Rest of the country experienced moderately wet/mildly dry conditions.

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 30.12.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 30.12.2015



Mean Maximum Temperature (°C) Anomaly in India for the week ending 30.12.2015



- Mean maximum temperature was between 32 to 36°C over Lakshadweep, some parts of South Interior Karnataka, Rayalaseema and isolated pockets of Marathwada, Telangana, South Interior Karnataka.
- Mean maximum temperature was between 28 to 32°C over the country except Northwest India, North

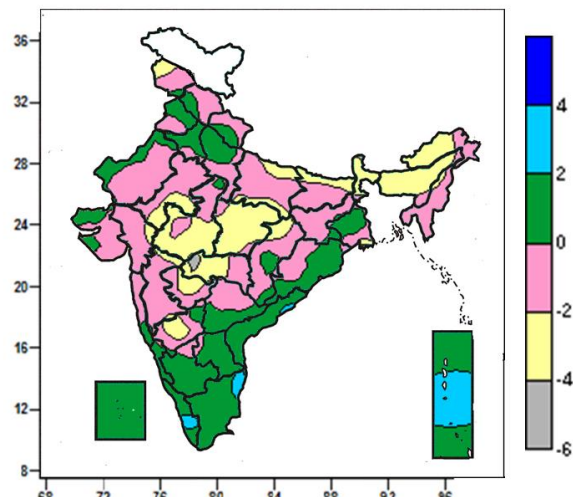
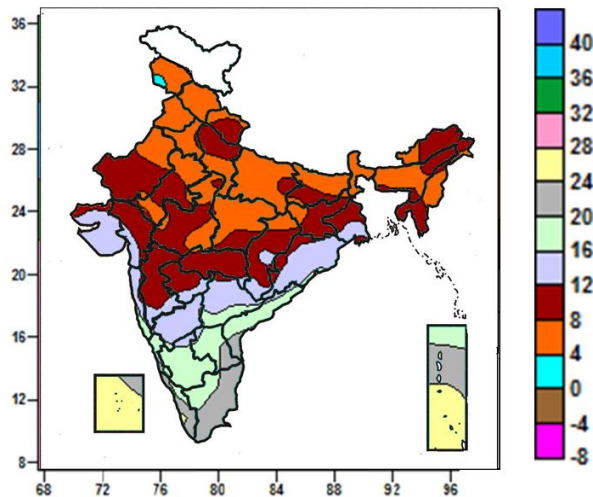
- Mean maximum temperature was above normal by 4 to 6°C over isolated pockets of Interior Karnataka, Telangana.
- Mean maximum temperature was above normal by 2 to 4°C over many parts of Interior Karnataka, Rayalaseema, some parts of Telangana, Marathwada, Tamil Nadu and Lakshadweep.

East India, Bihar, Jharkhand, Madhya Pradesh, many parts of Bihar, Jharkhand, Chhattisgarh, Odisha, some parts of Gujarat, Madhya Maharashtra and isolated pockets of Konkan, Marathwada where it was between 16 and 28⁰C.

- Mean maximum temperature was below normal by 2 to 4⁰C over some parts of West Madhya Pradesh.
- It was normal to near normal in remaining parts of the Country.

Actual Mean Minimum Temperature (°C) in India for the week ending 30.12.2015

Mean Minimum Temperature (°C) Anomaly in India for the week ending 30.12.2015

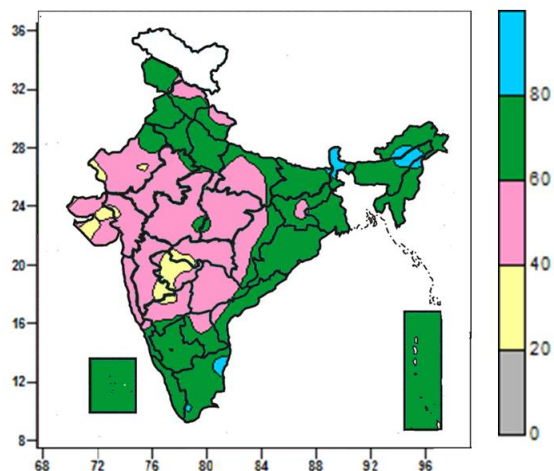


- Mean minimum temperature was between 0 to 4⁰C over isolated parts of Jammu & Kashmir.
- Mean minimum temperature was between 4 to 8⁰C over Sub-Himalayan West Bengal & Sikkim, Himachal Pradesh, Punjab, Nagaland, Manipur, many parts of Jammu & Kashmir, Haryana, Delhi, East Uttar Pradesh, Assam & Meghalaya, East Madhya Pradesh some parts of West Uttar Pradesh, Bihar, East Madhya Pradesh, Rajasthan and isolated pockets of Uttarakhand, Arunachal Pradesh, Jharkhand, Chhattisgarh.
- Mean minimum temperature was between 8 to 12⁰C over many parts of Uttarakhand, West Uttar Pradesh, Jharkhand, Gangetic West Bengal, Arunachal Pradesh, Mizoram, Tripura, West Madhya Pradesh, Chhattisgarh, Rajasthan, Gujarat region, Madhya Maharashtra, Marathwada, Vidarbha, some parts of East Uttar Pradesh, Bihar, Odisha and isolated pockets of Saurashtra, Telangana.
- It was between 12 to 28⁰C over Andhra Pradesh, Tamil Nadu, Karnataka, Kerala, many parts of Odisha, Telangana, Konkan & Goa, Saurashtra & Kutch, some parts of Gujarat region, Madhya Maharashtra, Marathwada, Chhattisgarh, Gangetic West Bengal.

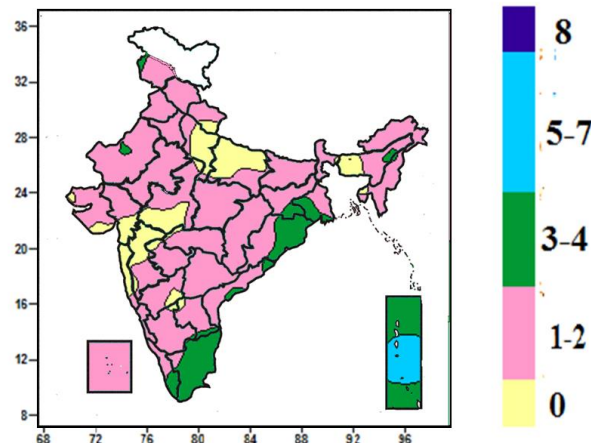
- Mean minimum temperature was above normal by 2 to 4⁰C over many parts of Andaman & Nicobar Islands and isolated pockets of Tamil Nadu, Kerala.
- Mean minimum temperature was below normal by 2 to 4⁰C over Sub-Himalayan West Bengal & Sikkim, many parts of Arunachal Pradesh, Assam & Meghalaya, Madhya Pradesh, Vidarbha, some parts of Jammu & Kashmir, Bihar, East Rajasthan, Marathwada, North Interior Karnataka, and isolated pockets of East Uttar Pradesh, Gujarat region, Madhya Maharashtra.
- 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 30.12.2015

Relative Humidity (%) over India for the week ending 30.12.2015



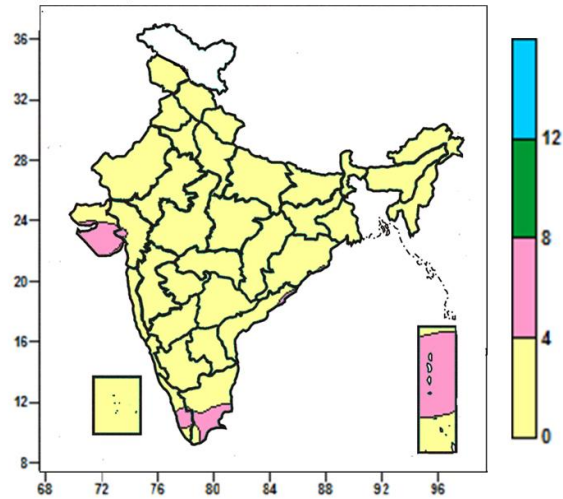
Cloud amount (okta) over India for the week ending 30.12.2015



- Mean Relative humidity was above 80% over Sikkim, many parts of Sub-Himalayan West Bengal, some parts of Arunachal Pradesh, Assam & Meghalaya, Nagaland and Tamil Nadu.
- Mean Relative humidity was between 60 to 80% over Jammu & Kashmir, Punjab, Haryana, West Uttar Pradesh, Bihar, Gangetic West Bengal, Odisha, South Interior Karnataka, Kerala, many parts of Himachal Pradesh, Uttarakhand, Jharkhand, North East India, Andhra Pradesh, Tamil Nadu, Coastal Karnataka, Lakshadweep, Andaman & Nicobar Islands, some parts of East Uttar Pradesh, Chhattisgarh and isolated pockets of Rajasthan, Madhya Pradesh, Telangana, North Interior Karnataka.
- Mean Relative humidity was between 40 to 60% over rest of the country except many parts of Telangana, some parts of Saurashtra and isolated pockets of West Rajasthan, Vidarbha, Madhya Maharashtra North Interior Karnataka where it was between 20 to 40%.

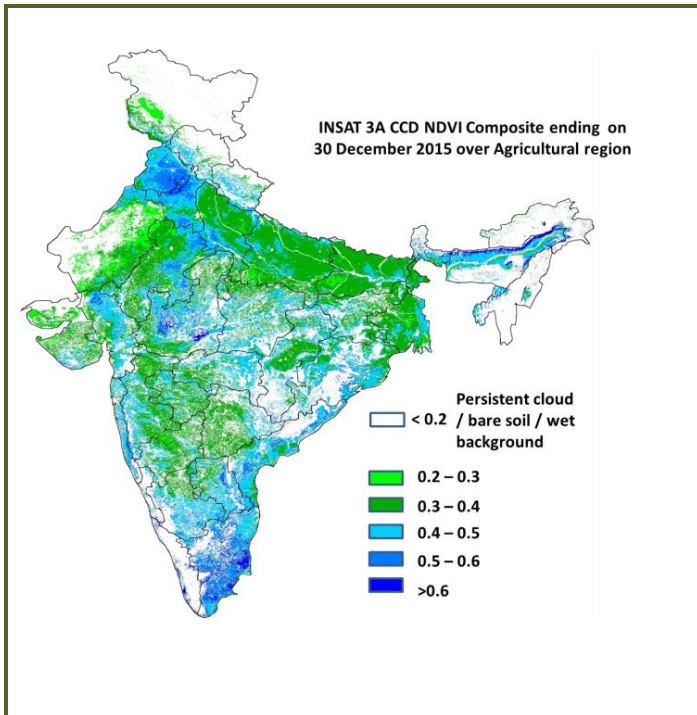
- Sky remained cloudy (5-7okta) over some pockets of Andaman & Nicobar Islands.
- Sky remained partly cloudy (3-4okta) over many parts of Odisha, Tamil Nadu, Andaman & Nicobar Islands, some parts of Gangetic West Bengal, Jharkhand, Kerala and isolated pockets of Jammu & Kashmir, West Rajasthan, Coastal Andhra Pradesh, Rayalaseema.
- Sky remained 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 30.12.2015



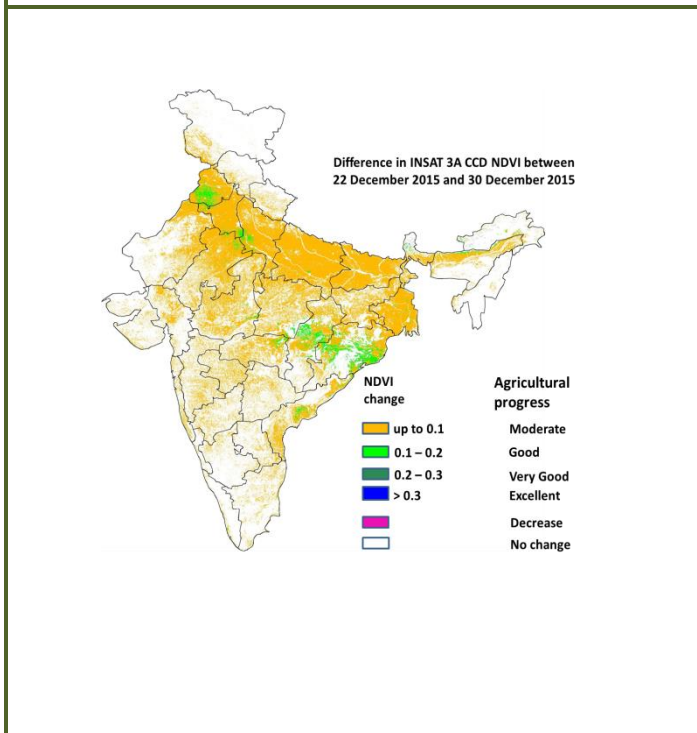
- Mean wind speed was 4 to 8 knots over many parts of Saurashtra, Andaman & Nicobar Islands, some parts of Tamil Nadu, Kerala and isolated pockets of Gujarat region.
- It was less than 4 knots over rest of the country.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 30th December 2015 OVER AGRICULTURAL REGION OF INDIA



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

Difference in INSAT 3A CCD NDVI between 22nd and 30th December 2015



- A good progress (0.1-0.2) in NDVI is observed over Punjab, Chhattisgarh, Odisha, patches in Haryana and coastal Andhra Pradesh. Moderate progress in NDVI was observed in states of Punjab, Haryana, Rajasthan, Madhya Pradesh, Bihar, Uttar Pradesh, West Bengal, patches in North Interior Karnataka, Telangana, Maharashtra and Gujarat. No change in NDVI was observed in Tamil Nadu, Kerala and south interior Karnataka.

- INSAT 3A CCD NDVI composite maps for the week ending on 30th December 2015 for different States are given below in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 6th January 2016

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.
- Shallow to moderate fog would occur at isolated places over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, north Madhya Pradesh, Bihar, West Bengal & Sikkim, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 2-3 days.
- No significant change in temperatures over plains of northwest and central India during next 2 days and fall by 1-2°C thereafter.
- No significant change in temperatures over Gujarat and Konkan during next 24 hours and fall by 2-3°C thereafter.

5 Day Rainfall Forecast (MID DAY) 1st January, 2016

| | 01-Jan Today | 02Jan Sat | 03Jan Sun | 04Jan Mon | 05Jan Tue |
|------------------------------|-----------------|--------------|--------------|--------------|--------------|
| 1. Andaman & Nicobar Islands | DRY | ISOL | ISOL | ISOL | DRY |
| 2. Arunachal Pradesh | ISOL | DRY | DRY | DRY | DRY |
| 3. Assam & Meghalaya | DRY | 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 | DRY | DRY | DRY | DRY | DRY |
| 10. East Uttar Pradesh | DRY | DRY | DRY | DRY | DRY |
| 11. West Uttar Pradesh | DRY | DRY | DRY | DRY | DRY |
| 12. Uttarakhand | DRY | DRY | ISOL | SCT | ISOL |
| 13. Haryana, Chd & Delhi | DRY | DRY | DRY | ISOL | ISOL |
| 14. Punjab | DRY | DRY | DRY | ISOL | ISOL |
| 15. Himachal Pradesh | DRY | ISOL | ISOL | FWS | SCT |
| 16. Jammu & Kashmir | ISOL | ISOL | SCT | WS | FWS |
| 17. West Rajasthan | DRY | DRY | DRY | ISOL | 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 | DRY | DRY |
| 24. Madhya Maharashtra | DRY | DRY | DRY | DRY | DRY |
| 25. Marathwada | DRY | DRY | DRY | DRY | DRY |
| 26. Vidharbha | DRY | DRY | DRY | DRY | DRY |
| 27. Chhattisgarh | DRY | DRY | DRY | DRY | DRY |
| 28. Coastal Andhra Pradesh | DRY | DRY | DRY | DRY | DRY |
| 29. Telangana | DRY | DRY | DRY | DRY | DRY |
| 30. Rayalaseema | DRY | DRY | DRY | DRY | DRY |
| 31. Tamilnadu & Puducherry | DRY | ISOL | ISOL | ISOL | DRY |
| 32. Coastal Karnataka | DRY | DRY | DRY | DRY | DRY |
| 33. North Interior Karnataka | DRY | DRY | DRY | DRY | DRY |
| 34. South Interior Karnataka | DRY | DRY | DRY | DRY | DRY |
| 35. Kerala | DRY | DRY | DRY | DRY | DRY |
| 36. Lakshadweep | DRY | DRY | DRY | DRY | DRY |

% Station Reporting Rainfall

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

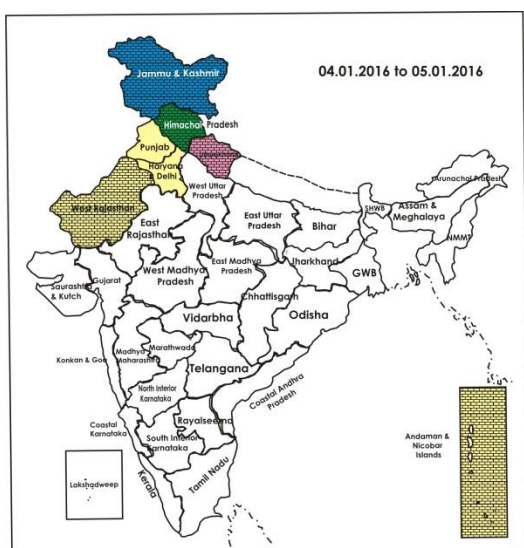
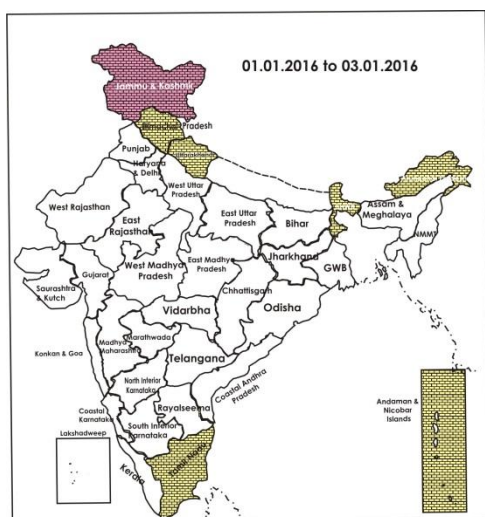
Weather Warning during next 5 days

- **01 January (Day 1):** Dense fog at a few places with very dense at isolated places would occur over East Uttar Pradesh; dense fog at isolated places over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Bihar, West Bengal, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **02 January (Day 2):** Dense fog at a few places with very dense at isolated places would occur over East Uttar Pradesh; dense fog at isolated places over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Bihar, West Bengal, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **03 January (Day 3):** No weather warning.
- **04 January (Day 4):** Heavy snow would occur at isolated places over Jammu & Kashmir.
- **05 January (Day 5):** No weather warning.

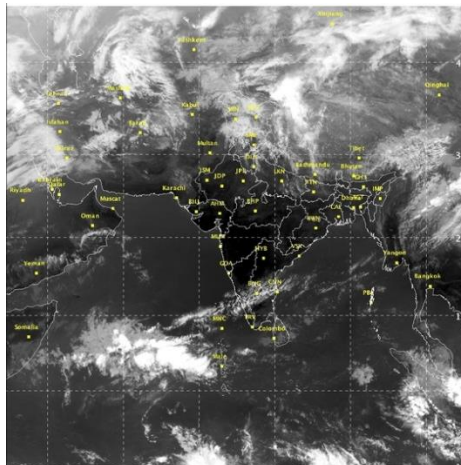
Weather Outlook for subsequent 2 days from 6th to 8th January 2016

- Rain/snow would occur at isolated places over western Himalaya region.
- Rain/thundershower would occur at isolated places over West Madhya Pradesh.

Weather Forecast Map (Valid upto 0830 hours of 6th January, 2016)



Satellite image dated, 01.01.2016 0600 UTC



Salient Advisories

- As dense fog would occur at a few places with very dense fog at isolated places over **East Uttar Pradesh** and dense fog at isolated places over **Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura, Bihar, West Bengal & Sikkim** and **Odisha** during next 2 days. There is chance of incidence of early blight disease in potato, tomato and onion crops and other standing crops for incidence of pest and diseases. Monitor the crops and if symptoms are noticed, undertake plant protection measures.
- In Western Zone of **Punjab**, in view of the prevailing minimum temperature, it is advised to provide polythene sheet/sarkanda/kahi rice straw mulching in the fields of tomato seedlings to protect the plants from cold/frost injury.
- In **Arunachal Pradesh**, cover tomato crops with polythene to protect from frost/cold injury. Apply mulching to banana to protect against frost injury. In **Nagaland**, apply mulching to chickpea, lentil, linseed, mustard and cole crops to protect the crops from low temperatures.
- In the Northern Telangana Zone, cover rice nursery with polythene sheets in the night and remove in the morning to avoid the effect of cool temperatures on germination and better growth of nursery. Irrigate nurseries with fresh water in the morning to speed up nursery growth.
- As rain/snow would occur at most/many places over **Jammu & Kashmir** on 4th & 5th January along with heavy snowfall at isolated places on 4th January, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Farmers are advised to arrange for adequate drainage to avoid water stagnation in the crop fields.
- As dry weather is prevailing, apply irrigation in wheat at CRI stage in **Rajasthan, Madhya Pradesh, Gujarat, Chhattisgarh, Uttar Pradesh, Punjab** and **Uttarakhand**.
- Complete sowing of mustard/rapeseed in **Assam & Meghalaya, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Chhattisgarh, Uttar Pradesh** and **Uttarakhand** with irrigation facilities. Continue sowing of late varieties of wheat in **Punjab, Haryana, Rajasthan, Madhya Pradesh, Jammu & Kashmir** and **Uttar Pradesh** under assured irrigation.
- In Western Zone and Undulating Plain Zone of **Punjab**, due to prevailing foggy weather condition, there is chances of attack of late blight in potato crop, for control, spray Indofil-M-45/Kavach /Antracol @ 500-700 g per acre or Blitox @ 750-1000 g per acre in 250-350 litres of water per acre at weekly interval.

Detailed Zonewise Agromet Advisories

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



Banana



Groundnut



Land preparation/sowing



Cotton

- **Realised Rainfall:** Rainfall occurred in Ramanathapuram and Turunelveli districts of Tamil Nadu; Weather remained mainly dry over rest of the region.
 - **Advisories:**
 - **Tamil Nadu:**
 - In the Western Zone, undertake land preparation for planting early season sugarcane. Before planting sugarcane, setts may be soaked for 15 mins in a solution of 100 litres of water mixed with Carbendazim @ 50 g + Malathion @ 200 ml + Urea @ 1 kg. Undertake planting of pomegranate under irrigated condition.
 - In the High Rainfall Zone, continue tapping of rubber, planting of bananas and harvesting of pepper.
 - In Karaikal and Puducherry, prevailing weather conditions (cool and cloudy) are congenial for incidence of gall midge in rice. To control gall midge, spray Thiamethoxam 25% WG @ 150 g/ha.
 - In the South Zone, prevailing high humidity is conducive for incidence of blast disease in rice crop at all growth stages. Due to this disease all aerial parts of plants (leaf, neck and node) are affected. If the symptoms are noticed, spray Tricyclozole 75 WP @ 500g/ ha based on the intensity of the disease.
 - In the North Western Zone, boron deficiency in coconut palms is observed which leads to leaf wrinkling and premature fruit drop. To minimize the deficiency, apply Borax @ 250 g at 6 months interval for 2 years.
 - In the High Altitude Hilly Zone, to control red spider mite in tea, spray Profenofos @ 50 % EC or Propargite @ 57 % EC @ 2ml/ litre of water.
 - **Andhra Pradesh:**
 - In the North Coastal Zone, continue harvesting of rice, sowing of black gram, green gram and maize in rice fallows and apply 20 kg Muriate of Potash and spread dried leaves in between rows as mulch in rainfed sugarcane to prevent weed infestation.
 - In the Scarce Rainfall Zone, helioverpa incidence was noticed in red gram at pod setting and pod development stage was noticed in few parts of the Kurnool district. Undertake spraying of Indoxcarb @ 1ml or Spinosad @ 0.3ml /litre of water to control helioverpa incidence.
 - In the Krishna Godavari Zone, yellow mosaic virus and rust disease may attack green and black gram in the prevailing weather conditions. Remove the infected plants immediately in the initial stages and apply Neem oil @ 5 ml per litre of water or Kernel extract @ 5 ml/ litre of water at ten days interval particularly in the evening times to control yellow mosaic virus and spray Mencozeb+Dinocab @ 33 grams or Tridimorph @ 1 gram or Belaton @ 1 gram/litre of water to control rust disease.
 - In the Southern Zone, prevailing dry weather is congenial for incidence of thrips attack in groundnut. To control, spray Monocrotophos @ 1.6 ml or Imidachloprid @ 0.3 ml./litre of water.
 - **Telangana:**
 - In the Northern Telangana Zone, cover rice nursery with polythene sheets in the night and remove in the morning to avoid the effect of cool temperatures on germination and better growth of nursery. Irrigate nurseries with fresh water in the morning to speed up nursery growth. Continue sowing of rice fallow maize under zero tillage.
 - In the Southern Telangana Zone, prevailing weather conditions are congenial for incidences of Helioverpa, and Maruca in redgram. If incidences are noticed, spray Fluebendamaid @ 0.3 ml or Imamectin Benzoate @ 0.4 g or Spinosad @ 0.3 ml per litre of water to control helioverpa, Chlorpyrifos @ 2.5 ml or Novoluran @ 0.75 ml alongwith Dichlorovas @ 1.0 ml per litre of water to control Maruca and Chlorantraniliprol @ 0.3 ml per acre if incidence of Maruca is severe.
 - **Karnataka:**
 - Continue harvesting of ragi and groundnut in the Eastern Dry Zone and rice in the Southern Dry Zone.

- Continue harvesting of pigeonpea, chickpea and chilli in the North Dry Zone.
- Continue harvesting of rice and maize in the Southern Transition Zone.
- Undertake harvesting of short duration varieties of pigeonpea and continue harvesting of rice and cotton picking in the North East Dry Zone.
- Continue sowing of pulses like black gram and green gram after harvesting of rice in the Southern Dry Zone and Hill Zone.
- There is a chance of leaf reddening in cotton due to low temperature in North Transition Zone, undertake spraying of 1% MgSO₄ or 2% Urea/DAP to control leaf reddening in cotton.
- In the North East Dry Zone, to prevent pod fly damage which was noticed throughout the district in long duration pigeonpea crop, spray Dimethoate @ 2 ml/litre of water for control.
- **Kerala:**
 - Continue harvesting of turmeric and pepper in Pathanamthitta district in the Southern Zone and harvesting of pepper in the Problem Area Zone.
 - In the Central Zone, undertake harvesting of matured *Mundakkan* rice, ginger and turmeric, and cultivation of winter vegetables like tomato, brinjal and chilli (bacterial wilt resistant varieties of tomato like sakthi, mukthi, anagha and vellayani vijay, brinjal varieties like Surya, Swetha, Haritha and Neelima and chilli varieties like Ujwala and Anugraha)
 - In the Problem Area Zone, prevailing weather conditions are congenial for incidence of stem borer and leaf roller in rice. Place trichocards in fields which reached 20 days after sowing to control the incidence.
 - In the Southern Zone, prevailing weather conditions are congenial for incidence of fruit fly in cucurbits. Adopt integrated pest management and cover the fruits with paper cover in home gardens. In large-scale cultivation areas, apply Carbaryl @ 0.2% or Malathion 0.2% suspension containing jaggery or sugar at 10 g / litre of water at fortnightly intervals at flowering and fruit initiation stage.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - In the North Western Zone of Tamil Nadu, increase in chillness will increase the feed intake in poultry birds. Increase the chillness by raising the curtains over the sides of the poultry houses during morning and evening hours. Provide adequate quantity of energy (2600 kcal/kg feed) and appropriate protein in layer chicken diet to ensure normal level of feed intake and egg production.
 - Vaccinate the live stock for Black Quarter and foot and mouth diseases in the North East Transition Zone of Karnataka.
 - Due to low temperature in morning and night hours, maintain the optimum room temperature in Sericulture, Poultry and Dairy units by providing electric bulb for creating warm room temperature in the Southern Dry Zone of Karnataka.

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



Mustard



Wheat



Okra



Cabbage

- **Realised Rainfall:** Mainly dry weather prevailed over the region.
- **Advisories:**
 - As dense fog would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 2 days. There is chance of incidence of early blight disease in potato, tomato and onion crops and other standing crops for incidence of pest and diseases. Monitor the crops and if symptoms are noticed, undertake plant protection measures.
 - **Assam, Meghalaya & Arunachal Pradesh:**
 - In Arunachal Pradesh, cover tomato crops with polythene to protect from frost/cold. Apply mulching to banana to protect against frost injury.
 - In Hill Zone of Assam, continue picking of matured cotton bolls preferably in morning hours.
 - In Lower Brahmaputra Valley Zone, continue nursery sowing of *boro* rice with varieties IR50, Cauvery, Banglami, Joymati, Bishnuprasad, Jyotiprasad, Kanaklata Swarnav etc. are suitable particularly for LBVZ for December sowing.
 - In Barak Valley Zone of Assam, continue nursery bed preparation for *boro* rice.
 - In Central Brahmaputra Valley Zone of Assam, continue nursery sowing of *boro* rice, sowing of wheat. Complete

sowing of *rabi* pulses. Continue the harvesting and threshing of *Sali* rice.

- In North Bank Plain Zone, continue planting of potato. Continue transplanting of early sown varieties like Boro-1, Boro-2, Dinanath and Swarnabh in low lying areas.
- In Upper Brahmaputra Valley Zone of Assam, continue transplanting of *boro* rice.
- In Meghalaya, continue sowing of pea, lentil & toria under zero tillage in harvested rice fields. Continue nursery preparation of boro rice.
- In Arunachal Pradesh, weather is congenial for attack of blight and aphid in mustard. Spray Indofil m-45@2.5g/litre against blight and spray dimethoate 30 EC@3ml/lit for aphid.
- In Hill Zone and Upper Brahmaputra Valley Zone of Assam, cloudy and humid weather is favorable for attack of late blight in tomato. Apply Ridomil MZ-72 (2g/litre) and Indofil M-45 2.5g/litre against late blight.
- In Upper Brahmaputra Valley Zone, Central Brahmaputra Valley Zone and Barak Valley Zone of Assam, humid weather is favorable for attack of aphid/saw fly in rapeseed/ mustard. To control saw fly, spray Chloropyriphos 20 EC @ 5 ml/litre of water. Also spray Malathion 50 EC @ 1.5 ml/litre against leaf eating caterpillars in cole crops. Spray potato with Mancozeb @ 2.5 gm per litre of water or Zineb @ 25 gm per 10 litre of water against late blight in Upper Brahmaputra Valley Zone.
- In Barak Valley Zone of Assam, prevailing temperature conditions and foggy weather are favourable for incidence of late blight in potato field, to control spray Redomil @ 2ml/litre of water. Also humid weather conditions are favorable for black spot disease in cole crops, leafy vegetables and blight in tomato. To manage the disease in leafy vegetables and cole crops, spray Mancozeb @ 2gm per litre of water. To manage the blight in tomato, apply Ridomil or Indofil @ 2 gm per liter of water.
- In Meghalaya, weather is congenial for incidence of late & early blight disease in potato, apply Mancozeb 75% WP @ 1.5- 2.0 kg/ha or Copper Oxy Chloride 50% WP @ 2.5 kg/ha. Also spray wettable Sulphur @ 2 g/litre or Dinocap @ 1 ml/litre or Tridemorph @ 0.5 ml/litre or dust Sulphur @ 25 kg/ha against powdery mildew in pea.
- **Nagaland, Manipur, Mizoram and Tripura:**
 - In Manipur, continue transplanting of onion, nursery raising and transplanting of tomato, cole crops and sowing of *rabi* maize. In horticulture crops, apply light irrigation during morning hours and mulching to conserve residual soil moisture as well as to maintain the soil temperature.
 - In Mizoram, continue transplanting of tomato, brinjal and chilli. Continue sowing of pea, mustard and toria and harvesting of banana.
 - In Nagaland, apply mulching to chickpea, lentil, linseed, mustard, citrus and cole crops to protect the crops from low temperatures.
 - In Tripura, provide light irrigation with mulching to *rabi* legumes like mustard, lentil. Undertake weeding and thinning before irrigation.
 - In Mizoram, in banana, apply neem powder against corm weevil and stem weevil.
 - In Tripura, due to humid weather, there is chance of attack of early or late blight in potato, leaf blight in maize, black spot disease in cole crops, leafy vegetables and blight in tomato. Spray Cymoxanil+ Mancozeb or Metalaxyl+ Mancozeb @ 1.5gm per litre of water against early or late blight in potato, spray Zineb @ 3gm per litre of water for control of leaf blight in maize, spray Mancozeb @ 2gm per litre of water against black spot disease in leafy vegetables and cole crops and spray Ridomil or Indofil or Mancozeb @ 2 gm per litre of water against blight in tomato.
 - Suitable varieties are given in Annexure III.
- **Animal Husbandry**
 - In Assam, Tripura and Nagaland, cover poultry house with gunny bags/polythene sheet to prevent the expose of animal to cool night. Heating during night may also be given to chicks less than 21 days old chicks.
 - In Arunachal Pradesh and Meghalaya, provide artificial heating through lighting of electric bulb @ 2 watt/chick in damp cold areas or during night time to protect the poultry birds (day old to 25 days old) from low temperature.
- **Fishery**
 - In Upper Brahmaputra Valley Zone of Assam, apply Potash @ 4-5 mg/litre of water, Sukrena WS @ 1 litre per bigha of water and lime in required doses to protect the fish population against various bacterial diseases prevalent in winter season.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Cotton**Sugarcane****Groundnut****Wheat**

- **Realised Rainfall:** Weather remained dry over the region.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, complete transplanting of *rabi* rice and nagli. Maintain the water level 2-3 cm for first 8-10 days and then increase the level up to 5 cm. Complete sowing of groundnut, sunflower and mustard. Apply light irrigation to groundnut crop three days after sowing. Irrigation interval should be 10-12 days for this stage. Also apply irrigation to sunflower and mustard crop. Farmers are advised foliar spray of Amrashakti on mango tree to control fruit drop and enhance good fruit setting. Continue planting of seasonal forage crops like cowpea, maize (African Tall) and multicut sorghum. Undertake transplanting of brinjal and chilli. Apply straw mulch or polythene mulch to water melon crops.
 - In Madhya Maharashtra, apply irrigation to wheat crop. Apply irrigation in the interval of 6-8 days in onion crops for better bulb growth. Continue harvesting of old adsali and pre-seasonal sugarcane. Farmers are advised to spray 5 % Neemark and after 15 days spray Heliokil @ 500 ml per 500 litres of water on gram in flowering stage.
 - In Marathwada, continue harvesting of red gram. Apply irrigation to wheat crop. Continue harvesting of old adsali and preseasonal sugarcane. Apply micro irrigation through drip and sprinkler irrigation for orchard crops like banana, pomegranate, sweet lime and orange. Also apply mulch of crop residue. Farmers are advised to spray calcium rich fertilizer @ 2 g per litre of water to sweet orange orchards to control fruit dropping and to increase size of fruit.
 - In East Vidarbha, continue sowing of summer rice. Continue picking of matured cotton bolls in West Vidarbha during morning hours at 15-20 days interval. Avoid irrigation during boll bursting. Continue harvesting of red gram. Apply protective irrigation to vegetable crops, gram, sugarcane and orchards like orange and sweet lime in Central Vidarbha region.
 - Due to cold during night and rise in temperature during afternoon in Konkan region, there may be incidence of aphids in pulse crops (Cowpea, Wal. Kulthi); spray Dimethoate @ 10 ml per 10 litres of water at an interval of 15-20 days.
 - Due to low temperature with high humidity in Marathwada region, there may be incidence of fungal diseases on pomegranate fruits, spray Carbendazim @ 1.2 g or Mancozeb @ 2.5 g per litre of water.
 - **Gujarat:**
 - In Gujarat, under cold and dry weather conditions, apply irrigation to mustard, wheat, cotton, orchards (papaya, pomegranate, gauva and vegetable crops in North West Gujarat Zone, to vegetable crops during evening hours in North Gujarat Zone, to mustard and vegetable crops during evening hours in Bhal and Coastal Zone, to gram, sweet corn, cabbage / cauliflower in South Gujarat Heavy Rainfall Zone.
 - Continue sowing operation of water melon (Sugar Bebi, Ashahi Pameto, Madhu, Jyoti, Pusa Bedana (Seedless)) in North Gujarat Zone.
 - Carry out weeding in wheat, cumin and fennel in North Gujarat Zone, cumin in North West Gujarat Zone, in fennel and mustard in Bhal and Coastal Zone.
 - In Bhal and Coastal Zone, due to dew formation, there is chance of powdery mildew in cucurbits; dust 300 mesh Sulphur @ 20 kg/ha to manage the disease.
 - Suitable varieties for sowing are given in Annexure III.
 - **Animal Husbandry**
 - In Gujarat, spread the crop residue in animal sheds to protect the animals from cold. Provide luke warm water to lactating animals. Keep young calves indoors during night time to avoid cold stress.

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

**Groundnut****Wheat****Gram****Mustard**

- **Realised Rainfall:** Rainfall occurred in Dhanbad and Giridh districts of Jharkhand. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - As dense fog would occur at isolated places over Bihar, West Bengal & Sikkim and Odisha during next 2 days.

There is chance of incidence of early blight disease in potato, tomato and onion crops and other standing crops for incidence of pest and diseases. Monitor the crops and if symptoms are noticed, undertake plant protection measures.

- **West Bengal:**

- In Terai Zone, continue sowing of wheat, mustard, lentil and planting of potato.
- In Old Alluvial Zone, undertake seed bed preparation of *boro* rice. Cover the nursery bed with polythene or straw mulch or keep stagnant water in the nursery bed during the night-time to protect the seedlings from cold injury. Undertake sowing of bottle gourd in pits filled with organic matter and sow 2-3 seeds per pit.
- In Coastal Saline Zone, continue nursery bed preparation of *boro* paddy. Undertake cultivation of lentil and sunflower at optimum moisture in the fields.
- In New Alluvial Zone, continue seedbed preparation of *boro* rice. Weeding and thinning operation should be done in wheat at 21 days after sowing.
- In Laterite and Red soil Zone and New Alluvial Zone, continue sowing of wheat and mustard. Give light irrigation to maintain the optimum moisture content in the soil.
- In Laterite and Red Soil Zone, due to foggy weather, there is chance of late blight disease in potato crops. For control, spray Ridomil MZ @ 2g/litre of water.
- In New Alluvial Zone, due to foggy weather condition, there may be attack of early blight may be severe in potato and tomato. To control the disease, apply Mancozeb @ 2.5 gm per litre of water.

- **Andaman and Nicobar Islands:**

- In North, Middle & South Andaman, undertake intercultural operations and weeding in vegetables.
- In North, Middle & South Andaman, due to humid weather, there may be attack of shoot and fruit borer and thrips in brinjal and chilli. To control shoot and fruit borer, apply Chlorpyrifos @ 2 ml/litre of water and for control of thrips, apply Acephate @ 1 g/litre of water.

- **Odisha:**

- In Western undulating Zone, continue transplanting of onion. Continue sowing of green gram and black gram & nursery preparation for raising seedlings for summer paddy
- In North Central Plateau Zone, continue sowing of linseed and gram, planting of potato and continue sowing/transplanting of onion.
- In East and South Eastern Coastal Plain Zone, continue sowing of wheat, mustard and planting of potato.
- In Eastern Ghat High Land Zone, continue sowing of wheat and planting of potato. Undertake pyra cropping of green gram, black gram, lentil and mustard etc.
- In East and South Eastern Coastal Plain Zone, the prevailing cloudy weather may aggravate the infestation of aphids in pulses and powdery mildew in pulses and cole crops. Spray 5 ml Imidachloprid or 20 ml Metacystox per 10 litre of water to control aphid and spray 50 g Sulfex per 10 litre water to control powdery mildew.
- In Western Undulating Zone, due to cloudy weather condition there may be chances of aphids in mustard crops, to control spray Imidacloprid @ 0.25ml/litre of water or Thiomethaxome @ 0.40/litre of water.
- In East and South Eastern Coastal Plain Zone, mustard crops may be affected by *Crocidollemma* and aphids. Spray Dimethoate 400 ml in 200 litres of water for controlling aphids and Ethofenprox or to control *Crocidollemma* apply Deltamethrin 200 ml in 200 litres of water per acre.
- In East and South Eastern Coastal Plain Zone, cloudy weather may favour infestation of saw fly in mustard. Undertake spraying of Quinalphos @ 2 ml per litre water.
- In North Eastern Coastal Plain Zone, cloudy weather during last week is favourable for spread of powdery mildew disease in Green gram and Black gram. To control it, spray Sulfex @ 5g / litre of water.

- **Bihar:**

- In South Alluvial Plain Zone, complete sowing of late sown wheat varieties, continue weeding in tobacco, gram, lentil, pea, toria, mustard & rai after 25-30 days of sowing and irrigate the crop as per requirement.
- In North West Alluvial Plain Zone, continue transplanting of onion, complete the sowing of late variety of wheat. Continue weeding in potato, maize, garlic and in vegetable crops such as brinjal, cauliflower, tomato, pea and cabbage. Apply irrigation in wheat & potato crops, continue cutting the leaf of berseem/lucerne in every 20-30 days of intervals.
- In North East Alluvial Plain Zone, continue sowing of late sown wheat varieties & earthing up in potato. Apply light irrigation in sunflower, vegetables & other crops.
- In South Alluvial Plain Zone, present weather is also conducive for attack of fruit fly infestation in cucurbits. To control, use Pheromone traps or apply Monocrotophos @ 2 ml + 100g Jaggery (gur) per litre of water.
- In North West Alluvial Plain Zone, present foggy weather condition is conducive for the attack of early blight in potato, tomato and other vegetable crops, spray Di-Ethane M-45 @ 2 g/litre of water.
- In North West Alluvial Plain Zone, present weather condition is conducive for the infestation of leaf feeders in

cabbage & cauliflower crops, if pest population is above ETL, to control spray Dimethoate 30 EC@1ml/litre or Spinosad @1 ml/3 litre of water.

- In North East Alluvial Plain Zone, present weather is conducive for attack of fruit fly infestation in brinjal, cauliflower & cabbage, spray, Imidachlopid @ 1ml/litre of water.

- **Jharkhand:**

- In South Eastern Plateau Zone, continue sowing of *rabi* crops like wheat, chickpea, lentil, linseed and sunflower and continue raising of seedlings of winter season vegetables like onion, brinjal, cabbage, cauliflower, tomato, capsicum etc., short duration French bean and leafy vegetables. Continue intercultural operation in horse gram, toria, pigeon pea, safflower, lobia, urad and moong bean.
- In North Eastern Plateau Zone, continue cultivation of improved variety of green pea & raise the improved varieties of onion seedling, continue sowing mustard, lentil and improved wheat variety under irrigated condition. Continue harvesting of matured pigeon pea.
- In Western Plateau Zone, undertake inter culture operations in pulse & oilseed crops to conserve soil moisture and control weeds, continue transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato & brinjal, undertake nipping (pruning of upper parts of the plant) in gram crops in 30 to 40 days before flowering.
- In Western Plateau Zone, present weather is conducive for the occurrence of attack of late blight disease in potato crops, to control, spray Saaf @ 2 g/litre of water or Redomyl 1.5 gm/litre of water.
- In North Eastern Plateau Zone, present weather is conducive for the occurrence of wilt disease in tomato and brinjal, spray Streptocycline @ 100 mg and Bavistin @ 0.5 g per litre of water.
- In South Eastern Plateau Zone, due to humid weather condition, if infestation of early and late blight intensity will become more prominent in potato crops, spray Krilaksil or Ridomil chemical @ 1.5g/litre of water.
- Suitable varieties for sowing are given in Annexure III.

- **Animal Husbandry:**

- In Sub-Himalayan West Bengal & Bihar, low temperature condition may adversely affect the milk production and performance of domestic animals. Farmers are advised to give protein enriched feed to the animals & do not keep the animal in the open during night hours.

CENTRAL INDIA [M.P., CHHATTISGARH]



Cauliflower



Gram



Okra



Wheat

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

- **Advisories:**

- **Madhya Pradesh:**

- In Madhya Pradesh, apply irrigation in wheat at CRI stage.
- In Satpura Plateau Zone continue transplanting of onion. Apply irrigation in gram and mustard crops. Undertake picking up of matured cotton bolls.
- In Malwa Plateau Zone, continue nursery preparation of summer vegetables like tomato, brinjal, chilli etc.
- In Kymore Plateau and Satpura Hill Zone, continue harvesting of early sown vegetable pea. Undertake intercultural operations in gram and mustard.
- In Bundelkhand Zone, undertake weeding and hoeing in onion and garlic.
- In Jhabua Hill Zone, apply irrigation in gram, mustard and vegetables and continue picking up of matured vegetables. Continue digging up of matured turmeric and ginger.
- In Bundelkhand Zone, due to humid weather there are chances of leaf blight disease in tomato, spray Methyl Dematon 25 E.C. @ 2.0 g per litre of water.
- In Vindya Plateau Zone, in the prevailing weather there are chances of attack of fruit and stem borer in vegetables, spray Triazophos 40 EC @ 80 ml per hectare.

- **Chhattisgarh:**

- Apply irrigation in wheat at CRI stage in Chhattisgarh.
- In North Hill Zone, undertake intercultural operations in pulse and oilseed crops. Continue earthing up in potato.
- In Plain Zone, apply irrigation in gram, lathyrus and lentil crops and continue thinning in mustard and safflower. Continue seedling preparation of cucurbitaceous crops in polythene bags.
- Suitable varieties are given in Annexure III.

- **Animal Husbandry**

- Provide green fodder, feed mixed with minerals etc. and fresh water to milch animals. As temperature is decreasing, keep animals in shed and provide light in poultry farms in Madhya Pradesh.

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



Wheat



Sugarcane



Mustard



Cabbage

- **Realised Rainfall:** Mainly dry weather prevailed over the region.

- **Advisories:**

- As dense fog would occur at a few places with very dense fog at isolated places over East Uttar Pradesh and dense fog at isolated places over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh during next 2 days. There is chance of incidence of early blight disease in potato, tomato and onion crops and other standing crops for incidence of pest and diseases. Monitor the crops and if symptoms are noticed, undertake plant protection measures.

- **Jammu & Kashmir:**

- As rain/snow would occur at most/many places over Jammu & Kashmir on 4th & 5th January along with heavy snowfall at isolated places on 4th January, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Farmers are advised to arrange for adequate drainage to avoid water stagnation in the crop fields.
- In Sub Tropical Zone, continue sowing of late varieties of wheat (WH-1021, PBW-590, PBW-373, Raj-3077, Raj-3765, DBW-16) at optimum soil moisture condition. Treat the seed with Carboxin/Carbendazim @ 2g/kg or Tebuconazole @ 1.25g/kg of seed to reduce seed borne diseases. Apply full DAP, MOP and ZnSO₄ along with 50% urea as basal dose at the time of sowing. Continue sowing of mid and late season pea varieties viz P-88, P-89, Matar Ageta.
- In Valley Temperate Zone, complete sowing of wheat and oat, brown sarson, peas, pulses, lentil and berseem as fodder crops.
- In Cold Arid Zone, apply 3rd dose of nitrogenous fertilizer in cabbage, cauliflower and Broccoli in green houses.
- In Sub Tropical Zone, prevailing temperature condition there may be attack of aphids in mustard and cutworm in chickpea crops. Install yellow sticky trap @ 10/kanal to control aphids. If attack is severe, spray Chlorpyrifos 20EC @ 0.05% or Monocrotophos 36 WSC @ 0.04% or Methyl demeton 25EC @ 0.03%. To control cutworm in chickpea, apply Chlorpyrifos 20 EC @ 2 liters mixed with 25 kg of dry sand and broadcast. Undertake plant protection measures after current spells of rain.

- **Uttarakhand:**

- In Bhabar and Tarai Zone, apply light irrigation in coriander, spinach, radish, mustard, at CRI stage in wheat and garlic. Continue weeding and thinning operations in standing crops like pea, chickpea, rajmash etc.
- In Hill Zone, complete sowing of wheat, mustard, gram and lentil in unirrigated high hill region. Apply light and frequent irrigation/sprinkler irrigation in the evening to protect the vegetable crops from frost/cold injury. To protect young fruit plants from chilly winds, cover young fruit plants.
- In Sub humid Sub tropic Zone, complete sowing of wheat, mustard, pea and lentil. Apply irrigation in wheat crops at CRI stage.
- In Hill Zone, due to low temperature there may be incidence of leaf eating caterpillar in cole crops, to control apply Sipnosad @ 1ml per 3 litre of water.

- **Himachal Pradesh:**

- In Sub-Montane and Low Hills Sub-Tropical Zone, continue transplanting of tomato in raised bed and cauliflower (early group & late group), cabbage, knolkhol, broccoli and Chinese cabbage and sowing of pulses and oilseeds as intercrop with wheat. Undertake transplanting of onion and planting of potato.
- In Mid Hills sub-Humid Zone, continue harvesting of ginger, cole crops and early variety of pea in clear weather. Continue transplanting of onion.
- Under prevailing weather conditions, there are chances of attack of cutworms in vegetables in Sub-Montane and

Low Hills Sub-Tropical Zone. For control, spray Chlorpyrifos 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 for 1 x 3m beds and for downy mildew in cruciferous vegetables, spray Redomil M-Z @ 25 g per litre of water at 15 days interval. Undertake plant protection measures on a non rainy day.

▪ **Rajasthan:**

- In West Rajasthan, continue sowing of late sown wheat and undertake hoeing and weeding operations, 10 days after first irrigation to wheat, cumin and vegetables in Arid Western Plain Zone. Continue sowing of barley, fenugreek and lucern. Also in Transitional Plain Zone of Inland Drainage, continue sowing of wheat, barley, gram, garlic, fenugreek, mustard, fennel, onion, carrot, lucern and taramira.
- Continue harvesting of matured kinnow fruits and undertake measures to protect kinnow trees from cold. Continue sowing of wheat and gram and apply first irrigation to wheat and barley after 20- 25 days of sowing, in gram after 50 – 55 days and in mustard second irrigation at flowering stage, apply irrigation in sugarcane in Irrigated North western Plain Zone.
- In East Rajasthan, complete sowing of wheat, barley, gram, mustard, lentil, lucern, apply irrigation in wheat crop at CRI stage and in potato within 10 – 15 days interval, also continue nipping in gram to enhance branching in Flood Prone Eastern Plain Zone. Apply irrigation in wheat crop at CRI stage in Southern Humid Plain Zone. Continue sowing of late sown wheat in Semi Arid Eastern Plain Zone.
- In Flood Prone Eastern Plain Zone, due to prevailing weather, there is a chance of incidence of termite in barley and wheat. Apply Chlorpyrifos 20 EC 1.5 litre/ha with irrigation water. Also there is a chance of attack of cut worm in gram and early blight in potato, dust Methyl Parathion 2% with the help of duster and spray Mencozeb @ 2g/litre of water for control of blight.
- In Semi Arid Eastern Plain Zone, stem and fruit borer may attack brinjal crop, remove affected fruits and stems and spray Acephate 75 SP @ 1.5 gm per litre water. Undertake harvesting 7-10 days after spray.
- In Arid Western plain zone, due to cloudy weather, chance of Alternaria blight in cumin and white rust in mustard. To control, apply Carbendizim or Carbendizim+Mencozeb @ 2g/litre and Ridomil MZ-72 @ 1 ml/litre or Mencozeb @ 2g/litre.

▪ **Punjab, Haryana and Delhi:**

- In Western Plain Zone of Punjab, complete harvesting of early maturing variety of sugarcane. Complete sowing of wheat, gram, kabuli gram, mustard, radish, carrot, turnip, onion, tomato, planting of sugarcane under assured irrigation. It is advised to irrigate the timely sown wheat crop at 21-25 days after sowing.
- In Western Zone of Punjab, complete sowing of late varieties of wheat and transplanting of tomato, cauliflower, brinjal and cabbage. In view of the prevailing minimum temperature, it is advised to provide polythene sheet/sarkanda/kahi rice straw mulching in the fields of tomato seedlings to protect plants from cold/frost injury. Dwarf varieties can be saved from frost injury with 100 gauze thick white plastic bags of 35 X 25 cm size.
- In Undulating Plain Zone of Punjab, continue sowing of late variety of wheat, raya, planting of fruit plants viz. citrus, mango, litchi, guava, loquat, ber, amla and papaya. Undertake intercultural operations in all vegetable crops as per their requirement. Undertake first irrigation in timely sown wheat crop at CRI stage as per requirement.
- In Central Plain Zone of Punjab, apply irrigation in sugarcane. Complete sowing of wheat, undertake hoeing and weeding operation in oil seeds, gram.
- In Sub-Montane Undulating Zone of Punjab, continue sowing of late sown wheat, undertake hoeing and weeding operation in crops.
- In Western Zone of Haryana, complete sowing of wheat, Bengal gram kabuli chana and vegetables like pea, potato, carrot and sowing of mustard and berseem, oat as fodder crops. Apply irrigation in timely sown wheat of 21 – 25 days old, mustard, berseem and vegetables as per requirement. Undertake intercultural operations in crops.
- In Eastern zone of Haryana, complete sowing of wheat, barseem and mustard. Continue intercultural operations in barseem, mustard, all vegetables and irrigation as per requirement. Continue transplanting of mature seedlings of tomato, cauliflower, cabbage. Apply first irrigation to wheat crop at CRI stage, which are about 21-25 days old, as per requirement.
- In Western Semi-Arid Zone of Delhi, complete sowing of late variety of wheat, gram, oat, lentil, early mustard and sowing of barseem for fodder. Continue transplanting of *rabi* onion, tomato, cabbage, broccoli and early cauliflower on raised bed, sowing of garlic in raised bed. Apply irrigation as per requirement to timely sown wheat crop, which are about 21-25 days old and are at CRI stage. Undertake thinning and weeding operations and apply light irrigation in timely sown mustard crop which is about 35 days old is advised as per requirement. Continue earthing up in potato, if plant has attained height of 15–20 cm.
- In Western Zone and Undulating Plain Zone of Punjab, due to prevailing foggy weather condition, there may be chances of attack of late blight in potato crop, for control, spray Indofil-M-45 / Kavach / Antracol @ 500-700 gm per acre or Blitox @ 750-1000 g per acre in 250-350 litres of water per acre at weekly interval.
- In Central Plain Zone of Punjab, due to foggy weather condition there may be infestation of aphids in sarson/

raya. To protect, spray Actara 25 WG @ 40 g or Rogor 30 EC/Ekalux 25 EC @ 400 ml of or Dursban 20 EC @ 600 ml in 100 litres of water per acre. Spray should be done in the afternoon to protect the pollinates.

- In Undulating Plain Zone of Punjab, due to humid weather condition, there may be chances of attack of pink stem borer in wheat, for control, spray Quinalphos 25 EC @ 800 ml in 100 litres of water per acre.

▪ **Uttar Pradesh:**

- In Central Plain Zone, continue harvesting of matured toria crop. Apply first irrigation in wheat crop at CRI stage after 20-35 days of sowing. Apply light irrigation in vegetable pea at onset of flowering stage and second irrigation before pod formation stage. Apply first irrigation in barely at tillering stage after 30-35 days of sowing, in gram between 45-60 days of sowing. Apply light irrigation in timely sown gram after 45 to 60 days of sowing before flowering stage. Undertake weeding and thinning operation in pea, mustard, gram, lentil, linseed. Continue transplanting of tomato.
- In Eastern Plain Zone, continue sowing of late variety of wheat, gram, lentil and mustard. Undertake hoeing, weeding operations in pea, gram, lentil. Complete sowing of vegetable pea and toria and sowing of winter vegetables, fenugreek, coriander, garlic, carrot, radish, spinach.
- In Western Plain Zone, continue harvesting of early maturing variety of sugarcane. Continue sowing of wheat, planting of autumn sugarcane. Irrigate wheat crop at 21 days after sowing and standing crops of sugarcane at 15 days interval.
- In Bundelkhand Zone, complete late sowing of wheat. Apply irrigation in linseed, flaxseed, mustard, gram, palak, coriander, carrots, vegetable pea, pea, lentil, jowar crops as per requirement. Apply first Irrigate in timely sown wheat crop after sowing of 21 days. Undertake thinning operation in mustard crop. Undertake planting of garlic and onion.
- In North Eastern Plain Zone, continue sowing of wheat, toria, mustard, pea, gram, rabi maize, potato, linseed and lentil under assured irrigation.
- In Central Plain Zone in varanasi district, due to prevailing weather condition, there may be chances of attack of late blight in potato crop and blight in tomato and chili, for control, spray Indofil-M-45/Kavach /Antracol @ 500-700 g per acre or Blitox @ 750-1000 g per acre in 250-350 litres of water per acre at weekly interval 2-3 times. To control of blight in tomato and chili, to control spray Mencozeb 0.12% @ 2 gm per litres of water.
- In Central Plain Zone, under prevailing weather condition, there may be chances of attack of painted bug in mustard, for control, spray Dimethoate 30 EC or Methyl-o- Demeton 25 EC or Chlorpyrifos 20 EC @ 1 litre or Monocrotophos 36 SL @ 500 ml in 600-750 litres of water per hectare. To control powdery mildew in pea, spray Tridemarf 80 EC @ 500 ml in 500 to 600 litres of water per hectare.
- In Eastern Plain Zone, under prevailing weather condition, there may be chances of attack of downy mildew in pea, for control, spray Mencozeb 75% @ 2 kg in 800 litres of water per hectare.
- Suitable varieties are given in Annexure III.

• **Horticulture**

- In Central Plain Zone of Uttar Pradesh, for control of fruit drop in ber, spray Superfix Hormone @ 1 ml per 4.5 litres of water.
- In Mild Hills Sub Humid Zone and High Hill Temperate Dry zone of Himachal Pradesh, continue preparation of tree basins for apple and stone fruits and for pomegranate in Mild Hills Sub Humid Zone.

• **Floriculture**

- Undertake planting of winter flowers in polyhouses in Sub Montane and Low Hills Sub Humid Zone of Himachal Pradesh.

• **Animal Husbandry**

- In Undulating Plain Zone of Punjab, protect animals from low night temperature. Spread straw / gunny bags on the floor during night time.
- In High Hill Temperate Dry Zone of Himachal Pradesh, give daily 40-50g Minerals mixture to a cow and protect animals from low night temperature.
- In Valley temperate zone of Kashmir, protect the animals from low temperatures by covering the windows and doors of animal sheds with gunny bags particularly during night hours to avoid stress to the animals.

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

Annexure I

Week by week Rainfall Distribution

| Sub-Divisions | 16.12.15 | | 23.12.15 | | 30.12.15 | |
|----------------------------|-------------|--------|-------------|--------|-------------|--------|
| | Actual (mm) | % dep. | Actual (mm) | % dep. | Actual (mm) | % dep. |
| Arunachal Pradesh | | | | | | |
| Anjaw | ** | ** | ** | ** | ** | ** |
| Changlang | 14.4 | -45 | 4.2 | -20 | 0.0 | -100 |
| Dibang Valley | 31.0 | 27 | 35.0 | 150 | ** | ** |
| East Kameng | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Siang | 19.4 | 63 | 0.6 | -78 | 0.0 | -100 |
| Kurung Kumey | ** | ** | ** | ** | ** | ** |
| Lohit | 20.4 | 208 | 4.1 | 11 | 0.0 | -100 |
| Lower Dibang Valley | 41.3 | 69 | 7.8 | 179 | 0.0 | -100 |
| Lower Subansari | ** | ** | ** | ** | ** | ** |
| Papumpare | 8.6 | 95 | 0.0 | -100 | 0.0 | -100 |
| Tawang | 9.0 | -41 | 0.0 | -100 | 0.0 | -100 |
| Tirap | 12.0 | 88 | 0.0 | -100 | 0.0 | -100 |
| Upper Siang | 38.6 | 43 | 4.8 | -62 | 0.0 | -100 |
| Upper Subansari | 19.6 | 206 | 0.0 | -100 | 0.0 | -100 |
| West Kameng | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Siang | 33.0 | 177 | 0.0 | -100 | ** | ** |
| Assam&Meghalaya | | | | | | |
| Assam | | | | | | |
| Baksa | 3.4 | -28 | 0.0 | -100 | 0.0 | -100 |
| Barpeta | 4.3 | -9 | 0.9 | -23 | 0.0 | -100 |
| Bongaigaon | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Cachar | 0.3 | -93 | 0.0 | -100 | 0.0 | -100 |
| Chirang | 26.0 | 567 | 0.0 | -100 | 0.0 | -100 |
| Darrang | ** | ** | ** | ** | ** | ** |
| Dhemaji | 3.0 | -57 | 0.0 | -100 | 0.0 | -100 |
| Dhubri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dibrugarh | 13.0 | 137 | 1.4 | -42 | 0.0 | -100 |
| Goalpara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Golghat | 9.6 | 92 | 0.0 | -100 | 0.0 | -100 |
| Hailakandi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jorhat | 21.1 | 230 | 0.3 | -72 | 0.0 | -100 |
| Kamrup(Rural) | 12.6 | 223 | 7.0 | 1650 | 0.0 | -100 |
| Kamrup(Metro) | 0.9 | -77 | 0.0 | -100 | 0.0 | -100 |

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|------------------|------|------|-----|------|-----|------|
| Karbi Anglong | 2.5 | -29 | 0.0 | -100 | 0.0 | -100 |
| Karimganj | 2.8 | 15 | 0.0 | -100 | 0.0 | -100 |
| Kokrajhar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lakhimpur | 8.7 | 24 | 0.0 | -100 | 0.0 | -100 |
| Morigaon | 0.6 | -85 | 0.0 | -100 | 0.0 | -100 |
| N.C.Hills | 2.1 | -74 | 0.0 | -100 | 0.0 | -100 |
| Nowgong | 0.7 | -84 | 0.0 | -100 | 0.0 | -100 |
| Nalbari | 4.4 | 37 | 0.1 | -89 | 0.0 | -100 |
| Sonitpur | 7.5 | 49 | 0.7 | -65 | 0.0 | -100 |
| Sibsagar | 22.8 | 430 | 0.0 | -100 | 0.0 | -100 |
| Tinsukia | 14.3 | 232 | 0.0 | -100 | 0.0 | -100 |
| Udalgiri | 3.2 | -32 | 0.0 | -100 | 0.0 | -100 |
| Meghalaya | | | | | | |
| East Garo Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Khasi Hills | 4.3 | -10 | 0.0 | -100 | 0.0 | -100 |
| Jaintia Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ribhoi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| South Garo Hills | 0.0 | -100 | 0.0 | -100 | ** | ** |
| West Garo Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Khasi Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| NMMT | | | | | | |
| Mizoram | | | | | | |
| Aizwal | 0.0 | -100 | 0.5 | -84 | 0.0 | -100 |
| Champhai | ** | ** | ** | ** | ** | ** |
| Kolasib | ** | ** | ** | ** | ** | ** |
| Lawngtlai | ** | ** | ** | ** | ** | ** |
| Lunglei | ** | ** | ** | ** | ** | ** |
| Mamit | ** | ** | ** | ** | ** | ** |
| Saiha | ** | ** | ** | ** | ** | ** |
| Serchhip | ** | ** | ** | ** | ** | ** |
| Manipur | | | | | | |
| Bishnupur | ** | ** | ** | ** | ** | ** |
| Chandel | ** | ** | ** | ** | ** | ** |
| Churachandpur | ** | ** | ** | ** | ** | ** |
| Imphal east | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Imphal west | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Senapati | ** | ** | ** | ** | ** | ** |
| Tamenglong | ** | ** | ** | ** | ** | ** |
| Thoubal | ** | ** | ** | ** | ** | ** |
| Ukhrul | ** | ** | ** | ** | ** | ** |
| Nagaland | | | | | | |
| Dimapur | 0.2 | -97 | 0.0 | -100 | 0.0 | -100 |
| Kephire | ** | ** | ** | ** | ** | ** |
| Kohima | 0.6 | -74 | 0.0 | -100 | 0.0 | -100 |
| Longleng | ** | ** | ** | ** | ** | ** |
| Mokokchung | 6.0 | 2 | 0.0 | -100 | 0.0 | -100 |
| Mon | ** | ** | ** | ** | ** | ** |
| Paren | ** | ** | ** | ** | ** | ** |
| Phek | ** | ** | ** | ** | ** | ** |

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|--------------------------|------|------|-----|------|-----|------|
| Tuensang | ** | ** | ** | ** | ** | ** |
| Wokha | 2.0 | -73 | 0.0 | -100 | 0.0 | -100 |
| Zunheboto | ** | ** | ** | ** | ** | ** |
| Tripura | | | | | | |
| Dhalai | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| NorthTripura | 2.3 | -39 | 0.0 | -100 | 0.0 | -100 |
| SouthTripura | 0.1 | -98 | 1.6 | 21 | 0.0 | -100 |
| West Tripura | 0.2 | -93 | 0.3 | -62 | 0.0 | -100 |
| Himachal Pradesh | | | | | | |
| Bilaspur | 28.4 | 491 | 0.0 | -100 | 0.0 | -100 |
| Chamba | 45.0 | 215 | 0.8 | -91 | 0.5 | -98 |
| Hamirpur | 27.9 | 372 | 0.2 | -97 | 0.0 | -100 |
| Kangra | 26.3 | 213 | 1.2 | -87 | 0.0 | -100 |
| Kinnaur | 17.5 | 154 | 0.0 | -100 | 0.5 | -98 |
| Kullu | 35.0 | 343 | 1.1 | -91 | 0.2 | -99 |
| Lahaul and Spiti | 13.6 | 5 | 0.0 | -100 | 0.3 | -99 |
| Mandi | 34.3 | 452 | 1.3 | -78 | 0.4 | -97 |
| Shimla | 20.5 | 280 | 0.8 | -86 | 0.9 | -92 |
| Sirmaur | 8.2 | 13 | 0.0 | -100 | 0.0 | -100 |
| Solan | 28.3 | 267 | 0.1 | -98 | 0.0 | -100 |
| Una | 16.3 | 378 | 0.0 | -100 | 0.0 | -100 |
| Punjab | | | | | | |
| Amritsar | 0.2 | -97 | 0.0 | -100 | 0.0 | -100 |
| Barnala | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhatinda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Faridkot | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Fatehgarh Saheb | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ferozpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gurdaspur | 3.3 | -57 | 0.0 | -100 | 0.0 | -100 |
| Hoshiarpur | 1.2 | -66 | 0.0 | -100 | 0.0 | -100 |
| Jalandhar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kapurthala | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ludhiana | 1.0 | -50 | 0.0 | -100 | 0.0 | -100 |
| Mansa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Moga | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Muktesar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nawashahar | 7.5 | 104 | 0.0 | -100 | 0.0 | -100 |
| Patiala | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ropar | 4.3 | 12 | 0.0 | -100 | 0.0 | -100 |
| Sangrur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mohali | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| TarnTaran | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Haryana,Chd,Delhi | | | | | | |
| Haryana | | | | | | |
| Ambala | 1.6 | -69 | 0.0 | -100 | 0.0 | -100 |
| Bhiwani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chandigarh | 0.3 | -93 | 0.0 | -100 | 0.0 | -100 |
| Faridabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Fatehabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|----------------------------|------|------|-----|------|-----|------|
| Gurgaon | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hissar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jhajar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jind | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Katihāl | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Karnāl | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kurukshetra | 1.0 | -66 | 0.0 | -100 | 0.0 | -100 |
| Mahendragarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mewat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Palwal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Panchkkula | 3.0 | 20 | 0.0 | -100 | 0.0 | -100 |
| Panipat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rewari | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rohtak | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sirsa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sonepat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Yamunanagar | 2.3 | -50 | 0.0 | -100 | 0.0 | -100 |
| Delhi | | | | | | |
| Central Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| New Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| North Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| North East Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| North West Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| South Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| South West Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jammu & Kashmir | | | | | | |
| Anantnag | 41.5 | 125 | 0.2 | -98 | 0.8 | -96 |
| Badgam | 27.8 | 181 | 0.0 | -100 | 0.0 | -100 |
| Bandipore | ** | ** | ** | ** | ** | ** |
| Baramula | 44.9 | 12 | 1.9 | -92 | 0.0 | -100 |
| Doda | 35.0 | 36 | 0.0 | -100 | 0.0 | -100 |
| Ganderbal | 21.6 | 37 | 4.6 | -33 | 0.0 | -100 |
| Jammu | 20.9 | 61 | 0.0 | -100 | 0.0 | -100 |
| Kargil | ** | ** | ** | ** | ** | ** |
| Kathua | 1.6 | -77 | 0.0 | -100 | 0.0 | -100 |
| Kistwar | ** | ** | ** | ** | ** | ** |
| Kulgam | 54.9 | 197 | 0.0 | -100 | 0.1 | -99 |
| Kupwara | 42.1 | 157 | 2.2 | -81 | 0.0 | -100 |
| Ladakh(Leh) | 0.3 | -73 | 0.0 | -100 | 1.8 | 20 |
| Poonch | ** | ** | ** | ** | ** | ** |
| Pulwama | 28.4 | 124 | 0.2 | -95 | 0.0 | -100 |
| Rajouri | 30.2 | 119 | 0.0 | -100 | 0.0 | -100 |
| Ramban | 59.4 | 130 | 0.3 | -99 | 0.3 | -99 |
| Reasi | 30.8 | 141 | 0.0 | -100 | 0.0 | -100 |
| Samba | 18.0 | 38 | 0.0 | -100 | 0.0 | -100 |
| Shopian | ** | ** | ** | ** | ** | ** |

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|----------------------------|-------|------|-----|------|-----|------|
| Srinagar | 23.2 | 47 | 0.6 | -92 | 0.0 | -100 |
| Udhampur | 108.2 | 745 | 0.0 | -100 | 0.0 | -100 |
| East Madhya Pradesh | | | | | | |
| Anuppur | 0.0 | -100 | 0.4 | -73 | 0.0 | -100 |
| Balaghat | 0.0 | -100 | 2.0 | 180 | 0.0 | -100 |
| Chhatarpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chindwara | 0.0 | -100 | 0.6 | -54 | 0.0 | -100 |
| Damoh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dindori | 0.0 | -100 | 3.2 | 52 | 0.0 | -100 |
| Jabalpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Katni | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mandla | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Narsingpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Panna | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rewa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Satna | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Seoni | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shahdol | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sidhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Singrauli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tikamgarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Umariya | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Madhya Pradesh | | | | | | |
| Agar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Alirajpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Asoknagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Badwani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Betul | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhind | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhopal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Burhanpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Datia | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dewas | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dhar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Guna | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gwalior | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Harda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hosangabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Indore | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jhabua | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Khandwa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Khargone | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mandsaur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Morena | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Neemuch | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Raisen | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rajgarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ratlam | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|---------------------------|-----|------|-----|-------|-----|------|
| Sehore | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shajapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sheopur Kalani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shivpuri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ujjain | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Vidisha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chhattisgarh | | | | | | |
| Bastar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bijapur | 0.0 | -100 | 8.3 | 1086 | 0.0 | -100 |
| Bilaspur | 0.0 | -100 | 0.4 | -67 | 0.0 | -100 |
| Dantewara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dhamtari | 0.5 | -55 | 0.0 | -100 | 0.0 | -100 |
| Durg | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Janjgir | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jashpurnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kanker | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Korba | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Koriya | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kawardha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mahasumund | 0.0 | -100 | 1.3 | 12900 | 0.0 | -100 |
| Narayanpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Raigarh | 1.5 | -14 | 1.5 | 1433 | 0.0 | -100 |
| Raipur | 0.1 | -92 | 2.1 | 600 | 0.2 | -63 |
| Rajandgaon | 2.6 | 35 | 0.0 | -100 | 0.0 | -100 |
| Surguja | 0.0 | -100 | 0.2 | -53 | 0.0 | -100 |
| East Uttar Pradesh | | | | | | |
| Allahabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ambedkar Nagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Azamgarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bahraich | 0.1 | -95 | 0.0 | -100 | 0.0 | -100 |
| Ballia | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Balrampur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Banda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Barabanki | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Basti | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chandauli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Deoria | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Faizabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Farrukhabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Fatehpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gazipur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gonda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gorakhpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hardoi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jaunpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kannauj | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kanpur City | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kanpur Dehat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kaushambi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|---------------------------|-----|------|-----|------|-----|------|
| Kheri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kushi nagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lucknow | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Maharajganj | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mau | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mirzapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Pratapgarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| RaiBareilly | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sahuji Maharajnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sant Kabirnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sant Ravidas Nagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shrawasti | ** | ** | ** | ** | ** | ** |
| Sidharthnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sitapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sonbhadra | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sultanpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Unnao | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Varanasi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Uttar Pradesh | | | | | | |
| Agra | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Aligarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Auraiya | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Badaun | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Baghpat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bareilly | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bijnor | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bulandsahar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Etah | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Etawah | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Firozabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| GBNagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ghaziabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hamirpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jalaun | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jhansi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jotiba Phule Nagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kanshiramnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lalitpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mahamaya Nagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mahoba | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mainpuri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mathura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Meerut | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Moradabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Muzaffarnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Pilibhit | 0.7 | -71 | 0.0 | -100 | 0.0 | -100 |
| Rampur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Saharanpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shahjahanpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|--------------------|------|------|-----|------|-----|------|
| Uttarakhand | | | | | | |
| Almora | 3.6 | -31 | 0.0 | -100 | 0.0 | -100 |
| Bageshwar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chamoli | 2.1 | -69 | 0.0 | -100 | 0.0 | -100 |
| Champawat | 1.0 | -88 | 0.0 | -100 | 0.0 | -100 |
| Dehradun | 12.7 | 201 | 0.0 | -100 | 0.0 | -100 |
| Garhwal Pauri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Garhwal Tehri | 7.2 | 7 | 0.0 | -100 | 0.0 | -100 |
| Haridwar | 0.8 | -72 | 0.0 | -100 | 0.0 | -100 |
| Nainital | 2.2 | -54 | 0.0 | -100 | 0.0 | -100 |
| Pithorgarh | 8.9 | 51 | 0.0 | -100 | 0.0 | -100 |
| Rudraprayag | 8.7 | 129 | 0.0 | -100 | 0.0 | -100 |
| Udham Sing Nagar | 0.4 | -83 | 0.0 | -100 | 0.0 | -100 |
| Uttarkashi | 24.9 | 211 | 0.0 | -100 | 0.0 | -100 |
| Bihar | | | | | | |
| Araria | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Arwal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Aurangabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Banka | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Begusarai | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhabua | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhagalpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhojpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Buxar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Darbhanga | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Champaran | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gaya | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gopalganj | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jahanabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jamui | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kathihar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Khagadia | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kishanganj | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lakhisarai | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Madhepura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Madhubani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Monghyar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Muzaffarpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nalanda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nawada | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Patna | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Purnea | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rohtas | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Saharsha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Samstipur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Saran | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sheikpura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sheohar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sitamarhi | 0.0 | -100 | ** | ** | 0.0 | -100 |

| | | | | | | |
|-----------------------|-----|------|------|------|-------|-------|
| Siwan | 0.0 | -100 | 0.0 | -100 | ** | ** |
| Supaul | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Vaishali | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Champaran | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jharkhand | | | | | | |
| Bokaro | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chatra | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Deoghar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dhanbad | 0.0 | -100 | 0.0 | -100 | 199.9 | 6794 |
| Dumka | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Singbhum | 0.0 | -100 | 2.6 | 2450 | 0.0 | -100 |
| Garhwa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Giridih | 0.0 | -100 | 0.0 | -100 | 200.0 | 15284 |
| Godda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gumla | ** | ** | ** | ** | ** | ** |
| Hazaribagh | ** | ** | 0.0 | -100 | 0.0 | -100 |
| Jamtara | ** | ** | 0.0 | -100 | ** | ** |
| Khunti | 0.0 | -100 | 14.0 | 4567 | 0.0 | -100 |
| Koderrna | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Latehar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lohardagga | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Pakur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Palamau | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ramgarh | 0.0 | -100 | 0.0 | -100 | ** | ** |
| Ranchi | 0.0 | -100 | 0.1 | -87 | 0.0 | -100 |
| Sahebganj | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Saraikela | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Simdega | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Singbhum | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Rajasthan | | | | | | |
| Ajmer | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Alwar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Banswara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Baran | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bharatpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhilwara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bundi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chittorgarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dausa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dholpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dungarpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jaipur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jhalawar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jhunjhunu | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Karauli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kota | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Pratapgarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rajsamand | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sawai Madhopur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

| | | | | | | |
|-----------------------------|-----|------|-----|------|-----|------|
| Sikar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sirohi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tonk | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Udaipur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Rajasthan | | | | | | |
| Barmer | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bikaner | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Churu | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hanumangarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jaisalmer | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jalore | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jodhpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nagaur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Pali | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sri Ganganagar | 0.0 | -100 | 0.0 | -100 | 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 | 0.0 | -100 | 0.0 | -100 |
| Broach | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| DNH | ** | ** | ** | ** | ** | ** |
| Dahod | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Daman | 0.0 | -100 | ** | ** | ** | ** |
| Dangs | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gandhinagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kheda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mehsana | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Narmada | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Navsari | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Panchmahal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Patan | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sabarkantha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Surat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tapi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Valsad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| S K & Diu region | | | | | | |
| Amreli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhavnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Diu | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jamnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Junagarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kutch | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Porbandar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rajkot | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Surendranagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Maharashtra | | | | | | |
| Konkan & Goa | | | | | | |
| Mumbai City | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

| | | | | | | |
|---------------------------|------|------|------|------|-----|------|
| Mumbai Suburban | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| North Goa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Raigad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ratnagiri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sindhudurg | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| South Goa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Thane | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Madhya Maharashtra | | | | | | |
| Ahmednagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dhule | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jalgaon | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kolhapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nandurbar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nasik | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Pune | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sangli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Satara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Solapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Marathwada | | | | | | |
| Aurangabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Beed | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hingoli | 0.0 | -100 | ** | ** | ** | ** |
| Jalna | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Latur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nanded | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Usmanabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Parbhani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Vidarbha | | | | | | |
| Akola | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Amraoti | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhandara | 0.0 | -100 | 2.2 | 172 | 0.0 | -100 |
| Buldhana | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chandrapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gadchiroli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gondia | 0.0 | -100 | 2.3 | 158 | 0.0 | -100 |
| Nagpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Wardha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Washim | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Yeotmal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Odisha | | | | | | |
| Angul | 17.7 | 2423 | 8.7 | 2070 | 0.0 | -100 |
| Balasore | 10.0 | 259 | 5.3 | 967 | 0.2 | -91 |
| Bargarh | 1.9 | 37 | 5.4 | 569 | 0.0 | -100 |
| Bhadrak | 0.9 | -49 | 5.0 | 200 | 0.5 | 21 |
| Bolangir | 6.2 | 208 | 2.8 | 1322 | 0.0 | -100 |
| Boudh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Cuttack | 5.4 | 168 | 5.6 | 2688 | 0.0 | -100 |
| Deogarh | 18.2 | 1038 | 10.7 | 5267 | 0.0 | -100 |
| Dhenkanal | 11.0 | 684 | 12.3 | 1432 | 0.0 | -100 |

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|--|------|------|------|-------|------|------|
| Gajapati | 8.0 | 166 | 12.8 | 1500 | 0.0 | -100 |
| Ganjam | 16.8 | 573 | 3.0 | 334 | 2.3 | 134 |
| Jagatsingpur | 1.1 | -82 | 3.0 | 890 | 0.0 | -100 |
| Jajpur | 5.5 | 118 | 6.5 | 617 | 0.0 | -100 |
| Jharsuguda | 11.1 | 594 | 13.8 | 2657 | 0.6 | -76 |
| Kalahandi | 8.3 | 313 | 0.0 | -100 | 0.0 | -100 |
| Kandhamal | 18.0 | 681 | 3.5 | 200 | 0.0 | -100 |
| Kendrapara | 0.0 | -100 | 0.3 | 186 | 0.0 | -100 |
| Keonjhar | 11.4 | 571 | 13.1 | 673 | 0.3 | -48 |
| Khurda | 0.7 | -53 | 5.2 | 296 | 0.0 | -100 |
| Koraput | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Malkangiri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mayurbhanj | 5.8 | 116 | 17.2 | 2770 | 2.3 | 33 |
| Nawapara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nawarangpur | 8.6 | 2775 | 0.0 | -100 | 0.0 | -100 |
| Nayagarh | 20.5 | 2829 | 9.5 | 1483 | 0.0 | -100 |
| Puri | 0.0 | -100 | 32.8 | 32728 | 0.2 | -76 |
| Rayagada | 4.2 | 180 | 5.0 | 1153 | 0.0 | -100 |
| Sambalpur | 0.7 | -57 | 13.4 | 6588 | 0.4 | -69 |
| Sonepur | 10.3 | 392 | 3.2 | 200 | 0.0 | -100 |
| Sundargarh | 3.3 | 136 | 9.6 | 3097 | 1.4 | -17 |
| West Bengal & Andaman Nicobar Islands | | | | | | |
| A & N ISLAND | | | | | | |
| Nicobar | 96.3 | 57 | 0.0 | -100 | 10.3 | -74 |
| North & Middle Andaman | 0.0 | -100 | 0.9 | -79 | 0.9 | -95 |
| South Andaman | 0.1 | -99 | 2.9 | -76 | 4.0 | -78 |
| GWB | | | | | | |
| Bankura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Birbhum | 0.0 | -100 | 0.1 | -31 | 0.0 | -100 |
| Burdwan | 0.0 | -100 | 0.6 | 200 | 0.0 | -100 |
| East Midnapore | 12.1 | 147 | 3.6 | 3475 | 1.0 | -35 |
| Hooghly | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Howrah | 0.0 | -100 | 2.0 | 82 | 0.0 | -100 |
| Kolkata | 0.0 | -100 | 0.3 | -50 | 0.0 | -100 |
| Murshidabad | 0.0 | -100 | 1.0 | 400 | 0.0 | -100 |
| Nadia | 0.0 | -100 | 2.2 | 200 | 0.0 | -100 |
| 24 Pargana (N) | 0.0 | -100 | 9.1 | 2942 | 0.0 | -100 |
| Purulia | 0.2 | -85 | 0.0 | -100 | 0.2 | -96 |
| 24 Pargana (S) | 0.4 | -90 | 2.6 | 777 | 0.0 | -100 |
| West Midnapore | 1.5 | -23 | 4.9 | 1523 | 0.0 | -99 |
| SHWB & Sikkim | | | | | | |
| Cooch Behar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Darjeeling | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Sikkim | 0.0 | -100 | 0.1 | -98 | 0.0 | -100 |
| Jalpaiguri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Malda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| North Dinajpur | ** | ** | ** | ** | ** | ** |
| North Sikkim | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|--------------------------|------|------|------|------|-----|------|
| South Dinajpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| South Sikkim | 0.0 | -100 | 2.5 | -13 | 0.0 | -100 |
| West Sikkim | 1.0 | -74 | 1.5 | -73 | 0.0 | -100 |
| Karnataka | | | | | | |
| Coastal Karnataka | | | | | | |
| Dakshina Kannada | 19.4 | 217 | 0.0 | -100 | 0.0 | -100 |
| Udupi | 1.5 | -79 | 0.0 | -100 | 0.0 | -100 |
| Uttara Kannada | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| N I Karnataka | | | | | | |
| Bagalkote | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Belagavi | 1.2 | -49 | 0.0 | -100 | 0.0 | -100 |
| Bidar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dharwad | 0.9 | -65 | 0.0 | -100 | 0.0 | -100 |
| Gadag | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Haveri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kalaburgi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Koppal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Raichur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Vijayapura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Yadgir | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| S I Karnataka | | | | | | |
| Ballari | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bangalore Rural | 0.2 | -95 | 0.0 | -100 | 0.0 | -100 |
| Bangalore Urban | 0.2 | -95 | 0.0 | -100 | 0.0 | -100 |
| Chamarajanagar | 0.1 | -99 | 0.0 | -100 | 0.0 | -100 |
| Chikaballapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chikkamagaluru | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chitradurga | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Davangere | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hassan | 0.7 | -82 | 0.0 | -100 | 0.0 | -100 |
| Kodagu | 9.9 | 44 | 0.0 | -100 | 0.0 | -100 |
| Kolar | 1.6 | -72 | 0.0 | -100 | 0.0 | -100 |
| Mandya | 2.0 | -54 | 0.0 | -100 | 0.0 | -100 |
| Mysuru | 2.3 | -32 | 0.0 | -100 | 0.0 | -100 |
| Ramanagara | 0.3 | -95 | 0.0 | -100 | 0.0 | -100 |
| Shivamogga | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tumakuru | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kerala | | | | | | |
| Alappuzha | 59.7 | 448 | 17.0 | 155 | 0.2 | -97 |
| Kannur | 3.0 | -57 | 4.3 | 169 | 0.0 | -100 |
| Ernakulam | 98.2 | 673 | 13.3 | 141 | 0.0 | -99 |
| Idukki | 48.9 | 362 | 1.4 | -82 | 0.2 | -96 |
| Kasaragod | 0.1 | -98 | 0.0 | -100 | 0.0 | -100 |
| Kollam | 18.0 | 68 | 2.3 | -73 | 2.0 | -78 |
| Kottayam | 64.2 | 583 | 11.6 | 75 | 0.0 | -100 |
| Kozhikode | 6.9 | -17 | 0.0 | -100 | 0.0 | -100 |
| Malappuram | 30.1 | 307 | 0.0 | -100 | 0.0 | -100 |
| Palakkad | 28.8 | 372 | 0.0 | -100 | 0.0 | -100 |
| Pathanamthitta | 62.1 | 422 | 3.1 | -40 | 0.1 | -99 |

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|-------------------------------|------|------|------|------|------|------|
| Thiruvananthapuram | 65.0 | 447 | 18.5 | 49 | 0.3 | -96 |
| Thrissur | 48.3 | 601 | 2.6 | -11 | 0.0 | -100 |
| Wayanad | 28.2 | 292 | 1.2 | -45 | 0.0 | -100 |
| Tamil Nadu | | | | | | |
| Ariyalur | 10.7 | -62 | 1.1 | -97 | 0.0 | -100 |
| Chennai | 1.8 | -95 | 0.0 | -100 | 0.0 | -100 |
| Coimbatore | 9.4 | -31 | 0.0 | -100 | 0.0 | -100 |
| Cuddalore | 24.9 | -41 | 0.0 | -100 | 0.0 | -99 |
| Dharmapuri | 5.0 | -59 | 0.0 | -100 | 0.0 | -100 |
| Dindigul | 17.1 | -18 | 2.4 | -84 | 0.0 | -99 |
| Erode | 5.2 | -48 | 0.0 | -100 | 0.0 | -100 |
| Kanchipuram | 7.3 | -79 | 0.0 | -100 | 0.0 | -100 |
| Kanyakumari | 24.2 | 88 | 42.6 | 238 | 0.9 | -89 |
| Karikal | 16.1 | -76 | 3.1 | -96 | 3.8 | -92 |
| Karur | 1.2 | -88 | 1.1 | -87 | 0.0 | -100 |
| Krishnagiri | 1.5 | -82 | 0.0 | -100 | 0.0 | -100 |
| Madurai | 8.9 | -43 | 8.4 | -15 | 0.1 | -99 |
| Nagapattinam | 27.8 | -48 | 11.9 | -78 | 0.0 | -99 |
| Namakkal | 0.9 | -89 | 0.0 | -100 | 0.0 | -100 |
| Nilgiris | 15.0 | -24 | 0.2 | -97 | 0.0 | -100 |
| Perambalur | 3.2 | -86 | 0.0 | -100 | 0.0 | -100 |
| Puducherry | 4.5 | -91 | 0.0 | -100 | 0.0 | -100 |
| Pudukottai | 7.6 | -64 | 14.9 | -18 | 0.0 | -100 |
| Ramanathapuram | 14.0 | -40 | 20.6 | -18 | 43.8 | 124 |
| Salem | 6.9 | -52 | 0.0 | -100 | 0.0 | -100 |
| Sivaganga | 20.4 | 3 | 19.5 | 30 | 1.4 | -92 |
| Thanjavur | 17.5 | -38 | 1.9 | -93 | 0.0 | -100 |
| Theni | 14.6 | 1 | 2.9 | -65 | 0.0 | -100 |
| Tirunelveli | 54.2 | 119 | 61.1 | 192 | 29.2 | 75 |
| Tirupur | 1.1 | -90 | 0.0 | -100 | 0.0 | -100 |
| Tiruvallur | 1.2 | -96 | 0.0 | -100 | 0.2 | -98 |
| Tiruvannamalai | 6.3 | -72 | 0.0 | -100 | 0.0 | -100 |
| Tiruvarur | 55.3 | 39 | 4.8 | -87 | 0.0 | -100 |
| Toothukudi | 46.8 | 138 | 58.7 | 219 | 14.5 | 5 |
| Trichy | 3.2 | -80 | 1.2 | -91 | 0.0 | -100 |
| Vellore | 1.5 | -91 | 1.0 | -80 | 0.0 | -100 |
| Villupuram | 10.4 | -66 | 0.0 | -100 | 0.0 | -100 |
| Virudhunagar | 25.3 | 47 | 31.9 | 207 | 2.2 | -80 |
| Andhra Pradesh | | | | | | |
| Coastal Andhra Pradesh | | | | | | |
| East Godavari | 0.0 | -100 | 0.0 | -100 | 1.1 | 42 |
| Guntur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Krishna | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nellore | 0.6 | -98 | 0.0 | -100 | 0.0 | -100 |
| Prakasam | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sirkakulam | 0.0 | -100 | 6.7 | 863 | 8.9 | 1688 |
| Visakhapatnam | 0.0 | -100 | 2.5 | 1132 | 0.4 | -33 |
| Vizianagram | 0.0 | -100 | 2.4 | 1122 | 0.1 | -91 |
| West Godavari | 0.0 | -100 | 0.0 | -100 | 0.2 | -89 |

| | | | | | | |
|--------------------|-----|------|-----|------|-----|------|
| Rayalaseema | | | | | | |
| Anantapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chittoor | 0.0 | -99 | 0.0 | -100 | 0.0 | -99 |
| Cuddapah | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kurnool | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Telangana | | | | | | |
| Adilabad | 0.0 | -100 | 0.4 | -27 | 0.0 | -100 |
| Hyderabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Karimnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Khammam | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mehabubnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Medak | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nalgonda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nizamabad | 0.6 | -35 | 0.0 | -100 | 0.0 | -100 |
| Rangareddy | 0.0 | -95 | 0.0 | -100 | 0.0 | -100 |
| Warangal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
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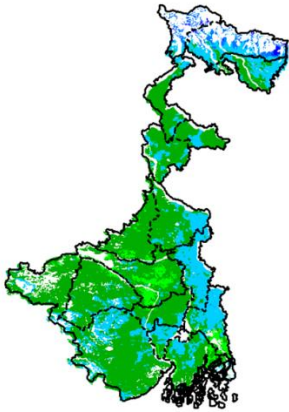
Legends

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

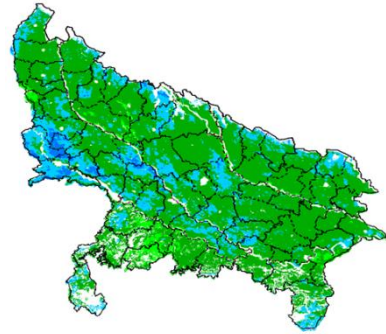
**INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
30th December 2015 FOR DIFFERENT STATES**

West Bengal



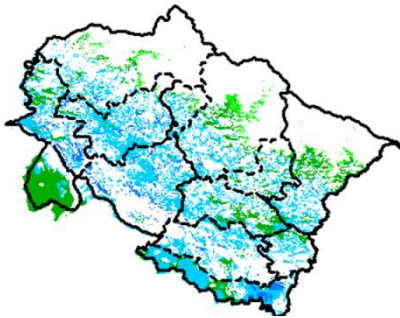
Agricultural vigour is good in South-eastern and Northern part of West Bengal where NDVI is varying from 0.4-0.6, whereas rest of the state shows moderate NDVI (0.2-0.4).

Uttar Pradesh



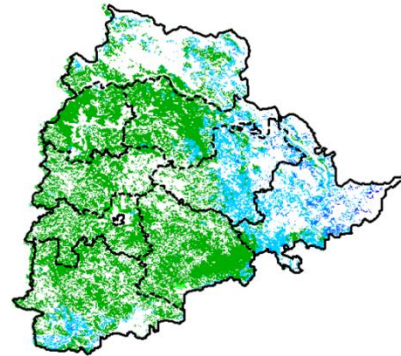
Agricultural vigour is moderate over the entire state of Uttar Pradesh where NDVI value varies from 0.2 -0.4. whereas few patches in north-western part shows higher values of NDVI (0.4-0.5)

Uttarakhand



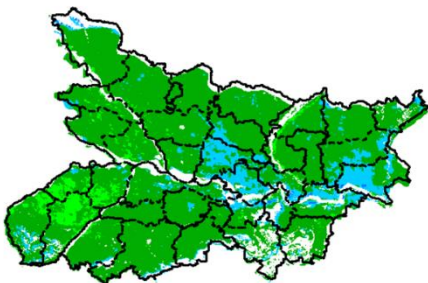
Agricultural vigour is good over entire state of Uttarakhand where NDVI is varying from 0.4-0.5, whereas few patches in southwest shows moderate values of NDVI (0.3-0.4).

Telangana



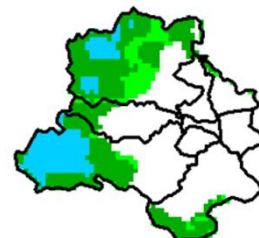
Agriculture vigour is good over South and Eastern parts of Telangana (NDVI 0.4-0.6). Rest of the region shows moderate values of NDVI (0.3-0.4)

Bihar



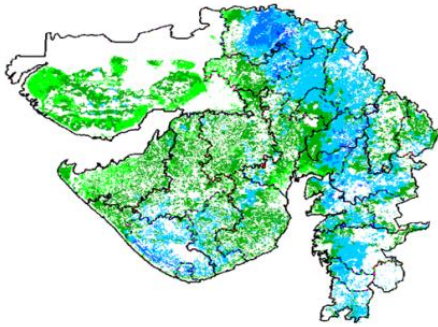
Agriculture vigour is Moderate all over Bihar where NDVI value lies between 0.2-0.4. Except very few patches in eastern parts of state vary from 0.4-0.5.

Delhi



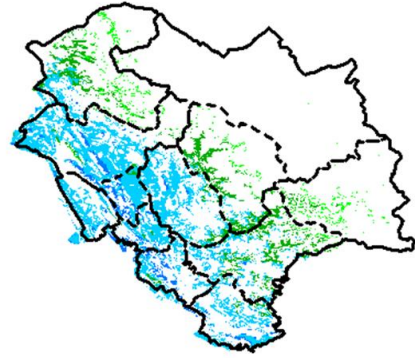
Agriculture vigour is moderate all over Delhi where NDVI value lies between 0.2-0.3, whereas few patches over west shows good values of NDVI (0.4 – 0.5).

Gujarat



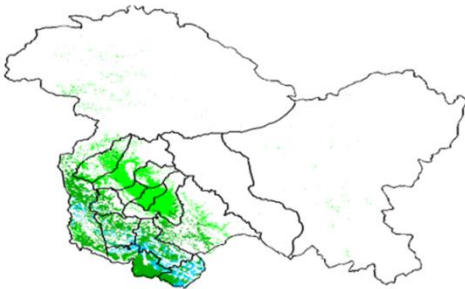
Agriculture vigour is moderate in Kutch and Saurashtra whereas, good agricultural vigour is observed over Gujarat region where NDVI values lies between 0.4-0.6.

Himachal Pradesh



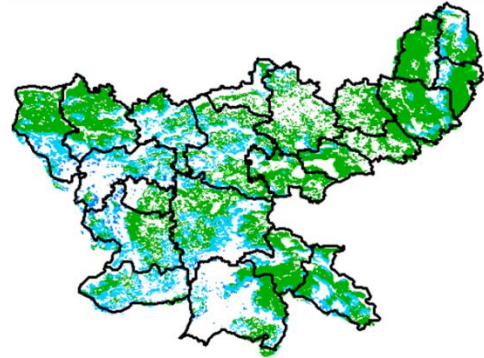
Agriculture vigour is good over western and southern part of Himachal Pradesh where NDVI values are 0.4 – 0.5, whereas rest of the state shows moderate values of NDVI.

Jammu & Kashmir



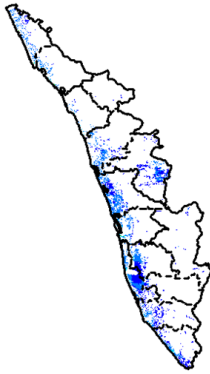
Agriculture vigour is Normal over entire state of Jammu & Kashmir where NDVI values are 0.2 – 0.4.

Jharkhand



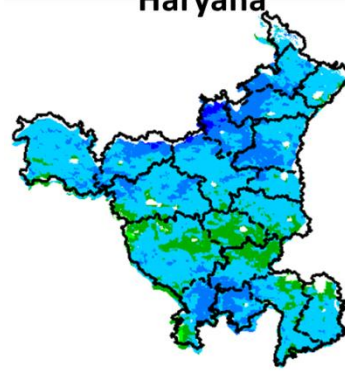
Agriculture vigour is good over western part of the Jharkhand where NDVI values vary from 0.4 - 0.5, whereas rest of the state shows moderate values of NDVI (0.3-0.4).

Kerala



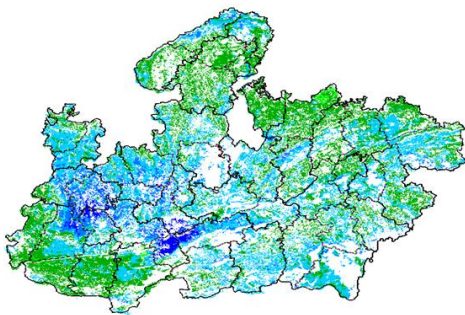
Agriculture vigour is good over entire state of Kerala where NDVI value lies between 0.5-0.6.

Haryana



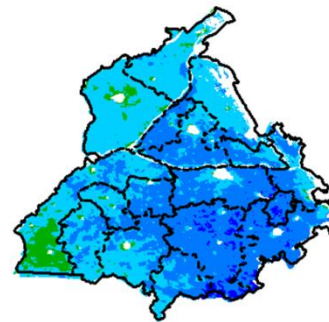
Agriculture vigour is good over northern, southern and western part of Haryana where NDVI value lies between 0.4 – 0.6. whereas central part shows moderate values of NDVI (0.3-0.4)

Madhya Pradesh



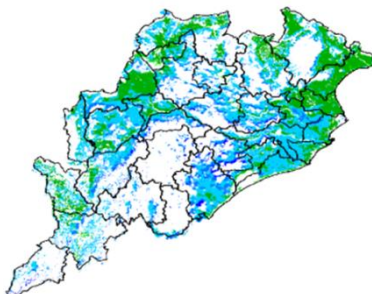
Agriculture vigour is good over western and eastern part of Madhya Pradesh where NDVI varies from 0.4-0.6 and rest of the part shows moderate values of NDVI (0.2 – 0.4).

Punjab



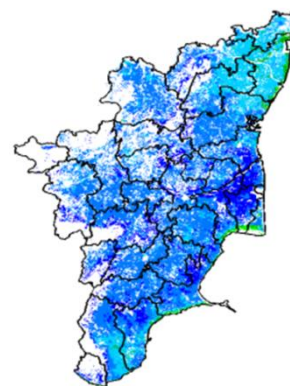
Agricultural vigour is very good over central, eastern and southern part of Punjab where NDVI value lies between 0.4-0.6. Whereas western part shows moderate values of NDVI (0.3-0.4).

Odisha



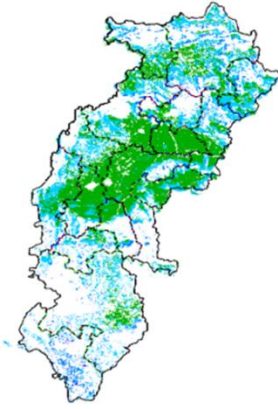
Agricultural vigour is good over central and southern part of Odisha with NDVI value ranging between 0.4 – 0.6 . North eastern part shows moderate values of NDVI (0.3-0.4).

Tamil Nadu



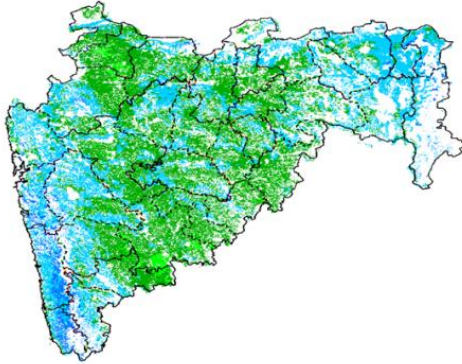
Agricultural vigour is very good over entire state of Tamilnadu where NDVI values lies between 0.5-0.6, whereas few patches in northern part shows good values of NDVI (0.4-0.5).

Chhattisgarh



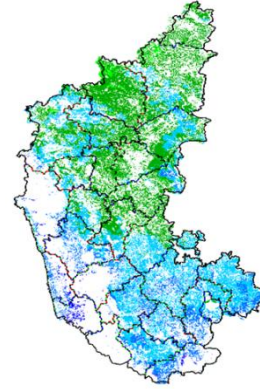
Agriculture vigour is good in northern and southern parts of Chhattisgarh where NDVI values are between 0.4-0.5 except central part which shows moderate values of NDVI.

Maharashtra



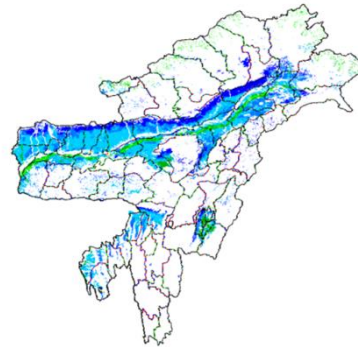
Agricultural vigour is good over Coastal Maharashtra and Vidarbha region with NDVI values from 0.4-0.6, whereas Moderate values of NDVI are observed over Madhya Maharashtra and Marathwada region (0.2-0.4).

Karnataka

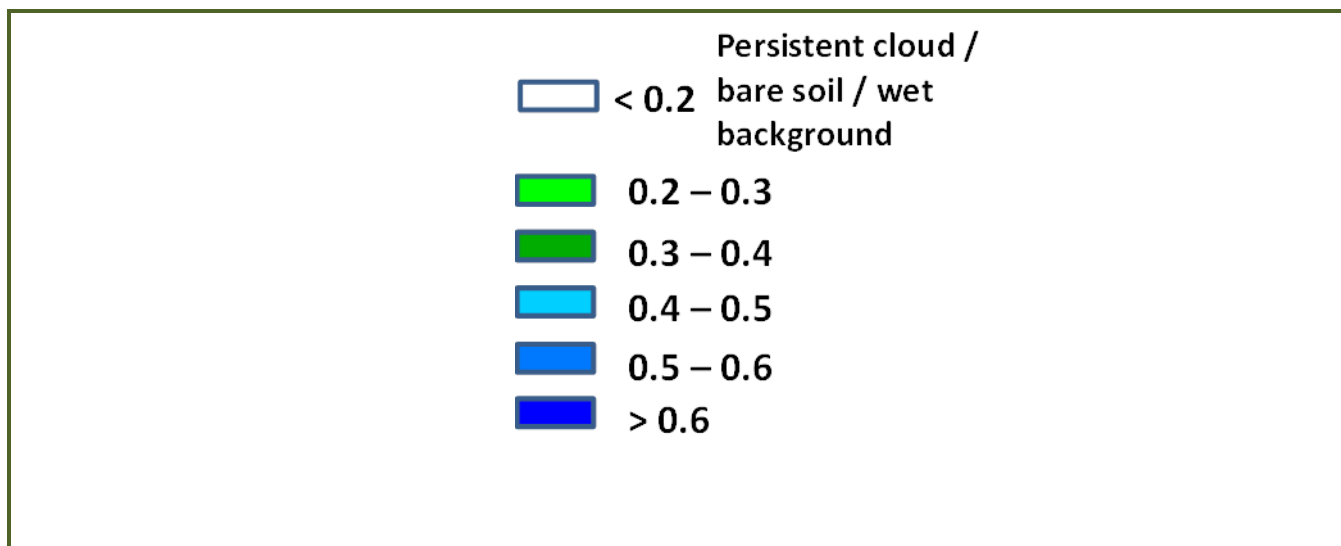


Agriculture vigour is good over entire state of Karnataka where NDVI value lies between 0.4-0.6 except few patches in northern part shows moderate values of NDVI (0.2 -0.4).

North East Region



Agriculture vigour is good over entire states of North-East region where NDVI varies from 0.4-0.6.



Annexure III

List of varieties

North Inerior Karnataka

Pearl millet: ICTP 8203 and ICMV 221.

Horse gram :KBH-1, PHG-9.

Rabi sorghum :Maldandi and Mugati.

Bengal gram: JJ-11, KAK-2 and Vishal, JG-11, Annigeri-1.

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.

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,Aprnaharajan 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, Alphanso 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 Etc.

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

Wheat: Narendra-1012, H.D.-2733, H.P.-1731, U.P.-2382, Malvia-234, H.P.-1633, H.-1744, Narendra-1014, U.P.-2425, K-8962,K-9465, Malvia-533, K-9391, H.D.- 2888.
Maize: P.M.H.-3, Dakkan-105, Shaktiman-1, X-1382(3054), K.H.-5981, K.H.-5991, Dhawal, Sharadmani, Shakti-1.
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: pusaDipali.
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: Pusa Sawani, Varsa Uphar, Azad kranti.

Brinjal: Pant Samrat, Pant Rituraj, Pusa hybrid-6.

Guava: Sardar (Lucknow-49).

Kabuli gram: chatmatkar, Pusa-1003, Subhra, H.K.-94-134,

Gram: Ta-3, Radhe K-850, Pant, Kabuli, Avarodhi, Pusa-256, K.W.R.-108, D.C.P.92-3, Adhar(R.S.G.-936), W.C.G.-1, W.C.G.-2, K.G.D.-1168;

Pea: Rachna, Pantmatar-5, Aparna, Malviya Matar-2, Malviya Matar-15, Shikha and Sapna(K.P.M.R.-144-1), Ta-163, Jay(K.P.M.R.522), Hariyal, Pant P-42, Aman 2009;

Cabbage: Japani, Pusa Dieepali, Pusa Kartiki

Toria: TA-9, Bhawani, PT-30 and PT-507

Potato: Kufri Chandramukhi, Kufri Sadabahar, Kufri Ashoka, Kufri Jawahar, Kufri Lalima, Kufri Bahar, Kufri Badshah, Kufri Satlaj, Kufri Anand, Kufri Chipsona-1, Kufri Chipsona-3, Kufri Sinduri, Kufri Surya.

Mustard: Narendra geti rai-4, Varuna (T-59), basti (pili), maya, narendra suvarna-rai-8(pili), narendra rai (N.D,R,-8501), Aashirwaad, Vardan, Vaibhav, Maya, rohini, Kanti, Krushna.

Lentil: Ta-8, Pant L-406, and 234.

West Uttar Pradesh

Ladies finger: VRO-6, VRO-5.

Pigeon pea: T-21, UPAS 120.

Cotton: H777, Dhanalakshami, HD107.

fodder Jowar: JS 120, Lobia 88.

Gram: P.D.G.-3, G.P.F.-2, C-235, Gaurav, KGD-1168, J.G.-16, Avrodhi, pusa-256, K.W.R.-108, D.P.C.-92-3, K-850.

Sugarcane: ko.sha 88230, ko.sha 8436, ko 0238, ko.sha 07250 or U.P. 0512.

Barseem: V.L.1, V.L.10, maskavi, jai, K-8027, K-9565, Mandakini.

Onion: pusa red, pusa white.

Mustard: Narendra geti rai-4, Varuna (T-59), basti (pili), maya, narendra suvarna-rai-8(pili), narendra rai (N.D,R,-8501), Aashirwaad, Vardan, Vaibhav, Maya, rohini, Kanti, Krushna.

Jou: Manjula, Jagruti, Gitanjali.

Vegetable Pea: Azad P-3, arkil, Jai, Indra, Prakash.

Lentil: KLB-320, K-75, DPL-62.

Linseed: Padmini, Sharda, Laxmi, mau, Azad-, K-2, L.C.-2023, L.C.-74

Punjab

Wheat: PBW 621, DBW 17, PBW 550, PBW 502, PBW 343, WH 542, PDW 291, PDW 274 and PDW.

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 Mithi Phali, 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, Gobhisarson 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.

Tomato: TH-1, Punjab Ratta, Punjab NR 7, Punjab Chhuhara, Punjab Upma, Castle Rock.

Delhi

Wheat: H.D. 2687, H.D. 2851, H.D. 2894, H.D. 2967, D.B.W.-17.

Gram: Kabuli type - Pusa 267, Pusa 1003, Pusa Chatmatkar; local type - C235, Pusa 246, P.B.G. 1, Pusa 372.

Oat : J.H.O-822, O.L.-9, Pusa oat-5.

Barseem: Vardan, Buland Barseem-1, Masakavi, J.B-3.

Lentil: Pusa Masoor -5 (L-4594).

Sarso: Pusa Saag-1; Bathua- Pusa Bathua-1.

Mustard: Pusa Sarson-25, Pusa Sarson-26, Pusa Agrni, Pusa Taraka and Pusa Mahak, 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: Japani White, Hill queen, French Radish.

Spinach: Pusa Bharti.

Amaranth: Pusalal Chaulai, Pusa Kiran.

Ladyfinger: Pusa A-4.

Early potato:KufriBadshah, Kufri Surya.
Pea:Azad Matar-1, Pant Matar-3 and Bournville.
Carrot:PusaMridula, Japanese White and Pusa Himani.
Radish:Japani White, Hill queen, French Radish.
Spinach:All Green, PusaBharti.
Fenugreek:PusaKasuri.
Coriander:PantHaritama, Hybrids.
Turnip:Pusa Swati, Local Red variety.

West Rajasthan

Wheat:Raj3077,3765,4037,4083, Raj 1482 (suitable for heavy soils), Raj 4120.
Isabgol : RI 89 & GI-2.
Fenugreek :RMt 1 &RMt 305.
Barley: RD 2052, RD 2035 (suitable for saline and alkali soils) and RD 2715 (dual purpose),RD2058,2503,103,NDB1173.
cumin: GC 4, RZ -19, RZ 223, RZ19,209,223and GC4b.
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.

East Rajasthan

Radish: PusaChetki,Japanese white & hill queen.
Carrot: Pusa Keshar.
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-888,895 (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.
Opium poppy:Chetak
Lucerne :Anand-2, LLC-3, RL-88 & Type-9.
Berseem:Muskavivardan and PusaJiant.
Wheat:Raj-1482, Raj-3077, Raj-4037, HI-8627, HI-1544, MPO-1215, MP-3288, Lok-1, GW-190, GW-322 and GW-273. forunirrigated wheat are HI-1500 and HI-1531.
Barley : RD-2552, RD-2052, RD-2035, RD-2503, RD-2715, RD-2660 and Jyoti.

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.
Gram: Vijay, Vishal, Digvijay
Safflower: Bhima, Phule Kusuma, Sharada, Girna or D.S.H. 129
Wheat: NIAW-301 (Trimbak), NIAW-917 (Tapowan), NIDW-295 (Godavari), Late sowing- NIDW-15 (Panchavati), Irrigated- NIAW-34.

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.
Wheat: N 59, NI 5439, AKDW 299716, MACS 1967.

Konkan

Groundnut: TG-26, TAG-24, TPG-41, Konkan Gaurav, KonkanTapora .
Mustard: Pusa bold, Varuna.

Sunflower: Modern, S.S.56, B.S.H – 1.

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.

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.

Chickpea: KAK 2, JGK 1.

Lentil: RVL 31, JL 2.

Mustard: RVM 2, RGN 73, Pusa Jai Kisan.

Chhattisgarh:

Wheat: Lok-1, W.H. 147, Kanchan & Raj(irrigated).

C 308, Sujata, H.W. 2004, Ratan, H.I.-8627 & H.I. 1531 (Partially irrigated).

Linseed: R.L.C. 92 (Indira Alsi), Dipika (R.L.C.-78), Indira Alsi (R.L.C.-81), Kartika (R.L.C.-76), Jawahar 552 (R.L.C.-552), Kiran (R.L.C.-6).

Safflower: J.S.F.-1, J.S.I-7, J.S.H.-129.