



National Agromet Advisory Service Bulletin



Friday 2nd December 2016

(For the period 2nd to 6th December 2016)



Issued by

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

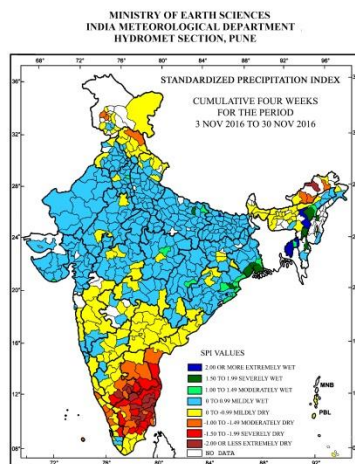
Weblink For

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

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

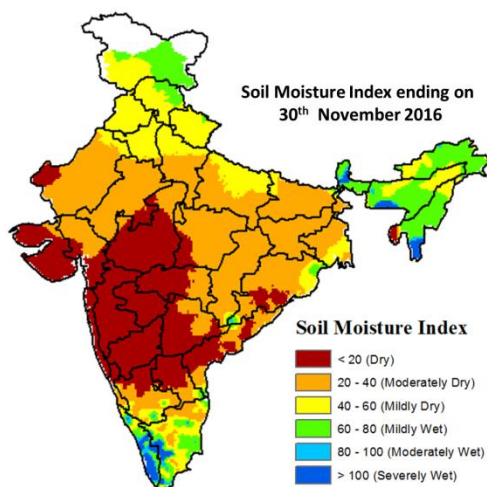
Northeast Monsoon watch: Northeast monsoon rainfall activity over southeast India continues to remain subdued.

Standardised Precipitation Index Four Weekly for the period 3rd November to 30th November 2016



- Extremely/severely wet conditions experienced in most districts of Tripura; few districts of Assam; Howrah, East Midnapore, Kolkata districts of West Bengal; Jajpur district of Odisha; Sheohar district of Bihar; Sant Kabir Nagar district of Uttar Pradesh.
- Extremely/Severely dry conditions experienced in many districts of Tamil Nadu & Puducherry; Upper Subansiri district of Arunachal Pradesh; Chittoor, Nellore districts of Andhra Pradesh; Bangalore Rural, Bangalore Urban, Chamarajanagar, Kolar, Mandya, Mysore districts of Karnataka; Idukki district of Kerala.
- Moderately dry conditions experienced in few districts of Arunachal Pradesh; Lahaul & Spiti district of Himachal Pradesh; Baramula, Badgam districts of Jammu & Kashmir; Prakasam, Anantapur, Cuddapah districts of Andhra Pradesh; Dindigul, Erode, Nagapattinam, Perambalur, Theni, Tiruvarur, Karaikal districts of Tamil Nadu & Puducherry; Tumkur, Ramanagara, Chickballapur districts of Karnataka; Kozhikode, Malappuram, Thrissur, Kasargod districts of Kerala; Lakshadweep district of Lakshadweep.
- Rest of the country experienced moderately wet/mildly dry/mildly wet conditions.

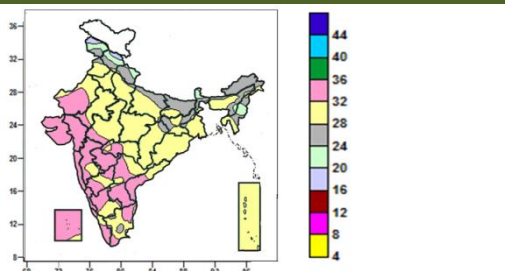
Soil Moisture Index for the week ending on 30th November 2016



- Soil moisture index indicates severely and moderately wet condition in many parts of Kerala and some parts of Tamil Nadu and North-East Region. Mild wet condition in many parts of North-East Region, West Bengal and some parts of Himachal Pradesh, Jammu & Kashmir, Odisha, Tamil Nadu, South Interior Karnataka and Kerala. Mild dry condition in Punjab, many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Haryana & Delhi and some parts of Uttar Pradesh, Tamil Nadu, North-East Region, West Rajasthan, West Bengal and Odisha. Rest of the country shows Moderate dry and dry condition.

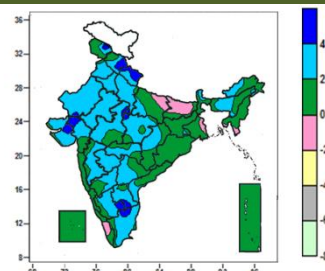
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 30.11.2016

Actual Mean Maximum Temperature (°C) in India for the week ending 30.11.2016



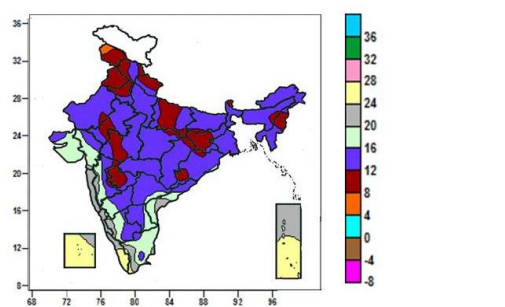
- Mean maximum temperature was between 32 to 36°C over Gujarat, Konkan & Goa, Coastal Karnataka, many parts of Madhya Maharashtra, Marathwada, Rayalaseema, West Rajasthan, Interior Karnataka, Coastal Andhra Pradesh, Telangana, Lakshadweep, Kerala, some parts of East Rajasthan, West Madhya Pradesh, Vidarbha, Tamil Nadu.
- Mean maximum temperature was between 24 to 32°C over rest of the Country except many parts of Jammu & Kashmir, Himachal Pradesh, Manipur, some parts of Uttarakhand, Sub-Himalayan West Bengal & Sikkim and isolated pockets of Assam and Nagaland, where it was between 16 to 24°C.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 30.11.2016



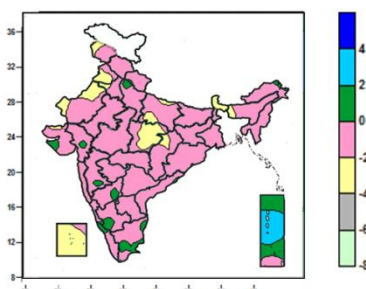
- Mean maximum temperature was above normal by 4°C over some parts of Jammu & Kashmir, Uttarakhand, Gujarat, Himachal Pradesh, Madhya Pradesh, Rayalaseema, Tamil Nadu, South Interior Karnataka and isolated pockets of West Rajasthan and West Uttar Pradesh.
- Mean maximum temperature was above normal by 2 to 4°C over Haryana & Delhi, East Rajasthan, Marathwada, many parts of West Rajasthan, Punjab, West Uttar Pradesh, Madhya Pradesh, Madhya Maharashtra, Vidarbha, Gujarat, Interior Karnataka, Rayalaseema, Telangana, Tamil Nadu, some parts of Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Chhattisgarh, Sikkim, Arunachal Pradesh, Assam & Meghalaya, Coastal Andhra Pradesh and isolated pockets of Jammu & Kashmir, Sub-Himalayan West Bengal, Jharkhand,
- It was normal to near normal over rest of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 30.11.2016



- Mean minimum temperature was between 4 to 8°C over isolated pocket of Jammu & Kashmir.
- Mean minimum temperature was between 8 to 12°C over Punjab, many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Haryana & Delhi, Jharkhand, Nagaland, Manipur, Marathwada, some parts of East Rajasthan, West Madhya Pradesh, Odisha, and isolated pockets of Chhattisgarh, West Rajasthan, East Madhya Pradesh, Assam, Madhya Maharashtra, Bihar.
- Mean minimum temperature was between 12 to 20°C over rest of the country except Lakshadweep, Andaman & Nicobar Islands, Konkan & Goa, Coastal Karnataka, Kerala, some parts of Tamil

Mean Minimum Temperature (°C) Anomaly in India for the week ending 30.11.2016

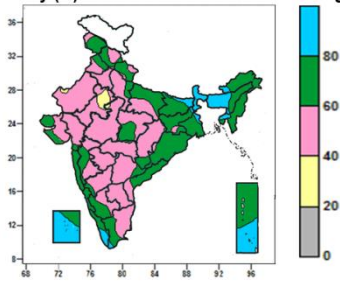


- Mean minimum temperature was above normal by 2 to 4°C over many parts of Andaman & Nicobar Islands.
- Mean minimum temperature was normal to near normal over rest of the country except Sikkim, many parts of East Madhya Pradesh, Punjab, Lakshadweep, some parts of Jammu & Kashmir, East Uttar Pradesh, Chhattisgarh, Sub-Himalayan West Bengal, Assam and isolated pockets of Kutch where it was below normal by -2 to -4°C.

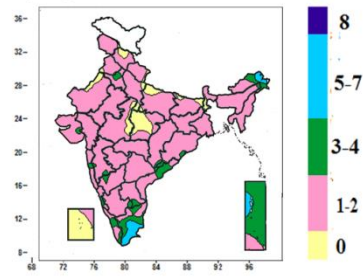
Nadu, Coastal Andhra Pradesh, South Interior Karnataka and isolated pocket of Gujarat Region, where it was between 20 to 28⁰C.

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 30.11.2016

Relative Humidity (%) over India for the week ending 30.11.2016



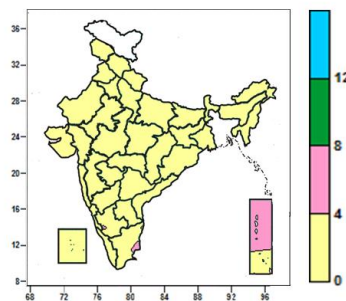
Cloud amount (okta) over India for the week ending 30.11.2016



- Mean Relative Humidity was above 80% over Sub Himalayan West Bengal & Sikkim, many parts of Assam & Meghalaya, Tripura, Lakshadweep, some parts of Bihar, Kerala, Andaman & Nicobar Islands and isolated pockets of Arunachal Pradesh, Jharkhand, Gangetic West Bengal and Tamil Nadu.
- Mean Relative Humidity was between 60 to 80% over Nagaland, Manipur, Mizoram, Konkan & Goa, Coastal Karnataka, many parts of Arunachal Pradesh, Assam, Bihar, Jharkhand, Gangetic West Bengal, Odisha, East Uttar Pradesh, Jammu & Kashmir, Uttarakhand, Coastal Andhra Pradesh, Kerala, South Interior Karnataka, East Madhya Pradesh, Andaman & Nicobar Islands, some parts of Punjab, Himachal Pradesh, West Uttar Pradesh, Gujarat, Madhya Maharashtra, North Interior Karnataka, Telangana, Chhattisgarh, Lakshadweep, Tripura.
- Mean Relative Humidity was between 40 to 60% over rest of the Country except some parts of East Rajasthan and isolated West Rajasthan and West Madhya Pradesh.

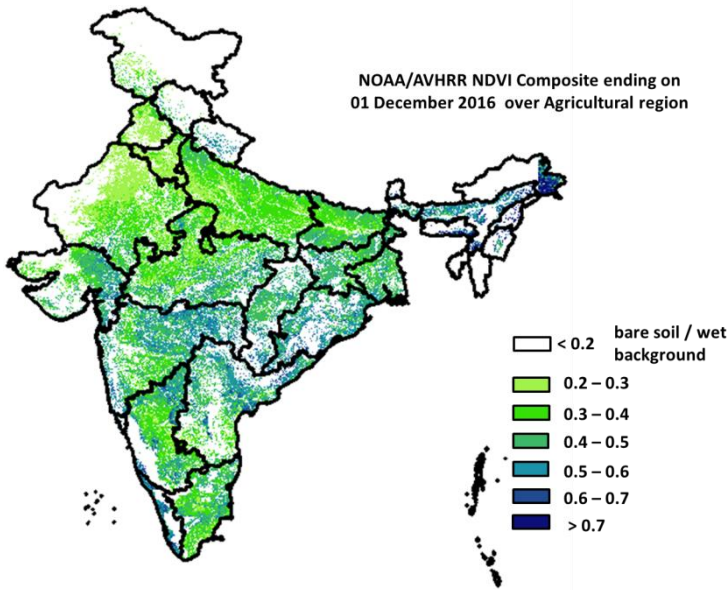
- Sky remained generally cloudy (5-7okta) over some parts Tamil Nadu and isolated pockets of Arunachal Pradesh and Andaman & Nicobar Islands.
- Sky remained partly cloudy (3-4 okta) over many parts of Andaman & Nicobar Islands, some parts of Arunachal Pradesh, Coastal Andhra Pradesh, Tamil Nadu and isolated pockets of Haryana, Saurashtra, Konkan, Madhya Maharashtra, Karnataka, Telangana, Kerala, Rayalaseema, Chhattisgarh, Odisha, Assam.
- Sky remained mainly clear/clear sky (1-2 okta/0 okta) over rest of the country.

Wind speed (knots) over India for the week ending 30.11.2016



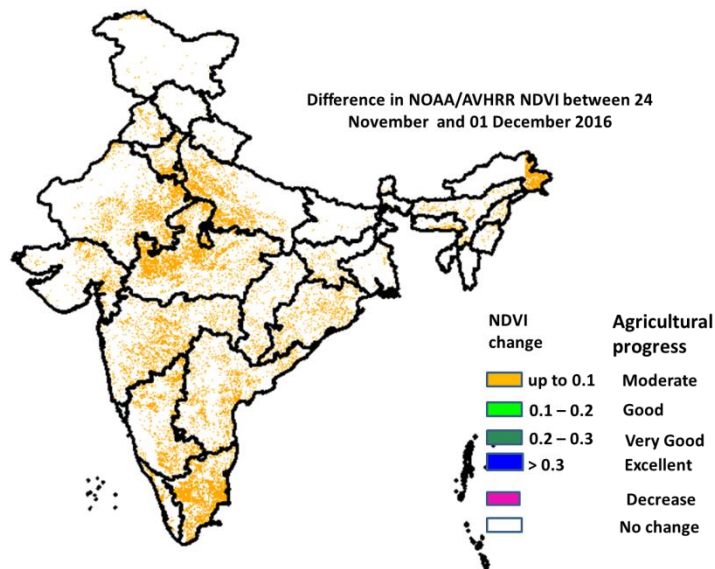
- Mean wind speed was between 0 to 4 knots over the country except many parts of Andaman & Nicobar Islands, and isolated pockets of Tamil Nadu and South Interior Karnataka, where it was between 4 to 8 knots.

NOAA/AVHRR NDVI composite ending on 1st December 2016 over Agricultural region of India



- Agricultural vigour is good in East Madhya Pradesh, Odisha, West Bengal, Vidarbha region, patches in Karnataka, Kerala, Telangana, North Andhra Pradesh, Gujarat and North-east where NDVI value varies from 0.5 to 0.7. NDVI is moderate in Rajasthan, Punjab, Haryana, west Madhya Pradesh, Uttar Pradesh, Madhya Maharashtra, southern region of Andhra Pradesh, Karnataka and Tamil Nadu (NDVI 0.3 to 0.5).

Difference in NOAA/AVHRR NDVI between 24th November and 1st December 2016



- Moderate progress in NDVI was observed in west and central Madhya Pradesh, east Rajasthan, east Uttar Pradesh, Maharashtra, Gujarat, Karnataka, Kerala, Andhra Pradesh and Tamil Nadu.

- NOAA/AVHRR NDVI composite maps for the week ending on 1st December 2016 for different States are given in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 7th December 2016

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.
- Minimum temperatures very likely to fall by 2-3°C over northwest India outside East Uttar Pradesh, where no significant change likely during next 3 days.
- No significant change in minimum temperatures very likely over west, central, north peninsula, east and northeast India during next 3 days.
- Dense fog at isolated places very likely over Punjab, Haryana, Chandigarh & Delhi during next 24 hours; over Bihar, West Uttar Pradesh and north Madhya Pradesh during next 48 hours; over East Uttar Pradesh during next 72 hours.
- Shallow to moderate fog very likely over south Assam, Meghalaya, Nagaland, Manipur, Mizoram & Tripura during next 3 days.

5 Day Rainfall Forecast (MID DAY) 2nd December 2016

| Met Sub-divisions | 02 Dec | 03 Dec | 04 Dec | 05 Dec | 06 Dec |
|------------------------------|--------|--------|--------|--------|--------|
| 1. Andaman & Nicobar Islands | FWS | WS | WS | FWS | FWS |
| 2. Arunachal Pradesh | ISOL | ISOL | 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. Odisha | ISOL | ISOL | 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 | DRY | DRY | DRY |
| 13. Haryana, Chd & Delhi | DRY | DRY | DRY | DRY | DRY |
| 14. Punjab | DRY | DRY | DRY | DRY | DRY |
| 15. Himachal Pradesh | DRY | DRY | DRY | DRY | DRY |
| 16. Jammu & Kashmir | DRY | DRY | DRY | DRY | DRY |
| 17. West Rajasthan | DRY | DRY | DRY | DRY | DRY |
| 18. East Rajasthan | DRY | DRY | DRY | DRY | DRY |
| 19. West Madhya Pradesh | DRY | DRY | DRY | DRY | DRY |
| 20. East Madhya Pradesh | DRY | DRY | DRY | DRY | DRY |
| 21. Gujarat Region | DRY | DRY | DRY | DRY | DRY |
| 22. Saurashtra & Kutch | DRY | DRY | DRY | DRY | DRY |
| 23. Konkan & Goa | DRY | ISOL | DRY | DRY | DRY |
| 24. Madhya Maharashtra | DRY | DRY | DRY | DRY | DRY |
| 25. Marathwada | DRY | DRY | DRY | DRY | DRY |
| 26. Vidarbha | DRY | DRY | DRY | DRY | DRY |
| 27. Chhattisgarh | DRY | DRY | DRY | DRY | DRY |
| 28. Coastal Andhra Pradesh | FWS | ISOL | ISOL | DRY | DRY |
| 29. Telangana | ISOL | ISOL | DRY | DRY | DRY |
| 30. Rayalaseema | SCT | ISOL | ISOL | DRY | DRY |
| 31. Tamil Nadu & Puducherry | FWS | SCT | ISOL | ISOL | ISOL |
| 32. Coastal Karnataka | ISOL | SCT | SCT | ISOL | ISOL |
| 33. North Interior Karnataka | DRY | ISOL | ISOL | DRY | DRY |
| 34. South Interior Karnataka | SCT | SCT | ISOL | ISOL | ISOL |
| 35. Kerala | FWS | FWS | ISOL | ISOL | ISOL |
| 36. Lakshadweep | SCT | WS | FWS | SCT | ISOL |

% 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

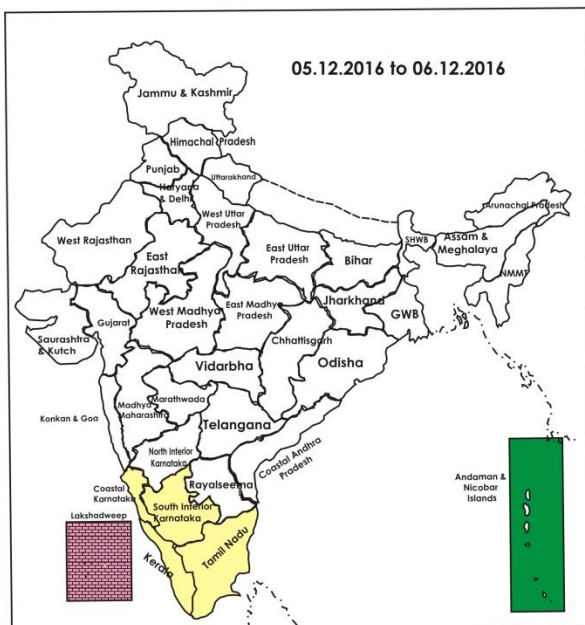
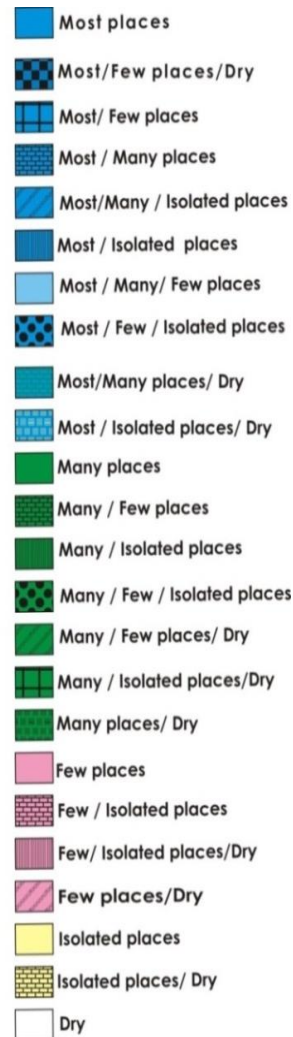
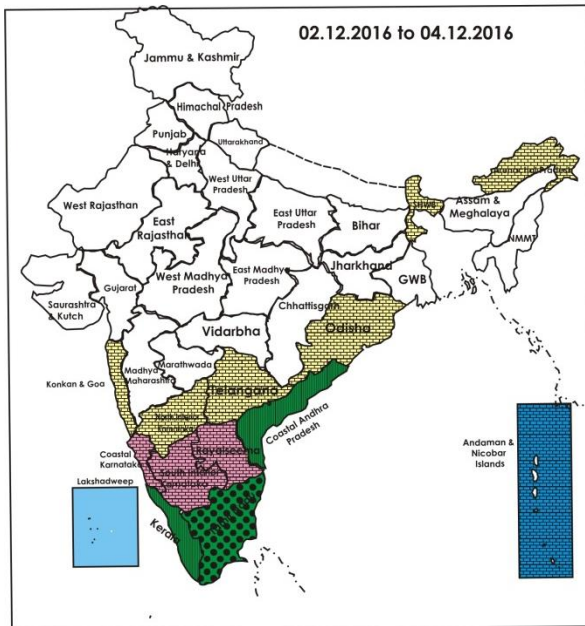
- **02 December (Day 1):** Heavy rain very likely at isolated places over interior Tamilnadu and Kerala. Dense fog very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, north Madhya Pradesh and Bihar.
- **03 December (Day 2):** Heavy rain very likely at isolated places over Kerala and Andaman & Nicobar Islands. Dense fog very likely at isolated places over Uttar Pradesh, north Madhya Pradesh and Bihar.

- **04 December (Day 3):** Heavy to very heavy rain very likely at isolated places over Andaman & Nicobar Islands. Dense fog very likely at isolated places over East Uttar Pradesh.
- **05 December (Day 4):** Heavy rain very likely at isolated places over Andaman & Nicobar Islands.
- **06 December (Day 5):** No weather warning.

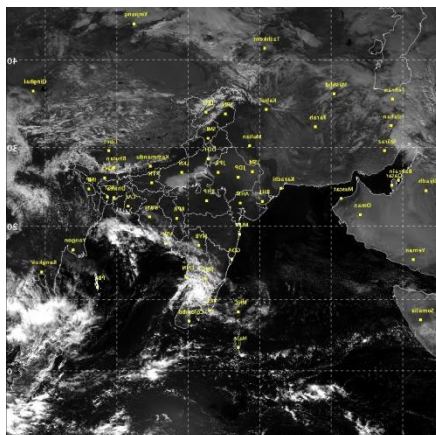
Weather Outlook for subsequent 2 days from 7th to 9th December 2016

- Rainfall at most places very likely over Andaman & Nicobar Islands.
- Rainfall at isolated places very likely over south peninsular India.

Weather Forecast Map (valid upto 0830 hours 7th December 2016)



Satellite image dated, 02.12.2016, 0600 UTC



Salient Advisories

- The Depression over north Tamil Nadu & neighbourhood weakened in to a well marked low and lay over Interior Tamil Nadu. In association with the system, rain/thundershowers is very likely at many places over **Tamil Nadu & Puducherry** along with isolated heavy rainfall over **interior Tamil Nadu** on 2nd December. In view of this farmers are advised to provide adequate drainage in *Samba* rice fields, rice nursery (Thaladi rice), rabi pulses and vegetable fields. Farmers are also advised to postpone irrigation, application of fertilizers and plant protection methods to standing crops. Do not allow animals for grazing during the rainy period and young animals should be protected against rain and chillness by covering with gunny bags and side wall may be covered.
- As rain/thundershowers likely at most/many places over **Andaman and Nicobar Islands** during the period along with heavy/heavy to very heavy rain at isolated places on 3rd to 5th Dec., at many places over **Coastal Andhra Pradesh** on 2nd, over **Kerala** on 2nd & 3rd Dec. along with heavy rain at isolated places, postpone irrigation, application of fertilizers and plant protection methods to standing crops. Provide adequate drainage in standing crop fields in Andaman and Nicobar Islands and Kerala.
- As dense fog very likely at isolated places over **Uttar Pradesh, north Madhya Pradesh and Bihar** on 2nd & 3rd, over **Punjab, Haryana, Chandigarh & Delhi** on 2nd and over **East Uttar Pradesh** on 4th Dec., monitor potato, tomato and onion crops for early blight disease. If symptoms are noticed undertake plant protection measures.
- In **Assam**, to protect the seedling of *Boro* rice from cold during night, cover the seedling with polythene sheet to help growth and development of the seedling. In Gurdaspur and Hoshiarpur districts of **Punjab**, irrigate young fruit plants and orchard trees at regular interval for proper growth and to avoid adverse effects of low temperature.
- In **Rajasthan**, apply irrigation to wheat crop which is at CRI stage i.e 21-25 days after sowing and apply irrigation to gram crop after 40-50days of sowing. Provide protective irrigation to wheat, Bengal gram, pigeon pea, vegetable and niger crops in Bidar district of North East Transition Zone and in cotton, red gram, maize, sunflower crops as per requirement in North East Dry Zone of **Norh Interior Karnataka**. In **Madhya Maharashtra**, apply irrigation to sugarcane, vegetable crops, jowar and maize and in sugarcane, wheat, gram, vegetable crops, jowar and maize in **Marathwada**.
- Continue sowing of wheat in **Jammu & Kashmir, Punjab, Haryana & Delhi, Rajasthan, Uttar Pradesh** under pre sowing irrigation if adequate moisture is not available in the fields. Continue nursery sowing of rice and *rabi* maize in **Telangana**. Continue sowing of wheat, maize and mustard in **Bihar and Jharkhand**, complete sowing wheat in **Chhattisgarh and Madhya Pradesh**. Complete nursery sowing of *Boro* rice and planting of potato in **Assam** and undertake transplanting of *Boro* rice. Continue planting of potato and sowing of pea in **Meghalaya**.

- In Undulating Plain Zone of **Punjab**, foggy weather condition is conducive for incidence of late blight on potato. To control, spray Indofil M45 @ 250g per acre.
- In **Jammu & Kashmir** and **Punjab**, it is advised to keep the animals inside the sheds during night hours and provide dry bedding and use heaters inside cattle sheds to protect them from cold. Increase protein level and minerals in the feed concentrate to keep the animals healthy to cope up with the situation. To protect poultry from cold, gunny bags or plastic sheet curtains should be hung on the side walls of sheds and keep the chicks warm by providing artificial light in the poultry sheds.

Detailed Zonewise Agromet Advisories

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



Banana



Rice



Sugarcane



Red gram

- **Realised Rainfall:** Weather remained dry over the region.
- **Realised Minimum Temperature:** Minimum temperatures are **appreciably below normal (3.1°C to 5.0°C)** at isolated places over Kerala; **below normal (1.6°C to 3.0°C)** at a few places over Tamilnadu & Puducherry. They are **appreciably above normal (3.1°C to 5.0°C)** at many places over Coastal Andhra Pradesh; **above normal (1.6°C to 3.0°C)** isolated places over Telangana and near normal over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at many places over Coastal Andhra Pradesh on 2nd, at many places over **Kerala** along with heavy rain at isolated places on 2nd & 3rd Dec., postpone irrigation, application of fertilizers and plant protection methods to standing crops. Provide adequate drainage in standing crop fields in Kerala to avoid water stagnation.
 - **Tamil Nadu:**
 - The Depression over north Tamil Nadu & neighbourhood weakened in to a well marked low and lay over Interior Tamil Nadu. In association with the system, rain/thundershowers is very likely at many places over **Tamil Nadu & Puducherry** along with isolated heavy rainfall over **interior Tamil Nadu** on 2nd December. In view of this farmers are advised to provide adequate drainage in *Samba* rice fields, rice nursery (Thaladi rice), rabi pulses and vegetable fields. Farmers are also advised to postpone irrigation, application of fertilizers and plant protection methods to standing crops. Do not allow animals for grazing during the rainy period and young animals should be protected against rain and chillness by covering with gunny bags and side wall may be covered.
 - In the Southern Zone (Kannivadi), since rainfall is expected, irrigation can be postponed to all standing crops (cotton, maize, vegetables and also avoid plant protection measures. In all crops. Apply fertilizers in soil by maximum utilization of prevailing rainfall in all irrigated to garden land crops.
 - In the South Zone, in the prevailing weather condition, Zinc deficiency is noticed in rainfed as well as irrigated crops. Continue foliar spray of 0.5% Zinc Sulphate until the disappearance of deficiency symptoms on a non rainy day. Thinning should be done in early sown rainfed crops in order to maintain of the plant population as well as soil moisture.
 - In the High Altitude Zone, spray Growth Hormone @ 40PPM in water at berry bearing stage on pepper to boost the size of the peppercorns resulting in good yields. Since good rainfall is expected, apply mulching around the plants to improve soil water retention.
 - In the High Rainfall Zone, strengthen the coconut and nutmeg trees basins for better harvesting of rain water. Undertake mulching in pineapple fields for moisture conservation.
 - In the Western Zone, prevailing weather condition is conducive for leaf spot disease in turmeric. To control, spray Carbendazim @ 1g / litre (or) Mancozeb @ 2g/litre of water on a non rainy day.
 - In the High Rainfall Zone, remove the dried and diseased leaves to control the spread of leaf spot disease in bananas.
 - In the South Zone, incidence of thrips is noticed in chilli. To control, spray Imidachloprid 17.8 % SL @ 3 ml/ 10 l of water or Dimethoate 30% EC@ 1 ml/litre of water on a non rainy day.

▪ **Andhra Pradesh:**

- In the Krishna Godavari Zone, continue harvesting of early sown rice crop.
- In the High Altitude Tribal Zone, continue nursery sowing of rabi rice (MTU 1010, NLR 34449 (Nellore sannalu, Prabha), undertake seed treatment with Carbendazim @ 3g/kg seed to prevent seed borne diseases in rabi rice nursery.
- In the Scarce Rainfall Zone of Rayalaseema, apply one irrigation to Bengal gram crop at 30-35 days (before flowering) to fetch higher yields and undertake inter cultivation. Continue sowing of rabi groundnut under assured irrigation. Due to excess irrigation from drip and sprinkler, there is possibility of iron deficiency in rabi groundnut. If iron deficiency is noticed, undertake spraying of 1 kg Ferrous Sulphate in 200 litres of water / acre is twice with in a period of 10 days.
- In Chittoor, Nellore and Kadapa districts of Southern Zone, continue sowing groundnut after proper seed treatment.
- In the North Coastal Andhra Pradesh, prevailing weather conditions (low temperature and partially cloudy) are congenial for incidence of blast in rice (grain filling stage). To control, spray Tricyclazole 0.6 g/litre of water.
- In Kurnool district of Scarce Rainfall Zone of Rayalaseema, leaf blast incidence was noticed in rice (flowering to harvesting stage). To control, spray Tricyclozole @ 0.6g/litre or Isoprothiolane 1.5ml/litre of water on a non rainy day.
- In the High Altitude Tribal Zone, incidence of cercospora leaf spot was noticed in cotton (harvesting stage). To control, spray Propiconazole @ 1ml/litre of water.
- In the Krishna Godavari Zone, due to prevailing dry weather conditions, incidences of taricum blight and rust is noticed on maize. To control, spray 500 grams Mancozeb by mixing with 200 liters of water in the evening.

▪ **Telangana:**

- In North Telangana Zone, continue nursery sowing of rice and rabi maize. Cover entire rice nursery bed with polythene sheets in the night and remove in the morning to avoid the effect of cool temperatures on germination and growth of nursery. Provide one irrigation to Bengal gram crop at 30 - 35 days (before flowering) to fetch higher yields. Cotton crop is under slight moisture stress condition. If there is a possibility, give one irrigation to protect the crop from the stress.
- In Adilabad, Khammam, Karimnagar and Nizamabad districts of North Telangana Zone, incidence of white fly is noticed in bhendi. To control, spray Acephate @ 1.5 g or Triozophas @ 2 ml /litre of water.
- In Mahabubnagar, Nalgonda, Medak, Rangareddy, Khammam and Warangal districts (South Telangana Zone), incidence of white fly, aphids and thrips are noticed in different vegetable crops. To control white fly, spray Triozophos @ 2 ml or Acetamiprid @ 0.2 g/litre of water, spray Dimethoate @ 2 ml/litre of water to control aphids and Acephate @ 1.5 g/litre or Fipronil @ 2 ml/litre of water to control thrips.

▪ **Kerala:**

- In the Northern Zone, continue planting of bananas.
- In Idukki and Wynad districts of High Altitude Zone, undertake harvesting of cardamom and ginger on a non rainy day. In the Problem Area Zone, continue mulching in nutmeg gardens.
- In Thiruvananthapuram district of the Southern Zone, continue tapping of rubber.
- In the Northern Zone, protect pepper vines from direct sunlight. Cover the basal portion of vines with banana trashes. Provide good mulching. If wilt is noticed, spray Akomin (@ 1ml/5 liters of water) three times at weekly intervals. Also drench with copper oxy chloride solution (@ 3g/litre of water). For improving the health of the plant, spray NPK 19: 19: 19 mixture (@5g/litre of water) on foliage separately.
- In the Central Zone, prevailing cloudy conditions are congenial for sheath blight incidence in rice field (Jyothi, Kanjana, Uma, Ponmani variety). To control, spray Tilt 1 ml/litre of water.
- In the Problem Area Zone, apply jute bag filled with cow dung in rice fields to prevent drying or wilting of whole plant.
- In Thiruvananthapuram district in Southern Zone, spray 2% Neem oil-garlic-soap emulsion or Dimethoate 30 EC @ 1.5 ml/litre of water to prevent stunted growth and leaf curling in chillies on a non rainy day.

▪ **Karnataka:**

- Undertake sowing of groundnut and black gram in Coastal Zone. Keep the pulses seeds or any green manure seeds ready for sowing in Hill Zone.
- Drain out water from the paddy fields one week before harvesting of paddy crop in Southern Dry Zone.
- Provide irrigation to cotton at boll development stage, red gram, maize, sunflower crops as per requirement in North East Dry Zone. Complete harvesting of rice, planting of sugarcane, picking of matured bolls of early sown cotton.
- Continue picking of matured pods of red gram in clear weather in Eastern Dry Zone.
- Provide protective irrigation to wheat, Bengal gram, pigeon pea, vegetable and niger crops, if required, in Bidar district of North East Transition Zone.
- In Dharwad, Belagavi and Haveri districts of North Transition Zone, undertake intercultural operations in rabi crops (sorghum, Bengal gram etc.) to control the weeds and for moisture conservation. Apply irrigation in Bengal gram at flowering stage.
- Undertake intercultural operations in rabi sorghum in Vijayapura, Bagalkote and Gadag districts of North Dry Zone. Apply irrigation to already sown *rabi* crops as per requirement. Complete sowing of chickpea (dry land and

irrigated), wheat (irrigated), Dicocum wheat.

- Infestation of Tea Mosquito in cashew noticed in Hill Zone; for control, spray Monocrotophos @ 1ml / litre of water or Dimethoate @ 2 ml / litre of water on non-rainy day.
- Incidence of myrid and mealy bugs is noticed in late sown cotton (boll development stage) in North East Dry Zone; to control, spray Monocrotophos @ 2 ml or Profenophos @ 2 ml per litre of water. Brown plant hopper is noticed in paddy crop; to control, spray the crop with Chloropyriphos @ 2.0 ml or Monocrotophos @ 1.5 ml dissolved in one litre of water.
- Suitable varieties for sowing are given in Annexure III.

❖ Animal Husbandry

- In Scarce Rainfall Zone of Rayalaseema of Andhra Pradesh, prevailing weather conditions are congenial for incidence of blue tongue disease in sheep. Vaccinate the animals, provide artificial brooding to chicks to maintain adequate temperature and sides should be covered with curtains during cool hours of the day. Wet litter material should be removed regularly. Ensure proper cross ventilation to avoid ammonia accumulation.
- In the Southern Zone of Andhra Pradesh, as there is fall in night temperatures, protect the poultry of all ages by creating normal temperature in the poultry sheds by infrared bulbs, artificial incubators etc. and provide light and ventilation for the sheds.
- In the Western Zone of Tamil Nadu, considering the low temperature, provide adequate concentrated feed to poultry and cattle to maintain its productivity.
- In the Southern Zone of Tamil Nadu (Kannivadi), as rainfall is expected, broiler and deep litter poultry should be monitored for any cocci symptoms and use of coccidiostat as prevention.
- In the South Zone of Tamil Nadu (Kovilpatti), the expected weather having high cloud cover, moderate rainfall and high humidity is conducive for liver fluke worm in cattle and sheep. To control, give deworming dose.
- In Karnataka, maintain optimum room temperature in sericulture, poultry and dairy unit in Eastern Dry Zone. Vaccinate the livestock for Black Quarter and foot and mouth diseases in North East Transition Zone. Maintain optimum temperature between 18° to 29°C in poultry shed for better production in Southern Dry Zone.

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



Banana



Rice



Cauliflower



Wheat

- **Realised Rainfall:** Weather remained dry over the region.
- **Realised Minimum Temperature:** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at a few places over Northeastern states and near normal over rest of the region.
- **Advisories:**
 - **Assam, Meghalaya & Arunachal Pradesh:**
 - In Dhemaji, Lakhimpur, Sonitpur, Dibrugarh, Golghat, Jorhat and Sibsagar districts of Upper Brahmaputra Valley Zone of Assam, continue nursery sowing of *boro* rice and planting of potato. Continue harvesting of matured *Sali* rice.
 - In Karimganj, Hailakandi and Cachar districts of Barak Valley Zone of Assam, continue nursery raising for winter vegetables and planting of potato. Continue land preparation for transplanting of Boro rice and continue harvesting of Sali rice. To protect the seedling of *boro* rice from cold night, cover the seedling with polythene sheet to help growth and development of the seedling.
 - In Karbi Anglong and NC Hills districts of Hill Zone of Assam, continue nursery sowing of *Boro* rice. Continue sowing of lentil and planting of potato.
 - In Marigaon and Nagaon districts of Central Brahmaputra Valley Zone of Assam, continue harvesting of Sali rice, nursery bed preparation and sowing of *Boro* rice, continue land preparation and sowing of wheat.
 - In Barpeta, Bongaigaoin, Dhubri and Goalpara districts of Lower Brahmaputra Valley Zone of Assam, continue sowing of pumpkin, radish, tomato, onion, planting of potato and nursery preparation of cabbage, cauliflower, knol khol. Complete sowing of lentil, oats, rapeseed and mustard. Continue transplanting of *Boro* rice.
 - In Barak Valley Zone of Assam, to control the attack of aphids and saw fly in rapeseed and mustard, spray Dimethoate (Rogar) @ 1 ml/litre of water.
 - In North Bank Plain Zone of Assam, continue sowing of rapeseed/mustard and planting of potato. Continue harvesting of matured *Sali* rice. Continue nursery bed preparation and sowing of *boro* rice.
 - In Arunachal Pradesh, continue harvesting of Wetland rice.

- In Meghalaya, continue nursery sowing/transplanting of cauliflower/cabbage/broccoli, planting of potato and sowing of pea. Also continue harvesting of matured Upland rice, *Sali/kharif* rice, groundnut, soybean and ginger/turmeric.
- In Hill Zone of Assam, Furadon granule @ 205g/plant should be applied at 20 days after transplanting to avoid fruit and shoot borer infestation in brinjal.
- In Lower Brahmaputra Valley Zone of Assam, spray Chloropyriphos 20EC, 0.5 litre/ha, 500-700 litre of water per ha for hand spayer and 200-250 lit/ha for power sprayer against aphid and saw fly in rapeseed and mustard.
- In Arunachal Pradesh, undertake drenching with 0.05% Dichlorvos at base of citrus plant for rectification of trunk-borer. Spray Sulfex @ 2 g/litre water against powdery mildew on black gram & green gram at vegetative stage. Drench young vegetable seedling with Chlorpyriphos 20 EC @2 ml/litre water (in evening time) against cut-worm.
- **Nagaland, Manipur, Mizoram and Tripura:**
- In Nagaland, toria and linseed should be sown as second crop utilizing the residual moisture in the field after the harvest of early to medium duration paddy varieties. With prevalence of continued dry weather, need based irrigation is advisable to in standing *rabi* crops and vegetables Sow zero tillage lentil and pea after rice harvesting by opening small furrow between rice stubbles. Continue harvesting of TRC/WRC rice and sowing of toria. Complete transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal and sowing *rabi* maize.
- In Manipur, continue sowing of field pea, lentil and transplanting of cole crops/onion and planting of potato. Continue sowing rapeseed/mustard and pea. Continue land preparation for *rabi* maize.
- In Mizoram, continue harvesting of *khasi* mandarin/acid lime, oil palm, banana and colocasia. Continue nursery sowing of onion.
- In Tripura, complete sowing of toria, sesame and lentil. Thinning and weeding along with gap filling may be done in the field of *rabi* Maize. Light irrigation in cole crops & tomato on every alternate day may be given for better establishment and smooth growth. Complete planting of potato.
- In Nagaland, spray Malathion (2ml/litre) over fruit of citrus to prevent fruit fly egg laying.
- In Manipur, to control leaf blotch & leaf spot in ginger/turmeric, application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/litre) is also recommended.
- In Mizoram, apply insecticide like Imidacloprid 0.5 ml or Phosolone 1.5 ml or Acephate 1.0 g or Dimethoate 2 ml/litre of water against banana rhizome weevil disease in banana.
- Suitable varieties for sowing are given in Annexure III.
- ❖ **Animal Husbandry**
- In Nagaland, protect poultry birds from cold winds by hanging curtain/clothing from outside the poultry shed. Use of electric bulbs for heat is advisable.
- In Assam, to protect poultry from cold, gunny bags or plastic sheath curtains should be installed on the side walls of shed and bedding material (litter) should be increased by six inches. Care should be taken not to restrict ventilation.
- In Central Brahmaputra Valley Zone of Assam, the cattle, goat and pigs should be vaccinated against BQ, HS, Foot and Mouth disease. Vaccination to control the ranikhet disease of poultry may be done during this period.
- ❖ **Fishery**
- In Upper Brahmaputra Valley Zone of Assam, during winter season fishes are infested by various bacterial diseases. To control these diseases, application of Potash @ 4-5 mg per litre of water in the pond is recommended. Application of required doses of lime will give better results.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Maize



Mustard



Groundnut



Wheat

- **Realised Rainfall:** Weather remained dry over the region.
- **Realised Minimum Temperature:** Minimum temperatures are **below normal (1.6°C to 3.0°C)** at isolated places over Konkan & Goa and Madhya Maharashtra. They are **appreciably above normal (3.1°C to 5.0°C)** at a few places over Gujarat State and near normal over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, prepare raised nursery bed of 90 cm breadth, 8-10 cm height and length according to convenience for

rabi rice. Prepare 10 Are area (Are =100 m²) nursery for 1 ha area of main rice field. Undertake transplanting of seedlings of vegetables, 5 to 6 weeks after sowing. Undertake planting of binneal forage crops like Paragrass, Napier and Gajraj.

- In Madhya Maharashtra, apply irrigation to sugarcane, vegetable crops, jowar and maize. Continue intercultural operations like hoeing and weeding in standing *rabi* crops. In sugarcane fields, release *Trichogramma chilonis* @ 2 phule trichocards/acre at 15 days interval starting from earthing upto one month before harvesting for the management of internode borer. Complete sowing of late sown irrigated wheat upto 15th December.
- In Marathwada, apply irrigation to sugarcane, wheat, gram, vegetable crops, jowar and maize. Continue intercultural operations, application of fertilizers in jowar, gram, maize, vegetables, orchards and sugarcane. Continue picking fully opened cotton bolls during morning hours. Complete sowing of late sown irrigated wheat upto 15th December.
- In Vidarbha, apply irrigation to early sown safflower, wheat, vegetable crops and orchards. Continue intercultural operation and application of fertilizers in safflower, vegetables and orchards. Continue picking fully opened cotton bolls during morning hours. Complete sowing of late sown irrigated wheat upto 15th December.
- Due to present weather conditions in Western Maharashtra Scarcity zone, there may be attack of aphids in safflower; spray Acetamiprid 20 SP @ 2 ml per 10 litres of water.
- Due to present weather conditions in Vidarbha, there may be attack of whitefly in tomato; spray Diamethoate 30 EC @10 ml per 10 litre of water.

▪ Gujarat:

- Continue sowing of groundnut and mung in between the sugarcane crop as intercrop in South Gujarat Zone.
- In North Gujarat Zone, carry out weeding and intercultural operations in mustard, brinjal, cabbage, cauliflower, chili, tomato and *rabi* fennel. Undertake thinning in mustard. Apply irrigation in *rabi* fennel at regular interval. Apply light irrigation in vegetable crops during evening hours. Continue harvesting of sorghum at physiological maturity and harvesting of matured fruits of pomegranate, aonla and custard apple. Complete sowing of wheat, gram, cumin and fenugreek.
- Undertake thinning in mustard. Apply light irrigation in vegetable crops during evening hours. Complete sowing of wheat, cumin in North West Zone. Carry out intercultural operations in mustard, brinjal, cabbage, cauliflower, chili and tomato. Continue harvesting of matured pomegranate, aonla and custard apple.
- Apply irrigation in *rabi* pulses (Indian bean, gram, green gram) as per requirement in South Gujarat Heavy Rainfall Zone. Continue sowing of onion, *rabi* pulses or vegetables as intercrop in sugarcane during early stage of sugarcane growth. Continue planting of sugarcane.
- Continue sowing of wheat, maize and cumin under assured irrigation facility in Middle Gujarat Zone.
- Undertake transplanting of onion; apply irrigation in wheat (at CRI stage), pigeon pea (through drip system) and in lemon orchard at regular interval to prevent fruit cracking and for fast development of fruits in Rajkot, Amreli, Jamnagar and Surendranagar districts of North Saurashtra Zone.
- Complete sowing of wheat, gram, cumin, garlic and coriander, picking of matured cotton bolls during morning hours and picking of matured clusters of castor in South Saurashtra Zone.
- Under present weather condition attack of pink bollworm is observed in irrigated cotton in North Saurashtra Zone; farmers are advised not to take second flush of flowering and uproot the crop after picking. Monitor the chickpea crop regularly for prodenia and heliothis infestation; install “T” shaped bird perches in and around field for controlling insect population; if infestation cross ETL spray Quinalphos @ 20 ml in 10 litres of water.
- In Middle Gujarat Zone, present temperatures and low humidity favours infestation of jassid and white fly in castor; to control, spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g in 10 litres of water. In South Gujarat Zone, in mango orchard, dust the Methyl Parathion 2% powder around the tree for effective control of mealy bug.
- Suitable varieties for sowing are given in Annexure III.

❖ Animal Husbandry

- Keep cattle indoor at night time, protect from cold wind and give dry fodder twice a day in Middle Gujarat Zone.

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



Red gram



Okra



Maize



Wheat

- **Realised Rainfall:** Rainfall occurred in Nicobar and South Andaman districts of Andaman & Nicobar

Islands. Weather remained dry over rest of the region.

- **Realised Minimum Temperature:** Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over Bihar; **appreciably above normal (3.1°C to 5.0°C)** at most places over coastal Odisha, at many places over Gangetic West Bengal, at a few places over Sub-Himalayan West Bengal & Sikkim and Jharkhand; **above normal (1.6°C to 3.0°C)** at a few places over Andaman & Nicobar Islands and near normal over rest of the region.
- **Advisories:**
 - **Odisha:**
 - In East and South Eastern Coastal Plain Zone, complete sowing of chickpea, lentil and field pea. Continue planting of potato. Continue harvesting of medium duration varieties of rice. Go for hoeing, weeding and thinning in rain-fed mustard and maintain optimum plant population.
 - In East, South Eastern and in North Eastern Coastal Plain Zone, weather is optimum for sowing of garlic in irrigated upland and medium land and planting of potato.
 - In North Eastern Coastal Plain Zone, taking the advantage of store soil moisture, complete sowing of rapeseed and mustard crops to get optimum yield.
 - In Kalahandi and Nuapara districts of Western Undulating Zone, cover the vegetable nurseries to protect from low temperatures. Irrigate the vegetable seedling nursery during evening hours. Continue sowing of groundnut and mustard and nursery sowing of onion. Continue harvesting of matured direct seeded rice. Keep watch on false smut disease during grain development stage. If noticed spray Carbendazim or Matalaxyl + Mancozeb 2g/litre of water.
 - In Mayurbhanj and Keonjhar districts, continue sowing of green pea in fallow uplands and nursery raising of tomato, cauliflower and cabbage.
 - In North Eastern Coastal Plain Zone, prevailing cloudy weather with high humidity will increase the incidence of blast and sheath blight of kharif rice. To control it spray Tebuconazole + Trifloxystrobin 75WG @ 200g/ha in 500 litres of water or spray Tricyclazole @ 0.5g/litre of water.
 - In Kalahandi and Nuapara districts of Western Undulating Zone, sucking pests like aphids, jassids infestation may occur in cotton crop at boll development to boll bursting stage. Spray Buprofezin 2ml/litre water for controlling sucking pests.
 - In East and South Eastern Coastal Plain Zone, medium duration arhar is at flowering stage and is found to be affected by pod borer. Spray 800 ml neem based pesticides or 250 LE NPV in 200 litre of water per acre for control.
 - In Deogarh and Sundargarh districts of North Eastern Plateau Zone Weather suitable for sowing groundnut, Mung, Biri, Gram and Peas.
 - **West Bengal:**
 - In Burdwan, Murshidabad, Nadia, North 24 Parganas districts of New Alluvial Zone, undertake land preparation for sowing of wheat and planting of potato. Continue transplanting the nursery seedling of brinjal and tomato. Before transplanting dip the roots of seedling to the solution of Carbendazim 12% + Mancozeb 63% @ mixture (2 gm per litre of water). In late sown *Aman* rice, maintain 2-3 cm standing water in the fields. Continue harvesting of early transplanted *Aman* rice and prepare the field for sowing of rabi crop. Continue sowing of winter vegetables.
 - In Purba Midnapore and South 24-parganas districts of Coastal Saline Zone, undertake continue sowing of lentil up to 1st week of December. Treat the seeds with Thirum@3g/kg of seed and sow @4-5kg/bigha. Prepare upland fields for planting of potato. Treat the seeds by soaking for two minutes with Methoxy Mercuric Chloride@100g/per quintal of seeds. Complete the post harvesting operation of rice like threshing, sun drying etc. in clear weather.
 - In Laterite and Red Soil Zone, complete the field preparation for sowing of wheat crop as early as possible. Give light irrigation to maintain the optimum moisture content in the soil. Undertake planting of potato. Apply fertilizer 17.4 kg Urea, 66 kg SSP and 13.5 kg MOP per bigha at the time of planting.
 - In Malda & Dakshin Dinajpur districts, undertake land preparation for sowing of wheat, pea & potato after completing the harvesting of rice crop. During this period garlic clove can be planting in the field, before planting treated with Tricoderma viride.
 - In Terai Zone of West Bengal, undertake sowing of wheat. Treat the seeds before sowing with Captan @ 2 g/kg of seed. Seed rate 15kg/bigha and application of fertilizers per bigha at the time of sowing 17.5 kg-Urea, 50 kg-SSP, 13 kg-MOP, 2.5 KG-Sulphur, 3kg-Zinc Sulphate and 1.5 kg-Borax.
 - In Old Alluvial Zone, prevailing weather condition is favourable for attack of sucking pests in chilli and cutworm in vegetables. To control sucking pests of chilli, spray with Acephate 50% + Imidachloropid 1.8% @ 2 g/litre of water. To control cutworm, in vegetables like as cabbage, cauliflower, broccoli etc. spray with Chloropyrifos 20% E.C. @ 2.5ml/liter of water during evening hours.
 - **Andaman and Nicobar Islands:**
 - As rain/thundershowers likely at most/many places over Andaman and Nicobar Islands during the period along with heavy rain at isolated places on 3rd & 4th Dec., postpone irrigation, application of fertilizers and plant protection methods to standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.

- In North, Middle & South Andaman and Nicobar, undertake sowing of cucurbits 30X30X30 cm at a distance of 3 m between the rows and 2.5 m between the plants in the raised bed after current spells of heavy rain. Use 20 g Zinc phosphide by mixing with 20 g vegetable oil and 960 g broken rice as bait to control rodent in the rice fields.
- **Bihar:**
 - As dense fog very likely at isolated places over Bihar on 2nd & 3rd December, monitor potato, tomato and onion crops for early blight disease. If symptoms are noticed undertake plant protection measures.
 - In Araria, Katihar, Kishanganj, Madhepura, Purnea, Saharsa and Supaul districts in North East Alluvial Zone, continue sowing of wheat and maize and mustard. Undertake Thinning and weeding is recommended in timely sown mustard crop. Undertake earthing-up in potato if crop has attained a height of 15-22 cm. Undertake weeding in vegetables crops. Provide light irrigation in vegetables such as cauliflower, cabbage, tomato, pea, chilli, brinjal, garlic etc as per soil moisture status.
 - In Darbhanga, East Champaran, Gopalganj, Samastipur, West Champaran districts of North West Alluvial Plain Zone, complete the sowing of wheat, gram and maize and planting of potato. Undertake Weeding in vegetables crops. Provide light irrigation in vegetables such as cauliflower, cabbage, tomato, pea, chilli, brinjal, garlic etc as per soil moisture.
 - In South Bihar Alluvial Zone, complete the sowing of wheat. Before sowing seeds should be treated with Bavistin or Thiram @ 2-2.5 g per kilogram of seed. Undertake sowing of gram, lentil and sowing of oat and barseem for fodder purpose. Ploughing and planking should be done properly to conserve the moisture in the soil.
- **Jharkhand:**
 - In South Eastern Plateau Zone, continue harvesting of matured rice. In harvested fields, continue land preparation and sowing of mustard, wheat, lentil, gram and cultivation of potato and green pea.
 - In Western Plateau Zone, after harvesting of rice, plough the fields immediately and undertake sowing of different *rabi* crops. Farmers having at least 4 irrigation facility may proceed for the cultivation of potato and wheat and those who have at least 2 - 3 irrigation facility, may cultivate gram, lentil, pea, linseed, barley etc. Seeds of pulse crops must be treated with Rhizobium culture before sowing.
 - In Central and North Eastern parts of Jharkhand, continue sowing of gram and planting of potato.
 - In South Eastern Plateau Zone, present weather is conducive for occurrence of pests like hairy caterpillar on groundnut crop. So, in early stage of caterpillar, apply Dichlorvos @ 0.5 ml per litre of water. For control of adult caterpillar, provide bamboo perch in the fields for predatory birds.
 - In South Eastern Plateau Zone, low land rice crop are at milky stage and this stage is susceptible to the attack of Gundhi bug. To control the insects, dusting of Chlorpyrifos/Quinolphos/Methyl Parathion dust @ 10 kg per acre is recommended.
 - In South Eastern Plateau Zone, there may be attack of leaf eating and sucking pests in pigeon pea at flowering stage, for control, spray Monochrotophos @ 1 ml or Chlorpyrifos @ 1.5 ml per liter of water during evening time.
 - In South Eastern Plateau Zone, green pea crop is mostly seen with the infestation of leaf eating insects and can be controlled by spraying of prepared concentration of neem or tobacco leaf extract diluted in the ratio of 1:10 liters or neem oil @ 5 ml per liter of water. Also attack of leaf eating insects have been increased in cucurbitaceous crops. Spray, Imidachlorpid @ 1g or Kung fu @ 2 ml per litre of water for control.
 - Suitable varieties for sowing are given in Annexure III.
- ❖ **Animal Husbandry**
 - In Jharkhand, weather is favourable for Foot and Mouth Disease (FMD), vaccinate FMD vaccine to the cattle with the consultation of veterinary doctor. Also due to decrease in temperature, PPR Disease may increase in goat & sheep, farmers are advised to vaccinate their animal with PPR vaccine @ 1ml S/C.
 - In Old Alluvial Zone of West Bengal, keep animals in covered shed to protect from low temperature during night.
- ❖ **Pisciculture**
 - In North Eastern Coastal Plain Zone of Odisha, as the winter is in the starting phase, there is a possibility of “EUS” disease in fish. Farmers are advised to apply ‘Cifax’ @ 400 ml mixed with 40 litre of water in one acre pond area as a preventive measure. The fishes should be fed daily with oil cake bran mixture at the rate of 2-3 % of their total biomass.

CENTRAL INDIA [M.P., CHHATTISGARH]



Maize



Cabbage



Mustard



Wheat

- **Realised Rainfall:** Weather remained dry over the region.
- **Realised Minimum Temperature:** Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over north Madhya Pradesh; **above normal (1.6°C to 3.0°C)** at a few places over interior parts of Madhya Pradesh and near normal over rest of the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - As dense fog very likely at isolated places over north Madhya Pradesh on 2nd & 3rd December, monitor potato, tomato and onion crops for early blight disease. If symptoms are noticed undertake plant protection measures.
 - In Indore and Ujjain districts, apply first irrigation at CRI stage in wheat and apply split dose of nitrogen. Apply irrigation in potato, pea, coriander and other vegetable.
 - In Nimar Valley Zone, continue nursery preparation for onion.
 - In Gwalior, Bhind, Morena, Guna, Ashoknagar and Shivpuri districts, continue sowing of wheat. Apply irrigation in vegetables and in wheat after 20-21 days of sowing.
 - In Chhindwara and Betul districts, continue nursery preparation for tomato, chilli, brinjal, cabbage, cauliflower and sowing of garlic, coriander etc. Complete sowing of linseed, safflower and wheat. Continue intercultural operations in standing crops. Continue sowing of cumin seeds.
 - In Vindhya Plateau Zone, continue nursery preparation for winter vegetables like brinjal, chilli, cabbage, cauliflower, tomato and onion and sowing of green pea and garlic. Complete sowing of lentil, wheat and gram. Apply irrigation in early sown gram and wheat.
 - In Tikamgarh, Chhatarpur and Datia districts, continue sowing of wheat in irrigated areas. Apply irrigation in vegetables, mustard and wheat at crown root initiation stage. Undertake earthing up in potato.
 - In Jhabua, Alirajpur and Dhar districts, continue transplanting of vegetables. Continue sowing of wheat, garlic and planting of potato. Continue picking up of matured bolls of cotton. Apply irrigation in early sown wheat and vegetables.
 - In Jabalpur, Rewa, Satna districts, continue sowing of wheat, mustard, gram, lentil and pea. Continue nursery preparation for cauliflower and cabbage. Continue harvesting of late maturing varieties of rice. Apply irrigation in vegetables, wheat at CRI stage and in mustard.
 - In Kymore Plateau and Satpura Hill Zone, there is possibility of attack of leaf curl disease in chilli and tomato, spray Methyl dameton @ 2.0 ml or Imidacloprid @ 0.5 ml per litre of water.
 - In Malwa Plateau Zone, to control the attack of saw fly and cabbage butter fly in cole crops spray Malathion 5% or Carboryl 5% dust @ 20-25 kg per hectare or spray Malathion 50 EC @ 1 ml per litre in 500 litre of water.
 - **Chhattisgarh:**
 - In North Hill Zone, continue transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc. Continue seed bed preparation for onion and sowing of potato and garlic. Continue sowing of late varieties of chickpea and leafy vegetables. Complete sowing of wheat.
 - In Chhattisgarh Plain Zone, continue nursery sowing of cauliflower, cabbage, KnolKhol, tomato, brinjal, chillies and capsicum. Continue sowing of wheat, pulses and oilseeds.
 - In Bastar Plateau Zone, continue sowing of oilseeds, pulses and wheat. Continue sowing of sweet potato.
 - In North Hill Zone, due to humid weather there are chances of attack of powdery mildew disease in pea, spray Karathen @ 1 ml per litre of water or Sulfex @ 3 g per litre of water.
 - Suitable varieties for sowing are given in Annexure III.
 - ❖ **Animal Husbandry**
 - In Madhya Pradesh, keep animals in sheds during night hours and cover the floor with paddy straw litter to protect from cold. Increase protein level and minerals in the feed concentrate to keep the animals healthy. Provide artificial light during night time in poultry house.
 - In Chhattisgarh, keep animals in shed during night hours, cover the floor with paddy straw litter to protect from cold.

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



Mustard



Maize



Cauliflower



Wheat

- **Realised Rainfall:** Weather remained dry over the region.
- **Realised Minimum Temperature:** Minimum temperatures are **markedly above normal (5.1°C or more)** at

isolated places over southern parts of East Uttar Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at most places over northern parts of East Uttar Pradesh, at a few places over West Uttar Pradesh, Rajasthan, at isolated places over Himachal Pradesh and Punjab; **above normal (1.6°C to 3.0°C)** at many places over Uttarakhand, at a few places over Haryana, Chandigarh & Delhi and near normal over rest of the region. The lowest minimum temperature of 6.0°C recorded at Narnaul (Haryana) in the plains of the country.

• **Advisories:**

▪ As dense fog very likely at isolated places over Uttar Pradesh, on 2nd & 3rd, over Punjab, Haryana, Chandigarh & Delhi on 2nd and over East Uttar Pradesh on 4th Dec., monitor potato, tomato and onion crops for early blight disease. If symptoms are noticed undertake plant protection measures.

▪ **Rajasthan:**

➤ In East Rajasthan, apply first irrigation in wheat at CRI stage (20-25 days after sowing) and in mustard crop at 35-40 days. Continue sowing of barley and undertake sowing of coriander, pea. Continue weeding and hoeing operation in vegetables and fruit orchards. Undertake earthing up in potato crop 30-35 days after planting in Flood Prone Eastern Plain Zone.

➤ In Arid Western Plain Zone, in Barmer, Churu, Jalore, Jodhpur, Pali districts, apply first irrigation to wheat crop which is at CRI stage i.e 21-25 days after sowing. Apply irrigation to gram crop after 40-50 days of sowing. In Jaisalmer and Bikaner districts, continue sowing of wheat and barley. Continue sowing of cumin, isabgol and fenugreek. At the time of sowing treat the cumin and fenugreek seed by Carbendazim @ 2 g per kg seed.

➤ In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, continue sowing of wheat. Continue sowing of cumin.

➤ In East Rajasthan, in Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts, prevailing weather condition is congenial for attack of bagrada infestation, painted bug and saw fly in late sown mustard crop for control bagrada dusting of Methyl Parathion @ 25 kg per hectare and for control of painted bug and saw fly spray Methyl Parathion 2% or Carbaryl 5% dust @ 20 to 25 kg per hectare.

➤ In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, prevailing weather condition is congenial for attack of aphid in mustard crop, for control spray Dimethoate 30 EC or Methyl Demeton 25 EC @ 1 litre per hectare.

➤ In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, prevailing weather condition is congenial for attack of mustard saw fly, leaf eaters and cabbage butter fly in cauliflower and cabbage, for control spray Malathion 5% or Carbaryl 5% dust @ 20-25 kg per hectare or spray Malathion 50 EC @ 1 ml per litre of water.

➤ In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, prevailing weather condition is congenial for attack of leaf minor in mustard crop, for control spray Monochrotophos @ 1 litre per 600- 800 litres of water.

➤ In Arid Western Plain Zone, in Barmer, Churu, Jalore, Jodhpur, Pali districts, prevailing weather condition is congenial for attack of termite in gram crop, for control, apply Chlorpyrifos 20 EC @ 4 litres per hectare with irrigation

▪ **Jammu & Kashmir:**

➤ In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, continue sowing of wheat under rain fed/irrigated condition as per availability of moisture. To avoid seed borne diseases, treat wheat seed with carboxin(Vitavax) or carbandazim @ 2g/kg seed. Continue transplanting of onion and garlic crop in the main field. Undertake transplanting of late cauliflower. Give irrigation regularly every 3-4 days interval to all leafy vegetables.

➤ In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, continue sowing of late varieties of wheat (WH-1021, PBW-590, PBW-373, Raj-3077, Raj-3765 DBW-1) under irrigated conditions and mustard (var. Kranti) in irrigated areas. Irrigate early sown mustard crop at 35-40 days of sowing. Apply 1st dose of nitrogen fertilizer as top dressing after irrigation. Continue sowing of lentil and complete transplanting of vegetables like cauliflower and cabbage. Give weeding, hoeing and earthing up followed by irrigation in potato.

➤ In Valley Temperate Zone of Jammu and Kashmir, complete sowing of wheat, oats and peas. Continue planting of garlic and pran. Provide drainage channels in the fields as there is possibility of accumulation of water in the field. Avoid stagnation of water in saffron field.

▪ **Uttarakhand:**

➤ In Udham Singh Nagar district of Bhabar and Tarai Zone, in timely sown wheat, first irrigation should be given after 20-25 days of sowing. After 3-4 days of first irrigation, remaining dose of Nitrogen should be applied as top dressing in the afternoon. Late sowing of gram in irrigated condition may be completed during first week of December. Sowing of lentil should be completed up to 15th of December. Undertake harvesting of arhar during the week. Sowing of Coriander should be continued. If moisture is not available in the field then pre sowing-irrigation should be given.

➤ In Nainital district of Bhabar and Tarai Zone, continue sowing of wheat. Continue sowing of pea in irrigated valley in the field after seed treatment. In irrigated valley, continue sowing of fenugreek, spinach and coriander. In valley, to save the potato from frost timely irrigation should be applied at required interval. Continue transplanting of seedlings of hilly variety of onion in irrigated valley.

- In TehriGarhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, continue sowing of wheat, gram, mustard and lentil. Give first irrigation to wheat crop after 21-25 days of sowing. Continue transplanting of nursery of onion crop. Continue sowing of carrot, spinach, methi, dhania and radish.
- In Dehradun, Pauri and Haridwar districts of Sub Humid Sub Tropic Zone, considering the favourable low temperature, undertake sowing of medium duration varieties of wheat. Complete sowing of spinach, radish, carrot etc. Give irrigation to potato crop to avoid damage due to avoid excess water on tubers. Undertake nursery sowing of tomato and onion crop where irrigation facility is available.
- **Himachal Pradesh:**
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, complete late sowing of wheat crop. Continue sowing of radish, carrot, turnip, palak and methi in mid hill areas. Complete sowing of sarsonsaag, bathua, radish, spinach, fenugreek, coriander, turnip. Complete planting of potato in lower and mid hill regions. Continue transplanting of cauliflower (late group), cabbage, knolkhol, broccoli and Chinese cabbage.
- In Mid Hills Sub-Humid Zone of Himachal Pradesh, in Bilaspur, Solan, Shimla and Sirmaur districts, continue sowing of pea in low and mid hill region. Continue transplanting of cole crops i.e. cabbage, cauliflower, broccoli, brussel's sprout, knoll-khol and Chinese cabbage in raised beds.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, downy mildew is expected in cruciferous vegetables, for control spray redomil M-Z @ 25 g per litres of water at 15 days interval.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, present weather is conducive for attack of blister blight in tea in shady and high humid areas, for control spray Calixin @ 0.2% or Folicure @ 0.1% and if attack is severe then repeat spray at 15 days with alternate spray of Blitox @ 0.3% at seven days interval.
- In Mild Hills Sub-Humid Zone of Himachal Pradesh, in Kullu and Mandi districts, apply Blitox or Copper Hydroxide @ 600 g per 200 litre of water after harvesting apple orchards and apply Blitox @ 600 g per 200 litres of water or Bourdeaux mixture (1%) after harvesting Pomegranate orchards.
- In Mild Hills Sub-Humid Zone of Himachal Pradesh, in Kullu and Mandi districts present weather is conducive for attack of woolly apple aphid in apple trees, for control, spray Ektara @ 200 g or Marshal @ 200 ml.
- In High Hills Temperate Dry Zone of Himachal Pradesh, in Kinnaur and Lahaul & Spiti, present weather is conducive for fall of leaves in apple trees, for control spray mixture of Mancozeb @ 500 gm and Carbendazim @ 100 g in 20 litres of water at 20 days interval.
- **Punjab, Haryana and Delhi:**
- In Western Zone of Punjab, complete sowing of long duration variety of wheat. Continue transplanting of 4-6 weeks old seedlings of cabbage, mid season cauliflower, chinese cabbage and broccoli. Continue sowing of English radish, turnip, carrot, tomato and chilli and seed bed preparation for onion. Apply light irrigation in onion after 10 days of sowing.
- In Faridkot and Ferozepur districts of Punjab, complete sowing of wheat till 15th of December. The early wheat crop sown around 1st November may reach to CRI growth stage, apply light irrigation at this stage. Undertake planting of potato. Intercropping of wheat, raya, toria, gobhisarson, pea, gram, potato, cabbage, radish, garlic etc. can be done with the sugarcane crop.
- In Gurdaspur and Hoshiarpur districts, complete sowing of long duration varieties of wheat. sowing of wheat. Complete sowing of rabimaize. Complete sowing of raya and gobisarson under irrigated conditions. Complete transplanting of cauliflower and cabbage. Irrigate the vegetable crops at regular interval as per crop need as dry weather is expected in coming days.
- In Rup Nagar district of Sub Montane Undulating Zone of Punjab, continue sowing of wheat, gram, taramira, raya and lentil. Undertake sowing of pea, garlic and coriander.
- In Central Plain Zone of Punjab, undertake sowing of short duration varieties of wheat.
- In Western Zone of Haryana, continue sowing of wheat under optimum soil moisture condition. Give first irrigation to timely sown wheat after 20 days of sowing. Weather is favourable for sowing of barley crop in the region.
- In Eastern Zone of Haryana, continue sowing of wheat. Complete harvesting of matured rice crop. Apply irrigation in vegetables and sugarcane as per requirement. Continue harvesting of early varieties of sugarcane.
- In Western Semi-Arid Zone of Delhi, continue sowing of wheat. Keeping in view of dry weather conditions, farmers are advised to irrigate wheat crop which is in CRI stage (21-25 days after sowing). After 3-4 days of irrigation second dose of nitrogen should be broadcasted in the field. Continue transplanting of mature seedlings of cauliflower, cabbage, broccoli and tomato. Continue sowing of rabionion Sarsonsaag, radish, spinach, fenugreek, coriander and turnip.
- In Gurdaspur and Hoshiarpur districts of Undulating Plain Zone, foggy weather condition is conducive for incidence of late blight on potato. To control spray Indofil M 45 @ 250g per acre.
- **Uttar Pradesh:**
- In Central Plain Zone of Uttar Pradesh, continue sowing of wheat and barley. Continue nursery sowing of onion. Continue nursery sowing of vegetable like tomato, chillies and brinjal etc and continue transplanting of ready seedlings. Apply light irrigation to toria crop as per requirement. Undertake hoeing and weeding operation in

mustard after 30 to 35 days of sowing and timely sown pea and gram.

- In Eastern Plain Zone of Uttar Pradesh, continue sowing of wheat. Undertake transplanting of late sown cabbage, cauliflower and sowing of rabi onion.
- In North Eastern plain Zone of Uttar Pradesh, continue sowing of rabi maize, lentil, mustard, pea, gram, wheat and potato.
- In Western Plain Zone of Uttar Pradesh, continue planting of winter sugarcane and potato, sowing of gram, pea, wheat etc. as intercrop. Continue sowing of wheat crop, before sowing, seeds should be treated with Bavistin or Thiram @ 2 to 2.5 g per kg of seed. Recommended dose of fertilizer for N: P: K is 120, 50 and 40 kg/ha. Continue sowing of *rabi* onion, before sowing seeds should be treated with Captan @ 2.5 g/kg of seeds. Continue transplanting of matured seedlings of cauliflower, cabbage, broccoli and tomato in raised beds.
- In Bundelkhand Zone of Uttar Pradesh, complete sowing of linseed, mustard, vegetable pea, gram, pea, jou and lentil in irrigated areas. Continue sowing of linseed, mustard. Continue transplanting of mid seasonal brinjal, chilli, tomato, cabbage, cauliflower. Apply irrigation to spinach, fenugreek, radish, cabbage, carrot, coriander as per requirement.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of cutworm in potato crop, for control, spray Chlorpyrifos 20 EC @ 2 litres in 700 to 800 litres of water per hectare.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of saw fly or hairy caterpillar in mustard, for control, spray Malathion 50 EC @ 1.5 litres in 600 to 700 litres of water per hectare or Quinalphos 25 % EC @ 1.25 litres in 600 to 700 litres of water per hectare.
- In North Eastern plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of leaf roller in pigeon pea, for control spray Monocrotophos @ 2.0 ml per litre of water spray of 200 litres of water per acre.
- Suitable varieties for sowing are given in Annexure III.

❖ Horticulture

- In Gurdaspur and Hoshiarpur districts of Punjab, irrigate young fruit plants and orchard trees at regular interval for proper growth and to avoid adverse effects of low temperature.
- In Faridkot and Ferozepur districts of Punjab, the young and newly planted fruit plants should be covered with thatches or kullies made of sarkanda or farm waste materials during late November to protect them from cold damage. The South-West side should be left open to allow sufficient sunlight.
- In Central Plain Zone of Punjab, this is appropriate time for sowing of rabi intercrops like wheat, gram, peas etc. to utilize the vacant space in the non- fruit bearing fruit plants. It is the right time for planning and layout for planting deciduous plants such as pear, peach, plum, grapes etc.
- In Alwar, Bharatpur, Dhauipur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, prevailing weather condition is congenial for white dust formation on young shoots in fruit trees, for control spray 0.5% Karathane solution on affected trees.
- In Arid Western Plain Zone, in Barmer, Churu, Jalore, Jodhpur, Pali districts, prevailing weather condition is congenial for attack of fruit fly in ber, for control spray Dimethoate 30 EC @ 1 ml per litre of water.
- In Himachal Pradesh present weather is conducive for the attack of leaf minor in new growth of citrus, for control spray Matasystox or Malathion @ 10 ml in 10 litres of water.
- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, undertake preparation of field and sowing of seeds for raising of root stocks of stone fruits like peach, plum and apricot and nut crops like almond, walnut and pecannut.
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, irrigate the mango, citrus, guava etc. plants wherever necessary. Protect young plants from low temperature. Remove the stock sprout, suckers and water sprout from budded/grafted plants. Flood mango orchards to kill the eggs of mealy bugs.
- In Nainital district of Bhabar and Tarai Zone, there may be infestation of fruit Rot disease in apple and seed bearing fruit. Soil should be removed from the surrounded area of stem in the affected fruit tree so that sun rays may enter directly in the stem of affected tree. Affected bark should be removed and Chaubatia paste should be applied and covered with soil. Drenching of 0.3 % Copper-Oxichloride/plant should also be done.

❖ Floriculture

- In Himachal Pradesh, undertake sowing of gladiolus. In present weather conditions, undertake sowing of winter annuals. Undertake pruning and intercultural operations in rose, apply Bavistin paste in the cut portion to protect the crop against attack of fungal diseases.
- In Valley Temperate Zone of Jammu and Kashmir, undertake planting of spring flowering bulbs of tulip, iris and daffodils etc. Undertake transplanting of winter flowering annuals.

❖ Apiculture

- In Himachal Pradesh, give the winter packing immediately to bee colonies. Check the colonies for nectar and give artificial food to honey bees as there is scarcity of flowers during these days. And keep colonies in sun on clear day.
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, give sugar feeding (1:1). Migrate colonies to areas having floral resources (near toria/vegetable crops). Provide winter packing to bee colonies to protect them from cold. Reduce the entrance. Sulphur dusting/oxalic acid spray @ 3.5% in one litre of water is recommended

at fortnight intervals to control ectoparasitic mites.

- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, farmers are advised to migrate the honey bee colonies from hilly regions to plains to avoid mortality due to decline in temperature.

❖ **Animal Husbandry**

- In High Hills Temperate Dry Zone of Himachal Pradesh, in Kinnaur and Lahaul & Spiti, there may be attack of ringworm (fungal infection) in animals, for control, after clipping hair and scrubbing with soap and water, apply Salicylic or Benzoic acid ointment (2 to 5%) or Iodine once daily until lesions heal.
- In Jammu & Kashmir, it is advised to keep the animals inside the sheds and provide dry bedding and use heaters inside cattle sheds to protect them from cold. Increase protein level and minerals in the feed concentrate to keep the animals healthy to cope up with the situation. Keep the chicks warm by providing artificial light in the poultry sheds.
- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, Nomads are advised to vaccinate and deworm their flocks in order to avoid the economic losses caused by viral and parasitic diseases.

❖ **Poultry**

- In Himachal Pradesh, ensure plenty of drinking water to the poultry birds, proper space for egg laying of birds and provide 14 to 16 hours light including day light. Normal feeding schedule should be continued and add mineral in the diet if stress is observed. Present weather is conducive for the spread of IBD and Ranikhet disease, follow recommended schedule of vaccination for new lot of layers chicks. As temperature is falling, make the arrangements for protection from cold in the poultry houses.
- In Faridkot and Ferozepur districts of Punjab, keep curtains ready for poultry sheds for winter season.

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

Annexure I

Week by week Rainfall Distribution

| Sub-Divisions | 16.11.16 | | 23.11.16 | | 30.11.16 | |
|------------------------------|-------------|--------|-------------|--------|-------------|--------|
| | Actual (mm) | % dep. | Actual (mm) | % dep. | Actual (mm) | % dep. |
| Arunachal Pradesh | | | | | | |
| Anjaw | ** | ** | ** | ** | ** | ** |
| Changlang | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dibang Valley | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Kameng | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Siang | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kurung Kumey | ** | ** | ** | ** | ** | ** |
| Lohit | 0.6 | -92 | 0.6 | -100 | 0.0 | -100 |
| Lower Dibang Valley | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lower Subansari | ** | ** | ** | ** | ** | ** |
| Papumpare | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tawang | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tirap | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Upper Siang | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Upper Subansari | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Kameng | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Siang | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Assam & Meghalaya | | | | | | |
| Assam | | | | | | |
| Baksa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Barpeta | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bongaigaon | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Cachar | 0.6 | -92 | 0.0 | -100 | 0.0 | -100 |
| Chirang | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

| | | | | | | |
|------------------|------|------|-----|------|-----|------|
| Darrang | ** | ** | ** | ** | ** | ** |
| Dhemaji | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dhubri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dibrugarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Goalpara | 0.1 | -99 | 0.0 | -100 | 0.0 | -100 |
| Golaghat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hailakandi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jorhat | 0.1 | -99 | 0.0 | -100 | 0.0 | -100 |
| Kamrup(Rural) | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kamrup(Metro) | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Karbi Anglong | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Karimganj | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kokrajhar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lakhimpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Morigaon | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| N.C.Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nagaon | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nalbari | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sonitpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sibsagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tinsukia | 0.0 | -100 | 0.0 | -100 | 0.3 | -94 |
| Udalgiri | 0.5 | -83 | 0.5 | -100 | 0.0 | -100 |
| Meghalaya | | | | | | |
| East Garo Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Khasi Hills | 0.0 | -100 | 0.0 | -100 | 1.3 | -86 |
| Jaintia Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ribhoi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| South Garo Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Garo Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Khasi Hills | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| NMMT | | | | | | |
| Mizoram | | | | | | |
| Aizwal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Champhai | ** | ** | ** | ** | ** | ** |
| Kolasib | ** | ** | ** | ** | ** | ** |
| Lawngtlai | ** | ** | ** | ** | ** | ** |
| Lunglei | 1.5 | -92 | 0.0 | -100 | 0.0 | -100 |
| Mamit | ** | ** | ** | ** | ** | ** |
| Saiha | 1.0 | -95 | 0.0 | -100 | 0.0 | -100 |
| Serchhip | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Manipur | | | | | | |
| Bishnupur | ** | ** | ** | ** | ** | ** |
| Chandel | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Churachandpur | ** | ** | ** | ** | ** | ** |
| Imphal east | 1.1 | -86 | 0.0 | -100 | 0.0 | -100 |
| Imphal west | 28.5 | 296 | 0.0 | -100 | 0.0 | -100 |
| Senapati | ** | ** | ** | ** | ** | ** |
| Tamenglong | ** | ** | ** | ** | ** | ** |
| Thoubal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

| | | | | | | |
|-------------------------|-----|------|-----|------|-----|------|
| Ukhrul | ** | ** | ** | ** | ** | ** |
| Nagaland | | | | | | |
| Dimapur | 0.0 | -100 | 0.0 | -100 | 0.3 | -80 |
| Kephire | 1.0 | -86 | 0.0 | -100 | 0.0 | -100 |
| Kohima | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Longleng | ** | ** | ** | ** | ** | ** |
| Mokokchung | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mon | ** | ** | ** | ** | ** | ** |
| Paren | ** | ** | ** | ** | ** | ** |
| Phek | 1.0 | -83 | 0.0 | -100 | 0.0 | -100 |
| Tuensang | ** | ** | ** | ** | ** | ** |
| Wokha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Zunheboto | ** | ** | ** | ** | ** | ** |
| Tripura | | | | | | |
| Dhalai | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| NorthTripura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| SouthTripura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Tripura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Himachal Pradesh | | | | | | |
| Bilaspur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chamba | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hamirpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kangra | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kinnaur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kullu | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lahaul and Spiti | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mandi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shimla | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sirmaur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Solan | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Una | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Punjab | | | | | | |
| Amritsar | 3.0 | 114 | 0.0 | -100 | 0.0 | -100 |
| Barnala | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhatinda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Faridkot | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Fatehgarh Saheb | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ferozpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gurdaspur | 0.1 | -93 | 0.0 | -100 | 0.0 | -100 |
| Hoshiarpur | 0.7 | -70 | 0.0 | -100 | 0.0 | -100 |
| Jalandhar | 0.5 | -50 | 0.0 | -100 | 0.0 | -100 |
| Kapurthala | 1.3 | 79 | 0.0 | -100 | 0.0 | -100 |
| Ludhiana | 2.2 | 345 | 0.0 | -100 | 0.0 | -100 |
| Mansa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Moga | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Muktesar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nawashahar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Patiala | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ropar | 0.0 | -100 | 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 | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhiwani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chandigarh | 0.1 | -96 | 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 |
| 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 |
| Katihah | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Karnal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kurukshetra | 0.0 | -100 | 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 | 0.0 | -100 | 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 | 0.0 | -100 | 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 | ** | ** | ** | ** | ** | ** |
| Jammu & Kashmir | | | | | | |
| Anantnag | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Badgam | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bandipore | ** | ** | ** | ** | ** | ** |
| Baramula | 0.0 | -100 | 0.0 | -100 | 0.2 | -98 |
| Doda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ganderbal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jammu | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kargil | ** | ** | ** | ** | ** | ** |
| Kathua | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kistwar | ** | ** | ** | ** | ** | ** |
| Kulgam | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|----------------------------|-----|------|-----|------|-----|------|
| Kupwara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ladakh(Leh) | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Poonch | ** | ** | ** | ** | ** | ** |
| Pulwama | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rajouri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ramban | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Reasi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Samba | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shopian | ** | ** | ** | ** | ** | ** |
| Srinagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Udhampur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Madhya Pradesh | | | | | | |
| Anuppur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Balaghat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chhatarpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chhindwara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Damoh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dindori | 0.0 | -100 | 0.0 | -100 | 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 |
| Umaria | 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 |
| Hoshangabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|---------------------------|-----|------|-----|------|-----|------|
| Indore | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jhabua | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Khandwa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Khargone | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mandsaur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Morena | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Neemuch | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Raisen | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rajgarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ratlam | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sehore | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shajapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sheopur Kalani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shivpuri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ujjain | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Vidisha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chhattisgarh | | | | | | |
| Balod | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Baloda Bazar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Balrampur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bastar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bemetara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bijapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bilaspur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dantewara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dhamtari | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Durg | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gariaband | 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 |
| Kabirdham | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kanker | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kondagaon | 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 |
| Mahasumund | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mungeli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Narayanpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Raigarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Raipur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rajnandgaon | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sukma | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Surajpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Surguja | 0.0 | -100 | 0.0 | -100 | 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 | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

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|---------------------------|-----|------|-----|------|-----|------|
| 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 |
| 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 Kabirnmagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sant Ravidas Nagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shrawasti | ** | ** | ** | ** | ** | ** |
| Sidharthnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sitapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sonbhadra | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sultanpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Unnao | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Varanasi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Uttar Pradesh | | | | | | |
| Agra | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Aligarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Auraiya | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Badaun | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Baghpat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bareilly | 0.0 | -100 | 0.0 | -100 | 0.0 | -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 |

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|--------------------|-----|------|-----|------|-----|------|
| 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 |
| Muzzaffarnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Pilibhit | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rampur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Saharanpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shahjahanpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Uttarakhand | | | | | | |
| Almora | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bageshwar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chamoli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Champawat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dehradun | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Garhwal Pauri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Garhwal Tehri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Haridwar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nainital | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Pithorgarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rudraprayag | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Udham Sing Nagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Uttarkashi | 0.0 | -100 | 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 |

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|------------------|-----|------|-----|------|-----|------|
| Jamui | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kathihar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Khagadia | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kishanganj | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Lakhisarai | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Madhepura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Madhubani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Monghyar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Muzaffarpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nalanda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nawada | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Patna | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Purnea | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rohtas | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Saharsha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Samstipur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Saran | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sheikpura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sheohar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sitamarhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Siwan | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Supaul | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Vaishali | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Champaran | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jharkhand | | | | | | |
| Bokaro | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chatra | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Deoghar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dhanbad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dumka | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Singbhum | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Garhwa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Giridih | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Godda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gumla | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hazaribagh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jamtara | ** | ** | ** | ** | ** | ** |
| Khunti | 0.0 | -100 | 0.0 | -100 | 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 | ** | ** | ** | ** | ** | ** |
| Ranchi | 0.0 | -100 | 0.0 | -100 | 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 |

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|-----------------------|-----|------|-----|------|-----|------|
| 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 | 0.4 | -6 | 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 |
| Aravalli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Banaskantha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Broach | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chhota Udepur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| DNH | ** | ** | ** | ** | ** | ** |
| Dahod | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Daman | ** | ** | ** | ** | ** | ** |
| 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 |
| Mahisagar | 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 |
| Vadodara | 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 |
| Botad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Devbhoomi Dwarka | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Diu | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gir Somnath | 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 |
| Morbi | 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 | 6.6 | -50 | 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 | 4.1 | -61 | 1.7 | -100 | 0.0 | -100 |
| South Goa | 9.8 | -21 | 0.6 | -75 | 0.0 | -100 |
| Thane | ** | ** | ** | ** | ** | ** |
| Madhya Maharashtra | | | | | | |
| Ahmednagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dhule | ** | ** | ** | ** | ** | ** |
| Jalgaon | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kolhapur | 4.8 | -38 | 0.1 | -99 | 0.0 | -100 |
| Nandurbar | ** | ** | ** | ** | ** | ** |
| Nasik | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Pune | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sangli | 2.9 | -57 | 1.0 | -100 | 1.0 | -100 |
| Satara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Solapur | 3.1 | -47 | 0.0 | -100 | 0.0 | -100 |
| Marathwada | | | | | | |
| Aurangabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Beed | 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 |
| Osmanabad | ** | ** | ** | ** | ** | ** |
| Parbhani | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Vidarbha | | | | | | |
| Akola | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Amraoti | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhandara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Buldhana | 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 | 0.0 | -100 | 0.0 | -100 |
| Nagpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Wardha | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Washim | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Yeotmal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Odisha | | | | | | |
| Angul | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Balasore | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bargarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhadrak | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bolangir | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Boudh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Cuttack | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Deogarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dhenkanal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gajapati | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ganjam | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jagatsingpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jajpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jharsuguda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kalahandi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kandhamal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kendrapara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Keonjhar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Khurda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Koraput | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Malkangiri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mayurbhanj | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nawapara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nawarangpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nayagarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Puri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rayagada | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sambalpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sonepur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sundargarh | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

| | | | | | | |
|--|------|------|------|------|------|------|
| West Bengal & Andaman Nicobar Islands | | | | | | |
| A & N ISLAND | | | | | | |
| Nicobar | 9.6 | -86 | 5.9 | -92 | 87.7 | 29 |
| North & Middle Andaman | 0.2 | -99 | 0.0 | -100 | 6.4 | -79 |
| South Andaman | 0.5 | -99 | 32.1 | -54 | 57.9 | 16 |
| GWB | | | | | | |
| Bankura | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Birbhum | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Burdwan | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| East Midnapore | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hooghly | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Howrah | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kolkata | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Murshidabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nadia | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| 24 Pargana (N) | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Purulia | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| 24 Pargana (S) | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Midnapore | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| SHWB & 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 | 0.0 | -100 | 0.1 | -99 |
| 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 |
| South Dinajpur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| South Sikkim | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Sikkim | ** | ** | ** | ** | ** | ** |
| Karnataka | | | | | | |
| Coastal Karnataka | | | | | | |
| Dakshina Kannada | 14.1 | -22 | 0.0 | -100 | 0.0 | -100 |
| Udupi | 6.5 | -59 | 0.0 | -100 | 0.0 | -100 |
| Uttara Kannada | 9.2 | -7 | 0.0 | -100 | 0.0 | -100 |
| N I Karnataka | | | | | | |
| Bagalkote | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Belagavi | 9.9 | 48 | 0.5 | -92 | 0.0 | -100 |
| Bidar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dharwad | 5.3 | -30 | 0.0 | -100 | 0.0 | -100 |
| Gadag | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Haveri | 16.6 | 65 | 0.0 | -100 | 0.0 | -100 |
| Kalaburgi | 0.0* | -99 | 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 | 2.3 | -37 | 0.0 | -100 | 0.0 | -100 |
| S I Karnataka | | | | | | |

| | | | | | | |
|--------------------|------|------|------|------|-----|------|
| Ballari | 0.0 | -100 | 3.1 | -52 | 0.0 | -100 |
| Bangalore Rural | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bangalore Urban | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chamarajanagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chikaballapur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Chikkamagaluru | 11.2 | -16 | 0.0 | -100 | 0.0 | -100 |
| Chitradurga | 0.1 | -98 | 0.0 | -100 | 0.0 | -100 |
| Davangere | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hassan | 2.8 | -76 | 0.0 | -100 | 0.0 | -100 |
| Kodagu | 4.9 | -66 | 0.3 | -99 | 0.0 | -100 |
| Kolar | 0.0 | -100 | 0.7 | -94 | 0.0 | -100 |
| Mandya | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mysuru | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ramanagara | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Shivamogga | 34.3 | 265 | 0.0 | -100 | 0.0 | -100 |
| Tumakuru | 1.2 | -88 | 0.0 | -100 | 0.0 | -100 |
| Kerala | | | | | | |
| Alappuzha | 21.8 | -52 | 2.2 | -94 | 0.0 | -100 |
| Kannur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ernakulam | 27.8 | -29 | 0.0 | -100 | 9.8 | -41 |
| Idukki | 6.6 | -85 | 1.0 | -97 | 0.0 | -100 |
| Kasaragod | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kollam | 16.3 | -73 | 8.6 | -78 | 0.0 | -100 |
| Kottayam | 13.5 | -68 | 8.8 | -71 | 0.0 | -100 |
| Kozhikode | 0.1 | -99 | 0.0 | -100 | 0.0 | -100 |
| Malappuram | 1.2 | -96 | 0.0 | -100 | 0.0 | -100 |
| Palakkad | 0.1 | -99 | 0.0 | -100 | 0.0 | -100 |
| Pathanamthitta | 42.5 | -32 | 17.5 | -57 | 0.0 | -100 |
| Thiruvananthapuram | 3.0 | -94 | 12.7 | -57 | 4.7 | -79 |
| Thrissur | 3.2 | -91 | 0.0 | -100 | 0.0 | -100 |
| Wyand | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tamil Nadu | | | | | | |
| Ariyalur | 2.0 | -96 | 2.6 | -94 | 0.0 | -100 |
| Chennai | 14.9 | -86 | 0.6 | -99 | 0.0 | -100 |
| Coimbatore | 1.3 | -96 | 0.0 | -100 | 0.0 | -100 |
| Cuddalore | 8.5 | -88 | 3.9 | -94 | 0.0 | -100 |
| Dharmapuri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Dindigul | 5.7 | -84 | 0.3 | -99 | 0.0 | -100 |
| Erode | 0.2 | -99 | 0.0 | -100 | 0.0 | -100 |
| Kanchipuram | 8.1 | -88 | 4.7 | -92 | 0.0 | -100 |
| Kanyakumari | 19.3 | -64 | 29.0 | -18 | 0.3 | -99 |
| Karaikal | 35.0 | -70 | 12.4 | -81 | 0.0 | -100 |
| Karur | 0.5 | -98 | 0.3 | -99 | 0.0 | -100 |
| Krishnagiri | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Madurai | 0.3 | -99 | 0.3 | -99 | 0.0 | -100 |
| Nagapattinam | 17.1 | -83 | 45.1 | -48 | 0.0 | -100 |
| Namakkal | 2.3 | -89 | 0.0 | -100 | 0.0 | -100 |
| Nilgiris | 69.3 | 50 | 0.6 | -98 | 0.0 | -100 |
| Perambalur | 0.5 | -98 | 0.0 | -100 | 0.0 | -100 |

| | | | | | | |
|-------------------------------|------|------|------|------|-----|------|
| Puducherry | 4.6 | -94 | 0.0 | -100 | 0.0 | -100 |
| Pudukottai | 3.6 | -89 | 8.2 | -79 | 0.0 | -100 |
| Ramanathapuram | 6.9 | -82 | 40.4 | 12 | 0.0 | -100 |
| Salem | 2.0 | -93 | 0.0 | -100 | 0.0 | -100 |
| Sivaganga | 5.6 | -80 | 9.0 | -67 | 0.0 | -100 |
| Thanjavur | 17.2 | -60 | 13.3 | -73 | 0.0 | -100 |
| Theni | 3.2 | -90 | 1.3 | -95 | 0.0 | -100 |
| Tirunelveli | 31.3 | -39 | 21.3 | -43 | 0.8 | -97 |
| Tirupur | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tiruvallur | 2.0 | -97 | 0.0 | -100 | 0.0 | -100 |
| Tiruvannamalai | 1.3 | -97 | 0.0 | -100 | 0.0 | -100 |
| Tiruvarur | 29.0 | -56 | 29.7 | -59 | 0.0 | -100 |
| Toothukudi | 38.8 | -5 | 22.8 | -40 | 0.0 | -100 |
| Trichy | 1.1 | -97 | 0.0 | -100 | 0.0 | -100 |
| Vellore | 0.5 | -99 | 0.0 | -100 | 0.0 | -100 |
| Villupuram | 2.5 | -94 | 0.0 | -100 | 0.0 | -100 |
| Virudhunagar | 6.6 | -83 | 8.5 | -74 | 0.0 | -100 |
| Andhra Pradesh | | | | | | |
| Coastal Andhra Pradesh | | | | | | |
| East Godavari | 0.3 | -97 | 0.0 | -100 | 0.0 | -100 |
| Guntur | 0.0 | -100 | 1.0 | -94 | 0.0 | -100 |
| Krishna | 1.6 | -82 | 5.0 | -63 | 0.0 | -100 |
| Nellore | 8.5 | -89 | 3.9 | -93 | 0.0 | -100 |
| Prakasam | 3.1 | -86 | 1.4 | -94 | 0.0 | -100 |
| Sirkakulam | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Visakhapatnam | 0.1 | -99 | 0.0 | -100 | 0.0 | -100 |
| Vizianagram | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| West Godavari | 1.5 | -87 | 0.2 | -99 | 0.0 | -100 |
| Rayalaseema | | | | | | |
| Anantapur | 0.7 | -92 | 0.2 | -95 | 0.0 | -100 |
| Chittoor | 2.0 | -95 | 1.4 | -94 | 0.0 | -100 |
| Cuddapah | 0.1 | -99 | 4.1 | -68 | 0.0 | -100 |
| Kurnool | 0.2 | -97 | 0.0 | -100 | 0.0 | -100 |
| Telangana | | | | | | |
| Adilabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Hyderabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Karimnagar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Khammam | 0.3 | -83 | 0.0 | -100 | 0.0 | -100 |
| Mehabubnagar | 2.3 | -25 | 0.0 | -100 | 0.0 | -100 |
| Medak | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nalgonda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nizamabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Rangareddy | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Warangal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |

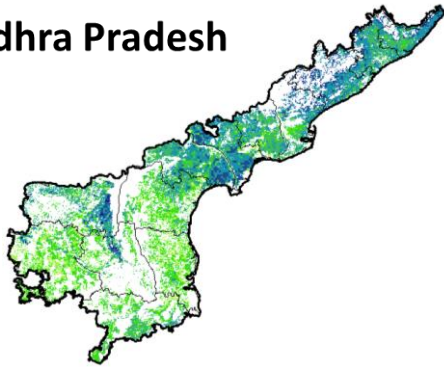
Legends

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

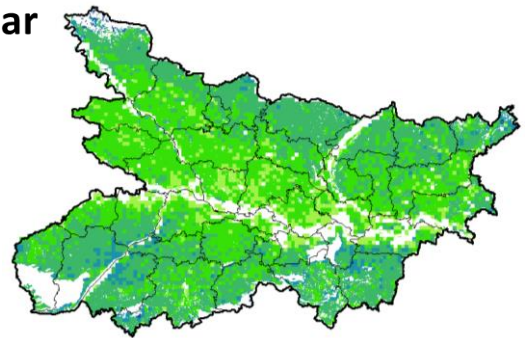
**NOAA/AVHRR NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
1st December 2016 FOR DIFFERENT STATES**

Andhra Pradesh



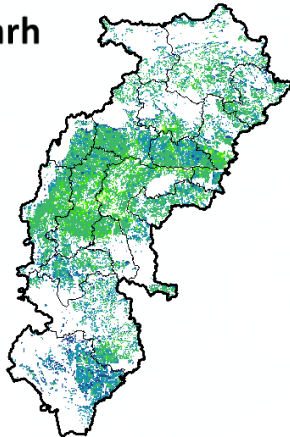
Agriculture vigour is moderate over central and southern part whereas, northern parts show good to very good NDVI in the state of Andhra Pradesh.

Bihar



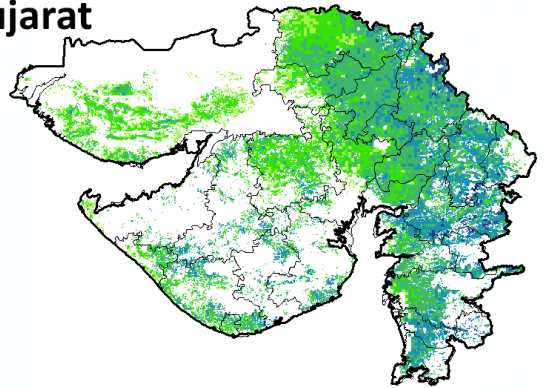
Agriculture vigour is moderate over central parts of Bihar whereas southern and patches in northern part shows good NDVI values.

Chhattisgarh



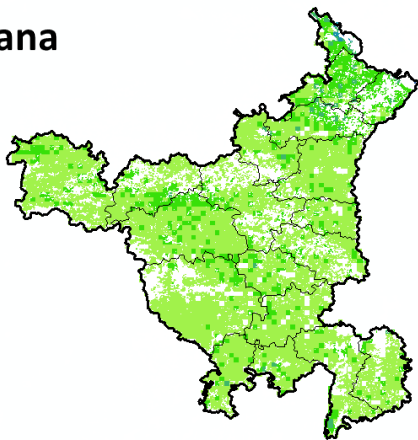
Agriculture vigour is good in southern region whereas, very moderate vigour is seen in central and northern region of Chhattisgarh.

Gujarat



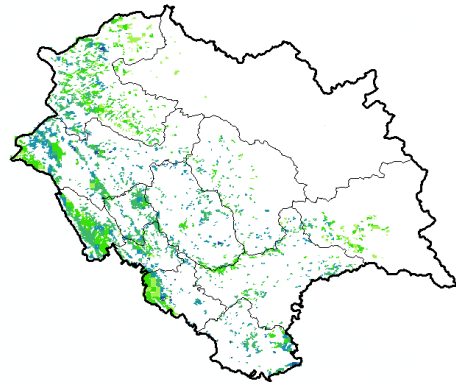
Moderate NDVI values are observed in patches in Kutch region whereas, good to very good NDVI is observed in Saurashtra and Gujarat.

Haryana



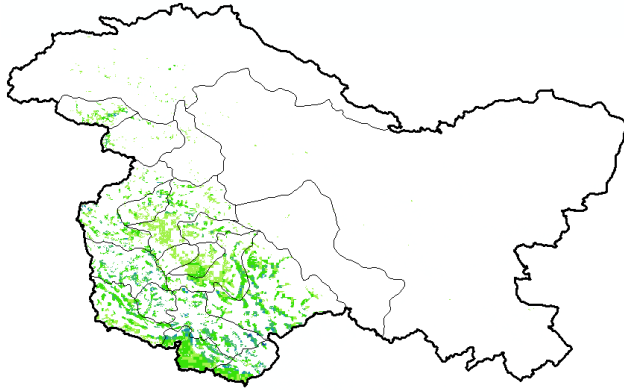
Moderate agriculture vigour is observed over entire state of Haryana.

Himachal Pradesh



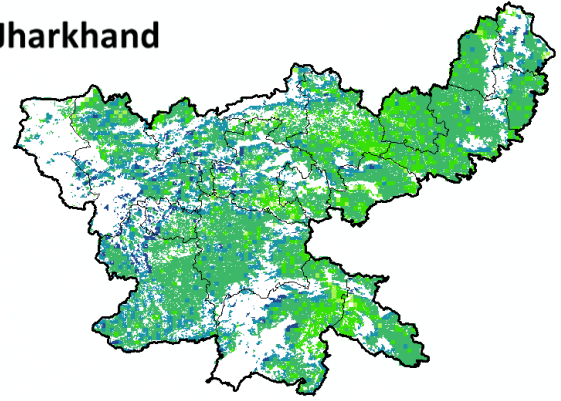
Agriculture vigour is moderate to good over Himachal Pradesh.

Jammu & Kashmir



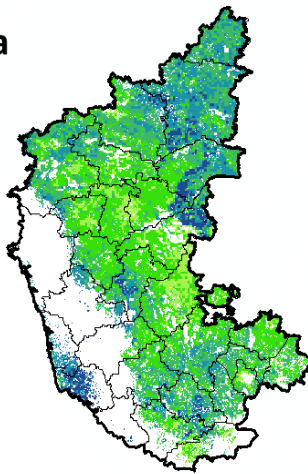
Agriculture vigour is moderate over entire state of Jammu & Kashmir.

Jharkhand



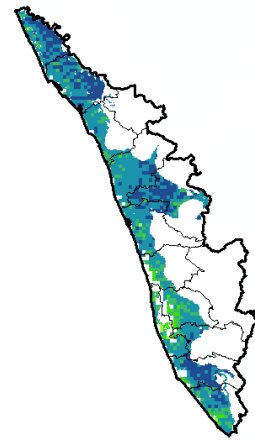
Agriculture vigour is very good over few patches in western region of Jharkhand whereas, remaining states shows good to moderate NDVI values.

Karnataka



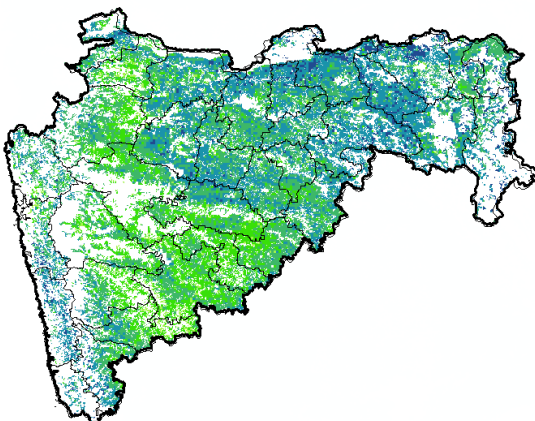
Agriculture vigour is moderate over patches in central region of the state whereas good vigour is observed in the northern and patches in southern regions.

Kerala



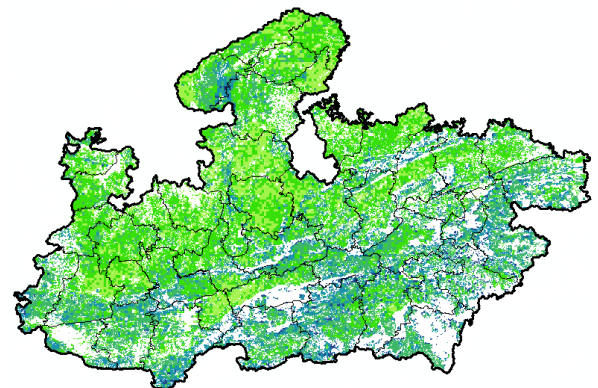
Agriculture vigour is good over entire state of Kerala except central part which shows moderate NDVI values.

Maharashtra



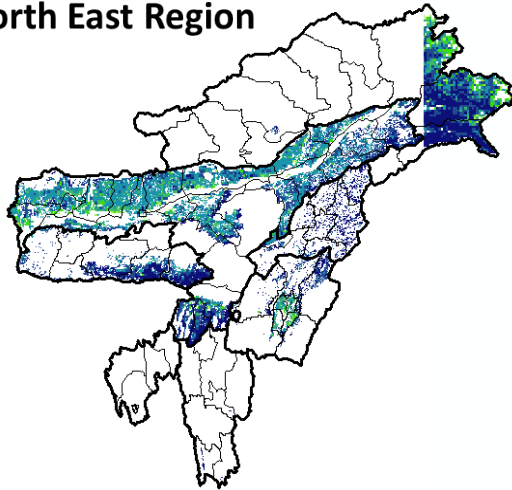
Agricultural vigour is moderate over central Maharashtra whereas, good to very good vigour is observed in the north and eastern regions.

Madhya Pradesh



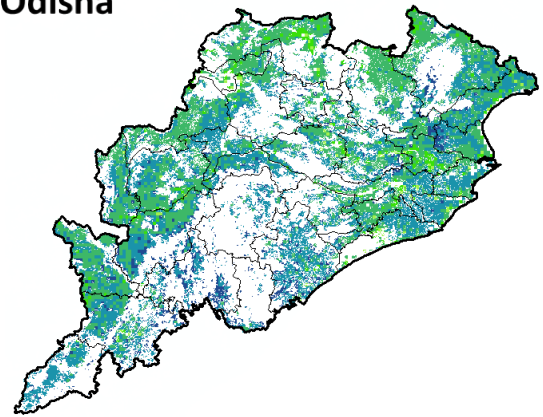
Agriculture vigour is moderate over patches in western and northern region of the state of Madhya Pradesh whereas, good vigour is observed over eastern and southern region.

North East Region



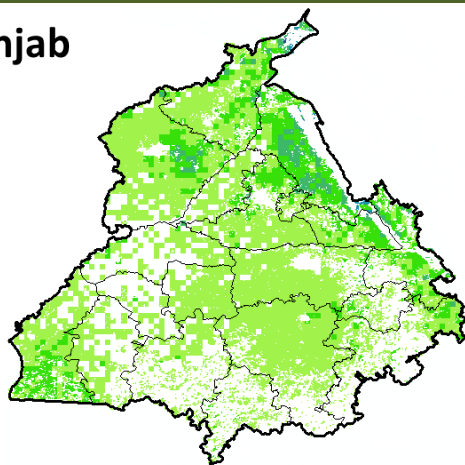
Agriculture vigour is good & very good over north-east states of country.

Odisha



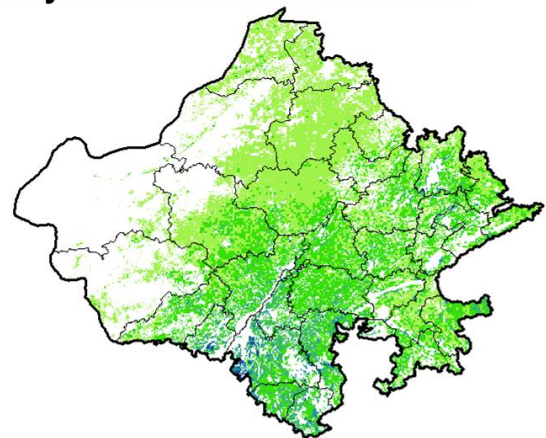
Agriculture vigour is moderate over few patches in coastal region of Odisha whereas, good vigour is observed in entire state.

Punjab



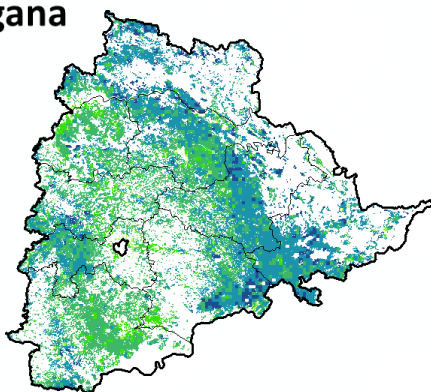
Agriculture vigour is moderate over entire state of Punjab.

Rajasthan



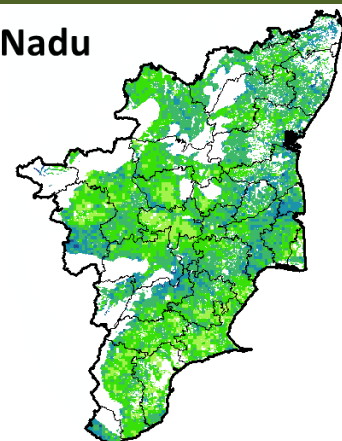
Agriculture vigour is moderate over western and northern Rajasthan whereas, good vigour is observed over southern region.

Telangana

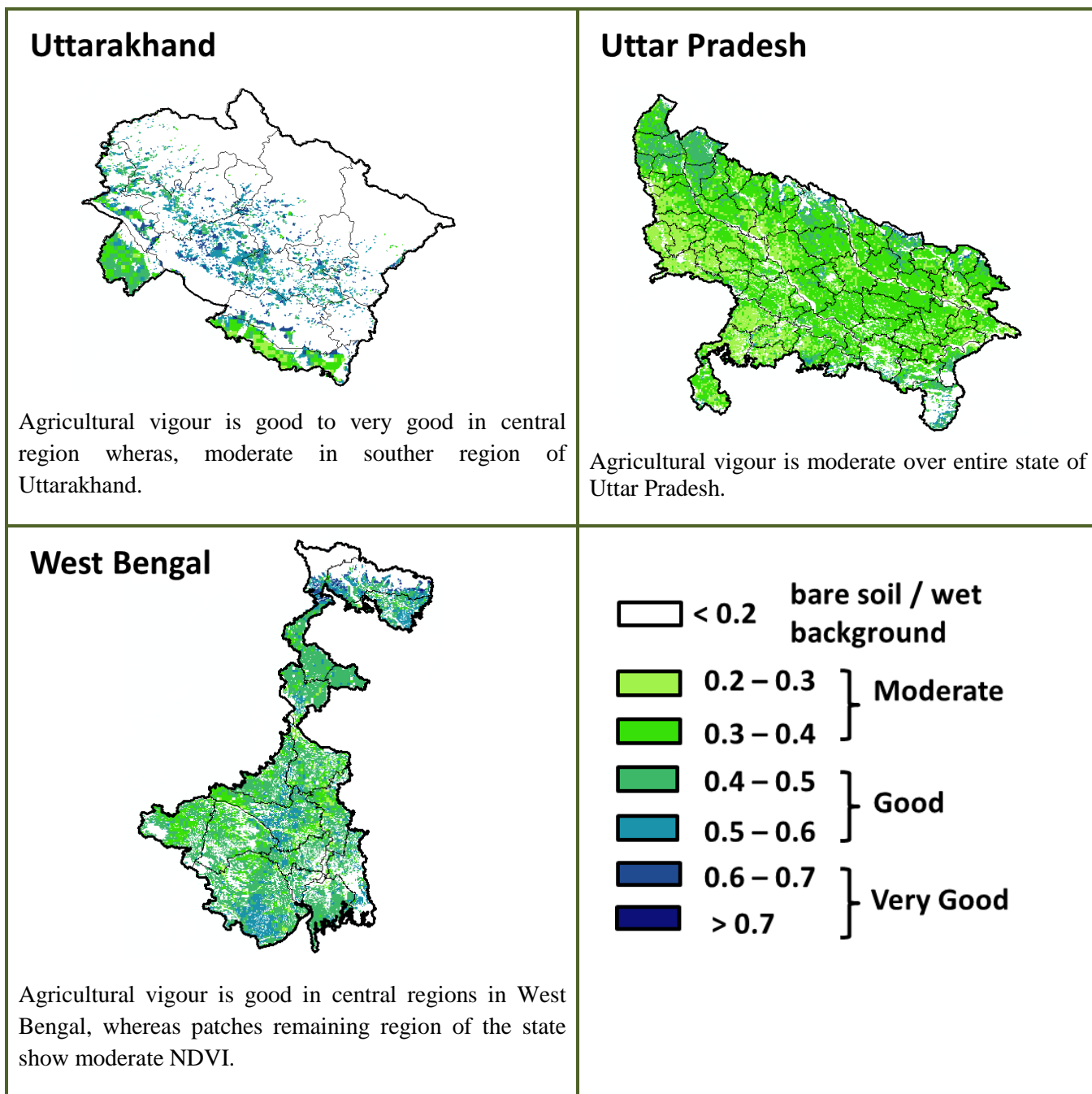


Agriculture vigour is good to very good over northern region of Telangana whereas, moderate vigour is observed in patches in the central and southern region.

Tamil Nadu



Agriculture vigour is good in patches in northern and central part of Tamil Nadu, whereas rest of the part shows moderate NDVI.



* For New Delhi NOAA/AVHRR NDVI COMPOSITE Map is not available due to some problem in data set.

Annexure III

- Assam**
- Okra:** Pusa Sawani, Arka Anamika, Parbhdani Kranti.
- Cauliflower :** Early Kunwari, Pusa Ketki, Pusa Dipali.
- Winter brinjal:** Pusa Kranti, Pusa Purple Long, Pusa Purple Round, Pusa Vairab, Pant Samra.
- Pumpkin:** Arke Suryamukhi, Arka Chandan.
- Radish :** Pusa Desi, Pusa Chetki.
- 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).
- Brinjal :** Cluster, Barbengena, JC-1, Kuchia, Pusa Kranti, Pusa Purple Long (for long varieties).
Pusa Purple Round, Pusa Vairab, JC-2, BWR-12 (round varieties).
- Potato :** Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Badshah, Kufri Sindhuri.
- Onion :** Pusa Red, Pusa Ratnar, Pusa white (Round), Pusa white (Flat), N-53, Agrifound Light Red, Punjab Red Round, Pusa Madhuri, Arka Niketan.
- Cauliflower :** Early Kunwari, Pusa Katki and Pusa Deepali (for early maturity).
Improved Japanese, Pusa Synthetic, Pusa Snowhall (for mid maturity).
Snowball-16, Pusa Snowball, K-1 and Hissar 1 (for late maturity) etc.

Cabbage :Golden Acre, Pride of India, Pusa Mukta (Sel – 8) (for early maturity).
Drum Head and Eclipse Drum Head (for late maturity).

Knol-Khol :White Vienna (for early maturity).
Purple Viena (for late maturity).

Manipur

Pea :Arkel.

Tripura

Tomato: Trishul, Allrounder, T- 1408, T- 1458, Anup.

Cauliflower: CFL- 4048, Pusa early synthetic, Kamaya, Suhasi.

Cabbage: BC- 76, Pusa Drum Head, Pusa Synthetic.

Broccoli: Everest, Ayeshwaria.

Odisha

Green pea: Rachana, Arkel. and T -163.

Mustard:Parbhathi, Anuradha, TS-29 & M-27.

Garlic:Phawari, Rajalbadi, Jamnagar and G-282

Potato: Kufri Chandramukhi, Kufri Chamatkar, Kufri Jyoti, Kufri Sinduri and Kufri Alankar, etc

Greengram- TARM1, OUM11-5, Hum-1

Blackgram-PU-19, LBG-17

Gram-Radhey, Annegiri, Sweta, Bharati, JG 11

Groundnut:are Smruti, AK 12-24, JL-24.

Bihar

Pigeon pea: Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13.

Sesame : Kanak, kalika, Uma, Usha, Tilottama, Neelima and Prachi

Green gram : K -851, PDM -54, PDM -11, OUM 11-5

Black gram : T-9, Pant-U-19. Pant –U-30, Pant –U-11

Niger : Deomali

Horsegram : Urmi, DS 1-2-2, DS 1-2

Jharkhand

Mustard: Shivani, Varuna, Pusa bold, Kranti, Pusa jaikisan , Vardan etc.

Potato: Kufri Ashoka, Kufri Pukhraj, Kufri Lalima, Kufri Pushkar and Kufri Kanchan.

Toria: BR-23,T.-9, P.T. 303, Panchali and Bhavani.

Gram: KAK-2, ICC-2, HK94-134(Kabuli) and Pusa 256, Pusa 372, Pant G-114, KWR 108, ICC 37.

Lentil:P.L.- 406, P.L.-639, D.P.L.-15, D.P.I.- 62 etc.

Green pea: Arkel or Azad pea.

Wheat: HDR-77, K-8027, C-306, Birsa genhu – 3 etc. HDR-77, K-8027, C-306, Birsa genhu – 3 etc.

Linseed:Sweta, Shubhra, T-397 etc.

West Bengal

Coconut: Eastcoastal, Hazari

Banana:Mortoman, Chapa, Kathali, Singapuri,

Mustard:Varuna, Sita and Bhagirathi.

Jute : Chaitali, Basudev, Naveen, Sonali, Sobujsona, Shyamali etc.

Cabbage :Pride of India, Pusa early, Kranti.

Cauliflower : Jawhar moti, Bharat Jyoti, Early banaras.

Uttarakhand

Wheat:HS-562,VL-616,VL-829,VL-802,VL-802

Onion:VL-Pyaj-3,Nasik Red,Pusa Red

Pea: Vivek 10,Vivek 11,Pant 3,

Radish:Meenu early, Japanese white, PusaHimani.

Carrot:PusaVrishi,

Rai:Varuna, Rohini, Krishna, Kanti, Vardan, Vaibhav, Basanti, Narendra, Early rai-4, Urvashi and varieties

Yellow Mustard: Ragini, Binoy (B-9), Pant peeli Sarso-1.

Jammu and Kashmir

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

Pea: AP-1, Bonnevillea, Rachna and Arkel

Chickpea: K-468, Gourav

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

Berseem:Vardan, mascavi, pusa giant, BL-1

Potato: Kufri Badshah, K.Sinduri, K.Chipsona & K.Sona

Gram: C-235,Gaurav,K-468,SCS-3,PBG-1

Toria: RSPT-1 and RSPT-2

Himachal Pradesh

Cauliflower: snowball and Giant snowball.

Radish: Japanese white, Chinese pink and mino early white

Turnip: PTWG-1

Carrot: Pusakesar

Peas : Mater ageta-6 (early variety).

Cabbage: Pride of India, golden achor and hybrid

East Uttar Pradesh

Wheat: PVW-343, UP-2338, WH-542, K-9107, K-9006, HP-1731, NW-1012, UP-2382, HUW-468, PVW-443, HD-2733, HD-2824, K-307, K-9423, NW-1067, KRL-210, KRL-213, PBW-323, CBW-38, DBW-39, UP2332 and HUW510, C-306, K-65,78,8027 and HUW-533.

Mustard: varuna, Rohini, kranti, krushna, vardan, vaibhav, narendra rai (8501).

Onion: Kalyanpur Lal gol, Pusa ratnakar, Agrifound lite red, bargandi, KP, Orient, Rosi.

Jou: Azad, K-141/11.

Turmeric: Kasturi, Paspu, Amlapuram, Madhukar, Sugna, Rajendra

Ginger -suprabha, suruchi, surbhi and Himgiri

Arahar: Bahar, Amar, Narendra Arahar-1,2, pusa-2001, pusa-991, pusa-992, parasmanak, UPAS 120.

Moong: Type-27, 56

Toria: TA-9, Bhawani, PT-30, PT-507, TA-36, PT-303.

Potato: Kufri Ashoka, Kufri Chandramukhi and Kufri Jawahar (Improved varieties of potato) Kufri Badshah, Kufri Satlaj, Kufri Khalima (inferior varieties), Kufri Ashoka, Kufri Chandramukhi, Kufri sadabahar.

Gram: JCP-105, K-850, Pusa-256, Avrodhi, Pusa-256, KWR-108, DCP-92-3, KDG-1168, K-850, and Kabuli chana: HK-94-134.

Mustard: Narendra ageti, rai-4, Varuna (T59), Basti (Pili), rohini, Maya, Narendra swarna-rai-8(pili), Narendra rai (NDR-8501), vaibhav.

Kabuli gram: chatmatkar, Puse-1003, Subhra as good varieties.

Pea: Rachna, Pantmatar-5, Aparna Malviya Matar-2, Malviya Matar-15, Shikha and Sapna are good varieties.

Radish: kalyanpur No.1, Pusa Rashmi, Hisar selection-1, Japani Safed, pusa Chetaki, Pusa Himani, Pusa deshi, Arka Nishant and Jaunpuri.

Cabbage: Pusa snowball, Pusa snowball II, Snowball 16 and Pusa snowball K1

West Uttar Pradesh

Wheat: magahar, mandakini, C-306, Loak-1, k-9465, and kathia meghdoot, H.D. 2687, H.D. 2851, H.D. 2894, H.D. 2967, H.D. 3086, D.B.W.-17.

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

Baby corn: M.H.-4.

Toria: bhavani

Mustard: Urvashi, Rohini, Maya, Giriraj, Vardan, Vaibhav

Linseed: Parvati, sharda, Padmini

Vegetable pea: Azad-3, Aakril

Gram: Zaki-9218, KGD-1168, KWR-108, Uday

Pea: KPRM-522, KPRM-400, Vikas, Prakash

Lentil: DPL-62, Malika

Potato: Kufri Badshah, Kufri Bahar, Kufri Aanand, Chipsona-1, Chipsona-2, Chipsona-3.

Punjab

Sugarcane: CoJ-85, CoJ-83, CoJ-64 (early maturing), COH-119, CoJ-88, CoS-8436 for and CoJ-89, CO118, COJ85, COJ64.

Onion: Punjab Naroya, Punjab White and PRO 6.

Radish: Punjab Pasand and Japanese white.

Turnip: L-1.

Carrot: Punjab Black Beauty, Punjab Carrot Red and PC-34.

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

Okra: Punjab-8 and Punjab-7

Cauliflower: Pusa Snow Ball-1, Pusa Snow Ball K-1

Wheat: PBW 725, PBW 677, HD-3086, WH 1105, PBW 621, HD 2967.

Kabuli gram: L 552, L 550 & BG-1053.

Raya: RLC3, PBR 357, PBR 210, RLC-1, , RLM-619, PBR-91

Gram: C 235, HC 5

un-irrigated/rainfed (HC 1)

Delhi

Wheat: H.D. 2687, H.D. 2851, H.D. 2894, H.D. 2967, H.D. 3086, D.B.W.-17

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

Pea: Pusa Pragati, Arkel, Azad Matar-3, Pant Matar-3 and Bournville.

Potato: Kufri Badshah, Kufri Bahar, Kufri Aanand, Chipsona-1, Chipsona-2, Chipsona-3.

East Rajasthan:

Wheat:Raj-1555, Raj-3765, Lok-1, WH-147, GW-190, GW-322 and GW-273. The suitable varieties for unirrigated wheat are HI-1500 and HI-1531. Raj-4037, Raj-3777, Raj-4120, Raj-4037, Raj-4069, Raj-4238 and MP-3288.

Barley: RD-2552, RD-2052, RD-2035, RD-2503, RD-2715, RD-2660, RD-2508 and Jyoti, RD 2668

Gram:RSG 44, Dahod yellow, GNG 16, ICCV 10, RSG 888, GNG 469 and Pratap chana 1, RSG-895, RSG-973, RSG-896, RSG-902, RSG-991 and GNG-1581

Lentil: T 36, BL 406, Sihore 74-7 and K 75

Sorghum: CSH-6, CSH-9, CSV-10, CSV-15, TG37-A, DH-86, Pratap Mungfali-1.

Maize: Aravali Makka-1, Pratap Makka-1, Pratap Makka-5, Pratap Hybrid Maize-1, Pratap Hybrid Maize-2 and bio-9637, Hybrid varieties are-MahiDhawal, PEHM- 2, Pratap Hybrid Maize-1, Pratap Makka-3, Pratap Makka-5, Bio-9637, Bio-9681, Pratap HQPM-1, Pratap Hybrid Maize-3, Pratap Makka-9, Ageti-76, Bassi Selected, MahiKanchan

Greengram:RMG-62, RMG-268. RMG-492 & RMG-344, IPM-02-3.

Cowpea: FS-68, RC-19 and RC-101.

Moth: RMO-40, IPCMO-912, RMO-257, RMO-225, RMO-435 (Vikash) (improved varieties)

Pea (early): Arkil, Hara bona, VL-3, Jawahar Matar-4, Matar Ageti-6 improved varieties.

Cauliflower: Pusa snow ball K-1, Hisar-1, Dania and Selection-7 are improved varieties.

Carrot:PusaKeshar is improved variety.

Mustard: Pusa jai kisan, RH-30, Pusa bold, Laxmi, kranti, Pusa Jai Kisan, PR-15 (Kranti), Vashundra, RRN 573, RGN-73, Bio-902 (Pusa Jaikisan), Aashirwad, RH-9304 (Vasundhara), RH-9802 (Swarn Jyoti), RH-8812 (Laxmi).

Radish: Japanese white & hill queen.

West Rajasthan

Wheat: Raj-3077, Raj-3777, Raj-4037, Raj-1482, WH-147 and Loak-1.

Jou:RD-2052, RD-2035, RD-57, RD-31, and Bilada-2, RD-2660, RD-2552, RD-2592 or Mald varieties RD-2503, DWRUB-52(timely sowing) or DWRUB-64(late sowing)

Cumin: RZ-19, RZ-209, GG-4, RZ-223.

Isabgol: RI 89 & GI-2.

Fenugreek :RMt 1 & RMt305.

Bhindi: Ark Anamika, varshauphar, Parbhanikranti, pusamakhmali.

Groundnut: HNG-123, HNG-69, ICHG-00440, HNG-10, TG-37 A, Girnar-2, R.G.-425, GG-20, TG-39.

Gram: c-235, RSG-44, GNG-663(vardan), RSG-888, GNG-469(samrat), GNG_1581(gangour), for kabulichana-GNG-1499(gouri) and GNG-1292

Mustard: RGN-13, RGN-73, Laxmi, Pusa bold, RGN-298, RGN-229, RGN-48, barni (timely sowing) RGN-145, RGN-236 (for late sowing), Bio-902, T-59, Pusa bold, Arawali and RGN-48,

Radish: Japanese white & hill queen.

Garlic: lava, maleva

Onion: Pusa red, Nasik red, Udaipur-102, pusa white flate

Madhya Pradesh

Wheat: (Irrigated- JW 1203, 1215, HI 1544).

Non irrigated- JW 3288, 3173. HI-1500, HI- 1531, HW-2004, JWS-17.

Gram: JG 130, JG 218, JG 11, JG 16, JG 6, JG 315, RVJ 202, JAKI-92-18, RVG-201, RVG-203.

Garlic:G 282, 223.

Lentil:RVL 31, JL 2.

Mustard: Pusa Jaikisan, RH-749, RH-406, IJ-31, NRCHB-101, RVM- 1, RVM-2.

Chhattisgarh

Mustard:Shiwani, Varuna, Pusa Bold, BR-40. Mustard.

Wheat:Lok-1, W.H. 147, Kanchan & Raj, C 308, Sujata, H.W. 2004, Ratan, H.I.-8627 & H.I. 1531.

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.

Sugarcane:CO 86032, CO 419, CO 1305, CO J 86-141, CO 6304, CO 8338, CO 6217, CO 775, CO J 2087.

Maharashtra

Jowar :Maldandi (M-35 – 1), SPV-655, SPV-839, Phule Yashoda, Parbhani Moti, Swati.

Wheat: NIAW-301 (Trimbak), NIAW-917 (Tapovan), NIDW-295 (Godavari), Late sowing- NIDW-15 (Panchavati), NIAW- 1495, NIAW-5439, MACS-1967, Ajinta.

For irrigated- NIAW-34, Tapovan, Godavari, Trimbak and PBN – 51.

Linseed: PKV NL-260, NL-97, NL-142 and NL-165.

Gujarat

Wheat: Lok-1, GW-496, GW -503, GW -273, GW -322.

Mustard: Gujarat Mustard 1, 2, 3, 4, Varuna.

Chick pea: Gujarat chana-2 (Unirrigated), Gujarat chana-3 (irrigated), Dahod Yellow, Chaffa.

Maize: Ganga safed -2, GM -6.

Cumin: Gujarat cumin-1, GC-2, GC 3 or MC-43.
Garlic: Gujarat Garlic-4 or Local, GG- 2,3,4, G-41, 50, 282.
Carrot: Patan Local, Pusa Kesar and Pusa Chamdagni.
Cabbage: Kranti, Golden Acre Pride of India, Coppen Market.
Coriander: Gujarat Coriander-1, Gujarat Coriander-2.
Pea: Pusa Pragati.
Carrot: Pusa Rudhira, Pusa Kesar.
Fenugreek: Gujarat Fenugreek -1.
Potato: Punkharaj, Kufari Chandramukhi, Kufari Jawahar, Kufari Bahar, Asoka; long duration cultivars viz., Kufari Laukar, Kufari Jyoti, Kufari Badshah, Kufari Sinduri, Satalaj.

Karnataka

Sorghum: DSH-4, M-35-1, Muguthi, DSV-4, DSV-5, Maldandi, CSV-29R, SPV-2217, BJV-44.
Safflower : A-1, A-2, S-144.
Sunflower: Morden, KBSH-1,41,44 & 52.
Cowpea: KBC-1, 2.
Ragi: GPU 26,45, 48, Indaf 7,9, 15.
Field bean: Hebbal Avare-3, 4.
Rabi sorghum: Maldandi Muguthi, DSV-4, DSV-5, BJV-44 varietyor Hybrid-DSH- 4, M 35-1 Muguthi, CSV-29R, SPV-2217.
Chickpea: A-1, GBS-964, JG-11, BGD-103, GB-1105, Annigeri-1, ICCV-10, BG-1105, JG-1, KAK-2, Vishal.
Wheat: DWR-162, DWR-225, DWR-415, 185, 195, DWR-2006, DWR-1006, DDK-1001, DWR-137, HD-2189, UAS-304, 428.
Niger : KBN-1, No.71, RCR-18.
Sugarcane: CO-86032, 740, 671.

Andhra Pradesh

Sorghum: CSH-9, CSH-13, CSH-14, PSV-15, PSV-19
Bajra: ICTP 8203, PBH 3
Korra: Prasad, Krishnadevaraya, Narashimharaya, Srilakshmi, Surya nandi
Cowpea: C 152 GC3 C0-4 CO-5
Sunflower: NDSH1 KBSH1 KBSH 44 DRSH 1
Green gram: LGG 407 LGG 450 LGG 460 MGG 295 ML 267, LGG 410, TM 96-2.
Field bean: TFB-1 TFB-5
black gram: LBG-752, LBG-20, T-9, LBG-623, PU-31, LB-402, LBG-709 and LBG-787.
Bengal gram: JG-11, LBEG-7, JG-130. Nadyal-1 and swetha.

Telangana

Cotton: American Cotton varieties, Desi Cotton varieties (G. arboreum. L and G. herbaceum. L, Intra/Inter – specific Cotton hybrids, Bt. cotton.