

National Agromet Advisory Service Bulletin

Friday 17th April 2015

(For the period 17th to 21st April 2015)

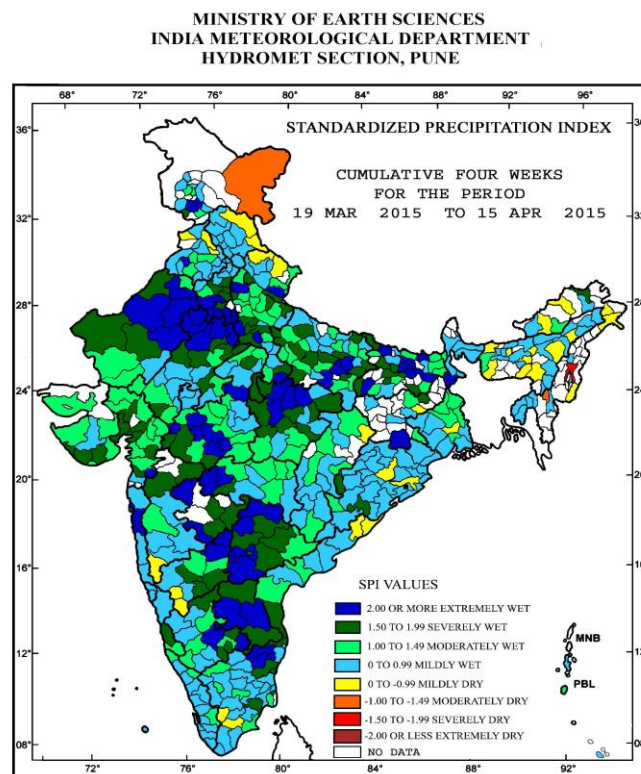


Issued by

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



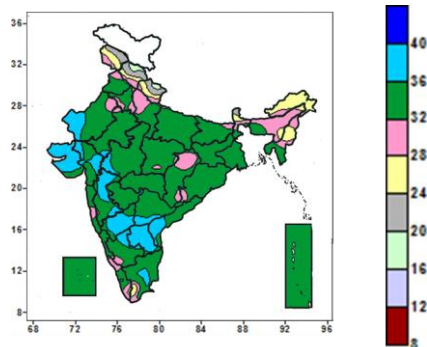
Standardised Precipitation Index
Four Weekly
for the Period 19th March to 15th April 2015



- Extremely/severely wet conditions experienced in most districts of Telangana, many districts of Haryana, Madhya Pradesh, Rajasthan; few districts of Bihar, Uttar Pradesh, Gujarat, Maharashtra, Tamil Nadu and Karnataka; Upper Siang district of Arunachal Pradesh; Malda district of West Bengal; Nawapara and Rayagada districts of Odisha, Deoghar and West Singhbhum districts of Jharkhand; Puducherry and Karaikal districts of Puducherry, Hardwar, Udham Singh Nagar and Nainital districts of Uttarakhand; Faridkot district of Punjab, Jammu, Reasi and Ramban districts of Jammu and Kashmir; Nellore district of Andhra Pradesh.
- Moderately/severely dry conditions experienced in Senapati district of Manipur; Kolasib district of Mizoram, Ladakh (Leh) district of Jammu and Kashmir.
- Rest of the country experienced moderately wet/mildly dry/wet conditions.

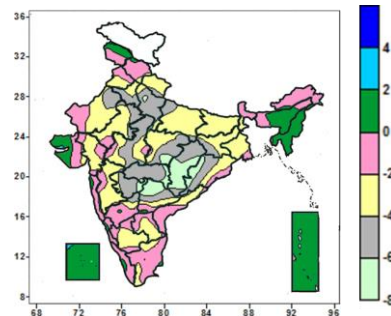
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 15.04.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 15.04.2015



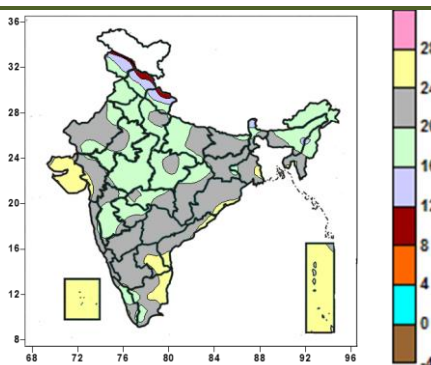
- 36 to 40°C over many parts of Gujarat, Madhya Maharashtra, North Interior Karnataka, Rayalaseema, few parts of West Rajasthan, isolated parts of East Rajasthan, West Madhya Pradesh, South Interior Karnataka, Telangana, Coastal Andhra Pradesh and Tamil Nadu.
- 28 to 36°C over entire country except many parts of Gujarat, Madhya Maharashtra, North Interior Karnataka, Rayalaseema, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Manipur, few parts of West Rajasthan, isolated parts of East Rajasthan, West Madhya Pradesh, Assam & Meghalaya South Interior Karnataka, Telangana, Coastal Andhra Pradesh, Tamil Nadu and Kerala.
- 16 to 28°C over many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Manipur, isolated parts of Assam & Meghalaya, Tamil Nadu and Kerala.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 15.04.2015



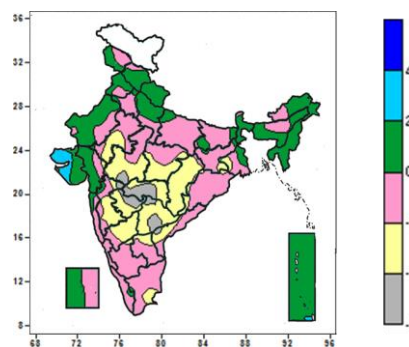
- 2 to 4 over isolated parts of Lakshadweep.
- -2 to 2°C over Jammu & Kashmir, North East India, Sikkim, Konkan & Goa, Coastal Karnataka, Kerala and Andaman & Nicobar Islands, many parts of Himachal Pradesh, Gujarat, Sub-Himalayan West Bengal, North Interior Karnataka, Coastal Andhra Pradesh and Tamil Nadu, few parts of Punjab, Rajasthan and Rayalaseema, isolated parts of Madhya Pradesh, Gangetic West Bengal Odisha, South Interior Karnataka and Telangana.
- -6 to -2°C over entire country except Jammu & Kashmir, North East India, Sikkim, Konkan & Goa, Coastal Karnataka, Kerala and Andaman & Nicobar Islands, many parts of Himachal Pradesh, Gujarat, Sub-Himalayan West Bengal, Chhattisgarh, North Interior Karnataka, Coastal Andhra Pradesh and Tamil Nadu, few parts of Punjab, Rajasthan, Telangana and Rayalaseema, isolated parts West Uttar Pradesh, Madhya Pradesh, Gangetic West Bengal, Odisha, Vidarbha, Marathwada, South Interior Karnataka and Lakshadweep.
- -8 to -6°C over many parts of Chhattisgarh, few parts of Telangana, isolated parts of West Uttar Pradesh, East Madhya Pradesh, Odisha, Vidarbha and Marathwada.

Actual Mean Minimum Temperature (°C) in India for the week ending 15.04.2015



- 8 to 16°C over Sikkim, many parts of Jammu & Kashmir, Himachal Pradesh and Uttarakhand, isolated parts of Assam & Meghalaya and Manipur.
- 16 to 24°C over entire country except Sikkim and Lakshadweep, many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Andaman & Nicobar

Mean Minimum Temperature (°C) Anomaly in India for the week ending 15.04.2015



- -6 to -2°C over Telangana, many parts of Madhya Pradesh, Maharashtra and North Interior Karnataka, few parts of East Rajasthan, isolated parts of Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh, Rayalaseema, South Interior Karnataka and Tamil Nadu.
- -2 to 2°C over entire country except Telangana, many

Islands, Saurashtra & Kutch, Rayalaseema, few parts of Tamil Nadu, isolated parts of Gujarat region, Gangetic West Bengal, Odisha, Mizoram, Tripura and Coastal Andhra Pradesh.

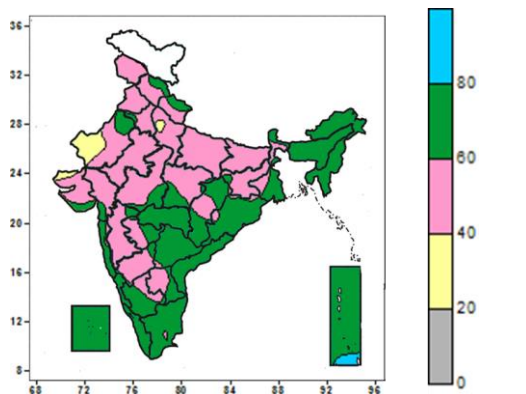
- 24 to 28°C over Lakshadweep, many parts of Andaman & Nicobar Islands, Saurashtra & Kutch, Rayalaseema, few parts of Tamil Nadu, isolated parts of Gujarat region, Gangetic West Bengal, Odisha, Mizoram, Tripura and Coastal Andhra Pradesh.

parts of Madhya Pradesh, Maharashtra and North Interior Karnataka, few parts of East Rajasthan and Saurashtra & Kutch, isolated parts of Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh, Rayalaseema, South Interior Karnataka and Tamil Nadu.

- 2 to 4°C over few parts of Saurashtra & Kutch.

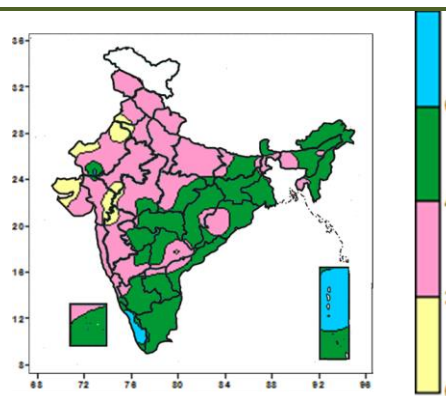
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 15.04.2015

Relative Humidity (%) over India for the week ending 15.04.2015



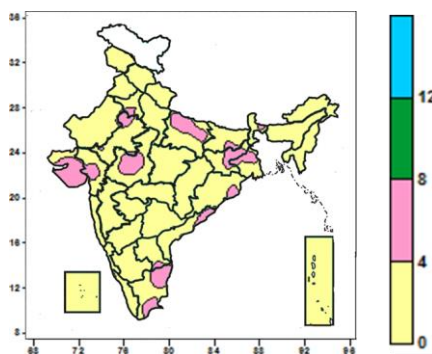
- 80 to 100% over isolated parts of Andaman & Nicobar.
- 40 to 80% over Lakshadweep, entire country except few parts of West Rajasthan, isolated parts of West Uttar Pradesh, Kutch and Andaman & Nicobar.
- 20 to 40% over few parts of West Rajasthan, isolated parts of West Uttar Pradesh and Kutch.

Cloud amount (okta) over India for the week ending 15.04.2015



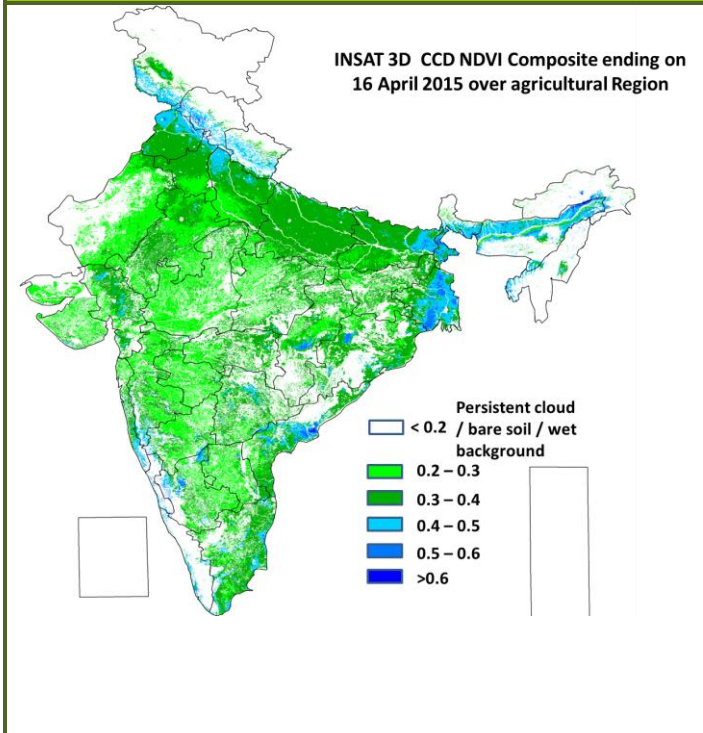
- 6 okta and above over many parts of Kerala and Andaman & Nicobar Islands.
- 2 to 6 okta entire country except many Kerala and Andaman & Nicobar Islands, few parts of West Rajasthan, Gujarat, isolated parts of Punjab, Haryana, East Rajasthan, West Madhya Pradesh and Madhya Maharashtra.
- 0 to 2 okta over few parts of West Rajasthan, Gujarat, isolated parts of Punjab, Haryana & Delhi, East Rajasthan, West Madhya Pradesh and Madhya Maharashtra.

Wind speed (knots) over India for the week ending 15.04.2015



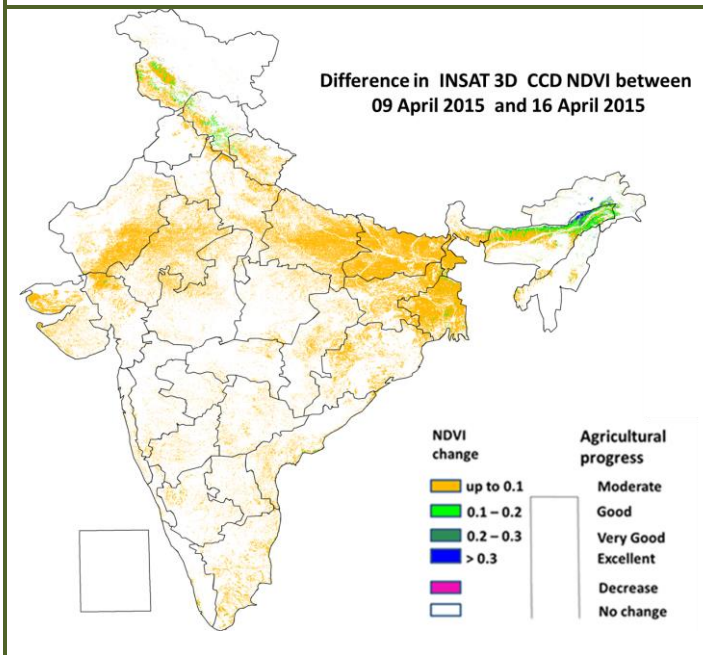
- 4 to 8 knots over many parts of Gujarat, few parts of East Uttar Pradesh, West Madhya Pradesh, Jharkhand, Gangetic West Bengal and Tamil Nadu, isolated parts of Haryana & Delhi, East Rajasthan, Bihar, Sub-Himalayan West Bengal, Odisha, Coastal Andhra Pradesh and Rayalaseema.
- 0 to 4 knots over Lakshadweep and Andaman & Nicobar Islands, entire country except many parts of Gujarat, few parts of East Uttar Pradesh, West Madhya Pradesh, Jharkhand, Gangetic West Bengal and Tamil Nadu, isolated parts of Haryana & Delhi, East Rajasthan, Bihar, Sub-Himalayan West Bengal, Odisha, Coastal Andhra Pradesh and Rayalaseema.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 16th April 2015 OVER AGRICULTURAL REGION OF INDIA



Agricultural vigour is very good in some parts of West Bengal and some pockets of Konkan and Goa, Coastal Andhra Pradesh, north Punjab, west Uttar Pradesh and east Bihar where NDVI varies between 0.4 to 0.6. Agricultural growth was good over most parts of Punjab, Haryana, Uttar Pradesh, Bihar and some parts of east Rajasthan, Gujarat region, Coastal Andhra Pradesh and Tamil Nadu (NDVI: 0.3-0.4). NDVI remains within the range of 0.2 to 0.3 over most parts of rest of the India.

Difference in INSAT 3A CCD NDVI between 9th April and 16th April 2015



Moderate progress (up to 0.1) in NDVI was observed over most parts of Uttar Pradesh, Bihar and West Bengal and some parts of Rajasthan, Uttarakhand, Saurashtra and Kutch, Tamil Nadu, Odisha and coastal Andhra Pradesh. Not much change was observed in remaining parts of the country.

- INSAT 3A CCD NDVI composite maps for the week ending on 16th April 2015 for different States are given below in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 22nd April 2015

- Day temperatures would rise by 2-3°C over northwest, west and adjoining central India from tomorrow onwards.

5 Day Rainfall Forecast (MORNING)

17-April-2015

Met-Sub-Division	17-Apr Today	18-Apr Sat	19-Apr Sun	20-Apr Mon	21-Apr Tue
1. Andaman & Nicobar Islands	FWS	ISOL	ISOL	ISOL	ISOL
2. Arunachal Pradesh	FWS	WS	WS	SCT	SCT
3. Assam & Meghalaya	FWS	WS	WS	FWS	FWS
4. N. M. M. & T.	SCT	FWS	WS	FWS	FWS
5. S.H. West Bengal & Sikkim	SCT	SCT	SCT	ISOL	ISOL
6. Gangetic West Bengal	ISOL	ISOL	DRY	DRY	DRY
7. Orissa	ISOL	ISOL	DRY	DRY	DRY
8. Jharkhand	ISOL	DRY	DRY	DRY	DRY
9. Bihar	ISOL	DRY	DRY	DRY	DRY
10. East Uttar Pradesh	ISOL	DRY	DRY	DRY	DRY
11. West Uttar Pradesh	ISOL	DRY	DRY	DRY	DRY
12. Uttarakhand	SCT	ISOL	ISOL	ISOL	ISOL
13. Haryana, Chd & Delhi	ISOL	DRY	DRY	DRY	ISOL
14. Punjab	ISOL	DRY	DRY	DRY	ISOL
15. Himachal Pradesh	SCT	ISOL	ISOL	ISOL	SCT
16. Jammu & Kashmir	SCT	ISOL	ISOL	SCT	FWS
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	DRY	DRY	DRY	DRY
24. Madhya Maharashtra	ISOL	DRY	DRY	DRY	DRY
25. Marathwada	ISOL	DRY	DRY	DRY	DRY
26. Vidharbha	ISOL	DRY	DRY	DRY	DRY
27. Chhattisgarh	ISOL	DRY	DRY	DRY	DRY
28. Coastal Andhra Pradesh	ISOL	ISOL	ISOL	DRY	DRY
29. Telangana	ISOL	DRY	DRY	DRY	DRY
30. Rayalaseema	ISOL	ISOL	ISOL	DRY	DRY
31. Tamilnadu & Puducherry	FWS	FWS	FWS	ISOL	ISOL
32. Coastal Karnataka	ISOL	ISOL	ISOL	ISOL	ISOL
33. North Interior Karnataka	ISOL	ISOL	ISOL	DRY	DRY
34. South Interior Karnataka	SCT	SCT	ISOL	ISOL	DRY
35. Kerala	FWS	WS	FWS	FWS	SCT
36. Lakshadweep	SCT	SCT	ISOL	SCT	SCT

% Station Reporting Rainfall

% Stations	Category	% Stations	Category
76-100	Widespread (WWS) Many Places	56-60	Scattered (SCT) & Few Places
51-75	Fairly Widespread (FWS) Many Places	1-25	Isolated (ISOL)
No Rain	Dry		

Weather Warning during next 5 days

- 17 April (Day 1):** Heavy rainfall would occur at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Thunderstorms with squall/hail would occur at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 18 April (Day 2):** Heavy rainfall would occur at isolated places over Arunachal Pradesh, Assam &

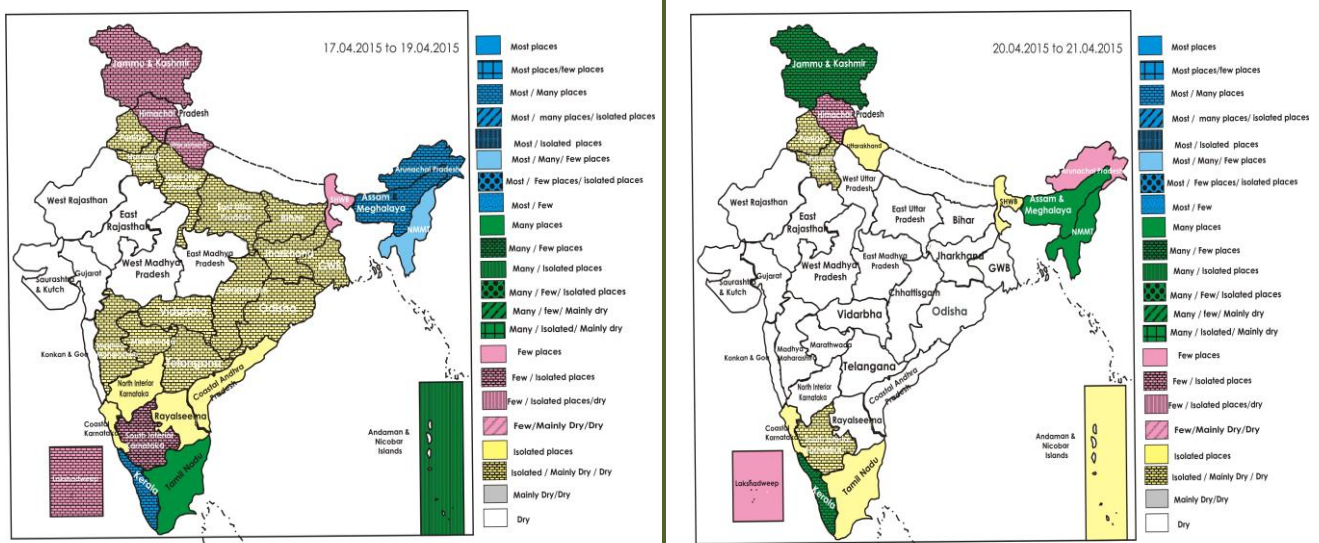
Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Thunderstorms with squall/hail would occur at isolated places over Sub-Himalayan West Bengal & Sikkim.

- **19 April (Day 3):** Thunderstorms with squall/hail would occur at isolated places over Sub-Himalayan West Bengal & Sikkim.
- **20 April (Day 4):** Thunderstorms with squall/hail would occur at isolated places over Sub-Himalayan West Bengal & Sikkim.
- **21 April (Day 5):** Heavy rainfall would occur at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

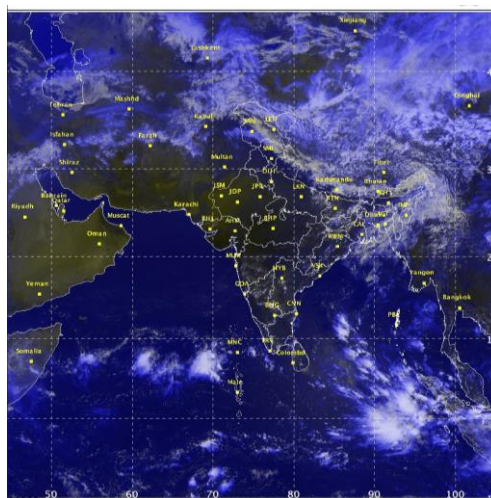
Weather Outlook for subsequent 2 days From 22nd April 2015 to 24th April 2015

- Rain/thundershowers would occur at most places over northeastern states.
- Rain/thundershowers would occur at isolated places over Western Himalayan region and extreme south peninsular India.

Weather Forecast Map (Valid upto 0830 hours of 22nd April, 2015)



Satellite image dated, 17.04.2015 0600 UTC



Salient Advisories

- As rain/thundershowers would occur at many/most places over **Arunachal Pradesh, Assam & Meghalaya** during next three days and over **Nagaland, Manipur and Mizoram & Tripura** during the period along with heavy rainfall at isolated places, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of matured crops and keep the harvested produces at safer places. Provide adequate drainage in standing crop fields to avoid water stagnation. Also as thunderstorms with squall/hail would occur at isolated places over Northeastern States on 17th April, over **Sub-Himalayan West Bengal & Sikkim** from 17th to 20th April, it is advised to use hail net for orchard crops to protect from mechanical damage. Provide mechanical support to banana, vegetables and young fruit plants to prevent the crops from lodging due to strong winds.
- As rain/thundershowers would occur at many places over **Jammu & Kashmir** on 21st April, postpone irrigation to standing crops. Harvest the matured crop immediately and store the harvested produces at safer places.
- As rain/thundershowers would occur at many places over **Tamil Nadu & Puducherry** during 17th to 19th, over **Kerala** during 17th to 20th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of matured *puncha* rice in the Problem Area Zone and Southern Zone of Kerala till the end of current spells of rain and keep harvested produces at safer places.

Detailed Zonewise Agromet Advisories

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



Wheat

Sugarcane

Banana

Cabbage

- **Realised Rainfall:** Rainfall occurred in Allahabad, Ambedkarnagr, Azamgarh, Chandauli and Shahuji Maharaj Nagar districts of East Uttar Pradesh; Firozabad, Gautam Budha Nagar and Lalitpur districts of West Uttar Pradesh. Weather remained mainly dry/dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Jammu & Kashmir on 21st; at a few places over Uttarakhand on 17th; over Himachal Pradesh on 17th and 21st; over Jammu & Kashmir on 17th and 20th; at isolated places over Uttar Pradesh on 17th; over Uttarakhand from 18th to 21st; over Haryana & Delhi and Punjab on 17th and 21st; over Himachal Pradesh from 18th to 20th; over Jammu & Kashmir on 18th and 19th. Dry weather would prevail over Rajasthan during the period; over Uttar Pradesh from 18th to 21st; over Haryana & Delhi and Punjab from 18th to 20th. Day temperatures would rise by 2-3°C over northwest India from tomorrow onwards.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over Western Himalayan region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - As rain/thundershowers would occur at many places over Jammu & Kashmir on 21st April, postpone irrigation to standing crops. Harvest the matured crop immediately and store the harvested products at safe place. Undertake intercultural operation and application of plant protection measures and fertilizers to the standing crops on a non rainy day. In Sub Tropical Zone, undertake sowing of summer moong and mash and nursery sowing/transplanting of tomato, brinjal, chillies and cucurbits.
 - In Intermediate and Valley Temperate Zone, continue sowing of tomato, brinjal, chilli, knolkhol, kale in low tunnels and planting of potato and continue transplanting of seedlings of cauliflower, cabbage, knolkhol and cucurbits.
 - Under prevailing humid weather, there may be attack of blight and pod borer in chickpea in Sub Tropical Zone and Intermediate Zone. Spray Mancozeb @ 0.25% or Carbendazim @ 0.1% to control blight and spray Cypermethrin @ 1.5 ml/litre of water or Chloropyriphos 20 EC @ 2 ml /litre of water for pod borer on a non-rainy day and

repeat the spray at 15 days interval, if required.

- Under prevailing humid weather condition, there are chances of attack of red pumpkin beetle in pumpkin in Intermediate Zone. Spray Imidachloprid @ 0.3 ml or Quinalphos @ 1ml per litre of water on a non-rainy day.

▪ **Uttarakhand:**

- Continue harvesting and threshing of timely sown matured wheat, lentil and barley crops in clear weather in Bhabar and Tarai Zone of Uttarakhand. Continue transplanting of tomato and undertake sowing of lobia and short duration varieties of maize.
- In Hill Zone of Uttarakhand, complete sowing of peas, pigeon pea and planting of potato.
- Due to humid weather condition there is chance of powdery mildew in pea in Hill Zone. Spray, Carothin @ 0.05 % + Teapol @ 1g per litre of water. Also there is chance of blight in potato in valley region due to humid weather. For control, spray Diathane M-45@ 0.2%. Apply plant protection measures on a non-rainy day.

▪ **Himachal Pradesh:**

- In High hills regions of Sub-Montane and Low Hills Sub-Humid Tropical Zone, undertake sowing of pea and French bean.
- Continue nursery raising of high yielding, bacterial wilt resistant varieties of tomato, brinjal, chilli and capsicum in mid-hill areas of Sub-Montane and Low Hills Sub-Humid Tropical Zone.
- Due to humid weather condition, there is chance of powdery mildew in wheat in Sub-Montane and Low Hills Sub-Humid Tropical Zone. Spray Hexaconazole @ 1 ml per litre of water and repeat the spray at 15 days interval. There are also chances of appearance of tuber moth in potato. For control, spray Chlorpyrifos 20 EC @ 150 ml per 60 litres of water. Apply plant protection measures on a non-rainy day.
- Due to humid and cloudy weather condition, the attack of aphids in oilseeds, cabbage and cauliflower is likely to increase in Sub-Montane and Low Hills Sub-Humid Tropical Zone. For control of aphids in oilseeds, spray Cypermethrin 10 EC @ 750 ml or Methyl Demeton 25 EC or Dimethoate 30 EC in 750 litres of water per ha. For control in cauliflower and cabbage, spray Malathion 50 EC @ 1 ml per litre of water. Apply plant protection measures on a non-rainy day.
- Due to humid and cloudy weather condition, there is chance of occurrence of leaf miner in pea. For control, spray Methyl Demeton @ 1 ml per litre of water on a non-rainy day.

▪ **Rajasthan:**

- In Arid Western Plain Zone of Rajasthan, continue harvesting of matured cumin, isabgol and mustard during morning hours to prevent shattering losses.
- In South Eastern Humid Plain of Rajasthan, continue harvesting and threshing of wheat.
- In Sub Humid Southern Plain Zone of Rajasthan, continue harvesting of wheat and barley and keep harvested produce at safer places. Apply irrigation to groundnut at pegging stage and apply irrigation to vegetables also.
- In Irrigated Northwestern Plain of Rajasthan, continue sowing of *desi* cotton and *zaid* moong and in Transitional Plain of Rajasthan, continue harvesting of matured barley and wheat crops.
- In Flood Prone Plain of Rajasthan, undertake harvesting of wheat in clear weather.
- In Semi Arid Eastern Plain of Rajasthan, due to rise in temperature, there is a chance of attack of thrips in *rabi* onion and fruit fly in summer vegetables like bitter gourd, ridge gourd, muskmelon and watermelon; for control, spray Malathion 50 EC @ 1.0 ml per litre of water.
- In Flood Prone Plain of Rajasthan, chilli crop is affected by leaf curl and mosaic disease and likely to spread in the present weather. Spray Dimethoate 30 EC @ 1.0 ml per litre water to control.

▪ **Punjab, Haryana and Delhi:**

- Complete harvesting of timely sown wheat and early sown matured mustard crop.
- In Western Semi-Arid Zone of Delhi, continue sowing of ladies finger, cucurbitaceous crops and nursery sowing of vegetables like chilli, tomato and brinjal.
- In Western Zone of Punjab, undertake transplanting of summer vegetables *viz.* chilli, tomato and bell pepper, undertake sowing of cucumber, bottle gourd, pumpkin, muskmelon, watermelon, bitter gourd.
- In Central Plain and Western Plain Zone of Punjab, complete planting of sugarcane.
- In Western Plain Zone of Punjab continue transplanting of chilli and undertake sowing of cotton.
- In Western Zone of Haryana, continue transplanting of young seedlings of tomato and chilli. Undertake sowing of *desi* cotton.
- In the prevailing temperature and humidity, there is possibility of attack of thrips in timely sown onion in Western Semi-Arid Zone of Delhi and Western Zone of Haryana. For control, spray Imidacloprid @ 0.25 to 0.5 ml / litre of water.

▪ **Uttar Pradesh:**

- Continue harvesting of matured pea, chickpea, pigeon pea, gram, mustard, wheat, linseed, barley and lentil and sowing of ladies finger and moong, summer green fodder like maize, lobia in Central Plain Zone. Complete sowing of urad, moong and lobia, planting of sugarcane. Also undertake preparation of nursery for sowing of *kharif* onion.
- Continue harvesting of mustard, linseed, rapeseed, safflower and wheat in Bundelkhand Zone and wheat, pea, gram, mustard in North Eastern Plain Zone. Store the harvested produce at safer places.
- Continue sowing of jowar, lobia, maize and harvesting of wheat in Western Plain Zone.
- In Eastern Plain Zone, continue planting of sugarcane and harvesting of rapeseed, gram, pigeon pea and wheat.

- Complete sowing of urad, moong and vegetables.
- Due to unseasonal rain / high wind, there are chances of fruit dropping in mango in Eastern Plain Zone. To manage fruit dropping, spray Naphthalene Acetic Acid (NAA) @ 90 ml per 200 litres of water.
- Due to prevailing cloudy and humid weather condition there are chances of attack of thrips or white fly on urad / moong in Central Plain Zone. Spray Methyl-o-demeton 25 EC or Dimethoate 30 EC @ 1 litre in 600-800 litres of water per ha.
- Due to prevailing partly cloudy weather condition there is chance of attack of fruit borer on cucurbits like bitter gourd, ridge gourd in Central Plain Zone. For control, spray Neem oil @ 1.5 to 2.0 ml per litre of water three to four times at the interval of 8 to 10 days.
- In North Eastern Plain Zone, due to prevailing cloudy and humid weather condition, there are chances of incidence of fungal and insect infestation in mango at flowering stage. To control, spray Quinalphos + Carbendazim @ 2.0%, and also there are chances of incidence of top borer in maize; to control spray Imidachloprid 1.0%.
- Suitable varieties for sowing are given in Annexure III.
- **Horticulture**
 - Under prevailing humid and cloudy weather condition, there is chance of attack of leaf miner in citrus in Sub-Montane and Low Hills Sub-Humid Tropical Zone of Himachal Pradesh. For control, spray Metasystox or Malathion @ 10 ml in 10 litres of water on a non-rainy day.
 - Under prevailing humid and cloudy weather condition peach leaf curl disease has been observed in orchards of stone fruits in Mild Hills Sub Humid Zone of Himachal Pradesh. Spray Hexaconazole @ 0.05% or Contaf/Hexole @ 100 ml / 200 litres of water on a non-rainy day, twice at 10 days interval.
- **Floriculture**
 - Undertake planting of the bulbs of gladiolus and rajnigandha in Sub-Montane and Low Hills Sub-Humid Tropical Zone of Himachal Pradesh. It is optimum time for raising nursery of summer annuals like gladiolus, portulaca, gomphrina and china aster etc. Present weather is conducive for appearance of aphids in rose. For control, spray Dithane M-45 @ 1 ml per litre of water on a non-rainy day.
 - Undertake planting of rose plants and land preparation for sowing seeds of herbaceous perennials in Valley Temperate Zone of Jammu and Kashmir.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane



Wheat



Okra



Onion

- **Realised Rainfall:** Rainfall occurred in Balaghat, Chhatarpur, Chhindwara, Damoh, Jabalpur, Mandla, Panna, Satna, Shahdol and Sidhi districts of East Madhya Pradesh; Ashoknagar, Betul, Dewas, Harda, Khandwa and Ujjain districts of West Madhya Pradesh; Durg and Mahasamund districts of Chhattisgarh. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Chhattisgarh on 17th; dry weather would prevail over the region during rest of the period. Day temperatures would rise by 2-3°C over central India adjoining to Northwest India from tomorrow onwards.
- **Weather Warning:** Nil.
- **Advisories:**
 - **Madhya Pradesh:**
 - In Satpura Plateau Zone, continue sowing of cowpea, okra and cucurbitaceous crops.
 - In Malwa Plateau Zone, complete harvesting of matured wheat and gram. Complete transplanting of summer vegetables like, brinjal, chilli, cabbage and cauliflower on the prepared beds. Continue sowing of cucurbitaceous crops.
 - In Kymore Plateau and Satpura Hill Zone of Madhya Pradesh, continue sowing of moong, urad and vegetables utilizing the realized rainfall. Undertake harvesting of late sown wheat.
 - In Jhabua Hill Zone and Vindya Plateau Zone, continue sowing of moong, cucurbitaceous crops and complete harvesting of matured wheat and vegetables.
 - In Bundelkhand Zone and Nimar Valley Zone, complete harvesting of matured wheat and continue sowing of summer moong and okra.
 - Due to partly cloudy weather, there are chances of attack of red pumpkin beetle in cucurbitaceous crops in Malwa Plateau Zone, spray Quinolphos 25 EC @ 1 litre/ha or Propenophos 50 EC @ 800-1000 ml/ha.

- Due to hot weather, there are chances of attack of sucking pests in vegetables in Vindhya Plateau Zone of Madhya Pradesh; spray Ethofenprox 10 EC @ 1 litre/500 litres of water.
- **Chhattisgarh:**
 - In Chhattisgarh Plain Zone, continue sowing of summer moong, sesame and planting of sugarcane.
 - In North Hill Zone of Chhattisgarh, continue planting of spring sugarcane and complete sowing of summer moong, sesame and groundnut. Continue harvesting of onion and garlic.
 - Undertake raising of saplings of papaya and custard apple in Bastar Zone.
 - Due to partly cloudy weather there are chances of attack of stem borer in summer rice in Chhattisgarh, spray Chlorophyriphos @1.5 ml /litre of water.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - Provide plenty of clean water and balanced nutrient rich feed to the milch animals in Madhya Pradesh. De-worm the cattle.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Banana

Sugarcane

Wheat

Mango

- **Realised Rainfall:** Rainfall occurred in all districts of Marathwada; Akola, Bhandara, Buldhana, Gondia, Nagpur and Washim districts of Vidarbha and in Dangs district of Gujarat Region. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Madhya Maharashtra, Marathwada and Vidarbha on 17th and dry weather would prevail over the region during rest of the period. Day temperatures would rise by 2-3°C over west India from tomorrow onwards.
- **Weather Warning:** Nil.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, the mango fruits are at egg size stage and at maturity stage in some parts of the region. Harvest the mature fruits during early morning or in late evening. Keep the harvested fruits in shade to prevent spongy tissue. Maintain water level upto 8-10 cm at grain formation stage of summer rice. To prevent mango fruit dropping, apply 80 – 100 litres of water per tree at 7 days interval. Also apply mulch with grass in lateritic soil to avoid the water loss. New graft and newly planted fruit crops may be protected from sun burn by erecting temporary shed.
 - In Madhya Maharashtra, as no significant rain occurred during last week and rain is expected only at isolated places, apply irrigation to summer groundnut, maize, banana, grapes and vegetable crops. Also apply irrigation to sugarcane by alternate furrow method in water stress condition. Use mulch of crop residue for conservation of soil moisture. To prevent mango fruit dropping, spray 2 to 3 times Carbaryl @20g + Sulphur @ 20g in 10 liters of water.
 - In Marathwada, apply irrigation to summer groundnut, sugarcane, orchard crops like banana, pomegranate, fig and vegetable crops in morning or evening hours. Continue harvesting of matured vegetables and grapes.
 - In Vidarbha, apply irrigation to water melon, musk melon, summer vegetables, summer groundnut and summer green gram. Complete harvesting of matured late sown wheat. Maintain upto 5-7 cm water level in summer rice field (flowering / grain filling stage) in east Vidarbha.
 - As partly cloudy weather is expected in Konkan region, the incidence of anthracnose may occur on developing mango fruits, spray Carbendazim 1g + Mancozeb @ 0.5 g per 1 litre of water on the whole tree.
 - Due to rain and cloudy weather in Pune region, infestation of fruit borer larvae & tuta leaf miner may be observed in tomato, spray Lyambada Psyhyalothrin or Psynyatronilprol @10 ml per 10 litres of water.
 - **Gujarat:**
 - In Middle Gujarat Zone, taking advantage of expected dry weather, harvest matured spikes of castor. There is a chance of increase in temperature in South Gujarat Zone; apply irrigation in vegetable crops at an interval of 10 to 12 days.
 - In North Gujarat Zone, carry out hand weeding and intercultural operations in pulses, pearl millet, groundnut and vegetable crops. Continue harvesting of onion and keep in well aerated place. As dry weather is expected carry out threshing of castor spikes.
 - Apply irrigation in groundnut (flowering / pegging stage), sesame (flowering stage) and vegetable crops in North Saurashtra Zone. Undertake hand weeding and intercultural operations in green gram and groundnut, apply

irrigation in groundnut (flowering stage), sesame and undertake harvesting of matured castor spikes in South Saurashtra Zone.

- As dry weather and high temperature would prevail, apply irrigation in green gram, groundnut and vegetable crops in Navsari and Valsad districts of South Gujarat Heavy Rainfall Zone.
- As dry weather would prevail, apply irrigation in green gram at flowering / pod development stage, vegetable and fodder crops in Bhal and Coastal Zone of Gujarat.
- Due to cloudy weather infestation of *heliopsis* and caterpillar was observed in green gram in North Saurashtra Zone; to control the pest, spray Profenofos 50EC@ 20 ml per 10 litres of water.
- Due to light rain and prevailing cloudy weather, there are chances of incidence of stem borer in rice in South Gujarat Heavy Rainfall Zone; to control, spray Chloropyriphos @ 2 ml per litre of water.
- Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry**

- In view of prevailing temperature conditions, keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Put curtains on south-west side of poultry house and sprinkle water on curtains during noon time in Gujarat.

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



Rice



Mustard



Okra



Cabbage

- **Realised Rainfall:** Rainfall occurred in Changlang, East Siang, Lohit, Lower Dibang Valley, Papumpara, Tawang, Tirap, Upper Siang, and West Siang districts of Arunachal Pradesh; Baksa, Cachar, Chirang, Dibrugarh, Kokrajhar, Lakhimpur and Tinsukia districts of Assam; East Garo Hills district of Meghalaya; Imphal West district of Manipur; North Tripura district of Tripura. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at most places over Arunachal Pradesh and Assam & Meghalaya on 18th and 19th; over Nagaland, Manipur, Mizoram & Tripura on 19th; at many places over Arunachal Pradesh on 17th; over Assam & Meghalaya on 17th; 20th and 21st; over Nagaland, Manipur, Mizoram & Tripura on 18th, 20th and 21st; at a few places over Arunachal Pradesh on 20th and 21st and over Nagaland, Manipur, Mizoram & Tripura on 17th.
- **Weather Warning:** Heavy rainfall would occur at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 17th, 18th and 21st April. Thunderstorms with squall/hail would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 17th April.
- **Weather Outlook:** Rain/thundershowers would occur at most places over northeastern states.
- **Advisories:**
 - As rain/thundershowers would occur at many/most places over Arunachal Pradesh, Assam & Meghalaya from 17th to 19th and over Nagaland, Manipur and Mizoram & Tripura from 18th to 21st April along with heavy rainfall at isolated places on 17th, 18th and 21st April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of wheat. Keep the harvested produces at safer places. Provide adequate drainage in standing crop fields to avoid water stagnation.
 - As thunderstorms with squall/hail would occur at isolated places over Assam & Meghalaya, Nagaland, Manipur and Mizoram & Tripura on 17th April, it is advised to use hail net for orchard crops to protect from mechanical damage. Provide mechanical support to banana, vegetables and young fruit plants to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places.
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Hill Zone of Assam, continue planting of banana, turmeric and sowing of maize after current spells of heavy rain.
 - In Lower Brahmaputra Valley Zone of Assam, undertake sowing of *kharif* maize after current spells of heavy rain.
 - In Upper Brahmaputra Valley Zone of Assam, continue planting of sugarcane, banana, ginger and turmeric and sowing of maize and summer vegetables like ladies finger, bottle gourd, pumpkin, ridge gourd, cucumber etc. after current spells of heavy rain.
 - In Central Brahmaputra Valley Zone of Assam, complete sowing of normal direct seeded *ahu* rice, *bao* rice. In flood affected low lying areas of North Bank Plain Zone of Assam, farmers are advised to undertake sowing of *bau* rice. Undertake sowing after current spells of heavy rain.
 - In Arunachal Pradesh, continue sowing of summer vegetables and nursery preparation for early sown WRC rice

after current spells of heavy rain.

- In Meghalaya, continue sowing of *jhum* rice, okra with HYV's like Pusa A-4, VRO-6, Pusa Sawani, Arka Anamika, Parbhani Kranti after current spells of heavy rain.
- In Lower Brahmaputra Valley Zone of Assam, due to cloudy weather, there is chance of attack of stem borer on *boro* rice. Spray Chlorpyrifus 20EC @ 0.02% and Monocrotophos 40EC @ 0.04% after current spells of rain.
- In North Bank Plain Zone of Assam, due to cloudy weather, there is chance of attack of blast on *boro* rice. Spray Mancozeb (Dithene M-45) @ 2 g/litre or Thiophenate Methyl @ 1 g/litre of water after current spells of rain.

▪ **Manipur, Mizoram, Nagaland and Tripura:**

- In Manipur, maintain 5-8 cm water during vegetative stage of pre-*kharif* rice. Undertake land preparation for sowing of soybean and groundnut after current spells of heavy rain.
- In Mizoram, continue land preparation for planting of ginger and turmeric and nursery preparation for khasi mandarin after current spells of heavy rain.
- In Nagaland, continue land preparation and planting of ginger after current spells of heavy rain.
- In Tripura, continue sowing of *jhum* rice.
- In Nagaland, due to cloudy weather, there is chance of attack of leaf miner, aphids, mites in khasi mandarin. Spray neem oil @ 5ml/litre water after current spells of rain.
- Suitable varieties are given in Annexure III.

▪ **Animal Husbandry:**

- In Northeastern States, keep animals indoor during heavy rain and hail storm period.

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



Sugarcane

Wheat

Rice

Onion

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands; Begusarai, Bhagalpur and Khagaria districts of Bihar; Godda, Gumla, Koderma, Latehar, Sahibganj and West Singhbhum districts of Jharkhand; Bargarh, Bolangir, Boudhgarh, Dhenkanal, Gajapati, Keonjhar, Koraput, Nawapara, Nawarangpur and Rayagada districts of Odisha; Murshidabad district of Gangetic West Bengal; Darjeeling, East Sikkim, Malda, North Sikkim, South Sikkim and West Sikkim districts of Sub-Himalayan West Bengal & Sikkim. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Andaman & Nicobar Islands on 17th; over Sub-Himalayan West Bengal & Sikkim on 18th; at a few places over Sub-Himalayan West Bengal & Sikkim from 17th to 19th; at isolated places over Andaman & Nicobar Islands from 18th to 21st; Sub-Himalayan West Bengal & Sikkim on 20th and 21st; over Gangetic West Bengal and Odisha on 17th and 18th; over Bihar and Jharkhand on 17th; dry weather would prevail over the region except Andaman & Nicobar Islands and Sub-Himalayan West Bengal & Sikkim during rest of the period.
- **Weather Warning:** Thunderstorms with squall/hail would occur at isolated places over Sub-Himalayan West Bengal & Sikkim from 17th to 20th April.
- **Advisories:**
 - **West Bengal:**
 - As thunderstorms accompanied with squall/hail would occur at isolated places over Sub-Himalayan West Bengal & Sikkim from 17th to 20th April, it is advised to use hail nets for orchard crops to protect from mechanical damage. Provide mechanical support to young fruit plants and vegetables to prevent the crops from lodging due to strong winds.
 - In Sub-Himalayan West Bengal & Sikkim, continue normal sowing of summer vegetables and other agricultural operations under normal weather conditions.
 - In Hill Zone of West Bengal, continue land preparation for sowing of gladiolus and okra utilising the realised and expected rain.
 - In New Alluvial Zone of West Bengal, continue land preparation and sowing of improved varieties of jute.
 - In Old Alluvial Zone of West Bengal, maintain 5 cm water in rice fields and complete sowing of Jute & Mesta utilising the realised and expected rainfall.
 - In Hill Zone of West Bengal, in the prevailing humid weather condition, there is chance of attack of whitefly in cucurbits and sawfly in mustard. To control whitefly and aphids, spray Imidacloprid @ 2 ml/ 10 litres of water or Acetamiprid @ 2g / 10 litres of water and for control of sawfly apply Cartap Hydrochloride @ 1.5 g / litre of water

on a non-rainy day.

- In the prevailing hot & humid weather situation, there is a possibility of fruit rot & stem rot diseases in summer vegetables, spread of blast disease in rice and anthracnose leading to black spot disease in mango in New Alluvial Zone. To control rot diseases, apply Carbendazim @ 1g / litre of water at 7 days interval, for control of blast, apply Tricyclazole @ 7g/ 10 litre of water and for control black spot apply Tricyclazole @ 1 ml / litre of water.
- **Andaman and Nicobar Islands:**
- In South, North & Middle Andaman and Nicobar, apply Biocon and Biofert @ 1 kg mixing with 50 kg FYM in vegetables after current spells of rain for better growth and disease management.
- **Odisha:**
- In East and South Eastern Coastal Plain Zone of Odisha, present weather conditions are optimum for sowing of jute. Continue weeding and hoeing in summer pulses and early sown sesame.
- In East and South Eastern Coastal Plain Zone of Odisha, undertake planting of ginger.
- Continue plucking of matured green gram and black gram preferably during morning hours in clear weather in North Central Plateau Zone.
- In North Eastern Plateau Zone, maintain 3-5 cm of water in rice at grand growth stage. Apply 1/3rd of Nitrogen and 1/3rd of K as final top dressing in the saturated field condition.
- In North Eastern Plateau Zone of Odisha, prevailing temperature is congenial for attack of shoot and fruit borer in Brinjal; spray Spinosad 48 EC @ 1 ml in 4 liters of water for control.
- In East and South Eastern Coastal Plain Zone of Odisha, YMV infestation has been found in summer pulses in the present weather and likely to spread. Spray Rogor @ 20 ml /10 litres of water to control the white fly.
- **Bihar:**
- In North West Alluvial Plain Zone and South Bihar Alluvial Zone of Bihar, complete harvesting and threshing of matured wheat crop and undertake harvesting of *rabi* maize and arhar. Undertake intercultural operations in onion. In South Bihar Alluvial Zone, continue sowing of summer moong and summer vegetables, complete transplanting of summer rice.
- In North East Alluvial Zone of Bihar, maintain water level upto 5-7 cm in the *boro* rice fields. Continue sowing of moong, urad and fodder crops.
- In North East Alluvial Zone of Bihar, present weather is congenial for infestation of pod borer in tomato. Monitor the crop and install pheromone traps @ 3-4 traps per acre.
- **Jharkhand:**
- In South Eastern Plateau Zone, complete sowing of summer moong.
- In Western Plateau Zone, maintain 3-5 cm water level in transplanted rice fields. Undertake intercultural operations in summer moong to conserve moisture.
- In North Eastern Plateau Zone, continue harvesting of matured mustard in clear weather to prevent from shattering of pod by high wind.
- Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
- In Sub-Himalayan West Bengal & Sikkim, keep cattle/goats indoor during thunderstorm / squall / hailstorm period. Give lot of clean water to the animals and keep them in the shaded place during noon hours.

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



Sorghum



Sugarcane



Chilli



Rice

- **Realised Rainfall:** Rainfall occurred over all districts of Tamil Nadu except Ariyalur, Chennai, Cuddalore, Erode, Kancheepuram, Madurai, Nagapattinam, Thanjavur, Toothukudi and Virudhunagar; all districts of North Interior Karnataka except Belagavi, Dharwad, Gadag and Haveri; all districts of South Interior Karnataka except Chitradurga, Davangere, Mandya and Shivamogga; all districts of Kerala except Cannur and Kasargod; Krishna and Nellore districts of Coastal Andhra Pradesh; all districts of Rayalaseema and Telangana. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at most places over Kerala on 18th; at many places over Tamil Nadu & Puducherry from 17th to 19th; over Kerala on 17th, 19th and 20th; at a few places over South Interior Karnataka on 17th and 18th; over Kerala on 21st; at isolated places over Coastal Andhra Pradesh, Rayalaseema and North Interior Karnataka from 17th to 19th; over Coastal Karnataka during the period; over Telangana on 17th; over Tamil Nadu &

Puducherry on 20th and 21st; over South Interior Karnataka on 19th and 20th. Dry weather would prevail over the region except Tamil Nadu & Puducherry, Coastal Karnataka and Kerala during rest of the period.

- **Weather Warning:** Nil.

- **Weather Outlook:** Rain/thundershowers would occur at isolated places over extreme South Peninsular India

- **Advisories:**

- As rain/thundershowers would occur at many places over Tamil Nadu & Puducherry during 17th to 19th, over Kerala during 17th to 20th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of crops and keep harvested produces at safer places.

- **Andhra Pradesh:**

- Prevailing temperature conditions are congenial for incidence of root grub in groundnut in the High Altitude Tribal Zone. To control root grub, apply Phorate granules 10 G @ 1.5 kg /ha.
- Prevailing temperature and partly cloudy conditions are congenial for incidence of stem borer in rice in the North Coastal Zone. Spray Acephate 1 g/litre of water or Chlorpyrifos @ 2.5 ml/litre of water during evening hours.
- Prevailing temperature and humidity is congenial for viral diseases in cucumber and water melon in fruiting stage in the Southern Zone. To control, spray Imidachlorid @ 0.3 ml or Acitamphrid @ 0.2 ml or Thiomethoxin @ 0.2 ml/litre of water and repeat at 10 days interval.

- **Telangana:**

- In the prevailing weather conditions, incidence of hoppers and anthracnose are noticed in mango in the Southern Telangana Zone. To control, spray Imidachlorid @ 0.5 ml + Hexaconazole @ 2 ml or Monocrotophos @ 1.6 ml + Carbendazim @ 1 g / litre of water.
- Blast incidence is noticed in rice in some parts of Northern Telangana Zone due to prevailing temperature conditions. Spray Kusanagycin @ 2.5 ml/litre of water or Tricyclozole @ 0.6 g/litre of water or Isoprothialine @ 1.5 ml/litre of water.

- **Karnataka:**

- Continue land preparation for planting of ginger and turmeric in the Southern Transition Zone.
- Prevailing cloudy weather is congenial for incidences of sucking pests, thrips, and powdery mildew in mango in the Central Dry Zone and North Transition Zone. To control, undertake spraying of Carbaryl @ 4 g + 1 g Bavistin dissolved in one litre of water.
- Incidence of early shoot borer was noticed in sugarcane in the North East Transition Zone due to prevailing cloudy weather and rainfall. To control, spray Chlorpyrifos 20 EC @ 2 ml/litre of water.

- **Kerala:**

- Continue sowing of vegetables like bhindi, bitter gourd and amaranthus in the High Altitude Zone. Postpone harvesting of matured *puncha* rice in the Problem Area Zone and Southern Zone till the end of current spells of rain.
- In the High Altitude Zone, monitor rice for blast and sheath rot due to prevailing cloudy and humid weather conditions. To control, spray Pseudomonas @ 2.0 g in one litre of water after current spells of rain at weekly intervals.
- Prevailing humid condition is congenial for incidence of powdery mildew in rubber plants in the Problem Area Zone. Spray Sulfex @ 2g/litre of water after current spells of rain.
- High humid weather is congenial for incidence of *sigatoka* disease in banana in the Central Zone. Spray Pseudomonas @ 10- 20g / litre of water and apply SAAF @ 2 g / litre of water after current spells of rain in case of severe attack.

- **Tamil Nadu:**

- Continue sowing of summer season black gram and ADT 5 variety of black gram in the Cauvery Delta Zone after current spells of rain.
- Since rainfall is expected over many places, provide drainage in standing crops, especially in low lying areas in the Western Zone. Provide propping to banana crop.
- In the Southern Zone, undertake sowing of green manure crops and forage grass and propping of banana crop against lodging due to rain and wind.
- Continue sowing of short duration varieties of green gram under rainfed conditions in the North Western Zone.
- Suitable varieties for sowing are given in Annexure III.

- **Animal Husbandry**

- Undertake vaccination in cattle for foot and mouth disease, black quarter, Haemorrhagic Septicaemia and Enterotoxemia before onset of monsoon in the Southern Transition Zone of Karnataka.
- Avoid water stagnation in and around cattle and poultry sheds areas to prevent breeding of mosquitoes in the Western Zone of Tamil Nadu.

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

Annexure I

Week by week Rainfall Distribution

Sub-Divisions	01.04.15		08.04.15		15.04.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	41.6	-52	106.7	-37	28.9	-71
Dibang Valley	35.0	-64	54.0	-54	13.0	-75
East Kameng	0.0	-100	39.4	5	0.0	-100
East Siang	63.4	103	118.6	162	40.2	5
Kurung Kumey	**	**	**	**	**	**
Lohit	93.5	73	111.6	1	34.0	-55
Lower Dibang Valley	29.0	-70	176.9	50	114.3	121
Lower Subansari	**	**	**	**	**	**
Papumpara	14.3	-35	169.6	300	29.0	-30
Tawang	23.0	18	110.0	697	78.0	216
Tirap	0.0	-100	51.8	-25	28.6	-66
Upper Siang	108.2	35	224.0	99	122.0	93
Upper Subansari	1.6	-92	52.3	119	4.4	-74
West Kameng	5.0	-74	88.4	541	2.8	-89
West Siang	50.5	57	38.0	-4	22.0	-56
Assam&Meghalaya						
Assam						
Baksa	7.9	-72	82.8	244	35.3	3
Barpeta	40.6	46	85.1	253	14.1	-59
Bongaigaon	14.6	-38	101.8	286	12.2	-63
Cachar	24.5	-63	163.6	200	45.1	-21
Chirang	58.2	149	94.4	258	55.8	67
Darrang	1.0	-94	0.0	-100	**	**
Dhemaji	3.0	-88	89.0	176	16.0	-52
Dhubri	108.8	399	27.5	79	11.4	-52
Dibrugarh	27.4	-27	113.5	141	27.1	-47
Goalpara	42.8	89	38.2	63	8.5	-79
Golghat	67.7	132	62.4	160	2.9	-91
Hailakandi	112.0	104	208.7	422	14.2	-71
Jorhat	32.5	6	63.2	47	2.6	-94
Kamrup(Rural)	14.8	-23	82.1	297	2.0	-94
Kamrup(Metro)	29.8	55	21.7	5	0.8	-97
Karbi Anglong	17.0	-15	20.4	21	2.3	-89
Karimganj	3.0	-96	163.5	119	19.3	-69
Kokrajhar	32.1	15	16.6	-38	30.9	-35
Lakhimpur	7.7	-69	104.2	224	26.0	-22
Morigaon	27.8	40	38.4	101	1.0	-96
N.C.Hills	30.6	-55	122.2	235	0.0	-100
Nowgong	12.9	-31	48.0	146	2.4	-91
Nalbari	15.9	-44	59.3	73	0.0	-100
Sonitpur	9.9	-49	83.0	223	0.5	-99
Sibsagar	27.8	23	75.5	240	17.1	-44
Tinsukia	74.3	105	106.2	86	39.1	2
Udalgiri	12.2	-33	70.5	155	5.7	-87

Meghalaya						
East Garo Hills	133.0	359	53.8	29	46.0	12
East Khasi Hills	33.1	-19	98.6	100	18.8	-72
Jaintia Hills	16.0	-64	37.0	-40	8.0	-84
Ribhoi	31.0	19	23.1	52	1.6	-90
South Garo Hills	11.0	-57	0.0	-100	**	**
West Garo Hills	21.0	-18	14.8	-42	1.4	-94
West Khasi Hills	48.0	59	122.0	736	9.0	-64
NMMT						
Mizoram						
Aizwal	1.9	-96	94.6	254	0.0	-100
Champhai	0.0	-100	13.0	1	1.0	-96
Kolasib	14.0	-77	15.0	-57	3.0	-91
Lawngtlai	**	**	**	**	**	**
Lunglei	0.0	-100	**	**	**	**
Mamit	**	**	63.0	136	8.0	-75
Saiha	24.0	-50	67.0	290	6.0	-61
Serchhip	**	**	**	**	0.0	-100
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	13.0	21	12.0	-51	0.0	-100
Churachandpur	**	**	**	**	**	**
Imphal east	20.2	-25	97.8	164	16.1	-53
Imphal west	0.0	-100	140.1	375	62.0	194
Senapati	3.0	-85	2.0	-95	0.0	-100
Tamenglong	**	**	**	**	**	**
Thoubal	10.0	-9	49.0	112	3.0	-90
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	14.9	-12	31.2	57	4.5	-84
Kephire	**	**	**	**	**	**
Kohima	23.6	19	67.8	346	8.0	-59
Longleng	**	**	**	**	**	**
Mokokchung	**	**	**	**	**	**
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	55.0	178	4.0	-74	1.0	-95
Tuensang	**	**	**	**	**	**
Wokha	16.0	-60	6.0	-75	1.0	-96
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	31.0	-16	159.3	214	0.0	-100
North Tripura	40.3	4	119.6	113	64.0	1
South Tripura	3.7	-86	150.8	476	0.0	-100
West Tripura	2.4	-92	162.9	412	2.7	-92
Himachal Pradesh						
Bilaspur	19.7	55	42.2	798	0.2	-97
Chamba	26.9	93	91.8	533	4.4	-36
Hamirpur	15.6	62	45.4	683	0.0	-100
Kangra	13.7	-2	53.6	392	0.4	-96
Kinnaur	35.5	58	29.6	29	0.0	-100

Kullu	36.7	52	69.8	233	3.4	-83
Lahaul and Spiti	31.0	-3	36.5	32	0.0	-100
Mandi	27.7	92	51.8	359	6.8	-52
Shimla	19.2	49	38.3	239	1.4	-90
Sirmaur	9.1	-2	20.3	534	0.0	-100
Solan	8.8	-7	57.7	830	2.2	-71
Una	14.0	87	32.4	824	0.0	-100
Punjab						
Amritsar	3.6	-43	4.4	-17	0.0	-100
Barnala	2.8	45	2.2	16	6.9	19
Bhatinda	16.0	902	7.2	243	0.0	-100
Faridkot	11.0	267	42.1	1905	0.0	-100
Fatehgarh Saheb	4.5	67	11.7	1067	0.0	-100
Ferozpur	4.6	-5	8.6	197	0.5	-83
Gurdaspur	13.8	50	44.3	769	0.0	-100
Hoshiarpur	2.5	-41	10.2	143	0.0	-100
Jalandhar	6.0	36	18.6	540	0.0	-100
Kapurthala	1.9	46	19.8	662	0.0	-100
Ludhiana	8.0	62	26.7	969	0.0	-100
Mansa	1.8	13	6.0	253	0.0	-100
Moga	17.0	554	10.1	359	0.0	-100
Muktesar	0.0	-100	20.4	920	0.0	-100
Nawashahar	8.1	31	6.8	99	0.0	-100
Patiala	4.6	128	6.6	368	0.0	-100
Ropar	5.2	118	13.7	358	0.8	-82
Sangrur	4.0	90	22.8	988	1.8	-47
Mohali	9.0	350	4.2	147	0.0	-100
TarnTaran	31.0	657	42.0	1515	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	2.5	-21	9.9	520	0.0	-100
Bhiwani	6.3	386	39.3	2523	2.7	71
Chandigarh	14.0	279	7.3	172	0.0	-100
Faridabad	25.2	1160	34.1	1074	5.5	206
Fatehabad	0.0	-100	9.2	317	0.0	-100
Gurgaon	3.7	162	15.7	1467	1.5	25
Hissar	2.8	65	29.3	1175	1.6	-45
Jhajar	3.8	112	20.9	1296	0.4	-76
Jind	7.0	2233	25.1	1097	1.0	25
Katihah	2.2	120	11.5	1172	0.0	-100
Karnal	5.6	102	40.1	1903	0.1	-98
Kurukshetra	5.0	117	15.1	844	0.0	-100
Mahendragarh	17.5	994	22.8	1799	0.4	-67
Mewat	8.4	460	23.5	1579	0.0	-100
Palwal	5.0	355	40.5	2431	1.8	192
Panchkkula	5.3	44	6.8	388	0.0	-100
Panipat	8.2	447	25.5	919	2.2	-21
Rewari	10.3	839	45.8	3719	0.0	-100
Rohtak	1.3	-22	68.6	2441	0.0	-100
Sirsa	7.3	418	16.8	1192	2.0	43
Sonepat	5.1	294	39.7	1427	1.9	-25

Yamunanagar	3.7	8	14.7	320	0.0	-100
Delhi						
Central Delhi	12.0	380	19.0	1088	3.0	-33
East Delhi	8.0	220	26.0	1525	8.0	78
New Delhi	10.9	336	28.5	1678	4.1	-9
North Delhi	9.0	260	22.6	1313	4.0	-11
North East Delhi	0.0	-100	2.0	25	0.0	-100
North West Delhi	1.3	-47	4.0	150	3.0	-33
South Delhi	8.3	232	29.9	1769	10.2	127
South West Delhi	13.3	432	37.8	2263	9.7	116
West Delhi	1.0	-60	18.0	1025	5.0	11
Jammu & Kashmir						
Anantnag	105.6	293	67.3	117	0.0	-100
Badgam	101.4	546	52.5	207	0.0	-100
Bandipore	**	**	**	**	**	**
Baramula	101.9	211	70.2	71	0.0	-100
Doda	86.6	178	94.0	263	0.0	-100
Ganderbal	68.0	298	80.7	320	0.0	-100
Jammu	114.9	974	96.5	1091	0.0	-100
Kargil	**	**	**	**	**	**
Kathua	28.2	297	71.8	424	0.0	-100
Kistwar	**	**	**	**	**	**
Kulgam	100.5	273	44.8	45	0.0	-100
Kupwara	117.4	195	87.1	94	0.0	-100
Ladakh(Leh)	0.2	-90	1.2	-48	0.0	-100
Poonch	**	**	**	**	**	**
Pulwama	87.3	494	27.2	22	0.0	-100
Rajouri	39.8	144	124.6	1064	0.0	-100
Ramban	142.2	357	167.9	548	0.0	-100
Reasi	185.7	867	116.9	741	0.0	-100
Samba	35.5	232	51.0	530	0.0	-100
Shopian	**	**	**	**	**	**
Srinagar	95.4	458	51.3	167	0.0	-100
Udhampur	63.8	232	133.0	856	0.0	-100
East Madhya Pradesh						
Anuppur	0.3	-94	0.0	-100	6.1	178
Balaghat	0.5	-91	0.5	-81	31.9	3449
Chhatarpur	5.9	438	1.3	10	40.7	5720
Chindwara	1.9	-48	0.0	-100	24.3	1421
Damoh	0.5	-85	0.0	-100	69.0	6173
Dindori	25.0	614	0.0	-100	15.4	200
Jabalpur	1.2	-66	0.0	-100	22.1	4320
Katni	0.4	-86	0.0	-100	14.6	3538
Mandla	6.3	-11	1.5	-62	26.0	2500
Narsingpur	0.8	-60	0.0	-100	12.0	5900
Panna	4.4	120	0.0	-100	27.7	5440
Rewa	0.0	-100	0.0	-100	7.7	2467
Sagar	0.5	-80	0.0	-100	18.5	3609
Satna	1.1	-47	0.1	-93	39.6	4300
Seoni	3.0	-59	0.0	-100	17.6	552
Shahdol	0.0	-100	0.0	-100	35.0	8650

Sidhi	0.0	-100	0.0	-100	20.4	10100
Singrauli	3.0	15	0.0	-100	12.0	200
Tikamgarh	0.7	-65	7.5	1400	9.5	200
Umaria	1.8	-47	0.0	-100	4.6	475
West Madhya Pradesh						
Agar	0.0	-100	0.0	-100	8.6	200
Alirajpur	0.0	-100	0.0	-100	10.7	200
Asoknagar	0.0	-100	4.0	3900	25.8	200
Badwani	0.0	-100	0.0	-100	12.7	200
Betul	1.2	-59	0.0	-100	23.5	1370
Bhind	4.8	494	0.0	-100	3.8	1775
Bhopal	0.1	-95	0.0	-100	1.6	129
Burhanpur	0.0	-100	0.0	-100	19.9	3887
Datia	0.0	-100	2.2	267	2.1	15
Dewas	0.0	-100	0.0	-100	21.8	7178
Dhar	1.7	771	0.0	-100	8.2	8057
Guna	0.0	-100	7.6	1167	6.7	1563
Gwalior	13.2	1361	0.5	-55	4.8	300
Harda	1.2	64	0.0	-100	30.5	4983
Hosangabad	0.6	-67	0.0	-100	10.4	643
Indore	0.2	-60	0.0	-100	8.6	200
Jhabua	0.0	-100	0.0	-100	16.2	16075
Khandwa	0.0	-100	0.0	-100	44.9	8887
Khargone	0.0	-100	0.0	-100	8.7	1637
Mandsaur	0.0	-100	0.0	-100	2.3	275
Morena	4.3	750	0.0	-100	6.6	725
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	0.0	-100	0.0	-100	3.1	208
Rajgarh	0.0	-100	0.0	-100	5.8	5660
Ratlam	0.0	-100	0.0	-100	4.7	2233
Sehore	0.0	-100	0.0	-100	7.4	1380
Shajapur	1.5	50	0.0	-100	6.0	900
Sheopur Kalani	0.0	-100	3.0	2900	1.0	-29
Shivpuri	1.5	87	3.0	2900	0.0	-100
Ujjain	0.0	-100	0.6	200	22.9	200
Vidisha	0.0	-100	0.0	-100	1.7	1580
Chhattisgarh						
Bastar	0.0	-100	0.0	-100	19.6	277
Bijapur	0.0	-100	0.0	-100	16.6	403
Bilaspur	2.8	-49	1.1	-82	19.3	1034
Dantewara	5.1	167	0.0	-100	11.8	293
Dhamtari	1.1	-80	0.0	-100	10.7	365
Durg	0.0	-100	0.0	-100	27.6	1623
Janjgir	0.0	-100	0.0	-100	0.0	-100
Jashpurnagar	0.1	-99	0.0	-100	2.0	-35
Kanker	0.1	-99	0.0	-100	2.0	-50
Korba	0.0	-100	0.0	-100	8.0	321
Koriya	1.9	-21	0.0	-100	4.3	4150
Kawardha	0.0	-100	0.0	-100	0.0	-100
Mahasumund	0.3	-95	0.0	-100	36.5	2939
Narayanpur	0.0	-100	0.0	-100	3.5	-56

Raigarh	8.4	110	0.0	-100	0.0	-100
Raipur	0.0	-100	0.0	-100	19.8	943
Rajandgaon	1.4	-67	0.0	-100	7.6	375
Surguja	1.6	-61	0.3	-92	16.1	2583
East Uttar Pradesh						
Allahabad	0.9	-38	4.4	529	26.7	8806
Ambedkar Nagar	0.0	-100	0.0	-100	38.0	9400
Azamgarh	7.6	322	4.3	2033	37.8	2808
Bahraich	3.4	21	1.1	7	0.8	-11
Ballia	9.6	774	1.6	306	0.8	60
Balrampur	13.0	400	0.0	-100	0.5	-37
Banda	3.0	270	3.7	309	13.4	2570
Barabanki	3.8	80	0.0	-100	4.8	495
Basti	6.9	130	0.0	-100	15.2	2940
Chandauli	0.0	-100	0.0	-100	40.0	9900
Deoria	24.5	842	0.0	-100	0.0	-100
Faizabad	2.3	18	0.0	-100	4.5	4400
Farrukhabad	12.2	481	1.6	-16	3.0	500
Fatehpur	0.0	-100	0.0	-100	7.1	1083
Gazipur	4.1	88	7.3	3550	9.8	791
Gonda	2.0	-9	0.0	-100	1.0	43
Gorakhpur	18.8	452	0.0	-100	0.3	-80
Hardoi	6.0	123	10.1	430	5.8	5671
Jaunpur	3.2	114	6.8	1596	15.0	2392
Kannauj	4.6	59	14.2	1675	3.1	675
Kanpur City	1.4	-24	0.0	-100	5.7	5617
Kanpur Dehat	0.0	-100	0.0	-100	12.8	200
Kaushambi	0.0	-100	0.0	-100	0.9	133
Kheri	8.7	111	5.0	519	0.6	-33
Kushi nagar	6.5	59	0.0	-100	0.0	-100
Lucknow	2.7	82	0.0	-100	15.1	7433
Maharajganj	21.7	392	0.0	-100	0.5	-79
Mau	6.7	178	0.0	-100	0.0	-100
Mirzapur	0.0	-100	0.3	-52	8.7	2067
Pratapgarh	7.3	233	0.3	150	10.0	9900
RaiBareilly	11.2	459	0.1	-75	7.1	7000
Sahuji Maharajnagar	0.0	-100	12.0	650	31.5	15650
Sant Kabirnnagar	3.0	-23	0.0	-100	0.5	200
Sant Ravidas Nagar	4.0	167	0.0	-100	9.0	2150
Shrawasti	0.0	-100	0.0	-100	**	**
Sidharthnagar	3.3	63	0.0	-100	0.0	-100
Sitapur	6.3	153	2.5	178	16.5	1963
Sonbhadra	0.1	-96	1.2	-41	4.2	950
Sultanpur	15.9	781	0.0	-100	5.7	616
Unnao	5.5	96	0.0	-100	13.0	200
Varanasi	0.5	-79	1.4	56	19.7	1873
West Uttar Pradesh						
Agra	3.2	68	11.9	813	10.4	3380
Aligarh	2.7	-8	26.0	1900	1.9	211
Auraiya	0.5	-75	0.0	-100	0.0	-100
Badaun	4.3	73	10.3	1048	0.0	-100

Baghpat	5.7	30	26.8	2133	0.9	-50
Bareilly	8.6	187	10.4	1627	0.0	-100
Bijnor	19.6	300	13.2	387	0.4	-76
Bulandsahar	4.3	44	14.0	1300	0.0	-100
Etah	3.3	45	13.1	908	2.8	587
Etawah	0.0	-100	0.0	-100	4.3	2033
Firozabad	5.3	181	6.1	408	24.5	8056
GBNagar	19.0	900	12.0	900	31.0	3344
Ghaziabad	17.4	277	11.7	587	1.4	24
Hamirpur	2.0	67	3.2	533	5.0	4900
Jalaun	0.0	-100	1.1	62	1.5	650
Jhansi	2.6	43	3.3	105	7.1	1663
Jotiba Phule Nagar	5.7	32	19.7	1057	2.0	567
Kanshiramnagar	1.0	-69	10.0	900	2.0	300
Lalitpur	0.0	-100	0.7	-44	21.0	2525
Mahamaya Nagar	1.0	-60	18.0	4400	9.5	1483
Mahoba	0.7	-30	4.4	1367	6.3	3050
Mainpuri	0.0	-100	2.7	78	10.9	2080
Mathura	3.0	25	9.0	650	7.5	837
Meerut	11.4	246	19.1	267	0.4	-71
Moradabad	6.6	78	17.0	1596	0.6	60
Muzzaffarnagar	17.7	293	11.7	682	5.4	440
Pilibhit	24.3	637	3.6	294	0.0	-100
Rampur	18.8	301	10.0	669	0.0	-100
Saharanpur	11.3	114	11.0	630	1.0	-29
Shahjahanpur	4.8	83	4.4	335	0.1	-70
Uttarakhand						
Almora	16.9	92	41.8	894	8.4	14
Bageshwar	20.5	133	36.8	775	10.3	40
Chamoli	28.5	87	28.6	225	2.1	-83
Champawat	23.5	267	21.0	483	9.5	64
Dehradun	15.8	19	37.6	488	8.1	58
Garhwal Pauri	12.7	39	24.2	706	0.7	-83
Garhwal Tehri	31.2	189	22.0	178	2.1	-72
Haridwar	11.7	139	48.1	1822	0.0	-100
Nainital	34.5	326	73.3	1828	9.7	119
Pithorgarh	40.6	222	44.9	591	3.6	-62
Rudraprayag	34.0	153	28.6	229	2.2	-83
Udham Sing Nagar	25.2	436	11.7	875	0.0	-100
Uttarkashi	17.9	10	17.8	69	5.3	-56
Bihar						
Araria	38.7	741	0.7	-50	1.1	-75
Arwal	5.1	913	8.7	1640	4.1	933
Aurangabad	2.2	60	4.6	363	9.8	1533
Banka	6.0	12	3.8	241	12.6	641
Begusarai	21.5	667	4.1	578	35.3	8712
Bhabua	0.0	-100	4.8	586	19.5	6411
Bhagalpur	27.9	772	8.7	981	44.8	1501
Bhojpur	2.2	120	4.3	378	**	**
Buxar	**	**	**	**	**	**
Darbhanga	33.8	838	0.0	-100	17.7	531

East Champaran	39.9	1999	0.0	-100	0.0	-100
Gaya	0.0	-100	3.7	429	5.0	519
Gopalganj	18.2	768	0.0	-100	0.0	-100
Jahanabad	0.0	-100	6.9	200	0.0	-100
Jamui	18.5	823	6.2	928	0.0	-100
Kathihar	17.7	276	3.0	329	8.8	214
Khagadia	16.5	561	5.6	200	49.4	4017
Kishanganj	53.5	1143	1.5	-29	0.1	-98
Lakhisarai	26.5	1006	10.8	1443	0.0	-100
Madhepura	14.0	226	0.0	-100	2.3	-42
Madhubani	24.9	353	0.0	-100	10.6	242
Monghyar	14.0	483	**	**	**	**
Muzaffarpur	17.1	905	0.1	-84	0.0	-100
Nalanda	6.0	1100	8.0	1900	5.3	652
Nawada	0.0	-100	0.3	11	2.9	378
Patna	10.0	612	4.1	917	0.3	-56
Purnea	30.5	577	2.2	-10	1.3	-55
Rohtas	3.0	58	3.9	162	23.0	4500
Saharsha	10.0	92	4.0	90	8.0	142
Samstipur	25.9	791	2.6	550	8.0	234
Saran	21.3	1230	5.2	1617	0.0	-100
Sheikpura	23.3	2014	1.6	220	2.2	330
Sheohar	44.0	1417	0.0	-100	0.0	-100
Sitamarhi	14.4	398	0.0	-100	1.2	-68
Siwan	24.6	1071	7.3	7220	1.0	-17
Supaul	51.0	1279	0.1	-89	16.5	649
Vaishali	20.8	804	1.9	200	0.0	-100
West Champaran	35.6	1267	1.2	-23	5.8	224
Jharkhand						
Bokaro	14.1	148	7.7	236	0.9	-50
Chatra	**	**	0.5	-67	14.1	200
Deoghar	20.8	643	16.1	1510	0.0	-100
Dhanbad	3.0	-47	3.8	65	0.0	-100
Dumka	35.0	821	8.2	141	0.0	-100
East Singbhum	21.0	249	28.9	623	4.2	-18
Garhwa	**	**	0.0	-100	9.8	200
Giridih	8.1	303	5.4	127	11.8	354
Godda	31.2	593	5.1	744	74.3	3809
Gumla	48.6	557	**	**	67.3	1626
Hazaribagh	0.0	-100	3.6	157	16.6	1007
Jamtara	50.6	855	14.9	211	3.5	215
Khunti	**	**	2.0	-9	13.8	588
Koderrna	**	**	1.8	80	33.2	3220
Latehar	3.0	-46	0.0	-100	26.5	3686
Lohardagga	**	**	0.0	-100	2.2	-37
Pakur	39.8	624	34.2	2040	8.0	70
Palamau	2.3	-34	1.3	-34	5.2	763
Ramgarh	10.6	159	19.0	555	0.0	-100
Ranchi	3.5	-47	6.7	76	15.1	371
Sahebganj	3.2	-38	57.6	5660	50.4	3500
Saraikela	**	**	11.4	200	2.7	-40

Simdega	**	**	0.0	-100	10.5	379
West Singhbhum	0.0	-100	7.4	106	62.2	2292
East Rajasthan						
Ajmer	0.2	-56	6.3	3030	8.8	703
Alwar	15.6	1104	34.6	3750	0.9	-20
Banswara	0.0	-100	0.0	-100	3.0	1400
Baran	0.5	-44	4.6	2213	1.1	125
Bharatpur	4.0	300	20.3	1930	7.5	1150
Bhilwara	0.0	-100	1.5	88	1.8	129
Bundi	0.0	-100	2.5	733	3.3	376
Chittorgarh	0.0	-100	0.2	-81	3.6	419
Dausa	1.2	20	12.0	991	0.0	-100
Dholpur	6.0	362	0.2	-72	13.2	2533
Dungarpur	0.0	-100	0.0	-100	7.1	6983
Jaipur	3.9	1184	21.2	2926	2.5	57
Jhalawar	0.0	-100	1.2	200	3.6	1100
Jhunjhunu	20.0	1152	40.1	2571	4.7	260
Karauli	3.7	511	4.0	900	9.6	1494
Kota	0.0	-100	5.9	1070	10.1	1021
Pratapgarh	0.0	-100	0.0	-100	1.8	200
Rajsamand	0.0	-100	0.4	-29	1.1	27
Sawai Madhopur	0.9	75	6.9	2192	3.8	188
Sikar	6.0	500	35.1	3095	5.9	351
Sirohi	0.0	-100	0.4	300	9.5	1086
Tonk	0.0	-100	14.7	2836	7.5	525
Udaipur	0.0	-100	0.3	3	14.0	3391
West Rajasthan						
Barmer	0.0	-100	7.4	823	0.6	-25
Bikaner	0.4	-56	42.2	8331	1.2	7
Churu	6.9	332	56.3	7939	0.1	-96
Hanumangarh	0.6	-18	28.6	3471	9.6	404
Jaisalmer	0.0	-100	13.8	1621	1.1	-18
Jalore	0.0	-100	0.0	-100	9.6	3088
Jodhpur	0.0	-100	19.2	1031	1.2	1
Nagaur	0.3	-77	38.3	6283	6.7	294
Pali	0.0	-100	2.2	175	1.8	200
Sri Ganganagar	0.0	-99	16.7	1095	7.6	231
Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	4.8	2281
Anand	0.0	-100	0.0	-100	7.8	200
Banaskantha	0.0	-100	0.0	-100	6.8	1036
Baroda	0.0	-100	0.0	-100	1.9	200
Broach	0.0	-100	0.0	-100	2.4	2344
DNH	**	**	**	**	0.0	-100
Dahod	0.0	-100	0.0	-100	2.5	1150
Daman	6.0	200	0.0	-100	0.0	-100
Dangs	3.5	400	0.0	-100	62.0	6789
Gandhinagar	0.0	-100	0.0	-100	4.3	200
Kheda	0.0	-100	0.0	-100	4.3	4200
Mehsana	0.0	-100	0.0	-100	5.7	2733
Narmada	0.0	-100	0.0	-100	11.3	200

Navsari	0.0	-100	0.0	-100	6.1	200
Panchmahal	0.0	-100	0.0	-100	3.1	1445
Patan	0.0	-100	0.0	-100	4.4	4329
Sabarkantha	0.0	-100	0.0	-100	8.5	8433
Surat	0.0	-100	0.0	-100	5.9	5750
Tapi	0.0	-100	0.0	-100	0.0	-100
Valsad	0.0	-100	0.0	-100	0.0	-100
S K & Diu region						
Amreli	2.0	567	0.0	-100	8.4	200
Bhavnagar	0.0	-100	0.0	-100	5.3	200
Diu	0.5	150	0.0	-100	0.0	-100
Jamnagar	0.5	355	0.0	-100	0.0	-100
Junagarh	0.0	-100	0.0	-100	4.5	200
Kutch	0.0	-100	0.0	-100	2.2	2054
Porbandar	0.0	-100	0.0	-100	0.0	-100
Rajkot	0.0	-100	0.0	-100	0.3	67
Surendranagar	0.0	-100	0.0	-100	0.2	54
Maharashtra & Goa						
Konkan & Goa						
Mumbai City	0.0	-100	0.0	-100	1.4	200
Mumbai Suburban	0.0	-100	0.0	-100	0.0	-100
North Goa	2.6	773	0.0	-100	0.0	-100
Raigad	12.5	12400	0.0	-100	0.0	-100
Ratnagiri	0.2	200	0.0	-100	0.0	-100
Sindhudurg	0.0	-100	0.0	-100	0.0	-100
South Goa	0.0	-100	0.0	-100	0.0	-100
Thane	0.0	-100	0.0	-100	0.0	-100
Madhya Maharashtra						
Ahmednagar	2.8	133	0.0	-100	0.4	-82
Dhule	**	**	**	**	**	**
Jalgaon	0.0	-100	0.0	-100	11.3	1312
Kolhapur	3.2	69	0.0	-100	2.2	-63
Nandurbar	1.3	525	**	**	**	**
Nasik	3.3	994	0.0	-100	7.4	828
Pune	6.7	861	0.0	-100	4.9	173
Sangli	1.2	-39	0.0	-100	13.1	190
Satara	1.3	-14	0.0	-100	4.6	58
Solapur	0.0	-98	0.0	-100	8.7	210
Marathwada						
Aurangabad	0.2	-77	0.0	-100	21.9	1895
Beed	0.1	-92	0.0	-100	37.2	1967
Hingoli	0.4	-78	**	**	30.7	1126
Jalna	0.0	-100	0.0	-100	20.3	2159
Latur	0.0	-100	0.0	-100	40.3	1290
Nanded	0.0	-100	0.0	-100	44.5	1291
Usmanabad	0.3	-48	0.0	-100	38.4	1498
Parbhani	0.1	-96	0.0	-100	34.8	1480
Vidarbha						
Akola	0.3	-89	0.0	-100	46.7	4145
Amraoti	3.0	111	0.0	-100	15.0	1266
Bhandara	5.0	26	0.0	-100	27.5	1098

Buldhana	2.4	52	0.0	-100	37.5	4592
Chandrapur	4.9	68	8.5	144	16.8	1101
Gadchiroli	1.0	-71	1.9	-42	18.4	608
Gondia	6.7	49	1.3	-58	24.1	827
Nagpur	2.0	-54	0.0	-100	30.2	1579
Wardha	0.5	-85	0.0	-100	11.3	496
Washim	0.5	-82	0.0	-100	33.0	1843
Yeotmal	0.1	-95	0.0	-100	12.0	447
Odisha						
Angul	0.0	-100	0.0	-100	7.8	110
Balasore	18.5	49	24.4	141	2.2	-77
Bargarh	0.5	-91	0.6	-83	38.0	1167
Bhadrak	11.9	14	3.4	-55	0.9	-92
Bolangir	1.1	-77	0.4	-94	29.8	645
Boudh	0.0	-100	0.0	-100	21.3	364
Cuttack	0.4	-95	0.5	-93	7.2	61
Deogarh	0.0	-100	4.7	34	9.1	598
Dhenkanal	1.8	-71	0.0	-99	21.9	283
Gajapati	5.0	-66	1.5	-90	32.5	480
Ganjam	6.1	-16	4.1	-54	3.0	-58
Jagatsingpur	0.1	-99	0.0	-100	15.9	621
Jajpur	7.7	54	0.0	-100	14.5	134
Jharsuguda	0.0	-100	0.0	-100	14.3	583
Kalahandi	0.0	-100	0.0	-100	16.8	408
Kandhamal	4.5	-18	3.1	-64	15.1	228
Kendrapara	0.0	-100	0.0	-100	19.3	320
Keonjhar	3.0	-66	1.8	-76	21.7	268
Khurda	2.1	-57	4.0	-48	1.7	-54
Koraput	10.2	86	0.0	-100	23.0	147
Malkangiri	0.0	-100	0.0	-100	15.2	88
Mayurbhanj	16.5	6	10.4	-11	18.1	121
Nawapara	0.0	-100	12.0	79	46.1	1052
Nawarangpur	0.0	-100	0.0	-100	47.5	869
Nayagarh	6.6	31	24.3	83	8.6	62
Puri	0.0	-100	0.1	-97	4.9	157
Rayagada	21.0	59	9.5	-30	63.3	406
Sambalpur	0.0	-99	5.1	46	16.6	1173
Sonepur	0.0	-100	1.3	-66	19.7	838
Sundargarh	7.0	62	0.0	-100	9.7	387
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	2.1	-84	3.1	-82	70.2	313
North & Middle Andaman	1.8	47	0.0	-100	25.3	261
South Andaman	2.5	-58	0.0	-100	92.5	590
GWB						
Bankura	4.9	-34	16.2	457	0.0	-100
Birbhum	31.2	420	24.9	611	1.1	-73
Burdwan	26.8	406	24.9	379	0.0	-100
East Midnapore	7.5	-11	10.4	44	8.0	122
Hooghly	9.5	-5	8.1	65	0.1	-99

Howrah	10.0	-33	20.1	196	0.0	-100
Kolkata	23.6	131	25.6	256	0.0	-100
Murshidabad	11.0	59	6.0	200	32.0	504
Nadia	8.8	27	29.6	920	19.9	169
24 Pargana (N)	25.3	251	24.2	538	4.0	-44
Purulia	1.7	-78	20.7	209	7.4	140
24 Pargana (S)	5.2	-49	23.8	162	2.0	-59
West Midnapore	5.5	-54	37.5	229	3.3	-65
SHWB & Sikkim						
Cooch Behar	44.0	157	33.7	134	5.8	-69
Darjeeling	31.0	118	28.1	64	20.5	-17
East Sikkim	57.1	246	62.0	91	57.2	18
Jalpaiguri	33.0	78	56.2	431	18.5	4
Malda	38.6	1003	27.3	992	30.0	445
North Dinajpur	48.8	1091	0.5	-71	3.0	173
North Sikkim	68.7	80	102.0	57	66.2	25
South Dinajpur	16.0	154	11.7	77	8.6	21
South Sikkim	58.3	253	4.7	-86	70.2	45
West Sikkim	30.0	-21	8.5	-87	67.5	28
Karnataka						
Coastal Karnataka						
Dakshina Kannada	27.4	879	3.7	-47	16.6	102
Udupi	36.9	1745	3.0	-27	2.4	-58
Uttara Kannada	7.0	441	0.3	-91	0.0	-100
N I Karnataka						
Bagalkote	1.8	-5	0.0	-100	40.9	718
Belagavi	3.2	29	0.0	-100	17.6	189
Bidar	0.3	-93	0.0	-100	70.6	1096
Dharwad	1.2	-54	2.8	-49	0.0	-100
Gadag	1.1	-52	0.1	-98	8.9	15
Haveri	2.8	14	0.0	-99	0.0	-100
Kalaburgi	1.9	-50	0.1	-99	80.8	1736
Koppal	0.5	-48	0.0	-100	24.8	491
Raichur	0.0	-100	0.0	-100	37.7	919
Vijayapura	0.2	-92	0.0	-100	28.6	483
Yadgir	0.8	-72	0.0	-100	38.4	1063
S I Karnataka						
Ballari	1.4	26	0.0	-100	36.8	546
Bangalore Rural	1.3	-52	1.6	-62	36.3	366
Bangalore Urban	0.4	-86	0.2	-95	44.6	502
Chamarajanagar	1.0	-73	12.5	49	35.4	159
Chikaballapur	0.0	-100	0.0	-100	64.8	867
Chikkamagaluru	7.6	81	6.1	-42	23.9	102
Chitradurga	0.9	-54	0.5	-86	19.9	315
Davangere	0.4	-85	1.0	-78	18.2	139
Hassan	10.5	220	8.1	-7	35.7	237
Kodagu	12.6	75	19.3	20	45.0	131
Kolar	0.0	-100	2.9	-34	46.6	1036
Mandya	6.9	261	4.3	-29	10.3	8
Mysuru	3.7	-6	16.8	151	26.8	116

Ramanagara	0.8	-81	7.9	44	57.2	606
Shivamogga	4.1	25	5.3	-9	4.8	-29
Tumakuru	1.6	-36	8.7	103	40.5	426
Kerala						
Alappuzha	13.5	-7	37.7	27	53.2	73
Kannur	0.0	-100	2.2	-69	16.8	16
Ernakulam	9.8	-5	67.4	268	39.6	49
Idukki	14.0	-7	23.8	-17	112.6	261
Kasaragod	30.3	847	3.8	6	16.3	63
Kollam	13.5	-25	21.3	-31	83.4	149
Kottayam	48.5	223	44.9	41	47.0	33
Kozhikode	0.2	-95	4.4	-59	40.3	89
Malappuram	0.0	-100	16.4	9	41.0	105
Palakkad	0.7	-92	27.5	43	47.9	106
Pathanamthitta	7.9	-72	20.7	-47	160.3	302
Thiruvananthapuram	2.4	-81	39.2	67	39.7	46
Thrissur	2.5	-55	21.9	37	22.8	17
Wynad	4.3	-43	40.2	170	37.1	104
Tamil Nadu						
Ariyalur	0.0	-100	2.8	-24	8.3	150
Chennai	0.0	-100	0.0	-100	1.2	-55
Coimbatore	0.0	-100	3.1	-58	32.0	205
Cuddalore	0.0	-100	0.0	-100	4.6	53
Dharmapuri	0.0	-100	1.3	-82	21.2	132
Dindigul	0.0	-100	8.5	-24	46.4	290
Erode	0.0	-100	9.0	37	14.0	61
Kanchipuram	0.0	-100	0.0	-100	4.2	93
Kanyakumari	20.1	58	20.9	-18	29.6	28
Karikal	0.0	-100	0.0	-100	76.7	936
Karur	0.0	-100	0.0	-100	41.7	496
Krishnagiri	0.0	-100	3.3	-31	25.5	255
Madurai	0.0	-100	30.4	181	16.7	25
Nagapattinam	0.3	-91	0.0	-100	18.0	361
Namakkal	0.0	-100	7.4	31	26.5	208
Nilgiris	29.6	271	7.6	-55	36.7	89
Perambalur	0.0	-100	0.0	-100	23.3	356
Puducherry	0.0	-100	0.0	-100	37.8	922
Pudukottai	0.0	-100	0.0	-100	59.6	964
Ramanathapuram	0.0	-100	2.6	-75	63.7	382
Salem	0.0	-100	4.5	-55	28.2	163
Sivaganga	0.5	-84	3.2	-66	32.4	212
Thanjavur	0.3	-88	0.0	-100	19.5	237
Theni	7.1	-27	4.2	-76	22.8	66
Tirunelveli	14.4	24	6.3	-68	27.5	65
Tirupur	0.0	-100	5.2	-25	46.0	454
Tiruvallur	0.0	-100	0.0	-100	23.9	820
Tiruvannamalai	0.0	-100	0.0	-100	65.2	2148
Tiruvarur	15.3	468	1.1	-80	25.8	397
Toothukudi	13.2	165	5.9	-62	11.4	-10

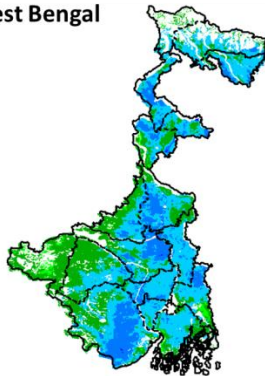
Trichy	2.2	-6	0.0	-100	30.9	268
Vellore	0.0	-100	2.3	-37	53.1	1612
Villupuram	0.0	-100	0.0	-100	33.5	982
Virudhunagar	3.9	-53	3.4	-78	8.1	-47
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0.0	-100	5.0	118
Guntur	0.0	-100	0.0	-100	7.8	225
Krishna	0.0	-100	0.0	-100	21.2	960
Nellore	0.0	-100	0.2	-88	35.1	3408
Prakasam	0.0	-100	2.0	-7	14.4	861
Sirkakulam	0.0	-100	0.0	-100	10.6	130
Visakhapatnam	11.3	88	0.0	-100	6.4	-13
Vizianagram	3.8	-24	0.0	-100	5.2	1
West Godavari	0.4	-74	0.0	-100	3.9	36
Rayalaseema						
Anantapur	0.0	-100	0.5	-75	52.8	1365
Chittoor	0.0	-100	1.1	-69	46.7	1316
Cuddapah	0.0	-100	0.7	-54	56.0	2235
Kurnool	0.1	-90	0.0	-99	25.3	603
Telangana						
Adilabad	6.1	91	1.9	-35	36.1	1288
Hyderabad	3.8	-5	3.0	-27	48.8	1120
Karimnagar	4.0	98	10.4	168	30.0	758
Khammam	0.1	-95	0.0	-100	24.4	467
Mehabubnagar	0.0	-100	0.0	-100	42.1	1215
Medak	0.0	-100	0.4	-89	45.0	857
Nalgonda	0.2	-87	0.8	-77	31.6	1656
Nizamabad	1.0	-62	3.1	-8	71.3	1998
Rangareddy	2.3	-17	1.7	-41	62.6	1104
Warangal	0.1	-96	0.6	-78	38.9	922

Legends

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

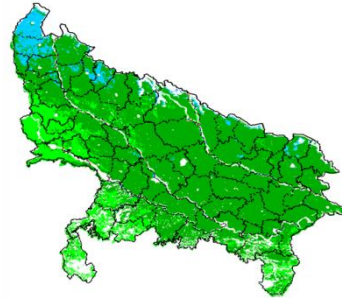
**INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON 16th April 2015
FOR DIFFERENT STATES**

West Bengal



Agricultural vigour is good over most of the central parts of West Bengal, whereas southern part show higher values of NDVI varying from 0.4-0.5. NDVI values are normal over south western part of state.

Uttar Pradesh



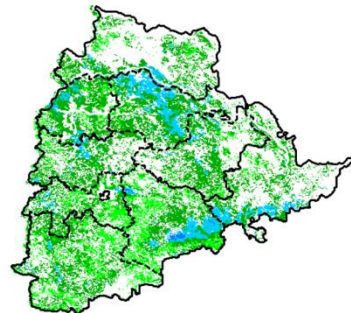
Agricultural vigour is normal over the entire state of Uttar Pradesh where NDVI values varies from 0.2 -0.4 except north western part where NDVI shows higher values with 0.4-0.5.

UTTARAKHAND



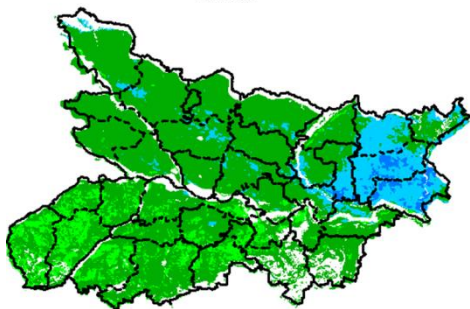
Agriculture vigour is good over southern and south western parts of Uttarakhand with NDVI values varying between 0.4-0.5. Whereas, isolated patches of normal NDVI are observed in middle of the state.

Telangana



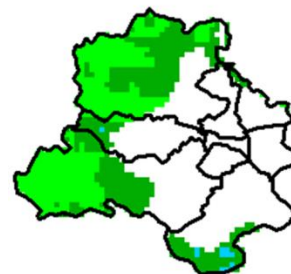
NDVI values vary from 0.2 - 0.5 over Telangana. Higher (> 0.5) values are seen in the south-eastern part of Telangana.

Bihar



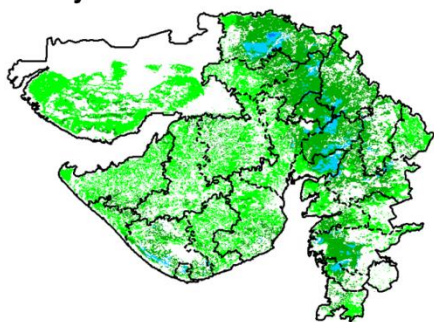
The eastern part in state of Bihar shows comparatively a high values (0.4-0.5) of NDVI, Whereas, normal NDVI is observed in remaining parts of the state.

Delhi



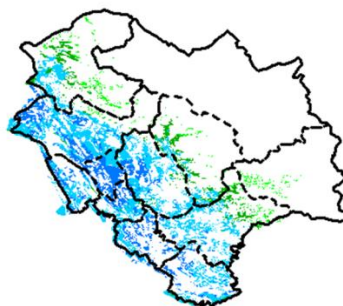
Agriculture vigour is normal all over Delhi, NDVI values lies between 0.2-0.4.

Gujarat



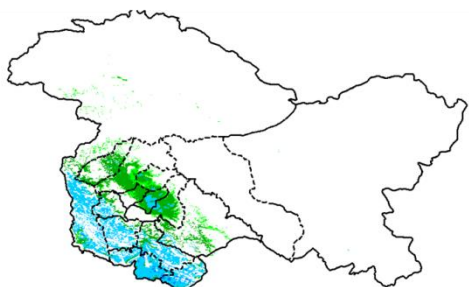
Agriculture vigour is good over central part of Gujarat where NDVI values lies between 0.4-0.5. Whereas normal NDVI is observed in Kutch and Saurashtra.

Himachal Pradesh



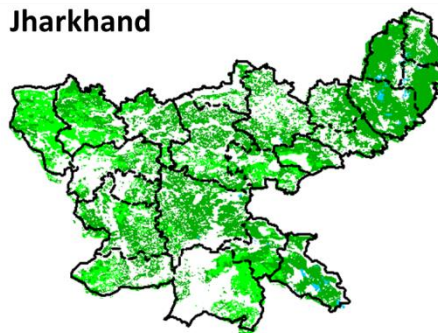
Agriculture vigour is good over southern and south western parts of Himachal Pradesh with NDVI values varying between 0.4-0.5. Whereas, isolated patches of normal NDVI are observed in middle of the state.

Jammu - Kashmir



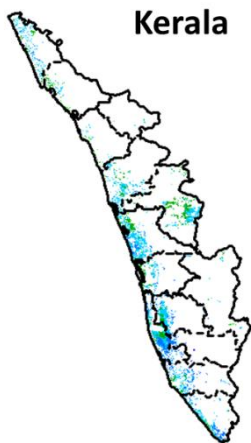
Agriculture vigour is normal all over Jammu and Kashmir. NDVI values vary in between 0.4-0.5 in south western parts.

Jharkhand



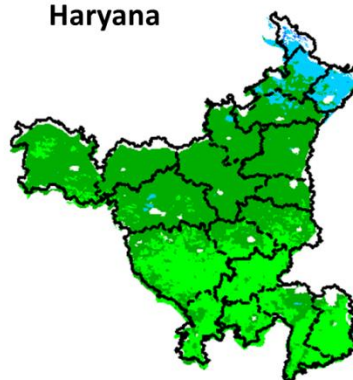
Agriculture vigour is normal (0.2-0.4) over entire state of Jharkhand.

Kerala



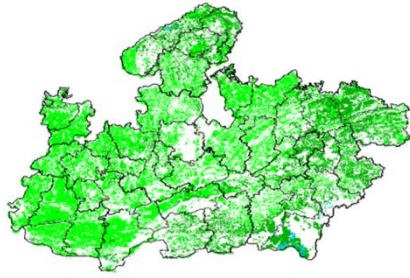
In central and south west coasts of Kerala shows NDVI values are varying from 0.3 to 0.5, whereas rest of agriculture vigour of Kerala shows good values of NDVI.

Haryana



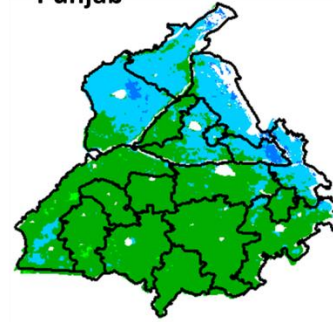
Agriculture vigour is normal over the state. NDVI values varies between 0.2- 0.3 over the state. Except few patches in northern part shows NDVI values between 0.4-0.5.

Madhya Pradesh



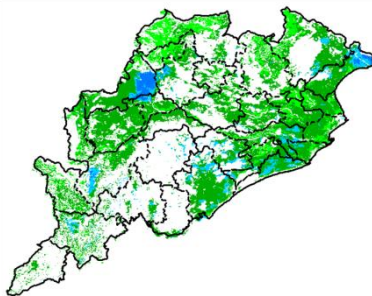
Agriculture vigour is normal (0.2-0.4) over entire state Madhya Pradesh.

Punjab



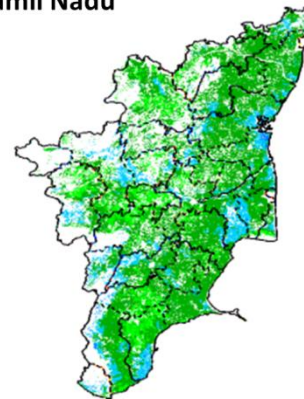
Agricultural vigour is normal over entire state of Punjab except Northern part shows comparatively high NDVI values ranges from 0.5-0.6.

Odisha



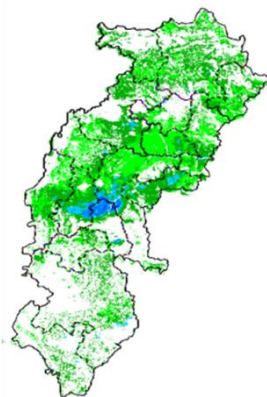
Agricultural vigour is good in eastern coastal and few pockets in western parts of Odisha with NDVI values of 0.4 - 0.5. The remaining parts shows normal NDVI values.

Tamil Nadu



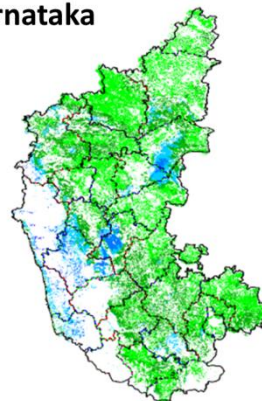
Agricultural vigour is normal over Tamil Nadu with NDVI values varying from 0.3 - 0.5. In the coastal and western parts NDVI values varies between 0.4-0.5.

Chhattisgarh



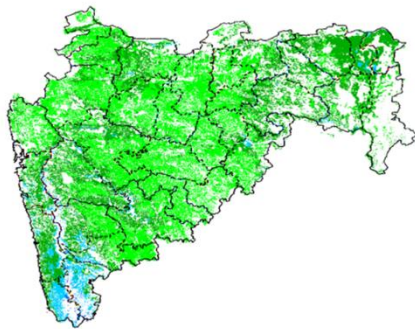
Agriculture vigour is good in central part of Chhattisgarh where NDVI values lies in between 0.4-0.5. NDVI values are normal over rest of the state.

Karnataka



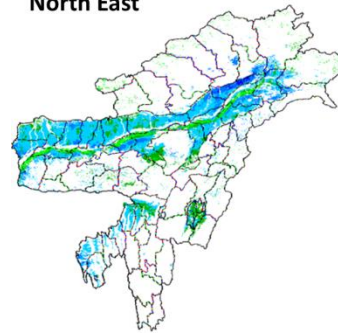
Agriculture vigour is good over some pockets of western coastal parts of Karnataka which lies in between 0.4-0.6. Rest of the parts shows normal condition where NDVI values vary up to 0.2-0.4

Maharashtra



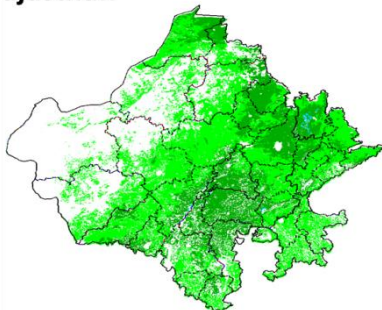
Agricultural vigour is good over southern part with NDVI values of 0.4 - 0.5. Whereas, NDVI is moderate over parts of Marathwada, Vidarbha and Madhya Maharashtra region.

North East



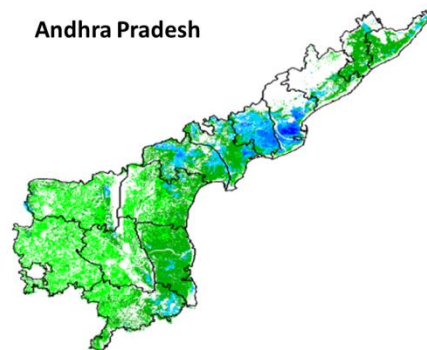
Agriculture vigour is good in valleys of hilly range of North-East states which covers part of Assam. NDVI values vary from 0.4-0.5 in this region. Normal NDVI conditions are observed all over NE region.

Rajasthan



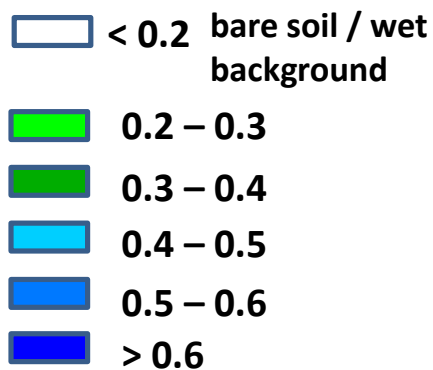
Agriculture vigour is normal (0.2-0.4) over entire state Rajasthan.

Andhra Pradesh



Agriculture vigour is very good (0.5 - 0.6) over central and coastal parts of Andhra Pradesh. The NDVI is normal over rest of the part of the state.

Persistent cloud /



Annexure III List of varieties

Karnataka

Sugar-cane: Co-86032, Co-94012

Tamil Nadu:

Irrigated sesame: TMV 4, TMV 6 and SVPR 1

Cotton: MCU-5, Surabhi and SVPR-2

Assam

Direct seeded ahu rice: Banglami, Rangadoria, Ahu joha, Rasi, Banglami, Rangadoria, Ahu joha, Rasi.

- Early sowing semi dwarf variety of ahu rice: Luit, Kopilee, Cauvery, Culture -1, Rasi, IR-36.
- Tall variety of ahu rice: Panjasail, Kojjapori, Laujuli and Hasakumra.

Bau rice: Maguri, Panikekua, Amona, Negheri.

ahu rice: Govind, IR-50, IR-36, Rashi, Lachit, Gopinath.

Summer green gram: T-44, AAU-34, AAU-39, Pratap, Kopergaon, K-85, ML-55.

Summer black gram: T-9, Pant U-19, JU-78.

Sunflower: Jwalamukhi.

Okra : Pusa Sawani, Arka Anamika, Parbhdani Kranti.

Capsularis Jute: JRC 212, JRC 321(Sonali), JRC 7447 (Shyamali) and UPC 94(Reshma).

Olororius Jute: JRO 524 (Navin), JRO 785 (Basudev), JRO 632(Baisakhtissa), Set-2 (Bahagi) and Tarun.

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

Cucumber: Pusa Sanyog, Chinese Green etc.

Ridge Gourd: Pusa Nasdar and selected local varieties.

Sugarcane: Kolong, Luhit, Dhansiri, Co 1148, Co 6315, Co 997, 80/77 (Co BLN 9104), 43/83 (Co BLN 9605).

Summer sesame: TC 25, Vinayak.

Ginger: Rio-de-Generio, Nadia, Moran, Jorhat.

Arunachal Pradesh

Jhum rice: Bhalum1,2,3 & 4.

Manipur

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

Okra: Pusa Sawani, Arka Anamika.

Tripura:

Urd: T-9, PanthUrd 35.

Green Gram: PDM 139 (Samrat), TMV 37.

Cowpea: Maharaja, Kasi Kanchan

Meghalaya

Maize (High & Mid altitude region): Vijay Composite, DA 61A, RCM 75, 76, Vivek Hybrid 25, Vivek QPM-1.

Okra: Pusa A-4, VRO-6, Pusa Sawani, Arka Anamika, Parbhani Kranti.

Brinjal: Local Umroi, Muta Kesh, Narrow

Odisha

Sunflower: Morden, Sunrise, Surya and Hybrid varieties like KBSH-1, KBSH-3 and MSFH.

Groundnut: Smruti, TAG-27, TAG – 24 and JL-24

Onion: Nasik Red, Patna Red, Pune Red, Bellary Red, Pusa Ratnar, Pusa Madhavi, Arka Niketan ,Arka Pragati

Ragi: HYVs. like Subhra, Vairabi, Dibyasingh, Nilachala, Subhra, Godavari and Chilka.

Okra: Utkal Gourav, Arka Anamika, Varsha Uphar, Parvani kranti and all available hybrid varieties

Bitter gourd: Pusa Domousumi, Coimbatore long green, and Arka Harit,

Ridge gourd: Pusa Najdar, Jaypur long, and any local variety

Cluster bean: Pusa Naubahar

Cow pea: Arka Garima, Utkal Manika, Selection-2-6-3 and pusa Kamal.

Sesame: Uma, Kalika, Kanak, Nirmala, Prachi, Usha.T

Bihar

Sweet Potato: Cross 4 and Rajendra shakarkand 35

Okra: Parvani kranti, Arka abhay, Arka anamika, Barsha Uphar, KS 312, Okra 4, Punjab 7, Pant Bhindi 1

Pumpkin: Rajendra Chamatkar, Pusa samar prolific long and pusa samer prolific

Sponge gourd: Rajendra nanua-1, Pusa chikni, Pusa priya, Kalyanpur chikni, DL-11

Bitter gourd: Pusa Do mausmi, Pusa Vivesh, Arka Harit, Koyambatoor long, Kalyanpur Barahmasi, Pant kerila

Moong: Pusa Vishal, Samrat, SML-668, Sona varieties are recommended for moong

Urd: Pant U-19 and Pant U-31, Ultra and Type-9 for Urd.

Maize: Suwan, Deevki, Ganga-11, Shaktiman-1 and Shaktiman-2

Jharkhand:

Summer rice: IR-36, IR-64, Naveen, lalat, Parijat (80-85 days).

Summer maize: Birsa Makka-1, Birsa Makka-2, Suwan-1(Hybrid), HQPM (Hybrid)

Green gram: mung S.M.L.- 668

Sugarcane: BO 147

Okra: Improved varieties – Pusa A - 4, Prabhani Kranti, Arka Anamika, Versha Uphar & Hybrid varieties –Sonal and Sarika

Chhattisgarh

Sweet Corn: NS- 680 or Suger-75

Jammu & Kashmir

Onion: Agrifound Parvati, Pusa red, N-53.

Uttarakhand

Tomato: VL Tomato-3, Pant T-3, Him Sona, Him Shikhar.

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

Potato: Kufri- Jyoti, Ashok, Anand

Moong: Pant Moong-2, Pant Moong-4, Pant Moong-5, Pant Moong-6, Narendra Moong-1

Himachal Pradesh

Wheat: HPW-155, HPW-89, HPW-147, HPW-236, HPW-211 in low and mid hill and HPW-155, HPW-236, HPW-42 in high hill

Late variety of Cauliflower: broccoli

Cauliflower: Pusa-snowwall

Radish: Japanese white, Chinese pink and mino early white

Capsicum: solan hyb-1, california wonder, yolo wonder ,vl shimla mirch-2 ,

Brinjal: plr-1, azad (hybrid), Arka Nidhi, Arka Keshav, Hisar Shaymal, PPC, F1 Chhaya, F1 Sandhya

Tomato: solan gola, Palam Pink, Palam Pride, F1 Avtar, F1 Rakshita

Chilli: Surajmukhi

Wheat: HD-2278 ,HD-2281 ,SUJATA (HI-617),HD-2307

Sunflower: EC-68415

Moong: Pusa Baishakhi

Mash:UG-218

East Uttar Pradesh

Wheat: Narendra-1012, HD-2824, 2733, HP-1731, UP-2382, PWD-343, CVW-38, DBW-39, UO-2382, HUW-510

Wheat (Late varieties): Malaveey-234, HP-1633, H-1744, Narendra-1014, UP-2425

Onion: Pusa red, Kalynpur red, light red

Lentil: T-8, Pant L-406, 234

Chilli: Patasi-1, Jwala, Sadabahar

Lobia: lobia 263, Pusa Phaguni

Tomato: Pant T-2, Azad T-2, Narendra-1,2,4,5,6

Maize: Navjyoti, Kanchan, Gaurav, Surya, Navin, Shweta, Azad Uttam, Prakash, Deccan-115, MMH-135, Ganga-11, Pusa, Maize-2, JH-3459

Urd: T-9, Narendra-1, Azad-1, Uttar Azad-2, Shekhar-2

Okra: VRO-6, VRO-5.

West Uttar Pradesh:

Wheat (non-irrigated): K-9644, Maghar (K-8027), Mandakini (K-9351), Indra (K-8962), Gomati (K-9465), HDR-77, HD-2888

Wheat (Irrigated): K-307, DBW-17, PBW-343,502,550, GW-366, K-1006, 607,402, DVW-39, KRL-210, 213, 19, K-8434(Prasad), NW-1067

Lentil: Narendra-1, DPL-62, Pant-5, L-4076, K-75, HUL-57, Shekhar-3, 2, IPL-81

Sunflower: No.1, PAC- 302, SH-322

Ladies finger: VRO-6, VRO-5

Punjab

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

Rajasthan

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

Maharashtra

Madhya Maharashtra

Groundnut: SB-11, JL-286, Phule Unati, TPG-41, TG-26 or JL-501.

Sunflower: SS-56, Modern, EC-68414 or bhanu and hybrid varieties like KBSH-1 or phule Raviraj or MSFH-17.

Marathwada

Jowar: Parbhani Moti or Parbhani Jyoti.

suru Sugarcane: CO-86032, COM- 7125, CO-8014 or CO-740

Okra: Parbhani Kranti

Vidarbha

Groundnut: TAG-24, TG-26 or SB-11.

Water Melon: Sugar baby, Arka Jyoti or Arka Manik.

Okra: Arka Anamika, Parbhani Kranti, Akola Bahar or Phule Utkarsha.

Sesamum: AKT-101 or NT-11-99.

Gujarat

Pearl millet: GHB-526 and GHB-558.