

National Agromet Advisory Service Bulletin

Friday 10th April 2015

(For the period 10th to 14th April 2015)

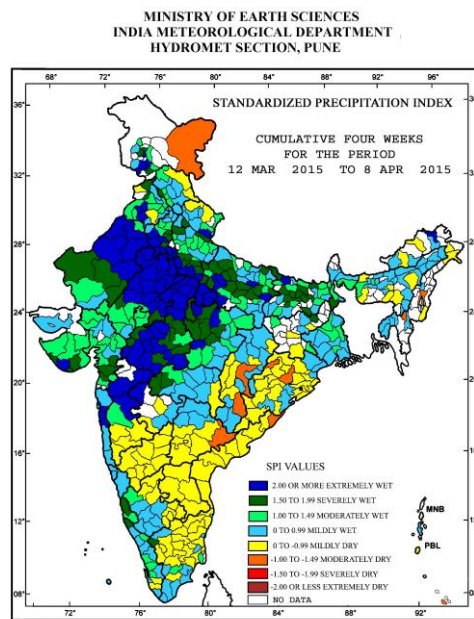


Issued by

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



Standardised Precipitation Index
Four Weekly
for the Period 12th March to 08th April 2015

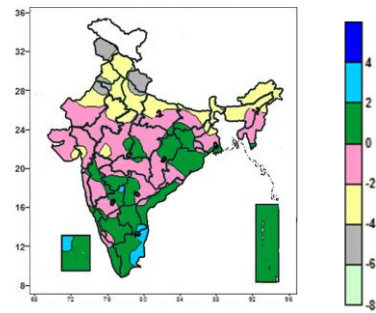
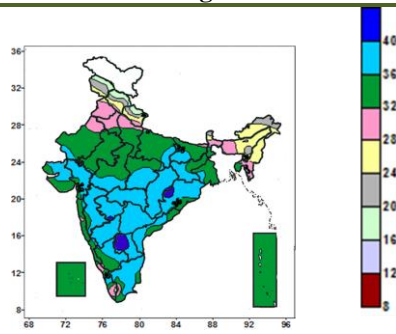


- Extremely/severely wet conditions experienced in most districts of Uttar Pradesh, Rajasthan, West Madhya Pradesh; many districts of East Madhya Pradesh and Bihar; few districts of Gujarat, Saurashtra & Kutch, Maharashtra, Uttarakhand, Jammu and Kashmir and Punjab & Haryana; Upper Siang district of Arunachal Pradesh; Udipi district of Karnataka, The Nilgiris district of Tamil Nadu, Malda district of West Bengal and Kasargod district of Kerala.
- Moderately dry conditions experienced in Senapati district of Manipur; Kolasib district of Mizoram, Angul and Jharsugda districts of Odisha; Ladakh (Leh) district of Jammu and Kashmir; Bastar and Raipur districts of Chhattisgarh, Srikakulam district of Andhra Pradesh and Khammam district of Telangana.
- Moderate/Mild wet conditions experienced in most districts of Assam, Punjab & Haryana; many districts of West Bengal, Uttar Pradesh, Maharashtra, Gujarat, Chhattisgarh; few districts of NMMT, Odisha, Bihar, Jharkhand, Himachal Pradesh, J & K, Rajasthan, Madhya Pradesh, Tamil Nadu, Telangana, Karnataka and Kerala
- Rest of the country experienced mildly dry conditions.

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 08.04.2015

Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 08.04.2015

Mean Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 08.04.2015

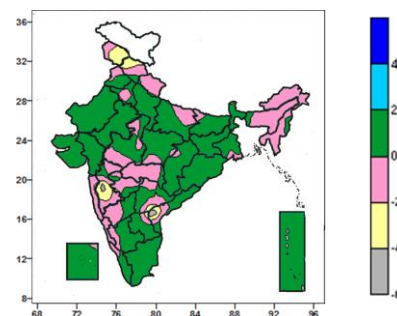
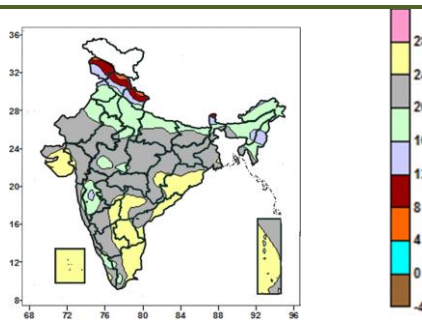


- Heat wave conditions prevailed at a few places over Saurashtra & Kutch on 9.4.15 and rise in day temperature is expected in Northwest and adjoining west & central India during next 48 hours.
- During the week, maximum temperature was 40°C and above over few parts of Rayalaseema, isolated parts of Odisha, Chhattisgarh, Marathwada, Konkan and Coastal Karnataka.
- 36 to 40°C over Telangana, North Interior Karnataka and Vidarbha, many parts of Marathwada, Madhya Maharashtra, Gujarat, Chhattisgarh, Odisha, Jharkhand, South Interior Karnataka, Coastal Andhra Pradesh and Tamil Nadu, few parts of Madhya Pradesh and Bihar, isolated parts of Rajasthan, East Uttar Pradesh, Gangetic West Bengal and Kerala.
- 32 to 36°C over Andaman & Nicobar Islands, Lakshadweep, many parts of Rajasthan, Uttar Pradesh, Madhya Pradesh, Bihar, Gangetic West Bengal, Tripura, Konkan & Goa, Coastal Karnataka, few parts of Gujarat, Sub-Himalayan West Bengal, Jharkhand isolated parts of Haryana & Delhi, Odisha, Coastal Andhra Pradesh, Madhya Maharashtra, Tamil Nadu and Kerala.
- 16 to 32°C over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Nagaland, Manipur, Mizoram, Arunachal Pradesh, Assam & Meghalaya, many parts of Haryana & Delhi, Sub-Himalayan West Bengal & Sikkim, isolated parts of Tripura, Konkan, Coastal Karnataka, South Interior Karnataka, Tamil Nadu & Kerala.

- 2 to 4°C over few parts of Tamil Nadu, isolated parts of Rayalaseema, North Interior Karnataka and Lakshadweep.
- -2 to 2°C over Chhattisgarh, Odisha, Manipur, Mizoram, Tripura, Maharashtra & Goa, Coastal Karnataka, South Interior Karnataka, Telangana, Kerala and Andaman & Nicobar Islands, many parts of Rajasthan, Gujarat, Madhya Pradesh, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Nagaland, Coastal Andhra Pradesh, North Interior Karnataka, Rayalaseema, Tamil Nadu and Lakshadweep.
- -6 to -2°C over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana & Delhi, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, many parts of Uttar Pradesh and Assam & Meghalaya, few parts of Rajasthan and Nagaland, isolated parts of Madhya Pradesh, Gujarat, Bihar, Jharkhand and Gangetic West Bengal.

Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 08.04.2015

Mean Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 08.04.2015



- 4 to 8°C over isolated parts of Jammu & Kashmir, Himachal Pradesh and Uttarakhand.
- 8 to 16°C over Sikkim, many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Nagaland and Manipur, isolated parts of Punjab, Assam & Meghalaya and Madhya Maharashtra.
- 16 to 20°C over Haryana & Delhi, many parts of Punjab,

- -6 to -4°C over isolated parts of Madhya Maharashtra and Coastal Andhra Pradesh.
- -4 to -2°C over many parts of Jammu & Kashmir, few parts of Himachal Pradesh and Madhya Maharashtra, isolated parts of Telangana and Andhra Pradesh.
- -2 to 2°C over entire country except many parts of Jammu & Kashmir, few parts of Himachal Pradesh and Madhya

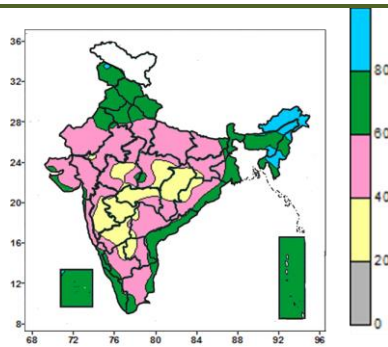
Uttar Pradesh, Sub-Himalayan West Bengal, Arunachal Pradesh, Assam & Meghalaya, Mizoram, Madhya Maharashtra, few parts of Rajasthan, West Madhya Pradesh, Bihar, Nagaland, Mizoram and Kerala, isolated parts of Himachal Pradesh, Uttarakhand, East Madhya Pradesh, Konkan, Marathwada and Tamil Nadu.

- 20 to 28°C over entire country except Sikkim and Haryana & Delhi, many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Uttar Pradesh, Sub-Himalayan West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Mizoram, Madhya Maharashtra and Coastal Karnataka, few parts of Rajasthan, West Madhya Pradesh, Bihar and Kerala, isolated parts of East Madhya Pradesh, Konkan, Marathwada and Tamil Nadu.

Maharashtra, isolated parts of Telangana and Andhra Pradesh.

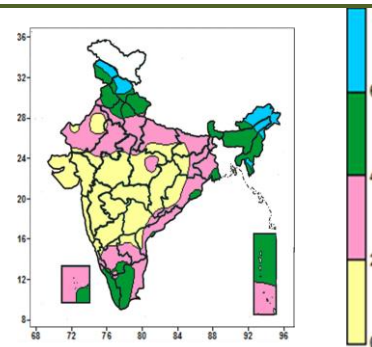
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 08.04.2015

Relative Humidity (%) over India for the week ending 08.04.2015



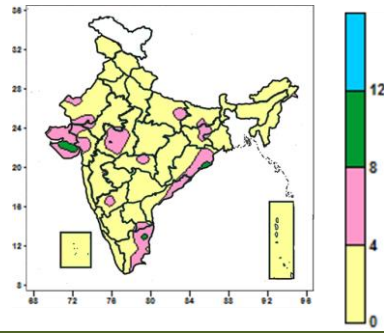
- 80 to 100% over Arunachal Pradesh, many parts of Manipur, few parts of Assam, Nagaland and Mizoram, isolated parts of Jammu & Kashmir and Lakshadweep.
- 60 to 80% over Himachal Pradesh, Uttarakhand, Punjab, Sub-Himalayan West Bengal & Sikkim, Tripura, Lakshadweep and Andaman & Nicobar Islands, many parts of Jammu & Kashmir, Haryana & Delhi, Assam & Coastal Karnataka, Kerala, Meghalaya, Nagaland, Mizoram, Gangetic West Bengal, Coastal Andhra Pradesh, few parts of West Rajasthan, West Uttar Pradesh, Odisha and Tamil Nadu, isolated parts of East Rajasthan, Madhya Pradesh, Gujarat, Bihar, Jharkhand, Konkan and South Interior Karnataka
- 20 to 60% over entire country except over Arunachal Pradesh, Himachal Pradesh, Uttarakhand, Punjab, Sub-Himalayan West Bengal & Sikkim, Tripura, Coastal Karnataka, Kerala, Lakshadweep, Andaman & Nicobar Islands, many parts of Manipur, Jammu & Kashmir, Haryana & Delhi, Assam & Meghalaya, Nagaland, Mizoram, Gangetic West Bengal, Coastal Andhra Pradesh, few parts of West Rajasthan, West Uttar Pradesh, Odisha and Tamil Nadu, isolated parts of East Rajasthan, Madhya Pradesh, Gujarat, Bihar, Jharkhand, Konkan and South Interior Karnataka.

Cloud amount (okta) over India for the week ending 08.04.2015



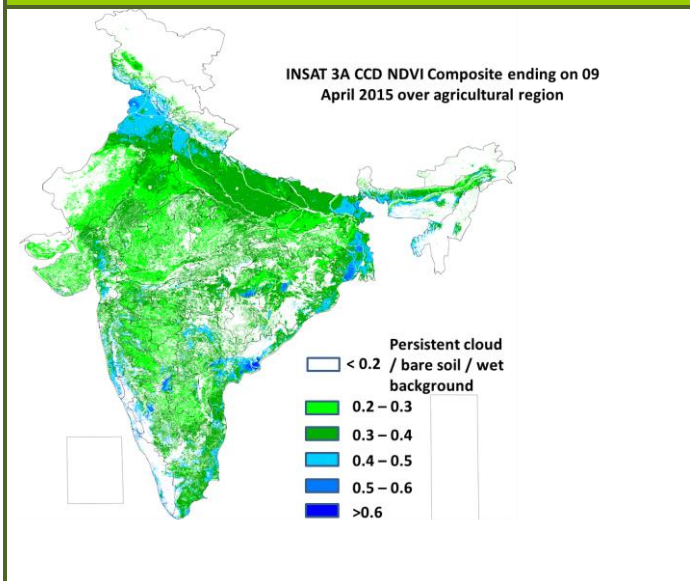
- 6 okta and above over many parts of Arunachal Pradesh and Himachal Pradesh, few parts of Jammu & Kashmir, Assam, Nagaland and Mizoram.
- 4 to 6 okta over Manipur and Tripura, many parts of Jammu & Kashmir, Punjab, Sub-Himalayan West Bengal & Sikkim, Uttarakhand, Haryana & Delhi, Assam & Meghalaya, Mizoram, Tamil Nadu, Kerala and Andaman & Nicobar Islands, few parts of Himachal Pradesh, West Uttar Pradesh, Arunachal Pradesh, Gangetic West Bengal, isolated parts of Odisha, Coastal Andhra Pradesh and Lakshadweep.
- 0 to 4 okta over entire country except, Manipur and Tripura, many parts of Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Himachal Pradesh, Jammu & Kashmir, Punjab, Uttarakhand, Haryana & Delhi, Assam & Meghalaya, Mizoram, Tamil Nadu, Kerala and Andaman & Nicobar Islands, few parts of Nagaland, Himachal Pradesh, West Uttar Pradesh, Gangetic West Bengal, isolated parts of Odisha, Coastal Andhra Pradesh and Lakshadweep.

Wind speed (knots) over India for the week ending 08.04.2015



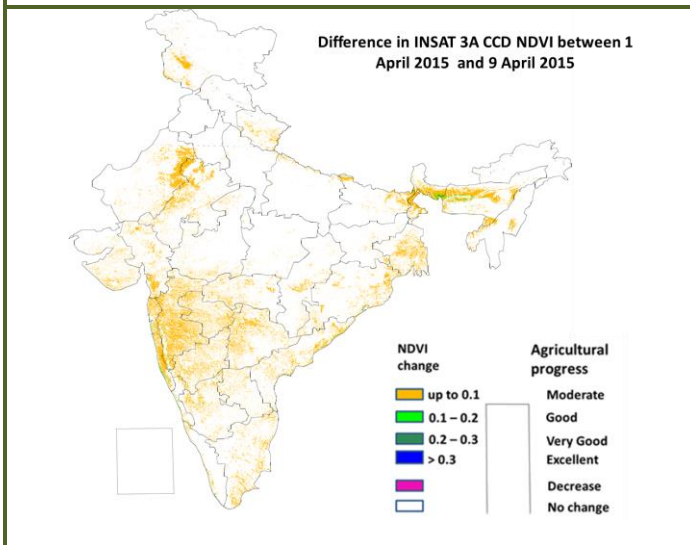
- 8 to 12 knots over isolated parts of Saurashtra, Odisha and Tamil Nadu.
- 0 to 8 knots over entire country except isolated parts of Saurashtra, Odisha and Tamil Nadu.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 9th April 2015 OVER AGRICULTURAL REGION OF INDIA



- Agricultural vigour is good over most parts of Punjab and in some pockets of western UP, east Bihar, West Bengal, coastal Andhra Pradesh and Konkan and Goa as NDVI value varies between 0.4 to 0.5. The NDVI remains within the range of 0.2 to 0.4 over most of the remaining parts of India.

Difference in INSAT 3A CCD NDVI between 1st April and 9th April 2015



- Moderate progress (up to 0.1) in NDVI was observed over Konkan and Goa and Madhya Maharashtra, and in some pockets of Rajasthan, Marathwada, West Bengal, Telangana, Tamil Nadu, North Interior Karnataka, Rayalaseema, coastal parts of Odisha and coastal parts of Andhra Pradesh. Not much change was observed in remaining parts of the country.

- INSAT 3A CCD NDVI composite maps for the week ending on 9th April 2015 for different States are given below in Annexure III.

Weather Forecast for next 5 days valid upto 0830 hours of 15th April 2015

- Rise in day temperature by 2-3°C over northwest India and adjoining west & central India during next 48 hours.

5 Day Rainfall Forecast (MORNING)

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

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

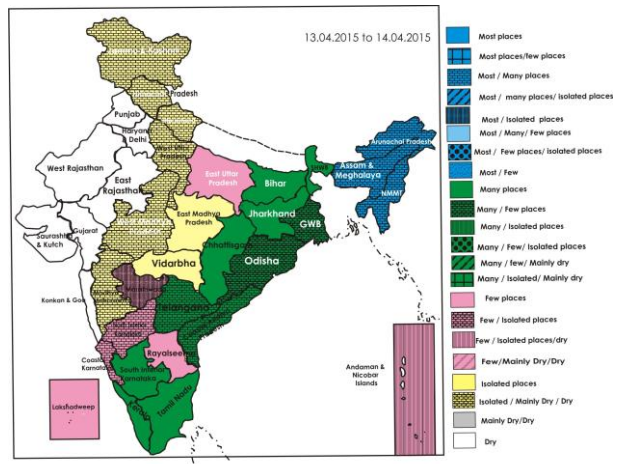
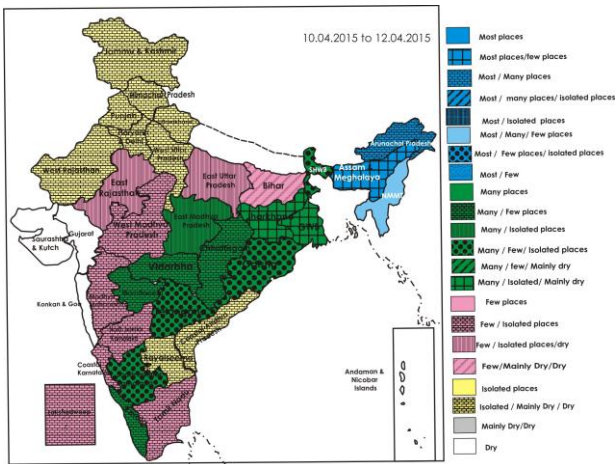
Weather Warning during next 5 days

- **10 April (Day 1):** Thunderstorms accompanied with squall/hail would occur at isolated places over East Madhya Pradesh, Madhya Maharashtra, Marathwada, Vidarbha and North Interior Karnataka.
- **11 April (Day 2):** Thunderstorms accompanied with squall/hail would occur at isolated places over East Uttar Pradesh, East Rajasthan, Madhya Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Jharkhand, Odisha, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Telangana and North Interior Karnataka.
- **12 April (Day 3):** Thunderstorms accompanied with squall/hail would occur at isolated places over Uttar Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, West Bengal & Sikkim, Odisha, Bihar, Jharkhand, East Rajasthan, East Madhya Pradesh, West Madhya Pradesh, Chhattisgarh, Marathwada, Vidarbha, Coastal Andhra Pradesh, Telangana and North Interior Karnataka.
- **13 April (Day 4):** Thunderstorms accompanied with squall/hail would occur at isolated places over Uttar Pradesh, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Gangetic West Bengal, Jharkhand, Odisha, Chhattisgarh, Coastal Andhra Pradesh, Telangana and North Interior Karnataka.
- **14 April (Day 5):** Thunderstorms accompanied with squall/hail would occur at isolated places over East Uttar Pradesh, Bihar, Jharkhand, Odisha, West Bengal & Sikkim, Chhattisgarh, Coastal Andhra Pradesh and Telangana.

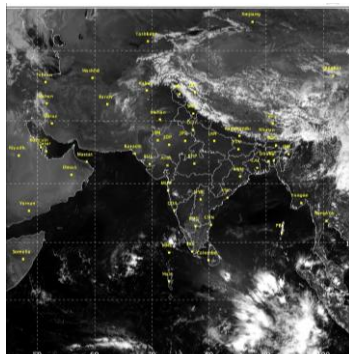
Weather Outlook for subsequent 2 days From 15th April 2015 to 17th April 2015

- A fresh western disturbance as an upper air system would affect western Himalayan region from 15th April onwards.
- Rain/thundershowers would occur at a few places over northeastern states and adjoining east India.
- Rain/thundershowers would also occur at a few places over south peninsular India.

Weather Forecast Map (Valid upto 0830 hours of 15th April, 2015)



Satellite image dated, 10.04.2015 0600 UTC



Salient Advisories

- As thunderstorms accompanied with squall/hail would occur at isolated places over **East Uttar Pradesh** during 11th to 14th, over **West Uttar Pradesh** on 12th & 13th and over **East Rajasthan** on 11th & 12th April, over **East Madhya Pradesh** during 10th to 12th and over **West Madhya Pradesh** on 11th and 12th April and over **Chhattisgarh** from 11th to 14th 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.
- As rain/thundershowers would occur at many places over **East Madhya Pradesh** on 11th and 12th and over **Chhattisgarh** from 11th to 13th April, over **Sub-Himalayan West Bengal & Sikkim** and **Jharkhand** on 12th to 14th, over **Gangetic West Bengal and Odisha** on 12th & 13th and over **Bihar** on 13th & 14th April, over **Coastal Andhra Pradesh** on 14th; over **Telangana** on 12th and 13th; over **Tamil Nadu & Puducherry** on 13th and 14th; over **South Interior Karnataka** from 12th to 14th and over **Kerala** from 11th to 14th postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Harvest matured crops immediately and keep already harvested produces at safer places.
- As thunderstorms accompanied with squall/hail would occur at isolated places over **Madhya Maharashtra** on 10th and 11th; over **Marathwada** and **Vidarbha** from 10th to 12th April, farmers are advised to use hail nets for orange and sweet lime orchards to protect from mechanical damage. Provide mechanical support to young fruit plants, banana and vegetables like tomato and brinjal to prevent the crops from lodging due to strong winds. Keep already harvested produces at safer places.
- As rain/thundershowers would occur at most places over **Arunachal Pradesh** on 12th & 13th and many places during rest of the period, at most places over **Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura** on 12th & 13th and at many places on 14th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Harvest matured crops immediately and keep the harvested produces at safer places.
- As thunderstorms accompanied with squall/hail would occur at isolated places over **Assam & Meghalaya** and **Nagaland, Manipur, Mizoram & Tripura** from 11th to 13th April, over **West Bengal & Sikkim** on 13th & 14th, over **Jharkhand & Odisha** from 11th to 14th and over **Bihar** on 12th to 14th April, over **North Interior Karnataka** during the period; over **Telangana** from 11th to 14th April; over **Coastal Andhra Pradesh** from 12th to 14th April, farmers are also advised to use hail nets for orchard crops to protect from mechanical damage. Provide mechanical support to young fruit plants, banana and vegetables to prevent the crops from lodging due to strong winds.
- As heat wave conditions prevailed at a few places over **Saurashtra & Kutch** on 9.4.15 and rise in day temperature by 2-3°C is expected during next 48 hours, apply light and frequent irrigation in groundnut (flowering/pegging), sesame and vegetable crops in North Saurashtra Zone and in pearl millet and green gram in **Kutch** region.
- As rise in day temperature by 2-3°C is expected over **North Gujarat** during next 48 hours, apply light and frequent irrigation in pulses, pearl millet, groundnut and vegetable crops.

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 all districts of Himachal Pradesh; all districts of Jammu and Kashmir except Ladakh(Leh); all districts of Uttarakhand except Udham Singh Nagar and Uttarkashi; Aligarh and Baghpat districts of West Uttar Pradesh; all districts of Haryana except Ambala. Chandigarh, Fatehabad, Gurgaon, Kaitahal, Kurukshetra, Panchkula, Sirsa and Yamunanagar; Faridkot, Gurdaspur, Ludhiana, Muktsar and Sangrur districts of Punjab; East

Delhi, New Delhi, North Delhi, South Delhi and South West Delhi districts of Delhi; Alwar, Bharatpur, Jaipur, Jhunjhunu and Sikar districts of East Rajasthan and Bikaner, Churu, Hanumangarh and Nagaur districts of West Rajasthan. Mainly dry weather prevailed over rest of the region.

- **Weather Forecast:** Rain/thundershowers would occur at a few places over East Uttar Pradesh from 12th to 14th and over East Rajasthan on 12th; at isolated places over West Uttar Pradesh, Uttarakhand, Himachal Pradesh and Jammu & Kashmir from 11th to 13th; over Haryana & Delhi, Punjab and West Rajasthan on 11th and 12th; over East Rajasthan on 11th; dry weather would prevail over the region during rest of the period. Rise in day temperature by 2-3° C over northwest India during next 48 hours.
- **Weather Warning:** Thunderstorms accompanied with squall/hail would occur at isolated places over East Uttar Pradesh on 11th and 14th April; over East Rajasthan on 11th and over Uttar Pradesh on 12th and 13th April.
- **Weather Outlook:** A fresh western disturbance as an upper air system would affect western Himalayan region from 15th April onwards.
- **Advisories:**
 - As thunderstorms accompanied with squall/hail would occur at isolated places over East Uttar Pradesh during 11th to 14th, over West Uttar Pradesh on 12th & 13th and over East Rajasthan on 11th & 12th 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.
 - **Jammu & Kashmir:**
 - In Jammu & Kashmir, drain out excess water from the wheat, pulses and mustard crop fields. Undertake harvesting of matured mustard in Sub Tropical Zone in clear weather and undertake sowing of summer moong and mash when soil is workable.
 - In Valley Temperate Zone, open drainage channels to avoid water stagnation in saffron and vegetable crop fields. Undertake nursery sowing of tomato, brinjal, chilli, capsicum, knol khol, kale in seed beds as well as in raised beds when soil is workable.
 - In Intermediate Zone, undertake sowing of tomato, brinjal, chilli, knol khol, kale in low tunnels and planting of potato and continue transplanting of seedlings of cauliflower, cabbage, knol khol and cucurbits when soil is workable.
 - In Sub Tropical Zone, due to water logged condition, if *Aschochyta* blight and wilt diseases are observed in chickpea and lentil, drench the affected area with Bavistin @ 10 ml/ litre of water.
 - In the present humid weather, there may be incidence of red pumpkin beetle in cucurbits. To control, spray Chlorpyrifos @ 2 ml/litre of water. Also monitor potato and tomato crops for leaf roller. Remove the infected plants. Then spray Imidacloprid @ 0.5ml/litre of water.
 - **Uttarakhand:**
 - In Hill Zone of Uttarakhand, undertake land preparation for sowing of peas and planting of potato.
 - Due to humid and cloudy weather, there is chance of mealy bug infestation in mango plant in Sub humid sub tropic Zone of Uttarakhand. To control the insect, dust Methyl Parathion 2% @ 250 g per tree in the soil around the trunk.
 - In Bhabar and Tarai Zone of Uttarakhand, due to cloudy conditions, there are chances of blight in late sown wheat crop, for control spray Propiconazol 25 EC or Tilt @ 200 ml per 250 ml water per acre.
 - **Rajasthan:**
 - In Arid Western Plain Zone of Rajasthan, continue harvesting of matured cumin, isabgol and mustard in clear weather to prevent shattering losses.
 - In South Eastern Humid Plain of Rajasthan, undertake harvesting and threshing of gram and mustard.
 - In Sub Humid Southern Plain Zone of Rajasthan, undertake harvesting of wheat and barley.
 - In Irrigated Northwestern Plain of Rajasthan, apply irrigation to wheat at milk stage. Undertake sowing of desi cotton and *zaid* moong. Undertake harvesting of gram and mustard on a clear day.
 - Due to partly cloudy weather summer okra may be affected with mosaic attack in Arid Western Zone and Semi - Arid Eastern Plain Zone of Rajasthan, spray Malathion 50 EC @ 1.0 ml per litre water.
 - In Irrigated Northwestern Plain of Rajasthan, due to humid weather and favourable temperature condition, there is a chance of attack of aphids in wheat, spray Thiomithoxam 25 WG@50 g or Methyldemeton 25 E.C. 250ml per hectare.
 - **Punjab, Haryana and Delhi:**
 - Complete harvesting of early sown matured mustard crop at the earliest and keep the harvested crop at safe places.
 - 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, prepare the field for transplanting of summer vegetables *viz.* chilli, tomato and bell pepper, undertake sowing of cucumber, bottle gourd, pumpkin, muskmelon, watermelon, bitter gourd.
 - In Western Plain Zone of Punjab, complete planting of sugarcane. Undertake transplanting of chilli.
 - In Western Zone of Haryana, continue transplanting of young seedlings of tomato and chilli.
 - In the prevailing minimum temperature (around 18°C) with humidity, black rust may appear in wheat crop in Western Semi-Arid Zone of Delhi. For control, spray Dithane M 45 @ 2.5 grams per litre of water.
 - In Western Zone of Haryana, due to hot and humid weather, there may be attack of aphids in late sown wheat crop, if appearance observed, spray 400 ml Malathion 50 E. C. in 250 litre water per acre.

- Due to cloudy weather, there is possibility of pod borer in the gram in Western Zone of Haryana; spray Carbaril 50 W.P. @ 400 g or Monocrotophas 36 S.L @ 200 ml with 100 litres of water per acre.
- In Central Plain Zone of Punjab aphid damages have been reported in wheat; spray Imidacloprid 200 SL @ 40 ml or Thiamethoxam 25 WG @ 20 g in 80-100 litres of water per acre using knap sack sprayer or in 30 litres of water per acre with power sprayer.
- **Himachal Pradesh:**
 - As rainfall occurred at most places during the week, drain out excess water from the nurseries of tomato, brinjal and capsicum in Mid Hills Sub Humid Zone.
 - Undertake 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. For control of late blight in potato, spray 0.2% Dithane M-45 and repeat at 7 days interval.
 - 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 the chemicals.
 - Due to cloudy and high humid conditions, there are chances of incidence of purple blotch in onion in Mid Hills Sub Humid Zone. For control, spray Indofil-M45 @ 25 g/10 litres of water or Ridomil MZ @ 25 g/10 litres of water.
- **Uttar Pradesh:**
 - Undertake harvesting of matured pea, chickpea, pigeon pea, gram, mustard, wheat, linseed, and lentil in Central Plain Zone, rapeseed, gram, pigeon pea and wheat in Eastern Plain Zone, mustard, linseed, rapeseed, safflower and wheat in Bundelkhand zone, wheat in western plain zone. Store the harvested produces at safer places.
 - In Eastern Plain Zone, irrigate summer vegetables like ladies finger, bitter gourd, ridge gourd, and other cucurbits as per requirement, continue planting of sugarcane and complete sowing of urad, moong and vegetables.
 - In Central Plain Zone, sugarcane is at emergence / early growth stage, irrigation and intercultural operations may be carried out. Complete sowing of urad, moong and lobia, planting of sugarcane in Central Plain Zone.
 - Undertake sowing of ladies finger and moong, summer green fodder like maize, lobia or other multiple cutting green fodder crops in Central Plain Zone and jowar, lobia, maize in western plain zone.
 - In Central Plain Zone, due to prevailing cloudy and humid weather condition, there are chances of incidence of thrips or white fly on urd / moong. Spray Methyl-o-demeton (25 EC) or Dimethoate (30 EC) @ 1 litre in 600-800 litres of water per hectore.
 - Suitable varieties for sowing are given in Annexure II.
- **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.
- **Floriculture**
 - Undertake transplanting 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.
- **Animal Husbandry**
 - Keep animals indoor during thunderstorm / hail storm periods in Uttar Pradesh and East Rajasthan.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane



Wheat



Okra



Onion

- **Realised Rainfall:** Mainly dry weather prevailed over the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Chhattisgarh from 11th to 14th; over East Madhya Pradesh on 11th and 12th; at a few places over West Madhya Pradesh on 11th and 12th and over Chhattisgarh on 10th; at isolated places over West Madhya Pradesh on 10th and 13th and over East Madhya Pradesh on 10th, 13th and 14th; dry weather would prevail over West Madhya Pradesh on 14th. Rise in day temperature by 2-3° C over central India

adjoining to northwest India during next 48 hours.

- **Weather Warning:** Thunderstorms accompanied with squall/hail would occur at isolated places over East Madhya Pradesh on 10th April; over Madhya Pradesh on 11th and 12th and over Chhattisgarh from 11th to 14th April.
- **Advisories:**
 - As thunderstorms accompanied with squall/hail would occur at isolated places over East Madhya Pradesh during 10th to 12th April and over West Madhya Pradesh during 11th to 12th April and over Chhattisgarh from 11th to 14th April, farmers are advised to use hailnets 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. Also undertake propping in sugarcane.
 - As rain/thundershowers would occur at many places over East Madhya Pradesh on 11th and 12th and over Chhattisgarh during 11th to 13th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Harvest matured crops immediately and keeps already harvested produces at safer places.
- **Madhya Pradesh:**
 - In Satpura Plateau Zone, undertake sowing of cowpea, okra and cucurbitaceous crops.
 - In Malwa Plateau Zone complete harvesting of matured wheat and gram under clear weather condition. 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.
 - In Jhabua Hill Zone and Vindya Plateau Zone, continue sowing of moong, cucurbitaceous crops and complete harvesting of matured wheat and vegetables under clear weather condition.
 - In Bundelkhand Zone and Nimar Valley Zone, complete harvesting of matured wheat under clear weather condition and continue sowing of summer moong and okra.
 - Due to humid 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 on a non-rainy day.
 - Due to humid 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 on a non-rainy day.
- **Chhattisgarh:**
 - In Chhattisgarh Plain Zone, continue sowing of summer moong, sesame and planting of sugarcane utilizing the expected rainfall.
 - In North Hill Zone of Chhattisgarh, continue planting of spring sugarcane and complete sowing of summer moong, sesame and groundnut.
 - Due to hot and humid weather there are chances of attack of stem borer in summer rice in Bastar Plateau Zone and Chhattisgarh Plain Zone, spray Chlorophyriphos @ 1.5 ml /litre of water after current spells of rain.
 - Suitable varieties for sowing are given in Annexure II.
- **Animal Husbandry**
 - Provide plenty of clean water and balanced nutrient rich feed to the milch animals in Madhya Pradesh. De-worm the cattle.
 - Keep cattle indoor during thunderstorm and squall/hail in Madhya Pradesh and Chhattisgarh.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Banana



Sugarcane



Wheat



Mango

- **Realised Rainfall:** Mainly dry weather prevailed over the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Marathwada on 10th and 11th; at a few places over Madhya Maharashtra on 10th and 11th and over Marathwada on 12th and 13th; at isolated places over Madhya Maharashtra on 12th and 13th; dry weather would prevail over Konkan & Goa, Gujarat and Saurashtra & Kutch during the period and over Madhya Maharashtra and Marathwada on 14th. Rise in day temperature by 2-3°C over west India adjoining to northwest India during next 48 hours.
- **Weather Warning:** Thunderstorms accompanied with squall/hail would occur at isolated places over Madhya Maharashtra on 10th and 11th; over Marathwada and Vidarbha from 10th to 12th April.
- **Advisories:**
 - **Maharashtra:**
 - As thunderstorms accompanied with squall/hail would occur at isolated places over Madhya Maharashtra on 10th

and 11th; over Marathwada and Vidarbha from 10th to 12th April, farmers are advised to use hail nets for orange and sweet lime orchards to protect from mechanical damage. Provide mechanical support to young fruit plants, banana and vegetables like tomato and brinjal to prevent the crops from lodging due to strong winds. Keep already harvested produces at safer places.

- In Konkan, maintain water level upto 8-10 cm at panicle initiation/flowering stage of summer rice and finger millet. Due to low relative humidity during noon hours, there may be fruit dropping in mango, 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.
- In Madhya Maharashtra, continue harvesting of matured vegetables like tomato, brinjal and fruits like grapes during morning hours. To prevent mango fruit dropping, spray 2 to 3 times Carbaryl @20g + Sulphur @ 20g in 10 liters of water.
- In Marathwada,. As rain is expected in Marathwada, farmers are advised to postpone irrigation to the standing crops. Harvest late sown wheat, vegetables and grapes after current spell and keep harvested produce in safer place.
- In Vidarbha, maintain upto 5-7 cm water level in summer rice field (Panicle initiation/ flowering stage) in east Vidarbha. As rain is expected, farmers are advised to postpone irrigation to the standing crops. Undertake harvesting of wheat after current spells of rain.
- Due to cloudy weather in Pune region, there may be infestation of powdery mildew on vegetable and mango crops, spray sulphur 80% @20g in 10 litres of water at an interval of 10 days.

▪ **Gujarat:**

- As heat wave conditions prevailed at a few places over Saurashtra & Kutch on 9.4.15 and rise in day temperature by 2-3°C is expected during next 48 hours, apply light and frequent irrigation in groundnut (flowering/pegging), sesame and vegetable crops in North Saurashtra Zone and in pearl millet and green gram in Kutch region. Undertake hand weeding and intercultural operations in green gram and groundnut in South Saurashtra Zone.
- As rise in day temperature by 2-3°C over North Gujarat (West India) adjoining to Northwest India is expected during next 48 hours, apply light and frequent irrigation in pulses, pearl millet, groundnut and vegetable crops.
- In North Gujarat Zone and North West Zone, carryout weeding and intercultural operations in pulses, pearl millet, groundnut and vegetable crops, continue harvesting of wheat, isabgol and matured castor. For better development of mango fruits, apply nitrogenous fertilizer or Ammonium Sulphate @ 2 kg per plant followed by irrigation. Undertake harvesting of matured onion in North Gujarat Zone.
- In Middle Gujarat Zone, complete sowing of pearl millet. As dry weather is prevailing, apply irrigation in green gram (flowering stage). Undertake harvesting of onion.
- Due to high temperature forecast, apply irrigation in groundnut crop at pegging stage and in sugarcane at an interval of 10-12 days in South Gujarat Heavy Rainfall Zone. Carry out mulching in sugarcane with crop residues. For conservation of moisture, carryout weeding in sugarcane. Undertake harvesting of matured onion. In view of prevailing high temperatures, cover papaya fruits using gunny bags. Irrigate pomegranate, sapota, lemon and papaya orchards.
- In South Gujarat Zone, spray Naphthelic Acetic Acid 20 ppm and 2 % urea solution in mango orchards for effective control of dropping of fruits.
- As high temperatures are prevailing and dry weather would prevail, apply irrigation in groundnut (flowering / peg initiation stage), green gram (at flowering stage) and in vegetable crops in Bhal and Coastal Zone of Gujarat. Carry out harvesting of matured onion and keep at well aerated place.
- Due to hot and humid condition there is chance of mites and thrips incidence in vegetable crops in Middle Gujarat Zone; if observed, spray Methyl-o-Dematone 25EC @ 10 ml in 10 litres of water.
- Heavy infestation of thrips is observed in green gram due to humid weather in North Saurashtra Zone; spray Profenofos 50 EC @ 20 ml and Emamectin Benzoate @ 7 g/10 litres of water for control.
- Suitable varieties for sowing are given in Annexure II.

• **Animal Husbandry**

- In view of high temperature conditions keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Grazing / feeding of cattle/goats may be done during morning/ evening hours Avoid feeding between 11 to 15 hrs in Gujarat.

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



Rice



Mustard



Okra



Cabbage

- **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh; all districts of Assam except Darrang and Kokrajhar; all districts of Meghalaya except South Garo Hills and West Garo Hills; all districts of Mizoram except Champhai and Kolasib; all districts of Manipur except Chandel and Senapati; all districts of Nagaland except Phek and Wokha; all districts of Tripura.
- **Weather Forecast:** Rain/thundershowers would occur at most places over the region on 12th and 13th; at many places over Arunachal Pradesh on 10th, 11th and 14th; over Assam & Meghalaya on 14th; over Nagaland, Manipur, Mizoram & Tripura on 11th and 14th; at a few places over Assam & Meghalaya on 10th and 11th; over Nagaland, Manipur, Mizoram & Tripura on 10th.
- **Weather Warning:** Thunderstorms accompanied with squall/hail would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura from 11th to 13th April.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over northeastern states.
- **Advisories:**
 - As rain/thundershowers would occur at most places over Arunachal Pradesh on 12th & 13th and many places during rest of the period, at most places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 12th & 13th and at many places on 14th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of matured crops in Arunachal Pradesh. Harvest matured crops immediately in Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and keep the harvested produces at safer places.
 - As thunderstorms accompanied with squall/hail would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura from 11th to 13th April, farmers are also advised to use hail nets for orchard crops to protect from mechanical damage. Provide mechanical support to young fruit plants, banana and vegetables to prevent the crops from lodging due to strong winds.
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Hill Zone of Assam, complete transplanting of early *ahu* rice. Undertake planting of banana and sowing of maize after current spells of rain.
 - In Lower Bramhaputra Valley Zone of Assam, continue nursery bed preparation and sowing of normal *ahu* rice.
 - In Upper Bramhaputra Valley Zone of Assam, undertake 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 rain.
 - In Central Bramhaputra Valley Zone of Assam, continue sowing of normal direct seeded *ahu* rice, *baou* rice, jute and summer pulses. Also undertake planting of ginger, turmeric and papaya after current spells of rain.
 - In flood affected low lying areas of North Bank Plain Zone of Assam, farmers are advised to undertake sowing of *baou* rice.
 - In Arunachal Pradesh, continue sowing of *jhum* rice, sowing of summer vegetables and nursery preparation for early sown WRC rice after current spells of rain.
 - In Meghalaya, complete sowing of maize in High & Mid Altitude region. Continue sowing of *jhum* rice. Also continue sowing of okra with HYV's like Pusa A-4, VRO-6, Pusa Sawani, Arka Anamika, Parbhani Kranti. Prepare nursery bed for brinjal and tomato.
 - In Lower Bramhaputra Valley Zone of Assam, due to cloudy weather, there is chance of attack of sheath blight on *boro* rice. Spray Hexaconazole @2ml/litre of water 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) @ 2g/litre or Thiophenate Methyl @ 1g/litre of water after current spells of rain.
 - In Meghalaya, due to humid weather, there is chance of attack of brown spot disease in *boro* rice at flowering to milk stage. Spray Carbendazim @ 1 g / litre of water after current spells of rain.
 - **Manipur, Mizoram, Nagaland and Tripura:**
 - In Manipur, complete transplanting of pre-*kharif* rice and maintain 3-5 cm water during early vegetative stage. Undertake nursery preparation for *kharif* rice and land preparation for sowing of *kharif* maize.
 - In Mizoram, continue land preparation for planting of ginger and turmeric after current spells of rain. Undertake nursery preparation for khasi mandarin.
 - In Nagaland, continue land preparation and planting of ginger after current spells of rain. Remove the pseudostems

in banana below the ground level. Side suckers should be pruned every month so as to reduce the infestation of rhizome weevil.

- In Tripura, continue sowing of *jhum* rice.
- In Tripura, due to cloudy and humid weather, there is chance of attack of yellow stem borer in *boro* rice; apply Fipronil @ 2 g per litre of water after current spells of rain to manage the attack.
- Suitable varieties are given in Annexure II.
- **Animal Husbandry**
 - In Northeastern States, keep cattle/goats indoor during thunderstorm/ hailstorm period.
 - In Northeastern States, vaccinate poultry against Ranikhet disease, pigs against swine fever and cattle & goats against the Foot and Mouth disease during summer season. Also provide proper ventilation in the poultry houses and clean drinking water.
 - In Meghalaya, during summer season, keep the poultry house well ventilated during day time.

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



Sugarcane

Wheat

Rice

Onion

- **Realised Rainfall:** Rainfall occurred in all districts of Sub-Himalayan West Bengal & Sikkim except North Dinajpur, South Dinajpur, South Sikkim and West Sikkim; all districts of Gangetic West Bengal except Bankura, East Midnapur, Hooghly and Murshidabad; East Singbhum, Pakur and Sahibganj districts of Jharkhand; Balasore and Nayagarh districts of Odisha. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Sub-Himalayan West Bengal & Sikkim and Jharkhand on 12th, 13th and 14th; over Gangetic West Bengal and Odisha on 12th and 13th; over Bihar on 13th and 14th; at a few places over Sub-Himalayan West Bengal & Sikkim on 11th; over Odisha on 11th and 14th; over Gangetic West Bengal and Andaman & Nicobar Islands on 14th; over Bihar on 12th; at isolated places Sub-Himalayan West Bengal & Sikkim and Odisha on 10th; over Gangetic West Bengal and Jharkhand on 11th; over Andaman & Nicobar Islands on 13th; dry weather would prevail over Gangetic West Bengal and Jharkhand on 10th; over Bihar on 10th and 11th; over Andaman & Nicobar Islands from 10th to 12th.
- **Weather Warning:** Thunderstorms accompanied with squall/hail would occur at isolated places over Jharkhand and Odisha during the period; over West Bengal & Sikkim from 12th to 13th April and over Bihar on 12th and 14th April.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over east India adjoining to northeast India.
- **Advisories:**
 - As rain/thundershowers would occur at many places over Sub-Himalayan West Bengal & Sikkim and Jharkhand on 12th to 14th, over Gangetic West Bengal and Odisha on 12th & 13th and over Bihar on 13th & 14th April, postpone irrigation, inter-cultural operation and application of plant protection measures and fertilizers to the standing crops. Harvest the matured crops immediately and keep harvested produces at safer places.
 - As thunderstorms accompanied with squall/hail would occur at isolated places over West Bengal & Sikkim on 13th & 14th, over Jharkhand & Odisha from 11th to 14th and over Bihar on 12th to 14th 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.
 - **West Bengal:**
 - 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 maize, gladiolus and okra utilising the realised and expected rain.
 - In New Alluvial Zone of West Bengal, continue land preparation for cultivation of improved varieties jute.
 - In Old Alluvial Zone of West Bengal, maintain 5cm 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 chances of attack of whitefly in cucurbits. To control, spray Imidacloprid @ 2ml/ 10 litre of water or Acetamiprid @ 2g / 10 litre of water after current spells of rain.
 - In the prevailing hot & humid weather situation, there is a possibility fruit rot & stem rot diseases in summer vegetables and spread of blast disease in rice in New Alluvial Zone. To control rot diseases apply Carbendazim @ 1g/ litre of water at 7 days intervals and for control of blast, apply Tricyclazole @ 7g/ 10 litre of water after

current spells of rain.

▪ **Andaman and Nicobar Islands:**

- In South, North & Middle Andaman, monitor the vegetable crop against fruit borers. If noticed collect them and bury in soil. Conserve the soil moisture in the basins of coconut and spices by mulching with dry grasses/plantation wastes.

▪ **Odisha:**

- In East and South Eastern Coastal Plain Zone of Odisha, present weather conditions are optimum for sowing of jute. Undertake weeding and hoeing in summer pulses and early sown sesame.
- Continue plucking of matured green gram and black gram preferably during morning hours in clear weather in North Central Plateau Zone.
- In Northeastern 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 East and South Eastern Coastal Plain Zone of Odisha, due to rise in temperature, white grubs may pose serious problems in groundnut. Spray Dimethoate or Imidacloprid @ 50 ml in 200 litres of water per acre after current spells of rain. Rise in temperature may also favour the egg laying of stem borer in rice in the main field over this region. To manage the borer butterflies, place 4 Pheromon Traps/acre, collect the adults and destroy them by burying under soil or by burning. Spray Prophenophos @ 2 ml per litre of water after current spells of rain.

▪ **Bihar:**

- In North West Alluvial Plain Zone and South Bihar Alluvial Zone of Bihar, complete harvesting of matured wheat immediately in clear weather.
- In North East Alluvial Zone of Bihar, maintain minimum water level (2-3cm) in the *boro* rice field. Continue sowing of moong, urad and fodder crops.
- In South Bihar Alluvial Zone, continue sowing of summer moong and summer vegetables
- 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, continue harvesting of early sown wheat in clear weather.
- In Western Plateau Zone, continue harvesting of matured early sown wheat and in Central & North Eastern Plateau Zone, continue harvesting of matured mustard in clear weather to prevent from shattering of pod by high wind.
- Undertake sowing of summer vegetables in Western Plateau Zone of Jharkhand.
- Suitable varieties for sowing are given in Annexure II.

• **Animal Husbandry**

- In Bihar, Jharkhand and Odisha, keep cattle/goats indoor during thunderstorm/ squall/ hailstorm period.

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



Sorghum



Sugarcane



Chilli



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Kerala except Cannur, Kasargod, Kozhikode and Malappuram; Kanyakumari and Madurai districts of Tamil Nadu. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Coastal Andhra Pradesh on 14th; over Telangana on 12th and 13th; over Tamil Nadu & Puducherry on 13th and 14th; over South Interior Karnataka from 12th to 14th and over Kerala from 11th to 14th; at few places over Coastal Andhra Pradesh on 13th; over Telangana on 11th and 14th; over Rayalaseema on 13th and 14th; over Tamil Nadu & Puducherry on 12th; over Coastal Karnataka and North Interior Karnataka from 11th to 13th; over Kerala on 10th; at isolated places over Coastal Andhra Pradesh on 11th and 12th; over Telangana and South Interior Karnataka on 10th; over Rayalaseema on 12th; over Tamil Nadu & Puducherry on 10th and 11th; over Coastal Karnataka and North Interior Karnataka on 10th and 14th; dry weather would prevail over Coastal Andhra Pradesh on 10th and over Rayalaseema on 10th and 11th.
- **Weather Warning:** Thunderstorms accompanied with squall/hail would occur at isolated places over North Interior Karnataka during the period; over Telangana from 11th to 14th April; over Coastal Andhra Pradesh from 12th to 14th April.
- **Weather Outlook:** Rain/thundershowers would also occur at a few places over south peninsular India.
- **Advisories:**
 - As thunderstorms accompanied with squall/hail would occur at isolated places over North Interior Karnataka

during the period; over Telangana from 11th to 14th April; over Coastal Andhra Pradesh from 12th to 14th April, it is advised to use hail nets for orchard crops to protect from mechanical damage. Provide mechanical support to young fruit plants, banana and vegetables to prevent the crops from lodging due to strong winds.

- As rain/thundershowers would occur at many places over Coastal Andhra Pradesh on 14th; over Telangana on 12th and 13th; over Tamil Nadu & Puducherry on 13th and 14th; over South Interior Karnataka from 12th to 14th and over Kerala from 11th to 14th, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Harvest the matured crops immediately and keep harvested produces at safer places.

▪ **Andhra Pradesh:**

- Due to rise in temperature, there is chance of incidence of stem borer and hispa in rice at tillering stage in the High Altitude Tribal Zone, undertake spraying of Chlorpyrifos 20 EC @ 2.5 ml or Phosphamidon 40 SL@ 2.0 ml/litre of water on a non-rainy day.
- Present partly cloudy condition is congenial for incidence of sucking pests in *rabi* pulses in the Krishna Godavari Zone. Continue spraying of Chlorpyrifos @ 2 ml per litre of water for control on a non-rainy day.
- Prevailing temperature 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 on a non-rainy day.
- Prevailing high temperature and humidity is congenial for viral diseases in cucumber and water melon in fruiting stage in the Southern Zone. To control, spray Imidachloprid @ 0.3 ml or Acitampirid @ 0.2 ml or Thiomethoxin @ 0.2 ml/litre of water on a non-rainy day 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 Imidachloprid @ 0.5 ml + Hexaconazole @ 2ml or Monocrotophos @ 1.6 ml + Carbendazim @ 1 g/ litre of water after current spells of rain.
- Prevailing temperature conditions are congenial for tobacco caterpillar in groundnut in the Northern Telangana Zone. Use poison bait to attract and control larvae and mix Rice bran - 25 kg/ha+ Jaggery - 2.5 kg/ ha + Chlorpyrifos - 1.25 lit/ha +Water - 10-12 litre/ ha and apply during evening hours near the base of the plants after current spells of rain.

▪ **Karnataka:**

- Continue land preparation for planting of ginger and turmeric in the Southern Transition Zone.
- Prevailing humid 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 on a non-rainy day.

▪ **Kerala:**

- Undertake planting of banana, bottle gourd, bitter gourd and cucumber. Undertake field preparation for upland rice in Pathanamthitta district and rice fallow pulses in Kollam district.
- 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.

▪ **Tamil Nadu:**

- Continue sowing of summer season black gram and ADT 5 black gram variety in the Cauvery Delta Zone. As mainly dry weather is expected in the next five days, irrigate sesame, sugarcane and summer cotton fields.
- Continue sowing of green gram under rainfed conditions in the North Western Zone.
- Prevailing cloudy weather is congenial for incidence of blister blight in tea crop in the High Altitude Hilly Zone. To control, spray Dasakavya 3% once in 10 days on a non-rainy day.
- Suitable varieties for sowing are given in Annexure II.

• **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.

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

Annexure I
Week by week Rainfall Distribution

Sub-Divisions	25.03.15		01.04.15		08.04.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	3.1	-97	41.6	-52	106.7	-37

Dibang Valley	18.0	-70	35.0	-64	54.0	-54
East Kameng	0.0	-100	0.0	-100	39.4	5
East Siang	0.0	-100	63.4	103	118.6	162
Kurung Kumey	**	**	**	**	**	**
Lohit	7.8	-84	93.5	73	111.6	1
Lower Dibang Valley	0.4	-99	29.0	-70	176.9	50
Lower Subansari	**	**	**	**	**	**
Papumpara	0.1	-99	14.3	-35	169.6	300
Tawang	31.0	79	23.0	18	110.0	697
Tirap	3.6	-90	0.0	-100	51.8	-25
Upper Siang	30.8	-65	108.2	35	224.0	99
Upper Subansari	20.2	-25	1.6	-92	52.3	119
West Kameng	0.0	-100	5.0	-74	88.4	541
West Siang	7.5	-10	50.5	57	38.0	-4
Assam&Meghalaya						
Assam						
Baksa	0.0	-100	7.9	-72	82.8	244
Barpeta	0.0	-100	40.6	46	85.1	253
Bongaigaon	0.0	-100	14.6	-38	101.8	286
Cachar	0.0	-100	24.5	-63	163.6	200
Chirang	0.0	-100	58.2	149	94.4	258
Darrang	0.0	-100	1.0	-94	0.0	-100
Dhemaji	1.0	-95	3.0	-88	89.0	176
Dhubri	0.0	-100	108.8	399	27.5	79
Dibrugarh	2.4	-92	27.4	-27	113.5	141
Goalpara	0.0	-100	42.8	89	38.2	63
Golghat	1.9	-90	67.7	132	62.4	160
Hailakandi	0.0	-100	112.0	104	208.7	422
Jorhat	1.5	-93	32.5	6	63.2	47
Kamrup(Rural)	1.6	-92	14.8	-23	82.1	297
Kamrup(Metro)	0.0	-100	29.8	55	21.7	5
Karbi Anglong	0.0	-100	17.0	-15	20.4	21
Karimganj	0.0	-100	3.0	-96	163.5	119
Kokrajhar	0.0	-100	32.1	15	16.6	-38
Lakhimpur	0.0	-100	7.7	-69	104.2	224
Morigaon	0.0	-100	27.8	40	38.4	101
N.C.Hills	0.0	-100	30.6	-55	122.2	235
Nowgong	0.0	-100	12.9	-31	48.0	146
Nalbari	0.0	-100	15.9	-44	59.3	73
Sonitpur	0.2	-99	9.9	-49	83.0	223
Sibsagar	4.1	-80	27.8	23	75.5	240
Tinsukia	3.5	-92	74.3	105	106.2	86
Udalgiri	2.2	-85	12.2	-33	70.5	155
Meghalaya						
East Garo Hills	9.7	80	133.0	359	53.8	29
East Khasi Hills	0.3	-99	33.1	-19	98.6	100
Jaintia Hills	19.0	-17	16.0	-64	37.0	-40
Ribhoi	0.0	-100	31.0	19	23.1	52
South Garo Hills	0.0	-100	11.0	-57	0.0	-100
West Garo Hills	0.0	-100	21.0	-18	14.8	-42
West Khasi Hills	9.0	-35	48.0	59	122.0	736

NMMT						
Mizoram						
Aizwal	9.1	-73	1.9	-96	94.6	254
Champhai	**	**	0.0	-100	13.0	1
Kolasib	0.0	-100	14.0	-77	15.0	-57
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	0.0	-100	**	**
Mamit	**	**	**	**	63.0	136
Saiha	0.0	-100	24.0	-50	67.0	290
Serchhip	16.1	-59	**	**	**	**
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	0.0	-100	13.0	21	12.0	-51
Churachandpur	**	**	**	**	**	**
Imphal east	0.2	-99	20.2	-25	97.8	164
Imphal west	0.0	-100	0.0	-100	140.1	375
Senapati	0.0	-100	3.0	-85	2.0	-95
Tamenglong	**	**	**	**	**	**
Thoubal	0.0	-100	10.0	-9	49.0	112
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	0.0	-100	14.9	-12	31.2	57
Kephire	**	**	**	**	**	**
Kohima	0.4	-97	23.6	19	67.8	346
Longleng	**	**	**	**	**	**
Mokokchung	**	**	**	**	**	**
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	1.0	-94	55.0	178	4.0	-74
Tuensang	**	**	**	**	**	**
Wokha	0.0	-100	16.0	-60	6.0	-75
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	0.0	-100	31.0	-16	159.3	214
North Tripura	0.0	-100	40.3	4	119.6	113
South Tripura	0.0	-100	3.7	-86	150.8	476
West Tripura	0.0	-100	2.4	-92	162.9	412
Himachal Pradesh						
Bilaspur	0.0	-100	19.7	55	42.2	798
Chamba	0.0	-100	26.9	93	91.8	533
Hamirpur	0.0	-100	15.6	62	45.4	683
Kangra	0.0	-100	13.7	-2	53.6	392
Kinnaur	0.0	-100	35.5	58	29.6	29
Kullu	0.0	-100	36.7	52	69.8	233
Lahaul and Spiti	0.0	-100	31.0	-3	36.5	32
Mandi	0.0	-100	27.7	92	51.8	359
Shimla	0.0	-100	19.2	49	38.3	239
Sirmaur	0.0	-100	9.1	-2	20.3	534
Solan	0.0	-100	8.8	-7	57.7	830
Una	0.0	-100	14.0	87	32.4	824
Punjab						

Amritsar	0.0	-100	3.6	-43	4.4	-17
Barnala	0.0	-100	2.8	45	2.2	16
Bhatinda	0.0	-100	16.0	902	7.2	243
Faridkot	0.0	-100	11.0	267	42.1	1905
Fatehgarh Saheb	0.0	-100	4.5	67	11.7	1067
Ferozpur	0.0	-100	4.6	-5	8.6	197
Gurdaspur	0.0	-100	13.8	50	44.3	769
Hoshiarpur	0.0	-100	2.5	-41	10.2	143
Jalandhar	0.0	-100	6.0	36	18.6	540
Kapurthala	0.0	-100	1.9	46	19.8	662
Ludhiana	0.0	-100	8.0	62	26.7	969
Mansa	0.0	-100	1.8	13	6.0	253
Moga	0.0	-100	17.0	554	10.1	359
Muktesar	0.0	-100	0.0	-100	20.4	920
Nawashahar	0.0	-100	8.1	31	6.8	99
Patiala	0.0	-100	4.6	128	6.6	368
Ropar	0.0	-100	5.2	118	13.7	358
Sangrur	0.0	-100	4.0	90	22.8	988
Mohali	0.0	-100	9.0	350	4.2	147
TarnTaran	0.0	-100	31.0	657	42.0	1515
Haryana,Chd,Delhi						
Haryana						
Ambala	0.0	-100	2.5	-21	9.9	520
Bhiwani	0.0	-100	6.3	386	39.3	2523
Chandigarh	0.0	-100	14.0	279	7.3	172
Faridabad	0.0	-100	25.2	1160	34.1	1074
Fatehabad	0.0	-100	0.0	-100	9.2	317
Gurgaon	0.0	-100	3.7	162	15.7	1467
Hissar	0.0	-100	2.8	65	29.3	1175
Jhajar	0.0	-100	3.8	112	20.9	1296
Jind	0.0	-100	7.0	2233	25.1	1097
Katihah	0.0	-100	2.2	120	11.5	1172
Karnal	0.0	-100	5.6	102	40.1	1903
Kurukshetra	0.0	-100	5.0	117	15.1	844
Mahendragarh	0.0	-100	17.5	994	22.8	1799
Mewat	0.0	-100	8.4	460	23.5	1579
Palwal	0.0	-100	5.0	355	40.5	2431
Panchkkula	0.0	-100	5.3	44	6.8	388
Panipat	0.0	-100	8.2	447	25.5	919
Rewari	0.0	-100	10.3	839	45.8	3719
Rohtak	0.0	-100	1.3	-22	68.6	2441
Sirsa	0.0	-100	7.3	418	16.8	1192
Sonepat	0.0	-100	5.1	294	39.7	1427
Yamunanagar	0.0	-100	3.7	8	14.7	320
Delhi						
Central Delhi	0.0	-100	12.0	380	19.0	1088
East Delhi	0.0	-100	8.0	220	26.0	1525
New Delhi	0.0	-100	10.9	336	28.5	1678
North Delhi	0.0	-100	9.0	260	22.6	1313
North East Delhi	0.0	-100	0.0	-100	2.0	25
North West Delhi	0.0	-100	1.3	-47	4.0	150

South Delhi	0.0	-100	8.3	232	29.9	1769
South West Delhi	0.0	-100	13.3	432	37.8	2263
West Delhi	0.0	-100	1.0	-60	18.0	1025
Jammu & Kashmir						
Anantnag	7.3	-80	105.6	293	67.3	117
Badgam	12.0	-59	101.4	546	52.5	207
Bandipore	**	**	**	**	**	**
Baramula	14.0	-89	101.9	211	70.2	71
Doda	0.8	-99	86.6	178	94.0	263
Ganderbal	4.2	-86	68.0	298	80.7	320
Jammu	0.1	-99	114.9	974	96.5	1091
Kargil	**	**	**	**	**	**
Kathua	0.0	-100	28.2	297	71.8	424
Kistwar	**	**	**	**	**	**
Kulgam	8.3	-77	100.5	273	44.8	45
Kupwara	8.3	-83	117.4	195	87.1	94
Ladakh(Leh)	0.0	-100	0.2	-90	1.2	-48
Poonch	**	**	**	**	**	**
Pulwama	8.3	-72	87.3	494	27.2	22
Rajouri	0.2	-99	39.8	144	124.6	1064
Ramban	1.5	-98	142.2	357	167.9	548
Reasi	1.6	-96	185.7	867	116.9	741
Samba	0.0	-100	35.5	232	51.0	530
Shopian	**	**	**	**	**	**
Srinagar	10.9	-63	95.4	458	51.3	167
Udhampur	0.0	-100	63.8	232	133.0	856
East Madhya Pradesh						
Anuppur	0.0	-100	0.3	-94	0.0	-100
Balaghat	0.0	-100	0.5	-91	0.5	-81
Chhatarpur	0.0	-100	5.9	438	1.3	10
Chindwara	0.0	-100	1.9	-48	0.0	-100
Damoh	0.0	-100	0.5	-85	0.0	-100
Dindori	0.0	-100	25.0	614	0.0	-100
Jabalpur	0.0	-100	1.2	-66	0.0	-100
Katni	0.0	-100	0.4	-86	0.0	-100
Mandla	0.0	-100	6.3	-11	1.5	-62
Narsingpur	0.0	-100	0.8	-60	0.0	-100
Panna	0.0	-100	4.4	120	0.0	-100
Rewa	0.0	-100	0.0	-100	0.0	-100
Sagar	0.0	-100	0.5	-80	0.0	-100
Satna	0.0	-100	1.1	-47	0.1	-93
Seoni	0.0	-100	3.0	-59	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	3.0	15	0.0	-100
Tikamgarh	0.0	-100	0.7	-65	7.5	1400
Umaria	0.0	-100	1.8	-47	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	4.0	3900

Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	0.0	-100	1.2	-59	0.0	-100
Bhind	0.0	-100	4.8	494	0.0	-100
Bhopal	0.0	-100	0.1	-95	0.0	-100
Burhanpur	0.0	-100	0.0	-100	0.0	-100
Datia	0.0	-100	0.0	-100	2.2	267
Dewas	0.0	-100	0.0	-100	0.0	-100
Dhar	0.0	-100	1.7	771	0.0	-100
Guna	0.0	-100	0.0	-100	7.6	1167
Gwalior	0.0	-100	13.2	1361	0.5	-55
Harda	0.0	-100	1.2	64	0.0	-100
Hosangabad	0.0	-100	0.6	-67	0.0	-100
Indore	0.0	-100	0.2	-60	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	4.3	750	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	1.5	50	0.0	-100
Sheopur Kalani	0.0	-100	0.0	-100	3.0	2900
Shivpuri	0.0	-100	1.5	87	3.0	2900
Ujjain	0.0	-100	0.0	-100	0.6	200
Vidisha	0.0	-100	0.0	-100	0.0	-100
Chhattisgarh						
Bastar	0.0	-100	0.0	-100	0.0	-100
Bijapur	0.0	-100	0.0	-100	0.0	-100
Bilaspur	0.0	-100	2.8	-49	1.1	-82
Dantewara	0.0	-100	5.1	167	0.0	-100
Dhamtari	0.0	-100	1.1	-80	0.0	-100
Durg	0.0	-100	0.0	-100	0.0	-100
Janjgir	0.0	-100	0.0	-100	0.0	-100
Jashpurnagar	0.0	-100	0.1	-99	0.0	-100
Kanker	0.0	-100	0.1	-99	0.0	-100
Korba	0.0	-100	0.0	-100	0.0	-100
Koriya	0.0	-100	1.9	-21	0.0	-100
Kawardha	0.0	-100	0.0	-100	0.0	-100
Mahasumund	0.0	-100	0.3	-95	0.0	-100
Narayanpur	0.0	-100	0.0	-100	0.0	-100
Raigarh	0.0	-100	8.4	110	0.0	-100
Raipur	0.0	-100	0.0	-100	0.0	-100
Rajandgaon	0.0	-100	1.4	-67	0.0	-100
Surguja	0.0	-100	1.6	-61	0.3	-92
East Uttar Pradesh						
Allahabad	0.0	-100	0.9	-38	4.4	529
Ambedkar Nagar	0.0	-100	0.0	-100	0.0	-100
Azamgarh	0.0	-100	7.6	322	4.3	2033

Bahraich	0.0	-100	3.4	21	1.1	7
Ballia	0.0	-100	9.6	774	1.6	306
Balrampur	0.0	-100	13.0	400	0.0	-100
Banda	0.0	-100	3.0	270	3.7	309
Barabanki	0.0	-100	3.8	80	0.0	-100
Basti	0.0	-100	6.9	130	0.0	-100
Chandauli	0.0	-100	0.0	-100	0.0	-100
Deoria	0.0	-100	24.5	842	0.0	-100
Faizabad	0.0	-100	2.3	18	0.0	-100
Farrukhabad	0.0	-100	12.2	481	1.6	-16
Fatehpur	0.0	-100	0.0	-100	0.0	-100
Gazipur	0.0	-100	4.1	88	7.3	3550
Gonda	0.0	-100	2.0	-9	0.0	-100
Gorakhpur	0.0	-100	18.8	452	0.0	-100
Hardoi	0.0	-100	6.0	123	10.1	430
Jaunpur	0.0	-100	3.2	114	6.8	1596
Kannauj	0.0	-100	4.6	59	14.2	1675
Kanpur City	0.0	-100	1.4	-24	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	8.7	111	5.0	519
Kushi nagar	0.0	-100	6.5	59	0.0	-100
Lucknow	0.0	-100	2.7	82	0.0	-100
Maharajganj	0.0	-100	21.7	392	0.0	-100
Mau	0.0	-100	6.7	178	0.0	-100
Mirzapur	0.0	-100	0.0	-100	0.3	-52
Pratapgarh	0.0	-100	7.3	233	0.3	150
RaiBareilly	0.0	-100	11.2	459	0.1	-75
Sahuji Maharajnagar	0.0	-100	0.0	-100	12.0	650
Sant Kabirnnagar	0.0	-100	3.0	-23	0.0	-100
Sant Ravidas Nagar	0.0	-100	4.0	167	0.0	-100
Shrawasti	**	**	0.0	-100	0.0	-100
Sidharthnagar	0.0	-100	3.3	63	0.0	-100
Sitapur	0.0	-100	6.3	153	2.5	178
Sonbhadra	0.0	-100	0.1	-96	1.2	-41
Sultanpur	0.0	-100	15.9	781	0.0	-100
Unnao	0.0	-100	5.5	96	0.0	-100
Varanasi	0.0	-100	0.5	-79	1.4	56
West Uttar Pradesh						
Agra	0.0	-100	3.2	68	11.9	813
Aligarh	0.0	-100	2.7	-8	26.0	1900
Auraiya	0.0	-100	0.5	-75	0.0	-100
Badaun	0.0	-100	4.3	73	10.3	1048
Baghpat	0.0	-100	5.7	30	26.8	2133
Bareilly	0.0	-100	8.6	187	10.4	1627
Bijnor	0.0	-100	19.6	300	13.2	387
Bulandsahar	0.0	-100	4.3	44	14.0	1300
Etah	0.0	-100	3.3	45	13.1	908
Etawah	0.0	-100	0.0	-100	0.0	-100
Firozabad	0.0	-100	5.3	181	6.1	408
GBNagar	0.0	-100	19.0	900	12.0	900

Ghaziabad	0.0	-100	17.4	277	11.7	587
Hamirpur	0.0	-100	2.0	67	3.2	533
Jalaun	0.0	-100	0.0	-100	1.1	62
Jhansi	0.0	-100	2.6	43	3.3	105
Jotiba Phule Nagar	0.0	-100	5.7	32	19.7	1057
Kanshiramnagar	0.0	-100	1.0	-69	10.0	900
Lalitpur	0.0	-100	0.0	-100	0.7	-44
Mahamaya Nagar	0.0	-100	1.0	-60	18.0	4400
Mahoba	0.0	-100	0.7	-30	4.4	1367
Mainpuri	0.0	-100	0.0	-100	2.7	78
Mathura	0.0	-100	3.0	25	9.0	650
Meerut	0.0	-100	11.4	246	19.1	267
Moradabad	0.0	-100	6.6	78	17.0	1596
Muzaffarnagar	0.0	-100	17.7	293	11.7	682
Pilibhit	0.0	-100	24.3	637	3.6	294
Rampur	0.0	-100	18.8	301	10.0	669
Saharanpur	0.0	-100	11.3	114	11.0	630
Shahjahanpur	0.0	-100	4.8	83	4.4	335
Uttarakhand						
Almora	0.0	-100	16.9	92	41.8	894
Bageshwar	0.0	-100	20.5	133	36.8	775
Chamoli	0.0	-100	28.5	87	28.6	225
Champawat	0.0	-100	23.5	267	21.0	483
Dehradun	0.0	-100	15.8	19	37.6	488
Garhwal Pauri	0.0	-100	12.7	39	24.2	706
Garhwal Tehri	0.0	-100	31.2	189	22.0	178
Haridwar	0.0	-100	11.7	139	48.1	1822
Nainital	0.0	-100	34.5	326	73.3	1828
Pithorgarh	5.0	-76	40.6	222	44.9	591
Rudraprayag	0.0	-100	34.0	153	28.6	229
Udham Sing Nagar	0.0	-100	25.2	436	11.7	875
Uttarkashi	0.0	-100	17.9	10	17.8	69
Bihar						
Araria	0.0	-100	38.7	741	0.7	-50
Arwal	0.0	-100	5.1	913	8.7	1640
Aurangabad	0.0	-100	2.2	60	4.6	363
Banka	0.0	-100	6.0	12	3.8	241
Begusarai	0.0	-100	21.5	667	4.1	578
Bhabua	0.0	-100	0.0	-100	4.8	586
Bhagalpur	0.0	-100	27.9	772	8.7	981
Bhojpur	0.0	-100	2.2	120	4.3	378
Buxar	**	**	**	**	**	**
Darbhanga	0.0	-100	33.8	838	0.0	-100
East Champaran	0.0	-100	39.9	1999	0.0	-100
Gaya	0.0	-100	0.0	-100	3.7	429
Gopalganj	0.0	-100	18.2	768	0.0	-100
Jahanabad	0.0	-100	0.0	-100	6.9	200
Jamui	0.0	-100	18.5	823	6.2	928
Kathihar	0.0	-100	17.7	276	3.0	329
Khagadia	0.0	-100	16.5	561	5.6	200
Kishanganj	0.0	-100	53.5	1143	1.5	-29

Lakhisarai	0.0	-100	26.5	1006	10.8	1443
Madhepura	0.0	-100	14.0	226	0.0	-100
Madhubani	0.0	-100	24.9	353	0.0	-100
Monghyar	**	**	14.0	483	**	**
Muzaffarpur	0.0	-100	17.1	905	0.1	-84
Nalanda	0.0	-100	6.0	1100	8.0	1900
Nawada	0.0	-100	0.0	-100	0.3	11
Patna	0.0	-100	10.0	612	4.1	917
Purnea	0.0	-100	30.5	577	2.2	-10
Rohtas	0.0	-100	3.0	58	3.9	162
Saharsha	0.0	-100	10.0	92	4.0	90
Samstipur	0.0	-100	25.9	791	2.6	550
Saran	0.0	-100	21.3	1230	5.2	1617
Sheikpura	0.0	-100	23.3	2014	1.6	220
Sheohar	0.0	-100	44.0	1417	0.0	-100
Sitamarhi	0.0	-100	14.4	398	0.0	-100
Siwan	0.0	-100	24.6	1071	7.3	7220
Supaul	0.0	-100	51.0	1279	0.1	-89
Vaishali	0.0	-100	20.8	804	1.9	200
West Champaran	0.0	-100	35.6	1267	1.2	-23
Jharkhand						
Bokaro	0.0	-100	14.1	148	7.7	236
Chatra	0.0	-100	**	**	0.5	-67
Deoghar	0.0	-100	20.8	643	16.1	1510
Dhanbad	0.0	-100	3.0	-47	3.8	65
Dumka	0.0	-100	35.0	821	8.2	141
East Singbhum	0.1	-98	21.0	249	28.9	623
Garhwa	**	**	**	**	0.0	-100
Giridih	0.0	-100	8.1	303	5.4	127
Godda	0.0	-100	31.2	593	5.1	744
Gumla	**	**	48.6	557	**	**
Hazaribagh	**	**	0.0	-100	3.6	157
Jamtara	**	**	50.6	855	14.9	211
Khunti	0.0	-100	**	**	2.0	-9
Koderna	0.0	-100	**	**	1.8	80
Latehar	0.0	-100	3.0	-46	0.0	-100
Lohardagga	**	**	**	**	0.0	-100
Pakur	0.0	-100	39.8	624	34.2	2040
Palamau	0.0	-100	2.3	-34	1.3	-34
Ramgarh	**	**	10.6	159	19.0	555
Ranchi	0.0	-100	3.5	-47	6.7	76
Sahebganj	0.0	-100	3.2	-38	57.6	5660
Saraikela	0.0	-100	**	**	11.4	200
Simdega	0.0	-100	**	**	0.0	-100
West Singbhum	0.0	-100	0.0	-100	7.4	106
East Rajasthan						
Ajmer	0.0	-100	0.2	-56	6.3	3030
Alwar	0.0	-100	15.6	1104	34.6	3750
Banswara	0.0	-100	0.0	-100	0.0	-100
Baran	0.0	-100	0.5	-44	4.6	2213
Bharatpur	0.0	-100	4.0	300	20.3	1930

Bhilwara	0.0	-100	0.0	-100	1.5	88
Bundi	0.0	-100	0.0	-100	2.5	733
Chittorgarh	0.0	-100	0.0	-100	0.2	-81
Dausa	0.0	-100	1.2	20	12.0	991
Dholpur	0.0	-100	6.0	362	0.2	-72
Dungarpur	0.0	-100	0.0	-100	0.0	-100
Jaipur	0.0	-100	3.9	1184	21.2	2926
Jhalawar	0.0	-100	0.0	-100	1.2	200
Jhunjhunu	0.0	-100	20.0	1152	40.1	2571
Karauli	0.0	-100	3.7	511	4.0	900
Kota	0.0	-100	0.0	-100	5.9	1070
Pratapgarh	0.0	-100	0.0	-100	0.0	-100
Rajsamand	0.0	-100	0.0	-100	0.4	-29
Sawai Madhopur	0.0	-100	0.9	75	6.9	2192
Sikar	0.0	-100	6.0	500	35.1	3095
Sirohi	0.0	-100	0.0	-100	0.4	300
Tonk	0.0	-100	0.0	-100	14.7	2836
Udaipur	0.0	-100	0.0	-100	0.3	3
West Rajasthan						
Barmer	0.0	-100	0.0	-100	7.4	823
Bikaner	0.0	-100	0.4	-56	42.2	8331
Churu	0.0	-100	6.9	332	56.3	7939
Hanumangarh	0.0	-100	0.6	-18	28.6	3471
Jaisalmer	0.0	-100	0.0	-100	13.8	1621
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	19.2	1031
Nagaur	0.0	-100	0.3	-77	38.3	6283
Pali	0.0	-100	0.0	-100	2.2	175
Sri Ganganagar	0.0	-100	0.0	-99	16.7	1095
Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	0.0	-100
Anand	0.0	-100	0.0	-100	0.0	-100
Banaskantha	0.0	-100	0.0	-100	0.0	-100
Baroda	0.0	-100	0.0	-100	0.0	-100
Broach	0.0	-100	0.0	-100	0.0	-100
DNH	**	**	**	**	**	**
Dahod	0.0	-100	0.0	-100	0.0	-100
Daman	**	**	6.0	200	0.0	-100
Dangs	0.0	-100	3.5	400	0.0	-100
Gandhinagar	0.0	-100	0.0	-100	0.0	-100
Kheda	0.0	-100	0.0	-100	0.0	-100
Mehsana	0.0	-100	0.0	-100	0.0	-100
Narmada	0.0	-100	0.0	-100	0.0	-100
Navsari	0.0	-100	0.0	-100	0.0	-100
Panchmahal	0.0	-100	0.0	-100	0.0	-100
Patan	0.0	-100	0.0	-100	0.0	-100
Sabarkantha	0.0	-100	0.0	-100	0.0	-100
Surat	0.0	-100	0.0	-100	0.0	-100
Tapi	0.0	-100	0.0	-100	0.0	-100
Valsad	0.0	-100	0.0	-100	0.0	-100
S K & Diu region						

Amreli	0.0	-100	2.0	567	0.0	-100
Bhavnagar	0.0	-100	0.0	-100	0.0	-100
Diu	0.0	-100	0.5	150	0.0	-100
Jamnagar	0.0	-100	0.5	355	0.0	-100
Junagarh	0.0	-100	0.0	-100	0.0	-100
Kutch	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.0	-100
Rajkot	0.0	-100	0.0	-100	0.0	-100
Surendranagar	0.0	-100	0.0	-100	0.0	-100
Maharashtra & Goa						
Konkan & Goa						
Mumbai City	0.0	-100	0.0	-100	0.0	-100
Mumbai Suburban	0.0	-100	0.0	-100	0.0	-100
North Goa	0.0	-100	2.6	773	0.0	-100
Raigad	0.0	-100	12.5	12400	0.0	-100
Ratnagiri	0.0	-100	0.2	200	0.0	-100
Sindhudurg	0.0	-100	0.0	-100	0.0	-100
South Goa	0.0	-100	0.0	-100	0.0	-100
Thane	0.0	-100	0.0	-100	0.0	-100
Madhya Maharashtra						
Ahmednagar	0.0	-100	2.8	133	0.0	-100
Dhule	**	**	**	**	**	**
Jalgaon	0.0	-100	0.0	-100	0.0	-100
Kolhapur	0.0	-100	3.2	69	0.0	-100
Nandurbar	**	**	1.3	525	**	**
Nasik	0.0	-100	3.3	994	0.0	-100
Pune	0.0	-100	6.7	861	0.0	-100
Sangli	0.0	-100	1.2	-39	0.0	-100
Satara	0.0	-100	1.3	-14	0.0	-100
Solapur	0.0	-100	0.0	-98	0.0	-100
Marathwada						
Aurangabad	0.0	-100	0.2	-77	0.0	-100
Beed	**	**	0.1	-92	0.0	-100
Hingoli	**	**	0.4	-78	**	**
Jalna	**	**	0.0	-100	0.0	-100
Latur	0.0	-100	0.0	-100	0.0	-100
Nanded	0.0	-100	0.0	-100	0.0	-100
Usmanabad	0.0	-100	0.3	-48	0.0	-100
Parbhani	0.0	-100	0.1	-96	0.0	-100
Vidarbha						
Akola	0.0	-100	0.3	-89	0.0	-100
Amraoti	0.0	-100	3.0	111	0.0	-100
Bhandara	0.0	-100	5.0	26	0.0	-100
Buldhana	0.0	-100	2.4	52	0.0	-100
Chandrapur	0.0	-100	4.9	68	8.5	144
Gadchiroli	0.0	-100	1.0	-71	1.9	-42
Gondia	0.0	-100	6.7	49	1.3	-58
Nagpur	0.0	-100	2.0	-54	0.0	-100
Wardha	0.0	-100	0.5	-85	0.0	-100
Washim	0.0	-100	0.5	-82	0.0	-100
Yeotmal	0.0	-100	0.1	-95	0.0	-100

Odisha						
Angul	0.0	-100	0.0	-100	0.0	-100
Balasore	1.9	-68	18.5	49	24.4	141
Bargarh	0.0	-100	0.5	-91	0.6	-83
Bhadrak	0.5	-84	11.9	14	3.4	-55
Bolangir	0.0	-100	1.1	-77	0.4	-94
Boudh	0.0	-100	0.0	-100	0.0	-100
Cuttack	0.6	-88	0.4	-95	0.5	-93
Deogarh	0.0	-100	0.0	-100	4.7	34
Dhenkanal	0.6	-92	1.8	-71	0.0	-99
Gajapati	3.1	-79	5.0	-66	1.5	-90
Ganjam	0.9	-78	6.1	-16	4.1	-54
Jagatsingpur	0.0	-100	0.1	-99	0.0	-100
Jajpur	3.5	-6	7.7	54	0.0	-100
Jharsuguda	0.0	-100	0.0	-100	0.0	-100
Kalahandi	2.9	-49	0.0	-100	0.0	-100
Kandhamal	0.0	-100	4.5	-18	3.1	-64
Kendrapara	0.0	-100	0.0	-100	0.0	-100
Keonjhar	0.7	-81	3.0	-66	1.8	-76
Khurda	6.2	20	2.1	-57	4.0	-48
Koraput	0.0	-100	10.2	86	0.0	-100
Malkangiri	0.0	-100	0.0	-100	0.0	-100
Mayurbhanj	2.6	-74	16.5	6	10.4	-11
Nawapara	1.4	-71	0.0	-100	12.0	79
Nawarangpur	0.0	-100	0.0	-100	0.0	-100
Nayagarh	0.4	-94	6.6	31	24.3	83
Puri	0.7	-89	0.0	-100	0.1	-97
Rayagada	0.0	-99	21.0	59	9.5	-30
Sambalpur	0.0	-100	0.0	-99	5.1	46
Sonepur	0.0	-100	0.0	-100	1.3	-66
Sundargarh	0.0	-100	7.0	62	0.0	-100
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	0.0	-100	2.1	-84	3.1	-82
North & Middle Andaman	0.0	-100	1.8	47	0.0	-100
South Andaman	0.0	-100	2.5	-58	0.0	-100
GWB						
Bankura	0.0	-100	4.9	-34	16.2	457
Birbhum	0.0	-100	31.2	420	24.9	611
Burdwan	0.0	-100	26.8	406	24.9	379
East Midnapore	0.7	-94	7.5	-11	10.4	44
Hooghly	0.0	-100	9.5	-5	8.1	65
Howrah	0.0	-100	10.0	-33	20.1	196
Kolkata	0.0	-100	23.6	131	25.6	256
Murshidabad	0.0	-100	11.0	59	6.0	200
Nadia	0.0	-100	8.8	27	29.6	920
24 Pargana (N)	0.0	-100	25.3	251	24.2	538
Purulia	0.0	-100	1.7	-78	20.7	209
24 Pargana (S)	0.0	-100	5.2	-49	23.8	162
West Midnapore	0.2	-98	5.5	-54	37.5	229

SHWB & Sikkim						
Cooch Behar	0.0	-100	44.0	157	33.7	134
Darjeeling	0.0	-100	31.0	118	28.1	64
East Sikkim	1.3	-89	57.1	246	62.0	91
Jalpaiguri	0.0	-100	33.0	78	56.2	431
Malda	0.0	-100	38.6	1003	27.3	992
North Dinajpur	0.0	-100	48.8	1091	0.5	-71
North Sikkim	22.7	-59	68.7	80	102.0	57
South Dinajpur	0.0	-100	16.0	154	11.7	77
South Sikkim	0.0	-100	58.3	253	4.7	-86
West Sikkim	5.0	-91	30.0	-21	8.5	-87
Karnataka						
Coastal Karnataka						
Dakshina Kannada	0.0	-100	27.4	879	3.7	-47
Udupi	0.0	-100	36.9	1745	3.0	-27
Uttara Kannada	1.0	30	7.0	441	0.3	-91
NI Karnataka						
Bagalkote	0.0	-100	1.8	-5	0.0	-100
Belagavi	0.4	-79	3.2	29	0.0	-100
Bidar	0.0	-100	0.3	-93	0.0	-100
Dharwad	0.0	-97	1.2	-54	2.8	-49
Gadag	0.0	-100	1.1	-52	0.1	-98
Haveri	0.0	-100	2.8	14	0.0	-99
Kalaburgi	0.0	-100	1.9	-50	0.1	-99
Koppal	0.0	-100	0.5	-48	0.0	-100
Raichur	0.0	-100	0.0	-100	0.0	-100
Vijayapura	0.0	-100	0.2	-92	0.0	-100
Yadgir	0.0	-100	0.8	-72	0.0	-100
SI Karnataka						
Ballari	0.0	-100	1.4	26	0.0	-100
Bangalore Rural	0.0	-100	1.3	-52	1.6	-62
Bangalore Urban	0.0	-100	0.4	-86	0.2	-95
Chamarajanagar	0.0	-100	1.0	-73	12.5	49
Chikaballapur	0.0	-100	0.0	-100	0.0	-100
Chikkamagaluru	0.8	-60	7.6	81	6.1	-42
Chitradurga	0.0	-100	0.9	-54	0.5	-86
Davangere	0.0	-100	0.4	-85	1.0	-78
Hassan	0.0	-100	10.5	220	8.1	-7
Kodagu	0.0	-100	12.6	75	19.3	20
Kolar	0.0	-100	0.0	-100	2.9	-34
Mandya	0.0	-100	6.9	261	4.3	-29
Mysuru	0.0	-100	3.7	-6	16.8	151
Ramanagara	0.0	-100	0.8	-81	7.9	44
Shivamogga	0.0	-100	4.1	25	5.3	-9
Tumakuru	0.0	-100	1.6	-36	8.7	103
Kerala						
Alappuzha	0.0	-100	13.5	-7	37.7	27
Kannur	0.0	-100	0.0	-100	2.2	-69
Ernakulam	0.0	-100	9.8	-5	67.4	268
Idukki	0.0	-100	14.0	-7	23.8	-17

Kasaragod	0.0	-100	30.3	847	3.8	6
Kollam	0.0	-100	13.5	-25	21.3	-31
Kottayam	0.0	-100	48.5	223	44.9	41
Kozhikode	0.0	-100	0.2	-95	4.4	-59
Malappuram	0.0	-100	0.0	-100	16.4	9
Palakkad	0.0	-100	0.7	-92	27.5	43
Pathanamthitta	0.5	-97	7.9	-72	20.7	-47
Thiruvananthapuram	0.0	-100	2.4	-81	39.2	67
Thrissur	0.0	-100	2.5	-55	21.9	37
Wynad	0.0	-100	4.3	-43	40.2	170
Tamil Nadu						
Ariyalur	0.0	-100	0.0	-100	2.8	-24
Chennai	0.0	-100	0.0	-100	0.0	-100
Coimbatore	0.0	-100	0.0	-100	3.1	-58
Cuddalore	0.0	-100	0.0	-100	0.0	-100
Dharmapuri	0.0	-100	0.0	-100	1.3	-82
Dindigul	0.0	-100	0.0	-100	8.5	-24
Erode	0.0	-100	0.0	-100	9.0	37
Kanchipuram	0.0	-100	0.0	-100	0.0	-100
Kanyakumari	0.0	-100	20.1	58	20.9	-18
Karikal	0.0	-100	0.0	-100	0.0	-100
Karur	0.0	-100	0.0	-100	0.0	-100
Krishnagiri	0.0	-100	0.0	-100	3.3	-31
Madurai	0.0	-100	0.0	-100	30.4	181
Nagapattinam	0.0	-100	0.3	-91	0.0	-100
Namakkal	0.0	-100	0.0	-100	7.4	31
Nilgiris	0.0	-100	29.6	271	7.6	-55
Perambalur	0.0	-100	0.0	-100	0.0	-100
Puducherry	0.0	-100	0.0	-100	0.0	-100
Pudukottai	0.0	-100	0.0	-100	0.0	-100
Ramanathapuram	0.0	-100	0.0	-100	2.6	-75
Salem	0.0	-100	0.0	-100	4.5	-55
Sivaganga	0.0	-100	0.5	-84	3.2	-66
Thanjavur	0.0	-100	0.3	-88	0.0	-100
Theni	0.0	-100	7.1	-27	4.2	-76
Tirunelveli	0.0	-100	14.4	24	6.3	-68
Tirupur	0.0	-100	0.0	-100	5.2	-25
Tiruvallur	0.0	-100	0.0	-100	0.0	-100
Tiruvannamalai	0.0	-100	0.0	-100	0.0	-100
Tiruvarur	0.0	-100	15.3	468	1.1	-80
Toothukudi	0.0	-100	13.2	165	5.9	-62
Trichy	0.0	-100	2.2	-6	0.0	-100
Vellore	0.0	-100	0.0	-100	2.3	-37
Villupuram	0.0	-100	0.0	-100	0.0	-100
Virudhunagar	0.0	-100	3.9	-53	3.4	-78
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0.0	-100	0.0	-100
Guntur	0.0	-100	0.0	-100	0.0	-100

Krishna	0.0	-100	0.0	-100	0.0	-100
Nellore	0.0	-100	0.0	-100	0.2	-88
Prakasam	0.0	-100	0.0	-100	2.0	-7
Sirkakulam	0.0	-100	0.0	-100	0.0	-100
Visakhapatnam	0.0	-100	11.3	88	0.0	-100
Vizianagram	0.6	-79	3.8	-24	0.0	-100
West Godavari	0.0	-100	0.4	-74	0.0	-100
Royalaseema						
Anantapur	0.0	-100	0.0	-100	0.5	-75
Chittoor	0.0	-100	0.0	-100	1.1	-69
Cuddapah	0.0	-100	0.0	-100	0.7	-54
Kurnool	0.0	-100	0.1	-90	0.0	-99
Telangana						
Adilabad	0.0	-100	6.1	91	1.9	-35
Hyderabad	0.0	-100	3.8	-5	3.0	-27
Karimnagar	0.0	-100	4.0	98	10.4	168
Khammam	0.0	-100	0.1	-95	0.0	-100
Mehabubnagar	0.0	-100	0.0	-100	0.0	-100
Medak	0.0	-100	0.0	-100	0.4	-89
Nalgonda	0.0	-100	0.2	-87	0.8	-77
Nizamabad	0.0	-100	1.0	-62	3.1	-8
Rangareddy	0.0	-100	2.3	-17	1.7	-41
Warangal	0.0	-100	0.1	-96	0.6	-78

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 List of varieties

Karnataka

Sugar-cane: Co-86032, Co-94012

Tamil Nadu:

Irrigated sesame: TMV 4, TMV 6 and SVPR1

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, Koijapori, 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).

Olitorius 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.

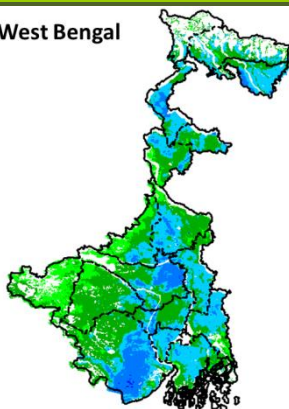
Gujarat

Pearl millet: GHB-526 and GHB-558.

Annexure III

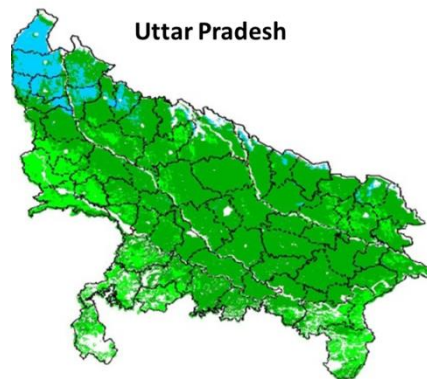
INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON 9th April 2015 FOR DIFFERENT STATES

West Bengal



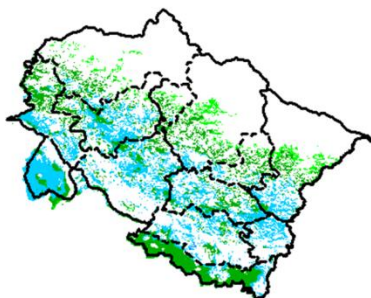
Agricultural vigour is good over most of the central parts of West Bengal, whereas southern part show higher values of NDVI varying from 0.4-0.5. NDVI values are normal over south western part of state.

Uttar Pradesh



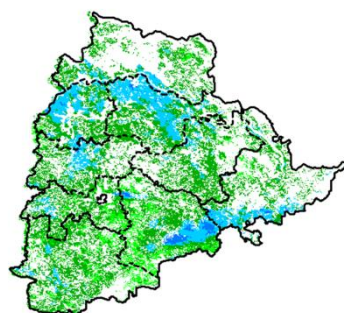
Agricultural vigour is normal over the entire state of Uttar Pradesh where NDVI values varies from 0.2 - 0.4 except north western part where NDVI range is 0.5-0.6.

UTTARAKHAND



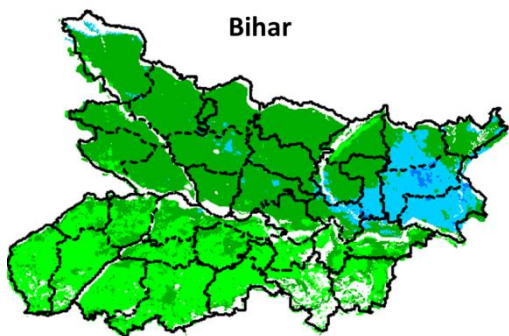
Agriculture vigour is good over southern and south western parts of Uttarakhand with NDVI values varying between 0.4-0.5. Whereas, isolated patches of normal NDVI are observed in middle of the state.

Telangana



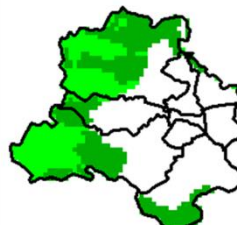
NDVI values vary from 0.2 - 0.5 over Telangana. Higher (> 0.5) values are seen in the south-eastern part of Telangana.

Bihar



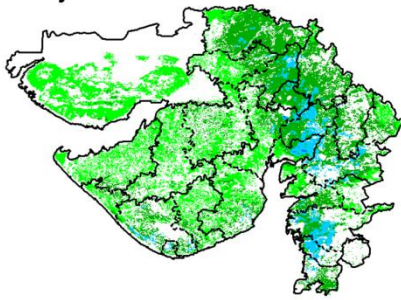
The eastern parts of Bihar shows comparatively a high values (0.4-0.5) of NDVI, Whereas, normal NDVI is observed in remaining parts of the state.

Delhi



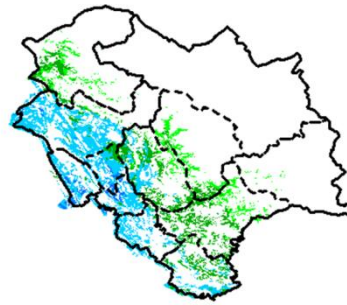
Agriculture vigour is normal all over Delhi, NDVI values lies between 0.2-0.4.

Gujarat



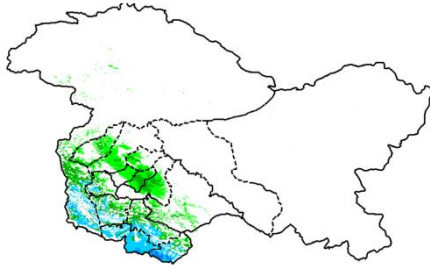
Agriculture vigour is good over central part of Gujarat where NDVI values lies between 0.4-0.5. Whereas normal NDVI is observed in Kutch and Saurashtra.

Himachal Pradesh



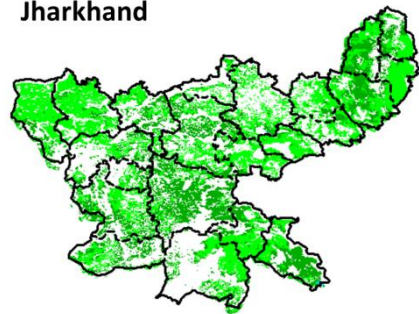
Agriculture vigour is good over southern and south western parts of Himachal Pradesh with NDVI values varying between 0.4-0.5. Whereas, isolated patches of normal NDVI are observed in middle of the state.

Jammu - Kashmir



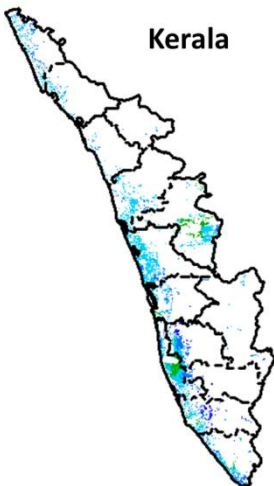
Agriculture vigour is normal all over Jammu and Kashmir. NDVI values vary in between 0.4-0.5 in south western parts.

Jharkhand



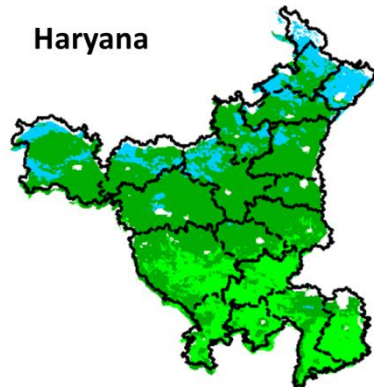
Agriculture vigour is normal (0.2-0.4) over entire state of Jharkhand.

Kerala



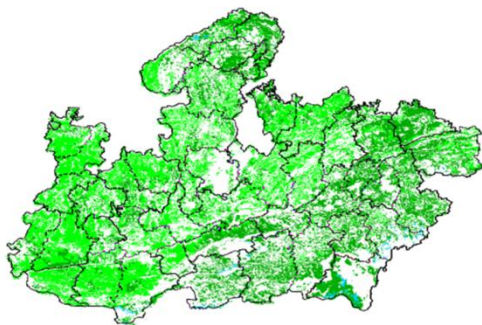
In central and south west coasts of Kerala shows NDVI values are varying from 0.3 to 0.5, whereas rest of agricultural vigour of Kerala shows good values of NDVI.

Haryana



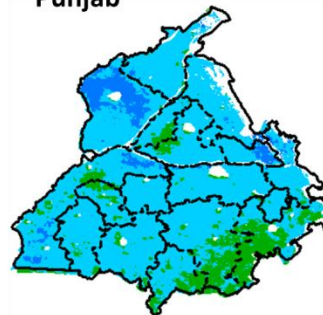
Agriculture vigour is normal over the state. NDVI values varies between 0.2- 0.3 over the state. Except few patches in northern part shows NDVI values between 0.4-0.5.

Madhya Pradesh



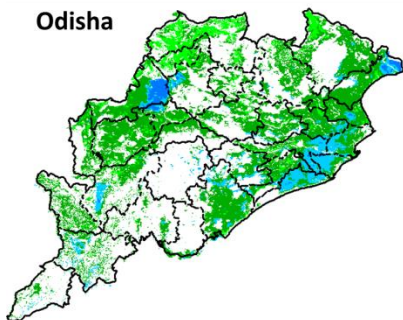
Agriculture vigour is normal (0.2-0.4) over entire state Madhya Pradesh.

Punjab



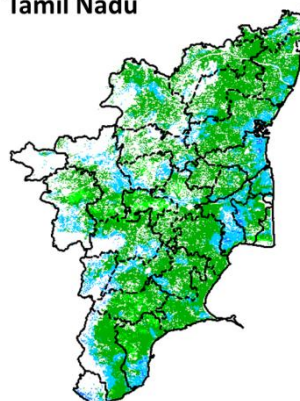
Agricultural vigour is good over entire state of Punjab with NDVI values ranges between 0.5-0.6.

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 part shows normal NDVI values.

Tamil Nadu



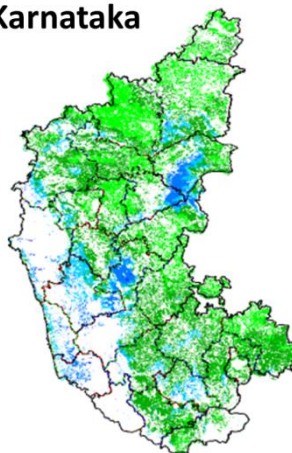
Agricultural vigour is normal over Tamil Nadu with NDVI values varying from 0.3 - 0.5. In the coastal and western parts NDVI values varies between 0.4-0.5.

Chhattisgarh



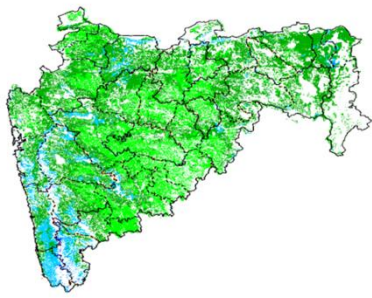
Agriculture vigour is good in central part of Chhattisgarh where NDVI values lies in between 0.4-0.5. NDVI values are normal over rest of the state.

Karnataka



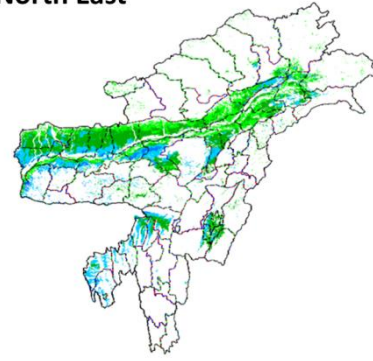
Agriculture vigour is good over some pockets of western coastal parts of Karnataka which lies in between 0.4-0.6. Rest of the parts shows normal condition where NDVI values vary up to 0.2-0.4

Maharashtra



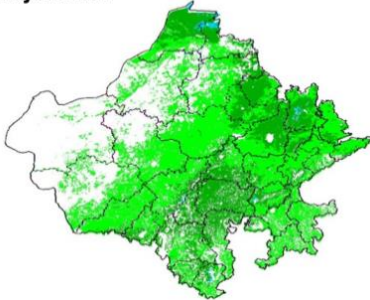
Agricultural vigour is good over Western coast with NDVI values of 0.4 - 0.5. Whereas, NDVI is moderate over parts of Marathwada, Vidarbha and Madhya Maharashtra region.

North East



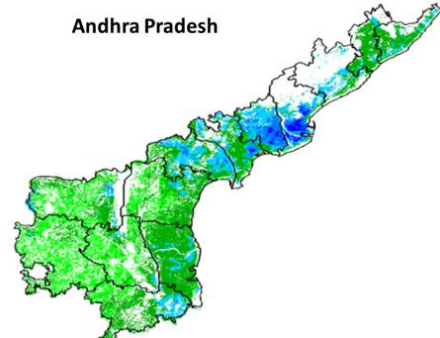
Agriculture vigour is good in valleys of Southern hilly range of North-East states which covers part of Assam. NDVI values vary from 0.4-0.5 in this region. Normal NDVI conditions are observed all over NE region.

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 /

