

National Agromet Advisory Service Bulletin

Friday 24th April 2015

(For the period 24th to 28th April 2015)



Issued by

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

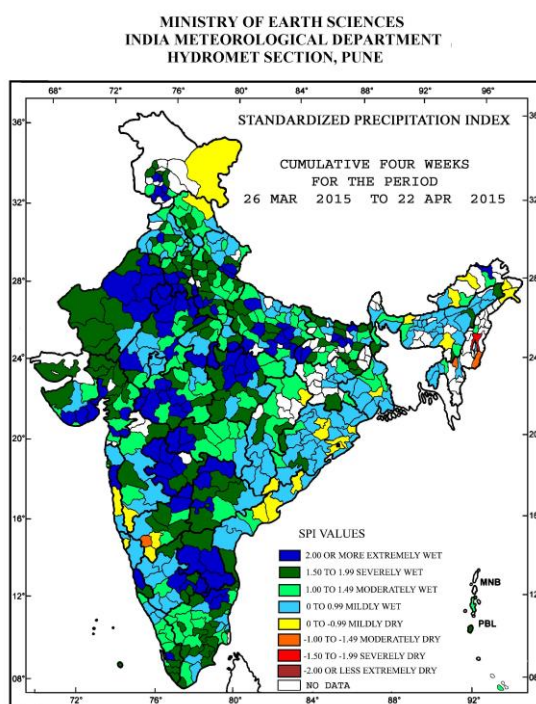


ESSO-IMD's Operational long range Forecast for the 2015 Southwest monsoon rainfall

- (a) Quantitatively, the monsoon seasonal rainfall is likely to be 93% of the Long Period Average (LPA) with a model error of $\pm 5\%$. The LPA of the season rainfall over the country as a whole for the period 1951-2000 is 89 cm.
- (b) The 5 category probability forecasts for the Seasonal (June to September) rainfall over the country as a whole is given below:

Category	Rainfall Range (% of LPA)	Forecast Probability (%)	Climatological Probability (%)
Deficient	< 90	33	16
Below Normal	90 - 96	35	17
Normal	96 -104	28	33
Above Normal	104 -110	3	16
Excess	> 110	1	17

Standardised Precipitation Index Four Weekly for the Period 26th March to 22nd April 2015

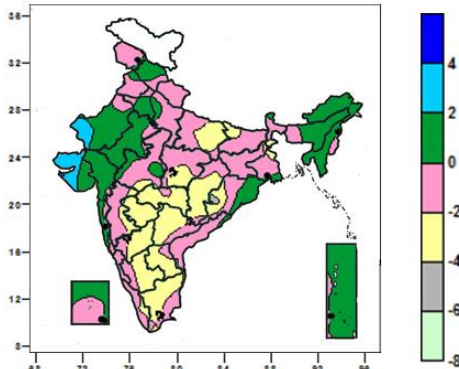
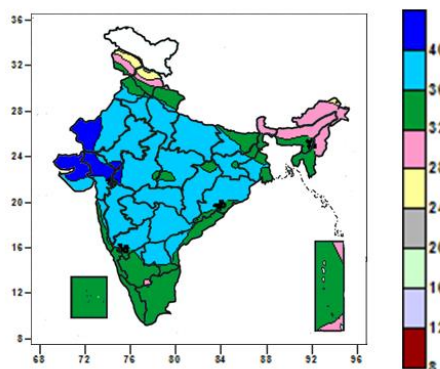


- Extremely/severely wet conditions experienced in most districts of Telangana, Gujarat; many districts of Uttar Pradesh, Haryana, Jammu and Kashmir, Madhya Pradesh, Rajasthan, Andhra Pradesh; few districts of Bihar, Uttarakhand, Punjab, Maharashtra, Tamil Nadu, Karnataka and Kerala; Mandi, Hamirpur, Solan districts of Himachal Pradesh; Raigad district of Konkan; Durg, Mahasamund districts of Chhattisgarh; Upper Siang district of Arunachal Pradesh; Golaghat, Tinsukia, Hailakandi districts of Assam; Malda district of West Bengal; Nawapara and Rayagada districts of Odisha, Deogarh, West Singhbhum and Jamtara districts of Jharkhand.
- Severely /moderately dry conditions experienced in Chandel, Senapati district of Manipur; Kolasib district of Mizoram, Dharwad district of North interior Karnataka.
- Rest of the country experienced moderately wet/mildly dry/wet conditions.

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 22.04.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 22.04.2015

Mean Maximum Temperature (°C) Anomaly in India for the week ending 22.04.2015

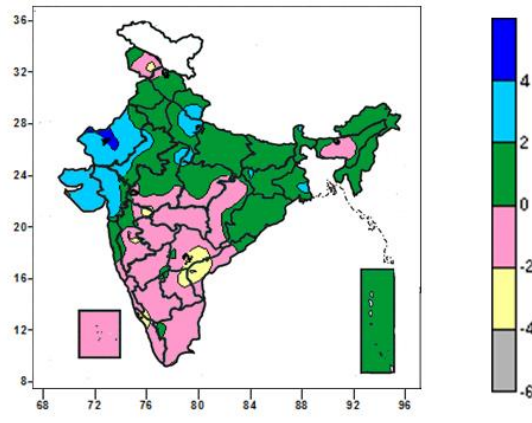
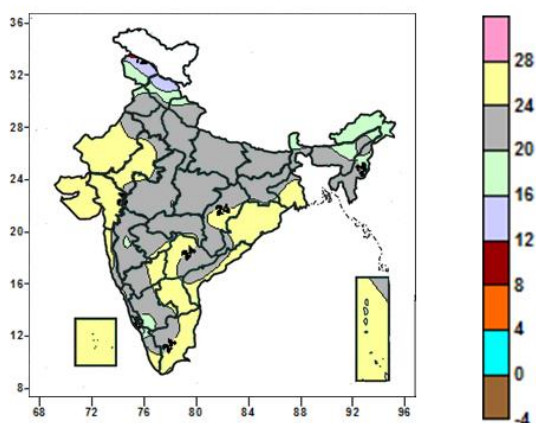


- Mean maximum temperature was above 40⁰C over many parts of Gujarat, a few parts of West Rajasthan and isolated parts of West Madhya Pradesh.
- Mean maximum temperature ranged between 36 to 40⁰C over Haryana, Delhi, Uttar Pradesh, Jharkhand, Chhattisgarh, Telangana, Madhya Maharashtra, Marathwada, many parts of Punjab, Bihar, Odisha, Gangetic West Bengal, Madhya Pradesh, Rayalaseema, North Interior Karnataka, a few parts of Punjab, isolated parts of Uttarakhand, Gujarat, South Interior Karnataka .
- It was below 36⁰C over remaining parts of the country, Lakshadweep and Andaman & Nicobar Islands.

- Mean maximum temperature were below normal by 2 to 4⁰C over Marathwada, many parts of East Uttar Pradesh, Chhattisgarh, Vidarbha, Telangana, Rayalaseema, Interior Karnataka, Tamil Nadu, a few parts of Madhya Pradesh, Odisha, Madhya Maharashtra, isolated parts of Bihar, Jharkhand, West Bengal and Kerala.
- Mean maximum temperature were above normal by 2 to 4⁰C over many parts of Saurashtra & Kutch, a few parts of West Rajasthan.
- It was normal to near normal in remaining parts of the country, Lakshadweep and Andaman & Nicobar Islands.

Actual Mean Minimum Temperature (°C) in India for the week ending 22.04.2015

Mean Minimum Temperature (°C) Anomaly in India for the week ending 22.04.2015

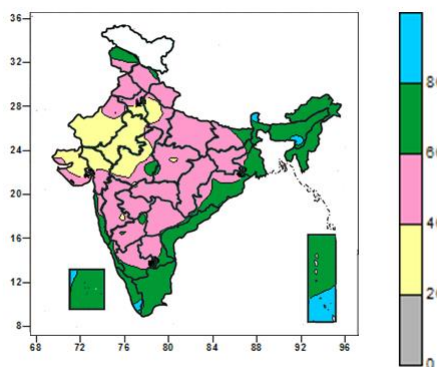


- Mean minimum temperature ranged between 12 to 16⁰C over many parts of Jammu & Kashmir, Himachal Pradesh.
- It was 16 to 20⁰C over Arunachal Pradesh, Sikkim, Nagaland, a few parts of Jammu & Kashmir, Himachal Pradesh, Sub-Himalayan West Bengal, Assam, isolated parts of Uttarakhand, Madhya Maharashtra, Coastal & South Interior Karnataka and Kerala.
- It was above 20⁰C over rest of the country and Lakshadweep and Andaman & Nicobar Islands.

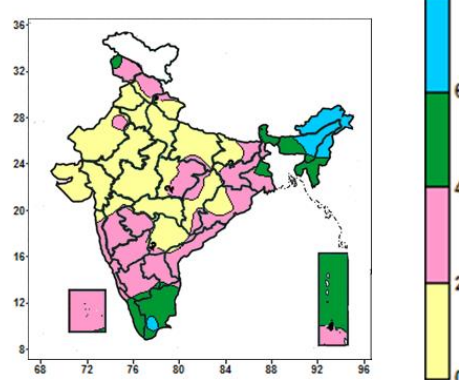
- Mean minimum temperature was below normal by 2 to 4⁰C over a few parts of Andhra Pradesh, Telangana, isolated parts of Madhya Maharashtra, South Interior Karnataka and Kerala.
- Mean minimum temperature was above normal by 2 to 6⁰C over Saurashtra & Kutch, many parts of West Rajasthan, Gujarat region, a few parts of Uttarakhand, West Uttar Pradesh, isolated parts of East Rajasthan, Madhya Pradesh, Gangetic West Bengal, Sikkim and Jharkhand.
- It was normal to near normal in remaining parts of the country Lakshadweep and Andaman & Nicobar Islands.

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 22.04.2015

Relative Humidity (%) over India for the week ending 22.04.2015



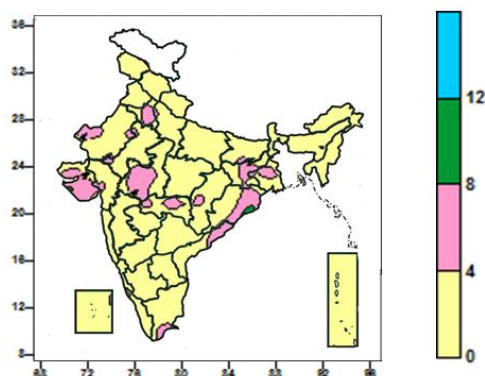
Cloud amount (okta) over India for the week ending 22.04.2015



- Mean Relative humidity was above 80% over a few parts of Sikkim, Andaman & Nicobar Islands and isolated parts of Assam & Meghalaya, Kerala, Lakshadweep.
- Mean Relative humidity was 60 to 80% over North East India, West Bengal, Coastal Andhra Pradesh, Tamil Nadu, many parts of Jammu & Kashmir, Odisha, Konkan, Coastal Karnataka, Kerala, Lakshadweep and Andaman & Nicobar Islands, a few parts of Bihar, Rayalaseema, South Interior Karnataka and isolated parts of Madhya Pradesh, North Interior Karnataka.
- 20 to 60% over rest of the country.

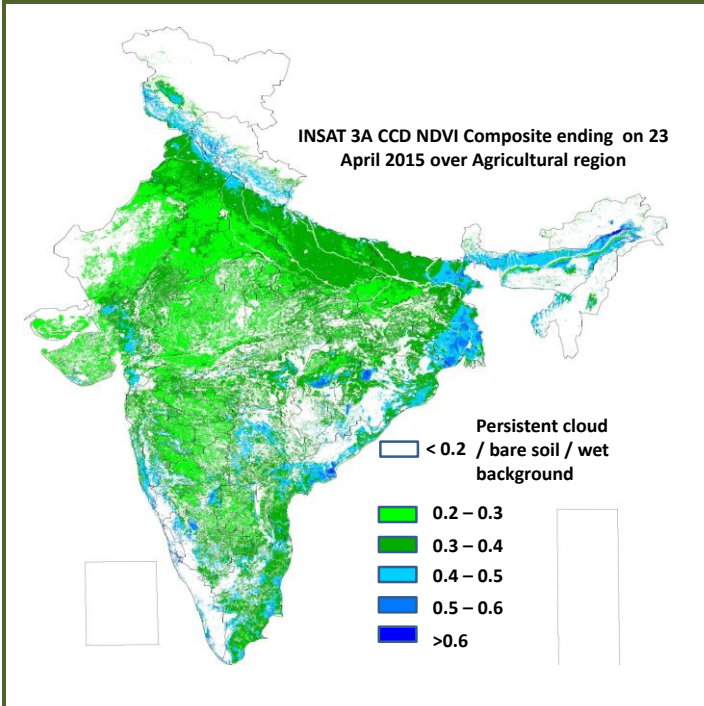
- Sky remained cloudy (6 to 8 okta) over Arunachal Pradesh, Nagaland, many parts of Assam & Meghalaya, Manipur, isolated parts of Tamil Nadu.
- Sky remained mainly cloudy (4 to 6 okta) over Sikkim, Mizoram and Tripura, many parts of Sub-Himalayan West Bengal, Tamil Nadu, Kerala, Andaman & Nicobar Islands, a few parts of Gangetic West Bengal and isolated parts of Jammu & Kashmir, South Interior Karnataka.
- Sky remained partly cloudy (2 to 4 okta) over Marathwada, Goa, Karnataka, Rayalaseema, Lakshadweep, many parts of Jammu & Kashmir, Himachal Pradesh, Jharkhand, Gangetic West Bengal, Odisha, East Madhya Pradesh, Konkan, Madhya Maharashtra and Coastal Andhra Pradesh, a few parts of West Rajasthan, Bihar, Chhattisgarh, Andaman & Nicobar Islands and isolated parts of Uttarakhand, East Uttar Pradesh, Telangana, Kerala and Tamil Nadu where sky remained mainly clear.

Wind speed (knots) over India for the week ending 22.04.2015



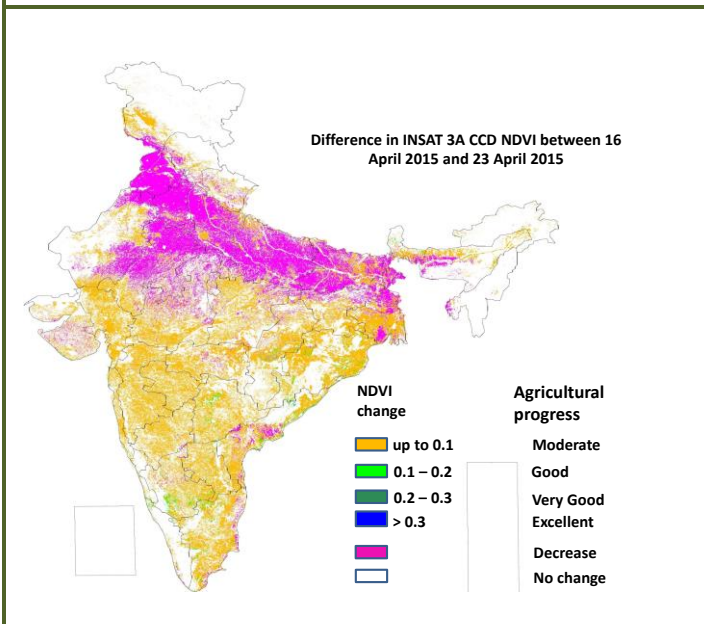
- Mean wind speed was 8 to 12 over isolated parts of Coastal Odisha.
- Mean wind speed was 4 to 8 knots over many parts of Haryana, Delhi, Saurashtra & Kutch, West Madhya Pradesh, Coastal Odisha, a few parts of Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh, Vidarbha and Tamil Nadu, isolated parts of Rajasthan, Bihar, Gujarat region, Chhattisgarh and Tamil Nadu. It was less than 4 knots over rest of the country, Lakshadweep and Andaman & Nicobar Islands.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 23rd April 2015 OVER AGRICULTURAL REGION OF INDIA



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

Difference in INSAT 3A CCD NDVI between 16th April and 23rd April 2015



- Decrease in NDVI was observed over Uttar Pradesh, Punjab, Haryana, Bihar and West Bengal and east Rajasthan, some parts in west Rajasthan and western MP. Moderate progress (up to 0.1) in NDVI was observed in Uttarakhand, Saurashtra and Kutch, Tamil Nadu, Odisha Maharashtra, Karnataka, Tamil Nadu, Telangana, eastern MP, Chhattisgarh and coastal Andhra Pradesh.

- INSAT 3A CCD NDVI composite maps for the week ending on 23rd April 2015 for different States are given below in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 29th April 2015

- Gradual rise in day temperatures over northwest, central and west India.

5 day Rainfall Forecast (MORNING)

24-April-2015

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

% Station Reporting Rainfall

% Stations	Category	% Stations	Category
76-100	Widespread (In/Many Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

Weather Warning during next 5 days

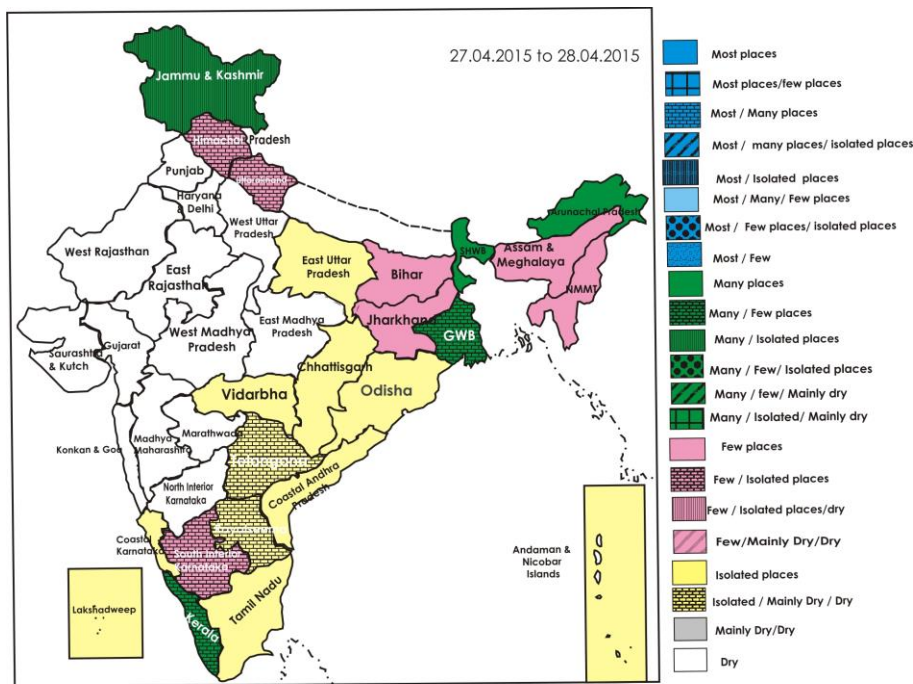
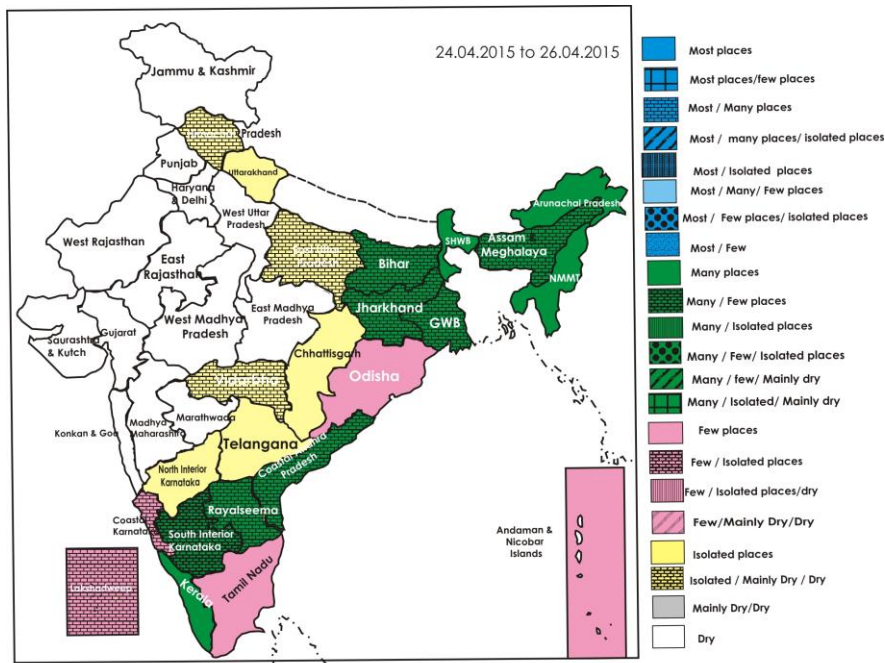
- 24 April (Day 1):** Heavy rainfall would occur at isolated places over Arunachal Pradesh, Assam & Meghalaya, Coastal Andhra Pradesh, Rayalaseema, South Interior Karnataka and Tamilnadu & Puducherry. Thunderstorms with squall/hail would occur at isolated places over West Bengal & Sikkim, Bihar, Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Odisha.
- 25 April (Day 2):** Thunderstorms with squall would occur at isolated places over Bihar, Jharkhand, West Bengal & Sikkim and Odisha.

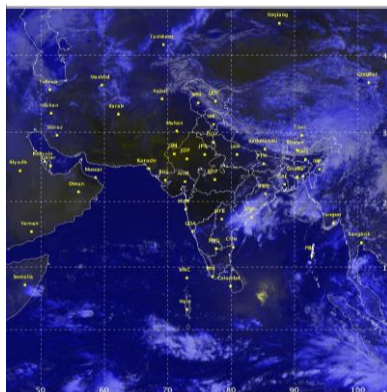
- **26 April (Day 3):** Thunderstorms with squall would occur at isolated places over Bihar, Jharkhand, Odisha and West Bengal & Sikkim.
- **27 April (Day 4):** Thunderstorms with squall would occur at isolated places over West Bengal & Sikkim and Odisha.
- **28 April (Day 5):** Thunderstorms with squall would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

Weather Outlook for subsequent 2 days From 29th April 2015 to 1st May 2015

- Rain/thundershowers would occur at a few places over western Himalayan region.
- Rain/thundershowers would occur at many places over northeastern states and at a few places over adjoining east India.
- Isolated to scattered rain/thundershowers would occur over peninsular India.

Weather Forecast Map (Valid upto 0830 hours of 29th April, 2015)





Salient Advisories

- As rain/thundershowers would occur at many places over **Arunachal Pradesh** during the period, over **Assam & Meghalaya** on 24th and 25th and over **Nagaland, Manipur and Mizoram & Tripura** 24th, 25th and 26th April along with heavy rainfall at isolated places over **Arunachal Pradesh, Assam & Meghalaya** on 24th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Keep the harvested produces at safer places. Provide adequate drainage in standing crop fields to avoid water stagnation in Arunachal Pradesh, Assam & Meghalaya.
- As thunderstorms with squall/hail would occur at isolated places over **Assam & Meghalaya, Nagaland, Manipur and Mizoram & Tripura** on 24th and thunderstorms with squall would occur on 28th April, it is advised to use hail net for orchard crops to protect from mechanical damage. Provide mechanical support to banana, vegetables and young fruit plants to prevent the crops from lodging due to strong winds.
- As thunderstorms with squall/hail would occur at isolated places over **West Bengal & Sikkim, Odisha, Bihar and Jharkhand** on 24th, thunderstorms with squall would occur at isolated places over **West Bengal & Sikkim and Odisha** from 25th to 27th April and over **Bihar and Jharkhand** on 25th and 26th April, it is advised to use hail net for orchard crops to protect from mechanical damage. Provide mechanical support to vegetables and young fruit plants to prevent the crops from lodging due to strong winds. Also undertake propping in sugarcane.
- As rain/thundershowers would occur at many places over **Bihar** on 25th, over **Jharkhand** on 26th, over **Kerala** during 24th to 27th, over **South Interior Karnataka and Rayalaseema** on 24th and 25th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of crops and keep already harvested produces at safer places.
- As heavy rainfall would occur at isolated places over **South Interior Karnataka, Tamilnadu, Coastal Andhra Pradesh and Rayalaseema** on 24th April, provide adequate drainage in standing crops to avoid water stagnation.
- Due to thunderstorm/squall / hail in North and North eastern districts of **Bihar** on 21st April, damage in standing crops have been reported. Damage in wheat and maize due to lodging and also in mango and litchi orchards is reported in Samastipur, Darbhanga, Madhubani, Saharsa, Madhepura, Katihar, Sitamarhi and Bhagalpur districts.
In view of the above, following advisories are suggested:
 - Drain out excess water from the crop fields and straighten the lodged plants and arrange for mechanical support. Collect dropped, infested fruit, branches & leaves from orchards and destroy it to avoid further spreading of pests / diseases.
- In **Kerala**, due to torrential rains on 21st April in Thiruvananthapuram and Palakkad districts, considerable damage has been reported in crop fields, especially in banana and vegetables. In banana, damage of plants as well as lodging was observed. Flooded situation in rice fallow lands (where most of vegetables are being raised) resulted in damping off in vegetables which may subsequently cause widespread rotting in vegetables crops. Summer rain also affected crops like banana, rubber, tapioca and vegetables in Palakkad district.
 - Farmers are advised to remove excess water from the fields and straighten the lodged plants and arrange for mechanical support. Farmers are also advised to remove the damaged plants and fruits and destroy them to avoid spread of diseases.

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 Bilaspur, Chamba, Kullu, Mandi, Shimla and Solan districts of Himachal Pradesh; Ambala and Kurukshetra districts of Haryana; Jalandhar, Kapurthala, Moga and Taran Taran districts of Punjab; Bageshwar district of Uttarakhand; Varanasi district of East Uttar Pradesh; all districts of Jammu & Kashmir except Jammu, Kathua, Ladakh(Leh), Samba and Udhampur. Weather remained mainly dry/dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Jammu & Kashmir on 28th; at a few places over Uttarakhand on 28th; at isolated places over East Uttar Pradesh from 25th to 28th, over Uttarakhand from 24th to 27th, over Himachal Pradesh from 25th to 27th and over Jammu & Kashmir on 27th. Dry weather would prevail over the region except Uttarakhand during rest of the period. Gradual rise in day temperatures over northwest India.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over western Himalayan region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - As rain/thundershowers would occur at many places over Jammu & Kashmir on 28th April, postpone irrigation to the standing crops. Harvest the matured crops immediately and keep at safer places.
 - In Sub Tropical Zone, continue sowing of summer moong and mash and nursery sowing/transplanting of tomato, brinjal, chillies and cucurbits. Undertake sowing of summer fodder (maize+cowpea+charri) and bajra.
 - In Intermediate and Valley Temperate Zone, undertake land preparation for nursery sowing of rice, summer raddish and continue sowing of tomato, brinjal, chilli, knolkhol, kale in low tunnels and planting of potato and continue transplanting of seedlings of cauliflower, cabbage, knolkhol and cucurbits.
 - Under prevailing humid weather, there may be attack of pod borer in chickpea in Intermediate Zone. To control, spray Cypermethrin @ 1.5 ml/1 liter of water or Chloropyriphos 20 EC @ 2 ml /litre of water on a non-rainy day and repeat the spray at 15 days interval, if required.
 - **Uttarakhand:**
 - Continue harvesting and threshing of timely sown matured wheat, lentil and barley crops in clear weather in Bhabar and Tarai Zone of Uttarakhand. Continue transplanting of tomato and sowing of lobia and maize.
 - In Hill Zone of Uttarakhand, continue planting of potato. Also undertake field preparation and sowing of millet, lobia, French bean, vegetables like tomato, capsicum, brinjal, cucurbitaceous crops etc.
 - Due to humid weather condition there is chance of powdery mildew in pea in Hill Zone. Spray, Carothin @ 0.05 % + Teapol @ 1g per litre of water. Also there is chance of blight in potato in valley region due to humid weather. For control, spray Diathane M-45@ 0.2%. Apply plant protection measures on a non-rainy day.
 - **Himachal Pradesh:**
 - In High hills regions of Sub-Montane and Low Hills Sub-Humid Tropical Zone, continue sowing of pea, French bean, palak, raddish, turnip and carrot and transplanting of cabbage, cauliflower and broccoli.
 - In mid hill areas of Sub-Montane and Low Hills Sub-Humid Tropical Zone, continue direct sowing of cucurbits or polytube nursery raising of cucumber, summer squash, bitter gourd, bottle gourd, ridge/sponge gourd and nursery sowing/transplanting of high yielding, bacterial wilt resistant varieties of tomato, brinjal, chilli, capsicum and cabbage. Continue harvesting of wheat, mustard and Gobhisarson in lower regions in clear weather.
 - Continue preparation for nursery raising of Chinese cabbage, spinach and sowing of coriander in polyhouses and sowing of peas in High Hill Dry Temperate Zone.
 - Due to hot weather condition, there is chance of appearance of tuber moth in potato in Sub-Montane and Low Hills Sub-Humid Tropical Zone. For control, spray Chlorpyriphos 20 EC @ 150 ml per 60 litres of water on non-rainy day.
 - Due to partly cloudy condition, there is chance of occurrence of leaf miner in pea Sub-Montane and Low Hills Sub-Humid Tropical Zone. For control, spray Methyl Demeton @ 1 ml per litre of water on a non-rainy day.
 - **Rajasthan:**
 - In Arid Western Plain Zone of Rajasthan, in view of rising temperature, provide frequent irrigation in summer

- vegetables, *zaid* fodder crops and small fruit plants. Also provide shade for young fruit plants and vegetables.
- In Flood Prone Eastern Plain Zone of Rajasthan also apply frequent and light irrigations to horticultural crops.
 - In South Eastern Humid Plain Zone of Rajasthan, continue harvesting and threshing of wheat and in Sub Humid Southern Plain and Aravali Hill Zone of Rajasthan, continue harvesting of wheat and barley.
 - In Irrigated Northwestern Plain Zone of Rajasthan, continue sowing of desi cotton and *zaid* moong and in Transitional Plain Zone of Rajasthan, continue harvesting of matured barley and wheat crops.
 - In Semi Arid Eastern Plain Zone of Rajasthan, in view of rise in temperature, farmers are advised to irrigate summer cucurbits, okra, *zaid* fodder crops and small fruit plants and undertake pruning and training in Ber.
 - In Semi Arid Eastern Plain Zone of Rajasthan, due to rise in temperature, there is a chance of attack of fruit fly in summer vegetables like bitter gourd, ridge gourd, muskmelon and watermelon; for control, spray Malathion 50EC @ 1.0 ml per litre of water.
 - In Flood Prone Plain Zone of Rajasthan, chilli and okra crop is affected by leaf curl and mosaic disease and likely to spread in the present weather. Spray Dimethoate 30EC @ 1.0 ml per litre water to control.
- **Punjab, Haryana and Delhi:**
 - In Western Semi-Arid Zone of Delhi, continue sowing of ladies finger, cucurbitaceous crops and nursery sowing of vegetables like chilli, tomato and brinjal. Complete the sowing of green gram.
 - Due to increase in temperature, apply light irrigation to all vegetables and fodder crops in Western Semi-Arid Zone of Delhi.
 - In Western Zone of Punjab, continue transplanting of summer vegetables *viz.* chilli, tomato and bell pepper and sowing of cucumber, bottle gourd, pumpkin, muskmelon, watermelon, bitter gourd. Undertake sowing of cotton.
 - In Central Plain and Western Plain Zone of Punjab, complete planting of sugarcane.
 - In Western Plain Zone of Punjab, continue transplanting of chilli and continue sowing of cotton.
 - In Western Zone of Haryana, continue transplanting of tomato and chilli. Continue sowing of desi cotton.
 - In the prevailing temperature, there is possibility of attack of mite in okra in Western Semi-Arid Zone of Delhi. Monitor the crop and spray Ethion @ 1.5-2 ml/litre of water.
 - **Uttar Pradesh:**
 - Continue harvesting of matured pea, chickpea, pigeon pea, gram, mustard, wheat, linseed, barley and lentil and sowing of ladies finger and moong, summer green fodder like maize, lobia in Central Plain Zone. Complete sowing of urad, moong and lobia, planting of sugarcane. Also continue nursery preparation for *kharif* onion.
 - Continue harvesting of mustard, linseed, rapeseed, safflower and wheat in Bundelkhand Zone and wheat, pea, gram, mustard in North Eastern Plain Zone. Continue sowing of jowar, lobia, maize and harvesting of wheat in Western Plain Zone.
 - In Eastern Plain Zone, continue planting of sugarcane and harvesting of rapeseed, gram, pigeon pea and wheat. Complete sowing of urad, moong and vegetables.
 - In Eastern Plain Zone, due to prevailing cloudy and humid weather condition, there are chances of attack of fruit fly on cucurbits, spray Imidachloprid 20EC @ 750 ml in 600 to 800 litres of water per hectre.
 - Due to prevailing cloudy and humid weather condition there is chance of attack of fruit borer on cucurbits like bitter gourd, ridge gourd in Central Plain Zone. For control, spray Neem oil @ 1.5 to 2.0 ml per litre of water three to four times at the interval of 8 to 10 days.
 - In North Eastern Plain Zone, due to prevailing cloudy and humid weather condition, there are chances of incidence of fungal and insect infestation in mango at flowering stage. To control, spray Quinalphos + Carbendazim @ 2.0 %, and also there are chances of incidence of top borer in maize; to control spray Imidachloprid 1.0%.
 - Suitable varieties for sowing are given in Annexure III.
 - **Horticulture**
 - Due to humid and cloudy weather condition, there is chance of attack of mango hopper in mango at flowering stage in Sub-Montane and Low Hills Sub-Humid Tropical Zone of Himachal Pradesh. For control, spray Imidachloprid or Carbaryl @ 0.036 % and repeat after 15 days on a non-rainy day.
 - Due to humid and cloudy weather condition peach leaf curl disease has been observed in orchards of stone fruits in Mild Hills Sub Humid Zone of Himachal Pradesh. Spray Hexaconazole @ 0.05% or Contaf/Hexole @ 100 ml/200 litres of water on a non-rainy day and repeat at 10 days interval.
 - **Floriculture**
 - Continue planting of the bulbs of gladiolus and rajnigandha in Sub-Montane and Low Hills Sub-Humid Tropical Zone of Himachal Pradesh. It is optimum time for raising nursery of summer annuals like gladiolus, portulaca, gomphrina and china aster etc.
 - **Animal Husbandry**
 - In Rajasthan, in view of prevailing high temperature, provide plenty of clean water and balanced nutrient rich feed to the milch animals and keep animals under shade during noon hours. Tie curtains on north-west side of poultry house to reduce the effect of hot winds.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane

Wheat

Okra

Onion

- **Realised Rainfall:** Weather remained dry/mainly dry over the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Chhattisgarh during the period. Dry weather would prevail over Madhya Pradesh during the period. Gradual rise in day temperatures over central India.
- **Weather Warning:** Nil.
- **Advisories:**
 - **Madhya Pradesh:**
 - In Kymore Plateau and Satpura Hill Zone of Madhya Pradesh, as dry weather is prevailing, apply irrigation to standing crops. Continue harvesting of late sown wheat.
 - Continue sowing of cucurbitaceous crops in Vindya Plateau Zone and sowing of summer moong in Bundelkhand Zone.
 - Due to partly cloudy weather, there are chances of attack of red pumpkin beetle in cucurbitaceous crops in Grid Zone and Malwa Plateau Zone; spray Quinolphos 25 EC @ 1 litre/ha or Propenophos 50 EC @ 800-1000 ml/ha in 500 litres of water.
 - Due to prevailing temperature condition, there are chances of attack of sucking pests, shoot and fruit borer in vegetables in Satpura Plateau Zone of Madhya Pradesh. For control of sucking pests, spray Imidacloprid @ 0.5ml/litre of water and for control of shoot & fruit borer spray Trizophos @ 800 ml/ha in 500 litres of water.
 - **Chhattisgarh:**
 - In Chhattisgarh Plain Zone, in view of prevailing dry weather and rise in temperature, apply irrigation at regular intervals to standing crops and mango orchards.
 - In North Hill Zone of Chhattisgarh, continue planting of spring sugarcane and complete sowing of summer moong, sesame and groundnut. Continue harvesting of onion and garlic.
 - Continue raising of saplings of papaya and custard apple in Bastar Zone.
 - Due to partly cloudy weather there are chances of attack of stem borer in summer rice in Chhattisgarh; spray Chlorophyriphos @ 1.5 ml /litre of water.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - In view of prevailing high temperature, provide plenty of clean water and balanced nutrient rich feed to the milch animals and keep animals under shade during noon hours in Madhya Pradesh and Chhattisgarh.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Banana

Sugarcane

Wheat

Mango

- **Realised Rainfall:** Rainfall occurred in Parbhani district of Marathwada; weather remained mainly dry over rest parts of Maharashtra. Weather was dry over Gujarat except over Surat district where it was mainly dry.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Vidarbha from 25th to 28th and dry weather would prevail on 24th. Dry weather would prevail over Madhya Maharashtra, Marathwada, Konkan & Goa and Gujarat during the period. Gradual rise in day temperatures over west India.
- **Weather Warning:** Nil.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, the mango fruits are at egg size stage and at maturity stage in some parts of the region. Harvest the

matured fruits during early morning or in late evening. Keep the harvested fruits in shade to prevent spongy tissue. Maintain water level upto 8-10 cm at grain formation stage of summer rice. To prevent mango fruit dropping due to increasing temperature, apply 150 – 200 litres of water per tree at 7 days interval. Also apply mulch with grass in lateritic soil to avoid the water loss. New graft and newly planted fruit crops may be protected from sun burn by erecting temporary shed.

- In Madhya Maharashtra, as no significant rain occurred during last week and dry weather is expected, apply irrigation to summer groundnut, maize, banana, grapes and vegetable crops. Also apply irrigation to sugarcane by alternate furrow method in water stress condition. Use mulch of crop residue for conservation of soil moisture. Protect the newly planted fruit crops from sunburn by providing shade. Undertake pruning in grapes.
- In Marathwada, apply irrigation to summer groundnut, sugarcane, orchard crops like banana, pomegranate, fig and vegetable crops in morning or evening hours. Apply micro irrigation like drip irrigation to sugarcane instead of flood irrigation and mulch with sugarcane trash to preserve soil moisture in the field. Continue harvesting of matured vegetables. Undertake pruning in grapes.
- In Vidarbha, in view of prevailing high temperatures (above 42⁰C), apply irrigation to water melon, musk melon, summer vegetables, summer groundnut and summer green gram. Maintain upto 5-7 cm water level in summer rice field (flowering / grain filling stage) in east Vidarbha.
- Due to cloudy weather in Konkan, there may be incidences of tea mosquito bug, aphids and thrips on tender cashewnut; spray 36 % Monochrotophos @ 15 ml per 10 litres of water.
- The rise in temperature in Pune region is congenial for attack of stem borer in *suru* sugarcane; use Phule Tricocard @ 2 per acre at 10 days interval.

▪ Gujarat:

- As high temperature conditions (max temp. 40-43⁰C) are likely to continue in North Saurashtra Zone apply light and frequent irrigation in groundnut (flowering / pegging stage), sesame (flowering stage) and vegetable crops. Undertake soil mulching or mulching with straw/polythene to conserve moisture.
- In view of high temperature condition in South Saurashtra Zone apply light and frequent irrigation in groundnut and sesame. Undertake soil mulching or mulching with straw/polythene to conserve soil moisture. Continue harvesting of matured castor spikes.
- Under dry weather and expected rise in temperature in Middle Gujarat Zone (max. temp.39-40⁰C) and in South Gujarat Zone (max. temp.40-41⁰C in Bharuch, Surat, Tapi districts), apply light irrigation in vegetable crops at regular intervals. Protect banana bunch with plastic sheet in South Gujarat Zone.
- In North Gujarat Zone and North West Zone continue harvesting of matured vegetable crops. As dry weather is expected complete threshing of castor spikes. Under expected high temperature conditions (max temp. 40-43⁰C) apply light and frequent irrigation in groundnut (pegging stage), pearl millet (tillering stage) and pomegranate, sapota, lemon and papaya orchards; cover papaya fruits using gunny bags. Undertake hand weeding and intercultural operations in green gram and groundnut.
- High temperatures (max. temp.39-40⁰C) are likely to continue in South Gujarat Heavy Rainfall Zone; spread dry leaves of sugarcane in between two rows of sugarcane to reduce evaporation from sugarcane field; apply irrigation in vegetable crops at regular intervals.
- Prevailing temperature condition is congenial for incidence of sucking pests in vegetable crops in Middle Gujarat Zone; spray Imidacloprid or Thiomethoxam @ 4 g per 10 litres of water for their control.
- Under present temperature conditions infestation of thrips, whiteflies and prodenia was observed in groundnut and sesame in North Saurashtra Zone. To control, spray Acetamiprid 20 % SP @ 5.0 g and Emamectin Benzoate 7 g / 10 litres of water.
- Suitable varieties for sowing are given in Annexure III.

• Animal Husbandry

- In Gujarat, as high temperatures are prevailing, grazing / feeding of cattle / goats may be done during morning / evening hours. Keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Also provide balanced feed & adopt vaccination schedule. Cover the roof of shed with paddy straw. Put curtains on west side of poultry house and sprinkle water on curtains during noon time. Avoid transportation of poultry birds during noon time.

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



- **Realised Rainfall:** Rainfall occurred in Changlang, Dibang Valley, East Siang, Lohit, Lower Dibang Valley, Papumpara, Tawang, Tirap, Upper Siang, West Kameng and West Siang districts of Arunachal Pradesh; all districts of Assam except Darrang; all districts of Meghalaya except South Garo Hills; Aizwal, Kolasib and Mamit districts of Mizoram; Imphal East, Imphal West and Thoubal districts of Manipur; Dimapur and Kohima districts of Nagaland; Dhalai, North Tripura and West Tripura districts of Tripura.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Arunachal Pradesh during the period, over Assam & Meghalaya on 24th and 25th and over Nagaland, Manipur, Mizoram & Tripura from 24th to 26th; at a few places over Assam & Meghalaya from 26th to 28th and over Nagaland, Manipur, Mizoram & Tripura on 27th and 28th.
- **Weather Warning:** Heavy rainfall would occur at isolated places over Arunachal Pradesh and Assam & Meghalaya on 24th April. Thunderstorms with squall/hail would occur at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 24th April and thunderstorms with squall on 28th April.
- **Weather Outlook:** Rain/thundershowers would occur at many places over northeastern states.
- **Advisories:**
 - As rain/thundershowers would occur at many places over Arunachal Pradesh during the period, over Assam & Meghalaya on 24th and 25th and over Nagaland, Manipur and Mizoram & Tripura 24th, 25th and 26th April along with heavy rainfall at isolated places over Arunachal Pradesh, Assam & Meghalaya on 24th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Keep the harvested produces at safer places. Provide adequate drainage in standing crop fields to avoid water stagnation in Arunachal Pradesh, Assam & Meghalaya.
 - As thunderstorms with squall/hail would occur at isolated places over Assam & Meghalaya, Nagaland, Manipur and Mizoram & Tripura on 24th and thunderstorms with squall would occur on 28th April, it is advised to use hail net for orchard crops to protect from mechanical damage. Provide mechanical support to banana, vegetables and young fruit plants to prevent the crops from lodging due to strong winds.
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Hill Zone of Assam, continue planting of banana, turmeric and sowing of maize after current spells of heavy rain.
 - In Lower Brahmaputra Valley Zone and North Bank Plain Zone of Assam, continue sowing of *kharif* maize after current spells of heavy rain.
 - In North Bank Plain Zone of Assam, continue sowing of *baorice* and planting of sugarcane, ginger and turmeric after current spells of heavy rain.
 - In Upper Brahmaputra Valley Zone of Assam, continue planting of sugarcane, banana, ginger and turmeric and sowing of maize and summer vegetables like ladies finger, bottle gourd, pumpkin, ridge gourd, cucumber etc. after current spells of heavy rain.
 - In Central Brahmaputra Valley Zone of Assam, complete sowing of normal direct seeded *ahurice*, *baorice* after current spells of heavy rain.
 - In Arunachal Pradesh, complete sowing of summer vegetables and undertake sowing of early sown WRC rice after current spells of heavy rain.
 - In Meghalaya, continue sowing of *jhum* rice after current spells of heavy rain.
 - In Barak Valley Zone of Assam, due to cloudy weather, there is chance of attack of stem borer on *bororice*. Spray Cholorphyriphos 50 EC @ 1.5 ml/ 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 *bororice*. Spray Mancozeb (Dithene M-45) @ 2 g/litre or Thiophenate Methyl @ 1 g/litre of water after current spells of rain.
 - **Manipur, Mizoram, Nagaland and Tripura:**
 - In Manipur, continue nursery bed preparation for *kharif* rice and land preparation for sowing of maize, soybean and groundnut.
 - In Mizoram, continue land preparation for planting of ginger and turmeric and nursery preparation for khasi mandarin.
 - In Nagaland, continue planting of ginger.
 - In Tripura, continue sowing of *jhum* rice. Maintain water level in the fields of boro Rice at 5 cm at all times during panicle initiation/ flowering stage.
 - In Tripura, due to cloudy weather, there is chance of attack of fruit & shoot borer in summer brinjal and tomato. To manage the attack, spray Cypermethrin @ 1.5ml or Flubendamid 0.5 ml per litre of water after current spells of rain.
 - Suitable varieties are given in Annexure III.
 - **Animal Husbandry:**
 - In Northeastern States, keep animals indoors during heavy rain, thunder storm and hail storm period.
 - In Meghalaya, due to humid weather, keep the poultry house well ventilated during day time and provide clean and fresh drinking water every day.

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



Sugarcane

Wheat

Rice

Onion

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands; West Midnapore district of Gangetic West Bengal; Cooch Behar, Darjeeling, Jalpaiguri, North Dinajpur, East Sikkim and North Sikkim districts of Sub-Himalayan West Bengal & Sikkim; Araria, Kishanganj, Rohtas and Supaul districts of Bihar. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Sub-Himalayan West Bengal & Sikkim during the period, over Gangetic West Bengal on 24th, 25th and 28th, over Jharkhand on 26th, over Bihar on 25th; at a few places over Andaman & Nicobar Islands and Odisha from 24th to 26th, over Gangetic West Bengal on 26th and 27th, over Jharkhand on 24th, 25th, 27th and 28th over Bihar on 24th and from 26th to 28th; at isolated places over Andaman & Nicobar Islands and Odisha on 27th and 28th.
- **Weather Warning:** Thunderstorms with squall/hail would occur at isolated places over West Bengal & Sikkim and Odisha from 24th to 27th April and over Bihar and Jharkhand from 24th to 26th April.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over east India adjoining to Northeast India.
- **Advisories:**
 - As thunderstorms with squall/hail would occur at isolated places over West Bengal & Sikkim, Odisha, Bihar and Jharkhand on 24th, thunderstorms with squall would occur at isolated places over West Bengal & Sikkim and Odisha from 25th to 27th April and over Bihar and Jharkhand on 25th and 26th April, it is advised to use hail net for orchard crops to protect from mechanical damage. Provide mechanical support to vegetables and young fruit plants to prevent the crops from lodging due to strong winds. Also undertake propping in sugarcane.
 - As rain/thundershowers would occur at many places over Bihar on 25th and over Jharkhand on 26th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Harvest the matured crops immediately and keep at safer places.
 - **West Bengal:**
 - As rain/thundershowers would occur at many places over Sub-Himalayan West Bengal & Sikkim during the period and over Gangetic West Bengal on 24th, 25th and 28th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Keep the harvested produces at safer places.
 - In Hill Zone of West Bengal, continue land preparation for sowing of ginger, gladiolus and okra utilising the realised and expected rain.
 - In New Alluvial Zone of West Bengal, continue land preparation and sowing of improved varieties of jute.
 - In Old Alluvial Zone of West Bengal, maintain 5 cm water in rice fields and complete planting of ginger and turmeric utilising the realised and expected rainfall.
 - In Hill Zone of West Bengal, in the prevailing humid weather condition, there is chance of attack of aphids and sawfly in mustard at flowering stage. To control aphids, spray Imidacloprid @ 2 ml/ 10 litres of water or Acetamiprid @ 2g / 10 litres of water and for control of sawfly apply Cartap Hydrochloride @ 1.5 g / litre of water. Undertake plant protection measures after current spells of rain.
 - In the prevailing hot & humid weather situation, there is a possibility of attack of leaf curl disease in sesame and anthracnose leading to black spot disease in mango in New Alluvial Zone of West Bengal. Uproot the infected plants. To control black spot in mango apply Tricyclazole @ 1 ml / litre of water after current spells of rain.
 - **Andaman and Nicobar Islands:**
 - In South, North & Middle Andaman and Nicobar, harvest matured green gram and black gram in clear weather. Apply fertilizer @ 25 kg of DAP/ha and vermicompost @ 2 tonnes/ha in vegetables on a non rainy day.
 - **Odisha:**
 - In East and South Eastern Coastal Plain Zone of Odisha, continue sowing of jute. Continue weeding and hoeing in summer pulses and early sown sesame. Undertake planting of okra.
 - In Western Undulating Zone of Odisha, continue harvesting of green gram, black gram and sunflower. The early transplanted onion crop is at bulb maturity to harvesting (15-16week) stage. Stop irrigating the crop 15 days before harvest.
 - In North Eastern Ghat Zone of Odisha, as mainly dry weather is prevailing, apply irrigation to green gram, groundnut, sesame, sugarcane and sunflower. Undertake planting of okra.
 - In North Central Plateau Zone, as mainly dry weather is prevailing, apply irrigation to summer rice, maize and

groundnut. Undertake planting of ginger.

- In North Eastern Plateau Zone of Odisha, maintain 5-6 cm of water in rice at flowering stage.
- In East and South Eastern Coastal Plain Zone of Odisha, YMV infestation has been found in summer pulses and likely to spread in the present weather. Spray Rogor @ 20 ml /10 litres of water to control the white fly on a non rainy day.
- In North Eastern Ghat Zone and East and South Eastern Coastal Plain Zone of Odisha, increase in temperature may favour the egg laying of stem borer in rice in the main field. To attract the borer butterflies, place 4 Pheromone Traps/acre, collect the adults and destroy them by burying them under soil or by burning. Spray Prophenophos @ 2 ml per litre water on a non rainy day.

▪ **Bihar:**

- Due to thunderstorm/squall /hail in North and North eastern districts of Bihar on 21st April, damage in standing crops have been reported. Damage of about 20-30% in wheat crop and 15-20% in maize crop due to lodging and also in mango and litchi orchards is reported in Samastipur, Darbhanga, Madhubani, Saharsa, Madhepura, Katihar, Sitamari and Bhagalpur districts.

In view of the above, following advisories are suggested:

- Drain out excess water from the crop fields and straighten the lodged plants and arrange for mechanical support. Collect dropped, infested fruit, branches & leaves from orchards and destroy it to avoid further spreading of pest/ disease.
- In North West Alluvial Plain Zone and South Bihar Alluvial Zone of Bihar, continue the transplanting of chilli crop at a distance of 50X30 cm.
- In South Bihar Alluvial Zone, complete the harvesting of wheat immediately in clear weather and keep at safer places for threshing.
- In South Bihar Alluvial Zone, maintain water level of 5-7cm in rice fields and undertake summer ploughing in the fallow fields to control weeds, pest and diseases.
- In North West 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. Also there is chance of attack of pod borer/leaf folder in mung/urad crop, spray Trizofos@ 1ml/litre of water after current spells of rain.
- In North East Alluvial Zone of Bihar, farmers are advised to monitor yellow stem borer in the *boro* rice field, to control, apply Fipronil 0.3% GR @ 20-25 Kg/ha after current spells of rain.

▪ **Jharkhand:**

- In North Eastern Plateau Zone, undertake cultivation of high yielding variety of summer maize in areas having irrigation facility and continue planting of ginger.
- In South Eastern Plateau Zone, complete sowing of summer moong.
- In Western Plateau Zone, maintain 3-5cm water level in transplanted rice fields.
- In Western Plateau Zone, present weather is congenial for infestation of fruit borer in brinjal and lady's finger. Monitor the crop and apply bioinsecticide like Halt, Delfin or Biolep @ 1.5 g per litre of water after current spells of rain.
- In North Eastern Plateau Zone , prevailing temperature and humidity is congenial for shoot borer in summer rice, for control, apply Carbofuran-3G @ 12kg or Forate -10G @4 kg/acre after current spells of rain.
- Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry**

- In West Bengal & Sikkim, Odisha, Bihar and Jharkhand, keep cattle/goats indoor during thunderstorm / squall / hailstorm period. Give lot of clean water to the animals and keep them in the shaded place during noon hours.

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



Sorghum



Sugarcane



Chilli



Rice

- **Realised Rainfall:** Rainfall occurred over all districts of Tamil Nadu except Ariyalur, Karaikal, Nagapattinam, Puducherry, Tiruvallur, Thiruvallur, Toothukudi and Villupuram; Dakshina Kannada and Udipi districts of Coastal Karnataka; Bengaluru Urban & Rural, Chamarajnar, Chikkamagaluru and Ramanagara districts of South Interior Karnataka; all districts of Kerala except Kasargod and Wynad; Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Coastal Andhra Pradesh on 24th, over Rayalaseema and South Interior Karnataka on 24th and 25th, over Kerala from 24th to 27th; at a few places over Tamil Nadu & Puducherry during the period, over Coastal Andhra Pradesh on 25th and 26th, over Rayalaseema on 26th, over

Coastal Karnataka on 24th and 25th, over South Interior Karnataka on 26th and 27th, over Kerala on 28th; at isolated places over Coastal Andhra Pradesh on 27th and 28th, over Telangana from 24th to 27th, over Rayalaseema on 27th, over Coastal Karnataka from 26th to 28th, over North Interior Karnataka from 24th to 26th, over South Interior Karnataka on 28th. Dry weather would prevail over Telangana and Rayalaseema on 28th, over North Interior Karnataka on 27th and 28th.

- **Weather Warning:** Heavy rainfall would occur at isolated places over Coastal Andhra Pradesh, Rayalaseema, South Interior Karnataka and Tamilnadu & Puducherry on 24th April.
- **Weather Outlook:** Isolated to scattered rain/thundershowers would occur over peninsular India.
- **Advisories:**
 - As rain/thundershowers would occur at many places over Kerala during 24th to 27th, over South Interior Karnataka and Rayalaseema on 24th and 25th April, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of crops and keep harvested produces at safer places.
 - As heavy rainfall would occur at isolated places over South Interior Karnataka, Tamilnadu, Coastal Andhra Pradesh and Rayalaseema on 24th April, provide adequate drainage in standing crops to avoid water stagnation.
 - **Andhra Pradesh:**
 - Prevailing temperature and cloudy conditions are congenial for incidence of smut in ratoon sugarcane in the North Coastal Zone. Spray Propiconazole @ 1 ml/litre of water twice at the time of ratooning and 30 days after ratooning to control smut incidence.
 - Due to unseasonal rains and hailstorm orchard crops and vegetables are affected in the Scarce Rainfall Zone during last week, undertake the following measures to prevent spreading of pest and diseases after current spells of rain:
 - Mango and sweet orange: Remove fallen fruits and broken branches and apply Bordeaux mixture @ 10 % and Carbendazim @ 1 g/litre of water on the cut portion of trees.
 - Pomegranate: Remove broken branches and apply 10 % Bordeaux mixture on the cut portion of trees. Drench the basin of the plant with Copper Oxy Chloride @ 30 grams/litre of water+ Streptocyclin 3g/10 litre of water. Fruits damaged by the hailstorms may be treated with Boric acid @2g/litre of water.
 - Banana and papaya: Undertake spraying of Carbendzim @ 1g/litre of water or Propiconazole @ 1g/litre of water and drench the basin of the plant with Copper Oxy Chloride @ 3 grams/litre of water.
 - Vegetables: Undertake spraying of Carbendzim @ 1gm/litre of water and 13-0-45 @ 5 g/litre of water.
 - Due to unseasonal rains during last week in the Southern Zone, there is possibility of damage in rice crop which is at milk to grain hardening stage. Remove excess water from the fields and for the rice at grain maturity stage, spray 5% salt solution to avoid viviparous germination.
 - Due to prevailing temperature conditions, brown plant hopper (BPH) incidence was noticed in rice fields in the High Altitude Tribal Zone. To control, spray Acephate @ 1.5 g or Monocrotophos @ 2.2 ml or Imidacloprid @ 0.25 ml or Thiamethoxam @ 0.2 g /litre of water after current spells of rain to prevent further spread of BPH.
 - **Telangana:**
 - Due to 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 @ 2 ml or Monocrotophos @ 1.6 ml + Carbendazim @ 1 g / litre of water.
 - Blast incidence is noticed in rice in some parts of Northern Telangana Zone due to prevailing temperature conditions. Spray Kusagamycin @ 2.5 ml/litre of water or Tricyclozole @ 0.6 g/litre of water or Isoprothialine @ 1.5 ml/litre of water.
 - **Karnataka:**
 - Continue planting of ginger and turmeric in the Southern Transition Zone.
 - Continue land preparation for sowing of pre-monsoon crops in the Southern Dry Zone. Undertake sowing of green manure crops and pulses like cowpea, green gram, black gram, horse gram, field bean etc. and sowing of jowar-CHS-5, jowar+redgram(2:1), groundnut+red gram(4:1 or 8:2) by using seed drill under rainfed situation.
 - Prevailing cloudy weather is congenial for incidences of sucking pests, thrips, and powdery mildew in mango in the Central Dry Zone and North Transition Zone. To control, undertake spraying of Carbaryl @ 4 g + 1 g Bavistin dissolved in one litre of water on a non rainy day.
 - Due to prevailing cloudy weather and rainfall, incidences of powdery mildew and sucking pests were noticed in mango crop at fruiting stage in the North East Transition Zone. To control, spray Carbaryl @ 4 g/litre of water + Bavistin @ 1 g/litre of water on a non rainy day.
 - **Kerala:**
 - In Kerala, due to torrential rains on 21st April in Thiruvananthapuram and Palakkad districts, considerable damage has been reported in crop fields, especially in banana and vegetables. In banana, damage of plants as well as lodging was observed. Flooded situation in rice fallow lands (where most of vegetables are being raised) resulted in damping off in vegetables which may subsequently cause widespread rotting in vegetables crops. Summer rain also affected crops like banana, rubber, tapioca and vegetables in Palakkad district.
 - Farmers are advised to remove excess water from the fields and straighten the lodged plants and arrange for mechanical support. Farmers are also advised to remove the damaged plants and fruits and destroy them to avoid spread of diseases.

- Undertake land preparation and seed treatment for sowing of dry seeded rice in rice fields in the Central Zone.
- In the High Altitude Zone, undertake planting of pepper and ginger, nursery preparation of cardamom and sowing of vegetables like bhindi, bitter gourd and amaranthus.
- In the High Altitude Zone, monitor rice for blast and sheath rot due to prevailing cloudy and humid weather conditions. To control, spray Pseudomonas @ 2.0 g in one litre of water after current spells of rain at weekly intervals.
- Humid weather is congenial for incidence of quick wilt disease in pepper in the Central Zone of Kerala. Apply Trichoderma or pseudomonas culture in soil or spray 1% Bordeaux mixture on the leaves and small branches after current spells of rain.
- **Tamil Nadu:**
 - Continue sowing of black gram and ADT 5 variety of black gram in the Cauvery Delta Zone.
 - Because of continuous rainfall in the Western Zone of Tamil Nadu, iron deficiency has been noticed in early season planted sugarcane. Spray 1% Ferrous Sulphate with 1% Urea after current spells of rain at 15 days interval. Undertake planting of late season sugarcane utilizing the realized and forecasted rainfall after current spells of heavy rain.
 - Incidence of pod borer, shoot and leaf webber is noticed in summer sesame due to prevailing hot and humid weather condition in the Cauvery Delta Zone of Tamil Nadu. To control this, spray Quinolphos 25EC @ 400 ml/acre or Neem oil 2% after current spells of rain.
 - In banana and coconut plantations in the High Rainfall Zone, proper drainage should be provided. Harvested banana bunches should be stored in safer places to prevent damage due to heavy rainfall forecast.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - Undertake vaccination in cattle for foot and mouth disease, black quarter, HaemorrhagicSepticaemia 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	08.04.15		15.04.15		22.04.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	106.7	-37	28.9	-71	53.4	-45
Dibang Valley	54.0	-54	13.0	-75	114.0	115
East Kameng	39.4	5	0.0	-100	0.0	-100
East Siang	118.6	162	40.2	5	60.0	26
Kurung Kumey	**	**	**	**	**	**
Lohit	111.6	1	34.0	-55	57.7	-19
Lower Dibang Valley	176.9	50	114.3	121	106.9	102
Lower Subansari	**	**	**	**	**	**
Papumpara	169.6	300	29.0	-30	34.1	-45
Tawang	110.0	697	78.0	216	57.0	26
Tirap	51.8	-25	28.6	-66	41.0	-28
Upper Siang	224.0	99	122.0	93	191.6	101
Upper Subansari	52.3	119	4.4	-74	13.0	-27
West Kameng	88.4	541	2.8	-89	28.0	-38
West Siang	38.0	-4	22.0	-56	20.5	-71
Assam&Meghalaya						
Assam						
Baksa	82.8	244	35.3	3	61.7	50
Barpeta	85.1	253	14.1	-59	26.4	-36
Bongaigaon	101.8	286	12.2	-63	27.4	-43
Cachar	163.6	200	45.1	-21	147.3	139
Chirang	94.4	258	55.8	67	94.0	96

Darrang	0.0	-100	**	**	**	**
Dhemaji	89.0	176	16.0	-52	21.0	-41
Dhubri	27.5	79	11.4	-52	53.2	18
Dibrugarh	113.5	141	27.1	-47	55.4	7
Goalpara	38.2	63	8.5	-79	43.3	-12
Golghat	62.4	160	2.9	-91	138.4	305
Hailakandi	208.7	422	14.2	-71	162.6	219
Jorhat	63.2	47	2.6	-94	109.7	140
Kamrup(Rural)	82.1	297	2.0	-94	63.5	55
Kamrup(Metro)	21.7	5	0.8	-97	111.2	171
Karbi Anglong	20.4	21	2.3	-89	50.1	63
Karimganj	163.5	119	19.3	-69	165.0	132
Kokrajhar	16.6	-38	30.9	-35	41.4	-9
Lakhimpur	104.2	224	26.0	-22	47.5	33
Morigaon	38.4	101	1.0	-96	64.6	138
N.C.Hills	122.2	235	0.0	-100	57.0	8
Nowgong	48.0	146	2.4	-91	46.0	38
Nalbari	59.3	73	0.0	-100	50.3	63
Sonitpur	83.0	223	0.5	-99	58.1	79
Sibsagar	75.5	240	17.1	-44	42.5	13
Tinsukia	106.2	86	39.1	2	83.5	65
Udalgiri	70.5	155	5.7	-87	55.5	47
Meghalaya						
East Garo Hills	53.8	29	46.0	12	138.1	264
East Khasi Hills	98.6	100	18.8	-72	111.1	42
Jaintia Hills	37.0	-40	8.0	-84	81.0	32
Ribhoi	23.1	52	1.6	-90	53.5	125
South Garo Hills	0.0	-100	**	**	**	**
West Garo Hills	14.8	-42	1.4	-94	74.6	56
West Khasi Hills	122.0	736	9.0	-64	118.0	210
NMMT						
Mizoram						
Aizwal	94.6	254	0.0	-100	127.4	202
Champhai	13.0	1	1.0	-96	1.0	-95
Kolasib	15.0	-57	3.0	-91	27.0	-39
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	63.0	136	8.0	-75	34.0	-19
Saiha	67.0	290	6.0	-61	13.0	-46
Serchhip	**	**	0.0	-100	0.0	-100
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	12.0	-51	0.0	-100	3.0	-83
Churachandpur	**	**	**	**	**	**
Imphal east	97.8	164	16.1	-53	34.0	6
Imphal west	140.1	375	62.0	194	202.4	547
Senapati	2.0	-95	0.0	-100	1.0	-97
Tamenglong	**	**	**	**	**	**
Thoubal	49.0	112	3.0	-90	37.0	49
Ukhrul	**	**	**	**	**	**
Nagaland						

Dimapur	31.2	57	4.5	-84	64.2	817
Kephire	**	**	**	**	**	**
Kohima	67.8	346	8.0	-59	40.0	125
Longleng	**	**	**	**	**	**
Mokokchung	**	**	**	**	**	**
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	4.0	-74	1.0	-95	0.0	-100
Tuensang	**	**	**	**	**	**
Wokha	6.0	-75	1.0	-96	0.0	-100
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	159.3	214	0.0	-100	34.0	-51
North Tripura	119.6	113	64.0	1	166.6	125
South Tripura	150.8	476	0.0	-100	17.4	-62
West Tripura	162.9	412	2.7	-92	68.3	23
Himachal Pradesh						
Bilaspur	42.2	798	0.2	-97	20.9	336
Chamba	91.8	533	4.4	-36	20.2	38
Hamirpur	45.4	683	0.0	-100	19.3	251
Kangra	53.6	392	0.4	-96	13.3	77
Kinnaur	29.6	29	0.0	-100	2.3	-87
Kullu	69.8	233	3.4	-83	21.8	21
Lahaul and Spiti	36.5	32	0.0	-100	9.0	-63
Mandi	51.8	359	6.8	-52	37.4	286
Shimla	38.3	239	1.4	-90	24.1	124
Sirmaur	20.3	534	0.0	-100	19.3	188
Solan	57.7	830	2.2	-71	20.6	174
Una	32.4	824	0.0	-100	6.3	142
Punjab						
Amritsar	4.4	-17	0.0	-100	15.9	194
Barnala	2.2	16	6.9	19	18.4	458
Bhatinda	7.2	243	0.0	-100	0.3	-82
Faridkot	42.1	1905	0.0	-100	0.0	-100
Fatehgarh Saheb	11.7	1067	0.0	-100	9.3	137
Ferozpur	8.6	197	0.5	-83	0.8	-49
Gurdaspur	44.3	769	0.0	-100	11.0	90
Hoshiarpur	10.2	143	0.0	-100	9.9	191
Jalandhar	18.6	540	0.0	-100	21.6	596
Kapurthala	19.8	662	0.0	-100	26.9	1395
Ludhiana	26.7	969	0.0	-100	17.3	423
Mansa	6.0	253	0.0	-100	6.9	360
Moga	10.1	359	0.0	-100	35.5	1379
Muktesar	20.4	920	0.0	-100	0.0	-100
Nawashahar	6.8	99	0.0	-100	12.5	443
Patiala	6.6	368	0.0	-100	10.5	398
Ropar	13.7	358	0.8	-82	14.9	203
Sangrur	22.8	988	1.8	-47	12.6	306
Mohali	4.2	147	0.0	-100	9.1	184
TarnTaran	42.0	1515	0.0	-100	21.7	486
Haryana,Chd,Delhi						

Haryana						
Ambala	9.9	520	0.0	-100	20.5	1608
Bhiwani	39.3	2523	2.7	71	1.0	-36
Chandigarh	7.3	172	0.0	-100	14.3	210
Faridabad	34.1	1074	5.5	206	0.0	-100
Fatehabad	9.2	317	0.0	-100	7.3	245
Gurgaon	15.7	1467	1.5	25	0.0	-100
Hissar	29.3	1175	1.6	-45	5.2	333
Jhajar	20.9	1296	0.4	-76	1.1	-47
Jind	25.1	1097	1.0	25	17.5	994
Katihah	11.5	1172	0.0	-100	12.8	814
Karnal	40.1	1903	0.1	-98	10.1	319
Kurukshetra	15.1	844	0.0	-100	24.0	549
Mahendragarh	22.8	1799	0.4	-67	0.0	-100
Mewat	23.5	1579	0.0	-100	0.0	-100
Palwal	40.5	2431	1.8	192	0.0	-100
Panchkkula	6.8	388	0.0	-100	7.3	182
Panipat	25.5	919	2.2	-21	2.2	-27
Rewari	45.8	3719	0.0	-100	0.0	-100
Rohtak	68.6	2441	0.0	-100	1.2	-33
Sirsa	16.8	1192	2.0	43	0.0	-100
Sonepat	39.7	1427	1.9	-25	0.6	-73
Yamunanagar	14.7	320	0.0	-100	7.6	161
Delhi						
Central Delhi	19.0	1088	3.0	-33	0.0	-100
East Delhi	26.0	1525	8.0	78	0.0	-100
New Delhi	28.5	1678	4.1	-9	0.0	-100
North Delhi	22.6	1313	4.0	-11	0.0	-100
North East Delhi	2.0	25	0.0	-100	0.0	-100
North West Delhi	4.0	150	3.0	-33	0.0	-100
South Delhi	29.9	1769	10.2	127	0.0	-100
South West Delhi	37.8	2263	9.7	116	0.0	-100
West Delhi	18.0	1025	5.0	11	0.0	-100
Jammu & Kashmir						
Anantnag	67.3	117	0.0	-100	66.4	159
Badgam	52.5	207	0.0	-100	50.5	155
Bandipore	**	**	**	**	**	**
Baramula	70.2	71	0.0	-100	72.1	63
Doda	94.0	263	0.0	-100	33.0	58
Ganderbal	80.7	320	0.0	-100	36.4	91
Jammu	96.5	1091	0.0	-100	17.8	224
Kargil	**	**	**	**	**	**
Kathua	71.8	424	0.0	-100	6.2	148
Kistwar	**	**	**	**	**	**
Kulgam	44.8	45	0.0	-100	80.2	212
Kupwara	87.1	94	0.0	-100	75.4	136
Ladakh(Leh)	1.2	-48	0.0	-100	5.3	194
Poonch	**	**	**	**	**	**
Pulwama	27.2	22	0.0	-100	48.6	110
Rajouri	124.6	1064	0.0	-100	29.0	282
Ramban	167.9	548	0.0	-100	48.1	130

Reasi	116.9	741	0.0	-100	31.4	220
Samba	51.0	530	0.0	-100	11.9	116
Shopian	**	**	**	**	**	**
Srinagar	51.3	167	0.0	-100	48.9	156
Udhampur	133.0	856	0.0	-100	6.7	-32
East Madhya Pradesh						
Anuppur	0.0	-100	6.1	178	0.0	-100
Balaghat	0.5	-81	31.9	3449	0.0	-100
Chhatarpur	1.3	10	40.7	5720	0.0	-100
Chindwara	0.0	-100	24.3	1421	0.0	-100
Damoh	0.0	-100	69.0	6173	0.0	-100
Dindori	0.0	-100	15.4	200	0.0	-100
Jabalpur	0.0	-100	22.1	4320	0.0	-100
Katni	0.0	-100	14.6	3538	0.0	-100
Mandla	1.5	-62	26.0	2500	0.0	-100
Narsingpur	0.0	-100	12.0	5900	0.0	-100
Panna	0.0	-100	27.7	5440	0.0	-100
Rewa	0.0	-100	7.7	2467	0.0	-100
Sagar	0.0	-100	18.5	3609	0.0	-100
Satna	0.1	-93	39.6	4300	0.0	-100
Seoni	0.0	-100	17.6	552	0.0	-100
Shahdol	0.0	-100	35.0	8650	0.0	-100
Sidhi	0.0	-100	20.4	10100	0.0	-100
Singrauli	0.0	-100	12.0	200	0.0	-100
Tikamgarh	7.5	1400	9.5	200	0.0	-100
Umaria	0.0	-100	4.6	475	0.0	-100
West Madhya Pradesh						
Agar	0.0	-100	8.6	200	0.0	-100
Alirajpur	0.0	-100	10.7	200	0.0	-100
Asoknagar	4.0	3900	25.8	200	0.0	-100
Badwani	0.0	-100	12.7	200	0.0	-100
Betul	0.0	-100	23.5	1370	0.0	-100
Bhind	0.0	-100	3.8	1775	0.0	-100
Bhopal	0.0	-100	1.6	129	0.0	-100
Burhanpur	0.0	-100	19.9	3887	0.0	-100
Datia	2.2	267	2.1	15	0.0	-100
Dewas	0.0	-100	21.8	7178	0.0	-100
Dhar	0.0	-100	8.2	8057	0.0	-100
Guna	7.6	1167	6.7	1563	0.0	-100
Gwalior	0.5	-55	4.8	300	0.0	-100
Harda	0.0	-100	30.5	4983	0.0	-100
Hosangabad	0.0	-100	10.4	643	0.0	-100
Indore	0.0	-100	8.6	200	0.0	-100
Jhabua	0.0	-100	16.2	16075	0.0	-100
Khandwa	0.0	-100	44.9	8887	0.0	-100
Khargone	0.0	-100	8.7	1637	0.0	-100
Mandsaur	0.0	-100	2.3	275	0.0	-100
Morena	0.0	-100	6.6	725	0.0	-100
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	0.0	-100	3.1	208	0.0	-100
Rajgarh	0.0	-100	5.8	5660	0.0	-100

Ratlam	0.0	-100	4.7	2233	0.0	-100
Sehore	0.0	-100	7.4	1380	0.0	-100
Shajapur	0.0	-100	6.0	900	0.0	-100
Sheopur Kalani	3.0	2900	1.0	-29	0.0	-100
Shivpuri	3.0	2900	0.0	-100	0.0	-100
Ujjain	0.6	200	22.9	200	0.0	-100
Vidisha	0.0	-100	1.7	1580	0.0	-100
Chhattisgarh						
Bastar	0.0	-100	19.6	277	2.1	-78
Bijapur	0.0	-100	16.6	403	0.7	-89
Bilaspur	1.1	-82	19.3	1034	7.9	174
Dantewara	0.0	-100	11.8	293	0.0	-100
Dhamtari	0.0	-100	10.7	365	1.9	16
Durg	0.0	-100	27.6	1623	2.4	63
Janjgir	0.0	-100	0.0	-100	**	**
Jashpurnagar	0.0	-100	2.0	-35	0.0	-100
Kanker	0.0	-100	2.0	-50	4.9	7
Korba	0.0	-100	8.0	321	0.0	-100
Koriya	0.0	-100	4.3	4150	0.0	-100
Kawardha	0.0	-100	0.0	-100	0.0	-100
Mahasumund	0.0	-100	36.5	2939	0.0	-100
Narayanpur	0.0	-100	3.5	-56	0.0	-100
Raigarh	0.0	-100	0.0	-100	**	**
Raipur	0.0	-100	19.8	943	1.7	-18
Rajandgaon	0.0	-100	7.6	375	0.0	-100
Surguja	0.3	-92	16.1	2583	6.8	208
East Uttar Pradesh						
Allahabad	4.4	529	26.7	8806	1.1	-21
Ambedkar Nagar	0.0	-100	38.0	9400	0.0	-100
Azamgarh	4.3	2033	37.8	2808	2.5	4
Bahraich	1.1	7	0.8	-11	0.0	-100
Ballia	1.6	306	0.8	60	0.0	-100
Balrampur	0.0	-100	0.5	-37	0.0	-100
Banda	3.7	309	13.4	2570	0.0	-100
Barabanki	0.0	-100	4.8	495	5.8	224
Basti	0.0	-100	15.2	2940	0.0	-100
Chandauli	0.0	-100	40.0	9900	5.1	240
Deoria	0.0	-100	0.0	-100	0.5	-84
Faizabad	0.0	-100	4.5	4400	3.0	30
Farrukhabad	1.6	-16	3.0	500	0.0	-100
Fatehpur	0.0	-100	7.1	1083	0.0	-100
Gazipur	7.3	3550	9.8	791	0.0	-100
Gonda	0.0	-100	1.0	43	0.0	-100
Gorakhpur	0.0	-100	0.3	-80	3.5	-38
Hardoi	10.1	430	5.8	5671	4.1	97
Jaunpur	6.8	1596	15.0	2392	0.0	-100
Kannauj	14.2	1675	3.1	675	0.0	-100
Kanpur City	0.0	-100	5.7	5617	0.0	-100
Kanpur Dehat	0.0	-100	12.8	200	0.0	-100
Kaushambi	0.0	-100	0.9	133	0.0	-100
Kheri	5.0	519	0.6	-33	7.5	240

Kushi nagar	0.0	-100	0.0	-100	0.0	-100
Lucknow	0.0	-100	15.1	7433	0.0	-100
Maharajganj	0.0	-100	0.5	-79	0.3	-93
Mau	0.0	-100	0.0	-100	0.0	-100
Mirzapur	0.3	-52	8.7	2067	2.5	127
Pratapgarh	0.3	150	10.0	9900	0.0	-100
RaiBareilly	0.1	-75	7.1	7000	0.1	-75
Sahuji Maharajnagar	12.0	650	31.5	15650	0.0	-100
Sant Kabirnnagar	0.0	-100	0.5	200	1.0	-33
Sant Ravidas Nagar	0.0	-100	9.0	2150	10.0	567
Shrawasti	0.0	-100	**	**	0.0	-100
Sidharthnagar	0.0	-100	0.0	-100	0.0	-100
Sitapur	2.5	178	16.5	1963	4.8	120
Sonbhadra	1.2	-41	4.2	950	3.7	69
Sultanpur	0.0	-100	5.7	616	0.0	-100
Unnao	0.0	-100	13.0	200	1.2	33
Varanasi	1.4	56	19.7	1873	25.1	1831
West Uttar Pradesh						
Agra	11.9	813	10.4	3380	0.5	-70
Aligarh	26.0	1900	1.9	211	0.0	-100
Auraiya	0.0	-100	0.0	-100	0.0	-100
Badaun	10.3	1048	0.0	-100	0.0	-100
Baghpat	26.8	2133	0.9	-50	0.5	-55
Bareilly	10.4	1627	0.0	-100	0.0	-100
Bijnor	13.2	387	0.4	-76	0.8	-53
Bulandsahar	14.0	1300	0.0	-100	0.0	-100
Etah	13.1	908	2.8	587	0.0	-100
Etawah	0.0	-100	4.3	2033	0.0	-100
Firozabad	6.1	408	24.5	8056	0.0	-100
GBNagar	12.0	900	31.0	3344	0.0	-100
Ghaziabad	11.7	587	1.4	24	0.0	-100
Hamirpur	3.2	533	5.0	4900	0.0	-100
Jalaun	1.1	62	1.5	650	0.0	-100
Jhansi	3.3	105	7.1	1663	5.5	323
Jotiba Phule Nagar	19.7	1057	2.0	567	0.0	-100
Kanshiramnagar	10.0	900	2.0	300	0.0	-100
Lalitpur	0.7	-44	21.0	2525	0.0	-100
Mahamaya Nagar	18.0	4400	9.5	1483	0.0	-100
Mahoba	4.4	1367	6.3	3050	0.0	-100
Mainpuri	2.7	78	10.9	2080	0.0	-100
Mathura	9.0	650	7.5	837	0.0	-100
Meerut	19.1	267	0.4	-71	0.0	-100
Moradabad	17.0	1596	0.6	60	0.0	-100
Muzzaffarnagar	11.7	682	5.4	440	0.0	-100
Pilibhit	3.6	294	0.0	-100	0.0	-100
Rampur	10.0	669	0.0	-100	0.0	-100
Saharanpur	11.0	630	1.0	-29	1.3	56
Shahjahanpur	4.4	335	0.1	-70	4.0	88
Uttarakhand						
Almora	41.8	894	8.4	14	3.2	-44
Bageshwar	36.8	775	10.3	40	36.0	532

Chamoli	28.6	225	2.1	-83	5.2	-47
Champawat	21.0	483	9.5	64	12.0	41
Dehradun	37.6	488	8.1	58	13.2	175
Garhwal Pauri	24.2	706	0.7	-83	6.5	23
Garhwal Tehri	22.0	178	2.1	-72	10.6	36
Haridwar	48.1	1822	0.0	-100	1.1	-68
Nainital	73.3	1828	9.7	119	11.9	116
Pithorgarh	44.9	591	3.6	-62	5.6	-51
Rudraprayag	28.6	229	2.2	-83	5.2	-56
Udham Sing Nagar	11.7	875	0.0	-100	0.4	-89
Uttarkashi	17.8	69	5.3	-56	6.6	-41
Bihar						
Araria	0.7	-50	1.1	-75	27.1	191
Arwal	8.7	1640	4.1	933	**	**
Aurangabad	4.6	363	9.8	1533	5.3	154
Banka	3.8	241	12.6	641	0.0	-100
Begusarai	4.1	578	35.3	8712	0.0	-100
Bhabua	4.8	586	19.5	6411	4.3	71
Bhagalpur	8.7	981	44.8	1501	8.3	-18
Bhojpur	4.3	378	**	**	1.6	-50
Buxar	**	**	**	**	**	**
Darbhanga	0.0	-100	17.7	531	12.5	140
East Champaran	0.0	-100	0.0	-100	0.0	-100
Gaya	3.7	429	5.0	519	7.2	167
Gopalganj	0.0	-100	0.0	-100	0.7	-80
Jahanabad	6.9	200	0.0	-100	0.0	-100
Jamui	6.2	928	0.0	-100	4.0	11
Kathihar	3.0	329	8.8	214	1.1	-90
Khagadia	5.6	200	49.4	4017	8.3	89
Kishanganj	1.5	-29	0.1	-98	57.6	260
Lakhisarai	10.8	1443	0.0	-100	0.0	-100
Madhepura	0.0	-100	2.3	-42	11.0	-13
Madhubani	0.0	-100	10.6	242	12.9	20
Monghyar	**	**	**	**	**	**
Muzaffarpur	0.1	-84	0.0	-100	5.1	21
Nalanda	8.0	1900	5.3	652	0.0	-100
Nawada	0.3	11	2.9	378	0.0	-100
Patna	4.1	917	0.3	-56	0.1	-98
Purnea	2.2	-10	1.3	-55	19.2	60
Rohtas	3.9	162	23.0	4500	34.0	1519
Saharsha	4.0	90	8.0	142	**	**
Samstipur	2.6	550	8.0	234	0.3	-90
Saran	5.2	1617	0.0	-100	0.0	-100
Sheikpura	1.6	220	2.2	330	**	**
Sheohar	0.0	-100	0.0	-100	**	**
Sitamarhi	0.0	-100	1.2	-68	0.0	-100
Siwan	7.3	7220	1.0	-17	**	**
Supaul	0.1	-89	16.5	649	22.1	146
Vaishali	1.9	200	0.0	-100	**	**
West Champaran	1.2	-23	5.8	224	7.2	18
Jharkhand						

Bokaro	7.7	236	0.9	-50	1.6	-70
Chatra	0.5	-67	14.1	200	2.1	62
Deoghar	16.1	1510	0.0	-100	5.4	46
Dhanbad	3.8	65	0.0	-100	7.9	57
Dumka	8.2	141	0.0	-100	**	**
East Singbhum	28.9	623	4.2	-18	15.8	68
Garhwa	0.0	-100	9.8	200	**	**
Giridih	5.4	127	11.8	354	14.3	131
Godda	5.1	744	74.3	3809	0.0	-100
Gumla	**	**	67.3	1626	**	**
Hazaribagh	3.6	157	16.6	1007	3.2	-33
Jamtara	14.9	211	3.5	215	1.8	-50
Khunti	2.0	-9	13.8	588	14.0	130
Koderrna	1.8	80	33.2	3220	**	**
Latehar	0.0	-100	26.5	3686	**	**
Lohardagga	0.0	-100	2.2	-37	**	**
Pakur	34.2	2040	8.0	70	0.0	-100
Palamau	1.3	-34	5.2	763	15.5	546
Ramgarh	19.0	555	0.0	-100	5.8	12
Ranchi	6.7	76	15.1	371	6.2	-8
Sahebganj	57.6	5660	50.4	3500	2.2	-48
Saraikela	11.4	200	2.7	-40	**	**
Simdega	0.0	-100	10.5	379	**	**
West Singbhum	7.4	106	62.2	2292	8.7	7
East Rajasthan						
Ajmer	6.3	3030	8.8	703	0.0	-100
Alwar	34.6	3750	0.9	-20	0.0	-100
Banswara	0.0	-100	3.0	1400	0.0	-100
Baran	4.6	2213	1.1	125	0.0	-100
Bharatpur	20.3	1930	7.5	1150	0.0	-100
Bhilwara	1.5	88	1.8	129	0.0	-100
Bundi	2.5	733	3.3	376	0.0	-100
Chittorgarh	0.2	-81	3.6	419	0.0	-100
Dausa	12.0	991	0.0	-100	0.0	-100
Dholpur	0.2	-72	13.2	2533	0.0	-100
Dungarpur	0.0	-100	7.1	6983	0.0	-100
Jaipur	21.2	2926	2.5	57	0.0	-100
Jhalawar	1.2	200	3.6	1100	0.0	-100
Jhunjhunu	40.1	2571	4.7	260	0.0	-100
Karauli	4.0	900	9.6	1494	0.0	-100
Kota	5.9	1070	10.1	1021	0.0	-100
Pratapgarh	0.0	-100	1.8	200	0.0	-100
Rajsamand	0.4	-29	1.1	27	0.0	-100
Sawai Madhopur	6.9	2192	3.8	188	0.0	-100
Sikar	35.1	3095	5.9	351	0.0	-100
Sirohi	0.4	300	9.5	1086	0.0	-100
Tonk	14.7	2836	7.5	525	0.0	-100
Udaipur	0.3	3	14.0	3391	0.0	-100
West Rajasthan						
Barmer	7.4	823	0.6	-25	0.0	-100
Bikaner	42.2	8331	1.2	7	0.0	-100

Churu	56.3	7939	0.1	-96	0.0	-100
Hanumangarh	28.6	3471	9.6	404	0.0	-100
Jaisalmer	13.8	1621	1.1	-18	0.0	-100
Jalore	0.0	-100	9.6	3088	0.0	-100
Jodhpur	19.2	1031	1.2	1	0.0	-100
Nagaur	38.3	6283	6.7	294	0.0	-100
Pali	2.2	175	1.8	200	0.0	-100
Sri Ganganagar	16.7	1095	7.6	231	0.0	-100
Gujarat Region						
Ahmedabad	0.0	-100	4.8	2281	0.0	-100
Anand	0.0	-100	7.8	200	0.0	-100
Banaskantha	0.0	-100	6.8	1036	0.0	-100
Baroda	0.0	-100	1.9	200	0.0	-100
Broach	0.0	-100	2.4	2344	0.0	-100
DNH	**	**	0.0	-100	**	**
Dahod	0.0	-100	2.5	1150	0.0	-100
Daman	0.0	-100	0.0	-100	0.0	-100
Dangs	0.0	-100	62.0	6789	0.0	-100
Gandhinagar	0.0	-100	4.3	200	0.0	-100
Kheda	0.0	-100	4.3	4200	0.0	-100
Mehsana	0.0	-100	5.7	2733	0.0	-100
Narmada	0.0	-100	11.3	200	0.0	-100
Navsari	0.0	-100	6.1	200	0.0	-100
Panchmahal	0.0	-100	3.1	1445	0.0	-100
Patan	0.0	-100	4.4	4329	0.0	-100
Sabarkantha	0.0	-100	8.5	8433	0.0	-100
Surat	0.0	-100	5.9	5750	0.3	200
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	8.4	200	0.0	-100
Bhavnagar	0.0	-100	5.3	200	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	0.0	-100
Junagarh	0.0	-100	4.5	200	0.0	-100
Kutch	0.0	-100	2.2	2054	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.0	-100
Rajkot	0.0	-100	0.3	67	0.0	-100
Surendranagar	0.0	-100	0.2	54	0.0	-100
Maharashtra & Goa						
Konkan & Goa						
Mumbai City	0.0	-100	1.4	200	0.0	-100
Mumbai Suburban	0.0	-100	0.0	-100	0.0	-100
North Goa	0.0	-100	0.0	-100	0.0	-100
Raigad	0.0	-100	0.0	-100	0.0	-100
Ratnagiri	0.0	-100	0.0	-100	0.0	-96
Sindhudurg	0.0	-100	0.0	-100	3.7	212
South Goa	0.0	-100	0.0	-100	0.0	-100
Thane	0.0	-100	0.0	-100	0.0	-100
Madhya Maharashtra						
Ahmednagar	0.0	-100	0.4	-82	0.0	-100

Dhule	**	**	**	**	**	**
Jalgaon	0.0	-100	11.3	1312	0.7	133
Kolhapur	0.0	-100	2.2	-63	0.5	-92
Nandurbar	**	**	**	**	**	**
Nasik	0.0	-100	7.4	828	0.5	-62
Pune	0.0	-100	4.9	173	6.2	342
Sangli	0.0	-100	13.1	190	2.4	-57
Satara	0.0	-100	4.6	58	6.1	127
Solapur	0.0	-100	8.7	210	1.4	6
Marathwada						
Aurangabad	0.0	-100	21.9	1895	0.7	-11
Beed	0.0	-100	37.2	1967	1.1	-22
Hingoli	**	**	30.7	1126	9.2	510
Jalna	0.0	-100	20.3	2159	2.0	119
Latur	0.0	-100	40.3	1290	2.8	1
Nanded	0.0	-100	44.5	1291	10.4	394
Usmanabad	0.0	-100	38.4	1498	2.8	151
Parbhani	0.0	-100	34.8	1480	20.6	986
Vidarbha						
Akola	0.0	-100	46.7	4145	0.1	-91
Amraoti	0.0	-100	15.0	1266	2.1	95
Bhandara	0.0	-100	27.5	1098	0.5	-80
Buldhana	0.0	-100	37.5	4592	1.5	53
Chandrapur	8.5	144	16.8	1101	0.2	-95
Gadchiroli	1.9	-42	18.4	608	1.7	-58
Gondia	1.3	-58	24.1	827	0.6	-75
Nagpur	0.0	-100	30.2	1579	1.5	-48
Wardha	0.0	-100	11.3	496	6.9	228
Washim	0.0	-100	33.0	1843	4.6	553
Yeotmal	0.0	-100	12.0	447	5.7	338
Odisha						
Angul	0.0	-100	7.8	110	0.8	-93
Balasore	24.4	141	2.2	-77	2.9	-84
Bargarh	0.6	-83	38.0	1167	0.0	-100
Bhadrak	3.4	-55	0.9	-92	0.0	-100
Bolangir	0.4	-94	29.8	645	0.4	-93
Boudh	0.0	-100	21.3	364	0.0	-100
Cuttack	0.5	-93	7.2	61	0.0	-100
Deogarh	4.7	34	9.1	598	0.0	-100
Dhenkanal	0.0	-99	21.9	283	0.6	-94
Gajapati	1.5	-90	32.5	480	18.7	-18
Ganjam	4.1	-54	3.0	-58	11.2	15
Jagatsingpur	0.0	-100	15.9	621	0.0	-99
Jajpur	0.0	-100	14.5	134	0.0	-100
Jharsuguda	0.0	-100	14.3	583	2.3	-65
Kalahandi	0.0	-100	16.8	408	7.8	23
Kandhamal	3.1	-64	15.1	228	12.9	54
Kendrapara	0.0	-100	19.3	320	0.0	-100
Keonjhar	1.8	-76	21.7	268	1.6	-83
Khurda	4.0	-48	1.7	-54	0.6	-90
Koraput	0.0	-100	23.0	147	18.3	30

Malkangiri	0.0	-100	15.2	88	0.0	-100
Mayurbhanj	10.4	-11	18.1	121	14.0	-16
Nawapara	12.0	79	46.1	1052	0.0	-100
Nawarangpur	0.0	-100	47.5	869	8.6	-71
Nayagarh	24.3	83	8.6	62	4.7	-33
Puri	0.1	-97	4.9	157	0.0	-99
Rayagada	9.5	-30	63.3	406	12.8	-19
Sambalpur	5.1	46	16.6	1173	0.0	-99
Sonepur	1.3	-66	19.7	838	0.3	-92
Sundargarh	0.0	-100	9.7	387	0.0	-100
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	3.1	-82	70.2	313	61.3	116
North & Middle Andaman	0.0	-100	25.3	261	45.6	330
South Andaman	0.0	-100	92.5	590	55.8	316
GWB						
Bankura	16.2	457	0.0	-100	4.8	-53
Birbhum	24.9	611	1.1	-73	13.5	57
Burdwan	24.9	379	0.0	-100	11.6	1
East Midnapore	10.4	44	8.0	122	1.0	-89
Hooghly	8.1	65	0.1	-99	6.9	-58
Howrah	20.1	196	0.0	-100	0.0	-100
Kolkata	25.6	256	0.0	-100	1.1	-93
Murshidabad	6.0	200	32.0	504	0.0	-100
Nadia	29.6	920	19.9	169	2.5	-77
24 Pargana (N)	24.2	538	4.0	-44	6.7	-54
Purulia	20.7	209	7.4	140	9.8	-9
24 Pargana (S)	23.8	162	2.0	-59	3.7	-70
West Midnapore	37.5	229	3.3	-65	22.5	48
SHWB & Sikkim						
Cooch Behar	33.7	134	5.8	-69	45.1	30
Darjeeling	28.1	64	20.5	-17	49.4	53
East Sikkim	62.0	91	57.2	18	33.1	-8
Jalpaiguri	56.2	431	18.5	4	53.7	89
Malda	27.3	992	30.0	445	9.9	-16
North Dinajpur	0.5	-71	3.0	173	23.2	32
North Sikkim	102.0	57	66.2	25	24.2	-54
South Dinajpur	11.7	77	8.6	21	15.5	-1
South Sikkim	4.7	-86	70.2	45	18.3	-49
West Sikkim	8.5	-87	67.5	28	6.0	-88
Karnataka						
Coastal Karnataka						
Dakshina Kannada	3.7	-47	16.6	102	30.4	262
Udupi	3.0	-27	2.4	-58	45.1	564
Uttara Kannada	0.3	-91	0.0	-100	5.6	52
N I Karnataka						
Bagalkote	0.0	-100	40.9	718	0.5	-91
Belagavi	0.0	-100	17.6	189	0.2	-97
Bidar	0.0	-100	70.6	1096	6.2	17
Dharwad	2.8	-49	0.0	-100	0.9	-91

Gadag	0.1	-98	8.9	15	0.4	-95
Haveri	0.0	-99	0.0	-100	3.2	-65
Kalaburgi	0.1	-99	80.8	1736	3.3	-16
Koppal	0.0	-100	24.8	491	4.6	-1
Raichur	0.0	-100	37.7	919	0.4	-91
Vijayapura	0.0	-100	28.6	483	10.6	212
Yadgir	0.0	-100	38.4	1063	1.0	-77
S I Karnataka						
Ballari	0.0	-100	36.8	546	2.9	-49
Bangalore Rural	1.6	-62	36.3	366	43.7	386
Bangalore Urban	0.2	-95	44.6	502	23.6	102
Chamarajanagar	12.5	49	35.4	159	23.5	7
Chikaballapur	0.0	-100	64.8	867	3.1	-54
Chikkamagaluru	6.1	-42	23.9	102	22.7	71
Chitradurga	0.5	-86	19.9	315	3.5	-38
Davangere	1.0	-78	18.2	139	10.6	68
Hassan	8.1	-7	35.7	237	10.3	-14
Kodagu	19.3	20	45.0	131	8.5	-57
Kolar	2.9	-34	46.6	1036	17.8	125
Mandya	4.3	-29	10.3	8	9.8	-12
Mysuru	16.8	151	26.8	116	9.7	-38
Ramanagara	7.9	44	57.2	606	23.7	98
Shivamogga	5.3	-9	4.8	-29	5.3	-41
Tumakuru	8.7	103	40.5	426	9.7	9
Kerala						
Alappuzha	37.7	27	53.2	73	104.6	301
Kannur	2.2	-69	16.8	16	41.1	180
Ernakulam	67.4	268	39.6	49	64.6	166
Idukki	23.8	-17	112.6	261	94.8	126
Kasaragod	3.8	6	16.3	63	17.3	57
Kollam	21.3	-31	83.4	149	132.8	268
Kottayam	44.9	41	47.0	33	124.8	385
Kozhikode	4.4	-59	40.3	89	22.6	18
Malappuram	16.4	9	41.0	105	59.7	187
Palakkad	27.5	43	47.9	106	63.7	180
Pathanamthitta	20.7	-47	160.3	302	165.2	269
Thiruvananthapuram	39.2	67	39.7	46	120.1	362
Thrissur	21.9	37	22.8	17	60.6	244
Wynad	40.2	170	37.1	104	13.2	-39
Tamil Nadu						
Ariyalur	2.8	-24	8.3	150	11.3	50
Chennai	0.0	-100	1.2	-55	38.1	806
Coimbatore	3.1	-58	32.0	205	48.1	167
Cuddalore	0.0	-100	4.6	53	21.1	270
Dharmapuri	1.3	-82	21.2	132	29.1	129
Dindigul	8.5	-24	46.4	290	63.6	236
Erode	9.0	37	14.0	61	45.2	242
Kanchipuram	0.0	-100	4.2	93	21.1	264
Kanyakumari	20.9	-18	29.6	28	103.8	346

Karikal	0.0	-100	76.7	936	2.9	7
Karur	0.0	-100	41.7	496	36.2	326
Krishnagiri	3.3	-31	25.5	255	44.1	267
Madurai	30.4	181	16.7	25	82.2	398
Nagapattinam	0.0	-100	18.0	361	18.1	121
Namakkal	7.4	31	26.5	208	43.2	235
Nilgiris	7.6	-55	36.7	89	43.9	96
Perambalur	0.0	-100	23.3	356	54.3	571
Puducherry	0.0	-100	37.8	922	0.8	-62
Pudukottai	0.0	-100	59.6	964	25.7	145
Ramanathapuram	2.6	-75	63.7	382	60.5	358
Salem	4.5	-55	28.2	163	53.6	253
Sivaganga	3.2	-66	32.4	212	69.3	445
Thanjavur	0.0	-100	19.5	237	26.9	195
Theni	4.2	-76	22.8	66	93.2	401
Tirunelveli	6.3	-68	27.5	65	65.9	322
Tirupur	5.2	-25	46.0	454	65.5	331
Tiruvallur	0.0	-100	23.9	820	6.9	69
Tiruvannamalai	0.0	-100	65.2	2148	21.7	214
Tiruvarur	1.1	-80	25.8	397	17.7	69
Toothukudi	5.9	-62	11.4	-10	10.9	-4
Trichy	0.0	-100	30.9	268	44.1	293
Vellore	2.3	-37	53.1	1612	20.5	194
Villupuram	0.0	-100	33.5	982	10.1	102
Virudhunagar	3.4	-78	8.1	-47	44.2	162
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	5.0	118	3.5	-61
Guntur	0.0	-100	7.8	225	3.7	-40
Krishna	0.0	-100	21.2	960	0.0	-100
Nellore	0.2	-88	35.1	3408	6.9	23
Prakasam	2.0	-7	14.4	861	1.5	-73
Sirkakulam	0.0	-100	10.6	130	6.5	11
Visakhapatnam	0.0	-100	6.4	-13	13.9	2
Vizianagram	0.0	-100	5.2	1	2.9	-75
West Godavari	0.0	-100	3.9	36	0.9	-87
Rayalaseema						
Anantapur	0.5	-75	52.8	1365	1.1	-81
Chittoor	1.1	-69	46.7	1316	14.1	70
Cuddapah	0.7	-54	56.0	2235	2.9	-46
Kurnool	0.0	-99	25.3	603	1.7	-67
Telangana						
Adilabad	1.9	-35	36.1	1288	5.1	60
Hyderabad	3.0	-27	48.8	1120	0.0	-100
Karimnagar	10.4	168	30.0	758	1.3	-68
Khammam	0.0	-100	24.4	467	5.9	-26
Mehabubnagar	0.0	-100	42.1	1215	2.1	-43
Medak	0.4	-89	45.0	857	0.5	-89
Nalgonda	0.8	-77	31.6	1656	0.0	-100

Nizamabad	3.1	-8	71.3	1998	2.8	-11
Rangareddy	1.7	-41	62.6	1104	2.2	-54
Warangal	0.6	-78	38.9	922	7.5	54

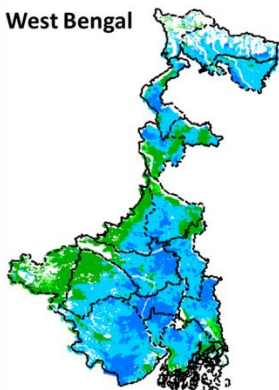
Legends

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

Annexure II

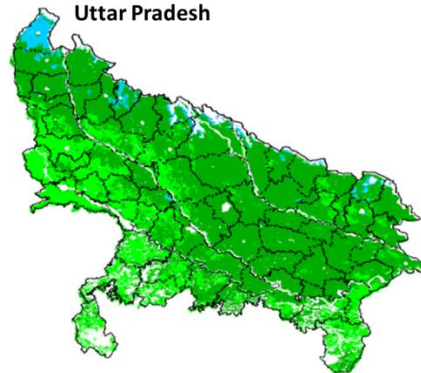
INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON 23rd April 2015 FOR DIFFERENT STATES

West Bengal



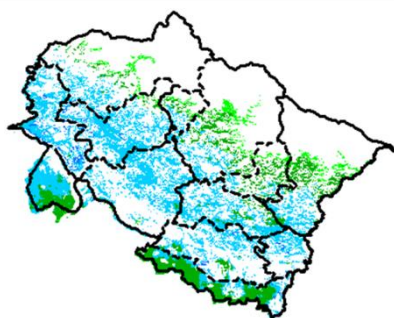
Agricultural vigour is good over most of the central parts of West Bengal, whereas southern part show higher values of NDVI varying from 0.4-0.5. NDVI values are normal over south western part of state.

Uttar Pradesh



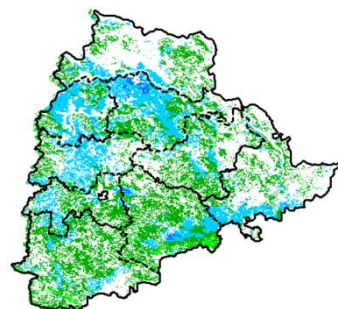
Agricultural vigour is normal over the entire state of Uttar Pradesh where NDVI values varies from 0.2 -0.4. In north western part NDVI shows higher values with 0.4-0.5.

UTTARAKHAND



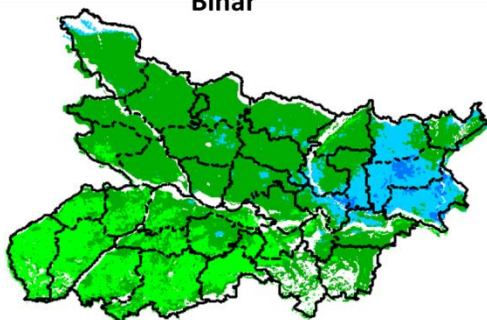
Agriculture vigour is good over central parts of Uttarakhand with NDVI values varying between 0.4-0.5. Whereas, isolated patches with normal values of NDVI are observed over remaining parts of the state.

Telangana



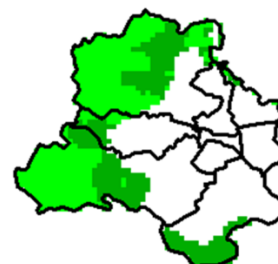
NDVI values vary from 0.2 - 0.5 over Telangana. Higher (> 0.4) values are seen over central and south-eastern parts of Telangana.

Bihar



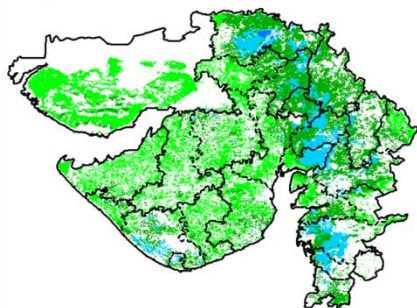
Eastern part of Bihar shows comparatively a high values (0.4-0.6) of NDVI, Where as normal values of NDVI are observed over the remaining parts of the state.

Delhi



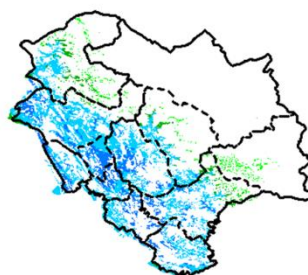
Agriculture vigour is normal all over Delhi where NDVI values lies between 0.2-0.3.

Gujarat



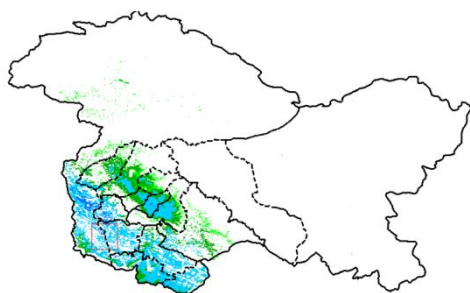
Agriculture vigour is good over central part of Gujarat where NDVI values lies between 0.4-0.5. Whereas normal NDVI is observed in Kutch and Saurashtra.

Himachal Pradesh



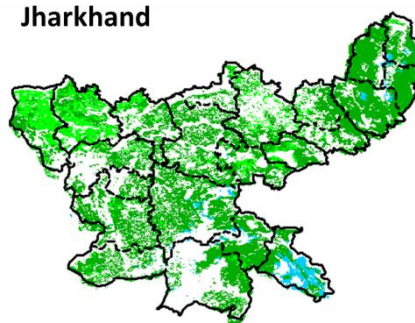
Agriculture vigour is good over southern and south western parts of Himachal Pradesh with NDVI values varying between 0.4-0.5. Whereas, isolated patches of normal NDVI are observed over central parts of the state.

Jammu - Kashmir



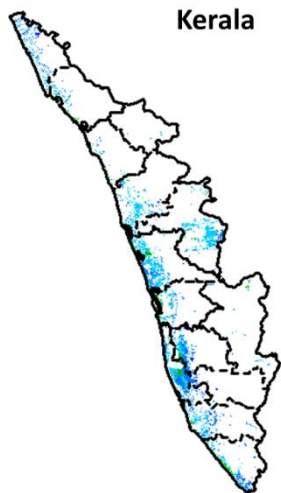
Agriculture vigour is normal all over Jammu and Kashmir. NDVI values vary in between 0.4-0.5 in south western parts.

Jharkhand



Agriculture vigour is normal (0.2-0.3) over entire state of Jharkhand except south eastern district of state shows increased NDVI values from 0.4-0.5.

Kerala



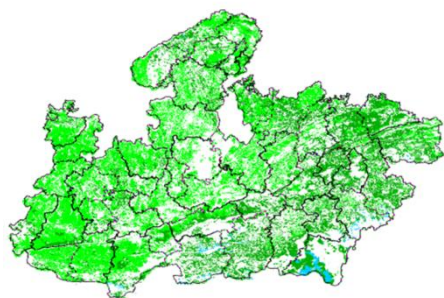
Central and coastal regions of Kerala shows NDVI values are varying from 0.3 to 0.5, whereas rest of agricultural vigour of Kerala shows good values of NDVI.

Haryana



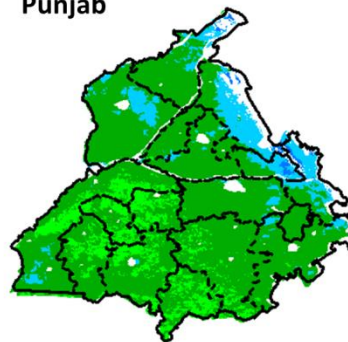
Agriculture vigour is normal over the state. NDVI values varies between 0.2- 0.3 over the state. Except few patches in northern part shows NDVI values between 0.4-0.5.

Madhya Pradesh



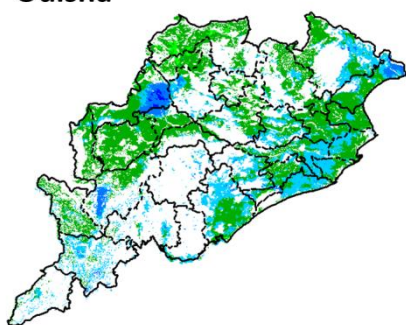
Agriculture vigour is normal (0.2-0.3) over entire state Madhya Pradesh.

Punjab



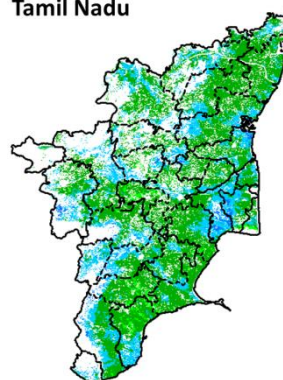
Agricultural vigour is normal over entire state of Punjab except Northern part shows comparatively high NDVI values ranges from 0.4-0.5.

Odisha



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

Tamil Nadu



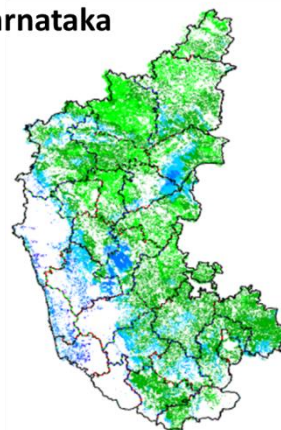
Agricultural vigour is normal over Tamil Nadu with NDVI values varying from 0.3 - 0.5. In the coastal and western parts NDVI values varies between 0.4-0.5.

Chhattisgarh



Agriculture vigour is good in central part of Chhattisgarh where NDVI values lies in between 0.4-0.5. NDVI values are

Karnataka

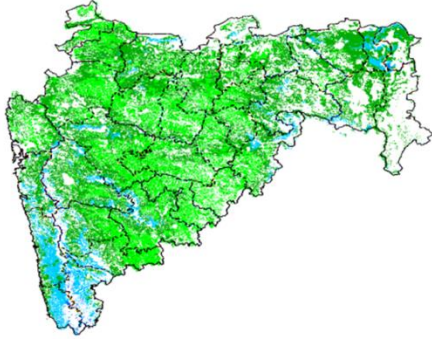


Agriculture vigour is good over some pockets of western coastal parts of Karnataka which lies in between 0.4-0.5. Rest of the parts shows normal NDVI values vary up to

normal over rest of the state.

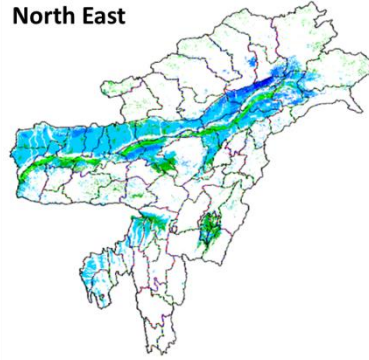
0.2-0.4

Maharashtra



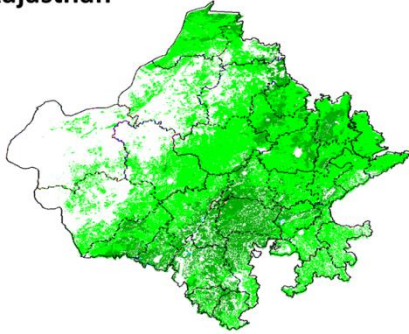
Agricultural vigour is good over south west part with NDVI values of 0.4 - 0.5. Whereas, NDVI is moderate over parts of Marathwada, Vidarbha and Madhya Maharashtra region.

North East



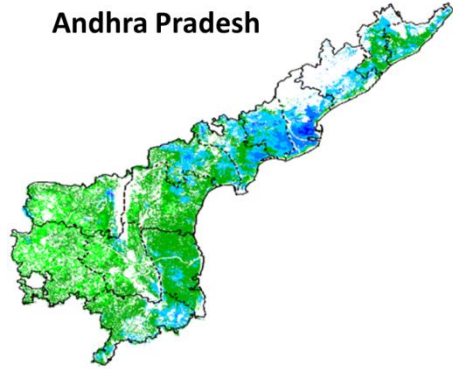
Agriculture vigour is good in valleys of hilly range of North-East states which covers part of Assam. NDVI values vary from 0.4-0.6 in this region. Normal NDVI conditions are observed all over NE region.

Rajasthan

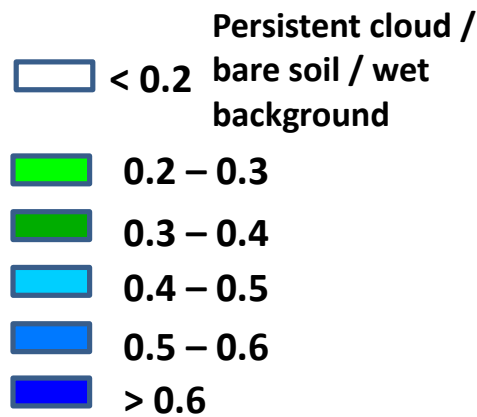


Agriculture vigour is normal (0.2-0.3) over entire state Rajasthan.

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.



Annexure III List of varieties

Karnataka

Sugar-cane: Co-86032, Co-94012

Tamil Nadu:

Irrigated sesame: TMV 4, TMV 6 and SVPR 1

Cotton: MCU-5, Surabhi and SVPR-2

Assam

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

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

Bau rice: Maguri, Panikekua, Amona, Negheri.

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

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

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

Sunflower: Jwalamukhi.

Okra : Pusa Sawani, Arka Anamika, Parbhdani Kranti.

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

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.