



National Agromet Advisory Service Bulletin



Thursday 24th September 2015
(For the period 24th to 29th September 2015)

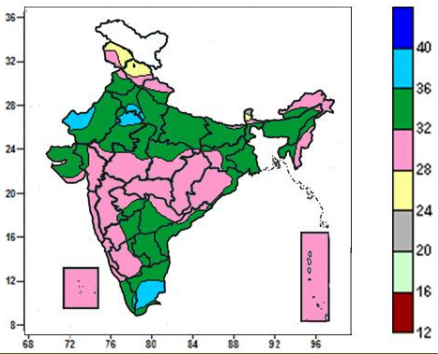
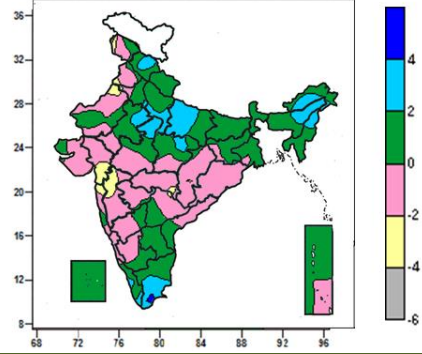
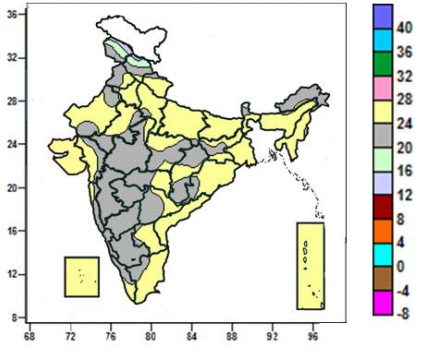
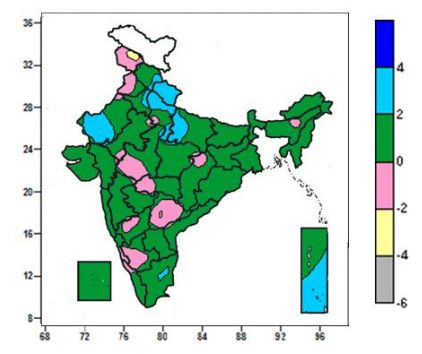


Issued by
National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.

Monsoon Watch

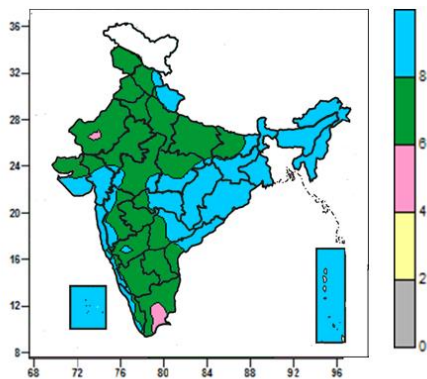
- Southwest monsoon was Vigorous over Jammu & Kashmir, Punjab, Himachal Pradesh and Assam Meghalaya; active over Uttarakhand, Bihar, Jharkhand, Gangetic West Bengal, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura during past 24 hours ending at 0830 hours IST of yesterday.
- The withdrawal line of southwest monsoon continues to pass through Amritsar, Hissar, Ajmer and Barmer.

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 23.09.2015

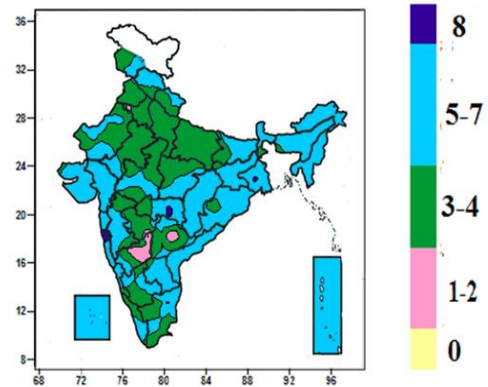
Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 23.09.2015	Mean Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 23.09.2015
	
<ul style="list-style-type: none"> • Mean maximum temperature was between 36 to 40$^{\circ}\text{C}$ over some parts Tamil Nadu, Rajasthan and isolated pockets of Haryana. • It was below 36$^{\circ}\text{C}$ over remaining parts of the country. 	<ul style="list-style-type: none"> • Mean maximum temperature was above normal by 4$^{\circ}\text{C}$ and above over isolated pockets of Tamil Nadu. • Mean maximum temperature was above normal by 2 to 4$^{\circ}\text{C}$ over many parts of East Uttar Pradesh, Nagaland, some parts of Himachal Pradesh, West Uttar Pradesh, East Rajasthan, Arunachal Pradesh, Assam & Meghalaya, West Madhya Pradesh, Tamil Nadu and isolated pockets of Haryana, East Madhya Pradesh and Kerala. • Mean maximum temperature was below normal by 2 to 4$^{\circ}\text{C}$ over some parts of Gujarat region, Madhya Maharashtra and isolated pockets of Jammu & Kashmir, Punjab, West Rajasthan, Konkan, Vidarbha and Marathwada. • It was normal to near normal in remaining parts of the country.
Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 23.09.2015	Mean Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 23.09.2015
	
<ul style="list-style-type: none"> • Mean minimum temperature was between 12 to 16$^{\circ}\text{C}$ over isolated pockets of Jammu & Kashmir, Himachal Pradesh. • Mean minimum temperature was between 16 to 20$^{\circ}\text{C}$ over some parts of Jammu & Kashmir, Himachal Pradesh. • It was above 20$^{\circ}\text{C}$ over rest of the country. 	<ul style="list-style-type: none"> • Mean maximum temperature was above normal by 2 to 4$^{\circ}\text{C}$ over Uttarakhand, many parts of West Uttar Pradesh and Andaman & Nicobar Islands, some parts of West Rajasthan, East Uttar Pradesh and isolated pockets of Himachal Pradesh, Madhya Pradesh, Haryana & Delhi and Tamil Nadu. • Mean maximum temperature was below normal by 2 to 4$^{\circ}\text{C}$ over isolated pockets of Jammu & Kashmir. • It was normal to near normal in remaining parts of the country.

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 23.09.2015

Relative Humidity (%) over India for the week ending 23.09.2015



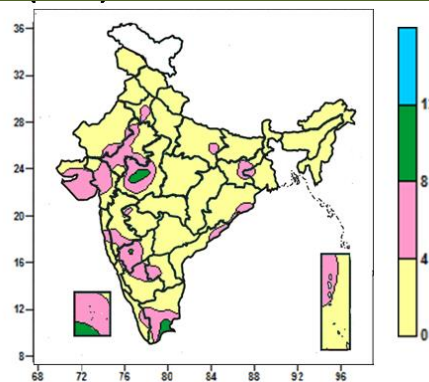
Cloud amount (okta) over India for the week ending 23.09.2015



- Mean Relative humidity was above 80% over North East India, Jharkhand, West Bengal & Sikkim, Chhattisgarh, Odisha, Konkan & Goa, Lakshadweep, Andaman & Nicobar Island, many parts of Uttarakhand, Gujarat region, Saurashtra, Vidarbha, Coastal Karnataka, Coastal Andhra Pradesh, some parts of Bihar, East Madhya Pradesh, Madhya Maharashtra, Telangana, Kerala and isolated pockets of Himachal Pradesh, East Uttar Pradesh, East Rajasthan, West Madhya Pradesh and North Interior Karnataka.
- Mean Relative humidity was 60 to 80% over rest of the country except some parts of Tamil Nadu and isolated pockets of West Rajasthan where it was 40 to 60%.

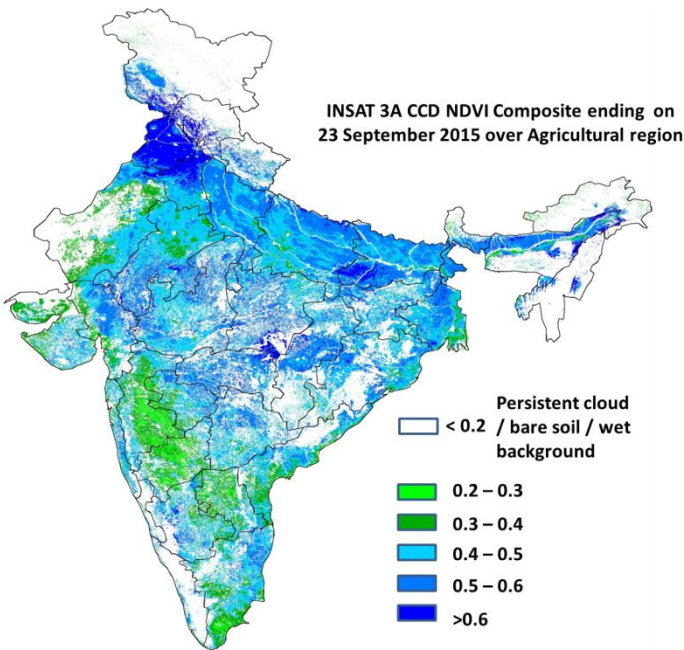
- Sky remained cloudy (8 okta) over isolated pockets of Gangetic West Bengal, Konkan and Vidarbha.
- Sky remained generally cloudy (5-7okta) over Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Sikkim, Chhattisgarh, Coastal Andhra Pradesh, Lakshadweep, Andaman & Nicobar Island, many parts of Himachal Pradesh, Bihar, West Bengal, Jharkhand, Odisha, Gujarat, Rayalaseema, Konkan & Goa, Madhya Maharashtra, Vidarbha, Tamil Nadu, some parts of Jammu & Kashmir, Rajasthan, Madhya Pradesh, Karnataka, isolated pockets of Uttarakhand, Marathwada, Telangana and Kerala.
- Sky remained partly cloudy/mainly clear (3 to 4/ 1 to 2 okta) over rest of the country.

Wind speed (knots) over India for the week ending 23.09.2015



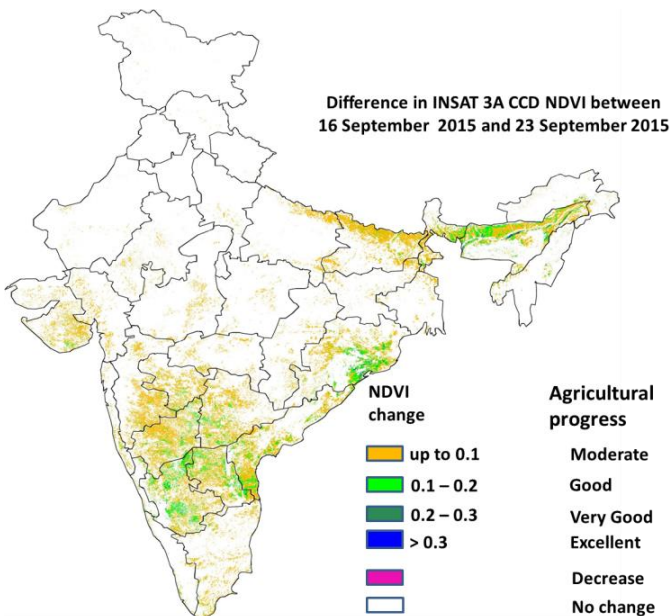
- Mean wind speed was 8 to 12 knots over isolated pockets of Wes Madhya Pradesh, Lakshadweep and Tamil Nadu.
- Mean wind speed was 4 to 8 knots over many parts of East Rajasthan, Saurashtra & Kutch, Gujarat region, West Madhya Pradesh, North Interior Karnataka, Tamil Nadu, Lakshadweep, some parts of Haryana & Delhi, Jharkhand, Madhya Maharashtra South Interior Karnataka, Rayalaseema, and Andaman & Nicobar Islands, and isolated pockets of East Uttar Pradesh, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh, West Rajasthan, Konkan, Marathwada and Kerala.
- It was less than 4 knots over rest of the country.

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



- Agricultural vigour is very good (NDVI > 0.6) over Punjab, Haryana and in some patches of Uttar Pradesh, Bihar and Madhya Pradesh. Agricultural vigour is good over Uttar Pradesh, Bihar, East Rajasthan, Madhya Pradesh, Coastal Andhra Pradesh, Jharkhand, Odisha, West Bengal, Vidarbha, Marathwada, Gujarat, Telangana, South Interior Karnataka and Tamil Nadu where NDVI varies from 0.4 to 0.6. Agricultural growth was moderate 0.2 to 0.3 over most parts of Madhya Maharashtra and North Interior Karnataka.

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



- Good change in NDVI (0.1 - 0.2) was observed over Coastal Odisha, patches of South Interior Karnataka, Tamil Nadu and Andhra Pradesh. Moderate progress (up to 0.1) in NDVI was observed over some patches of Madhya Maharashtra, North Interior Karnataka, Bihar, Telangana, Saurashtra and Tamil Nadu.

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

**5 Day Rainfall Forecast (MORNING)
24th September 2015**

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

% Station Reporting Rainfall

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

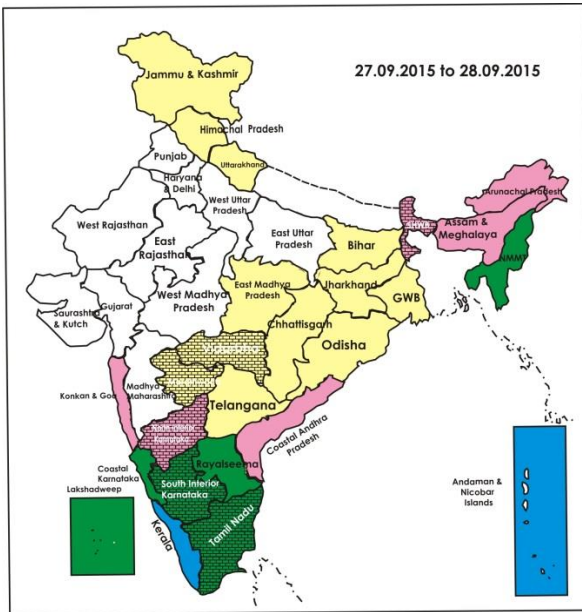
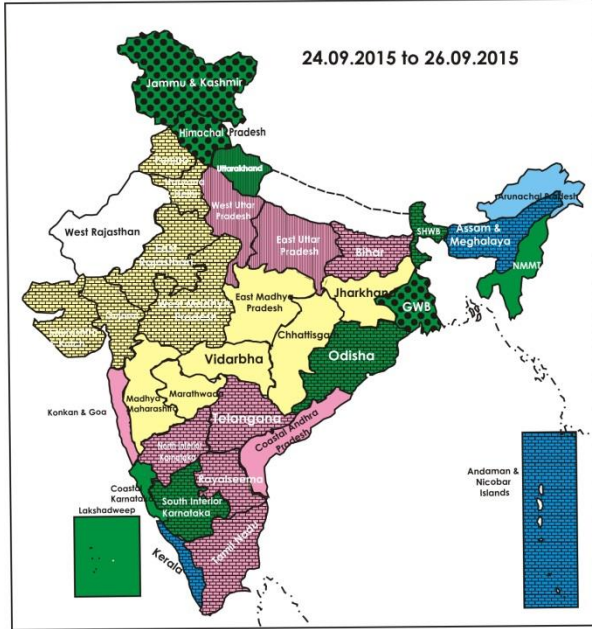
Weather Warning during next 5 days

- **24 September (Day 1):** Heavy to very heavy rainfall would occur at isolated over Assam & Meghalaya. Heavy rainfall would occur at isolated places over Jammu & Kashmir, Himachal Pradesh, Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim and Nagaland, Manipur, Mizoram & Tripura.
- **25 September (Day 2):** Heavy rainfall would occur at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- **26 September (Day 3):** Heavy rainfall would occur at isolated places over Interior Tamilnadu, Coastal Karnataka, South Interior Karnataka, Kerala and Andaman & Nicobar Islands.
- **27 September (Day 4):** Heavy rainfall would occur at isolated places over Andaman & Nicobar Islands and Kerala.
- **28 September (Day 5):** Heavy rainfall would occur at isolated places over Andaman & Nicobar Islands and Kerala.

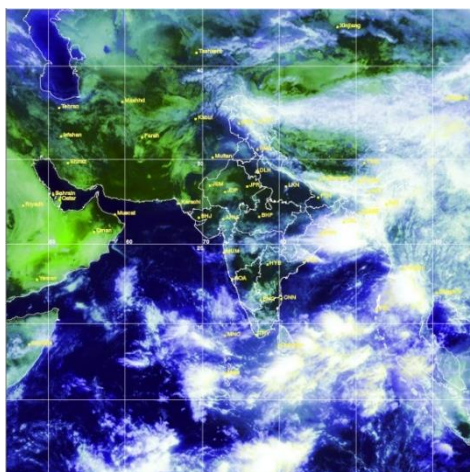
Weather Outlook for subsequent 2 days from 29th September to 1st October 2015

- Rain/thundershowers would occur at many places with isolated heavy to very heavy falls over Andaman & Nicobar Islands.
- Rain/thundershowers would occur at a few places over peninsular India.

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



- Most places
- Most places/few places
- Most / Many places
- Most/many places/ isolated places
- Most / Isolated places
- Most / Many/ Few places
- Most / Few places/ isolated places
- Most / Few
- Many places
- Many / Few places
- Many / Isolated places
- Many / Few/ Isolated places
- Many / few/ Mainly dry
- Many / Isolated/ Mainly dry
- Few places
- Few / Isolated places
- Few / Isolated places/dry
- Few/Mainly Dry/Dry
- Isolated places
- Isolated / Mainly Dry / Dry
- Mainly Dry/Dry
- Dry



Salient Advisories

- As rain/thundershowers would occur at most/many places over **Assam & Meghalaya** from 24th to 26th September and over **Nagaland, Manipur, Mizoram and Tripura** during the period along with heavy to very heavy rainfall at isolated places on 24th and 25th September, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops to avoid water stagnation. Postpone harvesting of rice, *kharif* pulses like green gram, black gram and rajma in Manipur and jhum rice and maize in Nagaland. Keep harvested produce at safer place.
- As rain/thundershowers would occur at most/many places over **Kerala and Coastal Karnataka** during the period, over **South Interior Karnataka** from 25th to 27th and over **Rayalaseema and Tamil Nadu** on 26th & 27th September along with heavy rainfall at isolated places, postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops to avoid water stagnation. Also undertake propping in sugarcane and provide mechanical support to young fruit plants and vegetables.
- In **North Interior Karnataka**, continue sowing of short duration, drought resistant *rabi* sorghum (var. Maldandi and Mugati), chickpea (var. A-1, JG-11 and Jaki-9218) and Safflower (var. A-1) using the realized and expected rainfall and intercropping of *rabi* sorghum + chickpea (2: row proportion); chickpea + safflower (4:2 row proportion) in North East Dry zone.
- In the Cauvery Delta Zone of **Tamil Nadu**, continue sowing of Late Samba/Thaladi rice (ADT 38, ADT 46, ADT 49, Improved white Ponni, IR 20, ASD 19, Paiyur1, TRY 1, TRY 3, Co 48, Co 49, BPT 5204 and Co 50) and harvesting of Kuruvai rice. In Western Zone, utilising the expected rainfall, undertake sowing of rainfed pulses and millets and transplanting of *Samba* rice.
- In **Madhya Maharashtra**, continue sowing of *rabi* jowar, safflower and sunflower. Continue harvesting of *kharif* green gram, black gram and bajra.
- In **Marathwada**, continue sowing of *rabi* jowar, safflower and sunflower. Continue harvesting of *kharif* crops like green gram, black gram, bajra.
- Under present weather conditions, heavy infestation of jassid is observed in cotton in **North Gujarat Zone**, spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g in 10 litres of water for control.

Detailed Zonewise Agromet Advisories

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



Maize



Groundnut



Green gram



Rice transplanting

- **Realised Rainfall:** Rainfall occurred in all districts of Coastal Karnataka; Shivamogga district of South Interior Karnataka; all districts of Kerala except Wynad; all districts of Coastal Andhra Pradesh except Guntur and Prakasam; Chittoor district of Rayalaseema; Adilabad, Karimnagar, Khammam and Warangal districts of Telangana; Chennai, Kanyakumari, Puducherry and Tiruvallur districts of Tamil Nadu. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers would occur at most/many places over Kerala and Coastal Karnataka during the period, over South Interior Karnataka from 25th to 27th and over Rayalaseema and Tamil Nadu on 26th & 27th September along with heavy rainfall at isolated places, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops to avoid water stagnation. Also undertake propping in sugarcane and provide mechanical support to young fruit plants and vegetables.
 - **Andhra Pradesh:**
 - In the Krishna Godavari Zone, continue harvesting of sugarcane.
 - Continue harvesting of groundnut in Kadapa district in the Southern Zone on bright sunny days.
 - Prevailing weather conditions (partially cloudy) are highly congenial for incidences of mealy bugs and thrips in legume vegetables in the Southern Zone. To control, spray Malathion @ 2 ml/litre of water or 5% neem decotion after current spells of rain.
 - Prevailing weather conditions are congenial for incidence of white fly in sugarcane in the North Coastal Zone. To control, spray Monocrotophos @ 1.6 ml /litre of water after current spells of rain.
 - Prevailing excess moisture conditions are congenial for wilt disease in red gram fields and iron chlorosis in crops at early vegetative stage in the Krishna Godavari Zone. Drain out excess water and adopt intercultivation where ever possible immediately to prevent wilt disease and spray FeSO₄ + Citric acid to minimize iron chlorosis after current spells of rain.
 - **Telangana:**
 - In the Southern Telangana Zone, continue sowing of *rabi* red gram up to 15th October.
 - Undertake sowing of *rabi* red gram(LRG 41, ICPL 87119, MRG 66, ICPL 85063, WRG 27, MRG 1004, WRG 53, WRG-65), greengram (MGG-295, MGG-348, MGG-347 WGG-2, WGG-37, LGG-460, TM-96-2) and black gram(LBG-20 (Teja), LBG-623, WBG-26 (Usha), PBG-1, LBG-752, MBG-207,PU 31) in the Northern Telangana Zone.
 - In the Northern Telangana Zone, prevailing weather conditions are congenial for incidence pf panicle mite in rice. Spray Profenophos 2.0 ml or Dicofol 5.0 ml/litre of water on a non rainy day.
 - In the Southern Telangana Zone, incidence of tobacco streak virus and black arm is noticed in cotton due to prevailing weather conditions. To control tobacco streak virus, spray Thiamethoxam and Acetamiprid @ 0.2g per litre of water and Copper-Oxy-Chloride @ 30g + Plantamycin @ 2g in 10 litres of water to control black arm. Apply the pesticides on a non rainy day.
 - **Karnataka:**
 - In the Eastern Dry Zone and Southern Dry Zone, continue sowing of short duration crops like pulses and minor millets with realized and expected rainfall.
 - Undertake sowing of Sorghum (DSH-4, M-35-1, Muguthi, DSV-5), Safflower (A-1) and Niger (No. 71, RCR-18) in the North East Transition Zone after receipt of sufficient rainfall.
 - In North Dry Zone, continue sowing of short duration, drought resistant *rabi* sorghum (var. Maldandi and Mugati), chickpea (var. A-1, JG-11 and Jaki-9218) and Safflower(var. A-1) using the realized and expected rainfall and intercropping of *rabi* sorghum + chickpea (2: row proportion); chickpea + safflower (4:2 row proportion).
 - In North Transition Zone, continue harvesting of maize, green gram and other fodder crops on a non rainy day and land preparation for early *rabi* sowing after harvesting.
 - In Hill Zone, continue spraying of Planofix @ 0.25 ml/litre to reduce the square/flower bud/flower drop in cotton after current spells of rain.

- In North East Transition Zone, phytopathra blight was noticed in pigeon pea. Remove the affected plants and spray M-45 @ 2g/litre of water after current spells of rain.
- Due to cloudy weather, thrips menace was noticed in rice in Southern Transition Zone, to control, undertake spraying of Roger @ 1.5ml per litre of water after current spells of rain.
- **Kerala:**
 - Undertake harvesting of Nendran bananas and continue planting of arecanut and harvesting of *Viruppu* rice in the Southern Zone and Northern Zone after current spells of rain. Keep harvested rice at safer places.
 - Prevailing weather conditions are congenial for incidence of rice bug in rice in the Problem Area Zone. Spray fish amino acid @ 6ml/litre and Malathion @ 3ml/litre of water after current spells of rain.
 - Continue sowing of *Mundakan* rice in the Central Zone.
 - In the Southern Zone, as a prophylactic measure against rhizome weevil in bananas, immerse the suckers in solution containing chlorpyrifos @ 2.5 ml/litre of water and dry in shade after current spells of rain.
- **Tamil Nadu:**
 - In the Cauvery Delta Zone, undertake transplanting of late samba, continue sowing of thaladi rice and harvesting of Kuruvai rice in clear weather.
 - In Western Zone, utilising the expected rainfall, continue sowing of rainfed pulses and millets and transplanting of *Samba* rice.
 - Continue nursery sowing of medium duration improved varieties of rice like White Ponni ADT 39, and ADT 46 for ensuing samba season in Karaikal and Puducherry and continue sowing of maize in the Southern Zone.
 - Continue sowing of cotton and sorghum in dryland conditions in the South Zone.
 - Undertake cultivation of multi-cut fodder sorghum(CoFS 29) variety under rainfed condition in the North Western Zone.
 - Due to present humidity and warm temperature, anthracnose incidence will be more in the Western Zone. Spray Bordeaux mixture @ 1% or Copper fungicide @ 0.25% after current spells of rain.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - Prevailing weather conditions are congenial for Enterotoxaemia in livestock in Northern Telangana and sheep pox in sheep in Southern Telangana. To prevent the diseases, vaccinate the animals.
 - Prevailing conditions are favourable for foot and mouth disease in livestock in the Scarce Rainfall Zone of Andhra Pradesh. Vaccinate animals to prevent the disease.

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



Green gram



Banana



Okra



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh except Anjaw, Dibang Valley, East Kameng, Kurung Kumey, Lower Subansari and West Siang; all districts of Assam except Bongaigaon, Darrang, Golghat, Karbi Anglong, N.C.Hills, Nagaon and Sonitpur; all districts of Meghalaya except South Garo Hills; Aizwal district of Mizoram; Imphal East and Thoubal districts of Manipur; Kohima district of Nagaland and all districts of Tripura. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers would occur at most/many places over Assam & Meghalaya from 24th to 26th September and over Nagaland, Manipur, Mizoram and Tripura during the period along with heavy to very heavy rainfall at isolated places on 24th and 25th September, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops to avoid water stagnation. Postpone harvesting of rice, *kharif* pulses like green gram, black gram and rajma in Manipur and jhum rice and maize in Nagaland. Keep harvested produce at safer place.
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Lower Bramhaputra Valley Zone and Central Bramhaputra Valley Zone of Assam, complete sowing of *kharif* sesame, green gram, black gram, continue nursery sowing of early cauliflower and radish after current spells of heavy rain.
 - In Hill Zone, continue transplanting of early cauliflower and nursery sowing of mid cauliflower, cabbage, radish and winter vegetables after current spells of heavy rain.
 - In Upper Bramhaputra Valley Zone of Assam, continue nursery sowing of mid cauliflower and radish after current spells of heavy rain.

- In North Bank Plain Zone and Central Brahmaputra Valley Zone of Assam, complete sowing of pulses, continue nursery raising of cole crops and winter vegetables after current spells of heavy rain.
- In Meghalaya, continue sowing of carrot, transplanting of cauliflower and land preparation for planting of potato. Continue nursery preparation of early cole crops in high altitude regions. Maintain a water level of 3-5 cm in the field of *kharif* rice. Undertake sowing and nursery preparation of *rabi* vegetables.
- In Hill Zone of Assam, due to cloudy and humid weather there is chance of attack of blast in *Sali* rice. Spray Carbendazim @ 1g/litre at tillering stage and spray Ediphenphos @ 1ml/litre at panicle initiation stage after current spells of rain.
- In North Bank Plain Zone, Lower Brahmaputra Valley Zone and Central Brahmaputra Valley Zone of Assam, due to cloudy and humid weather there is chance of attack of rice hispa, sheath blight and stem bore in *Sali* rice. Spray Chloropyriphos 20 EC (0.02%) or Quinalphos @ 2 teaspoon/5 litre of water or or Monocrotophos 40 EC @ 1.5 ml per litre of water against rice hispa, spray Mancozeb(2.5g/litre) or Hexaconazole 5EC @2ml/litre against sheath blight and spray 0.02% Chloropyriphos 20 EC or Quinalphos 25 EC @ 2.5ml per litre of water or Chloropyriphos 20 EC (0.02%) against stem borer after current spells of rain.
- In Barak Valley Zone of Assam, due to water stagnation there is chance of wilting or panama disease in banana. Farmers are advised to ensure adequate drainage in the banana garden.
- In Arunachal Pradesh, due to humid and cloudy weather, there is chance of attack of blast/bacterial leaf blight in normal rice. Spray Copper fungicide (Blitox 0.3%) alternately with Streptocycline (250 ppm) against blast/bacterial leaf blight after current spells of rain.
- **Manipur, Mizoram, Nagaland and Tripura:**
- In Manipur, continue nursery raising of cabbage, cauliflower and tomato and land preparation for transplanting of *rabi* vegetables. Also continue, raising nursery for onion (variety- Nasik Red) in slightly cooler and upland areas. Undertake land preparation for transplanting of onion.
- In Mizoram, continue nursery preparation for tomato, early cole crops and harvesting of rice, *kharif* pulses like green gram, black gram and rajma after current spells of rain. Keep harvested produce at safer place.
- In Nagaland, continue harvesting of *jhum* rice and maize after current spells of rain.
- In Tripura, continue nursery sowing of early winter vegetables such as tomato, cauliflower, radish and brinjal. Continue harvesting of *jhum* rice and groundnut after current spells of rain. Undertake land preparation for planting of potato. Drain out water from banana fields to avoid bacterial wilt.
- In Manipur, there is chance of attack of stem borer and stem rot in *kharif* rice. Spray Coragen @3ml/15 litre of water or Lambdacythothrin @ 15ml/15 litre of water against stem borer and spray Kocide-101@ 20g/15 litre of water or Propiconazole @ 15ml/15litre of water against stem rot after current spells of rain.
- In Tripura, due to cloudy and humid weather, there is chance of incidence of Gundhi bug in *Aman* rice (short duration) and Sheath Blight in *Aman* rice (long duration). To manage the attack, it is advised to apply Cartap Hydrochloride (Dollar) @ 1.5 g per litre of water or manage through bio agent like *Verticilium Lecanii* or *Bauveria Basiana* @ 6gm per litre of water in case solid formation or 6ml per litre of water for liquid formation against Gandhi bug and Bavistin 50WP 1 gm per liter of water against sheath Blight. Also in the present weather condition, combined attack of downy mildew may be seen in bitter gourd & pointed gourd. Spray Dinocap 48% EC @ 2ml or Triadimefon 25% WP @ 0.3g per litre of water to manage the attack. Undertake plant protection measures after current spells of rain.
- Suitable varieties are given in Annexure III.
- **Animal Husbandry**
- In Northeastern states, carry out vaccination (RDF1) against Ranikhet disease in one week old chicks and against Gamboro disease in two weeks old chicks. The cows and goats should not be allowed to feed on submerged rotten grasses. Vaccinate domestic live stocks against BQ, HS, Foot and mouth as well as anthrax diseases. Keep pig shed/sty dry and avoid dampness during rainy days.
- In Barak Valley Zone of Assam, prevailing weather condition is favourable for Ranikhet disease of poultry. Feed Tetracycline powder with rice to the poultry birds.
- **Fishery**
- In Assam, encircle fish ponds with *happa* net barrier in the low lying areas to prevent out flow of fishes from the ponds and also to check inflow of predatory fishes during flooding.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Cotton



Sugarcane



Rice



Groundnut

- **Realised Rainfall:** Rainfall occurred in all districts of Konkan & Goa except Mumbai City; Ahmednagar, Dhule, Jalgaon, Nandurbar, Nasik and Pune districts of Madhya Maharashtra; Aurangabad, Hingoli, Jalna, Nanded and Parbhani districts of Marathwada; all districts of Vidarbha; all districts of Gujarat Region except Banas Kantha and Dahod; all districts of Saurashtra & Kutch. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, maintain water level of 8-10 cm in rice fields. Undertake soft wood grafting in mango nursery.
 - In Madhya Maharashtra, maintain 5-7 cm water level in rice fields in Western ghat region of Nasik, Pune and Kolhapur districts. Continue sowing of *rabi* jowar, safflower and sunflower. Continue harvesting of *kharif* green gram, black gram and bajra.
 - In Marathwada, continue sowing of *rabi* jowar, safflower, sunflower and fodder crops like jowar, maize and bajra. Continue harvesting of *kharif* crops like green gram, black gram, bajra.
 - In Vidarbha, maintain 5 cm water level in transplanted rice field. Continue sowing of *rabi* safflower and sunflower in Central Vidarbha region. Continue harvesting of *kharif* green gram, black gram and bajra.
 - Due to cloudy weather and prevailing temperature in Madhya Maharashtra, there may be attack of sap sucking pest like in thrips, aphids, jassids and white fly on cotton crop; spray Metarhizium @ 40 gm or Acetamiprid 20 SP @ 3 gm per 10 litres of water.
 - Suitable varieties are given in Annexure III.
 - **Gujarat:**
 - As significant rainfall occurred in almost all districts of Gujarat State, postpone irrigation in standing crops (cotton, groundnut, castor, pearl millet, vegetables, pulses, sugarcane, ginger, turmeric, maize crops etc.).
 - Undertake land preparation at *vapsa* condition for planting of sugarcane in South Gujarat Heavy Rainfall Zone. Open the furrows at 90-100 cm for sowing.
 - Carry out intercultural operations like weeding in cotton, castor, cluster bean and vegetable crops in Bhal and Coastal Zone, North West Zone and North Gujarat Zone to conserve soil moisture.
 - Continue harvesting of pearl millet, pulses (green gram, cowpea etc.) in North Gujarat Zone, North West Zone and Bhal and Coastal Zone. Complete threshing of harvested pulses, pearl millet, sesame and groundnut crops in North Saurashtra Zone.
 - Under warm and humid condition there are chances of sucking pests in cotton in North West Zone; spray Imidachloprid or Thiomethoxam @ 4 ml/10litres of water for control. Also there is chance of bacterial blight disease in cluster bean; to control, spray Mancozeb @ 25 g /10 litres of water.
 - Under present weather heavy infestation of jassid is observed in cotton in North Gujarat Zone; spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g in 10 litres of water for control.
 - Due to high humidity and partly cloudy weather, there are chances of root rot in groundnut in Middle Gujarat Zone; mix the Trichoderma viridi powder @ 2.5 kg/ha + 250 kg castor cake.
 - Due to humid and partly cloudy weather, there are chances of leaf spot and rust disease in groundnut in North Saurashtra Zone; spray Hexaconazole @ 10 ml or Tebuconazole @ 7 ml in 10 litres of water.
 - Due to high humidity there is chance of pod borer in pigeon pea in South Saurashtra Zone, spray Spinosad @ 5 ml or Clorantirnilipol @ 3 ml or Flubendimide @ 2 ml in 10 litres of water for control.
- **Animal Husbandry**
 - Keep animal shed hygienic and clean and avoid water stagnation in and around the sheds. Regular check-up and regular vaccination for the disease (like anthracosis, milk fever and brucellosis) infected animals is advised.

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



Groundnut



Cotton



Green gram



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands; all districts of West Bengal & Sikkim except Purulia; all districts of Bihar except Bhojpur, Gopalganj, Muzaffarpur, Rohtas, Saran, Sheohar, Siwan and West Champaran; all districts of Jharkhand except Chatra, Garhwa, Ranchi, Seraikela-Kharsawan and West Singhbhum; all districts of Odisha except Bhadrak, Jagatsinghpur and Khurda.
- **Advisories:**
 - **West Bengal:**
 - In Coastal Saline Zone, undertake hand weeding in rice at tillering stage to keep the fields weed free. Apply top

dressing with neem coated urea or mud coated urea after drain out of excess water. Continue sowing of *vadu kalai* and complete the transplanting of winter vegetables.

- In New Alluvial Zone, undertake land preparation of early winter vegetables. Undertake nursery sowing of onion, cabbage and cauliflower.
- In Old Alluvial Zone, complete the sowing of black gram and undertake nursery sowing of early cauliflower and cabbage after current spells of heavy rain. Treat seeds with Carbendazim 50% WP @ 2g/kg of seed 7 days before sowing. Drain out excess rain water from vegetable nurseries.
- In Hill Zone, maintain proper drainage in ginger and soybean fields to remove excess water.
- In New Alluvial Zone, due to hot and humid weather condition, fungal attack may be seen in cabbage and cauliflower and attack of BPH disease may be found in rice at panicle initiation stage. To control fungal leaf-spot disease, apply Indofil-M-45 @ 2.5g per litre of water and apply Nuvan or Vapona @ 0.75 ml per litre of water or dust Quinolphos 1.5%/ Carbaril 4% at lower portion of the stem to control BPH. Apply the pesticides on a non rainy day.
- In Terai Zone, undertake seedbed preparation of early cauliflower and cabbage. During seedbed preparation use *Trichoderma viridi* @ 5gm with 1 kg organic manure.

▪ **Andaman and Nicobar Islands:**

- In North, Middle and South Andaman, spray *Trichogramma japonicum* @ 5 ml/ha at weekly interval to protect the rice crop from stem borer attack and also use light trap to attract and destroy the adult moth.
- In Nicobar, in coconut plantation, apply *Trichoderma viridae* 12.5 kg along with 50 tonnes farmyard manure in soil after current spells of rain.

▪ **Odisha:**

- In North Central Plateau Zone, continue sowing of green gram, black gram and cowpea.
- In Western Undulating Zone, continue sowing of improved varieties of black gram vari. Sarala, Ujala, PU-30, T-9, Prasad, green gram varieties like Tarm-1, Dhauli, Durga, Kamdev Jyoti, PDM-54, PDM-11, Samrat, PM-1, PM-2 @ 6-8 kg/acre and cow pea vari. Utkala manika, Pusa Barsati and SEB- 2 @ 8kg/acre in fallow uplands.
- In Western Undulating Zone, Bacterial Leaf blight infestation is noticed in rice in some areas in main fields. Spray Steptocycline @ 0.1g or Plantomycin @ 1g per litre of water.
- In East and South Eastern Coastal Plain Zone, high humidity and cloudy weather favours infestation of blast in rice. For control, spray Beam 1 g and 1.5 g Hinosan in 2 litres of water twice at 15 days interval.
- In East and South Eastern Coastal Plain Zone, hairy caterpillar and leaf minor has been found in groundnut. Spray DDVP @ 200 ml per acre for control of hairy caterpillar and spray Chloropyriphos @ 2 ml/litre of water to control leaf minor.
- In North Eastern Coastal Plain Zone and Mid Central Table Land Zone, due to deficient rainfall in the month of August, weed problem has aggravated in transplanted rice fields. To control all categories of weeds, spray Bispyribac Sodium @ 30g a.i./ha at 20 DAT. If the sedge and broadleaf problem is more, spray CME+MSM @ 4g a.i. ha-1 or Ethoxysulfuron 15 WP @ 15 g a.i./ha.
- In North Eastern Coastal Plain Zone, current weather favours attack of leaf folder in transplanted rice fields. To control it, spray Triazophos+Deltamethrin or Carbosulfan @ 2ml/litre of water.
- In North Central Plateau Zone, prevailing weather is favourable for attack of stem borer in rice. Farmers are advised to monitor the crop regularly, if population of stem borer is above ETL then broadcast of Cartap 4% granules or Carbofuran 3% G @ 10 kg/acre. Also farmers are advised to install pest specific pheromone traps @ 3-4/acre in the rice fields for monitoring of stem borer.

▪ **Bihar:**

- In North East Alluvial Plain Zone, maintain optimum water in the rice fields, complete transplanting of early autumn vegetable like cauliflower, cabbage and brinjal. Drain out excess water from maize, vegetables and soybean crops.
- In North West Alluvial Plain Zone, undertake the land preparation for sowing of *rabi* crops, continue transplanting of onion, tomato, chilli, brinjal and cauliflower on raised beds, continue nursery sowing of early varieties of cabbage and complete sowing of cluster bean, bitter gourd, radish and September pigeon pea.
- In South Bihar Alluvial Zone, maintain 5cm water in the rice fields, complete sowing of kulthi in upland sandy loam soil.
- In North West Alluvial Plain Zone, present weather is conducive for the attack of borer/leaf cutting caterpillar in cauliflower. To control, use pheromone trap @ 3-4/acre.
- In North East Alluvial Plain Zone, present weather is conducive for attack of shoot borer in maize crop, to control, apply Carbofuran @ 3-4 pellets per plant in the shoot of the plant.
- In North West Alluvial Plain Zone, present weather is conducive for the occurrence of attack of leaf folder and stem borer in paddy crops, for control, broadcasting of Cartap Hydrochloride (Caldan) 4% granules @ 10 kg/acre.
- In South Bihar Alluvial Zone, present weather is conducive for attack of shoot borer in maize. For control, apply Carbofuran @ 3-4 pellets per plant in the shoot of the plants.

▪ **Jharkhand:**

- In South Eastern Plateau Zone, complete transplanting of finger millet, continue land preparation for cultivation of short duration of early potato, continue cultivation of vegetables like tomato, early cabbage & cauliflower and undertake intercultural operation in standing crops like horse gram, safflower, lobia, urad and moong bean.

Continue cultivation of green pea , toria, upland spices, yam & forage crops like jowar & maize. Continue cultivation of short duration French bean and leafy vegetables.

- In North Eastern Plateau Zone, continue sowing of early potato, green peas and niger. Continue transplanting of tomato, cabbage, cauliflower & brinjal. Farmers are advised to maintain 5 cm water in the rice fields. Undertake harvesting of maize crop.
- In Western Plateau Zone, undertake transplanting of winter vegetables like cauliflower, cabbage, chilli tomato & brinjal, continue sowing of crop like kulthi or niger in fallow lands and continue cultivation of early potato and green peas under assured irrigation facility. Continue harvesting of matured mung/urad crops and undertake sowing of toria crop.
- In South Eastern Plateau Zone, present weather is conducive for the occurrence of leaf folder and hairy caterpillar in groundnut, to control, spray Chlorpyrifos @ 1 ml per litre of water mixing Teepol @ 0.5 ml per litre of water.
- In South Eastern Plateau Zone, present weather is conducive for the occurrence and spreading of blast disease in medium & low land rice crop, to control, spray Bavistin @ 1 g or Beam (Tricyclazole) @ 6 g per 10 liter of water by mixing Teepol @ 0.5 ml per liter of water.
- In North Eastern Plateau Zone, present weather is conducive for the occurrence of blast & yellow spot disease in rice. To control, spray Carbendazim 0.1% or Tricyclazole (75 WP) 0.06% per litre of water.
- In Western Plateau Zone, prevailing weather is conducive for the attack of fruit borer in maize, to control, spray neem based insecticide @ 2-3ml/litre of water on the upper part of the plants.
- Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
- In Sub-Himalayan West Bengal & Bihar, keep animal sheds dry and clean, avoid water stagnation in and around the cattle sheds & provide concentrate feed to milch animals mixed with dry and green fodders to ensure rich diet having protein, carbohydrate, fat and vitamins.

CENTRAL INDIA [M.P., CHHATTISGARH]



Rice



Green gram



Okra



Soybean

- **Realised Rainfall:** Rainfall occurred in all districts East Madhya Pradesh except Chhatarpur, Damoh, Rewa, Sagar, Sidhi, Singrauli, Tikamgarh and Umaria; Alirajpur, Barwani, Betul, Burhanpur, Datia, Dewas, Dhar, Gwalior, Harda, Hoshangabad, Khandwa, Khargone and Sehore districts of West Madhya Pradesh; all districts of Chhattisgarh. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - In Malwa Plateau Zone, continue nursery sowing of early winter vegetables and harvesting of matured soybean and maize.
 - Continue sowing of toria, sweet corn and berseem and harvesting of matured sesame, moong and urad in Kymore Plateau and Satpura Hill Zone.
 - Undertake field preparation for sowing of green vegetables like radish, fenugreek, spinach, coriander and turnip and continue transplanting of vegetables like brinjal, tomato, chilli, cauliflower and cabbage on raised bed in Bundelkhand Zone. Undertake harvesting of matured green gram and black gram in Nimar Valley Zone.
 - Continue harvesting of matured black gram, soybean and matured cobs of maize and picking of matured okra, chilli and brinjal in Jhabua Hill Zone.
 - Continue sowing of toria and harvesting of matured black gram and green gram in Grid Zone and nursery preparation for onion and garlic in Vindhya Plateau Zone.
 - Due to humid weather there are chances of rhizome rot in ginger in Bundelkhand Zone, spray Redomil @ 1.5-2.0 ml/litre of water around the roots.
 - There may be attack of pod borer in late sown soybean, moong and urad at pod filling stage in Kymore Plateau and Satpura Hill Zone, apply Trizophos 40 EC @ 800 ml/ha or Chlorpyrifos 20 EC @ 1.5 ml/ha.
 - **Chhattisgarh:**
 - Undertake nursery sowing of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc. in North Hill Zone. Complete sowing of horse gram and niger.
 - In Plain Zone of Chhattisgarh, continue nursery preparation for cauliflower, cabbage and capsicum and for seasonal flowers. Also undertake nursery preparation for rabi onion.
 - Continue nursery preparation for vegetables like cabbage, cauliflower, chilli and undertake sowing of red

amaranths and coriander in upland areas in Bastar Plateau Zone.

- Due to humid weather there are chances of blast disease in rice crop in Plain Zone, spray Tricyclazole @ 6 g/10 litre of water or Saaf @ 1 ml/litre of water.
- **Animal Husbandry**
- Provide concentrate feed to milch animals by mixing dry and green fodder enriched with protein, carbohydrate, fat, vitamins etc. in Chhattisgarh.

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



Cotton

Green gram

Maize

Cabbage

- **Realised Rainfall:** Rainfall occurred in Central Delhi, South Delhi, Southwest Delhi and West Delhi districts of Delhi; all districts of Jammu & Kashmir except Ganderbal and Ladakh (Leh); Ambala, Chandigarh, Gurgaon, Karnal, Mewat, Panchkula, Panipat, Rewari and Yamunanagar districts of Haryana; all districts of Punjab except Ferozpur and Mansa; all districts of Himachal Pradesh; Alwar, Dungarpur, Sirohi and Udaipur districts of East Rajasthan; Barmer, Bikaner, Hanumangarh, Jaisalmer and Sri Ganganagar districts of West Rajasthan; Banda, Ghazipur, Kanpur City and Sant Kabir Nagar districts of East Uttar Pradesh; Badaun, Bareilly, Bijnor, Etawah, Mahamaya Nagar, Meerut, Moradabad, Muzaffarnagar and Saharanpur districts of West Uttar Pradesh; Chamoli, Champawat, Dehradun, Hardwar, Nainital and Udham Singh Nagar districts of Uttarakhand. Weather remained mainly dry over rest of the region.

- **Advisories:**

- **Jammu & Kashmir:**

- In Sub Tropical Zone of Jammu & Kashmir, undertake sowing of gobi sarson and continue sowing of toria. Undertake harvesting of matured mustard, moong and mash in clear weather.
 - In valley temperate zone of Jammu & Kashmir, continue harvesting of matured maize, rice crops in clear weather.
 - In Intermediate Zone of Jammu & Kashmir, undertake sowing of fodder barseem and nursery sowing of cole crops such as cabbage and cauliflower, Knol – khol.
 - In Sub-Tropical Zone of Jammu & Kashmir, in the prevailing weather conditions, there may be incidence of brown spot & sheath blight in rice. To control brown spot apply Propiconazole @ 0.1% (1ml/litre of water) and to control sheath blight apply Cabendazim @ 0.1% (1gm/litre of water) on a non rainy day.

- **Uttarakhand:**

- In Bhabar and Tarai Zone, continue sowing of early vegetable pea at high hills. Also weather conditions are favourable for sowing of toria, yellow sarson, nursery sowing of tomato and planting of potato.
 - In Hill Zone, weather conditions are favourable for sowing of vegetable pea and toria .
 - In Sub humid sub tropic Zone, due to humid weather condition, there may be attack of leaf blast on rice & finger millet, to control spray Carbendazim/Tricyclazole @ 8-10 g/20 liter of water/nali on a non rainy day.

- **Himachal Pradesh:**

- In Sub-Montane and Low Hills Sub-Tropical Zone, in low hill areas, continue sowing of African tall variety of maize, makachari, berseem, lucerne and oats for fodder during *rabi* season, continue transplanting of mid season cauliflower, nursery sowing of late varieties of cauliflower, broccoli, sowing of ageti peas, root vegetables like radish, turnip, carrot and leafy vegetable like palak and methi.
 - In mid hill region, continue nursery sowing cauliflower (late group), cabbage, KnolKhol, Broccoli and Chinese cabbage and direct sowing of ageti peas, radish, carrot, turnip, palak and methi.
 - In Sub-Montane and Low Hills Sub-Tropical Zone, undertake planting of onion bulbs in 30X 10 cm spacing.
 - In Mid Hills sub-Humid Zone, continue sowing of cabbage (Pride of India, golden achor and hybrid), carrot and radish (at a distance of 30x10cm), cruciferous vegetables, carrot and early variety of pea (at a distance of 30x10cm). Undertake transplanting of early variety of cauliflower at a distance of 45x30cm and of onion at a distance of 15x10cm.
 - Under humid weather condition, there are chances of incidence of powdery mildew in okra in Sub-Montane and Low Hills Sub-Tropical Zone. For control, spray Cantaf/Sitra @ 0.5 ml or Karathane @ 1 ml per litre of water on a non rainy day.
 - Under humid weather condition, there are chances of attack of fruit borer in tomato, brinjal in Sub-Montane and Low Hills Sub-Tropical Zone, spray 225 ml Cypermethrin (Symbush 25 EC) in 750 ml water per ha on a non rainy day.

- Under humid weather condition there are chances of incidence of fruit rot and leaf spot disease in tomato and capsicum in Mid Hills Sub-Humid Zone. Spray Ridomil gold @ 25g or Streptocyclin @ 1g or Blitox @ 30 g per 10 litres of water on a non rainy day.
- Under humid weather condition there are chances of attack of white fly in vegetables in Mid Hills Sub-Humid Zone. Apply Imidachlopid @ 7.5ml or Malathion @ 22.5ml or Oxy-Demeton methyl (Metasystox) @ 15ml in 15litres of water on a non rainy day.
- Under cloudy and humid weather condition, there are chances of attack of wooly aphids in apple in Mild Hills Sub-Humid Zone. For the control, spray Actara 25 SG @ 200 g or Marshal @ 200 ml per 200 litres of water on a non rainy day.
- **Rajasthan:**
 - Continue harvesting of matured Bajra and Jowar on clear day in Flood Prone Eastern Plain Zone and moong bean and moth bean in Arid Western Plain Zone, Semi Arid Eastern Plain Zone and Arid Western Plain Zone.
 - In Arid Western Plain Zone and in Flood Prone Eastern Plain Zone, continue sowing of improved variety of carrot with row to row spacing of 30 cm and plant to plant spacing 6-8 cm and continue sowing of radish. Also undertake planking for moisture conservation in fallow land for rabi crops in Flood Prone Eastern Plain Zone.
 - Undertake preparation of seed bed for raising nursery of chilli, brinjal and tomato for Rabi season. Also undertake hoeing and weeding in vegetables in Sub Humid Southern Plain and Aravali Hill Zone.
 - Continue land preparation and keep inputs ready for sowing of taramira, early radish, carrot spinach and non irrigated mustard in Arid Western Plain Zone.
 - In Semi Arid Eastern Plain Zone, continue land preparation for the sowing of rainfed Taramira, toria and mustard and sowing of improved variety of carrot with row to row spacing of 30 cm and plant to plant spacing 6-8 cm and radish. Continue nursery preparation for late sown cauliflower. Undertake harvesting of green gram, moth bean and cowpea.
 - In Arid Western Plain Zone, undertake preparation of sowing of Berseem, radish, carrot crop by the end of this month. To get more fodder production from the first cutting of berseem, mix the seed of Chinese cabbage or fodder oat.
 - In Arid Western Plain Zone, forecasted weather conditions may increase the chances of root/collar rot in standing groundnut crops, apply Carbendizem @ 2.0 kg/ha mixed with soil at the time of rains or along with irrigation water and repeat it after 15 days, if needed.
 - In Southern Humid Plain Zone, due to prevailing weather, there are chances of attack of bollworm in cotton. Spray Quinalphos 25E.C. @ 1 litre/ha for bollworm in cotton.
 - Due to humid weather, there are chances of attack of stem borer in paddy in Southern Humid Plain Zone, sucking pest in cotton in Arid Western Plain Zone, spray Monocrotophos 36 WSC @ 1 litre/ha to control both.
 - Due to humid and cloudy conditions there are chances of leaf curl and mosaic incidence in Papaya in Semi Arid Eastern Plain Zone, spray Dimethoate 30 EC @ 1 ml per litre water to check the spread of viral disease.
 - In Irrigated Northwestern Plain Zone, due to moderately humid conditions, there are chances of attack of white fly/jassids/thrips in Bt cotton, spray Trizophos 40 EC @ 250 ml per litre of water.
- **Punjab, Haryana and Delhi:**
 - In Central Plain Zone of Punjab, undertake propping of sugarcane by using trash-twist method.
 - In Central Plain, Western Zone and Western Plain Zone of Punjab, continue sowing of desi varieties of radish (Punjab Pasand), turnip (L-1) and carrot (Punjab Black Beauty, Punjab Carrot Red and PC 34) and in Central Plain Zone of Punjab, continue planting of potato.
 - In Central, Western and Undulating Plain Zone of Punjab, continue planting of fruit plants viz citrus, mango, litchi, guava, loquat, ber, amla and papaya.
 - In Western Zone of Haryana, continue transplanting of tomato, onion chilli and early cauliflower on ridge. Complete the planting of fruits crops like acid lime, mango, jack fruit and jamun.
 - In Western Semi-Arid Zone of Delhi, continue transplanting of *kharif* onion, chilli, brinjal, tomato and early cauliflower on ridges. Continue sowing of radish, carrot, coriander, spinach. Undertake planting of early potato.
 - Due to humid weather conditions in there may be increase in population of sucking pests in cotton in Western Semi-Arid Zone of Delhi. Install pest specific pheromone traps in the fields. If sucking pest's population is above ETL, spray Imidaclopid 17.8 % SC @ 1.0 ml/3 litre of water after current spells of rain.
 - In Western Semi-Arid Zone of Delhi, false smut may appear in rice in present weather conditions. Symptoms include increase in grains size with brown colored fungus inside. Spraying of Blitox 50 @ 500 g per hectare at 10 days interval (2-3 times) is advised. Also monitor cucurbitaceous crops against attack of fruit fly, use Methyl Eugenol trap and bait trap (mixing jaggary 10 % with Malathion 0.1 % and putting at different corners of the field).
 - Incidence of sheath blight is noticed in rice crop in Western Zone of Punjab, spray Folicur 25 EC (Tebuconazole) @ 200 ml or Tilt 25 EC (Propiconazole) @ 200ml in 200 litres of water/acre. Also due to partly cloudy weather, there is chances of attack of white fly and jassid in cotton. Monitor the crop and if pests reaches ETL level then spray Oberon @ 200ml/acre for white fly and Ulala 80g/acre for the management of Jassid.
 - In Western Plain Zone of Punjab, monitor rice against plant hoppers. If observed, spray of Confidor 200 SL @ 40 ml or Ekalux 25 EC @ 800 ml in 100 litres of water/ acre.
 - In Central Plain Zone of Punjab, weather conditions are favourable for development of sheath blight on normal

- and basmati rice. Spray Nativo @ 80 g or Lustre @ 320 ml or of Tilt @ 200 ml in 200 litres of water per acre.
- In Western Zone of Haryana, weather conditions are favourable for infestation of leafhopper in rice. Monitor the crop. If infestation is noticed dusting of Carbaryl 5% dust @ 10 kg or Methidathion 2% per acre is advised.
 - **Uttar Pradesh:**
 - In Central Plain Zone, complete sowing of bajra, green gram, black gram and sesame and nursery sowing of cabbage, radish and tomato. Continue nursery sowing/transplanting of capsicum, chilli, brinjal and cauliflower and sowing of potato, pointed gourd and parwal gourd. Maintain 2-3 cm water in rice fields. Continue land preparation and sowing of toria (TA-9, Bhawani, PT-30 and PT-507). Also continue sowing of winter vegetables, tomato at a planting distance of 45-60 cm and high yielding varieties of radish (Kalyanpur No.1, Pusa Rashmi, Hisar selection-1, Japani Safed, Pusa Chetaki, Pusa Himani, Pusa Deshi, Arka Nishant and Jaunpuri).
 - In Eastern Plain Zone, continue sowing of radish, spinach, toria, pea and potato (Kufri Chandramukhi, Kufri Sadabahar, Kufri Ashoka). Continue transplanting of cauliflower, brinjal, cabbage and tomato. Continue planting of sweet potato and parwal. Complete sowing of fodder crops like jowar, bajra, maize, chari and lobia and long duration varieties of pigeon pea (Bahar, PDA-11).
 - In Western Plain Zone, maintain 5 cm water in rice fields. Continue sowing of toria (TL-67, TL-17) and planting of brinjal, tomato.
 - Due to partly cloudy weather and rise in temperature, there are chances of attack of fruit borer / pod borer in urad, mung and downy mildew, leaf blight in maize in Central Plain Zone. For control, spray Quinalphos 25 % EC @ 1.5 litre in 500 – 600 liters of water per hectare in urad, mung and spray Mancozeb 75WP @ 1.5 kg + Zinc Sulphate @ 0.25 kg in 500 litre of water per hectare in maize.
 - Due to partly cloudy and rise in temperature, there are chances of attack of yellow mosaic in soybean and leaf roller or stem borer in paddy in Central Plain Zone. For control of yellow mosaic, remove the infected plants and spray Dimethoate 30 EC @ 1 litre per hectare in soybean and spray Quinalphos 25 EC @ 1.5 litre in 500 – 600 liters of water per ha in paddy.
 - In Western Plain Zone, weather is conducive for the incidence of blast in rice. Spray Beam @ 120 g per 200 litres of water. Due to humid weather condition, there are chances of attack of leaf eating caterpillar in brinjal and tomato. Spray Di-crovas @ 1ml per litre of water for control.
 - Suitable varieties for sowing are given in Annexure III.
 - **Horticulture**
 - Sub Montane and Low Hills Sub Humid Zone of Himachal Pradesh, keep inputs ready for planting of strawberry during last week of September.
 - In Uttar Pradesh, continue planting of mango, litchi, papaya, guava, ber and aonla. Undertake gap filling in banana.
 - **Floriculture**
 - Blue beetle attack is seen in Balsam, Zenia, Cleome and rose in Sub Montane and Low Hills Sub Humid Zone of Himachal Pradesh. For control spray Cypermethrin @ 20 ml per 10 litres of water. In poly houses attack of thrips and mites is expected. For control, spray Rogur @ 20 ml for thrips and for mites spray Diclofol @ 20 ml in 10 litres of water after current spells of rain.
 - Continue weeding in gladiolus and prepare nursery beds for sowing of winter annuals in Mid Hills Sub Humid Zone of Himachal Pradesh.
 - **Animal Husbandry**
 - In Sub-Montane and Low Hills Sub-tropical Zone of Himachal Pradesh, humid weather is conducive for ticks and mites attack on animals. For control, spray Butox @ 2ml per litre of water.
 - **Poultry**
 - In view of increasing humidity in Sub-Montane and Low Hills Sub-Tropical Zone of Himachal Pradesh, replace the poultry houses with fresh litter to avoid wetting and keep the houses clean and ensure clean drinking water to the birds. Weather is congenial for incidence of Ranikhet disease. Undertake vaccination for IBD and Ranikhet disease.

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

Annexure I

Week by week Rainfall Distribution

Sub-Divisions	09.09.15		16.09.15		23.09.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	31.9	-49	38.1	-72	67.6	-9
Dibang Valley	**	**	**	**	**	**
East Kameng	1.2	-98	7.6	-91	28.7	-53
East Siang	96.3	-24	89.7	-50	112.5	-17
Kurung Kumey	**	**	**	**	**	**
Lohit	18.1	-76	67.7	-32	103.2	61
Lower Dibang Valley	284.2	575	186.8	92	159.2	194
Lower Subansari	**	**	**	**	**	**
Papumpara	57.8	-54	42.1	-55	101.9	5
Tawang	55.0	-50	34.0	-73	70.0	-44
Tirap	8.6	-92	39.2	-69	53.4	-34
Upper Siang	135.6	-15	100.4	-50	186.6	19
Upper Subansari	49.0	76	10.2	-75	61.5	64
West Kameng	59.8	-46	131.8	3	157.2	25
West Siang	**	**	**	**	**	**
Assam & Meghalaya						
Assam						
Baksa	52.6	-49	30.8	-78	103.7	-17
Barpeta	69.4	-33	64.8	-54	94.7	-25
Bongaigaon	89.6	-7	4.6	-95	23.6	-79
Cachar	51.9	-51	103.0	9	57.5	-11
Chirang	202.4	111	35.4	-65	101.4	-9
Darrang	**	**	**	**	**	**
Dhemaji	3.0	-97	17.0	-86	104.0	15
Dhubri	45.9	-24	9.5	-92	126.0	66
Dibrugarh	28.6	-67	30.6	-69	52.8	-22
Goalpara	30.8	-48	7.8	-89	131.0	72
Golghat	55.7	-9	17.3	-68	27.3	-46
Hailakandi	69.1	-20	32.7	-63	47.2	-11
Jorhat	47.2	-35	27.3	-63	64.2	10
Kamrup(Rural)	30.2	-41	0.0	-100	65.2	59
Kamrup(Metro)	61.2	20	59.4	36	100.7	146
Karbi Anglong	7.3	-86	59.2	29	18.7	-51
Karimganj	69.6	-41	184.2	50	99.4	17
Kokrajhar	24.2	-78	27.7	-70	65.4	-51
Lakhimpur	89.4	-9	58.8	-53	124.3	38
Morigaon	14.0	-73	51.4	-8	63.2	35
N.C.Hills	75.5	59	73.2	111	22.7	-44

Nowgong	11.9	-78	34.6	-39	14.0	-72
Nalbari	32.5	-38	34.6	-43	78.5	19
Sonitpur	34.9	-43	17.2	-74	21.3	-58
Sibsagar	55.0	-2	64.2	21	32.5	-16
Tinsukia	36.7	-59	32.9	-66	65.9	-6
Udalgiri	43.7	-12	6.2	-92	58.4	7
Meghalaya						
East Garo Hills	174.4	107	31.2	-68	391.8	426
East Khasi Hills	122.0	-16	47.4	-79	562.8	486
Jaintia Hills	74.0	-70	72.0	-64	174.0	15
Ribhoi	34.9	-47	44.8	-50	75.0	11
South Garo Hills	**	**	**	**	**	**
West Garo Hills	64.4	-18	5.0	-95	214.4	191
West Khasi Hills	68.0	-37	46.0	-60	335.0	288
NMMT						
Mizoram						
Aizwal	12.7	-88	125.7	30	69.9	-18
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	**	**	**	**	**	**
Serchhip	117.0	30	40.7	-47	28.8	-63
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	**	**	**	**	**	**
Churachandpur	**	**	**	**	**	**
Imphal east	38.9	-2	0.1	-99	91.9	87
Imphal west	26.9	-43	20.0	-6	25.5	-36
Senapati	**	**	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	42.0	80	4.0	-77	35.0	14
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	46.6	14	29.6	-44	18.6	-49
Kephire	**	**	**	**	**	**
Kohima	46.4	-35	61.2	-2	52.4	2
Longleng	**	**	**	**	**	**
Mokokchung	13.0	-82	41.0	-40	22.0	-53
Mon	**	**	**	**	**	**
Paran	**	**	**	**	**	**
Phek	**	**	**	**	**	**
Tuensang	**	**	**	**	**	**
Wokha	**	**	**	**	**	**
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	16.9	-71	155.3	145	139.9	147
NorthTripura	15.5	-77	61.8	-21	79.9	49

South Tripura	32.4	-44	97.1	61	192.9	235
West Tripura	26.3	-58	48.0	-21	80.3	52
Himachal Pradesh						
Bilaspur	13.2	-74	0.0	-100	36.6	24
Chamba	6.9	-92	2.0	-96	110.6	244
Hamirpur	11.3	-76	1.8	-95	59.0	114
Kangra	16.9	-81	8.8	-84	53.4	62
Kinnaur	0.1	-99	0.9	-95	34.1	207
Kullu	0.0	-100	0.0	-100	49.5	323
Lahaul and Spiti	0.0	-100	0.0	-100	68.7	263
Mandi	14.4	-71	3.7	-90	36.0	56
Shimla	0.2	-99	2.9	-90	33.8	81
Sirmaur	0.0	-100	0.0	-100	50.8	117
Solan	1.8	-97	0.0	-100	45.3	90
Una	0.0	-100	0.5	-98	57.9	205
Punjab						
Amritsar	0.0	-100	0.0	-100	78.9	659
Barnala	0.0	-100	0.0	-100	85.0	525
Bhatinda	0.0	-100	0.0	-100	61.0	413
Faridkot	0.0	-100	0.0	-100	41.0	290
Fatehgarh Saheb	0.0	-100	0.0	-100	88.0	338
Ferozpur	0.0	-100	0.0	-100	18.5	59
Gurdaspur	8.6	-80	0.0	-100	142.9	899
Hoshiarpur	0.0	-100	0.0	-100	130.6	610
Jalandhar	1.8	-95	0.0	-100	41.7	172
Kapurthala	0.0	-100	0.0	-100	47.6	255
Ludhiana	0.4	-99	0.0	-100	68.8	278
Mansa	0.0	-100	0.0	-100	1.6	-89
Moga	0.0	-100	0.0	-100	69.6	550
Muktesar	0.0	-100	0.0	-100	39.5	299
Nawashahar	0.0	-100	0.0	-100	64.3	278
Patiala	0.0	-100	0.0	-100	52.4	148
Ropar	0.0	-100	0.0	-100	71.7	201
Sangrur	0.0	-100	0.0	-100	77.3	519
Mohali	0.0	-100	1.0	-96	91.3	493
Tarn Taran	0.0	-100	0.0	-100	54.5	627
Haryana, Chd, Delhi						
Haryana						
Ambala	0.4	-99	0.0	-100	106.2	358
Bhiwani	0.0	-100	0.0	-100	14.1	35
Chandigarh	0.0	-100	10.7	-74	106.4	377
Faridabad	0.0	-100	0.0	-100	16.8	29
Fatehabad	0.0	-100	0.0	-100	16.2	65
Gurgaon	0.0	-100	0.0	-100	30.6	331
Hissar	0.0	-100	0.0	-100	3.3	-65
Jhajar	0.0	-100	0.0	-100	24.3	165
Jind	0.0	-100	0.0	-100	21.7	49
Katihah	0.0	-100	0.0	-100	18.8	75
Karnal	0.0	-100	0.0	-100	37.6	158

Kurukshetra	1.3	-96	0.0	-100	23.3	59
Mahendragarh	0.0	-100	0.0	-100	14.4	100
Mewat	0.0	-100	0.0	-100	142.3	2090
Palwal	0.0	-100	0.0	-100	6.8	-22
Panchkkula	0.0	-100	0.0	-100	56.7	124
Panipat	0.0	-100	0.0	-100	45.0	272
Rewari	0.0	-100	0.0	-100	37.7	349
Rohtak	0.0	-100	0.0	-100	4.0	-49
Sirsa	0.0	-100	0.0	-100	17.3	106
Sonepat	0.0	-100	0.0	-100	10.6	2
Yamunanagar	0.0	-100	0.0	-100	116.3	645
Delhi						
Central Delhi	0.0	-100	0.0	-100	39.0	343
East Delhi	0.0	-100	0.0	-100	10.0	14
New Delhi	0.0	-100	0.0	-100	22.3	153
North Delhi	0.0	-100	0.0	-100	26.2	198
North East Delhi	0.0	-100	0.0	-100	15.0	70
North West Delhi	0.0	-100	0.0	-100	7.3	-17
South Delhi	0.0	-100	0.0	-100	33.7	282
South West Delhi	0.0	-100	0.0	-100	37.5	326
West Delhi	0.0	-100	0.0	-100	39.0	343
Jammu & Kashmir						
Anantnag	5.6	-60	0.0	-100	102.1	604
Badgam	3.2	-72	0.0	-100	53.0	386
Bandipore	**	**	**	**	**	**
Baramula	6.3	-54	0.2	-98	62.9	424
Doda	1.4	-93	0.0	-100	137.2	737
Ganderbal	6.0	-29	0.0	-100	28.0	289
Jammu	9.5	-79	0.0	-100	108.7	272
Kargil	**	**	**	**	**	**
Kathua	17.6	-73	0.0	-100	214.3	432
Kistwar	**	**	**	**	**	**
Kulgam	4.0	-71	0.0	-100	153.6	959
Kupwara	3.5	-48	0.4	-95	57.9	551
Ladakh(Leh)	0.0	-100	0.0	-100	9.2	268
Poonch	**	**	**	**	**	**
Pulwama	0.8	-93	0.0	-100	80.6	668
Rajouri	20.8	-16	0.0	-100	89.6	107
Ramban	11.2	-44	0.0	-100	142.6	769
Reasi	54.2	2	0.0	-100	205.2	398
Samba	11.8	-74	0.0	-100	72.8	149
Shopian	**	**	**	**	**	**
Srinagar	4.3	-50	0.0	-100	55.8	674
Udhampur	16.0	-70	0.0	-100	145.4	253
East Madhya Pradesh						
Anuppur	34.2	-49	4.7	-94	47.2	36
Balaghat	4.4	-94	9.2	-84	103.7	187
Chhatarpur	10.7	-85	19.5	-65	18.9	-33

Chindwara	25.1	-53	20.0	-59	65.9	99
Damoh	2.5	-96	12.5	-79	3.0	-91
Dindori	18.2	-70	8.0	-85	50.3	73
Jabalpur	3.0	-96	2.9	-95	34.6	42
Katni	4.1	-94	2.5	-96	71.5	179
Mandla	6.7	-91	9.8	-84	54.5	50
Narsingpur	0.0	-100	3.4	-95	40.5	4
Panna	0.6	-99	3.3	-95	43.0	48
Rewa	3.1	-96	1.6	-98	9.8	-67
Sagar	1.2	-98	1.1	-98	16.1	-57
Satna	10.6	-83	16.3	-72	78.1	138
Seoni	3.8	-93	25.7	-57	30.1	-18
Shahdol	0.0	-100	4.0	-93	56.0	109
Sidhi	8.0	-89	0.0	-100	4.5	-86
Singrauli	0.0	-100	3.0	-94	15.3	-61
Tikamgarh	5.5	-89	24.5	-45	1.0	-96
Umaria	12.4	-84	2.0	-97	15.3	-53
West Madhya Pradesh						
Agar	6.5	-92	0.0	-100	10.4	-64
Alirajpur	0.4	-99	63.9	72	53.6	125
Asoknagar	10.8	-78	0.8	-98	9.0	-73
Badwani	0.0	-100	72.8	149	60.9	119
Betul	22.0	-65	15.6	-76	68.8	115
Bhind	0.0	-100	3.6	-91	17.6	-24
Bhopal	0.0	-100	18.6	-66	23.0	-19
Burhanpur	3.9	-92	24.7	-27	70.9	173
Datia	0.0	-100	0.0	-100	37.3	33
Dewas	3.3	-95	10.5	-75	44.8	51
Dhar	3.7	-92	62.8	49	31.3	-5
Guna	0.0	-100	0.0	-100	6.4	-76
Gwalior	0.0	-100	7.9	-84	40.4	20
Harda	0.0	-100	9.4	-81	54.5	44
Hosangabad	4.5	-95	1.0	-99	49.3	13
Indore	0.0	-100	28.1	-35	27.7	-26
Jhabua	5.2	-89	1.9	-94	14.5	-45
Khandwa	2.0	-97	30.0	-33	71.3	119
Khargone	0.0	-100	37.3	23	72.5	139
Mandsaur	6.0	-89	0.0	-100	1.3	-94
Morena	0.0	-100	1.8	-95	6.6	-70
Neemuch	2.0	-96	0.0	-100	0.3	-98
Raisen	10.2	-87	13.1	-76	20.5	-45
Rajgarh	7.1	-87	5.8	-84	6.1	-72
Ratlam	0.0	-100	8.9	-75	18.1	-41
Sehore	9.2	-87	3.0	-94	32.6	7
Shajapur	10.5	-81	0.5	-99	21.3	-26
Sheopur Kalani	0.0	-100	0.0	-100	8.5	-52
Shivpuri	0.0	-100	0.0	-100	17.8	-33
Ujjain	0.0	-100	1.6	-96	25.2	-17

Vidisha	15.4	-74	23.0	-37	18.5	-40
Chhattisgarh						
Bastar	36.5	-47	145.8	127	138.9	246
Bijapur	5.5	-92	86.7	52	89.8	107
Bilaspur	35.1	-46	0.9	-98	160.1	374
Dantewara	36.3	-44	122.4	149	128.1	226
Dhamtari	0.6	-99	118.2	72	88.0	124
Durg	0.4	-99	64.0	0	144.3	249
Janjgir	17.8	-77	6.6	-88	41.9	6
Jashpurnagar	8.7	-89	4.1	-94	72.4	81
Kanker	4.5	-92	83.3	21	119.3	174
Korba	22.3	-71	52.8	18	78.5	159
Koriya	41.3	-40	7.1	-89	48.5	117
Kawardha	20.8	-58	19.4	-72	114.2	241
Mahasumund	0.0	-100	51.2	-19	161.7	401
Narayanpur	54.2	-23	144.3	142	68.3	66
Raigarh	25.2	-66	30.0	-59	99.0	226
Raipur	3.4	-94	72.2	15	121.5	268
Rajandgaon	4.5	-93	17.6	-70	163.9	284
Surguja	13.3	-83	11.7	-82	50.6	56
East Uttar Pradesh						
Allahabad	0.0	-100	6.4	-91	6.8	-75
Ambedkar Nagar	0.0	-100	0.0	-100	0.0	-100
Azamgarh	0.0	-100	3.9	-95	3.4	-92
Bahraich	0.0	-100	9.4	-87	1.0	-96
Ballia	0.0	-100	12.0	-79	13.6	-62
Balrampur	0.0	-100	0.0	-100	0.0	-100
Banda	4.3	-92	11.9	-78	50.3	120
Barabanki	0.0	-100	11.3	-86	10.4	-64
Basti	0.0	-100	0.0	-100	1.9	-94
Chandauli	0.0	-100	0.0	-100	10.4	-50
Deoria	0.0	-100	0.0	-100	5.0	-88
Faizabad	0.0	-100	1.9	-97	2.1	-93
Farrukhabad	0.0	-100	0.5	-99	13.5	-33
Fatehpur	0.0	-100	1.9	-97	0.0	-100
Gazipur	0.0	-100	11.9	-85	40.4	13
Gonda	0.0	-100	8.7	-89	0.0	-100
Gorakhpur	0.0	-100	18.4	-80	1.8	-95
Hardoi	0.0	-100	8.3	-90	26.2	12
Jaunpur	0.0	-100	3.8	-95	4.8	-87
Kannauj	0.0	-100	19.0	-65	11.7	-52
Kanpur City	0.0	-100	17.4	-68	39.4	89
Kanpur Dehat	0.0	-100	0.7	-99	0.0	-100
Kaushambi	0.0	-100	1.9	-96	0.8	-97
Kheri	0.6	-99	18.3	-72	16.7	-52
Kushi nagar	0.0	-100	4.0	-95	1.5	-97
Lucknow	0.0	-100	6.4	-89	5.7	-79
Maharajganj	0.0	-100	13.0	-84	2.5	-94
Mau	0.0	-100	17.0	-83	5.5	-82

Mirzapur	0.0	-100	0.5	-99	4.7	-88
Pratapgarh	0.0	-100	45.7	-37	6.7	-76
RaiBareilly	0.0	-100	13.9	-76	2.0	-92
Sahuji Maharajnagar	0.0	-100	3.0	-96	16.5	-40
Sant Kabirnagar	0.0	-100	3.0	-96	108.0	269
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	0.0	-100	0.0	-100	19.8	-23
Sidharthnagar	6.1	-88	0.0	-100	0.5	-98
Sitapur	0.0	-100	10.3	-86	15.9	-36
Sonbhadra	1.1	-98	2.1	-97	6.6	-76
Sultanpur	0.0	-100	7.5	-88	2.3	-92
Unnao	0.5	-99	0.8	-99	22.5	-8
Varanasi	0.0	-100	0.0	-100	10.1	-73
West Uttar Pradesh						
Agra	0.0	-100	9.8	-76	14.1	-17
Aligarh	0.0	-100	0.0	-100	26.5	72
Auraiya	0.0	-100	1.0	-98	8.0	-57
Badaun	0.0	-100	0.4	-99	33.0	39
Baghpat	0.0	-100	0.0	-100	12.7	65
Bareilly	0.0	-100	0.0	-100	32.2	9
Bijnor	0.0	-100	0.0	-100	99.2	574
Bulandsahar	0.0	-100	0.0	-100	3.2	-81
Etah	0.0	-100	0.0	-100	18.3	-1
Etawah	0.0	-100	0.0	-100	40.8	81
Firozabad	0.0	-100	0.0	-100	15.8	-46
GBNagar	0.0	-100	0.0	-100	0.0	-100
Ghaziabad	0.0	-100	0.0	-100	19.2	81
Hamirpur	0.0	-100	7.0	-86	15.8	-40
Jalaun	0.0	-100	2.8	-95	0.3	-99
Jhansi	0.0	-100	9.3	-81	12.1	-56
Jotiba Phule Nagar	0.0	-100	0.0	-100	25.0	10
Kanshiramnagar	0.0	-100	0.0	-100	3.0	-85
Lalitpur	0.0	-100	0.0	-100	0.0	-100
Mahamaya Nagar	0.0	-100	0.0	-100	31.0	150
Mahoba	0.0	-100	17.8	-61	2.0	-92
Mainpuri	0.0	-100	1.5	-97	7.6	-61
Mathura	0.0	-100	0.0	-100	26.1	146
Meerut	0.0	-100	1.2	-98	33.5	126
Moradabad	0.0	-100	0.0	-100	30.1	11
Muzzaffarnagar	0.0	-100	0.0	-100	78.2	630
Pilibhit	0.0	-100	0.0	-100	4.7	-84
Rampur	0.0	-100	0.0	-100	5.8	-84
Saharanpur	0.0	-100	0.0	-100	75.3	450
Shahjahanpur	0.0	-100	0.0	-100	6.7	-65
Uttarakhand						
Almora	22.3	-45	0.7	-98	10.1	-62
Bageshwar	21.5	-47	0.0	-100	16.5	-38
Chamoli	9.7	-80	0.0	-100	36.3	71

Champawat	0.0	-100	2.0	-97	49.5	32
Dehradun	13.8	-85	10.1	-86	34.7	-14
Garhwal Pauri	10.0	-85	4.7	-92	24.4	-7
Garhwal Tehri	2.1	-97	0.0	-100	14.3	-39
Haridwar	5.6	-91	0.0	-100	32.8	98
Nainital	21.5	-70	19.4	-76	32.3	-32
Pithoragarh	23.8	-74	9.0	-89	24.6	-51
Rudraprayag	19.5	-76	0.0	-100	27.7	-8
Udham Sing Nagar	0.0	-100	0.9	-99	58.4	80
Uttarkashi	31.0	-50	0.3	-99	21.6	-32
Bihar						
Araria	47.4	-32	15.2	-82	58.9	20
Arwal	0.0	-100	0.0	-100	71.6	88
Aurangabad	0.0	-100	2.0	-97	58.5	82
Banka	0.0	-100	0.0	-100	51.9	10
Begusarai	8.1	-86	5.2	-90	76.1	40
Bhabua	0.0	-100	0.0	-100	67.5	58
Bhagalpur	4.6	-91	47.5	-13	85.3	72
Bhojpur	3.0	-95	0.0	-100	15.6	-60
Buxar	0.0	-100	16.4	-80	74.8	161
Darbhanga	15.6	-66	3.2	-94	33.4	-3
East Champaran	12.1	-77	22.8	-61	32.0	-26
Gaya	0.0	-100	1.3	-98	76.8	128
Gopalganj	0.0	-100	28.4	-66	5.7	-85
Jahanabad	0.0	-100	0.0	-100	97.3	98
Jamui	0.0	-100	5.2	-91	73.3	57
Kathihar	7.3	-89	4.7	-93	81.9	69
Khagadia	24.8	-59	15.3	-78	134.3	107
Kishanganj	46.5	-51	25.6	-68	117.2	55
Lakhisarai	2.1	-96	32.7	-40	39.9	-26
Madhepura	1.0	-99	14.1	-80	93.6	131
Madhubani	10.5	-81	22.8	-58	49.5	35
Monghyar	21.1	-60	3.0	-94	140.8	161
Muzaffarpur	9.4	-79	4.5	-93	8.9	-79
Nalanda	0.0	-100	0.0	-100	59.0	29
Nawada	0.0	-100	1.4	-97	46.7	48
Patna	1.3	-98	4.0	-94	40.2	-5
Purnea	24.9	-66	19.3	-77	32.8	-35
Rohtas	0.3	-99	10.0	-85	17.4	-44
Saharsha	7.3	-91	5.5	-94	119.3	117
Samstipur	38.2	-26	6.3	-90	155.4	156
Saran	0.0	-100	2.2	-97	9.1	-77
Sheikpura	2.3	-95	16.6	-69	57.4	40
Sheohar	51.4	9	26.2	-44	8.2	-81
Sitamarhi	23.6	-50	9.4	-80	35.8	-16
Siwan	0.0	-100	0.4	-99	10.4	-77
Supaul	11.4	-78	23.5	-63	100.8	161
Vaishali	9.4	-84	2.8	-95	39.6	-23
West Champaran	8.8	-81	27.4	-70	5.9	-88

Jharkhand						
Bokaro	3.3	-96	3.0	-95	31.4	-14
Chatra	0.0	-100	4.9	-92	21.0	-58
Deoghar	0.0	-100	3.5	-94	73.3	34
Dhanbad	0.5	-99	1.7	-98	45.0	-11
Dumka	0.0	-100	9.8	-85	81.0	79
East Singbhum	1.9	-97	27.7	-51	80.0	120
Garhwa	0.0	-100	0.0	-100	24.0	-21
Giridih	5.3	-91	0.9	-99	46.9	18
Godda	6.9	-86	10.6	-84	73.1	83
Gumla	3.6	-95	3.2	-95	73.8	60
Hazaribagh	0.0	-100	2.3	-97	69.0	83
Jamtara	2.3	-97	6.0	-93	67.3	35
Khunti	0.0	-100	0.0	-100	36.0	-33
Koderrna	4.7	-92	5.0	-91	52.4	34
Latehar	0.0	-100	0.0	-100	59.3	97
Lohardagga	0.0	-100	0.0	-100	45.5	-7
Pakur	2.4	-97	9.5	-88	95.0	10
Palamau	0.0	-100	4.6	-93	49.8	23
Ramgarh	0.0	-100	4.6	-93	99.0	144
Ranchi	0.0	-100	1.9	-97	21.4	-52
Sahebganj	22.6	-67	0.0	-100	118.6	67
Saraikela	0.0	-100	20.9	-69	19.8	-53
Simdega	10.5	-88	17.1	-80	34.2	-19
West Singbhum	63.8	-3	24.6	-56	8.3	-78
East Rajasthan						
Ajmer	0.1	-99	0.2	-99	3.8	-35
Alwar	0.0	-100	0.0	-100	53.9	429
Banswara	0.0	-100	4.1	-87	20.1	3
Baran	2.3	-95	0.0	-100	6.6	-63
Bharatpur	0.0	-100	0.0	-100	18.8	79
Bhilwara	1.1	-97	2.0	-89	7.4	-23
Bundi	0.5	-99	0.7	-97	2.5	-76
Chittorgarh	1.5	-97	0.0	-100	13.0	10
Dausa	0.0	-100	0.0	-100	9.8	-20
Dholpur	0.0	-100	8.3	-77	14.7	-17
Dungarpur	0.0	-100	0.8	-97	45.9	337
Jaipur	0.1	-99	0.0	-100	8.4	-1
Jhalawar	8.5	-86	0.0	-100	5.4	-75
Jhunjhunu	0.0	-100	0.0	-100	20.8	131
Karauli	0.0	-100	0.0	-100	10.8	-3
Kota	7.2	-86	0.0	-100	1.9	-87
Pratapgarh	0.0	-100	4.4	-86	5.6	-78
Rajsamand	1.0	-97	1.9	-86	7.6	-32
Sawai Madhopur	0.7	-98	0.0	-100	7.3	-41
Sikar	0.0	-100	0.0	-100	5.1	-1
Sirohi	2.9	-96	0.0	-100	30.1	198
Tonk	2.0	-94	0.0	-100	5.9	-34
Udaipur	0.0	-100	2.0	-90	40.6	203

West Rajasthan						
Barmer	0.1	-99	0.0	-100	60.6	1990
Bikaner	0.0	-100	0.0	-100	33.6	469
Churu	0.0	-100	0.0	-100	8.4	14
Hanumangarh	0.0	-100	0.0	-100	52.4	774
Jaisalmer	0.0	-100	0.0	-100	51.1	3308
Jalore	0.0	-100	0.0	-100	16.6	296
Jodhpur	0.0	-100	0.0	-100	19.3	435
Nagaur	0.0	-100	0.2	-98	9.3	55
Pali	0.2	-99	0.0	-100	4.8	-27
Sri Ganganagar	0.0	-100	0.0	-100	79.3	1424
Gujarat Region						
Ahmedabad	0.6	-99	5.7	-78	48.4	253
Anand	0.0	-100	0.4	-99	91.5	475
Banaskantha	1.3	-97	0.0	-100	26.5	185
Baroda	0.3	-99	20.7	-48	38.9	66
Broach	1.2	-98	19.4	-32	84.7	307
DNH	1.1	-99	118.3	189	189.2	188
Dahod	0.0	-100	6.3	-82	20.9	-11
Daman	12.0	-91	88.4	116	227.0	246
Dangs	0.0	-100	30.0	-56	294.0	446
Gandhinagar	0.0	-100	0.2	-99	70.3	392
Kheda	0.6	-99	0.0	-100	73.1	332
Mehsana	0.1	-99	0.7	-98	37.5	172
Narmada	4.7	-92	41.5	5	54.4	124
Navsari	0.0	-100	65.6	19	280.7	728
Panchmahal	0.4	-99	3.2	-92	30.9	37
Patan	3.0	-91	0.4	-98	38.1	546
Sabarkantha	0.1	-99	0.9	-97	87.8	456
Surat	3.1	-96	59.4	57	188.5	598
Tapi	0.0	-100	70.6	77	142.8	396
Valsad	0.9	-99	58.5	7	241.7	516
S K & Diu region						
Amreli	5.0	-78	41.4	130	154.9	614
Bhavnagar	0.0	-100	27.9	51	109.0	440
Diu	0.0	-100	17.1	15	198.7	2323
Jamnagar	0.5	-97	35.1	79	79.7	1007
Junagarh	4.3	-83	39.9	62	155.0	845
Kutch	8.9	-60	0.7	-97	42.4	843
Porbandar	0.0	-100	4.5	-84	101.8	714
Rajkot	4.6	-80	24.9	11	102.8	568
Surendranagar	0.0	-100	15.6	12	30.0	114
Maharashtra						
Konkan & Goa						
Mumbai City	63.4	-22	166.2	171	26.3	-53
Mumbai Suburban	0.5	-99	109.3	78	44.2	-21
North Goa	27.7	-67	115.5	105	95.7	82
Raigad	2.3	-98	108.0	48	123.7	90

Ratnagiri	7.0	-93	152.2	139	101.6	63
Sindhudurg	20.5	-74	96.7	46	94.5	66
South Goa	9.3	-88	169.3	235	112.1	118
Thane	2.1	-98	61.6	3	154.1	161
Madhya Maharashtra						
Ahmednagar	41.3	88	76.2	149	50.5	50
Dhule	3.2	-85	35.0	72	143.1	569
Jalgaon	10.4	-70	21.8	-16	95.4	320
Kolhapur	3.0	-94	38.9	30	9.5	-77
Nandurbar	0.7	-98	64.5	122	133.9	421
Nasik	19.4	-59	37.0	-7	138.4	326
Pune	5.2	-84	79.3	164	67.1	78
Sangli	20.9	15	70.0	168	13.5	-66
Satara	5.6	-77	77.0	221	14.8	-61
Solapur	26.5	11	59.4	60	11.3	-76
Marathwada						
Aurangabad	33.2	3	35.6	16	121.6	268
Beed	43.5	18	46.8	37	17.5	-58
Hingoli	54.7	15	44.5	70	70.7	112
Jalna	36.4	9	29.1	1	84.9	196
Latur	55.6	20	72.0	95	16.9	-45
Nanded	33.3	-28	36.4	21	46.2	15
Usmanabad	44.8	18	87.0	106	6.0	-86
Parbhani	54.2	10	37.5	32	48.1	30
Vidarbha						
Akola	27.7	-21	36.9	14	66.7	173
Amraoti	20.0	-57	16.0	-55	67.7	147
Bhandara	1.1	-98	25.4	-55	106.8	271
Buldhana	30.6	-6	38.8	48	112.2	354
Chandrapur	29.7	-55	44.9	-15	161.4	389
Gadchiroli	22.6	-67	45.1	-2	103.2	234
Gondia	14.5	-78	18.2	-71	146.1	352
Nagpur	20.2	-65	22.2	-45	76.1	131
Wardha	14.4	-75	30.9	8	89.1	174
Washim	18.9	-60	21.3	-41	92.0	211
Yeotmal	8.8	-81	40.0	63	117.3	280
Odisha						
Angul	15.2	-80	67.0	12	57.0	47
Balasore	2.7	-96	73.8	-14	28.3	-51
Bargarh	11.1	-86	20.1	-71	55.3	58
Bhadrak	12.7	-76	56.8	-7	22.6	-53
Bolangir	13.1	-82	92.4	40	79.1	117
Boudh	1.3	-98	57.8	-22	67.8	51
Cuttack	44.2	-47	98.4	62	44.9	-4
Deogarh	41.7	-53	37.5	-45	75.7	113
Dhenkanal	23.1	-67	64.0	12	38.5	-8
Gajapati	57.3	26	143.4	132	30.6	-55
Ganjam	43.5	-4	177.5	225	71.4	36
Jagatsingpur	60.8	-6	62.9	6	29.1	-39






Jajpur	22.4	-64	59.1	-4	40.5	-38
Jharsuguda	17.6	-79	27.6	-59	158.6	324
Kalahandi	14.7	-78	238.0	208	67.1	68
Kandhamal	4.9	-91	161.4	117	46.2	3
Kendrapara	15.7	-77	63.8	6	35.8	-29
Keonjhar	14.9	-72	46.0	-24	39.3	-20
Khurda	44.5	-37	106.1	58	21.2	-60
Koraput	48.8	-34	267.5	270	138.1	129
Malkangiri	15.6	-82	77.6	56	363.4	690
Mayurbhanj	4.3	-94	60.4	-15	35.3	-37
Nawapara	13.5	-75	38.0	-30	148.0	310
Nawarangpur	25.6	-70	279.0	309	224.3	418
Nayagarh	18.6	-72	175.6	218	75.1	33
Puri	26.3	-64	94.2	46	51.7	13
Rayagada	11.7	-81	188.0	265	58.7	33
Sambalpur	6.7	-92	21.4	-69	75.1	112
Sonepur	7.1	-92	58.3	-26	33.8	-10
Sundargarh	19.8	-71	19.5	-71	59.8	67
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	72.2	-9	104.5	51	75.1	-10
North & Middle Andaman	69.3	-42	155.0	59	200.9	94
South Andaman	75.3	-27	159.8	82	206.7	76
GWB						
Bankura	3.6	-94	9.5	-83	49.7	8
Birbhum	7.2	-89	8.9	-84	94.0	42
Burdwan	25.3	-58	3.9	-94	38.0	-23
East Midnapore	18.9	-76	26.2	-71	101.5	86
Hooghly	37.5	-45	11.5	-78	81.7	82
Howrah	20.9	-68	50.0	-33	80.9	90
Kolkata	52.7	-29	66.0	-3	93.1	85
Murshidabad	13.3	-77	11.4	-79	93.1	87
Nadia	28.9	-43	8.0	-81	84.3	69
24 Pargana (N)	12.3	-81	8.7	-86	109.9	81
Purulia	1.3	-98	14.0	-81	27.1	-32
24 Pargana (S)	13.3	-85	50.2	-44	99.4	79
West Midnapore	3.4	-95	20.8	-72	105.7	145
SHWB & Sikkim						
Cooch Behar	61.9	-50	46.1	-63	136.0	46
Darjeeling	96.2	-29	71.0	-47	164.5	73
East Sikkim	50.2	-51	76.7	-12	105.7	64
Jalpaiguri	99.7	-19	42.9	-66	121.4	9
Malda	12.5	-79	2.5	-96	85.2	51
North Dinajpur	50.3	-40	79.4	-11	37.3	-54
North Sikkim	59.7	-43	57.9	-43	104.6	37
South Dinajpur	37.1	-37	14.3	-83	71.3	34
South Sikkim	74.7	-26	106.2	22	134.8	109
West Sikkim	84.0	-19	93.0	-9	130.5	71

Karnataka						
Coastal Karnataka						
Dakshina Kannada	43.2	-48	90.4	36	61.6	2
Udupi	107.8	-4	172.7	111	64.7	-19
Uttara Kannada	45.9	-36	147.6	183	52.5	-2
NI Karnataka						
Bagalkote	61.8	251	113.2	332	12.2	-74
Belagavi	13.8	-5	47.7	149	13.9	-60
Bidar	65.1	68	80.7	127	25.4	-38
Dharwad	24.4	72	25.0	27	4.2	-90
Gadag	37.4	111	37.3	52	12.1	-74
Haveri	23.2	132	16.6	-5	1.1	-96
Kalaburgi	30.6	-19	97.9	167	16.8	-66
Koppal	63.1	241	96.4	233	21.3	-59
Raichur	128.7	465	133.0	345	6.2	-86
Vijayapura	87.9	284	76.1	136	17.5	-65
Yadgir	40.1	23	93.0	174	6.8	-88
SI Karnataka						
Ballari	133.0	656	29.8	17	7.5	-85
Bangalore Rural	116.6	315	14.5	-59	11.4	-80
Bangalore Urban	110.4	254	5.7	-85	8.8	-85
Chamarajanagar	41.7	202	1.4	-95	0.0	-100
Chikaballapur	73.4	188	5.3	-83	4.1	-91
Chikkamagaluru	58.9	71	32.5	11	15.3	-68
Chitradurga	86.8	933	11.6	-37	1.5	-96
Davangere	58.7	439	30.9	42	1.8	-96
Hassan	68.4	365	2.2	-87	1.9	-95
Kodagu	104.0	98	26.2	-30	26.6	-47
Kolar	78.8	222	4.3	-87	4.8	-90
Mandya	41.3	185	5.7	-79	1.5	-96
Mysuru	32.6	177	4.2	-80	0.9	-97
Ramanagara	120.5	428	4.0	-90	5.8	-91
Shivamogga	37.5	16	97.2	308	33.1	-1
Tumakuru	116.4	503	9.1	-71	6.0	-88
Kerala						
Alappuzha	29.2	-47	45.5	-24	87.1	32
Kannur	143.1	149	56.9	46	52.5	27
Ernakulam	122.5	101	70.6	12	100.0	42
Idukki	99.6	71	30.5	-48	67.6	-2
Kasaragod	67.9	-7	66.7	27	31.7	-40
Kollam	76.3	84	56.3	50	59.5	3
Kottayam	118.0	120	50.3	-10	77.7	31
Kozhikode	149.3	164	33.5	-26	97.6	84
Malappuram	149.9	235	13.5	-64	52.5	14
Palakkad	68.9	85	20.5	-35	34.7	-8
Pathanamthitta	109.6	113	56.4	-1	64.4	15
Thiruvananthapuram	121.1	325	89.0	230	60.9	44
Thrissur	109.9	116	53.4	-10	81.7	33
Wayanad	115.6	101	20.5	-51	10.6	-78

Tamil Nadu						
Ariyalur	2.3	-92	6.0	-83	5.5	-84
Chennai	0.0	-100	38.8	58	30.7	11
Coimbatore	18.1	124	4.6	-70	3.5	-84
Cuddalore	7.5	-68	6.3	-77	12.1	-67
Dharmapuri	35.5	45	1.7	-96	9.1	-82
Dindigul	36.0	71	3.8	-88	0.4	-99
Erode	33.4	132	0.6	-98	0.0	-100
Kanchipuram	11.7	-64	31.1	9	13.3	-62
Kanyakumari	58.7	180	68.1	334	40.7	62
Karikal	63.0	266	0.9	-96	3.7	-91
Karur	28.8	77	0.0	-100	0.0	-100
Krishnagiri	53.2	126	1.4	-96	18.7	-68
Madurai	20.0	-19	0.0	-100	0.0	-100
Nagapattinam	0.0	-99	5.4	-73	4.0	-84
Namakkal	46.9	145	4.4	-87	4.3	-88
Nilgiris	60.5	131	1.2	-96	4.2	-89
Perambalur	32.3	57	0.0	-100	1.3	-97
Puducherry	32.1	4	0.7	-98	34.5	19
Pudukottai	22.1	7	0.9	-97	11.2	-64
Ramanathapuram	17.1	111	0.8	-94	2.1	-87
Salem	38.8	47	2.6	-94	13.9	-70
Sivaganga	15.9	-11	1.2	-95	0.3	-99
Thanjavur	15.1	-22	3.1	-88	13.6	-56
Theni	54.0	620	4.5	-70	3.1	-85
Tirunelveli	24.7	518	8.7	21	4.5	-52
Tirupur	29.2	240	0.0	-100	0.0	-100
Tiruvallur	12.9	-51	12.3	-57	32.6	6
Tiruvannamalai	18.7	-40	17.6	-57	3.9	-91
Tiruvarur	22.7	16	0.4	-98	8.3	-69
Toothukudi	10.5	52	0.4	-93	0.0	-100
Trichy	15.8	-35	11.5	-66	0.9	-98
Vellore	37.8	32	4.7	-88	24.8	-47
Villupuram	41.1	57	7.2	-81	21.4	-46
Virudhunagar	19.0	53	0.0	-100	0.0	-100
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	48.4	24	59.8	86	35.7	-20
Guntur	41.3	24	61.1	137	22.1	-41
Krishna	34.5	-4	45.4	49	49.7	17
Nellore	26.1	42	31.1	52	35.4	13
Prakasam	39.8	92	45.9	150	5.2	-85
Sirkakulam	38.9	-16	87.4	84	53.5	-7
Visakhapatnam	32.4	-22	161.1	320	44.2	-11
Vizianagram	62.9	30	114.7	122	31.3	-42
West Godavari	25.4	-40	95.9	178	34.8	-20
Rayalaseema						
Anantapur	87.3	432	20.3	-29	0.7	-98

Chittoor	47.7	83	7.3	-76	34.5	-5
Cuddapah	65.1	183	39.8	57	4.0	-89
Kurnool	49.9	128	72.2	171	13.1	-70
Telangana						
Adilabad	21.8	-57	50.1	63	97.2	131
Hyderabad	21.8	-44	72.8	136	23.5	-51
Karimnagar	50.1	18	46.3	50	110.4	157
Khammam	33.1	-23	79.5	117	62.7	52
Mehabubnagar	32.8	15	49.5	70	13.6	-67
Medak	27.3	-29	62.2	80	14.1	-70
Nalgonda	56.1	66	54.4	97	13.4	-68
Nizamabad	22.6	-55	38.3	13	17.2	-53
Rangareddy	34.4	-14	41.6	14	13.6	-73
Warangal	24.4	-42	78.4	150	62.9	59

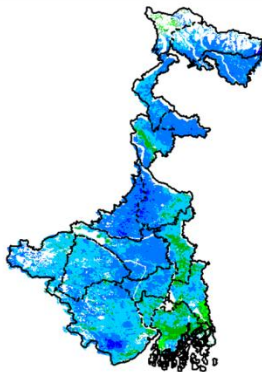
Legends

	(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

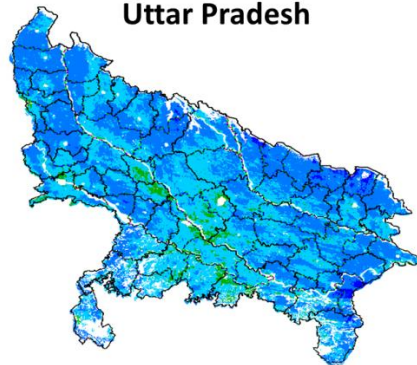
INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON 23rd SEPTEMBER 2015 FOR DIFFERENT STATES

West Bengal



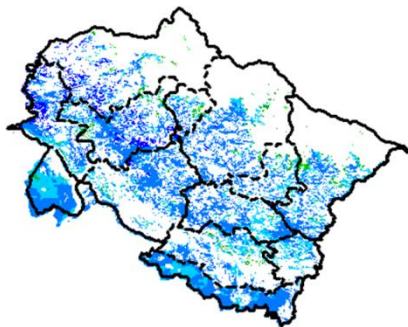
Agricultural vigour is good in western and southern parts of West Bengal NDVI varying from 0.4-0.6., whereas patches in northern and south western region shows lower values of NDVI (0.2-0.4)

Uttar Pradesh



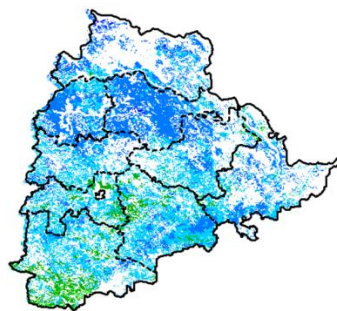
Agricultural vigour is good over the entire state of Uttar Pradesh where NDVI value varies from 0.4 - 0.6. In some patches NDVI values (> 0.6) are observed.

Uttarakhand



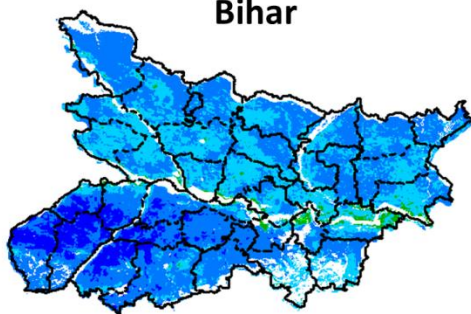
Agriculture vigour is very good over entire state of Uttarakhand with NDVI value is greater than 0.6.

Telangana



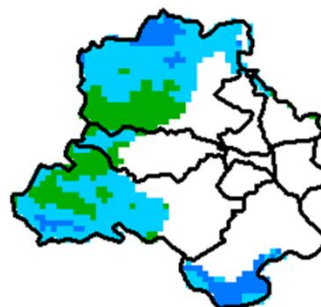
Agriculture vigour is good over northern and eastern regions in Telangana where NDVI value lies between 0.4-0.6. Agriculture vigour is moderate in the southern part (NDVI 0.2-0.3).

Bihar



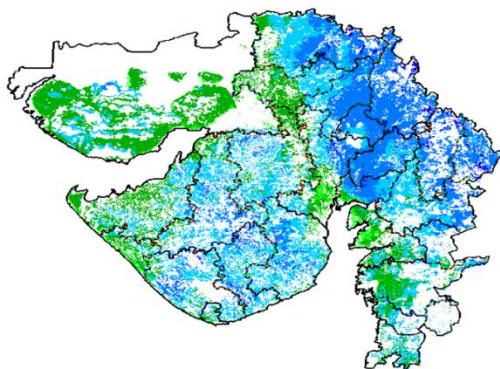
South-western part of Bihar shows comparatively a high value (>0.6) of NDVI, whereas NDVI varies from 0.4-0.6 over the remaining parts of the state.

Delhi



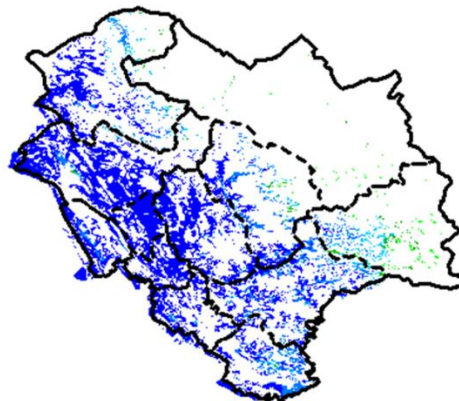
Agriculture vigour is good all over Delhi where NDVI value lies between 0.3-0.6.

Gujarat



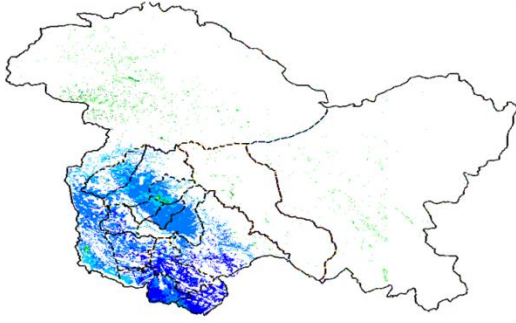
Agriculture vigour is normal in some patches in Saurashtra and Kutch region whereas, good agricultural vigour is observed over Gujarat region where NDVI value lies between 0.4-0.6.

Himachal Pradesh



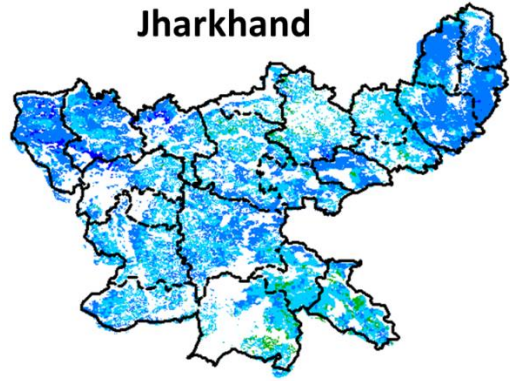
Agriculture vigour is very good over Himachal Pradesh where NDVI values are > 0.6 .

Jammu & Kashmir



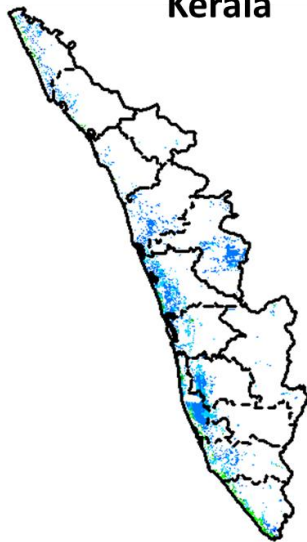
Agriculture vigour is good all over Jammu and Kashmir. NDVI value varies in between 0.4-0.6 in south western parts.

Jharkhand



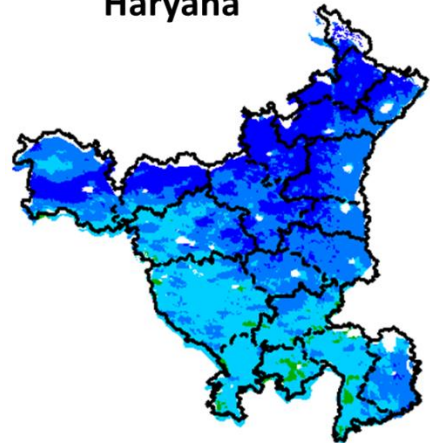
Agriculture vigour is good over entire state of Jharkhand, NDVI value varies from 0.4 - 0.6.

Kerala



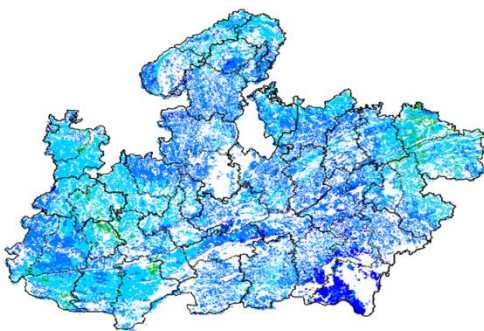
Central and eastern regions of Kerala show NDVI values varying from 0.4 to 0.5, whereas normal NDVI values observed in southern and northern region.

Haryana



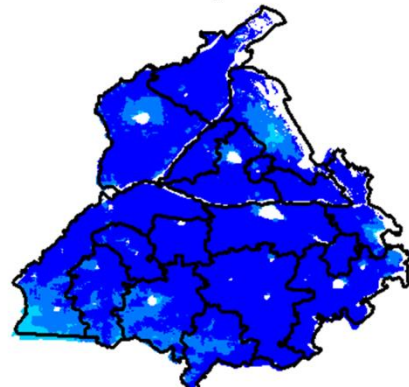
Agriculture vigour is good over the entire state of Haryana. NDVI values vary between 0.4-0.6. The northern part shows increase in NDVI (> 0.6).

Madhya Pradesh



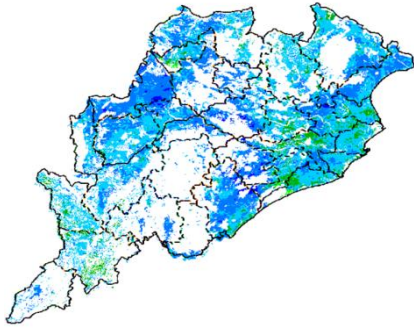
Agriculture vigour is very good over entire state of Madhya Pradesh. NDVI varies from 0.4-0.6. In some patches over southern part of Madhya Pradesh NDVI is greater than 0.6.

Punjab



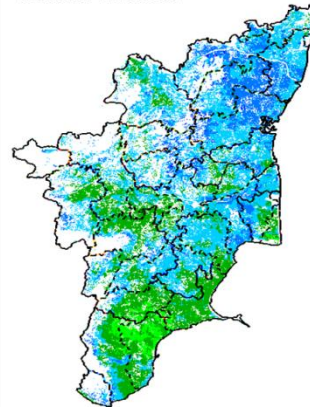
Agricultural vigour is very good over entire state of Punjab, showing NDVI value >0.6.

Odisha



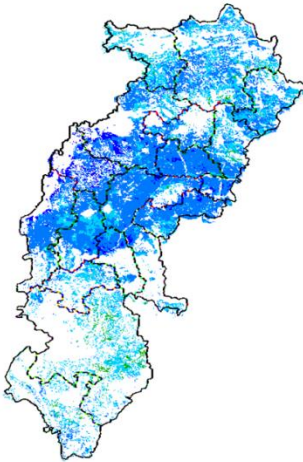
Agricultural vigour is normal over coastal Odisha with NDVI value ranging between 0.2 - 0.4. Higher (> 0.4) values are seen in eastern and northern regions of the state.

Tamil Nadu



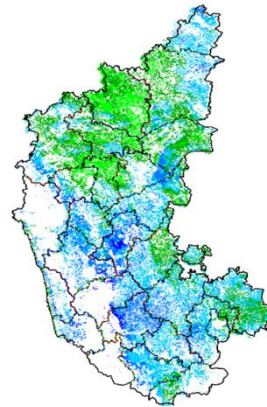
Agricultural vigour is normal over Tamil Nadu with NDVI values varying from 0.2 - 0.3 in the southern parts. In northern region NDVI value ranges from 0.4-0.6.

Chhattisgarh



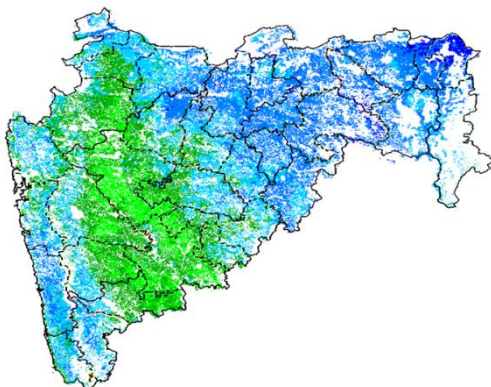
Agriculture vigour is good over central and Northern regions of Chhattisgarh where NDVI value lies in between 0.4-0.6. Few patches in southern part show moderate NDVI values.

Karnataka



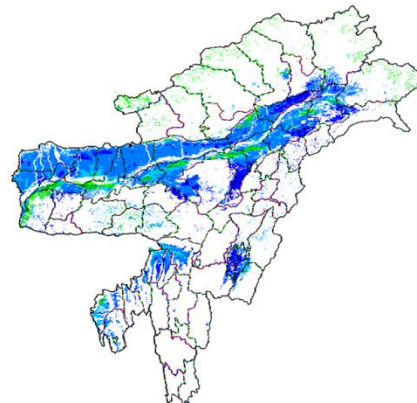
Agricultural vigour is normal over entire state of Karnataka between 0.2-0.4, except some patches in central and southern regions shows higher NDVI values between 0.4-0.5.

Maharashtra

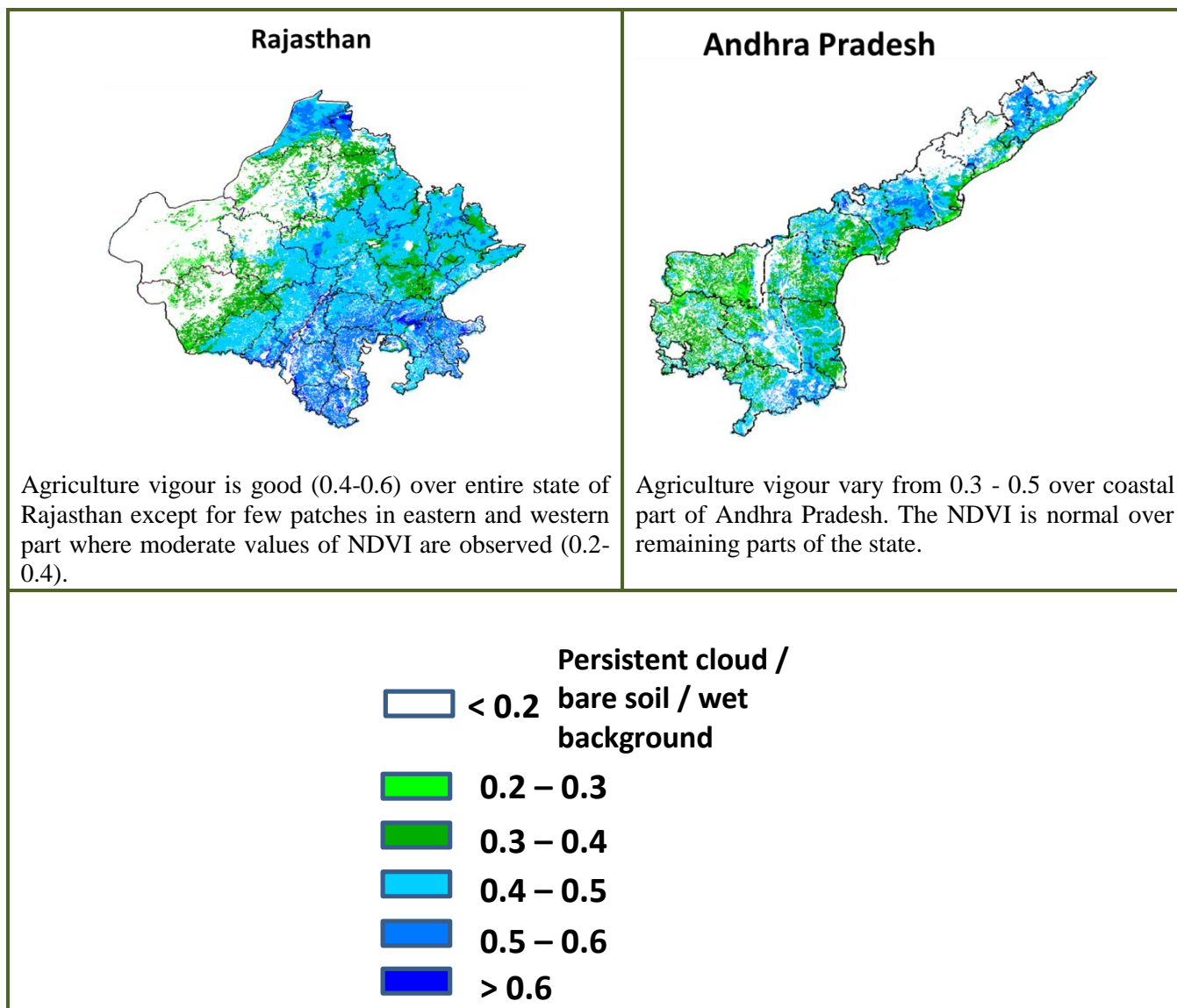


Agricultural vigour is good over Western Ghats, Marathwada and Vidharbha regions with NDVI values from 0.4 - 0.6, whereas NDVI is normal over parts of Madhya Maharashtra region 0.2-0.4.

North East Region



Agriculture vigour is good in North-East states which covers valley part of Assam, Manipur and Tripura where NDVI values ranges from 0.4 -0.6 whereas, agricultural vigour is normal(0.2-0.4) in the northern and eastern states of North-East.



Annexure III

List of varieties

North Inerior Karnataka

Groundnut:Bunch type of varieties, JL-24 and TMV-2,S-230, Mardur local.

Paddy: short duration varieties Amrut, MGD-101, MTU-1001 in low lands, BR-2655, Tunga.

Sesame: E8,DS1, DSH9.

Maize: Arjun, 900 M.

Pearl millet: ICTP 8203 and ICMV 221.

Pigeon pea: Maruti, TS 3 R.

Red gram: BRG-1, BRG2, TTB-7.

Horse gram :KBH-1, PHG-9.

Tamil Nadu

Banana:poovan, rasthali, monthan, karpooravalli and neypoovan.

Kuruvai rice:ADT 36, ADT 43, ADT 45 and CO 51.

Andhra Pradesh

Rice: MTU-1010, Nellore masuri, Dharani, Shwetha.Sannalu, Swarna, Vasundhara, Suraksha, Vijetha.

Varieties for Early Kharif Rice Plantings - Pushkala, Rasi, IR64.

Groundnut: Kadiri-6, Kadiri-9, Narayani and dharani.

Castor: PCH-111, PCH-222, Kranti, GCH-4, Haritha.

Telangana

Red gram: PRG-158, Asha,LRG-41.

Sunflower: KBSH-1, NDSH-1, DRSB-1, APSH-66 hybrids.

Assam

Sali/ kharif rice :

Long duration high yielding varieties : Ranjit, Bahadur, Peoli, Moniram, Pankaj, Kushal , Swarna sub-1, Gitesh, Pankaj, Mashuri (for growing in typical lowland paddy area).

Medium duration paddy varieties : Satya and Basundhara (in medium lowland area).

Early cauliflower: Pusa Katki, Pusa Deepali and Early Kunwari.

Califlower : Japanese, Pusa synthetic, Pusa snowball and Main Crop Patna.

Broccoli : Early Danish Giant, De Cicco Green Bud, Sparton Early, Coastal and Atlantic.

Finger Millet : INR1008, TANU-9, Banars and Local varieties.

Black gram : KU 301, USJD 113, PU 19, T-9, T-27, Pant U-19, T-122, Saonia mah.

Green gram : Pratap, SG 21-5, T-44, Kopergaon, K-851, ML-56, ML-131, SG-1 (Pratap).

Kharif sesame : Gauri, Madhabi, ST-1683, Punjab Til No.1.

Radish : Pusa Desi, Pusa Chetki, Pusa Himani.

Meghalaya

Cauliflower: Meghalaya Local.

Pigeon Pea (Red Gram/Arhar) : UPAS-120, ICPL 87 (short duration), WB 20, Pusa 9 & Sarita (long duration).

Black gram : Pant U 19, T- 9 Azad urd 1.

Green gram : K 851, PDM 11, Pusa Vishal.

Pea: Arkel (for vegetables), TRC P8, TRC P9, Prakash, Rachna.

Kharif sesame : Gauri, Madhabi, ST-1683, Punjab Til No.1.

Red gram : UPAS-120, ICPL 87 (short duration), WB 20, Pusa 9 & Sarita (long duration).

French bean : Naga Local.

Manipur

Cauliflower: White shot, adopt White flash.

West Bengal

Dry Seeded rice: Sabita Foundation, Swarna sub-1 certified, IR-64, Hira T.L.

Mango: Himsagar, Mallicka, Langra.

Guava: Safeda, L-49.

Coconut: Eastcoastal, Hazari.

Banana: Mortoman, Chapa, Kathali, Singapuri.

Odisha

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

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.

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

Turmeric: Roma, Surama, Rang, Rashmi.

Jute:JRO-524(Naveen).

Maize:Navjot, Shakti, Decan-107, Decan-109.

Rice:Early:Jogesh, Siddant, Hazaridhan, Mandakini, Jyotirmayee, Virendra.

Medium:Pratikshya, Manaswini, Tapaswini MAS, Konark, Surendra,Kharavela, Naveen, Abhisek.

Late: Barsadhan, Ranidhan, Pooja, Mrinalini, RGL-2837, Moti, Ketakijoha, Padmini,Kanchana, Mahanadi,Jagabandhu.

Hybrid varieties: CR Dhan 701, NK 5251, JKRH 401, Ajay, Rajalaxmi, Arize 6444G.

Bihar

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

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

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

Turmeric: Improved Varieties- Rajendran,Sonia, Rajender Sonali.

Ginger: Improved varieties - Maran, Nadia.

Rice: Low land:Rajshree, Satyam, Rajendra ,Mehsooril MTU 7029(Swarna) ,Swarna sub-1.

Medium land:Sita, Kanak,IR 36,Rajendra,Shweta,Santosh,Shahbhagi.

Medium duration(Hybrid): P.H.B.71,Pusa R.H.10,K.R.H 2,P.A.644,Pant Sankardhan.

Til:Krishna., Kaakee safed,Kalika,Kalika,Pragati.

Jharkhand

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

Sugarcane: BO 147.

Rice: Upland Rice: Birsa Dhan 108, Birsa Vikash Dhan109.110,111 & Vandana.

Medium land: Anjali, Sahbhagi, Naveen, Birsamati, Sugandha, BR-10, IR-36.

Low land: Swarna (MTU-7029), Rajshree, Sambha Mahsuri (BPT-5204), Birsamati, Birsamati.

Finger Millet: Birsa marua 2, A-404, GPU 45, 47.

Urd Bean: T9, Pant U19, 30, 35 & Birsa Urd 1.

Arhar: Brisa Arhar-1, Narendra Arhar-1, Bahar, ICPH-2671.

Groundnut: A.K-12-24, Birsa Bold.

Sweet Potato: Birsa Sakarkandi & Shreebhadra.

Jammu & Kashmir

Cabbage: Golden Acre, Pride of India and Pusa Mukta.

Cauliflower: Giant Snow Ball, Pant Gobh 2 & 3 and Pusa Synthetic.

Himachal Pradesh

Cauliflower: snowball and Giant snowball.

Radish, pea: Arkal, VL-7.

Cabbage: India Golden, Hybrid Kismond.

Capsicum: solan hyb-1, californiawonder, yolo wonder, vlshimla mirch-2.

Brinjal: plr-1, azad (hybrid), ArkaNidhi, ArkaKeshav, HisarShaymal, PPC, F1 Chhaya, F1 Sandhya.

Tomato: solangola, Palam Pink, Palam Pride, F1 Avtar, F1 Rakshita.

Chilli: Surajmukhi.

Moong: PusaBaishakhi.

Mash: UG-218.

Carrot: Nantes and Chantenay.

Palak: Pusa Harit, Pusa Bharti.

Garden pea: PalamPriya, Azad P-1, PB-89, PalamSamool and Lincoln.

Carrot: Nantes and Chantenay.

Palak: PusaHarit, Pusa Bharti.

East Uttar Pradesh

Kharif onion: N-53, Agrifound red

Sorghum: Pusa chari-23, SSG-98-8MFSH-3, Pant-5 and MP chari

Lobia: Russian Joint, UPC-5286, UPC-5287, NP-3, Bundhel lobia-2, UPC-9202 and UPC-4200

Moong: Narendra moong-1, Pant moong-1, 3, 4, PDM-11, Samrat, Malveey - Jyoti, Janchetana, Jagruti, Janpriya, Jankalyani, Asha, Shweta, Neha, TM-9937, MH-215.

Urad: Narendra urd-1, Pant U-35, 31, Azad urd-2, 3, Shekhar-1, 2, 3.

Sugarcane: coj-64, cos-96268, cos-98231, cos-767, cos-84, cos-32, copant-84212, Ko.Sha.-88230, 95255, Ko.Sha.-95436, 01235.

Tomato: pusa early, pusa ruby, HS 101.

Cauliflower: pusa Dipali.

Pearl Millet: Raj WCC-75, ICMB-155, Pusa-322, 23, ICMH-451.

Seasame: T-4, 78, Shekhar, Pragati, Tarun.

Pigeon Pea: Bahar, Narendra Arhar-1, Azad, Pusa-9.

Jute: Jute Reshma, NDC (2007), NDC-2028, NDC-9102.

Okra: PusaSawani, VarsaUphar, Azad kranti.

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

Guava: Sardar (Lucknow-49).

West Uttar Pradesh

Ladies finger: VRO-6, VRO-5.

Pigeon pea: T-21, UPAS 120.

Cotton: H777, Dhanalakshami, HD107.

For fodder Jowar: JS 120, Lobia 88.

Punjab

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

Rice: Pusa-44, T.R-112 and T.R-113.

Delhi

Cotton: H-777, H-974, H-1098.

Pigeon pea: Pusa 2001, Pusa991, Pusa992, Paras manak, UPAS 120.

Bajra: Hybrid Bajra Pusa-605, Hybrid Bajra Pusa-415, Composite Bajra Pusa-383, HSV-67.

Maize: AH-421, AH-58 or Composites: Pusa composite-3, Pusa composite-4.

Guar: PusaNavbahar, DurgaBahar.

Radish: PusaChetki.

Cluster bean: PusaKomal.

Beans: PusaSem 2, PusaSem 3.

Spinach: PusaBharti.

Amaranths: PusalalChaulai, PusaKiran.

Ladyfinger: Pusa A-4.

East Rajasthan

Moong: Short dur K 851, Ganga 8, RMG 268 and SML 668,Pusa Vishal.

Urad: Short dur Pant U-19, Krishna, T-19, Pratap Urd-1, T-9, PU-19, RBU-38.

Guar: RGC-936,986,1002,1017,HG -365,563,Hg2-20. RGC-1003, RGC-1066.

Green gram Short dur RMG-492, RMG-268, SML-668 and RMG-344.

Cowpea: Short dur C-152, RS-9, FS-68, RC-19 and RC-101, C-152, RS-9.

Moth bean Short dur RMO-40, RMO-225, RMO-435, IPCMO-912.

Sorghum: CSH-6 (90-100 days), CSV-10 (100-110 days), CSV-15 (105-140 days).

Sesame : RT-125, RT- 127, RT- 346, RT -351.

Pearl millet : RHB-121, HHB-67.

Radish: Pusa Chetki.

Maize: Him-129, GM-6, Mahi Kanchan, Pratap Hybrid Maize-1, Pratap Makka-3, and Pratap Makka-5 and for fodder Pratap Makka Chari-6 and African tall.

Sorghum: CSV-17, Pratap Jowar-1430 and for fodder Pratap Chari-1080 and SSG-59-3.

Clusterbean: RGC-1031, RGC-1017, RGC-1055, RGC-1038.

Carrot: Pusa Keshar

West Rajasthan

Moong: Short dur RMG 344,268,K851,RMG 62, RMG 268, SML 668 and GM-4.

Moth bean: RMO-40, 257, 225, 435, 423 and CZM-2.

Guar: RGC-936, 197, 986, 1002, 1003, 1017 and 1066.

Til :- RT-125, RT- 127, RT- 346, RT -351.

Cowpea:RC-19, RC-101, RCP-27.

Bajra :- RHB-121, HHB-67.

Marathawada

Rabi jowar: Selection 3, Phule Malauli, Phule Anuradhada, Phule Vasudha, Phule Yeshodha, Parbhani Moti, CSV-22, PKV-Kranti, CSH-15, CSH-19.

Safflower: Shardha, Parbhani-12, Parbhani-40, Nari-6, Annegiri-1, Phule Kusum.

Gram: BDN-9-3, BDNG-979, Vishwas, Phule G-12, Vijay, Vishal, Digvijay.

Fodder jowar: Ruchira R-4-11, Nilva, MP chari, Pusa Chari, IS 4776, SG-14, MKV Chari.