



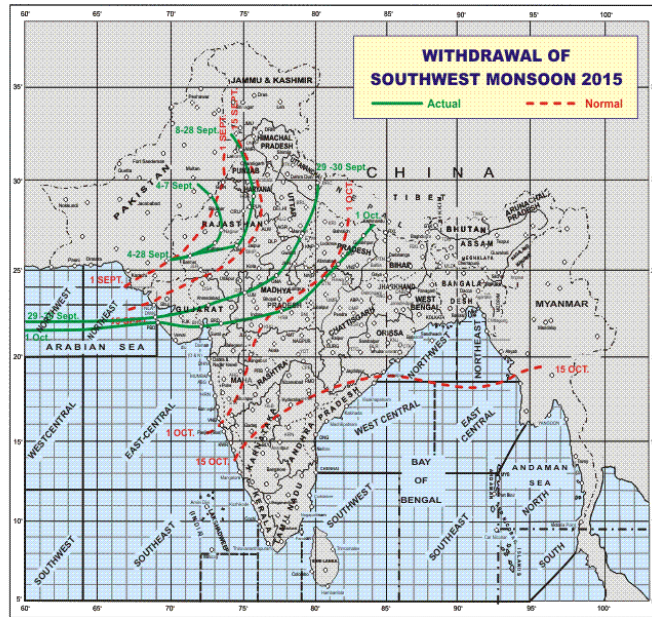
National Agromet Advisory Service Bulletin



Thursday 1st October 2015
(For the period 1st to 6th October 2015)

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

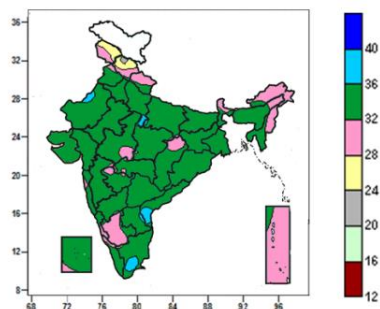
Monsoon Watch



- The South West Monsoon has further withdrawn from remaining parts of West Uttar Pradesh, most parts of East Uttar Pradesh, some more parts of Madhya Pradesh, Gujarat state and north Arabian sea.
- The withdrawal line of southwest monsoon passes through 28.0°N/Long. 84.0°E, Gorakhpur, Allahabad, Satna, Hosangabad, Bhavnagar, Porbandar, Lat.21.5°N/Long. 65.0°E and Lat.21.5°N/Long. 60.0°E.

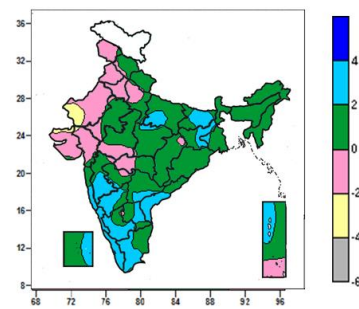
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 30.09.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 30.09.2015



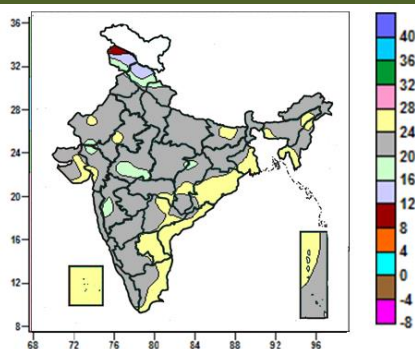
- Mean maximum temperature was between 36 to 40°C over some parts of Tamil Nadu, Coastal Andhra Pradesh and isolated pockets of West Rajasthan, Uttar Pradesh and Rayalaseema.
- It was below 36°C over remaining parts of the country.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 30.09.2015



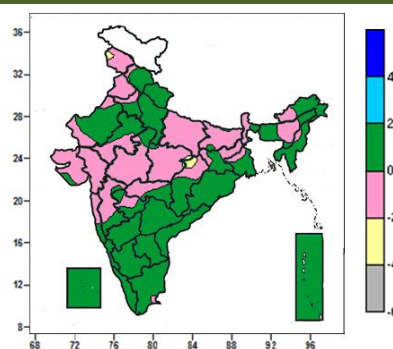
- Mean maximum temperature was above normal by 2 to 4°C over Coastal Karnataka, Kerala, many parts of Bihar, Konkan & Goa, Madhya Maharashtra, Interior Karnataka, Tamil Nadu Coastal Andhra Pradesh, some parts of East Uttar Pradesh, Jharkhand, Telangana, Rayalaseema, Lakshadweep, Andaman & Nicobar Islands and isolated pockets of Gangetic West Bengal, Marathwada, East Madhya Pradesh.
- Mean maximum temperature was below normal by 2 to 4°C over some parts of West Rajasthan and isolated pockets of Kutch and Gujarat region.
- It was normal to near normal in remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 30.09.2015



- Mean minimum temperature was between 8 to 12°C over some parts of Jammu & Kashmir.
- Mean minimum temperature was between 12 to 16°C over many parts of Jammu & Kashmir, Himachal Pradesh.
- Mean minimum temperature was between 16 to 20°C over some parts of Jammu & Kashmir, Himachal Pradesh, West Madhya Pradesh and isolated pockets of Uttarakhand, West Rajasthan, Gujarat region, Madhya Maharashtra, East Madhya Pradesh and Chhattisgarh.
- It was above 20°C over rest of the country.

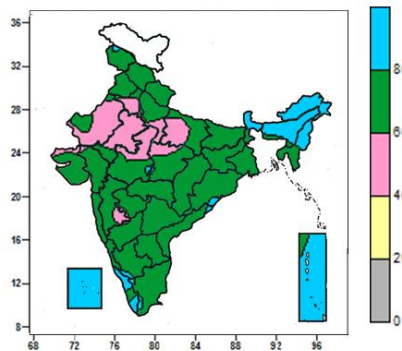
Mean Minimum Temperature (°C) Anomaly in India for the week ending 30.09.2015



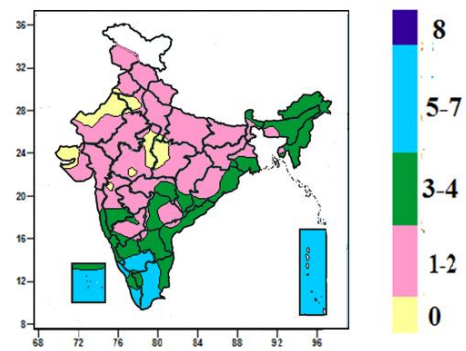
- Mean minimum temperature was below normal by 2 to 4°C over isolated pockets of Jammu & Kashmir, East Madhya Pradesh and Chhattisgarh.
- It was normal to near normal in remaining parts of the country.

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 30.09.2015

Relative Humidity (%) over India for the week ending 30.09.2015



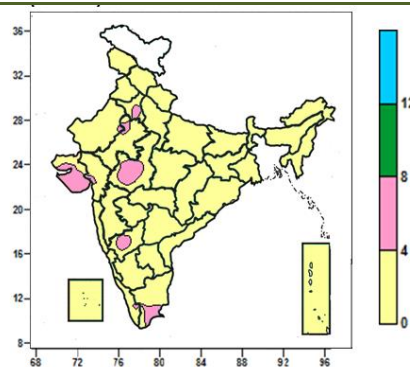
Cloud amount (okta) over India for the week ending 30.09.2015



- Mean Relative humidity was above 80% over Arunachal Pradesh, Nagaland, Manipur, Sikkim and Lakshadweep, many parts of Sub-Himalayan West Bengal, Assam & Meghalaya, Andaman & Nicobar Island, some parts of Kerala and isolated pockets of Jammu & Kashmir, West Madhya Pradesh, Odisha Mizoram, Coastal Andhra Pradesh, South Interior Karnataka and Tamil Nadu.
- Mean Relative humidity was 60 to 80% over rest of the country except many parts of Rajasthan, Haryana & Delhi, some parts of Uttar Pradesh, Madhya Pradesh and isolated pockets of Madhya Maharashtra where it was 40 to 60 %.

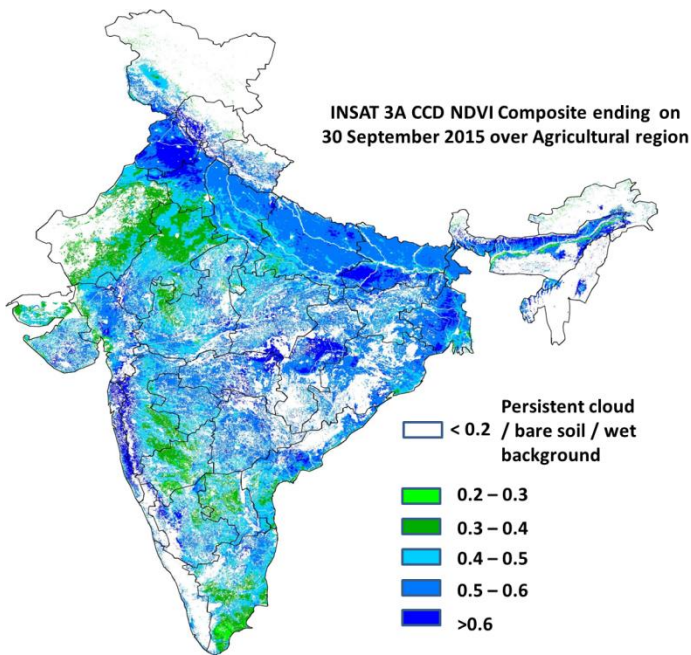
- Sky remained generally cloudy (5-7 okta) over Andaman & Nicobar Island, many parts of Lakshadweep, Tamil Nadu, some parts of South Interior Karnataka and Kerala.
- Sky remained partly cloudy (3-4 okta) over Arunachal Pradesh, Nagaland, Manipur, Mizoram, Sikkim, Goa, many parts of Assam & Meghalaya, Tripura, West Bengal, Coastal Karnataka, Andhra Pradesh, Telangana, some parts of Odisha, Chhattisgarh, Vidarbha, Konkan, Madhya Maharashtra, Interior Karnataka, Tamil Nadu and isolated pockets of Jharkhand, Lakshadweep and Kerala.
- Sky remained mainly clear/clear sky (1 to 2/0 okta) over rest of the country.

Wind speed (knots) over India for the week ending 30.09.2015



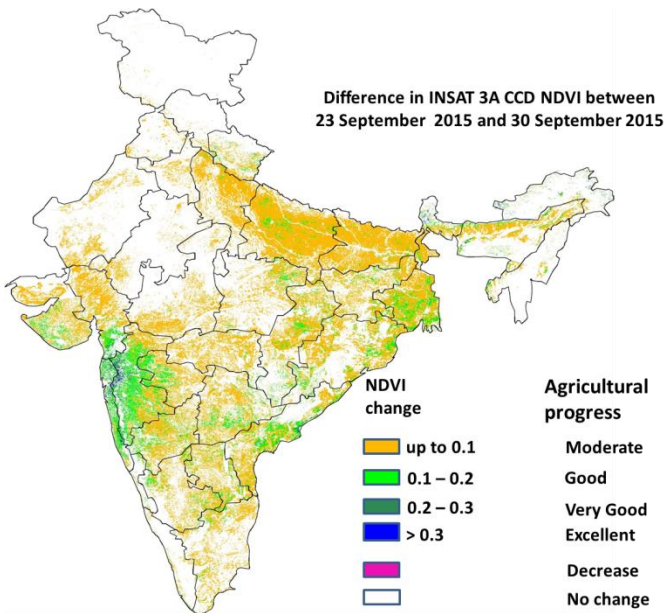
- Mean wind speed was 4 to 8 knots over many parts of West Madhya Pradesh, Saurashtra & Kutch, some parts of Haryana & Delhi, East Rajasthan, North Interior Karnataka, Tamil Nadu and isolated pockets of Gujarat region and Kerala.
- It was less than 4 knots over rest of the country.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 30th 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, Chhattisgarh, Coastal Maharashtra, Karnataka and Madhya Pradesh. Agricultural vigour is good in remaining parts of 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 West Rajasthan, Madhya Maharashtra and North Interior Karnataka.

Difference in INSAT 3A CCD NDVI between 23rd and 30th September 2015



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

- INSAT 3A CCD NDVI composite maps for the week ending on 30th September 2015 for different States are given below in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 6th October 2015

5 Day Rainfall Forecast (MORNING) 1st October 2015

Met Sub-divisions	01 Oct	02 Oct	03 Oct	04 Oct	05 Oct
1. Andaman & Nicobar Islands	FWS	SCT	SCT	FWS	FWS
2. Arunachal Pradesh	ISOL	ISOL	SCT	ISOL	ISOL
3. Assam & Meghalaya	ISOL	SCT	SCT	ISOL	ISOL
4. N. M. M. & T.	SCT	FWS	FWS	SCT	SCT
5. S.H. West Bengal & Sikkim	ISOL	ISOL	SCT	SCT	ISOL
6. Gangetic West Bengal	ISOL	ISOL	ISOL	ISOL	ISOL
7. Orissa	ISOL	SCT	SCT	SCT	SCT
8. Jharkhand	DRY	ISOL	ISOL	ISOL	ISOL
9. Bihar	DRY	ISOL	ISOL	ISOL	ISOL
10. East Uttar Pradesh	DRY	ISOL	ISOL	DRY	DRY
11. West Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
12. Uttarakhnad	DRY	DRY	DRY	DRY	DRY
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	DRY
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	DRY	DRY	DRY	DRY	DRY
16. Jammu & Kashmir	DRY	DRY	DRY	DRY	DRY
17. West Rajsthan	DRY	DRY	DRY	DRY	DRY
18. East Rajasthan	DRY	DRY	DRY	DRY	DRY
19. West Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
20. East Madhya Pradesh	DRY	ISOL	ISOL	DRY	DRY
21. Guiarat Region	DRY	DRY	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	SCT	FWS	FWS	SCT	ISOL
24. Madhya Maharashtra	SCT	SCT	ISOL	ISOL	ISOL
25. Marathawada	ISOL	SCT	SCT	ISOL	ISOL
26. Vidharbha	ISOL	ISOL	SCT	SCT	ISOL
27. Chhattisgarh	ISOL	ISOL	SCT	SCT	SCT
28. Coastal Andhra Pradesh	FWS	FWS	SCT	SCT	SCT
29. Telangana	SCT	FWS	FWS	SCT	SCT
30. Rayalaseema	SCT	FWS	FWS	SCT	SCT
31. Tamilnadu & Puducherry	FWS	SCT	SCT	ISOL	ISOL
32. Coastal Karnataka	FWS	FWS	FWS	SCT	SCT
33. North Interior Karnataka	FWS	FWS	SCT	SCT	SCT
34. South Interior Karnataka	FWS	FWS	SCT	SCT	SCT
35. Kerala	FWS	FWS	SCT	SCT	SCT
36. Lakshadweep	FWS	FWS	SCT	SCT	SCT

% 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		

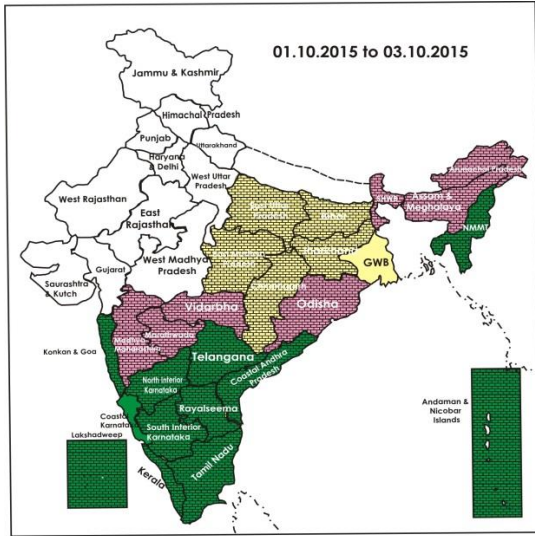
Weather Warning during next 5 days

- **01 October (Day 1):** Heavy rainfall would occur at isolated places over Coastal Andhra Pradesh, Interior Tamilnadu, Coastal Karnataka, South Interior Karnataka, Kerala and Andaman & Nicobar Islands.
- **02 October (Day 2):** Heavy rainfall would occur at isolated places over Coastal Karnataka and South Interior Karnataka.
- **03 October (Day 3):** No weather warning.
- **04 October (Day 4):** No weather warning.
- **05 October (Day 5):** Heavy rainfall would occur at isolated places over north Tamilnadu and South Interior Karnataka.

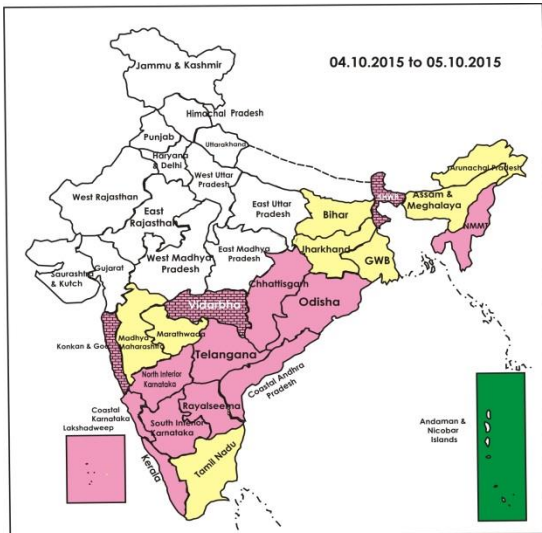
Weather Outlook for subsequent 2 days from 6th to 8th October 2015

- Rain/thundershowers would occur at many places over Andaman & Nicobar Islands.
- Rain/thundershowers would occur at a few places over northeast and peninsular India and at isolated places over adjoining east & central India.

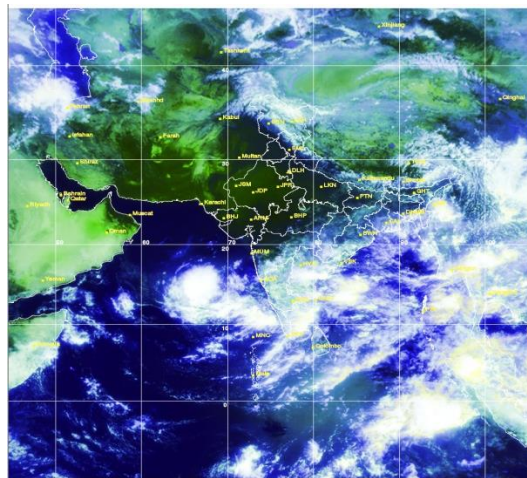
Weather Forecast Map (Valid upto 0830 hours of 6th October, 2015)



- 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



Satellite image dated, 01.10.2015 0545 UTC



Salient Advisories

- As rain/thundershowers would occur at many places over **Kerala, Karnataka** and **Coastal Andhra Pradesh** on 1st and 2nd October and over **Telangana** and **Rayalaseema** on 3rd & 4th October along with heavy rainfall at isolated places over Kerala and Interior Tamil Nadu on 1st and over Coastal and South Interior Karnataka on 1st & 2nd October, 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.
- In **Kerala**, continue land preparation for direct and nursery sowing of *Mundakan* rice, cultivation of Nendran banana and harvesting of *Viruppu* rice after current spells of heavy rain.
- In **North Interior Karnataka**, continue sowing of *rabi* jowar, Bengal gram (JG-11, Annegiri-1, ICCV-10) and safflower in the North East Dry Zone. 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 (2:1 row proportion); chickpea + safflower (4:2 row proportion).
- In the Cauvery Delta Zone of **Tamil Nadu**, continue transplanting of late *samba* rice and nursery sowing of *thaladi* rice. Continue harvesting of *Kuruvai* rice after current spells of heavy rain. In Western Zone, continue sowing of rainfed millets, cotton and pulses utilising the realized and expected rainfall. Undertake preparation of mat nursery for transplanting of rice under SRI system and continue sowing of cotton and sorghum in dryland conditions and maize and pulses under rainfed conditions in the South Zone.
- In **Madhya Maharashtra** and **Marathwada**, continue sowing of *rabi* jowar, safflower and sunflower. Continue sowing of *rabi* safflower and sunflower in **Central Vidarbha** region.
- Undertake land preparation and sowing of Bengal gram in **Gujarat** and **Madhya Pradesh** and continue sowing of toria and pea in **Jammu & Kashmir, Himachal Pradesh, Uttarakhand** and **East Uttar Pradesh**.
- As mainly dry/dry weather would prevail, apply irrigation and maintain water level of 3-5 cm in rice in **Uttar Pradesh, Jharkhand** and **East Madhya Pradesh**.
- Due to continuous rain, there is chance of rhizome rot in turmeric in the Western Zone of **Tamil Nadu**, provide adequate drainage in the fields and drench the crop with Bordeaux mixture 1% . Also because of high relative humidity and continuous wet spell, leaf spot disease in turmeric may get intensified. Apply Carbendazim @ 200g or Mancozeb @ 400g per acre on a non rainy day.

Detailed Zonewise Agromet Advisories

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



Maize



Groundnut



Green gram



Rice

- **Realised Rainfall:** Rainfall occurred in Haveri district of North Interior Karnataka; all districts of South Interior Karnataka except Ballari and Shivamogga; all districts of Kerala except Kasargod and Kozhikode; Prakasam district of Coastal Andhra Pradesh; all districts of Rayalaseema except Cuddapah; all districts of Tamil Nadu except Ariyalur, Chennai, Cuddalore, Kancheepuram, Karaikal, Nagapattinam, Puducherry, Pudukkottai, Thanjavur, Tiruvallur, Tiruvarur, Toothukudi and Vellore. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers would occur at many places over Kerala, Karnataka and Coastal Andhra Pradesh on 1st and 2nd October and over Telangana and Rayalaseema on 3rd & 4th October along with heavy rainfall at isolated places over Kerala and Interior Tamil Nadu on 1st and over Coastal and South Interior Karnataka on 1st & 2nd October, 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, complete harvesting of sugarcane after current spells of heavy rain.
- Prevailing weather conditions are congenial for incidence of top rot in sugarcane in the North Coastal Zone. To control, spray Mancozeb @ 3 g/litre of water or Carbendazim @ 1 g/litre of water after current spells of rain.
- Prevailing excess moisture conditions are congenial for incidence of taro blight and rust on maize in the Krishna Godavari Zone. To control, spray 500 grams Mecozeb by mixing with 200 litres of water in the evening after current spells of rain.
- Prevailing weather conditions (partially cloudy) are highly congenial for incidence of Brown Plant Hopper in rice in the Southern Zone. To control, aerate the crop at regular intervals and spray Bruprophigen @ 1.6 ml. or Ithophenphox @ 2 ml. or Acephate @ 1.5 g / litre of water after current spells of rain.

▪ **Telangana:**

- In the Southern Telangana Zone, undertake sowing of *rabi* crops like maize, sorghum, groundnut and sunflower and continue sowing of *rabi* red gram up to 15th October.
- In the Northern Telangana Zone, continue sowing of groundnut (Kadiri – 6,7,8,9, JCG 88, Dharani and kadiri harithaandra), cow pea(C 152 GC3 C0-4 CO-5) , field bean(FB-1TFB-5), *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) utilising the realised and expected rainfall.
- In the Northern Telangana Zone, prevailing weather conditions are congenial for incidence Leaf blast in rice. To control, spray Tricyclazole @ 0.6 g/l or Isoprothiolane @ 1.5 ml/l or Kasugamycin @ 2.5 ml/litre of water after current spells of rain.

▪ **Karnataka:**

- Continue 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.
- 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 realised and expected rainfall and intercropping of *rabi* sorghum + chickpea (2: row proportion); chickpea + safflower (4:2 row proportion).
- In North Transition Zone, undertake sowing of sorghum, sunflower and chick pea.
- Continue sowing of jowar, bengal gram(JG-11,Annegiri-1,ICCV-10) and safflower in the North East Dry Zone.
- 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.
- Due to cloudy weather, attack of thrips was noticed in rice in Southern Transition Zone, for control, undertake spraying of Roger @ 1.5ml per litre of water after current spells of rain.

▪ **Kerala:**

- Continue land preparation for direct and nursery sowing of *Mundakan* rice and harvesting of *Virippu* rice in the Northern and Southern Zone after current spells of heavy rain.
- Continue sowing of *Mundakan* rice and cultivation of Nendran bananas in the Central Zone after current spells of heavy rain.
- Prevailing weather conditions are congenial for incidence of rice bug in rice in the Problem Area Zone. Spray fish amino acid @ 6ml/litre of water and Malathion @ 3ml/litre of water after current spells of rain.
- Prevailing weather conditions are congenial for incidence of shoot borer attack and rhizome rot in ginger and turmeric in the Central Zone. For control of shoot borer, spray Dimethoate or Qunalphos @ 0.05% and for control of rhizome rot, dig out the affected plants and drench the beds with 1% Bordeaux mixture or Crocide 2g/litre of water after current spells of rain.
- In the Southern Zone, as a control measure against leaf eating caterpillar in snake gourd spray Malathion 2 ml/litre water after current spells of rain.

▪ **Tamil Nadu:**

- In the Cauvery Delta Zone, continue transplanting of late samba rice and nursery sowing of thaladi rice and continue harvesting of *Kuruvai* rice after current spells of heavy rain.
- In Karaikal and Puducherry, spray Phosphomidon 40 SL 1 ml/litre of water or Chlorpyrifos 20 EC @ 2 ml/litre of water to control thrips in rice nursery.
- Undertake preparation of mat nursery for transplanting of rice under SRI system and continue sowing of cotton and sorghum in dryland conditions and maize and pulses under rainfed conditions in the South Zone.
- Undertake cultivation of short duration varieties of green gram (Virinjipuram, Co-8 and VBN-2 in the North Western Zone after current spells of heavy rain.
- Due to continuous rain, there is chance of rhizome rot in turmeric in the Western Zone. Provide adequate drainage in the fields and drench the crop with Bordeaux mix 1% . Also because of high relative humidity and continuous wet spell, leaf spot disease in turmeric may get intensified. Apply Carbendazim @ 200g or Mancozeb @400g per acre. Also micronutrient deficiency may occur in 4 months old turmeric crops. Two foliar sprays with FeSO₄, ZnSO₄, Borax, Urea, each 150g in 250 litres of water per acre at 25 days interval on non-rainy days is advised.

- 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.
- Avoid stagnation of water in and around animal shed in the Western Zone.

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



Green gram



Banana



Okra



Rice

- **Realised Rainfall:** Rainfall occurred in East Siang, Lohit, Lower Dibang Valley, Papumpara, Tawang, Upper Siang and Upper Subansari districts of Arunachal Pradesh; Cachar, Chirang, Dhubri, Goalpara, Golghat, Jorhat, Karimganj, Kokrajhar, Lakhimpur, N.C.Hills and Tinsukia districts of Assam; all districts of Meghalaya except East Garo Hills and South Garo Hills; Aizwal and Serchip districts of Mizoram; Imphal West district of Manipur; Dhalai and South Tripura districts of Tripura. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Assam, continue nursery sowing of cauliflower, cabbage, radish, knolkhol and winter vegetables.
 - In Central Bramhaputra Valley Zone of Assam, undertake land preparation for sowing of *rabi* pulses/ oilseeds.
 - In Meghalaya, continue sowing of carrot, transplanting of cauliflower and planting of potato. Continue nursery preparation of early cole crops and sowing of pea in high altitude regions. Maintain a water level of 3-5 cm in the field of *kharif* rice.
 - 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. Apply the pesticides on a non rainy day.
 - In North Bank Plain Zone, Lower Bramhaputra Valley Zone and Central Bramhaputra Valley Zone of Assam, due to cloudy and humid weather, there is chance of attack of sheath blight and stem bore in *Sali* rice. Spray Mancozeb(2.5g/litre) or Hexaconazole 5 EC @ 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 on a non rainy day.
 - In Barak Valley Zone of Assam, there is chance of attack of leaf eater infestation in early cauliflower. To control the leaf eater spray Malathion 50 EC @ 1ml/litre of water.
 - 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 on a non rainy day.
 - In Meghalaya, weather is congenial for development of late leaf spot in groundnut and rust spot in soybean. Spray Carbendazim (0.05%) + Mancozeb (0.2%) to control late leaf spot and Hexaconazole or Propiconazole @ 0.1% against rust spot.
 - **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 and continue land preparation for transplanting of onion. Undertake land preparation for planting of potato.
 - In Mizoram, continue nursery preparation for tomato, early cole crops and harvesting of rice, *kharif* pulses like green gram, black gram and rajma in clear weather. Keep harvested produce at safer place.
 - In Nagaland, continue harvesting of *jhum* rice and maize in clear weather.
 - In Tripura, continue nursery sowing of early winter vegetables such as tomato, cauliflower, radish and brinjal. Continue harvesting of *jhum* rice and groundnut in clear weather. Undertake planting of potato.
 - In Manipur, there is chance of attack of stem borer in *kharif* rice. Spray Coragen @ 3ml/15 litre of water or Lambdacyhothrin @ 15ml/15 litre of water against stem borer 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 @ 6 gm 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. 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 Meghalaya, poultry farmers are advised to provide artificial heating through electric bulbs to chicks up to one month of age.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Cotton



Sugarcane



Rice



Groundnut

• **Realised Rainfall:** Weather remained mainly dry over the region.

• **Advisories:**

▪ **Maharashtra:**

- In Konkan, maintain water level of 8-10 cm in rice fields. Undertake intercultural operations to control weeds in mango and cashew orchards on a non rainy day. 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.
- In Madhya Maharashtra and Marathwada, complete harvesting of *kharif* green gram, black gram and bajra in clear weather.
- In Marathwada, continue sowing of rabi jowar, safflower, sunflower and fodder crops like jowar, maize and bajra.
- In Vidarbha, maintain 5-7 cm water level in transplanted rice field. Continue sowing of rabi safflower and sunflower in Central Vidarbha region. Complete harvesting of *kharif* crops like black gram.
- Due to subdued rainfall in Madhya Maharashtra, there may be attack of brown plant hopper in Rice crop; apply Fipronil 0.3 G @ 4 Kg per acre on a non rainy day.
- Suitable varieties are given in Annexure III.

▪ **Gujarat:**

- Undertake sowing of chickpea and mustard in North Saurashtra Zone where sesame/pearl millet crops have been harvested.
- Under dry weather conditions, continue harvesting of pearl millet and picking of matured pods of pulses (green gram, cowpea etc.) in North Gujarat Zone and North West Zone; picking of matured pods of pulses in Bhal and Coastal Zone and Middle Gujarat Zone.
- Carry out intercultural operations like weeding in castor and cluster bean crops in Bhal and Coastal Zone, North West Zone and North Gujarat Zone, in castor in Middle Gujarat Zone and in pigeon pea in South Gujarat Zone to conserve soil moisture.
- Undertake planting of sugarcane and transplanting of cabbage and cauliflower in South Gujarat Heavy Rainfall Zone.
- Under humid weather there is chance of infestation of powdery mildew disease in sesame in North Gujarat Zone; spray Hexaconazole 5 % EC 20 ml in 10 litres of water.
- Under present weather heavy infestation of jassid is observed in cotton in Bhal and Coastal Zone and North West Zone and infestation of thrips, jassid and mealy bug in North Gujarat Zone and North Saurashtra Zone; spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g in 10 litres of water for control.

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



Groundnut



Cotton



Soybean



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands; all districts of Sub-Himalayan West Bengal & Sikkim except Malda, North Dinajpur and South Dinajpur; Howrah and North 24 Parganas districts of Gangetic West Bengal; Monghyr district of Bihar. Weather remained mainly dry over rest of the region.

- **Advisories:**

- **West Bengal:**

- In New Alluvial Zone, continue nursery sowing of onion, cabbage and cauliflower.
 - In Terai Zone, continue seedbed preparation of early cauliflower and cabbage. During seedbed preparation use *Trichoderma viridi* @ 5gm with 1 kg organic manure.
 - In Old Alluvial Zone, undertake nursery preparation for brinjal, chilli and tomato. For preparation of seedbed, mix well rotten FYM @50Kg + *Trichoderma viridae* @ 200g per bigha.
 - In Hill Zone, undertake weeding in the ginger fields and harvesting of matured soybean on a non rainy day.
 - In Coastal Saline Zone, due to high humidity sheath blight may be found in rice at peak tillering stage. To control sheath blight, Spray Kopikonazole(Quantaplus) @1.5ml per liter of water.
 - In Laterite and Red soil Zone, in prevailing weather condition, there may be attack of gundhi bug in rice at milking stage. Spray Neem oil @ 5ml/litre of water during early hours of the day on a non rainy day.
 - 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.

- **Andaman and Nicobar Islands:**

- In North, Middle and South Andaman, in the prevailing weather condition, there is chance of incidence of leaf spot in Banana. For control, spray Mancozeb @ 2.5 g/litre of water once in 15 days intervals. Undertake harvesting of matured vegetables in clear weather.

- **Odisha:**

- In East and South Eastern Coastal Plain Zone, continue sowing of pre-rabi green gram, black gram and cowpea in fallow medium and uplands. Undertake harvesting of matured *kharif* green gram and black gram in clear weather.
 - 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 North Central Plateau Zone, it is optimum time for sowing of mustard under rainfed conditions. In South Eastern Ghat Zone, this is the optimum time for sowing of horse gram (Kulthi), black gram (Biri) and green gram.
 - In East and South Eastern Coastal Plain Zone and South Eastern Ghat Zone, humid and cloudy weather favours infestation of blast and Bacterial Leaf blight in rice. For control of blast, spray Beam @ 1 g and Hinosan @ 1.5 g in 2 litres of water twice at 15 days interval. For Bacterial Leaf blight, spray Copper Oxychloride @ 20 g along with Plantomycine @ 10 g in 20 litres of water. Apply the pesticides on a non rainy day.
 - 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 on a non rainy day.
 - 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 on a non rainy day.
 - In Western Undulating Zone, sucking pests like aphids and jassids may infest the cotton crop during boll formation stage. Spray neem oil @ 3ml/litre of water. If the infestation of sucking pests is more, spray Imidacloprid @ 1ml mixing in 4litres of water or Thiometaxom @5g/15litres of water on a non rainy day. Also *spodoptera* moth noticed in fields. Fix pheromone trap with spodo lure to catch the adult male @2nos per acre.
 - In Eastern Ghat High Land Zone, paddy crop in panicle initiation stage. Farmers are advised to monitor crop regularly, if population of stem borer is above ETL, then broadcast Cartap 4% granules or Carbofuran 3% G @ 10 kg/acre on a non rainy day for effective control. Also install pest specific pheromone traps @ 3-4/acre in the paddy fields for monitoring stem borer.

▪ **Bihar:**

- In North East Alluvial Plain Zone, undertake field preparation for rabi crops, ploughing and planking should be done properly to conserve moisture in soil, maintain optimum water level in the rice fields, complete transplanting of early autumn vegetable like cauliflower, cabbage and brinjal.
- In North West Alluvial Plain Zone, due to dry weather in forecasted period farmer are advised to harvest matured paddy crop till 3rd October, continue the land preparation for sowing of *rabi* crops & rapeseed, continue transplanting of onion, tomato, chilli, brinjal and cauliflower on raised beds, continue nursery sowing of early varieties of cabbage & tomato in nursery is advised.
- In South Bihar Alluvial Zone, maintain 5cm water in the rice fields, undertake planting of horticulture crops like mango, litchi, guava and papaya plants & remove weeds from the vegetable & fodder field.
- In North West Alluvial Plain Zone, present weather condition is conducive for the attack of borer/leaf cutting caterpillar in cauliflower, to control, Use pheromone trap @ 3-4/acre against this pest. If insect population is above ETL, then, spraying of Spinosad 1.0 ml/4 litre of water is advised during clear sky condition.
- In North East Alluvial Plain Zone, present weather is conducive for attack of brown plant hopper in rice. To control, spray with Imidacloprid 17.8% SL @ 0.5ml/L of water during evening hours
- In North East Alluvial Plain Zone, present weather is conducive for attack of yellow vein mosaic disease in okra, to control, spray Imidacloprid 17.8%SL @ 0.5ml/L or Malathion 50EC @2.5ml /litre of water, after current spell of water.
- 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 & short duration French bean and leafy vegetables, continue intercultural operation in standing crops like horse gram, safflower, lobia, urad and moong bean on a non rainy day. Continue cultivation of green pea, toria, upland spices, yam & forage crops like jowar & maize.
- In North Eastern Plateau Zone, continue sowing of early potato, green peas & mustard and transplanting of tomato, cabbage, cauliflower & brinjal. Farmers are advised to maintain 5 cm water in the rice fields. Continue harvesting of maize crop & undertake sowing of improved varieties of toria.
- In Western Plateau Zone, undertake preparation of field for cultivation of mustard crops, transplanting of winter vegetables like cauliflower, cabbage, chilli tomato & brinjal, continue sowing of crop like kulthi or niger in fallow lands and undertake sowing of toria, green pea and planting of potato.
- In North Eastern Plateau Zone, present weather is conducive for the occurrence of Gundhi bug in rice crop, to control, Quinalphos 1.5% dust @ 25 kg ha-1 or spraying of Quinalphos 25 EC @1.5 litre/500 litre of water.
- 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 litre of water by mixing Teepol @ 0.5 ml 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.
- In Western Plateau Zone, prevailing weather is conducive for the attack of Gundhi bug in rice. To control, dusting of Chlorpyrifos /Quinolphos/Methyl parathion dust @ 10 kg per acre is recommended.
- Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry**

- In Sub-Himalayan West Bengal & Bihar, 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:** Weather remained mainly dry over the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - In Malwa Plateau Zone, continue nursery sowing of early winter vegetables and harvesting of matured soybean and maize. Undertake field preparation for sowing of potato, pea and garlic.
 - Continue sowing of toria, sweet corn, berseem and harvesting of matured sesame, moong and urad in Kymore Plateau and Satpura Hill Zone. Also undertake nursery preparation for cabbage and cauliflower. Maintain optimum water level in late sown rice.
 - Undertake field preparation for sowing for *rabi* crops like pea, chickpea and lentil, continue sowing of green vegetables like radish, fenugreek, spinach, coriander and turnip and transplanting of vegetables like brinjal, tomato, chilli, cauliflower and cabbage on raised bed in Bundelkhand Zone. Continue harvesting of matured soybean, 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.
 - Undertake field preparation for planting of potato and continue harvesting of matured soybean, black gram and green gram in Grid Zone.
 - Continue nursery preparation for onion and garlic and undertake nursery preparation for *rabi* vegetables like tomato, chilli, brinjal, cabbage and cauliflower in Vindhya Plateau Zone. Also undertake sowing of green peas and planting of potato.
 - Due to humid weather there are chances of rhizome rot in ginger in Bundelkhand Zone, spray Redomil @ 1.5-2 ml/litre of water around the roots.
 - Suitable varieties are given in Annexure III.
 - **Chhattisgarh:**
 - Continue nursery sowing of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc. in North Hill Zone.
 - In Plain Zone of Chhattisgarh, undertake harvesting of matured green gram and black gram and land preparation for sowing of toria and continue nursery preparation for cauliflower, cabbage, onion and capsicum and for seasonal flowers.
 - Continue nursery preparation for vegetables like cabbage, cauliflower, chilli, planting of potato and sowing of red amaranths and coriander in upland areas in Bastar Plateau Zone.
 - In the prevailing weather, there are chances of attack of stem borer in rice in Bastar Plateau Zone, spray Chloropyrifos @ 1.5 ml/litre of water on a non rainy day.
- **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 Chamba district of Himachal Pradesh. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - In Sub Tropical Zone, continue sowing of gobisarson and toria (RSPT-1 & RSPT-2) and harvesting of matured mash and moong. Undertake nursery sowing/transplanting of cauliflower/kale/ knolkhol/cabbage and sowing of radish/ fenugreek/ spinach/coriander/ turnip and nursery bed preparation for winter vegetables.
 - In Valley Temperate Zone of Jammu & Kashmir, complete planting of onion and continue harvesting of matured rice, maize and *kharif* pulses. Undertake Land preparation for sowing of pea.
 - In Intermediate Zone, continue sowing of toria (RSPT-1 & RSPT-2) with gobisarson (var. GSL-1, GSL-2 & DGS-1) as intercrop, sowing of fodder barseem and nursery sowing/ transplanting of cole crops such as cabbage and cauliflower, Knol – kholand vegetables like radish, fenugreek, spinach, coriander, turnip and harvesting of matured maize and mash.

- In Sub-Tropical Zone, in the prevailing weather conditions, there may be incidence of brown spot & sheath blight in rice. To control brown spot apply Propiconazole @ 1ml per litre of water and to control sheath blight apply Cabendazim @ 1g per litre of water.
- **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. Continue harvesting and threshing of matured rice crop and harvesting of matured moong. Continue planting of potato.
 - In Hill Zone, continuesowing of vegetable pea and toria. Undertake transplanting of broccoli, cabbage and cauliflower.
 - 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 liters of water/nali.
- **Himachal Pradesh:**
 - In Sub-Montane and Low Hills Sub-Tropical Zone, in low hill areas, undertake planting of potato in lower hills regions and mid hills regions. 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. Undertake harvesting of peas and cabbage in high hill region.
 - 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. Undertake harvesting of tomato, cucumber and capsicum in higher region.
 - 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.
 - Under humid weather condition, there are chances of incidence of fruit rot in tomato, chilli and capsicum, spray Dithane M-45 @ 2-3 g per litre of water at 10-15 days interval. Fruit and shoot borer attack is also observed in brinjal. For control spray Fenvalerate or Cypermethrin @ 0.01%.
 - Under 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.
- **Rajasthan:**
 - Continue harvesting of matured bajra and jowar in Flood Prone Eastern Plain Zone and moong bean, bajra and moth bean in Arid Western Plain Zone, Semi Arid Eastern 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 nursery preparation for late sown cauliflower and continue planking for moisture conservation in fallow land for rabi crops in Flood Prone Eastern Plain Zone.
 - In Transitional Plain Zone of Inland drainage, continue field preparation for sowing of taramira and Bengal gram and continue harvesting of pulses. Also apply irrigation to guar and Bajra crops.
 - Continue preparation of seed bed for raising nursery of chilli, brinjal, tomato and onion 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. Continue harvesting of green gram, moth bean and cowpea.
 - In Arid Western Plain Zone, continue preparation of sowing of Berseem, radish, carrot and mustard crop by the end of this month. Apply irrigation in groundnut crop showing wilting symptoms at pod formation stage.
 - In Irrigated Northwestern Plain Zone, continue land preparation of sowing of mustard. Continue harvesting of early sown guar and moong.
 - Continue harvesting of soybean and apply irrigation in paddy in Southeastern Humid Plain Zone of Rajasthan.
 - In Arid Western Plain Zone, forecasted weather conditions there are chances of attack of sucking pests as white fly, jassids and thrips in clusterbean, spray Imidachloprid 17.8 SL @ 3 ml/10 litre water.
 - Due to rise in temperature there are chances of leaf curl and mosaic incidence in Papaya and fruit borer in tomato in Semi Arid Eastern Plain Zone, spray Dimethoate 30 EC @ 1 ml per litre water to check the spread of viral disease for papaya and spray Malathion 50 EC @ 1 ml per litre water for tomato.
 - In Irrigated Northwestern Plain Zone, due to rise in temperature, there are chances of attack of white fly/jassids/thrips in Bt cotton, spray Trizophos 40 EC @ 250 ml per litre of water and due to rise in temperature, there may be fruit dropping in kinnow, for control spray Propineb 70 WP(Entracol) @ 2 g /litre of water.
 - Due to prevailing dry weather, there are chances of attack of cob borer in maize in Sub Humid Southern Plain and Aravali Hill Zone, apply Carberyl WP 4 g/litre of water.

▪ **Punjab, Haryana and Delhi:**

- In Central Plain Zone of Punjab, continue propping of sugarcane by using trash-twist method.
- In Western Plain Zone of Punjab and Western Zone of Haryana undertake picking of early sown cotton crop after the sunrise, when dew is completely evaporated.
- In Western Plain Zone of Punjab undertake toria, potato or garlic as intercrops in sugarcane.
- 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 fruit crops like acid lime, mango, jack fruit and jamun. Apply light irrigation to early planted fruit plants and sugarcane.
- 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. Continue planting of early potato. Undertake sowing of early mustard in prepared fields with varieties Pusa Sarson-25, Pusa Sarson-26, Pusa Agrni, Pusa Taraka and Pusa Mahak.
- In Western Semi-Arid Zone of Delhi, false smut may appear in rice in present weather conditions. Symptoms include increase in grain 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 chance of attack of white fly and jassid in cotton. Monitor the crop and if pest reaches ETL level then spray Oberon @ 200ml/acre for white fly and Ulala 80g/acre for the management of Jassid.
- In Western Plain Zone and Central Plain Zone of Punjab, weather conditions are favourable for infestation of sheath blight and blast in rice, for control, spray Tilt 25 EC @ 200 ml or Bavistin @ 200 g in 200 litres of water per acre.
- In Western Zone of Haryana, weather conditions are favourable for neck blast in rice. Monitor the crop. If infestation is noticed, spray Sivik @ 120 g or Beam with 200 liter water per acre. Monitor late sown American & Desi Cotton crops to infestation of whitefly and sucking pests, if infestation occurs then spray Dimethoate 30 E.C. @ 300 ml/Metasystoc 25 EC and one liter neem based insecticide (neembicidine/achuk) with 250 liter water.

▪ **Uttar Pradesh:**

- In Central Plain Zone, continue harvesting of matured urad, moong, sesame and maize. Undertake nursery sowing of improved varieties of cabbage (Japani, Pusa Dieepali, Pusa Kartiki). Continue nursery sowing/transplanting of capsicum, chilli, brinjal and cauliflower. Continue land preparation and sowing of toria (TA-9, Bhawani, PT-30 and PT-507), pointed gourd, parwal gourd and radish and planting of potato. Apply irrigation and maintain 3-5 cm water in rice fields in rice during tillering and flowering stages.
- In Eastern Plain Zone, undertake land preparation for sowing of pea and toria (Bhawani) and sowing of winter vegetables, fenugreek, coriander and carrot and continue sowing of radish, spinach and planting of potato (Kufri Chandramukhi, Kufri Sadabahar, Kufri Ashoka). Continue transplanting of cauliflower (60x60cm), brinjal, cabbage, chilli and tomato (75x60cm). Continue planting of sweet potato and parwal (1.25x1.25m).
- In Western Plain Zone, maintain 5 cm water in rice fields. Continue sowing of toria (TL-67, TL-17) and transplanting of brinjal and tomato.
- Under prevailing partly cloudy weather condition, there are chances of attack of pod borer on early variety of pigeon pea in Central Plain Zone. Spray mixture of Monocrotophos 36EC @ 800 ml or Carbaryl 50% + 2kg Lime dissolved in 800 litres of water at an interval of 15-20 days.
- 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-clorovas @ 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, continue for planting of strawberry. Prevailing weather is conducive for the attack of leaf minor in new growth of citrus. For its control, spray Metasystox or Malathion @ 10 ml per 10 litres of water.
- Under humid weather condition there are chances of incidence of leaf spot disease in strawberry in Mid Hills Sub-Humid Zone of Himachal Pradesh. Apply Hexaconazole/Carbendazim @ 100gm per 200 litres of water.

• **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.

- 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.

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

Annexure I

Week by week Rainfall Distribution

Sub-Divisions	16.09.15		23.09.15		30.09.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	38.1	-72	67.6	-9	18.2	-75
Dibang Valley	**	**	**	**	**	**
East Kameng	7.6	-91	28.7	-53	15.3	-73
East Siang	89.7	-50	112.5	-17	82.6	-11
Kurung Kumey	**	**	**	**	**	**
Lohit	67.7	-32	103.2	61	47.3	-19
Lower Dibang Valley	186.8	92	159.2	194	215.8	226
Lower Subansari	**	**	**	**	**	**
Papumpara	42.1	-55	101.9	5	83.2	-29
Tawang	34.0	-73	70.0	-44	52.0	-48
Tirap	39.2	-69	53.4	-34	28.0	-62
Upper Siang	100.4	-50	186.6	19	112.4	-27
Upper Subansari	10.2	-75	61.5	64	30.6	-33
West Kameng	131.8	3	157.2	25	13.6	-86
West Siang	**	**	**	**	**	**
Assam&Meghalaya						
Assam						
Baksa	30.8	-78	103.7	-17	15.4	-80
Barpeta	64.8	-54	94.7	-25	24.3	-69
Bongaigaon	4.6	-95	23.6	-79	18.2	-78
Cachar	103.0	9	57.5	-11	54.7	-22
Chirang	35.4	-65	101.4	-9	47.0	-44
Darrang	**	**	**	**	**	**
Dhemaji	17.0	-86	104.0	15	0.0	-100
Dhubri	9.5	-92	126.0	66	53.1	-18
Dibrugarh	30.6	-69	52.8	-22	24.7	-56
Goalpara	7.8	-89	131.0	72	43.9	-47
Golghat	17.3	-68	27.3	-46	40.9	27
Hailakandi	32.7	-63	47.2	-11	25.0	-65
Jorhat	27.3	-63	64.2	10	32.8	-38
Kamrup(Rural)	0.0	-100	65.2	59	27.4	-36
Kamrup(Metro)	59.4	36	100.7	146	26.0	-39
Karbi Anglong	59.2	29	18.7	-51	23.1	-41

Karimganj	184.2	50	99.4	17	37.0	-49
Kokrajhar	27.7	-70	65.4	-51	53.3	-46
Lakhimpur	58.8	-53	124.3	38	48.7	-41
Morigaon	51.4	-8	63.2	35	19.2	-64
N.C.Hills	73.2	111	22.7	-44	62.3	17
Nowgong	34.6	-39	14.0	-72	20.6	-48
Nalbari	34.6	-43	78.5	19	23.4	-19
Sonitpur	17.2	-74	21.3	-58	19.8	-47
Sibsagar	64.2	21	32.5	-16	27.6	-19
Tinsukia	32.9	-66	65.9	-6	32.3	-41
Udalgiri	6.2	-92	58.4	7	18.4	-42
Meghalaya						
East Garo Hills	31.2	-68	391.8	426	11.4	-77
East Khasi Hills	47.4	-79	562.8	486	197.8	84
Jaintia Hills	72.0	-64	174.0	15	73.0	-57
Ribhoi	44.8	-50	75.0	11	39.2	-37
South Garo Hills	**	**	**	**	**	**
West Garo Hills	5.0	-95	214.4	191	67.2	18
West Khasi Hills	46.0	-60	335.0	288	43.0	-54
NMMT						
Mizoram						
Aizwal	125.7	30	69.9	-18	64.0	-17
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	**	**	**	**	**	**
Serchhip	40.7	-47	28.8	-63	142.2	77
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	**	**	**	**	**	**
Churachandpur	**	**	**	**	**	**
Imphal east	0.1	-99	91.9	87	10.7	-70
Imphal west	20.0	-6	25.5	-36	45.1	27
Senapati	**	**	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	4.0	-77	35.0	14	5.0	-70
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	29.6	-44	18.6	-49	8.6	46
Kephrere	**	**	**	**	**	**
Kohima	61.2	-2	52.4	2	4.4	-91
Longleng	**	**	**	**	**	**
Mokokchung	41.0	-40	22.0	-53	5.0	-61
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	**	**	**	**	**	**
Tuensang	**	**	**	**	**	**

Wokha	**	**	**	**	**	**
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	155.3	145	139.9	147	38.8	-36
NorthTripura	61.8	-21	79.9	49	21.0	-66
SouthTripura	97.1	61	192.9	235	40.3	-36
West Tripura	48.0	-21	80.3	52	18.1	-67
Himachal Pradesh						
Bilaspur	0.0	-100	36.6	24	2.8	-88
Chamba	2.0	-96	110.6	244	40.0	0
Hamirpur	1.8	-95	59.0	114	9.1	-71
Kangra	8.8	-84	53.4	62	19.5	-45
Kinnaur	0.9	-95	34.1	207	2.6	-86
Kullu	0.0	-100	49.5	323	12.7	-36
Lahaul and Spiti	0.0	-100	68.7	263	2.0	-92
Mandi	3.7	-90	36.0	56	15.2	-35
Shimla	2.9	-90	33.8	81	4.4	-78
Sirmaur	0.0	-100	50.8	117	0.3	-99
Solan	0.0	-100	45.3	90	1.5	-96
Una	0.5	-98	57.9	205	5.3	-86
Punjab						
Amritsar	0.0	-100	78.9	659	0.0	-100
Barnala	0.0	-100	85.0	525	0.0	-100
Bhatinda	0.0	-100	61.0	413	2.0	-84
Faridkot	0.0	-100	41.0	290	0.0	-100
Fatehgarh Saheb	0.0	-100	88.0	338	0.8	-97
Ferozpur	0.0	-100	18.5	59	1.4	-87
Gurdaspur	0.0	-100	142.9	899	6.5	-79
Hoshiarpur	0.0	-100	130.6	610	0.0	-100
Jalandhar	0.0	-100	41.7	172	0.0	-100
Kapurthala	0.0	-100	47.6	255	4.5	-76
Ludhiana	0.0	-100	68.8	278	2.9	-88
Mansa	0.0	-100	1.6	-89	0.0	-100
Moga	0.0	-100	69.6	550	0.0	-100
Muktesar	0.0	-100	39.5	299	0.0	-100
Nawashahar	0.0	-100	64.3	278	0.7	-98
Patiala	0.0	-100	52.4	148	1.5	-95
Ropar	0.0	-100	71.7	201	0.8	-97
Sangrur	0.0	-100	77.3	519	0.0	-100
Mohali	1.0	-96	91.3	493	0.0	-100
TarnTaran	0.0	-100	54.5	627	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	0.0	-100	106.2	358	0.9	-98
Bhiwani	0.0	-100	14.1	35	6.1	14
Chandigarh	10.7	-74	106.4	377	0.3	-99
Faridabad	0.0	-100	16.8	29	0.0	-100
Fatehabad	0.0	-100	16.2	65	0.0	-100
Gurgaon	0.0	-100	30.6	331	0.0	-100

Hissar	0.0	-100	3.3	-65	7.6	-18
Jhajar	0.0	-100	24.3	165	3.0	-57
Jind	0.0	-100	21.7	49	0.0	-100
Katihah	0.0	-100	18.8	75	0.3	-98
Karnal	0.0	-100	37.6	158	0.0	-100
Kurukshetra	0.0	-100	23.3	59	3.8	-79
Mahendragarh	0.0	-100	14.4	100	0.0	-100
Mewat	0.0	-100	142.3	2090	0.0	-100
Palwal	0.0	-100	6.8	-22	0.0	-100
Panchkkula	0.0	-100	56.7	124	0.2	-99
Panipat	0.0	-100	45.0	272	0.0	-100
Rewari	0.0	-100	37.7	349	0.0	-100
Rohtak	0.0	-100	4.0	-49	0.0	-100
Sirsa	0.0	-100	17.3	106	0.3	-95
Sonepat	0.0	-100	10.6	2	0.0	-100
Yamunanagar	0.0	-100	116.3	645	0.0	-100
Delhi						
Central Delhi	0.0	-100	39.0	343	0.0	-100
East Delhi	0.0	-100	10.0	14	0.0	-100
New Delhi	0.0	-100	22.3	153	0.0	-100
North Delhi	0.0	-100	26.2	198	0.0	-100
North East Delhi	0.0	-100	15.0	70	0.0	-100
North West Delhi	0.0	-100	7.3	-17	0.3	-98
South Delhi	0.0	-100	33.7	282	1.0	-93
South West Delhi	0.0	-100	37.5	326	2.5	-82
West Delhi	0.0	-100	39.0	343	0.0	-100
Jammu & Kashmir						
Anantnag	0.0	-100	102.1	604	15.5	34
Badgam	0.0	-100	53.0	386	2.2	-61
Bandipore	**	**	**	**	**	**
Baramula	0.2	-98	62.9	424	10.4	1
Doda	0.0	-100	137.2	737	13.2	-60
Ganderbal	0.0	-100	28.0	289	15.0	124
Jammu	0.0	-100	108.7	272	0.0	-100
Kargil	**	**	**	**	**	**
Kathua	0.0	-100	214.3	432	4.2	-82
Kistwar	**	**	**	**	**	**
Kulgam	0.0	-100	153.6	959	19.6	69
Kupwara	0.4	-95	57.9	551	3.7	-55
Ladakh(Leh)	0.0	-100	9.2	268	0.6	-40
Poonch	**	**	**	**	**	**
Pulwama	0.0	-100	80.6	668	13.4	79
Rajouri	0.0	-100	89.6	107	0.0	-100
Ramban	0.0	-100	142.6	769	13.2	-60
Reasi	0.0	-100	205.2	398	0.2	-99
Samba	0.0	-100	72.8	149	0.0	-100
Shopian	**	**	**	**	**	**
Srinagar	0.0	-100	55.8	674	2.2	-68

Udhampur	0.0	-100	145.4	253	15.6	-61
East Madhya Pradesh						
Anuppur	4.7	-94	47.2	36	0.0	-100
Balaghat	9.2	-84	103.7	187	0.0	-100
Chhatarpur	19.5	-65	18.9	-33	0.0	-100
Chindwara	20.0	-59	65.9	99	0.0	-100
Damoh	12.5	-79	3.0	-91	0.0	-100
Dindori	8.0	-85	50.3	73	0.0	-100
Jabalpur	2.9	-95	34.6	42	1.3	-94
Katni	2.5	-96	71.5	179	0.0	-100
Mandla	9.8	-84	54.5	50	0.0	-100
Narsingpur	3.4	-95	40.5	4	0.0	-100
Panna	3.3	-95	43.0	48	0.0	-100
Rewa	1.6	-98	9.8	-67	0.7	-96
Sagar	1.1	-98	16.1	-57	0.0	-100
Satna	16.3	-72	78.1	138	0.0	-100
Seoni	25.7	-57	30.1	-18	0.0	-100
Shahdol	4.0	-93	56.0	109	0.0	-100
Sidhi	0.0	-100	4.5	-86	0.0	-100
Singrauli	3.0	-94	15.3	-61	0.0	-100
Tikamgarh	24.5	-45	1.0	-96	0.0	-100
Umariya	2.0	-97	15.3	-53	0.0	-100
West Madhya Pradesh						
Agar	0.0	-100	10.4	-64	0.0	-100
Alirajpur	63.9	72	53.6	125	0.0	-100
Asoknagar	0.8	-98	9.0	-73	0.0	-100
Badwani	72.8	149	60.9	119	0.0	-100
Betul	15.6	-76	68.8	115	0.0	-100
Bhind	3.6	-91	17.6	-24	0.0	-100
Bhopal	18.6	-66	23.0	-19	0.0	-100
Burhanpur	24.7	-27	70.9	173	0.0	-100
Datia	0.0	-100	37.3	33	0.0	-100
Dewas	10.5	-75	44.8	51	0.0	-100
Dhar	62.8	49	31.3	-5	2.5	-93
Guna	0.0	-100	6.4	-76	0.0	-100
Gwalior	7.9	-84	40.4	20	0.0	-100
Harda	9.4	-81	54.5	44	0.0	-100
Hosangabad	1.0	-99	49.3	13	0.0	-100
Indore	28.1	-35	27.7	-26	0.2	-99
Jhabua	1.9	-94	14.5	-45	0.0	-100
Khandwa	30.0	-33	71.3	119	0.0	-100
Khargone	37.3	23	72.5	139	0.0	-100
Mandsaur	0.0	-100	1.3	-94	0.0	-100
Morena	1.8	-95	6.6	-70	0.0	-100
Neemuch	0.0	-100	0.3	-98	0.0	-100
Raisen	13.1	-76	20.5	-45	0.0	-100
Rajgarh	5.8	-84	6.1	-72	0.0	-100
Ratlam	8.9	-75	18.1	-41	0.0	-100

Sehore	3.0	-94	32.6	7	0.0	-100
Shajapur	0.5	-99	21.3	-26	0.0	-100
Sheopur Kalani	0.0	-100	8.5	-52	0.0	-100
Shivpuri	0.0	-100	17.8	-33	0.0	-100
Ujjain	1.6	-96	25.2	-17	0.0	-100
Vidisha	23.0	-37	18.5	-40	0.0	-100
Chhattisgarh						
Bastar	145.8	127	138.9	246	0.1	-99
Bijapur	86.7	52	89.8	107	0.0	-100
Bilaspur	0.9	-98	160.1	374	0.0	-100
Dantewara	122.4	149	128.1	226	6.4	-82
Dhamtari	118.2	72	88.0	124	0.0	-100
Durg	64.0	0	144.3	249	1.2	-96
Janjgir	6.6	-88	41.9	6	4.3	-86
Jashpurnagar	4.1	-94	72.4	81	0.0	-100
Kanker	83.3	21	119.3	174	0.0	-100
Korba	52.8	18	78.5	159	10.0	-63
Koriya	7.1	-89	48.5	117	0.0	-100
Kawardha	19.4	-72	114.2	241	0.0	-100
Mahasumund	51.2	-19	161.7	401	3.7	-84
Narayanpur	144.3	142	68.3	66	0.0	-100
Raigarh	30.0	-59	99.0	226	7.8	-79
Raipur	72.2	15	121.5	268	0.0	-100
Rajandgaon	17.6	-70	163.9	284	0.0	-100
Surguja	11.7	-82	50.6	56	0.0	-100
East Uttar Pradesh						
Allahabad	6.4	-91	6.8	-75	0.0	-100
Ambedkar Nagar	0.0	-100	0.0	-100	0.0	-100
Azamgarh	3.9	-95	3.4	-92	0.0	-100
Bahraich	9.4	-87	1.0	-96	0.0	-100
Ballia	12.0	-79	13.6	-62	1.0	-95
Balrampur	0.0	-100	0.0	-100	0.0	-100
Banda	11.9	-78	50.3	120	0.0	-100
Barabanki	11.3	-86	10.4	-64	0.0	-100
Basti	0.0	-100	1.9	-94	0.0	-100
Chandauli	0.0	-100	10.4	-50	0.0	-100
Deoria	0.0	-100	5.0	-88	0.0	-100
Faizabad	1.9	-97	2.1	-93	0.0	-100
Farrukhabad	0.5	-99	13.5	-33	0.0	-100
Fatehpur	1.9	-97	0.0	-100	0.0	-100
Gazipur	11.9	-85	40.4	13	0.0	-100
Gonda	8.7	-89	0.0	-100	0.0	-100
Gorakhpur	18.4	-80	1.8	-95	2.5	-93
Hardoi	8.3	-90	26.2	12	0.0	-100
Jaunpur	3.8	-95	4.8	-87	0.0	-100
Kannauj	19.0	-65	11.7	-52	0.0	-100
Kanpur City	17.4	-68	39.4	89	0.0	-100
Kanpur Dehat	0.7	-99	0.0	-100	0.0	-100
Kaushambi	1.9	-96	0.8	-97	0.0	-100

Kheri	18.3	-72	16.7	-52	0.0	-100
Kushi nagar	4.0	-95	1.5	-97	4.0	-93
Lucknow	6.4	-89	5.7	-79	0.0	-100
Maharajganj	13.0	-84	2.5	-94	3.5	-90
Mau	17.0	-83	5.5	-82	0.0	-100
Mirzapur	0.5	-99	4.7	-88	0.0	-100
Pratapgarh	45.7	-37	6.7	-76	0.0	-100
RaiBareilly	13.9	-76	2.0	-92	0.0	-100
Sahuji Maharajnagar	3.0	-96	16.5	-40	0.0	-100
Sant Kabirnagar	3.0	-96	108.0	269	0.0	-100
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	0.0	-100	19.8	-23	0.0	-100
Sidharthnagar	0.0	-100	0.5	-98	2.1	-93
Sitapur	10.3	-86	15.9	-36	0.0	-100
Sonbhadra	2.1	-97	6.6	-76	0.0	-100
Sultanpur	7.5	-88	2.3	-92	0.0	-100
Unnao	0.8	-99	22.5	-8	0.0	-100
Varanasi	0.0	-100	10.1	-73	0.0	-100
West Uttar Pradesh						
Agra	9.8	-76	14.1	-17	0.0	-100
Aligarh	0.0	-100	26.5	72	0.0	-100
Auraiya	1.0	-98	8.0	-57	0.0	-100
Badaun	0.4	-99	33.0	39	0.0	-100
Baghpat	0.0	-100	12.7	65	0.0	-100
Bareilly	0.0	-100	32.2	9	0.9	-96
Bijnor	0.0	-100	99.2	574	0.0	-100
Bulandsahar	0.0	-100	3.2	-81	0.0	-100
Etah	0.0	-100	18.3	-1	0.0	-100
Etawah	0.0	-100	40.8	81	0.0	-100
Firozabad	0.0	-100	15.8	-46	0.0	-100
GBNagar	0.0	-100	0.0	-100	0.0	-100
Ghaziabad	0.0	-100	19.2	81	0.0	-100
Hamirpur	7.0	-86	15.8	-40	0.0	-100
Jalaun	2.8	-95	0.3	-99	0.0	-100
Jhansi	9.3	-81	12.1	-56	0.0	-100
Jotiba Phule Nagar	0.0	-100	25.0	10	0.0	-100
Kanshiramnagar	0.0	-100	3.0	-85	0.0	-100
Lalitpur	0.0	-100	0.0	-100	0.0	-100
Mahamaya Nagar	0.0	-100	31.0	150	0.0	-100
Mahoba	17.8	-61	2.0	-92	0.0	-100
Mainpuri	1.5	-97	7.6	-61	0.0	-100
Mathura	0.0	-100	26.1	146	0.0	-100
Meerut	1.2	-98	33.5	126	0.0	-100
Moradabad	0.0	-100	30.1	11	0.0	-100
Muzzaffarnagar	0.0	-100	78.2	630	0.7	-97
Pilibhit	0.0	-100	4.7	-84	0.0	-100
Rampur	0.0	-100	5.8	-84	0.0	-100
Saharanpur	0.0	-100	75.3	450	0.0	-100

Shahjahanpur	0.0	-100	6.7	-65	0.0	-100
Uttarakhand						
Almora	0.7	-98	10.1	-62	0.3	-99
Bageshwar	0.0	-100	16.5	-38	0.0	-100
Chamoli	0.0	-100	36.3	71	8.7	-50
Champawat	2.0	-97	49.5	32	10.0	-72
Dehradun	10.1	-86	34.7	-14	1.0	-97
Garhwal Pauri	4.7	-92	24.4	-7	0.0	-100
Garhwal Tehri	0.0	-100	14.3	-39	0.2	-99
Haridwar	0.0	-100	32.8	98	0.0	-100
Nainital	19.4	-76	32.3	-32	0.5	-98
Pithoragarh	9.0	-89	24.6	-51	5.3	-87
Rudraprayag	0.0	-100	27.7	-8	6.3	-76
Udham Sing Nagar	0.9	-99	58.4	80	0.0	-100
Uttarkashi	0.3	-99	21.6	-32	7.5	-73
Bihar						
Araria	15.2	-82	58.9	20	1.0	-98
Arwal	0.0	-100	71.6	88	0.0	-100
Aurangabad	2.0	-97	58.5	82	0.0	-100
Banka	0.0	-100	51.9	10	19.3	-67
Begusarai	5.2	-90	76.1	40	19.8	-47
Bhabua	0.0	-100	67.5	58	0.0	-100
Bhagalpur	47.5	-13	85.3	72	19.8	-65
Bhojpur	0.0	-100	15.6	-60	0.0	-100
Buxar	16.4	-80	74.8	161	0.0	-100
Darbhanga	3.2	-94	33.4	-3	10.8	-74
East Champaran	22.8	-61	32.0	-26	20.7	-46
Gaya	1.3	-98	76.8	128	0.0	-100
Gopalganj	28.4	-66	5.7	-85	14.1	-51
Jahanabad	0.0	-100	97.3	98	0.0	-100
Jamui	5.2	-91	73.3	57	0.1	-99
Kathihar	4.7	-93	81.9	69	18.7	-76
Khagadia	15.3	-78	134.3	107	22.0	-61
Kishanganj	25.6	-68	117.2	55	12.7	-82
Lakhisarai	32.7	-40	39.9	-26	4.7	-91
Madhepura	14.1	-80	93.6	131	10.8	-81
Madhubani	22.8	-58	49.5	35	12.8	-63
Monghyar	3.0	-94	140.8	161	37.2	-30
Muzaffarpur	4.5	-93	8.9	-79	7.1	-80
Nalanda	0.0	-100	59.0	29	0.0	-100
Nawada	1.4	-97	46.7	48	0.0	-100
Patna	4.0	-94	40.2	-5	0.4	-99
Purnea	19.3	-77	32.8	-35	6.1	-92
Rohtas	10.0	-85	17.4	-44	0.0	-100
Saharsha	5.5	-94	119.3	117	15.0	-75
Samstipur	6.3	-90	155.4	156	14.0	-73
Saran	2.2	-97	9.1	-77	0.0	-100
Sheikpura	16.6	-69	57.4	40	0.0	-100
Sheohar	26.2	-44	8.2	-81	0.0	-100

Sitamarhi	9.4	-80	35.8	-16	13.2	-57
Siwan	0.4	-99	10.4	-77	0.0	-100
Supaul	23.5	-63	100.8	161	11.4	-76
Vaishali	2.8	-95	39.6	-23	3.7	-91
West Champaran	27.4	-70	5.9	-88	4.9	-89
Jharkhand						
Bokaro	3.0	-95	31.4	-14	3.7	-93
Chatra	4.9	-92	21.0	-58	1.1	-97
Deoghar	3.5	-94	73.3	34	5.2	-92
Dhanbad	1.7	-98	45.0	-11	1.7	-97
Dumka	9.8	-85	81.0	79	12.3	-82
East Singbhum	27.7	-51	80.0	120	2.3	-95
Garhwa	0.0	-100	24.0	-21	0.0	-100
Giridih	0.9	-99	46.9	18	0.0	-100
Godda	10.6	-84	73.1	83	7.6	-88
Gumla	3.2	-95	73.8	60	0.0	-100
Hazaribagh	2.3	-97	69.0	83	2.9	-92
Jamtara	6.0	-93	67.3	35	1.7	-98
Khunti	0.0	-100	36.0	-33	0.0	-100
Koderrna	5.0	-91	52.4	34	0.0	-100
Latehar	0.0	-100	59.3	97	0.0	-100
Lohardagga	0.0	-100	45.5	-7	0.0	-100
Pakur	9.5	-88	95.0	10	10.2	-87
Palamau	4.6	-93	49.8	23	0.0	-100
Ramgarh	4.6	-93	99.0	144	0.1	-99
Ranchi	1.9	-97	21.4	-52	0.0	-100
Sahebganj	0.0	-100	118.6	67	0.0	-100
Saraikela	20.9	-69	19.8	-53	4.6	-90
Simdega	17.1	-80	34.2	-19	8.2	-82
West Singbhum	24.6	-56	8.3	-78	0.0	-100
East Rajasthan						
Ajmer	0.2	-99	3.8	-35	0.0	-100
Alwar	0.0	-100	53.9	429	1.4	-88
Banswara	4.1	-87	20.1	3	0.0	-100
Baran	0.0	-100	6.6	-63	0.0	-100
Bharatpur	0.0	-100	18.8	79	0.0	-100
Bhilwara	2.0	-89	7.4	-23	0.0	-100
Bundi	0.7	-97	2.5	-76	0.0	-100
Chittorgarh	0.0	-100	13.0	10	0.0	-100
Dausa	0.0	-100	9.8	-20	0.0	-100
Dholpur	8.3	-77	14.7	-17	0.0	-100
Dungarpur	0.8	-97	45.9	337	0.0	-100
Jaipur	0.0	-100	8.4	-1	0.3	-96
Jhalawar	0.0	-100	5.4	-75	0.0	-100
Jhunjhunu	0.0	-100	20.8	131	1.4	-82
Karauli	0.0	-100	10.8	-3	0.0	-100
Kota	0.0	-100	1.9	-87	0.0	-100
Pratapgarh	4.4	-86	5.6	-78	0.0	-100
Rajsamand	1.9	-86	7.6	-32	0.0	-100

Sawai Madhopur	0.0	-100	7.3	-41	0.0	-100
Sikar	0.0	-100	5.1	-1	0.0	-100
Sirohi	0.0	-100	30.1	198	0.0	-100
Tonk	0.0	-100	5.9	-34	0.1	-98
Udaipur	2.0	-90	40.6	203	0.0	-100
West Rajasthan						
Barmer	0.0	-100	60.6	1990	0.0	-100
Bikaner	0.0	-100	33.6	469	0.3	-94
Churu	0.0	-100	8.4	14	0.7	-91
Hanumangarh	0.0	-100	52.4	774	2.6	-43
Jaisalmer	0.0	-100	51.1	3308	0.0	-100
Jalore	0.0	-100	16.6	296	0.0	-100
Jodhpur	0.0	-100	19.3	435	0.0	-100
Nagaur	0.2	-98	9.3	55	0.0	-100
Pali	0.0	-100	4.8	-27	0.0	-100
Sri Ganganagar	0.0	-100	79.3	1424	0.7	-71
Gujarat Region						
Ahmedabad	5.7	-78	48.4	253	0.0	-100
Anand	0.4	-99	91.5	475	0.0	-100
Banaskantha	0.0	-100	26.5	185	0.0	-100
Baroda	20.7	-48	38.9	66	0.0	-100
Broach	19.4	-32	84.7	307	0.0	-100
DNH	118.3	189	189.2	188	0.0	-100
Dahod	6.3	-82	20.9	-11	0.0	-100
Daman	88.4	116	227.0	246	0.0	-100
Dangs	30.0	-56	294.0	446	0.0	-100
Gandhinagar	0.2	-99	70.3	392	0.0	-100
Kheda	0.0	-100	73.1	332	0.0	-100
Mehsana	0.7	-98	37.5	172	0.0	-100
Narmada	41.5	5	54.4	124	0.0	-100
Navsari	65.6	19	280.7	728	1.3	-98
Panchmahal	3.2	-92	30.9	37	0.1	-99
Patan	0.4	-98	38.1	546	0.0	-100
Sabarkantha	0.9	-97	87.8	456	0.0	-100
Surat	59.4	57	188.5	598	0.6	-99
Tapi	70.6	77	142.8	396	0.0	-100
Valsad	58.5	7	241.7	516	0.0	-100
S K & Diu region						
Amreli	41.4	130	154.9	614	0.0	-100
Bhavnagar	27.9	51	109.0	440	0.1	-99
Diu	17.1	15	198.7	2323	0.0	-100
Jamnagar	35.1	79	79.7	1007	0.0	-100
Junagarh	39.9	62	155.0	845	0.0	-100
Kutch	0.7	-97	42.4	843	0.0	-100
Porbandar	4.5	-84	101.8	714	0.5	-96
Rajkot	24.9	11	102.8	568	0.0	-100
Surendranagar	15.6	12	30.0	114	0.0	-100
Maharashtra						
Konkan & Goa						

Mumbai City	166.2	171	26.3	-53	0.0	-100
Mumbai Suburban	109.3	78	44.2	-21	0.0	-100
North Goa	115.5	105	95.7	82	0.6	-99
Raigad	108.0	48	123.7	90	0.7	-99
Ratnagiri	152.2	139	101.6	63	0.1	-99
Sindhudurg	96.7	46	94.5	66	1.1	-98
South Goa	169.3	235	112.1	118	2.0	-97
Thane	61.6	3	154.1	161	0.5	-99
Madhya Maharashtra						
Ahmednagar	76.2	149	50.5	50	0.3	-99
Dhule	35.0	72	143.1	569	0.0	-100
Jalgaon	21.8	-16	95.4	320	0.2	-99
Kolhapur	38.9	30	9.5	-77	0.1	-99
Nandurbar	64.5	122	133.9	421	0.0	-100
Nasik	37.0	-7	138.4	326	2.5	-95
Pune	79.3	164	67.1	78	0.3	-99
Sangli	70.0	168	13.5	-66	0.2	-99
Satara	77.0	221	14.8	-61	0.3	-99
Solapur	59.4	60	11.3	-76	0.1	-99
Marathwada						
Aurangabad	35.6	16	121.6	268	0.0	-100
Beed	46.8	37	17.5	-58	7.4	-82
Hingoli	44.5	70	70.7	112	3.7	-89
Jalna	29.1	1	84.9	196	0.2	-99
Latur	72.0	95	16.9	-45	5.9	-84
Nanded	36.4	21	46.2	15	3.7	-90
Usmanabad	87.0	106	6.0	-86	0.6	-99
Parbhani	37.5	32	48.1	30	1.4	-96
Vidarbha						
Akola	36.9	14	66.7	173	0.6	-97
Amraoti	16.0	-55	67.7	147	0.0	-99
Bhandara	25.4	-55	106.8	271	0.2	-99
Buldhana	38.8	48	112.2	354	0.1	-99
Chandrapur	44.9	-15	161.4	389	0.1	-99
Gadchiroli	45.1	-2	103.2	234	0.8	-97
Gondia	18.2	-71	146.1	352	1.0	-96
Nagpur	22.2	-45	76.1	131	0.0	-100
Wardha	30.9	8	89.1	174	0.0	-100
Washim	21.3	-41	92.0	211	0.0	-100
Yeotmal	40.0	63	117.3	280	0.0	-100
Odisha						
Angul	67.0	12	57.0	47	0.0	-100
Balasore	73.8	-14	28.3	-51	0.0	-100
Bargarh	20.1	-71	55.3	58	0.0	-100
Bhadrak	56.8	-7	22.6	-53	0.2	-99
Bolangir	92.4	40	79.1	117	0.0	-100
Boudh	57.8	-22	67.8	51	0.0	-100
Cuttack	98.4	62	44.9	-4	1.3	-97

Deogarh	37.5	-45	75.7	113	0.0	-100
Dhenkanal	64.0	12	38.5	-8	2.5	-94
Gajapati	143.4	132	30.6	-55	2.1	-94
Ganjam	177.5	225	71.4	36	5.9	-87
Jagatsingpur	62.9	6	29.1	-39	8.6	-82
Jajpur	59.1	-4	40.5	-38	0.0	-100
Jharsuguda	27.6	-59	158.6	324	2.2	-93
Kalahandi	238.0	208	67.1	68	1.6	-95
Kandhamal	161.4	117	46.2	3	0.7	-98
Kendrapara	63.8	6	35.8	-29	0.0	-100
Keonjhar	46.0	-24	39.3	-20	1.5	-96
Khurda	106.1	58	21.2	-60	2.7	-94
Koraput	267.5	270	138.1	129	2.9	-93
Malkangiri	77.6	56	363.4	690	16.0	-47
Mayurbhanj	60.4	-15	35.3	-37	0.9	-98
Nawapara	38.0	-30	148.0	310	0.0	-100
Nawarangpur	279.0	309	224.3	418	4.4	-87
Nayagarh	175.6	218	75.1	33	0.0	-100
Puri	94.2	46	51.7	13	8.0	-86
Rayagada	188.0	265	58.7	33	2.8	-92
Sambalpur	21.4	-69	75.1	112	0.0	-100
Sonepur	58.3	-26	33.8	-10	2.2	-94
Sundargarh	19.5	-71	59.8	67	5.6	-80
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	104.5	51	75.1	-10	220.3	104
North & Middle Andaman	155.0	59	200.9	94	47.3	-54
South Andaman	159.8	82	206.7	76	95.5	-22
GWB						
Bankura	9.5	-83	49.7	8	4.8	-92
Birbhum	8.9	-84	94.0	42	12.9	-82
Burdwan	3.9	-94	38.0	-23	14.3	-77
East Midnapore	26.2	-71	101.5	86	6.1	-94
Hooghly	11.5	-78	81.7	82	21.6	-62
Howrah	50.0	-33	80.9	90	48.2	-53
Kolkata	66.0	-3	93.1	85	14.1	-84
Murshidabad	11.4	-79	93.1	87	14.0	-81
Nadia	8.0	-81	84.3	69	6.9	-87
24 Pargana (N)	8.7	-86	109.9	81	32.4	-57
Purulia	14.0	-81	27.1	-32	9.3	-85
24 Pargana (S)	50.2	-44	99.4	79	11.1	-88
West Midnapore	20.8	-72	105.7	145	13.2	-81
SHWB & Sikkim						
Cooch Behar	46.1	-63	136.0	46	68.4	-33
Darjeeling	71.0	-47	164.5	73	104.3	-2
East Sikkim	76.7	-12	105.7	64	60.8	-12
Jalpaiguri	42.9	-66	121.4	9	69.3	-28
Malda	2.5	-96	85.2	51	19.0	-77

North Dinajpur	79.4	-11	37.3	-54	21.0	-84
North Sikkim	57.9	-43	104.6	37	48.9	-31
South Dinajpur	14.3	-83	71.3	34	1.0	-98
South Sikkim	106.2	22	134.8	109	88.9	29
West Sikkim	93.0	-9	130.5	71	105.0	49
Karnataka						
Coastal Karnataka						
Dakshina Kannada	90.4	36	61.6	2	24.8	-68
Udupi	172.7	111	64.7	-19	18.1	-82
Uttara Kannada	147.6	183	52.5	-2	11.2	-81
N I Karnataka						
Bagalkote	113.2	332	12.2	-74	0.6	-99
Belagavi	47.7	149	13.9	-60	1.0	-97
Bidar	80.7	127	25.4	-38	12.8	-70
Dharwad	25.0	27	4.2	-90	3.0	-92
Gadag	37.3	52	12.1	-74	14.4	-67
Haveri	16.6	-5	1.1	-96	32.8	-9
Kalaburgi	97.9	167	16.8	-66	31.0	-34
Koppal	96.4	233	21.3	-59	6.9	-82
Raichur	133.0	345	6.2	-86	12.4	-70
Vijayapura	76.1	136	17.5	-65	10.4	-78
Yadgir	93.0	174	6.8	-88	16.4	-65
S I Karnataka						
Ballari	29.8	17	7.5	-85	13.6	-64
Bangalore Rural	14.5	-59	11.4	-80	99.5	136
Bangalore Urban	5.7	-85	8.8	-85	59.0	28
Chamarajanagar	1.4	-95	0.0	-100	92.3	154
Chikaballapur	5.3	-83	4.1	-91	80.7	96
Chikkamagaluru	32.5	11	15.3	-68	58.8	17
Chitradurga	11.6	-37	1.5	-96	53.9	44
Davangere	30.9	42	1.8	-96	34.7	-8
Hassan	2.2	-87	1.9	-95	51.0	30
Kodagu	26.2	-30	26.6	-47	82.0	61
Kolar	4.3	-87	4.8	-90	56.2	41
Mandya	5.7	-79	1.5	-96	78.2	96
Mysuru	4.2	-80	0.9	-97	74.2	111
Ramanagara	4.0	-90	5.8	-91	65.0	35
Shivamogga	97.2	308	33.1	-1	13.2	-65
Tumakuru	9.1	-71	6.0	-88	89.7	106
Kerala						
Alappuzha	45.5	-24	87.1	32	76.6	-1
Kannur	56.9	46	52.5	27	64.8	-3
Ernakulam	70.6	12	100.0	42	100.7	16
Idukki	30.5	-48	67.6	-2	141.6	46
Kasaragod	66.7	27	31.7	-40	21.5	-66
Kollam	56.3	50	59.5	3	43.9	-37
Kottayam	50.3	-10	77.7	31	128.1	54
Kozhikode	33.5	-26	97.6	84	9.6	-88
Malappuram	13.5	-64	52.5	14	49.9	-27

Palakkad	20.5	-35	34.7	-8	74.5	24
Pathanamthitta	56.4	-1	64.4	15	118.3	34
Thiruvananthapuram	89.0	230	60.9	44	36.0	-37
Thrissur	53.4	-10	81.7	33	72.0	-17
Wayanad	20.5	-51	10.6	-78	85.9	49
Tamil Nadu						
Ariyalur	6.0	-83	5.5	-84	19.9	-44
Chennai	38.8	58	30.7	11	0.0	-100
Coimbatore	4.6	-70	3.5	-84	67.2	207
Cuddalore	6.3	-77	12.1	-67	14.5	-60
Dharmapuri	1.7	-96	9.1	-82	81.9	104
Dindigul	3.8	-88	0.4	-99	70.7	97
Erode	0.6	-98	0.0	-100	65.5	117
Kanchipuram	31.1	9	13.3	-62	13.5	-69
Kanyakumari	68.1	334	40.7	62	46.5	26
Karikal	0.9	-96	3.7	-91	0.0	-100
Karur	0.0	-100	0.0	-100	89.1	221
Krishnagiri	1.4	-96	18.7	-68	49.9	5
Madurai	0.0	-100	0.0	-100	93.5	166
Nagapattinam	5.4	-73	4.0	-84	0.0	-100
Namakkal	4.4	-87	4.3	-88	108.8	224
Nilgiris	1.2	-96	4.2	-89	86.3	117
Perambalur	0.0	-100	1.3	-97	103.0	267
Puducherry	0.7	-98	34.5	19	10.1	-66
Pudukottai	0.9	-97	11.2	-64	24.4	-25
Ramanathapuram	0.8	-94	2.1	-87	48.0	148
Salem	2.6	-94	13.9	-70	76.7	98
Sivaganga	1.2	-95	0.3	-99	64.1	126
Thanjavur	3.1	-88	13.6	-56	19.8	-33
Theni	4.5	-70	3.1	-85	115.7	378
Tirunelveli	8.7	21	4.5	-52	36.8	126
Tirupur	0.0	-100	0.0	-100	53.2	112
Tiruvallur	12.3	-57	32.6	6	28.3	-32
Tiruvannamalai	17.6	-57	3.9	-91	83.8	113
Tiruvarur	0.4	-98	8.3	-69	26.6	-12
Toothukudi	0.4	-93	0.0	-100	20.4	79
Trichy	11.5	-66	0.9	-98	51.6	64
Vellore	4.7	-88	24.8	-47	64.3	56
Villupuram	7.2	-81	21.4	-46	14.1	-61
Virudhunagar	0.0	-100	0.0	-100	60.5	117
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	59.8	86	35.7	-20	15.0	-70
Guntur	61.1	137	22.1	-41	11.3	-75
Krishna	45.4	49	49.7	17	10.0	-80
Nellore	31.1	52	35.4	13	19.8	-45
Prakasam	45.9	150	5.2	-85	31.6	-24
Sirkakulam	87.4	84	53.5	-7	15.8	-63

Visakhapatnam	161.1	320	44.2	-11	16.0	-64
Vizianagram	114.7	122	31.3	-42	28.6	-36
West Godavari	95.9	178	34.8	-20	15.7	-68
Rayalaseema						
Anantapur	20.3	-29	0.7	-98	44.9	31
Chittoor	7.3	-76	34.5	-5	34.9	-10
Cuddapah	39.8	57	4.0	-89	20.7	-36
Kurnool	72.2	171	13.1	-70	34.5	-9
Telangana						
Adilabad	50.1	63	97.2	131	0.5	-98
Hyderabad	72.8	136	23.5	-51	10.9	-73
Karimnagar	46.3	50	110.4	157	5.1	-85
Khammam	79.5	117	62.7	52	12.7	-66
Mehabubnagar	49.5	70	13.6	-67	21.1	-48
Medak	62.2	80	14.1	-70	4.8	-86
Nalgonda	54.4	97	13.4	-68	20.8	-45
Nizamabad	38.3	13	17.2	-53	7.3	-80
Rangareddy	41.6	14	13.6	-73	21.2	-45
Warangal	78.4	150	62.9	59	13.1	-56

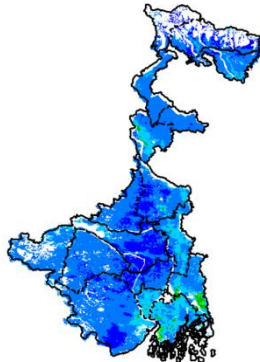
Legends

	(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

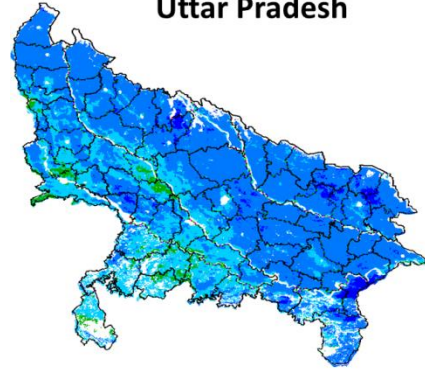
**INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
30th SEPTEMBER 2015 FOR DIFFERENT STATES**

West Bengal



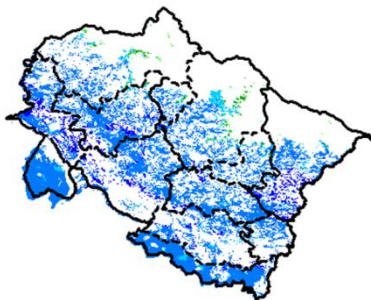
Agricultural vigour is good in all parts of West Bengal NDVI varying from 0.4-0.6., whereas patches in south eastern region shows lower values of NDVI (0.2-0.4)

Uttar Pradesh



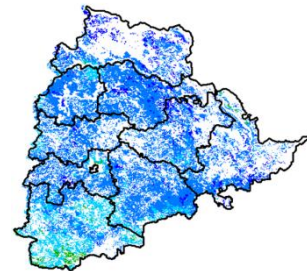
Agricultural vigour is good over the entire state of Uttar Pradesh where NDVI value varies from 0.4 - 0.6. In some patches NDVI values (> 0.6) are observed.

Uttarakhand



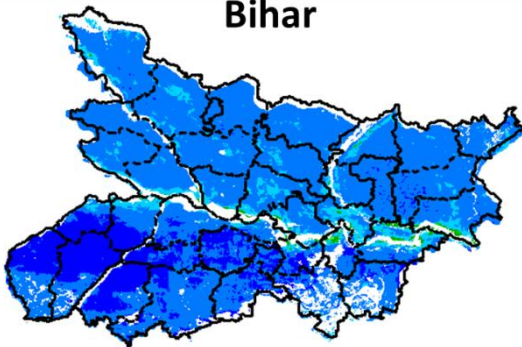
Agriculture vigour is very good over entire state of Uttarakhand with NDVI value varies from 0.5-0.6.

Telangana



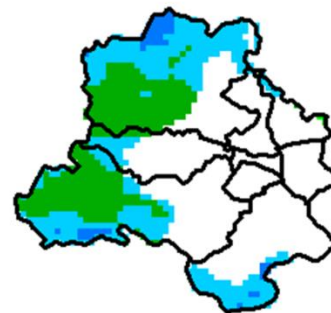
Agriculture vigour is good over northern and eastern regions in Telangana where NDVI value lies between 0.4-0.6. Agriculture vigour is moderate in the southern part (NDVI 0.2-0.3).

Bihar



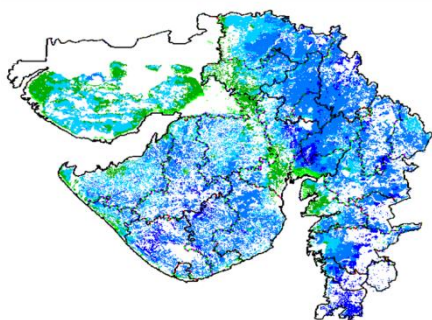
South-western part of Bihar shows comparatively a high value (>0.6) of NDVI, whereas NDVI varies from 0.4-0.6 over the remaining parts of the state.

Delhi



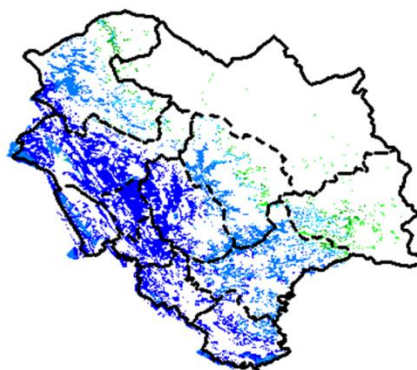
Agriculture vigour is good all over Delhi where NDVI value lies between 0.3-0.6.

Gujarat



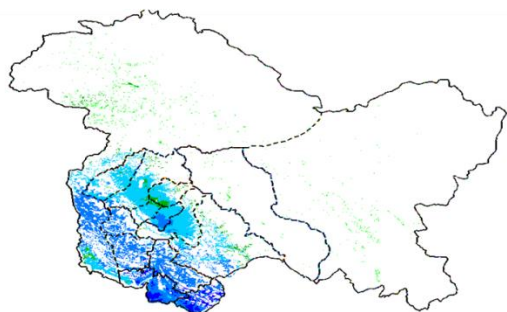
Agriculture vigour is normal in some patches in Saurashtra and Kutch region whereas, good agricultural vigour is observed over Gujarat region where NDVI value lies between 0.4-0.6.

Himachal Pradesh



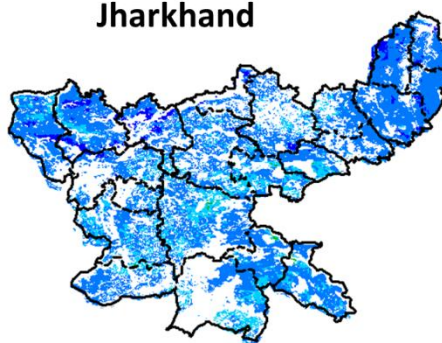
Agriculture vigour is very good over Himachal Pradesh where NDVI values are > 0.6 .

Jammu & Kashmir



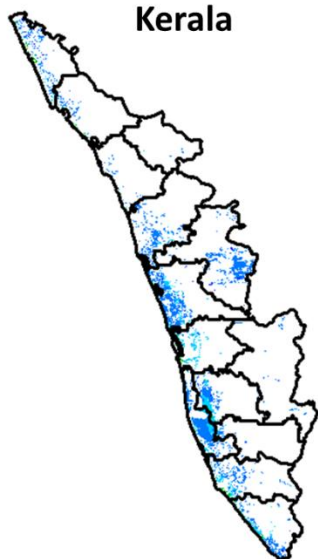
Agriculture vigour is good all over Jammu and Kashmir. NDVI value varies in between 0.4-0.6 in south western parts.

Jharkhand



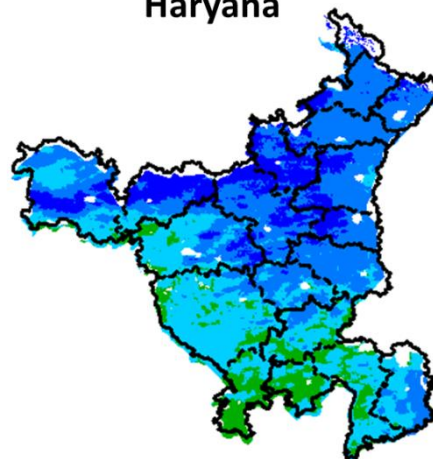
Agriculture vigour is good over entire state of Jharkhand, NDVI value varies from 0.4 - 0.6.

Kerala



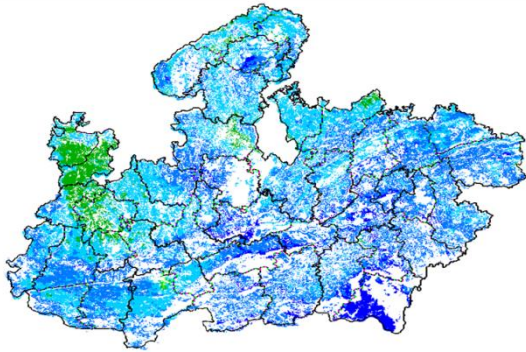
Central and eastern regions of Kerala show NDVI values varying from 0.4 to 0.5, whereas normal NDVI values observed in southern and northern region.

Haryana



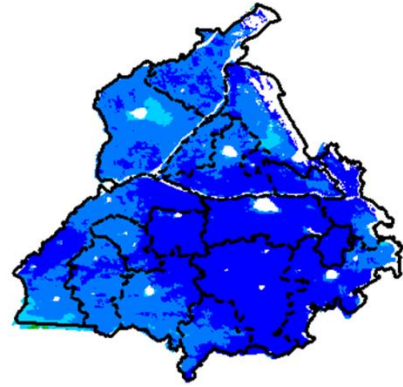
Agriculture vigour is good over the entire state of Haryana. NDVI values vary between 0.4-0.6. The northern part shows increase in NDVI (> 0.6). Southern part of state showing normal NDVI values between 0.3 - 0.4.

Madhya Pradesh



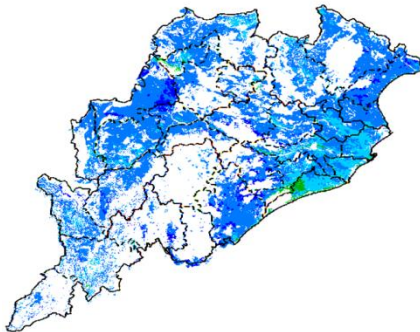
Agriculture vigour is good over entire state of Madhya Pradesh. NDVI varies from 0.4-0.6. In some patches over southern part of Madhya Pradesh NDVI is greater than 0.6 and some patches in north-eastern side shows normal values of NDVI (0.2 – 0.4).

Punjab



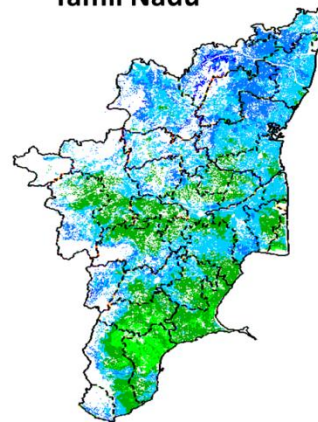
Agricultural vigour is very good over entire state of Punjab, showing NDVI value >0.6.

Odisha



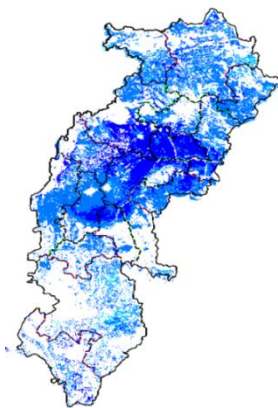
Agricultural vigour is good over entire state of Odisha with NDVI value ranging between 0.4 – 0.6.

Tamil Nadu



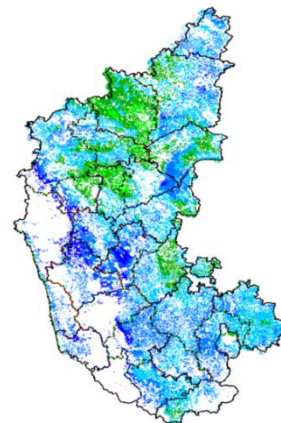
Agricultural vigour is normal over Tamil Nadu with NDVI values varying from 0.2 - 0.3 in the southern parts. In northern region NDVI value ranges from 0.4-0.6.

Chhattisgarh



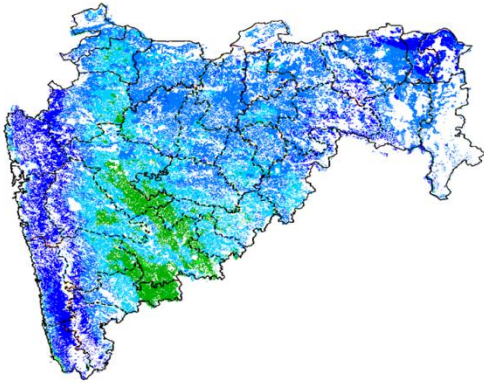
Agriculture vigour is very good over central part of Chhattisgarh where NDVI value are greater than 0.6 whereas the other parts shows good NDVI values between 0.4 – 0.5.

Karnataka



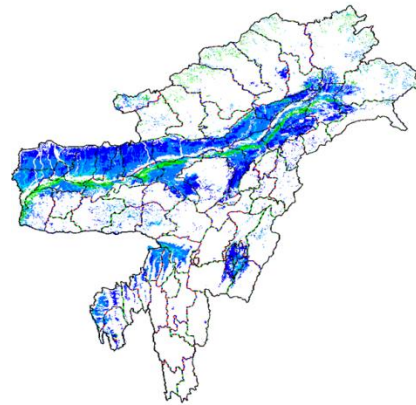
Agricultural vigour is good over entire state of Karnataka between 0.4 – 0.6, except some patches in northern region shows Normal NDVI values between 0.2-0.3.

Maharashtra



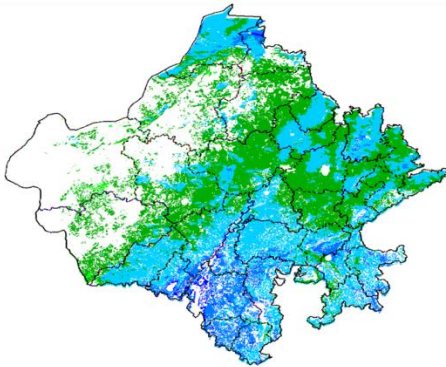
Agricultural vigour is very good over Western Ghats and Vidharbha regions with NDVI values greater than 0.6, whereas NDVI is good over other parts of Maharashtra (0.2-0.4). Few patches in Marathwada region show lower values of NDVI (0.2-0.3).

North East Region



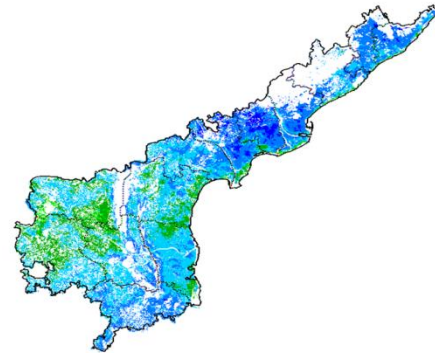
Agriculture vigour is good in North-East states which covers valley part of Assam, Manipur and Tripura where NDVI values ranges from 0.4 -0.6 whereas, agricultural vigour is normal(0.2-0.4) in the northern and eastern states of North-East.

Rajasthan



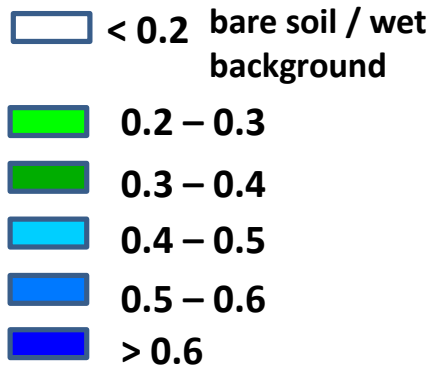
Agriculture vigour is good (0.4-0.6) over southern and eastern parts of Rajasthan whereas moderate values of NDVI are observed over the entire state(0.2-0.4).

Andhra Pradesh



Agriculture vigour vary from 0.3 - 0.5 over coastal and central part of Andhra Pradesh. The NDVI is normal over remaining parts of the state.

Persistent cloud /



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, DRSH-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), Birsa Dhan-202,Birsamati.
Finger Millet: Birsa marua 2,A-404,GPU 45,47.
Urd Bean: T9, Pant U19,30,35& Birsa Urd 1.
Arhar:BrisaArhar-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.

Madhya Maharashtra

Rabi jowar: Selection-3, Phule Mauli, Phule Chitra, Phule Mauli, Maldandi- 35-1, Phule Vasudha, Phule Yashoda, C.S.V.-22, Phule Yashoda, Phule Vasudha, C.S.V. 22.

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.

Madhya Pradesh

Wheat: JW 1203, JW1215, HI 1544 (Irrigated).

JW 3288, JW 3211, JW 3020, HI 1531(1 or 2 irrigation).

JW 3288, JW 3173 (non irrigated).

Gram: JG 130, JG 11, JG 315, JG 16.

Chickpea: KAK 2, JGK 1.

Lentil: RVL 31, JL 2.