



National Agromet Advisory Service Bulletin



Friday 11th September 2015

(For the period 11th to 15th September 2015)



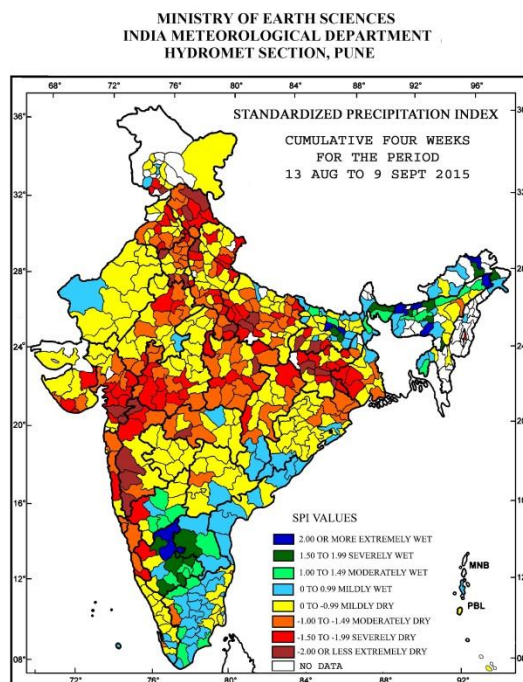
Issued by

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

Monsoon Watch

- Southwest monsoon was **vigorous** over North Interior Karnataka and **active** over Madhya Maharashtra, Marathawada, Rayalaseema and Kerala during past 24 hours ending at 0830 hours IST of yesterday.
- The withdrawal line of southwest monsoon continues to pass through Amritsar, Hissar, Ajmer and Barmer.

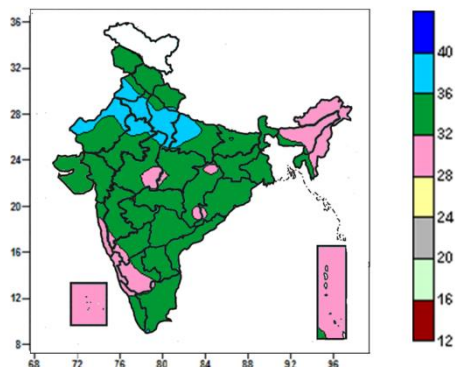
Standardised Precipitation Index Four Weekly for the Period 13th August to 9th September 2015



- Extremely/severely wet conditions experienced in few districts of Arunachal Pradesh and Assam; East Khasi Hills district of Meghalaya; Jalpaiguri district of West Bengal; Begusarai, Khagaria, Monghyr, Samastipur districts of Bihar; Anantapur district of Andhra Pradesh; Bellary, Chitradurga, Davangere, Mysore, Tumkur, Ramanagara, Chickballapur districts of Karnataka.
- Extremely/Severely dry conditions experienced in many districts of Jharkhand, Himachal Pradesh and Gujarat Region; few districts of Uttar Pradesh, Uttarakhand, Madhya Pradesh, Saurashtra, Kutch & Diu; Bankura, Purulia, West Midnapore districts of West Bengal; Bhojpur, Gaya, Nawada, Rohtas districts of Bihar; Hoshiarpur, Jalandhar, Mansa, Moga districts of Punjab; Jammu, Reasi, Udhampur districts of Jammu & Kashmir; Jaipur, Dausa, Pratapgarh districts of Rajasthan; Ratnagiri district of Konkan & Goa; Dhule, Kolhapur, Nashik, Pune, Satara, Nandurbar, Washim districts of Maharashtra; Rajnandgaon, Surguja districts of Chhattisgarh; Belgam, Shivmogga districts of Karnataka.
- Moderately dry conditions experienced in many districts of Delhi and Konkan & Goa; few districts of West Bengal, Uttar Pradesh, Himachal Pradesh, Madhya Pradesh and Gujarat; Golaghat district of Assam; Angul, Balasore, Bhadrak, Jajpur, Keonjhar, Mayurbhanj districts of Odisha; Dumka district of Jharkhand; Almora, Champawat districts of Uttarakhand; Bhatinda, Ferozepur, Patiala, Barnala districts of Punjab; Alwar, Banswara, Bhilwara, Dungarpur, Sawai Madhopur, Tonk, Karauli districts of Rajasthan; Jalgaon, Sangli, Amraoti, Buldhana, Yeotmal districts of Maharashtra; Jashpur, Kanker, Raigarh, Raipur districts of Chhattisgarh; Medak district of Telangana; Coimbatore, Chennai district of TamilNadu; Uttar Kannada, Udupi districts of Karnataka; Alappuzha district of Kerala.
- Rest of the country experienced moderately wet/mildly dry/wet conditions.

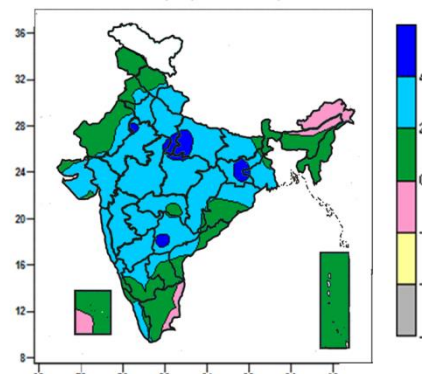
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 09.09.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 09.09.2015



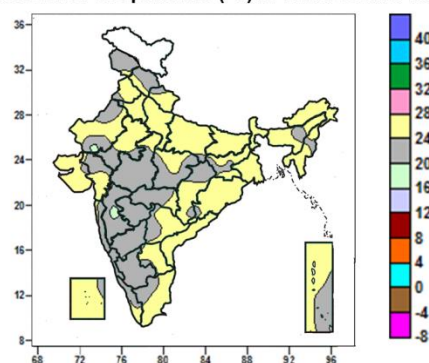
- Mean maximum temperature was between 36 to 40°C over Haryana & Delhi, many parts of Punjab, Uttar Pradesh, some part of Rajasthan and isolated pockets of West Madhya Pradesh.
- It was 28 - 36°C over remaining parts of the country.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 09.09.2015



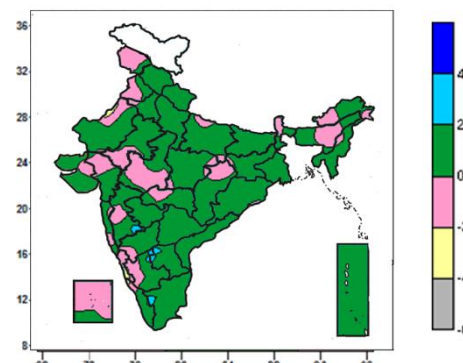
- Mean maximum temperature was above normal by 4°C over some parts of Uttar Pradesh, Jharkhand and isolated pockets of Bihar, West Rajasthan and Telangana.
- Mean maximum temperature was above normal by 2 to 4°C over Uttarakhand, East Rajasthan, Gujarat region, Konkan & Goa, Madhya Maharashtra, Marathwada, North Interior Karnataka, many parts of Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Central India, Saurashtra & Kutch, Vidarbha, Telangana, Kerala, some parts of Punjab, West Rajasthan, Odisha, Coastal Andhra Pradesh, Rayalaseema, Coastal & South Interior Karnataka and isolated pockets of Himachal Pradesh.
- It was normal to near normal in remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 09.09.2015



- Mean minimum temperature was between 16 to 20°C over isolated pockets of West Rajasthan, Madhya Maharashtra.
- It was above 20°C over rest of the country.

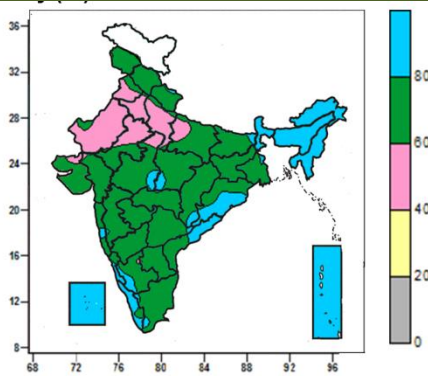
Mean Minimum Temperature (°C) Anomaly in India for the week ending 09.09.2015



- Mean maximum temperature was above normal by 2 to 4°C over isolated pockets of Madhya Maharashtra, South Interior Karnataka, Rayalaseema and Tamil Nadu.
- Mean minimum temperature was below normal by 2 to 4°C over isolated pockets of West Rajasthan.
- It was normal to near normal in remaining parts of the country.

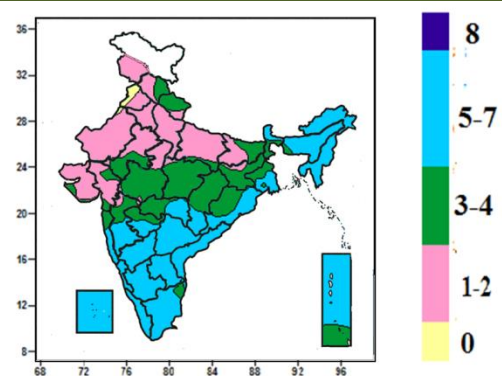
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 09.09.2015

Relative Humidity (%) over India for the week ending 09.09.2015



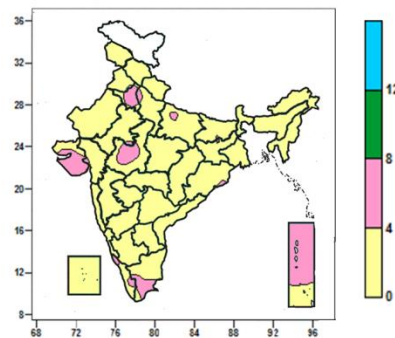
- Mean Relative humidity was above 80% over North East India, Sub-Himalayan West Bengal & Sikkim, Lakshadweep and Andaman & Nicobar Islands, many parts of Odisha, Kerala, some parts of Coastal Andhra Pradesh, Coastal Karnataka, and isolated pockets of Chhattisgarh, Madhya Pradesh, Konkan, and South Interior Karnataka.
- Mean Relative humidity was 60 to 80% over rest of the country.

Cloud amount (okta) over India for the week ending 09.09.2015



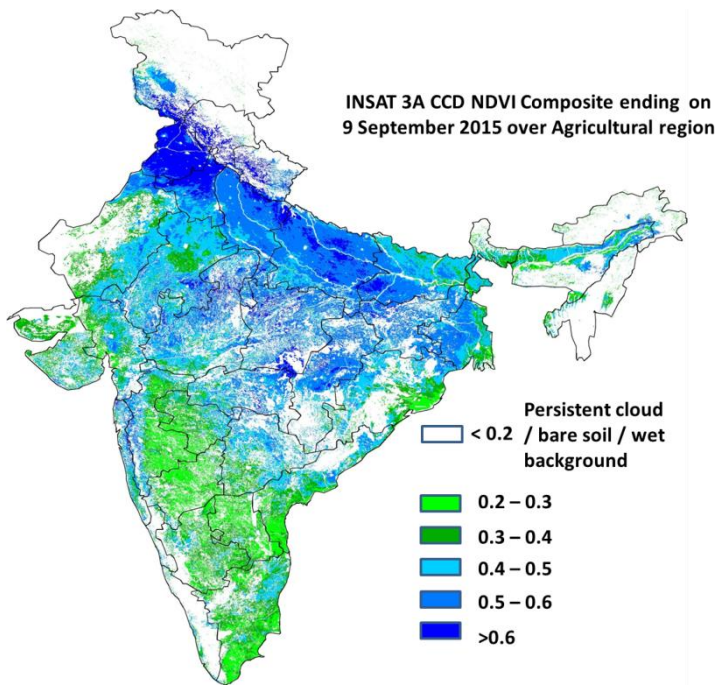
- Sky remained generally cloudy (5-7 okta) over North East India, Andhra Pradesh, Telangana, Karnataka, Kerala and Lakshadweep, many parts of West Bengal & Sikkim, Madhya Maharashtra, Marathwada, Konkan & Goa, Tamil Nadu, Andaman & Nicobar Islands, some parts of Chhattisgarh, Odisha and Vidarbha.
- Sky remained partly cloudy/mainly clear (3 to 4/ 1 to 2 okta) over rest of the country.

Wind speed (knots) over India for the week ending 09.09.2015



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

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



- Agricultural vigour is very good in Punjab, Haryana, and in some patches in Uttar Pradesh and Madhya Pradesh. Agricultural vigour is good in Northern parts of Uttar Pradesh, East Rajasthan, Madhya Pradesh, Coastal Andhra Pradesh, Jharkhand, West Bengal, Vidarbha, Gujarat, Telangana where NDVI varies from 0.4 to 0.6. Agricultural growth was moderate 0.2 to 0.3 over most parts of Madhya Maharashtra, Karnataka, Tamil Nadu and Saurashtra region.

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

Weather Forecast for next 5 days valid upto 0830 hours of 16th September 2015

- No significant change in maximum temperatures over plains of northwest and adjoining central India during next 3-4 days.

5 Day Rainfall Forecast (MORNING) 11th September 2015

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

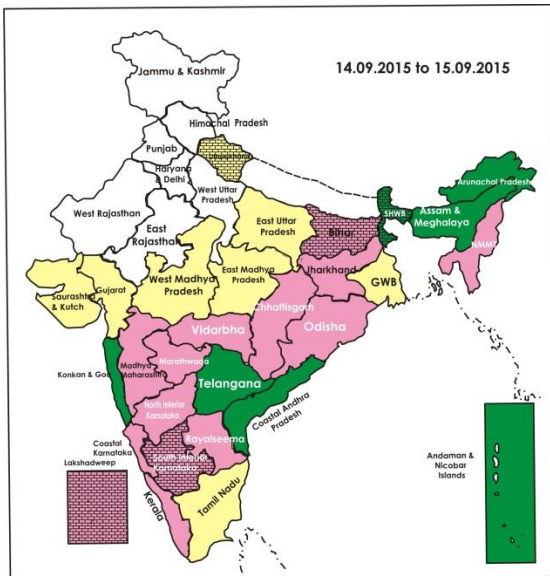
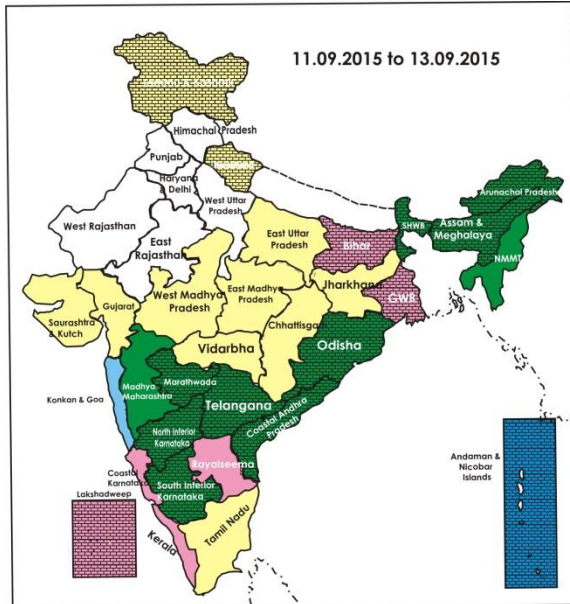
Weather Warning during next 5 days

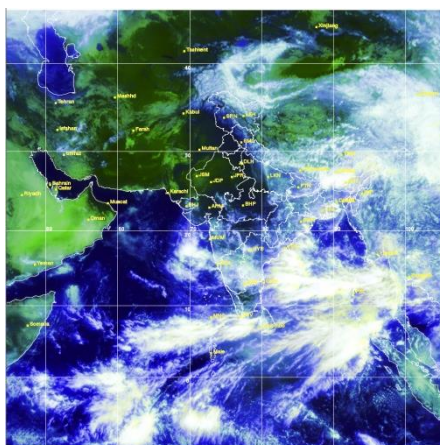
- 11 September (Day 1):** Heavy to very heavy rainfall would occur at isolated places over Andaman & Nicobar Islands and heavy rainfall at isolated places over Coastal Karnataka, North Interior Karnataka and Konkan & Goa.
- 12 September (Day 2):** Heavy rainfall would occur at isolated places over south Odisha, north ♦ Coastal Andhra Pradesh and Andaman & Nicobar Islands.
- 13 September (Day 3):** Heavy rainfall would occur at isolated places over south Odisha, Coastal Andhra Pradesh and Andaman & Nicobar Islands.
- 14 September (Day 4):** Heavy rainfall would occur at isolated places over south Odisha, Coastal Andhra Pradesh and Andaman & Nicobar Islands.
- 15 September (Day 5):** Heavy rainfall would occur at isolated places over Coastal Andhra Pradesh, Telangana and Andaman & Nicobar Islands.

Weather Outlook for subsequent 2 days from 16th to 18th September 2015

- Rain/thundershowers would occur at many places over Chhattisgarh, Odisha, Andhra Pradesh, Telangana, Kerala and Andaman & Nicobar Islands.
- Rain/thundershowers would occur at a few places over northeastern states, rest east and peninsular India.

Weather Forecast Map (Valid upto 0830 hours of 16th September, 2015)





Salient Advisories

- In **Assam**, due to heavy rain, flooding was reported in Dhemaji, Lakhimpur, Dibrugarh, Morigaon, Barpeta, Sonitpur, Tinsukia and Goalpara districts. Drain out excess water from standing crop fields in these districts. In Lower Brahmaputra Valley Zone, undertake nursery raising of the photo insensitive short duration variety of rice like Luit for replanting in case of total damage or wet seeding of sprouted seeds (@7 5-80 kg/ha of short to medium duration varieties like Disang, Luit (100 days), Kapili, Kolong (120 days) and adoption of submergence tolerance varieties like Jalashree and Jalkuwari for repeat flood prone areas. Continue sowing of *kharif* sesame, green gram, black gram, nursery sowing of early cauliflower and radish.
- Under the influence of the upper air cyclonic circulation, a low pressure area would form over westcentral Bay of Bengal during next 48 hours. In association with low pressure area, rain/thundershowers would occur at many places over **Odisha** from 12th to 15th September along with heavy rainfall at isolated places on 14th & 15th, postpone irrigation, inter-cultural operation and application of plant protection measures and fertilizers to the standing crops. Also provide adequate drainage in standing crops to avoid water stagnation in the crop fields.
- In **South Interior Karnataka**, in areas where sowing is yet to be done, continue sowing of short duration crops like pulses and minor millets with realized and expected rainfall.
- In **North Interior Karnataka**, undertake land preparation for sowing of *rabi* sunflower, sorghum, safflower and horsegram in North Dry Zone. In the North East Dry Zone and North East Transition Zone, continue sowing of fodder crops like jowar, maize and bajra with realized and expected rainfall.
- In **Andhra Pradesh**, in North Coastal Zone, if nursery sowing of rice is delayed, continue direct sowing of rice with short duration varieties. In Scarce Rainfall Zone, continue sowing of contingent crops like sorghum, cowpea, horsegram, korra, bajra in Anantpur district and korra in Kurnool district and continue sowing of redgram, castor, greengram, cowpea, sorghum, bajra and horsegram in the Southern Zone utilising the realised and expected rainfall.
- In **Madhya Maharashtra**, maintain 5-7 cm water level in rice fields in Western ghat region of Nasik, Pune and Kolhapur districts. Undertake preparation of field for sowing of *rabi* jowar and safflower. Considering the expected rainfall, undertake compartmental bunding for rain water harvesting for sowing *rabi* crops.
- In **Marathwada**, undertake preparation of field for sowing of *rabi* jowar and safflower. Considering the expected rainfall, undertake compartmental bunding for rain water harvesting for sowing *rabi* crops.
- In **Vidarbha**, maintain 5 cm water level in transplanted rice field. Undertake hoeing in late sown soybean on a non rainy day for conserving moisture. Undertake preparation of field for sowing of safflower.
- As mainly dry weather is prevailing for last two weeks and also mainly dry weather would prevail during the period, apply irrigation in standing crops in the following regions:
 - In pearl millet in North Gujarat Zone and in vegetables, cotton, castor and groundnut crops in North Saurashtra Zone.
 - In bajra and guar in West Rajasthan and maize, groundnut, guar, bajra and moth bean in East Rajasthan.
 - In late sown soybean and maize in Madhya Pradesh.
 - In maize, jowar, arhar and sugarcane in East Uttar Pradesh and in groundnut, soybean, sesame, bajra and vegetables in West Uttar Pradesh.

Detailed Zonewise Agromet Advisories

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



Maize



Groundnut



Green gram



Rice transplanting

- **Realised Rainfall:** Rainfall occurred in all districts of Coastal Karnataka; all districts of North Interior Karnataka except Belagavi, Dharwad and Haveri; all districts of South Interior Karnataka; all districts of Kerala; all districts of Coastal Andhra Pradesh and Rayalaseema except Nellore; Karimnagar, Khammam, Mahbubnagar, Nalgonda and Rangareddy districts of Telangana; Dharmapuri, Dindigul, Erode, Kanyakumari, Karaikal, Namakkal, Nilgiris, Perambalur, Salem, Tiruvarur, Vellore and Villupuram districts of Tamil Nadu. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - Under the influence of the upper air cyclonic circulation, a low pressure area may form during next 2-3 days over westcentral Bay of Bengal. In association with low pressure area, rain/thundershowers would occur at many places over Coastal Andhra Pradesh on 12th to 15th September along with heavy rainfall at isolated places and isolated heavy rainfall over Telangana on 15th September, postpone irrigation, inter-cultural operation and application of plant protection measures and fertilizers to the standing crops. Also provide adequate drainage in standing crops in south Odisha to avoid water stagnation in the crop fields.
 - **Andhra Pradesh:**
 - In North Coastal Zone, if nursery sowing of rice is delayed, continue direct sowing of rice with short duration varieties.
 - In Scarce Rainfall Zone, continue sowing of contingent crops like sorghum, cowpea, horsegram, korra, bajra in Anantpur district and korra in Kurnool district utilising the expected rainfall.
 - Continue sowing of redgram, castor, greengram, cowpea, sorghum, bajra and horsegram utilising the expected rainfall in the Southern Zone.
 - Prevailing weather conditions are congenial for leaf folder and stem borer attack on rice in the Southern Zone. To control, undertake spraying of Chloripyriphos @ 2.5 ml or Cartaphydrochloride @ 2g or Rhynoxypyr @ 0.3 ml per litre of water after current spells of rain.
 - Prevailing weather conditions are congenial for incidence of tikka leaf disease in groundnut in the North Coastal Zone. To control, apply Chlorothalonil @ 2.0 g/litre of water after current spells of rain.
 - In Scarce Rainfall Zone, there is a possibility of sheath blight in rice under waterlogged conditions. Undertake spraying of Propiconazole @ 1ml/litre of water on a non rainy day.
 - **Telangana:**
 - In the Southern Telangana Zone, continue application of 30-35 kg urea and 10 kg Muriate of Potash per acre in Bt cotton at 60-65 days and 80-85 days after sowing as top dressing and apply 45-50 kg urea and 30-35 kg Muriate of Potash at flowering stage as top dressing on rainfed maize after current spells of rain.
 - In the Northern Telangana Zone, incidence of hispa in rice and late wilt in maize is noticed in the prevailing weather conditions. Spray Profenophos @ 2.0 ml or Chlorpyriphos @ 2.5 ml or Monocrotophos @ 1.6 ml/litre of water to manage hispa and apply COC @ 3g/litre of water to manage late wilt after current spells of rain.
 - In the Southern Telangana Zone, excess moisture conditions are congenial for the incidence of stalk rot in maize. If noticed, apply Carbendazim 25% + Mancozeb 50% @ 500 g per acre alongwith urea @ 45-50 kg as top dressing.
 - **Karnataka:**
 - As significant rainfall occurred in all districts of Coastal Karnataka, South Interior Karnataka and North interior Karnataka except Belagavi, Dharwad and Haveri, postpone irrigation to standing crops in these regions.
 - In the Eastern Dry Zone, in areas where sowing is yet to be done, continue sowing of short duration crops like pulses and minor millets with realized and expected rainfall .
 - In the North East Dry Zone and North East Transition Zone, continue sowing of fodder crops like jowar, maize, bajra with realized and expected rainfall.
 - Undertake harvesting of matured greengram and blackgram in the North East Transition Zone after current spells of rain.
 - In North Dry Zone, undertake land preparation for sowing of *rabi* sunflower, sorghum, safflower and horsegram.
 - In North Transition Zone, undertake harvesting of maize, greengram and other fodder crops after current spells of rain, undertake land preparation for early *rabi* sowing after harvesting.

- In Hill Zone, undertake spraying of Planofix @ 0.25 ml/litre to reduce the square/flower bud/flower drop in cotton after current spells of rain.
- In North East Transition Zone, pod borer was noticed on soybean, undertake spraying of Emamectin Benzoate 5 SG @ 0.4 ml per liter of water after current spells of rain.
- Due to cloudy weather thrips menace were noticed in rice in Sothern Transition Zone, to control, undertake spraying of Roger @ 1.5ml per litre of water after current spells of rain.
- **Kerala:**
 - Undertake harvesting of early planted sugarcane, *Viruppu* rice and *Nendran* banana in the Southern Zone in clear weather.
 - Prevailing weather conditions are congenial for incidence of bacterial leaf blight in rice in the Problem Area Zone. Spray Streptocyclin @ 6g/25 litres of water after current spells of rain.
 - Prevailing high relative humidity is congenial for increase in Quick wilt disease in pepper and sucking pests in cowpea in the Central Zone. To control, apply Trichoderma or Pseudomonas culture in soil or spray 1% Bordeaux mixture on the leaves for wilt and apply 2% neem oil-garlic-soap emulsion to control sucking pests in cowpea on a non rainy day.
- **Tamil Nadu:**
 - In the Cauvery Delta Zone, continue sowing and transplanting of *Samba* rice varieties (CR 1009 and ADT 50).
 - Continue nursery sowing of medium duration improved varieties of rice like White Ponni ADT 39, and ADT 46 for ensuing samba season in Karaikal and Puducherry.
 - Undertake land preparation for sowing of *rabi* crops in the Western and Southern Zone. Undertake planting of tapioca under irrigated conditions and continue land preparation for sowing of groundnut and millets in the Western Zone. Undertake propping in sugarcane and banana of more than five months.
 - In the South Zone, select drought tolerant and pest and disease resistant varieties like KC 3 and PA 255 in cotton, CoH(M) 6 in maize, K 8 and K 12 in sorghum, CO 6 in green gram, CO 4 in sunflower, CO (Cu) 9 in pearl millet, TMV 5 in gingelly, CO 4 in coriander and KKM 1 in senna for sowing during the ensuing northeast monsoon season under rainfed conditions.
 - Continue sowing of black gram (Co-6, Vamban 6), green gram (Co- 8) and red gram (Co-7) in the North Western Zone.
 - Undertake planting of coffee and tea seedlings using the realized rainfall in the High Altitude Zone.
 - Black bug incidence was noticed in *Kuruwai* rice in the Cauvery Delta Zone. To control, undertake spraying of Profenophos 50 EC @ 400 ml/acre with 200 litre of water on a non rainy day.
 - In the Southern Zone, undertake constant monitoring of ladyfinger, brinjal and chilli crop against attack of jassids and spray Dimethoate 30 EC @ 2 ml/litre of water if noticed.
 - 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.

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



Green gram



Banana



Okra



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh except Anjaw, Dibang Valley, East Kameng, Kurung Kumey, Lohit, Lower Subansari and West Siang; all districts of Assam except Darrang, Dhemaji, Dibrugarh, Karbi Anlong, Kokrajhar, Morigaon and Nowgaon; all districts of Meghalaya except South Garo Hills; Serchhip district of Mizoram; Imphal East and Thoubal districts of Manipur; Dimapur and Kohima districts of Nagaland and North Tripura, South Tripura districts of Tripura.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Assam, due to heavy rain, flooding was reported in Dhemaji, Lakhimpur, Dibrugarh, Morigaon, Barpeta, Sonitpur, Tinsukia and Goalpara districts. Drain out excess water from standing crop fields in these districts.
 - In North Bank Plain Zone, Central Bramhaputra Valley Zone, Upper Bramhaputra Valley Zone and Lower Bramhaputra Valley Zone of Assam, farmers in flood affected areas are advised late and staggered planting of rice after receding of flood with 60 to 80 days old seedlings of the varieties like Prafulla (80 days) and Gitesh (60 days) is also suggested up to mid of September. The old seedlings of other improved long duration variety like

Monohar Sali, Salpona, Prasadbhog, Gobin bhog etc. can be transplanted up to mid of September.

- In Lower Bramhaputra Valley Zone, undertake nursery raising of the photo insensitive short duration variety of rice like Luit for replanting in case of total damage or wet seeding of sprouted seeds (@ 75-80 kg/ha of short to medium duration varieties like- Disang, Luit (100 days), Kapili, Kolong (120 days) and adoption of submergence tolerance varieties like Jalashree and Jalkuwari for repeat flood prone areas. Continue sowing of *kharif* sesame, green gram, black gram, nursery sowing of early cauliflower and radish.
- In Hill Zone, continue sowing of green gram and black gram, transplanting of early cauliflower and nursery sowing of mid cauliflower.
- In Barak Valley Zone and Upper Bramhaputra Valley Zone of Assam, continue nursery sowing of *kharif* pulses, mid cauliflower and radish.
- In Central Bramhaputra Valley Zone of Assam, continue sowing of *kharif* pulses like black gram/green gram, nursery raising of cole crops and early radish.
- In Meghalaya, continue sowing of pea, red gram, black gram, green gram and transplanting of cauliflower. Remove excess water and maintain proper drainage facilities in the fields of groundnut, soybean, ginger and turmeric crop fields. Undertake nursery preparation of early cole crops in high altitude regions.
- In North Bank Plain Zone, Barak Valley Zone, Central Bramhaputra Valley Zone and Hill Zone of Assam, due to cloudy and humid weather there is chance of attack of rice hispa and stem bore in *Sali* rice. Spray Chloropyrifos 20 EC (0.02%) or Quinalphos @ 2 teaspoon/5 litre of water or or Monocrotophos 40 EC @ 1.5 ml per litre of water against rice hispa and Carbofuran 3G @ 30 kg/ha or Phorate 10G @ 10kg/ha against stem borer after current spells of rain.
- In Barak Valley Zone, due cloudy weather there is chance of attack of leaf eating caterpillar in early cauliflower in the nursery bed. To control, spray Malathion @ 2 ml/litre of water.
- In Lower Bramhaputra Valley Zone of Assam, due to cloudy and humid weather, there is chance of incidence of blast in rice. Spray Carbendazime @ 1g/litre of water at tillering stage and subsequently give two sprays of Edifenphos @ 1ml/litre of water at panicle initiation stage.
- In Meghalaya, spray/drench with 1% Bordeaux mixture or Dithane M-45 (2.5g/litre of water in turmeric/ginger to prevent rhizome rot. Also, due to cloudy and humid weather, there is chance of attack of yellow stem borer in *Sali* rice and leaf spot in groundnut. To manage the attack, spray Imidachloprid @ 2.0 ml per litre of water and spray Carbendazim (0.05%) + Mancozeb (0.2%) against leaf spot in groundnut. Also, there is possibility for development of rust in soybean. Spray Hexaconazole or Propiconazole @ 0.1%. Apply the pesticides after current spells of rain.
- In Arunachal Pradesh, due to humid and cloudy weather, there is chance of attack of blast/bacterial leaf blight in normal rice. Spray copper fungicide (Blitox 0.3%) alternately with Streptocycline (250 ppm) against blast/bacterial leaf blight after current spells of rain.
- **Manipur, Mizoram, Nagaland and Tripura:**
 - In Manipur, undertake nursery raising of cabbage, cauliflower and tomato.
 - In Mizoram, continue sowing of cowpea.
 - In Nagaland, maintain proper drainage in ginger crop fields to avoid rhizome rot.
 - In Tripura, maintain proper drainage particularly in groundnut and banana crop fields in medium upland and lowlands. Undertake nursery sowing of early winter vegetables such as cauliflower, radish and brinjal.
 - In Manipur, there is chance of attack of stem borer and stem rot in *kharif* rice. Spray Coragen @ 3ml/15 litre of water or Lambdacyhothrin @ 15ml/ 15 litre of water against stem borer and spray Validamycin 3L @ 2.5 ml/litre or Thiophanate Methyl 75 WP @ 1 g/ litre of water against stem rot.
 - In Tripura, due to cloudy and humid weather, there is chance of incidence of stem and cob rot in maize. Spray Trichoderma Viride @ 5ml and Pseudomonas Flourensense @ 5ml per litre of water. Also in the present weather condition, combined attack of downy mildew and mosaic may be seen in bitter gourd & pointed gourd. Apply Redomil-MZ @ 2 g per litre to manage the attack. Undertake plant protection measures after current spells of rain.
- Suitable varieties are given in Annexure III.
- **Animal Husbandry**
 - In Northeastern states, carry out vaccination (RDF1) against Ranikhet disease in one week old chicks and against Gamboro disease in two weeks old chicks. The cows and goats should not be allowed to feed on submerged rotten grasses. Vaccinate domestic live stocks against BQ, HS, Foot and mouth as well as anthrax diseases. Keep pig shed/ sty dry and avoid dampness during rainy days.
 - In Barak Valley Zone of Assam, prevailing weather condition is favourable for Ranikhet disease of poultry. Feed Tetracycline powder with rice to the poultry birds.
 - In Meghalaya, due to high humidity, there is chance coccidiosis in the chicken. Farmers are advised to avoid dampness in the deep litter and provide turmeric powder @ 10g/kg feed for prevention of coccidiosis
- **Fishery**
 - In Assam, encircle fish ponds with *happa* net barrier in the low lying areas to prevent out flow of fishes from the ponds and also to check inflow of predatory fishes during flooding.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Cotton



Sugarcane



Rice



Groundnut

- **Realised Rainfall:** Rainfall occurred in Mumbai city district of Konkan & Goa; Ahmednagar district of Madhya Maharashtra; all districts of Marathwada; Buldhana district of Vidarbha. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, apply third dose of nitrogenous fertilizers to rice crop at flowering stage i.e. 435 gm Urea per 0.25 hectare after current spells of rain. Maintain water level of 5-10 cm in rice field. Undertake soft wood grafting in mango nursery. Drain out excess water from vegetable fields.
 - In Madhya Maharashtra, maintain 5-7 cm water level in rice fields in Western ghat region of Nasik, Pune and Kolhapur districts. Undertake preparation of field for sowing of *rabi* jowar and safflower. Considering the expected rainfall, undertake compartmental bunding for rain water harvesting for sowing *rabi* crops.
 - In Marathwada, undertake preparation of field for sowing of *rabi* jowar and safflower. Considering the expected rainfall, undertake compartmental bunding for rain water harvesting for sowing *rabi* crops.
 - In Vidarbha, maintain 5 cm water level in transplanted rice field. Undertake hoeing in late sown soybean for water conservation. Undertake preparation of field for sowing of safflower.
 - Due to cloudy and humid weather in Vidarbha region, there may be attack of leaf eating caterpillar in orange; spray Imidacloprid 17.8% @ 2 ml per 10 litres of water on a non rainy day.
 - Due to cloudy weather in Marathwada region, there may be attack of pod borer in red gram; spray 5% Neemark after current spells of rain.
 - **Gujarat:**
 - In Gujarat, carry out intercultural operations like hoeing and weeding and apply mulch in standing crops to conserve soil moisture.
 - Continue sowing of castor and sorghum, transplanting of brinjal, tomato, chilli and other vegetable crops in Bhal and Coastal Zone.
 - As there was no significant rain during last few weeks and mainly dry weather is likely to continue, apply protective irrigation in standing crops like pearl millet in North Gujarat Zone, vegetable, cotton, castor and groundnut crops under moisture stress condition in North Saurashtra Zone.
 - Continue planting of sapling of different fruit crops viz. sapota, papaya, citrus, pomegranate, custard apple in North West Zone.
 - In the prevailing weather, there is chance of incidence of mealy bug and thrips in cotton in Bhal and Coastal Zone. If mealy bug is observed on a particular plant, then remove that plant from the field and destroy it or burn it away from the field. For control of thrips, spray Fipronil @ 20 ml or Profenophos @ 20 ml in 10 litres of water.
 - Partly cloudy and humid weather conditions are favourable for incidence of sucking pests (whitefly, aphids and jassid etc.) in vegetables in North West Zone; spray Imidachoprid or Thiomethoxam @ 4 ml/10 litres of water for control.
 - Infestation of semilooper is observed in castor in North Gujarat Zone and North West Zone; spray Chlorpyrophos @ 30 ml in 10 litres of water for control.
 - In present weather conditions, severe attack of thrips has been reported in chilli in North Saurashtra Zone. Spray Profenophos @ 20 ml in 10 litres of water for control.
- **Animal Husbandry**
 - For the control of tick and other parasites, spray Deltamethrin or Aemita 2 ml in 1 litre of water in South Saurashtra Zone.

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



Groundnut



Cotton



Green gram



Rice transplanting

- **Realised Rainfall:** Rainfall occurred Kolkata and Hooghly districts of Gangetic West Bengal; all districts of Andaman & Nicobar Islands; all districts of Sub-Himalayan West Bengal & Sikkim except Malda; all districts of Bihar except Arwal, Bhabua, Bhojpur, Buxar, Jahanabad, Jamui, Lakhisarai, Madhubani, Nawada, Rohtas, Saharsha, Saran and Sheikpura; all districts of Jharkhand except Deoghar, Koderma, Latehar, Lohardaga, Palamau, Ranchi, Sahibganj and Seraikela-Kharsawan; Cuttack, Deogarh, Gajapati, Ganjam, Jagatsinghpur, Khruda and Koraput districts of Odisha. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **West Bengal:**
 - In Coastal Saline Zone, complete the transplanting of *Aman* rice. Undertake hand weeding in rice to keep the fields weed free at tillering stage. Undertake sowing of *vadu kalai*.
 - In Old Alluvial Zone, continue land preparation and sowing of black gram. Treat seeds with Carbendazim 50%WP @ 2g/kg seed 7 days before sowing. Undertake transplanting of early cauliflower and cabbage.
 - In New Alluvial Zone, due to cloudy weather conditions, combined attack of downy mildew and mosaic may be seen in bitter gourd and pointed gourd and attack of leaf folder may be found in rice at tillering stage. Apply Redomil - MZ (@ 2 g per litre of water to control downy mildew and apply Triazophos @ 0.5 ml/litre or Chlorpyrifos 50% + Cypermethrin 5% @ 1.5 ml/litre of water to control attack of leaf folder.
 - In Terai Zone, due to high humidity seedlings of cabbage and cauliflower may get affected by blight disease. Apply 12% Carbendazim + 64% Mancozeb @ 2 g/litre of water after current spells of rain.
 - **Andaman and Nicobar Islands:**
 - In North, Middle and South Andaman, apply second dose of Nitrogen fertilizer @ 50 kg/ha in transplanted rice at vegetative stage after current spells of rain.
 - In Nicobar, maintain proper drainage in coconut gardens in low lying areas to avoid water logging.
 - **Odisha:**
 - Under the influence of the upper air cyclonic circulation, a low pressure area would form over westcentral Bay of Bengal during next 48 hours. In association with low pressure area, rain/thundershowers would occur at many places over Odisha from 12th to 15th September along with heavy rainfall at isolated places on 14th & 15th, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also provide adequate drainage in standing crops to avoid water stagnation in the crop fields.
 - In North Central Plateau Zone, continue sowing of green gram, black gram and cowpea utilizing the realized rainfall.
 - In Western Undulating Zone, continue sowing of improved varieties of black gram vari. Sarala, Ujala, PU-30, T-9, Prasad, green gram varieties like Tarm-1, Dhauli, Durga, Kamdev Jyoti, PDM-54, PDM-11, Samrat, PM-1, PM-2 @ 6-8 kg/acre and cow pea vari. Utkala manika, Pusa Barsati and SEB- 2 @ 8kg/acre in fallow uplands.
 - In Western Undulating Zone, Bacterial Leaf blight infestation is noticed in rice in some areas in main fields. Spray Steptocycline @ 0.1g or Plantomycin @ 1g per litre of water after current spells of rain.
 - In East and South Eastern Coastal Plain Zone, high humidity and cloudy weather favours infestation of blast in rice. For control, spray Beam 1 g and 1.5 g Hinosan in 2 litres of water twice at 15 days interval after current spells of rain.
 - 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 Chloropyrifos @ 2 ml/litre of water to control leaf minor after current spells of rain.
 - In North Eastern Coastal Plain Zone and Mid Central Table Land Zone, due to deficient rainfall in the month of August, weed problem has aggravated in transplanted rice fields. To control all categories of weeds, spray Bispyribac Sodium @ 30g a.i. / ha at 20 DAT. If the sedge and broadleaf problem is more, spray CME+MSM @ 4g a.i. ha-1 or Ethoxysulfuron 15 WP @ 15 g a.i. /ha on after current spells of rain.
 - 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 after current spells of rain In North Central Plateau Zone, prevailing weather is favourable for attack of stem borer in rice. Farmers are advised to monitor the crop regularly, if population of stem borer is above ETL then broadcast of Cartap 4% granules or Carbofuran 3% G @ 10 kg/acre after current spells of rain. Also farmers are advised to install pest specific

pheromone traps @ 3-4/acre in the rice fields for monitoring of stem borer.

▪ **Bihar:**

- In North East Alluvial Plain Zone, continue land preparation preferably in uplands for sowing of september arhar and maintain optimum water level in *kharif* rice fields.
- In North West Alluvial Plain Zone, continue transplanting of *kharif* onion, tomato, chilli, brinjal and cauliflower on raised beds, continue nursery sowing of early varieties of cabbage and complete sowing of cluster bean, bitter gourd, radish and september pigeon pea. Undertake weeding in vegetables, late sown paddy, early sown onion and arhar on a non rainy day.
- In South Bihar Alluvial Zone, maintain 5cm water in the rice fields, complete sowing of *rabi* pigeon pea by mid-September and complete sowing of kulthi in upland sandy loam soil.
- In North West Alluvial Plain Zone, present weather is conducive for the infestation of termites in vegetables crops. To control, spray Chlorpyrifos 20 EC @ 4 ml/litre of water near the root of plant.
- In North East Alluvial Plain Zone, present weather is conducive for the occurrence of attack of yellow vein mosaic disease in okra, to control, spray Imidacloprid 17.8%SL @ 0.5 ml/litre of water or Malathion 50 EC @ 2.5ml/litre of water on a non-rainy day.
- 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 on a non-rainy day is advised.
- 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 on a non-rainy day.

▪ **Jharkhand:**

- In South Eastern Plateau Zone, complete transplanting of finger millet, undertake land preparation for cultivation of short duration of early potato, continue cultivation of vegetables like tomato, early cabbage & cauliflower and undertake intercultural operation in standing crops like horsegram, safflower, lobia, urad and moong bean. Continue cultivation of green pea, upland spices, yam & forage crops like jowar & maize.
- In North Eastern Plateau Zone, continue sowing of early potato, green peas and niger. Undertake transplanting of tomato, cabbage, cauliflower & brinjal. Farmers are advised to maintain 5 cm water in the rice fields.
- In Western Plateau Zone, continue sowing of crop like kulthi or niger in fallow lands and continue cultivation of early potato and green peas under assured irrigation facility. Undertake harvesting of matured mung and urad crops.
- 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 on a non-rainy day.
- In North Eastern Plateau Zone, present weather is conducive for the occurrence of blast & yellow spot disease in rice. To control, spray Carbendazim 0.1% or Tricyclazole (75 WP) 0.06% per litre of water on a non-rainy day.
- 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 on a non-rainy day.
- Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry**

- In Sub-Himalayan West Bengal, keep animal sheds dry and clean and avoid water stagnation in and around the cattle sheds.

CENTRAL INDIA [M.P., CHHATTISGARH]



Rice



Green gram



Okra



Soybean

- **Realised Rainfall:** Rainfall occurred in Anuppur district of East Madhya Pradesh; Baster, Bilaspur, Dantewada, Koriya and Narayanpur districts of Chhattisgarh. Weather remained mainly dry over rest of the region.

• **Advisories:**

▪ **Madhya Pradesh:**

- As mainly dry weather is prevailing for last two weeks and also mainly dry weather would prevail during the period, apply irrigation in late sown soybean and maize crops.
- Continue nursery sowing of early winter vegetables in Malwa Plateau Zone.
- Continue sowing of toria in available fields in Kymore Plateau and Satpura Hill Zone.
- Continue transplanting of vegetables like brinjal, tomato, chilli, cauliflower and cabbage on raised bed and

undertake harvesting of matured urad and moong crops in Bundelkhand Zone.

- Continue land preparation for sowing of toria in Grid Zone and nursery preparation for onion and garlic in Vindhya Plateau Zone.
- Due to humid weather, there are chances of attack of girdle beetle, semi looper and tobacco caterpillar in soybean in Jhabua Hill Zone, spray Trizophos @ 2.0 ml/litre of water.
- Due to humid weather there are chances of leaf spot on leaves and bolls in cotton in Nimar Valley Zone, spray Carbendazim 12% + Mancozeb 63% @ 250 g/acre.

▪ **Chhattisgarh:**

- In North Hill Zone, undertake top dressing of nitrogen in the rice crop which is at booting stage.
- In Plain Zone of Chhattisgarh, undertake nursery preparation for cauliflower, cabbage and capsicum and for seasonal flowers.
- Undertake earthing up and application of nitrogen in tuber crops in Bastar Plateau Zone on a non rainy day.
- Due to humid weather there are chances of attack of stem borer in rice in North Hill Zone, spray Monocrotophos 36 E.C. @ 1-2 ml per litre of water on a non rainy day.
- Due to humid weather, there may be chances of attack of tobacco caterpillar in soybean in Plain Zone, spray Prophenophos @ 2 ml/litre of water on a non rainy day.

• **Animal Husbandry**

- Keep animal sheds clean, dry and create smoke to prevent from mosquitoes in Madhya Pradesh and Chhattisgarh.

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



Cotton

Green gram

Maize

Cabbage

- Realised Rainfall: Rainfall occurred in Uttarkashi district of Uttarakhand; Reasi district of Jammu & Kashmir; Weather remained mainly dry over rest of the region.

• Advisories:

▪ **Jammu & Kashmir:**

- In Sub Tropical Zone of Jammu & Kashmir, undertake sowing of toria.
- In Valley temperate Zone of Jammu & Kashmir, continue harvesting of baby corn and kharif pulses. Avoid water stress in rice at milky stage.
- In Intermediate Zone of Jammu & Kashmir, complete nursery sowing of cole crops like cabbage and cauliflower and sowing of gobisarson and toria in Sub-tropical Zone.
- In Sub-Tropical Zone of Jammu & Kashmir, in the prevailing weather conditions, there are chances of blast and brown spot in rice To control blast, spray Trycyclozole @ 0.06% and to control brown spot spray Mancozeb @ 0.25%, 2-3 sprays at 15 days interval are recommended.

▪ **Uttarakhand:**

- In Bhabar and Tarai Zone, undertake sowing of early vegetable pea at high hills. Also weather conditions are favourable for sowing of toria and undertake harvesting of early sown maize.
- In Hill Zone, weather conditions are favourable for sowing of vegetable pea and toria in mid high zone.
- In Hill Zone, there is chance of attack of stem bore in rice. Spray Chloropyriphos or Quinalphos @ 40ml/16-20 litre of water. Also there is chance of attack of sucking pest in pulses. To manage the attack, spray Imidachloprid @ 1ml per litre of water.

▪ **Himachal Pradesh:**

- In Sub-Montane and Low Hills Sub-Tropical Zone, remove lower 5-6 leaves in maize after tasselling is complete and use as fodder to reduce transpiration losses. Maintain proper water level in the rice fields for good yield.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in low hill areas, undertake transplanting of mid season cauliflower, nursery sowing of late varieties of cauliflower, broccoli, sowing of ageti peas, root vegetables like radish, turnip, carrot and leafy vegetable like palak and methi. In mid hill region, continue nursery sowing cauliflower (late group), cabbage, Knol Khol, Broccoli and Chinese cabbage and direct sowing of ageti peas, radish, carrot, turnip, palak and methi. Undertake intercultural operations in vegetable crops like cabbage, cauliflower, carrot, radish, turnip and palak.
- In Sub-Montane and Low Hills Sub-Tropical Zone, undertake sowing of fodder crops like African tall variety of maize and makachari.
- In Mid Hills sub-Humid Zone, continue sowing of cabbage (Pride of India, golden achor and hybrid), carrot and

radish (at a distance of 30x10cm), cruciferous vegetables, carrot and early variety of pea (at a distance of 30x10cm). Undertake transplanting of early variety of cauliflower at a distance of 45x30cm and of onion at a distance of 15x10cm.

- Under humid weather condition, there are chances of attack of hairy caterpillar in mash in Sub-Montane and Low Hills Sub-Tropical Zone, spray Cypermethrin 25 EC @ 0.5 ml per litre of water.
- Under prevailing humid weather condition, there is chance of attack of fruit borer in tomato, brinjal and okra in Sub-Montane and Low Hills Sub-Tropical Zone. Spray Cypermethrin (Ripcord 10 EC) @ 565 ml or Cypermethrin (Symbush 25 EC) @ 225 ml in 750 ml water per ha.
- Under humid weather condition there are chances of incidence of fruit rot and leaf spot disease in tomato and capsicum in Mid Hills Sub-Humid Zone. Spray Ridomil gold @ 25g or Streptocyclin @ 1g or Blitox @ 30 g per 10 litres of water.
- Under cloudy and humid weather condition, there are chances of attack of wooly aphids in apple in Mild Hills Sub-Humid Zone. For the control, spray Actara 25 SG @ 200 g or Marshal @ 200 ml per 200 litres of water.

▪ **Rajasthan:**

- In Arid Western Plain Zone, continue field preparation for sowing of early varieties of radish and nursery for sowing of early varieties of cabbage and cauliflower. Continue hoeing and weeding operation in kharif pulses and cluster bean to conserve moisture and apply irrigation to pearl millet and moth bean.
- Apply irrigation in guar and bajra and undertake harvesting of pulses in Transitional Plain Zone and in Arid Western Plain Zone.
- In Semi Arid Eastern Plain Zone, continue sowing of carrot and radish.
- In Sub Humid Southern Plain and Aravali Hill Zone, continue weeding and hoeing in cotton, groundnut, maize, moong, sorghum, soybean and urad crops.
- In Southern Humid Plain Zone, due to prevailing weather, there are chances of attack of jassids in Cotton. Spray Imidachloprid 17.8 SL @ 200 ml/ha for control.
- Due to partly cloudy and humid weather, there are chances of attack of pod borer in sesame in Flood Prone Eastern Plain Zone and attack of stem borer in paddy in Southern Humid Plain Zone, spray Monocrotophos 36 WSC @ 1 litre/ha to control both the pests.
- In Semi Arid Eastern Plain Zone of Rajasthan, due to partly cloudy weather, there are chances of incidence of yellow mosaic disease in okra in Semi Arid Eastern Plain Zone and Flood Prone Eastern Plain Zone also, spray Malathion 50 EC @ 1.0 ml per litre water.
- In Irrigated Northwestern Plain Zone, due to moderately humid conditions, there are chances of attack of white fly/jassids/thrips in Bt cotton and guar, spray Trizophos 40 EC @ 2.5 ml per litre of water or Acitamiprid 20 S P @ 0.4 g/litre of water.
- In Sub Humid Southern Plain and Aravali Hill Zone, to moderately humid conditions, there are chances of attack of white fly in soybean and okra. Spray Dimethoate 30 EC @ 1.25 litre/ha for control.

▪ **Punjab, Haryana and Delhi:**

- In view of the prevailing dry weather, apply irrigation in sugarcane at regular interval in Western Plain and Undulating Zone of Punjab and undertake propping of sugarcane by using trash-twist method.
- In Central Plain and Western Plain Zone of Punjab, undertake 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 undertake sowing of potato.
- In Central Plain, Western Plain and Undulating Plain Zone of Punjab, continue planting of fruit plants viz citrus, mango, litchi, guava, loquat, ber, amla and papaya.
- In Western Zone of Haryana, continue transplanting of tomato, onion chilli and early cauliflower on ridge. Complete the planting of fruits crops like acid lime, mango, jack fruit and jamun.
- In Western Semi-Arid Zone of Delhi, continue transplanting of kharif onion, chilli, brinjal, tomato and early cauliflower on ridges. Continue sowing of radish, coriander, spinach.
- Due to humid weather conditions in there may be increase in population of sucking pests in cotton in Western Semi-Arid Zone of Delhi. Install pest specific pheromone traps in the fields. If sucking pest's population is above ETL, spray Imidacloprid 17.8 % SC @ 1.0 ml/3 litre of water.
- 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, white fly and jassid may occur in cotton, if reaches ETL level then spray Oberon @ 200ml/acre for white fly and 80g/acre Ulala for the management of Jassid.
- In Western Plain Zone of Punjab, monitor rice against plant hoppers. If observed, spray of Confidor 200 SL @ 40 ml or Ekalux 25 EC @ 800 ml in 100 litres of water/ acre.
- In Central Plain Zone of Punjab, weather conditions are favourable for development of sheath blight on normal and basmati rice. Spray Nativo@ 80 g or Lustre @ 320 ml or of Tilt @ 200 ml in 200 litres of water per acre.
- In Western Zone of Haryana, weather conditions are favourable for infestation of leafhopper in rice. Monitor the crop. If infestation is noticed dusting of Carbarel 5% dust @ 10 kg or Methyil Parathion 2% per acre is advised.

▪ **Uttar Pradesh:**

- In Central Plain Zone, as mainly dry weather is prevailing, apply irrigation in maize, jowar, , arhar and sugarcane. Complete sowing of bajra, green gram, black gram and sesame and nursery sowing of cabbage, radish and

tomato. Continue nursery sowing/transplanting of capsicum, chilli, brinjal and cauliflower and sowing of toria, potato, pointed gourd and parwal gourd.

- In Bundelkhand Zone, complete nursery sowing of early cauliflower, tomato, chilli and brinjal on raised beds and undertake transplanting in main fields if nurseries are ready. Apply light irrigation in groundnut, soybean, sesame, vegetables and fodder crops.
- In Eastern Plain Zone, as mainly dry weather is prevailing, apply irrigation in maize, jowar, arhar and sugarcane. Maintain optimum water level in rice. Continue sowing of radish, spinach, toria, pea and potato. Continue transplanting of cauliflower, brinjal, cabbage and tomato. Complete sowing of fodder crops like jowar, bajra, maize, chari and lobia and long duration varieties of pigeon pea (Bahar, PDA-11).
- In Western Plain Zone, undertake sowing of toria and planting of brinjal, tomato. Apply light irrigation in bajra and maize.
- Due to partly cloudy weather and rise in temperature, there are chances of attack of yellow mosaic in soybean, urad, mung and downy mildew in maize in Central Plain Zone. For control, spray Dimethoate 30 EC @ 1 litre per hectare in soybean, urad, mung and spray Mancozeb 75WP @ 1.5 kg + Zinc Sulphate @ 0.25 kg in 500 litre of water per hectare in maize.
- Due to partly cloudy and humid weather condition, there are chances in increase in the incidence of yellow mosaic disease in black gram, green gram and soybean in Bundelkhand Zone. Remove the diseased plants and spray Diamathoate 30 EC @ 1litre per 700 litres of water.
- Due to rise in temperature, there is chance of attack of top borer in sugarcane in North eastern Plain Zone. Spray Corazine @ 150 gm per 200 litres of water per acer. For control of top borer in maize, spray Quinalphos @1.5 g or Imidachloprid @ 1g per litre of water.
- In Western Plain Zone, weather is conducive for the incidence of blast in rice. Spray Beam @ 120 g per 200 litres of water.
- Horticulture
 - In Uttar Pradesh, undertake planting of mango, litchi, papaya, guava, ber and aonla. Undertake gap filling in banana.
 - Continue planting of kinnow saplings in Irrigated Northwestern Plain Zone of Rajasthan.
 - Suitable varieties for sowing are given in Annexure III.
 - 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.
- Animal Husbandry
 - Continue weeding in gladiolus and sowing of late varieties of gladiolus and marigold in Mid Hills Sub Humid Zone of Himachal Pradesh.
 - In Sub-Montane and Low Hills Sub-tropical Zone of Himachal Pradesh, humid weather is conducive for ticks and mites attack on animals. For control, spray Butox @ 2ml per litre of water.
- Poultry
 - In view of increasing humidity in Sub-Montane and Low Hills Sub-Tropical Zone of Himachal Pradesh, replace the poultry houses with fresh litter to avoid wetting and keep the houses clean and ensure clean drinking water to the birds. Weather is congenial for incidence of Ranikhet disease. Undertake vaccination for IBD and Ranikhet disease.

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

Annexure I

Week by week Rainfall Distribution

Sub-Divisions	26.08.15		02.09.15		09.09.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	80.3	43	236.5	511	31.9	-49
Dibang Valley	**	**	**	**	**	**
East Kameng	64.3	-3	34.4	-41	1.2	-98
East Siang	107.1	-33	649.7	386	96.3	-24
Kurung Kumey	**	**	**	**	**	**
Lohit	60.7	-38	389.4	389	18.1	-76
Lower Dibang Valley	221.6	444	755.0	2070	284.2	575
Lower Subansari	**	**	**	**	**	**
Papumpara	146.5	15	321.0	141	57.8	-54
Tawang	105.0	-25	113.0	17	55.0	-50
Tirap	55.4	-56	175.6	65	8.6	-92
Upper Siang	195.6	93	286.0	293	135.6	-15
Upper Subansari	105.2	176	108.5	175	49.0	76
West Kameng	210.8	51	86.5	-10	59.8	-46
West Siang	150.0	28	216.0	338	**	**
Assam&Meghalaya						
Assam						
Baksa	241.7	61	284.1	201	52.6	-49
Barpeta	305.9	104	224.9	138	69.4	-33
Bongaigaon	466.2	191	146.2	87	89.6	-7
Cachar	126.0	38	99.4	4	51.9	-51
Chirang	447.2	179	269.2	244	202.4	111
Darrang	**	**	**	**	**	**
Dhemaji	127.0	17	393.0	326	3.0	-97
Dhubri	256.2	127	64.9	-22	45.9	-24
Dibrugarh	85.9	-8	245.0	240	28.6	-67
Goalpara	376.7	331	84.9	21	30.8	-48
Golghat	13.1	-81	43.3	-21	55.7	-9
Hailakandi	230.7	189	125.1	71	69.1	-20
Jorhat	**	**	92.5	40	47.2	-35
Kamrup(Rural)	187.1	223	105.7	152	30.2	-41
Kamrup(Metro)	93.9	62	138.1	230	61.2	20
Karbi Anglong	38.8	-16	53.6	17	7.3	-86
Karimganj	375.5	221	87.1	11	69.6	-41
Kokrajhar	505.8	194	382.8	178	24.2	-78
Lakhimpur	88.9	-18	296.0	221	89.4	-9
Morigaon	82.5	19	77.4	21	14.0	-73
N.C.Hills	37.8	-33	25.4	-35	75.5	59
Nowgong	47.3	-37	69.7	10	11.9	-78
Nalbari	139.9	79	216.9	275	32.5	-38
Sonitpur	131.8	57	159.7	159	34.9	-43
Sibsagar	62.6	-20	55.6	-13	55.0	-2
Tinsukia	85.4	10	344.2	341	36.7	-59

Udalgiri	144.7	126	169.7	231	43.7	-12
Meghalaya						
East Garo Hills	357.7	323	219.2	363	174.4	107
East Khasi Hills	491.2	86	720.9	347	122.0	-16
Jaintia Hills	173.0	-35	334.0	112	74.0	-70
Ribhoi	103.9	20	84.6	-3	34.9	-47
South Garo Hills	41.0	-57	15.0	-79	**	**
West Garo Hills	309.0	223	117.4	67	64.4	-18
West Khasi Hills	230.0	28	524.0	275	68.0	-37
NMMT						
Mizoram						
Aizwal	190.2	60	105.5	15	12.7	-88
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	3.0	-97	**	**	**	**
Serchhip	92.6	-9	115.2	54	117.0	30
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	**	**	**	**	**	**
Churachandpur	**	**	**	**	**	**
Imphal east	42.3	-32	33.3	-48	38.9	-2
Imphal west	53.6	16	101.8	135	26.9	-43
Senapati	**	**	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	25.0	-39	64.0	39	42.0	80
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	46.2	-32	66.9	20	46.6	14
Kephire	**	**	**	**	**	**
Kohima	241.0	192	56.4	-27	46.4	-35
Longleng	**	**	**	**	**	**
Mokokchung	54.0	-41	40.0	-57	13.0	-82
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	**	**	**	**	**	**
Tuensang	**	**	**	**	**	**
Wokha	**	**	**	**	**	**
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	68.5	21	119.2	76	16.9	-71
North Tripura	65.8	-14	127.5	70	15.5	-77
South Tripura	147.9	57	164.5	133	32.4	-44
West Tripura	77.6	7	99.4	50	26.3	-58
Himachal Pradesh						
Bilaspur	56.2	12	16.9	-68	13.2	-74
Chamba	13.7	-84	10.1	-87	6.9	-92
Hamirpur	58.2	-30	15.4	-78	11.3	-76
Kangra	95.8	-18	21.1	-74	16.9	-81

Kinnaur	0.1	-99	0.3	-98	0.1	-99
Kullu	9.1	-73	6.4	-76	0.0	-100
Lahaul and Spiti	0.0	-100	0.0	-100	0.0	-100
Mandi	34.4	-51	11.5	-79	14.4	-71
Shimla	18.5	-52	8.4	-74	0.2	-99
Sirmaur	43.3	-59	5.7	-93	0.0	-100
Solan	43.9	-31	15.2	-71	1.8	-97
Una	77.5	23	10.4	-79	0.0	-100
Punjab						
Amritsar	22.0	-33	0.0	-100	0.0	-100
Barnala	13.0	-38	0.0	-100	0.0	-100
Bhatinda	6.7	-64	0.0	-100	0.0	-100
Faridkot	25.0	10	0.0	-100	0.0	-100
Fatehgarh Saheb	49.4	37	1.0	-96	0.0	-100
Ferozpur	4.9	-76	0.0	-100	0.0	-100
Gurdaspur	32.2	-44	21.1	-49	8.6	-80
Hoshiarpur	7.3	-83	0.0	-100	0.0	-100
Jalandhar	14.8	-59	2.9	-91	1.8	-95
Kapurthala	22.3	-16	0.0	-100	0.0	-100
Ludhiana	44.4	25	1.8	-93	0.4	-99
Mansa	0.0	-100	0.0	-100	0.0	-100
Moga	2.2	-92	0.0	-100	0.0	-100
Muktesar	4.5	-83	0.0	-100	0.0	-100
Nawashahar	20.1	-60	0.0	-100	0.0	-100
Patiala	24.3	-45	1.9	-95	0.0	-100
Ropar	73.0	66	0.0	-100	0.0	-100
Sangrur	28.1	-3	0.0	-100	0.0	-100
Mohali	58.7	40	3.3	-90	0.0	-100
TarnTaran	8.0	-62	0.0	-100	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	30.9	-53	7.2	-87	0.4	-99
Bhiwani	0.0	-100	0.0	-100	0.0	-100
Chandigarh	50.5	4	0.0	-100	0.0	-100
Faridabad	7.7	-88	0.0	-100	0.0	-100
Fatehabad	1.0	-94	0.0	-100	0.0	-100
Gurgaon	4.0	-89	0.0	-100	0.0	-100
Hissar	1.0	-96	3.2	-82	0.0	-100
Jhajar	7.4	-76	0.0	-100	0.0	-100
Jind	7.6	-75	0.0	-100	0.0	-100
Katihah	5.7	-81	0.5	-98	0.0	-100
Karnal	4.3	-93	0.0	-100	0.0	-100
Kurukshetra	12.3	-74	2.3	-93	1.3	-96
Mahendragarh	0.0	-100	0.0	-100	0.0	-100
Mewat	4.3	-88	0.0	-100	0.0	-100
Palwal	0.0	-100	0.0	-100	0.0	-100
Panchkkula	35.2	-49	0.7	-99	0.0	-100
Panipat	29.4	-41	0.0	-100	0.0	-100
Rewari	0.2	-99	0.0	-100	0.0	-100
Rohtak	5.0	-87	0.0	-100	0.0	-100
Sirsa	0.0	-100	0.0	-100	0.0	-100

Sonepat	26.0	-42	0.0	-100	0.0	-100
Yamunanagar	32.4	-57	15.3	-74	0.0	-100
Delhi						
Central Delhi	38.0	-27	0.0	-100	0.0	-100
East Delhi	4.0	-92	0.0	-100	0.0	-100
New Delhi	57.7	10	0.0	-100	0.0	-100
North Delhi	17.4	-67	0.0	-100	0.0	-100
North East Delhi	17.0	-68	0.0	-100	0.0	-100
North West Delhi	6.0	-89	0.0	-100	0.0	-100
South Delhi	107.2	104	0.0	-100	0.0	-100
South West Delhi	37.3	-29	0.0	-100	0.0	-100
West Delhi	17.0	-68	0.0	-100	0.0	-100
Jammu & Kashmir						
Anantnag	18.9	40	2.3	-87	5.6	-60
Badgam	11.9	2	2.8	-76	3.2	-72
Bandipore	**	**	**	**	**	**
Baramula	13.8	10	5.7	-64	6.3	-54
Doda	17.2	12	2.8	-84	1.4	-93
Ganderbal	4.3	-61	2.2	-76	6.0	-29
Jammu	36.2	-41	0.0	-100	9.5	-79
Kargil	**	**	**	**	**	**
Kathua	31.4	-48	52.0	-16	17.6	-73
Kistwar	**	**	**	**	**	**
Kulgam	1.2	-91	2.4	-86	4.0	-71
Kupwara	2.1	-80	3.5	-51	3.5	-48
Ladakh(Leh)	0.1	-97	0.0	-100	0.0	-100
Poonch	**	**	**	**	**	**
Pulwama	12.5	-5	1.1	-92	0.8	-93
Rajouri	33.0	-25	20.8	-55	20.8	-16
Ramban	4.3	-72	4.9	-71	11.2	-44
Reasi	60.3	-30	52.9	-30	54.2	2
Samba	55.9	-8	0.6	-99	11.8	-74
Shopian	**	**	**	**	**	**
Srinagar	44.7	303	3.5	-62	4.3	-50
Udhampur	20.7	-76	26.2	-65	16.0	-70
East Madhya Pradesh						
Anuppur	3.0	-96	53.4	-24	34.2	-49
Balaghat	27.0	-72	77.4	-5	4.4	-94
Chhatarpur	0.2	-99	38.6	-48	10.7	-85
Chindwara	7.5	-85	47.1	-21	25.1	-53
Damoh	0.0	-100	38.8	-42	2.5	-96
Dindori	4.9	-94	30.6	-53	18.2	-70
Jabalpur	10.4	-87	64.4	-16	3.0	-96
Katni	0.0	-100	60.1	-7	4.1	-94
Mandla	2.7	-97	106.0	29	6.7	-91
Narsingpur	2.7	-96	66.8	-12	0.0	-100
Panna	18.4	-76	37.3	-48	0.6	-99
Rewa	8.3	-89	18.8	-71	3.1	-96
Sagar	0.0	-100	46.0	-36	1.2	-98
Satna	8.1	-88	37.9	-30	10.6	-83
Seoni	3.5	-94	34.7	-45	3.8	-93

Shahdol	0.0	-100	0.0	-100	0.0	-100
Sidhi	1.6	-98	0.0	-100	8.0	-89
Singrauli	3.0	-95	61.1	15	0.0	-100
Tikamgarh	0.0	-100	3.0	-95	5.5	-89
Umaria	32.3	-63	81.6	8	12.4	-84
West Madhya Pradesh						
Agar	0.2	-99	45.9	-53	6.5	-92
Alirajpur	7.5	-88	1.8	-97	0.4	-99
Asoknagar	0.0	-100	26.5	-49	10.8	-78
Badwani	0.0	-100	7.3	-84	0.0	-100
Betul	2.5	-95	26.9	-52	22.0	-65
Bhind	0.8	-98	7.8	-85	0.0	-100
Bhopal	0.0	-100	34.2	-50	0.0	-100
Burhanpur	2.2	-96	33.1	-43	3.9	-92
Datia	0.0	-100	28.8	-46	0.0	-100
Dewas	0.8	-99	31.2	-58	3.3	-95
Dhar	3.1	-94	21.9	-66	3.7	-92
Guna	0.0	-100	61.4	2	0.0	-100
Gwalior	0.0	-100	8.6	-84	0.0	-100
Harda	0.0	-100	3.4	-95	0.0	-100
Hosangabad	1.7	-98	61.4	-35	4.5	-95
Indore	0.0	-100	17.5	-72	0.0	-100
Jhabua	0.0	-100	4.3	-93	5.2	-89
Khandwa	1.0	-98	20.4	-67	2.0	-97
Khargone	0.3	-99	22.8	-62	0.0	-100
Mandsaur	3.3	-94	0.0	-100	6.0	-89
Morena	1.1	-98	7.4	-83	0.0	-100
Neemuch	0.0	-100	0.0	-100	2.0	-96
Raisen	3.2	-96	68.8	-12	10.2	-87
Rajgarh	0.0	-100	91.7	30	7.1	-87
Ratlam	2.0	-97	9.1	-86	0.0	-100
Sehore	0.6	-99	27.7	-68	9.2	-87
Shajapur	0.0	-100	27.5	-56	10.5	-81
Sheopur Kalani	0.0	-100	5.5	-87	0.0	-100
Shivpuri	0.0	-100	31.0	-37	0.0	-100
Ujjain	0.2	-99	27.0	-60	0.0	-100
Vidisha	2.6	-97	69.8	-5	15.4	-74
Chhattisgarh						
Bastar	69.3	-2	250.7	221	36.5	-47
Bijapur	26.0	-71	90.4	-3	5.5	-92
Bilaspur	10.5	-84	98.7	62	35.1	-46
Dantewara	38.2	-47	152.2	97	36.3	-44
Dhamtari	20.0	-70	84.6	38	0.6	-99
Durg	8.1	-88	95.4	69	0.4	-99
Janjgir	17.8	-80	91.4	39	17.8	-77
Jashpurnagar	11.9	-86	85.7	2	8.7	-89
Kanker	28.0	-64	112.2	36	4.5	-92
Korba	16.1	-82	55.9	-6	22.3	-71
Koriya	14.1	-83	49.4	-16	41.3	-40
Kawardha	0.0	-100	65.2	7	20.8	-58
Mahasumund	21.6	-64	92.1	37	0.0	-100

Narayanpur	24.1	-69	115.0	47	54.2	-23
Raigarh	41.0	-39	64.1	-8	25.2	-66
Raipur	21.2	-67	51.2	-18	3.4	-94
Rajandgaon	2.7	-96	61.8	-17	4.5	-93
Surguja	36.2	-54	32.9	-50	13.3	-83
East Uttar Pradesh						
Allahabad	8.8	-87	39.6	-15	0.0	-100
Ambedkar Nagar	10.0	-84	15.0	-69	0.0	-100
Azamgarh	6.5	-90	48.7	-9	0.0	-100
Bahraich	72.4	-4	94.1	62	0.0	-100
Ballia	25.2	-59	5.5	-88	0.0	-100
Balrampur	30.2	-59	32.1	-57	0.0	-100
Banda	20.8	-66	15.7	-73	4.3	-92
Barabanki	20.9	-66	10.0	-82	0.0	-100
Basti	48.7	-25	81.5	57	0.0	-100
Chandauli	0.0	-100	11.4	-78	0.0	-100
Deoria	21.5	-69	2.5	-95	0.0	-100
Faizabad	48.4	-31	78.9	62	0.0	-100
Farrukhabad	41.4	-26	0.7	-99	0.0	-100
Fatehpur	2.7	-96	1.0	-98	0.0	-100
Gazipur	31.0	-51	11.0	-77	0.0	-100
Gonda	75.0	-9	4.4	-91	0.0	-100
Gorakhpur	30.5	-64	34.6	-42	0.0	-100
Hardoi	43.9	-33	20.0	-63	0.0	-100
Jaunpur	13.0	-80	21.9	-53	0.0	-100
Kannauj	4.8	-93	5.7	-90	0.0	-100
Kanpur City	12.9	-78	8.6	-80	0.0	-100
Kanpur Dehat	6.3	-89	4.1	-93	0.0	-100
Kaushambi	3.4	-95	2.9	-94	0.0	-100
Kheri	36.8	-50	13.0	-78	0.6	-99
Kushi nagar	39.8	-55	4.0	-92	0.0	-100
Lucknow	20.5	-62	3.9	-93	0.0	-100
Maharajganj	44.0	-46	58.8	-3	0.0	-100
Mau	29.0	-65	6.0	-89	0.0	-100
Mirzapur	3.2	-94	28.3	-50	0.0	-100
Pratapgarh	5.3	-93	25.0	-47	0.0	-100
RaiBareilly	10.4	-83	3.2	-93	0.0	-100
Sahuji Maharajnagar	9.0	-89	40.0	-41	0.0	-100
Sant Kabirnnagar	17.0	-73	18.0	-67	0.0	-100
Sant Ravidas Nagar	0.0	-100	12.0	-77	0.0	-100
Shrawasti	74.2	-2	28.5	-51	0.0	-100
Sidharthnagar	89.6	25	51.8	-12	6.1	-88
Sitapur	30.4	-53	7.8	-88	0.0	-100
Sonbhadra	19.2	-69	29.7	-43	1.1	-98
Sultanpur	14.5	-79	37.9	-25	0.0	-100
Unnao	11.0	-83	25.6	-45	0.5	-99
Varanasi	14.7	-79	44.6	-20	0.0	-100
West Uttar Pradesh						
Agra	7.1	-86	6.7	-87	0.0	-100
Aligarh	47.1	-18	2.3	-94	0.0	-100
Auraiya	2.9	-95	8.1	-84	0.0	-100

Badaun	70.4	5	5.8	-90	0.0	-100
Baghpat	17.5	-64	0.0	-100	0.0	-100
Bareilly	52.2	-27	18.5	-70	0.0	-100
Bijnor	80.5	17	5.1	-90	0.0	-100
Bulandsahar	84.4	35	1.9	-95	0.0	-100
Etah	21.1	-62	7.8	-79	0.0	-100
Etawah	17.0	-63	2.0	-96	0.0	-100
Firozabad	32.5	-34	20.1	-55	0.0	-100
GBNagar	40.0	-33	0.0	-100	0.0	-100
Ghaziabad	18.8	-70	0.0	-100	0.0	-100
Hamirpur	0.0	-100	25.9	-55	0.0	-100
Jalaun	3.0	-93	3.9	-94	0.0	-100
Jhansi	2.1	-96	9.5	-83	0.0	-100
Jotiba Phule Nagar	62.0	-9	2.5	-95	0.0	-100
Kanshiramnagar	76.0	16	3.0	-94	0.0	-100
Lalitpur	0.0	-100	6.5	-91	0.0	-100
Mahamaya Nagar	41.5	-14	1.5	-96	0.0	-100
Mahoba	0.0	-100	4.2	-92	0.0	-100
Mainpuri	12.0	-72	1.5	-96	0.0	-100
Mathura	4.3	-91	0.0	-100	0.0	-100
Meerut	40.9	-45	0.1	-99	0.0	-100
Moradabad	25.2	-63	24.9	-53	0.0	-100
Muzzaffarnagar	11.0	-82	8.8	-74	0.0	-100
Pilibhit	6.7	-92	0.0	-100	0.0	-100
Rampur	22.8	-67	10.1	-82	0.0	-100
Saharanpur	12.3	-79	6.3	-87	0.0	-100
Shahjahanpur	49.0	-37	1.7	-97	0.0	-100
Uttarakhand						
Almora	15.0	-74	18.1	-58	22.3	-45
Bageshwar	28.6	-51	47.0	10	21.5	-47
Chamoli	7.6	-87	50.5	4	9.7	-80
Champawat	52.0	-44	18.0	-79	0.0	-100
Dehradun	128.3	-13	28.4	-70	13.8	-85
Garhwal Pauri	25.9	-71	27.0	-64	10.0	-85
Garhwal Tehri	18.4	-74	2.0	-97	2.1	-97
Haridwar	45.1	-45	25.5	-55	5.6	-91
Nainital	37.2	-70	30.1	-63	21.5	-70
Pithorgarh	37.4	-68	13.4	-87	23.8	-74
Rudraprayag	21.5	-85	41.4	-55	19.5	-76
Udham Sing Nagar	31.0	-67	34.0	-48	0.0	-100
Uttarkashi	15.3	-80	12.4	-83	31.0	-50
Bihar						
Araria	120.8	31	81.6	29	47.4	-32
Arwal	77.0	22	22.9	-45	0.0	-100
Aurangabad	32.5	-46	51.3	-12	0.0	-100
Banka	112.9	108	48.0	10	0.0	-100
Begusarai	325.2	383	42.8	-29	8.1	-86
Bhabua	5.5	-93	16.5	-68	0.0	-100
Bhagalpur	160.1	144	54.0	17	4.6	-91
Bhojpur	17.1	-76	9.7	-81	3.0	-95
Buxar	14.6	-76	3.2	-94	0.0	-100

Darbhanga	237.6	219	44.8	-6	15.6	-66
East Champaran	201.8	147	80.4	48	12.1	-77
Gaya	12.5	-80	35.9	-27	0.0	-100
Gopalganj	64.5	-24	52.2	13	0.0	-100
Jahanabad	12.2	-78	29.4	-33	0.0	-100
Jamui	80.0	44	20.9	-62	0.0	-100
Kathihar	58.1	-22	71.8	56	7.3	-89
Khagadia	331.1	386	47.5	-6	24.8	-59
Kishanganj	174.4	57	207.3	110	46.5	-51
Lakhisarai	92.6	34	24.0	-56	2.1	-96
Madhepura	93.5	12	55.1	-11	1.0	-99
Madhubani	150.9	93	27.3	-53	10.5	-81
Monghyar	296.2	329	30.0	-45	21.1	-60
Muzaffarpur	112.6	37	50.7	1	9.4	-79
Nalanda	18.9	-69	59.9	24	0.0	-100
Nawada	25.6	-61	12.5	-70	0.0	-100
Patna	41.6	-48	48.6	19	1.3	-98
Purnea	61.6	-24	102.7	53	24.9	-66
Rohtas	16.3	-75	4.5	-92	0.3	-99
Saharsha	132.3	63	15.7	-67	7.3	-91
Samstipur	300.7	358	51.9	3	38.2	-26
Saran	25.9	-69	26.9	-39	0.0	-100
Sheikpura	97.8	64	13.1	-74	2.3	-95
Sheohar	310.4	261	54.0	5	51.4	9
Sitamarhi	169.2	97	39.3	-23	23.6	-50
Siwan	69.1	-7	33.5	-26	0.0	-100
Supaul	103.7	25	52.9	12	11.4	-78
Vaishali	53.2	-33	97.0	146	9.4	-84
West Champaran	189.0	77	51.6	-19	8.8	-81
Jharkhand						
Bokaro	19.5	-68	45.8	-31	3.3	-96
Chatra	15.1	-75	35.6	-34	0.0	-100
Deoghar	25.0	-59	17.8	-64	0.0	-100
Dhanbad	22.1	-64	62.6	-4	0.5	-99
Dumka	51.9	-22	36.5	-37	0.0	-100
East Singbhum	3.1	-95	32.9	-51	1.9	-97
Garhwa	0.0	-100	**	**	0.0	-100
Giridih	38.8	-30	60.1	2	5.3	-91
Godda	100.3	39	68.5	63	6.9	-86
Gumla	15.3	-78	70.0	10	3.6	-95
Hazaribagh	28.0	-56	34.2	-37	0.0	-100
Jamtara	55.1	-27	42.3	-37	2.3	-97
Khunti	10.5	-86	53.3	-26	0.0	-100
Koderrna	16.3	-73	12.4	-76	4.7	-92
Latehar	26.5	-58	26.0	-56	0.0	-100
Lohardagga	4.2	-93	11.9	-74	0.0	-100
Pakur	82.3	8	87.7	23	2.4	-97
Palamau	15.6	-75	16.8	-72	0.0	-100
Ramgarh	5.8	-90	55.4	-9	0.0	-100
Ranchi	7.4	-88	28.9	-56	0.0	-100
Sahebganj	0.0	-100	12.8	-79	22.6	-67

Saraikela	12.7	-80	27.0	-63	0.0	-100
Simdega	30.9	-64	62.0	-22	10.5	-88
West Singhbhum	45.2	-33	38.3	-46	63.8	-3
East Rajasthan						
Ajmer	0.0	-100	0.0	-100	0.1	-99
Alwar	5.2	-88	1.9	-95	0.0	-100
Banswara	1.9	-97	0.5	-99	0.0	-100
Baran	0.0	-100	34.0	-34	2.3	-95
Bharatpur	12.7	-75	0.0	-100	0.0	-100
Bhilwara	0.0	-100	1.4	-96	1.1	-97
Bundi	0.0	-100	0.0	-100	0.5	-99
Chittorgarh	0.0	-100	7.6	-87	1.5	-97
Dausa	6.5	-86	1.0	-97	0.0	-100
Dholpur	0.2	-99	3.2	-92	0.0	-100
Dungarpur	0.0	-100	1.4	-97	0.0	-100
Jaipur	0.0	-100	0.0	-100	0.1	-99
Jhalawar	0.1	-99	41.5	-33	8.5	-86
Jhunjhunu	0.0	-100	0.0	-100	0.0	-100
Karauli	0.0	-100	2.5	-93	0.0	-100
Kota	0.0	-100	7.6	-86	7.2	-86
Pratapgarh	1.4	-98	4.6	-93	0.0	-100
Rajsamand	0.0	-100	0.4	-99	1.0	-97
Sawai Madhopur	0.0	-100	0.3	-99	0.7	-98
Sikar	0.0	-100	0.0	-100	0.0	-100
Sirohi	0.0	-100	0.0	-100	2.9	-96
Tonk	0.0	-100	0.8	-98	2.0	-94
Udaipur	0.0	-100	0.0	-99	0.0	-100
West Rajasthan						
Barmer	0.0	-100	0.0	-100	0.1	-99
Bikaner	0.0	-100	0.0	-100	0.0	-100
Churu	0.0	-100	1.1	-94	0.0	-100
Hanumangarh	10.3	-31	0.0	-100	0.0	-100
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.8	-97	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	0.0	-100	0.0	-100	0.0	-100
Pali	0.1	-99	0.0	-100	0.2	-99
Sri Ganganagar	0.5	-95	0.0	-100	0.0	-100
Gujarat Region						
Ahmedabad	5.2	-83	2.8	-93	0.6	-99
Anand	0.8	-98	4.4	-92	0.0	-100
Banaskantha	0.0	-100	0.0	-100	1.3	-97
Baroda	2.0	-96	8.0	-89	0.3	-99
Broach	1.2	-97	4.9	-91	1.2	-98
DNH	196.9	82	25.5	-86	1.1	-99
Dahod	0.0	-100	10.3	-86	0.0	-100
Daman	179.0	66	16.3	-91	12.0	-91
Dangs	20.5	-82	17.5	-88	0.0	-100
Gandhinagar	1.4	-96	0.0	-100	0.0	-100
Kheda	0.1	-99	8.6	-86	0.6	-99
Mehsana	0.1	-99	0.0	-100	0.1	-99

Narmada	2.6	-96	2.8	-96	4.7	-92
Navsari	16.7	-79	7.1	-93	0.0	-100
Panchmahal	0.2	-99	3.7	-95	0.4	-99
Patan	0.0	-100	0.0	-100	3.0	-91
Sabarkantha	0.2	-99	0.0	-100	0.1	-99
Surat	4.9	-91	12.8	-83	3.1	-96
Tapi	4.6	-94	6.6	-93	0.0	-100
Valsad	121.5	40	22.3	-81	0.9	-99
S K & Diu region						
Amreli	2.2	-90	2.4	-92	5.0	-78
Bhavnagar	13.4	-45	0.3	-99	0.0	-100
Diu	1.5	-89	0.8	-96	0.0	-100
Jamnagar	3.4	-73	0.0	-100	0.5	-97
Junagarh	2.9	-86	0.2	-99	4.3	-83
Kutch	0.2	-98	0.0	-99	8.9	-60
Porbandar	4.6	-69	0.0	-100	0.0	-100
Rajkot	0.6	-97	0.1	-99	4.6	-80
Surendranagar	0.0	-100	0.0	-100	0.0	-100
Maharashtra & Goa						
Konkan & Goa						
Mumbai City	21.3	-81	85.5	-18	63.4	-22
Mumbai Suburban	17.3	-84	43.7	-58	0.5	-99
North Goa	53.6	-59	83.6	-12	27.7	-67
Raigad	93.7	-43	81.4	-47	2.3	-98
Ratnagiri	76.1	-52	84.2	-42	7.0	-93
Sindhudurg	76.0	-44	105.9	-11	20.5	-74
South Goa	68.4	-35	75.3	-16	9.3	-88
Thane	107.9	-14	44.6	-65	2.1	-98
Madhya Maharashtra						
Ahmednagar	2.2	-92	13.9	-51	41.3	88
Dhule	0.7	-97	2.6	-91	3.2	-85
Jalgaon	0.9	-98	15.0	-65	10.4	-70
Kolhapur	25.4	-70	25.1	-63	3.0	-94
Nandurbar	1.8	-96	0.8	-98	0.7	-98
Nasik	19.5	-60	7.3	-86	19.4	-59
Pune	12.5	-68	8.1	-79	5.2	-84
Sangli	5.1	-76	3.7	-82	20.9	15
Satara	11.2	-62	6.3	-80	5.6	-77
Solapur	10.2	-63	11.5	-60	26.5	11
Marathwada						
Aurangabad	0.3	-99	15.0	-66	33.2	3
Beed	9.5	-72	16.9	-58	43.5	18
Hingoli	7.8	-87	4.4	-93	54.7	15
Jalna	4.0	-90	10.1	-78	36.4	9
Latur	35.6	-35	6.4	-88	55.6	20
Nanded	18.5	-70	21.3	-59	33.3	-28
Usmanabad	23.0	-46	17.9	-56	44.8	18
Parbhani	7.7	-87	7.6	-86	54.2	10
Vidarbha						
Akola	0.0	-100	9.0	-80	27.7	-21
Amraoti	1.3	-97	9.8	-79	20.0	-57

Bhandara	20.8	-74	118.1	66	1.1	-98
Buldhana	2.5	-94	10.6	-75	30.6	-6
Chandrapur	20.5	-74	65.5	-14	29.7	-55
Gadchiroli	14.3	-84	120.8	42	22.6	-67
Gondia	10.6	-88	166.8	101	14.5	-78
Nagpur	12.1	-77	57.5	-16	20.2	-65
Wardha	6.5	-88	35.5	-39	14.4	-75
Washim	0.4	-99	0.0	-100	18.9	-60
Yeotmal	8.4	-85	18.2	-68	8.8	-81
Odisha						
Angul	19.3	-66	82.8	-2	15.2	-80
Balasore	36.6	-39	68.8	3	2.7	-96
Bargarh	36.0	-50	118.0	88	11.1	-86
Bhadrak	73.5	25	40.9	-47	12.7	-76
Bolangir	36.4	-48	134.3	58	13.1	-82
Boudh	68.1	-11	84.8	10	1.3	-98
Cuttack	66.3	-13	105.2	52	44.2	-47
Deogarh	43.8	-47	97.4	16	41.7	-53
Dhenkanal	26.0	-62	83.1	0	23.1	-67
Gajapati	30.0	-46	49.4	-25	57.3	26
Ganjam	26.3	-52	49.6	-21	43.5	-4
Jagatsingpur	67.6	-4	77.9	9	60.8	-6
Jajpur	42.9	-42	53.7	-35	22.4	-64
Jharsuguda	96.6	22	131.0	70	17.6	-79
Kalahandi	50.7	-36	116.7	84	14.7	-78
Kandhamal	28.9	-62	87.5	13	4.9	-91
Kendrapara	125.5	119	72.7	-10	15.7	-77
Keonjhar	23.3	-53	59.6	-17	14.9	-72
Khurda	49.3	-30	65.8	2	44.5	-37
Koraput	32.6	-60	136.6	81	48.8	-34
Malkangiri	70.6	-18	244.0	195	15.6	-82
Mayurbhanj	48.4	-18	70.6	-18	4.3	-94
Nawapara	36.1	-54	73.9	31	13.5	-75
Nawarangpur	36.8	-46	112.7	32	25.6	-70
Nayagarh	35.0	-46	107.9	62	18.6	-72
Puri	63.2	-12	78.6	15	26.3	-64
Rayagada	29.7	-55	57.1	4	11.7	-81
Sambalpur	53.9	-35	122.5	45	6.7	-92
Sonepur	45.0	-38	100.2	21	7.1	-92
Sundargarh	61.0	-10	100.9	33	19.8	-71
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	16.8	-72	54.2	-16	72.2	-9
North & Middle Andaman	274.2	161	125.7	15	69.3	-42
South Andaman	126.9	48	87.6	-16	75.3	-27
GWB						
Bankura	32.7	-39	45.5	-36	3.6	-94
Birbhum	77.3	27	75.8	31	7.2	-89
Burdwan	57.5	-1	53.0	1	25.3	-58
East Midnapore	70.8	14	55.3	-40	18.9	-76

Hooghly	51.1	-15	31.0	-49	37.5	-45
Howrah	65.4	42	36.9	-53	20.9	-68
Kolkata	95.9	38	46.7	-41	52.7	-29
Murshidabad	83.9	50	100.6	90	13.3	-77
Nadia	30.3	-33	44.0	-11	28.9	-43
24 Pargana (N)	50.1	-23	73.6	34	12.3	-81
Purulia	26.1	-55	48.1	-36	1.3	-98
24 Pargana (S)	37.9	-58	56.0	-39	13.3	-85
West Midnapore	46.1	-25	49.1	-36	3.4	-95
SHWB & Sikkim						
Cooch Behar	269.9	71	302.5	163	61.9	-50
Darjeeling	158.2	-4	266.4	126	96.2	-29
East Sikkim	89.6	-15	91.2	-3	50.2	-51
Jalpaiguri	202.7	18	413.7	226	99.7	-19
Malda	80.3	-1	105.9	99	12.5	-79
North Dinajpur	85.5	15	232.6	182	50.3	-40
North Sikkim	115.3	8	418.2	297	59.7	-43
South Dinajpur	86.5	26	27.2	-47	37.1	-37
South Sikkim	101.5	-4	140.5	49	74.7	-26
West Sikkim	63.0	-41	129.0	22	84.0	-19
Karnataka						
Coastal Karnataka						
Dakshina Kannada	61.4	-64	50.2	-53	43.2	-48
Udupi	70.9	-62	61.3	-48	107.8	-4
Uttara Kannada	51.1	-57	42.8	-48	45.9	-36
N I Karnataka						
Bagalkote	1.9	-89	8.6	-44	61.8	251
Belagavi	9.5	-57	14.0	-27	13.8	-5
Bidar	23.3	-51	13.3	-70	65.1	68
Dharwad	7.8	-59	11.2	-31	24.4	72
Gadag	20.0	11	29.3	70	37.4	111
Haveri	12.7	-39	10.5	-30	23.2	132
Kalaburgi	30.2	-23	22.4	-45	30.6	-19
Koppal	21.6	8	23.5	-8	63.1	241
Raichur	22.4	-22	10.5	-64	128.7	465
Vijayapura	32.8	49	14.6	-43	87.9	284
Yadgir	23.2	-41	10.4	-70	40.1	23
S I Karnataka						
Ballari	26.8	35	14.5	-39	133.0	656
Bangalore Rural	16.4	-41	9.8	-68	116.6	315
Bangalore Urban	24.9	-12	4.5	-84	110.4	254
Chamarajanagar	27.7	64	0.0	-100	41.7	202
Chikaballapur	79.7	211	25.7	5	73.4	188
Chikkamagaluru	28.5	-62	24.3	-48	58.9	71
Chitradurga	29.4	121	14.6	3	86.8	933
Davangere	18.0	-2	14.5	-4	58.7	439
Hassan	29.4	17	10.4	-45	68.4	365
Kodagu	37.9	-63	17.8	-74	104.0	98
Kolar	25.4	15	2.9	-86	78.8	222

Mandya	32.4	99	5.7	-62	41.3	185
Mysuru	45.2	233	0.7	-95	32.6	177
Ramanagara	22.5	-16	13.6	-53	120.5	428
Shivamogga	38.5	-48	37.6	-15	37.5	16
Tumakuru	21.6	21	16.8	-11	116.4	503
Kerala						
Alappuzha	32.1	-63	0.5	-99	29.2	-47
Kannur	48.5	-55	33.4	-54	143.1	149
Ernakulam	41.6	-49	7.0	-88	122.5	101
Idukki	29.5	-73	7.3	-91	99.6	71
Kasaragod	49.0	-62	86.0	-1	67.9	-7
Kollam	25.5	-61	0.7	-99	76.3	84
Kottayam	40.4	-52	6.7	-90	118.0	120
Kozhikode	38.0	-62	31.5	-48	149.3	164
Malappuram	29.9	-62	11.5	-80	149.9	235
Palakkad	31.5	-53	6.7	-85	68.9	85
Pathanamthitta	35.0	-56	0.7	-99	109.6	113
Thiruvananthapuram	20.4	-38	1.4	-94	121.1	325
Thrissur	47.9	-47	7.9	-88	109.9	116
Wynad	32.7	-72	5.3	-93	115.6	101
Tamil Nadu						
Ariyalur	27.6	-22	13.0	-65	2.3	-92
Chennai	18.5	-50	14.2	-56	0.0	-100
Coimbatore	14.5	32	0.0	-100	18.1	124
Cuddalore	40.9	17	22.1	-33	7.5	-68
Dharmapuri	44.2	48	13.1	-50	35.5	45
Dindigul	12.4	-36	5.0	-76	36.0	71
Erode	10.7	-35	0.9	-95	33.4	132
Kanchipuram	39.5	-6	25.3	-34	11.7	-64
Kanyakumari	8.2	-52	0.0	-100	58.7	180
Karikal	37.7	37	0.0	-100	63.0	266
Karur	19.1	19	0.0	-100	28.8	77
Krishnagiri	46.4	81	6.7	-74	53.2	126
Madurai	4.8	-80	14.6	-44	20.0	-19
Nagapattinam	28.1	13	22.5	-3	0.0	-99
Namakkal	28.4	14	1.7	-93	46.9	145
Nilgiris	25.4	-29	1.1	-97	60.5	131
Perambalur	52.0	119	15.9	-48	32.3	57
Puducherry	62.5	87	7.9	-71	32.1	4
Pudukottai	25.2	-13	12.5	-62	22.1	7
Ramanathapuram	2.9	-73	0.9	-94	17.1	111
Salem	36.3	11	6.1	-79	38.8	47
Sivaganga	6.0	-72	0.0	-100	15.9	-11
Thanjavur	21.0	-35	3.9	-85	15.1	-22
Theni	3.4	-54	0.0	-100	54.0	620
Tirunelveli	0.0	-100	0.0	-100	24.7	518
Tirupur	7.8	-14	1.7	-82	29.2	240
Tiruvallur	68.8	114	28.8	-21	12.9	-51
Tiruvannamalai	61.5	67	15.1	-60	18.7	-40

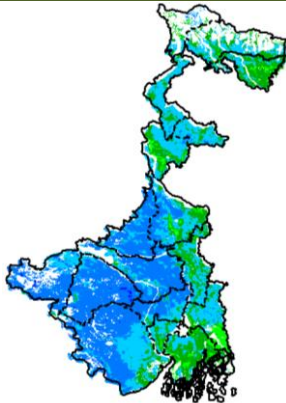
Tiruvarur	30.8	17	0.0	-100	22.7	16
Toothukudi	0.0	-100	0.0	-100	10.5	52
Trichy	11.7	-49	23.1	-6	15.8	-35
Vellore	63.8	80	13.3	-56	37.8	32
Villupuram	42.8	17	3.8	-89	41.1	57
Virudhunagar	0.7	-94	0.9	-94	19.0	53
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	4.0	-91	39.0	-2	48.4	24
Guntur	56.7	48	20.3	-41	41.3	24
Krishna	45.7	1	31.7	-24	34.5	-4
Nellore	65.7	171	12.8	-38	26.1	42
Prakasam	40.5	48	15.5	-42	39.8	92
Sirkakulam	35.3	-22	90.2	89	38.9	-16
Visakhapatnam	34.4	-15	32.3	-24	32.4	-22
Vizianagram	36.7	-28	57.4	33	62.9	30
West Godavari	32.1	-33	58.6	22	25.4	-40
Rayalaseema						
Anantapur	51.2	161	7.2	-66	87.3	432
Chittoor	57.9	115	11.9	-54	47.7	83
Cuddapah	95.9	239	0.7	-97	65.1	183
Kurnool	32.1	6	9.6	-68	49.9	128
Telangana						
Adilabad	29.8	-52	28.9	-52	21.8	-57
Hyderabad	17.9	-53	11.6	-67	21.8	-44
Karimnagar	20.5	-55	10.9	-77	50.1	18
Khammam	12.9	-75	56.9	8	33.1	-23
Mehabubnagar	27.3	-23	18.2	-49	32.8	15
Medak	10.9	-74	32.3	-20	27.3	-29
Nalgonda	44.0	40	22.4	-40	56.1	66
Nizamabad	27.8	-59	33.7	-36	22.6	-55
Rangareddy	33.0	-17	13.8	-61	34.4	-14
Warangal	18.2	-56	40.1	-18	24.4	-42

Legends

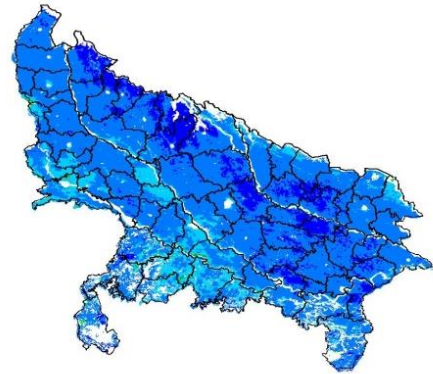
	(20% or more) excess rainfall		(-60 to -99 %) scanty rainfall
	(-19 to +19%) normal rainfall		(-100%) no rainfall
	(-20 to -59%) deficient rainfall	**	Data not available

Annexure II

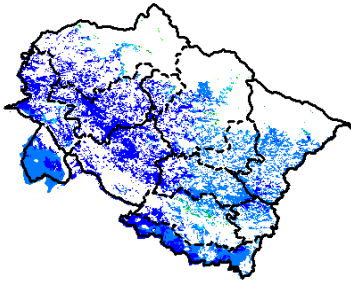
**INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
9th SEPTEMBER 2015 FOR DIFFERENT STATES**



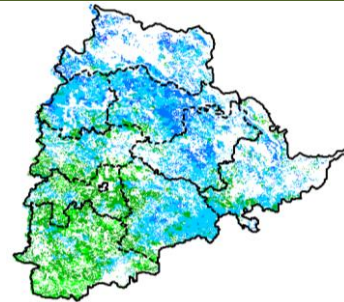
Agricultural vigour is good in western and southern parts of West Bengal NDVI varying from 0.4-0.6., whereas northern and south western region shows lower values of (0.2-0.4)



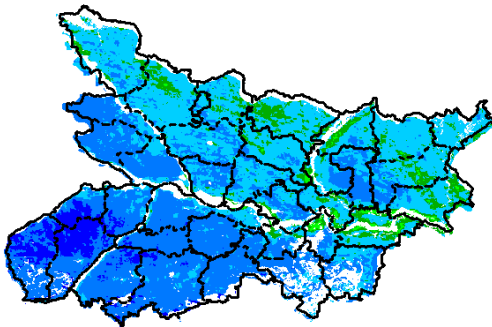
Agricultural vigour is good over the entire state of Uttar Pradesh where NDVI value varies from 0.4 - 0.6. In some patches NDVI values (> 0.6) are observed.



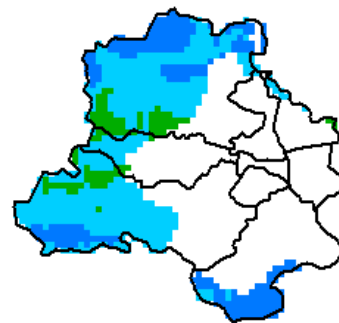
Agriculture vigour is very good over entire state of Uttarakhand with NDVI value varying between 0.4-0.6.



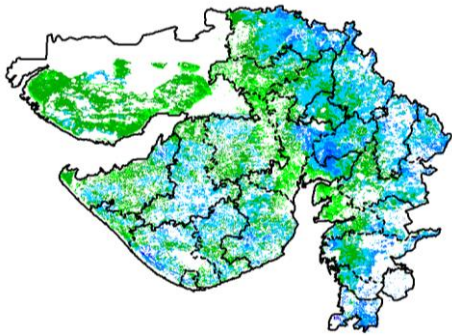
Agriculture vigour is good over northern and eastern regions in Telangana where NDVI value lies between 0.4-0.6. Agriculture vigour is moderate in the southern part (NDVI 0.2-0.3).



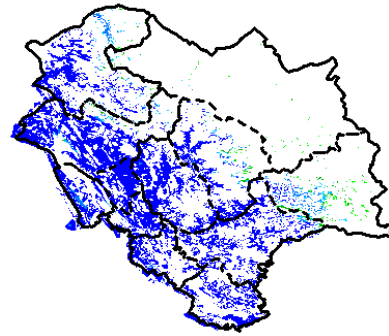
South-western part of Bihar shows comparatively a high value (>0.6) of NDVI, whereas NDVI varies from 0.3-0.6 over the remaining parts of the state.



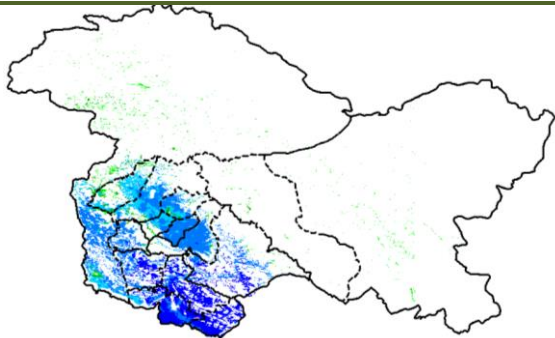
Agriculture vigour is good all over Delhi where NDVI value lies between 0.3-0.6.



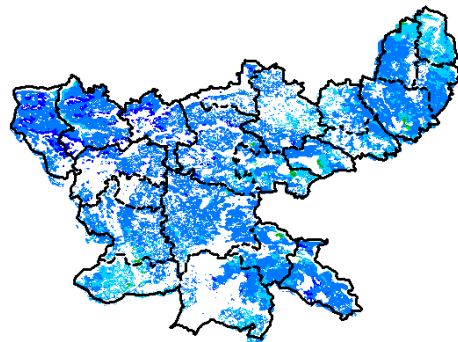
Agriculture vigour is normal in some patches in Saurashtra region whereas, good agricultural vigour is observed over Gujarat region where NDVI value lies between 0.4-0.6.



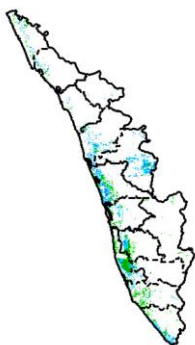
Agriculture vigour is very good over Himachal Pradesh where NDVI values are > 0.6 .



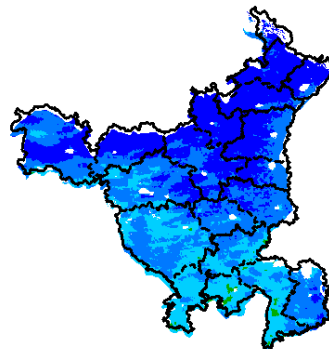
Agriculture vigour is good all over Jammu and Kashmir. NDVI value varies in between 0.4-0.6 in south western parts.



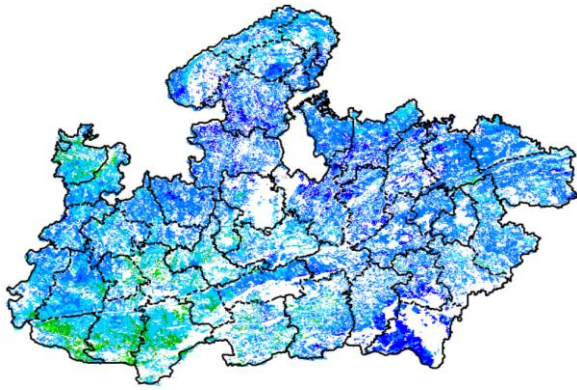
Agriculture vigour is good over entire state of Jharkhand, NDVI value varies from 0.4 - 0.6.



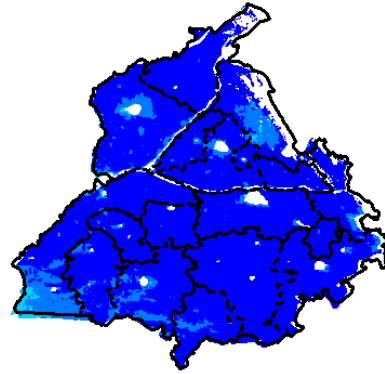
Central and eastern regions of Kerala show NDVI values varying from 0.4 to 0.5, whereas normal NDVI values observed in southern and coastal region.



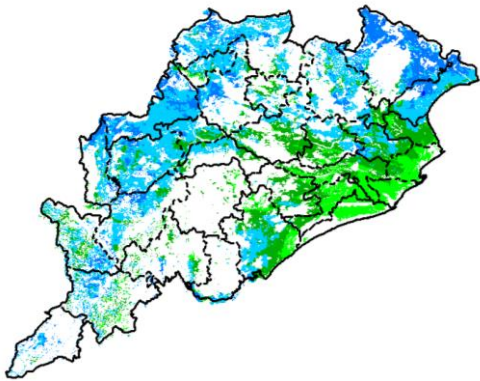
Agriculture vigour is good over the state of Haryana. NDVI values vary between 0.4-0.6. The northern part shows increase in NDVI (> 0.6).



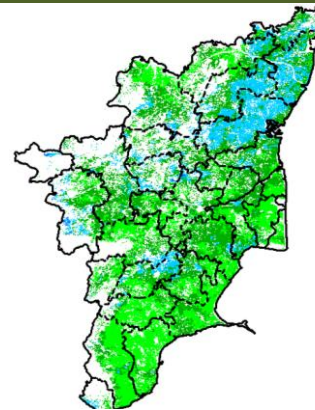
Agriculture vigour is very good over entire state of Madhya Pradesh. NDVI varies from 0.4-0.6. In some patches over south western part of NDVI varies from 0.2-0.4.



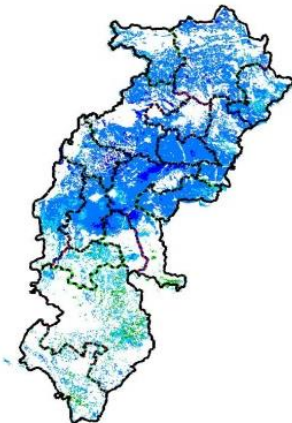
Agricultural vigour is very good over entire state of Punjab, showing NDVI value >0.6.



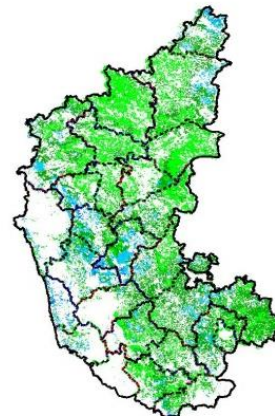
Agricultural vigour is normal over coastal Odisha with NDVI value ranging between 0.2 - 0.4. Higher (> 0.4) values are seen in eastern and northern regions of the state.



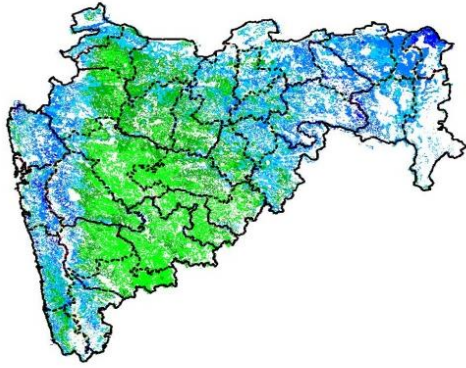
Agricultural vigour is normal over Tamil Nadu with NDVI values varying from 0.2 - 0.3. Except Northern part showing increase NDVI value ranges from 0.4-0.5.



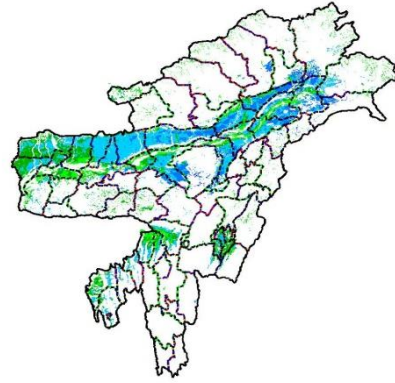
Agriculture vigour is good over the state of Chhattisgarh where NDVI value lies in between 0.4-0.6. Few patches in southern part show moderate NDVI values.



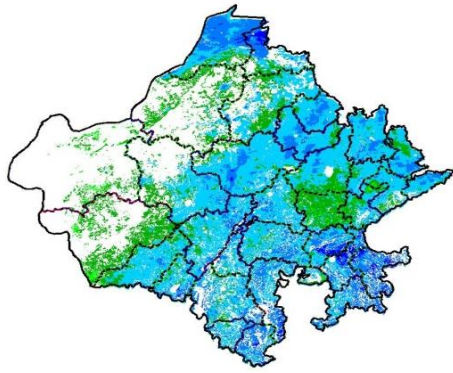
Agricultural vigour is normal over entire state of Karnataka between 0.2-0.4, except some patches in central part shows higher NDVI values in between 0.4-0.5.



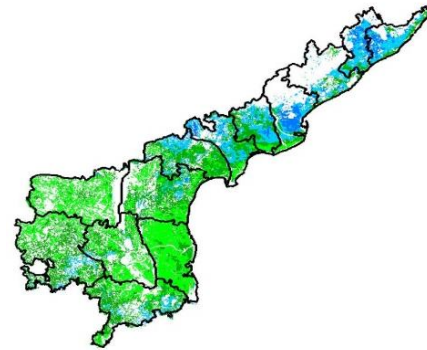
Agricultural vigour is good over Western Ghats and Vidharbha regions with NDVI values from 0.4 - 0.6, whereas NDVI is normal over parts of Marathwada, and Madhya Maharashtra region.



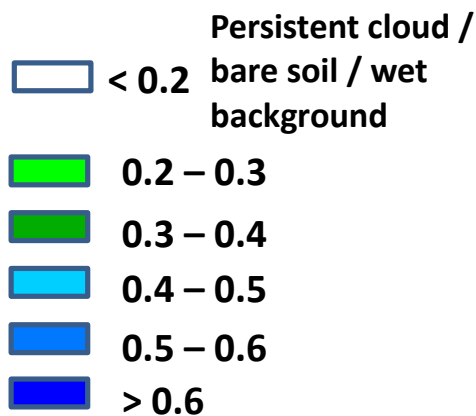
Agriculture vigour is normal in western and southern regions of North-East states where NDVI values ranges from 0.2-0.4 whereas, agricultural vigour is good (0.4-0.6) in the central and eastern states of North-East.



Agriculture vigour is good (0.4-0.6) over entire state of Rajasthan except for few patches in eastern and northern part with moderate values of NDVI (0.2-0.4).



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



Annexure III

List of varieties

North Interior 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, Uttra 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 Dhan 109.110, 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: Brisa Arhar-1, Narendra Arhar-1, Bahar, ICPH-2671.

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

Sweet Potato: Birsa Sakarkandi & Shreebhadra.

Jammu & Kashmir

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

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

Himachal Pradesh

Cauliflower: snowball and Giant snowball.

Radish, pea: Arkal, VL-7.

Cabbage: India Golden, Hybrid Kismond.

Capsicum: solan hyb-1, californiawonder, yolo wonder, vishimla 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.

Sesame: 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.
Pigeonpea: 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.