



National Agromet Advisory Service Bulletin



Friday 18th September 2015

(For the period 18th to 22nd September 2015)



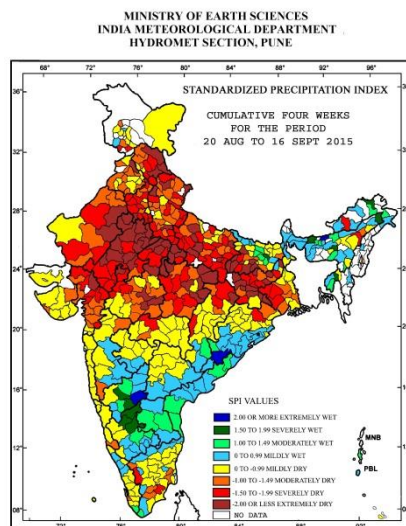
Issued by

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

Monsoon Watch

- Southwest monsoon was vigorous over Vidarbha, Chhattisgarh & Telangana and active over Odisha, Madhya Maharashtra, Konkan & Goa 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.

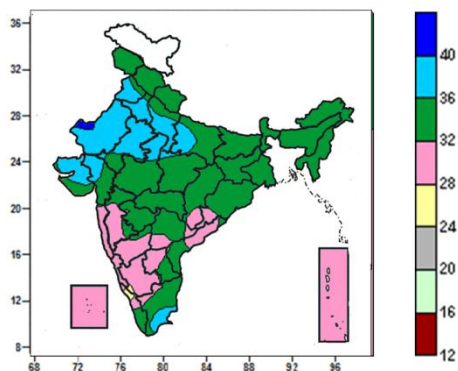
Standardised Precipitation Index Four Weekly for the Period 20th August to 16th September 2015



- Extremely/severely wet conditions experienced in Upper Siang district of Arunachal Pradesh; Kokrajhar, Tinsukia, Baksa, Kamrup Metro districts of Assam; Dhalai district of Tripura; Koraput district of Odisha; Khagaria district of Bihar; Bagalkote, Koppal, Raichur, Bellary, Chitradurga, Davangere districts of Karnataka.
- Extremely/Severely dry conditions experienced in most districts of Rajasthan; many districts of Jharkhand, Uttar Pradesh, Uttarakhand, Haryana, Himachal Pradesh, Madhya Pradesh; few districts of West Bengal, Bihar, Delhi, Gujarat Region; East Kameng district of Arunachal Pradesh; Golaghat district of Assam; Keonjhar district of Odisha; Hoshiarpur district of Punjab; Jammu, Udhampur district of Jammu & Kashmir; Amraoti district of Maharashtra; Jashpur, Korba, Rajnandgaon, Surguja districts of Chhattisgarh; Coimbatore, Sivaganga, districts of TamilNadu.
- Moderately dry conditions experienced in many districts of Uttarakhand, Delhi, Punjab; few districts of West Bengal; Uttar Pradesh, Himachal Pradesh, Madhya Pradesh, Gujarat; Jorhat district of Assam; Mayurbhanj district of Odisha; Giridih, Gumla, Jamtara district of Jharkhand; Jamui, Katihar, Patna districts of Bihar; Reasi, Kupwara districts of Jammu & Kashmir; Sri Ganganagar, Jalore, Jodhpur, Hanumangarh, Jhalawar districts of Rajasthan; Jalgaon, Kolhapur, Washim districts of Maharashtra; Janjgir, Koriya districts of Chhattisgarh; Madurai, Nilgiri, Thanjavur, Virudhunagar, Ariyalur districts of TamilNadu; Dakshin Kannada districts of Karnataka; Alappuzha district of Kerala.
- Rest of the country experienced moderately wet/mildly dry/wet conditions.

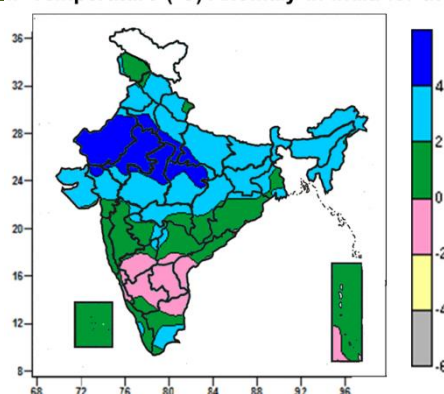
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 16.09.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 16.09.2015



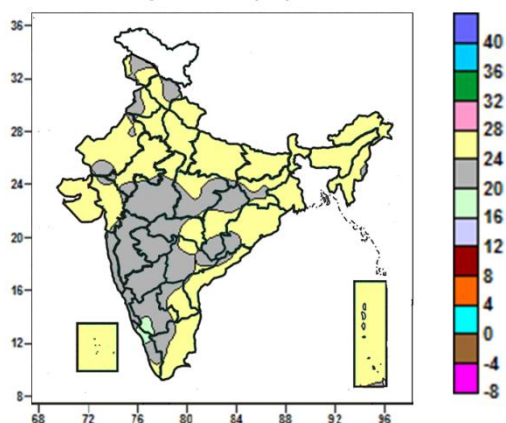
- Mean maximum temperature were 40°C above over isolated pockets of west Rajasthan.
- Mean maximum temperature were between 36 to 40°C over many parts of Punjab, Haryana & Delhi, Uttar Pradesh, Rajasthan, Saurashtra & Kutch, some parts of Gujrat region and isolated pockets of West Madhya Pradesh and Tamil Nadu.
- It was below 36°C over remaining parts of the country.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 16.09.2015



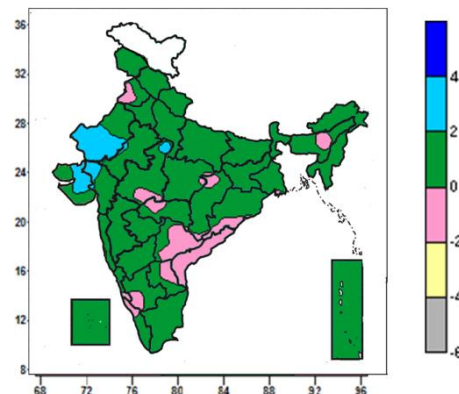
- Mean maximum temperature were above normal by 4°C over many parts of Rajasthan, some parts of Madhya Maharashtra and isolated pockets of Haryana, Uttar Pradesh.
- Mean maximum temperature were above normal by 2 to 4°C over Bihar, Jharkhand, North East India, Saurashtra & Kutch, Sub-Himalayan West Bengal & Sikkim, many parts of Himachal Pradesh, Uttarakhand, Haryana & Delhi, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Gujarat region, Vidarbha, Gangetic West Bengal, some parts of Haryana, Tamil Nadu and isolated pockets of Rajasthan, Marathwada, North Interior Karnataka.
- It was normal to near normal in remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 16.09.2015



- Mean minimum temperature was between 16 to 20°C over isolated pockets of Kerala, South Interior Karnataka.
- It was above 20°C over rest of the country.

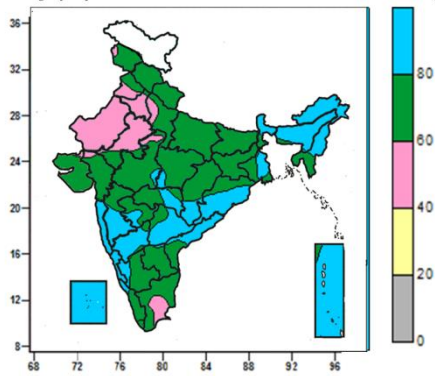
Mean Minimum Temperature (°C) Anomaly in India for the week ending 16.09.2015



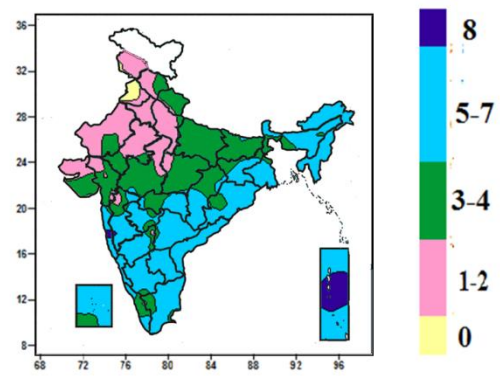
- Mean maximum temperature were above normal by 2 to 4°C over some parts of West Rajasthan, Saurashtra and isolated pockets of Gujarat region, West Madhya Pradesh.
- It was normal to near normal in remaining parts of the country.

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 16.09.2015

Relative Humidity (%) over India for the week ending 16.09.2015



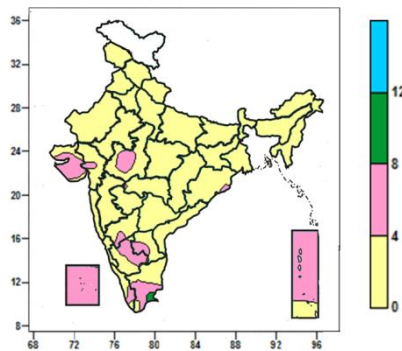
Cloud amount (okta) over India for the week ending 16.09.2015



- Mean Relative humidity was above 80% over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Konkan & Goa, Coastal Karnataka, Lakshadweep and Andaman & Nicobar Islands, many parts of Sub-Himalayan West Bengal & Sikkim, Odisha, Telangana, Madhya Maharashtra, Marathwada, some parts of Chhattisgarh, Vidarbha, Marathwada, Coastal Andhra Pradesh, isolated pockets of Madhya Pradesh, South Interior Karnataka, Kerala.
- Mean Relative humidity was 60 to 80% over rest of the country.

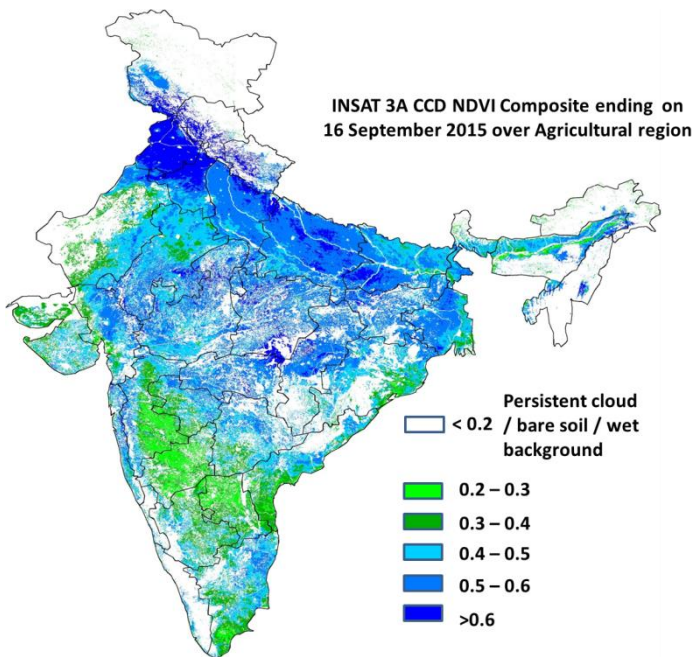
- Sky remained cloudy (8 okta) over some parts of of Andaman & Nicobar Islands.
- Sky remained generally cloudy (5-7 okta) over many parts of North East India, West Bengal & Sikkim, Jharkhand, Odisha, Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Marathwada, Andhra Pradesh, Telangana, Karnataka, Tamil Nadu, Andaman & Nicobar Island and Lakshadweep, some parts of Vidarbha, Madhya Maharashtra and Telangana, isolated pockets of West Madhya Pradesh, Kerala.
- Sky remained partly cloudy/mainly clear (3 to 4/ 1 to 2 okta) over rest of the country.

Wind speed (knots) over India for the week ending 16.09.2015



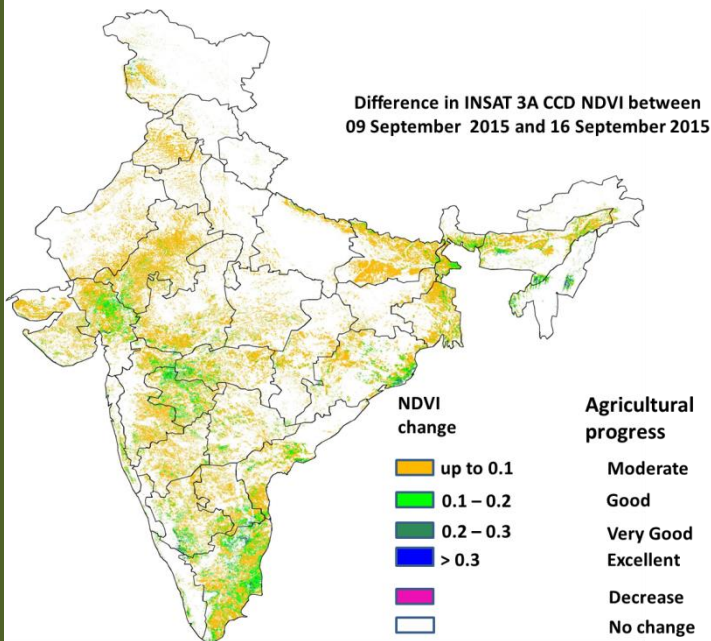
- Mean wind speed was 4 to 8 knots over Lakshadweep, many parts of Saurashtra & Kutch, North Interior Karnataka, Tamil Nadu and Andaman & Nicobar Islands, some parts of Rayalaseema, West Madhya Pradesh, South Interior Karnataka, Madhya Maharashtra, Kerala and isolated pockets of , Gujarat region..
- It was less than 4 knots over rest of the country.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 16th September 2015 OVER AGRICULTURAL REGION OF INDIA



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

Difference in INSAT 3A CCD NDVI between 9th and 16th September 2015



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

- INSAT 3A CCD NDVI composite maps for the week ending on 16th September 2015 for different States are given below in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 23rd September 2015

- The day temperatures above normal by 2-4°C would prevail over some parts of Rajasthan during next two days.

5 Day Rainfall Forecast (MORNING) 18th September 2015

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

% 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

- 18 September (Day 1):** Heavy to very heavy rainfall would occur at a few place with isolated ♦ extremely heavy falls over Konkan & Goa, Saurashtra, Gujarat region and Madhya Maharashtra. Heavy to very heavy rainfall would occur at a few places over Andaman & Nicobar Islands; at isolated places over West Madhya Pradesh and Marathawada. Heavy rainfall would occur at isolated places over North Interior Karnataka and Kerala.
- 19 September (Day 2):** Heavy to very heavy rainfall would occur at a few place with isolated extremely heavy falls over Konkan & Goa, Saurashtra, Gujarat region and Madhya Maharashtra. Heavy to very heavy rainfall would occur at a few places over Andaman & Nicobar Islands. Heavy rainfall would occur at isolated places over West Rajasthan, East Rajasthan, West Madhya Pradesh and Kerala.
- 20 September (Day 3):** Heavy to very heavy rainfall would occur at isolated places over Gujarat region, Saurashtra & Kutch and Kerala. Heavy rainfall would occur at isolated places over Assam & Meghalaya, Odisha, Konkan & Goa, South Interior Karnataka, Andaman & Nicobar Islands & Lakshadweep.
- 21 September (Day 4):** Heavy to very heavy rainfall would occur at isolated place over West Rajasthan &

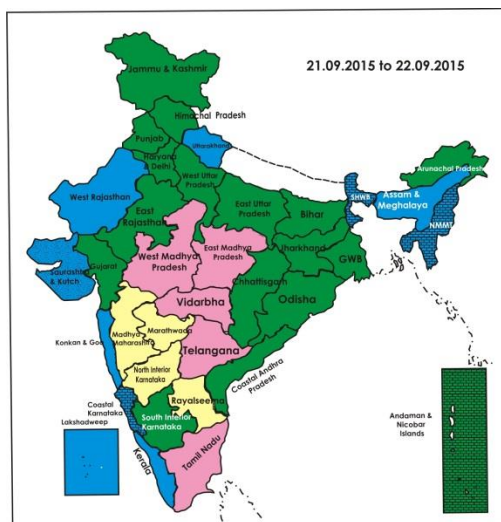
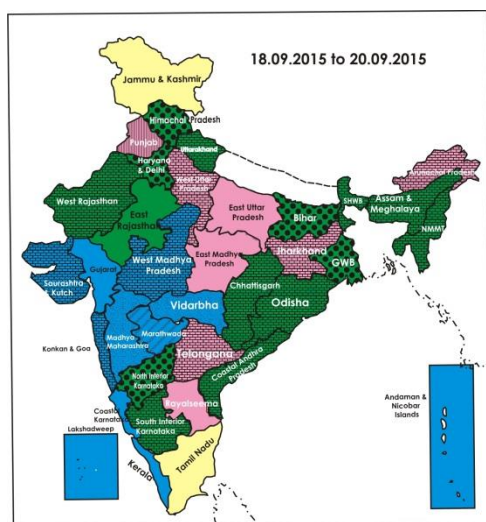
Kerala. Heavy rainfall would occur at isolated places over East Rajasthan, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, East Uttar Pradesh, West Uttar Pradesh, Punjab, Uttarakhand, Haryana, Chandigarh & Delhi, Himachal Pradesh, Jammu & Kashmir, Coastal Andhra Pradesh, Coastal Karnataka, South Interior Karnataka, Lakshadweep and Saurashtra & Kutch.

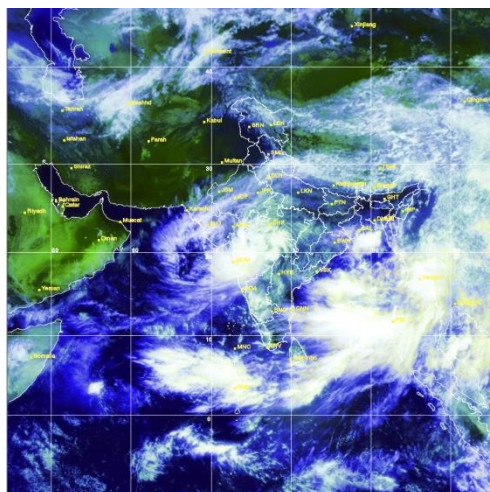
- **22 September (Day 5):** Heavy to very heavy rainfall would occur at isolated place over Sub-Himalayan West Bengal & Sikkim. Heavy rainfall would occur at isolated places over Chhattisgarh Odisha, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh, Coastal Karnataka, South Interior Karnataka, Lakshadweep and Kerala.

Weather Outlook for subsequent 2 days from 23rd to 25th September 2015

- Rain/thundershowers would occur at many places over northeast, northwest east & adjoining central India.
- Rain/thundershowers would occur at a few places over peninsular India.

Weather Forecast Map (Valid upto 0830 hours of 23rd September, 2015)





Salient Advisories

- Under the influence of the deep depression over **Vidarbha & neighbourhood**, heavy to very heavy rainfall would occur at a few places with isolated extremely heavy falls over **Konkan & Goa, Saurashtra, Gujarat** region and **Madhya Maharashtra** on 18th and 19th September and heavy to very heavy rainfall would occur at isolated places over **Saurashtra & Kutch** on 21st September; postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops, arrange for adequate drainage to avoid water stagnation in the crop fields. Also arrange mechanical support to banana and undertake propping in sugarcane/staking of vegetables to prevent the crops from lodging due to strong winds. Postpone picking of matured pods of green gram and cowpea in North Gujarat Zone and harvesting of pearl millet in Bhal and Coastal Zone and North Saurashtra Zone. Keep the harvested produce at safer places.
- As rain/thundershowers would occur at many places over **Coastal Andhra Pradesh** and **Coastal Karnataka** during the period along with heavy rainfall at isolated places on 21st and 22nd September, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops to avoid water stagnation. Also undertake propping in sugarcane and provide mechanical support to young fruit plants and vegetables.
- As expected heavy rain with moderate winds may cause lodging in sugarcane in the Krishna Godavari Zone of **Coastal Andhra Pradesh**, undertake propping in sugarcane and provide drainage facilities to drain out excess water. If crop is yet to be harvested under inundated or over saturated conditions, remove the water and go for harvesting of cane immediately after draining out the water.
- In **North Interior Karnataka**, undertake sowing of short duration, drought resistant *rabi* sorghum (var. Maldandi and Mugati), chickpea (var. A-1, JG-11 and Jaki-9218) and Safflower(var. A-1) using the realized and expected rainfall and intercropping of *rabi* sorghum + chickpea (2: row proportion); chickpea + safflower (4:2 row proportion) in North East Dry zone.
- In **Konkan**, provide adequate drainage channels to drain out excess water from the crop fields. Maintain water level of 8-10 cm in rice field.
- In **Vidarbha**, drain out excess water from standing crop fields and maintain 5 cm water level in transplanted rice fields.
- In **Madhya Maharashtra**, undertake sowing of *rabi* jowar, safflower and sunflower and transplanting of mid-season onion (*Rangda Kanda*) after current spells of heavy rain.
- In **Marathwada**, undertake sowing of *rabi* jowar, safflower and sunflower after current spells of heavy rain.
- As rain/thundershowers would occur at many places over **East Rajasthan** during the period and most/ many places over **West Rajasthan** from 20th to 22nd September, postpone irrigation in bajra and guar in West Rajasthan and in maize, groundnut, guar, bajra and moth bean in East Rajasthan, intercultural operations and application of plant protection measures and fertilizers to the standing crops.

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 Dharwad and Haveri; Chikkamagaluru, Davangere and Shivamogga districts of South Interior Karnataka; all districts of Kerala except Malappuram, Palakkad and Wynad; all districts of Coastal Andhra Pradesh and Telangana; Kadapa and Kurnool districts of Rayalaseema; Chennai, Kancheepuram, Kanyakumari districts of Tamil Nadu. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers would occur at many places over Coastal Andhra Pradesh and Coastal Karnataka during the period along with heavy rainfall at isolated places on 21st and 22nd September, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops to avoid water stagnation. Also undertake propping in sugarcane and provide mechanical support to young fruit plants and vegetables.
 - **Andhra Pradesh:**
 - As expected heavy rain with moderate winds may cause lodging in sugarcane in the Krishna Godavari Zone. undertake propping in sugarcane and provide drainage facilities to drain out excess water. If crop is yet to be harvested under inundated or over saturated conditions, remove the water and go for harvesting of cane immediately after draining out the water.
 - In North Coastal Zone, drain out excess water from rice (tillering stage), sugarcane (in areas where susceptible varieties viz., 81V48, 81A99 and Co62175 are grown) and maize (July sown) crops, reduce usage of Nitrogenous fertilizers in rice fields.
 - In Scarce Rainfall Zone, undertake harvesting of groundnut in Kadapa district in the Southern Zone after current spells of rain.
 - Prevailing weather conditions are congenial for build up of fungal diseases like stem rot in rice in the Southern Zone. To control, drain out water from field, allow to dry and spray Hexaconazole @ 2ml/litre of water after current spells of rain.
 - Prevailing weather conditions are congenial for incidence of white fly in sugarcane in the North Coastal Zone. To control, spray Monocrotophos @ 1.6 ml /litre of water after current spells of rain.
 - Prevailing excess moisture conditions are congenial for wilt disease in red gram fields and iron chlorosis in crops at early vegetative stage in the Krishna Godavari Zone. Drain out excess water and adopt intercultivation where ever possible immediately to prevent wilt disease and spray FeSO₄+Citric acid to minimize iron chlorosis after current spells of rain.
 - **Telangana:**
 - In the Southern Telangana Zone, drain out excess water from the fields and undertake sowing of *rabi* red gram up to 15th October.
 - In the Northern Telangana Zone, incidence of *alternaria* leaf spot is noticed in cotton due to prevailing weather conditions. To manage, spray Copper Oxychloride @ 3 g or Mancozeb 3 g or Propiconazole @ 1ml or Captan +Hexaconazole @ 1g/ litre of water from 50 DAS, 2-3 times fortnightly 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 after current spells of rain.
 - **Karnataka:**
 - In the Eastern Dry Zone, continue sowing of short duration crops like pulses and minor millets with realized and expected rainfall .
 - Continue harvesting of matured greengram and blackgram in the North East Transition Zone on a non rainy day.
 - In North Dry Zone, undertake sowing of short duration, drought resistant *rabi* sorghum (var. Maldandi and Mugati), chickpea (var. A-1, JG-11 and Jaki-9218) and Safflower(var. A-1) using the realized and expected rainfall and intercropping of *rabi* sorghum + chickpea (2: row proportion); chickpea + safflower (4:2 row proportion) may be taken up.
 - In North Transition Zone, continue harvesting of maize, green gram and other fodder crops on a non rainy day and undertake land preparation for early *rabi* sowing after harvesting.

- In Hill Zone, continue spraying of Planofix @ 0.25 ml/litre to reduce the square/flower bud/flower drop in cotton after current spells of rain.
- In North East Transition Zone, phytophthora blight was noticed in pigeon pea. Remove the affected plants and spray M-45 @ 2g/litre of water after current spells of rain.
- Due to cloudy weather, thrips menace was noticed in rice in Southern Transition Zone, to control, undertake spraying of Roger @ 1.5ml per litre of water after current spells of rain.
- **Kerala:**
 - Undertake planting of arecanut and continue harvesting of *Viruppu* rice in the Southern Zone on bright sunny days.
 - 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.
 - Undertake land preparation for sowing of *Mundakan* rice and Nendran banana cultivation and transplanting of vegetables (tomato varieties like Sakthi, Mukthi, anagha and brinjal varieties like Swetha, Haritha in bacterial wilt prone areas) in the Central Zone.
 - In the Southern Zone, there is possibility of attack of leaf and flower feeder in cucurbitaceous vegetables in prevailing weather conditions. Spray Malathion @ 50 EC and Garlic 2% @ 2 ml extract in 1 litre of water after current spells of rain.
- **Tamil Nadu:**
 - In the Cauvery Delta Zone, continue sowing of Late Samba/ Thaladi rice (ADT 38, ADT 46, ADT 49, Improved white Ponni, IR 20, ASD 19, Paiyur1, TRY 1, TRY 3, Co 48, Co 49, BPT 5204 and Co 50) and harvesting of Kuruvai rice.
 - Anticipating rain for the next 5 days in the Western Zone, undertake land preparation for sowing in dry lands, provide drainage in turmeric to avoid decay of early rhizome development, continue samba rice planting and give propping to banana crop of more than 5 months old and early season planted sugarcane, considering the wind speed of more than 20 km/hr.
 - 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 sowing of cotton and sorghum in dryland conditions in the South Zone and continue sowing of 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 cultivation of small onions in the North Western Zone.
 - 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.
 - In the North Eastern Zone, brown spot incidence was found in rice. Spray Mancozeb @ 2g/litre of water 2 to 3 times at 10 - 15 day intervals, based on the intensity of disease.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - Prevailing weather conditions are congenial for Enterotoxaemia in livestock in Northern Telangana and sheep pox in sheep in Southern Telangana. To prevent the diseases, vaccinate the animals.
 - Prevailing conditions are favourable for foot and mouth disease in livestock in the Scarce Rainfall Zone of Andhra Pradesh. Vaccinate animals to prevent the disease.

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



Green gram



Banana



Okra



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh except Anjaw, Dibang Valley, East Kameng, Kurung Kumey, Lower Subansari, Upper Subansari and West Siang; all districts of Assam except Bongaigaon, Darrang, Dhemaji, Dhubri, Goalpara, Golghat, Jorhat, Kamrup (Rural), Kokrajhar and Udalgiri; all districts of Meghalaya except South Garo Hills and West Garo Hills; Aizwal and Serchhip districts of Mizoram; Mokokchung and Kohima districts of Nagaland and all districts of Tripura. Weather remained mainly dry over rest of the region.
- **Advisories:**

▪ **Assam & Meghalaya, Arunachal Pradesh:**

- In Lower Bramhaputra Valley Zone and Central Bramhaputra Valley Zone of Assam, complete direct seeding of rice with the photo-insensitive short duration varieties like Luit, Kapilee, Kolong and Dishang, late and staggered planting of old seedlings of the varieties like Prafulla (80 days) and Gitesh (60 days) and the old seedlings of other improved long duration variety like Monohar Sali at the earliest. Also continue sowing of *kharif* sesame, green gram, black gram, nursery sowing of early cauliflower and radish.
- In Hill Zone, continue transplanting of early cauliflower and nursery sowing of mid cauliflower, radish and winter vegetables.
- In Upper Bramhaputra Valley Zone of Assam, continue nursery sowing of mid cauliflower and radish. Farmers in the flood affected areas are advised direct sowing of short duration HYV rice varieties like Luit, Kapili, Kolong, Dishang etc in the main fields.
- In North Bank Plain Zone and Central Bramhaputra Valley Zone of Assam, nursery raising of cole crops and early radish.
- In Meghalaya, undertake sowing of carrot and transplanting of cauliflower. Continue nursery preparation of early cole crops in high altitude regions. Maintain a water level of 3-5 cm in the field of *kharif* rice. Undertake land preparation for planting of potato.
- In North Bank Plain Zone, Lower Bramhaputra 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 borer in *Sali* rice. Spray Chloropyriphos 20 EC (0.02%) or Quinalphos @ 2 teaspoon/5 litre of water or or Monocrotophos 40 EC @ 1.5 ml per litre of water against rice hispa and Carbofuran 3G @ 30 kg/ha or Phorate 10G @ 10kg/ha against stem borer after current spells of rain.
- In Barak Valley Zone of Assam, due to cloudy and humid weather, there is chance of incidence of blast in rice. To control the disease spray Carbendazim @ 1 ml/litre of water and apply less amount of nitrogenous fertilizer.
- 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 leaf spot in groundnut. To manage the attack, 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, continue nursery raising of cabbage, cauliflower and tomato. Undertake land preparation for transplanting of *rabi* vegetables.
- In Mizoram, continue sowing of cowpea.
- In Nagaland, maintain proper drainage in ginger crop fields to avoid rhizome rot.
- In Tripura, continue 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. Also apply Mancozeb @ 2.6g + Carbendazim @ 1g/litre water against tikka disease in groundnut after current spells of rain.
- In Tripura, due to cloudy and humid weather, there is chance of incidence of stem borer in *Aman* rice (short duration). To manage the attack, it is advised to spray Neem oil 1500 ppm @ 3 ml/ litre of water. Also in the present weather condition, combined attack of downy mildew may be seen in bitter gourd & pointed gourd. Spray Dinocap 48% EC @ 2ml or Triadimefon 25% WP @ 0.3g per litre of water to manage the attack. Undertake plant protection measures after current spells of rain.
- Suitable varieties are given in Annexure III.

• **Animal Husbandry**

- In Northeastern states, carry out vaccination (RDF1) against Ranikhet disease in one week old chicks and against Gamboro disease in two weeks old chicks. The cows and goats should not be allowed to feed on submerged rotten grasses. Vaccinate domestic live stocks against BQ, HS, Foot and mouth as well as anthrax diseases. Keep pig shed/ sty dry and avoid dampness during rainy days.
- In Barak Valley Zone of Assam, prevailing weather condition is favourable for Ranikhet disease of poultry. Feed Tetracycline powder with rice to the poultry birds.

• **Fishery**

- In Assam, encircle fish ponds with *happa* net barrier in the low lying areas to prevent out flow of fishes from the ponds and also to check inflow of predatory fishes during flooding

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Cotton



Sugarcane



Rice



Groundnut

- **Realised Rainfall:** Rainfall occurred in all district of Konkan & Goa; all districts of Madhya Maharashtra except Jalgaon; all districts of Marathwada except Jalna; Akola, Buldhana, Chandrapur, Gadchiroli, Wardha and Yeotmal districts of Vidarbha. Rainfall occurred in Dangs, Navsari, Narmada, Surat, Tapi and Valsad districts of Gujarat Region; Amreli, Jamnagar and Junagadh districts of Saurashtra & Kutch Region. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - Under the influence of the deep depression over Vidarbha & neighbourhood, heavy to very heavy rainfall would occur at a few places with isolated extremely heavy falls over Konkan & Goa, Saurashtra, Gujarat region and Madhya Maharashtra on 18th and 19th September, heavy to very heavy rainfall would occur at isolated places over Saurashtra & Kutch on 21st September, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops, arrange for adequate drainage to avoid water stagnation in the crop fields. Also arrange mechanical support to banana and propping up in sugarcane/staking of vegetables to prevent the crops from lodging due to strong winds.
 - **Maharashtra:**
 - In Konkan, provide adequate drainage channels to drain out excess water from standing crop fields. Maintain water level of 8-10 cm in rice fields.
 - In Madhya Maharashtra, provide adequate drainage channels to drain out excess water from standing crop fields undertake sowing of *rabi* jowar, safflower and sunflower and transplanting of mid-season onion (*Rangda Kanda*) after current spells of heavy rain.
 - In Marathwada, undertake sowing of *rabi* jowar, safflower and sunflower after current spells of heavy rain. Undertake rain water harvesting.
 - In Vidarbha, drain out excess water from standing crop fields and maintain 5 cm water level in transplanted rice field. Undertake sowing of *rabi* safflower and sunflower in Central Vidarbha region after current spells of heavy rain. Undertake rain water harvesting.
 - Due to cloudy and humid in Marathwada region, there may be incidence of blast in onion; spray Mancozeb @ 30 g or Copper-oxi-choride @ 25 g per 10 litres of water after current spells of rain.
 - **Gujarat:**
 - As rain is likely to occur at most/ many places in Gujarat, postpone picking of matured pods of green gram and cowpea in North Gujarat Zone and harvesting of pearl millet in Bhal and Coastal Zone and North Saurashtra Zone. Keep harvested produce at safer places.
 - Maintain water level of 5-10 cm in rice fields in South Gujarat Heavy Rainfall Zone.
 - Due to high humidity condition there is chance of *Altarnaria* blight in chillies in Middle Gujarat Zone; spray Tridimorf (80 % EC) @ 5ml/10 litres of water after current spells of rain for control.
 - Heavy infestation of semilooper and prodenia are observed in castor in Bhal and Coastal Zone; spray Chlorpyriphos @ 30 ml/10 litres of water for control. Severe attack of thrips has been reported in chilli; spray 20 ml Profenofos in 10 litres of water after current spells of rain.
 - Due to humid and cloudy weather in North Saurashtra Zone there are chances of leaf spot and rust disease in groundnut in North Saurashtra Zone; spray Hexzaconazole @ 10 ml or Tebuconazole 7 ml in 10 litres of water after current spells of rain.
 - Due to high humidity and partly cloudy weather, there are chances of brown leaf hopper in paddy in Middle Gujarat Zone; spray Monocrotophose 36% (15 ml) + Dichlorvos (5 ml) or Fenobucarb 15 ml / 10 litres of water for control. Also there is chance of incidence of spotted wilt virus in tomato, spray Carbendenzim (50 % WP) 5 g in 10 litres of water after current spells of rain and repeat at 10 to 12 days interval.
- **Animal Husbandry**
 - Keep animal shed hygienic and clean and avoid water stagnation in and around the sheds. Regular check-up and regular vaccination for the disease (like anthracosis, milk fever and brucellosis) infected animals is advised.

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



Groundnut



Cotton



Green gram



Rice transplanting

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands; all districts of Sub-Himalayan West Bengal & Sikkim except Malda and South Dinajpur; Howrah, Kolkata and South 24 Parganas districts of Gangetic West Bengal; all districts of Odisha except Bargarh, Jharsuguda, Sambalpur and Sundargarh; Bhagalpur and Lakhisarai districts of Bihar. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers would occur at many places over Odisha, Bihar, West Bengal & Sikkim and Jharkhand from 20th to 22nd September along with heavy rainfall at isolated places over Odisha and Bihar, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also provide adequate drainage in standing crops Odisha and Bihar to avoid water stagnation.
 - **West Bengal:**
 - In Coastal Saline Zone, complete transplanting of late sown short duration paddy. Undertake hand weeding in rice to keep the fields weed free at tillering stage. Undertake sowing of *vadu kalai* and complete the sowing of winter vegetables.
 - 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 land preparation for sowing of pre winter cucumber and treat the seeds with fungicide before sowing.
 - In Hill Zone, undertake weeding in soybean and maintain proper drainage in ginger field to remove excess water.
 - In New Alluvial Zone, due to hot and humid weather condition, combined attack of downy mildew and mosaic may be seen in bitter gourd and pointed gourd and attack of blast disease may be found in rice at tillering stage. Apply Redomil - MZ (@ 2 g per litre of water to control downy mildew and apply Carbendazim + Mancozeb 2.5 g/liter of water after current spells of rain to control attack of blast disease.
 - 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, drain out excess water from standing crop fields and keep the rice field bunds open at 15 cm as heavy rainfall is expected during next three days. Monitor rice fields for attack of stem borer and remove the affected plants.
 - **Odisha:**
 - In North Central Plateau Zone, continue sowing of green gram, black gram and cowpea after current spells of heavy rain.
 - 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 after current spells of heavy rain.
 - 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 Chloropyriphos @ 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 West Alluvial Plain Zone, undertake the land preparation for sowing of *rabi* crops, continue transplanting of onion, tomato, chilli, brinjal and cauliflower on raised beds, continue nursery sowing of early varieties of cabbage and complete sowing of cluster bean, bitter gourd, radish and September pigeon pea after current spells of heavy rain.
- 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 after current spells of heavy rain.
- In North West Alluvial Plain Zone, present weather is conducive for the infestation of termites/cut worms in vegetables crops. To control, spray Chlorpyrifos 20 EC @ 4 ml/litre of water near the root of plant after current spells of rain.
- 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 after current spells of rain.
- 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 after current spells of rain.

▪ **Jharkhand:**

- In South Eastern Plateau Zone, complete transplanting of finger millet, continue land preparation for cultivation of short duration of early potato, continue cultivation of vegetables like tomato, early cabbage & cauliflower and undertake intercultural operation in standing crops like horse gram, safflower, lobia, urad and moong bean. Continue cultivation of green pea, upland spices, yam & forage crops like jowar & maize. Undertake cultivation of short duration French bean and leafy vegetables.
- In North Eastern Plateau Zone, continue sowing of early potato, green peas and niger. continue transplanting of tomato, cabbage, cauliflower & brinjal. Farmers are advised to maintain 5 cm water in the rice fields.
- 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. Continue harvesting of matured mung/urad crops and undertake sowing of toria.
- 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 after current spells of rain.
- 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 after current spells of rain.
- 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 after current spells of rain.
- 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 Alirajpur, Barwani, Dhar, Khandwa and Kahrgone districts of West Madhya Pradesh; all districts of Chhattisgarh except Bilaspur, Janjgir, Jashpur, Koriya, Rajnandgaon and Koriya. Weather remained mainly dry over rest of the region.

• **Advisories:**

▪ **Madhya Pradesh:**

- In Malwa Plateau Zone, continue nursery sowing of early winter vegetables. Undertake harvesting of matured soybean after current spells of rain. Keep harvested produce at safer places.
- Undertake sowing of root crops like carrot, radish and turnip in Satpura Plateau Zone.
- Continue sowing of toria, sweet corn and berseem in available fields and undertake harvesting of matured sesame, moong and urad in Kymore Plateau and Satpura Hill Zone on bright sunny day. Continue transplanting of

- vegetables like brinjal, tomato, chilli, cauliflower and cabbage on raised bed 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 after current spells of rain
- 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 after current spells of rain.
- There may be attack of pod borer in soybean, moong and urad at pod filling stage in Kymore Plateau and Satpura Hill Zone, apply Trizophos 40 EC @ 800 ml/ha or Chlorpyrifos 20 EC @ 1.5 ml/ha after current spells of rain.
- **Chhattisgarh:**
 - In Plain Zone of Chhattisgarh, continue nursery preparation for cauliflower, cabbage and capsicum and for seasonal flowers after current spells of heavy rain.
 - Undertake nursery preparation for vegetables like cabbage, cauliflower and chilli in Bastar Plateau Zone after current spells of heavy rain.
 - 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 after current spells of rain.
- **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 Pratapgarh district of East Uttar Pradesh. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - In Sub Tropical Zone, undertake sowing of toria.
 - In Intermediate Zone of Jammu & Kashmir, complete nursery sowing of cole crops like cabbage and cauliflower and continue sowing of gobisarson and toria in Sub-tropical Zone.
 - In Intermediate Zone of Jammu & Kashmir, due to increase in temperature there are chances of incidence of blast in rice. To control, spray Tricyclazole (beam) @ 6 ml /10 litre of water.
 - In Sub-Tropical Zone of Jammu & Kashmir, in the prevailing weather conditions, there may be incidence of fruit fly in cucurbits. To control spray Malathion @ 1.5ml/litre.
 - **Uttarakhand:**
 - In Bhabar and Tarai Zone, continue sowing of early vegetable pea at high hills. Also weather conditions are favourable for sowing of toria.
 - 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 Chloropyrifos 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 after current spells of rain.
 - **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. Undertake harvesting of matured maize. Maintain optimum water level in the rice fields for good yield.
 - In Sub-Montane and Low Hills Sub-Tropical Zone, in low hill areas, undertake sowing of berseem, lucerne and oats for fodder during *rabi* season also advised., continue transplanting of mid season cauliflower, nursery sowing of late varieties of cauliflower, broccoli, sowing of ageti peas, root vegetables like radish, turnip, carrot and leafy vegetable like palak and methi. In mid hill region, continue nursery sowing cauliflower (late group), cabbage, KnolKhol, BroccoLi and Chinese cabbage and direct sowing of ageti peas, radish, carrot, turnip, palak and methi. Undertake intercultural operations in vegetable crops like cabbage, cauliflower, carrot, radish, turnip and palak and harvesting of matured peas, cabbage and cauliflower in high hill region.
 - In Sub-Montane and Low Hills Sub-Tropical Zone, continue 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. Undertake harvesting of tomato, cucumber and capsicum in higher regions.
- 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 after current spells of rain.
- 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 after current spells of rain.
- Under humid weather condition there are chances of attack of white fly in vegetables in Mid Hills Sub-Humid Zone. Apply Imidachlopid @ 7.5ml or Malathion @ 22.5ml or Oxy-Demeton methyl (Metasystox) @ 15ml in 15litres of water after current spells of rain.
- 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 after current spells of rain.
- **Rajasthan:**
 - As rain/thundershowers would occur at many places over East Rajasthan during the period and most/ many places over West Rajasthan from 20th to 22nd September, postpone irrigation in bajra and guar in West Rajasthan and in maize, groundnut, guar, bajra and moth bean in East Rajasthan, intercultural operations and application of plant protection measures and fertilizers to the standing crops.
 - In Arid Western Plain Zone and in Flood Prone Eastern Plain Zone, undertake sowing of improved variety of carrot (Pusa Kesar) with row to row spacing of 30 cm and plant to plant spacing 6-8 cm.
 - Continue field preparation for mustard and gram in Transitional Plain Zone. Postpone harvesting of pulses and keep harvested produce at safer places in Transitional Plain Zone and in Arid Western Plain Zone.
 - Continue land preparation and keep inputs ready for sowing of Taramira, early radish, carrot and spinach in Arid Western Plain Zone.
 - In Semi Arid Eastern Plain Zone, undertake land preparation for the sowing of rainfed Taramira, toria and mustard and sowing of improved variety of carrot (Pusa Kesar) with row to row spacing of 30 cm and plant to plant spacing 6-8 cm and radish (Pusa Rasmi).
 - In Southern Humid Plain Zone, due to prevailing weather, there are chances of attack of jassids in Cotton. Spray Imidachlopid 17.8 SL @ 200 ml/ha for control after current spells of rain.
 - Due to humid weather, there are chances of attack of stem borer in paddy in Southern Humid Plain Zone, spray Monocrotophos 36 WSC @ 1 litre/ha after current spells of rain.
 - 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 and stem borer in rice. Spray Trizophos 40 EC @ 2.5 ml per litre of water for control after current spells of rain.
- **Punjab, Haryana and Delhi:**
 - As rain is expected at many places in Punjab on 21st and 22nd September, postpone irrigation in sugarcane if sufficient moisture is available in Western Plain and Undulating Zone and undertake propping of sugarcane by using trash-twist method.
 - In Central Plain, Western Zone and Western Plain Zone of Punjab, continue sowing of desi varieties of radish (Punjab Pasand), turnip (L-1) and carrot (Punjab Black Beauty, Punjab Carrot Red and PC 34) and in Central Plain Zone of Punjab, 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 Imidaclopid 17.8 % SC @ 1.0 ml/3 litre of water after current spells of rain.
 - Incidence of sheath blight is noticed in rice crop in Western Zone of Punjab, spray Folicur 25 EC (Tebuconazole) @ 200 ml or Tilt 25 EC (Propiconazole) @ 200ml in 200 litres of water/acre. Also due to partly cloudy weather, there is chances of attack of white fly and jassid in cotton. Monitor the crop and if pests reaches ETL level then spray Oberon @200ml/acre for white fly and Ulala 80g/acre for the management of Jassid after current spells of rain.
 - 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 after current spells of rain.
 - 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 after current spells of rain.

- In Western Zone of Haryana, weather conditions are favourable for infestation of leafhopper in rice. Monitor the crop. If infestation is noticed dusting of Carbaryl 5% dust @10 kg or Methidathion 2% per acre is advised after current spells of rain.
- **Uttar Pradesh:**
 - In Central Plain Zone, complete sowing of bajra, green gram, black gram and sesame and nursery sowing of cabbage, radish and tomato. Continue nursery sowing/transplanting of capsicum, chilli, brinjal and cauliflower and sowing of potato, pointed gourd and parwal gourd. Maintain 2-3 cm water in rice fields. Undertake land preparation and sowing of toria(TA-9, Bhawani, PT-30 and PT-507). Also undertake sowing of winter vegetables, tomato at a planting distance of 45-60 cm and high yielding varieties of radish(kalyanpur No.1, Pusa Rashmi, Hisar selection-1, Japani Safed, pusa Chetaki, Pusa Himani, Pusa deshi, Arka Nishant and Jaunpuri).
 - In Eastern Plain Zone, continue sowing of radish, spinach, toria, pea and potato(Kkufri Chandramukhi, Kufri Sadabahar, Kufri Ashoka). Continue transplanting of cauliflower, brinjal, cabbage and tomato. Undertake planting of sweet potato and *parwal*. Complete sowing of fodder crops like jowar, bajra, maize, chari and lobia and long duration varieties of pigeon pea (Bahar, PDA-11).
 - In Central Plain Zone, under prevailing weather condition, there are chances of stem and fruit borer in brinjal. Spray Malathion @1.5ml per litre of water at an interval of 15 days after current spells of rain.
 - In Western Plain Zone, maintain 5 cm water in rice fields. Undertake sowing of toria(TL-67, TL-17) and planting of brinjal, tomato.
 - Due to humid weather condition, there is chance of incidence of mosaic and root rot in jute in North eastern Plain Zone. Spray of Ridomil MZ @ 0.2 ml + Coper Oxyclozid @ 1ml per litre of water after current spells of rain.
 - In Western Plain Zone, weather is conducive for the incidence of blast in rice. Spray Beam @ 120 g per 200 litres of water. Due to humid weather condition, there are chances of attack of leaf eating caterpillar in brinjal and tomato. Spray Di-crovas @ 1ml per litre of water for control after current spells of rain.
 - Suitable varieties for sowing are given in Annexure III.
- **Horticulture**
 - Sub Montane and Low Hills Sub Humid Zone of Himachal Pradesh, keep inputs ready for planting of strawberry during last week of September.
 - In Uttar Pradesh, continue planting of mango, litchi, papaya, guava, ber and aonla. Undertake gap filling in banana.
- **Floriculture**
 - Blue beetle attack is seen in Balsam, Zenia, Cleome and rose in Sub Montane and Low Hills Sub Humid Zone of Himachal Pradesh. For control spray Cypermethrin @ 20 ml per 10 litres of water. In poly houses attack of thrips and mites is expected. For control, spray Rogur @ 20 ml for thrips and for mites spray Diclofol @ 20 ml in 10 litres of water after current spells of rain.
 - Continue weeding in gladiolus and prepare nursery beds for sowing of winter annuals in Mid Hills Sub Humid Zone of Himachal Pradesh.
- **Animal Husbandry**
 - In Sub-Montane and Low Hills Sub-tropical Zone of Himachal Pradesh, humid weather is conducive for ticks and mites attack on animals. For control, spray Butox @ 2ml per litre of water.
- **Poultry**
 - In view of increasing humidity in Sub-Montane and Low Hills Sub-Tropical Zone of Himachal Pradesh, replace the poultry houses with fresh litter to avoid wetting and keep the houses clean and ensure clean drinking water to the birds. Weather is congenial for incidence of Ranikhet disease. Undertake vaccination for IBD and Ranikhet disease.

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

Annexure I

Week by week Rainfall Distribution

Sub-Divisions	02.09.15		09.09.15		16.09.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	236.5	511	31.9	-49	38.1	-72
Dibang Valley	**	**	**	**	**	**
East Kameng	34.4	-41	1.2	-98	7.6	-91
East Siang	649.7	386	96.3	-24	89.7	-50
Kurung Kumey	**	**	**	**	**	**
Lohit	389.4	389	18.1	-76	67.7	-32
Lower Dibang Valley	755.0	2070	284.2	575	186.8	92
Lower Subansari	**	**	**	**	**	**
Papumpara	321.0	141	57.8	-54	42.1	-55
Tawang	113.0	17	55.0	-50	34.0	-73
Tirap	175.6	65	8.6	-92	39.2	-69
Upper Siang	286.0	293	135.6	-15	100.4	-50
Upper Subansari	108.5	175	49.0	76	10.2	-75
West Kameng	86.5	-10	59.8	-46	131.8	3
West Siang	216.0	338	**	**	**	**
Assam&Meghalaya						
Assam						
Baksa	284.1	201	52.6	-49	30.8	-78
Barpeta	224.9	138	69.4	-33	64.8	-54
Bongaigaon	146.2	87	89.6	-7	4.6	-95
Cachar	99.4	4	51.9	-51	103.0	9
Chirang	269.2	244	202.4	111	35.4	-65
Darrang	**	**	**	**	**	**
Dhemaji	393.0	326	3.0	-97	17.0	-86
Dhubri	64.9	-22	45.9	-24	9.5	-92
Dibrugarh	245.0	240	28.6	-67	30.6	-69
Goalpara	84.9	21	30.8	-48	7.8	-89
Golghat	43.3	-21	55.7	-9	17.3	-68
Hailakandi	125.1	71	69.1	-20	32.7	-63
Jorhat	92.5	40	47.2	-35	27.3	-63
Kamrup(Rural)	105.7	152	30.2	-41	0.0	-100
Kamrup(Metro)	138.1	230	61.2	20	59.4	36
Karbi Anglong	53.6	17	7.3	-86	59.2	29
Karimganj	87.1	11	69.6	-41	184.2	50
Kokrajhar	382.8	178	24.2	-78	27.7	-70
Lakhimpur	296.0	221	89.4	-9	58.8	-53
Morigaon	77.4	21	14.0	-73	51.4	-8
N.C.Hills	25.4	-35	75.5	59	73.2	111
Nowgong	69.7	10	11.9	-78	34.6	-39
Nalbari	216.9	275	32.5	-38	34.6	-43

Sonitpur	159.7	159	34.9	-43	17.2	-74
Sibsagar	55.6	-13	55.0	-2	64.2	21
Tinsukia	344.2	341	36.7	-59	32.9	-66
Udalgiri	169.7	231	43.7	-12	6.2	-92
Meghalaya						
East Garo Hills	219.2	363	174.4	107	31.2	-68
East Khasi Hills	720.9	347	122.0	-16	47.4	-79
Jaintia Hills	334.0	112	74.0	-70	72.0	-64
Ribhoi	84.6	-3	34.9	-47	44.8	-50
South Garo Hills	15.0	-79	**	**	**	**
West Garo Hills	117.4	67	64.4	-18	5.0	-95
West Khasi Hills	524.0	275	68.0	-37	46.0	-60
NMMT						
Mizoram						
Aizwal	105.5	15	12.7	-88	125.7	30
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	**	**	**	**	**	**
Serchhip	115.2	54	117.0	30	40.7	-47
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	**	**	**	**	**	**
Churachandpur	**	**	**	**	**	**
Imphal east	33.3	-48	38.9	-2	0.1	-99
Imphal west	101.8	135	26.9	-43	20.0	-6
Senapati	**	**	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	64.0	39	42.0	80	4.0	-77
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	66.9	20	46.6	14	29.6	-44
Kephire	**	**	**	**	**	**
Kohima	56.4	-27	46.4	-35	61.2	-2
Longleng	**	**	**	**	**	**
Mokokchung	40.0	-57	13.0	-82	41.0	-40
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	**	**	**	**	**	**
Tuensang	**	**	**	**	**	**
Wokha	**	**	**	**	**	**
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	119.2	76	16.9	-71	155.3	145
NorthTripura	127.5	70	15.5	-77	61.8	-21
SouthTripura	164.5	133	32.4	-44	97.1	61
West Tripura	99.4	50	26.3	-58	48.0	-21

Himachal Pradesh						
Bilaspur	16.9	-68	13.2	-74	0.0	-100
Chamba	10.1	-87	6.9	-92	2.0	-96
Hamirpur	15.4	-78	11.3	-76	1.8	-95
Kangra	21.1	-74	16.9	-81	8.8	-84
Kinnaur	0.3	-98	0.1	-99	0.9	-95
Kullu	6.4	-76	0.0	-100	0.0	-100
Lahaul and Spiti	0.0	-100	0.0	-100	0.0	-100
Mandi	11.5	-79	14.4	-71	3.7	-90
Shimla	8.4	-74	0.2	-99	2.9	-90
Sirmaur	5.7	-93	0.0	-100	0.0	-100
Solan	15.2	-71	1.8	-97	0.0	-100
Una	10.4	-79	0.0	-100	0.5	-98
Punjab						
Amritsar	0.0	-100	0.0	-100	0.0	-100
Barnala	0.0	-100	0.0	-100	0.0	-100
Bhatinda	0.0	-100	0.0	-100	0.0	-100
Faridkot	0.0	-100	0.0	-100	0.0	-100
Fatehgarh Saheb	1.0	-96	0.0	-100	0.0	-100
Ferozpur	0.0	-100	0.0	-100	0.0	-100
Gurdaspur	21.1	-49	8.6	-80	0.0	-100
Hoshiarpur	0.0	-100	0.0	-100	0.0	-100
Jalandhar	2.9	-91	1.8	-95	0.0	-100
Kapurthala	0.0	-100	0.0	-100	0.0	-100
Ludhiana	1.8	-93	0.4	-99	0.0	-100
Mansa	0.0	-100	0.0	-100	0.0	-100
Moga	0.0	-100	0.0	-100	0.0	-100
Muktesar	0.0	-100	0.0	-100	0.0	-100
Nawashahar	0.0	-100	0.0	-100	0.0	-100
Patiala	1.9	-95	0.0	-100	0.0	-100
Ropar	0.0	-100	0.0	-100	0.0	-100
Sangrur	0.0	-100	0.0	-100	0.0	-100
Mohali	3.3	-90	0.0	-100	1.0	-96
TarnTaran	0.0	-100	0.0	-100	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	7.2	-87	0.4	-99	0.0	-100
Bhiwani	0.0	-100	0.0	-100	0.0	-100
Chandigarh	0.0	-100	0.0	-100	10.7	-74
Faridabad	0.0	-100	0.0	-100	0.0	-100
Fatehabad	0.0	-100	0.0	-100	0.0	-100
Gurgaon	0.0	-100	0.0	-100	0.0	-100
Hissar	3.2	-82	0.0	-100	0.0	-100
Jhajar	0.0	-100	0.0	-100	0.0	-100
Jind	0.0	-100	0.0	-100	0.0	-100
Katihah	0.5	-98	0.0	-100	0.0	-100
Karnal	0.0	-100	0.0	-100	0.0	-100
Kurukshetra	2.3	-93	1.3	-96	0.0	-100
Mahendragarh	0.0	-100	0.0	-100	0.0	-100

Mewat	0.0	-100	0.0	-100	0.0	-100
Palwal	0.0	-100	0.0	-100	0.0	-100
Panchkkula	0.7	-99	0.0	-100	0.0	-100
Panipat	0.0	-100	0.0	-100	0.0	-100
Rewari	0.0	-100	0.0	-100	0.0	-100
Rohtak	0.0	-100	0.0	-100	0.0	-100
Sirsa	0.0	-100	0.0	-100	0.0	-100
Sonepat	0.0	-100	0.0	-100	0.0	-100
Yamunanagar	15.3	-74	0.0	-100	0.0	-100
Delhi						
Central Delhi	0.0	-100	0.0	-100	0.0	-100
East Delhi	0.0	-100	0.0	-100	0.0	-100
New Delhi	0.0	-100	0.0	-100	0.0	-100
North Delhi	0.0	-100	0.0	-100	0.0	-100
North East Delhi	0.0	-100	0.0	-100	0.0	-100
North West Delhi	0.0	-100	0.0	-100	0.0	-100
South Delhi	0.0	-100	0.0	-100	0.0	-100
South West Delhi	0.0	-100	0.0	-100	0.0	-100
West Delhi	0.0	-100	0.0	-100	0.0	-100
Jammu & Kashmir						
Anantnag	2.3	-87	5.6	-60	0.0	-100
Badgam	2.8	-76	3.2	-72	0.0	-100
Bandipore	**	**	**	**	**	**
Baramula	5.7	-64	6.3	-54	0.2	-98
Doda	2.8	-84	1.4	-93	0.0	-100
Ganderbal	2.2	-76	6.0	-29	0.0	-100
Jammu	0.0	-100	9.5	-79	0.0	-100
Kargil	**	**	**	**	**	**
Kathua	52.0	-16	17.6	-73	0.0	-100
Kistwar	**	**	**	**	**	**
Kulgam	2.4	-86	4.0	-71	0.0	-100
Kupwara	3.5	-51	3.5	-48	0.4	-95
Ladakh(Leh)	0.0	-100	0.0	-100	0.0	-100
Poonch	**	**	**	**	**	**
Pulwama	1.1	-92	0.8	-93	0.0	-100
Rajouri	20.8	-55	20.8	-16	0.0	-100
Ramban	4.9	-71	11.2	-44	0.0	-100
Reasi	52.9	-30	54.2	2	0.0	-100
Samba	0.6	-99	11.8	-74	0.0	-100
Shopian	**	**	**	**	**	**
Srinagar	3.5	-62	4.3	-50	0.0	-100
Udhampur	26.2	-65	16.0	-70	0.0	-100
East Madhya Pradesh						
Anuppur	53.4	-24	34.2	-49	4.7	-94
Balaghat	77.4	-5	4.4	-94	9.2	-84
Chhatarpur	38.6	-48	10.7	-85	19.5	-65
Chindwara	47.1	-21	25.1	-53	20.0	-59
Damoh	38.8	-42	2.5	-96	12.5	-79

Dindori	30.6	-53	18.2	-70	8.0	-85
Jabalpur	64.4	-16	3.0	-96	2.9	-95
Katni	60.1	-7	4.1	-94	2.5	-96
Mandla	106.0	29	6.7	-91	9.8	-84
Narsingpur	66.8	-12	0.0	-100	3.4	-95
Panna	37.3	-48	0.6	-99	3.3	-95
Rewa	18.8	-71	3.1	-96	1.6	-98
Sagar	46.0	-36	1.2	-98	1.1	-98
Satna	37.9	-30	10.6	-83	16.3	-72
Seoni	34.7	-45	3.8	-93	25.7	-57
Shahdol	0.0	-100	0.0	-100	4.0	-93
Sidhi	0.0	-100	8.0	-89	0.0	-100
Singrauli	61.1	15	0.0	-100	3.0	-94
Tikamgarh	3.0	-95	5.5	-89	24.5	-45
Umaria	81.6	8	12.4	-84	2.0	-97
West Madhya Pradesh						
Agar	45.9	-53	6.5	-92	0.0	-100
Alirajpur	1.8	-97	0.4	-99	63.9	72
Asoknagar	26.5	-49	10.8	-78	0.8	-98
Badwani	7.3	-84	0.0	-100	72.8	149
Betul	26.9	-52	22.0	-65	15.6	-76
Bhind	7.8	-85	0.0	-100	3.6	-91
Bhopal	34.2	-50	0.0	-100	18.6	-66
Burhanpur	33.1	-43	3.9	-92	24.7	-27
Datia	28.8	-46	0.0	-100	0.0	-100
Dewas	31.2	-58	3.3	-95	10.5	-75
Dhar	21.9	-66	3.7	-92	62.8	49
Guna	61.4	2	0.0	-100	0.0	-100
Gwalior	8.6	-84	0.0	-100	7.9	-84
Harda	3.4	-95	0.0	-100	9.4	-81
Hosangabad	61.4	-35	4.5	-95	1.0	-99
Indore	17.5	-72	0.0	-100	28.1	-35
Jhabua	4.3	-93	5.2	-89	1.9	-94
Khandwa	20.4	-67	2.0	-97	30.0	-33
Khargone	22.8	-62	0.0	-100	37.3	23
Mandsaur	0.0	-100	6.0	-89	0.0	-100
Morena	7.4	-83	0.0	-100	1.8	-95
Neemuch	0.0	-100	2.0	-96	0.0	-100
Raisen	68.8	-12	10.2	-87	13.1	-76
Rajgarh	91.7	30	7.1	-87	5.8	-84
Ratlam	9.1	-86	0.0	-100	8.9	-75
Sehore	27.7	-68	9.2	-87	3.0	-94
Shajapur	27.5	-56	10.5	-81	0.5	-99
Sheopur Kalani	5.5	-87	0.0	-100	0.0	-100
Shivpuri	31.0	-37	0.0	-100	0.0	-100
Ujjain	27.0	-60	0.0	-100	1.6	-96
Vidisha	69.8	-5	15.4	-74	23.0	-37
Chhattisgarh						

Bastar	250.7	221	36.5	-47	145.8	127
Bijapur	90.4	-3	5.5	-92	86.7	52
Bilaspur	98.7	62	35.1	-46	0.9	-98
Dantewara	152.2	97	36.3	-44	122.4	149
Dhamtari	84.6	38	0.6	-99	118.2	72
Durg	95.4	69	0.4	-99	64.0	0
Janjgir	91.4	39	17.8	-77	6.6	-88
Jashpur	85.7	2	8.7	-89	4.1	-94
Kanker	112.2	36	4.5	-92	83.3	21
Korba	55.9	-6	22.3	-71	52.8	18
Koriya	49.4	-16	41.3	-40	7.1	-89
Kawardha	65.2	7	20.8	-58	19.4	-72
Mahasumund	92.1	37	0.0	-100	51.2	-19
Narayanpur	115.0	47	54.2	-23	144.3	142
Raigarh	64.1	-8	25.2	-66	30.0	-59
Raipur	51.2	-18	3.4	-94	72.2	15
Rajandgaon	61.8	-17	4.5	-93	17.6	-70
Surguja	32.9	-50	13.3	-83	11.7	-82
East Uttar Pradesh						
Allahabad	39.6	-15	0.0	-100	6.4	-91
Ambedkar Nagar	15.0	-69	0.0	-100	0.0	-100
Azamgarh	48.7	-9	0.0	-100	3.9	-95
Bahraich	94.1	62	0.0	-100	9.4	-87
Ballia	5.5	-88	0.0	-100	12.0	-79
Balrampur	32.1	-57	0.0	-100	0.0	-100
Banda	15.7	-73	4.3	-92	11.9	-78
Barabanki	10.0	-82	0.0	-100	11.3	-86
Basti	81.5	57	0.0	-100	0.0	-100
Chandauli	11.4	-78	0.0	-100	0.0	-100
Deoria	2.5	-95	0.0	-100	0.0	-100
Faizabad	78.9	62	0.0	-100	1.9	-97
Farrukhabad	0.7	-99	0.0	-100	0.5	-99
Fatehpur	1.0	-98	0.0	-100	1.9	-97
Gazipur	11.0	-77	0.0	-100	11.9	-85
Gonda	4.4	-91	0.0	-100	8.7	-89
Gorakhpur	34.6	-42	0.0	-100	18.4	-80
Hardoi	20.0	-63	0.0	-100	8.3	-90
Jaunpur	21.9	-53	0.0	-100	3.8	-95
Kannauj	5.7	-90	0.0	-100	19.0	-65
Kanpur City	8.6	-80	0.0	-100	17.4	-68
Kanpur Dehat	4.1	-93	0.0	-100	0.7	-99
Kaushambi	2.9	-94	0.0	-100	1.9	-96
Kheri	13.0	-78	0.6	-99	18.3	-72
Kushi nagar	4.0	-92	0.0	-100	4.0	-95
Lucknow	3.9	-93	0.0	-100	6.4	-89
Maharajganj	58.8	-3	0.0	-100	13.0	-84
Mau	6.0	-89	0.0	-100	17.0	-83
Mirzapur	28.3	-50	0.0	-100	0.5	-99
Pratapgarh	25.0	-47	0.0	-100	45.7	-37

RaiBareilly	3.2	-93	0.0	-100	13.9	-76
Sahuji Maharajnagar	40.0	-41	0.0	-100	3.0	-96
Sant Kabirnagar	18.0	-67	0.0	-100	3.0	-96
Sant Ravidas Nagar	12.0	-77	0.0	-100	0.0	-100
Shrawasti	28.5	-51	0.0	-100	0.0	-100
Sidharthnagar	51.8	-12	6.1	-88	0.0	-100
Sitapur	7.8	-88	0.0	-100	10.3	-86
Sonbhadra	29.7	-43	1.1	-98	2.1	-97
Sultanpur	37.9	-25	0.0	-100	7.5	-88
Unnao	25.6	-45	0.5	-99	0.8	-99
Varanasi	44.6	-20	0.0	-100	0.0	-100
West Uttar Pradesh						
Agra	6.7	-87	0.0	-100	9.8	-76
Aligarh	2.3	-94	0.0	-100	0.0	-100
Auraiya	8.1	-84	0.0	-100	1.0	-98
Badaun	5.8	-90	0.0	-100	0.4	-99
Baghpat	0.0	-100	0.0	-100	0.0	-100
Bareilly	18.5	-70	0.0	-100	0.0	-100
Bijnor	5.1	-90	0.0	-100	0.0	-100
Bulandsahar	1.9	-95	0.0	-100	0.0	-100
Etah	7.8	-79	0.0	-100	0.0	-100
Etawah	2.0	-96	0.0	-100	0.0	-100
Firozabad	20.1	-55	0.0	-100	0.0	-100
GBNagar	0.0	-100	0.0	-100	0.0	-100
Ghaziabad	0.0	-100	0.0	-100	0.0	-100
Hamirpur	25.9	-55	0.0	-100	7.0	-86
Jalaun	3.9	-94	0.0	-100	2.8	-95
Jhansi	9.5	-83	0.0	-100	9.3	-81
Jotiba Phule Nagar	2.5	-95	0.0	-100	0.0	-100
Kanshiramnagar	3.0	-94	0.0	-100	0.0	-100
Lalitpur	6.5	-91	0.0	-100	0.0	-100
Mahamaya Nagar	1.5	-96	0.0	-100	0.0	-100
Mahoba	4.2	-92	0.0	-100	17.8	-61
Mainpuri	1.5	-96	0.0	-100	1.5	-97
Mathura	0.0	-100	0.0	-100	0.0	-100
Meerut	0.1	-99	0.0	-100	1.2	-98
Moradabad	24.9	-53	0.0	-100	0.0	-100
Muzzaffarnagar	8.8	-74	0.0	-100	0.0	-100
Pilibhit	0.0	-100	0.0	-100	0.0	-100
Rampur	10.1	-82	0.0	-100	0.0	-100
Saharanpur	6.3	-87	0.0	-100	0.0	-100
Shahjahanpur	1.7	-97	0.0	-100	0.0	-100
Uttarakhand						
Almora	18.1	-58	22.3	-45	0.7	-98
Bageshwar	47.0	10	21.5	-47	0.0	-100
Chamoli	50.5	4	9.7	-80	0.0	-100
Champawat	18.0	-79	0.0	-100	2.0	-97
Dehradun	28.4	-70	13.8	-85	10.1	-86

Garhwal Pauri	27.0	-64	10.0	-85	4.7	-92
Garhwal Tehri	2.0	-97	2.1	-97	0.0	-100
Haridwar	25.5	-55	5.6	-91	0.0	-100
Nainital	30.1	-63	21.5	-70	19.4	-76
Pithoragarh	13.4	-87	23.8	-74	9.0	-89
Rudraprayag	41.4	-55	19.5	-76	0.0	-100
Udham Sing Nagar	34.0	-48	0.0	-100	0.9	-99
Uttarkashi	12.4	-83	31.0	-50	0.3	-99
Bihar						
Araria	81.6	29	47.4	-32	15.2	-82
Arwal	22.9	-45	0.0	-100	0.0	-100
Aurangabad	51.3	-12	0.0	-100	2.0	-97
Banka	48.0	10	0.0	-100	0.0	-100
Begusarai	42.8	-29	8.1	-86	5.2	-90
Bhabua	16.5	-68	0.0	-100	0.0	-100
Bhagalpur	54.0	17	4.6	-91	47.5	-13
Bhojpur	9.7	-81	3.0	-95	0.0	-100
Buxar	3.2	-94	0.0	-100	16.4	-80
Darbhanga	44.8	-6	15.6	-66	3.2	-94
East Champaran	80.4	48	12.1	-77	22.8	-61
Gaya	35.9	-27	0.0	-100	1.3	-98
Gopalganj	52.2	13	0.0	-100	28.4	-66
Jahanabad	29.4	-33	0.0	-100	0.0	-100
Jamui	20.9	-62	0.0	-100	5.2	-91
Kathihar	71.8	56	7.3	-89	4.7	-93
Khagadia	47.5	-6	24.8	-59	15.3	-78
Kishanganj	207.3	110	46.5	-51	25.6	-68
Lakhisarai	24.0	-56	2.1	-96	32.7	-40
Madhepura	55.1	-11	1.0	-99	14.1	-80
Madhubani	27.3	-53	10.5	-81	22.8	-58
Monghyar	30.0	-45	21.1	-60	3.0	-94
Muzaffarpur	50.7	1	9.4	-79	4.5	-93
Nalanda	59.9	24	0.0	-100	0.0	-100
Nawada	12.5	-70	0.0	-100	1.4	-97
Patna	48.6	19	1.3	-98	4.0	-94
Purnea	102.7	53	24.9	-66	19.3	-77
Rohtas	4.5	-92	0.3	-99	10.0	-85
Saharsha	15.7	-67	7.3	-91	5.5	-94
Samstipur	51.9	3	38.2	-26	6.3	-90
Saran	26.9	-39	0.0	-100	2.2	-97
Sheikpura	13.1	-74	2.3	-95	16.6	-69
Sheohar	54.0	5	51.4	9	26.2	-44
Sitamarhi	39.3	-23	23.6	-50	9.4	-80
Siwan	33.5	-26	0.0	-100	0.4	-99
Supaul	52.9	12	11.4	-78	23.5	-63
Vaishali	97.0	146	9.4	-84	2.8	-95
West Champaran	51.6	-19	8.8	-81	27.4	-70
Jharkhand						
Bokaro	45.8	-31	3.3	-96	3.0	-95

Chatra	35.6	-34	0.0	-100	4.9	-92
Deoghar	17.8	-64	0.0	-100	3.5	-94
Dhanbad	62.6	-4	0.5	-99	1.7	-98
Dumka	36.5	-37	0.0	-100	9.8	-85
East Singhbhum	32.9	-51	1.9	-97	27.7	-51
Garhwa	**	**	0.0	-100	0.0	-100
Giridih	60.1	2	5.3	-91	0.9	-99
Godda	68.5	63	6.9	-86	10.6	-84
Gumla	70.0	10	3.6	-95	3.2	-95
Hazaribagh	34.2	-37	0.0	-100	2.3	-97
Jamtara	42.3	-37	2.3	-97	6.0	-93
Khunti	53.3	-26	0.0	-100	0.0	-100
Koderrna	12.4	-76	4.7	-92	5.0	-91
Latehar	26.0	-56	0.0	-100	0.0	-100
Lohardagga	11.9	-74	0.0	-100	0.0	-100
Pakur	87.7	23	2.4	-97	9.5	-88
Palamau	16.8	-72	0.0	-100	4.6	-93
Ramgarh	55.4	-9	0.0	-100	4.6	-93
Ranchi	28.9	-56	0.0	-100	1.9	-97
Sahebganj	12.8	-79	22.6	-67	0.0	-100
Saraikela	27.0	-63	0.0	-100	20.9	-69
Simdega	62.0	-22	10.5	-88	17.1	-80
West Singhbhum	38.3	-46	63.8	-3	24.6	-56
East Rajasthan						
Ajmer	0.0	-100	0.1	-99	0.2	-99
Alwar	1.9	-95	0.0	-100	0.0	-100
Banswara	0.5	-99	0.0	-100	4.1	-87
Baran	34.0	-34	2.3	-95	0.0	-100
Bharatpur	0.0	-100	0.0	-100	0.0	-100
Bhilwara	1.4	-96	1.1	-97	2.0	-89
Bundi	0.0	-100	0.5	-99	0.7	-97
Chittorgarh	7.6	-87	1.5	-97	0.0	-100
Dausa	1.0	-97	0.0	-100	0.0	-100
Dholpur	3.2	-92	0.0	-100	8.3	-77
Dungarpur	1.4	-97	0.0	-100	0.8	-97
Jaipur	0.0	-100	0.1	-99	0.0	-100
Jhalawar	41.5	-33	8.5	-86	0.0	-100
Jhunjhunu	0.0	-100	0.0	-100	0.0	-100
Karauli	2.5	-93	0.0	-100	0.0	-100
Kota	7.6	-86	7.2	-86	0.0	-100
Pratapgarh	4.6	-93	0.0	-100	4.4	-86
Rajsamand	0.4	-99	1.0	-97	1.9	-86
Sawai Madhopur	0.3	-99	0.7	-98	0.0	-100
Sikar	0.0	-100	0.0	-100	0.0	-100
Sirohi	0.0	-100	2.9	-96	0.0	-100
Tonk	0.8	-98	2.0	-94	0.0	-100
Udaipur	0.0	-99	0.0	-100	2.0	-90
West Rajasthan						
Barmer	0.0	-100	0.1	-99	0.0	-100

Bikaner	0.0	-100	0.0	-100	0.0	-100
Churu	1.1	-94	0.0	-100	0.0	-100
Hanumangarh	0.0	-100	0.0	-100	0.0	-100
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	0.0	-100	0.0	-100	0.2	-98
Pali	0.0	-100	0.2	-99	0.0	-100
Sri Ganganagar	0.0	-100	0.0	-100	0.0	-100
Gujarat Region						
Ahmedabad	2.8	-93	0.6	-99	5.7	-78
Anand	4.4	-92	0.0	-100	0.4	-99
Banaskantha	0.0	-100	1.3	-97	0.0	-100
Baroda	8.0	-89	0.3	-99	20.7	-48
Broach	4.9	-91	1.2	-98	19.4	-32
DNH	25.5	-86	1.1	-99	118.3	189
Dahod	10.3	-86	0.0	-100	6.3	-82
Daman	16.3	-91	12.0	-91	88.4	116
Dangs	17.5	-88	0.0	-100	30.0	-56
Gandhinagar	0.0	-100	0.0	-100	0.2	-99
Kheda	8.6	-86	0.6	-99	0.0	-100
Mehsana	0.0	-100	0.1	-99	0.7	-98
Narmada	2.8	-96	4.7	-92	41.5	5
Navsari	7.1	-93	0.0	-100	65.6	19
Panchmahal	3.7	-95	0.4	-99	3.2	-92
Patan	0.0	-100	3.0	-91	0.4	-98
Sabarkantha	0.0	-100	0.1	-99	0.9	-97
Surat	12.8	-83	3.1	-96	59.4	57
Tapi	6.6	-93	0.0	-100	70.6	77
Valsad	22.3	-81	0.9	-99	58.5	7
S K & Diu region						
Amreli	2.4	-92	5.0	-78	41.4	130
Bhavnagar	0.3	-99	0.0	-100	27.9	51
Diu	0.8	-96	0.0	-100	17.1	15
Jamnagar	0.0	-100	0.5	-97	35.1	79
Junagarh	0.2	-99	4.3	-83	39.9	62
Kutch	0.0	-99	8.9	-60	0.7	-97
Porbandar	0.0	-100	0.0	-100	4.5	-84
Rajkot	0.1	-99	4.6	-80	24.9	11
Surendranagar	0.0	-100	0.0	-100	15.6	12
Maharashtra						
Konkan & Goa						
Mumbai City	85.5	-18	63.4	-22	166.2	171
Mumbai Suburban	43.7	-58	0.5	-99	109.3	78
North Goa	83.6	-12	27.7	-67	115.5	105
Raigad	81.4	-47	2.3	-98	108.0	48
Ratnagiri	84.2	-42	7.0	-93	152.2	139
Sindhudurg	105.9	-11	20.5	-74	96.7	46

South Goa	75.3	-16	9.3	-88	169.3	235
Thane	44.6	-65	2.1	-98	61.6	3
Madhya Maharashtra						
Ahmednagar	13.9	-51	41.3	88	76.2	149
Dhule	2.6	-91	3.2	-85	35.0	72
Jalgaon	15.0	-65	10.4	-70	21.8	-16
Kolhapur	25.1	-63	3.0	-94	38.9	30
Nandurbar	0.8	-98	0.7	-98	64.5	122
Nasik	7.3	-86	19.4	-59	37.0	-7
Pune	8.1	-79	5.2	-84	79.3	164
Sangli	3.7	-82	20.9	15	70.0	168
Satara	6.3	-80	5.6	-77	77.0	221
Solapur	11.5	-60	26.5	11	59.4	60
Marathwada						
Aurangabad	15.0	-66	33.2	3	35.6	16
Beed	16.9	-58	43.5	18	46.8	37
Hingoli	4.4	-93	54.7	15	44.5	70
Jalna	10.1	-78	36.4	9	29.1	1
Latur	6.4	-88	55.6	20	72.0	95
Nanded	21.3	-59	33.3	-28	36.4	21
Usmanabad	17.9	-56	44.8	18	87.0	106
Parbhani	7.6	-86	54.2	10	37.5	32
Vidarbha						
Akola	9.0	-80	27.7	-21	36.9	14
Amraoti	9.8	-79	20.0	-57	16.0	-55
Bhandara	118.1	66	1.1	-98	25.4	-55
Buldhana	10.6	-75	30.6	-6	38.8	48
Chandrapur	65.5	-14	29.7	-55	44.9	-15
Gadchiroli	120.8	42	22.6	-67	45.1	-2
Gondia	166.8	101	14.5	-78	18.2	-71
Nagpur	57.5	-16	20.2	-65	22.2	-45
Wardha	35.5	-39	14.4	-75	30.9	8
Washim	0.0	-100	18.9	-60	21.3	-41
Yeotmal	18.2	-68	8.8	-81	40.0	63
Odisha						
Angul	82.8	-2	15.2	-80	67.0	12
Balasore	68.8	3	2.7	-96	73.8	-14
Bargarh	118.0	88	11.1	-86	20.1	-71
Bhadrak	40.9	-47	12.7	-76	56.8	-7
Bolangir	134.3	58	13.1	-82	92.4	40
Boudh	84.8	10	1.3	-98	57.8	-22
Cuttack	105.2	52	44.2	-47	98.4	62
Deogarh	97.4	16	41.7	-53	37.5	-45
Dhenkanal	83.1	0	23.1	-67	64.0	12
Gajapati	49.4	-25	57.3	26	143.4	132
Ganjam	49.6	-21	43.5	-4	177.5	225
Jagatsingpur	77.9	9	60.8	-6	62.9	6
Jajpur	53.7	-35	22.4	-64	59.1	-4
Jharsuguda	131.0	70	17.6	-79	27.6	-59






Kalahandi	116.7	84	14.7	-78	238.0	208
Kandhamal	87.5	13	4.9	-91	161.4	117
Kendrapara	72.7	-10	15.7	-77	63.8	6
Keonjhar	59.6	-17	14.9	-72	46.0	-24
Khurda	65.8	2	44.5	-37	106.1	58
Koraput	136.6	81	48.8	-34	267.5	270
Malkangiri	244.0	195	15.6	-82	77.6	56
Mayurbhanj	70.6	-18	4.3	-94	60.4	-15
Nawapara	73.9	31	13.5	-75	38.0	-30
Nawarangpur	112.7	32	25.6	-70	279.0	309
Nayagarh	107.9	62	18.6	-72	175.6	218
Puri	78.6	15	26.3	-64	94.2	46
Rayagada	57.1	4	11.7	-81	188.0	265
Sambalpur	122.5	45	6.7	-92	21.4	-69
Sonepur	100.2	21	7.1	-92	58.3	-26
Sundargarh	100.9	33	19.8	-71	19.5	-71
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	54.2	-16	72.2	-9	104.5	51
North & Middle Andaman	125.7	15	69.3	-42	155.0	59
South Andaman	87.6	-16	75.3	-27	159.8	82
GWB						
Bankura	45.5	-36	3.6	-94	9.5	-83
Birbhum	75.8	31	7.2	-89	8.9	-84
Burdwan	53.0	1	25.3	-58	3.9	-94
East Midnapore	55.3	-40	18.9	-76	26.2	-71
Hooghly	31.0	-49	37.5	-45	11.5	-78
Howrah	36.9	-53	20.9	-68	50.0	-33
Kolkata	46.7	-41	52.7	-29	66.0	-3
Murshidabad	100.6	90	13.3	-77	11.4	-79
Nadia	44.0	-11	28.9	-43	8.0	-81
24 Pargana (N)	73.6	34	12.3	-81	8.7	-86
Purulia	48.1	-36	1.3	-98	14.0	-81
24 Pargana (S)	56.0	-39	13.3	-85	50.2	-44
West Midnapore	49.1	-36	3.4	-95	20.8	-72
SHWB & Sikkim						
Cooch Behar	302.5	163	61.9	-50	46.1	-63
Darjeeling	266.4	126	96.2	-29	71.0	-47
East Sikkim	91.2	-3	50.2	-51	76.7	-12
Jalpaiguri	413.7	226	99.7	-19	42.9	-66
Malda	105.9	99	12.5	-79	2.5	-96
North Dinajpur	232.6	182	50.3	-40	79.4	-11
North Sikkim	418.2	297	59.7	-43	57.9	-43
South Dinajpur	27.2	-47	37.1	-37	14.3	-83
South Sikkim	140.5	49	74.7	-26	106.2	22
West Sikkim	129.0	22	84.0	-19	93.0	-9
Karnataka						
Coastal Karnataka						

Dakshina Kannada	50.2	-53	43.2	-48	90.4	36
Udupi	61.3	-48	107.8	-4	172.7	111
Uttara Kannada	42.8	-48	45.9	-36	147.6	183
N I Karnataka						
Bagalkote	8.6	-44	61.8	251	113.2	332
Belagavi	14.0	-27	13.8	-5	47.7	149
Bidar	13.3	-70	65.1	68	80.7	127
Dharwad	11.2	-31	24.4	72	25.0	27
Gadag	29.3	70	37.4	111	37.3	52
Haveri	10.5	-30	23.2	132	16.6	-5
Kalaburgi	22.4	-45	30.6	-19	97.9	167
Koppal	23.5	-8	63.1	241	96.4	233
Raichur	10.5	-64	128.7	465	133.0	345
Vijayapura	14.6	-43	87.9	284	76.1	136
Yadgir	10.4	-70	40.1	23	93.0	174
S I Karnataka						
Ballari	14.5	-39	133.0	656	29.8	17
Bangalore Rural	9.8	-68	116.6	315	14.5	-59
Bangalore Urban	4.5	-84	110.4	254	5.7	-85
Chamarajanagar	0.0	-100	41.7	202	1.4	-95
Chikaballapur	25.7	5	73.4	188	5.3	-83
Chikkamagaluru	24.3	-48	58.9	71	32.5	11
Chitradurga	14.6	3	86.8	933	11.6	-37
Davangere	14.5	-4	58.7	439	30.9	42
Hassan	10.4	-45	68.4	365	2.2	-87
Kodagu	17.8	-74	104.0	98	26.2	-30
Kolar	2.9	-86	78.8	222	4.3	-87
Mandya	5.7	-62	41.3	185	5.7	-79
Mysuru	0.7	-95	32.6	177	4.2	-80
Ramanagara	13.6	-53	120.5	428	4.0	-90
Shivamogga	37.6	-15	37.5	16	97.2	308
Tumakuru	16.8	-11	116.4	503	9.1	-71
Kerala						
Alappuzha	0.5	-99	29.2	-47	45.5	-24
Kannur	33.4	-54	143.1	149	56.9	46
Ernakulam	7.0	-88	122.5	101	70.6	12
Idukki	7.3	-91	99.6	71	30.5	-48
Kasaragod	86.0	-1	67.9	-7	66.7	27
Kollam	0.7	-99	76.3	84	56.3	50
Kottayam	6.7	-90	118.0	120	50.3	-10
Kozhikode	31.5	-48	149.3	164	33.5	-26
Malappuram	11.5	-80	149.9	235	13.5	-64
Palakkad	6.7	-85	68.9	85	20.5	-35
Pathanamthitta	0.7	-99	109.6	113	56.4	-1
Thiruvananthapuram	1.4	-94	121.1	325	89.0	230
Thrissur	7.9	-88	109.9	116	53.4	-10
Wayanad	5.3	-93	115.6	101	20.5	-51
Tamil Nadu						
Ariyalur	13.0	-65	2.3	-92	6.0	-83

Chennai	14.2	-56	0.0	-100	38.8	58
Coimbatore	0.0	-100	18.1	124	4.6	-70
Cuddalore	22.1	-33	7.5	-68	6.3	-77
Dharmapuri	13.1	-50	35.5	45	1.7	-96
Dindigul	5.0	-76	36.0	71	3.8	-88
Erode	0.9	-95	33.4	132	0.6	-98
Kanchipuram	25.3	-34	11.7	-64	31.1	9
Kanyakumari	0.0	-100	58.7	180	68.1	334
Karikal	0.0	-100	63.0	266	0.9	-96
Karur	0.0	-100	28.8	77	0.0	-100
Krishnagiri	6.7	-74	53.2	126	1.4	-96
Madurai	14.6	-44	20.0	-19	0.0	-100
Nagapattinam	22.5	-3	0.0	-99	5.4	-73
Namakkal	1.7	-93	46.9	145	4.4	-87
Nilgiris	1.1	-97	60.5	131	1.2	-96
Perambalur	15.9	-48	32.3	57	0.0	-100
Puducherry	7.9	-71	32.1	4	0.7	-98
Pudukottai	12.5	-62	22.1	7	0.9	-97
Ramanathapuram	0.9	-94	17.1	111	0.8	-94
Salem	6.1	-79	38.8	47	2.6	-94
Sivaganga	0.0	-100	15.9	-11	1.2	-95
Thanjavur	3.9	-85	15.1	-22	3.1	-88
Theni	0.0	-100	54.0	620	4.5	-70
Tirunelveli	0.0	-100	24.7	518	8.7	21
Tirupur	1.7	-82	29.2	240	0.0	-100
Tiruvallur	28.8	-21	12.9	-51	12.3	-57
Tiruvannamalai	15.1	-60	18.7	-40	17.6	-57
Tiruvarur	0.0	-100	22.7	16	0.4	-98
Toothukudi	0.0	-100	10.5	52	0.4	-93
Trichy	23.1	-6	15.8	-35	11.5	-66
Vellore	13.3	-56	37.8	32	4.7	-88
Villupuram	3.8	-89	41.1	57	7.2	-81
Virudhunagar	0.9	-94	19.0	53	0.0	-100
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	39.0	-2	48.4	24	59.8	86
Guntur	20.3	-41	41.3	24	61.1	137
Krishna	31.7	-24	34.5	-4	45.4	49
Nellore	12.8	-38	26.1	42	31.1	52
Prakasam	15.5	-42	39.8	92	45.9	150
Sirkakulam	90.2	89	38.9	-16	87.4	84
Visakhapatnam	32.3	-24	32.4	-22	161.1	320
Vizianagram	57.4	33	62.9	30	114.7	122
West Godavari	58.6	22	25.4	-40	95.9	178
Rayalaseema						
Anantapur	7.2	-66	87.3	432	20.3	-29
Chittoor	11.9	-54	47.7	83	7.3	-76
Cuddapah	0.7	-97	65.1	183	39.8	57
Kurnool	9.6	-68	49.9	128	72.2	171

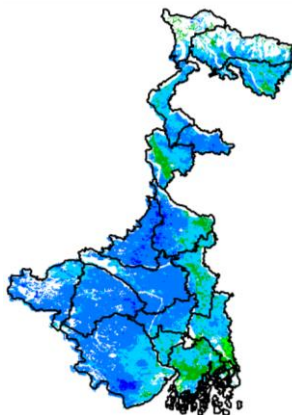
Telangana						
Adilabad	28.9	-52	21.8	-57	50.1	63
Hyderabad	11.6	-67	21.8	-44	72.8	136
Karimnagar	10.9	-77	50.1	18	46.3	50
Khammam	56.9	8	33.1	-23	79.5	117
Mehabubnagar	18.2	-49	32.8	15	49.5	70
Medak	32.3	-20	27.3	-29	62.2	80
Nalgonda	22.4	-40	56.1	66	54.4	97
Nizamabad	33.7	-36	22.6	-55	38.3	13
Rangareddy	13.8	-61	34.4	-14	41.6	14
Warangal	40.1	-18	24.4	-42	78.4	150

Legends

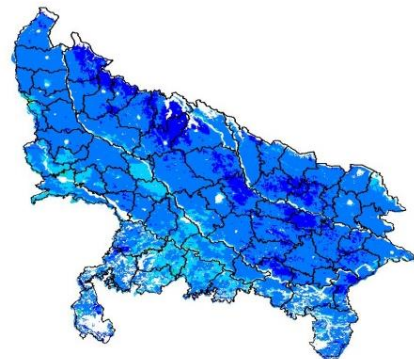
	(20% or more) excess rainfall		(-60 to -99 %) scanty rainfall
	(-19 to +19%) normal rainfall		(-100%) no rainfall
	(-20 to -59%) deficient rainfall	**	Data not available

Annexure II

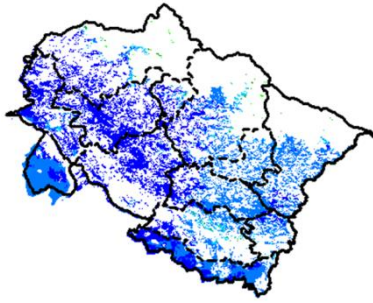
INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON 16th SEPTEMBER 2015 FOR DIFFERENT STATES



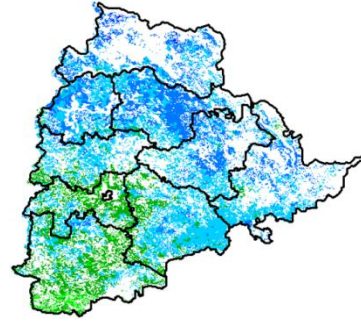
Agricultural vigour is good in western and southern parts of West Bengal NDVI varying from 0.4-0.6., whereas patches in northern and south western region shows lower values of NDVI (0.2-0.4).



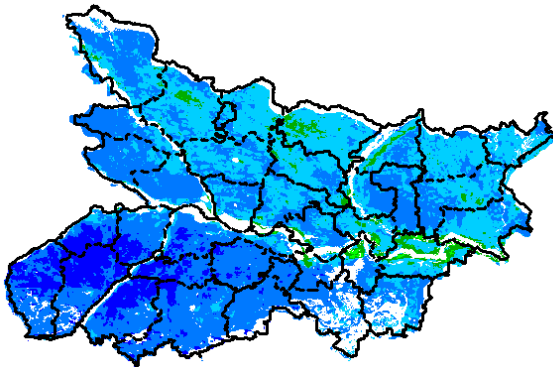
Agricultural vigour is good over the entire state of Uttar Pradesh where NDVI value varies from 0.4 - 0.6. In some patches NDVI values (> 0.6) are observed.



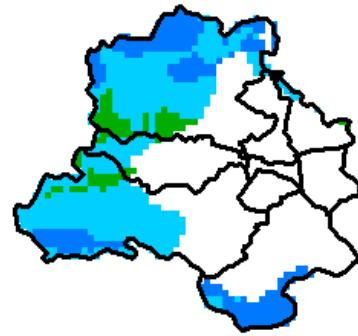
Agriculture vigour is very good over entire state of Uttarakhand with NDVI value is greater than 0.6.



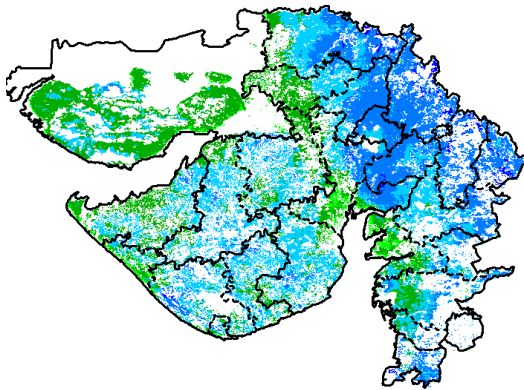
Agriculture vigour is good over northern and eastern regions in Telangana where NDVI value lies between 0.4-0.6. Agriculture vigour is moderate in the southern part (NDVI 0.2-0.3).



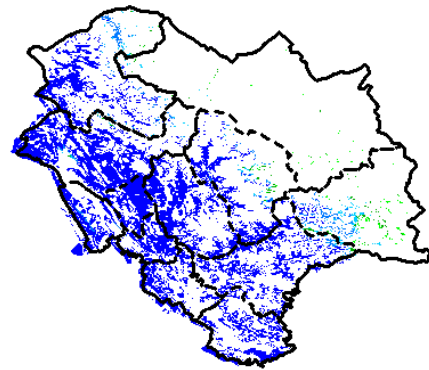
South-western part of Bihar shows comparatively a high value (>0.6) of NDVI, whereas NDVI varies from 0.4-0.6 over the remaining parts of the state.



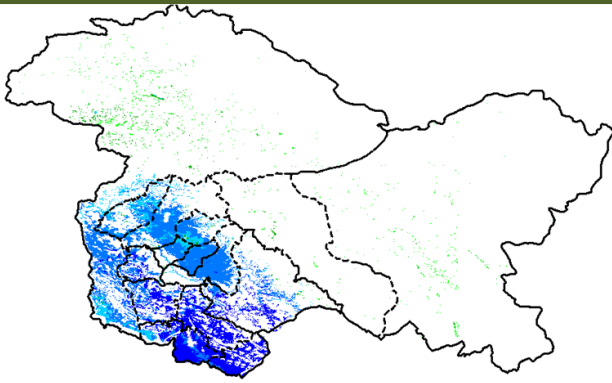
Agriculture vigour is good all over Delhi where NDVI value lies between 0.3-0.6.



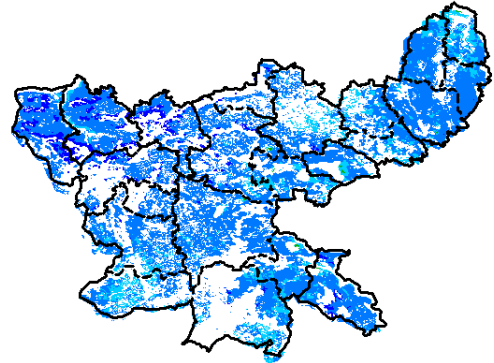
Agriculture vigour is normal in some patches in Saurashtra region whereas, good agricultural vigour is observed over Gujarat region where NDVI value lies between 0.4-0.6.



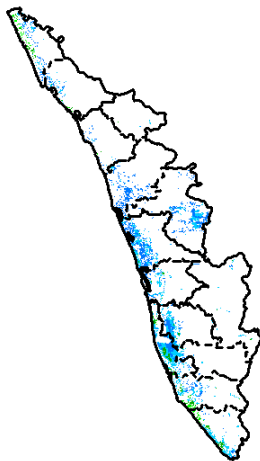
Agriculture vigour is very good over Himachal Pradesh where NDVI values are > 0.6 .



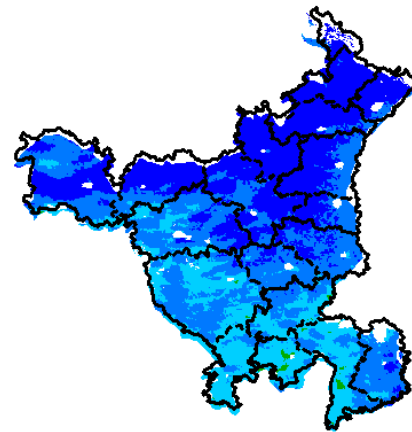
Agriculture vigour is good all over Jammu and Kashmir. NDVI value varies in between 0.4-0.6 in south western parts.



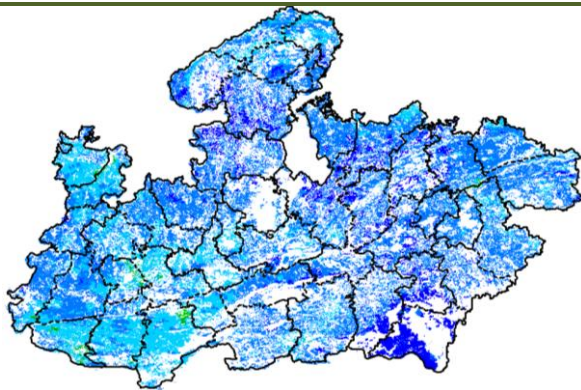
Agriculture vigour is good over entire state of Jharkhand, NDVI value varies from 0.4 - 0.6.



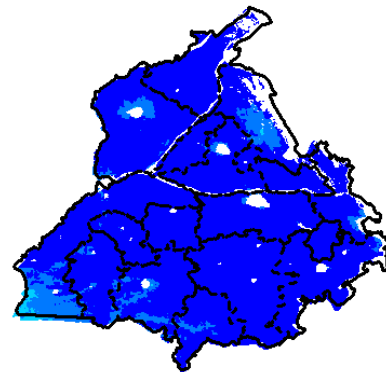
Central and eastern regions of Kerala show NDVI values varying from 0.4 to 0.5, whereas normal NDVI values observed in southern and northern region.



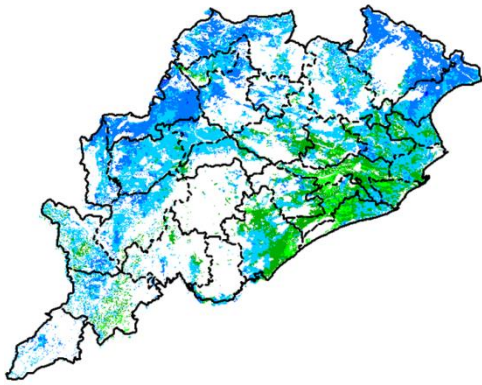
Agriculture vigour is good over the entire state of Haryana. NDVI values vary between 0.4-0.6. The northern part shows increase in NDVI (> 0.6).



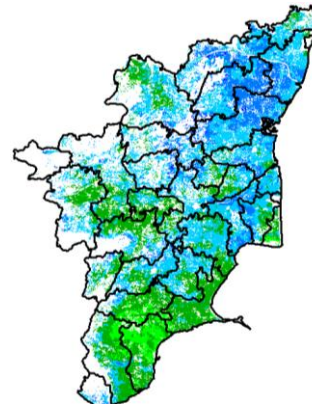
Agriculture vigour is very good over entire state of Madhya Pradesh. NDVI varies from 0.4-0.6. In some patches over eastern part of Madhya Pradesh NDVI is greater than 0.6.



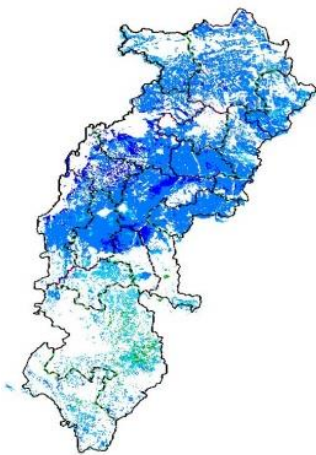
Agricultural vigour is very good over entire state of Punjab, showing NDVI value > 0.6.



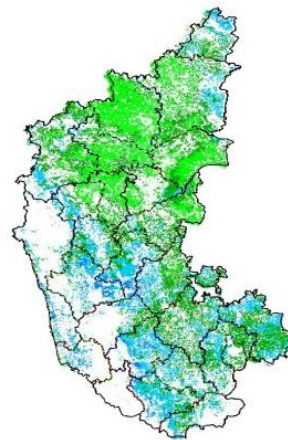
Agricultural vigour is normal over coastal Odisha with NDVI value ranging between 0.2 - 0.4. Higher (> 0.4) values are seen in eastern and northern regions of the state.



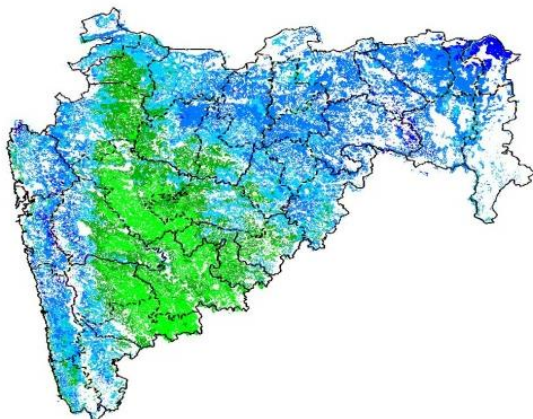
Agricultural vigour is normal over Tamil Nadu with NDVI values varying from 0.2 - 0.3 in the southern parts. In northern region NDVI value ranges from 0.4-0.6.



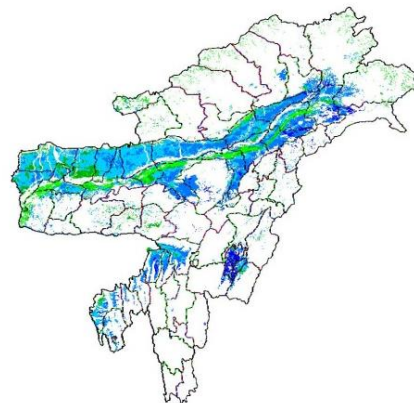
Agriculture vigour is good over central and Northern regions of Chhattisgarh where NDVI value lies in between 0.4-0.6. Few patches in southern part show moderate NDVI values.



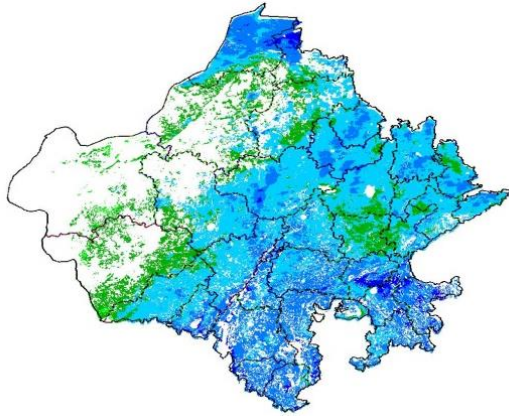
Agricultural vigour is normal over entire state of Karnataka between 0.2-0.4, except some patches in central and southern regions shows higher NDVI values between 0.4-0.5.



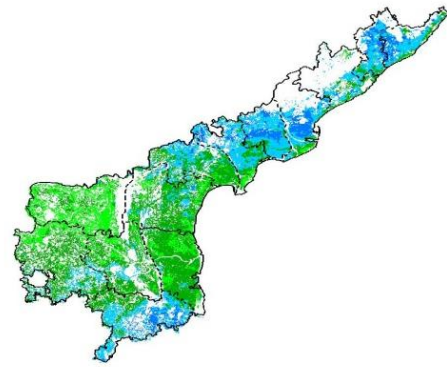
Agricultural vigour is good over Western Ghats, Marathwada and Vidharbha regions with NDVI values from 0.4 - 0.6, whereas NDVI is normal over parts of Madhya Maharashtra region 0.2-0.4.



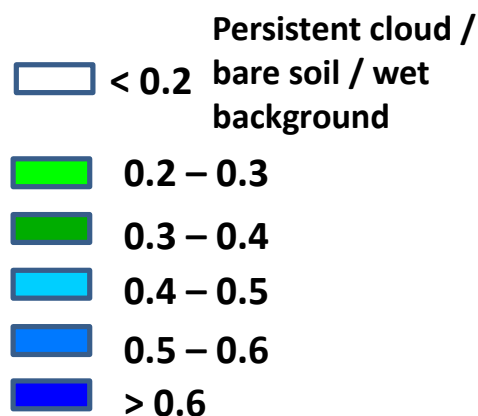
Agriculture vigour is normal in northern regions of North-East states where NDVI values ranges from 0.2-0.4. Whereas, agricultural vigour is good (0.4-0.6) in the central, southern and eastern states of North-East.



Agriculture vigour is good (0.4-0.6) over entire state of Rajasthan except for few patches in eastern and eastern 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,Ultra and Type-9 for Urad.

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

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

Ginger: Improved varieties - Maran, Nadia.

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

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

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

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

Jharkhand

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

Sugarcane: BO 147.

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

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

Low land:Swarna(MTU-7029),Rajshree,Sambha Mahsuri(BPT-5204), Birsa Dhan-202,Birsamati.

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

Urd Bean: T9, Pant U19,30,35& Birsa Urd 1.
Arhar: BrisaArhar-1, Narendra Arhar-1, Bahar, ICPH-2671.
Groundnut: A.K-12-24, Birsa Bold.
Sweet Potato: Birsa Sakarkandi & Shreebhadra.

Jammu & Kashmir

Cabbage: Golden Acre, Pride of India and Pusa Mukta.
Cauliflower: Giant Snow Ball, Pant Gobh 2 & 3 and Pusa Synthetic.

Himachal Pradesh

Cauliflower: snowball and Giant snowball.
Radish, pea: Arkal, VL-7.
Cabbage: India Golden, Hybrid Kismond.
Capsicum: solan hyb-1, californiawonder, yolo wonder, vlschimla mirch-2.
Brinjal: plr-1, azad (hybrid), ArkaNidhi, ArkaKeshav, HisarShaymal, PPC, F1 Chhaya, F1 Sandhya.
Tomato: solangola, Palam Pink, Palam Pride, F1 Avtar, F1 Rakshita.
Chilli: Surajmukhi.
Moong: PusaBaishakhi.
Mash: UG-218.
Carrot: Nantes and Chantenay.
Palak: Pusa Harit, Pusa Bharti.
Garden pea: PalamPriya, Azad P-1, PB-89, PalamSamool and Lincoln.
Carrot: Nantes and Chantenay.
Palak: PusaHarit, Pusa Bharti.

East Uttar Pradesh

Kharif onion: N-53, Agrifound red
Sorghum: Pusa chari-23, SSG-98-8MFSH-3, Pant-5 and MP chari
Lobia: Russian Joint, UPC-5286, UPC-5287, NP-3, Bundhel lobia-2, UPC-9202 and UPC-4200
Moong: Narendra moong-1, Pant moong-1,3,4, PDM-11, Samrat, Malveey - Jyoti, Janchetana, Jagruti, Janpriya, Jankalyani, Asha, Shweta, Neha, TM-9937, MH-215.
Urad: Narendra urd-1, Pant U-35, 31, Azad urd-2,3, Shekhar-1,2,3.
Sugarcane: coj-64, cos-96268, cos-98231, cos-767, cos-84, cos-32, copant-84212, Ko.Sha.-88230, 95255, Ko.Sha.-95436, 01235.
Tomato: pusa early, pusa ruby, HS 101.
Cauliflower: pusa Dipali.
Pearl Millet: Raj WCC-75, ICMB-155, Pusa-322,23, ICMH-451.
Seasame: T-4,78, Shekhar, Pragati, Tarun.
Pigeon Pea: Bahar, Narendra Arhar-1, Azad, Pusa-9.
Jute: Jute Reshma, NDC (2007), NDC-2028, NDC-9102.
Okra: PusaSawani, VarsaUphar, Azad kranti.
Brinjal: Pant Samrat, Pant Rituraj, Pusa hybrid-6.
Guava: Sardar (Lucknow-49).

West Uttar Pradesh

Ladies finger: VRO-6, VRO-5.
Pigeon pea: T-21, UPAS 120.
Cotton: H777, Dhanalakshami, HD107.
For fodder Jowar: JS 120, Lobia 88.

Punjab

Sugarcane: CoJ-85, CoJ-83, CoJ-64 (early maturing), COH-119, CoJ-88, CoS-8436 for and CoJ-89.
Rice: Pusa-44, T.R-112 and T.R-113.

Delhi

Cotton: H-777, H-974, H-1098.
Pigeon pea: Pusa 2001, Pusa991, Pusa992, Paras manak, UPAS 120.
Bajra: Hybrid Bajra Pusa-605, Hybrid Bajra Pusa-415, Composite Bajra Pusa-383, HSV-67.
Maize: AH-421, AH-58 or Composites: Pusa composite-3, Pusa composite-4.
Guar: PusaNavbahar, DurgaBahar.
Radish: PusaChetki.
Cluster bean: PusaKomal.
Beans: PusaSem 2, PusaSem 3.
Spinach: PusaBharti.
Amaranths: PusalalChaulai, PusaKiran.
Ladyfinger: Pusa A-4.

East Rajasthan

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

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

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

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

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

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

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

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

Pearl millet : RHB-121, HHB-67.

Radish: Pusa Chetki.

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

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

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

Carrot: Pusa Keshar

West Rajasthan

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

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

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

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

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

Bajra :- RHB-121, HHB-67.