



National Agromet Advisory Service Bulletin

Friday 21st August 2015
(For the period 21st to 25th August 2015)



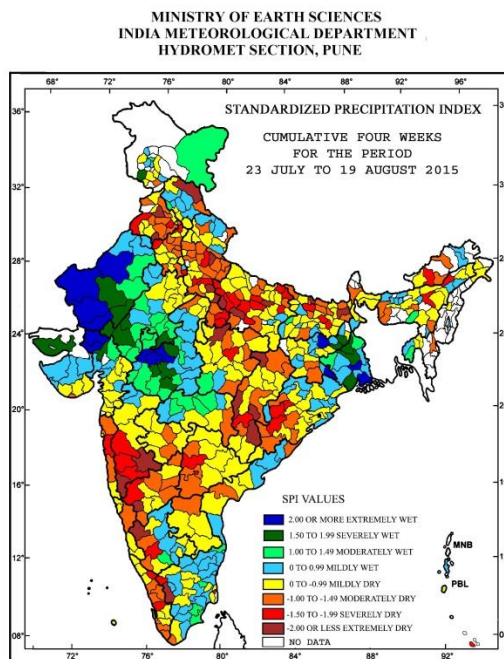
Issued by
National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.



Monsoon Watch

- The southwest monsoon was vigorous over Bihar and Assam & Meghalaya and active over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Sub-Himalayan West Bengal & Sikkim, Telangana and North Interior Karnataka during past 24 hours ending at 0830 hours IST of yesterday.

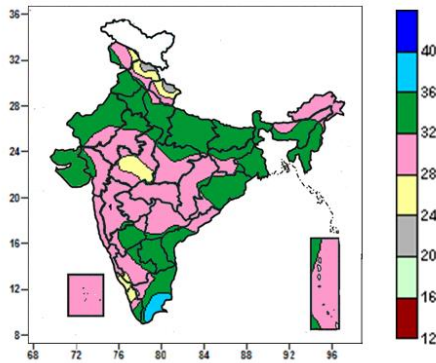
Standardised Precipitation Index Four Weekly for the Period 23rd July to 19th August 2015



- Extremely/severely wet conditions experienced in few districts of West Bengal, Jammu & Kashmir, Rajasthan and Madhya Pradesh; Chamoli, Nainital district of Uttarakhand; Una district of Himachal Pradesh; Banas Kantha district of Gujarat Region; Sivaganga, Theni, Tirupur districts of Tamil Nadu; Bangalore Rural, Chitradurga, Kolar, Tumkur districts of Karnataka.
- Extremely/Severely dry conditions experienced in few districts of Arunachal Pradesh and Konkan & Goa; Nagaon, Karbi Anglong districts of Assam; Ri-Bhoi district of Meghalaya; South Dinajpur district of West Bengal; Khurda, Kandhamal districts of Odisha; Muzaffarpur, Purnea districts of Bihar; Faizabad, Fatehpur, Kanpur Dehat, Kaushambi, Kushi Nagar, Maharajganj districts of Uttar Pradesh; Ferozepur, Hoshiarpur districts of Punjab; Baroda, Dangs, Navsari districts of Gujarat Region; Kolhapur, Sholapur, Parbhani districts of Maharashtra; Jashpur, Bijapur districts of Chhattisgarh; Kurnool district of Andhra Pradesh; Medak district of Telangana; Uttar Kannada district of Karnataka; Kasargod district of Kerala.
- Moderately dry conditions experienced in few districts of Konkan & Goa and Telangana; Cachar, Karimganj districts of Assam; West Garo Hills district of Meghalaya; Cooch Behar district of West Bengal; Angul, Cuttack, Kendrapara, Koraput districts of Odisha; Araria, East Champaran, West Champaran, Kishanganj, Madhepura districts of Bihar; Deoria, Gonda, Mau, Siddharth Nagar, Sultanpur, Auraiya, Mainpuri, Mahoba districts of Uttar Pradesh; Jalandhar, Mansa, Barnala districts of Punjab; Anuppur district of Madhya Pradesh; Broach, Valsad, Tapi districts of Gujarat Region; Pune, Satara, Osmanabad, Latur districts of Maharashtra; Koriya, Raipur, Rajnandgaon, Narayanpur districts of Chhattisgarh; Coimbatore district of Tamil Nadu; Belgam, Bijapur, Yadgir, Shimoga districts of Karnataka; Alappuzha, Ernakulam, Kozhikode, Wynad districts of Kerala.
- Rest of the country experienced moderately wet/mildly dry/wet conditions.

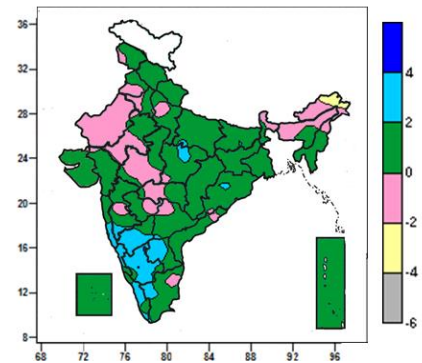
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 19.08.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 19.08.2015



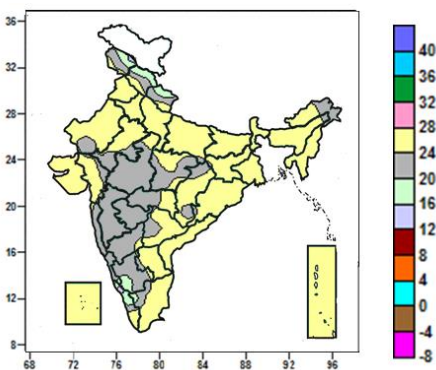
- Mean maximum temperature were between 36 to 40°C over some parts Tamil Nadu.
- It was below 36°C over remaining parts of the country.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 19.08.2015



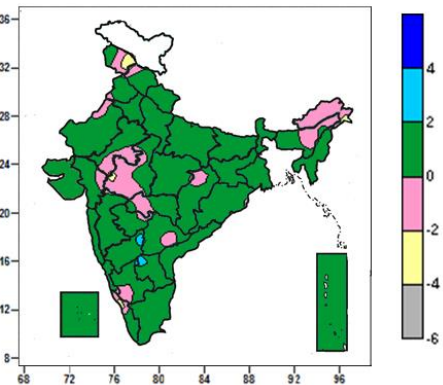
- Mean maximum temperature were above normal by 2 to 4°C over many parts of Karnataka, Konkan & Goa, Rayalaseema and Kerala, some parts of Tamil Nadu and isolated pockets of Madhya Maharashtra, East Uttar Pradesh, East Madhya Pradesh and Odisha.
- Mean maximum temperature were below normal by 2 to 4°C over isolated pockets of Arunachal Pradesh.
- It was normal to near normal in remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 19.08.2015



- Mean minimum temperature was between 12 to 16°C over isolated pockets of Jammu & Kashmir.
- Mean minimum temperature was between 16 to 20°C over some parts of Jammu & Kashmir, Himachal Pradesh and Uttarakhand, isolated pockets of Coastal Karnataka, South Interior Karnataka, Kerala and Tamil Nadu.
- It was above 20°C over rest of the country.

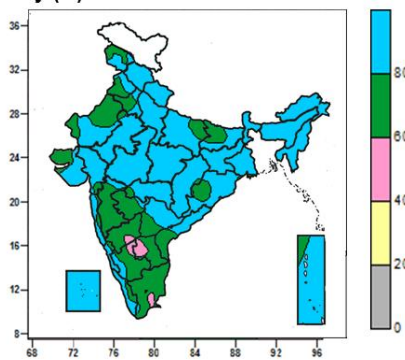
Mean Minimum Temperature (°C) Anomaly in India for the week ending 19.08.2015



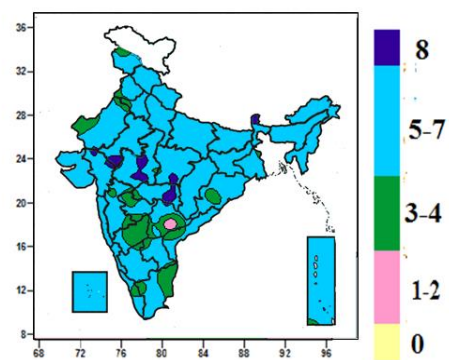
- Mean maximum temperature were above normal by 2 to 4°C over isolated pockets of South Interior Karnataka and Rayalaseema.
- Mean minimum temperature was below normal by 2 to 4°C over some parts of Jammu & Kashmir and isolated pockets of Arunachal Pradesh, West Madhya Pradesh and Kerala.
- It was normal to near normal in remaining parts of the country.

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 19.08.2015

Relative Humidity (%) over India for the week ending 19.08.2015



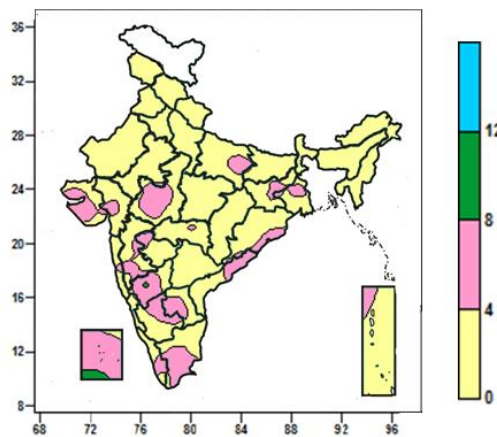
Cloud amount (okta) over India for the week ending 19.08.2015



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

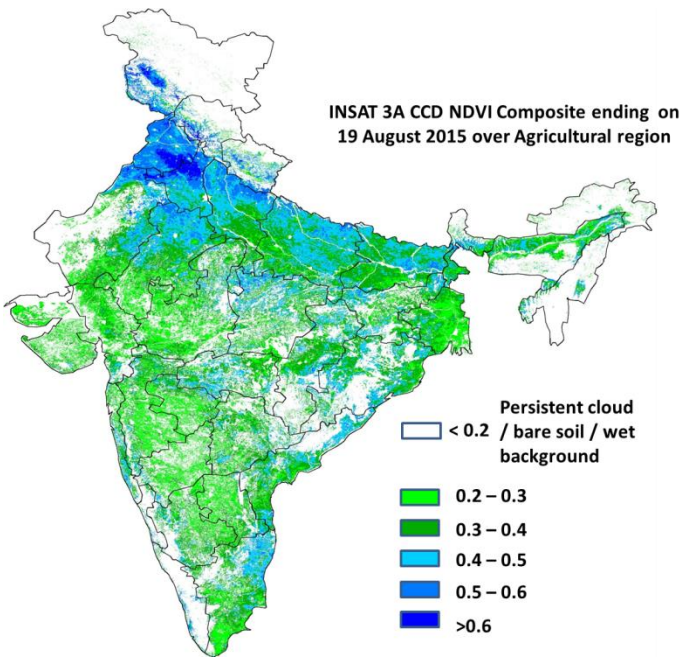
- Sky remained cloudy (8 okta) over Sikkim, some parts of Madhya Pradesh and isolated pockets of East Rajasthan, Gujarat, Vidarbha and Marathwada.
- Sky remained generally cloudy (5-7 okta) over rest of the country except many parts of North Interior Karnataka, Telangana, some parts of West Rajasthan, Marathwada, Coastal Andhra Pradesh, Tamil Nadu and isolated pockets of Jammu & Kashmir, Punjab, Haryana, Odisha, Gangetic West Bengal, Madhya Maharashtra, Vidarbha, South Interior Karnataka, Rayalaseema, Kerala and Andaman & Nicobar Islands, where it was partly cloudy/mainly clear (3 to 4/1 to 2 okta).

Wind speed (knots) over India for the week ending 19.08.2015



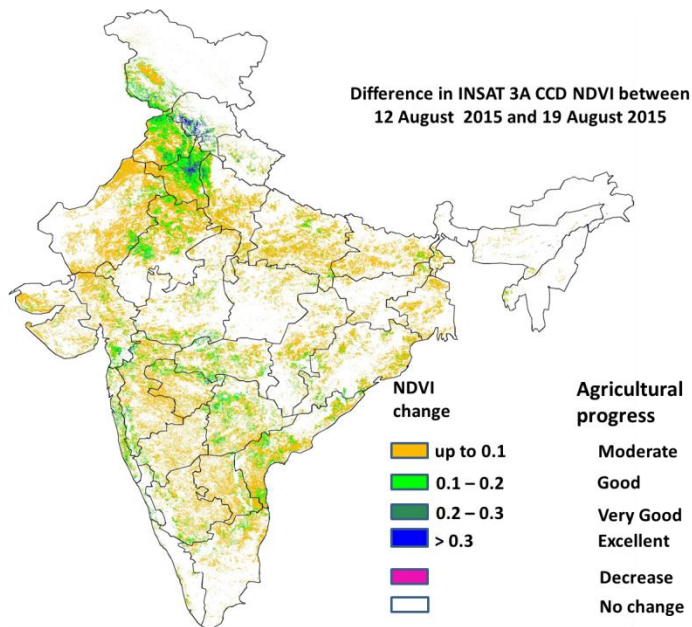
- Mean wind speed was between 8 to 12 knots over isolated pockets of South Interior Karnataka and Lakshadweep.
- Mean wind speed was between 4 to 8 knots over many parts of Saurashtra & Kutch, Interior Karnataka, Tamil Nadu, Lakshadweep, some parts of West Madhya Pradesh, Gujarat Region, East Uttar Pradesh,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

INSAT 3A CCD NDVI COMPOSITE ENDING ON 19th August 2015 OVER AGRICULTURAL REGION OF INDIA



- Agricultural vigour is very good in most parts of Punjab, Haryana, Northern parts of Rajasthan and Coastal Kerala, Northern parts of Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Coastal Andhra Pradesh and Jharkhand where NDVI varies from 0.4 to 0.6. Agricultural growth was good over most parts of Uttar Pradesh and Bihar and some parts of Vidharbha and Costal Odisha (NDVI: 0.3-0.4). NDVI remains within the range of 0.2 to 0.3 over rest parts of India.

Difference in INSAT 3A CCD NDVI between 12th and 19th August 2015



- Good change in NDVI (0.1 - 0.2) was observed in Northern parts of Haryana, some patches of Punjab, East Rajasthan, Telangana and Coastal Andhra Pradesh. Moderate progress (up to 0.1) was observed over some patches of Haryana, Punjab, West Bengal, Uttar Pradesh, Rajasthan, Madhya Maharashtra, Karnataka and Coastal Tamil Nadu.

- INSAT 3A CCD NDVI composite maps for the week ending on 19th August 2015 for different States are given below in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 26th August 2015

5 Day Rainfall Forecast (MORNING) 21st August 2015

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

% Station Reporting Rainfall

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

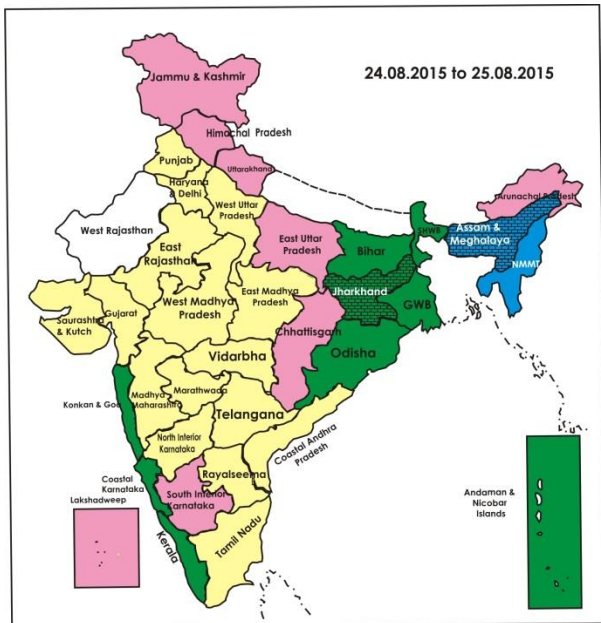
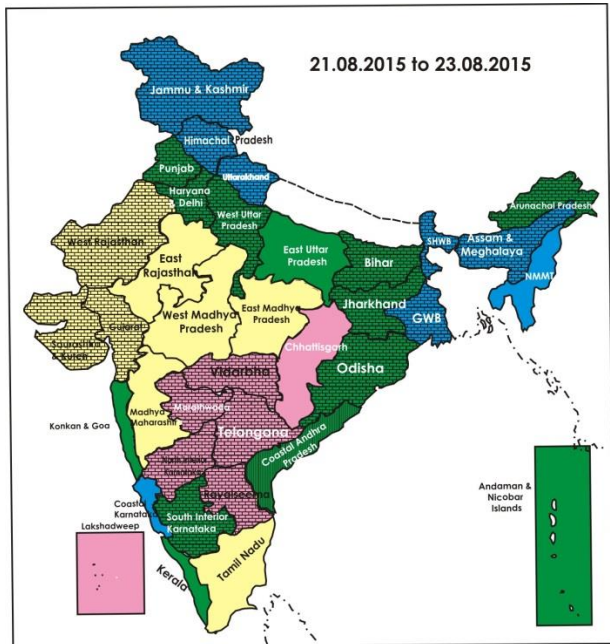
Weather Warning during next 5 days

- **21 August (Day 1):** Heavy to very heavy rainfall would occur at a few places over Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim and at isolated places over Bihar and Arunachal Pradesh. Heavy rainfall would occur at isolated places over Nagaland, Manipur, Mizoram & Tripura and Andaman & Nicobar Islands.
- **22 August (Day 2):** Heavy rainfall would occur at isolated places over Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Himachal Pradesh, Uttarakhand, East Uttar Pradesh and Nagaland, Manipur, Mizoram & Tripura.
- **23 August (Day 3):** Heavy rainfall would occur at isolated places over Uttarakhand, Bihar, Sub-Himalayan West Bengal & Sikkim, Gangetic West Bengal, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **24 August (Day 4):** Heavy rainfall would occur at isolated places over Bihar, Jharkhand, Odisha and Nagaland, Manipur, Mizoram & Tripura.
- **25 August (Day 5):** Heavy rainfall would occur at isolated places over Chhattisgarh, Odisha, Nagaland, Manipur, Mizoram & Tripura.

Weather Outlook for subsequent 2 days from 26th to 28th August 2015

- A fresh low pressure area is likely to develop over north Bay of Bengal around 24th August.
- Rain/thundershowers would occur at most places with isolated heavy falls over northeastern states, Chhattisgarh and Odisha.
- Rain/thundershowers would occur at many places along west coast and rest east India and at a few places over peninsular India.

Weather Forecast Map (Valid upto 0830 hours of 26th August, 2015)



- In **Madhya Maharashtra**, apply protective irrigation during morning/evening hours for the crops/orchards under moisture stress conditions. Undertake sowing of sunflower in unsown areas after receipt of sufficient rainfall. For early *rabi* crops, undertake compartmental bunding to conserve soil moisture wherever sowing could not be undertaken so far. Undertake sowing of fodder crops like sorghum (Ruchira, Phule Amruta, Phule Godhan), maize (African Tall, Karveer, Rajshree) and pearl millet (Nutrifeed).
- In **Marathwada**, undertake compartmental bunding to conserve soil moisture wherever sowing could not be undertaken so far. Undertake sowing of sunflower in unsown areas after receipt of sufficient rainfall. For early *rabi* crops, undertake compartmental bunding to conserve soil moisture wherever sowing could not be undertaken so far. Undertake sowing of fodder crops like sorghum (Ruchira, Phule Amruta, Phule Godhan), maize (African Tall, Karveer, Rajshree) and pearl millet (Nutrifeed).
- In **Vidarbha**, continue sowing of sunflower in unsown parts of Central Vidarbha. Complete transplanting of rice in East Vidarbha.

Detailed Zonewise Agromet Advisories

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



Sowing



Groundnut



Greengram



Rice transplanting

- **Realised Rainfall:** Rainfall occurred in all districts of Coastal Karnataka; all districts of South Interior Karnataka except Chikaballapura, Chitradurga, Davangere and Kolar; all districts of Kerala; all districts of Coastal Andhra Pradesh except Guntur, Nellore and Prakasam; Adilabad, Hyderabad, Khammam, Nalgonda, Nizamabad and Warangal districts of Telangana; Dharmapuri, Erode, Krishnagiri, Madurai, Nilgiris, Puducherry, Ramanathapuram, Salem, Sivagana, Thanjavur, Tiruvannamalai, Trichy, Vellore and Villupuram districts of Tamil Nadu. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Andhra Pradesh:**
 - In North Coastal Zone, continue land preparation for transplanting and nursery sowing of rice (medium and short duration varieties) and finger millet utilizing the realized and expected rainfall.
 - Continue nursery sowing of short duration rice varieties, maize and pulses (black gram, red gram and green gram) using the realized rainfall in the Krishna Godavari Zone.
 - Continue sowing of short duration varieties of rice like Pushkala, Srisatya, Pradyumna etc., using direct seeding method in deficit rainfall areas in the High Altitude Tribal Zone. Complete sowing of finger millet.
 - In Scarce Rainfall Zone, undertake sowing of green gram and korra utilising the realised rainfall.
 - Undertake sowing of red gram (LRG 30, LRG 41, TRG 22) as monocrop in areas where there is enough soil moisture in Kadapa district in the Southern Zone.
 - Due to intermittent rains during last week, there is possibility of attack of red hairy caterpillar (both stages II & III) in groundnut crop in Chittoor district in the Southern Zone. To control, spray Quinolphos @ 2ml/litre of water and Methyl Parathion 2% chemical powder @ 8kilo/acre.
 - Prevailing weather conditions are congenial for incidence of tikka disease in groundnut in the North Coastal Zone. To control, Carbendazim @ 1.0 g/litre of water on a non rainy day.
 - Present weather conditions (intermittent rains) are congenial for incidences of stem borer in maize crop in the Krishna Godavari Zone. Place Prorate or Thimmate granules on the whorls on a non rainy day to control the incidence.
 - **Telangana:**
 - In the Southern Telangana Zone, continue sowing of contingency crops like castor, red gram (medium duration varieties) and sunflower utilising the realised rainfall.
 - In North Telangana Zone, if rice nursery is available, undertake transplanting of rice and if not undertake sowing of contingency crops like castor, red gram and sunflower utilizing the realized rainfall.
 - In the Northern Telangana Zone, wilt incidence is noticed in cotton in some some parts low lying areas. To control, uproot the affected plants and spray COC @ 3g/litre of water covering the entire plant including the root portion.
 - **Karnataka:**
 - In the Eastern Dry Zone, in areas where sowing is yet to be done, undertake sowing of ragi (GPU-28, HR-911), Sunflower (Morden, KBSH-1, KBSH-41, KBSH-42, KBSH-44 and KBSH-53), Maize (Deccan-103, Vijaya composite

- and Ganga-11), Cowpea(C-152, KM-5 and PKB-4 for vegetable purpose).
- Undertake the following contingency measures in early sown crops to mitigate the deficit rainfall conditions in North East Transition Zone:
 - Thin out excess and weak seedlings by removing alternate rows as the moisture stress is severe.
 - Take up repeated inter-cultivation and earth up the rows.
 - Keep the crops free from weeds.
 - Open conservation furrow after two rows in wider spaced crops and after every 8th row in narrow spaced crops.
 - Undertake spraying of 1 % Potassium Nitrate to already sown crops where slight soil moisture is available so as to induce drought resistance in the crops.
 - In the North East Dry Zone, continue sowing of sunflower at wider spacing of 90 x 20 cm. Also undertake sowing of fodder crops like jowar, maize, bajra with realized rainfall.
 - In North Dry Zone, follow moisture conservation techniques for dry land such as compartmental bunding, ridges furrow and scooping in fields spared for rabi sowing.
 - In Hill Zone, undertake spraying of Planofix @ 0.25 ml/litre to reduce the square/flower bud/flower drop in cotton on a non rainy day.
 - Incidence of stem borer was noticed in soybean, green gram and black gram in the North East Transition Zone. To control, undertake spraying of Imidacloprid 17.8 SL @ 0.2 ml or of Thiamethoxam 25 WG @ 3 gms per litre of water on a non rainy day.
- **Kerala:**
- Continue planting of rooted cuttings of pepper in the Problem Area Zone. Avoid water stagnation in pepper and vegetable fields.
 - Prevailing weather conditions are congenial for incidence of sigatoka disease and pseudo stem weevil in banana (bunching stage) in the Problem Area Zone. Spray Tilt @ 1ml/litre of water to control sigatoka disease and apply Quinalphos @ 0.05% or Chlorpyrifos @ 2ml/litre of water to control pseudo stem weevil after current spells of rain.
 - Prevailing high relative humidity is congenial for incidence of rice bug in rice in the Central and Southern Zone. Apply Neem based pesticides @ 3ml/ litre of water either before 9 am or after 3 pm after current spells of rain. If the problem is severe, spray Reagent @ 3 ml/litre of water.
 - Prevailing weather conditions are congenial for leaf folder attack in rice in the Northern Zone. Unfold the leaves by rolling thorny wires/twigs over the canopy in the initial stages and spray Carbaryl 85MS @ 4g/litre of water if the attack is severe after current spells of rain.
 - Light rains and high humidity is congenial for incidence of blast disease in rice especially neck blast in rice in the Southern Zone. To control, apply Carbendazim (Bavistin) @ 1gm/litre of water or Prophenphos (Kitazin EC) @ 1ml/ litre of water after current spells of rain.
- **Tamil Nadu:**
- In the Cauvery Delta Zone, continue land preparation for nursery sowing of *Samba* rice varieties (CR 1009 and ADT 50) and continue two sprays of Groundnuts Rich @ 2.0kg/acre in 200 litres of water at 35 & 45 DAS in groundnut crop to increase flower retention, pod filling and to induce drought tolerance in Karur district.
 - Continue cultivation of sorghum in the North Western Zone.
 - Undertake nursery preparation for sowing medium duration rice and continue sowing of winter Cambodia cotton in the Western Zone.
 - In the Southern Zone, continuous cloud cover and moderate humidity expected during coming days is conducive for incidence of whitefly in tomato and thrips in onion. To control whitefly, spray Dimethoate @ 30% EC 1ml/litre of water or Malathion 1.5ml/litre of water. To control thrips, spray Ddimethoate @ 0.06% or Profenofos @ 0.05%.
 - 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.
 - Provide enough drinking water to cattle, sheep, goat and poultry birds in the Western Zone of Tamil Nadu.

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



Sowing



Banana



Okra



Rice transplanting

- **Realised Rainfall:** Rainfall occurred in Changlang, East Kameng, East Siang, Lohit, Lower Dibang Valley, Papumpara,

Tawang, Upper Siang, West Kameng, West Siang districts of Arunachal Pradesh; all districts of Assam except Darrang; all districts of Meghalaya; Aizwal and Serchhip districts of Mizoram; Imphal West district of Manipur; all districts of Tripura. Weather remained mainly dry over rest of the region.

• **Advisories:**

➤ As rain/thundershowers would occur at most/many places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during the period, postpone intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crops to remove excess water.

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

➤ In North Bank Plain Zone of Assam, farmers in flood affected areas are advised to collect short duration HYV rice varieties like Luit, Kapili, Kolong, Dishang etc. These varieties can be transplanted or sown upto 3rd week of August. Late and staggered planting after receding flood with 60 to 80 days old seedlings of the varieties like Prafulla (80 days) and Gitesh (60 days) is also suggested up to mid of September. The old seedlings of other improved long duration variety like Monohar Sali, Salpona, Prasadbhog, Gobin bhog etc. can be transplanted up to mid of September. Continue sowing of *kharif* sesame, green gram, black gram, early cauliflower and radish.

➤ In Hill Zone, continue sowing of green gram and black gram after current spells of heavy rain.

➤ In Lower Bramhaputra Valley Zone of Assam, continue normal transplanting of *Sali* rice (July-August) with 2-3 seedlings per hill for all varieties. Undertake replanting of dead hills within 7-10 days of transplanting with seedlings of same age. Continue nursery bed preparation for finger millet and winter vegetables and sowing of green gram and black gram after current spells of heavy rain.

➤ In Upper Bramhaputra Valley Zone of Assam, nursery sowing of mid cauliflower and radish after current spells of heavy rain. Remove excess water and maintain proper drainage facilities in the fields of green gram, black gram and vegetable nurseries.

➤ In Central Bramhaputra Valley Zone of Assam, complete harvesting and retting of *Capsularis* jute at pre-flowering stage (120 days after sowing) and early and timely sown *olitorius* jute. Continue sowing of *kharif* pulses like black gram/green gram, nursery raising of cole crops and early radish after current spells of heavy rain.

➤ In Meghalaya, maintain a water level of 3-5 cm in the rice field. Continue sowing of pea, red gram, black gram, green gram and undertake nursery raising of cauliflower after current spells of heavy rain. Remove excess water and maintain proper drainage facilities in the fields of groundnut, soybean, ginger and turmeric crop fields. Spray/drench 1% Bordeaux mixture or Dithane M-45 (2.5g/litre of water in turmeric/ginger to prevent rhizome rot.

➤ In North Bank Plain Zone and Hill Zone of Assam, due to cloudy and humid weather there is chance of attack of rice hispa and stem bore in *Sali* rice. Spray Chloropyriphos 20EC (0.02%) or Quinalphos @ 2 teaspoon/5 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 Arunachal Pradesh, due to humid and cloudy weather, there is chance of attack of stink bug in soybean. Spray Deltamethrin @ 4ml/10 litre after current spells of rain

➤ In Meghalaya, due to humid weather, there is chance of attack of aphid/leaf miner, leaf spot in groundnut. Spray Phosphamidon 100 EC @ 0.5 ml/litre of water against aphid/leaf miner and Carbendazim (0.05%) + Mancozeb (0.2%) against leaf spot to control the attack after current spells of rain.

▪ **Manipur, Mizoram, Nagaland and Tripura:**

➤ In Manipur, in low lying flood affected areas, raise contingency rice nurseries with late variety RC Maniphou 7. Complete gap filling of rice seedlings immediately. Plant 4 to 5 old seedlings (40-45days old) per hill. Maintain water depth of 5cm in the upland area rice fields. To have more tillers avoid excess water in the field. Continue sowing of onion in the upland areas after current spells of heavy rain.

➤ In Mizoram, continue sowing of cowpea after current spells of heavy rain.

➤ In Nagaland, maintain proper drainage in ginger crop fields to avoid rhizome rot in view of likely occurrence of heavy rainfall.

➤ In Tripura, maintain proper drainage particularly in groundnut and banana crop fields in medium upland and lowlands.

➤ In Manipur, due to humid and cloudy weather, there is chance of attack of stem borer in *kharif* rice and tikka disease in groundnut. Spray Chlorantraliniprol 23.5% @ 40 ml/ha for control of stem borer and spray Carbendazim @ 1g/litre of water to control tikka disease after current spells of rain.

➤ In Nagaland, if infestation of caseworm occurs in rice field, drain out water from the rice field and keep it dry for 3 or 4 days.

➤ In Tripura, due to cloudy and humid weather, there is chance of attack of leaf blight in maize. Spray Zineb @ 3gm per litre of water.

➤ Suitable varieties are given in Annexure III.

• **Animal Husbandry**

➤ In Assam, 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.

➤ In Barak Valley Zone of Assam, there is chance of gastrointestinal parasites infestation in poultry. Keep the poultry shed clean and maintain in good sanitary conditions.

- In Meghalaya, high relative humidity is favourable for development of coccidiosis disease in poultry. Regularly check the dropping of birds. Provide plenty of fresh and clean drinking water and coccidiostatic like Amprolium @ 25-65 mg/kg feed once a day as a preventive measure against coccidiosis. For Ranikhet disease vaccinate the poultry birds with F1/Lasota vaccine.
- **Fishery**
- In Central Brahmaputra Valley Zone of Assam, apply nylon net barrier to the fish ponds/tanks 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]



Banana



Sugarcane



Rice



Sowing

- **Realised Rainfall:** Rainfall occurred in all districts of Konkan & Goa; Nanded district of Marathwada; all districts of Vidarbha except Akola, Buldhana and Washim; Banas Kantha, Mahesana, Panch Mahals, Patan, Sabar Kantha, Valsad districts of Gujarat Region. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, continue sowing of vegetable crops like okra, cucumber, snake gourd and ridge gourd with improved varieties on raised beds. Maintain water level upto 5 cm in transplanted rice fields at vegetative stage.
 - In Madhya Maharashtra, apply protective irrigation during morning/evening hours for the crops/orchards under moisture stress to conserve soil moisture for late sown crops. Undertake sowing of sunflower in unsown areas after receipt of sufficient rainfall. Complete transplanting of rice. Maintain 2-3 cm water level in rice fields in Western ghat regions of Nasik, Pune and Kolhapur districts. Undertake intercultural operations in late sown jowar. Continue intercropping of *adsali* sugarcane with onion depending on availability of water in Ahmednagar, Pune, Satara and Sangli districts. For early *rabi* crops, undertake compartmental bunding to conserve soil moisture wherever sowing could not be undertaken so far. Undertake sowing of fodder crops like sorghum (Ruchira, Phule Amruta, Phule Godhan), maize (African Tall, Karveer, Rajshree) and pearl millet (Nutrifeed).
 - In Marathwada, undertake compartmental bunding to conserve soil moisture wherever sowing could not be undertaken so far. Undertake sowing of contingent crops like hybrid bajra, sunflower, castor utilizing the realized rainfall. Continue weeding in cotton and red gram fields.
 - In Vidarbha, complete transplanting of rice in East Vidarbha. Maintain 2-3 cm water level in transplanted rice field. Undertake sowing of sunflower in unsown parts of Central Vidarbha.
 - Due to cloudy and humid weather conditions in East Vidarbha, there may be attack of sap sucking pest on cotton; spray Dimethoate 30% @ 10 ml per 10 litres of water.
 - **Gujarat:**
 - In North Saurashtra Zone, in view of prevailing mainly dry weather, provide supplementary irrigation to cotton and groundnut crop. Continue intercropping of soybean with two rows of castor to get more income and more production in South Saurashtra Zone; carry out intercultural operations and weeding operation at vapsa condition in standing crops like cotton, pigeon pea, groundnut etc. to conserve soil moisture. .
 - In South Gujarat Heavy Rainfall Zone, maintain 5 cm water level in transplanted rice fields.
 - In North Gujarat Zone and North West Zone, complete sowing of fodder sorghum (S-1049, GFS-4 and GFS-5) and fodder maize (African tall); complete transplanting of fennel, brinjal, tomato, chillies and other vegetables and plantation of sapling of different fruit crops (lemon, pomegranate, sapota and mango). Carry out hand weeding, hoeing and intercultural operations in standing crops like maize, pearl millet and vegetable crops in North Gujarat Zone.
 - In Bhal and Coastal Zone, complete sowing of castor (hybrid varieties like GAUCH-2, GCH-4 and GCH-7), cluster bean (GC 2) and sorghum (S-1049, GFS-4 and GFS-5) at vapsa condition and transplanting of brinjal, tomato and chilli. Complete plantation of sapling of different fruit crops (lemon, pomegranate, sapota). Carry out hand weeding and intercultural operation in pearl millet and vegetable crops.
 - In Middle Gujarat Zone, carry out weeding and intercultural operations in the standing *kharif* crops for moisture conservation.
 - Decrease in temperature and high humidity are conducive for the incidence of sigatoka leaf spot in banana in South Gujarat Zone; spray Carbendazim @ 1 g / 1 litre of water, if incidence is noticed. Due to cloudy weather, there are chances of incidences of sucking pests in cotton; spray Emidacloprid or Thiomithozam 4 ml / 10 litres of water.

- **Animal Husbandry**

- In Middle Gujarat Zone, in view of dry and humid weather provide fresh drinking water and clean byres to protect from mosquito.

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



Groundnut

Cotton

Sowing

Rice transplanting

- **Realised Rainfall:** Rainfall occurred in all districts of Gangetic West Bengal except Hooghly, Howrah, Nadia and West Midnapore; all districts of Sub-Himalayan West Bengal and Sikkim; all districts of Bihar except Bhojpur, Madhubani, Sheohar and Sitamarhi; all districts of Jharkhand except Bokaro, Garwha, Khunti, Latehar, Ramgarh, Sahibganj and Saraikala-Kharsawan; all districts of Odisha except Bhadrak.

- **Advisories:**

- **West Bengal:**

- In Coastal Saline Zone, crop damage is reported in nursery/transplanted *Aman* rice fields due to flooding. In flood affected areas adopt the following contingency plan:
 - In the main field where rice seedlings are found normal, drain out of excess water and apply urea 3.2 @ kg/bigha and MOP @ 2kg/bigha.
 - Pluck the tillers from old seedbed and retransplant immediately in the main field with more depth.
 - Where transplanting is not possible due to deep water, after receding of flood water, prepare the fields for cultivation of early mustard and black gram.
 - The fields where the seedlings of tomato, brinjal were found fine, apply copper fungicide @ 4g/litre of water at 7 days interval.
- As rain/thundershowers would at most/many places in Sub-Himalayan West Bengal during the period along with heavy to very heavy rainfall at isolated places, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.
- In Hill Zone, maintain proper drainage system in soybean and ginger fields in view of likely occurrence of heavy to very heavy rainfall.
- In Terai zone, protect nursery of early cauliflower and cabbage from heavy rain by using white polythene sheets. Undertake transplanting of early cauliflower and cabbage after current spells of heavy rain.
- In New Alluvial Zone, due to cloudy weather condition and high temperature fungal and bacterial diseases are prevalent in maize. For fungal attack, spray Mancozeb @ 2.5 gm/litre of water and in case of bacterial rot, spray Streptocycline @ 0.1 gm/litre of water after current spells of rain. Attack of fruit or shoot borer may also be found in brinjal. Apply Spinosad 45 SC @ 1ml/5 litre of water or Carbosulfan 25 EC @ 2 ml/litre of water after current spells of rain.
- In Old Alluvial Zone, in prevailing weather condition, there is chance of sheath blight in rice. If observed, spray Validamycin @ 2ml/litre of water or Hexaconazole 5%EC @ 1.5ml/litre of water after current spells of rain.

- **Andaman and Nicobar Islands:**

- In North and Middle and South Andaman, maintain 5-7 cm water level in rice main fields at vegetative stage.

- **Odisha:**

- In East and South Eastern Coastal Plain Zone, undertake weed control and gap filling in direct seeded rice. Under moisture stress condition, go for 2% urea spray instead of soil application of Nitrogenous fertilizer. In uplands, continue sowing of green gram, black gram, horse gram and sesame.
- In North Eastern Ghat Zone, continue sowing of groundnut, sesame and ragi.
- In North Central Plateau Zone, continue sowing of green gram, black gram and cowpea.
- In Western Undulating Zone, continue sowing of improved varieties of black gram vari. Sarala, Ujala, PU-30, T-9, Prasad, green gram varieties like Tarm-1, Dhali, Durga, Kamdev Jyoti, PDM-54, PDM-11, Samrat, PM-1, PM-2 @ 6-8kg/acre and cow pea vari. Utkala manika, Pusa Barsati and SEB- 2 @ 8kg/acre in fallow uplands.
- In Western Undulating Zone, *Spodoptera* moth is noticed in cotton. Fix pheromone trap with spodolure @ 2 nos per acre to catch the adult males.
- In Western Undulating Zone, sucking pests like aphids and jassids may infest the cotton crop during this period. Spray neem oil 3ml/litre of water. If the infestation increases, spray Imidacloprid @ 1ml in 4 litres of water or Acephate @ 2g/litre of water after current spells of rain.

- In North Central Plateau Zone and North Eastern Ghat Zone, white ant attack has been found in groundnut crops in low rainfall areas. Undertake soil drenching with Chloropyriphos @ 2 ml/litre of water after current spells of rain.
- **Bihar:**
 - As rain/thundershowers would occur at many places in Bihar during the period along with heavy rainfall at isolated places, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.
 - In North West Alluvial Plain Zone, complete rice transplanting of medium & long duration varieties of rice before 25th August and continue transplanting of tomato, chilli and cauliflower on raised beds. Continue sowing of onion, cluster bean, bitter gourd and radish after current spells of heavy rain.
 - In South Bihar Alluvial Zone, complete transplanting of *kharif* onion and make arrangement for drainage in vegetable fields in view of likely occurrence of heavy rainfall. Continue planting of mango, litchi, guava and papaya plants in already made pits and continue sowing of para grass in low land and hybrid napier grass in uplands. Continue field preparation for sowing of tobacco & sweet potato.
 - In North West Alluvial Plain Zone, present weather is conducive for the occurrence of jassids in ladyfinger and cucurbitaceous crop. To control, spray Dimethoate 30 EC @ 2 ml/litre of water after current spells of rain.
- **Jharkhand:**
 - In South Eastern Plateau Zone, complete transplanting of finger millet and complete sowing of maize, arhar green gram, black gram, urad, groundnut, soybean and sesame. Undertake cultivation of upland spices, yam & forage crops like jowar & maize.
 - In North Eastern Plateau Zone, undertake sowing of improved varieties of urad, horse gram, niger, til & sweet potato and undertake cultivation of improved varieties of tomato, cabbage and cauliflower.
 - In Western Plateau Zone, continue preparation of field for cultivation of early potato and green peas and undertake sowing of maize, kulthi and niger in uplands.
 - In South Eastern Plateau Zone, present weather is conducive for the occurrence of leaf folder and hairy caterpillar in groundnut, to control, spray Chloropyriphos @ 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 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 leaf spot/tikka disease in groundnut and stem borer in rice crops. For control, spray Endofil M-45 @5 gm + Bavistin @1 gm in 4 litre of water for leaf spot/tikka disease and spray Monocrotophos 36 E.C. @ 1-2 ml per litre of water for stem borer 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



Greengram



Okra



Soybean

- **Realised Rainfall:** Rainfall occurred in all districts of East Madhya Pradesh; all districts of West Madhya Pradesh except Alirajpur, Barwani, Dhar, Indore, Jhabua, Khandwa, Khargone and Ratlam; all districts of Chhattisgarh.
- **Advisories:**
 - **Madhya Pradesh:**
 - Continue sowing of kodo millet and little millet in Satpura Plateau Zone and plantation of fruit saplings and nursery sowing of early winter vegetables in Malwa Plateau Zone.
 - Undertake weed control measures in rice, moong and urad crops in Kymore Plateau and Satpura Hill Zone. For rice, spray Whip super (250 ml/acre) + (Almix @ 1 packet/acre) and for moong and urad apply Pursuit @ 250 ml/acre.
 - Due to humid weather there are chances of leaf spot disease in vegetables in Grid Zone, spray Mancozeb @ 3.0 gm per litre of water.
 - Due to cloudy weather there are chances of incidence of yellow mosaic in urad and soybean in Bundelkhand Zone, spray Methyl Demeton @ 2 ml per litre of water.
 - Due to cloudy weather there are chances of attack of white fly in okra and chilli in Kymore Plateau and Satpura Hill Zone, spray Dimethoate 30 EC @ 700-750 ml/hectare.

▪ **Chhattisgarh:**

- Undertake intercultural operations to control weeds in *kharif* crops like rice, maize, arhar, groundnut, soybean, urad, moong etc. on a non rainy day and broadcast urea as per requirement. Continue planting of horticultural crops like papaya, mango, guava etc. in North Hill Zone.
- In Plain Zone of Chhattisgarh, maintain water level upto 5cm in transplanted rice fields and apply first top dressing of urea @ 40 kg/ha at tillering stage of rice.
- Continue field preparation for sowing of niger, horse gram, black gram and green gram in Bastar Plateau Zone.
- Suitable varieties are given in Annexure III.
- **Animal Husbandry**
- Keep animal sheds clean, dry and create smoke to prevent from mosquitoes in Chhattisgarh.

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



Cotton



Rice transplanting



Sowing



Cabbage

- **Realised Rainfall:** Rainfall occurred in Doda and Khatua district of Jammu & Kashmir; Amritsar, Faridkot, Gurdaspur, Kapurthala, Nawanshahar districts of Punjab; Bhiwani, Faridabad, Gurgaon, Hisar, Jhajjar, Jind, Karnal, Rohtak and Yamunanagar districts of Haryana; East Delhi, North East Delhi, South Delhi, South West Delhi and West Delhi districts of Delhi; all districts of East Uttar Pradesh except Ambedkar Nagar, Fatehpur, Kannauj, Kanpur City, Kanpur Dehat, Khushinagar, Maharajganj, Mau, Siddharth Nagar and Unnao; all districts of West Uttar Pradesh except Ghaziabad, Hamirpur, Jyotibaphule Nagar, Mahamaya Nagar, Mahoba, Mathura, Meerut, Moradabad, Muzaffarnagar, Rampur and Sharanpur; all districts of Uttarakhand except Bageshwar, Garhwal Tehri and Udham Singh Nagar; all districts of East Rajasthan except Dausa and Jaipur; all districts of West Rajasthan except Barmer, Hanumangarh and Sri Ganganagar; all districts of Himachal Pradesh except Hamirpur, Kinnaur, Kullu, Lahaul & Spiti, Mandi and Una. Weather remained mainly dry over rest of the region.

• **Advisories:**

▪ **Jammu & Kashmir:**

- In Valley temperate Zone of Jammu & Kashmir, continue sowing of root vegetables preferably on ridges. Also continue transplanting of cole crops.
- In Sub-tropical Zone, undertake sowing of mixed fodder i.e. legume + cereal (maize, cowpea & chari) utilising the expected rainfall.
- In Cold Arid Zone of Jammu & Kashmir, continue harvesting of turnips, knolkhol, lettuce, kale, Chinese cabbage, broccoli, cauliflower, cucurbits, radish and coriander.
- In Sub-tropical Zone, due to humid weather condition, there may be attack of blister beetle and stalk rot in maize. To control blister beetle, spray Carbaryl @ 0.1 % and for stalk rot, spray Zineb or Mancozeb @ 0.25% after current spells of rain.
- In Intermediate Zone of Jammu & Kashmir, in the prevailing weather conditions, there are chances of stem borer in maize and blast attack in rice. To control stem borer, apply Carbufuron @ 750 g/kanal and to control blast, spray Tricyclazole (beam) @ 6 ml /10 litres of water after current spells of rain.

▪ **Uttarakhand:**

- In Hill Zone of Uttarakhand, undertake re-sowing of peas with short duration varieties like VL-Matar and Arkel in areas where crop damage in vegetables is reported due to heavy rains.
- In Bhabar and Tarai Zone of Uttarakhand, complete sowing of moong, sesame & pearl millets. Maintain proper drainage in standing field crops like soybean, groundnut, maize, pigeon pea, gahat, kutoo etc. Undertake top dressing of urea 2 kg per Nali in timely transplanted rice crop of 65 to 70 days.
- In Hill Zone, complete sowing of maize crops var. maize-9, Kanchan, Navin, Bhavetha, V.L. maize 16 and V.L. maize 88.
- Due to rise in temperature during the week, there are more chances of attack of stem borer in rice in Bhabar and Tarai Zone. Broadcast Phipronil-0.3 GR @10kg or Cartap-4GR @8 kg per acre after current spells of rain.

▪ **Himachal Pradesh:**

- In Sub-Montane and Low Hills Sub-Tropical Zone, continue nursery sowing of mid season cauliflower and cabbage in poly house in mid hill and lower region and transplanting of ageti cauliflower and cabbage in fields. Continue transplanting of rice, tomato, brinjal, capsicum, chilli and direct sowing of okra and sowing of radish and turnip in lower rainfed areas. Undertake top dressing of first dose of nitrogen (40-50 kg urea per hectare) in vegetable crops

- like cabbage, cauliflower, carrot, radish, turnip and palak.
- In Mild Hills sub-Humid Zone, continue transplanting of cole crops in the field at a distance of 60x45cm. Continue nursery sowing of cauliflower (var. snowball and Gient snowball), cabbage (Pride of India, golden achor and hybrid), sowing of carrot and radish at a distance of 30x10cm. Undertake transplanting of onion at a distance of 15x10cm and sowing of French bean in middle region.
- In Mild Hills Sub Humid Zone in view of heavy rainfall during last week, arrange for effective drainage of water in apple orchards. Also remove grass in tree basins.
- Under humid weather condition, there are chances of incidence of blast and hispa in rice in mid hills region of Sub-Montane and Low Hills Sub-Tropical Zone. For control of blast, spray Bavistin @ 0.01 or Beam 75 WP @ 0.06% and repeat at 10-15 days interval and for rice hispa, spray Cypermethrin 10EC @ 1ml or Chlorpyrifos 20 EC @ 2.5ml per litre of water after current spells of rain.
- Under humid weather condition there are chances of attack of fruit borer in tomato, brinjal and okra, spray Cypermethrin (Ripcord 10 EC) @ 565 ml or Cypermethrin (Symbush 25 EC) @ 225 ml or Deltamethrin (Deasis 2.8 EC) @ 750 ml per 750 ml water per ha after current spells of rain.
- Under cloudy and humid weather condition, there are chances of incidence of sooty blotch and fly speck diseases and attack of wooly aphids in apple in Mild Hills Sub-Humid Zone. For control sooty blotch and fly speck diseases, spray Ziram @ 600 ml per 200 litres of water. For the control of wooly aphids in apple, spray Actara @ 200 g or Dursban @ 200 ml or Marshal @ 200 ml per 200 litres of water after current spells of rain.
- **Rajasthan:**
- In Flood Prone Eastern Plain Zone and Semi Arid Eastern Plain Zone of Rajasthan, continue nursery of cauliflower and also undertake sowing of radish.
- In Sub Humid Southern Plain and Aravali Hill Zone, continue sowing of moong, urad, cowpea, cluster bean and fodder varieties of maize and sorghum. Undertake weeding and hoeing in cotton, groundnut, maize, moong and urad crop.
- In Transitional Plain Zone of Inland Drainage, undertake plantation of fruit plants like ber, aonla, pomegranate and beel and undertake planting of kinnow saplings in Irrigated Northwestern Plain Zone.
- In Arid Western Plain Zone, under humid weather condition, there are chances of attack of sucking pests and incidence of bacterial leaf blight on *kharif* pulses and cluster bean, spray Imidachlopid 17.8 SL @ 3 ml/10 litre water for sucking pests and Streptocyclene @ 2.5 g or Copper Oxychloride @ 30 g/10 litres of water for bacterial leaf blight.
- **Punjab, Haryana and Delhi:**
- In Central Plain Zone of Punjab, continue sowing of maize and in Western Zone of Punjab, continue transplanting of brinjal in raised beds and undertake planting of onion.
- In Undulating Plain Zone of Punjab, continue transplanting of tomato, onion and chilli on ridge and drain out the excess water from vegetable crop fields.
- In Central Plain Zone and Western Plain Zone of Punjab, undertake the sowing of fodder crops maize + cowpea, sorghum + guar.
- 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 Plain Zone of Punjab, drain out excess water from maize to keep stalk rot under control.
- In Western Zone of Haryana, continue transplanting of tomato, onion chilli and early cauliflower on ridge and transplanting of rice utilising the realised rainfall. 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. Undertake sowing of sweet corn and baby corn in this week and short varieties of urad and moong.
- 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 on a non rainy day.
- Incidence of sheath blight is noticed in rice crop in Western Zone of Punjab, spray Folicur 25 EC (Tebuconazole) @ 200 ml or Tilt 25 EC (Propiconazole) @ 200ml in 200 litres of water/acre. Also due to partly cloudy weather, white fly and jassid may occur in cotton, if reaches ETL level then spray Oberon @ 200ml/acre for white fly and 80g/acre Ulala for the management of Jassid on a non rainy day.
- In Western Zone of Haryana, weather conditions are favourable for infestation of white fly and sucking pest in cotton. Spray Dimethoate 30 E.C./Metasystoc 25 EC @ 300 ml in one liter neem based insecticide (Neembicidine/Achuk) with 250 liters of water after current spells of rain.
- **Uttar Pradesh:**
- In Central Plain Zone, continue direct sowing of short duration varieties of rice in Allahabad, Fatehpur, Pratapgarh, Chitrakut and Kaushambi districts. Undertake thinning in jowar and bajra..Undertake sowing of short duration varieties of bajra, urad, mung and sesame and transplanting of brinjal and chilli.
- In Bundelkhand Zone, continue transplanting of rice, sowing of short duration varieties of bajra(hybrid), pigeon pea, black gram, green gram and sesame. Continue nursery sowing and sowing of early cauliflower, tomato, chilli and brinjal.

- In Eastern and Western Plain Zone, continue sowing of short duration varieties of urad and moong where normal sowing was not done earlier. Also continue sowing of long duration varieties of pigeon pea (planting distance of 60-75cm) and planting of banana.
- Due to humid weather condition, there is chance of attack of top borer in sugarcane in Northeastern Plain Zone. Spray Corazine @ 150 gm per 200 litres of water per acer. For control of top borer in maize, spray Quinalphos @1.5 g or Imidachloprid @ 1g per litre of water after current spells of rain.
- In Western Plain Zone, weather is conducive for the incidence of blast in rice. Spray Beem @ 120 g per 200 litres of water.
- Due to humid weather condition, there is chance of incidence of black rot disease in mango in Central Plain Zone. Spray Blitox @ 3g per litre of water after current spells of rain.
- Suitable varieties for sowing are given in Annexure III.
- **Horticulture**
 - In Uttar Pradesh, undertake planting of mango, litchi, papaya, guava, ber and *aonla*.
 - In Flood Prone Eastern Plain Zone and Semi Arid Eastern Plain Zone of Rajasthan, continue planting of guava, pomegrante, lime, *aonla*, ber and papaya.

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

Annexure I

Week by week Rainfall Distribution

Sub-Divisions	05.08.15		12.08.15		19.08.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	88.2	63	98.2	61	82.9	-20
Dibang Valley	**	**	**	**	**	**
East Kameng	9.6	-82	2.8	-95	43.3	-18
East Siang	161.4	-16	26.7	-83	440.6	150
Kurung Kumey	**	**	**	**	**	**
Lohit	87.1	-8	13.8	-84	138.9	25
Lower Dibang Valley	20.8	-40	120.8	376	430.6	818
Lower Subansari	**	**	**	**	**	**
Papumpara	16.9	-85	101.0	-15	61.1	-32
Tawang	58.0	-55	49.0	-69	65.0	-50
Tirap	48.2	-56	21.8	-78	4.0	-97
Upper Siang	35.6	-60	35.6	-53	174.2	38
Upper Subansari	24.4	-6	12.2	-68	21.5	-60
West Kameng	11.6	-91	151.2	-3	135.2	5
West Siang	30.0	-34	12.0	-79	159.0	113
Assam&Meghalaya						
Assam						
Baksa	13.7	-87	17.7	-82	136.1	7
Barpeta	54.4	-47	46.9	-52	303.7	138
Bongaigaon	80.2	-4	14.6	-83	342.4	219
Cachar	46.3	-55	136.7	9	46.3	-58
Chirang	61.2	-27	29.8	-65	340.6	217
Darrang	**	**	**	**	**	**
Dhemaji	39.0	-58	24.0	-81	67.0	-37
Dhubri	15.7	-83	70.6	-11	89.7	-4
Dibrugarh	63.1	-28	41.3	-58	91.9	-4
Goalpara	6.6	-90	68.8	4	154.9	94
Golghat	37.9	-15	51.5	-27	39.8	-31
Hailakandi	79.8	-16	202.0	107	108.4	3
Jorhat	95.7	26	63.7	-29	69.0	-5
Kamrup(Rural)	0.4	-99	8.7	-83	82.4	18
Kamrup(Metro)	8.0	-85	24.8	-52	56.1	-20
Karbi Anglong	15.5	-73	63.6	19	34.0	-20
Karimganj	74.8	-23	241.5	127	60.5	-33
Kokrajhar	88.7	-44	43.0	-72	313.1	147
Lakhimpur	34.1	-63	58.9	-54	93.7	-12
Morigaon	21.8	-70	71.8	-4	152.0	139
N.C.Hills	38.9	43	66.3	20	39.9	-8
Nowgong	8.5	-87	14.0	-78	50.5	-15
Nalbari	28.0	-63	56.2	-15	108.6	57
Sonitpur	8.3	-87	75.9	-2	115.5	35
Sibsagar	92.7	30	63.5	-31	49.2	-28

Tinsukia	65.9	-23	34.7	-61	131.7	30
Udalgiri	2.8	-96	42.1	-33	67.1	17
Meghalaya						
East Garo Hills	62.0	-45	0.0	-100	390.0	336
East Khasi Hills	138.6	-48	48.1	-74	1214.7	397
Jaintia Hills	80.0	-68	29.0	-84	334.0	68
Ribhoi	29.0	-67	79.3	-17	98.9	0
South Garo Hills	32.0	-68	119.0	56	124.0	50
West Garo Hills	5.2	-95	100.6	32	78.2	-5
West Khasi Hills	21.0	-86	91.0	-30	572.0	522
NMMT						
Mizoram						
Aizwal	41.7	-60	84.2	-20	54.3	-54
Champhai	**	**	**	**	**	**
Kolasib	24.0	-77	6.0	-94	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	42.0	-53	32.0	-59	23.0	-75
Serchhip	105.4	18	46.8	-48	117.2	-3
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	**	**	**	**	**	**
Churachandpur	**	**	**	**	**	**
Imphal east	140.1	182	70.5	-8	16.2	-74
Imphal west	21.1	-54	151.1	106	74.6	30
Senapati	**	**	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	101.0	123	12.0	-72	6.0	-91
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	24.2	-48	39.6	-51	15.2	-64
Kephire	**	**	**	**	**	**
Kohima	46.2	-40	126.6	40	25.2	-74
Longleng	**	**	**	**	**	**
Mokokchung	48.0	-51	51.0	-55	9.0	-83
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	**	**	**	**	**	**
Tuensang	**	**	**	**	**	**
Wokha	**	**	**	**	**	**
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	94.8	6	43.5	-39	104.2	15
North Tripura	100.6	38	63.5	-30	42.4	-54
South Tripura	97.2	-9	30.3	-57	128.0	29
West Tripura	73.5	-4	14.5	-77	104.8	24
Himachal Pradesh						
Bilaspur	17.0	-79	156.6	81	35.5	-49
Chamba	51.3	-61	95.9	-33	32.0	-70
Hamirpur	54.2	-45	254.2	175	19.5	-79

Kangra	158.9	-3	292.9	67	80.4	-44
Kinnaur	6.7	-59	2.9	-86	13.1	-33
Kullu	27.4	-41	50.8	17	11.2	-70
Lahaul and Spiti	8.5	-75	0.0	-100	1.0	-97
Mandi	85.3	-23	201.8	107	22.5	-75
Shimla	40.1	-25	84.4	81	42.4	0
Sirmaur	97.8	-20	124.9	3	89.7	-23
Solan	46.0	-46	121.2	39	32.0	-59
Una	83.7	6	264.5	251	24.4	-69
Punjab						
Amritsar	13.7	-76	9.8	-80	52.2	-1
Barnala	14.5	-47	24.0	-23	4.5	-85
Bhatinda	35.0	-7	28.7	9	6.3	-79
Faridkot	14.0	-53	25.0	-6	35.0	28
Fatehgarh Saheb	3.0	-94	42.6	-20	3.3	-91
Ferozpur	11.1	-70	0.6	-98	2.1	-93
Gurdaspur	53.0	-37	119.3	25	52.8	-32
Hoshiarpur	2.9	-96	73.8	4	21.5	-64
Jalandhar	5.1	-89	16.1	-69	2.3	-95
Kapurthala	15.4	-60	7.7	-79	46.9	34
Ludhiana	3.8	-92	57.6	18	7.9	-82
Mansa	0.0	-100	0.0	-100	0.0	-100
Moga	14.0	-55	15.6	-60	0.0	-100
Muktesar	33.5	22	16.5	-35	0.0	-100
Nawashahar	6.4	-91	52.9	-19	35.6	-32
Patiala	9.1	-85	47.6	-18	12.5	-71
Ropar	17.2	-79	89.7	47	26.3	-57
Sangrur	13.4	-66	28.5	-21	20.5	-47
Mohali	7.7	-87	87.5	62	0.0	-100
TarnTaran	17.3	-52	1.0	-96	1.3	-95
Haryana,Chd,Delhi						
Haryana						
Ambala	12.1	-84	58.8	-31	18.2	-78
Bhiwani	3.0	-89	16.3	-52	54.8	81
Chandigarh	8.8	-88	50.0	-39	0.0	-99
Faridabad	53.0	-12	44.4	-14	92.0	102
Fatehabad	11.9	-58	0.5	-98	0.0	-100
Gurgaon	2.8	-93	71.2	45	62.8	43
Hissar	5.3	-81	16.9	-36	39.0	39
Jhajar	7.7	-79	42.2	18	49.7	30
Jind	5.6	-85	23.3	-20	47.2	24
Katihai	2.9	-91	21.4	-32	12.4	-65
Karnal	8.3	-81	39.0	-16	30.6	-46
Kurukshetra	7.8	-83	58.7	37	9.5	-83
Mahendragarh	1.8	-95	35.1	-12	7.0	-79
Mewat	3.0	-93	47.0	-8	9.8	-78
Palwal	20.0	-50	15.8	-61	17.3	-61
Panchkkula	30.0	-66	78.5	-9	18.7	-77
Panipat	4.6	-91	25.2	-44	22.1	-57
Rewari	16.0	-66	44.4	-6	26.4	-39
Rohtak	2.0	-95	36.3	-35	35.6	-9

Sirsa	10.2	-45	10.6	-41	22.0	12
Sonepat	5.1	-90	35.4	-24	18.7	-64
Yamunanagar	41.4	-48	81.0	14	50.4	-33
Delhi						
Central Delhi	5.0	-92	105.0	61	9.0	-83
East Delhi	76.0	17	115.0	76	44.0	-18
New Delhi	4.0	-94	97.4	49	23.2	-57
North Delhi	26.2	-60	139.0	113	25.0	-54
North East Delhi	23.0	-65	45.0	-31	34.0	-37
North West Delhi	11.5	-82	173.5	165	14.5	-73
South Delhi	1.7	-97	274.4	320	32.4	-40
South West Delhi	14.8	-77	125.4	92	65.9	23
West Delhi	11.0	-83	103.0	57	43.0	-20
Jammu & Kashmir						
Anantnag	18.6	-4	2.1	-90	4.6	-66
Badgam	21.5	56	0.0	-100	3.4	-68
Bandipore	**	**	**	**	**	**
Baramula	24.6	11	0.6	-98	1.8	-90
Doda	32.2	1	2.0	-92	34.2	45
Ganderbal	27.1	58	0.5	-97	1.0	-92
Jammu	17.8	-81	118.0	18	13.9	-81
Kargil	**	**	**	**	**	**
Kathua	42.8	-63	216.3	100	47.3	-48
Kistwar	**	**	**	**	**	**
Kulgam	6.3	-68	0.0	-100	0.4	-97
Kupwara	39.6	148	5.4	-72	13.0	29
Ladakh(Leh)	26.7	1237	0.0	-100	0.0	-100
Poonch	**	**	**	**	**	**
Pulwama	17.0	-8	0.0	-100	14.9	22
Rajouri	14.0	-81	50.0	-22	2.8	-96
Ramban	22.6	-29	11.2	-57	4.4	-81
Reasi	102.9	-39	267.2	107	15.1	-84
Samba	30.7	-67	81.8	-18	6.8	-91
Shopian	**	**	**	**	**	**
Srinagar	80.7	372	0.0	-100	12.9	-2
Udhampur	73.2	-57	191.1	48	1.2	-99
East Madhya Pradesh						
Anuppur	67.3	-25	21.7	-76	75.4	-21
Balaghat	102.6	-1	42.6	-59	70.2	-41
Chhatarpur	31.4	-66	10.0	-90	74.4	-10
Chindwara	155.5	103	128.0	127	56.1	-15
Damoh	79.5	-33	51.5	-47	121.1	41
Dindori	124.4	27	37.4	-63	91.6	-10
Jabalpur	139.9	27	48.0	-51	42.0	-58
Katni	50.9	-57	38.6	-58	83.8	-8
Mandla	156.9	52	40.1	-62	90.6	-25
Narsingpur	117.2	21	50.6	-41	62.2	-39
Panna	45.7	-53	38.2	-64	96.8	7
Rewa	52.7	-36	45.0	-45	77.6	8
Sagar	65.4	-45	61.5	-36	74.0	-23
Satna	81.1	-8	70.6	-21	103.6	28

Seoni	130.4	54	83.3	16	73.2	-11
Shahdol	90.6	7	22.0	-76	42.0	-50
Sidhi	65.8	-10	0.0	-100	132.0	66
Singrauli	134.0	96	24.0	-61	78.0	15
Tikamgarh	21.0	-71	28.0	-69	146.5	80
Umaria	131.4	34	32.7	-65	126.6	20
West Madhya Pradesh						
Agar	49.6	-57	212.8	71	86.6	-3
Alirajpur	18.5	-73	4.9	-91	16.3	-69
Asoknagar	53.5	-30	73.5	1	125.8	62
Badwani	71.5	51	42.1	-10	19.8	-48
Betul	232.8	171	89.9	33	34.1	-52
Bhind	8.0	-84	73.9	-3	52.2	-21
Bhopal	97.1	11	80.2	4	105.3	34
Burhanpur	140.3	122	103.2	71	42.2	-16
Datia	1.3	-98	41.3	-48	128.5	73
Dewas	127.1	44	152.7	118	75.0	-1
Dhar	98.5	33	17.3	-71	20.2	-60
Guna	50.9	-41	40.8	-50	164.3	118
Gwalior	1.8	-97	29.1	-65	120.3	73
Harda	256.1	166	179.0	116	77.8	-25
Hosangabad	176.0	40	81.7	-20	167.6	45
Indore	206.0	193	43.1	-31	22.7	-59
Jhabua	25.4	-62	8.9	-85	12.2	-73
Khandwa	219.2	169	146.3	120	20.7	-68
Khargone	135.7	100	92.5	74	12.9	-71
Mandsaur	15.8	-81	71.6	13	71.9	23
Morena	2.0	-97	17.1	-77	107.7	49
Neemuch	19.8	-71	52.4	-9	84.4	31
Raisen	63.5	-35	113.3	25	146.5	47
Rajgarh	68.9	-26	66.4	-10	114.6	58
Ratlam	61.5	-32	31.4	-50	25.2	-59
Sehore	82.3	-23	69.0	-13	65.9	-27
Shajapur	95.0	-3	161.5	142	59.0	-20
Sheopur Kalani	12.5	-77	107.0	42	47.1	-32
Shivpuri	53.8	-23	95.7	25	124.2	102
Ujjain	94.2	19	66.0	11	54.8	-11
Vidisha	34.3	-64	64.7	-17	112.7	20
Chhattisgarh						
Bastar	4.0	-96	35.2	-58	108.2	21
Bijapur	52.9	-59	64.8	-51	123.3	20
Bilaspur	91.7	15	27.2	-67	101.4	19
Dantewara	13.7	-86	116.6	14	87.4	13
Dhamtari	13.8	-84	15.0	-78	30.4	-65
Durg	50.9	-36	60.9	-20	74.4	-3
Janjgir	106.1	8	9.7	-91	86.9	-15
Jashpurnagar	95.7	4	12.4	-88	80.5	-15
Kanker	21.5	-83	79.2	-8	32.8	-69
Korba	150.5	28	17.1	-84	175.3	70
Koriya	51.1	-41	4.0	-96	78.2	-21
Kawardha	19.7	-71	58.9	-10	57.5	-15

Mahasumund	103.2	14	18.6	-74	115.7	26
Narayanpur	6.4	-94	65.7	-38	130.7	32
Raigarh	189.6	109	43.2	-48	40.8	-54
Raipur	50.4	-35	28.7	-63	66.1	-20
Rajandgaon	33.7	-61	51.1	-32	31.6	-59
Surguja	69.2	-23	62.8	-34	70.4	-19
East Uttar Pradesh						
Allahabad	33.5	-42	5.3	-93	71.5	24
Ambedkar Nagar	0.0	-100	8.0	-89	20.0	-68
Azamgarh	69.1	2	99.8	37	70.4	10
Bahraich	35.8	-47	65.5	2	68.1	1
Ballia	27.4	-53	58.3	-15	108.7	109
Balrampur	38.5	-46	35.0	-52	91.0	18
Banda	3.0	-96	49.2	-45	31.8	-61
Barabanki	68.0	-2	19.3	-70	60.7	-17
Basti	44.1	-36	55.8	-14	60.8	-11
Chandauli	33.2	-39	35.6	-53	129.2	91
Deoria	42.5	-36	32.5	-52	86.0	14
Faizabad	32.3	-60	17.9	-74	43.2	-45
Farrukhabad	3.9	-92	30.1	-63	53.9	-28
Fatehpur	0.0	-100	0.5	-99	25.1	-62
Gazipur	30.8	-58	108.8	28	87.6	37
Gonda	54.4	-35	50.8	-31	53.9	-10
Gorakhpur	119.4	35	40.3	-59	62.4	-30
Hardoi	24.0	-55	13.6	-79	86.1	40
Jaunpur	52.6	4	61.9	-15	71.2	34
Kannauj	3.5	-94	11.0	-86	28.9	-62
Kanpur City	10.5	-79	35.9	-51	15.8	-77
Kanpur Dehat	1.6	-97	25.8	-69	16.6	-76
Kaushambi	0.0	-100	12.6	-84	40.0	-37
Kheri	39.0	-44	35.9	-44	103.0	46
Kushi nagar	14.5	-82	23.6	-70	6.5	-94
Lucknow	13.9	-76	20.6	-68	55.7	-13
Maharajganj	21.5	-74	44.8	-45	9.3	-92
Mau	26.5	-60	28.0	-61	19.0	-75
Mirzapur	73.7	17	0.3	-99	85.7	52
Pratapgarh	41.7	-28	43.3	-42	54.3	-14
RaiBareilly	4.0	-92	14.9	-78	37.7	-37
Sahuji Maharajnagar	0.0	-100	11.5	-85	67.0	-11
Sant Kabirnagar	17.0	-77	21.0	-69	74.0	8
Sant Ravidas Nagar	63.0	15	3.0	-96	136.0	101
Shrawasti	32.8	-52	43.9	-32	70.9	6
Sidharthnagar	117.6	62	20.2	-73	25.8	-65
Sitapur	45.9	-5	37.5	-45	47.7	-25
Sonbhadra	76.1	8	7.3	-90	122.2	84
Sultanpur	43.3	-25	18.4	-73	31.3	-49
Unnao	2.5	-96	20.3	-74	29.1	-58
Varanasi	67.9	18	18.5	-73	86.1	44
West Uttar Pradesh						
Agra	5.9	-90	34.7	-55	50.8	-25
Aligarh	3.0	-96	73.2	19	83.9	29

Auraiya	0.0	-100	15.6	-79	41.9	-35
Badaun	7.4	-90	57.8	-16	38.0	-43
Baghpat	12.1	-78	61.3	14	47.5	-10
Bareilly	38.3	-49	36.4	-50	41.4	-29
Bijnor	88.1	6	53.9	-33	41.0	-45
Bulandsahar	1.8	-97	84.2	51	48.9	-25
Etah	0.0	-100	17.1	-74	31.0	-46
Etawah	0.0	-100	60.3	-30	79.1	7
Firozabad	0.0	-100	33.4	-50	98.1	43
GBNagar	6.0	-89	73.0	13	82.0	62
Ghaziabad	5.2	-92	56.6	-9	19.3	-64
Hamirpur	6.7	-90	50.5	-47	20.5	-72
Jalaun	0.0	-100	42.0	-58	70.5	-4
Jhansi	4.0	-94	65.6	-27	45.3	-39
Jotiba Phule Nagar	0.5	-99	74.0	3	28.0	-63
Kanshiramnagar	0.0	-100	31.0	-51	66.0	-3
Lalitpur	35.5	-50	27.5	-74	58.5	-24
Mahamaya Nagar	0.0	-100	26.5	-60	20.8	-67
Mahoba	5.6	-92	0.0	-100	0.0	-100
Mainpuri	0.0	-100	25.8	-64	42.0	-37
Mathura	6.6	-87	70.8	19	29.8	-55
Meerut	4.1	-95	49.2	-32	20.5	-72
Moradabad	33.6	-56	57.9	-28	22.7	-70
Muzzaffarnagar	7.1	-90	72.4	3	26.0	-62
Pilibhit	36.8	-57	20.9	-73	34.3	-53
Rampur	25.3	-66	15.6	-81	2.2	-97
Saharanpur	26.2	-64	138.2	98	6.7	-92
Shahjahanpur	34.2	-48	8.4	-89	99.1	50
Uttarakhand						
Almora	50.6	-26	54.5	-20	38.9	-45
Bageshwar	59.6	-13	86.5	27	17.5	-75
Chamoli	42.4	-51	105.1	17	89.0	9
Champawat	89.0	-9	118.5	22	71.5	-15
Dehradun	124.9	-29	166.0	-4	95.7	-37
Garhwal Pauri	100.4	-20	115.7	5	89.7	-13
Garhwal Tehri	23.5	-78	116.6	27	15.8	-81
Haridwar	134.0	48	44.4	-54	97.3	10
Nainital	130.1	8	154.8	63	40.3	-61
Pithorgarh	68.8	-50	71.9	-43	75.2	-39
Rudraprayag	59.0	-63	123.3	-21	107.0	-35
Udham Sing Nagar	70.4	-17	85.9	0	27.9	-67
Uttarkashi	57.3	-43	133.2	36	97.4	-5
Bihar						
Araria	7.4	-92	56.0	-25	72.9	-2
Arwal	8.7	-82	13.2	-78	112.7	92
Aurangabad	58.4	14	7.2	-87	69.9	22
Banka	82.3	29	15.8	-69	60.3	0
Begusarai	7.1	-91	14.6	-71	54.0	33
Bhabua	54.0	-19	36.1	-50	115.2	94
Bhagalpur	32.0	-55	10.5	-79	75.1	21
Bhojpur	35.8	-46	73.7	43	22.3	-67

Buxar	129.8	138	28.2	-55	164.4	175
Darbhanga	9.6	-86	55.9	-8	54.7	-15
East Champaran	5.2	-93	138.4	138	132.8	92
Gaya	61.0	-3	19.9	-68	44.5	-31
Gopalganj	39.5	-39	79.1	24	71.9	-2
Jahanabad	43.0	-33	7.4	-87	146.6	149
Jamui	56.2	-5	33.2	-44	58.2	7
Kathihar	17.9	-76	33.2	-38	81.4	43
Khagadia	28.9	-65	39.3	-33	109.0	60
Kishanganj	9.8	-91	56.8	-46	161.4	59
Lakhisarai	39.1	-43	6.5	-89	81.7	52
Madhepura	12.9	-81	84.5	32	63.0	3
Madhubani	19.7	-71	52.5	-18	26.3	-65
Monghyar	28.0	-59	15.2	-74	67.2	25
Muzaffarpur	7.3	-89	44.9	-27	36.6	-42
Nalanda	31.2	-45	16.3	-74	115.5	96
Nawada	140.4	118	57.7	-17	55.9	-10
Patna	12.8	-79	11.8	-80	73.7	35
Purnea	3.5	-96	9.2	-87	35.0	-49
Rohtas	94.2	47	7.4	-88	54.7	-8
Saharsha	13.0	-83	32.2	-68	66.2	-25
Samstipur	15.4	-76	36.8	-43	134.0	69
Saran	30.8	-52	100.2	62	117.6	70
Sheikpura	51.1	-9	3.1	-94	104.9	112
Sheohar	18.6	-74	66.6	4	19.8	-73
Sitamarhi	15.0	-79	24.0	-63	17.5	-76
Siwan	24.1	-59	66.3	-3	108.2	63
Supaul	6.1	-89	58.3	10	65.2	19
Vaishali	6.3	-91	63.4	-5	43.2	-27
West Champaran	25.3	-67	91.7	36	63.4	-19
Jharkhand						
Bokaro	143.6	79	0.0	-100	27.2	-55
Chatra	117.9	81	11.0	-86	49.6	-36
Deoghar	169.7	183	0.6	-99	60.1	0
Dhanbad	135.8	63	0.1	-99	33.7	-51
Dumka	265.8	288	18.6	-73	30.2	-61
East Singbhum	81.4	0	17.9	-78	69.6	5
Garhwa	39.6	-50	**	**	0.0	-100
Giridih	204.8	207	0.5	-99	90.5	45
Godda	46.0	-18	44.1	-11	61.7	8
Gumla	147.4	93	40.4	-51	53.4	-41
Hazaribagh	210.1	211	3.1	-96	66.1	14
Jamtara	221.8	188	4.0	-95	65.6	-22
Khunti	105.0	26	4.5	-95	10.0	-86
Koderrna	139.6	133	13.4	-80	55.2	-8
Latehar	172.2	149	1.5	-98	25.1	-55
Lohardagga	226.0	163	3.0	-96	43.6	-15
Pakur	136.8	90	2.4	-97	38.7	-57
Palamau	82.0	17	5.0	-93	73.5	7
Ramgarh	178.4	132	0.6	-99	7.5	-89
Ranchi	168.7	121	1.8	-98	43.5	-48

Sahebganj	59.2	-8	0.0	-100	**	**
Saraikele	67.5	-22	7.8	-90	21.7	-68
Simdega	131.1	35	4.9	-95	105.1	16
West Singbhum	37.9	-56	0.0	-100	43.4	-43
East Rajasthan						
Ajmer	29.1	-17	69.3	104	37.9	-11
Alwar	13.5	-73	76.1	37	36.2	-27
Banswara	31.1	-63	40.4	-40	49.9	-18
Baran	20.0	-71	93.6	18	176.7	144
Bharatpur	16.2	-69	31.5	-44	92.1	76
Bhilwara	19.3	-63	29.2	-38	43.5	-23
Bundi	11.8	-80	130.2	141	71.1	17
Chittorgarh	12.8	-81	69.0	21	69.3	7
Dausa	13.8	-73	78.8	24	18.2	-67
Dholpur	3.0	-95	71.2	-1	96.9	43
Dungarpur	36.2	-40	34.0	-28	45.2	-2
Jaipur	22.4	-49	36.0	-24	24.3	-47
Jhalawar	73.5	-16	80.5	9	98.0	17
Jhunjhunu	26.1	-26	34.7	-2	55.5	71
Karauli	14.0	-71	96.9	6	54.3	-18
Kota	10.6	-83	147.4	118	89.8	34
Pratapgarh	32.2	-63	27.0	-49	39.7	-42
Rajsamand	47.0	14	56.0	31	45.1	-1
Sawai Madhopur	25.2	-52	79.7	-3	44.8	-26
Sikar	60.7	95	23.9	-29	62.8	86
Sirohi	87.6	4	12.1	-84	70.3	-9
Tonk	14.2	-70	87.3	76	39.5	-27
Udaipur	32.3	-43	46.6	3	52.9	24
West Rajasthan						
Barmer	36.3	80	0.1	-99	22.9	6
Bikaner	84.9	396	15.8	3	42.5	120
Churu	62.9	152	19.6	-22	51.9	139
Hanumangarh	48.4	120	0.3	-99	7.1	-64
Jaisalmer	70.4	429	0.0	-100	36.2	80
Jalore	59.7	82	10.4	-70	55.8	58
Jodhpur	56.9	151	3.6	-84	37.7	57
Nagaur	68.7	199	19.1	-30	33.4	23
Pali	58.9	49	20.8	-43	42.0	15
Sri Ganganagar	68.2	334	0.9	-95	7.1	-61
Gujarat Region						
Ahmedabad	6.2	-87	0.1	-99	16.5	-62
Anand	7.4	-88	0.0	-100	8.0	-87
Banaskantha	46.9	-12	0.6	-99	32.0	-22
Baroda	2.8	-96	2.5	-97	13.6	-80
Broach	1.8	-97	2.3	-96	8.8	-82
DNH	35.2	-82	16.7	-89	55.9	-62
Dahod	11.1	-86	7.9	-89	27.2	-52
Daman	16.0	-92	3.2	-98	30.2	-79
Dangs	55.5	-67	18.0	-87	21.0	-83
Gandhinagar	12.6	-80	0.0	-100	23.3	-48
Kheda	12.9	-81	0.3	-99	23.7	-58

Mehsana	30.4	-47	2.9	-94	42.6	4
Narmada	2.5	-97	4.7	-95	14.2	-80
Navsari	15.0	-89	8.7	-93	29.0	-74
Panchmahal	13.5	-83	3.6	-96	36.9	-43
Patan	46.4	3	0.0	-100	36.6	5
Sabarkantha	48.6	-32	5.5	-92	45.1	-16
Surat	6.1	-93	6.3	-93	23.7	-67
Tapi	9.8	-92	6.8	-95	5.0	-94
Valsad	25.1	-84	12.1	-90	33.6	-72
S K & Diu region						
Amreli	0.7	-98	0.5	-99	9.1	-69
Bhavnagar	0.7	-98	0.4	-99	23.1	-25
Diu	0.4	-99	2.6	-93	3.1	-91
Jamnagar	0.4	-98	0.1	-99	13.6	-38
Junagarh	3.7	-92	0.5	-99	7.3	-82
Kutch	0.6	-98	0.1	-99	6.5	-72
Porbandar	2.8	-92	0.8	-98	2.5	-92
Rajkot	4.4	-88	0.3	-99	22.0	-25
Surendranagar	1.1	-97	0.0	-100	4.4	-86
Maharashtra & Goa						
Konkan & Goa						
Mumbai City	35.9	-76	48.0	-61	36.2	-67
Mumbai Suburban	32.7	-78	53.1	-57	41.4	-63
North Goa	107.4	-55	162.8	-22	85.8	-46
Raigad	132.0	-47	88.6	-56	66.1	-68
Ratnagiri	174.8	-34	125.9	-43	50.2	-75
Sindhudurg	110.8	-49	194.2	5	63.9	-58
South Goa	148.7	-28	174.4	-7	68.4	-50
Thane	68.2	-66	41.1	-77	51.6	-65
Madhya Maharashtra						
Ahmednagar	7.3	-67	10.3	-39	1.7	-89
Dhule	43.3	13	22.3	-31	10.1	-62
Jalgaon	66.8	28	35.6	-29	17.1	-60
Kolhapur	53.3	-62	57.7	-56	18.9	-83
Nandurbar	22.8	-67	5.9	-90	8.8	-82
Nasik	34.6	-54	28.5	-56	17.4	-70
Pune	35.4	-47	15.6	-73	8.6	-84
Sangli	11.9	-62	5.8	-80	1.5	-93
Satara	25.8	-54	22.2	-51	6.8	-83
Solapur	1.9	-93	7.6	-60	0.8	-96
Marathwada						
Aurangabad	36.7	-7	44.1	27	5.4	-82
Beed	10.8	-63	23.9	-17	18.2	-35
Hingoli	52.6	-18	86.5	57	19.5	-68
Jalna	44.1	10	64.9	87	17.1	-43
Latur	14.4	-73	29.6	-33	20.6	-60
Nanded	21.7	-66	50.6	-6	40.9	-22
Usmanabad	6.1	-83	42.9	46	9.4	-70
Parbhani	21.5	-60	26.0	-37	19.3	-60
Vidarbha						
Akola	177.0	236	49.4	-11	23.0	-42

Amraoti	180.3	154	75.2	20	40.9	-25
Bhandara	56.1	-42	33.8	-66	147.0	73
Buldhana	145.9	170	44.5	-8	21.8	-44
Chandrapur	31.4	-69	52.9	-35	133.8	57
Gadchiroli	16.5	-86	60.2	-41	95.6	-6
Gondia	67.5	-32	58.0	-44	107.7	13
Nagpur	112.1	44	51.5	-16	167.4	174
Wardha	158.1	111	55.4	-16	48.2	-17
Washim	176.7	163	63.9	-8	12.1	-78
Yeotmal	94.7	39	54.4	-14	30.6	-47
Odisha						
Angul	68.6	0	5.2	-94	45.2	-51
Balasore	63.9	-9	14.4	-83	37.6	-54
Bargarh	83.9	4	16.5	-80	56.2	-41
Bhadrak	47.7	-41	17.7	-79	26.0	-69
Bolangir	21.9	-74	13.3	-84	54.3	-37
Boudh	87.7	18	13.7	-85	44.9	-48
Cuttack	54.3	-31	21.6	-74	59.7	-29
Deogarh	85.4	-21	13.9	-88	81.7	-33
Dhenkanal	87.7	9	4.6	-95	77.7	-13
Gajapati	2.6	-95	28.0	-54	64.9	3
Ganjam	3.8	-92	34.6	-32	57.1	1
Jagatsingpur	71.1	-30	31.3	-55	77.0	-15
Jajpur	50.8	-39	13.7	-82	44.7	-45
Jharsuguda	176.2	77	18.0	-83	46.0	-54
Kalahandi	8.8	-89	19.2	-77	57.8	-42
Kandhamal	54.1	-27	11.9	-87	39.2	-55
Kendrapara	44.0	-42	13.5	-85	36.3	-62
Keonjhar	41.9	-43	12.8	-83	49.2	-42
Khurda	58.5	-27	23.6	-70	84.4	5
Koraput	13.2	-86	66.1	-35	113.0	11
Malkangiri	18.0	-82	101.0	-4	202.0	59
Mayurbhanj	56.8	-27	14.4	-85	46.2	-48
Nawapara	11.8	-82	32.4	-47	67.7	-8
Nawarangpur	2.2	-97	43.5	-56	131.1	-4
Nayagarh	46.6	-32	14.4	-81	75.4	-11
Puri	6.3	-91	48.5	-40	96.5	32
Rayagada	12.5	-78	27.6	-54	109.8	70
Sambalpur	68.4	-37	11.0	-91	45.4	-63
Sonepur	50.4	-53	6.5	-94	65.3	-39
Sundargarh	148.1	63	25.7	-67	44.2	-56
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	23.9	-56	35.8	-48	17.3	-71
North & Middle Andaman	126.1	30	232.6	111	21.4	-79
South Andaman	83.7	3	138.3	21	18.9	-80
GWB						
Bankura	167.0	157	8.9	-87	32.4	-54
Birbhum	183.7	153	6.7	-91	47.7	-30
Burdwan	215.6	188	26.1	-59	32.5	-51

East Midnapore	252.0	192	12.7	-80	55.6	-28
Hooghly	213.2	204	9.8	-82	15.7	-73
Howrah	184.5	81	22.0	-71	11.6	-84
Kolkata	206.1	116	35.6	-49	42.9	-40
Murshidabad	159.4	144	25.5	-47	50.0	-27
Nadia	125.7	141	0.1	-99	9.4	-86
24 Pargana (N)	195.4	136	23.7	-59	63.1	-19
Purulia	116.6	68	9.3	-88	34.7	-49
24 Pargana (S)	206.9	83	23.6	-74	93.3	11
West Midnapore	173.9	121	39.4	-50	22.3	-69
SHWB & Sikkim						
Cooch Behar	60.8	-65	46.2	-75	216.2	23
Darjeeling	41.3	-73	134.7	-13	127.5	-7
East Sikkim	42.3	-64	51.3	-55	49.1	-42
Jalpaiguri	90.6	-39	127.8	-17	325.9	125
Malda	101.9	56	9.4	-83	145.2	130
North Dinajpur	35.0	-22	44.6	-34	101.7	47
North Sikkim	44.8	-57	110.2	31	105.4	2
South Dinajpur	25.6	-53	4.3	-90	90.5	38
South Sikkim	54.1	-54	48.5	-58	90.3	7
West Sikkim	55.0	-47	24.0	-71	73.0	-29
Karnataka						
Coastal Karnataka						
Dakshina Kannada	146.9	-41	257.6	29	124.2	-40
Udupi	209.4	-16	273.4	19	105.2	-52
Uttara Kannada	124.5	-39	165.6	-9	64.1	-61
N I Karnataka						
Bagalkote	10.1	-46	11.0	-37	9.0	-36
Belagavi	10.8	-73	22.3	-37	6.0	-78
Bidar	24.0	-43	21.3	-47	22.3	-53
Dharwad	13.6	-54	12.2	-56	3.7	-84
Gadag	6.3	-67	4.6	-74	26.9	99
Haveri	21.6	-35	30.0	-1	12.4	-53
Kalaburgi	10.2	-75	49.0	52	7.2	-83
Koppal	9.1	-49	21.3	5	20.8	24
Raichur	12.5	-55	13.9	-48	9.6	-62
Vijayapura	9.1	-63	12.5	-22	2.9	-85
Yadgir	8.0	-78	19.6	-40	16.9	-55
S I Karnataka						
Ballari	11.1	-40	12.5	-37	52.2	196
Bangalore Rural	17.0	-36	24.9	20	35.6	17
Bangalore Urban	16.1	-44	16.4	-38	35.6	10
Chamarajanagar	2.8	-82	4.0	-68	31.7	113
Chikaballapur	18.3	-19	5.2	-76	23.3	-2
Chikkamagaluru	42.7	-67	76.7	-34	53.3	-51
Chitradurga	6.5	-55	12.6	-8	20.1	74
Davangere	17.2	-25	14.5	-35	24.8	24
Hassan	13.1	-66	16.5	-48	47.0	43
Kodagu	46.2	-71	131.7	-7	82.4	-39

Kolar	18.7	-7	3.3	-83	6.9	-68
Mandya	16.4	31	3.7	-59	58.7	328
Mysuru	12.9	-23	12.6	-7	37.5	133
Ramanagara	14.1	-42	8.1	-59	70.5	176
Shivamogga	83.6	-34	118.9	14	64.7	-37
Tumakuru	18.6	-4	3.5	-78	47.0	143
Kerala						
Alappuzha	19.7	-78	71.4	-13	64.9	-8
Kannur	39.3	-77	173.4	31	59.1	-52
Ernakulam	34.1	-69	87.2	-19	71.4	-20
Idukki	36.6	-75	118.7	-9	77.9	-40
Kasaragod	67.1	-66	167.0	5	73.2	-48
Kollam	18.3	-72	31.3	-44	65.3	21
Kottayam	31.7	-67	93.7	-3	119.5	35
Kozhikode	19.5	-88	115.6	-10	52.3	-55
Malappuram	15.4	-88	136.8	49	68.2	-28
Palakkad	12.8	-86	102.2	25	65.8	-27
Pathanamthitta	21.0	-77	89.4	4	118.8	54
Thiruvananthapuram	2.3	-94	5.3	-84	41.9	33
Thrissur	21.9	-83	132.5	20	67.6	-35
Wynad	17.0	-91	76.6	-50	94.7	-31
Tamil Nadu						
Ariyalur	11.3	-36	2.0	-91	10.4	-62
Chennai	65.9	165	15.6	-53	6.4	-81
Coimbatore	3.9	-46	13.8	70	28.4	209
Cuddalore	21.5	17	3.0	-89	6.8	-75
Dharmapuri	5.7	-64	0.0	-100	63.6	188
Dindigul	7.0	-44	2.3	-81	18.3	18
Erode	20.6	157	0.4	-96	41.5	258
Kanchipuram	48.7	101	10.5	-71	17.2	-56
Kanyakumari	0.6	-96	3.7	-80	20.6	10
Karikal	0.1	-99	10.0	-44	0.0	-100
Karur	2.6	-39	0.3	-97	11.7	1
Krishnagiri	9.5	-47	1.1	-93	57.4	144
Madurai	10.8	-17	0.6	-96	53.4	177
Nagapattinam	24.3	83	3.3	-81	3.0	-86
Namakkal	9.3	-45	3.9	-81	22.4	3
Nilgiris	12.4	-74	19.1	-55	38.7	-18
Perambalur	55.0	540	0.0	-100	28.3	59
Puducherry	42.8	135	11.1	-63	38.6	35
Pudukottai	11.4	-7	1.6	-93	18.4	-26
Ramanathapuram	12.8	137	0.6	-92	44.3	334
Salem	17.0	-11	8.5	-62	36.3	31
Sivaganga	40.9	167	0.0	-100	76.0	366
Thanjavur	6.5	-52	0.3	-98	51.2	140
Theni	2.3	-60	9.4	36	27.0	218
Tirunelveli	0.0	-100	1.5	-75	8.8	35
Tirupur	0.0	-100	1.1	-81	20.6	232
Tiruvallur	70.3	199	2.7	-91	0.6	-98

Tiruvannamalai	31.6	37	7.0	-75	61.4	95
Tiruvarur	14.0	18	0.0	-100	16.6	-23
Toothukudi	1.8	-4	0.4	-83	10.5	238
Trichy	8.9	6	0.2	-99	35.6	133
Vellore	20.5	-14	6.8	-74	49.6	63
Villupuram	29.5	48	3.6	-85	33.7	21
Virudhunagar	3.5	-36	0.1	-99	25.2	125
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	51.7	36	58.7	15	52.0	26
Guntur	17.2	-49	30.5	2	27.8	-28
Krishna	28.7	-39	38.8	-11	35.8	-22
Nellore	28.2	53	29.2	37	13.6	-39
Prakasam	15.0	-26	29.4	76	29.0	49
Sirkakulam	3.0	-93	41.3	-6	40.9	-15
Visakhapatnam	6.1	-84	69.5	79	70.1	68
Vizianagram	11.4	-71	49.0	33	87.1	86
West Godavari	43.1	-11	52.5	-15	66.4	33
Rayalaseema						
Anantapur	10.7	-25	3.3	-77	22.9	55
Chittoor	32.1	53	2.6	-90	27.7	11
Cuddapah	13.7	-43	10.6	-56	23.3	-2
Kurnool	9.7	-65	19.5	-20	12.8	-56
Telangana						
Adilabad	11.1	-85	58.9	-16	43.0	-37
Hyderabad	2.0	-95	10.9	-75	31.9	-34
Karimnagar	7.0	-88	74.9	32	29.8	-44
Khammam	28.9	-58	54.9	-13	50.1	-10
Mehabubnagar	6.3	-84	43.9	40	12.9	-67
Medak	10.3	-82	35.2	-20	17.2	-70
Nalgonda	9.4	-72	42.4	39	46.3	34
Nizamabad	11.0	-86	55.5	-19	39.4	-45
Rangareddy	11.7	-71	40.2	10	22.8	-53
Warangal	10.7	-82	53.5	0	53.5	-3

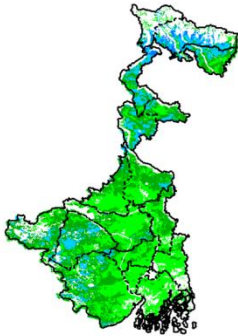
Legends

	(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

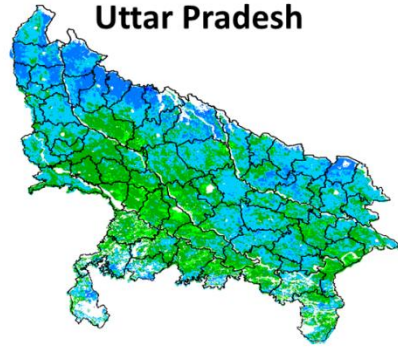
**INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
19th August 2015 FOR DIFFERENT STATES**

West Bengal



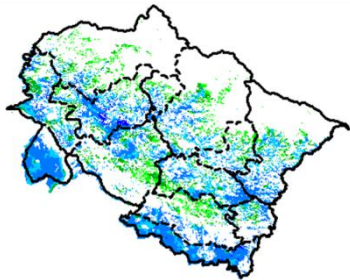
Agricultural vigour is very normal over the parts of West Bengal, whereas northern parts of West Bengal show dominantly higher values of NDVI varying from 0.4-0.6.

Uttar Pradesh



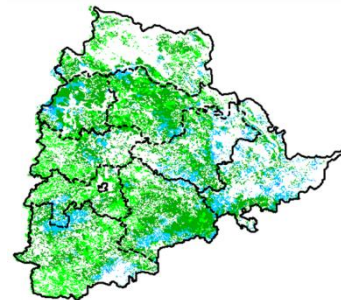
Agricultural vigour is good over the entire state of Uttar Pradesh where NDVI value varies from 0.4 -0.5. In southern part normal NDVI values (0.2-0.4) are observed.

Uttarakhand



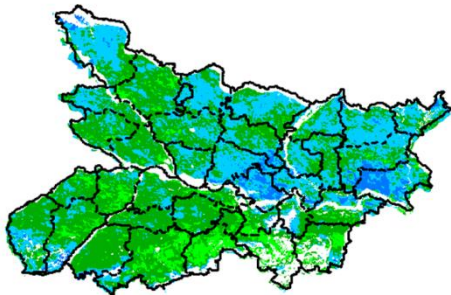
Agriculture vigour is good over entire state of Uttarakhand with NDVI value varying between 0.4-0.6, whereas isolated patches with normal value of NDVI are observed over some parts of the state.

Telangana



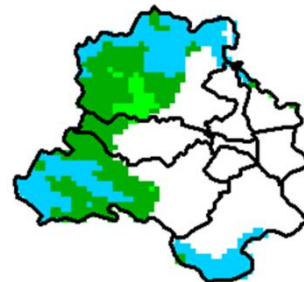
Agriculture vigour is normal all over Telangana where NDVI value lies between 0.2-0.4.

Bihar



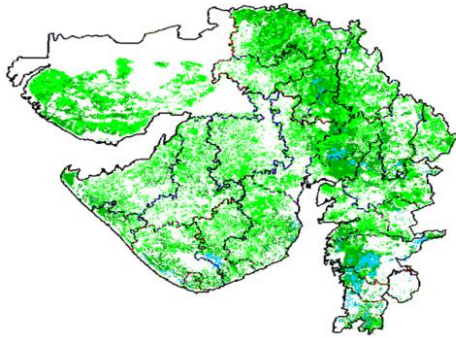
Northern part of Bihar shows comparatively a high value (0.4 -0.5) of NDVI, whereas normal value of NDVI is observed over the remaining parts of the state.

Delhi



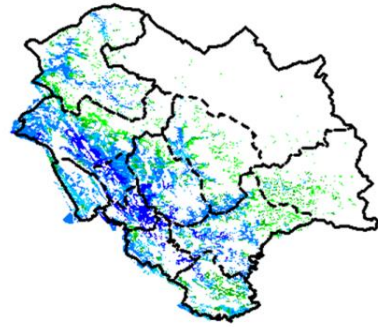
Agriculture vigour is good all over Delhi where NDVI value lies between 0.3-0.5, whereas normal value of NDVI is observed over western part of the state.

Gujarat



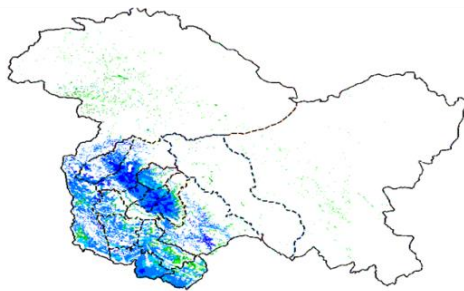
Agriculture vigour is normal over entire Gujarat where NDVI value lies between 0.2-0.3.

Himachal Pradesh



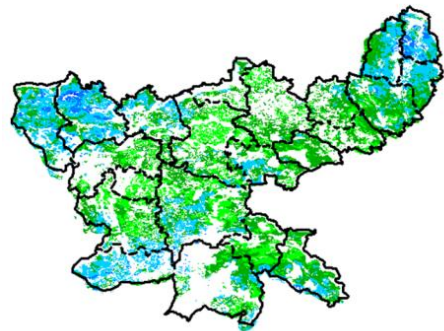
Agriculture vigour is good over Himachal Pradesh where NDVI values lies between 0.4-0.6, where as normal NDVI values are observed in some isolated patches of the state.

Jammu & Kashmir



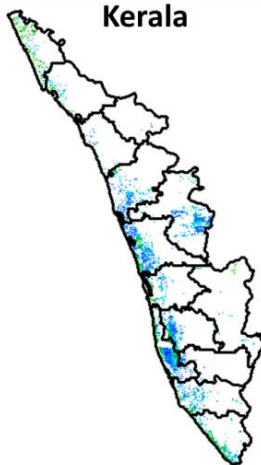
Agriculture vigour is good all over Jammu and Kashmir. NDVI value varies in between 0.4-0.5 in south western parts.

Jharkhand



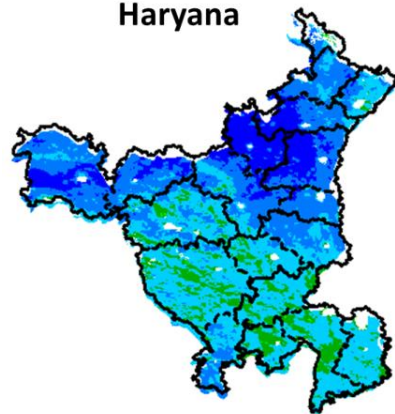
NDVI values vary from 0.4 - 0.5 over North-eastern and western part of Jharkhand. Normal NDVI values are seen over central parts of Jharkhand.

Kerala



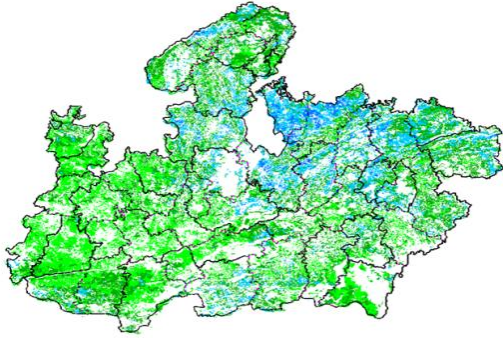
Central and coastal regions of Kerala shows increased NDVI values varying from 0.4 to 0.5, whereas normal NDVI values observed in northern part of the state.

Haryana



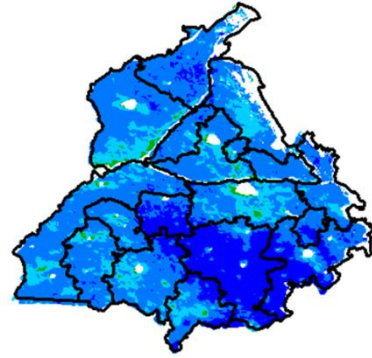
Agriculture vigour is good over the state of Haryana. NDVI values vary between 0.4-0.6. Northern part shows increase in NDVI (>0.6).

Madhya Pradesh



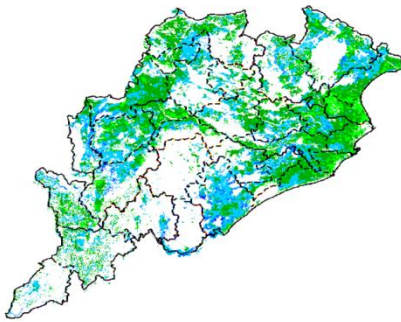
Agriculture vigour is normal (0.2-0.3) over entire state Madhya Pradesh. Higher (> 0.4) values are seen in some patches over north-eastern and eastern part of Madhya Pradesh.

Punjab



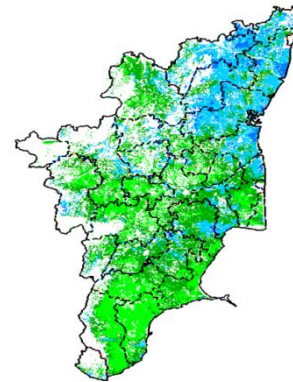
Agricultural vigour is very good over entire state of Punjab, showing NDVI value ranges from 0.4-0.6. Southern part shows increase in NDVI (>0.6).

Odisha



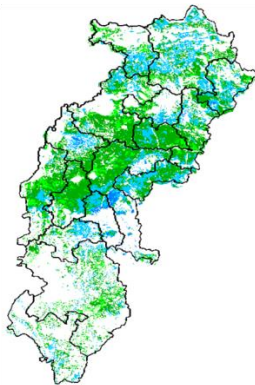
Agricultural vigour is normal over entire state of Odisha with NDVI value ranging between 0.2 - 0.4. Higher (> 0.4) values are seen in some patches over central and eastern part of the state.

Tamil Nadu



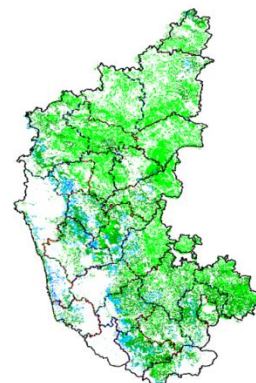
Agricultural vigour is normal over Tamil Nadu with NDVI values varying from 0.2 - 0.3. Except Northern part showing increase NDVI value ranges from 0.4-0.5.

Chhattisgarh



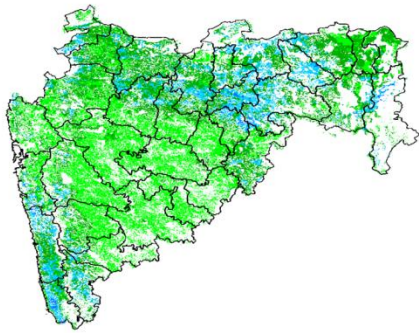
Agriculture vigour is Normal over the state of Chhattisgarh where NDVI value lies in between 0.2-0.3. Few patches in northern and central part shows increased NDVI values.

Karnataka



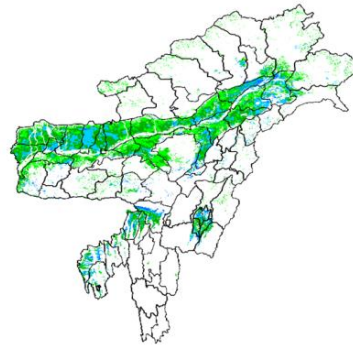
Agricultural vigour is normal over entire state of Karnataka between 0.2-0.3, except central part shows higher NDVI values in between 0.4-0.5.

Maharashtra



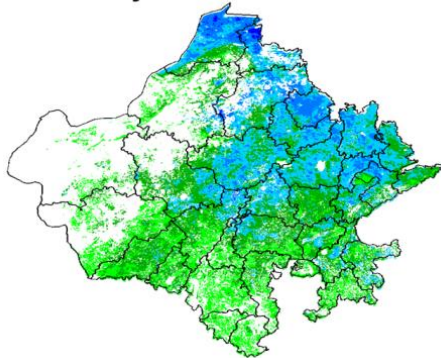
Agricultural vigour is good over western Vidarbha and south-western Maharashtra with NDVI values from 0.4 - 0.5, whereas NDVI is normal over parts of Marathwada, Vidarbha, western Maharashtra and Madhya Maharashtra region .

North East Region



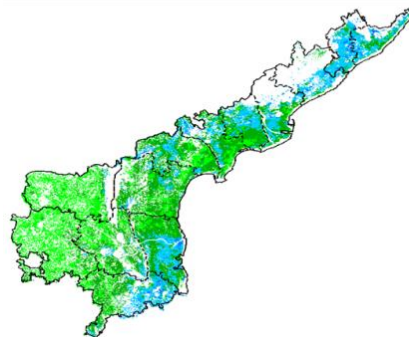
Agriculture vigour is normal over entire North-East states where NDVI values ranges from 0.3-0.4.

Rajasthan

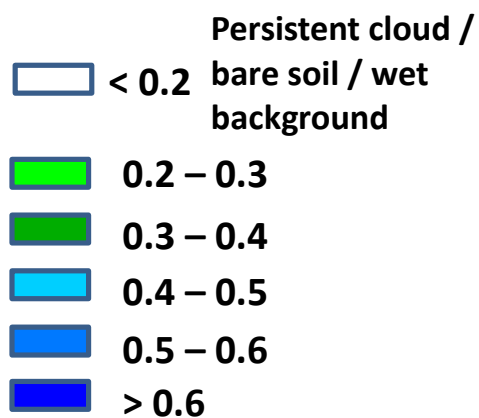


Agriculture vigour is good (0.2-0.4) over entire state Rajasthan. Central and northern part shows increase in NDVI values (0.4-0.6).

Andhra Pradesh



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 Inerior Karnataka

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

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

Sesame: E8,DS1, DSH9.

Maize: Arjun, 900 M.

Pearl millet: ICTP 8203 and ICMV 221

Pigeon pea: Maruti, TS 3 R.

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

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.

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).

Bau rice: Maguri, Panikekua, Amona, Negheri, Kekua, Pani Kekua, Padmapani.

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

Olitorius Jute: JRO 524 (Navin), JRO 785 (Basudev), JRO 632(Baisakhtissa), Set-2 (Bahagi) and Tarun.

Papaya : Ranchi, Washington, Halflong, Coorg Honeydew.

Mesta : HC 583 and AMC 108.

Summer bottle gourd : Pusa Summer Prolofie long, Pusa Summer Profile round, Pusa Meghdoot and Pusa Manjiri.

Cowpea: Yard long bean & Pusa Barsati.

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.

Green gram: Pratap, SG 21-5

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

Manipur

Soybean: JS-335.

Groundnut: ICGS-76.

Meghalaya

Sali/KharifRice: High Yielding Varieties : Shahsarang -1, Lampnah, IR 64, Ranjit, RCPL 1-412, RCPL 1-410, RCPL 1-411.

Local varieties: Mendri, Manipuri.

Groundnut: ICGS 76, JL 24.

Soybean: JS 335, Bragg, Ankur, Pusa Soubean-1, Local JS 2.

Nagaland

Lowland rice:Short to medium duration HYV rice : CAU R1, CAU R3, RCM-9 and RCM-11.

Maize : DA 61A, RCM-75, RCM-76 and HQPM-1.

Tripura

Groundnut: TAG 24, TG 37A, ICGS 76.

Maize: DMH- 849, 117, HQPM 1, BQPM 9.

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 Dhan 109, 110, 111 & Vandana.

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

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

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

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

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

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

Sweet Potato: Birsa Sakarkandi & Shreebhadra.

Jammu & Kashmir

Onion: Agrifound Parvati, Pusa red, N-53.

Rice: IET-1410, K-39, Ratna, PC-19, Jaya, China-1039 and Giza-14.

Maize: Vijay, Mansar, Him - 123, C 6 & C 8.

Uttarakhand

Tomato: VL Tomato-3, Pant T-3, Him Sona, Him Shikhar.

Capsicum: California Vander, Pus Dipti, Anupam. Heera, Indira, Supriya & Bharat.

Potato: Kufri- Jyoti, Ashok, Anand.

Moong: Pant Moong-2, Pant Moong-4, Pant Moong-5, Pant Moong-6, Narendra Moong-1.

Rice: long duration varieties like Pusa-44, Jaya, NDR-359, Sarju-52, PR-113, PR-114, Pant Dhan-18 or Pant Dhan-19.

late varieties VL-Dhan-154, Vivek Dhan-62, Vivek Dhan-65, VL Dhan-81, Vivek Dhan-82 or VL-Dhan-85.

Finger millets: VL-Mandua-124 and VL-149. However, its short duration (i.e. 95 to 100 days) varieties like VL- Mandua-204, Pant Mandua-3, PES-176, PES-110, VL- Mandua-146.

Bajra: PBN-83, YESHWANT (PBN-9), Pusa Composite 443, MP443.

Maize: Naveen, Sweta, Kanchan, Surya, Amar, Gaurav.

Lobia: Pant Lobia-1 or Pant Lobia-2, UPC-5286, UPC-622, UPC-625 etc.

Cotton: ANKUR-651, JAWAHAR TAPTI, SRUTHI, ANKUR-09 (WHH-09).

Himachal Pradesh

Cauliflower: Patna snowball and joint snowball.

Radish: Japanese white, Chinese pink and mino early white.

Capsicum: solan hyb-1, california wonder, yolo wonder, vl shimla mirch-2.

Brinjal: plr-1, azad (hybrid), Arka Nidhi, Arka Keshav, Hisar Shaymal, PPC, F1 Chhaya, F1 Sandhya.

Tomato: solan gola, Palam Pink, Palam Pride, F1 Avtar, F1 Rakshita.

Chilli: Surajmukhi.

Sunflower: EC-68415.

Moong: Pusa Baishakhi.

Mash: UG-218.

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

Carrot:Nantes and Chantenay.

Palak:PusaHarit, Pusa Bharti.

East Uttar Pradesh

Rice: sarayu-52, narendra-359, pant dhan-4, indrasan, NDR-9, pant dhan-12, narendra-80, ratna or pusa-35, mahsuri, swarna, mahsuri, jal lahari, type-9, type-100, narendra-359, malviy dhan-36, narendra dhan-2026, narendra dhan-2064, narendra dhan-3112, sarju-52, pant dhan-4, Swarna, Pant-10, T-3, Poosa Basmati and Haryana Basmati.

Hybrid rice varieties: eraes-6444,6201,J.K.R.H.-401,PHB-71,narendra sankar dhan-2,3, KRH-2,PRH-10,US-312, RH-312,VSR-202,RH-1531. Narendra-8002, NarendraMayank (2008) Narendra-97.

Scented rice: Type-3,pusa basmati-1,basmati-370,malviya sugandh-105, malviya sugandh-4-3, narendra sugandh,Narendra usar dhan-1,3,CLR-10, or narendra usardhan-2008.

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.

Maize: pusa, agatishanker, makka-2, azad, uttam, sweta, Prakash,G-1, 5(hybrid varieties) and Tarun, Navin, Kanchan, Sweta and Jaunpuri (varieties for early sowing).

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.

Lobia:UPL-5287, UPC-4200, Ta-5269, Ta-2.

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.

Rice:PRH 10, PB1, Pusa 1509, Sugandha5.

Pigeon pea:T-21, UPAS 120.

Cotton: H777, Dhanalakshami, HD107.

For fodder Jowar: JS 120, Lobia 88.

Punjab

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

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

Delhi

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

Pigeonpea: Pusa 2001, Pusa991, Pusa992, Paras manak, UPAS 120.

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

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

Guar: PusaNavbahar, DurgaBahar.

Radish:PusaChetki.

Cluster bean:PusaKomal.

Beans: PusaSem 2, PusaSem 3.

Spinach: PusaBharti.

Amaranths: PusalalChaulai, PusaKiran.

Ladyfinger: Pusa A-4.

East Rajasthan

Sugarcane: (late sown): COL8001.

Groundnut: RG 425, RG382, HNG10, GG20, TG37, TG39, M-13.

Kharif Onion N-53 , Agrifound Dark Red.

Okra: Ark abhay, Parbhani kranti, Pusa makhmali.

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

Green gram RMG-62, RMG-268, K-851, G.M-4, RMG-492 & RMG-344 ML-131, IPM-02-03 (improved varieties).

Cowpea:FS-68, RC-19 and RC-101 (improved varieties).

Moth bean-R.M.O-40, R.M.O-257, R.M.O-225 and CAZRI moth-2. RMO-40 and RMO-225(Maruvardan).

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.

Black gram: Krishna, T 9, Pant U-19, 31, KU-96-3, Pratap Urd-1.
Guava: Allahabad safeda, ArkaMradula and Lucknow 49
Pomegrante: Ganesh, Jhalore Seedless
Lime: Kagzi, Baramasi, Pramalini and Vikram
Aonla: Kanchan, Banarasi, Krishana, NA9, NA10 and Chakaiya
Ber: Sonor, Thornless, Katha Alwar, Gola and Umran
Papaya: Kurg Honeydew, PusaNanha, Pusa Dwarf and Pusa Delicious

West Rajasthan

Pearl millet: HHB 67, RHB 121.
Cluster bean: RGC 936, RGC 1002, RGC 1017 and RGC 1066.
Cowpea: RC-101, RC19 and RCp 27.
Moong: RMG 62, RMG 268, SML 668 and GM-4.
Moth bean: RMO-40, RMO 435, RMO 257and CZM-2.

Madhya Pradesh

Soybean: JS 95-60 (early), JS 93 -05 (Medium), JS 335 (Late).
Redgram: TJT 501, ICPL 87 (early) and JKM 189 (Medium).
Groundnut: TG 22, TG 26, JGN 3.
Rice: JR 345, JR-201, Poornima (short duration).
IR-64, IR-54, Madhuri, Kanti, Mahamaya, Pusa basmatai (medium duration).
Black gram: JU 86, JU 3, T 9.
Maize: JVM 421, JM 12, JM 216.
Green gram: TJM 3, JM 721, HUM 1.
Sugarcane: KO Jawahar-86141, 86572.
Guar: HG 365, HG 565.

Chhattisgarh

Rice: Purnima, Danteswari, Shabagi, MTU 1010, MTU 1001, Suwarna.
Brinjal: Punjab Shadabahr, KS 331, PH 5, PH 6, KS 224, ARBH 543.
Tomato: Pusa early dwarf, Sweet 72, Pusa rubi, Pusa Gurab, Mangala, Naveen, Laxmi 5005 & NS 815.
Soybean: J.S. 335, Indira Soya-9, J.S. 80-21, J.S. 93-05.
Groundnut: SB -11 (J 11), ICGS-37, ICGS-44, T.A.G- 24, T.A.G-28.
Sesame: T.K.G-21, T.K.G-22, T.K.G-55, T.K.G-8.