



National Agromet Advisory Service Bulletin

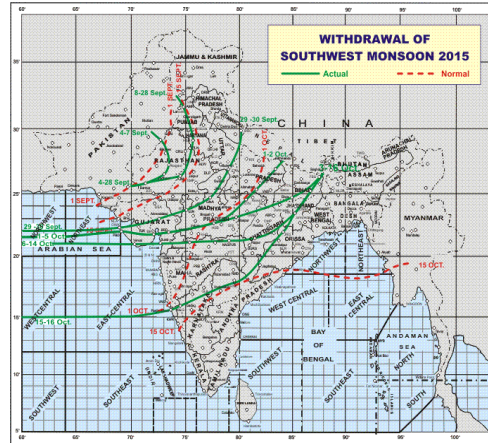


Friday 16th October 2015
(For the period 16th to 20th October 2015)



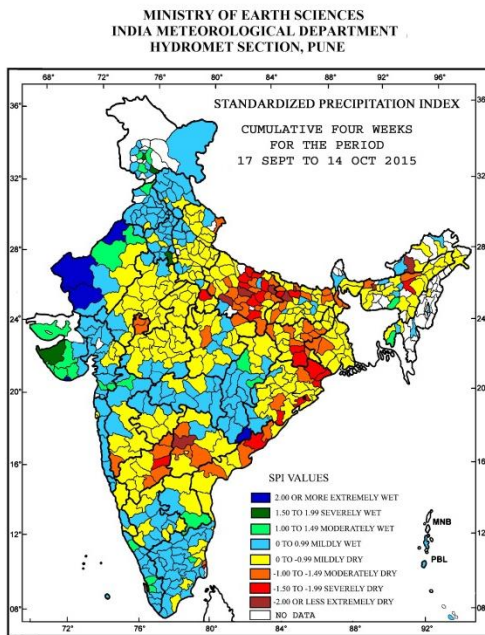
Issued by
National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.

Monsoon Watch



- The withdrawal line of southwest monsoon continues to pass through Forbesganj, Ranchi, Jharsuguda, Hanamkonda, Belgaum, Goa, Lat.15.0°N/Long. 70.0°E and Lat.15.0°N/Long. 60.0°E.
- Conditions are favourable for further withdrawal of southwest monsoon from remaining parts of east & northeast India and peninsular India during next 3 days.

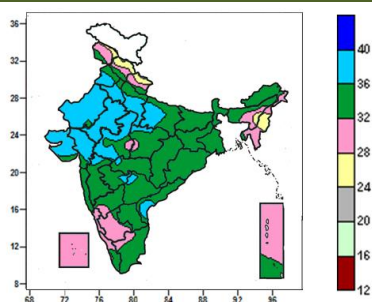
Standardised Precipitation Index Four Weekly for the Period 17th September to 14th October 2015



- Extremely/severely wet conditions experienced in few districts of Saurashtra and Kutch Region; Malkangiri district of Odisha; Doda, Pulwama districts of Jammu & Kashmir; Barmer, Sri Ganganagar, Jaisalmer districts of Rajasthan.
- Extremely/Severely dry conditions experienced in East Kameng district of Arunachal Pradesh; Nagaon, Bongaigaon districts of Assam; Balasore, Bhadrak, Gajapati, Khurda, Mayurbhanj districts of Odisha; West Singhbhum, Khunti districts of Jharkhand; Muzaffarpur, Saran, Sheohar, Siwan districts of Bihar; Azamgarh, Balrampur, Deoria, Faizabad, Fatehpur, Gonda, Gorakhpur, Jaunpur, Mirzapur, Siddharth Nagar, Sultanpur, Jalaun districts of Uttar Pradesh; Vishakhapatnam district of Andhra Pradesh; Medak district of Telangana; Karaikal district of Puducherry; Yadgir district of Karnataka.
- Moderately dry conditions experienced in few districts of West Bengal; Jharkhand; Telangana; Kokrajhar, Shonitpur districts of Assam; Keonjhar, Kandhamal districts of Odisha; Araria, Bhojpur, Darbhanga, Gopalganj, Purnea, Rohtas, Sitamarhi districts of Bihar; Allahabad, Ballia, Basti, Kanpur Dehat, Kaushambi, Kushi Nagar, Lucknow, Mau, Pratapgarh, Rae Bareilly, Sonbhadra, Varanasi districts of Uttar Pradesh; Pithoragarh district of Uttarakhand; Mandsaur, Neemuch, Damoh, Rewa, Sidhi districts of Madhya Pradesh; Kolhapur district of Maharashtra; East Godavari, Guntur, Vizianagaram districts of Andhra Pradesh; Bidar, Gulbarga, Koppal, Raichur districts of Karnataka; Nagappatinam district of Tamilnadu.
- Rest of the country experienced moderately wet/mildly dry/wet conditions.

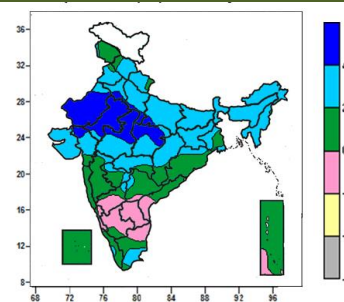
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 14.10.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 14.10.2015



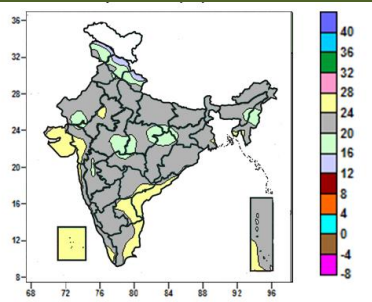
- Mean maximum temperature was between 36 to 40°C over many parts of Rajasthan, Punjab, Haryana & Delhi, Uttar Pradesh, Gujarat, West Madhya Pradesh, some parts of East Madhya Pradesh, Coastal Andhra Pradesh, Telangana, Madhya Maharashtra and isolated pockets of Vidarbha and Marathwada.
- It was between 24 to 36°C over remaining parts of the country.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 14.10.2015



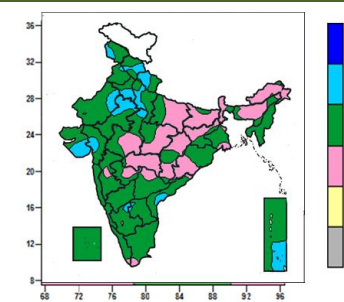
- Mean maximum temperature was above normal by 4°C over many parts of Rajasthan, Madhya Pradesh, some parts of Gujarat region and isolated pockets of Uttar Pradesh, Haryana & Delhi.
- Mean maximum temperature were above normal by 2 to 4°C over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, North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

Actual Mean Minimum Temperature (°C) in India for the week ending 14.10.2015



- Mean minimum temperature was 12 to 16°C over some parts of Himachal Pradesh, Uttarakhand and isolated pockets of Jammu & Kashmir.
- Mean minimum temperature was 16 to 20°C over many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Manipur, some parts of Nagaland, West Rajasthan, Madhya Pradesh, Chhattisgarh and isolated pockets of Assam & Meghalaya, East Rajasthan, East Uttar Pradesh, Gujarat region, Jharkhand, Vidarbha and Madhya Maharashtra.
- It was 20 to 24°C over rest of the country except Lakshadweep, many parts of Gujarat, Coastal Andhra Pradesh, Rayalaseema, some parts of Tamil Nadu and isolated pockets of East Rajasthan, Telangana, Kerala and Andaman & Nicobar Islands where it was 24 to 28°C.

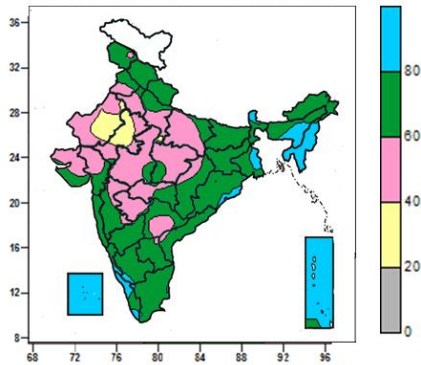
Mean Minimum Temperature (°C) Anomaly in India for the week ending 14.10.2015



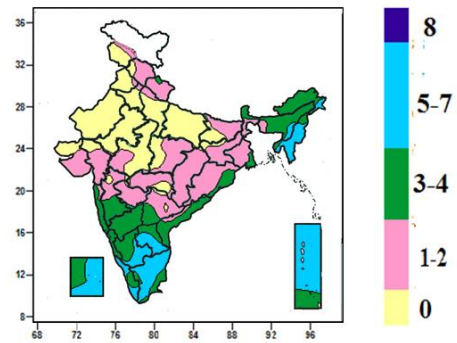
- Mean minimum temperature was above normal by 2 to 4°C over many parts of Uttarakhand, Saurashtra, some parts of Jammu & Kashmir, Haryana & Delhi, Himachal Pradesh, Rajasthan, Gujarat region, Andaman & Nicobar Islands and isolated pockets of Punjab, West Madhya Pradesh, Coastal Andhra Pradesh, South Interior Karnataka and Rayalaseema.
- 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 14.10.2015

Relative Humidity (%) over India for the week ending 14.10.2015



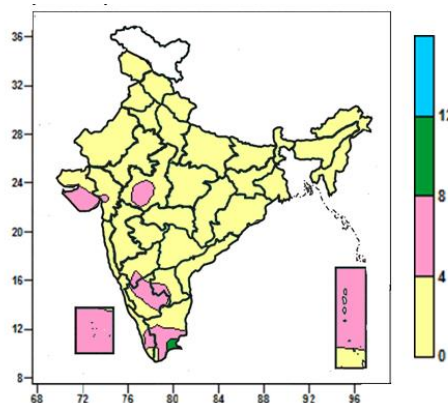
Cloud amount (okta) over India for the week ending 14.10.2015



- Mean Relative humidity was above 80% over Manipur, Mizoram, Tripura, Sikkim, Lakshadweep, many parts of Nagaland, Andaman & Nicobar Islands, some parts of West Bengal, Assam & Meghalaya, Kerala and isolated pockets of Coastal & South Interior Karnataka and Odisha.
- Mean Relative humidity was 60 to 80% over rest of the country except many parts of Rajasthan, Haryana & Delhi, Uttar Pradesh, Madhya Pradesh, Gujarat, Vidarbha, Marathwada, some parts of Punjab, Madhya Maharashtra, Telangana and isolated pockets of Jammu & Kashmir, Rayalaseema and Coastal Andhra Pradesh where it was 40 to 60 % and some parts of Rajasthan and isolated pockets of West Uttar Pradesh where it was 20 to 40%.

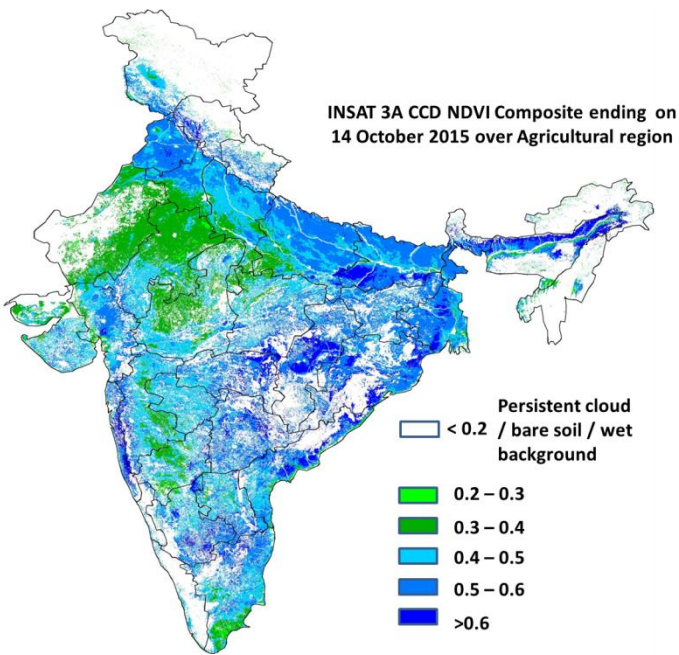
- Sky remained cloudy (5-7okta) over Manipur, Mizoram, many parts of Tripura, Rayalaseema, Tamil Nadu, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of South Interior Karnataka and isolated pockets of Arunachal Pradesh and Assam & Meghalaya.
- Sky remained partly cloudy/mainly clear/clear sky (3 to 4 / 1 to 2 / 0 okta) over rest of the country.

Wind speed (knots) over India for the week ending 14.10.2015



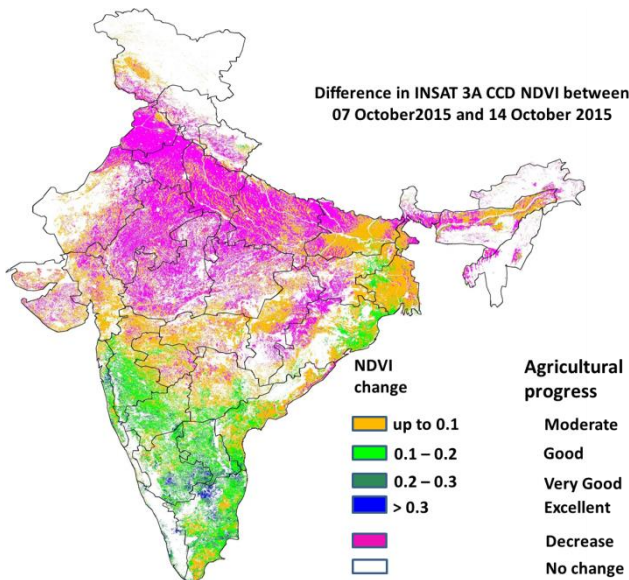
- Mean wind speed was 8 to 12 knots over isolated pockets of Tamil Nadu.
- Mean wind speed was 4 to 8 knots over many parts of Lakshadweep, Saurashtra, South Interior Karnataka, Tamil Nadu, Andaman & Nicobar Islands, some parts of West Madhya Pradesh, Kerala and isolated pockets of North Interior Karnataka, Rayalaseema, Gujarat region.
- It was less than 4 knots over rest of the country.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 14th October 2015 OVER AGRICULTURAL REGION OF INDIA



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

Difference in INSAT 3A CCD NDVI between 7th and 14th October 2015



- Good change in NDVI (0.1 - 0.2) was observed in Coastal and Madhya Maharashtra, Karnataka, Coastal Tamil Nadu, Andhra Pradesh, patches in Telangana, Kerala, West Bengal and Odisha. Moderate progress (up to 0.1) in NDVI was observed over Central Bihar, Gujarat, Vidarbha and remaining parts of Madhya Maharashtra, West Bengal and Odisha. Decrease in NDVI values was observed in some parts of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and patches in West Bihar and Rajasthan.

- INSAT 3A CCD NDVI composite maps for the week ending on 14th October 2015 for different States are given below in Annexure II.

**5 Day Rainfall Forecast (MORNING)
16th October 2015**

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

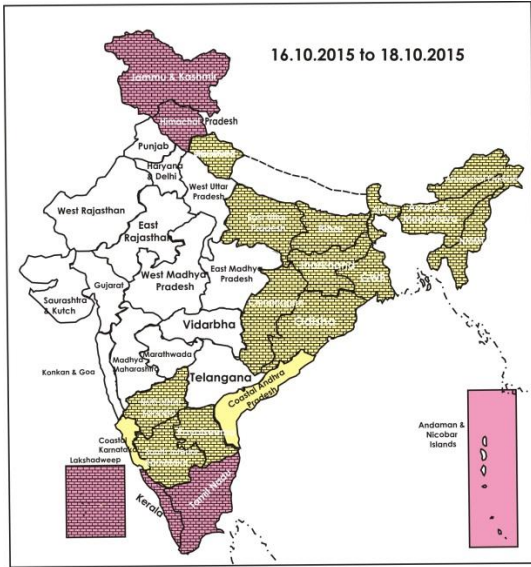
Weather Warning during next 5 days

- No weather warning during the period.

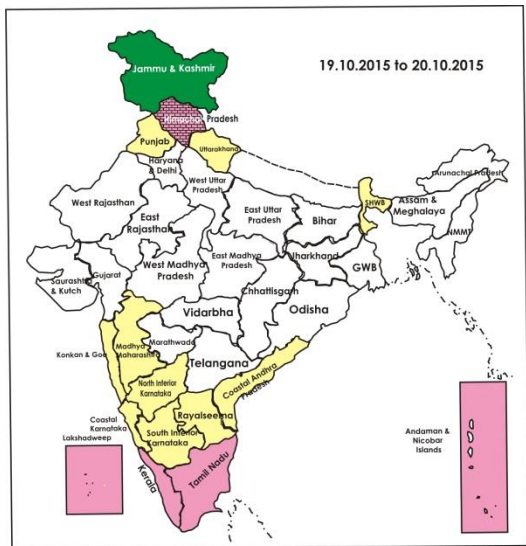
Weather Outlook for subsequent 2 days from 21st to 23rd October 2015

- Rain/thundershowers would occur at many places over south peninsular India and Lakshadweep.
- Rain/thundershowers would occur at a few places over northeastern states and at isolated places over rest peninsular India and western Himalayan region.

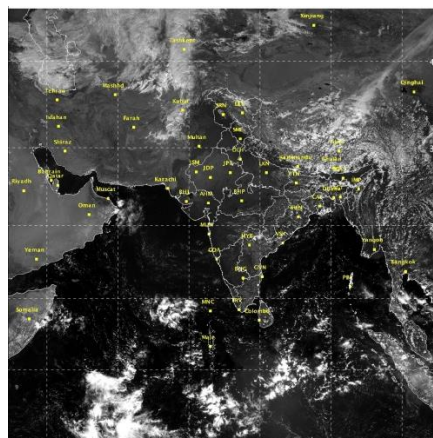
Weather Forecast Map (Valid upto 0830 hours of 21st October, 2015)



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



Satellite image dated, 16.10.2015 0600 UTC



Salient Advisories

- In **Kerala**, continue land preparation for direct and nursery sowing of *Mundakan* rice, cultivation of Nendran banana and winter vegetables. Continue harvesting of *Viruppu* rice in Northern Zone.
- In the Cauvery Delta Zone of **Tamil Nadu**, continue transplanting of *thaladi* rice and continue harvesting of matured *Kuruvai* rice in clear weather. Continue sowing of sorghum, maize, black gram, green gram and cotton in the South Zone. Undertake cultivation of multi-cut fodder sorghum (CoFS 29) in the North Western Zone using the realized rainfall.
- In **Madhya Maharashtra** and **Marathwada**, continue sowing of *rabi* jowar, safflower and sunflower. Continue sowing of *rabi* safflower and sunflower in **Central Vidarbha** region.
- In **North Interior Karnataka**, continue sowing of jowar, Bengal gram (JG-11, Annegiri-1, ICCV-10) and safflower in the North East Dry Zone. In North Transition Zone, continue sowing of sorghum, sunflower and chickpea.
- Continue land preparation and sowing of bengal gram in **Gujarat, Madhya Pradesh, Rajasthan, Punjab and Uttar Pradesh** and continue sowing of toria and pea in **Jammu & Kashmir, Himachal Pradesh, Uttarakhand** and **East Uttar Pradesh**. Undertake land preparation for sowing of mustard/rapeseed in **Assam & Meghalaya, Bihar, Jharkhand, Rajasthan, Chhattisgarh, Uttar Pradesh, Uttarakhand** and **Madhya Pradesh**.
- As dry weather would prevail, apply irrigation and maintain water level of 5-7 cm in rice in **Uttar Pradesh, Bihar, Jharkhand** and **East Madhya Pradesh**.
- In East and South Eastern Coastal Plain Zone of **Odisha**, red hairy caterpillar and leaf minor has been found in groundnut. Spray DDVP @ 200 ml per acre for control of hairy caterpillar and spray Chloropyriphos @ 2 ml/litre of water to control leaf minor.

Detailed Zonewise Agromet Advisories

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



Maize



Groundnut



Greengram



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Kerala; all districts of Tamil Nadu except Cuddalore, Karaikal, Nagapattinam, Sivaganga, Theni and Toothukudi; Dakshina Kannada district of Coastal Karnataka, Dharwad and Gadag districts of North Interior Karnataka; Ballari, Bengaluru Rural, Chamarajanagar, Chitradurga, Davangere, Kodagu, Mandya, Mysuru, Ramanagara and Tumakuru districts of South Interior Karnataka; all districts of Rayalaseema except Kurnool and Hyderabad district of Telangana; Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Andhra Pradesh:**
 - Continue land preparation for sowing of Bengal gram (desi and kabuli varieties) in the Scarce Rainfall Zone. Provide top dressing with nitrogen to maize crop @ 12-16 kg/acre when the crop is at knee high stage.
 - Continue sowing of green gram and harvesting of groundnut and sesamum in the Southern Zone.
 - Prevailing weather conditions are congenial for incidence of stem borer and sheath blight in rice in the North Coastal Zone. To control, spray Acephate @ 1.5 g + Propiconazole @ 1.0 ml/litre of water.
 - Prevailing weather conditions are congenial for incidence of *Cercospora* leaf spot in tomatoes in the Southern Zone. To control, spray Carbandizum @ 1g.or Mancozeb @ 3 g./litre of water.
 - **Telangana:**
 - In the Southern Telangana Zone, continue sowing of *rabi* crops like maize, sorghum, groundnut and sunflower and complete sowing of *rabi* red gram up to 15th October.
 - In the Northern Telangana Zone, continue harvesting of soybean and sowing of groundnut (Kadiri – 6,7,8,9, JCG 88, Dharani and kadiri harithaandra), cow pea (C 152 GC3 C0-4 CO-5), field bean(FB-1TFB-5), rabi red gram(LRG 41, ICPL 87119, MRG 66, ICPL 85063, WRG 27, MRG 1004, WRG 53, WRG-65), greengram

(MGG-295, MGG-348, MGG-347 WGG-2, WGG-37, LGG-460, TM-96-2) and black gram(LBG-20 (Teja), LBG-623, WBG-26 (Usha), PBG-1, LBG-752, MBG-207,PU 31).

- In the Northern Telangana Zone, incidence of thrips is noticed in chilli in prevailing weather conditions. To control, undertake spraying Acephate @ 1.5 g per litre of water.
- In the Southern Telangana Zone, incidence of climbing cutworm and grain discoloration caused by panicle mite in association with sheath rot is noticed in rice. To control sheath rot, spray Propiconazole @ 1 ml + Dicofol @ 5 ml or Spiromesifen @ 1 ml per litre of water and spray Quinolphos @ 2ml + Dichlorvos @ 1 ml per litre of water during evening hours to control climbing cutworm.

▪ **Karnataka:**

- Continue sowing of medium to short duration varieties of Finger millet - Indaf-7, Indaf-9, Indaf-15, ML-365, Maize – Deccan-103, Vijaya composite, NAH-1137 and Ganga-11, Sunflower: Morden, KBSH-1, KBSH-41, KBSH-42, KBSH-44 and KBSH-53, Bengal gram: JJ-11, KAK-2 and Vishal, Field bean: HA-3 and HA-4, Horse gram: KBH-1 and PHG-9, Niger: KBN-1, Black gram: Rashmi in Eastern Dry Zone.
- Continue sowing of sorghum (DSH-4, M-35-1, Muguthi, DSV-5), safflower (A-1), niger (No. 71, RCR-18) and undertake sowing of wheat and planting of sugarcane after receipt of sufficient rainfall in North East Transition Zone.
- In North Dry Zone, continue sowing of short duration, drought resistant *rabi* sorghum (var. Maldandi and Mugati), chickpea (var. A-1, JG-11 and Jaki-9218) and safflower (var. A-1), sunflower using the realized and expected rainfall and intercropping of *rabi* sorghum + chickpea (2: row proportion); chickpea + safflower (4:2 row proportion).
- In North Transition Zone, continue sowing of sorghum, sunflower, chickpea and wheat.
- Continue sowing of jowar, Bengal gram (JG-11, Annegiri-1, ICCV-10), safflower and undertake sowing of sunflower and maize in the North East Dry Zone.
- Continue harvesting of maize in the and Hill Zone, soybean in North East Transition and North Transition Zone, maize and groundnut in Southern Transition Zone and bajra in the North East Dry Zone.

▪ **Kerala:**

- Continue planting of Nendran banana and direct and nursery sowing of *Mundakan* rice in the Southern Zone. Continue harvesting of Virrippu rice in Northern Zone.
- Continue sowing of *Mundakan* rice, cultivation of Nendran bananas and sowing of vegetables (tomato varieties like Sakthi, Mukthi, Anagha, brinjal varieties like Swetha, Haritha in bacterial wilt prone areas, bitter gourd, snake gourd and pumpkin) in the Central Zone.
- Prevailing weather conditions are congenial for incidence of bud rot and leaf rot in coconut in the Problem Area Zone. For bud rot & leaf rot management, apply Samarth @ 300ml/palm on the crown after clearing.
- Prevailing weather conditions are congenial for incidence of aphids in vegetables in the Central Zone. To control, apply Quinalphos @ 2ml/litre of water on a non rainy day.
- Prevailing weather conditions are congenial for incidence of banana aphid in bananas in the Southern Zone. Disease affected plants must be uprooted and destroyed and apply 1 Kg Neem cake/plant and Verticillium lecanii @ 5 ml/litre to manage banana aphid on a non rainy day.
- There are chances for pollu beetle attack in over shaded places on pepper in the Problem Area Zone. Regulate shade management to control pollu beetle attack and spray Quinalphos 0.05% @ 200 ml in 100 litres of water on a non rainy day.

▪ **Tamil Nadu:**

- In the Cauvery Delta Zone, continue nursery sowing of thaladi rice and harvesting of matured *Kuruvai* rice in clear weather. Keep harvested produce at safer places.
- In the Western Zone, undertake hand hoeing and weeding in dry land maize, sorghum and pulses on a non rainy day. Since the minimum temperature is around 23⁰C, Zinc deficiency may appear in samba transplanted rice seedlings. Spray ZnSO₄ at 0.5% along with 1% urea at 15 days interval thrice.
- Continue sowing of sorghum, maize, black gram, green gram and cotton in the South Zone.
- Undertake cultivation of multi-cut fodder sorghum (CoFS 29) in the North Western Zone using the realized rainfall.
- In Karaikal and Puducherry, spray Phosphomidon 40 SL @ 1 ml/litre of water or Chlorpyriphos 20 EC @ 2 ml/litre of water on a non rainy day to control thrips in rice nursery.
- In the Western Zone, high relative humidity and low minimum temperature is congenial for incidences of powdery mildew and downy mildew in grapes. To control powdery mildew spray 0.3% Wettable Sulphur and for controlling downy mildew, spray 1% Bordeaux mixture on a non rainy day.
- Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry**

- Prevailing weather conditions are congenial for Enterotoxaemia in livestock in Northern Telangana and sheep pox in sheep in Southern Telangana. To prevent the diseases, vaccinate the animals.
- Prevailing conditions are favourable for foot and mouth disease in livestock in the Scarce Rainfall Zone of Andhra Pradesh. Vaccinate animals to prevent the disease.



Greengram



Banana



Okra



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh except East Kameng, East Siang, Tawang and West Siang; Baksa, Cachar, Chirang, Dibrugarh, Golghat, Hailakandi, Jorhat, Kamrup (Metro), Karbi Anglong, Karimganj, Lakhimpur, Nalbari, Sibsagar, Tinsukia districts of Assam; all districts of Meghalaya except Jaintia Hills and West Garo Hills; Aizwal and Serchip districts of Mizoram; Imphal East, Imphal West and Thoubal districts of Manipur; Dimapur, Kohima, Mokochung and Wokha districts of Nagaland; all districts of Tripura. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Assam, Meghalaya & Arunachal Pradesh:**
 - In Hill Zone of Assam, undertake planting of winter vegetables and continue nursery sowing of carrot, French bean and onion.
 - In Lower Brahmaputra Valley Zone, undertake land preparation for nursery sowing of cabbage, cauliflower, carrot, tomato and knol khol and planting of potato and coconut.
 - In North Bank Plain Zone, undertake land preparation for sowing of rapeseed & mustard and nursery sowing of cabbage, cauliflower, brinjal, tomato and knol khol and planting of potato.
 - In Upper Brahmaputra Valley Zone of Assam, continue seedbed preparation of brinjal. Undertake land preparation for sowing of early potato in upland area.
 - In Central Brahmaputra Valley Zone of Assam, continue land preparation for sowing of *rabi* pulses/oilseeds and nursery sowing of winter brinjal and cole crops.
 - In Arunachal Pradesh, continue land preparation for sowing of pea and nursery sowing of cole crops.
 - In Meghalaya, continue sowing of pea, carrot and radish and undertake land preparation for sowing of rapeseed and mustard. Continue nursery preparation of cabbage, cauliflower and broccoli and sowing of pea in high altitude regions. Maintain a water level of 3-5 cm in the fields of *kharif* rice.
 - In Hill Zone of Assam, due to cloudy and humid weather there is chance of attack of *blast* and *rice bug* in *Sali* rice. Spray Carbendazim @ 1g/litre at tillering stage and spray Ediphenphos @ 1ml/litre at panicle initiation stage and control rice bug at boot leaf to heading stage, apply Malathion 5% dust @ 20kg per hectare.
 - In Lower Brahmaputra Valley Zone of Assam, due to hot humid weather there is chance of attack of rice bug in *Sali* rice at booting stage. To control, apply Malathion 5% dust @ 3Kg per bigha.
 - In Central Brahmaputra Valley Zone, in prevailing weather condition Gundhi bug infestation is observed in rice at panicle emergence stage which may be controlled by applying Malathion 5% dust @ 20 kg/ha.
 - In Arunachal Pradesh, due to humid and cloudy weather, there is chance of attack of blast/bacterial leaf blight in normal rice. Spray Copper fungicide (Blitox 0.3%) alternately with Streptocycline (250 ppm) against blast/bacterial leaf blight.
 - In Meghalaya, weather is congenial for development of leaf folder in groundnut. Foliar sprays with Acephate @ 1g/litre of water or Chlorpyrifos @ 2.5 ml/litre of water to control leaf folder in groundnut.
 - **Manipur, Mizoram, Nagaland and Tripura:**
 - In Manipur, continue nursery raising of cabbage and cauliflower and continue land preparation for transplanting of onion and planting of potato.
 - In Mizoram, continue nursery sowing of early cole crops and undertake harvesting of rice, *kharif* pulses like green gram, black gram and rajma.
 - In Nagaland, continue harvesting of *jhum* rice, chilli and maize.
 - In Tripura, undertake land preparation for sowing of sesame and potato. Undertake harvesting of *Aman* rice.
 - In Manipur, there is chance of attack of bacterial leaf blight/neck blast in *kharif* rice at milky/ dough to grain filling stage. Spray Copper fungicide (Blitox 0.3%) alternately with Streptocycline (250ppm) to control leaf blight and spray with Tricyclazole @ 6 g/10 litre of water to control neck blast.
 - In Tripura, due to cloudy and humid weather, there is chance of incidence of Gundhi bug in *Aman* rice (short duration). To manage the attack, it is advised to apply Cartap Hydrochloride (Dollar) @ 1.5 g per litre of water or manage through bio agent like *Verticilium Lecanii* or *Bauveria Basiana* @ 6 gm per litre of water in case solid formation or 6ml per litre of water for liquid formation against Gandhi bug.
 - Suitable varieties are given in Annexure III.
- **Animal Husbandry**
 - In Northeastern states, carry out vaccination (RDF1) against Ranikhet disease in one week old chicks and against

Gamboro disease in two weeks old chicks. The cows and goats should not be allowed to feed on submerged rotten grasses. Vaccinate domestic live stocks against BQ, HS, Foot and mouth as well as anthrax diseases.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Cotton



Sugarcane



Rice



Groundnut

- **Realised Rainfall:** Rainfall occurred in Raigad and South Goa districts of Konkan & Goa; Dangs district of Gujarat Region. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, undertake harvesting of early matured rice. Maintain water level of 8-10 cm in rice fields at flowering/grain formation stage. Undertake weeding and earthing up operations around the newly planted fruit crops like mango and cashew. Undertake shifting of mango grafts from polyshed to open space in trenches and irrigation should be given after every two days. Undertake preliminary operations for vegetable nursery like chilli, brinjal.
 - In Madhya Maharashtra, apply irrigation to vegetable crops, orchards and sugarcane. Undertake sowing of rainfed wheat with availability of soil moisture. Maintain 8-10 cm water level in rice fields in Western ghat region of Nasik, Pune and Kolhapur districts. Continue transplanting of onion seedling for *rabi* onion. Continue sowing of *rabi* jowar, safflower, gram and sunflower under optimum soil moisture conditions. Continue October pruning in grapes for proper fruit setting. Continue first picking of cotton when 30-35% of bolls are busted. After 15-20 days of interval 2-3 pickings be done. Picking be done at early morning, to avoid sticking of dried leaves to the cotton lint.
 - In Madhya Maharashtra and Marathwada, complete harvesting of *kharif* green gram, black gram and bajra in clear weather.
 - In Marathwada, apply irrigation to vegetable crops, orchards and sugarcane. Undertake sowing of rainfed wheat with availability of soil moisture. Continue sowing of *rabi* jowar, safflower, sunflower, gram and fodder crops like jowar. Also undertake intercropping of safflower+gram (6:3, 3:3, 2:4), linseed+gram(6:3, 4:2, 3:3) and gram+sunflower(3:3). Continue harvesting of soybean.
 - In Vidarbha, apply irrigation to vegetable crops, orchards and sugarcane. Undertake sowing of rainfed wheat with availability of soil moisture. Maintain 8-10 cm water level in rice fields wherever the crops are at flowering / grain formation stage. Continue harvesting of already matured soybean and groundnut. Continue sowing of *rabi* safflower and gram in Central Vidarbha region after harvesting of black gram.
 - In Madhya Maharashtra, Marathwada and Vidarbha region, there may be reddening of cotton due to magnesium deficiency; spray urea or DAP (Diammonium phosphate) @ 200 g in 10 litres of water.
 - Due to prevailing humid weather in morning and dry weather in afternoon in Madhya Maharashtra, Marathwada and Vidarbha region, there may be attack of pod borer in red gram; spray HNPV @ 10 ml per 10 liters of water.
 - **Gujarat:**
 - Continue nursery sowing of tobacco; undertake harvesting of matured groundnut, sesame and picking of matured cotton bolls and continue weeding in orchards in North Gujarat Zone.
 - Continue sowing of onion, chickpea, mustard, garlic, carrot and pea (for vegetable purpose) in North Saurashtra Zone.
 - In North West Zone, undertake land preparation for sowing of *rabi* crops; plan for sowing of *rabi* crops as per availability of irrigation water and continue harvesting of pulses and picking of matured cotton bolls.
 - In Bhal and Coastal Zone, taking advantage of dry weather and clear sky conditions, continue harvesting / threshing of pearl millet, green gram, cowpea and sesame; plan for sowing of *rabi* crops like wheat, chickpea, sorghum, mustard and also fodder crops. As rice is in reproductive stage, maintain water level of 5-7 cm in rice fields. As temperature is increasing, apply irrigation at short intervals in standing crops like cotton, castor, vegetables and fodder crops. Apply irrigation in cluster bean in Middle Gujarat Zone.
 - Continue planting of sugarcane; transplanting of cabbage and cauliflower in South Gujarat Heavy Rainfall Zone. Continue planting of sugarcane in South Gujarat Zone; apply irrigation in vegetable and fruit crops.
 - Suitable varieties for sowing are given in Annexure III.

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



Groundnut



Cotton



Soybean



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Andman & Nicobar Islands; Burdwan, Hooghly, Kolkata, Murshidabad, Nadia and West Midnapore districts of Gangetic West Bengal; Cooch Behar district of Sub-Himalayan West Bengal; West Champaran district of Bihar; Ramgarh district of Jharkhand; Jagatsinghpur and Kendrapara districts of Odisha. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **West Bengal:**
 - In Terai Zone, continue seedbed preparation of early cauliflower and cabbage. During seedbed preparation use *Trichoderma viridi* @ 5gm with 1 kg organic manure. Continue seedbed preparation of winter vegetables vegetables like brinjal, chilli etc in upland area.
 - In Coastal Saline Zone, undertake transplanting of winter vegetables (cabbage, cauliflower, tomato) in the main field.
 - In Old Alluvial Zone, undertake sowing of lentil and transplanting of early cauliflower and cabbage in the main field. Before transplanting, the pits for transplanting should be filled with *Trichoderma viridae* + *Pseudomonas fluorescense* mixed with well rotten FYM.
 - In Hill Zone, continue land preparation for transplanting of cole crops and undertake harvesting of matured soybean.
 - In Laterite and Red soil Zone, undertake harvesting the matured rice.
 - In Coastal Saline Zone, due to high humidity, there may be BPH attack in rice at panicle initiation stage and attack of leaf eating caterpillar in black gram. To control BPH, spray Acephate @ 1g/litre of water and to control caterpillar, spray Chlorpyrifos @ 1.5ml/litre of water.
 - In Hill Zone, there may be attack of blast disease in rice at panicle initiation stage. To control, spray Tricyclazole 75% WP @ 2.5 g/litre of water.
 - In Laterite and Red soil Zone, in prevailing weather condition, fruit and stem borer may be affected in brinjal and lady's finger. Spray Neem oil @ 2% in clear weather condition.
 - In New Alluvial Zone, under hot and humid situation attack of white fly may be found leading to the spread of yellow mosaic virus in bhindi at fruiting stage and attack of sheath blight may be found in rice at panicle initiation stage. To control white fly, spray Difenthiuron @ 0.75g per litre of water and spray Carbendazim @ 1.5 g/litre of water to control sheath blight.
 - **Andaman and Nicobar Islands:**
 - In North, Middle and South Andaman, continue harvesting the early sown rice in clear weather. There is chance of attack of Gundhi bug in late sown rice, Spray Monocrotophos @ 2 ml/litre of water for control on a non rainy day.
 - **Odisha:**
 - In East and South Eastern Coastal Plain Zone, continue sowing of pre-rabi green gram, black gram and cowpea in fallow medium and uplands. Complete planting of papaya. Continue harvesting of matured *kharif* green gram and black gram.
 - In Western Undulating Zone, continue sowing of improved varieties of black gram vari. Sarala, Ujala, PU-30, T-9, Prasad, green gram varieties like Tarm-1, Dhauli, Durga, Kamdev Jyoti, PDM-54, PDM-11, Samrat, PM-1, PM-2 @ 6-8 kg/acre and cow pea vari. Utkala manika, Pusa Barsati and SEB- 2 @ 8kg/acre in fallow uplands.
 - In North Central Plateau Zone, it is optimum time for sowing of mustard under rainfed conditions.
 - In South Eastern Ghat Zone and Eastern Ghat High Land Zone, this is the optimum time for sowing of horse gram (Kulthi), black gram (Biri) and green gram.
 - In East and South Eastern Coastal Plain Zone and South Eastern Ghat Zone, humid and cloudy weather favours infestation of blast and Bacterial Leaf blight in rice. For control of blast, spray Beam @ 1 g and Hinosan @ 1.5 g in 2 litres of water twice at 15 days interval. For Bacterial Leaf blight, spray Copper Oxylchloride @ 20 g along with Plantomycine @ 10 g in 20 litres of water.
 - In East and South Eastern Coastal Plain Zone, red hairy caterpillar and leaf minor has been found in groundnut. Spray DDVP @ 200 ml per acre for control of hairy caterpillar and spray Chloropyrifos @ 2 ml/litre of water to control leaf minor.
 - In Western Undulating Zone, sucking pests like aphids and jassids may infest the cotton crop during boll

formation stage. Spray neem oil @ 3ml/litre of water. If the infestation of sucking pests is more, spray Imidacloprid @ 1ml mixing in 4litres of water or Thiometaxom @5g/15litres of water on a non rainy day. Also *spodoptera* moth noticed in fields. Fix pheromone trap with spodo lure to catch the adult male @ 2 nos per acre.

➤ In Eastern Ghat High Land Zone and Mid Central Table Land, as paddy crop is mostly in grain filling stage, which is highly favorable for infection of blast disease. Monitor the crops. If symptoms are observed, spraying of Bavastin @ 1g/litre of water is recommended.

➤ In North Eastern Ghat Zone, swarming caterpillar has been found in rice. Spray Chlorpyriphos 400 ml in 200 litre water per acre during afternoon hours. High humidity and cloudy weather favours the infestation of blast. To control, spray Beam @ 1 g and Hinosan @1.5 g in 2 litres of water twice at 15 days interval.

▪ **Bihar:**

➤ In North East Alluvial Plain Zone, undertake land preparation for sowing of lentil, peas, rai, sarson, sunflower and maize, continue transplanting of mature seedlings of cauliflower, cabbage, broccoli and tomato in raised bed and continue planting of early potato.

➤ In North West Alluvial Plain Zone, undertake land preparation for sowing of garlic, lentil, pea, coriander, sunflower and rajma. Undertake harvesting of matured rice and weeding in pigeon pea & vegetables crops.

➤ In South Bihar Alluvial Zone, continue sowing of toria and fodder crops. Maintain 5cm water in the rice fields.

➤ In North West Alluvial Plain Zone, present weather condition is conducive for the attack of fruit borer/leaf cutting caterpillar in cauliflower. Use pheromone trap @ 3-4/acre. If insect population is above ETL, then, spraying of Spinosad @ 1 ml/4 litre of water is advised.

➤ In North East Alluvial Plain Zone, present weather is conducive for attack of shoot borer in sugarcane crops, to control, spray with Chlorpyriphos 20EC @ 3ml/litre of water.

➤ In North East Alluvial Plain Zone, due to humid weather, there is chance of attack of brown plant hopper in rice. To control, spray Imidacloprid 17.8% SL @ 0.5ml/litre of water during evening hours.

➤ In North West Alluvial Plain Zone, present weather is conducive for the occurrence of viral disease in tomato and chilli crops. Infected plants should be uprooted and buried in the soil and spray Imidacloprid @ 0.3ml/litre of water.

▪ **Jharkhand:**

➤ In South Eastern Plateau Zone, undertake harvesting of timely sown groundnut, urad, moong and direct seeded early rice crops. Continue land preparation for cultivation of short duration early potato, undertake nursery raising of onion and continue cultivation of vegetables like tomato, early cabbage, cauliflower & short duration French bean and leafy vegetables. Continue cultivation of green pea, toria, upland spices, yam & forage crops like jowar & maize.

➤ In North Eastern Plateau Zone, complete sowing of early potato and green peas and transplanting of tomato, cabbage, cauliflower & brinjal. Farmers are advised to maintain 5 cm water in the rice fields. Continue harvesting of maize crop. Undertake sowing of improved varieties of toria and mustard.

➤ In Western Plateau Zone, continue land preparation for cultivation of gram, linseed, mustard & rapeseed, transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato & brinjal, Farmers are advised to apply irrigation in rice crops in case of deficient soil moisture. Continue sowing of radish, turnip, spinach, carrot, toria, green pea and planting of potato.

➤ In North Eastern Plateau Zone, present weather is conducive for the occurrence of Gundhi bug in rice crop, to control, Quinalphos 1.5% dust @ 25 kg ha-1 or spraying of Quinalphos 25 EC @ 1.5 litre/500 litres of water.

➤ In South Eastern Plateau Zone, present weather is conducive for the occurrence of YVM in okra, to control, spray Imidacloprid @ 0.5 ml per litre of water at an interval of 10-15 days.

➤ Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry**

➤ In Sub-Himalayan West Bengal & Bihar, provide concentrate feed to milch animals mixed with dry and green fodders.

CENTRAL INDIA [M.P., CHHATTISGARH]



Rice



Greengram



Okra



Soybean

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

• **Advisories:**

▪ **Madhya Pradesh:**

- Continue harvesting of matured green gram, black gram, maize, groundnut, soybean and land preparation for sowing of mustard, nursery preparation for onion and garlic and planting of potato in Satpura Plateau Zone. Undertake transplanting of vegetables like capsicum, brinjal, chilli and tomato and harvesting of kodo millet and little millet.
- In Malwa Plateau Zone, continue nursery sowing of early winter vegetables and harvesting of matured soybean and maize. Continue field preparation for sowing of potato, pea and garlic. Undertake sowing of gram and transplanting of seedling of cabbage and cauliflower.
- Continue sowing of toria, sweet corn and fodder crops like berseem and harvesting of matured sesame, moong and urad in Kymore Plateau and Satpura Hill Zone. Also continue nursery preparation for cabbage and cauliflower. Maintain optimum water level in late sown rice. Continue sowing of lentil, linseed and green pea.
- Continue field preparation for sowing for *rabi* crops like pea, chickpea, lentil and sowing of green vegetables like radish, fenugreek, spinach, coriander and turnip and transplanting of vegetables like brinjal, tomato, chilli, cauliflower and cabbage on raised bed in Bundelkhand Zone. Continue harvesting of matured soybean, green gram and black gram in Nimar Valley Zone.
- Continue nursery preparation for onion and garlic and vegetables like tomato, chilli, brinjal, cabbage and cauliflower in Vindhya Plateau Zone. Also continue sowing of green peas and planting of potato.
- Continue harvesting of matured black gram, soybean and matured cobs of maize and picking of matured okra, chilli, brinjal and tomato in Jhabua Hill Zone. Continue sowing of vegetable pea. Apply irrigation in cotton under moisture stress condition.
- Continue field preparation for planting of potato and harvesting of matured soybean, rice, black gram and green gram in Grid Zone. Also undertake sowing of mustard under optimum temperature conditions.
- Suitable varieties are given in Annexure III.

▪ **Chhattisgarh:**

- Continue transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal and sowing of radish, turnip, spinach and carrot in North Hill Zone. Continue land preparation and sowing of gram, lentil, linseed, toria, mustard, potato and pea. Undertake harvesting of matured rice.
- In Plain Zone of Chhattisgarh, continue harvesting of matured green gram and black gram and nursery preparation for cauliflower, cabbage, onion and capsicum and for seasonal flowers. Complete sowing of toria and continue sowing of red gram and planting of onion.
- Continue nursery preparation for vegetables like cabbage, cauliflower, chilli, planting of potato and sowing of sweet potato in Bastar Plateau Zone. Continue harvesting of rice in midland and lowland areas and sowing of gram, pulses, pea and safflower.
- In the prevailing weather, there are chances of attack of stem borer in rice in North Hill Zone, spray Carbofuran @ 33 kg/ha.

• **Animal Husbandry**

- Vaccinate animals against mouth and foot disease in Madhya Pradesh. Provide concentrate feed to milch animals by mixing dry and green fodder enriched with protein, carbohydrate, fat, vitamins etc. in Chhattisgarh.

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



Cotton



Greengram



Maize



Cabbage

- **Realised Rainfall:** Rainfall occurred in Uttar Pradesh at Bahraich, Maharajganj in East Uttar Pradesh. Mainly dry weather prevailed over rest of the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - In Sub Tropical Zone, complete sowing of gobisarson and toria and harvesting of matured mash and moong immediately. Continue nursery sowing/transplanting of cauliflower/kale/knolkhol/cabbage and land preparation for sowing of radish/ fenugreek/spinach/coriander/turnip. Undertake nursery raising of onion.
 - In Valley Temperate Zone of Jammu & Kashmir, complete land preparation for sowing of pea. Continue land preparation for sowing of *rabi* crops like brown sarson, lentil and berseem after harvesting of the matured pods of beans, moong, rajmash etc.

- In Cold Arid Zone, undertake sowing of garlic (var. Parvati) should be done in trenches, low tunnels. Also undertake direct sowing of spinach, turnip & radish in greenhouses and transplanting spinach beet.
- In Intermediate Zone, undertake land preparation for sowing of wheat. Complete sowing of toria with gobisarson as intercrop, sowing of fodder barseem after harvesting of rice, maize and mash.
- **Uttarakhand:**
 - In Bhabar and Tarai Zone, temperature conditions are favourable for planting of Autumn sugarcane (varieties Co-238, Co-241, Co Pant 3220, Co Pant 84211, COS-8436, COS-88230 etc.) and continue sowing of garlic & vegetable pea. Complete sowing of toria, yellow sarson, nursery sowing of tomato and planting of potato, harvesting and threshing of matured rice crop and moong.
 - In Hill Zone, continue sowing of vegetable pea and toria. Complete transplanting of broccoli, cabbage and cauliflower.
 - In Sub humid Sub tropic Zone, due to dry weather condition, there may be attack of brown plant hopper on rice, to control spray Carbaryl 50% WP @1500gm/ha.
- **Himachal Pradesh:**
 - In Sub-Montane and Low Hills Sub-Tropical Zone, continue harvesting of rice, soybean, mash, cowpea, peas, cabbage and cauliflower in High hill region. Continue land preparation for sowing of wheat (Hs-277, HPW-251 and VL-616) at a seed rate of 100 kg/ha in lower region and sowing of gobhi sarson. Undertake transplanting of tomato seedlings on raised beds. Complete sowing of gram and lentil in lower region.
 - In Sub-Montane and Low Hills Sub-Tropical Zone, continue nursery sowing cauliflower (late group), cabbage, KnolKhol, Broccoli and Chinese cabbage and direct sowing of ageti peas, radish, carrot, turnip, palak and methi and sowing of maize, makchari, berseem, lucerne and oats for fodder in mid hill areas and sowing of potato in lower hills and mid hills regions. Continue planting of onion bulbs in 30X 10 cm spacing.
 - In Mid Hills sub-Humid Zone, continue sowing of cabbage (Pride of India, golden anchor and hybrid), carrot and radish (at a distance of 30x10cm), cruciferous vegetables, carrot and early variety of pea (at a distance of 30x10cm). Undertake transplanting of early variety of cauliflower at a distance of 45x30cm and of onion at a distance of 15x10cm. Continue harvesting of tomato, cucumber and capsicum in higher region.
 - Under prevailing weather condition, there are chances of attack of cutworms in vegetables in Sub-Montane and Low Hills Sub-Tropical Zone. For control, spray Chlorpyrifos 20 EC @ 2.5 ml/litre of water on a non rainy day.
 - Under prevailing weather condition, there are chances of attack of white fly in vegetables in Mid Hills Sub-Humid Zone. Spray Imidacloprid (confidor)@ 7.5ml or Malathion @ 22.5ml or Metasystox @ 15ml in 15 litres of water. Use yellow traps @ 1trap/100m² to monitor the attack of white fly in tomato on a non rainy day.
 - Under humid weather condition, there are chances of attack of wooly aphids in apple in Mid Hills Sub-Humid Zone. For the control, spray Chlorpyrifos @ 400ml per 200 litres of water on a non rainy day.
- **Rajasthan:**
 - Continue harvesting of urad, soybean and maize, continue land preparation for *rabi* crops like mustard, gram and maize and also apply irrigation in rice, sugarcane and vegetable crops in Southern Humid Plain Zone of Rajasthan.
 - In Arid Western Plain Zone, undertake sowing of *rabi* crops viz. mustard, fennel, onion, carrot and gram. Also continue land preparation for sowing oats and Berseem for green fodder.
 - In Flood Prone Eastern Plain Zone, undertake field preparation for lentil, mustard, nursery preparation for late sown cauliflower and undertake sowing of radish.
 - In Transitional Plain Zone of Inland drainage, continue field preparation for sowing of mustard and gram and undertake sowing of lucerne and taramira. Undertake harvesting of guar and bajra crops.
 - Undertake harvesting of matured maize and green gram. Also undertake sowing of gram and mustard. Continue preparation of seed bed for raising nursery of chilli, brinjal, tomato, cabbage, cauliflower and onion for *rabi* season. Also undertake hoeing and weeding in vegetables in Sub Humid Southern Plain and Aravali Hill Zone.
 - In Semi Arid Eastern Plain Zone, undertake sowing of gram and mustard. Continue sowing of early pea and radish. Apply irrigation to vegetable crops.
 - In Irrigated North Western Plain Zone, continue sowing of mustard and continue land preparation for sowing of gram. Complete harvesting of guar and moong.
 - Due to rise in temperature there are chances of attack of fruit borer in tomato and leaf curl and mosaic disease in papaya in Semi Arid Eastern Plain Zone. Spray Malathion 50 EC @ 1 ml per litre water in tomato and spray Dimethoate 30 EC or Methyl Demeton 25 EC @ 1 ml per litre of water IN papaya.
 - In Southern Humid Plain Zone of Rajasthan, due to rise in temperature, there are chances of attack of sucking pests in cotton, spray Imidacloprid 17.8 SL @ 200ml/ha.
- **Punjab, Haryana and Delhi:**
 - In Western Plain Zone of Punjab, continue picking of early sown cotton crop after the sunrise, when dew is complete evaporated. Continue planting of sugarcane and sowing of toria, gobhisarson, pea, gram, potato, cabbage, radish, garlic as intercrops in sugarcane.
 - In Central Plain and Western Zone of Punjab, undertake sowing of raya, onion and pea. Continue sowing of desi varieties of radish (Punjab Pasand), turnip (L-1) and carrot (Punjab Black Beauty, Punjab Carrot Red and PC 34) and in Central Plain Zone of Punjab, continue planting of potato.

- In Central, Western and Undulating Plain Zone of Punjab, complete planting of autumn sugarcane, continue planting of fruit plants viz citrus, mango, litchi, guava, loquat, ber, amla and papaya.
- In Western Zone of Haryana, continue picking of early sown cotton crop after the sunrise, when dew is completely evaporated. Continue harvesting of guar and bajra. Continue field preparation for sowing of mustard, oats, berseem and gram.
- In Eastern zone of Haryana, continue sowing of berseem fodder, apply irrigation in late sown basmati rice and sugarcane. Continue harvesting of matured early sown basmati rice.
- In Western Semi-Arid Zone of Delhi, undertake harvesting of rice, continue transplanting of tomato, cabbage, broccoli and early cauliflower on ridges. Continue sowing of sarson sag, spinach, coriander, fenugreek, turnip, radish, carrot and undertake sowing of pea and late wheat. Continue planting of early potato, winter sugarcane. Undertake sowing of early mustard in prepared fields with varieties Pusa Sarson-25, Pusa Sarson-26, Pusa Agrni, Pusa Taraka and Pusa Mahak.
- In Western Semi-Arid Zone of Delhi, false smut may appear in rice in the present weather conditions. Symptoms include increase in grain size with brown coloured fungus inside. Spraying of Blitox 50 @ 500 g per hectare at 10 days interval (2-3 times) is advised. Also monitor cucurbitaceous crops against attack of fruit fly, use Methyl Eugenol trap and bait trap (mixing jaggary 10 % with Malathion 0.1 % and putting at different corners of the field).
- In Western Zone of Haryana, weather conditions are favourable for neck blast in rice. Monitor the crop. If infestation is noticed, spray Sivik @ 120 g or Beam with 200 liter water per acre. Monitor late sown American & Desi Cotton crops to infestation of whitefly and sucking pests, if infestation occurs then spray Dimethoate 30 E.C. @ 300 ml/Metasystoc 25 EC and one liter neem based insecticide (Neembicidine/Achuk) with 250 litre water.
- **Uttar Pradesh:**
 - In Central Plain Zone, continue harvesting of matured urad, moong, sesame and maize. Undertake sowing of linseed and lentil. Continue sowing of kabuli gram, toria, gram, pea, mustard, berseem, pointed gourd, parwal gourd, radish and planting of potato, fenugreek, coriander, carrot, spinach. Continue nursery sowing of improved varieties of cabbage, nursery sowing/transplanting of capsicum, chilli, brinjal and cauliflower. Apply irrigation and maintain 5-7 cm water in rice fields in rice during flowering stages.
 - In Eastern Plain Zone, continue land preparation for sowing of pea and toria and sowing of winter vegetables, fenugreek, coriander and carrot and continue sowing of radish, spinach and planting of potato. Continue transplanting of cauliflower (60x60cm), brinjal, cabbage, chilli and tomato (75x60cm). Continue planting of sweet potato and parwal (1.25x1.25m).
 - In Western Plain Zone, continue sowing of linseed, gram, berseem and nursery sowing of tomato, cauliflower, onion, planting of autumn sugarcane and potato. Continue sowing of toria and transplanting of brinjal and tomato.
 - In Bundelkhand Zone, continue harvesting of matured urad, moong, soybean and groundnut. Undertake land preparation for sowing of wheat, linseed, mustard, pea, gram, lentil and transplanting of cauliflower, cabbage, tomato, chilli and brinjal.
 - In Central Plain Zone, under prevailing weather condition, there may be chances of attack of gundhi bug in rice at flowering stage, for control, spray Malathion 5% EC @ 25-30 kg per ha.
 - Under prevailing weather condition, there are chances of attack of leaf roller/stem borer in rice in Central Plain Zone. For control, spray Quinalphos 25 EC @ 1.5 litre in 500 – 600 liters of water per ha.
 - Suitable varieties for sowing are given in Annexure III.
- **Horticulture**
 - In Sub Montane and Low Hills Sub Humid Zone of Himachal Pradesh, continue for planting of strawberry. Prevailing weather is conducive for the attack of leaf minor in new growth of citrus. For its control, spray Matasystox or Malathion @ 10 ml per 10 litres of water on a non rainy day.
 - Under humid weather condition there are chances of incidence of leaf spot disease in strawberry in Mid Hills Sub-Humid Zone of Himachal Pradesh. Apply Hexaconazole/Carbendazim @ 100gm per 200 litres of water on a non rainy day.
- **Floriculture**
 - Blue beetle attack is seen in Balsam, Zenia, Cleome and rose in Sub Montane and Low Hills Sub Humid Zone of Himachal Pradesh. For control spray Cypermethrin @ 20 ml per 10 litres of water. In poly houses attack of thrips and mites is expected. For control, spray Rogur @ 20 ml for thrips and for mites spray Diclofol @ 20 ml in 10 litres of water on a non rainy day.
- **Animal Husbandry**
 - In Sub-Montane and Low Hills Sub-tropical Zone of Himachal Pradesh, humid weather is conducive for ticks and mites attack on animals. For control, spray Butox @ 2ml per litre of water.

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

Annexure I

Week by week Rainfall Distribution

Sub-Divisions	30.09.15		07.10.15		14.10.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	18.2	-75	0.2	-99	37.8	-41
Dibang Valley	**	**	**	**	**	**
East Kameng	15.3	-73	2.4	-92	0.0	-100
East Siang	82.6	-11	0.0	-100	7.4	-82
Kurung Kumey	**	**	**	**	**	**
Lohit	47.3	-19	2.5	-97	51.5	50
Lower Dibang Valley	215.8	226	0.0	-100	79.2	89
Lower Subansari	**	**	**	**	**	**
Papumpara	83.2	-29	0.5	-99	59.0	-10
Tawang	52.0	-48	13.0	-86	16.0	-78
Tirap	28.0	-62	13.4	-87	70.4	64
Upper Siang	112.4	-27	3.0	-96	42.8	-38
Upper Subansari	30.6	-33	19.8	49	24.0	11
West Kameng	13.6	-86	65.0	-28	62.8	-13
West Siang	**	**	**	**	**	**
Assam&Meghalaya						
Assam						
Baksa	15.4	-80	0.3	-99	43.8	-4
Barpeta	24.3	-69	6.9	-86	19.2	-58
Bongaigaon	18.2	-78	0.0	-100	5.4	-90
Cachar	54.7	-22	20.0	-71	72.4	43
Chirang	47.0	-44	1.2	-98	34.8	-34
Darrang	**	**	**	**	**	**
Dhemaji	0.0	-100	0.0	-100	4.0	-90
Dhubri	53.1	-18	0.1	-99	3.8	-91
Dibrugarh	24.7	-56	20.4	-61	60.5	72
Goalpara	43.9	-47	9.9	-82	18.8	-67
Golghat	40.9	27	23.6	-16	41.3	27
Hailakandi	25.0	-65	43.7	-20	58.3	9
Jorhat	32.8	-38	26.4	-41	43.8	36
Kamrup(Rural)	27.4	-36	15.3	-56	16.1	-45
Kamrup(Metro)	26.0	-39	18.2	-47	41.1	40
Karbi Anglong	23.1	-41	9.4	-72	54.4	124
Karimganj	37.0	-49	60.7	-36	98.5	18
Kokrajhar	53.3	-46	13.8	-66	0.1	-99
Lakhimpur	48.7	-41	5.4	-89	34.7	-16
Morigaon	19.2	-64	53.6	137	13.6	-72
N.C.Hills	62.3	17	5.1	-87	17.4	-42
Nowgong	20.6	-48	7.8	-81	3.3	-89
Nalbari	23.4	-19	2.4	-95	24.0	-11

Sonitpur	19.8	-47	7.9	-75	18.0	-46
Sibsagar	27.6	-19	0.3	-99	35.6	66
Tinsukia	32.3	-41	17.1	-60	46.9	86
Udalgiri	18.4	-42	1.6	-96	16.3	-34
Meghalaya						
East Garo Hills	11.4	-77	58.4	-28	28.8	-4
East Khasi Hills	197.8	84	19.6	-81	47.5	-41
Jaintia Hills	73.0	-57	42.0	-81	15.0	-89
Ribhoi	39.2	-37	10.1	-65	23.7	-25
South Garo Hills	**	**	**	**	**	**
West Garo Hills	67.2	18	0.0	-100	9.8	-77
West Khasi Hills	43.0	-54	38.0	-25	96.0	7
NMMT						
Mizoram						
Aizwal	64.0	-17	113.5	17	125.5	91
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	**	**	**	**	**	**
Serchhip	142.2	77	68.2	11	71.4	78
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	**	**	**	**	**	**
Churachandpur	**	**	**	**	**	**
Imphal east	10.7	-70	15.3	-67	89.4	104
Imphal west	45.1	27	0.0	-100	35.2	-4
Senapati	**	**	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	5.0	-70	4.0	-87	58.0	148
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	8.6	46	17.4	-66	56.6	17
Kephire	**	**	**	**	**	**
Kohima	4.4	-91	21.4	-49	49.4	43
Longleng	**	**	**	**	**	**
Mokokchung	5.0	-61	5.0	-93	26.0	9
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	**	**	**	**	**	**
Tuensang	**	**	**	**	**	**
Wokha	**	**	**	**	68.0	94
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	38.8	-36	29.4	-53	54.3	12
NorthTripura	21.0	-66	12.3	-78	48.8	-13
SouthTripura	40.3	-36	34.6	-36	91.5	63
West Tripura	18.1	-67	35.0	-40	37.5	-33

Himachal Pradesh						
Bilaspur	2.8	-88	0.0	-100	0.0	-100
Chamba	40.0	0	0.0	-100	0.0	-100
Hamirpur	9.1	-71	0.0	-100	0.0	-100
Kangra	19.5	-45	0.0	-100	1.3	-90
Kinnaur	2.6	-86	0.0	-100	0.0	-100
Kullu	12.7	-36	0.0	-100	0.0	-100
Lahaul and Spiti	2.0	-92	0.0	-100	0.0	-100
Mandi	15.2	-35	0.0	-100	0.6	-94
Shimla	4.4	-78	0.0	-100	0.0	-100
Sirmaur	0.3	-99	0.0	-100	0.0	-100
Solan	1.5	-96	0.0	-100	0.0	-100
Una	5.3	-86	0.0	-100	0.0	-100
Punjab						
Amritsar	0.0	-100	0.0	-100	0.0	-100
Barnala	0.0	-100	0.0	-100	0.0	-100
Bhatinda	2.0	-84	0.0	-100	0.0	-100
Faridkot	0.0	-100	0.0	-100	0.0	-100
Fatehgarh Saheb	0.8	-97	0.0	-100	0.0	-100
Ferozpur	1.4	-87	0.0	-100	0.0	-100
Gurdaspur	6.5	-79	0.0	-100	0.0	-100
Hoshiarpur	0.0	-100	0.0	-100	0.0	-100
Jalandhar	0.0	-100	0.0	-100	0.0	-100
Kapurthala	4.5	-76	0.0	-100	0.0	-100
Ludhiana	2.9	-88	0.0	-100	0.0	-100
Mansa	0.0	-100	0.0	-100	0.0	-100
Moga	0.0	-100	0.0	-100	0.0	-100
Muktesar	0.0	-100	0.0	-100	0.0	-100
Nawashahar	0.7	-98	0.0	-100	0.0	-100
Patiala	1.5	-95	0.0	-100	0.0	-100
Ropar	0.8	-97	0.0	-100	0.0	-100
Sangrur	0.0	-100	0.0	-100	0.0	-100
Mohali	0.0	-100	0.0	-100	0.0	-100
TarnTaran	0.0	-100	0.0	-100	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	0.9	-98	0.0	-100	0.0	-100
Bhiwani	6.1	14	0.0	-100	0.0	-100
Chandigarh	0.3	-99	0.0	-100	0.0	-100
Faridabad	0.0	-100	0.0	-100	0.0	-100
Fatehabad	0.0	-100	0.0	-100	0.0	-100
Gurgaon	0.0	-100	0.0	-100	0.0	-100
Hissar	7.6	-18	0.0	-100	0.0	-100
Jhajar	3.0	-57	0.0	-100	0.0	-100
Jind	0.0	-100	0.0	-100	0.0	-100
Katihah	0.3	-98	0.0	-100	0.0	-100
Karnal	0.0	-100	0.0	-100	0.0	-100
Kurukshetra	3.8	-79	0.0	-100	0.0	-100
Mahendragarh	0.0	-100	0.0	-100	0.0	-100

Mewat	0.0	-100	0.0	-100	0.0	-100
Palwal	0.0	-100	0.0	-100	0.0	-100
Panchkkula	0.2	-99	0.0	-100	0.0	-100
Panipat	0.0	-100	0.0	-100	0.0	-100
Rewari	0.0	-100	0.0	-100	0.0	-100
Rohtak	0.0	-100	0.0	-100	0.0	-100
Sirsa	0.3	-95	0.0	-100	0.0	-100
Sonepat	0.0	-100	0.0	-100	0.0	-100
Yamunanagar	0.0	-100	0.0	-100	0.0	-100
Delhi						
Central Delhi	0.0	-100	0.0	-100	0.0	-100
East Delhi	0.0	-100	0.0	-100	0.0	-100
New Delhi	0.0	-100	0.0	-100	0.0	-100
North Delhi	0.0	-100	0.0	-100	0.0	-100
North East Delhi	0.0	-100	0.0	-100	0.0	-100
North West Delhi	0.3	-98	0.0	-100	0.0	-100
South Delhi	1.0	-93	0.0	-100	0.0	-100
South West Delhi	2.5	-82	0.0	-100	0.0	-100
West Delhi	0.0	-100	0.0	-100	0.0	-100
Jammu & Kashmir						
Anantnag	15.5	34	0.7	-87	0.0	-100
Badgam	2.2	-61	0.0	-100	0.0	-100
Bandipore	**	**	**	**	**	**
Baramula	10.4	1	0.0	-100	0.0	-100
Doda	13.2	-60	0.0	-100	0.0	-100
Ganderbal	15.0	124	0.0	-100	0.0	-100
Jammu	0.0	-100	0.0	-100	0.0	-100
Kargil	**	**	**	**	**	**
Kathua	4.2	-82	0.0	-100	1.2	-87
Kistwar	**	**	**	**	**	**
Kulgam	19.6	69	0.0	-100	0.0	-100
Kupwara	3.7	-55	0.4	-96	1.2	-90
Ladakh(Leh)	0.6	-40	0.0	-100	0.0	-100
Poonch	**	**	**	**	**	**
Pulwama	13.4	79	0.0	-100	0.0	-100
Rajouri	0.0	-100	0.0	-100	0.0	-100
Ramban	13.2	-60	0.0	-100	0.0	-100
Reasi	0.2	-99	0.0	-100	0.0	-100
Samba	0.0	-100	0.0	-100	0.0	-100
Shopian	**	**	**	**	**	**
Srinagar	2.2	-68	0.6	-90	0.0	-100
Udhampur	15.6	-61	0.0	-100	0.0	-100
East Madhya Pradesh						
Anuppur	0.0	-100	0.0	-100	0.0	-100
Balaghat	0.0	-100	0.0	-100	0.0	-100
Chhatarpur	0.0	-100	0.0	-100	0.0	-100
Chindwara	0.0	-100	0.0	-100	0.0	-100
Damoh	0.0	-100	0.0	-100	0.0	-100

Dindori	0.0	-100	0.0	-100	0.0	-100
Jabalpur	1.3	-94	0.0	-100	0.0	-100
Katni	0.0	-100	0.0	-100	0.0	-100
Mandla	0.0	-100	0.0	-100	0.0	-100
Narsingpur	0.0	-100	0.0	-100	0.0	-100
Panna	0.0	-100	0.0	-100	0.0	-100
Rewa	0.7	-96	0.0	-100	0.0	-100
Sagar	0.0	-100	0.0	-100	0.0	-100
Satna	0.0	-100	0.0	-100	0.6	-93
Seoni	0.0	-100	0.0	-100	0.0	-100
Shahdol	0.0	-100	0.0	-100	0.0	-100
Sidhi	0.0	-100	0.0	-100	0.0	-100
Singrauli	0.0	-100	0.0	-100	0.0	-100
Tikamgarh	0.0	-100	0.0	-100	0.0	-100
Umaria	0.0	-100	0.0	-100	0.0	-100
West Madhya Pradesh						
Agar	0.0	-100	0.0	-100	0.0	-100
Alirajpur	0.0	-100	0.0	-100	0.0	-100
Asoknagar	0.0	-100	0.0	-100	0.0	-100
Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	0.0	-100	0.0	-100	0.0	-100
Bhind	0.0	-100	0.0	-100	0.0	-100
Bhopal	0.0	-100	0.0	-100	0.0	-100
Burhanpur	0.0	-100	0.0	-100	0.0	-100
Datia	0.0	-100	0.0	-100	0.0	-100
Dewas	0.0	-100	0.0	-100	0.0	-100
Dhar	2.5	-93	0.0	-100	0.0	-100
Guna	0.0	-100	0.0	-100	0.0	-100
Gwalior	0.0	-100	0.0	-100	0.0	-100
Harda	0.0	-100	0.0	-100	0.0	-100
Hosangabad	0.0	-100	0.0	-100	0.0	-100
Indore	0.2	-99	0.0	-100	0.0	-100
Jhabua	0.0	-100	0.0	-100	0.0	-100
Khandwa	0.0	-100	0.0	-100	0.0	-100
Khargone	0.0	-100	0.0	-100	0.0	-100
Mandsaur	0.0	-100	0.0	-100	0.0	-100
Morena	0.0	-100	0.0	-100	0.0	-100
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	0.0	-100	0.0	-100	0.0	-100
Rajgarh	0.0	-100	0.0	-100	0.0	-100
Ratlam	0.0	-100	0.0	-100	0.0	-100
Sehore	0.0	-100	0.0	-100	0.0	-100
Shajapur	0.0	-100	0.0	-100	0.0	-100
Sheopur Kalani	0.0	-100	0.0	-100	0.0	-100
Shivpuri	0.0	-100	0.0	-100	0.0	-100
Ujjain	0.0	-100	0.0	-100	0.0	-100
Vidisha	0.0	-100	0.0	-100	0.0	-100
Chhattisgarh						

Bastar	0.1	-99	10.5	-68	0.1	-99
Bijapur	0.0	-100	12.3	-67	0.0	-100
Bilaspur	0.0	-100	0.0	-100	0.0	-100
Dantewara	6.4	-82	27.1	-25	0.0	-100
Dhamtari	0.0	-100	1.8	-93	0.0	-100
Durg	1.2	-96	0.0	-100	0.0	-100
Janjgir	4.3	-86	0.0	-100	0.0	-100
Jashpurnagar	0.0	-100	0.0	-100	0.0	-100
Kanker	0.0	-100	3.0	-88	0.0	-100
Korba	10.0	-63	0.0	-100	0.0	-100
Koriya	0.0	-100	0.0	-100	0.0	-100
Kawardha	0.0	-100	0.0	-100	0.0	-100
Mahasumund	3.7	-84	4.6	-75	0.0	-100
Narayanpur	0.0	-100	0.0	-100	0.0	-100
Raigarh	7.8	-79	6.0	-64	0.0	-100
Raipur	0.0	-100	1.9	-91	0.0	-100
Rajandgaon	0.0	-100	0.0	-100	0.0	-100
Surguja	0.0	-100	0.0	-100	0.0	-100
East Uttar Pradesh						
Allahabad	0.0	-100	0.0	-100	0.0	-100
Ambedkar Nagar	0.0	-100	0.0	-100	0.0	-100
Azamgarh	0.0	-100	0.0	-100	0.0	-100
Bahraich	0.0	-100	0.0	-100	26.5	42
Ballia	1.0	-95	0.0	-100	0.0	-100
Balrampur	0.0	-100	0.0	-100	0.2	-99
Banda	0.0	-100	0.0	-100	0.0	-100
Barabanki	0.0	-100	0.0	-100	0.0	-100
Basti	0.0	-100	0.0	-100	2.1	-87
Chandauli	0.0	-100	0.0	-100	0.0	-100
Deoria	0.0	-100	0.0	-100	0.0	-100
Faizabad	0.0	-100	0.0	-100	0.3	-98
Farrukhabad	0.0	-100	0.0	-100	0.0	-100
Fatehpur	0.0	-100	0.0	-100	0.0	-100
Gazipur	0.0	-100	0.0	-100	0.1	-99
Gonda	0.0	-100	0.0	-100	4.8	-74
Gorakhpur	2.5	-93	0.0	-100	5.9	-72
Hardoi	0.0	-100	0.0	-100	0.0	-100
Jaunpur	0.0	-100	0.0	-100	0.0	-100
Kannauj	0.0	-100	0.0	-100	0.0	-100
Kanpur City	0.0	-100	0.0	-100	0.0	-100
Kanpur Dehat	0.0	-100	0.0	-100	0.0	-100
Kaushambi	0.0	-100	0.0	-100	0.0	-100
Kheri	0.0	-100	0.0	-100	0.0	-100
Kushi nagar	4.0	-93	0.0	-100	7.5	-63
Lucknow	0.0	-100	0.0	-100	0.0	-100
Maharajganj	3.5	-90	0.0	-100	38.8	62
Mau	0.0	-100	0.0	-100	0.0	-100
Mirzapur	0.0	-100	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	0.0	-100

RaiBareilly	0.0	-100	0.0	-100	0.0	-100
Sahuji Maharajnagar	0.0	-100	0.0	-100	0.0	-100
Sant Kabirnagar	0.0	-100	0.0	-100	0.0	-100
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	0.0	-100	0.0	-100	18.0	-3
Sidharthnagar	2.1	-93	0.0	-100	5.0	-71
Sitapur	0.0	-100	0.0	-100	0.0	-100
Sonbhadra	0.0	-100	0.0	-100	0.0	-100
Sultanpur	0.0	-100	0.0	-100	0.0	-100
Unnao	0.0	-100	0.0	-100	0.0	-100
Varanasi	0.0	-100	0.0	-100	0.0	-100
West Uttar Pradesh						
Agra	0.0	-100	0.0	-100	0.0	-100
Aligarh	0.0	-100	0.0	-100	0.0	-100
Auraiya	0.0	-100	0.0	-100	0.0	-100
Badaun	0.0	-100	0.0	-100	0.0	-100
Baghpat	0.0	-100	0.0	-100	0.0	-100
Bareilly	0.9	-96	0.0	-100	0.0	-100
Bijnor	0.0	-100	0.0	-100	1.5	-89
Bulandsahar	0.0	-100	0.0	-100	0.0	-100
Etah	0.0	-100	0.0	-100	0.0	-100
Etawah	0.0	-100	0.0	-100	0.0	-100
Firozabad	0.0	-100	0.0	-100	0.0	-100
GBNagar	0.0	-100	0.0	-100	0.0	-100
Ghaziabad	0.0	-100	0.0	-100	0.0	-100
Hamirpur	0.0	-100	0.0	-100	0.0	-100
Jalaun	0.0	-100	0.0	-100	0.0	-100
Jhansi	0.0	-100	0.0	-100	0.0	-100
Jotiba Phule Nagar	0.0	-100	0.0	-100	0.0	-100
Kanshiramnagar	0.0	-100	0.0	-100	0.0	-100
Lalitpur	0.0	-100	0.0	-100	0.0	-100
Mahamaya Nagar	0.0	-100	0.0	-100	0.0	-100
Mahoba	0.0	-100	0.0	-100	0.0	-100
Mainpuri	0.0	-100	0.0	-100	0.0	-100
Mathura	0.0	-100	0.0	-100	0.0	-100
Meerut	0.0	-100	0.0	-100	0.0	-100
Moradabad	0.0	-100	0.0	-100	0.0	-100
Muzzaffarnagar	0.7	-97	0.0	-100	0.0	-100
Pilibhit	0.0	-100	0.0	-100	0.0	-100
Rampur	0.0	-100	0.0	-100	0.0	-100
Saharanpur	0.0	-100	0.0	-100	0.0	-100
Shahjahanpur	0.0	-100	0.0	-100	0.0	-100
Uttarakhand						
Almora	0.3	-99	0.0	-100	0.0	-100
Bageshwar	0.0	-100	0.0	-100	0.0	-100
Chamoli	8.7	-50	0.0	-100	7.3	-54
Champawat	10.0	-72	0.0	-100	4.5	-87
Dehradun	1.0	-97	0.0	-100	6.4	-73

Garhwal Pauri	0.0	-100	0.0	-100	9.0	-64
Garhwal Tehri	0.2	-99	0.0	-100	0.0	-100
Haridwar	0.0	-100	0.0	-100	12.0	-15
Nainital	0.5	-98	0.0	-100	17.5	-48
Pithoragarh	5.3	-87	0.0	-100	1.3	-95
Rudraprayag	6.3	-76	0.0	-100	0.0	-100
Udham Sing Nagar	0.0	-100	0.0	-100	0.0	-100
Uttarkashi	7.5	-73	0.0	-100	0.5	-98
Bihar						
Araria	1.0	-98	0.0	-100	0.0	-100
Arwal	0.0	-100	0.0	-100	0.0	-100
Aurangabad	0.0	-100	0.0	-100	0.0	-100
Banka	19.3	-67	3.4	-93	0.0	-100
Begusarai	19.8	-47	0.0	-100	0.0	-100
Bhabua	0.0	-100	0.0	-100	0.0	-100
Bhagalpur	19.8	-65	0.0	-100	2.8	-88
Bhojpur	0.0	-100	0.0	-100	0.0	-100
Buxar	0.0	-100	0.0	-100	0.0	-100
Darbhanga	10.8	-74	0.0	-100	0.0	-100
East Champaran	20.7	-46	0.0	-100	0.0	-100
Gaya	0.0	-100	0.0	-100	0.0	-100
Gopalganj	14.1	-51	0.0	-100	11.9	5
Jahanabad	0.0	-100	0.0	-100	0.0	-100
Jamui	0.1	-99	0.0	-100	0.0	-100
Kathihar	18.7	-76	0.0	-100	12.5	-33
Khagadia	22.0	-61	0.0	-100	0.0	-100
Kishanganj	12.7	-82	0.2	-99	0.0	-100
Lakhisarai	4.7	-91	0.8	-98	0.0	-100
Madhepura	10.8	-81	0.0	-100	0.0	-100
Madhubani	12.8	-63	0.0	-100	0.0	-100
Monghyar	37.2	-30	0.0	-100	0.0	-100
Muzaffarpur	7.1	-80	0.0	-100	0.0	-100
Nalanda	0.0	-100	0.0	-100	0.0	-100
Nawada	0.0	-100	0.0	-100	0.0	-100
Patna	0.4	-99	0.0	-100	0.6	-95
Purnea	6.1	-92	6.8	-86	15.9	-3
Rohtas	0.0	-100	0.0	-100	0.0	-100
Saharsha	15.0	-75	0.0	-100	0.0	-100
Samstipur	14.0	-73	0.0	-100	0.0	-100
Saran	0.0	-100	0.0	-100	1.1	-89
Sheikpura	0.0	-100	0.0	-100	0.0	-100
Sheohar	0.0	-100	0.0	-100	0.0	-100
Sitamarhi	13.2	-57	0.0	-100	0.0	-100
Siwan	0.0	-100	0.0	-100	0.0	-100
Supaul	11.4	-76	0.5	-99	0.0	-100
Vaishali	3.7	-91	0.0	-100	0.0	-100
West Champaran	4.9	-89	0.0	-100	35.2	92
Jharkhand						
Bokaro	3.7	-93	5.1	-86	0.0	-100

Chatra	1.1	-97	0.0	-100	0.0	-100
Deoghar	5.2	-92	6.2	-82	0.0	-100
Dhanbad	1.7	-97	3.1	-93	0.5	-97
Dumka	12.3	-82	0.0	-100	2.1	-92
East Singbhum	2.3	-95	2.5	-91	7.7	-53
Garhwa	0.0	-100	0.0	-100	0.0	-100
Giridih	0.0	-100	0.2	-99	2.9	-81
Godda	7.6	-88	0.0	-100	0.0	-100
Gumla	0.0	-100	4.1	-83	1.4	-94
Hazaribagh	2.9	-92	0.0	-100	0.0	-100
Jamtara	1.7	-98	0.8	-99	3.4	-85
Khunti	0.0	-100	6.5	-77	0.0	-100
Koderrna	0.0	-100	0.0	-100	0.0	-100
Latehar	0.0	-100	0.0	-100	0.0	-100
Lohardagga	0.0	-100	0.0	-100	0.0	-100
Pakur	10.2	-87	0.0	-100	4.9	-88
Palamau	0.0	-100	0.0	-100	0.0	-100
Ramgarh	0.1	-99	0.0	-100	31.4	105
Ranchi	0.0	-100	3.0	-90	7.8	-55
Sahebganj	0.0	-100	0.0	-100	0.0	-100
Saraikela	4.6	-90	4.2	-84	0.0	-100
Simdega	8.2	-82	4.6	-81	0.0	-100
West Singbhum	0.0	-100	2.4	-90	1.8	-90
East Rajasthan						
Ajmer	0.0	-100	0.0	-100	0.0	-100
Alwar	1.4	-88	0.0	-100	0.0	-100
Banswara	0.0	-100	0.0	-100	0.0	-100
Baran	0.0	-100	0.0	-100	0.0	-100
Bharatpur	0.0	-100	0.0	-100	0.0	-100
Bhilwara	0.0	-100	0.0	-100	0.0	-100
Bundi	0.0	-100	0.0	-100	0.0	-100
Chittorgarh	0.0	-100	0.0	-100	0.0	-100
Dausa	0.0	-100	0.0	-100	0.0	-100
Dholpur	0.0	-100	0.0	-100	0.0	-100
Dungarpur	0.0	-100	0.0	-100	0.0	-100
Jaipur	0.3	-96	0.0	-100	0.0	-100
Jhalawar	0.0	-100	0.0	-100	0.0	-100
Jhunjhunu	1.4	-82	0.0	-100	0.0	-100
Karauli	0.0	-100	0.0	-100	0.0	-100
Kota	0.0	-100	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	0.0	-100
Rajsamand	0.0	-100	0.0	-100	0.0	-100
Sawai Madhopur	0.0	-100	0.0	-100	0.0	-100
Sikar	0.0	-100	0.0	-100	0.0	-100
Sirohi	0.0	-100	0.0	-100	0.0	-100
Tonk	0.1	-98	0.0	-100	0.0	-100
Udaipur	0.0	-100	0.0	-100	0.0	-100
West Rajasthan						
Barmer	0.0	-100	0.0	-100	0.0	-100

Bikaner	0.3	-94	0.0	-100	0.0	-100
Churu	0.7	-91	0.0	-100	0.0	-100
Hanumangarh	2.6	-43	0.0	-100	0.0	-100
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	0.0	-100	0.0	-100	0.0	-100
Pali	0.0	-100	0.0	-100	0.0	-100
Sri Ganganagar	0.7	-71	0.0	-100	0.0	-100
Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	0.0	-100
Anand	0.0	-100	0.0	-100	0.0	-100
Banaskantha	0.0	-100	0.0	-100	0.0	-100
Baroda	0.0	-100	0.0	-100	0.0	-100
Broach	0.0	-100	0.0	-100	1.6	-83
DNH	0.0	-100	10.6	-4	6.7	-57
Dahod	0.0	-100	0.0	-100	0.0	-100
Daman	0.0	-100	1.0	-91	0.0	-100
Dangs	0.0	-100	21.5	-15	34.0	89
Gandhinagar	0.0	-100	0.0	-100	0.0	-100
Kheda	0.0	-100	0.0	-100	0.0	-100
Mehsana	0.0	-100	0.0	-100	0.0	-100
Narmada	0.0	-100	0.0	-100	0.0	-100
Navsari	1.3	-98	0.5	-97	4.0	-74
Panchmahal	0.1	-99	0.0	-100	0.0	-100
Patan	0.0	-100	0.0	-100	0.0	-100
Sabarkantha	0.0	-100	0.0	-100	0.0	-100
Surat	0.6	-99	0.6	-96	0.0	-99
Tapi	0.0	-100	0.0	-100	0.0	-100
Valsad	0.0	-100	3.8	-82	11.8	-32
S K & Diu region						
Amreli	0.0	-100	1.2	-85	1.3	-79
Bhavnagar	0.1	-99	0.0	-100	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	4.8	98
Junagarh	0.0	-100	0.0	-100	6.2	0
Kutch	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.5	-96	0.0	-100	0.0	-100
Rajkot	0.0	-100	0.0	-100	0.8	-86
Surendranagar	0.0	-100	0.0	-100	2.7	-21
Maharashtra						
Konkan & Goa						
Mumbai City	0.0	-100	73.1	102	0.2	-99
Mumbai Suburban	0.0	-100	22.5	-38	8.1	-69
North Goa	0.6	-99	110.8	69	14.3	-61
Raigad	0.7	-99	83.0	69	20.0	-47
Ratnagiri	0.1	-99	108.7	73	17.6	-54
Sindhudurg	1.1	-98	88.5	55	14.4	-60

South Goa	2.0	-97	52.6	-2	26.5	-18
Thane	0.5	-99	42.6	29	16.8	-43
Madhya Maharashtra						
Ahmednagar	0.3	-99	36.6	43	0.4	-98
Dhule	0.0	-100	1.4	-92	2.0	-87
Jalgaon	0.2	-99	0.0	-100	0.4	-97
Kolhapur	0.1	-99	60.6	26	5.1	-83
Nandurbar	0.0	-100	0.0	-100	0.7	-96
Nasik	2.5	-95	17.8	-33	11.1	-43
Pune	0.3	-99	61.3	89	16.7	-28
Sangli	0.2	-99	70.0	67	2.9	-90
Satara	0.3	-99	72.3	99	11.6	-49
Solapur	0.1	-99	61.3	82	4.8	-81
Marathwada						
Aurangabad	0.0	-100	14.9	-14	0.5	-98
Beed	7.4	-82	22.2	4	0.2	-99
Hingoli	3.7	-89	6.8	-70	0.0	-100
Jalna	0.2	-99	11.9	-34	0.0	-100
Latur	5.9	-84	29.0	-4	8.2	-59
Nanded	3.7	-90	5.8	-80	0.4	-97
Usmanabad	0.6	-99	42.5	46	3.9	-82
Parbhani	1.4	-96	9.8	-63	0.0	-99
Vidarbha						
Akola	0.6	-97	6.6	-68	0.0	-100
Amraoti	0.0	-99	0.7	-97	0.0	-100
Bhandara	0.2	-99	0.0	-100	0.0	-100
Buldhana	0.1	-99	2.3	-87	0.0	-100
Chandrapur	0.1	-99	0.0	-100	0.0	-100
Gadchiroli	0.8	-97	0.0	-100	0.0	-100
Gondia	1.0	-96	1.3	-95	0.0	-100
Nagpur	0.0	-100	0.1	-99	0.0	-100
Wardha	0.0	-100	0.9	-96	0.0	-100
Washim	0.0	-100	3.4	-84	0.0	-100
Yeotmal	0.0	-100	0.1	-99	0.0	-100
Odisha						
Angul	0.0	-100	12.2	-53	3.3	-85
Balasore	0.0	-100	8.3	-87	5.4	-89
Bargarh	0.0	-100	0.4	-98	0.3	-98
Bhadrak	0.2	-99	10.1	-74	12.1	-72
Bolangir	0.0	-100	2.2	-91	0.0	-100
Boudh	0.0	-100	1.1	-97	0.0	-100
Cuttack	1.3	-97	23.0	-45	10.2	-66
Deogarh	0.0	-100	4.6	-77	0.4	-97
Dhenkanal	2.5	-94	14.1	-60	12.9	-54
Gajapati	2.1	-94	26.0	-46	1.5	-96
Ganjam	5.9	-87	18.4	-67	9.5	-79
Jagatsingpur	8.6	-82	41.8	15	24.2	-33
Jajpur	0.0	-100	14.6	-65	3.3	-91
Jharsuguda	2.2	-93	0.3	-98	0.0	-100






Kalahandi	1.6	-95	3.3	-90	0.0	-100
Kandhamal	0.7	-98	0.3	-99	0.0	-100
Kendrapara	0.0	-100	40.8	-26	30.5	-44
Keonjhar	1.5	-96	12.4	-64	5.4	-80
Khurda	2.7	-94	16.6	-69	6.6	-85
Koraput	2.9	-93	33.4	-34	0.0	-100
Malkangiri	16.0	-47	12.0	-70	4.0	-87
Mayurbhanj	0.9	-98	8.1	-81	5.7	-78
Nawapara	0.0	-100	1.0	-96	0.4	-96
Nawarangpur	4.4	-87	13.0	-68	0.0	-100
Nayagarh	0.0	-100	28.0	-44	0.0	-100
Puri	8.0	-86	8.1	-85	12.9	-71
Rayagada	2.8	-92	10.3	-71	0.0	-100
Sambalpur	0.0	-100	0.5	-97	3.6	-75
Sonepur	2.2	-94	0.0	-100	1.3	-88
Sundargarh	5.6	-80	0.0	-100	1.2	-91
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	220.3	104	84.3	-6	28.1	-63
North & Middle Andaman	47.3	-54	107.3	12	72.9	18
South Andaman	95.5	-22	152.3	66	52.5	-30
GWB						
Bankura	4.8	-92	0.0	-100	6.0	-71
Birbhum	12.9	-82	5.8	-86	9.4	-60
Burdwan	14.3	-77	1.0	-98	22.5	0
East Midnapore	6.1	-94	16.6	-77	2.4	-95
Hooghly	21.6	-62	0.7	-98	26.4	10
Howrah	48.2	-53	41.0	21	2.3	-92
Kolkata	14.1	-84	61.7	11	31.5	-16
Murshidabad	14.0	-81	9.7	-83	22.9	-21
Nadia	6.9	-87	15.0	-58	28.8	6
24 Pargana (N)	32.4	-57	12.7	-72	7.0	-74
Purulia	9.3	-85	2.9	-92	10.5	-50
24 Pargana (S)	11.1	-88	11.8	-84	10.3	-81
West Midnapore	13.2	-81	5.3	-88	25.7	19
SHWB & Sikkim						
Cooch Behar	68.4	-33	0.0	-100	34.8	-4
Darjeeling	104.3	-2	15.3	-73	17.8	-34
East Sikkim	60.8	-12	68.5	24	2.3	-96
Jalpaiguri	69.3	-28	35.7	-46	19.0	-58
Malda	19.0	-77	1.5	-97	0.8	-97
North Dinajpur	21.0	-84	0.0	-100	0.0	-100
North Sikkim	48.9	-31	47.7	-53	4.3	-95
South Dinajpur	1.0	-98	0.0	-100	6.0	-82
South Sikkim	88.9	29	51.5	-7	9.1	-86
West Sikkim	105.0	49	37.0	-64	8.0	-90
Karnataka						
Coastal Karnataka						

Dakshina Kannada	24.8	-68	135.3	93	39.9	-28
Udupi	18.1	-82	161.0	118	18.0	-62
Uttara Kannada	11.2	-81	80.6	45	15.0	-57
N I Karnataka						
Bagalkote	0.6	-99	61.2	46	5.5	-79
Belagavi	1.0	-97	74.2	78	4.3	-83
Bidar	12.8	-70	21.2	-35	4.8	-78
Dharwad	3.0	-92	55.4	41	27.7	-4
Gadag	14.4	-67	54.2	29	42.7	42
Haveri	32.8	-9	79.9	136	8.1	-74
Kalaburgi	31.0	-34	24.9	-42	4.5	-79
Koppal	6.9	-82	23.0	-39	18.0	-31
Raichur	12.4	-70	50.7	23	2.6	-91
Vijayapura	10.4	-78	63.1	49	1.2	-95
Yadgir	16.4	-65	28.9	-34	0.2	-99
S I Karnataka						
Ballari	13.6	-64	61.0	52	44.1	71
Bangalore Rural	99.5	136	68.3	9	31.2	-20
Bangalore Urban	59.0	28	82.8	46	15.7	-57
Chamarajanagar	92.3	154	59.2	43	39.1	7
Chikaballapur	80.7	96	108.8	106	3.7	-90
Chikkamagaluru	58.8	17	98.7	104	13.1	-64
Chitradurga	53.9	44	96.5	146	33.0	14
Davangere	34.7	-8	61.3	50	28.6	-2
Hassan	51.0	30	46.3	15	15.9	-58
Kodagu	82.0	61	57.5	4	32.5	-34
Kolar	56.2	41	65.3	36	2.4	-93
Mandya	78.2	96	54.1	26	34.7	-12
Mysuru	74.2	111	47.1	25	20.8	-47
Ramanagara	65.0	35	55.2	-1	20.1	-54
Shivamogga	13.2	-65	73.2	63	13.0	-59
Tumakuru	89.7	106	103.6	104	25.7	-27
Kerala						
Alappuzha	76.6	-1	95.4	26	106.4	39
Kannur	64.8	-3	156.9	166	136.4	150
Ernakulam	100.7	16	158.6	133	90.3	32
Idukki	141.6	46	101.1	31	70.9	-17
Kasaragod	21.5	-66	152.0	130	101.4	67
Kollam	43.9	-37	79.1	10	151.3	72
Kottayam	128.1	54	107.4	47	103.8	37
Kozhikode	9.6	-88	148.9	148	164.7	154
Malappuram	49.9	-27	99.9	66	137.8	89
Palakkad	74.5	24	58.7	11	50.0	-18
Pathanamthitta	118.3	34	110.2	49	104.5	28
Thiruvananthapuram	36.0	-37	37.9	-18	150.3	141
Thrissur	72.0	-17	128.3	77	100.3	58
Wayanad	85.9	49	68.6	47	50.0	-1
Tamil Nadu						
Ariyalur	19.9	-44	71.1	58	33.8	-8

Chennai	0.0	-100	27.7	-33	52.8	60
Coimbatore	67.2	207	27.0	9	41.1	36
Cuddalore	14.5	-60	44.1	17	15.6	-59
Dharmapuri	81.9	104	64.3	27	44.2	8
Dindigul	70.7	97	31.1	-13	57.5	41
Erode	65.5	117	45.7	33	45.6	44
Kanchipuram	13.5	-69	88.1	132	38.7	14
Kanyakumari	46.5	26	25.2	-32	131.9	194
Karikal	0.0	-100	29.0	-5	0.0	-100
Karur	89.1	221	18.9	-38	58.7	81
Krishnagiri	49.9	5	87.7	65	35.7	-7
Madurai	93.5	166	16.2	-59	37.2	-15
Nagapattinam	0.0	-100	50.8	42	0.4	-99
Namakkal	108.8	224	40.3	16	43.8	16
Nilgiris	86.3	117	69.9	65	45.6	7
Perambalur	103.0	267	67.1	84	72.4	50
Puducherry	10.1	-66	9.8	-76	21.3	-41
Pudukottai	24.4	-25	86.9	167	39.7	29
Ramanathapuram	48.0	148	37.1	73	22.6	-27
Salem	76.7	98	63.3	37	60.1	40
Sivaganga	64.1	126	37.1	20	6.9	-83
Thanjavur	19.8	-33	67.0	86	39.5	26
Theni	115.7	378	39.3	68	10.7	-70
Tirunelveli	36.8	126	18.1	11	45.0	58
Tirupur	53.2	112	12.1	-60	40.4	37
Tiruvallur	28.3	-32	66.1	64	71.0	118
Tiruvannamalai	83.8	113	84.7	91	31.8	-24
Tiruvarur	26.6	-12	84.5	160	32.5	5
Toothukudi	20.4	79	9.7	-39	9.7	-65
Trichy	51.6	64	69.3	74	73.6	89
Vellore	64.3	56	72.2	65	54.9	54
Villupuram	14.1	-61	32.0	-23	30.4	-11
Virudhunagar	60.5	117	27.8	-1	37.3	1
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	15.0	-70	44.8	-21	3.0	-94
Guntur	11.3	-75	24.9	-37	0.8	-97
Krishna	10.0	-80	35.6	-20	0.3	-99
Nellore	19.8	-45	55.8	46	11.9	-62
Prakasam	31.6	-24	47.2	6	5.0	-83
Sirkakulam	15.8	-63	32.1	-46	4.1	-91
Visakhapatnam	16.0	-64	20.9	-68	4.0	-91
Vizianagram	28.6	-36	37.9	-30	3.5	-92
West Godavari	15.7	-68	57.7	3	0.0	-100
Rayalaseema						
Anantapur	44.9	31	53.2	26	42.1	56
Chittoor	34.9	-10	85.0	96	66.0	101
Cuddapah	20.7	-36	47.8	23	41.9	52
Kurnool	34.5	-9	27.2	-29	10.2	-55

Telangana						
Adilabad	0.5	-98	5.0	-82	0.0	-100
Hyderabad	10.9	-73	48.9	73	28.0	23
Karimnagar	5.1	-85	7.8	-74	0.0	-100
Khammam	12.7	-66	12.6	-68	0.0	-100
Mehabubnagar	21.1	-48	33.7	1	1.4	-93
Medak	4.8	-86	3.4	-89	0.7	-96
Nalgonda	20.8	-45	25.9	-30	3.0	-88
Nizamabad	7.3	-80	13.6	-59	0.9	-93
Rangareddy	21.2	-45	14.3	-58	5.2	-77
Warangal	13.1	-56	19.9	-37	0.0	-100

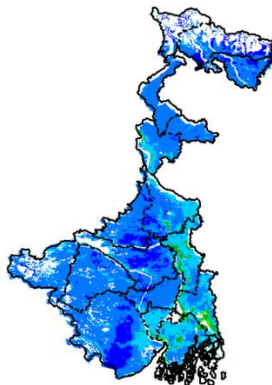
Legends

	(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

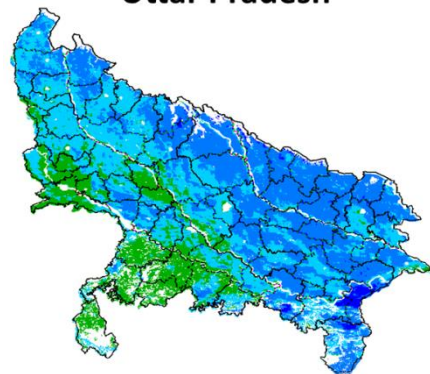
INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON 14th October 2015 FOR DIFFERENT STATES

West Bengal



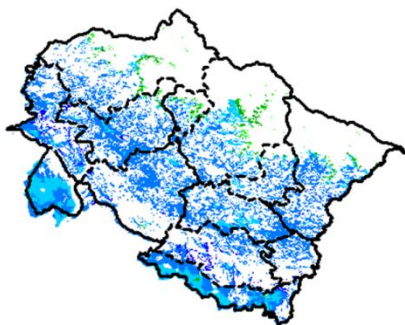
Agricultural vigour is good in all parts of West Bengal where NDVI varying from 0.4-0.6, whereas few patches in North, South and central part shows higher values of NDVI (>0.6).

Uttar Pradesh



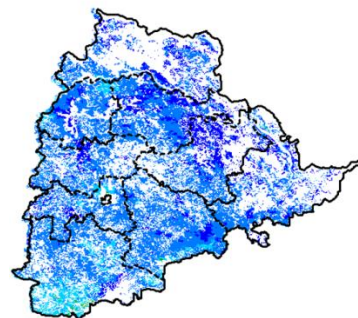
Agricultural vigour is good over the entire state of Uttar Pradesh where NDVI value varies from 0.4 - 0.6. whereas in southern part NDVI values are normal (0.3-0.4).

Uttarakhand



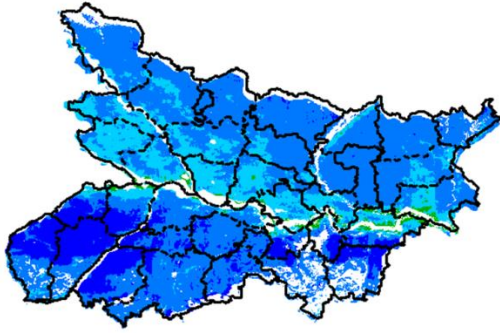
Agriculture vigour is good over entire state of Uttarakhand with NDVI value varies from 0.5-0.6.

Telangana



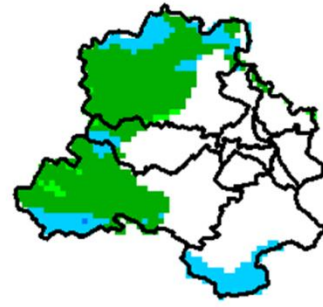
Agriculture vigour is very good over entire state of Telangana whereas northern and eastern regions shows increase in NDVI (>6).

Bihar



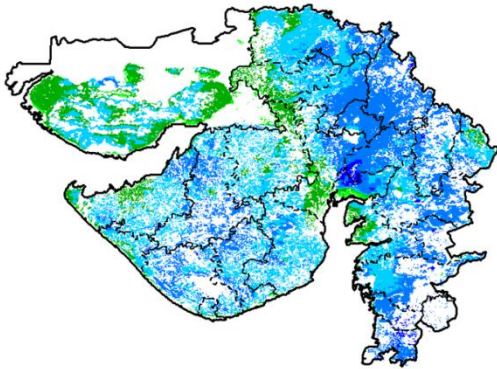
Southern part of Bihar shows comparatively a high value (>0.6) of NDVI, whereas NDVI varies from 0.4-0.6 over the remaining parts of the state.

Delhi



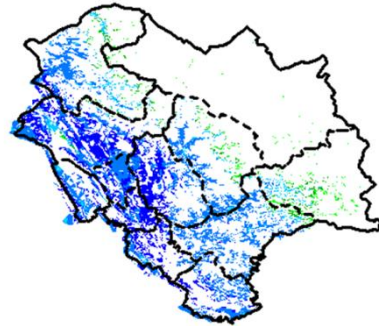
Agriculture vigour is moderate all over Delhi where NDVI value lies between 0.3-0.5.

Gujarat



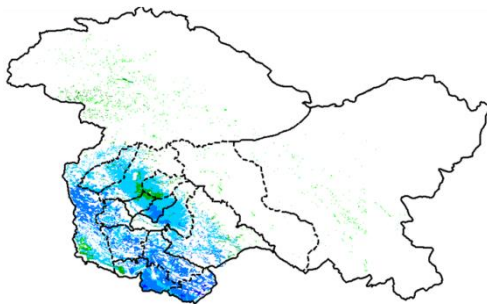
Agriculture vigour is normal in some patches Kutch region whereas, good agricultural vigour is observed over Gujarat and Saurashtra region where NDVI value lies between 0.4-0.6.

Himachal Pradesh



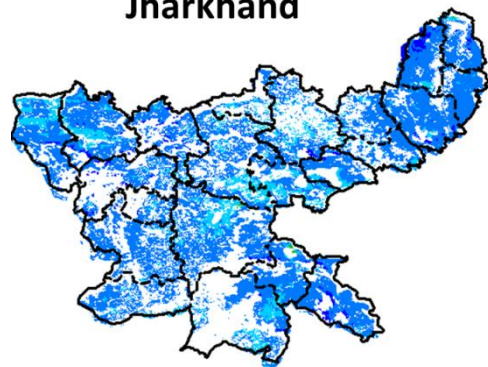
Agriculture vigour is very good over Himachal Pradesh where NDVI values are > 0.6 except few patches in east shows normal values of NDVI (0.2 – 0.3)

Jammu & Kashmir

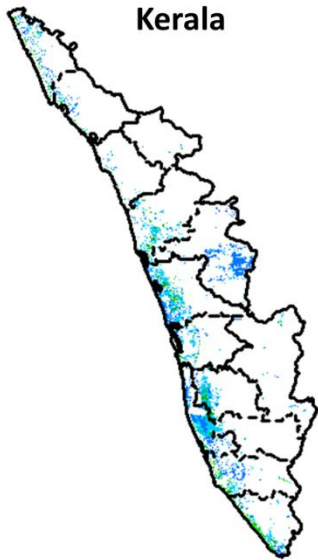


Agriculture vigour is good all over Jammu and Kashmir. NDVI value varies in between 0.4-0.6 in south western parts.

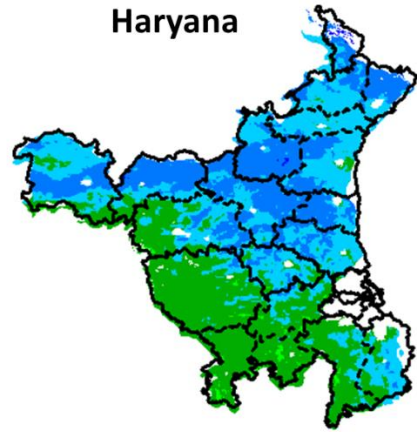
Jharkhand



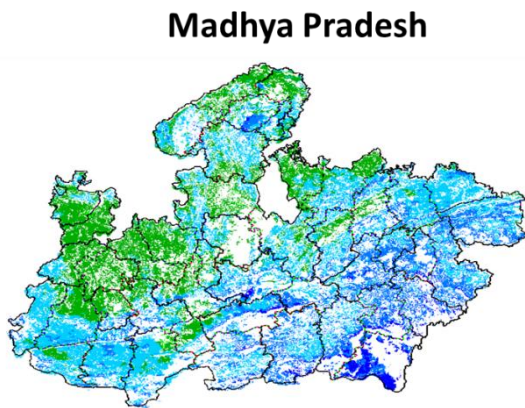
Agriculture vigour is good over entire state of Jharkhand, NDVI value varies from 0.4 - 0.6.



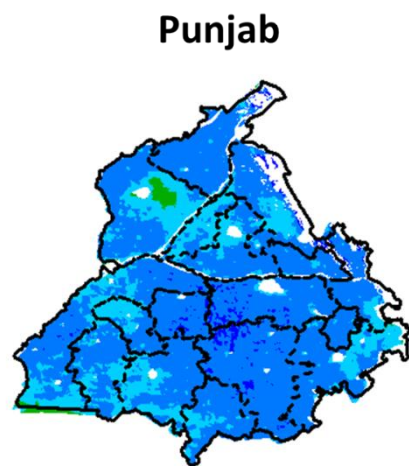
Agriculture vigour is good all over Kerala where NDVI value lies between 0.3 – 0.5. Central and southern coast showing normal values of NDVI (0.2 – 0.3).



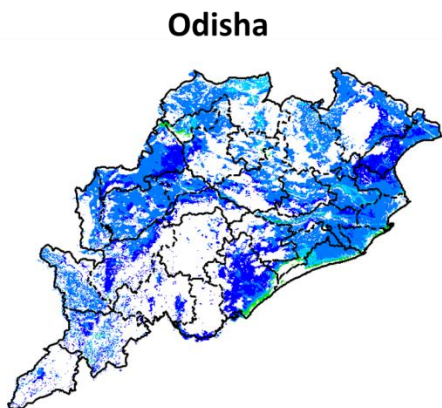
Agriculture vigour is good over central and northern part of the Haryana. NDVI values vary between 0.4-0.6. Southern part of state showing normal NDVI values between 0.3 – 0.4.



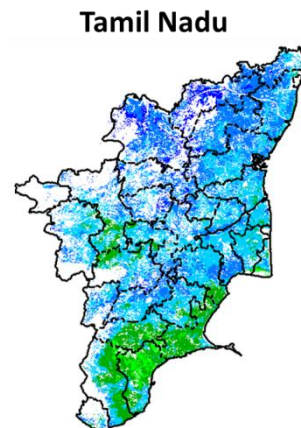
Agriculture vigour is good over southern and eastern part of Madhya Pradesh. NDVI varies from 0.4-0.6. In some patches over southern part of Madhya Pradesh NDVI is greater than 0.6 and north-eastern, northern side shows normal values of NDVI (0.2 – 0.4).



Agricultural vigour is good over entire state of Punjab, showing NDVI value between 0.5 - 0.6.

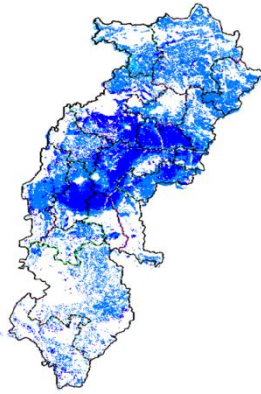


Agricultural vigour is very good over entire state of Odisha with NDVI value ranging between 0.4 – 0.6 and greater than 0.6 in eastern and western part of the state.



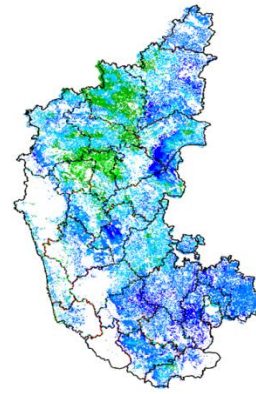
Agricultural vigour is good over Tamil Nadu with NDVI values varying from 0.4 - 0.6 whereas normal values of NDVI (0.2 – 0.3) are observed in southern part of the state

Chhattisgarh



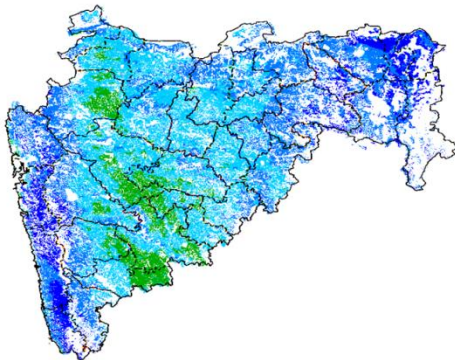
Agriculture vigour is very good entire state of Chhattisgarh where central part shows higher values of NDVI (>6).

Karnataka



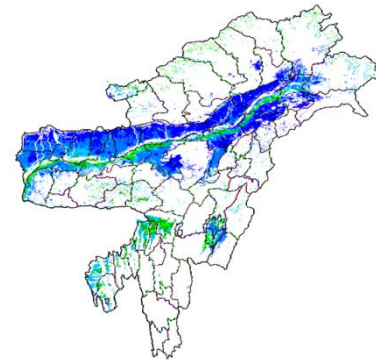
The agriculture vigor is good over the entire state. Higher values of NDVI are observed in southern and eastern part of the State (>6) whereas few patches in north-west shows normal values of NDVI.

Maharashtra



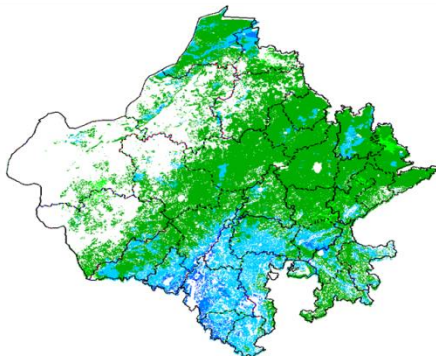
Agricultural vigour is very good over Vidharbha and Western Maharashtra region with NDVI values greater than 0.6, whereas NDVI is good over other parts of Maharashtra, (0.4 – 0.5). Few patches in Marathwada region show normal values of NDVI (0.2-0.4).

North East Region



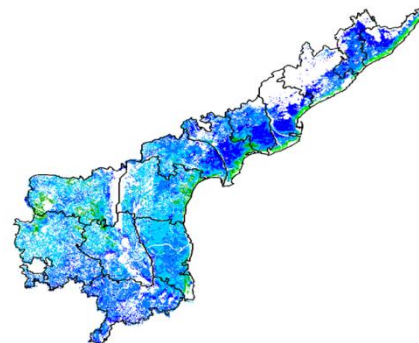
Agriculture vigour is very good in North-East states which covers valley part of Assam where NDVI values are greater than 6 whereas, agricultural vigour is normal(0.2-0.4) in the northern and eastern states of North-East.

Rajasthan

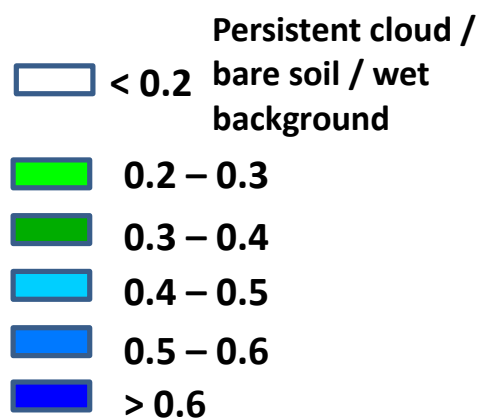


Agriculture vigour is good (0.4-0.6) over southern part of Rajasthan whereas moderate values of NDVI are observed over the entire state(0.2-0.4).

Andhra Pradesh



Agriculture vigour is good over entire state of Andhra Pradesh between 0.4-0.5. Increase values of NDVI observed in central part of the state (>6).



Annexure III

List of varieties

North Inerior Karnataka

Pearl millet: ICTP 8203 and ICMV 221

Horse gram :KBH-1, PHG-9

Rabi sorghum : Maldandi and Mugati

Chickpea: A-1, JG-11, Jaki-9218

Safflower: A-1

Ragi: Indaf-7, 9 and 15

Sunflower: Morden, KBSH-1, KBSH-41, KBSH-42, KBSH-44 and KBSH-53.

Maize: Deccan-103, Vijaya composite and Ganga-11

Cowpea: TVX-944, KBC-1 , KM-8 and PKB-4 (vegetable purpose)

Field bean : HA-1,3 and 4

Horse gram :KBH-1, PHG-9

Tamil Nadu

Late Samba/ Thaladi rice: (ADT 38, ADT 46, ADT 49, Improved white Ponni, IR 20, ASD 19, Paiyur1, TRY 1, TRY 3, Co 48, Co 49, BPT 5204 and Co 50)

Kerala

Rice: Mundakan

Banana: Nendran

Telangana

Rabi red gram:(LRG 41, ICPL 87119, MRG 66, ICPL 85063, WRG 27,

MRG 1004, WRG 53, WRG-65)

Greengram:(MGG-295, MGG-348, MGG-347 WGG-2, WGG-37, LGG-460, TM-96-2)

Black gram:(LBG-20 (Teja), , LBG-623, WBG-26 (Usha), PBG-1, LBG-752, MBG-207,PU 31)

Assam

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

Mid cauliflower : Pusa Snowball.

Brinjal : Pusa Kranti, Pusa Purple Long, Pusa Purple Cluster, Pusa Bhairav, JC-2, BWR-12.

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

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

Tomato : Punjab Chhuhara, S-12, Punjab Kesri, Pusa Early Dwarf, Sioux,Pusa Ruby, VC- 48-1, Arka Abha (BWR-1), Arka Alok (BWR-5), BT-1, Bilahi-1, Bilahi-2.

Potato : Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Badshah, Kufri Sindhuri.

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

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

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

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

Radish : Pusa Desi, Pusa Chetki, Pusa Himani.

Knolkhol: White Vienna, Purple Vienna.

Carrot : Nantes, Pusa Kesar.

Onion : Pusa Red, Pusa Ratnar, Pusa white (Round), Pusa white (Flat), N-53, Agrifound Light Red, Punjab Red Round, Pusa Madhuri, Arka Niketan.

Meghalaya

Cauliflower: Meghalaya Local.

Cabbage : Meghalaya: H-139, Pride of India.

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

French bean : Naga Local.

Potato: Kufri Joyti, Kufri Megha, Kufri Giriraj, Kufri Girdhari, Kufri Himsona, Kufri Himalini.

Broccoli : Puspa, Aiswarya.

Mustard : Varuna, Krishna, TM 4;

Rapeseed : M 27, TS 38, TR 48, TR 67.

Carrot : New Karoda, Nantesh.

Radish : Local genotype.

Manipur

Cauliflower: White shot, adopt White flash.

West Bengal

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

Mango: Himsagar, Mallicka, Langra.

Guava: Safeda, L-49.

Coconut: Eastcoastal, Hazari.

Banana: Mortoman, Chapa, Kathali, Singapuri.

Bihar

Toria: R.A.U.T.S.17, Panchali,P.T.303.

Rapeseed: RAUTS-17, Panchali,PT-303 ,Bhawani.

Gourd: Rajendra Parwal-1, Rajendra Parwal,FP-1,FP-3.

Radish: Pusa Chateki, PusaHimani, Pusa Rashmi.

Tomato: Swarn Lalima, Arka abha.

Cabbage:Pride of India,Golden Acer, Pusa mukta.

Jharkhand

Linseed: Sweta,Shubhra, T-397.

Mustard: Panchali, Bhavani, Pusa Jaikisan, Sivani, Varuna& Kranti.

Toria: BR-23,T.-9,P.T.-303.

Kulti: Madhu,BirsaKulthi-1, B.R-10.

Niger: Birsa niger-1,Birsa niger-2,Pooja -1.

Potato: Kufri Ashoka,Kufri Kanchan.

Tomato: Swarna Sampda, Pusa hybrid-1, BT-12.

Cabbage: Golden Acre,Pride of India, Early Drum Head.

Cauliflower: Pusa Depali, Pusa ketki,kumara.

Custard apple: Arka Sahan.

Bananna: BehulaRobusta, G-9.

Papaya: Pusa dwarf,Kurghoney dew.

Odisha

Green gram: K 851, PDM 11, PDM 54, OUM 115.

Black gram: T 9, PU 11, PU 19 and PU 30.

Horse gram: Urmi.

Jammu & Kashmir

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

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

Uttarakhand

Garlic: Yamuna Safed-1, 2, pant Lohit, Agreefound Parvati etc.

Pea: Pant Subjee Matar-3, Ajad Mater-1, Ajad Mater-1 or Arkil etc.

Sugarcane: Co-238, Co-241, Co Pant 3220, Co Pant 84211, COS-8436, COS-88230 etc. and medium to late sown varieties like Co Pant 90223, Co Pant-96219, COS-97222, COS-767, COS-1148.

Himachal Pradesh

Wheat:Hs-277, HPW-251 and VL-616

Cauliflower: snowball and Giant snowball.

Radish, pea: Arkal, VL-7.

Cabbage: Pride of India, golden achor and hybrid

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

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

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

Chilli: Surajmukhi.

Carrot: Nantes and Chantenay.

Palak: Pusa Harit, Pusa Bharti.

Carrot: Nantes and Chantenay.

Palak: PusaHarit, Pusa Bharti.

East Uttar Pradesh

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

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

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

Tomato: pusa early, pusa ruby, HS 101.

Cauliflower: pusa Dipali.

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

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

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

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

Okra: PusaSawani, VarsaUphar, Azad kranti.

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

Guava: Sardar (Lucknow-49).

Kabuli gram: chamatkar, Puse-1003, Subhra

Pea: Rachna, Pantmatar-5, Aparna, Malviya Matar-2, Malviya Matar-15, Shikha and Sapna.

Cabbage: Japani, Pusa Dieepali, Pusa Kartiki

Toria: TA-9, Bhawani, PT-30 and PT-507

Potato: Kufri Chandramukhi, Kufri Sadabahar, Kufri Ashoka

West Uttar Pradesh

Ladies finger: VRO-6, VRO-5.

Pigeon pea: T-21, UPAS 120.

Cotton: H777, Dhanalakshami, HD107.

For fodder Jowar: JS 120, Lobia 88.

gram: P.D.G.-3, G.P.F.-2, C-235, Gourav, KGD-1168, JG-16, Avrodhi

sugarcane: ko.sha 88230, ko.sha 8436, ko 0238, ko.sha 07250 or U.P. 0512.

barseem: V.L.1, V.L.10, maskavi, jai.

onion: pusa red, pusa white.

Mustard: Varuna, Narendra-Rai 8501, Rohoni (timely sowing),

Aashirwaad and Vardan (late sowing), Vaibhav, Maya.

Jou: Manjula, Jagruti, Gitanjali.

Pea: Azad P-3, Jai, Indra, Prakash.

Lentil: KLB-320, K-75, DPL-62.

Linseed: Padmini, Sharda, Laxmi.

Punjab

Sugarcane: CoJ-85, CoJ-83, CoJ-64 (early maturing), COH-119, CoJ-88, CoS-8436 for and CoJ-89, CO118, COJ85, COJ64.

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

Mustard: RLC-1, PBR-210, RLM-619, PBR-91 (irrigated conditions), PBR-97 (rainfed conditions).

Onion: Punjab Naroya, Punjab White and PRO 6.

Pea: Punjab 89 and MithiPhali.

Delhi

Mustard: Pusa Sarson-25, Pusa Sarson-26, PusaAgrni, PusaTaraka and PusaMahak, Pusa Jai Kisan, Pusa Jagannath, Pusa Sarson-25, Pusa Sarson-26, Pusa Agrni, Pusa Taraka, Pusa Mahak. Pusa Saag-1; Bathua- Pusa Bathua-1

Radish: PusaChetki.

Spinach: PusaBharti.

Amaranths: PusalalChaulai, PusaKiran.

Ladyfinger: Pusa A-4.

early potato: Kufri Badshah, Kufri Surya.

Pea: Pusa Pragati, Arkel

Carrot: Pusa Rudhira-;

Radish: Japani White, Hill queen, French Radish;

Spinach: All Green, Pusa Bharti;

Fenugreek: Pusa Kasuri;

Coriander: Pant Haritama, Hybrids;
Turnip: Pusa Swati, Local Red variety

East Rajasthan

Radish: PusaChetki, Japanese white & hill queen.

Carrot: PusaKeshar

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

Mustard: Pusa Jai Kisan (Bio-902), PR-15 (Kranti), T-59 (Varuna), Giriraj, RGN-73, Bio-902 (PusaJaikisan), RH-9304 (Vasundhara), RH-9802 (SwarnJyoti), RH-8812 (Laxmi), RB-50.

Gram: RSG-888 (Anubhav), CSJD-884 (Aakash), RSG-44, Pusa-209, C-235, H-208, Pratap raj chana, RSG-888, Dahod yellow, ICCV-10 and Pratap Chana-1.

Cauliflower: Pusa snow ball K-1, Hisar-1, Dania and Selection-7

Onion: Punjab safed goal, Udaipur 102, nasik red.

West Rajasthan

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

Mustard: PusaJai Kisan, RH-30, RH-8812, Pusa Gold and PR-15, RGN-13, 73, 268226, 48, Laxmi, Bio-902, T-59, Pusa bold, Arawali and RGN-48 and late sown RGN145, 236.

Gram: GNG-469, 466, GNG-663, RSG-888, RSG-44, RSG-945, RSG-807, GNG-1581 and C-235, GNG-1466, 236.

Oat : OS 6, OS 9

Berseem: BL 10, BL 22

Cauliflower: Pusa snow ball K-1, Hisar-1, Dania and Selection-7

Radish: (PusaRashmi).

Carrot: PusaKeshar

Madhya Maharashtra

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

Marathwada

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

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

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

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

Vidarbha

Gram: Saki 9516, Hirva chafa, Vijay, ICCV-10.

Gujarat

Chickpea: Gujarat chana-2 (unirrigated), Gujarat chana-3 (irrigated).

Mustard: Varuna, Gujarat rai-3.

Garlic: Gujarat Garlic-4 or Local.

Pea and Carrot (vegetable): Pusa Pragati, Pusa Rudhira, Pusa Kesar.

Onion: Junagadh local (pili patti), Talaja red, Agri found dark red, Pusa White flat.

Madhya Pradesh

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

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

JW 3288, JW 3173 (non irrigated).

Gram: JG 130, JG 11, JG 315, JG 16, JG 218, JG 6.

Chickpea: KAK 2, JGK 1.

Lentil: RVL 31, JL 2.

Garlic: G 282 and G 223.

Green pea: Arkil, Jawahar Matar 3 & 4.