



National Agromet Advisory Service Bulletin



Friday 3rd June 2016

(For the period 3rd to 7th June 2016)



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

Weblink For

District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>

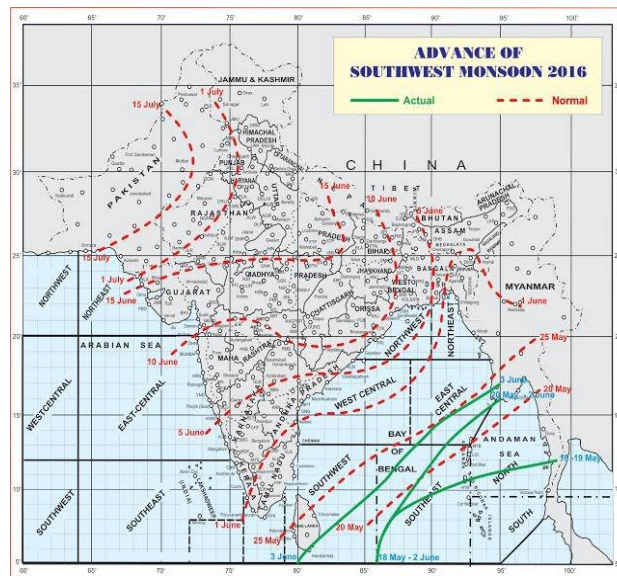
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Long Range Forecast Update for Southwest Monsoon 2016

HIGHLIGHTS

- Rainfall over the country as a whole for the 2016 southwest monsoon season (June to September) is most likely to be ABOVE NORMAL (>104% to 110% of long period average (LPA)).
- Quantitatively, monsoon season rainfall for the country as a whole is likely to be 106% of the long period average with a model error of $\pm 4\%$.
- Region wise, the season rainfall is likely to be 108% of LPA over North-West India, 113% of LPA over Central India, 113% of LPA over South Peninsula and 94% of LPA over North-East India all with a model error of $\pm 8\%$.
- The monthly rainfall over the country as whole is likely to be 107% of its LPA during July and 104% of LPA during August both with a model error of $\pm 9\%$.

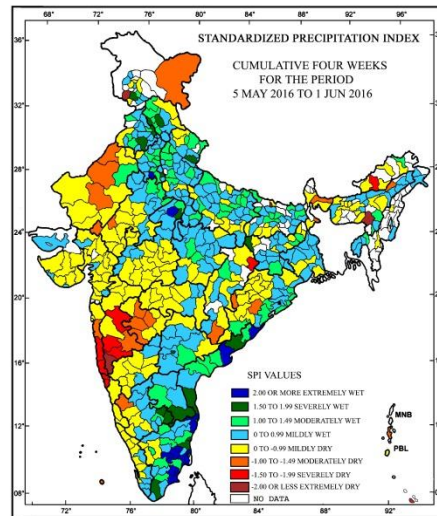
Monsoon Watch



- The southwest monsoon has further advanced into some more parts of southeast Bay of Bengal and some parts of southwest and eastcentral Bay of Bengal. The Northern Limit of Monsoon (NLM) passes through Lat. 5.0°N/Long.80.0°E, Lat. 11.0°N/ Long. 87.0°E, Lat. 14.0°N/Long. 90.0°E and Lat. 17.0°N/Long. 95.0°E.
- Conditions are favorable for onset of the southwest monsoon over Kerala during next 3-4 days.

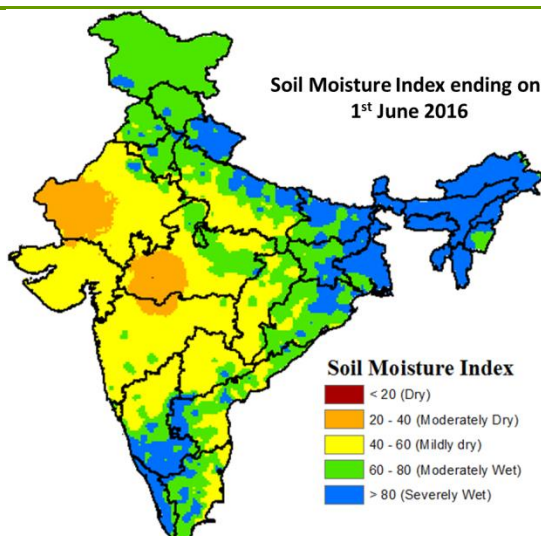
Standardised Precipitation Index Four Weekly for the Period 5th May to 1st June 2016

MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE



- Extremely/severely wet conditions experienced in few districts of Andhra Pradesh; Tamil Nadu & Puducherry; Garhwa district of Jharkhand; Hardwar district of Uttarakhand; Nawanshahar, Fatehgarh Sahib districts of Punjab; Lahaul & Spiti, Solan districts of Himachal Pradesh; Ladakh (Leh) district of Jammu & Kashmir; Bhopal, Guna districts of Madhya Pradesh; Narayanpur district of Chhattisgarh; Adilabad districts of Telangana; Kodagu, Ramanagara districts of Karnataka.
- Extremely/Severely dry conditions experienced in many districts of Konkan & Goa; East Kameng district of Arunachal Pradesh; Jaintia Hills district of Meghalaya; Sheikhpura district of Bihar; Ramban district of Jammu & Kashmir; Jalgaon, Pune, Sangli districts of Maharashtra; Janjgir district of Chhattisgarh; Lakshadweep district of Lakshadweep.
- Moderately dry conditions experienced in Lakhimpur district of Assam; Jalpaiguri, South Dinajpur districts of West Bengal; Nawapara, Kandhamal districts of Odisha; Jammu district of Jammu & Kashmir; Barmer, Churu, Jalore, Sikar, Dausa districts of Rajasthan; Mumbai City district of Konkan & Goa; Satara, Aurangabad, Nanded, Osmanabad, Latur districts of Maharashtra; Bilaspur district of Chhattisgarh; Mysore district of Karnataka; Wynad districts of Kerala.
- Rest of the country experienced moderately wet/ mildly dry/mildly wet conditions.

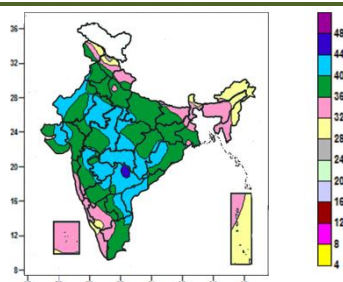
Soil Moisture Index ending on 1st June 2016



- Soil Moisture Index indicates severely wet condition in North-East Region, West Bengal, South Karnataka, Bihar, Kerala and Uttarakhand, few districts of Tamil Nadu, Uttar Pradesh. Moderate wet condition in Jharkhand, Uttar Pradesh, Bihar, Karnataka, Punjab and Haryana. Rest of the country shows Mild dry condition of soil moisture.

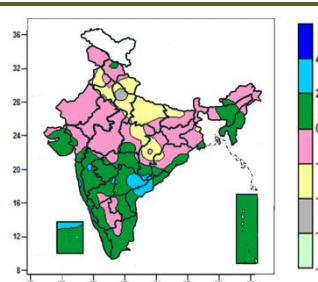
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 01.06.2016

Actual Mean Maximum Temperature (°C) in India for the week ending 01.06.2016



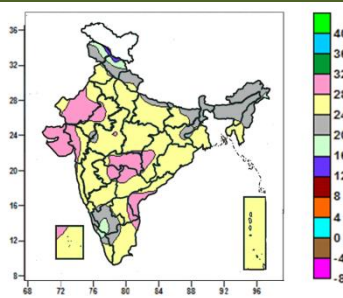
- Mean maximum temperature was between 44 to 48°C over isolated pockets of Telangana and Vidarbha.
- Mean maximum temperature was between 40 to 44°C over many parts of Rajasthan, West Madhya Pradesh, Vidarbha, Marathwada, Telangana, Coastal Andhra Pradesh, some parts of East Madhya Pradesh, Gujarat, Chhattisgarh, Odisha, Madhya Maharashtra, North Interior Karnataka, Rayalaseema and isolated pockets of Punjab, Uttar Pradesh and Tamil Nadu.
- Mean maximum temperature was between 32 to 40°C over rest of the country except over Nagaland, Sikkim, many parts of Arunachal Pradesh, Manipur, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Assam and isolated pocket of Sub-Himalayan West Bengal, South Interior Karnataka, Kerala and Lakshadweep where it was between 24 to 32°C.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 01.06.2016



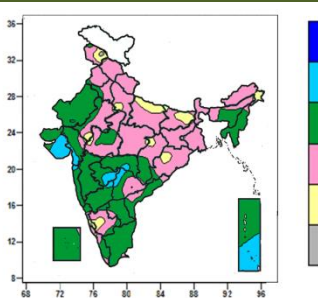
- Mean maximum temperature was above normal by 2 to 4°C over some parts of Telangana, Coastal Andhra Pradesh and isolated pockets of Madhya Maharashtra, Konkan, North Interior Karnataka, Chhattisgarh, Odisha and Lakshadweep.
- It was normal to near normal over rest of the country except many parts of Uttarakhand, Punjab, Haryana & Delhi, Uttar Pradesh, some parts of Bihar, East Madhya Pradesh, Chhattisgarh and isolated pockets of Rajasthan, West Madhya Pradesh, Gangetic West Bengal and Odisha, where it was below normal by 2 to 4°C and over isolated pockets of West Uttar Pradesh and Chhattisgarh where it was below normal by 4 to 6°C.

Actual Mean Minimum Temperature (°C) in India for the week ending 01.06.2016



- Mean minimum temperature was between 12 to 16°C over isolated pockets of Jammu & Kashmir and Himachal Pradesh.
- Mean minimum temperature was between 16 to 20°C over some parts of Jammu & Kashmir, Himachal Pradesh, Arunachal Pradesh, South Interior Karnataka and isolated pockets of Kerala.
- Mean minimum temperature was between 20 to 28°C over rest of the country except Saurashtra & Kutch, many parts of West Rajasthan, Vidarbha, some parts of East Rajasthan, Gujarat Region, Chhattisgarh, Marathwada, Telangana, Coastal Andhra Pradesh, Rayalaseema and isolated pockets of Madhya

Mean Minimum Temperature (°C) Anomaly in India for the week ending 01.06.2016



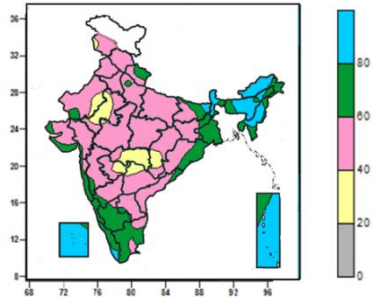
- Mean minimum temperature was above normal by 2 to 4°C over many parts of Saurashtra & Kutch, some parts of Gujarat Region, Marathwada, Telangana, Andaman & Nicobar Islands and isolated pockets of West Rajasthan, Konkan, Vidarbha and North Interior Karnataka.
- Mean minimum temperature was normal to near normal over rest of the country except some parts of Jammu & Kashmir, East Uttar Pradesh, Bihar, Coastal and South Interior Karnataka and isolated pockets of Arunachal Pradesh, Himachal Pradesh, West Uttar Pradesh, East Rajasthan, Madhya Pradesh, Chhattisgarh and Odisha, where it was

Pradesh, Tamil Nadu and Lakshadweep, where it was between 28 to 32°C.

below normal by 2 to 4°C and isolated pockets over Jammu & Kashmir where it was below normal by 4 to 6°C.

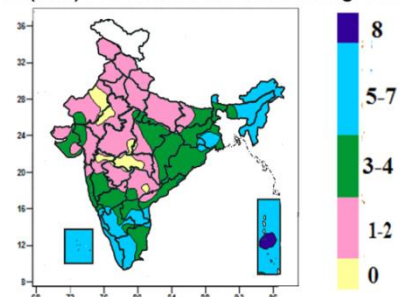
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 01.06.2016

Relative Humidity (%) over India for the week ending 01.06.2016



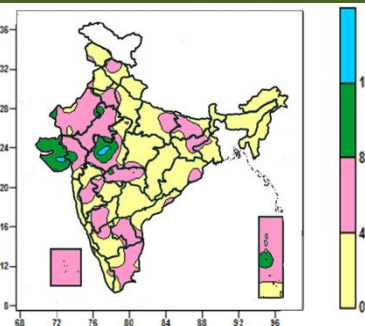
- Mean Relative humidity was above 80% over Sikkim, many parts of Arunachal Pradesh, Assam & Meghalaya, Manipur, Sub-Himalayan West Bengal, Andaman & Nicobar Islands, Lakshadweep, some parts of Mizoram and isolated pockets of Nagaland, Tripura, Bihar and Kerala.
- Mean Relative humidity was between 60 to 80% over Coastal Karnataka, many parts of Nagaland, Mizoram, Tripura, Gangetic West Bengal, Konkan & Goa, Uttarakhand, South Interior Karnataka, Kerala, Tamil Nadu, some parts of Assam & Meghalaya, Arunachal Pradesh, Sub-Himalayan West Bengal, Jharkhand, Bihar, Odisha, Saurashtra & Kutch, Andaman & Nicobar Islands and isolated pockets of Manipur, West Uttar Pradesh, West Rajasthan, Gujarat Region, Madhya Maharashtra, Coastal Andhra Pradesh, North Interior Karnataka, Rayalaseema and Lakshadweep.
- Mean Relative humidity was between 20 to 60% over rest of the country.

Cloud amount (okta) over India for the week ending 01.06.2016



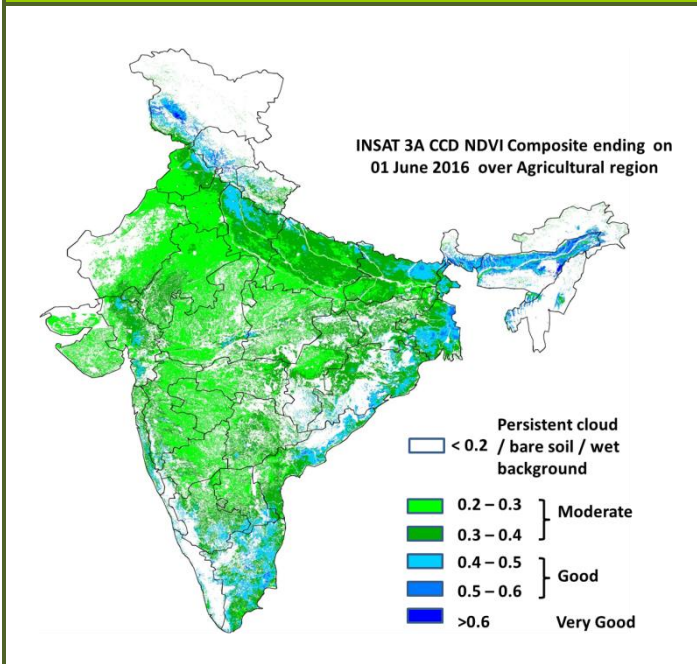
- Sky remained generally overcast (8 okta) over some parts of Andaman & Nicobar Islands.
- Sky remained generally cloudy (5-7 okta) over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Sikkim, Kerala, Lakshadweep, many parts of Assam & Meghalaya, Gangetic West Bengal, Coastal Karnataka, South Interior Karnataka, Rayalaseema, Andaman & Nicobar Islands, some parts of Tamil Nadu and isolated pockets of Jharkhand, Odisha, North Interior Karnataka, Coastal Andhra Pradesh.
- Sky remained partly cloudy/mainly clear (3-4 okta/1 to 2) over rest of the country except many parts of Vidarbha, some parts of Rajasthan, Madhya Maharashtra and isolated pockets of Madhya Pradesh, Marathwada and Telangana, where it was clear sky (0 okta).

Wind speed (knots) over India for the week ending 01.06.2016



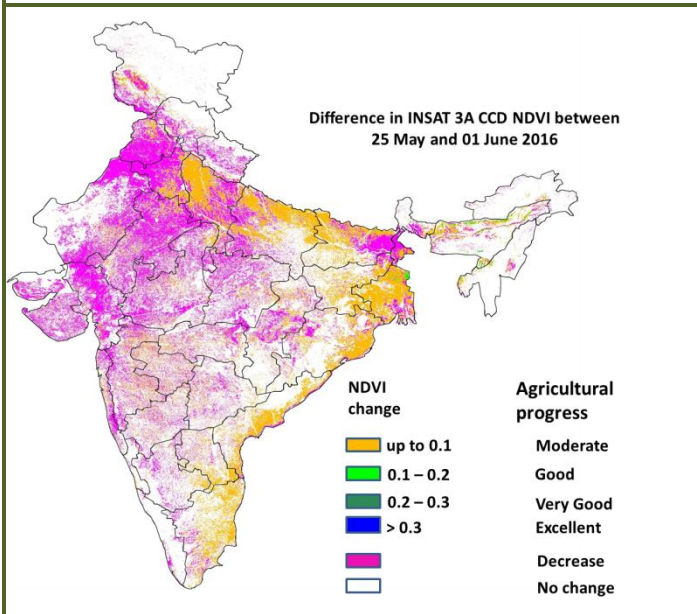
- Mean wind speed was 12 to 16 knots over isolated pockets of Saurashtra and West Madhya Pradesh.
- Mean wind speed was 8 to 12 knots over many parts of Saurashtra & Kutch, some parts of West Madhya Pradesh, Gujarat Region and Andaman & Nicobar Islands and isolated pockets of Rajasthan and Vidarbha.
- Mean wind speed was 4 to 8 knots over Lakshadweep, many parts of Haryana & Delhi, Rajasthan, Bihar, Gujarat Region, Vidarbha, West Madhya Pradesh, North Interior Karnataka, Rayalaseema, Tamil Nadu, Andaman & Nicobar Islands, some parts of Himachal Pradesh, East Uttar Pradesh, Jharkhand, Madhya Maharashtra, Odisha, Marathwada and isolated pockets of Jammu & Kashmir, Punjab, West Uttar Pradesh, East Madhya Pradesh, Gangetic West Bengal, Konkan, Coastal Karnataka, Coastal Andhra Pradesh and Kerala.
- Mean wind speed was less than 4 knots over rest of the country.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 1st June 2016 OVER AGRICULTURAL REGION OF INDIA



- Agricultural vigour is good over Tamil Nadu, patches in east Bihar, Coastal Andhra Pradesh, West Bengal, Assam, patches in west Uttar Pradesh and Himachal Pradesh where NDVI varies from 0.4 to 0.6. Agricultural growth was moderate 0.2 to 0.4 over most parts of Punjab, Haryana, Uttar Pradesh, remaining parts of Bihar, Rajasthan, Madhya Pradesh, Gujarat, Telangana, Maharashtra, Karnataka and Odisha.

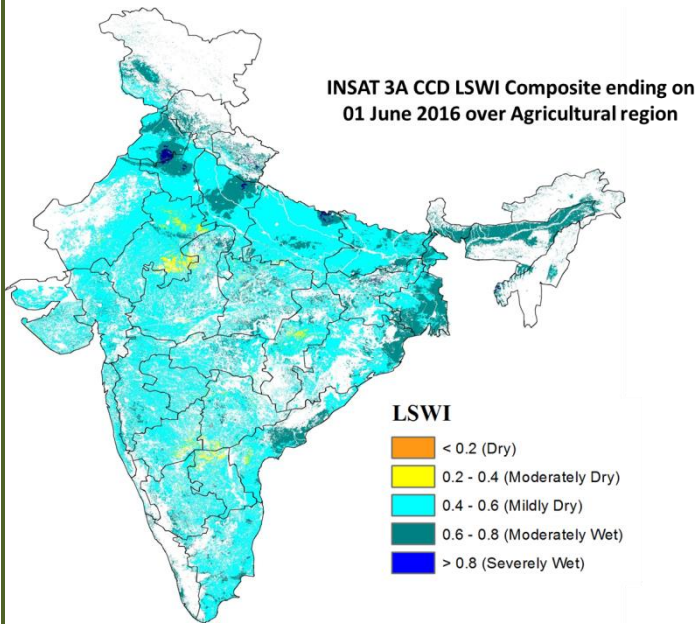
Difference in INSAT 3A CCD NDVI between 25th May and 1st June 2016



- Moderate progress in NDVI is observed over the regions of Uttar Pradesh, Bihar, West Bengal, Odisha, Andhra Pradesh, Tamil Nadu and North East. Decrease in NDVI was observed over Punjab, Haryana, Rajasthan, Gujarat, Maharashtra, Madhya Pradesh and Karnataka.

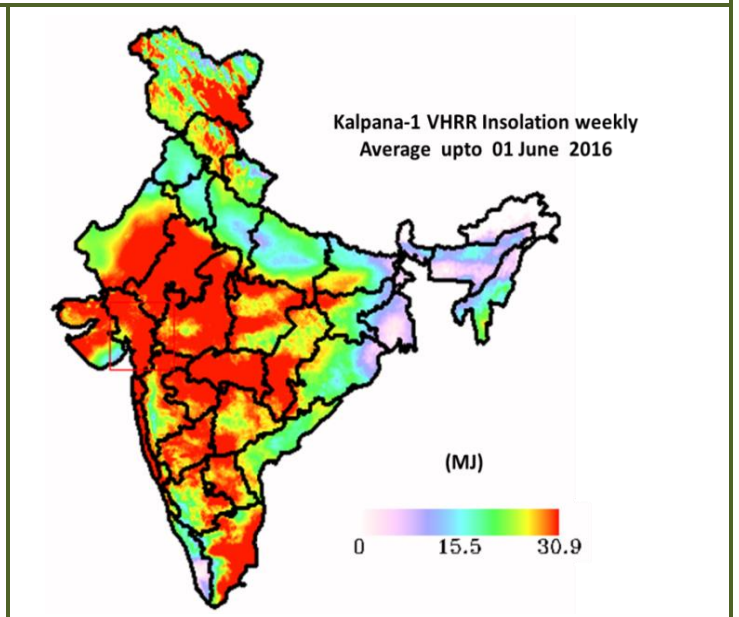
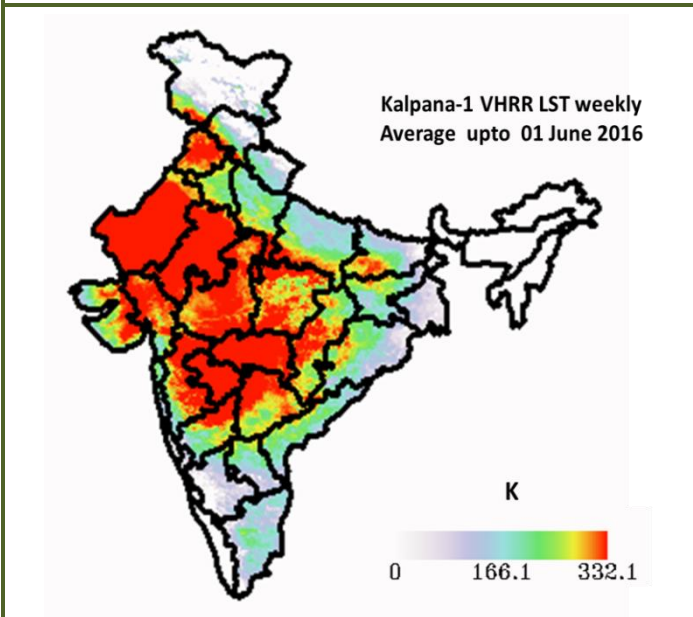
- INSAT 3A CCD NDVI composite maps for the week ending on 1st June 2016 for different States are given in Annexure II.

INSAT 3A CCD LSWI COMPOSITE ENDING ON 1st June 2016 OVER AGRICULTURAL REGION OF INDIA



- Mild Dry conditions are observed over major region of India, Moderately dry conditions are observed over patches in east Rajasthan and patches in North interior Karnataka and Andhra Pradesh. Moderately Wet conditions are observed in few patches of East Uttar Pradesh, Punjab, Haryana, West Bengal, coastal Odisha, coastal Andhra Pradesh and North east region.

Other SAT MET Products



Weather Forecast for next 5 days valid upto 0830 hours of 8th June 2016

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.
- Maximum temperatures very likely to rise by 1-2°C over northwest and central India during next 2-3 days.

5 Day Rainfall Forecast (MID DAY) 3rd June 2016

Met Sub-divisions	03 June	04 June	05 June	06 June	07 June
1. Andaman & Nicobar Islands	WS	WS	FWS	FWS	SCT
2. Arunachal Pradesh	ISOL	ISOL	SCT	FWS	FWS
3. Assam & Meghalaya	ISOL	ISOL	SCT	SCT	FWS
4. N.M.M. & T.	ISOL	ISOL	SCT	FWS	FWS
5. S.H. West Bengal & Sikkim	SCT	SCT	SCT	FWS	FWS
6. Gangetic West Bengal	ISOL	ISOL	ISOL	ISOL	SCT
7. Odisha	FWS	FWS	FWS	SCT	SCT
8. Jharkhand	ISOL	ISOL	ISOL	ISOL	ISOL
9. Bihar	ISOL	ISOL	ISOL	ISOL	ISOL
10. East Uttar Pradesh	DRY	DRY	ISOL	ISOL	ISOL
11. West Uttar Pradesh	DRY	DRY	DRY	ISOL	ISOL
12. Uttarakhand	ISOL	ISOL	SCT	SCT	FWS
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	ISOL
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	ISOL	ISOL	ISOL	SCT	SCT
16. Jammu & Kashmir	SCT	SCT	ISOL	ISOL	SCT
17. West Rajasthan	DRY	DRY	DRY	DRY	DRY
18. East Rajasthan	DRY	DRY	DRY	DRY	DRY
19. West Madhya Pradesh	DRY	DRY	DRY	DRY	ISOL
20. East Madhya Pradesh	DRY	DRY	ISOL	ISOL	ISOL
21. Gujarat Region	DRY	ISOL	ISOL	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	ISOL	ISOL	ISOL	ISOL	SCT
24. Madhya Maharashtra	ISOL	ISOL	ISOL	ISOL	SCT
25. Marathwada	ISOL	ISOL	ISOL	ISOL	ISOL
26. Vidarbha	ISOL	ISOL	ISOL	ISOL	SCT
27. Chhattisgarh	ISOL	ISOL	ISOL	SCT	SCT
28. Coastal Andhra Pradesh	SCT	SCT	FWS	WS	WS
29. Telangana	ISOL	SCT	SCT	FWS	FWS
30. Rayalaseema	SCT	SCT	SCT	FWS	FWS
31. Tamil Nadu & Puducherry	ISOL	ISOL	ISOL	ISOL	SCT
32. Coastal Karnataka	WS	WS	FWS	FWS	WS
33. North Interior Karnataka	FWS	FWS	FWS	FWS	WS
34. South Interior Karnataka	FWS	FWS	SCT	FWS	WS
35. Kerala	FWS	FWS	FWS	FWS	WS
36. Lakshadweep	WS	FWS	SCT	FWS	WS

% Station Reporting Rainfall

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

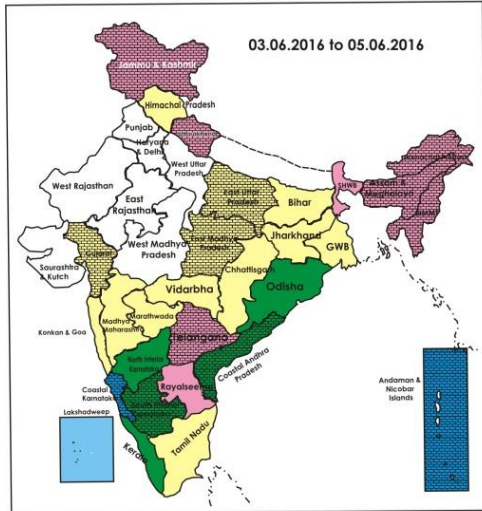
Weather Warning during next 5 days

- **03 June (Day 1):** Heat wave conditions very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, south Uttar Pradesh, West Rajasthan, West Madhya Pradesh and Vidharbha. Heavy rain very likely at isolated places over Odisha and Coastal Andhra Pradesh.
- **04 June (Day 2):** Heat wave conditions very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, south Uttar Pradesh, Rajasthan, West Madhya Pradesh and Vidharbha. Heavy rain very likely at isolated places over Odisha.
- **05 June (Day 3):** Heat wave conditions very likely at isolated places over Rajasthan. No weather warning.
- **06 June (Day 4):** Heavy rain very likely at isolated places over Coastal Andhra Pradesh, Lakshadweep and Kerala. Thunderstorm/Duststorm accompanied with squall very likely at isolated places over Haryana, Chandigarh & Delhi and West Uttar Pradesh.
- **07 June (Day 5):** Heavy to very heavy rain very likely at isolated places over Coastal Karnataka and Kerala and Heavy over Uttarakhand, Sub-Himalayan West Bengal & Sikkim, South Interior Karnataka and Lakshadweep.

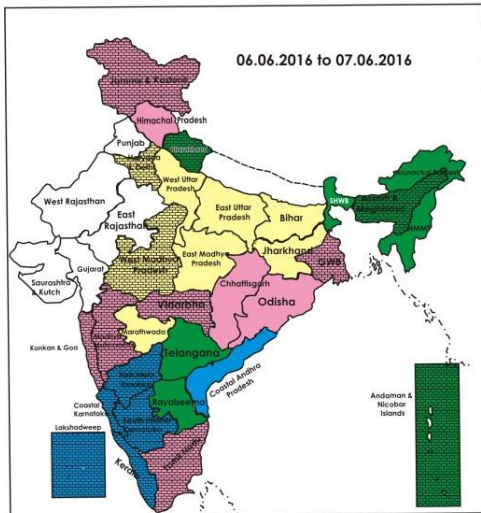
Weather Outlook for subsequent 2 days from 8th to 10th June 2016

- Rain/thunderstorms activity very likely at most places along west coast.
- Rain/thunderstorms likely at many places over northeastern states & adjoining east India and at a few places over peninsular India.
- Rain/snow likely at a few places over western Himalayan region.

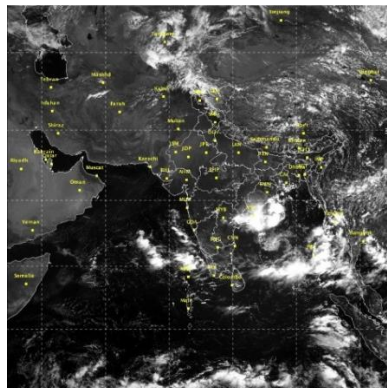
Weather Forecast Map (valid upto 0830 hours of 8th June, 2016)



- Most places
- Most/Few places/Dry
- Most/ Few places
- Most / Many places
- Most/Many / Isolated places
- Most / Isolated places
- Most / Many/ Few places
- Most / Few / Isolated places
- Most/Many places/ Dry
- Most / Isolated places/ Dry
- Many places
- Many / Few places
- Many / Isolated places
- Many / Few / Isolated places
- Many / Few places/ Dry
- Many / Isolated places/Dry
- Many places/ Dry
- Few places
- Few / Isolated places
- Few/ Isolated places/Dry
- Isolated places
- Isolated places/ Dry
- Dry



Satellite image dated, 03.06.2016 0600 UTC



Salient Advisories

- **Though there is delay in onset of monsoon over Kerala and arrival over Karnataka, there is very good pre-monsoon showers during the week and also likely to continue during succeeding week. This facilitates land preparation and normal sowing of *kharif* crops in Kerala, Coastal Karnataka and South Interior Karnataka.** In view of this farmers are advised to:
 - In **Kerala**, continue nursery sowing of *Virippu* rice and land preparation for **direct sowing** of rice.
 - In **Coastal Karnataka**, continue land preparation for nursery sowing of rice and land preparation and sowing of *kharif* maize and cotton.
 - In **South Interior Karnataka**, undertake sowing of red gram (TTB-7, BRG-1, 2, 4, 5) and maize, continue land preparation for sowing of *kharif* ragi (Indaf-9), sesame (Navile-1, T-7), cowpea (TVX-944, KBC-1), green gram (PS-16, PDM-84,178) and black gram (Karagao-3, T-9, Rashmi (LBG-625). Strengthen the bunds to facilitate conservation of rainwater.
 - In **North Interior Karnataka**, continue of land preparation for nursery sowing of rice, for sowing of *kharif* crops like jowar, red gram, black gram, pearl millet, maize, groundnut, soybean, sunflower, sesame, and utilising realised and expected rainfall.
- As rain/thundershowers likely at most/many places over **Kerala, Coastal Karnataka and North Interior Karnataka** during the period, over **South Interior Karnataka** on 3rd, 4th, 6th & 7th, over **Coastal Andhra Pradesh** from 5th to 7th and over **Royalaseema and Telangana** on 6th & 7th June, farmers are advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. As heavy rain is very likely at isolated places over **Coastal Andhra Pradesh** on 3rd & 6th, over **South Interior Karnataka** on 7th and over **Kerala** on 6th, isolated heavy to very heavy rainfall over **Coastal Karnataka and Kerala** on 7th June, provide adequate drainage in standing crop fields to avoid water stagnation.
- In **Assam**, continue nursery raising of *Sali* rice and land preparation for sowing of groundnut.
- In Meghalaya, continue nursery bed preparation for *Sali/ kharif* rice and land preparation and sowing of groundnut and soybean.
- As rain/thundershowers likely at most/many places over **Andaman & Nicobar Islands** from 3rd to 6th, at many places over **Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura** and **Sub-Himalayan West Bengal & Sikkim** on 6th & 7th, over **Assam & Meghalaya** on 7th and over **Odisha** from 3rd to 5th June, it is advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. As heavy rain is very likely at isolated places over **Odisha** on 3rd and 4th and over **Sub-Himalayan West Bengal & Sikkim** on 7th June, provide adequate drainage in standing crop fields. Farmers are advised to undertake rain water harvesting.
- As rain/snow likely at many places over **Uttarakhand** on 7th June along with heavy rain very likely at isolated places, postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Undertake harvesting of matured fruits and vegetables immediately.
- As thunderstorm/ duststorm accompanied with squall very likely at isolated places over **Haryana, Chandigarh, Delhi and West Uttar Pradesh** on 3rd June, it is advised to provide support to young fruit plants, staking in vegetables and propping in sugarcane to prevent the crops from lodging due to strong winds. Keep already harvested produce at safer places.
- As heat wave conditions is very likely at isolated places over **Punjab, Haryana, Chandigarh, Delhi, south Uttar Pradesh, West Madhya Pradesh and Vidarbha** on 3rd & 4th, over **west Rajasthan** on 3rd and over **Rajasthan** on 4th & 5th June, apply light and frequent irrigations to standing crops, preferably during evening hours. Apply mulches in fruit crops to conserve soil moisture. Young plantation should be protected with thatches and mulching of basins.

Detailed Zonewise Agromet Advisories

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



Banana



Groundnut



Sugarcane



Cotton

- **Realised Rainfall:** Rainfall occurred in all districts of Kerala except Thiruvananthapuram and Wynad; Anantapur and Kurnool districts of Rayalaseema; Dindigul, Erode, Krishnagiri, Nilgiris, Puducherry, Salem and Sivaganga districts of Tamil Nadu; Dakshin Kannada and Udupi districts of Coastal Karnataka; Chamarajanagar, Chikaballapur, Chikkamagaluru, Chitradurga, Davangere, Hassan, Mandya, Mysuru, Ramanagara and Tumakuru district of South Interior Karnataka. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at most/many places over Kerala, Coastal Karnataka and North Interior Karnataka during the period, over South Interior Karnataka on 3rd, 4th, 6th & 7th, over Coastal Andhra Pradesh from 5th to 7th and over Rayalaseema and Telangana on 6th & 7th June, farmers are advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. As heavy rain is very likely at isolated places over Coastal Andhra Pradesh on 3rd & 6th, over South Interior Karnataka on 7th and over Kerala on 6th, isolated heavy to very heavy rainfall over Coastal Karnataka and Kerala on 7th June, provide adequate drainage in standing crop fields to avoid water stagnation.
 - Though there is delay in onset of monsoon over Kerala and arrival over Karnataka, there is very good pre-monsoon showers during the week and also likely to continue during succeeding week. This facilitates land preparation and normal sowing of *kharif* crops in Kerala, Coastal Karnataka and South Interior Karnataka. In view of this undertake the following agricultural activities.
 - **Kerala:**
 - In Kerala, continue nursery preparation/nursery sowing of *Viruppu* rice. Mix *Pseudomonas* @ 10g/1kg of seeds and sow after 12-14 hours to control diseases like brown leaf spot, blast etc. in rice in the early stages of growth. Continue land preparation for direct sowing of rice.
 - In the Problem Area Zone, continue planting of bhindi, brinjal and chilli, planting of coconut seedlings and land preparation for direct sowing of rice.
 - In the Southern Zone, raise nurseries for brinjal and chilli and sowing of bhindi. Avoid water logging in the pits where the coconut seedlings are planted and continue planting of coconut seedlings.
 - In the Central Zone, continue planting of ginger and turmeric with adequate drainage facility and land preparation for sowing of rice (Jyothi and Kanchana variety).
 - In the High Altitude Zone, continue planting of coconut, arecanut, pepper and cardamom.
 - In the Problem Area Zone prevailing weather conditions (humid conditions) are congenial for quick wilt disease in pepper. If noticed, as a prophylactic measure, spray 1% Bordeaux mixture against fungal diseases.
 - In the Central Zone, incidence of swarming caterpillar is noticed in rice nursery and early stages of rice crop. To control, apply Carbaryl @ 3-4g/litre of water after current spells of rain.
 - In the Northern Zone, prevailing weather conditions (humid conditions) are congenial for incidences of powdery mildew disease incidence in vegetables and fruit flies in bitter gourd. If found, apply Wettable Sulphur @ 3 g/litre of water to control powdery mildew disease after current spells of rain and keep cue-lure trap to control fruit flies.
 - In the Southern Zone, prevailing humid conditions are congenial for bud rot in coconut. To control, clean the affected part and apply Bordeaux paste after current spells of rain.
 - **Karnataka:**
 - In Coastal Karnataka, continue nursery sowing of rice and sowing of maize and cotton.
 - In Hill Zone of Karnataka, continue raising and multiplication of seedlings of black pepper. Continue sowing of green manure crops utilizing the realized rainfall. Clean the drainage channels. Continue nursery raising of rice.
 - In Southern Transition Zone, provide adequate drainage in arecanut fields. Continue planting of ginger/turmeric.
 - In North East Transition Zone, harvest the matured mango fruits immediately to avoid damage caused by rain/wind.
 - In Eastern Dry Zone of Karnataka, undertake sowing of red gram (TTB-7, BRG-1, 2, 4, 5) and maize, continue land preparation for sowing of long duration crops (under monocropping) castor (DCS-9 (Jyothi), DCH-177 & 32), short duration crops (under double cropping) ragi (Indaf - 9, ML-365), sesame (Navile-1, T-7), groundnut (TMV-2, JL-24, KCG-6), cowpea (TVX-944, KBC-1), green gram (PS-16, PDM-84, 178) and black gram (Karagao-3, T-9, Rashmi (LBG-625)). Keep the inputs ready for sowing of *kharif* crops. Strengthen the bunds which will facilitate conservation of rainwater due to pre-monsoon showers. Continue harvesting of mango without dropping of fruit on

the soil to avoid the damage in clear weather.

- In Southern Dry Zone and Southern Transition Zone, undertake land preparation for *kharif* sowing. Strengthen the bunds, undertake ploughing across the slope. Keep the seeds and other inputs ready required for *kharif* sowing.
- In North Interior Karnataka, continue of land preparation for nursery sowing of rice, for sowing of *kharif* crops like jowar, red gram, black gram, pearl millet, maize, groundnut, soybean, sunflower, sesame, and utilising realised and expected rainfall.
- There is chance of fruit flies in mango in Southern Transition Zone; place 10 pheromone traps/ha, for each trap keep 1 ml/litre of Methyl Eugenol + 1 ml/litre Melathion 50 EC or 1 ml/litre Dichlorovas solution @ 100 ml/trap after current spells of rain.
- **Andhra Pradesh:**
 - In the Krishna Godavari Zone, continue land preparation for sowing of pulses (red and green gram) and cotton.
 - In the North Coastal Zone, continue land preparation for planting rainfed sugarcane, intercultivation in plant and ratoon crops of sugarcane in between rows and land preparation for sowing pre *kharif* crops viz. sesamum, bajra etc. and green manure crops.
 - In the Scarce Rainfall Zone, continue nursery sowing of rice (MTU 1010, Nellore Masuri) in Nellore district; land preparation for sowing of *kharif* groundnut (Narayani, Abhaya, Dharani, K-6, Grishma, TPT-4, K-6).
 - In the High Altitude Tribal Zone, procure seeds for sowing of rice (Srikakulam sannalu, Pushyami, Sridruthi, Pushkala) and ragi, continue sowing of green manure crops like sunhemp, dhaincha or cowpea, land preparation for sowing of rice (early *kharif* plantings: Pushkala, Rasi, IR64), maize (medium duration hybrids/varieties (90-100 days): DHM 111, DHM 117, DHM-119, KH 510, Bio 9637, KH 9541, MCH 2, Kohinoor, Prabhal and Bisco 855) and groundnut(Kadiri-7 Bold, Kadiri-8, Bold, kadiri-6 Kadiri-9, Kadiri Harithandra,Kadiri Anantha).
 - In the Southern Zone, continue harvesting of summer pulses and due to increase in temperatures, dry the pulse seed in optimum and mix neem or ash to protect the seed from storage pests, continue planting of sugarcane and nursery sowing of rice (MTU 1010, Nellore masuri) and continue land preparation for sowing of *kharif* groundnut (Narayani, Abhaya, Dharani, K-6 and varieties like Grishma, TPT-4, K-6).
 - In the Southern Zone, there is possibility of incidence of early shoot borer in sugarcane crop. To control, provide frequent irrigation at regular intervals and spray Chloripyriphos @ 2.5 ml./litre of water after current spells of rain.
- **Telangana:**
 - In the Northern Telangana Zone, continue sowing of green manure crops like sunhemp, dhaincha, pillipesara and other pulse crops under irrigated condition, land preparation for sowing of jowar (CSH 6,9,10,11,CSV -15, PNV-1), maize (DHM-101, 103,107 and other private hybrids), green gram (ML-267, LGG 407,410,450,460), black gram(T-9, LGG-20, 623, PBG-1), red gram(LRG 30, ICPL 8863, 332,87119, 85063) and soybean (JS 335, MACS-13,58), digging of pits for planting new orchards, deep summer ploughings and harvesting of matured vegetables.
 - In the Southern Telangana Zone, procure and keep ready the seeds, fertilizers and pesticides for timely sowing of rained crops, continue summer ploughing to control weeds, hibernating pests and disease spores that may damage *kharif* crops and dig pits for planting new orchards utilizing the realized and expected rainfall.
 - In the Southern and Northern Telangana Zone, prevailing weather conditions are congenial for the incidence of fruit fly in mango. To trap the flies in the container, hang the plastic containers with mixture of methyl eugenol @ 2 ml + Carbofuran 3G @ 3g per litre of water in the orchard after current spells of rain.
- **Tamil Nadu:**
 - In the Cauvery Delta Zone, continue land preparation for kuruvai season rice(varieties ADT 36, ADT 43, ADT 45 and ADT 47) in Nagapattinam, Thiruvarur and Trichy districts. Before sowing take appropriate seed treatment.
 - In the North Eastern Zone, continue summer ploughing to increase soil fertility and cover the root zone of horticulture crops with coir pith to conserve moisture.
 - In the Western Zone, considering the morning and evening high relative humidity, pruning in vineyards may be continued and spray Pseudomonas @ 20g/litre of water 25 days after pruning. Undertake weeding in groundnut crop fields and ploughing in non cropped lands to arrest growth of weeds.
 - In the Southern Zone, undertake ploughing to control weeds, insects larva in the soil and in order to improve the soil quality using the realized rainfall.
 - In the North Western Zone, undertake land preparation for groundnut cultivation(*Vaigasi* season) and continue summer ploughing in barren fields, to control soil borne pathogens, bacteria and insects utilizing the realized rainfall.
 - In the North Eastern Zone, incidences of pod borer, shoot and leaf webber is being noticed in summer sesame due to prevailing hot weather condition. To control, spray Quinolphos 25 EC @400 ml/acre or Neem oil 2%.
 - In the South Zone, incidences of stem borer is noticed in sorghum and fruit fly in mango due to moderate cloud cover, light rainfall and moderate humidity.To control stem borer, mix any one of the following insecticides (Phorate @ 10G 8 kg/ha or Carbofuran@ 3G 17 kg/ha) with sand to make up a total quantity of 50 kg/ ha and apply in the leaf whorls, if incidence crosses economic threshold level (10%). To control fruit fly in mango, prepare bait with methyl eugenol @ 1% solution mixed with Malathion @ 2.0 ml/litre of water and keep in 25 different places in one hectare between 6 am to 8 am. Collect and destroy the fallen fruits and spray Neem oil @ 3.0 ml as need based.
 - In the High Altitude Hilly Zone, due to temperature fluctuation to control late blight in potato, spray Cymoxanil @ 8 % + Mancozeb 64 % @ 2 ml/litre of water to control late blight in potato.

➤ Suitable varieties for sowing are given in Annexure III.

❖ **Animal Husbandry**

➤ In the North Eastern Zone of Tamil Nadu, sprinkle water to high yielding dairy cows 2 or 3 time to reduce heat stress during day time.

➤ In the Western Zone and Southern Zone, considering the high day time temperature and wind speed, provide plenty of drinking water to the animals.

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



Banana



Rice



Okra



Jute

● **Realised Rainfall:** Rainfall occurred in East Kameng, East Siang, Lower Dibang Valley, Papumpara, Tirap, Upper Siang and West Kameng districts of Arunachal Pradesh; Baksa, Barpeta, Bongaigaon, Cachar, Chirang, Dhubri, Dibrugarh, Goalpara, Golaghat, Hailakandi, Jorhat, Kamrup (Rural), Kamrup (Metro), Karimganj, Kokrajhar, Lakhimpur, Morigaon, N.C. Hills, Nagaon, Nalbari, Sonitpur, Sibsagar and Udalgiri districts of Assam; East Garo Hills, East Khasi Hills, Ri-Bhoi and West Garo Hills districts of Meghalaya; Aizwal and Saiha districts of Mizoram; Chandel, Imphal West and Thoubal districts of Manipur; Dimapur district of Nagaland and all districts of Tripura. Weather remained mainly dry over rest of the region.

● **Advisories:**

➤ As rain/thundershowers likely at many places over Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura on 6th and 7th and over Assam & Meghalaya on 7th June, it is advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Undertake rain water harvesting.

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

➤ In Assam, continue nursery raising of *Sali* rice.

➤ In Lower Brahmaputra Valley Zone of Assam, continue nursery sowing of *Sali* rice. Farmers should select suitable long duration high yielding varieties of *Sali* rice like Ranjit, Bahadur, Peoli, Moniram, Pankaj, Kushal etc. for growing in typical lowland paddy area and in medium lowland areas, select medium duration paddy varieties like Satya and Basundhara which may facilitate them to grow toria/mustard after harvesting of *Sali* paddy. For early sown jute crop thinning should be done after 20-25DOS. Wheel hoeing between rows within 4-5 weeks (30-35 days) after sowing suppresses weeds considerably. Continue land preparation for sowing of groundnut. Well drained sandy loam soil is should be prepared to a fine tilth by 3-4 ploughing. variety like- TG-1A, JL-24, 65-70kg/ha seed requirement, apply Urea-6kg, SSP-33Kg and MOP-7Kg per bigha.

➤ In Upper Brahmaputra Valley Zone of Assam, avoid water stagnation in sugarcane field.

➤ In Barak Valley Zone of Assam, for flood prone areas, farmers are advised to collect the submerge tolerance rice variety like Swarna Sub 1 which can withstand upto 15 days in submerged condition. Undertake sowing of *okra* of variety Arka Anamika.

➤ In Central Brahmaputra Valley Zone of Assam, continue planting of ginger and turmeric. Undertake planting of papaya seedlings.

➤ In North Bank Plain Zone of Assam, continue planting of sucker and crown of pine apple.

➤ In Meghalaya, continue nursery bed preparation for *Sali/ kharif* rice and land preparation and sowing of groundnut and soybean.

➤ In Arunachal Pradesh, continue nursery sowing and transplanting of rice, sowing/transplanting of summer vegetables like cucumber, sponge gourd, bottle gourd and ladies finger, summer pulses, planting of ginger. Continue planting of saplings of fruits/fodder and timber trees.

➤ In Arunachal Pradesh, spray Triazophos 40 EC @ 4 ml/litre against stem borer in rice nursery as well as in main fields. Apply foliar spray Carbandazim/Mancozab@2gm/litre against Cercospora leaf sopt in pulses. Undertake plant protection measures after current spells of rain.

➤ In Hill Zone of Assam, there is chance of attack of stem borer in transplanted normal *ahu* rice and blast in transplanted early *ahu* rice due to the prevailing weather conditions. Spray Carbofuran 3G @ 30 kg/ha or Phorate 10G @ 10kg/ha to control stem borer in rice and spray Carbandazim @ 1g/litre against blast in transplanted early *ahu* rice. Also spray Malathion 50 EC @ 2 litre of water against fruit fly, red pumpkin beetle in cucurbits. Undertake plant protection measures after current spells of rain.

➤ In Lower Brahmaputra Valley Zone of Assam, to protect the turmeric at vegetative stage from mites, leaf roller and shoot borer, spray phosphamidon 0.6 ml/ litre of water after current spells of rain.

➤ In Upper Brahmaputra Valley Zone of Assam, present weather is favourable for early shoot borer infestation in

sugarcane crop. Shoot borer infestation may be checked by burying or burning the infested canes. Proper earthing up will reduce the early shoot borer infestation. Also due to high humidity and rainfall there is chance of Gummosis disease in the citrus orchard. To control this disease, proper drainage facilities may be undertaken to drain out the excess water from the orchard. The affected portion should be scraped out with a small portion of healthy tissue without injuring the wood and smear with Bordeaux paste. Maintain proper drainage facilities.

- In North Bank Plain Zone of Assam, spray Quinalphos 2.5 ml/10 litre of water to control leaf folder, stem borer, case worm in *ahu* rice. Also spray Malathion 50 EC @ 2ml/litre of water to control red pumpkin beetle and fruit fly in cucurbits after current spells of rain.
- In Meghalaya, high humidity with intermittent rain is favourable for development of blast in *jhum* rice. Spray Mencozeb @ 2g/litre of water or Carbendazime @ 1g/litre of water after current spells of rain .
- **Nagaland, Manipur, Mizoram and Tripura:**
- In Nagaland, avoid water stagnation in the field of ginger. Complete planting of ginger. Rain water harvesting ponds should be dug at low land to collect the rain water. Undertake plant protection measures against blast in *jhum* rice.
- In Manipur, continue sowing of soybean, groundnut, black gram, planting of ginger/turmeric. Continue land preparation for sowing of *kharif* rice. Drain out excess water from the fields of early *kharif* rice in flooded areas.
- In Mizoram, continue nursery sowing of rice and sowing of khasi mandarin/acid lime, passion fruit, okra, cow pea, maize, transplanting of brinjal and land preparation ginger/ turmeric. Continue nursery sowing of rice.
- In Nagaland, spray neem oil 5ml/litre of water against leaf eating caterpillars in cucurbits.
- In Tripura, undertake harvesting of *boro* rice and matured summer brinjal/tomato immediately in clear weather and undertake sowing of groundnut, land preparation and sowing maize.
- Suitable varieties for sowing are given in Annexure III.

❖ **Animal Husbandry**

- In Northeastern states, farmers are advised to keep animals in sheds during thunder squall period. Do not allow the animals for grazing during heavy rain /thunderstorm period.
- In Lower Bramhaputra Valley Zone and Upper Bramhaputra Valley Zone of Assam, undertake immunizations against FMD, HS and BQ in cattle & buffaloes and swine-fever in pigs.
- In Barak Valley Zone of Assam, changing weather could lead to viral diseases in the poultry. So farmers may provide sufficient water with 1% salt and mineral mixture. Farmers are also advised to maintain good sanitary condition in poultry. Provide balanced feed & fresh water.
- In Hill Zone of Assam, undertake vaccination (RDF1) against Ranikhet disease in one week old chicks.

❖ **Fishery**

- In Assam, apply soil in the embankment of fish ponds for control of entry of predatory fishes during floods during monsoon.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Green gram



Sugarcane



Groundnut



Banana

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

- **Advisories:**

- **Maharashtra:**

- In Vidarbha, as heat wave conditions is very likely at isolated places on 3rd and 4th June, apply light and frequent irrigation to fruit crops. Also apply mulches in fruit crops to conserve soil moisture. Continue land preparation for nursery sowing of *kharif* rice in Bhandara, Gondia, Chandrapur, Gadchiroli districts. Continue sowing of summer vegetables like bitter gourd, tinda, ridgegourd, smoothgourd, bottlegourd, cowpea, clusterbean and coriander. Continue preparatory tillage for sowing of *kharif* jowar, soybean, cotton, redgram, greengram and black gram. Continue planting of binneal forage crops like Paragrass, Napier and Gajraj.
- In Marathwada, undertake cultivation of *Kharif* vegetable crops like Brinjal, chilli and tomato seed on raised bed. Continue land preparation for sowing of cotton, pigeon pea, green gram, black gram, groundnut and maize. Undertake ploughing followed by 2 to 3 harrowing and apply FYM 5 to 10 ton/ha before last harrowing. Continue sowing of irrigated cotton. Continue nursery preparation for *kharif* onion. Continue sowing of fodder crops like African Tall, Ganga-5, Vijay and Manjari.
- In Madhya Maharashtra, continue nursery bed preparation for *kharif* rice. Continue preparatory tillage for sowing of *kharif* jowar, soybean, cotton, redgram, greengram and black gram. Continue nursery sowing of vegetable crops like tomato, chilli and bitter gourd in *kharif* season. Undertake cultivation of sorghum, bajra, maize, cowpea and

hybrid napier as green fodder for livestock.

- In Konkan, undertake sowing of *kharif* rice, nagli and *vari* on raised bed. Plough the field at vapsa condition and sow the seed of Dhaincha (Green manure crop) @ 40 kg seed per ha. It is advised to cut this crop plant at flowering stage and incorporate it in the same field during puddling operation. Undertake sowing of *kharif* vegetables like okra, cucumber, bittergourd, snakegourd and ridgegourd. Use high yielding varieties for sowing. Okra should be planted on ridges and furrows and sowing of gourd vegetables be done on soil mounts. Undertake planting of mango, cashew, coconut and arecanut. Continue land preparation for sowing of biennial forage crops like Paragrass, Napier and Gajraj.
- **Gujarat:**
- In South Gujarat Zone, undertake sowing of cotton with irrigation. Apply irrigation in fruit crops by drip irrigation. Protect new grafts and newly planted fruit crops from sunburn by erecting temporary shed and irrigating the fruit crops.
- In Middle Gujarat Zone, continue sowing of irrigated hybrid cotton (G. cot. 6, 8, 10) and approved varieties of B.T. cotton with irrigation. Apply light irrigation in groundnut. Pluck matured fruits of mango. Complete harvesting and threshing of early varieties of rice and keep the harvested produce at safe place. Make necessary arrangements for water harvesting in fields. Staking may be provided to banana to counteract the effect of wind speed.
- In South Gujarat Heavy Rainfall Zone, continue land preparation for *kharif* rice and nursery sowing of ragi with irrigation. Continue harvesting of green gram, groundnut, cluster bean and rice. Continue summer ploughing in fallow land.
- In Bhal and Coastal Zone, as high temperatures are prevailing apply irrigation to floriculture crops. Continue harvesting of fruits of papaya, sapota, citrus and pomegranate etc. Continue levelling of plots and undertake land preparation for *kharif* sowing.
- In Gujarat, make necessary arrangements for water harvesting in the fields.
- In North Gujarat Zone and North West Zone of Gujarat, continue harvesting/threshing of matured pearl millet, green gram and cow pea, continue cutting of fodder sorghum, harvesting of matured fruits of vegetable crops. Continue sowing of hybrid/ B.T. cotton with irrigation; select high yielding variety of B.T. hybrid cotton “Gujarat Talod Hirsutam Hybrid -49 (Bolegaurd-2)” or Govt. approved and certified varieties of B.T. cotton for sowing. Undertake digging of the pits for plantation of horticultural crops (mango, sapota, lemon, pomegranate, ber, guava). As high temperatures are prevailing, apply light and frequent irrigation in cluster bean, groundnut crops. Undertake mulching with straw/polythene to conserve soil moisture. Plan for ensuing *kharif* sowing.
- In North Saurashtra Zone, continue sowing of groundnut (GG-20, GG-11, GG-7) with irrigation, continue land preparation for sowing of pearl millet, pulses (green gram, black gram, cow pea, pigeon pea), sesame and cotton. Keep seeds ready for sowing of *kharif* crops like pearl millet (GHB-558,577,538,719,732,744), pulses (green gram: GM-4, K-85, black gram: T-9, GU-1; cowpea: Gujarat Cowpea-1,2,4, Pusa Falguni; pigeon pea: BDN-2, GT-100, GTH-1), sesame (GT-2 or GT-3), cotton (early: Bg-II GCH-8, Agritop-333, 777, 444, Jay, Beejdhan-2, Sarju, Atom, Bhakti, Medium Late: Bg-II GCH-6, Agritop-444, Solar-76, Swapna, Mallika). Apply light and frequent irrigation to vegetable crops in the morning or evening hours. Undertake mulching with straw/polythene to conserve soil moisture.
- In South Saurashtra Zone, undertake sowing of groundnut with irrigation and land preparation for sowing of *kharif* cotton. Continue harvesting of summer green gram, black gram, sesame and groundnut. Apply irrigation in vegetable crops.
- ❖ **Animal Husbandry**
- In Gujarat, in view of prevailing high temperatures, take special care of animals during noon in Bhal and Coastal Zone, North Saurashtra Zone, North Gujarat Zone and North West Zone. Keep the animals under shade, cover roof with paddy straw, provide cool drinking water 4-5 times a day. Provide cool drinking water to animals.

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



Rice



Okra



Maize



Green gram

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands; all districts of Gangetic West Bengal except East Midnapore, Howrah, South 24 Pargana and West Midnapore; all districts of Sub-Himalyan West Bengal & Sikkim except South Dinajpur; Angul, Bhadrak, Dhenkanal, Gajapati, Keonjhar, Mayurbhanj and Nawrangpur districts of Odisha; Bokaro, Dumka, East Singhbhum, Godda, Hazaribagh, Jamtara, Koderma, Pakur, Ranchi and Saraikela

districts of Jharkhand; Araria, Banka, Begusarai, Bhagalpur, Bhojpur, Darbhanga, Gopalganj, Katihar, Khagaria, Kishanganj, Lakhisarai, Madubani, East Champaran, West Champaran, Samastipur, Sitamarhi, Siwan and Vaishali districts of Bihar. Weather remained mainly dry over rest of the region.

• **Advisories:**

- As rain/thundershowers likely at most/many places over Andaman & Nicobar Islands from 3rd to 6th, at many places over Sub-Himalayan West Bengal & Sikkim on 6th & 7th and over Odisha from 3rd to 5th June, it is advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. As heavy rain is very likely at isolated places over Odisha on 3rd and 4th and over Sub-Himalayan West Bengal & Sikkim on 7th June, provide adequate drainage in standing crop fields. Farmers are advised to undertake rain water harvesting.

▪ **Odisha:**

- In East and South Eastern Coastal Plain Zone, undertake sowing of green manure crops and land preparation for sowing of pigeon pea. In uplands, continue land preparation planting of ginger and turmeric, sowing of maize, groundnut, sunflower, cotton etc. For green cob purpose, grow high yielding varieties of maize like Navjot, Shakti, Decan-107, Decan-109 under irrigation. Use 6 kg seeds/acre. Apply one third of N and all P & K of the recommended dose of 50:24:24 kg.
- In North Eastern Ghat Zone, undertake sowing of green manure crops, sowing of maize for green cob purpose, sowing of okra and planting of yam. Undertake harvesting of matured sunflower immediately in clear weather.
- In East and South Eastern Coastal Plain Zone, fruit and shoot borer has been found in brinjal. To control it install Pheromone traps and spray Sevin WP @ 4 g or Malathion @ 2 ml in 1 litre water alternatively. Also to control fruit fly in bitter gourd, spray Sevin WP @ 3 ml in 1 litre water.
- In North Eastern Coastal Plain Zone, taking advantage of the expected rain, complete sowing of jute.
- In East and South Eastern Coastal Plain Zone, YMV infestation has been found in summer pulses. Spray 20 ml Rogor/10 litre water to control the white fly after current spells of rain.
- In North Eastern Ghat Zone, to manage fruit fly in Cucurbits, prepare poison bait by mixing 20 g gur in 1 litre of water and Malathion 2ml and hang it at different places in the field.
- In South Eastern Ghat Zone, there may be chances of infestation of Gundhi bug and Ear cutting caterpillar in summer rice. To control Gundhi bug, spray Ethofenoprox 10% EC @ 1 ml/litre of water or Lamda Cyhalothrin 5% EC @ 0.5 ml/litre of water (200 litre water for one acre) uniformly during morning hours when there is no or minimum wind. To control Ear cutting caterpillar, spray Quinolphos 25% EC @ 2 ml/litre or Chloropyriphos 20% EC @ 2.5 ml/litre of water (200 litre water for one acre). Undertake plant protection measures after current spells of rain.
- In Western Undulating Zone, early shoot borer may attack the sugarcane crop at tillering stage. Spray Triazophos/ Profenophos @ 2ml/litre of water after current spells of rain.

▪ **West Bengal:**

- In Coastal Saline Zone, continue sowing of green manuring crop like cluster bean, daincha etc. after harvesting of boro paddy in order to fertilize the field and conserve moisture in soil.
- In Laterite and Red Soil zone, continue harvesting of sesame in clear weather. Keep the bundles erect on the threshing floor for 5-7 days for drying. Undertake land preparation of paddy in upland area and nursery preparation in low land area.
- In New Alluvial Zone, undertake intercultural operations (weeding & thinning) should be done in jute and sesame.
- In Hill Zone, continue land preparation for new plantation of large cardamom. Proper drainage system should be maintained in the fields to prevent water stagnation during rain.
- In Old Alluvial Zone, complete harvesting of *boro* rice immediately in clear weather and keep it in a safe place for threshing & drying. Undertake soil testing and undertake sowing of dhaincha.
- In Laterite and Red soil zone, in this weather condition fruit and shoot borer attack may be dominant in brinjal and ladies finger and fruit rot in chilli. To control fruit and shoot borer, Spray Neem Seed Kernal Extract solution @ 50ml/litre of water. To control fruit rot, spray Carbendazim (Bavistin) @ 1g/litre of water at clear weather condition. Undertake plant protection measures.
- In New Alluvial Zone, High temperature and humidity can influence the stem rot disease of gourd crops. To control the attack of stem rot, apply Bavistin or Benlate @ 1 gm per liter of water on non-rainy day.
- In Terai Zone, weather is congenial for attack of gundhi bug in rice and aphid, hoppers and white fly in chilli. For gundhi bug spray Fipronil 5 EC @ 1ml/litre of water and For Aphid, hoppers, white fly apply Imidachloropid @ 1ml/5litre of water after current spells of rain.
- In Old Alluvial Zone, in the prevailing weather condition, fruit rot in chilli may occur. To control, spray Carbendazim @ 1g/litre of water or Mencozeb @ 2.5 g/litre water on morning or evening hour at 10-15 days interval. To control leaf curl & flower drop spray Neem oil @ 3ml/litre & 5 days later Buprofezin @ 1ml/litre along with sticker after current spells of rain.

▪ **Andaman and Nicobar Islands:**

- In North, Middle and South Andaman, undertake land preparation of cowpea and nursery bed preparation for paddy and use paddy seed of CSR 36 @ 25 kg/ha for low lying areas and treat the seed with Carbendazim @ 2 g/kg.
- In Nicobar, make drainage channels in coconut and Arecanut fields, as heavy rainfall is expected during next five

days.

▪ **Bihar:**

- In North East Alluvial Zone, undertake nursery preparation should be started for Kharif Onion, Chilli, brinjal and early cauliflower and Start planting of ginger and turmeric as sole crop and also intercrop with Mango, Litchi, Banana and Guava orchards. Undertake harvesting of mature maize. Undertake sowing of dhaincha, moong (green gram), senai crop for green manuring purpose.
- In South Bihar Alluvial Zone, undertake nursery preparation of chilli and brinjal. Undertake harvestin of matured vegetables crop. Optimum moisture level should be maintained in cucurbitaceous crops by light and frequent irrigation.
- In North West Alluvial Plain Zone, continue nursery preparation of *kharif* paddy and planting of ginger, turmeric, elephant foot yam and green manuring crops like dhaincha, moong (green gram), senai and fodder crops such as sorghum, maize and bajra.
- In South Bihar Alluvial Zone, In present weather conditions, may be attack of viral infection in chilli. Infected crop should be uprooted and buried in the soil. spraying of Imidacloprid @ 0.3 ml per litre of water is advised to control the vector.
- In North East Alluvial Zone, due to frequent rainfall, attack of Bihar hairy caterpillar in jute crop, to control spray DDVP @ 2 ml/litre of water on a non-rainy day.

▪ **Jharkhand:**

- In Western Plateau Zone, continue sowing of vegetables like sponge gourd, bottle gourd, pumpkin, water melon, musk melon etc. Continue sowing of green gram and undertake broadcasting of urea in standing vegetable crops. To conserve the moisture, undertake intercultural operations in vegetables.
- In Central and North Eastern Plateau Zone, cultivate high yielding variety of maize crop viz. Birsa Makka-1, Birsa Makka-2, Suwan-1(Hybrid),HQPM (Hybrid). Undertake nursery preparation for *kharif* rice.
- In Central and North Eastern Plateau Zone, farmers are advised for summer ploughing. Continue sowing of maize, okra and planting of elephant foot yam, ginger and turmeric after receipt of sufficient rain and mulch it with leaves and straw to conserve moisture and for weed control.
- In South Eastern Plateau Zone, summer rice crop is at dough to maturity stage. Remove water from the fields 10-15 days before harvesting. At dough stage, if Gundhi Bug infestation is more, dusting of Quinalphos 1.5% @ 10 kg per acre during morning time is recommended. High day and night temperature also favours production of more number of eggs in case of Leaf folders and also infestation is being seen. Hence, spraying of Acephate 75 SP @ 2g or Trizophos or Prophenphos @ 1 ml per litre of water should be done alternately.
- In South Eastern Plateau Zone, summer moong is at flowering to pod setting stage, hence for proper pod development, maintain optimum moisture in the fields. If attack of thrips is noticed, spray Acetamiprid SP 0.5 g or Trizophos or Prophenphos @ 1 ml per litre of water during evening/dusk time on a non rainy day.
- Suitable varieties for sowing are given in Annexure III.

❖ **Animal Husbandry**

- In Coastal Saline Zone of West Bengal, vaccinate against Black quarter at 4 month aged cattle and for grazing cattle, feed them Albomer or Albozen tablet @ 1tablet/150kg body wt at 4 month interval for preventing worm infection.
- In South Bihar Alluvial Zone, provide vaccination against Galghontu disease to animals, which will protect them in rainy season from this disease.

CENTRAL INDIA [M.P., CHHATTISGARH]



Chilli



Green gram



Okra



Sugarcane

- **Realised Rainfall:** Rainfall occurred in Damoh, Jabalpur, Tikamgarh and Umaria districts of East Madhya Pradesh; Datia and Gwalior districts of West Madhya Pradesh; Weather remained mainly dry over rest of the region.

• **Advisories:**

▪ **Madhya Pradesh:**

- As heat wave conditions is very likely at isolated places over West Madhya Pradesh on 3rd & 4th June, apply light and frequent irrigations to standing crops, preferably during evening hours. Apply mulches in fruit crops to conserve soil moisture. Young plantation should be protected with thatches and mulching of basins.
- In Satpura Plateau Zone, continue nursery preparation for onion and sowing of cotton under sufficient moisture condition. Undertake nursery preparation for cauliflower and land preparation for sowing of red gram.

- In Malwa Plateau Zone, apply irrigation in moong, urad, vegetables, mango, orange and pomegranate orchards. Continue picking up of matured okra and cucurbit crops. Continue nursery preparation for *kharif* vegetables. Continue deep ploughing of fields and keep inputs ready for sowing of *kharif* crops.
- In Kymore Plateau and Satpura Hill Zone undertake harvesting of matured moong and urad.
- In Nimar Valley Zone, continue land preparation for sowing of cotton and apply drip irrigation in horticulture crops.
- In Grid Zone continue harvesting of matured moong and land preparation for sowing of red gram.
- In Vindya Plateau Zone, continue nursery preparation of rice and harvesting of matured moong and urad.
- In Central Narmada Valley Zone undertake planting of turmeric and ginger.
- In Bundelkhand Zone, apply irrigation in vegetables and orchard crops. Continue seed bed preparation for sowing of *kharif* onion.
- In Jhabua Hill Zone, apply irrigation in tomato, chilli, brinjal, okra, onion crops. Continue planting of turmeric and ginger and harvesting of matured moong. Undertake field preparation for nursery sowing of rice.
- In Bundelkhand Zone, due to prevailing hot weather, there are chances of attack of fruit borer in brinjal and tomato, spray Malathion 50 E.C. @ 1ml/litre of water.
- Suitable varieties for sowing are given in Annexure III.
- **Chhattisgarh:**
 - In Chhattisgarh, continue deep ploughing of fields and keep inputs ready for sowing of *kharif* crops.
 - In North Hill Zone, in view of the prevailing high temperature, apply irrigation in moong, maize, sugarcane and vegetables. Continue harvesting of matured rice, groundnut and mango and litchi. Undertake nursery preparation for sowing of long duration varieties of rice.
 - In Bastar Plateau Zone, continue nursery preparation of *kharif* vegetables.
 - In Chhattisgarh Plain Zone, apply irrigation in vegetables and orchards. Continue digging of pits for planting new orchards.
 - In Bastar Plateau Zone, due to rise in temperature, there is chance of wilting in tomato, chilli and brinjal. Apply Trichoderma @ 300-400g/ha and Pseudomonas @ 150-200g/ha with well decomposed farm yard manure near the root of plant in soil.
- ❖ **Animal Husbandry**
 - In West Madhya Pradesh, in view of the prevailing heat wave conditions, special attention should be given to milch animals, provide adequate water and green fodder to animals and keep them in shade during noon hours. Cover poultry house with mat and keep it wet to maintain normal temperature.

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



Green gram



Sugarcane



Maize



Okra

- **Realised Rainfall:** Rainfall occurred in Bahriach, Basti, Deoria, Gonda, Gorakhpur, Kheri, Kushinagar, Maharajganj, Sant Kabir Nagar, Sitapur and Sultanpur districts of East Uttar Pradesh; Badaun, Bijnor and Saharanpur districts of West Uttar Pradesh; all districts of Uttarakhand except Dehradun, Haridwar and Garwal Tehri; Chandigarh, Jind, Rewari and Yamunanagar districts of Haryana; South Delhi and Southwest Delhi districts of Delhi; Barnala, Bhatinda, Faridkot, Muktsar and Sas nagar districts of Punjab; Mandi district of Himachal Pradesh; Riasi and Udhampur districts of Jammu & Kashmir. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As thunderstorm/duststorm accompanied with squall very likely at isolated places over Haryana, Chandigarh, Delhi and West Uttar Pradesh on 3rd June, it is advised to provide support to young fruit plants, staking in vegetables and propping in sugarcane to prevent the crops from lodging due to strong winds. Keep already harvested produce at safer places.
 - As heat wave conditions is very likely at isolated places over Punjab, Haryana, Chandigarh, Delhi, south Uttar Pradesh on 3rd & 4th, over west Rajasthan on 3rd and over Rajasthan on 4th & 5th June, apply light and frequent irrigations to standing crops, preferably during evening hours. Apply mulches in fruit crops to conserve soil moisture. Young plantation should be protected with thatches and mulching of basins.
 - **Jammu & Kashmir:**
 - In Sub Tropical Zone, complete nursery raising of early transplanted rice. In view of increase in the temperature, maintain moisture in the vegetable crop and other crop fields by weeding and hoeing and applying irrigation at

regular intervals.

- In Intermediate Zone, continue transplanting of tomato, chilli, capsicum and cucurbits. Continue sowing of okra in lower to mid hill regions. Continue nursery sowing of paddy for timely transplanting of seedlings. Prepare land for cultivation of maize.
- In Valley Temperate Zone, continue preparation of the field for sowing of paddy nursery. Complete transplanting of cole, solanaceous and cucurbits crops in the main field. Undertake field preparation / sowing of maize.
- In Cold Arid Zone of Jammu and Kashmir, continue transplanting of tomato, capsicum, chilli and vegetables like celery, parsley and leek in the lower belts of the district under open field and preferably under open protected structures in the middle belts. Continue direct sowing of radish, carrot, beet root, coriander and fenugreek in the fields. Irrigation should be done at 4 to 6 days intervals as per moisture conditions of the soil.
- In Intermediate Zone, there are chances of attack of mealy bug on fruit plants. To control spray Chloropyriphos 20EC or Dichlorbos(Nuvan 30 EC) @ 2ml/litre of water on a non rainy day and repeat at fifteen days interval.
- In Sub Tropical Zone weather is congenial for outbreak of leaf curl on tomato crop. To control it remove already infected plants and spray Imidacloprid @ 0.5ml/lit of water to avoid spread of secondary infection on a non rainy day.

▪ **Uttarakhand:**

- As rain/snow likely at many places over Uttarakhand on 7th June along with heavy rain very likely at isolated places, postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Undertake harvesting of matured fruits and vegetables immediately.
- In Bhabar and Tarai Zone of Uttarakhand, raise the nursery for medium duration variety of rice upto 10th June. Undertake sowing of maize as first week of June is right time for sowing of the maize.
- In Hill Zone, continue nursery raising of paddy after proper seed treatment. Undertake transplanting of irrigated paddy, if nursery plants have two three leaves. Continue transplanting of tomato, capsicum, chilli and brinjal and land preparation for nursery sowing of cauliflower, cabbage, knol-khol, broccoli. Continue land preparation and sowing of finger millet.
- In Sub Humid and Sub tropic Zone of Uttarakhand, prepare field for nursery raising of long duration varieties of paddy.
- In Bhabar and Tarai Zone of Uttarakhand, prevailing weather is favourable for attack of black bug on sugarcane crop, spray Chloropyriphos 20 EC @ 750 ml/ha or Quinolphos 25 EC 2 litre /ha in 500-800 litre of water for control of black bug in sugarcane, if noticed on non rainy day.

▪ **Himachal Pradesh:**

- In Sub-Montane and Low Hills Sub-Tropical Zone, continue nursery sowing of rice and treat the seed before sowing with Bavistin @ 2.5 g per kg of seed and sowing of maize. Continue sowing of cluster bean, daincha, senai, lobia for green manuring. Complete sowing of sunflower and fodder crops such as maize, cowpea, chari and bajra in irrigated areas. In high hilly regions continue harvesting of matured onion and garlic. In mid hill areas continue direct sowing and transplanting of tomato, brinjal, chilli and capsicum. Continue sowing of cucurbits such as cucumber, bitter gourd, bottle gourd and summer squash, ageti okra, French bean and radish. Complete sowing of zaidmoong and mash in irrigated areas. Undertake sowing of ginger, turmeric.
- In Mid Hills Sub-Humid Zone, complete sowing of bhindi, cucurbits, French bean, moong and mash and nursery raising and transplanting of tomato, chilli, capsicum and brinjal. Continue sowing of fodder crops like maize, cowpea and soybean.
- In High Hills Temperate Dry Zone, prepare the basin in apple orchard. Continue sowing of vegetable seeds in nursery beds. Continue sowing of peas. Sowing of peas may be done by using 250 kg seed/hectare in lines at least a feet apart. Apply seed treatment with Bavistin 2.5g/kg of seed carefully to avoid yellowing of the plants which occur at lower stage.
- In Sub-Montane and Low Hills Sub-Tropical Zone, weather is conducive for attack of red pumpkin beetle in cucurbitaceous crops, for control spray Dichlorvos 76 EC (DDVP) @ 1 ml per litre of water on a non rainy day.
- In Mild Hills Sub-Humid Zone of Himachal Pradesh, weather is conducive for attack of alternaria leaf spot in apple, for control spray Hexaconazole (contaf) in 200 litres of water on a non rainy day.
- In Mild Hills Sub-Humid Zone of Himachal Pradesh, weather is conducive for attack of aphid in pomegranate, for control, spray Imidacloprid @ 60 ml per 200 litres of water on a non rainy day.
- In Mild Hills Sub-Humid Zone of Himachal Pradesh, weather is conducive for leaf curl disease in peach orchards, for control spray Hexaconazole 0.05% (Contaf/Hexole 100 ml) in 200 litres of water on a non rainy day and repeat at 10 days of interval.
- In Mid Hills Sub-Humid Zone, weather is conducive for attack of mealy bug in mango, for control spray Buprofezin 25 % SC @ 1 to 2 ml. per litre of water on a non rainy day.
- In Mid Hills Sub-Humid Zone of Himachal Pradesh, weather is conducive for attack of leaf spot in strawberry, for control, spray Hexaconazole or Carbendazim @ 100 gm. in 200 litres of water on a non rainy day.
- In Mid Hills Sub-Humid Zone of Himachal Pradesh, weather is conducive for attack of fruit rot in tomato, for control, spray Dimethoate M-45 @ 250 g in 100 litres of water or Blitox-50 @ 300 g in 100 litres of water on a non rainy day and repeat at 7 to 10 days interval.

▪ **Rajasthan:**

- In Southern Humid Plain Zone, apply irrigation in zaid moong, fodder crops and vegetable as per

requirement. Complete sowing of mung, groundnut and fodder like SSG-59-3, MP chari, Rajasthan chari, Pratap maize chari-6A.

- In Sub Humid Southern Plain and Aravali Hill Zone, apply irrigation in vegetables. Continue sowing of cucurbits,
- In Semi-Arid Eastern Plain Zone, continue land preparation for sowing of irrigated groundnut and cotton. Undertake nursery sowing of kharif onion, treat seeds with Dithane M-45 @ 2 g or Thiram @ 2 g per kg seeds. Use 10 kg seed for raising nursery in one hectare.
- In Arid Western Plain Zone, continue sowing of American cotton and jeera, transplanting of chilli and sowing of green fodder viz. pearl millet, sorghum and cowpea. Continue sowing of groundnut. Apply irrigation in cucurbits, fruit plants and fodder crops as per requirement. Apply irrigation at regular intervals and increase the frequency of irrigation at critical growth stages of summer vegetable and forage crops. Undertake soil mulching/mulching with straw/polythene to conserve soil moisture in dry land areas.
- In Irrigated North Western Plain Zone, continue sowing of groundnut and nursery sowing of rice. Continue sowing of cotton.
- In Flood Prone Eastern Plain Zone, prevailing weather condition is congenial for attack of leaf curl & mosaic disease in chilli, for control spray Dimethoate 30EC @ 1 ml per litre of water.
- In Flood Prone Eastern Plain Zone, prevailing weather condition is congenial for attack of thrips, jassids and whitefly in zaid moong, for control spray Dimethoate 30 EC @ 1 litre in 800 litres of water per hectare.
- In Semi-Arid Eastern Plain Zone, prevailing weather condition is congenial for attack of fruit borer in okra, for control, spray Malathion 50 EC @ 1 ml per litre of water or Carbaryl 50 WP @ 4 gm per litre of water.
- **Punjab, Haryana and Delhi:**
- In Western Plain Zone of Punjab, complete sowing of cotton, continue sowing okra, spring maize and planting of sugarcane. Continue transplanting of chilli and cucurbits on the ridges. Undertake nursery sowing of rice. Irrigate the standing vegetables crops and harvest the matured vegetable crops.
- In Undulating Plain Zone and Central Plain Zone of Punjab, continue nursery preparation for rice.
- In Western and Undulating Plain of Punjab, continue planting of turmeric.
- In Central, Western and Undulating Plain Zone of Punjab, continue planting of peach, plum, pear, pomegranate and ber plants.
- In Western Zone of Punjab, undertake nursery sowing of rice, transplanting of chilli, tomato, bell pepper. Continue sowing of cucurbits, round gourd, sponge gourd, and other summer vegetables viz. okra, and cluster bean. Complete the sowing of cotton.
- In Western Zone of Haryana, continue sowing of green gram and black gram. Complete the direct sowing with certified seeds of leafy vegetables, bottle gourd, cucumber, ridge gourd summer radish. Undertake intercultural operations and apply irrigation as per the requirement in vegetables crops. Complete the sowing of cotton. Continue transplanting of young seedlings of brinjal and chilli. Irrigation should be done after transplantation. Undertake sowing of arhar and complete the sowing of fodder crops such as bajra, lobia, sudan and napiargrass. As per requirement of crops apply light irrigation in vegetable, fruits and horticultural crops.
- In Eastern zone of Haryana, continue sowing of fodder crops such as guwar, maize, bajra, cluster bean.
- In Western Semi-Arid Zone of Delhi, continue field preparation for sowing of pigeon pea and continue sowing of cotton, green gram and black gram. Undertake sowing of okra, French bean, cluster bean, baby corn and fodder crops such as sorghum, bajra, cluster bean and maize. Continue harvesting of mature vegetables at morning and evening hours.
- In Western Zone of Punjab, due to prevailing weather condition, there may be chances of attack of red pumpkin beetle in cucurbits, for control spray Carbaryl @ 75 to 150 g per acre in 50 to 100 litres of water and repeat after 10 days intervals. Also incidence of fruit and shoot borer of brinjal may be controlled by spraying 100 ml Sumicidin 20 EC or 200 ml Ripcord 10 EC or 800 ml of Ekalux 25 EC or 500 ml Triazophos 40 EC in 100-125 litres of water per acre.
- In Undulating Plain Zone of Punjab, due to prevailing weather condition, there may be chances of attack of fruit borer in tomato, for control, spray Fame 480 SL @ 30 ml or Fenvalerate 20 EC @ 100 ml or Deltamethrin 2.8 EC @ 160 ml or Cypermethrin 25 EC @ 80 ml. in 80 to 100 litres of water per acre.
- **Uttar Pradesh:**
- In Central Plain Zone, continue nursery sowing of paddy in irrigated areas and sowing of jowar, bajra, maize, urad, mung, sesame. Continue planting of sugarcane. Continue sowing of fodder crops like cowpea, maize, lobia and sowing of urad, mung, lobia, bhindi as inter crop in sugarcane, land preparation and sowing of cowpea, maize, planting of garlic, turmeric and ginger. Continue sowing of sunhemp, lobia and dhaincha for green manuring. Continue nursery sowing of brinjal and kharif onion. Continue planting of banana.
- In Central Plain Zone, apply irrigation in vegetables as per requirement and in summer maize, urd, mung and lobia crop at the interval of 12-15 days. Complete nursery sowing of paddy seeds upto 15th June and for sowing of scented paddy in nursery upto 25th June. Undertake sowing of branching varieties of groundnut and soybean. Cover the planted field of turmeric and ginger for better germination as well of conservation of moisture.
- In Eastern Plain Zone, continue direct sowing of rice and sowing of maize in irrigated areas.
- In Western Plain Zone, continue sowing baby corn and summer fodder crops jowar, bajra, lobia, maize. Continue sowing of sunhemp and dhaincha, sanai, jwar, lobia, mung for green manuring. Continue transplanting of tomato,

chilli and sowing of bhindi, cucurbits and sowing of sunflower, urad, mung, maize.

- In Bundelkhand Zone, apply irrigation in moong, bhindi, torai, cucurbits, cabbage, cauliflower, tomato, brinjal and chilli as per requirement.
- In North Eastern Plain Zone, due to prevailing weather condition, there may be chances of attack of yellow mosaic and pod borer in urad, for control, spray Quinalphos @ 500 ml in 200 litres of water per acre.
- Suitable varieties for sowing are given in Annexure III.

❖ **Horticulture:**

- In North Eastern Plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of mango hopper and mealy bug in mango trees. For control, spray mixture of 0.2 % Emidacloprid @ 400 ml and 0.2 % Carbendazim @ 400 g per 200 litres of water per 20 plants.
- In Mild Hills Sub-Humid Zone of Himachal Pradesh, weather is conducive for leaf spots on young leaves in soft seeded varieties (Sindhuri and Mridula) of in pomegranate, spray Bavistin @ 100 g + Streptocycline @ 20 g in 200 litres of water on a non rainy day.
- In Flood Prone Eastern Plain Zone of Rajasthan, undertake pruning operation in ber crop.
- In Semi-Arid Eastern Plain Zone of Rajasthan, there may be chances of attack of bark eating caterpillar in Mango, Ber & Guava, for control spray Malathion 50 EC @ 1 ml per litre of water.
- In Irrigated North Western Plain Zone of Rajasthan, there may be fruit drops in kinnow fruits, for control, spray mixture of Propineb 70 WP @ 2 gm and Gibbrellic acid @ 20 mg. in 1 litre of water.

❖ **Animal Husbandry**

- In Valley Temperate Zone of Jammu and Kashmir, farmers are advised to vaccinate sheeps and goats against Enterotoxaemia (ETV vaccine 2ml/sub cut) and FMD (FMD vaccine 1ml/Intra muscular).
- In Valley Temperate Zone of Jammu & Kashmir, continue planting of liliun, gladiolus and dahlia.
- In sub tropical Zone of Jammu Kashmir, farmers are advised to add calcium supplement in the feed of dairy animals and heifers especially fed rice straw these days to prevent calcium deficiency and intestinal blockage. Sheeps and goats need to be vaccinated against Sheep and Goat pox. Black Quarter vaccination must be carried among heifers above 4 month age.

❖ **Floriculture**

- In Valley Temperate Zone of Jammu & Kashmir, continue planting of liliun, gladiolus and dahlia.
- In Sub Tropical Zone of Jammu and Kashmir, undertake land preparation and sowing of seeds for raising nursery of rainy annuals after receipt of sufficient rain.

❖ **Apiculture:**

- ❖ In Sub Tropical and intermediate Zone of Jammu and Kashmir, to protect the bee colonies from high temperature shift it to shady areas or migrate to cooler places or cover with wet gunny bags. Check the colonies for mite infestation and brood to avoid the mortality of honey bees.

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

Week by week Rainfall Distribution

Sub-Divisions	18.05.16		25.05.16		01.06.16	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	0.0	-100	**	**	**	**
Changlang	216.2	150	27.5	-61	18.4	-77
Dibang Valley	0.0	-100	0.0	-100	**	**
East Kameng	10.8	-82	12.1	-70	20.5	-50
East Siang	87.9	27	99.5	36	52.4	-45
Kurung Kumey	0.0	-100	**	**	**	**
Lohit	181.2	188	79.4	17	13.0	-82
Lower Dibang Valley	141.1	176	57.9	-13	28.2	-73
Lower Subansari	0.0	-100	**	**	**	**
Papumpare	94.7	-5	55.1	20	109.3	-34
Tawang	69.0	-6	12.5	-83	18.0	-84
Tirap	70.7	7	52.0	-25	38.6	-63
Upper Siang	90.7	-26	193.8	120	84.4	-35

Upper Subansari	54.8	149	31.6	-30	3.0	-83
West Kameng	27.6	-62	2.1	-97	58.6	-47
West Siang	0.0	-100	1.7	-96	17.1	-77
Assam&Meghalaya						
Assam						
Baksa	96.5	11	2.3	-97	129.2	6
Barpeta	149.0	72	25.3	-69	81.8	-33
Bongaigaon	101.3	20	2.2	-98	140.6	20
Cachar	214.3	56	121.4	63	42.4	-59
Chirang	131.5	-100	16.1	-83	247.0	110
Darrang	0.0	-100	0.0	-100	0.0	-100
Dhemaji	0.0	-100	**	**	**	**
Dhubri	122.4	39	86.4	-3	118.3	4
Dibrugarh	107.8	75	84.1	50	38.0	-50
Goalpara	141.3	51	11.2	-86	52.7	-56
Golaghat	113.7	90	53.2	31	33.8	-40
Hailakandi	279.0	198	197.9	145	59.8	-49
Jorhat	95.0	38	56.4	-2	77.4	27
Kamrup(Rural)	156.7	130	0.6	-99	42.6	-49
Kamrup(Metro)	62.9	-8	10.9	-80	98.3	18
Karbi Anglong	33.5	15	34.8	-3	10.0	-70
Karimganj	251.2	112	125.7	-5	71.5	-55
Kokrajhar	174.2	105	6.9	-93	159.8	0
Lakhimpur	88.9	24	32.9	-59	57.8	-33
Morigaon	51.0	41	10.2	-72	85.2	11
N.C.Hills	196.6	170	247.0	317	58.6	-31
Nagaon	59.5	86	32.3	5	40.2	-11
Nalbari	104.2	43	2.6	-96	93.4	6
Sonitpur	107.2	84	11.4	-79	98.0	29
Sibsagar	80.8	24	141.3	237	38.0	-41
Tinsukia	111.8	79	57.3	-2	17.7	-70
Udalgiri	110.0	65	17.7	-70	39.8	-52
Meghalaya						
East Garo Hills	128.0	40	144.0	165	184.2	111
East Khasi Hills	406.0	143	96.6	-33	52.5	-75
Jaintia Hills	0.5	-99	0.0	-100	0.0	-100
Ribhoi	52.1	-20	57.7	42	32.8	-58
South Garo Hills	14.5	-83	16.0	-80	7.0	-91
West Garo Hills	81.8	-4	16.9	-78	50.0	-39
West Khasi Hills	0.5	-99	0.0	-100	1.0	-99
NMMT						
Mizoram						
Aizwal	53.5	-27	153.9	92	46.4	-53
Champhai	0.0	-100	**	**	**	**
Kolasib	0.0	-100	0.0	-100	**	**
Lawngtlai	0.0	-100	0.0	-100	**	**
Lunglei	0.0	-100	**	**	**	**
Mamit	0.0	-100	**	**	**	**
Saiha	34.5	-63	192.0	104	79.0	14

Serchhip	1.4	-98	2.6	-97	**	**
Manipur						
Bishnupur	0.0	-100	0.0	-100	**	**
Chandel	38.0	64	151.0	340	38.0	-47
Churachandpur	0.0	-100	**	**	**	**
Imphal east	57.1	42	147.9	233	4.6	-92
Imphal west	150.2	515	174.4	818	32.8	1
Senapati	0.0	-100	**	**	**	**
Tamenglong	0.0	-100	**	**	0.0	-100
Thoubal	53.0	136	55.5	59	21.0	-30
Ukhrul	0.0	-100	1.0	-95	1.0	-98
Nagaland						
Dimapur	42.0	-8	44.2	75	34.3	7
Kephire	0.0	-100	**	**	**	**
Kohima	21.4	-40	78.0	112	12.4	-71
Longleng	0.0	-100	0.0	-100	**	**
Mokokchung	0.0	-100	**	**	**	**
Mon	0.0	-100	**	**	**	**
Paren	0.0	-100	**	**	**	**
Phek	26.5	-26	58.0	58	17.0	-60
Tuensang	0.0	-100	**	**	**	**
Wokha	2.0	-97	3.0	-96	5.0	-95
Zunheboto	0.0	-100	**	**	0.0	-100
Tripura						
Dhalai	69.8	-32	159.8	101	126.6	16
NorthTripura	136.0	48	133.2	56	226.4	87
SouthTripura	35.7	-55	170.9	143	94.5	12
West Tripura	61.9	-27	177.4	156	78.9	-11
Himachal Pradesh						
Bilaspur	0.2	-98	17.6	28	4.8	-32
Chamba	20.7	1	22.0	127	18.4	148
Hamirpur	1.3	-89	20.6	63	5.5	-28
Kangra	2.0	-83	18.9	115	11.8	31
Kinnaur	2.5	-86	5.1	-62	2.3	-77
Kullu	1.4	-92	11.6	-39	3.7	-63
Lahaul and Spiti	16.0	-43	4.9	-69	3.7	-74
Mandi	0.0	-99	33.3	100	25.2	68
Shimla	0.5	-97	17.0	16	12.4	3
Sirmaur	0.0	-100	13.1	57	12.9	81
Solan	0.0	-100	18.5	48	10.3	19
Una	0.0	-100	16.5	189	6.2	21
Punjab						
Amritsar	0.0	-100	7.6	145	16.2	669
Barnala	0.0	-100	5.0	127	36.0	1340
Bhatinda	0.0	-100	1.0	-63	24.8	1207
Faridkot	1.0	-83	0.0	-100	27.8	1221
Fatehgarh Saheb	0.0	-100	9.7	184	2.0	-9
Ferozpur	0.0	-100	0.0	-100	0.5	-68
Gurdaspur	0.0	-100	10.6	186	3.0	-29

Hoshiarpur	0.0	-100	7.2	43	3.3	3
Jalandhar	0.0	-100	5.0	11	9.0	350
Kapurthala	0.0	-100	16.8	786	7.5	317
Ludhiana	1.4	-64	3.4	-18	4.4	143
Mansa	0.0	-100	0.0	-100	14.8	771
Moga	7.8	0	3.6	50	4.7	292
Muktesar	0.0	-100	0.0	-100	22.0	1367
Nawashahar	0.0	-100	7.1	20	4.8	332
Patiala	5.8	54	16.0	309	7.9	243
Ropar	3.0	-61	10.0	37	9.5	252
Sangrur	1.9	-56	16.0	232	16.8	393
Mohali	0.0	-100	12.0	131	14.1	834
TarnTaran	0.0	-100	20.0	770	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	0.6	-92	17.3	261	14.1	313
Bhiwani	0.0	-100	3.4	111	14.5	560
Chandigarh	0.9	-92	14.5	63	21.9	164
Faridabad	0.0	-100	10.0	335	17.5	695
Fatehabad	0.0	-100	0.3	-86	6.3	76
Gurgaon	0.4	-90	0.0	-100	13.6	312
Hissar	0.4	-92	9.2	301	13.6	384
Jhajar	0.0	-100	8.0	473	10.1	287
Jind	0.7	-85	12.5	331	37.0	1221
Katihah	0.0	-100	3.3	156	7.3	169
Karnal	2.2	-31	14.1	354	14.3	521
Kurukshetra	0.0	-100	16.8	782	3.0	-6
Mahendragarh	0.0	-100	11.1	126	19.6	377
Mewat	0.2	-92	25.0	558	7.6	404
Palwal	0.0	-100	7.5	295	0.5	-64
Panchkkula	0.8	-87	4.3	-41	5.3	9
Panipat	0.2	-92	9.8	476	12.4	518
Rewari	0.0	-100	41.6	3100	23.6	638
Rohtak	0.0	-100	6.6	154	14.8	236
Sirsa	0.0	-100	1.2	-54	0.3	-90
Sonepat	0.0	-100	9.0	210	9.3	246
Yamunanagar	0.0	-100	19.5	191	27.7	738
Delhi						
Central Delhi	0.0	-100	8.0	60	8.0	167
East Delhi	0.0	-100	3.0	-40	4.0	33
New Delhi	0.0	-100	6.2	25	8.3	178
North Delhi	0.6	-90	6.5	30	10.5	250
North East Delhi	0.0	-100	3.0	-40	8.0	167
North West Delhi	0.0	-100	2.5	-50	6.0	100
South Delhi	0.5	-92	9.1	82	26.9	795
South West Delhi	0.4	-93	12.7	154	20.5	583
West Delhi	0.0	-100	0.0	-100	0.0	-100
Jammu & Kashmir						
Anantnag	23.2	-17	23.2	-4	6.7	-58

Badgam	5.8	-76	10.8	-40	5.9	-39
Bandipore	**	**	**	**	**	**
Baramula	29.0	28	41.6	71	8.8	-53
Doda	21.8	-4	16.2	-25	6.6	-53
Ganderbal	17.2	-15	19.4	30	6.7	-36
Jammu	0.0	-100	3.4	-32	0.8	-83
Kargil	**	**	**	**	**	**
Kathua	1.0	-84	5.8	142	2.3	28
Kistwar	**	**	**	**	**	**
Kulgam	10.6	-62	23.6	-2	10.7	-1
Kupwara	29.2	8	26.6	12	0.7	-96
Ladakh(Leh)	0.0	-100	0.0	-100	0.1	-86
Poonch	**	**	**	**	**	**
Pulwama	8.2	-68	20.6	10	3.7	-21
Rajouri	0.0	-100	0.0	-100	0.0	-100
Ramban	50.6	124	16.6	-24	8.1	-18
Reasi	1.8	-84	30.4	266	41.4	475
Samba	0.0	-100	2.6	-48	2.4	-47
Shopian	**	**	**	**	**	**
Srinagar	12.7	-37	21.4	43	3.6	-65
Udhampur	5.4	-52	2.4	-71	20.2	211
East Madhya Pradesh						
Anuppur	0.0	-100	0.0	-100	1.0	-81
Balaghat	0.0	-100	0.0	-100	1.5	-42
Chhatarpur	0.0	-100	5.5	265	11.4	373
Chindwara	3.8	533	0.0	-100	0.0	-100
Damoh	0.0	-100	0.0	-100	23.0	597
Dindori	0.0	-100	0.0	-100	7.0	233
Jabalpur	0.0	-100	0.6	-25	50.2	1014
Katni	0.0	-100	0.0	-100	11.3	129
Mandla	0.0	-100	0.0	-100	1.4	-55
Narsingpur	0.0	-100	0.0	-100	3.6	-27
Panna	0.0	-100	0.0	-100	4.3	105
Rewa	0.0	-100	3.5	285	1.3	-16
Sagar	0.0	-100	0.1	-94	17.0	270
Satna	1.3	-38	13.8	2653	1.1	-19
Seoni	0.0	-100	0.0	-100	4.5	2
Shahdol	0.0	-100	0.0	-100	6.0	186
Sidhi	1.0	-58	9.4	840	7.8	179
Singrauli	0.0	-100	0.0	-100	2.0	233
Tikamgarh	0.0	-100	0.0	-100	21.5	594
Umaria	0.0	-100	6.0	275	25.6	814
West Madhya Pradesh						
Agar	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	15.3	989
Bhopal	0.0	-100	0.0	-100	0.0	-100
Burhanpur	0.0	-100	0.0	-100	0.0	-100
Datia	0.0	-100	1.9	-7	35.1	3804
Dewas	0.0	-100	0.0	-100	0.0	-100
Dhar	0.0	-100	0.0	-100	0.0	-100
Guna	0.0	-100	0.0	-100	4.2	-29
Gwalior	0.3	-79	9.8	713	26.2	870
Harda	0.0	-100	0.0	-100	0.0	-100
Hosangabad	0.0	-100	0.0	-100	0.0	-100
Indore	0.0	-100	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	2.0	-5	10.6	382
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	18.0	445
Shivpuri	0.0	-100	0.3	-87	8.3	143
Ujjain	0.0	-100	0.0	-100	0.0	-100
Vidisha	0.0	-100	0.0	-100	0.0	-100
Chhattisgarh						
Bastar	15.0	30	0.0	-100	1.6	-83
Bijapur	0.0	-100	0.0	-100	0.0	-100
Bilaspur	29.0	505	9.6	200	17.7	269
Dantewara	0.0	-100	1.7	-61	0.0	-100
Dhamtari	0.0	-100	0.4	-87	0.0	-100
Durg	1.8	-25	6.7	316	1.1	-62
Janjgir	0.0	-100	0.0	-100	1.3	-52
Jashpurnagar	0.7	-92	0.5	-91	0.0	-100
Kanker	**	**	0.0	-100	0.0	-100
Korba	4.2	23	0.0	-100	8.7	200
Koriya	**	**	**	**	**	**
Kawardha	0.0	-100	0.0	-100	0.0	-100
Mahasumund	0.0	-100	0.0	-100	1.2	-56
Narayanpur	0.0	-100	0.0	-100	0.0	-100
Raigarh	3.5	-13	0.0	-100	0.0	-100
Raipur	2.5	-51	0.3	-89	6.7	60
Rajnandgaon	0.3	-93	0.0	-100	0.5	-89
Surguja	2.7	-24	2.9	22	5.6	35
East Uttar Pradesh						
Allahabad	0.5	-71	2.8	78	0.4	-75
Ambedkar Nagar	0.0	-100	35.0	797	2.0	-60
Azamgarh	0.0	-100	29.5	852	16.7	209

Bahraich	2.0	-81	29.5	467	55.2	406
Ballia	0.0	-100	39.1	1121	5.7	-12
Balrampur	0.0	-100	11.6	71	19.2	25
Banda	0.0	-100	11.5	149	4.7	96
Barabanki	0.0	-100	5.2	26	13.9	246
Basti	0.0	-100	14.2	264	26.3	324
Chandauli	0.0	-100	2.0	18	0.0	-100
Deoria	0.0	-100	13.0	145	29.9	340
Faizabad	0.0	-100	2.2	-41	0.0	-100
Farrukhabad	0.0	-100	0.0	-100	4.7	26
Fatehpur	0.0	-100	4.9	208	0.0	-100
Gazipur	0.0	-100	21.1	1139	0.5	-91
Gonda	0.0	-100	3.9	15	42.0	445
Gorakhpur	5.9	-38	31.0	546	55.8	597
Hardoi	0.1	-98	1.1	-63	11.1	147
Jaunpur	0.0	-100	9.4	328	5.6	17
Kannauj	0.0	-100	0.0	-100	0.0	-100
Kanpur City	0.0	-100	20.0	1896	5.0	138
Kanpur Dehat	0.0	-100	0.4	-75	3.4	79
Kaushambi	0.0	-100	0.0	-100	0.0	-100
Kheri	0.3	-97	46.9	668	28.6	281
Kushi nagar	6.5	-36	26.7	260	47.5	260
Lucknow	0.0	-100	8.2	172	7.1	47
Maharajganj	0.5	-93	29.5	198	51.5	485
Mau	0.0	-100	32.5	948	6.5	23
Mirzapur	0.0	-100	1.0	-66	1.0	-60
Pratapgarh	0.0	-100	31.2	1257	4.7	41
RaiBareilly	0.0	-100	8.0	519	7.4	290
Sahuji Maharajnagar	0.0	-100	3.0	50	0.0	-100
Sant Kabirnagar	0.0	-100	18.0	227	63.0	1365
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	0.0	-100	**	**	**	**
Sidharthnagar	0.0	-100	18.0	205	18.1	178
Sitapur	0.0	-100	10.3	256	24.7	418
Sonbhadra	1.9	-44	1.5	-9	7.7	164
Sultanpur	0.0	-100	15.9	287	21.4	262
Unnao	0.0	-100	8.8	447	2.5	-24
Varanasi	0.0	-100	10.0	525	4.5	53
West Uttar Pradesh						
Agra	0.6	-67	5.7	305	7.3	127
Aligarh	0.0	-100	11.9	324	15.9	342
Auraiya	0.0	-100	5.0	127	4.0	-5
Badaun	0.0	-100	1.4	-46	21.4	355
Baghpat	0.0	-100	4.4	10	9.0	543
Bareilly	0.0	-100	24.4	526	5.2	5
Bijnor	0.0	-100	17.5	257	22.3	265
Bulandsahar	0.0	-100	12.0	264	6.8	144
Etah	0.0	-100	2.7	90	2.2	-47

Etawah	0.0	-100	5.8	311	5.1	42
Firozabad	0.0	-100	6.9	145	2.0	-44
GBNagar	0.0	-100	0.0	-100	3.0	173
Ghaziabad	0.5	-87	11.4	337	0.0	-100
Hamirpur	1.3	67	1.3	-33	7.7	107
Jalaun	0.0	-100	2.3	30	6.0	101
Jhansi	0.0	-100	0.5	-72	9.1	192
Jotiba Phule Nagar	0.0	-100	15.0	500	19.0	363
Kanshiramnagar	0.0	-100	4.0	90	11.0	150
Lalitpur	0.0	-100	0.0	-100	9.0	246
Mahamaya Nagar	0.0	-100	6.5	195	1.5	-44
Mahoba	0.0	-100	0.0	-100	0.8	-67
Mainpuri	0.0	-100	9.6	405	0.6	-78
Mathura	0.0	-100	1.0	-58	0.0	-100
Meerut	0.0	-100	14.6	355	18.2	726
Moradabad	0.6	-88	21.4	589	10.6	212
Muzzaffarnagar	0.0	-100	27.3	551	15.4	492
Pilibhit	0.0	-100	4.4	33	8.6	10
Rampur	0.0	-100	16.1	221	17.6	232
Saharanpur	0.0	-100	34.3	358	21.0	250
Shahjahanpur	0.0	-100	23.7	717	12.6	120
Uttarakhand						
Almora	5.3	-58	0.0	-100	27.2	79
Bageshwar	60.0	380	5.4	-44	77.5	410
Chamoli	30.0	42	25.9	70	26.9	119
Champawat	6.5	-62	11.0	1	52.5	286
Dehradun	0.0	-100	7.9	-36	17.9	11
Garhwal Pauri	0.7	-92	10.7	33	30.8	135
Garhwal Tehri	0.0	-100	1.9	-87	15.8	-8
Haridwar	0.0	-100	25.0	541	17.7	190
Nainital	7.9	-41	38.4	262	60.0	200
Pithorgarh	45.3	65	30.2	42	56.4	127
Rudraprayag	33.4	50	54.8	175	38.0	79
Udham Sing Nagar	0.6	-92	25.2	218	25.1	95
Uttarkashi	5.5	-82	11.1	-59	24.9	-5
Bihar						
Araria	51.3	94	82.9	244	33.8	-7
Arwal	1.9	4	3.2	28	2.5	-37
Aurangabad	5.0	32	0.0	-100	6.6	36
Banka	6.1	-42	8.7	16	40.6	162
Begusarai	0.0	-100	7.9	-35	42.9	254
Bhabua	0.7	-87	2.9	-69	0.0	-100
Bhagalpur	4.7	-67	9.5	-45	52.7	168
Bhojpur	2.1	-74	6.3	-9	29.4	444
Buxar	0.0	-100	0.0	-100	**	**
Darbhanga	45.1	264	30.5	148	28.0	49
East Champaran	2.0	-81	42.7	244	75.4	416
Gaya	5.0	-4	0.4	-90	2.6	-54
Gopalganj	4.2	-42	0.0	-100	43.2	275

Jahanabad	0.0	-100	0.0	-100	5.3	-18
Jamui	6.5	-18	2.5	-73	2.0	-79
Kathihar	4.0	-77	75.4	317	21.6	-30
Khagadia	3.1	-71	7.7	-36	57.2	415
Kishanganj	19.0	-25	33.7	-16	116.7	117
Lakhisarai	1.7	-85	0.0	-100	28.2	159
Madhepura	18.8	-13	25.8	55	0.0	-100
Madhubani	36.9	104	8.5	-58	30.0	45
Monghyar	0.0	-100	0.0	-100	0.0	-100
Muzaffarpur	4.4	-69	36.0	159	19.1	63
Nalanda	8.2	37	14.1	111	18.6	133
Nawada	0.0	-100	0.0	-100	2.4	-78
Patna	5.3	-26	22.8	300	37.0	387
Purnea	92.3	268	116.9	362	13.1	-66
Rohtas	9.2	61	4.6	92	3.6	24
Saharsha	25.5	11	0.0	-100	0.0	-100
Samstipur	3.7	-53	42.6	273	32.1	157
Saran	1.0	-86	23.9	113	18.2	98
Sheikpura	17.6	179	0.0	-100	15.3	37
Sheohar	0.0	-100	0.0	-100	0.0	-100
Sitamarhi	12.6	-22	0.0	-100	34.4	44
Siwan	0.0	-100	24.8	163	64.4	570
Supaul	69.6	221	47.7	147	13.1	-32
Vaishali	0.9	-86	22.9	270	34.6	276
West Champaran	12.0	-6	60.3	310	66.8	291
Jharkhand						
Bokaro	3.8	-51	22.1	163	21.3	142
Chatra	8.5	130	0.0	-100	4.2	-32
Deoghar	27.1	201	2.6	-71	7.8	-55
Dhanbad	21.1	60	0.0	-100	9.0	-38
Dumka	20.3	21	34.0	150	66.4	259
East Singbhum	19.9	31	18.9	50	46.7	142
Garhwa	10.0	1076	40.0	6567	18.0	429
Giridih	27.7	168	16.6	91	12.8	17
Godda	0.0	-100	11.1	-7	32.2	101
Gumla	33.0	166	21.6	181	17.9	47
Hazaribagh	11.2	37	1.2	-89	23.7	216
Jamtara	43.8	222	14.4	2	43.0	71
Khunti	67.0	341	0.0	-100	0.0	-100
Koderrna	10.1	119	0.0	-100	22.0	45
Latehar	11.8	141	0.0	-100	0.0	-100
Lohardagga	15.4	108	4.4	-53	9.0	-32
Pakur	3.5	-84	6.8	-53	45.1	58
Palamau	7.5	98	0.0	-100	4.1	13
Ramgarh	4.8	-62	9.4	-27	19.8	82
Ranchi	6.8	-44	18.8	46	26.8	93
Sahebganj	17.8	63	0.0	-100	18.6	-34
Saraikela	44.1	262	16.3	57	20.6	48
Simdega	6.0	-52	17.7	293	17.3	144

West Singbhum	49.0	253	24.9	117	14.5	-3
East Rajasthan						
Ajmer	0.4	-71	0.0	-100	0.0	-100
Alwar	0.1	-99	9.3	145	15.3	350
Banswara	0.0	-100	0.0	-100	0.0	-100
Baran	0.0	-100	1.3	14	0.0	-100
Bharatpur	0.0	-100	11.2	251	6.8	143
Bhilwara	0.0	-100	0.0	-100	3.5	-39
Bundi	1.3	48	0.0	-100	0.0	-100
Chittorgarh	0.4	-74	0.0	-100	0.0	-100
Dausa	0.0	-100	11.0	244	8.8	83
Dholpur	1.0	-44	11.3	567	9.3	233
Dungarpur	0.0	-100	0.0	-100	0.0	-100
Jaipur	1.2	-68	3.4	-14	0.9	-83
Jhalawar	0.0	-100	0.0	-100	0.0	-100
Jhunjhunu	1.5	-72	3.8	-40	14.8	209
Karauli	0.0	-100	6.5	211	2.0	-43
Kota	0.0	-100	0.9	-20	0.6	-86
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	0.1	-94	6.8	84
Sikar	0.4	-92	5.0	4	1.0	-79
Sirohi	0.0	-100	0.0	-100	0.0	-100
Tonk	0.0	-99	0.0	-100	0.3	-90
Udaipur	2.0	31	0.0	-100	0.0	-100
West Rajasthan						
Barmer	0.0	-100	0.0	-100	0.0	-100
Bikaner	0.0	-100	0.6	-86	0.0	-100
Churu	0.1	-97	0.7	-85	19.5	414
Hanumangarh	0.0	-100	0.0	-100	0.6	-82
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.2	-85	0.0	-100	0.0	-100
Nagaur	5.1	50	1.1	-71	0.0	-100
Pali	0.0	-100	0.0	-100	0.0	-100
Sri Ganganagar	0.0	-100	0.0	-100	0.5	-81
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	0.5	-90
DNH	**	**	**	**	**	**
Dahod	0.0	-100	0.0	-100	0.0	-100
Daman	0.0	-100	0.0	-100	0.0	-100
Dangs	0.0	-100	0.0	-100	0.0	-100
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	0.4	-60	0.0	-100	0.0	-100
Navsari	0.0	-100	0.0	-100	0.0	-100
Panchmahal	0.0	-100	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	0.0	-100	0.0	-100	0.0	-100
Tapi	0.0	-100	0.0	-100	0.0	-100
Valsad	0.0	-100	0.0	-100	0.0	-100
S K & Diu region						
Amreli	0.0	-100	0.0	-100	0.0	-100
Bhavnagar	0.0	-100	0.0	-100	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	0.0	-100
Junagarh	0.0	-100	0.0	-100	0.0	-100
Kutch	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.1	-98
Rajkot	0.0	-100	0.0	-100	0.0	-100
Surendranagar	0.0	-100	0.0	-100	0.0	-100
Maharashtra						
Konkan & Goa						
Mumbai City	0.0	-100	2.4	-62	1.3	-90
Mumbai Suburban	0.0	-100	0.0	-100	0.0	-100
North Goa	0.8	-93	1.7	-95	6.2	-86
Raigad	0.0	-100	0.2	-95	0.1	-99
Ratnagiri	0.1	-97	0.0	-100	0.5	-98
Sindhudurg	1.0	-81	0.8	-96	1.0	-97
South Goa	6.2	-37	0.9	-97	2.0	-95
Thane	0.0	-100	0.0	-100	0.3	-97
Madhya Maharashtra						
Ahmednagar	0.0	-100	0.0	-100	3.6	-59
Dhule	0.0	-100	0.0	-100	0.0	-100
Jalgaon	0.0	-99	0.0	-100	0.0	-100
Kolhapur	2.3	-82	2.5	-86	0.9	-95
Nandurbar	0.1	-95	0.0	-100	0.0	-100
Nasik	5.3	281	0.0	-100	0.0	-100
Pune	6.7	31	0.1	-99	0.0	-100
Sangli	2.7	-73	8.4	-45	1.8	-89
Satara	2.4	-64	1.0	-91	2.8	-79
Solapur	3.2	-45	1.2	-85	4.5	-66
Marathwada						
Aurangabad	0.7	-50	0.0	-100	0.0	-100
Beed	2.4	-33	0.5	-93	1.9	-80
Hingoli	0.0	-100	0.0	-100	0.0	-100
Jalna	1.6	2	0.0	-100	0.0	-100
Latur	0.8	-79	0.0	-100	0.5	-95
Nanded	0.2	-94	0.0	-100	0.0	-100
Osmanabad	0.0	-100	0.0	-100	8.1	-36
Parbhani	0.0	-100	0.0	-100	0.4	-95

Vidarbha						
Akola	0.1	-89	0.0	-99	0.0	-100
Amraoti	0.2	-75	0.0	-100	0.0	-100
Bhandara	5.3	13	1.1	-29	4.9	48
Buldhana	1.3	31	0.0	-100	2.1	-60
Chandrapur	0.2	-96	0.0	-100	0.5	-86
Gadchiroli	0.0	-100	0.0	-100	0.0	-100
Gondia	0.0	-100	6.7	294	3.9	86
Nagpur	0.1	-92	0.0	-100	0.3	-94
Wardha	0.0	-100	0.0	-100	0.0	-100
Washim	1.0	-9	0.4	-76	0.0	-100
Yeotmal	0.4	-87	0.0	-100	0.0	-100
Odisha						
Angul	2.4	-85	9.6	-15	21.5	39
Balasore	0.4	-99	138.0	511	16.2	-59
Bargarh	6.6	35	1.6	-53	9.2	73
Bhadrak	0.5	-98	101.5	452	44.3	77
Bolangir	5.7	-56	0.0	-100	4.6	-54
Boudh	0.0	-100	2.8	-76	10.4	-19
Cuttack	0.6	-97	64.9	423	17.2	-20
Deogarh	12.6	52	4.8	-27	2.8	-74
Dhenkanal	0.3	-98	40.1	218	32.9	64
Gajapati	34.1	-8	52.6	163	27.7	44
Ganjam	14.9	-36	77.4	453	10.8	-35
Jagatsingpur	0.0	-99	197.0	948	5.5	-82
Jajpur	0.0	-100	70.3	340	17.2	-26
Jharsuguda	6.8	-34	3.4	-40	6.9	-34
Kalahandi	2.6	-81	2.8	-56	2.0	-84
Kandhamal	8.6	-59	2.8	-79	1.2	-91
Kendrapara	0.0	-100	172.0	962	5.5	-79
Keonjhar	29.8	7	54.7	216	34.5	22
Khurda	0.0	-100	53.5	277	6.2	-60
Koraput	37.9	97	56.2	241	6.7	-61
Malkangiri	6.8	-61	8.0	-33	0.0	-100
Mayurbhanj	16.0	-52	44.5	76	29.7	12
Nawapara	0.0	-100	0.8	-82	4.8	-83
Nawarangpur	7.8	-49	8.0	-79	21.1	19
Nayagarh	31.7	265	48.4	281	0.0	-100
Puri	1.1	-96	117.2	1484	3.8	-78
Rayagada	29.9	18	12.5	-10	7.6	-62
Sambalpur	4.7	-43	8.2	26	12.6	20
Sonepur	0.0	-100	1.0	-86	7.8	12
Sundargarh	3.3	-64	9.5	9	7.0	-50
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	19.8	-76	29.6	-71	80.8	-9
North & Middle Andaman	1.4	-98	89.2	-10	89.6	23
South Andaman	6.4	-92	95.8	-5	174.1	43

GWB						
Bankura	46.3	256	16.7	37	42.9	91
Birbhum	28.5	41	0.4	-97	69.4	185
Burdwan	51.1	169	19.0	-2	31.0	35
East Midnapore	5.9	-69	109.5	345	14.2	-64
Hooghly	35.3	53	11.4	-59	29.1	2
Howrah	11.0	-60	18.8	-45	19.2	-45
Kolkata	13.4	-42	111.7	296	21.6	-40
Murshidabad	5.0	-70	0.0	-100	74.5	153
Nadia	65.5	270	4.8	-82	65.7	148
24 Pargana (N)	33.9	95	44.9	58	46.5	27
Purulia	13.8	-20	15.8	27	58.1	230
24 Pargana (S)	9.2	-77	74.8	214	15.0	-51
West Midnapore	13.0	-44	36.0	61	18.3	-53
SHWB & Sikkim						
Cooch Behar	116.1	70	11.4	-87	92.7	-17
Darjeeling	36.9	-29	44.0	-32	88.0	13
East Sikkim	109.2	55	69.7	26	119.6	52
Jalpaiguri	78.7	21	25.6	-66	116.5	-1
Malda	28.2	46	6.3	-75	29.0	-9
North Dinajpur	**	**	**	**	**	**
North Sikkim	200.3	165	96.8	15	81.1	-16
South Dinajpur	16.7	-50	22.8	-42	8.3	-84
South Sikkim	34.6	-51	69.0	25	96.8	23
West Sikkim	53.5	-29	70.0	-17	63.5	34
Karnataka						
Coastal Karnataka						
Dakshina Kannada	74.2	139	13.8	-75	68.7	-9
Udupi	78.6	148	10.1	-85	38.8	-52
Uttara Kannada	49.9	156	11.8	-68	16.1	-65
NI Karnataka						
Bagalkote	17.4	37	29.8	93	0.8	-96
Belagavi	29.1	72	24.5	26	3.2	-84
Bidar	6.2	-28	0.0	-100	1.6	-87
Dharwad	38.6	123	18.2	-20	4.4	-72
Gadag	29.3	60	27.3	43	0.0	-100
Haveri	60.2	214	5.9	-71	11.1	-48
Kalaburgi	7.4	-19	7.3	-25	2.9	-75
Koppal	8.6	-39	28.4	83	1.6	-91
Raichur	3.4	-70	15.1	20	7.0	-50
Vijayapura	15.1	51	11.0	-29	7.6	-35
Yadgir	3.7	-65	5.3	-46	0.0	-100
SI Karnataka						
Ballari	5.1	-60	37.7	134	18.2	-4
Bangalore Rural	6.1	-75	53.0	140	15.8	-29
Bangalore Urban	0.9	-97	81.3	220	15.3	-40
Chamarajanagar	20.0	-43	2.2	-93	41.3	73
Chikaballapur	2.3	-89	76.8	341	54.8	213
Chikkamagaluru	54.0	94	3.5	-88	28.6	6

Chitradurga	8.7	-51	6.5	-61	26.6	50
Davangere	41.3	106	21.3	14	21.1	16
Hassan	44.2	55	0.4	-98	25.9	20
Kodagu	56.8	61	5.9	-86	16.2	-58
Kolar	2.0	-91	73.9	279	12.3	-37
Mandya	7.8	-75	1.2	-96	24.4	21
Mysuru	22.1	-38	0.0	-100	60.6	173
Ramanagara	4.5	-85	45.1	45	35.3	19
Shivamogga	49.3	139	3.6	-82	8.0	-62
Tumakuru	3.2	-88	32.2	69	88.9	72
Kerala						
Alappuzha	109.4	62	70.7	-12	102.9	15
Kannur	38.6	-26	19.4	-73	112.1	36
Ernakulam	83.7	18	53.2	-41	146.0	53
Idukki	92.2	64	45.6	-34	62.4	-5
Kasaragod	44.4	-2	8.6	-88	138.8	59
Kollam	201.2	261	75.0	23	61.6	-10
Kottayam	99.2	59	45.4	-37	131.4	38
Kozhikode	64.2	4	36.8	-50	193.6	103
Malappuram	46.6	-13	26.0	-58	89.7	40
Palakkad	43.5	20	32.7	-28	59.8	47
Pathanamthitta	244.3	266	42.5	-36	87.3	8
Thiruvananthapuram	168.0	256	196.3	236	19.6	-69
Thrissur	55.1	-20	53.2	-39	109.6	26
Wyand	30.6	-25	1.2	-98	19.1	-64
Tamil Nadu						
Ariyalur	43.2	128	46.2	223	6.4	-29
Chennai	152.5	1299	45.6	231	0.0	-100
Coimbatore	45.4	93	1.4	-92	12.0	18
Cuddalore	75.0	443	20.5	120	4.4	-55
Dharmapuri	15.5	-47	48.4	104	15.0	-41
Dindigul	40.0	84	2.3	-88	26.9	82
Erode	18.0	-30	0.7	-97	23.1	99
Kanchipuram	142.2	1280	29.5	178	1.6	-83
Kanyakumari	82.4	169	153.1	370	7.5	-80
Karikal	126.9	1144	46.2	949	0.0	-100
Karur	55.6	204	1.0	-91	15.7	51
Krishnagiri	14.8	-48	64.6	161	29.3	44
Madurai	40.1	125	0.8	-95	10.0	-15
Nagapattinam	124.6	1110	41.8	335	0.0	-100
Namakkal	39.2	44	9.5	-55	13.8	-22
Nilgiris	32.2	-3	0.0	-100	42.6	83
Perambalur	62.3	218	26.0	66	17.3	54
Puducherry	38.8	270	19.2	225	48.4	612
Pudukottai	67.3	438	4.8	-59	3.7	-64
Ramanathapuram	74.9	534	0.0	-100	2.8	-37
Salem	32.2	8	31.1	46	48.2	120
Sivaganga	76.3	406	7.6	-35	64.0	521
Thanjavur	70.0	474	53.8	327	5.5	-51

Theni	33.0	145	0.6	-96	2.0	-75
Tirunelveli	55.1	371	2.6	-62	1.5	-74
Tirupur	76.3	214	0.0	-100	10.6	16
Tiruvallur	108.3	875	49.6	262	0.7	-92
Tiruvannamalai	43.0	105	25.0	50	14.8	3
Tiruvarur	106.6	988	73.9	521	1.7	-75
Toothukudi	21.8	148	1.5	-57	3.9	9
Trichy	64.0	300	28.3	113	17.3	53
Vellore	25.1	40	35.5	75	13.6	-27
Villupuram	49.4	196	26.1	127	13.8	71
Virudhunagar	41.8	158	3.3	-74	18.9	97
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	8.0	-48	122.9	591	3.4	-71
Guntur	0.2	-98	62.3	321	14.4	34
Krishna	4.0	-69	78.9	460	12.0	43
Nellore	69.6	377	45.4	226	4.4	-39
Prakasam	4.7	-65	27.8	84	14.7	50
Sirkakulam	17.5	8	155.1	1024	7.9	-22
Visakhapatnam	17.2	-26	116.1	560	7.8	-51
Vizianagram	22.3	14	95.7	371	15.7	0
West Godavari	2.2	-86	75.7	525	10.3	11
Rayalaseema						
Anantapur	4.4	-68	34.6	143	39.8	128
Chittoor	30.7	69	44.9	133	5.9	-55
Cuddapah	7.9	-31	13.9	-1	15.3	24
Kurnool	2.6	-81	6.4	-54	40.2	172
Telangana						
Adilabad	0.4	-93	1.0	-75	0.0	-100
Hyderabad	0.1	-99	14.8	68	6.8	-23
Karimnagar	0.7	-89	1.5	-70	0.9	-82
Khammam	3.5	-73	2.6	-83	13.4	25
Mehabubnagar	3.6	-68	10.4	-1	9.6	32
Medak	2.4	-72	0.9	-85	2.2	-74
Nalgonda	0.0	-100	0.9	-90	6.8	-25
Nizamabad	0.1	-99	1.1	-76	0.1	-99
Rangareddy	3.2	-72	7.3	10	2.4	-74
Warangal	1.7	-82	0.5	-92	5.1	-22

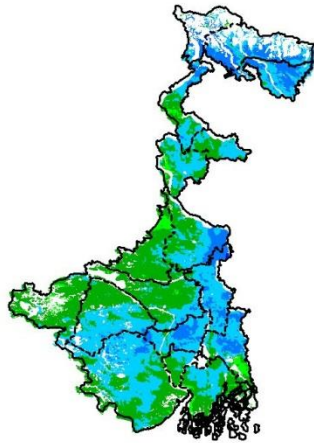
Legends

	(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

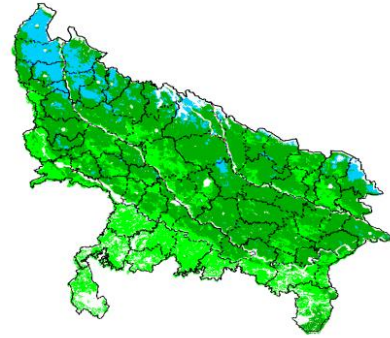
INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
1st June 2016 FOR DIFFERENT STATES

West Bengal



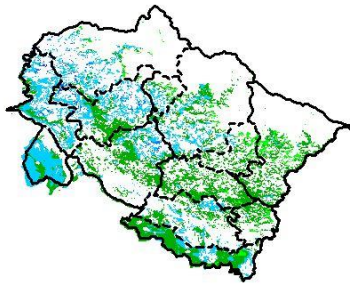
Agricultural vigour is good in West Bengal, whereas western region of the state shows moderate NDVI.

Uttar Pradesh



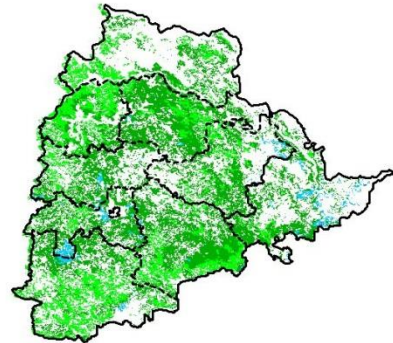
Agricultural vigour is moderate over entire state of Uttar Pradesh except very few patches in north-western part shows good values of NDVI.

Uttarakhand



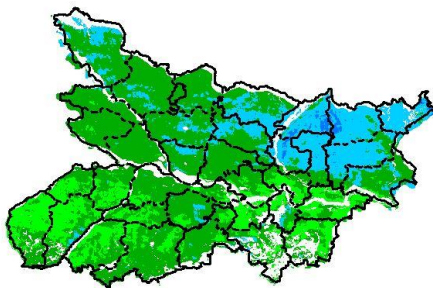
Agricultural vigour is moderate over entire state of Uttarakhand except few patches in west shows good Values of NDVI.

Telangana



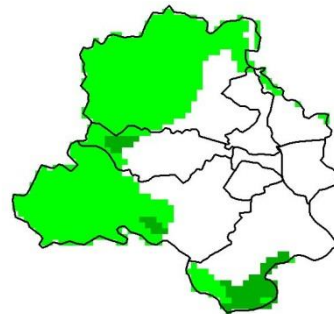
Agriculture vigour is moderate over entire state of Telangana.

Bihar



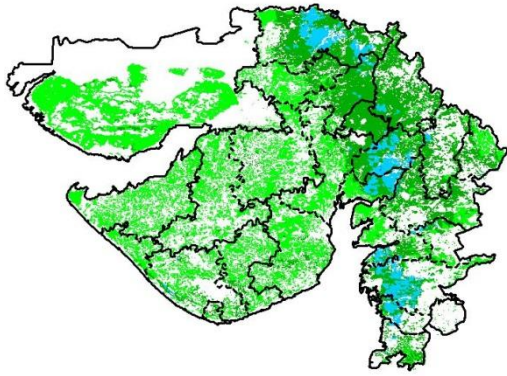
Agriculture vigour is moderate over major parts of Bihar whereas eastern part shows patches of good NDVI values.

Delhi



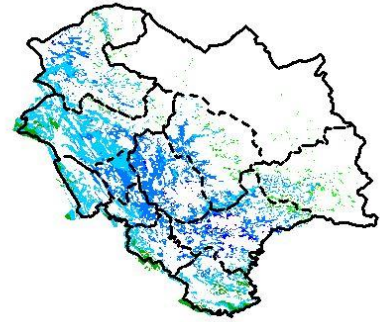
Agriculture vigour is moderate all over Delhi.

Gujarat



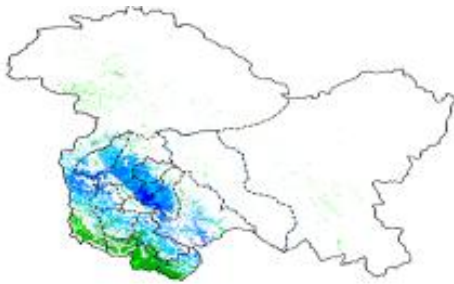
Agriculture vigour is moderate in Kutch and Saurashtra whereas, good agricultural vigour is observed over patches in Gujarat region.

Himachal Pradesh



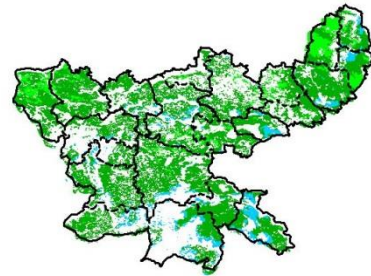
Agriculture vigour is good over entire state of Himachal Pradesh.

Jammu & Kashmir



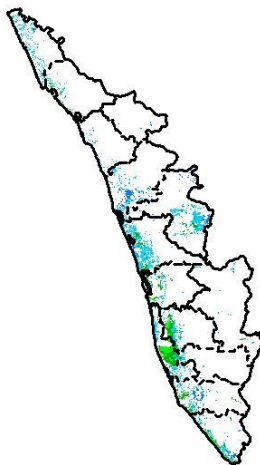
Agriculture vigour is good over central part of Jammu & Kashmir, whereas the remaining region shows moderate NDVI.

Jharkhand



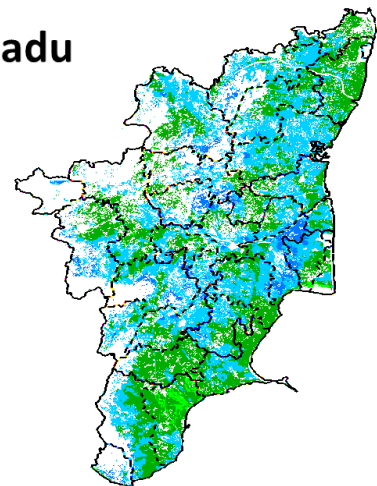
Agriculture vigour is moderate over entire state of Jharkhand.

Kerala



Agriculture vigour is good over entire state of Kerala.

Tamil Nadu



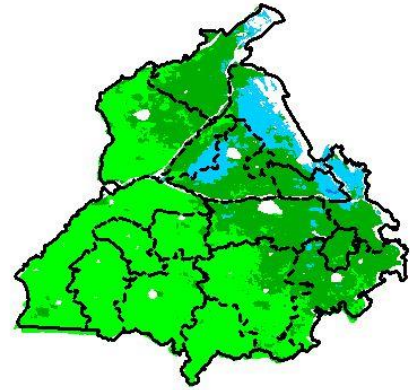
Agricultural vigour is good over major part of Tamil Nadu, except for southern part shows moderate NDVI.

Madhya Pradesh



Agriculture vigour shows moderate values of NDVI over entire state of Madhya Pradesh.

Punjab



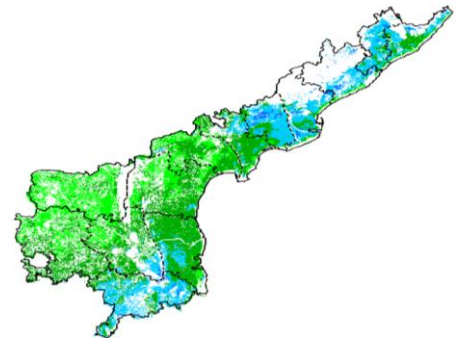
Agricultural vigour is good over northern parts of Punjab whereas, the remaining region shows moderate NDVI.

Rajasthan



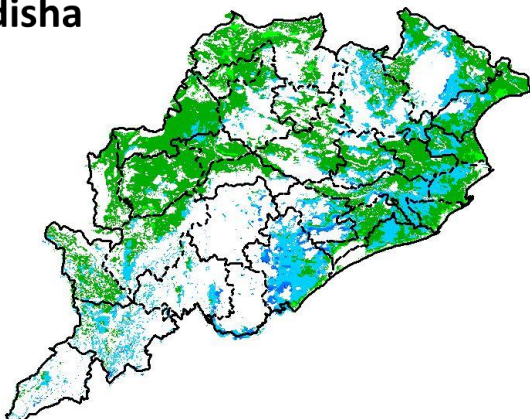
Agriculture vigour is moderate over the entire state of Rajasthan.

Andhra Pradesh



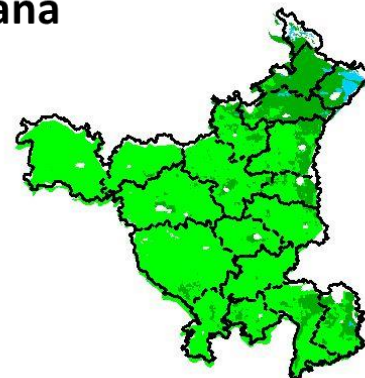
Agriculture vigour is good over coastal part of Andhra Pradesh whereas other region shows moderate values.

Odisha



Agricultural vigour is good in patches of coastal parts of Odisha where rest of region shows moderate NDVI.

Haryana



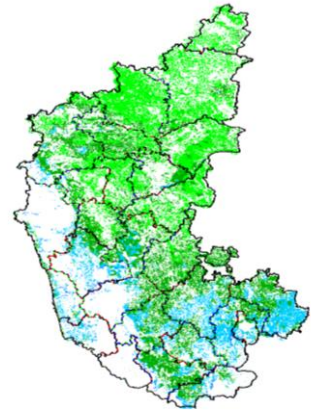
Agriculture vigour is moderate over entire state of Haryana.

Chhattisgarh



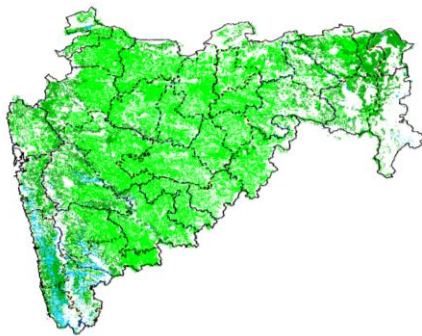
Agriculture vigour is moderate in the state of Chhattisgarh with few patches of good NDVI in southern region.

Karnataka



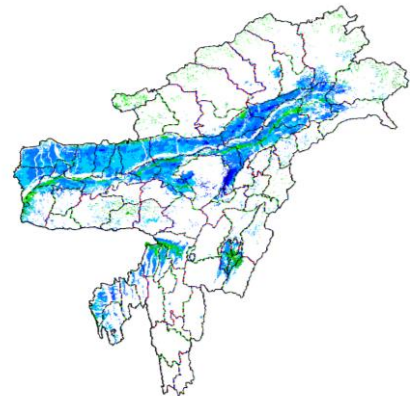
Agriculture vigour is good over patches in South-western part of Karnataka state. Rest of the state shows moderate values of NDVI.

Maharashtra

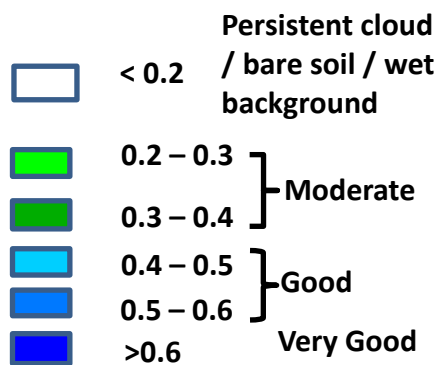


Agricultural vigour is moderate over entire state of Maharashtra.

North East Region



Agriculture vigour is good in Assam whereas, NDVI is moderate over rest of the regions of North-East.



Annexure III

Assam

Early *ahu* rice: semi dwarf *ahu* rice varieties like Luit, Kopilee, Cauvery, Culture -1, Rasi, Banglami, Puthichapali, Nilajee, Hasakumra.

Early *ahu* rice (for low lying area): IR-50, Pusa 2-21, Rasi, Culture -1, Luit, Kopilee (Semi-dwarf varieties); Rongadoria, Dubaichenga, Nilajee (Tall varieties).

Transplanted normal *ahu* rice: Gobind, IR-36, IR-50.

Bao rice: Maguri, Kekua Bao, Negheri Bao, Tara Bao.

***Kharif* maize:** Hybrid variety like Ganga 5, Hi starch and Composite variety like NLD, Dhawal, Naviot, Diara.

Capsularis jute: JRC 321 and UPC 94.

Green gram:Pratap, T-44, Kopergaon, AAU-39, K-851 and ML-55.

Black gram:T-9, Pant-U-19, UG-157.

Sugarcane: Kolong, Luhit, Dhansiri, Co 1148, CO-Jor- 1, CO-Jor- 2.

Okra:Pusa Sawani, Arka Anamika, Parbhdani Kranti.

Ridge gourd: Pusa Nashdar or other local varieties like AAU-1, AAU-2, AAU-3 etc.

Sponge gourd: Pusa Chikni or other local varieties.

Tapioca: H-43, H-97, H-165, S-865, H-2304.

Maize: Ganga 5, Navjot.

Banana: Dwarf Cavendish (Dwarf Cultivar), Cheni Champa, Malbhog (Medium Tall cultivars).

Okra:Parvani Kranti, Arka Anamica.

Ginger: Nadia, Karkai, Maran, Jorhat, chaina etc.

Turmeric: Shillong type, CL-24, PTS-38, PCT-13, VK-145.

Meghalaya

Brinjal :Local Umroi, Muta Kesh, Narrow.

Bottle gourd: Pusa Summer, Prolific Long, Prolific Round, Pusa Meghdoot, Pusa Hybrid 2.

Manipur

Pre-*kharif* rice: RC Maniphou 4, 5 and 12.

Tripura

***Jhum*rice :**Garo Malati, Binnietc.

Odisha

Sugarcane: Nilamadhaha, Sabitri, Co 7508, Co 7704, Co 62175, Co 740, Co 7219, CoJ 8201, Co 975, Co 7706, Co 8402, Co 62175.

Groundnut:Smruti, AK 12-24 TAG

Jharkhand

Lentil: P.L.-406, P.L.-639, K.L.S -218,K-75

Barley: Jyoti,Ratna,D.L.-36,B.R.-32

Linseed: Sweta,Shubhra, T-397

Onion: N-53,Pusa red,Arka nicketan, Arka kalian

Jammu & Kashmir

Cabbage: Golden Acre, Pride of India and PusaMukta.

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

Uttarakhand

Sugarcane:Pant 84211, Co-238, Co-241, Co Pant 3220, COS-8436, COS-88230 etc. and medium to late sown varieties like Co Pant 90223, Co Pant-96219, COS-97222, COS-767, COS-1148, COS-96268 etc.

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

Brinjal: (brinjal-4, ARU-1 etc) and potato (Kufri Jyoti, Kufri Ashok & Kufri Anand etc.

Tomato: Tomato-3, Pant T-3, Him Sona, Him Shikhar etc variety in nursery).

Himachal Pradesh

Cauliflower: snowball and Giant snowball.

Radish:Japanese white, Chinese pink and mino early white

Turnip: PTWG-1

Carrot:Pusakesar

Fenugreek :I.C. 74, kasoori.

Peas :Mater ageta-6 (early variety).

Cabbage:Pride of India, golden achor and hybrid

East Uttar Pradesh

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, Pant Ta-2, Azad Ta-2, Narendra Tamatar-1,2,4,5,6

Cauliflower: pusaDipali.

Okra: PusaSawani, VarsaUphar, Azad kranti.
Brinjal: Pant Samrat, Pant Rituraj, Pusa hybrid-6.
Cabbage: Japani, PusaDieepali, PusaKartiki
cowpea: Lobia-263 & Pusa phaguni
Chilli: Pant C-1, Jwala and Sadabahar etc.
Grapes: parlet, beauty seedless, pusa seedless.
Maize: nawjyoti, kanchan, gaurav, surya, navin, shweta, Azad uttam, prakash, dikalb-7074, payridikalp-8144, dakkan-115, mmh-135, pro-4212, ganga-11, pusa, makka-2, J.H.-3459,
Urad: TA-9, narendra urad-1, Azad urad-1, Uttara, azad urad-2, shekhar-2, pant. u. 19, pant u. 30, pant u. 35, P.D.U.-1
Mung: k-851 and JM-721, Narendra mung-1, Malviya jagruti, Janpriya, Meha, H.U.M.-16, Malviya Jyoti, T.M.V.-37, Samrat, P.D.M.-139, H.U.M.-12, pusa vaishakhi, T.A.-44, Pant mung 12, pusa vishal, pusa-9531, P.D.M.-11, S.M.L.668
Onion: Agrifound light red, Nashik selection-1
Radish: pusa chetaki, pusa himani, pusa saris, pusa reshmi, japanis white radish.

West Uttar Pradesh

Ladies finger: VRO-6, VRO-5.
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, K-8027, K-9565, Mandakini.
Onion: pusa red, pusa white.
Sugarcane: The mid and late maturing varieties of sugarcane: CO Pant 211, Co Sa 687 and Co Sa 8436.
 The varieties recommended in areas with poor water drainage: B.O.54 and B.O.91.
Baby corn: M.H.-4

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.
Onion: Punjab Naroya, Punjab White and PRO 6.
Radish: Punjab Pasand and Japanese white.
Turnip: L-1.
Carrot: Punjab Black Beauty, Punjab Carrot Red and PC-34.
Tomato: TH-1, Punjab Ratta, Punjab NR 7, Punjab Chuhara, Punjab Upma, Castle Rock.

Delhi

Oat : J.H.O-822, O.L.-9, Pusa oat-5.
Barseem: Vardan, Buland Barseem-1, Masakavi, J.B-3;
Radish: Japani White, Hill queen, French Radish;
Spinach: PusaBharti.
Amaranths: PusalalChaulai, PusaKiran.
Ladyfinger: Pusa A-4.
Radish: Japani White, Hill queen, French Radish.
Spinach: All Green, PusaBharti;
Fenugreek: PusaKasuri;
Coriander: PantHaritama, Hybrids.
Turnip: Pusa Swati, Local Red variety.

West Rajasthan

Isabgol: RI 89 & GI-2.
Fenugreek: RMt 1 & RMt 305.
Barley: RD 2052, RD 2035 (suitable for saline and alkali soils) and RD 2715 (dual purpose), RD2058, 2503, 103, NDB1173.
cumin: GC 4, RZ -19, RZ 223, RZ19, 209, 223 and GC4b.
Cowpea: RC-19, RC-101, RCP-27.
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.
Zaid moong: K-851, PDM-11, SML-668 Pusa Baisakhi, RMG-62, RMG-268 etc.
Tinda: Bikaneri green, dilpasand
Cucurbit: Lakhnau ageti and Arkasital,
Muskmelon: Durgapura madhu, Punjab sunehri, Punjab hybrid and pusa madhuras
Watermelon: sugar baby, Durgapura mitha, Durgapura lal and khira
Sugarcane: CO-6617, 7717; COS- 95255, 767
 Desi cotton: RG-8, 18, HD-123, hyb Raj- DH 9

East Rajasthan

Muskmelon: Durgapura madhu, Punjab sunheri, Punjab hybrid, arkajeet, hara madhu, pusa madhuras.
Water melon: Sugar baby, Durgapura meetha, durgapura kesar, arka jyoti (hybrid), madhu (hybrid).
Tinda: Beekaneri green, Dil pasand, arka tinda.
Kakri: Lucknow ageti and arka sheetal.

Zaid Pearl millet (fodder):raj bajra chari, rajko Zaint, L-72, L-74.

Zaid sorghum (fodder): Raj chari-3, Raj chari-1, Raj chari-2 for single cutting and SSG59-3, M.P. chari for many cutting.

Okra:Pusa Savani, Arka anamika, Arka Abhya, Aajad kranti, Prabhni kranti, Pusa-A-4,Pusa Makhmali.

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

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

Lucerne :Anand-2, LLC-3, RL-88 & Type-9.

Berseem:Muskavivardan and PusaJiant.

Summer groundnut:T.A.G.24, T.G.37A, G.G.2, D.H.86.

Tamil Nadu

Cotton: Surabhi and SVPR-2

Madhya Pradesh

Soybean: JS 335, JS 93-05, JS 95-60, JS 72-52, JS 90-41, JS 20-29.

Red gram: Jawahar -4, Ahsa (ICPL-87119), JKM-7,189.

Rice: short duration (JR, 305, JR 201,Poornima, JD 201, JRH-5, JRH-8, Danteshwari).

medium duration (IR 64, IR 54, IR 36, Madhuri, Kranti, Mahamaya, Pusa Basmati).

Sugarcane: KO Jawahar-86141, 86572, 86032.