



National Agromet Advisory Service Bulletin



Friday 3rd March 2017
(For the period 3rd to 7th March 2017)

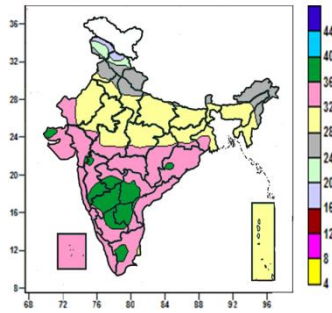


Issued by
National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.

Weblink For
District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

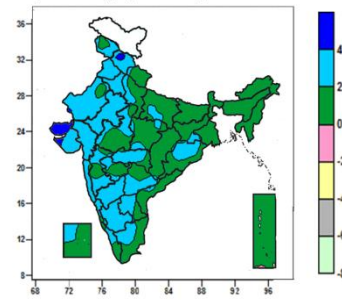
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 01.03.2017

Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 01.03.2017



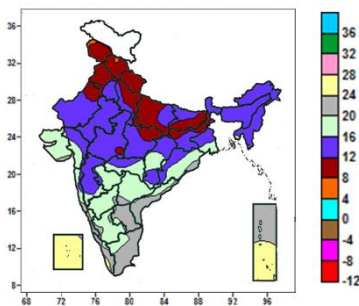
- Mean maximum temperature was between 36 to 40 $^{\circ}\text{C}$ over many parts of North Interior Karnataka, Rayalaseema, some parts of Madhya Maharashtra, Marathwada, Telangana, South Interior Karnataka and isolated pockets of Gujarat, Odisha and Tamil Nadu.
- Mean maximum temperature was between 32 to 36 $^{\circ}\text{C}$ over Vidarbha, Konkan & Goa, Coastal Karnataka, Kerala, Lakshadweep, many parts of Gujarat, Madhya Maharashtra, Marathwada, Chhattisgarh, Odisha, Telangana, Coastal Andhra Pradesh, South Interior Karnataka, Tamil Nadu, some parts of West Rajasthan, Madhya Pradesh, Jharkhand, Gangetic West Bengal, Rayalaseema and isolated pockets of East Rajasthan and North Interior Karnataka.
- Mean maximum temperature was between 24 to 32 $^{\circ}\text{C}$ over rest of the Country except many parts of Jammu & Kashmir and Himachal Pradesh where it was between 16 to 24 $^{\circ}\text{C}$.

Mean Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 01.03.2017



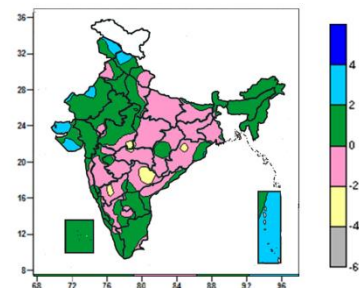
- Mean maximum temperature was above normal by 4 to 6 $^{\circ}\text{C}$ over some parts of Saurashtra & Kutch and isolated pockets of Himachal Pradesh, West Rajasthan and Gujarat Region.
- Mean maximum temperature was above normal by 2 to 4 $^{\circ}\text{C}$ over Punjab, Haryana & Delhi, many parts of Jammu & Kashmir, Himachal Pradesh, Rajasthan, Gujarat, Vidarbha, Madhya Maharashtra, Konkan & Goa, Karnataka, Telangana, Rayalaseema, some parts of Uttar Pradesh, Madhya Pradesh, Jharkhand, Odisha, Kerala, Tamil Nadu, Lakshadweep and isolated pockets of Uttarakhand and Chhattisgarh.
- It was normal to near normal over rest of the country.

Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 01.03.2017



- Mean minimum temperature was between 4 to 8 $^{\circ}\text{C}$ at isolated pocket of Jammu & Kashmir and Himachal Pradesh.
- Mean minimum temperature was between 8 to 12 $^{\circ}\text{C}$ over Uttarakhand, Punjab, many parts of Jammu & Kashmir, Himachal Pradesh, Uttar Pradesh, Bihar, some parts of West Rajasthan, East Madhya Pradesh, Jharkhand, Sub Himalayan West Bengal and isolated pockets of Haryana & Delhi and West Madhya Pradesh.
- Mean minimum temperature was between 12 to 20 $^{\circ}\text{C}$ over rest of the Country except over Andaman & Nicobar Islands, Lakshadweep, many parts of Goa, Coastal Karnataka, Kerala, Lakshadweep, many parts of Madhya Pradesh, Vidarbha, Odisha and North Interior Karnataka where it was below normal by 2 to 4 $^{\circ}\text{C}$.

Mean Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 01.03.2017

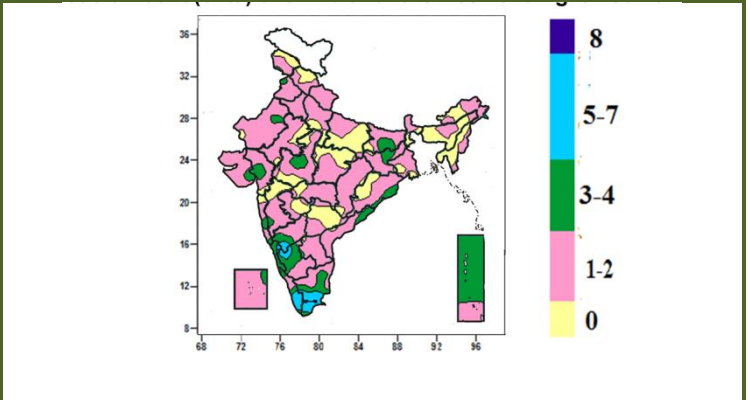
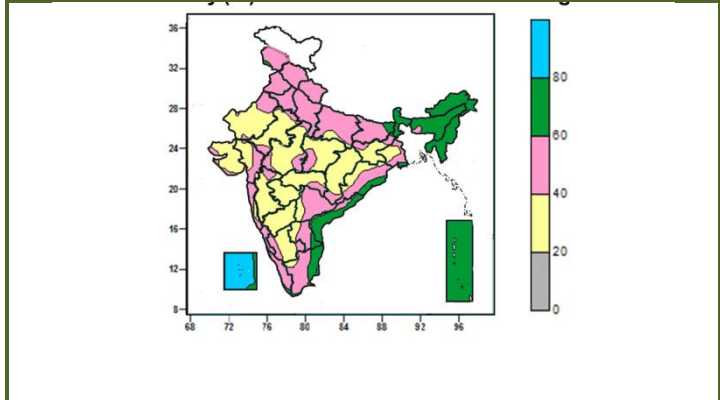


- Mean minimum temperature was above normal by 4 to 6 $^{\circ}\text{C}$ at isolated pocket of Saurashtra & Kutch.
- Mean minimum temperature was above normal by 2 to 4 $^{\circ}\text{C}$ over many parts of Andaman & Nicobar Islands, Saurashtra & Kutch, some parts of Jammu & Kashmir, Himachal Pradesh and isolated pockets of West Rajasthan.
- Mean minimum temperature was normal to near normal over rest of the country except some parts of Telangana and isolated pockets of Madhya Pradesh, Vidarbha, Odisha and North Interior Karnataka where it was below normal by 2 to 4 $^{\circ}\text{C}$.

<p>Karnataka, Kerala, Rayalaseema, Coastal Andhra Pradesh, Tamil Nadu and isolated pockets of Saurashtra & Kutch, Odisha, Telangana and Interior Karnataka where it was between 20 to 28⁰C.</p>	
--	--

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 01.03.2017

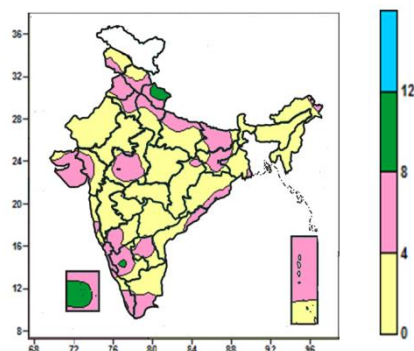
<p>Relative Humidity (%) over India for the week ending 01.03.2017</p>	<p>Cloud amount (okta) over India for the week ending 01.03.2017</p>
---	---



- Mean Relative Humidity was above 80% over many parts of Lakshadweep and isolated pocket of Sikkim.
- Mean Relative Humidity was between 60 to 80% over Sub Himalayan West Bengal, Arunachal Pradesh, Meghalaya, Nagaland, Manipur, Mizoram, Tripura, Andaman & Nicobar Islands, many parts of Assam, Coastal Andhra Pradesh, some parts of Odisha, Rayalaseema, Tamil Nadu and isolated pockets of Jammu & Kashmir, Bihar, Jharkhand, Gangetic West Bengal, Kerala and Lakshadweep.
- Mean Relative Humidity was between 40 to 60% over rest of the Country except many parts of Rajasthan, Saurashtra & Kutch, Madhya Pradesh, Jharkhand, Madhya Maharashtra, Marathwada, Chhattisgarh, Gangetic West Bengal, Interior Karnataka, some parts of East Uttar Pradesh, Gujarat Region, Konkan & Goa, Telangana, Rayalaseema and Tamil Nadu. where it was between 20 to 40%.

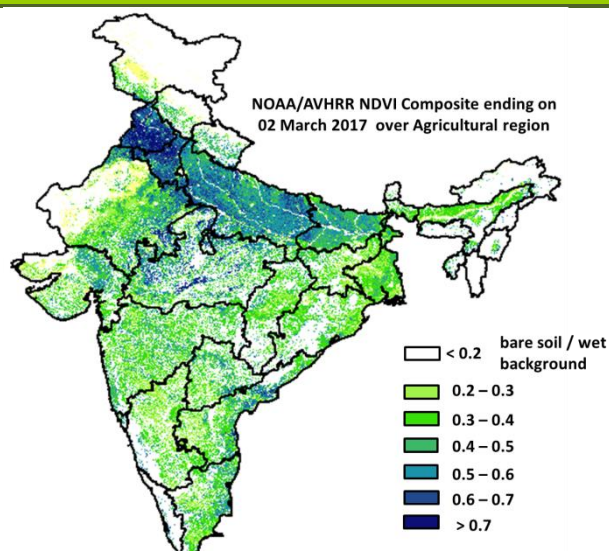
- Sky remained cloudy (5-7 okta) over some parts of Kerala, Tamil Nadu and isolated pockets of Karnataka.
- Sky remained partly cloudy (3-4 okta) over many parts of Andaman & Nicobar Islands, Coastal Karnataka, South Interior Karnataka, some parts of Bihar, Jharkhand, Odisha, Gujarat, Coastal Andhra Pradesh, Konkan & Goa, North Interior Karnataka, Kerala and isolated pockets of Jammu & Kashmir, Punjab, West Madhya Pradesh, Rayalaseema and Lakshadweep.
- Sky remained mainly clear/clear sky (1-2 okta/0 okta) over rest of the country.

Wind speed (knots) over India for the week ending 01.03.2017



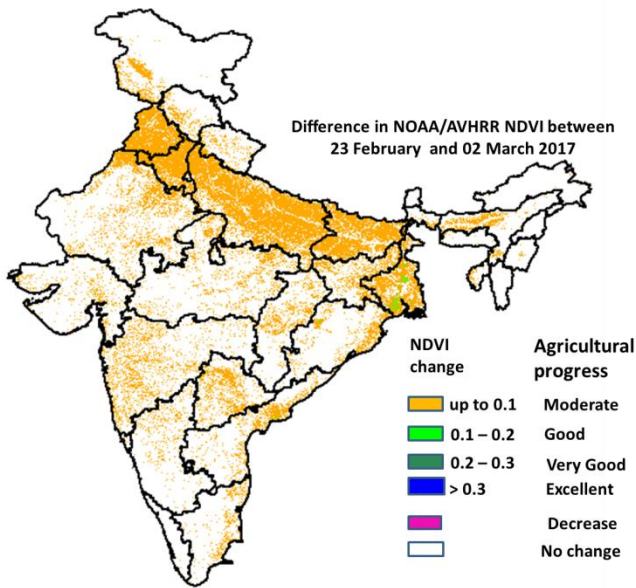
- Mean wind speed was between 8 to 12 knots over some parts of Uttarakhand, Lakshadweep and isolated pocket of West Madhya Pradesh and South Interior Karnataka.
- Mean wind speed was between 0 to 4 knots over rest of the country except over Coastal Karnataka, many parts of Himachal Pradesh, Uttarakhand, Punjab, Haryana & Delhi, Bihar, Saurashtra & Kutch, Jharkhand, South Interior Karnataka, Lakshadweep, Kerala, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Uttar Pradesh, Gujarat Region, West Madhya Pradesh, Odisha, Coastal Andhra Pradesh, North Interior Karnataka, Rayalaseema, Tamil Nadu and isolated pockets of Arunachal Pradesh, East Rajasthan, Chhattisgarh, Gangetic West Bengal, Konkan & Goa and Telangana where it was between 4 to 8 knots.

NOAA/AVHRR NDVI composite ending on 2nd March 2017 over Agricultural region of India



- Agricultural vigour is good to very good in Haryana & Delhi, Punjab, patches in Madhya Pradesh, Uttar Pradesh, Bihar, Gujarat, Central Tamil Nadu, Coastal Andhra Pradesh, Kerala, Maharashtra, south-east Rajasthan and coastal Karnataka, where NDVI value varies from 0.5 to 0.7. NDVI is moderate in west Rajasthan, East Madhya Pradesh, Uttar Pradesh, Bihar, North-East Region, West Bengal, Madhya Maharashtra, southern region of Andhra Pradesh, Telangana and Tamil Nadu (NDVI 0.2 to 0.5).

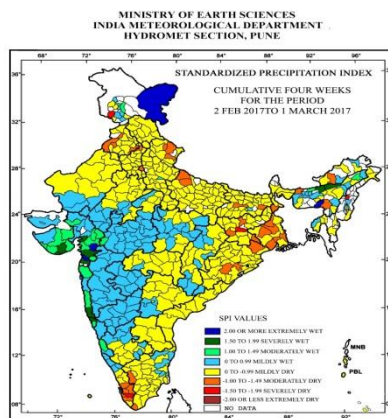
Difference in NOAA/AVHRR NDVI between 23rd February and 02nd March 2017



- Moderate progress in NDVI was observed in Punjab, Haryana & Delhi, Madhya Pradesh, Rajasthan, Uttar Pradesh, Bihar, and patches in Maharashtra, Gujarat, Karnataka, Kerala, Tamil Nadu, Telangana, Andhra Pradesh, North-East Region, Jharkhand, West Bengal and Chhattisgarh. Good progress was observed in few patches of Southern Part of West Bengal.

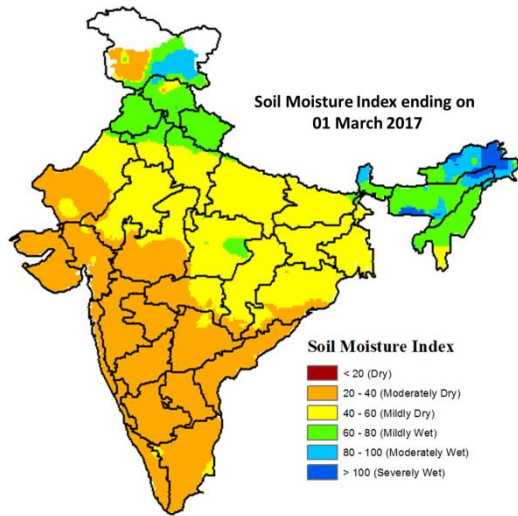
- NOAA/AVHRR NDVI composite maps for the week ending on 2nd March 2017 for different States are given in Annexure II.

Standardised Precipitation Index Four Weekly for the period 2nd February to 1st March 2017



- More extremely/severely wet conditions experienced in few districts of Gujarat Region, Saurashtra, Kutch & Diu, Konkan & Goa; Shonitpur, Udalguri, districts of Assam; East Khasi Hills, districts of Meghalaya; Ladakh (Leh), districts of Jammu & Kashmir.
- Severely dry conditions experienced in Ranchi, districts of Jharkhand; Rajouri, districts of Jammu & Kashmir; Pathanamthitta, districts of Kerala and Kohima district of Nagaland.
- Moderately dry conditions experienced in many districts of Delhi; many districts of West Bengal; few districts of Uttarakhand; East Kameng district of Arunachal Pradesh; Kokrajhar district of Assam; Jaintia Hills district of Meghalaya; Mayurbhanj, Nayagarh and Kandhamal districts of Odisha; Gumla, Hazaribag and East Singhbhum districts of Jharkhand; Bhagalpur and Patna districts of Bihar; Kheri and Sitapur districts of Uttar Pradesh; Ambala district of Haryana; Ferozepur, Kapurthala, Patiala and Faridkot districts of Punjab; Coimbatore and Kanyakumari districts of Tamil Nadu & Puducherry; Alapuzha, Ernakulam, Kottayam, Kollam and Idukki districts of Kerala.
- Rest of the country experienced moderately wet/mildly dry/mildly wet conditions.

Soil Moisture Index for the week ending on 1st March 2017



- Soil moisture index indicates severely and moderately wet condition in some parts of Jammu & Kashmir and North-East Region. Mild wet condition in many parts of North-East Region, Punjab, Himachal Pradesh, Uttarakhand and some parts of Uttar Pradesh, Haryana and West Bengal. Rest of the country shows Moderate and Mild dry condition.

Weather Forecast for next 5 days valid upto 0830 hours of 8th March 2017

- **Meteorological sub-division wise detailed 5 day rainfall forecast is given below.**
- Minimum temperatures likely to fall by 2-3° C over Punjab, Haryana and West Uttar Pradesh during next 3 days and rise thereafter.
- No significant change in maximum & minimum temperatures over rest of the country.

5 Day Rainfall Forecast (mid day) 3rd March 2017

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

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

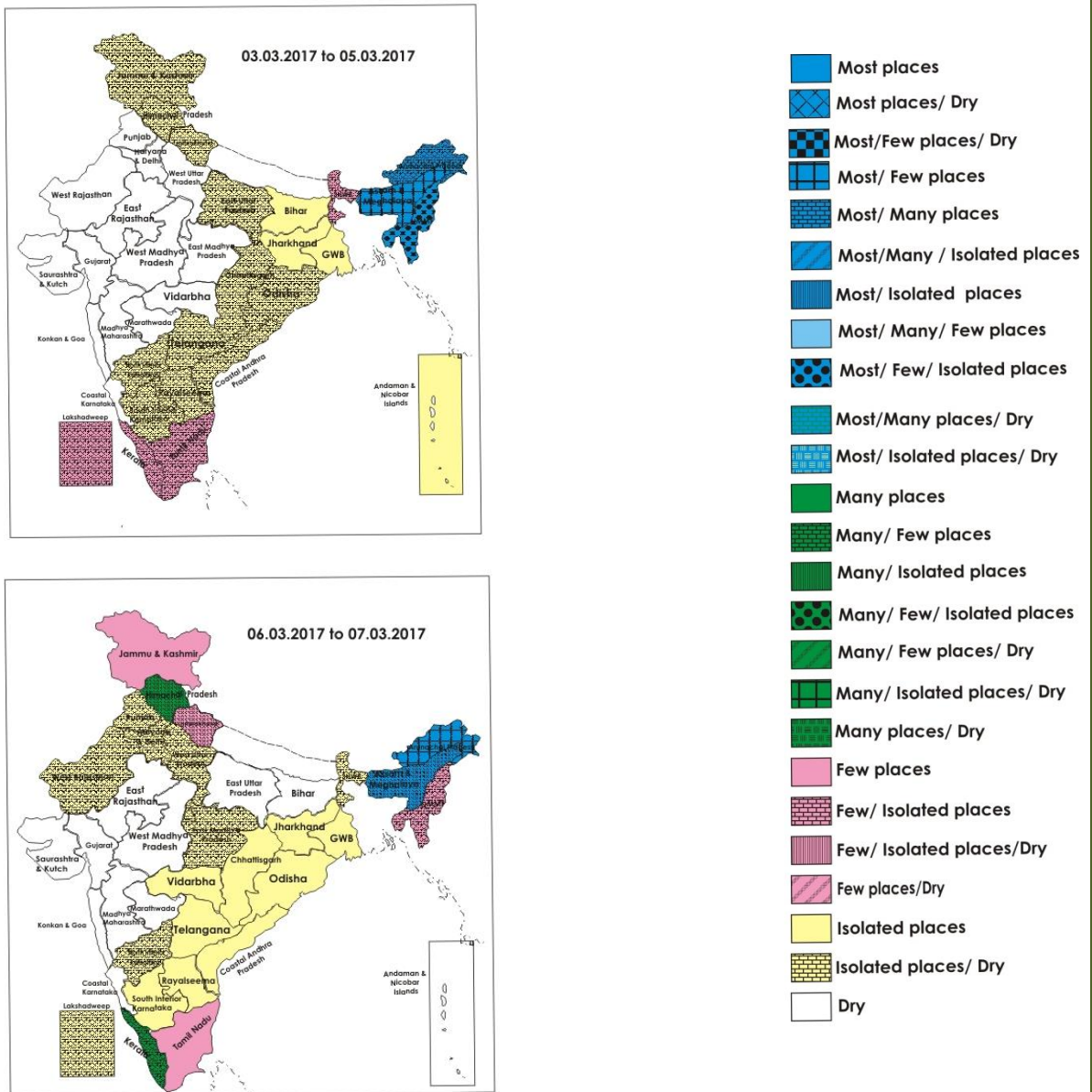
Weather Warning during next 5 days

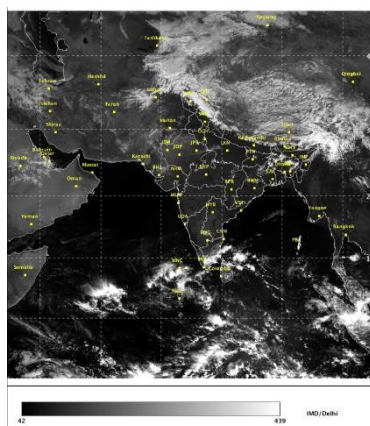
- **03 March (Day 1):** Thunder squall likely at isolated places over Arunachal Pradesh, Assam & Meghalaya , Tripura and Mizoram.
- **04 March (Day 2):** Thundersquall likely at isolated places over interior parts of Tamilnadu.
- **05 March (Day 3):** Thundersquall likely at isolated places over interior parts of Tamilnadu and Kerala. Heavy rainfall likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- **06 March (Day 4):** Thundersquall likely at isolated places over interior parts of Tamilnadu, Kerala, Gangetic West Bengal and north Odisha. Heavy rainfall likely at isolated places over Assam & Meghalaya.
- **07 March (Day 5):** Thundersquall likely at isolated places over Gangetic West Bengal and north Odisha.

Weather Outlook for subsequent 2 days from 8th to 10th March 2017

- Rain/snow at a few places likely over western Himalayan region.
- Rain/thundershower at a few places likely over south India, northeastern states & West Bengal and at isolated places over northwest India, Bihar, Jharkhand & Odisha.

Weather Forecast Map (valid upto 0830 hours of 8th March 2017)





Salient Advisories

- As rain/thundershowers likely at most/many places over **Arunachal Pradesh** from 3rd to 6th, over most places over **Assam** and **Meghalaya** on 5th & 6th and over **Nagaland**, **Manipur**, **Mizoram** and **Tripura** on 5th, at many places over **Kerala** from 5th to 7th March, rain/snow likely at many places over **Himachal Pradesh** on 7th March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places.
- As heavy rainfall likely at isolated places over **Assam** and **Meghalaya** on 5th & 6th and over **Nagaland**, **Manipur**, **Mizoram** and **Tripura** on 5th March, provide adequate drainage in standing crop fields.
- As thundersquall likely at isolated places over **Arunachal Pradesh**, **Assam**, **Meghalaya**, **Mizoram** and **Tripura** on 3rd, over interior parts of **Tamilnadu** from 4th to 6th, over **Kerala** on 5th & 6th, over **Gangetic West Bengal** and **north Odisha** on 6th & 7th March, farmers are advised to arrange support to banana and staking of vegetables to prevent the crops from lodging due to strong winds. Also undertake propping up in sugarcane.

Agromet Advisory for prevailing and expected high Temperature

• Agromet Advisory for wheat:

- In plains of **North India**, normal sown wheat is at milk / dough stage. Prevailing above normal temperature in these region and also forecast of seasonal average maximum temperatures (March to May) are likely to be warmer than normal by $\geq 1^{\circ}\text{C}$ in most of the subdivisions, may cause early maturity and moisture stress condition which may leads to less grain formation and grain quality without proper care. Apply protective irrigation at milk / dough stage and keep optimum moisture level in the fields.
- In some parts of **West Uttar Pradesh**, late sown wheat is ear head stage/ flowering stage which is very sensitive to moisture stress. Due prevailing dry weather / above normal temperature and also expected higher temperature during the coming days, there would more evapotranspiration. Monitor the crops regularly and apply irrigation at regularly to keep optimum moisture in the field. In Dungarpur, Banswara and Pratapgarh districts of Southern Humid Plain Zone of **Rajasthan**, in view of the increasing day temperature, farmers are advised to apply irrigation in wheat at milk stage and in maize crop at silking/tasseling and grain filling stage.

• Agromet Advisory for recently sown and to be sown summer crops

- As dry weather / high temperature is prevailing in many parts of the country and also above normal temperatures likely to prevail, closely monitor already sown summer crops for moisture stress. Apply irrigation regularly and increase the frequency of irrigation at critical growth stages of crops.
- Also continue sowing of summer crops like summer groundnut, okra and sesamum with assured irrigation and sowing of summer crops may be done with pre-sowing irrigation.
- Undertake transplanting of summer vegetables with assured irrigation. Undertake mulching with straw/polythene

to conserve soil moisture.

- **Agromet Advisory for standing crops/ orchards**

- In view of prevailing dry weather / above normal temperature and also expected above normal temperature, there may be premature fruit dropping in mango in **Maharashtra, Karnataka and Gujarat**. Apply adequate water (150-200 litres of water per mango tree at 15 days interval). Also provide shade arrangement, to protect the mango graft from bright sunshine.

- Cover banana bunches with porous gunny bags, apply mulch with trash in furrows.

- Young saplings may be protected by erecting temporary shade.

- **Agromet Advisory for Pest and Disease**

- Due to rise in temperature in **Himachal Pradesh**, there may be attack of aphids in wheat, monitor crop for aphids and apply plant protection measures.

- In the North Coastal Zone of **Andhra Pradesh**, prevailing weather conditions (increase in temperature and humidity) is congenial for incidence of early shoot borer in sugarcane. To control, undertake trash mulching with sugarcane trash @1.25 tonnes/acre within 3 days after planting and immediately after stubble shaving in ratoon crop.

- In North Eastern Coastal Plain Zone of **Odisha**, due to rise in temperature, attack of stem borer may be aggravated in rice fields. Install Scirpo lure pheromone trap @15 no./ha to monitor its population. If the damage is above ETL, apply Chlorantraniliprole 0.4% GR@10 kg/ha.

Detailed Zonewise Agromet Advisories

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



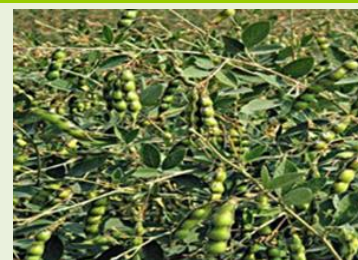
Banana



Rice



Sugarcane



Red gram

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

- **Realised Temperatures:** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Kerala; **above normal (1.6°C to 3.0°C)** at many places over Kerala, Coastal Karnataka, at isolated places over coastal Andhra Pradesh and near normal over rest of the region. Yesterday, maximum temperatures > 38°C were recorded at Mahabubnagar =38.3. Minimum temperatures were **appreciably below normal (1.6°C to 3.0°C)** at many places over Coastal Andhra Pradesh; **appreciably below normal (1.6°C to 3.0°C)** at few places over Coastal Karnataka and Rayalaseema. They are **above normal (1.6°C to 3.0°C)** at many places over Kerala and near normal over rest of the region.

- **Advisories:**

- As rain/thundershowers likely at many places over Kerala on 6th and at a few places over Tamilnadu & Puducherry from 5th to 7th March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places.

- As thundersquall likely at isolated places over interior parts of **Tamilnadu** from 4th to 6th and over **Kerala** on 5th & 6th March, farmers are advised to arrange support to banana, propping up in sugarcane and staking of vegetables to prevent the crops from lodging due to strong winds.

- **Andhra Pradesh:**

- In the Krishna Godavari Zone, under present hot and dry weather conditions, apply irrigation to rabi jowar at flowering to grain formation stage as moisture stress causes hardening of grains. Continue providing light irrigation to rice fallow green gram and black gram, sugarcane and Bengal gram crops as per requirement.

- In the North Coastal Zone, continue planting of sugarcane.

- In the Krishna Godavari Zone, prevailing dry weather condition favours attack of aphids and mites in maize crop. If intensity is more, it can be managed by spraying with Acephate @1 g/litre of water.

- In Kurnool district of the Scarce Rainfall Zone, spray formula-4 @2.5-3gm/litre of water to reduce micro nutrient deficiency observed in sweet oranges.
- In the North Coastal Zone, prevailing weather conditions (increase in temperature and humidity) is congenial for incidence of shoot and fruit borer in brinjal. To control, release *Trichogramma chilonis* at weekly interval or clip infested twigs and fruits followed by spraying of Neem oil.
- In the Scarce Rainfall Zone, brown plant hopper incidence was noticed in rice(vegetative stage). To control, spray Applaud (Buprofezin) @ 330 ml/acre directly to the base of the crop.
- In the Southern Zone, prevailing dry weather conditions are congenial for flower and fruit drop in mango orchards. To control, spray Plonofix @ 2.5 ml/10 litre of water + multi K @ 8-10 g/litre of water. Spray Monocrotophos @ 1.6 ml/litre of water to control incidence of root rot and stem rot disease in groundnut.
- **Telangana:**
 - In North Telangana Zone, removing plant debris, avoid moisture stress after flowering and grow tolerant hybrids to control late wilt management in maize and continue harvesting of groundnut.
 - In South Telangana Zone, incidence of stem rot was observed in rice. To control, let-out water from the field and spray Hexaconazole @ 2 ml/litre of water.
 - In North Telangana Zone, fruit and stem borer incidence was noticed in bhendi. To control, spray Thiodicarb @ 1.0 g/litre of water.
- **Tamil Nadu:**
 - In the Cauvery Delta Zone, since rainfall is expected in the next three days, take precaution while harvesting matured late *Samba/thaladi* rice and keep harvested produce at safe places. Continue nursery preparation for summer rice.
 - In the Western Zone, adequate measures may be taken to harvest the rainwater and reuse it during dry season, undertake summer ploughing by using the anticipated rainfall, provide inward basin around the tree crops to harvest the anticipated rainfall, prepare to store rainwater to a depth up to 5cm in *Navarai* rice fields and provide adequate drainage facility if there is excess rainfall.
 - In the Southern Zone, since there are chances for rainfall the coming days, harvest the rain water to irrigate during the dry season and recharge groundwater.
 - In the North Western Zone, to improve the organic carbon content and water holding capacity of soil under rain fed condition, apply farm yard manure or composted coir pith @ 5 ton/acre during last ploughing.
 - In the High Rainfall Zone, as rain is expected in the forthcoming days, strengthen the basins of coconut, clove and nutmeg trees for better harvesting of rains.
 - In Karaikal, prevailing night temperature and high relative humidity with high dew fall during the past few days favours blast incidence in rice. To control, apply Carbendazim 50WP @ 1g/litre of water after current spells of rain.
 - In the South Zone, due to light to moderate cloud cover and humidity expected in the coming days, fruit borer may occur in chilli. To control, collect and destroy the damaged fruits and grown up caterpillars. When damage crosses economic threshold level spray Chlorpyrifos 20 EC @ 3 ml/ litre of water on a non rainy day.
 - In the High Altitude Zone, due to increase in day time temperatures, sucking pest incidence is prevalent in garlic crop. To control, spray Methyl Dematon 25 EC @ 1 ml/litre of water on a non rainy day.
- **Kerala:**
 - In Thiruvananthapuram district of the Southern Zone, undertake transplanting of *puncha* rice after dipping the roots of seedlings in a solution of *Pseudomonas* (10g/litre of water), for about 30 minutes before transplanting. Young seedlings should be protected from direct sun's rays by giving shade on the southwestern side. Give shade for the young palms. In rainfed gardens wherever mulching is practiced, monitor for termite attack in the mulched area. In areas where bunchy top disease is seen regularly in bananas, eradicate disease affected plants and use disease free suckers for planting. Continue sowing of *puncha* rice in Kollam district.
 - In the High Altitude Zone, continue land preparation for dry ginger cultivation.
 - In the Northern Zone, apply coir pith/coir pith compost in the basins to increase water holding capacity, mulch the basins with dried leaves, adopt drip irrigation for improved irrigation efficiency, smear the trunks (upto 2m height from bottom) with white lime solution and protect the newly planted young seedlings from direct sunlight falling on it by providing good shades.
 - In the Central Zone, continue land preparation for *puncha* rice cultivation. Transplant seedlings at 4-5 leaf stage. Soak seed for 30 minutes in a solution of *Pseudomonas* culture @10g/litre of water per kg of seed to control sheath blight, sheath root, leaf spot disease etc.
 - In the Central Zone, due to high temperature, there are chances of attack of white fly and jassids in vegetables. Stunted growth caused by them can be controlled by hanging yellow boards painted with Castor oil.
 - In the Northern Zone, prevailing hot weather conditions are congenial for spread of leaf eating caterpillars in coconut in coastal areas. To control, cut and burn the affected leaves, release larval parasitoids, *Goniozus nephantidis*, @10 nos/palm (4-6 release) on the trunk. If infestation is very severe, spray the under surface of the fronds with Corragen® @ 1ml/5litre after current spells of rain.

- In the Problem Area Zone, prevailing weather condition is congenial for incidences of thrips in chillies. To control, spray Oberon 0.6 ml/litre of water after current spells of rain. Adopt intercropping with tuber crops or Amorphophalus in coconut fields. Apply Metarhizium @ 1 kg / cowdung pit can be to prevent spread of rhinoceros beetle in coconut.
- **Karnataka:**
- Carry out hoeing and hand weeding after harvesting of sugarcane crop in North Dry Zone. After harvesting the rabi crops, take up ploughing which will facilitate conservation of rainwater due to pre-monsoon showers.
- In view of prevailing dry weather, provide irrigation to the dry land horticultural crops and other field crops depending on soil and crop condition in Southern Dry Zone.
- Undertake harvesting of matured black pepper in Hill Zone.
- In Southern Transition Zone, undertake first hand weeding in already transplanted rice. Continue harvesting of matured coconut and rhizomes of ginger, turmeric.
- In North Transition Zone, continue harvesting of Bengal gram during early morning hours to avoid shedding of the seeds. Continue the deep ploughing of the field.
- Due to dry weather, fruit dropping in mango is noticed in Eastern Dry Zone; to manage this, provide adequate quantity of irrigation water; adopt drip irrigation wherever it is possible.
- In North East Dry Zone, continue transplanting of paddy in the main field under irrigation. As dry weather is prevailing, provide irrigation to wheat and mango (fruit setting stage). Complete harvesting of Bengal gram, rabi sorghum and safflower.
- In North East Transition Zone, complete harvesting of Bengal gram, safflower, pigeon pea and niger. Provide irrigation to wheat (dough stage), rabi sorghum (grain filling stage) and sugarcane.
- Due to prevailing weather, infestation of leaf spot was noticed in summer groundnut in North East Dry Zone; take up spraying of Hexaconazole or Difenconazole @1.0 ml per litre of water. Due to increase in temperature powdery mildew is noticed in mango crop; take up spraying of Hexaconazole 5 EC or Difenconazole 25 EC @1.0 ml per litre of water.
- Incidence of hoppers is noticed in mango crop in North East Transition Zone; for effective control, take up spraying of Carbaryl 50WP @4 gm or Malathion 50EC @2 ml or Monocrotophos 36SL @1.5 ml or Phosphamidon 40EC @0.5 ml in one litre of water.
- Infestation of mealy bug in papaya plantations observed in Central Dry Zone; take up spraying of Dimethoate @2 ml/liter of water to control.
- Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
- In the Scarce Rainfall Zone of Andhra Pradesh, in poultry, in view of the increase in temperatures, cover water tank and lines with gunny bags to provide cool water, ensure that cool drinking water is available throughout the day, use foggers and sprinklers to reduce temperature, cover roof with coconut tree leaves or grass, white wash roof and water tank to reduce heat absorption, ensure proper cross ventilation to avoid ammonia accumulation, use pedestrian fans to increase air flow and distribute feed in cooler parts of the day (early morning or late evening).
- In the North Western Zone of Tamil Nadu, to reduce the effect of heat, use vitamin C in both drinking water and feed, add electrolytes, discourage day time feeding between 12 pm and 4 pm and keep the temperature of water in the pipelines normal.
- In the Northern Zone of Kerala, in view of the increase in maximum temperature, provide ad libidum pure drinking water to the dairy cattle (45 to 60 litres of water), grazing them during the cooler parts of the day, provide shade and thatched roofing of minimum 9 ft height especially for dark coloured animals, housing with ample ventilation, providing fans, misting and fogging arrangement within cattle sheds and ensuring feeding of high phosphorous containing mineral supplements along with adequate feed.
- Due to high day temperature, in poultry, there is a probability of drop in feed intake, drop in egg weight and shell quality deterioration; maintain optimum temperature between 18° C to 29° C in poultry shed for better production; maintain optimum room temperature in silkworm and poultry house in Southern Dry Zone of Karnataka. Provide adlib water to animals. Maintain proper ventilation for free circulation of air in the animal sheds. Conserve fodder in the form of hay / silage for the lean period.

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



Mustard

Rice

Cauliflower

Wheat

- **Realised Rainfall:** Rainfall occurred in Dibang Valley, Lohit, Lower Dibang Valley and Upper Siang districts of Arunachal Pradesh; Dhemaji, Dibrugarh, N.C.Hills and Tinsukia districts of Assam; East Khasi Hills district of Meghalaya; Senapati district of Manipur and Dhalai and West Tripura districts of Tripura. Mainly dry weather prevailed over the rest of region.
- **Realised Temperatures:** Maximum temperatures were **above normal (1.6°C to 3.0°C)** at many places over Nagaland, Manipur, Mizoram & Tripura. They were **appreciably below normal (3.1°C to 5.0°C)** at a few places over Assam & Meghalaya and Arunachal Pradesh and near normal over rest of the region. Minimum temperatures were near normal over the region.
- **Advisories:**
 - As rain/thundershowers likely at most/many places over **Arunachal Pradesh** from 3rd to 6th, over most places over **Assam** and **Meghalaya** on 5th & 6th and over **Nagaland, Manipur, Mizoram** and **Tripura** on 5th, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places.
 - As heavy rainfall likely at isolated places over **Assam** and **Meghalaya** on 5th & 6th and over **Nagaland, Manipur, Mizoram** and **Tripura** on 5th March, provide adequate drainage in standing crop fields.
 - As thundersquall likely at isolated places over **Arunachal Pradesh, Assam, Meghalaya, Mizoram** and **Tripura** on 3rd March, farmers are advised to arrange support to banana and staking of vegetables to prevent the crops from lodging due to strong winds.
- **Assam, Meghalaya & Arunachal Pradesh:**
 - In Upper Brahmaputra Valley Zone of Assam, continue land preparation and sowing of direct seeded and nursery sowing of early *ahu* rice. Undertake land preparation and planting sugarcane in upland fertile land.
 - In Dhemaji, Lakhimpur, Sonitpur, Dibrugarh, Golghat, Jorhat and Sibsagar districts of North Bank Plain Zone of Assam, as temperature condition are favorable, continue sowing of summer green gram and black gram and sowing of okra, ridge gourd and sponge gourd. Continue land preparation and sowing of directed seeded *ahu* rice.
 - In Hill Zone of Assam, continue land preparation for sowing of early *ahu* (direct seeded) and summer green gram/black gram. Apply irrigation to crops like wheat, field pea, gram, lentil, linseed, safflower and sunflower etc. Undertake land preparation and sowing of jute.
 - In Barak Valley Zone of Assam, continue land preparation for summer vegetables like okra, cucumber, ridge gourd, sponge gourd.
 - In Central Brahmaputra Valley Zone of Assam, continue sowing of summer green gram and black gram. Continue harvesting of rapeseed and mustard and land preparation for sowing of summer vegetables and Capsularis jute. Undertake nursery bed preparation for early *ahu* rice.
 - In Barpeta, Bongaigaon, Dhubri and Goalpara districts of Lower Brahmaputra Valley Zone of Assam, continue nursery bed preparation for summer rice.
 - In Arunachal Pradesh, continue harvesting of potato in clear weather. Continue sowing of local/early maize, cowpea and pre summer vegetables.
 - In Meghalaya, continue nursery raising of brinjal and transplanting of tomato. Continue harvesting of rapeseed, mustard, pea, chick pea, lentil and cabbage/ cauliflower.
 - In Central Brahmaputra Valley Zone of Assam, spray Dimethoate (Rogor) 2 ml/litre of water against aphids in wheat after current spells of rain.
 - In Upper Brahmaputra Valley Zone of Assam, soil and air temperatures are becoming favourable for the outbreak of stem borer in *boro* rice. Spray Dursban at recommended dose against stem borer after current spells of rain.
 - In Barak Valley Zone of Assam, there is chance of attack of stem borer in *boro* rice. To control the pest spray Chlorpyrifos 50 EC @ 2 ml per litre of water after current spells of rain.
- **Nagaland, Manipur, Mizoram and Tripura:**
 - In Nagaland, as rain/thundershowers likely at many places, undertake harvesting of matured toria, rabi maize,

linseed/ lentil, vegetables, pea, and ginger immediately and keep harvested produce in safe places. Continue sowing of green gram, okra and planting of potato.

- In Manipur, undertake harvesting of potato, pulses, rapeseed/ mustard immediately and keep harvested produce in safe places. Continue nursery sowing and transplanting of pre-kharif rice.
- In Mizoram, complete transplanting of onion and capsicum. Undertake harvesting of early cole crops, carrot and radish in clear weather.
- In Tripura, transplant the young seedlings of summer brinjal & tomato to the main field and give light irrigation. Undertake harvesting of mustard, lentil and potato immediately and keep the harvested produce at safe places.
- In Manipur, to control the infestation of stem borer in rabi maize at vegetative stage, apply few granules of Carbofuran 3G at maize whorl on a non rainy day.
- In Nagaland, treat the tubers of potato with bioagent Trichoderma spp @ 20gm in 1 litre of water for 15-20 mins and shade dry to avoid early blight and late blight disease in potato before sowing.
- In Tripura, due to cloudy weather condition, there is chance of attack of stock rot in rabi maize. Spray Mancozeb 2ml per litre of water on a non rainy day.
- Suitable varieties for sowing are given in Annexure III.

▪ **Animal Husbandry**

- In Meghalaya, undertake regular immunization of cattle & buffaloes against Foot & Mouth disease, Hemorrhagic Septicemia & Black Quarter.
- In Hill Zone of Assam, to control of foot and mouth disease the infected livestock, care should be taken to avoid feeding the young ones from infested cow, buffalo, goat, and sheep. This infection spreads from the saliva hence the feed of the infected animal should not be given to the healthy animals. The infected animals should be given water separately and mating should be avoided from infected animals.
- In Barak Valley Zone of Assam, during this time goat may be attack by Blister disease in facial/ nasal area. Wash with Potassium permanganate and consult nearby veterinary dispensary for anti biotic cream and further treatment.

▪ **Fishery**

- In Hill Zone of Assam, as the temperature is increasing day by day and it will favour the growth of fishes. Farmers are advised to add cow dung and lime in the pond as natural foods for fishes and alternative feeds may also be used like Rice Bran and Mustard cake (each of 5 kg per day per acre area of pond).
- In Barak Valley Zone of Assam, treat the fish ponds with Potassium Per Manganate (2 mg/100ml of water) or common salt (3 gm/ 100 ml of water) to control all fungal and bacterial diseases.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Maize



Mustard



Sugarcane



Wheat

- **Realised Rainfall:** Weather remained dry over the region.
- **Realised Temperatures:** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Saurashtra & Kutch. They were **above normal (1.6°C to 3.0°C)** at many places over Konkan & Goa and near normal over rest of the region. Yesterday, maximum temperatures > 38°C were recorded at Bhira =41.0°C, Malegaon and Nanded= 38.0°C each. Minimum temperatures were **appreciably below normal (1.6° C to 3.0° C)** at few places over Saurashtra & Kutch. They were **above normal (1.6°C to3.0°C)** at many places over at a few places over Vidarbha and at isolated places over Gujarat state and near normal over rest of the region.

• **Advisories:**

▪ **Maharashtra:**

- **In Konkan,** as dry weather is prevailing, maintain water level up to 5-7 cm in transplanted rabi rice. Undertake interculture operations in sunflower crop (weeding, hoeing, earthing up) up to 30 days after sowing. Apply irrigation in sunflower and mustard crop. Continue harvesting of cowpea, kulthi and wal crops. Harvest the mature pods during morning hours and dry them in sun. Continue irrigating the Groundnut crop at an interval of 10-12 days. In mango orchards apply 80-100 litres of water per tree at 7 days interval. Undertake mulching with grass to avoid the water loss. Also provide shade arrangement, to protect the mango graft from bright sunshine. Undertake harvesting of okra fruits, leafy vegetables and water melon.
- **In Madhya Maharashtra,** due to dry weather, apply irrigation and mulch with crop residue or plastic sheet to

vegetables and orchards like pomegranate and banana. Undertake irrigation in sugarcane using drip irrigation. Due to prevailing dry weather conditions, apply 150-200 litres of water per mango tree at 15 days interval. Also provide shade arrangement, to newly planted mango trees from bright sunshine (maximum temperature above 34°C). Continue harvesting of jowar, safflower, red gram and early sown wheat. Harvesting should be done during morning hours.

- **In Marathwada**, due to prevailing dry weather conditions, apply irrigation to vegetable crops and orchards. During summer season use drip irrigation system to irrigate Tomato, Chilli and Brinjal crops. To save water, make use of mulching paper in vegetable crops. Continue harvesting of jowar, safflower, red gram and early sown wheat. Harvesting should be done during morning hours. Undertake sowing of summer fodder crops like Maize, Sorghum, Bajra, Napier grass with irrigation facilities.
- **In Vidarbha**, continue sowing of summer sesame. Undertake transplanting of brinjal and chilli seedlings. Apply irrigation to summer groundnut and vegetables. Maintain water level of 3-5 cm in summer rice field in East Vidarbha. Apply irrigation to vegetables and orchards crops like orange and sweet lime in Central Vidarbha region and also apply mulch of crop residue to the orchards. Due to rise in temperature in Marathwada region, there may be attack of thrips on buds, flowers and small fruits in pomegranate, spray Fipronil @ 2 ml per litre of water.
- **Gujarat:**
- In Gujarat, in view of the increase in maximum temperature, apply irrigation at regular interval in vegetables. Due to large diurnal variation in temperature, there may be attack of thrips in vegetables, monitor crops and apply plant protection measures.
- In North Saurashtra Zone, as weather conditions are suitable, undertake sowing of green gram and black gram. Complete harvesting of cumin and coriander. Complete sowing of summer groundnut and sesame, transplanting of brinjal, sowing of bottle gourd, bitter gourd, sponge gourd, ridge gourd, cluster bean and water melon.
- Continue land preparation for sowing of groundnut, sesame, pearl millet and undertake sowing after harvesting of winter crops viz., potato and mustard. Continue sowing of okra, cluster bean and cowpea for summer season vegetables in North Gujarat Zone. Continue transplanting of brinjal seedlings. Undertake sowing of summer fodder crops viz., sorghum and maize.
- In South Gujarat Heavy Rainfall Zone, continue land preparation and undertake sowing of groundnut and pulses.
- In South Gujarat Zone, as there is increase in temperature, apply irrigation in vegetable (tomato, bhindi) crops at an interval of 3-4 days and in mango crop at an interval of 15 days. Spray 2% potassium Nitrate in mango crop for effective control of fruit dropping and higher flower setting. Spray 0.5% Zinc Sulphate or 0.2% Ferrous Sulphate in banana crop for higher yield and good quality of banana fruit.
- In Middle Gujarat Zone of Gujarat, continue land preparation for sowing of sesame. Carry out weeding in citrus orchards in North West Zone of Gujarat.
- In South Saurashtra Zone, complete harvesting of wheat, chickpea, cumin and coriander. Carry out sowing of summer sesame in time. Apply irrigation in vegetable crops at an interval of 6-8 days.
- Continue land preparation for sowing of sesame, sowing of summer groundnut, okra, cluster bean and cowpea for summer season vegetables in North West Zone of Gujarat. Apply irrigation in wheat.
- Under increasing temperature condition, there are chances of aphid infestation in cumin and mustard crops in North West Zone and North Gujarat Zone of Gujarat, in garlic and onion in Middle Gujarat Zone; for effective control of aphid, spray Dimethoate @ 10 ml or Phosphamidon @ 3 ml adding in 10 litres of water in North West Zone and North Gujarat Zone. Spray Spinosad 48 SC @ 2 ml or Clorfenpyre 10 EC @ 7.5 ml in 10 litres of water in garlic and onion in Middle Gujarat Zone. Keep irrigation interval short.
- Due to favorable weather condition there is a chance of blight disease in tomato crop in North Gujarat Zone; spray 0.25% Mencozeb @ 30 g in 10 litres of water with 10 g desi soap solution to manage the disease.
- Due to partly cloudy weather there is possibility of occurrence of pod borer in gram in North Gujarat Zone; if infestation is above ETL, spray Quinalphos @ 20 ml in 10 litres of water.
- In present weather conditions attack of thrips in garlic has been reported in North Saurashtra Zone; alternative sprays of Imidacloprid 30.5 SC @ 3 ml and Profenofos @ 20 ml in 10 litres of water at 10 days interval is recommended. Alternaria blight and purple blotch disease infestation is observed in garlic crop; increase periods between irrigations; provide two sprays of Mencozeb @ 27 g or Thiophanae Methyl @ 12 g/10 litres of water at 10 days interval.
- Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
- In Gujarat, provide ad lib water to lactating animals. For prevention of anthrax disease in animals do vaccination with anthrax vaccine. Udder of milking animals must be properly cleaned with Zinc Oxide or Boric powder. Spray Deltamethrin or Amitraz @ 2 ml/litre of water for the control of tick and for prevention of foot & mouth disease in animals, do vaccination with FMD vaccine. For prevention of New castle disease/ranikhet disease do vaccination in poultry. Cut the beaks of birds in the poultry under age of 15 Week.
-

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



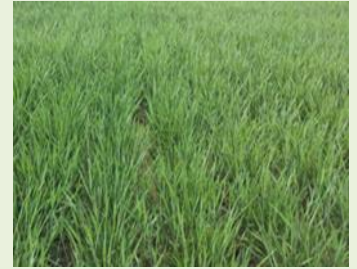
Rice



Okra



Maize



Wheat

- **Realised Rainfall:** Weather remained mainly dry/dry over the region.
- **Realised Temperatures:** Maximum temperatures were **markedly above normal (5.1°C or more)** at few places over Gangetic West Bengal and Jharkhand; **appreciably above normal (3.1°C to 5.0°C)** at many places over Bihar; at a few places over Odisha, at isolated places over Sub Himalayan West Bengal & Sikkim. They were **above normal (1.6°C to 3.0°C)** at many places over Andaman & Nicobar islands and near normal over rest of the region. Yesterday, maximum temperatures > 38°C were recorded at Angul 38.9 and Titlagarh= 38.0°C. Minimum temperatures were **markedly above normal (5.1°C and above)** over Sub Himalayan West Bengal & Sikkim; They were **appreciably above normal (3.0°C to 5.0°C)** at many places over Bihar; at few places over Gangetic west Bengal; **above normal (1.6°C to 3.0°C)** at many places over Andaman & Nicobar Islands and near normal over rest of the region.
- **Advisories:**
 - As thundersquall likely at isolated places over **Gangetic West Bengal** and **north Odisha** on 6th & 7th March, farmers are advised to arrange support to banana and staking of vegetables to prevent the crops from lodging due to strong winds. Also undertake propping up in sugarcane.
 - **Odisha:**
 - In North Eastern Coastal Plain Zone, due to sunny weather and rise in temperature, apply irrigation in the maize crop immediately after fertilization and in sunflower.
 - In North Eastern Ghat Zone, complete transplanting of rice and sowing of cowpea, sunflower.
 - In Mid Central Table Land Zone, due to temperature fluctuation, infestation of Tobacco caterpillar will aggravate in cole crops. To control it, spray Flubendiamide @ 5g/15 litres of water.
 - In Mid Central Table Land Zone, the rise in temperature coupled with sunny weather favours attack of powdery mildew in pulses. To control spray Sulfex @5g/litre of water above ETL.
 - In East and South Eastern Coastal Plain Zone, current temperature favours thrips infestation in groundnut. Spray 400 ml Dimethoate or 50 ml Imidachloprid in 200 litre water per acre. If Tika disease and white ant attack have occurred, spray 500 g Blitox - 50 in 200 litre water per acre for Tika and spray 2 ml Chloropyriphos in 1 litre water for controlling white ant attack.
 - In North Eastern Coastal Plain Zone, due to rise in temperature, attack of stem borer may be aggravated in rice field. Install Scirpo lure pheromone trap @15 no/ha to monitor its population. If the damage is above ETL, apply Chlorantraniliprole 0.4% GR@10 kg/ha.
 - In Western Undulating Zone, there may be attack of pod borer in gram crop at pod formation stage. Spray Triazophos or Profenophos 400ml or Chlorantranilioprole 18.5%SC 60ml in 200litres of water per acre.
 - In Western Undulating Zone, powdery mildew and YMV may infest the pulse crop during this period. Keep watch on these diseases. Spray Sulphur 80%WP 600g mixing with 200lit water per acre crop area to control powdery mildew. To control YMV disease, uproot the infected plant and burn or bury. Spray Acephate 75% SP 400g or imidacloprid 17.8% SL 50ml or thiomethaxome 25%WG 60g mixing in 200 litre of water per acre to control the vector whitefly.
 - **West Bengal:**
 - In Burdwan, Murshidabad, Nadia, North 24 Parganas districts of New Alluvial Zone, undertake weeding and top-dressing in boro rice at tillering stage after 21 days after transplanting. In case of zinc deficient soil apply zinc sulphate @ 4 kg per bigha at the time of first topdressing.
 - In Purba Mednipur and North 24 Parganas district of Coastal Saline Zone, continue sowing of summer vegetables like okra, cucumber, watermelon, gourd etc. Undertake first top dressing in rice at tillering stage by urea @15kg/bigha. Keep proper water level in the field.
 - In Hill Zone, undertake land preparation for sowing of maize and round chilli. Irrigate the crops wheat and maize as per the requirement as light rainfall has been forecasted for coming five days.
 - In Malda and Dakshin Dinajpur districts of West Bengal, undertake land preparation for sowing of maize. Ensure 5

- cm standing water in the rice field with irrigation.
- In Bankura, Birbhum and Purulia districts of Laterite & Red Soil Zone, at tillering stage of boro rice, farmer are advised to maintain the water level up to 2 cm in the fields. If weeds are noticed in the field, remove the weeds by hand weeding and keep the bunds clean.
 - In laterite and Red soil Zone, in this weather condition, late blight and downy mildew may be found in potato and pointed gourd. Apply Mancozeb @ 2.5g/litre of water at an interval of 5-7 days to control late blight and apply Ridomil@2g/ litre of water at late afternoon to control downy mildew.
 - In Old Alluvial Zone, in this weather condition Control of Mango hopper, spray carbaryl 50 W.P @ 2.5gram/liter of water at pea stage of fruit set. To control chilli leaf curl, spray Imidachloropid @ 0.2ml/liter of water at evening hour.
- **Andaman and Nicobar Islands:**
 - In North, Middle and South Andaman, undertake mulching around the coconut and arecanut tree with fallen leaves and crop residue to conserve soil moisture. Spray Mancozeb @ 2 g/lit twice at 10 days interval to control downy mildew in cucurbits.
 - In Nicobar, clear the crown of coconut tree and remove the old bunches to avoid the attack of rhinoceros beetles.
- **Bihar:**
 - In Araria, Katihar, Kishanganj, Madhepura, Purnea, Saharsa and Supaul districts in North East Alluvial Zone, continue land preparation for sowing of *Sada* Jute. Complete the transplanting of *boro* rice and use 20-25 days old seedling of *boro* rice and complete planting of spring sugarcane. Maintain minimum water (3-5 cm) in the fields. Undertake preparation of seedling of early cucurbitaceous crop, chilli, tomato and brinjal should be done in small polythene bags in poly house. Undertake harvesting of early sown potato.
 - In South Bihar Alluvial Zone of Bihar, in present weather condition, undertake sowing of early crop of lady finger. Complete the transplanting of young seedlings of tomato, chilli and cole crop. provide light irrigation in standing crops and vegetables as per requirement.
 - In Darbhanga, East Champaran, Gopalganj, Samastipur, West Champaran districts of North West Alluvial Plain Zone, undertake sowing of summer maize, sunflower, folder crop and complete the sowing of summer vegetables such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard. Undertake land preparation for sowing for sowing of green gram and black gram. Provide irrigation in standing vegetables.
 - In North West Alluvial Zone, in prevailing weather condition, aphid infestation may be found in mustard. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1ml/litre of water. To control thrips infestation in onion, spraying of Profenofos@1ml/litre of water or Imidaclorpid @ 1ml/4 litre of water.
 - In North East Alluvial Zone, in present weather condition, constant monitoring of aphids is advised in mustard crop. If insect population is above ETL, spraying of Rogar or Quinalphos @ 2 ml/litre of water is recommended. For control of rotting disease in Marigold, spray Bavistin @ 1 gram\ litre or indofil-M 45 @ 2 ml\litre water.
- **Jharkhand:**
 - In Central and North Eastern Plateau Zone, continue nursery sowing of summer rice and prepare field for sowing of vegetable like long gourd, round gourd, bitter gourd, sponge gourd, cucumber, water melon and musk melon. Continue nursery sowing of onion.
 - In Western Plateau Zone, undertake transplanting with 21days old rice seedlings. Wheat crops at heading stage is very much sensitive of moisture stress. Hence, irrigate the fields as per the status of soil moisture.
 - In South Eastern Plateau Zone, because of high day and low night temperature as well coupled with cool weather in morning and later on clear sunny weather favours the occurrence of pest and disease on mustard crop. Hence, in case of pest, spraying of Metalaxil (Methyl dematone) or roger (Dimethoate) @ 1ml per liter mixed with teepol @ 5 ml per liter is recommended. Due to variation in weather, on leaf, yellow-brown oval shaped spots are seen and to control this spray Diafolton or Indofil M 45 @ 2 g per litre of water.
 - In South Eastern Plateau Zone, at pod formation/grain filling stage and those areas remain dry with cool and low atmospheric temperature during morning time, favours the attack of variant leaf eating and sucking pests on pigeon pea crop. Hence, are advised to spray Monochrotophos @ 1 ml per liter of water or ndoxacarb or Acocarb @ 0.5 – 1ml per liter of water by skipping one row or alternate row. Somewhere if wilt problem is being seen suggested to safely uproot the infested plant.
 - In South Eastern Plateau Zone, monitor the wheat crop against loose smut because prevailing high wind speed coupled cloudy weather, which favours the movement of loose smut spores hence, there is a chance of spread of disease in a more speedy way. So remove the affected plants and bury it very carefully inside the soil.
- Suitable varieties for sowing are given in Annexure III.
 - **Animal Husbandry**
 - In Terai Zone of West Bengal, vaccination is the principal way to protect animals from Black Quarter (BQ) and Foot and Mouth Disease (FMD). Vaccinate to poultry bird against Fowl pox and Ranikhet/ ND disease.

CENTRAL INDIA [M.P., CHHATTISGARH]



Gram



Cabbage



Mustard



Wheat

- **Realised Rainfall:** Weather remained mainly dry over the region.
- **Realised Temperatures:** Maximum temperatures were **markedly above normal (5.1°C or more)** at isolated places over east Madhya Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Chhattisgarh and near normal over rest of the region. Minimum temperatures were **appreciably above normal (3.0°C to 5.0°C)** at isolated places over Madhya Pradesh and near normal over rest of the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - In Betul and Chhindwara districts of Satpura Plateau Zone, undertake land preparation and sowing of moong and groundnut at the earliest. Undertake harvesting of matured wheat, oilseeds and gram crop.
 - In Malwa Plateau Zone, apply irrigation in wheat at milk/ grain filling stage as per requirement. Continue nursery preparation of summer vegetables like tomato, chilli, brinjal etc and sowing of cucurbits and okra.
 - In Kymore Plateau and Satpura Hill Zone, apply irrigation at milk / grain filling stage in wheat. Complete harvesting of pea and potato.
 - In Jhabua, Alirajpur and Dhar districts of Jhabua Hills Zone, apply irrigation in wheat at milky and dough stage. Undertake sowing of cucurbitaceous crops and transplanting of tomato, brinjal, cauliflower, cabbage etc in the main field. Continue harvesting of pre sown semi irrigated/early maturing variety of wheat crop, early sown gram and mustard. Give irrigation to standing vegetable crops as per requirement.
 - In Nimar Valley Zone, continue land preparation and sowing of summer moong and vegetables.
 - In Gwalior, Bhind, Morena, Guna, Ashoknagar and Shivpuri districts of Gird Zone, give irrigation to normal sown wheat crop which is at ear head emergence/milking stage. Undertake harvesting of matured sarson crop. Continue sowing of cucurbitaceous crops in the polythene bags and nursery preparation for summer vegetables. Undertake sowing of okra.
 - In Vindhya Plateau Zone, continue harvesting of matured gram and wheat crop. Give irrigation to wheat crop which is at grain filling stage to avoid water stress during the stage.
 - In Bundel khand Zone, in view of dry weather and clear sky conditions, undertake harvesting and threshing of mature crops (lentil, mustard and linseed crops and potato) and store in safe place. Continue sowing of vegetables like pumpkin, bitter gourd etc. Undertake direct sowing of summer vegetables like- pumpkin, bitter guard, watermelon, muskmelon, cucumber, ladyfinger, bottle guard.
 - In Kymore Plateau and Satpura Hill Zone, there may be aphid infestation in mustard crop, take proper plant protection measures to control the pest.
 - In Vindhya Plateau Zone, there may be incidence of Thrips on garlic and onion, take proper plant protection measures to control the pest.
 - In Bundel khand Zone, there may be incidence of leaf curl disease in the chilli and tomato crop, if observed, spray Methyl Dematon 25 E.C. @ 2 ml per litre of water.
 - In Malwa Plateau Zone, due to humid weather there are chances of pod borer in gram, spray Quinolphos 25 EC @ 2 ml/litre of water.
 - **Chhattisgarh:**
 - In North Hill Zone, in view of prevailing dry weather, apply irrigation in wheat at heading stage. Continue sowing of summer moong (green gram) and planting of spring sugarcane. Continue sowing of cucurbitaceous crop. Continue harvesting of matured potato and matured mustard. Give light irrigation to onion crop at an interval of 10-12 days as per requirement.
 - In Bastar Plateau Zone, apply irrigation in chickpea, oilseeds, pulses, wheat, pea, colocasia and linseed. As temperature conditions are favourable, undertake sowing of summer moong, til, summer vegetables like okra, sponge guard, cucumber, ridge guard watermelon, muskmelon and bitter gourd. Continue planting of summer sweet potato and harvesting of mustard.
 - In Chhattisgarh Plain Zone, as temperature is increasing, farmers are advised for transplanting of summer rice as soon as possible. Continue sowing of summer green gram. Apply irrigation in wheat and gram. Continue sowing of vegetables like pumpkin, bitter gourd, bottle gourd, okra etc. Give light and frequent irrigation to vegetable crops as per requirement.

- In North Hill Zone and Chhattisgarh Plain Zone, in summer paddy, farmers are advised to fix pheromone traps and light traps in the fields for the control of stem borer. Also farmers are advised to spray Saaf fungicide @ 2 g per liter of water to control of purple blotch in onion.
- In Chhattisgarh Plain Zone, to control fruit borer in okra and brinjal, use pheromone traps@10Nos/acre and destroy the upper portion of affected plants.
- Suitable varieties for sowing are given in Annexure III.
- **Horticulture**
 - In North Hill Zone of Chhattisgarh, presently mango crop is at flowering/fruit setting stage, at this stage powdery mildew is commonly observed in mango, which causes poor fruit setting and later on fruit dropping. Hence, it is advised to keep watch over the crop and whenever the symptoms appears, spray Carbendizim (Bavistin) @1.5g or Sulphex @3.0g per litre of water.
 - In Chhattisgarh Plain Zone, irrigate banana and papaya seedlings once in week and give support to the banana plant at the time of flowering.
- **Animal Husbandry**
 - In Betul and Chhindwara districts of Satpura Plateau Zone, control of Ranikhet disease in bird vaccinates F-1 or Lasota strain vaccine. Vaccinate the cattle's for H.S and B.Q. Given cool drinking water three times a day to cattles/ birds. Sun stroke symptom present in cattle salt + sugar mix water should be given.
 - In Bastar Plateau Zone of Chhattisgarh, to protect livestock from diseases like Hemorrhagic Septicaemia (H.S.), Black quarter (B.Q.), Anthrax, Theileriosis etc. consult the veterinary Doctor and vaccinate. Undertake de worming in cattle with medicines like Piparagen, Benminth & Panaraquar.
 - In Kymore Plateau and Satpura Hill Zone of Madhya Pradesh, during night hours, poultry sheds should be lighted with 200W bulb to protect birds against cold.
 - In Malwa Plateau Zone of Madhya Pradesh, to control of respiratory diseases in poultry birds, give Furazole @ 1 gram for adult and ½ gram for small birds. Medicine should be dissolved in 1 litre of water.
- **Fishery**
 - In North Hill Zone of Chhattisgarh, as temperature is increasing and it will favour the growth of fishes. Hence, add cow dung and lime in the pond as natural food for fishes and alternative feeds may also be used like Rice Bran and Mustard cake (each of 5 kg per day per acre area of pond).

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



Mustard



Maize



Cauliflower



Wheat

- **Realised Rainfall:** Weather remained mainly dry/ dry over the region.
- **Realised Temperatures:** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over West Uttar Pradesh, Himachal Pradesh. They were **above normal (1.6°C to 3.0°C)** at many places over East Uttar Pradesh, Punjab, Haryana, Chandigarh & Delhi and near normal over rest of the region. Minimum temperatures were **appreciably below normal (1.6° C to 3.0° C)** at few places over Himachal Pradesh, Jammu & Kashmir. They were **appreciably above normal (3.0°C to 5.0°C)** at many places over East Rajasthan and at isolated places over East Uttar Pradesh and near normal over rest of the region. The lowest minimum temperature of **9.0°C** recorded at **Amritsar (Punjab)** in the plains of the country.
- **Advisories:**
 - As rain/snow is likely at many places over Jammu & Kashmir on 7th March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - **Jammu & kashmir**
 - In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, undertake transplanting of Tomato/Brinjal/chilli in the main field. Undertake harvesting of potato and direct sowing of cucurbits like cucumber, bottle ground, bitter gourd, pumpkin etc. Undertake sowing of okra before rain.
 - Rajouri, Ramban, Poonch and Udampur districts of Intermediate Zone, clear drainage channels in standing crops, vegetable fields and in saffron fields. Provide staking with dry wooden branches to garden pea. Continue nursery preparation of summer vegetables under protected structures. Undertake transplanting cucurbits in main field.

Undertake weeding and hoeing operation in onion and garlic crop in clear weather.

- In Valley Temperate Zone of Jammu and Kashmir, apply first dose of Urea (1.75Kg/kanal). In high frost condition, continue raising of nursery for sowing of summer vegetables in hot beds and poly house. Maintain drainage channels in the standing crop field of saffron, wheat, and other standing crop. Continue sowing of leafy vegetables in poly house.
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, monitor wheat crop for yellow rust and leaf spot attacks, if observed apply propiconazole (Tilt) @ 0.1% during clear weather. 2-3 sprays at 15 days interval on non rainy day.
- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, weather is favourable for infestation of yellow rust on wheat, Alternaria Blight and sucking pest on mustard, Wilt and blight on gram and pea and outbreak of sucking pest on vegetable crops, Monitor the crops and take appropriate plant protection measures to control above pest/disease.
- **Uttarakhand:**
- In Udham Singh Nagar district of Bhabar and Tarai Zone, continue sowing of sunflower varieties like Mordan, Surya and Sankul variety of maize like Naveen, Shweta, Navjot, Kanchan, Surya, Gaurav, Sweet corn; Madhuri and hybrid maize variety Ganga-11. Undertake sowing of Urad crop during first fortnight of March. Improved varieties of Urd like Narendra Urd-1, Pant Urd 31, PantUrd 35 should be used. Undertake sowing of bottle gourd, bitter gourd, ridged gourd and pumpkin. Light irrigation should be provided in Gram crop before flowering. Don't irrigate at flowering stage otherwise production would be reduced.
- In Nainital district of Bhabar and Tarai Zone, undertake weeding, hoeing and give irrigation and fertilizers to wheat crop as per requirement. Continue nursery sowing of tomato, capsicum and brinjal for sowing in mid and high hills. In valley region, continue field preparation for sowing of potato and Kufrijyoti variety of potato during the last week of this month. As temperature is increasing in coming days in the valleys, Arkakomal and Contender variety of French bean should be sown.
- In Dehradun, Pauri and Haridwar districts of Sub Humid Sub Tropic Zone, irrigate wheat crop as per availability of moisture in the soil. Undertake field preparation for spring sugar plantation.
- In Bhabar and Tarai Zone, there may be occurrence of Mahu in mustard crop, spray Thiamethoxam 25 WSG @ 50-100g/ha. There may be attack of fruit borer in gram and lentil crop at the time of flowering, spray Melathion 50EC @ 2.0 litre/ha or Quinalphos 25 EC @ 1.5litre/ha in 500-600 liter of water.
- In TehriGarhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, continue the weeding and hoeing in vegetable crops. Continue nursery preparation for chilli, tomato and brinjal in poly houses. Prepare seedlings of early cucurbitaceous crops in small polythene bags in poly houses.
- In Bhabar and Tarai Zone, weather is favourable for late blight disease in potato and tomato crop, spray Mancozeb @ 2.5g/litre and there may be incidence of yellow rust disease in wheat crop, spray Propiconazole 25EC @ 1ml/litre of water.
- **Himachal Pradesh:**
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, continue land preparation for sowing of early crop of bhindi, seed rates should be 10-15 kilogram per acre. Continue sowing of spinach, coriander, fenugreek in present weather conditions. Undertake sowing of sunflower, as time is suitable for sowing of sunflower in low and mid-hill areas. Continue sowing of French bean, cluster bean, summer radish as present temperature is suitable for germination of seeds. Continue transplanting of young seedlings of tomato, chilli and cole crop. In mid hill region continue nursery sowing of cucurbits viz. cucumber, bitter gourd, bottle guard and summer squash in polytubes inside polyhouse. Do the earthing up operation in the early sown potato crop. Continue sowing of early crop of ladies finger with seed rates 10-15 kilogram per acre. Sow chari and bajra for summer green fodder.
- In High Hills Temperate Dry Zone of Himachal Pradesh, in Kinnaur and Lahaul&Spiti districts, in polyhouse there may be chances of attack of aphid in vegetables, for control spray Acetamiprid 20 SP @ 1 gm or Lambdaialotrina 5 EC @ 0.8 ml per liter of water.
- In Mild Hills Sub-Humid Zone of Himachal Pradesh, in Kullu and Mandi districts, undertake pruning up to half branch and paste with Chaubatia paints to prevent the infection in apple and per orchards and stone fruits. Undertake preparation of tree basins and start pruning by removing diseased and dense unwanted branches etc. in pomegranate orchards.
- In Mild Hills Sub-Humid Zone of Himachal Pradesh, in Kullu and Mandi districts, present weather is conducive for attack of collar rot in apple, for control remove the soil around the collar region and expose the affected portion to sun. Remove the affected bark and apply Chaubatiapaint or Copper Oxychloride paint. Irrigate 30cm radius around tree trunk with Bavistin @ 30gms per 15 litre of water or Ridomil @ 75gm per 15litres of water or Dithane M-45 @ 90 to 100gms per 15litres of water on a non rainy day.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, present weather is conducive for attack of canker in citrus, for control spray Streptocyclin Sulphate 500 ppm solution. In

areas where symptoms of yellow rust appears in the wheat crop spray Tilt (Propiconazole) 25 EC / Folicure (Tebuconazole) 25 EC / Bayletan 25 WP @ 0.1% i.e. 30 ml or 30 g per 30 litres of water per kanal and repeat the spray after 15 days interval on a non rainy day.

- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, present weather is conducive for attack of thrips in onion crop, for control spray Carbaryl @ 2 gram/ litre of water with sticky material (Tipol 1.0 gram /litre) is advised on a non rainy day.

- **Punjab, Haryana and Delhi:**

- In Western Plain Zone of Punjab, due to increase in temperature, farmers are advised to provide light irrigation to the wheat crop in the evening as per moisture status when wind speed is slow. Weather is suitable for sowing of okra varieties Punjab Padmini/ Punjab 7/ Punjab 8. Undertake transplanting of CH-1, CH-3, Punjab Sindhuri, Punjab Tej, Punjab Guchhedar and Punjab Surakh varieties of Chilli.

- In Western Zone of Punjab, due to higher temperature in these days, farmers are advised to monitor the standing crops daily for the incidence of pest and disease and provide light irrigation to the crops as per requirement. Continue transplanting of the capsicum and chilli. Irrigate the field after transplanting of seedlings and repeat the irrigation once a week. Prepare the field for sowing of Okra. Varieties recommended for sowing are Punjab Padmini, Punjab-7 and Punjab-8.

- Irrigation in vegetable crop should be withheld for next 3-4 days as isolated rainfall may occur over the Undulating Plain zone of Punjab.

- In view of the anticipated dry weather conditions irrigate the wheat crop in Eastern zone of Haryana and there should be no water stress at anthesis stage. Undertake planting of spring season sugarcane. Apply irrigation and undertake cutting of fodder crops.

- In New Delhi, keeping in view of the increasing temperature, apply light irrigation in standing crops and vegetables, start sowing of ladies finger- A-4, Parbani Kranti and Arka anamika cultivars. Seed rates should be 10-15 kilogram per acre. Undertake sowing of French bean, cluster bean, summer radish as present temperature is suitable for germination of seeds.

- Farmers in New Delhi are advised to procure quality seeds for green gram and black gram from certified source for sowing during first week of March. Variety: - Green gram – Pusa Visal, Pusa Baisakhi, PDM-11, SML-32 and Black gram – Pant Urd 19, Pant Urd 30, Pant Urd 35, PDU-1. Undertake planting of sugarcane in vacant fields. Choose the best varieties recommended for the region, such as Karnal-1, Karnal-2, Karnal-3, Karnal-4, Karnal-5, and Karnal-6 etc. Row to row spacing of 90 cm. Inter-cropping of short duration crops like lobia, guar, moong, spinach, amaranthus etc. may be done with sugarcane.

- In New Delhi, in present weather condition, constant monitoring of the wheat crop against rust disease is advised. If symptoms of black, brown or yellow rust appears, spray the crops with Dithane M-45 @ 2.5 g per litre of water.

- In Western Zone and Western Plain zone of Punjab, to control purple blotch in onion, spray the crop with 600 g of Indofil M-45 mixed with 200 ml of Triton or linseed oil in 200 litres of water per acre as soon as first symptom of purple blotch appears in the crop. The spray should be repeated at 10 days interval.

- In Western Zone of Punjab, monitor the wheat fields for appearance of yellow rust. As soon as the disease appears, spray the crop with Tilt or Shine or Bumper or Stilt or Compass or Markzole @ 200 ml in 200 litres of water per acre. Repeat the spray at 15 days interval. Also observe the fields for appearance of aphids, if the population reaches the economic threshold level (ETL) i.e. 5 aphids/earhead, spray the crop with 40 ml Confidor 17.8 SL or 20g Actara 25 WG in 80-100 liter of water per acre.

- Alternaria blight are noticed in the mustard field in Western Plain Zone of Punjab, farmers are advised to spray the crop with Blitox or Indofil m 45 @ 250 gm in 100 liters of water/acre followed by second spray of Score 25 EC @ 100ml and third spary of Blitox or Indofil M 45 @ 25 gm in 100 liters of water / acre at 15 days intervals. Spraying should be done in the afternoon when the pollinators are less active.

- Under prevailing cloudy weather conditions in Western Plain Zone of Punjab, aphids may severely attack on wheat crop. Therefore, farmers are advised to observe their fields, if the population reaches the economic threshold level (ETL) i.e. 5 aphids/earhead, spray the crop with 40 ml Confidor 17.8 SL (imidacloprid) or 20g Actara 25 WG (thiamethoxam) or 150 ml Rogar 30 EC (dimethoate) in 80-100 litres of water / acre.

- Weather would be favourable for leaf miner and aphid attack in mustard in Undulating Plain zone of Punjab. Farmers are advised to monitor the field for both insect infestation regularly. If pest reaches the ETL level (10aphids/plant), and if leaf miner damage is severe, spray 40ml Actara / acre for their effective control.

- **Uttar Pradesh:**

- In Some parts of West Uttar Pradesh, late sown wheat is ear head stage/ flowering stage. Crop is very sensitive to moisture stress at this stage. Due prevailing dry weather / above normal temperature and also expected warmer temperature during the season, there would more evapotranspiration. Monitor crop regularly and apply irrigation at regularly to keep optimum moisture in the field.

- In Central Plain Zone of Uttar Pradesh, undertake sowing of two lines of Urd/Moong or one line of okra as intercrop in sugarcane crop. Undertake sowing of maize and lobia to meet requirement of green forage during summer. Apply

irrigation to late sown wheat and sarson crop as per requirement. Avoid irrigation to standing gram crop which is in flowering stage. Undertake earthing up of potato crop. Undertake sowing of maize and urad crop. Undertake nursery sowing of tomato and chilli and field preparation for transplanting. Complete sowing of cucurbits, bhindi, pumpkin. Undertake sowing of mung crop. Undertake harvesting of matured mustard crop. Undertake intercultural operations and irrigation in onion crop as per requirement. Undertake planting of spring sugarcane

- In Eastern plain Zone of Uttar Pradesh, apply irrigation in late sown wheat crop at ear emergence stage as per requirement. Undertake sowing of Cucurbitaceous crop. Undertake earthing up of potato crop. Undertake sowing of lobia and maize for fodder crop.
- In North Eastern plain Zone of Uttar Pradesh, continue transplanting of onion.
- In Bundelkhand Zone of Uttar Pradesh, as temperature is rising apply irrigation to late sown jou and wheat crop at ears emergence stage and timely sown wheat crop at milking stage as per requirement. Undertake harvesting of matured mustard, linseed, gram, pea crops. Apply light irrigation to late sown mustard, lentil, linseed and other *rabi* crops at grain filling stage as per requirement. Undertake land preparation for sowing of urad and mung. Continue sowing of bhindi, Cucurbitaceous vegetables. Continue transplanting of cauliflower, cabbage, tomato, chilli, brinjal.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of pod borer in gram crop, for control, spray Quinalphos 25% @ 2 litres in 500 to 600 litres of water per hectare.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of fruit borer in Cucurbitaceous crop, for control spray Neem oil @ 1.5 to 2.0 ml per litre of water, 3 to 4 times at the 8 to 10 days of intervals.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of pod borer in gram, for control, spray spray HNPV @ 0.1gm per litre of water, are done twice at an interval of 7 days starting from pod formation stage.
- In Bundelkhand Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of aphid in late sown mustard, lentil, linseed and other *rabi* crops, for control spray Monocrotophos @ 1.25 litres in 600 litres of water per hectare.
- In Bundelkhand Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of termite in wheat crop, for control, apply Chlorpyrifos @ 3.0 litres along with irrigation.
- **Rajasthan:**
- In Dungarpur, Banswara and Pratapgarh districts of Southern Humid Plain Zone, in view of the increasing day temperature, farmers are advised to apply irrigation in wheat at milking stage and in maize crop at silking and grain filling stage.
- In Sub Humid Southern Plain and Aravali Hill Zone, in Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts, continue harvesting of matured mustard crop. Continue sowing of summer okra and summer groundnut.
- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, undertake harvesting of matured mustard crop. Stop irrigation 10 days before digging of matured potato crop. Dig using potato digger after drying of leaves and hardening of skin to minimize labour cost and cut injury to tubers.
- In Jaisalmer and Bikaner districts of Arid Western Plain Zone, in timely sown wheat crop apply 5th irrigation to standing crop at 90-95 days after sowing on start of milking stages, and also apply 3rd irrigation to the barley at 100-110 days after sowing. In late sown wheat crop apply 4th irrigation to standing crop at 75-80 days after sowing on ear head stages, In Barmer, Churu, Jalore, Jodhpur, Pali districts of Arid Western Plain Zone, apply irrigation to wheat crop at 105 to 110 days after sowing. Undertake land preparation for sowing of guar. Apply irrigation to vegetable crops as per requirement.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar, undertake planting of sugarcane. Apply fourth irrigation to timely sown wheat crop at 15-20 days after third irrigation at ears emergence stage and in late sown wheat crop apply third irrigation 25 to 30 days after second irrigation.
- In Southeastern Humid Plain Zone, in Jhalawar, Kota, Bundi, Baran districts, apply irrigation to wheat crop as per requirement. Apply first irrigation at 40 to 45 days and second irrigation at 60 to 75 days after sowing and if one irrigation is available than apply irrigation at 50 days of sowing in linseed crop.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar, prevailing weather condition is congenial for attack of yellow rust in wheat crop for control spray Propiconazole 25 EC @ 1 ml per litre of water.
- In Jaisalmer and Bikaner districts of Arid Western Plain Zone, prevailing weather condition is congenial for attack of aphid and other sucking pest in gram and mustard crop, for control spray Thiomethoxam (25 WG) @ 100 g or Dimethoate 30 EC @ 1200 ml per hectare.
- In Jaisalmer and Bikaner districts of Arid Western Plain Zone, prevailing weather condition is congenial for attack of white rust in late sown mustard crop, for control spray Ridomil MZ @ 2 gm per litre of water.
- In Jaisalmer and Bikaner districts of Arid Western Plain Zone, prevailing weather condition is congenial for attack of blight infection in cumin and anthracnose disease in chilli crop, for control blight spray Diethane M-45 @ 2-3g/litre of water at the time of flowering and repeat the spray at 10-15 days interval and for anthracnose spray Foliar application of Diethane M-45 @ 2g/litre.
- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, prevailing

weather condition is congenial for attack of loose smut and karnal bunt disease in wheat crop, for control loose smut destroy the loose smut affected ears to prevent its spread and spray Mencozeb @ 2%, for control karnal bunt disease.

➤ 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 Imidachlorpid @ 0.2 % and Carbendazim @ 0.2 %.

➤ In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of leaf curl disease in papaya trees, for control spray Mancozeb @ 2.5 mg per litre of water.

➤ In Eastern plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of fruit drop in Mango trees, for control spray Sulphur dust @ 2 gm per litre of water.

➤ In Dungarpur, Banswara and Pratapgarh districts of Southern Humid Plain Zone, prevailing weather condition is congenial for attack of powdery mildew in mango trees for control spray Sulfur @ 4g per litre of water or Kerathane @ 1ml per litre of water.

➤ In Himachal Pradesh, prepare the pits for planting the winter plants like peanut, walnut, almond plum and peach. The new plant planted in frost affected region may be protected with thatch of grass.

➤ In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, undertake spring season planting of fruit plants like mango/citrus/guava. Remove thatching material.

➤ In Bhabar and Tarai Zone of Uttarakhand, undertake planting of fruit crops like apple, pear, plum, wall nut etc. To control the Canker disease in the apple, apply 0.3% Copper-Oxichloride after cutting and pruning.

• **Floriculture**

➤ In Western Plain Zone of Uttar Pradesh, in present weather constant monitoring of inflorescence rotting disease in marigold crop is needed. If symptoms are observed, spray Bavistin @ 1 gram per litre of water.

➤ In Himachal Pradesh, present weather is conducive for the attack of inflorescence rotting disease in marigold crop for control spray Bavistin @ 1 g per litre of water or Indofil-M 45 @ 2 ml per litre of water and undertake intercultural operations and weeding in flower beds. The flowers affected with aphids, for control spray Malathion @ 0.05% on a non rainy day.

➤ In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, undertake harvesting of spikes (Gladiolus) when the lower most two florets started showing colour.

➤ In Valley Temperate Zone of Jammu and Kashmir, dug drainage channels to avoid water stagnation after snow melting.

• **Apiculture**

➤ In Himachal Pradesh, artificial feed of 50% sugar and 50% water solution should be given to honey bees. Insert the brood chamber without frame for ensuring aeration. The temperature is still low, keep the winter packing to colonies. Check the colonies for nectar and Give artificial food to honey bees as there is scarcity of flowers during these days. And keep colonies in sun on clear day.

➤ In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, shift the bee colonies near the fields of mustard/gobisarson.

• **Animal Husbandry**

➤ In Sub-Montane and Low Hills Sub-Tropical Zone of Himachal Pradesh, temperature is still low so protect the newly born calves and animals from cold as weather is conducive for white scour, naval ill and pneumonia.

➤ In Uttar Pradesh, protect the cattels from stomach problem disease don't feed flowered barseem. Provide deworms to goats and sheeps. Keep the Animal barn clean and provide fresh drinking water to cattle. Vaccination against foot and mouth disease of cattle immediately.

➤ In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, give special care to young calves as they are more sensitive to pneumonia. Use dry gunny bags as bedding material for protection against low night temperatures. Provide dry bedding during night.

➤ In Bhabar and Tarai Zone of Uttarakhand, Toxocaravitulorum (patera) are found in the food tube of buffalo calf in the age of 1-4month. Piperazine should be given to the infected calf on identification of Patera disease as delay in treatment increases mortality on calves.

• **Poultry**

➤ In Uttar Pradesh, Provide Balance diet to poultry and consult the Veterinary doctor for future vaccinations. Provide Dewormis / Nematicide medicines to hens.

➤ In Rajouri, Ramban, Poonch and Udhampur districts of Jammu & Kashmir, in poultry shed, keep temperature 37 deg. Celcius for day old chicks in brooding house with the bukhari.

➤ In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, cover the poultry shed with gunny bags in order to protect the birds from cold weather.

• **Fishery**

- In Himachal Pradesh, undertake renovation of ponds, preparation of new ponds, de-silting, manuring etc. to add stocking in by the next month.
- In Jammu & Kashmir, add supplementary feed (GNOC/mustard oilcake and Rice/Wheat bran) @ 3% of total body weight of fish biomass.

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

Annexure I

Sub-Divisions	15.02.17		22.02.17		01.03.17	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	0.0	-100	25.0	-56	13.8	-74
Dibang Valley	19.0	74	69.0	35	71.0	39
East Kameng	0.0	-100	0.0	-100	6.2	-71
East Siang	6.8	-51	34.3	65	18.5	-14
Kurung Kumey	**	**	**	**	***	**
Lohit	0.8	-93	70.2	137	46.2	77
Lower Dibang Valley	29.9	174	53.5	4	32.9	-35
Lower Subansari	**	**	**	**	**	**
Papumpare	0.0	-100	36.8	59	17.9	12
Tawang	**	**	35.0	197	5.0	-50
Tirap	**	**	**	**	**	**
Upper Siang	12.6	1	12.8	-79	89.0	72
Upper Subansari	0.0	-100	41.4	146	2.8	-76
West Kameng	0.0	-100	14.1	19	3.1	-69
West Siang	9.2	149	38.7	135	12.6	-43
Assam&Meghalaya						
Assam						
Baksa	0.0	-100	45.0	524	11.1	5
Barpeta	0.0	-100	36.0	401	5.4	-48
Bongaigaon	0.0	-100	50.8	350	0.0	-100
Cachar	0.0	-100	39.7	71	4.8	-71
Chirang	0.0	-100	26.6	135	0.0	-100
Darrang	**	**	**	**	**	**
Dhemaji	0.0	-100	40.0	205	30.0	116
Dhubri	0.0	-100	8.2	413	0.0	-100
Dibrugarh	0.5	-95	62.8	351	33.5	99
Goalpara	0.0	-100	22.4	300	0.0	-100
Golaghat	0.0	-100	44.3	387	2.6	-63
Hailakandi	0.0	-100	64.1	201	0.0	-100
Jorhat	0.0	-100	30.3	212	3.0	-65
Kamrup(Rural)	0.0	-100	24.6	246	11.0	57
Kamrup(Metro)	0.0	-100	10.4	46	0.0	-100
Karbi Anglong	0.0	-100	6.1	-46	0.2	-97
Karimganj	0.0	-100	68.9	499	9.9	25
Kokrajhar	0.0	-100	0.2	-98	0.0	-100
Lakhimpur	0.0	-100	39.6	202	5.4	-61

Morigaon	0.0	-100	6.6	-26	0.0	-100
N.C.Hills	0.0	-100	22.5	61	49.2	180
Nagaon	0.0	-100	1.5	-71	11.1	99
Nalbari	0.0	-100	25.9	245	5.6	40
Sonitpur	0.0	-100	59.6	740	8.6	69
Sibsagar	0.0	-100	29.3	142	4.9	-36
Tinsukia	1.5	-83	56.4	200	29.9	70
Udalgiri	0.0	-100	72.5	1015	14.0	250
Meghalaya						
East Garo Hills	0.0	-100	0.5	-89	2.8	-71
East Khasi Hills	0.0	-100	108.8	1136	103.7	1471
Jaintia Hills	0.0	-100	0.0	-100	0.0	-100
Ribhoi	0.0	-100	0.9	-84	0.0	-100
South Garo Hills	0.0	-100	0.0	-100	2.0	-65
West Garo Hills	0.0	-100	0.0	-100	0.0	-100
West Khasi Hills	0.0	-100	6.0	-57	2.0	-78
NMMT						
Mizoram						
Aizwal	0.0	-100	0.0	-100	15.4	32
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	0.0	-100	0.0	-100	0.0	-100
Mamit	**	**	**	**	**	**
Saiha	0.0	-100	0.0	-100	0.0	-100
Serchhip	0.0	-100	0.0	-100	0.0	-100
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	0.0	-100	0.0	-100	0.0	-100
Churachandpur	**	**	**	**	**	**
Imphal east	0.0	-100	14.4	62	5.7	-51
Imphal west	0.0	-100	12.9	239	0.7	-95
Senapati	0.0	-100	12.0	650	37.0	461
Tamenglong	**	**	**	**	**	**
Thoubal	0.0	-100	7.0	218	4.0	-60
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	0.0	-100	0.0	-100	0.4	-88
Kephire	0.0	-100	0.0	-100	0.0	-100
Kohima	0.0	-100	0.0	-100	0.5	-95
Longleng	**	**	**	**	**	**
Mokokchung	**	**	**	**	**	**
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	0.0	-100	0.0	-100	1.0	-89
Tuensang	**	**	**	**	**	**
Wokha	0.0	-100	1.0	-88	1.0	-93
Zunheboto	**	**	**	**	**	**
Tripura						

Dhalai	0.0	-100	0.0	-100	24.2	66
NorthTripura	0.0	-100	0.0	-100	5.3	-70
SouthTripura	0.0	-100	0.0	-100	16.1	48
West Tripura	0.0	-100	0.0	-100	33.8	259
Himachal Pradesh						
Bilaspur	0.0	-100	8.2	-56	0.0	-100
Chamba	0.0	-100	39.3	74	2.6	-93
Hamirpur	0.0	-100	5.1	-67	0.0	-100
Kangra	0.0	-100	17.5	-6	0.1	-99
Kinnaur	0.0	-100	11.1	-63	2.4	-89
Kullu	0.0	-100	50.8	104	3.3	-88
Lahaul and Spiti	1.5	-96	41.4	22	11.0	-71
Mandi	0.0	-100	21.3	-1	0.1	-99
Shimla	0.0	-100	10.9	-44	1.8	-91
Sirmaur	0.0	-100	2.0	-84	0.0	-100
Solan	0.0	-100	5.2	-76	0.0	-100
Una	0.0	-100	2.1	-84	0.0	-100
Punjab						
Amritsar	0.0	-100	0.0	-100	0.0	-100
Barnala	0.0	-100	0.0	-100	0.0	-100
Bhatinda	0.0	-100	0.0	-100	0.0	-100
Faridkot	0.0	-100	0.0	-100	0.0	-100
Fatehgarh Saheb	0.0	-100	0.0	-100	0.0	-100
Ferozpur	0.0	-100	0.0	-100	0.0	-100
Gurdaspur	0.0	-100	3.6	-68	0.0	-100
Hoshiarpur	0.0	-100	0.0	-100	0.0	-100
Jalandhar	0.0	-100	0.0	-100	0.0	-100
Kapurthala	0.0	-100	0.0	-100	0.0	-100
Ludhiana	0.0	-100	0.0	-100	0.0	-100
Mansa	0.0	-100	0.0	-100	0.0	-100
Moga	0.0	-100	0.0	-100	0.0	-100
Muktesar	0.0	-100	0.0	-100	0.0	-100
Nawashahar	0.0	-100	0.0	-100	0.0	-100
Patiala	0.0	-100	0.0	-100	0.0	-100
Ropar	0.0	-100	0.1	-99	0.0	-100
Sangrur	0.0	-100	0.0	-100	0.0	-100
Mohali	0.0	-100	0.0	-100	0.0	-100
TarnTaran	0.0	-100	0.0	-100	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	0.0	-100	0.0	-100	0.0	-100
Bhiwani	0.0	-100	0.0	-100	0.0	-100
Chandigarh	0.0	-100	0.0	-100	0.0	-100
Faridabad	0.0	-100	0.0	-100	0.0	-100
Fatehabad	0.0	-100	0.0	-100	0.0	-100
Gurgaon	0.0	-100	0.0	-100	0.0	-100
Hissar	0.0	-100	0.0	-100	0.0	-100
Jhajar	0.0	-100	0.0	-100	0.0	-100
Jind	0.0	-100	0.0	-100	0.0	-100

Katihal	0.0	-100	0.0	-100	0.0	-100
Karnal	0.0	-100	0.0	-100	0.1	-99
Kurukshetra	0.0	-100	0.0	-100	0.0	-100
Mahendragarh	0.0	-100	0.0	-100	0.0	-100
Mewat	0.0	-100	0.0	-100	0.0	-100
Palwal	0.0	-100	0.0	-100	0.0	-100
Panchkkula	0.0	-100	0.0	-100	0.0	-100
Panipat	0.0	-100	0.0	-100	0.0	-100
Rewari	0.0	-100	0.0	-100	0.0	-100
Rohtak	0.0	-100	0.0	-100	0.0	-100
Sirsa	0.0	-100	0.0	-100	0.0	-100
Sonepat	0.0	-100	0.0	-100	0.0	-100
Yamunanagar	0.0	-100	0.0	-100	0.0	-100
Delhi						
Central Delhi	0.0	-100	0.0	-100	0.0	-100
East Delhi	0.0	-100	0.0	-100	**	**
New Delhi	0.0	-100	0.0	-100	0.0	-100
North Delhi	0.0	-100	0.0	-100	0.0	-100
North East Delhi	0.0	-100	0.0	-100	0.0	-100
North West Delhi	0.0	-100	0.0	-100	0.0	-100
South Delhi	0.0	-100	0.0	-100	0.0	-100
South West Delhi	0.0	-100	0.0	-100	0.0	-100
West Delhi	**	**	**	**	**	**
Jammu & Kashmir						
Anantnag	1.4	-93	71.7	134	6.9	-77
Badgam	0.0	-100	12.4	-36	2.0	-88
Bandipore	**	**	**	**	**	**
Baramula	1.2	-97	48.7	32	5.5	-87
Doda	0.0	-100	78.0	37	8.2	-85
Ganderbal	0.0	-100	82.6	342	3.2	-80
Jammu	0.0	-100	11.8	-42	0.2	-99
Kargil	0.0	-100	0.0	-100	**	**
Kathua	0.0	-100	3.4	-83	0.0	-100
Kistwar	**	**	**	**	**	**
Kulgam	0.4	-98	40.6	33	4.4	-68
Kupwara	2.9	-90	102.2	200	7.6	-77
Ladakh(Leh)	0.0	-100	3.2	58	0.2	-83
Poonch	**	**	**	**	**	**
Pulwama	0.0	-100	23.2	53	5.4	-56
Rajouri	0.0	-100	26.6	13	0.0	-100
Ramban	0.0	-100	74.6	31	4.9	-91
Reasi	0.0	-100	8.6	-72	2.2	-88
Samba	0.0	-100	2.6	-87	0.0	-100
Shopian	**	**	**	**	**	**
Srinagar	0.0	-100	34.0	82	3.3	-80
Udhampur	0.0	-100	25.4	-17	0.0	-100
East Madhya Pradesh						
Anuppur	12.6	46	0.0	-100	0.0	-100

Balaghat	2.8	-32	0.0	-100	0.0	-100
Chhatarpur	1.4	-69	0.0	-100	0.0	-100
Chindwara	5.6	60	0.0	-100	0.0	-100
Damoh	6.5	7	0.0	-100	0.0	-100
Dindori	4.0	-25	0.0	-100	0.0	-100
Jabalpur	20.2	531	0.0	-100	0.0	-100
Katni	3.0	-48	0.0	-100	0.0	-100
Mandla	6.8	7	0.0	-100	0.0	-100
Narsingpur	13.6	548	0.0	-100	0.0	-100
Panna	3.8	-23	0.0	-100	0.0	-100
Rewa	4.2	-27	0.0	-100	0.0	-100
Sagar	11.6	366	0.0	-100	0.0	-100
Satna	3.2	-38	0.0	-100	0.0	-100
Seoni	9.5	101	0.0	-100	0.0	-100
Shahdol	7.0	-10	0.0	-100	0.0	-100
Sidhi	2.0	-68	0.0	-100	0.0	-100
Singrauli	7.3	7	0.0	-100	0.0	-100
Tikamgarh	3.0	131	0.0	-100	0.0	-100
Umariya	10.2	28	0.0	-100	0.0	-100
West Madhya Pradesh						
Agar	0.0	-100	0.0	-100	0.0	-100
Alirajpur	0.0	-100	0.0	-100	0.0	-100
Asoknagar	0.0	-100	0.0	-100	0.0	-100
Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	5.9	245	0.0	-100	0.0	-100
Bhind	0.0	-100	0.0	-100	0.0	-100
Bhopal	2.8	65	0.0	-100	0.0	-100
Burhanpur	1.7	233	0.0	-100	0.0	-100
Datia	0.0	-100	0.0	-100	0.0	-100
Dewas	0.0	-100	0.0	-100	0.0	-100
Dhar	0.0	-100	0.0	-100	0.0	-100
Guna	7.7	175	0.0	-100	0.0	-100
Gwalior	0.0	-100	0.0	-100	0.0	-100
Harda	6.0	200	0.0	-100	0.0	-100
Hoshangabad	8.8	202	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	0.0	-100	0.0	-100
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	10.0	233	0.0	-100	0.0	-100
Rajgarh	0.4	-75	0.0	-100	0.0	-100
Ratlam	0.0	-100	0.0	-100	0.0	-100
Sehore	1.3	-30	0.0	-100	0.0	-100
Shajapur	0.0	-100	0.0	-100	0.0	-100
Sheopur Kalani	0.0	-100	0.0	-100	0.0	-100

Shivpuri	0.0	-100	0.0	-100	0.0	-100
Ujjain	0.0	-100	0.0	-100	0.0	-100
Vidisha	3.9	34	0.0	-100	0.0	-100
Chhattisgarh						
Balod	0.0	-100	0.0	-100	0.0	-100
Baloda Bazar	0.0	-100	0.0	-100	0.0	-100
Balrampur	0.0	-100	0.0	-100	0.0	-100
Bastar	0.0	-100	0.0	-100	0.0	-100
Bemetara	0.0	-100	0.0	-100	0.0	-100
Bijapur	0.0	-100	0.0	-100	0.0	-100
Bilaspur	8.6	94	0.0	-100	0.0	-100
Dantewara	0.0	-100	0.0	-100	0.0	-100
Dhamtari	0.2	-92	0.0	-100	0.0	-100
Durg	0.0	-100	0.0	-100	0.0	-100
Gariaband	0.0	-100	0.0	-100	0.0	-100
Janjgir	0.0	-100	0.0	-100	0.0	-100
Jashpurnagar	0.0	-100	0.0	-100	0.0	-100
Kabirdham	0.0	-100	0.0	-100	0.0	-100
Kanker	0.0	-100	0.0	-100	0.0	-100
Kondagaon	0.0	-100	0.0	-100	0.0	-100
Korba	0.0	-100	0.0	-100	0.0	-100
Koriya	2.9	110	0.0	-100	0.0	-100
Mahasumund	0.0	-100	0.0	-100	0.0	-100
Mungeli	1.8	-59	0.0	-100	0.0	-100
Narayanpur	0.0	-100	0.0	-100	0.0	-100
Raigarh	0.0	-100	0.0	-100	0.0	-100
Raipur	0.0	-100	0.0	-100	0.0	-100
Rajnandgaon	0.0	-100	0.0	-100	0.0	-100
Sukma	0.0	-100	0.0	-100	0.0	-100
Surajpur	0.0	-100	0.0	-100	0.0	-100
Surguja	3.8	-16	0.0	-100	0.0	-100
East Uttar Pradesh						
Allahabad	0.0	-100	0.0	-100	0.0	-100
Ambedkar Nagar	0.0	-100	0.0	-100	0.0	-100
Azamgarh	0.0	-100	0.0	-100	0.0	-100
Bahraich	0.0	-100	0.0	-100	0.0	-100
Ballia	0.0	-100	0.0	-100	0.0	-100
Balrampur	0.0	-100	0.0	-100	0.0	-100
Banda	0.0	-100	0.0	-100	0.0	-100
Barabanki	0.0	-100	0.0	-100	0.0	-100
Basti	0.0	-100	0.0	-100	0.0	-100
Chandauli	0.0	-100	0.0	-100	0.0	-100
Deoria	0.0	-100	0.0	-100	0.0	-100
Faizabad	0.0	-100	0.0	-100	0.0	-100
Farrukhabad	0.0	-100	0.0	-100	0.0	-100
Fatehpur	0.0	-100	0.0	-100	0.0	-100
Gazipur	0.0	-100	0.0	-100	0.0	-100
Gonda	0.0	-100	0.0	-100	0.0	-100
Gorakhpur	0.0	-100	0.0	-100	0.0	-100

Hardoi	0.0	-100	0.0	-100	0.0	-100
Jaunpur	0.0	-100	0.0	-100	0.0	-100
Kannauj	0.0	-100	0.0	-100	0.0	-100
Kanpur City	0.0	-100	0.0	-100	0.0	-100
Kanpur Dehat	0.0	-100	0.0	-100	0.0	-100
Kaushambi	0.0	-100	0.0	-100	0.0	-100
Kheri	0.0	-100	0.0	-100	0.0	-100
Kushi nagar	0.0	-100	0.0	-100	0.0	-100
Lucknow	0.0	-100	0.0	-100	0.0	-100
Maharajganj	0.0	-100	0.0	-100	0.0	-100
Mau	0.0	-100	0.0	-100	0.0	-100
Mirzapur	0.0	-100	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	0.0	-100
RaiBareilly	0.0	-100	0.0	-100	0.0	-100
Sahuji Maharajnagar	0.0	-100	0.0	-100	0.0	-100
Sant Kabirnagar	0.0	-100	0.0	-100	0.0	-100
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	**	**	**	**	**	**
Sidharthnagar	0.0	-100	0.0	-100	0.0	-100
Sitapur	0.0	-100	0.0	-100	0.0	-100
Sonbhadra	0.0	-100	0.0	-100	0.0	-100
Sultanpur	0.0	-100	0.0	-100	0.0	-100
Unnao	0.0	-100	0.0	-100	0.0	-100
Varanasi	0.0	-100	0.0	-100	0.0	-100
West Uttar Pradesh						
Agra	0.0	-100	0.0	-100	0.0	-100
Aligarh	0.0	-100	0.0	-100	0.0	-100
Auraiya	0.0	-100	0.0	-100	0.0	-100
Badaun	0.0	-100	0.0	-100	0.0	-100
Baghpat	0.0	-100	0.0	-100	0.0	-100
Bareilly	0.0	-100	0.0	-100	0.0	-100
Bijnor	0.0	-100	1.3	-83	0.6	-89
Bulandsahar	0.0	-100	0.0	-100	0.0	-100
Etah	0.0	-100	0.0	-100	0.0	-100
Etawah	0.0	-100	0.0	-100	0.0	-100
Firozabad	0.0	-100	0.0	-100	0.0	-100
GBNagar	0.0	-100	0.0	-100	0.0	-100
Ghaziabad	0.0	-100	0.0	-100	0.0	-100
Hamirpur	0.0	-100	0.0	-100	0.0	-100
Jalaun	0.0	-100	0.0	-100	0.0	-100
Jhansi	0.0	-100	0.0	-100	0.0	-100
Jotiba Phule Nagar	0.0	-100	0.0	-100	0.0	-100
Kanshiramnagar	0.0	-100	0.0	-100	0.0	-100
Lalitpur	8.0	233	0.0	-100	0.0	-100
Mahamaya Nagar	0.0	-100	0.0	-100	0.0	-100
Mahoba	0.0	-100	0.0	-100	0.0	-100
Mainpuri	0.0	-100	0.0	-100	0.0	-100
Mathura	0.0	-100	0.0	-100	0.0	-100

Meerut	0.0	-100	0.0	-100	0.1	-97
Moradabad	0.0	-100	0.0	-100	0.0	-100
Muzaffarnagar	0.0	-100	0.0	-100	0.0	-100
Pilibhit	0.0	-100	0.0	-100	0.0	-100
Rampur	0.0	-100	0.0	-100	0.7	-91
Saharanpur	0.0	-100	0.0	-100	0.0	-100
Shahjahanpur	0.0	-100	0.0	-100	0.0	-100
Uttarakhand						
Almora	0.0	-100	2.5	-82	0.0	-100
Bageshwar	0.0	-100	0.0	-100	0.0	-100
Chamoli	0.0	-100	12.8	-45	0.0	-100
Champawat	0.0	-100	4.0	-68	0.0	-100
Dehradun	0.0	-100	4.2	-74	0.4	-96
Garhwal Pauri	0.0	-100	2.4	-79	0.7	-86
Garhwal Tehri	0.0	-100	7.5	-47	1.6	-97
Haridwar	0.0	-100	4.1	-60	0.2	-97
Nainital	0.0	-100	12.1	-3	0.5	-93
Pithoragarh	0.0	-100	9.4	-51	0.0	-100
Rudraprayag	0.0	-100	4.9	-80	0.5	-97
Udham Sing Nagar	0.0	-100	0.0	-100	0.7	-63
Uttarkashi	0.0	-100	10.0	-56	0.0	-100
Bihar						
Araria	0.0	-100	0.0	-100	0.0	-100
Arwal	0.0	-100	0.0	-100	0.0	-100
Aurangabad	0.0	-100	0.0	-100	0.0	-100
Banka	0.0	-100	0.0	-100	0.0	-100
Begusarai	0.0	-100	0.0	-100	0.0	-100
Bhabua	0.0	-100	0.0	-100	0.0	-100
Bhagalpur	0.0	-100	0.0	-100	0.0	-100
Bhojpur	0.0	-100	0.0	-100	0.0	-100
Buxar	**	**	0.0	-100	0.0	-100
Darbhanga	0.0	-100	0.0	-100	0.0	-100
East Champaran	0.0	-100	0.0	-100	0.0	-100
Gaya	0.0	-100	0.0	-100	0.0	-100
Gopalganj	0.0	-100	0.0	-100	0.0	-100
Jahanabad	0.0	-100	0.0	-100	0.0	-100
Jamui	0.0	-100	0.0	-100	0.0	-100
Kathihar	0.0	-100	0.0	-100	0.0	-100
Khagadia	0.0	-100	0.0	-100	0.0	-100
Kishanganj	0.0	-100	0.0	-100	0.0	-100
Lakhisarai	0.0	-100	0.0	-100	0.0	-100
Madhepura	0.0	-100	0.0	-100	0.0	-100
Madhubani	0.0	-100	0.0	-100	0.0	-100
Monghyar	**	**	0.0	-100	0.0	-100
Muzaffarpur	0.0	-100	0.0	-100	0.0	-100
Nalanda	0.0	-100	0.0	-100	0.0	-100
Nawada	0.0	-100	0.0	-100	0.0	-100
Patna	0.0	-100	0.0	-100	0.0	-100
Purnea	0.0	-100	0.0	-100	0.0	-100

Rohtas	0.0	-100	0.0	-100	0.0	-100
Saharsha	0.0	-100	0.0	-100	0.0	-100
Samstipur	0.0	-100	0.0	-100	0.0	-100
Saran	0.0	-100	0.0	-100	0.0	-100
Sheikpura	0.0	-100	0.0	-100	0.0	-100
Sheohar	0.0	-100	0.0	-100	0.0	-100
Sitamarhi	0.0	-100	0.0	-100	0.0	-100
Siwan	0.0	-100	0.0	-100	0.0	-100
Supaul	0.0	-100	0.0	-100	0.0	-100
Vaishali	0.0	-100	0.0	-100	0.0	-100
West Champaran	0.0	-100	0.0	-100	0.0	-100
Jharkhand						
Bokaro	0.0	-100	0.0	-100	0.0	-100
Chatra	0.0	-100	0.0	-100	0.0	-100
Deoghar	0.0	-100	0.0	-100	0.0	-100
Dhanbad	0.0	-100	0.0	-100	0.0	-100
Dumka	0.0	-100	0.0	-100	0.0	-100
East Singbhum	0.0	-100	0.0	-100	0.0	-100
Garhwa	0.2	-90	0.0	-100	0.0	-100
Giridih	0.0	-100	0.0	-100	0.0	-100
Godda	0.0	-100	0.0	-100	0.0	-100
Gumla	0.0	-100	0.0	-100	0.0	-100
Hazaribagh	0.0	-100	0.0	-100	0.0	-100
Jamtara	**	**	**	**	**	**
Khunti	0.0	-100	0.0	-100	0.0	-100
Koderna	0.0	-100	0.0	-100	0.0	-100
Latehar	0.0	-100	0.0	-100	0.0	-100
Lohardagga	0.0	-100	0.0	-100	0.0	-100
Pakur	0.0	-100	0.0	-100	0.0	-100
Palamau	1.3	-66	0.0	-100	0.0	-100
Ramgarh	**	**	**	**	**	**
Ranchi	0.0	-100	0.0	-100	0.0	-100
Sahebganj	0.0	-100	0.0	-100	0.0	-100
Saraikela	0.0	-100	0.0	-100	0.0	-100
Simdega	0.0	-100	0.0	-100	0.0	-100
West Singbhum	0.0	-100	0.0	-100	0.0	-100
East Rajasthan						
Ajmer	0.0	-100	0.0	-100	0.0	-100
Alwar	0.0	-100	0.0	-100	0.0	-100
Banswara	0.0	-100	0.0	-100	0.0	-100
Baran	0.0	-100	0.0	-100	0.0	-100
Bharatpur	0.0	-100	0.0	-100	0.0	-100
Bhilwara	0.0	-100	0.0	-100	0.0	-100
Bundi	0.0	-100	0.0	-100	0.0	-100
Chittorgarh	0.0	-100	0.0	-100	0.0	-100
Dausa	0.0	-100	0.0	-100	0.0	-100
Dholpur	0.0	-100	0.0	-100	0.0	-100
Dungarpur	0.0	-100	0.0	-100	0.0	-100
Jaipur	0.0	-100	0.0	-100	0.0	-100

Jhalawar	0.0	-100	0.0	-100	0.0	-100
Jhunjhunu	0.0	-100	0.0	-100	0.0	-100
Karauli	0.0	-100	0.0	-100	0.0	-100
Kota	0.0	-100	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	0.0	-100
Rajsamand	0.0	-100	0.0	-100	0.0	-100
Sawai Madhopur	0.0	-100	0.0	-100	0.0	-100
Sikar	0.0	-100	0.0	-100	0.0	-100
Sirohi	0.0	-100	0.0	-100	0.0	-100
Tonk	0.0	-100	0.0	-100	0.0	-100
Udaipur	0.0	-100	0.0	-100	0.0	-100
West Rajasthan						
Barmer	0.0	-100	0.0	-100	0.0	-100
Bikaner	0.0	-100	0.0	-100	0.0	-100
Churu	0.0	-100	0.0	-100	0.0	-100
Hanumangarh	0.0	-100	0.0	-100	0.0	-100
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	0.0	-100	0.0	-100	0.0	-100
Pali	0.0	-100	0.0	-100	0.0	-100
Sri Ganganagar	0.0	-100	0.0	-100	0.0	-100
Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	0.0	-100
Anand	0.0	-100	0.0	-100	0.0	-100
Aravalli	0.0	-100	0.0	-100	0.0	-100
Banaskantha	0.0	-100	0.0	-100	0.0	-100
Broach	0.0	-100	0.0	-100	0.0	-100
Chhota Udepur	0.0	-100	0.0	-100	0.0	-100
DNH	**	**	**	**	**	**
Dahod	0.0	-100	0.0	-100	0.0	-100
Daman	**	**	**	**	**	**
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
Mahisagar	0.0	-100	0.0	-100	0.0	-100
Mehsana	0.0	-100	0.0	-100	0.0	-100
Narmada	0.0	-100	0.0	-100	0.0	-100
Navsari	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
Vadodara	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

Botad	0.0	-100	0.0	-100	0.0	-100
Devbhoomi Dwarka	0.0	-100	0.0	-100	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Gir Somnath	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
Morbi	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.0	-100
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	0.0	-100	0.0	-100
Mumbai Suburban	0.0	-100	0.0	-100	0.0	-100
North Goa	0.0	-100	0.0	-100	0.0	-100
Raigad	0.0	-100	0.0	-100	0.0	-100
Ratnagiri	0.0	-100	0.0	-100	0.0	-100
Sindhudurg	0.0	-100	0.0	-100	0.0	-100
South Goa	0.0	-100	0.0	-100	0.0	-100
Thane	0.0	-100	0.0	-100	0.0	-100
Madhya Maharashtra						
Ahmednagar	0.0	-100	0.0	-100	0.0	-100
Dhule	0.0	-100	0.0	-100	0.0	-100
Jalgaon	0.0	-100	0.0	-100	0.0	-100
Kolhapur	0.0	-100	0.0	-100	0.0	-100
Nandurbar	0.0	-100	0.0	-100	0.0	-100
Nasik	0.0	-100	0.0	-100	0.0	-100
Pune	0.0	-100	0.0	-100	0.0	-100
Sangli	0.0	-100	0.0	-100	0.0	-100
Satara	0.0	-100	0.0	-100	0.0	-100
Solapur	0.0	-100	0.0	-100	0.0	-100
Marathwada						
Aurangabad	0.0	-100	0.0	-100	0.0	-100
Beed	0.0	-100	0.0	-100	0.0	-100
Hingoli	0.0	-100	0.0	-100	0.0	-100
Jalna	0.0	-100	0.0	-100	0.0	-100
Latur	0.0	-100	0.0	-100	0.0	-100
Nanded	0.0	-100	0.0	-100	0.0	-100
Osmanabad	0.0	-100	0.0	-100	0.0	-100
Parbhani	0.0	-100	0.0	-100	0.0	-100
Vidarbha						
Akola	0.0	-100	0.0	-100	0.0	-100
Amraoti	0.0	-100	0.0	-100	0.0	-100
Bhandara	0.0	-100	0.0	-100	0.0	-100
Buldhana	0.0	-100	0.0	-100	0.0	-100
Chandrapur	0.0	-100	0.0	-100	0.0	-100
Gadchiroli	0.0	-100	0.0	-100	0.0	-100






Gondia	0.5	-84	0.0	-100	0.0	-100
Nagpur	0.0	-100	0.0	-100	0.0	-100
Wardha	0.0	-100	0.0	-100	0.0	-100
Washim	0.0	-100	0.0	-100	0.0	-100
Yeotmal	0.0	-100	0.0	-100	0.0	-100
Odisha						
Angul	0.0	-100	0.0	-100	0.0	-100
Balasore	0.0	-100	0.0	-100	0.0	-100
Bargarh	0.0	-100	0.0	-100	0.0	-100
Bhadrak	0.0	-100	0.0	-100	0.0	-100
Bolangir	0.0	-100	0.0	-100	0.0	-100
Boudh	0.0	-100	0.0	-100	0.0	-100
Cuttack	0.0	-100	0.0	-100	0.0	-100
Deogarh	0.0	-100	0.0	-100	0.0	-100
Dhenkanal	0.0	-100	0.0	-100	0.0	-100
Gajapati	0.0	-100	0.0	-100	0.0	-100
Ganjam	0.0	-100	0.0	-100	0.0	-100
Jagatsingpur	0.0	-100	0.0	-100	0.0	-100
Jajpur	0.0	-100	0.0	-100	0.0	-100
Jharsuguda	0.0	-100	0.0	-100	0.0	-100
Kalahandi	0.0	-100	0.0	-100	0.0	-100
Kandhamal	0.0	-100	0.0	-100	0.0	-100
Kendrapara	0.0	-100	0.0	-100	0.0	-100
Keonjhar	0.0	-100	0.0	-100	0.0	-100
Khurda	0.0	-100	0.0	-100	0.0	-100
Koraput	0.0	-100	0.0	-100	0.0	-100
Malkangiri	0.0	-100	0.0	-100	0.0	-100
Mayurbhanj	0.0	-100	0.0	-100	0.0	-100
Nawapara	0.0	-100	0.0	-100	0.0	-100
Nawarangpur	0.0	-100	0.0	-100	0.0	-100
Nayagarh	0.0	-100	0.0	-100	0.0	-100
Puri	0.0	-100	0.0	-100	0.0	-100
Rayagada	0.0	-100	0.0	-100	0.0	-100
Sambalpur	0.0	-100	0.0	-100	0.0	-100
Sonepur	0.0	-100	0.0	-100	0.0	-100
Sundargarh	0.0	-100	0.0	-100	0.0	-100
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	1.2	-93	9.3	-22	14.9	7
North & Middle Andaman	0.0	-100	0.0	-100	0.0	-100
South Andaman	2.7	-76	0.0	-100	0.0	-100
GWB						
Bankura	0.0	-100	0.0	-100	0.0	-100
Birbhum	0.0	-100	0.0	-100	0.0	-100
Burdwan	0.0	-100	0.0	-100	0.0	-100
East Midnapore	0.0	-100	0.0	-100	0.0	-100
Hooghly	0.0	-100	0.0	-100	0.0	-100
Howrah	0.0	-100	0.0	-100	0.0	-100

Kolkata	0.0	-100	0.0	-100	0.0	-100
Murshidabad	0.0	-100	0.0	-100	0.0	-100
Nadia	0.0	-100	0.0	-100	0.0	-100
24 Pargana (N)	0.0	-100	0.0	-100	0.0	-100
Purulia	0.0	-100	0.0	-100	0.0	-100
24 Pargana (S)	0.0	-100	0.0	-100	0.2	-97
West Midnapore	0.0	-100	0.0	-100	0.0	-100
SHWB & Sikkim						
Cooch Behar	0.0	-100	0.0	-100	0.0	-100
Darjeeling	0.0	-100	0.0	-100	4.2	-35
East Sikkim	0.0	-100	0.9	-90	8.0	-39
Jalpaiguri	0.0	-100	0.4	-93	0.6	-88
Malda	0.0	-100	0.0	-100	0.0	-100
North Dinajpur	0.0	-100	0.0	-100	0.0	-100
North Sikkim	0.0	-100	19.9	-18	6.5	-76
South Dinajpur	0.0	-100	0.0	-100	0.0	-100
South Sikkim	0.0	-100	0.0	-100	0.0	-100
West Sikkim	**	**	**	**	**	**
Karnataka						
Coastal Karnataka						
Dakshina Kannada	0.0	-100	0.0	-100	0.0	-100
Udupi	0.0	-100	0.0	-100	0.0	-100
Uttara Kannada	0.0	-100	0.0	-100	0.0	-100
NI Karnataka						
Bagalkote	0.0	-100	0.0	-100	0.0	-100
Belagavi	0.0	-100	0.0	-100	0.0	-100
Bidar	0.0	-100	0.0	-100	0.0	-100
Dharwad	0.0	-100	0.0	-100	0.0	-100
Gadag	0.0	-100	0.0	-100	0.0	-100
Haveri	0.0	-100	0.0	-100	0.0	-100
Kalaburgi	0.0	-100	0.0	-100	0.0	-100
Koppal	0.0	-100	0.0	-100	0.0	-100
Raichur	0.0	-100	0.0	-100	0.0	-100
Vijayapura	0.0	-100	0.0	-100	0.0	-100
Yadgir	0.0	-100	0.0	-100	0.0	-100
SI Karnataka						
Ballari	0.0	-100	0.0	-100	0.0	-100
Bangalore Rural	0.0	-100	0.0	-100	0.0	-100
Bangalore Urban	0.0	-100	0.0	-100	0.0	-100
Chamarajanagar	0.0	-100	0.0	-100	0.0	-100
Chikaballapur	0.0	-100	0.0	-100	0.0	-100
Chikkamagaluru	0.0	-100	0.0	-100	0.0	-100
Chitradurga	0.0	-100	0.0	-100	0.0	-100
Davangere	0.0	-100	0.0	-100	0.0	-100
Hassan	0.0	-100	0.0	-100	0.0	-100
Kodagu	0.0	-100	0.0	-100	0.0	-100
Kolar	0.0	-100	0.0	-100	0.0	-100
Mandya	0.0	-100	0.0	-100	0.0	-100
Mysuru	0.0	-100	0.0	-100	0.0	-100

Ramanagara	0.0	-100	0.0	-100	0.0	-100
Shivamogga	0.0	-100	0.0	-100	0.0	-100
Tumakuru	0.0	-100	0.0	-100	0.0	-100
Kerala						
Alappuzha	0.0	-100	0.0	-100	0.0	-100
Kannur	0.0	-100	0.0	-100	0.0	-100
Ernakulam	0.0	-100	0.0	-100	0.0	-100
Idukki	1.1	-71	0.0	-100	0.0	-100
Kasaragod	0.0	-100	0.0	-100	0.0	-100
Kollam	1.3	-83	0.0	-100	0.0	-100
Kottayam	0.1	-98	0.0	-100	0.0	-100
Kozhikode	0.0	-100	0.0	-100	0.1	-94
Malappuram	0.0	-100	0.0	-100	0.0	-100
Palakkad	0.0	-100	0.0	-100	0.0	-100
Pathanamthitta	0.0	-100	0.0	-100	0.0	-100
Thiruvananthapuram	0.0	-100	0.0	-100	0.1	-99
Thrissur	0.0	-100	0.0	-100	0.0	-100
Wyand	0.0	-100	0.0	-100	0.0	-100
Tamil Nadu						
Ariyalur	0.0	-100	0.0	-100	0.0	-100
Chennai	0.0	-100	0.0	-100	0.0	-100
Coimbatore	0.0	-100	0.0	-100	0.0	-100
Cuddalore	0.3	-84	0.0	-100	0.0	-100
Dharmapuri	0.0	-100	0.0	-100	0.0	-100
Dindigul	0.7	-71	0.0	-100	0.0	-100
Erode	0.0	-100	0.0	-100	0.0	-100
Kanchipuram	0.1	-97	0.0	-100	0.0	-100
Kanyakumari	0.0	-99	0.0	-100	0.0	-100
Karaikal	0.0	-100	0.0	-100	0.0	-100
Karur	0.0	-100	0.0	-100	0.0	-100
Krishnagiri	0.0	-100	0.0	-100	0.0	-100
Madurai	0.5	-83	0.0	-100	0.0	-100
Nagapattinam	6.9	56	0.0	-100	0.0	-100
Namakkal	0.0	-100	0.0	-100	0.0	-100
Nilgiris	0.0	-100	0.0	-100	0.0	-100
Perambalur	0.0	-100	0.0	-100	0.0	-100
Puducherry	0.0	-100	0.0	-100	0.0	-100
Pudukottai	1.3	-1	0.0	-100	0.0	-100
Ramanathapuram	7.1	65	0.0	-100	0.0	-100
Salem	0.0	-100	0.0	-100	0.0	-100
Sivaganga	1.1	-52	0.0	-100	0.0	-100
Thanjavur	4.0	42	0.0	-100	0.0	-100
Theni	0.1	-96	0.0	-100	0.0	-100
Tirunelveli	5.0	-36	0.0	-100	1.7	-80
Tirupur	0.0	-100	0.0	-100	0.0	-100
Tiruvallur	0.0	-100	0.0	-100	0.0	-100
Tiruvannamalai	0.0	-100	0.0	-100	0.0	-100
Tiruvarur	2.0	-50	0.0	-100	0.0	-100
Toothukudi	0.3	-89	0.0	-100	0.0	-100

Trichy	0.0	-100	0.0	-100	0.0	-100
Vellore	0.0	-100	0.0	-100	0.0	-100
Villupuram	0.0	-100	0.0	-100	0.0	-100
Virudhunagar	6.2	63	0.0	-100	0.0	-100
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0.0	-100	0.0	-100
Guntur	0.0	-100	0.0	-100	0.0	-100
Krishna	0.0	-100	0.0	-100	0.0	-100
Nellore	0.0	-100	0.0	-100	0.0	-100
Prakasam	0.0	-100	0.0	-100	0.0	-100
Sirkakulam	0.0	-100	0.0	-100	0.0	-100
Visakhapatnam	0.0	-100	0.0	-100	0.0	-100
Vizianagram	0.0	-100	0.0	-100	0.0	-100
West Godavari	0.0	-100	0.0	-100	0.0	-100
Rayalaseema						
Anantapur	0.0	-100	0.0	-100	0.0	-100
Chittoor	0.0	-100	0.0	-100	0.0	-100
Cuddapah	0.0	-100	0.0	-100	0.0	-100
Kurnool	0.0	-100	0.0	-100	0.0	-100
Telangana						
Adilabad	0.0	-100	0.0	-100	0.0	-100
Hyderabad	0.0	-100	0.0	-100	0.0	-100
Karimnagar	0.0	-100	0.0	-100	0.0	-100
Khammam	0.0	-100	0.0	-100	0.0	-100
Mehabubnagar	0.0	-100	0.0	-100	0.0	-100
Medak	0.0	-100	0.0	-100	0.0	-100
Nalgonda	0.0	-100	0.0	-100	0.0	-100
Nizamabad	0.0	-100	0.0	-100	0.0	-100
Rangareddy	0.0	-100	0.0	-100	0.0	-100
Warangal	0.0	-100	0.0	-100	0.0	-100

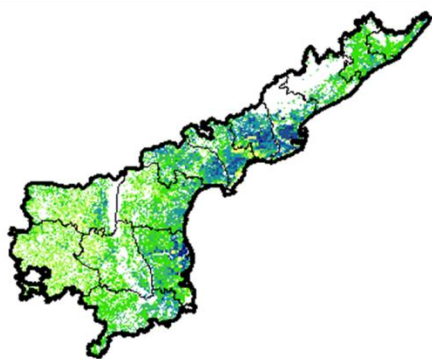
Legends

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

Annexure II

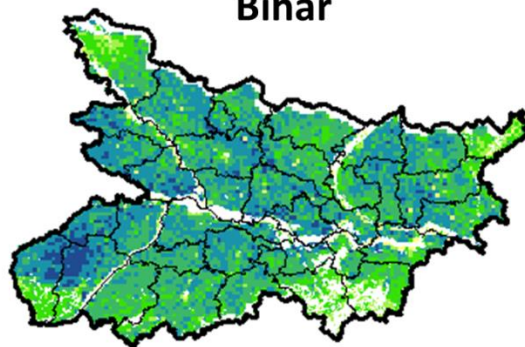
**NOAA/AVHRR NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
2nd March 2017 FOR DIFFERENT STATES**

Andhra Pradesh



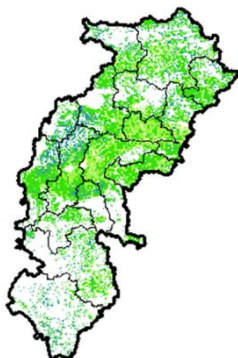
Agriculture vigour is moderate over Rayalseema and patches in costal part whereas, patches in central region and east of Rayalseema show good to very good NDVI in the state of Andhra Pradesh.

Bihar



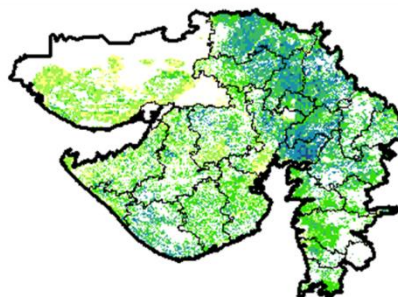
Agriculture vigour is good over most of the patches in state of Bihar, rest of the state shows moderate NDVI.

Chhattisgarh



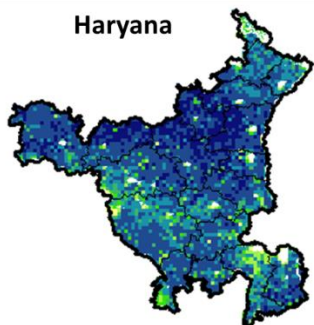
Agriculture vigour is good in southern and central region of Chhattisgarh, whereas, moderate vigour is seen in rest of the state.

Gujarat



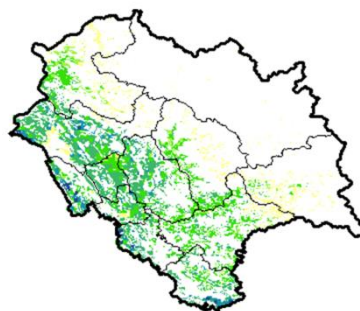
Moderate NDVI values are observed in patches in Kutch and Saurashtra whereas, good to very good NDVI is observed in many places in Saurashtra and Gujarat.

Haryana



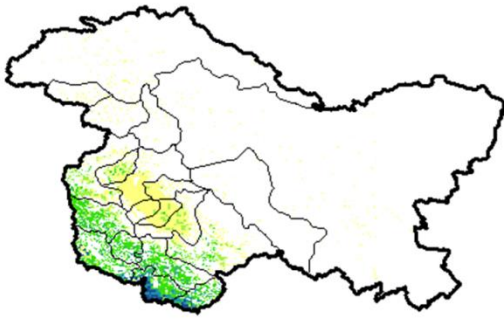
Good to very good agriculture vigour is observed over entire state of Haryana, moderate vigour is seen in patches in central and east part of Haryana.

Himachal Pradesh



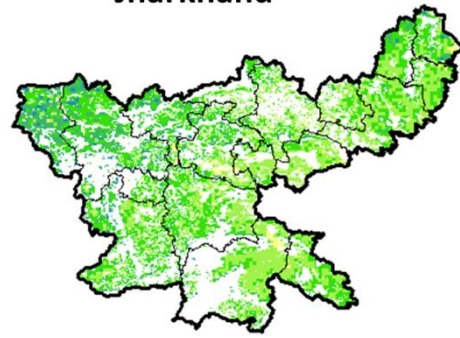
Agriculture vigour is moderate to good in few patches of Himachal Pradesh.

Jammu & Kashmir



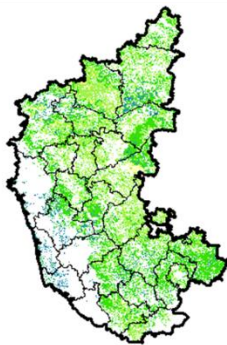
Agriculture vigour is moderate over entire state of Jammu & Kashmir, good NDVI values are observed in southern part of state.

Jharkhand



Agriculture vigour is good over patches in central and western region of Jharkhand whereas, remaining states shows moderate NDVI values.

Karnataka



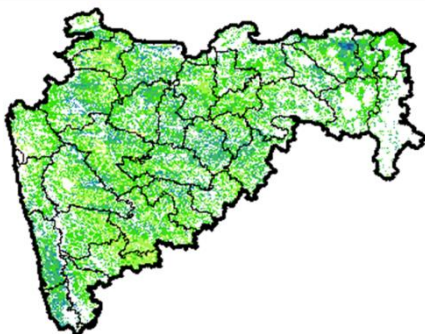
Agriculture vigour is good in patches over costal Karnataka and northern region of the state whereas rest of the state shows moderate vigour.

Kerala



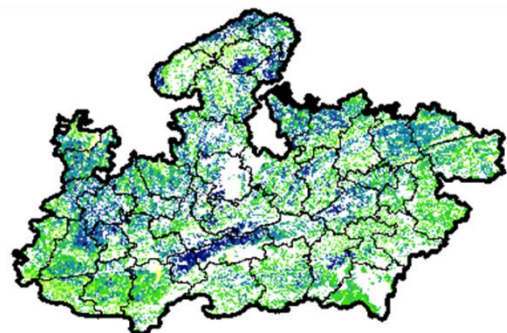
Agriculture vigour is good over entire state of Kerala except few patches in central and southern part shows moderate NDVI values.

Maharashtra



Agricultural vigour is moderate over central Maharashtra and western part of Vidharbha whereas, good to very good vigour is observed in the north, Konkan, Marathwada and eastern regions.

Madhya Pradesh



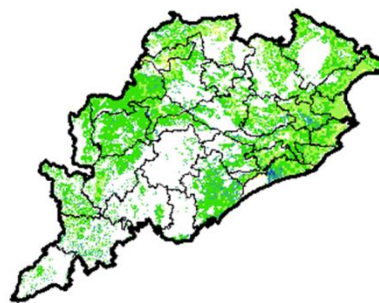
Agriculture vigour is good to very good over many places in state of Madhya Pradesh whereas, eastern and southern part shows moderate vigour.

North East Region



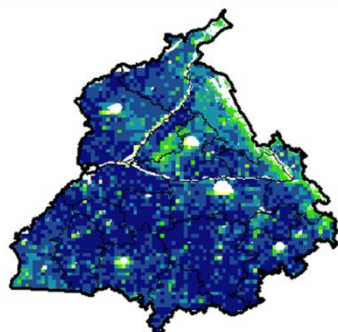
Agriculture vigour is moderate over most of the parts in North-Eastern states, whereas few patches in Assam, Manipur and Arunachal Pradesh show good vigour.

Odisha



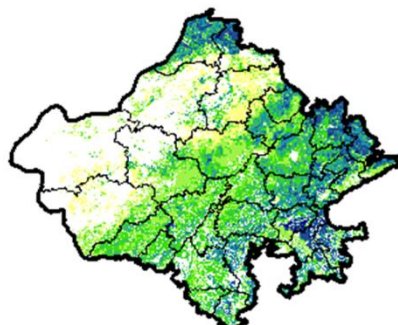
Agricultural vigour is good over eastern and northern parts of Odisha whereas, moderate vigour is observed over the entire state.

Punjab



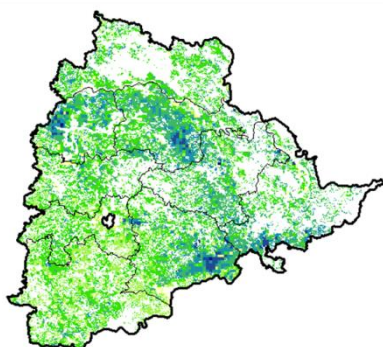
Agricultural vigour is good to very good in over entire state of Punjab, whereas few patches in north-east show moderate vigour.

Rajasthan



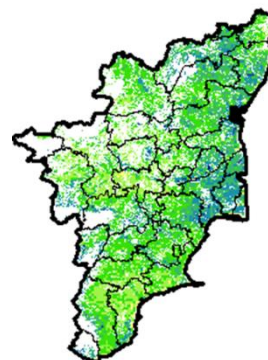
Agriculture vigour is good to very good over eastern and southern part and few patches in north of Rajasthan whereas, moderate vigour is observed over rest of the region.

Telangana

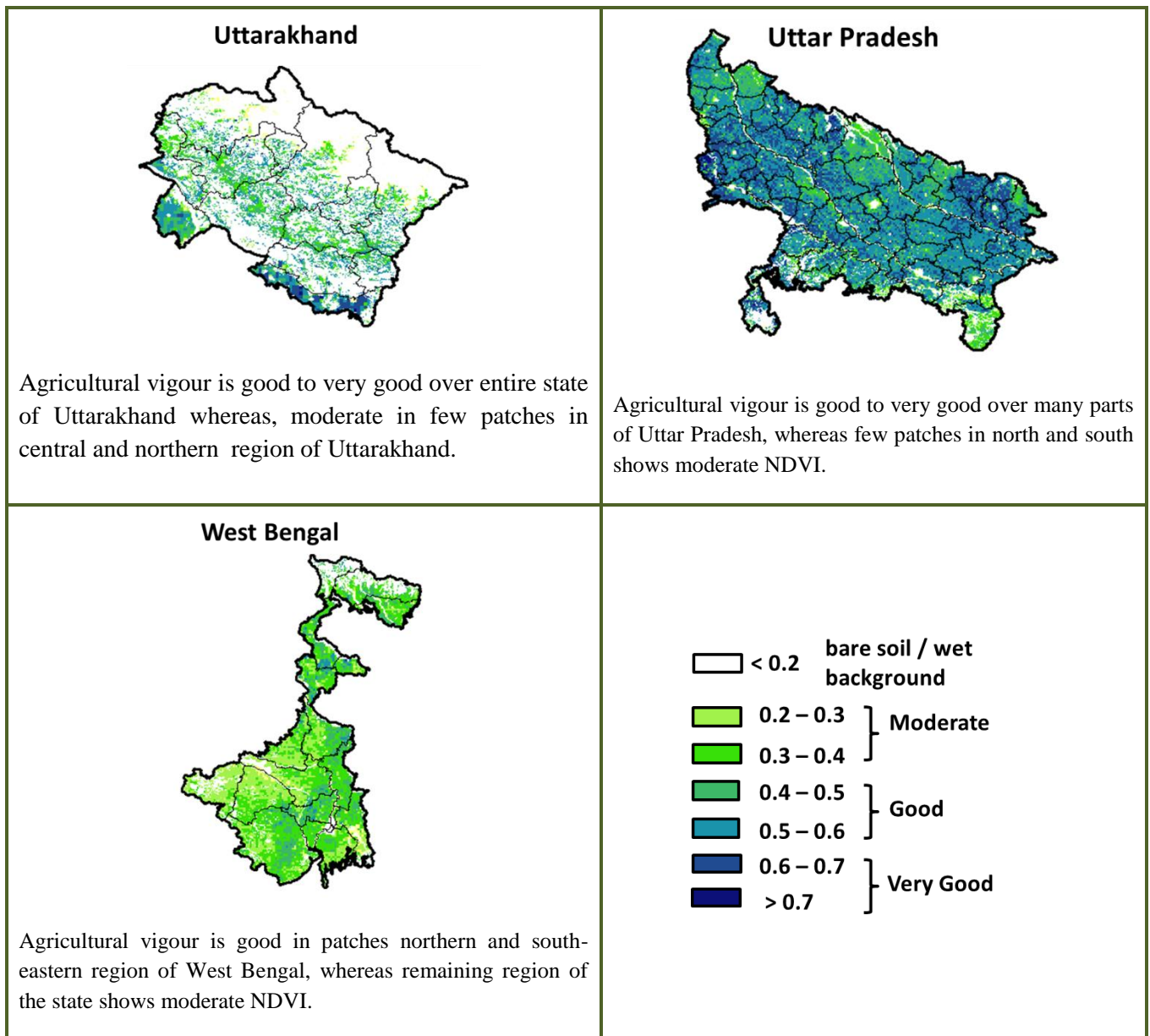


Agriculture vigour is good over many places of Telangana whereas, moderate vigour is observed in southern and northern region.

Tamil Nadu



Agricultural vigour is moderate over most region of Tamil Nadu, whereas central region and patches in north shows good to very good NDVI.



* For New Delhi NOAA/A VHRR NDVI COMPOSITE Map is not available due to some problem in data set.

Annexure III

- Assam**
Early Ahu Rice : IR-50, Pusa 2-21, Rasi, Culture -1, Luit, Kopilee (Semi-dwarf varieties); Rongadoria, Dubaichenga, Nilajee (Tall varieties) etc.
Summer rice : Ratna, Cauvery, Luit and Kapilee.
Green gram : Pratap, T-44, Kopergaon, AAU-39, K-851 and ML-55.
Black gram : T-9, Pant-U-19, UG-157.
Okra : Pusa Sawani, Arka Anamika, Parvani Kranti or other local varieties.
Ridge gourd : Pusa Nashdar or other local varieties like AAU-1, AAU-2, AAU-3.
Sponge gourd : Pusa Chikni or other local varieties.
- Meghalaya**
Chilli : Pusa jwala & local.
Brinjal : Arka Nidhi, Singh Nath, Bhola Nath & local.
- Odisha**

Green pea: Rachana, Arkel. and T -163.
Mustard:Parbhathi, Anuradha, TS-29 & M-27.
Garlic:Phawari, Rajalbadi, Jamnagar and G-282
Potato: Kufri Chandramukhi, Kufri Chamatkar, Kufri Jyoti, Kufri Sinduri and Kufri Alankar, etc
Greengram- TARM1, OUM11-5, Hum-1
Blackgram-PU-19, LBG-17
Gram-Radhey, Annegiri, Sweta, Bharati, JG 11
Groundnut:are Smruti, AK 12-24, JL-24.

Bihar

Pigeon pea:- Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13.
Sesame : Kanak, kalika, Uma, Usha, Tilottama, Neelima and Prachi
Green gram : K -851, PDM -54, PDM -11, OUM 11-5
Balck gram : T-9, Pant-U-19. Pant –U-30, Pant –U-11
Niger : Deomali
Horsegram : Urmi, DS 1-2-2, DS 1-2
Barseem:- Pusa Vikash, Bundel and of Jai- Kent.
Garlic : Jamuna Safed-2(G-50), Jamuna Safed-3(G-282), and Jamuna Safed-4 (G-323), G-1 and G-41(Agri found safed).
Rai : Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam.
Coriander :- Rajendra swati, Pant haritima, Kumarganj selection and Hisar anand.
Lentil :- . Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5.

Jharkhand

Mustard: Shivani, Varuna, Pusa bold, Kranti, Pusa jaikisan , Vardan etc.
Potato: Kufri Ashoka, Kufri Pukhraj, Kufri Lalima, Kufri Pushkar and Kufri Kanchan.
Toria: BR-23,T.-9, P.T. 303, Panchali and Bhavani.
Gram: KAK-2, ICC-2, HK94-134(Kabuli) and Pusa 256, Pusa 372, Pant G-114, KWR 108, ICC 37.
Lentil:P.L.- 406, P.L.-639, D.P.L.-15, D.P.I.- 62 etc.
Green pea: Arkel or Azad pea.
Wheat: HDR-77, K-8027, C-306, Birsa genhu – 3 etc. HDR-77, K-8027, C-306, Birsa genhu – 3 etc.
Linseed:Sweta, Shubhra, T-397 etc.

West Bengal:

Mango: Himsagar, Mallicka, Langra
Guava: Safeda, L-49
Coconut: Eastcoastal, Hazari
Banana :-Mortoman, Chapa, Kathali, Singapuri,
Potato :- Ashoka, Chipsona 1,2, Kufri Jyoti, Kufri Alankar
Mustard:- -Agrani(B-54), Panchali (T.W.C.-3), B-9, Rai-5 and Bhagirothi (R.W.-351)
Jute :- Chaitali, Basudev, Naveen, Sonali, Sobujsona, Shyamali etc.
Cabbage :- Pride of India, Pusa early, Kranti.
Cauliflower:- Jawhar moti, Bharat Jyoti, Early banaras.

Uttarakhand

Mentha:Koshi, Saksham, Kushal, Himalaya, Saryu, Simkranti.
Onion:VL-Pyaj-3,Nasik Red,Pusa Red
Pea: Vivek 10,Vivek 11,Pant 3,
Radish:Meenu early, Japanese white, PusaHimani.
Carrot:PusaVrishi,
Rai:Varuna, Rohini, Krishna, Kanti, Vardan, Vaibhav, Basanti, Narendra, Early rai-4, Urvashi and varieties
Yellow Mustard:Ragini, Binoy (B-9), Pant peeli Sarso-1.

Jammu and Kashmir

Pea: AP-1, Bonnevillea, Rachna and Arkel
Chickpea: K-468, Gourav
Lentil: L-4147, L-9/12,PL-406.
Berseem:Vardan, mascavi, pusa giant, BL-1
Potato:KufriBadshah, K.Sinduri, K.Chipsona&K.Sona
Gram: C-235,Gaurav,K-468,SCS-3,PBG-1
Toria: RSPT-1 and RSPT-2

Himachal Pradesh

Cauliflower: snowball and Giant snowball.
Radish:Japanese white, Chinese pink and mino early white
Turnip: PTWG-1

Carrot:Pusakesar

Peas :Mater ageta-6 (early variety).

Cabbage:Pride of India, golden achor and hybrid

East Uttar Pradesh

Sugarcane: CO Pant 211, Co Sa 687 and Co Sa 8436 (The mid and late maturing varieties of sugarcane)

B.O.54 and B.O.91. (The varieties recommended in areas with poor water drainage)

Urad:T-9,NarendraUrad -1,Azad Urad-1,Uttara, Azad Urad-2,Shekhar-2

Summer Moong: K-85,JM-721

Onion:KalyanpurLalgol, Pusaratnakar, Agrifoundlite red, bargandi, KP, Orient, Rosi.

Turmeric:Kasturi, Paspu, Amlapuram, Madhukar, Sugna, Rajendra

Ginger -suprabha, suruchi, surbhi and Himgiri

Moong: Type-27, 56

Radish:kalyanpur No.1, PusaRashmi, Hisar selection-1, JapaniSafed, pusaChetaki, PusaHimani,Pusadeshi, ArkaNishant and Jaunpuri.

Cabbage:Pusasnowball,Pusa snowball II,Snowball16andPusa snowballK1

Banana:Harichhal, Alpan, Malbhog, Basrai dwarf, robasta, kothiya

Tomato:KashiAmrit, KashiAnupam, Avinash-2 &Rupali Azad, Punjab chuhara NDT 4&5

Brinjal:Pusa hybrid 5,6 , Kasisandesh BR-14, KS-224

West Uttar Pradesh

Bhindi: A-4, ParbaniKranti and Arkaanamika

Barseem: V.L.1,V.L.10, maskavi, jai,K-8027, K-9565, Mandakini.

Baby corn: M.H.-4.

Toria: bhavani

Mustard: Urvashi, Rohini, Maya, Giriraj, Vardan, Vaibhav

Linseed:Parvati, sharda, Padmini

Vegetable pea: Azad-3, Aakril

Gram: Zaki-9218, KGD-1168, KWR-108, Uday

Pea: KPRM-522, KPRM-400, Vikas, Prakash

Lentil: DPL-62, Malika

Potato:KufriBadshah, KufriBahar, KufriAanand, Chipsona-1, Chipsona-2, Chipsona-3.

Punjab

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

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,PunjabRatta, Punjab NR 7, Punjab Chuhara, Punjab Upma, Castle Rock.

Okra: Punjab-8 and Punjab-7

Cauliflower: Pusa Snow Ball-1,Pusa Snow Ball K-1

Wheat: PBW 725, PBW 677, HD-3086, WH 1105, PBW 621, HD 2967.

Kabuli gram: L 552, L 550 & BG-1053.

Raya: RLC3, PBR 357, PBR 210, RLC-1, , RLM-619, PBR-91

Gram: C 235, HC 5

un-irrigated/rainfed (HC 1)

Delhi

Gram: Kabuli type - Pusa 267, Pusa 1003, PusaChamatkar; local type – C235, Pusa 246, P.B.G. 1, Pusa 372.

Pea:PusaPragati, Arkel, Azad Matar-3, Pant Matar-3 and Bournville.

Potato:KufriBadshah, KufriBahar, KufriAanand, Chipsona-1, Chipsona-2, Chipsona-3.

East Rajasthan:

Okra Summer:PusaSavani, Arkaanamika, ArkaAbhya, Aajadkranti, Prabhnikranti, Pusa-A-4 ect.

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

Bottle gourd:Pusa summer prolific long, Pusa summer prolific round, Pusamanjri, PusaNavin, PusaMeghdoot, Arkavihar

Pumpkin:Pusaviswas, Pusaalankar, arkachandan

Kheera:Balamkhira, Pusasayong

Bitter gourd:Coimbatore long, Pusadomosami, Priya, Ark harit, Pusavishesh

Tinda: Bikaner green, Dilpasand, Tinda Ludhiana, ArkaTinda

Cucumber: LakhnowAgeti, Arkasheetal

Cauliflower:Pusa snow ball K-1, Hisar-1, Dania and Selection-7 are improved varieties.

Carrot:PusaKeshar is improved variety.

Radish: Japanese white & hill queen.

Cumin:G. C. 4, RZ-223, RS-1, RZ-19, RZ-209 and Gujarat Jeera-2

Musk Melon:Durgapuramadhu, Punjab sunheri, Punjab hybrid, arkajeet, haramadhu, pusamadhuras
Water melon:Durgapurameetha, durgapurakesar, arkajyoti(hybrid), madhu (hybrid)
Tinda:Beekaneri green, Dilpasand, arkatinda
Cucumber:Lucknowageti and arkasheetal
Zaid Pearl millet (fodder):rajbajrachari, rajkoZaint, L-72, L-74

West Rajasthan

Guar: R.G.C.-936, R.G.M.-112, and R.G.C.-102
Cumin: RZ-19, RZ-209, GG-4, RZ-223.
Fenugreek :RMt 1 & RMt305.
Bhindi: Ark Anamika, varshauphar, Parbhanikranti, pusamakhmali.
Radish: Japanese white & hill queen.
Garlic: lava, maleva
Onion:Pusa red, Nasik red, Udaipur-102, pusa white flate

Madhya Pradesh

Moong: PDM-54, PDM-139, PS-16, PS-7, K-851

Maharashtra

Sunflower: Improved varieties: S.S.56, Modern, E.C.68414, Bhanu.
Hybrid varieties : K.B.S.H.1, L.S.F.H.171, Phule Raviraj, M.S.F.H.17)
Pearl millet: shradha, saburi or shanti.
Chilli:Phule Jyoti, Phule Mukta.

Gujarat

Green gram: Gujarat Mung-4, K-851.
Black Gram: Gujarat udad-1, T-9.
Summer Groundnut: TAG-24,TG-37-A, TPG-41,GG-2, GJG-31.
Summer Sesame: G.Til-2, G.Til-3.
Pearl millet: GHB-526 and GHB-558.
Brinjal: Junagadh Oblong, Junagadh Long, Guj. Bringle-2.
Lady finger: Guj. Hy.-1 & 2.
Ridge gourd: Pusa Nasdar, Jaipuri.
Bottle gourd: Junagadh Tender Long, Pusa Summer Prolific Long.
Sponge guard: Pusa Chikni.
Bitter guard: Priya, Pusa Domosmi.

Tamil Nadu

Summer rice- ADT 43 and ADT 45.