

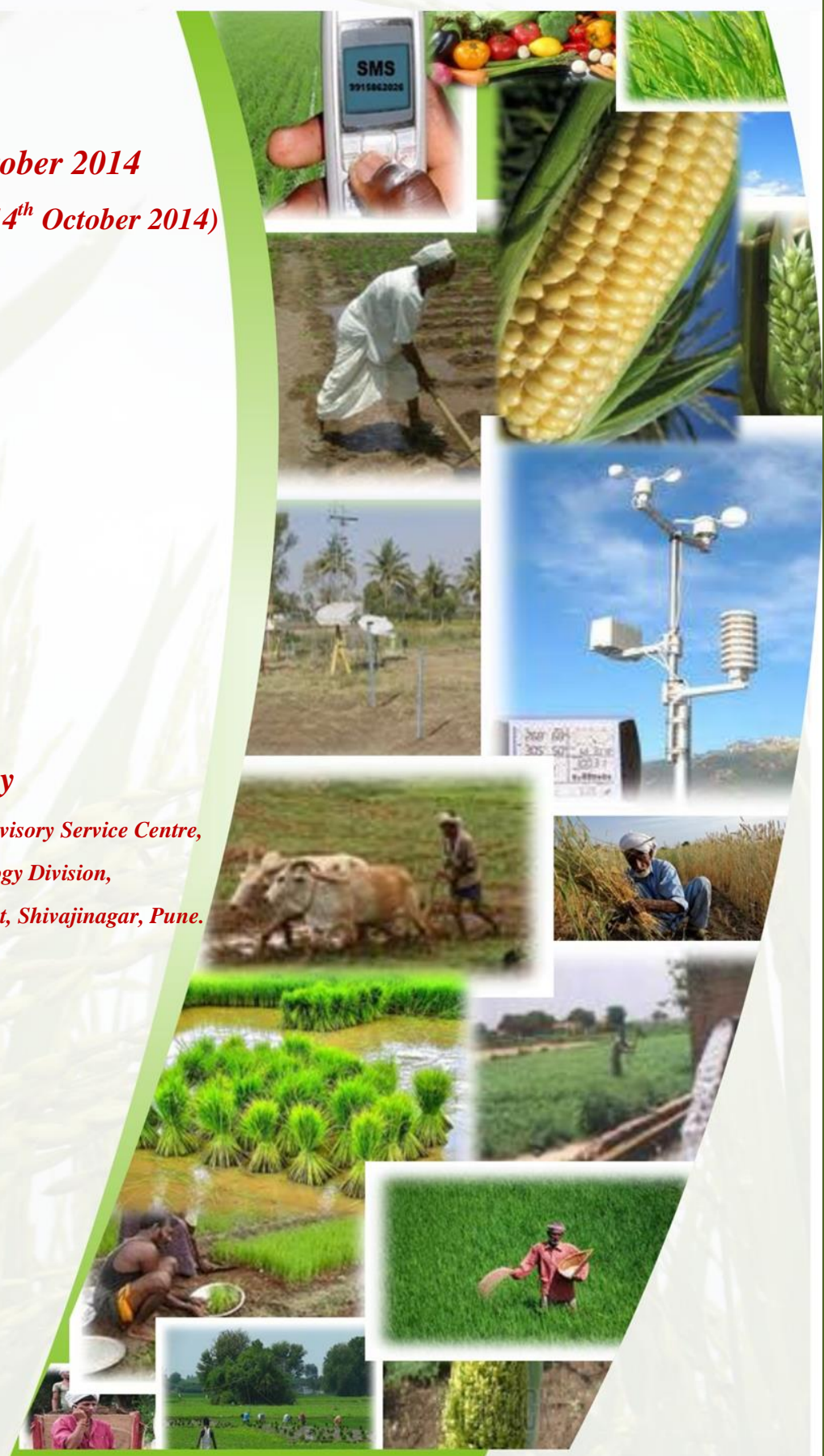
National Agromet Advisory Service Bulletin

Friday 10th October 2014
(For the period 10th to 14th October 2014)



Issued by

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



Cyclone Alert and Agromet Advisories for Andhra Pradesh and Odisha

The Severe Cyclonic Storm 'HUDHUD' over west central & east central Bay of Bengal would cross north Andhra Pradesh coast around Visakhapatnam by forenoon of 12th October 2014. Under the influence of the system, rain fall would occur at many / most places along with heavy to very heavy rain fall at isolated places over north Coastal Andhra Pradesh and south Odisha on 11th and heavy to very rainfall at a few places with extremely heavy falls at isolated places over north Coastal Andhra Pradesh and south Odisha, heavy to very heavy rainfall would occur at a few places over south Coastal Andhra Pradesh and north Odisha on 12th October.

Also wind speed reaching 50-60 kmph gusting to 70 kmph would commence along and off north Andhra Pradesh and south Odisha Coast on 11th and wind speed would increase to 130-140 kmph gusting to 155 kmph from 12th October morning along and off north Andhra coast. The wind speed would increase to 80-90 kmph gusting to 110 kmph along and off south Odisha coast from 12th morning.

In view of the above the following advisories are suggested for South & North Coastal Andhra Pradesh, Odisha coast:

Coastal Andhra Pradesh:

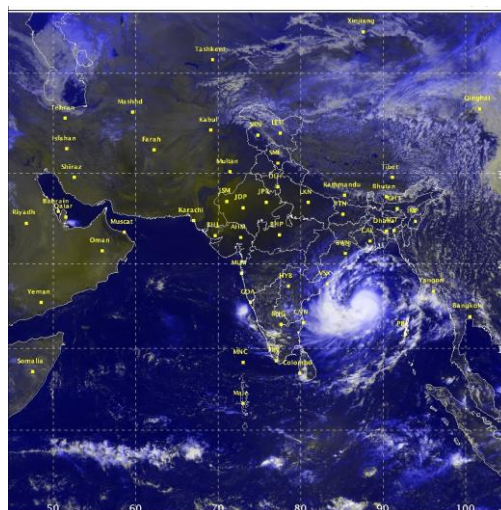
- Harvest already matured maize, groundnut and pulse in Visakhapatnam, Srikakulam and Vizainagaram districts immediately.
- Harvest already matured pulses in East Godavari and West Godavari immediately.
- Keep harvested produce in safe places.
- Undertake propping in sugarcane and banana crops to prevent lodging due to high winds.
- Arrange for extensive drainage facilities to remove excess water from rice fields and maintain 5-7 cm water. Provide adequate drainage channels in the fields of standing crops.
- Postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.

Odisha :

In Ganjam, Gajapati, Koraput, Rayagada, Puri, Cuttuck, Nabarangpur, Phulbani, Balasore, Bhadrak, Malkangiri and Jajpur districts:

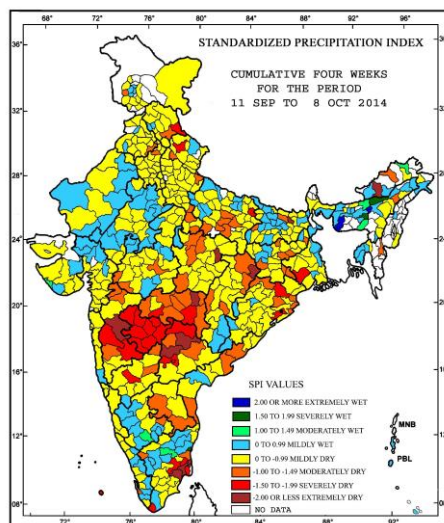
- Harvest already matured rice, groundnut, sesame, green gram, black gram and also vegetables immediately. Keep harvested produce at safe places.
- Postpone sowing of *rabi* crops like groundnut, sunflower, maize, sesame, green gram, black gram and niger.
- Undertake propping in sugarcane and banana crops to prevent lodging due to high winds.
- Postpone irrigation, intercultural operation, application of fertilisers and plant protection measures in standing crops.

Satellite image dated, 10.10.2014, 0600 UTC



Standardised Precipitation Index
Four Weekly
for the Period 11th September to 8th October 2014

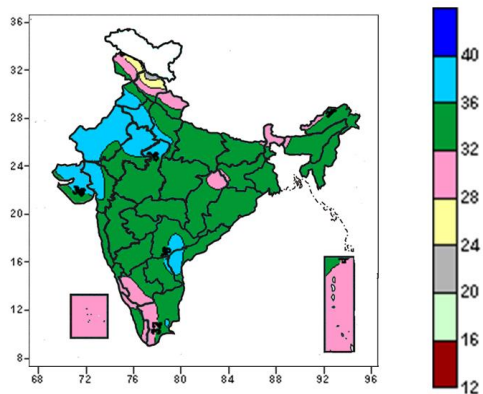
MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE



- Extremely/severely wet conditions experienced in East Khasi hills district of Meghalaya; Kamrup Metro, Morigaon, Sonitpur districts of Assam.
- Extremely/ moderately/ severely dry conditions experienced in most district of Maharashtra; many districts of Telangana; few districts of Uttar Pradesh, Odisha and Tamil Nadu; poonch district of Jammu and Kashmir; Jorhat district of Assam; East Kameng, Upper Subansiri districts of Arunachal Pradesh; Aizwal district of Mizoram; Paschim Mednipur district of West Bengal; Kinnaur and Shimla districts of Himachal Pradesh; Tehri Garhwal district of Uttarkhand; Patial district of Punjab; Kurukshetra district of Haryana; Buxar, Dharbhanga, Saharsa districts of Bihar; Chhindwara, Sahdol, Panna, Chhatrapur, Damoh, Sehore, Barwani, Alirajpur districts of Madhya Pradesh; Koderma, Seraikela, East Singhbhum, Gumla, Bokaro, Dhanbad and Pakur districts of Jharkhand; Surguja, Jashpur, Koriya, Dhamtari, Rajnandgaon districts of Chhattisgarh; Bagalkot, Yadgir Chickballapur district of Karnatak, Anantpur, Chittor, Nellore, Vishakhapatnam, East godavari districts of Andhra Pradesh; Alapuzha district of Kerela.
- Rest of the country experienced moderately wet, mild wet/dry conditions.

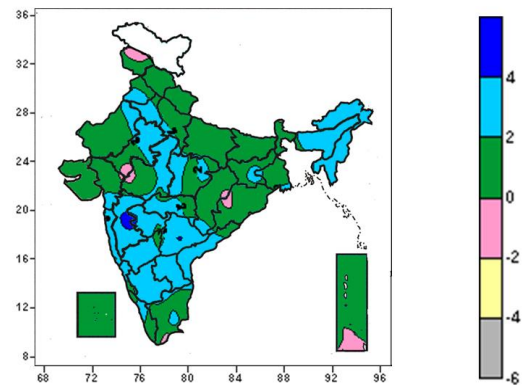
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 08.10.2014

Actual Mean Maximum Temperature (°C) in India for the week ending 08.10.2014



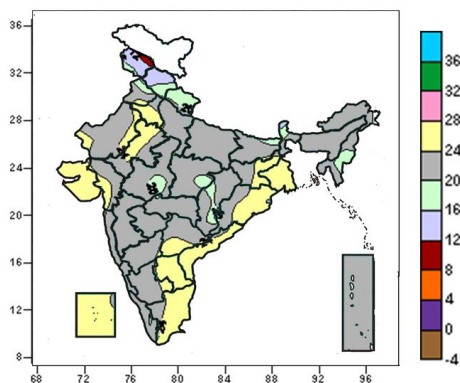
- 36 to 40°C over many parts of West Rajasthan, Punjab, Haryana, Delhi, Gujarat, some parts of East Rajasthan, West Uttar Pradesh, West Madhya Pradesh and Andhra Pradesh.
- 32 to 36°C over entire country except many parts of Jammu & Kashmir, Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, West Rajasthan, Punjab, Haryana, Delhi, Gujarat, Lakshadweep, Andaman & Nicobar Islands, some parts of Arunachal Pradesh, Assam & Meghalaya, East Rajasthan, West Uttar Pradesh, West Madhya Pradesh, Coastal & South Interior Karnataka, Tamil Nadu and Kerala and Andhra Pradesh.
- 24 to 32°C over many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Lakshadweep, Andaman & Nicobar Islands, some parts of Arunachal Pradesh, Assam & Meghalaya, Coastal & South Interior Karnataka, Tamil Nadu and Kerala.
- 20 to 24°C over some parts of Himachal Pradesh.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 08.10.2014



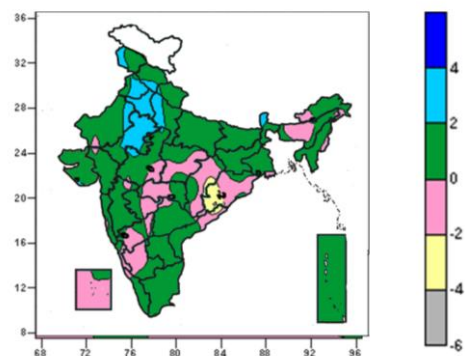
- 4 to 6°C over some parts of Madhya Maharashtra and Marathwada.
- 2 to 4°C over many parts of Punjab, Haryana, Delhi, North East India, Maharashtra, Andhra Pradesh, Karnataka, some parts of Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Jharkhand, Central India, Gujarat region, Kerala and Tamil Nadu.
- 0 to 2°C over entire country except many parts of Punjab, Haryana, Delhi, North East India, Maharashtra, Andhra Pradesh, Karnataka, some parts of Jammu & Kashmir, East Rajasthan, Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Jharkhand, Central India, Odisha, Gujarat region, Kerala, Tamil Nadu and Andaman & Nicobar Islands.
- -2 to 0°C over some parts of Jammu & Kashmir, East Rajasthan, east Madhya Pradesh, Chhattisgarh, Odisha, Tamil Nadu and Andaman & Nicobar Islands.

Actual Mean Minimum Temperature (°C) in India for the week ending 08.10.2014



- 24 to 28°C over many parts of Haryana, Delhi, Gangetic West Bengal, Odisha, Saurashtra & Kutch, Coastal Andhra Pradesh, Telangana, Tamil Nadu, Lakshadweep Islands, some parts of Punjab, Rajasthan, Jharkhand, Telangana, Interior Karnataka and Gujarat region.
- 20 to 24°C over entire country except many parts of Jammu & Kashmir and Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Mizoram, Haryana, Delhi, Gangetic West Bengal, Odisha, Saurashtra & Kutch, Coastal Andhra Pradesh, Telangana, Tamil Nadu,

Mean Minimum Temperature (°C) Anomaly in India for the week ending 08.10.2014



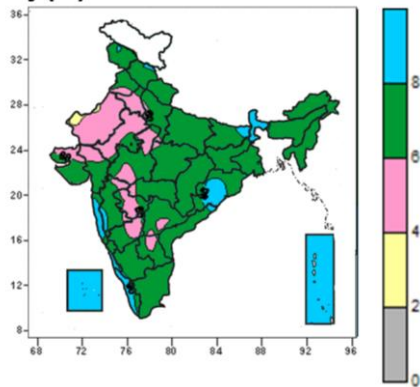
- 2 to 4°C over many parts of Punjab, Haryana, East Rajasthan, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, West Rajasthan and West Madhya Pradesh.
- -2 to 2°C over entire country except many parts of Punjab, Haryana, East Rajasthan, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, West Rajasthan, Chhattisgarh, Odisha and West Madhya Pradesh.
- -4 to -2°C over some parts of Chhattisgarh, Odisha.

Lakshadweep Islands, some parts of Punjab, Rajasthan, Jharkhand, Telangana, Interior Karnataka, Central India, Bihar and Gujarat region.

- 12 to 20°C over many parts of Jammu & Kashmir and Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Mizoram, some parts of Punjab, Central India and Bihar.

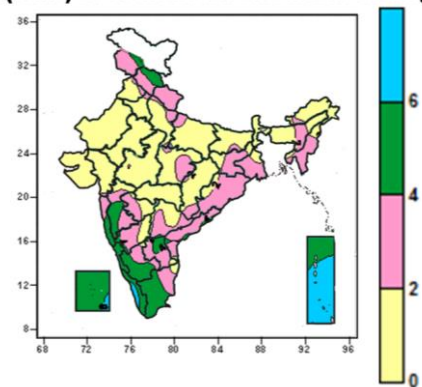
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 08.10.2014

Relative Humidity (%) over India for the week ending 08.10.2014



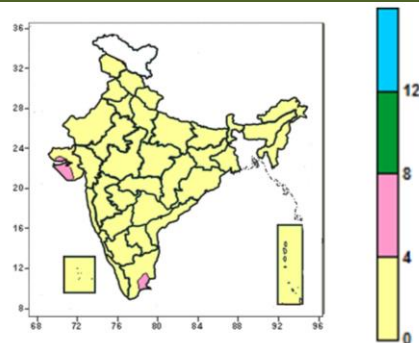
- 80 to 100% over many parts of Sub-Himalayan east Bengal & Sikkim, Konkan & Goa, Odisha, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Bihar, Madhya Maharashtra and Coastal Karnataka.
- 60 to 80% over entire country except Sub-Himalayan east Bengal & Sikkim, Konkan & Goa, Odisha, Rajasthan, Haryana, Delhi, Marathwada, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Bihar, Punjab, Madhya Pradesh, Gujarat, Vidarbha, Telangana, Rayalaseema, Madhya Maharashtra and Coastal Karnataka
- 40 to 60% over many parts of Rajasthan, Haryana, Delhi, Marathwada, some parts of Punjab, Madhya Pradesh, Gujarat, Vidarbha, Telangana, Rayalaseema.
- 20 to 40% over some parts of east Rajasthan.

Cloud amount (okta) over India for the week ending 08.10.2014



- 6 to 8 okta over many parts of Andaman & Nicobar Islands, some parts of Kerala and Lakshadweep Islands.
- 4 to 6 okta over many parts of Konkan & Goa, Madhya Maharashtra, Coastal & South Interior Karnataka, Lakshadweep Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Rayalaseema, North Interior Karnataka, Kerala, Madhya and Andaman & Nicobar Islands.
- 0 to 4 okta over entire country except many parts of Konkan & Goa, Madhya Maharashtra, Coastal & South Interior Karnataka, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Rayalaseema, North Interior Karnataka, Kerala, Madhya, Kerala and Lakshadweep Islands.

Wind speed (knots) over India for the week ending 08.10.2014



- 4 to 8 knots over some parts of Saurashtra, Tamil Nadu and Kerala.
- 0 to 4 knots over entire country except some parts of Saurashtra, Tamil Nadu and Kerala.

Weather Forecast

Weather Forecast for next 3 days (upto 0830 hours IST of 13th October, 2014)

- Rain/thundershowers would occur at many places over Andaman & Nicobar Islands during the period.
- Rain/thundershowers would occur at a few places over Odisha and Coastal Andhra Pradesh during next 24 hours and increase thereafter.
- Rain/thundershowers would occur at a few places over Interior Karnataka, Tamil Nadu & Puducherry, Kerala and Lakshadweep during the period.
- Rain/thundershowers would occur at isolated places over Gangetic West Bengal during next 48 hours and many places thereafter.
- Rain/thundershowers would occur at isolated places over Coastal Karnataka and Rayalaseema during next 24 hours; over Chhattisgarh and Telangana during next 48 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over Maharashtra during the period.
- Dry weather would prevail over Jharkhand during next 24 hours and rain/thundershowers would occur at isolated places on 11th and at few places thereafter.
- Dry weather would prevail over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Bihar and East Madhya Pradesh during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
- Dry weather would prevail over Arunachal Pradesh, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Madhya Pradesh, Punjab, Haryana & Delhi, Rajasthan and Gujarat State during the period.

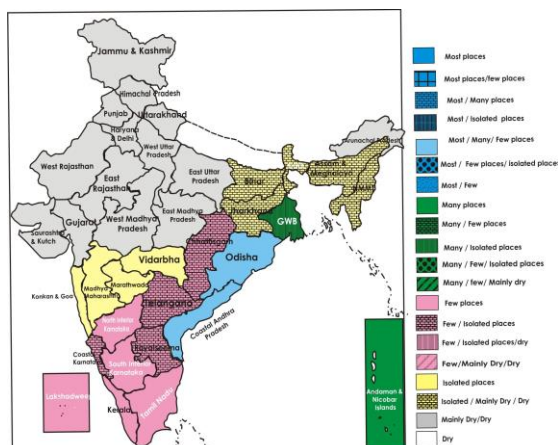
Weather Warning during next 3 days

- **10 October (Day 1):** Nil
- **11 October (Day 2):** Heavy to very heavy rainfall would occur at isolated places over north coastal Andhra Pradesh and south Odisha. Heavy rainfall would occur at isolated places over south coastal Andhra Pradesh and north Odisha.
Wind speed reaching 50-60 kmph gusting to 70 kmph would commence along and off north Andhra Pradesh south Odisha coast.
- **12 October (Day 3):** Heavy to very heavy rainfall would occur at a few places with isolated extremely heavy falls over north coastal Andhra Pradesh and south Odisha. Heavy to very heavy rainfall would occur at a few places over north Odisha and south coastal Andhra Pradesh. Speed reaching 130-140 kmph gusting to 155 kmph would commence along and off north Andhra Pradesh coast and 80-90 kmph gusting to 110 kmph along and off south Odisha coast.
Storm surge of about 1-2 metres above astronomical tide would occur around the system centre of north coastal Andhra Pradesh at the time of landfall.

Weather Outlook for subsequent 4 days from 13th to 17th October 2014.

- Rain/thundershower would occur at most places with heavy to very heavy falls at a few places over Odisha and north Andhra Pradesh on 13th and decrease thereafter.
- Increase in rainfall activity over Gangetic West Bengal, Chhattisgarh and Jharkhand with possibility of isolated heavy to very heavy rainfall over Chhattisgarh and isolated heavy over Gangetic West Bengal and Jharkhand on 13th and decrease thereafter.
- Rain/thundershower would occur at a few places over rest east India, northeastern states and Andaman & Nicobar Islands.
- Rain/thundershowers would occur at isolated places over peninsular India.
- Weather would be mainly dry over rest of the country.

Weather Forecast Map (Valid upto 0830 hours of 13th October 2014)



Other Salient Advisories

- Continue land preparation for sowing of *rabi* crops like sunflower, horse gram (PHG-9), sesame, cowpea, chickpea, wheat and maize in the North Dry Zone of **Karnataka**.
- In Lower Brahmaputra Valley Zone of **Assam**, undertake sowing of onion and land preparation for planting of potato. Transplant the 25-30 days old seedlings of cole crops in the main field.
- Undertake sowing of green pea, toria and mustard in Kymore Plateau Zone and Bundelkhand Zone of **Madhya Pradesh** under optimum residual soil moisture condition.
- In Sub-Tropical Zone of **Jammu & Kashmir** continue sowing of ghobi sarson with toria as mixed or intercrop and nursery raising of cole crops and onion. Continue sowing of root crops like radish, carrot, turnip.
- In Bhabar and Tarai Zone of **Uttarakhand**, continue sowing of pea and toria and planting of potato. Continue land preparation for sowing of radish, fenugreek and spinach. Continue harvesting of matured rice and soybean and planting of potato.

Detailed Zonewise Agromet Advisories

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



Rice



Sugarcane



Cotton



Soybean

- **Realised Rainfall:** Rain/thundershowers occurred in all districts of Kerala except Cannur; all districts of Karnataka except Bagalkote, Bidar, Bijapur, Gulbarga, Koppal, Bellary & Chitradurga; Coimbatore, Erode, Krishnagiri, Namakkal, Nilgiris, Perambalur, Ramnathapuram, Salem, Sivaganga, Theni, Tirunelveli, Tiruvannamalai, Tiruvarur, Tootkudi, Villupuram and Virudhunagar districts of Tamilnadu; East & West Godavari, Krishna, Srikakulam & Visakhapatnam districts of Andhra Pradesh. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Coastal Andhra Pradesh during next 24 hours and increase thereafter. Rain/thundershowers would occur at a few places over South Interior Karnataka, North Interior Karnataka, Tamil Nadu & Puducherry and Kerala during the period. Rain/thundershowers would occur at isolated places over Coastal Karnataka and Rayalaseema during next 24 hours; over Telangana during next 48 hours and at a few places thereafter.
- **Weather Warning:** Heavy to very rainfall would occur at isolated places over north Coastal Andhra Pradesh and heavy rainfall would occur at isolated places over south Coastal Andhra Pradesh on 11th October. Heavy to very rainfall would occur at a few places with extremely heavy falls at isolated places over north Coastal Andhra Pradesh and heavy to very rainfall would occur at isolated places over south Coastal Andhra Pradesh on 12th October. Wind speed reaching 50-60 kmph gusting to 70 kmph would commence along and off north Andhra Pradesh on 11th and the wind speed would increase to 130-140 kmph gusting to 155 kmph from 12th along and off north Andhra Pradesh Coast.
- **Weather Outlook:** Rain/Thundershower would occur at most places with heavy to very heavy falls at a few places over north Andhra Pradesh on 13th and decrease thereafter. Rain/thundershowers would occur at isolated places over rest of peninsular India. Storm surge of about 12 meters above astronomical tide would occur around the system center of north coastal Andhra Pradesh at the time of landfall.
- **Advisories:**
 - **Karnataka:**
 - Continue land preparation for sowing of *rabi* crops like sunflower, horse gram (PHG-9), sesame, cowpea, chickpea, wheat and maize in the North Dry Zone of Karnataka.
 - Continue land preparation and sowing of *rabi* sunflower in Central Dry Zone; maize, Bengal gram and sunflower in North East Dry Zone and wheat, sorghum and Bengal gram in North East Transition Zone of Karnataka utilizing the realized rainfall.

- Due to prevailing cloudy weather conditions, leaf miner attack may occur on groundnut and soybean in North Transition Zone, spray Carbaryl 50WP @ 0.2% or Dimethoate 30 EC @ 2 ml per litre of water on a non rainy day.
- In the Southern Transition Zone of Karnataka, in the prevailing temperature, blast and sheath blight is noticed on rice and likely to spread. Spray Tricyclozole @ 0.6 g/litre of water or Carbandazim @ 1g/litre of water for control of blast and spray Hexaconozol @ 1 ml/litre of water for sheath blight on a non rainy day.

- **Kerala:**

- Continue nursery sowing of rice in the Northern and in Southern Zones of Kerala. Continue planting of *Nendran* banana in the Southern Zone of Kerala.
- In the prevailing weather conditions, there is chance of sheath blight occurrence on rice fields where the plant population is high in the Problem Area Zone of Kerala. Remove the severely affected plants and provide air circulation into the crop canopy to reduce the spread of the disease to the nearby plants.

- **Andhra Pradesh:**

The Severe Cyclonic Storm 'HUDHUD' over west central & east central Bay of Bengal would cross north Andhra Pradesh coast around Visakhapatnam by forenoon of 12th October 2014. Under the influence of the system, rain fall would occur at many / most places along with heavy to very heavy rain fall would occur at many/most places over north Coastal Andhra Pradesh with heavy to very rainfall at a few places with extremely heavy falls at isolated places and heavy to very heavy rainfall would occur at a few places over south Coastal Andhra Pradesh on 11th & 12th October.

Also wind speed reaching 50-60 kmph gusting to 70 kmph would commence along and off north Andhra Pradesh on 11th and wind speed would increase to 130-140 kmph gusting to 155 kmph from 12th October morning along and off north Andhra coast.

In view of the above the following advisories are suggested for South & North Coastal Andhra Pradesh:

- Harvest already matured maize, groundnut and pulses immediately.
 - Keep harvested produce in safe places.
 - Arrange for propping in sugarcane and banana crops to prevent lodging due to high winds.
 - Arrange for extensive drainage facilities to remove excess water from rice fields and maintain 5-7 cm water. Provide adequate drainage channels in the fields of standing crops.
 - Postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.
- In Scarce Rainfall Zone of Rayalaseema, due to attack of thrips, fruit and flower drop incidence was observed on cotton in few mandals of Anantapuram district. For the control spray of Acetamiprid @ 0.2g/litre of water on a non rainy day.
 - Present hot weather is congenial for leaf spot attack on groundnut in Southern Zone of Rayalaseema. Spray Hexaconozole @ 2 ml per litre of water on a non rainy day.
- **Telangana:**
- Prevailing hot and humid weather conditions are congenial for incidence of leaf spot disease on cotton and stem borer on rice in Southern Zone of Telangana. For control, spray Copper-Oxy-Chloride @ 30g + Plantamycin @ 2g in 10 litres of water for leaf spot diseases and Cartap Hydrochloride @ 2 g or Chlorantraniliprole @ 0.4 ml per litre of water for stem borer on a non rainy day.
 - Present hot and partly cloudy weather conditions are congenial for incidence of stem borer in rice in Northern Telangana Zone. Apply Cartap Hydrochloride 4G @ 8 kg/acre when the adult moths/egg masses @ one/ sq. m are noticed in the fields on a non rainy day.
- **Tamil Nadu:**
- Continue harvesting of matured *kuruvai* rice and sowing and transplanting of *samba* rice / nursery sowing of *thaladi* rice in the Cauvery Delta Zone of Tamil Nadu.
 - In the Western Zone of Tamil Nadu, undertake sowing of dry land crops like sorghum and ragi and sowing of small onion in the North Western Zone of Tamil Nadu.
 - Undertake sowing of cotton, maize, pulses and sorghum under dry land conditions in the Southern Zone of Tamil Nadu.
 - Due to high humidity, leaf folder incidence is noticed in rice in North Eastern Zone of Tamilnadu which is likely to spread. To control, spray Profenophos @ 2ml in one liter of water on a non rainy day.
 - Suitable varieties are given in Annexure II.
- **Animal Husbandry**
- In Coastal Andhra Pradesh, keep animals indoor at safe places during the cyclonic storm period.
 - Provide clean and hygienic water to animals and vaccinate against FMD in the Problem Area Zone of Kerala.
 - Present weather conditions are favourable for respiratory infections affecting mainly sheep and goat in North Western Zone of Tamilnadu. To prevent such illness, keep the sheds clean and dry. To prevent cold wind entering into the animal's house, place curtains on the open sided wall of the house. Do not allow any water stagnation around the farm and protect young kids from wetting due to rain.

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



Rice



Okra



Cole Crops (Nursery)



Green Gram

- **Realised Rainfall:** Rainfall occurred in Kamrup (Metro) district of Assam. Mainly dry weather prevailed over Northeast India.
- **Weather Forecast:** Dry weather would prevail over Arunachal Pradesh during the period. Dry weather would prevail over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over northeastern states.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Lower Bramhaputra Valley Zone of Assam, undertake sowing of onion and land preparation for planting of potato. Transplant the 25-30 days old seedlings of cole crops in the main field.
 - In Barak Valley Zone, continue transplanting of early cauliflower and cabbage, knol khol.
 - In Central Bramhaputra Valley Zone of Assam, sowing of cole crops and early radish may be continued. Continue weeding and thinning in sesame. Nursery sowing of winter brinjal (Pusa Kranti, Pusa Purple Long, Pusa Purple Cluster, Pusa Bhairav, JC-2, BWR-12) may be continued. Continue land preparation for sowing of rabi pulses and oilseeds.
 - In Upper Bramhaputra Valley Zone of Assam, continue nursery sowing of *rabi* vegetables.
 - In Arunachal Pradesh, continue harvesting of early transplanted *kharif* rice.
 - In the prevailing hot weather condition, attack of stem borer in *Sali* rice has been observed in Lower Bramhaputra Valley Zone of Assam which is likely to increase. Spray 0.02% Chloropyriphos 20 EC or 0.025% Quinalphos 25 EC to control the pests.
 - Due to prevailing humid weather conditions, there is chance of attack of gundhi bug, blast in normal transplanted rice in Arunachal Pradesh. Undertake foliar spray of Hexaconazole 5% EC @ 2 ml/litre of water or Carbendazim 12 % WP+Mancozeb 63% WP @ 2 g/litre of water.
 - In Meghalaya, maintain water level of 3-5 cm in transplanted *Sali* rice. Conserve water by repairing bunds. Transplanting of cabbage, cauliflower and broccoli and sowing of carrot, radish and French bean may be completed. In ginger and turmeric, undertake hand weeding followed by fertilizer application, earthing up and mulching. Land preparation and sowing of peas and planting of potato and peas may be continued.
 - Due to cloudy weather & high humidity, there is chance of incidence of blast in *kharif* rice in Meghalaya. Spray Mancozeb @ 2g/litre or Carbendazim @ 1g/litre. Also humid weather is congenial for development of late leaf spot in groundnut. Spray Carbendazim (0.05%) + Mancozeb (0.2%).
 - **Nagaland, Manipur, Mizoram and Tripura:**
 - In Manipur, maintain water level of 5cm upto dough stage in *kharif* rice. Continue transplanting of cole crops. As dry weather is prevailing, apply mulching in ginger/ turmeric field.
 - In Mizoram, continue nursery preparation for cole crops like cabbage, cauliflower, broccoli and knolkhol.
 - In Mild Tropical Plain Zone of Tripura, continue harvesting of *jhum* rice and banana and transplanting of winter vegetable particularly cauliflower, cabbage, radish, brinjal. Continue land preparation for planting of potato.
 - In Nagaland, continue nursery sowing of cabbage.
 - In Mizoram, weather is congenial for attack of stem borer, gundhi bug and leaf blast in rice, spray Monocrotophos @ 20 ml/10 litres water or Imidaclopid @ 20 ml/10 litres of water against stem borer. Spray Monocrotophos 36 WSC @ 1.5 ml/litre of water against gundhi bug. Spray Triclozole (Beam) @ 0.5 g/litre against leaf blast.
 - In Manipur, prevailing hot weather is conducive for tikka disease in groundnut, spray Carbendazim @ 0.5g / litre of water for control.
 - In Tripura, prevailing humid weather is conducive for attack of gundhi bug in short duration *aman* rice. To manage the attack by applying Cypermethri + Propenophos @ 1.5 ml per liter of water or Cartap Hydrochloride (Dollar) @ 1.5 g per litre of water. Also there is chance of rice blast in long duration *aman* rice, spray Benlate or Mancozeb @ 0.25%.

- Suitable varieties are given in Annexure II.
- **Animal Husbandry**
- In Tripura, the present weather condition is favourable for infestation of round worm, flukes and tapeworms. De-worming may be done under recommendation and supervision of authorized practitioner.
- In Manipur, provide clean drinking water to livestock.

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



Sugarcane

Groundnut

Onion

Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands; Bankura, Hooghly, Kolkata and South 24 Parganas districts of Gangetic West Bengal; East Singhbhum and Gumla districts of Jharkhand; Gajapati and Puri districts of Odisha. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Andaman & Nicobar Islands during the period. Rain/thundershowers would occur at a few places over Odisha during next 24 hours and increase thereafter. Rain/thundershowers would occur at isolated places over Gangetic West Bengal during next 48 hours and increase thereafter. Dry weather would prevail over Sub-Himalayan West Bengal & Sikkim and Bihar during next 48 hours and rain/thundershowers would occur at isolated places thereafter. Dry weather would prevail over Jharkhand during next 24 hours and rain/thundershowers would occur at isolated places on 11th October and at a few places thereafter.
- **Weather Warning:** Heavy to very heavy rainfall would occur at isolated places over South Odisha and heavy rainfall would occur at isolated places over north Odisha on 11th October. Heavy to very heavy rainfall would occur at a few places with extremely heavy falls over south Odisha and heavy to very heavy rainfall would occur at a few places over north Odisha on 12th October. Wind speed reaching 50-60 kmph gusting to 70 kmph would commence along and off south Odisha coast on 11th October. The wind speed would increase to 80-90 kmph gusting to 110 kmph along and off south Odisha Coast from 12th October.
- **Weather Outlook:** Rain/Thundershower would occur at most places with heavy to very heavy falls at a few places over Odisha on 13th and decrease thereafter. Increase in rainfall activity over Gangetic West Bengal and Jharkhand with possibility of isolated heavy rainfall over Gangetic West Bengal and Jharkhand on 13th and decrease thereafter. Rain/thundershowers would occur at a few places over rest east India and Andaman & Nicobar Islands.
- **Advisories:**
 - **West Bengal:**
 - As rain/thundershowers would occur at many places over Gangetic West Bengal on 12th October, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.
 - In New Alluvial Zone of West Bengal, keep 2-3 cm water in *aman* rice fields at the time of panicle initiation stage.
 - In Terai Zone, continue transplanting of early cabbage, cauliflower.
 - In Laterite and Red Soil Zone, continue harvesting of upland rice in clear weather.
 - Due hot and humid weather, there is a chance of spread of sheath blight and attack of stem borer in *aman* rice in New Alluvial Zone of West Bengal. Spray Carbendazim @ 1.5 g/litre of water for control of sheath blight and in case of stem borer attack, spray Carbosulfan 25 EC @ 2ml/ litre or Profenphos 40% + Cypermethrin 4% @ 1ml/ litre of water after current spells of rain.
 - **Andaman & Nicobar Islands:**
 - As rain/thundershowers would occur at many places over Andaman & Nicobar Islands during the period, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.
 - Drain out excess water from standing crop fields.
 - **Odisha:**

The Severe Cyclonic Storm '**HUDHUD**' over west central & east central Bay of Bengal would cross north Andhra Pradesh coast around Visakhapatnam by forenoon of 12th October 2014. Under the influence of the system, rainfall at many/most places with heavy to very heavy falls at isolated/ few places and isolated

extremely heavy falls would occur over south and north coastal Odisha from 11th and 12th October. Also Squally wind speed reaching 50-60 kmph gusting to 70 kmph would commence along and off south Odisha coasts from 11th morning onwards. The wind speed would increase to 80-90 kmph gusting to 110 kmph along and off south Odisha coast from 12th morning.

In view of the above the following agromet advisories are suggested for East and South Eastern Coastal Plain Zone and North Eastern Coastal Plain Zone of Odisha:

- Harvest already matured rice, groundnut, sesame, green gram, black gram and also vegetables immediately. Keep harvested produce at safe places.
 - Postpone sowing of *rabi* crops like groundnut, sunflower, maize, sesame, green gram, black gram and niger.
 - Arrange for propping in sugarcane and banana crops to prevent lodging due to high winds.
 - Postpone irrigation, intercultural operation, application of fertilisers and plant protection measures in standing crops.
- In North Eastern Plateau Zone of Odisha, due to high humidity and cloudy weather, there is chance of infestation of aphids in maize. To manage, spray Imidacloprid 17.8 SL @ 50 ml in 200 liters of water per acre after current spells of rain.
- In North Eastern Plateau Zone of Odisha, due to cloudy and high humid weather, there is chance of Tikka leaf spot in groundnut. To control, spray Mancozeb @ 2.5g per liter of water after current spells of rain.
- Prevailing humidity and temperature are conducive for incidence of leaf roller and case worm in rice in East and South Eastern Coastal Plain Zone of Odisha. To control, spray Triozophos or Fipronil or Hostathion @ 200 ml in 200 litres of water per acre after current spells of rain.
- **Bihar:**
- In North West Alluvial Plain Zone of Bihar, continue transplanting of cauliflower and nursery sowing of cabbage. Undertake field preparation for sowing of *rabi* crops like maize, wheat, pea, gram, sunflower and planting of potato. Undertake land preparation in the upland areas for sowing of rapeseed.
- In North East Alluvial Plain Zone of Bihar, maintain optimum water level in rice. Complete transplanting of early autumn vegetable *viz.* cauliflower, cabbage and brinjal etc.
- In South Bihar Alluvial Zone, undertake sowing of toria and sowing of fodder crop berseem.
- Due to prevailing hot weather condition, there is chance of attack of gundhi bug in rice in North West Alluvial Plain Zone and South Bihar Alluvial Zone, apply Folidol dust @ 10-15 kg per hectare in the early morning.
- **Jharkhand:**
- In Western Plateau Zone of Jharkhand, in upland areas, continue sowing toria. Continue planting of early potato and sowing of green peas. Undertake sowing of rainfed wheat. In upland areas after harvesting of *Kharif* crops, immediately plough the land to utilize residual moisture and sow different *rabi* crops like gram, lentil, linseed etc. Also undertake sowing of rape seed and mustard.
- In South Eastern Plateau Zone of Jharkhand, as mainly dry weather would prevail, undertake harvesting of matured rice. Undertake sowing of mustard in the harvested fields.
- In Central & North Eastern Plateau Zone of Jharkhand, continue sowing of toria, green pea and potato. Undertake sowing of mustard.
- Suitable varieties are given in Annexure II.
- **Animal Husbandry**
- In East and South Eastern Coastal Plain Zone and North Eastern Coastal Plain Zone of Odisha, keep animals indoor at safe places during the cyclonic storm period.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane



Rice



Okra



Onion

- **Realised Rainfall:** Mainly dry weather prevailed over the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Chhattisgarh during next 48 hours and at a few places thereafter. Dry weather would prevail over East Madhya Pradesh during next 48 hours and

rain/thundershowers would occur at isolated places thereafter. Dry weather would prevail over West Madhya Pradesh during the period.

- **Weather Warning:** Nil.
- **Weather Outlook:** Increase in rainfall activity over Chhattisgarh with possibility of isolated heavy to very heavy rainfall on 13th and decrease thereafter. Weather would be mainly dry over rest of the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - Continue sowing of sarson saag, radish, spinach and coriander in Bundelkhand Zone of Madhya Pradesh.
 - Undertake sowing of green pea, toria and mustard in Kymore Plateau Zone and Bundelkhand Zone of Madhya Pradesh under optimum residual soil moisture condition.
 - Continue nursery sowing of winter vegetables like tomato, chilli, brinjal, cauliflower, cabbage, capsicum and planting of early varieties of potato and green peas in Jhabua Hill Zone, Malwa Plateau Zone and Vindhya Plateau Zone of Madhya Pradesh.
 - As mainly dry weather would prevail continue harvesting of early variety of soybean in Malwa Plateau Zone and of matured soybean, urad, moong and vegetables in Jhabua Hill Zone, Vindhya Plateau Zone and Nimar Valley Zone of Madhya Pradesh.
 - As mainly dry weather would prevail, apply irrigation in maize and cotton in Jhabua Hill Zone, in rice in Grid Zone and in vegetables in Kymore Plateau Zone of Madhya Pradesh.
 - Due to humid weather there are chances of attack of fruit borer in urad and moong in Grid Zone of Madhya Pradesh, spray Dimethoate @ 1.5ml per litre of water.
 - Due to hot and humid weather there are chances of attack of sucking pest in vegetables in Vindhya Plateau Zone of Madhya Pradesh, spray Imidacloprid or Thiamethoxam @ 0.35 g per litre of water.
 - **Chhattisgarh:**
 - In North Hill Zone and Bastar Plateau Zone of Chhattisgarh, start transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc. With suitable seedlings and directly sow the seed of radish, turnip, spinach, carrot etc.
 - Undertake harvesting of moong, urad, soybean and matured rice in North Hill Zone and Plain Zone of Chhattisgarh in clear weather. Undertake land preparation for sowing of *rabi* crops like gram, lentil, linseed, toria, mustard, potato, pea and wheat (rainfed).
 - Due to humid weather, there are chances of leaf curling disease in chilli in Chhattisgarh Plain Zone, for control spray Methyl Dematon or Karathone @ 1ml per litre of water on non rainy day.
 - Suitable varieties are given in Annexure II.
- **Animal Husbandry**
 - In Madhya Pradesh, provide clean water and concentrate feed mixed with dry and green fodder to cattle.
 - In Chhattisgarh, provide concentrated feed to milch animals by mixing dry and green fodder and enrich feed with protein, carbohydrate, fat, vitamins etc.

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



Rice



Sugarcane



Bottle Gourd



Onion

- **Realised Rainfall:** Rainfall occurred in Hamirpur, Kangra and Una districts of Himachal Pradesh; Anantnag, Badgam, Doda, Kulgam, Pulwama, Ramban, Reasi and Shopian districts of Jammu and Kashmir. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Dry weather would prevail over the region during the period.
- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - Continue harvesting of rice and maize in Intermediate Zone of Jammu & Kashmir. Also continue nursery sowing of cauliflower, cabbage, raddish and knoll khol in Intermediate Zone of the region utilizing the realized

rainfall.

- In Sub-Tropical Zone of Jammu & Kashmir continue sowing of ghobi sarson with toria as mixed or intercrop and nursery raising of cole crops and onion. Continue sowing of root crops like radish, carrot, turnip.
- In Intermediate Zone of Jammu & Kashmir, due to hot weather conditions, there are chances of canker in citrus fruits, for control, spray Malathion @ 10 ml or Metasystox @ 10 ml per 10 litres of water.
- **Himachal Pradesh:**
- Undertake harvesting of rice, soybean mash and cowpea in Sub-Montane and Low Hills Sub-Humid Tropical Zone of Himachal Pradesh. Undertake sowing of gobhi sarson and linseed utilizing the realized rainfall. Sowing of berseem, lucerne and oats may also be undertaken as fodder crops during *rabi* season. Complete sowing of gram and lentil and undertake land preparations for sowing of early wheat in lower regions.
- Complete sowing of radish, turnip and spinach in Mid Hills Sub-Humid Zone of Himachal Pradesh. Undertake nursery preparation for sowing of late season cauliflower (Pusa-snowwall) and cabbage. Continue harvesting of onion bulbs, tomato, capsicum and cucumber.
- Continue nursery sowing of mid-season cauliflower and cabbage in poly house, planting of onion at 30X 10 cm spacing and sowing of potato in mid hill and lower region, transplanting of ageti cauliflower and cabbage in lower region in Sub-Montane and Low Hills Sub-Humid Tropical Zone and Bilaspur district of Mid Hills Sub-Humid Zone of Himachal Pradesh utilizing the realized rainfall. Continue nursery sowing of late varieties of cauliflower, cabbage, knol khol and direct sowing of radish, carrot, turnip, palak and methi and sowing of early varieties of Pea in mid hill areas utilizing the realized rainfall.
- As mainly dry weather would prevail, continue harvesting of rajmah and potato in High Hill Temperate Dry Zone of Himachal Pradesh.
- Continue intercultural operation like weeding in peas in High Hill Temperate Dry Zone of Himachal Pradesh. Spray Glycel @ 5ml per liter of water for weed control.
- Under prevailing humid weather condition, there are chances of incidence of scab and alternaria leaf spot diseases and canker and mite attack in apple in Mid Hills Sub Humid Zone of Himachal Pradesh. Spray Mancozeb or Ziram @ 700ml per 200 litres of water for control of scab and alternaria leaf spot diseases. Spray Carbendazim or Copper Oxy Chloride @ 600g per 200 litres of water against canker and apply Fenazaquin @ 50 ml or properzite @ 200 ml per 200 litres of water for mite.
- **Uttarakhand:**
- Continue land preparation for transplanting of onion and sowing of garlic. Also continue sowing of mustard, palak, methi, raddish, early toria, pea in Hill Zone of Uttarakhand.
- In Bhabar and Tarai Zone of Uttarakhand, continue sowing of pea and toria and planting of potato. Continue land preparation for sowing of radish, fenugreek and spinach. Continue harvesting of matured rice and soybean and planting of potato.
- Undertake harvesting of *kharif* maize and pulses like urad /moong and field preparation for planting of winter sugarcane in Sub Humid Sub Tropical Zone of Uttarakhand.
- Under hot weather condition, there are chances of attack of gundhi bug in rice in Sub humid Sub Tropical Zone of Uttarakhand. Spray Malathion or Carbaryl @ 30 kg per hectare.
- Due to rise in temperature, there are more chances of incidence of semi looper and hairy caterpillar in soybean at flowering and pod formation stage in Bhabar and Tarai Zone of Uttarakhand. For control, spray Trizophos @ 200 ml or Methanil @ 800 ml dissolved in 200 liters of water per acre.
- **Punjab, Haryana and Delhi:**
- In Western Undulating Zone of Punjab, continue nursery sowing of mid-season cauliflower, desi varieties of radish, carrot under irrigation and turnip and planting of mango, litchi and apply irrigation in rice, cotton and maize.
- In Central Plain Zone of Punjab, continue sowing of desi varieties of carrot, radish and turnip crops and undertake transplanting of tomato under irrigation. Continue sowing of potato, palak and nursery sowing of cauliflower. Continue harvesting of matured maize and groundnut in Ludhiana district. Continue planting of early maturing autumn sugarcane.
- In Western Zone of Punjab, undertake sowing of raya during the first fortnight of October.
- In Undulating Plain Zone of Punjab, high humidity may lead to sheath blight in rice, spray Tilt @ 0.1% on the disease spots. Present weather condition is congenial for attack of leaf folder and stem borer in rice, spray Monocrophos 36SL @ 560ml in 100 lits of water per acre.
- In Western Zone of Haryana, continue plantation of new orchard. Prepare the field for sowing of mustard and gram and arrange the certified seeds for mustard and gram. As dry weather would prevail harvest the matured guar and bajra crop.
- Present weather is favourable for attack of top borer in sugarcane in Western Zone of Haryana, apply Carbofuran 3G @13 kg or Phorate 10G @ 8 kg in furrows and apply light irrigation.
- In Delhi, continue transplanting of onion seedlings and planting of early potato. Continue land preparation for sowing of early mustard, pea and early toria and sowing of radish, spinach and coriander. .
- **Uttar Pradesh:**
- Undertake sowing of gram, matar and lentil in Raibareilly, Amethi, Sultanpur districts of Eastern Plain Zone of Uttar Pradesh with available soil moisture.

- Undertake nursery sowing/transplanting of cabbage, cauliflower, tomato and chilli and planting of potato with available moisture in Central Plain Zone of Uttar Pradesh.
- As dry weather would prevail, apply irrigation in rice at flowering and grain formation stages and in moong and urad at flowering and pod formation stages in Central Plain Zone of Uttar Pradesh.
- Undertake land preparation for planting of potato in Raibareilly, Amethi and Sultanpur districts of Eastern Plain Zone of Uttar Pradesh.
- Continue transplanting of cauliflower, cabbage, tomato, chilli and brinjal, sowing of palak, cucumber, methi, ageti carrot in Jhansi district of Bundelkhand Zone of Uttar Pradesh. Undertake harvesting of matured moong. Maintain 5cm water level in rice at panicle initiation and flowering stage.
- Under prevailing humid weather condition, there are chances of attack of stem borer, brown plant hopper, gall midge, leaf folder and jassids in rice in Central Plain Zone of Uttar Pradesh. Spray Quinalphos 25 EC @ 1 litre per hectare.
- Under prevailing humid weather condition, there are chances of attack of mango hopper and mealy bugs in mango in Barabanki, Faizabad, Sant Kabir Nagar and Gorakhpur districts of Eastern Plain Zone of Uttar Pradesh. Spray Methyl Parathion @ 1ml or Dimethioate @ 1.5 ml per litre of water at an interval of 15 days.
- Due to prevailing humid weather condition, there are chances of incidence of bacterial blight disease in rice in Central Plain Zone of Uttar Pradesh. Spray of Agrimycin @ 75g or Streptacycline @15 g alongwith 500 g Copper Oxychloride per 500 litres of water.
- Due to prevailing humid weather condition, there are chances of attack of beetle in banana in Central Plain Zone of Uttar Pradesh. Spray Monocrotophos @ 1.25 ml per litre of water or add 3-4 g Carbofuron in soil.
- **Rajasthan:**
 - Undertake land preparation for sowing of mustard in Semi Arid Eastern Plain Zone of Rajasthan.
 - Continue nursery raising of tomato, brinjal, chillies, cabbage etc. in Transitional Plain Zone of Inland Drainage of Rajasthan.
 - Continue nursery sowing of cauliflower and radish and continue sowing of rainfed Taramira, Toria and Mustard in Semi Arid Eastern Plain Zone of Rajasthan.
 - Continue nursery sowing of mid season cauliflower (Japanese, Pusa hybrid-2 and Himjoyti) and sowing radish (Pusa Chetki) in Arid Western Plain Zone of Rajasthan. Apply remaining half dose of nitrogen *i. e.* 30 kg/ha through urea in 25-30 days old pearl millet crop.
 - In Arid Western Plain Zone of Rajasthan, undertake land preparation for sowing of mustard and gram.
 - In Arid Western Plain Zone of Rajasthan, undertake hoeing and weeding to create dust mulch for checking evaporation losses and also for control of weeds in rainfed crop like pearl millet, guar and moth bean. If water stress persists for longer time, spray Thiourea @ 0.1%. Also undertake land preparation for sowing of mustard.
 - In Southern Humid Plain Zone of Rajasthan, due to dry weather conditions there may be water stress in rainfed crops like pearl millet, guar and moth bean. To avoid stress, spray Thiourea @ 0.1%.
 - Suitable varieties are given in Annexure II.
- **Horticulture:**
 - Prevailing hot weather condition is conducive for the attack of leaf minor in new growth of citrus in Sub Montane and Low Hills Sub-Tropical Zone of Himachal Pradesh. For control, spray Matasystox or Malathion @10 ml per 10 litres of water.
- **Animal Husbandry:**
 - Under prevailing humid weather condition, there are chances of attack of ticks and mites on animals also in Flood Prone Eastern Plain Zone of Rajasthan, Sub Montane and Low Hills Sub-Tropical; Zone of Himachal Pradesh and Intermediate zone of Jammu & Kashmir. For control spray Butox @ 2.0 ml per litre of water. Clean the cowshed with phenyl and keep the animal sheds dry and clean.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Rice



Sugarcane



Cotton



Soybean

- **Realised Rainfall:** Rainfall occurred in Raigad, Ratnagiri, Sindhudurg, Kolhapur, Sangli and Satara districts of Maharashtra. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Maharashtra during the period. Dry weather would prevail over Gujarat State during the period.

- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, maintain water level upto 5-8 cm in rice fields. Undertake fertilizer application and intercultural operations in rice, finger millet, vegetable fields and mango and cashew orchards. Early maturing rice variety is at maturity stage in South Konkan, continue harvesting during morning hours.
 - In Madhya Maharashtra, maintain water level of 5-8 cm in rice field. Continue intercultural operations like weeding and fertilizer application in sugarcane, vegetables and orchards. In already harvested fields continue sowing of *rabi* jowar and safflower utilizing the available soil moisture. Undertake pruning in grapes during October for better growth of fruit bunch. Apply phosphorous (P_2O_5) @ 250 kg/ha after pruning. Apply irrigation to sugarcane, vegetables and grapes, banana and pomegranate orchards and early sown *rabi* jowar.
 - In Marathwada, undertake intercultural operations in cotton, red gram and vegetables. With the available soil moisture, undertake sowing of rainfed jowar. Undertake field preparation for sowing of *rabi* jowar and safflower. Apply irrigation to sugarcane, soybean and vegetables.
 - In Vidarbha, apply fertilizers and undertake intercultural operations in cotton, red gram and vegetables. Maintain water level up to 7 cm in rice field in East Vidarbha. Prepare the field for sowing of safflower in the harvested field of green gram and black gram. Apply irrigation to vegetables, soybean (at pod development stage), cotton and orange, sweet lime orchards. Early sown soybean is at maturity stage in Central Vidarbha Zone, start harvesting of matured crop and prepare harvested field for sowing of gram. As rain is expected in East Vidarbha from 12th onwards, complete harvesting of matured soybean at the earliest and keep the harvested produce in safer place.
 - Light rain and humid weather in Pune region is favourable for infestation of downy mildew in grapes, spray Metalaxyl 8% +Mancozeb 64% @ 20g per 10 litres water for 5 times at 12 days interval after pruning.
 - Due to subdued rains in South Konkan, there may be attack of ear head bug in rice; spray Monocrotophos 36 WSC @ 12 ml or Cypermethrin 25 EC @ 2.4 ml per 10 litres water or dust 2% Methyl parathion dust @ 20 kg/ha during calm wind.
 - **Gujarat:**
 - Undertake land preparation for sowing of mustard and fennel in Bhal and Coastal Zone. Complete harvesting of matured pulse crops.
 - Carry out intercultural operations and weeding in standing rice and pulse crops in Middle Gujarat Zone. As mainly dry weather is prevailing, apply irrigation in pulse crops.
 - Undertake land preparation and keep inputs ready for sowing of *rabi* mustard in North Gujarat Zone. Carry out weeding and intercultural operations in cluster bean and castor crops to conserve soil moisture. Taking advantage of mainly dry weather, continue harvesting of groundnut and sesame crops.
 - Undertake sowing of mustard, gram, peas, carrot (for vegetable purpose) and garlic in North Saurashtra Zone. Complete harvesting of matured sesame. Apply irrigation in vegetable, cotton and groundnut to avoid moisture stress condition. To reduce dropping of flowers and immature balls in early sown cotton, spray Nephthalic acetic acid @ 7 ml in 10 liters of water.
 - Undertake planting of sugarcane and carry out intercultural operation in pigeon pea in South Gujarat Zone.
 - Due to hot and humid weather condition in North Saurashtra Zone, jassid and white fly attack is observed in cotton, groundnut and vegetable crops; spray Flonicamid @ 4 g/10 liters of water to control the pest.
 - Suitable varieties are given in Annexure II.
 - **Animal Husbandry**
 - In Gujarat, keep animal shed hygienic and clean, to avoid flies and mosquitoes.

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

Annexure I
Week by week Rainfall Distribution

Sub-Divisions	24.09.14		01.10.14		08.10.14	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	131.9	79	89.2	27	0.0	-100
Dibang Valley	**	**	**	**	0.0	-100
East Kameng	37.5	-35	0.0	-100	0.0	-100
East Siang	270.9	113	136.6	43	0.0	-100
Kurung Kumey	**	**	**	**	0.0	-100
Lohit	182.1	180	19.2	-63	0.0	-100
Lower Dibang Valley	165.3	201	91.9	37	0.0	-100
Lower Subansari	**	**	**	**	**	**
Papumpara	193.3	95	113.9	9	0.0	-100
Tawang	179.0	54	16.0	-83	0.0	-100
Tirap	82.4	4	175.0	115	0.0	-100
Upper Siang	74.8	-58	258.0	89	15.0	-79
Upper Subansari	42.2	11	15.4	-66	0.0	-100
West Kameng	100.2	-14	143.8	49	0.0	-100
West Siang	52.5	-28	52.0	4	**	**
Assam&Meghalaya						
Assam						
Baksa	121.2	17	29.6	-60	0.0	-100
Barpeta	247.2	139	24.2	-70	0.0	-100
Bongaigaon	211.4	105	13.0	-80	0.0	-100
Cachar	80.3	19	62.0	-10	0.0	-100
Chirang	440.8	328	53.2	-30	0.0	-100
Darrang	185.0	320	43.0	19	**	**
Dhemaji	97.0	10	62.0	-20	**	**
Dhubri	260.6	308	90.1	30	0.0	-100
Dibrugarh	130.7	101	28.7	-50	0.0	-100
Goalpara	483.0	547	29.1	-60	0.0	-100
Golghat	92.1	101	7.8	-70	0.0	-100
Hailakandi	191.7	250	79.7	20	0.0	-100
Jorhat	121.7	114	12.6	-70	0.0	-100
Kamrup(Rural)	243.2	587	32.2	-30	0.0	-100
Kamrup(Metro)	290.1	719	0.4	-10	22.6	-30
Karbi Anglong	110.4	238	19.4	-50	0.0	-100
Karimganj	180.8	139	68.7	0	0.0	-100
Kokrajhar	322.9	174	54.5	-40	0.0	-100
Lakhimpur	150.8	72	59.8	-20	0.0	-100
Morigaon	277.6	484	4.2	-90	0.0	-100
N.C.Hills	70.0	47	34.9	-30	0.0	-100
Nowgong	148.9	231	9.7	-80	0.0	-100
Nalbari	223.9	311	69.4	70	0.0	-100

Sonitpur	193.6	319	47.5	19	0.0	-100
Sibsagar	82.3	127	7.1	-80	0.0	-100
Tinsukia	134.2	105	67.8	30	0.0	-100
Udalgiri	227.5	416	73.7	100	0.0	-100
Meghalaya						
East Garo Hills	874.4	1513	95.9	72	10.4	-87
East Khasi Hills	887.8	941	92.8	-17	0.5	-99
Jaintia Hills	254.0	98	74.0	-57	**	**
Ribhoi	216.7	283	13.5	-78	4.2	-87
South Garo Hills	536.0	687	171.0	202	**	**
West Garo Hills	665.8	878	194.8	244	0.0	-100
West Khasi Hills	**	**	**	**	**	**
NMMT						
Mizoram						
Aizwal	110.2	41	18.0	-77	4.8	-95
Champhai	**	**	**	**	8.7	-90
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	0.0	-100
Mamit	**	**	**	**	**	**
Saiha	91.0	-14	8.0	-89	**	**
Serchhip	160.6	104	12.2	-83	0.0	-100
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	90.0	-16	1.0	-99	0.0	-100
Churachandpur	**	**	**	**	**	**
Imphal east	71.4	55	8.4	-79	0.0	-100
Imphal west	124.6	200	79.6	105	0.0	-100
Senapati	66.0	31	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	**	**	27.0	-40	**	**
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	66.7	103	0.5	-92	0.0	-100
Kephire	**	**	**	**	**	**
Kohima	98.0	93	28.4	-36	2.8	-94
Longleng	**	**	**	**	**	**
Mokokchung	**	**	**	**	0.0	-100
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	46	-9	75	68	**	**
Tuensang	**	**	**	**	**	**
Wokha	**	**	**	**	**	**
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	95.8	87	88.0	41	4.9	-92
North tripura	134.4	162	89.6	43	0.0	-100
South tripura	194.4	251	18.8	-70	10.4	-81
West tripura	189.0	272	42.2	-24	7.5	-88

Himachal Pradesh						
Bilaspur	6.7	-80	9.4	-55	1.9	-82
Chamba	1.4	-96	4.3	-88	12.0	-48
Hamirpur	11.2	-62	18.6	-39	36.5	138
Kangra	6.4	-81	28.5	-9	24.7	2
Kinnaur	0.0	-100	0.5	-96	0.1	-99
Kullu	0.7	-96	1.4	-90	11.2	34
Lahaul and Spiti	0.0	-100	0.0	-100	8.0	-54
Mandi	5.5	-79	19.3	-3	14.1	0
Shimla	3.4	-84	2.7	-84	6.1	-42
Sirmaur	0.5	-98	2.0	-93	15.3	-9
Solan	9.8	-65	0.0	-100	7.2	-55
Una	5.8	-79	60.2	116	40.6	103
Punjab						
Amritsar	4.5	-65	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 Sahib	0.0	-100	0.0	-100	0.0	-100
Ferozpur	0.0	-100	0.0	-100	0.1	-98
Gurdaspur	0.0	-100	11.4	-61	16.9	-7
Hoshiarpur	0.6	-98	0.0	-100	0.5	-97
Jalandhar	0.0	-100	0.0	-100	0.7	-94
Kapurthala	5.4	-63	8.3	-55	0.0	-100
Ludhiana	0.0	-100	0.0	-100	2.2	-84
Mansa	1.0	-94	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	0.3	-99	0.0	-100	0.0	-100
Patiala	0.0	-100	0.0	-100	0.4	-96
Ropar	3.1	-89	2.8	-83	4.2	-46
Sangrur	0.0	-100	0.0	-100	0.0	-100
Mohali	0.0	-100	2.3	-89	0.0	-100
TarnTaran	0.0	-100	0.0	-100	0.3	-96
Haryana,Chd,Delhi						
Haryana						
Ambala	0.4	-99	0.0	-100	9.6	-45
Bhiwani	0.0	-100	0.0	-100	0.0	-100
Chandigarh	0.0	-100	0.0	-100	1.9	-89
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	0.9	-77
Jind	0.0	-100	0.0	-100	0.0	-100
Katihah	0.0	-100	0.0	-100	4.8	-25
Karnal	0.0	-100	0.0	-100	9.8	-2
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	1.8	-92	0.0	-100	4.3	-34
Panipat	0.2	-99	0.0	-100	2.3	-72
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	0.1	-99	0.0	-100
Yamunanagar	0.0	-100	0.1	-99	2.0	-84
Delhi						
Central Delhi	0.0	-100	0.0	-100	0.0	-100
East Delhi	0.0	-100	0.0	-100	0.0	-100
New Delhi	0.0	-100	0.0	-100	0.0	-100
North Delhi	1.5	-89	0.0	-100	0.0	-100
North East Delhi	0.0	-100	0.0	-100	0.0	-100
North West Delhi	0.0	-100	0.0	-100	0.0	-100
South Delhi	0.0	-100	0.0	-100	0.0	-100
South West Delhi	0.0	-100	0.0	-100	0.0	-100
West Delhi	0.0	-100	0.0	-100	0.0	-100
Jammu & Kashmir						
Anantnag	0.0	-100	11.3	13	26.0	333
Badgam	0.0	-100	6.7	12	22.0	307
Bandipore	**	**	**	**	**	**
Baramula	0.0	-100	6.9	-20	12.3	66
Doda	2.4	-91	2.2	-89	21.2	149
Ganderbal	0.0	-100	0.0	-100	15.0	163
Jammu	13.1	-60	1.7	-89	12.8	41
Kargil	**	**	**	**	**	**
Kathua	11.0	-68	19.6	29	17.6	5
Kistwar	**	**	**	**	**	**
Kulgam	0.0	-100	5.4	-62	24.0	300
Kupwara	2.1	-76	12.3	108	15.6	41
Ladakh(Leh)	0.0	-100	0.0	-100	0.0	-100
Poonch	0.0	-100	11.0	90	0.0	-100
Pulwama	0.0	-100	7.1	-3	27.4	427
Rajouri	12.2	-70	18.2	-4	0.0	-100
Ramban	0.3	-99	2.3	-83	28.8	238
Reasi	3.1	-93	8.8	-71	58.1	334
Samba	27.3	-17	0.0	-100	11.2	23
Shopian	0.0	-100	4.0	-49	30.0	477
Srinagar	0.0	-100	5.9	-16	19.7	245
Udhampur	4.3	-91	25.4	-24	10.2	-24
East Madhya Pradesh						
Anuppur	16.5	-50	0.0	-100	0.5	-98
Balaghat	7.7	-78	0.0	-100	3.9	-83
Chhatarpur	0.6	-97	0.0	-100	0.4	-98
Chindwara	0.0	-100	0.0	-100	0.0	-100
Damoh	0.0	-100	0.0	-100	0.0	-100
Dindori	3.2	-88	0.0	-100	0.0	-100

Jabalpur	4.8	-80	0.0	-100	9.3	-35
Katni	0.0	-100	0.0	-100	0.0	-100
Mandla	3.0	-91	0.0	-100	12.9	-9
Narsingpur	13.0	-64	0.0	-100	8.2	-51
Panna	0.0	-100	0.0	-100	0.0	-100
Rewa	20.4	-31	0.0	-100	11.7	-34
Sagar	0.1	-99	0.0	-100	0.0	-100
Satna	0.0	-100	0.0	-100	1.7	-91
Seoni	4.6	-87	0.0	-100	1.0	-94
Shahdol	1.0	-96	0.0	-100	0.0	-100
Sidhi	7.4	-80	0.0	-100	0.0	-100
Singrauli	26.4	-20	0.0	-100	0.0	-100
Tikamgarh	0.0	-100	0.0	-100	0.0	-100
Umaria	3.8	-87	0.0	-100	9.6	-49
West Madhya Pradesh						
Alirajpur	0.0	-100	0.0	-100	1.9	-84
Asoknagar	0.0	-100	0.0	-100	0.0	-100
Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	1.4	-95	0.0	-100	13.2	-26
Bhind	1.6	-92	0.0	-100	0.0	-100
Bhopal	9.3	-68	5.3	-76	0.0	-100
Burhanpur	28.9	15	0.0	-100	0.0	-100
Datia	1.0	-96	0.0	-100	0.0	-100
Dewas	5.0	-84	4.0	-82	7.2	-47
Dhar	0.0	-100	6.9	-78	4.2	-72
Guna	0.0	-100	0.0	-100	1.0	-91
Gwalior	0.0	-100	0.0	-100	0.0	-100
Harda	48.5	29	0.0	-100	0.0	-100
Hosangabad	10.9	-73	0.0	-100	16.7	3
Indore	3.1	-92	2.0	-93	3.8	-79
Jhabua	0.0	-100	13.2	-51	12.9	13
Khandwa	16.3	-53	0.0	-100	0.0	-100
Khargone	16.0	-51	0.0	-100	1.7	-89
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	2.0	-87
Raisen	0.9	-97	0.0	-100	3.2	-79
Rajgarh	3.2	-87	0.0	-100	0.0	-100
Ratlam	0.0	-100	2.6	-90	5.8	-66
Sehore	3.8	-88	0.0	-100	0.0	-100
Shajapur	6.5	-79	2.4	-87	3.0	-76
Sheopur Kalani	0.0	-100	0.0	-100	0.0	-100
Shivpuri	0.0	-100	0.0	-100	0.0	-100
Ujjain	0.4	-99	2.6	-90	3.9	-74
Vidisha	2.8	-88	0.0	-100	0.6	-94
Chhattisgarh						
Bastar	150.4	262	0.0	-100	0.0	-100
Bijapur	46.0	9	0.0	-100	0.6	-98
Bilaspur	42.9	29	0.0	-100	7.3	-65

Dantewara	89.5	131	0.0	-100	3.8	-89
Dhamtari	34.8	-19	0.0	-100	0.0	-100
Durg	52.4	19	0.0	-100	2.0	-91
Janjgir	52.7	22	0.0	-100	0.0	-100
Jashpurnagar	0.7	-98	1.1	-97	0.1	-99
Kanker	65.5	48	0.0	-100	0.0	-100
Korba	31.9	2	0.0	-100	3.3	-83
Koriya	61.3	165	0.0	-100	2.0	-83
Kawardha	70.0	102	0.0	-100	7.2	-71
Mahasumund	94.6	184	0.0	-100	1.1	-94
Narayanpur	65.5	53	0.0	-100	2.1	-93
Raigarh	35.0	14	0.0	-100	0.0	-100
Raipur	76.1	117	2.5	-90	0.8	-96
Rajandgaon	20.5	-52	0.0	-100	5.4	-77
Surguja	29.8	-11	0.0	-100	0.3	-98
East Uttar Pradesh						
Allahabad	0.7	-98	1.2	-93	4.3	-77
Ambedkar Nagar	21.0	-13	5.0	-81	0.0	-100
Azamgarh	18.4	-54	0.0	-100	0.0	-100
Bahraich	18.3	-31	16.1	-50	0.0	-100
Ballia	36.8	9	28.3	45	0.0	-100
Balrampur	22.6	-25	14.5	-63	0.0	-100
Banda	0.2	-99	0.0	-100	0.0	-100
Barabanki	0.0	-100	4.0	-86	0.1	-99
Basti	9.1	-69	3.6	-88	0.0	-100
Chandauli	6.4	-72	11.0	-52	0.0	-100
Deoria	1.5	-96	4.0	-87	1.0	-97
Faizabad	0.0	-100	2.3	-92	0.0	-100
Farrukhabad	0.0	-100	0.0	-100	5.5	-78
Fatehpur	0.0	-100	0.4	-98	0.0	-100
Gazipur	54.3	63	0.0	-100	0.0	-100
Gonda	10.7	-64	3.7	-90	0.0	-100
Gorakhpur	32.1	-3	39.6	10	0.0	-100
Hardoi	0.0	-100	12.8	-39	0.0	-100
Jaunpur	3.0	-92	0.6	-97	0.0	-100
Kannauj	0.0	-100	3.1	-83	17.1	-45
Kanpur City	0.0	-100	0.0	-100	0.0	-100
Kanpur Dehat	0.0	-100	1.0	-96	0.4	-98
Kaushambi	0.0	-100	0.0	-100	0.0	-100
Kheri	3.6	-90	12.0	-56	1.9	-95
Kushi nagar	20.5	-52	9.5	-80	0.0	-100
Lucknow	0.0	-100	7.0	-72	0.7	-97
Maharajganj	17.5	-46	29.3	-13	0.0	-100
Mau	31.0	-4	31.0	9	0.0	-100
Mirzapur	30.5	-26	1.0	-95	0.0	-100
Pratapgarh	2.0	-92	0.0	-100	1.3	-91
RaiBareilly	0.7	-97	2.3	-90	0.0	-100
Sahuji Maharajnagar	25.5	11	0.0	-100	0.0	-100
Sant Kabirnnagar	22.0	-6	33.0	10	0.0	-100

Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	11.0	-58	29.2	-9	0.0	-100
Sidharthnagar	27.0	3	38.1	25	0.0	-100
Sitapur	2.9	-90	12.3	-51	1.3	-96
Sonbhadra	18.8	-38	0.0	-100	0.0	-100
Sultanpur	0.0	-100	3.9	-82	1.8	-91
Unnao	0.0	-100	12.7	-53	0.0	-100
Varanasi	11.9	-70	2.3	-91	11.3	-44
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	5.0	-79
Badaun	0.0	-100	0.0	-100	4.4	-85
Baghpat	0.0	-100	0.0	-100	0.0	-100
Bareilly	4.5	-84	0.0	-100	0.2	-99
Bijnor	4.0	-73	0.0	-100	0.0	-100
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	8.8	-67	0.0	-100	0.0	-100
Jhansi	0.0	-100	0.0	-100	0.0	-100
Jotiba Phule Nagar	20.0	-3	0.0	-100	0.0	-100
Kanshiramnagar	0.0	-100	0.0	-100	0.0	-100
Lalitpur	0.0	-100	0.0	-100	0.0	-100
Mahamaya Nagar	0.0	-100	0.0	-100	0.0	-100
Mahoba	0.0	-100	0.0	-100	0.0	-100
Mainpuri	0.0	-100	0.0	-100	0.0	-100
Mathura	0.0	-100	0.0	-100	0.0	-100
Meerut	0.0	-100	0.0	-100	0.0	-100
Moradabad	28.1	-4	0.5	-97	3.4	-84
Muzzaffarnagar	0.0	-100	0.0	-100	5.2	-64
Pilibhit	2.0	-94	0.0	-100	0.0	-100
Rampur	19.5	-55	0.0	-100	0.0	-100
Saharanpur	0.0	-100	0.0	-100	0.0	-100
Shahjahanpur	0.0	-100	0.5	-98	0.0	-100
Uttarakhand						
Almora	0.0	-100	0.4	-98	1.9	-92
Bageshwar	2.3	-92	21.3	-13	3.0	-87
Chamoli	2.7	-88	33.7	115	3.3	-71
Champawat	20.5	-51	13.0	-60	0.0	-100
Dehradun	0.5	-99	66.8	118	9.5	-64
Garhwal Pauri	0.0	-100	7.7	-68	0.3	-99
Garhwal Tehri	0.0	-100	2.6	-85	1.2	-93
Haridwar	3.5	-83	2.9	-87	5.9	-44
Nainital	8.6	-83	18.8	-36	3.6	-89

Pithorgarh	16.5	-67	22.6	-37	9.9	-56
Rudraprayag	6.6	-78	40.7	64	7.8	-64
Udham Sing Nagar	21.6	-43	1.0	-97	11.2	-66
Uttarkashi	5.7	-82	37.9	30	5.9	-71
Bihar						
Araria	74.2	54	56.7	-3	0.0	-100
Arwal	36.2	2	11.1	-59	0.0	-100
Aurangabad	33.1	12	8.2	-62	7.3	-59
Banka	49.4	3	6.4	-89	0.0	-100
Begusarai	50.9	-10	4.2	-88	0.0	-100
Bhabua	20.7	-51	0.0	-100	0.0	-100
Bhagalpur	5.4	-89	18.0	-67	0.6	-99
Bhojpur	63.1	63	6.2	-76	0.0	-100
Buxar	11.7	-57	5.6	-64	0.0	-100
Darbhanga	0.0	-100	26.6	-35	3.9	-90
East Champaran	29.3	-26	83.3	129	0.0	-100
Gaya	38.2	17	1.6	-95	1.1	-96
Gopalganj	4.9	-86	39.5	31	0.0	-100
Jahanabad	33.9	-26	9.8	-65	0.0	-100
Jamui	50.2	9	0.0	-100	8.6	-75
Kathihar	45.5	-5	35.2	-54	4.5	-89
Khagadia	41.4	-37	6.7	-88	3.8	-91
Kishanganj	126.5	90	79.6	13	0.0	-100
Lakhisarai	19.7	-64	12.7	-76	0.0	-100
Madhepura	1.0	-97	10.8	-81	6.7	-82
Madhubani	9.0	-76	75.4	120	0.0	-100
Monghyar	24.6	-55	34.0	-35	0.0	-100
Muzaffarpur	46.8	14	17.0	-54	0.2	-99
Nalanda	28.2	-38	18.6	-42	2.0	-92
Nawada	38.2	10	4.1	-88	1.8	-94
Patna	78.4	92	21.8	-46	3.1	-90
Purnea	178.7	270	1.9	-97	11.0	-75
Rohtas	24.7	-21	0.0	-100	3.7	-84
Saharsha	7.0	-86	4.0	-94	0.0	-100
Samstipur	62.9	8	21.8	-56	3.4	-92
Saran	42.3	11	35.1	-9	4.2	-86
Sheikpura	62.2	51	39.9	23	0.0	-100
Sheohar	18.6	-52	73.0	110	0.0	-100
Sitamarhi	18.5	-52	32.9	-5	0.0	-100
Siwan	31.9	-25	21.2	-41	0.0	-100
Supaul	31.5	-21	24.6	-46	0.0	-100
Vaishali	55.3	11	45.7	-2	0.3	-99
West Champaran	72.8	63	76.6	92	0.0	-100
Jharkhand						
Bokaro	42.6	16	0.0	-100	2.2	-93
Chatra	44.3	-1	0.0	-100	0.0	-100
Deoghar	36.1	-33	2.6	-96	3.2	-90
Dhanbad	60.1	20	5.6	-91	0.8	-98
Dumka	102.4	120	9.7	-86	0.0	-100

East Singbhum	36.3	-8	0.0	-100	37.2	52
Garhwa	4.3	-86	0.0	-100	0.0	-100
Giridih	80.5	96	3.6	-94	4.2	-89
Godda	110.1	191	7.1	-88	0.0	-100
Gumla	10.7	-77	6.6	-84	25.1	-4
Hazaribagh	44.1	25	4.3	-89	1.7	-95
Jamtara	63.7	29	5.4	-93	0.3	-99
Khunti	85.5	69	0.0	-100	0.0	-100
Koderna	34.5	-20	1.8	-96	0.0	-100
Latehar	71.5	122	0.0	-100	0.0	-100
Lohardagga	107.1	134	0.0	-100	0.0	-100
Pakur	79.8	-8	1.0	-99	4.7	-92
Palamau	35.3	-10	4.0	-86	4.1	-77
Ramgarh	34.4	-12	0.0	-100	1.8	-94
Ranchi	54.2	17	0.6	-99	0.0	-100
Sahebganj	42.4	-38	0.0	-100	0.0	-100
Saraikela	45.7	12	1.6	-96	0.5	-98
Simdega	39.1	-13	0.3	-99	13.1	-43
West Singbhum	18.6	-52	6.2	-84	19.4	-15
East Rajasthan						
Ajmer	0.0	-100	0.0	-100	0.0	-100
Alwar	0.3	-98	0.0	-100	0.0	-100
Banswara	0.0	-100	0.0	-100	0.8	-91
Baran	0.8	-96	0.0	-100	0.0	-100
Bharatpur	0.5	-95	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	0.6	-96	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	1.8	-86	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	0.5	-97	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	0.2	-99	1.0	-92	0.0	-100
Anand	0.7	-96	5.0	-65	0.0	-100
Banaskantha	0.0	-100	0.0	-100	0.0	-100
Baroda	0.0	-100	2.5	-89	0.0	-100
Broach	1.4	-94	2.2	-93	0.0	-100
DNH	4.1	-95	0.6	-99	0.7	-91
Dahod	0.0	-100	2.4	-88	1.6	-85
Daman	14.0	-83	0.6	-99	2.0	-75
Dangs	0.5	-99	60.5	-17	0.5	-98
Gandhinagar	0.3	-98	0.7	-95	0.0	-100
Kheda	0.0	-100	0.0	-100	0.0	-100
Mehsana	0.0	-100	0.0	-100	0.0	-100
Narmada	0.0	-100	2.7	-92	0.0	-100
Navsari	3.9	-90	0.8	-99	0.0	-100
Panchmahal	0.1	-99	1.7	-89	0.6	-92
Patan	0.0	-100	0.3	-96	0.7	-80
Sabarkantha	0.0	-100	0.0	-100	0.2	-97
Surat	1.4	-95	1.9	-96	0.0	-100
Tapi	0.0	-100	1.0	-98	0.0	-100
Valsad	12.7	-70	1.4	-98	0.5	-97
S K & Diu region						
Amreli	1.0	-96	6.5	-71	4.6	-36
Bhavnagar	0.6	-97	6.3	-64	4.1	-43
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.7	-91	0.2	-98	2.6	-46
Junagarh	0.3	-98	7.8	-58	15.2	105
Kutch	0.0	-100	0.0	-100	1.0	-67
Porbandar	0.9	-94	0.0	-100	2.0	-66
Rajkot	0.0	-100	3.5	-76	10.1	30
Surendranagar	0.0	-100	1.8	-83	0.2	-98
Maharashtra & Goa						
Konkan & Goa						
Mumbai City	45.3	-25	44.0	-35	2.2	-94
Mumbai Suburban	26.6	-56	20.4	-70	4.6	-87
North Goa	13.9	-74	**	**	12.2	-81
Raigad	33.1	-53	39.0	-55	35.7	-25
Ratnagiri	22.3	-65	52.0	-38	22.1	-63
Sindhudurg	16.5	-71	90.6	25	37.6	-33
South Goa	16.6	-67	**	**	17.8	-65
Thane	20.3	-67	15.3	-78	19.1	-40
Madhya Maharashtra						
Ahmednagar	5.8	-84	0.6	-99	8.5	-65
Dhule	8.9	-68	0.0	-100	0.8	-95

Jalgaon	6.1	-76	0.0	-100	0.1	-99
Kolhapur	11.2	-74	43.8	-11	28.7	-38
Nandurbar	4.3	-84	4.7	-85	0.6	-95
Nasik	10.5	-72	25.0	-42	7.3	-71
Pune	6.5	-84	10.6	-79	18.0	-41
Sangli	16.2	-60	45.3	8	20.3	-50
Satara	7.3	-82	18.7	-59	21.9	-38
Solapur	19.3	-60	2.8	-94	4.7	-85
Marathwada						
Aurangabad	0.3	-99	0.3	-99	0.9	-95
Beed	8.0	-80	0.0	-100	4.0	-83
Hingoli	3.0	-91	0.6	-98	0.6	-98
Jalna	0.3	-99	0.5	-98	1.0	-95
Latur	7.5	-76	0.0	-100	3.3	-89
Nanded	9.9	-76	0.0	-100	0.6	-98
Usmanabad	18.2	-57	3.4	-92	5.3	-82
Parbhani	8.9	-77	0.0	-100	0.5	-98
Vidarbha						
Akola	2.5	-91	0.0	-100	1.0	-95
Amraoti	5.0	-83	0.0	-100	6.9	-66
Bhandara	8.9	-70	0.0	-100	0.0	-100
Buldhana	3.2	-88	0.0	-100	0.0	-100
Chandrapur	7.4	-79	0.0	-100	1.0	-96
Gadchiroli	20.2	-35	0.0	-100	0.1	-99
Gondia	26.7	-14	0.0	-100	0.0	-100
Nagpur	4.9	-85	0.0	-100	3.4	-84
Wardha	8.2	-74	0.0	-100	1.6	-93
Washim	0.5	-98	0.0	-100	1.1	-95
Yeotmal	4.4	-85	0.0	-100	0.0	-99
Odisha						
Angul	36.8	-10	4.6	-86	11.3	-60
Balasore	116.1	83	0.6	-99	10.1	-81
Bargarh	55.9	66	0.0	-100	1.7	-91
Bhadrak	61.9	34	0.0	-100	3.7	-90
Bolangir	31.3	-11	0.0	-100	1.3	-94
Boudh	54.2	25	0.0	-100	1.3	-97
Cuttack	72.5	56	18.2	-55	3.8	-91
Deogarh	21.2	-40	1.7	-94	0.0	-100
Dhenkanal	25.9	-42	7.3	-83	10.1	-72
Gajapati	30.5	-50	31.1	-24	21.4	-48
Ganjam	63.9	29	10.0	-79	9.4	-84
Jagatsingpur	65.5	41	4.3	-90	9.0	-79
Jajpur	46.2	-27	0.0	-100	5.6	-87
Jharsuguda	75.9	126	1.4	-95	9.5	-55
Kalahandi	77.5	98	0.0	-100	4.8	-84
Kandhamal	39.7	-8	5.4	-87	4.3	-90
Kendrapara	39.1	-34	0.0	-100	10.0	-85
Keonjhar	25.8	-48	0.0	-100	11.4	-65
Khurda	53.9	2	6.1	-87	1.7	-97

Koraput	75.3	24	1.3	-97	3.3	-93
Malkangiri	63.0	41	6.4	-77	0.0	-100
Mayurbhanj	67.1	16	0.0	-100	13.0	-65
Nawapara	38.4	1	0.0	-100	0.0	-100
Nawarangpur	91.3	82	0.0	-100	3.7	-91
Nayagarh	37.2	-38	3.9	-9	9.8	-81
Puri	83.3	98	0.9	-99	20.9	-63
Rayagada	59.0	42	0.2	-99	11.9	-67
Sambalpur	61.1	72	0.0	-100	6.0	-70
Sonepur	50.3	38	0.0	-100	4.7	-76
Sundargarh	28.9	-14	0.6	-98	6.4	-59
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	35.8	-57	26.5	-75	155.1	72
North & Middle Andaman	20.8	-80	26.7	-76	349.4	311
South Andaman	18.0	-84	45.1	-65	306.8	249
GWB						
Bankura	78.5	58	0.6	-99	49.7	23
Birbhum	68.7	4	12.1	-83	1.0	-97
Burdwan	117.0	124	5.0	-92	2.6	-93
East Midnapore	146.6	132	18.0	-83	7.4	-87
Hooghly	96.0	120	29.1	-51	27.6	-23
Howrah	135.4	225	10.3	-90	0.0	-100
Kolkata	127.7	160	43.6	-53	39.5	-21
Murshidabad	173.0	257	16.9	-78	1.0	-98
Nadia	106.0	109	45.0	-19	14.3	-52
24 Pargana (N)	85.7	45	30.2	-61	17.0	-55
Purulia	85.0	115	5.7	-90	10.0	-70
24 Pargana (S)	137.1	125	33.1	-65	25.8	-60
West Midnapore	46.3	2	0.4	-99	3.0	-92
SHWB & Sikkim						
Cooch Behar	255.6	172	116.0	26	0.0	-100
Darjeeling	102.9	9	71.0	-30	5.7	-89
East Sikkim	65.5	0	61.8	-6	0.0	-100
Jalpaiguri	200.6	88	104.6	12	0.0	-100
Malda	82.0	39	37.8	-55	0.2	-99
North Dinajpur	**	**	8.5	-93	**	**
North Sikkim	45.8	-40	31.0	-56	1.0	-99
South Dinajpur	157.4	202	38.5	-40	0.0	-100
South Sikkim	98.1	50	85.7	30	0.0	-100
West Sikkim	4.0	-95	0.0	-100	4.5	-95
Karnataka						
Coastal Karnataka						
Dakshin Kannada	39.1	-40	53.0	-30	59.7	-15
Udupi	32.1	-61	46.8	-52	62.9	-14
Uttar Kannada	17.7	-67	53.4	-9	24.7	-54
N I Karnataka						

Bagalkote	18.1	-61	10.1	-76	8.8	-78
Belgaum	26.0	-24	28.8	-29	28.9	-29
Bidar	24.0	-45	0.0	-100	0.3	-99
Bijapur	42.3	-21	0.2	-99	14.4	-65
Dharwad	49.5	15	46.4	20	20.7	-45
Gadag	34.1	-27	45.0	3	32.8	-20
Gulbarga	58.1	15	1.7	-96	16.9	-61
Haveri	27.0	-12	47.8	30	39.2	16
Koppal	7.1	-85	24.1	-42	8.2	-77
Raichur	18.8	-59	2.0	-95	22.9	-41
Yadgir	27.9	-52	1.4	-97	23.7	-45
S I Karnataka						
Bangalore Rural	89.6	64	100.8	120	84.0	50
Bangalore Urban	62.3	12	104.0	105	62.7	24
Bellary	13.4	-71	42.9	6	0.0	-100
Chamarajnar	53.6	31	37.3	2	39.1	-8
Chichballapur	25.1	-44	29.6	-30	20.3	-60
Chickmagalur	17.1	-66	121.9	146	34.5	-27
Chitradurga	3.7	-89	82.9	111	18.3	-52
Davangere	32.1	-20	79.9	109	35.0	-12
Hassan	22.0	-44	142.8	265	24.0	-45
Kodagu	59.8	19	57.9	11	43.2	-20
Kolar	12.6	-71	53.0	25	35.9	-20
Mandya	68.6	59	116.7	201	52.8	21
Mysore	73.7	102	64.3	97	28.9	-27
Ramnagara	60.1	-4	113.5	117	52.1	1
Shimoga	36.5	5	101.6	156	28.0	-36
Tumkur	15.9	-68	85.5	96	40.3	-20
Kerala						
Alappuzha	6.1	-91	43.4	-43	70.3	-9
Kannur	35.5	-18	6.3	-91	19.2	-66
Ernakulam	10.6	-86	100.1	18	79.3	18
Idukki	21.2	-71	151.4	58	65.4	-18
Kasaragod	74.0	35	1.0	-98	24.1	-64
Kollam	2.0	-97	91.9	38	134.6	78
Kottayam	6.0	-90	116.0	45	92.6	24
Kozhikode	6.8	-87	36.2	-58	22.2	-62
Malappuram	12.3	-72	100.3	39	99.4	62
Palakkad	12.3	-68	79.2	29	53.2	-3
Pathanamthitta	1.7	-97	95.6	12	93.5	29
Thiruvananthapuram	1.8	-96	66.8	21	70.4	39
Thrissur	13.2	-79	91.3	6	66.1	-8
Wynad	33.4	-31	83.8	41	49.5	3
Tamil Nadu						
Ariyalur	12.3	-63	11.8	-68	11.3	-76
Chennai	17.9	-26	15.0	-63	3.0	-93
Coimbatore	47.7	133	52.4	133	25.6	4
Cuddalore	30.7	-8	25.9	-30	3.8	-90
Dharmapuri	37.2	-23	53.9	21	103.0	120

Dindigul	55.9	65	58.5	65	15.5	-57
Erode	67.3	126	70.0	133	35.4	2
Kanchipuram	16.7	-49	15.4	-68	9.8	-72
Kanyakumari	5.6	-78	5.8	-84	8.0	-80
Karikal	1.2	-97	**	**	0.0	-100
Karur	21.8	-24	27.3	1	7.2	-78
Krishnagiri	37.7	-30	48.9	-8	56.1	15
Madurai	27.9	-9	30.8	-17	39.0	-4
Nagapattinam	3.7	-84	0.5	-98	7.4	-80
Namakkal	50.8	48	52.7	55	60.7	69
Nilgiris	25.8	-35	26.5	-34	29.3	-31
Perambalur	17.0	-60	17.0	-39	48.3	18
Puducherry	89.0	228	**	**	11.2	-70
Pudukottai	0.0	-100	0.0	-100	13.2	-61
Ramanathapuram	1.5	-90	1.5	-92	20.0	-14
Salem	81.2	77	99.3	145	70.7	57
Sivaganga	8.7	-63	20.1	-29	40.6	22
Thanjavur	1.6	-94	1.2	-96	16.7	-55
Theni	24.3	10	24.7	2	32.3	38
Tirunelveli	3.7	-62	4.1	-74	33.5	90
Tirupur	47.2	122	56.7	123	14.7	-48
Tiruvallur	28.7	-3	26.5	-40	10.0	-74
Tiruvannamalai	64.3	58	67.6	57	34.5	-21
Tiruvarur	1.4	-95	1.4	-95	23.2	-33
Toothukudi	2.8	-71	5.0	-56	22.9	36
Trichy	20.7	-40	22.6	-29	12.3	-71
Vellore	34.8	-18	43.3	-2	15.0	-64
Villupuram	55.7	52	58.4	54	37.4	-9
Virudhunagar	9.2	-60	13.4	-51	37.0	25
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	43.4	-10	1.2	-98	22.3	-63
Guntur	59.7	49	6.5	-85	12.3	-68
Krishna	34.8	-24	8.2	-83	26.7	-41
Nellore	16.1	-48	8.4	-77	2.2	-94
Prakasam	32.1	-16	13.7	-67	10.7	-75
Sirkakulam	57.8	10	6.3	-87	23.7	-61
Visakhapatnam	54.1	11	2.7	-94	23.7	-64
Vizianagram	41.3	-22	3.9	-92	14.3	-74
West Godavari	70.8	52	34.2	-30	21.1	-64
Rayalaseema						
Anantapur	8.5	-80	14.3	-60	18.7	-53
Chittoor	7.7	-77	23.4	-43	12.7	-69
Cuddapah	19.5	-48	4.7	-86	15.2	-62
Kurnool	18.9	-58	4.9	-87	10.6	-70
Telangana						
Adilabad	3.0	-93	2.4	-92	2.2	-92
Hyderabad	11.1	-76	10.6	-72	4.8	-85

Karimnagar	7.6	-82	0.0	-100	1.1	-97
Khammam	53.8	29	7.7	-78	7.1	-82
Mehabubnagar	26.3	-36	0.7	-98	8.8	-73
Medak	10.4	-77	0.2	-99	0.0	-100
Nalgonda	22.4	-46	3.3	-91	18.3	-51
Nizamabad	17.0	-55	0.0	-100	1.9	-94
Rangareddy	17.5	-66	1.8	-95	3.6	-90
Warangal	10.4	-73	6.2	-79	2.5	-92

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 List of varieties

Tamil Nadu

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

Direct seeded rice: (White Ponni or ADT 39)

Assam

Green gram: T-44, Kopergaon, K-851, ML-56, ML-131 etc.

Black gram : T-9, T-27, Pant U-19, T-122.

Radish : Pusa Deshi, Pusa Chetki, Pusa Himani

Cauliflower : Improved Japanese, Pusa Synthetic, Pusa Snowhall and Main Crop Patna.

Early maturity Cabbage varieties : Golden Acre, Pride of India, Pusa Mukta (Sel – 8).

Early maturity Knol Khol : White Vienna.

Winter brinjal : Pusa Kranti, Pusa Purple Long, Pusa Purple Round, Pusa Vairab, Pant Samrat

Meghalaya

Pigeon pea: short duration : UPAS-120, ICPL 87. long duration WB 20, Pusa 9 & Sarita.

Cabbage: H-139, Pride of India

Cauliflower: Meghalaya Local

Carrot: New Karoda, Nantesh

Radish: Local genotype

Broccoli: Puspa, Aiswarya

French bean: Naga Local

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

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

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

Tripura

Tomato: Trishul, Allrounder, T- 1408, T- 1458, Anup.

Cauliflower: CFL- 4048, Pusa early synthetic, Kamaya, Suhasihi.

Cabbage: BC- 76, Pusa Drum Head, Pusa Synthetic.

Broccoli: Everest, Ayeshwaria.

Odisha

Sesame: Kanak, Kalika, Uma, Usha, Tilotama, Nilima, Prachi

Greengram: K-851, PDM-11, PDM-54, OUM-11-5

Blackgram: T-9, Pant U-11, Pant U-19, Pant U-30

Cowpea: SEB-2, Pusa Barsati Niger: Deomali, Niger-1 and for Okra: Utkal Gourav.

West Bengal

Banana: Mortoman, Chapa, Kathali, Singapuri.

Tomato: Avinash-2, 448.

Cabbage: Pride of India, Pusa early, Kranti.

Cauliflower: Jawhar moti, Bharat Jyoti, Early banaras

Bihar

Shakarkand: Rajendra Shakarkand- 5, Rajendra Shakarkand-35, Rajendra Shakarkand-43, Rajendra Shakarkand-47, Kalmegh and Rajendra Shakarkand-92.

Pigeon Pea: arhar: Bahar, Pusa 9, Narendra Arhar 1

Urd: T-9, Pant U-19, Pant Urd 31, PDU-1

Radish: Pusa Chetki, Pusa Himani, Pusa Rashmi, Japani Saphed

Pointed gourd: Rajendra Parwal-1, Rajendra parwal-2, FP1 and 3

Jharkhand:

Urd: T 9, Pant U 19, 30, 35 and Birsa urd 1

Moong: Pusa Vishal, S M L 668, K 885, P S 16, Pant Moong 2 and P D M 11.

Arhar: Birsa Arhar (210 days), Bahar (240 Days) and ICPH 2671 (210 days),

Maize: short duration variety: Birsa Vikas Maize-2 and medium duration variety: Birsa Maize-1.

Madhya Pradesh

Gram: JG-130, JG-11, JG-315, JG-16

Wheat: Sujata, HW-2004, HI-1500

Winter Sugarcane: KJN 86-572, KJN 86-141

Green Pea: Arkel, PSM-3

Jammu & Kashmir

Berseem: Mescavi, Pusa Giant, BL-1 and Vardan

Uttarakhand

Pea: VL Ageti Mater-7, Vivel Mater-10, Pant Subjee Mater-3, Azad Mater-3 and Arkel

Potato: Kufri- Jyoti, Ashok, Anand

Toria : Pant Toria-30, 303, 507 or local varieties.

Himachal Pradesh

Peas: Palam Triloki, Arkel, VL-7 and Matar Ageta

Late variety of Cauliflower: broccoli

East Uttar Pradesh

Cabbage: Imprabad Japani, Pusa chipali and Pusa kartiki

Radish: Japani white, Pusa chetakij, Hisar Muli No.1 and kalyanpur-1

Toria: T-9, T-36, Pant -30,303, B-9

Potato: Kuferi - Chandramukhi, Bahar

Mustard: Basati, Maya, Kanti, Urvashi, Narendra, Swarna-8, Narendra Ageti-4

Ageti Matar: Kashi - Nandini, Uday, Mukti, Arkel, Azad-3

West Uttar Pradesh:

Toria: Sangam, TL-17, 67

Ageti matar: Azad P-3, Arkel

Maharashtra

Madhya Maharashtra

rabi jowar: Selection-3, Phule Mauli, Phule Anuradha in light soil, Phule Chitra, Maldandi-35-1 in medium soil and Phule Vasudha, Phule Yashodha in black soil

Safflower: Bhima or Phule Kusuma

Marathwada

Jowar: Parbhani Moti or Parbhani Jyoti.

Gujarat:

Pea: Pusa Pragati.

Carrot: Pusa Rudhira and Pusa Kesar.