

National Agromet Advisory Service Bulletin

Thursday 28th August 2014

(For the period 28th August to 2nd September 2014)



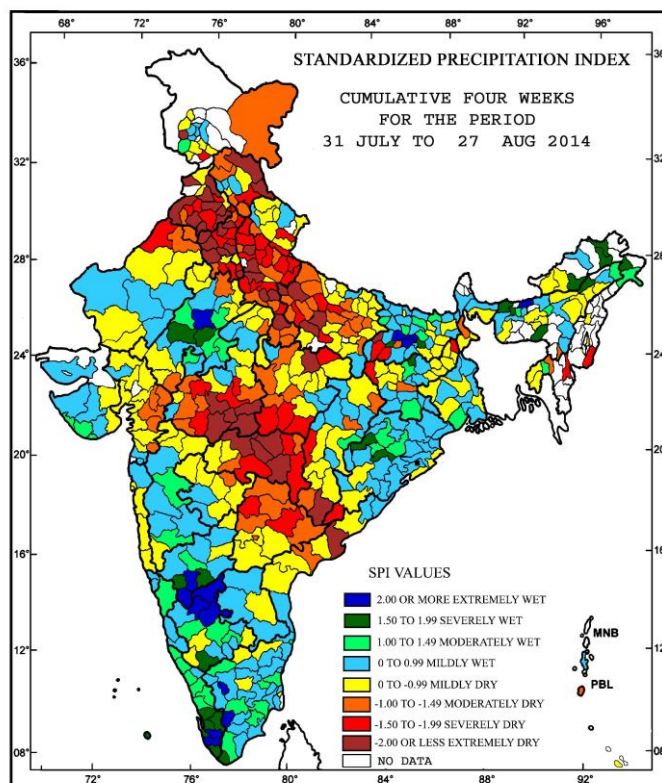
Issued by

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



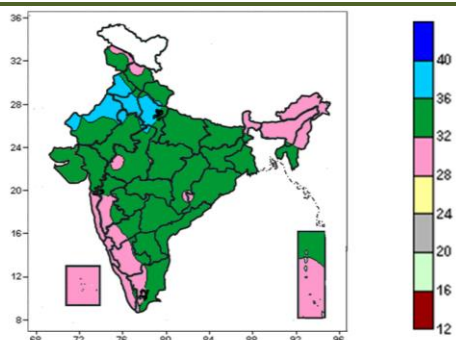
**Standardised Precipitation Index
Four Weekly
for the Period 31st July to 27th August 2014**

MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE

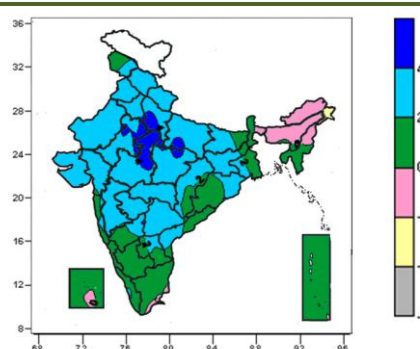


**Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on
27.08.2014**

Actual Mean Maximum Temperature (°C) in India for the week ending 27.08.2014



Mean Maximum Temperature (°C) Anomaly in India for the week ending 27.08.2014



- 36 to 40°C over many places of Punjab, Haryana, Delhi, east Uttar Pradesh, some parts of Rajasthan, West Madhya Pradesh.
- 32 to 36°C over entire country except many parts of Punjab, Haryana, Delhi, east Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Konkan &

- 2 to 6°C over entire country except many parts of Jammu & Kashmir, Assam & Meghalaya, Arunachal Pradesh, Nagaland, West Bengal & Sikkim, Mizoram, Tripura, Odisha, Rayalaseema, Karnataka, Konkan & Goa, Kerala, Tamil Nadu, Lakshadweep, Andaman & Nicobar Islands, some parts of Sub-Himalayan West Bengal, Mizoram, Bihar, Jharkhand, Chhattisgarh, Coastal Andhra Pradesh, Tamil Nadu and Lakshadweep

Goa, Madhya Maharashtra, Coastal & South Interior Karnataka, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Rajasthan, West Madhya Pradesh, Chhattisgarh, Odisha, Marathwada, North Interior Karnataka and Tamil Nadu

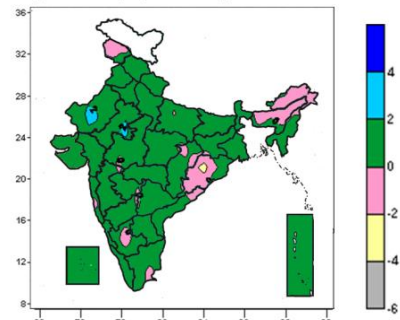
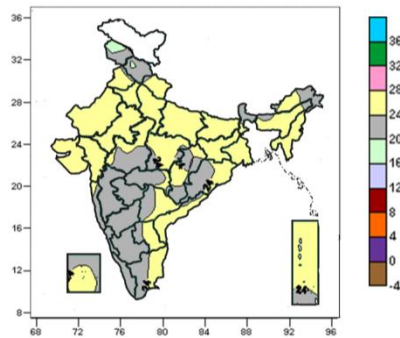
- 28 to 32°C over many parts of Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Konkan & Goa, Madhya Maharashtra, Coastal & South Interior Karnataka, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, West Madhya Pradesh, Chhattisgarh, Odisha, Marathwada, North Interior Karnataka and Tamil Nadu.

Islands.

- 0 to 2°C over many parts of Jammu & Kashmir, West Bengal & Sikkim, Mizoram, Tripura, Odisha, Rayalaseema, Karnataka, Konkan & Goa, Kerala, Tamil Nadu, Lakshadweep and Andaman & Nicobar Islands, some parts of Bihar, Jharkhand, Coastal Andhra Pradesh, and Chhattisgarh.
- -2 to 0°C over many Parts of Assam & Meghalaya, Arunachal Pradesh, Nagaland, some parts of Sub-Himalayan West Bengal, Mizoram, Tamil Nadu and Lakshadweep Islands.

Actual Mean Minimum Temperature (°C) in India for the week ending 27.08.2014

Mean Minimum Temperature (°C) Anomaly in India for the week ending 27.08.2014

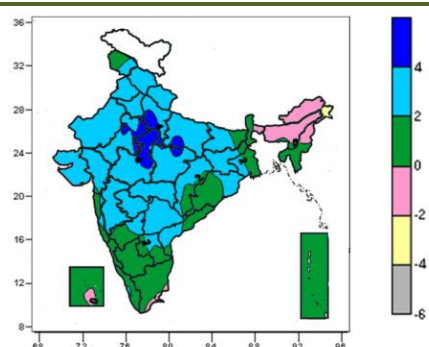
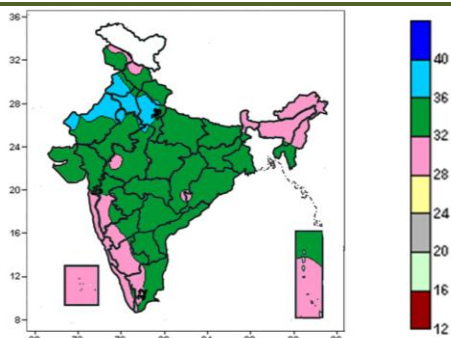


- 24 to 28°C over many parts of Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, North East India, Rajasthan, Gujarat, East Madhya Pradesh, Andhra Pradesh, Andaman & Nicobar Islands, some parts of Sub-Himalayan West Bengal, Odisha, West Madhya Pradesh, Chhattisgarh, Konkan, Tamil Nadu and Lakshadweep Islands.
- 20 to 24°C over entire country except many parts of Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, North East India, Rajasthan, Gujarat, East Madhya Pradesh, Andhra Pradesh, Andaman & Nicobar Islands, some parts of Jammu & Kashmir and Himachal Pradesh, Sub-Himalayan West Bengal, Odisha, West Madhya Pradesh, Chhattisgarh, Konkan, Tamil Nadu and Lakshadweep Islands.
- 16 to 20°C over some parts of Jammu & Kashmir and Himachal Pradesh.

- 2 to 4°C over some parts of Rajasthan.
- 0 to 2°C over entire country except many parts of Jammu & Kashmir, Arunachal Pradesh, Assam & Meghalaya, Odisha, some parts of Rajasthan, West Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh, Madhya Maharashtra, Marathwada, Konkan, Tamil Nadu and Interior Karnataka.
- -2 to 0°C over many parts of Jammu & Kashmir, Arunachal Pradesh, Assam & Meghalaya, Odisha, some parts of West Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh, Madhya Maharashtra, Marathwada, Konkan, Tamil Nadu and Interior Karnataka.

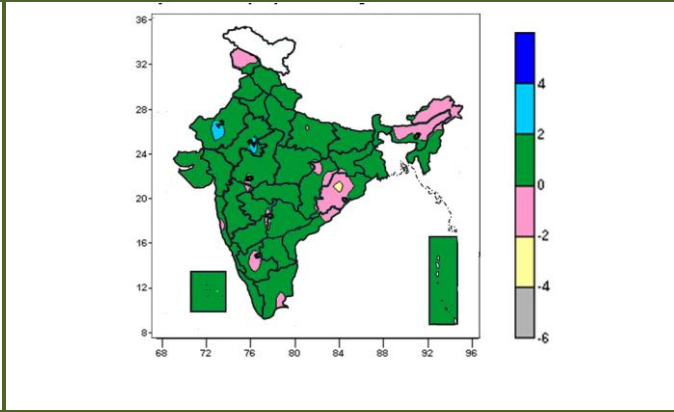
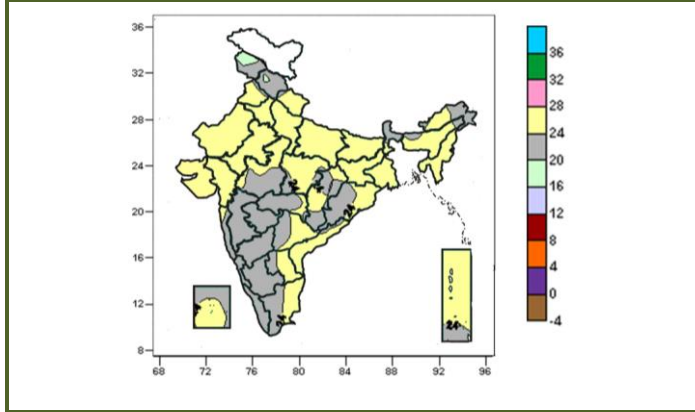
Actual Mean Maximum Temperature (°C) in India for the week ending 27.08.2014

Mean Maximum Temperature (°C) Anomaly in India for the week ending 27.08.2014



- 36 to 40°C over many places of Punjab, Haryana, Delhi, east Uttar Pradesh, some parts of Rajasthan, West Madhya Pradesh.
 - 32 to 36°C over entire country except many parts of Punjab, Haryana, Delhi, east Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Konkan & Goa, Madhya Maharashtra, Coastal & South Interior Karnataka, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Rajasthan, West Madhya Pradesh, Chhattisgarh, Odisha, Marathwada, North Interior Karnataka and Tamil Nadu
 - 28 to 32°C over many parts of Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Konkan & Goa, Madhya Maharashtra, Coastal & South Interior Karnataka, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, West Madhya Pradesh, Chhattisgarh, Odisha, Marathwada, North Interior Karnataka and Tamil Nadu.
- 2 to 6°C over entire country except many parts of Jammu & Kashmir, Assam & Meghalaya, Arunachal Pradesh, Nagaland, West Bengal & Sikkim, Mizoram, Tripura, Odisha, Rayalaseema, Karnataka, Konkan & Goa, Kerala, Tamil Nadu, Lakshadweep, Andaman & Nicobar, Islands some parts of Sub-Himalayan West Bengal, Mizoram, Bihar, Jharkhand, Chhattisgarh, Coastal Andhra Pradesh, Tamil Nadu and Lakshadweep Islands.
 - 0 to 2°C over many parts of Jammu & Kashmir, West Bengal & Sikkim, Mizoram, Tripura, Odisha, Rayalaseema, Karnataka, Konkan & Goa, Kerala, Tamil Nadu, Lakshadweep and Andaman & Nicobar Islands, some parts of Bihar, Jharkhand, Coastal Andhra Pradesh, and Chhattisgarh.
 - -2 to 0°C over many Parts of Assam & Meghalaya, Arunachal Pradesh, Nagaland, some parts of Sub-Himalayan West Bengal, Mizoram, Tamil Nadu and Lakshadweep Islands.

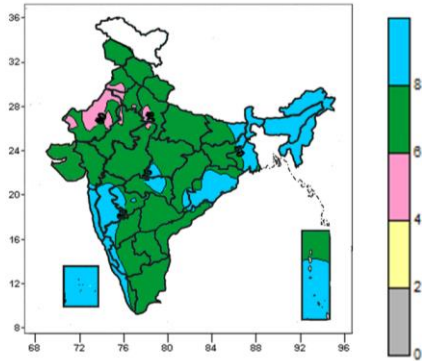
Actual Mean Minimum Temperature (°C) in India for the week ending 27.08.2014 **Mean Minimum Temperature (°C) Anomaly in India for the week ending 27.08.2014**



- 24 to 28°C over many parts of Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, North East India, Rajasthan, Gujarat, East Madhya Pradesh, Andhra Pradesh, Andaman & Nicobar Islands, some parts of Sub-Himalayan West Bengal, Odisha, West Madhya Pradesh, Chhattisgarh, Konkan, Tamil Nadu and Lakshadweep Islands.
 - 20 to 24°C over entire country except many parts of Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, North East India, Rajasthan, Gujarat, East Madhya Pradesh, Andhra Pradesh, Andaman & Nicobar Islands, some parts of Jammu & Kashmir and Himachal Pradesh, Sub-Himalayan West Bengal, Odisha, West Madhya Pradesh, Chhattisgarh, Konkan, Tamil Nadu and Lakshadweep Islands.
 - 16 to 20°C over some parts of Jammu & Kashmir and Himachal Pradesh.
- 2 to 4°C over some parts of Rajasthan.
 - 0 to 2°C over entire country except many parts of Jammu & Kashmir, Arunachal Pradesh, Assam & Meghalaya, Odisha, some parts of Rajasthan, West Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh, Madhya Maharashtra, Marathwada, Konkan, Tamil Nadu and Interior Karnataka.
 - -2 to 0°C over many parts of Jammu & Kashmir, Arunachal Pradesh, Assam & Meghalaya, Odisha, some parts of West Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh, Madhya Maharashtra, Marathwada, Konkan, Tamil Nadu and Interior Karnataka.

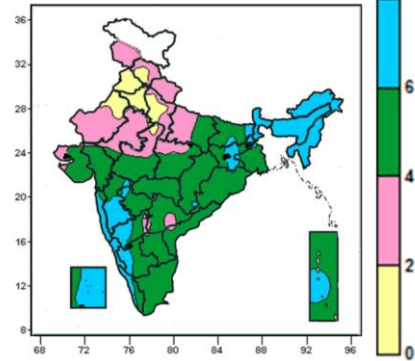
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 27.08.2014

Relative Humidity (%) over India for the week ending 27.08.2014



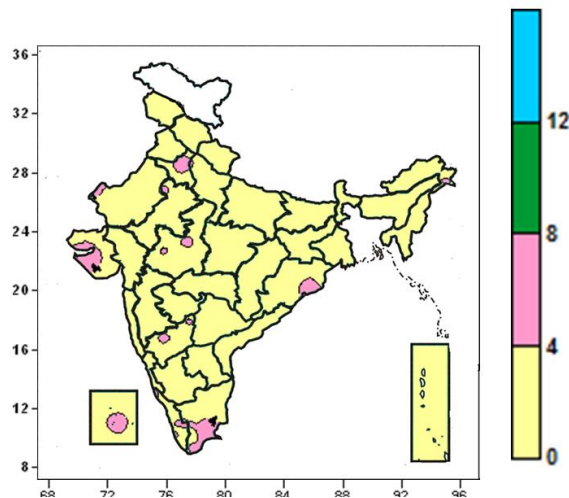
- 80 to 100% over many parts of West Bengal & Sikkim, North East India, Odisha, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Bihar, Jharkhand, East Madhya Pradesh, Chhattisgarh, Vidarbha, Marathwada and Interior Karnataka.
- 60 to 80% over entire country except many parts of West Rajasthan, West Bengal & Sikkim, North East India, Odisha, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Punjab, Haryana, East Rajasthan, West Uttar Pradesh, Bihar, Jharkhand, Central India, Vidarbha, Marathwada and Interior Karnataka.
- 40 to 60% over many parts of West Rajasthan, some parts of Punjab, Haryana, East Rajasthan, West Madhya Pradesh and West Uttar Pradesh.

Cloud amount (okta) over India for the week ending 27.08.2014



- 6 to 8 okta over many parts of Sub-Himalayan West Bengal & Sikkim, North East India, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, Lakshadweep Islands, some parts of Bihar, Jharkhand, Gangetic West Bengal, Chhattisgarh, Marathwada, Interior Karnataka, Kerala and Andaman & Nicobar Islands.
- 2 to 6 okta over entire country, many parts of Himachal Pradesh, Punjab, Haryana, Delhi, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, North East India, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, Lakshadweep Islands, some parts of Rajasthan, West Madhya Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Chhattisgarh, Marathwada, Interior Karnataka, Kerala and Andaman & Nicobar Islands.
- 0 to 2 okta over many parts of Himachal Pradesh, Punjab, Haryana, Delhi, West Uttar Pradesh, some parts of Rajasthan, West Madhya Pradesh.

Wind speed (knots) over India for the week ending 27.08.2014



- 4 to 8 knots over some parts of Haryana, Saurashtra & Kutch, Rajasthan, Nagaland, West Madhya Pradesh, Odisha, North Interior Karnataka, Kerala, Tamil Nadu and Lakshadweep Islands.
- 0 to 8 knots over entire country except some parts of Haryana, Saurashtra & Kutch, Rajasthan, Nagaland, West Madhya Pradesh, Odisha, North Interior Karnataka, Kerala, Tamil Nadu and Lakshadweep Islands.

Monsoon Watch

- Southwest monsoon was active over Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Madhya Maharashtra, Marathwada, Telangana, Coastal Andhra Pradesh and North Interior Karnataka.

Weather Forecast

Weather Forecast for next 3 days (upto 0830 hours IST of 31st August, 2014)

- Rain/thundershowers would occur at many places over Nagaland, Manipur, Mizoram and Tripura during next 24 hours and at a few places thereafter.
- Rain/thundershowers would occur at most places over Konkan & Goa, Coastal Karnataka and North Interior Karnataka during the period.
- Rain/thundershowers would occur at most places over Coastal Andhra Pradesh during next 48 hours and at many places thereafter.
- Rain/thundershowers would occur at many places over Marathwada and Telangana during next 24 hours; over Madhya Maharashtra during next 48 hours and at most places thereafter.
- Rain/thundershowers would occur at many places over Rayalaseema during next 48 hours and at a few places thereafter.
- Rain/thundershowers would occur at a few places over Vidarbha during next 24 hours and at many places thereafter.
- Rain/thundershowers would occur at many places over Odisha, South Interior Karnataka and Kerala during the period.
- Rain/thundershowers would occur at a few places over Uttarakhand, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Gujarat Region and Chhattisgarh during the period.
- Rain/thundershowers would occur at a few places over Jammu & Kashmir and Bihar during next 24 hours and at isolated places thereafter.
- Rain/thundershowers would occur at isolated places over Gangetic West Bengal and Madhya Pradesh during next 48 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over East Rajasthan during next 24 hours and at a few places on 29th and at isolated places thereafter.
- Rain/thundershowers would occur at isolated places over Himachal Pradesh, Punjab, Haryana, Delhi, Uttar Pradesh, Arunachal Pradesh, Jharkhand, West Rajasthan, Saurashtra & Kutch, Tamil Nadu & Pudducherry, Lakshadweep and Andaman & Nicobar Islands during the period.
- Maximum temperatures would fall by 2-3°C over northwest and central India from tomorrow onwards.

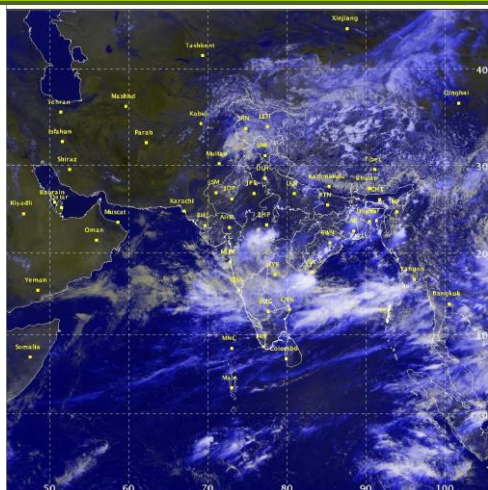
Weather Warning during next 3 days

- **28 August (Day 1):** Heavy to very heavy rainfall would occur at isolated places over Coastal Andhra Pradesh, Telangana, Coastal Karnataka, North Interior Karnataka and South Interior Karnataka. Heavy rainfall would occur at isolated places over Rayalaseema and Konkan & Goa.
- **29 August (Day 2):** Heavy to very heavy rainfall would occur at a few places over North interior Karnataka and at isolated places over Telangana, Coastal & South interior Karnataka. Heavy rainfall would occur at isolated places over Coastal Andhra Pradesh, Konkan & Goa, Madhya Maharashtra and Marathwada.
- **30 August (Day 3):** Heavy to very heavy rainfall would occur at a few places over North interior Karnataka and at isolated places over Telangana, Coastal & South interior Karnataka. Heavy rainfall would occur at isolated places over Coastal Andhra Pradesh, Konkan & Goa, Madhya Maharashtra and Marathwada.

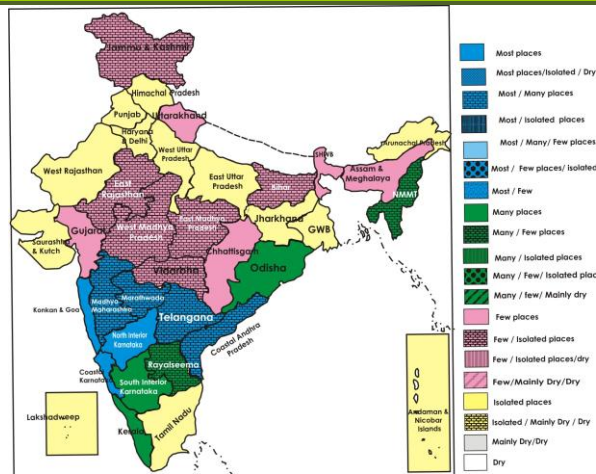
Weather Outlook for subsequent 4 days from 31st August 2014 to 04th September 2014

- Increase in rainfall activity over Gujarat, Madhya Pradesh, Chhattisgarh, Odisha and north Coastal Andhra Pradesh.
- Rain/thundershowers would occur at many places over Sub-Himalayan West Bengal & Sikkim, northeastern states, along west coast and Maharashtra.
- Rain/thundershowers would occur at a few places over western Himalayan region & remaining parts of east India
- Rain/thundershowers would occur at isolated places over remaining parts of the country.

Satellite image dated, 28.08.2014, 0600 UTC



Weather Forecast Map (Valid upto 0830 hours of 31st August 2014)



Salient Advisories

- As rainfall deficit is 64% so far in **Punjab** and also mainly dry weather would prevail for next three days the following advisories are suggested:
 - Adopt moisture conservation practices like hoeing, weeding, mulching in crops like sugarcane, maize, cotton to reduce the evapotranspiration losses and to conserve moisture for *rabi* crops.
 - De-tasselling in maize is advised to reduce transpiration losses.
 - Apply life-saving irrigation to standing crops.
- In **Haryana**, as mainly dry weather would prevail, apply irrigation in rice, sugarcane and cotton. Alternate wetting and drying in rice fields and irrigation is advised in alternate rows in sugarcane in case of shortage of water for irrigation.
- In **Delhi**, in view of persisting subdued rainfall activity, farmers are advised to apply irrigation to the standing crops.
- In **Marathwada region** in Maharashtra, as rain would occur at many places, in unsown areas, sowing of contingency crops like sesame, sunflower and pigeon pea may be continued. Undertake rain water harvesting methods by making furrows in cotton, soybean and jowar fields.
- Continue sowing of horse gram, sunflower and fodder crops like cow pea, moth bean in the North Dry Zone and continue transplanting of tomato, chilli and brinjal in the Southern Dry Zone of **Karnataka** utilising the realised and expected rainfall.
- In the **Southern Telangana** Zone, complete sowing of cotton, maize, groundnut, pulses, castor etc. utilising the realised and expected rainfall.
- In Scarce Rainfall Zone of **Royalaseema**, continue sowing contingency crops like sorghum, bajra, foxtail millet, cowpea, sunflower, green gram, field bean, castor and horse gram utilizing the realised and expected rainfall.
- In Upper Brahmaputra Valley Zone and North Bank Plain Zone of **Assam**, farmers in the flood affected areas should select short duration HYV rice varieties like Luit, Kapili, Kolong, Dishang etc. These varieties can be transplanted or sown within 1st week of September. Long duration cultivars like Monohar Sali, Andrew Sali and Gitesh can be transplanted with 60 days seedling, where as Prafulla can be transplanted with 90 days old seedlings. Therefore, farmers should be ready with this type of cultivars to cope up with flood situation.

Detailed Zonewise Agromet Advisories

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



Transplanting of Rice

Sugarcane

Okra

Soybean

- **Realised Rainfall:** Rainfall occurred in all districts of Kerala, Coastal and North Interior Karnataka; all the districts of South Interior Karnataka except Hassan, Kolar and Mandya; all districts of Andhra Pradesh except East Godavari, Krishna and Chittoor; all districts of Telangana except Hyderabad; Chennai, Coimbatore, Erode, Kanyakumari, Nilgiris, Theni, Thiruppur and Thiruvallur districts of Tamil Nadu. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at most places over Coastal Karnataka and North Interior Karnataka and at many places over South Interior Karnataka and Kerala during the period. Rain/Thundershowers would occur at most places over Coastal Andhra Pradesh during next 48 hours and at many places thereafter. Rain/Thundershowers would occur at many places over Telangana during next 24 hours and at most places thereafter. Rain/Thundershowers would occur at many places over Rayalaseema during next 48 hours and at a few places thereafter. Rain/Thundershowers would occur at isolated places over Tamil Nadu and Pudducheryy during the period.
- **Weather Warning:** Heavy to very heavy rainfall would occur at isolated places over Coastal Andhra Pradesh, Telangana, Coastal Karnataka, North Interior Karnataka and South Interior Karnataka on 28th August. Heavy to very heavy rainfall would occur at a few places over North interior Karnataka and at isolated places over Telangana, Coastal & South interior Karnataka on 29th and 30th August. Heavy rainfall would occur at isolated places over Rayalaseema on 28th August and over Coastal Andhra Pradesh on 29th and 30th August.
- **Weather Outlook:** Increase in rainfall activity over north Coastal Andhra Pradesh. Rain/thundershowers would occur at isolated places over remaining parts of the region.
- **Advisories:**
 - As rain/thundershowers would occur at most/many places over Coastal Andhra Pradesh, Telangana and Karnataka during the period along with heavy to very heavy rainfall at a few places over North Interior Karnataka, at isolated places over Coastal and South Interior Karnataka and Telangana and heavy rainfall at isolated places over Coastal Andhra Pradesh and rain/thundershowers would occur many places over Rayalaseema on 28th and 29th August along with heavy rainfall at isolated places on 28th, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crops to remove excess water.
 - **Karnataka:**
 - Continue transplanting of tomato, chilli and brinjal in the Southern Dry Zone of Karnataka utilising the realised and expected rainfall.
 - Complete transplanting of rice in the Southern Transition Zone and North East Dry Zone of Karnataka.
 - Continue sowing of horse gram, sunflower and fodder crops like cow pea, moth bean utilising the realized and expected rainfall in the North Dry Zone of Karnataka.
 - In Eastern Dry Zone of Karnataka, continue sowing of ragi and planting of coconut, sapota, guava and mango.
 - Due to the prevailing humid weather, green leaf eating caterpillar is noticed in soybean and likely to persist in North East Transition Zone of Karnataka. Spray Quinolphos @ 2 ml per liter of water to manage green leaf eating caterpillar after current spells of rain.
 - Due to cloudy weather, sucking pest is noticed in one month old cotton and likely to continue in the Central Dry Zone of Karnataka, spray Dimethoate 30 EC @1.7 ml in one liter of water after current spells of rain for controlling sucking pests.
 - **Kerala:**
 - As rain/thundershowers would occur at many places over Kerala during the period, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.
 - Present cloudy weather with high humidity condition is congenial for incidence of rice bug on rice in the Problem Area Zone of Kerala. Monitor the crop and spray Malathion @ 2ml/litre of water in the morning or evening hours after current spells of rain.
 - High humidity is congenial incidence of rice bug on rice and bud rot disease in coconut in the Southern and Central

Zone of Kerala. Apply Sevin @600 g in 200 litre of water / acre to manage rice bug and to control bud rot disease, remove the affected portion and apply Bordeaux paste after current spells of rain.

▪ **Telangana and Andhra Pradesh:**

- In the Southern Telangana Zone, complete sowing of cotton, maize, groundnut, pulses, castor etc. utilising the realised and expected rainfall.
- Due to severe moisture stress maize crop has been damaged in Medak, Karimnagar and Mehbubnagar districts of Telangana. Stunted growth is also noticed in Bt Cotton which is at square formation stage. Top dressing of nitrogen may be carried out in cotton after current spells of rain.
- In Scarce Rainfall Zone of Rayalaseema, continue sowing contingency crops like sorghum, bajra, foxtail millet, cowpea, sunflower, green gram, field bean, castor and horse gram utilizing the realised and expected rainfall. Lay out dead furrows across the slope for every 3.6mts / 12 rows in groundnut fields for moisture conservation.
- Due to cloudy and humid conditions, sucking pest incidence in cotton and helioverpa in tomato was observed and likely to continue in Anantpur district in the Scarce Rainfall Zone of Rayalaseema. Apply Monochrotophos + water @ 1:4 ratio in the stem with brush at 20,40, 60 DAS to manage sucking pest incidence and spray Larvin @ 1.5 g/litre to manage helioverpa incidence after current spells of rain.
- Present humid condition is congenial for sucking pest incidence in cotton in the Southern Zone of Andhra Pradesh. Spray Phenophos 2 ml/litre of water or Diafenthiuron 1.25 gms/litre of water to manage the incidence after current spells of rain.

▪ **Tamil Nadu:**

- Continue land preparation and sowing of *samba* rice in the Cauvery Delta Zone of Tamil Nadu.
- Continue sowing of maize in irrigated as well as rainfed condition and winter irrigated cotton by utilizing realized rainfall in the Western Zone of Tamil Nadu.
- Undertake sowing of sorghum under rain fed condition utilizing the realized rainfall in the North Western Zone.

• **Animal Husbandry**

- Prevailing weather conditions are congenial for Anthrax and Enterotoxaemia in livestock in the Scarce Rainfall Zone of Andhra Pradesh. Vaccinate the animals to prevent the diseases.
- Due to increase in temperature, clean the animals, provide good ventilation, protect animals from mosquitoes and give vaccinations to manage seasonal diseases in the Krishna Godavari Zone of Andhra Pradesh.

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



Transplanting of Rice

Okra

Jute

Green Gram

- **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh except Anjaw, Dibang Valley, Kurung Kumey and Lower Subansari; all districts of Assam except Hailkandi and Karbi Anglong; all districts of Meghalaya except West Khasi Hills; Aizwal, Saiha and Serchhip districts of Mizoram; Imphal East, Imphal West and Senapati districts of Manipur; Dimapur, Kohima and Phek districts of Nagaland and all districts of Tripura except Dhalai. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at a few places over Assam & Meghalaya and at isolated places over Arunachal Pradesh during the period. Rain/Thundershowers would occur at many places over Nagaland, Manipur, Mizoram & Tripura during next 24 hours and at a few places thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at many places over northeastern states. Rain/thundershowers would occur at isolated places over remaining parts of the region.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Central Bramhaputra Valley Zone of Assam, continue transplanting of *sali* rice. Continue sowing of green gram, black gram, sesame and nursery sowing of cole crops.
 - In flood affected areas of Lower Bramhaputra Valley Zone of Assam, the following contingency measures may be adopted for *sali* rice:
 - Raising of community nursery for late planting with old seedlings of the varieties like Profulla and Gitesh (If more than 50% damaged).

- Nursery raising of the photo insensitive short duration variety like Luit for replanting (in case of total damage)
 - Wet seeding of sprouted seeds (@75-80 kg/ha) of short to medium duration varieties like Disang, Luit, (100 days) Kapili and Kalong (120 days)
 - Direct seeding with the photo insensitive short duration variety like Luit.
 - Adoption of submergence tolerance varieties like Jalashree and Jalkuwari for repeat flood prone areas.
 - In partially affected fields, drain out excess water and apply 1/2 N + 50% K₂O as top dressing during the tillering stage.
- In Upper Bramhaputra Valley of Assam, farmers from the flood affected areas should select cultivars like Jalashree, Jalkuwari, Plaban. Also, collect short duration HYV rice varieties like Luit, Kapili, Kolong, Dishang etc. These varieties can be transplanted or sown within 1st week of September. More over long duration cultivars like Monohar Sali, Andrew Sali and Gitesh can be transplanted with 60 days seedling, where as Prafulla can be transplanted with 90 days old seedlings. Therefore, farmers should be ready with this type of cultivars to cope up with flood situation. Gap filling in the main field should be done with same age of seedling.
 - In North Bank Plain Zone of Assam, farmers in the flood affected areas should select short duration HYV rice varieties like Luit, Kapili, Kolong, Dishang etc. 20-25 days old seedling of these cultivars can be transplanted in the main field upto mid of September. Late and staggered planting after receding flood with 60 to 80 days old seedlings of the varieties like Prafulla (80 days) and Gitesh (60 days) is also suggested up to mid of September. The old seedlings of other improved long duration variety like Monohar Sali, Salpona, Prasadbhog, Gobin bhog etc can be transplanted up to mid September.
 - In Hill zone of Assam, replanting of dead hills or gap filling with seedlings of *sali* rice of similar age should be done within 7-10 days of transplanting.
 - In Meghalaya, maintain water level of 3-5 cm in transplanted *sali* rice. 1st top dressing of 1/4th Urea (44Kg/ha) should be done after 1st hand weeding at 25-30 DAT. Continue nursery preparation/ sowing of vegetables like cabbage, cauliflower, carrot, radish, laipatta, broccoli and French bean.
 - Cloudy and humid weather is favourable for attack of leaf folder and rice hispa in *sali* rice at tillering stage in North Bank Plain Zone and Central Bramhaputra Valley of Assam. Monitor the crop and when there is one damaged leaf per hill due to attack of leaf folder or appearance of one adult hispa per hill is observed, spray Chloropyriphos 20EC or Monocrotophos 40EC @ 1.5ml per litre of water on a non rainy day.
 - Due to cloudy and humid weather, there is chance of attack of rice hispa in *sali* rice at tillering stage in Hill Zone of Assam, spray with Quinolphos @ 10 ml /5 litre of water. Also in cloudy weather, there is chance of attack of stem borer in maize, spray Fenitrotheon @ 1litre in 200-250 litre of water per ha on a non rainy day.
 - Due to prevailing humid weather conditions, there is chance of attack of gundhi bug in early transplanted rice in Arunachal Pradesh. Dust with Malathion 5D @ 20 kg/ha. Repeat after one week.
 - In Meghalaya, due to cloudy weather & high humidity, there is chance of incidence of blast in direct seeded *ahu* rice. Spray Mencozeb @ 2g/litre or Carbendazim @ 1g/litre on a non rainy day.
- **Nagaland, Manipur, Mizoram and Tripura:**
 - As rain/thundershowers would occur at many places over Nagaland, Manipur, Mizoram and Tripura on 28th August, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.
 - In Nagaland, provide good drainage in ginger fields to avoid rhizome rot.
 - In Mild Tropical Plain Zone of Tripura, provide adequate drainage in groundnut at pod filling stage particularly in low and medium lands and where there is a chance of water stagnation due to rain.
 - In Mizoram, due to continuous wet condition, there is chance of leaf spot on ginger & turmeric, spray Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water or Blitox @ 3 g/litre of water after current spells of rain.
 - In Mild Tropical Plain Zone of Tripura, there is chance of attack of yellow stem borer in *aman* rice due to cloudy weather. To manage the attack, spray Cartap Hydrochloride @ 1g/litre or Chloropyriphos @ 2.5 ml/litre of water. Also, in the present weather, there may be attack of downy mildew in bitter gourd and pointed gourd. Redomil – MZ @2 gm per liter may be applied to manage the attack. Apply the chemicals after current spells of rain.
- **Animal Husbandry**
 - In Assam, cattle should not be fed with water submerged rotten grass and give anti-worm drugs.
 - In Arunachal Pradesh, provide artificial heating through lighting of electric bulb during night time to protect the poultry birds (day old to 25 days old) from low temperature. Pig shed/stay should keep dry and avoid dampness during rainy days.
 - In Nagaland, precaution should be taken against Japanese encephalitis, a mosquito borne disease in pig. Avoid stagnant water in and around the sty, maintain proper hygienic condition.
 - In Tripura, due to rain, animals are mostly kept in the shade. Damp litter and high moisture are good media for the growth of protozoa which causes Coccidiosis in the chicken, so avoid dampness in the deep litter.

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



Sugarcane

Jute

Onion

Transplanting of Rice

- **Realised Rainfall:** Rainfall occurred in Araria, Begusarai, Bhabua, Bhojpur, East Champaran, Gaya, Gopalganj, Jahnbad, Katihar, Kishanganj, Lakhisari, Madhepura, Madhubani, Muzaffarpur, Purnea, Samastipur, Siwan, Supaul, Vaishali and West Champaran districts of Bihar; Bokaro, Deogarh, Dumka, East Singhbhum, Gumla, Khunti, Pakur, Palamau, Ramgarh, Ranchi, Saraikela and West Singhbhum districts of Jharkhand; all districts of Odisha except Balasore, Bargarh, Jagitsinghpur, Jharsuguda, Kalahandi, Kendrapara, Puri and Sundargarh; all districts of Andaman & Nicobar Islands; Bankura, Birbhum, Burdwan, Hooghly, Nadia, Purulia and West Midnapore districts of Gangetic West Bengal; all districts in Sub Himalayan West Bengal & Sikkim.
- **Weather Forecast:** Rain/Thundershowers would occur at many places over Odisha; at a few places over Sub-Himalayan West Bengal & Sikkim and at isolated places over Jharkhand and Andaman & Nicobar Islands during the period. Rain/Thundershowers would occur at a few places over Bihar during next 24 hours and at isolated places thereafter. Rain/Thundershowers would occur at isolated places over Gangetic West Bengal during next 48 hours and at a few places thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Increase in rainfall activity over Odisha. Rain/thundershowers would occur at many places over Sub-Himalayan West Bengal & Sikkim. Rain/thundershowers would occur at a few places over remaining parts of east India.
- **Advisories:**
 - **West Bengal:**
 - In Old Alluvial Zone, undertake sowing of black gram utilizing the realised rainfall.
 - In Old Alluvial Zone, avoid water stagnation in turmeric and ginger, to prevent rhizome rot.
 - Due to cloudy and high humid weather conditions, there is chance of fungal collar-rot in yam and attack of downy mildew in bitter gourd and pointed gourd in New Alluvial Zone of West Bengal. Keep the fields weed-free and clean. Apply Carbendazim @ 2 g and Thiram @ 2 g together per litre of water for managing collar rot and Redomil -MZ (@2 g per litre to control downy mildew on a non rainy day.
 - In Laterite and Red Soil Zone, due to cloudy weather conditions, there is chance of attack of cutworm or termites in maize. To protect the crop, apply Chloropyrithos @ 3.5 kg / bigha (1.5% powder) on a non rainy day.
 - In Terai Zone, due to wet condition, brown spot with yellow halo is found on the leaf of betel vine. To manage the disease, spray Mancozeb 64% + Matalaxyl 8% @ 1.5 g/litre by wetting the whole vine on a non rainy day.
 - **Andaman and Nicobar Island**
 - In North and Middle Andaman, prepare seed beds for nursery for early brinjal and chilli.
 - In North and Middle Andaman, to minimize the sheath blight disease in rice, apply Pseudomonas Fluorescens @ 2.5 kg/ha 30 days after transplanting and for control of leaf folder apply Chlorpyrithos 20 EC @ 2-3 ml/lit or Dimethoate 1.5 ml/litre.
 - **Odisha:**
 - As rain/thundershowers would occur at many places over Odisha during the period, postpone irrigation, intercultural operations, application of plant protection measures and fertilizers in the standing crops
 - In East and South Eastern Coastal Plain Zone of Odisha, in case of complete failure of crops due to flood in medium uplands, undertake sowing of pre-rabi green gram, black gram, horse gram, sesame and castor.
 - In Western Undulating Zone of Odisha, waterlogged conditions with high humidity (75-80%) favours buildup of scale insect, whitefly and Pyrrilla in sugarcane. Spray Imidacloprid @ 1 ml / 4 litres of water after current spells of rain.
 - In East and South Eastern Coastal Plain Zone and North Central Plateau Zone of Odisha, prevailing temperature may favour egg laying of stem borer in rice. To attract the borer butterflies, place 4 Pheromone Traps/acre, collect the adults and destroy them by burying them under soil or by burning and spray Prophenophos @ 2 ml per litre water after current spells of rain.
 - **Bihar:**
 - In North West Alluvial Plain Zone of Bihar, continue sowing of radish, pointed guard. Continue planting of onion. Undertake weeding in early transplanted rice on a non-rainy day and after weeding apply 20 kg nitrogen/ha.

- Undertake sowing of pigeon pea and urad in upland areas. Continue planting of Mango, Litchi, Guava and Papaya.
- In North East Alluvial Plain Zone of Bihar, in transplanted rice crop do top dressing of 1/3rd urea (44 kg/ha) after 1st hand weeding at 25-30 days after transplanting and apply remaining 1/3rd urea (44 kg/ha) after 2nd hand weeding on a non-rainy day at 40-45 days after transplanting. Raise nursery of early autumn vegetable.
- In South Bihar Alluvial Zone, apply urea as 1st top dressing in 20-25 days old transplanted rice and 2nd top dressing after 40-45 days of transplanting of rice. Continue planting of Mango, Litchi, Guava and Papaya.
- **Jharkhand:**
- In Western Plateau Zone of Jharkhand, in upland areas, continue sowing of kulthi, niger and black gram by selecting improved varieties. In rice, apply urea after 20-25 days of transplanting. Prepare field for sowing of early potato and pea. Undertake sowing of maize in medium land. Select short duration variety like Birsa Vikas Maize-2 (Duration- 70-80 days) and medium duration variety like Birsa Maize-1 (Duration-80-85days).
- In Central & North Eastern Plateau Zone of Jharkhand, continue sowing of urad, horse gram, niger and sweet potato. Continue sowing of tomato, cabbage and cauliflower in raised seed bed. Undertake weeding and intercultural operation in ginger and to prevent from Rhizome Rot, drain out excess rain water from the field and spray Redomil MZ @ 1 g or Saaf @ 2 g or Blitox @ 2g per litre of water. Conserve rain water by repairing the broken bunds of the rice fields.
- In South Eastern Plateau Zone of Jharkhand, due to high humidity and extended leaf wetness, there are chances of Blast in rice crop, spray Tricyclazole @ 6 g per litre of water on a non rainy day. Also due to cloudy weather and intermittent rain, there are chances of leaf blight in pulse crop, spray Indofil M 45 @ 2 g per litre of water a non rainy day.
- Due to hot and humid weather, attack of stem borer in rice crop is being seen in Western Plateau Zone of Jharkhand. To control the stem borer spray insecticide Monocrotophos 36 E.C. @ 1-2 ml per litre of water and mix Tipol in the solution or prepare the solution in soap water. In case of heavy infestation of the insect, apply granular insecticide like Carbofuran 3 G @ 12 kg per acre) or Forate 10 G (@ 4 kg per acre). However, at the time of broadcasting of granular insecticide, stagnated water in the field is must.
- **Animal Husbandry**
- In Coastal Saline Zone of West Bengal, due to humid weather, there is chance of worm infection in case of grazing cattle. Feed Bolus (albomer, albozen, wormer-1.5 g) @ 1 bolus per 150 kg body weight.
- **Fishery**
- In Old Alluvial Zone West Bengal, due to incursion of muddy water, there may be lack of oxygen in water in fish ponds. Apply Potassium permagnate @250-500g/bigha/meter in pond water.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane



Transplanting of Rice



Okra



Green Gram

- **Realised Rainfall:** Rainfall occurred in Chindwara district of East Madhya Pradesh; Alirajpur, Barwani, Betul, Burhanpur, Dhar, Indore, Jhabua, Khandwa, Kargone and Rajgarh districts of West Madhya Pradesh; Bastar, Bijapur, Dhamtari, Kanker, Korba, Koriya, Mahasamund, Narayanpur and Raigarh districts of Chhattisgarh. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at a few places over Chhattisgarh during the period. Rain/Thundershowers would occur at isolated places over Madhya Pradesh during next 48 hours and at a few places thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Increase in rainfall activity over Madhya Pradesh and Chhattisgarh.
- **Advisories:**
 - **Madhya Pradesh:**
 - Continue weed control and intercultural operations in soybean, urad and moong on a non rainy day in Jhabua Hill Zone and in Grid Zone of Madhya Pradesh. Spray Emizatarpar @ 750 ml per hectare with 600-700 litre of water for weed control.
 - Continue intercultural operations and weed control in rice and vegetables in Bundelkhand Zone and undertake weeding and top dressing of urea in moong, urad, maize, soybean and vegetables on a non rainy day in Satpura Plateau Zone of Madhya Pradesh.

- Due to cloudy weather, there are chances of attack of semilooper, tobacco caterpillar and gradle beetle in soybean, moong and urad in Jhabua Hill Zone of Madhya Pradesh, Spray Profenophos @ 2 ml per litre of water on a non rainy day.
- Due to cloudy weather, there are chances of incidence of leaf spot in urad crop in Gird Zone of Madhya Pradesh, spray Mancozeb @ 2.5 g per litre of water on a non rainy day.
- Due to humid weather, there is possibility of attack of gradle beetle in soybean in Bundelkhand Zone of Madhya Pradesh, spray Trizophos 40 E.C. @ 2.0 ml per litre of water on a non rainy day.
- **Chhattisgarh:**
 - In Chhattisgarh Plain Zone continue intercultural operations and weed control in soybean on a non rainy day. Spray Parsut or Targasupar 300 ml/acre for control of weeds. Also go for first top dressing with urea (40 kg/ha.) in rice at tillering stage.
 - Continue intercultural operations and of weed control of weeds in rice, maize, arhar, urad and soybean on a non rainy day in North Hill Zone of Chhattisgarh.
 - Due to humid weather, there are chances of attack of Tobacco caterpillar in soybean, black gram and pigeon pea in Plain Zone of Chhattisgarh, spray Quinalphos 25 E.C. @ 1.25 litre per hectare on a non rainy day.
 - Due to cloudy weather, there are chances of attack of stem borer in rice in North Hill Zone and Plain Zone of Chhattisgarh, apply granular insecticide like Carbofuran 3G @ 12 kg per acre or Phorate 10G (@ 4 kg per acre. However, at the time of broadcasting of granular insecticide, stagnant water must be available in the field.
- **Animal Husbandry**
 - In Madhya Pradesh, provide clean water and concentrate feed mixed with dry and green fodder to cattle.
 - In Chhattisgarh, create smoke around cattle sheds to protect from mosquitoes.

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



Transplanting of Rice

Sugarcane

Bottle Gourd

Onion

- **Realised rainfall:** Rainfall occurred in Ganderbal district of Jammu & Kashmir; Deoria, Maharajganj, Sant Kabir nagar and Shrawasti districts of East Uttar Pradesh. Udaipur district of East Rajasthan. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at a few places over Uttarakhand and at isolated palces over Himachal Pradesh, Punjab, Haryana & Delhi, Uttar Pradesh and West Rajasthan during the period. Rain/Thundershowers would occur at a few places over Jammu & Kashmir during next 24 hours and at isolated places thereafter. Rain/Thundershowers would occur at isolated places over East Rajasthan during next 24 hours; at a few places on 29th August and at isolated palces thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over western Himalayan region. Rain/thundershowers would occur at isolated places over remaining parts of the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - In Intermediate Zone of Jammu & Kashmir, continue nursery sowing of cabbage (Golden Acre, Pride of India and Pusa Mukta) and cauliflower (Giant Snow Ball and Pusa Synthetic) utilizing the realised rainfall.
 - Undertake transplanting of cole crops and sowing of root crops preferably on ridges in Valley Temperate Zone of Jammu & Kashmir.
 - The prevailing weather conditions are favourable for the growth of stem borer on rice in Intermediate Zone of Jammu & Kashmir. To control, apply Carbofuron 3 G in standing water @ 1 kg/kanal or Fipronil 0.3 G @ 1.25 kg/kanal. Do not drain out water for 3 days.
 - Due to hot and humid condition, there are chances of hairy caterpillar on pluses in Sub Tropical Zone of Jammu & Kashmir, to control destroy young larvae in gregarious phase. If caterpillar population is high, spray Quinalphos @ 0.03% on a non rainy day.
 - **Himachal Pradesh:**
 - Undertake nursery sowing of mid season cauliflower and cabbage in poly house in mid hill and lower region

and transplanting of ageti cauliflower and cabbage nursery in fields in Sub-Montane & Low Hills Sub-Tropical Zone and in Bilaspur district of Mid-Hills Sub-Humid Zone of Himachal Pradesh, utilizing the realized rainfall. Also undertake nursery sowing of chinese cabbage and direct sowing of radish, carrot, broccoli, lettuce in mid Hill region. Apply second dose of urea @ 40-50 kg per hectare to tomato, brinjal, capsicum, chilli and cucurbits. Undertake weeding in fodder crops like peas, maize in high hills region.

- Undertake mulching of straw or lantana, eupatorium leaves and twigs in between rows for soil moisture conservation and to remove lower 5-6 leaves in maize after complete tasselling to reduce transpiration loss in Sub-Montane & Low Hills Sub-Tropical Zone and in Bilaspur district of Mid-Hills Sub-Humid Zone of Himachal Pradesh.
- In Mid-Hills Sub-Humid Zone of Himachal Pradesh, undertake sowing of carrot (var. Arkel, VL-7), cauliflower (Patna snowball and Joint snowball), cabbage (Pride of India, Golden anchor and hybrid) and transplanting of onion.
- Under prevailing humid weather condition, there are chances of incidence of scab in apple in Mild Hills Sub-Humid Zone of Himachal Pradesh. Apply Ziram or Captan @ 600ml per 200 litres of water, 15-20 days before harvesting.
- Under prevailing humid weather condition, there are chances of attack of white fly and mites in tomato in Mid Hills Sub-Humid Zone of Himachal Pradesh. Use yellow trap one trap/100m² to prevent the attack of white fly and spray Magister @ 3.75ml per 15 litres of water against mite attack. Also, there are chances of incidence of fruit rot and blight disease in *capsicum* and chillies. For control, apply Bourdeaux mixture (0.8%) or blitox 300g per 100 litres of water.
- In High Hill Dry Temperate Zone of Himachal Pradesh, due to prevailing humid weather condition, there are chances of attack of butterfly and aphids in cauliflower and cabbage. Spray Cypermethrin @ 1ml per litre of water.

▪ **Uttarakhand:**

- In Sub humid Sub Tropical Zone of Uttarakhand, as rice crop is at active tillering stage. Maintain 5cm water level and apply second dose of Urea.
- Under present weather conditions, there are chances of leaf streak and BLB diseases in rice in Bhabar and Tarai Zone of Uttarakhand, if the incidence of disease is more than 10 %, spray a mixture of Copper Oxychloride @ 200 g and Streptocycline @ 6 g dissolved in 200 litres of water per acre on a non rainy day and repeat at an interval of 10 to 12 days.

▪ **Punjab, Haryana and Delhi:**

- As rainfall deficit is 64% so far in Punjab and also mainly dry weather would prevail for next three days the following advisories are suggested:

- Adopt moisture conservation practices like hoeing, weeding, mulching in crops like sugarcane, maize, cotton to reduce the evapotranspiration losses and to conserve moisture for *rabi* crops.
- De-tasselling in maize is advised to reduce transpiration losses.
- Apply life-saving irrigation to standing crops.

- In Western Plain Zone of Punjab, continue field preparation for sowing of short duration hybrid maize (PMH 2).
- In Western Plain and Undulating Plain Zone of Punjab, continue nursery sowing of mid-season cauliflower, desi varieties of radish, carrot and turnip under irrigation.
- In Undulating Plain Zone of Punjab, complete new plantation of fruit crops as weather of this period is very favourable for the establishment and growth of small plants.
- Due to partly cloudy weather, there are chances of occurrence of sucking pests *viz.* white fly and Jassids in cotton in Western Zone of Punjab. Monitor the crops and spray the Oberon @ 200ml/acre for white fly and Ulala 80g/acre for the management of Jassids.
- In Haryana, as mainly dry weather would prevail, apply irrigation in rice and sugarcane. Alternate wetting and drying in rice fields and irrigation is advised in alternate rows in sugarcane in case of shortage of water for irrigation.
- In Western Zone of Haryana, complete sowing of fodder crops such as jowar mixed with cowpea to increase the nutritive value for continuous supply of green fodder. Apply irrigation in bajra and cotton as per requirement and undertake hoeing in guar and pulses for conserving the moisture.
- In Delhi, in view of persisting subdued rainfall activity, farmers are advised to apply irrigation to the standing crops. Transplant onion seedling in the prepared fields under irrigation.

▪ **Uttar Pradesh:**

- Continue nursery sowing of cauliflower, cabbage, tomato and chilli in Central Plain Zone and in Eastern Plain Zone and complete sowing of short duration varieties of bajra (ICMV-155, WCC-75, ICTP-8203, Raj-171, Pusa-322,23, ICMH-451) in Ballia and Deoria districts of Uttar Pradesh utilizing the realized rainfall.
- Continue sowing of arhar (Bahar, Narendra Arhar 1,2, Azad, Pusa-9, Malveey-Vikas, Chamtkar, PDA-11) and complete moong (var. Pant-1, Narendra-1, PDM-54, Samrat and Asha) in Barabanki, Faizabad and Ambedkarnagar districts of Eastern Plain Zone of Uttar Pradesh utilizing the realized rainfall. Intercropping of Moong or lobia with Arhar can also be undertaken. Undertake sowing of ladies finger and lobia in Gorakhpur, Raibareilly and Sultanpur districts.

- As mainly dry weather would prevail with rain at isolated places, undertake weeding in urd, moong, lobia, til, arhar, groundnut, soybean and rice in Jhansi district of Bundelkhand zone of Uttar Pradesh.
- Apply 2% urea in standing crops except pulses in Central Plain Zone of Uttar Pradesh.
- Under prevailing humid weather condition there are chances of attack of red beetle in vegetables and jassids and Thrips in ladies finger in Bundelkhand Zone of Uttar Pradesh. Spray Nimbisidin @ 2 litre or Monocrotophos @ 1 litre per 800 litres of water for red beetle and for control of Jassids and Thrips, spray Dimethiate 30 EC @ 800 ml in 800 litres of water per hectare.
- Under prevailing humid weather condition there are chances of attack of stem borer in maize in Ballia and Deoria districts of Eastern Plain Zone of Uttar Pradesh. Apply Linden 6% @ 20 kg or Carbofuron granules 3% , 20kg or Linden+Carbaryl (4:4 G) 25 kg per hectare.
- Under prevailing humid weather condition, there are chances of incidence of blast disease in rice s in Western Plain Zone of Uttar Pradesh. For control of rice blast, spray Beem @ 120 g per 200 litres of water. For control of leaf eating caterpillar in vegetable, spray Di-corovas @ 1ml per litre of water.
- Under prevailing humid weather condition, there are chances of incidence of yellow mosaic in soybean in Bundelkhand and Central Plain Zone of Uttar Pradesh. For control, spray Dimethoate 30EC @ one liter per 800 litres of water per hectre.
- **Rajasthan:**
 - Continue nursery sowing of cauliflower (Pusa hybrid-2, Improved Japanese, Pusa Shubhra and Pusa Himjyoti) in Flood Prone Eastern Plain Zone of Rajasthan.
 - In Arid Western Plain Zone of Rajasthan, apply remaining half dose of Nitrogen @ 30 kg/ha through urea in 25-30 days old pearl millet crop with irrigation. Undertake mulching with dust and crop residue to conserve soil moisture.
 - Due to mainly dry weather condition, there are chances of incidence of blight disease on til in Arid Western Plain Zone of Rajasthan. To control, spray Mancozeb @ 1.5 kg/ha.
 - Due to hot weather condition there are attack of fruit borer on vegetables in Flood Prone Eastern Plain Zone of Rajasthan. To control spray Carboryl @2g per litre of water.
 - Due to warm and cloudy weather condition, there are chances of girdle beetle & Semilooper on soybean in Southern Humid Plain Zone of Rajasthan. To control girdle beetle spray Dimethoate 30 EC @ 1 litre/ha and spray Profenophos 50 EC @ 1.0 lit/ha to control semilooper.
 - Due to warm and humid conditions, there are chances of white fly, sucking pests, bollworm and jassids on cotton in Sub Humid Southern Plain and Aravali Hill Zone in Rajasthan. Apply Methyl Dimeton 25 EC @ 1 litre of water per hectare for the control of white fly and sucking insects. For the control of bollworm and jassids application of Carberil 50% dust @ 2.5 kg/ha is advised.
- **Horticulture**
 - Under prevailing hot and humid weather condition, there are chances of attack of fruit fly in guava in Central Plain Zone of Punjab. Spray Fenvulrate @ 2.5 ml per litre of water and repeat at weekly interval. Fix fruit fly traps in orchards at the rate of 16 traps per acre.
- **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. 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]



Transplanting of Rice

Sugarcane

Okra

Soybean

- **Realised Rainfall:** Rainfall occurred in all districts of Maharashtra except Chandrapur; Dahod, Dangs, Navsari, Panchmahal, Sabarkantha, Surat, Tapi and Valsad districts of Gujarat region. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at most palces over Konkan & Goa; at a few places over Gujarat Region and at isolated palces over Saurashtra & Kutch during the period. Rain/Thundershowers would occur at many palces over Marathwada during next 24 hours and over Madhya Maharashtra during next 48 hours and at most places thereafter. Rain/Thundershowers would occur at a few places over Vidarbha during next 24 hours and at many places thereafter.

- **Weather Warning:** Heavy rainfall would occur at isolated places over Konkan & Goa during the period and over Madhya Maharashtra and Marathwada on 29th and 30th August.
- **Weather Outlook:** Increase in rainfall activity over Gujarat. Rain/thundershowers would occur at many places along west coast and Maharashtra. Rain/thundershowers would occur at isolated places over remaining parts of the region.
- **Advisories:**
 - **Maharashtra:**
 - As rain/thundershowers would occur at most/ many places over Konkan & Goa, Madhya Maharashtra and Marathwada during the period, along with isolated heavy rainfall over Konkan & Goa, Madhya Maharashtra and Marathwada on 29th and 30th August, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crops to avoid water stagnation.
 - In Konkan, maintain water level upto 5 cm in main rice field.
 - In Madhya Maharashtra, continue planting of *adsali* sugarcane utilising the current rains and conserve rain water for future use.
 - In Marathwada, as rain would occur at many places, in unsown areas, sowing of contingency crops like sesame, sunflower and pigeon pea may be continued. Undertake rainfall harvesting methods by making furrows in cotton, soybean and jowar fields.
 - As rain would occur at many places in Vidarbha, in unsown/delayed sowing areas, sowing can be done with sole crop pigeon pea (AKT 8811, Vipula, PKV- Tara and BSMR-736 (with closer 45x20 spacing) in the districts of Amravati, Wardha, Washim etc. after receipt of adequate rain.
 - As alternative crops sunflower (TAS 82, PKV SF-9, PKVSH-27, KBSH 1 and KBSH 44), sesame (AKT-64 and JLT-7).
 - Maintain water level upto 3-5 cm in transplanted rice fields. Apply fertilizers and undertake intercultural operations in cotton, soybean, maize and jowar on a non rainy day.
 - In West Vidarbha region, it is advised to plan for early *rabi* red gram (C-11, ICPL-87119) and early *rabi* sesame (N-8) after receipt of sufficient rain.
 - There may be attack of leaf eating caterpillar in soybean in East Vidarbha due to prevailing humid weather; spray Quinalphos 25 % @ 20 ml per 10 litres of water from the lower side of the leaves after current spells of rain.
 - Prevailing high humid weather is congenial for the incidence of purple blotch on onion in Nasik district, spray Dithane M 45 @ 2 to 2.5 g + Fipronil 1.5 ml per litre of water after current spells of rain.
 - **Gujarat:**
 - Complete sowing of hybrid varieties of castor (GAUCH-2, GCH-5, 6 and GCH-7) in South Gujarat Heavy Rainfall Zone and sowing of cluster bean (GC-2), sorghum and transplanting of fennel in Bhal and Coastal Zone utilising the available soil moisture.
 - As mainly dry weather would prevail, carry out intercultural operations and weeding in cotton, pulses, sesame and pearl millet in North West Zone, in castor, cotton and sesame in North Saurashtra Zone to conserve soil moisture.
 - As mainly dry weather is prevailing, apply irrigation in cotton (flowering stage) (micro-irrigation) in South Saurashtra Zone.
 - Carry out gap filling and thinning in pearl millet to maintain plant population in North West Zone and apply supplementary dose of Nitrogen in form of urea @ 87 kg/h in cotton and pearl millet in North West Zone and in pearl millet in North Gujarat Zone.
 - Cloudy and humid weather conditions are congenial for attack of sucking pest in cotton in Bhal and Coastal zone of Gujarat; spray Methyl-O-Demate or Dimethoate @ 10ml/10 liter water on a non rainy day.
 - Due to high humidity, there is chance of attack of viral disease transmitted by jassid in chilli in South Gujarat Heavy Rainfall Zone; spray Methyl-O-Demate or Dimethoate @ 10 ml / 10 liters water on a non-rainy day.
 - Cloudy weather and humid condition is favourable for incidence of sucking pests in vegetables in Bhal and Coastal zone and North West Zone; for control, spray Imidacloprid or Thiomethoxam 4 ml / 10 litre of water on a non-rainy day.
 - **Animal Husbandry**
 - In current hot and humid weather condition in Middle Gujarat Zone, fodder should be provided to cattle before 10AM and after 5PM. Proper water should be given to avoid water stress. Mineral Mixture Powder should be given 40 gm per day. For the control of tick, spray Deltamethrin or Amitaz 20 ml/10 lit. of water in South Gujarat Heavy Rainfall Zone.

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

Annexure I
Week by week Rainfall Distribution

Sub-Divisions	13.08.14		20.08.14		27.08.14	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	87.5	34	162.3	69	220.5	279
Dibang Valley	**	**	**	**	**	**
East Kameng	33.4	-49	71.4	45	41.2	-36
East Siang	379.4	173	443.9	147	557.3	247
Kurung Kumey	**	**	**	**	**	**
Lohit	208.2	136	207.1	90	259.4	155
Lower Dibang Valley	451.2	1483	329.6	710	625.9	1199
Lower Subansari	**	**	**	**	**	**
Papumpara	172.5	38	323.0	271	175.3	35
Tawang	56.0	-63	113.0	-20	65.0	-49
Tirap	106.0	-3	152.4	37	74.0	-42
Upper Siang	144.6	61	199.6	80	440.4	335
Upper Subansari	35.6	-20	104.8	117	113.0	152
West Kameng	121.2	-19	74.6	-48	147.8	16
West Siang	120.0	174	194.5	109	138.0	39
Assam&Meghalaya						
Assam						
Baksa	38.2	-62	235.0	84	178.4	19
Barpeta	68.7	-31	256.0	101	234.3	56
Bongaigaon	94.2	9	304.0	185	467.6	190
Cachar	95.7	-22	78.5	-28	165.5	70
Chirang	200.6	133	324.2	204	498.4	210
Darrang	70.0	10	56.0	-2	34.0	-48
Dhemaji	93.0	-27	166.0	52	212.0	102
Dhubri	51.0	-33	233.1	150	127.0	2
Dibrugarh	81.9	-11	95.2	-1	122.3	33
Goalpara	30.5	-56	168.1	120	114.4	17
Golghat	52.7	-27	47.9	-16	59.2	-10
Hailakandi	17.4	-82	58.6	-45	22.0	-72
Jorhat	98.6	16	55.7	-27	76.3	-2
Kamrup(Rural)	48.1	-8	62.4	-5	59.0	-7
Kamrup(Metro)	14.7	-72	62.4	-5	54.5	-14
Karbi Anglong	21.2	-58	57.3	26	24.6	-54
Karimganj	149.7	34	237.9	156	144.4	33
Kokrajhar	184.7	8	332.7	164	309.9	91
Lakhimpur	109.3	-15	190.6	74	220.0	110
Morigaon	162.2	110	172.0	179	51.7	-23
N.C.Hills	70.4	29	77.1	86	43.4	-25
Nowgong	103.4	62	150.1	137	44.8	-39
Nalbari	39.5	-36	193.5	199	93.6	11
Sonitpur	51.7	-35	86.5	-4	38.7	-52
Sibsagar	85.0	-3	63.3	-8	57.2	-22

Tinsukia	109.5	15	107.1	8	207.3	174
Udalgiri	49.3	-23	82.2	44	93.4	42
Meghalaya						
East Garo Hills	223.4	258	280.3	212	506.3	494
East Khasi Hills	344.7	86	853.4	242	588.8	122
Jaintia Hills	**	**	161.0	-4	185.0	-33
Ribhoi	35.3	-67	124.8	24	109.1	41
South Garo Hills	73.0	0	172.0	96	68.0	-28
West Garo Hills	11.2	-85	229.8	161	143.8	52
West Khasi Hills	**	**	**	**	**	**
NMMT						
Mizoram						
Aizwal	55.4	-48	46.3	-60	55.0	-53
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	123.0	53	92.0	3	40.0	-64
Serchhip	72.0	-24	64.6	-45	125.4	21
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	16.0	-88	56.0	-50	18.0	-83
Churachandpur	0.0	-100	0.0	-100	**	**
Imphal east	6.5	-92	52.8	-16	80.0	38
Imphal west	213.3	190	32.5	-44	121.4	192
Senapati	**	**	**	**	48.0	-13
Tamenglong	**	**	**	**	**	**
Thoubal	**	**	**	**	**	**
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	66.2	-25	40.4	-11	42.0	-35
Kephire	**	**	**	**	**	**
Kohima	73.5	-20	109.2	18	68.8	-17
Longleng	**	**	**	**	**	**
Mokokchung	**	**	**	**	**	**
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	25	-73	108	17	139	68
Tuensang	**	**	**	**	**	**
Wokha	**	**	**	**	**	**
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	49.2	-34	363.0	314	4.0	-93
North tripura	24.2	-74	114.3	22	39.2	-48
South tripura	99.4	27	177.6	82	56.2	-38
West tripura	56.8	-13	165.9	94	31.9	-55
Himachal Pradesh						
Bilaspur	62.7	-22	104.1	66	2.6	-95

Chamba	54.2	-63	36.0	-63	3.1	-96
Hamirpur	43.4	-57	289.4	222	2.8	-97
Kangra	123.4	-33	169.6	27	14.9	-87
Kinnaur	2.5	-89	3.0	-85	0.0	-100
Kullu	11.4	-74	71.7	92	0.0	-100
Lahaul and Spiti	0.5	-99	5.3	-83	0.0	-100
Mandi	80.9	-17	239.9	173	3.2	-95
Shimla	25.8	-47	53.1	29	0.0	-99
Sirmaur	132.3	5	92.1	-16	0.1	-99
Solan	42.6	-52	89.9	23	0.0	-100
Una	43.8	-47	217.0	193	5.1	-91
Punjab						
Amritsar	7.7	-86	1.8	-96	1.4	-96
Barnala	0.0	-100	0.0	-100	0.0	-100
Bhatinda	0.0	-100	0.0	-100	0.0	-100
Faridkot	13.0	-48	0.0	-100	0.5	-98
Fatehgarh Saheb	23.7	-51	0.0	-100	0.0	-100
Ferozpur	0.0	-100	0.0	-100	1.0	-95
Gurdaspur	85.1	-15	123.4	75	6.3	-88
Hoshiarpur	16.2	-77	11.5	-79	0.0	-100
Jalandhar	17.5	-67	0.0	-100	0.0	-100
Kapurthala	48.0	29	0.2	-99	4.3	-85
Ludhiana	13.6	-72	0.0	-100	0.0	-100
Mansa	0.0	-100	0.0	-100	0.0	-100
Moga	3.5	-90	8.0	-77	0.0	-100
Muktesar	0.0	-100	0.0	-100	0.0	-100
Nawashahar	30.5	-49	3.3	-94	0.0	-100
Patiala	10.1	-81	0.0	-100	0.0	-100
Ropar	57.1	-6	41.6	-25	0.0	-100
Sangrur	6.9	-81	0.0	-100	0.0	-100
Mohali	62.5	21	8.5	-80	0.0	-100
TarnTaran	5.1	-80	0.7	-97	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	81.0	-9	3.1	-96	0.0	-100
Bhiwani	1.7	-95	0.0	-100	0.0	-100
Chandigarh	15.9	-79	7.2	-89	0.0	-100
Faridabad	27.3	-41	0.0	-100	0.0	-100
Fatehabad	0.8	-96	0.2	-99	0.0	-100
Gurgaon	1.3	-97	0.0	-100	0.0	-100
Hissar	0.0	-100	0.0	-100	0.0	-100
Jhajar	13.8	-57	0.0	-100	0.0	-100
Jind	0.0	-100	0.0	-100	0.0	-100
Katihah	0.0	-100	0.0	-100	0.0	-100
Karnal	13.1	-73	0.0	-100	0.0	-100
Kurukshetra	1.0	-98	0.0	-100	0.0	-100
Mahendragarh	16.7	-61	0.0	-100	0.0	-100
Mewat	9.8	-81	0.0	-100	0.0	-100
Palwal	9.5	-78	0.0	-100	0.0	-100

Panchkkula	52.9	-42	43.7	-43	0.0	-100
Panipat	20.7	-54	0.0	-100	0.0	-100
Rewari	4.0	-92	0.0	-100	0.0	-100
Rohtak	1.0	-98	0.0	-100	0.0	-100
Sirsa	0.0	-100	0.0	-100	0.0	-100
Sonepat	7.2	-84	0.0	-100	0.0	-100
Yamunanagar	23.7	-69	3.0	-96	0.0	-100
Delhi						
Central Delhi	27.0	-55	12.0	-79	0.0	-100
East Delhi	44.0	-27	0.0	-100	0.0	-100
New Delhi	89.0	47	0.0	-100	0.0	-100
North Delhi	27.2	-55	1.4	-98	0.0	-100
North East Delhi	2.0	-97	0.0	-100	0.0	-100
North West Delhi	17.7	-71	0.0	-100	0.0	-100
South Delhi	58.0	-4	0.0	-100	0.0	-100
South West Delhi	39.2	-35	0.0	-100	0.0	-100
West Delhi	8.0	-87	0.0	-100	0.0	-100
Jammu & Kashmir						
Anantnag	10.6	-48	78.8	525	13.0	0
Badgam	0.0	-100	49.0	271	2.6	-71
Bandipore	**	**	**	**	**	**
Baramula	1.2	-95	47.0	196	5.0	-62
Doda	2.4	-90	47.5	93	3.6	-76
Ganderbal	3.2	-80	64.1	421	34.0	174
Jammu	105.3	12	90.6	28	3.6	-94
Kargil	**	**	**	**	**	**
Kathua	110.8	7	204.8	127	1.2	-98
Kistwar	**	**	**	**	**	**
Kulgam	3.9	-81	81.7	548	4.5	-65
Kupwara	0.0	-100	34.9	203	7.7	-24
Ladakh(Leh)	0.0	-100	0.0	-100	0.5	-79
Poonch	10.8	-86	0.7	-98	9.3	-72
Pulwama	0.9	-96	60.7	346	4.8	-60
Rajouri	72.3	20	58.4	-21	16.2	-63
Ramban	8.5	-65	53.3	117	9.6	-37
Reasi	126.3	-8	130.5	52	7.9	-91
Samba	29.4	-69	143.9	103	0.0	-100
Shopian	6.0	-71	66.0	385	7.0	-41
Srinagar	0.0	-100	48.6	295	10.3	-17
Udhampur	15.7	-89	99.4	16	1.1	-99
East Madhya Pradesh						
Anuppur	43.1	-53	6.8	-93	11.2	-86
Balaghat	65.6	-39	11.3	-91	26.8	-70
Chhatarpur	19.0	-80	2.6	-97	0.0	-100
Chindwara	6.0	-90	8.5	-87	66.7	28
Damoh	6.1	-93	20.1	-76	6.7	-91
Dindori	143.2	45	13.2	-87	12.2	-85
Jabalpur	22.8	-76	0.1	-99	0.0	-100
Katni	6.1	-93	3.4	-96	4.0	-95

Mandla	76.0	-31	11.0	-90	5.4	-93
Narsingpur	32.0	-61	5.6	-95	4.2	-93
Panna	135.3	32	11.4	-87	0.0	-100
Rewa	23.5	-72	3.0	-96	0.0	-100
Sagar	50.8	-48	1.3	-99	6.3	-92
Satna	4.2	-95	27.5	-66	3.3	-95
Seoni	17.2	-77	3.3	-96	15.4	-75
Shahdol	7.0	-92	0.0	-100	1.0	-99
Sidhi	37.8	-52	16.2	-80	0.0	-100
Singrauli	85.1	45	0.0	-100	0.0	-100
Tikamgarh	57.0	-34	0.0	-100	1.5	-98
Umaria	20.1	-76	1.2	-99	13.0	-85
West Madhya Pradesh						
Alirajpur	14.2	-74	27.2	-45	80.0	24
Asoknagar	98.8	42	1.3	-98	0.0	-100
Barwani	20.2	-55	2.9	-93	44.2	-2
Betul	7.6	-89	4.8	-93	42.9	-17
Bhind	21.2	-72	0.0	-100	0.0	-100
Bhopal	32.2	-56	2.6	-97	14.6	-80
Burhanpur	1.7	-97	0.0	-100	33.6	-46
Datia	36.5	-53	0.0	-100	1.0	-98
Dewas	6.0	-91	3.0	-96	9.0	-85
Dhar	4.5	-92	6.7	-88	34.5	-30
Guna	177.7	130	8.2	-90	1.2	-99
Gwalior	13.1	-84	0.0	-100	0.0	-100
Harda	4.5	-95	4.4	-96	15.2	-76
Hosangabad	30.8	-70	0.9	-99	15.5	-81
Indore	4.6	-92	3.0	-95	39.4	-20
Jhabua	15.2	-73	16.4	-66	75.1	52
Khandwa	4.3	-93	0.0	-100	59.3	23
Khargone	5.0	-90	0.4	-99	34.0	-28
Mandsaur	195.7	235	2.9	-96	6.3	-87
Morena	25.5	-68	0.0	-100	0.0	-100
Neemuch	272.9	387	0.8	-99	9.5	-83
Raisen	59.2	-34	5.0	-95	5.2	-93
Rajgarh	167.1	140	3.8	-95	30.0	-54
Ratlam	47.5	-19	8.5	-88	21.9	-62
Sehore	27.8	-64	3.6	-96	27.6	-62
Shajapur	83.0	32	6.5	-92	4.8	-91
Sheopur	143.5	80	0.0	-100	0.0	-100
Shivpuri	87.0	18	0.0	-100	0.0	-100
Ujjain	24.4	-53	3.5	-95	26.8	-51
Vidisha	86.5	18	2.6	-97	2.6	-97
Chhattisgarh						
Bastar	47.5	-47	47.2	-45	61.1	-17
Bijapur	76.3	-46	80.7	-11	71.1	-22
Bilaspur	47.9	-43	10.0	-88	20.5	-66
Dantewara	30.9	-70	30.0	-58	14.2	-81
Dhamtari	39.8	-43	8.8	-89	107.2	61

Durg	84.8	7	16.8	-77	4.6	-93
Janjgir	96.5	-12	14.1	-86	16.5	-80
Jashpurnagar	35.7	-66	54.7	-42	17.6	-80
Kanker	34.5	-62	2.5	-98	67.1	-17
Korba	79.4	-29	39.0	-64	42.3	-47
Koriya	92.9	-11	14.0	-86	55.1	-23
Kawardha	41.0	-35	6.4	-91	5.5	-90
Mahasumund	76.0	13	54.2	-42	38.8	-30
Narayanpur	34.8	-68	4.0	-96	92.6	12
Raigarh	39.8	-55	39.9	-55	30.1	-52
Raipur	54.3	-31	39.1	-53	14.5	-76
Rajandgaon	30.4	-60	10.1	-86	9.7	-86
Surguja	101.3	4	33.4	-60	5.9	-92
East Uttar Pradesh						
Allahabad	40.7	-50	10.5	-82	2.1	-97
Ambedkar Nagar	32.0	-56	17.0	-73	0.0	-100
Azamgarh	22.6	-70	25.9	-55	0.0	-100
Bahraich	47.3	-32	114.7	74	13.6	-81
Ballia	28.1	-59	95.6	93	25.4	-57
Balrampur	50.9	-34	180.9	133	10.8	-85
Banda	28.3	-69	27.2	-65	6.8	-89
Barabanki	36.2	-48	8.4	-88	9.2	-85
Basti	26.1	-60	45.2	-28	1.3	-98
Chandauli	75.0	-2	30.4	-56	0.0	-100
Deoria	6.5	-91	79.4	19	40.0	-44
Faizabad	30.5	-59	205.0	-72	0.0	-100
Farrukhabad	7.1	-92	0.1	-99	0.0	-100
Fatehpur	10.9	-87	0.0	-100	0.0	-100
Gazipur	76.9	-11	26.5	-58	9.0	-84
Gonda	47.1	-36	51.2	-15	0.5	-99
Gorakhpur	18.5	-81	129.8	47	26.7	-68
Hardoi	10.7	-85	0.0	-100	0.0	-100
Jaunpur	52.6	-30	11.9	-75	4.0	-94
Kannauj	8.1	-91	0.0	-100	0.0	-100
Kanpur City	12.4	-83	0.8	-99	0.0	-100
Kanpur Dehat	11.9	-85	3.8	-94	0.0	-100
Kaushambi	13.1	-85	0.3	-99	0.0	-100
Kheri	17.9	-72	48.6	-30	0.0	-100
Kushi nagar	14.5	-83	190.5	114	18.0	-80
Lucknow	31.8	-49	3.5	-94	0.0	-100
Maharajganj	6.5	-93	183.8	83	51.0	-40
Mau	1.5	-98	63.0	-6	18.0	-79
Mirzapur	101.2	15	12.0	-78	0.0	-100
Pratapgarh	46.7	-41	5.3	-91	1.3	-98
RaiBareilly	17.3	-75	4.7	-92	0.9	-98
Sahuji Maharajnagar	7.3	-91	6.3	-92	0.0	-100
Sant Kabirnagar	4.0	-94	132.0	102	30.0	-52
Sant Ravidas Nagar	93.0	22	2.0	-97	0.0	-100
Shrawasti	25.8	-63	112.2	71	57.7	-18

Sidharthnagar	15.1	-81	170.7	143	22.5	-71
Sitapur	34.3	-50	11.1	-83	1.6	-98
Sonbhadra	151.0	106	35.7	-46	3.5	-94
Sultanpur	45.5	-37	9.1	-84	0.3	-99
Unnao	9.3	-88	0.3	-99	0.0	-100
Varanasi	149.7	125	13.2	-78	16.7	-75
West Uttar Pradesh						
Agra	15.1	-81	0.0	-100	0.0	-100
Aligarh	20.6	-69	1.1	-98	0.0	-100
Auraiya	15.6	-78	0.0	-100	0.0	-100
Badaun	7.8	-89	1.0	-98	0.0	-100
Baghpat	10.1	-81	0.0	-100	0.0	-100
Bareilly	10.5	-86	48.1	-10	0.0	-100
Bijnor	10.0	-87	43.6	-34	0.0	-100
Bulandsahar	6.5	-89	1.3	-98	0.0	-100
Etah	24.7	-65	0.0	-100	0.0	-100
Etawah	40.3	-53	0.0	-100	0.0	-100
Firozabad	22.4	-66	2.0	-97	0.0	-100
GBNagar	17.0	-71	0.0	-100	0.0	-100
Ghaziabad	1.0	-98	0.0	-100	0.0	-100
Hamirpur	13.0	-86	7.5	-89	0.8	-99
Jalaun	6.9	-94	0.0	-100	3.5	-93
Jhansi	22.9	-76	0.3	-99	2.9	-95
Jotiba Phule Nagar	0.0	-100	15.0	-78	0.0	-100
Kanshiramnagar	58.0	-16	0.0	-100	0.0	-100
Lalitpur	51.5	-48	4.0	-95	0.0	-100
Mahamaya Nagar	9.5	-86	0.0	-100	0.0	-100
Mahoba	29.6	-69	0.0	-100	0.0	-100
Mainpuri	11.4	-84	1.5	-98	0.0	-100
Mathura	18.8	-69	0.0	-100	0.0	-100
Meerut	4.3	-94	0.0	-100	0.0	-100
Moradabad	22.5	-71	37.1	-48	0.0	-100
Muzaffarnagar	0.0	-100	0.0	-100	0.0	-100
Pilibhit	18.6	-75	69.0	-4	0.0	-100
Rampur	20.9	-72	39.9	-48	0.0	-100
Saharanpur	8.0	-88	0.3	-99	0.0	-100
Shahjahanpur	9.6	-87	36.9	-42	0.0	-100
Uttarakhand						
Almora	7.6	-90	63.4	-2	0.0	-100
Bageshwar	49.0	-33	52.5	-19	0.0	-100
Chamoli	151.3	59	49.3	-32	8.8	-85
Champawat	61.5	-39	117.5	28	8.0	-91
Dehradun	206.4	25	239.0	61	3.2	-98
Garhwal Pauri	16.0	-85	162.1	57	0.0	-100
Garhwal Tehri	34.4	-61	129.9	57	0.0	-100
Haridwar	26.0	-73	52.8	-36	0.0	-100
Nainital	51.0	-47	209.3	100	0.0	-100
Pithorgarh	57.2	-55	129.9	4	14.1	-87
Rudraprayag	110.2	-32	64.2	-60	0.1	-99

Udham Sing Nagar	24.0	-71	56.2	-34	0.0	-100
Uttarkashi	51.2	-50	55.8	-44	0.0	-100
Bihar						
Araria	52.7	-30	194.7	158	77.5	-17
Arwal	39.6	-41	57.6	8	21.4	-66
Aurangabad	50.2	-9	59.2	0	0.0	-100
Banka	19.2	-65	169.4	188	17.8	-65
Begusarai	0.0	-100	317.6	677	88.2	31
Bhabua	215.6	215	10.0	-84	43.0	-45
Bhagalpur	12.3	-76	111.7	82	29.6	-53
Bhojpur	24.6	-56	132.5	104	64.1	-7
Buxar	8.8	-87	11.6	-80	1.2	-98
Darbhanga	32.8	-52	260.3	323	24.9	-66
East Champaran	33.5	-49	211.4	223	85.8	2
Gaya	134.5	128	103.5	59	36.2	-42
Gopalganj	0.0	-100	148.4	128	39.4	-53
Jahanabad	74.8	33	217.6	240	58.9	16
Jamui	55.6	-7	95.6	87	7.3	-88
Kathihar	15.6	-70	151.9	156	98.5	40
Khagadia	18.7	-72	139.5	112	25.3	-64
Kishanganj	119.8	3	135.4	43	215.8	99
Lakhisarai	34.0	-38	286.0	436	128.0	86
Madhepura	23.4	-66	156.4	204	92.4	8
Madhubani	40.0	-49	188.7	221	85.8	7
Monghyar	72.9	32	141.0	164	10.4	-85
Muzaffarpur	45.5	-30	192.4	217	78.4	-4
Nalanda	78.0	27	344.3	487	17.9	-71
Nawada	89.7	36	150.8	138	5.0	-92
Patna	55.8	-11	346.0	535	27.1	-65
Purnea	28.4	-64	78.8	34	72.2	-15
Rohtas	45.4	-27	23.1	-64	1.0	-98
Saharsha	3.0	-97	168.5	144	5.0	-94
Samstipur	55.2	-23	166.1	112	63.8	8
Saran	25.9	-61	203.6	214	12.0	-85
Sheikpura	71.1	39	132.1	168	18.1	-72
Sheohar	63.6	-7	175.4	174	3.6	-96
Sitamarhi	74.0	8	208.7	226	75.1	-17
Siwan	11.7	-83	203.8	245	81.7	9
Supaul	42.3	-25	207.5	292	158.1	89
Vaishali	42.4	-42	208.7	286	38.4	-51
West Champaran	68.1	-9	193.4	165	128.6	16
Jharkhand						
Bokaro	138.1	116	51.1	-23	30.6	-50
Chatra	105.1	25	44.2	-39	14.3	-76
Deoghar	34.7	-47	42.8	-32	38.6	-34
Dhanbad	117.4	58	59.2	-5	21.8	-68
Dumka	78.6	17	50.6	-36	54.9	-11
East Singhum	88.4	14	62.2	-7	50.9	-12
Garhwa	61.9	-14	23.0	-66	4.6	-91

Giridih	95.5	60	90.4	41	27.9	-54
Godda	32.0	-37	146.9	149	24.6	-64
Gumla	55.9	-32	111.9	25	61.1	-6
Hazaribagh	204.5	173	91.8	55	17.1	-73
Jamtara	76.6	-8	72.8	-12	22.7	-72
Khunti	100.5	8	143.5	84	52.5	-28
Koderrna	178.3	179	180.4	201	17.1	-70
Latehar	114.0	61	37.9	-34	18.1	-70
Lohardagga	72.4	5	45.9	-11	25.2	-60
Pakur	32.8	-56	97.6	20	69.8	-11
Palamau	95.8	32	42.9	-36	31.6	-47
Ramgarh	144.0	120	34.6	-48	55.6	-1
Ranchi	64.2	-26	35.8	-55	30.5	-51
Sahebganj	26.8	-61	26.2	-69	4.2	-94
Saraikela	95.7	32	96.0	36	30.7	-51
Simdega	80.2	-16	116.7	21	21.5	-72
West Singhbhum	213.8	164	65.6	-13	46.8	-29
East Rajasthan						
Ajmer	192.5	470	0.1	-99	1.8	-95
Alwar	44.4	-21	1.9	-96	0.2	-99
Banswara	29.8	-53	7.9	-89	13.7	-77
Baran	323.3	319	3.4	-95	1.4	-98
Bharatpur	46.3	-17	1.4	-97	0.0	-100
Bhilwara	293.7	527	2.3	-96	11.0	-78
Bundi	257.5	367	0.3	-99	0.0	-100
Chittorgarh	234.1	323	1.3	-98	14.0	-78
Dausa	184.2	176	0.2	-99	0.0	-100
Dholpur	34.3	-53	0.0	-100	0.0	-100
Dungarpur	30.4	-32	10.2	-81	15.8	-67
Jaipur	150.0	213	0.8	-98	0.0	-100
Jhalawar	210.4	203	3.0	-97	7.1	-90
Jhunjhunu	61.5	69	0.0	-100	1.5	-95
Karauli	45.0	-53	0.0	-100	0.0	-100
Kota	235.9	244	3.3	-95	0.0	-100
Pratapgarh	101.0	94	11.0	-85	17.0	-70
Rajsamand	133.0	224	0.4	-99	26.7	-32
Sawai Madhopur	182.7	121	0.0	-100	0.0	-100
Sikar	53.6	54	0.0	-100	3.3	-89
Sirohi	71.2	7	7.3	-91	21.7	-62
Tonk	296.5	523	0.5	-99	0.0	-100
Udaipur	61.9	43	2.1	-95	46.7	5
West Rajasthan						
Barmer	24.6	29	1.9	-92	1.4	-92
Bikaner	6.5	-59	3.4	-80	2.2	-86
Churu	12.9	-48	0.0	-100	5.1	-78
Hanumangarh	0.0	-100	0.0	-100	0.1	-99
Jaisalmer	3.9	-69	0.1	-99	0.0	-100
Jalore	27.8	5	0.3	-99	5.4	-80
Jodhpur	77.3	272	0.6	-97	0.0	-100

Nagaur	101.8	290	1.4	-95	0.0	-100
Pali	140.8	318	0.0	-100	21.6	-33
Sri Ganganagar	0.9	-94	0.0	-100	1.2	-91
Gujarat Region						
Ahmedabad	24.3	-54	5.3	-87	15.4	-49
Anand	22.5	-64	26.3	-55	8.3	-82
Banaskantha	19.4	-48	4.1	-90	10.3	-71
Baroda	18.3	-76	27.9	-59	19.2	-65
Broach	33.5	-37	14.3	-70	28.9	-21
DNH	60.7	-63	46.0	-65	160.7	40
Dahod	13.6	-80	14.3	-78	30.4	-44
Daman	35.6	-78	68.4	-48	117.2	2
Dangs	58.0	-59	34.5	-71	52.0	-54
Gandhinagar	17.2	-68	7.8	-83	19.2	-45
Kheda	47.3	-24	16.7	-70	21.1	-55
Mehsana	30.5	-38	5.0	-88	22.6	-37
Narmada	23.3	-74	15.9	-77	26.4	-52
Navsari	43.7	-65	32.7	-68	43.9	-49
Panchmahal	12.6	-84	21.0	-70	38.4	-36
Patan	28.3	-27	3.6	-90	27.6	-13
Sabarkantha	22.1	-65	9.3	-83	34.8	-27
Surat	17.3	-80	17.8	-74	45.6	-17
Tapi	20.2	-82	27.4	-68	57.6	-25
Valsad	56.7	-55	45.0	-59	82.4	-13
S K & Diu region						
Amreli	16.4	-46	5.0	-82	28.6	27
Bhavnagar	27.9	-15	4.2	-86	18.9	-30
Diu	25.2	-33	5.7	-81	0.6	-95
Jamnagar	24.9	-35	6.8	-68	1.5	-89
Junagarh	29.7	-33	9.4	-76	6.1	-68
Kutch	26.2	-10	8.3	-57	0.0	-99
Porbandar	81.5	66	14.6	-54	6.3	-53
Rajkot	28.3	-33	9.9	-66	24.3	16
Surendranagar	5.5	-84	4.2	-87	1.9	-92
Maharashtra & Goa						
Konkan & Goa						
Mumbai City	59.7	-53	36.1	-65	64.7	-41
Mumbai Suburban	91.2	-28	30.6	-70	83.7	-23
North Goa	168.2	-20	81.3	-47	163.0	30
Raigad	141.1	-33	51.4	-73	120.2	-28
Ratnagiri	139.8	-37	48.9	-75	57.9	-63
Sindhudurg	131.8	-29	91.1	-37	103.5	-27
South Goa	215.9	14	106.0	-17	202.8	101
Thane	105.7	-43	47.4	-66	106.4	-14
Madhya Maharashtra						
Ahmednagar	4.9	-71	14.8	-7	106.2	310
Dhule	3.2	-88	1.7	-94	78.2	209
Jalgaon	7.0	-84	6.2	-86	61.4	60
Kolhapur	80.0	-39	32.4	-70	78.5	-4

Nandurbar	18.9	-66	22.9	-54	36.2	-20
Nasik	40.5	-35	28.7	-49	74.6	53
Pune	42.5	-28	27.7	-44	96.2	144
Sangli	16.8	-40	14.8	-25	69.6	215
Satara	29.4	-37	18.3	-50	108.5	262
Solapur	4.5	-78	21.3	10	87.6	214
Marathwada						
Aurangabad	5.0	-85	7.1	-77	81.1	114
Beed	4.5	-85	12.5	-55	77.7	129
Hingoli	6.8	-88	6.6	-89	39.1	-27
Jalna	2.4	-93	4.2	-87	71.9	85
Latur	8.7	-81	9.7	-81	85.3	57
Nanded	14.2	-75	2.7	-95	69.0	17
Usmanabad	9.2	-70	25.0	-20	96.5	116
Parbhani	3.6	-91	1.4	-97	62.7	5
Vidarbha						
Akola	20.8	-61	12.6	-68	53.5	28
Amraoti	1.3	-98	15.2	-72	55.5	30
Bhandara	43.1	-58	12.9	-84	43.2	-44
Buldhana	5.0	-89	3.4	-92	71.0	71
Chandrapur	17.9	-79	8.2	-90	16.9	-79
Gadchiroli	32.5	-70	15.3	-84	34.6	-62
Gondia	56.5	-45	3.8	-96	37.8	-58
Nagpur	11.0	-81	12.1	-81	37.6	-28
Wardha	5.8	-91	9.9	-83	36.6	-32
Washim	2.6	-96	10.9	-80	68.0	36
Yeotmal	4.0	-94	7.0	-88	73.1	29
Odisha						
Angul	21.7	-75	18.5	-79	49.8	-23
Balasore	116.4	36	37.7	-50	11.0	-84
Bargarh	76.3	-13	22.5	-75	27.7	-61
Bhadrak	80.4	1	22.5	-73	32.8	-53
Bolangir	75.1	-11	43.2	-50	40.7	-39
Boudh	79.2	-15	46.6	-43	57.6	-23
Cuttack	61.6	-22	57.8	-37	59.7	-20
Deogarh	13.8	-89	33.9	-73	59.7	-24
Dhenkanal	39.6	-57	29.8	-65	42.6	-42
Gajapati	20.5	-67	53.6	-11	71.4	14
Ganjam	26.0	-50	66.1	15	47.1	-15
Jagatsingpur	51.1	-20	29.8	-71	27.1	-60
Jajpur	64.0	-22	47.7	-45	45.0	-42
Jharsuguda	80.3	-26	35.5	-66	17.2	-76
Kalahandi	71.2	-24	47.2	-49	15.3	-80
Kandhamal	29.7	-68	38.1	-53	58.7	-22
Kendrapara	55.3	-40	10.7	-89	26.9	-61
Keonjhar	46.5	-41	25.1	-67	36.4	-34
Khurda	29.4	-64	39.1	-52	63.5	-8
Koraput	32.6	-70	77.8	-17	87.4	8
Malkangiri	41.0	-63	26.2	-77	40.8	-54

Mayurbhanj	87.9	-5	58.7	-33	34.5	-48
Nawapara	30.3	-52	34.4	-54	34.4	-54
Nawarangpur	61.9	-42	63.9	-48	106.3	25
Nayagarh	14.2	-82	33.9	-59	43.9	-29
Puri	30.1	-62	16.4	-80	14.1	-77
Rayagada	42.7	-29	67.5	8	47.4	-28
Sambalpur	46.6	-62	33.9	-73	35.9	-54
Sonepur	94.1	-9	46.8	-57	46.5	-35
Sundargarh	78.5	-7	72.7	-24	12.3	-81
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	81.6	27	51.7	-17	63.5	4
North & Middle Andaman	159.2	47	70.6	-32	90.0	-16
South Andaman	81.1	-26	45.3	-53	63.0	-28
GWB						
Bankura	113.8	59	69.6	8	61.7	1
Birbhum	54.0	-30	120.4	93	46.4	-24
Burdwan	44.1	-30	76.3	24	66.5	12
East Midnapore	161.9	158	59.0	-24	7.1	-90
Hooghly	47.6	-7	165.6	177	39.5	-37
Howrah	80.1	20	171.0	125	25.1	-51
Kolkata	71.2	0	108.0	55	14.6	-81
Murshidabad	39.3	-19	160.5	138	20.0	-64
Nadia	14.0	-70	147.6	129	38.7	-15
24 Pargana (N)	46.9	-23	110.7	49	29.1	-55
Purulia	61.2	-14	60.7	-6	39.2	-36
24 Pargana (S)	109.3	16	82.8	-2	24.1	-76
West Midnapore	88.5	20	70.1	-1	55.7	-19
SHWB & Sikkim						
Cooch Behar	141.1	-34	89.2	-39	150.3	-6
Darjeeling	117.0	-23	264.1	86	274.0	66
East Sikkim	100.7	-3	112.7	26	186.5	73
Jalpaiguri	145.0	-8	301.6	112	377.1	129
Malda	53.7	-5	123.0	93	42.9	-44
North Dinajpur	37.5	-49	25.5	-59	78.3	4
North Sikkim	77.5	-7	70.9	-34	331.6	216
South Dinajpur	8.1	-83	110.6	66	122.8	89
South Sikkim	116.4	12	138.9	55	267.4	148
West Sikkim	55.5	-34	187.0	73	96.0	-9
Karnataka						
Coastal Karnataka						
Dakshin Kannada	286.9	39	52.4	-74	138.7	-13
Udupi	377.9	62	73.3	-66	182.5	4
Uttar Kannada	229.4	26	66.3	-57	164.3	41
N I Karnataka						
Bagalkote	13.4	-21	33.3	154	75.9	339
Belgaum	28.9	-17	19.3	-23	71.8	224
Bidar	20.4	-51	11.0	-77	86.1	85

Bijapur	3.7	-80	23.7	30	57.2	162
Dharwad	32.4	28	20.5	-7	57.6	211
Gadag	9.6	-46	47.7	288	97.0	427
Gulbarga	6.2	-82	23.5	-47	96.7	155
Haveri	20.5	-29	23.4	-6	80.2	295
Koppal	11.4	-46	44.9	169	130.3	535
Raichur	3.9	-86	16.9	-38	129.7	381
Yadgir	13.7	-59	20.5	-48	59.2	57
S I Karnataka						
Bangalore Rural	24.6	7	22.4	-22	96.2	235
Bangalore Urban	15.0	-45	39.2	25	55.6	92
Bellary	5.5	-72	52.1	206	95.9	361
Chamarajnagar	14.8	26	22.7	47	67.5	304
Chichballapur	14.1	-37	39.4	61	50.0	94
Chickmagalur	85.3	-25	50.8	-51	79.0	11
Chitradurga	6.5	-49	48.4	325	93.4	581
Davangere	14.6	-33	44.0	132	94.1	411
Hassan	31.7	7	38.3	14	23.3	-3
Kodagu	113.3	-16	39.2	-71	36.9	-62
Kolar	3.0	-86	30.7	40	10.0	-53
Mandya	9.6	3	32.3	121	29.9	95
Mysore	18.6	55	40.4	148	42.1	217
Ramnagara	33.0	71	24.5	0	45.4	65
Shimoga	150.2	47	48.3	-51	108.6	52
Tumkur	13.2	-16	33.2	72	69.1	302
Kerala						
Alappuzha	70.2	-15	43.0	-40	192.6	128
Kannur	182.6	37	13.8	-88	79.4	-25
Ernakulam	185.3	72	12.8	-85	143.7	79
Idukki	110.7	-13	92.9	-29	139.5	35
Kasaragod	273.7	72	14.1	-90	83.8	-29
Kollam	43.7	-21	57.4	0	233.5	269
Kottayam	117.3	22	33.8	-60	192.8	133
Kozhikode	140.3	9	19.1	-83	202.1	113
Malappuram	99.5	10	18.8	-80	110.8	46
Palakkad	62.0	-27	28.5	-67	70.4	10
Pathanamthitta	62.9	-27	65.1	-14	265.1	226
Thiruvananthapuram	45.0	38	15.5	-53	181.6	464
Thrissur	121.0	13	7.3	-93	157.4	84
Wayanad	141.0	-4	24.3	-82	79.8	-29
Tamil Nadu						
Ariyalur	21.8	-13	58.6	145	12.9	-66
Chennai	78.8	160	1.3	-96	92.8	157
Coimbatore	36.3	353	36.8	304	45.1	299
Cuddalore	54.6	94	80.8	224	19.2	-48
Dharmapuri	21.2	24	57.4	160	8.8	-71
Dindigul	25.4	108	75.1	373	29.1	46
Erode	5.3	-48	44.3	275	37.5	126
Kanchipuram	103.0	185	3.2	-92	19.1	-54

Kanyakumari	31.6	77	3.1	-85	133.2	759
Karikal	5.6	-54	21.1	26	5.5	-83
Karur	0.0	-100	53.6	391	11.4	-33
Krishnagiri	21.9	27	35.9	56	10.6	-61
Madurai	23.6	43	55.9	173	22.6	-5
Nagapattinam	34.8	78	53.6	198	8.4	-69
Namakkal	19.3	-16	29.4	44	13.2	-49
Nilgiris	62.1	46	40.8	-12	53.7	52
Perambalur	27.3	112	127.7	586	10.3	-56
Puducherry	52.9	84	45.9	50	4.9	-86
Pudukottai	30.4	38	78.9	240	14.1	-54
Ramanathapuram	15.2	71	13.5	46	8.0	-27
Salem	25.5	2	54.8	112	30.0	-12
Sivaganga	33.2	74	87.8	438	4.2	-83
Thanjavur	13.0	-36	82.6	311	18.4	-45
Theni	10.5	62	41.1	361	41.1	504
Tirunelveli	0.0	-100	6.0	-16	29.9	443
Tirupur	12.0	90	68.0	844	30.1	234
Tiruvallur	63.0	123	11.0	-66	38.2	14
Tiruvannamalai	88.0	212	52.9	65	6.9	-81
Tiruvarur	6.7	-67	66.4	232	19.8	-30
Toothukudi	2.6	-1	12.7	297	4.5	-15
Trichy	5.1	-60	50.7	247	9.6	-59
Vellore	52.1	97	25.5	-21	14.1	-58
Villupuram	70.6	207	73.4	158	15.1	-60
Virudhunagar	6.0	-48	43.4	287	17.0	37
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	28.3	-46	0.8	-98	16.2	-62
Guntur	7.3	-79	31.7	-11	45.1	14
Krishna	10.0	-80	39.0	-7	21.9	-53
Nellore	32.8	50	21.2	-7	45.9	95
Prakasam	1.6	-91	18.7	2	31.7	9
Sirkakulam	51.4	18	47.2	1	47.1	-2
Visakhapatnam	30.3	-28	24.4	-37	41.5	-8
Vizianagram	41.2	3	56.4	23	57.2	5
West Godavari	39.7	-39	11.7	-74	41.6	-16
Rayalaseema						
Anantapur	4.1	-71	15.3	-5	41.8	114
Chittoor	36.4	38	40.0	59	26.9	5
Cuddapah	5.4	-77	14.7	-38	57.2	86
Kurnool	7.0	-72	9.3	-69	97.4	223
Telangana						
Adilabad	14.0	-81	10.2	-84	63.9	10
Hyderabad	3.8	-91	10.6	-78	28.0	-24
Karimnagar	5.2	-91	2.7	-95	46.8	9
Khammam	20.3	-70	14.6	-71	30.7	-41
Mehabubnagar	9.8	-71	2.3	-94	58.1	69
Medak	12.6	-73	0.0	-100	55.5	41

Nalgonda	6.9	-80	10.9	-65	35.3	5
Nizamabad	8.5	-88	2.9	-96	47.6	-25
Rangareddy	7.8	-79	13.1	-73	68.3	80
Warangal	12.6	-79	6.7	-86	45.9	3

Legends

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