

National Agromet Advisory Service Bulletin

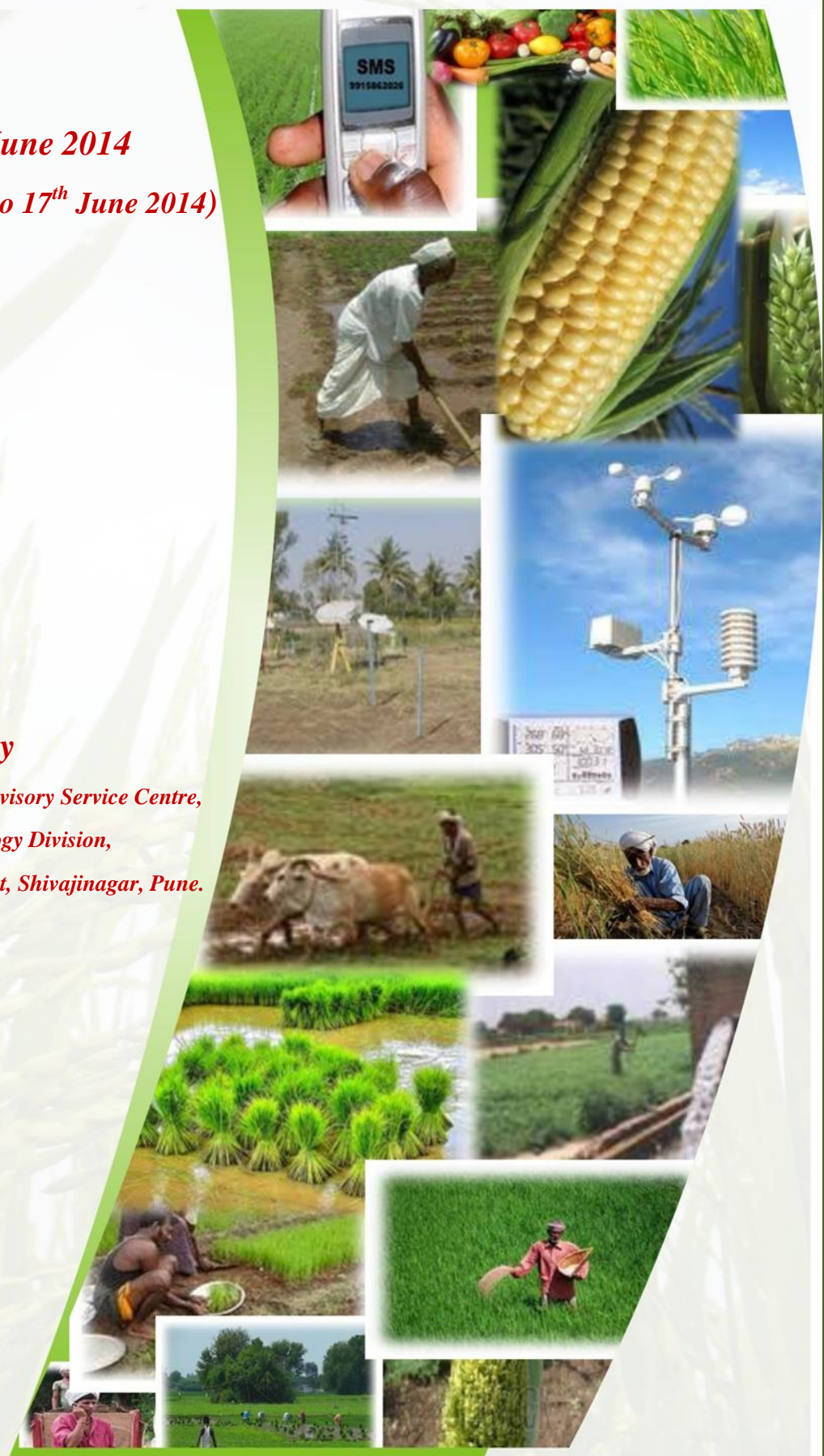
Friday 13th June 2014

(For the period 13th to 17th June 2014)



Issued by

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



Monsoon Watch

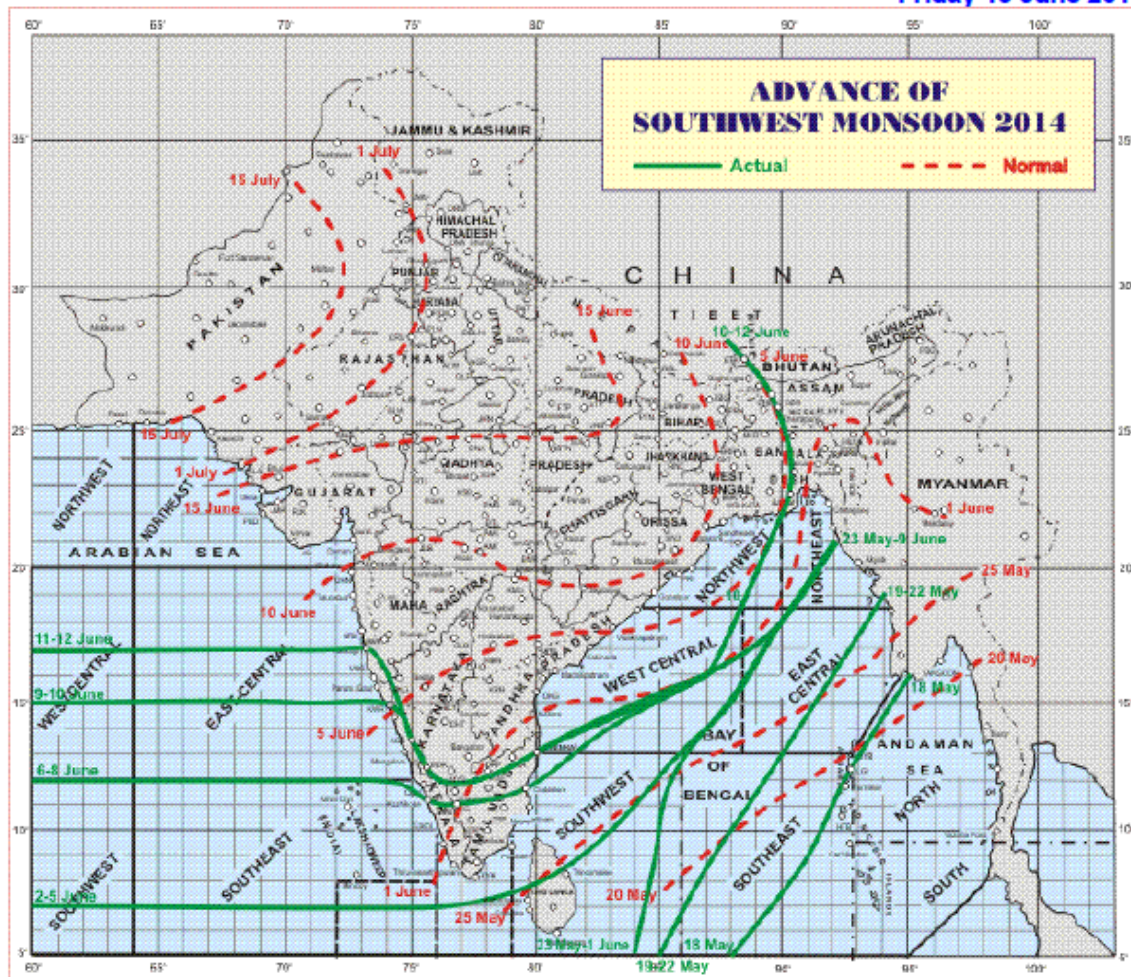
राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

Northern Limit of Monsoon

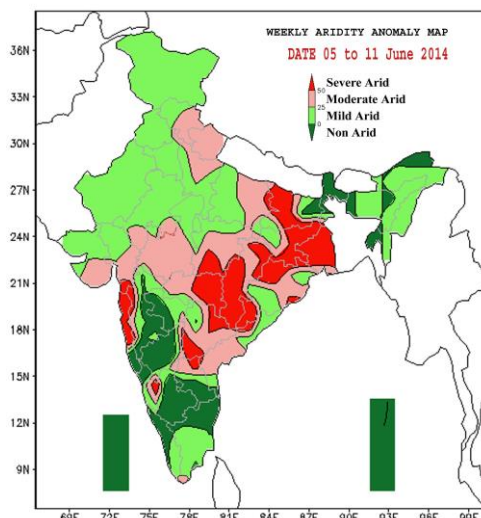
Friday 13 June 2014



- The northern limit of monsoon continues to pass through 17.0°N/60.0°E, 17.0°N/70.0°E, Ratnagiri, Agumbe, Medikeri, Chennai, 16.0°N/87.0°E, 20.0°N/89.0°E and 22.0°N/90.0°E, Cooch Bihar and Gangtok.
- Conditions would become favourable for further advance of southwest monsoon into remaining parts of central Arabian sea and Konkan during next 2-3 days.

WEEKLY SUMMARY (5 – 11 JUNE, 2014) OF ARIDITY CONDITIONS OVER INDIA

भारत मौसम विज्ञान विभाग
अनाद्युष्टि अनुसंधान अनुभाग - पुणे
INDIA METEOROLOGICAL DEPARTMENT
DROUGHT RESEARCH UNIT - PUNE



During the week (5 – 11 June, 2014) the aridity anomaly map indicated the following aridity conditions over the country.

- **Areas mainly affected by moderate arid conditions:**

Most of the parts of Himachal Pradesh and West Uttar Pradesh, major parts of Uttarakhand; southern parts of Saurashtra & Kutch and Gujarat Region, some southern & eastern parts of East Rajasthan, some of the western parts of Madhya Maharashtra, most of the parts of West and East Madhya Pradesh, most of the parts of Vidarbha, major parts of Telangana, some northern parts of Rayalaseema, central parts of Coastal Andhra Pradesh and adjoining northeastern parts of South Interior Karnataka, most of the parts of Odisha, some northern and southeastern parts of Chattisgarh, most of the parts of East Uttar Pradesh, some southwestern and central parts of Bihar. Isolated area around Kanyakumari (Tamil Nadu).

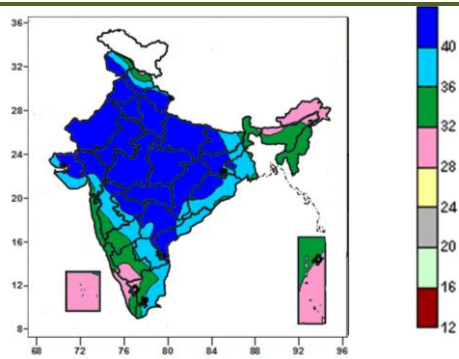
- **Areas mainly affected by severe arid conditions:**

Most of the parts of Bihar, adjoining some eastern parts of East Uttar Pradesh, most of the parts of Jharkhand and major parts of Gangetic West Bengal, northwestern parts of Odisha, most of the parts of Chattisgarh; some southern parts of East Madhya Pradesh, Most of the parts of Chattisgarh and Vidarbha, adjoining some northeastern part of Telengana, some western parts of Odisha and adjoining some northern parts of Coastal Andhra Pradesh; some southern parts of Gujarat Region, major parts of Konkan & Goa, adjoining some western parts of Madhya Maharashtra; some southwestern parts of Telangana and adjoining northeastern parts of Rayalaseema. Isolated areas around Cuttack (Odisha) and Shimoga (South Interior Karnataka).

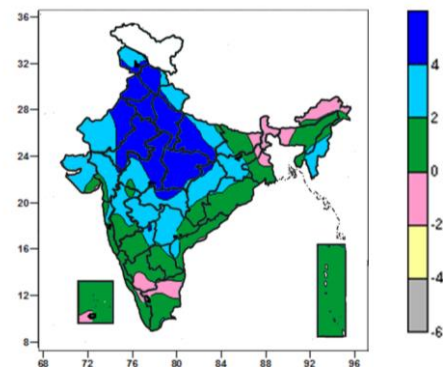
- Rest of the areas of the country were under mild to non-arid conditions.

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 11.06.2014

Actual Mean Maximum Temperature (°C) in India for the week ending 11.06.2014



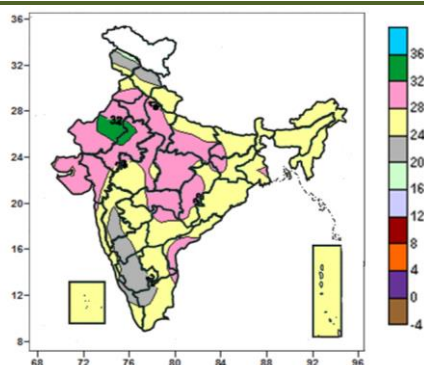
Mean Maximum Temperature (°C) Anomaly in India for the week ending 11.06.2014



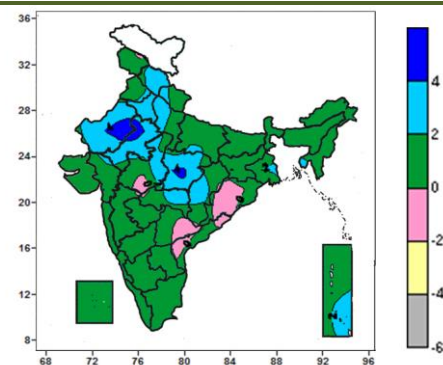
- 40 to 44°C over many parts of Uttarakhand, Punjab, Haryana, Delhi, Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Gujarat, Central India, Vidarbha, Marathwada, South Coastal Andhra Pradesh, Telangana, some parts of Jammu & Kashmir, Himachal Pradesh, Odisha, Rayalaseema, North Interior Karnataka, Madhya Maharashtra.
- 36 to 40°C over many parts of Gangetic West Bengal, North Coastal Andhra Pradesh, Rayalaseema, Madhya Maharashtra, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Bihar, Jharkhand, Chhattisgarh, Odisha, Gujarat, Interior Karnataka, Konkan and Tamil Nadu.
- 32 to 36°C over many parts of Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, Kerala, Karnataka, Konkan & Goa, some parts of Jammu & Kashmir, Himachal Pradesh, Bihar, Gangetic West Bengal, Tamil Nadu, Madhya Maharashtra, Lakshadweep and Andaman & Nicobar Islands.
- 28 to 32°C over many parts of Arunachal Pradesh, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Himachal Pradesh, Assam & Meghalaya, Nagaland, Tamil Nadu, Coastal & South Interior Karnataka.

- 4 to 6°C over many parts of Himachal Pradesh, Punjab, Haryana, Delhi, East Rajasthan, Uttar Pradesh, Madhya Pradesh, some parts of Jammu & Kashmir, Uttarakhand, West Rajasthan, Vidarbha, Gujarat region.
- 2 to 4°C over many parts of Jammu & Kashmir, Uttarakhand, West Rajasthan, Jharkhand, Manipur, Mizoram, Tripura, Chhattisgarh, Vidarbha, Telangana, Marathwada, Madhya Maharashtra, Gujarat, West Madhya Pradesh, some parts of Himachal Pradesh, East Uttar Pradesh, East Rajasthan, Bihar, Assam, Odisha, Coastal Andhra Pradesh, Telangana, North Interior Karnataka and Konkan.
- 0 to 2°C over many parts of Bihar, Gangetic West Bengal, Assam & Meghalaya, Nagaland, Odisha, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, Kerala, Karnataka, Konkan & Goa, Madhya Maharashtra, Lakshadweep, Andaman & Nicobar Islands, some parts of Jharkhand, Arunachal Pradesh, Tripura, Chhattisgarh, Telangana, Gujarat and West Madhya Pradesh.
- -2 to 0°C over many places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, some parts of Bihar, Jharkhand, Gangetic West Bengal, Assam & Meghalaya, Tamil Nadu, South Interior Karnataka, Kerala and Lakshadweep Islands.

Actual Mean Minimum Temperature (°C) in India for the week ending 11.06.2014



Mean Minimum Temperature (°C) Anomaly in India for the week ending 11.06.2014

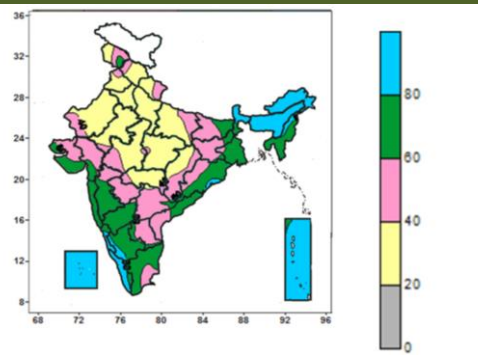
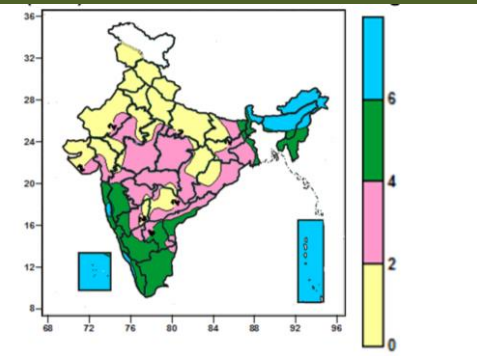


- 32 to 36°C over some parts of Rajasthan.
- 28 to 32°C over many parts of Punjab, Haryana, Delhi, Rajasthan, Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Vidarbha, Gujarat, some parts of

- 4 to 6°C over some parts of Rajasthan, East Madhya Pradesh.
- 2 to 4°C over many parts of Himachal Pradesh, Haryana, Delhi, Rajasthan, East Madhya Pradesh, some parts of

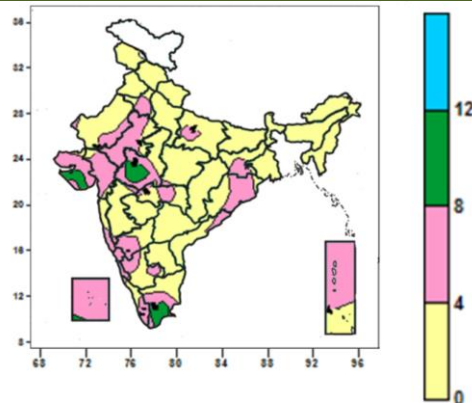
<p>Uttarakhand, Bihar, Jharkhand, Konkan, Andhra Pradesh, Tamil Nadu.</p> <ul style="list-style-type: none"> • 24 to 28⁰C over many parts of Uttarakhand, East India, North East India, Telangana, Rayalaseema, Tamil Nadu, Konkan & Goa, Marathwada, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Haryana, Uttar Pradesh, Central India, Vidarbha, Coastal Andhra Pradesh, Madhya Maharashtra, Gujarat region, Karnataka, Kerala. • 20 to 24⁰C over many parts of Jammu & Kashmir, Himachal Pradesh, Interior Karnataka, Madhya Maharashtra, some parts of Coastal Karnataka, Tamil Nadu, Kerala. • 16 to 20⁰C over some parts of Jammu & Kashmir. 	<p>Punjab, Uttar Pradesh, Gangetic West Bengal, Tripura, Chhattisgarh, West Madhya Pradesh, Gujarat region, Vidarbha and Andaman & Nicobar Islands.</p> <ul style="list-style-type: none"> • 0 to 2⁰C over many parts of Jammu & Kashmir, Uttarakhand, Punjab, Uttar Pradesh, East India, North East India, West Madhya Pradesh, Chhattisgarh, West India, South India, Lakshadweep, Andaman & Nicobar Islands, some parts of East Madhya Pradesh and Rajasthan. • -2 to 0⁰C over many parts of Odisha, some parts of Jammu & Kashmir, West Madhya Pradesh, Coastal Andhra Pradesh and Telangana.
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Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 11.06.2014

<p align="center">Relative Humidity (%) over India for the week ending 11.06.2014</p>	<p align="center">Cloud amount (okta) over India for the week ending 11.06.2014</p>
	

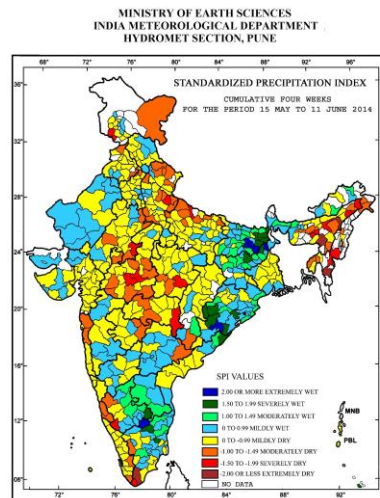
<ul style="list-style-type: none"> • 80 to 100% over many parts of Sub-Himalayan est Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Kerala, Coastal Karnataka, Lakshadweep, Andaman & Nicobar Islands some parts of Nagaland, Odisha, South Interior Karnataka. • 60 to 80% over many parts of Gangetic West Bengal Manipur, Mizoram, Tripura, Odisha, Tamil Nadu, Kerala, Interior Karnataka, Konkan & Goa, Madhya Maharashtra, some parts of Bihar, Jharkhand, Nagaland, Chhattisgarh, Andhra Pradesh, Coastal Karnataka and Gujarat. • 40 to 60% over many parts Jammu & Kashmir, Bihar, Jharkhand, Andhra Pradesh, Marathwada, Gujarat, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Rajasthan, Punjab, East Uttar Pradesh, Odisha, Central India, Madhya Maharashtra, Vidarbha, Tamil Nadu, North Interior Karnataka and Tamil Nadu. • 20 to 40% over many parts of Himachal Pradesh, Uttarakhand, Uttar Pradesh, Punjab, Haryana, Delhi, Rajasthan, Madhya Pradesh, Vidarbha, some parts of Jammu & Kashmir, Chhattisgarh and Telangana. 	<ul style="list-style-type: none"> • 6 to 8 okta over many parts of Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Lakshadweep, Andaman & Nicobar Islands, some parts of Nagaland, Konkan. • 4 to 6 okta over many parts of Sub-Himalayan West Bengal, Mizoram, Tripura, Rayalaseema, Tamil Nadu, Kerala, Coastal & South Interior Karnataka, Konkan & Goa, some parts of Bihar, Jharkhand, Gangetic West Bengal, Mizoram, Coastal Andhra Pradesh, North Interior Karnataka and Goa. • 2 to 4 okta over many parts of Uttar Pradesh, Rajasthan, Bihar, Gangetic West Bengal, Central India, Vidarbha, Marathwada, some parts of Jharkhand, Andhra Pradesh, South & North Interior Karnataka, Tamil Nadu, Gujarat. • 0 to 2 okta over many parts of North India(except East Rajasthan), Gujarat, some parts of East Rajasthan, Bihar, Jharkhand, Central India, Odisha, Vidarbha, Telangana, North Interior Karnataka.
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Wind speed (knots) over India for the week ending 11.06.2014



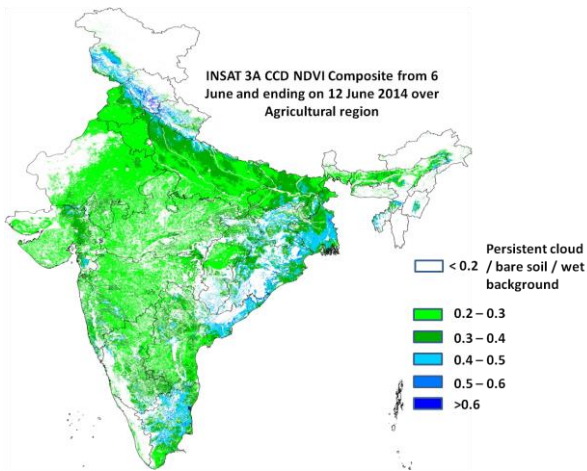
- 8 to 12 knots over many parts of West Madhya Pradesh and some parts of Saurashtra, Tamil Nadu.
- 4 to 8 knots over many parts of East Rajasthan, Haryana, Delhi, Gujarat, Odisha, Coastal Karnataka, Goa, Lakshadweep, Andaman Nicobar Islands, some parts of West Rajasthan, East Uttar Pradesh, Jharkhand, West Madhya Pradesh, Coastal Andhra Pradesh, Interior Karnataka, Tamilnadu, Kerala, Konkan, Madhya Maharashtra, Vidarbha.
- 0 to 4 knots over entire parts of country except many parts of East Rajasthan, Haryana, Delhi, Gujarat, Odisha, Coastal Karnataka, Goa, West Madhya Pradesh, Lakshadweep, Andaman Nicobar Islands, some parts of West Rajasthan, East Uttar Pradesh, Jharkhand, Coastal Andhra Pradesh, Interior Karnataka, Tamilnadu, Kerala, Konkan, Madhya Maharashtra, Vidarbha.

Standardised Precipitation Index Four Weekly for the Period 15th May to 11th June 2014



- Extremely wet/severely wet conditions experienced over some parts of Bihar, Odisha, Sahibganj, Giridih, Godda districts of Jharkhand; Perembalur, Krishinagar, Dharmapuri districts of Tamil Nadu and Kolar district of Karnataka.
- Moderately/ severely dry conditions experienced in some parts of Uttar Pradesh, Madhya Pradesh, Uttarakhand and North East; Jammu and Rajouri districts of Jammu & Kashmir; Gurudaspur district of Punjab; Ambala and Faridabad districts of Haryana; Ratnagiri, Sindhudurg, Amravati, Gadchiroli, Hingoli, Nanded and Yeotmal districts of Maharashtra; Khammam district of Telangan; Dantewada district of Chattisgarh; Udupi, Shimoga, Kodagu and Dakshin Kannada districts of Karnataka; Kanyakumari and Coimbatore districts of Tamil Nadu; Trivandrum and Idukki districts of Kerala, Bharatpur, Bhilwara and Dholpur districts of Rajasthan.
- Rest of the country experienced mild wet/dry conditions.

INSAT 3A CCD NDVI COMPOSITE OVER AGRICULTURAL REGION 6th – 12th June 2014



Source: SAC, Ahmedabad

- Agricultural vigour is moderate over very few pockets of central West Bengal and Coastal Andhra Pradesh NDVI varies between 0.4 to 0.5 upto 12th June 2014. The NDVI remained within the range of 0.2 to 0.3 over rest of India. There is further decrease in NDVI as compared to last week in rest part of India.

Weather Forecast

Weather Forecast for next 3 days (upto 0830 hours IST of 16th June, 2014)

- Rain/thundershowers would occur at many places over Andaman & Nicobar Islands during the period.
- Rain/thundershowers would occur at many places over Arunachal Pradesh during the period.
- Rain/thundershowers would occur at many places over Nagaland, Manipur, Mizoram and Tripura during next 24 hours and over Assam & Meghalaya during next 48 hours and at a few places thereafter.
- Rain/thundershowers would occur at a few places over Sub-Himalayan West Bengal & Sikkim, Konkan & Goa during next 24 hours and at many places thereafter.
- Rain/thundershowers would occur at most places over Coastal Karnataka during the period.
- Rain/thundershowers would occur at many places over Kerala during the period.
- Rain/thundershowers would occur at many places over Lakshadweep during next 24 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over Vidarbha, Coastal Andhra Pradesh and South Interior Karnataka during next 24 hours and over Bihar, Telangana during next 48 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over East Uttar Pradesh, East Rajasthan, Madhya Pradesh, Gujarat State, Madhya Maharashtra, Marathwada, Chhattisgarh, Rayalaseema, Tamilnadu & Pudducherry and North Interior Karnataka during the period.
- Rain/thundershowers would occur at isolated places over Himachal Pradesh, Jammu & Kashmir, West Uttar Pradesh and West Rajasthan during next 24 hours and over Punjab, Haryana & Delhi during next 48 hours and mainly dry thereafter.
- Mainly dry weather would prevail over Gangetic West Bengal, Odisha during next 24 hours and over Jharkhand during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
- Mainly dry weather would prevail over Uttarakhand during the period.
- Fall in maximum temperatures by 2-3°C likely over many parts of central & west India during next 48. Maximum temperature would also fall by 2-4°C over plains of northwest India during 24 hours.

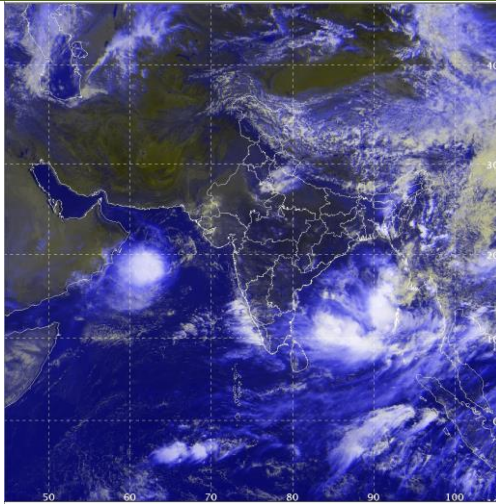
Weather Warning during next 3 days

- **13 June (Day 1):** Heat wave conditions would prevail at some places over Gangetic West Bengal, Odisha, Bihar, Jharkhand and coastal Andhra Pradesh. Thunderstorm accompanied with squall would occur at isolated places over Punjab, Haryana, Chandigarh & Delhi, Rajasthan, Uttar Pradesh and Bihar. Isolated heavy rainfall would occur at isolated places over coastal Karnataka and Kerala.
- **14 June (Day 2):** Thunderstorm accompanied with squall would occur at isolated places over Punjab, Haryana, Chandigarh & Delhi, east Rajasthan, Uttar Pradesh and Bihar. Isolated heavy rainfall would occur at isolated places over Andaman & Nicobar Island, coastal Karnataka and Kerala.
- **15 June (Day 3):** Thunderstorm accompanied with squall would occur at isolated places over Punjab, Haryana, Chandigarh & Delhi, east Rajasthan, Uttar Pradesh and Bihar. Isolated heavy rainfall would occur at isolated places over Andaman & Nicobar Island, coastal Karnataka and Kerala.

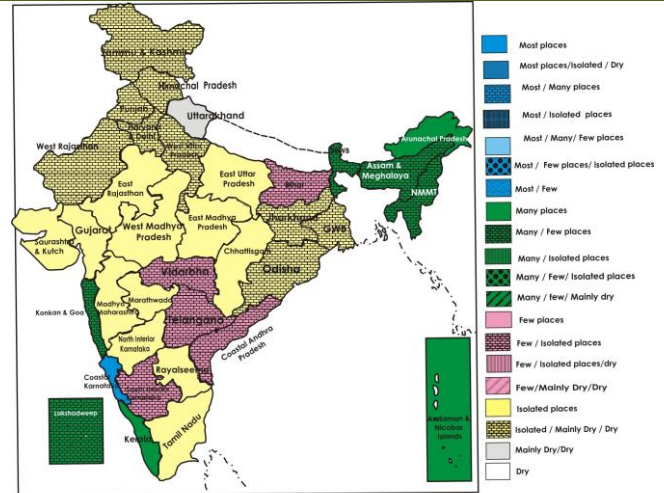
Weather Outlook for subsequent 4 days from 16th June to 20th June 2014

- Rain/thundershowers would occur at many places over Andaman & Nicobar Islands, Lakshadweep, Sub-Himalayan West Bengal & Sikkim, northeastern states and along west coast.
- Rain/thundershowers would occur at a few places over rest peninsular India and Gangetic West Bengal.
- Rain/thundershowers would occur at isolated places over central & east India.
- Weather would be mainly dry over rest of the country.

Satellite image dated 13.06.2014, 0600 UTC



Weather Forecast Map (Valid upto 0830 hours of 16th June, 2014)



Salient Advisories

- Undertake nursery sowing of *virippu* rice and transplanting of *virippu* rice if seedlings are ready in **Kerala**.
- Undertake nursery sowing of *kharif* rice in the Coastal Zone of **Karnataka**.
- In **Assam and Meghalaya**, continue nursery bed preparation and sowing of *sali* rice and undertake sowing of rice in **Arunachal Pradesh** and sowing of groundnut and soybean in **Meghalaya**.
- As heat wave conditions would prevail at some places over **Odisha, Bihar, Jharkhand** and **Coastal Andhra Pradesh** on 13th June, apply light and frequent irrigation to the standing crops or do soil mulching/ mulching with straw/polythene to cope up with the excess evaporative demand due to high temperature.
- As thunderstorm accompanied with squall would occur at isolated places over **Punjab, Haryana, Chandigarh & Delhi** and **Uttar Pradesh** during the period, over **Rajasthan** on 13th and over **east Rajasthan** on 14th & 15th June, provide mechanical support to young fruit plants and vegetables. Also undertake propping in sugarcane.

Detailed Zonewise Agromet Advisories

SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP]



Land preparation/
Sowing



Rice Nursery



Sugarcane



Okra

- **Realised Rainfall:** Rainfall occurred in all districts of Kerala; all districts of Coastal Karnataka; in Belgaum and Gadag districts of North Interior Karnataka; Bangalore Urban district of South Interior Karnataka; Chennai, Kancheepuram, Thiruvallur and Vellore districts of Tamilnadu. Mainly dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at most places over Coastal Karnataka and many places over Kerala and isolated places over Rayalaseema, Tamil Nadu and North Interior Karnataka during the period. Rain/thundershowers would occur at isolated places over Coastal Andhra Pradesh and South Interior Karnataka during next 24 hours and over Telangana during the next 48 hours and few places thereafter.
- **Weather Warning:** Isolated heavy rainfall would occur at isolated places over Kerala and Coastal Karnataka during next three days.
- **Weather Outlook:** Rain/thundershowers would occur at few places over peninsular India.

- **Advisories:**

- **Kerala:**

- Undertake nursery sowing of *virippu* rice and transplanting of *virippu* rice if seedlings are ready in Kerala.
 - Continue direct sowing of rice (Uma variety) and planting of coconut seedlings in the Problem Area Zone of Kerala.
 - As rain/thundershowers would occur at many places over Kerala during the period along with isolated heavy rainfall, postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of crops and keep harvested produce at safe places.
 - Since heavy rainfall is forecasted, arrange adequate drainage facilities in coconut and banana fields.

- **Karnataka:**

- Undertake nursery sowing of *kharif* rice in the Coastal Zone of Karnataka.
 - Undertake land preparation and wait for sowing of *kharif* crops till receipt of sufficient rainfall in North and South Interior Karnataka.
 - As rain/thundershowers would occur at most places over Coastal Karnataka during the period along with isolated heavy rainfall, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.

- **Andhra Pradesh:**

- As heat wave conditions would prevail at some places over Coastal Andhra Pradesh on 13th June, apply light and frequent irrigation to the standing crops or do soil mulching/ mulching with straw/polythene to cope up with the excess evaporative demand due to high temperature.
 - Undertake sowing of rainfed crops like cotton, maize, groundnut, jowar, soybean, pulses etc., only after receiving cumulative rainfall of 50-75 mm or the soil should be wet upto top 15 cm in the Southern Telangana Zone of Andhra Pradesh.
 - Undertake land preparation for nursery sowing of rice and planting of rainfed sugarcane in the North Coastal Zone of Andhra Pradesh utilizing the realized rainfall.
 - Undertake land preparation for sowing of groundnut, maize, cotton and vegetables with irrigation in the Scarce Rainfall Zone of Andhra Pradesh utilizing the realised rainfall.
 - Present temperature conditions are congenial for the incidence of wooly aphids in sugarcane and it is likely to increase in the Krishna Godavari Zone of Andhra Pradesh. Spray Malathion @ 2 ml or Methyl Demoton @ 2 ml to manage the incidence on a non rainy day.

- **Tamil Nadu:**

- Undertake nursery preparation of *kuruvai* rice in Nagapattinam, Thiruvarur, Trichy and Thanjavur districts of Cauvery Delta Zone of Tamil Nadu with irrigation.
 - Undertake planting of pineapple, banana and ginger in the High Rainfall Zone of Tamil Nadu.
 - Undertake sowing of green gram in the Southern Zone of Tamil Nadu with irrigation.
 - Due to prevailing hot and humid weather condition, mealy bug incidence in cotton is noticed in the Cauvery Delta Zone of Tamil Nadu. Spray Profenophos 400 ml/acre. + Azadiractin 10000 ppm @ 200 ml/acre to manage mealy bug incidence.

- **Animal Husbandry**

- Vaccinate animals (cow, buffalo, bullock) against Foot and Mouth Disease (FMD vaccination) and Haemorrhagic Septicaemia and sheep and goats against Enterotoxemia in the Southern Transition Zone and North Dry Zone of Karnataka.

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



Rice Nursery



Land preparation/Sowing



Okra



Jute

- **Realised Rainfall:** Rainfall occurred in Changlang, East Siang, Lower Dibang Valley, Papumpara, Tirap, Upper Siang, Upper Subansari, West Kameng and West Siang districts of Arunachal Pradesh; Baksa, Barpeta, Bongaigaon, Cachar, Chirang, Darrang, Dhemaji, Dhubri, Dibrugarh, Goalpara, Hailakandi, Jorhat, Kamrup(Rural), Karimganj, Kokrajhar, Lakhimpur, N.C.Hills, Nalbari, Sonitpur, Tinsukia and Udalgiri districts of Assam; East Garo Hills, East Khasi Hills, Ribhoi, South Garo Hills and West Garo Hills districts of Meghalaya; Saiha and Serchhip districts of Mizoram;

Chandel and Imphal West districts of Manipur; South Tripura and West Tripura districts of Tripura.

- **Weather Forecast:** Rain/thundershowers would occur at many places over Arunachal Pradesh during the period. Rain/thundershowers would occur at many places over Nagaland, Manipur, Mizoram and Tripura during next 24 hours and over Assam & Meghalaya during next 48 hours and at a few places thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at many places over northeastern states.
- **Advisories:**
 - As rain/thundershowers would occur at many places over Arunachal Pradesh during the period, over Assam & Meghalaya on 13th and 14th June, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Assam and Meghalaya, continue nursery bed preparation and sowing of *sali* rice and in Arunachal Pradesh undertake sowing of rice.
 - Undertake sowing of groundnut and soybean in Meghalaya.
 - Due to cloudy weather and increase in humidity, there is chance of attack of blast, Gundhi bug and stem borer in *ahu* rice in Temperate Sub Alpine Zone of Meghalaya. Spray Mancozeb @ 2g/litre of water or Carbendazim @ 1 g/litre of water against blast, spray Malathion 5% dust @ 6.25kg/ha against rice Gandhi bug and Chloropyriphos @0.02% or Monocrotophos @ 0.04% for stem borer after current spells of rain.
 - Due to cloudy weather and increase in humidity, there is chance of attack of powdery mildew, red pumpkin beetle and fruit fly in cucurbitaceous crops in Hill Zone and North Bank Plain Zone of Assam. Spray Bavistin 0.1% or Karathane WP 0.05% against powdery mildew and Malathion 50 EC @ 2 ml/ litre of water against red pumpkin beetle and fruit fly after current spells of rain.
 - Due to high humidity, mite infestation and tip blight may occur in chilli in Central Bramhaputra Valley Zone of Assam. Spray Ethion @ 1.5 ml or Rogor @ 2 ml/litre water to reduce mite infestation and for tip blight spray Malathion @ 2 ml per litre of water after current spells of rain.
 - Due to excess soil moisture and cloudy weather there is chance of collar rot/wilting/damping off in green gram in Sub Tropical Hill Zone of Arunachal Pradesh. Spray Carbandazim @ 1g per litre of water or Endofil M45 @ 2.5 g per litre of water after current spells of rain.
 - **Nagaland, Manipur, Mizoram and Tripura:**
 - In Mizoram, continue sowing of maize, cucurbits, chilli, brinjal and planting of ginger and turmeric utilizing the realized and expected rainfall.
 - Continue sowing of soybean, groundnut and black gram in upland areas in Manipur utilizing the realized and forecasted rainfall.
 - In Tripura, undertake sowing of groundnut utilizing the realized and expected rainfall.
 - As rain/thundershowers would occur at many places over Nagaland, Manipur, Mizoram and Tripura during next 24 hours, postpone irrigation and intercultural operation and undertake application of plant protection measures and fertilizers to the standing crops.
 - Warm and humid conditions may cause canker, aphids and Psyllid attack in young and new shoots of khasi mandarin in Mid Tropical Hill Zone of Mizoram. It can be controlled by pruning and burning the infected shoots and then smearing the cut portions with 1 % Bordeaux paste and spray Streptomycin 1g/ litre of water against canker and spray Imadaclopid @ 1.5ml/litre of water against aphids and psyllid after current spells of rain.
 - Due to cloudy weather and increase in humidity, there is chance of attack of blast disease in *jhum* rice in Mild Tropical Hill Zone of Nagaland. Spray Carbendazim @ 1 g/litre of water after current spells of rain.

NORTH INDIA [Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh & Rajasthan]



Sugarcane



Bottle Gourd



Onion



Land Preparation

- **Realised Rainfall:** No significant rainfall occurred over the region during last week.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over East U.P and East Rajasthan during the period. Rain/thundershowers would occur at isolated places over Himachal Pradesh, West U.P, Jammu & Kashmir and

West Rajasthan during next 24 hours and mainly dry thereafter. Rain/thundershowers would occur at isolated places over Punjab, Haryana and Delhi during next 48 hours and mainly dry thereafter. Mainly dry weather would prevail over Uttarakhand during the period.

Maximum temperature would also fall by 2-4°C over plains of northwest India during 24 hours.

- **Weather Warning:** Thunderstorm accompanied with squall would occur at isolated places over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh during the period and over Rajasthan on 13th and over east Rajasthan on 14th & 15th June
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
 - As thunderstorm accompanied with squall would occur at isolated places over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh during the period, over Rajasthan on 13th and over east Rajasthan on 14th & 15th June, provide mechanical support to young fruit plants and vegetables. Also undertake propping in sugarcane.
 - **Jammu & Kashmir:**
 - Continue transplanting of cole crops, tomato, capsicum, chilli and onion in lower and middle belts and vegetables like celery, parsley in the main field in Cold Arid Zone of Jammu & Kashmir. Also undertake and direct sowing of spinach, carrot, beet root, coriander and fenugreek.
 - The incidence of powdery mildew may be expected in cucurbits with the rise of temperature in Sub Tropical Zone of Jammu & Kashmir, for control spray Karathane/Sulfex @ 2 g per litre preferably in the evening hours.
 - Undertake nursery raising of rice and sowing of maize utilizing the available moisture in Intermediate Zone of Jammu & Kashmir.
 - **Himachal Pradesh:**
 - Continue nursery sowing of rice, sowing of maize and cucurbits in Mid-Hills Sub-Humid Zone and Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh utilizing the realised rainfall.
 - Continue sowing of peas and undertake nursery sowing of cabbage, cauliflower and summer squash on raised beds in High Hill Temperate Zone of Himachal Pradesh.
 - Undertake hoeing and weeding in vegetables like tomato and capsicum and undertake mulching in fruit crops in Mid Hills Sub-Humid Zone of Himachal Pradesh to conserve soil moisture. Also apply light irrigation in the evening.
 - Due to prevailing hot weather conditions, there are chances of attack of white grubs in maize in Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh. Apply Chloropyrifos 20 EC @ 2 litres mixed with 25 kg of sand per hectare.
 - Due to hot weather conditions, there is chance of attack of red beetle in pumpkin in Mid-Hills Sub-Humid Zone and Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh. For control, spray Malathion 50EC @ 1ml per litre of water.
 - **Uttarakhand:**
 - Undertake nursery sowing of rice, direct sowing of finger millets in Sub Humid Sub Tropical Zone of Uttarakhand.
 - Due to prevailing hot weather conditions, apply irrigation in fruit crops like litchi, mango and lemon orchards in Bhabar and Tarai Zone of Uttarakhand. Also due to high temperature, there is chances of shoot borer in sugarcane crop. If dry shoots are more than 10 %, then irrigate the field and then later apply Furadan @ 10 kg per acre for their control.
 - As mainly dry weather would prevail, undertake earthing up in 20-25 day old potato and apply mulch to conserve moisture in Hill Zone of Uttarakhand.
 - **Punjab, Haryana and Delhi:**
 - As dry and hot weather would prevail, apply light and frequent irrigation in chilli, bell pepper, cucurbits, okra and fruit plants during evening time in Western Zone of Punjab
 - In view of prevailing hot weather conditions, apply light and frequent irrigation in tomato, chilli, capsicum and cucurbit crops to encourage maximum fruit setting and development of fruits in Central Plain Zone of Punjab. Apply irrigation to sugarcane crop. The young fruit plants and newly planted plants should be protected from sun injury by giving white-washing or wrapping the exposed trunk portion.
 - As dry and hot weather conditions are prevailing in Sub Montane Undulating Zone of Punjab, apply light and frequent irrigation in standing crops to cope up with the excess evaporative demand due to high temperature. Do soil mulching / mulching with straw /polythene to conserve soil moisture in dry land areas. Young samplings may be protected by erecting temporary shade or by covering them with thach / sarkande leaves.
 - In Eastern Zone of Haryana undertake nursery sowing of rice with irrigation facilities. Increase the frequency of irrigation during critical growth stages of vegetable and horticulture crops. Young saplings may be protected from scorching sun by erecting temporary shade.
 - In Western Zone of Haryana as high temperature is prevailing, give frequent irrigation in vegetable and fruit crops.
 - In Delhi, in view of increasing temperature, apply light and frequent irrigation in all vegetable crops in the morning or evening hours. Optimum moisture level should be maintained in cucurbitaceous crops by applying light and frequent irrigation, as dry conditions may lead to poor pollination and thus drop in yield. Protect banana, citrus, mango and kinnow orchards against hot winds by erecting physical barriers and also by applying frequent irrigation.

Start nursery preparation of rice, early cauliflower and brinjal with irrigation facilities and undertake sowing of pigeon pea during the period.

▪ **Uttar Pradesh**

- Under prevailing mainly dry weather conditions, apply irrigation in maize, urad and moong in Central Plain Zone and Western Plain Zone of Uttar Pradesh. Keep farm inputs ready for *kharif* sowing.
- Due to prevailing hot weather condition, undertake intercultural operation and apply irrigation in sugarcane in Central Plain Zone of Uttar Pradesh.
- Undertake sowing of arhar under irrigated condition in Central Plain Zone and Western Plain Zone of Uttar Pradesh
- Due to hot weather conditions, there is chance of incidence of yellow vein mosaic disease in moong in Central Plain Zone of Uttar Pradesh. Spray Imidacloprid @ 0.24 ml per litre of water in the morning or evening hours.
- Due to hot weather conditions, there is chance of attack of white grub in sugarcane in Western Plain Zone of Uttar Pradesh. For control, apply *Beuvaria bassiana* @ 2 kg + cow dung @ 50 kg per hectare or Metarizam @ 1kg + cow dung @ 28 kg per hectare.

▪ **Rajasthan:**

- As heat wave conditions would prevail over isolated places over Rajasthan on 12th to 14th June, it is advised to apply light and frequent irrigation to the standing crops or undertake soil mulching/ mulching with straw/polythene to cope up with the excess evaporative demand due to high temperature.
- High temperature may cause damage to horticultural crops in Flood Prone Eastern Plain Zone of Rajasthan. Apply light and frequent irrigation or apply mulch to reduce the damage.
- Due to high temperature, there may be attack of mealy bug in okra in Flood Prone Eastern Plain Zone of Rajasthan. To control spray solution of Acephate 70 SP @ 1.0 g or Profenophos @ 3ml per litre water.
- Due to high temperature, there may be fruit drop in citrus fruits in Transitional Plain Zone of Rajasthan. To control spray Planofix @ 1 ml /4.5 litre water.
- Under hot and dry weather condition, there are chances of attack of fruit fly in cucurbits in Arid Western Plain Zone of Rajasthan. Apply Malathion 50 EC @ 1.0 ml per litre water. Also apply 1st irrigation in cotton.

• **Floriculture**

- Under prevailing dry weather condition, undertake intercultural operations and weeding in summer annual plantations in Mid Hills Sub-Humid Zone of Himachal Pradesh.

• **Animal Husbandry**

- As thunderstorm accompanied with squall would occur at isolated places over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh during the period, over Rajasthan on 13th and over east Rajasthan on 14th & 15th June, keep cattle indoors during the period.
- Undertake vaccination of cattle against B.H.Q in Central Plain Zone of Uttar Pradesh.
- Due to prevailing high temperature in the region, Ecto and endo parasites may attack on livestock in Arid Western plain Zone of Rajasthan. To control ecto parasites like lice, mite, jocke etc. apply Butox/Tickle @ 1 ml per litre of

• **Poultry**

- Due to prevailing hot weather conditions, give balanced feed to the poultry birds in Central Plain Zone of Uttar Pradesh and Rajasthan. Make proper ventilation in poultry sheds and keep the sheds clean. White wash the poultry shed from outside especially the roof. This will help to reflect the sun rays.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane



Chilli



Okra



Green Gram

- **Realised Rainfall:** Weather was mainly dry over the region.
- **Weather Forecast:** Rain/Thundershowers would occur at isolated places over Madhya Pradesh and Chhattisgarh during the period.
Fall in maximum temperatures by 2-3°C likely over many parts of central India during next 48 hours.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over central India.
- **Advisories:**
 - **Madhya Pradesh:**
 - As mainly dry weather and high temperature conditions are prevailing, apply irrigation to mango and jack fruit in

Bundelkhand Zone of Madhya Pradesh , to protect the citrus plants from sun burn, paint the stem with lime and vitox mixture and irrigate the plants and undertake soil mulching / apply mulch in young fruit plants in Jhabua Hill Zone of Madhya Pradesh.

- As mainly dry weather would prevail, continue harvesting of matured pods of moong and urad in Satpura Plateau Zone Kymore Plateau Zone of Madhya Pradesh.
- Due to prevailing hot weather there is possibility of attack of white fly and fruit borer in vegetables in Malwa Plateau Zone of Madhya Pradesh. For control spray Dimethoate (Rogor) 1 ml/liter water.
- Due to prevailing hot weather, there is possibility of attack of sucking insect and leaf curl disease in vegetables, in Central Narmada Valley Zone of Madhya Pradesh, spray Imidachlorpid @ 0.03% solution at 15 days interval.

▪ **Chhattisgarh:**

- As mainly dry weather would prevail, apply irrigation in summer rice, maize, sugarcane and mango and litchi orchards in North Hill Zone of Chhattisgarh.
- Farmers in North Hill Zone and Plain Zone of Chhattisgarh are advised to start land preparation for nursery sowing of rice, land preparation for sowing of tuber crops and arrange for farm inputs for *kharif* sowing.
- As mainly dry weather is prevailing harvest matured mango and litchi in North Hill Zone of Chhattisgarh.
- Due to prevailing high temperature there is possibility of attack of maize stem borer in Plain Zone of Chhattisgarh, apply Carbofuran @ 2-3 grain per plant.

• **Animal Husbandry**

- In view prevailing high temperature, cover the window and doors of poultry farms with gunny bags and keep wet with water in Bundelkhand Zone of Madhya Pradesh.
- Due to prevailing high temperature, special attention should be given to milch animals with regard to feed and water in North Hill Zone of Chhattisgarh. Provide plenty of clean water to the animals and keep them in sheds/ under shade.

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



Land Preparation/ Sowing

Sugarcane

Jute

Onion

- **Realised Rainfall:** Rainfall occurred in all districts in Andaman & Nicobar Islandas; in all districts in Sikkim; in all districts in Sub-Himalayan West Bengal except Malda and North Dinajpur; in Araria, Begusarai, Dabhanga, Kishanganj, Madhubani, Purnea and Supaul districts in Bihar; in Khunti and Sahibganj districts in Jharkhand. Weather remained mainly dry over rest parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Andaman & Nicobar Islands during the period; at a few places over Sub-Himalayan West Bengal & Sikkim during next 24 hours and at many places thereafter and at isolated places over Bihar during next 48 hours and at a few places thereafter. Mainly dry weather would prevail over Gangetic West Bengal and Odisha during next 24 hours and over Jharkhand during next 48 hours and rain/thundershowers would occur at isolated places thereafter.
- **Weather Warning:** Heat wave conditions would prevail at some places over Gangetic West Bengal, Odisha, Bihar and Jharkhand on 13th June. Thunderstorm accompanied with thundersquall would occur at isolated places over Bihar on 13th, 14th and 15th June. Isolated heavy rainfall would occur at isolated places over Andaman & Nicobar Island on 14th and 15th June.
- **Weather Outlook:** Rain/thundershowers would occur at many places over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim. Rain/thundershowers would occur at a few places over Gangetic West Bengal. Rain/thundershowers would occur at isolated places over east India.
- **Advisories:**
 - **West Bengal:**
 - Continue land preparation for sowing of direct seeded *aman* rice in Coastal Saline Zone of West Bengal and undertake land preparation for nursery sowing of *kharif* rice in Old Alluvial Zone utilising the realised rainfall.
 - In Terai Zone of West Bengal, undertake land preparation and nursery sowing of *aman* rice.
 - As rain/thundershowers would occur at many places over Sub- Himalayan West Bengal & Sikkim on 14th and 15th June, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.

- In New Alluvial Zone of West Bengal, prevailing high temperature and humidity may cause stem-rot disease in pointed gourd. To control the attack of stem-rot, apply Bavistin or Benlate @1g per litre of water. Also there is chance of the attack of stem weevil in jute. To control it spray Dimethoate 2 ml/litre or Carbaryl @ 2 g/litre of water. Under Present weather situation, there is a chance of attack of fruit borer in mango. To control, spray Dichlorovos @ 1.5 – 2.0 ml per litre of water.
- In Laterite and Red Soil Zone of West Bengal, in the prevailing weather condition, attack of white fly, jassids may be observed in ladies finger and brinjal. Apply Imidachloprid 17.8 S. L. @ 4 ml per 10 lt. water to control white fly and apply 0.75 g Cartap hydrochloride 50 S.P. per lt of water to control jassids.
- Due to high humidity, there is chance of attack of blight and root rot in cucumber in Coastal Saline Zone of West Bengal. Drenching should be done at the base with Diathane –M-45@2.5g/litre of water.
 - **Andaman & Nicobar Islands:**
 - As rain/thundershowers would occur at many places over Andaman & Nicobar Islands, during the period along with isolated heavy falls on 14th and 15th June, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Arrange adequate drainage in crop fields to avoid water stagnation.
 - In North, Middle and South Andaman, undertake nursery sowing of rice after current spells of rain.
 - **Advisory for heat wave:**
 - As heat wave conditions would prevail at some places over Odisha, Bihar and Jharkhand on 13th June, apply light and frequent irrigation to the standing crops or do soil mulching/ mulching with straw/polythene to cope up with the excess evaporative demand due to high temperature.
 - **Odisha:**
 - In North Eastern Coastal Plain Zone of Odisha, continue land preparation for direct sowing of *kharif* rice.
 - Prevailing high temperature is congenial for early shoot borer infestation in sugarcane at grand growth stage in Western Undulating Zone of Odisha. Spray Monocrotophos 2ml/litre of water for its control.
 - Due to humid weather there is chance of occurrence of fruit & shoot borer in brinjal and tomato in North Central Plateau Zone of Odisha. Collect the infested fruit and shoot and bury it in the soil and spray Spinosad 48 EC @ 1 ml in 4 litres of water.
 - In Mid Central Table Land Zone of Odisha fruit and shoot borer in brinjal has been reported and likely to continue. To control it, install Pheromone trap@12 nos /ac. Alternately, spray Cartap Hydrochloride 50 SP @ 400 g/ha or Triazophos 40 EC @ 1000 ml/ha.
 - **Bihar:**
 - As thunderstorm accompanied with squall would occur at isolated places over Bihar during the period, provide mechanical support to vegetables and young fruit plants. Also undertake propping in sugarcane.
 - In North West Alluvial Plain Zone of Bihar, continue land preparation for sowing of *kharif* crops and prepare the nursery for sowing of long duration rice varieties with irrigation.
 - By utilizing the realised rainfall, prepare seed bed for *kharif* onion and prepare nursery for sowing of medium duration hybrid rice varieties in South Bihar Alluvial Zone. Undertake planting of turmeric and sowing of *kharif* maize utilizing realized rainfall.
 - In North East Alluvial Plain Zone of Bihar complete sowing of elephant foot yam utilizing realised rainfall. Also undertake sowing of *kharif* maize. Prepare the nursery for sowing of long duration rice varieties.
 - Due to high temperature, there is chance of early shoot borer in sugarcane in North East Alluvial Plain Zone of Bihar; spray Chlorpyrifos 20 EC @ 2 litre/ha or Phorate 10G @ 1kg /ha.
 - Due to the prevailing hot weather conditions, there is chance of incidence of yellow vein mosaic disease in moong in North East Alluvial Plain Zone of Bihar. Spray Imidacloprid@ 0.5 ml/litre of water.
 - Due to high temperature, there is chance of stem borer in sugarcane in North West Alluvial Plain Zone of Bihar; apply Cartaphydrochloride 4% granules @ 10 kg/acre.
 - **Jharkhand:**
 - In South Eastern Plateau Zone of Jharkhand, undertake land preparation for sowing of direct seeded upland rice and prepare the nursery for sowing of long duration rice varieties and undertake land preparation for sowing of maize utilizing the realised rainfall.
 - Continue land preparation in upland areas for sowing of *kharif* crops and planting of ginger and turmeric and prepare land for sowing/nursery sowing of rainy season vegetables in Western Plateau Zone of Jharkhand utilizing the realised rainfall. Undertake nursery bed preparation for *kharif* rice.
 - Due to hot and humid weather there is chance of anthracnose and leaf blight in cucurbitaceous vegetables in South Eastern Plateau Zone of Jharkhand, spray Blitox 50 or Copperoxychloride @ 3 g per liter of water.
 - **Animal Husbandry**
 - As high temperature would prevail at some places over Gangetic West Bengal, Odisha, Bihar and Jharkhand, grazing /feeding of cattle/goats may be done during morning/ evening hours. Keep animals under shade or in sheds during noon hours and provide plenty of cold water mixed with minerals for drinking.

- As thunderstorm accompanied with squall would occur at isolated places over Bihar during next three days, keep cattle indoor during thunderstorm period.
- In South Bihar Alluvial Zone, to carry out vaccination of animals against Galgotu disease to protect them during rainy season.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Land Preparation/ Sowing

Groundnut

Sugarcane

Rice Nursery

- **Realised Rainfall:** Rainfall occurred in North Goa, South Goa, Sindhudurg districts in Konkan & Goa; Sangli and Sholapur districts in Madhya Maharashtra and Osmanabad district in Marathwada. Weather remained mainly dry over Vidarbha and Gujarat State.
- **Weather Forecast:** Rain / thundershowers would occur at a few places over Konkan & Goa during next 24 hours and at many places thereafter; at isolated places over Vidarbha during next 24 hours and at a few places thereafter; at isolated places over Madhya Maharashtra, Marathwada and Gujarat State during the period.
Fall in maximum temperatures by 2-3°C likely over many parts of West India during next 48 hours.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at many places along West coast. Weather would be mainly dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - As rain / thundershowers would occur at a few places over Konkan & Goa during next 24 hours and at many places thereafter, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Continue nursery sowing of rice and finger millet and sowing of fresh mango stones (seed) on beds. Dig the pits for new plantation of mango, cashew, coconut and arecanut.
 - In Vidarbha, apply light and frequent irrigation as well as apply mulch of plant waste product in orange and sweet lime orchards. As no significant rain is expected, apply irrigation to summer vegetables.
 - In Madhya Maharashtra, continue intercultural operations and fertilizer application in sugarcane and vegetables. Undertake preparatory tillage with the help of pre monsoon showers and keep the fields ready for sowing of *kharif* crops like cotton, soybean, red gram, jowar, bajra, groundnut, green gram, sunflower, black gram. Undertake drill sowing of *kharif* rice in Kolhapur region and prepare raised bed for nursery sowing of *kharif* rice in Western part of Pune district, Western Ghat Zone and Sub-Montane Zone.
 - In Marathwada, as no significant rain is expected, apply irrigation to summer sugarcane, orchard crops like banana, pomegranate, fig (drip irrigation) and vegetable crops in morning or evening hours. Apply mulch of crop residues and other plant waste product in the orchards and sugarcane trash in sugarcane.
 - Due to humid and cloudy weather there may be attack of mango hoppers, leaf eating caterpillars, shoot borer and midge fly in new flush of mango in south Konkan; spray Dimethoate 25 EC @ 12 ml or Monocrotophos 36 WSC @ 11 ml per 10 litres of water after current spells of rain.
 - **Gujarat:**
 - As light rainfall is likely in South Gujarat Heavy Rainfall Zone, undertake land preparation for sowing of cotton and pulses.
 - As light rainfall is expected in North Saurashtra Zone, continue land preparation for sowing of *kharif* groundnut, pulses, sesame, pearl millet and rainfed cotton. Dig out pits of proper size at proper distance for new cultivation of orchard crops.
 - Under hot weather condition (max temp. 40-42 degree C) in Bhal and Coastal Zone irrigate ladies finger and tomato regularly in morning or evening time. As light rainfall is expected undertake land preparation for sowing of *kharif* crops and keep farm inputs ready. Dig out pits of proper size for plantation of horticulture crops.
 - As mainly dry weather would prevail, undertake harvesting of pearl millet and threshing in North West Zone and irrigate vegetables regularly during morning / evening time in Middle Gujarat Zone. Continue harvesting of matured *summer* groundnut crop.
 - Under mainly clear sky and mainly dry weather condition in North Gujarat Zone, continue harvesting of matured *summer* groundnut crop. Complete harvesting and threshing of pearl millet and store grains at safe places. Under

high temperature and dry weather condition, apply irrigation in old and newly planted pomegranate and papaya orchards and in vegetable crops at fruiting stage at regular intervals. Protect young saplings by erecting temporary shade.

- **Animal Husbandry**

- In Gujarat, keep animals under shade/in sheds during noon time and provide plenty of cool and clean drinking water. To reduce the temperature in animal sheds, cover the roof with grass or dried jowar fodder and keep proper aeration in the sheds.
- Vaccinate animals against FMD and BQ to avoid disease outbreak during monsoon season. Provide 6-8 kg good quality dry roughage with 15-20 kg green fodder to the animals.
- Considering the prevailing high temperature in North Madhya Maharashtra, Marathwada and Vidarbha, hang gunny bags from outside the poultry shed and sprinkle it with water. Cover the roof with grass or gunny bags.

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

Annexure I
Week by week Rainfall Distribution

Sub-Divisions	28.05.14		04.06.14		11.06.14	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	13.3	-78	29.8	-62	58.5	-59
Dibang Valley	2.0	-97	0.0	-100	0.0	-100
East Kameng	59.9	56	5.8	-88	22.1	-70
East Siang	193.5	153	59.2	-37	178.7	16
Kurung Kumey	**	**	**	**	**	**
Lohit	41.8	-27	52.9	-35	28.7	-68
Lower Dibang Valley	77.5	31	39.1	-53	89.8	-4
Lower Subansari	**	**	**	**	**	**
Papumpara	190.0	95	212.2	24	198.6	45
Tawang	34.0	-59	40.0	-64	9.0	-94
Tirap	25.4	-71	20.6	-82	123.0	12
Upper Siang	58.8	-49	40.2	-68	144.6	-38
Upper Subansari	8.6	-80	24.2	-48	135.4	217
West Kameng	10.6	-87	70.4	-37	262.6	75
West Siang	28.5	-48	29.0	-61	116.0	20
Assam&Meghalaya						
Assam						
Baksa	32.5	-64	28.1	-82	121.9	-23
Barpeta	57.4	-36	58.7	-63	258.0	62
Bongaigaon	78.8	-34	62.4	-50	361.2	130
Cachar	33.3	-57	67.9	-37	138.4	-2
Chirang	127.2	7	122.5	-1	556.7	255
Darrang	26.0	-57	15.0	-82	117.0	30
Dhemaji	46.0	-44	87.0	-11	80.0	-31
Dhubri	74.4	-22	47.7	-66	371.0	196
Dibrugarh	49.3	-27	20.6	-72	45.6	-44
Goalpara	78.3	-14	88.1	-27	63.5	-46
Golghat	9.2	-81	15.0	-70	18.1	-69
Hailakandi	32.7	-66	58.3	-47	132.5	-1
Jorhat	51.1	-12	51.2	-14	45.1	-36
Kamrup(Rural)	51.2	-15	27.2	-67	124.4	56

Kamrup(Metro)	42.8	-29	21.5	-74	17.8	-78
Karbi Anglong	9.9	-73	36.1	14	25.9	-50
Karimganj	53.3	-50	171.3	4	256.0	70
Kokrajhar	187.7	39	150.3	-10	504.5	220
Lakhimpur	60.0	-27	101.6	4	89.9	-22
Morigaon	14.9	-63	55.8	28	26.6	-53
N.C.Hills	17.8	-66	19.7	-77	71.0	-28
Nowgong	5.8	-82	28.1	-47	23.5	-65
Nalbari	58.8	-6	30.9	-69	106.6	-26
Sonitpur	23.6	-64	70.9	-7	97.5	9
Sibsagar	16.8	-67	37.2	-36	7.0	-86
Tinsukia	23.6	-61	37.5	-43	37.5	-59
Udalgiri	21.5	-64	29.0	-65	104.6	16
Meghalaya						
East Garo Hills	137.7	124	46.0	-46	529.2	280
East Khasi Hills	139.1	-11	130.9	-44	246.1	-26
Jaintia Hills	0.0	-100	0.0	-100	0.0	-100
Ribhoi	51.1	3	14.0	-79	58.3	1
South Garo Hills	**	**	**	**	166.0	33
West Garo Hills	102.6	42	43.8	-54	259.3	107
West Khasi Hills	1.0	-99	1.0	-99	1.0	-99
NMMT						
Mizoram						
Aizwal	58.4	-32	47.2	-55	17.0	-84
Champhai	1.0	-98	0.0	-100	0.0	-100
Kolasib	0.0	-100	1.0	-99	1.0	-99
Lawngtlai	**	**	**	**	**	**
Lunglei	1.0	-99	1.0	-99	0.0	-100
Mamit	**	**	**	**	5.0	-95
Saiha	85.0	-11	9.0	-85	91.0	-1
Serchhip	36.0	-58	23.0	-67	30.0	-66
Manipur						
Bishnupur	8.0	-64	1.0	-99	0.0	-100
Chandel	40.0	-30	3.0	-95	50.0	-65
Churachandpur	38.0	-13	4.0	-96	11.0	-89
Imphal east	11.3	-69	23.4	-67	29.4	-67
Imphal west	76.8	473	104.9	121	187.3	122
Senapati	32.0	-5	24.0	-66	11.0	-87
Tamenglong	**	**	**	**	**	**
Thoubal	5.0	-79	3.0	-95	0.0	-100
Ukhrul	0.0	-100	1.0	-98	0.0	-100
Nagaland						
Dimapur	5.0	-74	39.9	-11	11.0	-88
Kephire	**	**	**	**	**	**
Kohima	26.3	-23	42.3	-8	25.6	-68
Longleng	**	**	**	**	**	**
Mokokchung	15.0	-83	45.0	-25	11.0	-94
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**

Phek	17.0	-50	8	-83	10	-88
Tuensang	**	**	**	**	**	**
Wokha	1.0	-99	5.0	-93	1.0	-99
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	22.4	-75	131.0	9	12.8	-90
North tripura	34.7	-62	158.4	24	28.1	-78
South tripura	57.6	-15	97.3	7	49.7	-56
West tripura	31.7	-54	102.8	0	37.8	-64
Himachal Pradesh						
Bilaspur	1.3	-89	14.0	50	0.0	-100
Chamba	18.1	102	14.8	62	2.5	-84
Hamirpur	4.6	-61	20.3	65	0.0	-100
Kangra	1.3	-85	37.6	233	0.0	-100
Kinnaur	25.2	105	6.3	-19	0.0	-100
Kullu	24.2	56	19.0	79	0.0	-100
Lahaul and Spiti	45.1	175	15.7	27	0.0	-100
Mandi	17.1	30	14.6	-24	0.0	-100
Shimla	13.4	1	13.9	-4	0.0	-100
Sirmaur	15.7	93	21.8	132	0.0	-100
Solan	2.4	-76	12.1	-7	0.0	-100
Una	1.0	-79	12.6	74	0.0	-100
Punjab						
Amritsar	0.2	-89	0.2	-93	0.0	-100
Barnala	0.0	-100	0.0	-100	0.0	-100
Bhatinda	0.0	-100	5.0	150	0.0	-100
Faridkot	0.5	-75	0.0	-100	0.0	-100
Fatehgarh Saheb	0.0	-100	0.0	-100	0.0	-100
Ferozpur	0.0	-100	0.0	-100	0.0	-100
Gurdaspur	0.8	-77	0.6	-88	0.0	-100
Hoshiarpur	0.0	-100	5.1	5	0.0	-100
Jalandhar	0.0	-100	0.0	-100	0.0	-100
Kapurthala	0.5	-71	0.0	-100	0.0	-100
Ludhiana	1.7	-55	0.7	-78	0.0	-100
Mansa	0.0	-100	0.5	-77	0.0	-100
Moga	0.5	-78	0.5	-62	0.0	-100
Muktesar	0.0	-100	0.0	-100	0.0	-100
Nawashahar	0.0	-100	2.2	-41	0.0	-100
Patiala	0.7	-76	0.0	-100	0.0	-100
Ropar	0.8	-86	1.7	-51	0.0	-100
Sangrur	0.0	-100	0.0	-100	0.0	-100
Mohali	4.5	-13	0.0	-100	0.0	-100
TarnTaran	0.0	-100	2.5	213	0.0	-100
Haryana,Chd,Delhi						
Haryana						
Ambala	1.1	-69	0.0	-100	0.0	-100
Bhiwani	0.0	-100	9.7	214	0.0	-100
Chandigarh	0.1	-99	0.0	-100	0.0	-100
Faridabad	1.0	-57	0.0	-100	0.0	-100

Fatehabad	0.0	-100	2.5	-49	0.0	-100
Gurgaon	2.6	-4	2.3	-22	0.0	-100
Hissar	0.7	-67	4.2	8	0.0	-100
Jhajar	0.0	-100	2.2	-30	0.0	-100
Jind	9.8	228	12.5	257	0.0	-100
Katihah	1.0	-52	1.0	-64	0.0	-100
Karnal	0.0	-100	0.0	-100	0.0	-100
Kurukshehra	0.0	-100	0.0	-100	0.0	-100
Mahendragarh	1.6	-55	9.9	81	0.0	-100
Mewat	0.0	-100	1.0	-50	0.0	-100
Palwal	0.0	-100	0.0	-100	0.0	-100
Panchkkula	0.0	-100	0.0	-100	0.0	-100
Panipat	5.3	252	0.0	-100	0.0	-100
Rewari	2.2	120	7.6	111	0.0	-100
Rohtak	0.3	-87	2.6	-56	0.0	-100
Sirsa	0.0	-100	4.5	29	0.0	-100
Sonepat	3.4	-4	8.0	196	0.0	-100
Yamunanagar	3.2	-45	1.5	-78	0.0	-100
Delhi						
Central Delhi	11.0	144	3.0	-33	0.0	-100
East Delhi	0.0	-100	1.0	-78	0.0	-100
New Delhi	21.7	382	0.7	-86	0.0	-100
North Delhi	12.1	169	10.1	124	0.0	-100
North East Delhi	11.0	144	16.0	256	0.0	-100
North West Delhi	8.5	89	3.0	-33	0.0	-100
South Delhi	5.3	18	2.0	-56	0.0	-100
South West Delhi	11.6	158	0.4	-91	0.0	-100
West Delhi	13.0	189	3.0	-33	0.0	-100
Jammu & Kashmir						
Anantnag	9.0	-61	21.9	53	0.1	-99
Badgam	5.5	-67	10.4	37	0.0	-100
Bandipore	**	**	**	**	**	**
Baramula	19.5	-15	19.0	-22	1.4	-91
Doda	15.8	-12	16.4	40	0.0	-100
Ganderbal	16.6	12	13.2	36	0.0	-100
Jammu	0.0	-100	1.2	-75	0.0	-100
Kargil	0.0	-100	0.0	-100	0.0	-100
Kathua	0.0	-100	1.6	-64	0.0	-100
Kistwar	**	**	**	**	**	**
Kulgam	9.4	-59	19.8	38	0.0	-100
Kupwara	5.8	-73	37.2	135	1.6	-85
Ladakh(Leh)	0.7	-70	0.0	-100	0.0	-100
Poonch	0.3	-98	8.5	-60	0.0	-100
Pulwama	3.9	-75	12.1	44	0.0	-100
Rajouri	0.0	-100	10.3	7	0.0	-100
Ramban	9.1	-49	7.3	-37	0.5	-96
Reasi	0.6	-92	13.6	36	0.0	-100
Samba	0.0	-100	6.0	28	0.0	-100
Shopian	7.0	-55	16.0	90	0.0	-100

Srinagar	6.9	-53	13.1	35	0.0	-100
Udhampur	0.0	-100	8.2	-18	0.0	-100
East Madhya Pradesh						
Anuppur	0.0	-100	0.0	-100	0.0	-100
Balaghat	2.3	158	0.7	-84	0.2	-99
Chhatarpur	1.2	-33	0.6	-81	0.0	-100
Chindwara	0.0	-100	0.0	-100	0.0	-100
Damoh	0.0	-100	1.0	-79	0.0	-100
Dindori	0.0	-100	0.0	-100	0.0	-100
Jabalpur	0.0	-100	0.0	-100	1.7	-89
Katni	0.0	-100	0.0	-100	0.0	-100
Mandla	0.0	-100	0.0	-100	0.0	-100
Narsingpur	0.0	-100	0.0	-100	0.0	-100
Panna	0.0	-100	0.0	-100	0.0	-100
Rewa	0.0	-100	0.0	-100	0.0	-100
Sagar	0.0	-100	0.0	-100	2.3	-84
Satna	0.3	-70	1.0	-43	0.0	-100
Seoni	0.0	-100	0.0	-100	0.0	-100
Shahdol	0.0	-100	0.0	-100	0.0	-100
Sidhi	0.0	-100	0.0	-100	0.0	-100
Singrauli	0.0	-100	0.0	-100	0.0	-100
Tikamgarh	1.5	25	0.0	-100	0.0	-100
Umaria	0.0	-100	1.3	-54	0.0	-100
West Madhya Pradesh						
Alirajpur	0.0	-100	0.0	-100	5.4	-71
Asoknagar	0.0	-100	0.0	-100	0.0	-100
Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	0.0	-100	0.0	-100	0.0	-100
Bhind	0.0	-100	0.0	-100	0.0	-100
Bhopal	3.0	43	0.0	-100	0.0	-100
Burhanpur	0.0	-100	0.0	-100	0.0	-100
Datia	0.6	-45	3.0	114	0.0	-100
Dewas	0.0	-100	0.0	-100	0.0	-100
Dhar	0.0	-100	0.0	-100	0.0	-100
Guna	0.3	-86	0.0	-100	0.0	-100
Gwalior	2.1	-5	6.8	300	0.0	-100
Harda	0.0	-100	0.0	-100	0.0	-100
Hosangabad	0.0	-100	0.0	-100	0.0	-100
Indore	0.3	-90	0.0	-100	0.2	-99
Jhabua	0.0	-100	0.0	-100	0.5	-96
Khandwa	0.0	-100	4.0	25	0.0	-100
Khargone	0.0	-100	1.6	-74	0.7	-97
Mandsaur	0.0	-100	0.0	-100	0.0	-100
Morena	0.0	-100	0.0	-100	0.0	-100
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	0.0	-100	0.0	-100	1.0	-94
Rajgarh	1.2	71	0.0	-100	0.0	-100
Ratlam	0.0	-100	0.0	-100	0.0	-100
Sehore	0.0	-100	0.0	-100	0.0	-100

Shajapur	0.3	-86	0.0	-100	0.0	-100
Sheopur Kalani	0.0	-100	0.0	-100	0.0	-100
Shivpuri	0.0	-100	0.0	-100	0.0	-100
Ujjain	0.0	-100	0.0	-100	3.6	-75
Vidisha	0.0	-100	0.0	-100	0.0	-100
Chhattisgarh						
Bastar	3.0	-57	42.5	217	1.0	-96
Bijapur	0.0	-100	0.0	-100	0.0	-100
Bilaspur	13.0	306	2.7	-72	0.0	-100
Dantewara	0.0	-100	7.6	-34	0.0	-100
Dhamtari	0.8	-72	6.4	-10	0.0	-100
Durg	47.6	2544	0.5	-93	0.0	-100
Janjgir	2.0	33	0.0	-100	12.0	-29
Jashpurnagar	3.5	-56	7.7	-58	4.0	-89
Kanker	0.0	-100	0.0	-100	0.0	-100
Korba	1.0	-50	0.0	-100	0.0	-100
Koriya	0.0	-100	0.7	-94	0.0	-100
Kawardha	0.0	-100	8.1	-5	0.0	-100
Mahasumund	0.0	-100	2.0	-82	0.0	-100
Narayanpur	0.0	-100	0.0	-100	6.0	-77
Raigarh	**	**	**	**	**	**
Raipur	11.9	285	5.7	-29	1.1	-95
Rajandgaon	4.8	66	0.0	-100	0.0	-100
Surguja	21.0	600	0.0	-100	0.6	-97
East Uttar Pradesh						
Allahabad	0.0	-100	0.0	-100	0.0	-100
Ambedkar Nagar	38.3	682	2.0	-66	0.0	-100
Azamgarh	0.0	-100	3.5	-43	0.0	-100
Bahraich	0.0	-100	0.2	-98	0.0	-100
Ballia	39.0	852	0.0	-100	2.0	-86
Balrampur	0.0	-100	0.0	-100	1.6	-91
Banda	0.5	-83	2.4	-20	0.0	-100
Barabanki	0.0	-100	7.0	35	0.0	-100
Basti	12.5	150	0.6	-94	0.0	-100
Chandauli	3.0	7	1.0	-60	0.0	-100
Deoria	4.0	-49	3.5	-63	0.0	-100
Faizabad	0.0	-100	7.7	-3	0.0	-100
Farrukhabad	0.0	-100	0.0	-100	0.0	-100
Fatehpur	0.0	-100	0.0	-100	0.0	-100
Gazipur	3.3	43	17.0	227	1.3	-91
Gonda	0.0	-100	0.0	-100	0.0	-100
Gorakhpur	20.6	311	2.3	-83	2.5	-92
Hardoi	0.5	-83	2.9	-40	0.0	-100
Jaunpur	7.6	124	4.1	-23	0.0	-100
Kannauj	0.0	-100	0.0	-100	0.0	-100
Kanpur City	0.0	-100	0.0	-100	0.0	-100
Kanpur Dehat	0.0	-100	0.0	-100	0.0	-100
Kaushambi	0.0	-100	0.0	-100	0.0	-100
Kheri	0.4	-93	1.6	-81	0.0	-100

Kushi nagar	5.0	-40	3.0	-81	2.5	-93
Lucknow	0.0	-100	0.3	-95	0.2	-98
Maharajganj	5.7	-46	13.0	6	27.5	-38
Mau	0.0	-100	3.0	-47	4.5	-81
Mirzapur	6.0	114	1.7	-66	0.0	-100
Pratapgarh	0.0	-100	12.7	273	0.0	-100
RaiBareilly	0.0	-100	0.4	-84	0.0	-100
Sahuji Maharajnagar	0.0	-100	0.0	-100	0.0	-100
Sant Kabirnagar	3.0	0	1.3	-86	10.0	-57
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	**	**	0.0	-100	0.0	-100
Sidharthnagar	0.0	-100	0.0	-100	1.2	-95
Sitapur	1.1	-69	0.0	-100	0.0	-100
Sonbhadra	6.5	148	0.8	-85	0.0	-100
Sultanpur	0.0	-100	6.1	43	0.0	-100
Unnao	0.0	-100	1.8	-64	0.0	-100
Varanasi	6.4	205	1.3	-60	0.0	-100
West Uttar Pradesh						
Agra	0.5	-79	0.0	-100	0.0	-100
Aligarh	2.8	8	2.3	-43	0.0	-100
Auraiya	1.0	-66	0.0	-100	0.0	-100
Badaun	0.0	-100	1.6	-78	0.0	-100
Baghpat	15.6	643	1.9	-42	0.0	-100
Bareilly	0.0	-100	0.0	-100	0.0	-100
Bijnor	5.3	14	0.0	-100	0.0	-100
Bulandsahar	1.3	-46	1.0	-75	0.0	-100
Etah	1.3	-31	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	9.5	3067	3.0	50	0.0	-100
Ghaziabad	9.9	397	1.7	-48	0.0	-100
Hamirpur	0.8	-75	2.8	-26	0.0	-100
Jalaun	2.7	48	11.7	185	0.0	-100
Jhansi	0.7	-70	0.7	-81	0.0	-100
Jotiba Phule Nagar	8.0	300	0.0	-100	0.0	-100
Kanshiramnagar	5.5	162	0.0	-100	0.0	-100
Lalitpur	1.0	-14	0.0	-100	0.0	-100
Mahamaya Nagar	0.5	-76	6.1	117	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	17.1	970	1.4	-75	0.0	-100
Moradabad	0.7	-77	0.0	-100	0.0	-100
Muzzaffarnagar	2.8	8	0.0	-100	0.0	-100
Pilibhit	0.0	-100	0.0	-100	0.0	-100
Rampur	0.0	-100	0.0	-100	0.0	-100
Saharanpur	1.3	-80	0.0	-100	0.0	-100
Shahjahanpur	0.0	-100	0.0	-100	0.0	-100
Uttarakhand						

Almora	11.1	-3	2.5	-86	0.0	-100
Bageshwar	20.1	75	1.1	-94	0.0	-100
Chamoli	11.6	-18	0.3	-98	0.7	-96
Champawat	4.0	-64	1.3	-92	0.0	-100
Dehradun	10.8	-6	43.2	136	0.0	-100
Garhwal Pauri	2.7	-73	12.5	-24	0.0	-100
Garhwal Tehri	15.1	14	1.5	-92	0.0	-100
Haridwar	2.5	-31	2.5	-66	0.0	-100
Nainital	8.1	-35	10.1	-61	0.7	-97
Pithoragarh	9.5	-63	7.0	-70	25.0	-55
Rudraprayag	21.6	-3	0.0	-100	0.0	-100
Udham Sing Nagar	0.0	-100	10.5	-33	0.0	-100
Uttarkashi	17.5	-40	0.0	-100	0.0	-100
Bihar						
Araria	101.8	206	26.8	-23	130.2	159
Arwal	12.3	262	5.5	-20	0.0	-100
Aurangabad	21.6	516	5.7	-10	0.0	-100
Banka	155.6	1328	13.2	-12	0.0	-100
Begusarai	194.6	1094	39.3	397	40.1	46
Bhabua	1.5	-67	5.0	11	0.0	-100
Bhagalpur	168.2	845	23.8	30	16.0	-53
Bhojpur	42.1	454	1.4	-68	0.0	-100
Buxar	2.6	100	1.2	-88	0.0	-100
Darbhanga	83.1	326	0.4	-98	34.3	50
East Champaran	70.6	390	16.5	2	19.5	-32
Gaya	63.7	1228	19.6	201	0.0	-100
Gopalganj	12.6	22	3.6	-68	3.9	-87
Jahanabad	36.7	312	3.9	-33	0.0	-100
Jamui	76.9	580	19.3	94	0.0	-100
Kathihar	190.7	634	48.6	79	22.0	-39
Khagadia	29.6	97	14.0	-17	14.2	-54
Kishanganj	63.3	25	118.4	139	225.5	345
Lakhisarai	203.7	1822	20.6	65	5.0	-85
Madhepura	192.5	808	5.0	-78	29.4	-25
Madhubani	70.5	239	1.1	-94	53.6	27
Monghyar	255.4	2309	14.1	13	20.2	-39
Muzaffarpur	63.8	320	1.5	-90	12.0	-55
Nalanda	92.8	991	3.1	-66	0.0	-100
Nawada	52.1	506	12.3	13	0.0	-100
Patna	61.7	745	13.8	84	0.2	-99
Purnea	133.0	346	135.6	240	41.0	-2
Rohtas	59.0	1744	7.5	436	0.0	-100
Saharsha	80.4	219	0.0	-100	12.3	-74
Samstipur	78.5	394	0.0	-100	18.5	17
Saran	55.1	392	0.0	-100	0.0	-100
Sheikpura	152.2	1223	6.4	-44	0.0	-100
Sheohar	54.2	156	25.2	11	30.2	-20
Sitamarhi	127.0	499	5.0	-78	10.9	-71
Siwan	29.6	162	3.2	-69	0.0	-100

Supaul	107.7	549	14.2	-42	75.2	37
Vaishali	67.6	735	2.1	-73	5.4	-59
West Champaran	5.8	-65	16.8	-14	29.5	-28
Jharkhand						
Bokaro	124.5	1941	5.9	-66	0.0	-100
Chatra	90.4	1313	4.5	-46	0.0	-100
Deoghar	11.6	603	4.7	-59	0.0	-100
Dhanbad	44.1	320	20.0	15	0.9	-98
Dumka	89.7	428	20.9	14	29.5	-12
East Singbhum	45.8	174	10.1	-50	17.3	-53
Garhwa	21.0	1400	1.0	-86	0.0	-100
Giridih	118.4	1362	15.4	4	2.1	-93
Godda	158.3	795	41.2	210	6.0	-82
Gumla	0.0	-100	0.0	-100	3.7	-89
Hazaribagh	116.7	1241	3.3	-65	0.0	-100
Jamtara	46.6	118	17.9	-22	0.3	-99
Khunti	27.0	129	0.0	-100	32.0	-3
Koderrna	54.6	452	9.4	-47	0.0	-100
Latehar	83.2	1310	2.0	-82	4.0	-81
Lohardagga	80.6	420	0.0	-100	0.0	-100
Pakur	58.6	222	51.2	81	23.5	-39
Palamau	10.2	162	1.5	-80	7.3	-62
Ramgarh	74.4	629	3.8	-74	16.0	-49
Ranchi	49.5	338	3.1	-82	8.4	-73
Sahebganj	268.8	881	5.4	-78	55.0	32
Saraikela	28.5	139	6.3	-58	8.1	-79
Simdega	49.1	573	0.0	-100	4.0	-85
West Singbhum	64.8	360	0.0	-100	6.2	-84
East Rajasthan						
Ajmer	1.6	-58	0.0	-100	0.0	-100
Alwar	0.9	-71	18.4	424	0.0	-100
Banswara	0.0	-100	0.0	-100	0.0	-100
Baran	0.0	-100	0.0	-100	0.0	-100
Bharatpur	0.0	-100	0.0	-100	0.0	-100
Bhilwara	0.0	-100	0.2	-95	0.5	-92
Bundi	2.6	3	0.0	-100	0.0	-100
Chittorgarh	0.0	-100	0.1	-98	0.9	-86
Dausa	5.8	32	15.2	334	0.0	-100
Dholpur	0.0	-100	0.0	-100	0.0	-100
Dungarpur	0.0	-100	0.0	-100	0.3	-95
Jaipur	2.9	-43	7.6	90	0.0	-100
Jhalawar	0.0	-100	0.0	-100	0.0	-100
Jhunjhunu	1.5	-68	10.6	80	0.0	-100
Karauli	0.9	-76	0.0	-100	0.0	-100
Kota	0.2	-92	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	2.8	-71
Rajsamand	4.3	-11	0.0	-100	0.7	-89
Sawai Madhopur	1.5	-53	0.0	-100	0.0	-100
Sikar	0.6	-88	12.7	131	0.0	-100

Sirohi	0.5	-81	6.1	-17	0.0	-100
Tonk	4.0	50	0.9	-80	0.1	-99
Udaipur	0.0	-100	1.0	-79	2.0	-64
West Rajasthan						
Barmer	0.0	-100	4.3	-11	0.0	-100
Bikaner	0.0	-100	0.9	-81	0.0	-100
Churu	0.6	-86	15.9	280	0.0	-100
Hanumangarh	0.0	-100	4.0	38	0.0	-100
Jaisalmer	0.0	-100	0.2	-93	0.0	-100
Jalore	0.0	-100	3.6	-21	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	5.5	25	1.7	-65	0.0	-100
Pali	7.0	119	0.3	-96	1.2	-70
Sri Ganganagar	0.0	-100	0.0	-100	0.0	-100
Gujarat Region						
Ahmedabad	0.0	-100	1.3	-49	0.0	-100
Anand	0.1	-90	0.0	-100	0.0	-100
Banaskantha	0.0	-100	0.9	-74	0.0	-100
Baroda	0.0	-100	0.1	-98	0.0	-100
Broach	0.0	-100	0.0	-100	0.0	-100
DNH	**	**	**	**	0.0	-100
Dahod	0.0	-100	0.0	-100	0.6	-95
Daman	**	**	**	**	0.0	-100
Dangs	0.0	-100	0.0	-100	0.0	-100
Gandhinagar	0.0	-100	0.0	-100	0.0	-100
Kheda	0.0	-100	0.0	-100	0.0	-100
Mehsana	0.0	-100	0.8	-69	0.0	-100
Narmada	0.0	-100	0.0	-100	0.0	-100
Navsari	0.0	-100	0.0	-100	0.0	-100
Panchmahal	0.0	-100	0.1	-99	0.0	-100
Patan	0.0	-100	0.0	-100	0.0	-100
Sabarkantha	0.0	-100	4.1	-20	0.0	-100
Surat	0.0	-100	0.0	-100	0.0	-100
Tapi	0.0	-100	0.0	-100	0.0	-100
Valsad	0.0	-100	0.0	-100	0.0	-100
S K & Diu region						
Amreli	4.1	307	5.3	-27	0.0	-100
Bhavnagar	0.0	-100	1.0	-92	0.2	-99
Diu	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	0.0	-100
Junagarh	0.0	-100	0.0	-100	0.0	-100
Kutch	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.0	-100
Rajkot	0.0	-100	1.1	-78	0.0	-100
Surendranagar	0.0	-99	1.1	-72	0.0	-100
Maharashtra & Goa						
Konkan & Goa						
Mumbai City	26.6	-21	0.0	-100	0.2	-99
Mumbai Suburban	0.0	-100	2.0	-92	0.0	-100

North Goa	6.2	-10	15.2	-75	42.3	-75
Raigad	0.2	-98	0.0	-100	2.3	-97
Ratnagiri	2.7	-89	23.1	-49	17.6	-84
Sindhudurg	0.0	-100	23.4	-60	62.9	-62
South Goa	**	**	19.3	-68	54.6	-66
Thane	**	**	0.6	-97	0.1	-99
Madhya Maharashtra						
Ahmednagar	0.5	-95	4.2	-61	12.7	-51
Dhule	0.0	-100	2.3	-72	26.3	27
Jalgaon	0.2	-92	0.8	-89	3.0	-85
Kolhapur	9.6	-54	12.9	-48	21.0	-57
Nandurbar	0.2	-96	2.1	-70	3.3	-86
Nasik	9.6	47	18.9	63	6.0	-79
Pune	5.6	-49	10.4	-13	11.8	-64
Sangli	11.7	-42	13.1	-31	39.6	39
Satara	13.3	-7	29.9	76	15.9	-49
Solapur	7.9	-40	6.6	-57	32.0	19
Marathwada						
Aurangabad	0.0	-100	2.1	-81	10.3	-66
Beed	0.0	-100	4.9	-66	13.9	-55
Hingoli	0.0	-100	0.5	-95	1.1	-95
Jalna	0.0	-100	4.0	-68	2.9	-89
Latur	0.0	-100	0.0	-100	10.6	-62
Nanded	0.0	-100	0.5	-95	3.2	-87
Usmanabad	0.0	-100	4.4	-77	30.7	-3
Parbhani	0.0	-100	0.3	-98	6.6	-75
Vidarbha						
Akola	0.2	-96	2.8	-67	1.5	-92
Amraoti	0.1	-93	0.9	-88	1.2	-93
Bhandara	0.0	-100	0.0	-100	5.3	-74
Buldhana	0.0	-100	3.1	-59	1.2	-94
Chandrapur	0.1	-94	6.1	-15	7.4	-56
Gadchiroli	0.0	-100	0.0	-100	0.0	-100
Gondia	0.7	-35	0.0	-100	1.1	-94
Nagpur	0.5	-80	0.1	-99	4.5	-76
Wardha	0.0	-100	0.4	-96	3.3	-84
Washim	0.0	-100	2.6	-62	14.1	-36
Yeotmal	0.1	-98	0.7	-93	0.8	-96
Odisha						
Angul	58.6	358	8.4	-64	13.9	-58
Balasore	203.2	477	16.0	-51	20.7	-65
Bargarh	93.3	1694	0.9	-92	0.0	-100
Bhadrak	171.7	640	3.7	-86	6.5	-85
Bolangir	133.9	1594	0.0	-100	0.0	-100
Boudh	66.5	571	0.0	-100	5.4	-79
Cuttack	137.5	594	7.3	-75	4.4	-88
Deogarh	20.7	173	10.3	-33	2.5	-92
Dhenkanal	71.9	333	0.9	-96	4.5	-88
Gajapati	177.7	708	11.0	-49	1.6	-96

Ganjam	71.9	336	16.5	-8	11.8	-59
Jagatsingpur	152.6	367	3.4	-87	9.1	-75
Jajpur	130.9	426	13.3	-56	8.5	-83
Jharsuguda	33.8	463	0.3	-98	3.9	-89
Kalahandi	174.9	1598	0.0	-100	0.0	-100
Kandhamal	76.4	672	2.5	-89	3.6	-86
Kendrapara	187.2	498	13.5	-51	0.8	-97
Keonjhar	60.4	129	3.7	-88	16.6	-62
Khurda	104.1	590	10.3	-51	7.7	-68
Koraput	59.4	288	7.8	-66	2.3	-92
Malkangiri	2.0	-84	17.0	25	5.8	-73
Mayurbhanj	121.7	302	6.9	-72	13.5	-77
Nawapara	139.4	1949	0.0	-100	0.0	-100
Nawarangpur	19.0	-31	25.9	-13	20.1	-42
Nayagarh	97.2	724	24.3	2	15.1	-52
Puri	126.6	773	3.0	-85	2.1	-91
Rayagada	160.5	732	1.8	-90	5.1	-81
Sambalpur	24.1	217	8.7	-44	0.8	-97
Sonepur	63.6	614	1.0	-91	0.0	-100
Sundargarh	50.0	303	3.3	-80	2.2	-93
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	**	**	115.0	30	98.4	56
North & Middle Andaman	**	**	37.2	-69	170.1	20
South Andaman	**	**	26.5	-79	148.3	21
GWB						
Bankura	23.7	76	26.9	6	9.7	-78
Birbhum	30.3	67	18.5	-29	9.9	-74
Burdwan	13.6	-27	33.1	36	18.8	-52
East Midnapore	139.0	362	50.5	34	2.2	-96
Hooghly	43.1	65	49.4	58	2.1	-96
Howrah	58.8	63	89.6	165	3.4	-93
Kolkata	77.0	143	56.4	37	0.0	-100
Murshidabad	45.0	62	26.0	-7	10.0	-84
Nadia	26.0	7	94.2	205	0.0	-100
24 Pargana (N)	48.0	75	39.1	-15	0.0	-100
Purulia	51.9	303	11.5	-48	10.7	-76
24 Pargana (S)	97.6	239	78.2	189	1.5	-98
West Midnapore	59.1	83	17.1	-52	11.1	-77
SHWB & Sikkim						
Cooch Behar	102.4	-10	122.0	6	345.3	183
Darjeeling	79.1	13	104.2	56	101.1	-4
East Sikkim	114.9	75	46.6	-41	164.5	115
Jalpaiguri	96.9	-11	166.7	55	264.8	121
Malda	81.3	211	56.1	85	29.8	-25
North Dinajpur	3.0	-90	**	**	**	**
North Sikkim	77.5	5	66.7	-41	210.9	84
South Dinajpur	33.4	-30	62.6	33	112.4	100

South Sikkim	52.4	-20	35.7	-55	50.6	-34
West Sikkim	71.3	-3	50.7	-55	138.0	21
Karnataka						
Coastal Karnataka						
Dakshin Kannada	12.6	-78	25.6	-74	70.5	-63
Udupi	12.0	-82	2.5	-98	84.6	-62
Uttar Kannada	24.4	-37	11.1	-81	42.4	-69
N I Karnataka						
Bagalkote	21.4	0	14.3	-32	19.3	1
Belgaum	12.5	-38	26.0	17	31.0	26
Bidar	0.4	-95	7.0	-56	10.3	-63
Bijapur	12.4	-35	3.0	-83	21.3	-11
Dharwad	19.2	-14	6.1	-72	19.6	-22
Gadag	28.7	31	25.1	19	34.8	42
Gulbarga	9.5	-27	14.6	3	17.2	-23
Haveri	12.0	-43	51.5	172	1.2	-95
Koppal	17.2	1	8.8	-45	23.3	26
Raichur	15.8	8	12.5	1	2.8	-82
Yadgir	12.3	-6	2.4	-84	8.2	-62
S I Karnataka						
Bangalore Rural	42.6	102	23.4	-8	21.0	-10
Bangalore Urban	31.1	18	32.9	12	35.8	58
Bellary	20.7	24	51.8	163	25.8	43
Chamarajnagar	18.1	-41	75.5	197	1.1	-91
Chichballapur	50.3	205	38.8	81	3.6	-78
Chickmagalur	2.5	-90	54.3	63	15.2	-79
Chitradurga	10.4	-36	79.5	357	3.4	-77
Davangere	3.3	-80	53.8	183	0.3	-98
Hassan	16.6	-28	51.4	150	8.8	-64
Kodagu	2.7	-93	38.4	-16	17.7	-82
Kolar	46.0	154	42.2	82	23.6	39
Mandya	30.8	5	83.0	328	2.0	-85
Mysore	19.3	-39	74.9	227	2.3	-87
Ramnagara	13.7	-59	62.8	116	22.9	7
Shimoga	4.2	-78	27.1	4	10.9	-83
Tumkur	15.4	-20	47.2	89	16.1	-4
Kerala						
Alappuzha	23.1	-71	19.5	-81	183.6	5
Kannur	5.4	-92	48.0	-54	162.4	-7
Ernakulam	40.4	-54	27.6	-77	201.7	17
Idukki	14.0	-78	21.7	-73	84.9	-43
Kasaragod	12.0	-84	48.8	-58	99.6	-55
Kollam	1.5	-97	26.1	-68	115.0	-15
Kottayam	44.9	-40	28.6	-75	183.5	9
Kozhikode	9.3	-87	83.3	-34	175.1	-17
Malappuram	15.0	-72	54.5	-36	134.6	-7
Palakkad	4.4	-89	59.1	13	51.6	-44
Pathanamthitta	27.8	-60	23.1	-74	157.9	2
Thiruvananthapuram	9.0	-83	24.6	-65	65.5	-42

Thrissur	8.2	-90	63.6	-41	150.0	-12
Wayanad	17.1	-64	60.6	-1	96.0	-30
Tamil Nadu						
Ariyalur	22.0	39	12.5	-22	2.3	-84
Chennai	0.0	-100	11.2	93	35.3	176
Coimbatore	9.9	-27	15.6	40	19.2	205
Cuddalore	27.5	217	23.9	120	2.1	-83
Dharmapuri	76.7	199	44.4	75	21.9	46
Dindigul	31.2	77	51.3	259	1.8	-85
Erode	11.8	-25	31.6	145	11.6	38
Kanchipuram	6.4	-28	9.9	-7	38.7	161
Kanyakumari	12.3	-60	7.8	-82	22.5	-61
Karikal	0.0	-100	37.5	89	0.0	-100
Karur	21.4	83	27.7	219	0.0	-100
Krishnagiri	107.8	331	41.9	75	22.6	46
Madurai	13.4	5	44.2	263	0.9	-93
Nagapattinam	3.4	-65	19.2	134	0.7	-92
Namakkal	21.3	1	33.0	109	6.6	-45
Nilgiris	17.7	-36	27.8	14	27.6	-15
Perambalur	77.3	490	19.0	86	2.0	-78
Puducherry	38.7	445	32.0	338	2.2	-83
Pudukottai	25.7	149	19.7	55	2.2	-78
Ramanathapuram	3.0	-50	6.7	42	0.0	-100
Salem	49.7	112	40.2	101	11.9	-25
Sivaganga	12.3	20	18.8	40	0.0	-100
Thanjavur	27.6	109	10.4	-3	1.8	-83
Theni	8.5	-18	17.0	118	7.1	39
Tirunelveli	0.4	-92	0.6	-92	1.1	-89
Tirupur	10.2	-25	60.2	473	0.0	-100
Tiruvallur	3.2	-74	5.0	-56	40.3	225
Tiruvannamalai	43.7	182	21.6	31	11.4	-25
Tiruvarur	25.4	114	0.7	-90	0.8	-90
Toothukudi	0.0	-100	4.6	36	0.1	-96
Trichy	27.4	111	7.3	-37	0.0	-100
Vellore	49.7	159	22.4	8	31.6	94
Villupuram	27.2	212	23.1	138	15.7	33
Virudhunagar	10.9	8	40.1	305	1.6	-66
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	11.5	-17	5.8	-63	2.8	-86
Guntur	19.4	48	3.3	-73	0.0	-100
Krishna	1.1	-87	12.1	-10	0.0	-99
Nellore	12.6	-5	3.2	-54	12.0	0
Prakasam	5.8	-60	10.1	-12	2.5	-83
Sirkakulam	132.4	968	22.0	62	4.7	-81
Visakhapatnam	16.5	-5	23.6	27	21.1	-10
Vizianagram	72.1	290	42.9	104	4.3	-84
West Godavari	3.4	-67	7.6	-39	1.2	-94

Telangana						
Adilabad	1.2	-71	5.5	-48	9.7	-58
Hyderabad	0.6	-94	48.1	304	0.0	-100
Karimnagar	13.6	127	15.3	26	12.4	-42
Khammam	1.8	-83	5.3	-60	0.2	-99
Mehabubnagar	22.5	125	51.6	377	0.0	-100
Medak	1.5	-80	15.3	9	1.2	-94
Nalgonda	35.3	330	15.8	19	0.0	-100
Nizamabad	0.5	-92	3.0	-74	10.0	-64
Rangareddy	3.9	-56	37.8	232	0.0	-100
Warangal	9.1	54	7.4	-45	1.7	-93
Rayalaseema						
Anantapur	12.5	-22	45.5	140	8.1	-47
Chittoor	28.1	61	17.5	11	33.0	86
Cuddapah	9.6	-33	21.6	46	19.6	10
Kurnool	8.5	-46	49.5	246	16.3	-17

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