

# All India Coordinated Research Project on Agrometeorology

## CRIDA, Santoshnagar, Hyderabad – 500 059

### Weekly Crop Weather Information during 03<sup>rd</sup> to 9<sup>th</sup> December 2018

The crop weather conditions in different states as reported by the cooperating centres of AICRPAM

#### **Maharashtra**

##### *Vidarbha Region*

Dry weather prevailed in Vidarbha region of Maharashtra state during this week. Maximum and Minimum temperatures ranged between 29-31°C and 12.8-19°C respectively. Agriculture operations like cotton picking (burst bolls), wherever irrigation facility is there, field preparations are underway for rabi crop (irrigated chickpea, wheat) sowings. Need based plant protection is being undertaken in pigeon pea/safflower, harvesting of custard apple/orange (ambia bahar) /guava as per maturity of fruits and irrigation, basin mulching of established and new plantations are in progress. Cotton crop is at picking stage. Pigeon pea at pod development stage; castor with primary spike is at capsule development stage. Early sown (40-41MW) rainfed chickpea at flowering/pod formation stage. Late sown Irrigated chickpea is through early vegetative phase. Safflower through vegetative growth stage Aonla/Custard apple/orange (ambia bahar)/guava fruits at harvest stage as per maturity. Prevailing soil moisture status is inadequate for growth and development of growing kharif crops (cotton, pigeonpea etc.). However, adequate soil moisture regime needs to be maintained for irrigated rabi crops.

##### *Marathwada Region*

Dry weather prevailed in Marathwada region of Maharashtra state during this week. The Maximum temperature was range from 29 to 33 °C and the minimum temperature was ranges from 10.5 to 17.5 °C. Agriculture operations like Cotton picking is in progress. Plant protection is being undertaken in pigeonpea based on need or attack of pests. Rabi irrigated late wheat sowing is under way. Irrigation and weeding and hoeing underway in in rabi crops. Pigeonpea crop at pod formation to pod development stage. Chickpea crop is in seedling stage to flowering stage. No major pests and diseases were noticed.

##### *Madhya Maharashtra*

Dry weather prevailed in Madhya Maharashtra region of Maharashtra state during this week. Agriculture operations like intercultural operations like weeding, hoeing in rabi crops are in progress. Rabi Sorghum (early)- booting stage chickpea is at pod development stage. No major pests and diseases were noticed.

## ***Konkan Region***

Dry weather prevailed in Konkan region of Maharashtra state during this week. Agriculture operations like intercultural operations like weeding, Sowing of pulse & groundnut, Irrigation to irrigated fruit crop at an interval of 7-8 days, Schedule spray of IMP Tea mosquito bug on cashewnut at the time of flowering are on progress. There is possibility of incidence tea mosquito bug and thrips on the inflorescence of cashewnut, if incidence is noticed spray Profenophos 50% EC @10 ml per 10 liter of water.

## ***Andhra Pradesh***

During the week, Coastal AP received 8.1mm rainfall against the normal rainfall of 8.7mm (-7%); Rayalaseema received 5.2mm against normal rainfall of 12.6mm (-59%) and the state as whole received 7.1mm rainfall against the normal rainfall of 14.6mm (-51%). Nellore (49%) district received excess rainfall, Chittoor (-45%), Prakasam (-50%) districts received deficit rainfall; Srikakulam and Vizianagaram districts received no rainfall and all other districts received largely deficit rainfall ranging from -61% to -98%. The maximum and minimum temperatures were above the normal and in the range of 29-31oC and 19-24oC, respectively. During the period, 01.10.2018 to 09.12.2018, coastal AP received 95.3mm against normal rainfall of 307.4 mm (-69%); Rayalaseema received 79.9mm against the normal rainfall of 223.8 mm (-64%); Andhra Pradesh as a whole received 88.5mm against the normal rainfall of 287.7mm (-69%). The total sown area in the state during rabi 2018-19 is 9.16 lakh ha (39%) as against the normal area of 23.43 lakh ha and it accounts for 102% of the normal area of 9 lakh ha as on 05.12.18. As on 05.12.18, the total crop sown area in various districts of the state is 149% in Chittoor, 68% in Kadapa, 67% in Ananthapuramu, 59% in Kurnool, 56% in Prakasam, 44% in Vishakhapatnam, 51% in Srikakulam, 28% in Krishna, 22% in Vizianagaram, 18% in West Godavari, 18% in Guntur, 11% in Nellore and 8% in East Godavari. Agriculture operations like sowing of green gram, black gram, groundnut, planting of tobacco and chilli and Picking of cotton, harvesting of kharif maize are under progress. Groundnut, jowar, maize crops are at vegetative stage, early sown blackgram, greengram, bengalgram crops are at vegetative stage and niger crop is at vegetative to flowering stage.

## ***Assam***

Weather during the week was clear. The daily average maximum temperature was 25.9 C which is 0.1 degree above normal and the average daily minimum temperature was 11.0°C which is 0.7 degree below normal for the week. Total BSSH was 50.5 hrs only with an average of 7.2 hrs. The daily average evaporation and wind speed was 1.2 mm and 1.1 km/hr respectively. The daily average RH during morning and afternoon was 97.8% and 59% respectively. Agriculture operations like Harvesting of sali rice, Earthing up of potato, thinning operation in mustard are in progress. Sali rice is in maturity stage, rabi vegetables are at vegetative/flowering /fruiting stage. No major pests and diseases were noticed.

## ***Chhattisgarh***

Dry weather prevailed in Chhattisgarh state during this week. The area (in thousand ha) sown under different crops under: Total Cereals 348.25 (41.36, 12%), total pulses 923.99 (347.78, 33%), total oilseeds 296.29 (112.56, 38%) and total Rabi crops 1830.00 (588.19, 32%). Agriculture operations like harvesting of medium and long duration varieties of rice going on. Sowing of rabi crops (gram, safflower, linseed, lentil, sunflower, sesame and groundnut etc ) going on in some regions of Chhattisgarh and relay cropping of lathyrus and linseed in some pockets. Need based application of insecticides in vegetables against aphids, thrips, fruit and pod borer and other pests of sali rice and sowing of boro rice in nursery bed are in progress. Sugarcane crop in vegetative growth stages. Wheat crop are growing on CRI to vegetative growth stage. Lathyrus crop are maximum in vegetative to pre flowering stage. No major pests and diseases were noticed.

### ***Bihar***

Dry weather prevailed over the entire part of Bihar. Maximum temperature ranged from 25.0 to 26.0 °C and the minimum from 9.9 to 11.5°C. Agriculture operations like sowing of Late sown wheat varieties, thinning of late sown varieties of rape seed and mustard, Irrigation in chilli, tobacco and potato crops, earthing of potato and maize crop are in progress. Toria and yellow sarson are in early vegetative stage. Vegetables are in seedling to vegetative stage and pea, chickpea and potato are in germination stage. No major pests and diseases were noticed.

### ***Gujarat***

Dry weather prevailed in Gujarat state during this week. The actual maximum temperature is above normal by 2.2°C and minimum temperature is also above normal by 0.8°C. Agriculture operations like weeding, interculturing in transplanted vegetables, land preparation and sowing of rabi crops and weeding and interculturing in early sown rabi crops are in progress. Tomato is in fruiting/picking stage. Mustard is in flowering initiation stage. Wheat is in emergence stage and pigeon pea is in flowering stage. No major pests and diseases were noticed.

### **Uttar Pradesh**

#### ***East Uttar Pradesh***

Dry weather prevailed in East Uttar Pradesh region of Uttar Pradesh state during this week. Sowing of irrigated wheat are in progress and is completed upto 60% in all the region. Agriculture operations like Sowing of irrigated wheat and Irrigation in potato and berseem, sowing of winter maize and autumn sugarcane. are in progress. Timely sown wheat are in emergence/seedling stage. Potato are in tuberization. Toria/Rai are in pod filling stage. Pigeon pea are in reproductive stage. No major pests and diseases were noticed.

## ***West Uttar Pradesh***

Dry weather prevailed with light rainfall occur at isolated places in West Uttar Pradesh region of Uttar Pradesh state during this week. Maximum temperature is near to its normal and minimum temperature is slightly above normal. Agriculture operations like sowing wheat, barley, gram, pea, lentil and mustard. Spraying of insecticide in pigeon pea, top dressing and irrigation in toria crops are in progress. Toria is in flowering to podding stage, pigeon pea is in branching stage, mustard is in vegetative stage and vegetables are at flowering to fruiting stage. No major pests and diseases were noticed.

## ***Haryana***

Dry weather prevailed in Haryana state during this week. Maximum temperature and minimum temperature was observed above normal. Agriculture operations like Hoeing and harrowing in Mustard crop, Irrigation in muatard crop as per crop needs, Wheat & barley crop at field preparation and sowing stage, Intercultural operation, weed management and irrigation as per crop needs in Wheat & Barley are in progress. Mustard crop are at early vegetative to flowering stage as per date of sowing. Wheat & barley crops are emergence to CRI stage. No major pests and diseases were noticed.

## ***Himachal Pradesh***

Dry weather prevailed in Himachal Pradesh state during this week. The maximum temperature ranged between 16.5 to 18.0°C and the minimum between 3.5 to 8.0 °C which remained below normal by 0 to 0.9°C and 1.2 to 3.3°C, respectively during the week. The relative humidity varied between 45 to 86 per cent and sunshine 5.0 to 9.0 hrs/day with variable sky conditions (Octa 0-8). No rainfall was received against the normal of 6.4 mm. The evaporation varies between 1.2 to 3.7 mm/day. Agriculture operations like arrangement of fodder for their cattle and dairy animals, transplantation of onion, cabbage and cauliflower is going on in the region and sowing of rabi crops are in progress. Wheat crop are at emergence stage and rapeseed, mustard are at leaf development stage. No major pests and diseases were noticed.

## ***Kerala***

Dry weather prevailed in Kerala state during this week. the maximum temperature ranges from 31.7 to 34.0°C, minimum temperature ranges from 22.6 to 24.3°C. Agriculture operations like irrigation and weeding in paddy fields are in progress. Mundakan paddy crop is in tillering stage. No major pests and diseases were noticed.

## ***Jharkhand***

Below normal rainfall received during this week with three days dry spell . Daily maximum and minimum temperature ranged from 24.8 to 27.6 and 15.1 to 16.2 deg C, respectively. Weekly maximum and minimum temperature were 22.8 and 14.0 deg C

against its normal value of 22.8 and 15.1 deg C, respectively. Agricultural operations like Sowing of chickpea, hoeing of chickpea, lentil, pea, bakla, ramdana, rapseed, tisi and threshing of Soyabean, Urd, rice bean and maize. Picking of Moong, Earthing of Arhar and land preparation of Rabi crops are in progress. No major pests and diseases were noticed.

### ***Jammu & Kashmir***

Mainly clear weather prevailed in Jammu region of Jammu & Kashmir state during this week. Both maximum and minimum temperatures remained below normal and was in the range of 20.8 to 22.6°C and 5.5 to 7.2°C. General crop condition remained satisfactory. In Rabi season about 38 per cent for wheat, 58 per cent of pulses, 67 per cent of oilseed, 69 per cent of vegetable and 69 per cent of fodder has been sown. Normal sown wheat is at tillering stage Late sown wheat is at emergence. Normal sown mustard is at vegetative stage. Early sown mustard as at flowering stage. Peak vegetative stage in berseem crop. Toria crop is at Phy. Maturity stage. Gram is at vegetative stage. Agricultural operation like Sowing of late sown wheat crop (var: WH-1021, PBW-590, PBW-373, Raj-3077, Raj-3765, DBW-16) under irrigated conditions, Intercultural operation viz hoeing, weeding and earthing in vegetable crops is in progress, Hoeing and weeding in rabi pulses and oilseed is in progress, Plant protection measures in rabi oilseed are in progress. No major pests and diseases were noticed.

### **Karnataka**

#### ***South Karnataka***

State actual rainfall for 49th week i.e., 29th November to 5th December 2018 was 1.0 mm as against the normal of 4.0 mm with (-) 78 % deviation. Whereas SIK received 2.0 mm of rainfall as against the normal of 5.0 mm leading to (-) 67 % deviation. State actual rainfall from 1st January to 5th December 2018 was 1091.0 mm as against the normal of 1148.0 mm, by (-) 5 % deviation. Whereas SIK received 686.0 mm of rainfall as against the normal of 709.0 mm to (-) 3 % deviation. Kharif crop is harvesting in progress. Rabi crops are in vegetative, flowering and maturity stage. Agricultural operation like Harvesting of Groundnut, Maize and other kharif crops are in progress. No major pests and diseases were noticed.

#### ***Madhya Pradesh***

Dry weather prevailed in Madhya Pradesh during this week. Highest maximum temperature recorded in (32.0°C) at Khargone district and lowest minimum temperature recorded in (6.0°C) at Mandla district. Agriculture operations like Sowing of wheat, Weeding in early sown chickpea, mustard and lentil, Post-emergent Herbicide application in early sown wheat, Nipping in chickpea are in progress. Chickpea in branching stage, Wheat in emergence stage, Lentil, mustard and garden pea in late vegetative stage. No major pests and diseases were noticed.

#### ***Odisha***

Dry weather prevailed in Odisha state during the week. Agricultural operations like Nursery raising of summer rice Threshing of early and medium rice Harvesting of late rice Harvesting to post harvesting of ragi. Harvesting of maize. Harvesting of early pigeon pea. Harvesting of cotton. Plant protection of rabi groundnut and sunflower. Harvesting of sugarcane. Intercultural operation of tuberose Top dressing and plant protection of chrysanthemum and marigold Plant protection and irrigation of brinjal, tomato, and Cole crops Harvesting of of pre-rabi crops are in progress. Harvesting stage of late rice Grain filling to maturity stage of late planted late rice Harvesting stage of sugarcane Harvesting stage of ragi Harvesting stage of early arhar Flowering stage of Rabi groundnut Fruiting to harvesting stage of brinjal, okra and cucurbits, cowpea Harvesting stage of turmeric, zinger, colocasia and yam Branching to flowering stage of rabi groundnut, sunflower. No major pests and diseases were noticed.

### ***Punjab***

Dry weather prevailed in Punjab state during the week. The maximum temperature ranged from 21.4-23.8 °C and minimum temperature ranged from 6.4-9.0°C. Agricultural operations like sowing and irrigation in wheat, mustard barley, lucerne, Oats and lentil, application of herbicide in Gobi sarson and transplanting of tomato crop in progress. Wheat in seedling stage and toria in flowering stage. No major pests and diseases were noticed.

### ***Rajasthan***

Dry and cool weather prevailed in Rajasthan state during the week. The minimum temperature ranged from 25 to 27 °C and minimum temperature ranged from 7 to 8.7 °C. Agricultural operations like hoeing, weeding and irrigation in mustard and irrigation in wheat crops are in progress. Wheat at CRI stage. Mustard at flowering to pod initiation stage Gram at vegetative to flowering. No major pests and diseases were noticed.

### ***Tamilnadu***

Rainfall occurred at isolated places over the state. Tirunelveli district: Paddy is in tillering to panicle initiation stage. Sorghum and Maize are in flowering to ear head / cob formation stage. Cotton is in vegetative to flowering stage. Pulses are in (Black gram and Green gram) pod development to maturity stage. Virudhunagar district: Sorghum and Maize are in flowering to ear head / cob formation stage. Cotton is in vegetative to flowering stage. Chillies is in vegetative stage. Pulses are in (Black gram and Green gram) pod development to maturity stage. Tuticorin district: Sorghum and Maize are in flowering to ear head / cob formation stage. Cotton is in vegetative to flowering stage. Chillies is in vegetative stage. Banana is in vegetative to fruit development stage. Pulses are in (Black gram and Green gram) pod development to maturity stage. Agricultural operation like Plant protection measures for controlling pests and diseases are in progress

### ***Uttarakhand***



Dry and cool weather prevailed in Uttarakhand state during the week. The minimum temperature ranged from 12.6 - 14.2°C and minimum temperature ranged from 1.6-4.7° C. Agricultural operations like Sowing of rabi crops viz wheat, barley, lentil & mustard are almost completed. light irrigation wherever is available in vegetable crops. Harvesting of green leafy vegetables. Digging of pits for establishment of of new orchards in temperate region. Collection and burning of dry leaves from old orchard. Harvesting of Malta (citrus Fruit) are in progress. Emergence in wheat, barley and growth stage in cole crops in valley. No major pests and diseases were noticed.

### ***West Bengal***

Dry weather prevailed in West Bengal state during the week. Maximum temperature ranged from 25.0 to 27.0°C and minimum temperatures ranged from 10.5 to 15.0°C. Agricultural operations like intercultural operation as well as harvesting is going on sugarcane, intercultural operations in winter vegetables like tomato, chili, cabbage, cauliflower, onion and sowing operations for potato, sweet potato and beet and pre sowing irrigation in potato crops are in progress. egetables and all gourds: Vegetative and fruiting stage. Cabbage & Cauliflower: Vegetative stage. Chilli: Vegetative as well as fruiting stage. Sugarcane: Grand growth and maturity stage. Cowpea: Flowering and fruiting. Mustard plants are in seedling stage. Potato: Germination to Sprout development. No major pests and diseases were noticed.

# Weather during 29<sup>th</sup> November to 9<sup>th</sup> December 2018

## Significant Weather Features

- A trough of low at mean sea level over Southeast Bay of Bengal and adjoining equatorial Indian Ocean extends upto 0.9 km above mean sea level. Under the influence of this trough of low, a low pressure area is likely to develop in the same region around 9th December.
- A western disturbance as trough in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level along Long. 62°E to the north of Lat. 32° N persists. It is likely to affect western Himalayan region from 8th and plains of northwest India from 9th December onwards. Associated with the system, dense fog is likely at isolated places over north India plains on 9th & 10th December.

## Fog:

- Shallow to moderate fog with dense fog at isolated places observed over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Himachal Pradesh, Punjab and Haryana during morning hours on one or two days of the week.

## Heavy Rainfall Activity:

- Scattered to fairly widespread rainfall observed over extreme south peninsular India on a few days during the week. Heavy to very heavy rainfall also observed at isolated places on one day and heavy on a few days over Tamilnadu during the week.

## Temperature Scenario:

- Maximum and minimum temperatures observed were normal or above normal over most parts of the country outside western Himalayan region where it were near or below normal during many days of the week. The highest maximum temperature of 36.60C was recorded at Karwar (Coastal Karnataka) on 4th December and lowest minimum temperature of 5.60C at Mandla (East Madhya Pradesh) on 29th November 2018, over the plains of the country during the week.

## Meteorological Analysis

- Last week's, cyclonic circulation lay over Equatorial Indian Ocean & adjoining Sumatra and extended upto 1.5 km above mean sea level on 29th and it became less marked on 30th November 2018.
- Last week's, trough of low at mean sea level ran from Comorin area to southwest Bay of Bengal off south Tamilnadu coast on 29th and it lay over southeast Arabian Sea & adjoining Equatorial Indian Ocean on 30th November. It became less marked on 1st December 2018.



- Last week's, cyclonic circulation lay over Maldives area & adjoining Equatorial Indian Ocean extending upto 1.5 km above mean sea level on 29th November. It lay over Equatorial Indian Ocean & adjoining southeast Arabian Sea on 30th and became less marked on 1st December 2018.
- Last week's Western Disturbance as an upper air cyclonic circulation over Jammu & neighbourhood at 3.1 km above mean sea level moved away east-northeastwards on 29th November 2018.
- A cyclonic circulation lay over eastcentral Arabian Sea off south Maharashtra-Goa coasts between 1.5 & 3.6 km above mean sea level on 29th. It lay over Konkan and adjoining Madhya Maharashtra between 2.1 km & 3.1 km above mean sea level on 30th and became less marked on 1st December 2018.
- A trough of low at mean sea level lay over Equatorial Indian Ocean & adjoining south Andaman Sea on 30th November. It lay over Andaman Sea & neighbourhood on 1st December; over southeast Bay of Bengal & adjoining Andaman Sea at mean sea level on 2nd; over southwest Bay of Bengal & neighbourhood extending upto 0.9 km above mean sea level on 3rd November. It ran from Comorin area to southwest Bay of Bengal off south Andhra Pradesh coast across Gulf of Mannar on 4th and ran from Comorin area to Southeast Arabian Sea off North Kerala coast on 5th December, 2018.
- A cyclonic circulation lay over westcentral Bay of Bengal off Andhra Pradesh coast between 3.1 km & 3.6 km above mean sea level on 30th November. It lay over westcentral Bay of Bengal off south Andhra Pradesh Coast on 1st; over south Coastal Andhra Pradesh & adjoining westcentral Bay of Bengal between 4.5 km & 5.8 km above mean sea level on 2nd and it became less marked on 3rd December 2018.
- A feeble trough of low at mean sea level lay over Maldives area and neighbourhood on 01st December and which became less marked on 2nd December, 2018.
- A cyclonic circulation at 3.1 km above mean sea level lay over Coastal Karnataka & neighbourhood on 1st December. It lay over South Interior Karnataka & neighbourhood on 2nd December. It persisted between 4.5 km & 5.8 km above mean sea level over the same area on 03rd and became less marked on 4th December 2018.
- A trough in westerlies at 3.1 km above mean sea level ran roughly along Long. 88°E to the north of Lat. 22° N on 1st December 2018 and it moved away east-northeastwards on 2nd December 2018.
- A cyclonic circulation lay over Lakshadweep area & adjoining southeast Arabian Sea between 3.1 km & 3.6 km above mean sea level on 3rd and it became less marked on 4th December 2018.

- A feeble western disturbance as a trough in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level ran roughly along long. 55° E to the north of Lat. 34° N on 3rd December. It ran roughly along long. 60° E to the north of Lat. 34° N on 4th and roughly along Long. 68° E to the north of Lat. 34° N on 5th December, 2018.
- A cyclonic circulation lay over eastcentral Arabian Sea & adjoining coastal Karnataka at 3.1 km above mean sea level and a trough ran from this cyclonic circulation to Marathwada across north interior Karnataka at 3.1 km above mean sea level on 4th December. This system became less marked on 5th December, 2018.
- A trough of low at mean sea level lay over southeast Arabian Sea & adjoining equatorial Indian Ocean on 4th December and it became less marked on 5th December, 2018.
- A cyclonic circulation lay over east Assam and neighbourhood between 3.1 km & 3.6 km above mean sea level on 4th December. It persisted over the same area at 3.1 km above mean sea level on 5th December 2018.
- A cyclonic circulation lay over Konkan and adjoining Madhya Maharashtra at 3.1 km above mean sea level on 05th December, 2018.
- A cyclonic circulation lay over equatorial Indian Ocean and adjoining Southwest Bay of Bengal extending upto 3.1 km above mean sea level on 5th December, 2018.
- A trough of low at mean sea level lay over Southeast Bay of Bengal & adjoining equatorial Indian Ocean on 5th December, 2018.
- A north-south trough ran from east Bihar to northern parts of Gangetic West Bengal at 3.1 km above mean sea level on 5th December, 2018.

### **Average rainfall during the week**

The All India area weighted rainfall during the week 1.2 mm was 69% below normal (4.0 mm).

The subdivision-wise weekly rainfall distribution is presented in Fig.1. Rainfall was Large excess in 0, excess in 0, normal in 1, deficit in 4, Large deficit in 8 and no rain in 23 out of 36 meteorological sub-divisions.

### **Cumulative Seasonal rainfall (01<sup>st</sup> October to 05<sup>th</sup> December 2018)**

The cumulative seasonal rainfall during 01<sup>st</sup> October to 05<sup>th</sup> December 2018 over the country as a whole was 57.2 mm which is 49% below normal rainfall of 113.3 mm.

The subdivision-wise seasonal rainfall distribution is presented in Fig. 2. Rainfall was Large excess in 0, excess in 1, normal in 5, deficit in 9 and L. deficit in 21 and no rain in 0 out of 36 meteorological sub-divisions.

**State-wise distribution of rainfall in number of districts with large excess, excess, normal, deficient, large deficient and no rainfall during post monsoon season (01<sup>st</sup> October to 05<sup>th</sup> December 2018)**

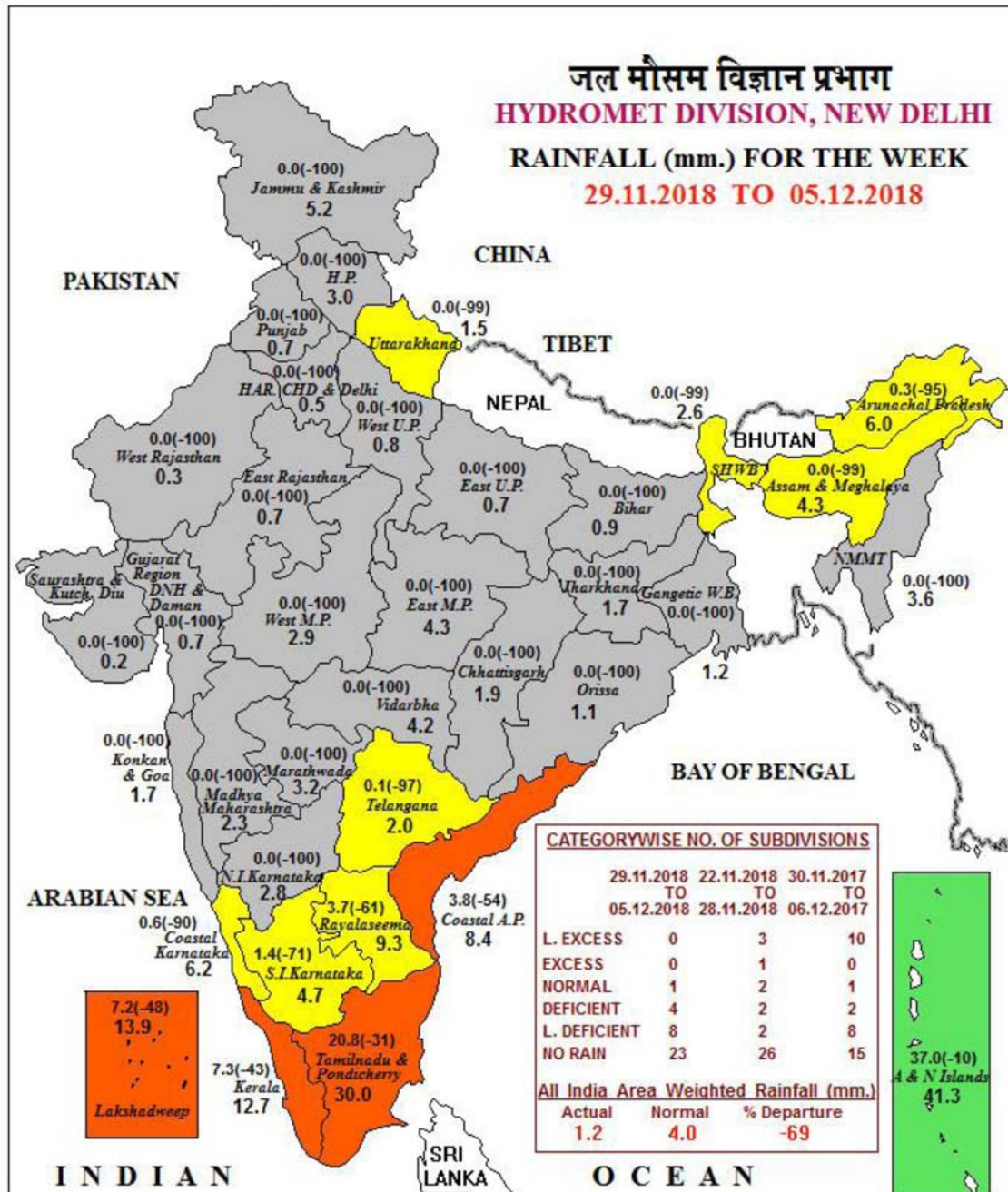
In the country, 2% districts received large excess, 3% districts received excess and 9% districts normal rainfall during post monsoon season so far. However, 18% districts received deficient, 43 % districts received large deficient rainfall and 25% districts received no rainfall and 0 districts received no data. (Table-1).

**Weekly rainfall departure (%) at different IMD subdivisions (2018)**

During the week under report no Sub-division received large excess rainfall, no Sub-division received excess rainfall, 1 Sub-division viz.; Andaman & Nicobar Islands received normal rainfall and remaining 35 Sub -divisions received either deficit / large deficit / no rainfall. (Table-2).

# भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT

**जल मौसम विज्ञान प्रभाग  
HYDROMET DIVISION, NEW DELHI**  
**RAINFALL (mm.) FOR THE WEEK  
29.11.2018 TO 05.12.2018**



**LEGEND:** ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)  
 ■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

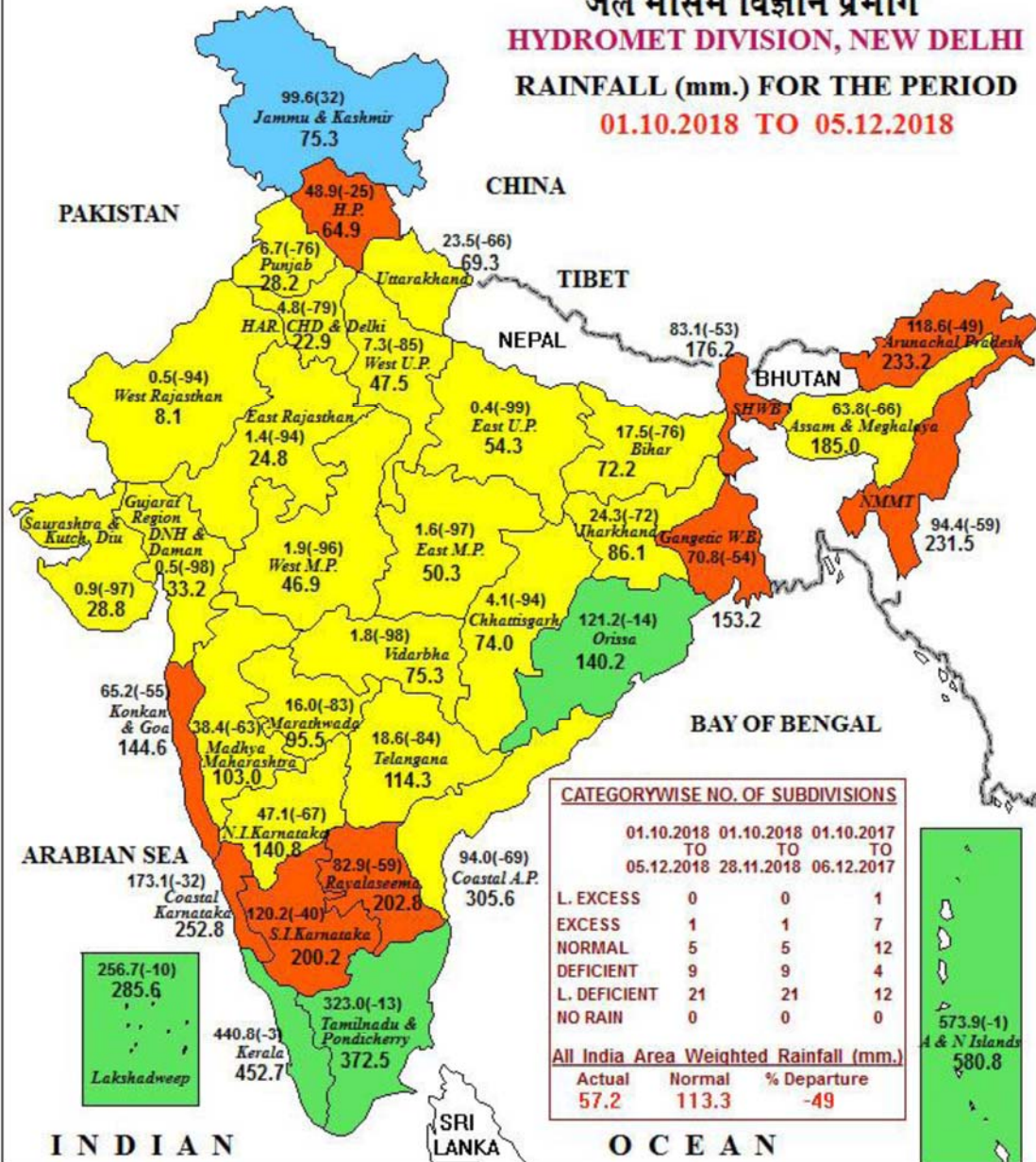
**NOTES:**  
 (a) Rainfall figures are based on operational data.  
 (b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)  
 Percentage Departures of Rainfall are shown in Brackets.

Fig-1



# भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT

**जल मौसम विज्ञान प्रभाग  
HYDROMET DIVISION, NEW DELHI  
RAINFALL (mm.) FOR THE PERIOD  
01.10.2018 TO 05.12.2018**



**LEGEND:** ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)  
 ■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

**NOTES:**

- (a) Rainfall figures are based on operational data.
- (b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)  
 Percentage Departures of Rainfall are shown in Brackets.

Fig-2

**Table 1. State wise distribution of number of districts with large excess, excess, normal, deficient, large deficient, no rainfall and data inadequate shown (01.10.2018 to 05.12.2018)**






| S.NO.  | STATES                    | PERIOD FROM : 01.10.2018 TO 05.12.2018 |           |           |            |            |            |           |            |
|--|---------------------------|--|-----------|-----------|------------|------------|------------|-----------|------------|
|  |                           | LE                                     | E         | N         | D          | LD         | NR         | ND        | TOTAL      |
| 1.   | A & N ISLAND (UT)         | 0                                      | 1         | 1         | 1          | 0          | 0          | 0         | 3          |
| 2.   | ARUNACHAL PRADESH         | 1                                      | 0         | 4         | 4          | 5          | 1          | 1         | 16         |
| 3.   | ASSAM                     | 0                                      | 0         | 1         | 14         | 12         | 0          | 0         | 27         |
| 4.   | MEGHALAYA                 | 0                                      | 0         | 1         | 1          | 4          | 0          | 1         | 7          |
| 5.   | NAGALAND                  | 0                                      | 0         | 0         | 4          | 7          | 0          | 0         | 11         |
| 6.   | MANIPUR                   | 0                                      | 0         | 0         | 1          | 5          | 0          | 3         | 9          |
| 7.   | MIZORAM                   | 0                                      | 0         | 2         | 0          | 3          | 0          | 4         | 9          |
| 8.   | TRIPURA                   | 0                                      | 0         | 0         | 3          | 1          | 0          | 0         | 4          |
| 9.   | SIKKIM                    | 0                                      | 0         | 1         | 0          | 3          | 0          | 0         | 4          |
| 10.  | WEST BENGAL               | 0                                      | 0         | 1         | 7          | 11         | 0          | 0         | 19         |
| 11.  | ODISHA                    | 1                                      | 6         | 10        | 4          | 8          | 1          | 0         | 30         |
| 12.  | JHARKHAND                 | 0                                      | 0         | 1         | 4          | 19         | 0          | 0         | 24         |
| 13.  | BIHAR                     | 1                                      | 0         | 2         | 2          | 26         | 7          | 0         | 38         |
| 14.  | UTTAR PRADESH             | 0                                      | 0         | 1         | 2          | 20         | 49         | 0         | 72         |
| 15.  | UTTARAKHAND               | 0                                      | 0         | 0         | 4          | 9          | 0          | 0         | 13         |
| 16.  | HARYANA                   | 0                                      | 0         | 1         | 2          | 14         | 4          | 0         | 21         |
| 17.  | CHANDIGARH (UT)           | 0                                      | 0         | 0         | 1          | 0          | 0          | 0         | 1          |
| 18.  | DELHI                     | 0                                      | 0         | 0         | 0          | 8          | 0          | 1         | 9          |
| 19.  | PUNJAB                    | 0                                      | 1         | 0         | 1          | 9          | 9          | 0         | 20         |
| 20.  | HIMACHAL PRADESH          | 1                                      | 0         | 4         | 5          | 2          | 0          | 0         | 12         |
| 21.  | JAMMU & KASHMIR           | 7                                      | 4         | 1         | 6          | 0          | 1          | 3         | 22         |
| 22.  | RAJASTHAN                 | 0                                      | 0         | 1         | 1          | 10         | 21         | 0         | 33         |
| 23.  | MADHYA PRADESH            | 0                                      | 0         | 0         | 0          | 22         | 29         | 0         | 51         |
| 24.  | GUJARAT                   | 0                                      | 0         | 0         | 0          | 11         | 22         | 0         | 33         |
| 25.  | DADRA & NAGAR HAVELI (UT) | 0                                      | 0         | 0         | 0          | 1          | 0          | 0         | 1          |
| 26.  | DAMAN & DIU (UT)          | 0                                      | 0         | 0         | 0          | 1          | 1          | 0         | 2          |
| 27.  | GOA                       | 0                                      | 0         | 0         | 2          | 0          | 0          | 0         | 2          |
| 28.  | MAHARASHTRA               | 0                                      | 0         | 1         | 6          | 19         | 10         | 0         | 36         |
| 29.  | CHHATISGARH               | 0                                      | 0         | 0         | 1          | 16         | 10         | 0         | 27         |
| 30.  | ANDHRA PRADESH            | 0                                      | 0         | 0         | 3          | 10         | 0          | 0         | 13         |
| 31.  | TELANGANA                 | 0                                      | 0         | 0         | 2          | 24         | 5          | 0         | 31         |
| 32.  | TAMILNADU                 | 0                                      | 2         | 16        | 14         | 0          | 0          | 0         | 32         |
| 33.  | PUDUCHERRY (UT)           | 0                                      | 0         | 2         | 0          | 0          | 0          | 2         | 4          |
| 34.  | KARNATAKA                 | 0                                      | 0         | 1         | 19         | 10         | 0          | 0         | 30         |
| 35.  | KERALA                    | 0                                      | 3         | 8         | 3          | 0          | 0          | 0         | 14         |
| 36.  | LAKSHADWEEP (UT)          | 0                                      | 0         | 1         | 0          | 0          | 0          | 0         | 1          |
| <b>TOTAL</b>   |                           | <b>11</b>                              | <b>17</b> | <b>61</b> | <b>117</b> | <b>290</b> | <b>170</b> | <b>15</b> | <b>681</b> |
| <b>CATEGORYWISE DISTRIBUTION OF DISTRICTS OUT OF THE 666 WHOSE DATA RECEIVED</b> |                           | <b>2%</b>                              | <b>3%</b> | <b>9%</b> | <b>18%</b> | <b>43%</b> | <b>25%</b> |           |            |



**Table 2. Weekly Rainfall Departure (%) at different IMD subdivisions (2018)**

| S.No. | Meteorological Sub Division         | 17 Oct (42) | 24 Oct (43) | 31 Oct (44) | 07 Nov (45) | 14 Nov (46) | 21 Nov (47) | 28 Nov (48) | 05 Dec (49) |
|-------|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1     | Andaman & Nicobar Islands           | Yellow      | Blue        | Green       | Yellow      | Blue        | Orange      | Yellow      | Green       |
| 2     | Arunachal Pradesh                   | Orange      | Yellow      | Yellow      | Blue        | Yellow      | Blue        | Grey        | Yellow      |
| 3     | Assam & Meghalaya                   | Green       | Yellow      | Yellow      | Green       | Yellow      | Blue        | Grey        | Yellow      |
| 4     | Nagaland, Manipur, Mizoram, Tripura | Blue        | Yellow      | Orange      | Yellow      | Yellow      | Yellow      | Grey        | Grey        |
| 5     | Sub-Himalayan West Bengal & Sikkim  | Yellow      | Orange      | Yellow      | Orange      | Yellow      | Blue        | Grey        | Yellow      |
| 6     | Gangetic West Bengal                | Blue        | Yellow      | Yellow      | Orange      | Yellow      | Grey        | Grey        | Grey        |
| 7     | Orissa                              | Blue        | Yellow      | Yellow      | Yellow      | Grey        | Grey        | Grey        | Grey        |
| 8     | Jharkhand                           | Blue        | Yellow      | Yellow      | Yellow      | Grey        | Grey        | Grey        | Grey        |
| 9     | Bihar                               | Blue        | Yellow      | Yellow      | Yellow      | Grey        | Grey        | Grey        | Grey        |
| 10    | East Uttar Pradesh                  | Yellow      | Yellow      | Grey        | Yellow      | Yellow      | Yellow      | Grey        | Grey        |
| 11    | West Uttar Pradesh                  | Orange      | Yellow      | Grey        | Yellow      | Yellow      | Yellow      | Grey        | Grey        |
| 12    | Uttarakhand                         | Yellow      | Yellow      | Grey        | Blue        | Orange      | Blue        | Grey        | Yellow      |
| 13    | Haryana, Chandigarh & Delhi         | Orange      | Grey        | Grey        | Yellow      | Blue        | Orange      | Grey        | Grey        |
| 14    | Punjab                              | Orange      | Grey        | Grey        | Orange      | Grey        | Blue        | Grey        | Grey        |
| 15    | Himachal Pradesh                    | Green       | Yellow      | Yellow      | Blue        | Orange      | Blue        | Grey        | Grey        |
| 16    | Jammu & Kashmir                     | Blue        | Yellow      | Grey        | Blue        | Blue        | Blue        | Grey        | Grey        |
| 17    | West Rajasthan                      | Grey        | Grey        | Blue        | Grey        | Yellow      | Grey        | Grey        | Grey        |
| 18    | East Rajasthan                      | Grey        | Yellow      | Yellow      | Grey        | Yellow      | Grey        | Grey        | Grey        |
| 19    | West Madhya Pradesh                 | Grey        | Yellow      | Grey        | Yellow      | Grey        | Grey        | Grey        | Grey        |
| 20    | East Madhya Pradesh                 | Yellow      | Yellow      | Yellow      | Yellow      | Grey        | Grey        | Grey        | Grey        |
| 21    | Gujarat Region                      | Grey        | Yellow      | Grey        | Grey        | Grey        | Grey        | Grey        | Grey        |
| 22    | Saurashtra, Kutch & Diu             | Grey        | Grey        | Yellow      | Grey        | Grey        | Grey        | Grey        | Grey        |
| 23    | Konkan & Goa                        | Yellow      | Orange      | Yellow      | Green       | Yellow      | Blue        | Yellow      | Grey        |
| 24    | Madhya Maharashtra                  | Yellow      | Yellow      | Yellow      | Blue        | Yellow      | Blue        | Orange      | Grey        |
| 25    | Marathwada                          | Yellow      | Yellow      | Yellow      | Yellow      | Grey        | Blue        | Grey        | Grey        |
| 26    | Vidarbha                            | Yellow      | Grey        | Grey        | Yellow      | Grey        | Orange      | Grey        | Grey        |
| 27    | Chhattisgarh                        | Yellow      | Yellow      | Yellow      | Yellow      | Grey        | Grey        | Grey        | Grey        |
| 28    | Coastal Andhra Pradesh              | Green       | Yellow      | Yellow      | Yellow      | Grey        | Orange      | Green       | Orange      |
| 29    | Telangana                           | Orange      | Yellow      | Yellow      | Yellow      | Yellow      | Yellow      | Grey        | Yellow      |
| 30    | Rayalaseema                         | Yellow      | Green       | Yellow      | Yellow      | Grey        | Orange      | Blue        | Yellow      |
| 31    | Tamil Nadu & Pondicherry            | Orange      | Orange      | Yellow      | Orange      | Yellow      | Blue        | Blue        | Orange      |
| 32    | Coastal Karnataka                   | Green       | Yellow      | Yellow      | Yellow      | Yellow      | Orange      | Green       | Yellow      |
| 33    | North interior Karnataka            | Green       | Orange      | Yellow      | Yellow      | Yellow      | Blue        | Grey        | Grey        |
| 34    | South interior Karnataka            | Green       | Green       | Yellow      | Yellow      | Grey        | Green       | Orange      | Yellow      |
| 35    | Kerala                              | Blue        | Green       | Yellow      | Orange      | Yellow      | Blue        | Blue        | Orange      |
| 36    | Lakshadweep                         | Blue        | Green       | Yellow      | Orange      | Yellow      | Blue        | Blue        | Orange      |

## LEGEND:

|                                       |   |
|---------------------------------------|---|
| <b>L. Excess: (+60 % or more)</b>     |  |
| <b>Excess: (+20 % to +59 %)</b>       |  |
| <b>Normal: (+19 % to -19 %)</b>       |  |
| <b>Deficient: (-20 % to -59 %)</b>    |  |
| <b>L. Deficient: (-60 % to -99 %)</b> |  |
| <b>No Rain: (-100 %)</b>              |  |
| <b>No Data:</b>                       |  |