# All India Coordinated Research Project on Agrometeorology

## CRIDA, Santoshnagar, Hyderabad – 500 059

## Weekly Crop Weather Information during 26th November to 1st December 2017

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

### Maharashtra

### *Madhya Maharashtra region*

The growth of kharif crops is satisfactory in this region. The harvesting of, Bajra, sunflower crops are in progress. In some parts of region harvesting is suspended due to rainfall Harvesting of normal/late sown soybean crop is almost over and the yield levels are expected to be good. Pigeon pea crop being at flowering stage appears in very good vigour indicative of a good harvest ahead. Growth and development of rabi crops is better due to receipt of retreating monsoon. Agricultural operations like The intercultural operations like weeding in late sown rainfed as well as in irrigated crops, the harvesting and threshing of soybean, sorghum and bajra crops are in progress in this region. Need based plant protection is being undertaken in Rabi sorghum, Chick pea, pigeon pea and sunflower. Weeding, manuring/fertilization and basin mulching of 1-5 years plantations, Plant protection sprays in pigeonpea and horticultural crops, inter cultivation in sunflower, the inter culturing operations in early sown rabi crop, the sowing of late sown rabi crops are in progress. Pearlmillet harvesting is at final stage, kharif sorghum at grain maturity and harvesting initiated at some places, Maize and Soybean harvesting and threshing is in progress, Ground Nut at pod maturity and harvesting stage, Sunflower in grain maturity stage, Pigeon pea in flowering to pod formation stage. Late sunflower - Grand growth stage to button stage Late Pearl millet - Harvesting stage Castor - Flowering stage Rabi Sorghum (early)- Panicle initiation Rabi Sunflower (early) - Grand growth to Button stage Ber -fruiting.

### *Konkan region*

Atmospheric condition was clear during morning hours around Dapoli during last week. Therefore 3.8 to 9.7 of Bright sunshine hours was recorded during last week. During last week 0.0 mm rainfall was recorded at Agrometeorological observatory, Dr. B.S.K.K.V. Dapoli. The maximum and minimum temperature ranged from 32.2 to 33.5 and 13.5 to 17.0 oC respectively. Wind velocity ranged from 1.7 to 2.5 km and wind was blowing from easterly Direction. Mango and Cashew crop is in vegetative and flowering initiation stage. Sowing of Wal, Cowpea & mustard on residual moisture is in progress.

### *Marathwada region*

No occurrence of rainfall. At Parbhani centre Maximum temperatures ranged from 29.5 to 31.6 °C and the minimum temperature from 8.4 to 12.0°C. The relative humidity (RH I) ranged between 73 % - 82 % and relative humidity (RH II) recorded was 17 % - 39 %. The wind speed

varied between 1.8-4.0 km/hr. the evaporation ranges between 3.6-4.2 mm. Rabi crop (Rabi Sorghum, Chickpea, Safflower, Wheat & vegetables) growth is satisfactory. Pigeonpea crops stands with good vigour pod development stage. Chickpea crop is in seedling stage to flowering stage in early sown areas. Safflower crop is in rosette stage in early sown areas. Agricultural operations like Cotton picking, 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 in rabi crops are under progress.

## Assam

Weather during the week was clear. The daily average maximum temperature was 27.7°C which is 1.4 degree above normal and the average daily minimum temperature was 13.8°c which is 0.4 degree above normal for the week. Total BSSH was 57.4 hrs only with an average of 8.2 hrs. The daily average evaporation and wind speed was 1.8 mm and 0.8 km/hr respectively. The daily average RH during morning and afternoon was 95% and 62% respectively. Sali rice: Physiological Maturity stage, Rabi vegetables: Vegetative/Flowering stage/Fruiting. Agricultural operations like Harvesting of sali rice, sowing of Boro rice in nursery bed are in progress. No major pests and diseases were noticed.

## Haryana

The clear sunny weather was observed during the week. Maximum temperature was 1.8 °C above whereas minimum temperature was equal to normal. This week not received the rainfall. The SSH were varies from 6.1 to 7.1 hrs. The cumulative pan evaporation was 15.3 mm which was 2.2 mm lower than the normal. The North westerly wind was dominated with calm/low wind speed during week. Mustard in vegetative stage. Wheat and barley in Emergence/CRI stage. Agricultural operations like the Marketing of harvested paddy grain. Progress in sowing of Wheat and Barley, Sowing of fodder crop like Berseem and Jai are in progress.

## Himachal Pradesh

The maximum temperature during the week ranged between 19.2°C to 21.0 which was above normal by 1.3 to 2.5 deg C and the minimum between 5.5 to 6.5°C which was below normal by -0.8 to -1.8 deg C during most part of the week. The relative humidity varied between 38- 74 per cent and sunshine 7.5 to 9.5 hrs/day with variable sky conditions (octa 0-8). The evaporation varied between 2.4 to 3.5 mm/day. Sowing of wheat and mustard are in progress. Agricultural operations like Arranging fodder for cattle and dairy animals, preparing their fields for sowing of winter vegetables and Rabi Crops, Nursery sowing of winter vegetables are in progress.

## Jammu & Kashmir

Mainly clear to partially cloudy weather prevailed during this week with no rainfall. Both maximum temperature remained normal and was in the range of 24.0 to 24.6 0C. The minimum temperature remained below normal by 1 to 2 0C and ranged from 5.8 to 7.6 0C, respectively. The morning and evening relative humidity was observed in the range of 92 to 97 % and 36 to 43%, respectively. The total evaporation observed 14.8mm and sunshine in the range of and 4.6 to 6.7 hrs during this period. In Rabi season about 21 per cent for wheat, 32 per cent of pulses, 47 per cent of oilseed, 51 per cent of vegetable and 54 per cent of fodder has been sown.In Doda district- sowing

of Wheat, Oilseeds, Pulses and fodder are under progress. Post-emergence stage in earliest sown areas. Transplantation of vegetables under progress. In Jammu district sowing of wheat delayed due to long dry spell. Sowing of vegetables like cauliflower, cabbage are in progress and harvesting of Knol Khol, Raddish, spinach are in progress. In Samba District, Sowing of Wheat and Pulses has been started. Oilseeds are in Pod formation stage. Due to continuous dry spell the sowing of Rabi 2017-18 crops particularly mustard and pulses have been delayed especially in unirrigated areas. In Kathua District, sowing of fodder/vegetables/oilseeds/pulses are in progress. Dry spell, moisture stress is constraint in the sowing process. Toria crop is badly affected. In Reasi District, Sowing of Wheat is at germination stage, Sowing of Oilseeds and Pulses are in initial stage. Sowing of Fodder is in Germination stage. Stuntted growth of vegetables due to dry weather. In Udhampur district, germination of Wheat, Pulses, Oilseeds and Fodder is poorly affected due to continuous drought. Sowing of vegetables and others is normal. In Kishtwar district, Sowing of Wheat, Pulses, Oilseeds, Fodder, Vegetables are in sowing stage. Agricultural operation like Sowing of wheat varieties (PBW-550, PBW-502, DPW-621-50, DBW-17, Raj-3077, HD-2967, HD-2687 and RSP-303) under irrigated conditions, Sowing of Lentil (var. L-4147, L-9/12, PL-406), Ist dose of nitrogen fertilizer as top dressing has been applied in mustard crop under irrigated condition, Hoeing and weeding in rabi pulses and oilseed, Intercultural operation viz hoeing, weeding and earthing in vegetable crops are in progress. No major pests and diseases were noticed.

## Jharkhand

Actual rainfall received during this week is less than Normal.Daily maximum and minimum temperature ranged from 23.3 to 25.1 degree C and 4.4 to 6.1 degree C, respectively. Average weekly maximum and minimum temperature was 24.4 to 5.2 degree C,respectively and their normal value is 24.6 to 9.9 degree C which was moderately less from their normal value. Agricultural operations like Harvesting and threshing of Rice, urd, moong, Maize and Soyabean. Harvesting of upland paddy crops, Land preparation for rabi crops along with sowing of chickpea, pea, maize,lentil, Niger, wheat and rapeseed are in progress. Paddy crops are at harvesting along with maize and soyabean. No major pests and diseases were noticed.

## Kerala

The maximum temperature ranges from 28.1 to 33.7 Deg C, minimum temperature ranges from 21.9 to 24.0 Deg C. Morning relative humidity ranges from 071% to 091% and afternoon relative humidity ranges from 052% to 085%. Wind speed ranges from 2.2 to 10.0 km/h. Evaporation ranges from 0.6 to 3.7mm. Sunshine hours range from 0.0 to 7.5 hours. 5cm morning soil temperature ranges from 21.9 to 27.1 Deg C and afternoon soil temperature ranges from 29.2to 37.3 Deg C. The Depression over Sri Lanka moved westwards and intensified into a deep depression and then into a cyclonic Storm (Ockhi). Second paddy crop in tillering stage. Agricultural activities like fertiliser application in banana, coconut. staking in tomato are under progress.

## Karnataka

### *North Karnataka*

Dry and cool weather prevailed in the region during the past week. Condition of the rabi crop is not satisfactory due to delayed sowing and lack of sufficient soil moisture. Pigeonpea- pod

development to maturity stage Chickpea- Branching to flowering stage Safflower- flowering stage Sorghum- ear head emergence to soft dough stage. Soil moisture condition is very poor and may not support the rabi crops up to their maturity. Agricultural activities like Intercultuvation in late sown rabi crops Threshing and drying of rabi crops Plnat protection in pigeonpea, chickpea, safflower, Horticultural crops are in progress.

## *South Karnataka*

State actual rainfall for 48th week i.e., 24th November to 30th November 2017 was 0 mm as against the normal of 5.0 mm with (-) 97 % deviation. Whereas SIK received 0 mm of rainfall as against the normal of 6.0 mm leading to (-) 96 % deviation. State actual rainfall from 1st January to 30th November was 1057.0 mm as against the normal of 1145.0 mm, by (-) 8 % deviation. Whereas SIK received 875.0 mm of rainfall as against the normal of 705.0 mm to (+) 24 % deviation. Rabi crops area coverage as on 27.11.2017.Out of the targeted area 86.52 % of cereals, 104.32 % of pulses, 75.37 % of oilseeds have already been sown. Out of the total targeted area of 32.00 lakh hectare, 29.33 lakh hectares has been covered under sowing (91.65 %). Agricultural operations like Harvesting of kharif crops like Ragi, Maize. sowing of rabi crops , Intercultural operation in rabi crops are under progress.

## Odisha

Rainfall Status. 2017 State average (From January to October) January : 1.6 mm February : 0.0 mm March : 32.4 mm April : 6.6 mm May : 49.7 mm June : 207.8 mm July : 340.1 mm August : 293.9 mm September : 186.0 mm October : 167.9 mm November : 38.8 mm December (up to 01). Rabi crop condition is satisfactory. Harvesting stage of medium rice Grain filling stage of late rice Grand growth stage of sugarcane Harvesting stage of early arhar and flowering of medium arhar Maturity stage of cotton Friuiting stage of brinjal, okra and cucurbits Vegetative stage of turmeric, zinger, colocasia and yam Flowering stage of rabi groundnut Harvesting stage of pre-rabi pulses like green gram, blackgram, Branching stage of sesame Seedling to branching stage of mustard, pea, gram and lentil. Agricultural operations like threshing of early and medium Rice Plant protection and irrigation of sugarcane Harvesting of cotton Irrigation and plant protection of mango, Cashew nut, coconut, papaya, Drumstick Planting of tomato, brinjal and cole crops Harvesting and Threshing of pre rabi crops Plant protection of chrysanthemum and marigold Harvesting of kharif pulses, sesame. groundnut, cotton and pulses Sowing and Intercultural operation of rabi crops such as groundnut, sunflower and pulses are under progress.

## Punjab

The maximum temperature during the week ranged between 24.6-26.4°C and minimum temperature ranged between 8.0-8.4°C. The morning and evening relative humidity during the week was 94 and 26-36%, respectively. The sunshine hours was 7.1-8.0 hrs/day. The evaporation rate was 2.0 mm day-1. Daily average wind speed varied from 0.5-2.0 kmhr-1. Wheat in seedling stage and Toria in flowering stage. Agricultural operations like Wheat sowing, application of irrigation to the wheat sown in 45 SMW, Application of irrigation to Barley, Lucerne, Oats and lentil sown in 44 SMW, Application of herbicide to Gobhi sarson sown in 45 SMW and wheat in 44 SMW, Transplanting of nursery of tomato are in progress.

## Rajasthan

Cool and foggy weather observed during the reporting period (24-30 November) in the state. At the centre, dry and cool weather observed during this week.Max. temp. ranges from 27.0 to 29.2 with mean value of 28.5 which is 1.9 degree above the normal value. The min. temp. ranges from 8.0 to 9.6 with mean value of 8.8 which is 0.6 degree below the normal value. The wind velocity ranges from 0.8 to 2.1 with mean value of 1.6 km/hr. The BSSH ranges from 7.3to 8.9 with mean value of 8.2 hrs. The mean evaporation is 2.3 mm. Wheat- Emergence to CRI stage; Mustard- vegetative to flowering stage; Gram- Flowering stage; Barley- Tillering stage. Agricultural operations like Sowing of wheat, Irrigation in wheat, barley, mustard, oat, berseem, lucern and vegetables. Fertilizer application in timely sowing wheat, barley and oat crop. Thinning and hoeing of mustard. Threshing & Winnowing of maize, sorghum, groundnut & Pulses are in progress.

## Tamil Nadu

General weather situation at Kovilpatti (48th meteorological week): ¬ Maximum temperature: 29.2°C (normal 31.0°C), minimum temperature: 22.5°C (normal 20.2°C), RH: 94.2% (normal 88 %), rainfall: 138.8 mm (normal 21.0 mm). Maximum temperature across the week was 1.8°C below normal and the minimum temperature was 2.3°C above normal. General Weather situation in Tamil Nadu: ¬ Maximum temperature range of 26°C - 34°C prevailed over the state except Kodaikanal and Uthagamandalam (15°C - 21°C) during the period under report. ¬ Minimum temperature range of 19°C - 26°C prevailed over the state while Kodaikanal and Uthagamandalam recorded minimum temperature range of 9°C - 12°C during the same period. ¬ With respect to daily rainfall, rainfall occurred at many places over the state on 27.11.2017, 28.11.2017, 30.11.2017 and at isolated places 26.11.2017, 29.11.2017 during the week. ¬ With regard to weekly rainfall, large excess rainfall was received in Ramanathapuram, Sivaganga and Tirunelveli districts whereas Ariyalur, Dindigul and Nagapattinam districts recorded excess rainfall. Normal rainfall was obtained in Chennai, Cuddalore, Kancheepuram, Kanyakumari, Madurai, Pudukkottai, Thanjavur, Tiruvarur, Toothukudi, Tiruchirapalli and Virudhunagar districts. All other districts received deficit rainfall during week ending 1.12.2017. Tirunelveli district: Cotton, pulses, sorghum and maize are in reproductive stage. Sowing of coriander and senna are in progress. Paddy is in vegetative stage. Virudhunagar district: Cotton, sorghum, maize and pulses are in reproductive stage. Sowing of coriander and senna are in progress. Chillies is in vegetative stage. Tuticorin district: Cotton, sorghum, pulses and maize are in vegetative stage to reproductive stage. Sowing of coriander and senna are in progress. Chillies is in vegetative stage. Cotton, sorghum, pulses and maize are in reproductive stage. Paddy and chillies is in vegetative stage. Agricultural operations like Sowing of coriander and senna are in progress. Weeding and intercultural operations for cotton, sorghum, pulses etc., are under progress. Plant protection measures for controlling stem borer and stem weevil for sorghum and cotton respectively are in progress.

## Uttarakhand

Dry weather condition prevailed in the region. Mostly, general weather condition near Normal. Poor, as no rainfall has occurred since 26-09-2017 there is no sufficient moisture in soil for the proper germination of wheat & other rabi crops. Emergence/Seedling stage of wheat in the valley,Vegetables are in Seedling stage. Agricultural operations like Sowing of rabi crops where residual soil moisture is available, irrigation in wheat in Valley. hoeing irrigation & mulching in

vegetable crops, transplanting of onion, application of farmyard manure in the orchards, digging of pits for establishment of new orchards are in progress.

## Western Uttar Pradesh

Cloudy weather may be appear and dry but fog may be prevailing and no rainfall during this period. Maximum temperature may be near to its normal and minimum temperature may be 1.0 to 2.00C lower to its normal. North-Westerly/Westerly winds may be prevailing on 4.0 to 9.0 km/hr which is 2-3 kmph above to its normal during these days. Wheat, Barley, Mustard , Pulses and vegetables are going on good condition. Wheat : Emergence/ CRI, Barley: Emergence/ CRI, Toria: Flowering/ Padding, Gram: Emergence/ Vegetative, Pea: Emergence/ Vegetative, Pigeon pea : Vegetative/ Branching , Mustard: Emergence / Vegetative, Vegetables: Transplanting/Flowering / Fruiting. Agricultural operations like Wheat: Sowing. Barley: Sowing. Pigeon pea : Spray insecticide. Gram: Sowing and weeding. Pea: weeding. Lentil: Sowing and weeding. Toria: Nil. Mustard: Weeding and thinning. Brinjal / Chilies: Weeding , plucking, marketing, spray pesticide . Leafy Vegetable : Cutting and marketing. Animal: Protect from cold and common diseases are in progress.

## West Bengal

Weather conditions during the 48th week at Mohanpur, West Bengal: Maximum temperature: 26.5 to 28.4 0C, Minimum temperature: 12.3 to 13.5 0C, bright sun shine hours: 7.1 to 8.4 hours, Morning-time relative Humidity: 86% to 91%, after noon-time R.H: 42% to 52%. Total weekly pan evaporation: 7.6 mm, Total rainfall: 0.0 mm and average daily wind speed is around 0.23 km/h. Chili, cowpea, brinjal, cucumber, all gourds and leafy vegetables: Maturity stage. Winter vegetables like; Cabbage, cauliflower, tomato, chili: Vegetative as well as mature stage. Sugarcane: Maturity stage. Mustard and early potato: Seedling stage. Agricultural operations such as Sugarcane: Intercultural operation as well as harvesting is going on, Intercultural operation for winter vegetables (tomato, chili, cabbage, cauliflower, onion etc.) is on progress, Sowing operations for potato, sweet potato and beet are going on.

# Weather during 23rd to 29th November 2017

## Northeast Monsoon

- North East Monsoon was active over Tamil Nadu & Puducherry on 27th and 28th November 2017.

## Minimum Temperature

- During the week, minimum temperatures were below normal at most/many places over Jharkhand and Bihar on many days; over Gangetic West Bengal, Odisha, Haryana, Chandigarh & Delhi and Chhattisgarh on a few days and over East Uttar Pradesh, Punjab, Rajasthan, East Madhya Pradesh, and Saurashtra & Kutch & Diu on one or two days of the week. It remained above normal or nearly normal over the rest regions of the country during the week.
- In the plains of the country, the minimum temperatures were the lowest on many days at Sikar (Rajasthan) and the station recorded the lowest minimum temperature of 3.00 C for the week on 23rd & 25th November, 2017.
- Cold wave conditions prevailed at isolated places over Rajasthan and Uttar Pradesh on many days and over northeast Madhya Pradesh on a few days of the week.

## FOG

- Dense to very dense fog observed at isolated places over Assam & Meghalaya, Tripura and West Madhya Pradesh on one or two days of the week and moderate to dense fog was observed at isolated places over Assam & Meghalaya, Gangetic West Bengal, Tripura, Punjab and Uttar Pradesh one or two days of the week.

## Meteorological Analysis

- Last week's trough of low at mean sea level over Lakshadweep area & neighbourhood persisted with a cyclonic circulation aloft extending upto 0.9 km above mean sea level on 23rd. The cyclonic circulation aloft became less marked whereas the trough of low at mean sea level persisted over the same region on 24th.It has become less marked on 25th November 2017.
- Last week's low pressure area over Andaman Sea & neighbourhood with associated cyclonic circulation extending upto 3.1 km above mean sea level lay over SouthEast and adjoining EastCentral Bay of Bengal with associated cyclonic circulation extending upto 1.5 km above mean sea level on 23rd. It lay over central parts of South Bay of Bengal & adjoining Equatorial Indian Ocean with associated cyclonic circulation extending upto 3.1 km above mean sea level on 24th; over SouthWest Bay of Bengal and adjoining Equatorial Indian Ocean with associated cyclonic circulation extending upto 1.5 km above mean sea

level on 25th; over SouthWest Bay of Bengal and adjoining southeast Sri Lanka with associated cyclonic circulation extending upto 1.5 km above mean sea level on 26th. It lay as a trough of low at mean Sea level over SouthEast Arabian Sea & adjoining Maldives area on 27th; It extended from SouthEast Arabian Sea & adjoining Maldives area to Lakshadweep area on 28th; and became less marked on 29th November 2017.

- A Western Disturbance as a trough at 3.1 km above mean sea level ran roughly along Long 73° E to the North of Lat. 33° N on 23rd; roughly along Long 85° E to the North of Lat. 25° N on 24th; roughly along Long 90.0°E to the North of Lat. 25.0°N on 25th; roughly along Long 92°E to the north of Lat. 25°N at 4.5 km above mean sea level on 26th;roughly along Long 94°E to the north of Lat. 25°N between 3.1 km and 4.5 km above mean sea level on 27th; It maintained its position but was seen at 5.8 km above mean sea level on 28th and became less marked on 29th November 2017.
- A cyclonic circulation lay over south Assam & neighbourhood extending upto 1.5 km above mean sea level on 23rd; It persisted over the same region and extended between 1.5 km & 2.1 km above mean sea level on 24th and became less marked on 25th November 2017.
- Last week's feeble Western Disturbance as an upper air cyclonic circulation over northeastern parts of Jammu & Kashmir and neighbourhood at 3.1 km above sea level has moved away eastnortheastwards on 23rd November 2017.
- A fresh Western Disturbance as a trough in mid and upper tropospheric levels ran roughly along Long 45° E to the North of Lat. 25° N at 5.8 km above mean sea level on 24th; roughly along Long 52.0° E to the North of Lat. 25.0° N at 5.8 km above mean sea level on 25th. It was seen in mid-tropospheric levels roughly along Long 62° E to the North of Lat. 32° N at 3.1 km above mean sea level on 26th; roughly along Long 70° E to the North of Lat. 32° N at 3.1 km above mean sea level on 27th. It was seen as an upper air cyclonic circulation at 3.1 km above sea level over north Pakistan & neighbourhood on 28th and it persisted over the same region on 29th November 2017.
- A feeble Western Disturbance as a cyclonic circulation lay over Jammu & Kashmir and neighbourhood at 3.1 km above mean sea level on 25th; over northern parts of Jammu & Kashmir and neighbourhood at 3.1 km above mean sea level on 26th and moved away eastnortheast wards on 27th November 2017.
- A trough of low at mean sea level lay over SouthWest Bay of Bengal & adjoining Sri Lanka coast on 27th. It lay as a Low Pressure Area over SouthWest Bay of Bengal and adjoining areas of south Sri Lanka & Equatorial Indian Ocean with associated cyclonic circulation extending upto 3.1 km above mean sea level on 28th. It became Well Marked Low pressure area over SouthWest Bay of Bengal and adjoining Equatorial Indian Ocean and Sri Lanka in the morning and subsequently concentrated into a Depression and lay over SouthWest Bay of Bengal off Sri Lanka coast near latitude 6.5°N and Longitude 81.8°E, about 80 km to the eastsoutheast of Hambantota and 500 km east southeast of Kanyakumari on 29th November 2017.
- Another trough of low at mean sea level lay over Malay Peninsula & neighbor hood on 27th and it persisted over the same region on 28th & 29th November 2017.

- A Western Disturbance as a trough in mid tropospheric levels ran roughly along Long 60°E to the north of Lat. 35°N at 5.8 km above mean sea level on 28th. It ran roughly along Long 62°E to the north of Lat. 35°N at 5.8 km above mean sea level on 29th November 2017.
- A north south trough ran roughly along Long 90°E to the north of Lat. 25°N at 5.8 km above mean sea level on 29th November 2017.

## Average rainfall during the week

The All India area weighted rainfall during the week 1.8 mm was 67% below normal (5.8 mm).

The subdivision-wise weekly rainfall distribution is presented in Fig.1. Rainfall was excess in 2, normal in 4, deficit in 4, L. deficit in 6 and no rain in 20 out of 36 meteorological sub-divisions.

## Cumulative Seasonal rainfall (1st October to 29th November 2017)

The cumulative seasonal rainfall during 1st October to 29th November 2017 over the country as a whole was 95.9 mm which is 13% less normal rainfall of 110.4 mm.

The subdivision-wise seasonal rainfall distribution is presented in Fig. 2. Rainfall was L. excess in 1, excess in 5, normal in 13, deficit in 6 and L. deficit in 11 out of 36 meteorological sub-divisions.

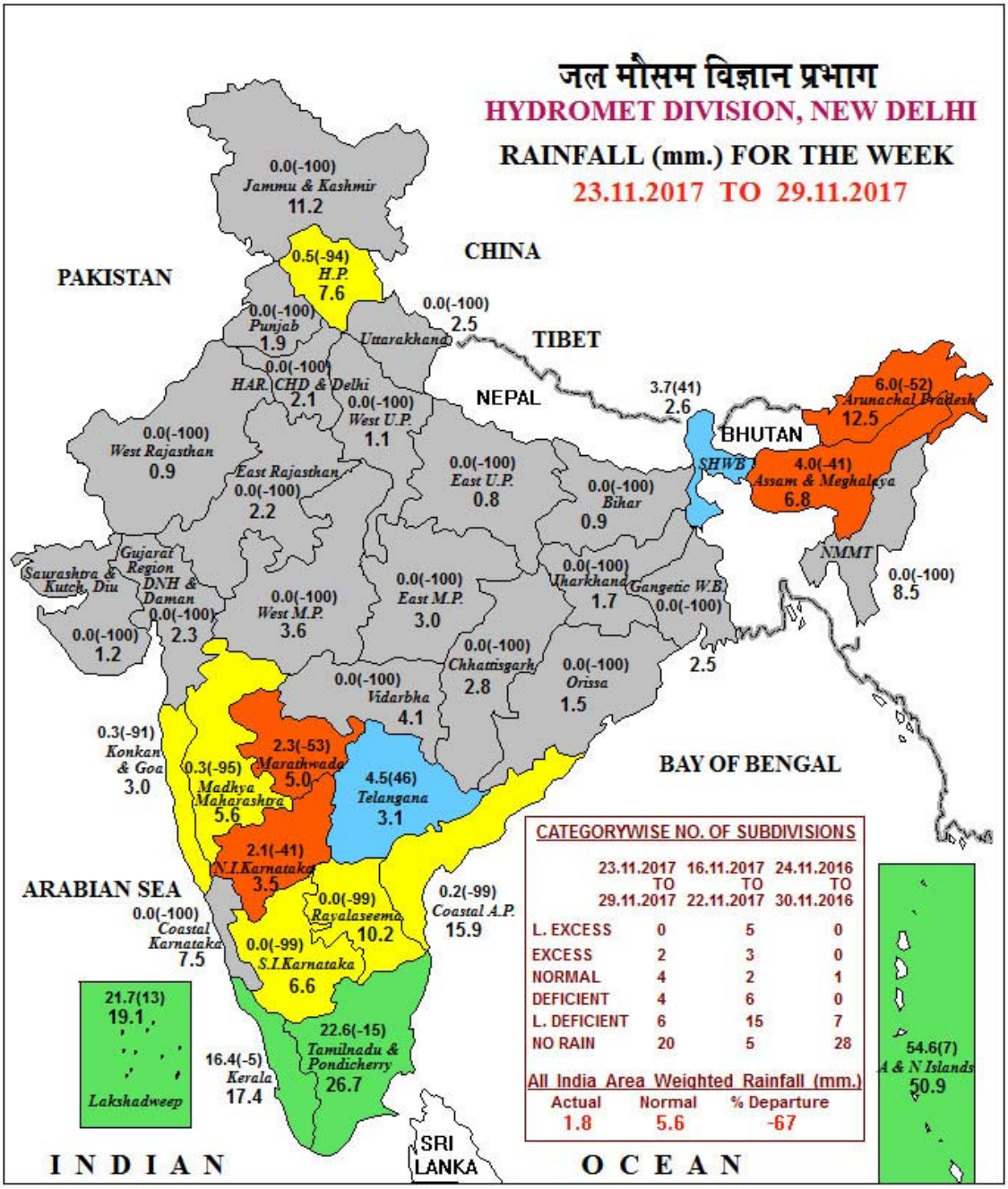
## State-wise distribution of rainfall in number of districts with large excess, excess, normal, deficient, large deficient and no rainfall during post monsoon season (1st October to 29th November 2017)

In the country, 9% districts received large excess, 11% districts received excess and 16% districts normal rainfall during post monsoon season so far. However, 18% districts received deficient, 23% districts received large deficient rainfall and 23% districts received no rainfall and 0 districts received no data. (Table-1).

## Weekly rainfall departure (%) at different IMD subdivisions (2017)

During the week under report 2 Sub-division viz.; Telangana & Sub Himalayan West Bengal & Sikkim Sub-divisions received excess rainfall, 4 Sub-division viz.; Tamilnadu, Kerala, Lakshadweep and A & N Islands received normal rainfall, and remaining 30 Sub-divisions received either deficit / large deficit / no rainfall. (Table-2).

# भारत मौसम विज्ञान विभाग
# INDIA METEOROLOGICAL DEPARTMENT




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

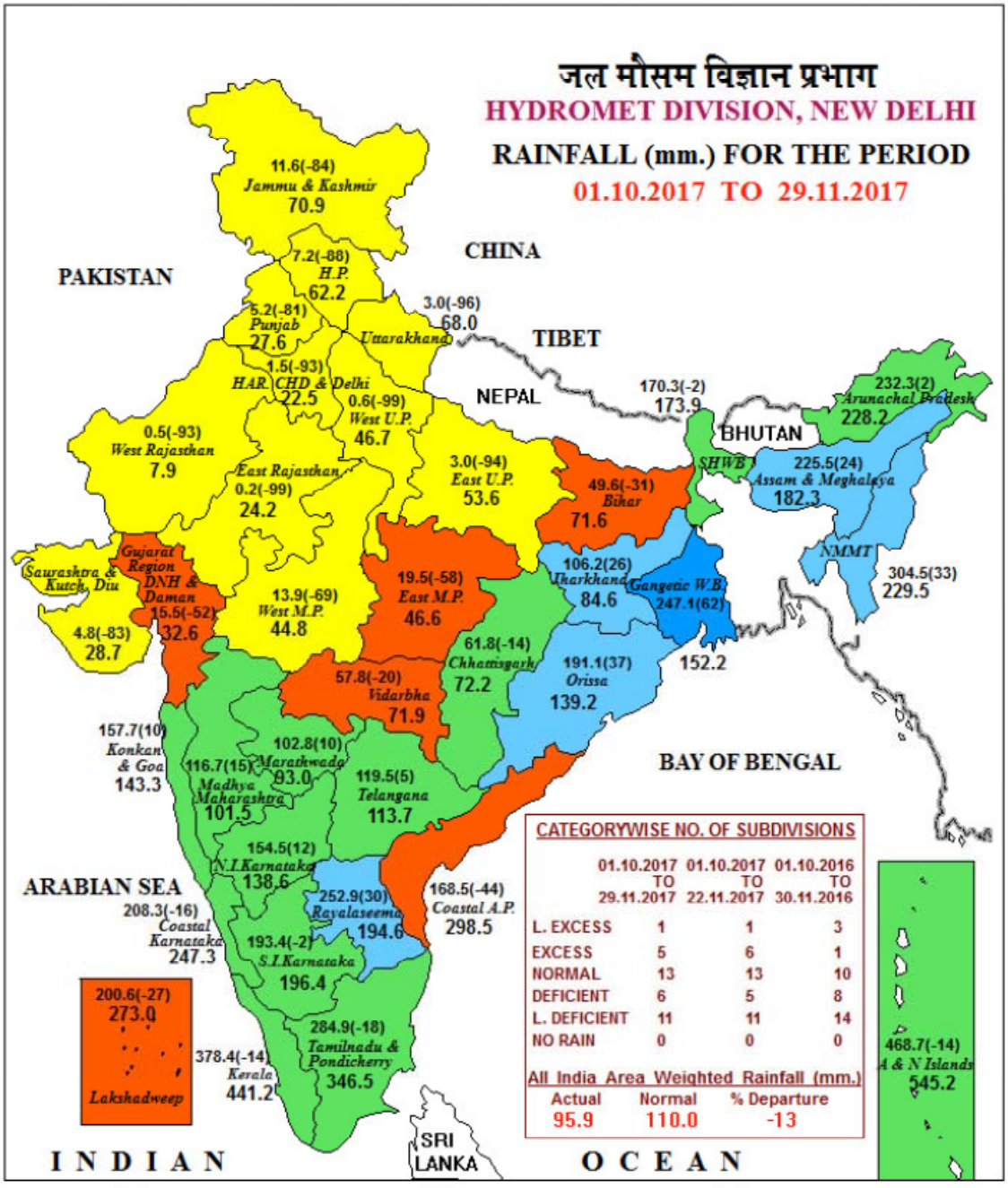



**Fig-2**

**Table 1. State wise distribution of number of districts with large excess, excess, normal, deficient, large deficient, no rainfall and data inadequate shown (01.10.2017 to 01.29.2017)**

| Sl No | STATES | PERIOD FROM : 01.10.2017 to 29.11.2017 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | LE | E | N | D | LD | NR | ND | TOTAL |
| 1 | A & N ISLAND (UT) | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| 2 | ARUNACHAL PRADESH | 2 | 4 | 1 | 3 | 2 | 0 | 4 | 16 |
| 3 | ASSAM | 6 | 10 | 9 | 1 | 0 | 0 | 1 | 27 |
| 4 | MEGHALAYA | 2 | 1 | 1 | 0 | 0 | 0 | 3 | 7 |
| 5 | NAGALAND | 0 | 0 | 2 | 0 | 0 | 0 | 9 | 11 |
| 6 | MANIPUR | 1 | 1 | 0 | 0 | 0 | 0 | 7 | 9 |
| 7 | MIZORAM | 1 | 0 | 1 | 1 | 0 | 0 | 6 | 9 |
| 8 | TRIPURA | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| 9 | SIKKIM | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 |
| 10 | WEST BENGAL | 11 | 3 | 2 | 3 | 0 | 0 | 0 | 19 |
| 11 | ODISHA | 8 | 12 | 10 | 0 | 0 | 0 | 0 | 30 |
| 12 | JHARKHAND | 7 | 6 | 3 | 7 | 1 | 0 | 0 | 24 |
| 13 | BIHAR | 5 | 2 | 3 | 7 | 14 | 7 | 0 | 38 |
| 14 | UTTAR PRADESH | 0 | 0 | 0 | 2 | 21 | 49 | 0 | 72 |
| 15 | UTTARAKHAND | 0 | 0 | 0 | 0 | 10 | 3 | 0 | 13 |
| 16 | HARYANA | 0 | 0 | 0 | 0 | 9 | 12 | 0 | 21 |
| 17 | CHANDIGARH (UT) | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 18 | DELHI | 0 | 0 | 0 | 0 | 4 | 4 | 1 | 9 |
| 19 | PUNJAB | 0 | 0 | 0 | 6 | 11 | 3 | 0 | 20 |
| 20 | HIMACHAL PRADESH | 0 | 0 | 0 | 1 | 9 | 2 | 0 | 12 |
| 21 | JAMMU & KASHMIR | 0 | 0 | 0 | 1 | 17 | 2 | 2 | 22 |
| 22 | RAJASTHAN | 0 | 0 | 0 | 0 | 5 | 28 | 0 | 33 |
| 23 | MADHYA PRADESH | 0 | 2 | 3 | 7 | 25 | 14 | 0 | 51 |
| 24 | GUJARAT | 2 | 2 | 0 | 6 | 7 | 16 | 0 | 33 |
| 25 | D & NH (UT) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 26 | DAMAN & DIU (UT) | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| 27 | GOA | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| 28 | MAHARASHTRA | 2 | 6 | 19 | 9 | 0 | 0 | 0 | 36 |
| 29 | CHHATISGARH | 2 | 2 | 8 | 10 | 4 | 1 | 0 | 27 |
| 30 | ANDHRA PRADESH | 0 | 4 | 1 | 7 | 1 | 0 | 0 | 13 |
| 31 | TELANGANA | 1 | 3 | 4 | 2 | 0 | 0 | 0 | 10 |
| 32 | TAMILNADU | 0 | 3 | 9 | 20 | 0 | 0 | 0 | 32 |
| 33 | PUDUCHERRY (UT) | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 4 |
| 34 | KARNATAKA | 1 | 9 | 12 | 7 | 1 | 0 | 0 | 30 |
| 35 | KERALA | 0 | 1 | 5 | 7 | 1 | 0 | 0 | 14 |
| 36 | LAKSHADWEEP (UT) | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | TOTAL | 55 | 73 | 98 | 114 | 143 | 142 | 35 | 660 |
| CATEGORYWISE DISTRIBUTION OF DISTRICTS OUT OF THE 625 WHOSE DATA RECEIVED | | | | | | | | | |
| | | 9% | 11% | 16% | 18% | 23% | 23% | | |

## Table 2.Weekly Rainfall Departure (%) at different IMD subdivisions (2017)

| S.No. | Meteorological Sub Division | 11 Oct (41) | 18 Oct (42) | 25 Oct (43) | 01 Nov (44) | 08 Nov (45) | 15 Nov (46) | 22 Nov (47) | 29 Nov (48) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Andaman & Nicobar Islands | | | | | | | | |
| 2 | Arunachal Pradesh | | | | | | | | |
| 3 | Assam & Meghalaya | | | | | | | | |
| 4 | Nagaland, Manipur, Mizoram, Tripura | | | | | | | | |
| 5 | Sub-Himalayan West Bengal & Sikkim | | | | | | | | |
| 6 | Gangetic West Bengal | | | | | | | | |
| 7 | Orissa | | | | | | | | |
| 8 | Jharkhand | | | | | | | | |
| 9 | Bihar | | | | | | | | |
| 10 | East Uttar Pradesh | | | | | | | | |
| 11 | West Uttar Pradesh | | | | | | | | |
| 12 | Uttarakhand | | | | | | | | |
| 13 | Haryana, Chandigarh & Delhi | | | | | | | | |
| 14 | Punjab | | | | | | | | |
| 15 | Himachal Pradesh | | | | | | | | |
| 16 | Jammu & Kashmir | | | | | | | | |
| 17 | West Rajasthan | | | | | | | | |
| 18 | East Rajasthan | | | | | | | | |
| 19 | West Madhya Pradesh | | | | | | | | |
| 20 | East Madhya Pradesh | | | | | | | | |
| 21 | Gujarat Region | | | | | | | | |
| 22 | Saurashtra, Kutch & Diu | | | | | | | | |
| 23 | Konkan & Goa | | | | | | | | |
| 24 | Madhya Maharashtra | | | | | | | | |
| 25 | Marathwada | | | | | | | | |
| 26 | Vidarbha | | | | | | | | |
| 27 | Chhattisgarh | | | | | | | | |
| 28 | Coastal Andhra Pradesh | | | | | | | | |
| 29 | Telangana | | | | | | | | |
| 30 | Rayalaseema | | | | | | | | |
| 31 | Tamil Nadu & Pondicherry | | | | | | | | |
| 32 | Coastal Karnataka | | | | | | | | |
| 33 | North interior Karnataka | | | | | | | | |
| 34 | South interior Karnataka | | | | | | | | |
| 35 | Kerala | | | | | | | | |
| 36 | Lakshadweep | | | | | | | | |

# 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:** | |