All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Weekly Crop Weather Information during 04th to 10th June 2018

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

Maharashtra

Vidarbha region

Maximum temperature across the week was 3.0 °C below normal. Minimum temperature across the week was 1.5°C below normal. Vidarbha subdivision as a whole recorded 19.0 mm (+66%) rainfall during 1- 6 June. Akola location recorded 81.0 mm rains during 1- 6 June . Evaporation rate 11.2 mm (normal 13.7 mm), Wind speed 10.7 km/hr (normal 14.0 km/hr) and BSH 4.0 hrs (normal 8.3 hrs). Dry and warm weather with pre-monsoon rains prevailed across the region in past week. Though monsoon onset has occurred in some parts of Vidarbha (June 8), significant rains have not occurred. Further conditions are becoming favourable for further advance of Southwest Monsoon into some more parts of Vidarbha during next 48 hours. Preparatory tillage and cleaning campaign of kharif fields is being carried out in remaining fields. Agriculture operations like tillage preparations and cleaning campaign was underway for kharif fields. Spreading and incorporation of FYM/compost in fields is in progress. Maintenance work of farm pond , contour / drainage lines in fields are being carried out. Wherever irrigation is available, pre-monsoon cotton sowing and nursery sowing of kharif vegetables is being carried out. Remaining harvests of summer crops (groundnut/maize),vegetables, mango are underway. Summer groundnut/summer maize/summer vegetables are harvested . Musk melon/sapota/mango/water melon/hasta bahar acid lime/cluster bean/okra are at harvest stage as per maturity of fruits. Contingency measures like taking advantage of the recent pre-monsoon/soaking rains complete pre-sowing tillage operations for ready to sow fields and keep the inputs ready. For effective in situ moisture conservation, preparatory tillage operations for the ensuing kharif should be along the contour and across the field slope. Sowing of crops should be undertaken after sufficient pre-soaking monsoon rains, when 2 to 3 days of about 60-75 mm monsoon rainfall has occurred. Undertake remaining harvest of matured summer crops/orchards/vegetables with safe storage of harvested produce. Farm livestock be provided with green forage/sufficient water, screening of farm livestock, draught/milch animals for diseases be considered and they be dewormed and vaccinated. No major pests and diseases was noticed.

Marathwada region

During this week range of maximum temperature was 26.0 to 37.8 °C and minimum temperature was in the range of 20.0 to 24.0 °C . The range of RHI was 79 to 100 and RHI range was from 43 to 91. The range of wind speed was 4.2 to 7.4 kmph. While the BSS was in the range of 2.3 to 7.4 hrs. Agriculture operations like Preparatory tillage is underway in fields. Spreading and incorporation of FYM/compost in fields is in progress. For contingency measures, in

vegetables, the roots of onion seedlings should be treated with 1 gm Carbedazim + 1 ml Carbosulfan per liter of water before transplanting. No major pests and diseases was noticed.

Konkan region

Atmospheric condition was clear during morning hours around Dapoli during last week. Therefore 0.0 to 6.6 of Bright sunshine hours was recorded during last week. The maximum and minimum temperature ranged from 31.5 to 33.0 and 22.0 to 24.6 ^{o}C respectively. Wind velocity ranged from 2.4 to 5.9 km and wind was blowing from easterly Direction. Emergence of Rice in nursery is in progress. Sowing of vegetable on kitchen scale. Cleaning of arecanut , mango and coconut orchards. Agriculture operations like Cleaning of arecanut, mango, coconut orchards, rice nursery bed preparation was observed. Emergence of Rice in nursery is in progress. There is possibility of incidence of stem borer on cashew nut and mango plants on onset of monsoon. Use light trap for collection of stem borer and destroy the collected insects by dipping in insecticide solution. No major pests and diseases was noticed.

Bihar

Widespread rainfall activity was observed in the state particularly in north and central Bihar. South Bihar remained mostly dry. Hot and humid conditions prevailed across the state. Except one or two days, scorching sun accompanied by very hot winds prevailed across much of the state. However, rain gave some respite during 7-8 June. Most of the standing vegetables and summer maize experienced severe moisture stress. The situation got worsened in the areas where no rainfall was recorded during the week. Agriculture operations like harvesting of litchi and mango was observed. Rice nursery was prepared. Intercultural operation is advised in summer vegetables such as lady's finger, pumpkin, cucumber, sponge gourd etc. For kharif onion Nursery was prepared. Field preparation and sowing of kharif maize varieties such as Shaktiman 1, Shaktiman 2, Shaktiman 3, Shaktiman 4, Shaktiman 5, Rajendra Shankar makka 3, Suwan and Deoki. Irrigation in standing crops such as vegetables and summer maize. Elephant foot yam was in the vegetative stage. Kharif maize was in germination stage. Litchi was in maturity stage and is being harvested. Moong and black gram was in maturity stage. In standing crops particularly vegetables and summer maize crops, frequent irrigation was given. Vaccination against Anthrax, Black Quarter diseases of animals is advised. Farmers are advised to give plenty of clean and fresh water to the animals and keep them in the shade. No major pests and diseases was noticed.

Assam

Weather during the last week was partially cloudy. Daily average maximum temperature was 34.5°C which was 2.8 above normal and the average daily minimum temperature was 25.1°C which was 1.1 above normal for the week. Total BSSH was 46.6 hrs with an average of 6.7 hrs. The daily average evaporation rate was 4.0 mm/day and the average daily wind speed during the week was 2.2 kmph. Daily average RH during morning and afternoon hour was 92.7 % and 66 % respectively. General crop condition was good. Agriculture operations like Land preparation of sali rice, Intercultural operation of summer vegetables and sugarcane. Summer vegetables are in flowering stage. Chilli (Var. *Bhot jolokia*) are in fruiting stage. No major pests and diseases was noticed.

Gujarat

The actual average maximum temperature is 2.6°C and minimum temperature is 1.6°C higher as compared to their normal values. Total BSS was 62.4 hours with an average of 8.9 hrs. The daily average evaporation and wind speed was 10.3 mm and 9.1 km/hr respectively. The daily average RH during morning and afternoon was 73.6 % and 36.9 % respectively. All summer crops are in maturity stage. Mature crops was harvested and store in safe place. Apply irrigation to all summer crops as and when required as an important agriculture operation. Land preparation for kharif crops. Most of the summer crops are in maturity stage. No major pests and diseases was noticed.

Haryana

Hot weather was mainly observed during the period. Gusty winds with rainfall observed at some isolate places on 6th & 9th June. Maximum and minimum temperature was above normal during the week except on 7th & 10th June. During the period 7.7mm of total rainfall was recorded. The bright sunshine hours range was 1.5 to 7.5. The cumulative pan evaporation was recorded 60.0mm which is 20.4 mm lower than normal value. Easterly wind was mainly observed during the period. Rice crop is at transplanting stage. Cotton at emergence and early vegetative growth stage as per date of sowing. Moong at pod development stage. Irrigation is recommended for moong, cotton and nursery rice as an important Agricultural operations. Field is prepared for rice transplanting. Hoeing-harrowing in cotton crop. Cotton crop is at vegetative growth stage, moong at pod development stage and rice at transplanting stage. No major pests and diseases was noticed.

Himachal Pradesh

The maximum temperature ranged between 28.0 to 32.0°C which remained below normal by 0.1 to 1.2 °C and the minimum ranged between 19.0 to 23.5 °C which remained above normal by 0.2 to 3.1°C during the week. The relative humidity varied between 48 to 91 per cent and sunshine 1.5 to 8.5 hrs. /day with variable sky conditions (Octa 0-8). The evaporation varies between 5 to 8.5 mm/day. Land is prepared by farmers for sowing of kharif crops. Agriculture operations like arranging fodder for cattle and dairy animals is in progress. Maize and Rice is in Seedling stage. No major pests and diseases was noticed.

Madhya Pradesh

Pre-monsoon rains started in eastern Madhya Pradesh from June 09, 2018. Maximum temperature lowers down due to sudden light showers in the entire state. As major agriculture operation, field preparations is in progress for sowing of kharif season crops and vegetables. No major pests and diseases was noticed.

Karnataka

North Karnataka

Partly cloudy condition prevailed and widespread rainfall through thundershowers has been received in all districts of north Karnataka during the week. Land preparation and procurement of

seeds & fertilizers to take up kharif sowing. Plant protection measures in horticultural crops. Fruit rot disease observed in Tomato and Bacterial blight observed in Pomegranate.

South Karnataka

State actual rainfall for 23rd week i.e., 4th June to 10th June 2018 was 42.0 mm as against the normal of 36.0 mm with (+) 36 % deviation. Whereas Southern Karnataka received 45.0 mm of rainfall as against the normal of 22.0 mm leading to (+) 102 % deviation. State actual rainfall from 1st January to 7th June 2018 was 238.0 mm as against the normal of 165.0 mm, by (+) 44 % deviation. Southern Karnataka received 281.0 mm of rainfall as against the normal of 173.0 mm to (+) 63 % deviation. Land preparation and sowing of kharif crops commenced in some parts of South Interior districts. Agriculture operations like land preparation and sowing of Kharif crops like Ragi, Maize, Ground nut and Redgram crops is under progress. Kharif crops are in sowing and Germination stage. Summer crops are maturity and harvesting stage. Anthracnose disease detected in Mango at mild intensity.

Odisha

Field preparation and broadcasting of kharif paddy is under progress. Sowing of non Paddy crops like Ragi, Maize, Pulses, Jute, Oilseeds, Vegetables and Spices has been started. Rainfall during this week is deficient. Overall crop condition is Normal. Agriculture operations like sowing of green manuring crops like sunhemp, cowpea and dhaincha, sowing of kharif dry direct seeded paddy in low land, raising dry bed nursery for rice and ragi seedlings under irrigated condition, sowing of ragi, sowing of maize, pigeon pea, sowing of cotton, groundnut was observed. Intercultural operation and plant protection of jute and sugarcane. Planting of tube rose. Planting of chrysanthemum. Top dressing of jasmine Intercultural of Tuberose Land preparation and planting of Kharif vegetables are other important agriculture operations observed in the State. Green manuring crop is at seedling stage . Fruiting stage of brinjal, chilli, ginger, colocasia and yam Branching stage of Jute. No major pests and diseases was noticed.

Tamil Nadu

Maximum temperature was 37.5°C (normal 37.6°C), minimum temperature recorded was 26.1°C (normal 24.4°C), RH observed was 68.4% (normal 70 %), large excess rainfall was received in Ariyalur, Ramanathapuram, Salem, Tiruvannamalai, Vellore and Villupuram districts whereas Coimbatore, Kanchipuram and Tiruvarur, districts recorded excess rainfall. Normal rainfall was obtained in Dharmapuri, Dindigul, Kanyakumari, Krishnagiri, Sivaganga, Thanjavur and Tiruvallur district. All other districts received deficit rainfall so far. In Tirunelveli district, Paddy is in vegetative stage, Pulses is in pod development to maturity stage, Sorghum is in milky stage, Citrus is in fruiting stage, Chillies is in vegetative stage, Lady's finger is in flowering stage. In Virudhunagar district, Pulses is at pod development to maturity stage, Tomato and Lady's finger are in fruiting stage, Jasmine is in flowering stage. In Tuticorin district: Banana is in bunch development to harvest stage, Sorghum is in Milky stage, Pulses is in Pod development to maturity stage, Chillies in vegetative stage. Agriculture operations like Plant protection measures for controlling pests and diseases are in progress. Leaf folder disease in Paddy, Yellow mosaic virus in Pulses, Canker in Citrus, Sucking pest in Chillies was observed.

Punjab

The maximum temperature during the week ranged between 33.4-41.4 °C and minimum temperature ranged between 21.8-31.4 °C. The morning and evening relative humidity during the week varied between 50-91 and 30-63 %, respectively. The sunshine hours varied between 3.2-12.2 hrs/day. The evaporation varied between 5.0-12.0 mm . Daily average wind speed varied from 2.7-12.4 km/hr. General crop conditions was good. Sowing of rice nursery and groundnut is in progress. Sugarcane crop was irrigated at 10-12 days interval. Cotton is in Vegetative stage. No major pests and diseases was noticed.

Rajasthan

Severe heat waves prevailed in the entire state during this week. Sriganganagar remained hottest in the state . The Maximum temperature ranged from 37.0 to 41.6 ^{o}C with mean value of 40.0 ^{o}C which was 1.5 ^{o}C more than normal. Minimum temperature was ranged from 26.6 to 29.2 ^{o}C with mean of 27.8 ^{o}C which was below normal by 1.6 ^{o}C during this week. Wind velocity ranges from 7.3 to 9.7 km/hr with mean value of 8.6 km/hr. BSSH ranges from 6.4 to 9.5 hrs with mean value of 8.6 hrs. Mean evaporation is 8.6 mm. General crop condition of Summer crop was good. Agriculture operations like summer Ploughing, irrigation in fodder crops and vegetables and FYM application. Summer maize was in tasseling stage. No major pests and diseases was noticed.

Uttrakhand

Moderate cloud to overcast with 69.6 mm. Maximum temperature ranges between 20.4-25.9 ^{o}C. Minimum Temperature ranged between 13.1-18.1^{o}C. Bright sunshine hours ranged between 0.5-11.0 hours. Wind speed remained between 1.7-5.4 km/hour. General crop condition was satisfactory. Agriculture operations like sowing of kharif crops, transplanting of paddy (Irrigated) and intercultural operations in spring sown crops as well as vegetable crops was observed. Spring sown crops was in Vegetative/Seedling stage, Tomato/okra was in fruiting stage . temperate fruits was in fruit development stage. No major pests and diseases was noticed.

West Bengal

Light rainfall received in West Bengal state during the week. Maximum temperature ranged from 35.0 to 37°C, minimum temperature ranged from 26.0 to 28.0 °C. Vegetables like Okra, Brinjal, Chilli and other summer vegetables are in good health. Mature plants of Sesame are good in health. Jute plants are in good conditions. Field preparation and seed sowing for Aman Rice. Harvesting of Sesame, Chillies and Mangoes. Jute is in vegetative and branching stage. Summer vegetables and all gourds are in vegetative and fruiting stage. Chilli is in Vegetative as well as fruiting stage. Mango is in harvesting stage. Black spot disease is observed in Mango.

Weather during 4th to 10th June 2018

Significant Weather Features

- The Southwest Monsoon further advanced into: some more parts of northeast Bay of Bengal and some parts of Mizoram & Manipur on 1st June; some more parts of Tamilnadu, southwest, westcentral, eastcentral & northeast Bay of Bengal, most parts of Tripura, remaining parts of Nagaland, Manipur & Mizoram and some parts of Assam & Arunachal Pradesh on 3rd; some more parts of South Interior Karnataka, remaining parts of Tamilnadu & Puducherry, some parts of Rayalaseema and Coastal Andhra Pradesh, remaining parts of southwest Bay of Bengal and some more parts of westcentral Bay of Bengal on 4th and into some more parts of South Interior Karnataka, most parts of Rayalaseema, South Coastal Andhra Pradesh and West Central Bay of Bengal, remaining parts of eastcentral Bay of Bengal and some more parts of northwest Bay of Bengal on 6th June.

- Northern Limit of Monsoon (NLM) passed through: Lat. 14°N/ Long. 60°E, Lat. 14°N/ Long. 70°E, Shirali, Hassan, Mysuru, Kodaikanal, Tuticorin, Lat. 09°N/ Long. 80°E, Lat. 13°N/ Long. 85°E, Lat. 18°N/ Long 90°E and Lat.21°N/ Long. 93°E on 31st May; Lat. 14°N/ Long. 60°E, Lat. 14°N/ Long. 70°E, Shirali, Hassan, Mysuru, Kodaikanal, Tuticorin, Lat. 09°N/ Long. 80°E, Lat. 13°N/ Long. 85°E, Lat. 18°N/ Long 90°E, Lat. 20°N/ Long 91°E, Aizwal, Lat. 24°N/ Long 93°E(Chura Chandpur), and Lat.25°N/ Long. 95°E on 1st & 2nd June; Lat. 14°N/ Long. 60°E, Lat. 14°N/ Long. 70°E, Shirali, Hassan, Mysuru, Salem, Karaikal, Lat. 14°N/ Long. 85°E, Lat. 19°N/ Long. 90°E, Agartala, Lumding, north Lakhimpur and Lat. 29°N/ Long. 90°E on 3rd; Lat. 14°N/ Long. 60°E, Lat. 14°N/ Long. 70°E, Shirali, Chitradurga, Arogyavaram, Sriharikota, Lat. 14°N/ Long. 85°E, Lat. 19°N/ Long. 90°E, Agartala, Lumding, north Lakhimpur and Lat. 29°N/ Long. 95°E on 4th & 5th and through Lat. 14°N/ Long. 60°E, Lat. 14°N/ Long. 70°E, Shirali, Chitradurga, Kurnool, Narsapur, Machlipatnam, Lat. 17°N/ Long. 85°E, Lat. 19°N/ Long. 90°E, Agartala, Lumding, north Lakhimpur and Lat. 29°N/ Long. 95°E on 6th June.

- Heat conditions prevailed in some parts of West Rajasthan on many days and over East Rajasthan on one day during the week.

- The highest maximum temperature of 49.7°C was recorded at Churu (West Rajasthan) on 1st June 2018 in the plains during the week.

Rainfall activity:

- Fairly wide spread to widespread rainfall/thunderstorm activity occurred over Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, Tamilnadu and Lakshadweep on most days; over Sub-Himalayan West Bengal & Sikkim, Vidarbha and Marathwada on many days; over Gangetic West Bengal on a few days; over Arunachal Pradesh and Konkan & Goa on two days; over Jammu & Kashmir, Uttarakhand, Bihar, Tamilnadu and Karnataka

on one day each during the week. Scattered to fairly widespread rainfall/thunderstorm activity occurred over Chhattisgarh on most days; over East Madhya Pradesh, Jharkhand, Assam & Meghalaya, Karnataka on many days and over Uttarakhand, West Madhya Pradesh, Madhya Maharashtra, Telangana, Rayalaseema and Tamilnadu on a few days during the week.

- Heavy to very heavy rain occurred at isolated places on 2 days each over Kerala and Rayalaseema and on one day each over Gangetic west Bengal, Odisha, Tamil Nadu, Konkan & Goa and coastal Karnataka and heavy rain at isolated places on 3 days each over Konkan & Goa and coastal Karnataka, 2 days each over Himachal Pradesh, Assam & Meghalaya, coastal Karnataka, Marathwada, Telangana, coastal Andhra Pradesh and on one day each over interior Karnataka, Rayalaseema, Tamil Nadu, Madhya Maharashtra, Saurashtra & Kutch, Kerala, Odisha, Vidarbha and Nagaland-Manipur-Mizoram & Tripura.

- Thunder squalls and gusty winds & Lightning were also reported over parts of north, central and interior parts of south Peninsula. Parts of Uttarakhand experienced a severe Thunder squall on 1st June.

Meteorological Analysis

- A cyclonic circulation lay over northwest Rajasthan & neighbourhood and extended upto 1.5 km above mean sea level on 31st May & 1st June. It lay over: Punjab and adjoining northwest Rajasthan & neighbourhood on 2nd; Punjab & neighbourhood on 3rd; Haryana & neighbourhood at 1.5 km above mean sea level embedded in the trough from Punjab to Gangetic West Bengal on 4th; northeast Rajasthan & neighbourhood embedded in the trough from Punjab to Interior Odisha on 5th and lay over northwest Madhya Pradesh & neighbourhood extending upto 1.5 km above mean sea level embedded in the trough from Punjab & neighbourhood to north Chhattisgarh on 6thJune.

- A cyclonic circulation lay over central parts of Madhya Pradesh & neighbourhood extending upto 0.9 km above mean sea level on 31st May and became less marked on 1st June.

- A trough ran from the cyclonic circulation over central parts of Madhya Pradesh & neighbourhood to Bihar across south Uttar Pradesh at 0.9 km above mean sea level on 31st May. It merged with the trough from the cyclonic circulation over northwest Rajasthan & neighbourhood to northeast Jharkhand on 1st June.

- A north-south trough ran from Central parts of Madhya Pradesh to Telangana across east Vidarbha at 1.5 km above mean sea level on 31st May. It ran from Telangana to south Coastal Andhra Pradesh at 0.9 km above mean sea level on 1st June and became less marked on 2nd.

- Last week's cyclonic circulation extending upto 0.9 km above mean sea level over sub-Himalayan west Bengal and neighbourhood lay over west Assam & neighbourhood on 31st May. It lay over west Assam & neighbourhood extending upto 1.5 km above mean sea level on 1st June and became less marked on 2nd.

- The east-west shear zone ran roughly along Lat. 9°N and seen at 3.1 km above mean sea level over Indian Region on 31st May and became disorganized on 1st June.

- A cyclonic circulation lay over South east Arabian Sea & adjoining Lakshadweep area extending between 4.5 km & 7.6 km above mean sea level on 31st May. It persisted there extending upto mid-tropospheric levels on 1st June; lay over east central and adjoining southeast Arabian Sea on 2nd , persisted there at 3.1 km above mean sea level on 3rd and merged with the system over Southeast Arabian Sea off Kerala-Karnataka coasts on 4th.

- Last week's cyclonic circulation over Punjab & neighbourhood became less marked on 31st May.

- Last week's cyclonic circulation over northeast Rajasthan & neighbourhood as well as the trough from this cyclonic circulation to Telangana also became less marked on 31st May.

- Last week's trough in westerlies at 5.8 km above mean sea level roughly along Long. 93°E to the north of Lat. 22°N became less marked on 31st May.

- A trough extended eastwards from the cyclonic circulation over northwest Rajasthan & neighbourhood to northeast Jharkhand across northeast Rajasthan, south Uttar Pradesh and south Bihar at 0.9 km above mean sea level on 1st June. It ran from Punjab to Bangladesh across northeast Rajasthan, north Madhya Pradesh, south Bihar and Gangetic West Bengal on 2nd and became less marked on 3rd.

- A cyclonic circulation lay over northeast Rajasthan & neighbourhood at 1.5 km above mean sea level on 1st June and became less marked on 2nd.

- A cyclonic circulation lay over south Konkan & Goa and neighbourhood extending upto 0.9 km above mean sea level on 1st June and became less marked on 2nd.

- Another cyclonic circulation lay over north coastal Tamilnadu & neighbourhood at 1.5 km above mean sea level on 1st June and became less marked on 2nd.

- A cyclonic circulation lay over south Bihar and adjoining Jharkhand extending upto 1.5 km above mean sea level on 2nd June. It lay over Bihar & neighbourhood on 3rd and merged with the trough from Punjab to Gangetic West Bengal on 4th.

- A trough extended from Punjab to northeast Rajasthan at 1.5 km above mean sea level on 2nd June and became less marked on 3rd.

- A cyclonic circulation lay over Sub-Himalayan West Bengal and adjoining Bihar between 2.1& 3.1 km above mean sea level. A trough extended from this cyclonic circulation to north Bay of Bengal across Bangladesh at 3.1 km above mean sea level on 2nd June. It lay over Bangladesh & adjoining West Bengal between 2.1& 3.1 km above mean sea level on 3rd. However, the trough from became less marked on 3rd. The cyclonic circulation persisted there between 3.1& 4.5 km above mean sea level on 4th and became less marked on 5th.

- A cyclonic circulation lay over southwest Bay of Bengal off Tamilnadu & Sri Lanka Coasts at 3.1 km above mean sea level on 2nd & 3rd June. It lay over West Central Bay of Bengal off Andhra Pradesh coast at 3.1 km above mean sea level on 4th; lay over northern parts of West central Bay of Bengal & neighbourhood between at 3.1 & 4.5 km above mean sea level on 5th and lay over northern parts of Central Bay of Bengal and adjoining north Bay of Bengal on 6th.

- An east-west shear zone across south Peninsular India at 7.6 km above mean sea level ran roughly along: Lat. 11°N on 2nd June; Lat. 12°N on 3rd; persisted roughly along Lat. 12°N between 3.1 & 7.6 km above mean sea level on 4th; along Lat. 13°N on 5th and ran roughly along Lat. 14°N between 5.8 & 7.6 km above mean sea level on 6th.

- A cyclonic circulation lay over southwest Uttar Pradesh & neighbourhood extending upto 1.5 km above mean sea level on 3rd June. It persisted there at 1.5 km above mean sea level embedded in the trough from Punjab to Gangetic West Bengal on 4th. It was seen persisting there at 3.1km above mean sea level on 5th and lay over East Uttar Pradesh & neighbourhood extended between 3.1 km & 5.8 km above mean sea level on 6th.

- A cyclonic circulation lay over East Vidarbha & adjoining Chhattisgarh extending upto 0.9 km above mean sea level on 3rd June and became less marked on 4th.

- An east-west trough ran from Punjab to Gangetic West Bengal across Haryana, North Madhya Pradesh, north Chhattisgarh & Jharkhand extending upto 1.5 km above mean sea level on 4th June. It ran from Punjab to Interior Odisha across Haryana, northeast Rajasthan, North Madhya Pradesh and north Chhattisgarh on 5th and ran from the

- A cyclonic circulation over Punjab & neighbourhood to north Chhattisgarh across Haryana, northeast Rajasthan and North Madhya Pradesh on 6th.

- A north-south trough at 1.5 km above mean sea level ran from the cyclonic circulation over southwest Uttar Pradesh to West Central Bay of Bengal off south Andhra Pradesh coast across East Madhya Pradesh, East Vidharbha & Telangana on 4th June and became less marked on 5th.

- A cyclonic circulation lay over southeast Arabian Sea off Kerala-Karnataka coasts extending upto 0.9 km above mean sea level on 4th June and merged with the off shore trough from south Maharashtra coast to north Kerala coast on 5th.

- A cyclonic circulation between 1.5 & 2.1 km above mean sea level lay over northeast Chhattisgarh & neighbourhood on 5th June and lay over Jharkhand & neighbourhood on 6th.

- A cyclonic circulation between 4.5 & 5.8 km above mean sea level lay over south Bihar & neighbourhood on 5th June became less marked on 6th.

- An off shore trough at mean sea level ran from south Maharashtra coast to north Kerala coast extending upto 0.9 km above mean sea level on 5th & 6th June.

- A cyclonic circulation extending upto 1.5 km above mean sea level lay over Punjab & neighbourhood on 6th June.

- A cyclonic circulation lay over south Madhya Maharashtra and adjoining south Konkan extending upto 1.5 km above mean sea level on 6th June.

- A trough in westerlies between 3.1 km & 5.8 km above mean sea level ran roughly along long.77° E to the north of Lat. 30°N on 6th June..

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

The All India area weighted rainfall during the week 19.2 mm was 14% below normal (22.3 mm).

The subdivision-wise weekly rainfall distribution is presented in Fig.1. Rainfall was Large excess in 6, excess in 7, normal in 10, deficit in 7 and L. deficit in 6 out of 36 meteorological sub-divisions.

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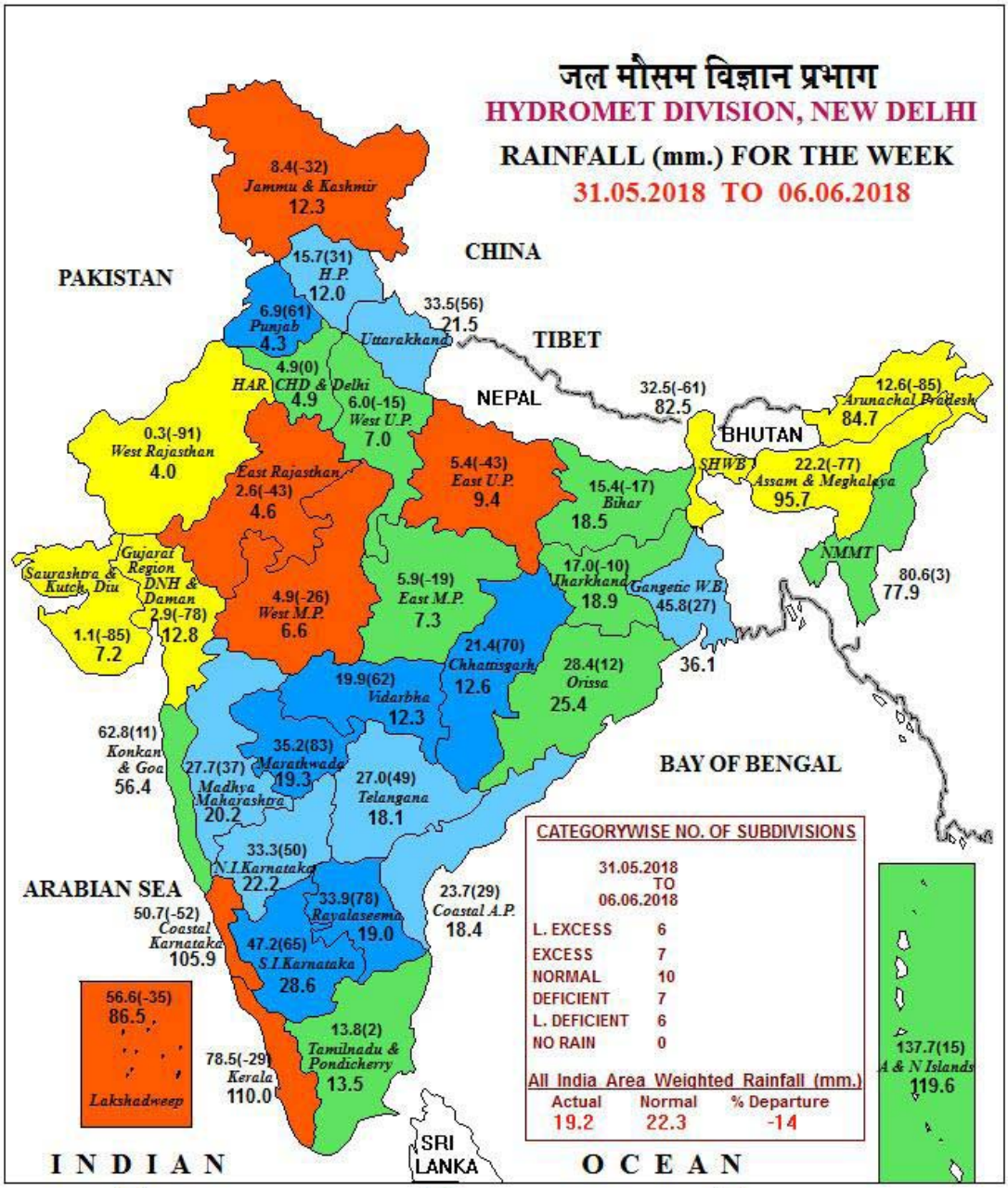
INDIA METEOROLOGICAL DEPARTMENT



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

Table 1. State wise distribution of number of districts with large excess, excess, normal, deficient, large deficient, no rainfall and data inadequate shown (01.03.2018 to 23.05.2018)

S.NO.	STATES	PERIOD FROM : 01.03.2018 TO 31.05.2018							
		LE	E	N	D	LD	NR	ND	TOTAL
1	A & N ISLAND (UT)	0	0	2	1	0	0	0	3
2.	ARUNACHAL PRADESH	0	0	4	8	2	0	2	16
3.	ASSAM	0	0	7	18	2	0	0	27
4.	MEGHALAYA	0	0	3	3	1	0	0	7
5.	NAGALAND	0	1	2	1	1	0	6	11
6.	MANIPUR	1	0	2	2	0	0	4	9
7.	MIZORAM	0	0	1	2	0	0	6	9
8.	TRIPURA	0	3	1	0	0	0	0	4
9.	SIKKIM	0	1	2	0	1	0	0	4
10.	WEST BENGAL	2	4	6	6	1	0	0	19
11.	ODISHA	11	5	8	6	0	0	0	30
12.	JHARKHAND	5	3	3	5	7	1	0	24
13.	BIHAR	2	0	6	11	17	2	0	38
14.	UTTAR PRADESH	16	10	15	15	14	2	0	72
15.	UTTARAKHAND	0	2	5	6	0	0	0	13
16.	HARYANA	2	0	7	7	5	0	0	21
17.	CHANDIGARH (UT)	0	0	0	1	0	0	0	1
18.	DELHI	0	0	3	4	0	0	2	9
19.	PUNJAB	0	0	2	12	6	0	0	20
20.	HIMACHAL PRADESH	0	0	6	6	0	0	0	12
21.	JAMMU & KASHMIR	1	0	8	9	2	0	2	22
22.	RAJASTHAN	2	1	2	2	20	6	0	33
23.	MADHYA PRADESH	4	1	9	10	15	12	0	51
24.	GUJARAT	0	0	0	1	3	29	0	33
25.	DADRA & NAGAR HAVELI (UT)	0	0	0	0	0	1	0	1
26.	DAMAN & DIU (UT)	0	0	0	0	0	2	0	2
27.	GOA	1	1	0	0	0	0	0	2
28.	MAHARASHTRA	2	1	4	11	13	5	0	36
29.	CHHATISGARH	9	5	5	4	3	1	0	27
30.	ANDHRA PRADESH	1	4	4	4	0	0	0	13
31.	TELANGANA	3	3	3	1	0	0	0	10
32.	TAMILNADU	3	6	11	4	8	0	0	32
33.	PUDUCHERRY (UT)	0	0	1	1	0	0	2	4
34.	KARNATAKA	15	10	2	3	0	0	0	30
35.	KERALA	0	8	6	0	0	0	0	14
36.	LAKSHADWEEP (UT)	1	0	0	0	0	0	0	1
TOTAL		**81**	**69**	**140**	**164**	**121**	**61**	**24**	**660**
CATEGORYWISE DISTRIBUTION OF DISTRICTS OUT OF THE 636 WHOSE DATA RECEIVED		**13%**	**11%**	**22%**	**26%**	**19%**	**9%**		

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

S NO.	MET. SUBDIVISION	Week End 6-6-2018
1	A & N ISLAND	15
2	ARUNACHAL PRADESH	-85
3	ASSAM & MEGHALAYA	-77
4	BIHAR	-17
5	CHHATTISGARH	70
6	COASTAL ANDHRA PRADESH	29
7	COASTAL KARNATAKA	-52
8	EAST MADHYA PRADESH	-19
9	EAST RAJASTHAN	-43
10	EAST UTTAR PRADESH	-43
11	GANGETIC WEST BENGAL	27
12	GUJARAT REGION	-78
13	HAR. CHD & DELHI	0
14	HIMACHAL PRADESH	31
15	JAMMU & KASHMIR	-32
16	JHARKHAND	-10
17	KERALA	-29
18	KONKAN & GOA	11
19	LAKSHADWEEP	-35
20	MADHYA MAHARASHTRA	37
21	MARATHWADA	83
22	N M M T	3
23	N. I. KARNATAKA	50
24	ODISHA	12
25	PUNJAB	61
26	RAYALASEEMA	78
27	S. I. KARNATAKA	65
28	SAURASHTRA & KUTCH	-85
29	SHWB & SIKKIM	-61
30	TAMILNADU & PONDICHERY	2
31	TELANGANA	49
32	UTTARAKHAND	56
33	VIDARBHA	62
34	WEST MADHYA PRADESH	-26
35	WEST RAJASTHAN	-91
36	WEST UTTAR PRADESH	-15

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:	