

**All India Coordinated Research Project on Agrometeorology (AICRPAM)
ICAR-Central Research Institute for Dryland Agriculture
Santoshnagar, Hyderabad-500059**

**Status of monsoon, Progress in *kharif* Sowing and Agromet Advisories for some
Deficit/Excess rainfall Areas**

1. Status of southwest monsoon

During 1 June – 20 August, country as a whole received 602 mm rainfall, which is 5% deficit compared to the normal rainfall of the country for the same period (631 mm). Districts which received rainfall less than 50% of normal during 1 June – 20 August were identified and depicted in Figure 1, Table 2 & 3.

**2. Progress in *kharif* sowing (Source: Press Information Bureau and Ministry of
Agriculture and Farmers' Welfare, Govt. of India)**

The total sown area of major crops as on 18th August, 2017 (as per reports received from states), stands at 976 lakh hectare as compared to 984 lakh hectare, as on this date last year (Table 1).

Table 1: Progress in *kharif* sowing in India as on 18th August 2017 (Area in Lakh hectare)

Crop	Area sown in 2017	Area sown in 2016	Per cent change
Rice	341.58	340.14	0.42
Pulses	130.68	135.42	-3.5
Coarse Cereals	171.75	179.17	-4.1
Oilseeds	157.36	175.10	-10.1
Sugarcane	49.78	45.64	9
Jute & Mesta	7.05	7.56	-6.7
Cotton	118.14	101.54	16.3
Total	976.34	984.57	-0.84

3. Agromet Advisories

Deficit rainfall areas

Kerala

The state as a whole has received 1222 mm rainfall so far during the season, which is 27% deficit, compared to the normal rainfall during the season. The plant protection measures recommended should be undertaken after the rain spell.

- Paddy: There is a chance for Sheath blight disease during rainy season. The immediate symptom is the change in colour of outer leaves to yellow. Black lesions can be seen on

the lower part just above the water level. Apply Propiconazole 25 EC @ 500 ml per hectare to control Sheath blight.

- Ginger/ Turmeric: There is a chance of incidence of rhizome rot, to control this dig out the affected plants and apply Kocide 2gm/litre water.
- Nutmeg: There is a chance of occurrence of fruit rot disease in nutmeg. Apply 1% Bordeaux mixture to control the disease.
- Vegetables: Due to change in weather pattern (alternate rainfall), chance for the attack of mites and thrips in vegetables is high. Apply Spiromecifen 8ml/10 litre to control it.

Karnataka

The rainfall received from 1st June to 20th August over north interior Karnataka is 261 mm, against the normal of 319 which is 18% deficit. South interior Karnataka has received 344 mm against the normal of 473 mm, which is 27% deficit. Coastal Karnataka is also under deficit rainfall condition (-24%).

South Interior Karnataka

- Postpone the plant protection measure in next couple of days as normal rainfall is forecasted during next week.
- Drain out the excess rainwater from the standing crops.
- Recommended for gap filling in already sown kharif crops.
- Wherever, the long duration crops like redgram, and castor were sown, undertake earthing up operation in addition to the above agronomic measures.

The following crops are suggested for sowing in this month(August)

- Medium to short duration crops like ragi (Indaf-5, HR-911, GPU-26, 28, 45 & 48, PR-202, ML-365), maize (Ganga, Deccan, Vijaya composite and Composite NAC), cowpea (KBC-1, TVX-944 and PKB-4 for vegetable purpose)

Maharashtra

Rainfall received in major meteorological sub-divisions of the state, so far during the season is as follows:

Vidarbha – 689 mm (27% deficit); Marathwada – 370 mm (17% deficit); Madhya Maharashtra - 531 mm (2% surplus) and Konkan- 2201 mm (7% deficit)

Marathwada

- Opening of furrow should be done in cotton crop, so that excess amount of water can be drained out from the field.
- Withhold application of fertilizer, pesticides and herbicides as above normal rainfall is forecasted for next two weeks, wherever no severe stress symptoms appeared.
- Nipping should be done in 55 to 60 days old pigeonpea crop.

Vidarbha

- Early-rabi pigeonpea (C-11 or ICPL 87119 (Asha)) or semi-rabi sesame (N-8) can be sown up to September 15.
- Ensure proper drainage for all the crops as excess rainfall is forecasted for next two weeks over the region.

Excess rainfall areas

Assam

Excess rainfall was received in Assam during last week. Flood condition prevails over Baksa, Bongaigaon, Lakhimpur, Sonitpur and Nagaon districts.

- Farmers of flood affected areas are advised to drain excess water and apply $1/3^{\text{rd}}$ N_2 + $1/2$ K_2O of total dose as top dressing during tillering stage of Sali rice.
- In tillering stage of Sali rice, attack of leaf folder or rice hispa may occur. Farmers are advised to spray Chloropyrifos 20 EC or Monocrotophos 40EC @ 1.5 ml per liter of water.
- Farmers are advised to sow seeds of green gram and black gram. The recommended varieties of green gram are T-44, Kopergaon, K-851, ML-56, ML-131, SG-1, SG 21-5 etc. Recommended varieties for black gram are T-9, T-27, T-122.

Bihar

During 10-16 August 2017, the state as a whole has received 182.5 mm rainfall, which is 154% higher than the normal rainfall for the same period. Severe flood situation prevails over West Champaran, Muzaffarpur, Madhubani, Madhepura, Araria, Supaul, Purnia and Kishanganj districts. Due to widespread flooding in north Bihar districts, standing crops such as rice, maize, pigeon pea and vegetable crops have suffered maximum damage.

The following agromet advisories are recommended for crops in non-flood affected areas.

- Farmers are advised to drain out excess water from standing crops/nurseries
- Paddy: Weeding is advised in paddy on priority basis. Monitoring is advised for infestation of stem borer and leaf folder.
- Brinjal: Monitoring is advised for infestation of fruit and shoot borers
- Horticulture: Weather conditions are now congenial for planting of fruit plants. Saplings of horticultural crops such as mango, litchi, jackfruit, guava, blackberry, custard apple and lemon can be planted, after the current spell of heavy rain.

West Bengal

During 10.8.17 to 16.8.17, all north Bengal districts received excess rainfall (125% - 614%). Some districts of South Bengal (Murshidabd, Nadia, Burdwan and North 24 Pargana) also received excess rainfall of 23% - 58%. During Monsoon Season (01.06.2017 to till date),

excess rainfall experienced in Purulia, Howrah, Burdwan, Bankura, North Dinajpur and North 24 Pargana.

Paddy and vegetables are most affected crops due to flood situation. Now water is receding from different parts of flood affected districts of South Bengal.

- In flood affected area, use dapog method of nursery rising for quick preparation of seedling.
- Due to heavy rainfall, vegetable crops which faced inundated condition for few days are severely infected by rotting and other fungal infection. Spray mixture of Carbendazim and Mancozeb @ 2 g per liters of water, if the weather is clear.
- Ensure proper drainage in the vegetables field.
- Retting process of Jute should be completed.
- In those areas where there is little chance of receding flood water within coming 7 days, farmers can raise seedling of early cauliflower, which can be grown at first week of September.
- Short duration (60-65 days) vegetables like spinach, coriander may be cultivated in flood affected areas which can be harvested before starting of winter crops.

Note: The above is a general overview for the states. However, for further details, district level contingency plans prepared by ICAR-CRIDA [covering all farming situations within the district] and placed in the websites of the Department of Agriculture Cooperation & Farmers' Welfare, Government of India (www.agricoop.nic.in) and CRIDA (www.crida.in)] may be referred.

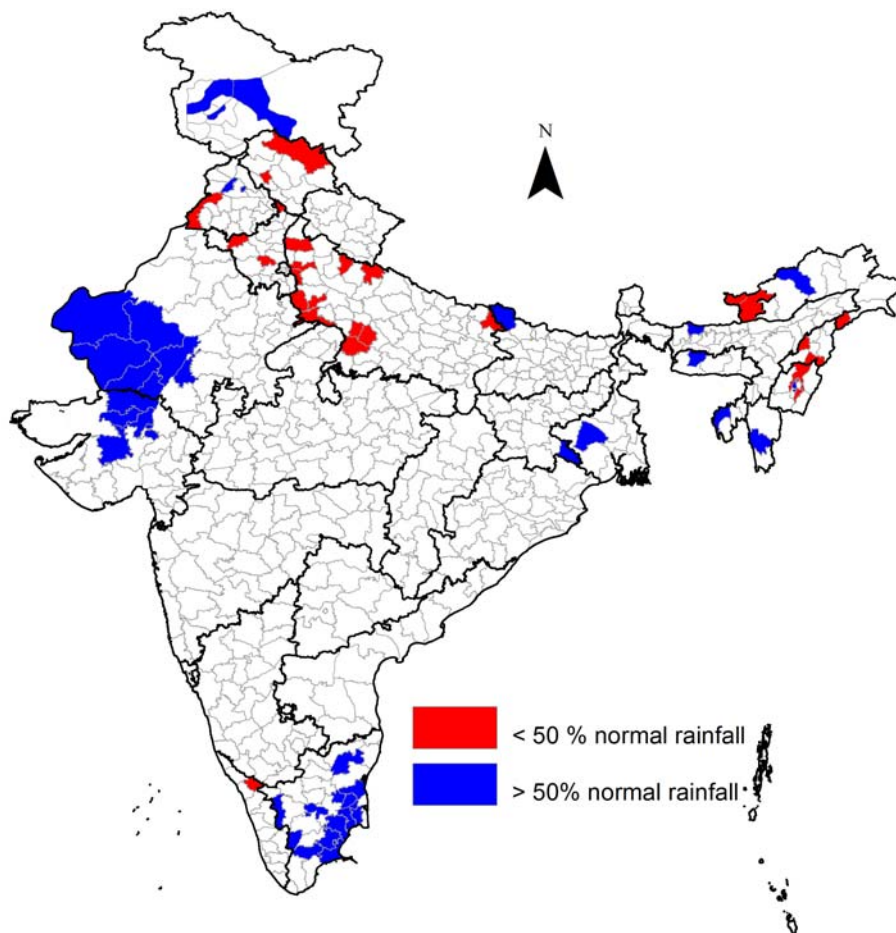


Figure 1: Districts received > 50% deficit and excess rainfall compared to normal during 1 June - 20 August 2017 (Prepared by AICRPAM based on the data provided by IMD)

Table 2: Districts which received more than 50% deficit rainfall compared to normal (1 June to 20 August 2017) (Source: IMD)

MET. SUBDIVISION	DIS TRICT	Period: 01-06-2017 To 20-08-2017		
		ACTUAL (mm)	NORMAL (mm)	% DEP.
Arunachal Pradesh	Tawang	424	1811.7	-77
	Tirap	881.6	1770.1	-50
	West Kameng	777.2	1811.7	-57
N M M T	Phek	433	924.3	-53
	Wokha	330	1227.4	-73
	Senapati	252	970.2	-74
	Thoubal	138	667.8	-79
East Uttar Pradesh	Amethi	236.1	563.6	-58
	Kanpur Dehat	227.6	509.1	-55
	Kushinagar	385.4	795.5	-52
West Uttar Pradesh	Agra	169	479.4	-65
	Auraiya	219.1	473	-54
	Gautambudhnagar	133	379	-65

MET. SUBDIVISION	DIS TRICT	Period: 01-06-2017 To 20-08-2017		
		ACTUAL (mm)	NORMAL (mm)	% DEP.
	Ghaziabad	164	431.3	-62
	Hamirpur	255.7	550.4	-54
	Jalaun	223.3	534	-58
	Mahamayanagar	177.5	436.7	-59
	Mathura	194.5	405.6	-52
	Muzafarnagar	213.6	522.5	-59
	Pilibhit	309.8	660.4	-53
	Rampur	321.6	655.4	-51
HAR. CHD & DELHI	Fatehabad	83.7	205.8	-59
	Palwal	153.2	308.1	-50
	Panchkula	272.1	677.7	-60
	Rohtak	182.5	373.1	-51
	North East Delhi	203.5	458.3	-56
Punjab	Firozpur	45.3	252.3	-82
Himachal Pradesh	Lahul&Spiti	92.5	311.9	-70
Kerala	Wayanad	946.9	2245	-58

Table 3: Districts which received more than 50% surplus rainfall compared to normal (1 June to 20 August 2017) (Source: IMD)

MET. SUBDIVISION	DIS TRICT	Period: 01-06-2017 To 20-08-2017		
		ACTUAL (mm)	NORMAL (mm)	% DEP.
Arunachal Pradesh	Lower Dibang Valley	2901.8	740.3	292
	Upper Subansiri	1038.4	561.7	85
Assam & Meghalaya	Chirang	2564.1	1677.5	53
	East Garo Hills	2375.9	1244.6	91
N M M T	Dimapur	972.3	566.7	72
	Imphal West	1661.8	745.1	123
	Lunglei	3100.5	1298.3	139
	West Tripura	1643.3	1037.3	58
Gangetic West Bengal	Bankura	1126.6	712	58
Jharkhand	Purbi Singhumi	1233.5	739.9	67
	Ramgarh	1262.5	731.2	73
Bihar	Pachim Champaran	1446	883.9	64
Punjab	Kapurthala	487.3	303.6	61
Jammu & Kashmir	Bandipore	266	117.2	127
	Baramula	334.5	180.6	85
	Ganderwal	246.5	133.3	85
	Kargil	44.8	21.8	106
	Pulwama	182.6	101.8	79
	Riasi	1621	949.8	71

MET. SUBDIVISION	DIS TRICT	Period: 01-06-2017 To 20-08-2017		
		ACTUAL (mm)	NORMAL (mm)	% DEP.
West Rajasthan	Barmer	416.4	178.3	134
	Jaisalmer	205	122.3	68
	Jalor	844.5	290.5	191
	Jodhpur	347.1	202.9	71
	Pali	706	324.9	117
East Rajasthan	Rajsmand	601	365.5	64
	Sirohi	1688.6	625	170
Gujarat Region	Banaskantha	1028.5	408.8	152
	Gandhinagar	1009.6	514.9	96
	Mahesana	740.7	464.4	59
	Patan	808	375.7	115
Saurashtra & Kutch	Morbi	753.4	375	101
	Surendranagar	696.1	358.3	94
Chhattisgarh	Kabirdham	1120.7	617.4	82
	Sukma	1236	820.1	51
Tamil Nadu & Pondichery	Ariyalur	330.1	189.8	74
	Coimbatore	204.5	104.1	96
	Cuddalore	313	193.8	62
	Karur	152.2	80	90
	Perambalur	322.8	119.7	170
	Pudukkottai	279.4	181.7	54
	Ramanathapuram	125.4	69.9	79
	Sivaganga	386.2	165.1	134
	Teni	135.4	76.3	77
	Thanjavur	321.2	158.7	102
	Thiruvarur	255.5	150.1	70
	Tiruvannamalai	437.1	241	81
	Virudhunagar	142.3	86.5	65
Puduchery	350.9	210	67	