

**All India Coordinated Research Project on Agrometeorology (AICRPAM)
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**Status of monsoon, Progress in *kharif* Sowing and Agromet Advisories for some
Deficit/Excess rainfall Areas**

1. Status of southwest monsoon

During 1 June – 13 August, country as a whole received 554 mm rainfall, which is 3% deficit compared to the normal rainfall of the country for the same period (572 mm). Districts which received rainfall less than 50% of normal during 1 June – 13 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 11th August, 2017 (as per reports received from states), stands at 943 lakh hectare as compared to 937 lakh hectare, as on this date last year (Table 1).

Table 1: Progress in *kharif* sowing in India as on 11th August 2017 (Area in Lakh hectare)

Crop	Area sown in 2017	Area sown in 2016	Per cent change
Rice	320.29	314.01	2
Pulses	127.48	129.59	-2
Coarse Cereals	167.50	169.98	-1
Oilseeds	154.29	171.15	-10
Sugarcane	49.73	45.64	9
Jute & Mesta	7.05	7.56	-7
Cotton	117.11	99.03	18
Total	943.45	936.95	1

3. Agromet Advisories

Deficit Raifall Areas

Kerala

The state as a whole has received 1136 mm rainfall so far during the season, which is 28% deficit compared to the normal rainfall during the season.

- Vegetables: For cercospora disease in cowpea, spraying of Mancozeb(4g/L) or Carbendazim (1 gm / L) can be done. For cowpea stem borer, apply Fame 2 @ 0.1 ml/L. For controlling fruit and shoot borer in bhindi and brinjal, remove all drooping shoots and damaged fruits. Spray Coragen 2 ml/ L. For downey mildew, apply Mancozeb 3 ml/L.

- Paddy: There are chances of occurrence of stem borer in paddy. Place 10 pieces of 2 CC trichocards in different corners of field under leaf. In severe condition, apply Flubendamide @ 2 ml/10 L.
- Coconut: As rainfall is forecasted during next two weeks, there is a chance for incidence of bud rot. Perforated Mancozeb sachet (5 gm)- 3 no.s can be hung around spindle leaves as a prophylactic measure for bud rot.
- Banana: There is a chance of sigatoka disease incidence in banana. As a precaution, Spray Pseudomonas 20g/L. In case of severe attack spray 1 g Bavistin by mixing it with gum in 1 litre of water on lower surface of leaf.

Karnataka

The rainfall received from 1st Jun to 10th August over north interior Karnataka is 236 mm against the normal of 292 which is 19% deficit. South interior Karnataka received 295 mm rainfall against the normal of 434 mm, which is 32% deficit. Coastal Karnataka is also under deficit rainfall condition (-23%).

South Interior Karnataka

Above normal rainfall is forecasted over south interior Karnataka for next two weeks as per the extended range weather forecast provided by IMD.

The following crops are suggested for sowing in this month(August), after the receipt of soaking rain

- Medium to short duration crops like ragi (Indaf-5, 9, HR-911, GPU-26, 28, 45 & 48, PR-202, ML-365), maize (Ganga, Deccan, Vijaya composite and Composite NAC), groundnut (JL-24, KCG-2, GBBD-4), cowpea (KBC-1, TVX-944 and PKB-4 for vegetable purpose)
- Postpone sowing operation until soaking/sufficient rainfall is received.
- Wherever the long duration crops like red gram, and castor were sown, undertake earthing up operation in addition to the above agronomic measures.
- Since there was deficit rainfall during last two months, make use of farm pond water for protective irrigation

Maharashtra

Rainfall received in major meteorological sub-divisions of the state are as follows:

Vidarbha – 442 mm (29% deficit); Marathwada – 281 mm (31% deficit); Madhya Maharashtra- 494 mm (3% surplus) and Konkan- 2091 mm (5% deficit)

Vidarbha

- In unsown areas, if rainfall sufficient for sowing is received, following crops/crop varieties/intercropping (as mentioned below) can be sown in the western/central Vidarbha districts (Akola, Buldana, Amravati, Washim, Yavatmal, Wardha, Nagpur)
 - ✓ Pigeonpea PKV- Tara, BSMR-736 ,Asha (ICPL 87119) and C-11 with 60x20 cm spacing.
 - ✓ Alternative crops include pearl millet, sesame, sunflower and castor or intercropping systems include pearl millet+pigeonpea(2:1 or 4:2), sunflower + pigeonpea (2:1).

- Application of protective irrigation (sprinkler) is advisable in areas where crops are under moisture stress due to subdued rainfall activity causing midday wilting symptoms, particularly in shallow soils.
- Foliar spray of 2% KNO₃ (potassium nitrate) is advisable in soybean crop.
- With prevailing rainless weather, undertake timely weeding/hoeing in earlier sown kharif crops.

Marathwada

- Soybean: Take a foliar spray of 2% KNO₃ in soybean crop. To control attack of girdle beetle in soybean crop, spray of Thiamethoxam 12.6 % + Lambda – cyhalothrin 9.5 % @ 2.5 ml per 10 liter of water is recommended.
- Vegetables: To control attack of sucking pests in chilli, spray Fenprothrin 30 % @ 3.5 ml or Fipronil 5 % @ 20 ml per 10 liter of water. Irrigate the vegetable crops wherever wilting symptoms appear.

Excess rainfall areas

Gujarat

Gujarat region has received 772 mm (27% surplus) and Saurashtra & Kutch region has received 464 mm (38% surplus) rainfall so far during the season.

- Sowing of Castor is advised with hybrid varieties GAUCH-2, GCH-4 and GCH-7 wherever sufficient moisture is available.
- If the first crop failed due to flood or water logging condition, following crops can be considered for sowing.
 - ✓ Bajra: GHB-538, GHB-719, GHB-757
 - ✓ Sesame: Sesamum Guj-1, 2, 10
 - ✓ Sunflower: Modern, EC-68414, Guj sunflower-1,
 - ✓ Jowar: Jowar grain GJ-35,36,37
 - ✓ Green Gram: GM-4, K-851, MEHA
 - ✓ Bidi Tobacco: GT-1, 4, 5, 9

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.

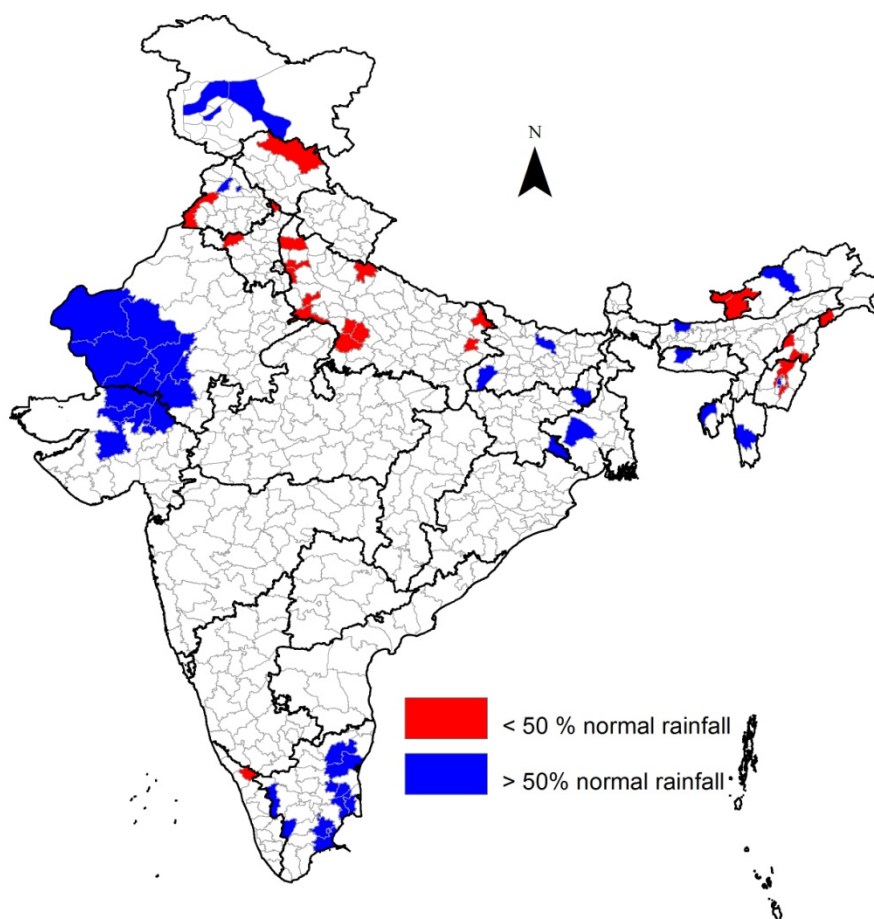


Figure 1: Districts received > 50% deficit and excess rainfall compared to normal during 1 June - 13 August 2017 (Prepared by AICRPAM based on the data provided by IMD)

Table 2: Districts which received more than 50% deficit rainfall compared to normal (1 June to 13 August 2017) (Source: IMD)

Sub Division	District	Rainfall during 01-06-2017 to 13-08-2017		
		Actual (mm)	Normal (mm)	Deviation (%)
Arunachal Pradesh	Tawang	362	1669.6	-78
	Tirap	805.2	1659	-51
	West kameng	697.4	1669.6	-58
NMMT	Phek	384	832	-54
	Wokha	330	1120.6	-71
	Senapati	224	888.6	-75
	Thoubal	130	600	-78
	Saiha	154	985.2	-84
East Uttar Pradesh	Amethi	235.1	505.7	-54
	Kanpur dehat	220.7	442.2	-50
	Kushinagar	353.5	706.5	-50
	Mau	292.6	592.3	-51
West Uttar	Agra	164.3	417.2	-61

Sub Division	District	Rainfall during 01-06-2017 to 13-08-2017		
		Actual (mm)	Normal (mm)	Deviation (%)
Pradesh	Auraiya	197.1	412.6	-52
	Gautambudhnagar	111	333.4	-67
	Ghaziabad	162	374.6	-57
	Jalaun	218.5	469.7	-53
	Mahamayanagar	168.5	381.7	-56
	Muzafarnagar	192	457.4	-58
	Pilibhit	269	588.4	-54
Har Cha Del	Fatehabad	83.7	182.4	-54
	Panchkula	221.4	601.1	-63
	North east delhi	200.5	403.9	-50
Punjab	Firozpur	45	223.1	-80
Himachal Pradesh	Lahul&spiti	87.1	281.5	-69
Kerala	Wayanad	885.8	2108.8	-58

Table 3: Districts which received more than 50% surplus rainfall compared to normal (1 June to 13 August 2017) (Source: IMD)

Sub Division	District	Rainfall during 01-06-2017 to 13-08-2017		
		Actual (mm)	Normal (mm)	Deviation (%)
Arunachal Pradesh	Lower dibang valley	2848.8	699.6	307
	Upper subansiri	968.6	513.4	89
Assam & Meghalaya	Chirang	2412.9	1570.8	54
	East garo hills	2164.7	1154.9	87
NMMT	Dimapur	911.2	521.1	75
	Imphal west	1509.8	687.3	120
	Lunglei	2391	1181.6	102
	West tripura	1561.3	951.9	64
Gangetic West Bengal	Bankura	1002.4	647.8	55
Jharkhand	Dumka	1006.6	665.6	51
	Purbi singbhumi	1038.9	672.7	54
	Ramgarh	1237.3	664.8	86
Bihar	Drabhanga	890.6	577.5	54
	Rohtas	727.1	484.8	50
Punjab	Kapurthala	461.8	271.3	70
Jammu & Kashmir	Bandipore	248	105	136
	Baramula	304.4	166.5	83
	Ganderwal	240.6	121.3	98
	Kargil	43	20.6	109
	Pulwama	173.6	91.7	89
	Riasi	1549	828.8	87

Sub Division	District	Rainfall during 01-06-2017 to 13-08-2017		
		Actual (mm)	Normal (mm)	Deviation (%)
West Rajasthan	Barmer	416.4	156.1	167
	Jaisalmer	204.9	102.4	100
	Jalor	843.3	256	229
	Jodhpur	347.1	178.7	94
	Pali	703.4	287.2	145
East Rajasthan	Rajsmant	595.7	319.6	86
	Sirohi	1680.8	548.1	207
	Udaipur	599.8	371.1	62
Gujarat	Banaskantha	1024.2	368.2	178
	Gandhinagar	1000.8	469.3	113
	Mahesana	731.7	422.5	73
	Patan	804.3	340.5	136
	Sabar kantha	785.5	491.2	60
Saurashtra & Kutch	Morbi	750.2	350.1	114
	Surendranagar	695.9	326.3	113
Chhattisgarh	Kabirdham	892.2	541.5	65
Tamil Nadu & Pondicherry	Ariyalur	289.2	165.9	74
	Coimbatore	181.5	95	91
	Perambalur	254.3	101.1	152
	Ramanathapuram	115.5	60.6	91
	Sivaganga	347.8	148.8	134
	Teni	106.4	67.4	58
	Thanjavur	278.9	138.6	101
	Thiruvavur	222.7	130.1	71
	Tiruvannamalai	376.2	209	80
	Villupuram	266.6	174.1	53
	Puduchery	331.9	179.5	85