

**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 June 1- August 7, country as a whole received 534 mm rainfall, which is 3% more than the normal rainfall of the country for the same period (518 mm). Districts which received rainfall less than and more than 50% of normal during 1 June to 8 August were identified and depicted in Figure 1 and Table 2 and 3.

**2. Progress in *kharif* sowing (Source: Press Information Bureau, Govt of India)**

The total sown area of crops as on 5<sup>th</sup> August, 2016 as per reports received from States, stands at 885 lakh hectare as compared to 841 lakh hectare, as on this date last year (Table 1).

Table 1: Progress in *kharif* sowing in India as on 5<sup>th</sup> August 2016 (Source: Press Information Bureau & Ministry of Agriculture, Govt of India)

<b>Crop</b>	<b>Area sown in 2016-17</b>	<b>Area sown in 2015-16</b>
Rice	281.9	276
Pulses	121	90
Coarse Cereals	164	159
Oilseeds	167	158
Sugarcane	47	46
Jute & Mesta	7	8
Cotton	96	105
<b>Total</b>	<b>885</b>	<b>841</b>

(Area in Lakh hectare)

### 3. Agromet Advisories

The following Agromet advisories may be followed for the crops/cropping systems of the above mentioned states.

#### Kerala

The state so far has received 1095 mm rainfall, which is 27% deficit compared to the normal (1494 mm).

- **Paddy:** First paddy crop is in tillering stage. Weather conditions may favor bacterial blight and Leaf folder in paddy. To control bacterial blight mix 20g cow dung in 1 litre water and take the clear solution and spray. Or Spray pseudomonas (2%) 20g/L on the leaves.
- **Nutmeg:** During rainy season, there is a chance for fruit rot disease in nutmeg and splitting of fruit before ripening due to the deficiency of Potassium and Boron. To control this, apply 1% Bordeaux mixture.
- **Rubber:** Take care of tapping panels in rain guarded plants. Pink disease in rubber can be controlled by chiseling out the affected bark and apply Bordeaux paste.
- **Arecanut:** Take necessary phyto-sanitary measures. Apply 500 grams of lime per plant. Spray 1% Bordeaux mixture as a prophylactic measure to control mahali and bud rot diseases. Keep vigilant about red mite attack and subsequent yellowing.

#### Tamilnadu

The state has received 154 mm rainfall (19% surplus) so far in the season.

- If sowing is delayed up to second week of August 2016, sowing of short duration varieties (Indaf 9 and CO 7) finger millet is suggested in the place of long duration finger millet in Krishnagiri district.
- Crops such as varagu (Kodo millet) and cowpea are advocated instead of fallow in Pudukottai district.

#### Gujarat

Saurashtra & Kutch region has received 262 mm (14% deficit), while rest of the region received 397 mm (27% deficit) so far.

In case of failure of first crop due to dry spell, following crops can adopted as mid-season corrections.

- Sorghum fodder purpose :- CSH-6, GFS-4, GFS-5, GAFS-11
- Sunflower :- EC-68414, Modern GS-1, 2 & 3
- Sesame :- Gujarat sesame -1, 2, 3 & 4
- Castor :- GAUCH-1, GCH-2, GCH-4, 5, 6 & GCH-7

#### Assam

The state so far has received 816 mm rainfall (29% deficit). However, flood condition exist in many parts of the state.

- Late and staggered planting with the old seedlings (50-60 days old seedlings) of the varieties like Profulla and Gitesh (If the field is heavily damaged).

- Advised to wet seeding of sprouted seeds (@75-80 kg/ha) of short duration varieties like Disang, Luit, Kapilee (90-95 days) and Kalong (100 days) for flood affected areas.

### **West Bengal**

Gangetic West Bengal has received 619 mm rainfall (6% deficit), while Sub-Himalayan West Bengal has received 1324 mm (10% surplus) so far.

- In uplands Black gram (T9, Pant urd 30 and Pant urd 19), Green gram (T44, Samrat), Pigeon pea (Bahar, Pusa 9 and Narendra Arhar 1), Groundnut (TAG 24, TG 44) and Horse gram (DV 7, BR 5, BR 10, S67/26, 14, 31) can be sown with available seeds in locality/seed agencies.
- Priority should be given for *in situ/ex situ* rainwater harvesting during the remainder of the season.
- There is a chance for stem fly infestation in vegetables due to low rainfall and partly cloudy weather. Spray Chloropyriphos @ 25 ml per 10 litres of water.
- Prevailing cloudy weather is congenial for the incidence of downy mildew in cucurbits; spray Metalaxyl 8% + Mancozeb 64% @ 20 g in 10 litres of water.

*Note: The above is a general overview for the states. However, ICAR (CRIDA) has prepared district level contingency plans (covering all farming situations within the district) and placed in the websites of the Ministry of Agriculture & Cooperation, Government of India ([www.agricoop.nic.in](http://www.agricoop.nic.in)) and CRIDA ([www.crida.in](http://www.crida.in)) for further details.*

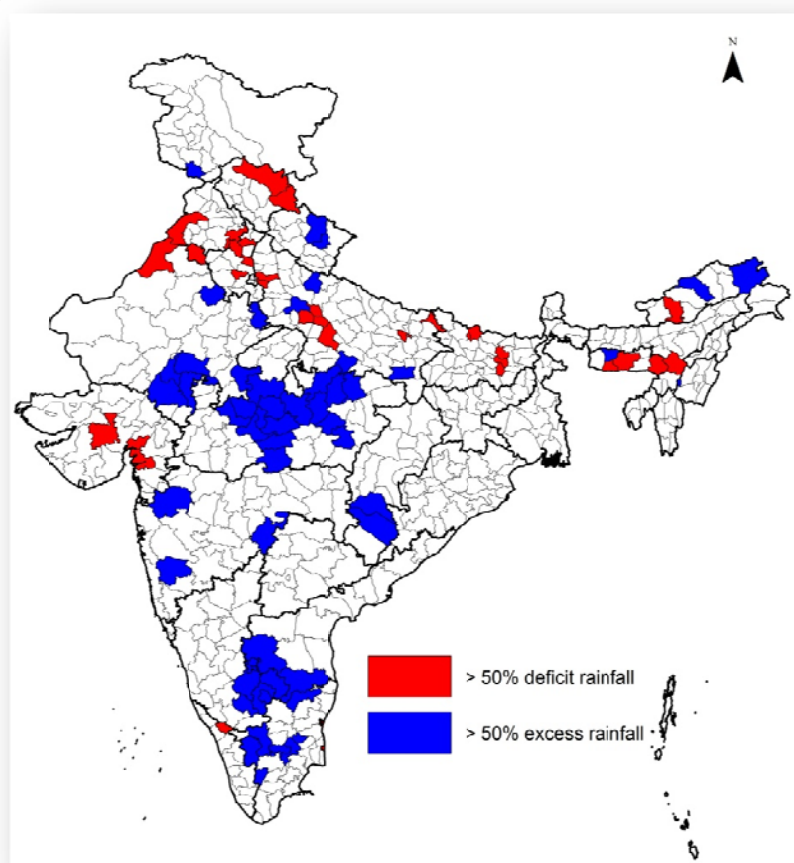


Fig. 1: Districts received > 50% deficit (35) and excess (55) rainfall compared to normal during 1 June -7 August 2016

**Table 2:** Districts which received more than 50% deficit rainfall compared to normal (1 Jun to 7 August 2016) (Source: IMD)

S.No	State: District	Actual (mm)	Normal (mm)	Dep (%)	Category
	<b>Arunachal Pradesh</b>				
1.	East Kameng	336.8	763.2	-56	D
	<b>Assam</b>				
2.	N.C Hills	276.8	632.5	-56	D
	<b>Meghalaya</b>				
3.	Jaintia Hills	84	3132.3	-97	S
4.	South Garo Hills	128	1064.4	-88	S
5.	West Khasi Hills	586	1856	-68	S
	<b>Bihar</b>				
6.	Khagaria	281.9	576.5	-51	D
7.	Munger	234.6	544	-57	D
8.	Saharsa	388.2	833.9	-53	D

S.No	State: District	Actual (mm)	Normal (mm)	Dep (%)	Category
9.	Sheohar	270.8	656.4	-59	D
10.	Sitamarhi	320.8	656.4	-51	D
	<b>Uttar Pradesh</b>				
11.	Ambedkarnagar	149	492.1	-70	S
12.	Farrukhabad	149	370.3	-60	S
13.	Kannauj	142.9	367.6	-61	S
14.	Kanpur Dehat	184.6	376.7	-51	D
15.	Kushinagar	190.5	629.2	-70	S
16.	Gautambudhnagar	80	279.6	-71	S
17.	Ghaziabad	138.7	324.3	-57	D
18.	Mainpuri	145.4	328.7	-56	D
	<b>Haryana</b>				
19.	Kaithal	90.9	203.3	-55	D
20.	Kurukshetra	78.3	312.4	-75	S
21.	Panipat	119.1	279.3	-57	D
22.	Rohtak	125	290.6	-57	D
23.	Sirsa	58.8	139.8	-58	D
	<b>Delhi (Ut)</b>				
24.	East Delhi	136	351.2	-61	S
	<b>Punjab</b>				
25.	Ferozpur	41.1	197.7	-79	S
26.	Patiala	167	347.4	-52	D
	<b>Himachal Pradesh</b>				
27.	Kinnaur	55.7	128	-57	D
28.	Lahul&Spiti	40	250.9	-84	S
	<b>Rajasthan</b>				
29.	Ganganagar	54.1	121	-55	D
	<b>Gujarat</b>				
30.	Anand	208.3	458.3	-55	D
31.	Bharuch	212.1	474.7	-55	D
32.	Surendranagar	132.2	306	-57	D
	<b>Tamil Nadu</b>				
33.	Karaikal	58.3	127.7	-54	D
34.	Puduchery	69.8	156.1	-55	D
	<b>Kerala</b>				
35.	Wayanad	816.9	1990.7	-59	D

(D = Deficient and S= Scanty)

**Table 3:** Districts which received more than 50% excess rainfall compared to normal (1 Jun to 7 August 2016) (Source: IMD)

S.No	State: District	Actual (mm)	Normal (mm)	Dep (%)
	<b>Arunachal Pradesh</b>			
1.	Lower Dibang Valley	2251.8	677.5	232
2.	Upper Subansiri	721.5	473.0	53
3.	<b>Meghalaya</b>			
4.	East Garo Hills	2124.4	1097.1	94
	<b>Manipur</b>			
5.	Imphal West	1205.9	618.7	95
	<b>Uttar Pradesh</b>			
6.	Banda	693.7	428.0	62
7.	Mirzapur	737.0	449.8	64
8.	Bareilly	800.8	462.1	73
9.	Etah	508.1	310.2	64
	<b>Uttarakhand</b>			
10.	Bageshwar	837.6	498.3	68
11.	Chamoli	767.5	482.6	59
	<b>Jammu &amp; Kashmir</b>			
12.	Jammu	848.8	524.1	62
	<b>Rajasthan</b>			
13.	Baran	703.1	442.9	59
14.	Bharatpur	448.4	284.0	58
15.	Bhilwara	502.8	320.9	57
16.	Chittaurgarh	629.6	379.4	66
17.	Jhunjhunun	378.6	243.7	55
18.	Rajsmad	458.4	284.2	61
19.	Udaipur	549.2	334.2	64
	<b>Madhya Pradesh</b>			
20.	Betul	800.7	510.2	57
21.	Bhopal	1004.7	543.7	85
22.	Guna	891.7	518.0	72
23.	Hoshangabad	1585.9	678.3	134
24.	Khandwa	720.9	467.1	54
25.	Raisen	1050.8	609.9	72
26.	Rajgarh	812.5	488.4	66
27.	Sehore	1052.7	576.2	83
28.	Shajapur	807.7	485.1	66
29.	Videsha	1018.5	563.9	81
30.	Chhatarpur	802.8	516.1	56
31.	Damoh	1093.3	607.2	80

32.	Jabalpur	973.4	589.4	65
33.	Mandla	1065.9	699.0	52
34.	Panna	872.9	570.2	53
35.	Sagar	945.6	600.4	57
36.	Satna	904.5	515	76
	<b>Maharashtra</b>			
37.	Nasik	874.0	542.0	61
38.	Satara	766.8	456.3	68
39.	Nanded	689.8	452.7	52
	<b>Chhattisgarh</b>			
40.	Bastar	990.9	646.6	53
41.	Kanker	1114.1	701.8	59
	<b>Andhra Pradesh</b>			
42.	Ananthapur	206.6	134.1	54
43.	Chittoor	291.8	192.3	52
	<b>Tamil Nadu</b>			
44.	Coimbatore	232.3	88.7	162
45.	Erode	114.7	76.1	51
46.	Karur	95.1	61.3	55
47.	Perambalur	139.3	89.2	56
48.	Teni	113.4	62.1	83
49.	Tiruchirappalli	148.4	95.8	55
50.	Vellore	301.8	199.2	51
	<b>Karnataka</b>			
51.	Bangalore Rural	374.7	186.7	101
52.	Banglore Urban	352.4	193.0	83
53.	Kolar	304.4	159.8	90
54.	Mandhya	220.5	110.3	100
55.	Tumkur	286.6	151.0	90