

All India Coordinated Research Project on Agrometeorology (AICRPAM)
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Weather Conditions, Progress in *khari* sowing and Agromet Advisories Issued during August 2016

1. General Weather Conditions

Southwest monsoon was vigorous over North and North West and active over Central and south peninsular parts of India.

Out of 36 meteorological subdivisions, rainfall was excess/normal in 26 and deficient/scanty in 10 subdivisions. (All India Actual: 693.1 mm; Normal: 714.1 mm; and Departure: -3%). At the end of August, deficit rainfall is mainly confined to the subdivisions viz. Meghalaya, Nagaland, Manipur, Mizoram, Tripura, Bihar, Kerala, Chandigarh (Ut), Andaman & Nicobar and Lakshadweep, Gujarat region South Interior Karnataka and Kerala. The rainfall received during 1 June to 31 August 2016 is depicted in Fig. 1. The month witnessed flood conditions in Bihar, West Bengal, Madhya Pradesh, Uttar Pradesh and eastern Rajasthan. Heavy rainfall incidents were reported in Delhi, many places in Telangana and Andhra states.

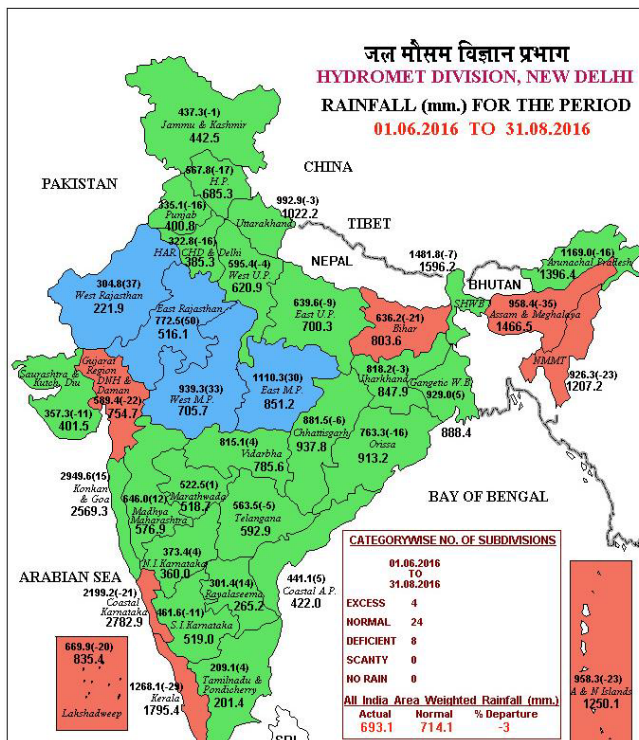


Fig. 1: Meteorological sub-divisional-wise rainfall received during 1 June-31 August 2016 (Data Source: IMD)

2. Excess and deficit rainfall regions of the country

Districts which received rainfall less than 50% of normal and more than 50% of normal during 1 June to 31 August were identified and depicted in Figure 2. The details of the districts identified are given in Annexure 1.

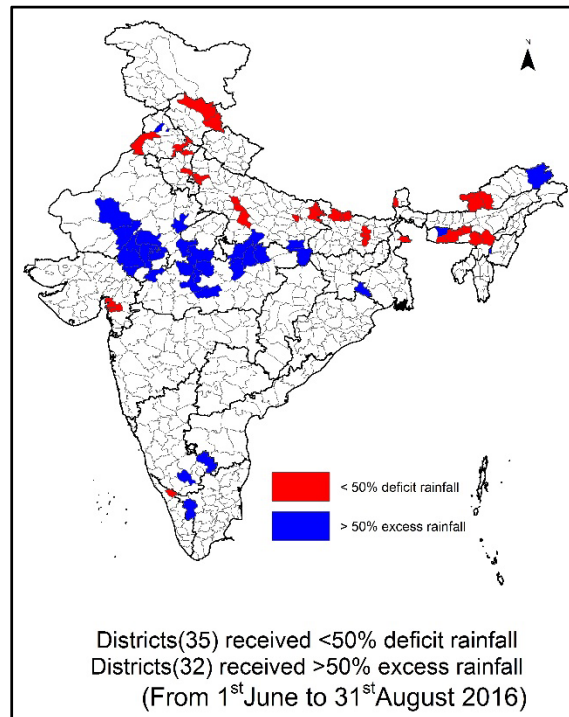


Fig. 2: Districts received <50% deficit & excess rainfall (compared to normal) during 1 June – 31 August 2016 (prepared by AICRPAM-CRIDA)

3. Progress in kharif sowing-2016 (Source: Press Information Bureau and Ministry of Agriculture and Farmers Welfare, Govt. of India)

The total sown area of crops as on 26th August, 2016 as per reports received from States, stands at 1019 lakh hectare as compared to 973 lakh hectare, as on this date last year (Table 1).

Table 1: Progress in kharif sowing in India as on 26th August 2016

Crop	Area sown in 2016-17	Area sown in 2015-16
Rice	363	352
Pulses	139	104
Coarse Cereals	183	173
Oilseeds	178	174.5
Sugarcane	45.5	49.6
Jute & Mesta	7.6	7.7
Cotton	103	113
Total	1019	973

(Area in Lakh hectare)

4. Agromet advisories issued by ICAR-All India Coordinated Research Project on Agrometeorology (AICRPAM) centers during August 2016

Date of issue	AICRPAM Center	Agromet Advisory issued
1-8-2016	Jorhat, Assam	<p>Contingency measures to be taken under flood</p> <ul style="list-style-type: none"> • Suitable paddy cultivar for flood prone area: Luit • Suitable paddy cultivar for 15 days submergence tolerance: Swarna Sub-1, jalashree, Jalkunwari, Plaban • Suitable paddy cultivar for delayed transplanting with aged seedling: Padumoni, Prafulla, Gitesh • Suitable paddy cultivar for normal planting: Ranjit, Bahadur, Maniram, Kushal, Piolee, Pankaj, Lakhimi • Suitable paddy cultivar with medium duration: Satyaranjan, Basundhara <p>Post flood condition</p> <ul style="list-style-type: none"> • After receding of flood water go for wet seeding of sprouted rice where ever possible with short duration cultivars. • In other case, plan for sowing of green gram, lentil, early rabi vegetables etc.
8-8-2016	Anand, Gujarat	<p>In case of failure of first crop due to dry spell, following crops can adopted as mid-season corrections.</p> <ul style="list-style-type: none"> • 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
	Kovilpatti, Tamil nadu	<ul style="list-style-type: none"> • 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.
16-8-2016	Udaipur, Rajasthan	<p>Due to heavy rainfall received during last fortnight, flood situation exists in many parts of East Rajasthan.</p> <ul style="list-style-type: none"> • Provide adequate drainage in heavy rainfall areas. • Drain out excess rain water from field crops as soon as possible. • Avoid top dressing of urea in maize and other cereal crops till rain water receded, in the areas where heavy rainfall occurred. • Procure improved varieties of fodder crops like guar, bajra and sorghum for sowing in areas where the crops are damaged due to heavy rainfall as and when the field comes under normal condition.
22-7-2016	Samastipur, Bihar	<p>Flood situation prevails in many parts of Eastern Bihar due to over flowing Ganges.</p> <ul style="list-style-type: none"> • In the upland areas where rice could not be transplanted due to poor rainfall, pigeon pea (Bahar, Narendra pigeon pea-1) black gram (T-9, Navin, Pant black gram-19) could be sown. • If good rainfall occurs till 25 August, short duration rice varieties such as Turanta, Prabhat, Richhariya, Saroj, Dhanlakhmi can be transplanted in medium land situation. • Yambean, vegetables like cauliflower, radish, brinjal and black gram can be grown profitably in vacant fields. • Provide life saving irrigation to the standing rice crop. • Do not graze cattle in the areas (Falgu and Sone river basin in south Bihar) from where flood water has just receded.

29-8-2016	Mohanpur, West Bengal	<p>Due to excess rainfall occurred in southern parts of West Bengal, following measures are recommended</p> <ul style="list-style-type: none"> • Flood affected lowland area where rice seedlings were already damaged; farmers were advised to wait few days to cultivate early mustard, potato and winter vegetables. • Start preparation of field for Cabbage, cauliflower, knolkhol etc. • Apply 1st split dose of urea in rice crop during active tillering initiation stage (3 to 4 weeks after transplanting). • Due to humid and warm weather, infestation of blight in vegetable crops is likely to increase; spray Mancozeb @ 2 g per liters of water.
	Jabalpur, Madhya Pradesh	<p>Sagar, Rewa, Sidhi, Chattarpur, Panna, Katni, Damoh and Satna districts are the worst affected due to flood. Incessant rains have affected Vindhya and Bundelkhand regions of Madhya Pradesh. Major rivers and streams like Son, Ken and Tamas are flowing above the danger mark.</p> <ul style="list-style-type: none"> • Farmers are advised to wait for flood water to recede from the crop fields • Carry out intercultural operations in early sown maize, soybean, black gram and green gram. Maize crop is at 40 to 45 days stage, apply 2nd dose of nitrogen • Prepare nurseries of cauliflower for mid season (November to December)
	Kanpur, Uttar Pradesh	<p>Varanasi, Gazipur, Ballia and Allahabad districts are worst affected by over flowing Ganga and Yamuna rivers.</p> <ul style="list-style-type: none"> • Farmers are advised to wait for flood water to recede from the crop fields • Drain out excess water from cereals, pulses and oil seed crops, except paddy. • Undertake weeding in late planted paddy. • Due to humid and warm weather in Kanpur region during this week, infestation of Bacterial blight or Blotch in rice crops is likely to increase; spray Mancozeb @ 25 g per 10 liters of water.
	Samastipur, Bihar	<p>Flood situation prevails in many parts of Eastern Bihar due to over flowing Ganges. The flood has damaged seriously the standing crops like rice, maize, pigeon pea, banana and vegetables. Scores of cattle heads have died. Fodder shortage is reported from many districts.</p> <ul style="list-style-type: none"> • Farmers were advised to wait for flood water to recede from the crop fields. Under condition of severe damage to standing crops, sowing of pigeon pea, black gram and early cauliflower, tomato, radish, brinjal, pointed gourd are recommended in the upland areas. • In medium land situation <i>toria</i>, sunflower can be sown at the end of this month. In lowland areas, after complete receding of water, sowing of mustard, lentil, chick pea can be taken up with residual soil moisture in the months of October-November. • Farmers should avoid grazing of cattle in the areas from where flood water has just receded to avoid possible diseases.

Annexure 1

Districts which received more than 50% deficit an excess rainfall compared to normal (1 June to 31 August 2016)

S.No	State/District	ACTUAL (mm)	NORMAL (mm)	% DEP.	Category
	Arunachal Pradesh				
1.	East Kameng	405	970	-58	D
2.	Tawang	953	1994	-52	D
3.	West Kameng	798	1994	-60	S
	Assam				
4.	N.C Hills	322	800	-60	S
	Meghalaya				
5.	Jaintia Hills	658	3841	-83	S
6.	RiBhoi	567	1166	-51	D
7.	South Garo Hills	136	1354	-90	S
8.	West Khasi Hills	648	2310	-72	S
	Sikkim				
9.	West Sikkim	644	1421	-55	D
	West Bengal				
10.	DakshinDinajpur	443	906	-51	D
	Bihar				
11.	Khagaria	368	793	-54	D
12.	Munger	356	742	-52	D
13.	PurbaChampan	394	815	-52	D
14.	Saharsa	457	1117	-59	D
15.	Sheohar	307	905	-66	S
16.	Sitamarhi	370	905	-59	D
	Uttar Pradesh				
17.	Ambedkarnagar	338	702	-52	D
18.	Deoria	308	750	-59	D
19.	Farrukhabad	226	602	-62	S
20.	Kannauj	250	615	-59	D
21.	Kanpur Dehat	273	597	-54	D
22.	Kushinagar	218	918	-76	S
23.	Gautambudhnagar	163	447	-64	S
24.	Ghaziabad	212	514	-59	D
	Haryana				
25.	Kurukshetra	173	472	-63	S
26.	Panchkula	366	779	-53	D
27.	Sonipat	213	449	-53	D
	Delhi (Ut)				

S.No	State/District	ACTUAL (mm)	NORMAL (mm)	% DEP.	Category
28.	East Delhi	158	526	-70	S
29.	North East Delhi	242	526	-54	D
	Punjab				
30.	Firozpur	95	284	-67	S
31.	Patiala	236	499	-53	D
	Himachal Pradesh				
32.	Kinnaur	89	193	-54	D
33.	Lahul&Spiti	83	357	-77	S
	Gujarat				
34.	Bharuch	295	640	-54	D
	Kerala				
35.	Wayanad	988	2401	-59	D

(D = Deficient and S= Scanty)

Table: Districts which received more than 50% excess rainfall compared to normal (1 Jun to 31stAugust 2016) (Source: IMD)

S.No	State/District	ACTUAL (mm)	NORMAL (mm)	% DEP.
	Arunachal Pradesh			
1.	Lower Dibang Valley	2496	807	209
	Meghalaya			
2.	East Garo Hills	2166	1356	60
	Manipur			
3.	Imphal West	1499	811	85
	Jharkhand			
4.	PurbiSingbhum	1382	832	66
	Uttar Pradesh			
5.	Banda	1107	670	65
6.	Mirzapur	1177	670	76
7.	Sonbhadra	1086	706	54
	Punjab			
8.	Kapurthala	624	340	84
	Rajasthan			
9.	Jodhpur	391	232	68
10.	Pali	827	372	122
11.	Baran	1131	672	68
12.	Bhilwara	866	491	76
13.	Chittaurgarh	1244	591	110
14.	Dungarpur	806	528	53

S.No	State/District	ACTUAL (mm)	NORMAL (mm)	% DEP.
15.	Rajsmand	768	423	82
16.	Swaimadhapur	891	572	56
17.	Udaipur	822	485	70
	Madhya Pradesh			
18.	Bhopal	1342	806	66
19.	Guna	1236	780	59
20.	Hoshangabad	1882	1021	84
21.	Nimach	989	609	63
22.	Rajgarh	1271	736	73
23.	Ratlam	1189	699	70
24.	Sehore	1336	866	54
25.	Videsha	1398	843	66
26.	Chhatarpur	1356	782	73
27.	Damoh	1434	881	63
28.	Panna	1583	862	84
29.	Satna	1524	759	101
	Tamil Nadu			
30.	Coimbatore	264	121	118
	Karnataka			
31.	Kolar	351	231	52
32.	Mandhya	269	157	72