

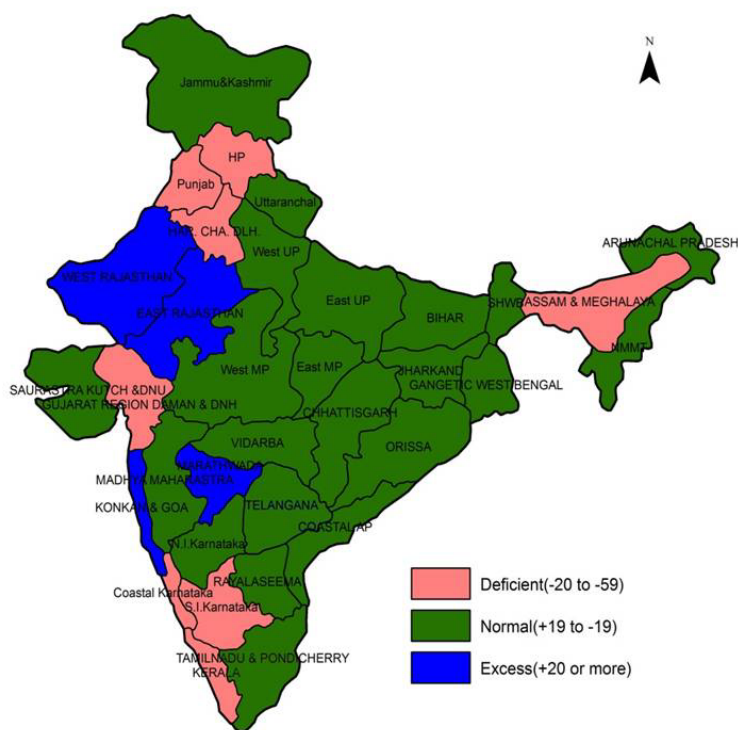
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Weather Conditions, Status of *kharif* Sowing and Agromet Advisories Issued during September 2016

1. General Weather Conditions

During 1 June – 30 September 2016, the country as a whole has received 862 mm rainfall, which is 3% deficit compared to the normal rainfall for the same period (887.5 mm).

Out of 36 meteorological subdivisions, rainfall was excess/normal in 27 and deficient in 9 subdivisions. No meteorological sub-division received scanty rainfall. At the end of September, deficit rainfall is mainly confined to the subdivisions viz. Assam & Meghalaya, Haryana-Chandigarh-Delhi, Punjab, Himachal Pradesh, Kerala, Gujarat region, Coastal and South Interior Karnataka and Lakshadweep. The rainfall received during 1 June to 30 September 2016 is depicted in Fig. 1. The month witnessed flood conditions in Hyderabad and parts of Andhra Pradesh. Heavy rainfall incidents were reported in many places in Telangana, Andhra Pradesh and parts of western Maharashtra.



@AICRPAM, CRIDA
 Based on the data given by IMD

Fig. 1: Meteorological sub-divisional-wise rainfall received during 1 June-30 September 2016

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 30 September were identified and depicted in Figure 2. The details of the districts identified are given in Annexure 1.

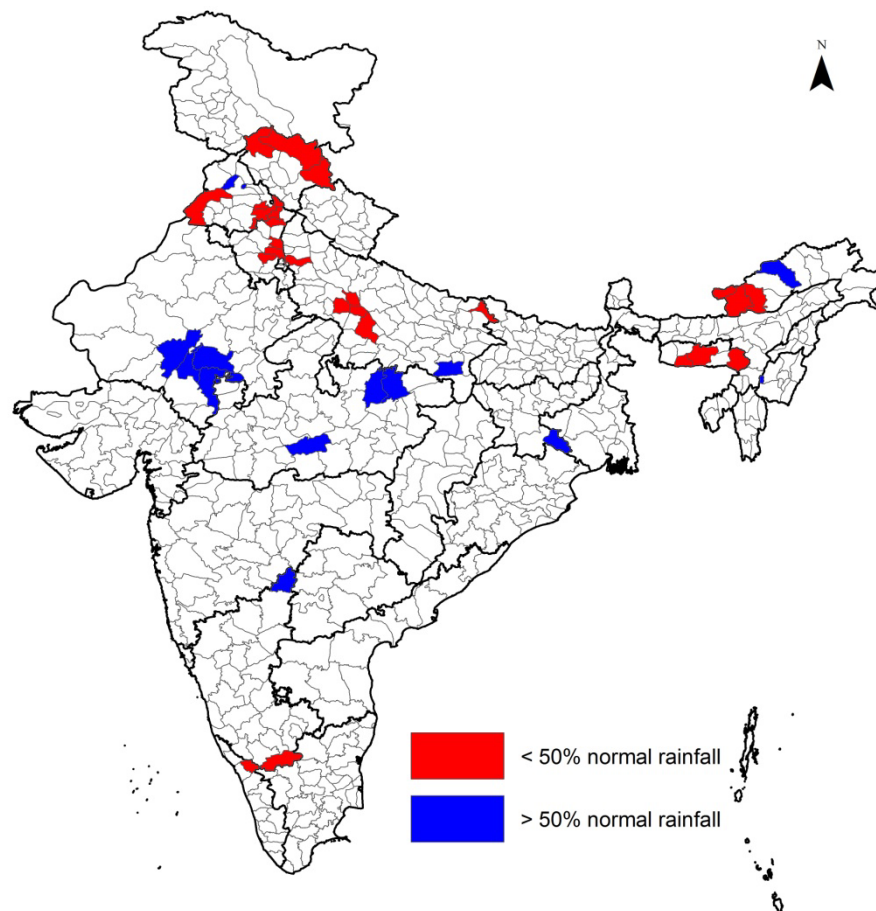


Fig. 2: Districts received <50% deficit (27 districts) & excess (13 districts) rainfall (compared to normal) during 1 June – 30 September 2016 (prepared by AICRPAM-CRIDA)

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 23 September, 2016 as per the reports received from states, stands at 1067 lakh hectare as compared to 1031 lakh hectare, as on this date last year (Table 1).

Table 1: Progress in kharif sowing in India as on 23 September 2016 (Source: Press Information Bureau & Ministry of Agriculture and Farmers Welfare, Govt of India)

Crop	Area sown in 2016-17	Area sown in 2015-16
Rice	387	377
Pulses	146	113
Coarse Cereals	189.6	183.6
Oilseeds	189	183.7
Sugarcane	45.8	49.6
Jute & Mesta	7.6	7.7
Cotton	102	116
Total	1067	1031

(Area in Lakh hectare)

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

Date of issue	AICRPAM Center	Agromet Advisory issued
2-9-2016	Anantapur, Andhra Pradesh	<p>Pink boll worm incidence is noticed in Ananthapuramu, Kurnool, Kadapa districts. It has crossed ETL level in Ananthapuramu district. The following measures are suggested for control of pink boll worm</p> <ul style="list-style-type: none"> • Pheromone traps should be installed immediately at the field level for monitoring of the incidence levels on community basis. • Release of Trichogramma @ 60,000/acre for 3 times at 15 days interval starting from the time of peak flowering stage to facilitate the egg parasitism. • Need based use of insecticides at ETL (8 moths/trap/day for 3 consecutive days or 1 larva/10 flowers or 10 green bolls) : Spraying of insecticides like thiodicarb 75 WP @ 1.5 g/l or profenophos 50 EC @ 2 ml/l or quinalphos 25 EC @ 2.5 ml/l or chlorpyrifos 20 EC @ 2.5 ml/l at 15 days interval.
	Akola, Maharashtra	<ul style="list-style-type: none"> • Dry and cloudy weather caused incidence of army worm in rice crop in eastern Vidarbha districts. For control spraying with 10 EC Cypermethrin (6 ml/10 litres of water) in the field is advisable. • Subdued rainfall activity has increased sap sucking pest infestation in cotton, for control undertake application of Azadirachtin 300 ppm @ 50 ml OR Acetameprid 20% SP@ 1.5g OR Thiamethoxam 25 wg @ 2.0 g per 10 litres of water.
9-9-2016	Bhubaneswar, Odisha	<ul style="list-style-type: none"> • Go for sowing of pre-rabi pulse crops like green gram, black gram, horse gram in the upper parts of medium lands. • It is time for sowing niger in the fallow uplands. Grow High Yielding varieties suitable for Orissa climate such as Deomali and IGP-76. Use 4 kg seeds/acre . • The current weather is favourable for infestation of fruit and shoot borer in brinjal. To control them, install Pheromone trap and spray 4 g Sevin WP or 2 ml Malathion in 1 litre water alternatively.
	Anand, Gujarat	<ul style="list-style-type: none"> • Leaf spot disease can be prevented in groundnut by spray of Hexaconazole 10 ml or Tebuconazole 7 ml in 10 liters of water under clear sky conditions. <p>Following crops can be considered for sowing.</p> <ul style="list-style-type: none"> • Sesame : Guj-1, 2, 10 • Safflower : Bhima, Tara • Sunflower : EC-68414, Modern • Green gram: GM-4, K-851, Meha
16-9-2016	Ranchi, Jharkhand	<ul style="list-style-type: none"> • Those farmers, who are wishing to cultivate early maturing potato and green peas are advised to prepare their field and arrange seeds, fertilizers and manures etc. Improved varieties of potato are Kufri Ashok and Kufri Kanchan. Improved varieties of green pea are Arkel, Kashi Nandini, PE-6, Birsa Matar etc.
	Palampur, Himachal Pradesh	<ul style="list-style-type: none"> • Farmers are advised to remove lower 5-6 leaves in maize crop after complete tasselling and use as fodder to reduce transpiration losses. • In mid hill regions, direct sowing of radish, carrot, broccoli, lettuce and transplanting of cauliflower and cabbage seedlings is advised.
	Vijayapura, Karnataka	<p>Wherever sufficient profile-wetting rainfall is received, the following contingent measures are suggested to be taken up based on soil type and district concerned.</p>

23-9-2016		<ul style="list-style-type: none"> • Sowing of sunflower, desi cotton, rabi sorghum, chick pea, safflower, castor or horse gram may be taken up with suitable varieties recommended for the region. • To overcome the failure of crops during drought situations, instead of sowing sole crops recommended intercropping systems like <i>rabi</i> sorghum + chick pea (2:1), chick pea + safflower (4:2) or chick pea + linseed (4:2) may be taken up.
	Akola, Maharashtra	<ul style="list-style-type: none"> • Taking advantage of adequate soil moisture due to recent rain events, early <i>rabi</i> sowing (from last week of September) of rainfed <i>rabi</i> crops like safflower (AKS- 207, Bhima, Nari- 6, AKS 311, Nari- NH-1), chickpea (Jaki 9218, Vijay, Phule G- 5, ICCV- 2, PKV Kabuli 2 &4), Sorghum for grain & fodder (CSH-15R, CSH-19R, AKSV- 13R, SPV- 504, CSV- 14R, CSV- 18R, SPV- 1359, Maldandi 35-1, Ringni) and sunflower (PKVSH- 27, KBSH- 1 & 44, DRS-1, PKVSF- 9, Morden, TAS- 82) is recommended.
30-9-2016	Thrissur, Kerala	<ul style="list-style-type: none"> • Paddy is in harvesting stage. Drain the paddy field 10 days before harvesting. Keep the field and bunds free of weeds and grasses. The nursery for second crop of rice can be prepared. • Coffee is in fruit development stage. It is the ideal time for planting seedlings in polybag. Take necessary measures to control coffee berry borer. • Cardamom: Take necessary phyto-sanitary measures to manage capsule rot (Azhukal disease) and spray 1% Bordeaux mixture (500-1000 ml/plant). As a prophylactic measure to control rhizome rot, drench the soil with 2-3 liters of copper oxy chloride (0.25%) solution.
	Kovilpatti, Tamilnadu	<p>Sowing of following crop/cropping systems are recommended for various districts and soil types as mentioned below up to November 1st week under rainfed condition</p> <ul style="list-style-type: none"> • Short duration rice varieties (PMK 3, Anna 4, RMD(R)1, ADT 36, ADT 43, ADT 45), short duration groundnut varieties (TMV 7 and VRI 2) and local Mundu variety of chilli is advocated in red, black and laterite soils of Ramanathapuram district • Groundnut + pigeon pea intercropping (6:1), Sesame and rice crops in deep and very deep black soils of Sivaganga district • Sunflower, kodo millet and fodder sorghum in laterite and black soils of Cuddalore district • Horse gram in shallow marginal and sub marginal red non-calcareous soils of Krishnagiri district

Annexure 1

Table 2. Districts which received more than 50% deficit an excess rainfall compared to normal (1 June to 30 September 2016)

S.No	State/District	ACTUAL (mm)	NORMAL (mm)	DEP. (%)	CAT.
	Arunachal Pradesh				
1.	East Kameng	540	1246	-57	D
2.	Tawang	1159	2485	-53	D
3.	West Kameng	897	2485	-64	S
	Meghalaya				
4.	Jaintia Hills	939	4668	-80	S
5.	South Garo Hills	158	1682	-91	S
6.	West Khasi Hills	756	2775	-73	S
	Uttar Pradesh				
7.	Farrukhabad	277	743	-63	S
8.	Kannauj	309	777	-60	S
9.	Kanpur Dehat	295	765	-61	S
10.	Kushinagar	361	1158	-69	S
11.	Ghaziabad	238	642	-63	S
12.	Mainpuri	290	655	-56	D
	Haryana				
13.	Ambala	434	917	-53	D
14.	Kurukshetra	180	563	-68	S
15.	Panchkula	401	950	-58	D
16.	Panipat	248	522	-53	D
17.	Rohtak	247	508	-51	D
18.	Sonipat	219	534	-59	D
	Delhi (Ut)				
19.	North East Delhi	280	636	-56	D
	Punjab				
20.	Fatehgarh Sahib	251	547	-54	D
21.	Firozpur	105	352	-70	S
22.	Patiala	241	615	-61	S
	Himachal Pradesh				
23.	Chamba	642	1406	-54	D
24.	Kinnaur	116	264	-56	D
25.	Lahul&Spiti	101	458	-78	S
	Karnataka				
26.	Chamarajanagar	157	321	-51	D
	Kerala				
27.	Wayanad	1070	2632	-59	D

(D = Deficient and S= Scanty)

Table 3: Districts which received more than 50% excess rainfall compared to normal (1 Jun to 30 September 2016) (Source: IMD)

S.No	State/District	ACTUAL (mm)	NORMAL (mm)	DEP. (%)
	Arunachal Pradesh			
1.	Upper Subansiri	1518	788	93
	Manipur			
2.	Imphal West	2237	972	130
	Jharkhand			
3.	Purbi Singhumi	1894	1058	79
	Uttar Pradesh			
4.	Mirzapur	1407	901	56
	Punjab			
5.	Kapurthala	668	423	58
	Rajasthan			
6.	Pali	849	447	90
7.	Bhilwara	909	581	57
8.	Chittaurgarh	1300	710	83
9.	Rajsmand	801	506	58
	Madhya Pradesh			
10.	Hoshangabad	2101	1289	63
11.	Panna	1660	1072	55
12.	Satna	1610	953	69
	Karnataka			
13.	Bidar	1060	695	52