

**ICAR-Central Research Institute for Dryland Agriculture  
Hyderabad**

**Status of monsoon and agromet advisories/ contingency plans for some deficit/excess  
rainfall areas**

During 1 June - 13 Sept 2015, the country as a whole received 673 mm rainfall, which is 16% less than the normal (802 mm). The region-wise Southwest Monsoon rainfall status is: East and Northeast India: 7% deficit, Northwest India: 19% deficit, Central India: 21% deficit and South peninsula: 15% deficit. Out of 36 meteorological sub divisions in the country, 18 are facing deficit rainfall condition; 17 are under normal rainfall condition and one region is with excess rainfall condition. Districts which received rainfall less than 50% of normal during 1 June to 13 September were identified and depicted in figure 1. Rainfall received during 1 June - 13 September, progress in *kharif* sowing and contingency measures that are to be followed for deficit/excess rainfall conditions and the crops/cropping systems in different states/regions are mentioned as under:

**A) Deficit rainfall areas**

**1. Maharashtra**

Rainfall status: Marathwada region is reeling under drought conditions with 44% deficit rainfall. Madhya Maharashtra, Konkan and Vidarbha regions are also facing deficit rainfall of 38%, 34% and 19%, respectively.

Progress of *kharif* sowing: As on 12 September, 93% of normal *kharif* crop area of the state has been sown under different crops. Oil seed crops and cotton recorded highest sowing area of 120 and 114%, respectively (compared to normal sown area) and sugarcane recorded the lowest (47%) sowing due to deficit rainfall conditions.

Agromet advisories

**Marathwada**

- For taking *rabi* crops, it is recommended to take up compartmental bunding to conserve moisture, wherever sowing is not carried out.
- Undertake preparation of field for sowing of *rabi* sorghum and safflower.
- Prevailing cloudy weather is congenial for the incidence of downy mildew in cucurbitaceous vegetables; spray solution of Metalaxyl 8 % + Mancozeb 64 % @ 20 g in 10 litres of water.

## **Vidarbha**

- Early - *rabi* pigeon pea (C-11 or ICPL 87119 (Asha) ) or sesame (N-8) can be sown up to September 15.
- In case of moisture stress symptoms in early sown cotton/soybean, particularly in deficient areas/lighter soil types, protective sprinkler irrigation is advisable. Otherwise, undertake light hoeing to create soil mulch to conserve profile soil moisture.
- Continue weeding and hoeing in cotton/pigeon pea to conserve soil moisture.
- Apply foliar spray of 2% urea (200 g urea +10 litre water) to late sown soybean and cotton crops at flowering stage.
- Undertake timely plant protection in standing *kharif* crops judging a clear weather.
- Priority should be given for *in situ/ex situ* rainwater harvesting during the remainder of the season.

## **2. Uttar Pradesh**

Rainfall status: East & west UP is facing a rainfall deficit of 44% and 41%, respectively.  
Progress of kharif sowing: 100% of targeted crop area was sown by the end of September.

### **Agromet advisories**

- Life saving irrigation in paddy for maintaining proper moisture at tillering/PI stage .
- Spraying of 2% Urea and Potash in paddy in moisture deficit condition.
- Undertake intercultural operation and mulch with crop residue to conserve soil moisture.
- Undertake weeding in pigeon pea.
- Provide drip/ sprinkler irrigation, wherever possible.
- Sowing of short duration varieties of garden pea, potato, toria and vegetables such as carrot, turnip, spinach, coriander radish etc.

## **B) Excess rainfall areas**

### **1. West Bengal**

Rainfall status: Gangetic West Bengal has received 13% excess rainfall so far. But, Sub-Himalayan West Bengal is facing 6% deficit rainfall.

Progress of kharif sowing: Transplanting/re-transplanting of Aman rice has been completed in more than 90% of area under rice cultivation. 12 districts in Bengal is flood-hit with heavy rain hitting the state in July and early August. Total area under cultivation damaged by the flood is 12 lakh hectares. Widespread damage to standing paddy crops occurred in Bardhaman, Murshidabad, East and West Midnapore districts. Total 243 blocks have been affected due to the floods.

### **Contingency crop plans**

- Surface water can be used for life saving irrigation to upland crops and transplanted rice.

- Hand weeding should be done and weeds should be used as mulch for conservation of moisture.
- 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.
- Available ground water should be used to the field for sowing of pulses (black gram, green gram, pigeon pea) and oil seeds (sesame, ground nut) in uplands.
- Raised bed planting method for Chili can follow in low lying areas.

## 2. Assam

Rainfall status: The state as a whole has received normal rainfall so far. But, many parts of the state are flood affected. Due to heavy rainfall received during last fortnight, 19 districts are facing flood condition. The severely affected districts are Dhemaji, Kokrajhar, Chirang, Lakhimpur, Tinsukia, Dibrugarh, Bongaigaon, Sivasagar, Nalbari, Sonitpur, Barpeta, Jorhat and Goalpara. (Source: Assam State Disaster Management Authority).

### Crop contingency plans

- If the need arise, share the seedlings among the community members.
- Repair the bunds in paddy field to retain standing water.
- Perform weeding to check excessive/unnecessary loss of water.
- Apply life saving irrigation from farm ponds.
- Apply mulching material in upland crops to reduce evaporative loss of soil moisture.
- If Sali paddy is in active tillering stage (30-35 days after sowing) go for 1<sup>st</sup> split application of nitrogenous fertilizer.

*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.*

- The following map was generated by AICRPAM, CRIDA (with the data provided by IMD), Hyderabad to identify the districts experiencing more than 50% deficit condition.

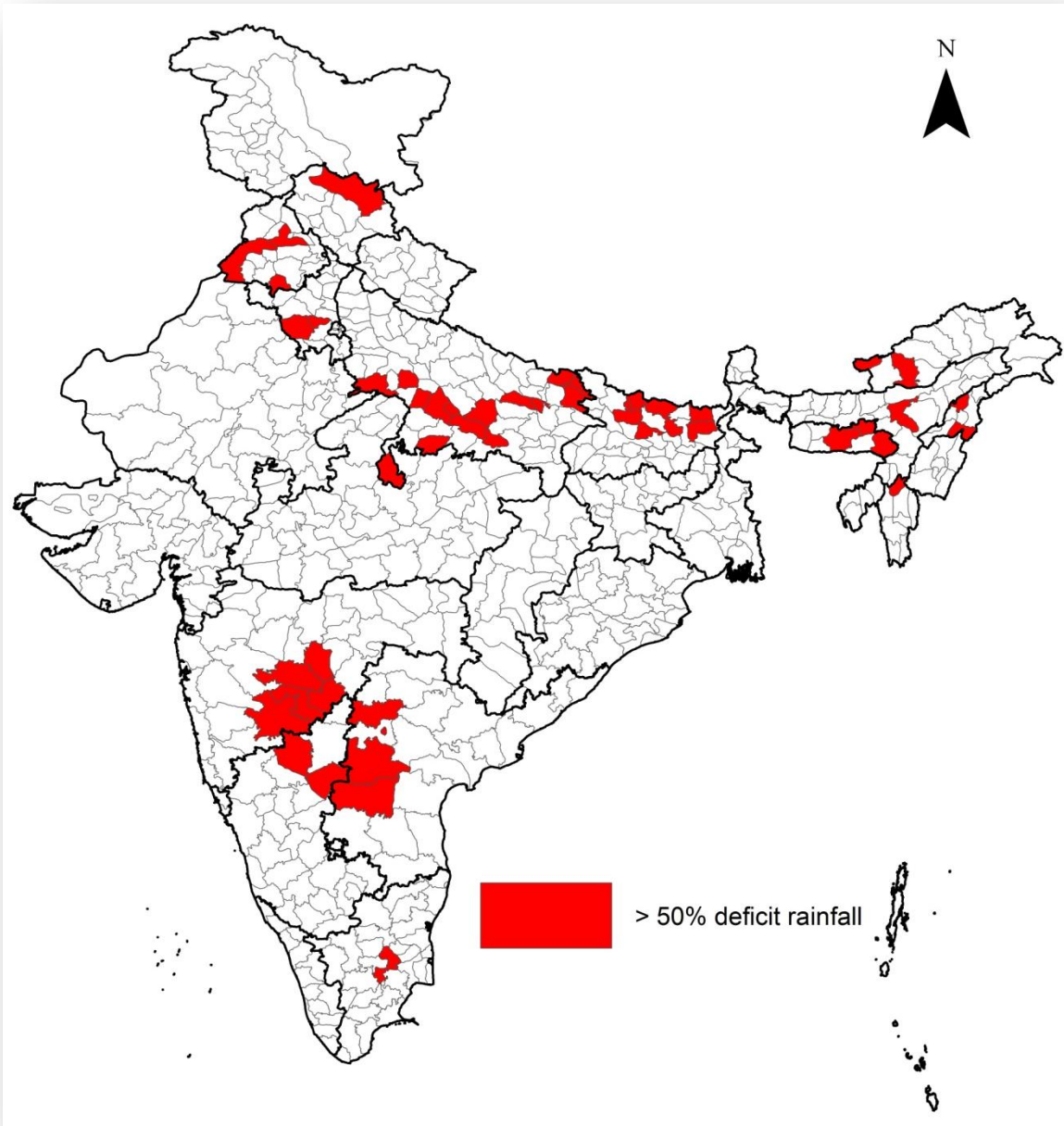


Figure 1: Districts (64) experiencing more than 50% rainfall deficit (From 1 June - 13 September, 2015)

Table 1 depicts the details of districts experiencing more than 50% rainfall deficit

**Table 1. Details of the districts experiencing more than 50% rainfall deficit from 01 June to 13 September 2015**

S.No	STATE	DISTRICT	ACTUAL (mm)	NORMAL (mm)	DEPARTURE (%)	Category
1.	Andhra Pradesh	Medak	293.9	648.3	-55	D
2.	Arunachal Pradesh	East Kameng	355.4	1100.2	-68	S
3.		Tawang	1022.0	2198.2	-54	D
4.	Assam	Nagaon	487.1	1012.3	-52	D
5.	Bihar	Bhojpur	356.2	824.9	-57	D
6.		Purnia	525.5	1151.2	-54	D
7.		Saharsa	568.5	1250.8	-54	D
8.		Sitamarhi	432.7	991.7	-56	D
9.	Daman and Diu	Daman	753.2	2137.0	-65	S
10.		Diu	431.9	618.1	-30	D
11.	Gujarat	Anand	361.1	748.5	-52	D
12.		Bharuch	350.6	719.2	-51	D
13.		The Dangs	738.2	1804.2	-59	D
14.		Navsari	705.8	1690.0	-58	D
15.		Porbandar	292.5	640.2	-54	D
16.	Haryana	Ambala	352.6	828.1	-57	D
17.		Bhiwani	157.4	327.7	-52	D
18.		Fatehabad	97.9	259.0	-62	S
19.		Kaithal	163.4	352.4	-54	D
20.		Kurukshetra	234.1	518.2	-55	D
21.		Mahendragarh	160.7	378.8	-58	D
22.		Panchkula	365.2	883.7	-59	D
23.		Rohtak	190.5	485.8	-61	S
24.	Himachal Pradesh	Chamba	619.8	1314.1	-53	D
25.		Kinnaur	102.5	225.7	-54	D
26.		Lahul & Spiti	87.8	404.1	-78	S
27.	Jammu and Kashmir	Udhampur	590.3	1278.6	-54	D
28.	Maharashtra	Kolhapur	781.2	1636.7	-52	D
29.		Latur	321.8	666.9	-52	D
30.		Parbhani	274.2	674.0	-59	D
31.	Mizoram	Kolasib	272.0	1507.2	-82	S
32.		Lunglei	673.0	1631.8	-59	D
33.	Nagaland	Mokokchung	495.0	1588.5	-69	S
34.		Phek	135.0	1187.3	-89	S
35.	Punjab	Firozpur	90.5	324.9	-72	S
36.		Hoshiarpur	291.2	658.3	-56	D
37.		Jalandhar	141.2	506.0	-72	S

S.No	STATE	DISTRICT	ACTUAL (mm)	NORMAL (mm)	DEPARTURE (%)	Category
38.		Mansa	83.9	299.0	-72	S
39.		Moga	159.2	328.7	-52	D
40.	Uttar Pradesh	Ambedkar Nagar	118.0	826.9	-86	S
41.		Deoria	382.3	844.1	-55	D
42.		Farrukhabad	333.4	685.8	-51	D
43.		Fatehpur	95.8	736.3	-87	S
44.		Kannauj	311.2	709.3	-56	D
45.		Kanpur Nagar	224.7	627.6	-64	S
46.		Kanpur Dehat	164.0	696.2	-76	S
47.		Kaushambi	138.8	692.3	-80	S
48.		Lucknow	325.5	687.7	-53	D
49.		Maharajganj	428.7	1095.1	-61	S
50.		Mau	358.7	894.2	-60	S
51.		Rae Bareli	215.9	672.7	-68	S
52.		Sant Kabir Nagar	424.5	895.3	-52	D
53.		Unnao	319.7	710.5	-55	D
54.		Agra	189.4	632.2	-70	S
55.		Auraiya	223.7	638.2	-65	S
56.		Etah	257.0	563.0	-54	D
57.		Hamirpur	302.8	732.3	-59	D
58.		Jalaun	332.0	707.4	-53	D
59.		Jhansi	369.4	766.7	-52	D
60.		Lalitpur	321.3	870.4	-63	S
61.		Mahoba	249.8	715.6	-65	S
62.		Mainpuri	229.8	596.9	-62	S
63.		Pilibhit	360.1	897.0	-60	S
64.		Rampur	329.8	841.5	-61	S

*D- Deficit; S- Scanty*