GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION No. 1899
TO BE ANSWERED ON FRIDAY, NOVEMBER 29, 2019

UNSEASONAL RAINS

1899. SHRI UTTAM KUMAR REDDY NALAMADA:

Will the Minister of **EARTH SCIENCES** be pleased to state:

(a)   the details of States/UTs that received unseasonal rains in October, 2019 along with the area of farmland affected by the rains in these States/UTs;

(b)   whether any studies have been conducted to assess the damage to crops by these unseasonal rains and if so, the details thereof;

(c)   whether the Ministry has any plans to improve the weather prediction infrastructure in order to be able to predict such unseasonal weather changes more accurately and if so, the details thereof; and

(d)   whether the Government has any plans to improve information dissemination and communication to farmers in order to allow them to prepare for such circumstances and if so, the details thereof?

ANSWER
MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(DR. HARSH VARDHAN)

(a) & (b) The rainfall statistics (State/UT wise) for October, 2019 is given in *Annexure-I*. There are 11 states which received large excess rainfall (more than 60% of normal) during the month of October. There have been damages to the standing crops in farmlands in some of the states (Jharkhand, Rajasthan, Gujarat, Maharashtra, Karnataka, Odisha, Chhatisgarh, Kerala, Madhya Pradesh) due to the prolonged rains in October owing to the delayed withdrawal of southwest monsoon from Central India. The details of the area of farmland affected by the rains in these States are given in Annexure-II, as provided by Disaster Management Division of Ministry of Home Affairs.

(c) Yes. India Meteorological Department (IMD) provides an operational Agrometeorological Advisory Service (AAS) *viz.,* Gramin Krishi Mausam Sewa (GKMS) scheme for the benefit of farming community in the country. Under the scheme, medium range weather forecast (Forecasts up to 5 days) at district level is generated. Based on the forecast, Agromet Advisories are prepared and communicated by the 130 Agromet Field Units (AMFUs) located at State Agricultural Universities, institutes of Indian Council of Agriculture Research (ICAR) and IIT etc., to the farmers on every Tuesday and Friday to take decision on day-to-day agricultural operations. AAS rendered by IMD is a step towards weather-based crop and livestock management strategies and operations dedicated for enhancing crop production and food security besides reducing crop damage and loss due to unusual weather.

IMD is now implementing block level Agromet Advisory Services shortly in collaboration with ICAR in the country. District Agromet Units (DAMUs) are being established in KrishiVikas Kendra (KVKs) under ICAR network. Implementation of block level AAS would address the micro-level variation in weather and climate and hence more numbers of farmers will be benefitted.

(d) Agromet Advisories are communicated to the farmers through multichannel dissemination system like print and electronic media, Doordarshan, radio, internet etc. including SMS using mobile phones through Kisan Portal launched by Ministry of Agriculture and Farmers' Welfare and also through private companies under Public Private Partnership (PPP) mode. At present, more than 40 million farmers in the country receive the Agromet Advisories through SMS directly. KrishiVigyanKendras(KVKs) of ICAR have also given link to the respective district level advisory in their web portal. A mobile App *viz.,* 'Meghdoot' has been launched recently by Ministry of Earth Sciences, Government of India to help farmers to get weather information and related agromet advisories specific to their districts. Statewise number of farmers receiving the Agromet Advisories through SMS is mentioned in *Annexure-III*.

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STATE-WISE RAINFALL (MM) DISTRIBUTION FOR OCTOBER-2019

S. NO.	STATES	PERIOD: ACTUAL	01.10.2019 NORMAL	TO % DEP.	31.10.2019 CAT.
EAST & NORTH EAST INDIA					
1	ARUNACHAL PRADESH	116.8	184.9	-37%	D
2	ASSAM	147.5	128.1	15%	N
3	MEGHALAYA	339.6	268.5	26%	E
4	NAGALAND	173.2	118.4	46%	E
5	MANIPUR	108.4	162.8	-33%	D
6	MIZORAM	121.9	202.9	-40%	D
7	TRIPURA	189.8	170.8	11%	N
8	SIKKIM	81.9	166.8	-51%	D
9	WEST BENGAL	163.7	132.3	24%	E
10	JHARKHAND	132.8	74.7	78%	LE
11	BIHAR	25.5	61.6	-59%	D
NORTH WEST INDIA					
1	UTTAR PRADESH	18.7	31.0	-40%	D
2	UTTARAKHAND	32.0	35.3	-9%	N
3	HARYANA	5.0	9.8	-49%	D
4	CHANDIGARH (UT)	0.3	22.2	-99%	LD
5	DELHI	13.5	11.7	16%	N
6	PUNJAB	9.1	8.9	2%	N
7	HIMACHAL PRADESH	21.9	27.5	-20%	D
8	JAMMU & KASHMIR	28.3	36.0	-21%	D
9	RAJASTHAN	22.1	10.0	121%	LE
CENTRAL INDIA					
1	ODISHA	176.1	100.2	76%	LE
2	MADHYA PRADESH	47.9	31.7	51%	E
3	GUJARAT	52.3	16.7	213%	LE
4	DADRA & NAGAR HAVELI (UT)	89.5	40.2	123%	LE
5	DAMAN & DIU (UT)	36.9	33.8	9%	N
6	GOA	547.7	156.3	250%	LE
7	MAHARASHTRA	161.6	71.1	127%	LE
8	CHHATISGARH	100.3	59.4	69%	LE
SOUTH PENINSULA					
1	A & N ISLAND (UT)	136.6	282.4	-52%	D
2	ANDHRA PRADESH	217.4	165.9	31%	E
3	TELANGANA	160.3	92.7	73%	LE
4	TAMILNADU	224.4	176.9	27%	E
5	PUDUCHERRY (UT)	295.3	262.0	13%	N
6	KARNATAKA	268.8	131.1	105%	LE
7	KERALA	470.0	303.4	55%	E
8	LAKSHADWEEP (UT)	527.7	142.3	271%	LE
COUNTRY AS A WHOLE		**109.7**	**76.0**	**44%**	

CATEGORYWISE DISTRIBUTION OF NO. OF STATES

CATEGORY	PERIOD: 01.10.2019 TO 31.10.2019
	NUMBER OF STATES
LE (LARGE EXCESS) (+60% or more)	11
E (EXCESS) (+20% to +59%)	7
N (NORMAL) (+19% to -19%)	7
D (DEFICIENT) (-20% to -59%)	10
LD (LARGE DEFICIENT) (-60% to -99%)	1
NR (NO RAIN) -100%)	0

Area of farmland affected by the October Rains[*]

State/UTs	Area of farmland affected
Jharkhand	Under Assessment
Rajasthan	Under Assessment
Gujarat	Under Assessment
Maharashtra	Under Assessment
Karnataka	10.2 Lakh Ha
Odisha	8029 Ha (Under Assessment)
Chhatisgarh	Under Assessment
Kerala	13086 Ha
Madhya Pradesh	6.3 Lakh Ha

* Source : Disaster Management Division, Ministry of Home Affairs

State wise SMS sent through Kisan Portal and Private Companies under PPP Mode						
State	**Kisan Portal**	**IFFCO**	**Reliance Foundation**	**Kisan Sanchar**	**Apps & others**	**Total**
ANDAMAN NICOBAR ISLANDS	7458					7458
ANDHRA PRADESH	4021389	96186	595323	106		4713004
TELANGANA	872028		132426			1004454
ARUNACHAL PRADESH	1396					1396
ASSAM	105647					105647
BIHAR	918160	547669	21516	3755		1491100
CHATTISGARH	1771510		55213			1826723
GUJARAT	1514583	45910	472079			2032572
HARYANA	1241693	12367		2078	362000	1618138
HIMACHAL PRADESH	286617	21495				308112
JAMMU AND KASHMIR	50174					50174
JHARKHAND	880415		29334	800		910549
KARNATAKA	336102	78566	102696			517364
KERALA	655547		193215			848762
MADHYA PRADESH	1279384	86343	194894	3415		1564036
MAHARASHTRA	6784352	41076	1229669	1816		8056913
MANIPUR	197					197
MEGHALAYA	1441					1441
MIZORAM	1306					1306
NAGALAND	32312					32312
NEW DELHI	6186					6186
ODISHA	2579952	309048	1223550			4112550
PUNJAB	627399	30569	10735			668703
RAJASTHAN	1758670	164061	55442	2127		1980300
TAMIL NADU	1082708	35656	1009248	109		2127721
TRIPURA	19960		14149			34109
UTTAR PRADESH	3761473	781942	110000	5963		4659378
UTTARAKHAND	209890		904	52		210846
WEST BENGAL	1194272	92488	31723			1318483
Total	**32002221**	**2343376**	**5482116**	**20221**	**362000**	**40209934**