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A Critical Study on Usefulness of Technical Interventions through BGREI Programme in Odisha

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A B S T R A C T

The present study was conducted during the year 2016-17 in Mayurbhanj and Bargarh districts of Odisha state to assess the usefulness of technical interventions through Bringing Green Revolution to Eastern India (BGREI) programme in Odisha. Two blocks from each district were selected. From each selected block, 02 BGREI-implemented villages and from each BGREI-implemented village, 10 beneficiaries were selected for investigation. Thus, total 80 beneficiaries were selected as respondents for the study. The data were collected with the help of well-structured interview schedule through personal interview. The study revealed that after participation in the BGREI programme, among several benefits, all (100.00%) of the beneficiaries were benefitted with 'Line transplanting' and 'Micro-nutrients', followed by Weedicide' and 'Pesticide' both (62.50%). Among the intervention wise benefitted beneficiaries, majority (82.50%) found 'Mandua weeder' as mostly useful and majority (22.00%) of the intervention wise benefitted beneficiaries found 'Herbicide' as not useful. So, it can be concluded that the BGREI programme is somewhat successful in some technical interventions, but it should focus on the interventions where the interventions could not useful with hundred percent.

Introduction

India lives in its villages rings true even today. The major portions of its 1.3 billion people still live in villages and have agriculture as their primary means of livelihood. The agriculture sector occupies centre-stage in our resolve to promote inclusive growth, enhance rural incomes and sustain food security (Shivay and Rahal, 2013). The major crop grown in India is Rice. Day by day the number of farmers is decreasing. So, the Government of India has launched so many programme for socio-economic upliftment of rice growers and Bringing Green Revolution to Eastern India (BGREI) programme is one of those

implemented programme. The programme of "Bringing Green Revolution to Eastern India (BGREI)" was launched to address the constraints limiting the productivity of "rice-based cropping systems". BGREI comprised of broad categories of interventions such as 1. Block Demonstrations, 2. Asset Building, 3. Site Specific Activities, 4. Marketing support and post-harvest management, 5. Seed production and distribution, 6. Subsidy on Need-based Inputs, 7. Training program on Cropping System Based Demonstrations etc. (Anonymous, 2017).

So many technical interventions have been done by this (BGREI) programme. As this programm has already completed over 5 years of its implementation since 2010-11 in Odisha, it is the right time to study the usefulness of technical interventions through this programme.

Materials and Methods

The study was conducted in two districts namely Bargarh and Mayurbhanj districts of Odisha state (Fig. 1) during the year 2016-2017. Mayurbhanj and Bargarh districts were purposively selected for research work because BGREI programme has been running in Mayurbhanj and Bargarh districts since its inception.

Secondly, both districts are located in two separate agroecologies and very widely geographically apart, one i.e., Bargarh is located in the western Odisha, while the other i.e., Mayurbhanj is located in the northern Odisha.

Out of total 12 blocks of Bargarh district and 26 blocks of Mayurbhanj district, 2 blocks from each district were selected purposively in consultation with NRRI nodal scientists and district agriculture officers in order to get a truly representative sample for the study. From each selected block, 02 distantly located BGREI-implemented villages were selected for investigation. Thus, total 8 villages were selected for the investigation.

The program was implemented in a cluster approach. The size of cluster for the interventions was determined as 1000ha Majumder *et al.,* (2013).

Since BGREI block demonstrations were undertaken in a contiguous area of 100 ha as one cluster in all the four selected blocks involving about 100 beneficiary farmers irrespective of the number of farmers of the cluster or villages, a uniform size of samples, i.e., 10 farmers from each village was selected as respondents following stratified random sampling method. Thus, a total of 80 (8x10 = 80) farmers were selected as respondents for the study (Table 1).

The information relevant to the study objectives were collected from farmers. One pre-tested interview schedules for beneficiary farmers consisting of various types of questions related to the objective of the study were therefore developed. As per the experience gained during pre-testing, the language of some of the questions was suitably worded and made more understandable and clear, and then the schedules were finalized.

The data were collected personally during January-February 2017 with the help of pre-tested interview schedules, by personal interview method by contacting the respondents (farmers) at their home and field. The respondents did hesitate to give required information in the beginning. To get the authentic information, the help of local leaders, sarpanches, members of gram panchayat and Assistant Agriculture Officers were sought and the rapport was developed with the respondents.

Results and Discussion

Distribution of beneficiaries according to their intervention wise Perception about the usefulness of technical interventions of BGREI programme has been depicted in the Table 2. Among several benefits, all (100.00%) of the beneficiaries were benefitted with 'Line transplanting' and 'Micro-nutrients', followed by Weedicide' and 'Pesticide' both (62.50%), 'Seed drill' and 'Mandua weeder' both (50.00%), 'Hybrid/ High yielding variety of Rice, viz., MTU 1010, Pratikshya, Puja, Swarna, Rajlaxmi, Ajay, KRH2' (37.50%), 'Community Threshing Floor' and 'Ploughing' both (25.00%), and 'Ploughing', 'Transplanter', 'Paddy thresher' all (12.50%) respectively. However, it can be seen from the table that there were still large number of interventions and implements like Rotavator, Seed cum Fertilizer Drill, Power weeder, Multi crop Thresher (Axial Flow), Pump sets, Direct Seeded Rice (DSR), SRI method, Stress tolerant varieties, Cropping System based, Cluster deep bore well, Cluster shallow tube well, Community surface lift irrigation project, Check dams, Diversion weir, Water Harvesting Structures (WHS) etc. which were not extensively used or provided under BGREI during its initial period of implementation.

The table revealed that among the intervention wise benefitted beneficiaries majority (82.50%) found 'Mandua weeder' as mostly useful, followed by 'Ploughing' and 'Paddy thresher' (70.00%), 'Micronutrients' (66.25%), 'Line transplanting' (62.50%), 'Herbicide' and 'Community Threshing Floor' both (60.00%), 'Pesticide' (58.00%), 'Seed drill' (37.50%), 'Hybrid/ High yielding variety of Rice' (33.33%), and 'Transplanter' (30.00%) respectively. Similarly, majority (60.00%) of the benefitted beneficiaries found 'Hybrid/ High yielding variety of Rice' as useful, followed by 'Seed drill' (52.50%), 'Transplanter' (50.00%), 'Micronutrients' (30.00%), 'Line transplanting' (28.75%) respectively.

Table.1 Details about selected study area and number of respondents

	Selected districts	Selected blocks	Selected villages	No. of selected beneficiaries
	Bargarh	Paikmal	Mandosil	10
			Bhutmunda	10
		Barpali	Remta	10
			Dhirpur	10
	Mayurbhanj	Baripada	Badjor	10
			Gualdihi	10
		Udala	Balabhadrapur	10
			Sunapal	10
	Total 2	4	8	80

Fig.1 Location of the study area

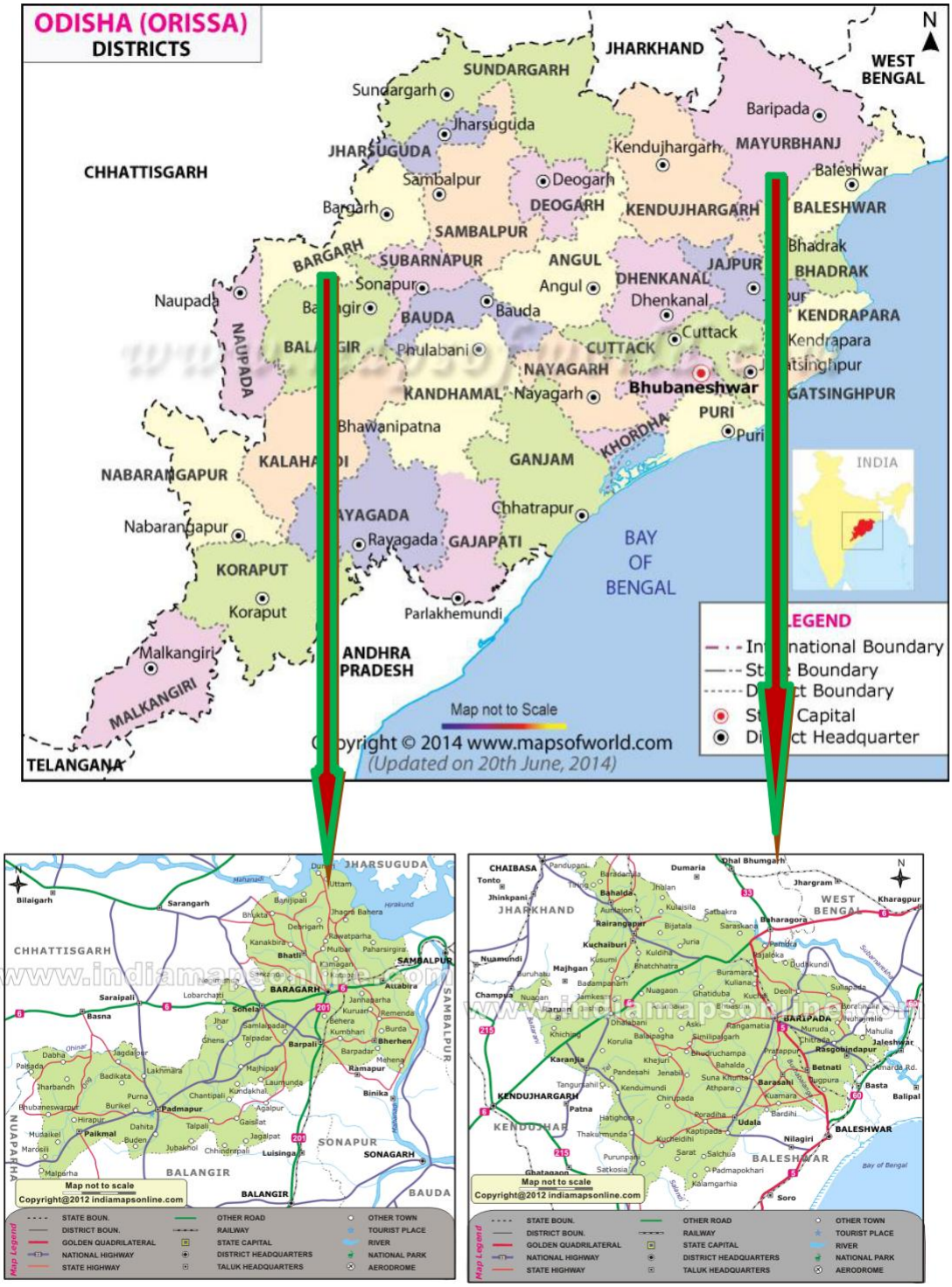

Table.2 Distribution of beneficiaries according to their intervention wise Perception about the usefulness of technical interventions of BGREI programme

(n=80)

Sl. No.	Particulars	Beneficiaries benefitted F/%	Usefulness of interventions		
			Most Useful F/%	Useful F/%	Not useful F/%
1	Line transplanting	80	50	23	7
		(100.00)	(62.50)	(28.75)	(8.75)
2	Micro-nutrients	80	53	24	3
		(100.00)	(66.25)	(30.00)	(3.75)
3	Herbicide	50	30	9	11
		(62.50)	(60.00)	(18.00)	(22.00)
4	Pesticide	50	29	13	8
		(62.50)	(58.00)	(26.00)	(16.00)
5	Seed drill	40	15	21	4
		(50.00)	(37.50)	(52.50)	(10.00)
6	Mandua weeder	40	33	5	2
		(50.00)	(82.50)	(12.50)	(5.00)
7	Hybrid/High yielding	30	10	18	2
	variety of Rice	(37.50)	(33.33)	(60.00)	(6.67)
8	Community Threshing	20	12	7	1
	Floor	(25.00)	(60.00)	(35.00)	(5.00)
9	Ploughing	20	14	3	3
		(25.00)	(70.00)	(15.00)	(15.00)
10	Transplanter	10	3	5	2
		(12.50)	(30.00)	(50.00)	(20.00)
11	Paddy thresher	10	7	2	1
		(12.50)	(70.00)	(20.00)	(10.00)

F=Frequency; %=Percentage, (Figures in the Parentheses indicates percentage)

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