A study on various constraints perceived by the farmers in adoption of BGREI interventions

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Abstract

The present study on BGREI (Bringing Green Revolution to Eastern India) Programme was conducted to find out the various constraints faced by the farmers which inhibit and influence acceptance and adoption of BGREI interventions. There was a need for a second green revolution to feed the growing population as the country will have to increase its agricultural output. It is also important to mention that the first green revolution was limited to five crops with the main focus on wheat and was only limited to a few areas of the country, mainly Punjab, Haryana and western Uttar Pradesh. Studies have revealed that the cost intensive first green revolution helped mainly the rich farmers while the small and marginal farmers did not receive the desired benefits and their conditions showed a decline. The emergence of BGREI is to boost food production in eastern part of India that largely remained untouched in 1st green revolution that converted the north-west into a ‘grain bowl’. BGREI is a flagship programme under Rashtriya Krishi Vikas Yojana (RKVY). The problem in agricultural development is not the availability of improved agricultural technologies, but converting them into production accomplishments is the need of the hour. Like any other programme, BGREI is associated with a number of constraints at different levels. Here the investigator has tried to find out constraints perceived by the farmers in adoption of BGREI programme and suggestions to overcome it. This finding may go a long way in helping the researchers, planners, policy makers and implementing agencies in their future work.

Keywords: constraints, adoption, interventions, technologies, accomplishments

Introduction

BGREI (Bringing Green Revolution to Eastern India) Programme was intended to address the underlying constraints for enhancing production and productivity of rice in Eastern India. To extend the benefit of first green revolution (1966-67) and to reduce the yield gap Bringing Green Revolution in Eastern India programme was launched under RKVY (Rashtriya Krishi Vikas Yojana) in 2010-11 comprising seven states namely Bihar, Eastern UP, Jharkhand, Odisha, Assam, Chhattisgarh and West Bengal. The present study was conducted during 2020-21 in two blocks namely Jamankira and Jujomura in Sambalpur district of Odisha to find out the constraints perceived by the farmers in adoption of BGREI interventions. During 2012-13 and 2013-14, the BGREI programme was extended to 22 districts of Odisha and National Rice Research Institute (previously CRRI), Cuttack, Odisha is the nodal agency to guide, supervise, monitor and supervise technical interventions. BGREI consists of the following interventions such as (i) Block demonstration (ii) Asset building (iii) Site specific activities (iv) Marketing support including post-harvest management (v) Seed production and distribution (vi) Subsidy on need based inputs (vii) Training programme on cropping system based demonstration etc.

Materials and Methods

Sambalpur district in Odisha is one of the agricultural potential district of Odisha. BGREI programme has been running in Sambalpur district successfully since 2013-14. A sample of 300 farmers (150 BGREI beneficiaries and 150 non beneficiaries) from 8 villages of 4 gram panchayats under Jamankira and Jujomura block of Sambalpur were selected through Stratified Proportionate Random sampling method. The data was collected personally through a semi structural interview schedule pre-tested earlier. Out of total 9 blocks of Sambalpur district, 2 blocks implemented with BGREI were selected randomly in consultation with Krishi Vigyan Kendra (KVK) scientists and district agriculture officers for the study.
Result and Discussion
The data were collected through the interview schedule on the basis of objectives of the study. The data collected were classified, tabulated, analyzed, presented, interpreted and discussed systematically.

(a) Social constraints
BGREI farmers often face problems with social barriers. This in turn affects the adoption of technology. Therefore, social constraints faced by BGREI farmers are analysed and presented in table 1.

(b) Technological constraints
Adoption of BGREI technology requires a detailed knowledge about the various practices involved in sowing, nursery management, disease pest management etc. Lack of knowledge about technical know-how, complexity of the technology, lack of quality inputs locally, sometimes limit its adoption by the end users. Attempts were made to record the technological constraints faced by the BGREI farmers which were analysed and presented in table 2.

(c) Organizational Constraints
It is the extension system which employs a number of methods and techniques for effective dissemination of the technology at various levels with the ultimate aim of its adoption. Therefore, information were collected to assess the extension constraints faced by the respondents which were analysed and presented in table 3.

The Table 3 indicated that large distance of mandis from farmer’ field, large distance of extension contact agencies, non availability of small enterprise on rice were most common organizational constraints as perceived by majority respondents and ranked I, II and III respectively with a Garrett mean score of 55.45, 54.94 and 52.66. It was suggested from the findings that provision of mandis facility in nearby area, establishing small enterprise on rice and providing extension facilities and fulfilling training need of farmers extension organization, particularly Krishi Vigyan Kendras, ATMA (Agricultural Technology Management Agency) and the State Department of Agriculture.
(d) Economic constraints
Finance is the most important factor which eases the adoption of different new technologies. Therefore, an attempt was made to analyze the financial constraints of the BGREI farmers.

Table 4: Economic Constraints (n=150)

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Constraint Statement</th>
<th>Percent</th>
<th>Garrett table value</th>
<th>Garrett mean score</th>
<th>Rank Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frequent repair and maintenance cost of implements used in farming</td>
<td>10</td>
<td>75</td>
<td>47.59</td>
<td>II</td>
</tr>
<tr>
<td>2</td>
<td>Lack of access to loan at right time</td>
<td>50</td>
<td>50</td>
<td>49.37</td>
<td>I</td>
</tr>
<tr>
<td>3</td>
<td>Lack of Govt. subsidi</td>
<td>30</td>
<td>60</td>
<td>43.67</td>
<td>IV</td>
</tr>
<tr>
<td>4</td>
<td>Seeds, fertilizers and pesticides are purchased in a price more than its actual price</td>
<td>70</td>
<td>40</td>
<td>47.21</td>
<td>III</td>
</tr>
<tr>
<td>5</td>
<td>Less profit than investment</td>
<td>90</td>
<td>25</td>
<td>42.65</td>
<td>V</td>
</tr>
</tbody>
</table>

The table 4 indicated that lack of access to loan at right time was the most important constraint faced by the BGREI farmers followed by frequent repair and maintenance cost of implements used in farming and Seeds, fertilizers and pesticides are purchased in a price more than its actual price were ranked I, II and III respectively with Garrett mean score 49.37, 47.59 and 47.21. The study therefore, suggested that the complicated procedure for getting bank loan should be made simpler and easier and recovery procedure should be modified. The government should plan the BGREI scheme for insurance in implements and exert pressure on banks to supply suitable credit facility at the time of need. Apart from this Govt. should take action on private agencies on selling seeds, fertilizers more than its actual price. The BGREI farmers should be provided with adequate credit at the time of need to overcome the financial constraints in management of farming under BGREI.

Conclusion
It may be concluded that the major constraints were illiteracy, lack of social motivation, lack of technical know-how, non-availability of quality inputs locally, distance of mandi from farmers’ field, lack of access to credit facility at right time etc. To overcome these problems, different extension activities like kisan mela, exhibition, training, field trip, technology demonstration programmes etc. should be conducted in village at proper time and extension agency should provide right information at right time.

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References