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Constraints and suggestions perceived by the farmers in crop diversification

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Abstract

The present study was conducted to find out Constraints and Suggestions Perceived by the farmers in crop diversification. The problem of selling non-rice crops at the minimum support price, based to the largest percentage of respondents (85.94%), was cited as the biggest constraint faced by farmers. This was followed by an inadequate supply of seeds for non-main crop crops, which was cited by 82.19 percent of respondents. The best crop diversification approach suggested by farmers was an assurance of procurement at the minimum support price for crops other than rice.

Keywords: Crop diversification, constraints and suggestions

Introduction

One of the key elements of agricultural diversification is crop diversification. Crop diversification is a tactic that can be used to maximize profits by taking advantage of relations that are complementary and supplementary or by equal substitution and price ratios for rival products. It also serves as a potent technique for reducing risk within farming. These factors strongly support the diversity of Indian agriculture and crops. In India, crop diversification is typically understood as a transition away from historically produced less lucrative crops and towards lucrative crops. Crop shifting is additionally impacted by the development of the market infrastructure and a few other price-related supports. Diversification of crops is prompted by higher profit margins as well as production resilience and stability. Diversification is the act of meeting specific objectives, difficulties, and risks without reducing risk by optimizing relationships that are complementary and supplemental or by equal substitute as well as cost ratio for competitive products, crop diversification can be utilized as a method for maximizing profits. However, it is a powerful method for lowering risk in the agricultural sector as well. The need for farm/crop diversification in India is strongly supported by these facts. Crop diversification is understood to be the transition from conventionally cultivated, less lucrative crops to more valuable crops in India. The growths of the market infrastructure and a few other price-related supports also have an impact on crop movement. Increased profitability as well as production resiliency and stability are the driving forces for crop diversification.

Agriculture diversification includes crop diversification as a key element. Crop diversification seeks to maximize profitability by maximizing complementary and supplemental relationships, equal substitution and price ratios for competing products, and minimizing risk. With the growth of the market infrastructure and price-related supports, crop diversification in India refers to a switch from historically produced less lucrative crops to lucrative ones. Increased profitability, production resilience, and stability are what motivate this move, which is why agriculture diversification in India must include it.

Material and Methods

This study was conducted in four districts of the Chhattisgarh Plains agro-climatic zone during the years 2019–20. Janjgir-Champa and Dhamtari are irrigated, while Korba and Gariyaband are rainfed. These districts were chosen for this investigation based on the highest percentage of irrigated and rainfed areas. Two representative blocks from each of the selected districts were identified. Thus, a total of 8 (2x4) blocks were considered for the study. Two representative villages from each of the selected blocks were identified for the study in this way, a total of 16 (8 x 2) villages were considered for the study. From each selected village, 20 respondents were selected randomly for the study. In this way, a total of 320 farm families

were considered respondents for this study on the basis of irrigation availability. Accordingly, 160 farmers have been assured of irrigation availability, and 160 farmers practicing rainfed farming were selected as respondents.

Results and Discussion

Constraints faced in crop diversification by the both irrigated and rainfed ecosystems farmers in Table 1. Among several constraints, the majority of respondents (85.94%) claimed that the main challenge faced by farmers was the inability to sell their products at the minimum support price for crops other than rice. Because most farmers are tiny or marginal farmers and because it costs a lot to move goods from the fields to the market, there is a dependency on intermediaries. Thereafter came 82.19 percent of respondents saying there was an insufficient supply of seed for crops other than the main crop, and 78.75 percent saying there were no incentives or bonuses

for growing crops other than rice. 75.94 percent of the respondents state poor storage quality of pulse and oilseed crops, followed by 74.06 percent of the respondents who stated inadequate post-harvest technologies and inadequate Infrastructure as their constraints. A fatalistic or conservative attitude is stated by 61.56 percent of respondents, while 63.13 percent of respondents said they were unaware of crop diversification and natural resource management. 53.13 percent of respondents reported having issues with rats and monkeys in their fields, and 58.44 percent of respondents reported having problems with grazing during the rabi/summer season. Extreme weather conditions, according to 52.81 percent of respondents, pose challenges and cause significant harm, and additional funding for insects and diseases is needed. 51.56 percent of those polled admitted to having issues. 47.19% of respondents reported a lack of awareness of relevant government schemes and policies,

Table 1: Constraints faced by the farmers practicing crop diversification

Sl. No.	Constraints	F	%	Rank
1.	Inadequate supply of seed other than the main crop	263	82.19	II
2.	Lack of procurement policy for other than rice crop	120	37.50	XVIII
3.	Non-availability incentives or bonuses for growing crops other than rice	252	78.75	III
4.	Poor storage quality of pulse and oilseed crop	243	75.94	IV
5.	Problem of marketing at the minimum support price other than rice crop	275	85.94	I
6.	Inadequate post-harvest technologies and inadequate infrastructure	237	74.06	V
7.	Problem of grazing during the rabi/summer season	187	58.44	VIII
8.	Non-availability of irrigation for the second crop	135	42.19	XVI
9.	Problem of rodents and monkeys	170	53.13	IX
10.	No fencing on the field	141	44.06	XV
11.	Extreme weather conditions	169	52.81	X
12.	Low investment and risk-bearing ability	156	48.75	XII
13.	Non-availability of tools and equipment for other than the rice crop	122	38.13	XVII
14.	Lack of awareness about crop diversification and natural resource management, etc.	202	63.13	VI
15.	High damage and more investment are required for insects and disease.	165	51.56	XI
16.	Incidence of pests and diseases	146	45.63	XIV
17.	Fatalistic or conservative attitude	197	61.56	VII
18.	Small size of land holding	115	35.94	XIX
19.	Non-suitability of land for other than rice crops	95	29.69	XX
20.	Lack of awareness of relevant government schemes and policies	151	47.19	XIII

*Data are based on multiple responses

F – Frequency,

% - percentage

While 48.75% reported a lack of investment and risk bearing ability in the research area. 45.63 percent of the respondents faced incidences of pests and diseases in their crops, and 44.06 percent stated that there was no fencing on their field. 42.19 percent of the respondents had faced non-availability of irrigation for the second crop, and 38.13 percent stated that

non-availability of tools and equipment for other than the rice crop was a constraint. Other than rice, 37.50 percent of respondents said there was no procurement policy. Respondents listed (35.94%) having a small land holding and 29.69 percent having non-suitability of land for crops other than rice as constraints.

Table 2: Suggestions suitable strategies for better crop diversification

Sl. No.	Suggestions	F	%	Rank
1.	Proper marketing channels should be made available to farmers.	240	75.00	III
2.	Assurance of procurement on the minimum support price other than rice crop	261	88.13	I
3.	Proper transport facilities for easy marketing	209	65.31	V
4.	Appropriate extension strategies should be used to increase awareness of crop diversification.	232	72.50	IV
5.	Sufficient and timely supply of improved seed and other inputs	282	81.56	II
6.	Timely availability of the credit facilities to the farmers	177	55.25	VI
7.	Provide tools and equipment for all crops except rice.	159	49.69	VIII
8.	Training should be provided to promote crop diversification and natural resource management.	163	50.94	VII
9.	Provide accurate information about government schemes and policies.	147	45.93	IX
10.	Timely provide information or conduct training programmes on insect-pest management other than rice crop	128	41.56	X

* Data are based on multiple responses

F – Frequency,

% - percentage

As regards to suggestions given by the respondents of both irrigated and rainfed ecosystems for suitable strategies to better crop diversification, the findings are presented in Table 2. The data showed that the majority of respondents (88.13%) believed that ensuring procurement at the minimum support price for crops other than rice was their best option for improving crop diversification. These respondents were followed by 81.56 percent of those who believed that timely and sufficient supplies of improved seed and other inputs were their best option, and (75.00%) of those who believed that appropriate market conditions were the best option. A proper extension plan should be employed to raise knowledge of crop diversification as a suitable technique for greater agricultural diversification, according to 72.50 percent of the respondents. 65.31 percent of respondents recommended safe transportation

It can be concluded and enumerated that the suggestions to overcome the constraints were made using the primary data collected. Constraints always play a significant role, and they prevent farmers from practicing crop diversification. It was found that the problem of marketing at the minimum support price for crops other than rice was their major constraint in practicing crop diversification.

Conclusion

It is possible to infer and list that the primary data collected was used to generate the ideas for overcoming the limitations. Constraints usually play a big part and keep farmers from diversifying their crop production. It was discovered that their main obstacle to practicing crop diversification was the difficulty in marketing crops other than rice at the minimum support price. They suggested that securing procurement at the minimum support price for crops other than rice would be an appropriate solution. Farmers would be encouraged to practice crop diversification if credit and subsidy facilities were made available to them, as well as if timely input availability was guaranteed. Therefore, the government needs to take action to educate farmers about the advantages of crop diversity.

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