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Constraints Perceived by the Small and Marginal Farmers in Western Zone of Maharashtra

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ABSTRACT

The study was designed and conducted in the western zone of Maharashtra to understand the constraints perceived by the small and marginal farmers. The study was carried in eight villages of Pune and Ahmednagar districts with 240 respondents selected by simple random sampling method. Major constraints expressed by the farmers were: high cost of seed, pesticides and fertilizers with average value (64.90), followed by low price/lack of remunerative price (66.88), non-availability of credit institutions (70.09) and lack of proper training and marketing (62.22).

Key words: Small farmers, marginal farmers, production, marketing, economic, constraints

INTRODUCTION

The role of small farms in development and poverty reduction is well recognized. The global experience of growth and poverty reduction shows that GDP growth originating in agriculture is at least twice as effective in reducing poverty as GDP growth originating outside agriculture. Small holdings play important role in raising agricultural development and poverty reduction. Small holdings agriculture which is the focus of this paper is important for raising agricultural growth, food security and livelihoods in India. It may be noted that Indian agriculture is the home of small and marginal farmers (80%). Therefore, the future of sustainable agricultural growth and food security in India depends on the performance of small and marginal farmers. Small holdings also face new challenges on integration of value chains, liberalization and globalization effects, market volatility and other risks and vulnerability, adaptation of climate change, etc. Challenges like imperfect markets for inputs/product leading to smaller value realizations, absence of access to credit markets or imperfect credit markets leading to sub-optimal investment decisions or input applications, poor human resource base, smaller access to suitable extension services restricting suitable decisions regarding cultivation practices and technological know-how. Farmers require a diverse range of information to support their farm enterprises. Information is needed not only on best practices and technologies for crop production but also for post-harvest aspects. So, agricultural extension is an essential pillar for research and development in agriculture (Chapke and Tonapi, 2016). The objective of this paper was to examine the challenges of small holding agriculture in achieving agricultural growth, food security and livelihoods in India. It is known that small farmers face several challenges in the access to inputs and marketing. They need a level playing field with large farms in terms of accessing land, water, inputs, credit, technology and markets. Hence, the present study was conducted to study the constraints perceived by small and marginal farmers in western zone of Maharashtra.

METHODOLOGY

The ex-post facto study was conducted in Pune and Ahmednagar districts in the western part of Maharashtra state. For the selection of the respondents, simple random sampling method was employed through which a total of 112 respondents from eight villages were finalized. Primary data were conducted using structured

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interview schedule. Henry Garret ranking technique was used to analyze the constraints perceived by the respondents. Respondents were asked to assign a rank to the listed constraints and the outcomes of such ranking have been converted into score value with the help of the following formula:

$$\text{Percentage position} = \frac{100\ (R_{ij} - 0.5)}{N_j}$$

Where,

R_{ij} = Rank given for i^{th} item of j^{th} individual

N_j = Number of items ranked by j^{th} individual

With the help of Garrett's table, the per cent position estimated was converted into scores. Then for each constraint factor, the scores of each individual were added and then total value of scores and mean values of score were calculated. The constraint factor having highest mean value was considered to be the most important factor (Nimbrayan *et al.,* 2021).

RESULTS AND DISCUSSION

High cost of seed, pesticides and fertilizers ranked 1st with average value 64.90%, followed by lack of scientific knowledge about cultivation practices ranking 2nd with average value 62.84% and non-availability of seed and planting material at required time ranking 3rd with average value 58.28% (Table 1). Whereas lack of knowledge about the control measures for various pests and diseases, lack of soil testing facilities and inadequate irrigation facilities ranked 4th, 5th and 6th with average value 49.16, 33.26 and 31.65%, respectively. These findings clearly indicated the need to develop strong research-based centers to tackle day to day problems and offer solution to the farmers. All stakeholders need to be strengthened by providing adequate funds, technical man powers and high-tech inputs to supply the best planting materials in right quantity at right time and at reasonable price. Also, there was need to train and assist the farmers to go for modern agro-technology and thereby increasing productivity and quality of farm produce.

The marketing constraints (Table 2) perceived by farmers confirmed long chain of intermediaries as major perceived constraint with average value 66.30% ranking 1st (Table 2). The second most perceived constraint was low price/lack of remunerative price with average value 66.88%. Whereas 60.16% reported non-availability of market information followed by lack of organized marketing (51.66%), inadequate storage facilities (39.68%), high charges on transportation (37.25%), inadequate transportation facilities (26.03%) as marketing constraint. To overcome the marketing constraints, there was need to develop networks of marketing on co-operative

Table 1. Production constraints perceived by small and marginal farmers

S. No.	Constraints	Per cent position	Garrett value	Average	Rank
1.	Lack of scientific knowledge about cultivation practices	08.33	77	62.84	2
2.	Non-availability of seed and planting material at required time	25.00	63	58.28	3
3.	High cost of seed, pesticides and fertilizers	41.66	54	64.90	1
4.	Lack of soil testing facilities	58.33	46	33.26	5
5.	Inadequate irrigation facilities	75.00	37	31.65	6
6.	Lack of knowledge about the control measures for various pests and diseases	91.66	23	49.16	4

Table 2. Marketing constraints perceived by small and marginal farmers

S. No.	Constraints	Per cent position	Garrett 999value	Average	Rank
1.	Inadequate storage facilities	07.14	78	39.68	4
2.	Inadequate transportation facilities	21.42	65	26.03	6
3.	High charges on transportation	35.71	57	37.25	5
4.	Low price/lack of remunerative price	50.00	50	66.88	1
5.	Non-availability of market information	64.28	42	60.16	2
6.	Lack of organized marketing	78.57	34	51.66	3
7.	Long chain of intermediaries	92.85	22	66.30	1

basis. Similar results were reported by Pal and Kaur (2019) and Verma *et al.* (2021) who stated that most important constraints from members' point of view were price fluctuation and the perishable nature of products with a weighted mean score of 3 and 2.8.

Majority of respondents perceived non-availability of credit institutions as major infrastructural constraint with average value 70.09% ranking 1st (Table 3). The second most perceived constraint was lack of marketing institutions with average value 61.54%. Whereas inadequate extension staff, non-availability of suitable agricultural implements and machineries and non-availability of timely production inputs ranked 3rd, 4th and 5th with average value 55.77, 35.13 and 19.87%, respectively. This finding collaborates with Zalkuwi *et al.* (2015) and Sharma *et al.* (2020) who reported high cost of important farm inputs militating against efficient farming. This might be due to that farmers were not getting timely loans from the banking institutions and therefore, they are were able to purchase inputs and other resources in time. The results are in conformity with the findings of Rohit *et al.* (2017) who reported that majority of the farmers perceived high cost of inputs as major constraint followed by lack of knowledge.

Economic constraints perceived by farmers such as lack of sufficient funds and inadequate profit to individual members ranked 1st with average value 64.41% (Table 4). The second most perceived constraint was low price for produce with average value 49.38%. However, high cost of production ranked 3rd with average value 40.19% and non-availability of timely credit ranked 4th with average value 37.51%. This finding collaborates with Suryavanshi *et al.* (2019) and Balla and Goswami (2022) who reported high cost of important farm inputs militating against efficient farming. This might be due to the fact that small and marginal farmers did not get credit facilities because of the small agricultural holdings. They were poor resources and struggle to get access to market and market information. These findings are in the line of those reported by Kathiravan *et al.* (2017) and Chauhan *et al.* (2021) who inferred that lack of sufficient finance was the most important constraint as reported by member and non-member respondents with weighted mean scores of 2.8, respectively.

Other constraints perceived by farmers such as lack of proper training and marketing ranked 1st with average value 62.22%, followed by poor co-ordination and co-operation among grass root level extension workers ranking 2nd with average value 58.76%, poor economic condition of farmers ranking 3rd with average value 46.98%, lack of community awareness ranking 4th with average value 45.66% and traditional norms of farmers ranking 5th with average value 34.35% (Table 5). This might be due to the reason that the farmers did not manage time to attend training programmes and to build marketing skills and execute marketing plans while maintaining their daily farm operations. Also, there was poor extension contact and mass media exposure

Table 3. Infrastructural constraints perceived by small and marginal farmers

S. No.	Constraints	Per cent position	Garrett value	Average	Rank
1.	Non-availability of suitable agricultural implements and machineries	10	75	35.13	4
2.	Non-availability of credit institutions	30	60	70.09	1
3	Inadequate extension staff	50	50	55.77	3
4.	Lack of marketing institutions	70	39	61.54	2
5.	Non-availability of timely production inputs	90	24	19.87	5

Table 4. Economic constraints perceived by small and marginal farmers

S. No.	Constraints	Per cent position	Garrett value	Average	Rank
1.	Lack of sufficient funds	10	75	64.41	1
2.	High cost of production	30	60	40.19	4
3.	Low price for produce	50	50	49.38	3
4.	Non-availability of timely credit	70	39	37.51	5
5.	Inadequate profit to individual members	90	24	64.41	1

Table 5. Other constraints perceived by small and marginal farmers

S. No.	Constraints	Per cent position	Garrett value	Average	Rank
1.	Traditional norms of farmers	10	75	34.35	5
2.	Lack of community awareness	30	60	45.66	4
3.	Poor co-ordination and co-operation among grass root level extension workers	50	50	58.76	2
4.	Lack of proper training and marketing	70	39	62.22	1
5.	Poor economic condition of farmers	90	24	46.98	3

which disconnected farmers from the agricultural innovations.

CONCLUSION

Small and marginal farmers are vulnerable to all the risks including production, marketing, infrastructural and economic constraints. There is a need to increase the productivity and incomes of small holdings and promotion of non-farm activities. The effectiveness of these programmes has to be improved so that small and marginal farmers can also benefit from these programmes. Crop insurance programmes and future markets have to be strengthened to reduce risks in price and yields. Both the governments and non-governmental organization should develop strategies that will encourage participation in group farming cooperatives and also create more awareness among farming households, which can motivate more farmers to take part in this form of farming techniques.

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