

CONSTRAINTS FACED BY THE ORGANIC FARMERS IN THE EASTERN PLAIN OF RAJASTHAN

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Abstract

Despite having 30% of the world's organic producers, India only has 2.59% of the world's total organic agriculture land. The farmers of eastern plain of Rajasthan are still facing various types of constraints in adoption of organic farming; hence the study entitled “Constraints Faced by the Organic farmers in the Eastern Plain of Rajasthan” was conducted in eleven villages covering 576 respondents comprising of certified organic farmers. With the help of a pre- tested interview schedule, a survey was conducted to collect relevant data and then appropriate statistical procedure was employed to analyze the data for assessing the effect of different constraints in the adoption component. Findings revealed that majority of the certified organic farmers faced constraints i.e. 65.67 percent were agreed that they had lack of up to-date knowledge about organic agricultural technology, 78.68 per cent had initial low price for the organic produce as severest issue, 74.69 percent were facing the problem of lack of specialized markets for organic produce etc.

Keywords: Constraints, Organic Farming, Vermicompost, Bio-fertilizer

1. Introduction

In light of intensive farming practices, higher producing cultivars—including hybrid seeds, pesticides, fertilizers, and irrigation were used to boost yields. Product quality was disregarded in favour of increasing output as the primary goal. Consequently, there is a loss of biological variety, a decline in soil productivity, excessive use and pollution of water resources, changes in the climate, and an increase in environmental issues in the global context. In response, the ecologically sound practice of “organic farming,” which forbids the use of pesticides, fertilizers, and other growth-promoting agents in order to promote sustainable development, has been developed. Today there is currently a growing global demand for organic food. As a result, the popularity of organic farming and food is growing. India is also making greater attempts to capture a sizable portion of the global organic food industry (Jangid, M.K., Khan, I.M., Singh, S., 2012)

The principal goal of organic production is to develop enterprises that are sustainable and harmonious with the environment. According to the World of Organic Agriculture 2018 report, although 30 per cent of the world's organic producers reside in India, the country only makes up 2.59% (or 1.5 million hectares) of the 57.8 million hectares of total organic cultivated land. According to a research conducted by the international consulting firm Ernst & Young and the Associated Chambers of Commerce and Industry of India (ASSOCHAM), the majority of organic farmers are currently facing difficulties as a result of inadequate regulatory measures, lack of knowledge and a small market (Srilatha,P. & Vani, Ch. S.,2020).

The government must have a plan in place to assist farmers throughout the transition, as productivity typically declines by 6.7% in the first year, according to the Indian Council of Agricultural Research. The Ashok Dalwai committee's report on doubling farmers' income also reflects the worries of farmers who say that switching to organic can result in production drops of up to 30%. The committee report states that pre-conversion yield levels are reached in roughly ten years (Haneef, R., Sharma, G. and Ahmad, T. 2019) Farmers in India continue to face a number of challenges when it comes to organic farming, such as limited access to organic inputs, a lack of irrigation storage facilities, poor training and technical guidance, a lack of ready-made organic input formulation, a lack of disease and pest control measures, and a lack of technological advancements in organic farming practices (Sivaraj et.al., 2017). According to a 2015 study by the Consumer Unity and Trust Society, almost 98% of Rajasthan farmers are aware of the environmental risks associated with traditional chemical-based farming; however, they are deterred from converting to organic farming by their concerns about production decline and the lack of organic inputs in the market. Based on this background the present study was conducted among 576 certified organic farmers in Eastern Plain of Rajasthan.

2.Materials and Methods

The eastern plain of Rajasthan was selected purposively for the present study since it cover almost all area under fertile soil with low rainfall and these areas were less influenced by green revolution due to shortage of water. The present study was conducted in eleven villages of Semi-arid Eastern Plain of Rajasthan which includes four districts Jaipur, Tonk, Ajmer and Dausa districts. In organic farming system highest yield increases in less developed nations, in arid regions. Organic farming results higher profits in the driest areas (Te Pas, C.M. & Rees, R. M 2014). Semi arid region have components integral to organic farming. Water resource is limited in semi arid areas and organic farming improves water retention capacity of soil due to addition of organic matter. In this area, farmers have registered under the category of individual certified organic farmers. Total 576 organic farmers were selected for the present study. Farmers were selected through purposive random sampling method. According to the objectives and the variables under study, a comprehensive semi structured interview schedule covering all aspects of organic farming practices was prepared. Personally contacted the selected organic farmers and interviewed with structured interview schedule. The data collected were subjected to statistical

analysis to get inferences. Percentage analysis was used in descriptive analysis for making simple comparisons. Percentage was corrected to two decimal places and finally ranked constraints faced by the organic farmers.

3.Results and Discussion

This study highlights a number of issues with organic farming from the perspective of farmers, including a lack of inventiveness, a lack of government assistance, lower yields in the initial stages, the possibility of chemical contamination from nearby fields, a dearth of organic-related FPOs, etc. This paper discusses the various constraints before farmer's practice organic farming. Five aspects of constraints were analyzed using a Likert scale in order to quantify the problems experienced by organic farmers. For all statements with scores of 1, 2, 3, 4, and 5, respondents were asked to rate their agreement or disagreement with the presence of these limits on a five-point Likert scale ranging from strongly agree to strongly disagree. Highest mean score value depicts the most severe problems encountered by the majority of farmers and lowest mean score value represents the least severe problems of farmers.

3.1Challenges and Problems of the Sampled Organic farmers

The major challenges faced by organic farmers were lack of knowledge, marketing problems, lack of key inputs, low initial yield were some of the system's significant hurdles. For sampled organic farmers the Likert scale has nineteen elements in five domains, including technical restrictions, economic constraints, marketing constraints, environmental constraints, and certification constraints.

3.1.1. Technical constraints faced by Sampled Respondents

The technical problems faced by the sampled organic farmers were presented in the table 1 and shown in fig. 1

Table 1: Technical Problems of the Sampled Organic Farmers

Constraints	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Score	Rank
Lack of complete knowledge about organic farming Technology	25.99	39.68	6.23	9.73	18.37	3.45	I
Non-availability of sufficient organic inputs	11.43	15.94	3.11	17.33	52.16	2.17	III

Lack of proper training programs about organic Farming	23.74	37.60	0.34	21.31	16.98	2.67	II
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Source: Field work, 2021

Majority of the sampled respondents 39.68 percent were agreed that they had lack of up to-date knowledge about organic agricultural technology as one of the most important constraints. Most of the sampled organic farmers 52.16 per cent strongly disagreed for face issue with the non-availability of farm inputs while around 11.43 per cent were strongly agreed that they were facing sufficient organic input problem due to less number of livestock for producing inputs like vermicompost, natural liquid pesticides and insecticides from animal waste. Majority of sampled organic farmers 37.60 per cent were agreed that there was lack of training programs for organic farmers in order to have complete knowledge about organic farming.

According to mean score technological problems in the order of severity were absence of appropriate knowledge related to organic farming technologies (3.45) first ranked. Due to a lack of training, farmers were not given timely information about organic agricultural technologies. Few farmers had attended trainings, and the majority had never heard of an organic agricultural training programme. Lack of proper training programs about organic farming(2.67) was the second most severe constraints faced by sampled respondents and non availability of enough organic inputs (2.17) being the least sever problem.

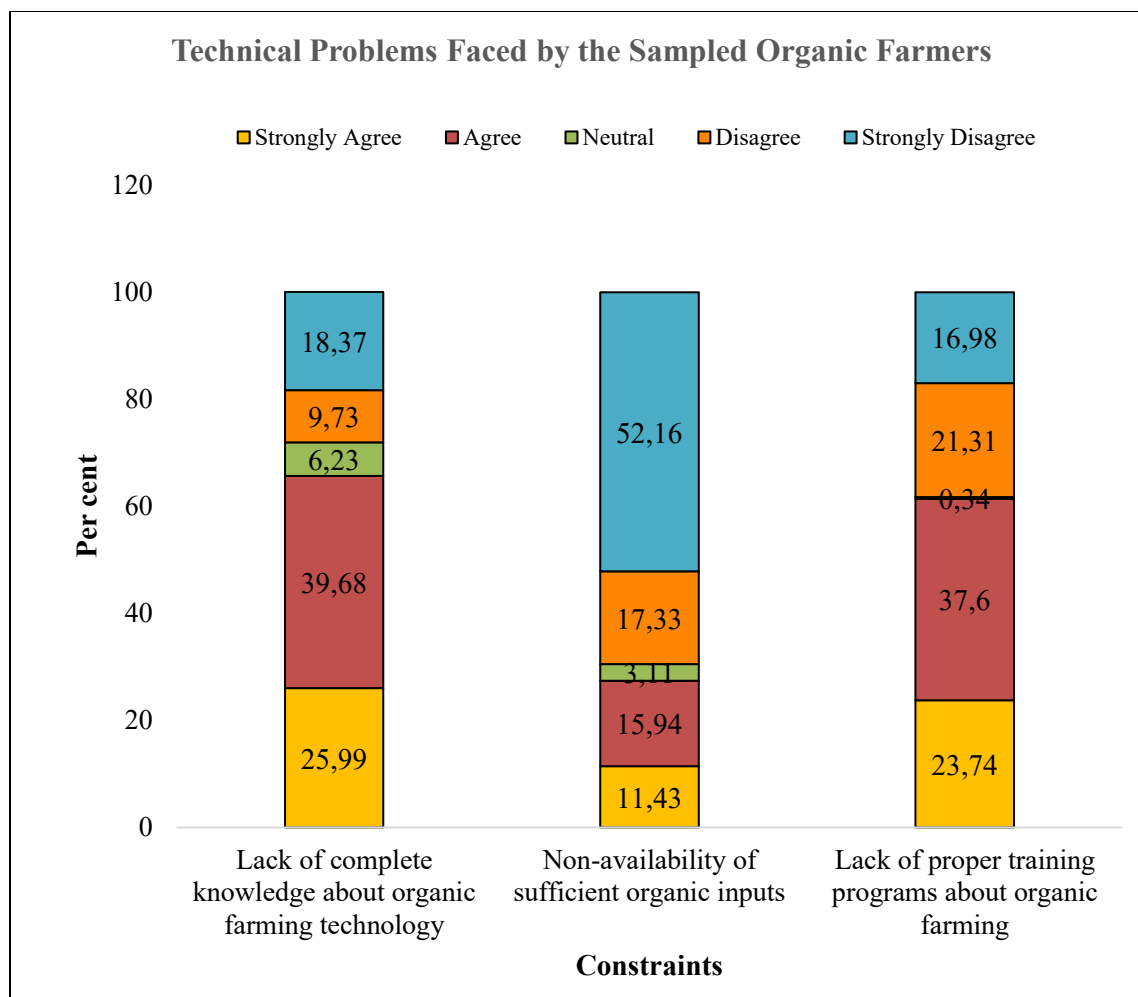


Fig.1

3.1.2. Economic Constraint faced by the Sampled Respondents

The economic challenges faced by the sampled organic farmers were presented in table 2 & fig 2

Table 2: Economic Problems faced by the Sampled Organic Farmers

Constraints	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Score	Rank
Loss in initial years of organic farming due to low crop yield	69.32	5.19	4.67	12.82	7.79	4.14	II
Inadequate financial support for new organic farmers	67.93	7.62	1.90	9.18	13.34	4.07	III

Initial low price for the organic products	78.68	10.39	5.37	1.90	3.66	4.58	I
Inadequate subsidies for organic cultivation of crops	37.43	28.94	1.55	18.19	13.89	3.57	IV

Source: Field work, 2021

The Majority of the sampled respondents 78.68 per cent had initial low price for the organic produce as severest issue having mean score of 4.58. It was because don't have certification restricting them from getting premium prices for their produce. Initial yield loss was expressed as most severe problem by 69.32 per cent of sampled respondents because the farmers suffer from low yield during the initial years of organic farming. Inadequate availability of credit or financial assistance expressed as severe constraint by the 67.93 per cent of the respondents. The farmers face difficulty in getting credit from any institute and for their credit needs, so they mostly depends on the traders and money lenders.

On the basis of mean score, economic issues in the order of severity were initial low price for the organic produce (4.58) ranked first, initial yield loss in organic farming ranked as second severe constraint(4.14), inadequate availability of credit was third constraint(4.07)and inadequate subsidies for organic cultivation of crops (3.57) was the fourth last economic problem of organic farmer.

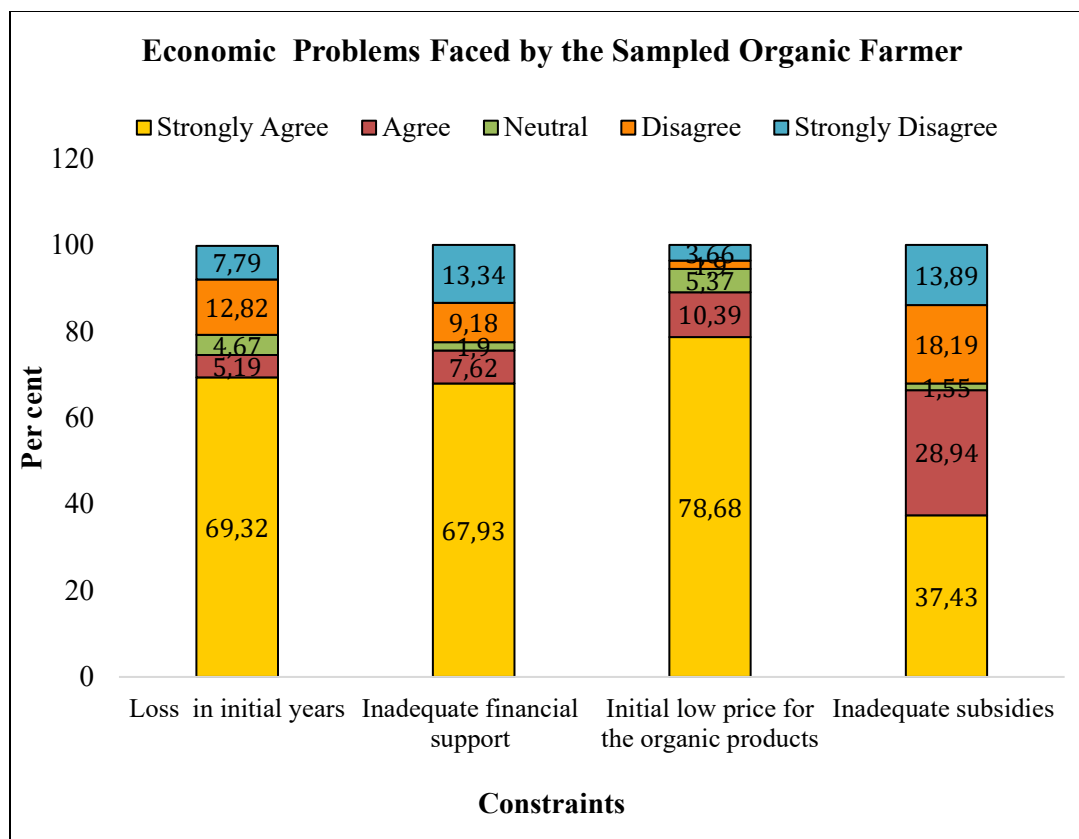


Fig.2

3.1.3 Environmental and Seasonal Problems faced by the Sampled Organic Farmers

Data regarding various constraints concerning ecology/environment is presented in table 3 and fig.3

Table 3: Environmental and Seasonal Problems faced by the Sampled Organic Farmers

Constraints	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Score	Rank
High incidence of pest and disease problems	55.63	25.15	1.73	12.47	5.02	4.13	II
Long-term required to elicit favorable reactions from the ecosystem	54.07	7.27	17.85	14.73	6.06	3.99	III
Erratic onset of monsoon rain	73.48	14.55	2.25	8.49	1.23	4.50	I
Non availability of labour	36.39	16.29	31.02	9.70	6.6	3.66	IV

Source: Field work, 2021

Majority of the sampled organic farmers 73.48 per cent strongly agreed that erratic onset of monsoon rain was the most severe constraint. Farmers reported that the yield suffer from hail storm during rainfall. High incidence of pests and diseases was as second severe constraint faced by 55.63 percent of respondents. Besides pests and diseases, farmers also complained about wild animals (wild cows and bluebuck/ nilgai) that destroy their crops and requirement of long period of time to get positive responses from the ecosystem was expressed as the third most severe constraint faced by 54.07 percent of sampled respondents. Similarly, 36.39 per cent of respondents expressed non- availability of labour as the least severe constraint.

On the basis of mean score, environmental and situational constraints in the order of severity were erratic onset of monsoon rain with highest mean score as (4.50) first ranked, high incidence of pests and diseases ranked second (4.13), requirement of long period to get positive responses from the ecosystem ranked third (3.99) and non availability of labour as the least severe constraint having mean score of (3.66) ranked fourth.

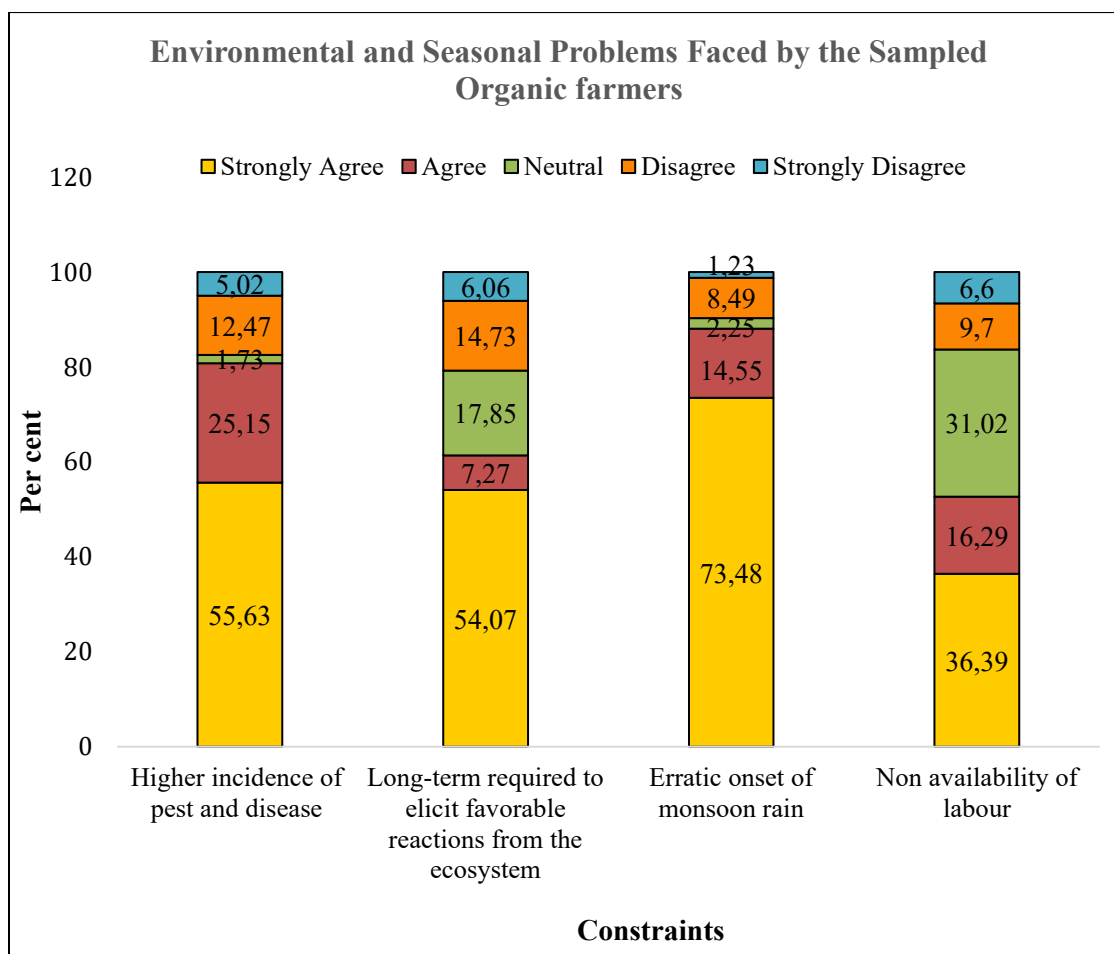


Fig. 3

3.1.4. Marketing Problems of the Sampled Organic Farmers

Marketing problems encountered by the sampled organic farmers is shown in table 4 and Fig.4

Table 4: Marketing Problems of the Sampled Organic Farmers

Constraints	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Score	Rank
Lack of reliable market information, regulation & distribution channels	18.16	28.03	3.95	19.82	29.98	2.82	II
Insufficient and costly transportation Facilities	5.71	7.27	1.55	9.18	76.25	1.57	IV
Doubts among the consumers regarding the organic products	8.83	44.19	2.59	27.38	16.98	2.27	III
Lack of specialized markets for organic produce	74.69	5.8	2.94	14.21	2.36	4.36	I

Source: Field work, 2021

According to majority of the sampled organic farmers 74.69 percent were facing the problem of lack of specialized markets for organic produce. Lack of reliable market information, regulation and distribution channels were expressed as second severe most problem by 18.16 per cent sampled organic farmers. Doubts among consumers regarding organic products were expressed as constraint by 8.83 percent of farmers. Insufficient and costly transport facility was less severe constraint according to 5.71 percent of sampled respondents.

On the basis of mean score, marketing constraints in the order of severity was lack of specialized markets for organic produce (4.36) ranked first, lack of reliable market information, regulation and distribution channels (2.82) second ranked, doubts among consumers regarding organic products was third ranked with mean score of (2.27) , costly transportation (1.57) was the least severe constraints of the sampled organic farmers.

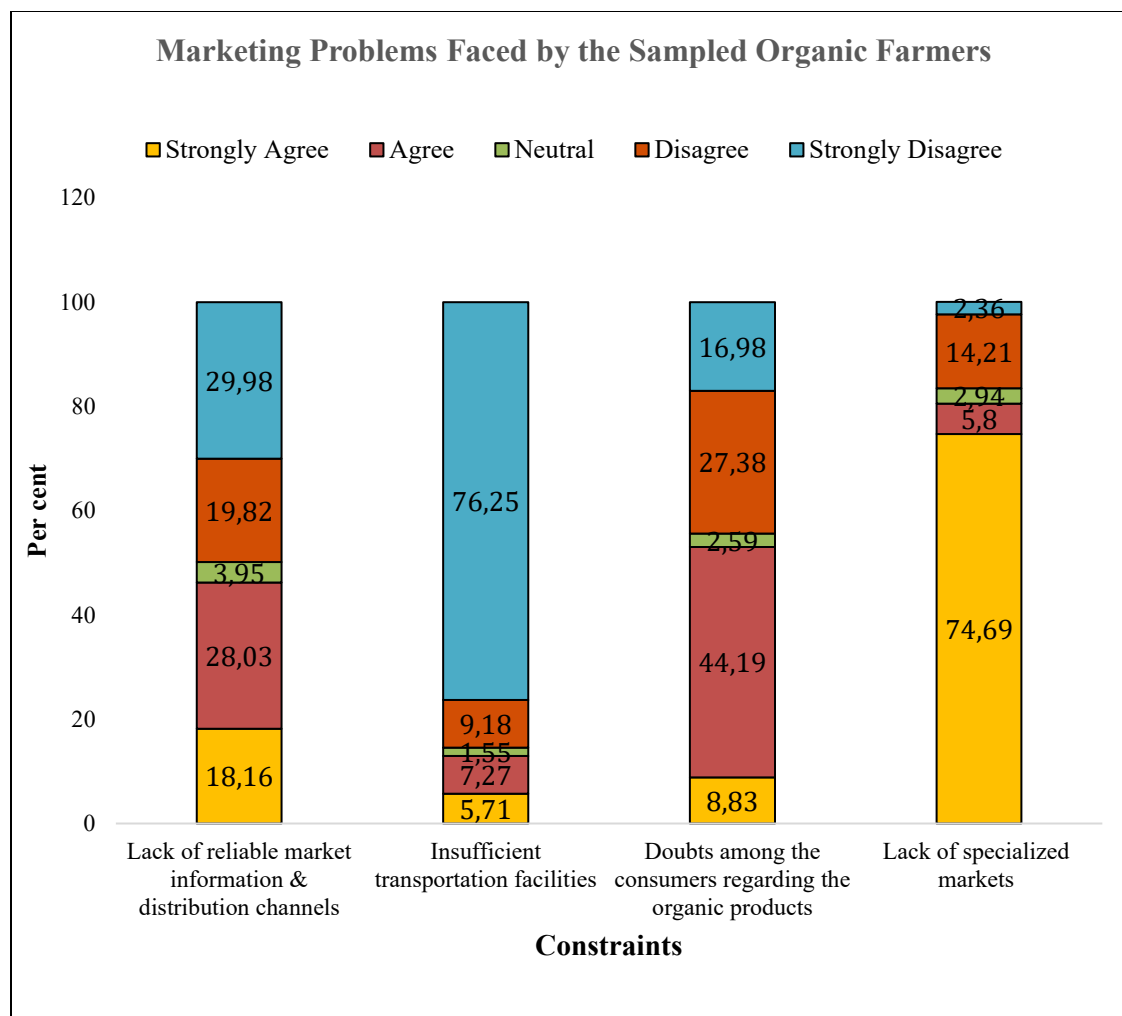


Fig.4

3.1.5. Problems of Sampled Organic farmers regarding Organic Certification

There was mixed response from the respondents regarding the certification constraints as presented in table 5 and Fig. 5.

Table 5: Problems of Sampled Organic Farmers regarding Organic Certification

Constraints	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Score	Rank
Long period of time for certifying the product	37.78	14.73	1.90	7.27	38.30	3.06	I
Complicated process and higher cost of certification	29.28	6.75	4.67	11.61	47.66	2.58	III

Lack of information regarding the certification process	31.54	8.14	4.85	6.06	48.39	2.66	II
Absence of suitable certification authorities in the nearby area.	28.76	5.19	3.81	9.18	53.03	2.47	IV

Source: Field work, 2021

Majority of sampled respondents 52.51 percent agreed that long time period required for certification. The organic farmers get organic certification after 3 years and due which farmer do not get premium price of organic products during 3 year in beginning and farmers have loss. Lack of information regarding the certification process was a problem for 39.68 per cent of sampled respondents. The problem of complex certification process was faced by 36.03 percent of organic farmers. Most of the sampled farmers 53.03 per cent strongly denied that absence of proper verifying organizations in the nearby place was a constraint while 28.76 per cent of respondents strongly accepted it.

On the basis of mean score, certification constraints in the order of severity was long time period required for certification (3.06) ranked first, lack of information regarding the certification process (2.82) was the second most severe constraints faced by sampled respondents, Complicated process and higher cost of organic certification was third ranked with mean score of (2.58) and absence of suitable certification authorities in the nearby area (2.47) was the least severe constraints of the sampled organic farmers.

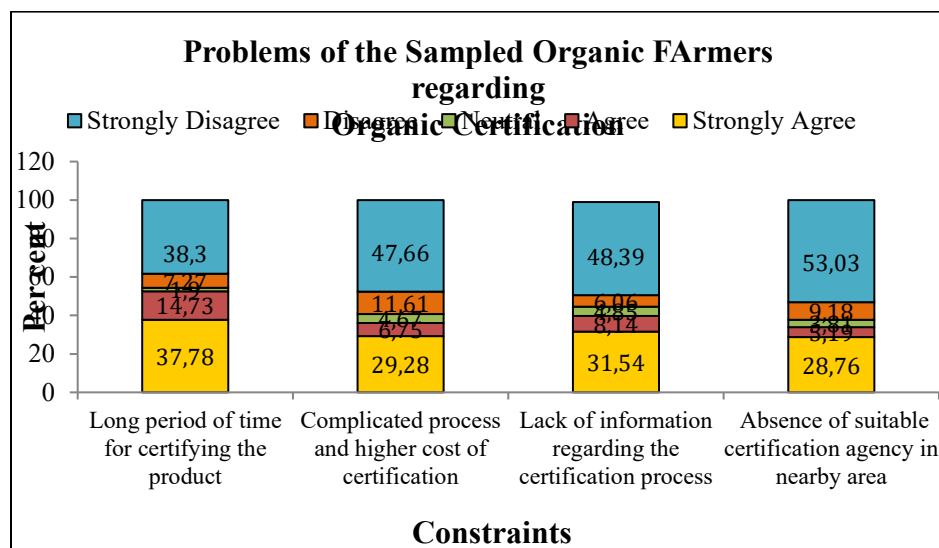


Fig. 5

Conclusion

The growth of organic farming in India is somewhat slower despite the fact that it is the best method to sustain the health of soils, ecosystems and people. Instead of using inputs that have negative impacts, it depends on ecological processes, biodiversity, and cycles that are adapted to local conditions. Farmers in India continue to encounter a number of obstacles when it comes to organic farming, such as the non availability of traditional seeds, the lack of a dedicated market for organic goods, the lower premium price for organic goods, etc. Strengthening the standard package of practices and extension services is necessary for sustained organic agricultural methods. The government should create programs that make it simple to market organic goods at a premium price in order to support organic producers. Additionally, the government ought to work to empower farmers through capacity building programs in organic farm management, input production, quality assurance, value addition, and direct marketing through innovative means.

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