P-ISSN: 2618-0723
E-ISSN: 2618-0731

NAAS Rating: 5.04
www.extensionjournal.com

International Journal of Agriculture Extension and Social Development

Volume 7; Issue 10; October 2024; Page No. 76-78

Received: 19-07-2024
Accepted: 27-08-2024

Indexed Journal
Peer Reviewed Journal

Constraints faced by the farm mechanization scheme beneficiaries and suggestions from beneficiaries to overcome the constraints

[1]Moharkar KN, [2]Deshmukh PR, [3]Kadam RP and [4]Bhambere HD

[1]M.Sc. Student, Department of Agricultural Extension Education, College of Agriculture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra, India

[2]Professor (CAS), Department of Agricultural Extension Education, College of Agriculture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra, India

[3]Professor and Head, Department of Agricultural Extension Education, College of Agriculture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra, India

[4]M.Sc., Department of Agronomy, College of Agriculture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra, India

DOI: https://doi.org/10.33545/26180723.2024.v7.i10b.1195

Corresponding Author: Moharkar KN

Abstract

The present study entitled "Impact of Farm Mechanization Scheme on Beneficiaries" was conducted in Marathwada region of Maharashtra state to find out constraints faced by the farm mechanization scheme beneficiaries and suggestions from beneficiaries to overcome the constraints. Sampling was done at three stages *viz*., the selection of districts, selection of talukas, and selection of respondents. The present study was conducted in one randomly selected Marathwada region district, i.e., Parbhani district. The selection of talukas from the Parbhani district is based on the maximum number of FMS beneficiary farmers. Among nine tehsils, Jintur and Selu were selected. From each selected tehsil 60 FMS beneficiaries were selected randomly. In this way, a total of 120 respondents were selected for the present study. Data was collected using a well-structured interview schedule created with the study's objectives in mind. The collected data was analyzed, classified, and tabulated. Statistical tools such as frequency, percentage, mean, standard deviation, and Z-test and coefficient of correlation were used to interpret findings and draw conclusions. Among the 120 selected FMS beneficiaries, 87.50 percent of beneficiaries stated that small and fragmented land holding is a major constraint. 65.00 percent of beneficiaries stated that they get insufficient subsidies. 64.16 percent of beneficiaries faced high initial costs and uncertainty of availability. 63.33 percent of beneficiaries stated that they faced technological constraints.

Keywords: Farm mechanization scheme, impact, before, after, mechanization

Introduction

Agricultural mechanization involves using various power sources, tools, and equipment to reduce human and animal labor while improving efficiency and productivity in farming. It enhances cropping intensity, precision in input use, and reduces losses at different stages of crop production. Farm mechanization, which includes the use of machinery like tractors, combines, and irrigation systems, plays a crucial role in enhancing agricultural productivity and reducing production costs. The importance of farm mechanization is evident in its ability to perform operations timely and with higher precision, leading to optimal crop yields. There is a strong correlation between mechanization and higher agricultural productivity, as seen in states with better access to farm power. However, India's overall mechanization level is still lower than industrialized nations, with only 40-45% of farms mechanized, compared to over 90% in developed economies. The scope for mechanization in India is vast, particularly in crops like sugarcane, cotton, grapes, and citrus. The government of Maharashtra scheme which is Farm Mechanization scheme (FMS) for farmers to encourage the use of modern methods and machines for day-to-day agricultural activities. The government launched this scheme in 2018-19. The state government will fully sponsor this scheme to promote the usage of Farm Mechanization and increase the ratio of farm power to cultivable unit area up to 2 Kw/Ha (https://mahadbt.maharashtra.gov.in).This scheme is based on Sub-mission on farm mechanization scheme of central government of India. The scheme is applicable to all farmers across Maharashtra this transition is crucial for sustainable agricultural growth. Efforts to increase farm power availability from 2.49 kW/ha to 4.0 kW/ha by 2030 are underway to meet the rising food demand. The result of the present study is expected to be of practical utility for planners, administrators, researcher and field functionaries and would provide them useful guidelines to work out need-based and problem-oriented strategies to deal with problems of Farm Mechanization scheme beneficiaries. Therefore, the present study was carried out to investigate with the specific

objective to identify the constraints faced by the beneficiaries and obtain suggestions from beneficiaries to overcome the constraints.

Materials and Methods

The present study was conducted in Marathwada region of Maharashtra state to find out constraints faced bythe farm mechanization scheme beneficiaries and suggestions from beneficiaries to overcome the constraints. Sampling was done at three stages *viz*., the selection of districts, selection of talukas, and selection of respondents. The present study was conducted in one randomly selected Marathwada region district, i.e., Parbhani district. The selection of tehsils from the Parbhani district is based on the maximum number of FMS beneficiary farmers. Among nine tehsils, Jintur and Selu were selected. From each selected tehsil 60 FMS beneficiaries were selected randomly. In this way, a total of 120 respondents were selected for the present study.

Results and Discussion

A) Constraints faced by the farm mechanization scheme (FMS) beneficiaries

Table 1: Constraints faced by the FMS beneficiaries

Sr. No.	Statements	Frequency	Percentage	Rank
1.	Small and fragmented land holding	105	87.50	I
2.	Insufficient subsidy	78	65.00	II
3.	High initial cost and uncertainty of availability	77	64.16	III
4.	Technological constraints	76	63.33	IV
5.	High fuel and maintenance cost	66	55.00	V
6.	Lack of communication between beneficiaries and officers	65	54.17	VI
7.	Lengthy paper work	64	53.33	VII
8.	Information constraints	63	52.50	VIII
9.	Increase in cost of production	62	51.67	IX
10.	Lack of availability of gender friendly implements	57	47.50	X
11.	Lack of awareness /motivation and training	56	46.67	XI
12.	Lack of skilled labour to operate	45	37.50	XII
13	Lack of guidance regarding proper utilization of machinery	43	35.83	XIII

It was revealed from Table 1 that, 87.50 percent of beneficiaries stated that small and fragmented land holding is major constraint and ranked I. 65.00 percent of beneficiaries stated that insufficient subsidy and ranked II. 64.16 percent of beneficiaries stated that high initial cost and uncertainty of availability and ranked III. 63.33 percent of beneficiaries stated that technological constraints and ranked IV. 55.00 percent of beneficiaries stated that high fuel and maintenance cost and ranked V. 54.17 percent of beneficiaries stated that lack of communication between beneficiaries and officers and ranked VI. 53.33 percent of beneficiaries stated that lengthy paper work and ranked VII. 52.50 percent of beneficiaries stated that information constraints ranked VIII. 51.67 percent of beneficiaries stated that increase in cost of production and ranked IX. 47.50 percent of beneficiaries stated that lack of availability gender friendly implements and ranked X. 46.67 percent of beneficiaries stated that lack of awareness/motivation and training and ranked XI. 37.50 percent of beneficiaries stated that lack of skilled labour to operate and ranked XII. 35.83 percent of beneficiaries stated that lack of guidance regarding proper utilization of machinery and ranked XIII. The findings are similar with Sakhare (2022) [2] and Nigade (2022) [1].

B) Suggestions to overcome constraints faced by FMS beneficiary farmers

Table 2: Suggestions given by the FMS beneficiary farmers

Sr. No.	Statements	Frequency	Percentage	Rank
1.	Subsidy should be increased according to cost of cultivation	78	65.00	I
2.	Need based allotment should be provided	73	60.83	II
3.	Proper communication between beneficiaries and officers	65	54.17	III
4.	Minimize the documentation procedure	64	53.33	IV
5.	Provide gender friendly implements	57	47.50	V
6.	Provide proper guidance	43	35.83	VI
7.	Adequate training for operating should be provided	42	35.00	VII
8.	Timely allotment should be provided	37	30.83	VIII

It was revealed from Table 2 that, 65.00 percent of beneficiaries suggested that subsidy should be increased according to cost of cultivation and ranked I. 60.83 percent of beneficiaries suggested that need based allotment should be provided and ranked II. 54.17 percent of beneficiaries suggested that proper communication between beneficiaries and officers and ranked III. 53.33 percent of beneficiaries suggested that minimize the documentation procedure and ranked IV. 47.50 percent of beneficiaries suggested that provide gender friendly implements and ranked V. 35.83 percent of beneficiaries suggested that provide proper guidance and ranked VI. 35.00 percent of beneficiaries suggested that adequate training for operating should be provided and ranked VII. 30.83 percent of beneficiaries suggested that timely allotment should be provided and ranked VIII. The findings are similar with Sakhare (2022) [2]

and Nigade (2022) [1].

Conclusion

In case of constraints faced by the beneficiaries it observed that, 87.50 percent of beneficiaries stated that small and fragmented land holding is major constraint and ranked I. 65.00 percent of beneficiaries stated that insufficient subsidy and ranked II. 64.16 percent of beneficiaries stated that high initial cost and uncertainty of availability and ranked III. 63.33 percent of beneficiaries stated that technological constraints and ranked IV. 55.00 percent of beneficiaries stated that high fuel and maintenance cost and ranked V. 54.17 percent of beneficiaries stated that lack of communication between beneficiaries and officers and ranked VI. 53.33 percent of beneficiaries stated that lengthy paper work and ranked VII. 52.50 percent of beneficiaries stated that information constraints ranked VIII. 51.67 percent of beneficiaries stated that increase in cost of production and ranked IX. 47.50 percent of beneficiaries stated that lack of availability gender friendly implements and ranked X. 46.67 percent of beneficiaries stated that lack of awareness/motivation and training and ranked XI. 37.50 percent of beneficiaries stated that lack of skilled labour to operate and ranked XII. 35.83 percent of beneficiaries stated that lack of guidance regarding proper utilization of machinery and ranked XIII.

In case of suggestions to overcome constraints faced by FMS beneficiary farmers it was observed that, 65.00 percent of beneficiaries suggested that subsidy should be increased according to cost of cultivation and ranked I. 60.83 percent of beneficiaries suggested that need based allotment should be provided and ranked II. 54.17 percent of beneficiaries suggested that proper communication between beneficiaries and officers and ranked III. 53.33 percent of beneficiaries suggested that minimize the documentation procedure and ranked IV. 47.50 percent of beneficiaries suggested that provide gender friendly implements and ranked V. 35.83 percent of beneficiaries suggested that provide proper guidance and ranked VI. 35.00 percent of beneficiaries suggested that adequate training for operating should be provided and ranked VII. 30.83 percent of beneficiaries suggested that timely allotment should be provided and ranked VIII.

References

1. Nigade DD. Impact of Kisan Credit Card scheme among the beneficiary of Marathwada region [Doctoral dissertation]. Parbhani: Vasantrao Naik Marathwada Krishi Vidyapeeth; c2022.
2. Sakhare PA. Impact of Pradhan Mantri Krishi Sinchayee Yojana on its Beneficiaries [Master's thesis]. Parbhani: Vasantrao Naik Marathwada Krishi Vidyapeeth; c2022.
3. Singh AK, Kisku U. A review on custom hiring services under Indian conditions: Farmer's perception, associated factors, constraints, and suggestions. Asian Journal of Agricultural Extension, Economics & Sociology; c2022 Sep 26. p. 18-27.
4. Sims B, Kienzle J. Sustainable agricultural mechanization for smallholders: What is it and how can we implement it? Agriculture. 2017 Jun 10;7(6):50.
5. Quisumbing AR, Pandolfelli L. Promising approaches to address the needs of poor female farmers: Resources, constraints, and interventions. World development. 2010 Apr 1;38(4):581-592.