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Adoption of drudgery reducing technologies among the farmers

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Abstract

The most of India's population works in the agricultural industry. At most of the places, traditional approaches are used. As a result, it is regarded a drudgery-prone occupation. Drudgery-reducing technologies aid in the prevention of long-term health problems and injuries. The present study was conducted in Marathwada region of Maharashtra state during the year 2023-24 with the objective to know the adoption of drudgery reducing technologies developed by VNMKV, Parbhani among the farmers. For the study, Parbhani district was selected from Maharashtra state as, the work of All India Coordinated Research Project (Women in agriculture), Vasantrya Naik Marathwada Krishi Vidyapeeth, Parbhani was carried out in this district. 10 villages were selected randomly from the respective talukas from Parbhani district and 12 respondents from each village were selected randomly from the list of beneficiaries of AICRP (WIA), Vasantrya Naik Marathwada Krishi Vidyapeeth, Parbhani constituting the sample size of 120. Ex-post-facto research design was used for the study. Data was gathered using a well-structured interview schedule. To interpret findings and draw conclusions, statistical tools such as frequency, percentage, mean, standard deviation and coefficient correlation were used. Majority (60.83%) of respondents had a medium level of adoption of drudgery reducing technologies.

Keywords: Adoption, drudgery, technologies, women in agriculture (WIA), AICRP, developed by VNMKV

Introduction

Agriculture has most important role in Indian economy. Agriculture sector is the occupation of majority of population in India. At most of the places it is done by conventional methods. So that it is considered as drudgery prone occupation. This perspective developed due to lack of modern technology, improved practises in daily working of agriculture. At most of the places farmers work manually which leads to wastage of manpower, time and money. Contribution of woman in agriculture is considerably very high. Out of India's three major farming communities male, female, and young only the group of the female farmers do over 60 percent of farm related operations (Bindeshwari Pandro, 2020) [2].

The drudgery reducing technologies helps to prevent long term health issues and injuries. These technologies are important to reduce the time and physical effort required for essential tasks. This not only enhances farm productivity but also enables farmers to allocate more time for crop management and planning other allied activities. By increasing operational efficiency, these technologies can reduce production expenses and improve profitability, making agriculture a more sustainable livelihood.

The Vasantrya Naik Marathwada Krishi Vidyapeeth, Parbhani had developed drudgery reducing technologies like Cotton picking apron, Gopal khore, Revolving milking stool and stand, Janai hatmoje (Harvesting mitten), Trishul weeder, Sulbha Bag, Sonai Bag, Phuleri basket, Tikai Bag, Gauri Bag, digging tool Ukari and Nakhalya, wooden rake, Earthing up tool, multi-purpose tailoring table etc. All these tools alleviate physical strain and labour. By reducing the manual working and labour, these equipments allow the farmers to work on larger area in less time and more efficiently. This will indirectly help to reduce physical strain and retain the health. All India Coordinated Research Project (Women in agriculture) and College of Community Science, Vasantrya Naik Marathwada Krishi Vidyapeeth, Parbhani had developed various ICTs like

mobile app in the name Technologies for farm women, blogs, YouTube etc to create awareness and increase the adoption level of drudgery reducing technology.

Although the benefits are clear, the adoption of these technologies by farmers varies widely across different regions and demographic groups. Several factors impact adoption rates, including access to finances, educational attainment, the presence of technical support, and cultural views on innovation. Therefore, adoption of drudgery reducing tools has very much importance in Indian agriculture sector. By the way of awareness and training, farmers will adopt these technologies which indirectly performs so many beneficial functions. Therefore, the study aims to know the adoption of drudgery reducing technologies developed by College of Community Science, Vasant Rao Naik Marathwada Krishi Vidyapeeth, Parbhani, among the farmers to reduce drudgery along with increase working capacity and production.

Objective

To know the adoption of drudgery reducing technologies among the farmers.

Methodology

The present study was conducted in Marathwada region of Maharashtra state during the year 2023-24 with the objective to know adoption of drudgery reducing technologies developed by VNMKV, Parbhani among the farmers. For the study, Parbhani district was selected from Maharashtra state as, the work of All India Coordinated Research Project (Women in agriculture), Vasant Rao Naik Marathwada Krishi Vidyapeeth, Parbhani was carried out in this district. Three tehsils from Parbhani district viz., Parbhani, Purna and Manwath were selected for the purpose of study as major work of AICRP (WIA) VNMKV, Parbhani was carried out in three talukas. Previously and currently adopted 10 villages were selected randomly from the respective

talukas and 12 respondents from each village were selected randomly from the list of beneficiaries of AICRP (WIA) VNMKV, Parbhani constituting the sample size of 120. Ex-post-facto research design was used for the study. Data was gathered using a well-structured interview schedule. To interpret findings and draw conclusions, statistical tools such as frequency, percentage, mean, standard deviation and coefficient correlation were used.

The independent variables were age, education, size of family, occupation, land holding, annual income, extension contact, social participation, risk orientation, knowledge of drudgery reducing technology. Adoption was the only dependent variable.

Result and Discussion

Adoption of drudgery reducing technologies

Table 1: Adoption of drudgery reducing technologies. (n=120)

Sr. No.	Extent of adoption	Frequency	Percent
1.	Low (Up to 6 score)	29	24.17
2.	Medium (7 to 9 score)	73	60.83
3.	High (10 and above score)	18	15.00
	Total	120	100.00

Table 1 shows that 60.83 percent of respondents had a medium level of adoption of drudgery reducing technologies. While 24.17 percent had a low level and 15.00 percent had a high level of adoption of drudgery reducing technologies.

Education, adequate annual income and risk-taking ability were the probable reasons behind above findings. Along with these there are other factors such as occupation, land holding, social participation also affects positively on the adoption of drudgery reducing technology.

Similar findings were reported by Tankodara (2019)^[7] and Raut (2023)^[4].

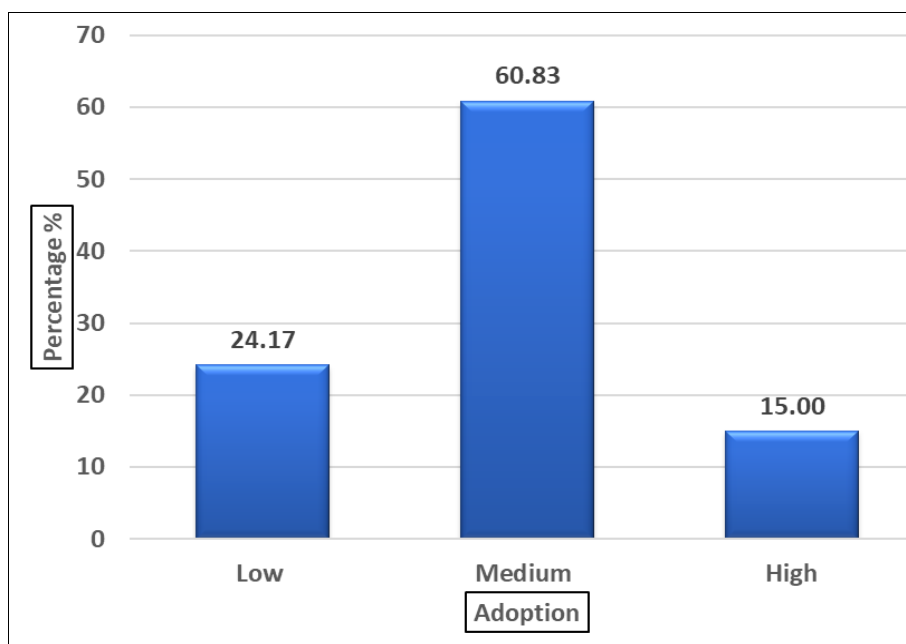


Fig 1: Distribution of respondents according to their adoption of drudgery reducing technology

Table 2: Distribution of farmers based on their adoption of drudgery reducing technologies

Sr. No.	Adoption	Adoption					
		Full		Partial		No	
		F	%	F	%	F	%
1.	Do you use Cotton picking apron?	35	29.17	55	45.83	30	25.00
2.	Do you use Trishul weeder?	08	06.67	53	44.17	59	49.17
3.	Do you use Gopal Khore for dung collection?	06	05.00	46	38.33	68	56.67
4.	Do you use Revolving milking stool and stand?	15	12.50	25	20.83	80	66.67
5.	Do you use Janai hatmoje (Harvesting mitten) while harvesting okra and brinjal?	23	19.17	52	43.33	45	37.50
6.	Do you use Sulbha bag while fertilizer application?	05	04.17	55	45.83	60	50.00
7.	Do you use Sonai bag?	03	02.50	34	28.33	83	69.17
8.	Do you use Phuleri basket?	00	00.00	07	05.83	113	94.17
9.	Do you use Tikai bag?	00	00.00	08	06.67	112	93.33
10.	Do you use Gauri bag?	02	01.67	21	17.50	97	80.83
11.	Do you use digging tool Ukari?	43	35.83	38	31.67	39	32.50
12.	Do you use digging tool Nakhalya?	09	07.50	45	37.50	66	55.00
13.	Do you use wooden rake?	28	23.33	58	48.33	34	28.33
14.	Do you use Earthing up tool?	54	45.00	27	22.50	39	32.50
15.	Do you use multi-purpose tailoring table?	00	00.00	05	04.17	115	95.83

Table 2 shows the technology wise adoption of drudgery reducing technologies among farmers developed by Vasant Naik Marathwada Krishi Vidyapeeth, Parbhani.

29.17 percent of respondents had fully adopted the cotton-picking apron, while 45.83 percent had partially adopted it, and 25.00 percent had not adopted it at all. 06.67 percent of respondents had fully adopted the trishul weeder, while 44.17 percent had partially adopted it, and 49.17 percent had not adopted it at all. For the Gopal Khore, 05.00 percent of respondents had fully adopted it, while 38.33 percent had partially adopted it, and 56.67 percent had not adopted it at all. For the revolving milking stool and stand, 12.50 percent respondents had fully adopted it. Instead, 20.83 percent had partially adopted it, while 66.67 percent had not adopted it at all. For the Janai hatmoje (harvesting mitten), 19.17 percent of respondents had fully adopted it, while 43.33 percent had partially adopted it, and 37.50 percent had not adopted it at all. For the Sulbha bag, 04.17 percent of respondents had fully adopted it, while 45.83 percent had partially adopted it, and 50.00 percent had not adopted it at all. For the Sonai bag, 02.50 percent of respondents had fully adopted it, while 28.33 percent had partially adopted it, and 69.17 percent had not adopted it at all. For the Phuleri basket, no respondents had fully adopted it, 05.83 percent had partially adopted it, and 94.17 percent had not adopted it at all. For the Tikai bag, no respondents had fully adopted it, 06.67 percent had partially adopted it, and 93.33 percent had not adopted it at all. For the Gauri bag, 01.67 percent of respondents had fully adopted it, 17.50 percent had partially adopted it, and 80.83 percent had not adopted it at all. For the digging tool Ukari, 35.83 percent of respondents had fully adopted it, 31.67 percent had partially adopted it, and 32.50 percent had not adopted it at all. For the digging tool Nakhalya, 07.50 percent of respondents had fully adopted it, 37.50 percent had partially adopted it, and 55.00 percent had not adopted it at all. For the Wooden rake, 23.33 percent of respondents had fully adopted it, 48.33 percent had partially adopted it, and 28.33 percent had not adopted it at all. For the Earthing up tool, 45.00 percent of respondents had fully adopted it, 22.50 percent had partially adopted it, and 32.50 percent had not adopted it at all. For the multi-purpose tailoring table, no respondents had fully adopted it, 4.17 percent had partially adopted it, and 95.83 percent had not adopted it at all.

Conclusion

For the above discussion, with view to adoption of drudgery

reducing technologies developed by VNMKV, Parbhani among the farmers, it can be concluded that majority (60.83%) of the farmers had medium extent of adoption of drudgery reducing technologies. Among all the tools, earthing up tool has the highest adoption level.

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References

- Ahluwat S, Singh S. Acceptability of selected drudgery reducing tools by farmwomen. *International Journal Current Microbiology Applied Science*. 2018;7(11):1992-2005.
- Pandro B. Adoption of improved farm tools to reduce drudgery of farm women in Narsinghpur District (M.P.). JNKVV, Jabalpur; c2020.
- Khadatkar A, Potdar RR, Dubey UC, Dubey AK. Demonstration model based on women friendly improved technologies: A way for drudgery reduction and livelihood enhancement. *Innovative Farming*. 2017;2(3):174-178.
- Raut MG. Adoption of recommended package of practices among custard apple growers. *Vasant Naik Marathwada Krishi Vidyapeeth, Parbhani*; c2023.
- Sharma S, Chander S, Kumari V. Knowledge and adoption of drip irrigation in citrus crops among the farmers of western Haryana. *Indian Research Journal of Extension Education*. 2022;22:58141. Available from: <http://doi.org/10.48165/IJEE2022.58141>.
- Sims B, Heney J. Promoting smallholder adoption of conservation agriculture through mechanization services. *Agriculture*. 2017;7(8):64.
- Tankodara KD. Knowledge and adoption of farmers about chickpea production technology in Junagadh district. Anand Agricultural University, Anand; c2019. Available from: <https://krishikosh.egranth.ac.in/handle/1/5810170004>.