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Impact of MAPWA Programme on Empowerment of the Beneficiaries in Madhya Pradesh

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ABSTRACT

The study was conducted in Katni district of Madhya Pradesh with 240 beneficiaries under Madhya Pradesh Women in Agriculture (MAPWA) programme to know its impact in the course of knowledge, adoption and economic viability of low-cost technologies/practices used by farm women. The study revealed that majority of the small landholding farm women were found under the category of low level of adoption while, in medium landholding category, majority had medium level of adoption. The results of economic viability showed that all the skills have responded remarkably in terms of yield and returns under irrigated and rainfed condition. Thus all the skills are highly remunerative and econo-mically viable. Hence MAPWA project is advised to include all these skills in its development programme on the priority basis for increasing the agricultural productivity. The findings could be helpful to extension workers and policy-makers in developing and intensifying the dissemination of these technologies among the farmers of both rainfed and irrigated conditions.

Keywords : MAPWA Programme, empowerment, farm women

INTRODUCTION

Women are the key contributors to the economy and in combating poverty through both remunerative and non-remunerative work at home, in the community and at the work place. Women's participation in income-generating activities is believed to increase their status and decision-making power. According to the census reports, there is an increased participation of rural women in economic activities besides doing household duties, though participation of women in agriculture contributes a lot for the economic growth and progress of the country, their problems are given least concern.

In this direction Madhya Pradesh Women in Agriculture (MAPWA) project is a positive step. It is a skill-oriented agriculture training and extension project for small and marginal farm women who work in their farm. This is a project that imparts training and extension to farm women from small and marginal landholdings in low-cost technologies for increasing agricultural production. Thus, a study was conducted with the objective to know the impact of MAPWA programme in the course of adoption and economic viability of low-cost technologies/practices used by the beneficiaries.

METHODOLOGY

The research study was conducted by involving 240 farm women randomly selected from eight villages of Katni, Vijayraghavgarh and Bahoriband blocks of Katni district of Madhya Pradesh. The Total sample of the study comprised 140 small and 100 medium farmwomen considering their possession of land. Thus, finally 240 beneficiaries were selected for the study. Rogers (1983) defined adoption as the decision to make full use of an innovation as the best course of action available. The term adoption in this study means the use of recommended low cost practices by the beneficiaries of MAPWA programme. In consultation with the Danish International Development Agency (DANIDA), five skill-oriented low cost agricultural technologies recommended through the programme were identified for Katni district.

RESULTS AND DISCUSSION

Knowledge level of MAPWA beneficiaries

Knowledge level of both the categories of farm women, *i.e.* Small and Marginal, was measured under five major practices, *viz.* cleaning, grading and germination test of seeds, IPM practice, safe grain storage, soil testing and preparation of organic manure through NADEP. The outcome of the study has been presented in the subsequent tables.

It is clear from the Table 1 that majority (43.58 %) of the small farmwomen (possessing small size of land) was found under the category of low level of knowledge and 35.71 per cent had medium level of knowledge and 20.71 per cent small farmers was found under the category of high level of knowledge regarding the low-cost technologies. While among the medium farm women, majority (51 %) had medium level of knowledge followed by high (32 %) and low (17 %).

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Table 1: Knowledge of low cost technologies by beneficiaries
n = 240

Category of Variables	Categories of respondents	
	Small	Medium
Low (up to 30)	61(43.58)	17 (17.0)
Medium (30 -60)	50 (35.71)	51 (51.0)
High (above 60)	29 (20.71)	32 (32.0)
Total	**140**	**100**
Mean (X)	**1.77**	**2.15**
Standard devi ation	**0.77**	**0.69**
Coefficient of variation (CV)	**43.54**	**31.96**
'Z value'	**14.44***	

* Significant at 0.5 level of significance : (Figures in parenthesis indicate percentage)

On the basis of such data, medium beneficiaries had medium level of knowledge, whereas, the small beneficiaries had low level of knowledge regarding the low cost technologies.

Adoption level of MAPWA beneficiaries

The data presented in the Table 2 explicate that majority (45 %) of the small landholding beneficiaries were found under the category of low level and 37.14 per cent had medium level and only 17.86 per cent had high level of adoption about the low-cost technologies under MAPWA programme (Table 2). In medium landholding category, majority 50 per cent of the beneficiaries had medium level of adoption followed by high (37 %) and low (13 %) level respectively about the low-cost technologies.

Table 2: Adoption of low cost technologies by beneficiaries
n = 240

Category of variables	Categories of respondents	
	Small	Medium
Low (up to 30)	63 (45.0)	13 (13.0)
Medium (30 -60)	52 (37.14)	50 (50.0)
High (above 60)	25 (17.86)	37 (37.0)
Total	**140**	**100**
Mean	**1.73**	**2.24**
Standard deviation	**0.75**	**0.67**
Coefficient of variation (CV)	**43.25**	**29.84**
'Z value'	**14.64**	

* Significant at 0.5 level of significance : Figures in parenthesis indicate percentage

It is clear that medium beneficiaries had medium level of adoption, whereas the small beneficiaries had low level of adoption. The low-cost technologies under MAPWA programme. The statistical parameters for adoption of low-cost technologies under MAPWA programme among small and medium beneficiaries indicated large variation in the mean score (1.73 and 2.24) and coefficient of variation (Table 2).

Economic viability of low cost technologies on selected crops

The economic viability of different low-cost technologies/skills used by sample beneficiaries were estimated and comparative advantage of each skill in different crops, *viz*. lentil, gram and wheat, under two conditions (irrigated and rainfed), were determined. The details are presented in Table 3.

It was observed that by using successive skill yield in different crops has showed an increase over the previous skill. Response of yield was more prominent under irrigated condition for all the selected crops. Under irrigated condition, gram crop responded very remarkably as the additional yield has gone up to 17.9 quintal while using all the five recommended skills. Even by using only one skill field, the yield has responded to the extent of 6.07 quintals. It shows that in gram crop, the response was highly remunerative. Similarly, the gram crop had responded under rainfed condition to the most. Another, remarkable observation was that cost:benefit ratio has shown ascending trend for every successive skill under irrigated condition, but it has shown a reverse or descending trend for every additional skill under rainfed conditions.

Table 3: Economic viability of each low cost technologies/skill in terms of yield, returns and cost:benefit ratio

Crop	Items	Irrigated conditions					Rainfed conditions				
		1	2	3	4	5	1	2	3	4	5
Lentil	Additional yield	0.33	1.68	3.14	4.2	7.2	2.25	3.0	3.8	5.6	6.62
	Net profit	1,236	6,756	12,738	17,040	29,490	9,300	12,300	15,510	22,937	27,054
	Cost benefit ratio	1:8.24	1:22.52	1:28.30	1:28.4	1:39.32	1:62	1:41	1:34.46	1:38.2	1:36.0
Gram	Additional yield	6.07	7.5	10	13.09	17.91	2.08	4.16	4.75	7.43	8.5
	Net profit	3025	6475	12575	20150	32050	5050	10100	11425	17975	20500
	Cost benefit ratio	1:20.16	1:21.58	1:27.94	1:33.58	1:42.73	1:33.66	1:33.66	1:25.38	1:29.95	1:27.33
Wheat	Additional yield	1.56	6.63	11.84	17.08	25.3	3.34	5.25	9.84	14.7	15.84
	Net profit	2190	9645	17310	25350	37200	4860	7575	14310	21450	23010
	Cost benefit ratio	1:14.6	1:32.15	1:38.46	1:42.25	1:49.6	1:32.4	1:25.25	1:31.8	1:47.66	1:30.68

It can be concluded from above Table 3 that the have resulted in additional gains in terms of yield and returns in all the crops under irrigated and rainfed conditions, though the response was in order of gram, wheat and lentil. Another remarkable observation was that under irrigated condition the cost:benefit ratio increased first to fifth skill but under rainfed conditions, the result was reversed, *i.e.* cost:benefit ratio was more in first skill and had declined in every successive use of skill. It indicates according to budget constraints that it is advisable to use only one skill under unirrigated conditions. While under no constraints of budget, all the skills should be used which ultimately result in higher returns. It is to be worth notice that the cost of each skill is not high so there will be no budget constraints. The response in terms of returns is quite high as revealed by cost:benefit ratio. Hence, it is recommended that all the skills should be used frequently. If there is an option to use these skills under different crops, gram crop should be given priority for use followed by wheat and lentil under irrigated conditions.

CONCLUSION

The study revealed regarding knowledge level of low cost technologies, the medium farm women category stand out over the small farm women category. Majority of the small farm women have shown low level of adoption, while medium adoption was found in medium farm women category. Results of economic viability showed that all the skills have responded remarkably in terms of yield and returns under irrigated and rainfed condition. All the skills were highly remunerative and economic viable. Hence MAPWA project is advised to include all these skills in their development programme on the priority basis for increasing the agricultural productivity, and these skills should be popularized among the farmers. Regular training on different innovative low-cost technologies needs to be encouraged to increase their knowledge, adoption and skill

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