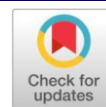


Original Research Article

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Exploring the correlation between profile of beneficiary farmers of maharashtra project on climate resilient agriculture (PoCRA) and Its impact



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ABSTRACT

Aim - To study the relationship between profile of PoCRA beneficiaries with impact of PoCRA project

Methodology - The study was conducted in purposely selected three districts viz., Aurangabad Osmanabad, and Jalana from the Marathwada (MH) India region during 2022-2023

Keywords: Climate change, Innovativeness, Irrigation, PoCRA

Introduction

The agricultural sector in Maharashtra is dependent on the uncertainties of nature. Small holder farmers are particularly vulnerable to climate shocks. In Maharashtra, particularly Vidarbha and Marathwada regions are vulnerable to weather shocks for these types of events. Farmers in Maharashtra are facing adverse conditions due to climate change due to all the problems of high cost of production and low profit, fluctuating market prices, lack of market, lack of agribusiness opportunities, increasing scarcity of water, and decreasing land productivity.

A major challenge faced by the farmers is to cope with the changing climate. Farmers in Marathwada and Vidarbha have been facing severe drought for the past few years, all of which are affecting ground water storage and soil health, resulting in reduced agricultural productivity, and adversely affecting the production of smallholder farmers. The project on Climate Resilient Agriculture (The Nanaji Deshmukh Krishi Sanjeevani Prkalp) project has been launched (2018-2019) by the Government of Maharashtra with the assistance of the World Bank with the aim of enabling farmers to adapt to climate change.

The increased amount of carbon dioxide in the atmosphere is an important factor associated with climate change. The planting of forest trees /orchards is going to be very effective in the reaction of stabilizing this carbon gas (Carbon Sequestration). Along with the economic upliftment of farmers, and stabilization of Carbon gases that contribute to climate change, some conscious changes in farming practices due to changing climate are expected.

The project has deliberately disseminated climate-friendly technologies through farm school demonstrations, study tours, and enhanced farmer skills and knowledge. Project Objectives An important objective of the project is to enable smallholder farmers in selected districts in the project area to adapt to climate change.

Methodology

The present study was carried out to find out the Impact of Impact of Maharashtra project on climate-resilient agriculture (PoCRA). The study was conducted in purposely selected three districts viz., Aurangabad Osmanabad, and Jalana from the Marathwada region during 2022-2023. From the selected districts, two tehsil were selected. From each selected PoCRA implemented tehsil 40 beneficiaries was selected by random method. Total to sum of 240 respondents were selected. The data were collected through pre-tested Marathi interview schedule and the investigator contacted all the data personally. The data were gathered, processed, and analyzed to draw a meaningful conclusion. The statistical tools used for the analysis of the data were percentage, mean, standard deviation, and correlation coefficient.

Result and Discussion

Relationship between the profile of PoCRA project beneficiaries with overall impact of the PoCRA project

The relationship between the profile of PoCRA project beneficiaries with their overall impact on the PoCRA project was calculated, and the results were discussed here

Table No 1 Relationship between the profile of PoCRA project beneficiaries with overall impact of the PoCRA project

Sr. No	Independent Variable	Correlation coefficients ('r') values
1	Age	0.010 ^{NS}
2	Education	0.090 ^{NS}
3	Annual income	0.227**
4	Land Holding	-0.003 ^{NS}
5	Irrigation Status	0.161*
6	Social participation	0.212**
7	Source of Information	0.266**

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8	Extension contacts	0.159*
9	Risk orientation	0.237**
10	Economic motivation	0.191**
11	Innovativeness	0.192**
12	Training Received	0.209**

NS- Non-significant * - Significant at 0.05 % level ** - Significant at 0.01 % level

1 Age with Impact of PoCRA Project

Table No 1 reported that there was a non-significant (0.010^{NS}) relationship between the age of beneficiaries and the impact of the PoCRA project

The age of beneficiaries did not play any role in obtaining PoCRA benefits. All PoCRA beneficiaries belonged to drought-prone areas. Hence, all the farmer were attracted to adopting climate-resilient interventions to overcome climate change issues and boost their productivity. As a result, the age of the PoCRA beneficiaries did not establish a significant relationship with the impact of the PoCRA project

This finding was similar to the findings of Harikrishna (2019), Aglawe (2019), Kale (2020), Khartmal (2021), Bodasa (2021), and Chirde (2022)

2 Education with the Impact of the PoCRA Project

Table No. 1 reported that there was a non-significant (0.090^{NS}) relationship between the Education of beneficiaries and the impact of the PoCRA project.

The illiterate farmer can also be able to understand PoCRA project interventions through training programmes, Farmer Field School, Front front-line Demonstrations, which were organized by state agriculture department officers, agricultural assistants, and the Village Climate Resilient Agriculture Management Committee (VCRMC) in the local language. Hence, education was not able to establish any relationship with the PoCRA project

This finding was similar to the findings of Chavhan (2019), Aglawe (2019), Kale (2020), Khartmal (2021), and Chirde (2022).

3 Annual Income with the Impact of the PoCRA Project

Table No. 1 reported that there was a highly positive significant (0.227**) relationship between the Annual income of beneficiaries and the impact of the PoCRA project

It means that with the increase in the annual income of PoCRA project beneficiaries, there was an increase in the impact of the PoCRA project.

Annual income provides the economic base for PoCRA project beneficiaries and increases their risk orientation, making them more capable of procuring inputs for the adoption of different farming practices and subsidiary occupations. Annual income helps to increase the standard of living, thus annual income has a positive relationship with the impact of the PoCRA project.

This finding was similar to the findings of Chavhan (2019), Aglawe (2019), Kale (2020), Dhulgand (2020), Khartmal (2021), Chirde (2022), and Nigagde (2022).

4 Land Holdings with the Impact of the PoCRA Project

Table No. 1 reported that there was a non-significant (-0.003^{NS}) relationship between the land holdings of beneficiaries and the impact of the PoCRA project.

It means that land holding doesn't affect the impact of the PoCRA project on its beneficiaries. As the object of the project is to uplift the socio-economic status of small and marginal farmers hence it could not show any relationship with the impact of PoCRA project.

This finding was similar to the findings of Aglawe (2019) and Kale (2020).

5 Sources of irrigation with the Impact of the PoCRA Project

Table No.1 reported that there was a positive and significant (0.161*) relationship between sources of irrigation and the impact of the PoCRA Project

It might be due to the availability of different irrigation sources under the PoCRA Project. Influenced the production, productivity, and ultimately the income of the farmers. Which results in a positive association between these two variables.

This finding was similar to the findings of Kale (2020) and Bodake et al. (2023).

6 Social Participation with the Impact of the PoCRA Project

Table No. 1 reported that there was a highly positive and significant (0.212**) relationship between social participation and the impact of the PoCRA Project

It means that that PoCRA Project beneficiaries participated more in different organizations due to their personal interests. Because of which positive and significant relationship between social participation and the impact of the PoCRA Project was seen

This finding was similar to the findings of Aglawe (2019), Pise (2019), Yeragorla (2019), Dhulgand (2020), Bodasa (2021), Biradar (2022), and Bodake et al. (2023)

7 Source of information with the impact of the PoCRA Project

Table No. 1 reported that there was a highly positive and significant (0.266**) relationship between sources of information and the impact of the PoCRA Project

PoCRA project helped the beneficiaries to expose to various technology platforms which has resulted in gain of knowledge various sources of information which has resulted in the gain of various technological knowledge Therefore, sources of information establish a positive and significant relationship with the impact of the PoCRA Project

This finding was similar to the findings of Aglawe (2019), Pise (2019), Kale (2020), Dhulgand (2020)

8 Extension contact with the impact of the PoCRA Project

Table No. 1 reported that there was a positive and significant (0.159*) relationship between extension contact and the impact of the PoCRA Project

PoCRA project initiated the beneficiaries through various activities through extension personnel which had increased contacts of beneficiaries to various extension agencies hence Extension contact show positive relationship with impact of PoCRA project.

This finding was similar to the findings of Aglawe (2019), Dhulgand (2022), Khartmal (2021), Nigade (2022), and Chirde (2022).

9 Risk Orientation with the Impact of the PoCRA Project

Table No. 1 reported that there was a highly positive and significant (0.237**) relationship between risk orientation and the impact of the PoCRA Project

PoCRA project had exposed the beneficiaries to various platforms, which helped them to gain the knowledge of various technologies and resulted in the adoption of the technology. This helped the beneficiaries to increase confidence level and high- risk-bearing ability due to which there was a significant relationship with the impact of the PoCRA Project.

This finding was similar to the findings of Pise (2019), Aglawe (2019), Khartmal (2021), Nigade (2022), and Arvind (2022). Bodake et al. (2023)

10 Economic Motivations with the Impact of the PoCRA Project

Table No. 1 reported that there was a highly positive and significant (0.191**) relationship between economic motivation and the impact of the PoCRA Project

PoCRA project had helped the beneficiaries through various interventions and exposure to various institutions and technologies which resulted in adoption and increased economic status and motivation, thus the Economic Motivation had a positive relationship with impact of the PoCRA Project.

This finding was similar to the findings of Pise (2019), Aglawe (2019), Kale (2020), Dhulgand (2020), Khartmal (2021), Bodasa (2021), Nigade (2022), Chirde (2022) and Bodake et al. (2023)

11 Innovativeness with the Impact of the PoCRA Project

Table No. 1 reported that there was a highly positive and significant (0.192**) relationship between innovativeness and the impact of the PoCRA Project

Innovativeness is the ability to do new things. PoCRA Project Beneficiaries were more innovative because of the PoCRA Project. had given technical knowledge about different interventions

This finding was similar to the findings of Pise (2019), Kale (2020), Khartmal (2021), Bodasa (2021), Arvind et al. (2022), and Chirde (2022).

12 Training received with the Impact of the PoCRA Project

Table No. 1 reported that there was a highly positive and significant (0.209**) relationship between econ training received and the impact of the PoCRA Project

It could be concluded that the institutional training received by the members of the PoCRA Project has had a positive impact on them. Training might have helped to improve the knowledge and skills of the individuals in their respective enterprises, which might have helped them perform selected enterprises effectively. This in turn, might have helped them earn more and thereby improve their socioeconomic conditions, thus the training received has a positive relationship with the impact of the PoCRA Project.

This finding was similar to the findings of Kale (2020), Khartmal (2021), and Nair (2021).

CONCLUSION

The present study also shows that variables like annual income, sources of information, sources of irrigation, extension contact, Economic motivation risk orientation and innovativeness has positive and significant associations with impact of the project. Therefore, while formulating similar kinds of projects, these variables may be considered for better impact of the project.

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