



Research Article

CONSTRAINTS FACED BY IAMWARM FARMERS IN TIRUCHIRAPPALLI DISTRICT OF TAMIL NADU

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Abstract: Irrigated Agriculture Modernization and Water Bodies Restoration and Management (IAMWARM) project was implemented in Tamil Nadu during the year of 2007 with the aim of improving irrigation service delivery including adaptation of modern water saving irrigation technologies. To study the impact of the IAMWARM project in Tiruchirappalli district of Tamil Nadu an ex-post facto research design was followed. Tiruchirappalli district of Tamil Nadu was purposively selected, as this district was native for the researcher and it was very convenient to collect valid information and responses from the beneficiaries. For the purpose of statistical analysis of the coded data mean and percentage analysis were used. Poor socioeconomic status of farmers in adoption of innovated technologies was the foremost constraint reported by large majority of beneficiary farmers followed by Water ways running through holding of different farmers leading to social problems.

Keywords: Constraints, Socio economic status, IAMWARM project, Water saving irrigation technologies

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Introduction

Our planet is 75 per cent covered by water-that's why we are called the Blue Planet but 97.5 per cent of that water is salt water. We only have 2.5 per cent of fresh water to drink. Yet we use 10 billion tons of fresh water worldwide. According to the World Health Organization, by the year 2025, the United Nation estimates that 30 per cent of the world's population residing in 50 countries will face water shortage. India consuming nearly 761,000,000,000 thousand of litre water per year [1].

IAMWARM (Irrigated Agriculture Modernization and Water- bodies Restoration and Management) is a 6-year water management project in Tamil Nadu, which aims to facilitate efficient irrigation practices by farmers. The project intends to expand the area under irrigated agriculture through effective and efficient irrigated water management practices in order to decrease the water level not only to cultivate more crops per drop, but also to facilitate the farmer in achieving more income per drop of water in the agricultural management [2].

In Tamil Nadu, this IAMWARM project successfully implemented as TN-IAMWARM. A multidisciplinary Project funded by the World Bank and implemented by the Water Resource Organization (WRO), PWD and Government of Tamil Nadu as the Nodal agency 6.25 Lakh Hectares of Ayacut areas, 63 selected Sub Basins (Tamil Nadu) was covered in the year 2013 with an outlay of Rs: 2, 547 crores [3].

The irrigation infrastructure is the backbone of the irrigated areas for considerable need of modernization and a new paradigm of operations and maintenance. This includes rehabilitation of irrigation canal systems restoration and revival of tanks etc., In this context the Irrigated Agriculture Modernization and Water Bodies Restoration and Management (IAMWARM) project has been formulated. The IAMWARM project is implemented in 63 sub-basins in Tamil Nadu with an outlay of ₹2547 crores for a period of 6years from 1.04.2007 to 31.03.2013 may be extended upto 30.09.2014.It was implemented by the Water Resource Organization (WRO), Public Work Department (PWD) and Government of the Indian state of Tamil Nadu as the Nodal Agencies. And now TN-IAMWARM name is modified as TN-IAMP.

Materials and Methods

Tiruchirappalli district of Tamil Nadu was purposively selected, as this district was native for the researcher and it was very convenient to collect valid information and responses from the beneficiaries. Constraint analysis is becoming one of the important components of extension research. One of the objectives of this study is to find out the constraints in the participation in IAMWARM. For this purpose, the respondents were asked to list out the problems experienced by them during the participation in IAMWARM. The constraints faced by them were pooled and analyzed using percentage analysis for discussion purpose. For the present study, Ex-post facto research design was employed. In this design, the investigator has no scope to manipulate the independent variables, as they have already been occurred. Inferences on the relationship between independent and dependent variables have been drawn based on the effects already manifested. For the statistical analysis of the coded data mean and percentage analysis were mostly used. The samplings were taken based on Random sampling method.

Findings and Discussion

Constraints faced by the IAMWARM farmers in Tiruchirappalli District of Tamil Nadu. The following were the constraints encountered and reported to the researcher by the IAMWARM beneficiaries during the survey. The results have been displayed in [Table-1].

Multiple Responses

From [Table-1], revealed that the poor socioeconomic status of farmers in adoption of innovated technologies was the foremost constraint reported by a large majority of beneficiary farmers (100 per cent) and ranked I. Now a day, it is emerging as a major problem because the severe shortage of labour force. Possible ways must be found out to engage them in agricultural operations, and works under the act need to be taken during the off season without affecting regular agriculture work. Next major constraints are waterways running through holding of different farmers leading to social problems (95.83 per cent) ranked second.

Constraints Faced by IAMWARM Farmers in Tiruchirappalli District of Tamil Nadu

Table-1 Distribution of the respondents according to their constraints faced by them, (n=120)

SN	Constraints	Respondents	Percentage	Rank
1	Poor Socio-economic condition of the farmers	120	100	I
2	Water ways running through holdings of different farmers	115	95.83	II
3	In adequate credit facilities	100	83.33	III
4	Increased labour cost	80	66.67	IV
5	Managerial problem due to fragmentation of land holdings	61	50.83	V
6	Bad tenurial system	49	40.83	VI
7	Lack of cooperation of members in Water Use Association	40	33.33	VII
8	Lack of compensation settlement against crop insurance for inundated fields	39	32.5	VIII

Table-2 Distribution of respondents according to the suggestions given by the beneficiary farmers (n=120)

SN	Suggestions	Respondents	Percentage	Rank
1	Timely supply of subsidies will be useful to increase the benefits of the project	120	100	I
2	Proper communication about the subsidy's availability and their sources to all the farmers	110	91.67	II
3	The labourers to be trained to do all the operations effectively	89	74.17	III
4	Follow up activities need to be undertaken	77	64.17	IV
5	More awareness should be created towards benefits of the farmers level organizations to improve their participation	68	56.67	V
6	More number of field level demonstrations to be Conducted	51	42.5	VI
7	More number of trainings regarding to the innovated technologies should be given to the farmers	32	26.67	VII

Inadequate credit facilities ranked III having (83.33 per cent) of people facing these constraints. However, (66.67 per cent) of the IAMWARM beneficiaries have reported that majority of the farmers facing increased labour cost as their biggest constraints which is ranked fourth among all. Only (50.83 per cent) farmers have managerial problems due to fragmentation of land holdings as their major problem followed by bad tenurial system (40.83 per cent), lack of co-operation among the members in water user association and (32.50 per cent) of farmers facing Lack of proper compensation settlements against crop insurance for inundated fields as their problems.

Suggestions given by the IAMWARM beneficiaries to overcome their constraints The following were the suggestion given to the researcher by the IAMWARM beneficiaries during the survey. The results have been displayed in [Table-2].

Multiple Responses

From the [Table-2], it could be inferred that, cent per cent of beneficiaries suggested that, timely supply of subsidies will be useful to increase the benefits of the project, because most of the farmer might have not received the subsidies at the critical time, they needed which is ranked first among all. The second suggestion given by (91.67 per cent) per cent of the beneficiaries that, proper communication about the subsidy's availability and their sources for all the farmers ranked second. This suggestion might have reported because of the prevailing competition among the farmers hinder diffusion of the information related subsidies and hence there is a need to evolve a proper mechanism to communicate such information to all farmers by using the available media in combination. Other suggestions made were, the labourers are to be trained to do all the operations effectively (74.17 per cent) ranked third, follow up activities need to be undertaken (64.17 per cent) which is ranked fourth and more awareness should be created towards the benefits of the farmer's level organizations to improve their participation (56.67 per cent) ranked fifth. Moreover, the number of field level demonstrations to be conducted (42.50 per cent) ranked 6th and finally a greater number of training regarding to the innovated technologies should be given to the farmers (26.67 per cent) which got 7th rank among all the suggestions given by respondents.

Application of research: The beneficiary farmers need immediate attention of the IAMWARM project officials to enhance the socioeconomic impact on the farmers.

Research Category: Agricultural Extension

Abbreviations: PWD-Public Work Department

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Study area / Sample Collection: Tiruchirappalli District of Tamil Nadu

Cultivar / Variety / Breed name: Nil

Conflict of Interest: None declared

Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.
Ethical Committee Approval Number: Nil

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