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A study on awareness, knowledge and constraints of KAVIADP scheme in Theni District

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Abstract

Agriculture forms the foundation of India's rural economy, yet it faces ongoing challenges such as fragmented landholdings, soil degradation and water scarcity. To overcome these issues, the Government of Tamil Nadu launched the Kalaignarin All Village Integrated Agricultural Development Programme (KAVIADP), based on the traditional *Kudimaramathu* concept that promotes community participation in managing and restoring local water resources. This study was conducted in Theni district, where agriculture heavily depends on irrigation. A total of 90 beneficiaries were randomly selected from five villages across five blocks. Using an ex-post facto research design, data were collected through a pre-tested interview schedule and analysed using percentage analysis and Rank Based Quotient (RBQ) methods. Results showed that 97.80 per cent of respondents were aware of the scheme and 95.60 per cent had knowledge about the provision of seeds and saplings. However, only 65.60 per cent were aware of soil and water analysis. The main constraints identified were insufficient subsidy (RBQ = 64.12), lack of awareness (RBQ = 63.65), and limited knowledge (RBQ = 59.76). The study concludes that although KAVIADP has achieved wide awareness, inadequate financial support and weak information dissemination hinder its success. Strengthening awareness programs, improving guidance, and ensuring timely delivery of benefits can enhance the scheme's effectiveness and promote sustainable agricultural growth in the region.

Keywords: KAVIADP scheme, constraints, knowledge, awareness and RBQ

Introduction

Agriculture remains the cornerstone of India's rural economy, sustaining the livelihoods of millions and shaping the socio-economic fabric of the nation. Despite this, the sector continues to face persistent challenges such as fragmented landholding, declining soil fertility, water scarcity and limited access to modern infrastructure. To address these issues, both central and state governments have introduced targeted development schemes designed to strengthen agricultural productivity, improve resource management and ensure rural prosperity.

One such initiative introduced by the Government of Tamil Nadu is the KAVIADP. The scheme is built around the principle of *Kudimaramathu*, a traditional practice of collective action where communities take responsibility for the upkeep and restoration of local resources. Through KAVIADP, efforts are made to rejuvenate irrigation structures such as tanks, canals and water bodies, while simultaneously creating and supporting infrastructure that benefit farmers. The scheme also promotes participatory approaches to water use, capacity building of farming communities and better linkages with agricultural extension services (AED) [1].

The Theni District, located in the western part of Tamil Nadu, is predominantly agrarian and highly dependent on irrigation networks sourced from reservoirs, rivers and canals. The district is well known for cultivating crops such as paddy, cereals, pulses, oilseeds, Horticultural crops and commercial crops (Ponnuchakkammal *et al*.) [2]. Given this dependence, the effective implementation of KAVIADP is critical for sustaining agricultural livelihoods in the region.

While the scheme has considerable potential, its impact depends largely on three factors: the extent of awareness among farmers, their depth of knowledge regarding scheme components and the practical constraints they face in accessing benefits. Lack of awareness or inadequate understanding can prevent beneficiaries from taking advantage of the program, while institutional and operational barriers may further limit their reach.

This study, therefore, seeks to analyze the levels of awareness and knowledge of farmers regarding KAVIADP in Theni District and to identify the constraints that influence its implementation. By doing so, the research provides evidence-based insights that can help policymakers and extension agencies refine strategies to maximize the scheme's effectiveness and ensure that its benefits reach the

intended population.
Therefore, this study systematically examines:

1. The level of awareness among farmers about the KAVIADP scheme
2. The extent of their knowledge regarding the program's objectives, processes and benefits
3. The constraints and challenges encountered in accessing and utilizing the scheme

Methodology

The present research was purposively conducted in Theni district of Tamil Nadu, due to its comparatively higher number of KAVIADP beneficiaries, the significant implementation of the scheme as reported by the Assistant Director of Agriculture (ADA). Among the eight blocks in the Theni district, five blocks were selected *viz.,* Theni, Bodinayakkanur, Cumbum, Chinnamanur and Uthamapalayam. One revenue village was identified from each of these blocks, namely Unjampatti in Theni block, Maniyampatti in Bodinayakkanur block, Surulipatti in Cumbum block, Chinnaovulapuram in Chinnamanur block and T. Meenakshipuram in Uthamapalayam block. A total of 18 KAVIADP beneficiaries from each of the 5 villages, thus a total of 90 KAVIADP beneficiaries were selected randomly as a respondent for the study. expost-facto research design was adopted in this study. The data collection was done with the use of a well-structured and pre-tested interview schedule. The reliability of the data could be more in the interviewed method. The data collected were analyzed using techniques *viz*., Percentage analysis and Rank Based Quotient (RBQ).

Percentage analysis: It refers to a special kind of rates; percentages are used in making comparison between two or more series of data collected from the respondents. A percentage is used to show the relationship between the series.

Percentage = (No. of respondents / Total No. of respondents) × 100

The Percentage was calculated to measure variables. Percentage analysis was used in descriptive analysis for making simple comparison.

Rank Based Quotient (RBQ): The Rank Based Quotient (RBQ) analysis was utilized to analyze the data. Respondents were asked to rank the various constraints associated with the KAVIADP scheme based on their severity felt by them. The RBQ value for each constraint was calculated to determine and rank the most critical constraints experienced by the beneficiaries of the KAVIADP scheme (Gowdhaman *et al*., Managuli *et al*.) [3, 4].
The formula for RBQ is:

$$RBQ = \frac{\sum_{i=1}^{n} fi\ (n+1-i)\times 100}{Nn}$$

Where,
f_i = Number of respondents reporting a particular problem under i^{th} rank (Values vary with the respondents as they have different preferences when selecting a specific statement for a given rank. They range from 0 to 14)
N = Number of Respondents (90)
i = Rank given by the respondents
n = Number of constraints identified
The RBQ (Rank-Based Quotient) values typically range from 0 to 100.

Minimum RBQ Value: The minimum possible RBQ value is 0. This would indicate that constraint being evaluated is ranked the lowest by all respondents.

Maximum RBQ Value: The maximum possible RBQ value is 100. This would indicate that constraint is consistently ranked the highest by all respondents (Gowdhaman *et al*.) [3].

Results and Discussion

Awareness of the KAVIADP scheme

Table 1: Distribution of percentage of beneficiaries according to their awareness of important objectives of KAVIADP Scheme **(n=90)**

Sr. No.	Particulars	Frequency	Percentage
1.	Existence of KAVIADP	88	97.80
2.	Fallow land conversion	81	90.00
3.	Bore well construction	74	82.20
4.	Saplings provision	87	96.70
5.	Provision of fertilizers	76	84.40
6.	Provision of sprayers	70	77.80
7.	Farm pond construction	75	83.30
8.	Desiltation	74	82.20

The distribution of beneficiaries according to their awareness of the major objectives of the Kalaignarin All Village Integrated Agricultural Development Programme scheme were detailed in Table 1. Out of 90 respondents, majority of respondents were aware of the Existence of KAVIADP scheme (97.80%), which indicated that the program has achieved considerable visibility in the study area. Subsequently, 96.70 per cent of respondents were aware of the provision of saplings, followed by fallow land conservation (90.00%), provision of fertilizer (84.40%), farm pond construction (83.30%), bore well construction (82.20%) and desiltation activities (82.20%). Conversely, lower level of awareness was observed in relation to the provision of sprayers with 77.8 per cent of respondents indicating familiarity with this objective.

Knowledge of the KAVIADP scheme

Table 2: Distribution of percentage of beneficiaries according to their knowledge about important features of KAVIADP Scheme (n=90)

Sr. No.	Particulars	Frequency	Percentage
1.	Implementing agency	81	90.00
2.	Purpose of the scheme	83	92.20
3.	Conversion of fallow lands	79	87.80
4.	Construction of farm ponds	74	82.20
5.	Provision of seeds & saplings	86	95.60
6.	Provision of fertilizers	73	81.10
7.	Provision of sprayers	69	76.70
8.	Soil and water analysis	59	65.60

Table 2 indicated the distribution of beneficiaries according to their knowledge about important features of the Kalaignarin All Village Integrated Agricultural Development Programme scheme. It could be observed from Table 2 that 95.60 per cent of respondents have knowledge of provision of seeds and saplings, as the beneficiaries' received seeds and tree saplings through the scheme, followed by 92.20 per cent of respondents have knowledge about the purpose of the scheme. Around 90.00 per cent of the beneficiaries knew about implementing agency and 87.80 per cent knew about conversion of fallow lands into cultivable land which is one of the major objectives of this Scheme. The knowledge about the construction of farm ponds and provision of fertilizers was 82.20 per cent and 81.10 per cent among the beneficiaries respectively. Nearly three-fourth of the respondents had knowledge about the provision of sprayers. Out of the 90 respondents, only 65.60 per cent knew about soil and water analysis. The reason for the beneficiaries to have minor variations in their levels of knowledge on the important features of the KAVIADP Scheme can be due to lack of proper information flow from the extension officials to the farmers involved in the study area as the information seeking behavior of the beneficiaries is informal.

Constraints faced by beneficiaries of KAVIADP scheme

Table 3: Rank Based Quotient (RBQ) values and Ranking of the Constraints faced by the Beneficiaries of KAVIADP Scheme (n=90)

Sr. No.	Constraints	RBQ	Ranking
1	Lack of awareness about the scheme	63.65	2
2	Lack of knowledge about the scheme	59.76	3
3	Lack of awareness campaigns for promoting the scheme	57.78	4
4	Delay in process	50.00	10
5	Lack of guidance	53.33	7
6	Lack of motivation	48.49	11
7	Unavailability of benefits on time	55.40	5
8	Negative attitude of concerned officials	45.47	14
9	Providing low quality inputs	47.38	13
10	No construction of bore wells	50.63	9
11	No transfer of technology	47.61	12
12	Amount of subsidy is not enough to meet the requirements of the farmers	64.12	1
13	Lack of faith in farmers about the officials	52.06	8
14	Using the common bore wells for individual purposes	55.16	6

Table 3 revealed that the top constraint faced by beneficiaries is amount of subsidy provided through this scheme was not enough to meet the requirements of the farmers, with highest RBQ value of 64.12 and was ranked as first among the listed constraints. The subsidy amount was insufficient to fulfil farmers' needs, leading to financial strain and limiting their ability to invest in essential resources such as seeds, fertilizers and equipment. Accordingly, the Lack of awareness about the scheme was ranked second with an RBQ value of 63.65. There is general unawareness regarding the scheme, which means that many farmers are not informed about the available support and resources that could benefit them. The third rank was given to lack of knowledge about the scheme with an RBQ value of 59.76, indicating that even those who may have heard of it do not fully understand its benefits, eligibility criteria and application processes. Lack of awareness campaigns for promoting the scheme was ranked fourth with an RBQ value of 57.78. This can be due to the inadequate awareness campaigns to promote the scheme, which contributes to the low levels of understanding and engagement among farmers. Unavailability of benefits on time was ranked as fifth, as the benefits are not provided in a timely manner, which results in affecting the crop yield and income. The sixth rank was given to the usage of the common bore wells for individual purposes. This constraint creates water scarcity issues and limits the availability of irrigation for crops. The constraint in seventh place was lack of guidance. The eighth rank was given to the lack of faith in farmers about the officials. This discourages farmers from seeking assistance from the officials. The constraint which was ranked ninth was no construction of bore wells. Construction of bore wells in the clusters form was the primary function of this scheme. The difficulties in cluster formation led to the failure of construction of new bore wells led to the exploitation of the available water resources. The constraint Delay in process was ranked tenth. These delays lead to the missed opportunities for funding and resources. The constraints Lack of motivation, No transfer of technology, Providing low quality inputs and Negative attitude of concerned officials were ranked as eleventh, twelfth, thirteenth and fourteenth respectively.

Policymaking and suggestions

- To enhance the effectiveness of the KAVIADP scheme, the government should organize regular awareness campaigns and training programs at the village level. These initiatives should focus on explaining the objectives, benefits, and procedures of the scheme in simple terms.
- The subsidy amount should be revised and increased to meet the actual needs of farmers for inputs like seeds, fertilizers, and irrigation facilities. Moreover, the timely release of funds and benefits must be ensured through a transparent monitoring system.
- A strong support system involving extension officials, agricultural experts, and local bodies should be established to provide continuous technical guidance and motivation to farmers. Regular field visits, feedback sessions, and grievance redressal mechanisms will help build trust between farmers and officials.

Conclusion

Kalaignarin All Village Integrated Agricultural Development Programme (KAVIADP) has achieved strong visibility and awareness among beneficiaries. Most respondents were well informed about the scheme's objectives, particularly its focus on sapling provision and fallow land conversion, reflecting its positive impact on agricultural development. However, the beneficiaries faced several challenges such as insufficient subsidy amounts, limited awareness and knowledge, and delays in benefit distribution. These issues, along with inadequate guidance and weak promotional efforts, reduced the scheme's overall effectiveness. To improve the impact of KAVIADP, it is essential to enhance awareness campaigns, ensure timely delivery of benefits, and increase financial support. Strengthening extension services and communication between farmers and officials will further help in achieving the scheme's goal of sustainable agricultural growth and rural development.

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