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**“IMPACT OF AGRICULTURAL EXTENSION PROGRAMMES OF KRISHIBHAVAN
IN KERALA: CASE OF AGRICULTURAL FARMERS IN VELLAMGALLUR PANCHAYAT”**

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Title of paper :

Impact of agricultural extension programmes of Krishibhavan in Kerala: Case of agricultural farmers in Vellamgallur Panchayat

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Abstract

Keywords

Introduction

Agriculture in India has a long history dating back to nearly ten thousand year. In ancient time; farming means not just for food production or income generation but it was a way of life. However, in the course of development agriculture, the means of livelihood of almost two-third of the work force in the country has been revolutionized by the Green Revolution. That has also changed India's status from a starving nation to one of the world's leading agriculture nation. Though, the green revolution proved a boon for hungry India, it has created severe consequences on our ecosystem and its sustainability.

Within India, the state of Kerala stands apart in respect of its sensitivity to changes in the national and international environment. Its agriculture is marked by a series of agricultural micro environments suited to different kinds of mixed farming, and by a large proportion of perennial crops in its total agricultural output. More than 80% of

the agricultural products of the state are dependent on the home and international markets. Coconut and rubber together account for one half of the cultivated land and two thirds of the value of gross income generated by the crop sub-sector. The export crops of the state together account for one tenth of the cultivated land and a quarter of the income from the crop sub-sectors.

Statement of problem

The number of Krishibhavans has been growing continuously since inception in 1957. However, their quality of work and its impact needs to be given some attention. Indian farmers face multitude of problems before independence and also after independence. The former is due to colonial exploitation and later due to middlemen exploitation. Indian agriculture is plagued by several problems and some of them are man-made .The major problems are; seeds availability, lack of irrigation, lack of mechanization, soil erosion, agriculture marketing etc. The important problems noted in this study are; how the cost and benefit aspects of agriculture activity is analyzed and what is the role of panchayat on agriculture development. These issues become the core of the present study entitles “Impact of agricultural extension programmes of Krishibhavan in Kerala: Case of agricultural farmers in Vellamgallur Panchayat”.

Objective

- ✓ To evaluate the utilization pattern of agriculture schemes by farmers.
- ✓ To identify the problems faced by farmers in the selected sample benefits from the programmes.
- ✓ To examine the effectiveness of Agriculture schemes among the farmers in Vellamgallur panchayat.

Methodology

Both primary and secondary sources are used for data collection. The study was conducted in 2nd, 10th and 12th ward of Vellamgallur panchayath. A structured questionnaire was prepared and 50 household with farmers were interviewed. Primary data were also collected from the Agriculture officer and the ward member in that area. Secondary data were collected from Krishibhavan, panchayath and various articles.

Agricultural extension programmes in India

The agriculture sector contributed 51.9 percent to India's GDP in 1950. Since then it has been on a downside and it currently stands at 13.9 percent. However, a change from an agrarian-centric economy to an industry-centric economy is inevitable with the advent of industries. Living in a country where the cattle are worshipped as a goddess, about 60 percent of the population was banking on agriculture for their main source of income during the 1950s. Despite half of the population still continuing with the profession, the returns are low. While urbanization might be cited as a reason, it is hard not to neglect the fact that agriculture is no more a profitable sector. Infrastructure costs have started running high, with its maintenance cost and capital investment only adding on to the farmers' misery. Another cause for low productivity is small holdings of land with farmers. By owning a fragmented land, effective irrigation and optimum usage of fertilizers for crops becomes difficult, thus resulting in lower yields. In India, more than two-thirds of the crops lack proper irrigational facilities, albeit India being the second largest irrigated country after China. But improper irrigation can also lead to other problems affecting yield like soil erosion, salinity, etc.

Agriculture development in Kerala

Kerala was predominantly on agriculture land. The land of Kerala is believed to be a Gift of the Arabian Sea. Kerala agriculture includes many cash crops like coconut, tea, rubber, coffee, pepper, cardamom, cashew, areca nut, nutmeg, ginger, cinnamon, cloves etc which gives a diverse nature to the agriculture in Kerala. Agriculture Kerala started on the banks of rivers and later spread to hills and mountains. Kerala is blessed with abundant supply of water from its rivers, lakes and ponds. Kerala soil is highly fertile and there is thick growth of vegetation across the length and breadth of Kerala.

The most essential or the staple crop is the paddy. About 600 varieties of rice are grown in the sprawling paddy fields of Kerala. In fact the Kuttanad region of the district of Kerala is known as the 'rice bowl of the state' and enjoys a significant status in the production of rice. Next to rice is Tapioca and is cultivated mainly in the drier regions. Tapioca is a major food of the Keralites. Besides production of the main crop, Kerala is also a major producer of spices that form the cash crops of the state. Kerala produces

96% of the country's national output of pepper. The important spices are cardamom, cinnamon, clove, turmeric, nutmeg and vanilla.

Krishibhavans: Genesis and function

The concept of Krishibhavan was introduced by state government in since 1987. The basic premise for the initiation of this concept was the realization of authorities on the need to make planning and agriculture development more location –specific by taking the panchayath as basic unit for all development work. Under this principle, the department of agriculture was reorganized with the panchayath as the basic working unit. By establishing one agricultural unit for every panchayath, it was hoped that making production inputs and integrated services available to farmer in time production and productivity of crop would be enhanced. Krishibhavan is the government in body in India undertaking by department of agriculture in various states. Krishibhavan deals with the formulation of various state government programmes to augment production of both food crops and cash crops in the state.

The growth and development of the agricultural sector in Kerala is unique in many ways. Over the year, the state has transformed itself from a producer state in to consumer states with respect major essential agriculture commodities like food grains & vegetables. It is estimated that Kerala depends on the neighboring states for nearly 60% of the rice, 80% of vegetables consumed annually. Another major feature of Kerala agriculture is home stead system of cultivation which has taken a variety Forms: inter cropping, mixed cropping of perennial & annual crops, mixed farming of different types such as crop-livestock& crop-livestock-fish. In consequence the income per unit area of cultivation remains high. The cropping pattern of the state has undergone a major shift from food crops towards commercial crop since 1960.

All agriculture activities covering extension and development were included under the jurisdiction of these base units. Through this arrangement ,provision of a single window approach for agriculture development in the state, by integrating and coordinating the existing agriculture development activities which were scattered under different project like KADP,KAEP,&CRS was also aimed at thus different individual project for different crops were brought under one roof with the introduction of Krishibhavans. The integrated approach had also aimed at providing adequate credit to

the farmers .Budgetary resources available for agricultural development were quite meagre, necessitating a reconsidering the magnitude of demand. It was realized that the strategy of agricultural development should focus on credit-linked programmes and provision of credit was accepted as a major activity of the department. For this purpose, it was decided to utilize the strong rural credit structure available in the state.

The sustainable development of any sector calls for planned, optimum use of available resources. Keeping this in view, The Krishibhavadans were expected to ensure the best possible use of resources endowment of each region by planning and implementing location specific development programmes with the active involvement of the people. People's participation implied participation at all stages of the programme viz planning, Formulation, Implementation, Decision-making, Sharing the Benefits of development, Monitoring & Evaluation.

Functions of Krishibhavadans:

- ✓ Planning and implementing programmes for agriculture development, taking the panchayath as the basic unit.
- ✓ Involving the farmer in planning & implementing of agriculture programmes.
- ✓ Creating the basic infrastructure necessary for improving the production & productivity of crops.
- ✓ Planning optimum use of available land, water, and solar energy.
- ✓ Formulating location-specific programmes for agricultural development and channeling institutional finance.
- ✓ Ensuring the timely availability of relevant technology, inputs & credit to farmers & organizing community efforts among them for agriculture operations.
- ✓ Bestowing special interest in the case of crops under cultivation in certain pockets of the state which have not received adequate priority and attention.
- ✓ Changing the style of functioning of the field officers and the farmers through recognition of outstanding performance.
- ✓ Enabling the farmers to secure remunerative prices for their produce by promoting collection, storage, Processing & Marketing on co-operative basis through organized efforts.

- ✓ Monitoring the progress of agricultural development in each panchayath based on physical achievement on regular basis.

Vellangallur Panchayat: An over review

Vellangallur is a grama panchayath situated in Thrissur district, Kerala, India. The nearest towns are Irinjalakuda, Kodungallur and Mala. Main highlight of the village is the junction between two main roads, which are Trissur - Kodungallur State Highway 22 and Chalakudy Mathilakam Road connecting NH17 and NH47.

Total Population	32,846	Male:15,599
		Female: 17,247
Total Area	26.61 Sq.km	
Total Wards	21	
Literacy	88.19%	Male: 93.22%
		Female: 83.76%

Source: Census 2011 (Panchayat Record)

Krishibhavan of Vellamgallur panchayat deals with the formulation and implementation of various programmes to augment production of both food crops and cash crops in place. It undertakes activities among farmers to promote scientific method of cultivation plant protection etc and also arranges the supply of high-yielding varieties of seeds, seedling, planting material and plant protection chemicals to farmers. The basic objective of this krishibhavan is to “Right information to the right person at right time in the right place”.

Coconut, Tapioca, Paddy and Plantain are the major agriculture commodities in the village. 23hrs agriculture power supply in summer and 24 hrs agriculture power supply in winter are available to the farmers. Total irrigated area in this village is 1521.5 hectares. Canals, River and pipe irrigation are the main source of irrigations.

Major findings of the study

The major findings of the study can summarized as follow:

- ✓ Agriculture is the primary occupation of the respondents and 48 percent of the respondent except have no secondary occupation. 30 percent of the samples have other jobs than

agriculture and the remaining 22% of the respondent are earning income from agriculture pension.

- ✓ Young and educated people are least interested in agriculture employment. The survey depicted that farmers in this field dominated those from the 60-80 Age group.
- ✓ Further to know operation of land holding the data is grouped accordingly 4 categories that is marginal land holding, small land holding, semi-medium land holding and medium land holding. 44% of the respondents were grouped in to small and semi-medium land holding. The 10% of the respondent categorized in to medium land holding and marginal land holding.
- ✓ The present study also finds that majority of farmers have garden land holding i.e., 46% of the farmers are using garden land. 22% are using wetland. Remaining 32% are using garden and wet land together.
- ✓ The analysis shows that 86% respondent are using their own land for cultivation and remain 16% of respondent use rented land.
- ✓ The experience of composition of the farmers revealed that 40% of farmers have 20-40 years of experience.
- ✓ The study reveals that social participation of farmers in Vellamgallur panchayat, it was witnessed that 32% of the respondent were attending grama Sabha. These farmers are participating regularly and occasionally in the gramasabha. The membership in the krishigroup accounted for 4%. 48 % of the respondent participating both gramasabha and Krishi group. 16% of the respondent is not contributed in their social participation.
- ✓ The study reveals that, majority of the respondent are depending agriculture officer. 28.9% of respondent get information from agriculture officers. 28.13% of the people using information from television. 26.56% respondent were attaining information from newspaper. 16.10% of the respondent are utilizing radio for receiving information.
- ✓ On the basis of this study, 42% of the people get plant protection equipment from krishibhavan. Another 48% of the respondent does not get any plant protection equipment from krishibhavan.
- ✓ In this study, in this area people are affecting irrigation problem. 41.48% depending well use their crop irrigation. 40.59% of farmers are using canal for irrigation [it is not proper method]. 18% of the farmers are using modern irrigation facilities.

- ✓ It can also be understood from the study that the number of 46.83% of the respondents are producing perennial crop. 41.77% of the respondent producing annual crop. Other 11.39% of the respondents are cultivating seasonal crops.
- ✓ The study reveals that 42% of the respondent get relief fund and remain 58% of the respondent does not get any relief fund for their crop loss.
- ✓ On the basis of this study, majority of respondent purchase agriculture input purchase from K.H.T.P 38%. 26% of the farmers are purchasing input from co-operative market. 22% respondent utilizing Krishibhavan for purchasing input. 14% farmers used eco-shop for purchasing input like seed, fertilizer, pesticide etc.
- ✓ The study reveals that, government introduced various schemes for agriculture development in Vellamgallur panchayath. 28% of farmers are engaged in Banana cultivation. 22% of the participating Jathi villa paripalanam. 20% of the respondent involved in vegetable development scheme. 18% of the respondent engaged in Tegu villa paripalanam. 12% to be involved in paddy development scheme .In this study find that majority of farmers are involved in banana development scheme. Very less farmers are to be involved in paddy.
- ✓ In this study area, 44% of the farmers are selling their product to village merchant, 18% of farmers are selling output to big cultivator. 38% of respondents are selling their product to co-operative market.
- ✓ The study revealed that co-operatives are contributing 55% of the fund required by the farmers to meet the cost of cultivation. Banks play a substantial farm credit in study area. It is found that 14% of the farmers are investing their hard earned saving on their farm improvement.
- ✓ The present study revealed that the attitude towards performance of Krishibhavan is satisfactory according to 54% of the farmers. That the 46% of the farmers are dissatisfied, but they also opined that they need to vast improvement in krishibhavan function.
- ✓ The present study reveals that, the farmers total expenditure day by day increase. Majority of the respondent that is 48 percent have expenditure above 100000 lakh.
- ✓ Total cost of production of the farmers is increasing and their profits are meager.

Conclusion

The study entitled “Impact of agricultural extension programmes of Krishibhavan in Kerala: Case of agricultural farmers in Vellamgallur Panchayat” is a case study of Vellamgallur panchayat in 2018-2019. All agriculture development schemes are enjoyed by majority of sample house holds. Krishi bhavan, is very often failed in identifying the right beneficiary or in giving proper motivation or training to the target group. It is understood that majority of the people engaged in banana development scheme and vegetable development scheme.

The survey find that most of the families are recipient of subsidies and grants. There is a financial intervention or involvement through various bank or even co-operative bank. Most of the people are participating gramasabha and various krishigroup.

The influence of socio-economic factors on over dues were checked and found that income, age, occupation, cost of cultivation, profit etc. having a direct relation is overdue the problem. Even if over dues existed in the borrowers, the study revealed that the short term agriculture loan to the farmers has helped the borrower their annual income. Another findings of the study that farmers get high profit from Arcanut, coconut, cardome etc, expenditure of these crops are low. It was clear from the study that as the cost of production increase the level of output decreased.

Suggestions and recommendations

Constraints derived during the discussion with the farmers

On the basis of the present study there are a few suggestions or recommendation for development of agriculture.

- ✓ Harmful chemicals pesticides should be replaced effective bio-pesticides.
- ✓ Farmers are to be provided with tapioca stems of high yielding.
- ✓ Indigenous paddy seeds are to be preserved. Because farmers cannot keep seeds for future cultivation from hybrid varieties.
- ✓ Essential agriculture machines and implements have to be given for the karma Samadhi.
- ✓ For proving a trust to agricultural activities of farmers, eco-shops have to be started. Sufficient infrastructure facilities which include the building on lease are to be provided for eco-shop with the help of local self government concerned.
- ✓ Improve the irrigation facility and introduced new techniques for irrigation.

- ✓ Start value added production units in the panchayat.
- ✓ Preserve natural irrigation resource.
- ✓ Provide bank credit to farmers at low rate of interest.
- ✓ Ensure food security and increase agriculture production.