



Socio-economic Analysis of Kalyanipuram Village of Pudukkottai District Using Participatory Rural Appraisal by RAWE (Rural Agricultural Work Experience) Programme Students, ADAC&RI (Anbil Dharmalingam Agricultural College and Research Institute), Trichy

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Authors' contributions

This work was carried out in collaboration among all authors. Author PK designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors MSA and GV managed the analyses of the study. Author MS managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Participatory Rural Appraisal as an approach and methods for learning about rural life and conditions from rural people. Due to many revolutions held in the field of agriculture, it changed its way of doing practice into a more scientific way. The technology of doing agriculture was improved from its conventional way. Many challenges have been noticed and they have been suppressed at

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its best. But even though some problems are raised at farmer's field which is unable to reach brainstorming desk of scientists. This is because the real need of farmers is very minimally noticed and ground-level exploration is lacking in this due to many reasons. The suggestions and remedies to their problems should be at their frequency of understanding. In this process, we have achieved a model problem shooter and its way of solving the farmer's problems at ground level and helping the farming community more understandably. This model can be practised for having a lively experience of getting infiltrated into the village activities and rural routine.

Keywords: RAWE students; ADAC&RI; participatory rural appraisal; social-financial method; Kalyanipuram village; Pudukkottai.

1. INTRODUCTION

Participatory Rural Appraisal (PRA) as an approach and methods for learning about rural life and conditions of the rural people. Its extend into analysis, planning and action. PRA closely involve villagers and local officials in the process. The main motto of this participatory rural appraisal is to find all the possible resources and other basic institutional elements in the village and an imitational map was drawn on the ground by making villagers actively participating. After preparing map some of the methodologies are used to interact with villagers which help us get the real essence of the village condition and their unfelt problems can be observed and root level cause can be identified which helps us to find the solution quickly and specifically.

Anbil Dharmalingam Agriculture College and Research Institute, Trichy is a pioneer Institute in its Education, Extension and Research Activities towards farming community. We have undergone a Rural Agricultural Work Experience Programme from 23rd September 2019 to 21st December 2019 in our 4th year of B.sc Agriculture and we were attached to the Krishi Vigyan Kendra, Vamban to guide our activities. We have selected Kalyanipuram Village at Thiruvarangulam block to carry out our participatory rural appraisal. We have approached every farmer to have their involvement in this activity.

2. MATERIALS AND METHODS

2.1 Tools used for Conducting Participatory Rural Appraisal (Fig. 1)

2.1.1 Village resource map and social map

The Village Resource Map is was a tool that helped us to learn about a community and its resource base. The primary concern was is not to develop an accurate map but to get useful information about local perceptions of resources.

We have developed the content of the map according to what was important to them. The social map is a map that is drawn which showed the social structures and institutions found in an area. It also helps us to learn about social and economic differences between the households.

2.1.2 Venn diagram and seasonal calendar

The Venn diagram on Institutions showed institutions, organizations, groups and important individuals found in the village, as well as the villager's view of their importance in the community. A seasonal calendar is a participatory tool to explore seasonal changes.

2.1.3 Daily activity clocks and time series analysis

Daily Activity Clocks illustrated all of the different kinds of activities carried out in one day. They are particularly useful for looking at relative workloads between different groups in the community. Comparisons between clocks showed who works the longest hours, who concentrates on a few activities and who didoes several tasks in a day, and who has the most leisure time and sleep. Time series analysis helped to know the history of agriculture and cropping pattern and by that we assessed their efficiency of doing agriculture at present when compared to past.

2.1.4 Semi-structured interview and focus group discussion

Semi-Structured Interview helped us to know the individual family condition and their socio-economic status. Focus Group Discussion helps to have a meaningful discussion of the village condition and its problems. This helped to bring new ideas in the discussion.

2.1.5 Transect walk and informal talk

Transect walk helped to directly feel and experience the village issues by having a walk across the village and observing the things.

Informal talk among the villagers helps and to get cope with the villagers and make them very free share their issues and conditions of their living.

taken about their most problematic issues faced by them and ranked them based on their severity. This helped in allocating the major problem triggered in the village. Making regular visits to the village helps us to forecast their system of doing work and nature of the mentality among them and also towards the innovation.

2.1.6 Priority matrix and making regular visits

Priority matrix was subjected to all the farmers who took part in the activity and their opinion was



Fig. 1. Tools used for conducting participatory rural appraisal

3. REVIEW OF LITERATURE

Robert [1] describes PRA as a growing family of approaches and methods to enable local people to share enhance and analyze their knowledge of life and conditions, to plan and to act. His applications of PRA include natural resources management, agriculture, poverty and social programs, and health and food security. He has defined PRA as an approach and methods for learning about rural life and conditions from, with and by rural people. He further stated that PRA extends into analysis, planning and action. PRA closely involve villagers and local officials in the process [2].

Loader's, et al. [3] suggested that there are methods which, if sensitively incorporated into the PRA framework, can add value to current PRA-based studies, without compromising the ownership of the research or the validity of the outputs. He revealed that PRA and its forebears have for some time incorporated quantification or classification techniques such as matrix ordering or ranking (with considerable success), but with only limited incorporation of more complex analytical tools [4].

Maalim [5] said that an innovative approach to data collection is participatory research. His philosophy is that the researcher is required to acknowledge and appreciate that the research participants have the necessary knowledge and skills to be partners in the whole research process. Illuminating data were collected in late 1999 using PRA techniques, which underscored the Somali community's perception of the

healthcare services and how they could be improved to suit their nomadic lifestyle.

Burton [6] revealed that the power and popularity of PRA are partly explained by the unexpected analytical abilities of local people when catalyzed by relaxed rapport, and expressed through sequences of participatory and especially visual methods. Evidence to date shows high validity and reliability of information shared by local people through PRA compared with data from more traditional methods. Explanations include reversals and shifts of emphasis: from closed to open, individual to the group, verbal to visual, and measuring to comparing; and from extracting information to empowering local analysts.

4. RESULTS

After having a detailed study and keen observation on the 50 villagers of participatory rural appraisal we have inferred the following aspects about the village. The details regarding the socio-economic status of 50 families are given in Table 1. In Kalyanipuram Village consists of too many marginal and small farmers. Out of 50 farmers, 30 (60%) have a land holding of below 2.5 acres and 18 farmers (36%) have land between 2.5 to 5 acres. A literacy level among the community was is moderate. Of the total 50 families studied in Kalyanipuram Village 29 (58%), 15 (30%), 4 (8%) and 2 (4%) had qualified up to the primary, secondary, higher secondary and higher education respectively. In Kalyanipuram village 36 (72%) of the farmers had a low income of less than Rs. 50,000, while 11 (22%) had the middle income of Rs. 50,000-2,00,000 and only 3 (6%) farmers had a high income of above Rs. 2,50,000 respectively.

Table 1. Socio-economic status

Type of farmers	Marginal farmers (<2.5 Acres)	Small farmers (2.5-5 Acres)	Medium farmers (5-10 Acres)	Big farmers (>10 Acres)
	30 farmers 60%	18 farmers 36%	2 farmers 4%	No farmers 0%
Literacy levels	Primary education (1-5 th)	Secondary education (6-10 th)	Higher secondary (11-12 th)	Higher education (Degree)
	29 58%	15 30%	4 8%	2 4%
The income of the family head	Low income (<50,000)	Medium income (50,000-2,00,000)	High income (>2,50,000)	
	36 72%	11 22%	3 6%	

5. DISCUSSION

Living conditions were are not very sound and it is very but simple. The farming activity was reduced among the community over the years due to the decline in the interest as a result of ill effects of the climate. Very small landholdings were observed. Monocropping is a drawback among these village farmers which gives returns after a long time. Many farmers are turning into labourers and making money in many government schemes. There is no awareness among farmers about agricultural-related schemes and its outcome. Diversity of crop is very narrow which results in prolong insect and pest damage. The very conventional type of farming is practised and innovativeness among the farmers is yet to be seen. Identified Problems are no post office, No Hospital, No bus facilitates, improper maintenance of irrigation channels, No storage facilities for agriculture produce, No Input stores for agriculture, Labour shortage and Insect and pest damage in fields.

6. FUTURE PLAN

By analysing the problems in Kalyanipuram village, we carried out the village development plan. It involved, Tthe organised FPGs should develop as FPO so that collective farming can be done either in the marketing of their produce, value addition, running input stores, seed production etc.. Adopting Integrated Technology in Agriculture for Pest and Disease Management. Implement Swatch Bharath Mission on large scale for better sanitation. Common threshing floor to thresh and roll bundler of hay and means of transportation for sale. Opening of fertilizer and pesticide shop so that inputs are available on time and in case of serious pest attack. Construction of ATM so that they get cash when needed. Construction of storage tanks so at the water is available in times of scarcity from February to May. Encourage women to form Self Help Groups and engage them in activities like basket weaving and mushroom production. Construction of minor irrigation channels and renovation of existing channels. Construction of public toilets to improve sanitation in the village. Utilizing the Azolla production scheme to farmers having livestock given by MGNREGS Scheme. Proper maintenance of common vermicompost production unit constructed by MGNREGS. Many of farmers have a common problem in jasmine. The problem is insect damage in flower buds. We have suggested a few practices which will

reduce crop damage and helps in increase in yield.

7. CONCLUSION

These were are issues and solutions that we felt to have a better and healthy way of living in kalyanipuram village. This participatory rural appraisal has helped us to have a booth level diagnosis about every problem and its root level solution. This activity created a peculiar feeling and different experience with farmers. In spite of growing technology farmers are having many questions without an answer. Every agriculturist should strive for well being of farmer agriculture across the world. We hope our work might help this village to get out of constrains and be a model blueprint for a successful agricultural village.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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