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**A study on farmer's constraints in accessing technology
in Pudukkottai district**

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Abstract

The Indian public agricultural extension system is one of the largest knowledge and information dissemination institutions in the world. Several efforts have been made in the system over the past to transfer the farm technologies from lab to land. Still there exists the yield gap between research stations and farmers' field. The information gap remains high which resulted in the declining farm productivity and stagnating farm incomes. The present study was conducted in Pudukkottai district to identify the farmers' constraints in accessing technologies. PRA technique was carried to document the constraints among the respondents. More than 84 per cent of the farmers reported that there was lacking in conduction of demonstrations and exposure visits by the extension officials in their village. A vast majority (81.81%) felt that there is no coordination among the developmental department officials.

Keywords: Participatory rural appraisal (PRA), farmers, technology access

Introduction

Technology transfer is the process of movement of technology from one entity to another. The transfer may be said to be successful if the receiving entity, the transferee, can effectively utilize the technology transferred and eventually assimilate it. The provision and delivery of agricultural extension and advisory services to small and marginal farmers remain the important elements of extension reforms in the developing countries. In India, the agricultural extension system played a critical role during the Green Revolution period. Yet, the challenge of enhancing relevance, efficiency, and effectiveness of the public sector agricultural extension system in meeting its organizational goals and objectives remains unresolved (Ujjwal Kumar *et al.*, 2012) [6]. While investments in research and extension have increased in recent years, their impact on smallholder farmers' livelihoods remains debatable. Even when these investments may address relevant problems of the farmers, the benefits of improved technologies will not fully accrue to the farmers.

Reaching farmers who search for information require different content, approach and delivery mechanisms, as they have different information needs and rely mostly on interpersonal sources (Kiran Pant and Ummed Singh, 2015) [2]. Targeting smallholder farmers, who have low agricultural income, is important as they search less for information. These farmers mostly lack motivation and interest in agriculture, so improving the timely delivery and reliability of information will be important to encourage them to improve their information search strategies. In this context, focus on Small and Marginal farmers is essential because out of total 81.18 lakh farmers in the state, small and marginal framers, owing lands from 2.5 acres to 5 acres account for 15% of the farmers' population whereas marginal farmers with less than 2.5 acres, accounts for 77%. The challenge for smallholder farmers in India is typical.

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These farmers tend to have minimum access to information (Kumar, M. R. N.; Rathakrishnan, T., 2016) [3].

Participatory Rural Appraisal (PRA)

Participatory Rural Appraisal (PRA) is the analysis and interpretation of their own situation of a given rural areas. The local people i.e. the participants take a leadership role in collecting, analyzing, interpreting and presenting information and in this process impart knowledge and development insight to the specialists and extension agents. PRA approach embodies a whole range of techniques which when used reveal valuable information and in the process impart knowledge and development insight to the specialists and extension agents.

PRA approach embodies a whole range of techniques which when used reveal valuable information/data on the resource and skills existing in the village, wealth structure and dynamics of caste and class. For management of natural resources, PRA is conducted to establish rapport with the village community as well as to identify and define problems for prioritization in the village itself. It is a way of learning from and with community members to investigate their need assessment, analyze and evaluate constraints and opportunities and find out priorities in the area of agriculture small scale rural enterprises and any other social and economic development programs addressed to village development. Based on the principle of listening and learning, PRA is the technique of immediate analysis and survey of village resources for participatory micro-planning and development.

Materials and methods

A PRA study was conducted in among 33 respondents of Thirumalairayasamuthram village of Pudukkottai block in Pudukkottai district (Fig.1 and 2). The village was selected purposively keeping the compactness and in consultation with the filed extension officials of the State Department of Agriculture and the subject matter specialist in KVK, Vamban. The general issues and constraints in accessing technology by the farmers were recorded using ranking method. PRA tools like resource map, problem tree, mobility map, seasonal calendar were used for collection of general profile of the village along with data collection using well-structured interview schedule.

Results and discussion

The general problem as expressed by farmers through PRA Activity is listed out in the Table 1.

It is inferred from table 1 that depletion of ground water table (81.80%) mainly due to the variation in monsoon which results in non-availability of water and also over utilization of water by the people. The Government is also providing free electricity to farmers, poor maintenance of conventional water bodies namely pond, tank, lakes etc., may also be the reasons for declining of water tables in the study location. The major issues as shared by the farmers are inadequate portable drinking water facility (75.50%), non-availability of primary health centre (72.70%), Lack of employability (60.60%) and Non availability of vegetable and grocery shop (54.50%).

Table 1: General Problems expressed by farmers through PRA Activity (n = 33)

Sl. No	General Problem	Number	Percent	Rank
1.	Declining of ground water table	27	81.80	I
2.	Non availability of portable drinking water	25	75.50	II
3.	Non availability of primary health centre	24	72.70	III
4.	Illiteracy	16	48.40	VII
5.	Absences of higher Secondary school	13	39.30	VIII
6.	Lack of proper transport facilities	17	52.00	VI
7.	Lack of employability	20	60.60	IV
8.	Non availability of vegetable and grocery shop	18	54.50	V

Table 2: Farmers' constraints in accessing technology (n = 33)

Sl. No	Constraints	Number	Percent	Rank
1.	Improper and lack of detailed scheme information with subsidy component	22	66.66	V
2.	Schemes and programmes are abruptly closed and no follow-up mechanisms	24	72.72	III
3.	Lack of demonstrations and exposure visits	28	84.84	I
4.	In adequate field visit by extension officials	19	57.57	VII
5.	Lack of coordination among the development department officials	27	81.81	II
6.	Poor distribution of short and medium term loan	14	42.42	VIII
7.	In sufficient coverage of crop insurance	21	63.63	VI
8.	Biased distribution of farm inputs and machineries	14	42.42	VIII
9.	Non availability of essential farm inputs in Agricultural depots at the crop season	23	69.69	IV



Fig 1: Tamil Nadu Map



Fig 2: Pudukkottai Blocks Map

Farmers’ constraints in accessing technology

From the table 2, it is noticed that more than 84 per cent of the farmers were reported that there was lacking in conduction of demonstrations and exposure visits by the extension officials in their village (R.P. Singh, 2012) [4]. Due to non-availability of fund, the scheduled demonstrations and exposure visits may not performed. More than three by fourth

(81.81%) of the respondents were considered that there is no coordination among the developmental department officials. The various development departments like Agriculture, Horticulture, Marketing, Engineering, Seed Certification and University is not implementing the coordinated format programmes at the block level. Each department has its own target and meeting the same farmer for different purposes.

Nearly three by fourth (72.72%) of the respondents feel that the schemes and programmes are abruptly closed because the extension officials mainly focussed on achieving the targets. They used to stop the follow up mechanisms after achieving the targets so the farmers vacillate to use and continue the schemes. Nearly half (57.57%) of the respondents noted that there is an inadequate field visit by extension officials. The extension officials weren't visited their respective areas at correct time because they have lots of work in the office itself like records maintaining, monthly report preparations and also they forced to visit more areas within a short span of time. The other ToT problems were, improper and lack of detailed scheme information with subsidy component (66.66%), poor distribution of short and medium term loan (42.42%), essential farm inputs were not available in agricultural depots at the crop season (69.69%), farm inputs and machineries were distributed to the farmers who were favour to the extension officials (42.42%).

Conclusion

The agricultural growth rate in the past 20 years has been visibly less impressive and the productivity in the agricultural sector continues to be low compared to the international standards. During the past ten years, the central government has recognised the need to converge and integrate extension activities at the district level and has implemented a major reform in extension (Suresh C. Babu *et al.* 2017)^[5]. It aims to achieve this through the institution of Agriculture Technology Management Agency (ATMA). While this is viewed as a huge innovation in agricultural extension system, it is also not without implementation and organizational challenges. Thus for translating research results into tangible gains at farm level, well-functioning agricultural extension and advisory services are required (E. Mettepenningen, *et al.* 2011)^[1]. The movement may involve physical assets, know-how, and technical knowledge. Technology transfer in some situations may be confined to relocating and exchanging of personnel or the movement of a specific set of capabilities.

Reference

1. Mettepenningen E, Beckmann V, Eggers J. Public transaction costs of Agri-environmental schemes and their determinants-Analyzing stakeholders' involvement and perceptions, *Ecological Economics*. 2011; 70(4):641-650.
2. Kiran Pant, Ummed Singh. Need for revamped Extension Approaches to overcome the constraints in transfer of technology, *Indian Research Journal Extension Education*. 2015; 15(1):109-111.
3. Kumar MRN, Rathakrishnan T. Performance of a farmer's interest group in Tamil Nadu, *Journal of Extension Education*. 2016; 28(4):5775-5779.
4. Singh RP. Ground Realities of Agro technologies Transfer: Points for Intervention, *Indian Research Journal of Extension Education Special Issue*, 2012, 1.
5. Suresh C Babua, Joshi PK, Claire J Glendenning, Kwadwo Asenso-Okyere, Rasheed Sulaiman V. The State of Agricultural Extension Reforms in India: Strategic Priorities and Policy Options, *Agricultural Economics Research Review*. 2017; 26(2):159-172.
6. Ujjwal Kumar *et al.* Status and Constraints of Extension Services, ICAR Research Complex for Eastern Region, Patna, 2012, 479-492.