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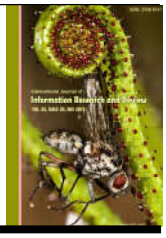

Research Article

IMPACT ASSESSMENT OF EXPOSURE VISITS AND FEEDBACK OF ATMA STAKEHOLDERS

[1,*]Premavathi, R. and [2]Kalaivani, S.

[1]Programme Coordinator,ICAR-KVK, Thirupathisaram,
[2]Assistant professor (Agril. Extn), Echankottai

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ABSTRACT

The present study was conducted purposefully in selected block of Periyanacikenpalayam of Coimbatore district in order to assess the impact and feed back of exposure visit of ATMA stakeholders with the sample size of 105 respondents of ATMA stakeholders. The numbers of respondents for each category of exposure visits namely within the district, within the state and outside the state were selected by simple random sampling method. The results of the study revealed that more than eighty per cent of the farmers felt that the exposure visits were need based, fulfilled the subject matter, self confidence, decision making capacity, leadership quality and skill were increased greatly through exposure visit. This might be due to the fact that farmers may have an opportunity to discuss freely with their fellow farmers and scientists about the new technologies or practices exposed during the visits and which might have them an idea to modify or adopt the existing practices. Further it could be provided an opportunity to see the results, performance, their economic advantage and market value of new technologies or practices exposed during the visits.

INTRODUCTION

India's agricultural extension system is seen many innovations since its evolution. Since independence, the extension system has focused on four major strategies, reflecting the dominant agricultural and rural development goals during each period. Looking back, the evidences suggest that investments in agricultural research and extension have served the country well, particularly in achieving the food self-sufficiency (Singh et. al, 2005a). Launching of T&V Extension system in 1974–75 on a pilot basis in the Chambal Command area of Rajasthan and Madhya Pradesh was an important milestone in the history of extension. The basic premise was that there was enough technology available awaiting diffusion and adoption by farmers. Based on positive feedback, the project was further extended to 17 other states in 1978–79. Thus the Community Development Project's multi-purpose approach was replaced by a single-line of command extension system that focused on the major food grains toward the national goal of food security. In mid-1990s, the Govt. of India and the World Bank began exploring new approaches to extension that would address these system problems and constraints resulting in new, decentralized extension approach, which would focus more on diversification and increasing farm income and rural employment. The central institutional innovation that emerged to address these system problems was the Agricultural Technology Management Agency or "ATMA" model that was introduced at the district level to:

- Integrate extension programs across the line departments (i.e., more of a farming systems approach),
- Link research and extension activities within each district, and Decentralize decision-making through "bottom-up" planning procedures that would directly involve farmers and the private sector in planning and implementing extension programs at the block and district-levels.

ATMA in TAMILNADU

In order to involve farmers' groups in planning and implementation and empowering them to achieve best results in transfer of technology, a centrally sponsored scheme to support State Extension Reforms has been implemented in Tamil Nadu on Pilot basis in 9 districts covering 133 blocks through Agricultural Technology Management Agency (ATMA) with, funding pattern of 90:10 between Government of India and Tamil Nadu State Government.

Corresponding author: Premavathi, R.,
Programme Coordinator,ICAR-KVK, Thirupathisaram,

EXPOSURE VISITS UNDER ATMA

The exposure visits to exemplary farms either within the district, within state or outside the state and practical demonstrations in the farm fields therein is considered as the best form of learning of new farming practices and modern, scientific and innovative farm technologies. The exposure visits will provide an opportunity to see various new technologies and agricultural practices carried out by their fellow, neighboring and others farmers. The discussion with participants at the end of the exposure visits provided feedback and problems on the technologies and experiments that they observed. The crucial contribution of the Exposure visits to agricultural development certainly requires a scientific study to assess the impact of exposure visits and feedback of various stakeholders. So, far no systematic study has been conducted on the impact of exposure visits performed by stakeholders of ATMA project in Tamil Nadu. Keeping this in view, the present study was mainly focused on the impact and feedback assessment of ATMA stakeholders of Coimbatore district of Tamil Nadu state.

MATERIALS AND METHODS

The ATMA projects are being operated in all the twelve blocks of Coimbatore district. Among the twelve blocks periyanacikenpalayam block was purposefully selected because it has completed all the exposure visits viz., within the district, within the state, and interstate during 2012. There are sixteen villages namely Veerapandi, Chinna Thadagam, Naickenpalayam, Nanjundapuram, Somayampalayam Govanur, Thoppam patti, Kasthurinaikenpalayam, Velamadai, Matham palayam, Onni palayam, Raaki palayam, Therku palayam, Selvapuram, Pudhu pudhur and Karichi palayam of Coimbatore district the exposure visits were carried out during the year 2012. These sixteen villages were purposefully selected for the study. A sample of 105 respondents was selected for the study. The numbers of respondents for each category of exposure visits were selected by simple random sampling method. Data were collected with the help of a well structured pre-tested interview schedule and analysed with suitable statistical techniques.

RESULTS AND DISCUSSION

IMPACT OF EXPOSURE VISIT

The exposure visits will provide an opportunity to see various new technologies and agricultural practices carried out by their fellow, neighboring and others farmers. The discussion with participants at the end of the exposure visits provided feedback of the technologies and experiments that they observed. The success and failure of the technology is found only after assessing its impact over farming community. The distribution of respondents according to their adoption of technologies after exposure visits are given in Table 1.

It could be inferred from the Table 1, that more than four-fifths of farmers (90.00%) had awareness on maize cultivation technologies followed by majority (95.00%) were aware about the fodder production technologies and cent per cent of the farmers were aware about the mulberry cultivation technologies. Regarding adoption, more than half of the respondents adopted V1 mulberry cultivation technologies and fodder maize (African Tall-Black maize) cultivation technologies after visiting their farmer's fields. The fodder maize cultivation was not taken up by half of the respondents due to damage caused by big as it would spoil the crop at maturity time. Thirty per cent of farmers adopted COFS-29 fodder sorghum hybrid due to exposure of TANUVAS exhibition. Compared to that of other fodder sorghum, the COFS 29 is having high green fodder yield, high protein percentage, medium plant height and more number of tillers might be the possible reasons for high adoption.

Fifty five per cent of the farmers adopted mulberry cultivation technologies. This might be due to mulberry gives high income per unit area, well fitted to drought condition and provides employment opportunities for rural youth available in the study area. Majority of the respondents were aware about the technologies viz., rearing of tellicherry goat, Poly house production technologies of vegetables and drip irrigation respectively (Table 2). Nearly half of the respondents adopted (53.00 %) drip irrigation (ventury types, filter types). Twenty five per cent of the respondents adopted rearing of Tellicherry goat after visiting Live Stock Farm Ooty. Only few respondents adopted (13.00%) poly house technology. For the past few years periyanaickenpalayam block was affected by severe drought. For effective utilization of available water, most of the farmers in the study area adopted drip irrigation. Compared to sprinkler method (75-85%), drip irrigation saves the water more effectively (90 %). Also, government provides cent per cent subsidy for small and marginal farmers. This might be the possible reasons for more number of respondents adopting drip irrigation method in their fields after visiting jain irrigation unit in udumalpet.

The reason for non adoption might be due to that the initial cost which would be around Rs. 20,000 to 25,000/- per hectare for wider spacing crops such as coconut, mango, grapes and orchard crops. The initial cost would be approximately Rs.50,000 to 70,000/- per hectare for close spacing crops such as sugarcane, banana, papaya, mulberry, turmeric, tapioca, vegetables and flower crops. Due to the above reason small and marginal farmers are not adopting immediately. Only few respondents (13.00%) adopted polyhouse technology for banana and vegetable crops due to low awareness and knowledge. It could be inferred from that all the farmers were aware about recommended mulberry variety, cocoon production technologies, recommended weaving machineries and chawki rearing centre. Further it could be understood that more than half of the (56.00 %) respondents adopted recommended mulberry variety (V1) and cocoon production technologies after visiting silk rearing board and grainage unit in Palagode. This might be due to that the exposure visits created more awareness and knowledge among farmers.

It could be understood that most of the respondents adopted recommended mulberry variety and cocoon production technologies. This might be due to more production of mulberry leaves, creating export opportunity, good source for earning high income, highly suitable for small and marginal farmers and required less labour and time for rearing sericulture unit.

Table 1. Adoption of various technologies after exposure visit (with in the district)

(n=40)

S. No	Category	Awareness		Adoption	
		No	Per cent	No	Per cent
1	Maize cultivation technologies	36	90.00	21	52.00
2	Fodder cultivation technologies	38	95.00	12	30.00
3	Mulberry cultivation technologies	40	100.00	22	55.00

Table 2. Adoption of various technologies after exposure visit (within the state)

(n=40)

S. No	Technologies	Awareness		Adoption	
		No	Per cent	No	Per cent
1.	Drip irrigation technologies	13	87.00	8	53.00
2.	Poly house technologies for banana and vegetables	14	93.00	2	13.00
3.	Goat rearing technologies	22	93.00	10	25.00

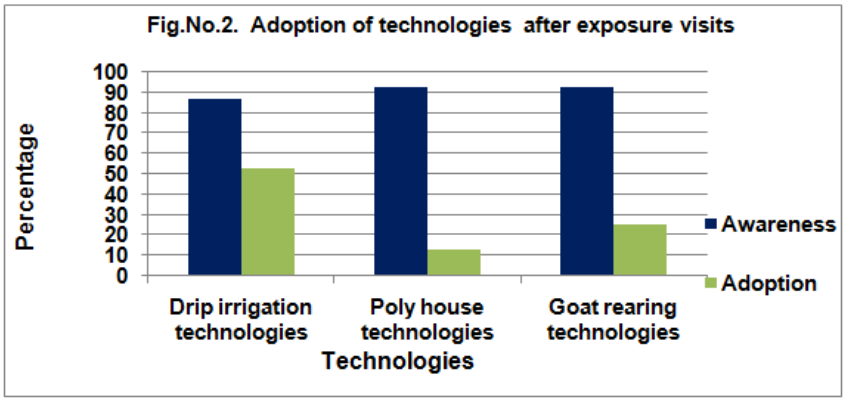

Table 3. Adoption of various technologies after exposure visit (outside the state)

(n=25)

S. No	Technologies	Awareness		Adoption	
		No	Per cent	No	Per cent
1.	Recommended mulberry variety(V1)	25	100.00	14	56.00
2.	Cocoon production technologies	25	100.00	14	56.00
3.	Recommended weaving machines	25	100.00	-	-
4.	Chawki rearing centre	25	100.00	1	4.00

It was observed during the survey that none purchased weaving machineries for sericulture units. This might be due to that low awareness and high cost of equipment. Regarding chawki rearing unit, only 4.00 per cent of the respondents installed chawki rearing unit in their farm. Management of young one (chawki) is very difficult task. Less adoption was noticed due to feeding of young larvae, protection from pest and disease, maintenance and cleaning of chawki rearing unit requires skills and time consuming.

FEEDBACK OF THE FARMERS

The study tour programme of farmers of the state is being implemented with the main intention to observe and know the recent research findings, study of latest production technologies in the area of agriculture and allied fields within and outside the state and practice the same in their own farms. Under this programme, farmers have been taken on tour to visit successful farmer's holdings, various institutions, research stations and allied agricultural institutions and organizations.

One of the objectives of this study was to assess the impact and analyze the feedback of farmers during exposure visits. The feedback of respondents during the exposure visits are given in Table.4 The feedback of respondents were classified into four sub heads viz., General aspects, technology oriented aspects, mode of transport, and mode of teaching used during the exposure visits. The responses were assessed with three point continuum scale like most sufficient, sufficient and less sufficient.

General aspects

Fourty six per cent of the farmers stated that duration of exposure visit is not sufficient. Most of them suggested that the duration may be extended up to 2 days for within the district. 3-4 days for within the state, and 5 days for interstate program as against ATMA guidelines. (Duration of exposure visit within the district is 1 day, within the state - 10 days and interstate 10 days). Thirty seven per cent of the farmers felt that staying place was not sufficient to accommodate huge number of farmers.

Table. 4. Distribution of respondents according to their feedback about the exposure visits

(n=105)

S.No.	Feed back	Most Sufficient	Sufficient	Less sufficient
I.	General aspects	No	No	No
1	Duration	21 (20%)	35 (33%)	49 (46%)
2.	Physical facilities	8 (8%)	34 (32%)	63 (60%)
3.	Accommodation & food	64 (61%)	2 (2%)	39 (37%)
II	Mode of transport			
a.	Bus	88 (83.8%)	17 16.1%)	-
b.	Train	-	-	-
5.	DA for participants	20 (19%)	30 (28%)	55 (52.3%)
6.	No. of participants	24 (23%)	31 (30%)	50 (47%)
	Overall budget for exposure visit	8 (7.6%)	32 (30.4%)	65 (62%)
III.	Technology oriented aspects	Fully	Partially	Not at all
1.	Need based	79 (75%)	26 (25%)	- (0%)
2.	Subject matter coverage	75 (71%)	30 (29%)	- (0%)
3.	Understandability of the subject matter	75 (71%)	30 (29%)	- (0%)
4.	Co-operation & co-ordination	88 (84%)	17 (16%)	- (0%)
IV.	Mode of teaching in the exposure visit	Most sufficient	Sufficient	Less Sufficient
a	Communication skill of the resource person	55 (52.3%)	30 (28%)	20 (19%)
b.	Oral presentation	52 (49.52%)	28 (26.6%)	25 (23.8%)
c.	Use of Audio visual aids	32 (30.4%)	31 (30%)	42 (40%)
d.	Conducting Demonstration	42 (40%)	18 (17.1%)	45 (42.8%)
e.	Interaction and sharing of knowledge with other scientist or farmers	53 (50.4%)	52 (49.52%)	-
f.	Arrangement of Field visit	39 (37.14%)	10 (9.5%)	56 (53.33%)

Table 5. Distribution of respondents according to their feedback on behavioral impact

(n=105)

S. No	Behavioral components	Fully	Partially	Not at all
1.	Personal Interest created	83 (79%)	21 (20%)	1 (1%)
2.	Knowledge gained	72 (69%)	33 (31%)	0 (0%)
3.	Skill developed	84 (80%)	21 (20%)	0 (0%)
4.	Attitude changed	53 (50%)	51 (49%)	1 (1%)
5.	Leadership quality developed	90 (86%)	15 (14%)	0 (0%)
6.	Self confidence increased	99 (94%)	6 (6%)	0 (0%)
7.	Decision making capacity developed	89(85%)	16 (15%)	0 (0%)
8.	Motivated to adopt the new learnt technologies	84(80%)	21 (20%)	0 (0%)

This might be due to that during the exposure visits farmers were allotted a single hall for accommodation. More than eighty per cent (88.8%) of the farmers reported that mode of transport by bus was sufficient during the visits particularly within the district and within the state. But during interstate visits, most of the farmers preferred only by train as mode of transport.

Fourty seven per cent of the farmers reported that number of participants may be increased for exposure visit particularly in outside state. One third (62%) of the farmers expressed that the overall budget allotment for exposure visits may be increased.
Fifty two per cent of them expressed that the given DA Rs.180/ day/farmer was not sufficient. As per the guidelines the ceiling cost norms (max) is Rs. 600/ farmer/ day for interstate tour. Rs. 300/ farmer/ day for within the state tour and Rs. 250/ farmer/ day for within the district.

Technology oriented aspects

More than Eighty per cent of the farmers felt that the exposure visits were need based and fulfilled the subject matter. At the time of exposure visits, the cooperation and coordination of the other department officials, resource persons, participants and higher authorities were too good.

Mode of teaching during the exposure visits

It could be observed from table 4, more than half of the respondents expressed that communication skill of the resource person, oral presentation by scientists, interacting and sharing with fellow farmers and scientists were most sufficient during the exposure visits.Less sufficient was noticed in the aspects like use of audio –visual aids, conducting demonstration and arrangements of successful farmer's fields.

This might be due to worthiness of farm practices will be proven only through use of more number of visual aids.

BEHAVIOURAL IMPACT

The behavioral impact of farmers during the exposure visits are discussed in the following Table 5. Behavior is one of the most important factors to change the person physically as well as psychologically. Due to the exposure visit farmers' psychological behavior were changed. It could be seen from the Table 4 more than eighty per cent of the respondents expressed that self confidence, decision making capacity, leadership quality and skill were increased greatly through exposure visit. This might be due to the fact that farmers may have an opportunity to discuss freely with their fellow farmers and scientists about the new technologies or practices exposed during the visits and which might have them an idea to modify or adopt the existing practices. Further it could be provided an opportunity to see the results, performance, their economic advantage and market value of new technologies or practices exposed during the visits.

Conclusion

The present study reveals that nearly half of the respondents stated that duration of exposure visit is not sufficient. Most of them suggested that the duration may be extended up to 2 days for within the district. 3-4 days for within the state, and 5 days for interstate program as against ATMA guidelines. (Duration of exposure visit within the district is 1 day, within the state - 10 days and interstate 10 days). The State Department Officials should take efforts to increase the duration and arrange more number of interstate exposure visits to learn new varieties, technologies and practices followed by the farmers of other state.

Further it could be realized that more than seventy per cent of the respondents stated that the exposure visits created personal interest among farmers, knowledge gained on particular technology, skill acquired; attitude changed and motivated to adopt the new technologies. This might be due to that the visual impact created positive attitude and change the mental outlook of the farmers. Further it could be concluded that one of the most important extension proverb says "**seeing is believing and learning by doing**". It is true unless the farmers without seeing the results of the technologies in his/ her own eyes, they never accept and adopt it.

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