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TRAINING PROGRAMMES EFFECTIVENESS UNDER AGRICULTURAL TECHNOLOGY MANAGEMENT AGENCY IN BHAGALPUR, BIHAR

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ABSTRACT

Agricultural Technology Management Agency (ATMA) has now become the most important institutional mechanism at district level for implementation of agricultural extension reforms. Capacity building of farmers through organization of training is one of the most important strategies for implementation of ATMA. This study was conducted in Bhagalpur district of Bihar to measure the effectiveness of training programmes conducted under ATMA implementation in Bihar. Primary data were collected from 60 beneficiary farmers. A Training Effectiveness Index (TEI) was prepared for measuring effectiveness of trainings. The results showed that 'animal husbandry and dairy' and 'vegetable cultivation' were the major areas in which most of farmers attended training. A majority of trainees perceived that knowledge and skills were enhanced as a result of training. The overall effectiveness of training was found to be 54.6 per cent which came under medium effectiveness category.

Key words : *Agricultural technology management agency, training effectiveness index, capacity building.*

Agricultural Extension is often viewed as comprising public, private and semi-public systems that make up a multi-institutional, multi-sectoral pluralistic system (Shepherd, 2007). Agricultural Technology Management Agency (ATMA) is a new extension mechanism of Indian Government at district level for efficient and effective dissemination of available agricultural technologies. Nearly, 45 per cent of total money under ATMA is spent on farmer oriented activities like organizing training programmes, conducting demonstrations, exposure visits for farmers, mobilizing farmers to form FIGs/SHGs etc. Since inception of ATMA under Support to State Extension Programmes for Extension Reforms (SSEPER) scheme in April 2005 to December 2007, over 1,69,75,357 farmers including 42,30,140 farm women (24.92%) had participated in farmer oriented activities such as exposure visits, trainings, demonstrations and kisan melas (DAC, Ministry of Agriculture, 2007). Organization of training programmes for farmers and other stakeholders is one of the most important activities of ATMA. Training is vital and essential to induce motivation, create confidence and increase the efficiency of a farmer. It is a process by which desire, ideas, positive attitude, knowledge and skills are inculcated and reinforced. It is an integral part of any developmental activity. The present study was conducted to assess the effectiveness of training programmes conducted under ATMA in Bihar.

RESEARCH METHODOLOGY

The study was planned as an ex-post facto survey investigation and conducted in Bhagalpur district of Bihar state. Bhagalpur district was selected purposively. From Bhagalpur district, two blocks and from each block 30 beneficiary farmers were selected for this study, thus making a sample size of 60 farmers. The effectiveness of different aspects of training programme was measured on a five point continuum ranging from very high effectiveness to very low effectiveness. The Training Effectiveness Index was developed to measure the effectiveness using following formula :

$$TEI = \frac{\text{TS obtained by respondents}}{\text{Maximum possible score}} \quad 100$$

TEI = Training Effectiveness Index

TS = Training score

Data was collected by using a well structured interview schedule and analyzed using SPSS (Statistical Package for Social Sciences) software. Suitable statistical tools like frequency, percentage,

Table-1 : Extent of farmer's participation in various types of training programmes under ATMA. (N=60)

Sl. No.	Subject matter of Training programme	No.*	%
1.	Animal husbandry and Dairy	20	33.3
2.	Commercial vegetable cultivation	16	26.7
3.	Vermi-compost preparation	15	25.0
4.	Nursery raising	14	23.3
5.	Aromatic and medicinal plant cultivation	12	20.0
6.	Integrated Pest Management in different crops	12	20.0
7.	Mushroom production	10	16.7
8.	Bee keeping	8	13.4
9.	Floriculture	7	11.6
10.	Fish production	6	10.0

*Multiple responses

Table-2 : Distribution of respondents based on effectiveness of training programmes. (N=60)

Sl. No.	Category of effectiveness	No.	%
1.	Very low (10-15)	3	5.0
2.	Low (15-20)	13	21.7
3.	Medium (20-25)	33	55.0
4.	High (25-30)	9	15.0
5.	Very high (30-35)	2	3.3
	Total	60	100

weighted mean score (WMS) etc were utilized for analysis of data.

RESULTS AND DISCUSSION

Training areas and extent of farmer's participation: Diversification of farming system is a major objective of ATMA. Since, most of the farming communities in project area were involved in cultivation of rice, wheat and maize, training on other aspects of farming was organized for farmers. It included vegetable cultivation, bee keeping, animal husbandry, fisheries etc. Many farmers attended these training and got benefitted. The detail of these training programmes along with extent of farmer's participation is given in Table-1.

Data presented in Table-1 suggested that maximum one third of total farmers attended training on 'Animal husbandry and dairy' followed by 'commercial vegetable cultivation' (26.7%) and 'vermi-compost preparation' (25.0%). This suggests that more farmers were interested towards vegetable farming and dairy since these enterprises provides more income than cultivation of cereals. Nearly 15 to 20 per cent of farmers attended training on emerging areas of 'Integrated Pest Management', 'aromatic and medicinal plant cultivation' and 'mushroom cultivation'. Very less number of farmers attended training on 'floriculture' and 'fish production'. It may be because flowers and fishes are highly perishable and difficult to market. Effectiveness of training programmes: Effectiveness of training programmes organized was measured on a five point continuum ranging from very high to very low effectiveness. Table-2 indicated that a majority (55.0%) of beneficiary farmers reported 'medium level' of effectiveness for training programmes while 21.7 per cent of respondents reported 'low level' of training effectiveness. Only 18 per cent of farmers found these trainings highly effective. These results bring out the weaknesses in organizing training under ATMA.

The effectiveness was further measured based on eight various aspects of training. It can be observed from Table-3 that 'adequate information in particular area' with weighted mean score of 3.05 and 'easy understanding' with weighted mean score of 2.95 were the most important aspects where training was found effective. The table also revealed that effectiveness was rated low in terms of 'immediate usefulness', 'relevancy of the course contents' and 'participatory training need assessment. Majority of respondents reported that the trainings were not based on participatory need assessment (weighted mean score- 1.9). The result supports the findings of Patil and Kokate (2008), who found that the overall training need of the respondents was high (78.42%) in different areas of agriculture while studying training need assessment of Subject Matter Specialists (SMSs) of Krishi Vigyan Kendras (KVKs). Training need assessment is the backbone of any effective training programme and it must be participatory in order to increase the effectiveness of training programme. The Overall Training Effectiveness Index was calculated based on individual score and it was found to be 54.6 per cent which implies that trainings conducted under SREP-ATMA implementation were successful to some extent only and were rated as average. This suggests a need to enhance the effectiveness of capacity building programmes since a lot of money is spent on

Table-3 : Effectiveness of different aspects of training programme under ATMA. (N=60)

Sl. No.	Training aspects	Very Low	Low	Medium	High	Very High	WMS
1.	Relevancy of course contents	07	27	07	15	04	2.70
2.	Easy understanding	02	25	09	22	02	2.95
3.	Immediate usefulness	05	34	03	15	03	2.61
4.	Timeliness of training	09	25	04	17	05	2.73
5.	Clarification of doubts and queries during trg.	06	26	02	20	06	2.90
6.	Adequate information in a particular area	04	22	06	23	05	3.05
7.	Overall satisfaction from training	09	18	05	21	07	2.98
8.	Based on participatory need assessment	22	28	05	04	01	1.90

Table-4 : Benefits of training programmes as perceived by farmers. (N=60)

Sl. No.	Training benefits	Highly	Moderately	Not	WMS
1.	Increase in knowledge	35 (58.3%)	22 (36.6%)	03 (5.0%)	2.7
2.	Gain in skills	29 (48.3%)	27 (45.0%)	04 (6.6%)	2.4
3.	Enhancement in entrepreneurial ability	13 (21.6%)	34 (56.6%)	13 (21.6%)	2.0
4.	Initiation of new enterprise or diversification	09 (15.0%)	34 (56.6%)	17 (28.3%)	1.8

organizing training programmes for farmers. Capacity building is a core area in extension education and it needs attention during implementation of ATMA programme. Perceived benefits of training:

Farmers were asked to respond on the perceived benefits of training programmes conducted and the results are given in Table-4. Increase in knowledge and gain in skills were found to be the most important benefits from training. A majority of farmers (58.3%) perceived that they were highly benefitted in terms of increase in knowledge followed by gain in skills (48.3%). Moreover, it was found that only 15 per cent farmers were of perception that they will definitely start a new enterprise as a result of training. The result shows that although trainings increases knowledge and skills of large number of farmers, only few of them are ready to start new enterprise or diversify their farming system. These findings are in agreement with findings of Dabas *et al.,* (2005), who found that majority of farmers could not utilize gained knowledge into actual practice. This may be due to high risk involved in initiation of new enterprises. If further financial, technical and marketing support will be provided to farmers, they will definitely try new enterprises or go for diversification of existing enterprises.

CONCLUSION

On the basis of above findings, it can be concluded that training in different areas was provided to farmers under ATMA which resulted in gain in knowledge and skill of farmers. But there were some areas of concern where progress was limited. Most of the training conducted were not based on participatory need assessment. Those who were trained, only few of them were ready to start a new agricultural enterprise as an entrepreneur. Thus, there is a need to motivate, train and support the farmers and encourage them to become entrepreneurs. Training on aspects of entrepreneurial motivation and need assessment will be helpful for farmers. Therefore, capacity building progrmmes in different areas under ATMA needs to be strengthened by implementing agencies.

REFERENCES

1. Dabas, Y.P.S., Kumar, A., Mustafa, S. And Bardhan, D. (2005), Impact Assessment of Training on Improved Dairy Husbandry Practices on Rural Women of Tarai area of Uttaranchal, Impact Assessment Studies-Agricultural and Rural Development Programmes, *Indian Society of Extension Education*, New Delhi, pp. 295-298.
2. Department of Agriculture and Cooperation, Annual Report 2006-07, *Ministry of Agriculture,* Government of India
3. Patil, S.S. and Kokate, K.D. (2008). Training Need Assessment of Subject Matter Specialist of Krishi Vigyan Kendras, *Indian Res. J. Ext. Edu.11 (1):*18-22.
4. Shepherd, A.W. (2007). Approaches to linking producers to market: A review of experiences to date, occasional paper, Agricultural Management, Marketing and Finance Services, FAO, Rome.