

## LEARNING INDEX OF TRAINERS' TRAINING COURSE ON WATERSHED MANAGEMENT

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### ABSTRACT

The study was an attempt to find out learning index of four 14 days trainers' training programmes on "Scaling up of Water Productivity in Agriculture for Livelihood through Teaching cum Demonstration" sponsored by Ministry of Agriculture, Government of India, organized by Water Management Research Centre (WMRC), Faculty of Agriculture, Chatha of Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu (SKUAST-J) w.e.f. 17-30<sup>th</sup> August, 1-14<sup>th</sup> September, 15-28<sup>th</sup> September and 11-24 October, 2011 in which 75 officers of Command Area Development and Agriculture Development Departments of J&K Government from all the 10 districts of Jammu Province and scientists of SKUAST-Jammu participated. The objective of training programme was to create a trained manpower in agriculture sector. The study revealed that majority of the trainees had rich learning experience.

### INTRODUCTION

Trainers training course on "Scaling up of Water Productivity in Agriculture for livelihood through Teaching cum demonstration" on watershed basis is an important training programme sponsored by Ministry of Agriculture, Government of India, through Directorate of Water Management (ICAR) Bhubaneswar.

These training programmes are organized on priority areas of water management in agriculture, horticulture and allied aspects and conducted by premier institutes involved in technology generation and transformation with an aim to increase water productivity per drop of water for sustainable development of agriculture on watershed basis. State of Jammu and Kashmir is a hilly state where almost 70% rainfall comes in monsoon season. Because of hilly terrain, surface water moves quickly down slope causing water scarcity in the catchment and flood in the downstream. Besides this, the top soil is also being washed away at a much faster rate resulting in loss of fertility status in the catchment and siltation in the reservoir down slope, hence loss of live storages in the dam. So development of these areas on watershed basis is the need of hour. Keeping this thing in view, under the above mentioned project, it

was decided to organize a series of trainers' training program on watershed management for officers of agriculture and allied departments of J & K Govt. so that they can be well trained on watershed management aspects so as to produce more crops per drop of water.

Training of extension functionaries is one of the important activities in transfer of farm technologies. It primarily addresses the capacity building issues of the extension system. The effectiveness and productivity of training programmes are crucial for achieving the desired results. Training is the process of acquiring specific skills to perform a job better (Jucious, 1963). It helps people to become qualified and proficient in doing some jobs (Dahama, 1979). In-service training, on the other hand, is offered by the organization from time to time for the development of skills and knowledge of the incumbents (Halim and Mozahar, 1997).

Evaluation is an in-built mechanism in extension and training system. Its serves as a tool for efficient operation of training programmes by providing feedback. It assists for taking corrective measures by the course/training coordinator for effectiveness of training programmes (Kumar *et al.*, 2005). The main purpose of evaluation is to improve the

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quality of a training programme/project by identifying its strengths and weaknesses. Evaluation helps us to find out the impact of training programme on trainees. In other words, evaluation helps answering these questions, viz., How did the trainees react? What did they achieve? Was the training programme worth for the time, money and resources? Should this training programme be continued or terminated? Evaluation provides information for decisions concerning future training programmes. This information is highly useful to fine tune the training programme and is used to communicate important facts to concerned individuals/groups or agencies. Besides, evaluation results are useful for formal reporting (Singh *et al.*, 2007).

## RESEARCH METHODOLOGY

Water Management Research Centre (WMRC), SKUAST-Jammu under the above mentioned project organized four trainers' training programmes w.e.f. 17-30<sup>th</sup> August, 1-14<sup>th</sup> September, 15-28<sup>th</sup> September and 11-24 October, 2011 in which 75 officers of Com

## RESULTS AND DISCUSSION

mand Area Development and Agriculture Development departments of J&K Government from all the 10 districts of Jammu Province and scientists of SKUAST-Jammu participated. A well structured feedback schedule was devised regarding various aspects of training like fulfillment of expectations, level of training effectiveness, change in level of confidence among participants, learning index of trainees and opinion of trainees about the training programme. The main objective of the training was to create a trained manpower in agriculture sector. Keeping in view the objective of the study, a well structured interview schedule was prepared. The topics were chosen very appropriately in the light of Union Government's commitment to improve agricultural productivity per drop of water. For data collection, trainees were interviewed personally. Thereafter, data were analyzed, tabulated and interpreted in the light of objective of the study. The learning index was calculated by the following formula:

$$\text{Learning index} = \frac{(\text{Post training score} - \text{Pre training score})}{(100 - \text{Pre training score})} \times 100$$

**Table 1: Profile of trainees**

**n=75**

S.No.	Particulars	Training Course 2011-12				Total	Percentage
		17-30 Aug	1-14 Sep	15-28 Sep	11-24 Oct		
1.	<b>Education</b>						
	Ph.D Agriculture	01	00	00	00	01	1.3
	M.Sc Agriculture	06	05	02	06	19	25.3
	B.Sc Agriculture	05	18	15	10	48	64.0
	BA/B.Com/Basic	00	01	01	02	04	5.3
	10+2	03	00	00	00	03	4.0
2.	<b>Age</b>						
	30-40	02	05	05	06	18	24.0
	41-50	04	09	08	06	27	36.0
	51-58	09	10	05	06	30	40.0
3.	<b>Gender</b>						
	Male	14	24	17	18	73	97.3
	Female	01	00	01	00	02	2.7
4.	<b>Service experience (Years)</b>						
	0-10	01	01	03	02	07	9.3
	11-20	03	08	06	06	23	30.7
	21-30	07	14	08	07	36	48.0
	>30	04	01	01	03	09	12.0

### Profile of trainees

The participants were Agricultural Scientists of SKUAST-J, Agriculture Extension Officers (AEOs), Subject Matter Specialists (SMSs) and Junior Agriculture Extension Officers (JAEOs) of State Department of Agricultural Production and Command Area Development. The group was heterogeneous in respect of their education, age, sex and service experience. The data in Table 1 show that majority (97.3 per cent) of the participants were male. 40 per cent of the participants were between 51-58 years of age whereas, 36 per cent were between 41-50 years of age and 24 per cent were between 30-40 years of age. 64 per cent of the participants were B.Sc. (Ag.) while, 25.3 per cent of them were M.Sc. (Ag.), 5.3 per cent were B.A./B.Com./Basic, 4.0 per cent were 10+2 and only 1.3 per cent of them were PhD Agriculture. 48 per cent of the trainees had service experience between 21-30 years whereas, 30.7 per cent had service experience between 11-20 years, 12 per cent had service experience above 30 years and 9.3 per cent had service experience of 10 years.

### Fulfillment of experience

Expectations, here, refers to the desire of the trainees to acquire new knowledge and skills about watershed management. Trainees were asked to elicit their response on three point continuum viz. extremely met, fairly met and satisfactorily met with

score 3, 2 and 1 respectively.

The data presented in Table 2 reveal that nearly half of the respondents (45.3 per cent) felt that their expectations were extremely met by attending the training programme, closely followed by 40 per cent of the respondents who felt that their expectations were fairly met. However, only 14.7 per cent respondents expressed that their expectations were satisfactorily met. Similar findings were reported by Koshti and Vijayaragavan (2007).

### Training effectiveness

Training effectiveness refers to the impact of training programme. In other words, training effectiveness means gain in knowledge, increase in confidence level, increase in self motivation, gain in understanding and development of positive attitude and skills. For measuring training effectiveness, the trainees were asked to give their responses on four point continuum viz. highly effective, effective and less effective with score 3, 2 and 1 respectively. It is evident from Table 2 that 50.6 per cent of trainees expressed that training programme was highly effective. Besides, 49.4 per cent respondents felt that training was effective. Interestingly enough, none of the trainees expressed that training was less effective. This might be due to increase in their level of confidence. Similar findings were reported by Koshti and Vijayaragavan (2007).

**Table 2: Response of trainees undergone trainers' training programme during 2011-12** n=75

S.No. Particulars	Training Course 2011-12				Total	Percentage
	17-30 Aug	1-14 Sep	15-28 Sep	11-24 Oct		
<b>1. Fulfillment of Expectations</b>						
(a) Extremely met	02	08	11	13	34	45.3
(b) Fairly met	08	11	06	05	30	40.0
(c) Satisfactorily met	05	05	01	00	11	14.7
<b>2. Level of Training Effectiveness</b>						
(a) Highly Effective	03	13	10	12	38	50.6
(b) Effective	12	11	08	06	37	49.4
(c) Less Effective	00	00	00	00	00	00.0
<b>3. Change in level of confidence among participants (%)</b>						
(a) Before training	48.0	41.0	37.2	48.0	174	43.5
(b) After training	76.0	80.4	81.6	83.0	321	80.25
% Gain	58.3	96.0	119.4	72.0	84.6	84.6
<b>4. Learning Index</b>	<b>53.84</b>	<b>66.77</b>	<b>70.54</b>	<b>67.3</b>	<b>65.1</b>	<b>65.1</b>

### Change in level of confidence among participants

Confidence provides impetus for achieving objectives. Also, confidence is the resultant of gain in knowledge. The trainees were asked to state whether they developed confidence after training or not. For knowing the confidence level of trainees, their responses were recorded on three point continuum viz. high confidence, medium confidence and low confidence with score 3, 2, and 1 respectively.

The data incorporated in Table 2 reveal that level of confidence among trainees was 43.5 per cent before training. After training, their level of confidence raised to 80.25 per cent resulting in whooping 84.6 per cent gain in confidence. The sharp increase in level of confidence among trainees after training was attributed to effectiveness of the training programme. Training had a perfect balance of teaching, practical exercises and field visits to a watershed. The field visits to a watershed provided a first hand experience to the trainees. All these factors enhanced learning of trainees and, therefore, raised their confidence level. Similar findings were reported by Koshti and Vijayaragavan (2007).

### Learning index of trainees

A perusal of data incorporated in Table 2 vividly corroborate that learning index of trainees was 65.1 per cent. This distinctly shows that trainees had a fairly good learning experience of training on watershed management. This might due to the reason that subject matter of training was relevant. Besides, majority of the participants were highly qualified and had rich service experience.

**Table 3: Overall opinion of trainees towards training** n=75

Opinion of trainees	Frequency	Percentage
Excellent	38	50.66
Very good	27	36.00
Good	10	13.34
Average	-	-

### Overall effectiveness of training

Table 3 depicts that majority of trainees (50.66 per cent) rated training as excellent, followed by 36.00 per cent as very good. Only negligible percentage of participants (13.34 per cent) rated training as good.

However, none of the trainees expressed training programme as average. This clearly shows that the training programme was well planned and organized effectively.

### CONCLUSION

The participants expressed that the training programme on 'Scaling up of Water Productivity in Agriculture for Livelihood through Teaching cum Demonstration' was a rich learning experience. 45.3 per cent of the trainees felt that their expectations were extremely met by attending the training programme. 50.6 per cent of the participants perceived that training programme was highly effective. After training, 80.25 per cent of trainees expressed that they have developed high level of confidence. However, learning index of trainees was 65.1 per cent. Besides, 50.66 per cent of respondents rated training programme as excellent.

The practical exercises during the training programme and field visits to a watershed helped the participants not only to improve their knowledge but also sharpen their practical skills on various aspects of watershed and watershed management. The training has achieved a very high level of benefits in terms of human resource development and improving linkages between SKUAST-Jammu and State Department of Agricultural Production and Department of Horticulture. In general, the trainees have revealed that the training programme was well planned with expert faculty members and organized effectively; satisfying the needs of the participants.

Since the training programme has immensely helped in improving the knowledge and sharpens the practical skills of the trainees, it is recommended that the trainees trained under the present project should apply the knowledge gained and skills developed in their actual field conditions. This would definitely help the farming community in achieving the livelihood security.

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