

Impact of KVK Training on Development of Tribal Farmers- A study in Odisha

Narayan Bar (Corresponding author)

Subject Matter Specialist(Agriculture Extension), Krishi Vigyan Kendra, Sambalpur, Odisha,
India

Tel: 91-889-561-5450 E-mail: barnarayan@gmail.com

Samir Ranjan Dash

Subject Matter Specialist(Agriculture Extension), Krishi Vigyan Kendra, Jagatsingpur,
Odisha, India

Tel: 91-889-561-5450 E-mail: barnarayan@gmail.com

Prabhanjan Mishra

Subject Matter Specialist(Horticulture), Krishi Vigyan Kendra, Sambalpur, Odisha, India

Tel: 91-889-561-5450 E-mail: barnarayan@gmail.com

Sagarika Prusty

Project Coordinator, Kalyan Parishad, Bhubaneswar-751001, Odisha, India

Tel: 91-889-561-5450 E-mail: barnarayan@gmail.com

Received: Nov. 10, 2014 Accepted: December 2, 2014 Published: December 31, 2014

doi:10.5296/jee.v5i2.6598 URL: <http://dx.doi.org/10.5296/jee.v5i2.6598>

Abstract

KVK training programmes are designed for the development of farming communities with emphasis for weaker sections. A study conducted with 240 tribal farmers from KVK, Sunargarh, Keonjhar and Nuapda district of Odisha revealed that satisfactory developments have been made on technological adoption, social and environmental aspects. Much

improvement has not been observed on economical, infrastructural, material possession and farm activities. KVKs have to strengthen training programmes on vocational and income generating activities, use of farm implements, diversified farming, conservation of soil and moisture along with access to credit for increase in production, productivity and regular income for the development of tribal farmers.

Keywords: Training, Tribal farmers, KVK, Development

1. Introduction

Krishi Vigyan Kendra (KVK) has been designed to impart need based and skill oriented vocational training to various categories of farming communities. The main purpose is to influence the productivity to achieve the social justice for the needy and deserving weaker sections of the community like tribals, small and marginal farmers, disasters affected people and other weaker sections. KVK trainings are also designed on the most important needs of the clientele, their resources, constraints and nature of the eco-system.

Tribal people have low risk bearing abilities and fear for failure of new technologies for which they have strong ethics of their traditional agriculture. KVKs functioning in tribal districts are constantly giving emphasis to develop confidence of the tribal farmers on suitable technologies, increase their knowledge and skill competency for adoption of the new technologies. It is therefore apprehended that significant developments might have made to the tribal farmers after training from KVKs. A study was therefore designed to assess the impact of KVK trainings on the development of farmers.

2. Materials and Methods

The study was undertaken during 2012 in three tribal districts namely Sundergarh, Keonhar and Nuapada from the agro-climatic zone of North Western Plateau. North Central Plateau and Western Undulating zone respectively. The list of farmer's undertaken training was collected from the training register of KVK. It was screened and another list prepared for the tribal farmers undertaking comparatively more trainings. Out of the final list 80 tribal farmers including farm women were randomly selected from each district as the respondents with total sample size 240. The data was collected personally with a semi-structured schedule on scale point of fully agree, considerably agree, least agree and disagree which were analysed with score name of 3, 2, 1 and 0 respectively. Appropriated statistical tools were used to reveal the results.

3. Results and Discussions

The fundamental objective of KVK is to impart skill oriented training with the principle of teaching by doing and learning by doing. The trainees practised the application of the technologies by themselves and equipped with the knowledge as well as skills. The data in Tablep-1 revealed that the respondents of all the three districts favourably opined towards adoption of recommended practices, increase in occupational competency, better use of resources and management of adverse situations which indicates the impact of KVK on technological developments. Poor opinions observed on increase in production and productivity as well as exposure to sources of information suggested for further strengthening of the training to enrich their knowledge and skill competencies further to adopt the recommended practices to get desired production and productivity.

Table 1.

Sl. No.	Development	Mean Score			Avg. Mean	Gap (%)
		Keonjhar	Sundargarh	Nuapada		

					Score	
1	Increase in production and productivity	1.85	1.75	2.00	1.87	37.67
2	Exposure to sources of information	1.80	1.85	1.95	1.87	37.67
3	Adopt recommended practices	2.35	2.35	2.45	2.38	20.67
4	Occupational competency increase	2.35	2.35	2.40	2.37	21.00
5	Better use of resources	2.45	2.45	2.55	2.46	17.33
6	Management of adverse situations	2.35	2.45	2.50	2.43	19.00
	Average	2.19	2.20	2.31	2.23	25.67

Extent of Technological Developments

Tribal farmers are comparatively resource poor. KVK training helps them to adopt income generating activities for their economical development. But, the study revealed (Table-2) much improvement have not been made on increase in family income and capability for farm investment, improvement in living condition, access to credit as well as employment and income generation. The scientists of KVKs have to organise more of vocational and entrepreneurial for self employment and marketing network are other aspects of economical development which indicates the impact of training.

Table 2.

Sl. No.	Development	Mean Score			Avg. Mean Score	Gap (%)
		Keonjhar	Sundargarh	Nuapada		
1	Employment generated	1.90	1.80	2.00	1.90	36.67
2	Family income increased	1.65	1.65	1.75	1.68	44.00
3	Increase in access to credit	1.95	1.95	2.00	1.97	34.33
4	Increase capability in farm investment	1.80	1.80	1.95	1.85	38.33
5	Exposure for self employment	2.15	2.10	2.25	2.17	27.67
6	Exposure to marketing of the produce	2.30	2.25	2.25	2.25	25.00
7	Improvement in living condition	1.85	1.80	1.95	1.87	37.67
	Average	1.94	1.91	2.02	1.96	34.67

Extent of Economic Developments

The scientists of KVKs are sensitizing people on community organisation, group approach, team work, conflict resolution etc. through various extension approaches including training. Favourable opinions (Table-3) of the responds on optimum utilisation of community

resources, more attention of the developmental organisations, increase in decision making capabilities, consciousness in farming, community approach, good linkage with stakeholders, farm work and team spirit indicate good impact on social developments.

Table 3.

Sl. No.	Development	Mean Score			Avg. Mean Score	Gap (%)
		Keonjhar	Sundargarh	Nuapada		
1	Good linkages established with stakeholders	2.35	2.25	2.30	2.30	23.33
2	Team work and team spirit	2.45	2.45	2.50	2.47	17.67
3	Community approach	2.55	2.60	2.60	2.58	14.00
4	Consciousness in farming	2.55	2.55	2.50	2.53	15.67
5	Optimum utilization of community resources	2.60	2.65	2.60	2.62	12.67
6	More attention of the developmental organization	2.45	2.50	2.50	2.48	17.33
7	Decision making capability increased	2.60	2.65	2.60	2.62	12.67
	Average	2.51	2.52	2.51	2.51	16.33

Extent of Social Developments

KVK scientists in their training programmes discussed about the infrastructures required for undertaking vocational activities skilfully. Subsidy facilities are also available along with credit support for developing essential infrastructures both at community and individual level. The data in Table-4 revealed that the respondents had favourably opined for developing irrigation facilities which is very much essential for successful crop raising.

Table 4.

Sl. No.	Development	Mean Score			Avg. Mean Score	Gap (%)
		Keonjhar	Sundargarh	Nuapada		
1	Irrigation facilities	2.60	2.55	2.60	2.58	14.00
2	Purchasing farm implements	2.00	1.80	1.95	1.92	36.00
3	Purchasing good breeds of live stocks	1.75	1.70	1.75	1.73	42.33
4	Purchasing additional land	1.40	1.35	1.50	1.42	52.67
5	Increasing farm area by taking land on lease	1.80	1.75	1.80	1.78	40.67
6	Cluster approach and cooperative farming	1.40	1.35	1.50	1.42	52.67
	Average	1.83	1.75	1.85	1.81	39.67

Extent of Infrastructure Developments

Poor opinions observed on purchasing good breeds of livestock, purchasing additional land,

cluster approach and cooperative farming, increase in cultivated area and purchasing farm implements indicated that much of infrastructural development were not made by the respondents.

KVK scientists are also sensitising tribal people for restoring ecological balance and conservation of natural resources in their training programmes. The findings revealed (Table-5) that the respondents had opined favourably for the maintenance of soil health, economic use of water and increase area under plantations which includes the environmental developments. Poor opinions observed on restoring ecological balance, consciousness to protect the environment, plantations in community land, conservation of soil and moisture require further sensitisation as protection and conservation of the environment are prime concern today.

Table 5.

Sl. No.	Development	Mean Score			Avg. Mean Score	Gap (%)
		Keonjhar	Sundargarh	Nuapada		
1	Conservation of soil and moisture	1.85	1.80	1.90	1.85	38.33
2	Plantations in community land	1.70	1.65	1.85	1.78	40.67
3	Consciousness to protect environment	1.80	1.75	1.90	1.72	42.67
4	Economic use of water	2.40	2.15	2.20	2.25	25.00
5	Maintenance of soil health	2.25	2.20	2.30	2.25	25.00
6	Restoring ecological balance	1.90	1.65	1.75	1.77	41.00
7	Increase area under plantations	2.20	2.05	2.10	2.12	29.33
	Average	2.01	1.89	2.00	1.96	34.67

Extent of Environmental Developments

Uses of quality inputs as per the recommendations are essential for getting optimum production. Detail discussions were made in KVK trainings about recommended.

Table 6.

Sl. No.	Development	Mean Score			Avg. Mean Score	Gap (%)
		Keonjhar	Sundargarh	Nuapada		
1	Use of improved seeds	2.65	2.65	2.60	2.63	12.33
2	Use of fertilizers at proper time and method	2.75	2.80	2.75	2.77	7.67
3	Knowledge about quality inputs	2.65	2.70	2.65	2.67	11.00
4	Skill competency in use of inputs	2.55	2.50	2.45	2.50	16.67
5	Emphasis on organic manure	2.40	2.45	2.50	2.45	18.33
6	Use of soil test based fertilizers	1.85	1.75	1.90	1.83	39.00
7	Processing and value addition of produce	2.40	2.40	2.45	2.42	19.33

	Average	2.48	2.48	2.48	2.48	17.33
--	---------	------	------	------	------	-------

Extent of Development on Input use dose, quality parameters, method of application and source of availability. Favourable opinions observed (Table-6) on use of improved seeds, fertilisers with proper time and method, skill competency in use of inputs, processing and value addition of the produce and knowledge of quality inputs indicates of KVKs have to appraised the trainees on the use of soil test based fertilisers.

Possessions of materials are one of the best indicators of developments. The farm families are usually purchasing household articles and other essential materials with the extra funds available. Much of the developments (Table-7) were not observed on material possessions. It indicates that the respondents were not generating considerable additional income for which they were only able to fulfil their family requirement and self sufficiency in food. More numbers of training programme may be organised on income generating activities.

Table 7.

Sl. No.	Development	Mean Score			Avg. Mean Score	Gap (%)
		Keonjhar	Sundargarh	Nuapada		
1	Purchase of household articles	1.80	1.65	1.80	1.75	41.67
2	Renovation of dwellings	1.60	1.55	1.60	1.58	47.33
3	Self-sufficiency in food	2.30	2.25	2.25	2.18	27.33
4	Family requirement fulfilled	2.20	2.25	2.25	2.23	29.00
5	Better education to children	1.85	1.85	1.85	1.85	38.33
6	Purchase of farm implements	1.65	1.55	1.65	1.62	46.00
	Average	1.90	1.85	1.90	1.87	37.67

Extent of Development on Material Possession

Training programmes also the tribal farmers on various farm activities along with addition of new enterprises, techniques and optimum utilisation of resources. It has been observed (Table-8) that much of the developments have not been made on farm activities. Poor opinions were observed on growing remunerative crops, diversified farming and farming system approach. However, favourable opinions in increase in cropping pattern and cropping intensity and optimum utilisation of resources including family resources indicate the impact of KVK trainings.

Table 8.

Sl. No.	Development	Mean Score			Avg. Mean Score	Gap (%)
		Keonjhar	Sundargarh	Nuapada		
1	Increase in cropping pattern and intensity	2.25	2.10	2.10	2.15	28.33
2	Growing remunerative crops	1.80	1.75	1.75	1.77	41.00
3	Change to better enterprise	1.80	1.75	1.75	1.77	41.00
4	Diversified farming	1.85	1.80	1.80	1.82	39.33

5	Farming system approach	1.65	1.55	1.55	1.58	47.33
6	Suitable combination of enterprise	2.00	1.80	1.80	1.87	37.67
7	Optimum utilization of family labour	2.20	2.20	2.45	2.28	24.00
8	Optimum utilization of resources	2.20	2.20	2.20	2.20	26.67
	Average	1.97	1.89	1.93	1.93	35.67

Extent of Development on Farm Activities

The best fitted regression equation could explain 42.80% of the total variance of influence on developments. Among the fifteen variables, housing pattern, holding size, occupation, material possession, social and economic aptitude, scientific orientation, education and age of the respondents could exhibit positive influence on development of the tribal farmers. It indicate that most of the socio-economic variables of the respondents had positive influence for which more training programmes on income generating activities may be organised for the development of the tribal farmers.

Table 9.

Sl. No.	Variable	Unstandardized co-efficient		Standardized co-efficient		't' value	'p' value
		Beta	Std. error	Beta	Std. error		
1	Age (X1)	2.105	1.089	0.121	0.062	1.932	0.054
2	Education (X2)	-3.517	0.899	-0.280	0.071	-3.909	0.000
3	Family type (X3)	-1.675	1.356	-0.073	0.059	-1.235	0.218
4	Family size (X4)	1.072	1.019	0.066	0.062	1.052	0.294
5	Social participation (X5)	0.280	0.512	0.031	0.057	0.548	0.584
6	Cosmopolitaness (X6)	-0.497	0.285	-0.109	0.062	-1.744	0.082
7	Media exposure (X7)	-0.101	0.266	-0.025	0.067	-0.380	0.704
8	Housing pattern (X8)	-2.901	0.608	-0.265	0.055	-4.772	0.000
9	Holding size (X9)	-3.729	0.749	-0.355	0.071	-4.978	0.000
10	Occupation (X10)	-4.209	0.939	-0.273	0.061	-4.479	0.000
11	Material possession (X11)	0.384	0.124	0.264	0.085	3.099	0.002
12	Annual income (X12)	-0.970	0.599	-0.083	0.051	-1.619	0.107
13	Social aptitude (X13)	0.672	0.250	0.385	0.143	2.688	0.008
14	Economic aptitude (X14)	1.072	0.353	0.508	0.167	3.034	0.003
15	Scientific orientation (X15)	-0.554	0.471	-1.043	0.192	-5.412	0.000

Regression Analysis of Socio-Economic Variables on Development

$$R^2 = 0.428$$

$$Adj. R^2 = 0.39$$

$$S.E. = 6.339$$

4. Conclusion

KVK training programmes are usually designed on the important needs of the clientele particularly weaker communities, their resources, constraints and nature of the eco-system for their development. The findings of the study revealed that there was better development on input use, technological adoption, social and environmental aspects. Much improvement has

not been observed on economical, infrastructural, material possession and farm activities. Socio-economic variables of the respondents had positive influence on various aspects of developments.

It is therefore suggested to conduct training on vocational and income generating activities along with increase in their access to credit, use of farm implements and machineries, diversified farming, conservation of soil and moisture enabling the farmers for increase in production, productivity and regular income for their developments.

Reference

Singh, D. S., & Narain, R. (1975). Farmers training as an instrument of planned agricultural change. *Indian Journal Extn. Edn*, 35(11), 84-86.

Sinha, A. (2004). Rural women in dynamics of agriculture and food security. *Kurukshetra*, July 2004, 4-6.

Sobha, I. (2001). Women in agriculture –A case study, *Yojana*, 45, 40-43.

Suguna, B. (2002). Strategies for empowerment of rural women, *Social welfare*, 46(5), 3-6.

Copyright Disclaimer

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).