

Original Research Article

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Impact Assessment of Adopter and Non-Adopter for Krishi Vigyan Kendra's Training Programmes in the Selected Districts of Nagaland

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ABSTRACT

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The present study on access the impact of Krishi Vigyan Kendra (KVK's) for conducting the training programmes in their respective district of the Nagaland state during the year 2012-13 to 2016-17 (five years) and also to assess the impact of income as well as employment generated for that purpose it was categorized into two groups viz., adopted and non-adopted villages (80 respondents to each category which make a total of 160 respondents). To achieve the objectives of the present study a multi stage purpose random sampling methods was adopted.

Introduction

The state is predominantly rural with 82.26 per cent of population living in villages. The state comprises of 11 administrative headquarters with 52 blocks and 1,278 inhabited villages. Each district has generally predominance / concentration of one of the major / minor tribe of the state, thereby making districts distinct in their linguistic, cultural, traditional and socio-political characteristics. The topography of Nagaland is much dissected, full of hill ranges, which break into a wide chaos of spurs and ridges. The terrain is mountainous covered by rich and varied biodiversity of flora and fauna. It is

one of the 25 hot spots of the world with respect to its biological diversity, and hence can be termed as the state of true Mega biodiversity. The state houses the confluence of flora and fauna of the neighbouring regions. Geographically, the state largely has vast undulating terrain and hilly landscape and some low lying areas giving rise to a very conducive climate with presence of perennial water and moisture for truly rich variety of flora and fauna (Anon., 2017).

Since KVK has taken up good step in this direction and results are very encouraging since 1988-1989 in Nagaland. Therefore, it is foremost need to evaluate the performance of

KVK by this investigation; so to access the impact or benefits gained by the farming community in term of income and employment can be justified. In the region farmers possess very small size of holdings and family labour (male, female & children) remains underemployed. Seasonal employment is a chronic affair. Hence farmer needs subsidiary occupation, which may lead to generate additional employment and income as well as infrastructure through KVK training, so that government as well as local inhabitants should give more attention for implementation of KVK programme in the region, as the scheme has been implemented in all eleven district of Nagaland State.

Krishi Vigyan Kendras (Farm Science Centre), an innovative science based institutions, are the only district - level institutions with a proven potentiality to build farmers' capacity on their multi-dimensional requirements in a scientific and systematic approach which is established mainly to impart vocational training to the farmers and field level extension workers. The concept of vocational training in agriculture through KVK grew substantially due to greater demand for improved agricultural technology by the farmers. They not only required knowledge and understanding of the intricacy of technologies, but also progressively more and more skills in various complex agricultural operations for adoption on their farms. There are two well-known approaches, which are much prevalent in measuring the impact of any programme viz; before and after and with and without approaches ideally, both of these approaches should be used together if possible.

The effectiveness of the KVK was further enhanced by adding the activities related to on-farm testing and Front-Line Demonstration on major agricultural technologies in order to make the training of farmers location specific,

need based and resource-oriented. The training programmes were designed to impart the latest knowledge to the farmers through work experience by applying the principles of 'Teaching by Doing' and 'Learning by Doing'. The prime goal of KVK is to impart training as per needs and requirements in agriculture and allied enterprises to all farmers, farm women and farm youths including school drop-outs in the rural area. While designing the courses, the concept of farming system as well as farming situation are taken into account to ensure that the enterprises in which they are trained are commercially and ecologically viable, sustainable and profitable. Such vocational trainings help them to sustain themselves through self-employment and to make them self-reliant economically and thus discourages them to migrate to the urban areas. KVKs provide training not only in agriculture and allied vocations but also in other income-generating activities that may supplement the income of farm families. The methods employed in training could be formal and non-formal or a combination of both, depending upon the needs but emphasis remains to be on work-experience. The programmes of each KVK cover training, on-farm trials, frontline demonstrations, agricultural extension and livelihood activities. Keeping in view the above fact, the present study is undertaken with the following objectives: (i) To study the present status and activities of KVK's in Nagaland, (ii) Impact of KVK's training in terms of income and employment, and (iii) To compare the impact of KVK's trainings in adopted and non-adopted villages.

Materials and Methods

The present study is to access the impact of KVK for disseminating the agriculture technology to the farming community in Nagaland state, which is working as per the guideline of Central Government with the help

of Ministry of Agriculture, Government of India. The sampling design and analytical techniques to be used in the light of objectives laid down for the study have been presented.

Impact of KVK's training / programme

To find out the impact of KVK's on the adopted the paired t-test was done, which is a statistical test for difference before and after joining the KVK's.

Based on the score obtained from the selected variables extent of KVK's adopted was calculated by computing the Impact Index (expressed in percentage) as follows:

$$\text{Impact Index} = (\text{Scores obtained} / \text{Maximum Scores Obtainable}) \times 100$$

Gain in Impact was calculated by taking difference between Impact index value before and after taking income generating activity. They were categorized into low, medium and high groups based on mean and standard deviation.

Results and Discussion

Table 1 reveals that the different activities / trainings conducted by the KVK's as well as the present status in the study areas, as 80 (50.00 per cent) numbers each of farmers / respondents were selected from the adopted and non-adopted of KVK's programme / training in the two selected categories, out of the total 160 (100.00 per cent) respondents selected for the present study the 100 (66.67 per cent) were received low training (up to 2) organised by the KVK's, while 20 (25.00 per cent) of the adopted KVK's were got low trainings and among the non-adopted of KVK all 80 (50.00 per cent) were get low trainings, respectively. Whereas 35 (43.75 per cent) were in medium range (3 to 5) of trainings and

25 (31.25 per cent) were got high range of trainings (6 and above), respectively.

Table 2 reveals the location / area wise selected sample respondents under KVK's programme in the study areas, as 80 (50.00 per cent) numbers each of respondents were selected from the adopted and non-adopted of KVK's programme in both the categories, out of the total 160 (100.00 per cent) respondents selected for the present study.

Further the total households were 5709 (100.00 per cent) out of that 20 (12.50 per cent) were selected from each block namely; Kubolong (1826 households) and Onpangkong south (2539 households) blocks from Mokochung district and Akuluto (962 households) and Suruhoto (382 households) blocks were from Zunheboto district.

Even the link of respondents with development agencies under KVK's programme throughout the year in the study areas, as 80 (50.00 per cent) numbers each of respondents were selected from the adopted and non-adopted of KVK's programme in both the categories, out of the total 160 (100.00 per cent) respondents selected for the present study the 127 (79.38 per cent) were received low training (up to 2) organised by the KVK's, while 55 (34.38 per cent) of the adopted KVK's were got low trainings and among the non-adopted of KVK all 72 (45.00 per cent) were got low trainings, respectively.

Whereas 26 (16.25 per cent) in overall, out of that 20 (12.50 per cent) of KVK's adopted and 6 (3.75 per cent) non-adopted KVK's respondents were found on medium range (3 to 5) of trainings and 7 (4.37 per cent) was on overall, out of that 5 (3.12 per cent) of KVK's adopted and 2 (1.25 per cent) of non-adopted KVK's were got high range of trainings (6 and above), respectively.

Table.1 Location / area wise selected sample respondent

S. N.	Response	Total households	Adopted	Non-adopted	Overall
A.	Mokokchung district:				
1.	Kubolong	1826 (31.98)	20 (12.50)	20 (12.50)	40 (25.00)
2.	Ongpangkong South	2539 (44.47)	20 (12.50)	20 (12.50)	40 (25.00)
B.	Zunheboto district:				
3.	Akuluto	962 (16.68)	20 (12.50)	20 (12.50)	40 (25.00)
4.	Suruhoto	382 (6.69)	20 (12.50)	20 (12.50)	40 (25.00)
Total		5709 (100.00)	80 (50.00)	80 (50.00)	160 (100.00)

(Parenthesis indicates percentage to the total)

Table.2 Link with developmental agencies

Sl. No.	Category	Adopted	Non-Adopted	Overall
1.	Low (up to 2)	55 (34.38)	72 (45.00)	127 (79.38)
2.	Medium (3 to 5)	20 (12.50)	6 (3.75)	26 (16.25)
3.	High (6 & above)	5 (3.12)	2 (1.25)	7 (4.37)
Total		80 (50.00)	80 (50.00)	160 (100.00)

(Parenthesis indicates percentage to the total)

Table.3 Numbers of farmers received training of KVK's programmes

Sl. No.	Category	Adopted	Non-Adopted	Overall
1.	Low (up to 2)	20 (25.00)	80 (50.00)	100 (66.67)
2.	Medium (3 to 5)	35 (43.75)	0 (0.0)	35 (43.75)
3.	High (6 & above)	25 (31.25)	0 (0.0)	25 (31.25)
Total		80 (50.00)	80 (50.00)	160 (100.00)

(Parenthesis indicates percentage to the total)

Table.4 Overall Impact of adopted & non-adopted of KVK's training prog. (n=160)

S. N.	Category	Adopted KVK's (80)					KVK's Non-adopted (80)				
		Before	%	After	%	Impact	Before	%	After	%	Impact
1.	Low	19	23.75	16	20.00	3.75	28	35.00	27	33.75	1.25
2.	Med	28	35.00	28	35.00	0.00	35	43.75	35	43.75	0.00
3.	High	33	41.25	36	45.00	3.75	17	21.25	18	22.50	1.25
4.	Total	80	100.00	80	100.00	7.50	80	100.00	80	100.00	2.50
5.	Mean	12.88	-	15.23	-	-	9.89	-	11.05	-	-
6.	SD	2.81	-	3.21	-	-	1.65	-	2.04	-	-
7.	t-test	-	-	-	-	11.24**	-	-	-	-	6.45*

(** & * Significance at 1 & 5 per cent level of significance)

Table 3 reveals the numbers of farmers / respondents received the training under KVK's programme throughout the year in the study areas, as 80 (50.00 per cent) numbers each of respondents were selected from the adopted and non-adopted of KVK's programme in both the categories, out of the total 160 (100.00 per cent) respondents selected for the present study the 100 (66.67 per cent) were received low training (up to 2) organised by the KVK's, while 20 (25.00 per cent) of the adopted KVK's were got low trainings and among the non-adopted of KVK all 80 (50.00 per cent) were got low trainings, respectively.

Whereas 35 (43.75 per cent) in overall, out of that all 35 (43.75 per cent) of KVK's adopted and it was found to be nil for non-adopted KVK's respondents were found on medium range (3 to 5) of trainings and 25 (31.25 per cent) was on overall, out of all that only KVK's adopted were got high range of trainings (6 and above), it was found to be nil on non-adopter of KVK's, respectively.

Table 4 reveals the overall impact of adopted and non-adopted of KVK's programmes received by the respondents throughout the year in the study areas, as 80 (50.00 per cent) respondents were selected from the adopted and non-adopted of KVK's programme in both the categories, out of the total 160 (100.00 per cent) respondents selected for the present study the area. To assess the impact of KVK's on adopted and non-adopted villages / respondent it was categorized into low, medium and high group. The KVK's adopter has impact of 3.75 per cent on low and high group, while on non-adopter it was having 1.25 per cent on low and high group, while on medium group there is no impact before and after the KVK's overall training, which was found to be statistical significant at 5 per cent level of probability, respectively. The KVK's adopter on the low category group it was 19

(23.75 per cent) and after the training, it was decline to 16 (20.00 per cent), while medium category was same and high category was from 33 (41.25 per cent) increased to 36 (45.00 per cent), which indicate an increasing trend. The non-adopter of KVK's on different category were having the less impact on low and high both with 1.25 per cent decreasing as well as increasing trend on the selected category, respectively.

The main conclusion of the study on the overall impact of adopted and non-adopted of KVK's programmes received by the respondents throughout the year in the study areas, as 80 (50.00 per cent) respondents were selected from the adopted and non-adopted of KVK's programme in both the categories, out of the total 160 (100.00 per cent) respondents selected for the present study the area. The KVK's adopter has impact of 3.75 per cent on low and high group, while on non-adopter it was 1.25 per cent on low and high group, while on medium group there is no impact before and after the KVK's as training impact, which were found to be statistical significant at 5 per cent level of probability, respectively.

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