



Research Article

EFFECT OF CAPACITY BUILDING PROGRAMME ON YOUTH

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Abstract: Coconut (*Cocos nucifera*), a nature's gift to mankind. Tumkur district is the largest producer of Coconut in Karnataka. Coconut farmers in the district are facing acute shortage of skilled laborer's to climb coconut trees for harvesting nuts and for attending plant protection measures. In recent time, youth migration from rural to urban is common which has impacted on labour shortage in farming activities. Unemployment in youth is prevalent in the rural areas, as youth lack skills, work experience and poor financial resources. India consisting of more than 60 per cent youth and majority of them are living in rural areas. With this identified problem especially in the harvesting of nuts and plant protection measures in coconut palms, ICAR-Krishi Vigyan Kendra (KVK), Tumakuru has organized thirteen Palm climbing and Plant protection skill-oriented training programme for the youth of district in collaboration with Coconut Development Board (CDB) and Karnataka State Rural Livelihood Promotion Scheme (KSRLPS), GOK. Remarkable results were obtained after the training programme, majority of the trainees were satisfied with the contents covered during the programme regarding improving the knowledge and skill. Appreciable per cent of the trainees opined that the trainings were organized in a systematic manner with suitable content and methodology. A substantial and an appreciable impact was observed that around 70% of the trainees have adopted palm climbing activity as a self-employment.

Keywords: Coconut, youth, training, knowledge, skill

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Introduction

India has a multiple public extension system. The Indian Council of Agricultural Research (ICAR) institutes, State Agricultural Universities and State Agricultural Departments are involved in transfer of technology. The Department of Agriculture and Cooperation under the Union Ministry of Agriculture and the Provincial (state) Departments of Agriculture are primarily responsible for the transfer of technology to the farmers. From past two decades or more, there is a major change in agricultural extension systems in India and worldwide [4]. The Krishi Vigyan Kendra (KVK), an educational institution, offers very good opportunities to farmers by organizing trainings to work closely with trainees in developing a more skilled and educated work force. The training programme of KVK is a multipurpose one to cover not only the varied needs of a person but also the entire needs of village and community. It covers agricultural technology, home crafts, childcare, family welfare, cooperation, animal rearing and management, fisheries, bee-keeping and cottage industries, depending upon the needs of area and people. Krishi Vigyan Kendra imparts training and education with a view to raise the level of knowledge, attitudinal changes and testing and transferring of recommended improved farm technology so as to bridge the gap between production and productivity and also to increase self-employment opportunities among the farming community. The training programmes (On and off campus) of KVK's are being conducted for fulfilling the KVK mandate. Krishi Vigyan Kendra (Farm Science Centre) is an innovative institution of ICAR established at district level. The first KVK was established during 1974 and KVKs are funded by ICAR and administered by ICAR institutes / SAUs / Deemed Universities / Non-government Organizations or State Department of Agriculture. KVKs play a vital role in conducting on farm testing's to identify location specific agricultural technologies and demonstrating the production potential of crops at farmers' fields through frontline demonstrations. Need based training programmes for farmers, farm women, youth, school dropouts and extensional personnel to update their knowledge on improved

production technologies are being conducted by KVKs. Seeds, new varieties, organic products, biofertilizers, planting materials, livestock like piglets, poultry strains and other critical inputs are produced by KVKs and these are available to the farmers. Agricultural Knowledge and Resource Centres are set up at KVK to support the initiatives of public, private and voluntary sectors at district level. A number of successful case studies have emerged out of effective implementation of various technological and institutional interventions by KVKs. The KVKs are evolving as the future grass root level institutions for empowering the farming community. To achieve the desired growth in agriculture and allied sectors, KVKs have become an integral part in planning and act as an instrument in implementing. Studies were conducted from both internal and external agencies on performance of KVKs at different point of times have indicated that the KVKs have significantly contributed in educating farmers in improved practices and enhancing productivity levels. Since Tumakuru district is having more area under coconut garden (1.5 lakh Ha.) in the state and facing more problems with respect to labour problem for harvesting of nuts, improper nutrient management, severe pests and diseases and lack of awareness on value addition. Training was conducted by developing suitable module and lesson plan there by giving much more importance to the practical (Method Demonstrations) than theory to inculcate the effective and efficient delivery of the topics to be covered. The programme was majorly focused on skill development on palm climbing by using equipment under the supervision of master trainer and treatment of pest and disease affected coconut gardens including integrated nutrient management and other improved production practices. The programme was also conceptualized with the personality development of trainees such as improving the leadership and communication skills. At the end of training programme, the trainees were provided with palm climbing machine. There was a good response from the farmers/ youth regarding the training programme with respect to topics covered,

training methods & materials used, field visit arranged and other facilities provided like food and accommodation. With this regard, to know the knowledge and skill of trainees before and after the training programme and to assess the impact of training on trainees the survey work was conducted. The advantage of assessing a knowledge, attitude and practice after training of farmers on a given agro-technology is one of the tools for information on the effectiveness of training [1]. Efforts have also been concentrated to empower the women by giving them vocational trainings. It suggested that impact evaluation of the trainings organised by the KVKs should be conducted to identify the constraints and impacts [2].

Materials and Methods

There were thirteen training programme with suitable lesson plan and module for 340 rural youths of Tumakuru district on palm Climbing and Plant Protection with the tag name Friends of Coconut Tree (FOCT) was organized at KVK, Konehalli, Tumakuru district in collaboration with Coconut Development Board (CDB) and Karnataka State Rural Livelihood Scheme (KSRLPS), GOK. During the training programme, the pre and post evaluation was done to know the change in knowledge and skill of trainees by using suitable questionnaire and impact assessment was also carried out by conducting survey work and data was analyzed with suitable statistical tools.

Results

Data in the table 1 represents that, in pre evaluation test majority of the trainees were not having any knowledge on Information on Krishi Vigyan Kendra (82.82%), identification of nutrition deficiency symptoms in coconut palm (95.58%), recommendation of fertilizer dosage to coconut palm (94.70%), information on soil and water testing (63.24%), importance of soil and water testing (77.06%), knowledge and skill on soil sampling method for testing (93.53%), information on Integrated Nutrient Management (96.48%), selection of suitable nuts for production of quality seedlings (70.88%), skill on use the bio fertilizers (97.05%), differentiation of pest and disease incidence in coconut garden (95.58%), differentiation of harmful and useful pests (86.76%), skill on Integrated Pest and Disease Management in coconut garden (96.18%), organic farming practices in coconut garden (70.58%), scientific Post Harvest Technologies in coconut (90.58%), importance of nutrient content in coconut (85.30%), knowledge on palm climbing machine (80.00%), skill on palm climbing by using palm climber (95.58%), communication skill and time management (80.00%) and leadership qualities (79.42%). After the Pre evaluation, the systematic training programme by developing lesson plan and module was organized by giving more importance to the practice than theory using method demonstrations, skill development on palm climbing using palm climber and field visits. Data in the table-2 indicates the opinion of the trainees regarding the information given by trainers and also how the trainer's information influenced the trainees. A good number of trainees opined that, the information about KVK (100 %), line departments (91.18%), soil and water management practices in coconut (92.64%), soil and water sampling methods and demonstrations (96.18%), identification of nutrition deficiency symptoms and management in coconut (94.12%), recommendation of fertilizer based on result of soil and water testing (97.05%), Integrated Nutrient Management (89.70%), Integrated Pest and Disease management in coconut garden (89.12%), selection, safe handling and planting of tender and matured nuts (94.12%), organic farming practices in coconut garden (92.05%), method of crown cleaning (95.58%), value addition to coconut (92.05%), cropping system in coconut garden (93.24%) and social security schemes / programmes had given more information. This implies that, the trainers of Krishi Vigyan Kendra and from other institutes including local progressive farmers as resource persons had vast knowledge on the content of the training programme and also, they were good at delivering the subject to trainee's level by using suitable training methods and aids to train the trainees more effectively. Regarding facilities provided in the training programme (Table-3) as part of learning situation, highest number of trainees agreed that the methods used in training programme (94.42%) - group discussion, field visits, method demonstration etc. and training Aids (91.18%) - LCD, Black board, white board, specimens, literatures etc. used in training programme, the facilities like boarding and lodging (97.94%), field visits (98.24%) were very good

and helped more in understanding the concept of technology for further applicable in real life situation for higher production of coconut along with development of self-employment opportunity by using palm climber. The majority of the trainees were happier about the overall arrangements of the training programme. This indicates the importance of different training methods and aids can helpful in achieving better learning situation and in turn helps the trainees to gain more knowledge and skill which dominates the adoption of learnt technologies in real life situation.

Discussion

The outcome of the training programme was understood by evaluating the trainees using post evaluation questionnaire. Cent per cent of trainees had information on KVK and development departments, importance of micro nutrients and soil and water testing for coconut palm cultivation, they developed the skill on palm climbing using palm climber. 91.76 per cent of trainees had developed the knowledge and skill on identification of nutrient deficiency symptoms in coconut palm, 94.12 % on recommended dosage of micro nutrients, 95.58 % on soil and water sampling methods in coconut garden, 93.82 per cent of trainees had developed the skill on selection of suitable nuts for production of quality seedlings, 98.24 % came to know, how to use the bio fertilizers, 87.64 per cent had developed skill on Integrated Pest and disease management in coconut garden. The training was also focused on improving the trainees on communication and time management skills and observed remarkable improvement in the trainees after the training programme. This result shows the importance of training in the change of knowledge and skill of the youths and in turn it helps in adoption of those technologies learnt at the training programme into real life situation for self-employment. This is in conformity with the studies of [3], they opined that the t-values of difference between pre and post training mean knowledge score of all the practices of beekeeping were significant ($p < 0.05$). In practices such as breeding of honeybees and bee enemies they had comparatively little pre-training knowledge but after training, significant gain in level of knowledge was achieved in all the practices. Also, it was same in the mushroom cultivation.

The impact of the training programme was worked out by using face to face interaction methods after few months of training and the data is presented in Table-4. There was a outstanding impact observed from the FOCT training programme. More than 70 % of the trainees adopted the outcome of training programme and they were self-employed, up to 15 % of trainees given their palm climbing for community people to train themselves, About 35 % of the trainees were partially involved in palm climbing and fetching additional income along with their farm activities. The two palm climbers associations namely Kalpa siri Palm climbers association (12 members) and Kalpa ganga palm climbers (12 members) were formed and these associations are actively involved in harvesting of nuts and pest and disease treatment in coconut, these associations actively involved in organizing FOCT training programmes at their centres with the technical cooperation from the KVK, which were sponsored by KSRLPS, GOK and CDB, Bangalore and also they were involved in coconut survey work sponsored by UHS, Bagalkote and UAS, Bangalore separately and fetched a handsome income of Rs. 9000/- per person from each institute in 7 days. Further, both the associations in a group were involved in the plant protection work assigned by CPCRI, Kidu near Kukke subramanya and earned Rs. 15,000 per person in 10 days. Again, the same institute assigned the work next year for harvesting the nuts in 14,000 palm near Kukke subramanya and fetched an income of Rs. 20,000 per person in 20 days. Mr. Nataraju, earlier he was a masonry worker and his saving were Rs. 200-300 per day and after attending the training programme he left the masonry job and presently he is fulltime involving in palm climbing work as self-employer and do saving up to Rs. 1000-1300/- per day. He climbs up to 80 – 90 palms in a day and charges Rs. 25-30 per palm. After becoming fulltime employer, he has cleared the personal loan of Rs. 50,000/- and bought two-wheeler for Rs. 40,000/-. In addition, he also serves as a master trainer for other trainees in the FOCT training programmes. Mr. Devananda, a trainee who partially involving in palm climbing along with farming activity and earns Rs. 15,000/- to 18,000/- in a month alone from palm climbing work.

Table-1 Change in knowledge and skill of Trainees

SN	Statements	Pre evaluation		Post evaluation	
		Yes	No	Yes	No
1	Do you know about Information on Krishi Vigyan Kendra?	55 (16.18)	285 (82.82)	340 (100)	-
2	Do you know about Information on Dept. of Agri/ Horti./Forestry/ Animal Science etc.?	212 (62.35)	128 (37.65)	340 (100)	-
3	Do you know about identification of nutrition deficiency symptoms in coconut palm?	15 (4.42)	325 (95.58)	312 (91.76)	28 (8.24)
4	Do you know about Recommendation of fertilizer dosage to the coconut palm?	18 (5.30)	322 (94.70)	312 (91.76)	28 (8.24)
5	Do you know about the Importance of micro nutrients for production of coconut?	22 (6.47)	318 (93.53)	340 (100)	-
6	Do you know about the Recommended dosage of micronutrients to the coconut palm?	15 (4.42)	325 (95.58)	320 (94.12)	20 (5.88)
7	Do you know about Information on soil and water testing?	125 (36.76)	215 (63.24)	340 (100)	-
8	Do you know about Importance of soil and water testing?	78 (22.94)	262 (77.06)	340 (100)	-
9	Do you know about Soil sampling method for testing in coconut garden?	22 (6.47)	318 (93.53)	325 (95.58)	15 (4.42)
10	Do you know about Information on Integrated Nutrient Management in coconut garden?	12 (3.52)	328 (96.48)	313 (92.05)	27 (7.95)
11	Do you know about selection of suitable nuts for production of coconut seedlings?	99 (29.12)	241 (70.88)	319 (93.82)	21 (6.18)
12	Do you know about Method of planting in production of quality coconut seedlings?	75 (22.05)	265 (77.95)	325 (95.58)	15 (4.42)
13	Do you know about presence of bio fertilizers?	300 (88.24)	40 (11.76)	340 (100)	-
14	Do you know how to use the bio fertilizers?	10 (2.95)	330 (97.05)	334 (98.24)	6 (1.76)
15	Can you differentiate incidence of pest and diseases in coconut palm?	15 (4.42)	325 (95.58)	310 (91.18)	30 (8.82)
16	Can you differentiate beneficial and harmful pests?	45 (13.24)	295 (86.76)	320 (94.12)	20 (5.88)
17	Do you know/ developed skill on Integrated Pest and Disease Management in coconut garden?	13 (3.82)	327 (96.18)	298 (87.64)	42 (12.36)
18	Do you know about Organic farming practices for coconut cultivation?	100 (29.42)	240 (70.58)	330 (97.05)	10 (2.95)
19	Do you know about Different methods of crown cleaning aspects in coconut?	15 (4.42)	325 (95.58)	310 (91.18)	30 (8.82)
20	Do you know about scientific Post Harvest Technologies in coconut?	32 (9.42)	308 (90.58)	300 (88.24)	40 (11.76)
21	Do you know about importance of nutrient content in coconut?	50 (14.70)	290 (85.30)	305 (89.70)	35 (10.30)
22	Earlier do you know about the palm climbing machines?	68 (20.00)	272 (80.00)	340 (100)	-
23	Have you developed the skill on palm climbing with climber?	15 (4.42)	325 (95.58)	340 (100)	-
Sl. No	Statements	Pre evaluation		Post evaluation	
24	Do you know about crop insurance, pension and provident fund?	Yes (55.58)	No (44.42)	Yes (96.47)	No (3.53)
25	Do you know about Communication skills and time management?	68 (20.00)	272 (80.00)	315 (92.64)	25 (7.36)
26	Do you know about Leadership qualities?	70 (20.58)	270 (79.42)	310 (91.18)	30 (8.82)

*(Data in the parenthesis indicates percentage)

Table-3 Opinion of Trainees about the facilities in training programme (n=340)

SN	Statements	Opinion			
		Very good	Good	Some what	Not good
1	Training programme	300 (88.24)	25 (7.35)	15 (4.41)	-
2	Boarding and lodging	333 (97.94)	6 (1.76)	1 (0.30)	-
3	Training programme methods	321 (94.42)	10 (2.94)	9 (2.64)	-
4	Training Aids used in training programme	310 (91.18)	15 (4.41)	15 (4.41)	-
5	Field visit	334 (98.24)	6 (1.76)	-	-

*(Data in the parenthesis indicates percentage)

Table-2 Opinion of Trainees about the content in Training programme (n=340)

SN	Statements	Information about the content		
		Given more information	Given Less information	Not given accurate information
1	Information about the KVK	340 -100	-	-
2	Programmes and schemes of development departments	310 -91.18	30 -8.82	-
3	Soil and water management practices in coconut	315 -92.64	25 -7.36	-
4	Soil and water sampling methods and demonstration	327 -96.18	13 -3.82	-
5	Identification of nutrition deficiency symptoms and management at critical stages of coconut palm	320 -94.12	20 -5.88	-
6	Recommendation of fertilizer based on result of soil and water testing reports in coconut garden	330 -97.05	10 -2.95	-
7	Integrated Nutrient Management in coconut garden	305 -89.7	35 -10.3	-
8	Integrated management of Pests and diseases in coconut garden	303 -89.12	37 -10.88	-
9	Selection, safe handling and planting of tender and matured nuts	320 -94.12	20 -5.88	-
10	Organic farming practices in coconut garden	313 -92.05	27 -7.95	-
11	Method of crown cleaning	325 -95.58	15 -4.42	-
12	Post-harvest technologies	298 -87.64	42 -12.36	-
13	Value addition in coconut	313 -92.05	27 -7.95	-
14	Cropping system in coconut garden	317 -93.24	23 -6.76	-
15	Social security schemes / programmes	295 -86.76	45 -13.24	-
16	Communication skills, time management and leadership qualities	298 -87.64	42 -12.36	-
17	Skill on palm climbing using machine	339 -99.7	1 -0.3	-

*(Data in the parenthesis indicates percentage)

Table-4 Impact of FOCT training programmes

SN	Impacts of Training programme
1	More than 70 % of the trainees adopted the outcome of training programme and they are self employed
2	Around 10 % of the trainees are using the skill of palm climbing with climber at their farm level to harvest tender and matured nuts
3	About 35 % of the trainees are partially involved in palm climbing and fetching additional income along with their farm activities
4	Up to 15 % of trainees given their palm climbing for community people to train them selves
5	The two palm climbers associations namely Kalpa siri Palm climbers association (12 members) and Kalpa ganga palm climbers (12 members) were formed and these associations are actively involving in harvesting of nuts and pest and disease treatment in coconut
6	These associations actively involved in organizing FOCT training programmes at their centres with the technical cooperation from the KVK, which were sponsored by KSRLPS, GOK, and CDB, Bangalore
7	These associations were involved in coconut survey work sponsored by UHS, Bagalkote and UAS, Bangalore separately and fetched a handsome income of Rs. 9000/- per person from each institute in just 7 days
8	Both the associations in a group approach involved in the plant protection work assigned by CPCRI, Kidu near Kukke subramanya and earned Rs. 15,000 per person in 10 days
9	Same institute assigned the work of harvesting the nuts in 14,000 palm near Kukke subramanya and fetched an income of Rs. 20,000 per person in 20 days
10	Mr. Nataraju, earlier a masonry worker and his saving was Rs. 200-300 per day and after attending the training programme he left the masonry job. Presently he is fulltime involving in palm climbing work as self-employer and do saving up to Rs. 1000-1300/- per day. He climbs up to 80 – 90 palms in a day and charges Rs. 25-30 per palm. After becoming fulltime employer, he cleared the personal loan of Rs. 50,000/- and bought two wheeler bike of Rs. 40,000/-. He is also serving as a master trainer for other trainees in the FOCT training programmes.
11	Mr. Devananda, a trainee who involving partially in palm climbing work along with his farming activity and earns Rs. 15,000/- to 18,000/- in a month from palm climbing work

Conclusion

From the above information, it is clearly observed that the trainings helped more in improving the knowledge and sharpening skill of trainees by adopting systematic training approaches. This showed the positive impact of training programme on palm climbing and plant protection to reduce the labour problem to a certain extent and results in self-employment generation and reduced the migration of rural youth to urban areas.

Application of research: KVKs need to be emphasized more in creating skill

developments cum entrepreneurship activities among rural youth in many areas in agriculture, horticulture, animal husbandry and other allied activities for enhancing their economic growth thereby stopping their migration.

Research Category: Unemployment, Skill development

Abbreviations

FOCT - Friends of Coconut Tree

KVK - Krishi Vigyan Kendra

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