



# Creation of Self employment through Coconut tree Climbing at Ariyalur District

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## ABSTRACT

The Krishi Vigyan Kendra across the country is making relentless efforts to develop entrepreneurial and self employment skills among the rural youth. The ICAR KVK of Ariyalur District is imposing special emphasis in this line and conducted the six days practical training on climbing of coconut trees using climbing device to 160 trainees with the financial assistance of coconut Development Board, Cochin during the year 2017 to 2020. The impact study conducted by the KVK, Ariyalur among the 100 ex-trainees showed that ninety percent of the trainees using the climbing device for climbing of Coconut tree both on their own trees and as a profession to earn income. As this training involves more practical exposure and easiness of climbing device facilitated the trainees to become professional climbers. By these trainings eighty three person became tree climber and thereby a mandays of 24,500 per year created to the youth members. They could earn a sustained income of Rs.22,500/month and secured their livelihood. The correlation analysis of profile characters versus extent of adoption by the respondents also showed that education (0.575\*\*), farm size (0.457\*\*), social participation (0.356\*\*), risk bearing capacity (0.543\*\*) and motivation orientation (0.648\*\*) had highly significant positive impacts over extend of adoption of climbing device for coconut tree climbing.

**Key Words:** Skill training, Entrepreneurship, Correlation, Income, Employment.

## INTRODUCTION

Krishi Vigyan Kendra designs different types of training courses for the farmers, farm women and rural youth which is an important aspect of the entrepreneurship development and considered as part of strategy for growth and development of an organization. Basically, training is intended to help individuals to learn and to bring the desired standard of efficiency, condition and behaviour (Sharmal *et al*, 2013). Rural youth are the backbone of a country. Youth minds are creative and they are capable of handling risk factors such as monsoon management, climatic change adaptation and poverty in an efficient way, using various technologies. Rural youth account for 55 percent of the world youth population. In India, rural youth constitute over two-and-half times of the size of urban youth. They form a vital human resource. Rural youth therefore should be brought

into the mainstream of the rural development process in general and agriculture in particular. Rural youth have significant contributions to the local and national economy by being participated in Income Generating Activities (IGA's) such as vegetable production, nursery establishment, crop production, mushroom cultivation, bee keeping, livestock, goatry and poultry, cottage industry and small business etc. Unfortunately, the rural youth community is almost unknown to modern agricultural technology and has been left out from the main stream of economic development (Mondal, 2006).

The total population of Ariyalur District is 7,52,481 of these 3,51,270 are farmers. The youth members (19-35 yr) constitute 36 per cent of the total population and about 30% of them are unemployed or underemployed. ICAR – Krishi Vigyan Kendra (KVK) hosted by CREED, Ariyalur has conducted

training programmes to unemployed rural youth in collaboration with Coconut Development Board, Cochin. The name of the training was “Coconut tree climbing using climbing device’ under friends of coconut trees (FOCT) concepts. The preferred age of the trainees was 18 to 45 yr. In total 160 rural youth were trained during last three years from 2017-18 to 2019-20.

The term coconut can refer to the entire coconut palm, the seed or the fruit, which, botanically, is a drupe, not a nut, weighs 1.2-2 kg. It is a tall perennial tree crop, which, when fully matured, attains a height of about 15m to 30 m crowned by 28 to 32 pinnate leaves, with fruit bunches of varying age, one each in each axil (George, 2018). But in recent days coconut farmers are facing serious problems in coconut harvesting due to the shortage of trained climbers to harvest the nuts and clean the trees annually. It costs high ranging from Rs.50 – 80 per tree for climbing and harvesting. The drudgery is generally perceived as physical and mental strain, agony and monotony and hardship experienced by human being (Tiwari *et al*, 2018) and climbing of coconut tree is the drudgery involved and dangerous work too.

The present study was undertaken to assess the impact of FOCT trainings on income and employment generation to rural youth and its role on reducing problems in coconut harvesting.

## MATERIALS AND METHODS

By considering the problem of shortage of trained tree climbers, the Coconut Development Board, Cochin have introduced the training on climbing of coconut trees using a safe and easy to use climbing device. During 2017-18 to 2019-20 eight such a training programmes were conducted with the financial support of Coconut Development Board (CDB) to 160 coconut farmers or youth members to impart the skill of using palm climbing device and management of coconut plantations for sustainable yields. After successful completion of the training they were provided with a palm climbing

device, free accidental insurance for one year and a certificate of completion so as to enable him to take this as his profession. These trainees were linked with Coconut Development Board to get regular advices and schemes related to coconut farming. Out of 160 trainees, 100 trainees were selected by using simple random sampling. The information pertaining to tree climber by traditional methods and advanced method of using climbing device was collected by using a well-structured pretested schedule. Farmers adopt them either fully, partially or do not adopt at all. Score 3, 2 and 1 was given for fully, partial and non-adoption respectively. The data were statistically analyzed by using correlation parameters.

## RESULTS AND DISCUSSION

Trainees adopted the coconut tree climbing device in two ways one is for harvesting their own coconuts and remaining one as a profession for income generating purpose. The trainees expressed that the device is time saving, simple and safe and reduced the harvesting cost. The device was so designed to attract the youth and non-traditional coconut climbers to take up coconut harvesting as vocation. The small farmers with few numbers of coconut trees were very happy to harvest nuts by their own by using this simple device.

It was observed that 52.0 percent of the trainees were fully adopted the coconut tree climbing device as an income generating activities by climbing others trees for wage. A person could climb 25 to 30 trees in a day and earned Rs.750 to 1000/day. About 38.0 percent of the trainees were partially adopted the device for climbing for wage, only 10.0 percent of the farmers were not adopted this device. About 80 per cent of the trainees were adopted the coconut tree climbing device for earning income and remaining 20 per cent of the trainees adopted the device for harvesting their own coconuts. This might be due to the fact that most of the rural youth trainees were enthusiastic in participation of trainings as it involves more practical exposures and easy to climb

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**Table 1. Correlation analysis of profile characters and their extend of adoption of coconut tree climbing device.**

Sr. No.	Profile character	Correlation Co-efficient (‘r’ valve)
1	Age	-0.226 <sup>NS</sup>
2	Education	0.575**
3	Farm size	0.457**
4	Farming experience	-0.279*
5	Family type	0.047**
6	Annual income	-0.279*
7	Social participation	0.356**
8	Mass Media exposure	0.268*
9	Extension agency contact	0.330*
10	Training exposure	0.285*
11	Risk bearing ability	0.543**
12	Motivation orientation	0.648**

\* = significant at 0.05 level of probability; \*\* = significant at 0.01 level of probability

apart from ensuring safety. As Ariyalur district is having limited coconut plantations, the trained climbers preferred to go to the nearby districts also to climb the trees and get income. The problem of coconut growers in harvesting the nuts at high cost (Rs.50-80/tree) using the traditional climbers were solved to the maximum extend as they could use these trained climbers at Rs.25-30/tree.

A perusal of data presented in table 1 revealed that, among the twelve profile characteristics of respondents studied, nine characteristics namely education, farm size, family type, social participation, mass media exposure, extension agency contact, training exposure, risk preference and motivation orientation were significantly correlated with adoption of coconut climbing device. However, age, farming experience and annual income were negatively correlated with adoption of coconut climbing device for nut harvest and crown cleaning.

Education and farm size paves the way to quench the need for information for adoption. Social participation could act as supporting psychological

variable to verify and clarify the misconception in adoption of the device. Mass media exposure, extension contact and training exposure facilitated quick acquisition of knowledge and better adoption. This was in consonance with the findings of Sriramana (2014) that the profile characteristics namely age, education, mass media exposure and extension contact were found to be positively significant in terms of knowledge gain and adoption of technologies among the cashew growers.

It was evident from Table 2 that among the methods of climbing, 83 youth members out of 160 persons trained were involved in tree climbing as a profession. Number of trees climbed / month by one person was 750 trees and thereby Rs.22,500 could be earned by a person per month. About 24,500 mandays of employment is being generated per year to the 83 tree climbers. This was mainly due to use of advance method of climber leads easy to climb the tree, without any life accidental risk by using coconut climber over other method of harvesting of coconuts. Whereas, manually climbing the tall trees, experienced body pain,

**Table 2. Income and employment generation to youth members of Ariyalur by climbing coconut tree using tree climber .**

No. of persons involved in tree climbing as a profession	No. of trees being climbed / month / person	Cost/tree (Rs.)	Income generation/ Person (Rs.)	Employment generation / year (Mandays)
83	750	30	22,500	24,500

muscles catch and with lot of risk while climbing and very difficult to meet out financial needs of a family with meager earnings. Rachna *et al* (2013) also reported that the training programmes related to agriculture and animal husbandry can also play a significant role to alleviate poverty and generate employment opportunity for educated unemployed youth. Hence, the friends of coconut trees trainings designed by the Coconut Development Board and imparted by different KVKs certainly could reduce the risk of tree climbing and body pain besides easing out to climb a greater number of trees per day. This could pave the way for increased income and the employment to the rural youth.

### CONCLUSION

The study partially and fully has shown that ninety per cent of the trainees were adopted the coconut tree climbing device. Correlation analysis also indicated that education, farm size, family type, social participation, mass media exposure, extension agency contact, training exposure, risk preference and motivation orientation were significantly correlated with adoption of coconut climbing device. The study concludes that coconut climber equipment is a boon for the coconut harvesters, since it has reduced the drudgery in tree climbing and improved the climbing efficiency there by providing employment opportunity for rural youth, which has helped them to improve their livelihood.

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