

Role of Forestry Extension in Enhancing the Livelihood of a Rural Artisan

V. Irulandi^{1,2*} and T. T. Ranganathan²

¹Principal Chief Conservator of Forests (Social Forestry & Extension), Tamil Nadu, Forest Department, India; irul55@gmail.com

²Faculty of Agriculture & Animal Husbandry, Gandhigram Rural Institute-Deemed University, Gandhigram, India; ranga.gri@gmail.com

Abstract

Increasing the forest and vegetation covers could mitigate the global warming and its allied problems. In this study, *Bambusa vulgaris* raised in 3/4 of an acre of a farm land in Aarupatti village of Dharmangalam Taluk of Salem District in Tamil Nadu, India mustered profit for a farmer. The trained farmer planted 111 seedlings during 2004 and obtained 1050 culms with the net income of Rs. 52, 500 per annum. This was made possible as the Forestry Extension Centre, Salem District trained the farmer for bamboo cultivation and also educated about its utility value. The case study reported here may serve as a sample where perennial crop like Bamboo, cultivated even in a smaller scale, could fetch profit to a farmer while meeting the requirement of carbon sink. Like Bamboo cultivation and training, many niche areas do exist that should be fully tapped for enhancing green cover but at the same time should bring good economic returns to the farmers.

Keywords: Bamboo Cultivation, Tamil Nadu, Carbon Sequestration

1. Introduction

Kyoto Protocol envisages that all forestry practices eligible to generate carbon sequestration credits are part of what is called the LULUCF sector, i.e. land use, land use change and forestry¹. Developing countries can trade carbon sequestered by their forests to industrialized countries as carbon credits². The Kyoto Protocol was adopted by India in December 1997 and came into force in February 2005 in tune with carbon mitigation effort to address the global warming problem. In addition, Government of India under its National Forest Policy of 1998 has developed various strategies to increase tree cover in the non-forest areas including Panchayat lands, wastelands, industrial and urban areas, educational institutional lands, road sides, canal as part of social forestry program. The fact that districts with less forest cover can be compensated by

higher tree densities under such Social Forestry program³. However the success of the program lies in strategic planning proving the economic credibility to the common people.

Bamboo is the fastest growing perennial grass helpful for stabilizing the climatic changes through carbon sequestration. In India, bamboos are grown throughout the country, except in Kashmir valley. It can play an important role in raising forest cover to about 40 per cent by 2020. Approximately, 7.5 million bamboo artisans dependent on bamboo for their livelihood⁴. It also supports in checking soil erosion, wind barrier and restoration of degraded land.

Bamboo is a multipurpose, short rotation tree species which has wide adaptation to various agro-climatic conditions. In India it supports cottage industries like handicrafts, basket and agarbatti making etc. It is popularly

*Author for correspondence

known as “Poor Man’s Timber” and “Green Gold”. It has high social-economic value, and environmental importance. Thus the benefits of bamboo spread through employment providing income generation and environmental protection. It is one of the promising renewable natural resources requiring immediate attention.

Bamboo can grow up to a foot a day in the right conditions⁵. Tissue cultured sapling reported to attain 5 times more density. Growing of bamboo improves the status of land and increases the productivity of the farmlands. Bamboo cultivation in farmland either as pure crop or mixed crop is economically viable in land use option in view of the rising demand for small timber and handicrafts etc. It is generally found in the forest area and the harvested materials are fed to wood based industries like paper industries. Bamboo is a useful material to meet the requirement of handicrafts, agriculture tools and wood balance⁶. Its fast growth, ease in harvesting and providing employment have attracted the Villagers to take up cultivation of Bamboo in their field or whatever small lands available in their backyard. Bamboo as tree cover can be a viable option if only proved beneficial to farmers economically. The present work is focused in this aspect.

2. Method

During the course of farmers training programme in the Forestry Extension Centres – Salem District, the officials have identified a Rural Basket making artisan from Aarupatti village of Dharmangalam Taluk of Salem District in Tamil Nadu who has benefited greatly in enhancing his livelihood by way of cultivation Bamboo in a piece of land with the extension support from Forestry Extension centre, Salem District of Tamil Nadu Forest Department.

A demonstration plot was laid in the farmer’s land (3/4 of acres) with thorn less variety of bamboo i.e. *Bambusa vulgaris* in the year 2004. Before laying the bamboo demonstration plot in his field, the person was brought to Forestry Extension Centre, Salem and provided with training in making baskets with *Bambusa vulgaris* available in the extension centre and also educated about the utility value and potential for employment generation.

3. Results and Discussion

Table 1 and 2 records the various details of bamboo growth and the utility value obtained from it. Table 3

Table 1. Economics of Bamboo Cultivation: plantation details

Extent of the Rural Artisan’s field	70 cents or $\frac{3}{4}$ acre
Year of plantation (<i>Bambusa vulgaris</i>)	2004
No. of Bamboo Seedlings planted	111
No. of Bamboo Seedlings surviving	90
No. of healthy clumps producing culms	70
No. of culms being harvested from each clump per annum	18–20
Total number of clumps obtained from the plantation @ 15 average/clump/annum	1050

Table 2. Utility value of Bamboo

1	No. culms required to make one basket	1½
2	Total No. of basket could be produced from the plantations	700
3	Cost of each bamboo basket (Rs. 150)	Rs. 150/-
4	Cost by way of sale of 700 Nos. of basket	Rs. 1,05,000 or Rs. 1.05 Lakhs
5	Income from the sale of cattle feed trough (kothaani) from every 30 culms’ side branches 1 trough can be produced : $1050/30=35$, the cost of 1 trough is = Rs. 1000/- and therefore the cost of 35 cattle feed troughs is = 35×1000	Rs. 35,000
	Gross income from the plantation (4+5)	Rs. 1.40 lakhs per annum

Table 3. Expenditure and Return

1	Application of farmyard manure & fertilizer	Rs. 2,000/-
2	Cost of water (Diesel)	Rs. 5,000/-
3	Labour cost engaged for production of basket (1 labour produces 2 baskets per day with Rs. 200/- as wage Therefore $700/2 = 350 \times 200 = 70,000/-$)	Rs. 70,000/-
4	Labour cost engaged for production of Kothaani (1 labour produces 1 Kothaani/day. Therefore 35 Nos. of Kothaani can be produced by 35 labours x Rs. 300/labour which includes cost of collection of side branches of bamboo.)	Rs. 10,500/-
Total (1+2+3+4)		Rs. 87,500/-

presents the expenditure and income. In a 70 cent of plot, the trained farmer grew 1050 culms and obtained 85,700 Indian Rupees per annum as net income. The farmer generated a gross income of Rs. 1.40 lakhs per annum and its most part obtained from the bamboo the baskets he sold using his own farm produce. Green cover.

4. References

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