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Analysis of Harvesting, Marketing and Price determination of Forest Produce in Coffee Based Plantations in Kodagu District of Karnataka

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Abstract: Forest plays an important role in the socio-economic development of a country like India. They are rich sources of energy, housing, firewood, timber and fodder. They provide employment to a large section of rural population. Forest also provide intangible benefits like soil and water conservation, rich genetic resources, aesthetic forestry, as a tool for research, as a home for wildlife etc. The present study was conducted in Madikeri and Somawarapet Taluk of Coorg district. The district is noted for good ecosystem through its forest wealth, wild life and abundance of water resources. The farmers selected in the area were widely distributed and adopted diversified cropping system. The survey was conducted in ten Grama panchayats in Madikeri and Somwarpet taluks of Coorg district. The selection of respondents vary from village to village based on the number of households in the village. The information was obtained through personal interview by using the structured schedule. the additional information is collected through secondary data available from different sources/departments like department of agriculture, Karnataka Forest Department, revenue department, district information and statistics, Grama panchayat, Anganavadi, NABARD, etc., This study is a modest attempt to know the Harvesting, Marketing and Price determination of Forest Produce in coffee based plantations in Kodagu district Karnataka.

Key words: Marketing, Forest Produce, Price determination, Coffee Plantations.

INTRODUCTION

India is the seventh largest country in geographical level and second largest country in population wise and twelfth largest country in economic wise. The economy of India is as diverse as it is large, with a number of major sectors including manufacturing industries, agriculture, textiles and handicrafts, and services. Agriculture is a major component of the Indian economy; More than 60 per cent of our people have their livelihood as agriculture and allied works. Forest plays an important role in the socio-economic development of a country like India. They are rich sources of energy, housing, firewood, timber and fodder. They provide employment to a large section of rural population. Forest products include timber, fuel wood, fodder, fruits, flosses, fibers, medicinal plants, tans, resins and etc. Forest also provide intangible benefits like soil and water conservation, rich genetic resources, aesthetic forestry, as a tool for research, as a home for wildlife and etc.

Demand for forest products and services in the country are increasing with rapid economic growth, industrialization and increase in population. The recorded forest area in India is about 76.5 million hectare (23% of total land mass). However the actual forest/tree cover is just about 19% of total geographical area. The per capita forest area in the country is 0.08 hectare as compared to the world average of 0.64 hectare. Coffee in India is largely grown in the southern part of the country and involves small growers. Small holding cultivation combined with the external reliance for markets have posed risks to coffee cultivators at different levels (Deepika M G 2013).

During the last two decades, India as witnessed annual depletion of forest cover at a rate of 235 km sq. the consumption of fuel wood and timber in the country was 23.5 and 40 million metric cube respectively against the availability of 40 million metric cube and 15 million metric cube from the

forest. Interestingly, non-timber forest products fetch more income to the nation than the bulk wood products. The role of forests in the National Economy and in Ecology was further emphasized in the 1988 National Forest Policy, which focused on ensuring environmental stability, restoring the ecological balance and preserving the remaining forest. Other objectives of the policy were meeting the need for fuel wood, fodder, and small timber for rural and tribal people while recognizing the need to actively involve local people in the management of forest resource.

METHODOLOGY

The material and methods used in conducting study on Harvesting, Marketing and Price determination of Forest Produce in coffee based plantations in Kodagu district Karnataka, had been presented as below:

Locale of the Study

The Coorg district is well known for coffee, black pepper and cardamom exports. The district is noted for good ecosystem through its forest wealth, wild life and abundance of water resources. Based on the objectives of the survey work the location for the baseline survey was purposively selected on the basis of the availability of the different categories of the farmers. The farmers selected in the area were widely distributed and adopted diversified cropping system.

Selection of Grama Panchayats

The survey was conducted in ten Grama panchayats in Madikeri and Somwarpet taluks of Coorg district. The area was selected based on crop distribution and nearness of Grama panchayats to one another. These grama panchayats viz., Guddehosur, Mullusoge, Kushalnagar, Hebbale, Shirangala, Kambibane, Bettadahalli, Shanthalli, Tholurushetalli and Kudige were selected for the study purpose.

Selection of Villages

The villages were randomly selected for the purpose of data collection by considering the number of households, type of farmers, crops being cultivating and public/social institutions established in the villages. The number of villages in each Grama panchayat selected based on the nearness to the Grama panchayat head quarter. The total number of villages considered for the study were twenty seven such as Attur, Basavanahalli, Gummanakolli, Kushalnagar, Hakke, Huluse, Rampura, Maruru, Kanive, Hegadahalli, Shringala, Attur- Nallur, Mathikadu, Kundahalli, Bettadahalli, Kumarahalli, Shanthalli, Guddahalli, Abhimatabachalli, Doddaattur, Haraga, Koothi, Tholurushetalli, Bhuvanagiri, Old Kudige, and Seegehosur. Some of the villages had good forest cover along with distribution of forest tree species in coffee estates which form the basis to study agroforestry systems and also some of the villages adopted intensive farming system.

Selection of Respondents

The farmers selected based on their land holding, their cosmopolitaness, and the number of crops being cultivated by them etc., were considered while selection of the respondents. The selection of respondents vary from village to village based on the number of households in the village. Hence, respondents were randomly selected in each of the village. A total of 220 respondents were selected from the villages where most of the respondents were practicing agroforestry system.

Collection of Primary and Secondary Data

The information was obtained through personal interview by using the structured schedule. the additional information is collected through secondary data available from different sources/ departments like department of agriculture,

Karnataka Forest Department, revenue department, district information and statistics, Grama panchayat, Anganavadi, NABARD, etc., the information collected about area occupied by different crops, cultivable area, irrigated/dry land, water sources, forest area, entrepreneurship activities, population, literacy level etc., the information obtained through personal interview method.

Analytical Frame Work

Tabular analysis, Percentages, Ratios, Financial feasibility analysis and suitable statistical tools will be used for drawing meaningful inferences.

RESULT AND DISCUSSION

It is observed from the table that majority 66.97 Per cent of the respondents said that they dispose forest produce immediately after harvest. 33.02 Per cent of the respondents said that harvest the trees after attaining adequate maturity. The forest trees are harvest after attaining adequate maturity because these trees are grown for the purpose of shading for coffee plantations and felt for over the decades. After so many years new trees are planted and old trees were harvest in these plantations. Secondly, disposed immediately after harvest to get good profit by selling of matured trees without keeping them for longer time. These results are in conformity with the results of by other research studies by Nkwatoh Athanasius Fuashi and *et al.*, 2010.

Table 1
Harvesting and Marketing of Forest Produce
(N = 215)

<i>Sl. No.</i>	<i>Harvesting/Marketing</i>	<i>No.</i>	<i>Percentage</i>
1.	Harvest the trees after attaining adequate maturity	71	33.02%
2.	Dispose forest produce immediately after harvest	144	66.97%

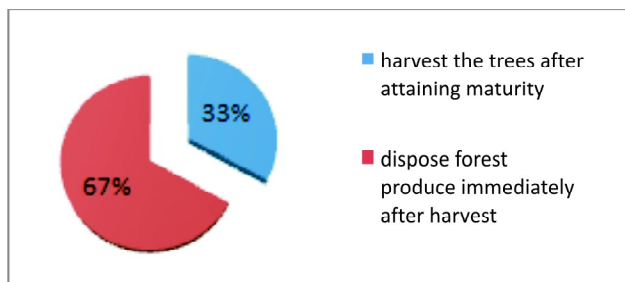


Figure 1: Harvesting and Marketing of Forest Produce

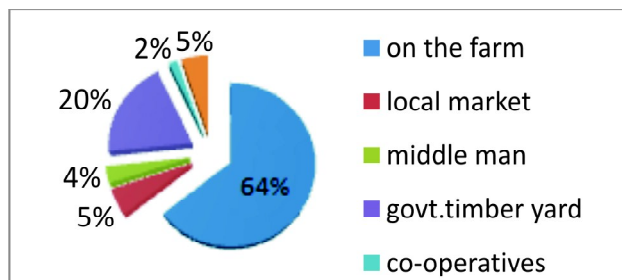


Figure 2: Marketing channel of forest produce

Table 2
Marketing channel of forest produce
(N = 220)

Sl. No.	Channel	No.	Percentage
1.	On the farm	141	64.09
2.	Local market	12	5.45
3.	Middle men	8	3.64
4.	Govt. timer yard	43	19.55
5.	Co-operatives	4	1.82
6.	Others (Specify)	12	5.45

It is observed from the table 2 that as many as six channels were found in marketing of forest produces. A majority 64.09 per cent of respondents sold their forest produces on the farm itself, 19.55 per cent of respondents were sold at government timber yard, 5.45 per cent were sold at local markets, 5.45% were sold to others like traders, timber depots, small timber merchants etc., 3.64% sold to middle men. Only 1.82 per cent were sold at co-operatives. Here the forest produce was mainly timber, it is difficult to carry by the farmers themselves to sell at far places even they sell the produces in any channel they did not received payments immediately. Hence, the respondents might be sold their forest produces at their farm itself. These results are in conformity with the results of studies by Arun Agrawal and etal., 2013 and Perdana A, Roshetko JM. 2012.

Purpose of Tree Felling

A close look at table 3 depict the information about Purpose, Age of Felling and Price determination of

Table 3
Purpose, Age of Felling and Price determination of forest trees

Sl. No.	Criteria	No.	Percentage
1.	<i>Purpose of felling</i>		
	(a) for own use	28	12.78
	(b) for sale	191	87.21
2.	<i>Age of the tree felled</i>		
	(a) > 10 years	37	16.89
	(b) 10-20 years	53	24.20
	(c) 20-30years	73	33.33
	(d) 30-40 years	2	0.91
	(e) 40-50 years	5	2.26
3.	<i>Time taken to get permission to cut the tree</i>		
	(a) within a month	4	1.83
	(b) within 1-6 months	48	22.12
	(c) within 6-12 months	167	76.94
4.	<i>Realization of value</i>		
	(a) received in advance	27	12.32
	(b) received while lifting the tree	60	27.39
	(c) received after some time	132	60.27
5.	<i>Method used for price determination</i>		
	(a) mutual negotiation	106	48.40
	(b) by government rates	90	41.09
	(c) others	23	10.50
6.	<i>Criteria used for price determination</i>		
	(a) age of the tree	50	22.83
	(b) oil content	9	4.50
	(c) size of the wood	150	68.40
	(d) appearance	10	4.57

forest trees. The majority 87.21 per cent of respondent fell the tree for selling purpose, about 13.00 per cent of respondents fell trees for their own use. The timber may be one of the sources of income for respondents that may be the reason most of the trees were fell for selling purpose. These results are in conformity with the results of studies by G.G.O. Odokonyero, 2005.

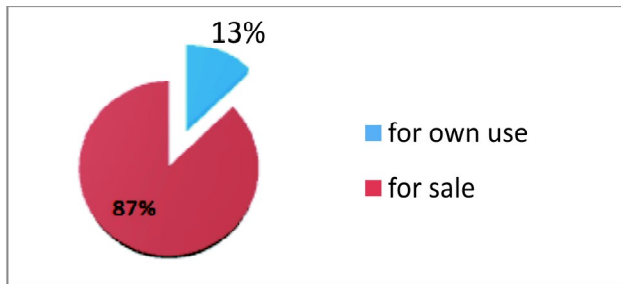


Figure 3: Purpose of tree felling

Age of the Tree Felled

The majority 33.33 per cent of respondents fell the trees between the age of 20–30 years, 24.20 per cent of respondents fell the trees between 10-20 years, only 2.20 per cent of respondents fell the trees at the age of 40-50 years. The forestry species grown in the coffee plantations being used for shade purpose if the age of the tree increases the tree canopy may hamper the coffee growth and difficult to prune the trees that might be the reason the respondents were fell the trees between the age of 20-30 years. Other reason was that most of the trees will attain maturity at the age of 20-30 years. These results are in conformity with the results of studies by Deepika M G and Amalendu 2013 .

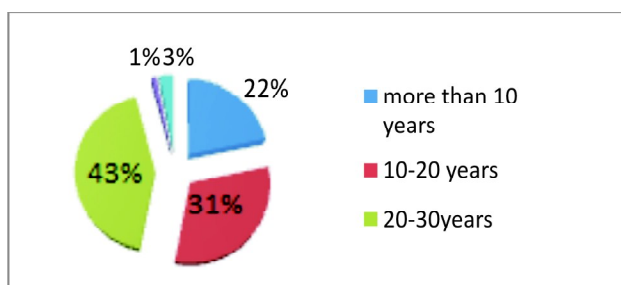


Figure 4: Age of the tree felled

Time Taken to Get Permission to Cut the Tree

A majority 76.94 per cent of respondents said 6-12 months time required to get permission to cut the trees, Followed by 22.12 per cent of respondents said within 1-6 months they get permission to cut the trees. Since there are some formalities and regulations in the forest department to cut forest species even in the farmer’s field, to complete the process it takes sufficient time, that might be the reason 6-12 months time required to get permission from the forest department to cut the trees.

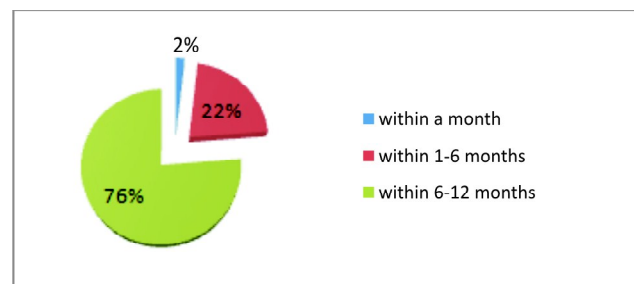


Figure 5: Time taken to get permission to cut the tree

Realization of Value

A majority more than half 60.27 per cent of respondents received payment after some time. 12.32 per cent of respondents received in advance. The amount realized at the time of felling the tree was showed to minimize the risk for both sellers and buyers, which might be the reason for receiving the payment while lifting the tree. These results are in conformity with the results of studies by C. Holding Anyonge and J.M. Roshetko 2003.

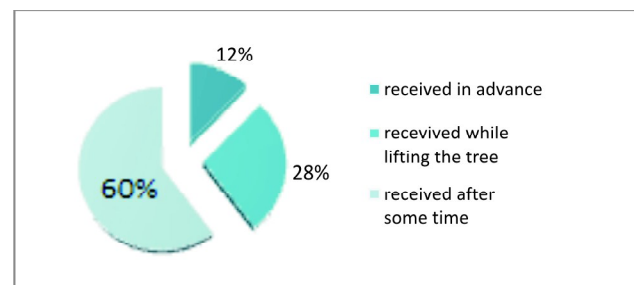


Figure 6: Realization of value

Method Used for Price Determination

With respect to Method used for price determination, a majority 48.40 per cent of respondents determined the price by mutual negotiations. Whereas 41.09 per cent of respondents determined price by government rates. The mutual negotiation is a usual market tendency to fix the price for the produce. The same might have followed in the marketing of forestry produce.

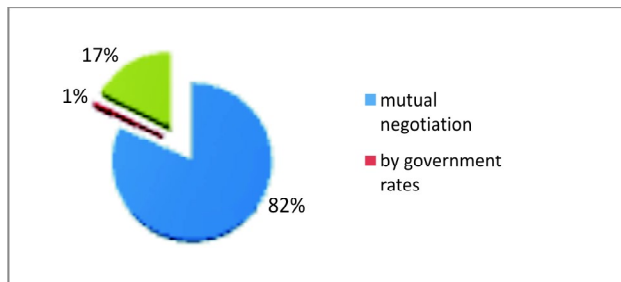


Figure 7: Method used for price determination

Criteria Used for Price Determination

A majority 68.40 per cent of respondents said that they determined price by considering size of the wood, 22.83 were determined based on age of the tree, around 5.00 per cent of respondents consider based on the appearance of the tree. The bigger sized timber used for many purposes and quality of the wood is also good, that may be the reason the price of the wood was determined by considering the size.

CONCLUSIONS

The forest trees are harvest after attaining adequate maturity because these trees are grown for the purpose of shading for coffee plantations and left for over the decades. After so many years' new trees are planted and old trees were harvest in these plantations and disposed immediately after harvest to get good profit by selling of matured trees without keeping them for longer time.

The important forest produce was timber, it is difficult to carry by the farmers themselves to sell at far places even they sell the produces in any channel they did not receive payments immediately. Hence,

they sold their forest produces at farm itself. The farmers in this area have given much importance for growing of forestry species for different reasons in which the main reason was to cover coffee plantations, this could help to improve the bio-diversity of the area. Having indigenous trees which are of more flowering and fruiting type could lead to the increase in honey bee population, which is the main pollinator of coffee and in turn can increase the yield of the coffee.

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