

Income Generation Through Small Tea Gardening

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Abstract

According to 2011 census, 68.8 per cent population of our country live in rural areas where many of them do not have any source of income or means of livelihood for which they are deprived of getting the benefit of basic necessities of life. Although a vast majority of rural people depend for their livelihood on farm and non- farm activities, but they do not provide employment opportunities throughout the year. It is found that millions of people in our country are still living below poverty line, and do not have sufficient food to eat, pure water to drink and shelter to live. It is a good indication that a number of men and women are now coming forward to take up some economic activities for generation of income and self-employment. The present paper reflects the findings of a study conducted on 182 small tea growers in order to study about generation of income by the small tea growers in Lakhimpur district of Assam. The study reveals that in Lakhimpur district, the average size of land holdings per Small Tea Growers is found out at 9.96 bighas. It was found that between 2013 and 2017, the total green tea leaf production of the sample small tea growers have raised by 80.7 percent. The study also reveals that 182 sample small tea growers of the district have earned net earnings of Rs.31052141.00 from small tea cultivation process performed on 1813 bighas of land in the year 2017.

Key words: tea grower, self-employment, income generation, green tea leaf, poverty.

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1.1 Introduction:

Poverty and unemployment are two main obstacles in the path of economic development in our country. In most of the developing countries like India, the poor people are disproportionately located in the rural areas and they are mainly engaged in agricultural or allied rural activities. According to 2011 census, 68.8 per cent population of our country live in rural areas where many of them do not have any source of income or means of livelihood for which they are deprived of getting the benefit of basic necessities of life. Although a vast majority of rural people depend for their livelihood on farm and non- farm activities, but they do not provide employment opportunities throughout the year. Moreover, agriculture is seasonal and the existing farming method is also primitive, which are responsible for lowering

the productivity of land and labour. Slow industrialization is another major factor for which alternative employment opportunities can not be created for the rural people. Thus, seasonality of agriculture and absence of alternative employment opportunities are the key factors for higher incidence of poverty in rural India. Besides, unchecked population growth, shortage and fragmentation of cultivated land, inequitable distribution of income and growing casual or unemployed labourforce are also responsible for higher incidence of rural poverty.

In 1973-74, there were 321.6 million people (i.e. 54.9 per cent of total population) living below the poverty line in India, which was found to be 260 million (i.e. 26.1 per cent) during 1999-2000. In 2004-05, the absolute number of total poor stood at 302 million, which consist of 27.5 per cent of total population in India and one-fourth of the total poor in the world. In the later period, this figure was stood at 29.8 and 21.9 per cent during 2009-10 and 2011-12 respectively. Thus, it is found that millions of people in our country are still living below poverty line, and do not have sufficient food to eat, pure water to drink and shelter to live. It is also observed that the rate of reduction of poverty in rural areas is slightly higher than that of urban areas. Infact, urban poverty is also a reflection of rural poverty as large number of rural poor migrates to urban areas for better wages and employment.

It is observed that the Government has been implementing a number of plans and programmes from time to time for generation of employment as well as income. But, these programmes are also not able to reduce the level of poverty and unemployment; and thus, it continues to be a burning issue. It is a good indication that a number of men and women are now coming forward to take up some economic activities for generation of income and self-employment. Keeping in view this objective, the present paper makes an attempt to study about generation of income by the small tea growers in Lakhimpur district of Assam. Accordingly, a study was carried out in the year 2016-17 for collection of required data from the sample tea growers for drawing inferences and conclusions.

1.2 Objectives of the study:

The study was carried out in order to attain the following objectives:

- a) To study about the land area used by the sample small tea growers for tea cultivation.
- b) To know about the level of production from the economic activity.
- c) To study about the price mechanism of green tea leaves in the market.
- d) To study about the generation of income by the small tea growers.

1.3 Methodology:

The study was conducted in Lakhimpur district of Assam which is based on both primary and secondary information collected by the researcher. Since the small tea growers are concentrated in all parts of the district, so to make the investigation process more meaningful, small tea growers of all nine (9) development blocks of the district have been considered for the field study. These nine development blocks of the district are - Narayanpur, Bihpuria, Karunabari, Nowboicha, North Lakhimpur, Telahi,, Boginadi, Ghilamara and Dhakuakhana. Considering the area of size of land holding, the small tea growers are classified in four

categories viz Very Small Tea Growers (VSTG), Small Tea Growers (STG), Medium Small Tea Growers (MSTG) and Big Small Tea Growers (BSTG). For making the study more relevant, the investigation has been carried on 182 sample small tea growers, considering 10% of the total Small Tea Growers existing in each development block. Sample Small Tea Growers have been selected randomly from the data sources supplied by the All Assam Small Tea Growers Association, Lakhimpur District Unit. However, the information regarding land holding size, amount of investment, production and income etc. of the sample small tea growers have been collected for the period of 2016-17 for drawing inferences and conclusions.

1.4 Size of cultivated land area:

The operational size of land holdings determines the quantity of green tea leaf production of Small Tea Growers. The Small Tea Growers in the district have differences in the size of land holdings. Land holdings of optimum size are the basic determining factor of measuring efficiency of small tea growing activity. Land holdings distribution pattern of Small Tea Growers in the study district has been furnished in Table No.1.1 herewith.

Table No. 1.1: Distribution of Sample Small Tea Growers
on the basis of Land holding Size

Category of STG	No. of Tea Garden	Land Holdings In Bighas	Average Holding (Bighas)
VSTG	51	163.9 (9%)	3.21
STG	67	487 (26.9)	7.27
MSTG	53	800.1 (44.1%)	15.10
BSTG	11	362 (20%)	32.91
Total	182	1813 (100%)	9.96

Source: Field Survey

Table No.1.1 reveals that in Lakhimpur district, the average size of land holdings per Small Tea Growers is 9.96 bighas. Discrimination of huge extent is found among different categories of Small Tea Growers in the district. For the Very Small Tea Growers category, the average land holdings size is 3.21 bighas and for Big Small Tea Growers category the average land holding size is 32.91 bighas. The Medium Small Tea Growers of the district occupy the largest amount of tea cultivation area with occupation of 44.1% of the total land holding under tea cultivation.

1.5 Level of Production:

Since 1990s, the numbers of Small Tea Growers are gradually increasing in the rural areas of the Lakhimpur district in Assam. Majority of Small Tea Growers in the district have their own gardens with land holdings size of less than 3 bighas. These Very Small Tea Growers of the district are not interested to be registered with the Tea Board of India or for entering into the common organization – All Assam Small Tea Growers Association. In the survey process

an attempt has been made to estimate the amount of green tea leaves production by the selected sample Small Tea Growers of the district. Year wise production of green tea leaves of the sample Small Tea Growers are furnished in Table 1.2.

Table No.1.2: Production of Green Tea Leaves by Sample Small Tea Growers of Assam (2013-2017)

Year	Production of Green Tea Leaves (in Kgs)				
	VSTG	STG	MSTG	BSTG	Total
2013	157720	398650	762180	286520	1695070
2014	169980	448240	812240	298030	1728490
2015	179886	503360	891350	311050	1885646
2016	184997	534480	920350	365180	2005007
2017	195748	575500	940466	388252	2099966

Source: Field Survey

Table No.1.2 has revealed that the production of green tea leaves by all categories of small tea growers are increasing year wise since 2013. Between 2013 and 2017, the total green tea leaf production of the sample small tea growers have raised by 80.7 percent.

1.5.1: Productivity of Sample Small Tea Growers on Land Holding Size:

Vast differences are found in operational land holding size of different Sample Small Tea Growers in Lakhimpur district of Assam. Production of quantity of tea has a positive relationship with the size of the land area covered by the garden. On the other hand, productivity on a small tea garden depends on factors like quality of seeds used, farm practices, use pattern of fertilizers and chemicals, managerial efficiency, labour efficiency etc.

The productivity of operational land holding i.e. productivity per bigha, shows the relationship between amount of production and land holding size. Therefore

$$\text{Average productivity} = \frac{\text{Production of Green Tea leaves (in Kgs)}}{\text{Land holding size (in bigha)}}$$

Average productivity of different category of Sample Small Tea Growers in Lakhimpur district has been furnished in Table No.1.3.

Table No. 1.3: Average productivity on land holdings in Sample Small Tea Gardens (in Kg per Bighas) (as on 2017)

Category of STG	Total land area (in Bighas)	Total production (in Kgs)	Average Production (in Kgs per Bigha)
VSTG(51)	163.90(9%)	195748 (9.3%)	1194.314
STG(67)	487.00(26.9%)	575500(27.4%)	1208.678
MSTG(53)	800.10(44.1%)	940466(44.8%)	1175.436
BSTG(11)	362.00(20%)	388252(18.5%)	1072.519
Total(182)	1813(100%)	2099966(100%)	1158.282

\Source: Field Survey

Table No.1.3 has reflected that Very Small Tea Growers with holdings of 9% of total land holding area have contributed 9.3% share to the total production of green tea leaves. The Medium Small Tea Growers of the district with highest land holding share of 44.1% have contributed 44.8% share to the total green tea leaves production. On the other hand, the Small Tea Growers category with land holding share of 26.9% have contributed 27.4% to the total green tea leaf production. For all these three categories of Small Tea Growers, the percentage share of total green tea leaves production are slightly higher than their respective land holding share in total land holdings by all categories of Small Tea Growers. Contrary to these, the Big Small Tea Growers' 18.5% share to total green tea leaves production is lower than their land holding share of 20%. In the gardens with larger land area, managerial difficulties become higher in comparison to small land area covered gardens. So the contributing share of Big Tea Growers to total production has become lower than the land holding share they have occupied.

The average productivity on per bigha of land in Lakhimpur district of Assam is 1158.282 Kgs. The Small Tea Growers category with land holding size of up to 10 bighas carries the highest average productivity at 1208.678 kg per bigha. The Big Small Tea Grower category with land holding size of above 25 bighas is witnessed with the lowest average productivity at 1072.519 Kgs per bigha. Labour scarcity, managerial difficulties and under plucking at pick plucking period are the basic reasons for lowering the average productivity of Big Tea Gardens.

1.5.2 Relationship between Land Size and Production of Green Tea Leaves:

The production of green tea leaves in the small tea gardens depend on the area covered by the garden. To measure the functional relationship between land size and production of green tea leaves in the small tea growing sector a correlation analysis has been made through the use of SPSS. The findings of the analysis are given in Table No.1.4.

Table No.1.4:Correlation between Land and Tea Production

		LandSize	Production
LandSize	Pearson Correlation	1	.993**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	13455.006	14326855.123
	Covariance	74.337	79153.896
	N	182	182
	Pearson Correlation	.993**	1
Production	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	14326855.123	15477002290.264
	Covariance	79153.896	85508299.946
	N	182	182

** . Correlation is significant at the 0.01 level (2-tailed).

The value of correlation co-efficient from the analysis has been obtained as + 0.993, which reveals higher degree of positive relationship between the landholding size and the production of tea leaves on the small tea gardens of the district. On constant employment of other inputs in the small tea gardens, increase in land size of the garden is sure to increase the amount of tea leaves production in the small tea gardens.

1.5.3: Labour Productivity in Sample Small Tea Gardens of Lakhimpur District:

Labour in small tea cultivation process can be compared to the blood on human body. In all the activities associated with the small tea cultivation process, a performing hand of labourer become essential. The skill and devotion of a labourer put significant effect on production in a small tea garden. In the highly labour intensive small tea cultivation process, production achievement of Small Tea Growers cannot be appraised without considering the productivity of labour. Labour productivity in Small tea cultivation process can be measured on two aspects-

- i) Labour productivity on the basis of per labour employed.
- ii) Labour productivity on the basis of labour man days.

Labour productivity in the Small tea growing sector is calculated through using formula given below-

$$\text{Labour productivity} = \frac{\text{Total Production of Green Tea leaves (in Kgs)}}{\text{Total Numbers of Labour employment}}$$

Labour productivity as amount of production per labourer engaged in plucking process in different categories of Sample Small Tea Gardens in Lakhimpur district of Assam is shown in Table No. 1.5.

TableNo. 1.5: Labour Productivity in Small Tea Gardens(as on 2017)

Category of STG	Total production (in Kgs)	Total number of Labour employment	Labour Productivity (in Kgs per Labourer)
VSTG	195748	153	1186.36
STG	575500	560	1027.68
MSTG	940466	796	1181.48
BSTG	388252	308	1260.56
TOTAL	2099966	1817	1155.73

Source: Field Survey

The labour productivity has been calculated on the basis of 1817 labour engaged in plucking of green tea leaves by sample small tea growers considered in the study. The above table no.1.5 reveals that average labour productivity is the highest for Very Small Tea Grower category growers at 1279.40 kgs. per worker in a year. The average labour productivity at 1181.48 kg per labour is found in the Small Tea Grower category. The Very Small Tea Growers' group with land holding size of less than 5 bighas can manage the labourers in the most efficient manner. Moreover the participation of family workers in this category of Small Tea garden is very high and that is the reason behind for providing highest Labour Productivity to the group. The average labour productivity for the Big Small Growers is 1260.56 kg, which is higher than the productivity of Medium and Small categories of growers. The Big Small Tea Growers employ larger number of permanent labourers in comparison to other categories and the permanent labourers work for the whole year period. This fact has raised the labour productivity in this category of small tea gardens.

In the small tea cultivation process, most of the labourers are temporary or seasonal in nature due to which annual average Labour Productivity estimates may not provide accurate results. To overcome this drawback, an attempt has been made in the investigation process to determine the average labour man-day's productivity. Formula used for this purpose is--

$$\text{Average Labour man-day's productivity} = \frac{\text{Total Production of Green Tea leaves (in Kgs)}}{\text{Total Labour man-days}}$$

Based on this formula, Average Labour man-day's productivity in different categories of Sample Small Tea Gardens of Lakhimpur District in Assam have been shown in Table No. 1.6.

Table No.1.6: Average Labour Man-day's productivity in Small Tea Gardens (as on 2017)

Category of STG	Total Production (in Kgs)	Total man-day's of Labour employed	Average Labour man-day's productivity
VSTG	195748	11834	16.54
STG	575500	43100	13.35
MSTG	940466	75132	12.52

BSTG	388257	28440	13.65
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Source: Field Survey

Table No.1.6 highlights that the Very Small Tea Grower category has obtained highest Labour man-day's productivity at 16.54 Kgs per Labour man-day's because in the small sized gardens they owned, management of workers can be done more efficiently. In the gardens of Big Small Tea Growers Category, the average Labour man-day's productivity at 13.65 kgs per labour is higher than STG and MSTG category gardens. In the big Small Tea gardens, more workers are employed permanently and these permanent workers earn specialization in different works associated with tea cultivation. This fact has made average labour man-day's productivity higher in this category of gardens.

1.6 Pricing Mechanism of Green Tea Leaf:

In normal business environment, the price of inputs or raw materials depends on the price and demand of the good produced by the inputs or raw materials. Considering this aspect, the 'Tea Board of India', the apex body to prepare and implement guidelines and programmes for the Indian Tea industry as a whole, has adopted guidelines to determine price of green tea leaves. The Tea Board of India, under the 'Tea marketing Control Order Act,' has made a provision of 'Price Sharing Formula' to determine the price of green tea leaves. In the study district, the price of green tea leaves produced by Small Tea Grower's community of the district is not determined by the price sharing formula. The President of All Assam Small Tea Grower's Association, Lakhimpur district unit has informed this researcher that the price determined under the price sharing method is very low and not acceptable for the small tea grower's community. In Lakhimpur district the price of green tea leaf is fixed by the owner of Ananda Tea Estate and other organized big Tea estates or 2 Bought Leaf Factories of the district accept the price which is known as the 'Benchmark Price' for buying green tea leaves from small tea growers. The manager of the Ananda Tea Estate has been fixing the price of green tea leaves with a sympathetic view towards the small tea grower's community, due to which the small tea growing community of the district has been receiving a satisfactory price for the green tea leaves produced by them. It is to be mentioned that in comparison to other districts of Assam the price of green tea leaves in the study district was between Rs.24 to Rs.26 per kg. in the year 2017, where as in other districts of Assam the price was in the range of Rs 13 to Rs.18 in the mentioned year.

Table No. 1.7 shows the year wise price of green tea leaves in Lakhimpur district of Assam.

Table 1.7: Price of Green Tea Leaves in Lakhimpur district (2014-2017)

Year	Price of Green Tea Leaves (in Rs/Kg)
2014	18 --24
2015	20--25
2016	21--25

2017	24--26
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Source: Field Survey

The Table No.1.7 has revealed that price of green tea leaves in Lakhimpur district has increased significantly from 2014 onward.

The costs associated with the small tea garden activities are very large. Recovery of costs made and profit earned by small tea growers depend on the price of green tea leaves. On present scenario, the views of different categories of Small Tea Growers in the district have shown a mixed picture. The views on price of green tea leaves by the Small Tea Growers of the district have been furnished in Table No. 1.8.

Table No. 1.8: View of Small Tea Growers on the price of Green tea leaves

Category of STG	View of Small Tea Growers				Total
	Low	Satisfactory	Need to be hiked	High price	
VSTG	12	38	1	0	51
STG	18	42	7	0	67
MSTG	14	36	3	0	53
BSTG	1	9	1	0	11
Total	155 (24.7%)	125 (68.7%)	12 (6.6%)	0	182

Source: Field Survey

Data shown in Table 1.8 highlights that 68.7% (125) Small Tea Growers of Lakhimpur district considers the price of green tea leaf as satisfactory. 24.7% Small Tea Growers of the district consider the existing price as low and remaining 6.6% (12) Small Tea Growers have commented that the price should be raised. The production cost of green tea leaves is increasing gradually and the cost of living of Small Tea Growers are also increasing year wise. Considering these 31.3% of Small Tea Growers of the district have considered that the price of green tea leaves should be higher than the existing one.

1.7 Generation of Income:

During the survey, intensive efforts have been made for determining costs associated with small tea cultivation process. From the production estimates the earnings obtained from selling of green tea leaves by a small tea grower can be obtained without application of huge effort, but costs performed in the small tea cultivation process is multidimensional due to which estimation of costs in small tea gardens are relatively difficult.

An effort has been made herewith to measure the net earnings of different categories of small tea growers in the year 2017. Based on total expenditures and total earnings of different categories of small tea growers, the net earnings (total earnings-total expenditures) of the sample small tea growers of the district has been calculated and presented in Table No.1.9.

Table no.1.9: Net earnings of small tea growers (in 2017)

Category of STGs	Total Earnings (in Rs)	Total Expenditures (in Rs)	Net Earnings (in Rs)
VSTGs	5089448.00	2122300.00	2967148.00
STGs	14963000.00	5914835.00	9048165.00
MSTGs	24452116.00	10696440.00	13755676.00
BSTGs	10094552.00	4813400.00	5281152.00
TOTAL	54599116.00	23546975.00	31052141.00

Source: Field Survey

Table No.1.9 has shown the net earnings of sample small tea growers in the district. 182 sample small tea growers of the district have earned net earnings of Rs.31052141.00 from small tea cultivation process performed on 1813 bighas of land in 2017. The medium small tea growers of the district have enjoyed the highest amount of net earnings from small tea growing activities.

1.8 UTILISATION OF NET EARNINGS:

During the survey, an effort has been made to gather information about the ways of utilizing the net sale proceeds by the small tea growers of the district. Based on the stock of pre survey information, the basic heads of utilizing sale proceeds by small tea growers of the district has been classified as given in Table No.1.10.

Table no.1.10: Utilization of net earnings

Category of STG	Construction of House	Expansion and Development	Purchase of consumer durables	Purchase of Vehicles	Education of Children	Normal Expenditures	Total Expenditure
VSTG	1221500	810200	302400	104000	85000	444048	2967148
STG	4112800	1826500	1556400	666465	188000	698000	9048165
MSTG	5455480	2988900	2865000	2057040	449100	995000	14810520
BSTG	1229400	1455000	823752	1021000	242000	510000	5281152
TOTAL	12019180 (37.43%)	7080600 (22.05%)	5547552 (17.28%)	3848505 (11.94%)	964100 (3.6%)	2647048 (8.3%)	32106985 (100%)

Source: Field Survey

Table No. 1.10. reveals that small tea growers of the district spend maximum 37.43% of their earnings for the purpose of construction of house, followed by expenditures on the head expansion and development of gardens. High rate of profitability associated with the small tea cultivation process has induced the small tea growers for expansion and development of gardens and it has been observed that 22.05% of earnings have been utilized for this purpose.

1.9 Conclusion.

Thus, it has been observed that as a self-employment and income generating activity, small tea gardening has tremendous scope and opportunity to provide more employment opportunities in the district. As the natural environment i.e. soil as well as fertility of the land is also found to be more conducive for developing small tea gardening activity in the district, so, more unemployed youths should come forward to take up this activity for their self-employment and income generation. In addition, the Government should also provide some incentives and organise more training programmes for the small tea growers to enhance their skills to attract more youths of the district to this activity.

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