

**"AN ECONOMIC EVALUATION OF SMALL TEA GARDENS:
A CASE STUDY IN NORTH BENGAL
DISTRICTS OF WEST BENGAL"**

A Thesis
Submitted to the
Uttar Banga Krishi Viswavidyalaya
In partial fulfillment of the requirement for the
award of the
Degree of Master of Science (Agriculture)
In

AGRICULTURAL ECONOMICS

By

HEM KUMAR CHHETRI

(A-2012-6M)



DEPARTMENT OF AGRICULTURAL ECONOMICS
Faculty of Agriculture
UTTAR BANGA KRISHI VISWAVIDYALAYA
Pundibari, Cooch Behar, West Bengal
2014

M-172

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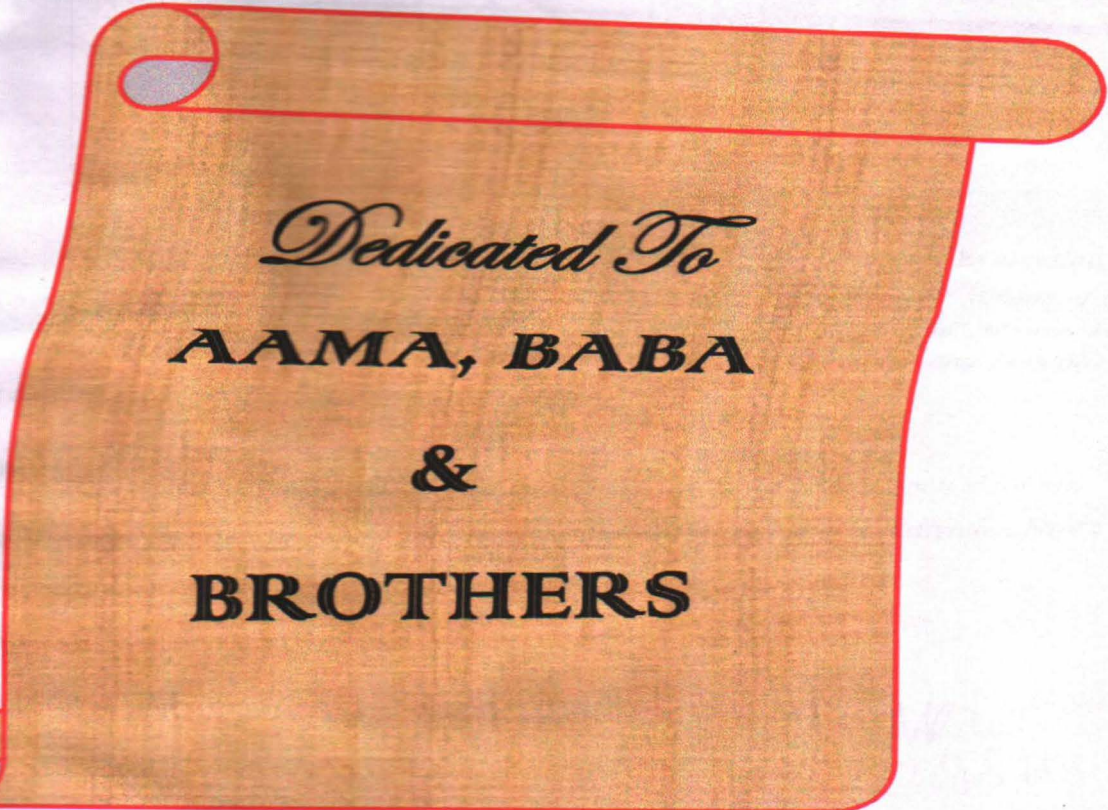
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UTTAR BANGA KRISHI VISWAVIDYALAYA
Pundibari, Cooch Behar
West Bengal
2014**



Dedicated To
AAMA, BABA
&
BROTHERS

UTTAR BANGA KRISHI VISWAVIDYALAYA

Pundibari, Cooch Behar, West Bengal - 736165

From :

Dr. Sateyendra Chandra Sarker,
Professor & Head,
Dept. of Agril. Economics



Residence : 209, Rabindra Nagar
Newtown, Cooch Behar, (WB), Pin- 736101

Phone : (03582) 233499 (R)

Mob: 09475248186

: (03582) 270973 (O)

Fax : (03582) 270973 (O)

E-mail – sarker57@rediffmail.com
sarker57@gmail.com, schsarker@yahoo.com

Certificate



This is to certify that the work recorded in this thesis entitled “An Economic Evaluation of Small Tea Gardens – A Case Study in North Bengal Districts of West Bengal” submitted by Hem Kumar Chhetri, in partial fulfillment of the requirement for degree of Master in Agricultural Economics of Uttar Banga Krishi Viswavidyalaya, is the faithful and bonafide research work carried out under my supervision and guidance.

The results of the investigation reported in the thesis have not so far been submitted for any other Degree or Diploma. The assistance and help received during the course of investigation have

1. S. Sarker

S. Sarker
20/8/14

S.C. Sarker
Chairman, Advisory Committee

UTTAR BANGA KRISHI VISWAVIDYALAYA
Department of Agricultural Economics
Faculty of Agriculture



Pundibari-736165, Coochbehar,
 West Bengal, India



**APPROVAL OF EXAMINERS FOR THE AWARD OF THE DEGREE MASTER OF
 SCIENCE (AGRICULTURE) IN AGRICULTURAL ECONOMICS**

This is to certify that the thesis entitled "AN ECONOMIC EVALUATION OF SMALL TEA GARDENS: A CASE STUDY IN NORTH BENGAL DISTRICTS OF WEST BENGAL" submitted by **Mr. HEM KUMAR CHHETRI (A-2012-6-M)** to the Uttar Banga Krishi Viswavidyalaya, Pundibari, in partial fulfillment of the requirements for the degree of M.Sc in the subject of Agriculture (Agricultural Economics) has been approved by the Student's Advisory Committee after viva-voice on the same in collaboration with an external examiner.

| NAME | DESIGNATION | SIGNATURE |
|------|-------------|-----------|
|------|-------------|-----------|

*Dr. A. K. Nandi and Chairman of the Advisory
 Committee, Deptt. of Agricultural Economics,
 Faculty of Agriculture*

DR. A-K. Nandi, B.C.K.V
 External Examiner,

Sarkar
 27/8/14

Chhetri
 27/8

Dr. A. Sarkar

Associate Professor, Deptt. of Agricultural
 Economics, Faculty of Agriculture (Member,
 Advisory Committee).

Sarkar
 27/08/14

Dr. P.K. Pal

Associate Professor, Department of Agricultural
 Extension, Faculty of Agriculture (Member,
 Advisory Committee).

Pal
 27/8/14

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Date: 25/08/14

Hem Kumar Chhetri

Place: Pundibari, Cooch Behar

(Hem Kumar Chhetri)

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CHAPTER-1

INTRODUCTION

INTRODUCTION

Among the Tea growers in the world India ranks as one of the largest producer and consumer of Tea. The major portion of the production of the Tea is consumed within the country leaving only a sparse portion for export but still it is considered as a major Tea exporter in the world. Indian Tea industry is considered as one of the oldest and well structured enterprise of the country and has a significant role in the national economy. Being a labour intensive industry; it creates job prospects for millions of people on both direct and indirect basis. Another important factor is that it provides employment to people in remote and poor rural areas of the country; mostly for the indigenous people as casual or seasonal workers.

The Indian Tea industry gained momentum during the reign of East India Company. During early 1820's the first Tea plant was introduced in North- East Assam and the first experimental Tea cultivation was started in 1836 in Assam (Borah, 2013). After independence the Tea companies were taken over by the private parties/companies belonging to main land of India but due to lack of knowledge over Tea plantation and lack of capital local entrepreneurs have taken little initiatives during the initial days and the situation remains still the same. In India Tea plantation is mainly grouped into two regions based on regional provisions- North East India and South India. The important states in North East India are Assam and West Bengal whereas Tamil Nadu and Kerala are the important southern states.

Recently, the Tea industry of India has witnessed several structural changes that includes prologue of Bought Leaf Factories, rise of competition in domestic market and emergence of Tea cultivation on small holding, (Borah,2013). In India Tea cultivation is done in both small and large scale. Tea cultivation on small land holding is a new concept in India. According to Tea Board Of India Small Tea Growers (STGs) are defined, as a person or group having plantation area up to 10.12 hectares and big growers denote all person or group whose land holdings is above 10.12 hectares. However, the definition of small holders or small growers varies according to the countries. In Kenya, it means grower cultivating Tea in a small piece or pieces of land and does not possess his own Tea processing factory. In Sri Lanka, "small-holding" means an area of land less than 50 acres (20.2 hectares). In Indonesia, smallholders/small growers are those who grow Tea on land size between 0.8 to 2 hectares and sell Tea without processing.

However, the average holding sizes in most countries, irrespective of the upper limit, tend to be on the lower side, for example, less than 0.4 hectares in Indonesia and between 0.7 to 4 hectares in different growing regions in India, with an average holding size of 1.6 hectares(IJTS,2009). However, smallholders include marginal farmers owning and cultivating less than an acre while large estates or plantations can be anywhere between 100 and 1,200 acres, often part of a chain of estates owned by large corporations. Most estates have their own Tea processing factories on the estate, where green leaf is processed into dry Tea leaves, either by Orthodox method or CTC method. Small growers on the other hand, sell their green leaf to Bought Leaf Factories (BLFs). In this present era STG's have become a very important component of Tea production as it produces nearly 24 percent of the total Tea production of the country and nearly 1.58 lakh small cultivators are directly engaged in Tea cultivation (Borah,2013).

The concept of small Tea cultivation came into existence when Kenya (1950's) had decided to produce Tea for export (Hazarika and Borah, 2013). With the success of small Tea cultivation in Kenya other developing and developed countries started to incline towards the concept of small Tea cultivation and with time there has been a drift from large scale plantation to small holdings (Hazarika and Borah, 2013). Presently in most of the Tea growing countries, small Tea gardens significantly contributes to the country's total Tea production all along with the large estates.

In India STG's emergence is a recent concept as most of the Tea plantation land was already occupied by large Tea plantations (Borah, 2013). This concept was introduced in 1930's, beyond the traditional tracts of cultivation in Nilgiris, Tamil Nadu (Borah, 2007). Subsequently, the cultivation extended to other Tea producing states of India like Assam and West Bengal, during late 1980's or early 1990's.

West Bengal is a major Tea producing state and accounts for 25.31% which is 1/4 th of the total production of Tea in India (Tea Board of India, 2013). The major Tea growing areas include Darjeeling, Terai and Dooars. Recently attempts have been made to identify new areas in the district of Uttar Dinajpur. In West Bengal cultivation of Tea is done in large plantations (Tea estates) and small gardens. During 1980's the farmers converted their agricultural crops land to small Tea gardens, the reasons includes; perishable nature of the grown crops, lack of market availability and processing strategies. Small Tea plantations initially started from the Chopra block of Uttar Dinajpur

district and later spread to other areas of North Bengal. The STG's initially had to depend on the estate gardens, but with the emergence of Bought- Leaf Factories the dependency to estate gardens started to deteriorate. In the districts of North Bengal there are 21390 registered small Tea gardens covering an area of 88963 hectares (as per the reports of Tea Board of India, Siliguri) but the estimates may reach up to 30000 approximately when combining the non registered ones. The concept of Bought Leaf Factories which were owned privately came into existence first in Nilgiris during 1962-63, which purchased green leaves from the small holders (Hannan, 2013). The objective of the concept of setting up bought leaf factory is to support the small Tea growers. These factory owners buy green leaves from small growers and produce various types of Tea so that the survivability of the small Tea growers is ensured. In the districts of North Bengal there are a total of 104 bought leaf factories as reported by Tea Board of India, Siliguri, out of these 3 are SHG's based and others are privately owned.

1.1 SCOPE OF THE STUDY

The area coverage of this study was North Bengal districts of state of West Bengal with specific emphasis on Small Tea Gardens (STGs). The study covers a sample of small Tea growers and Bought leaf Factories (BLF's) in four districts of North Bengal i.e. Darjeeling, Coochbehar, Jalpaiguri and Uttar Dinajpur. The findings and recommendations are based on discussions with different small Tea growers, officials of Bought Leaf Factories, members of small Tea grower's society, officials of Tea Board of India, Siliguri etc. Small Tea garden accounts for a major portion of the production of process Tea which is 35 percent of the total Tea production in India and expected to share of 50 percent of the total Tea production in India with 2020. The study also emphasised the number, area, production, and employment and other role of Small Tea Growers and its dependence on Bought leaf Factories along with capacity utilisation of the Tea Plant. The said investigations also examine the role of SHG's for the upliftment of the small Tea growers as an organised unit.

1.2 SIGNIFICANCE OF THE STUDY

This study might generate important informations which may be useful to evaluate the current situation of small Tea growers along with the condition of the small Tea gardens. The investigation also highlights the role of the Bought Leaf Factories and its capacity utilisation, employment generation etc. The role of small Tea Grower's society (SHG's) as an organised unit of production of Green Tea Leaves is also examined in this study. The potential users of the study would be growers, traders, policy makers, governmental and non-governmental organisations who intend to improve the livelihood of Small Tea Garden owners and also sustainability of Bought Leaf Factories. Furthermore, this study could be used as source materials for further investigation in future.

1.3 LIMITATIONS OF THE STUDY

1. The limited time, conducted for the study and other resources at the disposal, and unwillingness of the respondents posed difficulties in Tea growers have tendency of providing under estimated figures for income and overestimated figures for the cost.
2. Even if the respondent was co-operative, they were not able to give correct figures of different aspects of Tea production due to lack of records at their disposal.
3. Bought leaf factories are not generally so co-operative to provide their official records for supplying of green Tea leaves to their factories by the small Tea growers and also production of process Tea leaf in their respective BLFs.
4. Due to lack of transportation in remote places of the small Tea gardens, where there was no good connectivity, distance poses a problem to collect the information from different stakeholders.

1.4 OBJECTIVES OF THE STUDY

The present investigation research study is carried out with the following objectives.

1. To compare the number,area,production, income/employment of Self Help Group (SHG's) based and Non-Self Help Group (SHG's) based small Tea gardens.
2. To estimate the cost and return of the small Tea garden with reference to ages of the garden.
3. To study the prices of green Tea leaf of Small Tea Growers.
4. To study the utilisation of plant capacities of Bought-Leaf Factories(BLF's) under both Self Help Group and Non-Self Help Group.
5. To explore the different constraints faced by the small Tea garden owners and the Bought Leaf Factories.

CHAPTER-2

REVIEW OF LITERATURE

REVIEW OF LITERATURE

Yadav and Srivastava(1999), Observed that, the districts of North Lakhimpur, Sonitpur, Darrang and Nowgaon of Assam, the percentage savings in cost of energy inputs under an optimized tea production system is shown for each size group for various operations: pruning and application of insecticides, hoeing and weeding; application of fertilizers and plant nutrients; pest control; irrigation; and plucking and transporting leaves to the factory. The scope of optimization declined as size of plantation increased and there was no scope for savings in human labour intensive practices.

Kapur(2008), found that the Small tea growers have a specific requirement of processing of low volumes of green leaf and yet achieving reasonable quality of the end-product while remaining competitive in the global market. Due to small tea growing areas, it becomes economically unviable for small tea growers to go with conventional tea processing machineries to perform withering, rolling, fermentation and drying operations. This usually forces them to go for selling of leaf to larger tea gardens often depriving them of fetching a good price. The bought leaf factories too find problem in achieving consistency in the quality of made tea due to heterogeneous leaf coming from various small tea growers.

Hazarika and Muraleedharan(2011), wanted to highlight the major tea growing states of India are Assam, West Bengal, Tamil Nadu and Kerala. Other states such as Bihar, Himachal Pradesh, Karnataka, Orissa, Tripura and Uttaranchal also grow tea in small areas. Tea plantations in India are traditionally large holdings but in recent years small scale cultivation has gained prominence and at present there are more than 200,000 small tea growers who account for 24 percent of the production. Production strategies of the two major tea growing areas of north east India and south India differ due to various factors such as soil, climate, plant growth, pests, diseases and cost of production. Harvesting in north east India is confined to nine months whereas in south India tea bushes are harvested throughout the year.

Negi and Bisht(2012), found that the Tea cultivation and processing was a well-established industry during the British period in the mountains of Uttarakhand State in northern India. Many of the abandoned tea gardens were revived, as well as uncultivated community and private lands were brought under new tea plantations. This has generated enthusiasm among the locals, and the primary survey carried out with 168 small tea

growers (STGs) of the region has revealed that this shift from small scale agriculture and animal husbandry to cash crop (tea) based livelihood has helped the marginal farmers, including women to improve their social status. Otherwise non-cultivable wastelands and abandoned croplands, now under tea plantations, are providing employment opportunities as well as additional income.

Pallavi and Liby (2012), reported that the small producers in the value chain are not merely passive recipients but dynamic actors who are constantly engaging with the value chain. They also examine that the small tea growers of Nilgiris, small tea growers in the global tea value chain and the relational construct within the tea value chain and explore how the territorial and regional specificities and institutions mark the contours of the value chain.

Thapa (2012), reported that the structural changes in Tea sector have led to the emergence of labour categories such as permanent estate workers, casual estate workers and self employed small tea growers. She was tried to understand the human development status, in terms of education, health and basic amenities, of the plantation workers classified as permanent, casual and self employed workers. The study uses a combination of secondary evidence on the employment pattern of the workers engaged in the estates, complemented by micro level data collected from the tea plantations of the Darjeeling district of West Bengal.

Bosumatari and Goyari (2013), examined the educational status of women workers in tea garden areas in Assam based on sample survey data. They highlighted the large proportion of tea plantation workers are still women, most of whom are illiterate or educationally backward.

Biswas and Roy (2013), reported that the entire economy of North Bengal is mainly dependent on the four 'T's which are tree, tourism, tobacco and tea. Among all the 'T's, tea is the prime one which leads the economy of North Bengal. They also found that the Paddy field of North Bengal is being replaced by the small tea gardens as it yields high profit. The cultivation of tea for its commercial purpose is fast gaining popularity among the farmers.

Hannan (2013), reported that the smallholders are unorganized and operate in fragmented landholdings. They face challenges of landownership regulations and related procedural problems. Technical know-how on tea husbandry and cultivation is very low and the

integration of this unorganised sector with the plantation industry seems to be a challenging task. At present various agencies such as Smallholders Associations , Primary Producing Societies (SHGs) , Bought-Leaf Factories (BLFs) , and Co-operative Factories (CPFs) exist in the 15 small tea growing states. However, most of these agencies are found to be ineffective due to the lack of proper co-ordination and collective action in an integrated manner. By analysing organisational innovations like BLFs , CPFs , SHGs , Federations-Associations-Confederations against the back drop of the emergence of Small Tea Growers (STGs) and their national and regional growth pattern.

Hazarika and Borah (2013), highlights the prospects of small tea cultivation as a source of self- employment in Assam. The state dominates the country's tea map by producing almost half (50 per cent) of the total tea production. Indian tea industry has witnessed many structural changes such as the replacement of small tea plantations by large plantation, the emergence of Bought Leaf Factories (BLFs). Cultivation of tea on smallholding has gained considerable momentum amongst the youth. Being a labour intensive industry, it is the source of employment for the Assam's indigenous people.

Rasaily(2013),reported that the astounding shift in the area under tea cultivation from 2004 to 2008 was noted with an annual average growth of 7.76 per cent in the small holder sector and a decline by – 2.01 percent in the traditional estate sector. The study also notes a decline in the land-man ratio that could be linked to the shrinkage in cultivable area and therefore a reduction in days of employment available for the workforce along with an increase in casualisation and family labour.

Sarkar (2013),reported that, Jalpaiguri is the second largest producer of tea in West Bengal. The ample production of tea in the region laid the foundation of the tea industry here. Tea industry including the processing and tea packaging of tea involves a large-scale employment, thereby supporting the local economy of Jalpaiguri.

MATERIALS AND METHODS

CHAPTER-3

MATERIALS AND METHODS

MATERIALS AND METHODOLOGY

The present study entitled "An Economic Evaluation of Small Tea Gardens-A Case Study in North Bengal Districts of West Bengal" was carried out in different areas of North Bengal Districts of West Bengal, India, during the year 2012-2013. The details of study area, the sources and nature of data, the survey method used and the sampling procedure adopted of the study and the analytical tools and techniques employed in analyzing data are given below:

3.1 Description of the study area

3.2 Sampling procedure adopted

3.3 Nature and sources of data

3.4 Analytical techniques employed.

3.1 DESCRIPTION OF THE STUDY AREA

The present study on An Economic evaluation of Small Tea Gardens was conducted in four districts of North Bengal Districts namely Darjeeling, Coochbehar, Jalpaiguri and Uttar Dinajpur.

Darjeeling, a medium sized district is located at an elevation of 2286 meters from M.S.L. which lies between $27^{\circ} 13' N$ to $26^{\circ} 27' N$ latitude and $88^{\circ} 53' E$ to $87^{\circ} 59' E$ longitude. The district is spread over an area of 3,149 Square Km. The general topography is very much undulated with steep slopes. The general climate in Darjeeling district of March to May and from Mid-September to Mid-November is salubrious. The average annual rainfall is 2812 mm and the average relative humidity is 32%. The mean maximum and the mean minimum temperature are $16.7^{\circ}C$. and $10.2^{\circ}C$, the maximum and the minimum temperature being 23.5° and $0.9^{\circ}C$.

Coochbehar, is situated in the foothills of Eastern Himalayas and located at $26^{\circ}22'N$, $89^{\circ}29'E$. It has a moderate climate characterised by heavy rainfall during the monsoons and slight rainfall from October to mid November. The atmosphere is highly humid throughout the year except from February to May, when relative humidity is around 50 to 70 percent. The rainy season lasts from June to September. Average annual rainfall in the district is 3,201 mm. The mean daily maximum temperature is $36.5^{\circ}C$ and

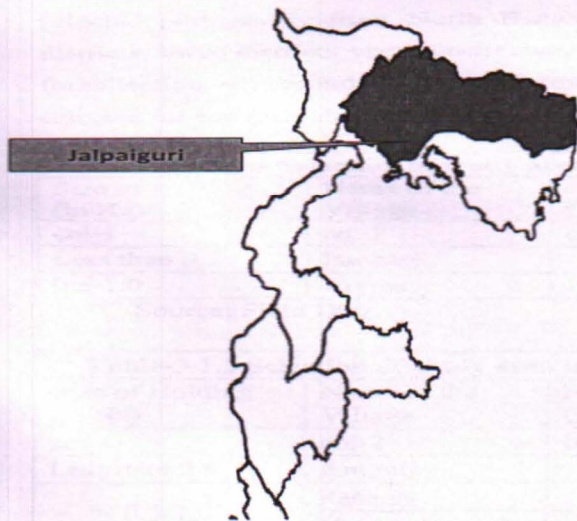
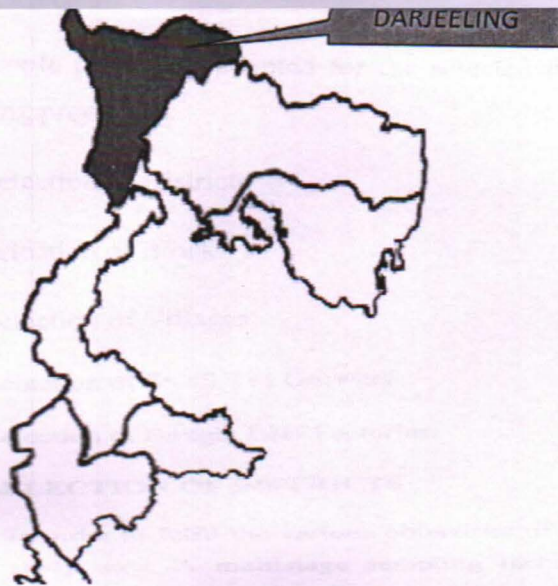
the mean daily minimum temperature is 20.2°C. However, the climate has undergone a drastic change in the past few years with the mercury rising and the rainfall decreasing each year.

Jalpaiguri is located at 26.52°N, 88.730E. It has an average elevation of 75 meters(246 feet). The district is spread over an area of 6425 square kilometre. The topography is crisscrossed with rivulets, rivers and hills. Jalpaiguri lies in the middle of the vast fertile plains (Terai) south of the Himalayas. The average annual rainfall is 3160mm and the average temperature ranges from 30.9 to 10.8 degree Celsius throughout the year. The average humidity is about 82 percent.

Uttar Dinajpur or North Dinajpur is a district of the Indian state of West Bengal created on 1 April 1992 by the division of the erstwhile West Dinajpur district. Uttar Dinajpur lies between latitude 25°11'N and longitude 87°49' E to 90°00'E occupying an area of 3142 square kilometre. The regional topography is generally flat with a southerly slope. The average minimum temperature is 12° and average maximum temperature is 36° Celsius with an average annual rainfall of 1847.8mm.

However, due to drastic change in climate, in the past few years there has been a rise in mercury and the rainfall is decreasing each year.

Map of study area



3.2. SAMPLING PROCEDURE

The sample procedure adopted for the selected the areas to study werestratified in the following procedure.

3.2.1 Selection of Districts

3.2.2 Selection of Block

3.2.3 Selection of Villages

3.2.4 Selection of Small Tea Growers

3.2.5 Selection of Bought Leaf Factories.

3.2.1 SELECTION OF DISTRICTS

In order to fulfil the various objectives of the study, field survey was undertaken in the study area. A multistage sampling technique was used to select the sample households following specific criteria. In the first stage of sampling four districts were selected purposively from North Bengal districts of West Bengal. Among the four districts, three districts viz; Coochbehar, Darjeeling and Uttardinaajpur were categorised forcollection of secondary data information and one district named Jalpaiguri was selected for the secondary as well as primary data collection.

Table-3.1.1 Selection of study area under SHG's based small Tea garden

| Size of Holding (in Ha) | Name of the Village | No. Growers | Name of the Block | Name of the District |
|----------------------------|------------------------|----------------|----------------------|-------------------------|
| col-1 | col-2 | col-3 | col-4 | col-5 |
| Less than 0.5 | Panbari | 9 | Mayanaguri | Jalpaiguri |
| 0.5-1.0 | Votpatty | 6 | | |

Source: Field Data.

Table-3.1.2 Selection of study area underNon-SHG's based small Tea garden

| Size of Holding (in Ha) | Name of the Village | No. Growers | Name of the Block | Name of the District |
|----------------------------|------------------------|----------------|----------------------|-------------------------|
| col-1 | col-2 | col-3 | col-4 | col-5 |
| Less than 0.5 | Amguri | 4 | Maynaguri | Jalpaiguri |
| 0.5-1.0 | Panbari | 6 | | |
| | Votepatty | 5 | | |

Source: Field Data.

3.2.2 SELECTION OF BLOCK

The block Maynaguri was selected from the District Jalpaiguri as because of both the SHG's based and Non-SHG's based Bought Leaf Factories and the small Tea growers are available in this Block.

3.2.3 SELECTION OF VILLAGES

For the collection of primary and secondary data information, three villages from Maynaguri block namely Panbari, Votepatty and Amguri wereselected randomly. Only the three villages were selected for the collection of both the primary as well as secondary data information in the entire study area.

3.2.4 SELECTION OF SMALL TEA GROWERS

The selection of small Tea growers was done randomly from the three villages of Maynaguri block. In this regard, the small Tea growers were divided according to SHG'S's based and non SHG's based. In SHG's based, nine growers from Panbari and six growers from Votepatty were selected. In Non-SHG's based four,six, five growers were selected fromAmguri, Panbari and Votepatty respectively.

The selected growers were again classified into three groups, according to the age of the Tea garden.

- | | |
|----------------|--------------------|
| 1. Age group-1 | Less than 7 Years, |
| 2. Age group-2 | 7-9 Years, |
| 3. Age group-3 | 9 and above. |

From the three selected village, thirty growers were selectedrandomly.

3.2.5 SELECTION OF BOUGHT LEAF FACTORY

A total of four Bought Leaf Factories was randomly selected. Again it was divided according to SHG's and Non -SHG's based. TwoSHG's Basedfactories viz: Panbari and Jai Jalphased from Maynaguri block andtwo namely Bhanshibihari and

DurgaTea industry from Fulbari block and Maynaguri block was selected for Non-SHG's BLFs.

3.3 METHOD OF COLLECTION OF DATA

Study was entirely based on both primary and secondary data. Primary data was collected through direct interview method using pre designed survey schedules and questionnaire. For the collection of data, personal interviews were arranged and reconnaissance study were also conducted to collect the data regarding area, production, labour distribution, cost and return etc. from small Tea growers and the number of members, total capacity, and their utilisation etc. where collected from Bought Leaf Factories. Further the required secondary data to supplement the primary data and to support the study were mainly collected from published sources of Tea Board of India, Siliguri, websites of different Organisations and Institutions were used.

3.4 PERIOD OF INQUIRY

The study is related to the year 2012-2013.

3.5 ANALYTICAL TECHNIQUES EMPLOYED

To fulfil the specific objectives of the study, the Simple Tabular analysis was adopted to compile the general characteristics of the sample Tea growers, determining the resource structure and cost structure, employment, returns, capacity utilisations of BLF's and also the constraints faced by the Small Tea growers and Bought Leaf Factories. The analytical techniques like averages, percentages etc. were used for interpretation of the data.

CHAPTER-4

RESULTS AND DISCUSSION

CHAPTER -4.1

DEMOGRAPHIC FEATURES OF SMALL TEA GARDEN GROWERS

RESULTS AND DISCUSSION

4.1 DEMOGRAPHIC FEATURES OF SMALL TEA GARDEN GROWERS:

As we know that for establishing a small Tea garden needs some capital investment from the part of the growers. As a result, occupation plays a pivotal role for conversion of cultivable land to small Tea gardens. The distribution of small Tea growers by the level of occupation in our studied areas is delineated in Table 4.1.1.

| Table-4.1.1: Distribution of Sample small Tea growers by Level of occupation | | |
|--|-------------|-----------------|
| Occupation | SHG's Based | Non-SHG's Based |
| col-1 | col-2 | col-3 |
| Tea cultivation cum other crops | 2 (13.33) | 3 (20.00) |
| Tea cultivation cum service* | 1 (6.66) | 2 (13.33) |
| Tea cultivation cum business** | 4 (26.66) | 4 (26.66) |
| Tea cultivation cum other works*** | 8 (53.33) | 6 (40.00) |
| Total | 15 (100) | 15 (100) |

Figure in the parentheses indicate the percentage of respective totals.

*= Service includes- Teachers (Both organized and un- organized sector), defence service etc.

**=Business Includes -Grocery shop, Medical shop, Agri-service dealer, Tea stall, sweet shop etc.

***=Other works includes- Hiring out labours, rickshaws/van-pullers etc.

Source: Field Data

From the Table 4.1.1 it is noticeable that as a whole eight Tea growers having 53.33 percent are in the category of Tea leaves cultivation-cum-other works followed by four Tea growers (26.66 percent) are in the category of Tea leaves cultivation-cum-business under SHG's based small Tea garden owners. On the other hand, under Non-SHG's based Tea growers as a whole six growers having 40.00 percent are in the category of Tea leaves cultivation-cum-other works followed by 26.66 percent of the Tea leaves

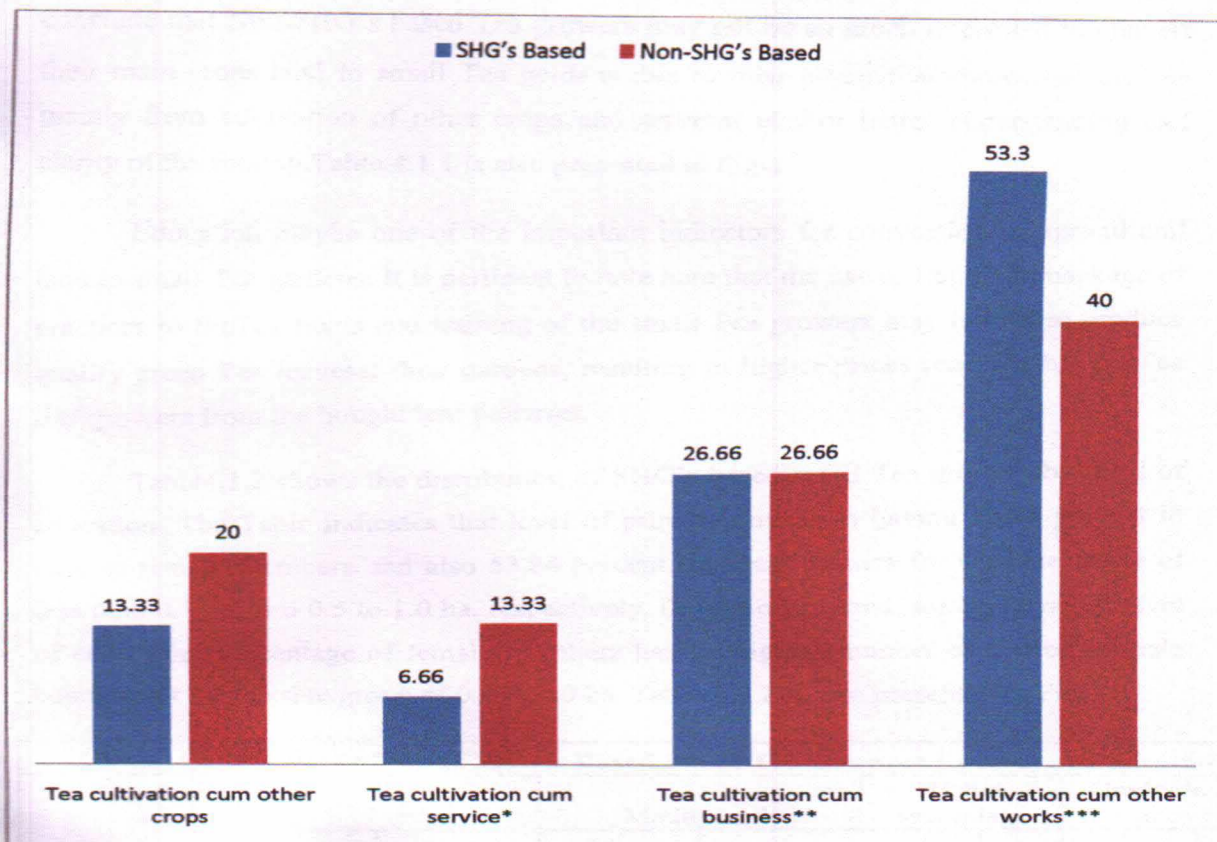


Fig-1: Distribution of Sample small Tea growers by Level of occupation

growers having Tea leaves cultivation-cum- business. One interesting findings emerges from the study that Non-SHG's based Tea growers are more involved in the category of occupation, viz., Tea cultivation-cum-other crops and also the Tea leaves cultivation-cum-services compared to the SHG's based small Tea growers. From the above Table we may conclude that Non-SHG's based Tea growers may not be so much interested to convert their main crops land to small Tea gardens due to their alternative sources of income mainly from cultivation of other crops and services etc. For better understanding and clarity of the finding. Table 4.1.1 is also presented in Fig-1

Education maybe one of the important indicators for conversion of agricultural land to small Tea gardens. It is pertinent to note here that the use of improved package of practices to the Tea fields and training of the small Tea growers may induce to produce quality green Tea leaves at their gardens, resulting in higher prices received by the Tea leaf growers from the bought leaf factories.

Table 4.1.2 shows the distribution of SHG's based small Tea growers by level of education. The Table indicates that level of primary education having 53.84 percent in case of female members and also 53.84 percent for male farmers for the size group of less than 0.5 ha. and 0.5 to 1.0 ha. respectively. On the other hand, for Madhyamik level of education, percentage of female members having highest number compared to male counterpart for the size group of 0.5 to 1.0 ha. Table 4.1.2 is also presented in Fig-2

Table-4.1.2: Distribution of SHG's Based Small Tea Growers by level of Education

| Size of holding (in Ha) | Primary | | Madhyamik | | Higher secondary | | Graduate and above | |
|----------------------------|---------------|--------------|--------------|--------------|------------------|-------|--------------------|-------|
| | M | F | M | F | M | F | M | F |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-7 | col-8 | col-9 |
| Less than 0.5 | 12 (46.15) | 7 (53.84) | 6 (42.85) | 1 (14.28) | 1 (100) | - | 1 (100) | - |
| 0.5-1.0 | 14 (53.84) | 6 (46.15) | 8 (57.14) | 6 (85.71) | - | - | - | - |
| Total | 26 (100) | 13 (100) | 14 (100) | 7 (100) | 1 (100) | - | 1 (100) | - |

Figure in the parentheses indicate the percentage of respective totals.

Source: Field Data.

Table 3: Effect of Education on Small Tea Growers by Level of Education

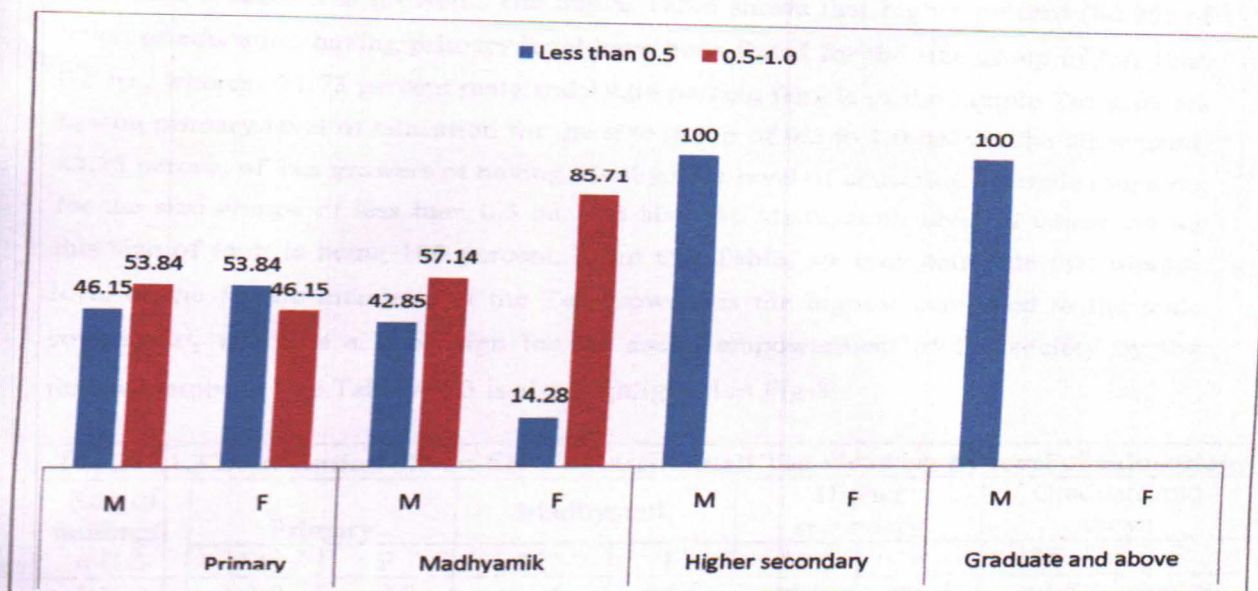


Fig-2: Distribution of SHG's Based Small Tea Growers by level of Education

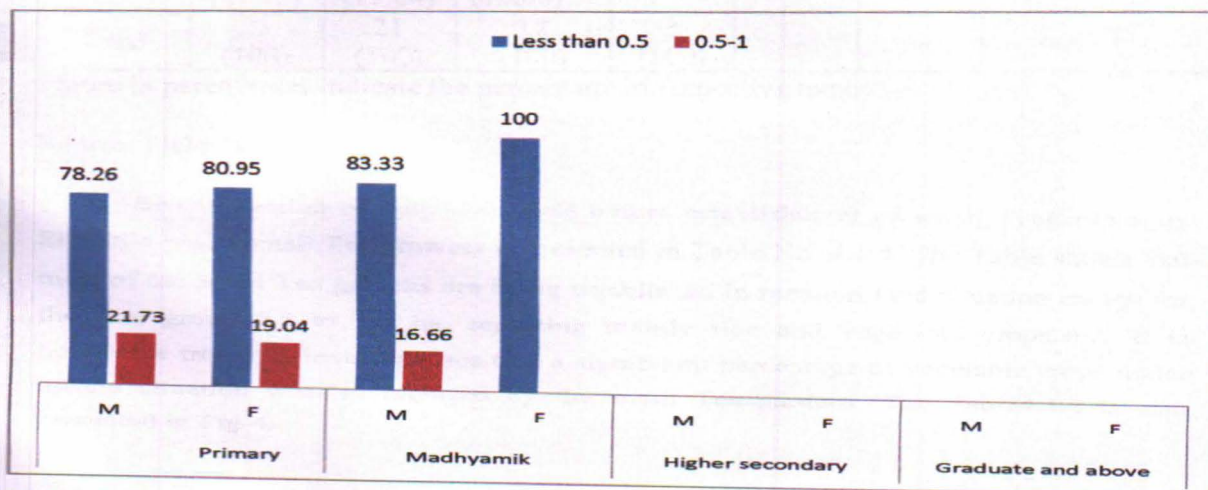


Fig-3: Distribution of Non-SHG's Based Small Tea Growers by level of Education

Table 4.1.3 shows the distribution of small Tea growers by level of education for Non-SHG's based Tea growers. The above Table shows that higher percent (80.95) of level; of education having primary level have been found for the size group of less than 0.5 ha., whereas 21.73 percent male and 19.04 percent female of the sample Tea growers having primary level of education for the size group of 0.5 to 1.0 ha. On the other hand, 83.33 percent of Tea growers of having Madhyamik level of education for male members for the size groups of less than 0.5 ha. and also the Madhyamik level of education for this size of farm is being 100 percent. From this Table, we may conclude that literacy level of the female members of the Tea growers is the highest compared to the male counterpart, which is a good sign for the social empowerment of the society by the female members. The Table 4.1.3 is also highlighted in Fig-3.

| Table-4.1.3 Distribution of Non-SHG's Based Small Tea Growers by level of Education | | | | | | | | |
|--|---------------|---------------|--------------|------------|------------------|-------|--------------------|-------|
| Size of holding (in Ha) | Primary | | Madhyamik | | Higher secondary | | Graduate and above | |
| | M | F | M | F | M | F | M | F |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-7 | col-8 | col-9 |
| Less than 0.5 | 18 (78.26) | 17 (80.95) | 10(83.33) | 3 (100) | - | - | - | - |
| 0.5-1 | 5 (21.73) | 4 (19.04) | 2 (16.66) | - | - | - | - | - |
| Total | 23 (100) | 21 (100) | 12 (100) | 3 (100) | - | - | - | - |

Figure in parentheses indicate the percentage of respective totals.

Source: Field Data,

Inventorisation of cultivated land before establishment of small Teagardens by SHG'S's based small Tea growers is presented in Table No. 4.1.4. The Table shows that most of the small Tea gardens are being established in medium land situation except for the size group 0.5 to 1.0 ha, replacing mainly rice and vegetable cropsland. It is noticeable from our investigations that a significant percentage of vegetable crops under upland situation was also replaced by the small Tea gardens. The Table 4.1.4 is also presented in Fig-4.

Table- 4.1.4 Inventorisation of cultivated land before establishment of SHG's Based small Tea garden (in ha)

| Size of holding (in ha) | Land situation | | Name of the crops | | | | | |
|-------------------------|-----------------|-----------------|-------------------|-----------------|-----------------|-----------------|-----------------|---------------------------|
| | Up | Medium | Rice | Vegetables | Jute | Sericulture | Fallow | Total net cultivated area |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-7 | col-8 | col-9 |
| Less than 0.5 | 0.40 (14.33) | 1.06 (14.86) | - | 1.06 (72.60) | - | - | 0.40 (27.39) | 1.46 (100) |
| 0.5-1.0 | 1.86 (66.66) | 4.22 (59.18) | 0.93 (15.29) | 2.63 (43.25) | 0.66 (10.85) | 0.93 (15.29) | 0.93 (15.29) | 6.08 (100) |
| 1.0 & above | 0.53 (18.99) | 1.85 (25.94) | 0.79 (33.19) | 1.59 (66.80) | - | - | - | 2.38 (100) |

Figure in parentheses indicate the percentage of respective totals.

Source: Field Data,

Table 4.1.5 presents the inventorisation of cultivable land for Non-SHG's based small Tea growers before establishment of small Tea gardens. The Table 4.1.5 highlighted that higher percentage of up and medium land for the size group of 0.5 to 1.0ha was converted to small Tea gardens compared to the size group of less than 1.0 ha. The Table further shows that, higher percentage of vegetables croplands also replaced by the small Tea gardens under Non-SHG's based category. The Table 4.1.5 is also presented in Fig-5.

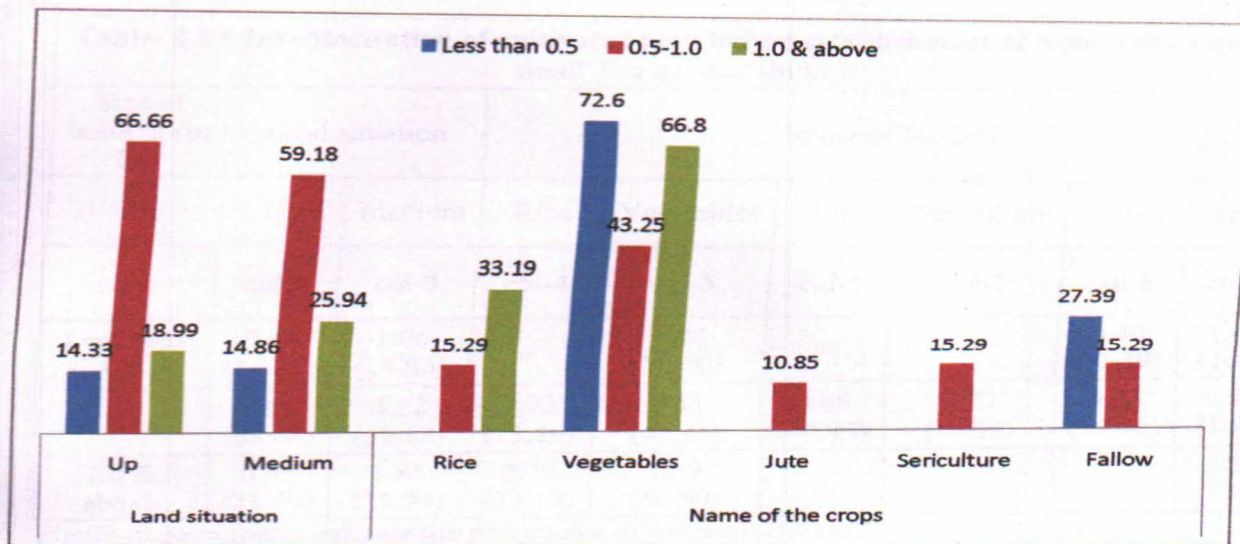


Fig-4 Inventorisation of cultivated land before establishment of SHG's Based small Tea garden (in ha)

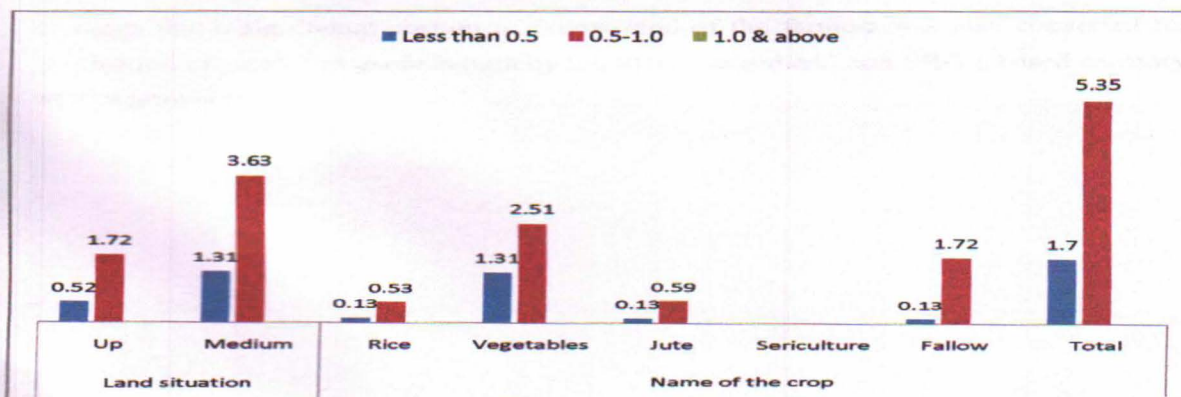


Fig-5 Inventorisation of cultivated land before establishment of Non-SHG's based small tea garden (in ha)

Table- 4.1.5 Inventorisation of cultivated land before establishment of Non- SHG's based small Tea garden (in ha)

| Size of holding (in ha) | Land situation | | Name of the crop | | | | | |
|-------------------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|---------------|
| | Up | Medium | Rice | Vegetables | Jute | Sericulture | Fallow | Total |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-7 | col-8 | col-9 |
| Less than 0.5 | 0.40 (14.33) | 1.06 (14.86) | - | 1.06 (72.60) | - | - | 0.40 (27.39) | 1.46 (100) |
| 0.5-1.0 | 1.86 (66.66) | 4.22 (59.18) | 0.93 (15.29) | 2.63 (43.25) | 0.66 (10.85) | 0.93 (15.29) | 0.93 (15.29) | 6.08 (100) |
| 1.0 & above | 0.53 (18.99) | 1.85 (25.94) | 0.79 (33.19) | 1.59 (66.80) | - | - | - | 2.38 (100) |

Figure in parenthesis indicate the percentage of respective totals.

Source: Field Data,

A comparison between Table 4.1.4 and Table 4.1.5 indicates one interesting findings that a significant portion of fallow land of the farmers was also converted for production of small Tea gardens both by the SHG's based and non SHG's based category of Tea growers.

CHAPTER -4.2

NUMBER AND AREA OF SMALL TEA GARDEN IN NORTH BENGAL DISTRICTS

4.2 NUMBER AND AREA OF SMALL TEA GARDEN IN NORTH BENGAL DISTRICTS:

As we know that reliable data regarding the number and area under small Tea gardens is limited. Therefore, only the primary survey and case studies may provide an actual figure of these two statistics. But it is well established that the growth rate of number and area expansion of small Tea gardens is relatively higher compared to the traditional gardens established at North Bengal in the state of West Bengal. In this connection we may be mentioned here that status of registration of the gardens is perhaps depressing the case of North Bengal and also most of the small Tea gardens are under reported, due to the land related policies and different procedural problems of the government of West Bengal. In this chapter we are trying to highlight the number of gardens and area of the existing small Tea garden owners from the information collected from the office of Deputy Director of Tea Board, Siliguri.

District-wise status of number and area under small Tea garden in North Bengal from 2004-05 to 2012-13 is presented in Table 4.2.1. As per Table 4.2.1, it can be said that the growth of numbers (53.23 percent) and the area (58.42 percent) is higher in the district of Uttar Dinajpur followed by the districts of Jalpaiguri and Darjeeling. The Table 4.2.1 further shows that in the district of Coochbehar, though the growth of numbers (2.50 percent) is insignificant but their area expansion (24.14 percent) is significantly higher compared to the expansion of area of the other two districts viz; Jalpaiguri and Darjeeling. The reason maybe cited here that the expansion of area of small Tea gardens is mainly concentrated in the blocks of Mekhliganj and Mathabhanga 1 and 2. Other blocks of this district the conversion of cultivable land to small Tea garden owners is not yet noticeable. For better understandings and clarity of the findings, the said Table 4.2.1 is also presented in Fig-5.

**Table-4.2.1: District- wise Present status of Number and Area under small Tea gardens
In North Bengal Districts**

| Sl. No | Name of the District | No of Tea Gardens | Percentage | Area (in Ha) | Percentage |
|-----------|----------------------|----------------------|------------|---------------|------------|
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 |
| 1 | Jalpaiguri | 6047 | 28.27 | 23948.54 | 26.91 |
| 2 | Uttar Dinajpur | 11386 | 53.23 | 51979.37 | 58.92 |
| 3 | Cooch Behar | 556 | 2.59 | 3686.89 | 24.12 |
| 4 | Darjeeling | 3401 | 15.89 | 9348.53 | 10.51 |
| Total | | 21390(100) | | 88963.33(100) | |

Figure in parentheses indicate the percentage of respective totals.

Source: Office of the Deputy Director, Tea Board Of India, Siliguri.

Table 4.2.2 shows the block -wise small Tea garden from the year 2004-05 to 2012-13. The above Table shows that the growth of number of Tea garden is higher (45.34) percent in Raiganj block followed by Mainaguri (22.92 percent) and the Jalpaiguri Sadar (19.74 percent). On the other hand, the lowest number of small Tea garden established in the blocks viz; Nagarkata, Dhupguri, Mettli, Madarihat, Falakata and Alipurduar 1 and 2. The expansion of small Tea garden in the three blocks mentioned earlier is being pronounced as because these blocks were mainly traditionally pineapple cultivated areas in the district of Jalpaiguri, now, is shifted to cultivation of small Tea garden. On the other hand, other blocks of this district except Malbazar, the area was mainly dominated by the traditional Tea gardens. The Table4.2.2 shows that the growth of area is higher in the block Raiganj (34.29 percent) followed by Jalpaiguri Sadar (17.74 percent) and Malbazar (17.59 percent). In the other blocks of the district, expansion of area seems to be marginal. One interesting findings may be drawn that the expansion of the small Tea garden is remarkably higher (17.59 percent) in the block of Malbazar during this time period compared to other blocks of this districts. The reason may be a significant part of cultivable rice field converted to small Tea garden due to easily accessible of technical manpower from the Traditional Tea estates as reported by the small Tea garden owners. The Table 4.2.1 is also presented in Fig-6.

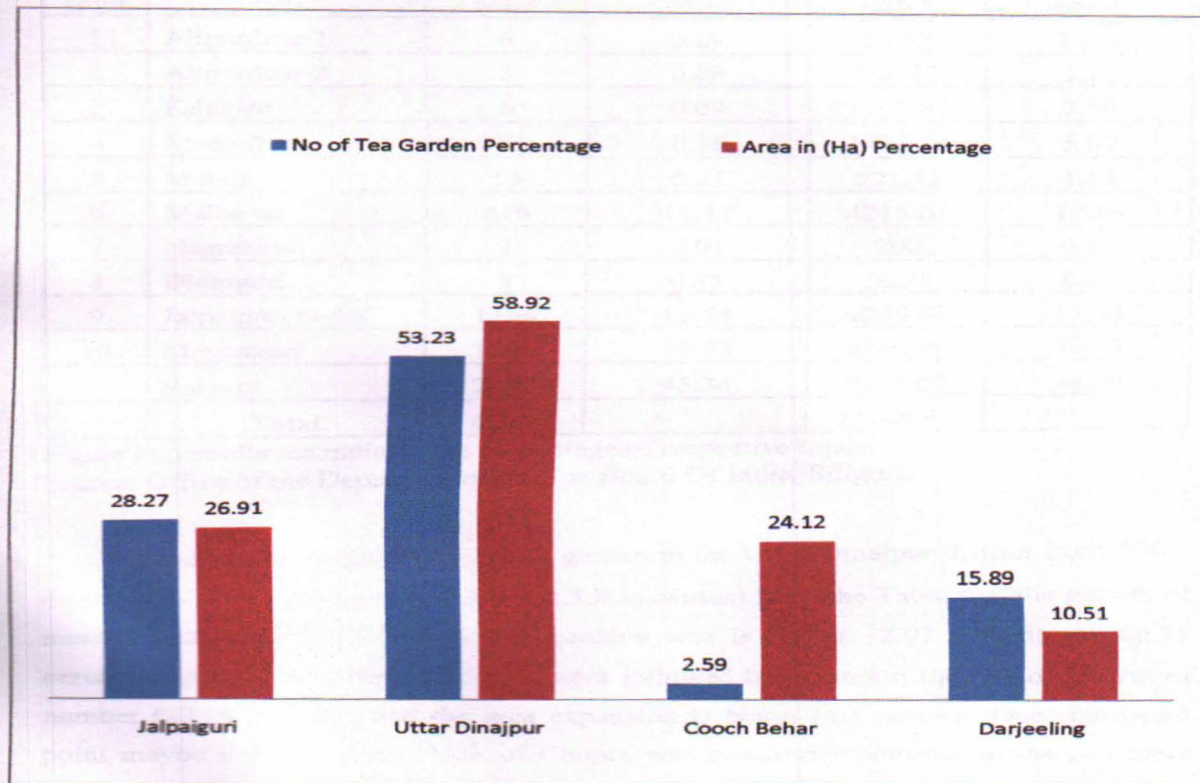


Fig.- 6: District wise Present status of No. and Area under Small Tea garden in North Bengal

Table-4.2.2: Block- wise Present status of small Tea Gardens in Jalpaiguri District

| Sl. No | Name of the Blocks | No of Tea Gardens | percentage | Area (in Ha) | percentage |
|--------|--------------------|-------------------|------------|-----------------|------------|
| col-1 | col-2 | col-3 | col-4 | col-3 | col-4 |
| 1 | Alipurduar-1 | 6 | 0.09 | 39.57 | 0.004 |
| 2 | Alipurduar-2 | 5 | 0.08 | 266.23 | 1.11 |
| 3 | Falakata | 6 | 0.09 | 1767.69 | 7.38 |
| 4 | Madarihat | 10 | 0.16 | 1430.14 | 5.97 |
| 5 | Metelli | 13 | 0.21 | 271.53 | 1.13 |
| 6 | Malbazar | 676 | 11.17 | 4213.64 | 17.59 |
| 7 | Nagrakata | 1 | 0.01 | 200 | 0.83 |
| 8 | Dhupguri | 8 | 0.13 | 56.35 | 0.23 |
| 9 | Jalpaiguri Sadar | 1194 | 19.74 | 4250.43 | 17.74 |
| 10 | Maynaguri | 1386 | 22.92 | 3240.89 | 13.53 |
| 11 | Raiganj | 2742 | 45.34 | 8212.07 | 34.29 |
| | Total | 6047 | | 23948.54 | |

Figure in parentheses indicate the percentage of respective totals.

Source: Office of the Deputy Director, Tea Board Of India, Siliguri.

Block- wise status of small Tea garden in the Uttar Dinajpur district from 2004-05 to 2013-14 is delineated in Table 4.2.3. It is evident from the Table that the growth of number and expansion of small Tea gardens area is higher 72.07 percent and 86.35 percent respectively in the block of Chopra followed by Islampur, the rate of growth of number (27.16 percent), and the area expansion is being 11.3 percent. One significant point maybe noted that the block of Chopra was previously dominating the pineapple cultivation. Presently, most of the marginal and small land holders were converted their cultivable lands from pineapple cultivation to small Tea gardens. On the other hand, in the two blocks of the district viz; Golpukur 1 and 2, the rate of growth of number and also the area of the Tea gardens is a insignificant as because in these two blocks, most of the farmers cultivated ginger and turmeric of their marginal upland, resulting in getting higher remunerative prices of these two products compared to the production of green

Tea leaf is reported by most of the growers during the winter season. The leaf is reported by most of the growers during the winter season.

Table-4.2: Block wise Present status of small Tea Garden in Jalpaiguri District

| Sl. No. | Name of the Block | No. of Tea Gardens | Area (in Ha) |
|---------|-------------------|--------------------|--------------|
| 1 | Alipurdwar-1 | 0.004 | 0.09 |
| 2 | Alipurdwar-2 | 1.11 | 0.08 |
| 3 | Falakata | 7.38 | 0.09 |
| 4 | Madanihat | 5.97 | 0.16 |
| 5 | Metelli | 1.13 | 0.21 |
| 6 | Malbazar | 11.17 | 17.59 |
| 7 | Nagrakata | 0.01 | 0.83 |
| 8 | Dhupguri | 0.23 | 0.13 |
| 9 | Jalpaiguri Sadar | 19.74 | 17.74 |
| 10 | Maynaguri | 22.92 | 13.53 |
| 11 | Raiganj | 45.34 | 34.29 |

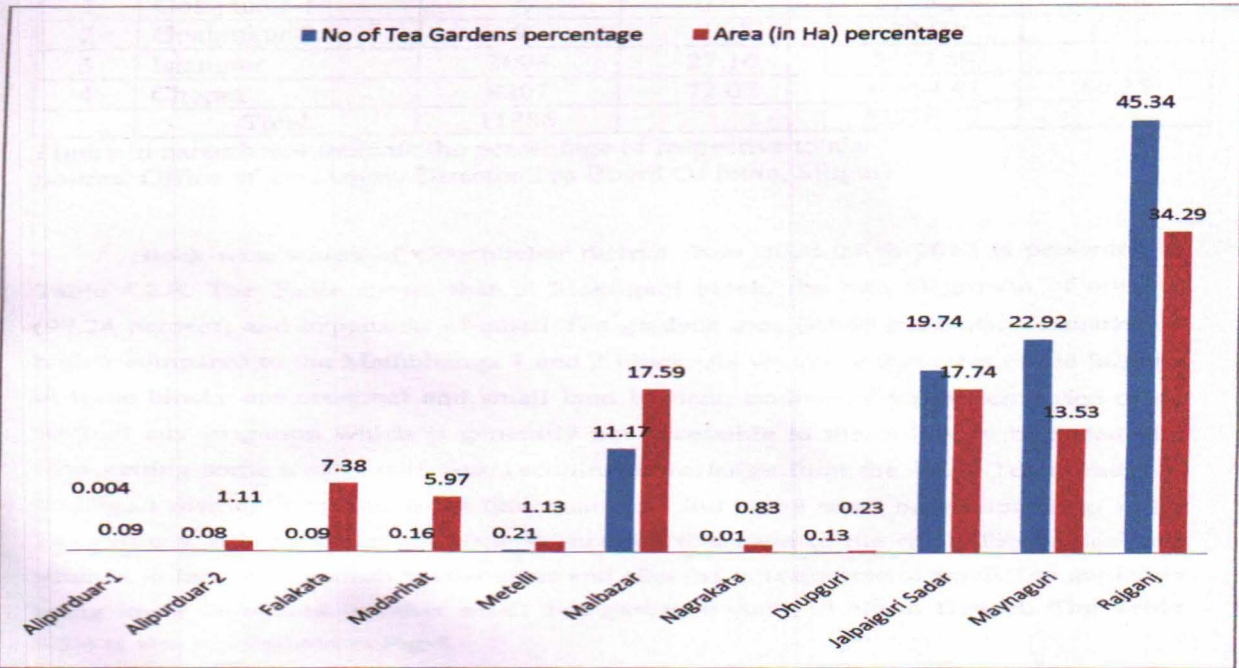


Fig-7: Block wise Present status of small Tea Garden in Jalpaiguri District

| Sl. No. | Name of the Block | No. of Tea Gardens | Area (in Ha) |
|---------|-------------------|--------------------|--------------|
| 1 | Alipurdwar-1 | 0.004 | 0.09 |
| 2 | Alipurdwar-2 | 1.11 | 0.08 |
| 3 | Falakata | 7.38 | 0.09 |
| 4 | Madanihat | 5.97 | 0.16 |
| 5 | Metelli | 1.13 | 0.21 |
| 6 | Malbazar | 11.17 | 17.59 |
| 7 | Nagrakata | 0.01 | 0.83 |
| 8 | Dhupguri | 0.23 | 0.13 |
| 9 | Jalpaiguri Sadar | 19.74 | 17.74 |
| 10 | Maynaguri | 22.92 | 13.53 |
| 11 | Raiganj | 45.34 | 34.29 |

Tea leaf, as reported by most of the farmers during our investigations. The Table 4.2.3 is also presented in Fig-7.

| Table-4.2.3: Block -Wise Present status of small Tea Gardens in Uttar Dinajpur District | | | | | |
|--|--------------------|-------------------|------------|--------------|------------|
| Sl. No | Name of the Blocks | No of Tea Gardens | Percentage | Area (in Ha) | Percentage |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 |
| 1 | Goalpukur-1 | 77 | 0.67 | 1178.28 | 2.26 |
| 2 | Goalpukur-2 | 9 | 0.07 | 39.09 | 0.07 |
| 3 | Islampur | 3093 | 27.16 | 5877.59 | 11.3 |
| 4 | Chopra | 8207 | 72.07 | 44884.41 | 86.35 |
| | Total | 11386 | | 51979.37 | |

Figure in parentheses indicate the percentage of respective totals.

Source: Office of the Deputy Director Tea Board Of India, Siliguri

Block-wise status of Coochbehar district from 2004-05 to 2013 is presented in Table 4.2.4. The Table shows that in Mekhliganj block, the rate of growth of number (98.24 percent) and expansion of small Tea gardens area (93.63 percent) is remarkably higher compared to the Mathabhanga 1 and 2 block. As we know that most of the farmers in these blocks are marginal and small land holders, traditionally producing rice crops without any irrigation which is generally not accessible to them. It may be noted that after getting some inspirations and Technical knowledge from the small Tea farmers of Jalpaiguri district, they converted their marginal and home stead based upland to small Tea gardens. It is further worthwhile to mention that most of the small Tea gardens are situated in Indo-Bangladesh border areas and also the average size of small Tea garden is being lower compared to other small Tea garden owners of North Bengal. The Table 4.2.4 is also highlighted in Fig-8.

| Table-4.2.4: Block -Wise Present status of small Tea Garden in Coochbehar District | | | | | |
|---|--------------------|-------------------|------------|--------------|------------|
| Sl. No | Name of the Blocks | No of Tea Gardens | Percentage | Area (in Ha) | Percentage |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 |
| 1 | Mekhliganj | 546 | 98.24 | 3451.76 | 93.63 |
| 2 | Mathabhanga I-II | 10 | 1.76 | 235.13 | 6.37 |
| | Total | 556 | | 3686.89 | |

Figure in parentheses indicate the percentage of respective totals.

Source: Office of the Deputy Director Tea Board Of India, Siliguri

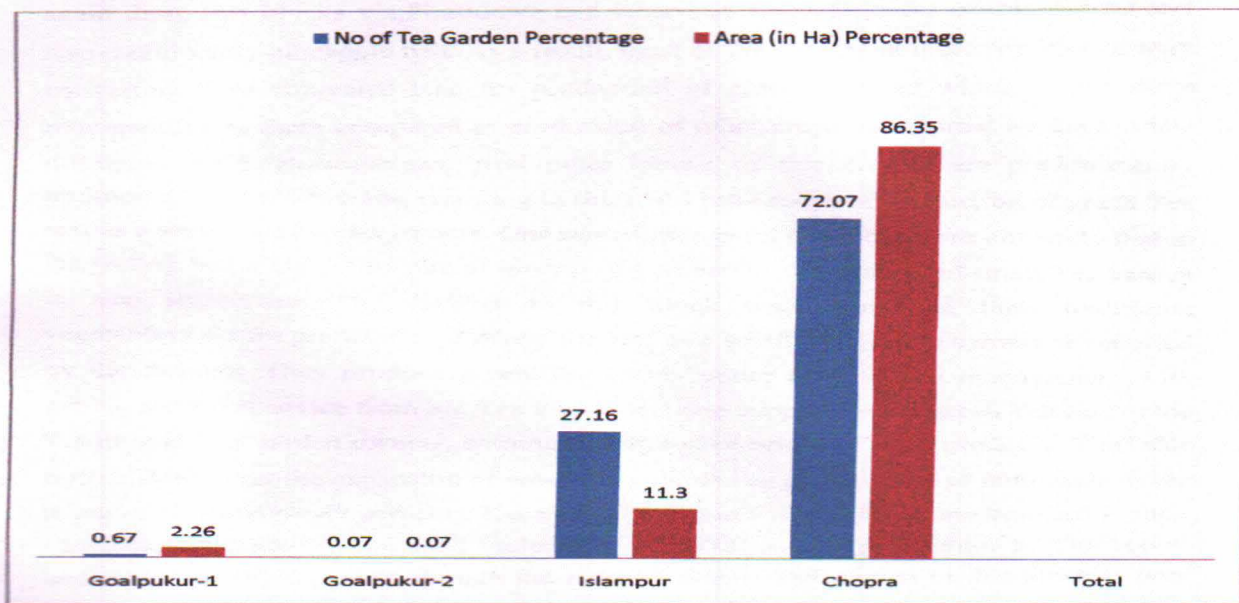


Fig-8: Block Wise Present status of small Tea Garden in Uttar Dinajpur District

Block- wise status of small Tea gardens in Darjeeling district from 2004-05 to 2013 is presented in Table 4.2.5. The Table elucidated that the rate of growth of number (47.63 percent) and the growth of area (46.7 percent) of small Tea garden is remarkably higher in the block of Phasidewa followed by the block of Kharibari (25.75 percent) and the growth of area 36.64 percent. The reason mainly mentioned here that again these two blocks viz; Phasidewa and Kharibari are plain areas of this district and also traditionally pineapple belt. As a result, most of the farmers in these two blocks were converting their cultivated land for production of green Tea leaf which maybe more remunerative to them compared to production of other crops as reported by the farmers during our field investigations. And other blocks of this district are predominantly traditional Tea garden areas, resulting in there is a little scope of production of green Tea leaf as a small Tea garden owners. One remarkable point came out from our study that in Darjeeling Sadar block, the rate of growth of number (12.64 percent) of small Tea garden is also significant. The farmers in this block were converted their traditional vegetables field for production of green Tea leaf as a small Tea garden owners as reported by the farmers. They produce green Tea leaves under organic Tea management with getting technical advice from big Tea Estates and also supplying their green Tea leaf to the Traditional Tea garden owners, earning remunerative prices of their products. The Table further shows that the expansion of area under small Tea gardens is also noticeable in the block of Kurseong (4.89 percent). Recently, the farmers in this block are converting their vegetables and maize crop land under hilly slope areas, for production of Tea leaves under organic management, though the average size of Tea garden in this block is very insignificant. The Table 4.2.5 is also presented in Fig-10.

| Table-4.2.5: Block -Wise Present status of small Tea Gardens in Darjeeling District | | | | | |
|--|--------------------|-------------------|------------|---------------|------------|
| Sl. No | Name of the Blocks | No of Tea Gardens | Percentage | Area (in Ha) | Percentage |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 |
| 1 | Kalimpong-2 | 76 | 2.23 | 120.3 | 1.28 |
| 2 | Kalimpong-3 | 49 | 1.44 | 149.27 | 1.59 |
| 3 | Kurseong | 6 | 0.17 | 457.2 | 4.89 |
| 4 | Mirik | 10 | 0.29 | 11.45 | 0.12 |
| 5 | Darjeeling Sadar | 430 | 12.64 | 166.98 | 1.78 |
| 6 | SukhiaPokhri | 117 | 3.44 | 149.03 | 1.59 |
| 7 | Rangli-Rangliot | 95 | 2.79 | 93.67 | 1.00 |
| 8 | Phasidewa | 1620 | 47.63 | 4366.59 | 46.7 |
| 9 | Naxalbari | 103 | 3.02 | 336.34 | 3.59 |
| 10 | Kharibari | 876 | 25.75 | 3426.1 | 36.64 |
| 11 | Matigara | 19 | 0.55 | 71.87 | 0.76 |
| | Total | 3401 | | 9348.8 | |

Figure in parentheses indicate the percentage of respective totals.

Source: Office of the Deputy Director Tea Board Of India, Siliguri

Table 4.2.6 indicates the area-wise classification of small Tea gardens in our studied areas. The Table shows that 26.6 percent of the small Tea growers belong to the size groups of less than 0.5 hectare and the 60.00 percent and 13.33 percent having size group of 0.5 to 1.0 and above 1.0 hectare respectively under SHG's based Tea growers. On the other hand, in case of Non - SHG's based small Tea growers, 40 percent and 60 percent having the size group of less than 0.5 and 0.5 to 1 hectare respectively. The Table also indicate that area under Tea garden is being highest (60.24 percent) for the size group of 0.5 to 1 hectare under SHG's, where as in case of Non - SHG's based Tea growers, the area is the highest (68.61 percent) for the size group less than 0.5 hectare.

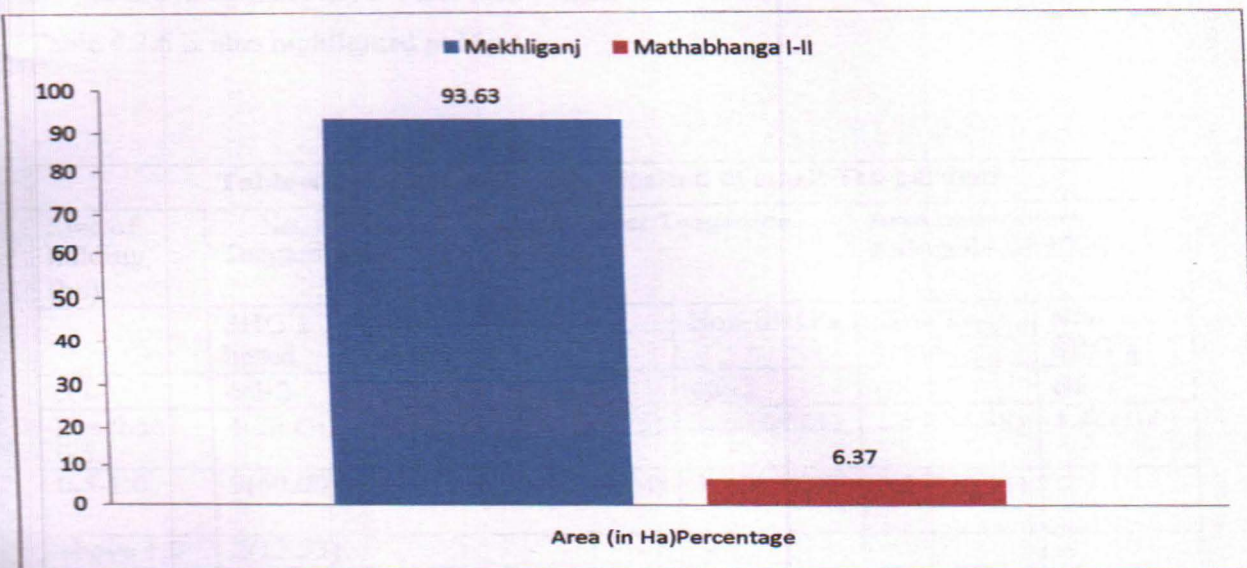


Fig-9: Block Wise Present status of small Tea Garden in Coochbehar District

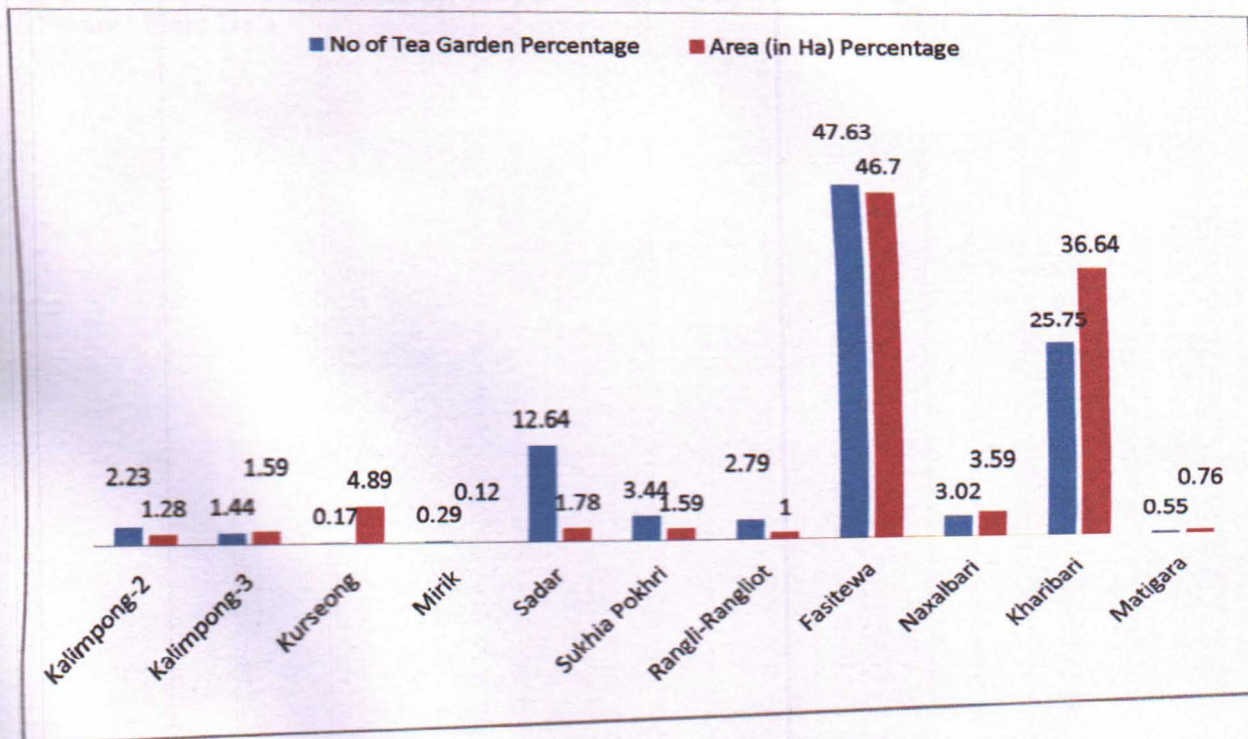


Fig-10: Block Wise Present status of small Tea Garden in Darjeeling District

Further, the area under other cultivated land is the highest for the size group of less than 0.5 hectare in both the SHG's and Non – SHG's based small Tea garden owners. The Table 4.2.6 is also highlighted in Fig-11.

| Table-4.2.6: Area-wise classification of small Tea gardens | | | | | | |
|---|-------------------|-----------|---------------------------|-------------|--------------------------------------|-----------|
| Size of holding (ha) | No. of Teagardens | | Area under Teagarden (ha) | | Area under other cultivable land(ha) | |
| | SHG's based | Non SHG's | SHG's based | Non-SHG's | SHG's based | Non-SHG's |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-7 |
| less than 0.5 | 4(26.66) | 6(40.00) | 2.45(32.75) | 3.76(68.61) | 1.57(56.88) | 1.56(100) |
| 0.5-1.0 | 9(60.00) | 9(60.00) | 5.03(67.24) | 1.72(31.38) | 1.19(43.11) | - |
| above 1.0 | 2(13.33) | - | - | - | - | - |
| Total | 15(100) | 15(100) | 7.48(100) | 5.48(100) | 2.76(100) | 1.56(100) |

Figure in the parentheses indicate the percentage of respective totals.

Source: Field Data.

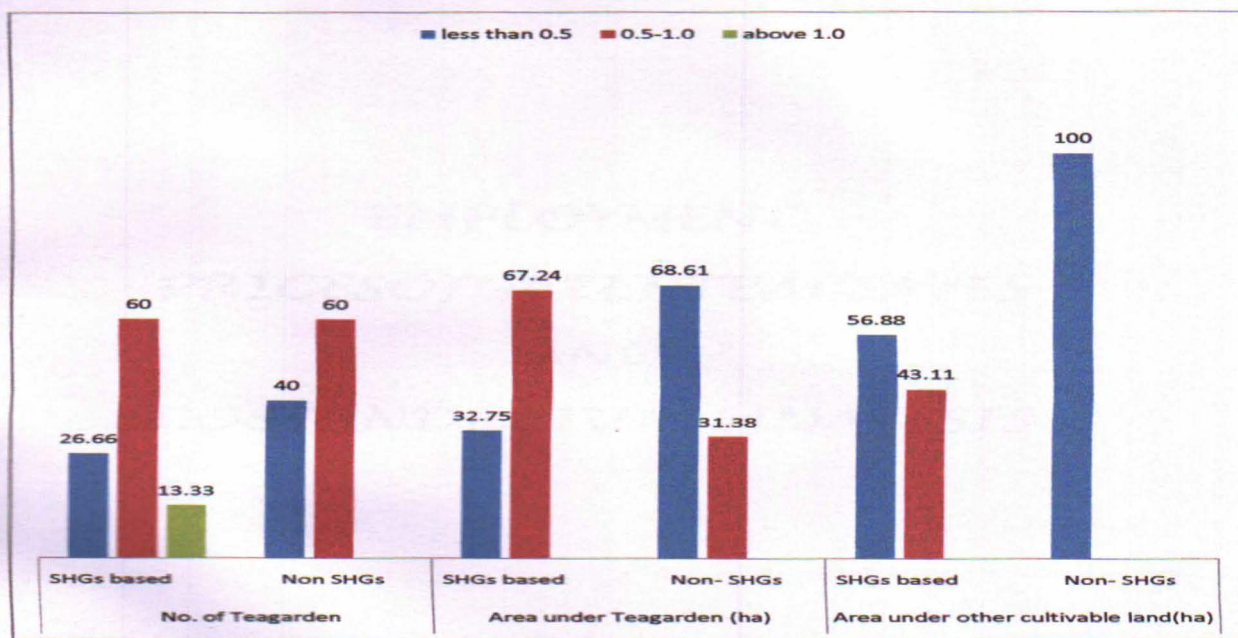


Fig-11: Area-wise classification of small Tea garden

CHAPTER-4.3

EMPLOYMENT, PRICES OF GREEN TEA LEAVES AND COST AND RETURN ANALYSIS

4.3 EMPLOYMENT, PRICES OF GREEN TEA LEAVES AND COST AND RETURN ANALYSIS:

Prices of the green Tea leaves of the small Tea growers are one of the most debatable issues in the scenario of North Bengal Tea Industry. As we know that sometimes there is a conflict arises between the small Tea growers and the BLF's for settlement of prices of green leaf. Recently, Tea Board announced month-wise minimum support price of the green Tea leaves produced by the small Tea gardens but its implementation of the BLF's level is very slow. On the other hand, to get the accurate information of prices of green Tea leaves is very limited.

It is well established that cost is an important criteria for determining the gross income of the small Tea growers. For lack of time and also getting the accurate informations of the costs and return data on the small Tea grown owners, it is very difficult to estimate the costs and return of green Tea leaves from the small Tea producers. On the other hand, being the long technical life of recently established Teagardens, we have not able to collect the information of non-recurring costs of the small Tea growers. Due to this limitation, we are only considering the paid out cost of the small Tea growers for calculating the incomes of the growers in this chapter, we have been tried here to find out the average price of the green leaf for the Financial Year 2012-13 only. In this chapter, we have been also calculated cost and return and employment opportunity of the small Tea growers under the category of both SHG's based and Non-SHG's based.

Operation-wise distribution of man-days under SHG's based small Tea garden is presented in Table 4.3.1. The Table shows that the more number of man-days employed will be higher in the operation of plucking followed by planting and pruning. If we analysis the employment pattern of the small Tea gardens, then as per Table it can be said that higher number of female members are employed in the operation of plucking ranges between 27.95 percent to 30.90 percent irrespective of the average size and number of small Tea garden. The Table 4.3.1 also shows that higher number male labours are employed in the operation of planting followed by the operation of digging and weeding. The Table further shows that the more number of familylabours are being used under this category of garden compared to the higher labourers. Again, there is an inverse

relationship between the average size of the Tea garden and the total number of man-days employed. One remarkable findings may be drawn from this Table that a significant portion of child labours are also being used in the operation of plucking under SHG's based gardens which is against the prevailing Child Labour Act. The above finding is also presented in Fig-12.

Table-4.3.1: Operation- wise Distribution of man-days under SHG's Based small Tea garden(ha/annum)

| No. of garden | Planting | Digging | Weeding | Cutting and Prunning | | spray -ing | Plucking | | | Irrigati- on | Transpro- -tation | Total man-days | | | | | |
|------------------|----------|---------------|--------------|-------------------------|--------------|---------------|--------------|---------------|---------------|-----------------|----------------------|----------------|----------------|----------------|--------------|-------|-------|
| | | | | M | F | | M | M | F | | | C | M | M | Family | Hired | Total |
| | | | | | | | | | | | | | | | | | |
| col-2 | col-4 | col-5 | col-6 | col-7 | col-8 | col-9 | col-10 | col-11 | col-12 | col-13 | col-14 | col-15 | col-16 | col-17 | | | |
| ow | 5 | 32 (13.73) | 14 (6.00) | 15 (6.43) | 22 (9.44) | 4 (1.71) | 9 (3.86) | 26 (11.15) | 72 (30.90) | 15 (6.43) | 13 (5.57) | 11 (4.72) | 155 (66.52) | 78 (33.47) | 233 (100) | | |
| -9 | 7 | 36 (13.73) | 17 (6.34) | 18 (7.14) | 25 (9.54) | 6 (3.17) | 12 (4.76) | 27 (10.30) | 75 (28.62) | 16 (6.10) | 13 (5.55) | 14 (5.55) | 166 (63.35) | 96 (36.66) | 262 (100) | | |
| nd ve | 3 | 37 (13.26) | 19 (7.23) | 18 (6.75) | 27 (9.67) | 10 (3.58) | 15 (5.37) | 28 (10.03) | 78 (27.95) | 18 (6.45) | 14 (5.26) | 15 (5.92) | 152 (54.48) | 127 (45.51) | 279 (100) | | |

re in parentheses indicate the percentage of respective totals.

ce: Field Data.

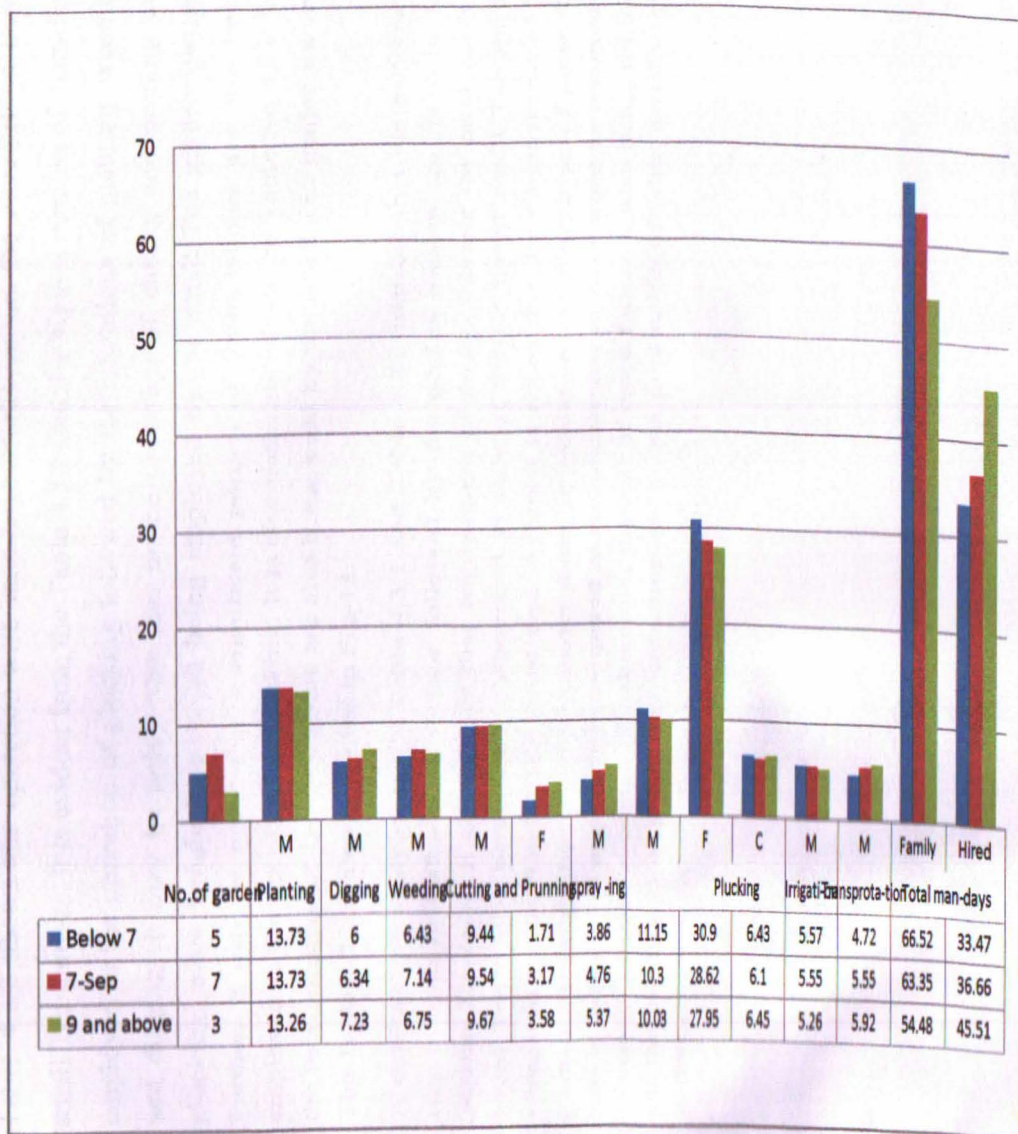


Fig-12: Operation- wise Distribution of man-days under SHG's Based small tea garden(ha/annum)

Table 4.3.2 shows the operation-wise man-days employed on the Non-SHG's based small Tea gardens. It is evident from the Table 4.3.2 that the highest number of man-days employed in the operation of plucking followed by the operations of planting, weeding and digging. It may be noted here that in the operation of cutting and pruning and plucking, more female labours are being employed by the small Tea garden owners. Further, it may be noted that a significant portion of Child labours are also being employed in the operation of plucking. It is also noticeable from the Table No.4.3.2 that the more number of family labours are also being used by the small Tea garden owners. The Table 4.3.2 is also presented in Fig-13.

A comparative analysis of the Table 4.3.1 and Table 4.3.2 indicate that the patterns of employment in different operations followed by the garden owners are more or less similar. However, it can be said that employment of family labours for production of green Tea leaf is being more pronounced in case of SHG's based small Tea garden compared to the Non-SHG's based one. Again it is noted that the employment of the human labour all the year round under different operations of production of green Tea leaf is being more pronounced compared to the production of field crops as reported by the small Teagarden owners. Furthermore, the risk of crops failure is also being minimal for the production of green Tea leaf compared to the production of other cereals crops and vegetables production.

Table-4.3.2: Operation- wise Distribution of man-days under Non-SHG's Based small Tea garden(ha/annum)

| Age of the garden | No. Of garden | Digging | Weeding | Cutting and Pruning | Spraying | | Plucking | | | Irrigation | Transportation | Total | n-days | |
|-------------------|---------------|-----------|-----------|---------------------|-----------|-----------|------------|------------|-----------|------------|----------------|-------------|-----------|-----------|
| | | M | M | M | F | M | M | F | C | M | M | Family | | |
| col-1 | col-2 | col-5 | col-6 | col-7 | col-8 | col-9 | col-10 | col-11 | col-12 | col-13 | col-14 | col-15 | red | Total |
| | | | | | | | | | | | | | col-16 | col-17 |
| Below 7 | 10 | 13 (5.50) | 16 (6.77) | 21 (8.89) | 5 (2.11) | 10 (4.23) | 24 (10.16) | 73 (3092) | 16 (6.77) | 15 (6.35) | 12 (5.08) | 142 (60.16) | 16 (6.83) | 236 (100) |
| 7-9 | 3 | 16 (6.01) | 17 (6.39) | 23 (8.64) | 10 (3.75) | 13 (4.88) | 28 (10.52) | 77 (28.94) | 17 (6.39) | 16 (6.01) | 15 (5.63) | 154 (57.89) | 2 (2.10) | 266 (100) |
| 9 and above | 2 | 20 (6.87) | 18 (6.57) | 25 (8.59) | 12 (4.12) | 16 (5.49) | 29 (9.96) | 83 (28.52) | 17 (5.84) | 16 (5.49) | 17 (5.84) | 149 (51.20) | 12 (8.79) | 291 (100) |

Figure in parentheses indicate the percentage of respective totals.

Source:FieldData

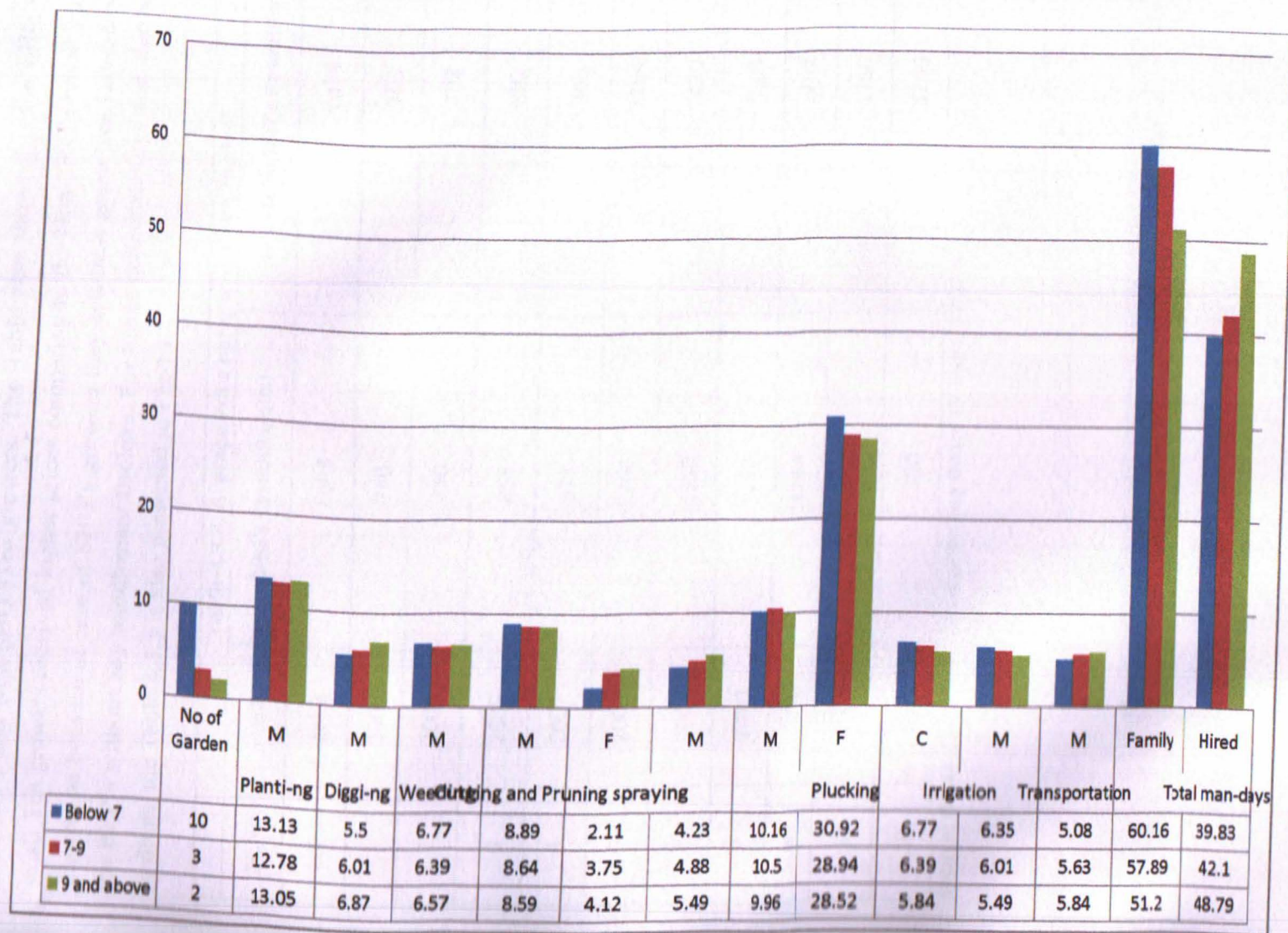


Table 4.3.3 shows that the average price/qtls of green Tea leaves received by both the SHG's and Non-SHG's Tea growers. The Table also shows that the SHG's based small Tea growers received higher prices comparing to the Non-SHG's based small Tea growers as because in case of SHG's growers they sell their green Tea leaves directly to the BLF's without any middleman/ Brokers. For better understandings and clarity of the findings, the Table 4.3.3 is also presented in Fig-14.

| Table-4.3.3: Average Price per qtls of green Tea leaf | | | |
|---|-------|----------------------|--------------------------|
| SL.No. | year | SHG's Based(Rs/qtls) | Non-SHG's Based(Rs/qtls) |
| col-1 | col-2 | col-3 | col-4 |
| 1 | 2004 | 750 | 706 |
| 2 | 2005 | 830 | 793 |
| 3 | 2006 | 855 | 802 |
| 4 | 2007 | 873 | 806 |
| 5 | 2008 | 1306 | 1284 |
| 6 | 2009 | 1550 | 1430 |
| 7 | 2010 | 1293 | 1206 |
| 8 | 2011 | 1283 | 1202 |
| 9 | 2012 | 1402 | 1350 |
| 10 | 2013 | 1350 | 1290 |

Source: Office of the Deputy Director Tea Board Of India, Siliguri

Table N0-4.3.3: Average Price per qtls of green tea leaf

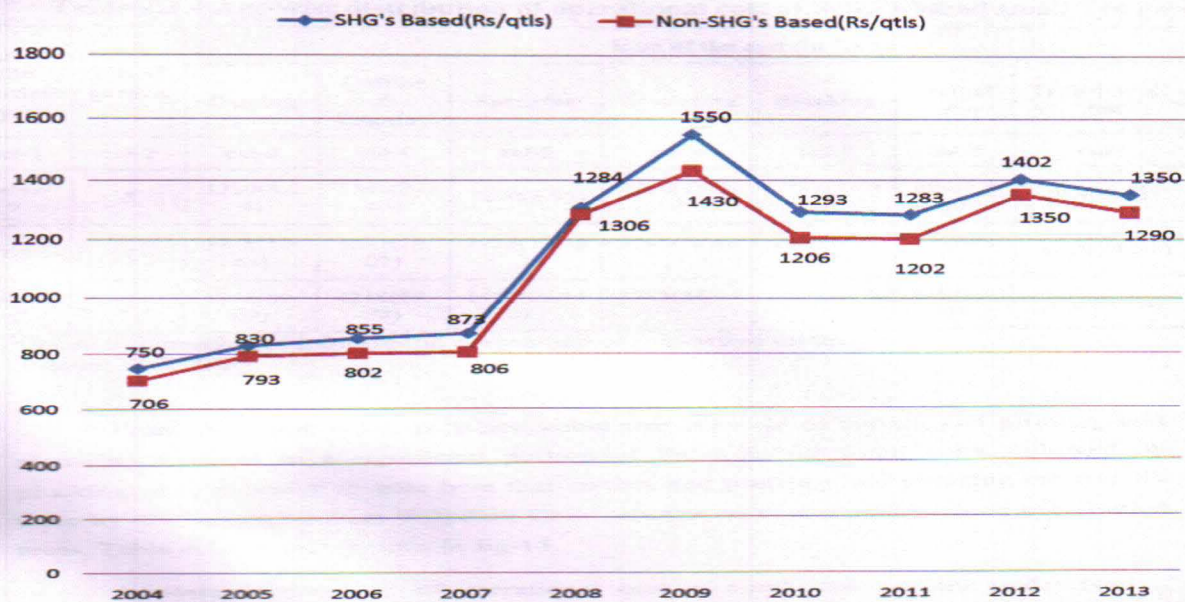


Fig-14: Average Price per qtls of green tea leaf

Table 4.3.4 presents the Age-wise distribution of operational cost of small Tea gardens. The Table shows that there is no significant relationship between the age of the small Tea gardens and the operational cost involved in growing Tea leaves in our studied areas.

Table 4.3.4: Age-wise distribution of operational cost of SHG's based small Tea garden

| Age of the garden (yrs) | No. of garden | Item of the cost (in Rs/ha) | | | | | | | Total |
|-------------------------|---------------|-----------------------------|-------------------|-------------|-------------|-------------|------------|----------------|------------|
| | | Digging | Cutting & Pruning | Spraying | Manuring | Plucking | Irrigation | Transportation | |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-7 | col-8 | col-9 | col-10 |
| Below 7 | 5 | 1220(8.24) | 3350(22.63) | 1290(8.71) | 2770(18.71) | 1700(11.48) | 804(5.43) | 878(5.93) | 14802(100) |
| 7-9 | 7 | 1278(10.64) | 3371(28.07) | 1235(10.78) | 2700(22.48) | 1685(14.03) | 738(6.14) | 1000(8.32) | 12007(100) |
| Above 9 | 3 | 1366(9.00) | 4216(27.78) | 1433(9.44) | 3783(24.93) | 2133(14.05) | 910(5.99) | 1333(8.78) | 15174(100) |

Figure in parentheses indicate the percentage of respective totals.

Source: Field Data.

From the Table 4.3.4, it is noticeable that the cost of cutting and pruning, and manuring incurred in a significant portion of the total operation costs followed by plucking. It is pertinent to note here that cutting and pruning, and plucking are usually done by the female workers including Child labours on contractual basis in our studied areas. Table 4.3.4 is also present in fig-15.

Age-wise distribution of operational cost of small Tea gardens under Non - SGH's based small Tea growers is delineated in Table 4.3.5. It is noticeable from the Table 4.3.5 that there is a significant relationship between the age of the Tea gardens and the operational costs involved in producing green Tea leaves. One remarkable finding emerges from our study that higher the age of the gardens, the lower will be operational cost and vice-versa. The Table 4.3.5 further shows that cutting and pruning, manuring and plucking involved in a significant portion of the total operational cost of producing

green Tea leaf for Non – SGH's based Tea garden owners. The Table 4.3.5 is also presented in Fig-16.

Table-4.3.5:Age-wise distribution of operational cost of Non-SHG's based small Tea garden

| Age of the garden(yrs) | No. of garden | Item of the cost (in Rs/ha) | | | | | | | |
|-------------------------|---------------|-----------------------------|-----------------------|-------------|-------------|-------------|--------------|-------------------|------------|
| | | Digg- ing | Cutt - ing&P run- ing | Spray- ing | Manur- ing | Pluck - ing | Irriga- tion | Transpo r -tation | Total |
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-7 | col-8 | col-9 | col-10 |
| below 7 | 10 | 1170(10.33) | 3478(30.72) | 1155(10.20) | 2575(22.92) | 1340(11.83) | 634(05.60) | 938(8.28) | 11318(100) |
| 7-9 | 3 | 1050(10.16) | 3000(29.03) | 983(9.51) | 2460(23.80) | 1266(12.25) | 673(06.51) | 900(8.71) | 10332(100) |
| Above 9 | 2 | 750(08.90) | 2400(28.48) | 900(10.68) | 1850(21.95) | 1200(14.24) | 625(07.41) | 700(08.30) | 8425(100) |

Figure in parentheses indicates the percentage of respective totals.
Source: Field Data.

A comparison between Table4.3.4 and Table 4.3.5 indicate that the average size of the Tea garden is being highest for SGH's based (0.5-0.57 hectare) Tea growers compared to the Non-SGH's based (0.26-0.39 hectare) Tea growers. It is reported by the some of the small Tea growers that recently SHG's based farmers are taking more interest to convert their cultivated land to Tea production as because they can easily sell their green Tea leaf to the SHG's based Bought Leaf Factories due to their membership attached with the factories. As a result, their size of the small Tea garden may be increased further also.

Table 4.3.6 indicates the cost and return analysis of SHG's based small Tea garden. The Table 4.3.6 shows that there is an inverse relationship between the age of the gardens and productivity, and net income of the small Tea growers. It is noticeable here from the Table 4.3.6 that higher price was received by the SHG's based Tea growers compared to the Non-SHG's based Tea growers. The said Table is also presented in Fig-17.

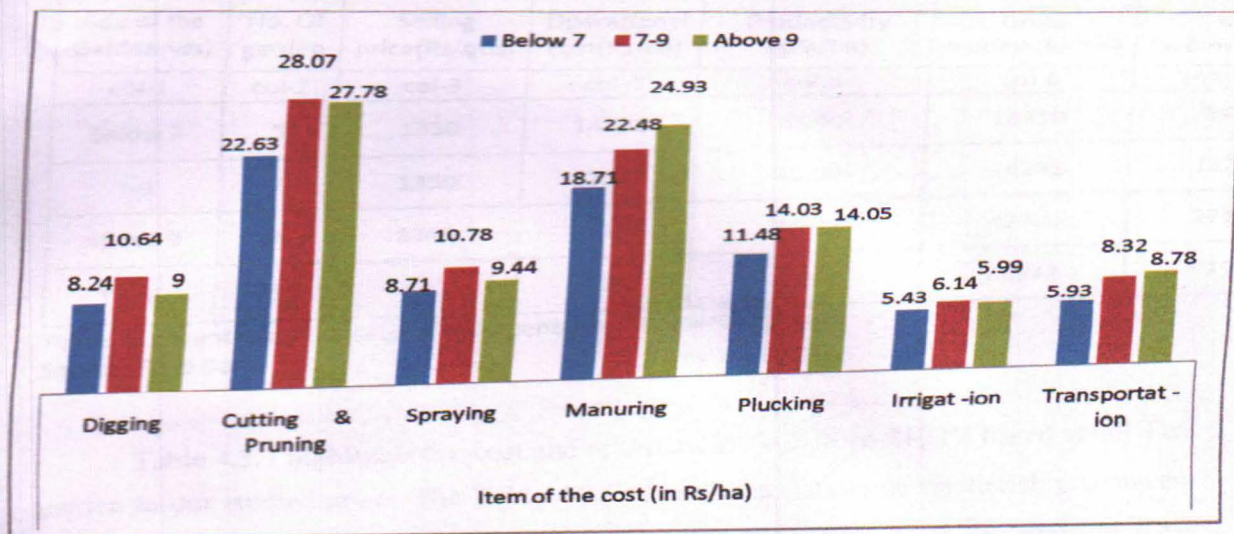


Fig-15: Age-wise distribution of operational cost of SHG's based small tea garden

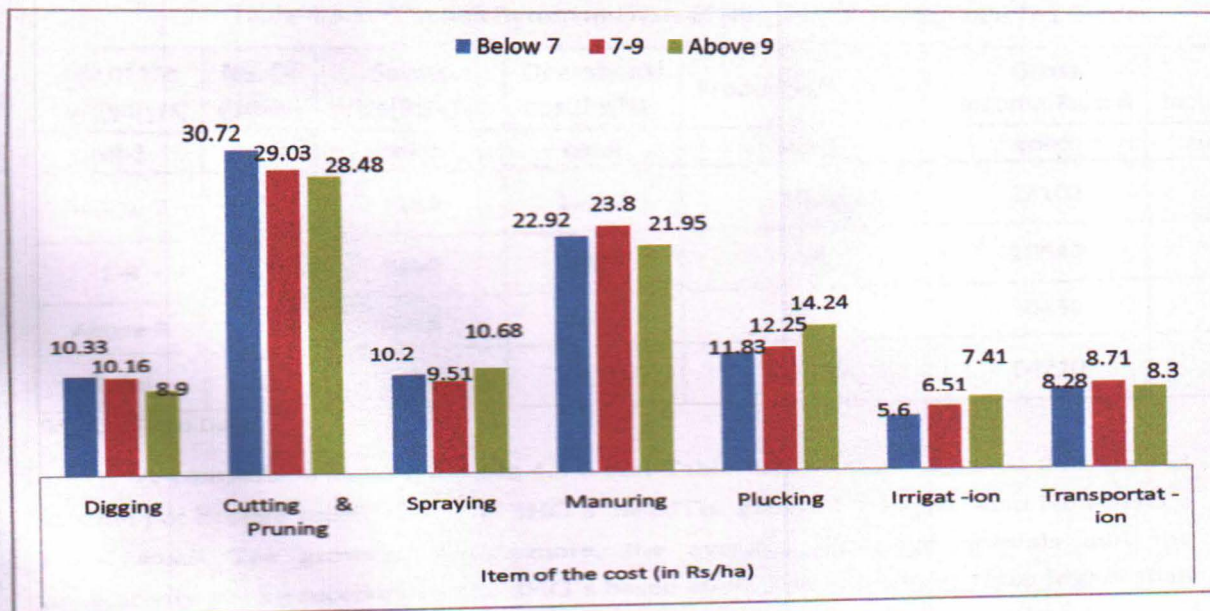


Fig-16: Age-wise distribution of operational cost of Non-SHG's based small tea garden

Table-4.3.6: Cost and Return analysis of SHG's Based Small Tea Garden

| Age of the Garden(yrs) | No. Of garden | Selling price(Rs/qtls) | Operational cost(Rs/ha) | Productivity (qtls/ha) | Gross Income(Rs/ha) | Net Income(Rs/ha) |
|------------------------|---------------|------------------------|-------------------------|------------------------|---------------------|-------------------|
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col6-col4 |
| Below 7 | 5 | 1350 | 14802 | 13.60 | 18350 | 3548 |
| 7-9 | 7 | 1350 | 12007 | 17.99 | 24292 | 12285 |
| Above 9 | 3 | 1350 | 15174 | 31.33 | 42300 | 27126 |
| Total | 15 | | 41983 | 62.92 | 84942 | 42959 |

Figure in parentheses indicates the percentage of respective totals.

Source: Field Data.

Table 4.3.7 highlights the cost and return analysis of Non-SHG's based small Tea garden in our studied areas. The Table 4.3.7 also shows an inverse relationship between the age of the small Tea garden and Net income received by the small Tea growers. The Table 4.3.7 is highlighted in Fig-18.

Table-4.3.7: Cost and Return analysis of Non- SHG's Based Small Tea Garden

| Age of the Garden(yrs) | No. Of garden | Selling price(Rs/qtls) | Operational cost(Rs/ha) | Production(qtls/ha) | Gross Income(Rs/ha) | Net Income(Rs/ha) |
|------------------------|---------------|------------------------|-------------------------|---------------------|---------------------|-------------------|
| col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-6-col-4 |
| Below 7 | 10 | 1282 | 11318 | 10.22 | 13102 | 1784 |
| 7-9 | 3 | 1290 | 10332 | 16 | 20640 | 10308 |
| Above 9 | 2 | 1306 | 8425 | 23.33 | 30468 | 22043 |
| Total | 15 | | 30075 | 49.55 | 64210 | 34135 |

Source: Field Data.

A comparison between Table 4.3.6 and Table 4.3.6 further revealed that the Net income per hectare received by the SHG's based Tea growers is higher than Non-SHG's based small Tea growers. Furthermore, the average price per quintals and the productivity per kg received by the SHG's based small Tea growers are also higher than non-SHG's based small Tea growers.

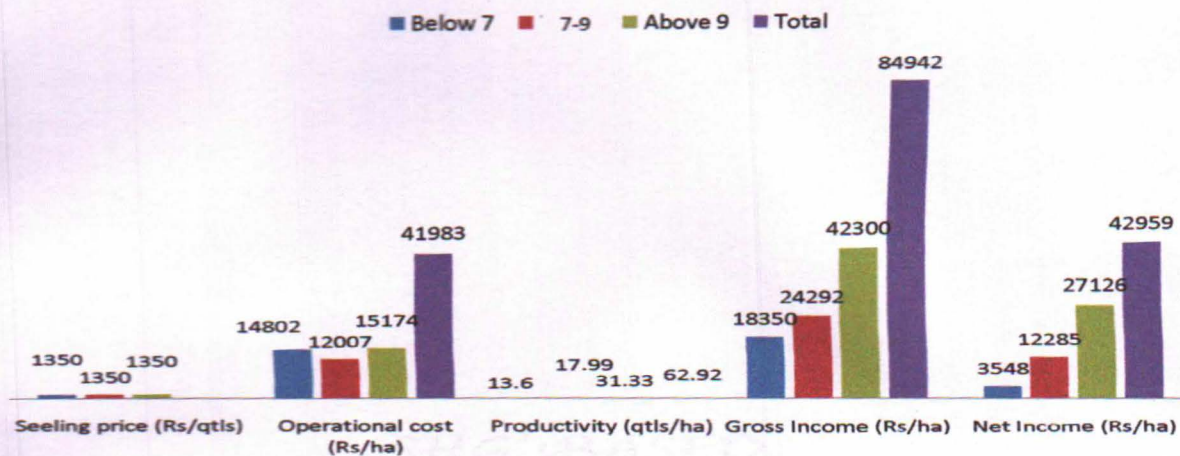


Fig-17: Cost and Return analysis of SHG's Based Small Tea Garden

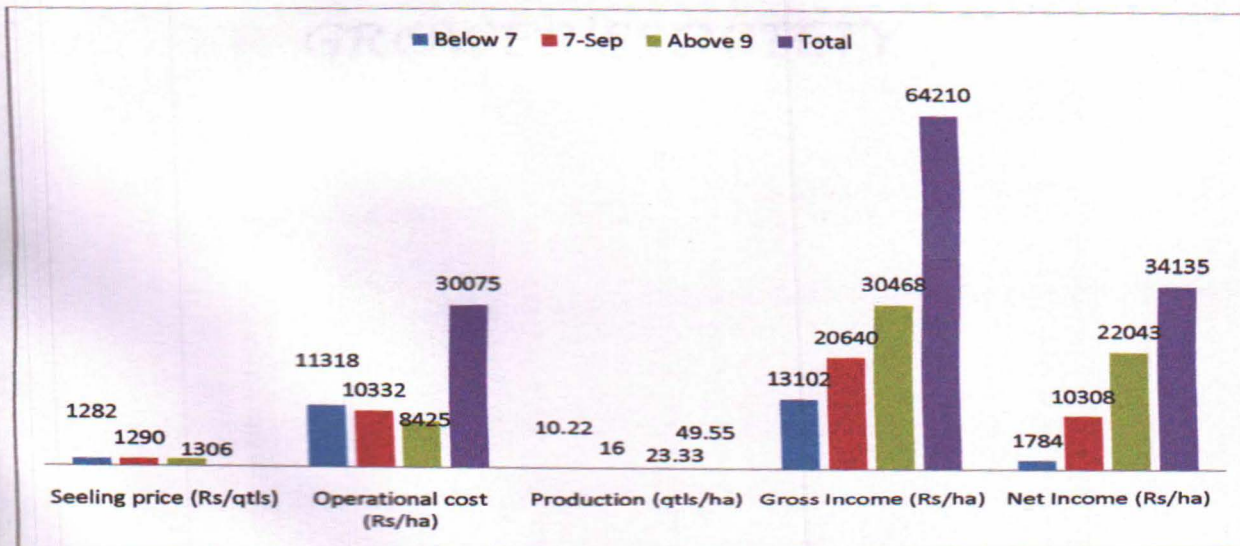


Fig-18: Cost and Return analysis of Non-SHG's Based Small Tea Garden

CHAPTER -4.4

SHG'&BASED SMALLTEA GROWER'SSOCIETY

4.4SHG's BASED SMALL TEA GROWER'S SOCIETY:

Though the origin of small Tea plantation in India is a new one, it is mainly concentrated in Tamilnadu, Karnataka and Kerala in early 1960s. In the state of west Bengal, Small Tea planters started their operations during the late 1980's and in early 1990's covering four districts of North Bengal. It is to be noted that the small Tea planters first started their Tea garden operation in Chopra Block of Uttardinajpur district. It is worthwhile to mention that the reliable different types of secondary data regarding small Tea plantation in North Bengal is limited. However, in the present chapter an attempt has been made to identify the numbers, areas of both SHG's based and Non-SHG's based small Tea gardens existed in North Bengal.

As we know that there are thousands of small Tea planters in four districts namely; Darjeeling, Coochbehar, Jalpaiguri and Uttar Dinajpur in North Bengal in the state of West Bengal. But it is a irony of the fact that the number of SHG's based Tea plantation are very low, as a result, the Tea Board Of India facing problems for implementing various benefiting schemes for the small Tea planters due to the lack of required number of SHG's based Tea planters organizations in North Bengal.

However, recently some of the Tea planters have been able to form SHG's groups, following the guidelines of both the central and state government. Again it may be noted that some of the SHG's are working efficiently, someone are not so active to run their business. Under this backdrop, an attempt also been made to identify the numbers, the areas and the members involved in the organisation for operating the SHG's based Tea garden in our study areas.

Table No.4.4.1 shows the status of small Tea growing society in Darjeeling district. It is evident from the Table 4.5.3 that the number of Tea gardens, area and the years of the establishment of the societies is being highest in the year 2008-09 followed by the year 2009-10 and 2007-08. It is noticeable from our study that the plain areas of Darjeeling district viz; Siliguri sub-division is also dominating for SHG's Based small Tea growers. One remarkable finding emerges from our study that some of the skilled labours from the Traditional Tea gardens have also been shifted to the small Teagrowers society by getting higher salary/ closure of the Traditional gardens/ irregular payments of wages of labours by the Traditional gardensowners. As is evident from Table No.4.4.1 the

average area covered and the number of SHG's member of small Tea grower society is 72.52 hectare and 96.28 respectively. The Table 4.4.1 is also presented in Fig-19.

| Table-4.4.1.: PRESENT STATUS OF SMALL TEA GROWERS SOCIETY(SHG's) IN DARJEELING DISTRICT | | | |
|--|----------------------|---------------------------|------------------------|
| Year of establishment | No. Of Garden | Area covered (Ha) | No. Of members |
| col-1 | col-2 | col-3 | col-4 |
| 2006-2007 | 1(7.14) | 30(2.95) | 65(4.82) |
| 2007-2008 | 2(14.28) | 118(11.62) | 177(13.13) |
| 2008-2009 | 5(35.71) | 235.69(23.21) | 124(9.19) |
| 2009-2010 | 4(28.57) | 438.13(43.15) | 753(55.86) |
| 2010-2011 | NA | NA | NA |
| 2011-2012 | NA | NA | NA |
| 2012-2013 | 2(14.28) | 193.48(19.05) | 229(16.98) |
| Total/Average | 14(100) | 1015.30(100)/72.52 | 1348(100)/96.28 |

Figure in parentheses indicates the percentage of respective totals.

Source: Office of the Deputy Director Tea Board Of India, Siliguri

Table 4.4.2 shows the present status of small Tea grower society in Jalpaiguri district. The Table 4.4.2 indicates that the number of small Teagrowerssociety, area covered and number of SHG's based growers is highest in the year 2013-14 followed by 2008-09 and 2012-13. It is evident from the Tables 4.4.1 and 4.4.2 that a significant portion of SHG's based small Tea growers society established in the year 2008-09, as also similar to the Table 4.4.2 As we know that a significant part of Jalpaiguri district, the farmers were producing pineapple but during the early 1990's, farmer resorted to Tea cultivation in their fields due to in-sufficient marketing outlet for pineapple. As a result, a number of SHG's Based Tea grower society increased in the year 2013-14. In this connection, it may also be noted here that due to the closure of Traditional Tea gardens in Terai and Doors areas of Jalpaiguri district, some of the farmers are interested to convert their cultivated land for the production of small Tea leaves. The Table also shows that the area covered for the society and the average number of members in the SHG's are 59.20 and 90.70 respectively. The Table 4.4.2 is also presented in Fig-20.

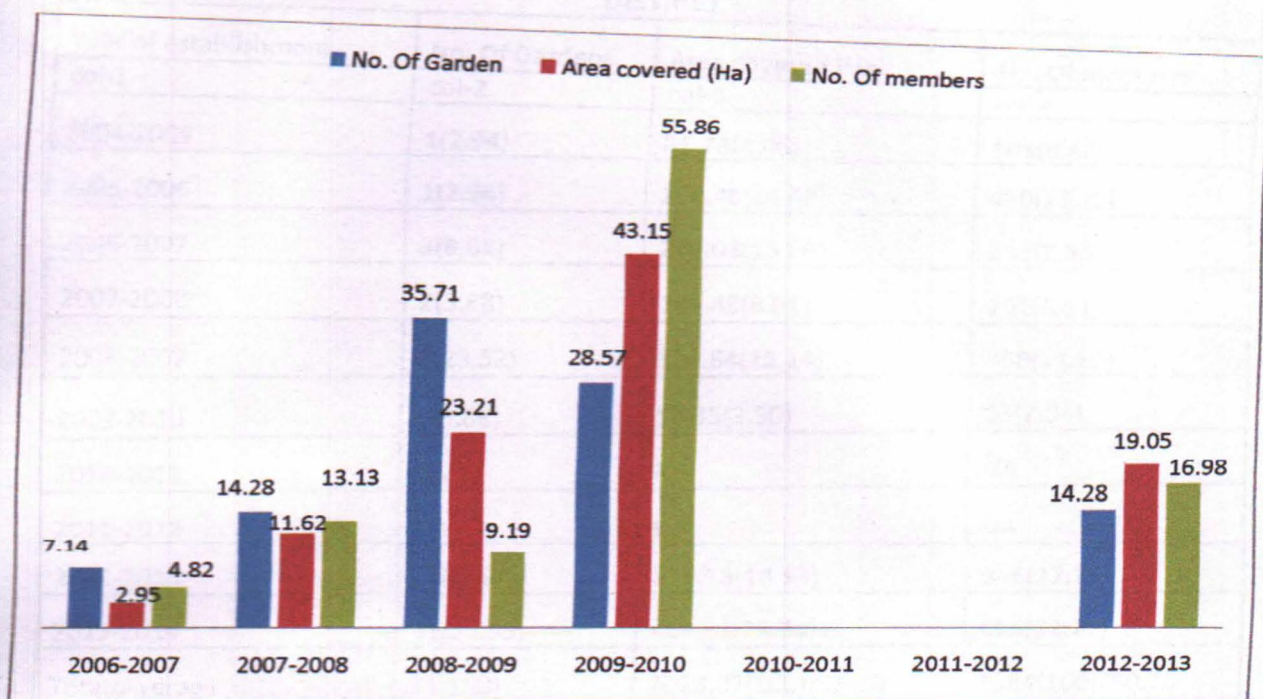


Fig-19: Present Status Of Small Tea Growers Society (SHG,S) In Darjeeling District

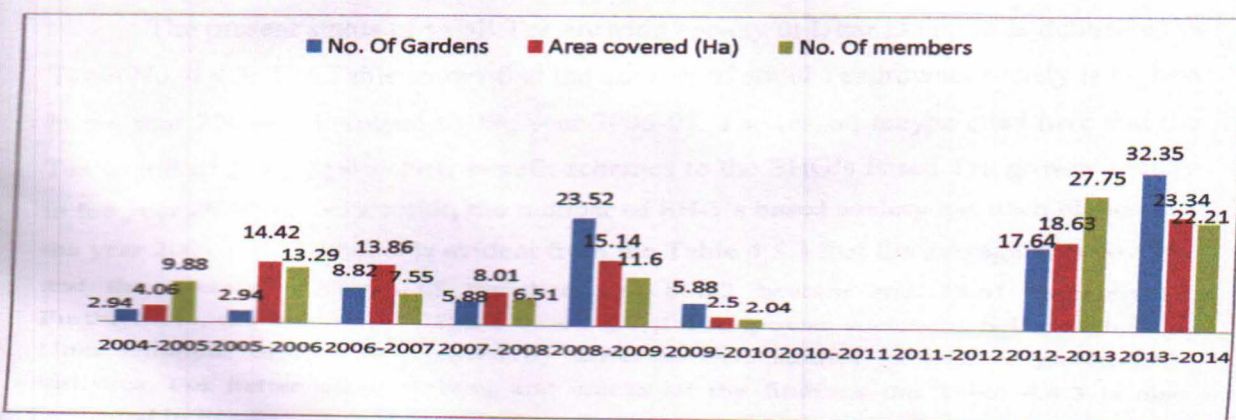


Fig-20: PRESENT STATUS OF SMALL TEA GROWERS SOCIETY (SHG'S) IN JALPAIGURI DISTRICT

Table -4.4.2: PRESENT STATUS OF SMALL TEA GROWERS SOCIETY (SHG's) IN JALPAIGURI DISTRICT

| Year of establishment | No. Of Gardens | Area covered (Ha) | No. Of members |
|-----------------------|----------------|--------------------|-----------------|
| col-1 | col-2 | col-3 | col-4 |
| 2004-2005 | 1(2.94) | 81.78(4.06) | 305(9.88) |
| 2005-2006 | 1(2.94) | 290.48(14.42) | 410(13.29) |
| 2006-2007 | 3(8.82) | 279.03(13.86) | 233(7.55) |
| 2007-2008 | 2(5.88) | 161.43(8.01) | 201(6.51) |
| 2008-2009 | 8(23.52) | 304.84(15.14) | 358(11.60) |
| 2009-2010 | 2(5.88) | 50.35(2.50) | 63(2.04) |
| 2010-2011 | NA | NA | NA |
| 2011-2012 | NA | NA | NA |
| 2012-2013 | 6(17.64) | 375.18(18.63) | 856(27.75) |
| 2013-2014 | 11(32.35) | 469.98(23.34) | 685(22.21) |
| Total/Average | 34(100) | 2013.07(100)/59.20 | 3084(100)/90.70 |

Figure in parentheses indicates the percentage of respective totals.

Source: Office of the Deputy Director Tea Board Of India, Siliguri

The present status of small Tea growing society in Uttar Dinajpur is delineated in Table No. 4.4.3. The Table shows that the number of small Teagrowers society is highest in the year 2008-09 followed by the year 2006-07. The reason maybe cited here that the Tea Board of India started their benefit schemes to the SHG's based Tea grower society in the year 2007-08. As a result, the number of SHG's based society has been highest for the year 2008-09. Further, it is evident from the Table 4.5.3 that the average area covered and the average numbers of members are 80.03 hectare and 33.61 respectively. Furthermore, the number of SHG's based small Tea grower society is being highest in Uttar Dinajpur district as reported by different case studies as well as government statistics. For better understanding and clarity of the findings the Table 4.4.3 is also presented in Fig-21.

Table-4.4.3: PRESENT STATUS OF SMALL TEA GROWERS SOCIETY(SHG's) IN UTTAR DINAJPUR DISTRICT

| Year of establishment | No. Of Gardens | Area covered (Ha) | No. Of members |
|-----------------------|----------------|-------------------|----------------|
| col-1 | col-2 | col-3 | col-4 |
| 2005-2006 | 1(3.84) | 102(4.90) | 51(5.83) |
| 2006-2007 | 7(26.92) | 370(17.77) | 148(16.33) |
| 2007-2008 | 3(11.53) | 293(14.07) | 115(13.15) |
| 2008-2009 | 9(34.61) | 811(38.97) | 328(37.52) |
| 2009-2010 | 6(23.07) | 505(24.26) | 232(26.54) |
| Total/Average | 26(100) | 2081(100)/80.03 | 874(100)/33.61 |

Figure in parentheses indicates the percentage of respective totals.

Source: Office of the Deputy Director Tea Board Of India, Siliguri

District wise present status of SHG's based small Tea growers society in North Bengal presented in Table No 4.4.4. A comparative analysis of three districts of North Bengal shows that the number of Teagrowers society established is being the highest in Jalpaiguri district followed by Uttar Dinajpur and Darjeeling district. Further, the area covered and number of members involved in SHG's based society is also been highest in the district of Jalpaiguri district. On the other hand, the Table 4.4.4 shows that the average area covered per society is being highest in the district of Darjeeling followed by the districts Jalpaiguri and Uttar Dinajpur. The Table further shows that the average number of membership for SHG's based Tea grower society is also highest in Jalpaiguri district followed by Uttar Dinajpur and Darjeeling district.

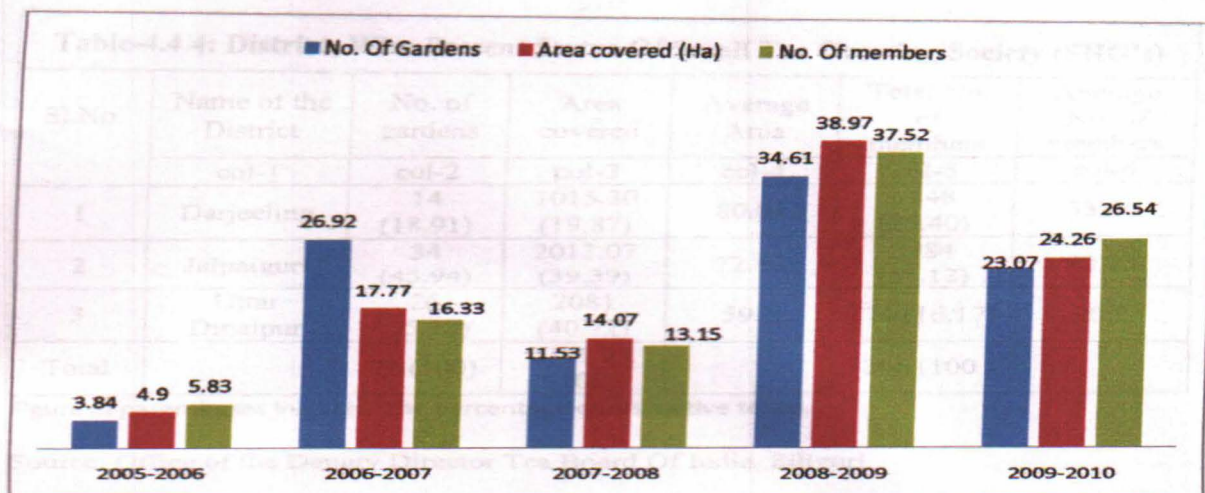


Fig-21: Present Status Of Small Tea Growers Society (SHG'S) In Uttarakhand District

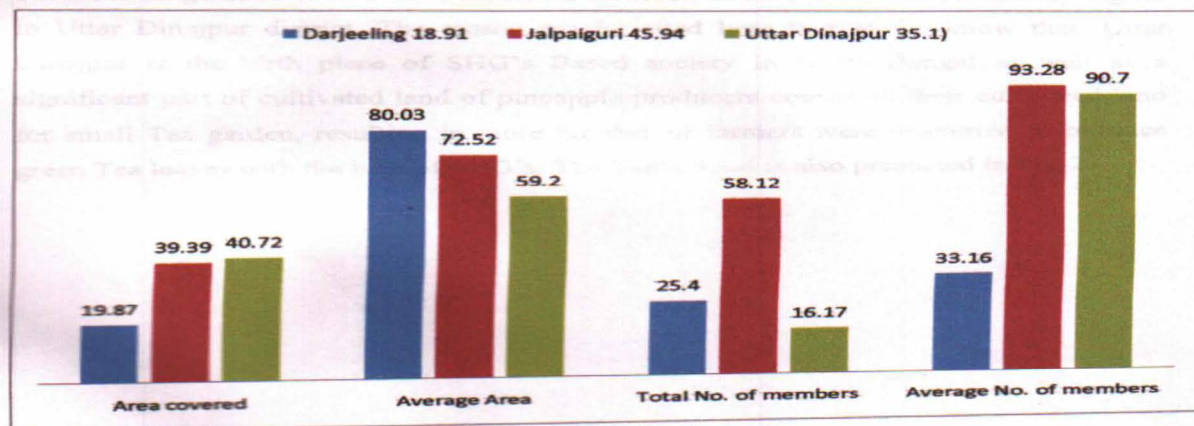


Fig-22: District- Wise Present Status of Small Tea Growing Society (SHG's)

Table-4.4.4: District- Wise Present Status Of Small Tea Growing Society (SHG's)

| Sl.No. | Name of the District | No. of gardens | Area covered | Average Area | Total No. of members | Average No. of members |
|--------|----------------------|----------------|--------------------|--------------|----------------------|------------------------|
| | col-1 | col-2 | col-3 | col-4 | col-5 | col-6 |
| 1 | Darjeeling | 14 (18.91) | 1015.30 (19.87) | 80.03 | 1348 (25.40) | 33.16 |
| 2 | Jalpaiguri | 34 (45.94) | 2013.07 (39.39) | 72.52 | 3984 (58.12) | 93.28 |
| 3 | Uttar Dinajpur | 26 (35.13) | 2081 (40.72) | 59.2 | 874 (16.17) | 90.7 |
| Total | | 74 (100) | 5109.37 (100) | | 5306 (100) | |

Figure in parentheses indicates the percentage of respective totals.

Source: Office of the Deputy Director Tea Board Of India, Siliguri

One remarkable finding has emerged from our study, that the average area per society being the lowest in the district of Uttar Dinajpur compared to other two districts but the average number of SHG's members involved in the society is significantly higher in Uttar Dinajpur district. The reason maybe cited here that as we know that, Uttar Dinajpur is the birth place of SHG's Based society in North Bengal as well as a significant part of cultivated land of pineapple producers converted their cultivated land for small Tea garden, resulting in more number of farmers were interested to produce green Tea leaves with the help of SHG's. The Table 4.4.4 is also presented in Fig-22

CHAPTER -4.5

BOUGHTLEAF FACTORIES

4.5 BOUGHT LEAF FACTORIES:

Due to the emergence of small Tea gardens in the early 1990's without any processing plan of green leaf, a new concept came out privately owned Bought Leaf Factory first came into existence in Nilgiris during the year 1960-61. These factories are named as Bought Leaf Factories as because they have no plantation system of their own, they depend on the supply of green Tea leaf, from Small Tea growers society for manufacturing of Tea mainly CTC (Crush-Tear-Curl) out of the purchased leaf from the members of the Bought Leaf Factories both in case of SHG's based and Non SHG's based factories. It is to be noted here that presently there are 104 Bought Leaf Factories in North Bengal, out of this only three are SHG's based factories. As reported by Tea Board of India, Siliguri.

A sharp contrast maybe drawn between these two types of factories i.e. SHG's Based and Non-SHG's Based. The Bought Leaf Factories under the SHG's based Teagrowers society, are also the owners of those factories and they are mandatorily supplying the green leaf to those factories and are also entitled to get in share of the profit earned by the Bought Leaf Factories. Whereas, in case of Non-SHG's Based Bought Leaf Factories, the members of those factories may or may not be supplying their green Tea leaves to those factories and are not getting any share of the profit earned by BLF's. In this chapter, an attempt has been made to highlight the present status of number, production and capacity utilization of sample Bought Leaf Factories in our studied areas.

District- wise present status of number and production of processed Tea under both the SHG's and Non-SHG's Bought Leaf Factory is highlighted by Table 4.5.1. It is evident from the Table 4.5.1 that the highest number (46.15 percent) of Bought Leaf Factory in the district of Jalpaiguri followed by the district of Darjeeling (37.57 percent) and Uttar Dinajpur (14.42 percent). The Table further shows that the total production of Tea leaf is highest (48.16 percent) in the district of Darjeeling followed by Jalpaiguri (34.95 percent) and district of Uttar Dinajpur (14.29 percent). On the other hand, in the district of Coochbehar, the number of Bought Leaf Factories is 1.92 percent and also the production of processed Tea leaf is insignificant compared to other districts. The reason maybe cited that in the district of Coochbehar, mainly cereal crops based upland situation of cultivated land was converted to small Tea garden, other than pineapple cultivation.

Table-4.5.1: District- wise Present status of No. and Production under BLF's In North Bengal

| Sl. No | Name of the District | No of BLF's | Production of Tea Leaf under BLF's in North Bengal(in qtls) | Percentage |
|--------|----------------------|-------------|---|------------|
| | col-1 | col-2 | col-3 | col-4 |
| 1 | Jalpaiguri | 48 | 383759.44 | 34.95 |
| 2 | Uttar Dinajpur | 15 | 156949.55 | 14.29 |
| 3 | Cooch Behar | 2 | 28554.99 | 2.60 |
| 4 | Darjeeling | 39 | 528778.49 | 48.16 |
| Total | | | 1098042.47 | |

Figure in parentheses indicate the percentage of respective totals.

Source: Office of the Deputy Director Tea Board Of India, Siliguri

Further, Table 4.5.1 shows that the average production of Bought Leaf Factories is highest in the district of Coochbehar followed by the districts of Darjeeling and Uttar Dinajpur. This indicates that the capacity utilisation of the Bought Leaf Factories is the highest in Coochbehar district followed by Darjeeling and Uttar Dinajpur. One plausible reason maybe mentioned here that the members of the Bought Leaf Factories are supplying their green Tea leaf in a regular manner to the factories in the district of Coochbehar compared to other three districts. The Table 4.5.1 is also shown in Fig-21.

Status of the SHG's Bought Leaf Factory in the year 2012-13 is presented in Table 4.5.2. The Table shows that there are two SHG's based Bought Leaf Factories is presently, functioning in the North Bengal. Out of these BLF's, at "Panbari" in Mainaguri in the district of Jalpaiguri is the first of its kind, a Self Help Group based Bought Leaf Factory in India and the second one named, "Jaijalpesh" is also operating in Mainaguri block of Jalpaiguri district. It is evident from the Table that the capacity utilisation of the plant is the highest (80.95 percent) in the "Panbari" factory compared to the "Jaijalpesh" (14.28 percent). It is pertinent to note here that the "Panbari" factory had been able to accumulate fund over rupees 50 lakhs of owned capital and acquired 133 acres of land for that purpose as reported by the society. On the other hand, West Bengal state Co-operative and Agricultural and Rural Development Bank had sanctioned loan, and Tea Board of India had also given rupees 25 lakhs subsidies to implement this

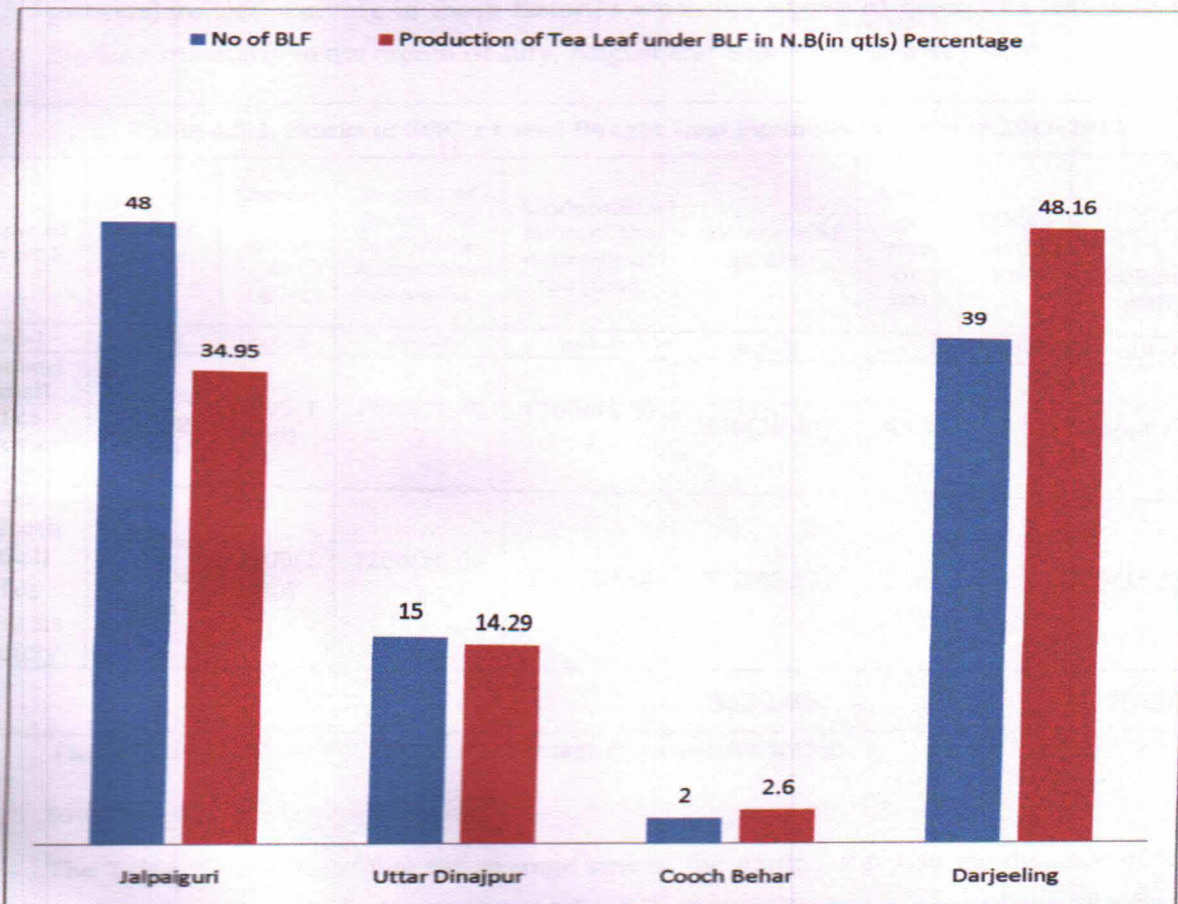


Fig-23: District- wise Present status of No. and Production under BLFs In North Bengal

Bought Leaf Factories. As reported by the management of Jaijalpesh Bought Leaf Factory, they were also availed of similar facilities from this institution. Further, it is evident from the Table that permanent employees are working in the "Panbari" Bought Leaf Factory is higher than "Jaijalpesh" Bought Leaf Factory. In this connection it is also noted that some other contractual employees (member of the SHG's based Tea growers) are also working in those factories when the supply of green Tea leaf is to be higher particularly in the month of July, August and September in every year.

Table-4.5.2: Status of SHG's based Bought Leaf Factories in the year 2012-2013

| SL No | Name of the BLF | Block/District | Capacity /annum (qtls) | Supply of green Tea leaf to the factory/annum (qtls) | Underutilization of the capacity of the plant | members of garden | Average size (in ha) | Distance (in km) | Employee | |
|-------|---------------------------------------|------------------------|------------------------|--|---|-------------------|----------------------|------------------|-----------------|------------------|
| | | | | | | | | | Technical staff | Supporting staff |
| | col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-7 | col-8 | col-9 | col-10 |
| 1 | Panbari small Tea grower society | Maynaguri, Jalpaiguri | 3500(100) | 1800(51.42) | 1700(48.57) | 340(39.44) | 0.79 | 5.0 | 4(44.44) | 21(58.33) |
| 2 | Jai Jalpesh small Tea growers society | Votepattay, Jalpaiguri | 1500(100) | 1200(80.00) | 300(20.00) | 522(60.55) | 0.53 | 3.5 | 5(55.55) | 15(41.66) |
| Total | | | | | | 862(100) | | | 9(100) | 36(100) |

Figure in parentheses indicate the percentage of respective totals.

Source: Bought Leaf Factories

The Table further show that the average size of the garden and also the distance of the gardens from the SHG's based Bought Leaf Factory is higher in case of the "Panbari" factory compared to "Jaijalpesh".

Status of Bought Leaf Factory under Non-SHG's based in the year 2012-13 is presented in Table 4.5.3. The Table 4.5.3 further indicates that the capacity utilisation and also the number of members of the Tea garden of the plant (58.33 percent) of "Banshibihari" Bought Leaf Factory is higher than the Bought Leaf Factory named "Durga Tea Industry". One interesting finding emerges from our investigations that though the number of members of the garden is less but the supplying green Tea leaves to

these factory is in large quantities. The reason maybe cited here that those small Tea gardens having no NOC from the government and the Tea Board of India, were also supplying their green Tea leaf to those factories through brokers/ middle man, and the other small Tea growers having NOC. The Table further highlighted that the average number of employees are working in both as technical and supporting staff are higher in case of "Banshibihari" factory compared to the "DurgaTea Industry". A comparative analysis of Bought Leaf Factories indicates that the capacity utilisation of the plant is relatively higher in case of Non-SHG's based Bought Leaf Factories. On the other hand, the number of members of the garden is higher in case of SHG's based Bought Leaf Factories compared to the Non-SHG's based Bought Leaf Factories. Further, it may be noted here that the employment opportunity and the average distances of garden from the factory is higher for the Non-SHG's based Bought Leaf Factory compared to the SHG's based Bought Leaf Factory, as a result transportation costs for carrying green leaf to the Non-SHG's based Factory may be higher compared to the SHG's based factory.

Table-4.5.3: Status of Non- SHG's based Bought Leaf Factories in the year 2012-2013

| SL No | Name of the BLF | Block/ District | Capacity/ annum (qtls) | Supply of green Tea leaf to the factory/ annum (qtls) | Underutilization of the capacity of the plant | No. Of members to the garden | Average size of the garden (in ha) | Distance of the garden (in km) | Employee | |
|-------|--|-----------------------|------------------------|---|---|------------------------------|------------------------------------|--------------------------------|-----------------|------------------|
| | | | | | | | | | Technical staff | Supporting staff |
| | col-1 | col-2 | col-3 | col-4 | col. 3- col.4 | col-5 | col-6 | col-7 | col-8 | col-9 |
| 1 | ShriBunshibihariTea Industries Pvt. Ltd. | Fulbari, Jalpaiguri | 8000 (100) | 3600(54.54) | 2800(35.00) | 15(60.00) | 0.66 | 7.5 | 6(54.54) | 36(57.14) |
| 2 | DurgaTea Industries | Maynaguri, Jalpaiguri | 5000 (100) | 3000(45.45) | 2000(40.00) | 10(40.00) | 0.4 | 5.5 | 5(45.45) | 27(42.85) |
| Total | | | | | | 25(100) | | | 11(100) | 63(100) |

Figure in parentheses indicates the percentage of respective totals.

Source: Bought leaf factories, Maynaguri, Jalpaiguri district.

Table 4.5.4 exhibited the month wise production of process Tea leaf under Bought Leaf Factory in different district of North Bengal. The Table 4.5.4 shows that total production of process Tea leaf under Bought Leaf Factory is higher in the district of Darjeeling followed by the of Jalpaiguri, Uttar Dinajpur and Coochbehar. On the other hand, if we analyze month-wise production of process Tea leaf under Bought Leaf Factory, the Table 4.5.4 further shows that higher percentage of process Tea leaf came out from the Bought Leaf Factory for the months of August, September and October. Whereas moderate production of process Tea leaf is also noticeable for the months of March, May, June, July and November. Again, it can be said that in the months of January, February, April and December, minimal percentage of processed Tea leaf produced by the Bought Leaf Factory. Out of this only the months of January and February are will be slag/lean period of the production of process Tea leaf under different Bought Leaf Factories in North Bengal. One interesting findings may be drawn from this Table, that there is no significant relationship between the number of small Tea garden and Total production of process Tea leaf produced by the Bought Leaf Factories in different districts of North Bengal.

Table-4.5.4: Month-wise Production of Tea Leaves Under BLF in North Bengal(in qtls)

| Sl.No | Name of the District | No of BLF | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Total |
|-------|----------------------|-----------|---------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|----------|-------------|
| | col-1 | col-2 | col-3 | col-4 | col-5 | col-6 | col-7 | col-8 | col-9 | col-10 | col-11 | col-12 | col-13 | col-14 | col-15 |
| 1 | Jalpaiguri | 48 | 2683.17 | 2159.8 | 32796 | 12774 | 17127.1 | 41030.6 | 44142.1 | 49579.4 | 47588.8 | 50810.2 | 89005 | 25648.75 | 415344.100) |
| | | | 0.64 | 0.52 | 7.89 | 3.07 | 4.12 | 9.87 | 10.62 | 11.93 | 11.45 | 12.23 | 21.42 | 6.17 | |
| 2 | Uttar Dinajpur | 15 | 3203.93 | 211.84 | 18239 | 4661.6 | 14621.3 | 19112.5 | 19177.8 | 20088 | 18983.9 | 23032.6 | 14230.7 | 8131.59 | 163694.100) |
| | | | 1.95 | 0.12 | 11.14 | 2.84 | 8.93 | 11.67 | 11.71 | 12.27 | 11.59 | 14.07 | 8.69 | 4.96 | |
| 3 | Cooch Behar | 2 | | 107.15 | 2207.3 | 710.32 | 2565.93 | 3786.1 | 3946.43 | 4150.89 | 3898.08 | 3634.13 | 2540.42 | 1228.27 | 28774.100) |
| | | | | 0.37 | 7.67 | 2.46 | 8.91 | 13.15 | 13.71 | 14.42 | 13.54 | 12.62 | 8.82 | 4.25 | |
| 4 | Darjeeling | 39 | 8439.01 | 1130.5 | 48857 | 18054 | 48998.5 | 60233.8 | 66265.7 | 64163.1 | 71834.4 | 68406.4 | 46424.7 | 35917.58 | 538724.100) |
| | | | 1.56 | 0.2 | 9.06 | 3.35 | 9.09 | 11.18 | 12.3 | 11.91 | 13.33 | 12.69 | 8.61 | 6.66 | |

Figure in parentheses indicate the percentage of respective totals.

Source: Office of the Deputy Director Tea Board Of India, Siliguri

CHAPTER -4.6

CONSTRAINT ANALYSIS

4.6 CONSTRAINT ANALYSIS AND POLICY IMPLICATION:

In the forgoing chapter, the different aspect of production of small Tea gardens and Bought leaf factories are explained. The present investigation sufficiently established that production of Tea leaves under both SHG's and Non- SGH's based small Tea growers is remunerative to the farmers compared to growing others field crops in their cultivated land. It may be noted that the establishment of BLF's both under SHG's and Non-SHG's category are also creates employment opportunity in the North Bengal. Further, presently the government of West Bengal and the Tea Board of India is putting more emphasis on enhancing the production and also retaining the quality of green Tea leaves by providing some incentives to the small Tea growers in North Bengal. Based on the analysis of the study area and observations, the major problems faced by the small Tea growers and BLF's are indentified in this chapter.

Table -4.6.1: Major constraints faced by Small Tea growers (both SHG's and Non-SHG's)

| Sl.no. | Problems encountered by small Tea growers | No. of STGs | Percentage of problem encountered | Rank |
|--------|--|-------------|-----------------------------------|-------|
| | col-1 | col-2 | col-3 | col-4 |
| 1 | Lack of proper land record | 26 | 86.66 | I |
| 2 | No objection certificate from the state government | 18 | 60 | V |
| 3 | Price fluctuation on green leaves | 20 | 66.66 | III |
| 4 | Middle men and brokers | 14 | 46.66 | VIII |
| 5 | Lack of good training | 16 | 53.33 | VII |
| 6 | Lack of financial helps | 18 | 60 | V |
| 7 | Shortage of labour in peak harvesting season | 13 | 43.33 | IX |
| 8 | Lack of organisation | 19 | 63.33 | IV |
| 9 | Distance of garden from BLF | 18 | 60 | V |
| 10 | Vehicles to transport Tea leaves | 12 | 40 | X |
| 11 | Leaf collection shed | 17 | 56.66 | VI |
| 12 | Leaf weighting Scale and Tea pruning machine | 10 | 33.33 | XI |
| 13 | Worker do not pluck quality leaf & collect leaf by using sharp weapon to meet the target within short span of time | 123 | 76.66 | II |

Figure in parenthesis indicates the percentage of respective totals.

Source: Field Data.

The Table 4.6.1 indicates the major constraints faced by the Small Tea growers in our studied area. The Table 4.6.1 shows that 86.66 percent STG's growers faced by the problems of lack of proper land records and also this problems can be solved if the growers provide good information about the area of their Tea plantation, record to the government and the Tea Board with any fear and hesitation. And the Table 4.6.1 further shows that 76.66 percent of the problems faced by the STGs for not plucking the quality leaves by the hired employees. This problem may be solved by providing remunerative wages to the workers those who pluck the green Tea leaves from the gardens. The Table further shows that no objection certificate, lack of financial help and the distance of the BLFs from the gardens are faced by the small Tea growers, and the percentage is 60.00. It is noticeable from the Table 4.6.1 that leaf weighing-scale, vehicles to transport Tea leaves, shortage of labours, middlemen and brokers are faced by STGs the percentages ranges between 33.33 to 46.66. From the Table 4.6.1 we may conclude that in every activity there is a problems, there is a solution. And this solution lies on the of the farmers responsibility themselves who can efficiently and appropriately solve their owned problems- no others.

Table-4.6.1: Major constraints faced by BLF's (both SHG's and Non-SHG's)

| Sl.no. | Problems encountered by BLF's | No. of BLF's | Percentage of problem encountered | Rank |
|---------------------------|--|--------------|-----------------------------------|-------|
| col-1 | col-2 | col-3 | col-4 | col-5 |
| 1 | Buy poor quality of green leaves from STG's | 4 | 100 | I |
| 2 | Sometime enormous stock stacked in the factories | 2 | 50 | III |
| 3 | Volatile market demand of processed Tea | 2 | 50 | III |
| 4 | Sometime capacity utilization of the plant is not fulfilled | 2 | 50 | III |
| 5 | Sometime cost of processing of Tea from green leaf is higher | 2 | 50 | III |
| 6 | lack of well trained manpower for running the processing plant | 3 | 75 | II |
| 7 | Sometimes conflict may arise between STG's and management of the BLF's regarding price of green leaves | 2 | 50 | III |
| 8 | Cost of sales in above the auction realisation | 2 | 50 | III |
| 9 | Financial support from Tea board | 2 | 50 | III |
| 10 | Distance of BLF's from members of the STG's | 4 | 100 | I |
| 11 | Dilapidated condition of the roads from BLF's to STG's | 4 | 100 | I |
| Total no. of BLF's 4(100) | | | | |

Figure in parenthesis indicates the percentage of respective totals.

Source: Field Data.

Table 4.6.2 indicates major constraints faced by both SHG's and Non-SHG's based BLF's, in North Bengal. From the Table 4.6.2, it is evident that the poor quality of green leaves, distance of BLFs from the garden and dilapidated condition of the roads are the major problems by the both SHG's and Non-SGH's based BLF's. It is also noticeable from the Table 4.6.2 that training of technical staff (75.00 percent) of the BLF's are facing, one of the significant problem of this factories. And these problems may be tackled by the management of factories by having Training facility from the Tea Board of India. In this connection it is worthwhile to mentioned here that, recently one of the office of the Deputy Director of the Tea Board was established at Siliguri, and this office, now looking after the problems of small Tea garden owners as well as SHG's and Non-SHG's based BLFs existed in North Bengal.

CHAPTER-5

SUMMARY AND CONCLUSION

SUMMARY AND CONCLUSION

As we know that though there are a significant differences existed between the Big and small Tea growers but it is irony of fact that, very little attention has been given to sort out the different problems faced by the small Tea growers in India particularly in North Bengal districts of West Bengal. The present study tries to identify the different problems of production, cost and return of the small Tea gardens with particular reference to the age of the garden, income and employment potentiality of the small Tea growers. And also an attempted is made to see the prices of green Tea leaves of small Tea gardens, capacity utilization of the BLF's under SHG's and Non-SHG's based. Moreover, the present investigations tried to identify the constraints under lying both by the small Tea growers and BLF's. Further, for the purpose of the present investigations, the entire study classified into five chapters. The present study revealed that Non-SHG's based small Tea growers are more involved in the category of occupation viz. Tea cultivation-cum-other crops, Tea cultivation- cum- services compare to other SHG's based growers and also Non-SHG's based growers are not interested to convert their cultivated land to small Tea gardens, due to their alternative sources of income.

The study also revealed that literacy level of female members of Small Tea growers were highest compared to the male counterpart in both SHG's and Non-SHG's based Tea growers.

The inventorisation of cultivated land before the establishment of small Tea gardens revealed that a significant part of vegetable crops land under up land situation was converted to small Tea garden under both SHG's and Non-SHG's category compared to the other crop produced by the farmers.

In the study, area distributions of small Tea growers have been grouped, Area-wise and age-wise. It is well established fact that accurate information regarding the numbers and area under small Tea garden is very limited. However, it can be said that the growth rate of numbers and area of small Tea gardens may be higher compared to the Traditional Tea estates, established in the North Bengal Districts in the state of West Bengal.

Block-wise analysis of numbers and area of small Tea gardens in the district of Jalpaiguri, revealed that the growth of number of Tea gardens was higher (45.34 percent)

in Raiganj block followed by Maynaguri (22.92 percent) and the Jalpaiguri Sadar (19.74percent). On the other hand, the lowest number of small Tea gardens established in the blocks viz; Nagarkata, Dugguri, Mettli, Madarihat, Falakata and Alipurduar 1 and 2. The small Tea garden was higher in Raiganj, Maynaguri and Jalpaiguri Sadar as because the traditionally Pineapple cultivated area in three blocks was shifted for cultivation of Small Tea gardens.

One interesting finding may be revealed that the expansion of Small Tea garden was remarkably higher (17.74 percent) in blocks of Jalpaiguri Sadar and Malbazar (17.59 percent) compared to the other blocks of Jalpaiguri district. The reason may be cited here that a significant part of rice fields were converted to small Tea gardens due to easily accessible of technical manpower from the traditional estates.

The study also revealed that the growth of numbers and expansion of area of small Tea gardens in Uttar Dinajpur District, was higher (72.07 percent and 86.35 percent) in the blocks Chopra followed by Islampur, was previously dominating the pineapple cultivation, now most of the marginal and small holders were converted their cultivated fertile land of pineapple cultivation to small Tea gardens.

Block-wise status of growth of numbers and expansion of area in Cooch Behar district from 2012-13 revealed that, the Mekhliganj block of Cooch Behar district, the rate of growth of numbers (98.24 percent) and expansion of small Tea gardens area(93.63 percent) which is remarkably higher compared to other two blocks. Further, the said investigation revealed that most of the small Tea gardens of this district were established in Indo-Bangladesh border areas and the sizes of the small Tea garden was lower compared to other small Tea growers of North Bengal.

Block-wise status of small Tea garden in Darjeeling districts revealed that in the plains areas viz; Phasidewa and Kharibari blocks, the growth of area in STG's was significantly higher compared to other blocks in this district. One remarkable point may be noted here that in Darjeeling Sadar block, the rate of growth of number of STG's was also noticeable. The farmer in this block were converted their field for production of green Tea leaves under organic Tea management with the help of technical advice from the Big Tea estates and supplying the green Tea leaves to the traditional Tea garden owners.

The said investigation was also highlighted that, a comparative analysis of the numbers and area of small Tea gardens in the North Bengal districts, growth of numbers (53.23 percent) and Tea garden area (58.42 percent) was higher in district of Uttar Dinajpur followed by the Jalpaiguri and Darjeeling districts.

Area-wise classification of small Tea gardens in our studied areas revealed that highest numbers (60.00 percent) of SHG's Based Small Tea growers having the size of 0.5 to 1.0 hectare and the lowest number was 13.33 percent in the size group 0.5 hectare. Further, the area under other cultivated land was the highest for their size group of less than 0.5 hectare under both the SHG's and Non-SHG's based Tea garden owners.

Regarding the cost and return analysis of SHG's and Non-SHG's based small Tea garden owners revealed that there is an inverse relationship between the ages of the garden and the productivity and net income per hectare of small Tea garden owners. But in this connection it may be noted here that the average price per quintals and productivity of Tea leaves of the SHG's based growers was higher than the Non-SHG's based growers.

Age-wise distribution of operational costs of small Tea garden owners, under SHG's based small Tea gardens, revealed that the cost of cutting & pruning, and manuring was incurred in a significant portion of the total operational cost followed by plucking. From our investigation it was revealed that the cutting & pruning and plucking were usually done by the female and child labours mainly on contractual basis. One remarkable finding emerges from our study that higher the ages of the garden, the lower will be the operational cost and vice-versa.

In the state of West Bengal Small Tea planters started their functioning during the late 1980's and early 1990's in the four districts of North Bengal. In this connection it may be noted that the first small Tea garden was established in Chopra block of Uttar Dinajpur district. It is an irony of fact that the number of SGH's based Tea plantation are minimum in the four districts of North Bengal and some of the SHG's based Tea growers are running their operation efficiently, and some are not so efficient to run their business.

The present investigation revealed that the area covered and number of small Tea growers society under SHG's based growers is highest in the year 2013-14 followed by the years 2008-09 and 2012-13. It is well established that a significant part of Jalpaiguri

districts. previously the farmers were producing pineapple but during the early 1990's, they were converted their pineapple cultivated area for the Tea cultivation due to insufficient market outlet for pineapple. And due to the closer of the Traditional Tea gardens in Terai and doors of Jalpaiguri districts, some of the farmers were interested to convert their up and medium land for the production of small Tea leaves also.

The investigation further revealed that the number of the small Tea growers society established was being highest in Jalpaiguri district followed by Uttar Dinajpur and Darjeeling district. On the other hand, the average area covered per society was being highest in the district of Darjeeling followed by the districts of Jalpaiguri and the average number of membership for SHG's based Tea growers society was also highest in Jalpaiguri district followed by Uttar Dinajpur and Darjeeling districts.

The emergence of small Tea garden in the early 1990's without any processing plant, a new concept emerges that the privately owned BLF's first came into existent during the year 1960-61. These factories are called as Bought Leaf Factories as because they have no Tea plantation gardens, they depend on the supplying of green Tea leaves from small Tea growers society for manufacturing of process Tea mainly CTC (Cross-Tear-Curl). It is worthwhile to highlight in this connection that there are 104 BLF's in North Bengal, out of this only three are SHG's Based factories running their business.

The study revealed that the highest number (46.15 percent) of BLFs existed in the district of Jalpaiguri followed by the districts of Darjeeling (37.57 percent) and Uttar Dinajpur (14.42 percent). On the other hand, the total production of Tea leaf was highest (46.16 percent) in the district of Darjeeling followed by the districts of Jalpaiguri (34.94 percent) and Uttar Dinajpur (14.29 percent). In the district of Cooch Behar the number of BLF's is insignificant (1.92 percent) and also the manufacturing of process Tea leaf is small quantity compared to the other three districts. One remarkable findings emerges that, the average production of process Tea leaf by the BLF's was being highest in the district of Cooch Behar followed by the districts of Darjeeling and Uttar Dinajpur. During our investigation we found that there are two SHGs based BLF's viz; "Panbari" and "Jai Jalphas" exists in the Maynaguri block of Jalpaiguri district. The investigation revealed that the capacities utilization of the plant was (85.80 percent) in the "Panbari" factory compared to the factory of "Jai Jalphas" (14.20 percent). In this connection we may noted here that, both these factories have been availing of some technical facilities as well as subsidies from the Tea Board of India during the period of establishing BLFs.

On the other hand, under the Non-SHG's based BLFs were selected two factories viz. "Bhansibihari" BLF and "Durga Tea industries". The investigation revealed that the capacity utilization and the members of these two factories was being less but the supplying of green Tea leaf to these factories was in large volume.

A comparative analysis of BLF's under two categories revealed that the capacities utilization of the plant was relatively higher in case of Non-SHG's based BLF's compared to the SGH's based and also the employment opportunity was also higher of the Non- SHG's Based factories as compared to the SHG's Based factories.

The study further revealed that total production of process Tea leaf under both the SHG's and Non-SHG's based BLF's was higher in the district of Darjeeling followed by the districts of Jalpaiguri and Uttar Dinajpur and Cooch Behar. The study highlighted that higher percentage of the Tea leaf come out from the BLF's for the months of August, September and October, and moderate production of process Tea leaf was noticeable for the months of March, May, June and July and November. The months of January and February were lean period for the production of process Tea leaves under different BLF's in North Bengal. One remarkable finding was noticeable from our study was that there was no significant relationship between the number of small Tea gardens and Total production of process Tea leaf produced by the BLF's in different districts of North Bengal.

The present study also revealed that 86.66 percent of the small Tea growers faced by the problem of lack of proper land records and the 76.66 percent of the SHG's faced the problem of not plucking their quality leaves by the hired employees. It was also noticeable from the investigation that leaf weighing machine, vehicle for transportation to carry green Tea leaves, shortage of labour, middleman and brokers are faced by the SHG's and their percentages ranges between 33.33 to 46.66. The investigation further observed that poor quality of green leaves supplying by the small Tea growers, distance of BLF's from the small Tea garden, and the dilapidated condition of the road were the major problem faced by the both the SHG's and Non-SHG's BLF's. In this connection it may be noted that one of the office of the Tea Board of India was established at Siliguri and now this good office is looking after the problems of Tea garden owners as well as SHG's and Non-SHG's based BLF's established in North Bengal.

IMPLICATIONS

POLICY IMPLICATIONS

Based on the different findings of our investigations and the constraints/ problems faced by the small Tea growers as well as BLF's, the following implications may be considered for the welfare of the small Tea growers as well as greater interest of the BLF's.

1. As we know that many small growers in North Bengal have been applied to the Land Reform Department but till date they have not received Tea cultivation certificate leased for vest land. Due to non-receipt of No Objection Certificate (NOC) from the state government, Small Tea growers are being deprived of financial assistance and the benefits from the Indian Tea board and other organizations. The government of West Bengal should immediately take initiative for clearance of NOC to the small Tea growers of North Bengal.
2. The Tea Board of India have already been declared the month-wise minimum support price of quality green Tea leaf produced by the small Tea growers should immediately effective in consultations with the government of West Bengal as well as different Tea planters association and BLF's.
3. Recently, the smart card plans initiated by the Tea board of India should be immediately implemented for the benefits of small Tea growers of North Bengal. As we know that there are thousands of small Tea planters in North Bengal but the number of SHG's are very low. Therefore, the government of West Bengal and the Tea Board of India should encourage the existing small Tea growers to form SHG's Based Tea gardens as well as bought leaf factories for getting the different financial assistance from the Tea board of India.
4. The Tea board should not allow the use of insecticide which is generally used in paddy field.
5. Un-scientific and rampant use of the insecticide in Tea plantation particularly in the small Tea gardens should be restricted by the Tea Board of India.
6. Manufacturing company should be registered separately for their products before using in the Tea plantations.

7. The Food Safety and Standard Authority of India should control the standard of the entire Tea industries including small Tea sectors to maintain quality Tea production and protect the image of Indian Tea in the international arena.
8. The Commerce Ministry of Government of India to make and all out offered towards a two-pronged strategy to regularized all existing unrecorded grower within a specific time period and supply of valid identity cards to "qualified Tea growers".
9. The cost of production of Tea should be reduced with a specific package of practices supplying to the Tea sectors. Presently in India the cost of production of Tea is highest among the Tea producing countries of the world.

ISSUES OF RESEARCH

CHAPTER -7

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As we know that there are thousands of small Tea gardens established at North Bengal in the state of West Bengal. A significant number of Bought Leaf Factories are also established in this region. At the end of this thesis, recalling our earlier discussions and the knowledge/experience gathered there upon, we may put on record the following observations for future study on small Tea growers as well as Bought Leaf Factories.

- Collection of information on the small Tea growers, particularly the ownership of land, number and exact area of Tea plantations will be required in near future.
- It has been observed from our study that agents or brokers are getting the major share of leaf trade in the case of depression price zone of green leaves and also sometimes BLF's encourages such type of situation to control the local market. In this connection, the National level of study on cost of production and the harvest price realization for assigning the condition of Tea growers, failure and success has been made.
- Endeavour needed to evolve region-specific guidelines on agricultural practices and other geographical factors separately both for traditional Tea estates and the Small Tea growers.
- A survey covering for SHG's and BLF's across North Bengal might provide information on employment trends in the sectors will be one of the vital areas of the future researchers.
- There is enough scope to study the efficiency of existing marketing channels of green Tea leaf from production centre to the BLF's.
- As we know that, small Tea growers are more prone to face labour shortage compare to traditional gardeners. In this connection, synchronizing the MGNREGAS in small Tea areas will be important tasks. Future research should be done in this direction by the policy planners.

CHAPTER -8

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