ROLE OF MARKETING
ON SUSTAINABILITY OF SMALL TEA GROWERS OF ASSAM

A Minor Research Project Report Submitted

To

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AFTER THE NAME OF LATE NRIPENDRA MALLA BUZAR BARUAH

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DECLARATION

I do hereby declare that my minor research project report entitled **"Role of Marketing on Sustainability of Small Tea Growers of Assam"** submitted to Research and Development Cell, Nalbari Commerce College, Nalbari, Assam is my original research endeavour. The minor research project report has not been submitted /published anywhere else for the award of any degree, diploma, associate ship, fellowship or any other title.

Date: Signature

Place: **Dr Uddipana Gogoi**

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ABBREVIATIONS

AASTGA	All Assam Small Tea Growers Association
AAU	Assam Agriculture University
APEDA	Agriculture and Processed Food Products Export Development Authority
AR	Annual Report
BG	Big Growers
BLF	Bought Leaf Factory
CTC	Crush/Tear/Curl
DVC	Domestic Value Chain
EPCG	Export Promotion Capital Goods Import
FAO	Food and Agricultural Organisation
FPC	Farmer Producer Companies
FPO	Farmer Producer Organisation
GI	Geographical Indication
ICD	Inland Container Depot
INR	Indian Rupees
IFOAM	International Federation of Organic Agricultural Movements
NGO	Non-Government Organisation
NEI	North East India
NPOP	National Program for Organic Production

NITI	National Institute for Transforming India
OTG	Organic Tea Growers
PT&FA	Physical Target & Financial Achievement
RO	Regional Office
SG	Small Growers
STG	Small Tea Growers
SGDD	Small Grower Development Directorate
SRO	Sub-regional Office
SHG	Self-Help Group
STG	Small Tea Grower
TAC	Tea Auction Centre
TBI	Tea Board of India
TC	Tea Company
TMCO	Tea Marketing and Control Order
TRA	Tea Research Association
TRS	Toklai Research Station
TRF	Tea Research Foundation
USD	US dollar
UPASI	United Planters Association of Southern Association

CHAPTER 1

INTRODUCTION

Tea is one of the most frequently consumed non-alcoholic beverages throughout the world. The data from the U.N. Food and Agricultural Organization suggests that the world drinks about six billion cups of tea a day. The western countries, South East and Middle East Asian countries are major tea consumers. India is one of the major consumers and also a major producer of tea in the world. India is the second largest tea producer and largest black tea producer with production at around 1350 million Kgs and self-sufficient to meet the domestic requirements and export obligations. India is also the largest consumer of black tea and consumes around 18 per cent of the total World tea consumption. Indian teas are exported to various destinations and is the fourth largest tea exporter besides catering to a large number of domestic consumers (PIB, March 2023). Tea in India is produced on large scale basis and small-scale basis. According to the report of Ministry of Commerce and Industry published on March, 2023, Small Tea Growers are the emerging Sector contributing nearly 52 per cent of the total tea production of India and presently there are nearly 2.30 lakh of Small Tea Growers existing in the supply chain of India.

Tea was first discovered in China and it has been cultivating since 3254 B.C. In ancient times tea was consumed as medicine and from 600 B.C. tea was consumed as liquid in China. At the same time tea was cultivated in Japan during 600-700 B.C. Later on, the tea cultivation is spread in different parts of the world like India, Kenya, Sri Lanka, Vietnam, Turkey, Indonesia, Myanmar, Iran, Bangladesh etc. This was used as a drink by Chinese kings from 2700 B.C. to get rid of thrust and tiredness. Apart from it, tea also has many medicated properties as it is beneficial in diseases like cancer, diabetes, headache, body pain, scene diseases etc. as revealed in different researches. In India the tea industry was set up by the British Rulers in the nineteenth century which now occupies a significant position in the economy.

In global tea production, India ranked second in the last five years from 2018 to 2022 (highlighted in figure 1.1). In 2018 the figure was 1338.63 million Kg, in 2019 it was 1390.08 million kg, in 2020 the figure declines to 1257.53 million kg, in 2021 the figure increased to 1343.06 million kg. and 2022 it becomes 1365.23 million kg.

Table 1.1: World Tea Productivity (Qty in Million Kg)

Country	2018	2019	2020	2021	2022
China	2610.39	2799.38	2986.02	3063.15	3090.00
India	1338.63	1390.08	1257.53	1343.06	1365.23
Kenya	493.00	458.85	569.54	537.83	530.00
Turkey	280.00	267.80	280.00	282.03	280.00
Sri Lanka	304.01	300.13	278.49	299.34	251.50
Vietnam	185.00	190.00	186.00	180.00	174.00
Indonesia	131.00	128.80	126.00	127.00	125.10
Others	624.16	626.11	595.92	622.78	606.83
Total	**5966.19**	**6161.15**	**6279.50**	**6455.19**	**6422.66**

Source: Tea Board Annual Report, 2021-22

In world tea export scenario, India is ranked fourth position from the year 2018 to 2022 (revealed in figure 1.2). The figure was 256.06 million kg in 2018, 252.15 million kg in 2019, 209.72 million kg in 2020, 196.54 million kg in 2021 and 226.98 million kg in 2022. Although India is second largest tea producing country of the world, it ranked fourth in global tea export because 80 per cent of the produced tea is used for domestic consumption. The apparent domestic retention of tea for the year 2021-22 was around 1170 M. Kgs. as against 1107 M. Kgs in 2020-21 (Tea Board Annual Report). During 2020 and 2021 India has witnessed sharp fall in global tea export because of covid induced low productivity.

Table 1.2: World Tea Export (Qty in Million Kg)

Country	2018	2019	2020	2021	2022
Kenya	474.86	496.76	518.92	558.93	456.00
China	364.71	366.55	348.82	369.36	375.23
Sri Lanka	271.78	289.59	262.73	282.84	247.15
India	256.06	252.15	209.72	196.54	226.98
Vietnam	130.00	134.91	130.00	145.00	140.00
Argentina	72.62	75.32	65.98	64.20	71.00
Others	297.34	294.06	295.04	307.23	314.61
Total	**1867.37**	**1909.34**	**1831.21**	**1924.10**	**1830.97**

Source: Tea Board Annual Report, 2021-22

In India tea is cultivated in 15 states and Assam, West Bengal, Tamil Nadu and Kerala are the major tea growing states and they account for 97 per cent of the total productions. Other tea growing states are Tripura, Himachal Pradesh, Uttarakhand, Bihar, Karnataka, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Sikkim (Tea Board of India). Tea produces in Assam, Darjeeling, Nilgiris and Kangra are world famous for their finest quality, delicate flavour, strength and brightness. Different varieties of tea produce in India are Darjeeling tea, Assam tea, Nilgiris tea, Kangra tea, Munnar tea, Dooars-Terai tea, Masala tea and Sikkim tea. The following map 1.1 of India shows the tea is cultivating regions in the country.

Map 1.1: Tea Growing Region of India

Source: Tea Board of India

1.1 Tea Cultivation in Assam and its Historical Back ground

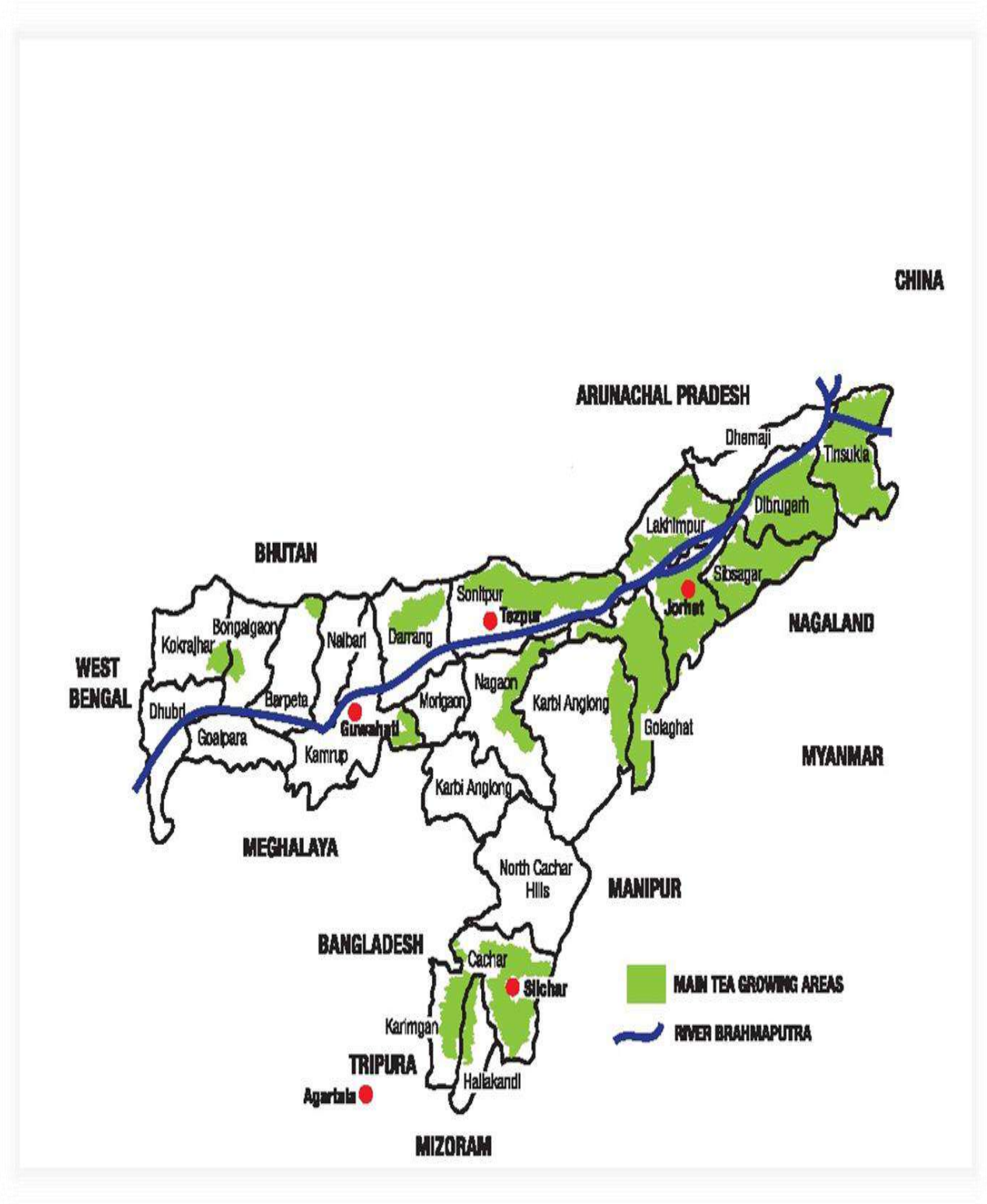
Assam is one of the world's largest tea growing regions of India, lying in either side of Brahmaputra River. This region experiences high precipitation during the monsoon period (around 250-3500 mm) rain per day. The daytime temperature rises to about 103F (40^0 C), creating greenhouse like conditions of extreme humanity and heat. This tropical climate contributes to uniqueness in taste and flavor to Assam tea (Directorate of Statistics and Economics, Assam). In Assam majority of the tea producers produces black tea but few tea producers are also engaged in production of green tea and blended teas in small quantities. Assam Tea has a rich, deep-amber color and is famous for its rich, full-bodied cup. It is known for its brisk, strong and malty character, making it a perfect tea to wake up. The distinctive second flush orthodox Assam teas are valued for their rich taste, bright liquors and are considered to be one of the choicest teas in the world (Tea Board). Assam produces both Orthodox and CTC (Crush/Tear/Curl) varieties of tea. Assam Orthodox Tea is a registered Geographical Indication (GI) and the GI tag was received in 2008-09.

Tea was popularly consumed in England and they used to purchase from China. The East India Company also didn't solely depend on China for tea and that is why they thought about tea cultivation in India. In 1778 B.C. Sir Joseph Bank of East India Company brought some tea seeds to India for testing it in Indian weather. But that test became unsuccessful and they ignore about tea cultivation in India. Again in 1823, Alexender Bruch came to Assam and started in search for tea plants in Assam in co-operation with Robert Bruch and Maniram Dewan. In 1834, the historical Tea Committee was formed to make research about tea cultivation in Assam. During 1835-36, the first experimental tea garden was established in Sadiya (Kundilmukh), but the flood of Brahmaputra River destroyed all the tea sapling. Another tea garden was established in Chabua, near Dibrugarh in 1873 which was total successful experiment for tea cultivation. Thus, the garden established in Chabua in 1837 became the first tea garden of India. During the search of tea plants in Assam Sir Robert Bruch met the Singpho king Bisa Gam. The Singpho people used to consume tea since years ago. The Bisa Gum helped Sir Robert Bruch to discover the tea plants that existed in Assam from many years ago. The Bruch brothers collected tea sapling from the king Bisa Gum and send it to

Calcutta for testing of its originality. In 1838, 12 boxes of Assam tea sent to London for the first time to test its quality. The quality of Assam tea was accepted in London and in 1839 Assam tea was sold on auction in London Tea Auction Centre for the first time and continued till 29th June 1998 and it was the last auction of historical London Tea Auction Centre. The British Government gradually adopted the tea cultivation and tea production method and government also gave permission to private institutions to start their own tea gardens. Thus in 1839 Assam Tea Company and in 1859 Jorhat Tea Company took birth. To conduct research on cultivation, manufacture of tea and increase in productivity of Assam tea the Toklai Research Station (TRS) was established in Jorhat in 1911. The Tea Auction Centre (TAC) was established in Guwahati in 1970 to facilitate marketing of Assam Tea.

Initially only big growers were involved in commercial tea cultivation on large scale basis. Such tea companies were owned and managed either by British or by some local rich people of Assam. Later on, during 50's local youths also came forward for commercial cultivation of tea on small scale basis and it became a promising source of livelihood for the rural economy of Assam. Tea cultivation is widely distributed throughout the state but most of the tea gardens are located in upper and middle regions of the state. The map 1.2 depicts the tea growing regions of the state.

Map 1.2: The Tea Growing Regions in Assam



Source: www.reddit.com

The tea industry of Assam contributes significantly to the economy of Assam in terms of production, revenue, employment etc. It provides average daily employment to more than 6.68 lakh persons in the state, which is around 50 per cent of the total average daily number of labors employed in the country (Economic Survey of Assam, 2022). During the last three decades Assam has witnessed mushrooming of small tea growers and there are more than 1.0 lakh small holdings accounting for 200 million kgs of made tea. The table 1.3 highlights the total number of tea gardens, area of tea cultivation (in hectors) and production (in kg) of Assam from 2007 to 2022. It also made comparison between the small tea growers and big tea growers. It shows that the total number of registered tea gardens in 2007 was 65,422 which were positively increased to 12440 in 2022. In case of area of tea cultivation, the recorded area was fluctuating from 2007 to 2022. From 2007 to 2010 the area of cultivation increased from 3,21,319 hectors to 3,22,222 hectors, it was 3,22,210 hectors in the subsequent three years. In 2014 and 2016 the recorded cultivated land area declined to 3,04,400 hectors and in 2015 it increased to 3,16,409 hectors. The total production of tea industry witnessed gradual increase during the ten years from 2007-2016 amounting to 51,18,8.5000 kg. in 2007 to 64,21,80,000 kg. in 2016. Total production declines from 2020 to 2022 due to interventions of covid induced lockdown, climate change, low rainfall etc. It was 514033000 kg in 2020, 667.73000 kg in 2021 and 392.84000 kg in 2022. The recorded number of small tea growers was 64,597 in 2007 which witnessed an increased record of 78,091 in 2011. After a slight decline in record for the year 2012 and 2013 the number of small tea growers increased to 79,649 in 2014, 82,805 in 2015, 84,577 in 2016 and 12167 in 2022. The area of tea cultivation of small tea growers was stagnant (88,674 hectors) except 71,871 hectors in 2014 and 78,203 hectors in 2016.

The production of small tea growers was recorded as 10,68,81,000 kg. in 2007, 14,42,54,000 kg. in 2014 and 13,9,491 kg. in 2015 and showed an increased figure of 321410 in 2019. After the covid pandemic it has shown gradual decline from 2020-2022. The number of large tea gardens declined from 825 in 2007 to 761 in 2015 and increased to 765 in 2022. The area of large tea holdings witnessed fluctuations over the ten years from 2007 to 2016. It declined from 2,32,645 hectors in 2007 to 2,29,140 in 2011. In 2012 and 2013, the area of land holdings increased to 2,33,536 hectors which again declined to 2,32,529 hectors in 2014 and 2015 and to 2,26,197 in 2016. The

production of large tea gardens increased from 40,50,04,000 kg. in 2007 to 62,90,50,000 kg. in 2013 which again recorded decline of 466,71,60,000 kg. in 2014 and 386,69,4000 kg. in 2015. Further it has recorded decline in production of 278397000 kg in 2020, 356.61000 kg in 2021 and 204.63000 in 2022.

Table 1.3: Number of Tea Gardens, Area of Cultivation and Production of Tea Gardens of Assam (from 2007-2022)

Year	Small Growers (up to 10.12 hectors)			Big Growers (above 10.12 hectors)			Total		
	No. of tea gardens	Area (in hect.)	Production (in000' kg)	No. of tea gardens	Area (In hect.)	Production(in000' kg)	No. of tea gardens	Area (in hect.)	Production (in000' kg)
2007	64597	88674	106881	825	232645	405004	65422	321319	511885
2008	NA	88674	NA	760	230113	437810	760	321437	487497
2009	NA	88674	NA	760	230060	451970	760	321687	499997
2010	NA	88674	NA	760	229790	450100	760	322222	480286
2011	78091	88674	NA	760	229140	476767	78856	322210	589110
2012	68459	88674	NA	761	233536	590120	69220	322210	590120
2013	68459	88674	NA	761	233536	629050	69220	322210	629050
2014	76949	71871	144254	761	232529	466716	77710	304400	610970
2015	82805	83880	139491	761	232529	386694	83566	316409	526185
2016	84577	78203	NA	767	226197	NA	85344	304400	642180
2017	87318	81754.41	187360	767	237601	390910	88085	319355.41	675170
2018	101085	105291	304490	765	232399	387420	101850	337690	691910
2019	107371	104965	321410	765	232399	395080	108136	337364	716490

2020	118756	110857	235636	765	232399	278397	11952	343256	514033
2021	121675	114802	311.12	765	232399	356.61	122440	347201	667.73
2022*	121675	114802	188.21	765	232399	204.63	122440	347201	392.84

Source: Compiled from Statistical Handbook of Assam, 2017, 2018, 2019 and 2022

1.2 Definitions

a) Small Tea Growers (STGs)

Tea cultivating countries practices tea cultivation in large scale basis and small-scale basis. Big tea estates practices tea cultivation on large scale basis. The concept of tea cultivation came into existence in 1950's when Kenya decided to export tea. The successful experience of Kenyan tea had created a model for both developing and underdeveloped countries (Directorate of Economics and Statistics, 2013). Today most of the tea producing countries like China, Sri Lanka, India, Indonesia is significantly dependent on small tea cultivation. In India, the share of small tea cultivation to total tea production is more than 50 per cent. Tea (Marketing) Control order, 2003 defines "Tea grower" means any person, firm, company or body corporate, or cooperative society engaged in cultivation of tea plants. Further, tea Board of India defines the Small Tea Growers holding area up to 10.12 hectares (Tea Board Annual Report). Smallholder production under Indian law is defined as a farm or enterprise of less than 10.12 hectares in area (Langford, 2019). Kadavil (2007) classifies the ownership in Indian tea industry on the basis of land ownership revealed in table 1.4.

Table 1.4: Structures of Ownership in the Indian Tea Industry

Type	Size	Ownership	Processing facilities
Smallholding	1–25 acres (<10.12 hectares)	Proprietor	None
Registered tea gardens	<200 hectares	Single proprietor or partnership firms	leaf is transported to bought-leaf factory Processing facilities may be on site, or tea may be processed at a bought-leaf factory
Plantation estate	>200	Large companies, limited liability companies or state/worker ownership	Processing facilities on site

Source: Kadavil (2007)

The word 'small' in the context of small tea growers has been interpreted differently by different scholars. Some have referred to small tea growers in the context of the size of land under cultivation; some have referred to planters who did not have the capacity to set up manufacturing units whereas some have also referred to it as a family plantation where there are no hired laborer from outside (Das, 2019). The Government of Assam considers only those growers as small tea growers with a maximum tea holding size at 30 bighas (4.0 hectare). (Neog, 2009). According to the study Report on Economic Activities of Small Tea Growers of Assam (2013), Small tea Growers are the owners as well as workers of their tea garden. They only produce green leaves, manufacturing and distribution parts are managed by different persons and groups. All Assam Tea Growers' Association (AASTGA) small tea growers are

those who have land area less than 250 bighas for tea cultivation (Gogoi, A, 2018). According to de Silva (1982), tea cultivation in Kenya is based primarily on small sized plantations with an average holding of about two acres. The Reserve Bank of India has classified small tea holders as those having plantation up to 2.02 hectares (5 acres) according to Goswami (2006). According to Kadavil (2008) small holdings are those which may be anything from one acre to twenty-five acres (10.12 ha) in land size, owned by the proprietors. On the other hand, small gardens, having a tea area below 200 hectares, are owned by a single proprietor or partnership firms, where tea is cultivated and the green leaf is taken to a nearby factory for processing. He has also mentioned that FLO (Fair trade Labelling Organization), a publicly organized non-profit multi-stakeholder association defines small producers as those who are not structurally dependent on permanent hired labor, managing their farm mainly with their own and their families' labor force. Tea growers having plantation sizes of up to 10.12 hectares or 25 acres are defined as STGs in India (Sharma & Barua, 2017). The small tea growers (STGs) in Assam are a group of local people who concentrate themselves mostly in producing green tea leaf. They emerged into the tea industry of Assam after 1978. These small tea growers sell their green tea leaf to the tea manufacturing factories owned by big tea estates or others (Sonowal, L, 2019). Farming of tea on a small scale for production and sale of green leaf to processing units is popularly known as 'small tea cultivation'. The smallholders, who are also the workers themselves, are basically the producers and sellers of green leaf, a perishable input that has to be processed in a tea factory to convert into 'made tea' (Das, 2019).

Thus, from above discussions it reveals that different scholars, authors and institutions defines small tea growers using different parameters. Some of the authors defines small tea cultivators on the basis of area of tea cultivation. Tea Board of India, Government of Assam and All Assam Small Tea Growers Association defines small tea cultivation on the basis of area of holding for tea cultivation. Directorate of Economics and Statistics uses the parameters of land ownership, production, processing and distribution of green tea leaves for defining the small tea growers. Some authors said that only production of green leaf than sale to processing units for further process is called small tea growers. After going through the earlier

discussions, small tea cultivation can be defined as those cultivators who undertakes tea cultivation on small scale basis approximately up to 10.12 hectors of land, uses both family labor and external labor (seasonal basis) engaged in production of green tea leaves and sale the same either to large tea garden factories or Bought leaf factories through intermediaries for further conversion to made tea, distribution, marketing and sale.

Table 1.5 highlights that in 1991, smallholder production was responsible for just 7 per cent of India's total tea production. Till 2019, smallholder production was estimated to provide over 48 per cent of total tea production, with an estimated 180,448 small tea growers producing tea on 161,648 hectares (India Tea Association, 2019). The growth of this production segment has been exponential; during the period 2014–18 production by smallholders rose by 248 million kg, an increase of 62 per cent.

Table 1.5: Growth of Smallholder Production in India in terms of Total Tea Production (%), 1991–2019

Year	Small growers	Plantation estates
1991	7%	93%
2001	24%	76%
2011	28%	72%
2012	32%	68%
2013	31%	69%
2019	48%	52%

Sources: India Tea Association (2019) and Tea Board of India (2013)

The expansion of smallholder tea farming was linked to both market factors and government initiatives. Favorable tea prices during the 1990s due to undersupply on the global market made tea cultivation attractive to producers (Kadavil, 2007). Yet, this expansion was also heavily supported by the creation of government programmes which encouraged farmers to convert from vegetable to tea production

(Seddon and Schmidt, 2017). In Assam alone, state efforts to popularize small tea production has led to an increase from 657 farmers in 1990 to over 84,000 in 2019 (BASIC, 2019).

b) Bought Leaf Factories (BLFs) and Mini Tea Factory

Tea factories are the place where green tea leaves are converter into finished product i.e., made tea. Small tea grower does not have their own tea factories on individual basis. Thus, they sale their green tea leaves either to large tea garden tea factories or Bought tea leaf factories. Large tea garden factories are owned by tea estates or tea companies who engage in tea cultivation of large-scale basis. Bought tea gardens are new concepts owned by a group of small tea growers collectively. During, 1962-63 bought leaf factories came into existence in India in the Nilgiris district in South India. These are privately owned factories which purchase green leaves from the small growers and process them to made tea (Das, 2019). Tea Board under its Modalities and Scheme Guidelines Tea Development & Promotion Scheme defines 'Tea factory' means a facility for manufacturing tea out of green tea leaf and includes bought leaf, cooperative and estate factories. According to Ganguli (2013) Bought Leaf Factories are an integral part of small tea cultivation. These are the factories that purchase green leaf from external sources to manufacture tea, the proprietor may not own any land to produce green leaves. Basically, BLFs provide a market for small tea growers to sale their green tea leaves apart from tea agents and large tea garden factories.

The table 1.6 highlights about region wise growth of BLFs from 2001 to 2007. In north India number of BLFs increases from 163 in 2001 to 320 in 2007 and also witnessed positive growth in production of 67.5 million kgs in 2001 to 172.75 million kgs in 2007.

Table 1.6: Growth of BLFs in India (Production in Million Kgs)

Region	North India		Assam Alone		South India		All India	
Year	No	Prod	No	Prod	No	Prod	No	Prod
2001	163	67.5	119	43.00	168	67.6	331	135.1
2002	199	88.4	139	53.27	172	68.6	371	157
2003	228	105.8	152	65.28	200	78.19	428	183.99
2004	250	130.23	163	77.67	205	83.79	455	214.02
2005	306	150.52			170	72.3	476	222.81
2006	318	164.3			169	75.06	487	239.36
2007	320	172.75			169	72.9	489	245.65

Source: Das (2019)

Furthermore, table 1.7 showcases region-wise/state-wise contributions of Bought Leaf Factories in production from 1998 to 2004. Tamil Nadu ranked highest and Assam ranked second highest in terms of number of BLFs and production by BLFs from 1998 to 2004. The number of BLFs has been increased from 61 numbers to 163 numbers in 2004. In terms of production of BLFs, the figure also showed positive growth of 21.43 million kgs in 1998 to 77.65 million kgs in 2004. Additionally, the north Indian region has been showed better performance than South Indian region in terms of number of BLFs and production. In this region, the number of BLFs in 2004 is 255 where share of Assam share was163 followed by West Bengal was 79. In the same year, production of this region was 130.71 million kgs where share of Assam is 77.65 million kgs. Followed by West Bengal was 49.59 million kgs.

Table 1.7: Number of BLFs and Production Contribution (m kgs) by States/Region

State/region	1998		1999		2000		2002		2003		2004	
	No of BLFs	Production	No of BLFs	Production	No of BLFs	Production	No of BLFs	Production	No of BLFs	Production	No of BLFs	Production
Assam	61	21.43	75	29.32	105	38.76	139	53.29	152	65.36	163	77.65
West Bengal	22	7.43	29	13.49	44	17.17	56	33.44	69	37.74	79	49.59
Tripura	9	0.6	10	0.7	11	1.67	2	1.58	2	1.51	2	1.47
Bihar							1	0.07	1	0.22	1	0.25
Uttaranchal							1	0.02	1	0.02	1	0.02
Himachal Pradesh	4	0.95	4	0.71	4	0.82	4	0.44	4	0.41	4	0.43
Arunachal Pradesh									4	1.03	5	1.3
North India	**96**	**30.41**	**118**	**44.22**	**164**	**58.42**	**203**	**88.84**	**233**	**106.29**	**255**	**130.71**
Tamil Nadu	168	59.3	168	65.5	173	76.55	175	78.62	197	89.86	200	94.84
Kerela	13	1.65	13	1.53	13	1.7	14	1.75	18	3.13	20	3.8
Karnataka							1	0.23	2	0.07	2	0.12
South India	**181**	**60.95**	**181**	**67.08**	**186**	**78.25**	**190**	**80.6**	**217**	**93.08**	**222**	**98.76**
All India	**277**	**91.36**	**299**	**111.25**	**350**	**136.67**	**393**	**169.44**	**450**	**199.37**	**477**	**229.47**

Source: Tea Statistics (Tea Board) and Das (2019)

Tea Marketing (Control) Order Act, 2003 defines that "Mini tea factory" means a tea factory owned by a small grower, an association of small tea growers or a Producer Company and which sources all the required tea leaf from its own plantation for the purpose of manufacture of tea and having capacity to produce not more than five hundred kilograms of made tea per day.

c) Tea Agents/Intermediaries

Tea agents are intermediaries between small green leaf producers and tea factories who collects green tea leaves from small tea growers and then sale it to large tea garden factories and bought leaf factories (BLFs) at a price decided by the factory owners. They are also known as commission agents because they share a commission included in the price determined for green tea leaves. Commission agents or tea agents are powerful players in this value chain and plays a dominant role in price determination of green tea leaves. They charge a fixed amount of commission per Kg of leaf from small tea growers and not from factories. They help growers to transport their produce and find the market to sell the produce sometimes in better price also (John, H & Mano Raj, 2020). Commission agent act as an agent of supplying the manures or credit advance to the small tea growers from bought leaf factories. According to Bhuyan et al. (2004) leaf agents, also known as commission agents are the persons who collect the green leaf from the sub-agents or small tea growers and sell the leaf to the tea factory. They generally do not handle the commodity physically and collect commission from both the groups. According to Goswami et al. (2006) tea agents/middlemen/traders generally enter into annual contract with Bought Leaf Factory and Large Tea Estates for supply of a specified quantity of green leaf at a mutually agreed upon price which may be revised from time to time in a year. Ganguli (2013) observed that the intermediaries are a group of people called 'agents' by the small growers. They are supposed to register themselves with the AASTGA. These agents operate as contractors and sell the tea leaves to the processing factories at an agreed upon price. This two-way contract is renewed every year and the price is fixed accordingly. The agents are also found supplying manure and chemicals such as pesticides, herbicides etc. to the growers. At times they even provide loans to the growers. STGs sell product to the factories through three different

channels which involves direct selling to the factory; Secondly, through collection agents and thirdly, through involvement of middleman (Kalita, 2014).

In the words of Medhi (2016) employment has also been generated through middlemen, i.e., agents. Till 2008, only 4920 STGs had direct linkage with the factories. Agents take an important role in collection and sale of green leaf. The dependency level of the STGs to the green leaf agents in Assam is 44.2 per cent whereas it is 26.1 per cent in Tamil Nadu, 18.3 per cent in West Bengal and 8.3 per cent in Kerala, which indicates that the dependency level of the small tea growers in leaf agents are very high in Assam Krishnana, H and Stephen, A (2023) identified that here are different marketing channels in the Supply chain of tea and market intermediaries, middlemen and agencies involved in the marketing channels. The paper that highlighted two channels, a) Channel – 1: Producer-Commission agent -Processing unit Wholesaler -Retailer -Consumer. B) Channel – 2: Producer -Processing unit -Wholesaler – Retailer -consumer.

d) Tea Marketing

Marketing is the process of discovering and translating consumer needs and wants into product and service specifications, creating demand for these products and services and then in turn expanding this demand. According to father of marketing Philip Kotler marketing is "the science and art of exploring, creating and delivering value to satisfy the needs of a target market at a profit. Marketing of any product or service is dependent on marketing mixes which are set of actions, or tactics, that a company uses to promote its brand or product in the market. The 7 Ps of marketing are Product, Promotion, Price, Place, People, process and Physical evidence. Tea is a commercially cultivated crop of India. India is ranked fourth in global tea export and India exports tea to more than 25 countries throughout the world. Russia, Iran, UAE, USA, the UK, Germany, and China are some of the major importers of tea from India. During 2021-22 Russia, Ukraine and Kazakhstan imported 32.5 million kg, 1.68 million kgs and 6.48 million kg of tea from India. The share of Indian exports to the CIS nations during that period was 21% (42.5 million kgs) of the total exports. Iran, UAE and the USA are among India's top tea export destinations. During 2021-22, the three countries imported 29.3 million kgs, 23.3 million kgs and 13.5 million kgs of tea from India. The value of total exports to these countries

combined was US$ 277.3 million during the same period. During 2021-22, the exports to Germany, the USA, UAE and Ireland increased by 14%, 12%, 70% and 17% respectively over the previous year. Some of India's other tea export destinations are Poland, Canada, Saudi Arabia, Egypt, Afghanistan, Bangladesh, China, Singapore, Sri Lanka, Kenya, Japan, Pakistan and Australia, etc. All these countries combined accounted for US$ 116 million of tea exports from India contributing to 16% of the tea export revenue for the year 2021-22.

The Promotion Directorate of Tea Board carries out generic promotional activities aimed at increasing the Brand equity and demand for Indian tea in the international markets and consumption of tea in the domestic market. Promotional efforts are geared towards increasing awareness of the many varieties and categories of Indian teas with an aim of increasing market share of Indian teas in the targeted markets and increasing domestic consumption. Focused attention is given to selected countries, where there is higher potential for increasing export. Indian exporters are also being provided with all possible support to encourage exports and marketing of Indian varieties in the overseas countries. The Tea Marketing Control Order Act, 2003 provides provisions for control of tea marketing aspects of India. The rules, regulations and procedures for licensing of tea intermediaries, tea factories, BLFs and tea sellers are provided. Further, the registration of tea factories, tea estates, tea manufacturers, auction centers and sellers are compulsory under this Act. According to Tea Marketing (Control) Order Act, 2003, any tea marketed directly by the manufacturer in the form of (a) packet tea; (b) instant tea; (c) tea bags; (d) aromatic tea; (e) green tea; (f) tea exported directly by manufacturers except tea sold through auctions abroad; (g) Quick brewing black tea; and (h) Organic tea.

India Brand Equity Foundation report (2023) mentioned that in order to help the Indian exporters to market tea of Indian origin in overseas markets on a sustained basis, the Tea Board of India started a scheme “Promotion for packaged tea of Indian origin”. The scheme assists in promotional campaigns - up to 25% of the cost reimbursement, display in international departmental stores, product literature and website development, and inspection charges reimbursement of up to 25% of the charges. The Tea Board also provides subsidies to domestic exporters to participate in

international fairs and exhibitions. The aim is to provide a platform for exporters to showcase their products at international events for promotion.

PIB (March, 2023) reported that India has taken several steps to boost the output, create a niche brand for Indian tea and to ensure the welfare of the families associated with the tea industry. Tea Board floated a tender for Price Sharing Formula for fixation of price of green leaves supplied between manufacturers and growers which will benefit a large number of people in a scientific method. A mobile app "Chai Sahyog", is also being developed to help Small Tea Growers in terms of better price realization and information. Further, various Buyer-Seller meets are being organized at intermittent intervals with the help of Indian Missions abroad for market intelligence reports and exploring the possibilities of further increase of tea exports, especially with regard to Orthodox tea importing countries such Iraq, Syria, Saudi Arab, Russia etc. Additionally, media campaigns are extensively used for branding of Indian tea and specialty Tea Logos are displayed prominently at all important forums and events where Tea Board of India participates.

Kiran R, Subashini K & Harish K (2014) has identified four marketing channels of small tea industry in Idukki district of Kerela. Such channels are

Channel I: Producer- Small Grower- Plantation Estate Bought Leaf Factories – Auction- National Buyers- Retailer- Ultimate Consumer.

Channel II: Producer – Small Grower – Plantation Estate – Estate Factories – Auction – Brands – Ultimate Consumer.

Channel III: Producer – Small Grower – Plantation Estate – Bought Leaf Factories- National Buyers – Brands – Ultimate Consumer.

Channel IV: Producer – Small Grower – Plantation Estate – Estate Factories– National Buyers – Brands- Retailing- Ultimate Consumer.

Furthermore, in Idukki district of Kerela marketing costs incurred by the producers are preparation to market, packaging, transportation, loading and unloading, commission and rejection loss. The marketing cost incurred by the brought leaf factories, auction centers, national buyers, retailers and brands are transportation, loading and unloading, packaging, storage, staffing and commission, rejection and weight loss, brokerage etc.

1.3 Small tea Cultivation in Assam

Tea cultivation was once the domain of British. But now the profession has shifted from rich to common man especially to unemployed youths of rural economy. The small tea cultivation provides employment either directly or indirectly through promotion of some allied sectors. In Assam tea cultivation is regarded as local or home cultivation. The Singpho community of Assam is cultivating tea in their home on small scale basis even before discovery of tea plants by British in India. According to the All-Assam Tea Growers Association (AATGA), tea cultivation on small scale basis was started in Assam since 1978. The then agricultural minister of Assam Soneswar Borah, economist J.B. Ganguli and Hiralal Phukan played a pioneer role in promotion of small scale tea cultivation in the rural economy of Assam. A sizable number of small farmers especially in Upper Assam have taken up tea cultivation during last 15 years. According to the Tea Board of India, tea cultivation ***up to 75 bighas (10.12 hector)*** of land is regarded as small tea cultivation. For promotion and development of small tea growers Tea Board of India established Small Tea Growers Development Directorate in 2013. It undertakes activities for identification, registration, training programmes for skill development of small tea growers. As per the annual report 2021-22 of Tea Board of India, till 31st March 2022, the total number of identified small tea growers in India were 22,22,746 out of which 118754 were located in Assam **(*which is the highest in numbers*)**. The total numbers of identification cards issued to the growers were 152660 out of which 110837 numbers of cards were issued to the growers of Assam. The following table 1.8 highlights the state wise number of identified small tea growers and number of identification cards printed and issued them till 31st March 2022.

Table 1.8: State Wise Distribution of Small Tea Growers and Number of Identification Cards Printed and Issued (till 31-3-2022)

State	No. of small tea growers identified	Area (Ha)	No of QR code-based cards issued
Assam	118754	110837	88410
Meghalaya	777	1027.34	399
Tripura	2886	1391	856
West Bengal and Bihar	34808	26655.87	31378
Himachal Pradesh	1,166	615.21	560
Uttarakhand	1448	1261.66	389
Mizoram	644	366	250
Arunachal Pradesh	3526	7852	-
Nagaland	3335	8020	2169
Manipur	484	347	-
Total North India	**167828**	**158373.08**	**124411**
Tamil Nadu	46997	34427.38	24707
Karnataka	-	-	-
Total South India	54918	39725.28	28249
Total All India	**2222746**	**198098.36**	**152660**

Source: Annual Report 2021-22, Tea Board of India

In the recent period the size of small tea growers is quite big as the number of small tea gardens has gradually increased in different parts of the state. The total number of small tea growers registered with All Assam Small Tea Growers Association (AASTGA) are 1,18,832 and their total area of plantation is 5,25,343 as figured in table 1.9. The table 1.9 highlights that out of the small tea growing areas Tinsukia (25,411), Dibrugarh (24,906), Golaghat (16,492) and Sivsagar (15,812) has the highest number of recorded numbers of

small tea growers and area of plantation i.e., 1,23,595 bighas Tinsukia, 95,119 bighas in Dibrugarh, 71,327 bighas in Sivsagar. Other districts of the state like Jorhat, Lakhimpur, Sonitpur, Dhemaji, Nagaon, Karbi-Anglong, Udalguri, Kokrajhar, Bongaigaon, Goalpara, Cachar, Baksa also witnessed a good number of small tea growers. The remaining districts like karimganj, Hailakandi, Dima Hasao, Darrang, Chirang, Kamrup (R), Morigaon, Barpeta etc. have very small existence of small tea growers in the state.

Table 1.9: District Wise Figures of Small Tea Growers of Assam Registered with AASTGA

Sl.	District	No. of small tea growers	Planted area (bighas)
1	*Tinsukia*	*25,411*	*123595*
2	*Dibrugarh*	*24,906*	*95,119*
3	*Sivsagar*	*15,812*	*71,327*
4	Jorhat	11,702	40,573
5	Golaghat	16,492	75,485
6	Sonitpur	10,927	43,368
7	Lakhimpur	2,207	10,178
8	Dhemaji	527	2966
9	Nagaon	1,321	11,282
10	Karbi Anglong	3,203	15,960
11	Udalguri	2,242	10,920
12	Kokrajhar	1,756	11,610
13	Bongaigaon	886	5,468
14	Goalpara	256	1,479
15	Dhubri	61	378
16	Cachar	671	3,402
17	Karimganj	22	286
18	Hailakandi	16	207
19	Dima hasao	18	355
20	Darrang	26	128
21	Baksa	286	650
22	Chirang	29	142

23	Kamrup(M)	Nil	Nil
24	Kamrup(R)	16	154
25	Morigaon	33	229
26	Nalbari	Nil	Nil
27	Barpeta	06	82
	Total	**1,18,832**	**5,25,343**

Source: All Assam Small Tea Growers Association, Dibrugarh, 2016 (unpublished report).

The table 1.10 shows the district wise distribution of small tea growers of Assam and their area of tea plantation as registered with the Tea Board of India. The Dibrugarh, Tinsukia and Sivsagar district of Assam have the highest number of small tea growers and area of plantation registered with the Tea Board (Highlighted in table 1.6). Dibrugarh district has 25842 registered small tea growers with 19066 hector land area cultivation. Tinsukia district has 23511 number of registered growers cultivating tea in 21509 hector land area, whereas Sivsagar district has 4929 numbers of registered tea growers with 4382 hectors of land area of cultivation.

Table 1.10: Number of Small Tea Growers and the Registered Area With the Tea Board, India (Up-to October, 2020)

Sl.no.	District	No of small tea growers	Registered area (in Hect.)
1.	Kokrajhar	314	855
2.	Dhubri	67	41
3.	Goalpara	221	253
4.	Barpeta	0	0
5.	Morigaon	2	6
6.	Nagaon	1,993	3019
7.	Sonitpur	3887	4278
8.	Lakhimpur	2954	2157
9.	Dhemaji	1410	1094
10.	*Tinsukia*	23511	21509
11.	*Dibrugarh*	25842	19066
12.	*Sivsagar*	4929	4382
13.	Jorhat	8713	7077
14.	Golaghat	13290	12965
15.	Karbi anglong	2645	3714
16.	Dima Hasao	4	10
17.	Cachar	191	531
18.	Karimganj	30	531
19.	Hailakandi	9	28
20.	Bongaigaon	563	473
21.	Chirang	28	26
22.	Kamrup (R+M)	2	20
23	Nalbari	0	0
24	Baksa	336	451
25	Darrang	26	34
26	Udalguri	7147	7922
27	Biswanath	10547	10668

28	Charaideo	10105	10173
39	Hojai	0	0
30	Majuli	0	0
31	South Salmara	0	0
	Assam	**118756**	**110857**

Source: Statistical Handbook of Assam, 2022

The small tea growers of Assam are mainly first and second-generation entrepreneurs. They started tea cultivation in those land areas which were left by British or other big companies as an inferior land for tea cultivation. They involved in the cultivation process without any technical skill and knowledge. But now different training programmes are organised by Tea Board to educate them about the scientific tea cultivation. The small tea growers of Assam are mainly engaged in inorganic tea cultivation process and sell their green leaves either to large tea gardens or brought leaf factories (BLFs). Because of dominance of large tea estates and monopoly role of agents the small tea growers do not get fair price for their products. During season there is drastic fall in prices of tea leaves. Due to manifold problems and growing importance of organic tea both in domestic and international market some energetic entrepreneurs shifted from inorganic tea cultivation to organic tea/chemical free/natural cultivation process.

1.4 Statement of the problem

Tea industry of Assam produces around 52% of the total tea production of India. The tea industry in Assam also provides daily employment to more than 6.86 lakh persons in the state which is around 50 percent of the total average daily number of labors employed in the country (Economic Survey, Assam, 2013-2014.) Tea Industry of Assam consisting of around 765 tea estates provides about seven lakhs daily employment which is around 60 percent of total daily employment by this sector in the country (Economic Survey of Assam, 2022-23). Assam has witnessed sprout growth of small tea growers last three decades witnessing 1.22 lakhs small tea holdings accounting for 114.8 million kg. of tea up to August 2021. Most of the small tea growers are first generation young entrepreneurs adopting small tea cultivation as source of self-employment and also significantly transforming socio-economic life of rural Assam.

Small tea growers only produce the green tea leaves and supply it to tea garden factories and Bought leaf Factories (BLFs) for further conversion to made tea and final sale in the market. But presently only a few numbers small tea growers engaging in organic/natural/chemical free method of cultivation are engaged in production of made tea and also marketing and selling of tea in the market. Marketing problem is one of the chronic problems of small tea growers due to issues in unsatisfactory pricing, dominance of intermediaries in pricing, supply chain issue, lack of warehouse facility, transportation issue, location of tea factories, no ownership of tea factories, quality of tea leaves, demand and supply issue are few to mention. Due to such marketing challenges of small tea growers, they are lagging behind in bargaining of satisfactory price for their produces and unable to earn remunerative revenue form small tea cultivation.

Therefore, in order to address the marketing issues of small tea growers the present study is attempted to find out the market behavior of small tea growers and also the challenges in marketing of their produces. Furthermore, the study also examines the role of marketing in sustainability of small tea growers of Assam.

1.5 Literature Review

The literature review for the present study is conducted for marketing mixes of tea industry i.e., product, price, place, promotion, people, process and physical evidence-

Divekar, R. (2002) in their study "Marketing of Tea in India: Issues and Challenges" cited about primary and secondary (post auction) marketing systems of Indian tea industry. It is concluded that although changes have been taken place in marketing system, it need to be more efficient for sustainable long-term growth of the industry.

Salvador, V. & Katke, J. (2003) in their research paper "Market Opportunities and Challenges for Indian Organic Products" analyzed the potential for Indian organic products both in domestic and international market and attempted to formulate strategies for market access specially for small and medium sized farmers. In the study it was found that due to ago-climatic zones India has a comparative advantage on certain products viz., tea, spices, coffee, rice, wheat, vegetables, fruits, cotton etc. But this sector faces problems in organic certification process due to high cost, lengthy procedure, international validity etc. Again, lack of marketing leads to unsold stock of products.

Asopa (2007) in the paper titled "Tea Industry of India: The Cup that Cheers Have Tears" analyses about different competitors of Indian tea in the global market and addresses how to reposition the Indian tea in the global market. The researcher suggested that Indian tea industry needs to be competitive in production, marketing, logistics and product forms. India despite being a large producer of tea, it lacks properly organized production systems in which small tea producers find a respectable place. The author suggested that the tea industry needs to be completely restructured, and redefine the roles of various agencies like tea board and producers‟ Organizations, and develop a healthy partnership with the labor.

Bordoloi, P.K. (2012) "Global Tea Production and Export Trend with special reference to India" studied about both production and export trends of major tea producing countries. The destination-wise export pattern of Indian tea is presented considering the dwindling share of Indian tea in the global market along with export performance of other exporting countries. For both production and export, India has shown minimum variability. The percentage share of Indian export to European countries shows a decline, but is increasing in Asian and the Middle Eastern countries.

Aray, Nizara. (2013) "Growth and Development of Tea Industry of Assam" analyzed about performance, existing problems and government initiatives for the development of tea industry of Assam. The researcher also figures out that strengthening of STGs is very necessary because it contributes to a huge amount of tea production in Assam. Apart from its research revealed about bio tea i.e., organic tea which seek attention among small tea growers.

Array, Nizara. (2013) "Indian Tea Scenario" analyzed about export scenario of Indian tea and reasons for decline in quality of Indian tea. The industry has seen many structural changes over the last two decades (1990-2010). The price and quality also play an important role in determining export from a particular country. Since the demand for tea is very high within the country itself, this can be looked upon as one of the reasons for the slow growth of export from India. Growing domestic demand in India enhanced the relative profitability of domestic sales against exports. India is still the largest consumer of Black Tea in the world. The major factors responsible for poor performance of Indian tea industry are high cost of production, the old age of tea bushes, lack of infrastructure, high price, labor problem, inefficient Tea Board, high labor cost, etc.

Shah, S. K. (2013) "Prospects of Indian Tea Industry" revealed about the stagnant position in Indian tea exports due to competition from Kenya and Sri Lanka tea. The potential of domestic market should be utilized since India is the biggest consumer of tea. Apart from different problems of Indian tea industry the researcher points out different avenues for development of tea industry, alternative incomes for tea industry, promotion of tea tourism, avenues for organic tea in the international market etc.

Ganguli, Partha. (2014) "Small tea growers of Assam: Theories, Challenges and Practices of an Indigenous entrepreneurship" attempted to study about economic viability of tea cultivation on a small scale. The author also opined about new and thrifty strategies of tea cultivation, administration and marketing strategies developed by small tea entrepreneurs to face the challenges and optimum utilization of limited resources. It focuses on "Small Tea Growers (STG)" model which brought into use the new method of practices in management, marketing and tea culture in Assam. The concept brought structural changes in tea cultivation, fostering growth in the rural economy of the state. The study introduced not only a new model for tea cultivation but delivered a better livelihood for the rural people of the state. It is revealed that due to lack of resources and training the small tea growers fail to produce and export quality tea leaves. However, third generation small tea growers have started to adopt innovative practices of organic tea cultivation for an exclusive coterie of clientele and export.

Santra, S.P. (2014) "Implementation of Sustainability as a Strategy in Tea Industry for Saving on Social Cost and Maintaining Economic Viability: A case study of a Tea Garden in the District of Darjeeling, West Bengal" conducted research study with an objective to formulate strategy to save nature so as to be able to sustain and production of good quality organic tea. In the study it is found that due to adoption of organic farming production of green leaf, return on capital employed, sales are gradually increasing.

Goswami, A.K. & Goswami, M.K. (2014) "Tea Cultivation" mentioned that STGs are facing problems due to dominance of LTGs, monopoly role agents, increasing number of small tea growers, downgrading quality of tea leaves, lack of co-operation among STGs, increasing demand for organic tea, lack of own factories etc.

Goowalla, Dr. H. (2015) "A Study on The Problem and Prospects of Small Tea Growers in Assam: With Special Reference to Jorhat District" attempted to find out growth of tea industry of STGs, economic condition of STGs and marketing of STGs. In the study it is

found that only a few tea farmers have own land, avail bank loan and get market information. The tea farmers also not able to get subsidy scheme from Tea Board.

Seturi, M and Todua, T (2019) in the paper titled "The Role of Branding for Success in the Georgian Tea Market" studies the role of branding in order to promote Georgian tea brands. The findings of the study revealed that the majority of consumers prefer foreign tea brands. The survey also revealed that the majority of respondents (54%) prefer to drink foreign tea brands; while, 51% said foreign brands are distinguished with higher quality; 34% think that foreign tea brands are more pleasant to drink; and 14% think they are distinguished with a more attractive packaging. Only 1% of respondents think that on the stores shelves mostly foreign brands are located.

Raj, S. (2020) in his paper titled "Role of Market Intermediaries and Marketing Practices of Small Tea Growers in Assam" has attempted to understand the different channels only. The various actors involved in marketing of green tea leaf are producers (STGs), Self-help groups (SHGs), Commission agents and factories. Processors are one of the major actors in the tea value chain. They are either estate factories owned by corporate gardens or BLFs. As per Tea Board data in the year 2015, there are about 474 estate factories and 239 BLF in the state of Assam. There is no standard practice and specific pattern adopted by SHGs/STGs in marketing their produce in the study area.

Bien, N.C., Phuong, N and Cuc, N. (2018) in their paper titled "Developing Tea Market through Analyzing the Value Chain of Vietnam Tea Industry" has mentioned that in intense competition of the world tea market where the demand for this product is decreasing due to the global economic crisis, and the number of suppliers participating in the tea market is increasing and becoming more and more professional. The article shows that enhancing the value chain of tea industry is one of the factors promoting the development of the Vietnam tea market during the period of international integration.

According to Bhuyan et al. (1993) price is generally fixed through mutual agreement between the factories and the growers, or the commission agent and the growers. Despite this fact, the price is often not fair. Prices received by the growers are same for all the qualities of green leaves they offer for sale as there is no appropriate measure of grading the green leaves. In the absence of grading, sometimes disputes occur in price negotiation. At the end, price offered by the buyers (factories/commission agents) would stand as there was no

effective mechanism to decide the disputes impartially. As the small tea growers have no other alternatives than to sell their green leaves to the nearby factory or commission agent they are at the mercy of these buyers for the price of their produce. The problem is more severe in the lower size groups of farms than the higher size groups. Small quantity of the produce of the small farms puts limit on their bargaining power.

In the words of Bhuyan et al. (2004) price of green tea leaf, as fixed by the bought leaf factories or estate gardens was the major determinant of the economic viability of small tea gardens. The authors have identified that the grower's share in the price paid by the processing units depends upon the type of channel of sale that the grower has used. The difference between the prices paid by the processing unit and the price received by the small tea grower is directly related to the total marketing costs and total marketing margins. As the green tea leaf moves closer to the tea processing unit, the price per kilogram of green leaf increases in order to provide margins to the various intermediaries and to provide auxiliary services as well.

According to Bhuyan et al. (1993) due to perishable nature of the green leaves, the small tea growers are compelled to sell their produce immediately after plucking. This is because of the non-availability of marketing society, or the non-availability of transportation facilities. In their study it is mentioned that as the small tea growers are generally located in rural areas which either lack good roads or means of transportation, hence they generally use bullock carts, mini trucks and even bi-cycles to transport their green leaves to the nearby factory. From their study it is observed that small tea growers from higher farm sizes would consider it as a major problem in comparison to small size groups.

1.6 Objectives of the study

The objectives of the study are designed as-

1. To study the marketing strategies of small tea growers of the study area.
2. To identify marketing challenges faced by small tea growers in the study area.
3. To examine the role of marketing in sustainability of small tea growers in the study area.

1.7 Hypothesis of the study

The hypothesis for the study is formulated as-

H_0: The is no relationship between marketing and sustainability of small tea growers of Assam.

1.8 Research Methodology

The present piece of research is an attempt to reveal marketing aspect of small tea industry in Assam. The research method and procedures adopted for conducting the study are laid down and discussed under the following headlines-

Nature of research and purpose of the study

The present study is conducted in order to describe the characteristics of variables and analyses the relationships between the dependent and independent variables. Thus, the research is descriptive and analytical in nature.

Universe

The universe of the research is all small tea growers of Assam. As per the annual report 2020-21 of Tea Board of India, till 31st March 2021, the total number of identified small tea growers in India were 1,53,318 out of which 84,577 were located in Assam (which is the highest in numbers). The total numbers of identification cards issued to the growers were 10,7,361 out of which 67,825 numbers of cards were issued to the growers of Assam (Tea Board).

Sampling method and sample size

From the thirty-five (35) districts of Assam three districts (Tinsukia, Dibrugarh, and Jorhat) are selected for data collection since these three districts are witnessing highest number of small tea growers. The population is divided into two statra- one starta is for inorganic/conventional tea cultivators and another strata is for organic/natural/chemical free tea cultivators. The sample of small tea growers cultivating tea inorganically is selected on convenient sampling basis because of large population size and time constraint. The sample of small tea growers cultivating tea organically will select using snow ball sampling method because their census has not been done yet. A total of 157 sample will be selected for the study.

Sources of data

The data have been collected both from primary and secondary sources. Primary data has been collected by face-to-face interview with some of the selected samples and through

a well-designed questionnaire. The secondary data have been collected and compiled from Annual Reports of Tea Board, Tea Auction Centre, Tea Board Bulletins, Economic Survey Reports, Journals, Annual Reports, Research Papers, Statistical Hand Books of Assam and available related literatures.

Period of the study

The period of the study is 10 years i.e., from 2010 to 2020. All data relevant to this research have been compiled from appropriate sources.

Data analysis

The collected data is typed, coded and categorized in excel for the purpose of analysis and testing of hypotheses. Data is analyzed with the help of appropriate tools like descriptive statistics, Chi-Square Test, Crosstabulation etc. for better understanding and analysis.

1.9 Limitations of the study

The present study is prone to certain limitations. The study area is wide and the small tea growers are scatted in different parts of the study area. Additionally. The census of small tea growers is not done yet. Hence, it is difficult to access them. But the researcher made all possible effort to access and collect information from them. On the other hand, the inorganic number small tea growers are large in size. Moreover, the area of the study is limited to only Tinsukia, Dibrugarh and Jorhat district only. The reliability of primary data is based on responses of the respondents.

2.0 Chaptalization Plan

Chapter 1 (Introduction)

Chapter 2 (Marketing Scenario of Small Tea Growers)

Chapter 3 (Sustainability of Small Tea Growers)

Chapter 4 (Data Analysis and Interpretation)

Chapter 5 (Findings, Recommendations and Conclusion of the Study)

CHAPTER 2

MARKETING SCENARIO OF SMALL TEA GROWERS

In this chapter marketing scenario of small tea growers are discussed with the help of available secondary data. Marketing aspect of small tea growers are influenced by the factors differently for conventional small tea growers and organic/naturally cultivated small tea growers. Conventional small tea growers are influenced by the factors like quality and quantity of tea leaves produced, tea marketing channels, supply chain, tea factories, price determination for green tea leaves, means of transportation etc. Organic/naturally cultivated small tea growers influenced by the factors like quality and quantity of made tea produced, type of made tea, packaging, pricing, target market, supply chain, promotional strategy adopted for sale of made tea in the market etc. are few to mention. The first segment of this chapter discussed about market structure of small tea growers. Furthermore, marketing challenges of small tea growers are discussed in the second segment of this chapter.

2.1 Market structure of small tea growers

The market structure of tea industry consists of the stages like cultivation of green tea leaf, transportation of tea leaf to productions sites, processing of tea leaves into made tea, blending and packaging of made tea, distribution of made tea, finale sale of made tea in the market (Figure 2.1). Indian tea industry witness variations in market structure for large scale tea gardens/tea estates and small-scale tea producers. The large tea gardens mainly involve in cultivation of green tea leaves, processing, blending and packaging of green tea leaves. Some of the tea companies are engaging in whole process of market from the stage to production till finale sale. Such tea companies or large tea gardens performs cultivation of green tea leaves, processed it into made tea, blending and packaging, marketing and branding, distribution and finale sale to the target market. On the other the hand small tea growers are engaging in only cultivation of green tea leaves and transportation of green tea leaves to the tea factories. Remaining market activities are left either for big tea gardens or tea factories or tea marketing firms.

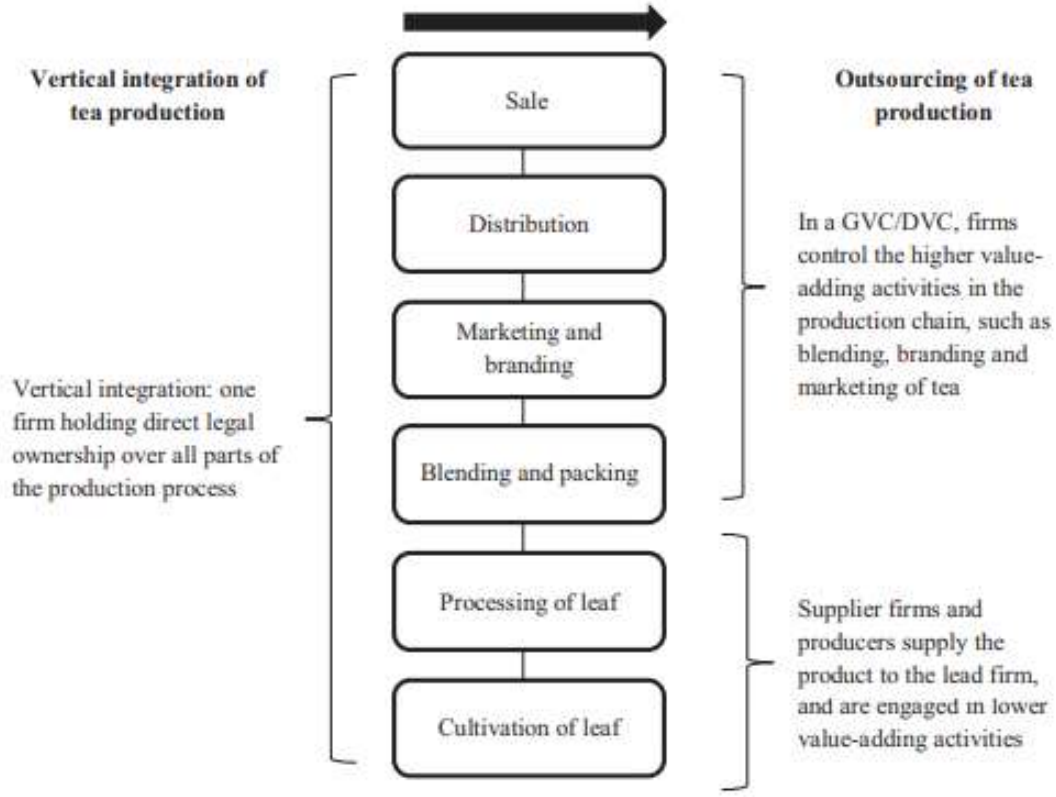
Figure 2.1: Stages in Market Structure of Indian Tea Industry

Source: Developed by Author

The figure 2.2 showcase the value chain structure of Indian Tea Industry. Value chain is the process or activities by which a company adds value to an article, including production, marketing, and the provision of after-sales service. Langford (2019) has identified two types of structure in value chain of Indian Tea industry. Some companies/firms are engaged in vertical integration of tea production. Such companies/firms are performing all the activities of value chain structure of tea production process i.e., cultivation and processing of green tea leaves, blending, packaging, branding, marketing, distribution and sale in the market. Further, there are many tea growers involved in cultivation and processing of green tea leaves only. The made tea are sold to third parties either through tea auction centers or directly to private parties for further value addition. Other marketing activities like packaging, branding, marketing, distribution and sale are outsourced to other tea marketing companies/firms. On the other hand, small tea growers are only engaged in conventional method of tea cultivation are involved in cultivation of green tea leaves only and does not contribute to further value addition. But small tea growers are engaging in natural/chemical free/organic method of tea

cultivation are involved in cultivation of tea leaves, processing, blending, packaging and sometimes distribution and sale of made tea in the market.

Figure 2.2: Value Chain Structure of Indian Tea Industry



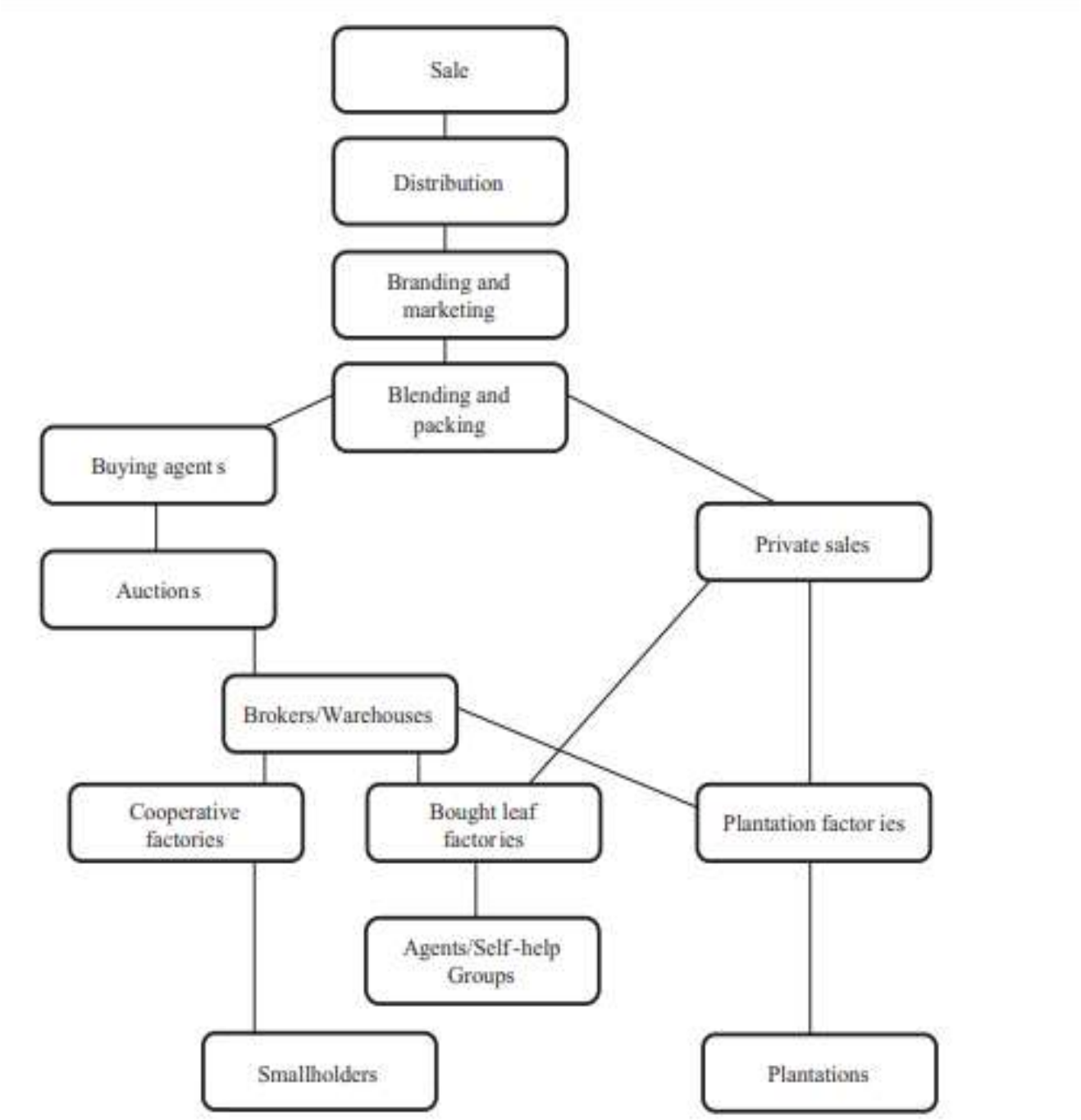
Source: Langford (2019)

The figure 2.3 showcased dual structure of Domestic Value Chain (DVC) of tea industry. The figure has explained about market structure of both small tea growers and large tea growers. Small tea grower sale the green tea leaves either to co-operative factories or tea agents or self- help groups or brought leaf factories or large tea garden factories. The green tea leaves are than processed into made tea and sale to the tea auction centers. The auction centers in turn sale the made teas to buying agents.

The large tea gardens/tea plantation estate processed the green tea leaves into made tea and sale it either to brokers or private parties. Brokers in turn sale it to the auction centers

for further sale it to the buying agents. The buying agents and private parties make further value additions of made tea like blending, packaging, branding, promotion and distribution of tea for sale in the market. Thus, small tea growers and large tea growers both contributes to the lower structure of the domestic value chain because their activities are limited to the cultivation and production of made tea only. Auction centers, brokers and intermediaries are in the middle of tea market structure as they connect the tea cultivators and buying agents (tea marketing firms/tea selling companies). The buying agents are upper part of the domestic value chain of tea industry as they make value additions in the form of blending, packaging and branding. Additionally, they are involved in promotion and distribution process for sale in the market.

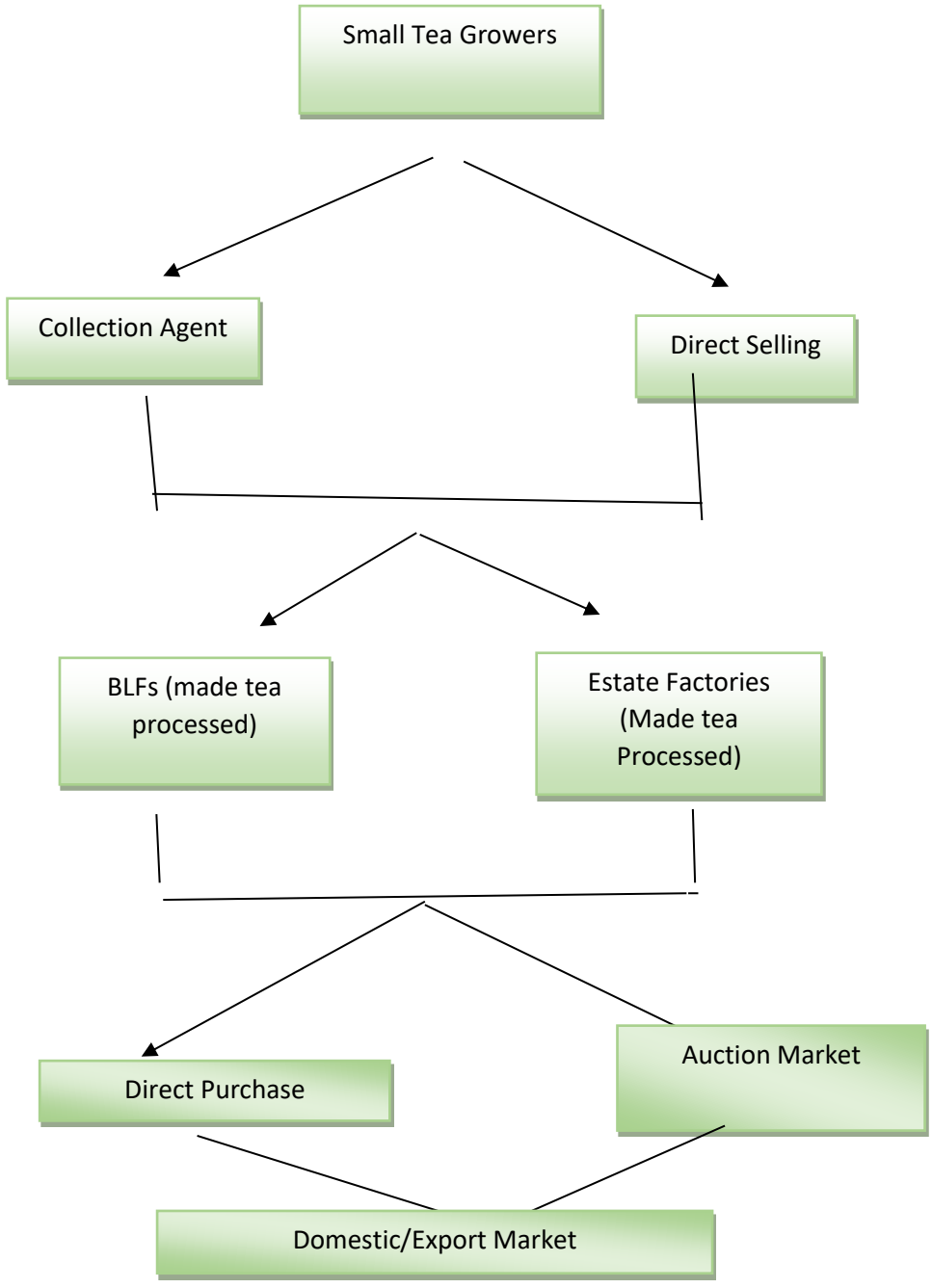
Figure 2.3: Dual Structure of the Domestic Value Chain



Source: Langford (2019)

The small tea growers of Assam suppliers the green tea leaves either to BLFs or estate factories through collecting agent and direct selling. The BLFs and estate factories processed the green tea leaves into made tea and sale it to tea buyers either directly or through tea auction centers.

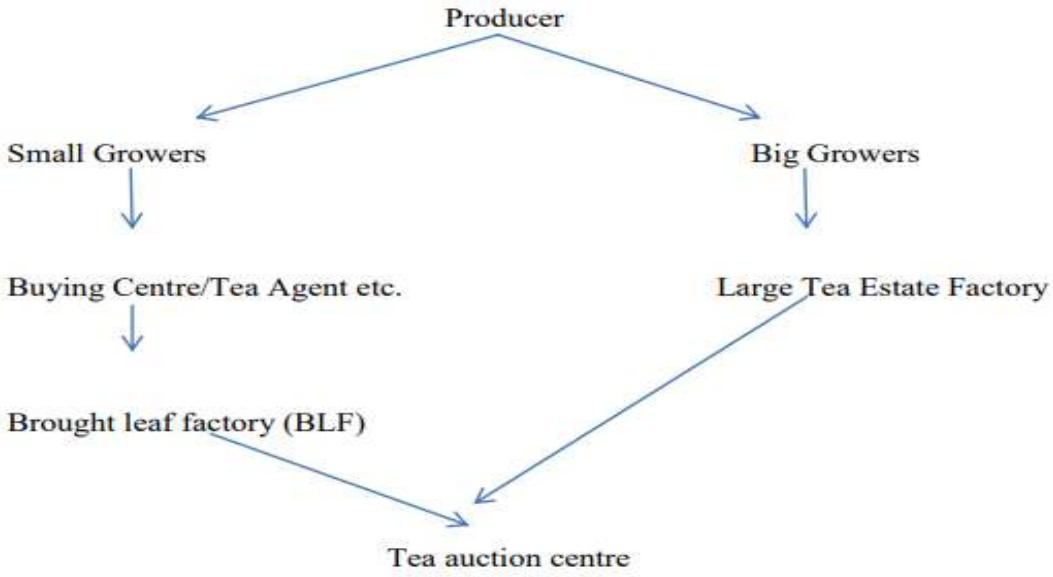
Figure 2.4: Trajectory of Small Tea Growers Green Leaf Supply of Assam



Source: Kakoty & Karintha (2021)

Tea marketing in India is divided as primary marketing and secondary marketing. The figure 2.5 showcased that the primary marketing consists of producers (small growers and big growers), buying centers, agents, bought leaf factories, estate factories and auction centers. The small tea growers sell their green tea leaves either directly to Bought Leaf Factories (BLFs)/estate factory or through buying centers or agents. The BLFs/estate factories sell the made tea through tea auction centers. On the other hand, big growers have their own estate factories where green tea leaves are processed for made tea which are sold through tea auction centers.

Fig 2.5: Primary Marketing Process in India



Source: Gogoi, U (2020)

The secondary market for tea in India is the Tea Auction Centers where auctions are presently conducted through electronic platform provided by Tea Board. There are seven recognized auction centers in the country viz. Kolkata, Siliguri, Guwahati, Jalpaiguri, Coonoor, Cochin & Coimbatore where public tea auctions are made. The stakeholders involved in the auction centers are auction organizers, producers of made tea (sellers), auctioneers/brokers, buyers and warehouses, all of them being registered stakeholders of the Tea Board. An auction system consists of three activities i.e., pre-auction activities, auction and post auction activities. In tea industry, marketing part is done by the auction buyers i.e.,

big tea companies like Hindustan Lever Ltd, Tata tea, Brook bond etc. These big companies have very few gardens of their own or most of them have not. Actual marketing of tea starts after auction. This process involves blending, packaging, advertising, wholesaling and retailing of tea (Hazarika, 2011). Among the various modes of disposal auction is most preferred mode for tea. In India, out of 800 million kg bulk packaged tea, 500 million kg (62.5 %) is sold through public auction annually (Das, 2009). The participants of auction system are auction organizers, seller or producers, brokers, buyers and warehouse keepers. Here producers send tea for auction. On arrival of this tea, it is stored at registered warehouses which in turn forward "arrival and weighment report" to the brokers concerned. This report contains details of the date of arrival, grade of tea and actual weights received by the warehouse. Once the tea has been catalogued, the brokers collect samples from each lot for distribution to the buyers. Brokers also draw samples for their own tasting and valuation of tea. These valuations are distributed among buyers and form a guide line for price levels at which the tea is expected to sell (Hazarika, 2011).

The stakeholders in value chain of small tea sector of Assam consist of small tea growers, green leaf collector, wholesaler, retailer and consumer (revealed in table 2.1). The small tea growers do not perform any role in value additions because their activities are limited to cultivation of tea leaves only. The value additions are mainly done by green leaf collector, processor, wholesaler and retailer. The green leaf collectors also known as tea agent/tea intermediary add value by transporting green tea leaves from the place of cultivation to the place of processors i.e., BLFs and estate factories for made tea production. Secondly, the processors made value additions by converting green tea leaves into made tea, packaging of made tea and sometimes labelling also. Thirdly, the wholesalers involved in blending of made tea into different flavors and packaging of the same for adding value to the made teas. Finally, the retailers are engaged in sorting, quality control, promotion and final sale to the target customers. Due to the absence in value additions of small tea growers, they are in a disadvantaged position for better revenue collection and remuneration. However, Collaborative efforts between tea processing units and small tea growers can lead to shared investments in advanced machinery and technologies, benefiting all stakeholders in the supply chain (Manjare & Goswami, 2023).

Table 2.1: Stakeholders in value chain of Small Tea Sector of Assam

Sl no	Actors	Role	Value additions
1	Small tea grower	Cultivation	---
2	Green leaf collector	Collection and transportation of green leaves from small tea growers and delivering to processing unit Sorting and quality control	Collecting green leaves and delivering to processors.
3	Processor	Payment for the collected leaves and processing into different types of tea. Processing quality control. Packing and labelling of final product	Converting green tea leaf to made tea, packaging, labelling.
4	Wholesaler	Purchases bulk made tea (processed tea) from different processors Blending of bulk tea into convenient packing and value addition	Blending and packaging.
5	Retailer	Customer relationship, sorting and advertisements of the product. Quality control and monitoring	Sorting and sale, promotion and quality control.
6	Consumer	Making decision to purchase tea	---

Source: (Das & Mishra, 2019)

2.2 Marketing challenges of Small Tea Growers

The tea growers of India perform limited marketing activities only. Big tea growers have limited their activities to cultivation of green tea leaves and production of made tea only. Small tea growers have also limited their activities to production of tea leaves only. Tea growers of India are facing challenges in marketing of tea in the form of product mix, pricing, market place and promotional strategies. Marketing constraints of small tea growers involves high price fluctuations, lack of adequate storage facilities, lack of adequate processing

facilities, lack of transportation facilities and defective and faulty weighing of green tea leaves (Das & Mishra, 2019). Another author Mohan, E (2016) mentioned that small Tea Growers are facing various problems in tea production like- scarcity of labors to work in the tea gardens, problems regarding the price of the tea leaves, problems created by middleman, economic problems, family problems, financial constraints, patta related problem and problem related to implementation of Government schemes are faced by Small Tea Growers. Further, unawareness about the advanced method of cultivation, ignorance regarding organic cultivation, lack of knowledge about tea garden management have also compiled their challenges. In this chapter, different marketing challenges faced by the small tea growers of India and also Assam are discussed with the help of available literature. Challenges related to product, price, place and promotion of tea are few areas of challenges faced by small tea growers are discussed in this chapter.

Product:

The product mix of small tea growers engaged in conventional method of tea cultivation are mainly green tea leaves. On the other hand, product mix of small tea growers who have adopted in organic/natural/chemical free method of tea cultivation are green tea, orthodox black tea, dheki tea and blended teas also. Most of the small tea growers are engaged in conventional method of tea cultivation and only few numbers of small tea growers of Assam are inclining towards the natural/ chemical free method of tea cultivation in recent years. The quality of green tea leaves of small tea growers depends on the factors like average rainfall, fertility of land, geographical location, time and techniques of plucking, tea leaf disease management etc. The processed tea finally comes out from manufacturing unit in the form of CTC (Crush, Tear, Curl), orthodox and different variants of blends. The production of processed tea is dependent on its sole raw material famously known as" Green Tea Leaves". The small tea growers' product market has taken the characteristics of monopsony when a handful of big companies has become a price fixer through control of secondary processing of blending and packaging (Dave, 2016). Lack of proper business plan, improper structure, and absence of bargaining power are representing as the main drawback of small tea growers of their product. The low quality of tea due to unscientific method of cultivation is also result for poor economic return. Production of high-quality leaves tends to high quality of made tea and also high return of price. Tea is such type of crop that it should be plunked in proper time and send to the factories within very short period. Conceptually the small tea growers should

pluck two leaves and a bud within 24 hours of every alternate of 6-7 days and the distance of factories technically should not exceed maximum 10-15 KM of plantation area. The small tea growers within the state use quality of inputs e.g. fertilizer, pesticides, etc. from global market with high cost and produce low quality of leaf e.g. one bud four or five leaves with every alternate 8-9 days as a result the size of clone increases and at the same time long distance damage maximum tea leaves which affect the quality of made tea also. (Konwar, 2022). Additionally, BLFs of Assam the bought leaf factories commonly opinioned that the small tea growers are producing law quality of leaf and hence their price is low. However, some technical factors are related with production of quality tea leaves i.e. plucking, training of workers, distance of factories and plantation area, use of fertilizer and soil test etc. Quality of green tea leaves in Assam is assessed per month through manual method and based on discretionary observation as the machinery for assessing the quality of green leaves is absent (Kakoty & Kaurinta, 2021). The productions constraint faced by small tea growers are mainly non availability of workers in peak plucking season, no- availability of inputs on time, unsuitability of certain soil, lack of technical knowledge about chemical use (Das & Mishra, 2019). Due to these reasons the quality of green tea leaves produced by the small tea growers suffers from quality deficiency. There are many instances that the small tea grower's sale their products to BLFs and estate factories at non-remunerative prices due to poor quality green tea leaves. Additionally, large number of small tea growers were dependent on natural precipitation for tea cultivation, and erratic rainfall might lead to low production of green tea leaves. Non-availability of inputs such as agrochemicals may be due to the fact that number of licensed agro-chemical suppliers was less as compared to number of small tea growers and suppliers were unable to fulfil the demand for agro-chemicals of small tea growers.

In most of the agricultural produces, value addition is done at the downstream; in the higher processing and retailing stages of supply chain (Das 2009). This is also true with tea. Value is added to tea leaves at each stage of processing. As tea is ready to drink item, the downstream stages such as blending, packaging and ultimate marketing are the most profitable one. And here all the profit margins are collected by the big companies (Baruah 2008).

Another author Lakshmi, M (2015) highlighted that the production risks involved in small tea growers are exorbitant cost of fertilizers and other inputs, high cost of production,

drought, destruction of farm by wild animals, insufficient knowledge in tea production and extension agents not providing any support were perceived to have greater production risks.

Inadequate storage facilities for small tea cultivator a significant reason for spoilage and deterioration of tea leaves during transit or storage which resulting in financial losses for the growers. Upgrading processing and storage infrastructure may ensure that small tea growers can preserve the freshness and quality of their tea leaves (Manjare & Goswami, 2023).

Price:

Pricing decision in "Tea Industry" has become a complex mechanism in present situation. The dynamics behind pricing of green leaf is interlinked to various factors ranging from farmers own decision as well as supply channels which connects the end product to the auction market and export markets. A micro level lens could trace out the price of tea as a phenomenon which depends on the interaction between the cultivators, estate owners, bought leaf factories or standalone factories and various stakeholders in different markets domestic as well as export market (Kakoty & Kaurinta, 2021). Further, fair pricing of STG's green leaves with Tea Monitoring and Control Order (TMCO), 2003 which is responsible for providing the business information transparent starting from tea growers to processing factories but in reality, it is suffered by low web. Tea Board of India's regional reporting is also inadequate where a number of small tea growers are out of sphere of influence on control. Due to this information asymmetry, the price performance of small tea growers is not optimal

Directorate of Economics and Statistics of Assam in their report on the Economic Activities of Small Tea Growers of Assam (2013) cited that as the small tea growers are unorganized, they have little bargaining power with the tea factories. Lack of market information, absence of proper storage facilities, transportation problem etc. are ultimately bring down the price of green leaf. Unregulated growth of this sector in Assam has given raise the problem of price fluctuation of green leaf in the market. Without going through the marketing and economic holding etc. many small tea growers started cultivation of tea in the remote areas of Assam without technical knowledge which ultimately leads to the uneven development of this sector.

Furthermore, small tea growers don not possess their own processing unit. Therefore, they sell their produce to big estate factories and Bought Leaf Factories (BLFs) being placed in

the situation of dependent subcontractors. Sometimes these tea factories simply return raw tea leaves, citing inferior quality or compel small tea growers to accept unremunerative prices. Therefore, they are bound to sale their produce at whatever prices, offered by the large tea garden factories and BLFs.

STGs are unable to influence the tea value chain beyond the production of green leaves. Growers experience great fluctuation in the price that they receive from bought leaf factories (BLF). For per kilogram of green leaf, the price ranges from Rs 22 to Rs 4 in West Bengal and Tamil Nadu, and from Rs 22 to Rs 7 in Assam (2015 season). No such variations were reported in the auction price during the year. Moreover, there is lack of transparency in the actual price realised since, among other things, under The Tea Marketing Control Order (TMCO) only 50 per cent of tea goes to auction. Tea Board of India (TBI) has announced a price-sharing formula that stipulates the share that BLFs must give to STGs from the price realized for processed tea at the auctions. TBI has also instructed the setting up of District Price Monitoring Committees to ensure implementation of the scheme. Nevertheless, STGs have not been experiencing transparent sharing of the realized price. Moreover, though at the retail level the value of per kg goes up 3 to 10 times or more, there is no mechanism for distribution of the price realized to farmers. (John, J 2016).

Smallholders occupy a weak bargaining position in the domestic value chain (DVC) relative to the larger plantation estates. This is due to the fact that the leaf must be processed within five to seven hours and yet the majority of growers do not have access to processing facilities (Kadavil, 2007). Instead, they must transport and sell the leaf to bought-leaf factories or estate factories within a short period of time. Intermediaries, known as agents, transport the leaf on behalf of smallholders who do not have access to a vehicle (ibid.). In such a context, smallholders are vulnerable to low returns on their product and to adverse incorporation into the market (Larsen, 2016). While the premium market for tea is growing, there is still a significant segment of the population which consumes low-grade tea. The perception of tea as an ‘everyday drink’ contributes to relative price inelasticity in the lower segments of the tea market (Tea Board of India, 2018).

Small tea growers pricing decision on green leaves on a strict price band decided by the cartel of BLF’s, collection agents and large tea estates factories. The present structure of STG’s does not have a stronger bargaining power due to its weaker organizational formation and at

the same time information asymmetry of pricing is intense. The wide gap on pricing decision between the buyer's (BLF's, estate factories, agents) and sellers (STGs for green leaves) makes any support price or regulatory price redundant. Though the district monitoring committee for minimum price is formed by the Tea Board of India, it has very weak control on green leaves price which has failed to provide realistic pricing for STG's. Additionally, the growing cost over the last decade from 2009-2019 has lowered the profitability of STG's which is accompanied by low working capital formation (Kakoty & Kaurinta, 2021). The continuous failure in gaining price can create a crisis in the small tea growing sector and in some places of Assam, small tea growers are in exit mode.

The elasticity of supply of tea leaves is less price elastic i.e., falling off price of tea leaves, the growers have no control to reduce its supply. At the same time, they do not have alternative to absorb their productivity instead of supplying bought leaf factories limits their bargaining power. Simultaneously some grower received advance money from the factory owners and some of them have no idea about cost and return of their product also encourages the falling of price and exploitation of factories and sometimes the middleman also compelled the growers to sell their product to them at low price (Konwar, 2022). The author also highlights that the bought leaf factories are out of their productive capacity in season period (June-July) and therefore they are offering fewer prices. Thus, it rightly to say that, under free market operation the price of green tea leaves should fixed on the basis of equality between demand and supply is unsuccessful.

Place:

Place in the small tea sector indicates the market or area where conventional small tea grower sale their cultivated green tea leaves. The place here is mainly bought leaf factories, large tea garden factories, tea intermediaries, self-help groups and co-operative societies, storage and warehousing facility. For organic/chemical free/naturally cultivated small tea growers market indicates the local, national and international market where they sell their finished goods i.e., made tea. Indian tea is mostly sold through the tea auction market of which almost 80 percent is placed in the internal market and the processed tea in Assam at a greater quantity is being auctioned through GTAC or Guwahati Tea Auction Centre (Kakoty & Kaurinta, 2021). The Indian tea has strong inclination for sale in the domestic market and only 10 percent of total tea grown in India is exported (Dhakre, 2015). The factors attributed to the place (market) of

conventional small tea growers are absence of self-owned tea processing units, limited number BLFs, distant location of BLFs and estate factories, wastage of green tea leaves due to far location of BLFs and estate factories, infrastructural constraint for transportation of tea leaves to the BLFs and estate factories, dominance of tea intermediaries/buying agents, limited government support and interventions are few to mention. Efficient processing and storage are critical for maintaining the quality of tea leaves and ensuring timely delivery to buyers. However, small tea growers often encounter challenges in accessing modern processing facilities and maintaining proper storage conditions (Sharma &Das, 2019). Inadequate infrastructure can result in inferior quality, leading to reduced demand and lower prices. Inadequate processing and storage facilities pose a considerable challenge for small tea growers. Access to modern and efficient processing units is limited, impacting the quality and value of their tea leaves (Sharma & Das, 2019). Moreover, inadequate storage facilities may lead to spoilage or deterioration of tea leaves during transit or storage, resulting in financial losses for the growers. Upgrading processing and storage infrastructure is essential for ensuring that small tea growers can preserve the freshness and quality of their tea leaves. Transportation bottlenecks pose another significant challenge for small tea growers, particularly those located in remote areas. Limited access to well-maintained transportation networks can lead to increased transportation costs and delays in delivering tea leaves to processing units or markets. Additionally, inadequate transportation can impact the freshness and quality of tea leaves during transit (Manjare & Goswami, 2023). Investments in transportation infrastructure and logistics planning will improve road networks and better access to transportation services, streamlining the movement of tea produce from the gardens to the markets.

Promotion:

Promotion is a marketing tool used to inform about the product/service by sellers/producers to consumers. Strategies used in promotion involves personal selling, sales promotion, advertising and branding. In India, the technical knowledge can be provided by the Tea Board, the actual work of brand building will have to be outsourced to the best professionals including advertising consultants, media planners, marketing communication advisors, communication and brand strategy experts for various promotional projects for both overseas and domestic markets having extensive international and national networking across all media partners. Main part of the campaign will be done through social media (Tea Board).

Further, Tea Borad's Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 has introduced market promotion scheme in order to raise awareness of the rich legacy of Indian tea in the overseas and domestic markets and facilitate various trade promotion and related activities, which in turn will help increase exports of Indian Tea in the International arena and consumption of tea in the domestic market Small tea growers engaging in conventional/inorganic method of tea cultivation does not go for any promotional strategies because their activities are limited to cultivation of green tea leaves and supply the same BLF/tea factories for further value addition. Whereas small tea growers engaging in organic/natural/chemical method of tea cultivation adopts limited promotional strategies for promotion of their final products (made tea). Since small tea growers have limited technical knowledge about marketing and promotion, they apply limited promotional strategies. Promotion through social networking platforms, word of mouth, websites, discount on bulk purchase, limited participation in trade fairs and exhibitions etc. are few steps adopted by the small tea growers. Trainings on tea cultivation, production, tea garden management, tea leaf disease control etc. are provided from time to time. But training/workshop conducted for development of marketing skill of small tea growers are either negligible or very limited in India. Moreover, land ownership issue, certification issue, disputes among members of co-operative society, financial constraint etc. creates hurdle in promotion of organic made tea produced by the small tea growers.

CHAPTER 3

SUSTAINABILITY OF SMALL TEA GROWER

The term sustainability is defined by different scholars from different dimension. Sustainability means meeting the needs of the present without compromising the ability of future generations to meet their own needs (United Nations Brundtland Commission). From agricultural dimension, sustainability in agriculture is expected to fulfill different goals, perhaps even conflicting ones, and do so for a long time, following the changing society demands and environmental conditions (Siebrecht, 2020). Sustainable agriculture practices have been adopted all over the world to fulfill current and future society needs without damaging natural nonrenewable resources. Sustainable agriculture should be environmentally friendly, economically sustainable, and socially responsible (Siddiqui and Pichtel, 2008). Sustainable agriculture strategies, also called Climate-Smart Agriculture (CSA), help secure food security and offer a multilevel approach among stakeholders from local to national levels in identifying agricultural strategies that suit local conditions (Mugambiwa, 2023). Sustainable agriculture is a concept rather than a specific methodology, which includes advancement in agricultural management practices and technology. Convention agriculture is facing either reduced production or increased cost or both. An ever-increasing amount of fertilizer and pesticide as well as energy requirement for tilling to aerate soil and increasing irrigation cost is a prime concern (Joshi & Singh, 2020). Sustainability mainly consists of three pillars- social, economic and environmental. In India tea industry comes under plantation sector involved in tea cultivation both on large scale and small-scale basis.

Tea industry of India is exposed to sustainability issue in long run due to climate change, old age tea garden, soil fertility degradation, poor quality production, scarcity of labor etc. The small tea sector of India is more exposed to sustainability challenges due to climate change issue, lack of organized association, soil degradation, limited skill of tea garden management,

no ownership of tea factory, land ownership, negligible marketing activities, financial constraint, conventional method of farming etc. are few to mention. Further, the low profitability of the small-scale tea growers has emerged as a serious threat to the sustainability of the tea sub-sector (Munasinghe et al., 2017; Das, 2019; Haq and Boz, 2020). It creates livelihood and existence challenges for small tea growers in future ahead. Since small tea growers limited their activity up to production only and marketing activity is shifted to intermediaries and tea garden factories, they unable to generate sufficient revenue. Non participation in marketing creates further challenges for sustainability in small tea segment. To promote sustainable tea landscapes, Forum for the Future have suggested that market mechanisms for a more robust value chain are a necessity. For smallholders, steps could be pursued to increase trading leverage within the industry. Lines (2006) has stated that a well-organized smallholder sector could make use of India's industrial expertise to process, package and market tea for export sales rather than relying on transnational corporation brands [to undertake this processing. Cutting out middle processing stages i.e., smallholders selling their produce to estate factories could greatly enhance value attained for crops to smallholdings. India's government regulating force on tea markets prices means that the international community within the tea value chain have a strong role to play in reforming livelihoods of growers, particularly given the regional pressures facing stakeholders from climate change. In this chapter sustainability of small tea growers are discussed from economic, social and environmental dimension.

3.1 Economic Sustainability

Historically, tea has played a vital role in the national economy, providing sectoral employment in remote and poor rural areas (Lines, 2006). The economic sustainability of small-scale tea industry encompasses growth in revenue generation, growth in price, quality and quantity of production, promising source of livelihood, better standard of living to the stakeholders, contribution to the GDP and also prospects for future economic development. Due to the economic prospects in small sale tea cultivation many rural unemployed youths of the state have driven into the small tea cultivation since last few decades. Gradually it has popularly grown as home-based industry for rural economy of the state with promising source of livelihood. As a labor-intensive industry, it provides direct and indirect employment of a large number of work-force of the state either on seasonal and permanent basis. Most of the youths have stated cultivation of tea on small

scale basis without gathering material information, proper research and development, without learning tea garden management, marketing knowledge and future planning which leads to vulnerability for such small-scale tea growers of the state despite of huge economic prospects. Economic vulnerability in terms of less remunerative price, decline in profit margin, deterioration of quality and production, excess supply, no control over pricing decision, non-participation in marketing, financial constraint etc. has compiled the challenges for economic sustainability for small tea industry of the state in the long run. If the issues related to pricing, marketing, productivity and revenue generation cannot be addressed with utmost care than survival of stakeholders of this sector is doubtful in the near future. By realizing these issues associated with them, the small tea growers of the state through their association raising voice to address pricing issue through MSP, adoption of natural/organic/chemical free tea cultivation method for quality production, formulation of favorable policy by government for financial and marketing assistance etc. Adoption of organic cultivation is likely to have a long-term social, economic, and environmental impact on the lives of the small-scale tea growers, and assisting the growers during organic conversion is necessary (Qiao et al., 2016; Doanh et al., 2018). Since contribution of small-scale tea sector is significant in total tea production of the country (51.44 per cent in the year 2021-22) the Tea Borad is also coming forward with favorable policy for small tea growers that will preserve long run sustainability of small-scale tea sector of the country. By realizing the contributions of small tea growers Tea Board is executing "Modalities and Scheme Guidelines of Tea Development and Promotion Scheme" with objective to improve the production, productivity, quality of the Indian teas in order to remain competitive in global markets, focus on the development of the small tea growers, their collectivization for moving up in value chain, value addition in teas for better price realization and share in export markets, explore the potential of tea grown in North Eastern States, focus in improving the per capita consumption of tea, improving tea exports from India to high value markets, encouraging research and development and other technological innovation to bring transparency in the entire supply chain as envisaged in the Tea Act, 1953. The Tea Board of India has finalized the modalities for implementation of subsidy/ financial incentives/ grant in aid under various components, clearly describing the eligibility

norms, unit costs, and extent of support for various categories of stakeholders of small tea industry sector.

i) Component- 1: Plantation Development for Small Tea Growers:

The objective of this component is to increase production, productivity and quality of tea, overall development of small tea growers to help them to move up in the value chain, sustainability of production by promoting organic tea cultivation& climate resilient tea and to make them self-reliant by setting up their own processing units. The following are the activities / sub-components that would be eligible under the scheme for Small Tea Growers (tea area owning up to 10.12 ha):

- Mechanization for individual small growers
- Assistance to Self Help Groups
- Assistance to Farmer Producer Organizations
- Annual Award
- Assistance for setting up of tea Factory by FPOs
- Assistance for setting up Mini Tea Factory
- Traceability and publication of news letters
- Workshop and training
- Strengthening of field offices
- Soil testing
- Organic certification
- Organic conversion
- Organic farm inputs
- Up gradation of skill of officials
- Contribution to NAFCC funded Climate Adaptation Project

Mechanization for individual small growers

The following are the equipment for which subsidy @ 25 % of actual cost would be considered subject to the ceiling limits:

Table3.1: Equipment and Scale of Assistance for Small-Scale Tea Cultivators

Sl no	Equipment	Ceiling limits	Other eligibility
1	Pruning machine	30,000.00	One (1) Machine for each / up to 5.00 ha of tea area
2	Mechanical harvester Single man harvester Double man harvester	25,000.00 40,000.00	For each / up to 10.00 ha of tea area
3	Power Sprayer	15,000.00	For each / up to 5.00 ha of tea area
4	Brush cutter	28,000.00	For each / up to 10.00 ha of tea area
5	Plucking shear	550.00	For each/ up to 0.40 Ha of tea area

Source: Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 (Tea Board)

Assistance to self-help groups formed by small-scale tea growers

The Self-Help Groups shall be informal bodies consisting of minimum 15 numbers without any restriction on minimum combined command area. The minimum numbers are for enabling formation of SHG where there are limitations in terms of contiguity of small growers' plantations. The following are the equipment for which actual cost would be considered subject to the ceiling limits:

Table 3.2: Equipment and Scale of Assistance for SHGs of Small-scale Tea Cultivators

Sl No	Item	Scale of assistance (Rs)	Other eligibility
1	Weighing scale	100 % of cost subject to ceiling limit of Rs. 4000 per scale	2 numbers per SHG
2	Plastic crate	Ceiling limit Rs. 400 per crate	1 Crate for each 20 Kgs of green leaf
3	Nylon bag	Ceiling limit Rs. 100 per nylon bag	1 bag for each 15 Kgs of green leaf
4	Pruning machine	Ceiling limit Rs. 30,000 per pruning machine	machine 1 Pruning machine for 10 ha of tea area
5	Mechanical harvester	Ceiling limit Rs. 40,000 per harvester (double man operating) & Rs.25000/- for single man operating	Double Man Harvesting Machine for each 10 ha of tea area and single handled harvesting machine for each 5.00 ha of tea area

6	Power sprayer	Ceiling limit Rs. 15,000 per power sprayer	1 for each 5.00 ha of tea command area
7	Brush cutter	Ceiling limit Rs. 28000	One (1) for each 10.00 ha of area
8	Plucking shear	Ceiling limit Rs. 550 per plucking shear	One (1) for each 0.40 ha of tea area

Source: Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 (Tea Board)

Assistance to farmer producer organizations (FPOs) / Farmer producer companies (FPCs)

Collectivizing the small tea growers, especially small and marginal farmers, into producer organizations and producer companies has emerged as one of the most effective pathways to address the many challenges faced by the small growers' sector and most importantly, improved access to investments, technology, inputs and markets. It is thus imperative for Tea Board to build a prosperous and sustainable small tea sector by promoting and supporting member-owned Producer Organizations and company that enable small tea growers to move to a higher plane through efficient, cost-effective and sustainable resource use and realize higher returns for their produce. The primary objective of federating the SHGs and moving them higher up the value chain through FPO formation is to enhance production, productivity, profitability of the small growers (in the participating SHGs) and quality of tea produced in various tea growing regions across the country. The Farmers Producers' Organization can be registered as a society/ cooperative society/ producer company or any other legal entity which provides for sharing of profits / benefits amongst the grower members. The SHG being an informal body, it shall have a compulsory stipulation of registering as a Farmers Producers organization under a legal provision on the inclusion of more than 20 members. The typical services that a FPO needs to provide include the various aspects of cultivation (field inputs, cultivation techniques and processing knowhow in factory) along with

helping them in getting market access. In addition, the FPO should allow the member SHGs (or the member small growers) to use the common infrastructure for transportation, weighing, processing, packaging, value addition, storage and any other logistics facilities which are essential in the tea value chain. Apart from that the FPO should also act as agents for knowledge dissemination about various aspects of tea cultivation, processing and marketing.

Table 3.3: Scale of Assistance to FPOs/FPCs

Sl no	Item	Scale of assistance	Other eligibility/ceiling
1	Revolving Corpus	Rs. 20,000 per Ha. Ceiling limit Rs. 5,00,000 per SHG/ FPO / FPC	One-time Revolving Corpus Fund is for purchase of inputs including fertilizers, PPFs, sticky traps and light traps.
2	Storage godown and office	Ceiling limit Rs. 1,00,000 per FPO	1 unit for each FPO
3	Leaf collection shed	100 % of cost subject to ceiling limit of Rs. 75,000 per shed	1 for every 1000 to 1500 Kgs of Green leaf handling (average of peak season)
4	Weighing scale	100 % of cost subject to ceiling limit of Rs. 4000 per scale	2 unit for each FPO

5	Plastic crate	Ceiling limit Rs. 400 per crate	1 Crate for each 20 Kgs of green leaf handled per day
6	Nylon bag	Ceiling limit Rs. 100 per nylon bag	1 bag for each 15 Kgs of green leaf handled per day
7	Pruning machine	Ceiling limit Rs. 30,000 per pruning machine	1 machine for 10 ha of tea command area
8	Mechanical harvester	Ceiling limit Rs. 40,000 per harvester (double man operating) & Rs.25000/- for single man operating	Double Man Harvesting Machine for each 10 ha of tea area and single handled harvesting machine for each 5.00 ha of tea area
9	Power sprayer	Ceiling limit Rs. 15,000 per power sprayer	1 for each 5.00 ha of tea command area
10	Leaf carriage vehicle – tractors/trailers/LCV	50% for leaf carriage vehicle with ceiling of Rs. 7,50,000 lakhs per vehicle the assistance will be 75 % in case of non-traditional area of North East, Idukki in Kerala, Nilgiris in Tamil Nadu and	1 leaf carriage vehicle for every 1500 Kgs of green leaf handled per day (average of peak months). The 2nd vehicle (if already granted in previous MTF period) will be granted only if the vehicle has completed minimum 7 years and is

		Kangra in Himachal Pradesh and Uttarakhand	condemned by the concerned department.
11	Computer & Printer	Ceiling limit Rs. 50,000 per computer and printer	1 set (computer & printer with peripherals) for each FPO
12	Soil testing kit	Rs. 90,000 per kit	1 Kit for each FPO with condition that FPO will hire or engage or trained any one member, a technical person for its handling
13	Plucking shear	Ceiling limit Rs. 550 per plucking shear	One (1) for each 0.40 ha of tea area
14	Brush cutter	Ceiling limit Rs. 28,000 per brush cutter the assistance will be Rs.30,000/- per unit in case of non-traditional area of North East, Idukki in Kerala, Nilgiris in Tamil Nadu and Kangra in Himachal Pradesh and Uttarakhand	One (1) for each 3.00 ha of tea command area

15	Cost of Registration	Ceiling limit of Rs. 25,000 per group	For registration / incorporation of the FPO / FPC

Source: Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 (Tea Board)

Annual awards

To encourage and recognize the best performing SHGs and FPOs, region wise annual awards in North East, North West including Himachal Pradesh and Uttarakhand, West Bengal and Bihar and South India will be considered. For Self Help Groups and FPOs, annual award will be given to the first, second and third in each region @ Rs. Rs. 1, 00,000, Rs. 50,000 and Rs. 30,000, respectively, yearly. Tea Board will carry out the assessment of the SHGs and FPOs and upload in to the portal for sanction of the award.

Table 3.4: Assistance for Setting up Mini Factory to SHGs and FPOs

Sl no	**Item**	**Scale of assistance**
1	Assistance for setting up of mini tea factory by Individual/Association of Small Tea Growers or farmers producer company	➢ 40% of cost with ceiling limit of Rs. 0.33crs /factory ➢ 50% in case of Non-traditional areas North East, Idukki (Kerala), Nilgiris, Tamil Nadu and Kangra in Himachal Pradesh and Uttarakhand with ceiling limit of Rs.0.33 Crores

Source: Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 (Tea Board)

Workshop and training

Small growers have significant skill-gaps and very large training needs which can't be catered to through a few centralized institutions. There is a need for undertaking more field-oriented training programs for the small growers, while making available a team of qualified/trained advisors to address their needs on a continuous basis. In addition to technical trainings, small growers and SHGs need to be provided extensive training on group formation, basic accounting and book keeping, office management, office automation, leadership skills, demonstration pruning, tea tasting, tea branding and packaging etc. through tie-ups with training through reputed institutes and resource persons. Hence, Tea Board has arranged under the scheme on campus and off campus / field training for small tea growers. On campus training will be carried out at TRA / UPASI-TRF / Agricultural Universities having Tea Science course/ IIPM facilities / Indian Institute of Packaging and other Government recognized training Institutes whereas field trainings and workshops will be conducted by Boards Officers and the services of resource persons including Officers from TRA/UPASI-TRF, Tea Garden Managers, Planters etc. will be availed. Additionally, Trainers' Training Programs for skill and knowledge up gradation of field trainers would also be conducted by bringing in industry experts and reputed institutes.

Table 3.5: Scale of Assistance for Training Workshop Conducted for Small Tea Growers

Activity	**Scale of Assistance (Rs.)**	**Other criteria/ceiling**
Workshop & Training	20000.00	➢ Includes the logistic as well as honorarium to the resource person ➢ Minimum number of beneficiaries shall not be less than 20 in each such program. ➢ Assistance may be increased on pro-rata basis if the number of beneficiaries is high

		➢ Beneficiary will be small tea growers/members of SHGs/FPOs ➢ The bills and voucher in original or the certified voucher (in case of remote areas) as submitted and certified by the Development Officer will be taken as cost/expenditure for payment ➢ Attendance sheet with the name of beneficiary together with their mobile number is to be obtained for each such program

Source: Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 (Tea Board)

ii) Component 2: Sector Specific Action Plan for NITI Forum for North East

The objective of the component is to collectivize the small tea growers of North Eastern Region, formation of SHGs, FPOs and FPCs, handholding them, providing training towards good manufacturing process, documentation in obtaining various certification etc., In order to promote the organic tea cultivation, financial & technical support shall be provided that will include the organic tea conversion to obtaining certification including organic farm inputs. In order to exploit the geographical importance of Assam & other North Eastern region, separate brand building and its promotion are provisioned in the scheme. Incentive to the exporters will be provided for those exporting the teas from ICD Amingaon to boost the export potential from North East region.

Table 3.6: Scale of Assistance for Small Tea Growers of North East

Sl no	Item	Scale of assistance (Rs)	Other eligibility and conditions
1	Registration and contribution to Corpus fund	➢ Rs 1.00 Lakhs for Registration subject to actual cost and	➢ Cluster of small tea growers shall be made

		➢ Rs 10.00 Lakhs for Contribution towards Corpus fund	who are willing to go for organic cultivation ➢ The amount will be parked in the bank account of the FPO/FPC/Co-operatives of which the Boards Officer will also be a signatory for withdrawing any amount ➢ The corpus of Rs. 10 lakhs will be a grant towards a corpus by the Board and this grant will on be given after the FPO/FPC is set up successfully ➢ Individual small tea growers who are cultivating organic tea shall be assisted to form FPO / FPC
2	Training, handholding, GAP management, documentation, for organic tea	Assistance will be @ Rs 0.25 lakhs per training /Programme	➢ In case of larger groups assistance would be in multiples of unit cost including honorarium and transport of resource person.
3	Ensuring Quality Check and Drawing &	Ceiling @Rs 20,000/- per sample including the cost of drawing the sample	➢ The sample would be drawn by the Board's officer from any tea manufacturing unit

	Testing of Tea Samples	(container, sealing instrument etc.,) and courier/transportation charge of the sample	➢ The sample will be sent for its analysis against FSSAI Parameters and other quality parameter in Board's approved laboratory or any other NABL approved laboratory only ➢ The samples will be drawn as per the procedure laid down under Tea Act and TMCO, 2003
4	Value addition by organic tea factories (Colour sorter Modern Blending and Packaging Machine)	50% of the Unit Cost with ceiling limit of Rs.100.00 Lakhs + GST or any other applicable tax including the cost of packing, transportation, transit Insurance and the cost of installation and commissioning of the machine but does not include the civil work for creating additional space for accommodating the machineries	➢ Only registered Organic Tea Manufacturing Unit is eligible (Estate factory/Bought leaf tea factory/Mini factory) ➢ Standalone 100% Organic tea packaging unit is also eligible for installing Modern Packaging & blending unit subject the unit has got Organic Certification from the Tea Board approved certifying agency or APEDA ➢ The equipment to be imported under the Export Promotion Capital Goods Import (EPCG)

			scheme will not be considered ➢ The procurement and installation of the machinery will have to be completed within six months from the date of submission of application. However, relaxation may be given for the items to be imported where the Order is placed within 30 days of the submission of application but is delay in transition cum installation but it shall not be relaxed for more than 30 days on and above the expiry of six months from the date of submission of application. ➢ Procurement of Old Machine is not permitted under the scheme component
5	Setting up organic factories (mini) by small tea growers	➢ 40% of cost with ceiling limit of Rs. 0.33crs /factory ➢ 50% in case of Non-traditional areas of North East with	➢ Must obtained Certificate from Licensing/Registering Authority Department for filing application for claiming subsidy

		ceiling limit of Rs.0.33 Crs/factory whichever is lower.	➢ Must have the copy of Organic Certification to the tea plantation/estate/small tea growers from where the leaves are sourced Subsidy will be paid subject to availability of funds.
6	Organic Certification	➢ 50% of the cost of certification or the renewals of certificate	➢ Maximum ceiling limit Rs.2.00 Lakhs per certification ➢ Financial assistance will be given for the certification cost only including fresh certificate and for renewals of certificate. Certificate has to be obtained from only such accredited certification agencies that are empaneled with Tea Board/APEDA under National Program for Organic Production (NPOP) ➢ The cost is inclusive of the cost of certification only
7	Organic conversion - for small tea grower	➢ Post 1st year conversion: Rs. 50,000 per ha	➢ Financial assistance will be extended for conversion of existing

	sector/FPO/FPC only	➢ Post 2nd year conversion: Rs. 50,000 per ha ➢ Post 3rd year conversion: Rs. 1,00,000 per ha	conventional tea plantations to organic tea plantations to a maximum extent of 5 ha. ➢ Only accredited certification agencies that are empaneled with Tea Board/APEDA under National Program for Organic Production (NPOP) will be considered ➢ The 1st, 2nd and 3rd year conversion assistance will be paid either in continuity or independently
8	Incentive to Exporter for the teas exported/shipped through ICD, Amingaon	➢ @ Rs.2/Kgs of teas exported/shipped through ICD, Amingaon, Assam	➢ The Big Growers/small tea growers/estate factory/BLF/Co-operative factory/ FPO/FPC who have obtained Exporter License from Tea Board are also eligible. ➢ The claim shall be restricted to teas of Indian Origin only ➢ Tea exported in all form packed/value added/bulk etc., are eligible

Brand building of tea produced in NER

There is very little value addition or brand building at the manufacturers' level for tea that is sold in domestic and export markets. It is essential that generic promotion of tea from the North East as a whole and very focused promotion highlighting these different types of teas to be undertaken. This is because the teas from the North East are highly sought after by discerning consumers from India and abroad. While the technical knowledge can be provided by the Tea Board, the actual work of brand building will have to be outsourced to the best professionals including advertising consultants, media planners, marketing communication advisors, communication and brand strategy experts for various promotional projects for both overseas and domestic markets having extensive international and national networking across all media partners. Main part of the campaign will be done through social media.

Table 3.7: Assistance for Brand Building of Tea Produced in NER

Activity	Scale of Assistance	Other criteria/conditions
Brand Building of Tea Produced in North Eastern Region	Outsource Agency-Through Selection based on actuals upon approved of the Competent Authority	The terms and conditions are as per the tender document floated for selection of Agency for undertaking Brand Promotion activity for North East Region.

Source: Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 (Tea Board)

3.2 Environmental sustainability

The climate change is also hampering the productivity and quality of green tea leaves of the state like other plantation sector of the economy. Variations in rainfall, excessive warm weather, increase in pollution in the state causes decline in production in some parts of the state and quality variations also. Further, excessive warm weather creates hurdles for small tea sector by reducing freshness of green tea leaves within very short period even before transportation and wastage of green tea leaves during transportation also. Adaptation of conventional/traditional (inorganic) method of tea cultivation by

majority of the small-scale tea growers of the state causes decline in soil fertility, soil pollution, air pollution and water pollution of the tea growing areas due to use of chemical fertilizers, spraying of chemicals for increasing production and cleaning of tea garden. All these activities bring environmental threat to the nearby areas of tea growing regions and negatively effect on other local agricultural practices like crop cultivation, horticulture cultivation, poultry farming, dairy farming, fish cultivation etc. Additionally, lack of awareness among the small-scale tea growers of the state also leads to mal-management and mal-adaptation of tea cultivation practices by them. All these environmental issues raise the concern for sustainability issue for the small-scale tea sector and also other agricultural practices of tea growing areas of the state. By realizing this environmental threat, a handful of environmentally concern small tea growers are taking initiatives for organic/natural/chemical free small tea cultivation practices either by establishing a new environment friendly tea garden or by converting their old conventional/inorganic tea garden to organic/natural/chemical free tea garden. Tea Board of India, Tea Research Association (TRA) and Tea Husbandry Department, Assam Agricultural University (AAU) formulates and advices some practices to address issues of mal-management and mal-adaptation by smallholders who have lower environmental awareness due to reduced access to knowledge. Such institutions are also conducting training and capacity building programs on pest management, soil management, vermicompost and herbicides handling, disease control of green tea leaf quality plucking, Multi cropping of tea garden ensures crop diversity and shade trees for tea, natural control measures for pests and diseases, organic/natural/chemical free tea cultivation methods, and mulching for better water management reduces soil temperature, conserves moisture and controls runoff. Tea Board Annual Report (2021-22) has revealed that the Board is imparting training to the small tea growers on good agricultural practices, good manufacturing practices, organic tea and following the protocol of Plant Protection Code. Such measures will maintain sustainability of small tea growers of the state in future ahead by adopting and mitigating the climate change measures. A basic web spatial Climate Advisory Tool (Tea CAT) was developed in collaboration between TRA and the University of Southampton to disseminate research findings to farmers. This research adopted the concepts of Climate-Smart Agriculture (CSA), which has been effectively used to improve food security and rural livelihoods, increase agricultural productivity,

facilitate climate change adaptation and provide mitigation benefits, for other crops worldwide (Scherr et al., 2012).

Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 is initiating for assistance schemes for small scale tea growers for development of soil through soil testing, organic conversion and organic certification. As mentioned in the scheme, the improvement of soil quality is critical to sustaining tea productivity and maintaining the soil health. Soil quality is the capacity to function effectively at present and in future use. Soil quality cannot be measured directly; it must be inferred from a wide range of soil quality properties (physical, chemical and biological) that influence the capacity of soil to perform effectively. Additionally, financial assistance will be given for the certification cost only including fresh certificate and for renewals of certificate. Financial assistance will be extended for conversion of existing conventional tea plantations to organic tea plantations to a maximum extent of 5 ha.

Table 3.8 Scale of Assistance to Small Scale Tea Growers for Soil Testing and Organic Certification

Sl no	Activity	Scale of Assistance (Rs.)	Other criteria/ceiling
1	Soil Testing through approved laboratory	Rs. 261/- or the actual per soil sample (not exceeding Rs. 261) + GST	➢ Maximum two samples from each field (continuous area of 1.00 ha) comprising of top soil and sub soil as per the random method prescribed by TRA/UPASI or other Tea Research Institute may be considered. ➢ SHGs/FPOs may also collect sample with the details and send to Tea Board approved soil

			testing laboratory through Board's nearest field office. ➢ The soil analysis will be done for its physical texture and minimum chemical parameters viz., Ph, Organic Carbon content, N, P and K within the scale of assistance, however, for any additional parameter the applicant will have to bear the cost on and above the Board's assistance. Cost of dispatch of samples will be met out of scheme funds, wherever necessary. ➢ List of Tea Board approved laboratory is available in portal/website. In addition, the small growers would be able to get soil samples tested at any Government approved / Government laboratory
2	Organic Certification	50% of the cost of certification or the renewals of certificate	➢ Maximum ceiling limit Rs.2.00 Lakhs per certification. ➢ Financial assistance will be given for the certification cost only including fresh certificate and for renewals of certificate. Certificate has to be obtained from only such accredited certification agencies that are

			empaneled with Tea Board/APEDA under National Program for Organic Production (NPOP). ➢ The cost is inclusive of the cost of certification only.
3	Organic Conversion	➢ Post 1st year conversion: Rs. 50,000 ➢ per ha Post 2nd year conversion: Rs. 50,000 per ha ➢ Post 3rd year conversion: Rs. 1,00,000 per ha	➢ Financial assistance will be extended for conversion of existing conventional tea plantations to organic tea plantations to a maximum extent of 5 ha. ➢ Only accredited certification agencies that are empaneled with Tea Board/APEDA under National Program for Organic Production (NPOP) will be considered. ➢ The 1ts, 2nd and 3rd year conversion assistance will be paid either in continuity or independently

Source: Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 (Tea Board)

3.3 Social sustainability

Social sustainability of small-scale tea growers can be attained through upliftment of their social status, accessibility to facilities like health, education, sanitation etc. for development of human capital. Social sustainability of small-scale tea industry can be attained though long run survival and development of stakeholders such as small-scale tea cultivators and their family, tea garden workers, tea intermediaries, tea consumers,

owners of BLFs and mini tea factories, vendors of fertilizers, equipment suppliers etc. Economic and environmental sustainability ultimately clears the road for social sustainability by sustaining the revenue, productivity, quality, soil, air and water. Less remunerative price, increased cost of production, decline in productivity and quality, soil degradation, lack of labor force during peak season, are few to mention factors that raises concern for social sustainability to stakeholders of small tea industry of the state. Huq and Reid, 2007 has stated that community-based adaptation measures are important to reduce climate change vulnerability and improve the adaptive capacity of tea worker households and communities through sectoral institutional support for long-term socio-environmental sustainability e.g. managing water supplies, income generation and landscape conservation. The Tea Boad has stated that there are more than 2.10 lakhs small tea growers throughout India with tea area approx. 2.15 lakhs ha. sharing almost 50% of the total tea production. Unlike, the workers of the tea garden that accounts for around 1.16 million of the total work forces in tea garden and are protected with various statutory Act and Laws viz., Plantation Labor Act, on the other hand the small tea growers generally works on their own plantation together with their family members and were devoid of all such facility provided to the tea garden workers. In order to address the sustainability issue of small tea growers and workers Tea Board is initiating some welfare measures under Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 for securing better educational facilities and improvement of amenities and incentives for encouraging education for the wards of the small tea growers (STG) up to holding 2.00 ha. area under tea plantation **(**highlighted in table 3.9).

Table 3.9: Welfare of Workers, Small Tea Growers and Their Wards

Sl no	**Activity**	**Scale of Assistance (Rs.)**
1	Education Stipend	Reimbursement of tuitionfeesand2/3rd of the hostel charges (including boarding and lodging) are paid on the basis of actual subject to ceiling limit up to Rs.20000.00

2	Award for meritorious students Class- X	One time lumpsum grant @Rs. 8,000/- to the eligible wards of the growers.
3	Award for meritorious students Class- XII	students Class- XII onetimelumpsumgrant@Rs.10,000/- to the eligible wards of the growers.

Source: Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 (Tea Board)

The table 3.10 further highlights about the welfare initiatives of the scheme available for small tea growers belonging to scheduled caste and scheduled tribes.

Table 3.10: Welfare of Workers, Small Tea Growers and Their Wards

Sl no	**Activity**	**Relaxation to Scheduled Caste & Scheduled Tribe Growers**
1	Education Stipend	i. Children/dependent ward of SC/ST small tea growers holding up to 4.00ha. area under tea plantation are also eligible for the Award. ii. Stipend is granted to a student even if he/she is detained in a class.
2	Award for meritorious students Class X	i. Children/dependent ward of SC/ST small tea growers holding up to 4.00ha. area under tea plantation, are also eligible for the Award. ii. The percentage of marks eligible shall be 50% for consideration of award.

3	Award for meritorious students Class XII	i. Children/dependent ward of SC/ST small tea growers holding up to 4.00 ha. area under tea plantation, are also eligible for the Award. ii. The percentage of marks eligible shall be 50% for consideration of award.

Source: Modalities and Scheme Guidelines of Tea Development and Promotion Scheme 2021-2026 (Tea Board)

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

The observations made during the study have been appropriately analyzed and interpreted in this chapter. Characteristics of variables of the study are analyzed with the help of descriptive statistics and relationship between the variables are analyzed with the help of inferential statistics. The survey is conducted from August to October, 2023 among the small tea growers of the study area. A total 157 respondent's views have been incorporated in the analysis.

4.1 Demographic Profile of the respondents

The demographic profile of the respondent consists of age distribution of the small tea garden, area of small tea garden, nature of ownership of small tea garden, nature of tea cultivation, nature of livelihood from small tea cultivation, nature of land of small tea garden etc.

4.1.1: Age distribution of the small tea garden

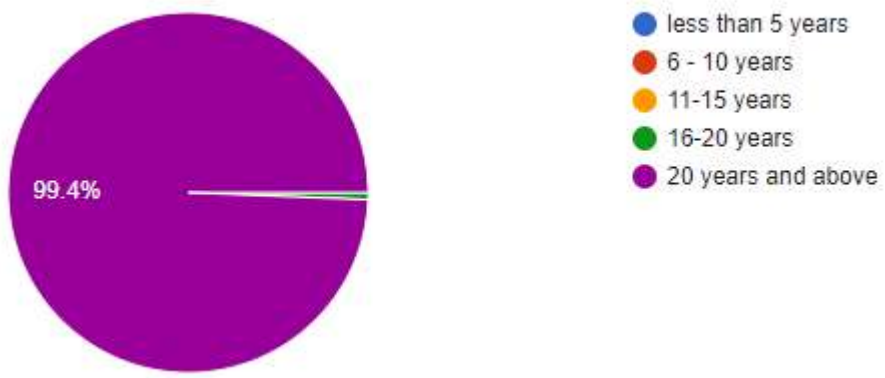
Table 4.1.1 showed the age distribution of the respondents. The mean age of the respondent's small tea garden is 4.99363 whereas median age and mode is 5 (20 years and above age is coded as 5 in excel). Thus, most of the small tea garden is more than 20 years old. Median age of the small tea garden of the respondents is also more than 20 years. The skewness is -12.53 which indicates that the distribution is negatively skewed and majority of small tea gardens are more than 20 years old. The figure 4.1.1 also showcased that 99.4 per cent of the total small tea garden are more than 20 years of age.

Table 4.1.1: Age Distribution of Small Tea Garden

Mean	4.99363
Standard Error	0.00637
Median	5
Mode	5
Standard Deviation	0.07981
Sample Variance	0.00637
Kurtosis	157
Skewness	-12.53
Range	1
Minimum	4
Maximum	5
Sum	784
Count	157
Largest (1)	5
Smallest (1)	4

Source: Primary data

Figure 4.1.1: Age Distribution of Small Tea Garden



Source: Primary data

4.1.2: Tea cultivation area of by respondents

Table 4.1.2(a) and 4.1.2(b) revealed about the area of tea cultivation of the respondents. As mentioned in table 4.1.2(a), the mean value is 2.815 which means average area of tea cultivation by respondents are 7-10 bigha, median value is 3 and mode value is also 3 which implies that highest number of respondents are engaged in tea cultivation of more than 10 bigha of land (7-10 bigha of land is coded as 3 in excel). Further revealed in table 4.1.2(b), 108 numbers of respondents which is 69.23 percent of total respondents are engaged in 7-10 bighas of tea cultivation.

Table 4.1.2 (a): Tea Cultivation Area by Respondents

Particulars	Value
Mean	2.815286624
Standard Error	0.061169969
Median	3
Mode	3
Standard Deviation	0.766457519
Sample Variance	0.587457129
Kurtosis	1.109984397
Skewness	1.055971453
Range	3
Minimum	1
Maximum	4
Sum	442
Count	157

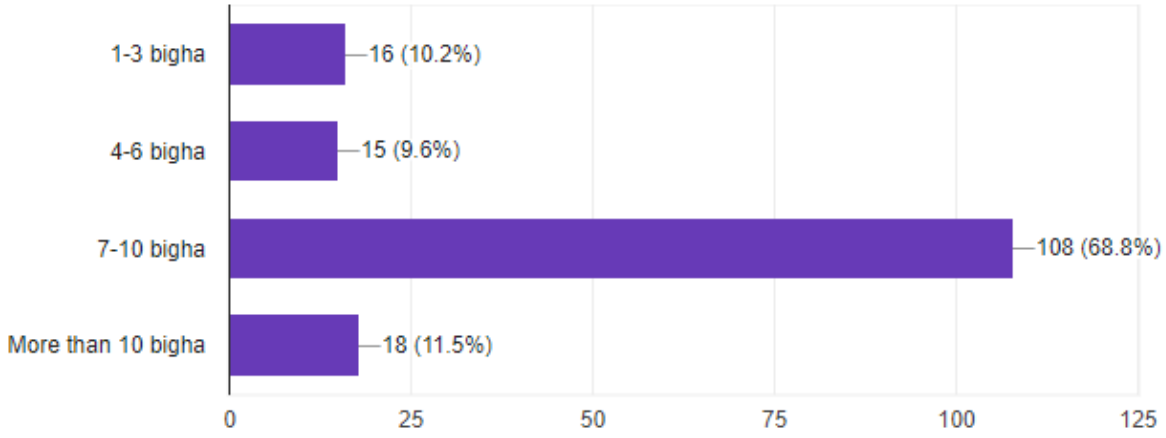
Source: Primary data

Table 4.1.2 (b): Tea Cultivation Area of By Respondent (Frequency Table)

Bin	Frequency	Cumulative %	Bin	Frequency	Cumulative %
1	16	10.26%	3	108	69.23%
1.25	0	10.26%	More	17	80.13%
1.5	0	10.26%	1	16	90.38%
1.75	0	10.26%	2	15	100.00%
2	15	19.87%	1.25	0	100.00%
2.25	0	19.87%	1.5	0	100.00%
2.5	0	19.87%	1.75	0	100.00%
2.75	0	19.87%	2.25	0	100.00%
3	108	89.10%	2.5	0	100.00%
3.25	0	89.10%	2.75	0	100.00%
3.5	0	89.10%	3.25	0	100.00%
3.75	0	89.10%	3.5	0	100.00%
More	17	100.00%	3.75	0	100.00%

Source: Primary data

Figure 4.1.2: Tea Cultivation Area of By Respondents



Source: Primary data

4.1.3: Nature of Ownership of Small Tea Garden by respondents

The respondents in the study area self-owned their small tea gardens. The table 4.1.3 (a) highlights that mean value, median and mode value is 1 which implies that majority of the respondents solely owned the small tea gardens (sole ownership coded as 1 in excel). It is also revealed from table 4.1.3 (b) and figure 4.1.3 that 100 per cent respondents in the study area are owned their small their small tea gardens on sole basis.

Table 4.1.3 (a): Nature of Ownership of Small Tea Garden by Respondents

Mean	1
Standard Error	0
Median	1
Mode	1
Standard Deviation	0
Sample Variance	0
Range	0
Minimum	1
Maximum	1
Sum	157
Count	157

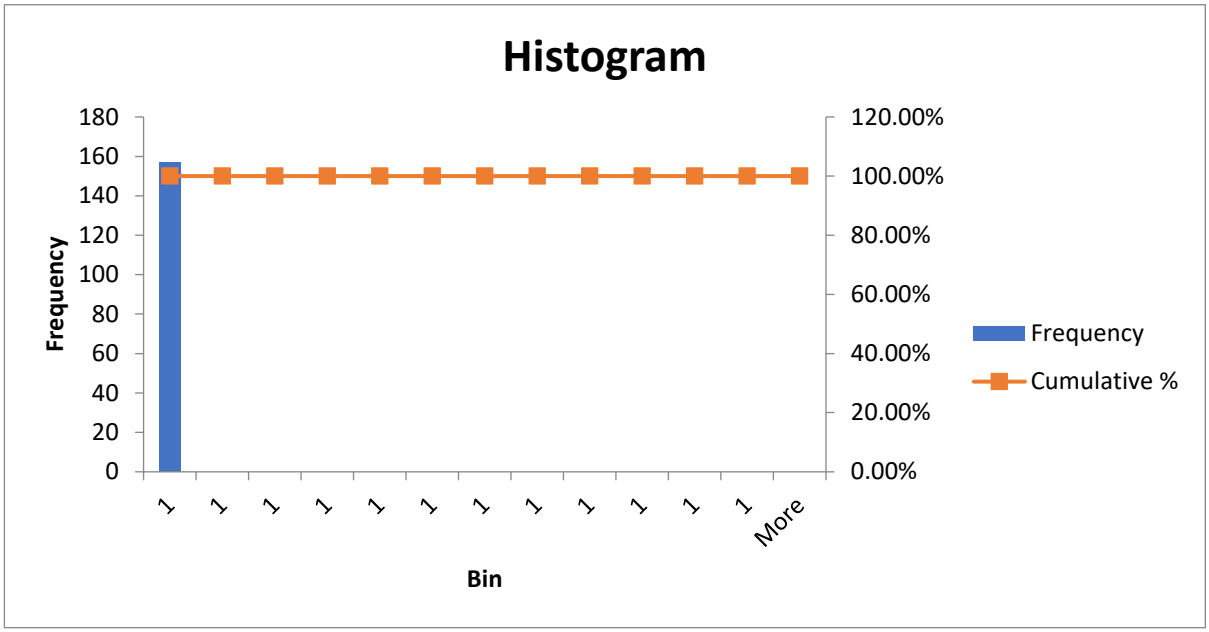
Source: Primary data

Table 4.1.3 (b): Nature of Ownership of Small Tea Garden by Respondents (Frequency table)

Bin	Frequency	Cumulative %	Bin	Frequency	Cumulative %
1	157	100.00%	1	157	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
1	0	100.00%	1	0	100.00%
More	0	100.00%	More	0	100.00%

Source: Primary data

Figure 4.1.3: Nature of Ownership of Small Tea Garden by Respondents



Source: Primary data

4.1.4 Nature of tea cultivation by respondents

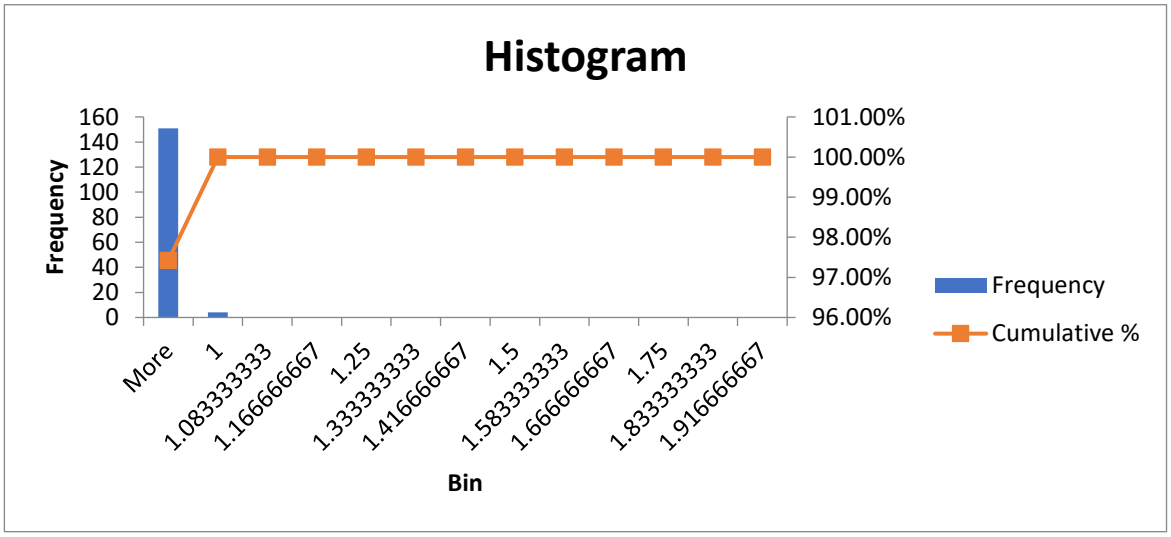
The small tea growers mainly involve in tea cultivation of inorganic method/traditional method and natural/chemical free/organic method of tea cultivation. Table 4.1.4 and figure 4.1.4 highlights about engagement of respondents in small tea cultivation adopting either conventional/inorganic method of tea cultivation or organic/natural/chemical free method of tea cultivation. The table 4.1.4 reveals that mean value is 1.97. Median and mean value is 2 which indicates that majority of respondents are engaged in conventional/inorganic method of tea cultivation (inorganic method of tea cultivation is coded as 2 in excel). Additionally, histogram [figure 4.1.4 (b)] and bar diagram [figure 4.1.4(a)] showcased that 97.4 per cent of the respondents in the study area are engaged in conventional/inorganic method of tea cultivation in small scale basis whereas 2.6 per cent of total respondents are engaged in organic/chemical free/natural method of tea cultivation.

Table 4.1.4: Nature Of Tea Cultivation by the Respondents

Mean	1.974194
Standard Error	0.012777
Median	2
Mode	2
Standard Deviation	0.159071
Sample Variance	0.025304
Kurtosis	34.93165
Skewness	-6.03995
Range	1
Minimum	1
Maximum	2
Sum	306
Count	155
Confidence Level (95.0%)	0.025241

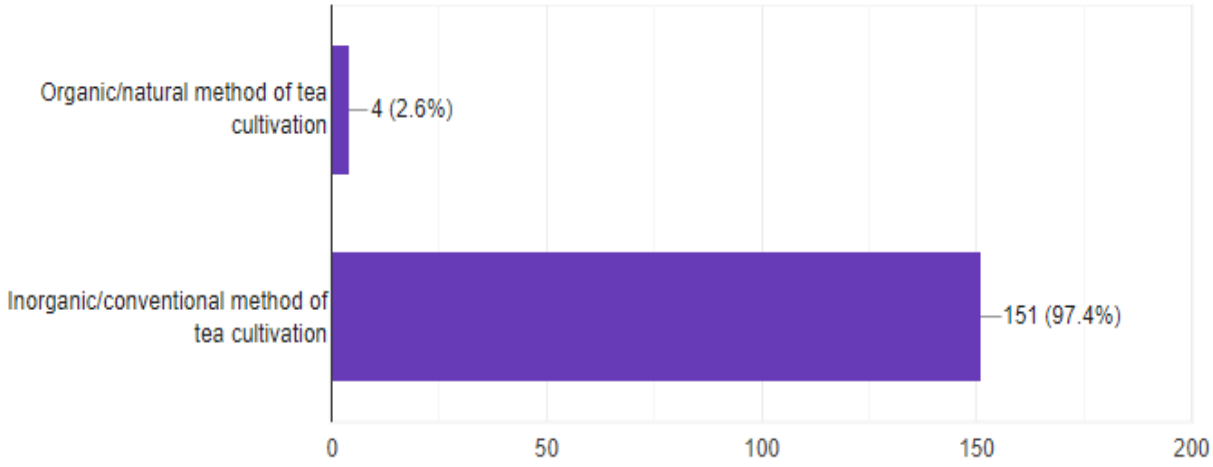
Source: Primary data

Figure 4.1.4 (a): Nature of Tea Cultivation Adopted by the Respondents



Source: Primary data

Figure 4.1.4.(b): Nature of Tea Cultivation Adopted by the Respondents



Source: Primary data

4.1.5 Nature of livelihood from small tea cultivation

Small tea cultivation become one of the promising sources of livelihood for rural unemployed youths of Assam. They recognized small tea farming as permanent and sometimes temporary source of livelihood. At least one of the family labors and sometimes all adult family labor is engaged in their farm either on permanent or seasonal basis. The table 4.1.5 reveals that

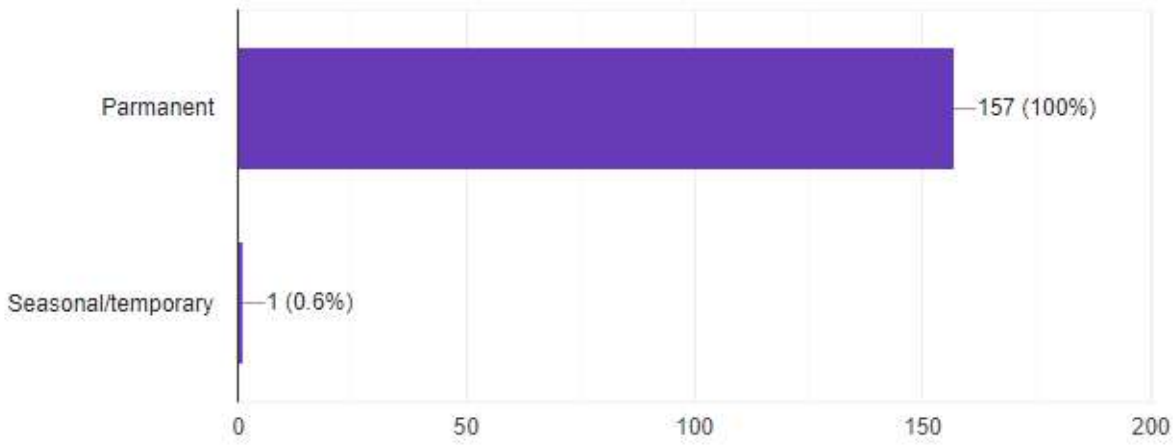
mean value, mode and median value is 1 which indicates that the respondents recognize small tea farming as their permanent source of livelihood (permanent source is coded as 1 in excel). Furthermore, Figure 4.1.5 depicted that 100 per cent respondents permanently engaged in small tea cultivation for their livelihood.

Table 4.1.5: Nature Of Livelihood from Small Tea Cultivation

Mean	1
Standard Error	0
Median	1
Mode	1
Standard Deviation	0
Sample Variance	0
Range	0
Minimum	1
Maximum	1
Sum	157
Count	157

Source: Primary data

Figure 4.1.5: Nature of Livelihood from Small Tea Cultivation



Source: Primary data

4.1.6: Nature of land ownership used for small tea garden

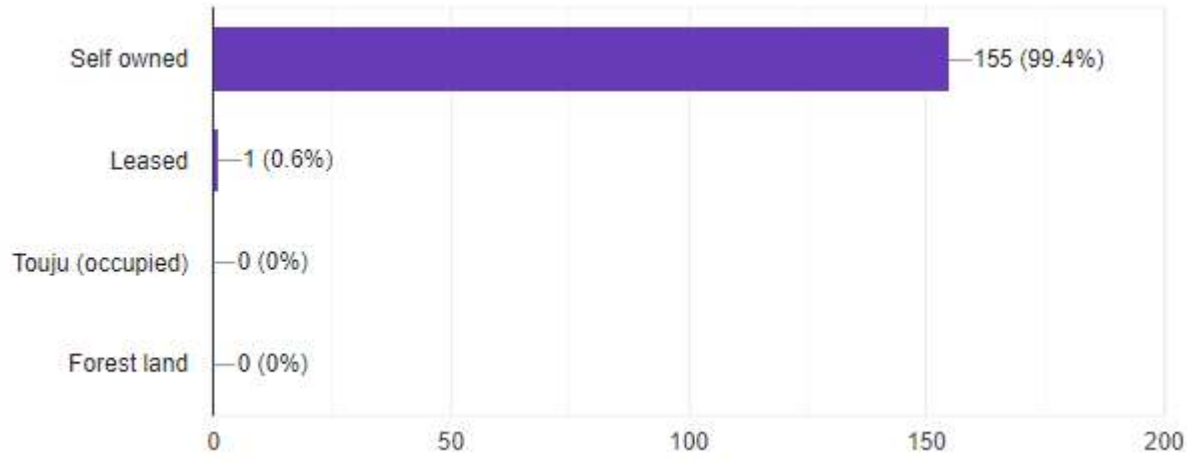
The small tea cultivation in Assam is popularly done in upper Assam, North Bank of river Brahmaputra and Barak Valley of Assam. Since tea cultivation on small scale basis has grown tremendously in last couple of years in left over areas of land by large tea estates. The land used for small tea cultivation are either self-owned or leased or touju (occupied) or forest land. The respondents in the study area are mainly uses self-owned land for small tea cultivation highlighted in figure 4.1.6. Furthermore, the table 4.1.6 showcased that mean value is 1, median and mode value is also 1 which indicates that majority of respondents are using self-owned land for tea cultivation.

Table 4.1.6: Nature of Land Ownership Used for Small Tea Garden

Mean	1.006369
Standard Error	0.006369
Median	1
Mode	1
Standard Deviation	0.079809
Sample Variance	0.006369
Kurtosis	157
Skewness	12.52996
Range	1
Minimum	1
Maximum	2
Sum	158
Count	157

Source: Primary data

Figure 4.1.6: Nature of Land Ownership Used for Small Tea Garden



Source: Primary data

4.2 Marketing Strategies Adopted the Respondents

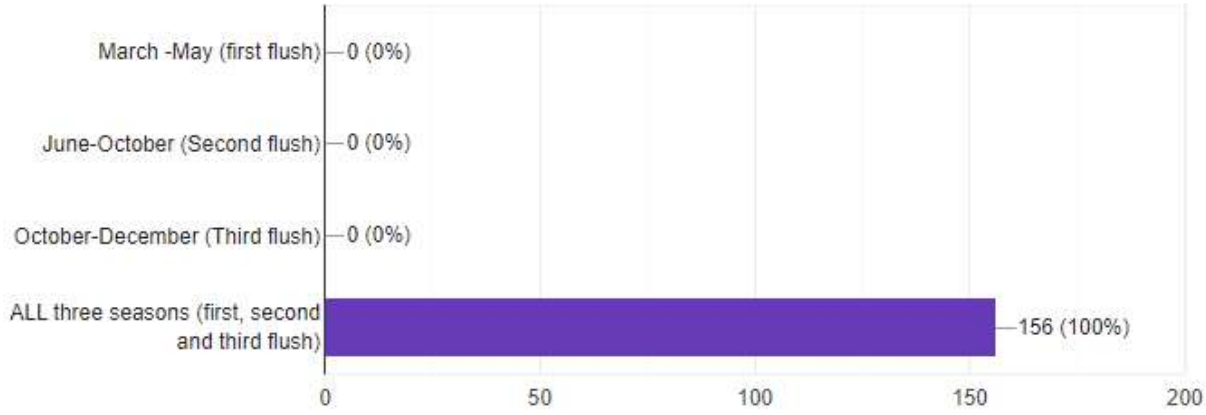
The marketing activities adopted by small tea growers in the study area are very insignificant. The respondents adopting conventional/inorganic method of tea cultivation are limiting their activities only up to production of green tea leaves and supplying the same to the tea agents, BLFs, mini tea factories and large tea garden factories. The small tea growers adopting organic/natural/chemical free method of tea cultivation are performing few marketing activities like value additions in green tea leaves by producing varieties of made tea, blending of made tea, packaging, branding and limited amount of promotion also. This portion of this chapter will highlight about the marketing strategies adopted by the respondents in the study area.

4.2.1. Season-wise Green Tea Leaves Plucking and Productivity of Small Tea Gardens owned by respondents

The green tea leaves are not plucked throughout the year because the raw green tea leaves are produced only in some selected seasons due to suitable weather conditions, geographical location and rainfall of the locality. In Assam the green tea leaves are plucked in three flushes – first flush (March-May), second flush (June-October) and third flush (October-December). The figure 4.2.1 (a) depicted that all the respondents in the study area are engaged in plucking of raw green tea leaves in all three flushes i.e., in first flush, second flush and third flush.

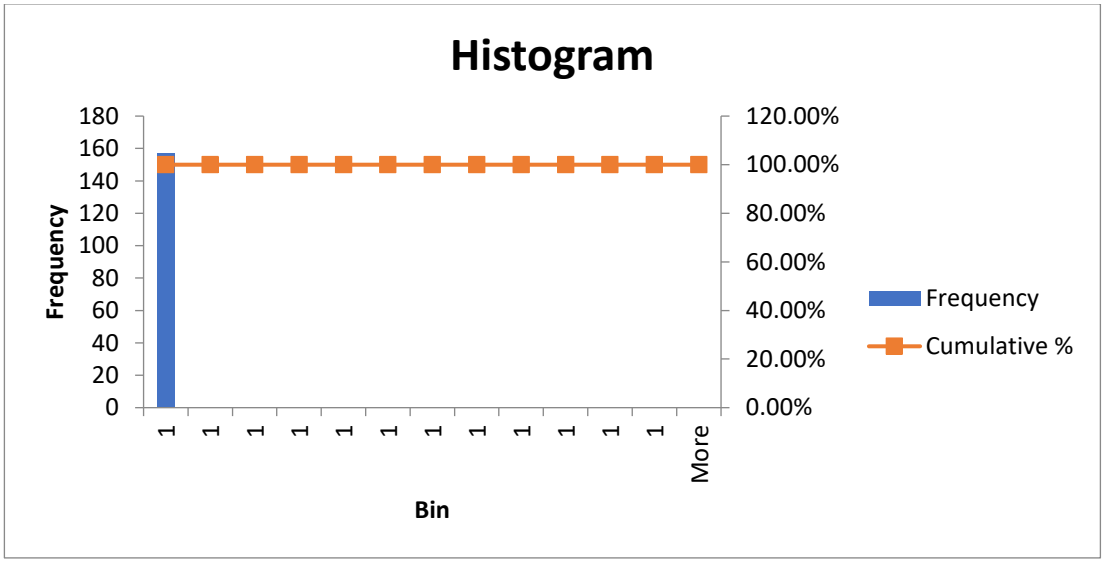
Further, the figure 4.2.1.(b) reveals that 100 per cent of the respondents in the study area are plucking the raw green tea leaves in all flushes.

Figure 4.2.1 (a): Season-wise Green Tea Leaves Plucking of Small Tea Gardens Owned by Respondents



Source: Primary data

Figure 4.2.1 (b): Season-wise Green Tea Leaves Plucking of Small Tea Gardens Owned by Respondents

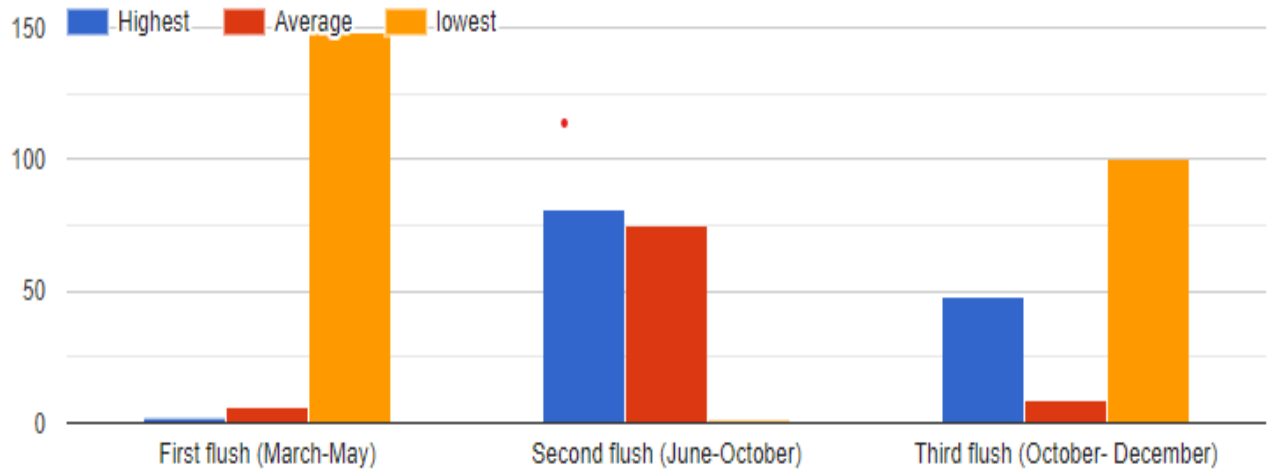


Source: Primary data

Further, the figure 4.2.1(C) highlighted that during first flush (March-May) the production of green tea leaves are lowest in the study area. In second flush i.e. (June to October) the production of green tea leaves is highest and in the third flush (October to December) the

production of green tea leaves is highest for some of the small tea gardens and lowest for some of the small tea gardens in the study area. Additionally, the table 4.2.1 also reveals about mean value of production of green tea leaves of small tea gardens in the study area during three flushes. For first flush, the mean value is 2.9, median and mode value is 3 which indicates lowest production of green tea leaves in the study area (lowest is coded as 3 in excel). For second flush the mean value is 1.4, mode and median also 1 indicating highest level of production of green tea leaves out of all three flushes (highest is coded as 1 in excel). In the third flush, mean value is 2.33, median and mode is 3 interpreting that majority of tea gardens' green tea production is lowest in the study area.

Figure 4.2.1 (c): Season-wise Green Tea Leaves Plucking of Small Tea Gardens Owned by Respondents



Source: Primary data

Table 4.2.1: Season-wise Green Tea Leaves Productivity of Small Tea Gardens Owned by Respondents

First flush		Second flush		Third Flush	
Mean	2.9358974	Mean	1.49045	Mean	2.33121
Standard Error	0.0235049	Standard Error	0.04103	Standard Error	0.07307
Median	3	Median	1	Median	3
Mode	3	Mode	1	Mode	3
Standard Deviation	0.2935761	Standard Deviation	0.51413	Standard Deviation	0.9156
Sample Variance	0.0861869	Sample Variance	0.26433	Sample Variance	0.83831
Kurtosis	26.459623	Kurtosis	-1.6346	Kurtosis	-1.439
Skewness	-5.008239	Skewness	0.18189	Skewness	-0.7076
Range	2	Range	2	Range	2
Minimum	1	Minimum	1	Minimum	1
Maximum	3	Maximum	3	Maximum	3
Sum	458	Sum	234	Sum	366
Count	156	Count	157	Count	157

Source: Primary data

4.2.2 Post cultivation activity of respondents

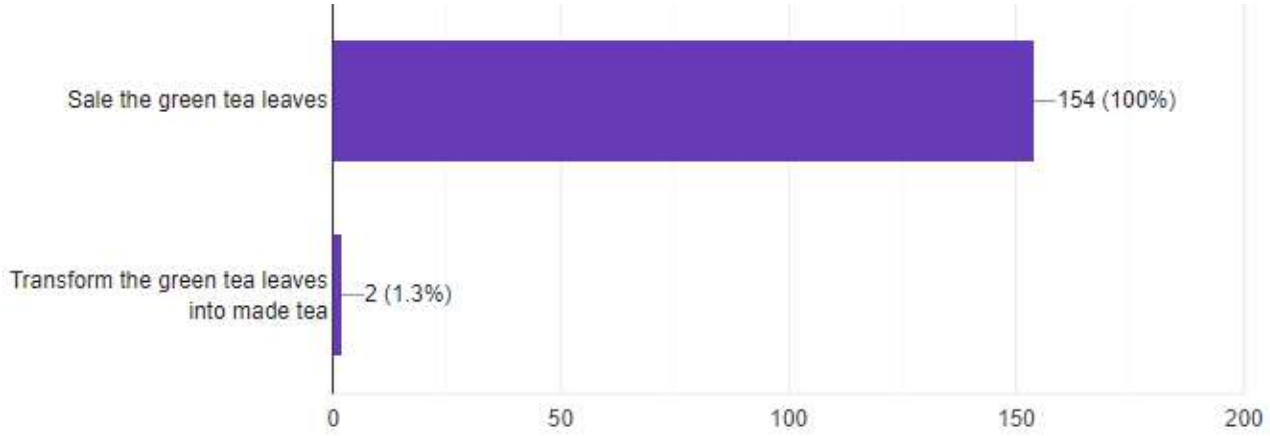
The small tea growers in the study area are mainly limiting their activities up to the cultivation of green tea leaves only. The respondents adopting conventional small tea farming sale the green tea leaves to the third party for further processing. It is because they are not owning tea factories either on individual or group basis. 98.69 per cent of the respondents in the study area sale the green tea leaves to third party and only 1.31 per cent of the respondents transform the green tea leaves into made tea (highlighted in table 4.2.2 and figure 4.2.2)

Table 4.2.2: Post Cultivation Activity of Respondents

Particulars	No of respondents	No of respondents (in per cent)
Sale the green tea leaves to third party	154	98.69%
Transform the green tea leaves into made tea	2	1.31%
Grand Total	156	100.00%

Source: Primary data

Figure 4.2.2: Post Cultivation Activity of Respondents



Source: Primary data

4.2.3 Source of sale of green tea leaves in the study area

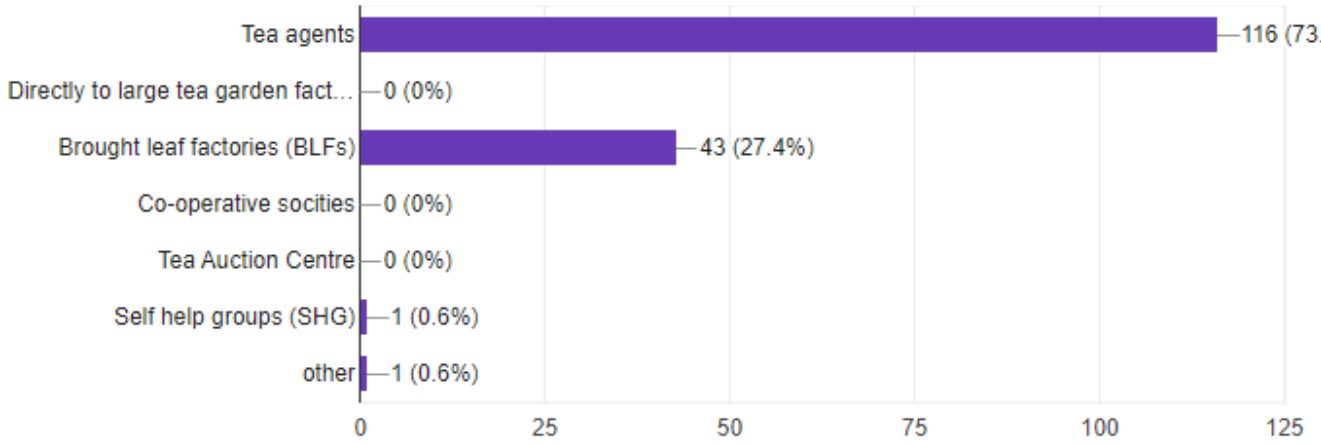
The available sources for sale of green tea leaves for small tea growers in the study area are tea agents, large tea estate factories, BLFs, Co-operative societies, tea auction center, SHGs and other sources also. The table 4.2.3 and figure 4.2.3 reveals that majority of the respondents (73.9 percent) in the study area are responded that they sale the green tea leaves to tea agents who in turn sale the same to large tea garden factories or BLFs. Only 27.4 per cent of the respondent sale the green tea leaves to the bought leaf factories (BLFs).

Table 4.2.3: Source of Sale of Green Tea Leaves in the Study Area

Sources for sale of green tea leaves	No of respondents	No of respondents (in percent)
Tea agents	116	73.9
Directly to large tea gardens	0	0
BLFs	43	27.4
Co-operative societies	0	0
Tea Auction Centre	0	0
SHGs	1	0.6
Others	1	0.6

Source: Primary data

Figure 4.2.3: Source of Sale of Green Tea Leaves in the Study Area



Source: Primary data

4.2.4 Marketplace for sale of green tea leaves in the study area

The respondents in the study area sale the green tea leaves in the nearby areas like local tea gardens, nearby towns and district towns. Their production is transported to these places either by tea agents or by their own. They supply green tea leaves to only the local areas or nearby towns because of its perishability nature, excess supply, limited means of

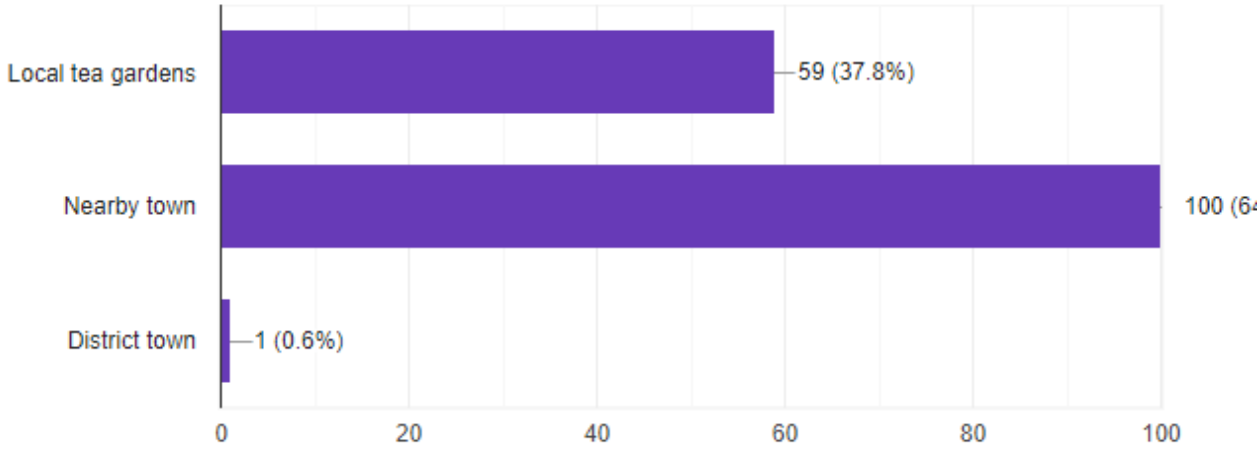
transportation, inconvenient road condition etc. The table 4.2.4 and figure 4.2.4 highlighted that 37.8 per cent respondents in the study area responded as local tea gardens, 64.1 percent respondents responded as nearby towns and only 0.6 per cent of the total respondents responded that district town is the market place for sale of green tea leaves.

Table 4.2.4: Marketplace For Sale of Green Tea Leaves in the Study Area

Marketplace	No of respondents	No of respondents (in per cent)
Local tea gardens	59	37.8
Nearby towns	100	64.1
District town	1	0.6

Source: Primary data

Figure 4.2.4: Marketplace for Sale of Green Tea Leaves in the Study Area



Source: Primary data

4.2.5: Means of transportation of green tea leaves into the Market place

The means of transportation used by the respondents for sale of green tea leaves to the market are mainly tempo and truck. 42.3 percent of the respondents uses temp and 57.7 per cent of the total respondents uses truck as means of transportation. Only 0.6 per cent of the total

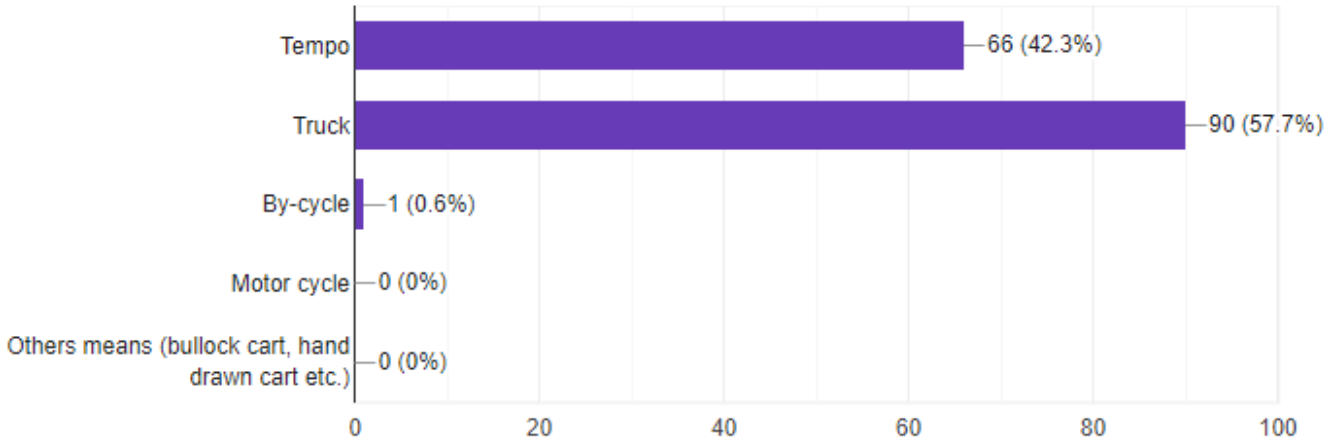
respondents sometimes use by-cycle for suppling small amount of green tea leaves to the market place.

Table 4.2.5: Means of Transportation of Green Tea Leaves into the Market Place

Means of transportation	No of respondents	No of respondents (in percent)
Tempo	66	42.3
Truck	90	57.7
By-cycle	1	0.6
Motor cycle	0	0
Other means (bullock cart, hand drawn cart etc.)	0	0

Source: Primary data

Figure 4.2.5: Means Of Transportation of Green Tea Leaves into the Market Place



Source: Primary data

4.2.6: Pricing decisions of green tea leaves in the market

In the small tea sector, the small tea growers are mainly price takers and price deciders are either large tea gardens or tea intermediaries or brought leaf factories (BLFs) which varies place to place. It is revealed by 98.1 per cent the respondents that BLFs are price deciders, 4.5 per cent of the respondents reveals that tea intermediaries are price deciders, 1.6 per cent

of the respondents reveals that large tea garden factories are price deciders in the study area [Highlighted in table 4.2.6 and figure 4.2.6 (a)]. It is because small tea growers are not well organized and structured and hence unable to go for collective bargaining of price in the market.

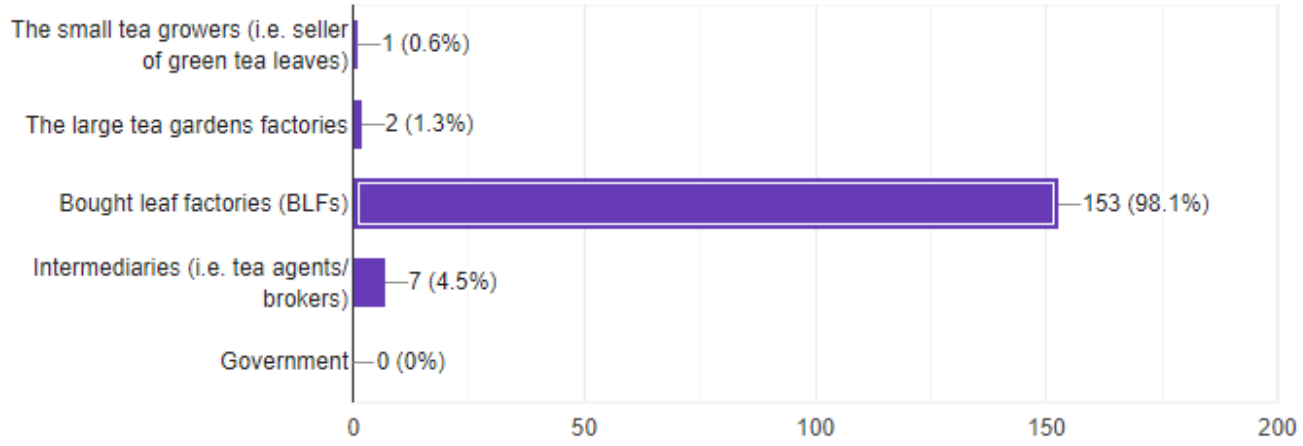
The table 4.2.6 and figure 4.2.6(b) reveals that prices of green tea leaves produced by small tea growers are influenced by the factors like quality of plucking, average rainfall, quality of green tea leaf, climate change, commission of tea intermediaries and market demand and supply. Out of these factors, 39.4 per cent of the respondents reveals that all the factors are responsible for pricing decisions of green tea leaves. Whereas, 36.1 per cent reveals that only quality of green tea leaf and 25. 2 per cent reveals that only market demand and supply of green leaf is responsible for price determination in the market.

Table 4.2.6: Price Deciders and Factors Influences Pricing Decision of Green Tea Leaves

Price deciders of green tea leaves	No of respondents	No of respondents (per cent)	Factors influences pricing decision of green tea leaves	No of respondents	No of respondents (in per cent)
STGs	1	0.6	Quality of plucking	0	0
Large tea garden factories	2	1.3	Average rainfall	0	0
BLFs	153	98.1	Quality of green tea leaf	56	36.1
Tea agents/brokers	7	4.5	Climate change	1	0.6
Government	0	0	Commission of tea agents/brokers	0	0
			Market demand and supply	39	25.2
			All of the above	61	39.4

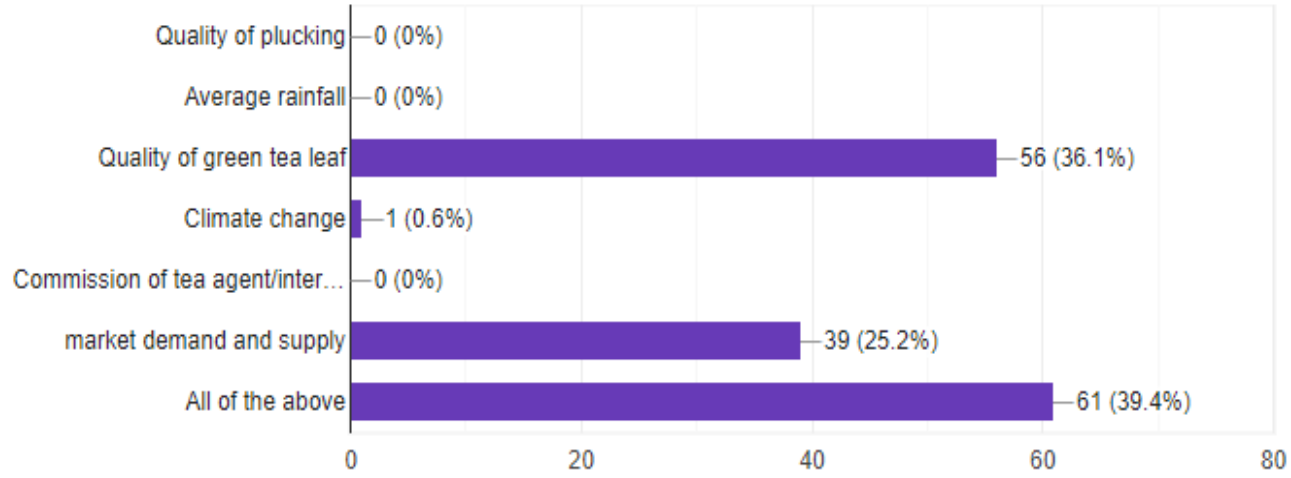
Source: Primary data

Figure 4.2.6 (a): Price Deciders of Green Tea Leaves in The Study Area



Source: Primary data

Figure 4.2.6 (b): Factors Influencing Pricing Decisions of Green Tea Leaves in The Study Area



Source: Primary data

4.2.7 Satisfaction level of respondents for price of green tea leaves in the market

As discussed earlier the small tea growers are only price takers which decider by the green tea leaf buyers like BLFs, large tea garden factories, tea agents and brokers. It is witnessed from table 4.2.7 and figure 4.2.7 that respondents in the study area are not satisfied with the

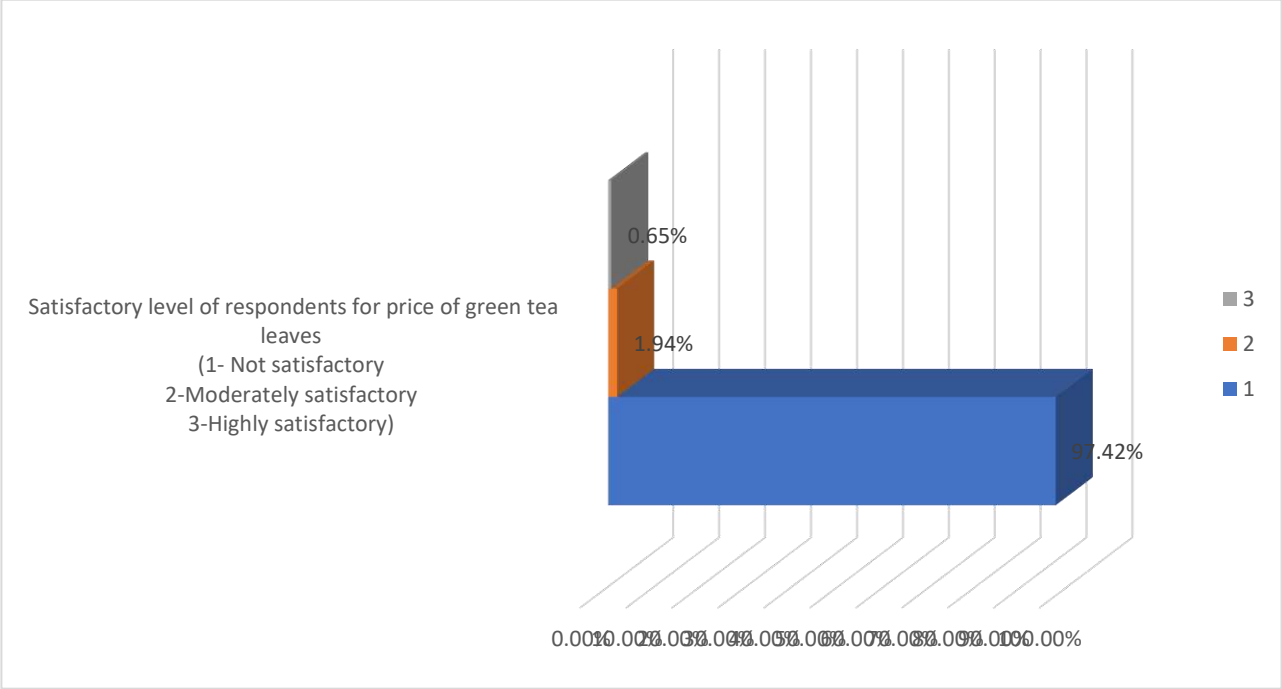
price provided in the market for their produce. It is recognized by 152 (97.42 per cent) respondents out of total respondents that they are not satisfied with the pricing decision of the green tea leaf buyers and 1.94 percent of the total respondents recognized that they are moderately satisfied with the pricing decision of the green tea leaf buyers.

Table 4.2.7: Satisfaction Level of Respondents for Green Tea Leave Pricing

Satisfaction level of respondents	**Number of respondents**						**Grand total**
	1 (in No)	**1 (in %)**	**2 (in No)**	**2 (in %)**	**3 (in No)**	**3 (in %)**	
Satisfactory level of respondents for price of green tea leaves in the market (1- Not satisfactory 2-Moderately satisfactory 3-Highly satisfactory)	152	97.42%	3	1.94%	1	0.65%	156

Source: Primary data

Figure 4.2.7: Satisfaction Level of Respondents for Green Tea Leave Pricing



Source: Primary data

4.2.8 Government/institutional intervention regarding pricing decision of green tea leaves

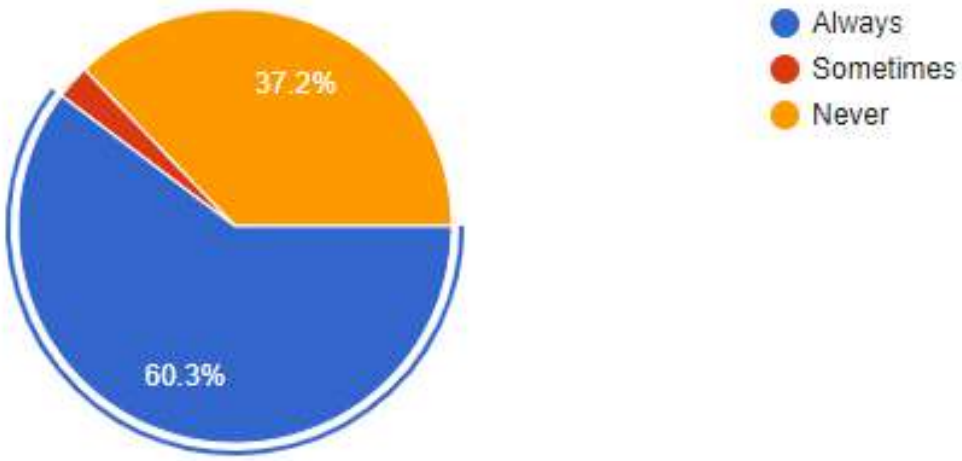
The pricing decision is majorly dominated by the buyers of green tea leaves in India till now. Perhaps government and institutional indirect intervention is witnessed in the study area. The government and Tea Board of India (Tea Board Monitoring Committee) from time to time come with policy to control deteriorating price of green tea leaves of small tea sector and also investigate the reason for pricing crisis of product of small tea sector. It is also witnessed in table 4.2.8 and figure 4.2.8 that 60.3 per cent of the respondents revealed that government/institutional intervention is always present in pricing decision of green tea leaves, 37.2 per cent of the respondents revealed that no intervention of government/institution in pricing decision of green tea leaves and only 2.6 per cent of the respondents said that sometimes government/institution intervene in the pricing decision of green tea leaves in the study area.

Table 4.2.8: Intervention of Government Agency/Institution in Decision About Ceiling and Floor Price of Green Tea Leaves in the Study Area

Intervention of Government/institution in pricing decision	No of respondents	No of respondents (in per cent)
Always	**94**	**60.3**
Sometimes	**4**	**2.6**
Never	**58**	**37.2**
Grand total	**156**	**100**

Source: Primary data

Figure: 4.2.8: Intervention of Government Agency/Institution in Decision About Ceiling and Floor Price of Green Tea Leaves in the Study Area



Source: Primary data

4.2.9 Product mix respondents

The small tea growers adopting organic/natural/chemical free tea cultivation are transforming the green tea leaves into made tea (finished products). The product mix of small tea growers in Assam are mainly green tea, orthodox black tea, dheki tea, oolong tea, blended tea etc. In the study area 68.4 per cent of the respondents produces green tea, 28.7 per cent of the respondents produces orthodox black tea and only negligible number of respondents

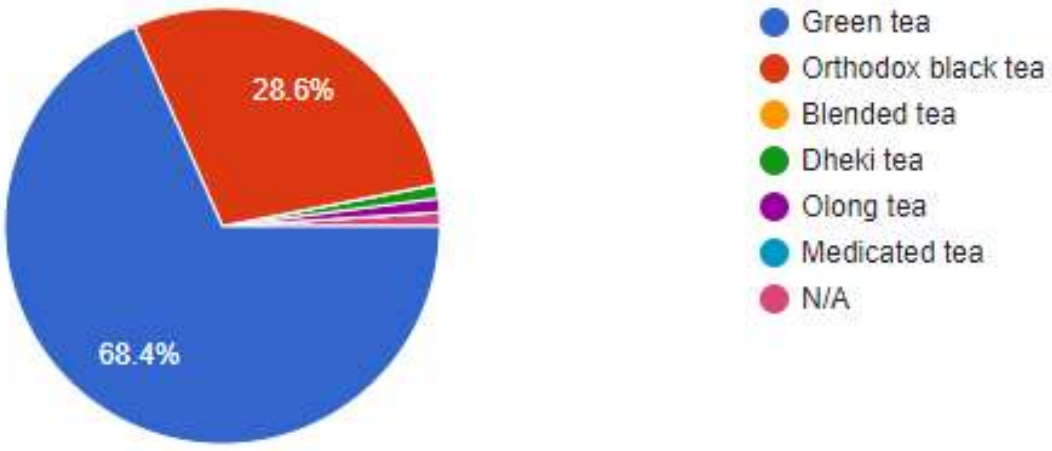
produces dheki tea and oolong tea. Further, they use either self-developed/designed machine with technology or traditional method without any technology for production of made tea (witnessed in table 4.2.9 and figure 4.2.9). Due to financial constraint, limited technical skill and limited access to technology the respondents are bound to use either self-developed/designed technology or traditional method without technology.

Table 4.2.9: Product Mix of Respondents

Product mix of respondents	No of respondents	No of respondents (in per cent)	Technology used in production of made tea
Green tea	67	68.4	a) Self developed/designed machine with technology b) Traditional method without any technology.
Orthodox black tea	28	28.7	
Dheki tea	1	1	
Oolong tea	1	1	

Source: Primary data

Figure 4.2.9: Product Mix of Respondents



Source: Primary data

4.2.10 Sources of sale of made tea by respondents

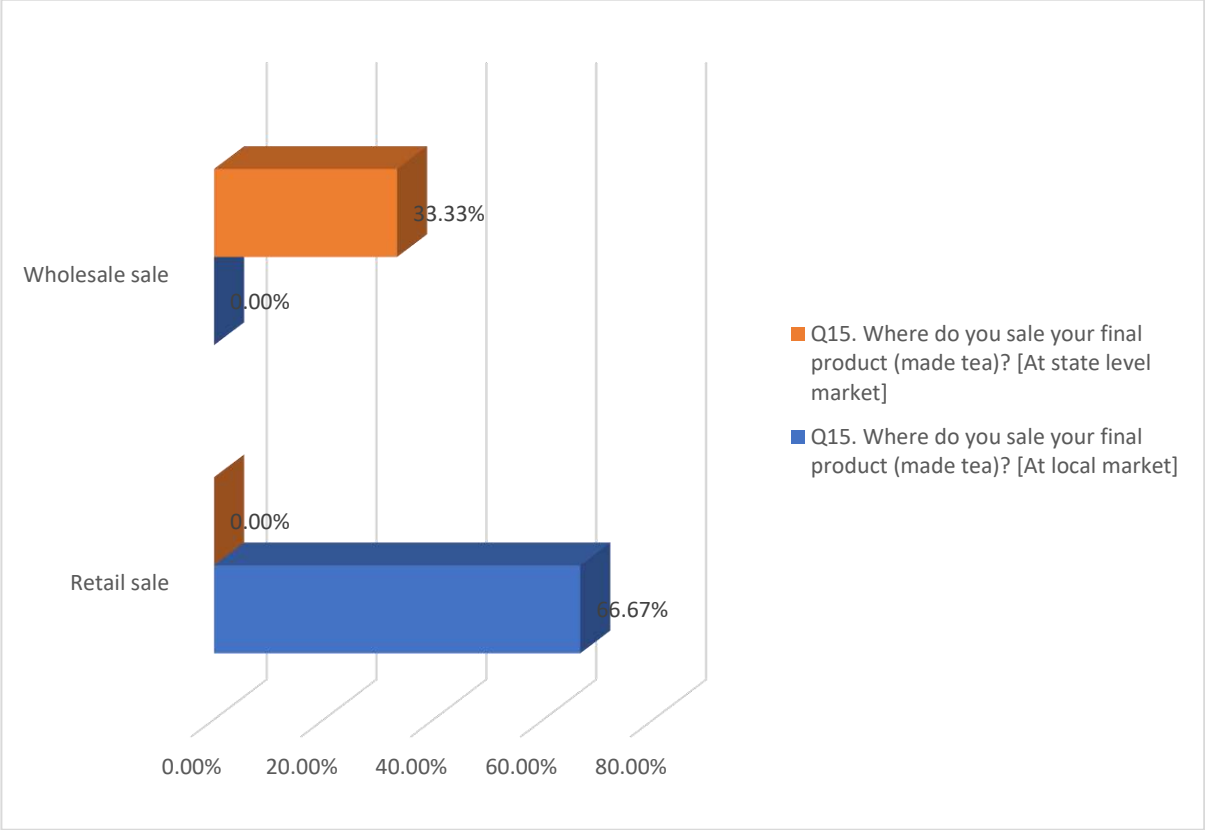
The final product (made tea) produced by the respondents are produced in limited quantity due to limited capacity of production, limited infrastructure, lack of sophisticated technology, limited technical skill and sometimes limited demand in the market. They sale their finished products on retail and wholesale basis. Due to limited production and sometimes limited demand also their geographical location of market is limited to either local level (within the locality, nearby places etc.) or state level. It is witnessed from table 4.2.10 and figure 4.2.10 that 66.67 per cent of retail sale of made tea is made in local market like nearby city, town and village whereas 33.33 per cent of wholesale sale of made tea is made at state level market.

Table 4.2.10: Sources of Sale of Made Tea (Final Product) by Respondents

Nature of sale	**Number of respondents (in per cent)**		**Grand total (in per cent)**
	Sale of made tea at Local market	**Sale of made tea at state level market**	
Retail sale	66.67	0	66.67
Wholesale sale	0	33.33	33.33
Grand total	66.67	33.33	100

Source: Primary data

Figure 4.2.10: Sources of Sale of Made Tea (Final Product) by Respondents



Source: Primary data

4.2.11 Price deciders of natural/organic made tea in the study area

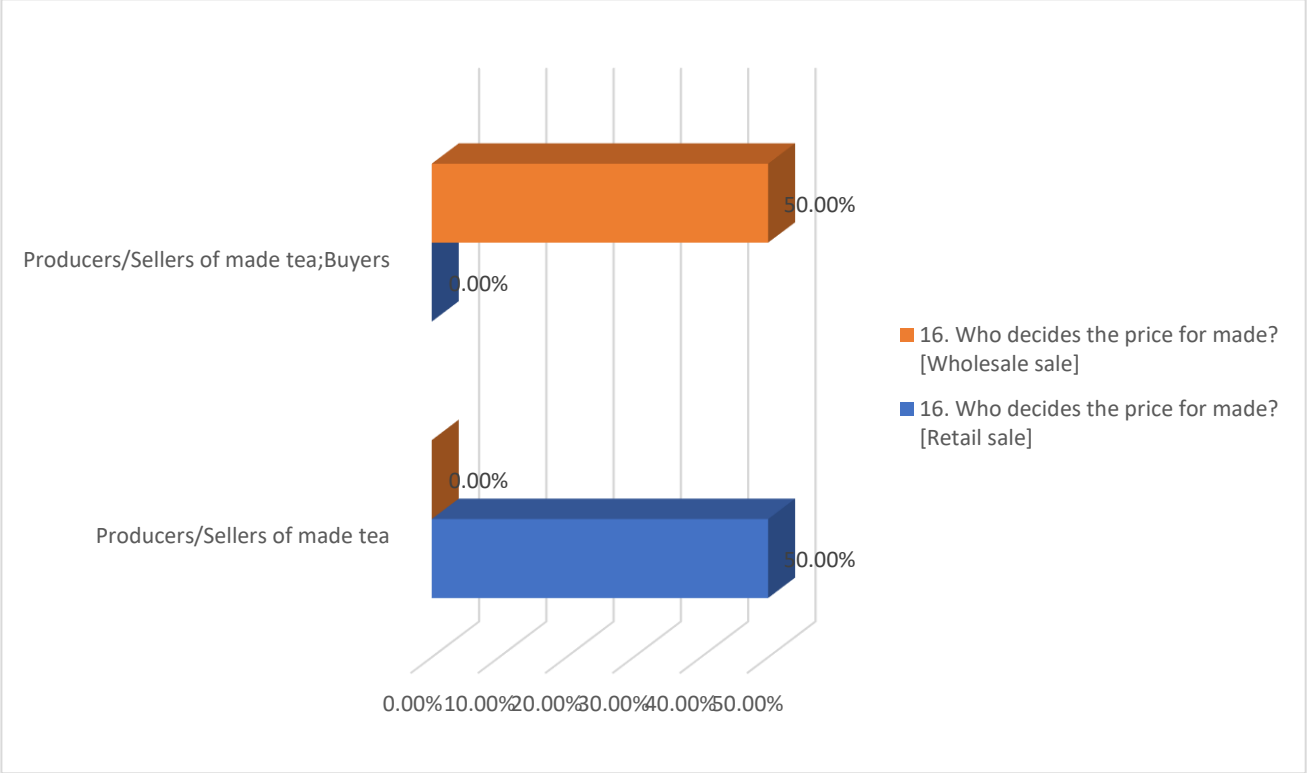
In case of made tea market, the scenario is different from green tea leaf market. Here, small tea growers are the producers and sellers of made tea who are the price deciders and buyers are price givers only. It is because there are only few numbers of organic/natural made tea producers/sellers and large number of buyers in the study area. The table 4.2.11 and figure 4.2.11 also revealed that both in retail sale and wholesale sale of made tea the producers/sellers of made tea are price deciders.

Table 4.2.11: Price Deciders of Made Tea in the Study Area

Price determiners of made tea in the study area	Retail sale of made tea	Wholesale sale of made tea	Grand Total
Producers/Sellers of made tea	50.00%	0.00%	50.00%
Producers/Sellers of made tea and Buyers	0.00%	50.00%	50.00%
Grand Total	50.00%	50.00%	100.00%

Source: Primary data

Figure 4.2.11: Price Deciders of Made Tea in the Study Area



Source: Primary data

4.2.12: Supply chain for made tea (organic/natural) of respondents in the study area

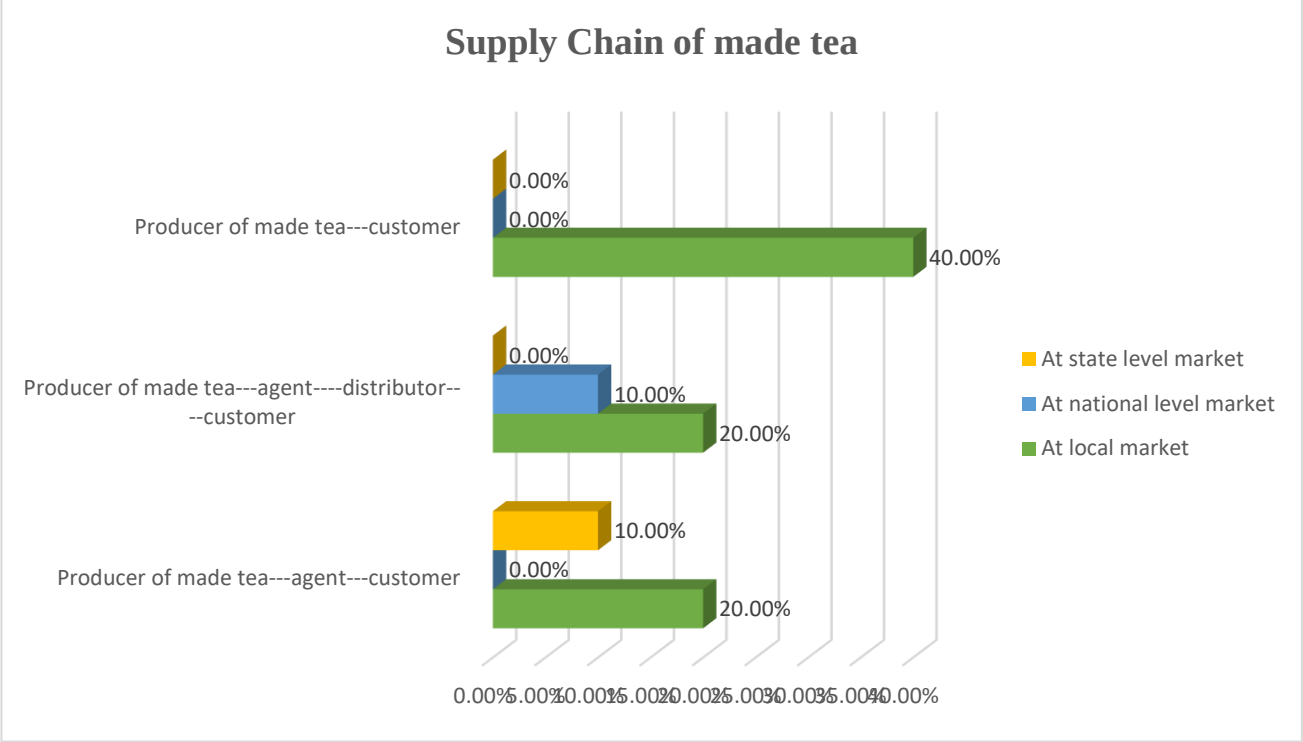
The small tea growers that produce organic/natural made tea in the study area are selling their products to ultimate consumers through agents and distributors. Depending on the location and distance of market/target customer the intermediaries of supply chain vary. In case local market, the 20 per cent of respondents uses agent, another 20 per cent of them uses agent and distributor and 40 per cent of respondents directly sale their finished produce to customers. Further, 10 per cent of the respondent sale their products at national level and they sale the same to agents who in turn sale it to distributors and finally delivered to the customers. At state level market also the respondent sale their finished products through agents which is figured as 10 per cent in table 4.2.12 and table 4.2.12.

Table 4.2.12: Supply Chain for Made Tea Used by Respondents

Supply chain of made tea	At local market	At national level market	At state level market	Grand Total
Producer of made tea---agent---customer	20.00%	0.00%	10.00 %	30.00%
Producer of made tea---agent----distributor----customer	20.00%	10.00%	0.00%	30.00%
Producer of made tea---customer	40.00%	0.00%	0.00%	40.00%
Grand Total	80.00%	10.00%	10.00 %	100.00 %

Source: Primary data

Figure 4.2.12: Supply Chain of Made Tea Used by Respondents



Source: Primary data

4.2.13: Market Linkages for made tea (organic/natural) in the study area

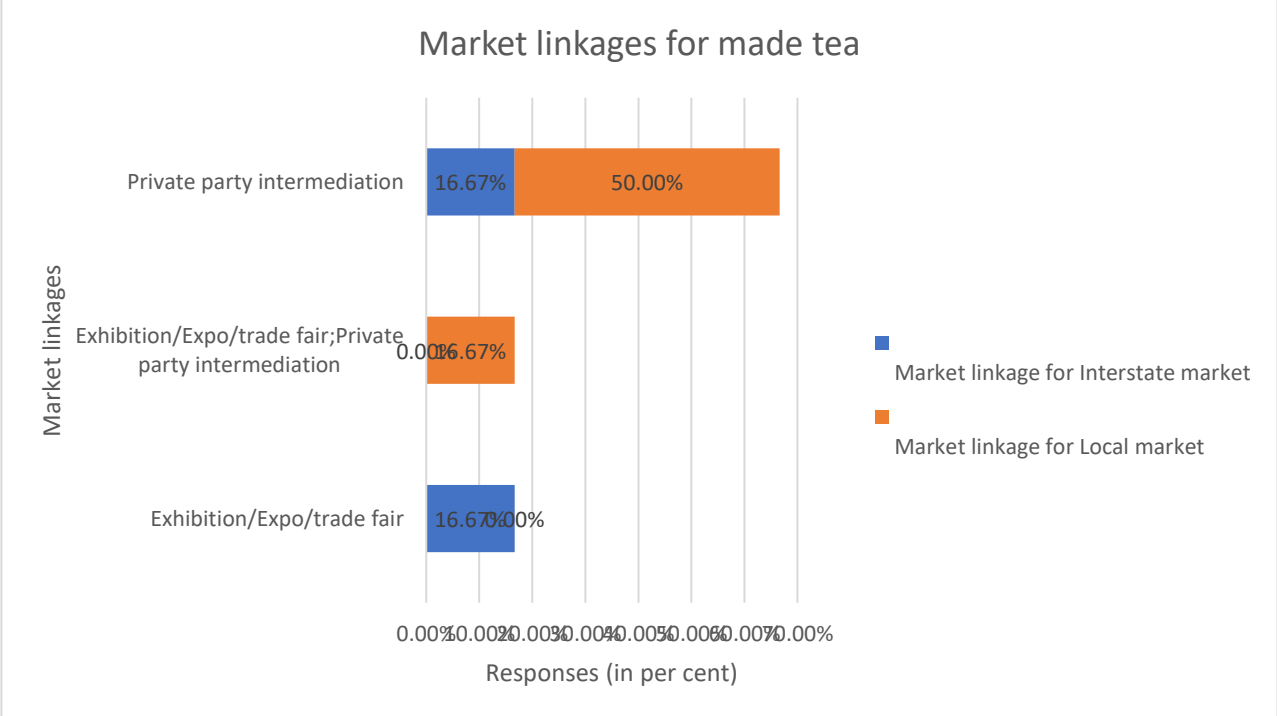
The respondents producing organic/natural made tea in the study area find their market linkages through exhibition, expo, trade fair and private party intermediation. It is witnessed in table 4.2.13 and figure 4.2.13 that 16.67 per cent of respondents has recognized that they get market linkages through exhibition/expo/trade fair and another 16.67 per cent of respondents recognized for private party intermediation to access interstate market. For local market, the respondents find market linkages through exhibition/expo/trade fair/private party intermediation (16.67 per cent) and sometimes private party intermediation only (50 per cent).

Table 4.2.13: Market Linkages for Made Tea (Organic/Natural) in the Study Area

Market linkages	Market linkage for Interstate market	Market linkage for Local market	Grand Total
Exhibition/Expo/trade fair	16.67%	0.00%	16.67%
Exhibition/Expo/trade fair/Private party intermediation	0.00%	16.67%	16.67%
Private party intermediation	16.67%	50.00%	66.67%
Grand Total	33.33%	66.67%	100.00%

Source: Primary data

Table 4.2.13: Market Linkages for Made Tea (Organic/Natural) in the Study Area



Source: Primary data

4.2.14 Marketing platform used by respondents for marketing of their products

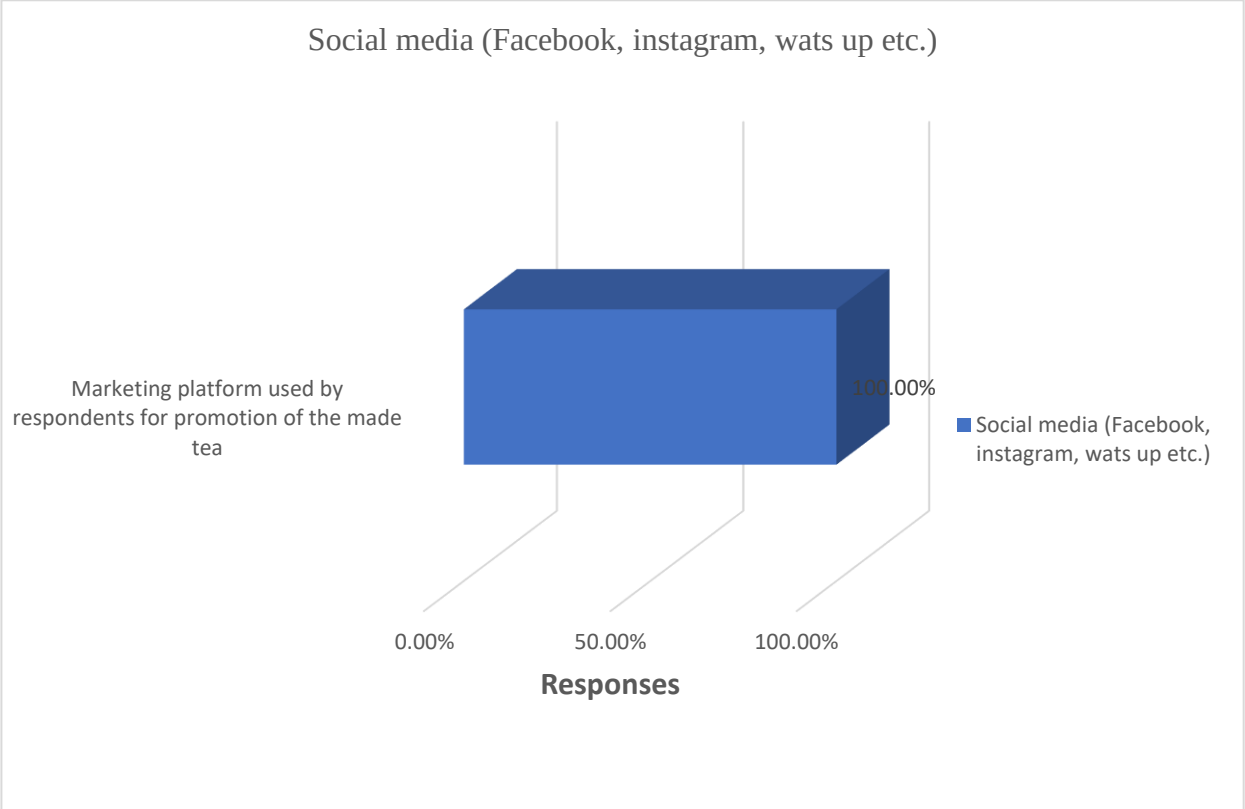
The marketing platforms available for promotion of finished products (organic/naturally produce made tea) are print media, electronic media, social media, word of mouth etc. The respondents also recognized that all of them take some initiatives for promotion of their products in the target market. They also responded that due limited of marketing skill they are only using social media platform like Facebook, Instagram, wats up and sometimes websites for promotion of their finished products in the target market. The table 4.2.14 and figure 4.2.14 witnessed that all the respondents producing organic/natural made tea are using only social media as marketing platform for promotion of their finished products.

Table 4.2.14: Social Media Platform Used by the Respondents

Statement	Social media (Facebook, Instagram, wats up etc.)	Grand Total
Marketing platform used by respondents for promotion of the made tea	100.00%	100.00%
Grand Total	**100.00%**	**100.00%**

Source: Primary data

Figure 4.2.14: Social Media Platform Used by the Respondents



Source: Primary data

4.2.15 Training on development of marketing skill of respondents

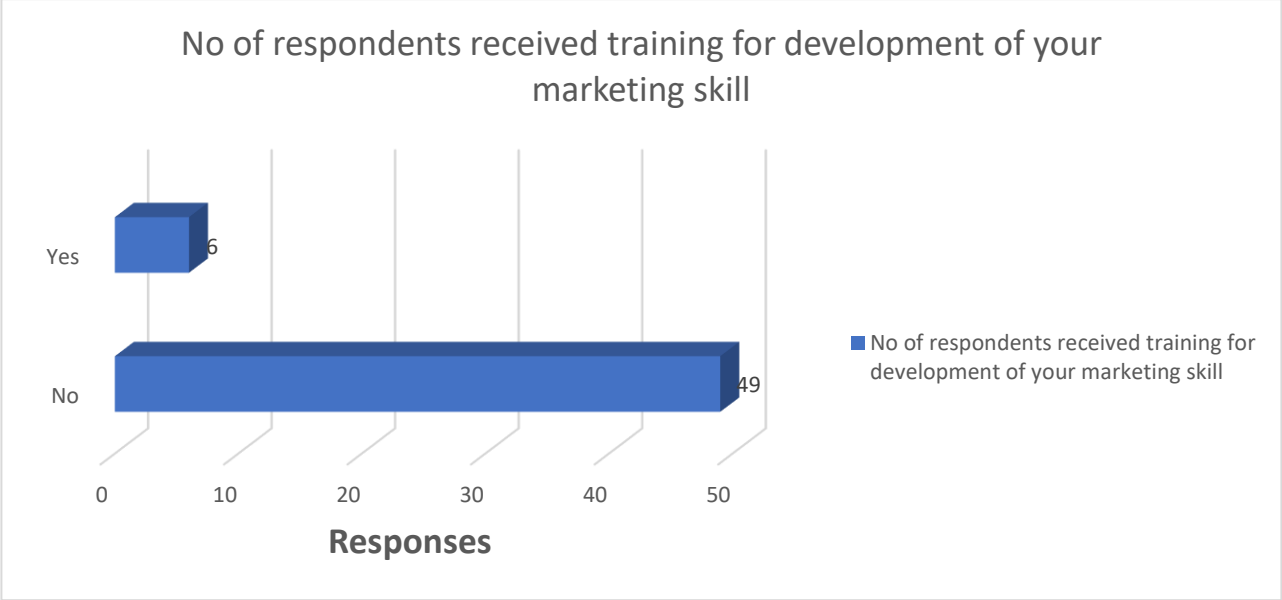
Skill development training on development of marketing skill is crucial for the small tea industry sector. The scenario of receipt of training for development of marketing skill by the respondents is not asymmetric. It is witnessed from table 4.2.15 (a) and figure 4.2.15 (a) that 89.09 per cent of the respondents have responded negatively that they have not received any training yet regarding marketing whereas only 10.91 per cent of the total respondents have responded positively.

Table 4.2.15 (a): Training on Development of Marketing Skill of Respondents

Responses	No of respondents received training for development of your marketing skill	Grand Total
No	89.09%	89.09%
Yes	10.91%	10.91%
Grand Total	100.00%	100.00%

Source: Primary data

Figure 4.2.15 (a): Training on Development of Marketing Skill of Respondents



Source: Primary data

Out of the many marketing skills like packaging, distributorship, pricing, advertising etc. the respondents revealed that they able to develop packaging skill only [witnessed in table 4.2.14(b) and figure 4.2.14(b)]. The respondents sometimes loose the wholesale customers from interstate and cross border areas due to nonfulfillment packaging conditions. The development of packaging skill will enable them to develop multiple layer packaging skill, hygiene packaging, cost management in packaging, packaging for retail sale and wholesale sale etc. Furthermore, they also responded that Assam Agricultural University,

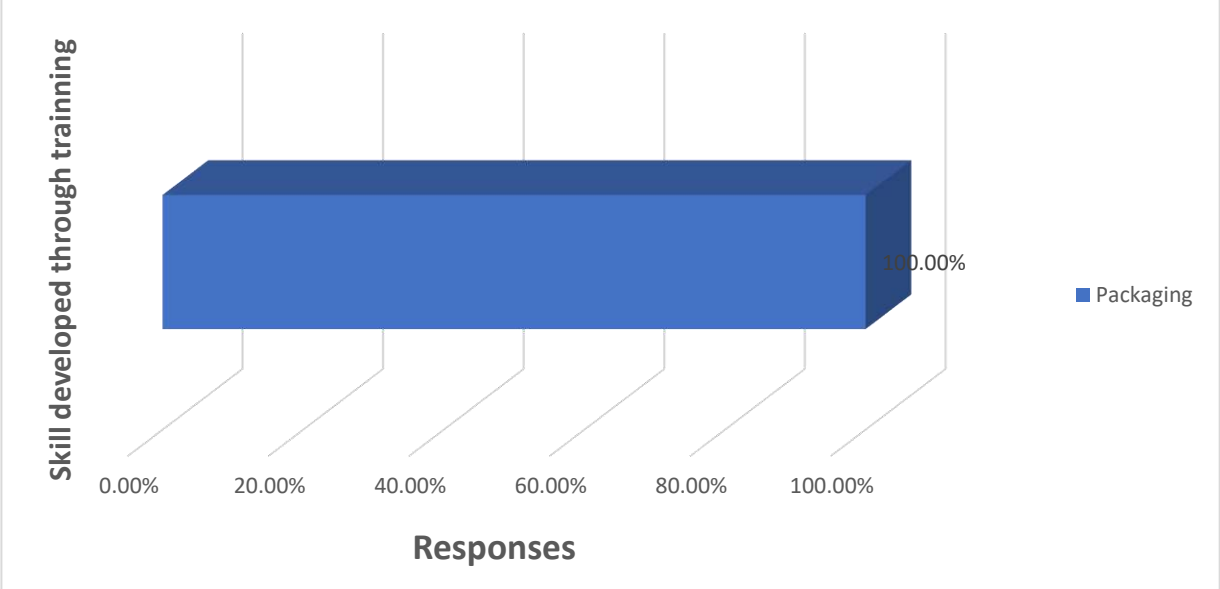
Jorhat is the only institution from where they have received the training on development of marketing.

Table 4.2.15 (b): Marketing Skill Developed by the Respondents Through Training Program

Statement	Packaging	Grand Total
Marketing skill developed by respondents through training	100.00%	100.00%
Grand Total	**100.00%**	**100.00%**

Source: Primary data

Figure 4.2.15 (b): Marketing Skill Developed by the Respondents Through Training Program



Source: Primary data

4.3 Marketing Challenges faced by the respondents in the study area

The small tea growers engaging either conventional/inorganic method or organic/natural method of tea cultivation both are facing challenges during marketing of their products. Transportation issue, infrastructure issue, pricing issue, market place issues are some of the

challenges faced by small tea growers engaging in conventional/inorganic method of tea cultivation. On the other hand, small tea growers engaging natural/organic/chemical free method of tea cultivation are facing marketing challenges of packaging issue, promotion issue, supply chain issue, market place issue etc. This part of chapter 4 will give analyses and interpretation about the marketing challenges faced by the respondents-

4.3.1 Challenges faced by respondents regarding selling of green tea leaves

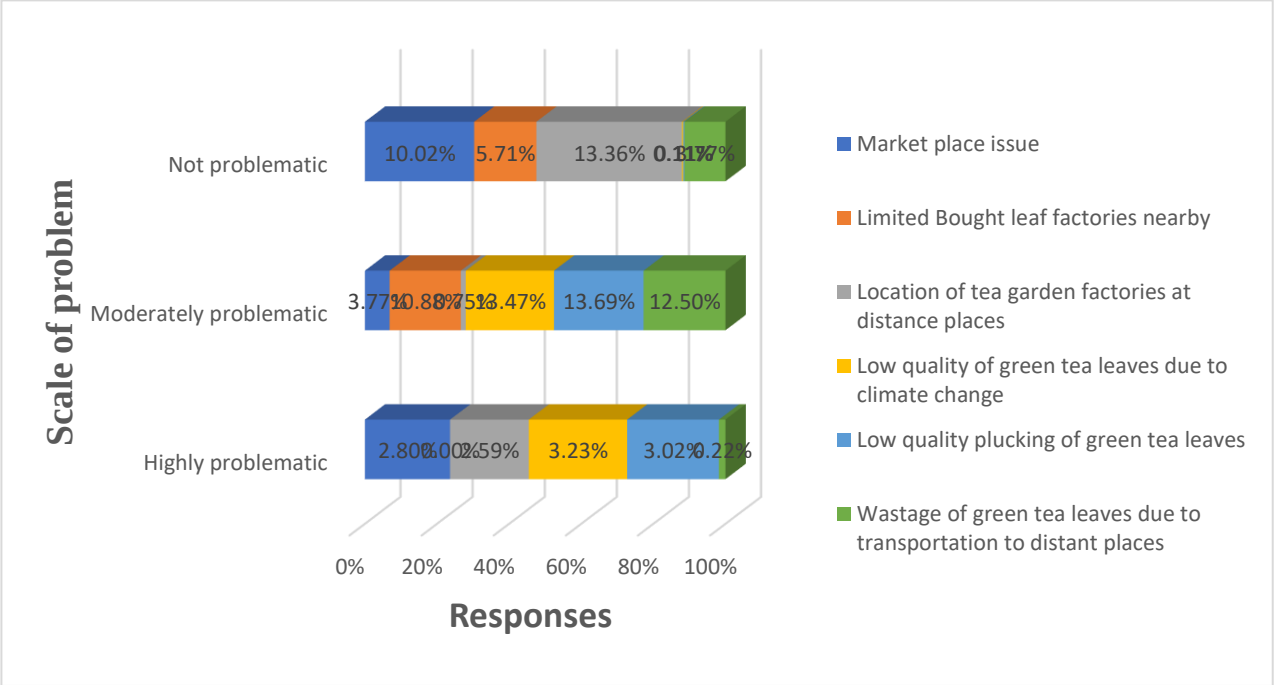
Green tea leaf (product) is one of the crucial elements of product mix. The small tea growers in the study are finding challenges for smooth and uninterrupted selling of green tea leaves in the market. Convenient market place issue, limited BLFs in nearby location, location of tea garden factories at distant places, deterioration in quality of green tea leaf, poor quality of plucking of green tea leaf, wastage of green tea leaf in transportation are few to mention challenges highlighted by the respondents that create hurdles for selling of green tea leaf at remunerative price. It is witnessed from table 4.3.1 and figure 4.3.1 that 11.85 per cent of the respondents have considered market place issue, location of tea garden factories, poor quality plucking and wastage of green tea leaf during transportation as highly problematic factors for selling of green tea leaves in the market. Another 55.06 per cent of total respondents have considered all the mentioned factors as moderately problematic. Furthermore, 33.08 per cent of the total respondents have responded that these factors are not problematic for them in selling of green tea leaves in the market.

Table 4.3.1: Challenges Faced by Respondents Regarding Selling of Green Tea Leaves

Scale of challenges faced by the respondents	Factors that create challenges for selling of green tea leaf in the market						
	Market place issue	**Limited BLFs nearby**	**Location of tea garden factories at distance places**	**Low quality of green tea leaves due to climate change**	**Low quality plucking of green tea leaves**	**Wastage of green tea leaves due to transportation to distant places**	**Grand Total**
Highly problematic	2.80%	0.00%	2.59%	3.23%	3.02%	0.22%	11.85%
Moderately problematic	3.77%	10.88%	0.75%	13.47%	13.69%	12.50%	55.06%
Not problematic	10.02%	5.71%	13.36%	0.11%	0.11%	3.77%	33.08%
Grand Total	**16.59%**	**16.59%**	**16.70%**	**16.81%**	**16.81%**	**16.49%**	**100.00%**

Source: Primary data

Figure 4.3.1: Challenges Faced by Respondents Regarding Selling of Green Tea Leaves



Source: Primary data

4.3.2 Challenges faced by respondents for sale of made tea

The respondents cultivating organic/natural/chemical free tea are producing made tea by their own. They responded that they have encountered the challenges of certification issue due to high cost involved, defective packaging issue, limited market demand, limited market linkage opportunities and limited marketing knowledge for sale of made tea in the market. The table 4.3.2 and figure 4.3.2 revealed that 36.36 per cent of the respondents have considered certification issue, defective packaging issue, limited market linkage opportunities and limited marketing knowledge as mostly problematic factors for selling of made tea in the market. Another 33.33 per cent of the respondents have considered certification issue,

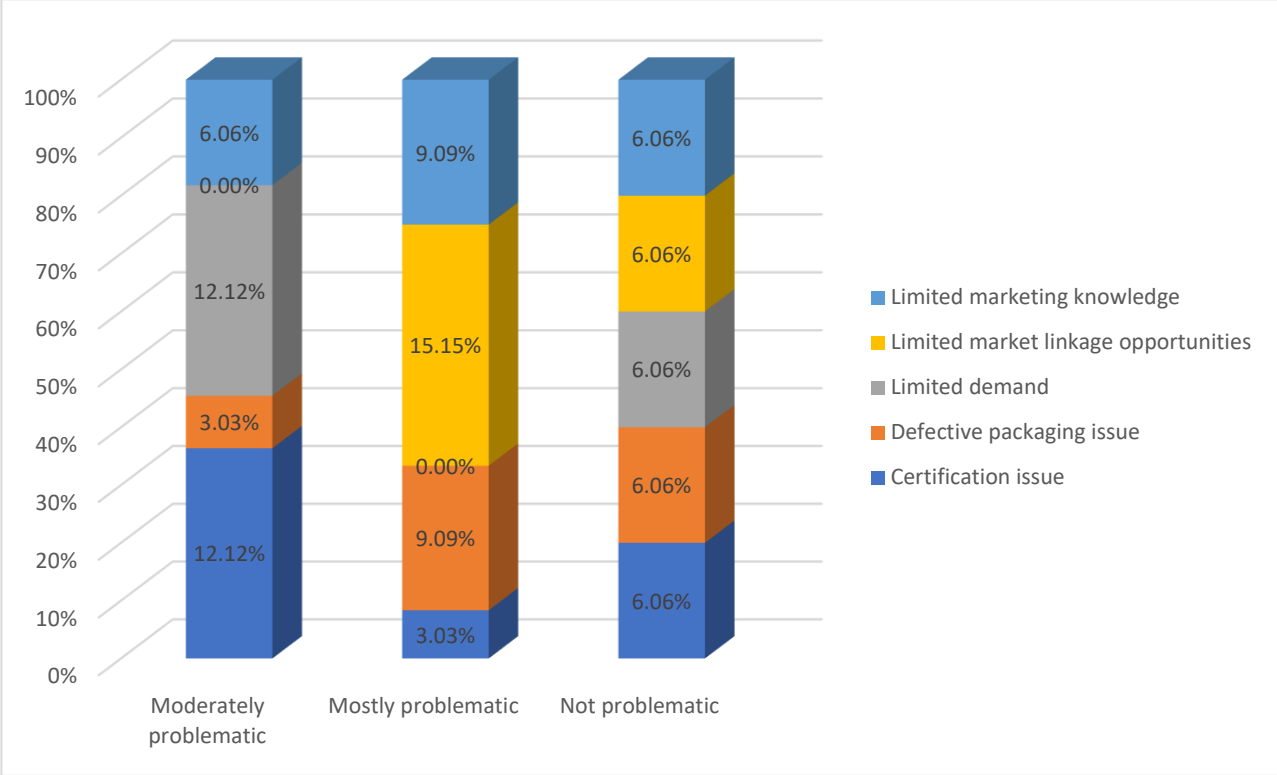
defective packaging issue, limited market demand and limited marketing skill as moderately problematic factors for sale of made tea in the market. Again, 30.30 per cent of the respondents said that all these factors are not problematic far sale of made tea in the market.

Table 4.3.2: Challenges Faced by Respondents for Sale of Made Tea

Scale of problems	Challenges for sale of made tea					
	Certification issue	Defective packaging issue	Limited demand	Limited market linkage opportunities	Limited marketing knowledge	Grand Total
Moderately problematic	12.12%	3.03%	12.12%	0.00%	6.06%	33.33%
Mostly problematic	3.03%	9.09%	0.00%	15.15%	9.09%	36.36%
Not problematic	6.06%	6.06%	6.06%	6.06%	6.06%	30.30%
Grand Total	**21.21%**	**18.18%**	**18.18%**	**21.21%**	**21.21%**	**100.00%**

Source: Primary data

Figure 4.3.2: Challenges Faced by Respondents for Sale of Made Tea



Source: Primary data

4.3.3 Challenges faced by respondents regarding pricing of green tea leaves

Pricing issue is another one of the most chronic problems suffering by the small tea growers. Most of the time they unable to get remunerative price and cost of production become higher than the revenue generated from sale of green tea leaf. The factors responsible for pricing issue are lack bargaining capacity, low quality of green tea leaf, monopoly of tea agents and tea garden factories in price determination, demand and supply issue etc. It is witnessed from table that 4.3.3 and figure 4.3.3 that 60.85 per cent of the total respondents have considered all these factors as highly problematic for sale of green tea leaves in the market. Another 31.61 per cent of the total respondents said that these factors are moderately challenging

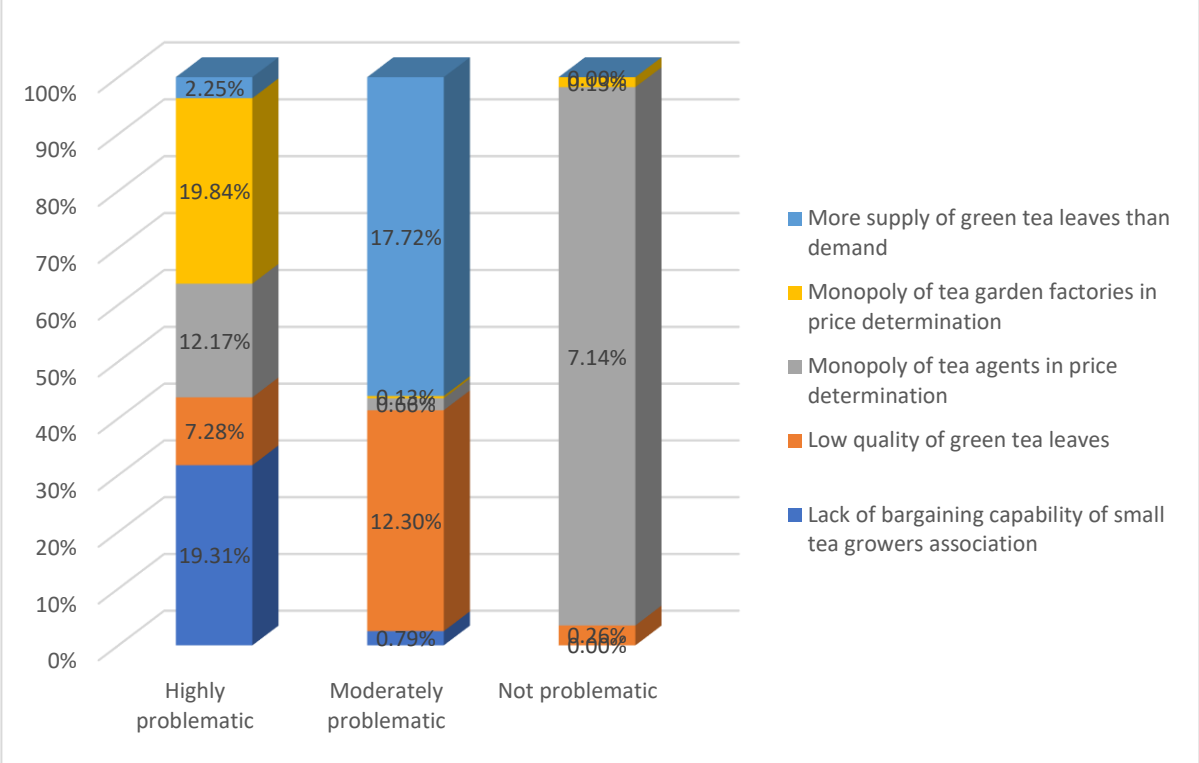
whereas 7.54 per cent of the respondents have considered that these factors as not problematic for sale of green tea leaves in the market.

Table 4.3.3: Challenges Faced by Respondents Regarding Pricing of Green Tea Leaves

Scale of problems	Challenges regarding pricing of green tea leaves					
	Lack of bargaining capability of small tea growers' association	**Low quality of green tea leaves**	**Monopoly of tea agents in price determination**	**Monopoly of tea garden factories in price determination**	**More supply of green tea leaves than demand**	**Grand Total**
Highly problematic	19.31%	7.28%	12.17%	19.84%	2.25%	60.85%
Moderately problematic	0.79%	12.30%	0.66%	0.13%	17.72%	31.61%
Not problematic	0.00%	0.26%	7.14%	0.13%	0.00%	7.54%
Grand Total	**20.11%**	**19.84%**	**19.97%**	**20.11%**	**19.97%**	**100.00%**

Source: Primary data

Figure 4.3.3: Challenges Faced by Respondents Regarding Pricing of Green Tea Leaves



Source: Primary data

4.3.4 Challenges for pricing of made tea in the study area

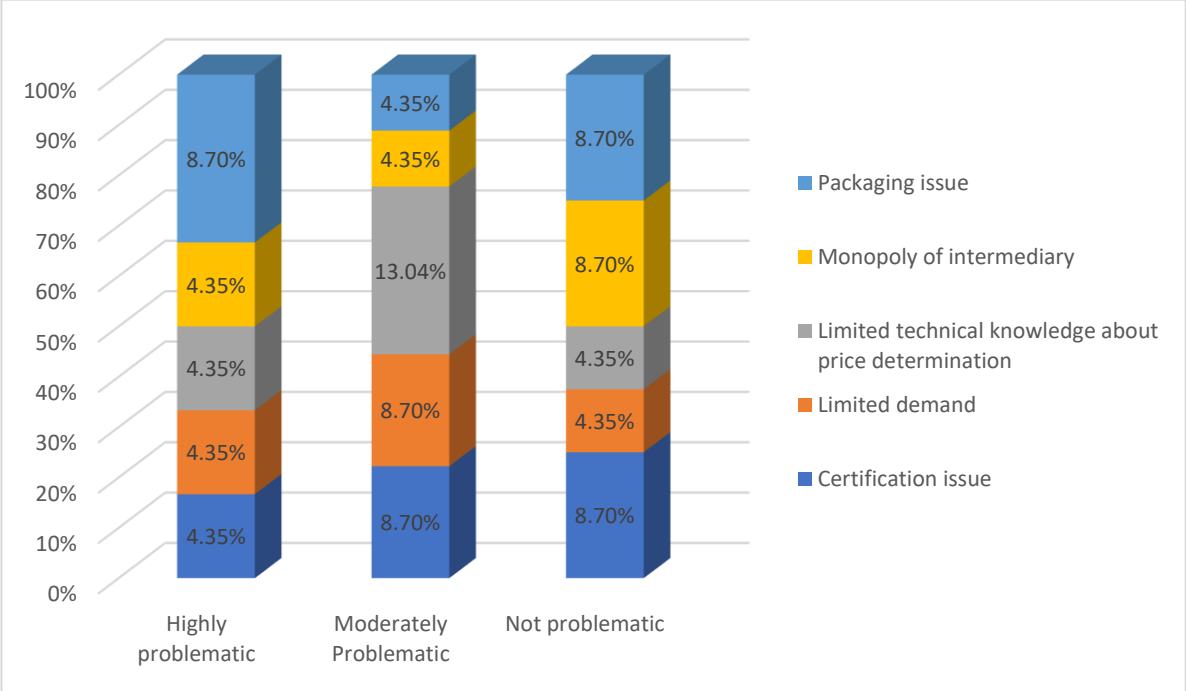
The pricing issue is also witnessed in the study area in case of made tea (organic/chemical free). The respondents have revealed that certification issue, limited demand, limited technical knowledge about price determination, monopoly of intermediary, packaging issue are the responsible factors for creating hurdles to get remunerative price for their finished products. It is revealed from table 4.3.4 and figure 4.3.4 that 39.13 per cent of the respondents have found these factors as moderately challenging, 34.78 per cent of the respondents responded these factors as no challenging and 26.09 per cent of the respondents have responded the same factors as highly challenging that creates hurdles pricing of made tea.

Table 4.3.4: Challenges For Pricing of Made Tea in The Study Area

Scale of problems	Challenges faced by respondents for pricing of made tea					
	Certification issue	**Limited demand**	**Limited technical knowledge about price determination**	**Monopoly of intermediary**	**Packaging issue**	**Grand Total**
Highly problematic	4.35%	4.35%	4.35%	4.35%	8.70%	26.09%
Moderately Problematic	8.70%	8.70%	13.04%	4.35%	4.35%	39.13%
Not problematic	8.70%	4.35%	4.35%	8.70%	8.70%	34.78%
Grand Total	**21.74%**	**17.39%**	**21.74%**	**17.39%**	**21.74%**	**100.00%**

Source: Primary data

Figure 4.3.4: Challenges for Pricing of Made Tea in The Study Area



Source: Primary data

4.3.5 Challenges faced by respondents for market place of green tea leaf

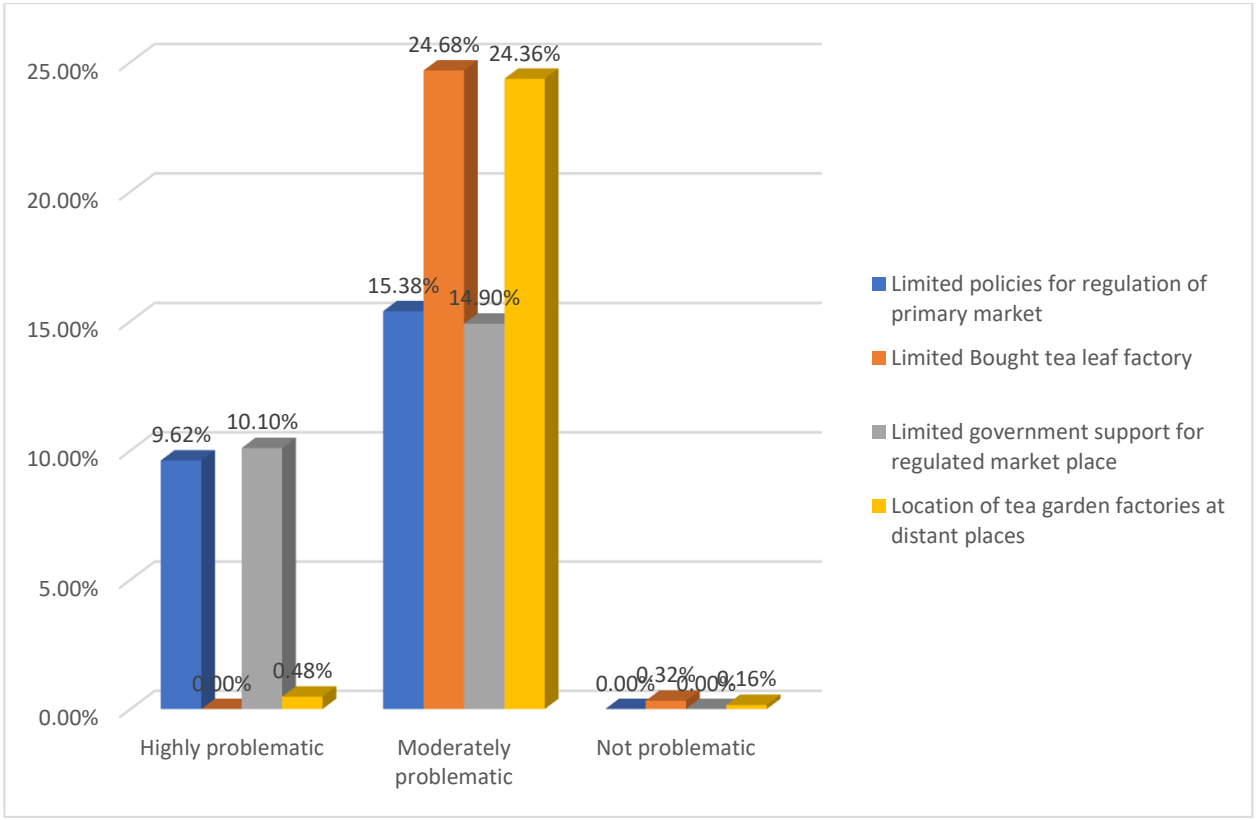
Market place issue for green tea leaf of small tea growers is prevalent in all tea growing regions of India. It is a great concern for small tea growers because it ultimately effects on price fluctuations in the market. Limited policies for regulation of primary market, limited numbers of BLFs, limited government support for regulated market place, location of tea garden factories at distant places are some of factors held responsible for market place issue of green tea leaf produced by small tea growers in the study area. Out of the total respondents, 79.33 per cent of the respondents have considered that these factors are moderately challenging and 20.19 per cent of the total respondents have considered that the same factors as highly challenging factors that create hurdles for market place of green tea leaves of respondents in the study area (witnessed in table 4.3.5 and figure 4.3.5).

Table 4.3.5: Challenges Faced by Respondents for Market Place of Green Tea Leaf

Scale of problems	Challenges faced for market place of green tea leaf				
	Limited policies for regulation of primary market	Limited Bought tea leaf factory	Limited government support for regulated market place	Location of tea garden factories at distant places	Grand Total
Highly problematic	9.62%	0.00%	10.10%	0.48%	20.19%
Moderately problematic	15.38%	24.68%	14.90%	24.36%	79.33%
Not problematic	0.00%	0.32%	0.00%	0.16%	0.48%
Grand Total	**25.00%**	**25.00%**	**25.00%**	**25.00%**	**100.00%**

Source: Primary data

Figure 4.3.5: Challenges Faced by Respondents for Market Place of Green Tea Leaf



Source: Primary data

4.3.6 Challenges faced by respondents regarding market place of made tea (organic/chemical free)

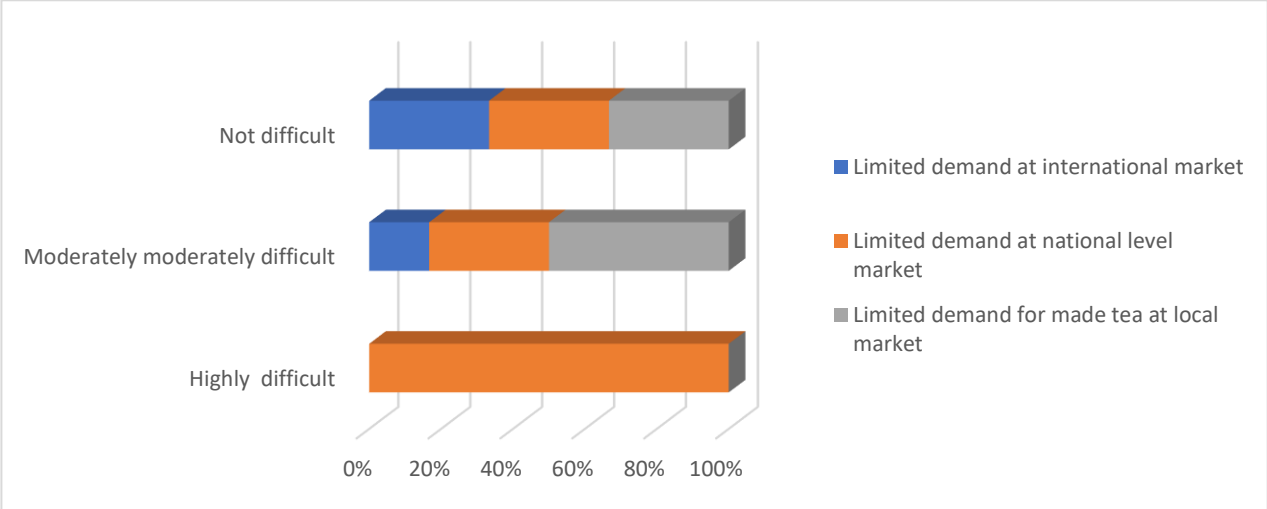
The market place challenge for made tea (organic/chemical free) produced by small tea growers in the study area are witnessing difficulty in sale of their finished products in different levels of market. At international market, 7.69 per cent of the respondents have fond moderately difficult and 15.38 per cent of the respondents have fond no difficulty in sale of made tea. Further, at national level market, 7.69 per cent of the respondents have faced highly difficult, 15.38 per cent of the respondents have find moderately difficult and not difficult respectively. In local market, 23.08 per cent of the respondents have faced moderate difficulty and 15.38 per cent of the respondents have faced no difficulty for demand in sale of their finished products in the market.

Table 4.3.6: Challenges Faced by Respondents Regarding Market Place of Made Tea (Organic/Chemical Free)

Difficulty level	Challenges faced regarding market place for made tea			
	Limited demand at international market	Limited demand at national level market	Limited demand for made tea at local market	Grand Total
Highly difficult	0.00%	7.69%	0.00%	7.69%
Moderately difficult	7.69%	15.38%	23.08%	46.15%
Not difficult	15.38%	15.38%	15.38%	46.15%
Grand Total	**23.08%**	**38.46%**	**38.46%**	**100.00%**

Source: Primary data

Figure 4.3.6: Challenges Faced by Respondents Regarding Market Place of Made Tea (Organic/Chemical Free)



Source: Primary data

4.3.7 Challenges faced by respondents for promotion of made tea

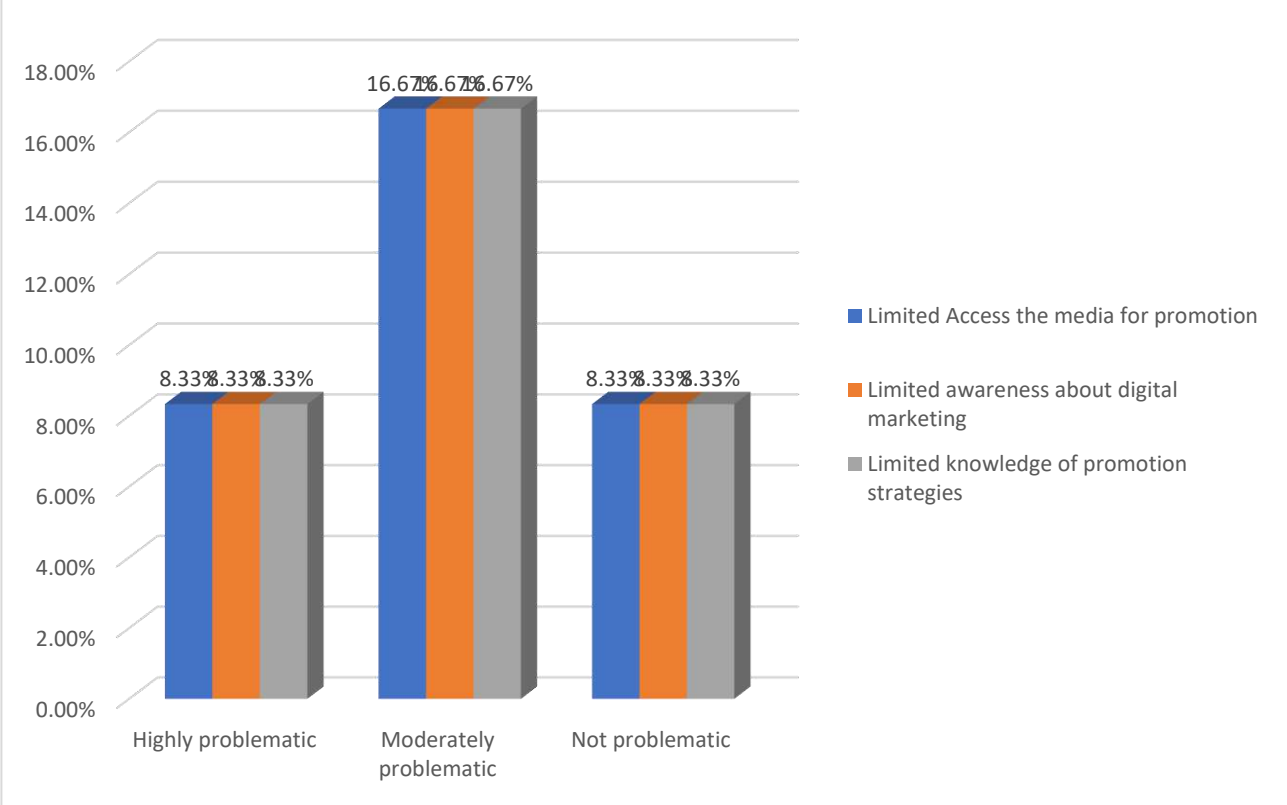
The small tea growers that produce made tea (organic/chemical free) are taking promotion initiatives by their own to increase sale of their finished products. The promotional efforts taken by them are not enough to increase the awareness about their products among the target market. The factors responsible for creating challenge for promotion of made tea produced by the respondents are limited access to the media, limited awareness about digital marketing, limited knowledge of promotion strategy etc. The table 4.3.7 and figure 4.3.7 revealed that 25 per cent of the total respondents have considered these factors as highly challenging, 50 per cent of the respondents have responded these factors as moderately problematic and 25 per cent of the respondents have said that these factors are not at all create challenge for respondents for promotion of made tea in the market.

Table 4.3.7: Challenges Faced by Respondents for Promotion of Made Tea

Scale of problem	Challenges for promotion of made tea			
	Limited access to the media for promotion	Limited awareness about digital marketing	Limited knowledge of promotion strategies	Grand Total
Highly problematic	8.33%	8.33%	8.33%	25.00%
Moderately problematic	16.67%	16.67%	16.67%	50.00%
Not problematic	8.33%	8.33%	8.33%	25.00%
Grand Total	**33.33%**	**33.33%**	**33.33%**	**100.00%**

Source: Primary data

Figure 4.3.7: Challenges Faced by Respondents for Promotion of Made Tea



Source: Primary data

4.3.8 Infrastructural challenges regarding sale of green tea leaves in the study area

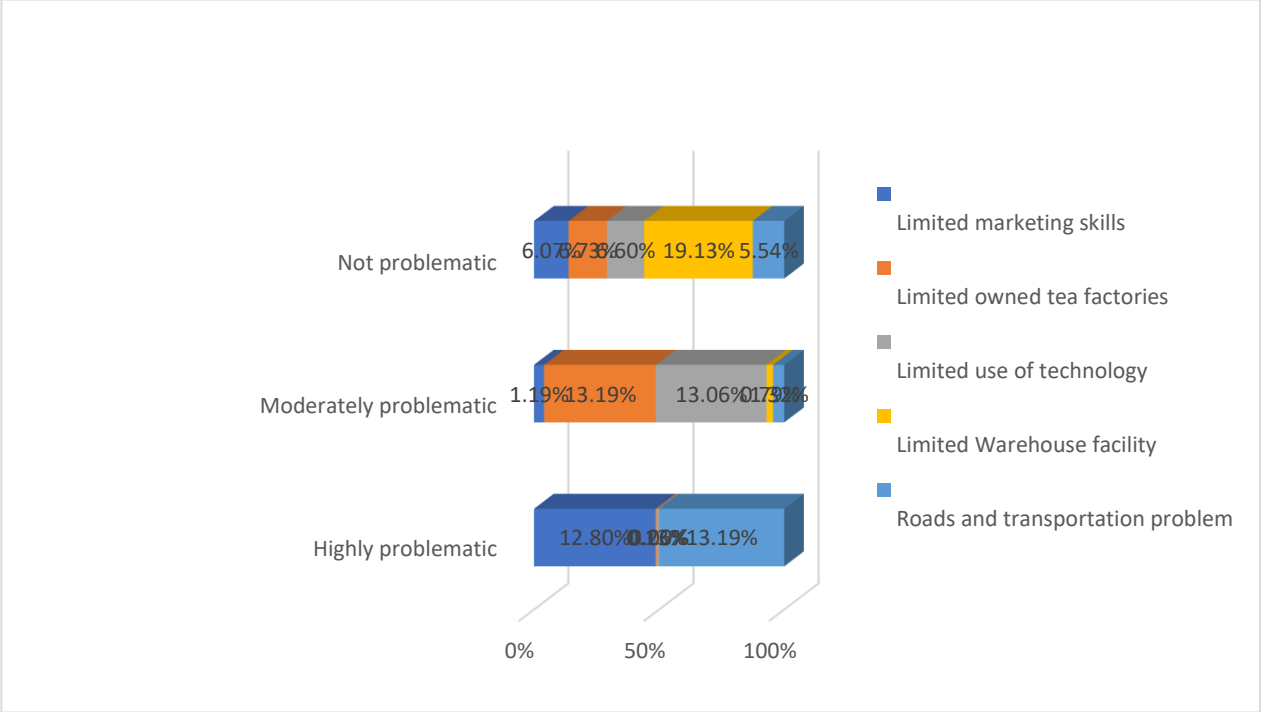
The infrastructural challenges faced by small tea growers for sale of green tea leaf in the study area are manifold due to the factors like limited marketing skills, limited number of owned tea factories, limited use of technology, limited warehouse facility, roads and transportation problem etc. Majority of the respondents (44.06 per cent) have considered that these factors are not responsible for infostructure challenges for sale of green tea leaf in the market. Whereas, 29.55 per cent of the respondents have considered these factors as moderately responsible and 26.39 per cent of the respondents have revealed these factors as highly responsible for infrastructural challenges in sale of green tea leaf in the study area.

Table4.3.8: Infrastructural Challenges Regarding Sale of Green Tea Leaves in the Study Area

Scale of problems	**Infrastructural challenges regarding sale of green tea leaves**					
	Limited marketing skills	**Limited owned tea factories**	**Limited use of technology**	**Limited Warehouse facility**	**Roads and transportation problem**	**Grand Total**
Highly problematic	12.80%	0.13%	0.26%	0.00%	13.19%	26.39%
Moderately problematic	1.19%	13.19%	13.06%	0.79%	1.32%	29.55%
Not problematic	6.07%	6.73%	6.60%	19.13%	5.54%	44.06%
Grand Total	**20.05%**	**20.05%**	**19.92%**	**19.92%**	**20.05%**	**100.00%**

Source: Primary data

Figure 4.3.8: Infrastructural Challenges Regarding Sale of Green Tea Leaves in the Study Area



Source: Primary data

4.4 Marketing and sustainability of small tea growers in the study area

In this section of the chapter, the sustainability of small tea growers in the study area are measured in terms of economic sustainability, product sustainability, customer sustainability and also sustainability of small tea farming. Economic sustainability is expressed with the help revenue generation, as source of livelihood and remunerative price. Product sustainability is implied from value addition in green tea leaves and quality packaging of made tea. Customer sustainability is expressed in delivery of hygiene products to the customer and finally sustainability of small tea farm is measured through multi-cropping in the small tea garden.

4.4.1 Respondents perception on role marketing on sustainability

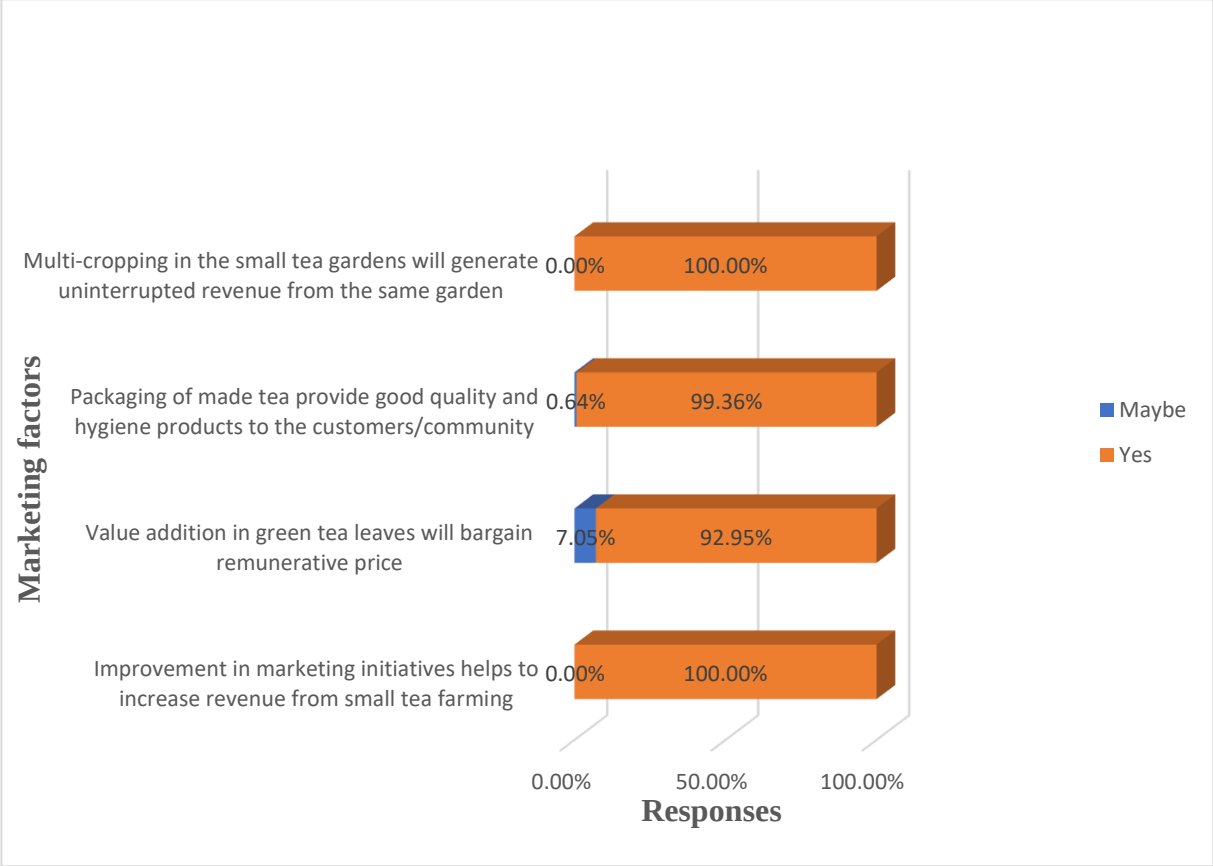
The elements of marketing like product, price, packaging, value addition etc. contributes to sustainability of small tea growers in the study area. The table 4.4.1 and figure 4.4.1 highlights about perception of respondents regarding role of marketing on sustainability of small tea sector in the study area. All respondents have accepted that improvement in marketing initiatives by them will increase revenue. It consists of improvement of infrastructure like transportation, warehousing, increase in number of mini tea factories, BLFs etc. Further, 92.95 per cent of the respondents have revealed that value additions in green tea leaves through transformation into made tea, packaging, labelling and branding also create immense potentiality to bargain for remunerative prices for their products. It allows them to change their status from price taker to price decider by eliminating the monopoly of other stakeholders like tea estate factories and tea intermediaries. Additionally, 99.36 per cent of the total respondents have responded positively that quality and hygiene packaging of made tea provide sustainable food to the consumers. Finally, all respondents have recognized that multi cropping in the small tea garden maintains sustainability of small tea gardens as it able to generate revenue throughout the year form the same garden.

Table 4.4.1: Respondents' Perception on Role of Marketing on Sustainability

Marketing and Sustainability of Small Tea Garden	Maybe	Yes	Grand Total
Improvement in marketing initiatives helps to increase revenue from small tea farming	0.00%	100.00 %	100.00%
Value addition in green tea leaves will bargain remunerative price	7.05%	92.95%	100.00%
Packaging of made tea provide good quality and hygiene products to the customers/community	0.64%	99.36%	100.00%
Multi-cropping in the small tea gardens will generate uninterrupted revenue from the same garden	0.00%	100.00 %	100.00%
Grand Total	**1.92%**	**98.08%**	**100.00 %**

Source: Primary data

Figure 4.4.1: Respondents' Perception on Role of Marketing on Sustainability



Source: Primary data

4.4.2 Marketing promotes small tea farming as promising source of livelihood in long run

Small tea farming is mushrooming in Assam among the rural unemployed youths. Some of the youths developed the same as home based industry. It provides both seasonal and temporary employment to the family labor as well as outside labor. Despite of such immense employment potentiality the small tea growers in the study area are unable to earn remunerative revenue because of loose holding in the market limited participation in

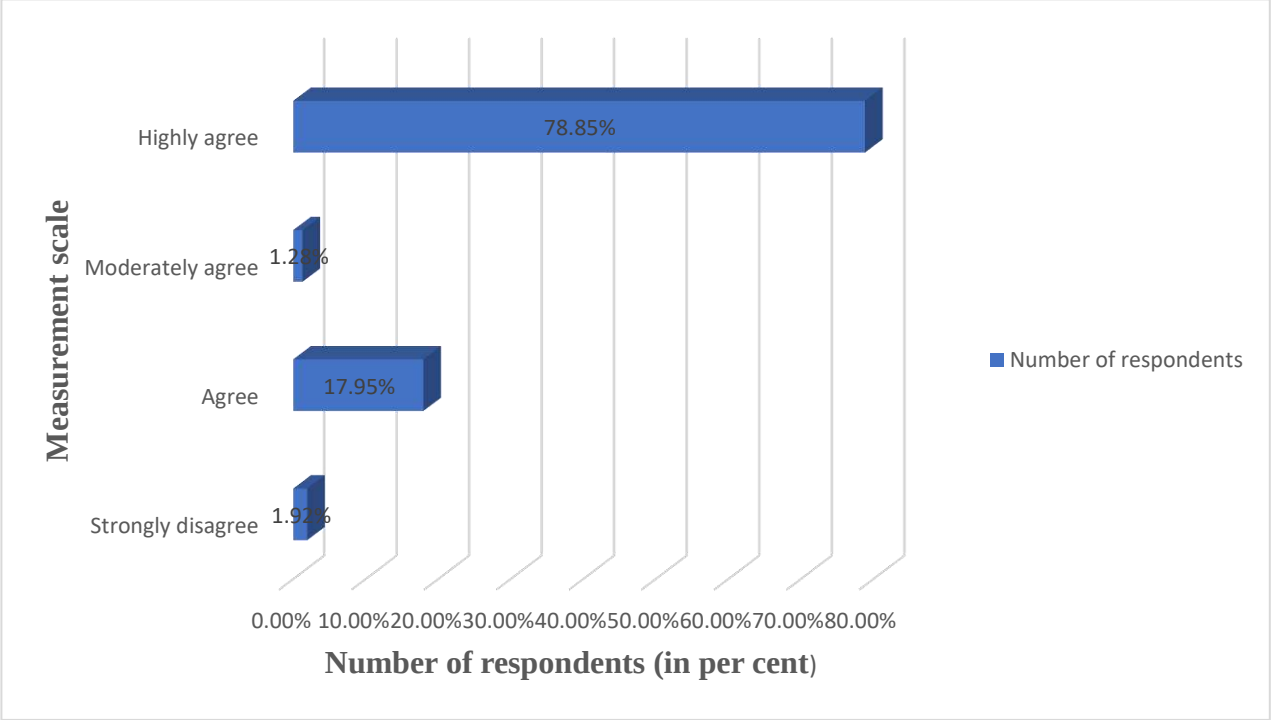
promotion, value addition, packaging, labelling, branding, warehousing, supply chain etc. The table 4.4.2 and figure 4.4.2 reveals about Respondents perception on role of marketing in promotion of small tea farming as source of livelihood. The perception is measured with the help of measurement scale like 1-Strongly disagree, 2-Disagree, 3-Agree, 4-Moderately agree and 5-Highly agree. 78.85 per cent of the respondents have responded as highly agree that effective marketing initiatives will promote small tea farming as promising source of livelihood in the study area.

Table 4.4.2: Respondents' Perception on Role of Marketing in Promotion of Small Tea Farming as Source of Livelihood

Measurement scale	Number of respondents
Strongly disagree	1.92%
Agree	17.95%
Moderately agree	1.28%
Highly agree	78.85%
Grand Total	**100.00%**

Source: Primary data

Figure 4.4.2: Respondents' Perception on Role of Marketing in Promotion of Small Tea Farming as Source of Livelihood



Source: Primary data

4.5 Testing of Hypothesis

The null hypothesis formed for the present study is that there is no relationship between marketing initiatives taken by small tea growers and sustainability of small tea growers of Assam. The present study focuses on three dimensions of sustainability i.e., economic sustainability, social sustainability and environmental sustainability of small tea growers of the state that can be attained through the marketing mix i.e., product mix, pricing decision, promotional strategies and accessibility to the market place or target market. Therefore, the relationship between marketing initiatives taken by small tea growers of the state and their sustainability is measured through revenue generation, pricing, packaging, value addition and product development. It is attempted to analyze whether improvement in promotional strategies, product mix, packaging, value addition etc. able to paves the way for long run sustainability of small tea growers in future ahead.

In table 4.5.1 the outcome of chi square test is 0.00 which is less than P value 0.05. Hence, it is significant to say that improvement in marketing initiatives significantly increases revenue from small tea farming. Furthermore, table 4.5.2 reveals the chi square test value is 0.005156077 which is less than P value 0.05. It indicates that there is significant positive influence on demand for remunerative price due to value addition and product development of green tea leaves. Another table 4.5.3 figured chi square outcome as 0.0000147539 which is less than 0.05. Therefore, it is rightly to say that quality and standardized packaging will provide hygiene products to the customers. The table 5.4.4 reveals chai square value as 0.0000101228 which is less than 0.05. Therefore, it is accepted by small tea growers of the state that improvement in marketing initiatives will also provide promising sources of livelihood in long run to the small-scale tea growers.

From the above discussion, it can be concluded that since chai square P value in all the tables is less than 0.05 in all the tables, the null hypothesis is rejected and accept the alternative hypothesis that there is significant relationship between marketing initiatives and sustainability of small tea growers of Assam.

4.5.1 Improvement in marketing initiatives increases revenue from small tea farming

Responses	**Observed frequencies**	**Expected frequencies**	**Chi-square value**
Yes	154	0.980769231	0< P value 0.05
No	3	0.019230769	

Source: Primary data (excel outcome)

4.5.2 Value addition (processing to made tea, packaging, branding etc.) in green tea leaves helps small tea growers to demand for good price

Observed frequencies						**Total**
Maybe	0	0	0	11	0	**11**
Yes	94	5	2	44	1	**146**
Expected frequencies						
Maybe	6.585987261	0.350318471	0.140127389	3.853503185	0.070063694	**11**
Yes	87.41401274	4.649681529	1.859872611	51.14649682	0.929936306	**146**
Grand Total	94	5	2	55	1	**157**
Chi square test value = 0.005156077 < P value 0.05						

Source: Primary data (excel outcome)

4.5.3 Packaging of made tea provide good quality and hygiene products to the customers/community

Observed frequencies						**Total**
Maybe	0	0	0	1	0	1
Yes	94	5	2	54	1	156
Grand Total	94	5	2	55	1	157
Expected frequencies						
Maybe	0.598726115	0.031847134	0.012738854	0.350318471	0.006369427	1
Yes	93.40127389	4.968152866	1.987261146	445.3090909	0.993630573	156
Grand Total	94	5	2	55	1	157
Chi square test value= 0.0000147539< P value 0.005						

Source: Primary data (excel outcome

5.4.4 Marketing initiatives taken by small tea growers helps them to undertake small tea farming as promising source of livelihood in long run

Observed Frequencies						**Total**
Strongly disagree	2	0	0	0	1	**3**
Agree	0	0	0	28	0	**28**
Moderately agree	1	1	0	0	0	**2**
Highly agree	91	4	2	27	0	**124**
Grand Total	94	5	2	55	1	**157**
Expected frequencies						
Strongly disagree	1.796178344	0.095541401	0.038216561	1.050955414	0.01910828	3
Agree	16.76433121	0.891719745	0.356687898	9.808917197	0.178343949	28
Moderately agree	1.197452229	0.063694268	0.025477707	0.700636943	0.012738854	2
Highly agree	74.24203822	3.949044586	1.579617834	43.43949045	0.789808917	124
Grand Total	94	5	2	55	1	157
Chi-square test = 0.0000101228						

Source: Primary data (excel outcome)

CHAPTER 5

(FINDINGS, RECOMMENDATIONS AND CONCLUSION OF THE STUDY)

Tea industry occupies a significant position in the economy of Assam because it contributes a majority share to the GDP of the state, provides employment to the local youths, source of livelihood for rural households, promotion of micro industries in rural areas, prospects for tourism etc. and also shares rich cultural heritage of the state. In the previous chapters a detail analysis and discussion are made on origin and growth of tea industry in the world, in India and in Assam, evolution and growth of small-scale tea farming, marketing structure of small tea sector, marketing challenges of small tea sector and sustainability of small tea industry in the study area. The present chapter highlights chapter wise summary and findings of the study. However, some of the problems encountered during the study period are non-availability of appropriate data on small scale organic tea farming, wide study area, limited time period, difficulty to access secondary data and primary data. Although the existence of these difficulties, I have made my best effort to make the present study purposeful and fruitful.

5.1 Summary of findings

On the basis of the study of proceeding chapters, following summary findings have been highlighted:

The **first chapter** presents introduction about tea, origin and growth of tea industry in India, status of Indian Tea industry in the world market, brief discussion on tea growing regions of the country, tea growing scenario in the state etc. Furthermore, highlights about the area of production, productivity of tea industry, the scenario of small tea growers. The position of India in terms of world tea export is fourth and in terms of world production it is second. The varieties of made tea produced in India is classified into five names like Assam Tea, Darjeeling Tea, Nilgiris Tea, Kangra Tea, Munnar Tea, Doors-Terai Tea, Masala Tea and Sikkim Tea depending on its origin of production and unique features. The tea growing areas are widely scattered in North India and South India. The contribution of North India is comparatively higher than South India in the total tea Production of the Country. The Statistical Handbook of Assam, 2022 has highlighted that small tea industry of Assam also

contributes 188.21 (in 000' kg) which is around 52 per cent (PIB, 2023) in total tea production of the country. The small tea growers primarily sell their green tea leaves either directly to Bought Leaf Factories (BLFs)/estate factory or through buying centers or agents and they convert it to made tea and sell the made tea through Tea Auction Centers. Additionally, definitions of small tea growers, bought tea leaf factory, mini tea factory, tea agents/intermediaries and tea marketing were compiled and discussed form available literature. Related literatures were reviewed and objectives, significance, hypothesis of the study are laid down in this chapter. Moreover, the research methodology used for the purpose of selection of samples, collection of data, analysis and interpretation of data, testing of hypotheses etc. for the present study are discussed in this chapter.

The **second chapter** lays down market structure of tea industry including the small-scale tea sector, their value chain structure, trajectory of small tea growers green leaf supply of Assam and also marketing challenges of small tea growers. Indian tea industry witness variations in market structure for large scale tea gardens/tea estates and small-scale tea producers. The large tea gardens mainly involved in cultivation of green tea leaves, processing, blending and packaging of green tea leaves. Some of the tea companies are engaging in whole process of market from the stage to production till finale sale. Such tea companies or large tea gardens performs cultivation of green tea leaves, processed it into made tea, blending and packaging, marketing and branding, distribution and finale sale to the target market. On the other the hand small tea growers are engaging in only cultivation of green tea leaves and transportation of green tea leaves to the tea factories. Remaining market activities are left either for big tea gardens or tea factories or tea marketing firms. Further, the tea industry has two segments in marketing- primary marketing and secondary marketing. The primary marketing consists of producers (small growers and big growers), buying centers, agents, bought leaf factories, estate factories and auction centers. The small tea growers sell their green tea leaves either directly to Bought Leaf Factories (BLFs)/estate factory or through buying centers or agents. The BLFs/estate factories sell the made tea through tea auction centers. On the other hand, big growers have their own estate factories where green tea leaves are processed for made tea which are sold through tea auction centers. The secondary market for tea in India is the Tea Auction Centers where auctions are presently conducted through electronic platform provided by Tea Board. There are seven recognized auction centers in the country viz. Kolkata, Siliguri, Guwahati, Jalpaiguri, Coonoor, Cochin

& Coimbatore where public tea auctions are made. The stakeholders involved in the auction centers are auction organizers, producers of made tea (sellers), auctioneers/brokers, buyers and warehouses, all of them being registered stakeholders of the Tea Board. The small tea growers of India are facing challenges in marketing of tea in the form of product mix, pricing, market place and promotional strategies. Marketing constraints of small tea growers involves high price fluctuations, lack of adequate storage facilities, lack of adequate processing facilities, lack of transportation facilities and defective and faulty weighing of green tea leaves.

The **third chapter** has made discussions about sustainability of small tea sector of the country. Here, sustainability of small tea growers is discussed from economic, social and environmental dimension. Tea industry of India is exposed to sustainability issue in long run due to climate change, old age tea garden, soil fertility degradation, poor quality production, scarcity of labor etc. The small tea sector of India is more exposed to sustainability challenges due to climate change issue, lack of organized association, soil degradation, limited skill of tea garden management, no ownership of tea factory, land ownership, negligible marketing activities, financial constraint, conventional method of farming etc. are few to mention. Further, the low profitability of the small-scale tea growers has emerged as a serious threat to the sustainability of the small tea sector. Non participation in marketing creates further challenges for sustainability in small tea segment.

The **fourth chapter** depicts analysis and interpretation of data. All the collected data are analyzed and interpreted with the use of appropriate tools and techniques and headed under the demographic profile, marketing behavior, marketing challenges and marketing and sustainability of small tea growers of the respondents to give a good insight and understanding about the collected data. The demographic profile of the respondents gives idea about age distribution, educational qualification, gender, primary source of livelihood, address of the respondents, method of tea cultivation, nature of ownership, nature of farm land, registration with tea board, experience of tea farming practice etc. in the study area. The marketing behavior of the respondents have been incorporated including the period of plucking of green tea leaves, season wise productivity, market place for sale, mode of transportation, pricing of green tea leaves, method processing into made tea, product mix, market linkage, packaging and also training for small tea growers regarding skill development of marketing of respondents in the study area. The marketing challenges of the

respondents has revealed the challenges and issues faced by respondents regarding uninterrupted sale, pricing, access to market place, promotion and infrastructure facility. The marketing and sustainability of small tea growers gives an idea about sustainability of small tea growers through marketing initiatives. It is measured by analyzing their perception regarding promotion, value addition, packaging and multi cropping on economic sustainability, social sustainability, community/customer sustainability and long run survival of respondents in the study area. At the end of this chapter testing of hypothesis is made with appropriate tools to give better inferences of the present study.

The **fifth chapter** is about the summary of findings, recommendations and conclusions of the study. The Chapter wise summary findings are discussed and then major findings are outlined on the basis of field survey conducted during the study period. The recommendations of the study are made for the improvement of marketing environment and ecosystem for development marketing skill of small tea growers in the state. The recommendations provided by the respondents for sustainable growth of small tea industry through marketing and recommendations from author developed during field visits, observations and analysis of data are compiled in this chapter. Finally, the chapter is concluded by commenting on overall growth prospects for small tea industry through development of tea marketing ecosystem for small tea growers of the state.

5.2 Major Findings

The major findings of the study are highlighted below:

5.2.1. The age of small tea garden of most of the respondents is more than 20 years old. The land used for small tea cultivation are either self-owned or leased or touju (occupied) or forest land. Majority of respondents (99.4 per cent) in the study area are mainly uses self-owned land for small tea cultivation. Further, 108 numbers of respondents which is 69.23 percent of total respondents are engaged in 7-10 bighas of tea cultivation. Additionally, 100 per cent of the respondents in the study area are revealed that they owned their small tea gardens on sole basis.

5.2.2 The small tea growers in the study area are mainly involve in tea cultivation of inorganic method/traditional method and natural/chemical free/organic method of tea cultivation. Majority of respondents (97.4 per cent) are engaged in conventional/inorganic method of tea

cultivation whereas 2.6 per cent of total respondents are engaged in organic/chemical free/natural method of tea cultivation.

5.2.3 Small tea cultivation become one of the promising sources of livelihood for rural unemployed youths of Assam. The respondents have recognized small tea farming as permanent and sometimes temporary source of livelihood. At least one of the family labors and sometimes all adult family labor is engaged in their farm either on permanent or seasonal basis. Additionally, 100 per cent of the respondents permanently engaged in small tea cultivation for their livelihood.

5.2.4 In Assam the green tea leaves are plucked in three flushes – first flush (March-May), second flush (June-October) and third flush (October-December). 100 per cent of the respondents in the study area are plucking the raw green tea leaves in all flushes. During first flush (March-May) the production of green tea leaves are lowest in the study area. In second flush i.e. (June to October) the production of green tea leaves is highest and in the third flush (October to December) of the production of green tea leaves are highest for matured small tea gardens and lowest for new small tea gardens in the study area.

5.2.5 The small tea growers in the study area are mainly limiting their activities up to the cultivation of green tea leaves only. The respondents adopting conventional small tea farming sale the green tea leaves to the third party for further processing. It is because they are not owning tea factories either on individual or group basis. It is also responded by 98.69 per cent of the respondents in the study area that they sale the green tea leaves to third party and only 1.31 per cent of the respondents transform the green tea leaves into made tea.

5.2.6 The available sources for sale of green tea leaves for small tea growers in the study area are tea agents, large tea estate factories, BLFs, Co-operative societies, tea auction center, SHGs and other sources also. 73.9 percent of the respondents in the study area are responded that they sale the green tea leaves to tea agents who in turn sale the same to large tea garden factories or BLFs. Only 27.4 per cent of the respondents have said that sale the green tea leaves to the bought leaf factories (BLFs). They supply green tea leaves to only the local areas or nearby towns because of its perishability nature, excess supply, limited means of transportation, inconvenient road condition etc. It is responded by 37.8 per cent respondents in the study area that they sale the green tea leaves to local tea gardens, 64.1 percent of the

respondents responded as nearby towns and only 0.6 per cent of the total respondents responded that district town is the market place for sale of green tea leaves.

5.2.7 The means of transportation used by the respondents for sale of green tea leaves to the market are mainly tempo and truck. Ou of the total respondent 42.3 percent of the respondents uses tempo and 57.7 per cent of the total respondents uses truck as means of transportation. Only 0.6 per cent of the total respondents sometimes use by-cycle for suppling small amount of green tea leaves to the market place.

5.2.8 In the small tea sector, the small tea growers are mainly price takers and price deciders are either large tea gardens or tea intermediaries or brought leaf factories (BLFs) which varies place to place. It is revealed by 98.1 per cent the respondents that BLFs are price deciders, 4.5 per cent of the respondents reveals that tea intermediaries are price deciders, 1.6 per cent of the respondents reveals that large tea garden factories are price deciders in the study area. The pricing decision of green tea leaves produced by small tea growers are influenced by the factors like quality of plucking, average rainfall, quality of green tea leaf, climate change, commission of tea intermediaries and market demand and supply. Out of these factors, 39.4 per cent of the respondents reveals that all the factors are responsible for pricing decisions of green tea leaves. Whereas, 36.1 per cent reveals that only quality of green tea leaf and 25.2 per cent reveals that only market demand and supply of green leaf is responsible for price determination in the market.

5.2.9 In case of made tea market, the scenario is different from green tea leaf market. Here, small tea growers are the producers and sellers of made tea who are the price deciders and buyers are price givers only. It is because there are only few numbers of organic/natural made tea producers/sellers and large number of buyers in the study area.

5.2.10 The respondents engaged in conventional/inorganic method of tea cultivation in the study area are not satisfied with the price provided in the market for their produce. It is recognized by 152 (97.42 per cent) respondents out of total respondents that they are not satisfied with the pricing decision of the green tea leaf buyers and 1.94 percent of the total respondents recognized that they are moderately satisfied with the pricing decision of the green tea leaf buyers.

5.2.11 The government and Tea Board of India (Tea Board Monitoring Committee) from time to time come with policy to control deteriorating price of green tea leaves of small tea sector and also investigate the reason for pricing crisis of product of small tea sector. Out of the total respondents 60.3 per cent of the respondents revealed that government/institutional intervention is always present in pricing decision of green tea leaves, 37.2 per cent of the respondents revealed that no intervention of government/institution in pricing decision of green tea leaves and only 2.6 per cent of the respondents said that sometimes government/institution intervene in the pricing decision of green tea leaves in the study area.

5.2.12 The small tea growers adopting organic/natural/chemical free tea cultivation are transforming the green tea leaves into made tea (finished products). The product mix of small tea growers in Assam are mainly green tea, orthodox black tea, dheki tea, oolong tea, blended tea etc. In the study area 68.4 per cent of the respondents produces green tea, 28.7 per cent of the respondents produces orthodox black tea and only negligible number of respondents produces dheki tea and oolong tea. Further, they use either self-developed/designed machine with technology or traditional method without any technology for production of made tea.

5.2.13 The respondents engaged in organic/natural/chemical free method of tea cultivation produces final product (made tea) in limited quantity due to limited capacity of production, limited infrastructure, lack of sophisticated technology, limited technical skill and sometimes limited demand in the market. Limited production accompanied by limited demand also leads to geographical location of market is limited to either local level (within the locality, nearby places etc.) or state level. It is witnessed from data analysis that 66.67 per cent of retail sale of made tea is made in local market like nearby city, town and village whereas 33.33 per cent of wholesale sale of made tea is made at state level market.

5.2.14 The small tea growers that produce organic/natural made tea in the study area are selling their products to ultimate consumers through agents and distributors. Depending on the location and distance of market/target customer the intermediaries of supply chain vary. In case local market, the 20 per cent of respondents uses agent, another 20 per cent of them uses agent and distributor and 40 per cent of respondents directly sale their finished produce to customers. Further, 10 per cent of the respondent sale their products at national level and they sale the same to agents who in turn sale it to distributors and finally delivered to the

customers. At state level market also the respondent sale their finished products through agents which is figured as 10 per cent

5.2.15 The respondents producing organic/natural made tea in the study area find their market linkages through exhibition, expo, trade fair and private party intermediation. It is recognized by 16.67 per cent of respondents that they get market linkages through exhibition/expo/trade fair and another 16.67 per cent of respondents have recognized for private party intermediation to access interstate market. For local market, the respondents find market linkages through exhibition/expo/trade fair/private party intermediation (16.67 per cent) and sometimes private party intermediation only (50 per cent).

5.2.16 The marketing platforms available for promotion of finished products (organic/naturally produce made tea) are print media, electronic media, social media, word of mouth etc. The respondents have stated that due limited of marketing skill they are only using social media platform like Facebook, Instagram, wats up and sometimes websites for promotion of their finished products in the target market.

5.2.17 The scenario of receipt of training for development of marketing skill by the respondents is not asymmetric. It is witnessed that 89.09 per cent of the respondents have responded negatively that they have not received any training yet regarding marketing whereas only 10.91 per cent of the total respondents have responded positively that Assam Agricultural University, Jorhat is the only institution from where they have received the training on development of marketing. They further stated that out of the many marketing skills like packaging, distributorship, pricing, advertising etc. that they able to develop packaging skill only. The respondents also revealed that sometimes they lose the wholesale customers from interstate and cross border areas due to nonfulfillment packaging conditions. The development of packaging skill will enable them to develop multiple layer packaging skill, hygiene packaging, cost management in packaging, packaging for retail sale and wholesale sale etc.

5.2.18 The respondents have highlighted that convenient market place issue, limited BLFs in nearby location, location of tea garden factories at distant places, deterioration in quality of green tea leaf, poor quality of plucking of green tea leaf, wastage of green tea leaf in transportation are few challenges that create hurdles for selling of green tea leaf at remunerative price. Further, it is witnessed from data analysis that 11.85 per cent of the

respondents have considered market place issue, location of tea garden factories, poor quality plucking and wastage of green tea leaf during transportation as highly problematic factors for selling of green tea leaves in the market. Another 55.06 per cent of total respondents have considered all the mentioned factors as moderately problematic. Furthermore, 33.08 per cent of the total respondents have responded that these factors are not problematic for them in selling of green tea leaves in the market.

5.2.19 The respondents cultivating organic/natural/chemical free tea are producing made tea by their own have encountered the challenges of certification issue due to high cost involved, defective packaging issue, limited market demand, limited market linkage opportunities and limited marketing knowledge for sale of made tea in the market. 36.36 per cent of the respondents have considered certification issue, defective packaging issue, limited market linkage opportunities and limited marketing knowledge as mostly problematic factors for selling of made tea in the market. Another 33.33 per cent of the respondents have considered certification issue, defective packaging issue, limited market demand and limited marketing skill as moderately problematic factors for sale of made tea in the market. Again, 30.30 per cent of the respondents said that all these factors are not problematic far sale of made tea in the market.

5.2.20 Pricing issue is another one of the most chronic problems suffering by the small tea growers. Most of the time they unable to get remunerative price and cost of production become higher than the revenue generated from sale of green tea leaf. The factors responsible for pricing issue are lack bargaining capacity, low quality of green tea leaf, monopoly of tea agents and tea garden factories in price determination, demand and supply issue etc. It is revealed by 60.85 per cent of the total respondents have considered all these factors as highly problematic for sale of green tea leaves in the market. Another 31.61 per cent of the total respondents said that these factors are moderately challenging whereas 7.54 per cent of the respondents have considered that these factors as not problematic for sale of green tea leaves in the market. The pricing issue is also witnessed in the study area in case of made tea (organic/chemical free). The respondents have revealed that certification issue, limited demand, limited technical knowledge about price determination, monopoly of intermediary, packaging issue are the responsible factors for creating hurdles to get remunerative price for their finished products. It is also revealed that 39.13 per cent of the respondents have found these factors as moderately challenging, 34.78 per cent of the respondents responded these

factors as no challenging and 26.09 per cent of the respondents have responded the same factors as highly challenging that creates hurdles pricing of made tea.

5.2.21 Market place issue for green tea leaf of small tea growers is prevalent in all tea growing regions of India. It is a great concern for small tea growers because it ultimately effects on price fluctuations in the market. Limited policies for regulation of primary market, limited numbers of BLFs, limited government support for regulated market place, location of tea garden factories at distant places are some of factors held responsible for market place issue of green tea leaf produced by small tea growers in the study area. Out of the total respondents, 79.33 per cent of the respondents have considered that these factors are moderately challenging and 20.19 per cent of the total respondents have considered that the same factors as highly challenging factors that create hurdles for market place of green tea leaves of respondents in the study area.

5.2.22 The market place challenge for made tea (organic/chemical free) produced by small tea growers in the study area are witnessing difficulty in sale of their finished products in different levels of market. At international market, 7.69 per cent of the respondents have fond moderately difficult and 15.38 per cent of the respondents have fond no difficulty in sale of made tea. Further, at national level market, 7.69 per cent of the respondents have faced highly difficult, 15.38 per cent of the respondents have find moderately difficult and not difficult respectively. In local market, 23.08 per cent of the respondents have faced moderate difficulty and 15.38 per cent of the respondents have faced no difficulty for demand in sale of their finished products in the market.

5.2.23 The small tea growers that produce made tea (organic/chemical free) are taking promotion initiatives by their own to increase sale of their finished products. The promotional efforts taken by them are not enough to increase the awareness about their products among the target market. The factors responsible for creating challenge for promotion of made tea produced by the respondents are limited access to the media, limited awareness about digital marketing, limited knowledge of promotion strategy etc. From data analysis it is witnessed that 25 per cent of the total respondents have considered these factors as highly challenging, 50 per cent of the respondents have responded these factors as moderately problematic and 25 per cent of the respondents have said that these factors are not at all create challenge for respondents for promotion of made tea in the market.

5.2.24 The infrastructural challenges faced by small tea growers for sale of green tea leaf in the study area are manifold due to the factors like limited marketing skills, limited number of owned tea factories, limited use of technology, limited warehouse facility, roads and transportation problem etc. Majority of the respondents (44.06 per cent) have considered that these factors are not responsible for infrastructure challenges for sale of green tea leaf in the market. Whereas, 29.55 per cent of the respondents have considered these factors as moderately responsible and 26.39 per cent of the respondents have revealed these factors as highly responsible for infrastructural challenges in sale of green tea leaf in the study area.

5.2.25 The elements of marketing like product, price, packaging, value addition etc. contributes to sustainability of small tea growers in the study area. All respondents have accepted that improvement in marketing initiatives by them will increase revenue. It consists of improvement of infrastructure like transportation, warehousing, increase in number of mini tea factories, BLFs etc. Further, 92.95 per cent of the respondents have revealed that value additions in green tea leaves through transformation into made tea, packaging, labelling and branding also create immense potentiality to bargain for remunerative prices for their products. It allows them to change their status from price taker to price decider by eliminating the monopoly of other stakeholders like tea estate factories and tea intermediaries. Additionally, 99.36 per cent of the total respondents have responded positively that quality and hygiene packaging of made tea provide sustainable food to the consumers. Finally, all respondents have recognized that multi cropping in the small tea garden maintains sustainability of small tea gardens as it able to generate revenue throughout the year form the same garden.

5.2.26 Small tea farming is mushrooming in Assam among the rural unemployed youths. Some of the youths developed the same as home based industry. It provides both seasonal and temporary employment to the family labor as well as outside labor. Despite of such immense employment potentiality the small tea growers in the study area are unable to earn remunerative revenue because of loose holding in the market limited participation in promotion, value addition, packaging, labelling, branding, warehousing, supply chain etc. Out of the total respondents, 78.85 per cent of the respondents have perceived that that effective marketing initiatives will promote small tea farming as promising source of livelihood in the study area.

5.3 Recommendations of the Study

During the field survey with the interactions with respondents following recommendations are offered for the sustainable growth and prosperity of organic tea farming in the study area-

5.3.1 The small tea growers should prioritize the production of high-quality tea by adhering to best practices in cultivation, harvesting, and processing. Consistent quality can help to build a strong reputation and attract consumers willing to pay a premium price.

5.3.2 The small tea growers should emphasis on obtaining organic, fair trade, or sustainability certifications to attract more eco-conscious consumers. It further opens up new markets for organic/natural tea produced by small tea growers of the state.

5.3.3 The small tea growers should make aware about government programs and subsidies that support small tea farmers in terms of training and development, upgradation of tea garden, certification, purchase of machine and technology, marketing assistance through trade fairs, conclave, exhibition etc.

5.3.4 The small tea growers' association are continuously appealing to government for formulation of guideline for minimum support price (MSP). The MSP will help to prevent losses of small tea growers that arises form fall of price of green tea leaves due to excess supply during peak season.

5.3.5 Government should make favorable policy for sustainable and eco-friendly agricultural practices in small tea sector. It helps to maintain distinctive flavor of Assam tea and also positioning of brand in the world market. Further, small tea growers urge for financial assistance from the government for marketing initiatives or infrastructure improvements.

5.3.6 The small tea growers may also conduct market research to identify consumer preferences about distinctive flavors of tea. It helps them to identify the market demand and accordingly they can produce varieties of product like green tea, black tea, flavored tea, blended tea, medicated tea, tea capsules, pouched tea etc. It paves the way for small tea sector of Assam to capture the growing market demand by developing product mix of tea.

5.3.7 There is need for conduct of tea testing workshops from time to time to keep track of quality of finished product produced by the small tea sector. Tea testing identifies quality of tea and certifies them for branding in the market.

5.3.8 Join tea associations or industry groups to connect with other farmers and industry experts. Networking can provide valuable insights and opportunities for collaboration, explore opportunities in domestic market and also for export. Exporting can open up new revenue streams.

5.3.9 It will be fruitful to promote Assam tea in regional and national media by organizing tea-themed events and festivals and also by highlighting Assam's tea heritage in marketing materials.

5.3.10 Utilization of social media platform for promotion of product, development a professional website showcasing the tea products of small-scale tea producers, writing articles/blogs in print media and electronic media highlighting the benefits of tea consumption are some of the good promotional strategies for the products of small-scale tea producers of the state.

5.3.11 Offer a toll-free helpline for inquiries and orders to the target retail customers and corporate clients for bulk tea purchases. It will also be helpful to receive customer feedback and handle relationship with the customers. Further, e-commerce platforms are another good platform for online sale of their finished products.

5.3.12 The small tea growers of the state should learn for hygiene and customized packaging of product. Additionally, the label should highlight certifications, and benefits of tea consumption apart from other necessary information to persuade the target customers to purchase the product.

5.3.13 Provide discounts and rebates on exclusive blends and bulk purchase by clients.

5.3.14 There is also scope for word-of-mouth promotion of made tea by collaborating with health influencers, sharing customer testimonials on social media, sharing stories of positive impact.

5.3.15 Use scarcity and exclusivity in marketing by releasing limited-edition teas to create a sense of urgency which in turn will increase demand in the market.

5.3.16 the small-scale tea producers of the state should establish partnerships with local retailers, collaborate with local restaurants and cafes for tea supply, distribute free samples to target customers and also attend local food and beverage events and festivals.

5.3.17 There is also scope to optimize the website of small tea growers for search engines (SEO) and also by investing in online advertising (Google Ads, Facebook Ads, etc.).

5.3.18. The small-scale tea producers can also go for societal marketing by promoting their brand's commitment to social responsibility like support local social causes and charities.

Moreover, from the observations and experience during the study period and findings of the study, following recommendations are extended:

5.3.19 Since most of the small tea growers in the study area are engaging in traditional/conventional method of tea cultivation and limited their activities only up to the production level, they may indulge themselves into beyond production activities of processing into made tea, branding and labelling, promotion, distribution and sale also. For performing such extension activities there need to develop mini tea factories on individual basis or BLFs on partnership basis. It enables them to generate better revenue by selling finished products rather than selling green tea leaves only to outside party.

5.3.20 There is need for strong existence of group/association of small tea growers for negotiation of their demand, formulation of favorable policy for their welfare from the government agency and institutions. It will help to discuss with Tea Bard, regional agencies and also with the government on the matters related to drastic fall in price, minimum support price (MSP) for green tea leaves during peak season, financial and non-financial motivation for development of marketing skill etc.

5.3.21 The small tea growers of the state should participate in secondary marketing of tea also apart from primary marketing. The secondary marketing segment consist of blending, branding, distribution, promotion and selling is performed by third party companies after purchasing the loose tea from tea auction centers. The small tea growers can take steps towards blending of tea with different flavors, creation of own brand, distribution, promotion and sale of their product by formation of co-operative societies, self-help groups and partnership also.

5.3.22 There is also need for development of infrastructure for small tea sector to reduce wastage of green tea leaves during transportation. Facility for establishment of warehouses, mini tea factories and increase in number BLFs in nearby places/locality, equipment for

quality plucking etc. will reduce the cost of wastage green tea leaves due to burn for delayed and time-consuming transportation and during transportation also.

5.3.23 The need for conduct of training and capacity building program on marketing specially for small tea growers of the state to enhance their skill on identification of market, development of product, packaging, branding, labelling, promotional strategy etc. in the tea market at national and international level.

5.3.24 In order to get remunerative price for green tea leaves form tea agents and tea estate factories there is urgent need for small tea growers of the state to improve quality of green tea leaf production. Improvement in quality of plucking (two and a bud), soil quality management etc. are few of the areas small tea growers need to be taken care of to improve the quality of green tea leaf production. Similarly, organic/natural/chemical method of tea farming is another route to maintain the flavor and aroma of world-famous Assam tea. Assam tea have an excellent brand image in world tea market due to its distinct flavor and aroma which provides unique identity.

5.3.28 The small tea growers of the state producing made tea have expressed the need for market linkages to be provided by government, tea board and other agencies working for development of tea industry. Although exhibition, trade fairs, conclave etc. are conducted from time to time but these are providing very limited scope of market linkage to the small tea growers of the state producing made tea.

5.4 Conclusion of the study

Tea cultivation one of the cultural heritages of Assam and largest tea producing region of the country. It is cultivated both in large scale and small-scale basis. Although large scale tea gardens are considered as mainstream tea producers of the state the contribution of small-scale tea growers are also significant. The small-scale tea sector contributes nearly 50 per cent of total green tea leaf production of the state. Small Growers contribution to total tea production is increasing year to year. During the year 2021-22 small growers' share of production is seen at 51.44% (Tea Board Annual Report, 2021-22). The Board is also facilitating the collectivization of the small growers to help them move up the value chain. The Board is also imparting training to the small tea growers on good agricultural practices, good manufacturing practices, organic tea and following the protocol of Plant Protection

Code. Workshops at regular intervals to update them about market situation are carried out from time to time. The Board is also focusing on building export potential of small growers so that they can also get the premium price for their produce. The small-scale tea farming has been developed in rural areas of Assam that provides scope for promising source of livelihood to unemployed youths of rural economy on permanent and seasonal basis. Further, it opens up employment opportunities through some allied activities like tea agent, transportation, sellers of tea fertilizer, vendors of equipment and machine etc. Despite of their contribution to total production, revenue generation and rural employment small tea sector is not able to generate remunerative price for their products, unable to get attention from government for favorable policy, marketing constraint, financial constraint, infrastructural constraint etc. The market structure of tea industry consists of the stages like cultivation of green tea leaf, transportation of tea leaf to productions sites, processing of tea leaves into made tea, blending and packaging of made tea, distribution of made tea, finale sale of made tea in the market. Small tea growers are engaging in only cultivation of green tea leaves and transportation of green tea leaves to the tea factories. Remaining market activities are left either for big tea gardens or tea factories or tea marketing firms. But small tea growers are engaging in natural/chemical free/organic method of tea cultivation are involved in cultivation of tea leaves, processing, blending, packaging and sometimes distribution and sale of made tea in the market. Unfortunately, cultivation of tea adopting organic/natural/chemical free method is very small and it is in its infant stage. Most of them are manufacturing green tea only and small number of them are manufacturing blended tea, dheki tea, Oolong tea in small quantity. They manufactures made tea in their own mini tea factories with the help of either traditional method without using sophisticated technology or less technology due to lack of technical skill and financial constraint also to purchase the technology. For certification (organic/natural/chemical free), branding, labelling, promotion and sale of made tea they form groups like co-operative societies and self-help groups. The finished products of such small-scale tea producers are sold on retail and wholesale basis to customers of nearby area, across the state, across the country and cross boarder clients also. Further, there is very less numbers of capacity building program on marketing are organized for small tea growers in the state. There is also the need for training and capacity building program on marketing specially for small tea growers of the state to develop their marketing skill. In order to develop marketing aspect of small tea growers of the state there is need to

develop infrastructure, transportation, quality of green tea leaves, participation in secondary marketing also strong existence of association of small tea growers for better negotiation of demand with the government. Development of warehousing, investment in equipment, machines and technology, establishment of BLFs, mini tea factories etc. which will reduce the monopoly of tea intermediaries and tea estate factories and also reduce the wastage of green tea leaves during transportation to the place of production. Furthermore, quality plucking (two and a bud), soil quality management, proper cleaning, watering etc. will help to maintain quality of green tea leaves and also get fair price in the market. Additionally, development of variety of product mix, addition of new product lines, active participation in trade fairs and exhibitions, rebates and discounts on bulk purchase, hygiene packaging, branding and informative labelling, sharing stories of customers and producers in social networking sites, social media campaigns, targeted promotion etc. will help to increase sale and also explore the market opportunities in national and cross boarder level. In recent times, market for organic and natural grown product is booming day by day due to increase in life style diseases, demand from health-conscious customers, medicinal properties etc. The small tea growers of Assam can utilize this market opportunity by shifting from inorganic tea farming to organic tea/natural/chemical free tea farming. By realizing this scenario many small-scale tea growers are converting their existing inorganic small tea gardens to organic/natural/chemical free tea gardens. In this way they will able to capture a share in the growing organic/natural/chemical free beverage market.

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Appendices

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Questionnaire

I, Dr. Uddipana Gogoi, Assistant Professor (Department of Finance) Nalbari Commerce College, Nalbari, Assam is conducting a minor research project on the topic "***Role of Marketing on Sustainability of Small Tea Growers of Assam"***. I have put some questions in the following regarding my research work. The data provided by you will be used only for my research purpose and will be kept confidential. I earnestly request the respondents to co-operate with mywork and respond to all the questions-

* Indicates required question

1. Email *

_____

Part A- Demographic profile

2. Q1. Name of your small tea garden

_____

3. Q2. Mention the name of village, panchayat, development block and district where the small tea garden is located.

_____

4. Q3. What is the age of your small tea garden?

Mark only one oval.

- ◯ less than 5 years
- ◯ 6 - 10 years
- ◯

11-15 years

16-20 years

20 years and above

5. Q4. Area of your small tea garden

Check all that apply.

- [ ] 1-3 bigha
- [ ] 4-6 bigha
- [ ] 7-10 bigha
- [ ] More than 10 bigha

6. Q5. Nature of ownership of small tea garden

Check all that apply.

- [ ] Sole ownership
- [ ] Joint/partnership ownership
- [ ] Co-operative ownership
- [ ] Company ownership
- [ ] Government owned

7. Q6. Nature of cultivation of small tea garden

Check all that apply.

- [ ] Organic/natural method of tea cultivation
- [ ] Inorganic/conventional method of tea cultivation

8. Q7. Nature of livelihood from the small tea garden

Check all that apply.

- [ ] Parmanent
- [ ] Seasonal/temporary

9. Q8. Nature of land of small tea garden

Check all that apply.

- [ ] Self owned
- [ ] Leased
- [ ] Touju (occupied)
- [ ] Forest land

10. Q9. Do you register your small tea garden with the Tea Board of India?

Check all that apply.

- [ ] Ye s
- [ ] No

Part B- Marketing strategies of Small Tea Growers (respondents)

11. Q1. Period of green tea leaf plucking of your tea garden

Check all that apply.

- [ ] March -May (first flush)
- [ ] June-October (Second flush)
- [ ] October-December (Third flush)
- [ ] ALL three seasons (first, second and third flush)

12. Q2. Season-wise productivity (green tea leaf production) of your small tea garden(Tick mark in appropriate box)

Check all that apply.

	Highest	Average	lowest
Fiirrstt flush (Marrch--May)	☐	☐	☐
Second flush (June--Octtoberr)	☐	☐	☐
Thiirrd flush (Octtoberr--Decemberr)	☐	☐	☐

13. Q3. Approximate production of green tea leaf (for 1 bigha of cultivated land)(tick mark in appropriate area)

Check all that apply.

	400-700	800-1000	600-900
Fiirrstt flush	☐	☐	☐
Second flush	☐	☐	☐

Thiirr d	☐	☐	☐

flush

14. Q4. What do you do with the green tea leaves?

Check all that apply.

- [ ] Sale the green tea leaves
- [ ] Transform the green tea leaves into made tea

15. Q5. Where do you sale green tea leaves of your tea garden? (tick mark in appropriate option/options)

Check all that apply.

- [ ] Tea agents
- [ ] Directly to large tea garden
- [ ] factoriesBrought leaf factories
- [ ] (BLFs)
- [ ] Co-operative socities
- [ ] Tea Auction Centre
- [ ] Self help groups
- [ ] (SHG)other

16. Q6. The green tea leaves of your tea garden are sold to

Check all that apply.

- [ ] Local tea gardens
- [ ] Nearby town
- [ ] District town
- [ ] Other: _____

17. Q7. What are the means of transport for selling of green tea leaves to ultimate market ?

Check all that apply.

- [ ] Tempo
- [ ] Truck
- [ ] By-
- [ ] cycle
- [ ] Motor cycle
- [ ] Others means (bullock cart, hand drawn cart etc.)

18. Q8. Who decides the price paid for green tea leaves of small tea growers?

Check all that apply.

- [ ] The small tea growers (i.e. seller of green tea
- [ ] leaves)The large tea gardens factories
- [ ] Bought leaf factories (BLFs)
- [ ] Intermediaries (i.e. tea agents/brokers)
- [ ] Government

19. Q9. What factors influences on pricing decision of green tea leaves?

Check all that apply.

- [ ] Quality of
- [ ] pluckingAverage
- [ ] rainfall
- [ ] Quality of green tea leaf
- [ ] Climate change
- [ ] Commission of tea agent/intermediaries
- [ ] market demand and supply
- [ ] All of the above

- [ ] Other: _____

20. Q10. Do you able to get satisfactory price for green tea leaves?(1-
Not satisfactory
2-Moderately satisfactory3-
Highly satisfactory)

Mark only one oval.

1 2 3

Not ◯ ◯ ◯ Highly satisfactory

21. Q11. Does Government agency/institution made any intervention in decision about ceiling and floor price of green tea leaves?

Mark only one oval.

◯ Always
◯ Sometimes
◯ Never

22. Q12. If you process your green tea leaves into made tea, than what type of made teado you produce?

Mark only one oval.

◯ Green tea
◯ Orthodox black
◯ teaBlended tea
◯ Dheki tea
◯ Olong tea
◯ Medicated tea
◯ Other: _____

23. Q13. How do you manufacture the made tea?

Mark only one oval.

- ◯ Group basis (pool the green tea leaves from group members and than processed for made tea)
- ◯ Partnership basis
- ◯ Individual basis

24. Q14. What type of technology/machine do you use for manufacture of made tea?

Mark only one oval.

- ◯ Sophisticated technology/machine
- ◯ Self developed/designed machine with less technology
- ◯ Traditional method without any technology

25. Q15. Where do you sale your final product (made tea)?

Check all that apply.

	Retail sale	Wholesale sale
Att llocall marrkett	☐	☐
Att sttatte llevell marrkett	☐	☐
Att iinttemsttatte/nattiionall llevell marrkett	☐	☐

Crross boarrderr/forreiig nmarrkett	☐	☐

26. 16. Who decides the price for made?

Check all that apply.

	Producers/Sellers	Intermediary	Government	Buyers of made tea	At market demand and supply
Rettaiill salle	☐	☐	☐	☐	☐
Whollesall esalle	☐	☐	☐	☐	☐

27. Q17. Which marketing channel is used for selling of made tea in market?

Check all that apply.

	At local market	At state level market	At nationa l level market	At cross boarder/foreign market
Prroducer rof made ttea—— custtomerr	☐	☐	☐	☐
Prroducerr of made ttea------ agentt------ custtomerr	☐	☐	☐	☐
Prroducerr of made ttea------				

agentt--------

diisttrriibuttorr--

custtomerr

28.

Q18. How do you find market linkage for produced made tea?

Check all that apply.

	Government intermediation	Exhibition/Expo/tradefair	Private party intermediation	Small tea growers association intermediation	Linkage provide dby the Tea Board
Locall marrkett	☐	☐	☐	☐	☐
IInttersttatte marrkett	☐	☐	☐	☐	☐
Crross boarrderr marrkett	☐	☐	☐	☐	☐

29. Q19. Do you adopt any marketing strategy for the product (made tea)?

Check all that apply.

- ☐ yes
- ☐ No

30. Q20. If yes, what type of marketing platform do you follow for promotion of the madetea?

Check all that apply.

- ☐ Print media (newspaper, magazine)
- ☐ Electronic media (TV, Radio, create own website,
- ☐ mails)Social media (Facebook, instagram, wats up
- ☐

etc.)

None of the above

31. Q21. Do you engage with any group for marketing of made tea?

Mark only one oval.

- Ye
- s
- No

32. Q22. If yes, in what type group you are engaging for marketing of made tea?

Mark only one oval.

- Self help groups
- (SHGs)Co-operative
- society
- Non government organizations (NGO)
- Govt. sponsored group

33. Q23. Do you receive any training for development of your marketing skill?

Mark only one oval.

- Ye
- s
- No

34. Q24. If yes what type of skill do you able to develop?

Mark only one oval.

- Packaging
- Distributorshi
-

pPricing

Advertising

Not able to develop any skill

Other:

35. Q25. Have You received training from the institutions/organisations regarding marketing aspect of made tea?

Mark only one oval.

- Assam Agricultural University, Department of Tea
- husbandryNGOs
- Fellow small tea
- growersVocational
- institutions Other: _____

Part C- Marketing challenges faced by the Small tea growers

36. Q1. Rate the challenges faced by you for selling of green tea leaves in the market place-

Check all that apply.

	Highly problematic	Moderately problematic	Not problematic
Locattiion of ttea garrden facttorriies att diisttance pllaces	☐	☐	☐
Liimiitted Boughtt lleaf facttorriies nearrby	☐	☐	☐
Less prroducttiion of grreen ttea lleaves	☐	☐	☐
Low qualliitty plluckiing of grreen ttea lleaves	☐	☐	☐
Low qualliitty ofgrreen ttea lleaves due tto clliimatte change	☐	☐	☐
Wasttage of grreen ttea lleaves due tto ttranspomttattiion tto diisttantt pllaces	☐	☐	☐

37. Q2. Rate the challenges faced by you regarding selling of made tea (final product) in the market?

Mark only one oval per row.

	Mostly problematic	Moderately problematic	Not problematic
Liimiitted marrkett lliinkage opporttuniittiie s			
Liimiitted marrkettiing knowlledg e			
Defecttiiv e packagiin giissue			
Cerrttiificattiio niissue			
Less demand			

38. Q3. Rate the challenges faced you regarding pricing of green tea leaves?

Mark only one oval per row.

	Highly problematic	Moderately problematic	Not problematic
Monopolly of ttea garrden facttorriies iin prriice detterrmiinattiio n			
Monopolly of ttea agentts iin prriice detterrmiinattiio n			
Lack of barrgaiiniing capabiilliitty of smallll ttea grrowerrs associiattiion			
Low qualliitty of grreen ttea lleaves			
Morre suppllyof grreen ttea lleaves tthan demand			

39. Q4. Rate the challenges faced by you regarding pricing of made tea?

Mark only one oval per row.

	Highly problematic	Moderately Problematic	Not problematic
Liimiitted ttechniicall knowlledge aboutt prriice detterrmiinattiio n			
Packagiin giissue			
Liimiitte d demand			
Cerrttiificattiio niissue			
Monopolly of iinttermediiarr y			

40. Q5. Rate the difficulty level you faced regarding market place for your green tea leaves? *

Mark only one oval per row.

	Highly problematic	Moderately problematic	Not problematic
Locattiion of ttea garrden facttorriies att diisttantt pllaces			
Liimiitted Boughtt ttea lleaf facttorry			
Liimiitted goverrnmentt supporrtt forr rregullatted marrkett pllace			
Liimiitted polliiciies forr rregullattiion of prriimarry marrkett			

41. Q6. Rate difficulty level you faced for market place of made tea.

Check all that apply.

	Highly problematic	Moderately problematic	Not problematic
Liimiitted demand forr made ttea att llocall marrkett	☐	☐	☐
Liimiitted demand att nattiionall llevell marrkett	☐	☐	☐
Liimiitted demand att iinttermattiional lmarrkett	☐	☐	☐

42. Q7. Rate the challenges faced by you in promotion of made tea?

Mark only one oval per row.

	Highly problematic	Moderately problematic	Not problematic
Liimiitted knowlledg eof prromottiion sttrrattegiies			
Liimiitted awarreness aboutt diigiittall marrkettiing			
Liimiitted Access tthe mediia forr prromottiio n			

43.

Q8. Rate the challenges of infrastructure you are facing regarding marketing of greentea leaves?

Check all that apply.

	Highly problematic	Moderately problematic	Not problematic
Liimiitted Warrehous e faciilliitty	☐	☐	☐
Liimiitted owned ttea facttorriies	☐	☐	☐
Liimiitted use of ttechnollogy	☐	☐	☐
Liimiitted marrkettiin gskiilllls	☐	☐	☐
Roads and ttranspomttattiion prrobllem	☐	☐	☐

Part D- Marketing and Sustainability of Small Tea Growers

(*Sustainability means capacity to maintain or improve the current state and availability of desiredconditions over the long term.*)

44. Q1. Do you think that improvement in marketing initiatives helps to increase revenuefrom small tea farming?

Check all that apply.

- [ ] Yes
- [ ] No
- [ ] Maybe

45. Q2. Do you think that value addition (processing to made tea, packaging, branding etc.) in green tea leaves helps small tea growers to demand for good price?

Check all that apply.

- [ ] Yes
- [ ] No
- [ ] Maybe

46. Q3. Do you think that packaging of made tea helps you to provide good quality and hygiene products to the customers/community?

Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Maybe

47. Q4. Do you think that marketing initiatives taken by small tea growers helps them to undertake small tea farming as promising source of livelihood in long run? (1-Strongly disagree, 2-Disagree, 3-Agree, 4-Moderately agree, 5-Highly agree)

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly agree

48. Q5. Is there any scope for multi-cropping in the small tea gardens that generate revenue throughout the year from the same garden?

Mark only one oval.

- Ye
- s
- No
- May be

49. Q6. Give some suggestions from your experience to improve marketing of small teafarming to increase the sustainability of small tea farming in Assam.