

PROJECT REPORT

Decent Work for Tea Plantation Workers in Assam

Constraints, Challenges and Prospects



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Contents

<i>List of Abbreviations</i>	<i>ii</i>
<i>List of Figures</i>	<i>iv</i>
<i>List of Tables</i>	<i>vi</i>
<i>List of Map, Boxes and Pictures</i>	<i>vii</i>
<i>Acknowledgements</i>	<i>viii</i>
<i>Executive Summary</i>	<i>ix</i>
1. Tea Industry in India: Overview and Context	1
2. Infrastructure in Tea Estates: Health Centre, Childcare, Schools and Connectivity	16
3. State of Labour: Wage and Workplace	34
4. Consumption Expenditure and Income: Inequality and Deficits	55
5. Living against Odds	70
6. Socio-Economic Insecurity and Vulnerability	88
7. Bridging the Gaps: Conclusion and Recommendations	97
<i>Glossary</i>	<i>102</i>
<i>References</i>	<i>103</i>

Abbreviations

AAY	Antyodaya Anna Yojna
ABCMS	Akhil Bhartiya Cha Mazdoor Sangha
ACKS	Assam Chah Karmachari Sangha
ACMS	Assam Chah Mazdoor Sangha
APL	Above Poverty Line
APLR	Assam Plantation Labour Rules
ATPA	Assam Tea Planters' Association
BCP	Bharatiya Cha Parishad
BLF	Bought Leaf Factories
BMS	Bharatiya Mazdoor Sangha
BPL	Below Poverty Line
CAGR	Compound Annual Growth Rates
CITU	Centre of Indian Trade Unions
CSR	Corporate Social Responsibility
CTC	Crush, Tear and Curl (the leaves)
DW	Decent Work
ECI	Election Commission of India
FEMA	Foreign Exchange Management Act, 1999
INTUC	Indian National Trade Union Congress
ITA	Indian Tea Association
LPG	Liquefied Petroleum Gas
LT	Labour Tea
MCC	Model Code of Conduct
MI	Monthly Household Income
MMR	Mixed Methods Research
MPCE	Monthly Per Capita Consumption Expenditure
MPI	Monthly Per capita Income
NETA	North Eastern Tea Association
NFSA	National Food Security Act, 2013
NREGA	National Rural Employment Guarantee Act
NRHM	National Rural Health Mission
NSSO	National Sample Survey Office
OLS	Ordinary Lease Square
ONGC	Oil and Natural Gas Corporation Limited
PCA	Principal Component Analysis

PDS	Public Distribution System
PF	Provident Fund
PLA	The Plantation Labour Act (1951)
RSBY	Rashtriya Swasthya Bima Yojna
SD	Standard Deviation
SDGs	Sustainable Development Goals
SPSS	Statistical Package for the Social Sciences
SSA	Sarba Shikshya Abhijyan
STATA	Statistics and Data
STG	Small Tea Growers
TAI	Tea Association of India
TBI	Tea Board Of India
TRA	Tea Research Association

List of Figures

Figure 1.1.	Share of Assam Tea of Total Production of Indian Tea	1
Figure 1.2.	Growth Rate (percent) of Assam and Indian Tea during 2007–19	2
Figure 1.3.	Growth Rate of Export of Indian Tea	3
Figure 1.4.	Rate of Change in Auction Price in India during 2007–18	4
Figure 1.5.	Share of Tea Sold through Auction and Outside	4
Figure 1.6.	Employment Structure in Tea Industry	6
Figure 2.1.	Types of Ownership of the Estates	17
Figure 2.2.	Types of Planters' Associations	17
Figure 2.3.	Number of Primary Schools in Estate	20
Figure 2.4.	Mid-day Meal Facility at the Primary Schools	20
Figure 2.5.	School Bus Facility Provided by the Estate	21
Figure 2.6.	Crèche Facility in the Estate	22
Figure 2.7.	Availability of Food in Crèche	22
Figure 2.8.	Health Centre Provided by Estate	24
Figure 2.9.	Approach Road between Labour Colony and Health Centres	26
Figure 2.10.	Availability of Medicine in the Health Centre	26
Figure 2.11.	Free Medicine available in the Estate	26
Figure 2.12.	Ambulance Facility and its Availability	27
Figure 2.13.	Estates with Factory	28
Figure 2.14.	Presence of Trade Union	30
Figure 2.15.	Estates Having at Least One Certification across Status of Company	31
Figure 2.16.	Estates Having at Least One Certification across Planters' Associations	32
Figure 3.1.	Share of Permanent and Temporary Workers across Districts	34
Figure 3.2.	Gender Distribution across Districts	35
Figure 3.3.	Types of Workers across Gender	35
Figure 3.4.	Educational Qualification across Share of Gender Composition	36
Figure 3.5.	Types of Workers and their Qualifications	36
Figure 3.6.	Gender Distribution across Work Sites	37
Figure 3.7.	Age Distribution	37
Figure 3.8.	Age Distribution across Gender	38
Figure 3.9.	Age Distribution across Permanent and Temporary Workers	38
Figure 3.10.	Pay Slip	42
Figure 3.11.	Different Levels of Daily Wage Rate across Workers	43
Figure 3.12.	Different Levels of Daily Wage Rate across Gender	43
Figure 3.13.	Ration Provided by the Estate	44
Figure 3.14.	Electricity Bill deducted by the Estate from Wage Payment	45

Figure 3.15.	Cost of Water Deducted by the Estate from Wage Payment	45
Figure 3.16.	Deduction of Provident Fund from the Wage/Salary	46
Figure 3.17.	Firewood Provided by Estate across Districts	47
Figure 3.18.	Firewood Provided by Estates across Different Types of Company	48
Figure 3.19.	Bonus	49
Figure 3.20.	Items Purchased from Bonus Amount	49
Figure 3.21.	Distribution of Cash-in-Hand (Income)	50
Figure 3.22.	Distribution of Cash-in-Hand (Income) across Gender	50
Figure 3.23.	Distribution of Cash-in-Hand (Income) across type of workers	51
Figure 3.24.	Distribution of Cash-in-Hand (Income) across Types of Workers at Work	51
Figure 3.25.	Monthly Wage Gap	52
Figure 3.26.	Wage Gap Distribution across Gender	53
Figure 3.27.	Distribution of Wage Gap across Type of Workers	54
Figure 4.1.	Household Size	55
Figure 4.2.	Distribution of Ration Card	56
Figure 4.3.	Household Monthly Per Capita Consumption Expenditure	57
Figure 4.4.	MPCE across Gender	57
Figure 4.5.	MPCE across Type of Workers	57
Figure 4.6.	Share of Different Items in Total MCE	59
Figure 4.7.	Food Item Consumption across Gender	59
Figure 4.8.	Monthly per Capital Income Distribution	60
Figure 4.9.	Monthly per Capital Income across Gender	61
Figure 4.10.	Monthly per Capital Income across Types of Worker	61
Figure 4.11.	Monthly per Capital Income across Types of Ownership	61
Figure 4.12.	Household Income–Expenditure Gap	62
Figure 4.13.	Income Inequality at the Household Level	64
Figure 4.14.	Inequality Decomposition of Household Income across Status of Company	65
Figure 4.15.	Distribution of Calories Intake	67
Figure 4.16.	Share of Different Items in per Capita Kcal	68
Figure 4.17.	Distribution of per capita per day kcal Gap	68
Figure 5.1.	Punishment If Late at the Workplace	71
Figure 6.1.	Socio-Economic Intensity Score	93
Figure 6.2.	Composite Socio-Economic Intensity Score	93
Figure 6.3.	The distribution of monthly per-capita income after out-of-pocket expenses	94
Figure 6.4.	Scree Plot Eigen Values	95
Figure 7.1.	Poverty Trap and Its Impact	101

List of Tables

Table 1.1.	Production Break-up for Big Estates and Small Growers	3
Table 1.2.	Incidents of Management-Labour Tussles	8
Table 1.3.	Selection of Districts and Tea Estates	13
Table 2.1.	Distance of Tea Estate from Basic Facilities	18
Table 2.2.	Share of Estate Having Different Community Services	33
Table 2.3.	Share of Trade Union Having Different Community Services	33
Table 2.4.	Share of Estates having Different Community Services across Certified Tea Estates	33
Table 3.1.	Industry's Calculation on Daily Wage	41
Table 3.2.	Actual Daily Wage based on Pay Slip	41
Table 3.3.	Descriptive Statistics of Monetary Components of Wage	42
Table 3.4.	Regional Disparity in Wage	52
Table 4.1a.	No. of Earners in Households having Income-Consumption Gap	62
Table 4.1b.	No. of Earners in Households having Income-Consumption Gap	63
Table 4.2.	Result of OLS Model of Income-Expenditure Gap	64
Table 4.3.	Income Inequality Decomposition at Household Level	65
Table 4.4.	Food Items across Unit and Calories	66
Table 4.5.	Daily Per Capita Calorie Intake across India (in Kcal)	66
Table 5.1.	Occupational Health Hazards	74-75
Table 6.1.	Identification of Indicators of Socio-economic Securities	90
Table 6.2.	Steps of Calculating Index	91
Table 6.3.	Intensity of Different Socio-Economic Indicators (Negative Scale)	92
Table 6.4.	Consumption Security and its relation to Socio-Economic Insecurity	95
Table 6.5.	Factor Loading with Four Principal Components	96
Table 7.2.	Monthly Wage Gap and Share of Workers	100
Table 7.3.	Monthly Income-Expenditure Gap and Share of Workers	100

List of Map, Boxes and Pictures

Map 1.1.	Selected Tea Estates across 9 Districts of Assam in Study	12
Box 2.1.	Status of Basic Indicators of Selected Estates	
Box 5.1.	Workers' Conditions and Survival Strategy: Case of Estate-36, Golaghat	
Picture 1.1.	Group Interview Conducted in Estate-10, Dibrugarh	14
Picture 2.1.	Child making an attempt to write alphabets and numbers in Estate-22 (Tinsukia)	19
Picture 2.2.	Conditions of Crèche in Estate-7, Dibrugarh	22
Picture 2.3.	Abandoned Hospital in Estate-36 (Golaghat)	24
Picture 2.4.	Abandoned Hospital in Estate-36 (Golaghat)	24
Picture 2.5.	Approach Road to Labour Colony in Estate-44 (Cachar)	25
Picture 3.1.	Pay Slip in Estate 48 (Udalguri)	40
Picture 3.2.	Pay Slip in Estate 9 (Dibrugah)	40
Picture 3.3.	Pay Slip in Estate-6 (Dibrugah)	40
Picture 3.4.	Firewood Collection	48
Picture 5.1.	Pesticide Sprayer without any safety equipment in Estate-41 (Sonitpur)	74
Picture 5.2.	Pesticide Sprayers without any safety equipment in Estate-31 (Sivasagar)	74
Picture 5.3.	Women going to work	77
Picture 5.4.	Broken House of Permanent Worker (Estate-2, Dibrugarh)	80
Picture 5.5.	House of permanent workers (Estate-10, Dibrugarh)	80
Picture 5.6.	Kutcha House of a permanent worker in Estate-47 (Cachar)	80
Picture 5.7.	Housing Conditions of a permanent worker in Estate-39 (Golaghat)	80
Picture 5.8.	Toilet of a permanent worker's house (Estate-8, Dibrugarh)	81
Picture 5.9.	Inside the <i>Kutcha</i> Toilet of a permanent worker (Estate-20, Tinsukia)	81
Picture 5.10.	Source of drinking water (Estate-20, Tinsukia)	82
Picture 5.11.	Drainage system in Estate-12 (Dibrugarh)	82

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When I began this research project, we had realized that we would need a team to accomplish this ambitious project covering 50 tea estates from nine major tea-producing districts of Assam (India) within a stipulated time. I am indebted to my colleagues Dr. Rajdeep Singha and Dr. Chitrasen Bhue who not only came on board but formed an exciting research team and offered support throughout this project. On behalf of the team, I would like to thank our energetic research assistants Syed Parvez Ahmed, Debajit Rajbangshi and Juri Baruah for tirelessly and efficiently conducting the fieldwork along with the enumerators. This report has been commissioned by Oxfam Germany and been supported by Oxfam Germany (ODE) and the German Federal Ministry for Economic Cooperation (BMZ). We thank ODE and BMZ. We also acknowledge the support of Oxfam India (OIN) for technical advice and coordination support.

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Executive Summary

The study examines work and employment conditions of tea plantation workers of Assam (India) in present times. Statistical inferences and narratives show that there is ‘decent work deficit’ among the tea plantation workers in Assam. Using the combination of quantitative and qualitative methods, the study depicts decent work conditions of 510 plantation workers across 50 tea estates from 9 major tea-producing districts of Assam, emphasizing on employment opportunities, rights at work, social protection and social dialogue.

Though the quantity of the country’s total tea production including that of Assam has been increasing since 2011, the auction price per kilogram of tea is declining in the same period. This can be stated as a crisis situation. Tea is a labour-intensive commodity and labour is one of the main factors of production besides land and capital. The tea industry employs around 1.2 million permanent workers who usually reside within the plantation, making the industry the largest employer in the formal private sector. The Plantation Labour Act (1951) and other related Acts have made it mandatory for the plantation management to provide workers with housing, education, health and childcare facilities besides minimum wage, bonuses, rations, provident funds. The study highlights that workers in tea plantations suffer from work controls at multiple levels; wage cut mechanisms; deplorable housing and living conditions; calorie intake deficits; and work-related securities including economic, social, representative, and non-availability of basic facilities at the workplace.

The key results of the study depict:

- Poor infrastructure of primary schools with a student–teacher ratio of 1:75.
- 70 percent health centres in the estates have bare minimum services which include a bed, saline, a staff, and medicines for fever or cold.
- 54 percent tea estates provide crèche facility which is generally located far away from the workplace; they lack basic facilities including proper meals, owing to which women avoid sending their children. During regular sickness of children, women lose a working day and wages.
- 52 percent workers do not receive pay slips.
- 95 percent women wage workers use firewood and suffer directly from indoor pollution.
- 75 percent workers suffer from monthly wage gap between what they are supposed to and what they actually receive after written and unwritten deductions.
- 38 percent workers’ household monthly expenses exceed their income.
- 45 percent worker’s bonus amount is spent towards house repairing and medical expenses.
- 32 percent of the total food consumption is spent on rice and wheat, apart from the amount of ration that a worker receives from the estate.
- 56 percent of the household’s per day per capita calorie gap is between -2000 Kcal to 0 Kcal.
- 19 percent of workers spend their wages towards repairing houses, obtaining firewood, children’s education and healthcare.

Occupational health and economic security including wages are regarded as the 2 principal components under work-related securities through statistical analysis. With proper right based entitlements such as weekly paid holiday (Sunday) and proper implementation of non-cash benefits as per the agreement, wage gap of 95 percent can be reduced and 33 percent (one-third) of the households can overcome the income–consumption gap.

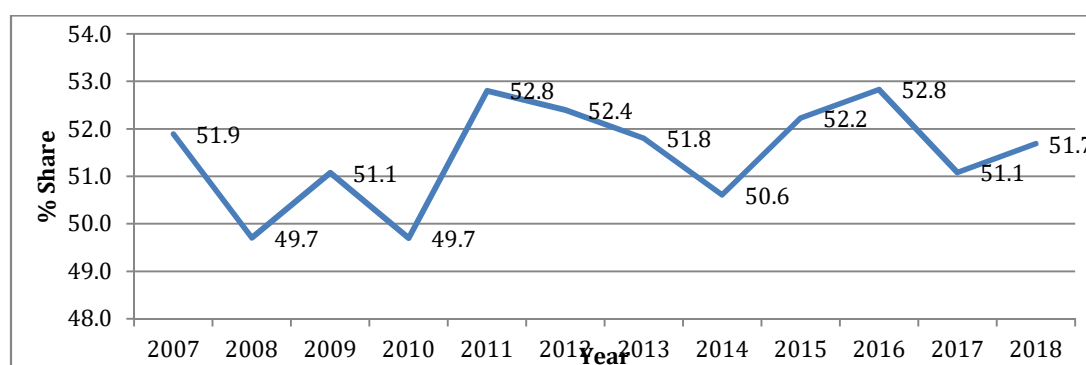
Tea Industry in India: Overview and Context

The tea industry in India is about 180 years old. Robert Bruce discovered tea plants growing in upper Brahmaputra Valley in 1823 and Indian tea from Assam was sent to UK for sale for the first time in 1838. Owing to specific soil and climatic advantages, tea is traditionally grown mainly in four states in India, namely, Assam and West Bengal in the East and Northeast India and Kerala and Tamil Nadu in South India. Assam is the largest tea-growing area, and it steadily produces over 50 percent of the country's tea (see Figure 1.1), followed by West Bengal accounting for 17 percent of the total quantum. The growth rate of tea production in Assam has gone up to 15.5 percent while that of Assam's tea production has been 22.7 percent in 2011–12 (see Figure 1.2). Over the last two decades, this industry has witnessed dramatic changes, particularly, in terms of land utilization, production, consumption and price mechanisms.

The tea industry employs around 1.2 million permanent workers, thereby being the largest employer in the formal private sector. Although the Plantation Labour Act (1951) and other Acts make it mandatory for the plantation management to provide workers with various economic and social welfare benefits, several studies illustrate that workers have been subjected to exploitative work patterns, control mechanisms, low wage payments, deplorable housing and living conditions, inadequate supply of drinking water, poor levels of welfare benefits and lack of collective bargaining (Bhowmik 1981; Bhowmik et al. 1996; Xaxa 1985; Guha 2012). The workers not only suffer on account of eviction but also face difficulty to search for alternative sources of employment.

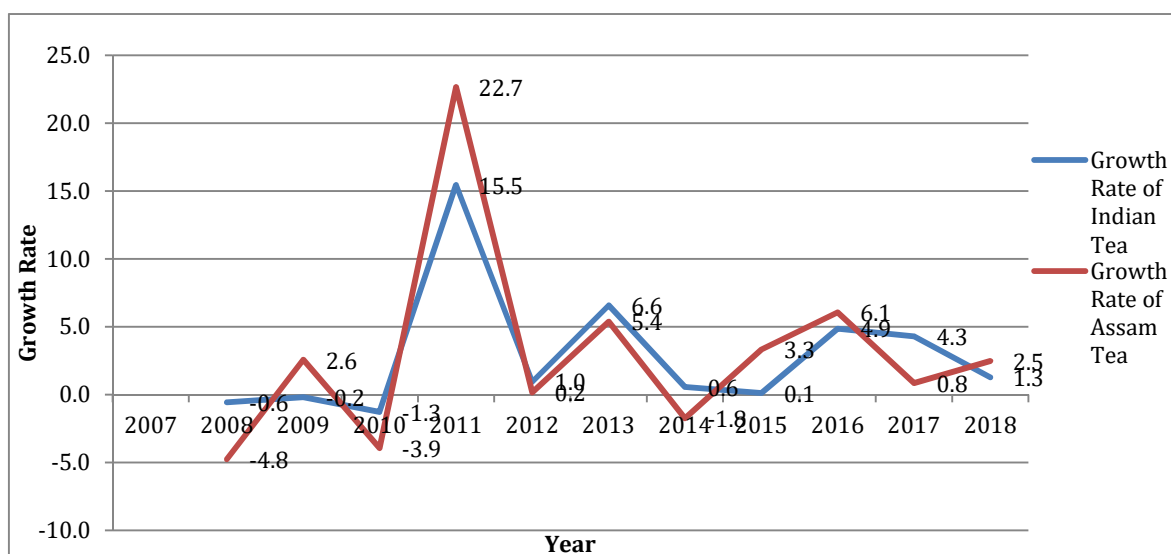
Since 2000, the consumption of tea in India in the domestic market has increased at a faster rate compared to its production. The 'crisis' in the tea industry has been paradoxically triggered by the decline of its exports and not a shrinkage of its production, price or sale in the domestic market. The contributing factors towards such a situation are stiffer competition in the domestic and global market; inadequate investment (Sarma et al. 2012); the closure of tea gardens and the low quality of tea produced in the international market. In addition, there has been increasing unrest amongst the labourers culminating into violent protests against inadequate wage payment, poor social infrastructure, insufficient entitlements and decline in living standards and human security in the tea estates (ibid). In Assam, many such manifestations have resulted further degradation of relations between employers and labourers. Against this backdrop, this study discusses the labour relations within the framework of 'decent work', emphasizing on the restructuring of socio-economic entitlements.

Figure 1.1. Share of Assam Tea of Total Production of Indian Tea



Source: Compiled from Tea Board of India

Figure 1.2. Growth Rate (percent) of Assam and Indian Tea during 2007–19



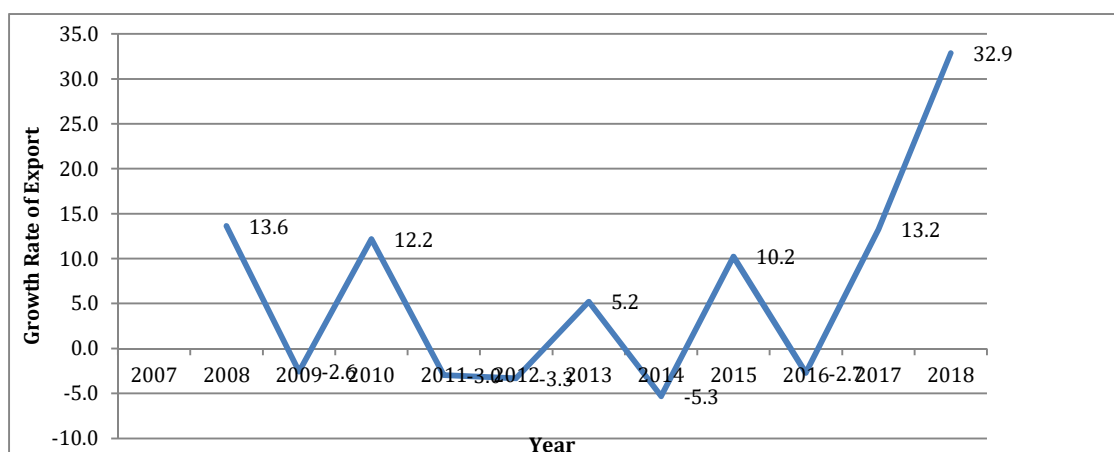
Source: Compiled from Tea Board of India

Tea Production in India and its Transitions

Challenges in the Export Market

Tea was one of the important export commodities for India. Till 1970s, UK was the major buyer of Indian tea. From the early 1980s till 1991, Russia (then USSR) used to buy more than 50 percent of the total volume of Indian tea and became its largest buyer (GOI 2019). With the disintegration of the USSR and the abolition of the Central Buying Mechanism, Indian tea exports suffered since 1992/93 but recovered in 1993 under the Rupee Debt Repayment Route and a long-term agreement between Russia and India (ibid). However, since 2001 owing to change in consumption pattern in the global market the tea industry has fallen into another crisis. Though the Russian market still prefers Orthodox over CTC tea, green and organic teas have also become popular worldwide. Countries like China, Sri Lanka, Indonesia, Vietnam and Kenya are producing tea at a much lower price (ibid). While China produces green tea, Sri Lanka and Indonesia have focused more on orthodox varieties of tea and Kenya has started producing CTC tea. As there is not much demand for domestic consumption of tea in Sri Lanka and Kenya, they export significant volume of teas directly to the international markets (ibid). In India, however, tea is an essential beverage item and over 80 percent of the total tea produced in India is consumed by the domestic market (Tea Board of India, 2018). Further, the industry believes that due to strict implementation of the Foreign Exchange Management Act, 1999 (FEMA), most of the sterling companies of UK, have started getting tea in Kenya which makes Kenya the largest supplier of tea to UK. Apart from stiff competition from Sri Lanka, Kenya, China, Indonesia and Vietnam, inadequate investment and production of better quality tea in international markets account for the poor performance of Indian tea in the global market (ibid). Looking at the export growth rate, it has taken a sharp increase from 2016 (see Figure 1.3).

Figure 1.3. Growth Rate of Export of Indian Tea



Source: Compiled from Tea Board of India

Growth of Low-Cost Production Model

The total production, consumption and price of tea in the national market have been increasing since 2011–12. The main reason is the growth of self-employed tea cultivators, namely, small tea growers (STGs) who cultivate their own land either using family labour or employing wage labour. Tea produced by STGs is manufactured either by factory of the estate or by bought leaf factories (BLFs). Thus independent factories have grown across tea-producing states. This has led tea to grow to a great extent in Karnataka, Tripura, Himachal Pradesh, Uttaranchal, Arunachal Pradesh, Manipur, Sikkim, Nagaland, Meghalaya, Mizoram, Bihar and Orissa; and brought in a change in the landscape of tea production. Data shows that over 50 percent of tea production are made by STGs in 2018 (see Table 1.1). According to Tea Board of India (2018), around 25 percent of green leaves produced by STGs are purchased by tea estates to meet their daily capacity. Most of the selected estates in the study have separate machines to process CTC (crush, tear, curl) tea, purchased from the STGs which are mostly for the domestic markets.

Table 1.1. Production Break-up for Big Estates and Small Growers

Region	2019		2018	
	Production from Big Estates in M. Kg. and its %	Production from STGs in M. Kg. and its %	Production from Big Estate in M. Kg. and its %	Production from Small Growers in M. Kg. and its %
North India	27.06 (45.49)	32.43 (54.51)	21.62 (46.28)	25.10 (53.72)
South India	8.22 (54.44)	6.88 (45.56)	8.22 (57.40)	6.10 (42.60)

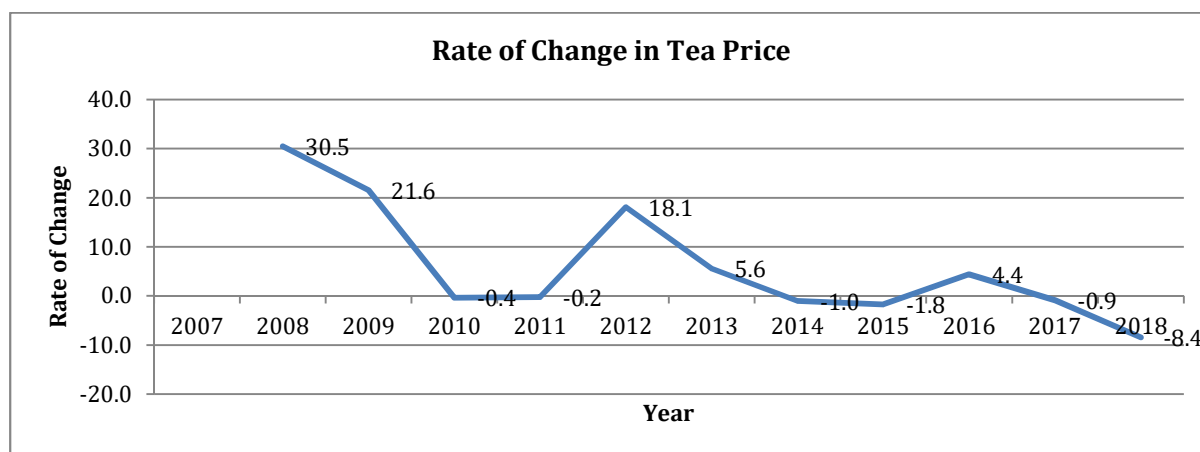
Source: Tea Board of India 2018, 2019

Stagnant Price and Auction Markets

Despite steady rise in production, the price of tea has become capped beyond a certain point. The rate of change in average auction price of tea has been declining since 2007 (see Figure 1.4). Interaction with auction market officials has revealed that most of the good quality tea does not enter the auction market; therefore, price setting at the auction market has been low. Assam tea, however, has been selling tea at Rs 75,000 per kg (*The Indian Express* 2019). The quantity sold for such price is negligible.

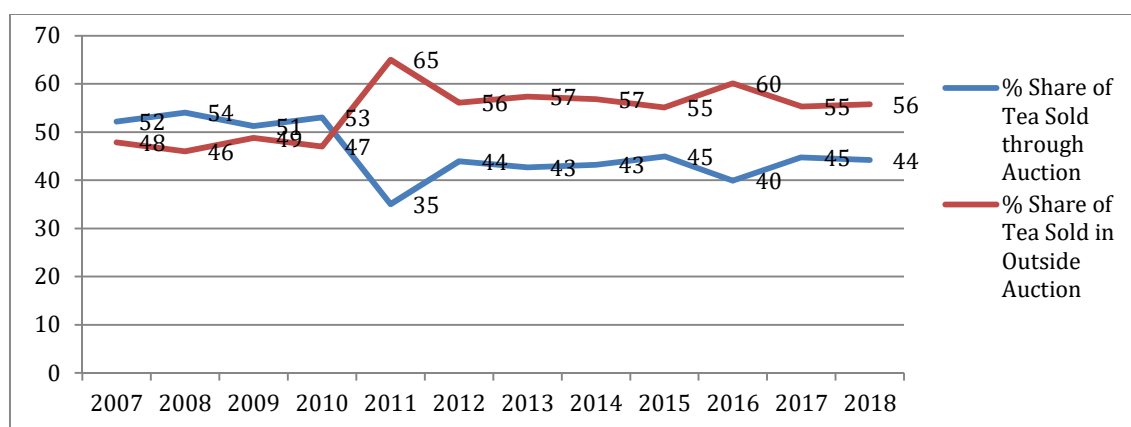
The low price on tea from the auction market is one of the reasons for the stagnancy of the tea industry. However, if we look at the share of tea sold, it is increasingly being done through direct retail market. In 2011–12, when 1 billion kg of tea had been produced, about only 35 percent was being sold through the auction market (see Figure 1.5). Price that is set in the auction market is easily available but that prevailing during direct selling is difficult to gauge. Interaction with traders and retailers reveals that the price of tea through direct selling mechanism is a way higher than that through the auction market. The difference is a minimum of Rs 8–10 per kg. This is certainly a motivation for the industry towards opting for direct sale in the retail market.

Figure 1.4. Rate of Change in Auction Price in India during 2007–18



Source: Compiled from Tea Board of India

Figure 1.5. Share of Tea Sold through Auction and Outside



Source: Compiled from Tea Auction Market

Activities and Employment Structure in the Tea Industry

Activities in Garden

Production process of making tea is much organised and time and motion each activity are followed rigidly to efficiently produce tea. Tea plantation is an agro-based industry where the production process takes place both at the garden and factory. Planting trees, managing land and production of green leaves which includes pruning, spraying pesticides, plucking, cleaning, and digging are the main activities at the garden. Women are mainly trained in plucking leaves.

Methods of Processing Tea at the Factory

There are mainly two broad ways of processing tea in India—crush, tear, curl (CTC) and orthodox methods. The CTC method refers to the process where tea leaves are run through a series of cylindrical rollers. Orthodox, on the other hand, refers to a method where tea is either hand-rolled or done with machinery. Notably, not all estates are specialized in the orthodox method of processing tea. Cost of production for producing tea by following orthodox methods (often called orthodox tea) is higher than tea produced using CTC methods (called CTC tea). Labour process depends on the tea processing method. The orthodox method requires more physical strength while the CTC is more machine dependent.

There are two divisions in the factory, namely, the high risk and low risk zone. Heavy machines are kept in the high risk zone; fermentation and packaging units are considered to be part of the low risk zone inside the factory. Men are mostly seen working in the high risk zone where work is done with the help of machines. The following broad six steps are involved in processing tea.

Withering

Soon after plucking the green leaves, they are brought at the factory. Once the leaves are received at the factory, they are weighed and sorted, and spread on troughs. Withering is a process where conditioned air is circulated between the leaves, initially to remove surface moisture. Both male and female workers are involved in weighing, sorting and spreading.

Rolling

In the rolling process, the leaf is twisted and the damp tea leaves are then rolled into wrinkled strips. The rolling machines have deep jacket, a pressure cap to apply pressure on the leaf, and the table itself has battens and a cone at the centre to twist the leaf. Mostly, male workers are involved in this activity. Rolling falls under high risk zone, and therefore, males are predominant in this section.

Fermentation

Fermentation, mainly for CTC, is the oxidization process of the enzymes in the juices, which brings out the flavour, strength and colour of the liquors and infusions. As fermentation progresses, there is a colour change of the leaf from greenish to coppery brown. The degree of fermentation is judged by the colour and aroma.

Drying

The primary objective of drying is the extraction of moisture and the prevention of fermentation. The fermented leaf is passed through driers, which have circuits of trays with perforation. The drying process takes place in very high temperature (50°C to 105°C). This process is considered to be extremely exhaustive and tiring, and is considered as a high risk unit. Male workers are the primary workers in this unit.

Grading

The fired tea after cooling is graded/sifted according to size and shape, as the trade demands, and stored in airtight bins. The sifting is carried out on a series of grading and cleaning machines, which have several trays of different mesh sizes. This facilitates the separation of tea particles—the stalk from fiber—into the various grades of tea. Grading unit falls under high risk zone and male workers are involved in this activity.

Packing and Dispatching

Being hygroscopic, tea is either packed in plywood tea chests made of multi-walled craft paper and dispatched to the auctions, or into tea packs of various forms for direct export/distribution. While female workers are seen in packaging, male workers are found in dispatching as the latter involves lifting weight. This unit is under low risk zone.

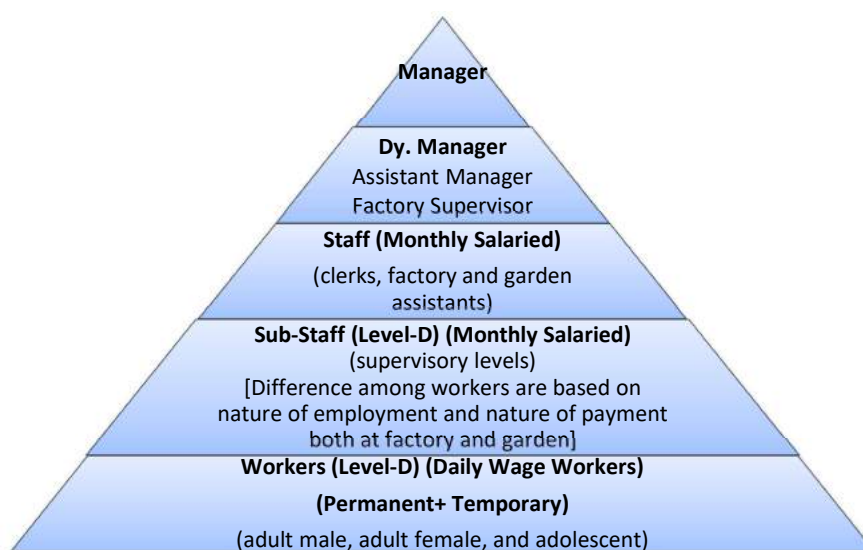
Employment Structure

The employment structure of the tea industry is pyramidal where authorities like the manager, deputy and assistant managers occupy the pivot, and labour, permanent and temporary, constitutes the bottom, and make up the largest quantum who earn on a daily wage rate. Over 90 percent of the workers including permanent and temporary workers occupy the bottom of the pyramid (Saha et. al. 2019). Permanent workers across all the sections can either be salaried employees or daily wage earners. However, temporary workers are always hired on daily wages and mostly during peak season (see Figure 1.6). Employees are mainly on the payroll and are salaried persons.

Most of the workforce is involved in the garden. As far as composition of workers is concerned, while men are predominantly involved in the factory, women are the primary workers in the garden. However, the *sardars* (garden supervisors) at different levels are men. Sardars assign work to the labour, supervizes it and manages time. There are two types of sardars—one, popularly known as *chhotasardar*, who directly monitors work at the plot level and is mainly assigned on daily wages; two, the *badasardar*, who oversees the work of a particular area. Sardars carry a pencil to show the exact size of leaves to be plucked. The *mohori*, who assists the field manager to weigh the leaves, remains in the garden and receives a monthly salary. The line *chowkidar* looks after the labour lines and checks whether workers are in the house or in the garden. This is a surveillance mechanism that workers face; hence, one can argue that chowkidar is a personification of the authority.

If we see the composition of workers, the primary workforce is categorized under Group D at the unskilled level. This category is divided into two groups based on the mode of payment—daily wage workers and monthly salaried employees. The payment is based on the nature of work involvement both in factory and garden. Details of the payment system are discussed in the section on economic benefit section. Notably, mode of payment is associated with dignity and power. Most of the salaried workers, both in the garden and factory, are men.

Figure 1.6. Employment Structure in Tea Industry



Source: Developed by researcher

Workers in Tea Plantations

Tea is a labour-intensive commodity and labour is one of the main factors of production besides land and capital. Workers in tea plantations usually reside within plantation premises. The existing structure of the tea industry is exploitative and reminiscent of the British colonial system. Though the Plantation Labour Act (1951) and other Acts make it mandatory for the plantation management to provide workers with various economic and social entitlements such as minimum wage, bonuses, rations, provident funds, education and healthcare facilities, on the contrary, several studies illustrate that the workers in tea plantations are subjected to exploitative work patterns, control mechanisms, low wage payments, deplorable housing and living conditions, with no provisions of collective bargaining (Bhowmik 1981; Xaxa 1985; Bhowmik et al. 1996; Guha 2012; Sharma et. al. 2012; Behal 2014; Saha et. al. 2019).

Labour Relations

Tea being a labour intensive commodity, the relationship between management and labour is highly contested and one can wonder why management–labour relation is exploitative, rather it should have been benign for better productivity. Production process of plantation allows in forming an exploitative system. Labour in the tea plantation industry has historical disadvantages. There are five broad disadvantages have been highlighted here. First, the migrants were recruited for plantation at very low wages (Bhowmik 2011). Labour in the plantation in Assam were recruited from the tribal areas of Central India—mainly from the Chotanagpur region (present Jharkhand state) and tribal belts of Orissa (present Chattisgarh state), where workers had to face frequent droughts, famines, and brutal land revenue policies by colonial rulers (ibid). These migrants were indentured labour. Second, labour and their families were brought and kept captives (ibid). Watchmen (guards) kept strict vigil in the labour lines preventing any outsider entering the plantation’s premises (ibid). Third, most of the plantations are located in isolation and any other alternative employment options were not formed in the tea growing region. Fourth, tea plantation workers, mainly, *adivasis* from central India are not considered as scheduled tribes of Assam (Gohain 2007). Fifth, these adivasi workers do not have any land rights. These disadvantages led to poor labour relations.

Besides historical disadvantages, we tried to look at the various incidents that reported of tussles between management and labour during the period between 2003 and 2019. We have come across 14 violent cases (ref. Table 1.2). While violent acts of labour are not undesirable, it raises the question on what compel the workers to act at this extreme. Analyzing these incidents, one can argue that most of the incidents are mainly due to when workers are denied with basic facilities, wage payments were inadequate and workers had problems with management’s attitude. A tussle between owner and labour was even taken place due to molestation. From the narratives of the workers, there are also many cases and everyday struggle that exist in the lives of the plantation workers which are not reported. For instance, a permanent worker was forced to resign in Estate 21 (Tinsukia) as the worker met an accident. Another permanent worker was died due to medical negligence in Estate 49 (Udalguri). Therefore, this study intends to study the labour relations and also tries to explore if there is any way in which this relationship can be established as benign. Labour relations are understood from the decent work perspective as it is one of the most holistic approaches (through both macro and micro indicators). In particular, this project aims to look at the aspects of labour and employment in the tea industry in Assam, taking into account work and workplace conditions, economic security in terms of wages and compensation, and social security, including labourers’ welfare, collective bargaining and the status of their basic rights within the decent work framework (ILO 1999).

Table 1.2.Incidents of Management-Labour Tussles

Event No.	Year of Event	Name of the Estate	Place	Event	Reason	Source
1	2003	Khowang Tea Estate	Tinsukia	The manager was dragged out of office by labourers demanding more bonus,5 labourers killed, 13 injured in police firing	Puja Bonus	TOI, Dec. 28, 2012
2	2003	Sapoi Tea Estate	Sonitpur	3 executives of tea estate killed by angry labourers	Electricity to their living quarters had been disconnected by the management	Outlook, June 30, 2003
3	2003	Modarkhat Tea Estate	Dibrugarh	Senior assistant manager was hacked to death by a mob of tea garden labourers	The garden management sacked three labourers following their long absence from work without permission	TOI, Jun 13, 2003
4	2003	Tyroon Tea Estate	Jorhat	Executives fled the garden after a show of aggression by labourers	Over the management's alleged rejection of their new union leader.	The Telegraph, June 24, 2003
5	2003	Nandanban Tea Estate	Dibrugarh	Seven labourers killed assistant manager	Argument over their retrenchment	The Telegraph, June 24, 2003
6	2005	Govindapur Tea Estate	Golaghat	Tea estate's owner, Mr.Rupak Gogoi, was burnt alive by over 200 labourers	Wage dispute	TOI, Dec. 28, 2012
7	2010	Rani Tea Estate	Kamrup (Rural)	A boy was killed when owner fired with his licenced revolver after a mob attacked him. Workers burnt factory.	Owner beat up and molested a women NREGA worker, Jogomaya Boro, who was passing through the garden, for trespassing, around 8.30hrs in the morning	The Telegraph, March 22, 2010
8	2011	Borhat Tea Estate	Sivasagar	An indefinite lockout	Labourers ransacked the bungalows of the manager and the doctor over the death of a woman worker, who, they alleged, had died because of the management's negligence	The Telegraph, Dec. 30, 2011

9	2012	Konapathar Tea Estate	Tinsukia	Allegedly 700 tea plantation workers burned their boss and his wife to death	The management had served notice to 10 workers two days ago and asked them to vacate their quarters. Following an [First Information Report] lodged by the management, the police had detained three workers	IBT, Dec. 27, 2012
10	2013	Keyhung Tea Estate	Tinsukia	Declared an indefinite lockout at the garden following the attack on the general manager, acting manager and other staff by workers	After a boy got electrocuted and died in the labour lines	EastMojo, Sept. 3, 2019
11	2017	Bogidhola Tea Estate	Golaghat	A tea estate owner and his brother allegedly opened fire at labourers	PF, gratuity, ration and bonus	
12	2019	Teok Tea Estate	Jorhat	73 years old medical doctor is killed by the labour. A temporary worker was died due to medical negligence	Dissatisfaction over health facility and a temporary worker was died. There was no medical officer when the worker was taken to the hospital	NDTV, Sept. 1, 2019
13	2019	Rosekandi Tea Estate	Cachar	Two women tea workers were shot	Heated altercation with garden manager over the time of plucking of tea leaves	TOI, Jul 26, 2019
14	2019	Dikom Tea Estate	Dibrugarh	Indefinite lock-out after attack on a doctor	The death of a woman worker during a severe thunderstorm, management lapsed in despatching an ambulance	Northeast Now, May 13, 2019

Source: Various Newspaper Articles

Objectives of the Study

The specific objectives of the study are to:

- 1) Examine the work and employment of tea plantation workers from the decent work perspective in terms of employment and income opportunities (availability of work, wage payment, compensation, etc.), guarantee of certain rights at work (access to basic amenities and various discriminations at the workplace), social protection (social security measures and welfare benefits) and social dialogue (freedom of association and collective bargaining process).
- 2) Explore the vulnerabilities of workers across gender (men/women), age groups (child/adolescent/adult) and nature of employment (seasonal/contractual or permanent).
- 3) Analyse the future of tea plantations, plantation workers and their alternative livelihood options.
- 4) Identify factors, constraints and enablers that can facilitate the improvement of work and living conditions of tea plantation workers.

Analytical Framework from Decent Work Perspectives

Nations all over the world are keen on devising new and innovative approaches to address poverty through different goals including Sustainable Development Goals (SDGs). It is also widely accepted that as a condition, economic growth is necessary but not sufficient in itself for sustained reduction in poverty. Enhanced labour productivity—an indicator of economic growth—is an indispensable instrument for fighting against poverty. The importance of decent working and living conditions for all workers throughout the world is understood. The term ‘decent work’ (DW) was introduced by the International Labour Organization (ILO) in 1999 in the director general’s report presented at the 87th International Labour Conference. The main goal was to promote ‘opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security, and human dignity’ (ILO 1999: 3). The four major pillars recommended by the ILO (1999) as essential to achieve the goal of decent work are:

- 1) opportunities for employment and income
- 2) respect for rights at work
- 3) social protection and
- 4) strong social dialogue.

Four major pillars indicators from the decent work (employment opportunities, rights at work, social protection and social dialogue) in the present study to understand the overall well-being of the plantation workers. The DW indicators have been divided into two groups:

- 1) statistical indicators
- 2) qualitative indicators

Methodology

Research Design, Approach and Methods

The study aims to explore the current work structure and the living and working conditions of plantation workers including contractual, temporary and permanent workers of tea estates and those working in small tea plantations within the analytical framework of DW. Indicators to understand the work and living conditions encompass both quantitative and qualitative parameters. A descriptive research design has been considered to carry out the study in understanding the objectives. This research design helps to describe the phenomenon, understand the situation, individual and groups, and the relationships between variables (Dulock 1993).

A concurrent mixed methods research (MMR) approach has been used combining both quantitative and qualitative methods. Triangulation within concurrent method has been used at the levels of method and data. However, quantitative method has been the dominant method and qualitative method its supplementary (Bryman 2009; Creswell 2009).

Data Sources

Secondary and primary data sources have been used. To set the background at the macro level, the analysis has been drawn from different secondary sources such as Tea Board of India, Indian Tea Association and various reports. Quantitative and qualitative data has been collected under primary data collection. Primary data has been collected by using survey method.

Unit of Analysis

The primary unit of analysis of the study is plantation workers and their family members. They are participants of this research.

Universe of the Study

Assam is the major tea-producing state in India which has the highest number of tea estates. In the present study, Assam is the universe of the study.

Sampling Framework

A 6-stage sampling method has been used to collect data from respondents. Fifty tea estates, located across nine major tea-producing districts of Assam, have been selected. The process and rationale for selecting estates and districts under various stages have been explained.

Stage-1: Selecting of Districts (Clustering)

There are five divisions of Assam, of which the major tea producing estates are located mainly in four divisions. These are: Upper Assam, North Assam, Barak Valley, and Central. We have considered these four divisions as a cluster. As per the record of Tea Tribes, Directorate for Welfare, Government of Assam (2019), there are 803 tea estates spread across 27 districts¹ and five divisions of the state of Assam. Out of 803 estates, 706 estates (about 88 percent of the total estates) are located across nine major tea-producing districts (see Table 1.2)—Dibrugarh (177), Tinsukia(122), Jorhat (88), Sivasagar (85), Golaghat (74), Sonitpur (59), Cachar (56), Udalguri (24), and Nagaon (21). Thus, one-third of the total districts (one-third) have been considered in the study.

Stage-2: Selection of Estates (Proportionate Sampling)

The percentage distribution of tea estates across nine major tea-producing districts are 25 percent (Dibrugarh), 17.3 percent (Tinsukia), 12.5 percent (Jorhat), 12 percent (Sivasagar), 10.5 percent (Golaghat), 8.4 percent (Sonitpur), 7.9 percent (Cachar), 3.4 percent (Udalguri), and 3 percent (Nagaon) (see Table 1.2).

¹The names of the districts are: (1) Sivasagar, (2) Tinsukia, (3) Golaghat, (4) Karbi-Anglong, (5) Jorhat, (6) Dibrugarh, (7) Dhubri, (8) Bongaigaon, (9) Goalpara, (10) Udalguri, (11) Kokrajhar, (12) Baksa, (13) Chirang, (14) Kamrup (Metro), (15) Kamrup (Rural), (16) Barpeta, (17) Nalbari, (18) Nagaon, (19) Morigaon, (20) Sonitpur, (21) Darang, (22) Lakhimpur, (23) Dhemaji, (24) Kachar, (25) Hailakandi, (26) Karimganj, and (27) Dima Hasao.

Stage-3: Number of Estates (Quota Sampling and Proportionate Sampling)

In view of the timeframe, availability of financial resources and distance between tea estates in each district, the quota of 50 tea estates has been fixed. With regard to the proportion (in percentage) of major tea-producing districts, 13 (Dibrugarh), 9 (Tinsukia), 6 (Jorhat), 6 (Sivasagar), 5 (Golaghat), 4 (Sonitpur), 4 (Cachar), 2 (Udalguri), and 1 (Nagaon) tea estates have been considered. Geographical location of selected tea estates are shown in Map 1.1.

Map 1.1. Selected Tea Estates across 9 Districts of Assam in Study



Map of India



Map of Assam

Stage-4: Selection of Workers (Purposive)

At the time of research design, we decided 10 respondents from each tea estate will be selected so that we can reach out to 500 respondents. However, with the availability of time and workers, in total, we have selected 510 (see Table 1.2). These workers are selected keeping in view of their mode of payment (such as monthly salaried and daily wage) and nature of employment including permanent and temporary workers across gender composition. Although selecting 10 respondents from each tea estate is not representative sampling, collectively 510 across 50 estates are representative as issues and situation are same and homogenous.

Table 1.3. Selection of Districts and Tea Estates

Division	No. of District	Name of the District	No. of Tea Estate	percent	No. of TE	No. of Respondents
Upper Assam	1	Dibrugarh	177	25.07	13	142
	2	Tinsukia	122	17.28	9	89
	3	Jorhat	88	12.46	6	62
	4	Sivasagar	85	12.04	6	56
North Assam	5	Golaghat	74	10.48	5	52
	6	Sonitpur	59	8.36	4	38
	7	Udalguri	24	3.40	2	21
Barak Valley	8	Kachar	56	7.93	4	40
Central	9	Nagaon	21	2.97	1	10
Total			706	100	50	510

Source: Calculated based on Tea Tribes, Directorate for Welfare, Government of Assam

Inclusion Criteria for Estates

While selecting tea estates in each district, the following broad four inclusion criteria (see Table 1.2) have been taken into account to understand the issues holistically:

- Status of the Company:*** Thirty tea estates (60 percent) under Public Ltd Company, nine (18 percent) under Proprietorship, eight (16percent) under Public Sector Undertaking both under Government of India and Government of Assam, and three (6 percent) under Partnership have been considered.
- Member of Association:*** Six major associations namely, ITA (Indian Tea Association), TAI (Tea Association of India), TRA (Tea Research Association), ATPA (Assam Tea Planters' Association), BCP (Bharatiya Cha Parishad) and NETA (North Eastern Tea Association) are identified, with which 50 tea estates are associated.
- Presence of Trade Union:*** Although there is not much clear information on the existence of trade union in the estates, we have however tried to consider a couple of tea estates whether two unions are present in the collective bargaining process. We have tried to consider Assam Chah Mazdoor Sangha (ACMS) affiliated to the Indian National Trade Union Congress (INTUC), Akhil Bhartiya Cha Mazdoor Sangha (ABCMS) associated with the Centre of Indian Trade Unions (CITU) and Bharatiya Mazdoor Sangha (BMS) allied to Bharatiya Janata Party (BJP).
- Areas under Tea Cultivation:*** Size of the tea estates have also been taken into consideration.

Data Collection Tools

Interview Schedule

Semi-structured interview schedule has been used to directly associate with the survey research by including closed-ended and open-ended questions. The survey was carried out using a mobile app (named Collect), based on the structured questionnaire developed during the inception phase of the research. Pilot survey was conducted to finalise the questions before fitting in the app. An orientation was given to the enumerators and research assistants. The app provided a user-friendly interface and allowed efficient collection and storage of data in a database. Concurrently, field note and observation check list were taken.

Interview Methods

Personal interviews and group interviews were conducted (Bryman 2009). In the current study, interviews of 510 plantation workers were conducted and at least one group interview was conducted with 10-15 workers in each of the tea estates. Group interviews in particular helped us to understand common issues of the estates. It further helped to validate and cross-check the data.

Picture 1.1. Group Interview Conducted in Estate-10, Dibrugarh



Source: Picture taken during fieldwork

In-depth interviews

Government officials, trade union leaders among workers, members from civil society who are actively working for the workers, managers who gave permission to interact with labour, former managers, owner of the estate, and officials from certifying agencies who are interviewed have been considered as the key respondents in this study. In-depth interviews were conducted with individual workers to understand and explore the current situation. They [key informants] provided information on the current situation of tea industry.

Data Analysis

Concurrent methods have been used to analyse quantitative as well as qualitative data. Statistical inferences have been drawn from the quantitative data and analysed with the help of SPSS and STATA. Further, qualitative data has been analysed based on descriptions and narratives from different stakeholders. Case narratives were developed based on in-depth and group interviews and observation and its checklist. Cross tabulation, descriptive statistics, correlation coefficient, and Principal Component Analysis have been used to present the data.

A comparison has been made across broad four types of plantations—Public Ltd Company, Proprietorship, Partnership, and Government Undertaking (both under Government of India and Government of Assam) estates. This is mainly because basic entitlements, wage structure, non-cash benefits, schools, hospitals, work conditions, infrastructure, among other gains vary across these categorization of plantations. Identification or any other personal information/features of the primary responses [workers] and key respondents are not revealed throughout the analysis.

Wage gap calculation has been based on actual consumption keeping family members into account and the actual wage that they receive including both cash and non-cash benefits. Although we have analysed the work undertaken by women and the time spent on the same in a separate section, every theme of this study has been examined from the gender aspect as well. This is the reason, we did not keep any separate section on gender, and rather we presented data across gender. Work is understood from the DW (ILO 1999) framework. We have tried to contextualize DW indicators among plantation workers and revise the framework. Naila Kabeer's approach of gender equality and women's empowerment have been considered as the analytical framework to understand agency, choice, access to resource and empowerment (Kabeer 2015).

The Fieldwork: Strengths, Challenges and Limitations

Despite several challenges, research was successfully conducted. When workers, who are the primary stakeholders to participate in the study, were contacted they immediately gave their consents and they and their family members cooperated whole-heartedly. Some sections of the interviews were based on recall methods and some were based on their experiences. The key respondents of the household did discuss with their family members and shared the information with us. When key respondents gave wrong answers, they were corrected by their family members. This is how the data was simultaneously cross-checked.

The main challenge of this study has been the stipulated time framework. The fieldwork was conducted during February–June 2019 over eight phases. The second major difficulty that we faced was the General Elections in India which was scheduled over seven phases starting from 11 April till 19 May. Due to the enforcement of the Model Code of Conduct (MCC), as declared by the Election Commission of India (ECI), Government of India, we had to stop the fieldwork. Nonetheless, during MCC, we could conduct meetings and interviews with the key informants.

Other than election, as expected, accessing tea estates was difficult at the initial phases. We approached various organizations, as well as the management of many estates. However, seven estates had given us access, agreed to interact with us and also gave permission to interact with the workers. With the help of the local grass root-level organizations, trade unions and student unions, we could carry out our study. Snowball sampling of key respondents at one level was helpful to gain access to the tea estate at the initial level.

Non-response from the different stakeholders was one of the disappointing factors while conducting this study. We approached 72 tea estates through various contacts but could get access to 50 only. In some cases, workers and trade unions were reluctant to participate in the study and we were asked whether we had the consent of the management. For instance, we were told to provide our identity cards along with study purpose and objectives. However, in some of the tea estates such as Estate-17 (Tinsukia), Estate-26 (Jorhat), Estate-30 (Sivasagar), Estate-39 (Golaghat), Estate-8 (Dibrugarh) and in estates 48 and 49 (Udalguri), we could carry out the study with due official permission. We could visit workers directly in their houses. In one estate in Sonitpur district, we conducted fieldwork with due permission from the owner and the management. As we conducted the fieldwork, we experienced homogeneity in responses. We also perceived that workers' responses were orchestrated and framed to portray a positive picture of the life of plantation workers. This was revealed once we started validating the responses. For example, all the workers in the garden wore new aprons, new uniforms and had new umbrellas. When one of us asked in the regional language whether they received all the safety equipments only for our visit, one of the women replied affirmatively and counter questioned us: 'how did you know?' The women workers looked confused about the purpose of our visit as we approached them [women] through the management. Since workers from this tea estate were reluctant, we decided to drop this estate from our study. It can be inferred from the experience that responses were meant to be staged. Some key respondents from industry, companies, certifying agencies and Tea Board of India were enthusiastically participating in the study which helped us to develop certain indicators. However, some key stakeholders who initially promised to provide required information did not respond after several attempts. It is hard to understand if these stakeholders retracted from their initial approach after going through the questionnaires and guidelines. We believe as a research team if we would have gotten a greater access to the knowledge and expertise of the various stakeholders, the result would have been more enriching.

2

Infrastructure in Tea Estates: Health Centre, Childcare, Schools and Connectivity

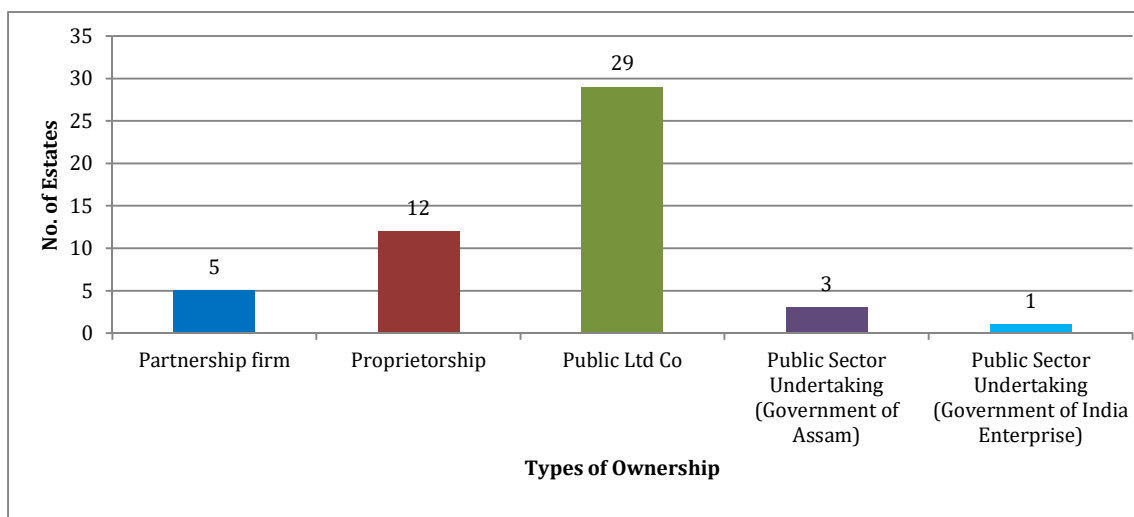
This chapter gives an overview of the basic facility and infrastructure in the 50 tea estates across 9 major tea-producing districts of Assam. Here, infrastructure denotes the basic facilities and installations, including roads, schools, childcare units and healthcare services, which facilitate the day-to-day activities of the worker community. These basic amenities are linked to a qualitative and developed human living. The Government of India, through the Plantation Labour Act of 1951 (PLA) has outlined the responsibilities of the tea planters to establish various social infrastructure, social security and welfare benefit measures. Further, the Government of Assam has given it a concrete shape with the Assam Plantation Labour Rules, 1956. Both the Act and the Rules guarantee accessibility to basic services including hospitals, schools, crèche, educational facilities, drinking water sanitation and canteen. According to the Plantation Labour Act, 1951, the employer needs to provide a garden hospital for estates having more than 500 workers or have a lien of 15 beds for every 1,000 workers in a neighbouring hospital within a distance of 5km, a group hospital in a sub area considered central for the people and provide transport to the patients. The ease of access is also determined by their proximities to the residences of the workers in the estates. Apart from basic amenities and social infrastructure, the chapter also deals with the collective bargaining rights of the workers in the form of trade unions and the presence of trade certification agencies in the estates. These are mainly to understand the role trade unions and certifying bodies in lives of workers.

Ownership Status and Organizational Affiliation

Ownership Status

There are broadly four different types of ownership in the tea industry in Assam, namely, Public Limited Company (Public Ltd. Co.), Partnership-based Firm, Proprietorship and Public Sector Undertaking. However, we have considered five categories in our analysis in details. We have divided government undertaking firms into two parts such as one by the Government of India and another by the Government of Assam. Therefore, five categories that are considered in our analysis are: Public Ltd. Co., Partnership, Proprietorship, Public Sector Undertaking (Government of India enterprise), Public Sector Undertaking (Government of Assam undertaking). The assumption of categorising ownership is that entitlements and benefits for labour may vary across estates. Looking at the findings, ownership of the estates does not have great impact on the entitlements and labour relations. Likewise, planters' affiliations are considered whether they have any positive impact or not. Conditions of the labour across different planters' associations are similar. Out of 50 estates, 29 estates are owned as public limited companies while 12 are owned on proprietorship basis and 5 are retained as partnership firms (see Figure 2.1). The number of estates owned by the Government of Assam and Government of India Public Sector Undertakings (PSUs) are 3 and 1, respectively.

Figure 2.1.Types of Ownership of the Estates

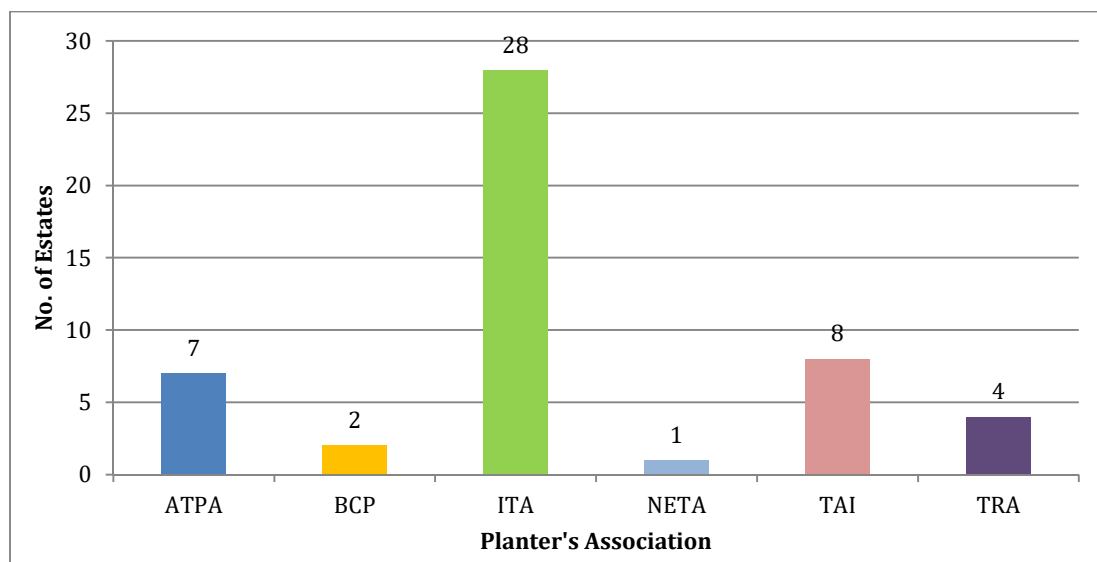


Source: Based on TBI 2019

Affiliation

As far as different planter's associations are concerned, there are six dominant planters' associations—Indian Tea Association (ITA), Tea Association of India (TAI), Assam Tea Planters' Association (ATPA), Tea Research Association (TRA), Bharatiya Cha Parishad (BCP) and North East Tea Associations (NETA)—on which 50 selected estates are affiliated. Out of 50 tea estates, 28 estates are associated with the ITA, while 8 are registered with the TAI and 7 associated with ATPA. Four estates are registered under TRA while 2 with BCP and 1 with NETA (see Figure 2.2).

Figure 2.2. Types of Planters' Associations



Source: Based on TBI 2019

Distance from Estates

Accessibility of the estates to basic services like the nearest railway station, bus stop, government hospitals, high schools and highways from the estate is important to understand how captive society is

created. This shows where the estate is located and how much they are isolated. Of the total 50 estates, 18 have a railway station at a distance of less than 5km while 13 have it 5–10 km away; 19 estates are located relatively remote inside with the nearest railway station situated 10–30km away. Twenty-five estates have accessibility to a government hospital within 5km, while 17 estates have within 5 to 10 km and 7 have it between 10 and over 30km. As regards to proximity to educational institutions, 48 estates have access to upper primary schools and 40 have high schools within a distance of less than 5km; further, 40 estates have a bus stand within less than 5km. The highways for 33 estates are located at a distance of less than 5km (see Tables 2.1). These tea estates are also very isolated and remotely located. For instance, there is no approach road to Tea Estate-48 (Udalguri). To access this tea estate, we had to cross a river. Respondents mentioned, when there is no water in the river, workers go to the market and do shopping. During the monsoons, the estate is completely inaccessible. One of the leaders of the trade union from Estate-48 (Udalguri) stated that they pray that no one should fall sick during the monsoons as most of the medical cases are referred to the government hospital which is 30km away from the estate. This also raises the question on how important it is for the estate to provide all the basic facilities to the labour and their family within the estate including basic facilities like access to schools, hospitals and the local market as well as school buses, transport, ambulance, etc.

Table 2.1. Distance of Tea Estate from Basic Facilities

Distance (in km)	Railway Station	Govt. Hospital	High School	Upper Primary School	Bus Stand	High Way
Less than 5	18	25	40	48	40	33
5 to 10	13	17	7	0	6	10
10 to 20	11	3	1	0	1	3
20 to 30	5	1	0	0	0	
More than 30	3	3	1	2	2	2
Total	50	49	49	50	49	48

Source: Fieldwork

Primary Schools across Estates and Mid-day Meals

... where the children between the ages of 6 and 12 of workers employed in any plantation exceed 25 in number, the state government may make rules requiring every employer to provide educational facilities for the children in such manner and of such standard as may be prescribed (Plantation Labour Act, 1951).

The Assam Plantation Labour Rules (APLR) (1956) also lay down that in case a primary school has not been provided by the state, employers need to maintain educational facilities inside the estate. The rules have substantially elaborated on the infrastructural requirements of an estate school such as a centrally spaced school building, an open playground and school equipment as directed by the state education department.

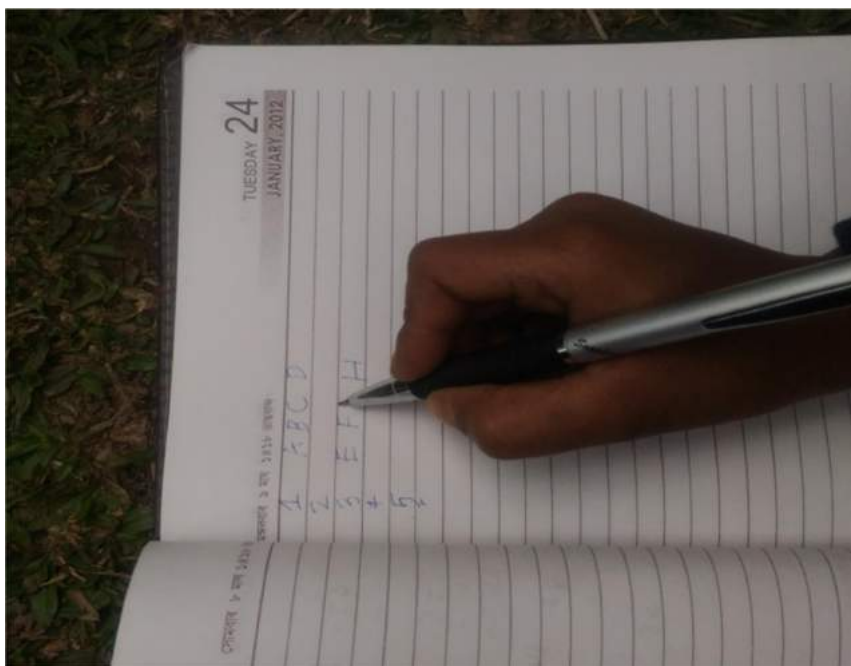
Out of 50, 47 estates have primary schools within the estates and are maintained mostly by the state under the Assam Sarva Shikshya Abhiyan. The highest number of primary schools is located in Dibrugarh (11); followed by Tinsukia (9), Jorhat, Sivasagar (6 in each), Golaghat (5), Sonitpur (4), Cachar (3), Udalguri (2) and Nagaon (1) (see Figure 2.3). People have reported that the quality of education is poor. According to students and their parents, the student–teacher ratio has been 1:75 approximately, though as per APLR, the employer is expected to appoint one teacher for every 40 children in an estate school.

The data and observation present a poor picture regarding the school infrastructure in the estates. Most estates have few classrooms, insufficient toilets and, according to the parents, poor quality and

insufficient mid-day meals in schools. The number of classrooms is limited and one teacher manages two standards simultaneously. Some respondents said that their children do not receive proper attention, thus they are not much motivated to study. The students were given exercises such as writing alphabets (A–Z), counting numbers (1–20) and recitation of poems. They were unable to reproduce as per the expected standards. For instance, one of the students studying in the third standard was unable to write numbers beyond 5 and struggled to write alphabets in Estate-22, Tinsukia (see Picture 2.1). The medium of instruction in the schools is *Assamese*. However, speaking to workers and students, they are not even comfortable to speak in Assamese. This shows that the students do not even learn properly the language of their medium of instruction.

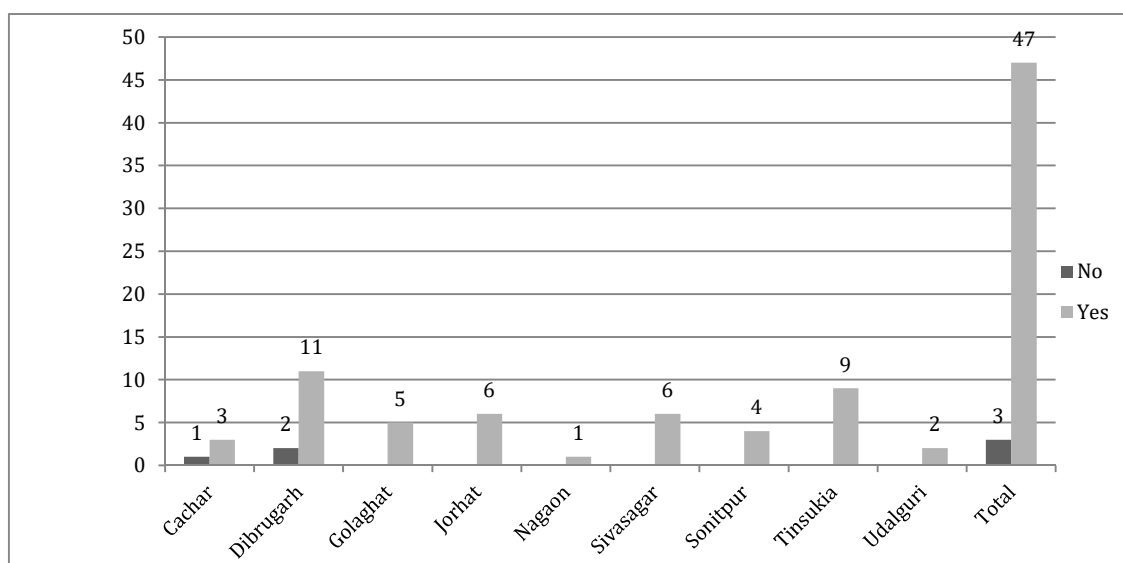
In every tea estate, a teacher had to teach more than one class in a single room where the teaching and learning process is incoherent. On the other hand, teachers are also not well paid. For instance, in Estate-8 (Dibrugarh), a teacher has a second job as a staff worker in the estate which coincides with his teaching job, resulting in extreme inefficiency and absence. For example, in Estate-48 (Udalguri), school teachers are appointed on temporary/casual basis on daily wage from the community at the rate of Rs. 167. One of the trade union leaders from this estate said that the teacher teaches just after qualifying secondary (10th standard) education and they are pressurising the estate management to appoint qualified teacher at the school. There are no separate toilet facilities for girls and boys in every school whereas water facilities at the schools are found.

Picture 2.1. Child making an attempt to write alphabets and numbers in Estate-22 (Tinsukia)



Source: Picture taken during fieldwork

Figure 2.3. Number of Primary Schools in Estate

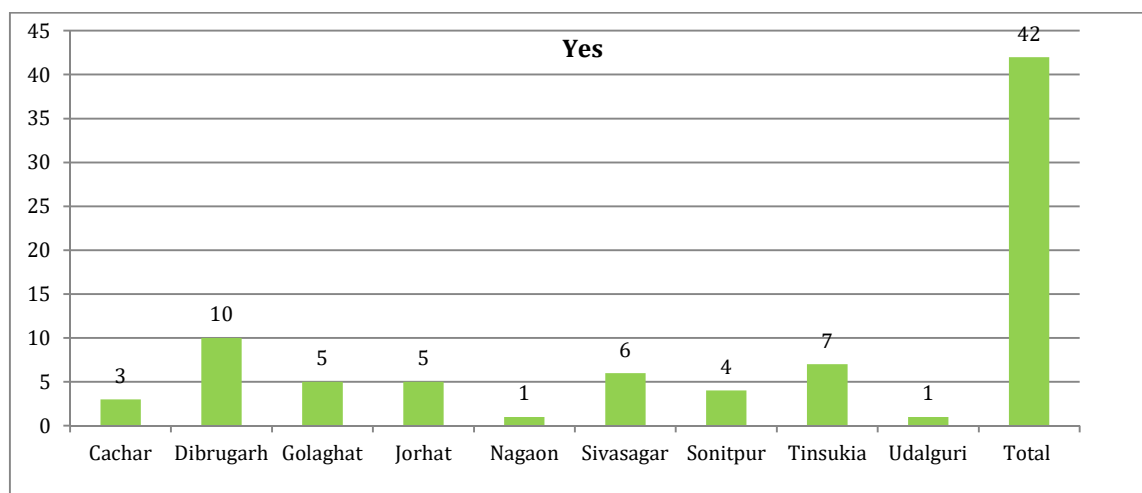


Source: Fieldwork

Mid-day Meals in Estates' Schools

In general, it seems that the provision of mid-day meals at primary schools has increased school enrolment and reduced the number of drop-outs. However, the quality and quantity of food served remain unsatisfactory. Mid-day meals are provided in 42 out of 47 estates which have primary schools (see Figure 2.4). The number of estates having mid-day meal provisions are the highest in Dibrugarh (10), followed by Tinsukia (7), Sivasagar (6), Golaghat, Jorhat (5 in each), Sonitpur (4), Cachar (3).

Figure 2.4. Mid-day Meal Facility at the Primary Schools



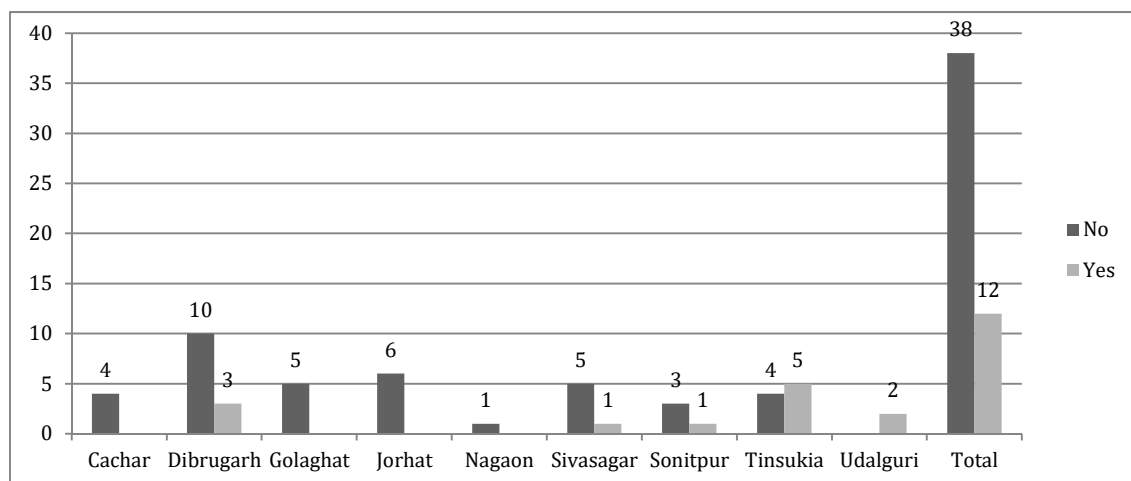
Source: Fieldwork

Bus Facility by the Estate to School going Children

Bus facilities for young children are particularly important if the upper primary, secondary, higher secondary schools and colleges are located at a considerable distance away from the homes. Only 12 estates have provision for bus out of which 5 are located in Tinsukia, 3 in Dibrugarh, 2 in Udalguri and one each in Sivasagar and Sonitpur. The remaining 38 estates do not have bus facilities (see

Figure 2.5). Therefore, this is obvious that students will find difficulties to go out of the estates as they [estates] are isolated far away located. This is one of the reasons that majority of the workers are either illiterate or have received education up to the primary level (see Chapter 3).

Figure 2.5. School Bus Facility Provided by the Estate



Source: Fieldwork

Childcare Units

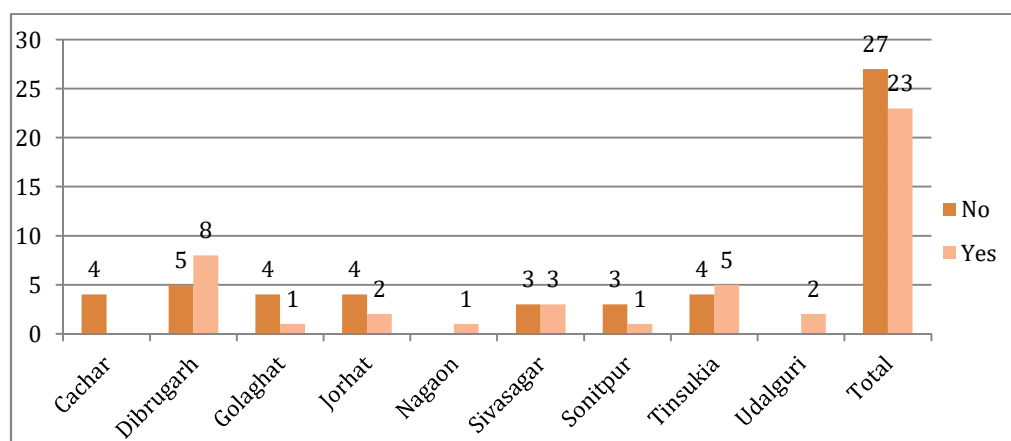
Childcare facility to the working mother is determined by the crèche facility provided by the estate. As outlined:

in every plantation wherein 50 or more women workers (including women workers employed by any contractor) are employed or were employed on any day of the preceding twelve months, or where the number of children of women workers (including women workers employed by any contractor) is twenty or more, there shall be provided and maintained by the employer suitable rooms for the use of children of such women workers (PLA 1951).

In this study, out of 50 estates, only 23 have provisions for childcare in the form of crèche facilities, while the other 27 are not equipped likewise. Of the 23 estates, 8 are concentrated in Dibrugarh, 5 in Tinsukia, 3 in Sivasagar, 2 each in Udalguri and Jorhat, 1 each in Golaghat, Nagaon and Sonitpur (see Figure 2.6). It is also to be noted that 85 percent women across 50 estates reported that they do not prefer to send their children to crèche because of the distance of the crèche from their site of work. Women mainly prefer carrying their youngest child along with them at work (mainly garden) and they keep them on the ground if the household do not have any other elder child to take care of their siblings. As per the specifications on crèche facilities mentioned in the APLR, at least 0.25 liter clean fresh milk or powdered milk, as approved by a certifying surgeon and wholesome refreshment are to be made available daily by the employer at his own cost for each child up to two years of age. However, 20 out of 23 estates provide meals at the crèche, that is, about 87 percent of the estates having crèche facilities are providing meals (see Figure 2.7), which is another reason why women do not send their children.

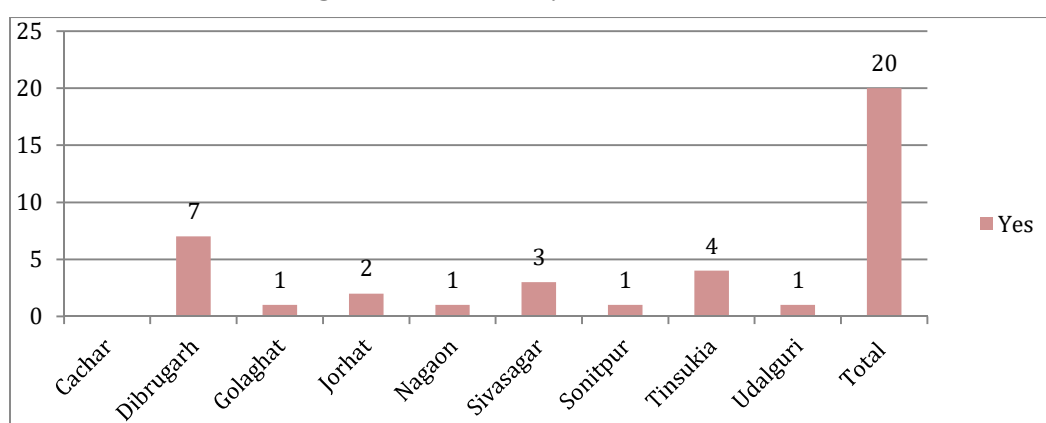
The APLR also allows women workers to visit the crèche twice during the course of their daily work to feed her child who is to be below two years of age. In the study, nevertheless, none of the women workers who have children of that age are aware of such rules. Mothers of new-borns have difficulties in taking their children with them and have to keep them at home with their mothers or elder siblings. There is no proper shade in many of the estate gardens where the labourers can eat their lunch or even sit in sunny or rainy days. Interestingly, very few estates have Anganbadi and among them fewer function properly. Anganbadi workers in Estate-25 (Jorhat) said that they provide childcare and also make provisions for the care of pregnant women but the items needed from the government or estate do not reach them on time.

Figure 2.6. Crèche Facility in the Estate



Source: Fieldwork

Figure 2.7. Availability of Food in Crèche



Source: Fieldwork

Picture 2.2. Conditions of Crèche in Estate-7, Dibrugarh



Source: Picture taken during fieldwork

Health Services

As per the Plantation Labour Act 1951 (PLA), it is mandatory for the estate owner to ensure provision of medical facilities to its employees. The PLA states that if any estate fails to provide medical facilities as required then the state may (upon a request by the chief inspector) provide and maintain them and recover the cost thereof from the defaulting employer. The APLR 1956 states that every employer provides a garden hospital in his plantation or has a lien on the beds of a neighbouring garden or another hospital to the scale of 15 beds per 1,000 workers, provided such a hospital is situated within a distance of 5km from the garden office. Further, the Act outlines:

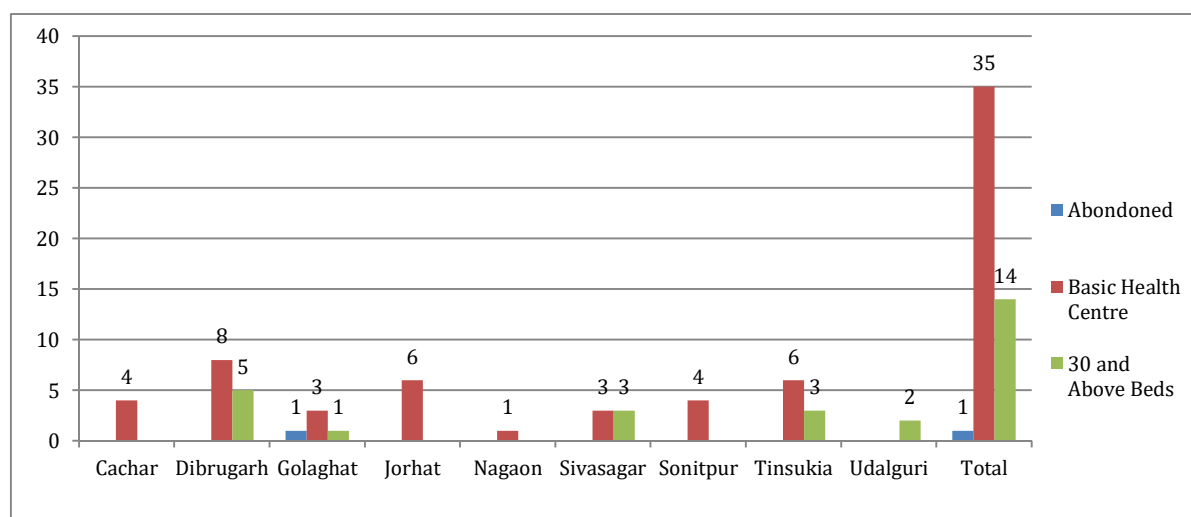
...in case of lien on hospital beds, the plantation concerned shall provide and run for the benefit of the outpatients a dispensary of its own with at least two detention beds of the standard approved by the Chief Inspector of plantations under the immediate care and supervision of a full time qualified pharmacist assisted by a full time trained nurse-cum-midwife and visited daily at regular hours by the qualified medical practitioner of the hospital on the beds of which it has a lien, patients requiring detention at the hospital and treatment therein being (APLR, 1956).

The APLR has given specific guidelines for garden hospitals and group hospitals separately catering to the medical needs of the patients. The rules mention that garden hospitals will deal with outpatients and in-patients, who do not require any elaborate diagnosis and treatment, and those that relate to straightforward cases of infection, mid-wifery, simple pre-natal and post-natal care of infants and children and periodical inspection of workers. However, it is to be highlighted that none of the estates, including the 30-bedded health centres (14 estates; see Figure 2.9) have adequate treatment facilities and, most of the time; workers are referred to district civil hospitals. It is important to mention here that the health centre in one of the estates in Golagat is found abandoned (Estate-36). Workers from the estate visit nearby government hospitals.

Based on our sample, we have divided the health centres and services into three categories; those of which are (a) abandoned, (b) have bare minimum facility, and (c) 30 and above-bedded centres. Notably, most of the health centres (about 35 estates out of 50 estates) only has one bed, saline facility and one nurse to provide first-aid services. Therefore, in our analysis, we are not referring to 'healthcare', rather only health centre within the estate. Most of the estates refer to a government hospital in the respective district. The APLR require garden hospitals to be at least under a full-time qualified medical practitioner assisted by at least one trained nurse, one trained midwife, one qualified pharmacist and one trained health assistant, all of whom need to be whole timers, and whose services would be readily available during all hours. According to the workers' narratives, doctors hardly visit the hospital. Even at the time of emergency, patients have to wait for a long time for the doctors as no fixed schedule is maintained for the doctors. There is a shortage of trained health personnel in all the 35 basic health centres. These centres just have a compounder and one/two nurses. There have been instances of deaths due to medical negligence (Estate-49, Udalguri). A wife (approx. 24 years of age) of a permanent worker from this estate who was also a temporary worker was suffering from ill health. She was taken to the estate health centre but the health personnel referred to her condition as a minor issue without any further investigation. She had many visits to the health centre but received no serious intervention. She fell ill and one day the ambulance was called to the labour line to take her to the hospital. However, the ambulance did not reach on time and she succumbed to her illness on the way to the health centre. The incident was recounted by her husband with grief and anger as he was left behind with his two young (about 2 and 4 years of old) children.

Of the 50 estates, 35 have a health centre which includes provision for a bed, saline, staff, and medicines for fever or cold. Such centres are located in Dibrugarh (8), Tinsukia and Jorhat (6 in each), Cachar and Sonitpur (4 in each), Golaghat and Sivasagar (3 in each) and 1 in Nagaon (see Figure 2.8). In the event of slightest of the complications, the patients are referred to government health centres or hospitals and respondents revealed that these health centres are not very effective in dealing with medical problems.

Figure 2.8. Health Centre Provided by Estate



Source: Fieldwork



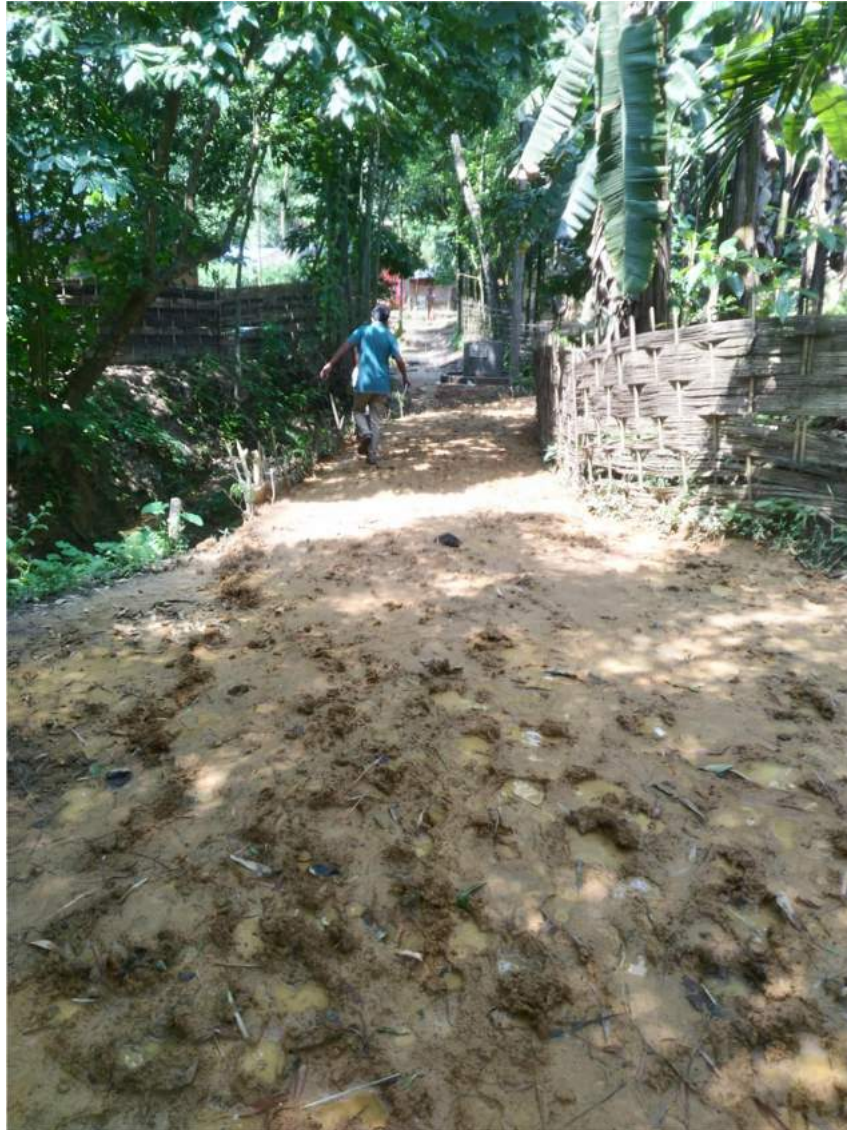
Picture 2.3. Abandoned Hospital in Estate-36 (Golaghat)



Picture 2.4. Abandoned Hospital in Estate-36 (Golaghat)

Between Labour Lines and Health Centre

This study also tries to understand the physical infrastructure surrounding the health centres. Besides beds in the health centre, the approach road to the health centre from the labour colony (labour lines) is also analysed. The nature of approach road from the labour colony to health centres in the estates determines its accessibility. There are two types of roads—*kutchha* and *pukka*. Kutchha roads refer to non-concrete roads. The number of estates having pukka road connectivity with health centres (24) is less than those having kutchha road connectivity (26). Of the 35 estates, 18 have only kutchha roads to connect them; the remaining 17 have pukka roads. Of the 14 estates which have health centres equipped with more than 30 beds, 7 have kutchha roads and another 7 have pukka roads to connect them (see Figure 2.9). Even though workers manage to visit hospitals when they are ill through the kutchha roads (for instance, in Estate-20, Tinsukia), women highlighted that it becomes difficult for them during pregnancy to visit hospital at regular intervals for check-ups through such roads. We could relate to their woes, as we took 30 minutes to cover a distance of 3km to the labour colony.

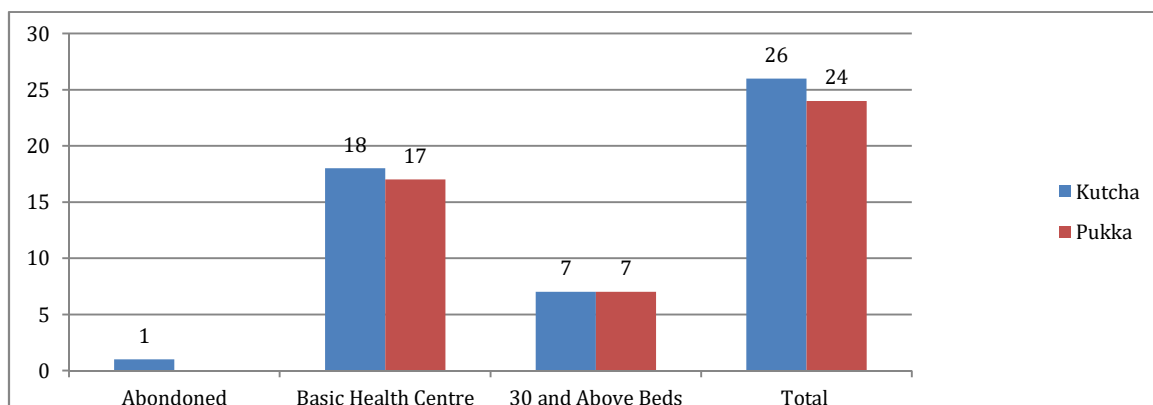


Picture 2.5. Approach Road to Labour Colony in Estate-44 (Cachar)

Availability of Medicine at Health Centres and Provision of Free Medicine

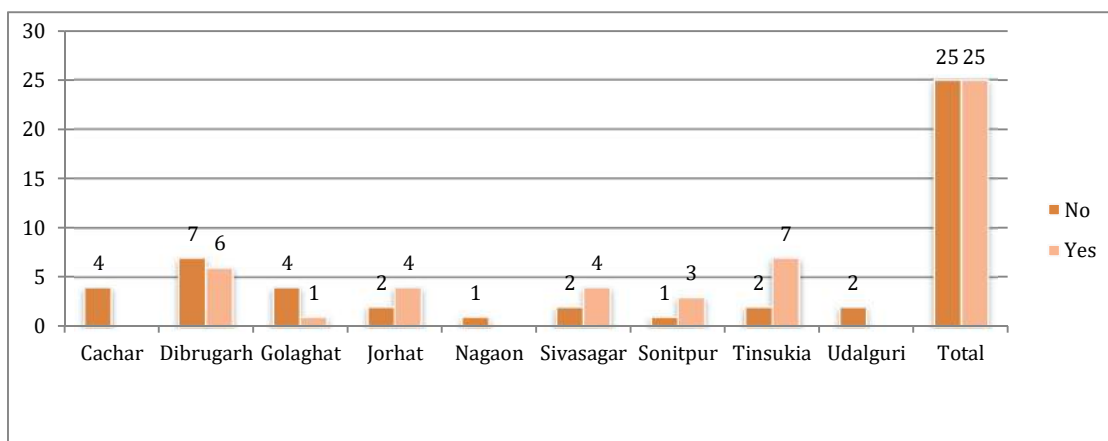
Availability of medicine and their cost are also important factors to be discussed. Of the 50 estates, 25 have provision for free medicines for its workers while another 25 do not have such provisions. Of the 25 estates that have medicine facility (see Figure 2.10), 22 have provisions of offering free medicine. Of the 22 estates, 7 are located in Dibrugarh, 5 in Tinsukia, 4 in Sivasagar, 3 in Sonitpur, 2 in Jorhat and 1 in Golaghat. Of the 28 estates without free medicine facility, 6 are located in Dibrugarh, 4 each in Tinsukia, Golaghat, Cachar and Jorhat, 2 each are in Udalguri and Sivasagar, and 1 each in Nagaon and Sonitpur (see Figure 2.11). Workers from those 22 estates where medicines are freely available reported that most of the medicines are for fever, headache and treatment of such common diseases. If they have a major disease they are referred to the government hospital in the area. Respondents of these estates mentioned that they do not receive medicine on time when required.

Figure 2.9. Approach Road between Labour Colony and Health Centres



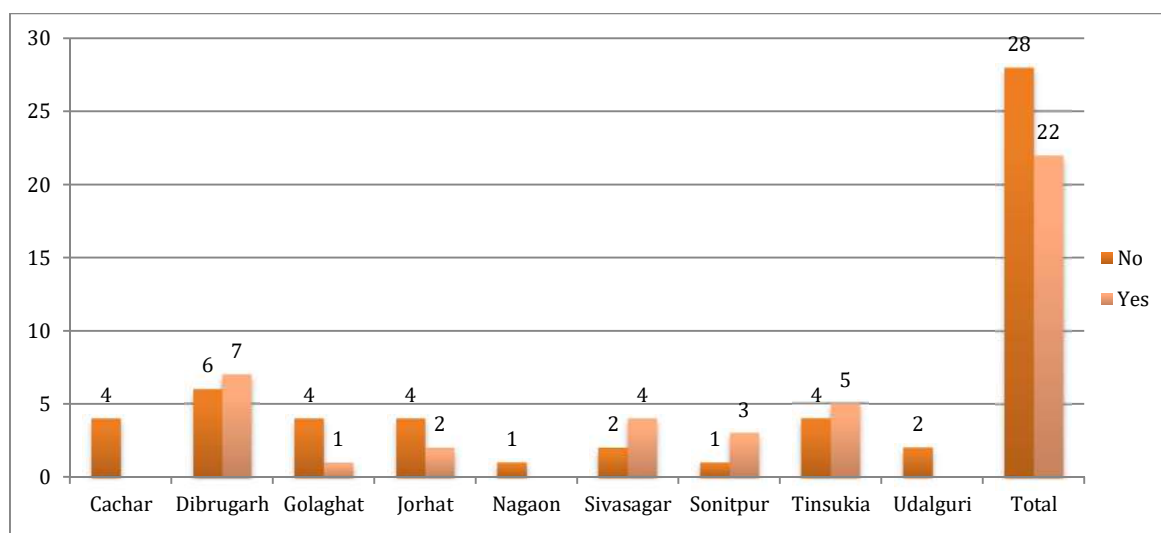
Source: Fieldwork

Figure 2.10. Availability of Medicine in the Health Centre



Source: Fieldwork

Figure 2.11. Free Medicine available in the Estate

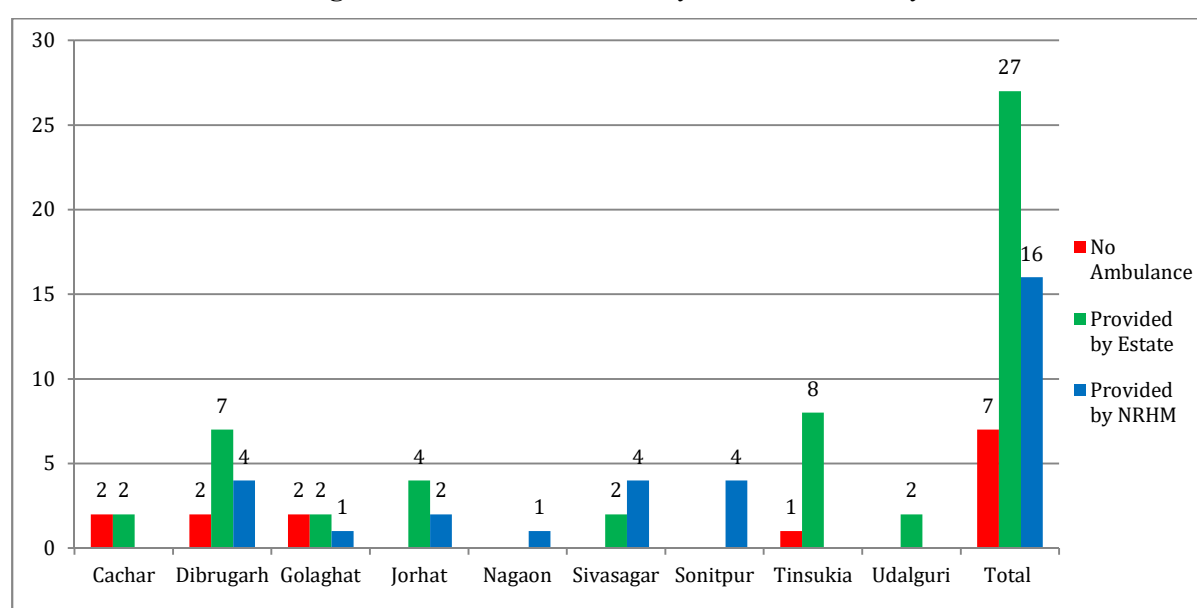


Source: Fieldwork

Ambulance Services

According to PLA, it is mandatory for the estates to provide ambulance facilities. Of the 50 estates, 7 do not provide ambulance facilities. While the remaining 27 estates offer such provisions to the workers, in 16 estates, ambulance facility is provided under the NRHM, Government of India. Of the 27 estates, seven are located in Dibrugarh and 8 are in Tinsukia. Ambulance facilities provided by NRHM are 4 each in Golaghat, Sivasagar and Sonitpur. Ambulance facilities either by the estate or under the NRHM are absent in 2 estates each in Cachar and Dibrugarh and 1 in Tinsukia. Ambulance services as well as road conditions are poor almost in all the estates. Besides poor road conditions, poor ambulance services make worker lives difficult. For instance, one of the women from Estate-20 (Tinsukia) reported that her delivery took place at home. They called for ambulance services in the morning but did not reach till evening and her family members decided to perform a home birth. As far as on-demand ambulance services are concerned, almost all the workers across tea estates provided a poor picture. Either the ambulance takes a long time to reach or does not reach at all.

Figure 2.12. Ambulance Facility and its Availability



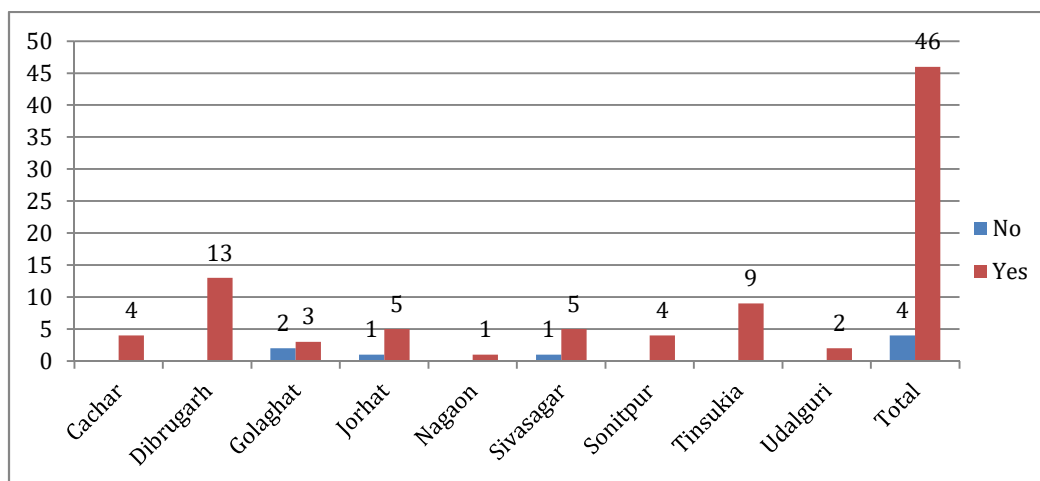
Source: Fieldwork

Estates with Factory

Out of 50 estates in the report, 47 estates have factories of their own and the rest depend on factories outside tea estates; out of which 13 are in Dibrugarh, 9 are in Tinsukia, 6 are in Sivasagar, 5 in Jorhat, 4 each in Cachar and Sonitpur, 3 in Golaghat and 2 in Udalguri. On the other hand, 2 estates in Golaghat, 1 in Jorhat and 1 in Sivasagar do not have factories in the estate. Estates without factory process their green leaves in another nearby estate having one. For instance, Lakmijan Tea Estate (Sivasagar) depends on Mackeypore Tea Estate (Sivasagar) for processing raw tea leaves. The absence of a factory in the estate reduces the employment opportunities and demotes job mobility and skill development. For example, in Estate-27 (Jorhat) Tea Estate, because of an absence of a factory all the workers work in the garden area as pluckers which reduce the diversity of work opportunities for the upcoming generation. It disallows a worker to move upward. For instance, workers (mainly male) mentioned that though they wanted to learn new skills like operating machines so that they could work both in the garden and factory, such possibilities were remote in a garden without a factory. Due to dependency on other factories, the estates have to incur losses too. For instance, due to the lack of factory the leaves of Estate-27 (Jorhat) were sent to the factories at Estate-24 (Jorhat) and Estate-X (outside the sample). But due to unknown reasons, the transfer was halted by the two factories as a result of which 3000–4000 kg leaves were burnt/ thrown away on the road as a sign of

protest. The workers of Estate-27 felt that their hard work was completely wasted due to the management's inability to provide a factory for the estate. As a consequence of the situation, workers also did not receive full wage.

Figure 2.13. Estates with Factory



Source: Fieldwork

Basic Facilities at the Workplace

Toilet Facility

Though factories have separate toilet facilities for male and female workers, the condition of the toilets are not good. However, many estates (for example, Estate-18, Tinsukia and Estate-48, Sonitpur) have no provision of separate toilets in the factory. Needless to mention, there is no toilet facility at the garden. Therefore, at the time of emergency, women need to travel quite a distance from their area of work. This is also because sardars (mostly men) are around. Women pluckers from Estate-14 and Estate-20 (Tinsukia) and Estate-42 (Sonitpur) reported that they avoid drinking water. A 50-year-old permanent worker, Romila Tanti, from Estate-14 (Tinsukia) reported that some women take leave or become absent (or rather forced to take leave) during menstrual period as there is no toilet facility in the garden. One of the male permanent workers from Estate-20 (Tinsukia), Rupesh Oraon (43) (name changed), informed that the toilet is unusable and never gets cleaned and workers cannot even use them during emergency. He further stated that only at the time of auditing or prior to the visit of officials, the administration ensures that the toilets and water taps are cleaned.

The PLA and the Assam Plantation Labour Rules, 1956 confers rights to basic urinal and latrine facilities to the workers. In PLA it is directed that there should be latrines and urinals provided separately to males and females and they need to be maintained clean and in good sanitary condition. In Chapter 3 of the labour rules, it is added that the latrines should conform to public health requirements and latrines other than those connected with an efficient water borne sewage-system need to comply with the requirement of the public health authorities. Amar Tongla of Estate-5 (Dibrugarh), a salaried worker in the estate, described the condition of the factory latrine to be the worst. He vividly describes the overflowing sewage in the latrines that makes it impossible to use them. Workers still use it during emergency situations and only because they have nowhere else to go. The narrative also reflects on the strict time-bound work system which may result in punishments if the worker leaves work for personal emergencies. A respondent in Estate-20 (Tinsukia), a 19-year-old factory worker, elaborates on the rigid work structure. He mentions that toilet use is restrictive, hence workers refrain from drinking more water even though the factory heats up to extremes because of the hot machines and tinned roof. The sardars are strict about movement during work and use verbal abuse as a control mechanism.

The sanitation infrastructures are near to negligible in the garden area in all of the tea estates. Toilets being absent in the garden area of the tea estates indicate practice of open defecation. The worst victims are the women in this matter. Women have no option but to go to isolated spots which make them extremely vulnerable to all kinds of diseases, infections and predatory attacks.

Canteen Facility

According to the PLA and APLR every plantation, having 150 workers employed ordinarily, needs to provide one or more canteens. The APLR has further directed that foodstuffs served in every canteen or at workplaces shall be sold on a no-profit basis and canteen infrastructure such as furniture; utensils etc. are to be provided at the cost of the employer and no charges to be made at all on those accounts.

Canteen facility is available in many of the tea estates but it is not accessible to the pluckers. They are mostly frequented by male factory workers, who have to perform their duties according to the allotted shifts, and the salaried workers. Except on payment day, factory workers do not use canteen services as the rates are not subsidized.

The APLR also states the criteria of representation in the canteen management committee. The rules specify that the committee should consist of equal number of representatives from both the management and workers' side, and representatives from the latter are to be nominated by the union. However, most workers stated that the canteen was being run by the management solely and workers had a role to play in its internal processes.

Drinking Water

The PLA states that in every plantation effective arrangements should be made by the employer to provide and maintain sufficient supply of wholesome drinking water at convenient places for all workers. However it doesn't specify the infrastructure that should be used to deliver the water. The APLR specifies that workers are to be provided with drinking water at work sites during working hours and elaborates on the storage infrastructure of drinking water. It has further directed to maintain a quality that should conform to the public health requirements and shall comply with the requirements of the public authorities neither of the rules mention of drinking water facilities in the labour lines. It was observed that in most estates, drinking water is of very poor quality. Respondents said that the tanker in which they bring water for the workers in the garden are rusted, and the water smells and tastes of iron rust. The tankers that carry water are similar to the ones that carry pesticides but there have been no incidents found of contamination by the researchers. In the factory, majority of the estates have taps or tube wells as the source of drinking water during working hours.

Presence of Trade Union

Presence of trade union in the estate indicates collective bargaining. Three are different types of trade union across the estates, namely, the Assam Cha Mazdoor Sangha (ACMS) affiliated to Indian National Trade Union Congress (INTUC), Akhil Bharatiya Cha Mazdoor Sangha (ABCMS) associated with the Centre of Indian Trade Unions (CITU) and the Bharatiya Mazdoor Sangha (BMS) allied to the Bharatiya Janata Party (BJP). As far as presence of trade unions across estates are concerned, there are four categories—those having only ABCMS union (4), only ACMS (39), both ACMS and ABCMS (2) and both ACMS and BMS (2). Of the 39 estates, 10 are in Dibrugarh, 9 in Tinsukia, 6 each in Jorhat, Sivasagar, 4 in Sonitpur and 1 in Nagaon. The union ABCMS is found in 4 estates only in Cachar. Only 2 estates in Udalguri have the presence of ABCMS and ACMS unions and 1 each in Dibrugarh and Golaghat have the presence of both ACMS and BMS. Three estates are not affiliated to any union whatsoever. Among these 3, 2 are in Dibrugarh and 1 in Golaghat (see Figure 2.14).

Trade unions certainly provide an opportunity for collective bargaining through which working people gain a voice at work and can negotiate with employers to shape their working lives. Article 23

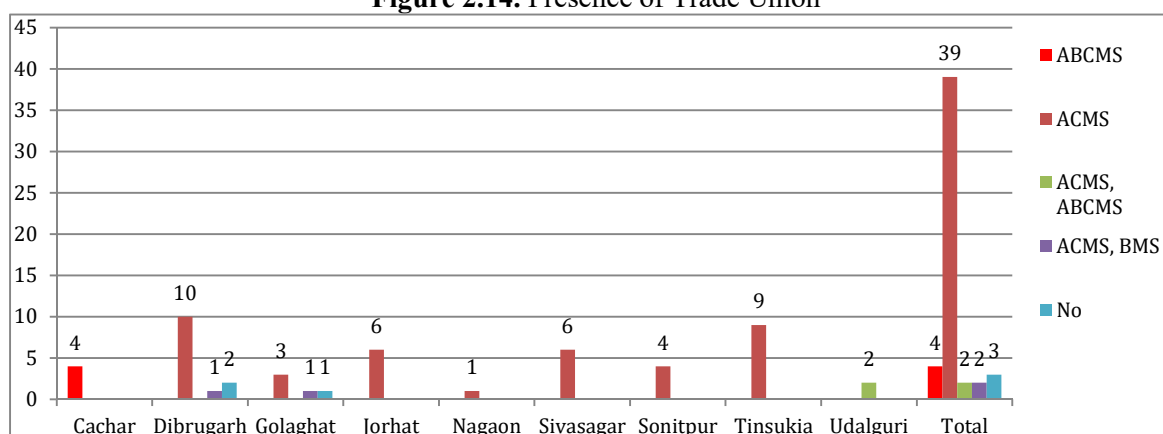
of the Universal Declaration of Human Rights recognizes the ability to join trade unions as a human right. Item 2(a) of the International Labour Organization's declaration also identifies the same. In the tea estates of Assam, as the data suggests, there is an overwhelming presence of trade unions which are intricately tied to the political system of India. All the trade unions working in the tea estates are directly affiliated to major political parties of the country, hence, it is inevitable that they set off an agenda of their own while indulging in the matters of the workers. One of the key hindrances in the membership and participation in the trade unions is their continued lack of trust in its efficiency and intentions. Most workers strongly believe that they [trade union] are on the side of the management.

The other hindrance is the low membership. The reason behind it remains to be the lack of trust and knowledge of the benefits of trade unionism. Workers remain oblivious of the processes of selecting key members of the union and the importance of workers' representatives. We have not found a single case in all the trade unions across 50 estates, where election had taken place to elect the executive committee members at the union. The confusion is also ignited by the multiplicity of unions in the tea estates. The presence of two unions (ACMS and ABCMS) in some estates has led to dual participation and to fruitless ideological battle rather than pragmatic ones. However, workers reported that the presence of more than one trade union is much better. As the discussions suggest workers find it difficult to make their ends meet in the current wage structure; hence, many workers have raised objections over the deductions made towards union membership. However, trade unions are the only resort through which workers can negotiate their terms with management. As seen in Table 2.4, estates having two trade unions are doing better in comparison to other estates in terms of their negotiations with the employer.

Members of the executive committee of trade unions across estate are not elected and it is always based on nomination. However, workers are never part of the discussion on nomination. The main deciding factor for nomination is pro activeness of the member. Workers pointed out that most of the nominated members have a good rapport with the management. Such rapport should ideally address workers' concerns but the workers feel that the way of addressing workers' issues by the unions is similar to the way of management. Although women are members of the union, their participation in the executive committee is negligible. Women reported that the presence of a female member is just a mere formality.

However, a group of male union leaders from Estate-48 (Udalguri) mentioned that participation of female workers is growing in the union. They are anticipating that a number of female members might increase in the executive committee of the union since young male members are disinterested at union activities and also migrating in search of job or study. They [male union leaders] apprehend that issues of industrial workers might get unaddressed. This is mainly because women's representation in the factory is much lower than male workers. This case in particular reflects how male members perceive gender representation in the union.

Figure 2.14. Presence of Trade Union



Source: Fieldwork

Certification

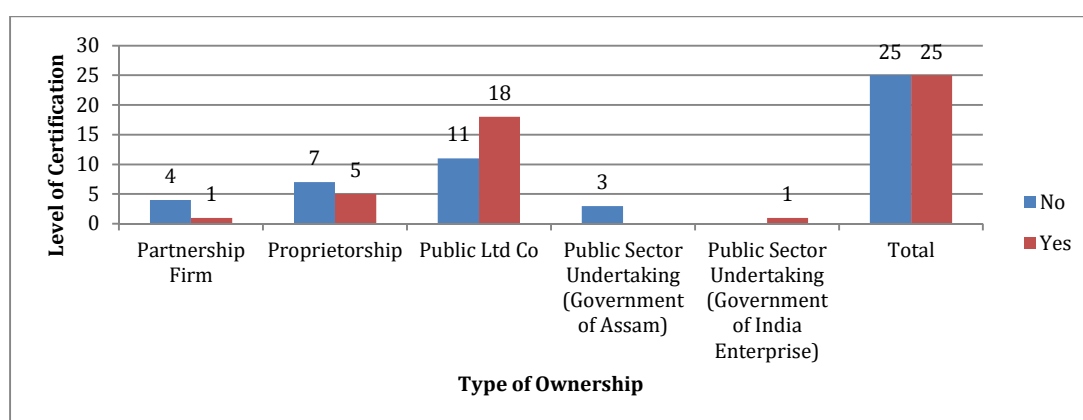
Certifying bodies² such as Rainforest Alliance, Fair Trade organisation, SA 8000, Trustea, and others, in the context of environmental, economic and social sustainability has indeed given a global impetus to the ethical goods market. Tea is no exception and estates/BLFs are trying to associate with different certifying agencies to get recognition. While certifying agencies claim that they have significantly contributed to the lives of plantation workers, tea companies on the other hand endorse too their certifications in the website from where information has been collected. Notwithstanding, looking at the living and working conditions, rights at the workplace (safety measures) and basic right as worker (pay slip), implications on the lives of tea plantation workers in Assam are far away from the claims. Data shows that majority of the estates under public limited company and those which are associated with Indian Tea Association (ITA) seem to undergo a certification process while others do not. While 25 estates have at least one certification, the remaining 25 do not have any. Majority of the estates under public limited company and estates which are associated with the Indian Tea Association (ITA) undergo this certification process (Fig. 2.15, 2.16).

Fair trade initiatives promote economic, social and environmental sustainability and established linkages between consumers and producers in the geopolitical North and South. The code of good practice is designed to benefit the workers; however, owners of the trade also benefit from the certification in the shape of access to specialized export market and stable prices. Workers under a fair trade network of *Fairtrade International* must receive fairtrade premium which is in the form of a monetary benefit given directly to the worker communities.

Workers across 50 estates are not aware of any of the certification and also the status of certification of their respective estates. Except community leaders and a few union members who know about the certification status, no initiative has been taken to communicate the knowledge among the workers.

Although we have found 25 out of 50 (50 percent) of the estates produce certified tea, when we look at worker's lives, they lack in accessing basic entitlements and facilities, even in the estates which are associated with the certified agencies. For instance, workers in Estate-49 (Udalguri) asserted that among many infrastructural related issues, lack of ambulance services is one of the major problems. Workers stated that they do not get ambulance services during emergency. They reported a death of a woman worker in this estate that occurred because ambulance did not reach on time. Besides, the estate also lacks proper drainage system, clean drinking water facilities and sanitation, though this estate is associated with fair trade international. The study shows that workers across estates have poor housing conditions; improper healthcare services; poor services in the school, crèche; absence of safety equipments and others. Interestingly, workers across estates mentioned that they receive safety equipments (apron, gloves, boot, musk etc.) only on the day of auditing.

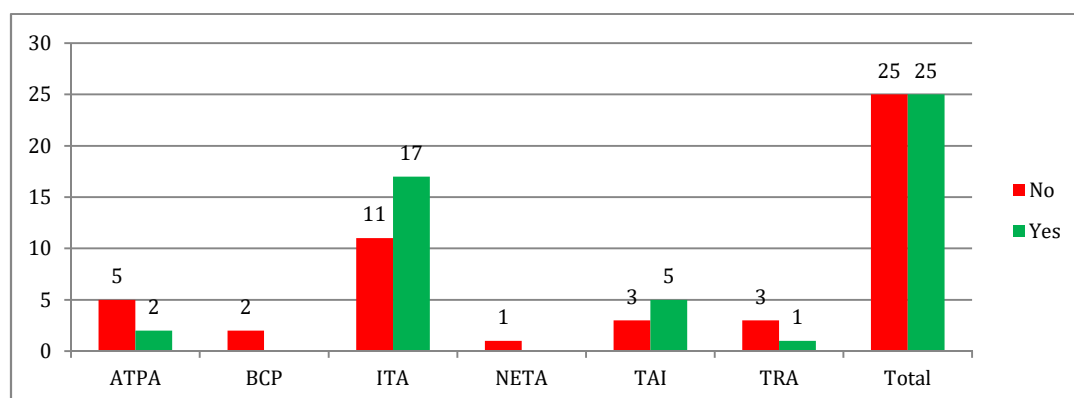
Figure 2.15. Estates Having at Least One Certification across Status of Company



Source: Computed based on Tea Board of India

²The background information has been developed based on information collected from certifying agencies' website and also interviews with key informants.

Figure 2.16. Estates Having at Least One Certification across Planters' Associations



Source: Computed based on Tea Board of India

Performances on Social Indicators

We have tried to compare across estates and tried to rank them in terms of basic available services by using mean ranking. Tables 2.2 and 2.3 present the rank of the estates across types of firm as well as revealing the presence of different trade unions. It shows that basic services provided by the estate such as primary school, health centre, crèche, mid-day meal in public sector undertaking under the Government of India are comparatively better (see Table 2.2). In the collective bargaining process, it is always better to have more than one trade union to negotiate with the employer. As far as basic services and entitlement are concerned, estates having 2 trade unions are doing better in comparison to other estates while negotiating with the employer (see Table 2.3). Although the study does not claim that it assesses the impact of certification in the tea industry, it shows interesting facts. Looking at performance of the social indicators across estates which are associated with different certifying bodies and those which are not associated with any such organization, mean ranking shows that indicators are performing relatively better in the estates which produces certified tea (see Table 2.4). Social indicators and their performances, as observed, across all the estates are below the standard. However, the degree and the quality of services vary and also contested. Some of the social infrastructure indicators such as ratio of number of bed to workers, ratio of number of health centre to workers and number of doctor to workers, from Estate-15 and Estate-20 indicate that there is violation of existing social infrastructure (see Box 2.1).

Box 2.1. Status of Basic Indicators of Selected Estates

Case-1: Estate 15, Tinsukia

Number of Bed to Worker Ratio= 191 : 1

Number of Health Centre to Worker Ratio= 1 : 3050

Number of Doctor to Workers Ratio= 1 : 3050

Case-1: Estate 20, Tinsukia

Number of Bed to Worker Ratio= 88 : 1

Number of Health Centre to Worker Ratio= 1 : 3000

Number of Doctor to Workers Ratio= 1 : 3000

Source: Fieldwork

Table 2.2.Share of Estate Having Different Community Services

Type of Estate	Primary School	Bus Facility	Mid-day Meal at School	Crèche	Food at Crèche	Health Centre (HC)	Approach Road to HC	Medicine availability	Free Medicine	Ambulance	Certification	Average Percentage	Mean Ranking
Partnership Firm	80.00	0.00	40.00	80.00	80.00	100.00	100.00	40.00	40.00	80.00	20.00	60.00	3
Proprietorship	83.33	8.33	83.33	16.67	16.67	91.67	91.67	50.00	50.00	83.33	41.67	56.06	4
Public Ltd Co	100.00	37.93	89.66	55.17	44.83	100.00	100.00	51.72	41.38	86.21	62.07	69.91	2
Public Sector Undertaking (Govt. of Assam)	100.00	0.00	100.00	33.33	0.00	66.67	66.67	33.33	33.33	33.33	0.00	42.42	5
Public Sector Undertaking (Govt. of India)	100.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	90.91	1

Table 2.3.Share of Trade Union Having Different Community Services

Trade Union	Primary School	Bus Facility	Mid-day Meal at School	Crèche	Food at Crèche	Health Centre (HC)	Approach Road to HC	Medicine availability	Free Medicine	Ambulance	Certification	Average Percentage	Mean Ranking
ABCMS	75.00	0.00	75.00	0.00	0.00	100.00	100.00	0.00	0.00	50.00	25.00	38.64	4
ACMS	97.44	25.64	89.74	53.85	46.15	97.44	97.44	58.97	51.28	92.31	56.41	69.70	1
ACMS, ABCMS	100.00	100.00	50.00	100.00	50.00	100.00	100.00	0.00	0.00	100.00	50.00	68.18	2
ACMS, BMS	100.00	0.00	100.00	50.00	50.00	100.00	100.00	0.00	0.00	50.00	50.00	54.55	3

Table 2.4.Share of Estates having Different Community Services across Certified Tea Estates

Certification	Primary School	Bus Facility	Mid-day Meal at School	Crèche	Food at Crèche	Health Centre (HC)	Approach Road to HC	Medicine availability	Free Medicine	Ambulance	Average Percentage	Mean Ranking
Certified	100.00	32.00	84.00	56.00	52.00	100.00	100.00	64.00	52.00	92.00	73.20	1
Non-Certified	88.00	16.00	84.00	40.00	28.00	92.00	92.00	36.00	36.00	76.00	58.80	2

3

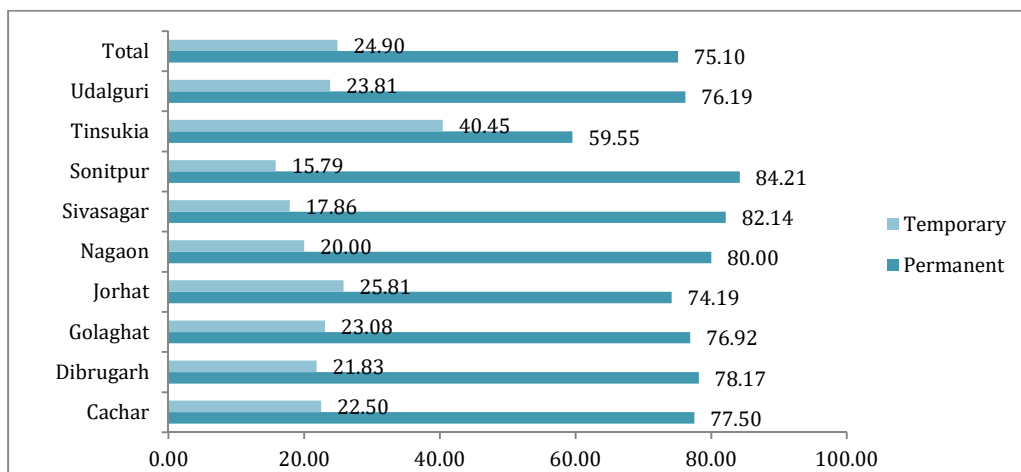
State of Labour: Wage and Workplace

This section discusses the conditions of labour at the workplace, remuneration on their labour and living conditions of labour within plantation workers. The sites of production for the tea plantation industry is mainly two—garden and factory. However, different activities are involved at both sites of production. Workers in the garden are involved in various activities such as pruning, digging, cleaning and looking after plant nursery besides plucking green leaves and administering pesticides. These activities require different levels of physical strength across gender. Likewise, there are diverse types of work in the factory which also requires different skills and strengths. The duration of work in the garden and factory are stipulated at eight hours. As mentioned, while women are predominant in the garden, men are the primary workers in the factory. There are high-risk and low-risk zones within the factory. Women and children (we do not have evidence but respondents reported) are involved in working in the low-risk zone as well as packaging and sorting units. Work in the garden is for one shift starting from early morning whereas the machine runs for 24 hours in the factory and workers are distributed in the factory across three shifts. As the workplace is very important for workers, it is imperative to understand workplace conditions. This chapter discusses about work life and the living conditions of the workers in the estate. The chapter begins with working conditions and workplace environment both at garden and factory. Living conditions and different challenges are also discussed. Based on several observations and narratives emerging out of workers' experiences, this chapter depicts the basic socio-demographic and educational profile of 510 respondents, their wage distribution, type and nature of work and working conditions across 50 estates in the major tea-producing districts of Assam.

Types and Share of Workers

There are two types of workers, namely permanent and temporary (*faltu*), across the two sites of production in the estate—garden and factory. Around 75 percent of the total respondents are permanent and regular workers whereas around 25 percent are temporary workers who work for around six months when the demand of production arises both in the garden and factory (see Fig. 3.1). The temporary workers are mainly demanded during peak session (mid-April–mid-October) of every production year. The distribution of permanent and temporary workers is similar across nine districts.

Figure 3.1. Share of Permanent and Temporary Workers across Districts

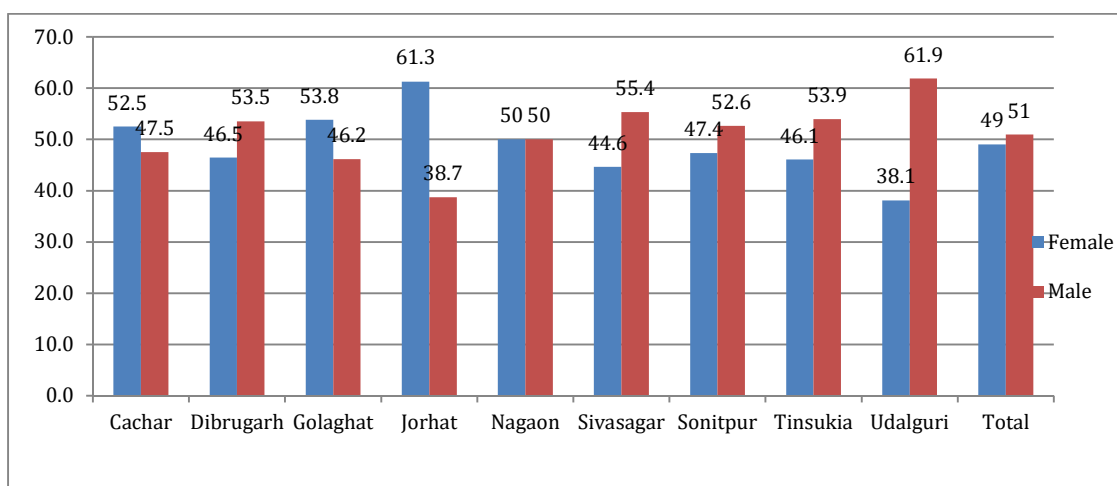


Source: Fieldwork

Gender Composition across Types of Workers

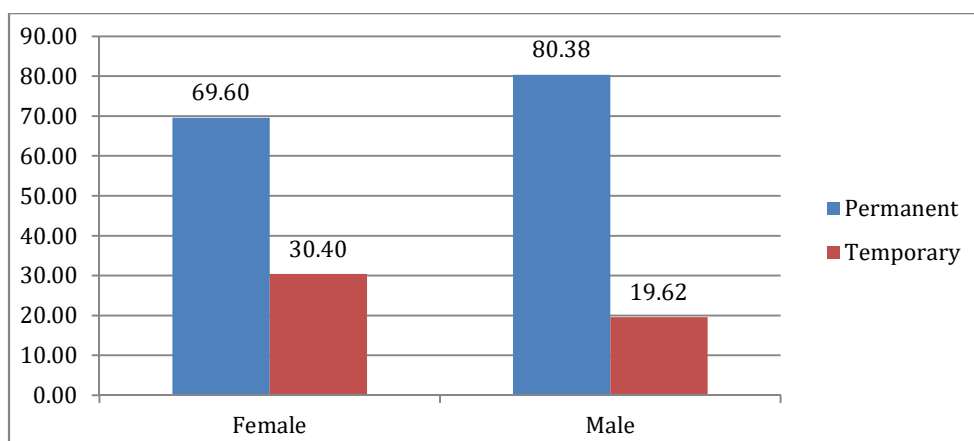
Respondents were selected at random and they were interviewed based on their willingness and availability. Gender distribution of respondents shows close to equal. While 51 percent of the respondents are male, 49 percent of them are female. A variation within gender in the sample is observed mainly in two districts, namely, Jorhat and Udalguri. Around 61 percent of the respondents of Jorhat are female whereas 62 percent are male in Udalguri (see Fig. 3.2). Not surprisingly, gender distribution is higher for both the categories of workers—permanent and temporary (see Fig. 3.3).

Figure 3.2. Gender Distribution across Districts



Source: Fieldwork

Figure 3.3. Types of Workers across Gender



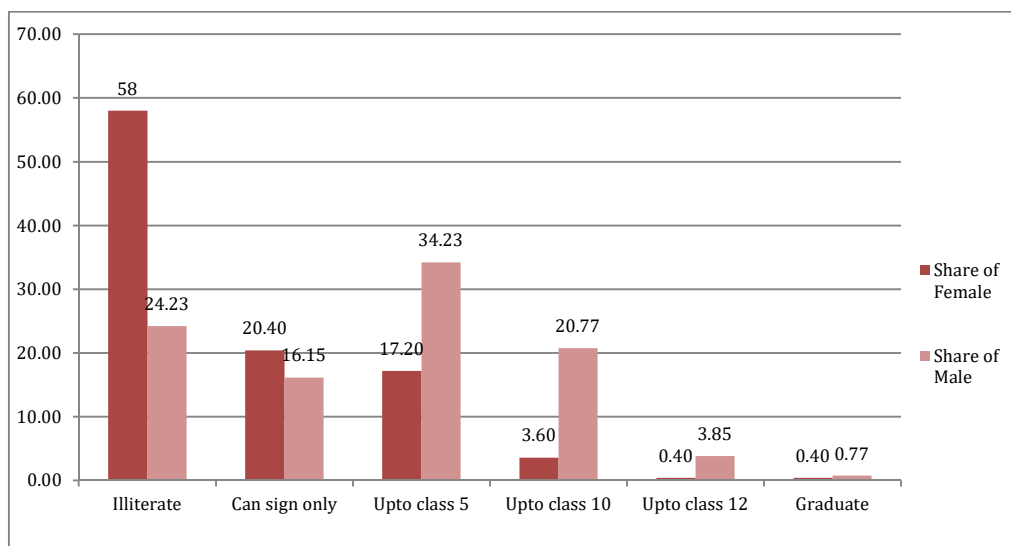
Source: Fieldwork

Educational Qualification across Gender

Four levels of educational qualification have been observed—primary, secondary, higher secondary and graduate—among male and female workers. The share of workers who have either completed higher secondary or graduation is negligible. Around 78 percent female workers are illiterate or can only sign at the time of wage collection across estates. As education level increases, the share of female workers reduces. Around 34 percent male and 20.4 percent female workers have undergone five years of schooling (see Fig.3.4). This is mainly because 47 out of 50 estates have primary schools within the estate. In comparison to permanent workers, temporary workers are less educated. Around

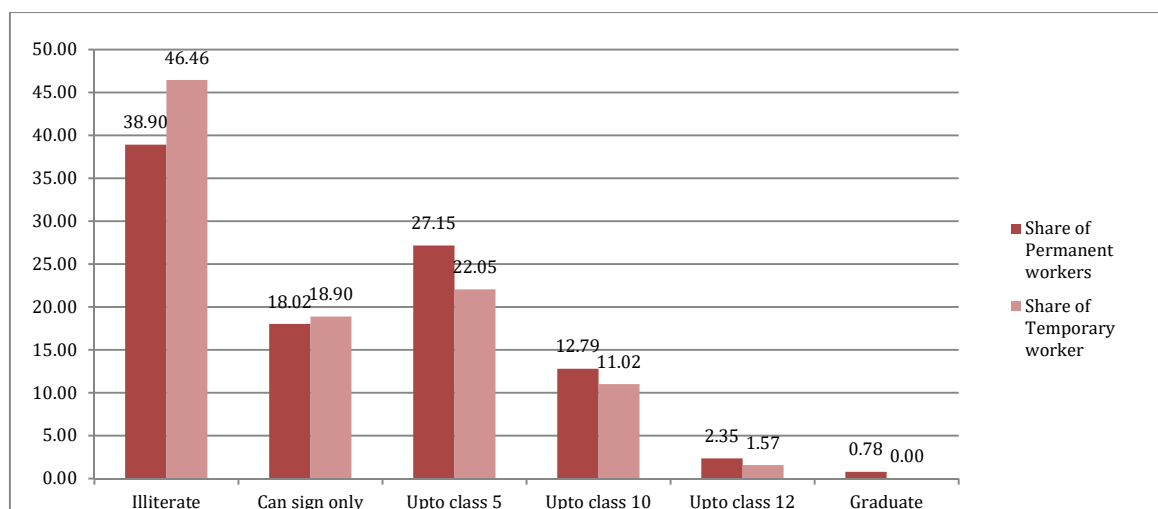
65 percent workers are either illiterate or can only sign (see Fig.3.5). However, 25 percent temporary workers possess secondary and above qualification. This is mainly because most of the temporary workers belong to the family of permanent workers or nearby *bastis*. These temporary workers work for supporting their family expenditure or to spend on their education.

Figure 3.4. Educational Qualification across Share of Gender Composition



Source: Fieldwork

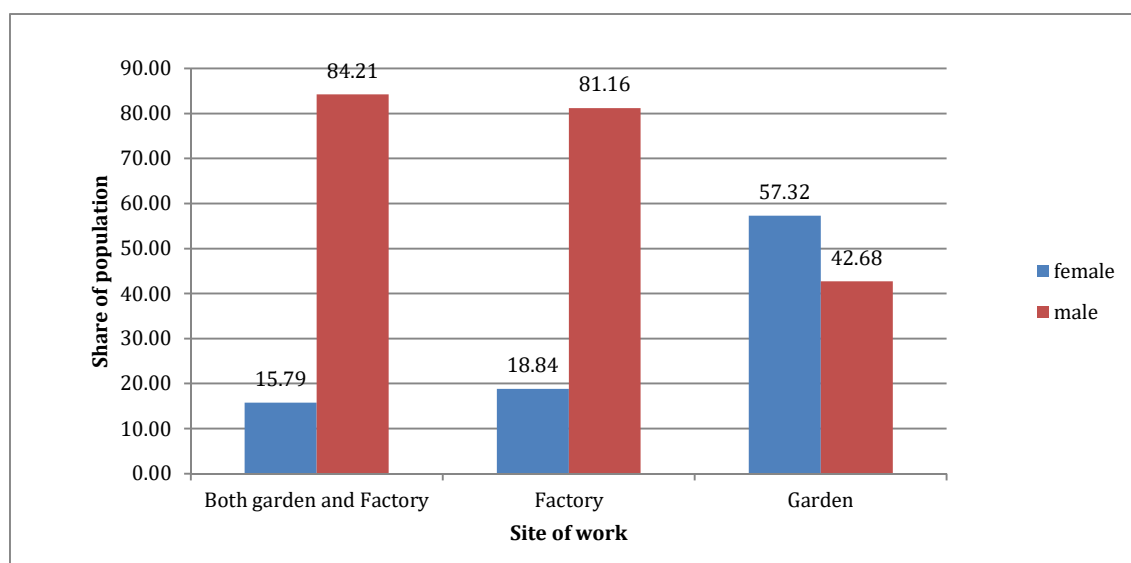
Figure 3.5. Types of Workers and their Qualifications



Source: Fieldwork

Figure 3.6 presents gender distribution across the work site (factory, garden, both). Female workers are more in the garden and their share (57.1 percent) is correspondingly higher to that of male workers (42.6 percent). In factory and both factory and garden, the number of male workers (81.1percent and 84.2 percent, respectively) exceed that of female workers (18.8 percent and 15.7 percent, respectively).

Figure 3.6. Gender Distribution across Work Sites

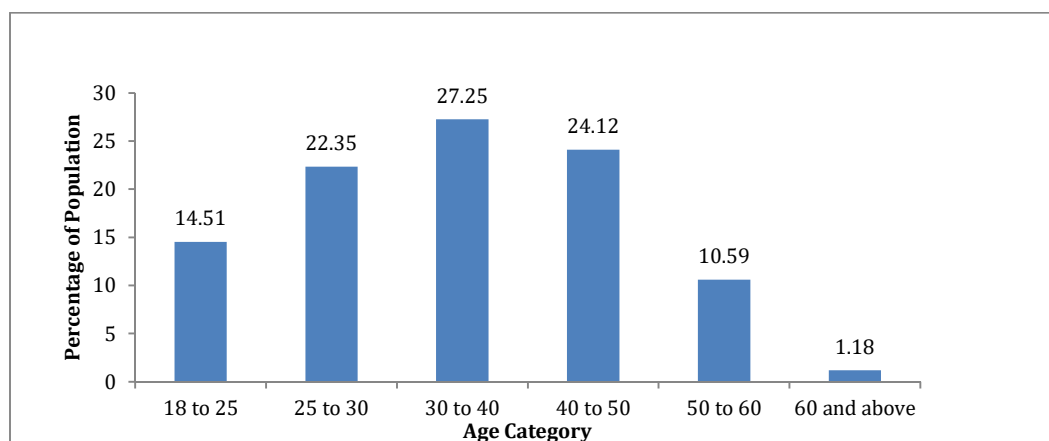


Source: Fieldwork

Age Distribution across Gender

High concentration is seen in the age bracket 30 to 40 years (27.2 percent) and 40 to 50 years (24.1 percent). Only around 10.5 percent belong to the senior age group of above 50 years. Around 1.18 percent of the respondents belong to the age group of 60 years and above (see Fig. 3.7). This includes retired workers. After their retirement, workers also tend to work. Their term of engagement is on temporary basis and their wage is also on casual.

Figure 3.7. Age Distribution

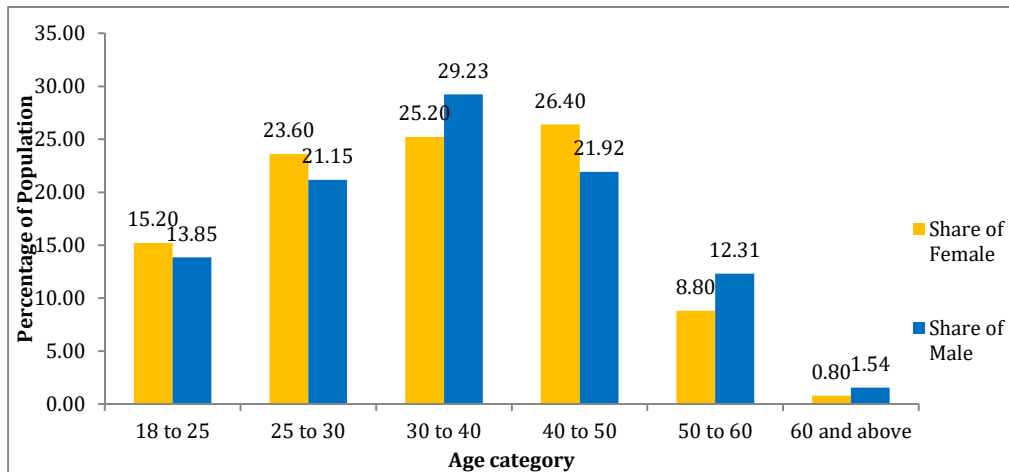


Source: Fieldwork

Age Distribution across Gender

In the age group of 18 to 25 years, males dominate over females; however, in the age bracket of 25–30 years, female workers outstrip (23 percent) male workers (21 percent). In the next higher age group of 30–40 years, male workers (29 percent) exceed female workers (25 percent) (see Fig. 3.8). Women are found more than men in the age category of 40 to 50 years. The reason could be that males in that age group are going out from the estate in search of job (e.g., Estate-42, Sonitpur).

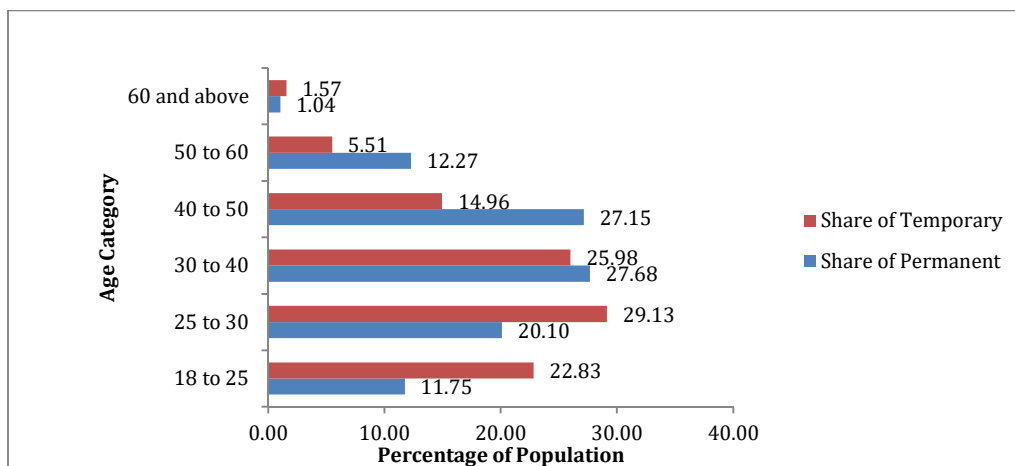
Figure 3.8. Age Distribution across Gender



Source: Fieldwork

In both age categories of 18–25 and 25–30, the share of temporary workers exceeds that of permanent workers. The reason is that dependents of permanent workers start working as temporary workers and eventually they are absorbed as permanent workers. However, workers mentioned that process and time taken to become permanent workers from the temporary workers is too long and cumbersome. In the higher age groups of 30–40 years, 40–50 years and 50–60 years, the share of permanent workers exceed that of temporary workers (Fig. 3.9). Workers move out from the estates to search for better jobs and it has been reported that temporary workers are hired during peak session. Notably, in the age group of 60 and above, we have found 5 workers who are 60 years old but would be retiring in couple of months. In this age group, 9 workers are engaged as temporary workers after their retirement. This has also been reported in Estate-42 (Sonitpur) that retired workers are hired during peak session as temporary workers and are paid half-day wage despite working for the entire day.

Figure 3.9. Age Distribution across Permanent and Temporary Workers



Source: Fieldwork

Wage Payment

Cash payment is not uniform across the estates. Payment is based on the basis of monthly salary and daily wage (collectively referred as *darmah*), depending upon the nature of work both at the factory and garden. Salary and wage vary from estate to estate and also district to district. The binary mode of

payment (monthly salary/daily wage) builds power relations and source of dignity. One of the women *sardars* from Estate-49 (Udalguri) stated: ‘association with the big company and working as salaried person in the industry has given me dignity and empowered me within my community and among relatives’. In the garden, workers are engaged on daily wage both in case of permanent as well as temporary workers. Sardars under Grade-1 are salaried persons and those who work under Grade-2 belong to the wage workers’ category. Daily wage varies from Rs137 to Rs167 per day. Big companies and amalgamated gardens follow the current minimum wage structure and provide Rs167 per day. However, it is found that tea estates in the Public Sector Undertaking under the Government of Assam provide a cash wage of Rs 137. One of the key respondents, an activist, from Cha Shramik Mukti Sangram Samiti, from Estate-37 (Golaghat) mentioned that trade unions like ACMS (Assam Cha Mazdoor Sangathan) should come forward and discuss towards pay parity.

Workers from most of the gardens are not aware of their daily wage rates and the break-up. They only have the idea of the amount they receive once in 12 days or the wage received on the seventh day. However, the wage received is based on six days; no payment is made for the weekly off day (i.e., Sunday). There is no paid weekly off which is the right of a worker.

In Estate-33 (Sivasagar), there is no factory, owing to which the temporary/permanent status of workers remains ambiguous and unsecured. Estate-33 depends on Estate-34 (Sivasagar) for processing of raw tea leaves; hence, most of the male workers do not have work in the garden. This raises problems for the male members of the family of workers in acquiring permanent employment status and thereby claims towards minimum entitlements such as wages, and cash and non-cash benefits. The following excerpt from one of the tea pluckers (Suren Oraon, 27) from Estate-33 (Sivasagar) indicates that workers want to work in the factory. However, he did not get the work at the factory despite having a graduate degree as the estate has no factory; so he ended up plucking leaves under the category of unskilled workers. He explains: ‘to demand the rights as workers, we believe, the estate should have the factory. It is the symbol and seat of power, as it raises opportunities for permanent employment for the men’.

Wage Calculation

Method of wage calculation and determinants of wage are difficult to understand. Table 3.1 shows how the industry calculates the wage while estimating the cost of production. Wage is calculated mainly under four broad categories, namely, wage, non-statutory benefits, benefits under PLA and tripartite agreements, and statutory benefits. These are based on two broad modes of payment—cash and non-cash benefits. Looking at the calculation, around 50 percent of the wage is paid through cash and the rest through non-cash benefits which is controlled by the employer. Thus, the value of non-cash benefits is associated with the quality of services.

Based on pay slip, Table 3.2 shows how much one worker receives cash in hand. Not every worker across the 50 estates receives pay slip. Those who receive the pay slip, information on the amount deducted for items such as water, electricity and others are not explicitly mentioned. We have tried to establish the actual wage calculation from workers’ pay slip that we received from the 15 out of 50 selected estates (see Pictures 3.1, 3.2, 3.3). As far as wage structure for workers is concerned, electricity bills, supplied water bills and medical bills are deducted which are not accounted in the pay slip (see Table 3.2). Along with these, trade union fees, amount of firewood or its value, bonus, incentive on additional green leaves as well as overtime are also not mentioned in the pay slip (see Table 3.2). Deduction for PF and medical costs are mentioned in the pay slip. One of the 34-year-old permanent workers, Manas Bhuyan (name changed) from Estate-26 (Jorhat) said, ‘because of illiteracy, the slips become insignificant for the workers. We nevertheless keep it for future purposes’. Components such as tea during working period and dry tea (*labour tea*) were difficult to measure and since we did not receive any information, they were not calculated.

LIMITED		Div	MAIN GARDEN		RATION ELIGIBILITY	
Pay Slip (21/04/2019 - 27/04/2019)		Cat	PERMANENT WOMEN - A		Estate: T E	
Emp No.:	PF No.:	Name :	Div : MAIN GARDEN			
			Cat : PERMANENT WOMEN - A			
			Pay Slip (21/04/2019 - 27/04/2019)			
			Emp No.			
			Name			
Wage Rate	167.00	General Wages	0.00	Incentive	5.00	
General Days	0.00	Plucking Wage	835.00	Other Deductions	56.68	
Total Days	5.00	Holiday Wages	0.00	Gross Pay	840.00	
Plucking Day	5.00	Leave Wages	0.00	Deductions	166.00	
Leave Days	0.00	Other Earning	0.00	Coins B/F	3.81	
Holidays	0.00	Provident Fun	109.32	Net Payable	677.81	
Plucking Kg	29.90	P.F Loan	0.00	Coins C/F	7.81	
OT Hours	0.00	Medical	0.00	Net Pay	670.00	
OT Amount	0.00					
				Item Name Eligible Quantity		
				Atta 2.85		
				Rice 2.85		
				Total Qty 5.70		
Authorised Signatory				Authorised Signatory		

Picture 3.1. Pay Slip in Estate-48 (Udalguri)

T.E.		NAME		4.NO	T NO	PAY PERIOD	19-01-2019	P.F. NO:		0.0	22.0	0.0
L.N. HAZRAT		A/C NO:		FACTORY-PERMANENT (MEN)		PB	Med Adv. 1911.00					
HOL	SICK	BAT	WORK	ABS	KGS BOXES	SABIC	LEAVE WITH WAGES	ADDITIVE	H.R.A.	ELEC.	CYCLE	OVERTIME
						A.I: 10.00			90.00			1770.00
DEDUCTION ELEMENTS												
CO-OPERATIVE	LABOUR WEL-FUND	UNION CONTR.	P.F. CONTR.	P.F. LOAN RECOVERY	P.F. LOAN INTEREST	L.L.C. PREMIUM	PEERLESS DED.	RATION	MED-COST RECOVERY	ADVANCE RECOVERY	SALARY ADVANCE	TOTAL DEDUCTION
								8.64	200.00			438.08
						229.44						
NET PAYABLE												
						BANK: 100.00			1.44			3.36
						HAND: 1230.00			1330.00			1333.36

Picture 3.2. Pay Slip in Estate-9 (Dibrugah)

25/02/2019 TO 10/03/2019		Code :		Name :		Status :		A-K9-K9-K9-K9-K9-SU-K9-K9-K9-K9-K9-SU	
Bank account no. :		Pay Days :		Ration Card No :					
P.F. :	240.50	PF Adv Ded :		- M Adv Ded :		- R.D		- G.Leaf :	
E. C/F :	-	Elec Ded :		- PF Int :		70.00		- LIC :	
General :	-	LB.Welf :		- Ration :		3.24		- Other Ded :	
Note BF :	2.00	Coin BF :		0.08		Gross Earn :		1,848.00	
Note CF :	6.00	Coin CF :		0.34		OT Wages :		-	
Ration Allotment		ELP :		-		K.INC(POP) :		-	
Rice B/F	-	Rice C/F		-		Wheat B/F		-	
Dep.Min	-	Dep.Maj		-		Dep Adult		-	
Rs.	1,530.00								
RUPEES ONE THOUSAND FIVE HUNDRED THIRTY ONLY									
								1,530.00	
								Wheat 3.00	

Picture 3.3. Pay Slip in Estate-6 (Dibrugah)

Table 3.1.Industry's Calculation on Daily Wage

S No	Particulars	%	%
1	Wage		
(i)	Cash Wage	47.31	49.90
(ii)	Additional Compensation / Incentives	2.59	
2	Non Statutory Benefits		
(i)	Food grains	7.33	11.43
(ii)	Fire wood	2.84	
(iii)	Dry / Liquid tea	1.26	
3	Benefits under PLA & Agreements		
(i)	Medical Facilities	5.44	20.71
(ii)	Housing Facilities	4.97	
(iii)	Education Facilities	1.64	
(iv)	Welfare Facilities	1.93	
(v)	Leave with Wages & Festival Holiday	6.73	
4	Statutory Benefits		
(i)	Bonus (@ 8.33%)	4.72	17.96
(ii)	Provident Fund	8.05	
(iii)	Gratuity	5.19	
Total Daily Wages (1+2+3+4)		100.00	100.00

Source: Computed by researchers based on various sources collected from ITA, TBI & Project Unnati Progress Report 2016

Table 3.2.Actual Daily Wage based on Pay Slip

S. No	Particulars	Cash/ Non-Cash	Status	Source
1	Wage			
(i)	Cash Wage	Cash	Received	Pay slip
(ii)	Additional Compensation / Incentives	Cash	Received	Pay slip
2	Non Statutory Benefits			
(i)	Food grains	Non-Cash	Received	Pay slip
(ii)	Fire wood	Non-Cash	Received	Worker
(iii)	Liquid tea during work at the workplace	Non-Cash	Received	Worker
(iv)	Dry tea provide to the workers	Non-Cash	Received	Worker
(v)	Medicine	Non-Cash	Received (if required)	Pay slip
3	Benefits under PLA Agreements			
(i)	Medical Facilities	Non-Cash	No deduction	Worker
(ii)	Housing Facilities + Electricity + Water	Non-Cash	Deduction	Worker
(iii)	Education Facilities	Non-Cash	No deduction	Worker
(v)	Leave with Wages & Festival Holiday	Non-Cash	No deduction	Worker
4	Statutory Benefits			
(i)	Bonus	Cash (Annual)	Received	Worker
(ii)	Provident Fund	Cash (post retirement)	Deduction	Pay slip
(iii)	Gratuity	Cash (post retirement)	Received	Worker
(iv)	Weekly Day-off	No	No wage	Pay slip
(v)	Sick leave	Non-Cash	Received	Pay slip

Source: Pay slips and worker's responses

Average cash gap is Rs 287 which is the difference between monthly gross cash to be paid and monthly net cash payment³ (see Table 3.3). Payment depends on the number of work days, absenteeism, late reporting punishment fees, incentives/overtime, any outstanding loan, ration amount and others. Generally, the management is rigid in terms of reporting time and quality and quantity of leaves plucked. Net cash Therefore, wage variation/dispersion exists across 510 respondents. Monthly gross cash to be paid means monthly total cash amount as per wage rate. There are four wage rates such as RS. 137, RS. 138, RS. 140 and RS. 167. Total number of work days 26 except 4 Sundays in a month. Thus, maximum amount can be paid to a worker is Rs. 4342 if the worker pluck for subsistence wage (average 24 Kg for daily minimum wage). As mentioned, there is an incentive mechanism. Thus, worker can pluck as much as they can and factory worker receives overtime. Thus there is variation. Bonus also depends on the amount of total tea plucked or overtime in a year. The wage gap is discussed at length in the last section of this chapter.

Table 3.3. Descriptive Statistics of Monetary Components of Wage

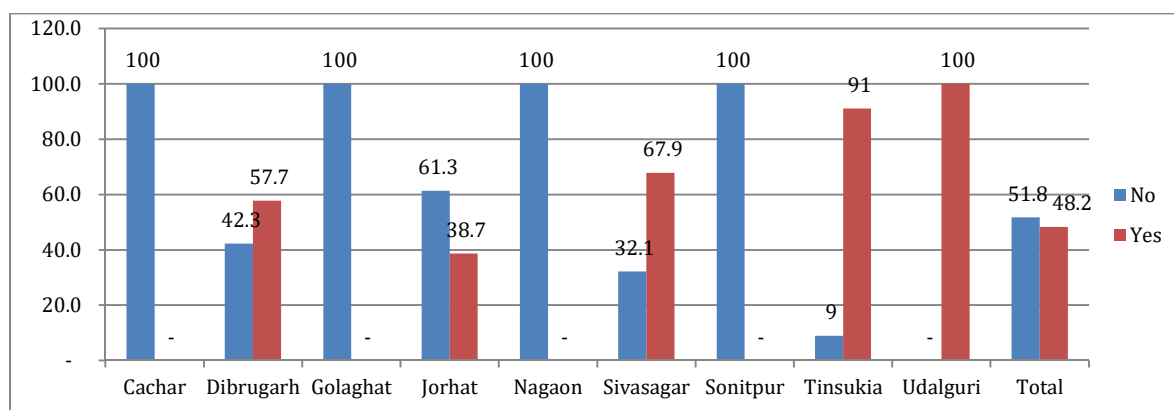
Component	Minimum	Maximum	Mean	SD
Daily Wage Rate (in RS.)	117	167	162.3	10.8
Monthly Gross Cash to be Paid (in RS.)	3033.3	4342	4220.0	281.5
Amount of Ration/Month (in RS.)	0	14.04	6.8	2.7
Amount of Deduction for Electricity from Wage/Month (in RS.)	0	350	8.4	51.5
Amount of Deduction for Water from Wage/ Month (in RS.)	0	80	4.2	17.1
Amount of Deduction for PF from Wage/Month (in RS.)	0	530.4	440.0	178.1
Total Deduction/Month (in RS.)	0	960.04	459.4	193.6
Monthly Net Cash Payment (in RS.)	3033.3	7583.3	3933.3	344.8
Total Bonus/ Month (in RS.)	0	1375	442.1	219.8
Firewood amount received from Estate/Month (in RS.)	0	887	58.3	84.2

Source: Fieldwork

Pay Slip

Receiving pay slip against wage payment is the basic rights of any worker. Over 50 percent workers do not receive pay slip against their weekly or fortnightly payment. In Udalguri district, all workers reported having received pay slip, while in Tinsukia it was only 91 percent workers. At the other extreme are districts of Cachar, Golaghat, Nagaon, and Sonitpur where workers do not have pay slips (see Fig. 3.10). Non-receipt of pay slip is certainly a violation of worker's basic right.

Figure 3.10. Pay Slip



Source: Fieldwork

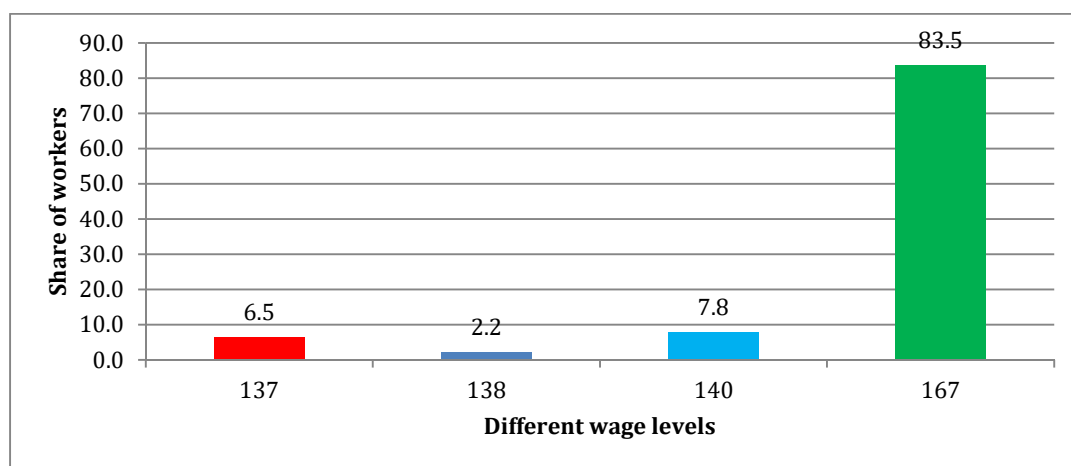
³ Average Cash Gap= (Average Monthly Gross Cash to be paid – Average Monthly Net Cash Payment)= RS. (4220-3933)= RS. 287

Wage Components

Cash-Benefits (Daily Wage)

There are four different levels of daily wage rate that are paid in cash across estates. The levels are: Rs137, Rs138, Rs140 and Rs167. However, Rs167 is fixed in accordance to the state minimum wage level. Around 83.5 percent of the workers receive Rs167 across estates whereas 7.8 percent, 2.2 percent and 6.5 percent workers receive a daily wage rate of Rs140, Rs138 and Rs137, respectively (see Fig. 3.11). However, we have drawn a comparison of different levels of wages across region, gender and ownership, and it shows interesting interpretations.

Figure 3.11. Different Levels of Daily Wage Rate across Workers

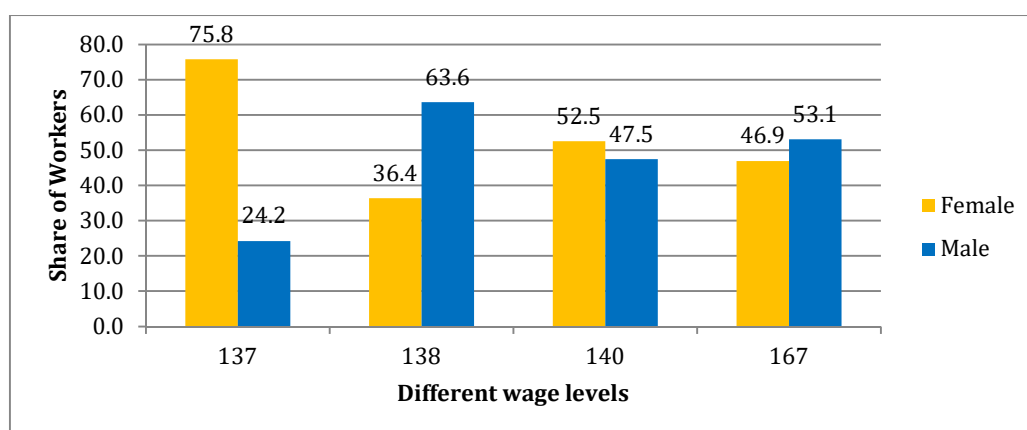


Source: Fieldwork

Different Levels of Daily Wage Rate across Gender

Although there is no wage discrimination across gender, women are placed on a lesser wage slab than male workers (see Fig. 3.13). Around 78 percent female workers receive Rs137 per day whereas 52.5 percent female workers receive daily Rs140. However, at the higher wage slab of Rs167, around 53 percent workers are male workers. As far as economic conditions and women are concerned, they (women) are more vulnerable, often marginalised at work, as more women are hired as temporary workers. Wage differences across different companies are mentioned in Figure 3.13.

Figure 3.12. Different Levels of Daily Wage Rate across Gender



Source: Fieldwork

Non-Cash Entitlements

Provision of Ration by Estate

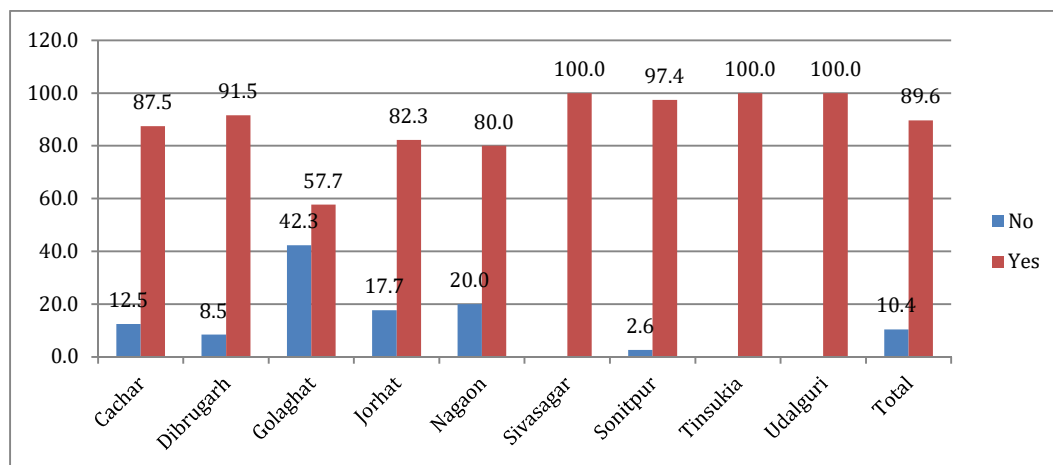
Ration is one of the non-cash benefits that are provided by the estate. Under the estate's rationing system, the number of items, amount of each item and their quality vary from one estate to another. There are two systems of ration—either it is provided by the estates on per head basis or on the basis of household size, taking into account the number of household members. Permanent workers receive rice, wheat and tea as ration. Temporary workers receive rations only for the time they work which is generally for a period of six months.

Workers at estates under Public Sector Undertaking of the Government of Assam do not receive anything under the ration system except tea. Tea received from the estate, named as 'Labour Tea (LT)', is of very low quality; the amount ranges between 50–1000g a month unlike the ration which is provided weekly or after 12 days. Most of the tea estates provide 3kg rice and 3kg wheat per member at an interval of 12 days. In the estates, 1.5kg food grains are arranged regularly at 12 days' interval as ration for dependents. The average amount of money that gets deducted from the wages against the ration is Rs 6.8 per month (see Table 3.2).

With regard to the quality of ration, there were divergent responses. Some respondents complained about its quality while some said it was still edible. One of the common responses was that the quantity was inadequate for the family. They had to further arrange for ration from the cooperative societies, which is the subsidized ration provided by the government at Re1/Rs3 per kg of food items or from the ration shop.

A 26-year-old permanent worker, Ruby Kland (name changed) from Estate-29 (Sivasagar) stated that the quality of wheat is better than the quality of rice they receive. She said, 'The management said that rice is also provided by the government. So, they do not want to provide good quality rice. But in reality, we need more rice than wheat. It's because of the hard work we do, we have to take food three times a day and wheat is just not enough.' Ruma Douara (name changed), a respondent at Estate-26 (Jorhat) stated that the quality of the ration was bad and inedible at times; the wheat provided by the estate sometimes rotten and damp, quality of rice also not good. She pointed out that the estate provided ration which amounted to 12kg rice and 12kg wheat for two workers. Her family members include her husband and four children. The amount is therefore inadequate for a family of six members. She further added, 'The ration is given to all members in the family only because it is of low quality'. In Sivasagar, Tinsukia and Udalguri, estates provide ration besides cash benefits. On the other hand, in Dibrugarh, and Sonitpur, 91 percent and 97 percent workers are given ration by the estate. In Golaghat, only 57 percent receive ration and the rest 42 percent do not receive ration from the estate (see Fig. 3.14).

Figure 3.13. Ration Provided by the Estate

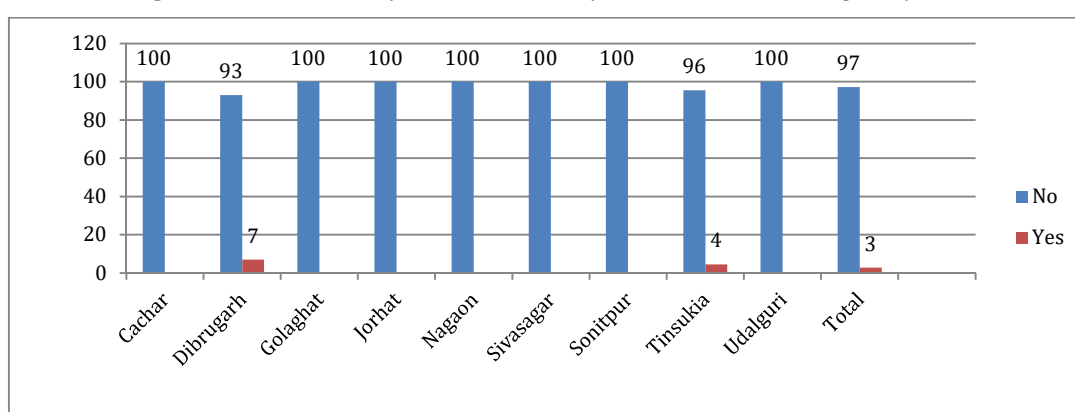


Source: Fieldwork

Electricity

About 7 percent in Dibrugarh and 4 percent in Tinsukia reported that electricity bill is deducted from the wage. However, deduction on electricity is not mentioned in the pay slip, hence it is difficult to gauge the amount of deduction and methods of calculation of electricity. For instance, workers in Estate-17 (Tinsukia) reported that an amount of Rs 200–300 gets deducted in the name of electricity. Workers reported that officials always note down the electricity consumption unit when they (workers) are not at home. They (workers) are unable to understand the amount of deduction made as the duration of electricity is limited and they have limited connections. Further, electricity is not available during working hours even if their children are at home and it is very difficult to stay at home for children during summer. However, in other these estates, no one reported of any deduction for electricity from wage as the state electricity board has already started taking initiative in providing electricity (see Fig. 3.14).

Figure 3.14. Electricity Bill deducted by the Estate from Wage Payment

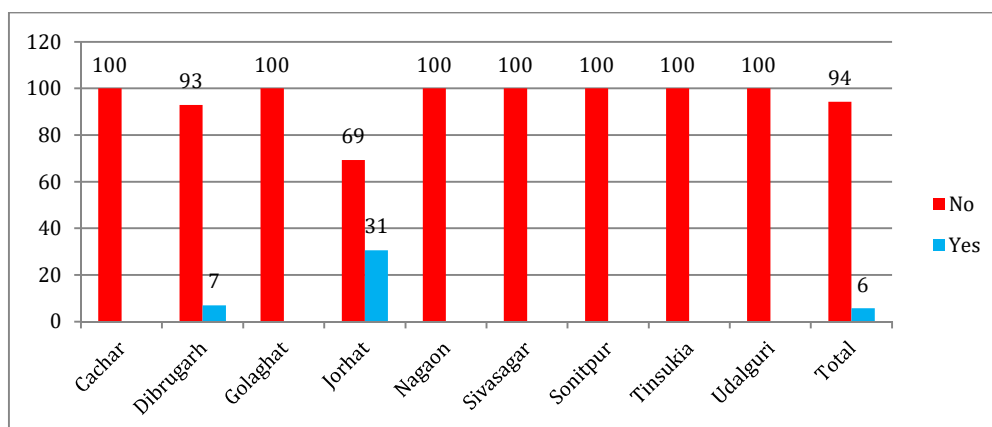


Source: Fieldwork

Water

Only 7 percent workers in Dibrugarh and 31 percent in Jorhat reported deduction from wage payment towards water charges. The rest of the estates across other districts reported of no deduction towards water expenses (see Figure 3.15). Similar to electricity, deduction towards piped water is not mentioned in their pay slip. Workers need to pay the sum in cash after receiving the wage.

Figure 3.15. Cost of Water Deducted by the Estate from Wage Payment

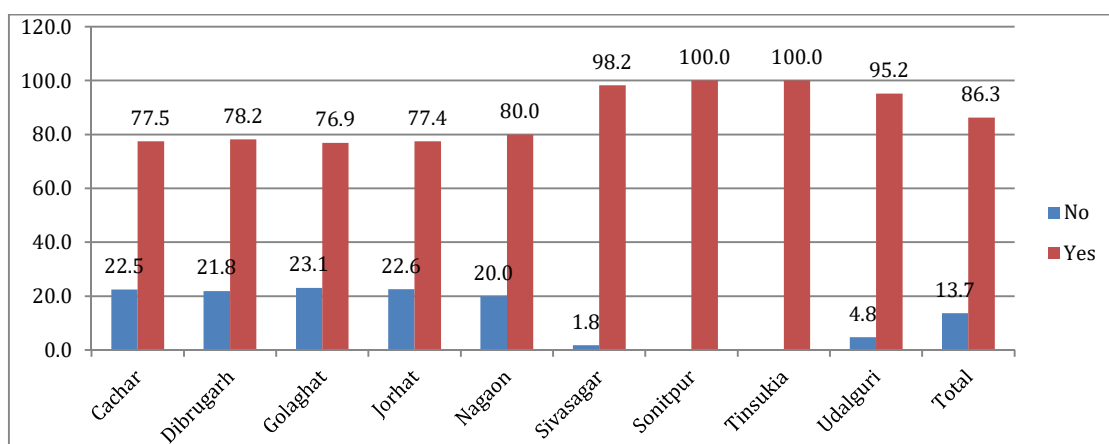


Source: Fieldwork

Provident Fund and Its Related Issues

Differences are seen across payment of wages, deduction of PF/gratuity and rations provided to permanent and faltu/temporary workers. No deduction from wage towards PF contribution was reported by 22 percent respondents in Cachar, 21 percent in Dibrugarh, 23 percent in Golaghat, 22 percent in Jorhat and 20 percent in Nagaon. In Sonitpur, Tinsukia, all estates reportedly deducted PF from wage. In Sivasagar and Udalguri, 98 percent and 95 percent reported deduction of PF. In the estate under public sector undertaking of Government of Assam, workers do not receive PF and it is one of the major limitations of these estates. The amount of PF that is being cut is also not uniform as it depends on the total amount of wage and the quantum of work done which is evaluated on the basis of the volume of green leaves a worker plucks in 12 or six days. If the total amount of wage is more, then the amount of PF deducted increases. In most of the estates, there are no specific criteria for being a permanent worker. There is also no difference in wage rates between permanent and temporary workers. However, there is a difference on the amount of PF deduction. For instance, there is no PF mechanism for temporary workers at Estate-29 (Sivasagar), Estate-33 (Sivasagar), Estate-24 (Jorhat), and Estate-27 (Jorhat). In Estate-31 (Sivasagar), PF is not deducted from one section of temporary workers. In these estates, the temporary workers receive full payment at the rate of Rs 167 per day. This is, however, not the case in every estate. In some estates such as Estate-30 (Sivasagar), Estate-31 (Sivasagar), Estate-39 (Golaghat), Estate-2 (Dibrugarh), Estate-14 (Tinsukia), temporary workers also have their PF accounts and gets ration, and receive amounts similar to those of the permanent workers, after deductions. In some of the estates, the cash wage amounts received by the temporary worker exceed that obtained by the permanent worker. This is mainly because in some estates, the temporary workers do not get any non-cash benefits. Further, no deductions are made towards PF or gratuity. With regards to the amount of PF deduction, around 12 percent of the total wages received by workers after every 6/12 days are deducted as contribution towards the PF account from the worker's side. However, most workers do not know the actual amount of PF deducted from the wages and also are aware about the PF account number. The estates, namely, Estate-34 (Sivasagar) and Estate-30 (Sivasagar), make regular deductions from the wage of workers towards their PF contribution. The average monthly PF deduction is Rs 440 (see Table 3.2). Once the contribution has been made, it becomes difficult to claim the PF amount. Workers receives gratuity within six months but it takes around 12–36 months for workers to claim provident fund. The processes to claim PF is tedious. We have cases from Estate-13 (Dibrugarh) and Estate-23 (Jorhat) which states that even after three years of retirement; workers have not received their PF. In the partnership-based tea estates, including Estate-3, Estate-7 and Estate-30 (Dibrugarh), workers did not receive PF since 3 to 4 years as their owners failed to submit their PFs on time and are currently in debt. The estate refused to provide PF, and even did not pay back the contribution of workers' contribution towards PF. Around 86 percent respondents receive PF and the do not (see Fig. 3.16).

Figure 3.16. Deduction of Provident Fund from the Wage/Salary



Source: Fieldwork

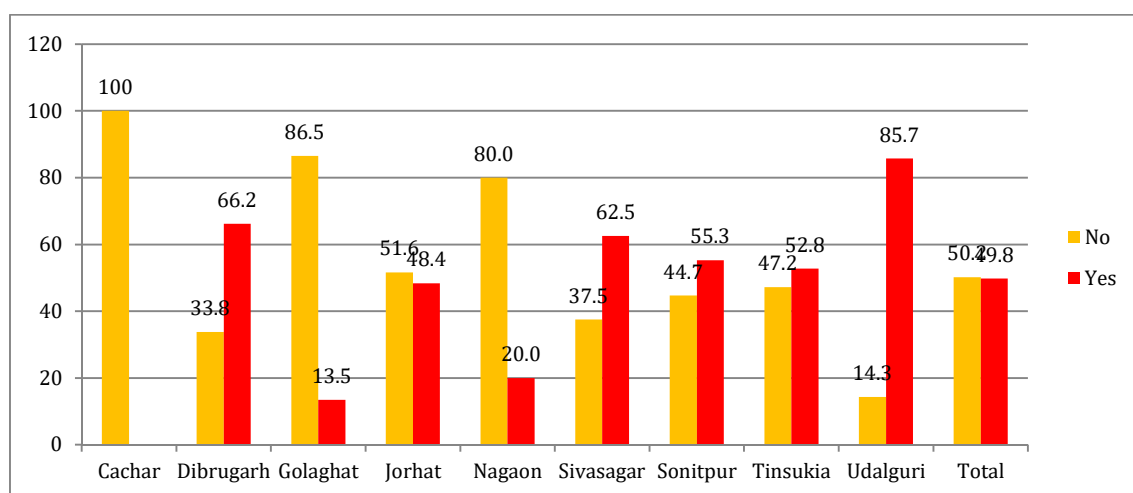
Firewood/Gas

Firewood is an important source to cook food, but it is very difficult to calculate through a definite unit of measurement. One important measure for firewood is *thak* (which means a stack of wood). The general amount of firewood that is common in many estates is a stack per year. Some respondents said that the stack is 6 ft. high and 6 ft. wide in dimension but most of them are unable to give the exact measure of firewood they received from the estate. But most workers do not receive a whole stack or even half or quarter of a stack per year. According to workers, this amount is very less; one to two bicycle loads of firewood would not suffice more than a month. Ramesh Karmakar (name changed) from Estate-09 (Dibrugarh) claims that usually, a stack of old tea tree is provided per year as firewood to the worker.

The dependency on firewood is particularly high since there is no gas facility in the estate. However, people in some estates have got LPG connection from the government's scheme, *Ujjwala*. In case of Estate-13 (Dibrugarh), piped cooking gas is provided by the estate. The timing of the gas connection is three times a day, i.e., 5a.m. to 8a.m., 1p.m. to 3p.m. and from 6p.m. to 8p.m. Rama Tanti (name changed), permanent worker from Estate-13 said, 'We have to buy the gas stove'. They also do not know the amount of money deducted from their wages against the cost of the piped gas. There is no firewood facility provided to temporary workers in Estate-33. The workers have not received any firewood since 2001. They have to buy firewood stacks, generally 3 ft. wide and 3ft high, from the market. The rest buy the subsidized gas cylinder provided by the government which can cost around Rs450for a single refill as the case in Estate-27.

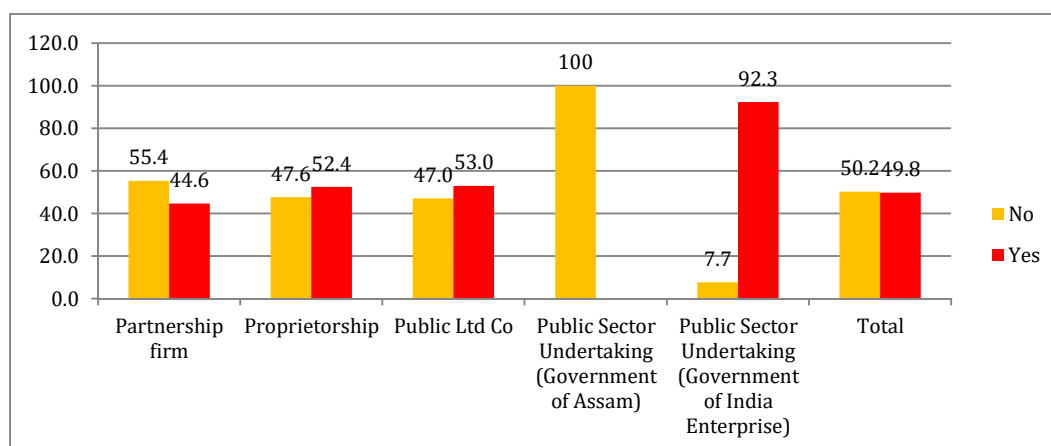
In districts of Udalguri, Sivasagr, Dibrugarh, Tinsukia relatively higher percentage of workers receive firewood from estate, compared to Golaghat (13 percent) and Nagaon (20 percent) (see Figure 3.18). All the estates of Public Sector Undertakings under the Government of Assam provide firewood to its workers while with regard to estates of Public Sector Undertakings under the Government of India; only 92 percent workers receive firewood. In case of partnership firms, proprietorship firms or even public limited companies, the percentage is low—44 percent, 52 percent and 53 percent, respectively (see Figure 3.19).

Figure 3.17. Firewood Provided by Estate across Districts



Source: Fieldwork

Figure 3.18. Firewood Provided by Estates across Different Types of Company



Source: Fieldwork

Around 50 percent of the workers receive firewood which is not even sufficient for 4 months keeping the number of household members into account. Notably, only one member of the household (the main permanent worker) receives firewood; temporary workers do not receive firewood. Due to insufficient amount of firewood, workers highly depend on forests (see Picture 3.4). Mainly women collect dry leaves and twigs for firewood while returning home from work in the late afternoon.

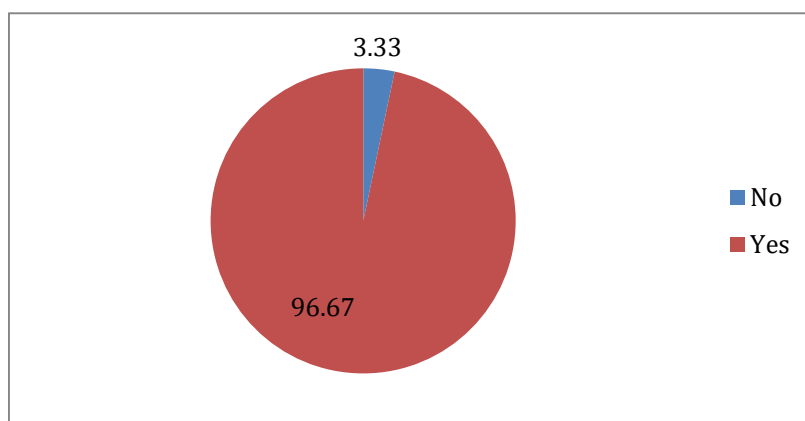


Picture 3.4. Firewood Collection

Bonus

Bonus depends on how much green leaves workers pluck and how many days they work in the factory, including overtime. Most of the workers (around 97 percent) receive bonus, generally, once a year during Durga Puja (in October). However, estates in Dibrugarh and Tinsukia districts, the amount of bonus is divided into two parts and are provided once during Durga Puja (October) and again before Christmas/New Year (Fig. 3.20).

Figure 3.19. Bonus

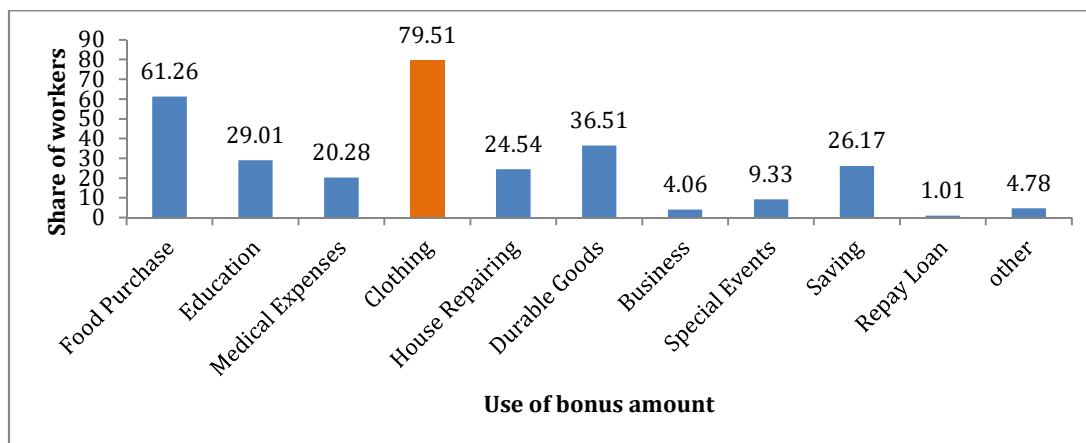


Source: Fieldwork

When workers were asked how they spend their bonus, the responses were interesting and varied. Around 80 percent workers spend on clothes and give gifts to their relatives during the festival and around 36 percent workers buy durable goods. One of the women plantation workers in Tinsukia (Estate-14), plucks leaves more to get substantial bonus. She buys durable goods every year. In 2018, she accumulated her and her son's bonus and bought a refrigerator and two fans for the household. Referring to the speed of her green leaf plucking, other tea pluckers from the Estate-14 (Tinsukia) refer her as the 'Champion of Tea Leaf Plucker'.

Not surprisingly, 61 percent workers reported that they spend on good food. Some of the workers shared that they wait for the bonus so that they can procure good food. Notably, 24 percent, 20 percent and 30 percent of the workers spend towards house repairing, medical expenses and for their children's education purposes respectively whereas all of these items are supposed to be taken care of by the estate (see Fig. 3.21).

Figure 3.20. Items Purchased from Bonus Amount

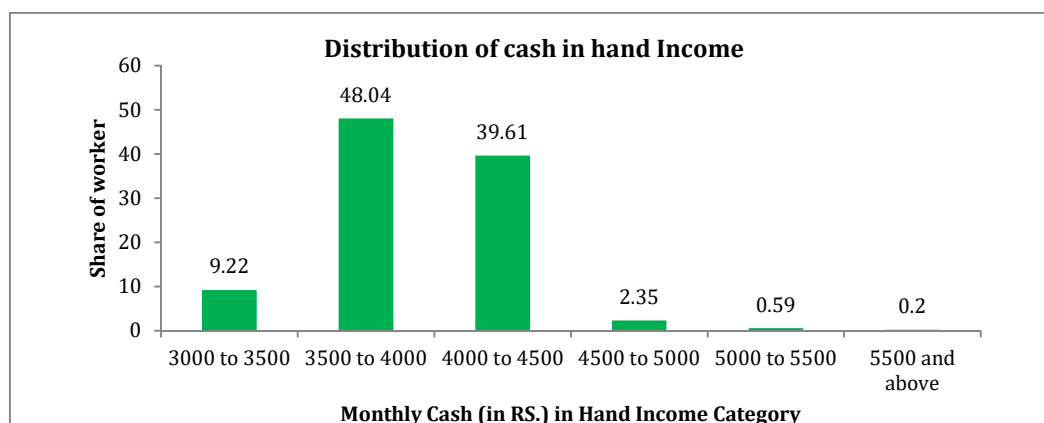


Source: Fieldwork

Monthly Cash-in-Hand Income across Gender and Types of Workers

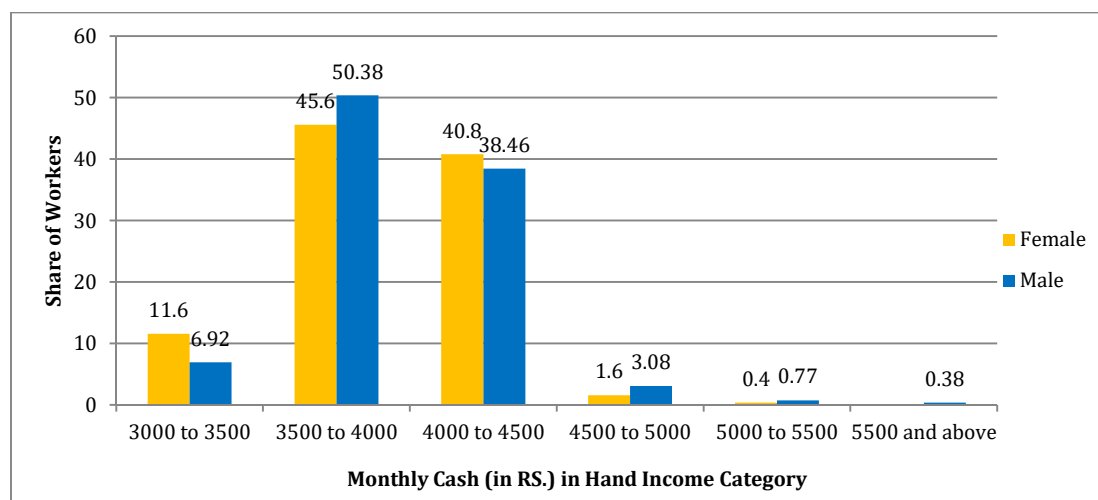
The share of workers having in-hand cash income is presented in Fig. 3.22. About 48 percent workers receive in-hand income ranging between Rs 3500–4000 while another 39 percent receive in the range of Rs 4000–4500 per month. However, the share of female workers (45 percent) receiving cash-in-hand in the range of Rs 3500–4000 is less than the male worker (50 percent). However, in the range of Rs 4000–4500, the share of female workers (40 percent) exceeds that of male workers (38 percent). The share of female workers receiving in-hand cash in the next higher range Rs 4500–5000 is higher (3 percent) than that of male workers (1.6 percent) (Fig. 3.23).

Figure 3.21. Distribution of Cash-in-Hand (Income)



Source: Fieldwork

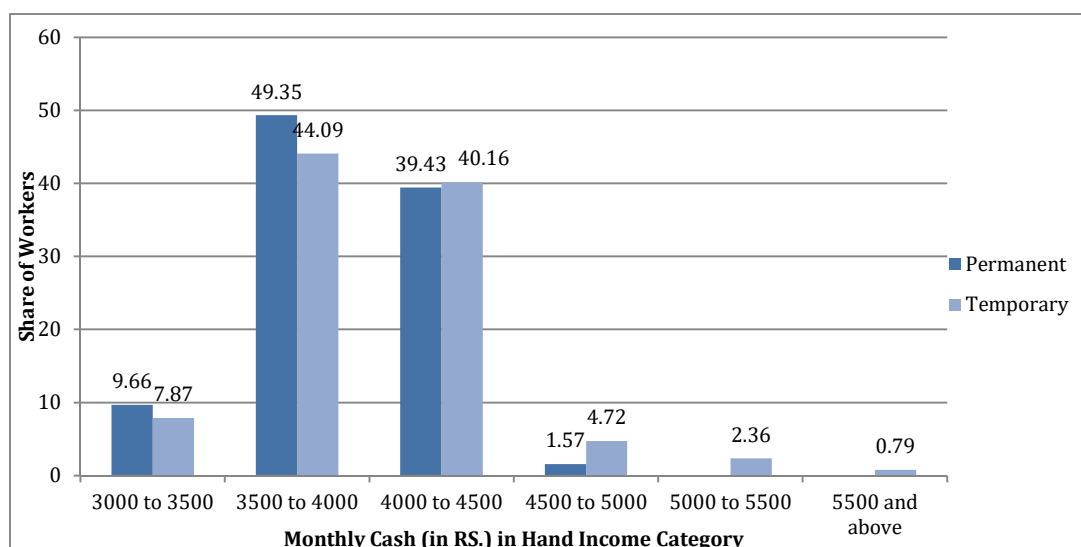
Figure 3.22. Distribution of Cash-in-Hand (Income) across Gender



Source: Fieldwork

The trend of income distribution across workers shows similar trend (see Fig. 3.24). The share of permanent workers with cash-in-hand income receipt is 49.3 percent compared to temporary workers for whom it is 44 percent. In the next higher range of Rs 4000–4500, the share of temporary workers exceed (40.1 percent) that of permanent workers (39.4 percent). In the range of Rs 4500–5000, the share of temporary workers having in-hand cash income exceeds (4.7 percent) that of permanent workers (1.5 percent). This is mainly because temporary workers work for a maximum of 6 months in most estates during peak session and they try to pluck as much as possible so they earn extra money.

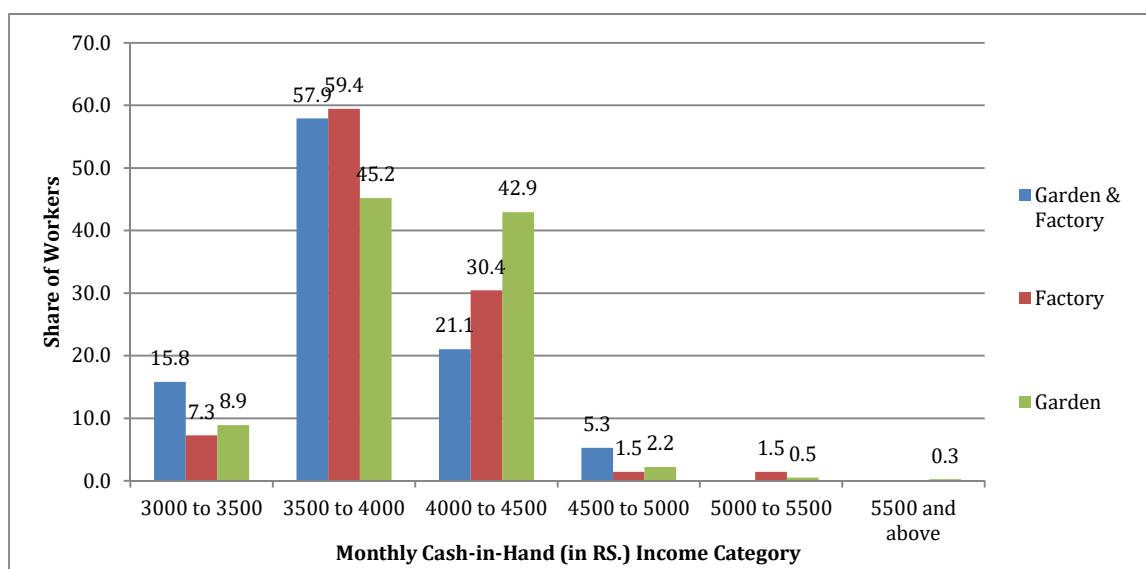
Figure 3.23.Distribution of Cash-in-Hand (Income) across type of workers



Source: Fieldwork

The in-hand cash income of factory workers exceeds (59.4 percent) that received from the garden (57.9 percent) as well as from the garden and factory (45.2) together in the range of Rs3500–4000. However the in-hand cash income of garden workers (42 percent) exceeds those who work at the factory (30 percent) or at the garden and factory together (21 percent) (see Figure 3.25). Wages and salary depend on overtime and the extra amount of green leaves that they pluck across both the sites of work.

Figure 3.24.Distribution of Cash-in-Hand (Income) across Types of Workers at Sites of Work



Source: Fieldwork

Wage Differences across Gender and Types of Workers

There is variation in wage paid to the tea plantation workers across different states of India. Table 3.3 shows the daily wage rate (in Rs) of tea plantation workers in different states of India, as well as in different regions in Assam. The data provides information on daily wage of tea plantation workers for five states; the daily wage rate of tea plantation workers of Kerala is the highest and in Assam it is the

lowest. The average daily wage rate in Barak Valley is the lowest amongst all tea-producing regions in India. On an average, in the Brahmaputra Valley, the daily wage rate is Rs 167 whereas in the Barak Valley, it is Rs 140. In addition to the interstate and intra-state variation in the wages of the tea plantation workers, there is also a wage gap. We have considered that any cash wage below Rs 167 is considered to be a gap.

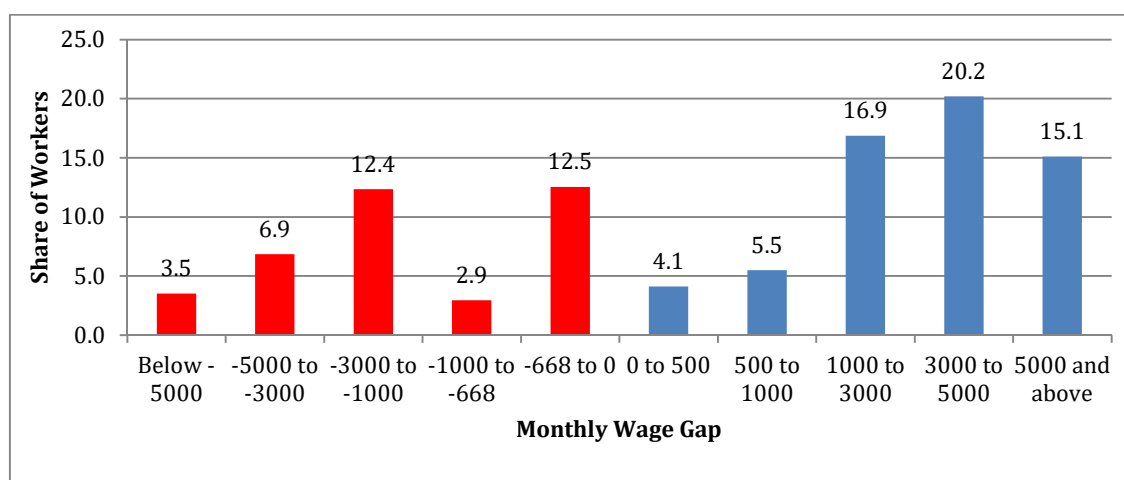
While calculating the wage gap, we have relied to consider the payslip as well as the responses of the workers. Workers who receive payslips reported that they [workers] receive cash-in-hand way below the mentioned amount in the payslip. Amount gets deducted in the name of house repairing, welfare benefits, dry tea and firewood. Besides, trade union leaders also collect union fees on the day of wage payment. None of these items are mentioned in the pay slip and hence the ambiguity. So the actual in-hand cash, in many instances, becomes lower than the total wage a worker should receive. The workers who do overtime work (in case of factory workers) and extra amount of leaves (in case of garden workers) can augment the actual in-hand cash. This leads to the wage gap to be positive and negative. The distribution of wage gap of the workers is provided in Table 3.3. The positive wage gap exists for lesser shares of workers (about 25 percent). Majority of the share of workers have negative wage gap but the highest share (26.7 percent) is in the range of Rs (-) 100 to 0. The next major share (18.2 percent) is in the range of Rs -500 to -300 (see Figure 3.25). This larger share of workers in the negative wage gap category could be an indication of the huge discrepancy between the actual in-hand-cash that a worker receives and the quoted wage rate in the payslip. The problems aggravate when the workers do not receive the payslip to verify the details of the amount deducted.

Table 3.4.Regional Disparity in Wage

Tea Production Area	Daily Wage (in RS.) in May, 2019
Assam-Estates	
Brahmaputra Valley	167
Barak Valley	140
West Bengal –Estates	176
Tamil Nadu-Estates	313.83
Kerala (All)	323.69
Karnataka –Estates	305

Source: Compiled from Tea Board of India and Fieldwork

Figure 3.25. Monthly Wage Gap

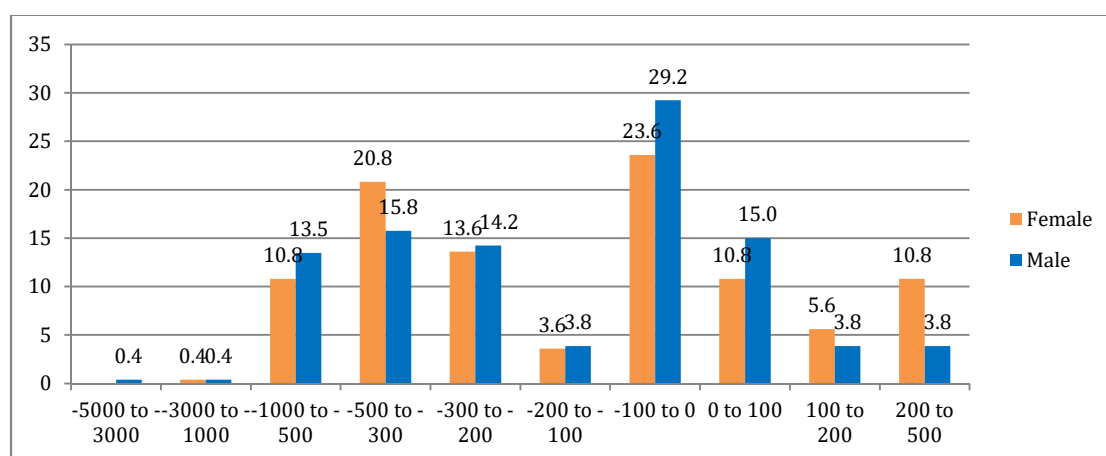


Source: Computed by researchers based on Survey

Wage Gap across Gender

In the positive wage gaps of 0–100, male workers (15 percent) outnumber female workers (10.8 percent). However, female workers (10.8 percent) outnumber male workers (3.8 percent) in the wage gap of Rs 200–500. In the negative wage gap, mostly male workers outnumber female workers, except in the range of Rs -500 to 300, where the share of female worker is 20.8 percent while that of male workers is 15.8 percent (see Figure 3.26). Notwithstanding, there is no wage gap or discrimination in terms of wage payment. Both the groups receive equal wages for the same work. Wage variation is seen due to overtime in the case of factory workers or for the extra amount obtained by workers in the garden for plucking additional leaves. This is to be noted that women’s productivity in plucking green leaves is higher than their male counterparts in the garden.

Figure 3.26. Wage Gap Distribution across Gender

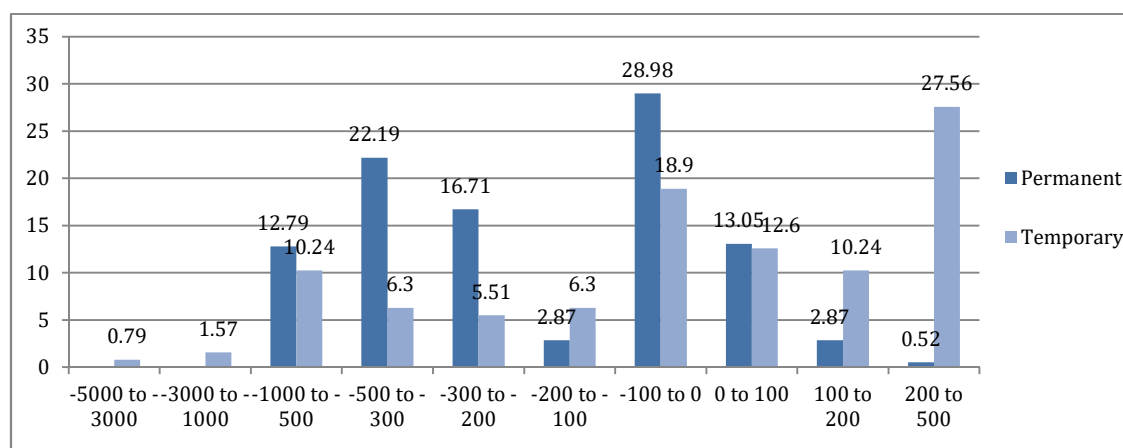


Source: Computed by researchers based on Survey

Wage Gap across Types of Workers

The wage gap distribution across type of workers is given in the Figure 3.27. In the positive wage gap categories, Rs100–200 and Rs200–500, the share of temporary workers is 10.2 percent and 27.5 percent, respectively, compared to 2.8 percent and 0.52 percent respectively for permanent workers. In the negative wage gap category, mostly permanent workers outnumber the temporary workers. The share of permanent workers in the category of -100 to 0 is 28.9 percent compared to 18.9 percent for temporary workers. Similarly, in the wage gap category of -300 to -200, the share of permanent workers is 16.7 percent compared to 5.5 percent for temporary workers. Again in the wage gap category of -500 to -300, the share of permanent workers is 22.1 percent compared to 6.3 percent for temporary workers (see Fig.3.27). From the wage gap, one can see that the temporary worker has less wage gap compared to permanent workers. This is mainly for several reasons. First, the temporary workers are from the same estate and one member of their households has a permanent worker to retain the house. Second, any deduction related to housing is not adjusted from the wage. Third, many estates (e.g., Estates- 41, 42, 43 in Sonitpur) neither deducts PF nor deduct ration from temporary workers’ wage. Permanent workers generally intend to spend more towards their children’s education as compared to temporary workers. Fourth, temporary workers are mainly hired during peak session when there is over supply situation, and they try to pluck more to receive extra earnings.

Figure 3.27. Distribution of Wage Gap across Type of Workers



Source: Computed by researchers based on Survey

Cash and non-Cash Benefits: Cases of Irregularities

In 2018, the wage and ration benefits were completely shut down at Estate-12 (Dibrugarh) for a period of one and a half months. The respondent mentioned that the health of the workers deteriorated since there was massive food shortage. He described the health condition of a worker where the person lost so much weight that his bones were bulging out on his skin. Almost all of the workers left the estate searching for work which resulted in a lot of migration for work from the labour lines.

In the period 2015–16, Estate-8 (Dibrugarh) shut down the wage and rations benefits for about 5–6 months. There was a lot of secondary migration for work during that time. However, there are no viable alternative livelihoods for these workers as most of the estates are located far away. The factory was shut for one and a half months. There was no manager, the mohori (field manager) and sardar managed work during that period. Plucking was continued by the workers and the leaves were sold to neighbouring estates having manufacturing units. The worker leaders and union members mobilized the workers to pluck and sell henceforth at the other factory. The period was bleak, however, the workers managed to survive by selling their plucked leaves. According to the management the shutdown took place because the estate incurred huge losses.

Estate-27 (Jorhat) was shut down for two years from 2001 when the wage and ration was stopped by the management. Most of the workers during that time travelled to the border (Nagaland) looking for work. The respondent opined that it was fortunate that people found work across the border otherwise there was a high possibility of mass deaths in the estate. In between 2004–08, 2013–16 the Estate-37 (Golaghat) was closed several times due to conflict with the management regarding labour liabilities and change in ownerships. The wage and ration were stopped by the management. The workers managed to sell their leaves under the leadership of the ACMS and ACKS to other factories and most migrated outside of the estate for secondary occupation. The owner was changed several times.

Estate-36 (Golaghat) is closed due to conflict with the management which has resulted in physical conflicts between the manager and workers. The condition of workers is bleak, as mentioned in the narratives. The workers continue to work in small tea gardens and stone quarries which are over 22km away from the estate, a distance they cover on foot.

In most of the cases, the workers have resorted to secondary migration to nearby workplaces which refutes the idea of the generational dependency of the workers on the tea industry. There have been many instances of secondary migration of workers to places as far as Bangalore to work in factories (marble tiles companies) because of a higher pay. It is the prerogative of the management and union members to resolve the conflict along with the workers regarding estate work. However, it is seen that most of the times it has resulted in the shutdown of the estate as a capture of power which has its ramifications on both the management and the workers. It is a fact that the tea industry underpays its workers. From the consumption pattern, it is imperative to note that there is gap and also deficit in their calorie intake which has been discussed at length in Chapter 4.

4

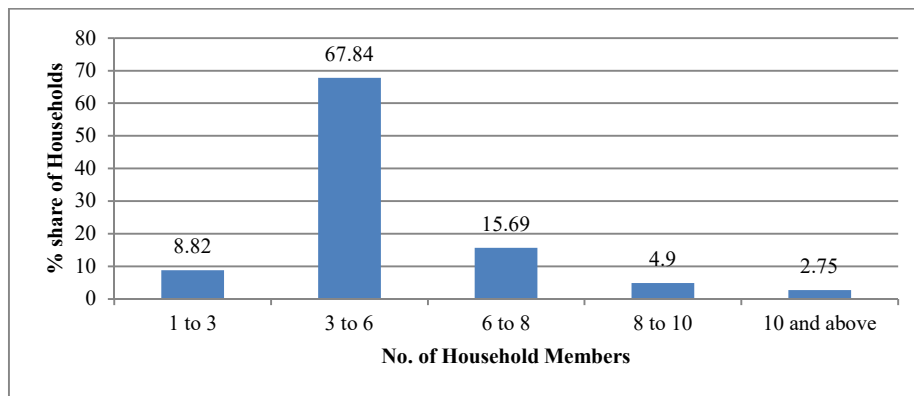
Consumption Expenditure and Income: Inequality and Deficits

This chapter illustrates the pattern of consumption expenditure, income distribution and level of inequality that exist within income groups across gender and types of workers within households. The analysis is discussed based at the household level. One of the objectives of this chapter is to understand the consumption and income gap and show the income inequality at the household level. While presenting the data, we have first analysed the monthly consumption expenditure pattern and monthly income trend. The monthly consumption has been calculated based on the standard set by National Sample Survey Office (NSSO). The questionnaire has also been developed in accordance to the list given by the NSSO.

Household Size

The number of dependency in the household is one of the important indicators in the present context. Consumption pattern and calorie intake of household depends on the family size. More than 67 percent of the households are having 3 to 6 members in their family. The next concentration (16 percent) is found in a household size of 6 to 8 members. The share of households declines as the number of household members (household size) increases (see Figure 4.1).

Figure 4.1. Household Size



Source: Fieldwork

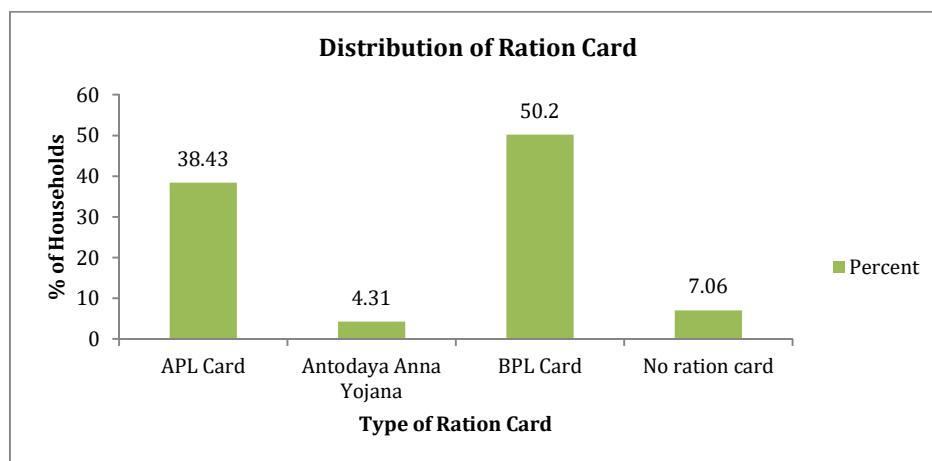
Ration Card Holders under Public Distribution System

This section discusses state-assisted public distribution system (PDS) and its benefits to the plantation workers. Almost 90 percent workers receive ration from the estate in accordance to the Plantation Labour Act 1951 (PLA). However, quality and actual quantity of the ration is the contested topic which will be discussed separately. Other than ration received from the estates, most of the households (around 93 percent) also have ration cards under PDS.⁴ The BPL (Below Poverty Line)

⁴Ration cards are an official document issued by the state governments of India to households that are eligible to purchase subsidized foodgrain from PDS under the National Food Security Act, 2013 (NFSA). There are two types of ration cards under NFSA under which they receive ration:

cards are owned by 50 percent households while 38 percent have APL (Above Poverty Line) cards. Around 4 percent workers possess Antyodaya (AAY) cards while 7 percent do not hold any ration cards (Figure 4.2). Households comprising members belonging to tribes, mainly Adivasis from central India (other than Nepali community), receive rice and wheat at subsidised rate under AAY.

Figure 4.2. Distribution of Ration Card



Source: Fieldwork

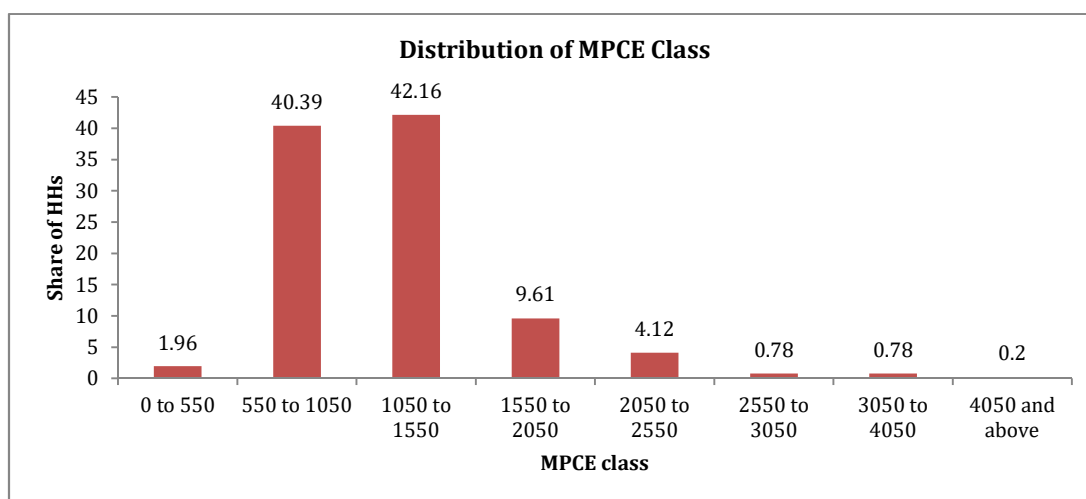
Distribution of Monthly Per Capita Consumption Expenditure (MPCE)

Distribution of MPCE unfolds that the share of households are highly concentrated within two groups. Around 82.5 percent of the households fall across the two groups—Rs 550–1050 and Rs 1050–1550 (see Fig. 4.3). Per capita consumption expenditure of around 9.6 percent of households fall under the category of Rs 1050–1550 group. Only about 1.76 percent per capital monthly consumption is above Rs 1550. Although similar distribution of MPCE is observed across gender and type of workers, group comparisons show interesting results as depicted in Figs 4.4 and 4.5. The gap in the MPCE class category is found across gender and types of workers. While monthly per capita consumption expenditure of male workers' households is higher in the higher MPCE class categories (from MPCE Rs 2050 onwards), the share of female workers' households are more in case of lower or mid-range of MPCE categories, especially between Rs 1050–1550 or even Rs1550–2050. Data shows that MPCE across gender and types of workers mainly concentrated in three groups between Rs 550–Rs 2050 (see Figs 4.4 and 4.5). This is perhaps mainly because of similar wage structure and consumption patterns. Wage structure, incentives and payment system across all the categories among workers are the same. In fact, workers consume similar items as all of them receive ration from the estate.

- **Priority ration card** issued to households that meet the eligibility criteria set by their respective state government. Each priority household is entitled to 5 kg food grain per member.
- **Antyodaya (AAY)** ration cards are issued to the 'poorest of poor' households. Each AAY household is entitled to 35 kg foodgrain.

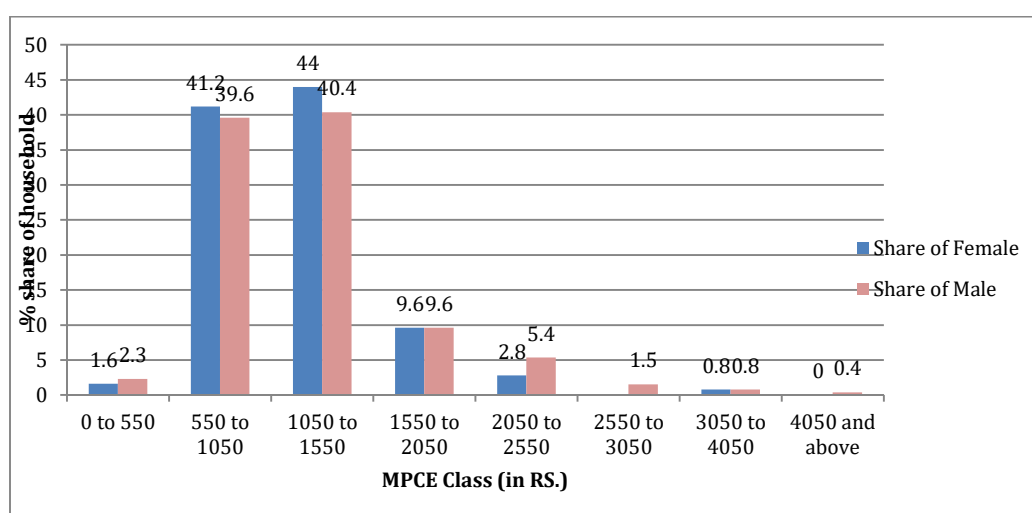
Before the NFSA was enacted, there were three types of ration cards, namely, (1) Above Poverty Line (APL) ration cards that were issued to households living above the poverty line (as estimated by the Planning Commission). These households received 15 kg foodgrain (based on availability); (2) Below Poverty Line (BPL) ration cards that were issued to households living below the poverty line. These households received 25–35 kg foodgrain; and (3) Antyodaya (AAY) ration cards that were issued to the "poorest of poor" households. These households received 35 kg foodgrain.

Figure 4.3. Household Monthly Per Capita Consumption Expenditure



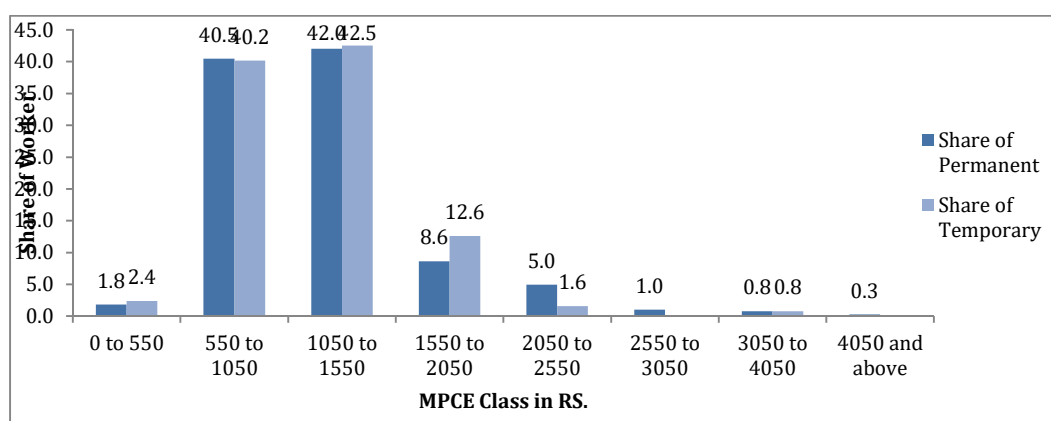
Source: Fieldwork

Figure 4.4. MPCE across Gender



Source: Fieldwork

Figure 4.5. MPCE across Type of Workers



Source: Fieldwork

Consumption Pattern

While distribution of MPCE shows how a household spends on different consumption baskets in the previous section, spending on actual consumption items is discussed in this section. Based on the actual responses that each household reported during the survey, we have found 20 items upon which each household spent. Items of consumption expenditure have been accordingly divided into two—11 food items (rice, wheat, milk, edible oil, sugar, salt, vegetable, meat, egg, fruits, alcohol) and 9 non-food items (fuel, toiletries, medical expenses from out of pocket expenses, expenses on children's education, electricity, clothing, transport, mobile, and housing) (see Figure 4.6). The pattern of food consumption is similar across gender and types and nature of work, but it varies between gender and types of workers. Workers generally consume rice thrice a day in the household, whereas they eat meat twice (at least) a week. In food consumption, the share of rice consumption is the highest (15.5 percent), followed by meat (13.5 percent), vegetables (8.5 percent), edible oil (6.6 percent), and clothing (6.9 percent). The share of expenditure on edibles such as wheat (2.9 percent), milk (0.5 percent), eggs (1.7 percent), salt (0.70 percent) and sugar is low (1.2 percent). However, workers need to spend 2.4 percent on electricity and interestingly 3.4 percent on mobile phones which are non-food expenditure (see Figure 4.6).

Monthly consumption expenditure across gender is discussed in Figure 4.10. Households having female workers as main workers spend more on rice (16.2 percent), wheat (13.5 percent), edible oil (6.7 percent), as well as on clothing (7.3 percent), housing (5.6 percent) and fuel (5.6 percent) whereas households having male workers incur greater expenses on transport (5 percent), medical bills (5.5 percent), toiletries (6.12 percent) and education (4.7 percent). Interestingly, households having male workers spend more on health and education as compared to households having female workers as the main workers (see Figure 4.7).

In the consumption basket, workers in general consume more rice and wheat. Besides, ration obtained from the estate, workers buy mainly rice from the local shop. Notably, quantity of salt consumption is found to be very high among workers (around 3kg/month for a family having four adults and two minors). Interestingly, over 5 percent of their expenses go towards repairing their house. This is made out of their bonus amount (ref Fig. 3.20). The cost towards house repairing is supposed to be taken care of by the estate. However, even after several complaints, the management never takes it up and workers are forced to spend money in repairing. One of the workers from Estate-49 (Udalguri) reported that he has been complaining about house repairing to the grievance office since last nine years but none of them visited once, though he is assured every time that somebody will go and repair. Workers from Estate-41 (Sonitpur) mentioned that some amount (worker does not know the exact amount as he does not receive pay slip) is deducted annually towards house repair, but unfortunately, no action is taken. Workers receive bonus either during Durga Puja/Diwali or during Christmas/New Year during which they buy clothes.

Figure 4.6. Share of Different Items in Total MCE

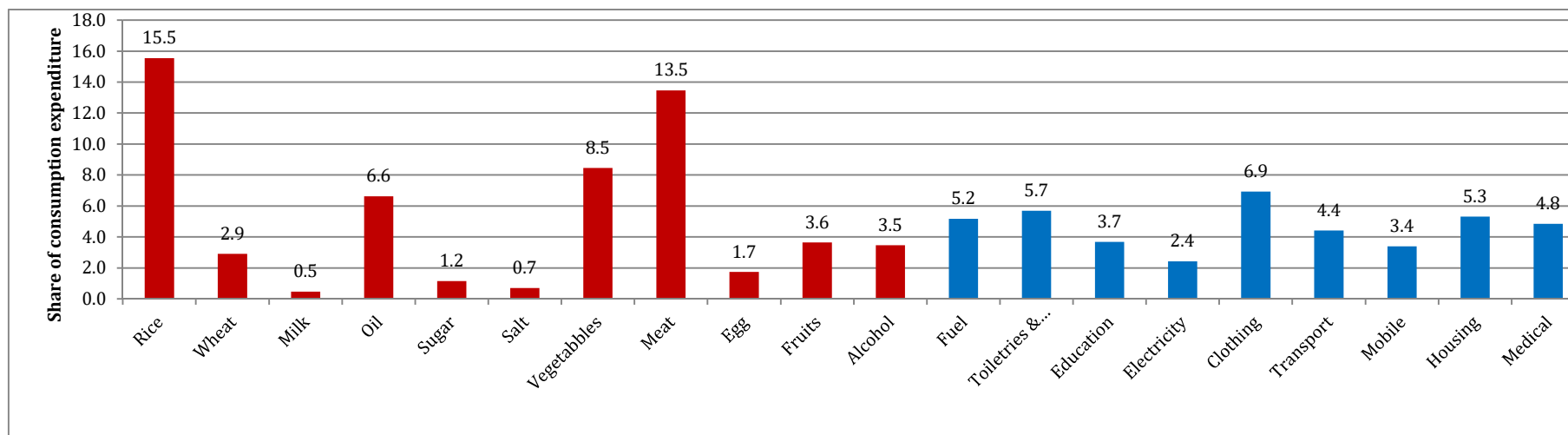
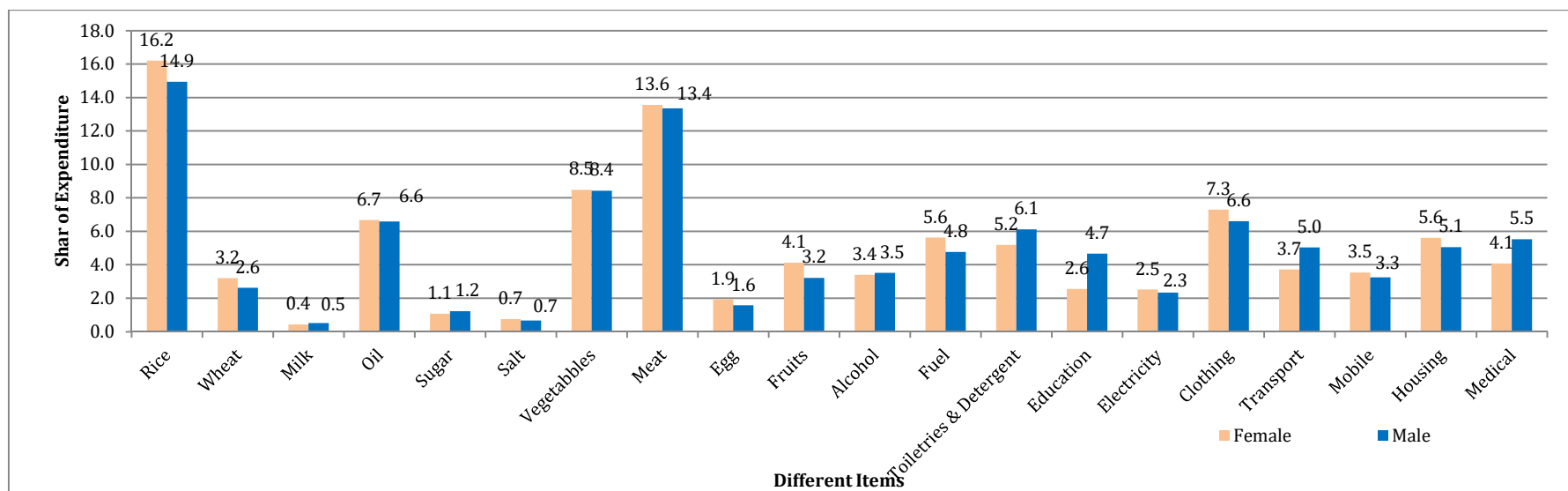


Figure 4.7. Food Item Consumption across Gender



Household Income

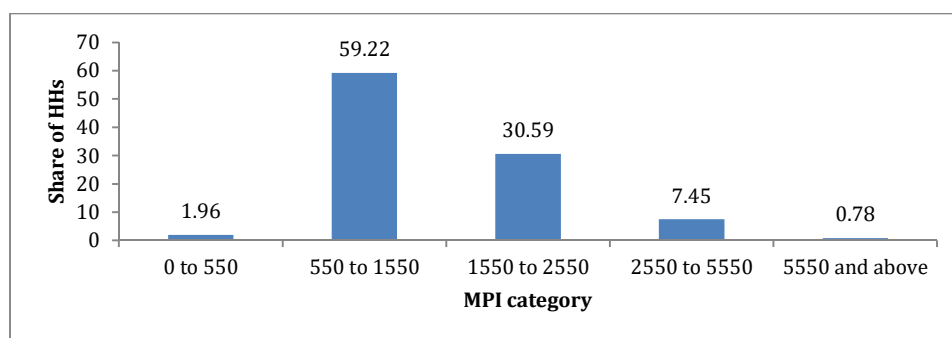
Household income indicates purchasing power of the household and also shows how these households manage to survive. The household income is calculated by adding earnings from all the members of the household including workers. Four components have been considered to calculate household income. First, monthly cash income of the main workers of the household after deducting the amount for provident fund, ration, electricity, water, and others has been included under cash income. Second, income from other earners of the household has been considered. Out of 510 households, 147 (28.82 percent of the households) have job cards under the National Rural Employment Guarantee Act (NREGA) on which they have received work under the scheme in the reporting year. Thus, earning from NREGA has also been included. Last, monthly earning from annual bonus has also been calculated under household income. This is mainly because workers spend towards house repairing, clothing, bedding and so on from their annual bonus amount.

Distribution of monthly per capita income of households across estates is positively skewed, as with the increase of income, the share of households decline (see Fig. 4.8). The monthly per capita income for 59 percent households is in the range of Rs550–1550. Over 30 percent of households range between Rs 1550–2550 and 7.45 percent households' income range between Rs2550–5550. In the range of Rs 550–1550, the MPI of households having female workers as main workers (61.6 percent) exceeds that of the households having male workers as main workers (56.9 percent). Contrarily, MPI in the range of Rs 1550–2550, households having male workers as main workers (32 percent) exceeds that of males (28.8 percent). The MPI in the range of Rs 2550–5550, households having female worker as the main worker (8.4 percent) exceed that of households having male workers (6.4 percent) (see Fig. 4.9).

The MPI of households having permanent workers as main workers (61.6 percent) exceeds that of temporary workers (52 percent) in the range of Rs 550–1550. However, the MPI in the range of Rs 3550–5550, temporary workers'-led households (10.2 percent) outstrips that of permanent workers (6.5 percent) (see Fig. 4.15). The MPI, in the range of Rs 550–1550, with regard to households having workers who work both at garden and factory exceeds (68.4 percent) that of households having workers at factory (52.2 percent) or garden (59.6 percent) (see Fig. 4.10).

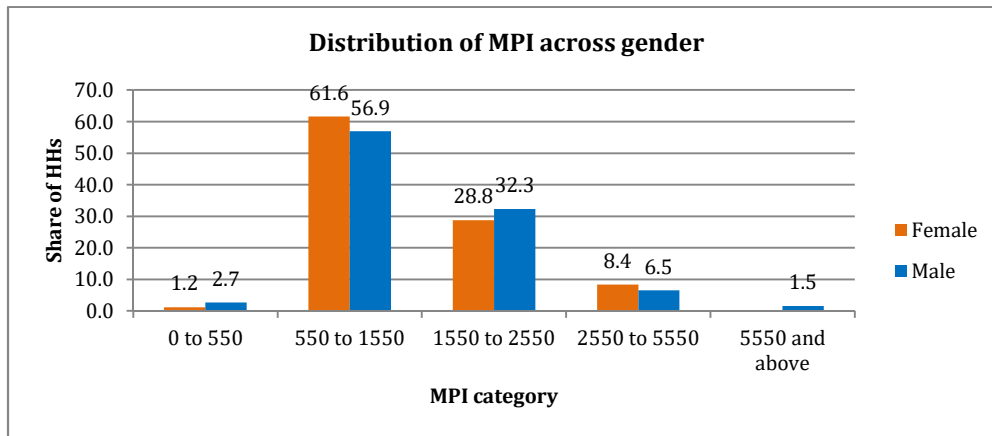
With regard to the MPI across different types of ownership, it shows that in the range of Rs 550–1550, about 86.7 percent of households of the estate which is under public sector undertaking (Government of Assam) exceeds that of public limited companies (62 percent), proprietorship (50 percent), partnership firms (51.8 percent) or public sector undertaking under the Govt. of India (53.8 percent) (see Fig. 4.11).

Figure 4.8. Monthly per Capital Income Distribution



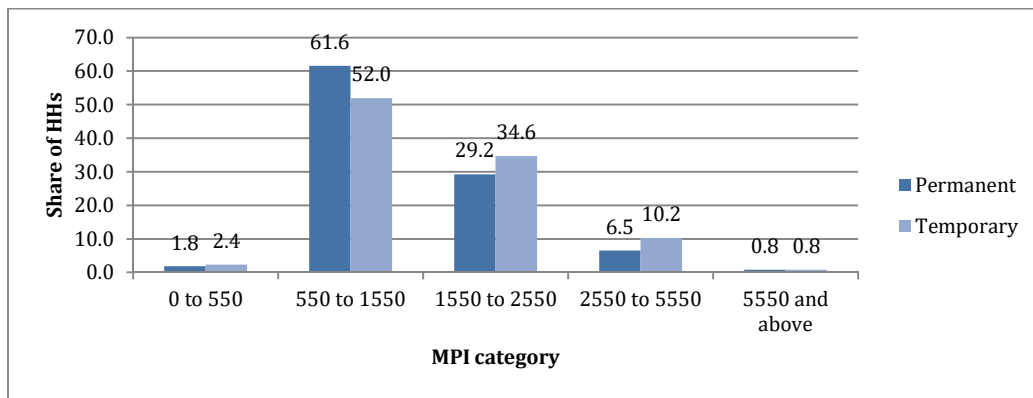
Source: Fieldwork

Figure 4.9. Monthly per Capital Income across Gender



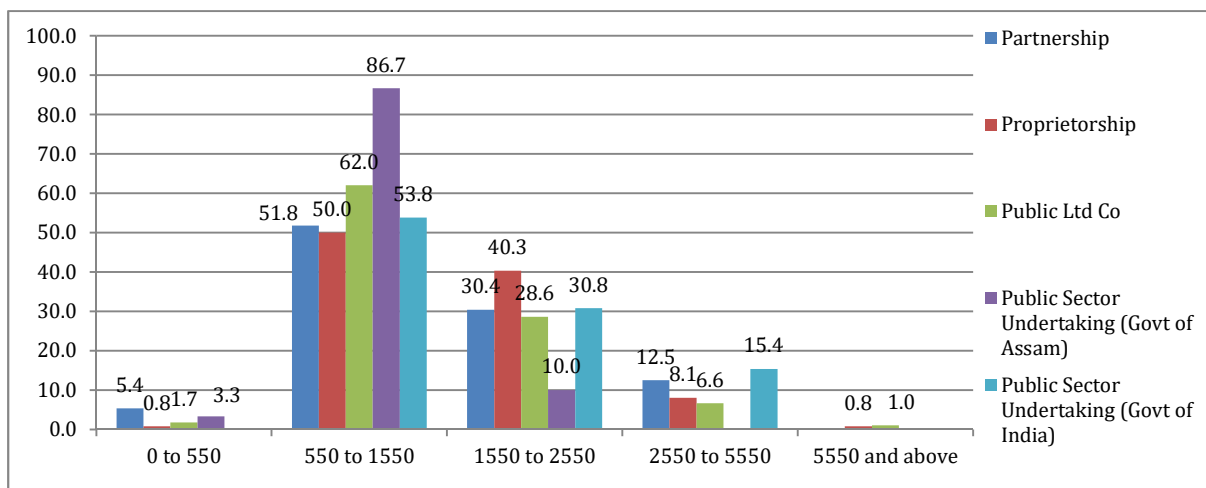
Source: Fieldwork

Figure 4.10. Monthly per Capital Income across Types of Worker



Source: Fieldwork

Figure 4.11. Monthly per Capital Income across Types of Ownership

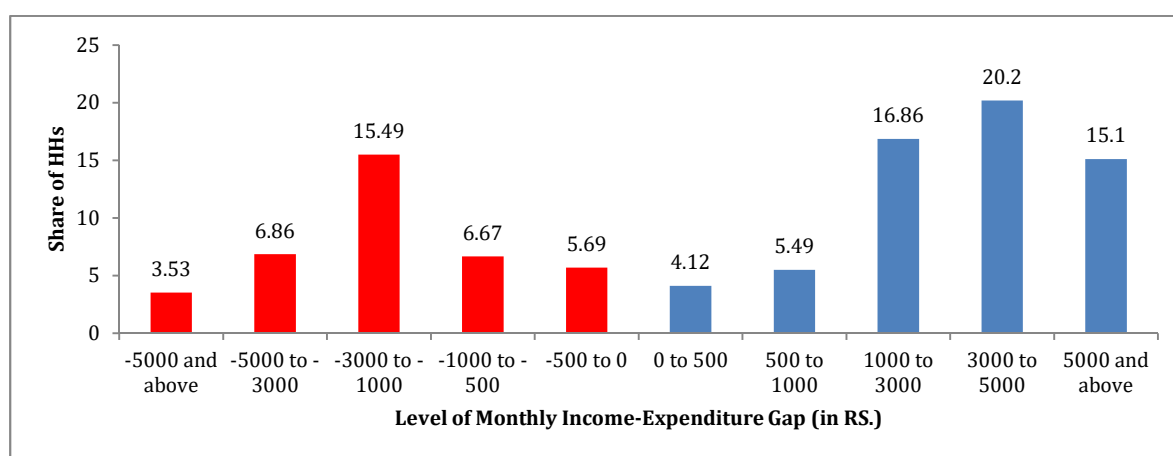


Source: Fieldwork

Household Income-Expenditure Gap

There is a gap between income and expenditure in households across estates, which is presented in Figure 4.12. Data reveals that around 38 percent households have negative income–expenditure gap which shows these households are having more consumption expenditure than income. In other words, there is no sufficient income or source of income that could meet their consumption expenditure. Notwithstanding, 62 percent of the households have positive gap which means they have saving after consumption. It is seen that 20 percent households have a positive income–expenditure gap while 15.1 percent have an excess of income (by Rs 5000 or above) and another 16.86 percent have a positive income expenditure gap of Rs 1000–3000. About 15.49 percent households have expenditure exceeding income in the range of Rs 1000–3000. Another 6.86 percent have expenditure exceeding income in the range of Rs 3000–5000 (see Figure 4.12).

Figure 4.12. Household Income–Expenditure Gap



Source: Computed by researchers based on Survey

Looking at the share of households having positive income–consumption gap, it is a positive story. However, when we look at the number of earners from the households across the categories, it reveals that average number of earners of the households having positive gaps is around 2.27 as compared to 1.16 of those households who have negative gap. Moreover, maximum number of earners is 7 for the households who are having positive gap as compared to 3 for those who are having negative gap (see Table 4.1a.). Further, around 84 percent of the households are having only 1 household earner who have negative gap while around 11 percent have 1 (see Table 4.1b.). From this discussion, it is evident that households should have more than one earner to meet their day-to-day consumption.

Table 4.1a. No. of Earners in Households having Income–Consumption Gap

Gap Category	% of Households	Average No. of Earner	Min No. of Earner	Max No. of Earner
Negative Gap	38.24	1.16	1	3
Positive Gap	61.76	2.27	1	7

Source: Computed based on fieldwork in 2019

Table 4.1b. No. of Earners in Households having Income-Consumption Gap

No of Earners in the Households	Negative Gap (Consumption Expenditure> Income)	Positive Gap (Income> Consumption Expenditure)
1	84.1	11.11
2	15.38	59.68
3	0.51	21.9
4	0	6.03
5	0	0.95
6	0	0
7	0	0.32
Total	100	100

Source: Computed based on fieldwork in 2019

Factors impacting on Households' Income and Expenditure

A Ordinary Least Square (OLS) model given below has been estimated to understand the factors impacting on the income-expenditure gap of the household. This gap is considered to be one of the important facts which will not only help identifying the factors but also help us to recommend at the policy levels.

The Model

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + U \dots \dots \dots (1)$$

Where,

Y= Income-expenditure gap at the household level

X₁=Total number of earners at the household

X₂=Number of dependent members in the household

X₃= Type of workers (1 - Permanent, 2 - Temporary)

X₄=Status of work (1- Both factory and garden, 2- Factory, 3-Garden)

X₅= Ration provided by the estate

U= Error term

The model of simple linear regression (OLS) is statistically significant having F (6, 503) = 166.36 and significant at 1 percent. The result of OLS shows important parameters which has impact on income–expenditure gap of the households. It further validates some of the descriptive facts of our discussion. First, parameters such as total number of earners and workers in the garden statistically significant and have positive impact on the gap. This implies that income–consumption expenditure gap will be less if number of earners increases. However, interestingly, the amount of ration received from the estate has no statistical significant on the income–expenditure gap (see Table 4.2). The amount of rice and wheat that are required for household consumption is much higher than that received from the ration. Thus, amount of non-cash benefits should be reviewed.

Table 4.2. Result of OLS Model of Income–Expenditure Gap

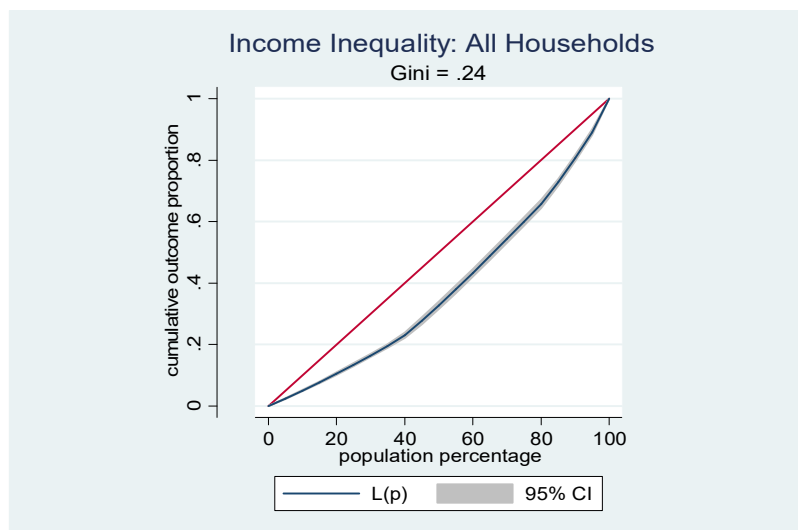
Source	SS	df	MS	Number of obs = 510		
Model	5.8664e+09	6	977735703	F(6, 503)	=	166.36
Residual	2.9562e+09	503	5877214.14	Prob > F	=	0.0000
				R-squared	=	0.6649
				Adj R-squared	=	0.6609
Total	8.8227e+09	509	17333306.3	Root MSE	=	2424.3

gapincomeconsu~n	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
totalnoofearners	3687.603	126.563	29.14	0.000	3438.946	3936.261
noofdependents	-369.3777	60.4037	-6.12	0.000	-488.0523	-250.7031
2.type_worker	538.8904	252.9961	2.13	0.034	41.8311	1035.95
status_work						
2	-166.4993	496.6745	-0.34	0.738	-1142.312	809.3129
3	1161.626	414.319	2.80	0.005	347.6167	1975.634
1.estate_ratio	305.9806	362.3404	0.84	0.399	-405.9065	1017.868
_cons	-5229.784	583.4153	-8.96	0.000	-6376.015	-4083.553

Source: Computed by researchers

Household Income Inequality

One of the objectives is to look into the income inequality among the households as well as at the individual levels across estates. The inequality is measured by Gini Co-efficient which shows income inequality (Gini = 0.24) among households at the aggregate level (see Fig.4.13). However, after decomposition to understand what level of income inequality exists at the household, it is found that inequality exists at household levels of estates which are under different status of the companies (see Table 4.3; also see Figs 4.13, 4.14).

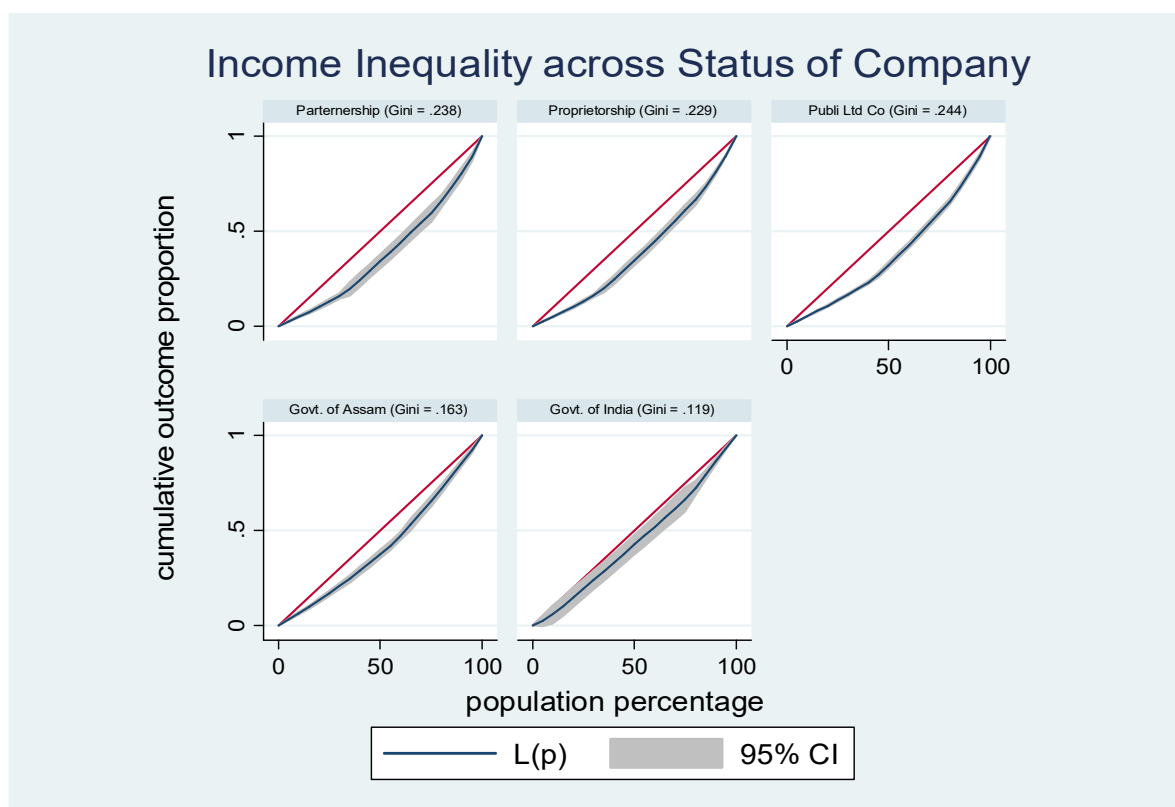
Figure 4.13. Income Inequality at the Household Level

Source: Computed by researchers

Table 4.3. Income Inequality Decomposition at Household Level

	Category		Gini Coefficient
Decomposition	Status of Company	All Households	0.24
		Partnership Firm	0.24
		Proprietorship Firm	0.23
		Public Ltd Co	0.24
		Public Sector Undertaking (Govt. of Assam)	0.16
		Public Sector Undertaking (Govt. of India)	0.11
	Status of Work	Both Factory & Garden	0.18
		Factory	0.25
		Garden	0.23

Source: Computed by researchers

Figure 4.14. Income Inequality Decomposition at Household Levels across Status of Company

Source: Computed by researchers

Deficit in Nutrition Level

Examining their consumption patterns, it is interesting to understand the pattern of calorie intake among plantation workers. We have tried to understand the deficit at the nutrition levels of plantation workers. Daily per capita calorie intake of the workers' households has been examined. It is found that around 56.5 percent of the households' per capital per day calorie intake is up to 2169 Kcal (see Fig. 4.15). The calorie intake is calculated based on actual monthly food consumption. The list of food items is provided by the worker. However, the standard calories in food intake have been

considered from the ‘Nutrition Intake in India’ report of the 68th round of National Sample Survey Office (NSSO), 2011–12. Calorie intake has been calculated based on standard calorie chart given by the NSSO report (see Table 4.4) on 12 food items from the list provided by the worker. The deficit of the calorie has been measured keeping in view of standard calorie intake mentioned in the ‘Nutrition Intake in India’ (NSSO 2011–12). Daily per capital calorie intake in rural Assam is 2170 Kcal (see Table 4.5) and deviation of the household from this amount is considered to be deficit in calorie intake.

Table 4.4. Food Items across Unit and Calories

Sl No	Items	Unit	Calories
1	Rice (PDS)	kg	3466
2	Wheat/Atta	kg	3410
3	Milk	Litre	1000
4	Sugar (PDS)	Kg	3980
5	Cooking Oil	Litre	9000
6	Egg	Number	100
7	Meat (Chicken)	Kg	1090
8	Meat (Pork)	Kg	1140
9	Potato	Kg	967
10	Leafy Vegetables	Kg	260
11	Alcohol	Litre	380
12	Fruits*	Kg	500

*Workers who consume fruits spent mainly on three items, i.e., Banana (116Kcal), Jackfruit (880Kcal), and Guava 116 (510Kcal). Thus, average Kcal of these fruits has been taken into account.

Source: NSSO 2011-12 (68th Round)

Table 4.5. Daily Per Capita Calorie Intake across India (in Kcal)

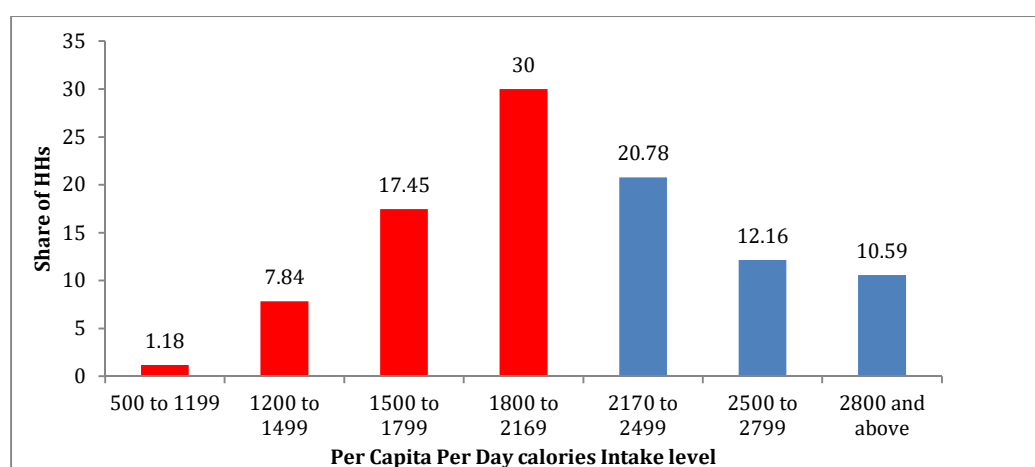
States	Rural	Urban
Andhra Pradesh	2365	2281
Assam	2170	2110
Bihar	2242	2170
Chhattisgarh	2162	2205
Gujarat	2024	2154
Haryana	2441	2443
Jharkhand	2138	2175
Karnataka	2164	2245
Kerala	2162	2198
Madhya Pradesh	2234	2209
Maharashtra	2260	2227
Odisha	2215	2191
Punjab	2483	2299
Rajasthan	2408	2320
Tamil Nadu	2052	2112
Uttar Pradesh	2200	2144
West Bengal	2199	2130
All India	2233	2206

Source: NSSO 2011-12 (68th Round)

Distribution of Calorie Intake

Distribution of calorie intake shows per day per capita calorie intake of around 56.5 percent households has less than 2169 Kcal which is below the standard level of calorie set in case of rural Assam. Around 43.5 percent of the households' daily per capita is having more than 2170 Kcal (see Figure 4.15). As far as distribution of calories intake across status of company is concerned, daily per capita calories intake of 70 percent of the households of the estates under public sector undertaking (Government of Assam) is below the standard level of 2170 Kcal. On the other hand, around 85 percent of the households' per capita calorie intake of the estates under public sector undertaking under the Government of India is below the standard intake (see Figure 4.15).

Figure 4.15. Distribution of Calories Intake

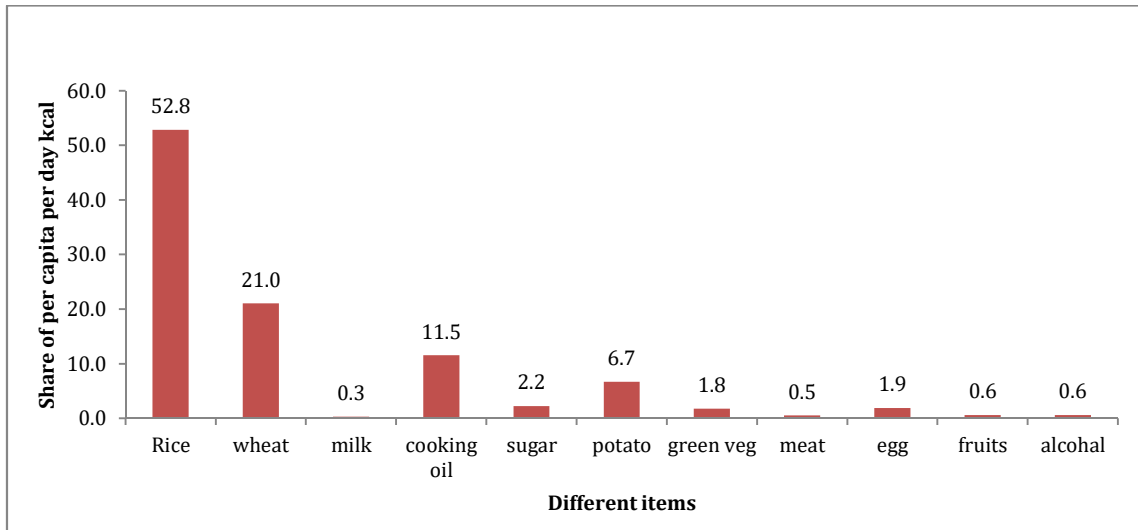


Source: Computed by researchers

Share of Different Items in Per Capita Calorie Intake

From the calorie intake, it is evident that there is deficit in calorie intake. Source of calorie is important to be examined. Out of total share of per capita calorie intake, around 53 percent of the total consumed calorie is coming from rice, followed by wheat (21 percent), edible oil (11.5 percent) and potatoes (6.7 percent). When we look at the share of different items in the total monthly consumption expenditure on total food items (see Fig. 4.17), households spend more on rice (15.5 percent) followed by meat (13.5 percent), vegetables and potatoes (8.5 percent), edible oil (6.6 percent) and fruits (3.6 percent) of their total expenditure (see Figure 4.17). Interestingly, source of calorie from meat is very negligible whereas workers spend more on meat and consume at least once a week. Respondents could not inform each of the household member's consumption details and thus we could examine only average calorie intake of the household members. According to narratives, women tend to eat once everyone at the household is eaten. Looking at the quantity of the food items available, this can be argued that calorie intake of the woman of the household will be substantially less than that of male members of the household.

Figure 4.16. Share of Different Items in per Capita Kcal

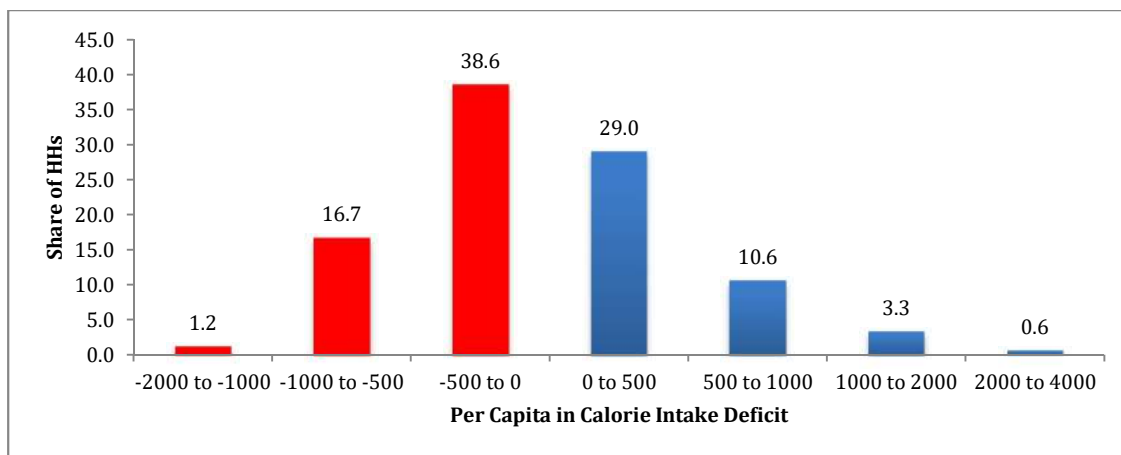


Source: Computed by researchers

Deficit in Calorie Intake

Over 56 percent of the household's per capital per day calorie gap is between -2000 Kcal to zero Kcal (see Fig. 4.18). This indicates deficit in calorie intake and needs policy attention. Looking at the calories intake gap across the status of the company, the gap is more in the households of the estates under public sector undertaking (Government of Assam) as well as estates under public sector undertaking under Government of India (see Fig. 4.18).

Figure 4.17. Distribution of per capita per day kcal Gap



Source: Computed by researchers

Discussion and Conclusion

Average size of household members is around 5. The household size measure indicates that 60 percent of the households have 3 to 6 members in their family. The measurement of the household size is important to calculate the household income, household expenditure and income gap.

In tea estates of Assam, the workers receive ration from the state apart from the non-cash benefits (ration) obtained from the estate which include rice, wheat, besides firewood and dry tea. However, the quality of tea is bad. While determining household consumption expenditure, it is important to consider the share of ration received by the workers under the public distribution system. The categories identified by the state according to income level are BPL and APL. Almost all the workers in the selected tea estates receive ration under these schemes. As the report states 50 percent of households have obtained BPL cards, 38 percent have obtained APL cards, 4 percent have obtained AAY cards and 7 percent have not obtained any of the above. The numbers differ across the districts where Cachar and Dibrugarh as the highest number of AAY and BPL/APL card holders respectively, while Tinsukia has the lowest number of card holders. Estates under Public Ltd companies have the highest share of both card holders and no-card holders while proprietorship estates have highest percentages of AAY card holders.

Since rice is the staple diet for most of the tea worker community, it stands at the highest level of consumption while wheat is consumed among the least. While there are vegetarian communities within the larger tea community, most of them consume meat on regular basis. As meat is the costliest among the food items, the findings indicate that a huge part of workers' income is spent on it. However, Workers have stated that meat and eggs seem like a luxury considering the tight budget of their households. The consumption of milk is extremely low as compared to other essential food items and considered a luxury. It is majorly because of the non-usage of milk with tea which is intricately woven into the history of tea worker community. The households having female workers as main workers have a larger monthly expenditure and food items like clothing, housing, and fuel whereas households having male workers as main workers spend more on transport, medical bills, toiletries and education. To analyse further on the basis of gender, it can be understood that females spend more on items that are important to the household structure unlike the males. The females have a greater responsibility to the functions of the household. The pattern of expenditure found on the basis of type of workers is indicative of the fact that permanent workers have a greater liberty of expenditure while temporary workers tend to spend on basic items of ration, clothing, housing and alcohol. There is a disparity in the benefits enjoyed by both the categories. Temporary workers in most estates are not given similar benefits like the permanent ones. Major part of their expenditure is incurred on providing housing facilities themselves. The idleness and inconsistency of work among the temporary (casual) workers especially during the off seasons promote alcoholism. Similarly, the disparity can also be seen between the garden workers and factory workers. The bonus received by the workers is mostly spent for broad categories of food items, clothing during Durga Puja, repairing of houses and other household expenditures.

The distribution of income helps us to understand the purchasing power of the household. It includes income from all the possible sources within a household. The household income is calculated by adding the monthly cash income after deductions of the estate workers, of workers employed outside the estate, earning from NREGA scheme and bonus income.

The current existing wage is not sufficient for plantation workers and it is reflected through workers' consumption pattern as well as from their calorie intake levels. Income inequality persists both at the household as well as individual levels. However, Gini coefficient in household income is showing higher than the individual income. Household income includes other member's income as well. Since there is homogenous wage group across gender and types of workers in plantation labour, not much variation in wage payment are found, hence the inequality level shows a reduction.

5

Living against Odds

This chapter discusses the working life of plantation workers, their day-to-day struggles and contestations with the management over work and the resources available to them. It is based on workers' experiences of coping with their problems inside the gardens, which range from lack of upward mobilities at work to the prevalence of a system of punishments, to the compromised safety and health conditions at both garden and factory. There is constant fear over job losses that affect their sense of work security. While children and elderly people are the sufferers due to an ineffective PLA, women workers, comprising more than half the proportion of total workers, fare the worst. Although the tea industry provides employment to them, their access to paid work rarely transforms into greater gender equality both within and outside the household, agency in terms of independent decision making and command over the intra household resource disseminations. While the management regards women incapable of those works that require greater physical strain, in practice they end up doing a lot of physically strenuous and time-taking activities which include carrying heavy loads from the plucking area to the collection and measurement centres. Their needs are rarely accorded primacy during that time. Women continue to share a greater burden of household tasks compromising with their own health and well-being.

Stagnancy of Work

There is absolutely no promotion mechanism for workers. There are workers who have worked in the same job for the last 15–20 years. The management does not upgrade the status of a worker to the grade level. In Estate-33 (Sivasagar), there is no promotion even for experienced permanent workers. The workers have no role in the audit process. They are often informed that the company is running at losses. In Estate-25 (Jorhat), a group of workers stated that the government is to be blamed for the bad condition of the estate. This is because it is a public sector undertaking under the Government of Assam. They collectively agreed that the management is not the problem. The secretary of the ACMS union was elected by the workers but he later joined the ruling party to become one of their ward members. Hence, he speaks on behalf of the government and also the management, instead of the workers. The garden was shut for three years since 2001 by the government. Ashok Bhuyan (name changed), a permanent worker at Estate-27 (Jorhat) stated that there was mass poverty and the workers and their families would have died of starvation if they had not gone to the border to earn some money. Workers survived because the garden is located near the border where they found menial jobs to earn money and even stole wood, bamboo from the forests which they later sold in the nearby markets.

One of the workers stated that there is a public sector undertaking estate under the Government of Assam that has no *badli* system which means that a permanent worker's job doesn't get transferred to his/her son/daughter. They don't have a factory of their own. In Estate-23, a worker mentioned that when a person retires, the badli seat, which should be ideally given within a year, is provided after 7–8 years.

Estate-27 (Jorhat) produces good quantity and quality of leaves but the absence of factory forces it to depend on Estate-23 (Jorhat). As a result, Estate-23 (Jorhat) has opened a separate factory for processing its own leaves. Despite such great leaf production, the condition of workers at Estate-27 (Jorhat) remains worse. Over 3000–4000 plucked leaves were thrown away in the river because Estate-24 (Jorhat) and other factories were unable to accept it. There are no employment opportunities for students within this estate. There are many graduates and higher secondary pass candidates who

are eligible for staff jobs in the estate, yet the jobs are either kept vacant or given to people who are from outside. The management often states that there are no vacancies when it comes under pressure but the ACMS has found otherwise.

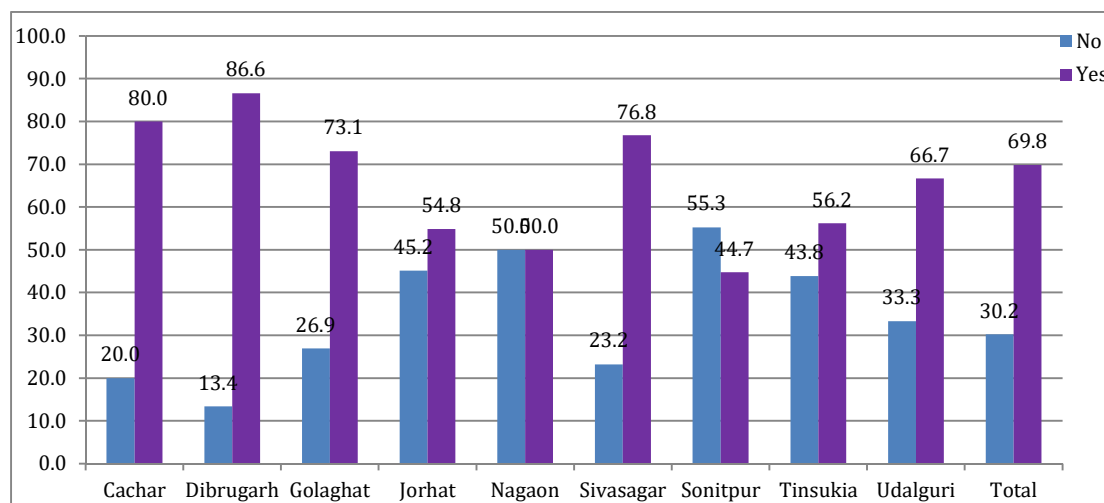
Attitude of the Management

People have reported that the main managers cannot be approached directly. At the time of distress or when help needed, workers have to approach the lower-level management consisting of the labour welfare manager or the secretary. Workers reported about the strict behaviour of many managers and those who raise their voices were targeted by the management and later transferred to a more difficult task. In the case of collecting firewood from the garden, workers have reported that if they are caught, the managers take strict action against them and fine them with Rs 500. In 2012, a manager abused and abandoned a worker who was driving the manager's vehicle along the Duliajan highway in Estate-13 (Dibrugarh). He was thrown out of his job. There was a huge backlash from the workers. The garden was shut down for 8 days and no wages was paid during that time. If any worker falls sick, he/she needs to report thrice a day to the primary healthcare. This is mandatory. However, workers explained that they cannot report because of the poor health conditions and thus their absence due to sickness is not counted as 'sick leave', instead they are compelled to take 'leave without pay'.

Punishment due to Late Reporting at the Workplace

Around 80 percent estates in Cachar, 86 percent in Dibrugarh, 73 percent in Golaghat, 76 percent in Sivasagar and 66 percent estates in Udalguri reportedly punished workers for being late for work. The punishment is given in the form of wage cuts or temporary suspension from the day's work. In contrast, 44 percent in Sonitpur, and 50 percent estates in Nagaon punished workers on account of late report for work (see Fig 5.1).

Figure 5.1. Punishment If Late at the Workplace



Source: Fieldwork

Insecurity and Fear of Losing Job

The respondent mentioned that when a worker gets diagnosed with a serious illness and seeks the estate's help, he may get cut off from work. When the company feels that they cannot pay for such serious and expensive treatments, they strike his name off as a worker. '*Naam kati diye jodi company poisa dibo nuare, belegok kaam tu diye*'. The respondent means that if the company can't pay for the treatment they dismiss the worker from his job and gives the work to someone else. In such cases, the dismissed worker may get evicted from the colony and be replaced by new workers. There has been

eviction because of the absence of a permanent worker in the household. It is necessary to have a permanent work in the household to gain access to the estate quarters.

Bikram Nag (name changed) from Estate-22 (Tinsukia) was suffering from tuberculosis and was in a bad condition but he still had to go to work. Budram, due to his bad condition, should have been given '*halka kaam*' (lighter job) but he was made to do regular work. He couldn't continue to work equally like the other workers and sought medical treatment from the management. He was immediately put off from work and was never taken back. At the time of our meeting, it was one year since he was put off. They never called him back to work and he remained jobless henceforth since he couldn't get any alternative job.

Children and the Elderly

The Plantation Labour Act, 1951 restricts employment of children below 14 years of age in any plantation but adolescents between 15 and 17 years are allowed to be employed on the receipt of a fitness certificate from an authorized medical officer. However, many young workers do not know what a fitness certificate entails and its legal consequences. Their need to work is so desperate that parents alter the date of birth of the child to bring his age to a legal one, as mentioned by the brother of a child labourer in Estate-41 (Sonitpur). However, he mentioned that his brother, who is a worker below 14 years of age, wasn't assigned heavy work and works as a guard (*chowkidar*) at the garden.

Children are not seen working in the factory or plucking leaves at the garden. Nonetheless, they are seen engaged in other activities such as in the plants' garden. For instance, in the case of Estate-13 (Sivasagar), children of 13–14 years are seen working at the nursery and also in the manager's bungalow. These places are not visible.

In some tea estates such as in Estate-27 (Jorhat), the retired permanent workers are appointed as temporary labour with no PF facilities. There are almost 69 workers who are working on temporary basis since 2018 after their retirements in Estate-27 (Jorhat). One respondent at Estate-27 (Jorhat) stated that the management forces the workers to work overtime, though not necessarily against extra payment. According to him, 'if the work should be done by four people, they [management] will employ two, and will save the cost of two workers'. He gave an example of the work of a digger in the garden in Estate-27 (Jorhat). During the digging season, a digger has to dig from 15ft into the ground and sling pounds of mud from 15ft below. The same was reiterated by workers at Estate-23 (Jorhat). Such kind of workload affects the health of workers and also raises the question of occupational health hazards at the workplace. The workers, however, are not paid anything extra.

In many tea estates, the elderly population or the retired persons are employed as temporary workers without PF. In the case of Estate-8 (Dibrugarh), it was because the management couldn't release the PF amounts of the retired workers that it had no way out than to take them back into work. The rest of the elderly population lives distraught lives with support structure or rehabilitation from the estates while some have resorted to heavy alcoholism.

Safety and Risk at the Workplace

As mentioned, garden and factory are the workplaces in tea estates; conditions and safety measures taken in both these sites are important to discuss.

Garden

As safety measures, tea pluckers receive apron, a pair of sandal (not boot shoes) and an umbrella, whereas those who spray pesticides and are supervisors (mainly *sardars*) receive uniform. All tea pluckers across tea estates receive a sandal every year and other items are obtained once in 3 years. Estate-41 and Estate-42 (Sonitpur) do not even receive an apron. Women workers mentioned that during monsoon and extreme heat in summer, working in the garden becomes difficult. Umbrella provided by the estate is supposed to last for 3 years but actually it does for a few months. On the

other hand, workers who work in the factory are supposed to receive uniform, mask and boots. Workers both in the garden and factory reported that they receive the safety measures during auditing and once it gets over, everything is taken back.

Working at the garden is regarded as one of the toughest work especially during the monsoon season. The female pluckers have to stay in the garden for 8 hours at a stretch. The tea estates do not have toilets inside the gardens and this makes the female pluckers more vulnerable during menstruation. Cuts and bruises are common during digging and column seasons. Nena Kujur (name changed), a 27-year-old permanent tea plucker from Margherita Tea Estate (Tinsukia) had lost two of her fingers in an accident while working in the garden. She narrates, 'I did not receive any compensation and because of the accident my plucking has become very slow; I am unable to pluck more,' she said.

Workers do not get the necessary safety equipments to spray pesticides. In most of the estates, they do not receive gloves, boots or glasses which are necessary to protect them from the harmful chemicals that are being sprayed on the plants. In some estates, workers stated that they did receive a uniform for this purpose but due to heat and humidity, and its poor quality, they could not work wearing them.

Factory

According to Chinmoy Deka (name changed), one of the field managers of Estate-31 (Sivasagar), factory work is mostly regarded as men's work. One of the factories where we were allowed to visit was in Estate-34 (Sivasagar). Though the authority did not allow photography inside the factory, there were several notifications on safety measures put up on the notice boards inside one of which read, 'Do not touch the machines without taking safety measures', or 'Do not use cell phones while working'. Some of the respondents said that they receive safety equipment like gloves and masks before entering a particular section of the factory which requires protection, but not throughout the premises. In some estates like Estate-34 (Sivasagar), Estate-10 (Dibrugarh), Estate-26 (Jorhat) and Estate-2 (Dibrugarh), equipment is provided to workers before they enter the factory premises which they need to return later.

Some of the respondents in Estate-20 (Tinsukia) mentioned about a major incident where one of the workers injured his head while working in the factory during night shift. His family also did not receive any compensation for the accident. According to the management of the Estate-31 (Sivasagar), because of the risk involved inside the factory, the management divides the workers into shifts. The factory is also divided into two zones, namely, low risk zone and high risk zone. This practice is common in tea estates. When asked about certification agencies which check on the necessary safety measures for workers inside factories, some workers seemed to be unaware.

Occupational Health Conditions

Indicators for occupational health conditions have been classified as per the guidelines outlined by WHO which are listed in the Table 5.1 (WHO 1995, 2001). Based on worker's responses, conditions have been presented. Physical work stress and fatigue results in back pain, tiredness, eye problem among others. The share of workers who reported back pain and tiredness from fatigue are 76.6% and 57% respectively (see Table 5.1). Among workers who suffer back pain and tiredness, the share of females (80% and 59% respectively) is more than that of males is (73% and 54% respectively).

Another occupational hazard emerges from exposure to extremes of weather and climate change. Various effects have been listed that include dehydration, heat cramps, heat exhaustion, heat stroke, and fever among others. The share of workers who suffer from fever is highest (46.2%) followed by dehydration (44.7%). In both of these, share of females outstrip that of males (see Table 5.1).

Around 45% workers reported suffering from water-borne diseases such as diarrhea, typhoid, and jaundice, among others. The share of female workers is almost equal to that of males in case of jaundice while in all other categories, the share of females is less.

Workers also reported how dust, fumes, particulate matters cause a number of health issues including irritation in the eye, asthma, cough, cold or allergic reactions. The share of those who suffer from cough and cold is the highest (34%) followed by irritation in the eye (18%).

Use of pesticides has health repercussions including birth defects, Alzheimer, Parkinson disease among others. However, major share of workers denied any side effects from pesticides use. Similar trends are visible in case of vector borne diseases. The share of workers who reported no risk from vector borne illnesses is nearly 75%. Those of who reported exposure to such illnesses listed insect bites, snake bite and malaria as the chief sources of health risks. Working with machineries also result in occupational hazards, including several injuries and their share among workers is around 12%, cuts and bruises (4.31%) (see Table 5.1). Although workers did not report any hazard, they [workers] are exposed to pesticide and chemical as they do not use or rather not given any preventive safety equipment (see Pictures 5.1, 5.2).



Picture 5.1. Pesticide Sprayer without any safety equipment in Estate-41 (Sonitpur)



Picture 5.2. Pesticide Sprayers without any safety equipment in Estate-31 (Sivasagar)

Table 5.1. Occupational Health Hazards

Type of Health hazard	Sub-category	% of worker reported	% of female worker reported	% of male worker reported
Physical work stress, fatigue	Back pain	76.67	80.40	73.08
	Tiredness	57.06	59.60	54.62
	Eye	21.96	24.00	20.00
	Other	6.67	6.80	6.54
	No	17.65	15.20	20.00
Weather, climate change effect	Dehydration	44.71	50.40	39.23
	Heat Cramp	21.57	26.00	17.31
	Heat Exhaustion	19.61	18.40	20.77

	Heat Stroke	10.00	9.60	10.38
	Fever	46.27	50.40	42.31
	Other	3.53	2.80	4.23
	No	25.10	18.80	31.15
Water-borne diseases	Diarrhea	16.27	12.00	20.38
	Tuberculosis	18.43	14.40	22.31
	Typhoid	10.59	5.60	15.38
	Jaundice	30.59	30.80	30.38
	Other	7.25	8.40	6.15
	No	55.88	57.60	54.23
Dusts, fumes, gases, particulates effects	Irritation in eyes	18.24	15.20	21.15
	Breathing Tract	10.20	9.60	10.77
	Allergic Reaction	6.47	6.40	6.54
	Asthma	4.31	4.00	4.62
	Cough and Cold	34.31	39.60	29.23
	Other	6.86	6.80	6.92
	No	49.22	44.80	53.46
Pesticides related effects	Birth defects	4.31	2.80	5.77
	Parkinson	7.06	4.40	9.62
	Alzheimer	6.86	6.00	7.69
	Diabetes	6.67	4.80	8.46
	Other	8.04	9.20	6.92
	No	80.59	81.20	80.00
Vectors borne diseases	Insects	10.20	9.20	11.15
	Spider	2.35	2.00	2.69
	Scorpions	2.35	1.60	3.08
	Snake Bite	6.86	3.60	10.00
	Malaria	9.41	7.60	11.15
	Dengue	4.51	2.40	6.54
	Other	5.69	8.00	3.46
	No	75.49	76.00	75.00
Machinery	Injuries	12.94	9.60	16.15
	Cuts and Bruises	4.31	1.20	7.31
	Other	6.27	8.80	3.85
	No	79.61	82.40	76.92

Source: Computed by researchers

Women in Tea Industry: Struggle, Time and Everyday Contestation

Everyday Struggles

The present study reveals that job security, access to paid work and rights over access to house are not enough to indicate whether a female worker within a household and an estate can be considered empowered. The gendered division of work shows that the work burden of female workers is higher than the male workers in both public and private spaces. Madhabi Kahar (name changed) from Estate-32 (Sivasagar) said most of the adolescent girls have to stay at home if their mother is a permanent worker in the garden. Dropping out of school at the age of 12 is indeed common in most tea estates.

In tea gardens like Estate-14 (Tinsukia) and Estate-1 (Dibrugarh), pluckers carry firewood while returning back home from the garden. Rita Nagbangshi (name changed) from Estate-1 (Dibrugarh) implied that female pluckers have to go for work after undergoing domestic violence the previous night. 'The psychological stress borne by the pluckers is very high inside the gardens. This is one of the primary reasons why female pluckers also drink. Most of us do not have time for recreational activities,' she added. In the estates like Estate-30 (Sivasagar) and Estate-39 (Golaghat), incidents of rape were reported although primarily in the media. Hamid Hussain (name changed), a worker from Estate-30, explains the reason: 'It's because of liquor consumption'. Mita Kurmi (name changed) from Estate-9 (Dibrugarh) mentioned that the cost of alcohol is not less which affects the overall household expenses. After *Sulai* was banned, the workers (mainly male workers) bought liquor from the wine shop which is more expensive than the local liquor. This has been discussed at length in the next chapter. Rita from Estate-9 (Dibrugarh) mentioned '... if a worker receives the amount of wage of RS. 167 and spend RS. 90 every alternate day, how can one run the family or save money?' She added, due to alcohol consumption, many of the children have to face the hardest burden of the families. 'As a result, they quit school and start to work either in the garden or at the manager's residence,' she added.

Unpaid Care Work and Time

One of the respondents from the Estate-27 (Jorhat) stated that the pluckers have a hard time in their estate since their work is time-bound. In other kinds of work in the estate, the worker can get off early from work but a plucker cannot. There is no wage quota for a plucker in a day. They have to work till the shift ends. Women in the tea estates work much more as compared to men. They do not get any time for recreation as they are busy with the household chores when they are not working in the garden. Typically, a woman in the tea garden wakes up around 4–4:30a.m., and then she cleans the house and around 5–6a.m. prepares food for the day, and around 6–7a.m. gets ready and leaves for work. Their work in the garden starts at 8a.m. and it gets over by 4p.m. but they reach their home at around 5p.m. after completing weighing of the plucked leaves. After coming from their work they freshen up and then start preparing for their dinner. They have their dinner between 8–9p.m. and sleeps around 10p.m. Thus it was noted that the women are the ones who work much more and also do not have any time for recreation. They need to take care of the elders and the kids and also work in the garden. Green leaves deposit centres are far away from the workplace in the garden, for instance, in Estate-14 (Tinsukia) and Estate-12 (Dibrugarh), among others. As a result, women workers working at the garden reported about the back pain they undergo while carrying heavy bags.



Picture 5.3. Women going to work

Time Management and Punishment

The rigidity about reporting in the gardens on time, i.e., by 8a.m. is one of the significant observations; failing which they are not allowed to work and are marked absent. Many women complained that if they do not reach by 7:30a.m., which is the stipulated time, they are not allowed to enter the garden and are marked absent and their ration gets deducted. Even one minute of delayed entry is not tolerated by the management. However, the time of return is not fixed. Workers finish their work by 4 p.m. and then go for the measurement of the volume of their pluck. Measurement is a time-consuming process and starts after the arrival of the manager. Sometimes the manager is not present on time and the women return around 6-7p.m. A woman from Estate-14 (Tinsukia) stated, 'If I reach at the garden late by 15 minutes, the management marks me absent for the day and deducts 1kg of rice and 1kg of wheat flour from ration.' She mentioned that she receives 3kg rice and 3kg wheat flour after working for 12 days, but 1kg each of the food grains get deducted if she is late for 15 minutes. She questioned on the logic behind such an attitude of the management. Further, she added that no rule on such measures is mentioned anywhere. When asked what changes she would like to bring she stated, 'time for women workers'.

Work and Women: Hope, Coping and Managing

Quest for Equal Opportunity, Empowerment and Dignity

As mentioned, women are mainly engaged in the garden whereas men work in the factory. However, during the peak session, women are also engaged in the factory. It is important to mention here that women work in the low risk zone in the factory, mainly at the sorting, packaging units of the factory. One of the temporary women workers from Estate-41 (Sonitpur), who works both at the garden and factory, and another woman worker from Estate-49 (Udalguri), who works as permanent worker at the factory, shared similar opinion. Both of them mentioned that they prefer working at the factory.

Working inside the factory gives them dignity and also working inside the factory is a matter of prestige. They expressed that they can do similar work like their male counterpart. In fact, one of them mentioned that women are good at packaging and sorting units.

Rewards and Motivation

Roma Paik (45) from Estate-41 (Sonitpur) reported that in 2005 she plucked 175 kg leaves in one day. The manager was pleased and gave her a wrist watch and in the following years she was also given a saree, light, etc., a cash reward of Rs 101 in 2005, and also promoted as sardar in that year. She said that in 2005, the incentive was 30 paisa per kg of extra leaves plucked. She was motivated by the management and also used to receive good bonus from additional plucking. She mentioned that she is not only efficient in plucking leaves but is also better than her male counterpart.

Female Sardar and Her Relations with Women Pluckers

The scene at Estate-31 (Sivasagar) was rather harmonious. There was a female sardar who conducted and monitored the day's work. She maintained a friendly relationship with the female workers. She gathered all the workers at one spot so that we could have an interaction for a few minutes. Unlike other sardars, she spoke at length about the discrepancies in the management of the estate constantly pointing out how it could have been better. But most times, she blamed the government for not providing adequate facilities. While she spoke passionately for the workers of the tea community her criticisms were pointed more towards the government. During the interaction, female workers mentioned how the distance from their labour line to the garden area is too much for them to cover on foot every morning. While it depended on which part of the garden one is stationed for the day, on an average, a female worker has to travel 8–9 km on foot every morning. When asked for the sardars's opinion on it, she seemed to empathize with them. However, when asked if there should be some kind of transport facility on behalf of the management, she failed to acknowledge such a necessity and opined that the distance is still manageable.

In most gardens we visited male sardars conducting garden work where the power dynamics within genders could be seen. However, the female workers of this estate under the female sardar had a certain sense of happiness. While they hurried back to their plucking after their post-lunch interaction, they sang their '*Patta Tula Song*' (song sung while plucking) and the sardar joined in with a few lines too, as stated by the workers. It is particularly interesting how gender mediates the relation between the sardar and workers. When both are women, there is a sense of belongingness, a degree of comfort and camaraderie even within this relation largely characterized by fear and discipline. This emanates from a sense of security that the female sardar will listen and empathize with their problems, although she may or may not address it. The happiness at work is revealed when workers sing songs while plucking leaves.

Since most women pluck leaves in the garden, the female workforce is considered the most important part of the tea industry and they are overworked in most of the estates in Assam. The work load of a women worker is divided between the garden and the home. Since all women workers are involved in unpaid care work, they work endless shifts. The household chores are almost never shared by the male counterparts due to the clear divisions in the different domains of work. In estates where, the *hazira* (wage rate) is not fixed, female workers suffer more since the work continues till the shift ends. Work in the garden is gendered. While there are few opportunities for males, for the females, options in the garden are just limited to plucking. The time-bound restrictions are similar for everyone. As a result, female workers are constantly put under defaulters because of bad time management. The consequences at times result in suspension from work, wage cuts, deduction from ration benefits, etc.

Despite hardships, workers, mainly women, are found to be emotionally attached to work as well as with the plantation. Working for the company gives them pleasure and makes them feel empowered. Though job mobility is hard within the hierarchy, few still believe that they will find better positions in the future.

Living Conditions

Houses in Labour Lines

According to the Plantation Labour Act 1952, it is the duty of the employer to provide and maintain housing accommodation of the workers. The Assam Plantation Labour Rules 1956 sets the standards that are maintained regarding accommodation and the terms and conditions of occupancy. However, in some of the tea estates such as Estate-4 (Dibrugarh) and Estate-8 (Dibrugarh), housing facility is not even provided to workers. The APLR specifically mentions under the section that concerns house maintenance that it is mandatory on the employer's part to bear the expenses of maintaining the accommodation annually. It mentioned that 'The employer shall get all the houses lime-washed at least once every year and all the doors, windows and other wooden structure varnished or painted once in three years' (Assam Plantation Labour Rules, 1956).

The workers in Estate-3 (Dibrugarh) state that the houses have not been repaired since the last two to three years. During rainy season, they have to use umbrellas even inside the house. The scarcity of space inside the house is another major problem for most of the households in the labour lines. Irrespective of the size of tea estates, the procedure and time taken to repair houses is a long one. If workers report to the company that their house needs repair, then it takes almost a year to get it repaired. But most of the estates workers asserted that they have not received any help from the company for upgrading their living conditions.

One of the permanent workers in Estate-25 (Jorhat) for 18 years has not yet received a pukka house from the management. Houses of most of the permanent workers in Estate-25 are kutchha. The garden authority in Estate-24 (Jorhat), similarly, did not take the responsibility of the houses in the labour lines. There are two types of labour lines in the tea gardens including the lines where permanent workers have quarters and the bastis which are constructed by the workers. For instance, in Estate-27, the workers constructed their houses and did not receive any compensation from the management. On the contrary, Estate-29 provides some of the construction materials such as the tin for the roof to the workers who reside in the bastis generally outside the labour line. Biren Das (name changed) from Estate-39 (Golaghat) said, 'We have to continuously press the management for the renovation of the houses.'

There is a consistent debate on the construction of concrete houses inside the labour lines. The workers of Estate-33 (Sivasagar) reported that the management does not allow building of pucca houses in the labour lines. Most workers do not own *myadipatta* (land outside the tea estates). So, they need at least one permanent labour from the family to ensure their right to the quarter. This is also the demand that trade unions are claiming in recent times. Given that families of the tea garden workers are expanding, the scarcity of space is a major problem for the workers. Because of shrinking private spaces, the females have lesser space than males, which affect their sense of hygiene, safety and comfort. Some of the workers in Estate-39 (Golaghat) and Estate-13 (Dibrugarh) still prefer to live in basti (illegal settlement outside the estate) and work from outside the estates.



Picture 5.4. Broken House of Permanent Worker (Estate-2, Dibrugarh)



Picture 5.5. House of permanent workers (Estate-10, Dibrugarh)



Picture 5.6. Kutch House of a permanent worker in Estate-47 (Cachar)



Picture 5.7. Housing Conditions of a permanent worker in Estate-39 (Golaghat) who is working since last 18 years. Several complaints were made for repairing the housing.

Toilet Facility in the Labour Lines

Another major problem in the labour lines is the scarcity of toilet facilities. Some households use toilets which are a decade old, making small improvements on their own. Hence, there is open defecation on the lines. The labour lines do not have housing as well as toilet facilities under any government scheme. Under the *Gram Sadak Yojana*, only one road has been built so far in Estate-13 (Dibrugarh). Open defecation was practiced by workers prior to October 2018 since most toilets in the households were either broken or were kutcha in Estate-25 (Jorhat). But few households have now received toilets from ONGC-funded CSR project. It was spotted that households still use a stream that runs through the estate to wash their clothes/utensils. In Estate-27 (Jorhat), the roads in the labour line have remained kutcha for 10 years now but there is no development undertaken by the estate yet.



Picture 5.8. Toilet of a permanent worker's house (Estate-8, Dibrugarh)



Picture 5.9. Inside the *Kutcha* Toilet of a permanent worker (Estate-20, Tinsukia)

Electricity

Electricity is one of the major problems faced by the workers. From mid-2018 onwards, the State Electricity Board, Government of Assam, started providing electricity in the estates. We have also observed that electricity meter boards are installed in many of the houses. Some of them are functional and some are yet to be. Prior to the electricity provided by the state electricity board, the same was arranged by the tea estate and a flat rate for the electricity was deducted, which was way higher than the current rate. Workers complained against the rate of electricity and also the way the meter was noted by the officials. Workers mentioned that officials used to visit during day time at the household to note the monthly electricity consumption when workers worked at the garden or factory. Electricity was provided only from 6 p.m. in the evening to 6 a.m. the following morning. Electricity bills are still getting deducted by the tea estate in two estates from our sample (Estate-13, Dibrugarh and Estate-17, Tinsukia). In Estate-23 (Jorhat), there has been no electricity in the labour lines for 18 years. In 2019, the government provided electric lines in the labour colony but it is yet to be functional.

Access to Drinking Water

There is severe water problem in each tea estate. The habit of filtering water is almost absent in the gardens except in Estate-23 (Jorhat), Estate-34 (Sivasagar) and Estate-39 (Golaghat). Dharani Naik

(name changed), a sardar from Estate-31 (Sivasagar) stated that workers need to pay an amount of Rs 300 per month to the estate towards water provided by it. In case of Estate-27 (Jorhat), workers need to pay Rs 60 per month. Renu, a female worker from Estate-34 (Sivasagar) stated, ‘Water provided by the government is good. But we do not have time to stand in the line and collect water from the government taps. The timing of government water supply is from 7.30a.m.–8.30a.m. We need to be at the garden by 7.45 a.m.’ She also stated that it is not possible for all the workers to pay for the pipelined water provided by the estate. In the gardens like Estate-32 (Sivasagar), Estate-27 (Jorhat), and Estate-25 (Jorhat) which are located along the inter-state borders, the government water facility is poor. Instead of depending on pipelined water some of them use water from wells dug up by them. Because of the poor water facilities, diseases such as jaundice and typhoid are common in the labour lines. Estate-13 (Dibrugarh) faces the worst cases of jaundice as per the information provided by workers. Not only poor drinking water but also less amount of water becomes a problem for the female workers to manage the kitchen. Misha (name changed) from Estate-20 (Tinsukia) reported that during menstruation, most women use cloth and reuse it. This is also highlighted by Maya (name changed) from Estate-22 (Tinsukia). A lot of water is required to maintain health and hygiene.

In case of Estate-13 (Dibrugarh), one tube well is being shared by 45 households. Few households can afford the cost of owning tube wells. However, water runs out in the dry season and its quality deteriorates making it unfit for any use. Due to its high iron content, it tends to be almost yellow in colour. Jaundice and cholera are prevalent across the lines in Estate-13 (Dibrugarh) and the doctors have repeatedly advised not to consume the water available in the locality since it is contaminated; however, the households have no other alternative.

It was observed that almost all the estates provide water facilities in their labour lines but most of them were non-functional. The common pattern in every estate is to have a tube well for 4 houses but seldom have these seemed to be operating. Most localities said that they just had 4–5 tube wells in their locality which are functional (provided by the estate). Almost all the houses in the lines have made their own provision for water by digging up tube wells for their personal use. Cost of installing hand pump is expensive, which workers manage either on loan or from the annual bonus money.



Picture 5.10. Source of drinking water (Estate-20, Tinsukia)



Picture 5.11. Drainage system in Estate-12 (Dibrugarh)

Discussion and Conclusion

The chapter lays a cross-sectional analysis of the workforce in the selected tea estates. Every tea estate maintains an occupational hierarchy and divides its workforce into various categories, which are strictly separated from each other in terms of type of work and benefits provided by the estate.

The pyramid structure shows a top-to-bottom transfer of power and depicts a centralised system of management. The bottom rung of the structure is occupied by the workers which are further divided into permanent and temporary. It is important to note that the categories apart from the workers have assigned duties in the estate and maintain homogeneity in the kind of work they indulge in the factory or the garden. However, the garden workers are involved in a variety of work which includes pruning, digging, plucking, cleaning mud and waste, cutting trees, clearing land, weeding, repairing of canals, and domestic work at the bungalows of managers. The category doesn't specify the skill and the extent of one's work. Hence, it is plausible that a plucker (woman) gets shifted to work in the manager's bungalow and further transferred to some other work, for example at the nursery.

It is commonly understood that there is no hierarchy among the tea workers because all workers are regarded as tea garden workers and the management deploys them as per their needs and wishes. In the latter part of the report, it is highlighted that majority of the workers feel that there is no difference between a plucker and a factory worker. The rest believe that there are differences in work quality and environment, duration of work and bonus benefits. The main hierarchy remains between the permanent and the temporary workers, derogatorily known as *faltu* workers. The employment period differs in the both the status of work along with vital benefits such as ration, housing, firewood, etc. Around 25 percent of the respondents are working as temporary workers in the selected estates and are receiving benefits that are not equal to the permanent workers. Despite having a common desirability among the workers to gain permanent status and work on a regular basis, plantation owners have failed to reduce this increasing number of casual workers or 'non-residential' workers. Most workers' perceptions meet at the point that the management do not want to bear the additional welfare costs of appointing permanent workers; hence, casual work is encouraged. The growing number of temporary workers also reflects on the unavailability of secondary work or an aversion towards it. Such a pattern is more prevalent among the younger generation, being caught in the flux of unavailability of employment opportunities, increasing responsibilities in the family and apprehension towards the estate work. Further, the increasing pattern is rooted in the generational dependency on tea work, isolation and exclusion from other forms of work.

The gender composition among the workers has been reported to be equal with 51 percent male respondents and 49 percent female respondents being engaged in tea labour in the selected estates. However, it is important to note here that work at tea plantations is gendered. The most important and delicate work in the tea garden is plucking. It requires a skill which has not yet been mechanized in Assam. It is commonly said by the workers that it is the level of plucking that determines the quality of tea. In all the selected tea estates, it was found that only women are preferred to be employed as pluckers while men are employed in the factories. The division of work and skill on the basis of gender is embedded in the structure which results in the gendering of work itself. The system reduces the mobility of work and diversity of employment opportunities creating a gendered lineage of skill and dependency too.

The low literacy rate among the female workers is indicative of this gendered idea of work. Female workers are encouraged to master their plucking skills and indulge in family life. The tea worker's community is a reflection of the larger community we live in which is a deeply patriarchal one. Hence, female workers in the tea estates too are involved in both paid and unpaid labour since they have to balance both work and family life.

In the age distribution report, a high concentration can be seen in the age bracket 30–40 years (27.2 percent) and 40–50 years (24.1 percent) and drastically falls to around 1 percent in over 50 categories due to the level of physical stress involved in the tea industry. Adolescent boys are more encouraged to work when they reach the legal age unlike female workers who get indoctrinated slowly into it. In the age bracket 30–40, the percentage of male workers outstrip females due to the familial and motherhood burden that they have to go through which restricts their work life as a tea worker.

The wage payment or cash benefits adhere to the hierarchical categories set by the plantation owners. Workers are paid weekly or monthly on the basis of their grades. Wage rates vary across tea estates and can be categorized on the level of ownership. It is perceived among workers that salaried job is better off than the daily wage rate worker. The perception is intricately tied with dignity and embedded in the power structure created by owners. The lower strata (the daily rate workers) tend to believe that the salaried workers are much closer to the management in terms of power and accessibility. The relationship aids a worker to avail benefits or create additional benefits for their family in terms of medical reimbursements, house repair, sick leave, etc.

The workers across the estates have a less than basic knowledge about their weekly or fortnightly wage calculations. They are unaware of the deductions and incentive additions in their pay structure because of their lack of education and awareness. Most workers survive on the hand-to-mouth system where they spend their wage on the weekly expenditures mostly during the weekly market leaving out few for saving purposes.

There is a difference between the actual wage and the wage received by the worker due to deductions made for availing non-cash benefits such as ration, firewood, tea, etc. and additional benefits such as medical, electricity, water, union fees, etc. In the process of calculating the actual wage, as the report would suggest, it was difficult to ascertain the deductions and the categories in which they were arranged. Most workers have no knowledge about the deduction criteria and few estates provide pay slips as evidences of the deductions. In the report it is found that workers in 15 out of 35 selected estates could produce their pay slips. The pay slips were inadequate as most of them did not mention deductions made on behalf of union fees, firewood and additions such as bonus and incentive amount. Over 50 percent workers do not receive pay slips against their weekly or fortnightly payment. The deprivation of pay receipts is a major problem in most of the tea estates. It alienates the worker from his/her work by not being able to ascertain the value of one's work. While debates have arisen on how it is a violation to deprive the worker, if one has the right to know the actual worth of one's work, few workers consider the benefits received to be a kind of patronage. The common perception goes by the saying 'We get what we deserve'. The data mentions the various wage rates found across the tea estates. The wage received by the workers is inclusive of the incentive amount for bonus time/plucking. However, the bonus amounts are not standardized at all and vary across tea estates.

The amount deducted for ration benefits vary across the estates. While some estates do provide for the workers' dependants, some do not. The worker's ration quantity depends on the number of days s/he has worked in the past 6/12 days. The ration items, quality and quantity vary across tea estates and the worker's status, i.e., permanent or temporary. While most of the tea estates provide rice, wheat and tea as ration, there are few estates that only provide rice. The inconsistent rationing system across the tea estate raises alarms on the nutritional aspect of the worker's diet. It raises serious inadequacies in the wage structure that do not pertain to international labour standards and living wage expectations. This will be discussed in detail in Chapter 6.

About 7 percent in Dibrugarh and 4 percent in Tinsukia reported that electricity bill is deducted from the wage. Other estates across districts reported no deduction of electricity from wage as they paid the state. However, the consistency in electricity is dubious in nature as most labour lines suffer from power cuts and low voltage lines.

The deduction and its procedure made under provident fund are inconsistent across the tea estates. While there are tea estates that deduct PF amount from the wage, few don't. As mentioned, 22 percent in Cachar, 21 percent in Dibrugarh, 23 percent in Golaghat, 22 percent in Jorhat and 20 percent in Nagaon reported no deduction from wage towards PF contribution. The PF amount to deduct after a week or fortnight depends on the number of days the worker has attended work and if s/he has put in extra work to avail incentive. It is generally around 12 percent of the total wages that is deducted after every 6/12 as contribution towards the PF account from the worker. But the workers remain unaware of the actual deduction under PF and it is hard to understand that from the pay slips. The PF deductions are not made for the temporary workers in 5 estates out of 50. The mechanism to receive the PF amount is extremely tedious, as reported by many respondents. There have been instances of

provident fund fraud where the amount accumulated over years has been used by the company in other business ventures and incurred huge losses.

The amount of firewood varies across different estates. The most commonly used term is *thak* (which means a stack of wood which is 6 ft. high and 6 ft. wide in dimension) but most of them are unable to give the exact measure of firewood they received from the estate. It is difficult to measure but it lasts not more than 4 months. Moreover, all workers do not receive a whole stack or even half or quarter of a stack per year and rely on foraging from the garden area which is punishable in most estates. Most respondents said that the firewood is provided during a particular season when old trees are cleared to make way for new ones. According to workers, this amount is less; 1–2 bicycle loads of firewood would not suffice more than a month.

The workers have voiced out a series of issues which hinders them from having a basic quality life. Their demands aren't taken into consideration by the estate authorities, and only fulfilled under certain conditions. Few estates provide building materials to the workers in lieu of repairing while the others provide only labour. Workers of Estate-3 (Dibrugarh) have reported that their houses have not been repaired since the last two to three years. And, it's a long process before the authority considers their plea for renovation. Two other problems confront the movement, action and emotions of the workers: scarcity of toilet facilities and space inside the house. Most of the workers do not have proper living facilities. They either put up in a quarter (permanent workers) or in *bastis* (temporary or contractual basis). But their security is threatened because most workers do not own *myadipatta* (land outside the tea estates), as a result of which they risk of losing their current place of stay under questionable situations. So, they need at least one permanent labour from the family to ensure their right to the quarter. The issue of space highlighted above victimizes the women in the household. Their sense of privacy and hygiene is jeopardized which brings difficulties during menstruation and pregnancy to the fore. There is a major open defecation problem across the estates since both the estate and the several government schemes have failed to provide usable concrete toilets in the majority of the estates.

Apart from poor living conditions, the workers do not have access to safe drinking water. The habit of filtering water is only practiced in three estates—Estate-23 (Jorhat), Estate-34 (Sivasagar) and Estate-39 (Golaghat). It is demanded of the workers of Estate-39 to pay a hefty amount of Rs 300 per month to the estate towards water provided by it. But the amount is considerably low in Estate-27 (Jorhat) with the workers paying Rs 60 per month. Apart from diseases like jaundice and cholera, the women in these areas face problems of hygiene. In Estate-13 (Dibrugarh), one tube well is being shared by 45 households. Water facilities are provided in most labour lines but practically the effort has been rendered useless as most of them were non-functional.

The workers lack a definite say in the system. Managers often misbehave and threaten their employees. There is no promotion mechanism at work and an ATCL garden rule of no *badli* system. Workers have been languishing under the same job profile for the last 15–20 years. The workers have no role in the audit process. They are often made to believe that the company is running at a loss. Because sometimes the workers are not paid on time, they have to resort to other menial tasks to secure their livelihood. The overall condition of these garden estates is not good to begin with. There are no employment opportunities for students within this estate. There are many graduates and higher secondary pass candidates who are eligible for staff jobs in the estate, yet the jobs are either kept vacant or given to the people who are from outside. The managers often maintain a social distance from those on the lower rung. The workers are restricted from sharing their pleas or any other requests directly, thus, they often have to depend on the labour welfare manager or the secretary. No proper sick-leave has been issued by the management. They are rather ordered to report thrice a day to the primary healthcare.

The monsoon season is not looked upon favourably by those working in the garden area (one of the workplaces in the tea estates, apart from the factory). Female pluckers suffer the most due to a number of issues. The scarcity of toilets (basic hygiene and menstruation woes) coupled with the once-in-a-time distribution of daily basic requirements (apron, umbrella, slipper; gloves, boots and glasses as

means of protection from harmful chemicals sprayed on the plants) subject these women workers to a state of discomfort and destitution.

Workers in the Abandoned Tea Estate

Some tea estates, mainly in Assam and West Bengal, are either closing down or being abandoned. We have come across one such case from Golaghat, namely, the Bogidhola Tea Estate. Working and living conditions of abandoned tea estates are miserable in terms of social, economic and livelihood securities. The case of this tea estate has been presented below to show how these workers are surviving and the issues that they face when a tea estate is closed. Two of the deviant cases of Prakash and Bablu (see Box 1) have been developed based on responses from the workers and also from newspaper articles.

Box 5.1. Workers' Conditions and Survival Strategy: Case of Estate-36, Golaghat

One of the estates, Estate-36, Golaghat in the sample is abandoned. On 13 December 2017, the workers of the estate protested against the owners demanding their long-standing Provident fund, Gratuity and Bonus money which have not been paid by the owners. The workers were protesting in front of the owner's bungalow when the owners opened fire on the workers and amongst them 14 were injured, out of which 9 were hit by bullets. The owners Sudhir Roy and Samir Roy (brothers) were arrested on the same day. Later on 3 February, district administration declared lockout at Bogidhola Tea Estate and since then there is no work. However, workers reside inside the estate.

The conditions of the workers in the estate have become bad as they struggle to earn two meals per day. Since the workers were dependent on the estate work extensively, it has become very hard for them to search for alternative sources of livelihood. They are deprived of all other facilities such as ration, medical allowance, etc., which they used to get from the estate. The workers have adjusted themselves to various sources of livelihood like daily wage labour, work at private gardens, etc.

One of the respondents Prakash (name changed) who works as a daily labourer (like most of the men of this estate) stated that it is very difficult to get regular daily work; many a times they have to come back without work and earning. Further, he mentioned that since Bogidhola is located on the outskirts and is 21 km away from the main town, it is very difficult to find regular work and going daily to the town becomes a tough task along with the uncertainty of not getting work on that particular day.

Majority of the women are working in the nearby small tea gardens where they pluck tea leaves on a daily basis. The amount of wage they receive varies from RS. 110–130 on a daily basis. They do not get any other additional benefit as they used to get in their own estate like ration, tea, etc. The wage rate is fixed for daily workers and here too getting regular employment is uncertain.

Another respondent Bablu (55) (name changed), is not able to see properly through one eye due to cataract. He works in a stone quarry which is located in the borders of Nagaland and is 22 km away from their estate. They walk daily to their work place and it takes 2 hours to reach their destination. There are some others too who goes with them to work there. Bablu mentioned that commuting becomes difficult for him because he has to get home before dark because of his eye condition. He often has to cover that distance at a fast pace as he suffers from low-visibility at night. He has not been able to access medical help because the hospital has been shut down and abandoned. When the hospital structure was visited there were animal excreta lying on the floor of its rooms. He mentioned how he suffers more because of his poor housing condition. On rainy days, they cannot sleep at all as rain pours inside through the holed roof. 'We sit through rainy nights', he added.

Due to the bad condition of the estate many young boys have migrated outside the state looking for work. There are young boys who have migrated to Bangalore to work in a marble tiles production company. The respondent could not tell about the wage rates prevalent in such types of work.

Source: *The Telegraph*, 31 December 2017

Lack of Government Intervention

Workers mentioned that the government should look into the matter or rather intervene and try to improve the conditions of tea labour. The following descriptions not only project instances of extreme vulnerability but also raise questions on basic rights and meaning of the work in this industry. The current situation of Estate-36 (Golaghat) is a case of negligence of the government towards the plight of workers. The estate is closed because of the conflict between the management and the workers. The clash arose due to the demand for rations by the workers. In other words, the conflict is due to denial of basic rights at the workplace and also of a worker. The situation went out of control when the owner opened fire on the protesting workers that critically injured two of the workers. Since then, the estate is closed and none from the management has ever visited the estate. One of the permanent workers from this estate, Amol Teli (name changed) said, 'If demand for ration is a crime, violation of our rights is a more serious crime'. The workers are also disappointed with the government who did not make efforts to negotiate with the management on behalf of the workers and did not take any initiative to reopen the estate. As an alternative source of livelihood, most of the male workers are working as daily wage labourers and some are working in a Stone Quarry in Amrungchand, 22 km away from the estate and due to poor communication, they [workers] need to walk their way. On the other hand, the women workers in the estate are working as casual worker in nearby private tea estates at a daily wage rate of Rs 130. In the case of Estate-37 (Golaghat), there has been a change in ownership of the estate. However, workers are not aware about the terms of agreements between the new and old owners. Continued protests emerging from the workers' demands for payment of PF/gratuity, resulted in closing of the estate from 2004 to 2008. The workers also reported how the union failed to resolve the protests and one worker, Mohd. Hussain (name changed) (30) from Estate-37 who holds a key position in Cha Shramik Mukti Sangram Samiti from Estate-37 (Golaghat), reported that the union representatives are involved in corruption. They make profits from the workers' income instead of speaking on behalf of the workers. However, continuous protests by workers in the estate resulted in a raise of the wage rates. The following success cases of workers' self-bargaining can be highlighted on the account of wage increment. In case of Estate-37 (Golaghat), the owner was forced to increase 17 percent wage along with 20 percent bonus from 1 August 2010. However, after revision in 2010, there is no further change in wage payment.

6

Socio-Economic Insecurity and Vulnerability

The study intends to examine work and working conditions from the decent work perspective. Looking at indicators of decent work outlined by ILO such as income levels, rights at work, level of entitlements and welfare benefits, workers' participation in the trade union, social security, standard of living and working conditions of the plantation workers, there are differences and gaps between the prescribed entitlements, and what actually are required. In our study, we analyse workers' wage gap, household income–expenditure gap, income inequality at household levels, nutrition deficit level in terms of per day per capita calorie intake. Identifying gaps and variations at different levels helped us in understanding plausible direction towards bridging the gaps and further to recommend what decent wage should be for the plantation workers in the concluding Chapter 7. From the narratives presented in Chapter 5, we understood that the problems of plantation labour are multifaceted and are associated at different levels.

Besides differences and gaps, in this chapter, we have tried to find out the various forms of insecurity that are faced by the plantation workers across age groups, ethnicity, and gender. Insecurity in various forms pushes workers into vulnerability and leads to precariousness. Socio-Economic Security Programme of the ILO was established, as part of an institutional effort to promote the concept of decent work (Standing 2002). Socio-economic security is conceptualised based on 7 basic forms of work-related security relating to the labour market,⁵ employment,⁶ job,⁷ work,⁸ skill reproduction,⁹ income¹⁰ and representation¹¹ (ibid.: 441–42). Drawing from the ILO's concept of socio-economic security, we examine work-related insecurity that is subsisted in the tea plantation. Five out of 7 indicators of socio-economic security are relevant to plantation labour based on the nature and types of work. These are: labour market, work security, employment, income and representation securities, are parallel to the ILO's conceptualisation of socio-economic security (ibid.). In addition, two securities such as (1) security related to occupational health and (2) welfare provided by the employers in accordance with PLA 1951 have been considered. Therefore, the securities that are considered in the study are: (1) occupational health security at workplace (additional), (2) work security with proper safety measures (in correspondence to work security), (3) economic security due to state-assisted social welfare policies (in correspondence to labour market security), (4) basic welfare security provided by the employer as per the PLA 1951 guidelines (additional), (5) employment security with status and nature of work (in correspondence to employment security), (6) economic security with regular and stable income from various sources (in correspondence to income security), and (7) representation security with union membership (in correspondence to representation security). The details of the sub-indicators under each of the socio-economic security are presented in Table 6.1. Principal Component Analysis (a multivariate data analysis technique) checks which factor out of all the socio-economic security play a more significant role.

⁵Labour market security comprises adequate employment and work opportunities, through high levels of employment ensured by macroeconomic policy.

⁶Employment security includes protection against arbitrary dismissal, and employment stability compatible with economic dynamism

⁷Job security is linked to an occupation or 'career,' plus tolerance of demarcation practices, barriers to skill dilution, craft boundaries, job qualifications, etc.

⁸Work security is the protection against accidents and illness at work, through safety and health regulations, limits on working time, on unsociable hours, and on night work for women, etc.

⁹Skill reproduction security is opportunities to gain and retain skills, through apprenticeships, vocational training, etc.

¹⁰Income security is protection of income through minimum wage machinery, wage indexation, comprehensive social security, progressive taxation, etc.

¹¹Representation security is the protection of collective voice in the labour market, through independent trade unions and employers' associations and other bodies able to represent the interests of workers and working communities.

Construction of Socio-Economic Security Index for Plantation Workers

There are three methodological steps involved in calculating the 7 socio-economic indicators given the field data. At the first stage, the sub-indicators of each of the 7 indicators have been combined to generate the composite value for each of the 7 indicators. For instance, occupational health security at workplace condition is the first indicator that is considered as a socio-economic security of the plantation workers. Seven sub-indicators have been identified under occupational health security to check the occupational health conditions of the workers at the workplace. These are: physical work, weather and climate, water borne, dust and fumes, pesticides, vector borne, and machinery related. Each of the 7 sub-indicators has one or more than one sub-indicator (see Table 6.1 for details). For the physical work-related health issues, the workers were asked to reveal whether they have any one of the following health issues due to physical work: back pain, tiredness, eye irritation and other. To calculate the intensity of physical work related health issue, we have added the number of physical work related health issues (back pain, tiredness, eye irritation and other) that a worker faces. All the sub-indicators are considered to be having equal weight and this assumption helps us to generate the composite index easily. Thus, the indicator related to physical work is having a scale of 0 to 4, as there are 4 sub-indicators under this indicator. While 0 stands for no physical work related health issues, 4 indicates that the worker faces all the physical work related health issues mentioned above. The similar method has been used for the rest of the six indicators. Notably, 7 indicators are used with different scales, depending upon the number of sub-indicators.

In order to bring them to the same scale, we have used the simple average formula. The simple average formula helps us in converting all the 7 indicators into the same scale of 0 to 1. The scale remains negative but gives us a better way of comparing one indicator to another and helps in making composite index. After converting all the indicators into a similar scale of 0 to 1, the final Occupational Health Security at Workplace index is calculated, which is simple average of all 7 sub-indicators. The same method has been used to develop the rest of the socio-economic indicators. These three stages are elaborated in Table 6.1. The intensity scale for different socio-economic indicators is presented in Table 6.2.

Table 6.1.Identification of Indicators of Socio-economic Securities

(1) Occupational Health Security at Workplace							
Sl. No	Physical Work	Weather and Climate	Water Borne	Dust and Fumes	Pesticides	Vector Borne	Machine Related
1	<i>Back Pain</i>	<i>Heat cramps</i>	<i>Diarrhea</i>	<i>Irritation of the eyes</i>	<i>Birth defects</i>	<i>Insects</i>	<i>Injuries</i>
2	<i>Tiredness</i>	<i>Heat exhaustion</i>	<i>Tuberculosis</i>	<i>Breathing tract</i>	<i>Parkinson</i>	<i>Spiders</i>	<i>Cuts and Bruises</i>
3	<i>Eye irritation</i>	<i>Heat stroke</i>	<i>Typhoid</i>	<i>Allergic reactions</i>	<i>Alzheimer</i>	<i>Scorpions</i>	<i>Other</i>
4	<i>Other</i>	<i>Fever</i>	<i>Jaundice</i>	<i>Asthma</i>	<i>Diabetes</i>	<i>Snakes bite</i>	
5		<i>Other</i>	<i>Other</i>	<i>Cough and cold</i>	<i>Other</i>	<i>Malaria</i>	
6				<i>Other</i>		<i>Dengue</i>	
7						<i>Other</i>	

Sl. No	(2) Work Security with Safety Measure	(3) State Assisted Social Security	(4) Welfare Security provided by the Employer	(5) Employment Security	(6) Economic Security	(7) Union Membership
1	Apron	PDS Ration Card	Primary school	Permanent	Dependency Ratio	Registered with union
2	Umbrella	RSBY NREGA	Mid-day meal	Temporary	MGNREGA Gap between minimum wage and actual wage	Not registered with Union
3	Boot	Indira Gandhi Matritva	Crèche facility			
4	Mask	SahyogYojana/ Mamoni	Food at the Crèche			
5	Gloves	Ayushman Bharat	Hospital			
6	Training Programme	AtalAmritAbhiyan/ Assam Arogya Nidhi	Availability of medicine			
7	Blood Test	Rajiv Gandhi Scheme for empowerment of Adolescent Girls (Sabla)	Free medicine			
8	Insurance	Pradhan Mantri Kaushal Vikas				
9		Jan DhanYojna				
10		Intensified Indradhanush (IMI)				
11		Pradhan Mantri Jeevan Jyoti BimaYojana				
12		Pradhan Mantri Suraksha Bima Yojana				

Table 6.2. Steps of Calculating Index

Stage-1: Scaling	Stage-2: Converting into same Scale	Stage-3 (Final Score)
<p>Intensity Scale (0 to k)</p> <p>For an individual i, the intensity scale for an indicator will be</p> $I = \sum_k^n x_{jk}$ <p>Where, x_j is the indicator, k is the sub-indicator.</p> <p>For instance, for an individual (i), the intensity scale (I) of Physical Work related health issues will be sum of the values of 4 sub-indicators: back pain, eye irritation, tiredness and other.</p> <p>The scale is 0 to k.</p>	<p>Score (0 to 1)</p> <p>For an individual i, the intensity score for an indicator will be</p> $S = \frac{\sum X_{jk}}{k} = \frac{I}{k}$ <p>Where, S is the intensity score, k stands for the number of sub-indicators.</p> <p>The intensity score is in 0 to 1 scale.</p> <p>For instance, for an individual (i), the intensity score (S) of Physical Work related health issue will be the intensity scale (I) divided by 4.</p>	<p>For an individual (i), the final score for an indicator having sub-indicator will be</p> $SF = \frac{\sum S_j}{n}$ <p>(j=1, 2, 3,, n)</p> <p>Where, SF is the final score, S is the intensity score of stage-2, n stands for the number of indicators.</p> <p>The final score is in 0 to 1 scale.</p> <p>For instance, for an individual (i), the final score (SF) of Occupational Health Security will be summation of intensity scores of physical work, weather and climate, water borne, dust and fumes, pesticides, vector borne and other divided by 7.</p>

Intensity Scores (Negative Scale)

Table 6.3 reveals the intensity score for all the 7 indicators of socio-economic security. The intensity scores have been presented on *negative scale*. In occupation-related health issue indicator, the physical work related health issue has an intensity scale of 0 to 4. It states that only 17.5 percent of the worker does not face any work-related health issues the remaining 82.5 percent workers in the field area reported at least one health issue related to occupation. Likewise, around 25 percent of the worker reported no health issues related to weather and climatic condition but majority (75 percent) of them reported at least one. Similarly, one can see that the share of household reported that they face atleast one water borne disease, dust and fumes, pesticides, vector borne and machine-related health issue from Table 6.3. Only about 1 percent of the household reported to use all work-related safety measures like safety equipment (apron, mask, boot etc.) and other safety measures in the workplace as per prescribed entitlement or safety measures in the Plantation Labour Act 1951. The remaining 99 percent workers reported lack of at least one safety measure.

About 26 percent of the workers reported lack of 5 safety measures out of 8 found in the field study. Majority of the workers working in the tea garden reported that they do not receive any form of state-assisted social security. Out of 10 state-assisted social securities, 63 percent of the workers reported to have no access to 8 state-assisted social securities, 29 percent says 9 and nearly 2 percent mentioned that they do not get any of the 10.

We are looking at 6 indicators of estate-assisted social security under the broad head of school, health centre and crèche as mentioned in the PLA. We found that only 13 percent of the workers avail all the estate-assisted welfare benefit. The rest 87 percent workers were not availing all the benefits of the estate-assisted welfare benefits. Within 87 percent of the workers, nearly 28 percent of the workers were not availing at least 4 of the estate-assisted welfare benefits.

Employment security of majority of the worker is impressive. Seventy percent of the workers reported to be permanent workers; hence, their jobs have been secure. The rest 25 percent are temporary workers. The economic security index includes wage-related information and alternative employment sources. Very negligible percentage of workers reported to be economically secure. It was found that there were higher number of dependent members and there was a gap between the minimum wage and the actual wage that the worker received.

The union membership index shows that only 33.73 percent of the workers were member of different trade union in an estate. The union membership could be an index of representative security of the worker but it was happened to be very low among the workers surveyed.

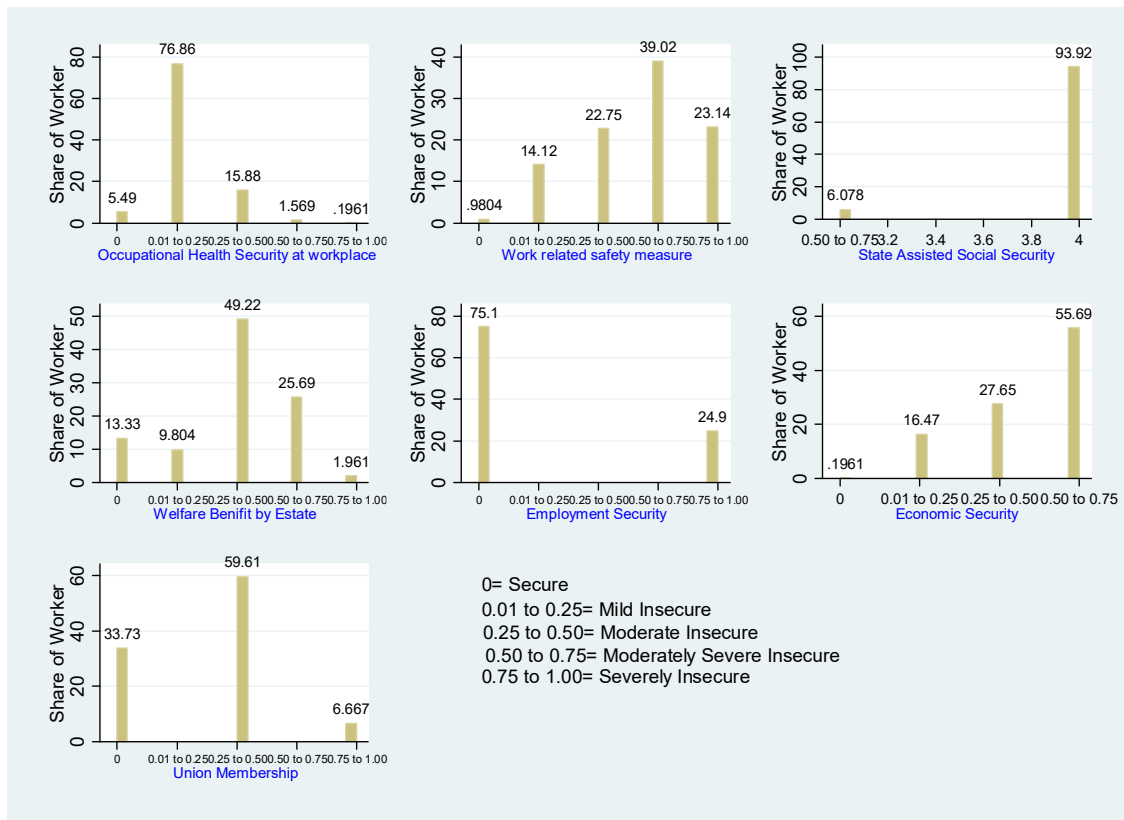
Table 6.3. Intensity of Different Socio-Economic Indicators (Negative Scale)

(1)Occupational Health Security at Workplace							
Intensity Scale	Physical Work	Weather and Climate	Water Borne	Dust and Fumes	Pesticides	Vector Borne	Machine Related
0	17.5	24.7	54.3	49.0	79.6	75.1	79.2
1	21.2	26.1	24.3	30.0	12.8	16.5	18.0
2	43.9	33.1	10.2	14.9	4.3	4.7	2.8
3	16.5	12.0	6.7	4.5	2.0	1.8	
4	1.0	3.1	4.1	1.0	1.2	0.6	
5		1.0	0.4	0.4	0.2	0.6	
6				0.2		0.6	
7						0.2	
Total	100.0	100.0	100.0	100.0	100.0	100.0	
Intensity Scale	(2) Work Related Safety Measure	(3)State Assisted Social Security	(4)Welfare Benefit by Estate	(5)Employment Security	(6)Economic Security	(7)Union Membership	
0	0.98	0	13.33	75.1	0.2	33.73	
1	5.1	0	9.8	24.9	16.47	59.61	
2	9.02	0	35.29		27.65	6.67	
3	11.76	0	13.92		55.69		
4	10.98	0	23.53				
5	26.08	0	2.16				
6	12.94	0.78	1.96				
7	7.06	5.29	0				
8	16.08	63.14					
9		29.02					
10		1.76					
11		0					
12		0					
Total	100.0	100.0	100.0	100.0	100.0	100.0	

Intensity Score (0–1 Score)

The intensity scale has been converted into the intensity score of 0 to 1 for all the 7 indicators and presented in Figure 6.1. An intensity score of 0 represents full security. An intensity score of 0.01 to 0.25 stands for mild insecurity, 0.25 to 0.50 stands for moderate insecurity, 0.50 to 0.75 shows a moderately severe insecurity and above 0.75 is severe insecurity for the individual indicators. The distribution in the figure shows that except for employment security and union membership, for the remaining indicators the share of workers under the intensity score of 0 (secure) is very much low. For instance, the share of workers reporting secure occupational health issues is 5.49 percent, share of workers using all forms of work-related safety measure is 0.98 percent that availing all kinds of state-assisted social securities is 6.07 percent, those using all forms of economic security is 0.19 percent and those availing welfare benefit by estate is 13.33 percent. It can be concluded that for most of the socio-economic indicators, majority of the workers are deprived.

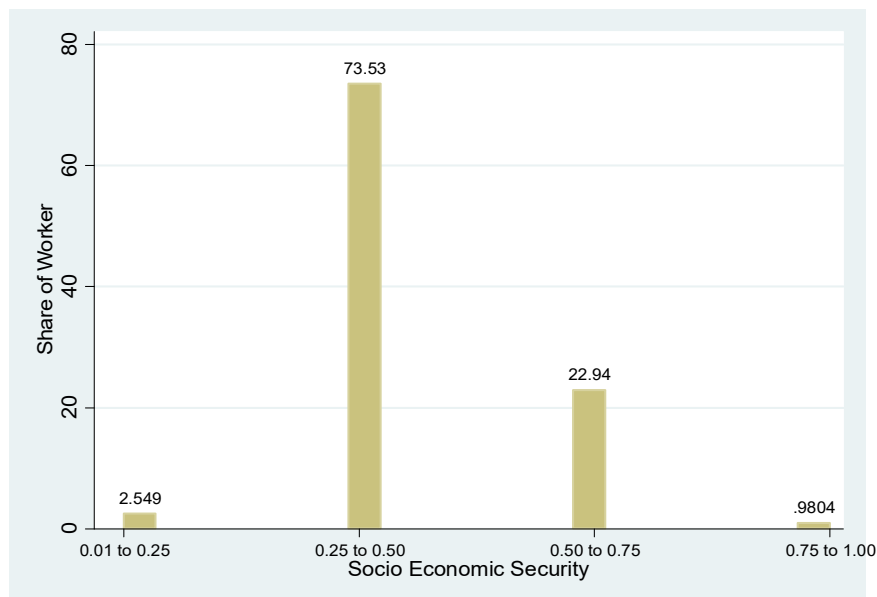
Figure 6.1. Socio-Economic Intensity Score



Composite Socio-Economic Intensity

The composite socio-economic intensity score is presented in Figure 6.2 which is on 0 to 1 negative scale. The composite score shows that none of the workers in the sample data avails all forms of socio-economic security. Thus, workers are deprived at least for one security measure. In fact for more than 70 percent of the worker the socio-economic insecurity score is 0.25 to 0.50. Around 20 percent of the workers are under the category of 0.50 to 0.75 economic insecurity score.

Figure 6.2. Composite Socio-Economic Intensity Score



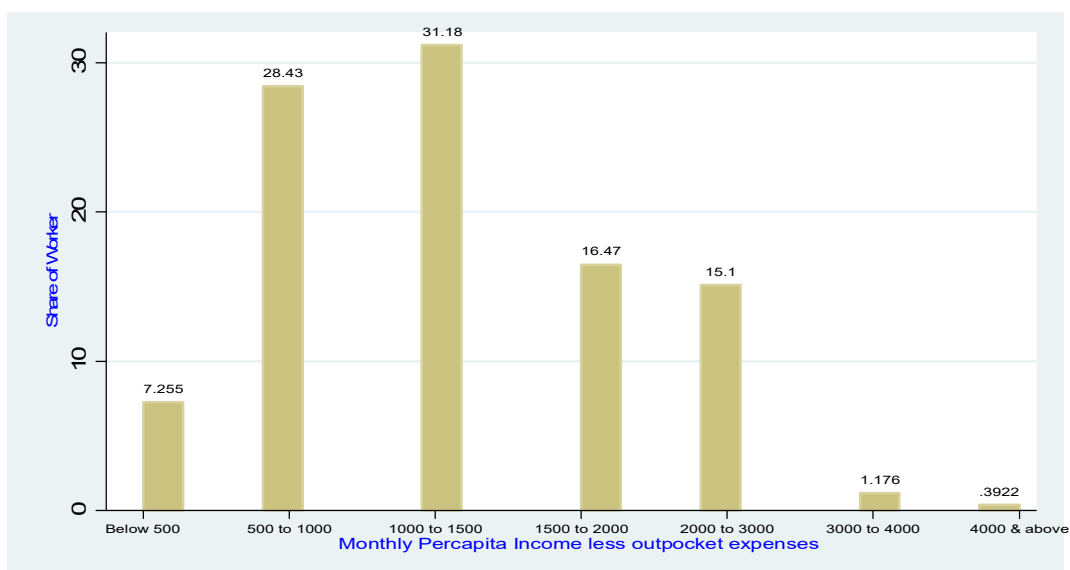
Consumption Insecurity

In Chapter 4, it was observed that significant amount of income of the workers is spent towards medical expenditure, education expenditure, and house maintenance expenditure and others which are supposed to be taken care of by the employer through PLA agreement or state-assisted programmes (see Figures 4.9 to 4.12). Further, it is seen that around 38 percent households has negative income–expenditure gap which means their consumption exceeds income (see Figure 4.18) as well as deficit in per capita calorie intake (see Figure 4.25). Wage rate that is received by the plantation workers in Assam are not sufficient which is also an on-going debate. Thus, we can presume that consumption insecurity arises due to insufficient wages and poor implementation of non-cash entitlements. Workers end up spending on health, education and others as out-of-pocket expenses for which they adjust from their monthly household income. Monthly per capital income after deduction of out-of-pocket expenses is considered as a proxy for consumption security. The monthly per capita income less out pocket expenses for a household (i) has been calculated using the following method.

$$MPIO_i = \left(\frac{Y_i - (X_{1i} + X_{2i} + X_{3i})}{n_i} \right)$$

Where MPIO is the monthly per capita income less out of pocket expenses, Y stands for household income, X_1 is monthly expenses on health, X_2 is monthly expenses on education and X_3 is house repairing expenditure. These three items are considered as workers need to spend on substantial amount from their income which was supposed to be sufficiently provided by the employer.

Figure 6.3. The distribution of monthly per-capita income after out-of-pocket expenses



Consumption Security and Socio-Economic Insecurity

We tried to find out causal relationship between consumption security and socio-economic insecurity through correlation coefficient in order to understand how consumption security is associated with work-related securities. Socio-economic securities are measured on a negative scale. The correlation co-efficient shows that all (seven) socio-economic insecurities are inversely related to consumption security. As socio-economic insecurity increases, consumption security decreases. Averse conditions of work both at garden and factory lead workers to fall sick and due to poor social infrastructure provided by the estate, workers tend to spend about 4.8 percent on health as out-of-pocket (ref. Table 4.9) and consume less on food and other necessities. As mentioned, medicine is not free and if workers receive medicine from the estate run health centre, it gets deducted from their salary which is also mentioned in the pay slip. Within occupational health insecurity, it shows workers mainly fall sick due to physical stress, climatic conditions and vector borne diseases. As a result, workers spend

more on health. In case of work-related safety measures, workers need to buy the safety equipments from their earning from outside if they want to use it. Workers are given apron and umbrella once in three years from the estate, but those last hardly for six months. According to workers' narrative, one of the workers in Estate-41 (Sonitpur) needs to buy apron and umbrella. They are given only during audit and workers have to return them immediate after audit. Surprisingly, unions also fail to bargain on these for workers (see Table 6.4).

Table 6.4.Consumption Security and its relation to Socio-Economic Insecurity

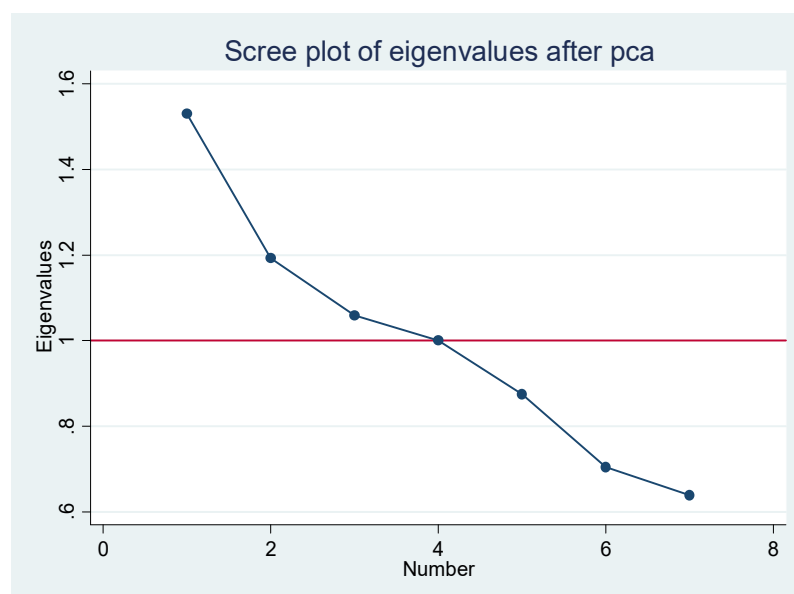
Correlation Coefficient		
	Socio-Economic Insecurity	Consumption Security (MPOI)
Occupational health insecurity due to	Physical Work	-0.10 (0.01)
	Weather and Climate	-0.072 (0.10)
	Vector Borne	-0.071 (0.10)
	Work Related Safety Measure	-0.147 (0.00)
	State Assisted Social Security	-0.042 (0.33)
	Welfare benefit by Estate	-0.142 (0.00)
	Economic Security	-0.314 (0.00)
	Union Membership	-0.023 (0.59)

Figures in the brackets are p-value.

Principal Component Analysis among Socio-Economic Securities

To understand which one out of the 7 socio economic security indicators does play a more important role, we have analysed Principal Component Analysis (PCA), a popular multivariate technique. It extracts the smallest number of components that account for most of the variation in the original multivariate data and summarizes the data with little loss of information. There were 4 components which have the Eigen value of more than 1. This implies that out of 7 indicators, 4 components are more important at the household level. This has been shown through scree plot indicating the Eigen value in Fig. 6.4.

Figure 6.4.Scree Plot Eigen Values



The factor loading with 4 principal components is presented in Table 6.5. The factor loading helps in understanding which socio-economic indicator has the significant role in defining the 4 components. This is to be noted that Component-1 is more important than Component-2, Component-3 and Component-4. Likewise, Component-2 is important than Component-3 and Component-4. The factor loading shows that work-related safety measure has the highest loading in Component-1. And, work-related occupation health measure has the highest loading in Component-2. Economic security-related indicator has the highest loading in Component-3 as well as in Component-4. This is to be noted that Component-1 and Component-2 is considered as a proxy for PLA-related entitlements, as over 50 percent work-related security are explained by these 2 components. Likewise, Component-3 and Component-4 can be considered as a proxy for economic security. Therefore, out of 4 components, those related to PLA entitlements play a more important role than even economic security. In other words, if benefits under PLA agreement are properly implemented, workers will be better off which will make them secured on the consumption.

Table 6.5. Factor Loading with Four Principal Components

	Comp1	Comp2	Comp3	Comp4
Issues related to Occupation Health	0.2768	-0.5208	-0.4664	0.2562
Work-Related Safety Measure	0.5901	-0.2616	0.0866	0.0128
State-Assisted Social Security	0.2847	0.4214	-0.2764	0.5032
Employment Security	0.2342	0.4832	-0.3708	0.1154
Economic Security	0.1008	0.058	0.7007	0.6151
Welfare Benefit by Estate	0.565	-0.1682	0.2165	-0.281
Union membership	0.3314	0.4665	0.1525	-0.4586

Conclusion

We have tried to capture labour market vulnerabilities (Saunders 2003) from the perspective of ILO's work-related securities (Standing 1999). The findings confirm that tea plantation workers are vulnerable and precisely show that the workers are deprived from all 7 indicators of work related security. Plantation workers are denied to access statutory rights as well as non-statutory benefits which are agreed through tripartite process and this can be regarded as vulnerability. This chapter highlights that workers are more vulnerable owing to different work related insecurity.

7

Bridging the Gaps: Conclusion and Recommendations

There are 2 main objectives of this study. First, the study aims to examine the work and employment of tea plantation workers from the decent work perspective considering employment and income opportunities, rights at work, nature of employment, social protection and social dialogue across gender, age groups and so on. Second, it intends to highlight the future of plantation workers, prospect, and the way in which work and living conditions of tea plantation workers can be improved with the help of effective realization and intervention both from the top and below. By combining quantitative and qualitative research methods, the findings of the study show that there is ‘decent work deficit’ among 510 workers across 50 tea estates from 9 major tea-producing districts of Assam—Dibrugarh, Tinsukia, Jorhat, Sivasagar, Golaghat, Sonitpur, Cachar, Udalguri and Nagaon. It is claimed that the tea industry is under crisis with increasing cost of production and stagnant prices (National Herald 2019). One of the oldest organizations of tea producers in India, ITA, sought immediate intervention from the government by proposing four main agenda points to safeguard the industry from the crisis. First, they recommended that government should take over employers’ portion of contribution to provident fund (PF) for a period of at least 3 years (ibid.). Second, prohibit the expansion of tea areas (ibid.). Third, government should provide substantial fund for generic promotion of the tea in India (ibid.). Fourth, there should be a fixation of a minimum reserve price for tea in auction based on cost of production (ibid.). However, if we look at the data, it is not clear that how much quantity of tea goes to market through auction and how much through direct to retail markets. The intention of this study is also to look at how workers are facing difficulty with stagnant wage rate which is pushing these workers in vicious circle of poverty.

Vicious Circle of Problems

Health, Childcare and School

The basic infrastructure and entitlements discussed in Chapter 2 shows that there are deficits in the socio-economic and political entitlements provided by the estate and the state. In almost all of the 50 estates there is a lack in the provision of basic facilities. Such basic rights and entitlements have been guaranteed under Plantation Labour Act (PLA) 1951 and Assam Plantation Labour Rules (APLR) 1956. Rights violations are observed across the tea estates. As discussed in Chapter 2, 47 out of 50 estates have primary schools within the estate and are maintained mostly by the Government of Assam through Sarba Shikshya Abhiyan (SSA). But, school teachers are appointed by the estates. Data shows that there is insufficient number of school teachers and also non-qualified teachers which certainly lead poor quality education. School teachers in some tea estates are hired on daily wage rate and they are not even secondary examination qualified. Students of the third standard cannot write alphabets and numbers properly. Most members of the working community in the estates have acquired low quality education while the rest have remained illiterate. The poor education restricts these workers in building a consciousness among the community about their well-being and also a realisation of their socio-political economic rights. Fifty-four percent tea estates do not provide crèches which is a further violation of PLA. The remaining 46 percent of tea estate provide crèches, but they lack of basic facilities. Around 15 percent of crèches do not provide meal and as a result women do not send their children. All the crèches are located far away from the women’s workplace and this is perhaps the main reason why we found 48 crèches out of 50 estates are closed during our fieldwork. Further, women’s narratives related to the five estates emphasize that they lose a working day and the wages, if their children fall sick.

The lack of education has contributed to a systemic deprivation. Workers in the estates have a poor idea about the method of wage calculation and determinants of wage. A handful of workers consider receiving a pay slip as a basic right and are able to read them. The data shows, as in Chapter 3, that around 52 percent do not receive pay slips. Hence, they remain oblivious of the various deductions made from their wage. Workers throughout the estates have complained about low wages, however, they are largely unaware about the various deductions over ration, PF etc. Workers reported how difficult it is to get PF back after retirement. Two of the ex-tea workers in Estate-40 (Sonitpur) reported that they have been struggling to receive their PF even after three years of retirement. Despite the dismal health conditions mentioned above, out of the 50 estates, only 35 have a health centre which includes minimal provision for a bed, saline, staff, and medicines for fever or cold. Workers from those 22 estates mentioned that medicines are freely available, but reported that most of them are for fever, headache and treatment of such common diseases. The rest mentioned that medicine is not free and if workers avail medicine from the estate-run health centre, it is deducted from their wage.

Expenditure—Income Gap and Insecurity

The findings of Chapter 4 reveal that around 38 percent households have negative income-expenditure gap which shows these households have more consumption expenditure than income. The high consumption expenditure pushes the workers to a cycle of debt and poverty. It is proven that the current existing wage is not sufficient for plantation workers as reflected through workers' consumption pattern; therefore, there is a major deficit in calorie intake levels. Over 56 percent of the household's per capital per day calorie gap is between -2000 Kcal to zero Kcal. This indicates the existence of malnutrition among workers who require physical strength for work. From workers' expenditure pattern, it can be argued that workers end up spending on health as out-of-pocket expenses for which they adjust from their monthly household income despite the negative income-expenditure gap. Further, the section 'Consumption Security and Socio-Economic Insecurity' in Chapter 6 confirms the inverse relationship between consumption security and socio-economic insecurity. As socio-economic insecurity increases, consumption security decreases. The conditions of health and security, both in the labour lines and the workplaces, have a direct effect on the workers' health and the income-consumption expenditure gap. The adverse conditions of sanitation, drinking water, housing and the conditions of workplace, result in workers falling sick.

Firewood, Health and Gender

Worker households in most estates receive and use firewood as fuel. The dependency on firewood is particularly high since there is no gas facility in the estate. According to the WHO (2018), around 3.8 million people a year dies from the exposure to indoor household air pollution. This household air pollution comes from a variety of sources, and includes a wide range of gases, chemicals and other substances used to cook and heat their homes using polluting fuels (i.e., wood, coal, dung, kerosene) and inefficient technologies. Cooking and heating with polluting fuels and technologies produces high levels of household air pollution which includes a range of health damaging pollutants such as fine particles and carbon monoxide. Other than monthly salaried persons (e.g., sardar and monthly salaried factory workers), 95 percent daily wage workers' households use firewood. If worker's household can be provided with gas connections like those of salaried person, health concerns, particularly those affecting the women who prepare food using firewood, can be addressed. It may be linked to one of the government schemes (e.g., Pradhan Mantri Ujjwala Yojana) as done in the case of workers availing state electricity on which their expense or wage cut on electricity has reduced substantially.

Housing, Water and Sanitation

The workers use groundwater from tube wells and open wells provided by the estate, government or obtained privately. In most estates workers have raised questions on the quantity and quality of the

water. According to UNICEF reports, the groundwater of 18 districts¹² of Assam has been contaminated by arsenic, while in 5 districts¹³ it has been affected by fluoride (*The Assam Tribune* 2019). Although we have not investigated, 6 affected districts are included in the study. However, significant number of workers has reported to have suffered from water-borne diseases (Table 6.3).

The study shows that workers across estates have poor housing conditions with insufficient source of drinking water, day-to-day usage and no proper sanitation facilities. Most bonuses are spent on house repairing, medicine, etc. due to the lack of facilities. As a result, the economic security (savings) is run on a negative scale. They cannot invest in education or on food. While the tea companies endorse their certifications in the website, certifying bodies should ensure strict evaluation process during audit so that workers receive basic facilities as outlined in the PLA. Action project can be designed with a controlled group to show the effectiveness of basic entitlement on workers' lives.

Uneven Management-Labour Power Relations

The work relationship between management and work is not benign and often exploitative in nature. When workers look at managers wearing cargo short pants, sport's shoes with full shocks and cap/hat, workers get scared and feel the hierarchy. About 74 percent of managers use security personnel which even escalate their [workers] fear towards the managers. By reducing uneven relationship between these two groups, many issues can be addressed.

Minimum Efforts to Overcome from Multiple Poverty Trap

Cash (Wage) Benefits

Workers often get into poverty trap and one of the sources of the trap is a wage gap including both cash and non-cash benefits. Although there is no gender wage pay discrimination, workers receive cash-in-hand way below than daily cash wage rate after deductions. Some deduction items such as PF, medicine, ration and loan are mentioned in the payslip but the amount of deduction in the name of house repairing, welfare benefits; dry tea and firewood are not specified. Due to various physical ailments, workers tend to take leave at short notice or fail to perform well at work. Consuming less nutritious food intake could be one of the reasons for falling frequent illness. The vicious cycle repeats its form as workers continue to suffer more with lowering wages along with their health conditions. Cash-in-hand depends on the number of work days and overtime by the factory workers and the extra green plucked by the garden workers. This larger share of workers in the negative wage gap category could be an indication of the huge discrepancy between the actual in-hand-cash that a worker receives and the quoted wage rate in the payslip. The estate work is strictly timed and payment is based on performances which often lead workers to face wage cuts. The wage gets deducted if workers do not work or reach late at the workplace by 30 minutes. Another important reason for wage deduction is absenteeism due to ill health. As discussed, workers need to report to the hospital twice a day as proof. Workers generally avoid formally to report as wage gets deducted. About 75 percent of workers are having wage gap that is arisen due to various factors such as wage cut due to strict management rule on time, absenteeism, ill-health among others. Further, workers do not receive proportionate amount of overtime. These management's mechanisms can also be viewed as different ways and means that the management succeeds to accumulate. Likewise, there is income and consumption gap due to various factors such as insufficient wage, wage gap, large household size, and household expenses on health, housing, education among others.

One of the questions asked to the worker was what will a worker do if s/he receives an extra amount of Rs 100. Two-third of the daily wage earners (about 75 percent) mentioned that they wish to purchase food items if they receive an additional amount of Rs 100 as their wage and the responses were the same till Rs 300. If they receive Rs 400 or more, workers mentioned that their second

¹²Baska, Barpeta, Bongaigaon, Cachar, Darrang, Dhemaji, Dhubri, Goalpara, Golaghat, Hailakandi, Jorhat, Karimganj, Morigaon, North Lakhimpur, Nagaon, Nalbari, Sivasagar and Sonitpur.

¹³Golaghat, KarbiAnglong, Kamrup, Karimganj and Nagaon.

priority was children's education and transportation. About 38 percent of the workers (195 out of 510 workers) have income and consumption expenditure gap. If a worker receives an amount of Rs 668 (which is 4 days cash wage in a month), about 95 percent of workers' wage gap will be reduced (ref. Table 7.2) and 33 percent of households will overcome from income consumption gap which is one-third of the households. This little over 30 percent of households is in total low-level income-consumption trap. Thus, with one day weekly paid leave (mainly Sunday) which is a worker's entitlement, one-third of the households can come out from the trap.

Table 7.2.Monthly Wage Gap and Share of Workers

Monthly Wage Gap	Freq. of Workers (Percentage)	Share of Workers (percentage) within Negative Gap
Less than -668	20	5.2
-668 to 0	363	94.8
	383 (75.1)	383 (100)
Positive Wage Gap	127 (24.9)	195 (100)
Total	510 (100)	

Source: Fieldwork

Table 7.3.Monthly Income-Expenditure Gap and Share of Workers

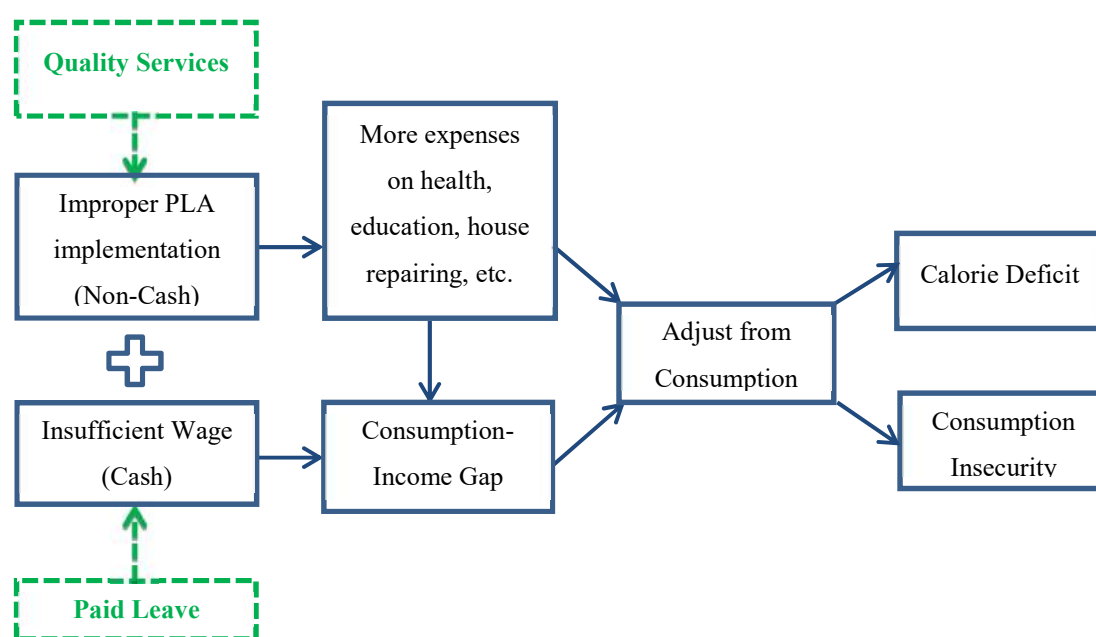
Monthly Income-Expenditure Gap	Freq. of Workers (Percentage)	Share of Workers (percentage) within Negative Gap
Below than -668	131	67.2
-668 to 0	64	32.8
	195 (38.2)	195 (100)
Positive Gap (Income > Expenditure)	315 (61.8)	
Total	510	

Source: Fieldwork

Non-Cash Benefits

Providing non-cash and welfare benefits and their calculations are arbitrary. Besides weekly paid leave, workers should receive quality services which are outlined in PLA. In case of proper implementation and monitoring of PLA benefits, workers can spend less on health, education, house repairing and others from their wage as well as from the bonus. It is seen from the household monthly per capita consumption expenditure across gender that about 19 percent spends their wage towards repairing houses, obtaining firewood, children's education and healthcare which are primarily the employers' responsibility (see Figs 4.6 and 4.7). This is mainly due to poor implementation of welfare benefits. If workers save money on the PLA measures, there will not be consumption deficit thereby calorie deficit can be avoided. Son of one of the workers in Estate-43, Sonitpur, dropped out from the college despite being a good student, as the worker has to undergo medical treatment. There is a total trap. A minimum effort on wage and proper implementation of PLA-entitled benefits from the industry can help these workers to live decent life without any insecurity (see Fig. 7.1). Thus, one can argue that if workers properly receive right based entitlements such as weekly paid holiday, ration and others, some of the perennial problems may be addressed.

Figure 7.1. Poverty Trap and Its Impact



Source: Conceptualised by researchers based on the primary data

Towards Decent Wage

The main problem with the low standard of living is low wages. This is also evident that the wage is not enough to live a decent life. Minimum wage is a threshold but it cannot become maximum wage. Besides being deprived of economic security, the workers are denied of adequate welfare benefits. Associated with the plantations over generations, workers have developed an emotional bonding with the estates. They believe their inherited skills need to be respected by the management; hence, they seek respect not only in terms of economic benefits but even in non-economic terms. Workers seek inclusion in the production process to develop a sense of belongingness and help them communicate their requirements and needs freely to the management. The industry needs to work on the social upgradation of workers by strengthening welfare mechanisms, increasing wage, implementing of proper statutory and non-statutory benefits under PLA and agreements, and reducing power relationship between management-labour and sardar-labour, rather than focusing solely on economic aspects. Decent wage should be calculated including cash and non-cash benefits from the actual consumption patterns of labour. Therefore, workers should receive ‘living wage’ along with proper non-cash benefits and welfare services which can help them to lead ‘decent living conditions’. This is so because unlike other work, plantation economies dwell heavily on labour for quality tea.

Glossary

<i>Anganbadi</i>	It is a type of rural child care centre in India started by the Government of Indian in 1975.
<i>Kutchra road</i>	It is an unpaved road without a proper bed. These roads turn muddy and slippery during the monsoon and are often unfit for vehicular movement.
<i>Pukka road</i>	It refers to a road made of bricks, mortar and black-topped which stays well in any weather and facilitates smooth movement.
<i>Mohori</i>	Assistant
<i>Chowkidar</i>	Watchman at the labour colony who makes sure those workers go to the work.
<i>Faltu</i>	Literally meaning useless, here referred to the temporary workers in the estates.
<i>Bastis</i>	Hamlet of a village.
<i>Darmah</i>	Daily wage or monthly salary
<i>Haat</i>	Weekly local markets
<i>Adivasis</i>	It is a collective term for the indigenous people of India.
<i>Sulai</i>	Local liquor
<i>Bodli</i>	Transfer of job to the next generation of the worker.

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