

# Improving Labour Productivity through Human Resource Development: A Case Study on Assam Tea Plantation Workers

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## ABSTRACT

Tea plantations in India employ more than a million permanent workers, and perhaps twice as many seasonal labourers. This makes the industry the largest private-sector employer in the country. Declining productivity in the tea sector at the all India level gets manifested in the tea gardens of Assam much more pronouncedly than in any other state or region. While low labour productivity is frequently cited as the main reason behind faced by the sector, other variables such as inability to expand the area under cultivation, ageing of the tea bushes, inadequate replanting of bushes, inadequate investments in plant modernisation and labour welfare measures, and traditional, cost-ineffective management practices have also contributed towards the near-stagnation of production Thus the study assumes greater significance in reviewing on violation of welfare benefits to the workers and how it is impacting in decreasing the productivity level of labour in the Assam tea plantation.

**Keywords:** Labour, Productivity, Tea Plantations

## INTRODUCTION

### Theoretical Background

The tea industry occupies a significant position in the history of development of the Indian economy in terms of its contribution in exports constitute a significant component of foreign exchange earnings of the country. The industry also contributes revenue to the state and national exchequers by way of sales tax, corporate, income tax, etc. Tea industry provides direct employment to more than a million workers, about half of whom are women. More than two million people derive their livelihood from activities associated with the industry.

The tea sector is said to be undergoing a crisis since the early 1990s. This crisis in the tea industry is manifested through stagnation in production, decline in exports and closure of tea gardens. Although its linkage to the opening up of the economy has been widely commented upon, at the root of the crisis lies low productivity in the tea sector. There is a growing body of opinion that argues that high labour costs-a result of state regulations to ensure some

security to workers-are the root cause of the failure of the Indian tea industry to be competitive in both the global and domestic market. As tea estates are being closed down and labour is being retrenched to cut down costs, tea garden labourers are facing a crisis of livelihood. For a number of reasons, it is difficult for them to move out of the gardens and find alternative sources of livelihoods. Their story is among many such contradictions that remain at the margins of the narratives of a globalising and 'shining' India.

The demand-supply scenario in the tea labour market in Assam, particularly in relation to changing employment condition and labour productivity brings out the problems faced by tea sector on employment front. The peculiarity of labour market scenario in the tea gardens lies in the fact that both demand and supply sides are governed by a set of factors that imports the characteristics of 'Informal Sector' workers. The main Character is rapidly growing in formalisation of workforce.

Plantation is a labour based economy. The production of tea mainly depends on manual labours, who pluck green tea leaves in the tea gardens. In India, tea plucking is done

manually; both male and female labourers participate in the job of tea leaf plucking. The more the green leaves plucked by the individual, the more the production of tea. It is often understood and evidences have shown that physical work performance or capacity for work is influenced by many factors, for instance, biological (e.g. age, sex, body dimensions, etc.), psychic (attitude, motivation, etc.), environmental (altitude, air pressure, heat, cold, etc.), nature of work (intensity, duration, technique, etc.), and training and adaptation etc. (Sarma, 2015).

Informalisation or casualisation of employment is also increasing in tea industry. The tea industry is also facing stiff competition. Free imports and reduced exports created a harsh situation for the owners and managers. With the objective of lowering the cost of production owners are increasingly resorting to casualisation of employment. Manager's increasingly using contract labors (Ananthanarayanan, 2008). Now only 30-40% tea garden workers in Assam are formally employed. Each tea garden employs casual workers in peak season (Sarma, 2015).

It was during 1970's, Job dissatisfaction can be related to the phase (post 1947 especially since 1995; after the introduction of plantation labour act). Productivity of workers was seen to be deteriorating. This low productivity was being measured by absenteeism, low turnover rates, strikes, poor quality products and demeaning dedication of workers towards their tasks. Productivity is also affected by increased alcohol addiction and aggression (Braverman, 1988). Though the monopoly of upper class to dominate the working class has been diluted in the modern Indian scenario, the flavour of the class struggle and gender discrimination still persists in a subtle yet distinct way. Declining labour conditions may be attributed to the withdrawal of the state from its responsibilities and commitment and social welfare activities. Withdrawal of the state from key responsibilities may be attributed to the policies of liberalisation, privatisation and globalisation (Duara, 2015).

Several recent studies (Baruah, 2008) (Bhowmik, 1997) and reports have showed the growing labour unrest and worsening living conditions of labourers in the tea

gardens. While low labour productivity is frequently cited as the main reason behind the crisis faced by the sector, other variables such as inability to expand the area under cultivation, ageing of the tea-bushes, inadequate replanting of bushes, inadequate investments in plant modernisation and labour welfare measures, and traditional, cost ineffective management practices have also contributed towards the near-stagnation of production. While growth rates of production have been considerably low in almost all the major tea producing states, for Assam it was the worst. Among the southern states, growth in tea production was negative in Kerala and was exceptionally low in Tamil Nadu. The important aspect of the growth performance of the states in the recent years is the remarkably poor performance in production in Assam, as well as north India as a whole during 1998-2004.

## PLANTATION LABOUR ACT

The Plantation Labour Act, 1951 of India has been considered as one of the most comprehensive pieces of labour welfare legislations. It contains several provisions for the uplift of plantation workers. These include related to housing conditions, health and hygiene, education and social welfare. It, therefore, has a great deal of potential for improving the working and living conditions of plantation labour.

In addition, other enactments such as Contract Labour (Regulation and Abolition) Act, 1970; Employee's Provident Funds and Miscellaneous Provisions Act, 1952; Industrial Disputes Act, 1947; Industrial Employment (Standing Orders) Act, 1946; Maternity Benefit Act, 1961; Minimum Wages Act, 1948; Payment of Bonus Act, 1965; Payment of Gratuity Act, 1972; Payment of Wages Act, 1936; Trade Unions Act, 1926; Workmen Compensation Act, 1923; among others, ensure the security, rights, and welfare of the workers in the organised sector of the plantation industry.

Despite all such legislative measures, plantation labourers are still marginalised and vulnerable. Their problems of low wages and poor working conditions remain unaddressed and overlooked.

**Table 1: Welfare Cost of Tea Produced in Southern and North-Eastern India in 2002**

Sl no.	Item	Whether statutory?	Estimated annual expenditure(Rs crores)		Costing in Rs per Kg of Tea	
			S India	N-E India	S India	N-E India
1	Medical	Statutory	41	77.12	1.23	1.2
2	Housing	Statutory	22	68.89	0.66	1.08

3	Drinking water	Statutory	12	DNA	0.36	DNA
4	Sanitation & Conservancy	Statutory	10	19.8	0.30	0.31
5	Child Care	Statutory	12	13.41	0.36	0.21
6	Creches	Statutory	2	DNA	0.06	DNA
7	Recreational	Statutory	3	5.02	0.09	0.07
8	Education	Statutory	6	DNA	0.18	DNA
9	Road	Non-Statutory		49.49		0.77
10	Fuel	Non-Statutory		1.91		3.51
11	Concessional ration	Non-Statutory	24	224.33	0.72	0.02
12		Statutory	126	186.15	3.78	2.89
		Non-Statutory	24	273.82	0.18	4.28
13	Total		150	459.97	3.96	7.17

Source: Cited from Sarkar: 2015

From Table 2, it is evident that welfare cost per kg of tea produced both statutory and non-statutory benefits included is higher in North-Eastern India than that of Southern India because of few extra non-statutory benefits. But that does not neutralize the huge gap in nominal wages between the two regions. The case of poor wage realization in North-Eastern plantations still remain. Also the implementation of the Plantation labour Act 1951 is not uniform across estates in North-Eastern India (Sarkar, 2015).

As the tea plantation workers are more dependent on the welfare benefits, the Tea board under the Human Resource Development (HRD) Scheme aim at improving the health and hygiene of workers, education of wards of workers and imparting training to improve skills for growers/workers.

The total amount disbursed during the XI Plan Period (2007-12) for (HRD) scheme purposes by the Tea Board was Rs. 20.15 Cr and during the first two years of the XII Plan i.e. 2012-13 and 2013-14, the Board has spent Rs. 14.31 cr. and Rs. 8.93 Cr. respectively on welfare activities (PIB 13-March-2015).

By implementation of schemes and the above estimated cost, yet they lack welfare benefits which has not shown any improvement nor change in human development of workers in plantation. Several studies began in the mid-19<sup>th</sup> century right to the present on working and living conditions of tea plantation labour show that they have been very bad right from the time the industry. All plantation workers are migrants whose forefathers had migrated to work on plantations mainly due to poverty in their Places of origin. Their forefathers had migrated to the plantations in search of better life but in reality, as earlier reports show, it was a move from the frying pan to the fire.

**Table 2: Implementation of Important Labour Laws**

Serial number	Districts	Statutory Obligations (%)		
		PLA (Housing, education, medical)	Factories Act (health, welfare, safety)	Maternity benefit
1	Dibrugarh	63	65	38
2	Sibsagar	66	70	47
3	Jorhat	53	64	55
4	Golaghat	69	62	34
5	Sonitpur	64	76	53
6	Cachar	57	53	32
7	Kamrup	55	47	38

Source: Cited from Duara (2015)

The table 2 shows the loopholes in implementation of the most important labour laws in the estates. Be it multinational companies or Indian owned estates, the workers get very little of what their right is. According to FIAN article 2016 On “Indian tea workers, A life without dignity” highlights that workers lack in basic facilities and still women face discrimination at work and they are subjected to violations of their maternity protection rights and benefits.

According to *The Assam Review & Tea News* a report on Assam reads “The Riot Act to Defaulting Tea Garden Owners”. The government of Assam has initiated 31 cases against tea garden owners for violating the provisions of plantation labour act related to health, education and the welfare of the labourers. TarunGogoi, the former chief minister warned the estate managements to implement the laws strictly and in totality. He stated that the Assam tea garden were running short of a total of 43,000 houses, 57000 sanitary facilities, 9932 water plants, 80 health centres, 2209 doctors and 150 nurses. The garden owners were warned to abide by the legal provision within a specific time frame (*The Assam Review & Tea News*, 2015).

While the sweeping lush green tea gardens of Assam are renowned for their beauty, the living conditions are a far cry from the pretty visuals gracing tea boxes. The workers often live far away from the tea gardens in isolated but crowded and unsanitary conditions. The houses, made of bamboo and plastered with mud, are vulnerable to monsoon rains. Many tea gardens lack access to basic services such as schools, healthcare, safe drinking water, food ration shops, latrines and proper drainage. The cycle of poverty has created illiteracy, underage employment and poor health conditions (*Aljazeera*, 2015).

The problems faced by the tea garden workers are countless. The problems are mainly related to housing facilities, sanitation, low education, health conditions of the workers mainly women, low wage rate, unemployment because of casualization of labour force, electricity problem, domestic violence, alcoholism etc. The plantation workers mainly suffered from joblessness because the tea sector is said to be undergoing crisis since the early 1990s. This crisis in the tea industry is manifested through stagnation in production, decline in exports and closure of the tea gardens. This linkage is the root of the crises in the low productivity in the tea sector (unfolding crisis, 2012). Inter alia tea garden labourers are facing a crisis of livelihood. For a number of reasons, it is difficult for them to move out of the gardens and find alternative sources of livelihoods. Their story is among many such contradictions that remain at the margins of the narratives of a globalizing and developed India (Mishra, Upadhyay, & Srama, 2012).

## REDUCED PRODUCTIVITY OF THE TEA INDUSTRY

According to Duara (2015) Job dissatisfaction is seen in the 1970’s which can be related to the phase (post 1947 especially since 1995; after the introduction of plantation labour act). The Productivity of workers was seen to be deteriorating. So, this low productivity was being measured by absenteeism, low turnover rates, strikes, poor quality products and demeaning dedication of workers towards their tasks. Productivity is also affected by increased alcohol addiction and aggression (Braverman, 1988).

**Table 3: Growth of labour Productivity in Tea Gardens**

District	1980-2004	1981-1990	1991-2000	2001-2004	1998-2004
Darrang	-0.26	1.6	-1.66	-1.46	-1.32
Goalpara	0	2.8	-0.73	-0.95	-2.05
Kamrup	-0.33	4.22	-2.4	-2.75	-3.07
Dibrugarh	0.37	0.25	0.33	0.71	0.62
Nowgong	0.16	-0.71	0.31	-1.06	-3.98
Sibsagar	0.66	1.88	1.67	0.32	-0.65
Cachar	0.54	-0.23	0.66	-0.65	-4.47
Assam	0.35	0.8	0.4	-0.1	-1.62
All India	0.32	1.26	-0.28	-0.73	-1.79

*Note: All growth rates are compound growth rate.*

Source: Cited from *Unfolding Crisis in Assam’s Tea Plantations*: 2012

From table 3 we can see exactly during the 1990s that labour productivity growth slumped in many of the districts of Assam and during 1991 to 2004 in as many as five of the seven districts the state experienced deceleration in labour productivity growth. In terms of average production per labour, Assam has recorded slightly higher labour productivity in comparison to the all India average (Table 1). From the table 3, Dibrugarh recorded the highest labour productivity during 1980-2004, within the districts of Assam. When the growth rate of labour productivity during this period is considered, Assam's labour productivity has increased at a level of only 0.35 percent per annum (*Crisis in Tea sector: 2012*). During the last six years, for which data is available i.e., 1998 to 2004, there has been a substantial deterioration in labour productivity in almost all Districts except Dibrugarh.

Informalisation or casualisation of employment is also increasing in tea industry. The tea industry is also facing stiff competition. Free imports and reduced exports created a harsh situation for the owners and managers. With the objective of lowering the cost of production owners are increasingly resorting to casualisation of employment. Manager's increasingly using contract labors (Ananthanarayanan, 2008). Now only 30-40% tea garden workers in Assam are formally employed.

**Table 4: Daily Rate of Wages in Major Tea Producing States 2014**

Name of the state	Daily rate of wages (in Rs.)
Assam	94
West Bengal	95
Tamil Nadu	209.27
Kerala	216.53
Karnataka	228.35

Source: Sarkar, 2016

The permanent category of the tea plantation workers is showing a declining trend in their productivity level. There is absence of adequate motivational factors like monetary and welfare which are impacting the productivity of the workers. Though the permanent category workers are on payroll and benefited still they lack social securities. On the other hand, it has been seen that the casual workers are more productive and efficient in their work. Casual workers are temporary workers who are not in the company payroll but are mostly employed in the season time when production is at the peak. Their engagement in the work will last for few months, thus they try to earn maximum at the estate work. It is so mainly because they have to look for alternative

sources of revenue during the off season. So it can be stated that, the casual workers seem to be more productive and though their engagement in the work lasts for few months they try to earn maximum incentives (Duara, 2015).

In West Bengal and Assam, tea wages are determined through collective bargaining mechanism. Even though tea is included in the scheduled list of employment under the Minimum Wages Act 1948, wages are not notified under the same Act. Wages are determined through collective bargaining which is tripartite in characteristics. But the result is sub-optimal in the sense that prevailing wages are less than half of the unskilled minimum wage for agricultural workers. In Kerala and Tamil Nadu, wages are notified under Minimum Wages Act 1948 preceded by tripartite consultation. The outcome is better but still sub-optimal in contemporary context. This phenomenon of low wages in tea plantations is a historic reality. The implication is that regular tea workers are part of organized labour force having regular livelihood but still they would remain in perpetual poverty. Compensation is not adequate to even support basic necessities of life. Even regular employment in organized sector is not enough to guarantee basic minimum standard of life. These workers can be categorized as 'working poor'. One gets regular work but still poor. This is a disturbing reality (Sarkar, 2016).

According to Bhowmik's study (2005) analyses the correlation between two crucial factors wages and productivity. He argues that as it is commonly believed that high costs of labour are mainly responsible for the high production costs, it is not the sole reason. It may appear so in a labour intensive industry, other factors must also be critically evaluated. The productivity can be improved if the material costs of production are improved if the material costs of production are improved which include expansion of the area under tea bushes and replenishing of ageing bushes. When a new tea bush matures after five years and yields good quantity of leaf. But the employers are not willing to wait that long even though in the long run the productivity would increase. Moreover, while wage costs have fallen, despite wage increases, the cost of management has increased. There is a vast difference between the workers and the management in any tea plantation which is clearly visible. So, thus it can be seen that establishment cost which include costs of personnel, are higher than labour costs. Thus Bhowmik (2005) asserts that by increasing labour welfare schemes and better maintenance of tea bushes, productivity will also increase.

But there are other factors also that affect labour productivity. Das (2012) has shown that in large sized gardens each worker covers more area for plucking and

accordingly lesser in mid-sized and small sized gardens. However, during the peak season, the area coverage per worker gradually diminishes as more casual labourers are hired for plucking the leaves. So to say precisely, area covered by each worker varies with the size of the garden. Moreover naturally age is also another factor that effects labour productivity.

Similarly, the effect of skill and body shapes has a significant relationship on labour productivity (Roy, 2005). In another study, Mean Social Security Scores has been calculated taking the following aspects: s1= Paid Leave, s2= Bonus, s3= medical support, s4= Housing Support, s5=Maternity leave, s6= Insurance, s7= Other benefit. Access to any of these benefits is given the value 1 and non-availability had been assigned value zero. The composite Social Security Score will be  $S = \sum s_i$ ,  $i=1, 2, 3 \dots 7$  (Sharma et al, 2012).

## METHODOLOGY

Above all, the workers should feel themselves secure and stable in their jobs through legislative measures like as Factories Act of 1948, Assam Act X of 1955 in which welfare provisions viz, Provident fund Pension fund, Insurance fund Scheme and Deposit- Linked Insurance Fund Scheme have been provided. The other welfare measures which is adopted in 1951 through the Assam Plantations Labour Act in 1951 and Assam Plantations Labour Rules 1956 are some of the labour welfare and social security measures which is adopted and implemented in the whole state to cover the entire tea plantation industry.

The labour welfare activities like housing accommodation education training balanced diet, family welfare programmes are very effective for increasing the Efficiency of the workers productivity. The welfare activities are related to the efficiency of workers and as such they are essential to increase productivity.

The labour welfare activities are to be implemented as the goal of industrial welfare both inside and outside the factory. The labour welfare activities have to be accepted at all levels of employees, without which welfare programmes will be meaningless.

## Human Resource Development Strategies for Plantation Workers

Human Right is a multi-faceted concept. While production is the actual output, human resource development with

an accent on human rights is only a means achieving the output. It is concerned with an effective and efficient utilization of resource-capital, material, energy, information and human. Factors affecting productivity may be (i) Technology (ii) Capital (iii) Labour Quality (iv) Economies of scale and (v) Resource allocation.

Some definitive action plans should now be chalked out for workers to face the challenges of the millennium in the plantations:

1. Enhancing the role of the Government in setting up Training and Motivational Centres in plantations.
2. Continuous and periodically-held counselling regarding absenteeism, alcoholism, productivity, performance etc and educating womenfolk about small family, child-care, good housekeeping and health care.
3. Implementation of PLA and Factories Act in full.
4. To bring about an openness approach in the Management style and involve more people in the decision- making process.
5. Adequate medical facilities for the work-force.
6. Encouraging Thrift by the way of deposits in Post Office, Co-operative and Nationalised Banks. At the same time Life Insurance Policies can also be introduced as a part of self-awareness programme.
7. Stopping *Badli* system by providing opportunities/financial support to the children of the workers and hiring better workers by spotting the right person
8. Ergonomic studies are to be taken up for preventing fatigue and enhancing productivity.
9. Making provisions for facilitating the Women workers (constituting the major portion in the work force) with equal rights on the economic front, stoppage of sexual harassment in the work place and providing a cleaner environment for the general well-being.
10. Children /adolescents of the workers are to be motivated in a positive way.

It is imperative that the Human Resource Development (HRD) perspectives along with Human Rights Initiatives (HRI) in the Plantation Sector are of utmost importance in the direction of workers' participation in Management, their promotional scopes, the welfare measures and the fatigue study to enhancing productivity. The most valuable

asset in any industry is its human resource or people, who must be motivated to achieve their full potential so as to meet the objectives of the organisation. There is a strong correlation between the fulfilment of an organisation's vision and the programmes for enhancing the skills, knowledge, and learning and innovative capabilities of the employees.

With a spread in realisation of the importance of investing in people, human resource development has now become a primary area of business policy and strategy. Employers are recognizing that employees hold the key to more productive and efficient organisation. The manner in which the employees are managed and developed at work has a substantial impact on both product quality and cost.

Effective human resource development policies rely heavily on trust, collaboration, recognition, and the mutual interest of both employees and the organisation. These policies and strategies have to evolve with time in order to take into account the changing global environment and rising competition, both locally and internationally. Similarly, the plantation industry is a labour-intensive industry and, therefore, devising an effective human resource development strategy is the key to its long-term success and sustainability.

The deplorable conditions of the plantation labourers are largely due to the apathetic attitude of the employers/management towards labour welfare. It is imperative to recognise the fact that labour is an asset rather than a drain on the treasury. It could, in fact, lead to higher productivity, something that this industry badly needs if it has to face global competition. Till recently, there had been no serious attempt to adopt a comprehensive approach to human resource development policies and programmes in the plantation sector. But now some efforts are being made in this direction.

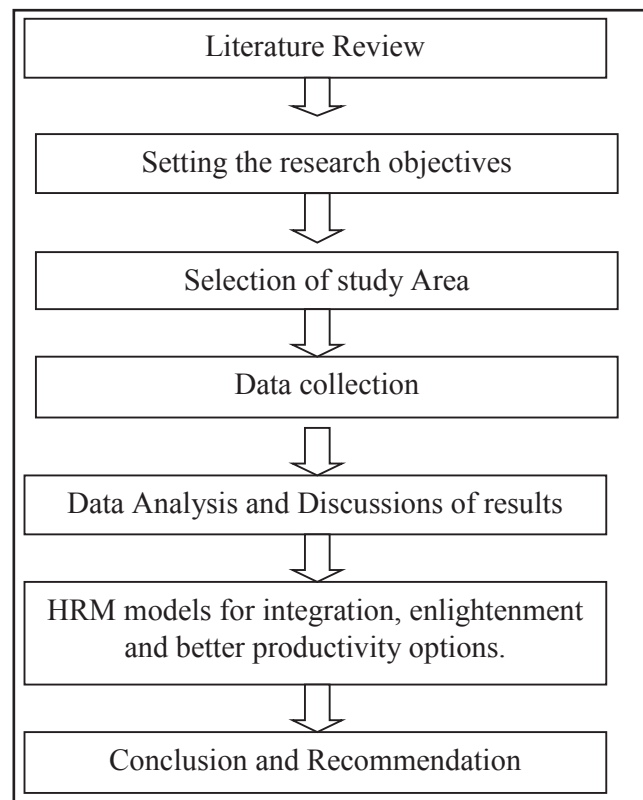
As per the ILO report, the human resource development programmes currently in operation for the labourers in the plantation sector include:

- (a) Skill development programmes for estate labourers.
- (b) Team building and quality circle programmes for estate labourers.
- (c) Drug and alcohol reduction, family health and education, savings habits, and other life skills development programmes for labourers.
- (d) Programmes for the estate children.

The report indicates that in the recent past, the number of estates with a satisfactory level of worker attendance has

increased as a result of the human resource development and other measures taken by the estate management. These programmes have had a positive impact in building trust and confidence between the labourers and the managers, and in changing the attitudes of both the parties in achieving the common objectives that are beneficial for both employers and employees. Encouraging, rewarding, and empowering labourers for their ideas, initiatives, and creativity may go a long way towards increasing the productivity of the plantation industry in the global market.

Primary data have been collected from sample tea gardens. Required data have been obtained from personnel records, drawn from supervisor entries, taking worker day as unit of analysis. Observations include the number of kilograms of tea leaf plucked by each worker. This one number is our measure of productivity.



Attention was restricted to only those days on which pluckers participated and were assigned to plucking duty, when workers are assigned to non-plucking activities, there is no comparable measure of productivity. The tea plantation is made up of a number of fields on which tea bushes grow in rows. The production of tea leaf — fresh, unprocessed leaves — is labor-intensive. Flushes, each comprising three leaves and a bud, are plucked from tea bushes manually, either by hand or with metal shears. For the purpose of our study, this is the final output.

## Nature of Data

The basic objective of the study is to examine the impact of social security on the productivity of tea garden workers. To achieve this objective five variables had been taken. Labor productivity is the dependent variable and health security, employment, financial security and educational status of workers are independent variables. On the basis of the survey of literature, the information on various aspects collected are: composition of household, educational background etc, employment profile, financial access and production data of the workers. To estimate the livelihood condition of the worker a “Social Security Score” has been calculated. The basic idea of “Social Security Score” has been taken from (Sharma et al, 2012). The Score has been calculated taking the following aspects: possession of land, housing and other household assets, garden hospital facility, peculiarly benefits for workers by garden authority and financial inclusion. So the Social Security Score is:

$$\text{Social Security Score} = \sum_{i=0}^{16} s_i$$

$s_1$ = Insurance	$s_9$ = Blanket
$s_2$ = Bank account	$s_{10}$ = Umbrella
$s_3$ = Medical support	$s_{11}$ = Slipper
$s_4$ = Housing Support	$s_{12}$ = Domestic Animal
$s_5$ = Land	$s_{13}$ = Jewellery
$s_6$ = Rice	
$s_7$ = Wheat	$s_{14}$ = Bicycle
$s_8$ = Bonus	$s_{15}$ = Firewood
$s_9$ = Crèche	

Access to any of these benefits is given the value 1 and non-availability had been assigned value zero.

For example is a respondent prefers to go garden hospital in a health crisis that is assigned 1 otherwise 0,  $S = \sum_{i=1}^{16} s_i$

## DATA COLLECTION

### Data Collection Tools

#### Interview Methods

Personal interviews and group interviews were conducted. One group session was conducted with an average of 10-12 workers in each garden. In-depth interviews were conducted with 10 individual (comparatively educated person in a workers line) in order to understand and explore the current situation of construction industry.

## PROCESS OF DATA COLLECTION

### Sampling Method

Three important steps have been followed to collect the sample. The size of the sample was 112.

#### First step:

The workers were covered from five special locations, *chaabua, Duliajan, Maakum, Dibrugarh town, Doom-Dooma*. These areas had been selected because they are among highly tea garden concentrated areas and they are familiar to the researcher so data can be verified in future, if needed. Moreover *Chaabua* is the place where the first tea garden of Assam was established at least 200 years before. That garden has also been included.

#### Second step:

As relevant studies (Das, 2012) (Sharma et al, 2012) shows, area covered by each worker varies with the size of the garden. That's why our sample had been divided in three categories size wise to include that factor. This division also helps to include ownership of garden factor. Since our objective is to study effect of social security on labor productivity and social security meant for tea garden workers varies according to ownership of the gardens, which had been mentioned in any study on livelihood of teagarden workers. In our sample, all the three large gardens taken are owned by private companies four out of five small gardens taken are owned by individual owners.

When a population is scattered over a region and complete lists of the total population are not available, “clustering” is of assistance in sampling. The sample has been divided in three clusters, i.e. Large, Medium and Small on the basis of size of the gardens. A fair representation was tried best to be given to all three segments of Teagardens. There are 91 small sized (10-100 hectares), 112 middle sized (100-400 hectares) and 65 large sized (above 400 hectares) tea gardens in Dibrugarh tea district. So in that ratio, 4 small, 5 middle and 3 large tea gardens has been covered (that is 4.5% of each group) for primary survey. Total 112 workers, both permanent and casual has been selected for direct personal interview with close end questions. So initially cluster samplings have been taken giving each category a proportionally equal representation and within a category random sampling has been done. A garden below 10 hectare has been avoided, because they are too small to deploy permanent workers to provide social security. That's why those have not been counted in Laws meant for tea garden workers.

*Third Step:*

Two separate structured schedules with questions have been prepared (in English). One for tea garden workers to collect information about their level of informalisation and social security on various aspects of social security. Only closed ended questions were included because study is basically a quantitative study. Another schedule for Tea-garden authority and supervisors to know about total figures on parameters for productivity in each garden.

Age estimation was certainly a great problem in the field, where written records were not available in most of the cases, especially in this community. But age was corrected in all possible ways such as reference with the important local events of recent history and of course cross checking from the elderly individuals. The illiteracy and

backwardness of the workers was another big problem while collecting data. The production process in the tea sector, particularly in the tea plantations, is highly Labour intensive. Tea sector provides direct employment to around 12.6 lakh workers in India, apart from providing direct sustenance to another 12.3 lakh people, who are the dependents of the workers. Around ten (The Hindu, 2011) lakh were employed in the tea gardens of Assam in the year 2011. There has been a steady growth of employment in absolute terms in the tea gardens of Assam. Along with increase in the volume of production, and in recent years, with the expansion of area under tea gardens there has been a greater demand for labour. Table 6 shows that employment has grown at a higher rate at the all India level than in Assam. Within Assam, higher employment growth has been witnessed in districts like Goalpara and Cachar.

**Table 5: Growth of Employment in Different Districts of Assam**

District /state	1980-2004	1981-1990	1991-2000	1991-2004	1998-2004
Darrang	1.49	1.95	1.35	1.17	0.84
Goal para	1.89	0.91	1.36	1.32	1.42
Kamrup	0.83	-1.37	1.47	2.03	1.23
Dibrugarh	0.92	1.3	0.96	0.93	0.9
Nowgong	1.28	3.5	0.27	0.29	0.49
Sibsagar	1.01	1.87	0	0.59	0.94
Cachar	1.51	2.96	1.85	1.38	0.75
Assam	1.43	2.06	1.08	1.06	0.87
All India	1.76	1.82	2.02	2.29	2.53

*Note:* All growth rates are compound growth rates.

When the growth differentials during the two decades of eighties and nineties are taken into consideration, it is clear that employment growth suffered serious setbacks during the latter decade, that is the post – liberalisation decade in Assam, but continued to show a higher growth rate at the all India level, owing to an exceptionally high expansion of employment in Tamil Nadu actually. In Assam, the only districts where employment growth improved in the nineties as compared to the earlier decade were Goalpara and Kamrup; in all others, and particularly in Sibsaagar and Nowgong it declined substantially. When a relatively longer view of employment scenario is considered, during 1991 to 2004, it is found that in Dibrugarh growth

of employment was less than one percent during this period. The worrying aspect on the employment front gets manifested in the fact that for the latest period under consideration, i.e., 1998-2004, employment has grown at a rate of less than one per cent per annum in all the districts of Assam, except in Goalpara and Kamrup. Although at the all India level, growth of labour employed has been relatively robust during this period. In Assam the growth rate has decelerated to 0.87 per cent per annum. It is important to note that this slowing down of employment growth in Assam has occurred in the backdrop of increase in the area under tea as a result of expansion of area by small tea growers.

**Table 6: Employment Growth in Tea Plantations**

Year	Total Worker	Annual Growth	Total Casual Worker	Annual Growth
1981	462754	1.54	NA	2.28
1991	585044	1.7	97366	2.5
1992	581638	-0.58	96524	2.48
1993	574088	-1.29	88645	2.48
1994	565809	-1.44	84226	2.49
1995	575175	1.65	89030	2.54
1996	587382	2.12	92237	2.57

Source: Computed from the data provided in Tea Statistics, various years

the labour market in tea plantation is showing some kind of stagnancy. In the early phase of liberalisation, there is decline in both type of workers, permanent and casual. In the later phase though there is some growth, it is more towards casualisation of workforce, which can be seen in Table. Data on tea workers on roll reflects that in 1971 altogether 397,000 workers were engaged in 182,325 hectares of tea plantations, with average

involvement of 2.2 workers per hectare. Till 1998 area under tea increased to 230,978 hectares and employment to 588,714 in numbers, with average involvement of 2.5 workers per hectare. It may be noted that among the total workers engaged 16.3 percent were casual workers and 1971 data did not show record of casual workers. Rapid casualisation of workers in estate sector tea plantations is visible from the 1990s (Baruah, 2002).

**Table 7: Growth of labour Productivity in Tea Gardens**

District	1980-2004	1981-1990	1991-2000	2001-2004	1998-2004
Darrang	-0.26	1.6	-1.66	-1.46	-1.32
Goalpara	0	2.8	-0.73	-0.95	-2.05
Kamrup	-0.33	4.22	-2.4	-2.75	-3.07
Dibrugarh	0.37	0.25	0.33	0.71	0.62
Nowgong	0.16	-0.71	0.31	-1.06	-3.98
Sibsagar	0.66	1.88	1.67	0.32	-0.65
Cachar	0.54	-0.23	0.66	-0.65	-4.47
Assam	0.35	0.8	0.4	-0.1	-1.62
All India	0.32	1.26	-0.28	-0.73	-1.79

*Note: All growth rates are compound growth rate.*

Source: Computed from the data provided in tea statistics, various years

In terms of average production per labour, Assam has recorded slightly higher labour productivity in comparison to the all India average. Within the districts of Assam, Dibrugarh recorded the highest labour productivity during 1980-2004. When the growth rate of labour productivity during this period is considered, Assam's labour productivity has increased at a level of only 0.35 percent per annum. The performance of four districts namely, Darrang, Goalpara, Kamrup, and Nowgong has been incredibly dismal on this front. However, in all

these districts except Nowgong, labour productivity had increased comfortably during the 1980s. It was precisely during the 1990s that labour productivity growth slumped in many of the districts of Assam and during 1991 to 2004 in as many as five of the seven districts the state experienced deceleration in labour productivity growth. During the last six years, for which data is available i.e., 1998 to 2004, there has been a substantial deterioration in labour productivity in almost all Districts except Dibrugarh.

## CONCLUSION

Human Right is a multi-faceted concept. While production is the actual output, human resource development with an accent on human rights is only a means achieving the output. It is concerned with an effective and efficient utilization of resource-capital, material, energy, information and human. Factors affecting productivity may be (i) Technology (ii) Capital (iii) Labour Quality (iv) Economies of scale and (v) Resource allocation.

Some definitive Action Plans should now be chalked out for workers to face the challenges of the millennium in the plantations:

- ◆ Continuous and periodically-held counselling regarding absenteeism, alcoholism, productivity, performance etc and educating women folk about small family, child-care, good housekeeping and health care.
- ◆ Encouraging Thrift by the way of deposits in Post Office, Co-operative and Nationalised Banks. At the same time Life Insurance Policies can also be introduced as a part of self-awareness programme.
- ◆ Stopping Badli system by providing opportunities/ financial support to the children of the workers and hiring better workers by spotting the right person.
- ◆ Enhancing the role of the Government in setting up Training and Motivational Centres in plantations.
- ◆ Ergonomic studies are to be taken up for preventing fatigue and enhancing productivity.
- ◆ Making provisions for facilitating the Women workers (constituting the major portion in the work force) with equal rights on the economic front, stoppage of sexual harassment in the work place and providing a cleaner environment for the general well-being.
- ◆ The “Mothers’ Club” Approach: The original plan was to have one mothers’ club member for every 20-25 households in the garden. The only qualifications thought for membership were that the women concerned should be literate, active in community affairs and enjoy the respect and confidence of the community to which they belong. Among the many responsibilities and duties of the mother club the important ones are:
  - i. Each member is to be responsible for 30-35 households.
  - ii. Teaching mothers on weaning food.

- iii. Education and motivating workers on family planning programmes.
- iv. Motivating through line meeting and group meetings among women.
- v. Arranging immunization programmes for children.
- vi. Looking after pregnant women and arranging antenatal check-ups in garden hospital. Chlorinating drinking water sources etc.

## Action by Objective (ABO) Model: Strategic Leveraging

This theory exemplifies a method of self-control and the way of fixing the target with reference to one’s own strength and weakness to execute the projects. It comprises the sequential conduct of the following four functions:

- ◆ Reviewing and renovating strategies;
- ◆ Proving a job-improvement plan and congenial work environment;
- ◆ Using present and potential performance review in a systematic way; and
- ◆ Strengthening the ability and enriching the skills of the leaders through Effective training and development.

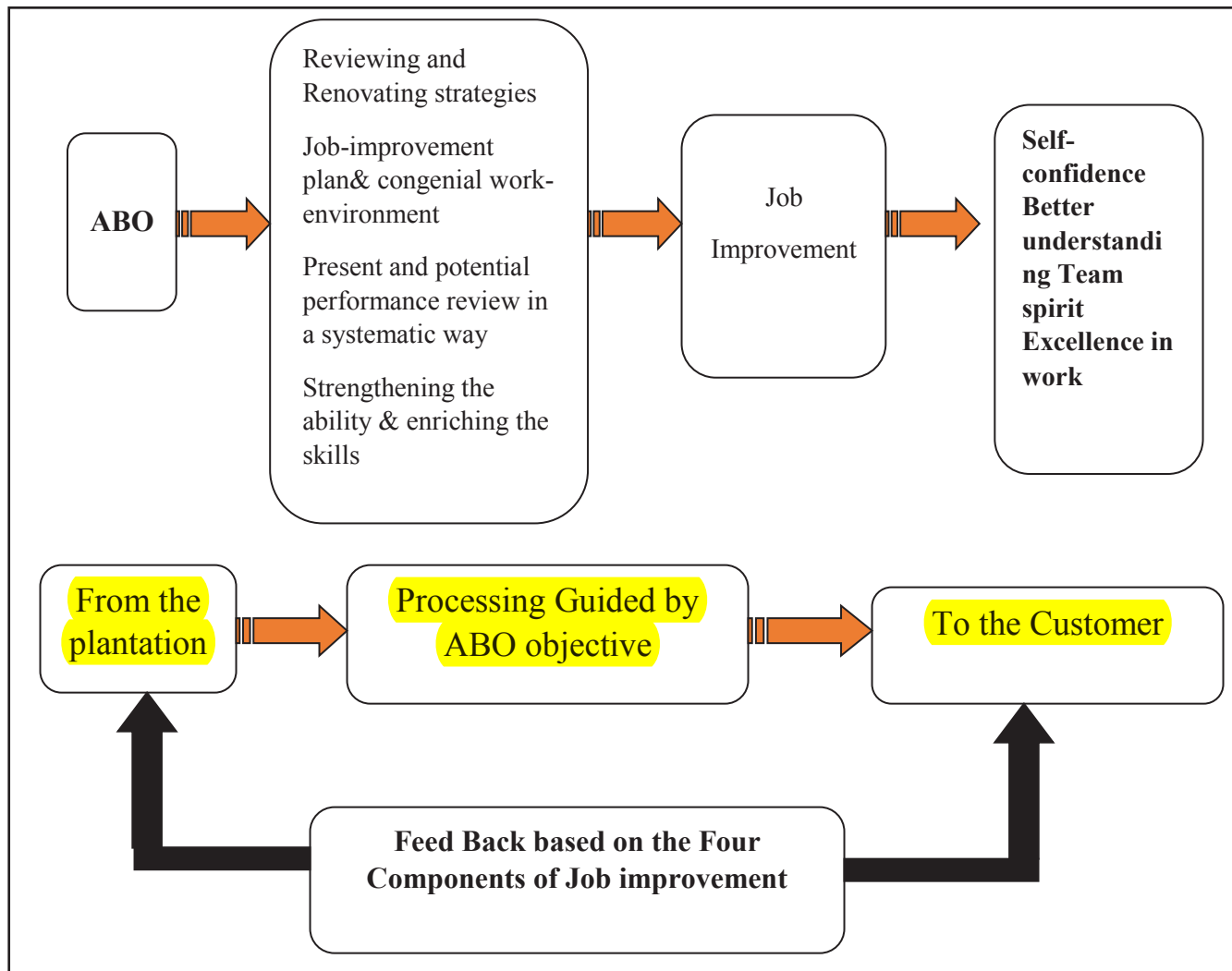
In ABO approach, the objectives are handed down with no spirit of authoritarianism and as a tool for self-appraisal and self-development, it moves towards self-reliance, which is having four components: (i) Self confidence, (ii) better understanding, (iii) team spirits, and (iv) excellence in work. The whole process increases the credibility of the review results and performance levels in the participatory approach under the “bottom-up” theory; under which ‘processing’ is guided by ABO objectives.

The concept of ABO is basically based on five principles:

1. Caring for others
2. Helping them to solve the problems
3. This makes the team morally-driven
4. The team becomes more independent
5. This leads the team to self-realization

Thus, the ABO team members are those who:

1. Produce performers
2. Set personal examples; visible accessible on the move
3. Find ways to overcome obstacles and
4. Manage them.



**Fig. 1: Action by Objective Model**

Therefore with the technique of ABO, the work-culture an organization can be developed which is pointed towards Harmonization paradigm which embraces two aspects:

- a. Immediate goal-achievement factors and;
- b. Ultimate goal-achievement factors.

The immediate goal achievement factors comprise:

- i. Direction setting;
- ii. Resolution of conflicts and;
- iii. Team spirit.

These three factors culminate ultimately into ultimate goal-achievement i.e. the self-reliance - the centre of a halo from which the following four results-oriented factors are being diffused:

- i. Knowledge-based performance;

- ii. Value-based management;
- iii. Development forward excellence and;
- iv. Shared goals.

Finally, the Work-Culture dynamics of the HRD (Human Resource Development) depends upon two major factors, namely,

- a. Selection of ABO criterion.
- b. Value based mission - which propagates:
  - i. Involvement of people for creating opportunities among themselves;
  - ii. Innovation and growth for building-up the future;
  - iii. Developing inspired leadership as an integral part of strategic planning and;
  - iv. Forming an “enlightened” team which comprises.

Operation team (for planning and execution)

Facilitator team (for day-to-day management like):

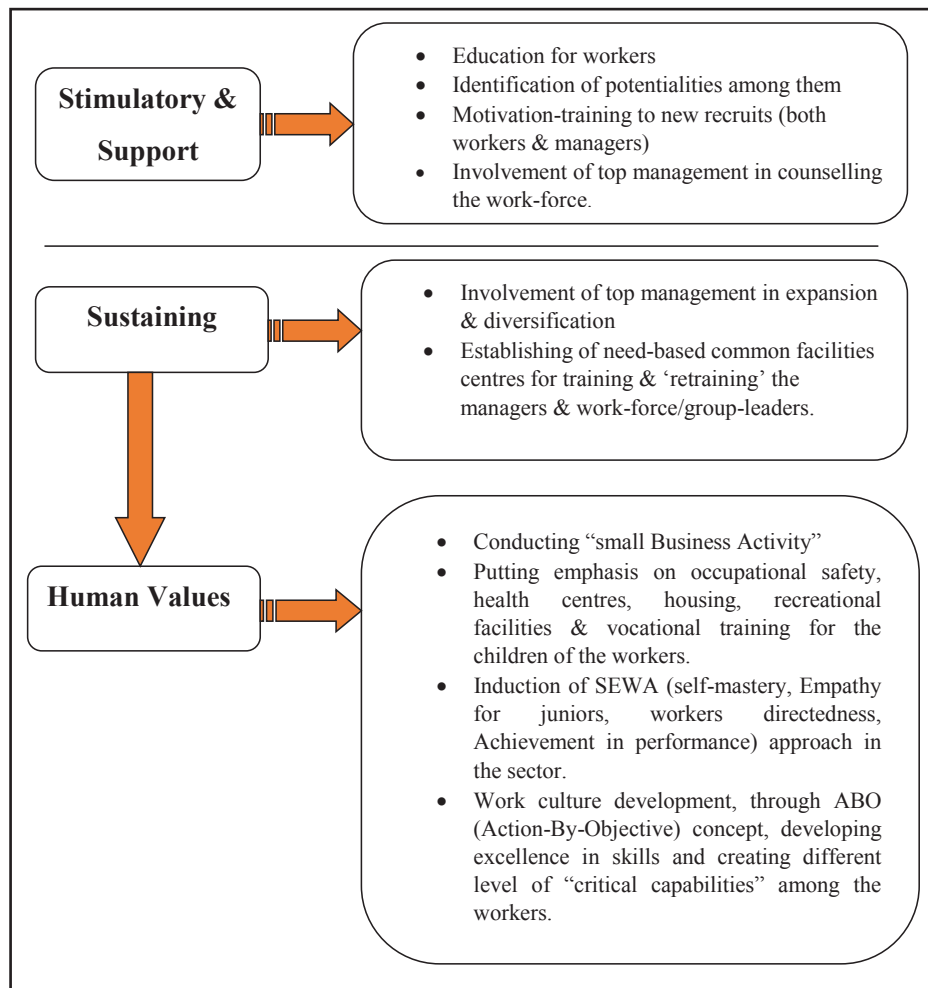
- i. Review of working-style;
- ii. Review of problem-solving;
- iii. Formation of steps to be taken;
- iv. Addition of value to work and;
- v. Job-re-arrangement for short-term and long-term strategic actions).

Vision team (for overseeing changes coming and formulating steps to be taken accordingly) some key issues and proposed action plans towards Workers' Welfare in Tea Industry:

**Key Issues:**

1. Inadequate or poor facilities of housing;
2. Poor facilities of drinking water;

3. Lack of communication among the workers;
4. Interference of belligerent unions for vested interests and not linking wage increase with productivity;
5. Influence of outside agencies (like local political parties to woo votes);
6. Increase in incidence of theft (particularly green leaf) and general rowdiness due basically to unemployment;
7. Insurgency problem;
8. Malaria-prone areas;
9. Proper implementation of PLA and Factories Act;
10. The disproportionate increase in workers' family population.



**Fig. 2: Action Plan Model**

## PROPOSED ACTION PLANS

1. Workers' education training and motivation programmes for productivity and work culture development.
2. Periodically held health awareness programme.
3. Implementation of PLA and Factories Act in full.
4. To bring about an openness approach in the Management style and involve more people in the decision-making process.
5. Population control measures and creativity awareness amongst the workforce.
6. Adequate medical facilities for the work-force.
7. Day-to-day functioning may be discussed in a group involving a "leading" group of workers.
8. Encouraging thrift among the workers.
9. Children/adolescents of the workers are to be motivated in a positive way.

There is need to develop suitable devices and attachments to convert their muscle power to useful mechanical power. Providing them with tools and implements capable of operating comfortable posture could enhance the productivity of workers. The tools may be push and pull type weeders, trolley sprayers, etc. these mechanical devices generate less fatigue during operation and thus result more work output. A man, on an average spends 65 to 75 percent of his working time with manually operated devices. In conventional tools time spent in use of them, is high in proportion to amount of work accomplished. During continuous work, a man can develop horsepower equivalent to about 1/10th of his own weight (0.5 hp). There is need to improve existing tools and devices for efficient utilizations of energy. The desirable features of a good hand tool should be as under:

1. Ergonomic design to enable operator to work in least tiring posture,
2. Lightness of weight of tool for easy transportation,
3. Easy construction and comfortable operation with tool,
4. High quality of its components,
5. Low cost and facilities for local production of tools.

The working part of a tool should be designed for efficient performance of job. The handle is important as it determines position of worker and method of doing

work. It has been experienced that drudgery and physical exertion are main features of Indian agriculture, which affect adversely man's intelligence and ability.

It is imperative that the Human Resource Development (HRD) perspectives along with Human Rights Initiatives (HRI) in the Plantation Sector are of utmost importance in the direction of workers' participation in Management, their promotional scopes, the welfare measures and the fatigue study to enhancing productivity. The role of government and the positive attitude of corporate sector are to be initiated in tandem for ushering their sector into a new dimension, which is but compulsory and nevertheless, challenging along the lines suggested below:

### 1. Management Sensitivity

While tea industry management readily perceives a direct linkage between the nutrition and productivity of tea bushes, they exhibit a relative lack of appreciation of the input-output relationship in respect of the industry's major asset — *labour*. Even from the standpoint of purely commercial considerations, therefore, there is a convergence between the health and welfare of workers and the interests of management. Better health leads to higher labour productivity, which in turn justifies viewing health and welfare outlays as investment rather than consumption expenditure. Enhancing the health and welfare of workers calls for a good deal of coordination between the operational and welfare departments, besides close interaction with the trade unions. It also follows that, in order to maintain the major plantation asset at an optimum productivity level, the factors influencing it, such as the workers' life at home, their life in the community and their relationships at the workplace must be kept in good order.

### 2. Worker Motivation

In the present situation throughout South Asia, the wage structure and incentive schemes may have become an inflexible element, particularly in view of their applicability across the board for all workers within a given region or locality. It is, therefore, possible that the workers - especially, the women pluckers - may have calculated that extra work at the incentive rate is not worth the effort. This is all the more likely if the valuation women workers place on domestic chores or on leisure time at the end of the day is greater than the income derived from additional plucking. In that regard, it may be that motivational, rather than monetary factors would help to augment productivity, particularly among the women pluckers.

### **3. Optimizing Welfare Investments**

In most cases, plantation managements are already incurring welfare expenditure for labour, although in varying degrees. If, through operational research and other means, such amounts are better spent and made more cost effective, there will be both a quantitative and qualitative improvement in the returns on these investments and hence an augmentation in worker productivity. For this to happen, it is necessary to integrate welfare into the normal functioning of the estate.

### **4. Sexual Equality**

In the male-dominated society of the South Asian region, the tea industry presents a refreshing contrast, being almost wholly devoid of sexual discrimination. In fact, the greater part of production activity on tea plantations centres on women workers who not only share a separate labour identity but also form the key element in the family basis of estate employment. Macro-level data from Assam in North India, for instance, suggest that the division of labour and cooperation between men and women, as well as the care of children are based on reciprocal relationships rather than on domination and exploitation. This is markedly different from the situation that exists in most rural households where, despite all the hard work put in by the women folk, they do not get paid for their labour. The independent economic status accorded to women tea workers and the nearly equal terms under which they operate should form the platform from which management can embark on a forward-looking personnel policy that will bring out the best in the women workers. In fact, the industry's major asset is not labour as such, but female labour. It is therefore important for management to take into account the socio-economic needs of women tea workers.

### **5. Controlling Common Illnesses**

It has been observed that the two categories of illnesses - respiratory and water borne - account for 60-70 per cent of the diseases prevalent among tea workers in the sub-continent. These diseases are also the major contributors to absenteeism, sickness benefit costs and expenditure on drugs on estates. By and large, these illnesses are controllable through ensuring a protected water supply, proper disposal of human and animal waste, better personal hygiene and improved living conditions. By placing the emphasis on a preventive rather than a curative approach, not only will there be a reduction in costs to management but, more importantly, there will be a lower incidence of illness, with its attendant positive impact on worker productivity. With increasing job opportunities for

good material, that too in Urban areas, the problem that tea gardens are facing now and which may accentuate in future lies in management of tea garden, in that no talented person shall like to make a career in secluded life of tea garden, with problem of good education to children, job-opportunities for spouses, limited chances of promotion, lack of cultural / social activities and cut-off life from civilised world. Furthermore, there is hardly any career planning or motivation.

Obviously, tea garden may have to reconcile with second class talent to run the garden even at attractive pay scales and perks. Most gardens are also facing shortage of Work-Force to harvest green leaf in peak seasons. There is an attitudinal change in the workers and less number of workers are willing to do manual jobs. The welfare measures are a major factor as far as productivity is concerned. The laborers need to be housed well and provided with good medical facilities and amenities. The plantation labor act stipulates that a plantation with more than 1000 workers should have a full-fledged hospital and that the medical facilities should be provided free of cost. This is vital because the plantation setup is geographically treacherous areas. The workers have to work in high altitudes and during heavy rains. Besides this they have to walk long distances from home to the work place. Transportation is difficult as vehicles cannot ply to all parts of the tea gardens.

The plantation is an outdoor oriented work in the forests and is highly physically demanding for the worker. Moreover the nutrition factors are important. The survey revealed that 100% of the workers in the south took normal rice and dhal based food. While non vegetarian food (red meat) is consumed at a minimum of once a week and not more than twice a week. Fresh vegetables are not available in village shops; in addition the workers also complain that they have no time to go to the nearest town to make any real purchases. An interconnected aspect to this is the rest time for the workers. While they have to leave home early so as to reach the work site in time, breakfast is not taken or the leftover food is taken in the morning. Rest time during the working hours came up as an important factor. Absenteeism due to laziness have be reported by all the field officers and the managers and supervisors alike. The same has been presented in a different angle by the male workers. They complain of lack of rest during working hours and they say that the real time work is more than eight hours a day. Mental disorientation was also noticed amongst all the male and female workers. The whole lot reported that they are working just for a living and they do not find any happiness or pleasure or satisfaction in working in the plantation under the present

wages, housing and other welfare measures provided, and also add that it is out of financial compulsion.

Development of educational facilities, right from the primary level onwards, is an important issue which both trade unions and employers must urgently address. Second, greater stress has to be laid on the development of the areas outside the plantations. This will create more avenues of employment near plantations. It will also reduce the isolation of the plantations. Here, too, trade unions and other development agencies, including the state governments, can play important role in pushing this idea through. Finally the cultural development of plantation workers is a long-neglected area. Their living conditions need to be improved.

Fresh capital inflow is needed right at this moment for the tea industry of India. Investment in new plantations and production machineries must come immediately to compete in the international market. Since tea industry has to compete globally, it is necessary that they should have access to global capital at competitive rate. This can bring life to the industry and those who live on it, especially workers.

Recognizing the fact that the tea industry's crisis in India has multiple causes, which require a variety of solutions—one of the most important steps from the government part shall be to introduce a stronger competition law to curb them is use of corporate buying power and promote social objectives at the garden level. We believe that focusing on the role of the larger tea companies, which hold a great deal of power in Indian tea market can have a significant influence over conditions for workers on plantations and small growers.

## REFERENCES

- DasGupta, A. (2009). *Tea plantation in India towards sustainable development*, 46, 120-122.
- Rasaily, R. (2014). *Women's labour in the tea sector: Changing trajectories and emerging challenges*. Discussion Paper No. 31, National Research Programme On Plantation Development (NRPPD), Centre For Development Studies, Thiruvananthapuram, 8-13, 40.
- Duara, M. (2015). *Evolving intricacies of industrial relations: A study of Selected Tea Estates in Assam*. Indian Institute of Technology Guwahati, 156-112.
- Increasing Tea Productivity through Improved Nutrition a Call To Action: Global Alliance For Improved Nutrition (GAIN), Centre For Development Innovation, Wageningen University & Research Centre.
- Baruah, P. (2008). *The tea industry of Assam origin and development*. EBH Publishers, Guwahati.
- Baby, K. (2016). Cash crops: The role of tea plantation industries. *Kurukshetra: A Journal on Rural Development*, 64.
- Kurmi, P. (2014). In his case study on problem of educational attainment of children, a case study of the tea garden labourer's households in derby tea estate. *Research Journal of Language, Literature and Humanities*, 1(4), 1, 7.
- Azera, P. R. (24 April 2014). On the plight of women workers in assam's tea gardens (DNA India, 24 Apr 2014).
- Aljazeera. (13 August 2015). Assam's dying mothers. *Tea Despatch*. (15 February, 2016). Insert viii.
- Rampant, T. B. (19 Jan, 2015 ). In Assam Tea Gardens The Hans India.
- Kumar, P. (2004). Tea plantation workers of Cachar: A socio-political study, In *Journal of North-East-India Council For Social Science Research*, 28th Year Of Publication, 28(2), 31.
- Sarma, A. (2015). Social security as a productive factor for informal workers in Tea Gardens of Brahmaputra Valley In Assam, Sikkim University, 26, 44-47, 51-55, 67-69.
- Pathak, P. N. (n.d.). Retrieved from <http://Teaplantation.Blogspot>
- Singh, S. N. (2006). *Socio-economic and political problems of tea garden workers – A study of Assam*. Mittal Publication, New Delhi, 126.
- Behal, P. R. (2014). One hundred years of servitude: Political economy of tea plantations in colonial Assam [Review of the book by Kalpana Prasad] 51(5), *Economic & Political Weekly*, 387.
- Dishanka, S. (2014). Social development and labour productivity: The problem and a solution for the tea plantation sector of Sri Lanka. *Colombo Business Journal International Journal of Theory & Practice*, 4(2), December, 2013 & 5(1), June, 2014.
- Bhowmik, K. S. (2015). Living conditions of tea plantation workers (29-30) *Economic & Political Weekly*, 46 & 47
- Jain, N. K. (2008). *Economic Crisis in Tea Industry*. Studium Press, LLC, USA, 18-19.
- Devi, P. (2014). Socio-economic status of the tea garden women workers in Assam: A case study with special reference to Sonitpur District. *Reviews of Literature*, 2(2).

- Kifle, A. (n.d.). The Rapid Assessment Study On Child Labour In Selected Coffee And Tea Plantations In Ethiopia' Prof. Prasanta Sarmah and Dr. Horen Goowalla Women Entrepreneurship in Tea Industry: Challenges and Prospects. *International Journal of Innovation and Research in Educational Sciences*, 1(4), 226-227.
- Goowalla, H. (2012). Labour relations practices tea industry of Assam - With special references to Jorhat district of Assam. *IOSR Journal of Human and Social Science*, 1(2), 35-41.
- Bosumatari, D. (2013). Educational status of tea plantation women workers in Assam: An empirical analysis. *Asian Journal of Multidisciplinary Studies*, 1(3), 1, 21, 26.
- Bhattacharjee, A. (2015). *Study on Role of Tea Industry in Rural Development of Assam: Issues and Challenges in respect of Human Resources*. XVI Annual Conference Proceedings January.
- Saikia, S., Misra, S., & Misra, B. (2013). Tea garden labours and their living conditions: A study on Sarusarai tea garden of Jorhat district of Assam, 1, 5-6,8
- Kaniampady, E. F. M. A. (2003). *Status of women workers in the tea plantations*. New Delhi: Akansha Publishing House, 11.
- Pulloppilli, T. (1999). *Identity of Adivasis in Assam* 129-156. Delhi.
- <http://www.guardian.co.uk/world/2013/jul/20/poverty-tea-pickers-india-child-slavery>
- Purkayastha, N. (2015). Tribal development policies after independence: A study on Oraon tribe in Barak valley region of Assam. *International Journal in Management and Social Science*, 3(7), 206-208.
- Mishra, D. K., Vandana, & Atul. (2012). *Unfolding Crisis in Assam's Tea Plantations*, 80, 98, 171, 173-178.
- Shah, V. (2012). Working paper on *has Indian plantation sector weathered the crisis?* Gujarat Institute of Development Research, 22-23.
- Sarkar, K. (2016). *Return to labour and inclusive growth in the context of Indian tea plantations: Recent happenings in Kerala and West Bengal*. Paper presented at international conference on public policy & management, 8-10 August 2016, IIMB.
- Struggles of tea garden workers viewed. Retrieved from <http://www.thesouthasian.org>.
- Indian tea workers, a life without dignity. (2016). Retrieved from <https://smallfarmersbigchange.coop/>.
- Kadavil, S. M. (n.d.). *Indian Tea Research*, 68-88.
- Bhowmik, S. K. (2015). *Wages of the tea plantation workers*, 50(19, 09).
- Social Dialogue as a Means of Enhancing Productivity - ILO, 1-4
- Pathak, P. N. (n.d.). Deteriorating productivity & quality in tea industry. Retrieved from <http://teaplantation.blogspot.in/>
- Reverse migration a worrying trend for Assam tea industry. (7, August, 2011). The Hindu,
- Kiptis, C. K., Kwasira, J., & Cheruiyot, P. K. (2014). Effect of human resource management practices on employee performance in Kenya: A case of large scale tea farms in Kuresoi South District, Kenya. *International Journal of Human Resource Management and Research*, 4(6), 39-52.
- The Assam Review & Tea News a report on Assam Reads. (2015). The riot act to defaulting tea garden owners.
- Mahanta, *et al*, (2000). Labour welfare measures in tea industry in Assam with special reference to Dibrugarh district, 158, 189, 190.
- Social security for tea workers. (2015). Retrieved from [www.pib.nic.in](http://www.pib.nic.in)
- Saikia, B. (2008). Development of tea garden community and Adivasi identity politics in Assam. *The Indian Journal of Labour Economics*, 51(2), 312, 315-316.
- Banik, P. (n.d.). Food security and migrant women workers: A study of tea Estates in Assam. *South Asian Journal of Multidisciplinary Studies (SAJMS)*, 2(3), 155.
- Chaudhuri, S. (2014). *Witches, tea plantations, and lives of migrant labourers in India*. New Delhi: Foundation Books.