

Gender Disparity: A Study of Coffee Plantation Workers in South India

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Abstract

The current study focused on areas of gender inequality and discrimination in coffee plantations in Karnataka, with respect to the Plantation Labour Act, 1951. As per Census 2011, coffee plantations were major employers of women workers in Karnataka; out of a total of 4.8 lakh average daily workers employed in coffee plantations, 62% were women workers. The study concentrated on categories where gender discrimination in the labor market occurred mostly: employment status, payment of minimum wages, social security benefits, and conditions of work. A representative survey was conducted in four different types of plantations based on the holding size, namely large, medium, small, and marginal plantations. A total of 510 (283 male + 227 female) people were interviewed for the survey in Chikmagalur, Hassan, and Kodagu District of Karnataka, India. The findings showed that in the case of entitlement to other benefits, male-female disparity was found in all types of plantation units, from large to marginal coffee estates. In conclusion, it can be said that a majority of the workers – both male and female – had experienced a drop in wages and other benefits that they were entitled to under the PLA.

Keywords: Coffee, Plantation Labour Act, Gender Inequality, Plantation Size, Employment Status

Introduction

Studies on female employment had demonstrated the existence of wage discrimination against women (Bourquia, 2002; Joeques, 1985). Labor market discrimination against women was legitimized by stereotypes and social discourse surrounding women employees. Within the urban labor market, gender discrimination tended to take the form of occupational

segregation, with women concentrated in poorly-paid, unskilled jobs, and of disparity in earnings, with women earning less than men (Anker, 1997; Birdsall & Sabot, 1991). Employers reflected social prejudice about women's work. For example, they argued that women were only working to buy beauty products (Joeques, 1985). In other words, a woman's work was not considered to be an important source of revenue for the family. However, the rate of female employment in the coffee plantation sector of India was in stark contrast to the labor market trends. As per NSSO (2011-12), overall female worker population ratio was 24% by usual status,¹ whereas it was 34% in the coffee plantation sector.

The current study² is focused on areas of gender inequality with respect to the Plantation Labour Act, 1951 (PLA), and various government acts for provision of social security in coffee plantations in Karnataka. Four areas will be investigated: a) employment size and activity status, b) conditions of employment, c) payment of minimum wage, and d) receipt of social security benefits. The area covered for the study is the statutory obligations of the employers under PLA, such as provision of earned leave, weekly off with wages, accommodation, drinking water and medical facilities in garden hospitals, canteen, and children's education, along with payment of minimum wages, bonus, and overtime.

¹ The estimate of employed (or worker) in the age group 15-64 according to the *usual status (principal status)* gives the number of persons who worked for a relatively long period of the 365 days preceding the date of survey.

² This paper is the revised version of the paper 'Women Workers in Coffee Plantations' presented in the conference on "Women's Work in Rural Economies", organized by Foundation for Agrarian Studies held in Kochi, India, November 30 – December 2, 2018.

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Literature Review

There exist few scholarly literatures on labor market issues on plantations in the Indian context. Low wages and poor working and living conditions of workers in plantations have attracted attention among researchers [Narang (2014); Rege (1946); Raman, (1986a); Bhowmik (1994); Kurian (1997); Rajasenan (2010); Selvakumar & Jegatheesan (2017)]. Kurian (1997) has studied the socio-economic aspects of women workers in the plantation sector (including tea, coffee, rubber, and cardamom) in Kerala. Raman (1986a) discusses the Ministry of Labour's report on working and living conditions of plantation workers covering tea, coffee, and rubber plantations in southern states, namely, Karnataka, Kerala, and Tamil Nadu. George (1986) discusses the structural factors behind the crisis of the South Indian tea industry, namely the steady increase in the cost of production as well as the declining land productivity. UPASI (2003) characterizes the current status of the plantation industry as "one of the darkest phases in its history". Like any other industry, plantations too have been exposed to global economic trends. Studies have documented the deep crisis faced by South Indian plantations [George (1986); UPASI (2003); Hayami & Damodaran (2004)]. In the context of global economic change, the organization of production in tea plantations in India have shifted away from the principal large sector to the decentralized forms of production, namely marginal holder – BLF (Bought-Leaf Factory) sector. Changes in the liberalization policies and globalization have transformed the plantations' identity, changing the pattern of traditional plantation toward more flexible forms of production. A dualistic system of production characterizes plantation crops (Hayami & Damodaran, 2004). While one sector consists of medium holdings employing hired wage labor, the second sector comprises farms growing plantation crops together with other crops in marginal holdings. These farms rely mainly on family labor, which gets supplemented by casual labor during the harvest season. Ever since the labor market has reoriented itself from permanent labor to the dominating casual labor, the organised labor market has been replaced by the informal labor market. In this background, it is disconcerting to note that existing studies have hardly recognized the need to account for these diverse issues in other plantation crops, namely rubber, coffee, and

cardamom. This paper takes the initial step to filling this gap by identifying various issues in coffee plantations that need further investigation, particularly in the South Indian context.

Background

World Coffee Scenario

There are over 125 countries that consume coffee and about 50% of them produce coffee. The major coffee-growing countries of the world are broadly grouped under four regions: Africa, North and Central America, South America, Asia and Oceania regions. The major coffee producing countries are Brazil (33.16%), Vietnam (15.06%), Indonesia (11.60%), Colombia (10.39%), Mexico (4.73%), India (4.5%), Ethiopia (3.96%), Guatemala (3.3%), Honduras (2.90%), Uganda (2.83%), and others (7.57%) (ICO, 2018). It is estimated that more than 20 million people throughout the world earn their living from coffee. A majority of them are involved in its production and 40% of them consume coffee on a regular basis. Thus, coffee is extremely important in the economies of many countries and in world trade in general.

Status of Coffee in India

India accounts for about 4.5% of the world's coffee production and more than 95% of it is shade-grown under a multi-layered canopy of forest trees and multiple crops. Coffee is cultivated in an area around 4.55 lakh hectares; traditional areas cover the States of Karnataka, Kerala, and Tamil Nadu (total 3.66 lakh hectares), which contribute to around 71 per cent of the total production (Table 1) (Coffee Board, 2017-18). Coffee is also cultivated to some extent in non-traditional areas of Andhra Pradesh and Odisha (0.76 lakh hectares) and to a lesser extent in the North Eastern States of Assam, Arunachal Pradesh, Meghalaya, Mizoram, Tripura, Nagaland, and Manipur, with main emphasis on tribal development and afforestation (0.08 lakh hectare). India's share in the total world production for the year 2017-18 is 3.3% and the share of exports is 5.54%. India ranks as the seventh largest coffee producer globally. The total quantity of coffee exported from India during 2017 including re-exported coffee after value addition was 2.33 Metric Tonnes.

Table 1: Planted Area of Coffee in Major States/ Districts (Zones) of India (in Hectares)

State/District	2017-18			In %
	Arabica	Robusta	Total	
	Karnataka			
Chikmagalur	55225	42192	97417	45.66
Kodagu	28140	78949	107089	38.99
Hassan	25430	14849	40279	15.45
Sub-total	108795	135990	244785	53.83
Kerala	4231	85880	85880	18.87
Tamil Nadu	29513	6094	35607	7.83
Total for traditional areas	142539	223733	366272	80.55
Non-traditional areas	86372	2079	88451	19.45
Grand total (India)	228910	225812	454722	100.00

Source: Coffee Board, 2017-18.

Status of Coffee in Karnataka

Coffee is cultivated predominantly in three states of India, namely Karnataka, Tamil Nadu, and Kerala. Karnataka

has a pride of place in the production of coffee, accounting for 71.03% of India's total production. In Karnataka, coffee cultivation is confined to three districts, namely Kodagu, Chikmagalur, and Hassan. These districts respectively account for 45.66, 38.99, and 15.45% of the area, and 54.06, 34.10, and 11.84% of the production of coffee in the state (Table 2). Coffee cultivation is labor intensive, and provides employment to about 6.6 lakh people, thereby generating rural livelihood; rate of growth of labor employment was 11% between 2008-09 and 2017-18 (Table 3). On an average, 5,14,695 persons per day are employed in coffee plantations in the state of Karnataka, of which Kodagu district accounts for 52.70%, followed by Chikmagalur at 28.4%, and Hassan at 18.9% in 2017-18. Chikmagalur stands second with respect to area and production; the district has diversification with areca nut, pepper, cardamom, vanilla, orange, clove, cinnamon, and other spice crops (Coffee Board, 2018).

Table 2: Production of Coffee in Major States/Districts (Zones) of India (in MT)

State/District	2017-18			In %
	Arabica	Robusta	Total	
	Karnataka			
Chikmagalur	31660	43275	74875	23.69
Kodagu	19550	97000	116550	36.88
Hassan	17875	13000	30875	9.77
Sub total	69025	153275	222300	70.35
	Other States			
Kerala	2160	63575	65735	20.80
Tamil Nadu	13400	4040	17440	5.52
Total for traditional areas	84585	220890	305475	96.66
Non-traditional areas	10415	110	10525	3.30
Grand total (India)	95000	221000	316000	100.00

Source: Coffee Board, 2017-18.

Table 3: Labor Employment in Coffee Plantations, India

Year	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18
Employment	594185	594708	599351	606702	610297	613161	616725	632993	653647	659865
Rate of growth between 2008-09 and 2017-18					11.0					

Source: Coffee Board 2010-11 & 2017-18.

Coffee Crisis

In India, coffee was the only commodity marketed through a statutory organization, viz., the Coffee Board.

Under this system, it was obligatory on the part of the coffee grower to surrender all his produce to the pool. He would then receive returns based on the quantity and quality of the produce he pooled. The complete pooled

system, which worked for over 50 years, gave way to the partial pooling system with the announcement of Internal Sale Quota/Free Sale Quota (ISQ/FSQ) in the year 1992-93. This announcement gave the producer the choice of selling 50% of his produce on his own, either in the internal market or outside the country. In the year 1996, 100 per cent FSQ was allowed to the coffee growers (Ravindranath, 1999). The monopoly of the Coffee Board as a sole supplier of coffee came to an end.

Withdrawal of the pooling system by the Coffee Board had a significant impact on the export of coffee on two major counts. First, a steep fall in domestic prices exerted tremendous pressure on the production sector, questioning the economic viability and profitability of the plantation crops (Viswanathan & Shah, 2012). Second, India's exports of plantation products declined owing to the loss of conventional markets caused by trade openness and global market integration.

Impact on Workers

These two developments had a damaging effect on the plantation sector. As domestic prices of the plantation products declined to unremunerated levels, a medium segment of the producers, both in the organized and unorganized plantation sectors adopted a series of punitive measures to counter the plantation crisis. The coping mechanisms adopted by the plantation producers were mostly confined to cost-saving and labor-displacing measures. More specifically, these measures included abandoning non-viable plantations, discarding scientific agro-management practices, labor retrenchment, wage cuts, lockouts, non-compliance with the regular tripartite wage negotiations, and so on. (George & Joseph, 2005; Viswanathan & Shah, 2012).

Evidence suggests that the eventualities of the crisis resulted in permanent closure, abandonment and even disintegration of small and marginal coffee plantations due to the troubled labor relations, similar to what handloom units in Kerala and Tamil Nadu (Sajith Kumar & Sulaiman, 2017) and brick industries in West Bengal faced (Islam, 2018). As noted by the Ministry of Commerce and Industry (2006), globalization and accompanying trade liberalization has led to a sharp decline and volatility in prices of many plantation crops, which in turn has inhibited investment in the sector. Consequently, the

sector which generates massive employment, especially for women, has become economically and socially more unviable. Hence, it is necessary to understand the challenges faced by the laborers in the plantation labor market. In this context, a study of labor market issues in plantations assumes no less significance.

Objectives

The objective of this paper is gender analysis of working conditions in the coffee plantation sector of Karnataka with respect to the a) Plantation Labour Act, 1951, b) Minimum Wages Act, 1948, c) Payment of Wages Act, 1936, d) Payment of Bonus Act, 1965, and e) Employees' Provident Fund and Miscellaneous Provisions Act, 1952.

Four areas will be investigated:

- Employment size and activity status
- Conditions of employment
- Payment of minimum wage
- Receipt of social security benefits

Data

Fieldwork was carried out in the District of Chikmagalur, Hassan, and Kodagu in June-July 2016; July-Sep 2017, and Jan-Feb 2018. For the purpose of the study, 510 workers (male: 283 and female: 227), segregated by size of plantation, were provided with a schedule-questionnaire. Samples were drawn as a proportion of the population. As per Census (2001), female workers in coffee plantations make up 45%, compared to the 55% of male workers, in Karnataka, while overall in India, women make up 44%, compared to the 56% of male workers. My samples represent 45% of female workers and 55% male workers, which reflects the actual ratio of coffee plantation workers in Karnataka.

Size of plantation:

- Large (> 100 acres)
- Medium (50-100 acres)
- Middle (25-50 acres)
- Marginal (10-25 acres)

Major Findings

In terms of employment status, 21% of the workers are permanent: 15% are male workers and 7% are female

workers (Table 4). Proportion of temporary male workers (31%) is also higher than female workers (28%). Overall, percentage of temporary workers (59%) is very high.

Table 4: Employment Status of Plantation Workers by Gender (%)

<i>Employment Status</i>				
	<i>Permanent</i>	<i>Temporary</i>	<i>Contract</i>	<i>Total</i>
Male	76 (14.9)	158 (31.0)	49	283 (55.5)
Female	33 (6.5)	144 (28.2)	50 (9.8)	227 (44.5)
Total	109 (21.4)	302 (59.2)	99 (19.4)	510

Source: Field survey, 2016-18.

In the plantation industry, as per the Minimum Wages Act, 1948, the average daily wage rate is Rs. 314.14 (Govt.

of Karnataka, 2018)³. Overall, 58% of the workers are receiving minimum wage: 22% of female workers are receiving minimum wage, against 36% of male workers (Table 5). In the case of payment of less than minimum wage as well, the percentage of female workers is higher (20%) than male workers (11.4%). Proportion of permanent workers comprising both male and female workers receiving minimum wage is higher than other workers⁴.

³ This rate is implemented from April 2018 to March 2019. During the fieldwork, minimum wage for unskilled workers was Rs. 277.14 for the financial year 2017-18 and Rs. 255.63 for the financial year 2016-17. For analysis of payment of daily wage, the last two figures were taken into account.

⁴ Minimum wage for male workers (Rs. 265) is higher than female workers (Rs. 259). Payment of minimum wage is significantly related to gender ($p > .001$).

Table 5: Rate of Wage by Gender and Employment Status (%)

	<i>Minimum Wage</i>	<i>Less than Minimum Wage</i>	<i>Greater than Minimum Wage</i>	<i>NA</i>	<i>Total</i>
<i>Male</i>					
Permanent	48 (9.4)	2 (0.4)	0 (0.00)	26 (5.1)	76 (14.9)
Temporary	107 (21.0)	36 (7.0)	5 (1.0)	10 (2.0)	158 (30.9)
Contract	27 (5.3)	20 (4.0)	1 (0.2)	1 (0.2)	49 (9.6)
Total	182 (35.7)	58 (11.4)	6 (1.2)	37 (7.2)	283 (55.5)
<i>Female</i>					
Permanent	17 (3.3)	7 (1.3)	4 (0.8)	5 (1.0)	33 (6.4)
Temporary	78 (15.3)	62 (12.1)	0	4 (0.8)	144 (28.1)
Contract	17 (3.3)	33 (6.5)	0	0	50 (9.8)
Total	112 (21.9)	102 (20.0)	4 (0.8)	9 (1.8)	227 (44.5)
Grand total	294 (57.6)	160 (31.4)	10 (2.0)	46 (9.0)	510 (100.0)

Source: Field survey, 2016-18.

Regarding observance of weekly off⁵ with or without wages in the sampled plantation units, it is observed that only four per cent of the workers are getting weekly off with wages as against 96% of the workers not receiving weekly off with wages (Table 6). Permanent workers are also deprived of weekly off with wages. Out of 21% of the total permanent workers, only one per cent of both male and female permanent workers are entitled to weekly off with wages.

⁵ PLA 1951, Section 20(a) stipulates a day of rest in every period of seven days, which shall be allowed to all workers.

Table 6: Entitlement to Weekly off with Wage by Gender and Employment Status (%)

<i>Weekly Off</i>	<i>With Wage</i>	<i>Without Wage</i>	<i>Total</i>
<i>Male</i>			
Permanent	7 (1.3)	69 (13.5)	76 (14.9)
Temporary	4 (0.4)	154 (28.2)	158 (30.9)
Contract	0	49 (9.6)	49 (9.6)
Total	9 (1.7)	274 (53.7)	283 (55.5)
<i>Female</i>			
Permanent	6 (1.2)	27 (5.3)	33 (6.5)
Temporary	5 (0.8)	139 (24.9)	144 (28.2)
Contract	1 (0.2)	49 (9.6)	50 (9.8)
Total	12 (2.2)	215 (42.3)	227 (44.5)
Grand total	20 (4.0)	490 (96.0)	510 (100.0)

Source: Field survey, 2016-18.

In the coffee plantation units, the sampled units are a mixture of large and medium holdings. According to the Payment of Bonus Act, 1965, any establishment in which 20 or more workers are employed on any day during the accounting year are entitled to a bonus⁶ on the basis of profit based on production or productivity. The survey result reveals that 46% of the workers are receiving bonus as per rate, 53% of workers are not receiving bonus, and only 1% are receiving less than the prescribed rate under the Payment of Bonus Act, 1965. However, it may be seen that only 15% of female workers are receiving a bonus, compared to 31% of the male workers (Table 7). In terms of employment status, bonus is not paid to 2-3% of the permanent workers comprising both male and female workers.

Table 7: Rate of Bonus by Gender and Employment Status (%)

Rate of Bonus	As Per Rate	Less than Rate	No Bonus	Total
<i>Male</i>				
Permanent	58 (11.4)	0	18 (3.5)	76 (14.9)
Temporary	95 (18.6)	4(0.8)	59 (11.5)	158 (30.9)
Contract	5 (1.0)	0	44 (8.6)	49 (9.6)
Total	158 (31.0)	4(0.8)	121(23.7)	283 (55.5)
<i>Female</i>				
Permanent	21 (4.1)	0	12 (2.3)	33 (6.4)
Temporary	54 (10.5)	1(0.2)	89 (17.4)	144 (28.1)
Contract	2 (0.4)	0	48 (9.4)	50 (9.8)
Total	77 (15.1)	1 (0.2)	149 (29.2)	227 (44.5)
Grand total	235 (46.0)	5 (1.0)	270 (53.0)	510 (100.0)

Source: Field survey, 2016-18.

As per Section 19 of PLA, 1951, where an adult worker works in any plantation on any day in excess of the number of hours constituting a normal working day or for more than 48 hours in any week, he/she shall, in respect of such overtime work, be entitled to twice the rates of ordinary wages. It is found that 33% of the workers are receiving overtime as per rate (male workers 21% + female workers 11%). On the other hand, 67% of the workers are receiving less than the rate (Table 8); proportion of both permanent and temporary female workers (0.4% and 11%) getting as per prescribed rate is lower than the male permanent and temporary workers (4% and 16%).

⁶ The rate of the bonus is 8.33% of basic wage.

Table 8: Rate of Overtime by Gender and Employment Status (%)

	As Per Rate	Less than Rate	Total
<i>Male</i>			
Permanent	19 (3.7)	57 (11.2)	76 (14.9)
Temporary	84 (16.4)	74 (14.5)	158 (30.9)
Contract	3 (0.6)	46 (9.0)	49 (9.6)
Total	106 (20.7)	177 (34.7)	283 (55.5)
<i>Female</i>			
Permanent	2 (0.4)	31 (6.1)	33 (6.5)
Temporary	58 (11.3)	86 (16.9)	144 (28.2)
Contract	0	50 (9.8)	50 (9.8)
Total	60 (11.7)	167 (32.8)	227 (44.5)
Grand total	166 (33.0)	344 (67.0)	510 (100.0)

Source: Field survey, 2016-18.

As per the Employees' Provident Fund and Miscellaneous Provisions Act, 1952, workers are entitled to the provident fund scheme based on the deductions made by the employee and employer. It is found that 45% of the workers are entitled to provident fund, out of which 30% of male workers and 15% of female workers are eligible. Not much difference is observed between permanent and temporary workers (Table 9).

Table 9: Gender-wise Distribution of Entitlement to Social Security Benefits and Employment Status (%)

	Yes	No	Total
<i>Provident Fund</i>			
<i>Male</i>			
Permanent	58 (11.4)	18 (3.5)	76 (14.9)
Temporary	94 (18.4)	64 (12.6)	158 (30.9)
Contract	4 (0.8)	45 (8.8)	49 (9.6)
Total	156 (30.6)	127 (24.9)	283 (55.5)
<i>Female</i>			
Permanent	21 (4.1)	12 (2.4)	33 (6.5)
Temporary	54 (10.6)	90 (17.6)	144 (28.2)
Contract	1 (0.2)	49 (9.6)	50 (9.8)
Total	76 (14.9)	151 (29.6)	227 (44.5)
Grand total	232 (45.0)	278 (55.0)	510 (100.0)
<i>Earned Leave</i>			
<i>Male</i>			
Permanent	55 (10.7)	21 (4.1)	76 (14.9)
Temporary	54 (10.6)	104 (20.4)	158 (31.0)
Contract	7 (1.4)	42 (8.2)	49 (9.6)

	Yes	No	Total
<i>Earned Leave</i>			
Total	116 (22.7)	167 (32.7)	283 (55.5)
<i>Female</i>			
Permanent	21 (4.1)	12 (2.4)	33 (6.5)
Temporary	36 (7.0)	108 (21.2)	144 (28.2)
Contract	6 (1.2)	44 (8.6)	50 (9.8)
Total	63 (12.3)	164 (32.2)	227 (44.5)
Grand total	179 (35.0)	331 (65.0)	510 (100.0)
<i>Medical Benefits</i>			
<i>Male</i>			
Permanent	59 (11.5)	17 (3.3)	76 (14.9)
Temporary	96 (18.8)	62 (12.2)	158 (30.9)
Contract	5 (1.0)	44 (8.6)	49 (9.6)
Total	160 (31.3)	123 (24.1)	283 (55.5)
<i>Female</i>			
Permanent	22 (4.3)	11 (2.1)	33 (6.5)
Temporary	63 (12.3)	81 (15.8)	144 (28.2)
Contract	5 (1.0)	45 (9.0)	50 (9.8)
Total	90 (17.6)	137 (26.9)	227 (44.5)
Grand total	250 (49.0)	260 (51.0)	510 (100.0)
<i>Children's Education</i>			
<i>Male</i>			
Permanent	8 (1.6)	68 (13.3)	76 (14.9)
Temporary	19 (3.7)	127 (25.0)	146 (28.6)
Contract	0	61 (11.9)	61 (11.9)
Total	27 (5.3)	256 (50.2)	283 (55.5)
<i>Female</i>			
Permanent	4 (0.8)	29 (5.7)	33 (6.5)
Temporary	19 (3.7)	112 (22.0)	131 (25.7)
Contract	1 (0.2)	62 (12.1)	63 (12.3)
Total	24 (4.7)	203 (39.8)	227 (44.5)
Grand total	51 (10.0)	459 (90.0)	510 (100.0)

Source: Field survey, 2016-18.

The Plantation Labour Act, 1951, Section 30(a) prescribes that for every adult worker, one day earned leave for every twenty days of work performed by him should be allowed. In total, 35% of the workers are getting earned leave: 23% male workers and 12% of female workers are in receipt of earned leave. In the case of permanent workers as well, there is a difference; 11% of male permanent and temporary workers are entitled to earned leave, while 4% of permanent and 7% of temporary female workers are getting earned leave (Table 9).

The conditions of plantation labor are governed by the Plantation Labour Act, 1951; Section 32(2) is unique in the fact that it requires the employer to provide the workers with medical facilities and other forms of social security measures. Almost 50% of the workers are in receipt of medical facilities; not much difference is found

between temporary and permanent workers (Table 9). But more number of male workers (31%) are in receipt of the facility than female workers (18%). This may be due to the fact that in plantations doctors are always male and female workers may hesitate to approach them.

The Plantation Labour Act, 1951, Section 14, makes it obligatory on the part of employers to maintain primary schools in the plantations, where the number of children between the age group of six and 12 exceeds 25. However, an employer can be exempted from this obligation if there already exists a school run either by the State Government or a local body providing free education to enough number of children. It is found that only 10% of the workers' children are receiving (Table 9) free education. A majority of the workers' children are not receiving school education within the estates (male 50% + female 40%). This may be due to the fact that the present survey comprises all sizes of coffee plantations; small or marginal plantations may not have the obligation to provide schools within the plantation. Also, there are schools run by the State Government in the vicinity.

Overall, the findings suggest that employment status is not strongly related to access to various social security provisions enshrined in the PLA, 1951. There is a significant relationship ($p < .001$) between gender and non-implementation of the provisions of social welfare measures, excepting payment of wages in time, weekly off with wages, and provision of school education for children within the estates, where both male and female workers are equally deprived of the said rights.

Role of Plantation Size

Now, it is to be seen whether plantation size is a determining factor in the implementation of the Plantation Labour Act, 1951, focussing on a) payment of minimum wage, b) weekly off with wages, c) payment of bonus, d) payment of overtime, e) earned leave, f) provident fund, and g) medical facilities within the estate⁷. Plantations are classified into different size holdings: small (1-10 hectares), medium (10-25 hectares), and large (> 25 hectares).

⁷ The State Government may prescribe rules requiring that in every plantation, wherein 150 workers are ordinarily employed, one or more canteens shall be provided and maintained by the employer for the use of the workers. Excepting one estate, no estates have canteen facilities, and all estates have provided drinking water. Therefore, these two facilities are not taken up for analysis.

Payment of minimum wage is agreed by 58% of workers (male 36% + female 22%) (Table 10). More female workers (20%) are receiving less than minimum wage than male workers (5.1%). As per the plantation size, it

is observed that there is a significant relationship between plantation size and payment of minimum wage. With decreasing plantation size, the proportion of workers receiving minimum wage is also decreasing.

Table 10: Plantation Size and Rate of Wage by Gender (%)

Plantation Size	Minimum Wage	Less than Minimum Wage	Greater than Minimum Wage	NA	Total
<i>Male</i>					
Large	85 (16.7)	0	0	26 (5.1)	111 (21.8)
Medium	26 (5.1)	21 (4.1)	5 (1.0)	6 (1.2)	58 (11.4)
Small	71 (13.9)	37 (7.2)	1 (0.2)	5 (0.9)	114(22.3)
Total	182 (35.7)	58 (11.3)	6 (1.2)	37 (7.2)	283 (55.5)
<i>Female</i>					
Large	44 (8.6)	9 (1.8)	4 (0.8)	4 (0.8)	61 (12.0)
Medium	23 (4.5)	33 (6.5)	0	3 (0.6)	59 (11.6)
Small	45 (8.8)	60 (11.7)	0	2 (0.4)	107 (20.9)
Total	112 (21.9)	102 (20.0)	4 (0.8)	9 (1.8)	227 (44.5)
Grand total	294 (57.6)	160 (31.4)	10 (2.0)	46 (9.0)	510 (100.0)

Significant: ($X^2(20) \geq 167.66, p < .001$)

Source: Field survey, 2016-18.

Only 4% of workers are entitled to weekly off with wages (Table 11). There is no significant relationship between plantation size and weekly off. The same percentages of male and female workers are denied weekly off with wage. Rate of bonus and rate of overtime are decreasing with the size of the plantations. Payment of bonus and payment of overtime as per rate is proportionately higher for male workers, whereas the percentage of female workers is higher in the case of both payment of bonus and overtime at less than the stipulated rate (Table 12 and 13).

Table 11: Plantation Size and Weekly Off by Gender (%)

Plantation Size	With Wage	Without Wage	Total
<i>Male</i>			
Large	7 (1.4)	104 (20.4)	111 (21.8)
Medium	0	58 (11.4)	58 (11.4)
Small	2 (0.4)	112 (22.0)	114 (22.3)
Total	9 (1.8)	274 (53.7)	283 (55.5)
<i>Female</i>			
Large	4 (0.8)	56 (11.0)	60 (11.8)
Medium	2 (0.4)	57 (11.2)	59 (11.6)
Small	5 (1.0)	103 (20.2)	108 (21.1)
Total	11 (2.2)	216 (42.4)	227 (44.5)
Grand total	20 (4.0)	490 (96.0)	510 (100.0)

No significant association: ($X^2(12) \geq 16.18, p < 0.183$)

Source: Field survey, 2016-18.

Table 12: Rate of Bonus by Gender and Plantation Size (%)

Rate of Bonus	As Per Rate	Less than Rate	No Bonus	Total
<i>Male</i>				
Large	102 (20.0)	4 (0.8)	5 (0.9)	111 (21.7)
Medium	33 (6.5)	0	29 (5.7)	62 (12.2)
Small	23 (4.5)	0	87 (17.0)	110 (21.6)
Total	158 (31.0)	4 (0.78)	121 (23.7)	283 (55.5)
<i>Female</i>				
Large	40 (7.8)	1 (0.2)	20 (3.9)	61 (12.0)
Medium	21 (4.1)	0	38 (7.5)	59 (11.6)
Small	16 (3.1)	0	91 (17.8)	107 (20.9)
Total	77 (15.0)	1 (0.2)	149 (29.2)	227 (45.5)
Grand total	235 (46.1)	5 (0.98)	270 (52.9)	510 (100.0)

Source: Field survey, 2016-18.

Table 13: Rate of Overtime by Gender and Plantation Size (%)

	As Per Rate	Less than Rate	No Overtime	Total
<i>Male</i>				
Large	49 (9.6)	52 (10.2)	10 (2.0)	111 (21.7)
Medium	30 (5.8)	31 (6.1)	1 (0.2)	62 (12.1)
Small	34 (6.7)	66 (12.9)	10 (2.0)	110 (21.7)
Total	113(22.1)	149 (29.2)	21 (4.2)	283 (55.5)

	As Per Rate	Less than Rate	No Overtime	Total
<i>Female</i>				
Large	10 (2.0)	44 (8.6)	7 (3.0)	61 (12.0)
Medium	12 (2.3)	47 (9.2)	0	59 (11.5)
Small	38 (7.5)	70 (13.7)	9 (1.8)	107 (21.0)
Total	60 (11.8)	161 (31.6)	16 (7.0)	227 (45.5)
Grand total	163 (32.0)	310 (60.78)	37 (7.25)	510 (100.0)

Source: Field survey, 2016-18.

Entitlement to provident fund is shared by 45% of the workers (male 30% + female 15%) (Table 14). More number of male workers are entitled to provident fund deduction than female workers. As per the plantation size, it is observed that there is significant relationship between plantation size and payment of provident fund. Only 12% of the workers are entitled to earned leave; there is no difference in entitlement to earned leave based on gender (Table 14). Plantation size is not related to the provision of earned leave.

Table 14: Plantation Size and Entitlement to Social Security Benefits by Gender (%)

<i>Provident Fund</i>			
	Yes	No	Total
<i>Male</i>			
Large	106 (20.8)	5 (1.0)	111 (21.8)
Medium	25 (4.9)	33 (6.5)	58 (11.4)
Small	21 (4.1)	93 (18.2)	114 (22.3)
Total	152 (29.8)	131 (25.7)	283 (55.5)
<i>Female</i>			
Large	41 (8.0)	20 (3.9)	61 (12.0)
Medium	20 (4.0)	39 (7.6)	59 (11.6)
Small	15 (3.0)	92 (18.0)	107 (21.0)
Total	76 (14.9)	151 (29.6)	227 (45.5)
Grand total	228 (45.0)	282 (55.0)	510 (100.0)
<i>Earned Leave</i>			
<i>Male</i>			
Large	79 (15.4)	32 (6.3)	111 (21.8)
Medium	20 (4.0)	38 (7.4)	58 (11.4)
Small	17 (3.3)	97 (19.0)	114 (22.3)
Total	116 (22.7)	167 (32.7)	283 (55.5)
<i>Female</i>			
Large	38 (7.4)	23 (4.5)	61 (12.0)
Medium	13 (2.5)	46 (9.0)	59 (11.6)
Small	12 (2.4)	95 (18.6)	107 (21.0)
Total	63 (12.3)	164 (32.1)	227 (45.5)
Grand total	179 (35.0)	331 (65.0)	510 (100.0)
<i>Medical Benefits</i>			
<i>Male</i>			
Large	106 (20.8)	5 (1.0)	111 (21.8)

<i>Medical Benefits</i>			
	Yes	No	Total
Medium	27 (5.3)	31 (6.1)	58 (11.4)
Small	23 (2.7)	91 (7.4)	114 (10.2)
Marginal	9 (1.7)	53 (10.4)	62 (12.1)
Total	156 (30.5)	127 (24.9)	283 (55.5)
<i>Female</i>			
Large	42 (8.2)	19 (3.7)	61 (12.0)
Medium	26 (5.1)	33 (6.5)	59 (11.6)
Small	22 (4.3)	85 (16.7)	107 (21.0)
Total	90 (17.6)	137 (26.9)	227 (45.5)
Grand total	246 (48.0)	264 (52.0)	510 (100.0)
<i>Children's Education</i>			
<i>Male</i>			
Large	15 (2.94)	96 (18.8)	111 (21.8)
Medium	10 (1.96)	48 (9.4)	58 (11.4)
Small	2 (0.4)	112 (22.0)	114 (22.4)
Total	27 (5.29)	256 (50.2)	283 (55.5)
<i>Female</i>			
Large	13 (2.5)	48 (9.4)	61 (12.0)
Medium	9 (1.8)	50 (9.8)	59 (11.6)
Small	2 (0.4)	105 (20.6)	107 (21.0)
Total	24 (4.71)	203 (39.8)	227 (45.5)
Grand total	51 (10.0)	459 (90.0)	510 (100.0)

Source: Field survey, 2016-18.

Access to medical facilities is covered for 48% of workers (male 30% + female 18%) (Table 14). More male workers (31%) are receiving medical facilities than female workers (18%). As per the plantation size, it is observed that there is significant relationship between plantation size and access to medical facilities.

Regarding schools within the estate, it is found that only 10% of the workers are entitled to children's education; there is no difference in access to children's education based on gender (Table 14). Plantation size is not related to the provision of children's education.

On the whole, plantation size is significantly related (at $p < .001$) to variations in payment of minimum wage, entitlement to earned leave, coverage by provident fund, and medical facilities, but there is no relation to weekly off with wages⁸, children's education within the plantations, access to restrooms, and canteens. Nevertheless, plantation size does not invalidate the gender disparity in providing social welfare measures.

⁸ Plantation size was not found to be a determining factor in weekly off with wages ($X^2(12) \geq 16.18, p = 0.183$).

Conclusion

As per the Plantation Labour Act, 1951, in general, large and medium plantations are providing accommodation, medical facilities, provident fund, and earned leave. Employment status is not a significant factor for the implementation of various social security measures. Most importantly, though minimum wage is paid, weekly off with wage is not granted. Mean daily wage (Rs. 262.13) is less than the minimum wage (Rs. 277.14). Wage ratio between male and female workers is 0.97. There is a significant relation between gender inequality and payment of minimum wages, earned leave, weekly off with wage, bonus as per rate, and entitlement to provident fund and medical facilities, which is further compounded by the plantation size factor.

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