

# 琉球大学学術リポジトリ

## [研究動向]

農業における労働力保持についての課題と展望：  
スリランカにおける茶葉農園部門の事例研究

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[New Research Trend]

## Problems and Prospects of Retaining Workforce in Agriculture: The Case of the Sri Lankan Tea Plantation Sector

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### 1. Introduction

Tea is one of the major exports and foreign exchange-earning crops in Sri Lanka. Due to its paramount unique characteristics of flavour and quality, the tea branded “Ceylon Tea” grown in Sri Lanka is renowned as the best tea in the world despite to the fact that the majority of world tea production comes from China, India, and Kenya in addition to Sri Lanka (Anon, 2009). The humidity, cool temperatures, and rainfall in the central highlands in Sri Lanka provide an ideal climate that favours the production of high-quality tea. Above all, selective hand plucking of tea leaves, which cannot be replaced by mechanization, is the most significant factor that produces such a quality tea which cannot be replaced by mechanization.

The tea sector plays a vital role with a contribution of 0.9% to the total Gross Domestic Product (GDP), generating approximately 700 million U.S. dollars annually for the Sri Lankan economy (Anon, 2012a). Further, the tea industry provides over one million employments directly and indirectly in the Sri Lankan economy. The workforce in the corporate tea plantation sector is mainly residential and 80% of the resident workforce consists of South Indian Hindu Tamils who migrated to Sri Lanka as a part of the plantation system that was a product of colonialism and especially designed to export tropical goods to Europe (Wickramasinghe and Cameron, 2007).

Even though all field operations related to tea production have a direct impact on the quality of the tea produced, the most influential operations are plucking, leaf collection and handling, leaf transport, soil fertility management, pesticide use, and management of cultivars. As all these operations are generally conducted manually, the labour factor plays a major role in producing quality tea. In particular, selective plucking, which has a

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direct influence on tea quality, regularly requires a lot of labour. Therefore, the biggest cost component of tea is labour, which accounts for 70% of the total cost of production (Arunathilake, 2001).

The Sri Lankan tea industry has been experiencing the threat of deteriorating industrial capacity, with the predicament of out-migration of its workforce an increasing trend during the last few decades. Increased access to information, the obtaining of citizenship rights, and increased mobility have opened doors for the plantation community to participate in economic activities outside the plantations (Ekanayake and Athauda, 2009). In addition, the mushrooming of township, and increased opportunities to be offered jobs in shops and other establishments have escalated this situation significantly. In terms of the strength of the staff and labour force concerned, the number of staff employed by 20 Regional Plantation Companies declined over the decade from 14,200 to 12,400 in 2010. In 2012, the number of staff increased marginally compared to 2011. The labour force in Regional Plantation Companies gradually declined from 261,400 in 2000 to 180,168 in 2012, or 31%, which is a remarkable amount. This reduction is very prominent for the Janatha Estate Development Board and the Sri Lanka State Plantation Corporation, which suffered 30% and 44% declines respectively in the same period (Anon, 2012b). This decline is expected to continue in the future as workers are able to find more attractive employment opportunities, from their viewpoint, outside the tea estates (Sinnathambi and Wickramasinghe, 1995).

Unlike in the past, considerable changes have taken place in the estate sector. Numerous projects were implemented in the corporate tea plantation sector to enhance estate worker welfare, and wage rates have also increased to a satisfactory level. In addition to various monetary and non-monetary benefits that are supplied by estates, various welfare projects are also conducted by the Plantation Human Development Trust, the main organization that is responsible for labour welfare. However, in spite of all efforts made, declines in the workforce have still not been brought to a stop.

The general perception of the workforce is that their present employment is inferior compared to other similarly harsh or harsher job or jobs with equal or lower net pay outside plantations. This fact implies that the workers somehow need to escape from estates for various vague reasons. Literature reveals that, despite the fact that wages are considered to be the common determinant for labour turnover, the attitude of workers is the main cause of labour out-migration in the tea plantation sector in Sri Lanka (Ekanayake and Athauda, 2009). This worker attitude has developed gradually during the total history of the Sri Lankan plantation sector in terms of monetary benefits, welfare, social status, job satisfaction, social recognition, etc. This study was carried out with two main objectives: 1) to find out the impact of worker attitude and its decisive attributes towards worker out-migration from the tea plantation sector in Sri Lanka, and 2) to assess the factual situation of workers already out-migrated from the tea plantation sector.

## 2. Scope and Methodology

The study was carried out in two stages. In the first stage, data were collected to test whether worker attitudes have a significant impact on worker out-migration and what the decisive attributes of worker attitudes are. Worker attitude attributes considered in the study were wages, age, education, welfare on estates, and job satisfaction. Primary data were collected through face-to-face interviews, with a randomly selected sample of 300 respondents from ten tea estates using a pre-tested, structured questionnaire. The sample was obtained from workers from all three elevations, up country, mid country, and low country, and the sample included randomly selected workers from estates in the Kandy, Matale, Nuwara-Eliya, Hatton, Badulla, Rathnapura, and Matara districts with the help of the management of the tea estates. The questionnaire was structured to measure level of satisfaction related to the factors identified as attributes of worker attitude and worker out-migration, directly as well as indirectly. A five-point Likert scale ranging from “strongly satisfied” to “strongly dissatisfied” was used to gather qualitative data.

In the second stage, data were collected from workers who had out-migrated more than one year earlier and had been working in other non-plantation sectors to assess whether they had achieved objectives that they had thought not likely achievable while working in the plantation sector and as a result had caused their change in occupation. The study was carried out with a sample of 60 workers selected from six sectors that potentially accommodate out-migrated workers namely: the apparel industry, tile factories, shops, domestic jobs as housemaids/ watchers, self-employment, and odd jobs on daily-paid basis. Attitude toward job satisfaction was measured by a structured questionnaire adopted from the Minnesota Satisfaction Questionnaire (MSQ) Short Form devised by Weiss et al., (1967), using a five-point Likert scale.

Descriptive statistical analysis was mainly carried out to analyse the data collected from both stages of the study with the aim of achieving the set objectives, while inferential statistics were used to test associations between worker age, wage, education level, welfare level, job satisfaction, and intention for out-migration. Further, an Overall Attitudinal Index (OAI) was developed, and a Pearson Chi-square test was carried out to test whether there was any association between worker attitude towards their present occupation on plantations and willingness to out migrate.

Worker attitude towards the estate work was measured considering the attributes of wage, age, education, welfare, and job satisfaction. The level of job satisfaction was measured considering worker perception of social recognition, harshness and difficulty of the job, and job security. The level of willingness to out-migrate was measured considering the respondents’ intentions related to both themselves and their children. The Overall Attitudinal Index was developed using the average value of individual Attitudinal Indexes, and the impact of the OAI on out-migration was tested using a Chi-square analysis. The Attitudinal Index was measured as given below:

$$AI = \frac{\sum \text{Value of statements for each factor}}{n \times 5}$$

Where AI = Attitude Index

n = Number of statements used to assess the factor

### 3. Results and Discussion

#### Worker intention to out-migrate

The descriptive statistical summary of the factors that influence the intention for worker out-migration is depicted in Table 1.

**Table 1. Percentage of workers with the intention to out-migrate**

	Variable	Intention to out-migrate (%)
Age	16–30	58
	31–45	22
	Above 45	20
Wage (Rs.)	1,000–5,000	49
	5,000–10,000	44
	Above 10,000	7
Education Level	No Education	69
	Below Grade 5	15
	Below Grade 8	14
	Above Grade 8	2
Level of welfare	Satisfied	31
	Neutral	30
	Dissatisfied	39
Job Satisfaction	Satisfied	4
	Neutral	26
	Dissatisfied	70

The results revealed that 80% of the workers below the age of 45 were willing to out-migrate while as many as 58% of the youngsters below 30 years of age employed on estates intended to out-migrate from estate work (Table 1). Out of the workers who were willing to leave their present occupation on estates (93%) were not satisfied with their salary. However, when salary data were collected, it was clear that the workers were concerned about only their net salary, they had no clear idea about retirement benefits, and they did not count such benefits as income to be received in the future. Further, they had no concern or idea about the fact that instalments and interest deducted from their salary for loans they had obtained were also part of their income. With awareness of the value of education, and considering education as a way to escape from the plantation sector, unlike

in the past, parents made an effort to educate their children by taking advantage of the free education offered in the country. However, the results reveal that only 2% of the workers who were educated beyond junior high school were willing to out-migrate. However, it was revealed that the workers educated past grade 8 had already out-migrated, exploring the situation outside the estates, and the remaining workers had obtained opportunities to work as white-collar workers. Recently, many estates have started to employ educated young people from their own estates in white-collar jobs such as clerks, bookkeepers, computer application assistants, etc., and the perceived social status of such occupations is considered high on estates.

About one-third of the workers who intended to out-migrate were not satisfied with the level of welfare on the estates. Mainly, they referred to their welfare as it related to their residences. In the corporate tea plantation sector, workers are mainly residential, and 80% of the resident workforce is South Indian Hindu Tamils (Wickramasinghe and Cameron, 2007), who have a different culture and values from the majority Sinhalese community of the country. Other groups, especially Sinhalese and Muslims, are not satisfied with their welfare level since they have few opportunities for welfare activities, and they are desperate. Further, results revealed that the workers who intended to out-migrate from the estate sector were not satisfied with their occupation, showing a total of 96% as either neutral or dissatisfied.

The results of the Chi-square test revealed that age, level of education, and level of welfare had significant impact on out-migration of workers while wage level and job satisfaction had no significant impact on worker out-migration (Table 2).

Descriptive analysis of job satisfaction reveals that 98% of the total work force is dissatisfied with their job, and that indicates that both worker groups, those who do and do not intend to out-migrate, have strong negative attitudes towards job satisfaction. This attitude leads to the determination through the Chi-square test that job satisfaction is not a significant factor.

**Table 2. Association between migration status with attitudinal variables**

Variable	Pearson Chi-square p value
Age	0.000*
Wage	0.482
Education level	0.000*
Welfare level	0.000*
Job satisfaction	0.970

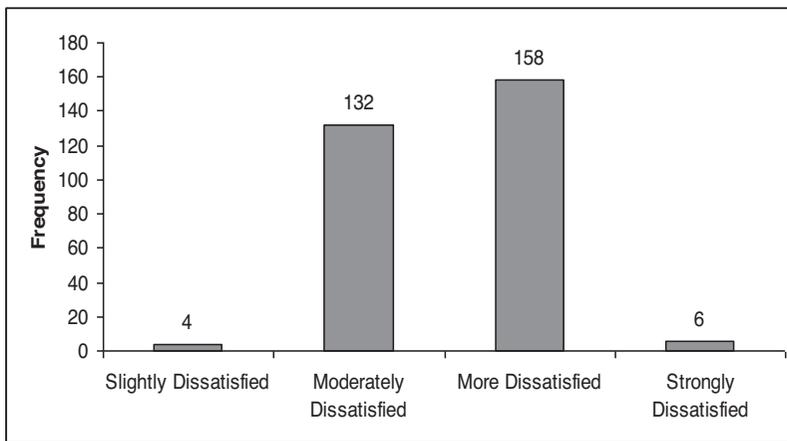
*\*Significant at 0.05 level*

A Pearson Chi-square test was performed to test whether there is an association

between intention to out-migrate and overall attitude towards out-migration. Results of the Chi-square test indicate 0.821 p-values at 0.05 significance levels, which reveals that OAI does not significantly affect worker out-migration. Average OAI, which is worked out by dividing total OAI by the total number of respondents, ranked as 0.775, where dissatisfaction levels of 0.6 and above were deemed as dissatisfied. This index shows the overall satisfaction level of the estate workers, and it reflects, as a total, that the workers are dissatisfied. Thus, the study clearly identified that almost all the workers had a strong negative attitude towards their job and that it had built up from several factors.

**Dissatisfied attitude of the tea plantation workers**

For further analysis, an OAI scale was developed from 0–0.9. The study defines values of more than 0.5 as dissatisfied, and it measures the level of dissatisfaction also increases in four stages: 1) slightly dissatisfied; 2) moderately dissatisfied; 3) more dissatisfied, and 4) strongly dissatisfied. It is clearly illustrated that more workers are in the middle level of dissatisfaction (Figure 1), which indicates that there is a possibility to retain them in the industry using appropriate motivational solutions.



**Figure 1. Distribution of overall dissatisfied attitudes in the sample**

**Out-migrated workers**

**Demographic factors and out-migration**

Descriptive statistics of workers who had already out-migrated from the estate sector, revealed that more than half of the out-migrated workers were below 30 years of age (Table 3). About 90% of the out-migrated workers were below 45 years of age, and that implies that the younger generations have no willingness to work in the estate sector anymore. New thinking patterns and attitudes that developed with awareness of other oppor-

tunities and education outside the estate culture are the main factors that drag them out from the estates. This fact is equally common for male workers, 47%, and female workers, 53%.

**Table 3. Socio-demographic factors and out-migration - out-migrated workers**

Parameters	Percentages (%)
Gender	
Male	47
Female	53
Age	
16–30	53
31–45	36
Above 45	11
Occupation	
Shop Workers	20
Garment Factory Workers	19
Tile Factory workers	26
House Maids/ watchers/Babysitters	16
Odd Jobs	13
Self Employed	6
Education Level	
No Education	0
Below grade 5	25
Below grade 8	29
Above grade 8	46
Wage Level	
Rs.1,000–5,000	0
Rs.5,000–10,000	0
Above 10,000	100

### **Education and Out-migration**

Table 3 shows that 75% of the out-migrated workers had a junior high school education or above, and there were no workers who had no education at all that out-migrated. This implies that workers with more education are seeking job opportunities outside estates.

### **Wages and Out-migration**

The wage income of 100% of the out-migrated workers was more than Rs.10,000. However, in spite of the fact that total wages including fringe benefits provided by the estates were equal to or greater than the wages from the new employment of out-migrated

workers, they were not much concerned/aware of the total fringe benefits. Even though the corporate plantation sector comprised of reputable listed companies strictly follows the government regulations related to worker provident funds, trust funds and other retirement benefits, domestic workers such as housemaids, babysitters, watchers, and workers in small shops are not privileged to have such benefits. Further, job security outside the plantations is less compared to estate employment.

**Job satisfaction**

Eighty-three percent (83%) of out-migrated workers are satisfied with their current occupation while sixteen percent (16%) were dissatisfied (Table 4). Outside the estates, they have the opportunity to work in an environment free from hazards related to the weather and the work itself. Workers who used to be beaten by weather conditions such as cold, burning sun, rain, and the difficulty and harshness of the work itself perceive work outside the estates as a relief.

**Table 4. Satisfaction level of out-migrated workers—present employment**

Variables	Out-migrated respondents (%)
Job Satisfaction	
Satisfied	62
Neutral	21
Dissatisfied	16
Welfare	
Satisfied	11
Neutral	8
Dissatisfied	81
Wages	
Satisfied	61
Neutral	29
Dissatisfied	10

**Satisfaction with welfare**

It was revealed that the out-migrated workers are not satisfied with the welfare provided by their employers. The satisfaction level was measured using questions focusing on the welfare level of the workplace, residences and the job itself. Eighty-one percent (81%) of out-migrated workers were dissatisfied with the welfare facilities provided with their present employment.

## **Satisfaction with wages**

Satisfaction related to wages was at a satisfactory level, with only 10% of the out-migrated workers dissatisfied about their wages. However, a productive estate worker can earn more than Rs.10,000 per month doing traditional tea plantation-related chores. In addition to that, they can earn more money by providing services supported by estate welfare societies and using various other income-generating sources while protecting their family harmony.

## **Conclusions**

It can be concluded that age, education level, and welfare level have a significant impact on worker out-migration, and also, workers have a strong negative attitude towards their job, which is mainly influenced by job dissatisfaction. Additionally, factors such as higher education level, age, and low welfare levels act as push factors that encourage workers to out-migrate from the industry, and these factors significantly affect worker out-migration. The study mainly reveals that job dissatisfaction constructs the background for worker out-migration and acts as the main cause for the negative attitude of tea workers towards their jobs. The study concluded that workers who had already out-migrated were not satisfied with their welfare situation although they had achieved the objectives for which they had left the estate sector in terms of their jobs.

The whole scenario demonstrates that while existing estate workers do not have high enough expectations to their present employment, out-migrated workers lack sufficient satisfaction to compensate for leaving the familiar, family environment of the estate sector. This situation indicates that if management in the estate sector takes remedial actions to improve social and psychological aspects for their workers, this situation can be seized upon to help to create better expectations and greater satisfaction among plantation workers.

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## 農業における労働力保持についての課題と展望 ——スリランカにおける茶葉農園部門の事例研究——

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スリランカの茶葉産業は、労働力の流出によって、産業力低下の危機に直面している。茶葉農場の労働者は一般的に、自分達が他の同様の、あるいはもっと過酷な労働条件の業種や、賃金が同等あるいはより低い業種と比べてより劣った状況に置かれていると認識している。本研究の目的は、まず、労働者の態度の労働力流出に対する影響を明らかにすることにある。さらに、すでに転出した労働者の実態を評価することも目的としている。本研究は2段階に分けて分析している。まず第一段階として、転出に対する労働者の態度の影響を評価するため、また、そうした態度の決定要因を明らかにするため、300人の労働者からデータを集める。次の段階として、転出の目的を達成できたかどうかを評価するために、すでに転出して1年以上になる60人の労働者からデータを集める。

推測統計の結果から、賃金のレベルや仕事の満足度が転出の決定に与える影響はほとんどない一方、労働者の年齢と教育レベル及び農園の福利厚生レベルは、転出の決定に重大な影響をもたらしていることがわかった。しかし、仕事に対する満足感に関する記述統計では、全体の労働者の98%が仕事に不満があり、ほとんどすべての労働者が自分の職業に否定的な認識を持っているが、積極的に転出したい者はそのうちのわずかな人数であるという結果となった。一方、転出した労働者の大多数が新しい職業に満足していることが明らかとなった。