FACTORS INFLUENCING THE REPLANTING OF TEA SMALL HOLDINGS IN SRI LANKA: A CASE STUDY IN THE MATARA DISTRICT

Bandula GG | LM Abeywickrama | Mangala De Zoysa

1 Tea Small Holdings Development Authority, Sri Lanka
2 Faculty of Agriculture, University of Ruhuna, Sri Lanka

ABSTRACT

Tea is one of the main plantation crops in Sri Lanka. However, the replanting rate is much lower than the expected level. This study mainly focuses to identify the reasons behind the low interest for replanting of unproductive tea lands of tea small holders (TSHs). Six hundred tea small holders were randomly selected from six Divisional Secretariats in the Matara district and were interviewed using the structured questionnaire. The Descriptive Statistical Tools were used to present the data while Chi-square test was used to find the associations between demographic variables and the interest of replanting. This study revealed that about 75% of the TSHs are mainly depending on tea cultivation. More than 80% of the TSHs are aware about the subsidy scheme and the procedures to follow for the subsidy while about 70% of the TSHs were aware about the economic age of the tea bush and the requirement of renewal after 20 years. However, 88% of the TSHs plantations are more than 20 years old and 54% of them were not willing to replant due to rehabilitation period is too long and 57% of TSHs idea were subsidy amount is not enough. Tea small holders (17%) have replanted a part of their land using own money as they are not willing to keep the land a long period for soil rehabilitation. The Chi-square analysis proved that there is a significant association between the land size and willingness to replant. The tea small holders having other reliable income sources such as government jobs were showed higher rate of replanting. Meanwhile 78% of them were proposed to increase the subsidy rate while 67% of TSHs prefer to have an attractive loan scheme to develop their tea lands. However 71% of them asked to increase the awareness about the technology of replanting and 62% of TSHs prefer to have alternate economical crops for soil rehabilitation. It can be concluded that out of the several reasons for low rate of replanting, this study proposed to review the tea replanting process to introduce alternate crops and to reduce the rehabilitation period while introducing special loan scheme and strengthening extension system to attract the TSHs to do the tea replanting.

Key words: Tea small holders, Tea small holdings, Rehabilitation, Replanting
Introduction
The tea industry played an important role and still continues to occupy an important place in the economy of Sri Lanka even though relative contribution has declined in recent years. Tea utilizes large quantity of resources and provides relatively high return to the country. Tea uses larger area of wet zone arable land available for the agriculture. At present Sri Lanka is the fourth largest tea producer and the third largest tea exporter of the World. Contribution of the tea sector to the GDP was 0.9 percent in 2015 (3).

At present, there are 221,969 ha of tea lands in Sri Lanka. Tea small holdings sector (private sector) contribute 132329 ha of the total tea extent and that sub sector plays a major role in the tea sector in Sri Lanka while contributing over 73 % to the total tea production, operating about 370,842 tea small holders with 397,223 tea holdings with nearly 60 % of the total tea extent in the island (12), (4).

Out of the total tea lands, over 75 % of the lands which is less than 1 acre and over 95 % lands are less than two acres (13), (7). Therefore it is necessary to pay more attention to small size of tea lands in developing tea sector.

It is important to do the research in the tea small holdings sector according to actual needs of the tea small holders by considering the real situation of that sector to maintain sustainable way.

It is observed that the technologies generated by TRI do not realize the expected potential under small holding conditions due to various socio-economic limitations (6). The average productivity of tea smallholder sector in the Low Country is around 2100 kg/ha/yr (14). This amount is far lower than the potential level of over 3000 kg per ha/yr.

According to the literature it is observed that land productivity among different tea growing areas and different producer groups vary due to many reasons (1). Poor land productivity in Sri Lanka’s tea sector is attributed to a combination of old vegetative stock and the practice of low agricultural standards (10).

As shown in figure 01 the old unproductive tea land with more vacancies leads to increase the soil erosion and to reduce the tea production gradually and ultimately the TSH loss his monthly income regularly from his tea plantation.

Although the tea crop is a perennial crop, poor maintenance directly effect to decline the productivity and the lifespan of the crop. It was reported that tea smallholdings lands have high incidence of bush debilitation, early decline in productivity and economic lifespan (9).

Apply of proper soil and water conservation measures are very important to improve the productivity of tea land. However it is observed
that land degradation has been aggravated in the tea small holding lands due to lack of attention for soil conservation, increasing the vulnerability to climate change consequences etc (2). The economical harvest can be obtained up to 20 years of the plantation. When the tea plant reached to that age level, bushes may die and some bushes tend to become weak and stagnant and reducing vegetative growth and that condition will lead to reduce the yield regularly (Figure 01). Therefore it is estimated to replant 2 % of the total tea small holdings extent annually to maintain the tea small holdings on sustainable way, getting sufficient yield and income by converting old unproductive tea land in to productive new tea plantation (Figure 03).

However, the replanting rate is much lower than the expectation 720 ha has replanted out of estimated area of 2,646 ha in the small holding sector in 2014 (15).

Therefore, this study focuses to identify the reasons for the tea small holders reluctant or have less interest for replanting of their unproductive tea lands. Specific objectives were to identify the factors influencing low interest for replanting, the problems related to existing subsidy and to give recommendations to the policy makers in order to develop mechanisms to promote the tea small holders for replanting.

**Methodology**

The Matara district is purposively selected for the study as it contributes 43 million kg of made tea annually for the total tea production that is more than 13% of the total tea production of the island. This district have more than 17% of the total tea small holdings, 17% of the total tea small holders and the 19 % of the total tea extent in the tea small holdings sector in Sri Lanka (8).

Out of the 13 Divisional Secretariat (DS) divisions, Pitabeddara, Kotapola, Akuressa, Athuraliya, Mulatiyana and Pasgoda are the main tea growing DS divisions in the Matara district, which contribute more than 90% of the total tea small holdings. Therefore, 100 tea small holders from above each Divisional Secretariat divisions were selected randomly based on the list of tea small holders at the THSDA regional office to be the total sample size is 600 assuming that different categories of TSHs may include in sample to represent the diversity of the population.

Personal interviews were conducted at visiting the TSHs’ fields/homes using the structured questionnaire schedule for primary data. In addition to the sample survey, direct observations at the fields, and focus group discussions to verify some of the information were conducted. Secondary information was collected from the compiled sources of THSDA and publications of
Ministry of Agriculture, Department of Census and Statistics and the Central bank of Sri Lanka. Descriptive statistical tools were used to present the data while Chi-square test was used to find the associations between demographic variables and the interest of replanting.

**Results and Discussions**

The study revealed that about 75% of the small holders are mainly depend on the income from tea although about 55% of them are having some other agricultural crops which are secondary. Also 75% of TSHs mainly using their family labor while occasionally using hired labor for some of the activities such as pruning and fertilizing. Only a quarter of the growers depend on hired labor. About 84% of the TSHs are having contacts with the officers of the THSDA and Tea Board for the information and technical support. Rest of the sample (16%) is obtaining the technical know-how and the information from their colleagues and green leaf collectors of the villages.

The labour cost varies in smallholdings as they highly depend upon family labor. Further, the labor use in the smallholder sector involves no fixed cost such as holiday payment (11).

However, it was revealed that 54% of the TSHs in the sample have received subsidies in the past at least one time and some of the TSHs (9%) have the experience in for times about the subsidy. The majority of the TSHs stated that although the subsidy scheme is accessible and convenient, the subsidy is not sufficient to motivate them with the increasing prices of labor, tea plants of recommended varieties, and other inputs. Table 1 gives the reasons stated by the TSHs for not going for replanting although their plantations are old and not productive.

It was revealed that some of the TSHs (17%) have replanted a part of their land using own money without applying for subsidy or willing to apply for the subsidy as they are not willing to keep the land a long period for soil rehabilitation.

According to the table 01 it is very clear that 71% of the TSHs idea is to make awareness about the importance soil rehabilitation and consequent problems and economic benefits of replanting of tea. The extension has to play big role in this context and has to disseminate technological recommendations to the tea small holders on an effective and efficient way.

It was also revealed that the adoption of recommended technologies of tea cultivation by tea small holder is essential. The level of adoption of proven technologies related to cultural practices by tea smallholders is very low (6), (11).
Table 1: Views of the TSHs about the reasons for not going to apply for subsidy scheme for replanting

<table>
<thead>
<tr>
<th>Reasons for not replanting through subsidy</th>
<th>% of TSHs</th>
<th>Suggestions proposed by the TSHs</th>
<th>% of TSHs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficult to get subsidy</td>
<td>12%</td>
<td>Increasing the subsidy rate</td>
<td>78%</td>
</tr>
<tr>
<td>It takes long procedure for subsidy</td>
<td>46%</td>
<td>Providing easy and low interest soft loans to recover the loss during the transition</td>
<td>67%</td>
</tr>
<tr>
<td>Subsidy amount is not sufficient</td>
<td>57%</td>
<td>Reducing the soil rehabilitation period or finding other alternatives</td>
<td>56%</td>
</tr>
<tr>
<td>Soil rehabilitation period is too long</td>
<td>54%</td>
<td>Increasing the awareness about the importance of rehabilitation and consequent problems</td>
<td>71%</td>
</tr>
<tr>
<td>Inefficiency of the staff and officers of the subsidy scheme</td>
<td>17%</td>
<td>Introducing economic crop for soil rehabilitation</td>
<td>62%</td>
</tr>
</tbody>
</table>

Lack of knowledge and non-availability of inputs at the required time were the major constraints in adopting technological innovations in the smallholding sector and which emphasized the importance of the effective extension services in this regard (11).

The majority of the TSHs are living in rural areas in Sri Lanka. Therefore the extension officers of the TSHDA have to pay more attention to them to deliver the messages covering all of them. However, the dissemination of agricultural information to the smallholders in the very remote areas and also feedback of their suggestions to the research sector were found to be inadequate (5).

Meanwhile, about 78% of the TSHs are requesting to increase the present tea subsidy rate and 67% of the TSHs were in the sample prefer to get easy and soft loan to develop their tea lands with the replanting. Although the increasing subsidy rate is not practically possible, the Government of Sri Lanka or the relevant organization, TSHDA can arrange an attractive special loan scheme to TSHs with more benefits to develop their tea small holdings.
many of the tea small holders though that period is too long and therefore they are reluctant to replant their old unproductive tea lands. About 56 % of the TSHs in the sample also though that rehabilitation period is too long and 62 % of the TSHs like to alternate economical crops for soil rehabilitation. Therefore the research officers have to carry out appropriate research to find the ways to reduce that rehabilitation period.

Next question was why the TSH is not going to replant at least a portion while maintain a part of the old plantation for income. It was revealed that the 20% of the small holder are having less than ½ acre while about 50% are having less than one acre. Therefore a part of the small block is not sufficient to cater their requirement for long period about
three years. The Chi-square analysis proved that there is a significant association between the holding size and the tendency for replanting. At the same time, the Chi-square analysis proved that the small holder who is having other reliable income sources such as government jobs are having more tendency for replanting compared to the full time tea growers. Also Chi-square analysis shows a negative relationship between the desire of replanting and the age of the owner of the plantation implying the old people are not willing to spend a difficult period without having income as they have no alternatives compared to young generation. However, there were no significant association between the tendency for replanting and the education level of the growers or experience of the small holders about tea cultivation.

**Conclusions and Recommendations**

It can be concluded that out of the several reasons for low rate of replanting small holding sector is the loss of income during the fallow period and consequent uncertainty. This issue is critical especially for the holdings less than one acre and also the people who are entirely depend on tea income. Therefore, the study suggests finding alternative economic crops for the rehabilitation instead of uneconomical grasses which can be used for animal feedings. The study also suggests to introduce some income sources such as self-employments, livestock etc to continue to get the tea small holders income during replanting period. The findings of the study emphasized the requirement of review of the rehabilitation mechanism of tea small holdings with the replanting of tea, specially for reduce the rehabilitation period and to introduce the economical crops like pulses and oil crops to get some income during the rehabilitation period as the rate of replanting is very far below the required rate.

Finally according to findings of this study it is also propose to introduce an attractive special loan scheme with more benefits to the tea small holdings sector to enable TSHs to develop their tea small holdings on sustainable way while strengthening extension system of the TSHDA to deliver the messages about the importance and economic benefits of tea replanting to attract the TSHs to do the tea replanting regularly.

**References**


7. Palihakkara,I.R.,Mohammed,A.J,. Inoue,M (2015-1), Current livelihood condition of and futurity of tea farming for Marginal Small Tea Farm Holders (MSTH) of Sri Lanka:Case study from Badulla and Matara Districts, Environmentl and Natural Resources Research


Mangala De Zoysa, Bandula G G., Factors influencing the replanting of tea small holdings in Sri Lanka: A case study in the Matara district, Journal of Advances in Social Science and Humanities, Vol. 3, Issue. 06, ISSN 2395-6542


Mangala De Zoysa, Bandula G G. Factors influencing the replanting of tea small holdings in Sri Lanka: A case study in the Matara district, Journal of Advances in Social Science and Humanities, Vol. 3, Issue. 06, ISSN 2395-6542