A study on the effectiveness of tea replanting subsidy scheme on tea production in Thawalama DS division in Galle district

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1. Introduction

The tea sector in Sri Lanka plays a vital part of the country's socio-economic development. Many governments have introduced different subsidy schemes and policies for sustainable development of the tea sector in the country. Tea replanting subsidy scheme is such an intervention which had been introduced by the government in 1979 in order to increase the productivity of low yielding and old seedling tea fields (TSHDA, 2018). Every government of Sri Lanka has spent a huge sum of public money for this subsidy scheme. Therefore, it is very important to study the effectiveness of this programme to know whether it benefited economically as well as socially which is expected by governments. A previous study which had undertaken to find out the effectiveness of tea replanting subsidy scheme was basically based on quantifying the impact of the subsidy scheme on tea production according to various geographical elevations of tea cultivating lands in the country. However, there is no study had done previously to quantify the effectiveness of this subsidy scheme by investigating the tea growers' point of view. Therefore, this study was aimed at identifying the existing gap by analysing how significance of the subsidy scheme on tea replantation and thereby for tea production in the selected area based on tea growers' opinion. The results revealed that tea growers' involvement for replantation has increased due to the impact of subsidy scheme. Also, tea growers' responsiveness on the existing subsidy scheme process and the satisfaction of the subsidy scheme has influenced to increase the effectiveness of the subsidy scheme.

2. Materials and Methods

Study population was the tea growers who had done replantation by obtaining the replanting subsidy scheme. The control sample was the tea growers who had done replantation without obtaining the subsidy scheme. Galle district was selected purposefully because it contributes nearly 25 % of the country's total tea production (DCS, 2005). Out of 19 Divisional Secretariat (DS) divisions, Thawalama DS division was selected due to its higher tea production. Within the division 100 tea small holders from 5 Grama Niladhari divisions out of 36 were selected randomly based on the name list of beneficiaries who received the subsidy scheme for replantation.

Personal interviews were conducted with tea smallholders by using interviewer administered structured questionnaire to collect primary data. Secondary information was collected from the sources such as journal articles, reports and web sites such as TSHDA, Tea Board, Department of Census and statistics, Central Bank of Sri Lanka etc.

By reviewing the literature, three variables were identified as "tea grower's involvement", "Implementation performance" and "tea grower's satisfaction" to measure the effectiveness of subsidy scheme. Behaviour of tea grower's involvement was identified by analysing the data on changed yield due to replantation with the replanted land extent and number of times done replantation using subsidy scheme. The changed yield due to replantation was eliminated by

taking the difference of data on tea yield after replantation and before replantation collected through the survey. Implementation performance of the subsidy scheme was analysed by using data on receiving subsidized instalments on time with the recommended amount. Tea grower's satisfaction has identified by likert scale analysis.

3. Results and Discussion

The demographic characteristics of respondents in the sample revealed that average tea small holders who've obtained 'tea replanting subsidy scheme' were middle aged male landowners who have done replantation in the average land extent of 0.5 acres. Among 100 of respondents in the sample 54 mainly depend on the income from tea while the remaining 46 are employing in other sectors too such as in government, semi-government or private sectors while doing tea cultivation. In the sample 43% whose main income source of tea cultivation is having some other agricultural crops such as pepper, cinnamon and coconut as the secondary income generating sources. Around 28% of small holders have done the replantation when the age of tea bushes became more than 20 years old while 59% have done it between the ages of 15-20 years old. Remaining 13% had done it within 10-15 years old when they had revealed the yield was getting lowered. The respondents within the sample who've done the replantation in each year are shown in the following figure 1.
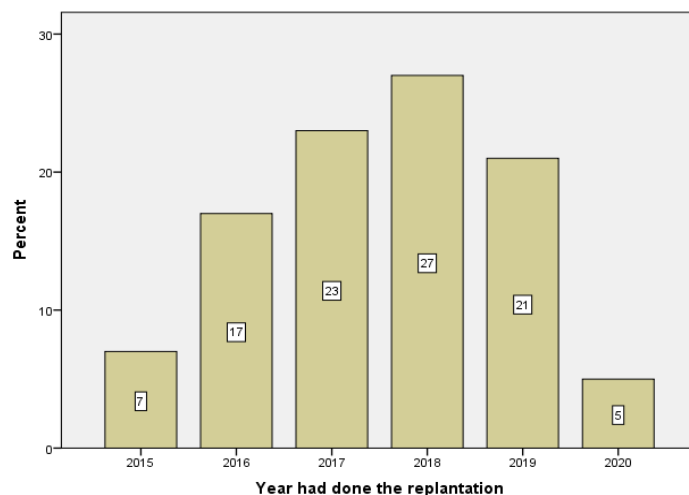

Figure 1. The respondents who've done the replantation in fields respected to the year

The first objective of assessing how replanting subsidy scheme is significant on tea production is analysed by using the variable "tea growers' involvement" with the aid of three indicators. Pearson's correlation tool is employed firstly between the extent of replanted land and changes in the yield after replantation. The null hypothesis is 'there is no relationship between replanted land extent and changes in yield after replantation'. The alternative hypothesis is 'there is a relationship between replanted land extent and changed yield after replantation'. The results revealed that null hypothesis is rejected at 0.05 level of significance and therefore has identified a relationship between variables. Correlation of the test is 0.707 and thus there is a strong positive relationship between two variables being tested. Secondly, correlation is done between 'number of times done replantation obtaining subsidy scheme and changes in yield after replantation'. The null hypothesis in here also rejected at 0.05 level of significance and thus revealed that there is a relationship between the two variables that has been tested. Correlation result of this is 0.357 and it has been identified a low positive relationship between two variables.

The second objective was assessed by using the variable of 'implementation performance' with the aid of two indicators. Analysing the first indicator, it was revealed that 78% of the beneficiaries of the subsidy scheme have received subsidized instalments on time while the remaining 22% haven't received it on relevant time period. Analysing the second indicator revealed that only 8% haven't received the recommended number of subsidized instalments while 92% have received it as recommended.

The third objective of tea grower's satisfaction on subsidy scheme was tested using correlation analysis with the use of related variables which are subsidy scheme 'helps to improve living standards', 'should be continued in the future', 'reapplying subsidy scheme', 'recommending someone else'. Correlation of all variables with satisfaction of subsidy scheme are significant at 0.05 level of significance. Hence, all variables have a relationship with the satisfaction level of the subsidy scheme'.

Table 01. Responses about TSHs for not receiving subsidized instalments timely and as per recommended amount

Reasons for not receiving the subsidized instalments on time		Reasons for not receiving the recommended number of subsidized instalments	
Reasons	%of TSH	Reasons	% of TSHs
Failures in the process	12%	Inefficiency of the system	4%
Didn't comply with the requirements stated by TSHDA	5%	Government policies and regulations on subsidy scheme	2%
Didn't inform on time to the tea inspector to supervise the lands	2%	Malpractices in the authority	1%
Others	3%	Others	1%

Suggestions provided by TSHs	% of TSHs
Provide an advancement or low interest soft loan scheme to initialize the field task of replantation	63%
Appoint sufficient number of officers for field supervision for a region	69%
Establish an extension service to make aware TSHs about the subsidy scheme process starting from the filling of applications correctly.	77%
Provide quality inputs throughout the replantation period for a repayment basis	71%
Reduce the period of soil rehabilitation and introduce alternatives for that	68%

4. Conclusions

Results revealed that when replanted land extent and replanting frequency increases, yield that can be harvested also increases. Thus, it has motivated the tea grower's involvement for tea replantation. Therefore, it has improved the effectiveness of replanting subsidy scheme and ultimately for the tea production in the area. According to the majority of responses, it revealed

that existing subsidy scheme is performing well by issuing the subsidized instalments timely as well as the recommended amount. Also, can be concluded that subsidy scheme has acquired the tea grower's satisfaction except for some features and therefore suggests government should continue this subsidy scheme to the future according to the tea grower's suggestions.

5. References

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