

IDENTIFICATION OF EXTENSION NEEDS IN TEA PROCESSING: CASE OF LOW COUNTRY TEA FACTORIES

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Abstract

Sri Lankan tea industry plays a major role in the Sri Lankan economy being one of the important sectors as a foreign exchange earner (SLRs. 240.6 billion in 2019) while providing employment opportunities for 400,000 families. Even though research and extension efforts were launched in the past, the average national production of made tea remains at 2100 kg/ha/year. This is much below the potential yield of 3000 kg/ha/year. The tea processors convert green tea leaves to made tea through a complex process including withering, rolling, fermentation, drying, cleaning and sifting into different made tea grades intending high end market. They are significantly responsible for quality tea production because the World market prices are directly associated with tea quality. This study aims to identify the extension needs in the context of the tea processing sub-sector. The study selected 55 tea processors in Matara district, Sri Lanka and the field survey was conducted during January- June 2019. A questionnaire was used as the data gathering tool and further, check-lists and informal discussions were also incorporated. The study identified nine issues encountered by the tea processors. Among them, four constraints, namely poor green leaf standards (57.7%), declining labour productivity (51.90%), limited technical knowledge on processing (19.2%) and unawareness to obtain extension services (13.2%) are extension issues. Therefore, extension agencies should implement programmes to remedy such conditions. The investigation reveals that tea manufacturing and marketing (42.59%), tea planting and leaf plucking (29.63%) and mechanization and certification (14.81%) are the most required training needs. Hence, extension service providers have to focus on training programmes to improve the knowledge and skills in the above fields. The tea processors use the telephone for verbal communication (82.7%), internet (53.8%), SMS (50%) and mobile apps (26.9%) to obtain extension input. The processors made suggestions to strengthen the tea industry improving access to the potential markets (45.61%), provide more subsidies (17.5%), introduce new tea cultivars (14.04%), provide awareness and training through proper extension and advisory services (12.28%) and improve existing infrastructure facilities (10.53%). .

Keywords: communication, dissemination, factories, extension, processors, tea, trainings

1 INTRODUCTION

The tea industry plays a significant role in the Sri Lankan economy and the Ceylon Tea recorded a royalty in the global context. The industry has recorded a production of 300.1 kg million of made tea

of which 292.7 kg million exported earning SLRs. 240.6 billion [1]. Moreover, the industry provides employment opportunities for 400,000 families [2]. The country recorded 202,022 ha of tea land comprising smallholding sector (60.37%) and estate sector (39.63%) whereas the number of holdings is 264,758 [3]. The contribution to GDP approximates 0.7 percent. Despite the research and extension efforts, the national average production level of the tea remains as 2100 kg/ha/year [4] which is far below the potential yield of 3000 kg/ha/year [5]. Therefore, it is vital to increase the yield of the tea industry, especially through empowering the tea processing sector.[6] reported that many factories have not acquired relevant certificates of tea processing and in most instances, the stakeholders in the processing sector need extensive training to advance the knowledge and skills. The existence of such constraints significantly affects the quality of tea. Hence, this study aims to investigate the current issues encountered by tea processors, training needs of tea processors and make suggestions to improve the extension input of the tea sector to gain quality tea.

2 METHODOLOGY

It was recorded that 64% of the tea production comes from the low country and 38.5 kg million of tea was produced in Matara district which was the third highest in low country elevation [3]. Hence, Matara district was selected for the study. There are 96 tea factories operating in five Tea Inspectors' ranges of Matara district and 55 factories were selected for the survey. A questionnaire was used as the data gathering tool and further, check-lists and informal discussions were also incorporated. A questionnaire was developed, pre-tested and field work has been conducted during the period from January to June 2019. All the factory managers of the selected factories were personally interviewed. Primary data required for the study were obtained through questionnaire, check-lists and discussions. The secondary data relevant to the study were extracted from available sources such as Central Bank reports, documents of Tea Board, [4],[5] and the literature about the tea industry. Collected data were analyzed on non-parametric statistics and presented with tables and bar graphs.

3 RESULTS AND DISCUSSIONS

The study reveals that the factories receive green tea leaves from four sources such as factory collecting centers and vehicles, tea smallholder societies, licensed collectors / dealers and direct supply. Forty one percent of the factories receive green leaves from all four sources. None of the factories operate only with own tea leaves. Almost all the factories receive green tea leaves from other growers and leaf collectors. Therefore, there is a severe competition among the tea factories to obtain green tea leaves. Figure 1 demonstrates the major issues encountered by the tea processors. Among the issues identified, poor green leaf standards (57.7%), declining labour productivity (51.9%), limited technical knowledge on processing (19.2%), and unawareness to obtain extension services (13.5%) are directly or indirectly connected to extension service and therefore, dissemination efforts should be targeted to remedy the situation. Moreover, the study investigated the training needs of tea processors. Figure 2 depicts the training needs which are prioritized by the tea processors. Among the first prioritized training needs, majority of the processors (42.59%) require training on tea manufacturing and marketing while 29.63% of them require training on tea planting and leaf plucking. Further, 14.81% of the processors indicate training need for mechanization and certification. Less number of respondents indicate management of physical and human resources, public relations and communication and use of electronic devices as training needs. The study investigated the mode of communication used by the processors (Figure 3). According to Figure 3, majority of the tea processors (82.7%) use telephones

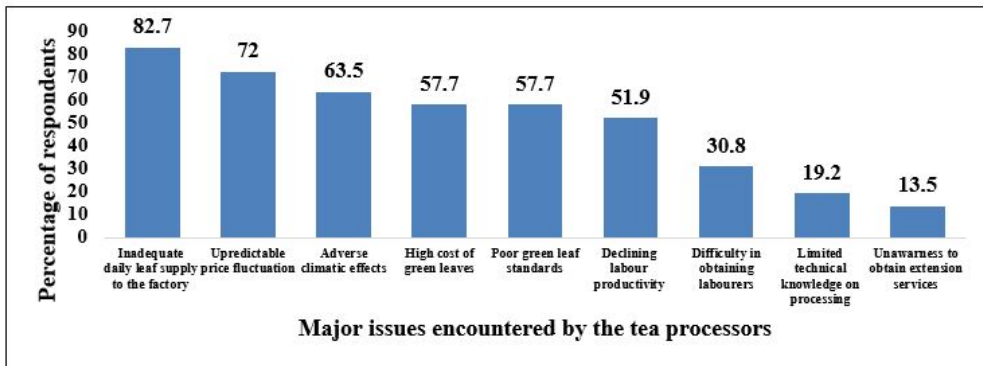


Figure 1. Major issues encountered by the tea processors

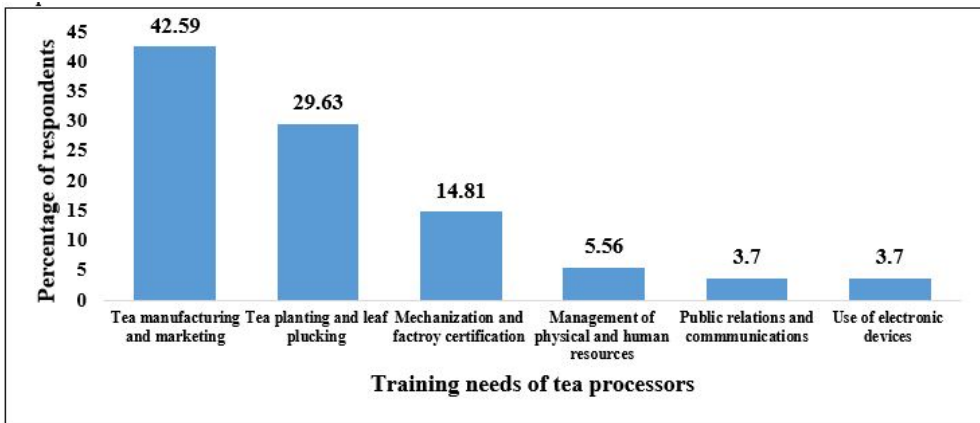


Figure 2. Training needs of tea processors

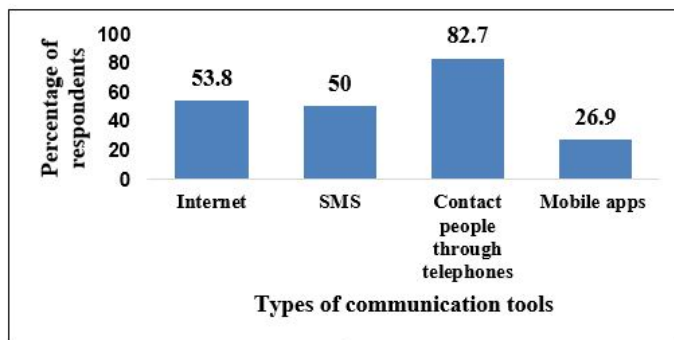


Figure 3. Use of communication tools by tea processors

to communicate extension issues while 53.8% and 50% of them use internet and SMS, respectively. Since a less number of tea processors (26.9%) use mobile apps, it is noteworthy to encourage them to

use this intervention effectively for extension communication. Among the measurers emphasized in the literature survey, five suggestions to improve the tea sector were identified and ranked on priority basis. The results are mentioned in Table 1.

Table 1. Suggestions to improve the Tea sector

Suggestions to improve the tea sector	Percentage of tea processors
Improve access to the potential markets	45.61
Provide more subsidies	17.54
Introduce new tea clones / cultivars	14.04
Provide extension and advisory services	12.28
Improve existing infrastructure facilities	10.53

According to Table 1, majority of the tea processors (45.61%) suggested to effectively access to the potential markets and 17.54% suggested to provide more subsidies. Introduction of new tea clones, upgrading of existing infrastructure facilities and fortify extension and advisory services are the other suggestions.

4 CONCLUSION

The study demonstrates a range of issues prevail in the tea processing sector. Such constraints make negative impact, especially on the tea quality. Poor green leaf standards, declining labour productivity, limited technical knowledge on processing and unawareness to obtain extension services are the major issues identified by the study. Therefore, extension services should address such issues to improve both the quality and quantity of tea production. The extension service providers should address the training needs of tea processors on tea manufacturing and marketing, tea planting and leaf plucking, mechanization and certification. Further, majority of the tea processors use telephones to obtain extension advice. The use of mobile apps has to be encouraged. The study suggests that to improve the tea industry, search for potential markets, provision of subsidies, introduction of new tea clones, effective extension input have to be incorporated in future development plans.

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REFERENCES

- [1] *CentralBank(2019). Annual Report 2019.* 2021. URL: cbsl.gov.lk/en/publications/economic-and-financial-reports/annual-reports/annual-%09report-2019.
- [2] *International Labor Organization (2018). Future of work for tea smallholders in Sri Lanka.* 2021. URL: https://www.ilo.org/wcmstp5/groups/public/---asia/---ro-bangkok/---%09ilo-%09colombo/documents/publication/wcms_654641.pdf.
- [3] *Sri Lanka Tea Board (2017). Annual Report 2017.* 2021. URL: <http://www.srilankateaboard.lk/index.php/2014-02-26-10-02-%0957/downloads/download/3-annual-reports/2879-annual-report-2017>.
- [4] *Tea Small Holdings Development Authority (2013). Annual Report 2013.* 2021. URL: <https://www.parliament.lk/uploads/documents/paperspresented/annual-report-tea-%09small-holdings-development-authority-2013.pdf>.
- [5] *Tea Research Institute (2002). Annual Report 2002.* 2021. URL: <https://www.tri.lk/annual-reports/>.
- [6] Lakshman K.B.P.S. and Wanigasundara W.A.D.P. “Present status of implementation of Good Manufacturing Practices and Quality Standards in tea factories with especial reference to Rathnapura district.” In: *Sri Lanka Journal of Tea Science* (2017).