

## **Rubber Plantations in Sri Lanka: An Examination of Historical and Current Grievances in the Pahala Karannagoda Grama Niladari Division**

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### **Abstract**

Plantation agriculture was introduced to Sri Lanka by the Dutch, but it was under British rule that several crops were cultivated on a large scale, including coffee, cinchona, cocoa, tea, and rubber. Among these crops, rubber was first cultivated in the Kalutara district and later spread to other parts of the country, becoming one of Sri Lanka's major export crops during the British period. This paper explores the history of rubber plantations in Sri Lanka and investigates the grievances of rubber planters in the Pahala Karannagoda Grama Niladari division of the Kalutara district. The study aims to examine the History of rubber cultivation during the British period in Sri Lanka and the challenges faced by rubber planters in the selected area in the present day. A mixed-method approach is used for this research. Data was collected using field

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investigations and observing text documents. Field investigations were conducted in the Pahala Karannagoda Grama Niladari division. Key informant interviews were conducted with 73 purposive samples. Data was analyzed based on the thematic analysis method employing rural grievances theoretical principles. The findings of the study suggest that rubber plantations gradually developed and contributed significantly to the country's economy, and rubber planters in the Pahala Karannagoda Grama Niladari division face various challenges related to climate change, labor issues, and lack of government support. The paper concludes with recommendations for addressing these issues and improving the conditions of rubber planters in the region.

**Keywords:** *Agricultural history, British colonization, Grievances, Plantation economy, Rubber plantations.*

## **Introduction**

Agricultural-based industries play a crucial role in the global economy, providing essential goods, raw materials, and employment opportunities. (Rodriguez, 2022) These industries encompass a wide range of activities, including the cultivation, processing, and distribution of agricultural products. From food production to textile manufacturing and biofuel production, agricultural-based industries form the backbone of many national economies and contribute significantly to global trade. The rubber industry is a prime example of an agricultural-based industry, where the cultivation and processing of rubber crops form the foundation of its operations. (*Sri Lanka Rubber Industry Capability - EDB Sri Lanka, n.d.*) As a significant component of the agricultural sector, the rubber industry contributes to both the economic development of countries and the global supply chain.

The rubber industry in Sri Lanka has played a pivotal role in the country's economic development and has been a key driver of export earnings for several decades. Sri Lanka, known for its high-quality natural rubber, has established itself as a significant global player in the rubber market. Historically, the establishment of

rubber plantations in Sri Lanka can be traced back to the colonial era. (Karunananda ,1999) During British rule, large-scale rubber plantations were introduced as part of the country's agricultural transformation. The British recognized the favorable climate and soil conditions in Sri Lanka for rubber cultivation, leading to the widespread conversion of land for rubber plantations. This marked the beginning of the country's rubber industry and its subsequent growth in the post-independence period. (Munasinghe,2017)

The Sri Lankan rubber industry has been characterized by smallholder rubber farmers, who form the backbone of the sector. (Dissanayake et al., 2016) The majority of rubber cultivation is carried out by small-scale farmers, known as "rubber tappers," who manage their own small plots of land. This decentralized structure has contributed to rural livelihoods, income generation, and poverty alleviation in various regions of the country. (*Economic and Social Development Created Rubber Industry Benefits to the Society*, n.d.)

The economic significance of the rubber industry in Sri Lanka cannot be overlooked. Rubber exports have been a significant source of foreign exchange earnings, contributing to the country's overall export revenue. Sri Lanka's natural rubber is highly regarded for its quality and enjoys a premium in the global market. (Sri Lanka Export Development Board, n.d.) The industry has also provided employment opportunities, both directly and indirectly, supporting the livelihoods of numerous individuals and communities.

## **Review of Literature and Theoretical Applications**

Rubber plantations and their related activities are examined by various researchers based on diverse perspectives. Karunananda (1999), Eriyagama (2006), and Munasinghe(2017) have observed the history of rubber plantations in Sri Lanka from historical and economic perspectives while they were studying the economic history of Sri Lanka during the British period. Here Munasinghe's (2017) main research focus was studying the history of the road

system of Sri Lanka during the British period. Moreover, Somathilaka (2018) has studied about the plantation activities of Sri Lanka under the British rule and its result. Gunarathna & et al. (2021) observed effective factors that influence the adoption of Manuring Mature Rubber Cultivation (MMRC) in Moneragala District. Attanayaka and Weerasinha (2021) have studied raw rubber and its rheological properties to find the suitability to produce advanced rubber products. Gunarathna and et al. (2020) have studied the Thurusaviya rubber societies in Monaragala. Liyanaarachchi et al (2022) aimed to assess the soil loss from the smallholder rubber-growing lands in the Kalutara District using remotely sensed satellite image-based Digital Elevation Model (DEM), rainfall grid data, and prepared soil maps with ground-level surveys by Natural Resource Management Centre (NRMC) Sri Lanka through their research. Wickramapala and et al (2022) studied the utilization of carbon black-filled natural rubber (NR) composites using environmentally friendly sesame oil as the processing aid. Silva et al (2022) studied the evaluation of the variability in the symptom development ability of 24 Sri Lankan isolates of *Phellinus noxious*. Alwis and et al (2022) studied the performance of plants raised from different seed quantities to determine the growth and bud-grafting success in the Moneragala Sub Station of RRISL in 2020. Dananjaya and et al (2022) studied the mica waste generated in the mining industry was finely powdered and incorporated into creamed natural rubber latex which is an alternative form of concentrated latex manufactured using a green process known as the creaming process.

Samararathna and et al (2021) studied the new process for the preparation of liquid natural rubber (LNR) using microwave irradiation heating. Attanayake and et al (2021) studied raw rubber and its rheological properties to find the suitability to produce advanced rubber products. Iluppalla et al (2020) studied the possibility of replacing a part of the 60 pph of commonly used silica filler imported from Well ink Chemical Co., India used in rubber composite for the manufacture of low-speed castor wheel rubber tread formulations. Ishani and et al (2019) studied the relationship between technical efficiency and poverty and the effect

of farmer characteristics on poverty levels among the smallholder rubber farmers in Kegalle District. Even though there is a certain number of studies based on the Sri Lankan rubber industry, various rare studies have been found to observe the Sri Lankan rubber industry depending on the historical angle or grievance approach... Therefore, the first step, this paper aims to explore the history of rubber plantations in Sri Lanka from their inception up to the country's independence in 1948.

The second segment of the investigation will concentrate on the approach grounded in grievances. Rural grievance theories center around the grievances encountered by rural communities in relation to agrarian societies, rural progress, and access to resources. For instance, the agricultural policy failure theory and agricultural policy grievance theory propose that feeble government policies in the agricultural sector can result in unfavorable outcomes for rural agriculture. (Fraser,1995; Fraser,1996) It contends that ineffective or misguided policies, such as insufficient support for farmers, inadequate infrastructure development, or inappropriate price controls, can impede agricultural productivity, income generation, and rural progress. Inadequate policies may lead to reduced investment in agriculture, limited access to credit and technology, and inadequate incentives for farmers. As a result, rural agricultural sectors may encounter stagnation, declining productivity, and heightened vulnerability to external shocks. According to rural grievance theories, the environmental grievance theory concentrates on grievances connected to environmental deterioration, natural resource management, and its impact on rural communities. (Dixon- Homer ,1999) .It explores issues such as deforestation, water pollution, land degradation, or displacement caused by large-scale infrastructure projects. Grievances in this context may arise from the loss of livelihoods, traditional practices, or threats to cultural and ecological heritage. Agricultural labor surplus theory posits that labor shortages in the rural agricultural sector can have adverse consequences due to an excess supply of labor. (Barber,2008; Mellor,2017; Mellor, 1966) It argues that in regions

with a surplus of agricultural labor, where population growth exceeds employment opportunities, labor shortages can lead to intensified competition for jobs, reduced wages, and exploitation of workers. This can result in social and economic challenges, including rural poverty, inequality, and migration to urban areas. The theory suggests that addressing labor shortages in rural agriculture necessitates strategies that create additional employment opportunities, enhance working conditions, and improve rural livelihoods. These theories offer frameworks for comprehending the specific grievances encountered by rural communities and how they can contribute to social and political mobilization for rural progress, agrarian justice, and equitable resource distribution.

Despite the significant economic significance it holds, the rubber industry encounters a multitude of challenges. One notable challenge lies in the fluctuating nature of international rubber prices, which greatly impact the profitability of rubber cultivation as well as the income of smallholder farmers. Moreover, the sector has grappled with various predicaments such as the presence of pests and diseases, the effects of climate change, and limitations on productivity. Additionally, social and environmental concerns have also surfaced within the rubber industry. The expansion of rubber plantations has resulted in alterations to land utilization patterns, deforestation, and potential consequences on biodiversity and ecosystems. Furthermore, issues pertaining to labor rights, fair remuneration, and social disparities have been raised within the sector, highlighting the necessity for practices that are both equitable and sustainable. The political decisions made are inevitably influenced, whether positively or negatively, by the rubber industry. These challenges have dictated the need for the implementation of sustainable practices, technological advancements, and research and development initiatives, all of which aim to enhance the industry's resilience and competitiveness.

Therefore, it is imperative to undertake in-depth analyses of the Sri Lankan rubber industry using a grievances-based approach.

Consequently, the second part of this study will examine the current grievances of rubber planters concerning rubber plantation practices in the Pahala Karannagoda Grama Niladari division.

### **Justifications for the selection of research area**

A considerable amount of research has been dedicated to the examination of existing grievances pertaining to the present rubber plantations in Sri Lanka. In their study, Nayanakantha et al (2019) observed the adverse effects of drought and high temperatures on the income generated by the rubber industry in the dry zone. Ishani et al (2019) emphasized the potential of poverty alleviation through enhancements in technical efficiency within the smallholder rubber sector in the Kegalle district. Focusing on leaf fall disease, Fernando et al (2019) conducted an extensive investigation in a rubber plantation located in Padiyathalawa. Nakandala et al (2019) shed light on the correlation between water stress and the quality of immature rubber production in the Kilinochchi district. The primary research focus of Disanayake et al (2016) revolves around the socio-economic conditions and the challenges faced by smallholder rubber farmers in the Monaragala district.

The investigation conducted by Munasinghe et al (2011) aimed to analyze the impact of the wage increase in 2009 on the overall profitability of rubber plantations situated in the Agalawatta region. Gunarathna et al (2023) observed the present socioeconomic issues and conditions faced by smallholder rubber farmers in the Monaragala district. Harshani et al (2021) examined the economic efficiency and its associated concerns of small rubber plantations in the Kaluthara district. Although there exist certain observations regarding the current issues of the rubber industry in different parts of the country, no research has been conducted in the Pahala Karannagoda area (GN Division: No- 811A, Code-100), which is situated in the Madurawela Divisional Secretariat Area of the Kalutara District in the Western province. The individuals residing in this area are predominantly rubber planters

or individuals engaged in labor activities within the rubber industry as either full-time or part-time workers. Most of the land in this region is allocated to plantation agriculture, specifically for the growing of rubber and tea. The overall land area devoted to rubber cultivation in this locality is measured to be 61 acres, 2 roods, and 31 perches, with 48 registered rubber planters under the supervision of the Rubber Development Authority. It is important to acknowledge, however, that certain rubber planters are not officially registered with the authority. Among the total rubber land, 50 acres, 1 rood, and 20 perches are currently in the latex-cutting stage, while 36 rubber planters possess land that has not yet progressed to this stage. The remaining land is presently not utilized for latex cutting and is owned by 12 farmers. [Key informant interviews with the rubber research officer of the region on 23 February 2023]. Despite the presence of substantial areas dedicated to rubber cultivation in the Pahala Karannagoda GN Division, as previously mentioned, there has been no scholarly examination conducted thus far on the rubber cultivation in this area. Consequently, this area has been chosen as the focal research site in anticipation of uncovering original insights pertaining to the rubber industry.

The primary emphasis of this study centers on the grievances approach. There exist certain inherent obstacles in the rubber plantation within this area owing to economic, geographical, and social factors. It is postulated that rubber cultivators in the Pahala Karannagoda Grama Niladari division encounter distinctive challenges and issues to rubber cultivation, primarily due to their geographical location and climate conditions. Situated within the Madurawela district secretariat of the Kalutara district in the Western province of Sri Lanka, the Pahala Karannagoda GN division falls within the wet zone of the country and experiences abundant rainfall throughout the year. The proximity of this village to the Kalu River, one of Sri Lanka's major rivers, as well as Kuda Oya, contributes to the difficulties faced by the villagers of Pahala Karannagoda, often stemming from floods and other natural calamities. Despite the significance of grievances in the rubber industry, no prior research has been conducted on the



socioeconomic challenges faced by rubber planters in the Pahala Karannagoda GN Division. As a result, this study aims to fill this gap and provide new insights to the academic community. The distinctiveness of this research lies in its examination of the multifaceted nature of these grievances, in order to gain a comprehensive understanding of the challenges faced by the community and the complexities of the rubber plantation industry in the area. The findings of this study can be utilized by policymakers and practitioners in relevant organizations in the country who are interested in reducing grievances at the grassroots level in the rubber industry. These findings can be used to improve existing policies or establish new ones that effectively address the current grievances.

## **Research Questions**

This research focuses on the following main research questions.

1. What is the history of the Sri Lankan rubber plantation?
2. What are the existing grievances among rubber plantations of Pahala Karannagoda Grama Niladari division which is situated in Madurawela Divisional Secretariat Area in Kalutara District?

## **Research Methodology**

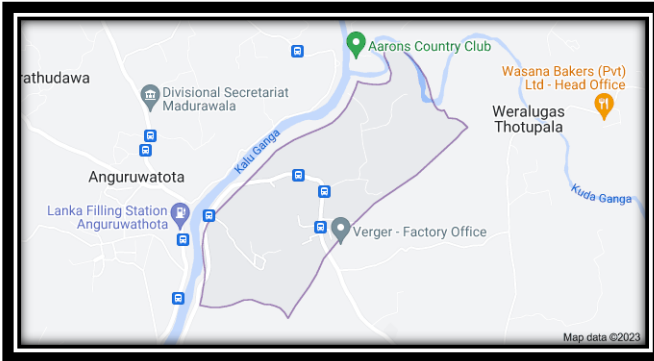
This investigation employed the mixed-method approach incorporating both qualitative and quantitative methods. The primary data was collected via a field investigation carried out in the Pahala Karannagoda Grama Niladari division of the Kalutara district. The qualitative methods utilized in this study included observations and interviews conducted with key stakeholders relevant to the rubber industry, such as the Grama Sewa officer, the rubber research officer of the region, 23 planters, and 50 laborers working on rubber estates in the area. Earlier, it was mentioned that only 36 rubber planters were officially registered in the designated region. Unfortunately, official statistical records

pertaining to the size of the labor community within the rubber industry are absent. This is primarily due to the fact that laborers are not exclusively engaged as full-time workers, as they pursue various professions concurrently in order to compensate for the insufficient income generated from their involvement in the rubber industry. Consequently, a subset of 23 planters was chosen from the aforementioned 36 registered rubber planters. Laborers were selected from both part-time and full-time workers currently engaged in the rubber industry. The sample selection was conducted through the purposive sampling method, ensuring that individuals possessed substantial experience in the rubber industry. This approach is anticipated to yield fresh, reliable, and comprehensive data. All interviews were conducted at the participants' residences. To ensure the accuracy of the data, one-on-one in-depth interviews were conducted, incorporating open-ended questions and cross-cutting questions for further clarification. The interview sessions were not led on pre-determined lines. However, the main focus was based on the grievances approach. Furthermore, this study also drew upon literary sources, including books and articles that focused on the history of rubber plantations in Sri Lanka, with particular attention given to the "Rubber News Volume" published by the Rubber Research Center in Agalawaththa, Sri Lanka. The integration of both qualitative and quantitative methods facilitated a comprehensive and multi-dimensional analysis of the research questions at hand.

### **Documentation method**

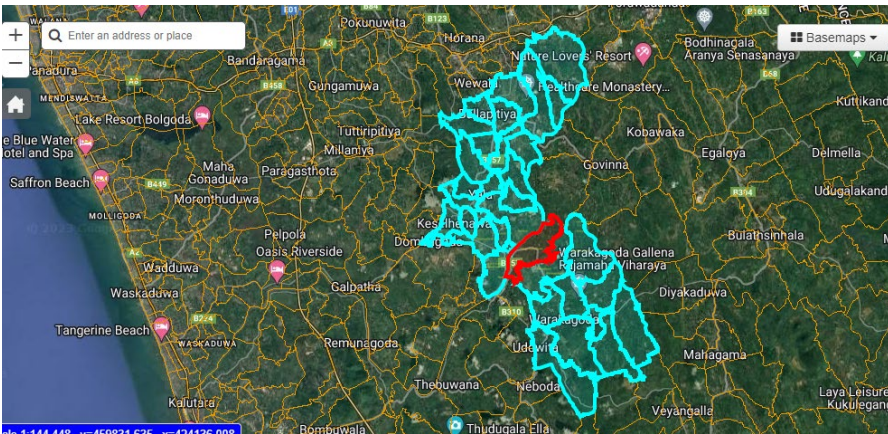
Throughout the interview sessions, a voice recording device was employed to document the responses, while the interviewer concurrently jotted down notes on paper to document any supplementary information. Subsequently, at the conclusion of the interviews, all gathered data underwent meticulous analysis employing a comparative framework.

## Map of Pahala Karannagoda GN Division



<https://www.google.com/search?q=pahala+karannagoda+gn+division+on+google+map&oq=Paha&aqs=chrome.1.69i57j35i39l2j0i512j46i512j46i175i199i512j0i512j46i512j0i512j46i512.5981j1j15&sourceid=chrome&ie=UTF-8>

## Map which is shown Pahala Karannagoda GN division in Madurawala Divisional secretaries



<https://services.survey.gov.lk/gn Updating/>

## Data Analysis

Data collection was terminated employing theoretical saturation (Bryman, 2021). Subsequently, a series of codes and categories were established following the grounded theory methodology. To

initiate the process of data analysis, the gathered information was initially classified into two overarching categories that were in line with the research objectives.:

1. Information about the historical development of rubber cultivation in Sri Lanka
2. Information of current socio-economic challenges facing rubber planters in the Pahala Karannagoda GN division.

During the data analysis process, details that were unrelated to the research objectives were omitted, and only the most pertinent data was included in the final analysis. By comparing and contrasting the data gathered from various sources, plausible conclusions were drawn, providing valuable insights into the history and current state of rubber plantation practices in Sri Lanka.

## **Findings and Discussion**

### **History of Rubber Plantation in Sri Lanka**

Plantation endeavors in Sri Lanka were initiated during the colonial era. The Dutch, who gained control of the coastal regions of Sri Lanka, were the first to introduce plantation activities to the country. Subsequently, under British governance, plantation activities experienced significant growth. The Dutch directed their focus towards the cultivation of cinnamon. The British, on the other hand, introduced various plantation crops to Sri Lanka. Initially, it was the British who embarked on coffee plantations. Following this, the British introduced Cinchona, Cocoa, Tea, and Coconut. Eventually, rubber was also introduced by the British. In the early 20th century, rubber plantations emerged as a prominent industry in Sri Lanka (Munasinghe, 2017).

In the last decade of the 19<sup>th</sup> century, small-scale tea estates declined due to the falling prices of tea as well as most small-scale tea estates were converted into companies. As a result of the above-mentioned two facts, small-scale planters tended to cultivate other commercial crops. As a result, though the rubber plantation was

introduced to the low upcountry areas in 1886, it was not very popular until 1890. It was at the research level.

For the very first time, Christopher Columbus revealed information about the rubber, to the world. He found a marvelous ball that was used by the people who lived in Haiti during his exploration activities. He might never have thought that it would help the world this much on that day. It was known as “Kew choo kē” by the Haiti people. From there, they started to seek information about the raw materials that had been used to make this wonderful ball. It was the 15<sup>th</sup> century.

In the middle of the 19<sup>th</sup> century, Pranshwa Prasno discovered this tree, and it was named “*Hevea brasiliensis*”. By that time experiments were done about the rubber tree and the first research thesis was presented by A. Juliyans in 1780. (Seneviratne, 2009)

The homeland of rubber was Brazil, along the Amazon River in South America. The Englishman H.A. Wickham (later Sir Henry Wickham) tried to bring rubber seeds to Asia several times. But when the ships landed in Asia, rubber seeds lost their life due to the long distance between Europe and Asia. Later, the rubber seeds, which were collected from a forest near the rivers called “Tapajos” and “Madeira” were grown in the Kew Garden of the British. He got nearly 7000 rubber plants, and in 1919 rubber plants were brought to Sri Lanka by Sir Henry Wickham. They were planted in the Peradeniya and Henarathgoda botanical gardens in 1876.

(Seneviratne, et al.,2009,)

Those plants were kept in special boxes called Voodiyan boxes. The ship called Duke of Devonshire arrived at the Colombo port in 1876 AD (Seneviratne, 2009). Henry Wickham is credited with introducing rubber to this country. Sri Lanka is credited with introducing rubber to Southeast Asia. (Senevirathna,2009)

In the year 1811, the rubber plants experienced their inaugural blooming. Concurrently, Dr. Trimen, the director of Peradeniya

Botanical Garden, embarked upon a venture to explore the collection of latex. The growth of rubber plantations in this nation can be attributed to the various experiments conducted concerning rubber, as well as the expansion of these plantations, which proved to be lucrative. At the onset of the 20th century, the total area of land dedicated to rubber cultivation in Sri Lanka amounted to 11000 acres. Despite not being the native land of rubber, Sri Lanka hosted the first-ever rubber exhibition in 1906 AD, specifically at the Royal Botanical Garden in Peradeniya. (The second exhibition took place in the city of London, United Kingdom, in 1911, followed by the third exhibition in New York City, United States of America.) This exhibition served as a catalyst, enticing numerous planters to turn their attention towards rubber. By the conclusion of 1906, the expanse of rubber plantations had surpassed 100,000 acres.

At first, Sri Lankan Planters planted the two variants of rubber plants. They were “Kestilo” and “Siyata”. Soon after, they realized that those two varieties of rubber plants were not suitable for Sri Lanka. After that, a new variety called “Para” which was much more suitable for Sri Lanka was introduced. There was a sudden demand for rubber in the world due to the automobile industry. (Somathilaka, 2018) According to Indrani Munasinghe (2017) the development of the automobile industry as well as the exhibitions held on rubber in the UK & USA also led to the start of the rubber industry as well as the plantation industry.

First, rubber plantation was limited only to Kalutara District. Later it was spread to a few other provinces such as Western, Sabaragamuwa, and Southern provinces. Rubber was the largest export crop which was cultivated after tea in Sri Lanka. Rubber products outpaced tea products in around 1910. There was more interest in rubber plantations among Europeans. Every European who has cultivated rubber has established rubber estates that were more than 500 acres. Large-scale European companies, local rich as well as small-scale landowners were there those who invested money in the rubber plantation. (Munasinghe, 2017)

Indrani Munasinghe (2017) has mentioned in her book the

following as the reasons for the rapid growth of rubber plantations.

1. Mainly, the decline in tea prices in the world market during the first few decades of the 20<sup>th</sup> century
2. Using new techniques for making latex in the first few decades of the 20<sup>th</sup> century
3. Rubber production does not need complex factories like tea production.
4. Not required a big investment for a rubber plantation
5. Rubber could be cultivated with cocoa and coconut.

In addition, U.B. Karunananda also (1999) mentioned a few other reasons for the advancement of rubber plantations at that time.

1. A large-scale workforce is not required.
2. A permanent workforce who settled down in the estates like tea was not required.
3. Complex factories for rubber reduction were not required now.
4. Minor exportability
5. A little technical knowledge is sufficient.
6. A large application is not required.
7. New methods were found to collect latex and to prevent the loss of milk in rubber trees and making rubber sheets by the botanical garden of Peradeniya.
8. The decline in the price of tea

But, from about 1907 the price of tea rose, and as the result, the price of rubber went down. By that time rubber cultivation slowed down. In 1910, again the price of rubber rose due to the impact of rubber plantation owners in Brazil. Most planters formed rubber estates in Sri Lanka. New companies also were started. As shown in Table 1, the price and the income of rubber highly fluctuated not like tea. The below statistics prove that.

**Table 1.** *The price and the income of rubber in 1917 and 1918*

<b>Year</b>	<b>Export income</b>		<b>Rs. Million</b>
	Tea	Rubber	
<b>1917</b>	96	131	
<b>1918</b>	83	62	

*Note.* Reprinted from *Sri Lankawe Arthika Ithihasaya Brithanya Palana Samaya 1796-1931* (p.32) by U.B.Karunananda, 1999. Person. Copyright 1999 by U.B.Karunananda

The areas of rubber in Sri Lanka increased from 203900 acres up to 265000 acres and export tons also increased from 1600 acres up to 20,665 acres. (Munasinghe, 2017). By 1910, one-fifth of the rubber-cultivated lands were owned by small-scale landowners. By 1936, 21% of rubber plantations belonged to small-scale landowners. (Karunananda, 1999)

Between 1905 and 1910 due to the rapid growth of rubber, most of the small-scale landowners were tempted to start rubber plantations. Before too long, rubber plantation was famous among Europeans, and they started to cultivate large-scale rubber estates. By that time, all European landowners had started rubber estates which were more than 500 acres. By the second decade of the 20<sup>th</sup> century after tea, rubber became the major exported crop in Sri Lanka than coconut. (Somathilaka,2018)

The table 2 below, displays the statistics of the amount of rubber cultivated lands between 1910-1920 in Sri Lanka.



**Table 2.** *Statistics of the amount of rubber cultivated lands between 1910-1920 in Sri Lanka*

<b>Year</b>	<b>Acers</b>	<b>Years</b>	<b>Acers</b>
<b>1900</b>	1,750	<b>1916</b>	221,632
<b>1904</b>	25,000	<b>1917</b>	294,160
<b>1905</b>	40,000	<b>1918</b>	281,491
<b>1906</b>	100,000	<b>1919</b>	308,687
<b>1907</b>	150,000	<b>1920</b>	320,131
<b>1908</b>	180,000	<b>1921</b>	390,115
<b>1909</b>	184,000	<b>1922</b>	390,115
<b>1910*</b>	203,000	<b>1923</b>	390,115
<b>1911</b>	215,000	<b>1924</b>	390,115
<b>1912</b>	217,000	<b>1925</b>	438,950
<b>1913</b>	220,000	<b>1926</b>	475,051
<b>1914</b>	168,178	<b>1927</b>	490,000
<b>1915</b>	198,588	<b>1928</b>	533,652

*Note.* Reprinted from *Sri Lankawe Arthika Ithihasaya Brithanya Palana Samaya 1796-1931* (p.131) by U.B.Karunananda, 1999. Person. Copyright 1999 by U.B.Karunananda and *Sri Lankawe Brithanya Palana Samayehi VathuVagawa saha Ehi Prathipala* (p.103-105) by M.Somathilaka, 2018. Person. Copyright 2018 by M.Somathilaka.

\*Ukku Banda Karunananda's(1999) book, it is mentioned that there were 188000 Acres of rubber-cultivated lands while Mahinda

Somathilaka (2018) mentions that there were 203000 acres of rubber-planted lands in 1910. However, there is a similarity of other data in both books.

Among the foreign exchange-earning crops, rubber was the main crop at the beginning of the 20<sup>th</sup> century. In 1913, rubber earned three times the income of tea. In 1913 for the first time, rubber became the number one foreign earner. The reason was the rise in the price of rubber during World War I. However, after World War I, the price of rubber went down, because the main buyer of Sri Lankan rubber, the USA, limited the buying of rubber due to the economic crisis faced at that time. (Karunananda, 1999)

In the early 20<sup>th</sup> century, Sri Lanka experienced a period of economic growth by establishing a plantations-based economic system, with the exportation of commodities such as coffee, tea, rubber, and coconuts. These exports, particularly rubber, emerged as significant cash crops for the nation. However, following the conclusion of World War I, the price of rubber began to decline due to an economic downturn in the United States, a prominent buyer of Sri Lanka's rubber. Consequently, in 1922, a strategy was implemented to restrict rubber production in the British Empire, including Sri Lanka. Initially, this plan increased rubber prices; however, by 1926, prices began to decline once more, as other countries augmented their investments in rubber cultivation and plantation production. The growth of the automobile industry in both the United States and Great Britain also contributed to the initial surge in rubber prices. Nevertheless, by 1928, the influx of rubber from Dutch colonies caused the price to plummet to 8-9 pence per pound. In response to the economic recession of 1929 and the subsequent decrease in rubber prices, export restrictions on rubber in British colonies were lifted in November 1928. Consequently, the price of rubber continued to decrease, reaching 3 pence per pound by 1931. This decline led to a 31% reduction in rubber production and the closure of 40% of rubber estates suitable for tapping. In 1934, all significant rubber-producing nations, including Sri Lanka, reached an agreement to restrict production to boost prices.

Notably, the growth of exports in Sri Lanka was primarily limited to the plantation sector, with foreign trade having a significant impact on the country's economy. Government revenues were heavily reliant on the income from exported plantation crops, such as rubber, and private wealth, investments, and national income were also dependent on foreign trade. This reliance on foreign trade, particularly exports from the plantation sector, made the Sri Lankan economy vulnerable to fluctuations in the global market. (Karunananda, 1999)

The following table 3 shows the percentages of tea, rubber, and coconut in Sri Lanka's export trade during the First World War.

**Table 3.** *Percentages of tea, rubber, and coconut in Sri Lanka's export trade during the First World War*

	Tea	Rubber	Coconut
1911	46.6	20.0	19.3
1914	40.9	28.2	15.4
1917	31.2	44.7	10.6
1920	29.2	34.1	24.1

*Note.* Reprinted from *Sri Lankawe Arthika Ithihasaya Brithanya Palana Samaya 1796-1931* (p.133-135) by U.B.Karunananda, 1999. Person. Copyright 1999 by U.B.Karunananda

By 1921 there were 390115 acres of rubber-cultivated lands in Sri Lanka. Though rubber is a profitable business, it faced several problems because supply is greater than demand. In the 1930-

decade, tea, rubber, and coconut were major crops of the Sri Lankan economy. All Sri Lankan hopes are based on them. But Sri Lanka only provided a small amount of all supply of them. The price fluctuation of the above-mentioned crops in the world market strongly affected Sri Lanka. If the prices were not stable, the amount of land on which tea, rubber, and coconut were cultivated increased year by year. This table contains the average number of lands (acres) that the main crops were cultivated during the period from 1923 to 1932.

**Table 4.** Average number of lands (acres) that the main crops during the period from 1923 to 1932

Years	Tea	Rubber	Coconut
1923-27	433,628	436,846	858,318
1928-32	457,000	534,000	1,100,000

*Note.* Reprinted from *Ceylon Blue Book of Statistics, (annual)* by Department of Census and Statistics, Colombo, 1951.

There was an economic crisis in the 1930 decade, which strongly affected the Sri Lankan economy. However, when Sri Lanka received independence, Tea, Rubber, and Coconut were 90% of Sri Lankan exports. (Munasinghe, 2017)

The establishment of a rubber research institution was another reason for the development of rubber plantations in Sri Lanka. It was formed in Durton Field in Agalawatta in 1933. (Seneviratne, 2009) It constantly supplies experiments and services related to rubber plantations.

## **Grievances of the rubber planters in Pahala Karannagoda Grama Niladhari Division**

Rural socio-economic grievances encompass a range of challenges and concerns faced by rural communities, particularly relating to their social and economic well-being. These grievances arise due to various factors, including inequalities, limited resources, inadequate infrastructure, and exclusionary policies. Understanding and addressing these grievances is crucial for fostering inclusive and sustainable development in rural areas. The selection of Pahala Karannagoda Grama Niladhari Division as the primary research site of this study is based on its distinctive approach to addressing grievances, as discussed previously. To ascertain the current socio-economic grievances, present in the Pahala Karannagoda Grama Niladhari Division, subsequent analyses will be conducted.

### **Economic factors-based Grievances**

Rural agricultural societies face various economic factors that give rise to grievances within their communities. Such challenges can have detrimental effects on the livelihoods and well-being of rural farmers and their communities.

Negative government policies can have profound impacts on agricultural societies, leading to a range of grievances and challenges. Agricultural communities are often heavily reliant on government support, regulations, and policies to ensure their livelihoods and sustainable development. However, when policies are poorly designed or implemented grievances can emerge within agricultural societies. The prior administration of Sri Lanka imposed a ban on the importation of chemical fertilizers. This policy has resulted in various difficulties, prompting some farmers to switch to alternative crops such as tea, areca nuts, and paper, while others have completely abandoned rubber cultivation in the area. The systematic application of chemical fertilizers is imperative for rubber trees, as neglecting this practice can diminish their fertility and density, thereby directly impacting the

planters' income. According to the key informant interviews, planters do not have enough fertilizer as well as pesticides for diseases. Even some fertilizers could be found in the black market a large amount of money was required to buy them. As a result, a significant number of rubber planters have shifted to other crops. (Key informant interview on February 27, 2023)

The government has offered certain forms of assistance to rubber land owners to promote the development of rubber cultivation in Sri Lanka. One such form of assistance is periodic financial aid provided by the government. However, according to key informants from Pahala Karannagoda, the process of obtaining these grants is intricate and time-consuming, resulting in delayed disbursement of funds to the planters. Additionally, the prevalent rainy weather in the area poses a significant challenge to the growth of rubber plantations. To mitigate the impact of excessive rain, planters currently utilize rain covers to shield the trees. However, it has been observed that the existing rain covers only protect the cutting area of the rubber tree, thereby increasing the temperature of the tree. Consequently, the planters are urging the relevant authorities to implement a standardized rain cover system that offers adequate protection against the heavy rainfall commonly experienced in this region. (Key informant interview on February 25, 2023)

The distribution of substandard rubber plants is another problem faced by the planters. In the early stages of rubber plantation in this area, high-quality rubber plants were distributed among the planters that could produce latex for up to 40 years. However, the current rubber plants can only produce latex for around 20 years. The planters complain that they are not provided with high-quality species of rubber to cultivate, which is affecting their income. (Key informant interview on February 27, 2023.) Also, some small-scale landowners complained that there is no proper transportation system in the area to bring their rubber milk to the closest urban areas to sell it. In rural agricultural societies, the proper functioning of government policies plays a vital role in ensuring the well-being and development of farming communities. However,

when government policies are not implemented effectively or fail to address the unique needs and challenges of rural areas, grievances can arise among agricultural communities.

The current economic crisis affecting a country can have severe repercussions on various sectors, including the rural agricultural industry. The agricultural sector, being a significant contributor to the economy and a vital source of livelihood for rural communities, is particularly vulnerable to economic downturns. When a country experiences an economic crisis, such as a recession, inflation, or financial instability, it adversely impacts the agricultural industry, leading to a range of challenges and setbacks. The present economic crises are directly influenced by a rise in multiple grievances within the rubber industry. According to key sources, the prices of infrastructure have increased due to the current situation. Consequently, the expenses for infrastructure surpass the production of the industry. The lack of a fixed price for rubber is another major problem faced by them. The price of rubber constantly changes due to various economic conditions worldwide. Thus, sometimes they are unable to gain a good profit, which is one of the reasons for shifting to other crops. As pointed out above, agricultural policy failure theories provide different perspectives on the relationship between weak government policies and their consequences for rural agriculture. They highlight the potential negative impacts of ineffective or biased policies on agricultural productivity, rural livelihoods, and overall rural development. Fraser's Agricultural Policy Grievance Theory highlights the importance of addressing both dimensions of grievances and calls for policy interventions that address economic disparities and promote cultural and political recognition for marginalized agricultural communities. By recognizing and responding to these grievances, agricultural policies can be designed to be more equitable, inclusive, and responsive to the needs and aspirations of small-scale farmers and rural communities. (Fraser, 1996: 1995) To that, appropriate policies, a close monitoring system, and proper government attention are needed for the rubber industry to minimize existing grievances.

The issue of high wages for the labor force in rural agricultural societies is a grievance that can significantly impact farmers, agricultural productivity, and the overall economic viability of rural areas. When labor wages rise to unsustainable levels, it places a burden on farmers, reduces their competitiveness, and may lead to challenges in agricultural operations. The planters are facing a major issue of a shortage of labor force to work in the rubber estates of Karannagoda area. Although laborers charge 1000/= per day, it is not profitable for the planters with high expenses for fertilizers, transportation, and other costs. Large-scale planters suffer in various ways due to this disadvantage. Their required income is not generated. Expenditures are higher than generated income. In this condition, most planters are moving to sell their rubber trees for timber. However, due to the restriction on chemical fertilizers, rubber trees are not growing well, and buyers do not like to purchase at attractive prices. Governments can support farmers by providing access to credit and financial assistance, enabling them to invest in labor-saving technologies and mechanization. This can help reduce dependence on manual labor and mitigate the impact of high wages. Additionally, promoting cooperative farming models, where farmers pool their resources and share labor, can help reduce individual labor costs and improve economies of scale.

With the establishment of free education in the country, finding workers for rubber estates has become difficult as the majority of society has become educated and does not prefer to work as laborers in rubber estates. The attitude of people toward working as laborers has also contributed to the decline of workers. The young and elderly prefer to work on their land rather than in another person's estate as they consider it a loss of social status. Moreover, the establishment of private factories in the vicinity has attracted the younger generation to work as employees in these factories instead of working as laborers in rubber estates. Due to the shortage of labor force, some large-scale planters have completely abandoned rubber cultivation and grown other crops such as areca nuts, betel, and pepper in their rubber estates. However, small-scale planters continue to carry out plantations



using family labor despite facing difficulties such as the non-availability of fertilizers at regular intervals, high maintenance costs, and damage from floods and rain. (Key informant interview on February 26, 2023.)

Heavy rainfall is a challenge for rubber plantations as it makes it difficult to cut latex daily. This is another reason for the shortage of the labor force. Continuous cutting of latex is not possible due to the heavy rainfall in the area. Consequently, many people have turned to other jobs to sustain their daily income. Those who previously worked in rubber estates now work as laborers loading sand in the river Kalu. They point out that this is their daily income, and therefore they have opted for these jobs. According to them, they can only cut latex for about 15/16 days a month. Thus, working in rubber estates is not a reliable source of permanent income, so they have moved to other jobs. (Key informant interview on February 27, 2023.) Agricultural labor surplus theories provide different perspectives on the relationship between labor shortages and their negative effects on the rural agricultural sector. They highlight the importance of understanding labor market dynamics, social inequalities, and broader economic processes in addressing labor shortages and promoting sustainable rural agricultural development. Shortages of the labor force in the rural rubber industry of the Karannagoda area need to be monitored and deeply addressed. Necessary steps should be taken to enhance the quality of the rural labor force and need to implement effective strategies to accompany them with the rural rubber industry.

### **Socio factors-based grievances**

As stated earlier, the rubber industry in the Karannagoda region is facing various economic challenges, alongside some social challenges. Upon conducting a field visit, it becomes evident that many of these social challenges are interconnected with economic factors, particularly pertaining to grievances. In some instances, social grievances have arisen as a consequence of economic factors. A noteworthy finding of the researcher is that a majority of the local residents, especially the younger generation, display a

reluctance to work in rubber estates under the ownership of others. The presence of young laborers in such estates is scarce. The youth of the area aspire for upward social mobility, despite Karannagoda being a predominantly rural region with limited urbanization. Furthermore, the economic value derived from the rural rubber industry fails to meet their expectations. Consequently, there is a discernible inclination among the youth to migrate abroad or relocate to commercially developed areas within the country. They are disinclined to remain in the village and continue working as laborers. Consequently, there is a severe shortage of energetic labor power in the rural industry of Karannagoda. This migration trend leaves agricultural communities with an aging population and a diminishing labor force. As previously highlighted, it is imperative to implement appropriate policies aimed at mitigating these grievances within the labor force of the region.

The sustainable development of any society is contingent upon the implementation of progressive government policies. However, to truly achieve the aims and objectives of these policies, it is essential to foster a robust and harmonious relationship between government representatives and the general populace. Regrettably, it was noted during a visit to the field that there exists a deficient and unhealthy rapport between the rubber research officer and the rubber planters in the region. The rubber planters lamented the inconvenience of having to transport their collected latex to collectors residing far from their village, whereas the rubber research officer countered by highlighting the presence of a few collectors in close proximity to said village. Furthermore, the rubber planters voiced their dissatisfaction with the impracticality of the solutions offered by the officials, as well as the lack of timely assistance. Conversely, the rubber research officer expressed a divergent viewpoint, contending that the rubber planters often disregard their counsel and persist in adhering to traditional methods. Field data substantiated the fact that even when the rubber research officer proposed the establishment of a latex-collecting society within the village, no one stepped forward to assume responsibility and oversee its operations. Evidently, these

disputes also contribute to the proliferation of grievances within the rubber plantation in this area. Consequently, in order to enhance the productivity of the rural rubber industry, it is imperative to cultivate positive social connections between government officials and grassroots rural communities. By nurturing healthy relationships among the pertinent entities within the rubber industry, ample opportunities will arise to effectively address and monitor the grievances that emerge at the grassroots level of society.

The geographical situation of a region plays a vital role in shaping its agricultural landscape and determining the profitability of farming activities. However, certain geographical factors can give rise to grievances and negative effects on agricultural profit, posing significant challenges for farmers and rural communities. The rubber cultivators residing in the village of Pahala Karannagoda encounter numerous social obstacles, with the most notable being the persistent inundation caused by the Kalu and Kuda rivers. This predicament holds considerable significance within Pahala Karannagoda when compared to other regions where rubber is cultivated. Flooding poses a detrimental impact on rubber cultivation, as it adversely affects the roots of the rubber trees and can result in afflictions such as root decay. The planters attribute this problem to incessant rainfall, yet no measures are taken to address it. Although the construction of the Kukuleganga reservoir has mitigated the risk of flooding to some degree, the planters propose the construction of a dam along the Kalu River to alter its course. (*Key informant interview on February 26, 2023.*)

The rubber planters have faced further complications as a result of the floods. The perpetually damp soil has led to an accelerated growth of grass within the rubber plantations. Consequently, the planters are required to regularly mow the lawn, typically every two weeks, resulting in additional financial burdens. Their perspective is that this necessitates extra expenditure. The presence of lush grass and moisture in the environment has created an environment conducive to snake bites in these plantations. Rubber

plantations with these particular conditions offer favorable habitats for snakes. During the on-site investigation, the researcher observed several venomous snakes within the rubber plantations.

The presence of various diseases in agricultural products poses a significant grievance for farmers and the agricultural sector as a whole. Diseases affecting crops, livestock, and other agricultural commodities can result in reduced yields, quality deterioration, financial losses, and threats to food security. Rubber planters face difficulties in preventing various diseases that affect rubber cultivation, including the spread of a disease called "Diya Pus" or "Sudu Pus," scientifically known as White Root Fungus (*Rigidoporus micropus*) in the area. And also, the disease called Patch canker disease also affected the rubber plantation in this area. These are the two main diseases found in this area. However, the pesticide for this disease is too expensive, making it difficult for small and large-scale planters to afford. (*Key informant interview on February 26, 2023.*)

Homer-Dixon's Environmental Grievance Theory focuses on the relationship between environmental degradation, resource scarcity, and social mobilization. (Dixon – Homer, 1999) The theory suggests that environmental degradation and resource scarcity can lead to grievances among individuals and communities, which, in turn, can contribute to social unrest. According to the theory, environmental grievances arise when people perceive a loss or threat to their livelihoods, well-being, or access to natural resources due to environmental degradation or resource scarcity. These grievances can be economic, social, or cultural in nature. The theory emphasizes that addressing environmental grievances is crucial for sustainable and peaceful development. It highlights the importance of sustainable resource management, equitable access to resources, and effective governance to mitigate environmental grievances and reduce the potential for social unrest.

## **Conclusions**

This investigation thoroughly analyzed the historical background of rubber plantations in Sri Lanka and the present concerns of rubber cultivators in the Pahala Karannagoda Grama Niladari division. The cultivation of rubber was originally introduced to Sri Lanka by the British as a form of large-scale farming, with the initial rubber plantation being established in Kalutara. Gradually, rubber cultivation expanded to encompass the wet regions of the country. The inquiry highlights that rubber planters in the Pahala Karannagoda Grama Niladari division encounter distinct challenges and issues related to rubber cultivation, such as pest and disease problems, insufficient infrastructure, unstable prices, transportation difficulties, scarcity of labor, and elevated input costs. These difficulties have led to reduced crop yields and decreased profitability for numerous rubber planters in the region. It seems that the economic grievances faced by rubber planters in the Pahala Karannagoda GN Division surpass any social grievances. Nevertheless, according to the principles of grievances arising from agriculture, there is no indication of the potential for social mobilization to arise in the area as a result of sustained suffering and grievances. The evident reality is that planters and laborers in the rubber industry have been transitioning to other lucrative professions. Consequently, the rubber industry in the area as a whole has been observed to collapse. Those who persist in the industry find themselves voiceless in expressing their grievances. To conclude, this investigation offers valuable insights into the historical and current status of rubber plantations in rural Sri Lanka. The outcomes can be employed to inform policies and practices that promote the sustainability and expansion of the rural rubber industry in the nation.

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