

LEGAL ISSUES AND THE MANAGEMENT OF RUBBER UNDER THE RUBBER AUTHORITY OF THAILAND ACT 2015

Asst.Prof. Somchai THAMSUTIWAT¹, Damrongpol KAMHANGWONG²,
Samatthachai YAMSA-ARD³, Chalongrat CHAROENSRI⁴

¹School of Law, Mae Fah Luang University, Chiang Rai Thailand 57100

²School of Agro-Industry, Mae Fah Luang University, Chiang Rai Thailand 57100

³School of Management, Mae Fah Luang University, Chiang Rai Thailand 57100

⁴School of Social Innovation, Mae Fah Luang University, Chiang Rai Thailand 57100 Corresponding author:

somchai@mfu.ac.th¹
damrongpol.kam@mfu.ac.th²
samatthachai@mfu.ac.th³
chalongrat.cha@mfu.ac.th⁴

Abstract

This research aims to explore legal and administrative issues regarding Thailand's rubber industry, particularly in relation to upstream rubber support and the legal barriers that affect the incomplete management of rubber under the Rubber Authority of Thailand. The research employed qualitative methods and in-depth interviews. The findings reveal the following: 1. Compared with midstream rubber and downstream rubber, the Rubber Authority of Thailand Act 2015 places greater emphasis on upstream rubber, hindering the systematic development of the rubber industry. 2. The Rubber Authority of Thailand does not operate in a fully integrated manner due to a lack of tools to connect upstream, midstream, and downstream rubber, which negatively impacts policy decision-making. The recommendations include the following: 1. Amending provisions in the Rubber Authority of Thailand Act 2015 to place more focus on midstream and downstream rubber; 2. Introducing blockchain provisions into the Rubber Authority of Thailand Act 2015.

Keywords: Rubber Authority of Thailand Act 2015, RAOT, Blockchain in the natural rubber industry

*Digital Transformation Research Center for Agro-Industry and Business (DTRAB), Mae Fah Luang University

This research article was developed from the research project "An analysis of obstacle issues in laws and regulations on Thai's Para rubber industry and development of guideline solutions**". Supported by: Knowledge Network Institute of Thailand under Thailand Science Research and Innovation.

1. Background

The natural para rubber in Thailand has been developed for more than one hundred years, since 1879,¹ when, in 1889, rubber plantations started in the Kuntrang district, Trang Province.² Between 1934 and 1944, the government implemented a rubber control policy under the International Rubber Regulation Agreement. The first Thai law governing rubber was the Rubber Control Act of 1934 (currently the Rubber Control Act of 1999). In 1949, the cabinet approved the establishment of the "Nabon Rubber Plantation Organization,"³ with the main

¹ Buncha Somboonsuke, Prawat Wettayaprasit. Agricultural System of Natural Para Rubber Smallholding Sector in Thailand. First Edition. June 2013. ETO Kasetsart University Publishing., p.46

² Ibid, p. 46

³ Kalakan, W. (1985). Production and trade policies for rubber in Southern Thailand, 1901-1960 (Master's thesis, Department of History, Chulalongkorn University, 1985, p. 49). Cited in the book Funeral cremation book of

objective of producing and selling ribbed smoked sheets: RSSs, as well as fresh latex. From 1950 to 1955, the government promoted rubber cultivation by setting up 20 rubber experimental stations,⁴ and in June 1950, the Thai Rubber Merchants Association was established.⁵ The association's primary role was to "regulate the grading of rubber for export and manage rubber processing factories." By 1960, rubber had become Thailand's most profitable export commodity, with an export value of 2,579,352,564 baht.⁶ As a result, policies, such as improving rubber breeding and expanding plantation areas, have been introduced to promote the rubber industry. Additionally, policies were introduced to encourage rubber farmers to improve the quality of their rubber. At the same time, the government enacted policies to prevent illegal land use for rubber plantations, as deforestation was becoming a concern. In 1960, the government enacted the Rubber Plantation Aid Fund Act of 1960, allowing the government to directly and indirectly support farmers.⁷ Since rubber trees have a long lifespan but replanting older trees is costly, this law established the "Rubber Plantation Aid Fund," similar to the "Rubber Industry (Replanting) Fund Ordinance 1952" in Malaysia and the "Rubber Replanting Subsidy Act 1953" in Sri Lanka. The primary goal was to assist small-scale farmers. This demonstrates that the Thai government has used rubber control laws to regulate rubber cultivation and rubber plantation aid fund laws to provide support to small-scale rubber farmers.

Although replanting has been the primary goal of rubber cultivation, there are other reasons for government support, such as encouraging the planting of rubber to replace cassava. In 1977, the cabinet approved an accelerated program to replace cassava with rubber trees.⁸ Between 1987 and 1991, the Office of the Rubber Replanting Aid Fund (ORRAF) formulated an enterprise plan in line with the government's policies. ORRAF's first enterprise plan stemmed from the Fifth National Economic and Social Development Plan (1982--1986), which required state enterprises to create such plans. During this period, the ORRAF initiated its rubber enterprise plan by implementing a policy to reduce cassava cultivation areas by planting rubber as an alternative crop, particularly in northeastern Thailand.

In 1989, the cabinet assigned ORRAFs to expand rubber plantations to 14 new provinces in the northeastern region. Three groups received support: 1) members of self-sufficient settlement schemes, 2) farmers within land reform areas, and 3) members of agricultural cooperatives. In 1991, the Gulf War caused a global economic downturn, which was reflected in the noticeable decline in rubber prices. On December 17, 1991, the cabinet introduced a solution by instructing the ORRAF to establish local rubber auctions across the country to ensure fair trade of rubber products and to serve as intervention points when rubber prices dropped. This intervention revealed that during periods of falling rubber prices, the government would step in by opening local rubber auctions in rubber-growing areas. However, these local auctions did not succeed in raising rubber prices.

H.R.H. Prince Hemawadi, at the Royal Crematorium, Isariyaporn Pavilion, Wat Thepsirin Temple, February 28, 1973 (Bangkok: Phrachan Printing, 1973, p. 235).

⁴ Ibid, p. 237

⁵ Ibid, p. 258

⁶ Ibid, p. 311

⁷ Srisawalak, I. (2014). Laws related to agriculture. Chulalongkorn University Press, p. 179.

⁸ Accelerated Rubber Replanting Program to Replace Cassava. (Phase 1: 1977-1980, Phase 2: 1982-1985, and Phase 3: 1987-1990)

The development of rubber plantations between 1971 and 1990 enabled Thailand to rise from the world's third-largest producer and exporter of natural rubber to the second-largest by 1990, with a production volume of 1.27 million tons, representing 24.38% of the global production of 5.21 million tons and an export value of 23,301.40 million baht. The production continued to increase, and within just one year, Thailand surged to become the world's top producer of natural rubber in 1991, with a production volume of 1.34 million tons, an export value of 25,228.49 million baht, and accounting for 25.05% of the global production of 5.35 million tons. This clearly demonstrates the effectiveness of replanting efforts over the past 20 years, which significantly contributed to the overall increase in production.

On February 2, 1993, the cabinet approved the establishment of the "Natural Rubber Policy Committee" (NRPC), tasked with proposing policies related to natural rubber to the cabinet for consideration. The NRPC aimed to address rubber price issues, promote domestic rubber usage, and guide international rubber negotiations. The NRPC subsequently developed the "Rubber Industry Development Plan (1993--1996)," which focused on increasing the domestic use of raw natural rubber, expanding rubber product exports, and enhancing research and development agencies. (Ministerial decree of the Ministry of Agriculture and Cooperatives 561/1993)

On October 19, 1993, the Ministry of Agriculture and Cooperatives issued an order granting the Office of the Rubber Replanting Aid Fund (ORRAF) the authority to oversee and promote the rubber industry in all areas, covering the entire supply chain from planting, production, and latex processing to marketing; assisting farmers affected by natural disasters; and promoting other occupations to improve the livelihoods of farmers. This marked the beginning of a trend toward centralizing power to manage the rubber industry comprehensively.

In 1995, the ORRAF provided support for the first time in Nan Province for rubber planting, responding to a request from a group of farmers who replaced their tangerine orchards with rubber trees (1994). On May 26, 2003, the cabinet subsequently approved a resolution to expand rubber planting to all regions of Thailand where the land is suitable. In 2005, the Ministry of Agriculture and Cooperatives formulated a plan to restructure the rubber and rubber product industries. The objective was to maintain Thailand's position as the world leader in rubber production. This necessitated adjusting the structure of rubber production and rubber products to align with both domestic and global conditions. On November 1, 2005, the cabinet approved the strategic road map for restructuring the rubber and rubber product industries. As part of this strategy, the Ministry of Agriculture and Cooperatives established the Rubber and Rubber Product Management Committee to support the policy of positioning Thailand as the global hub for the rubber industry.

A major turning point for Thailand's rubber industry occurred in 1999 when the idea of consolidating organizations working in the rubber sector began to take shape. On November 2, 1999, the Prime Minister issued Order No. 43/2542, appointing the Rubber Committee of Thailand to explore ways to merge the Office of the Rubber Replanting Aid Fund (ORRAF) and the Rubber Plantation Organization (RPO). The objective of this consolidation was to provide comprehensive support to rubber farmers, covering production, processing, industry, and marketing. The benefits of the consolidation were summarized as follows: 1) The Office of the Rubber Replanting Aid Fund (ORRAF) was a nonprofit state enterprise with funds of approximately 24 billion baht. If merged with the Rubber Authority of Thailand, this fund could be utilized more efficiently and rapidly, benefiting both the industrial and business sectors. 2) The Rubber Plantation Organization (RPO) was a for-profit state enterprise involved in

upstream activities, owning approximately 40,000 rai of rubber plantations. It also performs midstream activities with six rubber processing factories and one wood processing factory. Despite having a small workforce, RPOs had extensive responsibilities and therefore supported mergers with the Rubber Authority of Thailand. 3) The Rubber Research Institute, under the Department of Agriculture, was also considered for inclusion in the Rubber Authority of Thailand. The goal was to address challenges in applying research results by improving the coordination between research, promotion, and practical application. The merger would facilitate better integration of research into rubber cultivation and industry. In addition, various challenges faced by farmers, which impact the overall rubber industry, should be addressed, such as the use of rubber varieties, production technology, tapping techniques, linking local rubber auction markets with central markets, setting cost-of-production policies, and providing farmers with decision-making information for production and marketing. From the inception of the policy to its final decision, the Rubber Authority of Thailand Act 2015 was enacted and officially came into force on July 14, 2015.

2. The Rubber Authority of Thailand Act 2015

The Rubber Authority of Thailand Act 2015⁹ was enacted with the aim of reforming the management system related to rubber, including research and development, price stability, business operations, and fair and sustainable benefit distribution. The ultimate goal was to improve the quality of life of rubber farmers and rubber industry operators. As a result, it was necessary to merge the Office of the Rubber Replanting Aid Fund (ORRAF) and the Rubber Plantation Organization (RPO) and to transfer officials from the Rubber Research Institute under the Department of Agriculture, Ministry of Agriculture and Cooperatives, to create a centralized organization responsible for managing the rubber industry. This organization is now known as the Rubber Authority of Thailand (RAOT). RAOT is a government entity established under the law concerning the creation of government organizations, with the status of a state enterprise. The Board of the Rubber Authority of Thailand is responsible for policy formulation, while the governor oversees operations.

RAOT's primary objectives under law are as follows: 1) To serve as the central organization responsible for the comprehensive management of the country's rubber industry, Thailand should be a global hub for the rubber product industry. 2) To promote, support, and conduct studies, analyses, and research related to rubber. 3) To provide assistance to rubber farmers, rubber farmer institutions, and rubber industry operators. 4) To ensure price stability in the rubber market. 5) Support the replanting and new planting of rubber trees.

The ultimate goal of the law is to ensure "economic security for farmers and price stability for rubber." ¹⁰ However, the management of the Rubber Authority of Thailand (RAOT) has faced numerous unresolved issues. According to the Agricultural and Cooperative Committee of the National Legislative Assembly¹¹, the overall problems of Thailand's rubber industry include 1) price instability and low rubber prices, 2) reduced rubber imports from China, 3) high production costs, and 4) a lack of zoning regulations for rubber planting areas.

⁹ Royal Gazette, Vol. 132, Part 63A, July 14, 2015.

¹⁰ Summary of the 2nd Meeting of the Special Commission on the Draft Rubber Authority of Thailand Act, B.E...., House of Representatives, Wednesday, June 27, 2012.

¹¹ Parliament of Thailand. (2020, May 22). www.parliament.go.th

Over the years, governments have used short-term solutions, which involve mainly financial measures, to address these problems. Before 2015, the government's response to low rubber prices and support for rubber farmers included restructuring production to prevent oversupply, using land reform as a tool, and promoting domestic rubber consumption and rubber tree replacement. Most recently, the government implemented a rubber farmer income guarantee policy, which replaced price intervention with price guarantees from 2020--2022.

The state's approach has been characterized by urgent financial interventions, including both price intervention and income guarantees. However, these efforts have only temporarily alleviated farmers' problems and have not achieved the goal of ensuring long-term economic security for farmers or stabilizing rubber prices. A key reason for this failure is the government's reluctance to implement legal measures, especially those aimed at establishing comprehensive rubber management through legal frameworks and blockchain technology.

3. Legal Issues Regarding the Definitions of the Terms “Rubber,” “Rubber Wood,” and “Para Rubber”

Section 4 of the Rubber Authority of Thailand Act 2015 provides definitions that impact other sections where these terms are used. The definitions that merit attention for their potential implications are as follows:

“Rubber” refers to fresh latex, rubber lumps, rubber scraps, concentrated latex, rubber sheets, rubber blocks, crepe rubber, or any other form of rubber produced from any part of a rubber tree but does not include rubber products or finished synthetic rubber goods.

“Rubber wood” refers to rubber trees or logs from rubber trees.

“Para Rubber” refers to both rubber and rubber wood.

As such, whenever the terms “rubber,” “rubber wood,” and “para rubber” are used in various sections, they must be understood as defined under the term “rubber.” The issue arises from the fact that the definition explicitly states, “but does not include rubber products or finished synthetic rubber goods.” This means that any provision of the Rubber Authority of Thailand Act that refers to “rubber,” “rubber wood,” or “para rubber” only applies to fresh latex, rubber lumps, rubber scraps, concentrated latex, rubber sheets, rubber blocks, crepe rubber, or any other form of rubber derived from a rubber tree but excludes rubber products or finished goods. This definition effectively excludes all downstream rubber products from the scope of the law, which has significant implications for the comprehensive management of the rubber industry. For example, Section 8 states that the RAOT is tasked with the objective of “be the central organization responsible for the comprehensive management of the country's rubber industry... and to support the country as a hub for the rubber product industry.” However, according to the definitions, RAOT is only responsible for upstream rubber management, as the law explicitly excludes rubber products and finished synthetic rubber goods from its scope.

Thus, the definitions reflect the intent of the Rubber Authority of Thailand Act to limit the scope of RAOT's authority to upstream rubber management. Although some provisions suggest that RAOT should support rubber processing and rubber-related businesses, actual involvement in such activities may contradict the law. The origins of this law indicate that it was designed primarily to support small-scale rubber farmers through the establishment of a support fund. Therefore, if RAOT were to extend its support to midstream and downstream activities, it could face legal challenges.

Interviews with senior RAOT executives revealed that there have been instances where research and product development, such as the creation of rubber medical mannequins, were conducted.

However, these products have not been sold due to concerns that selling them could be illegal under the current law.

The definitions of the terms "rubber," "rubber wood," and "para rubber" have had negative impacts on the Rubber Authority of Thailand (RAOT), which, as state enterprises, is required to generate income to sustain itself. According to Section 9(2) of the Rubber Authority of Thailand Act, RAOT has the authority to engage in business related to rubber. However, owing to the scope of these definitions, RAOT is limited to conducting business within the boundaries of upstream rubber only. Should RAOTs engage in business related to rubber products and finished synthetic rubber goods, such actions may exceed the legal boundaries established by the law.

Thus, the legal issues surrounding the definitions of "rubber," "rubber wood," and "para rubber" warrant reconsideration, particularly in light of the state's goals for national development through the use of rubber. On the basis of the current legal definitions, it is clear that the state places emphasis solely on upstream rubber. Consequently, when rubber farmers are unable to sell their raw rubber at favorable prices, upstream rubber prices are inherently low. If the state recognizes the importance of expanding RAOT operations to include midstream and downstream rubber activities, then amending the law to reflect this expanded scope is necessary.

4. Legal Issues Regarding the Comprehensive Management of the Rubber Industry in Thailand

Section 8 of the Rubber Authority of Thailand Act 2015 states that "the RAOT shall have the objective (1) to act as the central body responsible for the comprehensive management of the rubber industry in Thailand, manage the finances of the fund, and promote and support Thailand as the center of the rubber product industry." The intent of this section is to empower RAOT to operate as a central organization and promote Thailand as a hub for the rubber product industry. However, to foster the development of rubber products, RAOT, as the central body, must be able to function in a comprehensive and systematic manner.

Compared with Malaysia's rubber industry, which has made significant progress in rubber product development, Malaysia has strategically linked its rubber industry with various plans and policies, such as the Industrial Master Plan, the 12 National Key Economic Areas (NKEAs) 2010--2020, the Rubber Glove Promotion Policy 2010--2020, and the 10th Economic Development Plan (2010--2015). These policies ensure that the management of Malaysia's rubber industry is integrated and aligned with its broader economic development goals.

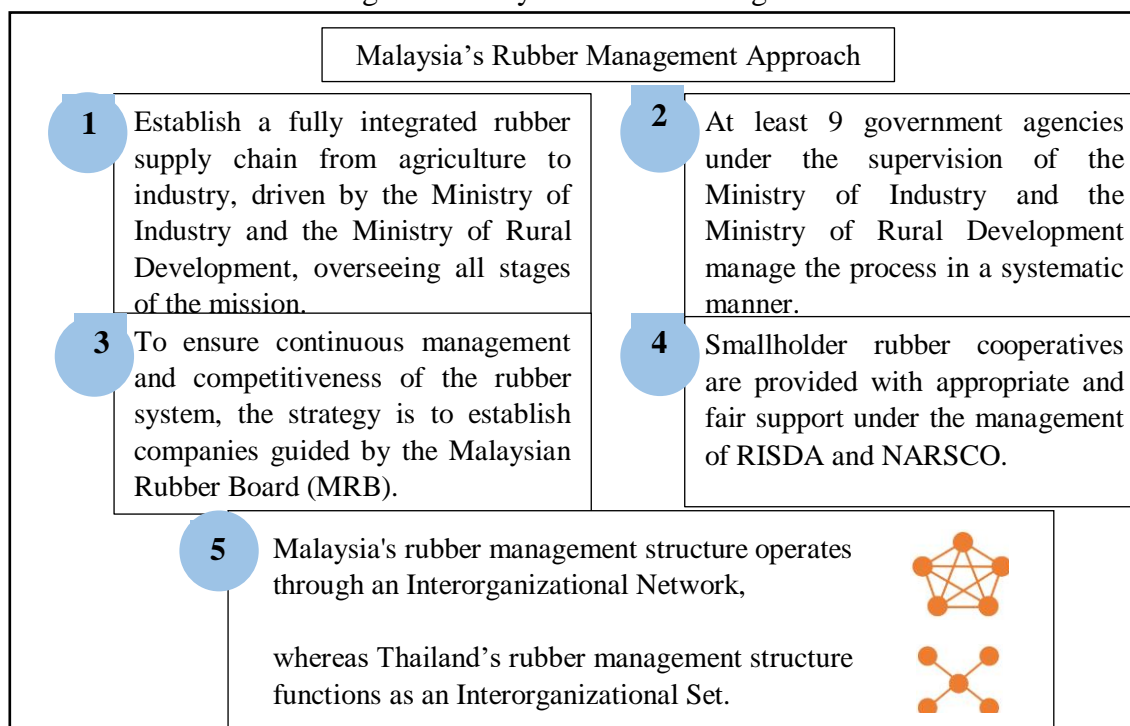
Given Malaysia's success, RAOT should consider adopting a similar approach to the development of Thailand's rubber industry, ensuring alignment between master plans, policies, laws, and organizations. Research shows that Malaysia's approach to managing its rubber industry comprehensively integrates the agricultural sector with the industrial sector. The specifics of this comprehensive management approach are illustrated in Figure 1.¹²

¹² Thamsutiwat, S., et al. (2021, June). Final research report: Analysis of legal and regulatory obstacles in the Thai rubber system and development of solutions for improvement. Supported by: Knowledge Network Institute of Thailand under The Thailand Science Research and Innovation.

¹³ Thamsutiwat, S., et al. (2020)

A systematic approach to rubber management necessitates the establishment of a Rubber Master Plan as the first step. Once this master plan is in place, the government can then formulate policies that foster the development of the rubber industry in all sectors, which would benefit the overall economy and all stakeholders involved in rubber production. Specifically, this structured approach can help increase rubber prices through the implementation of sound policies, as demonstrated by Malaysia's success in the rubber glove industry. Thus, the development direction or strategy for the rubber industry is the foremost issue the government must address at the policy-making level to ensure the highest level of clarity. The success of Malaysia's approach, as depicted in the diagram, highlights the importance of aligning national development policies with the rubber industry's growth.

Figure 1 Malaysia Rubber Management



5. Legal Issues Regarding the Lack of Tools for Comprehensive Rubber Industry Integration

To achieve a fully integrated rubber industry, a tool such as blockchain is essential. Blockchain technology secures supply chains by ensuring transparency and traceability, which are key principles in the certification of sustainable forest management. This technology increases confidence among trade partners. However, the Rubber Authority of Thailand Act 2015 only grants the RAOT the power to promote and support the rubber industry, without any regulatory or authoritative power to enforce actions, often referred to as "administrative power."

Upon reviewing the provisions of the RAOT law, Section 41¹³ is the only one that closely aligns with the principles of blockchain.¹⁴ For RAOT to manage the entire rubber supply chain effectively, it must have access to complete and accurate rubber-related data. Although the law designates RAOT as the central authority, in practice, RAOT has been unable to systematically integrate data. The Agricultural and Cooperative Committee of the National Legislative Assembly has identified several challenges¹⁵: 1) Unclear rubber plantation data: Data collection faces obstacles because rubber plantations are found on both legal and illegal land. Rubber farmers are often unwilling to report information about plantations on illegal land. 2) Fragmented rubber data: Certain rubber data are held by the Department of Agriculture under the authority of the Rubber Control Act of 1999. There has been no agreement between the Department of Agriculture (a government agency) and RAOT (a state enterprise) regarding the shared use of these data.

It is evident that incomplete data prevent effective analysis, which in turn hinders systematic management of the rubber industry. This lack of accurate information affects government policy decisions, leading to potential mistakes or ineffective solutions. Unfortunately, the application of platforms using distributed ledger technology (DLT), such as blockchain, which is based on Open Data Standards, has not been utilized to address the issues of low and unstable rubber prices.

The obstacles preventing the implementation of blockchain technology include the following: 1) Lack of clear policy: successive governments have failed to establish a clear policy for solving these problems through legal systems. Instead, they have relied on financial measures, which offer quicker results, driven by political motivations. 2) Inefficient operations within RAOT: The Rubber Authority of Thailand (RAOT) has not developed a systematic approach, largely owing to the lack of study and adoption of effective tools for rubber data collection. 3) Limitations of Section 41 of the Rubber Authority of Thailand Act 2015: This section does not grant RAOT the authority to proactively collect data. Instead, it must wait for rubber farmers, rubber farmer institutions, and rubber industry operators to submit their requests voluntarily. 4) Lack of systematic understanding: Most RAOT personnel focus primarily on replanting efforts,

¹³ Section 41 stipulates that, “Rubber farmers, rubber farmer institutions, and rubber business operators who seek promotion, support, and assistance in areas such as technical support, finance, production, processing, industry, marketing, business operations, and other activities related to rubber under this Act, must submit an application to the Rubber Authority of Thailand (RAOT) in the form and manner prescribed by the Board. The verification of the qualifications of those seeking promotion, support, and assistance as stated in the first paragraph, as well as the consideration of granting such promotion, support, and assistance, shall be in accordance with the criteria and procedures set by the Board. For the purpose of facilitating RAOT’s inspection and review process when considering promotion, support, and assistance, rubber farmers, rubber farmer institutions, and rubber business operators must cooperate and comply with RAOT’s instructions as necessary.”

¹⁴ Blockchain for Rubber is a system that enables the tracking of the volume of transactions for each type of rubber and the quality level of rubber products at each stage of trade. It ensures that the trading system is open, transparent, and fair, allowing for the exchange of data and verification of information between parties. This system helps adjust to global market changes. The foundation of a blockchain system for tracking and tracing Thai rubber should consist of: 1) Web application service, 2) DLT-Blockchain, and 3) Open data standards.

¹⁵ Agricultural and Cooperatives Commission, National Legislative Assembly. (2019) Report on the comprehensive study of the rubber industry. Secretariat of the Senate, Secretariat of the National Legislative Assembly, pp. 84-85.

which has resulted in a limited understanding of systemic operations and the potential for using advanced tools such as blockchain.

On the basis of the 2020 data from the Rubber Authority of Thailand, the registration of rubber farmers and the reporting of rubber planting areas serve as crucial components for building a comprehensive database to support its mission. This mission focuses particularly on promoting rubber replanting, which is a core policy and plays an essential role in improving the income and quality of life of rubber farmers. The RAOT conducted a survey and created a registry of rubber farmers, collecting data on those who reported their rubber planting areas, both for areas where tapping has begun and for untapped areas. The data are organized by region, as shown in the table provided earlier. This initiative allows the RAOT to guide policies more effectively, ensuring that key objectives, such as increasing farmer income and enhancing living standards, can be pursued on the basis of accurate, region-specific data.

Table 1 shows information on rubber farmers reporting rubber growing areas where they are registered as rubber farmers. (Tapped area and untapped area)

Region	Registered Farmers (Tapped)	Tapped Area (Rai)	Registered Farmers (Untapped)	Untapped Area (Rai)
Southern	895,100	11,500,000	118,050	1,150,120
Eastern	83,000	1,602,700	10,400	175,500
Northeastern	440,700	5,040,400	46610	405,100
Northern	63,120	683,000	18,000	169,040
Total	1,481,820	18,826,100	193,060	1,899,760

Rubber Authority of Thailand. (2020, June). Data as of June 2020. (1 Rai = 0.16 Hectare)

In addition, RAOT has surveyed the data of farmers who grow rubber in areas without documented rights. As in the table below

Table 2. Shows information on farmers growing rubber in areas without title documents with the Rubber Authority of Thailand.

Region	Registered Farmers (Tapped)	Tapped Area (Rai)	Registered Farmers (Untapped)	Untapped Area (Rai)
Southern	237,636	3,323,100	36,190	401,000
Eastern	14,650	355,700	2,730	54,100
Northeastern	97,700	1,292,000	13,630	131,800
Northern	31,920	391,000	12,710	130,560
Total	381,906	5,361,800	65,260	717,460

Rubber Authority of Thailand. (2020, June). Data as of June 2020.

On the basis of the data collected regarding registered rubber farmers and rubber plantation areas, a total of 1,674,880 farmers registered as rubber farmers, covering both tapped and untapped rubber plantation areas across the country, totaling 20,725,860 rai. The southern region remains the largest rubber-growing area in Thailand, accounting for more than 61% of the total area. This region is followed by the northeastern, eastern, and northern regions.

For farmers who hold legal land ownership documents, it is clear that they will register with the RAOT, as they are eligible for replanting subsidies. However, for farmers who do not have legal land rights or are illegally occupying land, while the RAOT registers them, these farmers are not eligible for replanting support. This issue is difficult to resolve because of legal restrictions under Section 36 of the law.

6. Conclusion and Discussion

The Rubber Authority of Thailand Act 2015 has impacted the upstream, midstream, and downstream rubber sectors, as well as the overall management of the rubber industry in Thailand. The key issues are as follows:

The definition in the Act, stating “...but not including rubber products and finished synthetic rubber goods,” affects other sections of the law where the terms rubber, rubber wood, and para rubber are used. As a result, the Rubber Authority of Thailand (RAOT) is prohibited from engaging in any activities related to rubber products or finished synthetic rubber goods. Despite the law's objective of allowing RAOTs to manage rubber-related activities, the legal definition limits its authority. For instance, if RAOT were to produce and sell rubber products, such actions would exceed its legal powers. This legal issue is significant and requires reconsideration by the government. If RAOT functions as a state enterprise that generates its own revenue, the law should be amended to give RAOT full responsibility across the entire rubber supply chain.

RAOT is designated the central organization responsible for overseeing the comprehensive management of the rubber industry in Thailand. However, on the basis of the current legal framework, RAOT's role is limited to promoting and supporting the rubber industry, without the authority to fully manage it. Although the law designates RAOT as the central body, its actual work is confined to overseeing the production of raw materials. Given this limitation, it is unsurprising that RAOT has played little role in addressing the issue of declining rubber prices or in stabilizing rubber prices. Furthermore, since its establishment in July 2015, RAOT has not initiated any studies to develop tools for efficient data collection, despite having access to research funds. This inefficiency in utilizing resources reflects a broader issue of ineffective management within RAOT.

References

- Agricultural and Cooperatives Commission, National Legislative Assembly. (2019). *Report on the comprehensive study of the rubber industry*. Secretariat of the Senate, Secretariat of the National Legislative Assembly.
- Atth Phisalvanich and colleagues. (2014). *The impact analysis of Malaysia's goal to become the world's rubber hub and the ASEAN Economic Community agreements on Thailand's rubber industry*. Supported by the National Research Council of Thailand (NRCT) and Thailand Research Fund (TRF).
- Ittiphon Srisawalak. (2014). *Laws related to agriculture (1st ed.)*. Bangkok: Chulalongkorn University Press.
- Office of the Rubber Replanting Aid Fund. (2010). *Memoirs: Half a century of the ORRAF*. Bangkok: Thepphenwanit Printing.
- Pradit Nuankaew. (1992). *Rubber policy of the Thai government between 1961 and 1981*. Master's thesis, Faculty of Social Sciences, Srinakharinwirot University, Prasarnmit.

Rubber Control Act 1999.

Rubber Authority of Thailand Act 2015.

Suthee Intharasakul, Buncha Somboonsuke, & Puravit Pitayapinun. (2017). The Thai rubber industry: Status and development toward the ASEAN Economic Community. *Humanities and Social Sciences Journal*, 8(Special Issue, December 2017), ASEAN labor and development.

Somboonsuke, B., & Wettayaprasit, P. (2013). *Agricultural system of natural para rubber smallholding sector in Thailand (1st ed.)*. Kasetsart University, Extension and Training Office (ETO).

Thamsutiwat, S., et al. (2020) "An analysis of obstacle issues in laws and regulations on Thai's Para rubber industry and development of guideline solutions". Supported by: Knowledge Network Institute of Thailand under Thailand Science Research and Innovation.

Thailand Development Research Institute, Sectoral Economic Planning Division. (2001). *Final report on the evaluation of the performance of the Office of the Rubber Replanting Aid Fund*.