ECONOMIC IMPACT OF THE VIETNAM-INDIA FTA: AN ANALYSIS OF VIETNAM'S RUBBER AND ARTICLES (HS40)

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Summary

Trade between Vietnam and India has continuously achieved steady growth over the past 25 years. However, alongside the stable growth trajectory, the degree of dependence and complementarity in trade between the two sides still has much room for development. This research paper analyzes the impacts of the Vietnam-India Free Trade Agreement (FTA) on Vietnam's rubber and articles thereof in bilateral trade between the two countries. The results calculated from the SMART model show that establishing an FTA between Vietnam and India will bring benefits from trade growth, particularly for rubber and articles thereof, which will have greater opportunities for trade growth. Therefore, Vietnam and India should jointly promote the establishment of a bilateral FTA. To achieve this goal, it is most important to improve the quality of rubber and articles thereof, develop comprehensive cooperation mechanisms, promote dialogue at all levels, and ensure transparent and clear information exchange.

Keywords: Vietnam-India FTA, WITS - SMART model, Rubber and articles thereof

INTRODUCTION

In the context of rapid globalization and regional economic integration, Free Trade Agreements (FTAs) have become vital tools to remove trade barriers and promote economic exchange among nations. The Vietnam-India FTA, an agreement between two dynamic developing economies in Asia, is anticipated to bring numerous opportunities while posing significant challenges to bilateral trade relations. Notably, Rubber and articles thereof (HS 40), the largest category of imports from Vietnam to India, are expected to be directly affected by the implementation of this agreement.

In the Indian market, import tariffs on Rubber and articles thereof range from 0% to 70%. In addition to tariff barriers, technical regulations on labeling and traceability also play a significant role in controlling and limiting trade in these sensitive goods. India's stringent standards in this area present considerable challenges for Vietnamese exporters (Indian Ministry of Agriculture and Farmers' Welfare, 2022).

However, with the Vietnam-India FTA officially coming into effect, many of these existing tariff and non-tariff barriers are expected to be removed or significantly reduced. Therefore, the authors of this study have chosen to focus on this topic to update the latest data and apply the SMART model to analyze HS40 products. The results of this study will highlight the

impact of the Vietnam-India FTA on Vietnam's key export category of Rubber and articles thereof.

The findings will serve as a foundation for formulating appropriate trade and industry development policies, helping businesses effectively seize opportunities and overcome challenges in an era of increasingly deep regional and global economic integration.

THEORETICAL FRAMEWORK AND RESEARCH METHODOLOGY

Theoretical Framework

In today's globalized world, Vietnam has been actively fostering trade cooperation with countries worldwide through the signing of agreements, thereby facilitating its economic growth and attracting significant inflows of foreign direct investment (FDI). Additionally, these agreements provide opportunities for domestic enterprises to invest and expand their presence internationally.

Currently, Vietnam has signed FTAs with many developed countries and regions such as Japan and Europe. Alongside these agreements, Vietnam is pursuing new FTAs targeting other potential markets in Asia, specifically India. Vietnam and India are not only significant trade partners but also maintain robust investment cooperation, with the involvement of many major corporations from both nations.

In the context of bilateral trade between the two countries, several studies have been conducted. For example, Harsh V. Pant (April 2018) argued that the relationship between India and Vietnam is likely to strengthen in the coming years due to fundamental structural changes and strong commitments from the political leadership of both nations. Nguyen Thi Oanh and Nguyen Pham Thuy (2021) examined the approaches of Vietnam and India toward the Indo-Pacific region, focusing on strengthening economic, geopolitical, and security connections between the Pacific and Indian Ocean regions. They argued that these approaches are increasingly important, not only for maintaining economic benefits but also for countering China's growing influence. Another study by Reena Marwah and Le Thi Thu Hang (2021) explored the development dynamics and strategic linkages between the two countries.

These studies highlight the benefits and motivations for Vietnam-India cooperation and the historical context of their bilateral relations, aiming for increasingly integrated and mutually beneficial development in the future.

Regarding natural rubber, Khin A. A. et al. (2020) noted that Vietnam's export volume of natural rubber grew rapidly between 2012 and 2016, positioning Vietnam as a leading exporter among Thailand, Indonesia, Malaysia, and Vietnam. Vietnam's rubber industry has actively integrated into the global market, with export opportunities expanding through signed or negotiated FTAs. With over 80% of Vietnam's natural rubber being exported, the industry's development has been heavily influenced by export

markets, particularly China, which consumes 60–70% of Vietnam's total rubber exports.

According to the Ministry of Industry and Trade (2020), Vietnam is the third-largest rubber producer globally, accounting for approximately 7.7% of total global production and about 5.6% of the world's rubber plantation area. Vietnam's rubber exports have grown rapidly, ranking fourth in the global natural rubber export market by 2019. China, India, and South Korea were Vietnam's top three rubber markets in 2019, accounting for 66.5%, 8.3%, and 3% of the market share, respectively. These studies indicate that Rubber and articles thereof are key export items for Vietnam, offering substantial potential to enhance trade relations and economic efficiency in the future.

Furthermore, the ASEAN-India Free Trade Agreement (AIFTA) significantly influences the import-export turnover between Vietnam and India. Some studies, such as V.R. Renjini et al. (2018), highlighted trade trends in agricultural products between India and Vietnam, demonstrating that India consistently benefits from Vietnam's extensive tariff reductions on its agricultural exports. Mohd Kashif et al. (2021) examined the Trade Creation (TC), Trade Diversion (TD), and Consumer Surplus (CS) in India resulting from tariff reductions under the AIFTA. Their findings showed that the AIFTA tariff reduction schedules have created substantial trade potential for India, particularly in black tea and coffee, within the ASEAN region.

While existing studies emphasize the development potential of import-export turnover between Vietnam and India under the influence of FTAs, no research has thoroughly analyzed the development directions of the Vietnam-India FTA or the key export industries between the two nations, particularly Vietnam's Rubber and articles thereof.

Research Gap

Numerous studies have explored the topic of bilateral trade between Vietnam and India. However, as of now, they have not provided specific directions to achieve the signing of a Free Trade Agreement (FTA) between the two countries. Existing research often highlights the opportunities and challenges in developing bilateral relations (Nguyen et al., 2017) or emphasizes the advantages of choosing India as a bilateral partner. For example, Vu Thi Oanh (2016) employed a monopolistic competition general equilibrium model to propose strategies that enable Vietnam to share benefits and minimize adverse impacts from participating in an FTA.

Generally, these studies, presented in journal formats, have not delved deeply into analyzing the specific impacts of FTAs on Vietnam and India or the potential development of their trade turnover through sector-specific analyses. This is despite the fact that both countries are already part of the ASEAN-India Free Trade Agreement (AIFTA). Meanwhile, the rubber industry has been identified as a promising sector. According to data from Vietnam's General Department of Customs, India was Vietnam's second-largest rubber export market in 2023.

Research Objectives

This study aims to analyze the market for Rubber and articles thereofs and evaluate the potential impacts of a future Vietnam-India FTA on Vietnam's key export items—Rubber and articles thereofs. The study seeks to assess the potential for future cooperation between Vietnam and India, establish a foundation for advancing toward the signing of a bilateral FTA, and propose specific strategies to enhance collaboration between the two nations.

To achieve these objectives, the research addresses the following questions:

What challenges and opportunities exist for Vietnam's Rubber and articles thereofs in the Indian market?

How will the Vietnam-India FTA impact Vietnam's natural Rubber and articles thereofs when exported to India?

Research Methodology

Qualitative Approach

The study adopts a qualitative approach to collect and analyze non-numerical data regarding the impact of tariffs and trade barriers. This approach helps provide a deeper understanding of the effects of an FTA, focusing on the competitive potential of Vietnam's natural rubber market. It evaluates the challenges and opportunities for both nations as they move toward signing a Vietnam-India FTA.

To build sustainable competitive advantages for Rubber and articles thereofs, the research employs Michael Porter's **Diamond Model**, which identifies six key factors influencing and determining a nation's competitive advantage:

1. **Factor Conditions**: This includes basic factors such as natural resources, climate conditions, geographical location, unskilled labor, and semi-skilled labor. Advanced factors like skilled labor, educated human resources, and research and development (R&D) capabilities are also considered.
2. **Demand Conditions**: Porter emphasizes the significance of unique domestic demand over general demand in evaluating national competitiveness. Both the volume of domestic demand and the preferences of local buyers for domestic suppliers, along with their ability to analyze, evaluate, and meet customer needs, play a crucial role.
3. **Related and Supporting Industries**: This includes supporting and related industries that provide infrastructure and services for enterprises in the sector. The development of these industries influences the competitiveness of the main industry.
4. **Firm Strategy, Structure, and Rivalry**: The interplay of the above factors forms the Diamond Model. Additionally, two external factors—**Government** and **Chance**—support the competitive capacity system alongside the four primary elements.

5. **Government**: The government's role in creating a stable macroeconomic environment, establishing an appropriate legal framework, supporting R&D, and promoting collaboration among enterprises significantly affects national competitiveness.
6. **Chance**: Random factors, such as natural disasters, political changes, or emerging technological trends, can also impact a nation's competitive advantage.

Porter's Diamond Model is crucial in assessing the competitiveness of nations, regions, or industries in import-export activities. Analyzing competitive advantages through the Diamond Model provides a foundation for the development of Rubber and articles thereofs, paving the way for trade effects generated once the Vietnam-India FTA is signed. These trade effects will be further demonstrated through the results of the **SMART Model**.

Quantitative methods

(i) Data Analysis Method

In the research process, understanding and analyzing trade data plays a crucial role in making strategic decisions and forecasting market trends. The SMART model serves as an analytical tool and plays a key role in estimating the impact of various changes on trade activities.

The SMART model introduces the Armington Assumption, which states that imported goods from different countries are not perfectly substitutable. According to this assumption, consumers' optimal choice involves two steps:

Determining the optimal choice based on a price index aggregated from goods prices from various sources, which dictates the volume of imported goods.

Determining the optimal import volume from each partner country based on the Armington substitution elasticity between imported goods from different countries.

The Armington Assumption has become a standard in many general equilibrium models and is widely accepted in studies using partial equilibrium models.

By combining data from the "World Integrated Trade Solutions (WITS)" database and other trade and tariff sources from the World Bank and businesses, the SMART model provides analytical and predictive capabilities on changes in trade flows, trade creation and diversion effects, as well as impacts on global prices and tax revenues.

To apply data analysis using the SMART model, three key parameters must be identified:

(1) **Import Demand Elasticity:** Measures the responsiveness of import demand to changes in prices and market conditions.

(2) **Substitution Elasticity of Imports:** Assesses the ability to replace imported goods with other products or sources.

(3) **Export Supply Elasticity:** Measures each country's capacity to export goods to the international market and its response to price changes.

The SMART model's elasticity framework is based on three key assumptions:

(1) **Armington Assumption on Import Demand:** Consumers prefer domestic goods over imported ones based on differences in origin. This assumption is used by SMART to evaluate the impact of import demand on markets and business opportunities.

(2) **Two-Stage Consumer Optimization Process:** Focuses on optimizing consumer purchase decisions. SMART examines how consumers evaluate and choose products, thereby optimizing marketing and sales strategies to meet their needs effectively.

(3) **Assumption of Infinite Export Supply Elasticity:** Describes a scenario where export supply can expand without limits. SMART uses this assumption to study opportunities for export expansion and identify strategies to maximize export market potential.

This study adopts the default SMART model values, where export supply elasticity is set at 99, and substitution elasticity is set at 1.5 for all goods. The SMART model assumes that in setting goals and business strategies, countries compete to export products to various markets. Export supply elasticity is considered critical, reflecting the degree to which each country responds to price changes. Furthermore, the model assumes infinite export supply elasticity, implying that countries can export unlimited quantities of goods to other nations at a fixed price, leading to a horizontal export supply curve.

(ii) Data Collection Method

This study uses the SMART model to analyze data updated from 2017–2021 for Vietnam and India from the World Bank's trade and tariff database. The predicted results assume partial tariff reductions in the short term and zero tariffs in the long term following the signing of an FTA. Secondary data collection methods were utilized, including sources such as the General Department of Customs, Integrated Trade Intelligence Portal (WTO), World Bank, United Nations, and WITS.

The research focuses on assessing the potential impact of a Free Trade Agreement (FTA) between Vietnam and India on the export of Rubber and articles thereofs from Vietnam. The analysis is conducted on HS codes within the HS40 group to gain deeper insights into the FTA's effects on bilateral trade between Vietnam and India.

Research Results

Agreements Between Vietnam and India

Double Taxation Agreement Between Vietnam and India

The Double Taxation Agreement between Vietnam and India was signed on September 7, 1994, in Hanoi. Commonly known as the Double Tax Avoidance Agreement (DTAA), it is a crucial legal instrument aimed at preventing the same income from being taxed twice in both countries.

The implementation of this agreement has facilitated the flow of capital and investment between the two nations, reducing legal risks,

avoiding tax conflicts, and encouraging growth in cooperation and investment.

Key benefits include:

- **Investment Promotion:** The agreement ensures that investment income is not taxed twice, reducing the tax burden on businesses and increasing competitiveness. This encourages investors to choose markets more confidently, contributing to bilateral FDI growth.
- **Enhancing Bilateral Trade Relations:** The agreement promotes trade by eliminating tariff barriers.
- **Creating a Transparent Business Environment:** It establishes a clear legal framework for tax-related matters, minimizing legal uncertainties and fostering transparency. Businesses can understand their tax obligations, reducing risks and increasing compliance.
- **Preventing Tax Evasion and Encouraging International Cooperation:** The agreement includes provisions for basic information exchange between tax authorities of both countries, supporting effective tax enforcement and combating fraud and evasion.
- **Strengthening Strategic Partnership:** The agreement is part of joint efforts to enhance and expand the strategic partnership between Vietnam and India, extending beyond trade to areas like defense, technology, and culture.

Agreement on Promotion and Protection of Investment between Vietnam and India

The Agreement on Promotion and Protection of Investment between Vietnam and India, signed on March 8, 1997, in New Delhi, serves as a crucial legal framework to create a secure and favorable investment environment for investors and businesses from both countries. It represents a significant step forward in strengthening bilateral investment relations. Key provisions of the agreement include:

Investment Promotion: The agreement commits to facilitating investors and businesses from one country to invest in the other by simplifying administrative procedures and providing necessary information on investment opportunities, laws, and relevant policies.

Investment Protection: It ensures protection against discriminatory practices, granting investors equal rights akin to domestic investors or those from third countries. Investors are offered the most favorable conditions for development during their investment activities.

Free Transfer of Funds: The agreement permits the free transfer of investment-related funds, including profits, interests, dividends, and other payments. This provision ensures that investors can transfer their funds out of the host country without financial restrictions.

Dispute Resolution: Mechanisms for resolving disputes between the two countries and investors are outlined, including the use of international arbitration such as the International Centre for Settlement of Investment Disputes (ICSID) or other recognized arbitration bodies. The agreement also allows for disputes between investors of the two nations to be settled through legal or arbitration mechanisms.

General Provisions and Commitment to Implementation: The agreement includes clauses on the implementation and commitment to maintaining communication and cooperation to ensure its effectiveness in practice.

This agreement not only aims to enhance capital and technical flows between Vietnam and India but also builds investor confidence by providing a solid legal framework for investment activities, contributing to sustainable and long-term economic growth for both countries.

ASEAN-India Free Trade Agreement (AIFTA)

The ASEAN-India Free Trade Agreement (AIFTA), signed on August 13, 2009, and effective from January 1, 2010, represents a vital initiative for economic integration and cooperation between ASEAN member states and India.

- **Vietnam's Tariff Reduction Commitments:**

Tax Elimination*: Vietnam pledged to eliminate 80% of tariff lines by 2021, with 71% by 2018 and an additional 9% by 2021. The remaining 10% will be reduced by 2024.*

Detailed Tariff Schedules*: The AIFTA tariff schedule for 2018-2022 includes 10,858 tariff lines, with 10,776 at the 8-digit level and 82 at the 10-digit level.*

Annual Reduction Roadmap*: From 2018 to 2022, average tariff rates decreased progressively, ending at 1.9% in 2022.*

Key Goods*: The agreement focuses on eliminating tariffs for tea, coffee, rubber, seafood, chemicals, metals, and machinery while excluding sensitive items like eggs, sugar, salt, petroleum, and defense-related products.*

- **India's Tariff Reduction Commitments:**

India pledged to eliminate 80% of tariff lines by 2016, with 71% by 2013 and an additional 9% by 2016.

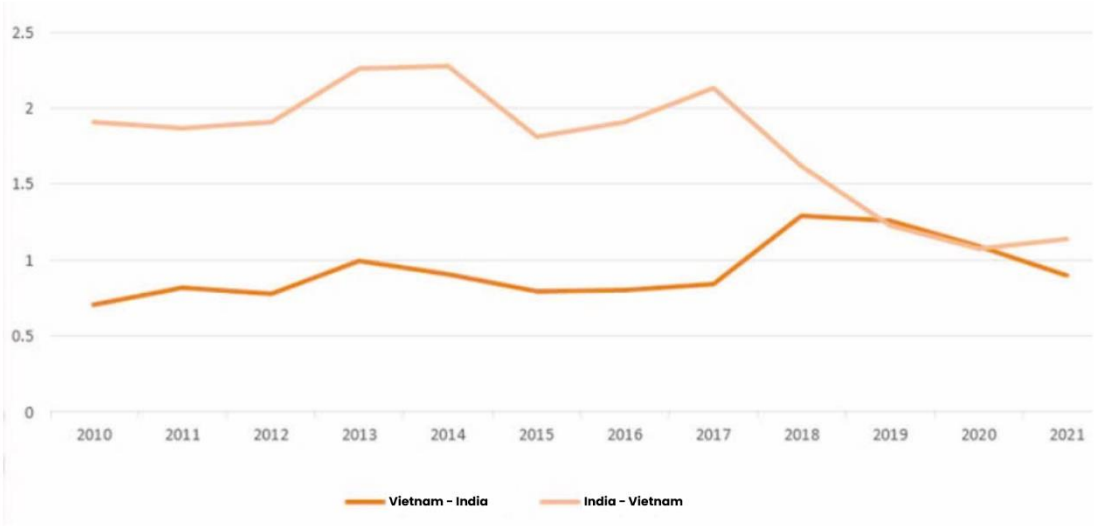
Covered Goods*: India's commitments include tariff eliminations on live animals, meat, dairy, fruits, cosmetics, textiles, machinery, and more.*

Trade Intensity Index

To measure the trade linkage between two countries, absolute trade values alone are insufficient. Instead, comparative analysis using a Trade Intensity Index (TII) provides deeper insights. TII was developed and popularized by researchers such as Brown (1949), Kojima (1964), Drysdale and Garnaut (1982), Anderson (1983), and Frankel (1997). The formula is as follows: $TII_{ij}=(X_{ij}/X_i)/(M_j/M_w)$

Where TII_{ij} is the trade connectivity index of country i with country j; X_{ij} is the export value from country i to country; X_i is the total export value of country i; M_j is the total import value of country; M_w is the total import value of the world. If the value of TII_{ij} is less than 1, it indicates that the trade connection between the two countries is weak; if the value of TII_{ij} is greater than 1, it indicates that the trade connection between the two countries is strong; if the value of TII_{ij} is equal to 1, it indicates that the trade connection between the two countries is at an average level.

Figure 1. Trade Intensity Index of Vietnam with India and India with Vietnam from 2010 to 2021



Source: Research team's compilation based on WITS data.

As shown in the data, the trade integration between Vietnam and India from 2010 to 2021 reveals that India's trade integration with Vietnam was relatively high in the early years, with a Trade Intensity Index (TII) greater than 2, but it gradually declined during the period from 2018–2021.

Vietnam's trade integration with India:

The index was 0.7 in 2010, peaked at 1.29 in 2018, and dropped to 0.90 in 2021. Over these 12 years, the index was greater than 1 for only three years (2018–2020), while it remained below 1 for the other nine years.

India's trade integration with Vietnam:

The index stood at 1.911 in 2010, reached its highest point of 2.279 in 2014, and fell to 1.141 in 2021. During these 12 years, the index was above 2 for three years (2013–2014, 2017), and above 1 for the remaining seven years.

This indicates that, as two emerging economies, the mutual trade linkage and dependence between Vietnam and India did not increase proportionally to the absolute growth in trade volume. In other words, the

trade relationship between Vietnam and India is not as significant as their corresponding trade relationships with the rest of the world.

Comparative Advantage in Rubber and articles thereofs from Vietnam

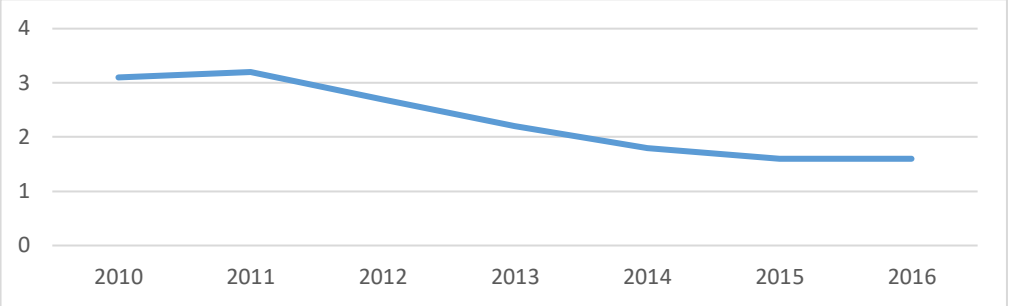
n the trade relationship with India, especially with the goal of successfully negotiating a Vietnam-India Free Trade Agreement (FTA), calculating the Revealed Comparative Advantage (RCA) index is essential to evaluate Vietnam's export performance in rubber and rubber-based products.

The RCA index, proposed by Bella Balassa, measures the comparative advantage of a product (or group of products) for a country or group of countries. This measure is widely used for evaluating the comparative advantage of goods in international trade.

RCA Formula: RCAij=(Xij/Xtj)/(Xiw/Xtw)

Where X_{ij} is the export of product j from country i, X_{tj} is the total export of country i, X_{iw} is the export of product j from a group of countries (the world), X_{tw} is the total export of a group of countries (the world). If RCA is greater than 1, it indicates that the country has a comparative advantage in that product; otherwise, it does not have a comparative advantage. The larger the value, the clearer the comparative advantage. If both countries have a comparative advantage in the same product, it is highly likely that these two countries will compete heavily with each other for that product.

Figure 2. RCA index of Rubber and articles thereofs from Vietnam from 2010-2016



Source: Nguyen Thi Huong, University of Economics - University of Danang.

From 2010 to 2016, the RCA index for Rubber and articles thereofs consistently showed values greater than 1, indicating Vietnam's comparative advantage in this product category. However, the data reveals a declining trend in the RCA index, highlighting the necessity of expanding trade to restore this product's previous position in the market.

Michael Porter's Diamond Model

Factor Conditions:

Vietnam's natural conditions are favorable for the production and export of natural rubber. Located in a tropical climate zone, Vietnam has extensive land resources, with a total area of 330,363 km². The soil types vary, offering fertile structures with good drainage, directly supporting the growth of rubber trees. Basaltic soils, which are neutral to slightly alkaline in pH, porous, nutrient-rich, and well-drained, are ideal for rubber cultivation. Additionally, climatic factors like temperature, rainfall, and humidity significantly influence photosynthesis, metabolic processes, and rubber tree growth. Vietnam's hot and humid climate, abundant rainfall (1,500–2,500 mm/year), and high humidity levels (75%–85%) create optimal conditions for rubber tree development.

Regarding labor factors, Vietnam has a substantial workforce, particularly in rural areas where rubber plantations are concentrated. Workers in the rubber industry are well-trained and skilled in rubber care and tapping techniques. The relatively developed transportation network facilitates the movement of raw materials and rubber products to ports for export. Modern warehouse systems have also been constructed to support rubber exports effectively.

According to the principle of comparative advantage, a country tends to produce and export goods that rely on abundant and cost-effective factors available within its borders. Labor costs in Vietnam's rubber industry are lower compared to other major rubber producers like Thailand, Indonesia, and Malaysia. This reduces production costs, enhancing the competitiveness of Vietnam's rubber in the Indian market and driving exports.

Moreover, technological advancements in rubber production have enabled Vietnam to improve manufacturing processes, quality control, and the optimization of rubber products. These innovations add value to the products, making Vietnamese rubber more attractive in international markets. Technologies have also optimized supply chain management, from harvesting, processing, and packaging to transportation and delivery. This ensures efficiency and the timely, secure delivery of rubber products to global markets.

To promote rubber exports, the Vietnamese government has provided tax incentives and favorable interest rates for businesses investing in new rubber plantation projects, particularly in regions with suitable land. These efforts aim to enhance the quality of exported rubber products.

Thanks to favorable conditions, the Vietnam Rubber Association has observed significant progress in rubber exports over recent years. Vietnam's rubber export turnover increased from $1 billion in 2000 to $8.4 billion in 2020. In the coming years, Vietnam's rubber exports are expected to continue growing, contributing to the country's socio-economic development.

To achieve the dual objectives of sustainable development and environmental protection while meeting the increasingly stringent demands of the Indian and global markets, Vietnam has adopted green growth and sustainable development strategies for the 2023–2030 period, with a vision toward 2050. Many Vietnamese rubber enterprises are undergoing a transformation, embracing green initiatives to create competitive advantages and enhance value.

The Vietnam Rubber Group (VRG) currently manages over 410,000 hectares of rubber plantations domestically and abroad, including nearly 300,000 hectares in Vietnam, over 87,000 hectares in Cambodia, and nearly 30,000 hectares in Laos. Annually, this group produces nearly 320,000 tons of rubber products. Beyond strategic initiatives, VRG has set clear and specific goals, such as reducing greenhouse gas emissions in energy-related activities by at least 15% by 2030 and 30% by 2050 compared to 2023 levels. In greening its supply chain operations, VRG aims to have 60% of its managed rubber plantation area certified for national and international sustainable forest management (e.g., VFCS/PEFC/FSC) by 2030. Additionally, many businesses are prioritizing the greening of production processes and transitioning their energy structure toward a higher share of renewable energy. These measures create competitive advantages among companies and nations in domestic and international markets.

This strategy is one of the most critical for achieving economic development, environmental protection, and social responsibility for enterprises and the rubber industry as a whole.

Technology as a Crucial Tool: Technology plays a key role in improving product quality, increasing productivity, reducing costs, and conserving resources while fostering growth and diversifying product portfolios. Advanced technology also aids in environmental protection and

green growth. For instance, VRG has adopted GIS technology to manage rubber plantations effectively, monitor productivity, and evaluate the carbon stock of rubber trees, moving toward carbon credit commercialization.

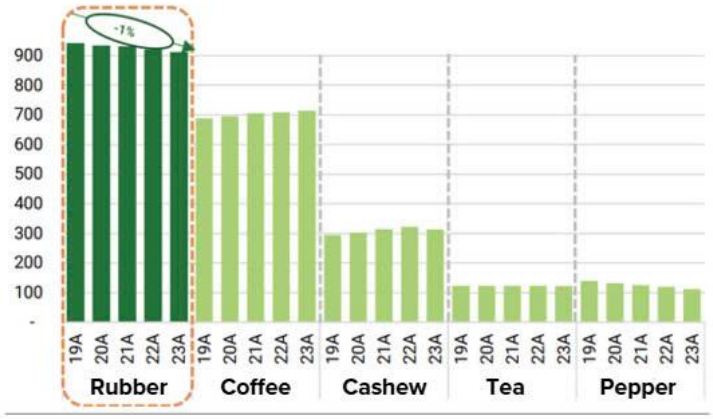
The group has also applied various scientific advancements, including high-quality rubber tree varieties, to improve latex quality. A notable innovation is the introduction of the "vulcanization autoclave," a cutting-edge technology critical to diversifying rubber products. This technology offers precise control of temperature and pressure while ensuring flexibility and safety.

In Quang Binh, enterprises have implemented a "vertical linkage model for product consumption," investing in local processing facilities to minimize post-harvest losses and improve rubber quality for export. In Ho Chi Minh City, businesses have organized conferences to discuss solutions such as automation, circular economy development, and adapting to climate change. These efforts focus on improving rubber waste classification and recycling, as well as expanding rubber product portfolios to serve industries like automotive, construction, and interior design.

Public Awareness and Communication: *Recently, VRG organized a logo design contest to commemorate 95 years of Vietnam's rubber industry, with the theme "Vietnam Rubber." Several songs celebrating the industry, such as Vietnam Rubber Accompanying the Nation and Proud Vietnam Rubber, have also been widely embraced.*

Structure: *Rubber trees currently dominate Vietnam's perennial crop landscape, accounting for 42% of the total area planted with perennial crops like coffee, cashews, pepper, and tea. The area under rubber cultivation peaked at 985.6 thousand hectares in 2015 but declined to 910.2 thousand hectares by 2023, marking a 1% annual reduction.*

Figure 3. The Structure of Rubber Trees in Total Perennial Crop Area

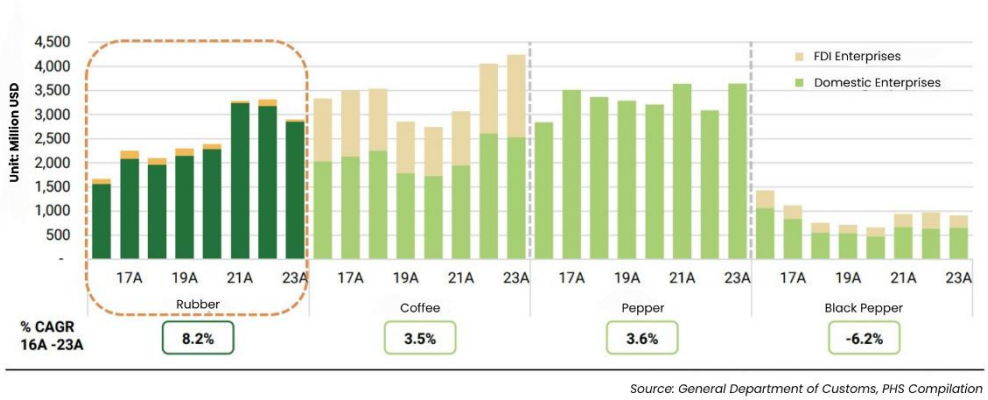


Source: Nguyen Cuu Minh Danh, Vietnam's Natural Rubber Industry.

In terms of total import-export turnover, rubber currently ranks third, with export turnover in 2023 reaching USD 2.89 billion, only behind coffee and cashew nuts. However, rubber prices have decreased, with an

average selling price of USD 1,350 per ton, while export volume remains stable at 2.14 million tons.

Figure 1. Export Value of Perennial Industrial Crops in Vietnam (2016–2023)



Source: Nguyen Cuu Minh Danh, Vietnam's Natural Rubber Industry.

India has become a target market for many countries, such as Thailand, the world's largest producer of natural rubber, accounting for about 35% of global production; Indonesia, ranked second, benefits from vast rubber plantation areas and low production costs; and Malaysia, which focuses on high-value-added rubber products like medical gloves and technical rubber products.

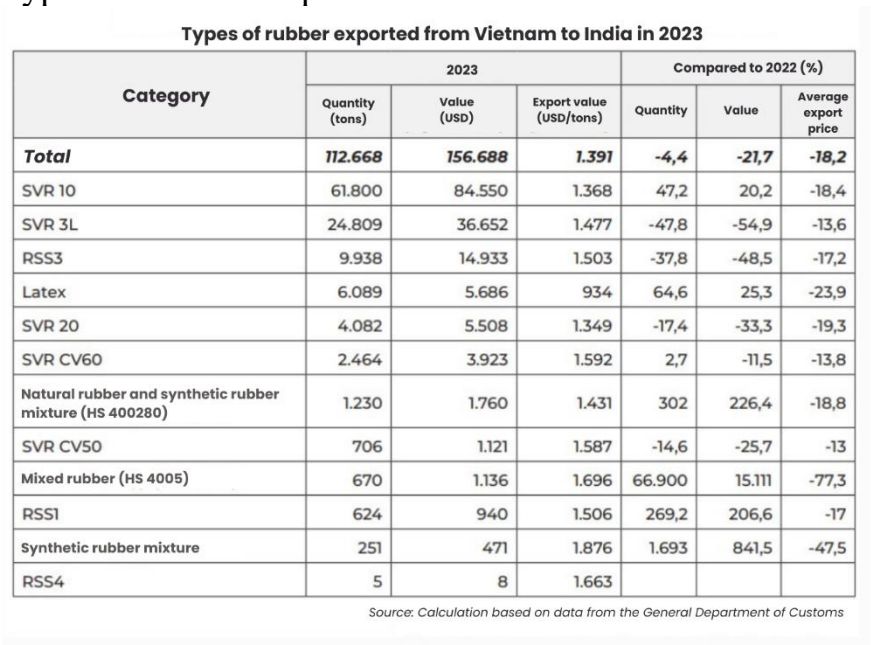
Demand conditions:

Consumer demand in India for Vietnam's natural rubber is substantial and steadily increasing. As the world's most populous country with 1.4 billion people, India has a significant demand for products made from natural rubber, such as tires and hoses. Notably, India's automotive industry is experiencing robust growth, driving the demand for natural rubber used in tire production. Tata Motors, one of India's largest automobile manufacturers, is also one of the biggest importers of rubber from Vietnam. According to Tata Motors' 2022 annual report, the company imported approximately 60,000 tons of rubber from Vietnam, accounting for about 23% of India's total rubber imports from Vietnam that year.

A report by the Society of Indian Automobile Manufacturers (SIAM) stated that India's automobile production reached 4.4 million units in 2022, marking a 23% increase compared to 2021. Consequently, India's demand for natural rubber is projected to rise from 1.28 million tons in 2022 to 1.42 million tons by 2024, according to the Indian Rubber Research Institute.

Given such a significant demand for natural rubber, Vietnam is well-positioned to meet this need with a diverse range of rubber types. In 2023, Vietnam ranked as the second-largest supplier of natural rubber to India, contributing 170,470 tons, which accounted for 31.8% of India's total rubber imports.

Figure 5. Types of Rubber Exported from Vietnam to India in 2023



Types of rubber exported from Vietnam to India in 2023

Category	2023			Compared to 2022 (%)		
	Quantity (tons)	Value (USD)	Export value (USD/tons)	Quantity	Value	Average export price
Total	***112.668***	***156.688***	***1.391***	***-4,4***	***-21,7***	***-18,2***
SVR 10	61.800	84.550	1.368	47,2	20,2	-18,4
SVR 3L	24.809	36.652	1.477	-47,8	-54,9	-13,6
RSS3	9.938	14.933	1.503	-37,8	-48,5	-17,2
Latex	6.089	5.686	934	64,6	25,3	-23,9
SVR 20	4.082	5.508	1.349	-17,4	-33,3	-19,3
SVR CV60	2.464	3.923	1.592	2,7	-11,5	-13,8
Natural rubber and synthetic rubber mixture (HS 400280)	1.230	1.760	1.431	302	226,4	-18,8
SVR CV50	706	1.121	1.587	-14,6	-25,7	-13
Mixed rubber (HS 4005)	670	1.136	1.696	66.900	15.111	-77,3
RSS1	624	940	1.506	269,2	206,6	-17
Synthetic rubber mixture	251	471	1.876	1.693	841,5	-47,5
RSS4	5	8	1.663			

Source: Calculation based on data from the General Department of Customs

Source: Ministry of Industry and Trade

India is Vietnam's second-largest rubber export market.

Related Supporting Industries:

Rubber is utilized across various fields, including automobile tires, footwear, construction materials, industrial products, medical equipment, and consumer goods. This versatile material is central to modern life, supporting diverse industries and infrastructure while significantly contributing to global economic and trade development.

In India, natural rubber production peaked at nearly 914,000 tons in 2013, driven by favorable weather conditions and a surge in global rubber prices earlier in the decade. However, prices later declined, exacerbated by excessive monsoons that disrupted rubber tapping in Kerala, India's leading natural rubber-producing state. Domestic production experienced a significant drop in 2016, followed by modest recovery, but it remains well below the 2013 peak. Additionally, fierce competition from Southeast Asian countries with lower production costs poses challenges.

The Rubber Board of India reports that the country produces three types of rubber: natural, synthetic, and recycled. Natural rubber is primarily used for manufacturing tires, gloves, and other materials, with annual production exceeding 700,000 tons. However, India consumes more rubber than it produces. In 2021/22, India consumed 1,238,000 tons of natural rubber, up from 1,096,410 tons in 2020/21 and reaching 1,350,000 tons in 2022/23.

To meet market demand, India imports natural rubber from various countries. In 2023 alone, India imported 528,677 tons of natural rubber, following imports of 546,369 tons in 2022, 410,478 tons in 2021, and 457,223 tons in 2020. Over half of the total rubber produced is used for tire manufacturing, with the remainder allocated to mechanical parts such as

mounts, pads, belts, and hoses, as well as consumer products like footwear, apparel, furniture, toys, sports goods, and stationery items.

In 2023, India’s total tire production reached approximately 217.4 million units. As India's robust automotive demand continues, the gap between domestic production and consumption is expected to persist. Investments in research, improved cultivation practices, and potentially increased synthetic rubber production could help narrow this supply gap.

Given India's substantial tire demand, Vietnam's rubber production holds promising attributes to meet this need. Rubber trees occupy the largest proportion of Vietnam's perennial industrial crop area (including rubber, coffee, cashew, pepper, and tea), contributing 42% of the total. While the peak rubber plantation area reached 985.6 thousand hectares in 2015, the area has gradually decreased at an average annual rate of -1%. By 2023, the area had declined to 910.2 thousand hectares but remains the largest plantation crop area in Vietnam.

Additionally, tire manufacturing is considered one of the most promising supporting industries for development. According to Võ Hoàng An, Vice President and Secretary General of the Vietnam Rubber Association, as of 2019, Vietnam had over 180 manufacturing enterprises engaged in tire exports. Vietnamese tire products are exported to 153 markets worldwide, with export turnover growing steadily over the past five years, achieving an average annual growth rate of 17.8%. In 2019 alone, Vietnam's tire export turnover reached $1.2 billion.

Global tire demand is projected to continue growing at an average annual rate of 3-4% in the current period. Notably, the growth rate for Vietnam's tire market value is expected to reach approximately 8% per year, double the global average. This projection is supported by favorable export market conditions and a potential surge in domestic consumption, driven by the strong development of Vietnam's automotive industry with ambitious plans from companies like Trường Hải and VinFast.

Opportunities:

The global industrial rubber market is projected to grow at a compound annual growth rate (CAGR) of 4.6% from 2020 to 2029. According to data from Exactitude Consultancy, the market value is expected to increase from USD 30.91 billion in 2020 to over USD 46.33 billion by 2029. Within this, India’s construction rubber products market is forecasted to reach USD 311 million by 2029.

Additionally, India has recently taken steps such as initiating an investigation into alleged dumping of a specific type of rubber by South Korea, Russia, South Africa, Iran, and Singapore following a complaint by Reliance Industries. This move aims to protect domestic companies in the sector. The Directorate General of Anti-Dumping and Allied Duties (DGAD) under the Ministry of Commerce has launched an investigation into the import of "polybutadiene rubber" from these countries. In a statement, DGAD reported receiving preliminary evidence of dumping from China.

Consequently, Vietnam may have greater opportunities as it is not among the countries under India's scrutiny, especially if stricter import restrictions are applied to those nations.

The Ministry of Finance has also issued Circular No. 111/2014/TT-BTC, reducing the export tax rate for rubber products under groups 40.01, 40.02, and 40.05, as stipulated in Circular No. 164/2013/TT-BTC, to 0%. This represents a significant opportunity for Vietnam's rubber products, facilitating easier access for enterprises to international markets.

Government Support:

Recognizing the crucial role of rubber trees in economic development, the Vietnamese government has implemented several policies to expand rubber plantation areas. On January 26, 2024, the Ministry of Agriculture and Rural Development issued Decision No. 431/QĐ-BNN-TT, approving the "Development Plan for Key Industrial Crops until 2030." This plan aims to maintain approximately 800,000–850,000 hectares of rubber plantations by 2030, including: 250,000–300,000 hectares certified for sustainable forest management. 100% of Vietnam's rubber latex and wood traceable through region-specific product codes.

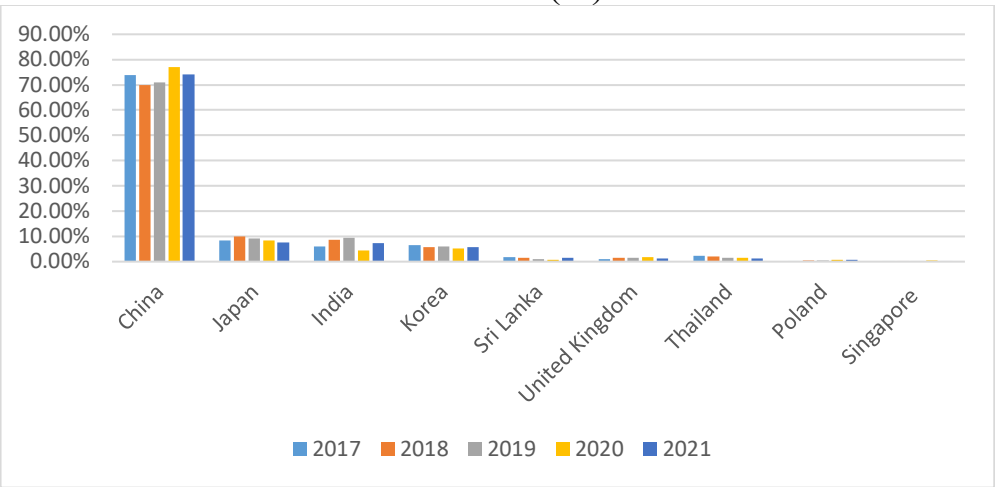
Furthermore, the Vietnam Rubber Association (VRA) has signed a cooperation agreement with the Trade Promotion Agency under the Ministry of Industry and Trade to develop the "Vietnam Rubber" brand. This collaboration establishes a framework for information exchange, trade promotion activities, and the development of supportive policies to enhance trade promotion in the future. The initiative aims to improve the quality, efficiency, and effectiveness of trade promotion for rubber enterprises, focusing on export promotion and sustainable brand development.

The agreement highlights priorities such as modernizing trade promotion methods, diversifying activities for rubber enterprises and products, and promoting the "Vietnam Rubber" certification both domestically and internationally. This strategy seeks to strengthen the capacity for brand building and development for Vietnam's rubber businesses. Additionally, the partnership will encourage the adoption of information technology and digital transformation for VRA and the rubber industry to align with trends in digital and multi-channel trade promotion.

Finally, both parties will share market insights, both domestic and international, related to the rubber industry, disseminating policies, support activities, and trade promotion initiatives to the rubber business community. This will enable enterprises to stay updated on market trends and access timely support. By leveraging digital transformation, the initiative aims to meet the demands of modern trade promotion effectively

Evaluating the Potential and Challenges of Vietnam's Rubber and articles thereofs in Bilateral Trade Relations

Figure 6. Export Value of Vietnam's Natural Rubber Products to Selected Countries (%)



Source: UN Comtrade Database

Vietnam has solidified its position on the global natural rubber export map, emerging as one of the top suppliers to major markets and playing a crucial role in the global supply chain. According to data from the General Department of Vietnam Customs, in 2023, Vietnam exported over 112,660 tons of rubber to India, with natural rubber accounting for more than 96% of this volume. The most preferred type was SVR 10, which constituted over 54% of Vietnam's total rubber exports to India, followed by SVR 3L, RSS3, RSS4, and SVR 50.

Vietnamese rubber is highly regarded for its durability, elasticity, abrasion resistance, and excellent processing properties. According to the Vietnam Rubber Association (VRA), the average tensile strength of Vietnamese rubber is 20% higher than that of rubber from Thailand and Indonesia. Furthermore, the price of Vietnamese rubber is typically 5-10% lower than similar products from Thailand and Indonesia. In 2023, the average export price of Vietnamese SVR 10 to India was USD 1,391 per ton, compared to USD 1,500 per ton for Thailand and USD 1,450 per ton for Indonesia.

A study by the Economic Research Institute for ASEAN and East Asia (ERIA) highlighted the structure of Vietnam's natural rubber export market in 2020. China remained the largest market, accounting for 58.2% of total export value, followed by India at 7.1% and South Korea at 5.6%. These figures underscore the strong appeal of Vietnamese rubber to rapidly industrializing and urbanizing economies in Asia.

Statistics from Vietnam Customs indicate that in 2021, Vietnam's natural rubber export value reached an impressive USD 2.74 billion, a 23.7% increase compared to 2020. This reflects the strong global demand for Vietnamese rubber, particularly driven by the automotive and tire industries.

Vietnam is a promising exporter of natural rubber products to the Indian market. With outstanding advantages in rubber production and processing, coupled with increasingly close trade relations between the two

countries, Vietnam is well-positioned to capitalize on India's billion-plus consumer market.

First and foremost, Vietnam boasts a competitive advantage in its abundant natural rubber resources. According to the latest statistics from the Vietnam Rubber Association (VRA) published on AgroNews in 2023, by the end of 2022, Vietnam's rubber plantation area reached 975,500 hectares, accounting for 6.7% of the global rubber plantation area. With a production output of 1.17 million tons that same year, Vietnam ranked third globally in natural rubber production, behind only Thailand and Indonesia. This abundant supply gives Vietnam a significant competitive edge in meeting the demand for rubber products in India and beyond.

In addition to its raw material advantage, Vietnam is competitive due to relatively low production costs. A 2020 study by the Institute of Industrial Policy and Strategy Research revealed that the average production cost of natural rubber in Vietnam is about 20% lower than in Thailand and 30% lower than in Malaysia, two of the leading rubber producers in the region. This cost advantage stems from comparatively low labor and land costs, making Vietnamese rubber products more competitive globally.

Vietnam’s rubber processing industry has also made remarkable progress. Data from the General Department of Vietnam Customs shows that in 2022, Vietnam exported approximately USD 1.8 billion worth of natural rubber products such as tires, gloves, hoses, and household items to over 100 countries and territories worldwide (Ministry of Industry and Trade, 2023). This achievement highlights Vietnam’s capability to diversify its value-added rubber products, paving the way for exports to the lucrative Indian market.

Another key factor facilitating Vietnam’s rubber exports to India is the strengthening trade relationship between the two countries. According to the 2022 Statistical Yearbook by the General Statistics Office of Vietnam (2023), India has become Vietnam's 7th largest export market, with trade turnover reaching USD 7.7 billion. Both nations are also negotiating a bilateral Free Trade Agreement (FTA), which is expected to boost trade activities, including the export of Vietnamese rubber products to India.

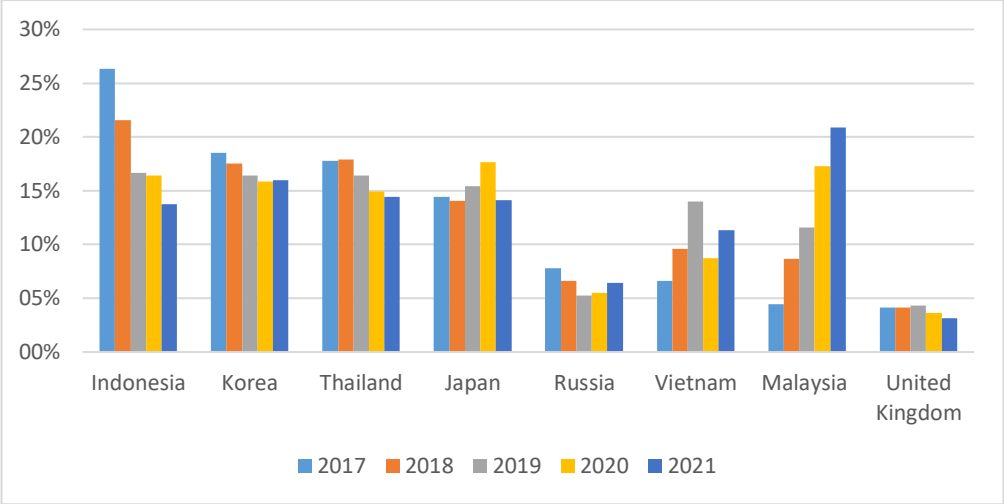
Finally, the growing demand for rubber in India represents a significant opportunity for Vietnamese exporters. According to the Rubber Board of India, published in *The Economic Times* (2021), India's natural rubber consumption is projected to rise sharply from 1.2 million tons in 2022 to 1.5 million tons by 2027, representing a 25% growth. This increased demand stems from the rapid development of key industries such as automotive and construction in India, offering substantial potential for Vietnam's rubber exports.

Challenges in Vietnam’s Natural Rubber Export to India

As one of the world's leading producers and exporters of natural rubber, Vietnam is seeking to expand its market presence in India, the second-largest rubber-consuming economy globally (ANRPC, 2022).

However, the journey to conquer this market is fraught with numerous challenges. Additionally, in Vietnam, many goods originating from China are falsely labeled as Vietnamese products for export. This has caused adverse effects, impacting the negotiation of a Free Trade Agreement (FTA) between Vietnam and India and posing direct challenges to Vietnam's rubber exports.

Figure 7. India's Import Value of Rubber Products from Select Countries (%)



Source: UN Comtrade Database.

The foremost obstacle is the fierce competition from formidable regional rivals such as Thailand and Indonesia. According to ANRPC (2022), in 2021, these two countries accounted for 58.7% of India's total rubber imports, while Vietnam's market share was a modest 7.2%. Data from the UN Comtrade Database also highlights the significant import value of rubber products from these two countries, underscoring the competitive challenge for Vietnam.

Thailand and Indonesia's dominance is attributed to their abundant natural rubber resources, advanced processing technologies, and lower production costs. These advantages create significant pressure on Vietnam to compete in terms of both price and quality.

India's stringent import quality standards for natural rubber pose another major challenge for Vietnamese exporters. According to India's national standard for natural rubber, *IS 3767:2020*, imported rubber must meet stringent requirements regarding adhesive content, elasticity, bonding strength, and various other quality indicators. To comply with these rigorous standards, Vietnamese enterprises must invest heavily in upgrading processing technologies and quality control systems, significantly increasing production costs and reducing competitiveness.

The geographical distance between Vietnam and India contributes to high logistics and transportation costs. Due to the heavy weight of natural rubber, shipping by sea is the primary mode of transport. According to the World Bank (2021), logistics costs in Vietnam account for approximately

20.9% of GDP, significantly higher than the 14.1% average for other developing countries. High shipping costs, combined with port fees and other related expenses, substantially increase the price of Vietnamese rubber products, making it challenging to compete with neighboring rivals like Thailand and Indonesia.

Cultural and business practice differences between Vietnam and India also present a notable barrier. Vietnamese enterprises need to conduct thorough research on the preferences, demands, and business styles of Indian partners to tailor their products and strategies appropriately, avoiding unnecessary cultural conflicts.

In Vietnam, some Chinese goods are mislabeled as Vietnamese products for export, causing repercussions in the international market. This practice exacerbates trade tensions and negatively impacts Vietnam's exports to India, including rubber products. The appearance of Chinese rubber labeled as Vietnamese could complicate FTA negotiations and undermine Vietnam's credibility in international trade.

Major importing countries, including India, China, and the EU, impose strict technical standards for natural rubber imports, covering aspects like rubber content, tensile strength, impurity levels, and packaging specifications. Exporters must invest in modern equipment, quality control processes, and certification systems to meet these standards, leading to increased production and export costs. Failure to meet technical standards can result in product rejection, damaging the exporter's reputation and causing financial losses.

Non-tariff measures can also elevate export costs and reduce the competitiveness of Vietnamese rubber in global markets. This represents a significant challenge for Vietnam's natural rubber export industry. Enterprises must enhance product quality, comply with technical standards, adhere to inspection and certification processes, and closely monitor changes in non-tariff measures to develop effective and competitive export strategies in the international market.

Trade Barriers Between Vietnam and India and the Impact of an FTA on Rubber and articles thereofs in Terms of Tariffs

India's Trade Barriers

In terms of non-tariff barriers (NTBs), India's import regulations have progressively become more facilitative over the past decade. Most goods now fall under India's *Open General License* framework, meaning products are generally considered freely importable without restrictions or licensing unless governed by specific policies or legal provisions.

India has also shown a vested interest in the implementation of Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPS) by member countries. The country asserts that these measures should not become unnecessary obstacles to international trade and must pursue legitimate objectives while accounting for risks that arise from their absence.

Specifically, India's SPS regulations for imported agricultural products align with international standards. However, weak enforcement has hindered their effectiveness, affecting both imports and domestic goods.

One critical aspect of importing into India is the *Importer Exporter Code (IEC)*, a mandatory 10-digit number issued by the Directorate General of Foreign Trade (DGFT), Ministry of Commerce and Industry. No individual or organization can undertake export or import activities without an IEC unless explicitly exempted. The IEC is relatively easy to obtain, with processing typically taking 10–15 days after application, and no evidence of prior trade activity is required for its issuance.

The Food Safety and Standards Authority of India (FSSAI) has emphasized that India imposes one of the strictest Maximum Residue Limit (MRL) standards globally. These thresholds are determined based on risk assessments for various food products and are not considered a health concern if pesticides are used per label instructions.

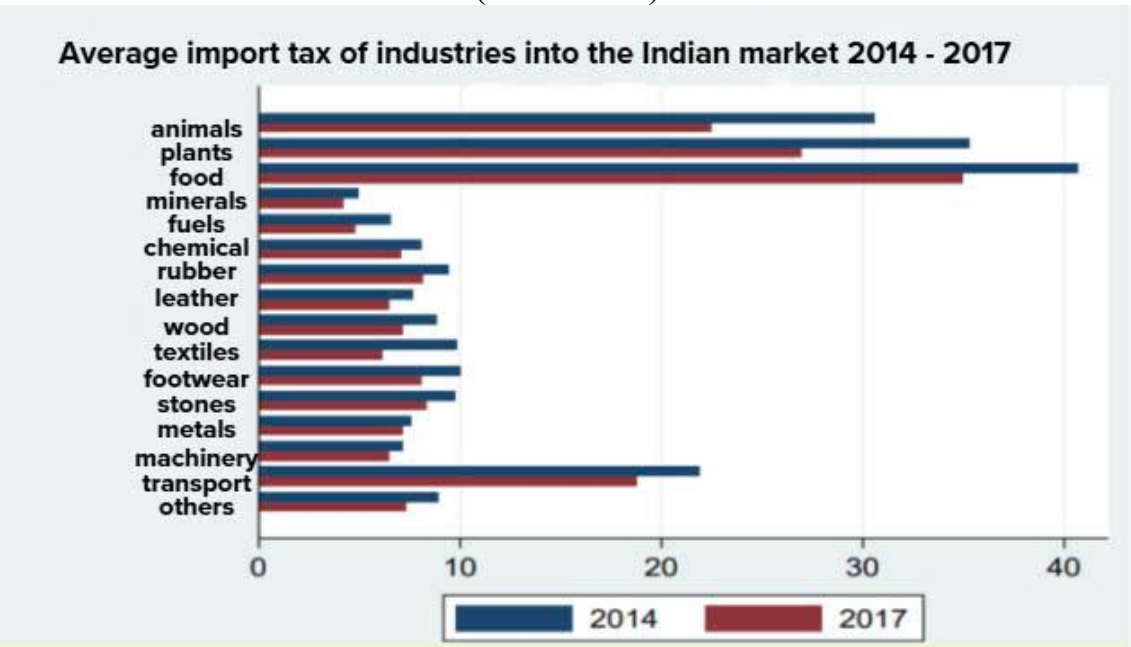
When comparing NTBs and import duties, there has been a reduction in India's import tariffs from 2014–2017 for agricultural products and industrial sectors such as electrical machinery, transportation, and metals. This reduction correlates with a relative increase in NTBs, particularly for key products like agricultural goods.

Overall, India's NTBs are less complex and stringent compared to those in regions such as Europe or the US. Furthermore, the All-India Rubber Industries Association (AIRIA) recently urged the government not to impose additional restrictions on importing rubber compounds. Vietnam remains one of India's leading partners in rubber imports, highlighting its favorable position. Thus, Vietnam should focus on leveraging its existing advantages and enhancing the quality of Rubber and articles thereofs.

According to the World Integrated Trade Solution (WITS), the tariff rate applied to natural rubber (HS Code 400110) exported from Vietnam to India is 70%. The *World Trade Report 2021* indicates that India's average applied tariff rate is 11.8%. Therefore, the 70% tariff on Vietnamese natural rubber is significantly higher than India's average, making it challenging for Vietnam's natural rubber to compete in the Indian market. This high tariff rate poses a substantial obstacle to Vietnam's competitiveness in India compared to other countries.

India's non-tariff barriers are relatively manageable, and there are opportunities to expand Vietnam's rubber market by focusing on improving product quality and leveraging existing advantages. However, the high tariff rate remains a critical challenge, and signing an FTA with India could potentially lower tariffs, creating more competitive conditions for Vietnam's rubber industry in this crucial market.

Figure 8. Average Import Tariffs for Various Sectors in the Indian Market (2014-2017)



Source: WITS.

Under the ASEAN-India Free Trade Agreement (AIFTA), provided the stipulated rules of origin are met, only "balata gum, gutta-percha, guayule, chicle, and similar natural gums" (HS code 4001.30.00) from Vietnam and certain other ASEAN countries are eligible for a preferential import tariff rate of 0% when entering India.

According to the tariff schedule and observations of the tariff reduction roadmap under the agreement, some HS codes were not initially chosen for tariff reductions and remain subject to relatively high rates, such as 70% for "natural rubber latex, whether or not pre-vulcanized" (HS code 4001.10) and 20% for "technically specified natural rubber (TSNR)" (HS code 4001.22) and "smoked sheets" (HS code 4001.21). However, there are HS codes benefiting from significant tariff reductions, such as a reduction to 5% for "reclaimed rubber in primary forms or in plates, sheets, or strips" (HS code 4003.00) and "other dispersions except those of subheading 4005.10" (HS code 4005.20). Additionally, some items have been reduced to 0%, such as "waste, parings, and scrap of rubber (other than hard rubber) and powders and granules obtained therefrom" (HS code 4004.00) and "compounds with carbon black or silica" (HS code 4005.10).

Figure 9. HS Codes Excluded from Tariff Reductions under the FTA Roadmap Framework (1)

	4001.10	**Natural rubber Latex, whether or Not Pre-vulcanised**	
4500	4001.10.10	Prevulcanised	70
4501	4001.10.20	Other than prevulcanised 	70
	4001.21	**smoked sheets**	
4502	4001.21.00	Smoked sheets	20
	4001.22	**Technically specified Natural rubber (TSNR)**	
4503	4001.22.00	Technically specified natural ru	20
	4001.29	**Other**	
4504	4001.29.10	Hevea	20
4505	4001.29.20	Pale Crepe	20
4506	4001.29.30	Estate Brown Crepe	20
4507	4001.29.40	Oil extended natural rubber	20
4508	4001.29.90	Other	20

Source: Ministry of Industry and Trade.

Figure 10. HS Codes with Tariff Reductions by India under the FTA Roadmap Framework (2)

40.01	**Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary forms or in plates, sheets or strip**																		
4001.10	- Natural rubber latex, whether or not pre-vulcanised:																		
4001.10.11.00	- - - Centrifuge concentrate	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0
4001.10.12.00	- - - Processed by other methods	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0
4001.10.21.00	- - - Centrifuge concentrate	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0
4001.10.22.00	- - - Processed by other methods	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0
4001.21	- - Smoked sheets:																		
4001.21.10.00	- - - RSS Grade 1	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0
4001.21.20.00	- - - RSS Grade 2	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0
4001.21.30.00	- - - RSS Grade 3	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0
4001.21.40.00	- - - RSS Grade 4	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0
4001.21.50.00	- - - RSS Grade 5	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0
4001.21.90.00	- - - Other	5	NT-1	4.5	4.5	4	4	3	3	2	2	1	0	0	0	0	0	0	0

Source: Ministry of Industry and Trade.

In general, the import tariffs on Rubber and articles thereofs from Vietnam to India have always been high compared to the export potential of these products from Vietnam to India.

Previously, the export of rubber from Vietnam to India was subject to a tariff increase from 25% to 70%, with the reason being the Indian government's desire to protect domestic rubber products.

However, India's demand for imported rubber is relatively high. Specifically, according to Statista, natural rubber consumption in India reached a total of 1.3 million tons in the fiscal year 2023. Of this total, nearly three-quarters were consumed by the automotive tire industry, with the remaining amount used for other rubber products. India was the second-largest consumer of natural rubber in 2021, after China. The high demand for rubber in this country is attributed to the current production-consumption gap in the automobile industry in India (Business Standard). Furthermore, the growing population, increasing disposable income, and changing lifestyles in India are creating a favorable market environment for the rubber industry.

Additionally, according to research, India consumes more rubber than it produces. The country consumed 1,238,000 tons of natural rubber between 2021 and 2022, up from 1,096,410 tons in 2020/21, and is expected to consume 1,350,000 tons in 2022-2023.

Impact of the Vietnam-India FTA on Rubber and articles thereofs from Vietnam in Terms of Tariffs in the Short Term

This study is based on the structure and scale of trade between Vietnam and India, using tariff data from the TRAINS database. It simulates two different scenarios, the short-term and long-term, analyzing and simulating the short-term and long-term effects of mutual tariff reductions

between Vietnam and India. In the SMART simulation, the elasticity of goods is set at 1.5.

In the short-term scenario, the bilateral import tariffs between Vietnam and India are partially reduced. Based on the ASEAN-India Free Trade Agreement signed in 2003, the research team expects that with the Vietnam-India Free Trade Agreement, tariffs on 80% of Rubber and articles thereofs will be reduced by 50% over the next 10 years from the signing date.

Table 1. The impact of the Vietnam - India FTA on Vietnam's Rubber and articles thereofs (HS40) in the short term.

HS Code	**Tariff Rate for India Before Reduction**	**Tariff Rate for India After Reduction**	**Export Growth Rate (%)**	**Import Growth Rate (%)**	**Trade Creation Effect (thousand USD)**	**Trade Diversion Effect (thousand USD)**	**Total Trade Effect (thousand USD)**
400110	70	35	43.4	9,923.56	989,364	759.44	1,748,804
400121	25	11.1	18.1	5.61	5,476,118	3,663,006	9,139,124
400122	25	11.1	52.6	8.43	72,316,188	21,181,119	93,497,305
400129	25	11.1	12.9	9,175.38	649,864	131,281	781,145
400300	5	1.1	6.7	0	0.12	0	0
400520	5	1.1	0	0	0	0	0
400690	5	1.1	10.4	0	0	0	0
400700	5	1.1	6.5	0	3.64	4,253	7,893
400811	5	1.1	0	0	0	0	0
400819	5	1.1	5	0.19	2,398	4,109	6,507
400821	10	5	15.8	0	1	1	1,494
400829	5	1.1	9.4	0.06	5,458	3,203	8,661
400931	5	1.1	4.2	0.08	18,428	63,749	82,177
400941	5	2.5	5.4	0	0	1	2
400942	5	2.5	6.8	0.01	3,766	3,949	7,715

401110	5	2.5	4.5	0.09	78,191	200,249	278,439
401120	5	2.5	4.7	0.31	56,531	92,691	149,221
401150	5	2.5	7.5	1.33	6,867	3,622	10,489
401693	5	2.5	4.3	0.01	20,603	89,819	110,422
401699	5	2.5	4.7	0.02	53,412	149,503	202,915
Bình quân gia quyền/ Tổng	**6.05**	**2.62**	**11.5**	**955.75**	**79,677,193**	**25,591,313.65**	**106,032,312**

Source: Research team calculations based on WITS.

The total trade effect from the partial tariff reduction for products with HS code 40 from Vietnam is 106,032,312 thousand USD. In fact, since 2022, Vietnam has shifted from a trade deficit to a trade surplus with India, which is a positive signal for Vietnam. However, in the negotiations towards signing the Vietnam-India Free Trade Agreement, other factors need to be considered, primarily the overall flow of goods in trade between the two countries.

Impact of the Vietnam-India FTA on Rubber and articles thereofs from Vietnam in Terms of Tariffs in the Long Term

Currently, although Vietnam has many tax incentive programs, most of them are temporary, short-term (or periodic) measures, or special policy measures. The "reduced taxes and reduced fees" nature of the "systematic tax reduction" not only helps create a favorable policy environment but also stabilizes the expectations of economic agents. Its impact on the budget is also more profound (Hoon and Phelps, 2008; Barro and Furman, 2018).

In the long term, it can be expected that the tariffs on various goods will gradually decrease to zero, which will further stimulate trade between the two countries based on the short-term tax reduction. Continuing from the ASEAN-India Free Trade Agreement signed in 2003, the research team expects that with the Vietnam-India Free Trade Agreement, the tariff on Rubber and articles thereofs will be reduced to 0% within 20 years from the signing date.

Table 2. The impact of the Vietnam - India FTA on Vietnam's Rubber and articles thereofs (HS40) in the long term.

HS Code	**Tariff Rate for India Before Reduction**	**Tariff Rate for India After Reduction**	**Export Growth Rate (%)**	**Import Growth Rate (%)**	**Trade Creation Effect (thousand USD)**	**Trade Diversion Effect (thousand USD)**	**Total Trade Effect (thousand USD)**

400110	70	0	87.7	19,847.1	1,978,727	1,555,359	3,534,086
400121	25	0	36.2	11.2	10,952,236	7,284,986	18,237,223
400122	25	0	105.2	16.9	144,632,375	42,428,492	187,060,859
400129	25	0	25.8	18,350.8	1,299,728	257.966	1,557,694
400300	5	0	13.5	0	239	258	497
400520	5	0	0	0	409	196	605
400690	5	0	20.7	0	381	195	576
400700	5	0	13.1	0	7.28	8,508	15,788
400811	5	0	0	0	156	476	632
400819	5	0	9.9	0.4	4,795	8.22	13,015
400821	10	0	31.6	0	1,695	1293	2,988
400829	5	0	18.7	0.1	10,916	6406	17,323
400931	5	0	8.3	0.2	36,856	127.48	164,336
400941	5	0	8.1	0	1	3	3
400942	5	0	0	0	7,531	7,899	15.43
401110	5	0	9.1	0.2	156,382	400,636	557,018
401120	5	0	9.4	0.6	113,062	185,964	299,025
401150	5	0	15	2.7	13,734	7,254	20,988
401693	5	0	8.6	0	41,206	179.64	220,846
401699	5	0	9.4	0	106,823	298.99	405,813
Bình quân gia quyền /	**6.05**	**0**	**21.25**	**1,911.51**	**159,357,259.3**	**52,146,505.33**	**212,109,330.4**

Tổng							

Source: Research team calculations based on WITS.

Similarly, in the long term, India will reduce import tariffs from Vietnam to zero. According to the simulation results in Table –, the import turnover of goods with HS code 40 from Vietnam to India will yield a total trade effect of 212,109,330.4 thousand USD, with a trade creation effect of 159,357,259.3 thousand USD, meaning that economic welfare will significantly increase.

The total trade effect of the Vietnam-India Free Trade Agreement will be larger than the short-term effect. However, similar to the short-term effect, HS codes for goods with high pre-reduction tariffs will benefit more after the Free Trade Agreement is established.

Moreover, regarding non-tariff measures, Rubber and articles thereofs will not be significantly affected and are not subject to overly high standards in the Indian market. However, during negotiations, other products should be considered, as India's MRL standards are quite strict.

In summary, when the Vietnam-India Free Trade Agreement is signed, products from both countries will benefit, though the level of benefit will vary. For HS40 products, this may be one of the most beneficial product groups, as India is providing favorable conditions for Vietnam.

CONCLUSION AND RECOMMENDATIONS

India is Vietnam's 7th largest trading partner, and bilateral trade between the two countries has consistently grown in recent years, reaching 14.36 billion USD in 2023. At the same time, India is also one of Vietnam's largest export markets, ranking 10th. Notably, rubber from Vietnam is a potential commodity in the Indian market, with expectations for further strong growth and development, setting the stage for stronger cooperation and exchanges between various industries.

According to the research data from the team and the results from the SMART model, it has been demonstrated that moving towards the signing of a Free Trade Agreement (FTA) will bring significant trade benefits to Vietnam, particularly for Rubber and articles thereofs (HS40). This will also be an important step in affirming the cooperative and friendly relationship between the two countries. India remains ready to negotiate and sign agreements with Vietnam, but the greatest challenge Vietnam faces is managing the origin of export goods, preventing goods from third countries from entering Vietnam and being exported to India under Vietnamese origin. Therefore, to make an important step towards signing the FTA, Vietnamese businesses, in collaboration with government regulatory agencies, need to focus on addressing the following issues:

For Businesses

Firstly, businesses should proactively and actively seek out and verify relevant information to ensure credibility, particularly regarding contracts, purchase terms, transportation issues, and disputes over rights and interests.

Secondly, businesses should actively learn about government policies and documents that facilitate domestic enterprises, aiming to promote the development and expansion of Vietnam's rubber market. For example, the government's Decision No. 750/QD-Ttg on "Rubber Development Planning to 2015 and Vision to 2020" set a goal of achieving 650,000 hectares of rubber forests by 2010, 800,000 hectares by 2015, and maintaining that level through 2020. The Ministry of Agriculture and Rural Development of Vietnam issued Decision No. 431/QD-BNN-TT, approving the "Master Plan for Developing Key Industrial Crops by 2030," with a target of maintaining 800,000–850,000 hectares of rubber plantations by 2030. Enterprises should research related legal regulations, consumer habits, and local cultures to best meet the specific requirements of the country.

Thirdly, businesses should improve product quality, expand product ranges, and create competitive advantages over businesses from other countries. Products should be adjusted to fit the culture and preferences of the domestic market. In 2023, Vietnam exported mainly natural rubber to India, with SVR 10 accounting for the highest proportion at 54.85% of Vietnam's total exports to India, amounting to 61,800 tons worth 84.55 million USD. The second was SVR 3L, at 22.02%, followed by RSS3 at 8.82%. As most of Vietnam’s exports are unprocessed or minimally processed natural rubber, the product value is still low. Therefore, businesses should expand their product portfolio by producing other industrial goods such as gloves, conveyor belts, sports balls, mattresses, rubber pillows, as well as components for electrical engineering, automotive parts, and furniture.

For the Vietnam Rubber Association

Recently, the Vietnam Rubber Association signed a cooperation agreement with the Ministry of Industry and Trade - Department of Trade Promotion to develop the "Vietnam Rubber Brand." This initiative aims to exchange information, coordinate trade promotion activities, and improve mechanisms and policies for the sustainable development of Vietnam’s rubber industry. In the future, the Vietnam Rubber Association can implement more effective activities for its members, such as providing market information, pricing trends, supply and demand both domestically and internationally, organizing exhibitions, trade promotion activities, developing policies to protect members, and supporting them in various fields.

For the Government and Relevant Ministries

Firstly, it is crucial to promote exchanges and dialogues at all levels.

Political dialogue, combined with diplomatic relations in areas such as culture, education, etc., should be encouraged. Regular high-level meetings between the leadership of both countries should be held to discuss

and negotiate issues, resolve obstacles, and ensure that both nations can maintain commitments, ensuring transparency, clarity, and fairness in decision-making processes.

Economic and trade dialogues should also be fostered between the two countries by establishing a Vietnam-India Trade Forum where businesses, investors, and economic experts from both nations can meet, discuss, and collaborate. Mechanisms for resolving trade and investment disputes and temporary protection measures should be established as soon as possible. Priority should be given to addressing the economic position of Vietnam in the market and actively promoting trade and investment support between Vietnam and India. This forum will also serve as a platform to address emerging challenges and trade disputes. Furthermore, implementing export-import support programs through national trade agencies will reduce procedural burdens and enhance market understanding.

Cultural and educational exchanges should be initiated, including programs for student, professor, and doctoral exchanges between top universities in Vietnam and India. This will not only improve relations between the two countries but also foster mutual respect and understanding in cultural matters.

Secondly, the development of comprehensive cooperation mechanisms should be prioritized

Multidisciplinary trade cooperation should be encouraged, with the creation of strong coordination mechanisms between ministries involved in trade, investment, agriculture, information technology, and energy, ensuring policies and actions are synchronized and mutually supportive.

Mechanisms and solutions for resolving disputes and providing temporary protection should be proposed. The establishment of independent and transparent mechanisms for resolving trade disputes is essential, enabling swift handling of emerging issues between businesses and governments of both nations. Developing regulations for temporary protection measures, as seen in FTAs between other countries, will help address abnormal issues arising from large market fluctuations or emergency economic situations.

Thirdly, ensuring transparent and prompt information exchange is essential.

Transparency in policy management is vital, ensuring that any new or amended regulations or policies related to the FTA are publicly and promptly disclosed. Stakeholder participation from both countries should be encouraged to ensure fairness and effectiveness.

Technical and technological cooperation should be enhanced, particularly in areas where both countries have strengths, such as information technology and renewable energy. Joint projects and exchanges of experts can help foster this collaboration.

Implementing these proposals will not only strengthen the relationship between Vietnam and India in various aspects but also move both countries

closer to signing the Free Trade Agreement (FTA), building a sustainable economic environment that brings long-term economic benefits to both Vietnam and India.

Fourthly, Vietnam must commit to ensuring that the goods are of Vietnamese origin. The signing of the agreement must yield tangible benefits for both nations. Regulations should be implemented to manage the origin of goods strictly, with measures to address violations. This will help facilitate the operations of businesses in both countries while protecting the reputation of Vietnamese products.

Thus, both Vietnam and India recognize the importance and urgency of the Agreement. However, the two nations need to accelerate the resolution of outstanding issues, bridge gaps in bilateral cooperation, and move forward to sign the Free Trade Agreement (FTA).

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