

THE RUBBER SECTOR IN THE MEKONG SUBREGION

Opportunities and challenges in the context of EUDR implementation

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1. Current Development Status of the Rubber Sector in the Mekong Subregion

In recent decades, the rubber sector in the Mekong Subregion—particularly in Vietnam and Cambodia—has achieved notable progress, emerging as one of the region’s key export-oriented agroforestry industries. Vietnam is currently the fourth-largest rubber producer in the world, with a planted area of over 900,000 hectares and an output reaching 1.3 million tons in 2024, accounting for approximately 9.1% of global production. Vietnam’s average yield of natural rubber is 1,786 kg/ha, currently the highest in Asia, reflecting intensive cultivation practices and effective plantation management. Meanwhile, Cambodia and Laos have also witnessed substantial growth in rubber cultivation over the past two decades, with planted areas reaching over 400,000 hectares and 590,000 hectares, respectively—most of which were established before 2011, when natural rubber prices peaked. Since 2014, however, rubber prices have declined to roughly one-third of their peak levels and have shown only modest recovery in subsequent years. As a result, rubber expansion has slowed. Some plantations have even been converted to crops with higher economic returns. Nonetheless, due to a harvesting cycle over 20 years, rubber continues to provide a stable livelihood for local communities.

The rubber sectors of Vietnam, Laos, and Cambodia are closely interconnected through cross-border trade activities. Vietnam plays a central role in the region, with significant capacity in importing, processing, and exporting rubber products, while Laos and Cambodia primarily serve as suppliers of raw natural rubber (Figure 1). Approximately 42% of the natural rubber processed in Vietnam is sourced from these two neighboring countries.



Image 1: Rubber production factory in Vietnam. Source: Phong Vu

Figure 1: The rubber sector supply chain in Vietnam in 2024

RUBBER SUPPLY CHAIN OF VIETNAM IN 2024



Viet Nam's source of natural rubber (HS 4001, 400280)

	,000 tons	% total supply
Domestic	1,293.4	47.6
Cambodia	916.2	33.7
Laos	226.5	8.3
Other countries	281.9	10.4
Total	2,718	100

Vietnam exports natural rubber (HS 4001)

	,000 tons	% total export
China	1,447.7	72.1
EU-27	83.4	4.1
USA	29.4	1.5
Other countries	449.6	22.3
Total	2,008.8	100

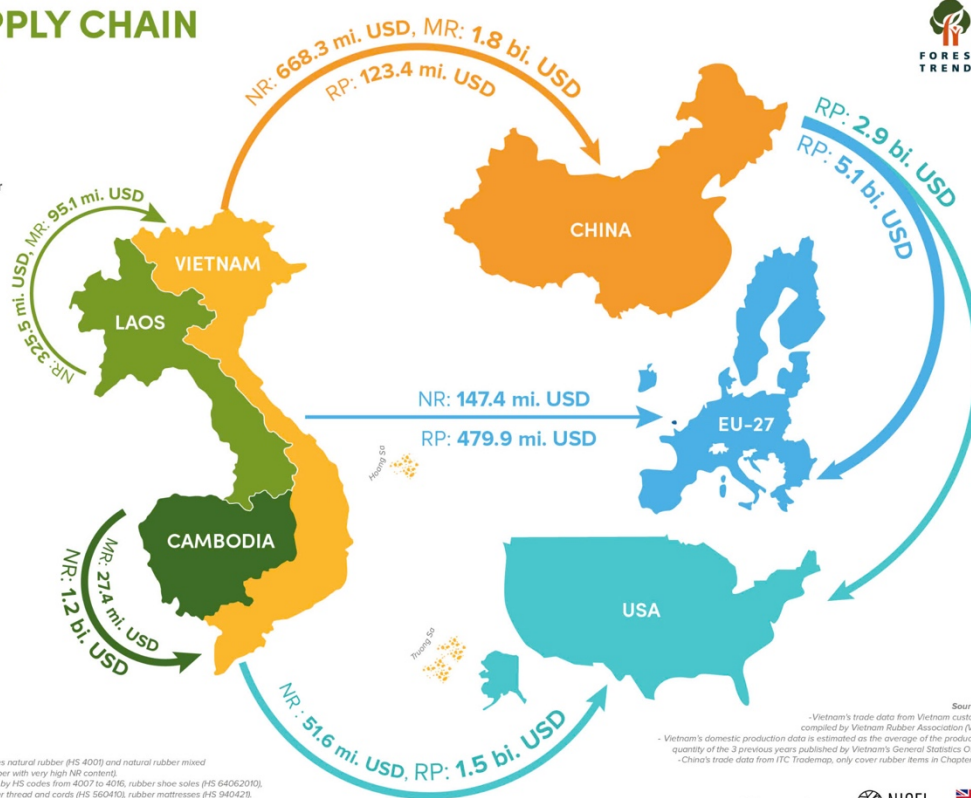
Vietnam exports mixture rubber (HS 400280)

	,000 tons	% total export
China	1,032	87.3
Other countries	150.8	12.7
Total	1,182.8	100

Note:
 - RP: rubber products
 - NR: natural rubber (HS 4001)
 - MR: mixture rubber (HS 400280)
 - According to VRA, natural rubber material export includes natural rubber (HS 4001) and natural rubber mixed with synthetic rubber (HS 400280), so-called mixture rubber with very high NR content.
 - VRA counts rubber products as all rubber items covered by HS codes from 4007 to 4016, rubber shoe soles (HS 64062010), rubber sport equipment (HS 9506), textile-covered rubber thread and cords (HS 560410), rubber mattresses (HS 94042).
 - Data on the arrow are the export and import value of each country.
 - China does export rubber materials to the EU and the US but the quantity and value are negligible.

Sources:
 - Vietnam's trade data from Vietnam customs, compiled by Vietnam Rubber Association (VRA)
 - Vietnam's domestic production data is estimated as the average of the production quantity of the 3 previous years published by Vietnam's General Statistics Office
 - China's trade data from ITC. Trademap, only cover rubber items in Chapter 40.

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Source: Compiled by Forest Trends based on data from VRA and ITC

In addition to their role as importers, several Vietnamese enterprises—such as the Vietnam Rubber Group (VRG) and Dak Lak Rubber Company (DAKRUCO)—have directly invested in rubber plantation in Cambodia and Laos. However, both countries still lack sufficient downstream processing capacity; the majority of raw natural rubber is exported to China, Vietnam and Thailand. As of now, Cambodia has only one operational tire manufacturing plant capable of exporting, and three other factories are either under construction or pending project approval.

The natural rubber supply chains of Vietnam, Cambodia, and Laos share a common feature: the significant participation of smallholders alongside large corporations such as the Vietnam Rubber Group (VRG), which operates large-scale plantations. Smallholder plantations account for approximately 50%, 48%, and 30% of the total rubber cultivation area in Vietnam, Cambodia, and Laos, respectively. Although smallholders tend to invest less and adopt lower levels of scientific and technological inputs than enterprises, they often harvest more frequently to maximize profits. As a result, the volume of natural rubber produced by smallholders may be higher, but its quality is typically lower.

2. Shortcomings in the supply chain

One of the most significant risks of the rubber sector is its heavy reliance on the Chinese market, which consumes up to 72.1% of Vietnam's natural rubber production (code HS 4001). In contrast, the EU and U.S. markets account only 4.1% and 1.5%, respectively (Figure 1). This overdependence

renders the sector highly vulnerable to economic or policy fluctuations in China. China is not only the major rubber importer, but also the world's largest processor and exporter of rubber products, supplying essential goods such as tires, gloves, and rubber components to major markets, including the EU and the U.S. Consequently, Vietnamese rubber exported to China may undergo further processing and be re-exported to end markets like the EU and U.S. This suggests that rubber originating from Mekong Subregion countries to China may not be entirely exempt from the legality and sustainability requirements imposed by end-user markets.

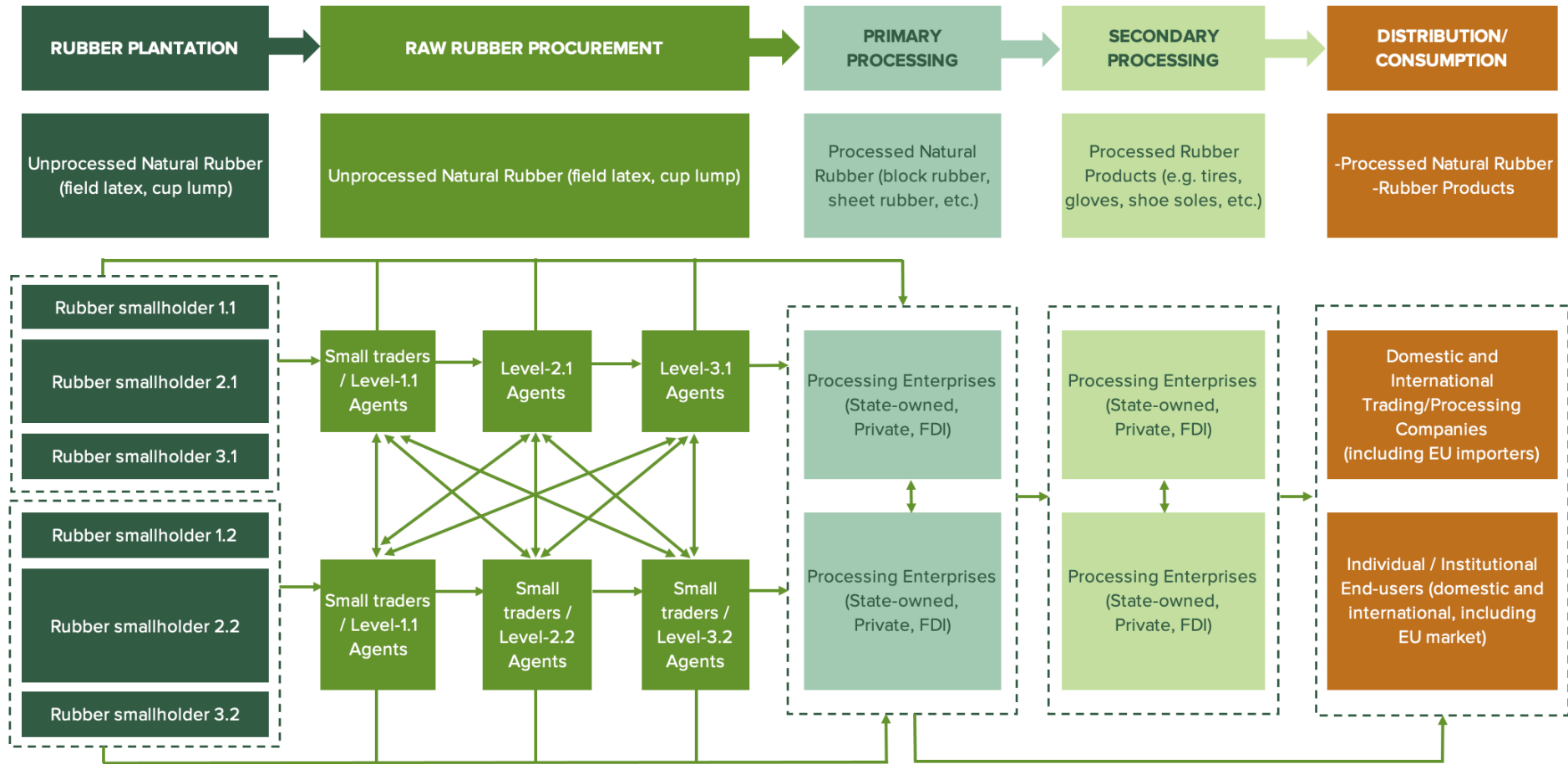
The rubber supply chain in the Mekong Subregion continues to face serious traceability challenges. Cross-border trade remains common, and rubber latex traders operating at commune and district levels create multiple intermediary layers, extending the supply chain from smallholders to processing factories (Figure 2). Currently, traders typically do not collect or retain detailed seller information during transaction. Rubber latex from various sources is often mixed and transported across wide geographic areas, sometimes over distances exceeding 100 kilometers. This results in a highly fragmented supply chain where traceability is difficult -and, in many cases, impossible- to achieve.



Image 2: Rubber plantation in Dau Tieng, Binh Duong, Vietnam. Source: Forest Trends

In addition, the theft of rubber latex from plantations owned in by Vietnamese enterprises in Laos has become a serious issue. In March 2025, the Embassy of Vietnam in Laos submitted an official diplomatic note to relevant Lao ministries and regulatory agencies, requesting intervention to address the persistent issue of rubber latex theft from Vietnamese-invested plantations. According to the note, the stolen rubber may account for up to 20% of total production, with an estimated value of approximately 200 billion kip (equivalent to nearly 250 billion VND) annually. This illicit rubber continues to enter the supply chain without proper controls, posing a significant threat to the legality of materials used in subsequent stages of production.

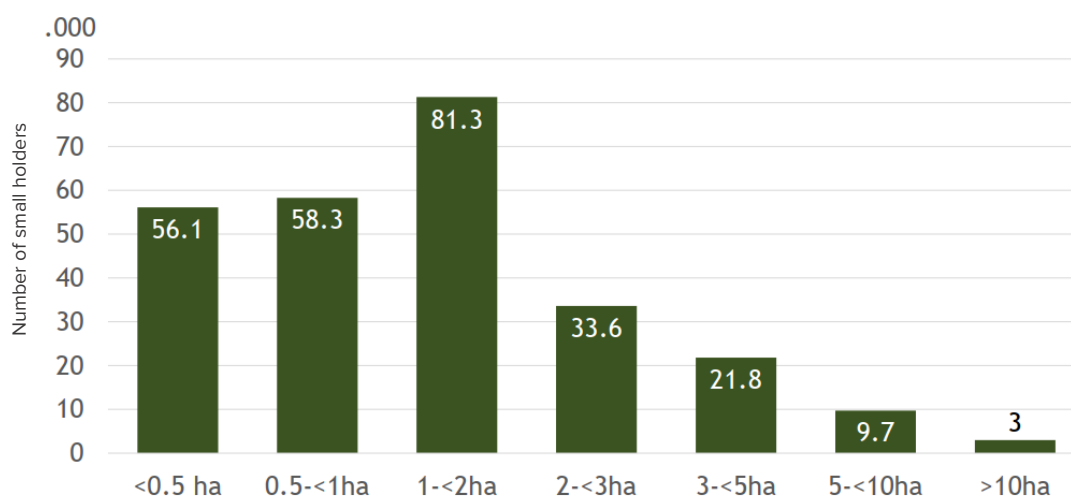
Figure 2: Diagram of the rubber supply chain in Vietnam



Source: Nguyen Vinh Quang (based on Forest Trends' field survey conducted in January 2025)

In addition, the fragmented land ownership structure and small-scale holdings presents significant challenges in meeting the requirement to provide the precise geographical location of land plots. According to statistics, over 195,000 smallholders in Vietnam cultivate less than 2 hectares of land, accounting for 74,2% of all smallholders (Figure 3). Each farmer may own multiple scattered plots. While most of them hold land use rights certificates, accurate information on the geographic coordinates of their plantations is often lacking. In some cases, smallholders do not possess land use rights certificates or the boundaries of their plots remain unclear due to historical factors. Moreover, these smallholders rarely maintain systematic transaction records and typically mix latex harvested from different plots. This practice reduces both product quality and traceability in accordance with international standards. For enterprises with consolidated landholdings and sufficient financial capacity—such as the Vietnam Rubber Group (VRG)- managing and restructuring the supply chain to comply with export regulations like the EUDR or sustainability certifications (e.g., FSC, PEFC) is entirely feasible. However, high management cost remain a major barrier preventing smallholders from adopting similar initiatives. In reality, the collaboration with smallholders has not been prioritized by companies, leading to persistent information gaps in the supply chain over the years.

Figure 3: Structure of rubber farming smallholders in Vietnam by land acreage



Source: Nguyen et al. 2023

From the perspective of regulatory agencies, the lack of statistical data, inaccuracies in existing figures, outdated information, and the absence of data sharing between bilateral and multilateral institutions have contributed to a lack of transparency in the regional rubber trade. Cambodia is reported by Vietnam’s customs authorities to be the leading supplier of natural rubber to Vietnam, with both volume and export value approximately four times higher than those from Laos. However, data published by Cambodia’s General Directorate of Rubber (GDR) indicate that the country’s rubber plantation area is only 80% that of Laos, and its harvested output is equivalent to merely 50% of the natural rubber volume reportedly imported by Vietnam. This discrepancy raises concerns about the origin of rubber imported from Cambodia, suggesting potential risks such as rubber being cultivated on deforested land or in areas associated with environmental degradation, social welfare issues, labor safety violations, and public health concerns.

3. Challenges and opportunities

The international market, particularly the EU and U.S, is increasingly imposing stringent requirements on sustainability and traceability of rubber products. The EUDR entered into force on June 29, 2023, and will be implemented starting January 1, 2026, mandates that all rubber products exported to the EU must demonstrate:

- They are not associated with deforestation occurring after December 31, 2020.
- They comply with the laws the production country.
- They provide traceability data down to the individual agroforestry plots.

Similarly, the U.S. Forest Act emphasizes sustainable forest management and anti-deforestation measures, requiring transparency across the entire supply chain. These regulatory frameworks not only present significant compliance challenges but also offer important opportunities for the rubber sector in the Mekong subregion to modernize operations and solidify its position in the global marketplace.

The EUDR and related policies necessitate collaborative restructuring efforts across the rubber supply chains of Vietnam, Cambodia, and Laos to address longstanding issues and enhance transparency and sustainability. During this preparatory phase for EUDR enforcement, in parallel with governments to support enterprises and local communities, several pioneering companies have launched “forward-looking” initiatives—some even before the regulation officially took effect. Among these, the smallholder linkage model developed by Mai Vinh Rubber Company (MIVICO) stands out as a promising example, especially amid widespread concerns among small and medium-sized enterprises (SMEs) regarding their capacity to meet EUDR requirements.

Since late 2023, when the EUDR came into effect, MIVICO has proactively researched the regulation and developed procedures and assessment tools for traders and smallholder farmers who voluntarily participate in its EUDR-aligned supply chain. The company has signed cooperation agreements with over 200 smallholders, covering more than 3,000 hectares. According to Ms. Dang Thi Hoa Mai, General Director of MIVICO, working directly with a large number of smallholders requires substantial financial and human resources. However, the company has no choice but to collaborate and share responsibilities with farmers, as smallholders constitute the backbone of the supply chain. Currently, MIVICO exports certified sustainable natural rubber to several key EU buyers and receives some technical support from these partners. Based on this success, MIVICO is exploring the possibility of expanding this model to Cambodia. MIVICO’s experience has been studied by Forest Trends and the Vietnam Rubber Association as input for developing EUDR implementation guidelines for dealers and smallholders which are expected to be widely disseminated soon.



Image 3: Latex extraction from rubber trees.

Source: Phong Vu

In addition to MIVICO, large enterprises such as member of the Vietnam Rubber Group (VRG) and DAKRUCO have invested for years in the standardization, digitalization, and restructuring of their supply chains in accordance with international standards link ISO 9001:2015, FSC-FM, and PEFC. As a result, these companies face fewer obstacles in complying with EUDR. Despite high costs and intensive effort, these efforts are considered necessary steps toward enhancing brand value, reducing dependence on the Chinese market, and ensuring compliance with environmental, labor, and social standards. They also help strengthen relationships with local communities and stabilize the supply of raw materials for production.

4. Recommendation

With just over half a year remaining before the EUDR is officially enforced, the rubber industry in the Mekong subregion must urgently and comprehensively implement both short-term and long-term strategies to ensure compliance with the EUDR and similar regulations in key export markets.

- At the government level: The governments of Vietnam, Cambodia, and Laos should prioritize the development of accurate and up-to-date plantation databases and forest maps as of December 31, 2020 to identify areas at risk of deforestation under the EUDR. These tools will support traceability efforts and provide evidence that rubber production is not associated with deforestation.
- At the regulatory agency level: Agencies responsible for rubber oversight and customs authorities in each country should regularly exchange information and coordinate to promptly address irregular or untraceable supply flows.
- Digital transformation: Digitalization is essential. Mobile applications and enterprise management systems should be promoted to facilitate the recording and storage of transactional data, plantation coordinates, and other essential information. These data system will be vital for buyers seeking verifiable proof of product origin.
- Training and Awareness-Raising: Governments, industry associations, and large enterprises should conduct training programs to raise awareness among smallholders, traders, and enterprises about the EUDR and other relevant regulations. These programs should provide guidance on data collection, documentation, and compliance procedures.

- **Financial and Technical Support:** Resources should be mobilized from governments budgets, NGOs, and international development partners to support smallholders and SMEs in adapting to the new regulatory landscape.
- **Public–Private Partnerships:** It is essential to promote inclusive production models and contractual partnerships between enterprises and household groups or cooperatives. These linkages helps share resource, improve information flow and enhance supply chain transparency and control.
- **Supply Chain Review and Standardization:** Enterprises should actively pursue supply chain standardization through certifications such as ISO, PEFC or FSC. These certifications not only help meet international requirements but also enhance the reputation and value of rubber products from the region.

5. Conclusion

The rubber sector in the Mekong subregion holds considerable potential for sustainable development and compliance with rigorous international regulations such as the EUDR and the U.S. Forest Act. However, unlocking this potential requires coordinated and multi-stakeholder efforts to overcome persistent challenges related to data accuracy, traceability, and supply chain governance. Strategic investments in digital technologies, capacity building for smallholder farmers, and the establishment of long-term collaborative partnerships will be critical to enhance the competitiveness and market value of the region’s rubber products on the global stage.