



Report

## **Potential impacts of the EU Regulation on Deforestation-free Products (EUDR) on smallholders in Thailand and Indonesia – case studies on rubber, timber and coffee**



**RECOFTC**

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June 2024

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# Acknowledgement

We would like to extend our sincere gratitude to all the smallholders, community members, NGOs and companies who participated in our field research in Surat Thani province, Thailand and in Gunung Kidul and Purworejo regencies, as well as in Ciwidey district, Bandung regency in Indonesia. Their valuable time and insights were instrumental in enhancing our understanding of the potential impact of the EUDR on smallholder readiness.



# Executive summary

## Introduction

The European Union (EU) will start applying the EU Regulation on Deforestation-free Products (EUDR) on 30 December 2024. The EUDR is aimed at reducing the EU's contribution to global deforestation and calls for the consumption and trade of 'deforestation-free' products. As such, it puts a ban on the sale of rubber, wood, coffee, soya, cattle, palm oil and cocoa commodities and some of their derived products, where companies cannot prove these did not come from deforested land.

Across the forest landscapes of Southeast Asia, providing this proof is not always a simple or straightforward task. As such, even as the EUDR aims to promote sustainability in trade, it could pose potential challenges for smallholders in practice. Its widescale implementation will likely affect communities that are already dealing with climate change impacts and facing difficulties securing their land rights and ensuring the quality and quantity of their products.

To assess these and other potential impacts, RECOFTC conducted field research among rubber smallholders in Thailand and coffee and timber smallholders in Indonesia. These studies sought to gauge the awareness levels of smallholders and other stakeholders concerning the EUDR and identify what support they may need to comply with this and similar regulations in the future. The results of the research are presented in the form of the three case studies in the main chapters of this publication.

## Background and methodologies

Thailand is a large rubber producer and exporter, including to the EU. Surat Thani, a province that supplies a large quantity of the rubber exported, was selected as a site for the qualitative research study. Primary data was collected through focus group discussions with smallholders, intermediaries, processing factories, local government agencies and support entities such as non-governmental organizations (NGOs). A total of 37 individuals representing various stakeholder groups were interviewed.

Indonesia is one of the largest teak timber producers in the world. It is also the second-largest coffee producer in Asia and Oceania, after Viet Nam. The two Indonesian case studies were therefore focused on smallholder groups involved in timber and coffee production. In the timber sector, the study investigated the impacts of the EUDR on two smallholder timber groups – one in Gunung Kidul regency and the other in Purworejo regency. Insights were also gathered from processing cooperatives and local civil society organizations (CSOs). Primary data

collection involved focus group discussions with 19 key informants and additional desk-based research. For the coffee sector, the study was conducted in Ciwidey, a district in Bandung regency. Six key informants representing smallholder groups, cooperatives and processing factories were identified using purposive sampling.

All three studies were guided by 21 questions covering thematic areas related to policy, value chain governance and community rights. The methodologies involved focus group discussions and interviews with key stakeholders, complemented by desk-based research. The selection of study sites and key informants was guided by local partner organizations and experts to ensure the relevance and representativeness of the research findings.

## Key findings

### There is limited understanding of the EUDR

Many stakeholders, including smallholders, cooperatives and intermediaries have little to no awareness of the EUDR and its implications. Even in cases where stakeholders are aware, misconceptions are common, with some confusing it with voluntary forest certification schemes. Entities such as local government agencies and processing factories have basic knowledge of the EUDR, but translating this awareness into practical implementation is challenging.

### National regulatory frameworks on tenure are complex

Complex land tenure systems, particularly in Thailand, mean that it is challenging for smallholders to understand and comply with regulations. Limited resources and coordination among government agencies exacerbate these challenges. Furthermore, unclear land tenure rights and slow clarification processes create barriers for smallholders to comply with the EUDR.

### Supply chains and traceability challenges are complex

Supply chains are complex. There are multiple value chain actors – including smallholders, cooperatives and independent intermediaries, which compounds the traceability and certification challenges. Independent intermediaries require documentation. A lack of documentation leads to traceability challenges, which makes verification of deforestation-free production extremely difficult.

## **Information flow among actors along the supply and value chains is limited**

There is a lack of communication between upstream and downstream actors in supply and value chains. Information flow may be disjointed or disconnected even within single cooperatives. This lack of information sharing makes it challenging for actors to comply with the EUDR effectively.

## **Market information gaps and limited support from buyers compound challenges**

Without awareness of the EUDR, smallholders and cooperatives face challenges accessing market information and obtaining formal contracts with buyers. Establishing geolocation data, impacting traceability and compliance are also challenging without support.

## **There are productivity and infrastructure barriers**

Low productivity and inadequate infrastructure, compounded by weather fluctuations, pose significant barriers to meeting market requirements and complying with the EUDR. Improving sustainability practices and meeting market standards will require technological and financial support.

# **Lessons learned**

## **Partnerships help make supply chains sustainable**

Collaborative models with effective monitoring and technical support for smallholders promote sustainable practices and compliance with voluntary certification and other market standards. Technical and financial support programs help local communities to comply.

## **Diversification of crops can help ensure resilient livelihoods**

Agroforestry models that include multiple crops provide a sustainable flow of products and stimulate commitment to sustainable management practices. Furthermore diversification of crops in certified plantations helps enhance biodiversity and strengthens resilience against market fluctuations and climate-related challenges. With changing environmental conditions and shifts in global markets, shifting to alternative crops becomes an important adaptive strategy.



## **Documentation and traceability are crucial for both voluntary certification and mandatory EUDR compliance**

Effective documentation and traceability systems such as those associated with the Forest Stewardship Council (FSC) certification, for instance, can be essential building blocks for demonstrating compliance with the EUDR. Collaborative efforts between stakeholders, including processing factories and certification bodies, are necessary to ensure the legality and sustainability of supply chains.

## **Recommendations toward responsible solutions**

### **Increase awareness and capacity building**

Targeted awareness campaigns to educate stakeholders about regulatory standards such as the EUDR and sustainable practices are necessary. Concerned bodies can provide tailored training programs covering regulatory compliance, sustainable forest management and market requirements for smallholders, farmer groups and other local actors. Knowledge products and promotional materials need to be localized and made available in national languages to facilitate comprehensive understanding and engagement.

RECOFTC could contribute to such processes by conducting capacity gap assessments and subsequently providing tailored training modules to improve knowledge and skills. These modules would not only be designed for smallholders but also for supporting agencies, including local and national governments, the private sector and CSOs and NGOs. Potential modules could cover topics such as EUDR basics; free, prior and informed consent; tenure rights; safeguard measures and business partnership negotiations.

### **Promote multi-stakeholder engagement**

Collaboration among stakeholders, including smallholders, processors, government agencies, CSOs and buyers can develop unified approaches to compliance and resource distribution. Participation and cooperation in implementing responsible practices throughout the supply chain can be facilitated by platforms for dialogue and knowledge exchange.

With its track record of facilitating collaboration between government agencies, industry players and smallholders in forest landscape collaboration, RECOFTC could facilitate processes and bring various stakeholders on board.

### **Disseminate information effectively**

The dissemination of simplified information about the EUDR and best practices through accessible channels such as mobile applications, community meetings

and extension services can make a big difference. Timely and accurate information sharing can empower stakeholders to make informed decisions and adapt their practices accordingly.

### **Foster partnerships and collaboration**

Strengthening partnerships between government agencies, CSOs, buyers and smallholders and farmer groups is crucial to supporting compliance efforts. There is a need to encourage transparent and mutually beneficial partnerships between cooperatives and companies, emphasizing data sharing, technology adoption and long-term commitments.

### **Offer financial support and incentives**

Investments and financial support, subsidies and incentives to smallholders and farmer groups are important to facilitate compliance with the EUDR and the adoption of sustainable practices.

Concerned bodies could explore opportunities for grants, investments and capacity-building initiatives to enhance operational efficiency, competitiveness and resilience within the supply chain.

### **Engage in policy analysis and advocacy**

Policy analysis and advocacy to empower smallholders, advocate for supportive legislation and ensure recognition and respect for their rights are essential. RECOFTC could support such processes drawing on its experience in contributing to policy reforms and supporting platforms of communities and NGOs to participate and contribute to developing more inclusive and realistic legislation.

Maintaining regular engagement with regulatory authorities, international bodies and industry stakeholders to discuss smallholder challenges could help share insights and develop practical solutions for compliance and sustainability.

### **Engage with the EU and EU delegations**

To ensure a proper and realistic implementation of the EUDR, it is crucial that the EU Commission and EU delegations are aware of the realities encountered by smallholders and other actors on the ground. With a presence in five countries in the Mekong region that supply commodities to the EU, RECOFTC could be well positioned to engage in dialogues with the EU and EU delegations.







# Case study 1

## The rubber value chain – Surat Thani province, Thailand

### Background

Thailand is one of the world's leading rubber producers, and a significant portion is exported to the EU. In 2022, rubber exports from Thailand to the EU were valued at USD 1.7 billion, with 1.68 million smallholder households contributing to the production. For context, Table 1 below provides comparative figures for coffee and timber.

**Table 1:** Value of exports and smallholders' involvement in Thailand in EUDR-related commodities

	Thailand		
	Coffee	Rubber	Timber*
Value of exports to EU (USD millions)	0.33	1,753.00	127.00
Smallholder households (millions)	0.03	1.68	0.06

Source: ASEANstats; data from 2022.

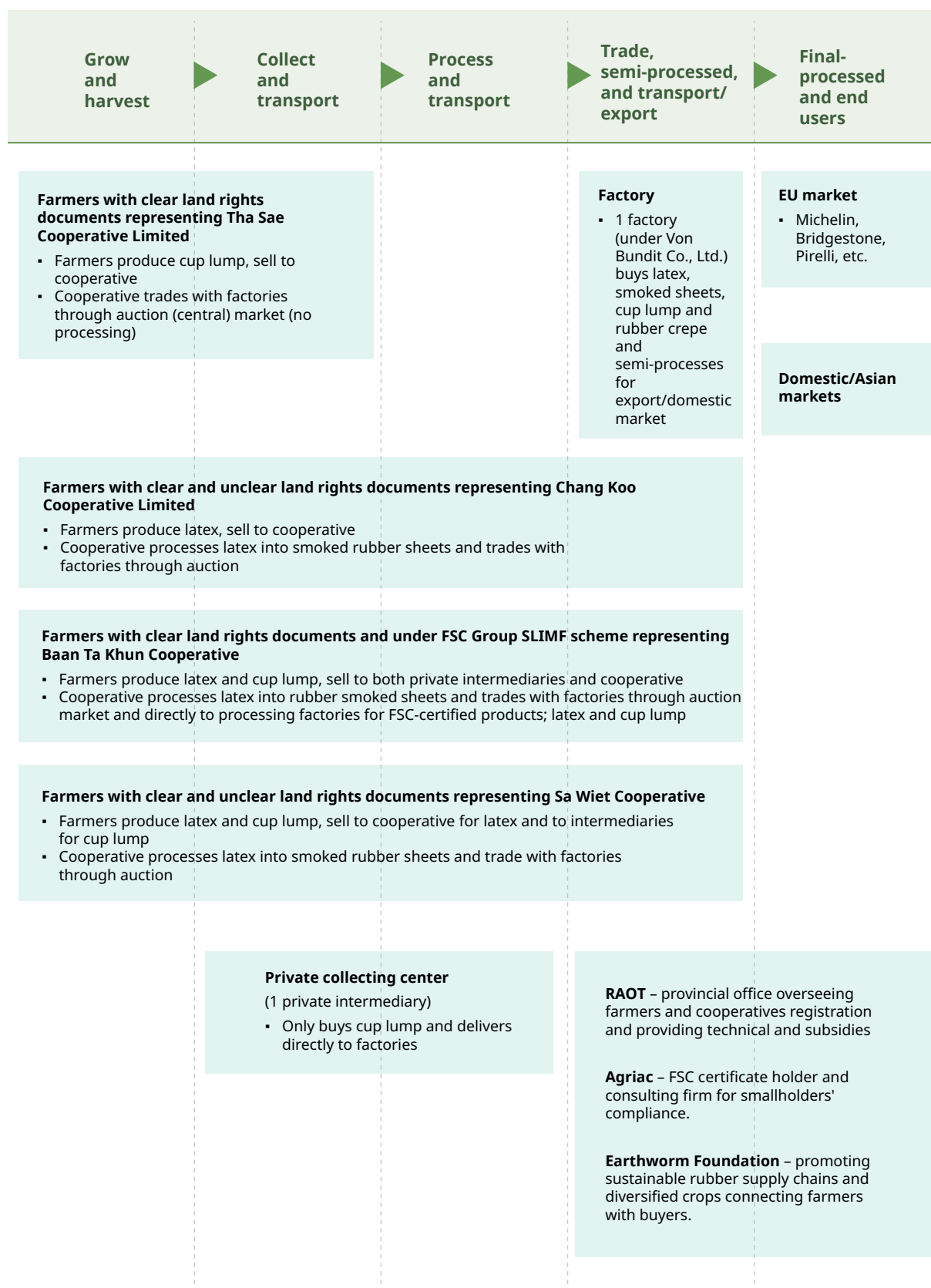
\*Including products made from wood such as timber, fuel wood, wood chips, paper and wooden furniture.

This case study investigates the impacts of the EUDR on rubber smallholders with additional perspectives from governments, the private sector and NGOs.

### Research methodology

This qualitative research involved primary data collection through focus group discussions with key informants in Surat Thani province, Thailand from 7–10 August 2023 and additional desk research. The site was selected following guidance from a partner organization and considering Surat Thani has the largest area of natural rubber plantations in Thailand of any province. In 2021, it had 0.38 million hectares of rubber plantations, the most in the country, accounting for 10% of the total 3.92 million hectares nationwide. Key informants were identified using purposive sampling and comprised smallholders, intermediaries, processing factories, local government agencies and support entities like NGOs or social enterprises. All interviewee names were anonymized for confidentiality.

**Figure 1:** Map of rubber value chain actors interviewed in Surat Thani, Thailand



Our research was guided by 21 questions covering three thematic areas: policy, value chain governance and community rights. We held eight interview sessions with various stakeholder groups, as presented in Table 2. We interviewed 37 people representing smallholders, the private sector, the government and NGO groups.

RECOFTC collaborated closely with the Surat Thani provincial office of the Rubber Authority of Thailand (RAOT) and Agriac, a social enterprise implementing sustainability programs for rubber smallholders in southern Thailand, to facilitate the fieldwork.

**Table 2:** Stakeholder groups interviewed during fieldwork at Surat Thani province, Thailand

Stakeholder groups	Name	Location in Surat Thani province	Members	Number of interviewees
Individual smallholders and smallholder cooperatives	Baan Ta Khun Agriculture Cooperative Limited	Baan Ta Khun sub-district and district	1,469 (588 female members)	5
	Baan Chang Koo Pattana Rubber Fund Cooperative Limited	Chang Sai sub-district, Kanchanadit district	300 (180 female members)	10
	Sa Wiet Rubber Fund Cooperative Limited	Sa Wiet sub-district, Tha Shang district	62 (40 female members)	3
	Tha Sae Land Reform Agriculture Cooperative Limited	Tha Sae sub-district, Tha Shang district	600 (180 female members)	5
Intermediary	Private collector	Baan Ta Khun district	N/A	1
Processing company	Von Bundit Co., Ltd.	Mueang Surat Thani processing factory	N/A	6
Government	Provincial RAOT office	Mueang Surat Thani	N/A	3
Social enterprise	Agriac Co., Ltd.	Branch office in Surat Thani, Nakhon Si Thammarat, head office in Bangkok	N/A	2
NGO	Earthworm Foundation	Surat Thani town	N/A	2



## Understanding the role of smallholders in the rubber value chain

### Production

Rubber smallholders in Surat Thani province utilize both monocropping and mixed cropping cultivation systems. The smallholders are often members of cooperatives that provide structured frameworks for production activities.

The average age of rubber trees varies, with many smallholders that were part of this study currently in their second planting rotation. Typically, the trees are around 20 years old, and the average landholding size ranges from 3.2 to 5.6 hectares, though some stallholders own up to 16 hectares of land.

Smallholders cover their production costs individually, including expenses for seedlings, fertilizers, pesticides and labor. Labor is often sourced from neighboring countries like Myanmar and Cambodia, with payment arrangements varying based on the difficulty of the terrain and other factors.

Cooperative membership is highly advantageous for farmers as cooperatives function as both input suppliers and financial providers. Smallholders who are members can access credit for purchasing fertilizers and essential equipment for rubber production as well as obtain soft loans for investing in their plantations.

### Harvest and management systems

Harvesting practices among rubber smallholders involve tapping rubber trees to collect latex, which is then processed or sold as “cup lump” – where formic acid is added to the latex collected in cups, thereby thickening it. Rubber harvesting follows a structured system whereby latex is tapped for two days, followed by a day of rest. This cycle continues for 15 days, toward the end of which the cup lump is are collected. Formic acid is used to speed up the process transforming latex into solid cup lump. This method helps manage space within the rubber collection cups as more latex is poured in and is considered organic and safe for both nature and farmers.

The cup lump is typically collected by plantation smallholders and transported to their cooperatives and then on to private intermediaries. Some private traders collect cup lump directly from plantations, deducting the transportation costs from the final price they offer. The tapping (labor) cost is normally agreed upon beforehand. The most common configuration is a 50:50 split of the final rubber price between tapper and plantation owner. In cases where the plantations being harvested are located in steep areas, either a 60:40 or 45:55 share between tapper and owner respectively may be agreed upon.

In the case of Baan Ta Khun Agriculture Cooperative Limited, rubber plantation management practices have adapted to meet FSC criteria, which include using bio-

compost, reducing chemical fertilizers and pesticides and maintaining detailed farm activity records. This shift aims to enhance sustainability and align with certification requirements.

## Processing and marketing

Processing and marketing practices vary among cooperatives, with some focusing on primary processing and others engaging in more advanced value-added processes.

Smallholders typically sell their latex to cooperatives or private traders. Cooperatives, supported by RAOT, process the latex into smoked rubber sheets. In the case of Sa Wiet Rubber Fund Cooperative Limited, latex is collected and processed into smoked sheets within the cooperative. The facilities to do so were funded by RAOT investment. Similarly, RAOT sponsored the processing and drying facilities at Baan Chang Koo Pattana Rubber Fund Cooperative Limited as part of a subsidy plan to support coops in their role of adding value to rubber products.

However, the cases vary by cooperative. Tha Sae Land Reform Agriculture Cooperative Limited, for instance, has not been successful in operating its processing facilities effectively. Due to limitations in technology and quality control, it is unable to process cup lump into block rubber (Standard Thai Rubber, commonly referred to as STR) and instead sells cup lump directly. In the case of Baan Ta Khun Agriculture Cooperative Limited, the cooperatives and Agriac deliver certified latex and cup lump to certified factories based on orders from them. The cooperative benefits from higher prices for the FSC-certified products and from diversified production.

The central auction markets that are supervised by RAOT several times a week are the main market for these cooperatives. Smallholders who were part of this study noted that major buyers included Thai Hua Co. Ltd., Sri Trang PCL, Von Bundit Co. Ltd., Southland Co. Ltd and RAOT, which have their own processing facilities.

Marketing decisions are largely based on price offers. While membership in a cooperatives is not mandatory for selling rubber, it offers several advantages, including tax exemptions and structured support from RAOT. The cooperatives also facilitate record-keeping and financial management for their members, ensuring transparency and accountability.

## Management and benefit sharing

Rubber cooperatives hold regular meetings and an annual general assembly to discuss performance, financial reports and decision-making on significant issues like expenditure and benefit distribution. The cooperative structure ensures that benefits are shared among members, aligning with both individual and collective

goals. Each individual cooperative is governed by an elected management committee, with permanent positions for business operations.

Benefit-sharing mechanisms include subsidies and financial assistance from RAOT, particularly for replanting and managing plantations. Benefits include dividends for 10% of annual profit that go to members as per their shareholdings. Minimum membership fee is 50 shares, and each share equals USD 0.25 (THB 10). Additional bonuses are provided for exceeding profit expectations and 10% of net profit is provided as compensation to management committee members. The benefit-sharing mechanism is mainly based on compliance with national cooperative guidelines that can be adapted to their own context.

However, challenges remain. The benefits outlined above are often not applicable to smallholders without formal land rights, who receive limited support from both cooperatives and RAOT compared to those with full land ownership.

## Perspectives among smallholders and other value chain actors

### Limited understanding of the EUDR

Representatives from smallholder, cooperative and intermediary groups had either not heard of the EUDR or had a relatively limited understanding of what it means, including whether it would affect them and what actions they may need to take to comply. Only three smallholders interviewed had heard of the EUDR from their buyer, RAOT or the media (TV or YouTube channels). For some interviewees, the regulation remained unclear, with a few mistakenly considering the EUDR to be the same as voluntary forest certification.

In contrast, the local government agency representing RAOT in the provincial office, the processing factory and the NGO possessed fundamental knowledge of the regulation. However, the interviewees cited challenges in translating this awareness into practical implementation.

### Complexity of the current national regulatory framework on tenure

The Government of Thailand recognizes specific land use rights that allow smallholders and forest communities to commercialize rubber. These rights encompass private ownership through land title deeds, including 'Nor Sor' documents endorsed by the Department of Lands, 'Sor Por Kor' documents verified by the Agricultural Land Reform Office and 'Kor Tor Chor' documents endorsed by the Office of the National Land Policy Board. Any other land rights beyond these are considered encroachments on natural forests.

The slow process of clarifying land rights, limited resources and competencies among field officers and the need for cross-agency coordination, coupled with the complexities of the laws, impose additional challenges for smallholders and forest communities in understanding their land tenure rights and complying with the law. Many smallholders already facing economic constraints might perceive compliance with the EUDR as an additional financial burden, potentially putting them at a competitive disadvantage compared to larger players.

During interviews with cooperative representatives from Sa Wiet Rubber Fund Cooperative Limited, it was evident that they navigated both legal and illegal tenure rights, with approximately 10% of their members lacking any official land documents. Upon examining their plantation cycles, we found that the first rotation involved clear-cutting at 20–25 years. Presently, they are engaged in the second cropping phase. Assuming they have been cultivating rubber for four decades, it suggests that the occupied land was not converted from forest after 2020 as per the cutoff date stated in the EUDR. However, the unclear and absent land documentation mean that the geolocation for the plot of land is missing, potentially impeding their compliance with the requirements of the regulation.

Mr N, a member of one of the cooperatives the study team visited, owns three plots of land, including a five-hectare rubber plantation, without legal land documentation. He is currently cultivating rubber for the second cropping with five-year-old trees but is deeply concerned about the EUDR. He anticipates it may hinder his current trade with both the cooperative and independent intermediaries he regularly engages with.

Mr N had previously advocated for the government's clarification and endorsement of his land use rights. However, he encountered a complicated process involving multiple agencies, and no final decision has yet been reached. He hoped that RAOT would help coordinate and resolve the issue but found their mandates lacking in addressing this specific concern. Additionally, he expressed a desire for the EUDR to be more open and flexible, advocating for collaboration with producing countries to address such issues.

### **Tackling traceability challenges: Complex supply chains and independent actors**

Thailand's rubber supply chain comprises three main components:

- Upstream industries involving smallholders engaged in growing and harvesting rubber, with some engaged in basic processing
- Midstream industries or rubber processors such as cooperatives who convert raw rubber into semi-finished products
- Downstream producers who manufacture various items, such as tires and latex gloves, using either natural or synthetic rubber

The majority of intermediate rubber goods produced in Thailand are sold in international markets for further processing into downstream products. As of 2021, a significant 81.9% of intermediate rubber goods were exported from Thailand. The remaining 18.1% of midstream production is utilized for domestic consumption.

What is the reality unfolding in the field? The smallholder cooperatives we visited accommodate both legally recognized landholding smallholders and those with unclear land tenure rights. However, access to benefits and subsidies varies among members, with privileges such as voting during the general assembly or benefiting from loans reserved for legal landholding members, according to the interviewees. Traditionally, cooperatives act as collectors and brokers, engaging with buyers in the central market under RAOT supervision. This approach, while inclusive, adds complexity to the supply chain by involving products from both legal and illegal plantations.

Individual smallholders within the cooperative have the freedom to choose their trading partners, whether facilitated by the cooperative or independently with private intermediaries. Their decisions are primarily influenced by the price offered and the type of products they harvest, be it liquid latex or cup lump. While cooperatives usually accept both liquid latex and cup lump, the former requires more careful treatment and investment in facilities for semi-processing to smoked dried sheets. Independent (private) intermediaries, on the other hand, typically accept cup lump as it requires less treatment.

It was observed that independent intermediaries usually do not require smallholders to submit related documents such as copies of land rights, personal identification cards or even seller phone numbers. This practice poses challenges for implementing traceability measures, making it difficult to certify deforestation-free production in such a complex system.

## **Disconnections in information flow along the supply chain**

Information flow within cooperatives and their members is effective. It is primarily achieved through social media channels, with LINE groups being the most popular. Key information shared includes daily price announcements by RAOT, opportunities for training workshops and productivity enhancement techniques. However, the responsibility for information sharing lies with the cooperative management unit, and it appears to be restricted to within the producers' circle. Notably, there is a lack of information shared by midstream and downstream actors such as intermediaries and processing factories. It is common, for example, for upstream actors (smallholders) to lack information about the destination of their products when delivered to buyers, whether from individual smallholders or cooperatives. This situation implies that the enforcement and implementation of the EUDR may result in a disconnect, making it challenging to communicate messages to smallholders who are crucial producers of raw materials for EU-based operators and traders.

## Lessons learned and existing collaborative approaches

### Partnerships for a sustainable supply chain

The study team conducted interviews with two smallholder cooperatives, each adopting a different approach to promote and facilitate FSC forest management and chain of custody certification. The first model, facilitated by RAOT, was undergoing group certification auditing. Tha Sae Land Reform Agriculture Cooperative Limited, piloting this model with a hundred volunteer smallholders, expressed dissatisfaction with the prolonged process. The second model was being piloted by Baan Ta Khun Agriculture Cooperative Limited, facilitated by Agriac, which connects buyers and the cooperative. In this pilot model, 100 smallholders participated in the Small or Low-Intensity Managed Forest (SLIMF) certification approach. This approach proved effective in covering auditing costs and ensuring compliance, with Agriac overseeing monitoring and providing regular technical support.

Engaging in certified plantation management yielded positive results for smallholders, with an average premium of USD 0.080 (THB 3) per kilogram on top of the price offered by certified factories. Despite the uncertainties and fluctuations in pricing, this experience showcases current practices that could serve as a foundational pathway for cooperatives to navigate EUDR compliance, even in the absence of a designated green lane.

In contrast, a processing factory that was interviewed had applied for certification but was experiencing a lack of demand from their primary buyers, mainly located in EU countries, particularly those in the tire industry. They acknowledged Agriac's proactive approach in facilitating partnerships between demand and supply sides and expressed interest in collaborating with an organization like Agriac.

### Support programs for technical and financial assistance

RAOT plays a crucial role in offering consistent technical and financial support to cooperatives. Registration is available for both individual smallholders and cooperatives, accompanied by subsidies. RAOT is instrumental in establishing a marketplace that facilitates trade between buyers and suppliers through an auction system. These marketplaces are typically situated in hub provinces, such as Surat Thani and nearby regions, where there is a high density of supply presence.

Similarly, Earthworm Foundation plays a critical role in supporting their target rubber smallholders to move toward a sustainable rubber supply chain while improving agronomic practices to enhance the yield and quality of latex. This results in enhancing and diversifying livelihoods, improving financial management and promoting ecosystem regeneration and restoration.

The vital support programs provided by these organizations play an important role in fostering the active participation of smallholders and other value chain actors,



ensuring an equitable share of benefits and promoting an inclusive and sustainable value chain for the rubber industry. This mechanism can lead to cooperation and negotiation power with the intended international buyers, particularly those from the EU market.

### **Diversifying crops for enhanced biodiversity and resilient livelihoods despite declines in rubber plantations**

During the field visit to the rubber plantations, it was observed that most non-certified plantations were monocultures, whereas certified plantations embraced a mixed cropping system through inter-cropping approaches. In these certified plantations, additional crops such as fruit trees and edible shrubs were cultivated, serving as a source of food and fuel for family consumption.

Smallholders could also sell surpluses, contributing to supplementary income generation. This diversification aligns with the requirements of the FSC forest management standard and is consistent with the RAOT subsidy program, which supports replanting by reducing the number of rubber trees and introducing more inter-cropping species through agroforestry.

Some smallholders said that they became aware, through their neighbors, of cases where rubber trees were cut down. Faced with declining and fluctuating rubber prices, these smallholders opted not to continue growing rubber. Instead, they decided to cultivate durian trees and oil palm due to their high market value and price competitiveness. Many smallholders experienced severe droughts and observed changes in rainfall patterns over the past two years. These climate-related factors have contributed to an investment shift from rubber to other crops deemed more competitive.

### **Documentation and traceability for certification**

We observed that cooperatives engaged in FSC certification in close collaboration with Agriac have successfully implemented proper documentation on various aspects of FSC requirements. This includes record-keeping for daily cultivation activities and notes for High Conservation Value sites, defined as “biological, ecological, social or cultural values of outstanding significance”. Such cooperatives are also maintaining a biodiversity index on their plantations, and providing geolocation for their plots of land through a user-friendly traceability system developed by Agriac.

Similarly, Earthworm Foundation has developed its own traceability system to monitor the source of rubber, aligning with the requirements of their buyers. Von Bundit Co., Ltd., a processing factory, has developed its own application called “Von Connect” to register suppliers, primarily independent intermediaries. This app facilitates the tracking of their suppliers but does not trace the origin of rubber delivered to their factory. The company has engaged with RAOT to discuss and prepare for their compliance with the EUDR. RAOT is taking the lead in the

consultation process, inviting downstream actors to join the platform, particularly for the risk mapping tool called RubberWay.

The lessons learned from these systems will guide future actions to ensure smallholders can be prepared and able to provide relevant documentation to demonstrate the legality and sustainability of their practices.

## Recommendations toward responsible solutions

### Raise awareness and build capacity

Awareness campaigns and capacity development interventions aimed at smallholders and other local actors are needed to improve their understanding of the EUDR, sustainable practices and the potential benefits of compliance. Several organizations such as Agriac, Earthworm Foundation and even RAOT are well placed to take on this role and provide technical support to smallholders. RECOFTC is also well positioned to contribute.

### Promote multi-stakeholder engagement

Collaboration among stakeholders, encompassing smallholders, processors and the government will be essential to foster the creation of sustainable and deforestation-free supply chains. This collaborative effort will ensure a shared burden and pooling of resources and ultimately contribute to developing a unified approach to compliance, guaranteeing a fair distribution of resources and responsibilities throughout the supply chain.

### Carry out policy analysis and advocacy

Conducting an analysis of relevant laws and policies is crucial to empower smallholders and ensure compliance. Such an analysis is also needed to advocate for recognition and respect of smallholder rights to policy makers. Through effective advocacy, the Thai government may offer support and incentives for smallholders to adopt sustainable practices, ultimately aligning with the EUDR.

### Engage with the EU and EU delegations

The implementation of the EUDR will involve several actors in the EU, from the Member States' competent authorities to private sector operators. As we have observed during our fieldwork, compliance with the new requirements set will require some time to enable supply chain actors to adapt. To ensure a proper and realistic implementation of the EUDR, it is crucial that the EU Commission and EU delegations are aware of the realities encountered by smallholders and other actors on the ground. There should be regular engagement with the EU and its delegations, in particular to discuss the challenges and needs.







## Case study 2

# The timber value chain – Gunung Kidul regency and Purworejo regency, Indonesia

### Background

Indonesia is one of the largest teak timber producers in the world. The Javanese State Forest Company, Perum Perhutani, has been a major producer of teak timber in Indonesia since the early 1900s. However, log production decreased drastically due to severe illegal logging between 1998–2004 after the collapse of the Suharto regime. In recent years, small-scale private forests owned by local farmers have expanded and are expected to be a main source of teak timber and ‘sengon’ (*Paraserianthes falcataria*) veneer, among other timber products. Smallholder timber farmer groups play a pivotal role in fostering sustainable forestry and timber production, particularly in Yogyakarta, Indonesia’s primary timber production region, with additional contributions from areas like East Java. In 2022, timber exports from Indonesia were valued at a substantial USD 1.12 billion, with approximately 15 million smallholder households engaged in timber production. For context, Table 3 below provides comparative figures for coffee and rubber production.

**Table 3:** Value of exports and smallholders’ involvement in Indonesia in EUDR-related commodities

	Indonesia		
	Coffee	Rubber	Timber*
Value of exports to EU (USD millions)	261.00	840.00	1,121.00
Smallholder households (millions)	1.88	2.25	15.00

Source: ASEANstats; data from 2022.

\*Including products made from wood such as timber, fuel wood, wood chips, paper, wooden furniture and so on.

This case study investigates the impacts of the EUDR on two smallholder timber groups: the Sedyo Makmur Timber Farmer Group in Gunung Kidul regency, engaged in teak production, and the KT Mulya Tani Timber Farmer Group in Purworejo, involved in sengon production. Additionally, perspectives from processors, including the Koperasi Wana Manunggul Lestari (KWML) in Gunung Kidul and PT Indotama Omicron Kahar company in Purworejo, are examined.

Furthermore, insights from the local CSO, Java Learning Center (JAVLEC), have been collected and analyzed.

## Research methodology

This qualitative research involved primary data collection from key informants through focus group discussions in Gunung Kidul regency and Purworejo regency, Indonesia from 23–24 August 2023 and additional desk-based research. The sites were selected following guidance from the RECOFTC Indonesia team, considering the prominent timber production landscape in these areas and its importance for communities' livelihood systems. Key informants were identified using purposive sampling representing smallholder groups and cooperatives, processing factories and companies.

Our research was guided by 21 questions covering three thematic areas: policy, value chain governance and community rights. We held five interview sessions with individual smallholders representing two farmer groups, a processing cooperative, a private company and a CSO as presented in Table 4 below.

**Table 4:** Stakeholder groups interviewed during fieldwork at Gunung Kidul regency and Purworejo regency, Indonesia

Stakeholder groups	Timber species	Name	Location	Members	Number of interviewees
Individual smallholders and farmer groups	Teak	Sedyo Makmur Timber Farmer Group	Karangmojo village, Gunung Kidul regency	267 members	4
	Sengon	KT Mulya Tani Timber Farmer Group	Ngaran village, Kaligesing, Purworejo regency	275 members	6
Processing cooperative	Teak	Koperasi Wana Manunggul Lestari (KWML) Cooperative	Gunung Kidul regency	1,150 members (60% women), 21 farmer groups	2
Private company/ exporter	Sengon	PT Indotama Omicron Kahar company	JL. Raya Kutoarjo/ Grantung Legok, Purworejo regency	N/A	2
Civil society organization	Teak, acacia and oil palm	Java Learning Center (JAVLEC)	Yogyakarta and Kalimantan	N/A	5

## Understanding the role of smallholders in the timber value chain

### Production

Smallholders in Gunung Kidul regency manage their own plantations. During the first six years of plantation establishment, they invest in mixed agricultural crops, cultivating corn, peanuts, cassava and rice, alongside teak. After that, the plantations transition exclusively to teak cultivation.

Each community forest ('hutan kemasyarakatan' or HKm) provides local communities with access to forests for the purpose of economic empowerment. The preference for teak over sengon and acacia is driven by members of the farmer group and aligns with the operational and management plan requirements mandated by the community forest permit. Teak accounts for 70% of timber production in Gunung Kidul, followed by acacia at 15%, sengon at 10% and 'mahoni' (*Swietenia mahogany*) at 5%. Among members of the farmer group we interviewed, teak comprised 95% of the timber production, while the remaining 5% consisted of 'sonokel' (rosewood or *Dalbergia latifolia*).

In Purworejo regency, sengon is favored by farmers due to its compatibility with traditional practices and attractive investment potential, given its fast-growing characteristics and harvestable period of seven years. Sengon typically thrives in mixed agroforestry systems. While owners predominantly handle the plantation work, approximately 40% of labor is hired for maintenance and harvesting activities.

### Harvest and management systems

Smallholders typically organize timber harvesting activities through their farmer groups. The Sedyo Makmur Timber Farmer Group is primarily involved in FSC-certified teak plantation and financially and technically supported by the Rainforest Alliance and JAVLEC. Its logs are exclusively sold to KWML, which is equipped with a sawmill for processing. Operating under the HKm permit, the group is obligated to sell logs collectively. However, individual smallholders cultivating teak under the private forest ('hutan rakyat' or HR) scheme have the freedom to sell independently.

In the context of the KT Mulya Tani Timber Farmer Group, a designated collector from PT Indotama Omicron Kahar company (Indotama) oversees labor recruitment for tree harvesting and transportation, with Indotama providing safety equipment in compliance with FSC requirements. Although farmer groups are not mandated to sell exclusively to Indotama, doing so ensures compliance with FSC labeling requirements and secures premium prices. The company primarily purchases high-quality wood, with log sizes ranging from 2 to 4 meters, while smaller dimensions are directed to local sawmills.



The Sedyo Makmur Timber Farmer Group facilitates pre-harvest inventories, including labeling, and tracks log movement from HKm in the Forest Product Administration Information System ('Sistem Informasi Penatausahaan Hasil Hutan' or SIPUHH) online database, managed by the Ministry of Environment and Forestry as part of Indonesia's Timber Legality Assurance System ('Sistem Verifikasi Legalitas Kayu' or SVLK).

When selling teak, including to the KWML cooperative, tree sales data must be added to the SIPUHH system for approval by the provincial forest department. The generated billing code provides information accessible to potential buyers, facilitating transparent pricing negotiations.

In contrast, the KT Mulya Tani Timber Farmer Group operates under Perhutani regulation and the neighboring forest scheme, which includes pine forests. While illegal logging monitoring is a priority, a mandatory permit is not required as their timber originates from HR, exempting them from SIPUHH requirements. However, Indotama mandates SVLK compliance for legal trade, with farmers needing to adhere to SVLK permit regulations if processing timber.

To facilitate timber transport and control, smallholders must possess a Certificate of Legal Timber Forest Products ('Surat Keterangan Sahnya Hasil Hutan Kayu' or SKSHHK) document certifying the legality of timber forest products, referencing the HKm permit holder for teak and HR for sengon. Additionally, Indotama mandates the provision of personal IDs, permits, trucking documents, reports of harvesting activities and detailed product information, including the number of logs per tree, to ensure compliance with legal harvesting and trade.

## Processing and marketing

The smallholders and farmer groups we interviewed primarily focus on timber harvesting rather than processing. They are mandated to cut the timber into logs of agreed-upon lengths as a form of semi-processing to meet buyer requirements. Processing activities are typically carried out by cooperatives or private companies with processing facilities and machinery.

The KWML cooperative in Gunung Kidul regency plays a crucial role in regulating member harvests, setting annual allowable quotas and facilitating timber marketing. The KWML cooperative obtained sustainable forest management certification from the Indonesian Ecolabelling Institute (Lembaga Ekolabel Indonesia, LEI) in 2006 and subsequently received a SVLK certificate of legality verification in 2011. The main buyers affiliated with the cooperative include Tiga Ganesha Abadi and PT Kuas, acting as intermediaries for both domestic and foreign markets, with 70% of teak traded domestically and 30% exported, primarily to the Netherlands, Germany and France. The estimated annual traded volume stands at 500 hectares (certified) and 1,500 cubic meters per year.

Similarly, Indotama is a prominent player in the sengon plywood and veneer industry, exporting a significant portion of its products, with 55% going to various destinations and 25% specifically to the EU market. The company prioritizes FSC-certified products for export, particularly to the EU and the US. The Dutch company, acting as a broker, conducts ground-level investigations to ensure compliance with FSC standards.

### **Management and benefit sharing**

Regarding benefit sharing, the Sedyo Makmur Timber Farmer Group allocates 60% of sales revenue to member farmers, with the remaining 40% dedicated to operational costs. These costs include allowances for log assessors, forest planning and monitoring, building maintenance and permits. For the KT Mulya Tani Timber Farmer Group, collectors pay 1% of the timber sale price to the farmer groups to cover operational costs and annual payments to members. This 1% is derived from the premium price received, calculated as the base price plus a 10% markup.

## **Perspectives among smallholders and other value chain actors**

### **Limited awareness of the EUDR**

Smallholders, farmer groups and the processing cooperative lacked awareness of the EUDR. In contrast, JAVLEC was informed about the regulation. Indotama had heard a little about it through their buyers, particularly those based in the EU, but they found the information received challenging to understand. Despite the farmer groups' unfamiliarity with the EUDR, they possessed knowledge of the FSC and the SVLK due to technical support provided by entities like JAVLEC and partner companies.

The representative of the KWML cooperative first learned about the EUDR from their buyer, Tiga Ganesha Abadi. However, their understanding of the regulation remained limited, particularly in distinguishing it from FSC requirements.

JAVLEC became acquainted with the EUDR through their collaboration with the European Forest Institute (EFI) in the palm oil sector. Despite this exposure, significant questions persisted, mirroring the cooperative's inquiries about how FSC and SVLK compliance levels translate to adherence to the EUDR and its traceability criteria.

### **Uncertainty surrounding deforestation definitions**

The ambiguity surrounding the definition and scope of deforestation presents a challenge. Different countries may have varying definitions, and the inclusion of plantations in the concept of deforestation remains unclear. Questions arise

regarding whether the removal of blocks or units as a harvesting technique in managed plantations constitutes deforestation.

JAVLEC and the KWML cooperative view the EUDR as an opportunity, given their existing SVLK and FSC certifications, which ensure traceability and are expected to facilitate compliance. However, there is a need for clear guidance and pathways to effectively engage in and benefit from the value chain with an EU destination. Similarly, the KT Mulya Tani Timber Farmer Group anticipates minimal impact from the regulation. They see it as a learning opportunity, connected to their experience with FSC certification. The group's anti-deforestation efforts, including replanting trees after harvesting, align with their perception of compliance. Their agroforestry model, encompassing various crops alongside timber, further reflects their commitment to sustainable practices.

Despite a limited understanding of the EUDR and its potential impacts, interviewees express varying perspectives. The Sedyo Makmur Timber Farmer Group members foresee obstacles stemming from the regulation. Similarly, Indotama adopts a wait-and-see approach, anticipating proactive engagement strategies from relevant government agencies and buyers soon.

## Transition challenges from FSC certification to EUDR

Among the smallholder farmer groups we interviewed, there is a belief that their existing FSC certification could serve as a “green lane” to speed up export and ensure compliance with the EUDR. However, distinguishing between voluntary standards like the FSC and mandatory regulations like the EUDR remains challenging. They question whether the corrective action procedures currently implemented under FSC certification for non-compliant practices, such as the use of chemicals or labor violations, would align with the requirements of the new EU regulation.

Currently, their approach involves sanctioning members and demanding improvements, with exclusion from certification being the ultimate consequence for persistent non-compliance after a warning period upon the third violation.

## Information gaps and emerging expectations

Smallholders and farmer groups are facing challenges due to a lack of information about the destination of their timber, which makes it difficult for them to anticipate and assess the risks and implications for their timber production. This issue is compounded by their limited awareness of the EUDR, as discussed earlier.

These upstream actors, such as smallholders and farmer groups, have high expectations from the government, CSOs and buyers to prioritize the provision of information on regulations. Additionally, they are seeking further support, including access to seedlings and crops for alternative livelihoods. There is also a call for

exploring tourism opportunities to diversify options in case the EUDR puts pressure on the exclusion of their current practices.

## Lessons learned and existing collaborative approaches

### Strengthening farmer groups and cooperative networks

In Gunung Kidul, a network of farmer groups and cooperatives facilitated by JAVLEC, serves as a platform for information exchange and collaboration. This network, the Bukit Seribu Forest Farmers Association ('paguyuban petani hutan bukit seribu'), enables vital information to be shared among farmer groups. It supports the collective preparation of operational plans and facilitates communication with government agencies. Regular meetings held every three months through the KWML cooperative provide opportunities for information sharing, issue resolution and updates on regulations, a mechanism appreciated by the farmer groups.

Within this network, farmer groups engage in internal discussions and decision-making processes. Members actively participate in the identification process before inventory and tree labeling activities. Moreover, there is a culture of knowledge sharing among groups, covering various topics such as pricing, boundary conflicts, regulatory discussions and market information. This collaborative spirit extends to procurement practices, where groups with buyers may collect timber from other groups to augment their supply, given that different groups may have varied buyer networks.

Additionally, communication channels like WhatsApp and weekly meetings play a crucial role in information dissemination within and among farmer groups. These platforms facilitate the sharing of sales data, progress on activities and updates on regulatory requirements, enhancing transparency and coordination among stakeholders.

### Supportive policy and management systems promoting transparency and information flow

The social forestry program initiated by the Indonesian state ('pengelolaan hutan bersama masyarakat' or PHBM), aims to distribute forest resources equitably among local communities. The Sedyo Makmur Timber Farmer Group has been involved in this program and obtained the HKM permit in 2007, although their engagement with teak plantation dates to 1995, covering an area of 115 hectares. In contrast, the KT Mulya Tani Timber Farmer Group, officially registered in 2013 through a government Perhutani plantation program, received seedlings for plantation development. Individual farmers within this group manage their plots under the HR scheme, which constitutes private forest land and is not considered part of government-controlled forest management.

The KWML cooperative, established in 2006, collaborates with various forest management schemes, including HKM, HR and community plantation forest ('hutan tanaman rakyat'), which allows communities to establish timber plantations within production forests.

The legal and information systems for timber originating from state-owned forests are managed by the Ministry of Environment and Forestry through the online SIPUHH timber administration system. The system issues electronic transport documents for timber after a verification process to ensure the validity of the origin and compliance with regulated levies. The transport documents issued by SIPUHH contain the legal logo and a barcode, enabling product movement to be traced. Timber tracking using the barcode can be performed online via a QR code. SIPUHH is an integral part of the SVLK, a multi-stakeholder tracking system developed to ensure the legality of timber sources distributed and traded in Indonesia. The SVLK document, known as SKSHHK, certifies the legality of timber forest products and is required for timber transport and control.

In summary, the social forestry program has empowered local communities to manage forest resources sustainably. Groups like Sedyo Makmur and KT Mulya Tani have benefited from government programs and partnerships with civil society and companies, cultivating teak, sengon and other crops and managing plots under schemes. Regulatory systems like SIPUHH and SVLK ensure transparency and legality in timber trade. Overall, these initiatives reflect a collective commitment to sustainable forest management and regulatory compliance, crucial for the long-term preservation of Indonesia's forests.

### **Partnership models with civil society and buyers under FSC certification**

Various partnership models have emerged to promote sustainable forest management through FSC certification. One such model involves collaboration between state-initiated social forestry programs and local communities, facilitating supportive policies. Also, partnerships between farmer groups/cooperatives and CSOs, and with the private sector, play crucial roles.

In Gunung Kidul, the Sedyo Makmur Timber Farmer Group partnered with the KWML cooperative. Notably, the KWML cooperative recently marked a significant milestone in achieving the Regional Forest Stewardship Standard (RFSS), Forest Management (FSC FM) and Chain of Custody (CoC) certification. It is the first such body in the region to receive these recognitions and did so with support from JAVLEC and the Rainforest Alliance. While JAVLEC provides technical and regulatory support, challenges persist, including auditing costs and operational hurdles, which could affect certification renewal if support projects are withdrawn. KWML also faces price challenges due to farmers' limited use of the mandatory SIPUHH system, resulting in production drops. However, investments in technical training have been made to address these issues.

In Purworejo regency, the KT Mulya Tani Timber Farmer Group partnered with Indotama, sharing knowledge on sengon production. Indotama collaborates with 19 farmer groups across the province, collectively covering 600 hectares under FSC SLIMF certification. Despite efforts, supply remains insufficient for the certified market. Farmers lacking land ownership documents can obtain what is known as a ‘Letter C’ from village authorities, which allows participation in the FSC scheme. A Letter C is preliminary proof of land ownership, which landowners can submit to the National Land Agency for conversion to a property rights certificate. For many farmers, the application fee for official land ownership documents poses a financial barrier. Nonetheless, Letter C enables legal recognition and participation in the FSC scheme.

## Recommendations toward responsible solutions

### Increase awareness and capacity building

Given the limited awareness of the EUDR among smallholders and farmer groups, there is a need for targeted awareness campaigns. These campaigns should focus on educating stakeholders about the regulation’s requirements, implications for timber production and the importance of compliance. There is also a need to provide capacity building and training programs for smallholders and farmer groups to enhance their understanding of the EUDR. This could be done through workshops, seminars and training sessions covering topics such as regulatory compliance, traceability requirements and sustainable forest management practices.

### Disseminate information

There is a need to improve the dissemination of tailored information about the EUDR to smallholders and farmer groups through accessible channels such as mobile applications, community meetings and extension services. Timely and accurate information will help stakeholders make informed decisions and adapt their practices accordingly.

### Foster partnerships and collaboration

Partnerships and collaboration between government agencies, CSOs, buyers and smallholders/farmer groups must be fostered to support EU DR compliance efforts. This could involve joint initiatives for capacity building, sharing best practices and developing support mechanisms for smallholders to meet regulatory requirements.

### Increase financial support

Financial support and incentives to smallholders and farmer groups can facilitate compliance with the EUDR. This could include subsidies for certification costs,



investments in sustainable forest management practices and assistance with technology adoption for traceability and reporting. By implementing these recommendations, stakeholders can enhance their readiness to comply with the EUDR while promoting sustainable forest management practices and securing the long-term viability of Indonesia's forests.







# Case study 3

## The coffee value chain – Ciwidey district, Bandung regency, Indonesia

### Background

Indonesia is the second-largest coffee producer in Asia and Oceania, after Viet Nam. In 2022/23, coffee production here increased by 2.4% to 12 million bags of coffee, with each bag weighing around 60 kilograms. This is despite heavy rain reported during and after the coffee flowering period, attributed to La Niña, which had a significant negative impact on coffee outputs in the early part of the year. The increase in production is attributable to the expansion of the total area under coffee production by a net 71,000 hectares in 2018–22. In 2022, coffee exports from Indonesia to the EU were valued at USD 261 million, with approximately 1.88 million smallholder households contributing to the production, according to export data. For comparison, Table 5 below illustrates figures for rubber and timber.

**Table 5:** Value of exports and smallholders' involvement in Indonesia in EUDR-related commodities

	Indonesia		
	Coffee	Rubber	Timber*
Value of exports to EU (USD millions)	261.00	840.00	1,121.00
Smallholder households (millions)	1.88	2.25	15.00

Source: ASEANstats; data from 2022.

\*Including products made from wood such as timber, fuel wood, wood chips, paper, wooden furniture and so on.

This case study investigates the impacts of the EUDR on one smallholder coffee cooperative in Indonesia. Additional perspectives have been collected from one intermediary.

### Research methodology

This qualitative research involved primary data collection from key informants through focus group discussions in Ciwidey district, Bandung regency, Indonesia. The field work, conducted from 21–22 August 2023 was followed up with additional desk-based research. The site was selected following guidance from the RECOFTC Indonesia team, considering the prominence of coffee production in the district

and its importance for communities' livelihoods. Key informants were identified using purposive sampling, representing smallholder groups and cooperatives and processing factories.

Our research was guided by 21 questions covering three thematic areas: policy, value chain governance and community rights. We held two interview sessions with five smallholders and one intermediary, representing individuals, farmer groups and cooperatives (Tambag Guruyung coffee cooperative and Wahana Giri Swadaya coffee cooperative), presented in Table 6.

**Table 6:** Stakeholder groups interviewed in fieldwork at Bandung regency, Indonesia

Stakeholder groups	Name	Location in Bandung regency	Members	Number of interviewees
Individual smallholders and smallholder cooperatives	Lembaga Masyarakat Desa Hutan (LMDH) Tambag Guruyung	Tambag Guruyung village, Ciwidey district	35 farmer groups, 897 members	5
Processing unit / intermediary	Wahana Giri Swadaya coffee cooperative	Mekarwangi village, Ciwidey district	36 farmer groups, 1,821 households	1

## Understanding the role of smallholders in the coffee value chain

The organization and function of coffee smallholders play a crucial role in the coffee supply chain. The following section will highlight the key roles of smallholders and cooperatives in the coffee value chain.

### Production

Coffee plantations are predominantly cultivated in agroforestry systems where coffee trees thrive under the shade of natural trees and fruit trees such as avocado and banana. Coffee plantations are individually owned and managed in social forestry models and as part of a forestry partnership program ('kemitraan kehutanan') in collaboration with a state-owned forestry enterprise ('perum perhutani') in both production and protected areas. Individual smallholders bear the responsibility for their own plantations and the associated investment costs. The average coffee plantation plot is between 0.5-1 hectare

The co-leader of Wahana Giri Swadaya coffee cooperative in Mekarwangi village gave the study team an overview of the evolution of coffee production in the area. In the early 2000s, the government initiated a program to reduce deforestation and erosion caused by vegetable farming and promoted the cultivation of orange, tea and coffee crops. Similarly, the Tambag Guruyung coffee cooperative

prioritized coffee cultivation, aiming to help protect forests, fight erosion and retain water. Initially, coffee harvesting began in 2005. However, farmers had a limited understanding of market prices compared to other commodities like oranges, which were regularly sold locally. To address these issues, the co-leaders of the cooperative actively pursued market opportunities, leading to partnerships with companies based in cities such as Surabaya. Over time, coffee production increased, reaching up to 100 kilograms per year per farmer.

## Processing

Coffee processing typically occurs within farmer groups or cooperatives, utilizing available processing facilities based on the demands of buyers. Farmers sell their coffee to cooperatives as either fresh cherries or dry parchment. The cooperative controls the coffee processing and employs daily laborers from its members, who are interested in earning extra wages apart from selling coffee to the cooperative. The processing of coffee cherries typically involves either dry or wet methods to depulp the coffee beans to produce green coffee beans. The dry method is simpler but more labor-intensive. The wet process is more common and ensures higher quality coffee, but it requires significant amounts of water, approximately 40 liters per kilogram of dry parchment coffee. However, it was observed in one of the cooperatives that there is a limited amount of machinery available for processing, much of which is old, indicating that investment is lacking.

## Marketing and value addition

Coffee trades through a range of channels, from direct sales between farmers and intermediaries to sales between farmers and farmer groups and cooperatives. While there are no formal contracts between farmers and these groups, cooperatives may commit to purchasing a certain volume of coffee from farmer groups at agreed-upon prices. Due to this loose collaboration without clear requirements, this may represent a potential weakness in trying to get members to comply with the EUDR.

The majority of coffee in Ciwidey is sold to large enterprises such as Sucafina, Kapal Api Group and Indokom, with smaller local enterprises, private collectors and distributors such as Sari Makmun also purchasing coffee. For instance, the Tambag Guruyung coffee cooperative has added value to its coffee by establishing its own brand, 'MS Coffee'. It has obtained certifications from the National Agency of Drug and Food Control ('Badan Pengawas Obat dan Makanan' or BPOM) and a Halal certification. It has also registered as a home/micro scale industry with the Home Industry Food Production Certificate ('Sertifikat Produksi Pangan Industri Rumah Tangga' or SPP-IRT) for its roasted specialty coffee beans. By diversifying its products, the cooperative can set prices accordingly. For example, a 250-gram pack of naturally processed coffee (dry-hull processed) is priced at USD 6.20 (IDR 100,000), while honey processed coffee is priced between USD 3.08 (IDR 50,000) and USD 4.98 (IDR 80,000) per pack. Green beans are priced between USD 6.20 (IDR 100,000) and USD 9.23 (IDR 150,000) per pack.

## Management and benefit sharing

The Tambag Guruyung coffee cooperative – registered under the social forest category HKm, which provides local communities with access to forest for the purpose of economic empowerment – has implemented an internal benefit-sharing mechanism aligned with its social forestry registration requirements. When coffee beans are sold, the cooperative collects USD 0.012 (IDR 200) per kilogram, allocating 25% toward infrastructure development and the remaining 75% for loans to members. Despite initiating this system in 2022, no benefits have been distributed among members and committee members thus far.

It was observed that leadership roles within the cooperative are predominantly filled by male members. However, cooperative leaders explained that women play a significant role in production and processing activities. For example, during the harvesting season, women assist in drying coffee and perform various tasks in the processing facility.

## Perspectives from smallholders and other value chain actors

### There is limited awareness of the EUDR

Smallholders, cooperatives and private collectors have indicated a lack of awareness regarding the EUDR. They have not received any information about the regulation from buyers or relevant government agencies. Consequently, they face challenges in understanding and preparing for the potential impacts on their operations. Following briefings on the EUDR by RECOFTC researchers, cooperative representatives raised several concerns and inquiries. These include questions about the types of documents that farmers and cooperatives must provide to buyers, the process of obtaining geolocation data or maps for their plantation plots from companies, and whether training programs or capacity development support will be extended to them by government agencies or buyers engaging with EU markets. Regrettably, these inquiries remain unanswered, seemingly lost in translation amidst the regulations endorsed by the EU.

### Weak connections with buyers and support agencies lead to market information gaps

The absence of formal contracts or contract farming arrangements contributes to heightened uncertainty regarding purchasing volumes between buyers and farmers, or between cooperatives and buyers. Smallholders are unaware of where companies or buyers sell their coffee further down the supply chain, despite attempting to find out this information. Additionally, they lack access to market price data, as companies do not disclose this information. This situation leaves



smallholders vulnerable, possibly diminishing their bargaining power and placing them in a less clearly defined position within the deforestation-free supply chain.

### **Company-initiated geolocation: There are challenges in data acquisition and management**

Efforts to establish geolocation data have been initiated by Sucafina, but challenges persist in terms of data collection and management. The Tambag Guruyung coffee cooperative shared their experience with certification programs introduced by Sucafina, which aimed to gather geolocation and plot data of lands. However, the cooperative has yet to receive the collected data. Cooperative representatives expressed concerns that some plantation plots may have experienced deforestation after 2020, highlighting the risk of coffee contamination from such plots. This poses significant difficulties for the cooperative in verifying the origin of coffee beans, and farmers responsible for deforestation may eventually face exclusion from the cooperatives.

Perum Perhutani is responsible for monitoring the forest area under its jurisdiction but it has not reported any instances of deforestation in the area used by the cooperative. Despite the monitoring, no concrete actions have been taken to address potential deforestation issues. The state-owned forest enterprise shares the results of their monitoring with the Forest Village Community Institution ('Lembaga Masyarakat Desa Hutan' or LMDH) or cooperative leaders, who then disseminate this information to farmers' groups and individuals within the cooperative.

### **Low productivity and inadequate infrastructure may present significant barriers to meeting market requirements**

The research team observed that ensuring compliance with the EUDR could have significant implications for the costs incurred by farmer groups and cooperatives, thereby impacting their ability to fully benefit from coffee production and trade.

Traditional approaches to coffee production and processing provide limited added value and constrain prices, while fluctuations in productivity due to changes in weather, such as droughts and variable rainfall, pose a considerable challenge to the health of coffee trees and increase the risk of diseases.

Adverse weather conditions observed in the 2022/23 coffee year and expected to persist into 2023/24 are negatively impacting the coffee market outlook. The El Niño phenomenon is projected to further exacerbate conditions in Asia, particularly in Indonesia, while Viet Nam may benefit from drier and hotter weather due to irrigation practices offsetting reduced precipitation. Consequently, these factors contribute to a decreased volume of coffee available to meet buyer demands. Additionally, the lack of advanced drying and storage facilities compounds the issue during the rainy season, potentially compromising the quality of coffee production.

Adapting to these weather-driven challenges may necessitate technological and financial support from agencies, including subsidies or policy provisions, and capacity development initiatives to foster sustainable practices and meet future agriculture and market standards, particularly those demanded by buyers under the EU regulation.

## Lessons learned and existing collaborative approaches

### Social forestry programs foster secure tenure and livelihoods for smallholders

The state-initiated social forestry program ('Pengelolaan Hutan Bersama Masyarakat' or PHBM) aims to equitably distribute forest resources to local communities. In Java, this program is implemented through Perum Perhutani in partnership with local organizations or village forest communities (LMDHs).

For instance, the Tambag Guruyung LMDH and coffee cooperative is a partner working to safeguard forests. Recently, it applied to transition from the forestry partnership program 'Pengakuan dan Perlindungan Kemitraan Kehutanan' one of the schemes under the social forestry program, especially in Java, to HKm, to fully leverage its management efforts increasing its rights and benefits. This transition can help gain more flexibility and control over the forest and resources. While awaiting permit approval for 675 hectares, they continue to manage 1,161 hectares under the Kulin KK8 scheme. Mapping coffee plots was part of the HKm application process, supported by the cooperative's social forestry facilitator from the Ministry of Environment and Forestry (MoEF).

Similarly, the Wahana Giri Swadaya coffee cooperative in Mekarwangi village is in the process of transitioning land titles from the forestry partnership scheme to the special management forest areas ('Kawasan Hutan Dengan Pengelolaan Khusus' or KHDPK), offering a new pathway to manage KHDPK areas. Although no clear issues prompted the scheme change, the cooperative members felt it was timely, possibly due to shifts in Perhutani's policies.

### Networking leverages transparent information and opportunities

The cooperative members interviewed are part of a Bandung-level LMDH network, locally known as 'Paguyuban', organized by the Forest, Agriculture, and Plantation Agency of Bandung Regency. This platform facilitates information sharing among LMDH leaders through established chat groups and annual bazaar events. These events offer opportunities for product exhibition, market and technology information exchanges, interaction with potential investors and collaboration with government programs. While these networking efforts are valued, price offers from buyers remain the primary consideration for decision making.

Information within the cooperative is primarily disseminated through WhatsApp groups, although monitoring usage and adaptation of shared information remains challenging. At monthly meetings, LMDH leaders discuss various topics, including coffee production activities and potential regional opportunities like eco-tourism.

## Capacity development empowers cooperatives in the value chain

The Tambag Guruyung coffee cooperative, having participated in training sessions offered by RECOFTC, identified opportunities to expand its business operations. It considered scaling up through eco-tourism development and progressing from producing parchment to green beans, thus augmenting its value chain role and minimizing reliance on intermediaries. Furthermore, the cooperative introduced a benefit-sharing scheme prioritizing enhanced organizational capacities and joint sales with buyers, rather than individual member transactions.

Engagement in training sessions enabled skills improvement and highlighted capacity gaps, particularly in human resources, youth engagement, and leadership within the cooperative. Additional support can be sought from government agencies once the KHDPK application is approved. The Agriculture, Plantation, and Forestry Agency of Bandung Barat Regency offers support beyond current networking activities, offering beekeeping and honey production training, provision of coffee seedlings and fertilizers, and processing technology and machine grants.

Moreover, support from various companies such as Indo Cafco, and Sucafina on certification has been extended to the coffee cooperatives. However, this support has not yet translated into additional benefits, such as premiums. Cooperatives receive market requirement information focused on preserving product quality as the main emphasis.

## Recommendations toward responsible solutions

### Enhance knowledge and capacity development

Given the novelty of the EUDR, it is essential to develop localized knowledge products and promotional materials in the national language to facilitate a comprehensive understanding of the regulation's requirements and avenues for engagement. Cooperative representatives have identified various capacity development needs, including a better understanding of market requirements, information on export markets and product quality control. Training sessions that include production, processing techniques and youth involvement in cooperative operations are considered essential. Leveraging the potential of youth in tasks such as data management and bookkeeping using computers and social media platforms could significantly enhance cooperative operations.

Furthermore, enabling factors such as support for acquiring processing machines and facilities, and access to financial loans or grants are vital for enhancing operational efficiency and competitiveness.

### **Foster partnerships and enhance transparency in data management**

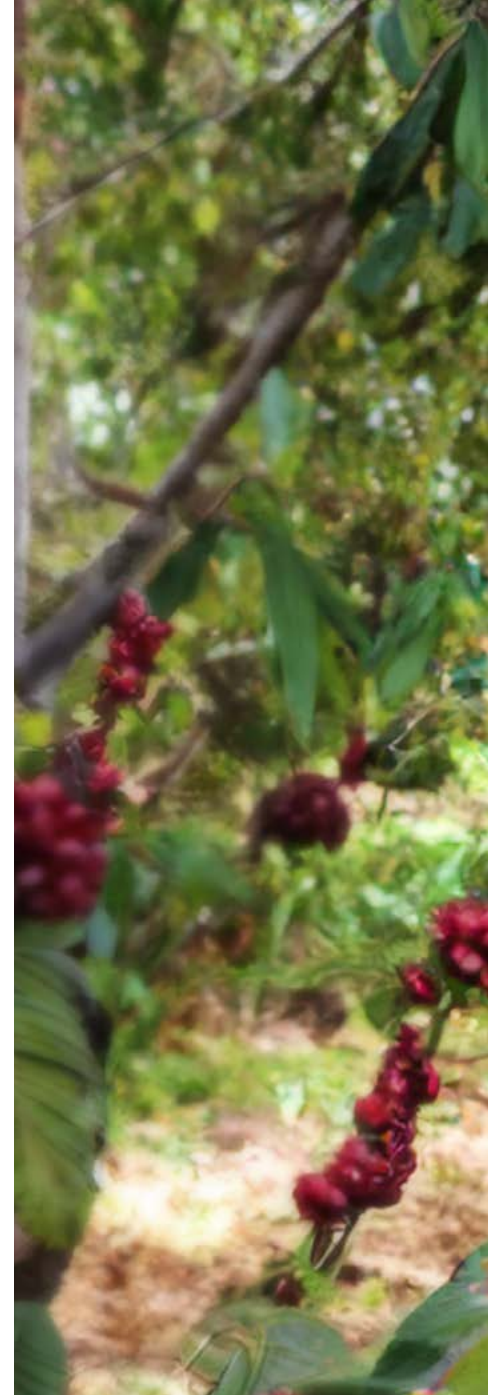
The experience of the Ciwidey coffee cooperatives highlights the importance of developing partnerships and increasing transparency in data and information management. For instance, a collaboration initiated by Indo Cafco with the cooperative lacked a formal contract or arrangement, yet Indo Cafco provided 'cash back' based on its annual export value. While this is viewed as an investment toward future collaboration, the cooperative representatives expressed eagerness to establish a formal contract with Indo Cafco, likely to take place in 2024.

To facilitate effective partnerships and ensure transparency, there is a need for improved data and information sharing. Obtaining polygon, shapefile or geolocation data of coffee plots held currently by companies would empower farmers by gaining a sense of ownership over the data and their production operations. Digitizing information from traditional paper-based systems could enhance transparency and streamline data management processes.



RECOFTC is an international nonprofit organization working towards a future where resilient communities with respected rights thrive in forest landscapes that they manage sustainably and equitably. We take a long-term, landscape-based and inclusive approach in supporting local communities to secure their land and resource rights, stop deforestation, find alternative livelihoods and foster gender equality. With more than 36 years of experience, we have built trusting relationships with partners from communities, governments, businesses, academia and civil society organizations. Our innovations, knowledge and initiatives enable countries to foster good forest governance, mitigate and adapt to climate change and achieve the UN Global Goals.

We operate in the Asia-Pacific region, with country offices in Cambodia, Indonesia, Lao PDR, Myanmar, Nepal, Thailand and Viet Nam.

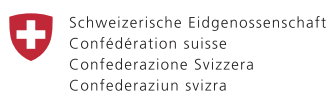


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