

Thai Smallholder Rubber Project

Results from assessments of agricultural and environmental practices



Project background and context

In close collaboration with the Rubber Authority of Thailand (RAOT), the European Forest Institute (EFI) is currently implementing the Thai Smallholder Rubber Project, funded by the European Union (EU). Overall, the project aims to ensure that Thai smallholder rubber producers have improved agricultural and environmental practices, and are able to access the EU market in the context of the EU Deforestation Regulation (EUDR). The project is working with smallholders and collection centres in two pilot sites, with the intention to use the lessons learned to support RAOT to update national approaches and policies. In this manner, the project will have a broader impact on the rubber sector, beyond the immediate project beneficiaries.

The first pilot site is the Phanoi Rubber Cooperative Ltd. ('Phanoi Cooperative'), located in Loei Province in the Northeast of Thailand. Phanoi Cooperative was selected because members produce cup lump rubber and want to register as a Network Rubber Market (NRM). NRM's are part of RAOT's system for verifying deforestation-free and legal production, so providing support to Phanoi Cooperative also provides an opportunity to work with and strengthen this system.

The second pilot site is the Chana Agricultural Cooperative Ltd. ('Chana Cooperative') in Songkhla Province in Southern Thailand. Chana Cooperative was selected because it is already part of the NRM system, and members produce latex and sell to collection points which then sell to the cooperative. Working with this pilot site provides an opportunity to improve management arrangements and strengthen value chain linkages between smallholders, collection points, and the main collection centre, with potential lessons for RAOT's system.



A rubber plantation owned by a smallholder registered with Phanoi Cooperative. EFI

Background to the assessments¹

One of the objectives of the project is for smallholders in the pilot sites to adopt improved agricultural and environmental practices (Outcome 1). In order to determine if this has been achieved at the end of the project, it was first necessary to establish a baseline and clarify what smallholders in the pilot sites know and think about agricultural and environmental practices. This is important for assessing project progress, but it is also the necessary first step in responding to the needs of smallholders.

¹ It was initially planned to conduct separate assessments for the two components of the project, which focus on agricultural and environmental practices (Outcome 1) and on improved value-chain management and ability to provide EUDR-relevant information (Outcome 2). However, it was later determined to be more efficient to conduct the assessments at the same time, as it would reduce the number of flights and ease the burden on smallholders, who would only be inconvenienced once. See the companion briefing on business practices and causes of supply chain fragmentation for more information on that aspect of the assessment.

In this context, a questionnaire was developed, with the following principles in mind: although the assessment may deal with complex issues, the questions must be simple and easy to understand; questions must be linked to informing the activities under the project; and the assessment should not be overly burdensome to smallholders in terms of time and travel.

Questions were broadly grouped into two areas. The first area focused on smallholders' general awareness and understanding of Good Agricultural Practices (GAP) – their perception of benefits, challenges to adoption, and any specific interests – and whether they had previously received any related training. The second area focused on current smallholder practices, such as soil testing, chemical usage, harvesting, storage, as well as labour and gender issues. Interviews were semi-structured to allow opportunities for assessors to pursue other interesting and related lines of inquiry, and for respondents to share their opinions.

Results of assessment of Phanoi Cooperative – 14-18 July 2025

In the Phanoi Cooperative, 106 smallholders were interviewed (56.6% women), as well as 9 members of the cooperative's board, for a total of 115 participants. Of these, approximately 25% of the respondents had heard of GAP, while approximately 18% had received some kind of training, indicating limited awareness. Regarding perceived benefits, smallholders who were aware of GAP mentioned the following:

- Fewer negative impacts on local ecosystems and personal health.
- Improved soil quality, with potential to improve yields.
- Increased productivity linked to better tapping methods.
- Reduced cost of production due to lower input requirements.



Students under Dr Itsaree Howpinjai from the EFI team capture the responses of smallholders from the Phanoi Cooperative. Somporn Khongtanakrittakorn

Regarding current practices, most smallholders use organic fertilisers, though very few respondents had measured the soil pH on their lands to determine actual needs. For weed management, although some smallholders prefer to use manual labour, a large majority still use herbicides, with very few of these recording chemical use. As for the social situation, most rubber farmers rely primarily on family labour, with both men and women spending an average of 4.7–4.8 hours per day working on their plantations.

Based on the baseline assessment questionnaires and focus group discussions, men and women reported broadly equitable participation in rubber plantation activities and at the collection point, including similar opportunities to voice and provide opinions. The main exception relates to tasks requiring significant physical strength (e.g. lifting sacks of cup lump rubber and weighing heavy loads), which are more often undertaken by men. During group discussions, women tended to speak up, as they are frequently responsible for day-to-day management of the rubber holding and therefore know operational details, while men contributed more on topics related to field operations and the execution of plantation activities. Participants generally listened to each other and exchanged information actively.

These dynamics suggest that roles within rubber smallholder households are complementary rather than unequal, with differences linked to practical responsibilities. No child labour was reported, but employment arrangements are largely informal with limited documentation; some farmers hire tappers on a 50/50 income-sharing basis. Importantly, cooperative membership in Phanoi is typically registered as one member per household, and many memberships are therefore held in

women's names, which may also explain women's strong engagement on cooperative-related processes and management systems.

Results of assessment of Chana Cooperative – 4-8 August 2025

In the Chana Cooperative, 91 smallholders (58.24% women) were interviewed. Of those surveyed, approximately 14% had heard of GAP, while approximately 70% of this group had received some kind of training. Again, this indicates overall limited understanding within the cooperative. Even amongst those who had heard of GAP, knowledge was patchy, and many of those who had received GAP training could recall few details and did not apply many of the practices. Most of those with knowledge of GAP did not believe they significantly increase yields, but thought that they could improve environmental conditions and protect personal health. Some respondents also understood that GAP could enhance latex quality, increase rubber prices, and protect trees from pests.

Regarding current practices, a small minority of smallholders were monitoring soil pH, using organic fertilisers, managing weeds without chemicals, properly handling and storing chemicals – including the use of PPE – and systematically recording plantation activities. These respondents reported that GAP improved soil quality, increased yield, reduced production costs, enhanced tree health, helped minimise environmental impacts, and created a safer working environment.

Overall, men and women reported broadly equitable roles in rubber plantation activities and at collection points, with similar rights to speak and provide opinions. The main exception relates to tasks requiring significant physical strength (e.g. lifting latex containers and pouring latex), which are more commonly undertaken by men.

In the focus group discussions, women spoke less, as many women are responsible for managing accounts and administrative tasks at the collection point (e.g. purchase/sales bookkeeping and dry rubber content calculations), while men tended to comment more on field operations and activities undertaken jointly with the cooperative.

Participants generally listened to each other and exchanged information actively. Women remained engaged throughout the full session. All labourers at cooperative collection points are Thai nationals and employed under established recruitment procedures and employment contracts; collection points also hire additional workers to assist with latex handling and pouring. In conclusion, their roles

appear complementary: men more often operate plantations and collection points directly, while women provide essential support through record-keeping and payment processes.



Ms Raksina Aonlamun conducting a questionnaire with a smallholder from the Chana Cooperative. Somporn Khongtanakrittakorn

Local validation workshops

Following the baseline assessments, the project team organised two validation workshops to present their findings to the participating cooperative members for review and feedback. The first was held on 9 September at the Phanoi Cooperative in Loei Province, while the second was held on 24 September at the Chana Cooperative in Songkhla Province. Workshop participants were separated into sub-groups to review and discuss the findings and to brainstorm about GAP-related needs, potential support and training options.

It was noted that even amongst those smallholders who were aware of GAPs and their benefits, uptake was relatively limited due to numerous obstacles. These included:

- The high cost of equipment.
- A shortage of labour.
- Insufficient government support.
- Inadequate training, leading to poor knowledge retention.
- Infrequent updates about relevant information.

To address these issues, smallholders suggested financial support for the purchase of necessary equipment; the provision of technical assistance from cooperatives' leadership and/or government authorities; and a guaranteed price premium for rubber produced under GAP.



Mr Somporn Khongtanakrittakorn, National Project Coordinator, leading a focus group discussion at the validation workshop in Chana Cooperative. EFI

Although understanding was generally limited, most smallholders were aware that GAP, when implemented, is supposed to provide a variety of economic, environmental, and social benefits. All respondents expressed interest in receiving additional training, with specific focus on effective plantation management strategies, intercropping techniques, proper fertilisation practices, and rubber tapping methods to ensure quality and increase yields. To ensure training uptake and effectiveness, respondents emphasised the need for the training to be free of charge, and focused on practices which reduce cost and increase productivity or rubber prices.

Regarding specific training modalities, in addition to conventional instruction, respondents suggested information exchanges and visits to cooperatives that are implementing GAP, to demonstrate what actually works. Suggestions were also made to develop simple e-learning modules, potentially with explanations using short, easy-to-understand animation; and establishing learning stations in the cooperative.

National validation workshop and next steps

To complete the assessment process, a national validation workshop was held on 31 October at RAOT headquarters in Bangkok to present the findings from the baseline assessments in the two pilot sites. The workshop was attended by representatives from the leadership of the two pilot site cooperatives, as well as RAOT officials from nine regional offices. The results of the assessments were reviewed and validated, and valuable input collected from the RAOT officials.



RAOT focus group discussions at the national validation workshop at RAOT headquarters in Bangkok. EFI

Due to the diversity of regions represented, some of the feedback from RAOT officials differed, with some noting a higher uptake of GAP than others. However, in general, they confirmed that the findings from the baseline assessments represented many of the issues in their own jurisdictions. GAP is inconsistently implemented or applied, due to a combination of lack of awareness and knowledge, as well as a lack of incentives and material support. However, farmers seem to understand that GAP has positive environmental and health benefits and are interested in learning more, especially if practices can help increase yields and prices.

Based upon the validated results, the EFI team and RAOT agreed to work together to review and update RAOT's GAP Manual for rubber. This will provide the foundation for the training curriculum and materials, which will be used by the project to promote improved agricultural and environmental practices. To ensure that these can be used after the project comes to an end, the curriculum and materials will be developed in close collaboration with the relevant RAOT departments and personnel and thoroughly tested in the pilot sites.

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