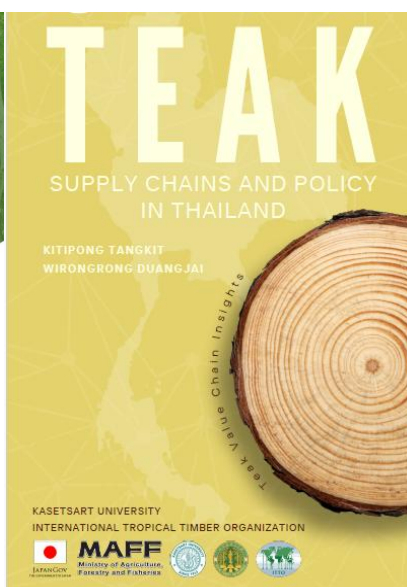
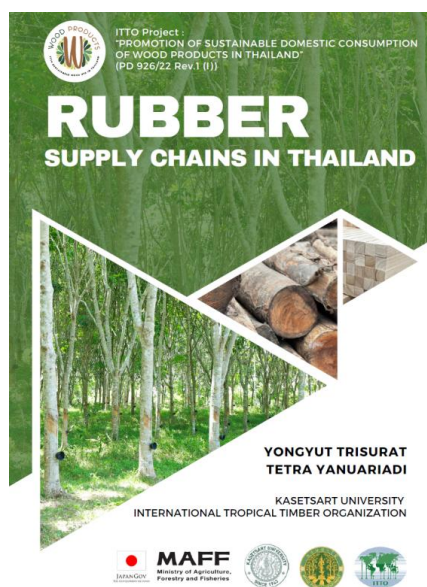




ITTO Project:
**“PROMOTION OF SUSTAINABLE DOMESTIC
CONSUMPTION OF WOOD PRODUCTS IN THAILAND”**
(PD 926/22 Rev.1 (I))

Completion Report



April 2025

INTERNATIONAL TROPICAL TIMBER ORGANIZATION

Brief of the Project

Project Title:	Promotion of sustainable domestic consumption of wood products in Thailand
ITTO Project Number:	PD 926/22 Rev.1 (I)
Project Objective:	Promoting Sustainable Domestic Consumption of Wood Products in Thailand
Donor:	Forest Agency of Japan, The Government of Japan
Project signed:	ITTO with Kasetsart University, 22 December 2022
Duration:	24 months
Starting Date:	1 February 2023
Completion Date:	31 April 2025
Executing Agency:	Kasetsart University (KU) in collaboration with the Royal Forest Department (RFD)
Total Project Budget:	USD 345,000 Executing Agencies contributions in-kind ITTO USD 320,000 KU USD 25,000

Key contact persons:

Dr.Preecha Ongprasert: Thailand National Coordinator, Royal Forest Department, Thailand
E-mail: ongprasertpreecha@gmail.com

Assist. Prof. Dr. Wirongrong Duangjai: Project Coordinator, Kasetsart University, Thailand
Email: wirongrong.d@ku.th

Executive Summary

1. Project Background and Objectives

The domestic consumption of legal and sustainable wood products in Thailand has long been hindered by institutional fragmentation, regulatory complexity, and market disconnects between producers and consumers. Despite possessing over 1 million rai of forest plantations under the Forest Industry Organization (FIO), and an expanding network of private and community-managed woodlots, Thailand continues to face critical challenges in promoting the use of legal domestic timber. Existing regulatory mechanisms, such as those under Article 7 of the Forest Act and its amendments, provide a foundation for plantation timber registration. However, their practical application remains limited, especially for smallholder growers who often lack formal title documents or capacity to navigate legal verification processes.

In response to these issues, the ITTO-approved project PD 926/22 Rev.1 titled “*Promotion of Sustainable Domestic Consumption of Wood Products in Thailand*” was formulated and implemented by Kasetsart University (KU), in collaboration with the Royal Forest Department (RFD), and with the support of the Government of Japan through the Forest Agency of Japan. The project was officially launched in February 2023, following an Inception Workshop that defined its scope, methodology, and implementation plan. The project duration was set for two years, concluding in January 2025.

The project background is grounded in Thailand’s broader commitment to the Bio-Circular-Green (BCG) Economic Model, which encourages low-carbon, resource-efficient, and innovation-driven industries. Forest plantations and wood-based products are considered essential sectors under the BCG framework. However, while the export-oriented furniture and wood product sectors have achieved high levels of industrial sophistication, their domestic counterparts have lagged in adopting sustainable sourcing and certified supply chains. In particular, there is a clear disconnect between community-level producers of teak and rubberwood and national supply networks, compounded by limited consumer awareness of certified domestic wood products and their environmental and climate co-benefits.

The project identified Phrae and Trang provinces as pilot sites due to their strategic roles in Thailand’s wood value chains. In Phrae Province, community and smallholder teak plantations are abundant, and local groups have already organized themselves into enterprise clusters. However, challenges remain in establishing plantation legality, improving product value, and accessing wider markets. In Trang Province, rubberwood is widely available from short-rotation plantations, yet much of it is sold as raw logs or chips with limited value addition at the local level. These two provinces provided ideal platforms to pilot legal verification tools, conduct training on product innovation, and promote downstream market linkages through public campaigns and business development support.

The project was designed around five key objectives that addressed both upstream and downstream barriers in the sustainable wood value chain are as follows:

1.1 Policy support and legal framework improvement

The project aimed to support inter-agency coordination for policy formulation and legal framework alignment. This included support for legal reviews related to The Forest Act BE 2484 (1941), Article 7 amendments. Although specific amendments to Article 7 are not detailed, the overall Forest Act has been amended to address issues like timber legality and sustainability.

1.2 Capacity building of stakeholders

Recognizing that legality and certification readiness require more than regulatory reform, the project targeted local stakeholders—including plantation owners, SMEs, furniture manufacturers, and provincial officials—for capacity-building programs. These covered themes such as legal registration, FSC certification pathways, carbon labeling, and compressed wood product development.

1.3 Product innovation and design promotion

As part of efforts to enhance the value of domestic timber, the project supported the development of new wood product prototypes using compressed rubberwood fibers and small-diameter teak wood. These innovations were implemented in partnership with designers and SMEs in Bangkok, Chiang Mai, and the pilot provinces.

1.4 Public outreach and consumer awareness

To stimulate demand for legal domestic wood, the project designed and conducted urban public campaigns in Bangkok and Chiang Mai, under the theme “Thai Wood is Usable”. These campaigns used educational booths, brochures, exhibitions, and media outreach to engage consumers, designers, and the public in understanding the value of legal and sustainable wood.

1.5 Strategic partnership and national platform development

The project sought to establish a national platform for sustainable domestic wood promotion through multi-sectoral collaboration. This culminated in the formal signing of a national MoU in January 2025 and processed by 28 organizations from government, academia, private sector, and community-based networks, thereby institutionalizing the project’s vision and promoting long-term impact.

The project also intended to align with the best international practices and guidelines promoted by ITTO, such as transparency, traceability, and inclusiveness in tropical timber trade. The planned outputs included: technical reports, policy briefs, legal manuals, training modules, prototype products, campaign materials, and a final strategic framework embedded within the MoU.

All project activities, from stakeholder consultation to final dissemination, were aligned with the project’s logical framework and were periodically monitored through four progress reports submitted to ITTO. Implementation milestones were reviewed by the Project Steering Committee (PSC) and the Project Technical Committee (PTC), composed of representatives from RFD, KU, FIO, and other key institutions.

The background and design of this project reflect Thailand evolving policy landscape, its growing plantation wood base, and the urgent need to promote legal and sustainable domestic consumption. By addressing gaps in legality, certification, design innovation, and consumer education, the project created a holistic model for sustainable wood product development and positioned Thailand as a leader in responsible tropical timber use.

2. Implementation strategy and methodology

The project adopted a phased, adaptive, and participatory implementation strategy designed to align field-level activities with national policy reform processes. The methodology integrated technical studies, multi-stakeholder consultations, training and innovation support, public communication campaigns, and formal partnership-building under a common national platform. This section outlines the strategic approach, timelines, coordination mechanisms, and key delivery methods that guided implementation from February 2023 through April 2025.

2.1) Strategic phasing and operational framework

The project was initiated with the completion of the inception report and the establishment of the Project Steering Committee (PSC) and Project Technical Committee (PTC), as documented in the first progress report. These bodies provided oversight and technical guidance throughout the project cycle, ensuring that activities remained aligned with the approved project framework, national forestry policies, and ITTO standards. The overall strategy followed a three-phase structure as follows:

Phase I (Feb–Aug 2023): Foundation building and stakeholder engagement

This phase focused on consultations, legal reviews, initial field visits to Phrae and Trang, and the collection of baseline information. The project established contact with local partners, including the Trang Provincial Industry Office, RFD regional offices, local forest grower groups, and rubberwood processors. Simultaneously, national dialogues were initiated to explore options for policy alignment, and groundwork was laid for the development of the national MoU framework.

Phase II (Sep 2023–Jun 2024): Field piloting, technical outputs, and capacity building

During this phase, a series of technical activities were undertaken, including the development of a technical report on plantation teak legality in Phrae, a second report on the rubberwood supply chain in Trang, and the design of wood product innovations using residues. Training workshops were organized in both provinces to support stakeholder readiness on FSC certification, legal compliance, and carbon labelling. This phase also marked the start of youth-oriented innovation campaigns, with a strong focus on linking small-scale producers to designers and SMEs.

Phase III (July 2024 – 30 April 2025): Integration, public campaigns, and national-level coordination

The final phase focused on enhancing national visibility, securing policy endorsement, and expanding public outreach. Urban awareness campaigns were launched in Chiang Mai and Bangkok,

reaching thousands of consumers. These efforts were complemented by a national stakeholder summit and the signing of a multi-agency Memorandum of Understanding (MoU) in January 2025, which institutionalized the shared vision of promoting legal and sustainable domestic wood consumption. Building on this momentum, KUFF and its MoU partners jointly initiated activities related to urban wood development and design, including safety training programs for their staff.

2.2) Field implementation at pilot sites

The field-level methodology emphasized participatory engagement and place-based experimentation. In Phrae Province, activities were centered around community teak plantations, with close collaboration from the RFD district offices and local enterprise groups. The team conducted interviews, legality assessments, and training sessions on compliance with Article 7 provisions. The local government and forest growers provided input on regulatory barriers, registration challenges, and buyer requirements. A detailed case study was compiled on the legality verification process, and its findings were used to shape national policy recommendations.

In Trang Province, rubberwood processors and rubber plantation cooperatives were engaged to identify opportunities for upgrading processing techniques, verifying wood legality, and reducing waste. The project facilitated coordination between the Department of Industrial Promotion (DIP), SMEs, and technical experts from the Faculty of Forestry. A highlight was the pilot testing of compressed rubberwood fibers into prototype boards, with support from private-sector machinery and design partners. Training workshops addressed traceability, FSC readiness, and market competitiveness for certified products.

Each pilot site also served as a testing ground for applied design. Collaborations were initiated with designers from Bangkok and Chiang Mai to co-develop simple, modular furniture designs using underutilized wood. These prototypes were showcased at national events and integrated into the public campaign materials to demonstrate the appeal of “Thai wood is usable”.

2.3) Stakeholder integration and institutional linkages

Throughout the implementation, the project applied a multi-tiered stakeholder engagement model, targeting actors at community, provincial, and national levels. This model ensured that field-level realities informed national policy discussions, while national policy directions fed back into training and local action plans. The key partners included in the implementation for brainstorming to initiating the movement of Thai domestic wood products and utilization including the government agencies:

Government Sector

1. Royal Forest Department (RFD)
2. Forest Industry Organization (FIO)
3. Department of Agricultural Extension
4. Department of Lands
5. National Bureau of Agricultural Commodity and Food Standards (ACFS)
6. Phrae Provincial Industrial Office
7. Department of Industrial Promotion
8. Department of Industrial Works

Private Sector

9. Federation of Thai Industries
10. SCG Cement-Building Materials Co., Ltd.
11. Siam Forestry Co., Ltd.
12. TPS Garden Furniture Co., Ltd.
13. Magnolia Quality Development Corporation Ltd. (MQDC)

Associations and Local Communities

14. Furniture and Wood Products Trade Association of Phrae
15. Lanna Wagon Community Enterprise, Phrae Province
16. Fast-Growing Timber Business Association

Educational and Research Institutions

17. Faculty of Architecture, Chulalongkorn University
18. Phrae Community College
19. National Science and Technology Development Agency (NSTDA) – National Metal and Materials Technology Center (MTEC)
20. Faculty of Forestry, Kasetsart University

These partners contributed to various components—from participating in consultations, training delivery, and prototype testing, to signing the final MoU. The coordination of such diverse actors was made possible through consistent communication, workshops, and shared knowledge products disseminated both in print and online.

2.4) Monitoring, reporting, and adaptive learning

Project performance was monitored through biannual reporting to ITTO, with progress reviewed at PSC and PTC meetings. Key deliverables such as the two technical reports, the series of training programs, and the MoU framework were documented in Progress Reports I through IV. Lessons from field activities were continuously fed back into training content and policy dialogues. For instance, field findings in Phrae about the difficulties of proving plantation ownership under Article 7 were directly used to propose regulatory simplification. Similarly, feedback from SMEs in Trang about FSC readiness gaps shaped the design of simplified manuals and checklists used during training.

The implementation strategy combined technical expertise with inclusive consultation, local-level innovation, and national-level policy integration. The use of a phased, modular approach allowed the project to remain flexible while meeting its core objectives. This strategy not only delivered tangible outputs but also built institutional trust and laid the groundwork for future expansion under a nationally recognized platform for promoting sustainable domestic wood consumption.

3. Policy Reform and legal framework development

One of the cornerstone objectives of the ITTO Project PD 926/22 Rev.1 was to promote the formulation and institutionalization of a legal and policy framework that supports the sustainable domestic consumption of wood products in Thailand. As noted in the Inception Report and subsequent progress reports, the lack of a unified national strategy and fragmented inter-agency coordination were major obstacles that prevented the development of a transparent, traceable, and certified domestic wood market. Addressing these challenges required both technical groundwork—such as legal reviews and stakeholder consultations—and a consensus-building process to drive policy change at the national level.

3.1) Identifying gaps in existing legal and policy mechanisms

During the first six months of the project, a thorough review of existing legislation and policies governing plantation wood, legality assurance, and certification systems was conducted. The findings were consolidated and discussed during several technical meetings, including a high-level consultation led by the Royal Forest Department (RFD), Forest Industry Organization (FIO), and the Faculty of Forestry at Kasetsart University. Key constraints identified included as follows:

- Limited applicability of the Forest Act Article 7 (amended), which allows for the registration of planted trees but presents challenges for smallholders lacking formal land tenure or documents.
- Weak enforcement and practical gaps in verifying wood legality at the local level, particularly for teak in Phrae Province, where the project found inconsistent understanding of procedures across district offices.
- Absence of a national platform to integrate legality verification with certification systems such as FSC or TLAS (Timber Legality Assurance Systems).
- Lack of harmonized guidelines between the Department of Forestry Promotion, RFD, and the Ministry of Industry, which causes regulatory overlaps in timber processing and trade facilitation.

These issues underscored the need for a consolidated, inter-agency approach to policy reform, with the aim of institutionalizing mechanisms that could streamline plantation legality, simplify registration processes, and support certified wood market access for smallholders and SMEs.

3.2) Policy dialogues and consultation mechanisms

In response to the identified policy gaps, the project convened a series of national-level dialogues and consultation meetings beginning in mid-2023. These were held both in Bangkok and the pilot provinces and were facilitated in partnership with key agencies including the Department of Industrial Promotion (DIP), Department of Environmental Quality Promotion (DEQP) which is now changed to Department of Climate Change and Environment (DCCE), and the National Research Council of Thailand (NRCT). These dialogues were structured to generate a shared understanding among public, private, and academic stakeholders on the importance of a legal and sustainable domestic wood system.

During the second half of 2023, the project launched a policy-focused survey targeting over 40 stakeholders, including local forest officials, plantation owners, designers, and furniture industry representatives. The survey explored attitudes toward plantation registration, legality verification, and the feasibility of integrating certification incentives. Responses from this engagement directly informed the drafting of legal manuals and briefing notes that were later disseminated against government partners and used as inputs for the MoU platform.

An important milestone was the preparation of two technical reports submitted in the second and third progress reports. The first report examined teak legality verification in Phrae, including a detailed breakdown of barriers under current law and recommendations for regulatory streamlining. The second report focused on the rubberwood supply chain in Trang, identifying entry points for legality improvement and market upgrading, especially for SMEs producing rubberwood boards and panels.

3.3) Drafting of the National Memorandum of Understanding (MoU)

One of the project most significant outputs under the policy reform component was the development and endorsement of a **National MoU on Promoting Sustainable Domestic Wood Consumption**. Drafting of the MoU began in late 2023 with input from a multi-sectoral drafting committee formed under the oversight of the Project Steering Committee. The draft was circulated for review during the third progress reporting period and was refined through iterative consultations with focal points from 28 participating institutions.

The Memorandum of Understanding (MoU) establishes a unified strategic framework for the development of a national platform to promote legal, traceable, and sustainable domestic wood in Thailand. It reflects the shared commitment of government agencies, industry stakeholders, and academic institutions to advance sustainability through coordinated action. The MoU is structured around five key domains of cooperation.

First, policy and regulatory alignment emphasizes harmonization across ministries and agencies, particularly the Royal Forest Department (RFD), the Forest Industry Organization (FIO), the Department of Industrial Promotion (DIP), and provincial authorities—ensuring consistency in legal frameworks and enforcement. Second, innovation and product development focus on creating incentives for the use of certified wood in architecture, furniture, and design sectors, thereby strengthening demand and market competitiveness. Third, capacity building and outreach prioritize investment in training programs for communities, SMEs, and public agencies to strengthen understanding and adoption of legality and certification standards. Fourth, public communication underscores the importance of joint promotion of national campaigns, such as “ไม้ไทยใช้ได้” (*Thai Wood, Legal and Usable*), aimed at raising consumer awareness and trust in certified domestic wood products. Finally, monitoring and evaluation are institutionalized through the establishment of a dedicated working group tasked with tracking progress and reporting to the national steering platform. Collectively, these commitments ensure that the MoU serves as both a guiding framework and a practical mechanism to drive the long-term development of a sustainable and competitive domestic wood sector in Thailand.

The final signing ceremony, held in January 2025 at Kasetsart University, marked the formal adoption of the MoU. The event was attended by senior representatives from the Ministry of Natural Resources and Environment, the Ministry of Industry, and key private sector organizations including SCG, Modern form, and TPS Furniture. This institutional endorsement provides a solid foundation for future policy coherence and resource mobilization to scale up the project’s outcomes.

3.4) Policy Outcomes and Alignment with National and Global Agendas

Beyond the legal tools and consultations, the project’s policy reform efforts contributed to broader strategic alignment with Thailand’s Bio-Circular-Green (BCG) economy policy, its National Forest Plantation Strategy, and the United Nations Strategic Plan for Forests 2017–2030. By promoting certified

and legal domestic wood consumption, the project strengthened links between local timber growers, national product branding, and climate-smart forestry practices.

Moreover, the project provided critical input into the government’s deliberations on how to institutionalize timber legality assurance mechanisms, link them with carbon markets, and introduce green procurement standards into public construction and design sectors. These contributions represent not only short-term regulatory outputs but also long-term opportunities for mainstreaming sustainability principles into national forest governance.

In summary, the policy reform and legal framework development component of the project successfully addressed key legal bottlenecks, promoted inclusive dialogue, and resulted in the signing of a national MoU endorsed by 28 agencies. This work has laid a robust policy foundation for continued efforts to promote the legal and sustainable consumption of wood products in Thailand.

4. Capacity Building and Knowledge Transfer

Capacity building was a core pillar of the project’s approach, recognizing that policy reform alone would not be sufficient to promote sustainable domestic wood consumption unless stakeholders across the value chain were adequately informed, skilled, and empowered. The project’s capacity development strategy focused on bridging critical knowledge and skill gaps among plantation growers, local government agencies, small and medium-sized enterprises (SMEs), designers, and youth in both pilot provinces—Phrae and Trang—as well as urban centers. Training events, design workshops, practical demonstrations, and technical manuals were implemented across the two-year project cycle, with a strong emphasis on legality, certification readiness, innovation, and value-added wood utilization.

4.1) Stakeholder Training in Phrae Province

Phrae Province, widely recognized for its extensive community-managed teak plantations, was selected as a pilot site to demonstrate the promotion of legal teak use and smallholder empowerment. The initiative focused on strengthening legality, improving market access, and preparing smallholders for certification and emerging opportunities such as carbon markets. Between February 2023 and July 2024, a series of workshops and technical training sessions were organized in collaboration with the Phrae Provincial Office of Industry, the local Royal Forest Department (RFD) office, and forestry-related educational institutions. Key Training Themes are as follows:

4.1.1) Legality Verification and Article 7 Procedures

A major focus of the pilot site was on legality assurance. Training sessions equipped smallholder growers and RFD officers with practical knowledge of Article 7 of the Forest Act, which enables plantation teak registration through simplified documentation. Participants examined case studies of common obstacles, including overlapping land tenure rights and inconsistencies in procedural knowledge across provinces. This hands-on learning approach helped participants gain confidence in navigating regulatory frameworks, thereby reducing barriers to market entry for smallholders.

4.1.2) FSC Certification Readiness

The project also supported participants in understanding the requirements for certification, particularly the Forest Stewardship Council (FSC) Controlled Wood and Forest Management standards. Technical sessions introduced tools for traceability, internal auditing procedures, and group certification models designed to accommodate smallholders. This training provided a foundation for building trust in supply chains and preparing communities to participate in both domestic and export markets that demand certified wood.

4.1.3) Carbon Credit Awareness

Given the increasing global interest in carbon-linked forest markets, the pilot introduced smallholders to the fundamentals of forest carbon sequestration and voluntary carbon markets. Participants learned how legality, proper documentation, and compliance with existing regulations are essential preconditions for developing carbon projects. This forward-looking component encouraged growers to consider future opportunities that combine sustainable timber production with climate benefits.

Outcomes and Feedback

The pilot activities in Phrae engaged more than 100 participants, including members of community forestry groups, local businesses, and government agencies. Feedback from stakeholders indicated strong interest in continuing technical support, particularly in simplifying registration procedures and developing

user-friendly toolkits for legality and certification. The demand expressed highlights both the relevance of the project interventions and the ongoing need for targeted assistance to ensure smallholders can fully benefit from legal and sustainable wood markets.

4.2) Stakeholder Training in Trang Province

In Trang, a province with extensive rubberwood plantations and a growing furniture sector, the project focused on capacity-building for downstream wood processors and local manufacturers. Activities were coordinated with the Department of Industrial Promotion (DIP), Prince of Songkla University (Trang Campus), and local wood product associations. The key training components included:

- **Utilization of Compressed Rubberwood and Residues:** Demonstrations were conducted on new methods of using small-diameter and lower-grade rubberwood through fiberboard manufacturing and compression techniques. These workshops highlighted the potential for low-cost, sustainable alternatives to imported engineered wood.
- **Certification and Market Access for SMEs:** Trainers provided guidance on pre-audit readiness for FSC Chain of Custody (CoC) certification and simplified legal documentation required for domestic and export market access.
- **Design and Business Innovation:** Selected local SMEs and entrepreneurs participated in co-design sessions with Bangkok-based product designers, learning to integrate modern aesthetics with traditional wood techniques. These workshops resulted in prototype furniture using compressed rubberwood panels and native design concepts.

The workshops in Trang engaged over 120 participants, including business owners, factory technicians, university students, and design professionals. These sessions played an instrumental role in transferring academic research and industry standards into the local SME ecosystem.

4.3) Manuals, Toolkits, and Educational Materials

In addition to in-person training, the project developed a comprehensive suite of learning materials designed for post-training use and replication by government officers, local organizations, and educational institutions. These materials included:

- **Manual on Plantation Teak Legality in Phrae:** A step-by-step guide for registration under Article 7, with real-world examples, checklists, and explanations of required documentation.
- **Rubberwood Certification and Product Innovation Toolkit:** A technical manual describing compressed rubberwood techniques, FSC requirements, and carbon labelling basics.
- **Legal Wood Awareness Handbook:** Developed as part of the national campaign, this handbook was distributed in both Bangkok and Chiang Mai, combining technical and consumer-friendly messaging in Thai.

These resources were disseminated during training sessions and stakeholder meetings and were referenced in the Fourth Progress Report as major deliverables enhancing institutional memory and scalability.

4.4) Youth Engagement and Design Learning

An innovative element of the project was its engagement of youth and young professionals, particularly in the fields of architecture and industrial design. Through partnerships with academic institutions such as Chiang Mai University, the project organized learning exchanges and design contests focused on legal wood sourcing and circular product design. Youth teams submitted proposals for furniture and homeware using plantation wood and wood residues. Winning designs were showcased during public campaigns and national events in 2024.

In addition, select students were invited to visit pilot sites to gain first-hand understanding of community-based forestry, certification processes, and the socio-economic challenges facing smallholders. These exchanges not only enriched the project's communication narrative but also planted seeds for long-term professional engagement with the legal wood movement.

4.5 Reflections on Capacity Building Outcomes

The capacity-building initiatives under the project had several key outcomes:

- Created localized understanding of national laws, certification systems, and traceability tools.

- Facilitated improved coordination between local government agencies and plantation owners.
- Generated direct links between rural producers and urban product designers.
- Empowered SMEs and entrepreneurs to explore value-added processing opportunities using legal wood.
- Positioned youth as future advocates for sustainable timber consumption and innovation.

These results contribute to the project’s overarching vision of embedding legality, sustainability, and innovation across all levels of the wood product value chain. As noted in the Fourth Progress Report, requests were received from both Phrae and Trang to continue these programs beyond the life of the project, and some local institutions have expressed interest in integrating the training materials into their vocational curriculums.

5. Urban Campaigns and Public Awareness

To drive behavioral change and increase market demand for legal and sustainably sourced domestic wood, the project launched a comprehensive public awareness and communication campaign in its second year, under the theme “ไม้ไทยใช้ได้” (Thai Wood usable). This campaign was a vital strategy to complement upstream policy and capacity-building efforts, aiming to raise the visibility of domestic wood products and improve public understanding of their environmental, legal, and economic benefits. The campaign was rolled out in two major urban centers—Chiang Mai and Bangkok—and supported by both offline events and digital media engagement.

5.1 Objectives and Strategic Framing

The campaign was designed with the following core objectives:

1. **Raise consumer awareness** of legal domestic wood products, especially teak and rubberwood, including their sustainability and climate benefits.
2. **Promote trust and transparency** in the legal origin of wood by linking consumers to plantation-based supply chains in Phrae and Trang.
3. **Showcase wood-based innovations** from SMEs, youth designers, and community enterprises that reflect circular economic principles.
4. **Foster national pride** in Thai wood through storytelling, exhibitions, and public engagement.

These objectives were aligned with the national Bio-Circular-Green (BCG) economy strategy and supported the broader policy goals identified through the project’s MoU platform.

5.2 Chiang Mai Campaign: Northern Urban Engagement

Chiang Mai Province was selected as the first major city for campaign implementation due to its proximity to Phrae and its strong community of environmentally conscious consumers, artists, and designers. The campaign was hosted in collaboration with local design institutes, SMEs, and Chiang Mai University.

Key activities included as follows:

- **Public exhibition booth at Jing Jai market (May 2024)**

A high-traffic weekend market space was used to exhibit wood prototypes made from plantation teak and compressed rubberwood. Displays were co-curated by youth participants from earlier design workshops.

- **Interactive learning activities**

Visitors engaged in games and demonstrations illustrating the journey of legal wood from forest to furniture. These included a mock legality verification station and a hands-on design corner using teak offcuts.

- **Brochure and poster distribution**

Campaign materials emphasizing “Thai Wood is Usable” were distributed widely. These featured infographics, FAQs, and storytelling about smallholder wood producers in Phrae.

- **Partnership with local media**

The campaign gained visibility through coverage on Northern TV and community radio, as well as features in local design blogs and sustainability forums. Feedback forms collected during the event revealed that over 80% of attendees had previously never heard of FSC or legal verification for domestic wood but expressed increased willingness to support legal Thai wood after engaging with the campaign.

5.3 Bangkok Campaign: National Visibility and Policy Linkages

In September 2024, the Bangkok campaign was launched in parallel with the finalization of the national MoU, reinforcing the connection between policy and consumer behavior. Hosted at the prominent “Bangkok Design Week” and supported by Art4D and other creative platforms, the campaign included:

- National legal wood exhibition was held at a central urban venue. The exhibition displayed product prototypes from Trang and Phrae, along with video narratives about their origins, legality journey, and climate benefits.
- Panel Discussion on legal wood and circular design has co-organized with leading design professionals, SMEs, and representatives from the Royal Forest Department and the Ministry of Industry. The discussion emphasized the need for green procurement, material traceability, and consumer awareness.

5.4 Campaign Materials and Messaging

All campaign materials were professionally developed in Thai language with visual and user-friendly formats. Materials included: (1) posters and Infographics that show the explaining legal wood, plantation certification, FSC labels, and the carbon benefits of domestic wood; (2) legal wood handbooks which were distributed to event attendees and online, providing definitions, case studies, and contact points for learning more; (3) video clips and social media assets which contained short videos featured community voices from Phrae and Trang, showing how legal wood supports rural livelihoods and sustainability.

These materials are archived and remain accessible through the websites of Forestry Faculty, Kasetsart University and the Royal Forest Department. Plans were discussed during the fourth progress report period for future translation and wider dissemination through schools and municipal sustainability initiatives.

5.5 Outcomes and Reflections

The urban campaign component of the project had several measurable outcomes reached an estimated 10,000+ direct participants and over 50,000 digital views across both Chiang Mai and Bangkok; increased public knowledge of plantation legality and wood certification, particularly among urban youth, architects, and SMEs; strengthened partnerships between producers and designers, fostering a sense of shared identity around Thai wood which created a replicable model for future campaigns under Thailand’s BCG and forest plantation strategies.

Moreover, these campaigns served as effective platforms for bringing provincial innovation to national attention. They also contributed to bridging the perception gap between raw material producers and urban end-users, aligning consumer narratives with upstream legal reforms and sustainability commitments.

6. Technical Innovation and Product Development

One of the key innovations of the project was its support for the development of new wood-based products and processing methods using plantation timber, especially small-diameter teak and rubberwood residues. By linking local resource potential to national design and innovation networks, the project helped demonstrate that domestic wood is not only legal and sustainable, but also aesthetically competitive and suitable for circular economy applications. The technical innovation component was implemented as a cross-cutting activity throughout the second and third phases of the project and was vital to strengthening consumer trust, producer motivation, and value chain coherence.

6.1 Rationale for Innovation in Domestic Wood Products

Thailand domestic timber value chain faces persistent challenges in quality perception, market competitiveness, and innovation inertia. Much of the plantation teak and rubberwood harvested by smallholders is sold as raw logs or low-value sawn wood. This trend reflects both a lack of access to processing technology and limited connection to downstream product innovation. Moreover, the dominance of imported or certified tropical hardwoods in the high-end furniture market further marginalizes domestic plantation species.

To reverse this trend, the project aimed to enhance the visibility, performance, and desirability of legal Thai wood through product innovation. The core hypothesis was that the integration of design and material innovation would improve the competitiveness of domestic wood and incentivize legal sourcing, especially among urban consumers and public institutions.

6.2 Material Innovation Using Rubberwood and Teak

Building research from Faculty of Forestry, Kasetsart University and collaborations with Prince of Songkla University and local SMEs, the project supported the development and pilot testing of compressed rubberwood fiberboards and small-diameter teak products. Key technical achievements included (1) the compressed rubberwood panels; (2) Modular Furniture Prototypes from Small Teak Logs; (3) Natural Finishing and Bio-Based Adhesives:

- In Trang Province, the project worked with local processors to trial compressed wood panel production from rubberwood residues. These panels were tested for durability, moisture resistance, and finishing quality. Preliminary assessments showed that the panels could substitute for imported medium-density fiberboards (MDF) in interior applications.
- In Phrae, plantation teak with small diameter (<20 cm) was used to design modular furniture sets, including shelving, stools, and compact tables. Techniques to minimize warping and improve grain uniformity were introduced during processing. These designs were co-developed with young designers and later showcased during the Chiang Mai and Bangkok public campaigns.
- Experimentation was conducted with non-toxic finishing methods and potential use of cassava-based adhesives for selected prototypes. Although these methods were still in the early stages of adoption, they aligned with the project's commitment to circular design principles.

These innovations were shared in a **technical brief** and demonstration session during the third quarter of 2024. Feedback from SME participants, designers, and end-users confirmed that such technical upgrades, if supported by appropriate policy incentives, could help diversify the Thai wood product landscape and reduce dependency on imports.

6.3 Collaboration with Designers and Universities

A standout feature of the project technical innovation strategy was its active collaboration with **youth designers, university students, and art and design networks**. Partnerships were formed with institutions. These collaborations were structured as participatory design challenges and innovation clinics, which led to:

- **Six co-created furniture prototypes**, integrating domestic plantation wood and circular design principles.
- **Learning exchanges** where students and designers visited Phrae and Trang to understand material sources and community-level challenges.
- **Public exhibits** that linked the story of raw material legality with the appeal of finished products.

This designer–producer–consumer triad was pivotal to repositioning Thai plantation wood from being seen as an inferior substitute to being a credible material for modern, minimalist, and sustainable lifestyles.

6.4 Product Branding and Certification Integration

Another aspect of the innovation strategy was the exploration of **product branding and certification**, including the potential use of carbon labelling and traceability marks. While full FSC certification was not immediately feasible for all SMEs, the project promoted:

- **Traceability Tags:** Digital QR code tags were piloted on select prototypes to link the product to its origin (Phrae or Trang), highlight legal sourcing, and describe environmental benefits.
- **Carbon Benefit Messaging:** Simplified communication materials were developed to explain the role of legal plantation wood in carbon sequestration and climate adaptation.
- **Brand Storytelling:** Each prototype exhibited in Chiang Mai and Bangkok was accompanied by a story card that included grower profiles, designer insights, and environmental attributes.

These efforts were part of a broader strategy to move from raw material legality to consumer trust in the

product—positioning Thai wood not just as legal and domestic, but as climate-smart and design-forward.

6.5 Lessons Learned and Replication Potential

The experience gained from these technical innovations suggests several key lessons:

- **Material transformation and product storytelling are mutually reinforcing:** Technical improvements alone are insufficient without strong branding and public communication.
- **Youth engagement is a powerful tool** for reimagining materials and engaging in new consumer segments.
- **Collaboration between producers and designers** must be facilitated through structured programs and incentives to ensure sustained engagement.

These lessons were discussed during the Fourth Progress Report period and informed the design of post-project recommendations. Several institutions—including the Royal Forest Department and the Faculty of Architecture at KU—have expressed interest in continuing the innovation partnership model, especially as part of the green procurement initiatives under Thailand’s Bio-Circular-Green (BCG) policy.

In summary, the technical innovation component of the project successfully bridged the gap between community forestry and high-value design. Through experimentation, co-creation, and storytelling, the project demonstrated the viability and appeal of legal domestic wood products in Thailand’s evolving design economy.

7. Strategic Partnerships and National Memorandum of Understanding (MoU)

The formation and institutionalization of multi-sectoral partnerships were among the most significant achievements of the ITTO Project PD 926/22 Rev.1. From the project’s inception, strategic collaboration across government agencies, academic institutions, the private sector, and community-based organizations was prioritized as both a method and outcome of promoting sustainable domestic wood consumption. This culminated in the development and endorsement of a national **Memorandum of Understanding (MoU)**, signed in January 2025 by 28 agencies and organizations. The MoU reflects a formal, long-term commitment to continue promoting the use of legal, traceable, and certified domestic wood across Thailand.

7.1 Partnership Strategy and Coordination Mechanisms

The partnership strategy was structured in phases, evolving from early-stage consultations to formal multi-stakeholder platforms. During the **first and second progress periods**, the project facilitated dialogue among key actors—such as the Royal Forest Department (RFD), the Forest Industry Organization (FIO), Kasetsart University (KU), and the Department of Industrial Promotion (DIP)—to align legal, industrial, and educational mandates related to forest plantations and wood product use.

By the third progress period (mid-2024), the project had successfully established an inter-agency working group responsible for guiding the drafting of the MoU. This process was informed by findings from the pilot provinces (Phrae and Trang), where smallholder legality verification and SME readiness were used as reference cases. Key coordination mechanisms included:

- **Bi-monthly stakeholder meetings** hosted by KU and RFD to exchange updates on policy reform, product innovation, and campaign progress.
- **Joint technical reviews** of draft documents such as the teak legality manual, compressed wood technical notes, and training modules.
- **Shared communication platforms** including the “Thai wood is usable” campaign which engaged partners in co-branding and event coordination.

This approach created a unified space for government, academia, civil society, and industry to contribute directly to shaping Thailand sustainable wood use narrative.

7.2 Composition and Roles of MoU Signatories

The final MoU, as submitted with the Fifth Progress Report and MoU Summary Document, brought together 28 key institutions representing various sectors. These include:

Government Agencies:

- **Royal Forest Department (RFD)** – Lead agency for legality, forest law, and plantation governance.

- **Forest Industry Organization (FIO)** – National operator of commercial forest plantations and a key advocate for domestic wood promotion.
- **Department of Industrial Promotion (DIP)** – Key partner for SME capacity development and value-added product processing.
- **Department of Environmental Quality Promotion (DEQP) and Thailand Greenhouse Gas Management Organization (TGO)** – Environmental partners advancing carbon labelling and sustainable procurement.

Academic Institutions:

- **Kasetsart University (Faculty of Forestry, Faculty of Architecture)** – Executing agency and technical lead for training, innovation, and research.
- **Chiang Mai University, Prince of Songkla University** – Regional collaborators supporting design learning and SME engagement.

Private Sector and Associations:

- **SCG, Modernform, TPS Furniture, HomePro** – Major corporations and retailers endorsing legal Thai wood in retail and construction markets.
- **Thai Furniture Industries Association (TFIA)** – Sectoral representative for the domestic furniture industry.

Civil Society and Innovation Networks:

- **Art4D, Design Associations, Youth Designers** – Catalysts for public engagement, design innovation, and sustainable consumer campaigns.

Each signatory committed to advancing one or more of the MoU’s five pillars: (1) policy alignment, (2) innovation and product development, (3) capacity building, (4) public communication, and (5) monitoring and evaluation. The MoU establishes an open platform that welcomes future members and assigns collective responsibility for future reporting and coordination.

7.3 MoU Signing Ceremony and Symbolic Importance

The official **MoU Signing Ceremony** was held in January 2025 at Kasetsart University. The event, attended by representatives of all 28 signatories, served both as a milestone of institutional cooperation and a public reaffirmation of national commitment to legal and sustainable wood use. Media coverage, speeches from government officials, and an exhibition of prototype products from Trang and Phrae reinforced the practical and symbolic significance of the MoU.

In her opening remarks, the Dean of the Faculty of Forestry emphasized the importance of “joining hands across ministries and markets” to ensure that Thailand’s plantation wood resources are used legally, efficiently, and with pride. A short video titled “From Forest to Home” was also screened, highlighting the journey of legal Thai wood from community plantations to consumer households.

7.4 Significance of Long-Term Impact and Sustainability

The MoU lays the groundwork for the institutionalization of the project’s key outputs and promotes:

- **Continued inter-agency coordination** for legal reforms and certification system development.
- **Replication of pilot models** from Phrae and Trang across new provinces and value chains.
- **Integration into green procurement frameworks** and the national Bio-Circular-Green (BCG) economy agenda.
- **Sustained capacity development** through curriculum inclusion at forestry and industrial universities.
- **Consumer confidence and export credibility** through recognized branding of legal Thai wood.

Moreover, the MoU represents a shift from project-based collaboration to policy-anchored institutional cooperation. It creates opportunities for resource mobilization, including future ITTO projects, bilateral partnerships (e.g., with Japan, Finland), and domestic public–private co-financing models.

7.5 Reflections and Future Directions

The successful formation and signing of the national MoU is among the most concrete legacies of the project. It marks a transition from isolated efforts to a coordinated national movement. As noted in the Fourth Progress Report, several agencies—including the RFD and TGO—have already initiated follow-up discussions to embed MoU activities into their departmental work plans. Private sector signatories have also begun exploring internal procurement reforms that prioritize legal Thai wood.

8. Impact Assessment and Lessons Learned

As the project has been completion, the assessment of its tangible impacts became essential for understanding both its immediate success and its long-term value for Thailand domestic wood sector. The project, implemented between January 2023 and February 2025, made significant advances in addressing systemic challenges, building technical capacity, fostering innovation, and shifting public and policy narratives around the value of legal and sustainable domestic wood. The impact assessment draws on both quantitative and qualitative evidence compiled in the fourth and fifth progress reports, internal feedback from partners, and post-activity evaluations.

8.1 Quantitative Outputs

The project delivered measurable results across multiple outputs, including:

- **Over 320 direct participants** trained in legality, certification, carbon awareness, and product innovation across Phrae, Trang, Chiang Mai, and Bangkok.
- **6 co-designed furniture prototypes** developed using legal domestic teak and compressed rubberwood.
- **2 pilot study sites established** (Phrae for teak, Trang for rubberwood) with localized training, policy field testing, and product development activities.
- **5 major stakeholder consultation events** held at national and regional levels, including multi-agency policy dialogues and technical reviews.
- **28 institutional signatories** confirmed under the National MoU on Promoting Sustainable Domestic Wood Use.
- **2 urban public campaigns** launched, reaching an estimated **10,000 people directly** and **over 50,000 through digital platforms**.
- **5 technical manuals and learning toolkits** published, covering plantation legality, rubberwood processing, design innovation, and campaign messaging.
- **Policy briefs** and legal manuals used as reference material by the Royal Forest Department and other agencies for future plantation registration and certification schemes.

These achievements demonstrate the project's reach and confirm its success in embedding key messages and tools into Thailand's forestry, industry, and design sectors.

8.2 Qualitative Outcomes

Beyond numerical indicators, the project produced deeper qualitative impacts, particularly in shifting attitudes and catalyzing institutional change. These include:

- **Increased confidence in legal domestic wood** among SMEs, plantation growers, and designers. Stakeholders in Phrae and Trang reported that project activities helped demystify Article 7 procedures and certification options, making them more approachable and actionable.
- **Cross-sector collaboration** that had not previously existed was fostered. Forestry officials, designers, SME owners, and academics participated jointly in workshops and exhibitions, breaking silos and generating shared language around legality, innovation, and climate.
- **Integration of legal wood into youth and university discourse.** Architecture and design students involved in the project reflected an increased understanding of sustainability principles in wood selection and expressed commitment to applying these in future professional contexts.

- **Policy responsiveness.** Key agencies such as RFD, FIO, and DIP adapted internal policy messaging and resource planning to align with MoU commitments. This included discussion of budgetary integration and green procurement linkages for legal wood.

These outcomes suggest a deepening of awareness and institutional capacity that will continue beyond the project’s formal conclusion.

8.3 Geographic and Social Inclusiveness

The selection of Phrae and Trang as pilot provinces allowed the project to address two contrasting realities: one in the **teak-based upland forest–agriculture mosaic** of the north, and the other in the **rubberwood-dominated peri-urban south**. The project succeeded in tailoring its approaches to each context, addressing unique legality and market barriers in both provinces. Importantly, both male and female smallholders, local government officials, and SME entrepreneurs were represented in all stages of training and outreach.

Youth and early-career professionals were also engaged through design competitions, site visits, and exhibitions. This intergenerational inclusion is particularly significant, given that forestry and design fields often face challenges in attracting and retaining new talent with sustainability commitments.

8.4 Systems-Level Contributions

At a systems level, the project contributed to the following changes:

- **Establishment of a national platform** for sustainable domestic wood, anchored in a formal MoU and backed by ministries, universities, and private sector actors.
- **Policy and practice alignment**, particularly in the areas of plantation registration (Forest Act Article 7), promotion of certified wood markets, and outreach to urban consumers.
- **Model for replication.** The methodologies, materials, and institutional partnerships established through the project are now available for scale-up and replication in other provinces or sectors (e.g., construction, interior design, carbon markets).

These outcomes align with Thailand’s strategic direction under the **Bio-Circular-Green (BCG) economy framework** and reinforce its position as a leader in Southeast Asia in advancing legal and sustainable wood value chains.

8.5 Lessons Learned

Several critical lessons emerged over the course of implementation:

1. Legal reform requires more than laws—it requires practical translation and localized support. The project found that legal manuals, visual aids, and practical training were crucial in demystifying policy for end-users.
2. Partnerships take time but yield high returns. Initial coordination was slow, but once trust and shared goals were built, the project witnessed significant momentum in co-implementation and knowledge exchange.
3. Design and innovation unlock new markets. When plantation wood is linked with quality design, consumer perception shifts from “inferior” to “aspirational.”
4. Youth engagement enhances visibility and continuity. Students and young designers were among the most enthusiastic participants and helped extend the campaign’s reach.
5. Campaigns must blend visual appeal with technical credibility. Successful public outreach required a balance between aesthetic presentation and technically accurate messaging, tailored to different audiences.

These lessons were shared during the MoU launch event and compiled into an internal reflection note used to inform future planning by KU and its partners.

9. Recommendations, Sustainability, and Conclusion

The successful implementation of the ITTO Project PD 926/22 Rev.1, “Promotion of Sustainable Domestic Consumption of Wood Products in Thailand,” offers a set of actionable recommendations and a replicable model for transforming legal wood promotion from isolated advocacy to national policy and consumer

engagement. As the project closes early in 2025, it leaves behind a strong institutional, technical, and social foundation. To ensure lasting impact, this final chapter outlines strategic directions for sustaining momentum, scaling effective practices, and guiding future collaboration.

9.1 Recommendations for Policy and Practice

Based on lessons learned, technical evaluations, and stakeholder feedback, the following recommendations are proposed:

1. Strengthen Legal Registration and Verification Systems

- Streamline procedures under Article 7 of the Forest Act with simplified documentation templates and digital workflows.
- Continue to build capacity among local RFD officers in plantation verification and integrate legality training into induction programs.
- Explore incentive mechanisms for smallholders who maintain legal documentation and follow sustainable practices.

2. Institutionalize the MoU Platform

- Establish a working group or coordination secretariat—potentially hosted by Kasetsart University or the Royal Forest Department—to support annual MoU review, joint reporting, and activity planning.
- Embed MoU activities into the work plans of signatory agencies, with dedicated focal points and budgetary support.
- Encourage expansion of the MoU membership to include additional private sector actors, provincial governments, and educational institutions.

3. Support Innovation and Certification for SMEs

- Provide grants or tax incentives for SMEs that invest in processing innovations, legal sourcing systems, or Chain of Custody certification.
- Expand training programs for compressed wood panel production and small-diameter timber utilization, particularly in Trang and neighboring provinces.
- Integrate carbon labelling and circular economy frameworks into wood product development, linking to Thailand’s green economy targets.

4. Sustain and Expand Public Awareness Campaigns

- Institutionalize the “ไม้ไทยใช้ได้” campaign under national platforms such as Bangkok Design Week or provincial expos.
- Collaborate with educational institutions to embed legal wood messaging into school curricula and design courses.
- Translate key campaign materials into English for broader regional sharing, especially within ASEAN networks.

5. Promote Inclusion in Green Public Procurement (GPP)

- Advocate for the integration of certified Thai plantation wood into government procurement standards.
- Coordinate with the Thailand Greenhouse Gas Management Organization (TGO) and DEQP to link legal wood use with climate and carbon metrics.
- Pilot legal wood use in public construction, school furniture procurement, and local government projects.

9.2 Sustainability and Scaling Pathways

The project was designed with scalability in mind, and several elements are ready for replication or institutional uptake:

- **Training materials and toolkits** developed during the project are in Thai and available for continued use by vocational colleges, government agencies, and community trainers.
- **Public–private partnerships** formed through the MoU create a robust mechanism for scaling efforts, with cross-sector ownership and built-in coordination pathways.
- **Pilot experiences from Phrae and Trang** can be adapted for other provinces with high plantation potential, such as Uttaradit, Surin, or Nakhon Si Thammarat.
- **Youth engagement models** piloted in design universities can be incorporated into regular coursework or adapted as extracurricular sustainability innovation programs.

The project sustainability is well positioned by embedding outputs into institutional mandates and linking them to national policies such as the Bio-Circular-Green (BCG) framework.

9.3 Conclusion

The ITTO-supported project has demonstrated that promoting legal and sustainable domestic wood use is not only feasible but highly impactful when approached holistically. Over a two-year period, the project succeeded in:

- Improving legal awareness and simplifying compliance for plantation owners.
- Empowering SMEs and designers to explore sustainable wood innovation.
- Creating a national narrative around the pride and practicality of Thai wood.
- Mobilizing a broad, multi-sectoral coalition through a national MoU.
- Engaging the public and youth in celebrating local materials and sustainable living.

These achievements reflect a strong return on investment and offer a model for other tropical timber-producing countries. Most importantly, the project has catalyzed a shift—from fragmented legality efforts to a cohesive, system-wide commitment to legal, sustainable, and innovative wood product development. The partnership between the Forest Agency of Japan, Kasetsart University, and the Royal Forest Department—under the support of ITTO—has produced durable institutional change and set a precedent for future collaboration. Moving forward, the continued engagement of all MoU signatories and alignment with Thailand’s sustainability agenda will be key to maintaining momentum.

The successful key take way shows that the project has not only planted the seeds of reform but also stronger networks of woodworks, a culture of legal wood use, and a roadmap for national transformation. With strong foundations now in place, Thailand is well positioned to lead the region in sustainable forest product development and climate-smart wood consumption.

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1. BACKGROUND

1.1 Context

Forest cover in Thailand had significantly declined from 53% of the country in 1961 to 25% in 1989 due to encroachment for agriculture, illegal logging and unsustainable forest management. In addition, the rise of grassroots social movements on environmental awareness resulted in the Thai government imposing a nationwide logging ban in 1989 to responsible environmental and social concerns. Forest cover declined in Thailand has generally been stabilized in the last few decades, and forests are even increasing in extent in some areas. The remaining forest cover forest is 32%, which is less than the national target of 40% of the country area which 25% for conservation forests and 15% for production forests. The extent of conservation forests or protected areas is now about 23% and most likely achieve the 25% target soon. The remaining forest cover outside protected areas (after expansion of protection areas) would cover approximately 7.2%. Thus, approximately 3.5 million ha is targeted to achieve the 15% target.

Thailand now has large areas of both rubberwood and eucalyptus plantations. Rubberwood (mostly domestically sourced) supplies 87% of wood furniture production, while eucalyptus supplies a large part of Thailand's domestic pulp and paper demand. Imported hardwoods are used mostly for the construction sector, although they also make up the balance of supply to the furniture industry. Almost all the 4 million cubic meters roundwood of sawn wood used in the construction industry in Thailand in 2016 were imported. The Forestry Development Strategy (2017 – 2036) predicts an annual wood demand of 47 million tons. This huge demand can be met by either the additional forest plantations of 1.4 million ha by 2036 or a significant increase in imported logs and sawn wood for reprocessing for export.

The characteristics of wood industry and the wood products in Thailand are as follows:

- Thailand is increasingly ambitious in seeking to become a regional manufacturing hub for wood-based products and it is a major supplier of furniture and other wood-based products to European, USA and Asian markets. However, access to international markets will require efforts to verify that all timber in its products (both imported and domestically produced) is legal. Recently, Japan and the Republic of Korea have also established requirements to promote the trade in legal timber products,
- Thailand started exploring an EU Forest Law Enforcement Governance and Trade (FLEGT) Voluntary Partnership Agreements (VPAs). Under the VPA process, Thailand is developing a timber legality assurance system to verify that wood products conform to national laws, whether they are domestically harvested or imported.
- Thailand's voluntary certification scheme is a means to give Thai industry a method to show to the buyers the legal origin of wood they are purchasing. However, with the complexity of the industry, high cost (smallholders), only a few big companies and FIO can afford the certification scheme. enforcement modalities well established
- Article 7 of the amended Forest Act 2019 permits landowners in private land and public land to cut tree species, which were used to be listed as restricted species. However, the operators who wish to transport cut logs are required to register their private seal with RFD. In addition, the operators of wood processing plants (small- medium and large plants) must obtain a license from the government. Legality risks relate to the confusion, differing interpretations of regulations and uneven enforcement inevitably lead to barriers to native tree species utilization. ITTO and RFD had developed criteria and indications for certification of wood from community forests and smallholder plantations, but it has not been officially adopted by the RFD.
- The design and styles of wooden furniture produced by woodworking villagers do not

match the market needs. Therefore, imported wood furniture has increased steadily from 79 million USD in 2012 to USD 140 million in 2020, while exported wood furniture remains stable at USD 539 million during this period.

- The wrong perception that wood is scarce and utilization of wood products either from legal or illegal sources leads to deforestation and climate change impact. This wrong perception and understanding are stimulated by mass media, social movements on environmental activists. This leads to extremist attitude toward wood use and fabricated pressure on the wood manufacturing and exporting industry. A certain portion of the urban population (52% of the total population and 60% in 2030), especially the young generation living in big cities rush to use substituted materials, including wood composite, grass, concrete, etc.

1.2 Relevance to ITTO and Thailand's Policies

This project is conformed with ITTO objectives (ITTC, 2006) and priorities (current SAP). Under ITTA 2006, ITTO has two closely related and overarching objectives: 1) to promote the expansion and diversification of international trade in tropical timber from sustainability managed and legally harvested forests, and 2) to promote sustainable management of tropical timber-producing forests. The ITTO objectives are highly relevant and support Thailand's national forest policy (item 1.2.2). which aim to 1) promote afforestation in private land and the public land permitted for utilization; 2) promote and assist value chain process from wood industries and biodiversity-based economy development; 3) develop licensing and national and international certification of timber.

Meanwhile, this project is relevant to the forestry and wood industry development policies of Thailand. Following are the key policies that are in favor of project implementation as follows:

- **Amended the Forest Act 2019** Measure 7 stated that the previously restricted tree species either planted in the public land permitted for utilization or the private own land are no longer defined as restricted species. This policy amendment stimulates smallholders and local people to engage in economic forest plantations.
- **The National Strategy (2018-2037)** is the country's first national long-term strategy. The Strategy for Eco-Friendly Development and Growth is one out of six key strategies aim to achieve sustainable development in terms of manifesting a healthy society, economy, and environment: implementing good governance, and integrated partnerships at both national and international levels. Key development guidelines related to the project proposal are to promote green growth and sustainable development by (1) increasing bio-based economy value; (2) conserving and rehabilitating biological diversity; (3) maintaining and expanding eco-friendly green areas (55% of the country land area); and (5) promoting sustainable consumption and production.
- **The National Forest Policy** adopted by the cabinet in 2019 aims to maintain 40% forest cover, 25% for conservation forests and 15% for production forests. The policies related to production forests and wood industries include: 1) promote afforestation in private land and the public land permitted for utilization; 2) promote and assist value chain process from wood industries and biodiversity-based economy development; 3) develop licensing and national and international certification of timber, including for small- and medium-sized enterprises.
- **The Forestry Development Strategy 2017 – 2036 (B.E. 2560-2579)** aims to increase forest cover outside protected areas by 3.52 million ha to achieve the 15% for production forest target. Of this number, 1.4 million ha is targeted by 2036.

1.3 Target areas

The target areas of this project are located in two provinces of Thailand: Nan and Trang.

Number	Name of project areas
1	Nan Province: Smallholder teak plantations and community enterprise Area: 12,130 Km ² ; Population: 479,000; Pop density 40/km ² ; Forest area is 73,720 ha (61%); GDP per capita: 3,031 USD (country average 6,778 USD); Agriculture contribution to GPP 32%
2	Trang Province: Large area of rubber plantations and rubber wood industry, as well Centres/clusters for wooden furniture manufacturing Area: 4,918 Km ² ; Population: 643,116; Population density: 131.km ² ; Forest area: 109,300 ha (23.1%); GDP per capita: 3,880 USD (country average 6,778 USD); agriculture contribution to GPP 31%; Number of Wood Facility: 92; Number of labors: 7,662 persons.

(a) Nan

Nan province is 1 of 17 provinces situated in the north of Thailand, covering approximately 12,000 km². To the north and the east, the province adjoins Lao PDR (Figure 1). Administratively, the province is subdivided in 15 districts (Amphoes) and 8 municipalities. The population of Nan Province was about 478 thousand (National Statistical Office, 2017) and the total number of households was 164,440. Mean population density of Nan province is rather low (39 persons/km²) compared to the national population density of the country (130 person/km²). Most of the lowlands are dominated by Thai people, whereas the highlands and mountainous territories are populated by diverse ethnic groups. The largest ethnic groups include the Lua, Khmong, Mien and Khmu.

Approximately 55% of the total households engage in agriculture. The Gross Provincial Product (GPP) of Nan province steadily increased from 357 million USD in 2000 to 1,09 billion USD in 2019, while GDP per capita increased from 2,200 USD to 3,031 USD during the same period. In addition, the contribution of the agricultural sector to the GPP had increased from 15.7% to 32.25% in the same period or 12% annually. A recent survey showed that the proportion of people living below the poverty line fell from 28.8% (138,000 individuals) to 24% (114,000) by 2016.

According to long-term forest cover monitoring by the RFD, forest cover in Nan province was 74% of the province area in 2004 and declined to 71% and 61% in 2008 and 2016, respectively (RFD, 2016). The main types of forests in Nan province include evergreen forest (45%), mixed deciduous forests (46%), dry dipterocarp forests (8%), and pine forest (1%). Natural forests decreased by nearly 25% during 1995-2012, but the agricultural lands increased by more than 50%. The highest deforestation rates were recorded during 2009–2012. In addition, local people mainly hill tribe people have changed their land use practices from the traditional system of slash and burn agriculture to permanent cultivation for commercial trading. Maize and cassava are the main crops, promoted by price incentives and large agricultural companies. This rapid change results in an increase in overland runoff, and in an enhanced hazard of heavy floods during the monsoon season.

Large proportions of forest areas (evergreen forest and deciduous forest) were converted from 2009-2016 to maize and cash crops. In addition, approximately 21,200 ha and 8,900 ha of new perennial trees (fruits and rubber plantations respectively) were found in previous maize cultivation and deciduous forest area. Forest plantations and rubber plantations rapidly increased from 8,740 ha in 2007 to 35,000 ha in 2015. In addition, many communities gather and form smallholder teak plantations and community enterprise.

Protected areas (national parks and wildlife sanctuaries) cover about 35% of the province's area,

while watershed class 1 contributes approximately 45%. Agricultural development and settlement are prohibited there, but the maize boom in the last decade have resulted in huge deforestation in conservation forests and has become a controversial issue. In addition, non-timber products (honey, resin, wasp eggs and rattans) extracts are also not allowed inside national parks and wildlife sanctuaries.

(b) Trang Province

Trang province is in peninsular Thailand and in the west coast. The province covers an area of 4,918 Km². To the west is the Andaman Sea, while the west part meets Khao Banthad Range and adjoins Pattalung Province. It has been the important seaport of the south from past to present.

Trang is divided into 10 districts. These are further divided into 87 subdistricts (*tambons*) and 697 villages. The total population of Trang Province is 643,116 with a density of 131/km². About 84% of the Trang population are Thai ethnic, and the remaining (6%) are Malay ethnic. Trang was the first area of Thailand where rubber trees were planted, brought there by governor Phraya Ratsadanupradit Mahison Phakdi from British Malaya in 1899. The current rubber plantation area covers about 1.34 million rai or 215,000 ha or 43% of the province area. Trang is ranked the second for rubber plantations after Songkla Province (350,400 ha) and contributes 5.5% of the total plantations in Thailand. About 100,000 households are involved in rubber plantations.

The Gross Provincial Product (GPP) of Trang province steadily decreased from 2,355 million USD in 2012 to 2.08 billion USD in 2019, while GDP per capita decreased from 3,872 USD to 3,767 in 2019 USD during the same period largely due to the lower price of rubber latex. Agriculture contribution contributes about 31% of the provincial GPP. The GDP per capita of Trang is ranked as 8 in southern Thailand provinces and 34th in Thailand. Currently, there are 105 rubberwood industry factories (e.g., furniture, veneer, sawn wood, play toys, etc) with an investment of over 17 billion USD or 5 billion baht in Trang province.

Trang province covers various landscapes ranging from the coastline, flat areas, underrating terrains and mountains. Forest cover in Trang Province varies from 21-23% in the last 10 years. Most of the remaining forests are in protected areas (national parks and wildlife sanctuaries). Forest encroachment for rubber and oil palm plantation is the main environmental threat to the province.

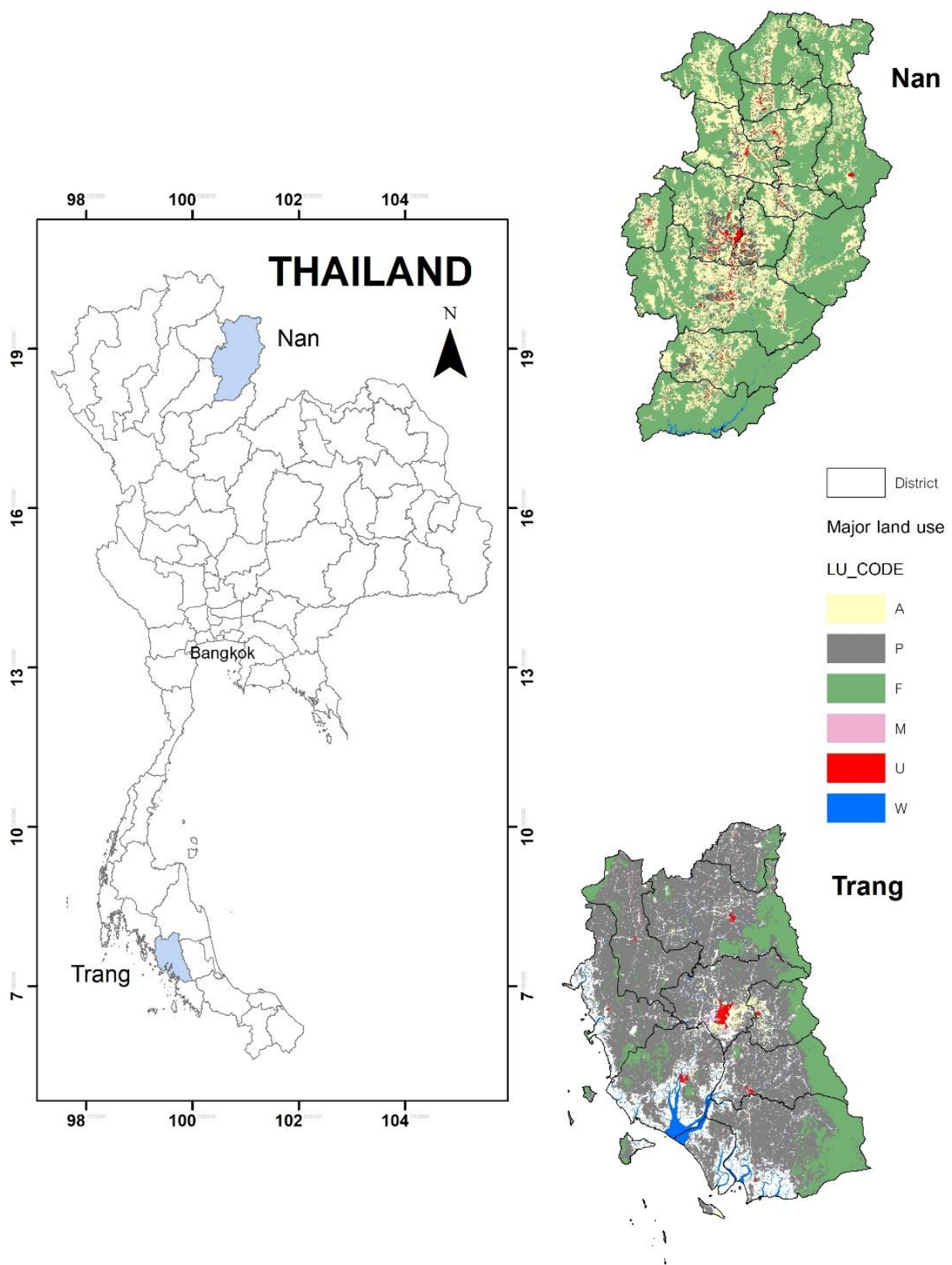


Figure 1 Location on Nan and Trang Provinces

2. Description of the completion report

Kasetsart University Faculty of Forestry (KUFF) with the support of the Royal Forest Department (RFD) of Thailand, ITTO and relevant agencies have been operated the project of Promotion of Sustainable Domestic Consumption of Wood Products in Thailand (SWU). This report covers all activities implemented in the project.

The implementation of the workplan is summarized as follows:

2.1 The Project Management Team

Professor Dr. Yongyut Trisurat has broadened the scope of his responsibilities in effectively managing the SWU project by initiating a change in the Project Coordinator role. Assistant Professor Wirongrong Duangjai, from the Kasetsart University Faculty of Forestry (KUFF) in Thailand, has been replaced as the new Project Coordinator. This change recruitment was officially approved by the ITTO on November 7, 2023, as documented in Annex 1, Reference No. F.23-0058. Furthermore, the ITTO appointed Ms. Voratatta Sutthipak as the Project Finance Officer and Ms. Ketsanee Tuaktatong as the Project Secretary, as detailed in Annex 2.

Table 1 The SWU Project Management Team

Title	Name	Position/Tel/E-mail
Central Level		
National Project Leader	Dr. Preecha Ongprasert	Director of Forestry Foreign Affairs Office, Royal Forest Department Tel. +66-2561-4192-3 ext. 5034 Fax +66-2561-3109 Contact person: Mr. Preecha Ongprasert Mobile +66-8-9118-2351 E-mail: ongprasertpreecha@gmail.com
Deputy national Project Leader	Mr. Boonsuthee Jeravongpanich	Chair of PTC of the project Director of Forest Standard Division, Economic Forest Office, RFD
Project Coordinator	Assist.Prof. Dr. Wirongrong Duangjai	Faculty of Forestry, Kasetsart University Tel +66-8-63641-818; Email: fforwod@ku.th
Project Secretary	Ms. Ketsanee Tuaktatong	Faculty of Forestry, Kasetsart University Tel +66-9-73137-225 Email: ketsanee.tu@ku.th
Project Finance	Ms. Voratatta Sutthipak	Faculty of Forestry, Kasetsart University Tel +66-8-23561-144 Email: voratatta.su@ku.th

ITTO Secretariat

Title	Name	Position/Tel/E-mail
Central Level		
Project Supervisor	Dr. Tetra Yanuariadi	Projects Manager of Division of Trade and Industry, ITTO Secretariat Tel. 81-45-223-1110 Email: tetra@itto.int

2.2 Organization and Structure of the SWU Project administration arrangement

The project management team of SWU works closely with three partners from research training institutions, private sectors, and local authorities (Figure 1). The Faculty of Forestry, Kasetsart University (KUFF) is the Executing Agency, consulting by project technical committee, and monitoring by the project Steering Committee (PSC). This organization and structure lead to effective management of the project. Figure 2 shows the editions of the SWU project administration in which Prof.Dr.Yongyut Trisurat is in charge of managing the more complex administration the project team.

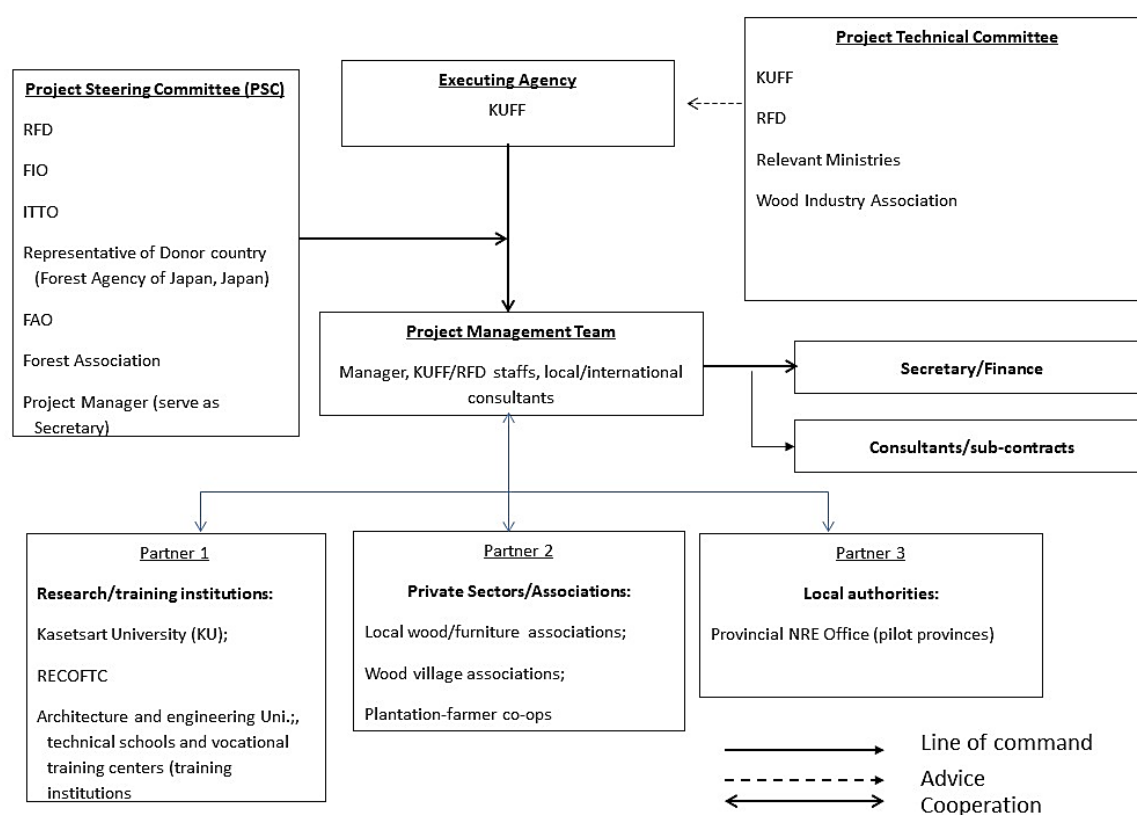


Figure 2 Organization chart of the promoting sustainable domestic consumption of wood and wood products in Thailand

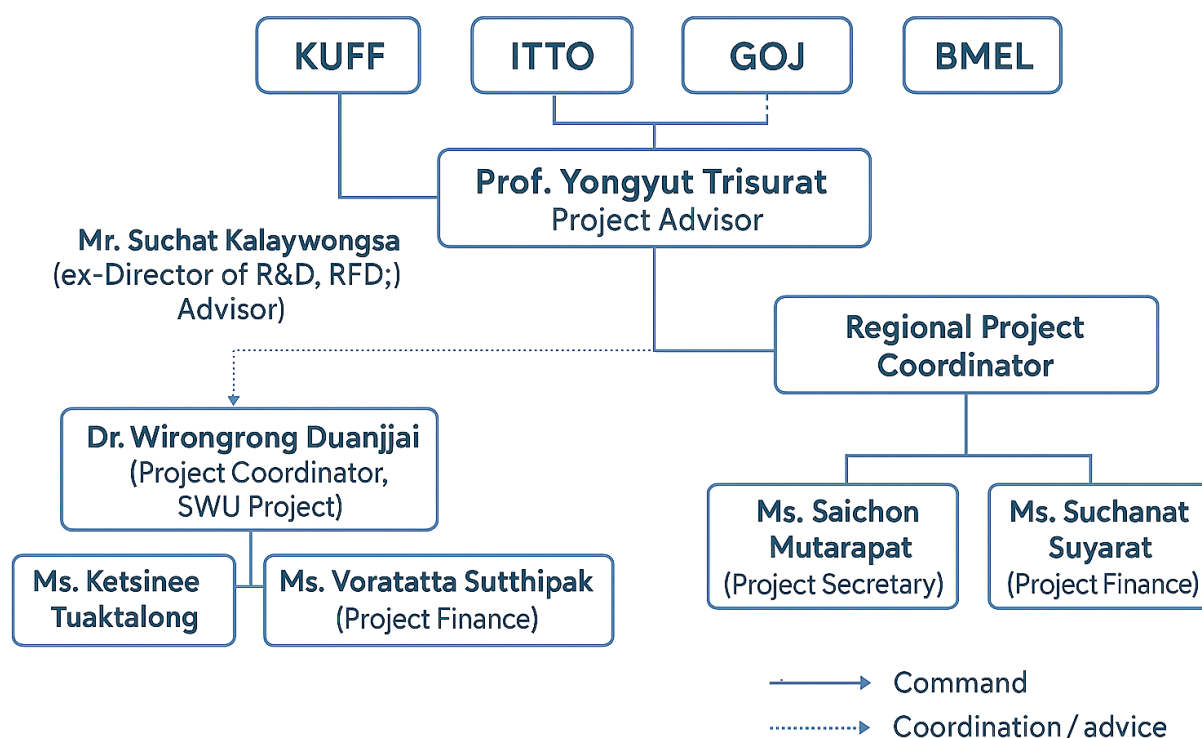


Figure 3 Proposed Administration arrangement

2.3 Project Steering Committee and Project Technical Committee

2.3.1 Project Steering Committee Meeting (PSC)

The PSC membership comprises 16 members from representatives from the Executing Agency and key national partner agencies (e.g., RFD, FIO), ITTO and the donor country (Forestry Agency of Japan). The Project Coordinator will act as Secretary of the PSC. The list of PSC members is below:

Director-General of RFD	Chair
Dean of the Faculty of Forestry	Deputy Chair
Managing Director of Forestry Industry Organization	Member
Representative of ITTO	Member
Representative of Donor Country	Member
President of Thai Timber Association	Member
Dean of Faculty of Architecture, Chulalongkorn University	Member
Mr. Suchat Kalayawongsa, Forestry Expert	Member
Managing Director of Rubber Authority of Thailand	Member
Managing Director of National Housing Authority	Member
Dr. Suwan Tangmitcharoen (Senior Expert on Forest Plantation Extension)	Member

Director of Forest Research and Development Office	Member
Director of Forest Plantation Extension	Member
Director of Economic Forest Office	Member
Director of Forestry Foreign Affairs Office	Member
Project Manager	Member and Secretary

According to ITTO Manual for Project Implementation, the first PSC meeting will be organized no later than the end of the third month after the start of the project following ITTO to approve the operational plan and the terms of reference for all consultants.

2.3.2 Project Technical Committee (PTC)

In addition to the PSC, a Project Technical Committee (PTC) was established to support the work of the PSC through a periodic review of the implementation of all activities geared toward the achievement of the project objective (Annex 4). The PTC consists of technical team members of the RFD, KUFF and national partner agencies and will meet at least once a year in conjunction with Project Steering Committee meetings. Functions of the PTC include the following duties: 1) collaborate with RFD, relevant agencies and smallholders to facilitate project implementation, 2) monitor activities conducted by project staff, 3) provide information to project teams to facilitate project implementation, 4) coordinate with national, private sectors and smallholders in the pilot provinces to effectively implement the assigned tasks, and 5) supervise the Project Manager in preparing progress reports and work plans as required by the ITTO. The Director of Economic Forest Office of the RFD is the Chairman of the PTC and the Project Coordinator serves as a member and secretary. The list of potential members for the PTC is below:

Dean of the Faculty of Forestry	Advisor
Director of Economic Forest Office	Chair
Director of Forestry Foreign Affairs Office	Deputy Chair
Representative of FIO	Member
Director of Wood Research and Utilization Division	Member
Director of Forest Standard Division	Member
Director of Wood Industry Extension	Member
Director of Wood Industry Permission	Member
Project Manager	Member and Secretary

The first Technical Committee is organized back-to-back with the First PSC meeting. The minutes of each meeting will be prepared by the Project Coordinator and be included in the Project Progress Report.

2.4 Collaboration of Organizations, Partners, Stakeholders and Communities

The project collaborates with various organizations, stakeholders, and communities to effectively support the project implementation and the dissemination of project results. The list of potential organizations, stakeholders, and communities, but not limited are as follows:

Table 2 The Collaborative Organization

Organization	Role
FIO	<ul style="list-style-type: none"> • Act as the key collaborator of the project • Provide experience, experts to join project activities, especially with the policy framework improvement • Participate in field studies and conduct trainings
Japan Forestry Agency	Represent Donor Country <ul style="list-style-type: none"> • Supervise and guide project implementation • Provide support to compile and analyze the experience of selected countries in promoting wood and wood product consumption
Thai Timber Association	It is a platform that offers the best of B2B networking, knowledge sharing and strategized meetings which not only provide opportunities for business growth but also to encourage wood processing business to improve the quality of wood products and facilitate domestic wood consumption and wood trading.
Rubber Authority of Thailand	This organization provides technical and financial support to farmers. Current, rubber plantations cover more than 430,000 ha or 8.4% of the country land area. Rubberwood (mostly domestically sourced) supplies 87% of wood furniture production.
National Housing Authority	It is a state enterprise attached to the Ministry of Social Development and Human Security. Its objective is to provide housing for low- and middle-income earners, to provide financial assistance to those who need to have their own housing, and to deal with the business of building construction and land acquisition. It is a potential wood consumer in housing construction.

2.5 Project Consultants

Mr. Kitipong Tangkit serves as consultant #1, specializing in wood use promotion policies (either international or domestic). He is responsible for activity 1.3, which involves gathering literature and compiling relevant reports and information related to the policy and legality of wood production and consumption, specifically focusing on teak and para rubber.

Dr. Pisut Siripant, acting as consultant #2, addresses innovative wood and wood product issues. He specializes in wood design and the development of home furnishings from compressed latex waste sludge wood powder. Throughout his professional career, he has guided the community in wood processing and manufacturing, including the production of compressed straw pellets and foam, contributing significantly to the project activities.

3. Execution of the Workplan

3.1 Workplan review

The progress in implementation at the last date of the period covered by this report (1 August 2024 - 30 April 2025) is shown below in Table 3.

Table 3 Workplan progress of the ITTO Sustainable Wood Use in Thailand

Outputs and Activities	Responsible party	Scheduled in month (Year 2)									Status
		2024-2025									
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Output 1: Improved policies for promoting domestic uses of wood and wood products											
1.1 Strengthen the national council/association and Forest Plantation Network and individuals for the promotion of sustainable wood use	Kasetsart, RFD and FIO in collaboration with local associations.										Completed
1.2 Information and analysis on annual domestic wood production, the location of (legal) supply sources, value chains and demands & trends	Kasetsart, RFD, FIO and int. consultant in collaboration with local and national associations										Completed
1.3 Legalize and endorse domestic logs and sawn wood from planted forests on private own land or permitted public lands and their factories and mills through national & international certification	Kasetsart, RFD, FIO and int. consultant										Completed
1.4 Experiences/lessons on smallholder plantations in selected	Kasetsart, RFD, FIO and int.										Completed

Outputs and Activities	Responsible party	Scheduled in month (Year 2)									Status
		2024-2025									
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
countries investigated and introduced (e.g., treebank, CSR, rubber plantation)	consultant, local and national associations										
Output 2: Stakeholder capacity built to produce innovative wood and wood products needed by domestic markets											
2.1 Advanced skills to design and develop wood products to meet domestic market demands	Kasetsart, RFD, int. consultant in collaboration with wood industry firms										Activity completed (100%)
2.2 Upgraded capacity and understanding to comply with legal requirements, forest law enforcement and certification	Kasetsart, other universities, RFD										Activity is in progress (100%)
2.3. Awareness of urban consumers on the role of wood used for SFM and domestic wood consumption via workshops and exhibitions	Kasetsart and local consultants										Activity is almost completed (100%)
2.4 Strengthened partnerships and communication between wood producers and wood consumers at all levels (household to international business)	Kasetsart, RFD and FIO in collaboration with wood industry firms										Activity is in progress (100%)
Reporting and monitoring											
Submission of progress report (each 6 months) with training, workshop, technical	Kasetsart University		2 nd Progress report					4th Progress with Sustainabil			Activity is completed

Outputs and Activities	Responsible party	Scheduled in month (Year 2)									Status
		2024-2025									
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
report								ity report			
Submission of Yearly Plan of Operation for the second (before start of the project for the second year)	Kasetsart University							2 nd YPO			Activity is completed
Submission of financial report (every 6 months) and audited financial report (every twelve months)	Kasetsart University				1 st Financial report					2 nd Financial report	Activity is completed
Technical and Steering Committee Meetings (back-to back) and monitoring	Kasetsart University				2 nd Tech meeting						Activity is completed

3.2 Progress in Implementation of the Activities

The percentage of completion of activities that appear in the Final Report as presented at the date of 30 April 2025 are shown in Table 4.

Table 4 Progress of the activities for all participating countries

Output and Activities	Percentage executed	Completion date	
Output 1: Improved policies for promoting domestic uses of wood and wood products			
1.1 Strengthen the national council/association and Forest Plantation Network and individuals for the promotion of sustainable wood use	100%	Feb 2023	
1.2 Information and analysis on annual domestic wood production, the location of (legal) supply sources, value chains and demands & trends	Para-rubber 100% Teak 100%	Feb 2024 April 2025	
1.3 Legalize and endorse domestic logs and sawn wood from planted forests on private own land or permitted public lands and their factories and mills through national & international certification	100%	March 2025	
1.4 Experiences/lessons on smallholder plantations in selected countries investigated and introduced (e.g., treebank, CSR, rubber plantation)	100%	Oct 2023	
Output 2: Stakeholder capacity built to produce innovative wood and wood products needed by domestic markets			
2.1 Advanced skills to design and develop wood products to meet domestic market demands	100%	Jul 2023	Added activities Mar 2025
2.2 Upgraded capacity and understanding to comply with legal requirements, forest law enforcement and certification	100% (Phrae/Nan/Tran g)	Apr 2023	Added activities Jan 2025
2.3 Awareness of urban consumers on the role of wood used for SFM and domestic wood consumption via workshops and exhibitions	100% (newsletters/side event)	Apr 2023	Added activities Mar 2025
2.4. Strengthened partnerships and communication between wood producers and wood consumers at all levels (household to international business)	100% (Stakeholder meeting and MOU signed)	Jul 2023	Added activities Mar 2025

Output and Activities	Percentage executed	Completion date
Submission of inception report (before start of the project)	100%	January 2023
Submission of Yearly Plan of Operation for the first year (before start of the project)	100%	January 2023
Submission of progress report (every 6 months) with training, workshop, technical report	100%	Every 6 months (Aug 2023, Feb 2024, Aug 2024, Feb 2025, and Apr 2025)
Submission of Yearly Plan of Operation for the second year (before start of the project for the second year)	100%	Every year (starting from Feb 2024)
Submission of financial report (every 6 months) and audited financial report (every twelve months)	100%	Every 6 months (Aug 2023, Feb 2024, Aug 2024, Feb 2025, and April 2025)
Submission of the project Completion Report	100%	April 2025
Technical and Steering Committee Meetings (back-to back) and monitoring	100%	Aug 2023 and April 2024

Table 5 Logical framework matrix

Strategy of intervention	Measurable indicators (and 2019)	Means of verification	Achievements National Forest Policy 2019
Development objective To contribute to sustainable and efficient use of domestic wood resources	By end 2025 (3 years after project completion): - Annual growth rate of domestic wood consumption increases at least 2%; - Share of locally produced larger-size wood for value-added processing; - Number of signed contracts between plantation farmer co-ops and processors for supplying larger-size wood.	- Annual statistics report by the RFD - Surveys/interviews of the relevant wood industry and stakeholder groups;	- National policies and regulations have been amended to support smallholders in teak plantation and sustainable management. - Demonstration plots are established and recognized by forestry administrations in the participating countries. Technical staff are provided to support the project activities. - Demonstration plots will be maintained after the project termination. will provide and/or recruit
Specific Objective To promote sustainable domestic consumption of wood and wood products in Thailand	By the end of the project - The Government policy or other type of legal/bending document) related to domestic consumption of wood and wood products Capacity to produce wood and wood products to meet local market demands & promote local consumption strengthened.	- Government decree or RFD Notification; - Number of trainees and participants attending project events and newly designed products	
Output 1: Improved policies for promoting domestic uses of wood and wood products	- The Government (RFD) adopts domestic wood certification (C&I) or other types of legal/bending document) related to domestic consumption of wood and wood products by the termination of project - Experience and good practice in promoting wood use from selected countries compiled and transferred to RFD and relevant agencies for reference and possible	- RFD notification	- Nine from the total of 15 demonstration plots have been established (Laos 3; Cambodia 2; Thailand 2; Vietnam 2). - Eight existing seed productions are strengthened. In addition, over 500 mother trees in Thailand and approximately 450 mother trees in Laos from natural stands and plantations are geographically mapped. - Policy briefs on good quality materials,

Strategy of intervention	Measurable indicators (and 2019)	Means of verification	Achievements National Forest Policy 2019
	application; Government policy to facilitate local consumption of wood products (e.g., tax)		silvicultural practices, sustainable teak management are prepared by consultants.
Output 2: Stakeholder capacity built to produce innovative wood and wood products needed by domestic markets	<ul style="list-style-type: none"> - At least, 15 companies attended B2B matching meetings with internal companies (e.g., Japan); - At least 50 urban consumers and 50 rural consumers attended 11 exhibitions/communication campaigns on using planted wood for housing construction and interior decoration; - 10 young designers and winners of contests on the best designs identified and recommended for further engagement; - At least 5 partnerships between plantation farmer co-ops and lead companies established with contracts for the supply of larger-size wood; 	<ul style="list-style-type: none"> - Questionnaires/ interviews - Reactions/ acceptance of entrepreneurs <p>Data on the production and marketing of value-added and diversified domestic wood products.</p>	<ul style="list-style-type: none"> - Six training sessions related to silviculture and tree plantation were conducted in four countries (excluding Myanmar). The total number of trained participants exceeded 350 persons. Trained participants became instructors in Cambodia, Lao PDR and Vietnam. - Consultant#7 value chain analysis was recruited and will lead the study on sustainable supply chains of legal sources of teak wood in the Mekong basin. - Teak-based Forest user groups in Myanmar and Thailand are potentially identifies and will be established in 2020. - Policy brief on forest policy and law enforcement to empower smallholders is documented.

3.3 Output Achievements of The Project Implementation

The ITTO Project “Promotion of Sustainable Domestic Consumption of Wood Products in Thailand” has made significant progress in advancing policies, strengthening institutional and stakeholder capacity, and fostering consumer awareness for sustainable domestic wood use. Implemented between 2023 and 2025, the project responded to Thailand’s urgent need to reduce reliance on imported timber, streamline legal frameworks, and empower stakeholders across the value chain—from smallholder plantation owners to consumers in urban markets. By combining policy reform, knowledge exchange, and hands-on training, the project has created momentum for transforming Thailand’s forestry sector into a model of sustainable wood utilization. It has also positioned Thailand to align its national strategies with ITTO’s global mission and international commitments such as SDGs and domestic and international wood certification frameworks.

3.3.1 Output 1: Improved policies for promoting domestic uses of wood and wood products

Activity 1.1: Strengthen the National Council/Association and Forest Plantation Network and Individuals for the Promotion of Sustainable Wood Use

The project placed strong emphasis on reinforcing institutional networks and engaging individuals in the forestry and wood industry to strengthen sustainable domestic wood use in Thailand. This activity was implemented through a combination of inception workshops, consultation meetings with government agencies and private sector stakeholders, as well as targeted training programs for smallholders. Collectively, these efforts created a foundation for policy reforms, enhanced stakeholder collaboration, and improved technical knowledge among participants (Table AA).

The initiative was launched at the Project Inception Meeting on 23 February 2023, where representatives from the Forestry Agency of Japan shared Japan's national experience in promoting wood through the *Kizukai* campaign and the "Act on Promotion of Wood Use in Public Buildings" of 2010. These examples underscored the value of proactive national policies, inspiring Thai stakeholders to consider comparable frameworks. The Royal Forest Department (RFD), National Housing Authority (NHA), Kasetsart University, and private associations actively contributed to the discussions, demonstrating broad institutional commitment to advancing domestic wood consumption.

Following this, the project facilitated consultation meetings with strategic partners. On 24 April 2023, project staff and steering committee members met with the Governor of the NHA and senior staff to explore opportunities for incorporating domestic wood in public housing programs. Although current regulations posed constraints, the dialogue signaled a potential future shift in NHA policy, building momentum for wider recognition of wood as a viable material in affordable housing projects. Later in the year, a consultation with the Siam Cement Group (SCG) on 20 November 2023 examined investment strategies for teak plantation establishment. This engagement was reinforced by publications from the Teak Project, namely *Good Harvesting Practices in Teak Forests* and *Teak in Mekong for a Sustainable Future*, which informed SCG's understanding of sustainable plantation development and timber supply chains.

The project also prioritized capacity building for smallholder farmers. A dedicated training workshop was organized in Nan Province, engaging 32 smallholders from Nan and Phrae provinces. The training covered silviculture practices, seed production, harvesting methods, timber legality, and sustainability standards. Practical sessions included field visits to demonstration plots where modern plantation techniques, such as intercropping systems and mechanized management, were showcased. Expert instructors, including Prof. Dr. Yongyut Trisurat and Dr. Suwan Tangmitcharoen, provided technical insights and linked plantation practices with national policy directions. This approach not only expanded the skills of smallholders but also embedded them in broader institutional networks, strengthening their role within Thailand's plantation forestry movement.

Key Achievements

This activity achieved several milestones. First, it fostered high-level institutional collaboration, with agencies such as the NHA and SCG actively considering the role of domestic timber in housing and industrial investment strategies. Second, the strengthening of the National Forest

Plantation Network was advanced by providing targeted training for smallholders, thereby bridging policy objectives with community-level implementation. Third, the knowledge products and policy briefs generated from regional projects were effectively adapted to the Thai context, ensuring that local stakeholders could benefit from international best practices.

Moreover, the workshops not only enhanced technical competence among farmers but also raised awareness of the economic value of teak and other species, encouraging sustainable forestry practices that align with Thailand's Bio-Circular-Green (BCG) economic model. The integration of smallholders into national plantation strategies and corporate dialogues marked a significant step toward inclusive development of the forestry sector.

In conclusion, activity 1.1 effectively laid the groundwork for strengthening institutional frameworks, private sector engagement, and smallholder capacity. Through consultations, training, and policy exchanges, the project created momentum for domestic wood use as a strategic component of Thailand's forestry sector. These achievements will continue to inform future policy directions and contribute to sustainable wood value chains in Thailand

Activity 1.2: Information and Analysis on Annual Domestic Wood Production, Supply Sources, Value Chains, and Demands & Trends

This activity addressed a core requirement of sustainable wood promotion: the need for comprehensive and reliable information on domestic wood production, supply chains, and market trends. The project provided critical inputs for policymakers, industry stakeholders, and smallholders to make informed decisions about forest management, certification, and market participation by generating evidence-based knowledge. The initiative focused on Thailand's two main plantation-based species — teak in the north (Nan Province) and rubberwood in the south (Trang Province) — both of which are central to Thailand's domestic and export-oriented timber economy (Table AA)..

To implement this activity, the project recruited Mr. Kitipong Tangkit as Consultant #1 on Wood Use Promotion Policy. From April 2023 to January 2025, he worked with the project team to review legislation, gather literature, and compile data on plantation species, production volumes, legality frameworks, and consumption patterns. His work served as a foundation for policy analysis and the development of publications targeting both technical and policy audiences.

The project organized a preliminary survey and consultation workshop in Trang Province on 28 June 2023. This event brought together key stakeholders, including representatives from the Royal Forest Department (RFD), the Rubber Authority of Thailand, the Ministry of Natural Resources and Environment (MNRE), and local rubberwood industries. The workshop highlighted pressing challenges, such as declining rubber plantation areas, disease outbreaks like leaf fall disease (caused by *Phytophthora* species), and financial barriers to meeting certification standards such as FSC or PEFC. Farmers reported increasing competition from alternative cash crops like durian, while processing industries pointed to higher transportation costs and burdensome legal procedures as key constraints.

In the afternoon, participants conducted field visits to Inter Furniture Ltd. and Plan Toys Ltd. These

companies demonstrated the opportunities and challenges within Thailand's rubberwood supply chain. Inter Furniture Ltd., sourcing rubberwood from local sawmills, produces furniture primarily for export markets, although volumes had declined by nearly 20% compared to pre-COVID levels. Plan Toys Ltd., renowned for its eco-friendly wooden toys, provided a model of sustainable production with international recognition (e.g., Red Dot Award). However, its domestic sales remain limited due to high costs, with 80% of products destined for global markets. This visit underscored both the export dependency of Thailand's wood industries and the untapped potential for stimulating domestic demand.

On the data analysis and academic side, the project produced two major publications:

1. *Rubber Supply Chain in Thailand* by Prof. Dr. Yongyut Trisurat, and
2. *Teak Supply Chain and Policy in Thailand* by Asst. Prof. Dr. Wirongrong Duangjai and Mr. Kitipong Tangkit.

The two were edited by Dr. P.K. Thulasidas and Dr. Tetra Yanuariadi, these publications provided detailed analyses of domestic wood production, plantation supply sources, and market demands. They became reference documents for industry stakeholders, policymakers, and academics, enabling evidence-based interventions and long-term planning.

Key Achievements

This activity provided systematic knowledge of Thailand's plantation-based wood supply chains, including legal frameworks, market barriers, and trade patterns. Second, it documented real-time challenges facing smallholders and processors, ensuring that policy recommendations are grounded in local realities. Third, by producing widely circulated publications, the project contributed to Thailand's body of knowledge on sustainable forestry, reinforcing the role of domestic plantations in meeting national timber needs.

Equally important, the consultation workshops and field visits created a bridge between academic research and industry practice, ensuring that findings were not confined to paper but directly informed the strategies of producers, manufacturers, and policymakers. This process also promoted stakeholder ownership of the recommendations, a crucial step for long-term policy uptake.

This successfully advanced Thailand understanding of its domestic wood economy. the project captured both the opportunities for value chain expansion and the risks posed by declining plantations and export dependency by focusing on teak and rubberwood. Through rigorous research, stakeholder engagement, and publication of key studies, the activity established a solid knowledge base that supports evidence-driven policymaking and aligns Thailand's forestry sector with ITTO's vision of sustainable wood value chains

Activity 1.3: Legalize and endorse domestic logs and sawn wood from planted forests in private own land or permitted public lands and their factories and mills through national& international certification

A critical barrier to expanding sustainable domestic wood consumption in Thailand has been the complexity of legal frameworks surrounding harvesting, transport, and processing of plantation-grown timber. Smallholders and local enterprises have long faced administrative hurdles in securing documentation, while inconsistencies in enforcement created uncertainty in markets. Activity 1.3 was therefore designed to strengthen legality frameworks, streamline certification systems, and ensure that timber sourced from planted forests could be recognized and endorsed through robust verification mechanisms (Table AA)..

The project organized two high-level Domestic Wood Products and Supply Chain Stakeholders Consultation Meetings in 2024 to directly address legality and policy issues.

- The first consultation meeting (24 July 2024) served as a platform for dialogue between government officials, private sector representatives, and civil society organizations. Discussions focused on existing bottlenecks in the regulatory system, particularly concerning the issuance of harvesting permits, the transport of timber across provincial boundaries, and the high costs of certification schemes. Stakeholders emphasized the need for simplified, transparent processes that would encourage smallholders to register plantations and participate in legal markets.
- The second consultation meeting (24 November 2024) built on the outcomes of the first and introduced proposed revisions to streamline regulations. These revisions targeted Article 7 procedures under the Forest Act, aiming to reduce administrative burdens and shorten the time required for approval. By providing clarity and efficiency, the proposed changes sought to lower barriers for plantation owners and facilitate the entry of legal domestic wood into supply chains.

Parallel to the consultation process, the project engaged technical experts and policymakers to review existing certification schemes. This led to the strengthening of domestic timber legality verification systems, aligning them with international best practices such as Forest Law Enforcement, Governance and Trade (FLEGT) standards. Enhanced traceability mechanisms were introduced, focusing on chain-of-custody systems that ensure transparency from plantation to processing facility.

Key Achievements

The activity delivered several important achievements. Most significantly, it initiated the groundwork for legal recognition of domestic plantation timber. By convening diverse stakeholders, the project created consensus on the urgent need for regulatory reform and built momentum for policy change. The proposed revisions presented in November 2024 demonstrated that Thailand is moving toward a more enabling environment for smallholders, who often struggled to navigate the legal system.

Another achievement was the strengthening of certification systems. The consultations resulted in clear recommendations to harmonize existing schemes and expand access to verification for smaller enterprises. This achievement is particularly critical for international competitiveness, as legality verification is increasingly a prerequisite for entering global markets. Domestically, these strengthened systems provide consumers with greater confidence in the legality and sustainability

of wood products.

Additionally, the two consultation meetings created a forum for continuous dialogue between government and industry. This mechanism of engagement will remain valuable beyond the life of the project, ensuring that reforms continue to evolve in response to stakeholder needs.

These activities marked a pivotal step in Thailand's efforts to legalize and endorse domestic logs and sawn wood from planted forests. By addressing regulatory complexity and enhancing certification systems, the project not only empowered smallholders but also improved Thailand's alignment with global legality frameworks. These achievements are essential to building consumer confidence, supporting trade, and ensuring that plantation-grown timber contributes meaningfully to sustainable domestic consumption

Activity 1.4: Experiences/lessons on smallholder plantations in selected countries investigated and introduced (e.g., treebank, CSR, rubber plantation)

Recognizing that smallholder plantations form the backbone of Thailand's domestic timber supply, Activity 1.4 was designed to integrate lessons from international experiences into the national policy and practice framework. The activity focused on examining best practices from countries with advanced wood-use campaigns, sustainable construction models, and community-driven forestry economies. the project aimed to provide Thai stakeholders with practical insights that could be adapted to strengthen smallholder participation in timber value chains and policy development by drawing on these examples. (Table AA).

One of the most significant achievements under this activity was the exchange of experiences with Sweden, a country known for its leadership in sustainable construction and the use of wood in urban development. Through a jointly organized event by Kasetsart University, the Royal Thai Embassy in Stockholm, and the Embassy of Sweden in Bangkok, experts from both nations shared strategies for expanding wood use in the building sector. Sweden's example of promoting timber as a climate-smart alternative in housing and infrastructure provided Thai participants with concrete pathways for scaling up domestic wood utilization. This engagement directly inspired the drafting of a Memorandum of Understanding (MoU) for the development of Thailand first eight-floor wooden building in Bangkok, signaling a tangible outcome of international collaboration.

In addition to Sweden, the project also synthesized policy briefs and publications on teak in the Mekong subregion. These documents highlighted the challenges and opportunities faced by smallholder growers across neighboring countries, including issues of legality, certification, and market access. By sharing these findings with Thai stakeholders, the project provided comparative perspectives that underscored the importance of harmonizing policies and strengthening cross-border collaboration on plantation timber trade.

The project further disseminated regional experiences from ITTO's teak initiatives, particularly lessons learned from the "Teak in Mekong for a Sustainable Future" project. These included practical guidance on silviculture, harvesting, and certification models suitable for smallholders. By linking Thai plantation growers with these broader networks, the project expanded access to technical knowledge and created opportunities for long-term cooperation in sustainable plantation

management.

The key achievement of Activity 1.4 lies in its ability to translate international experiences into actionable pathways for Thailand. The Sweden–Thailand exchange introduced new policy concepts, such as incentives for wood-based construction, which could reshape urban development strategies in Thailand. The forthcoming MoU on the wooden high-rise building represents not only a symbolic milestone but also a concrete example of how international collaboration can catalyze domestic change.

Another achievement was the enrichment of Thai policy discussions with regional perspectives. By incorporating lessons from neighboring Mekong countries, Thai stakeholders gained a better understanding of common challenges—such as certification costs and fragmented smallholder structures—and potential solutions, such as group certification models and community enterprise approaches. These comparative insights encouraged Thai policymakers to explore more inclusive and scalable models for plantation legality and market integration.

Finally, the activity fostered knowledge exchange across sectors. By involving embassies, universities, government agencies, and the private sector, the project ensured that lessons learned were not confined to academic reports but actively circulated among decision-makers, investors, and practitioners. This broad engagement strengthened the credibility of the project’s policy recommendations and increased the likelihood of their adoption.

In conclusion, activity 1.4 successfully bridged global and regional experiences with national needs. By learning from Sweden’s leadership in wood construction and incorporating policy insights from the Mekong subregion, the project provided Thai stakeholders with models and strategies to enhance smallholder engagement in plantation forestry. The achievements under this activity illustrate the value of international cooperation in promoting sustainable domestic wood consumption and ensuring that smallholder growers play a central role in Thailand’s forestry future.

3.3.2 Output 2: Stakeholder capacity built to produce innovative wood and wood products needed by domestic markets

Activity 2.1: Advanced skills to design and develop wood products to meet domestic market demands

Innovation in product design is central to strengthening Thailand’s domestic wood economy. Recognizing this, Activity 2.1 was dedicated to equipping students, artisans, and manufacturers with advanced skills to design, prototype, and develop innovative wood products tailored to emerging domestic market needs. By combining technical training, design competitions, and practical exposure to woodworking machinery, the project fostered creativity and strengthened institutional capacity to sustain innovation in the wood sector (Table AA).

The project organized a series of workshops and competitions on innovative wood product design. These events provided platforms for young designers and forestry students to transform creative ideas into tangible prototypes. By integrating elements of sustainability, aesthetics, and functionality, the workshops encouraged participants to align their designs with both market trends and responsible forestry practices. Importantly, these workshops did not only showcase creativity

but also introduced participants to industry mentors, fostering stronger linkages between academic training and industrial needs.

To complement design innovation, the project hosted a hands-on training workshop on woodworking machinery and safety on 29 April 2025. This session was organized at the Faculty of Forestry, Kasetsart University, and equipped participants with practical skills in machine operation, maintenance, and safety protocols. The students of the Faculty of Forestry, in particular, benefited from direct exposure to industrial-grade equipment, an experience that bridged the gap between theoretical coursework and applied practice. With safety emphasized as a critical component, the training ensured that participants developed both technical proficiency and awareness of best practices to minimize risks.

Furthermore, the project facilitated the handover of woodworking machines to the Faculty of Forestry. This investment enhanced the long-term capacity of institution to continue providing technical training in woodworking and product design, ensuring that future generations of students and practitioners can access modern equipment for learning and innovation.

Key Achievements

This Activity yielded several notable achievements. First, it strengthened practical competence in product design and machine operation. Participants reported increased confidence in applying design concepts and operating woodworking machinery, skills that are directly transferable to academic projects and future professional work.

Second, the activity contributed to raising safety awareness in wood processing. the project addressed one of the most pressing risks in woodworking industries by embedding safety protocols into all training components. Participants gained a clearer understanding of risk mitigation, workplace safety standards, and how to integrate safe practices into routine operations.

Third, the institutional capacity of the Faculty of Forestry was significantly enhanced. The provision of woodworking machines means that the faculty is now better equipped to serve as a hub for training not only forestry students but also external stakeholders such as smallholder growers, artisans, and entrepreneurs. This development ensures that the benefits of Activity 2.1 will extend well beyond the project's duration.

Finally, the competitions and workshops nurtured a culture of innovation among Thailand emerging generation of designers. these events highlighted the potential of domestic wood products to meet diverse consumer demands, from household furniture to value-added crafts by showcasing new ideas and prototypes. The recognition of young designers also created momentum for future engagement and entrepreneurship in the wood sector.

Thus, this activity was instrumental in building Thailand capacity for innovative wood product design. the project created a robust foundation for long-term innovation in the wood sector by integrating creativity, technical training, and institutional strengthening. The achievements of this activity will not only enhance competitiveness in domestic markets but also contribute to Thailand alignment with sustainable forest management and responsible timber value chains.

Activity 2.2: Upgraded capacity and understanding to comply with legality requirements, forest law enforcement and certification

Compliance with legality standards and certification requirements is one of the most critical determinants for the competitiveness of domestic wood in both national and international markets. For decades, smallholder growers, processors, and local manufacturers in Thailand have struggled with the high costs and technical complexities of certification schemes such as FSC and PEFC. Activity 2.2 was therefore designed to address these barriers by upgrading stakeholders' knowledge, enhancing their understanding of forest law enforcement, and providing hands-on guidance to improve compliance with national and international legality frameworks (Table AA).

The project organized **dedicated training sessions on legal compliance** for producers, manufacturers, and local authorities. These sessions introduced participants to the principles of timber legality verification, focusing on documentation processes, verification of plantation registration, and requirements under Article 7 of the Forest Act. Special emphasis was placed on aligning domestic legality systems with Forest Law Enforcement, Governance and Trade (FLEGT) initiatives, ensuring that Thailand's domestic wood sector could eventually integrate into global timber markets.

Workshops were conducted in the two pilot provinces: **Nan and Trang**. In Nan, where smallholder teak plantations are prominent, training targeted community enterprises and growers' groups to strengthen their understanding of plantation registration procedures and traceability systems. In Trang, workshops were designed for stakeholders in the rubberwood supply chain, including sawmills, processors, and exporters. The sessions addressed legality risks specific to rubberwood, such as disease-related plantation turnover, overlapping land-use rights, and the complexity of tracking sawn wood to final markets.

These workshops were supported by technical experts from Kasetsart University, the Royal Forest Department (RFD), and consultants engaged by the project. They provided real case studies of legality compliance, demonstrated auditing procedures, and outlined steps for preparing group certification models — a mechanism that could significantly reduce the cost burden on smallholders.

Key Achievements

Activity 2.2 delivered several concrete achievements. First, it significantly increased stakeholder understanding of legality frameworks. Participants reported improved awareness of the documentation and verification requirements necessary to demonstrate legal compliance. This achievement is particularly relevant in the context of Thailand's policy reforms, which increasingly require plantation owners to demonstrate legality as a precondition for market access.

Second, the activity fostered local-level enforcement capacity. By involving RFD officers in the training, the project ensured that both regulators and regulated stakeholders received consistent knowledge on procedures, reducing discrepancies in interpretation and enforcement. This harmonization is critical for ensuring fairness and predictability across provinces.

Third, the workshops introduced practical strategies for reducing certification costs, such as the development of group certification models. This approach empowers smallholder farmers by pooling resources and distributing costs, making certification more accessible and sustainable in the long run.

Finally, the activity positioned stakeholders to engage with emerging carbon-linked markets. While the primary focus was legality and certification, the discussions also emphasized how verified legality is a foundational step toward participation in voluntary carbon markets and other payment-for-ecosystem-services schemes. This expanded the economic incentives for smallholders and reinforced the role of legality as more than just a regulatory requirement.

Through targeted training and workshops in Nan and Trang provinces, Activity 2.2 enhanced the ability of stakeholders to comply with legality requirements and certification systems. By equipping both producers and regulators with consistent knowledge, introducing cost-sharing models, and linking legality to broader sustainability markets, the project made substantial progress in bridging Thailand's domestic wood sector with international legality frameworks. These achievements strengthen consumer confidence, improve market access, and lay the groundwork for sustainable growth in the country's plantation-based timber industry

Activity 2.3: Awareness of urban consumers on the role of wood used for SFM and domestic wood consumption via workshops and exhibitions

One of the critical challenges for expanding domestic wood consumption in Thailand is the lack of awareness among urban consumers regarding the role of sustainably produced wood in climate resilience, biodiversity conservation, and economic development. Urban markets represent a significant portion of consumer demand for housing, furniture, and lifestyle products, yet misconceptions often persist that imported wood is superior in quality and legality. Activity 2.3 was therefore designed to educate consumers, industry professionals, and the public about the value of domestic wood and its alignment with Sustainable Forest Management (SFM) principles (Table AA).

A central highlight of this activity was the Thailand International Woodworking & Furniture Exhibition (TIWF 2024). This flagship event brought together over 150 domestic and international brands and attracted more than 4,000 industry professionals. The exhibition served as a platform not only for business networking but also for consumer education. Dedicated sessions introduced visitors to the importance of legal and certified domestic wood, showcasing how sustainably sourced Thai timber could meet both functional and aesthetic needs in construction, interior design, and furniture manufacturing. By positioning domestic wood as competitive with imported products, the event directly challenged prevailing consumer perceptions.

Complementing the exhibition, the project also supported workshops and awareness campaigns in urban areas. These campaigns targeted general consumers, architects, and design professionals, promoting messages about the environmental, social, and economic benefits of choosing certified domestic wood. Through interactive presentations, exhibitions of innovative wood designs, and distribution of educational materials, these campaigns underscored how consumer choices directly

influence forest sustainability and smallholder livelihoods.

Importantly, the campaigns emphasized the role of domestic wood in Thailand's Bio-Circular-Green (BCG) economic model and its contribution to national strategies on climate change mitigation. Messaging also highlighted how consumer support for domestic wood can reduce reliance on imports, create jobs in rural areas, and encourage sustainable plantation practices.

Key Achievements

Activity 2.3 delivered measurable achievements in expanding consumer awareness. The TIWF 2024 exhibition resulted in the establishment of new trade contracts, demonstrating that awareness-raising events can have immediate economic impacts. By connecting domestic producers with urban buyers, the project not only raised awareness but also strengthened market linkages that will continue to benefit the industry.

Second, the activity reframed consumer attitudes toward domestic wood. Post-event surveys and workshop feedback indicated increased consumer confidence in the quality and legality of Thai timber. This shift in perception is vital for fostering long-term demand and reducing the stigma that has often accompanied plantation-grown wood.

Third, the campaigns contributed to mainstreaming sustainable wood consumption into urban discourse. By engaging with architects, designers, and furniture manufacturers, the project amplified the message that sustainable wood use is not only an environmental necessity but also an opportunity for innovation and market differentiation.

Finally, Activity 2.3 reinforced the role of consumer awareness as a driver of policy and industry transformation. By demonstrating strong urban interest in sustainable domestic wood, the project created pressure for policymakers and industry leaders to continue investing in legality frameworks, certification systems, and innovative product design.

Activity 2.3 significantly advanced the visibility of domestic wood in urban markets. Through the Thailand International Woodworking & Furniture Exhibition and complementary awareness campaigns, the project highlighted the critical role of consumers in shaping sustainable forest management and domestic wood demand. The achievements of this activity not only shifted perceptions but also translated awareness into tangible market opportunities, aligning consumer choices with Thailand's broader sustainability agenda

Activity 2.4: Strengthened partnerships and communication between wood producers and wood consumers at all levels (household to international business)

Sustainable development of Thailand's wood sector requires not only improved policies and skilled producers but also strong and lasting partnerships between those who grow and process timber and the consumers who drive market demand. Recognizing this, Activity 2.4 focused on fostering dialogue, building trust, and creating long-term business opportunities through networking, matchmaking, and formal agreements. This activity emphasized that partnerships are the backbone of resilient domestic value chains, ensuring that plantation-grown timber and

innovative wood products reach consumers in a sustainable and transparent manner (Table AA)..

The project organized consultation and networking meetings designed to connect producers, processors, and consumers. These sessions included business matchmaking and B2B meetings that successfully engaged more than 15 companies, ranging from smallholder enterprises to established furniture manufacturers. By creating structured spaces for dialogue, the meetings enabled stakeholders to identify shared opportunities, address supply chain bottlenecks, and explore investment collaborations.

Field visits further reinforced this partnership-building process. In Phrae Province, the project facilitated direct interactions between local enterprises — such as TF Taweesak Furniture and Don Moon Woodwork Community Enterprise — and potential partners from both public and private sectors. These visits showcased successful models of community-based enterprises, highlighting how local ingenuity and resource management can add value to domestic timber. For many participants, witnessing practical demonstrations of innovation and sustainability on the ground proved more convincing than policy discussions alone.

The culmination of this activity was the signing of a landmark Memorandum of Understanding (MoU) by 20 organizations on 31 January 2025. This MoU represented a collective commitment to promote domestic wood products, involving government agencies, academic institutions, private companies, and community enterprises. The agreement not only formalized collaboration but also provided a roadmap for multi-stakeholder engagement in advancing sustainable wood consumption in Thailand.

Key Achievements

Activity 2.4 achieved several milestones that strengthened the entire domestic wood value chain. First, it established direct business linkages between producers and consumers. The B2B meetings facilitated trade discussions and laid the groundwork for long-term commercial contracts, enhancing the financial viability of smallholders and local enterprises (Table 6).

Second, the activity demonstrated the importance of community enterprises in scaling sustainability. By showcasing models from Phrae, the project highlighted how local producers can innovate with limited resources, maintain product quality, and compete in broader markets when supported by effective partnerships.

Third, the multi-stakeholder MoU represented a historic step in uniting diverse actors under a common agenda. The participation of 20 organizations reflected broad recognition of the importance of domestic wood promotion and ensured that the initiative would have continued momentum even after the project's completion.

Finally, the activity contributed to building a culture of trust and collaboration. Stakeholders reported improved confidence in working with one another, facilitated by transparent discussions, shared visions, and opportunities for mutual benefit. This cultural shift is essential for overcoming the fragmentation that has historically characterized Thailand's wood sector.

Through networking events, field visits, and the landmark signing of a multi-stakeholder MoU, Activity 2.4 strengthened the partnerships and communication channels between producers and consumers. By creating business opportunities, recognizing the role of community enterprises, and formalizing collaboration across sectors, the project established a strong foundation for resilient, transparent, and sustainable domestic wood markets. These achievements underscore that sustainable forestry is not only about policies and skills but also about relationships that link forests to final consumers

Table 6 Outputs Activities and Key Achievements of The Project

Outputs	Activities	Key Achievements
Output 1: Improved policies for promoting domestic uses of wood and wood products	1.1 Strengthen the national council/association and Forest Plantation Network and individuals for the promotion of sustainable wood use	<ul style="list-style-type: none"> • The project Inception Meeting (23 Feb 23) shared Japan's <i>Kizukai</i> wood-use campaign. • NHA consultation meeting (24 Apr 23): the meeting conducted to <i>integrate a government organization into the promotion of domestic wood use in the housing sector, serving as a case lesson drawn from Japan</i>; • SCG consultation meeting (20 Nov 23): <i>A consultation meeting was held with SCG to explore opportunities for collaboration in promoting domestic wood use on teak plantation investments, with publications on sustainable teak.</i>; • Training workshop for smallholders in Nan Province (Date/year), 32 participants, silviculture, legality, sustainable practices. • Consultation workshop in Trang Province (28 Jun 23): stakeholder discussions on rubber wood supply chain challenges. • Field visits to Inter Furniture Ltd. and Plan Toys Ltd. (Date/year), focusing on the rubberwood value chain, export challenges, and eco-friendly toy production.
	1.2 Information and analysis on annual domestic wood production, supply sources, value chains and demands & trends	<ul style="list-style-type: none"> • The Project Publications, which contained Information and analysis on annual domestic wood production, supply sources, value chains and demands & trends of Para-rubber and Teak, edited by Dr. P.K. Thulasidas PK and Dr. Tetra Yanuariadi, two written reprints are as follows: <ul style="list-style-type: none"> • 1) Rubber Supply Chain in Thailand written by Prof. Dr.Yongyut Trisurat • 2) Teak Supply Chain and Policy in Thailand written by Mr.Kitipong Tangkit and Asst.Prof.Dr.Wirongrong Duangjai
	1.3 Legalize and endorse	<ul style="list-style-type: none"> • The 1st Domestic Wood Products and Supply

Outputs	Activities	Key Achievements
	domestic logs and sawn wood from planted forests	<p>Chain Stakeholders Consultation Meeting was convened on July 24 to facilitate dialogue and collaboration among key actors across the sector.</p> <ul style="list-style-type: none"> The 2nd Domestic Wood Products and Supply Chain Stakeholders Consultation Meeting was held on November 24, where proposed revisions were presented to streamline regulations on harvesting, transport, and processing. After the two-time consultation meetings, variety certification systems for domestic timber legality were strengthened according to enhance verification and compliance mechanisms.
	1.4 Experiences/lessons on smallholder plantations in selected countries	<ul style="list-style-type: none"> Exchange of lessons from Sweden (wood construction, sustainability economy). Policy briefs/publication on teak in Mekong subregion shared with Thai stakeholders.
Output 2: Stakeholder capacity built to produce innovative wood and wood products needed by domestic markets	2.1 Advanced skills to design and develop wood products	<ul style="list-style-type: none"> The 1st Workshop and competition on innovative wood product design (Date) The 2nd Workshop and competition on innovative wood product design (Date) Workshop on woodworking machinery & safety (29 Apr 2025): students trained in machine operation, safety, and design.
	2.2 Upgraded capacity and understanding to comply with legality requirements, forest law enforcement and certification	<ul style="list-style-type: none"> Legal compliance training for producers & manufacturers. Workshops on legality requirements in pilot provinces (Date) at Nan & Trang province.
	2.3 Awareness of urban consumers on role of wood in SFM and domestic wood consumption	<ul style="list-style-type: none"> The Thailand International Woodworking & Furniture Exhibition (TIWF 2024) (Date) showcased over 150 brands and attracted more than 4,000 professionals, resulting in the establishment of new trade contracts. Workshop on urban public campaigns and awareness programs on sustainable timber (Date).
	2.4 Strengthened partnerships and communication between wood producers and consumers	<ul style="list-style-type: none"> Consultation Meeting and Networking offered Business matchmaking and B2B meetings were organized, engaging more than 15 companies to foster partnerships and market opportunities (Date). Field visit to networking the wood working partnerships with local enterprises in Phrae Province (Date) (TF Taweesak Furniture, Don Moon Woodwork Community Enterprise). 20 Organizations signed MoU to promote domestic wood products, marking a significant

Outputs	Activities	Key Achievements
		step toward multi-stakeholder collaboration (31 Jan 25)

4. Financial Report of Budget Modification

In accordance with the Memorandum of Understanding (MoU) signed on 23 December 2022 between the International Tropical Timber Organization (ITTO) and Kasetsart University (KU), with the support of the Royal Forest Department of Thailand (RFD), cooperation was established for the implementation of the ITTO Project: *Promotion of Sustainable Domestic Wood Use in Thailand* for a duration of 24 months, commencing 1 February 2023 and concluding on 31 April 2025 (Appendix 5).

To ensure the timely completion of outstanding activities—particularly the technical report on the teak supply chain, consolidation of recommendations from stakeholder consultation meetings, and finalization of guidelines for implementing agencies—consultations with Dr. Tetra Yanuariadi, ITTO Project Manager, led to a recommendation for a one-month no-cost extension. This extension requires budget modification in order to facilitate adjustments without increasing the overall project budget (Appendix 5).

Accordingly, the proposed budget modifications are summarized below:

1. International Travel Costs (Item 33)
An additional allocation of USD 9,842 is requested to support the participation of high-ranking RFD delegates, alongside current and former project coordinators, in an official study visit to Japan. This activity is expected to strengthen institutional collaboration and enhance knowledge exchange.
2. Consumable Items Budget (Items 51, 52, 53)
The remaining balance of USD 12,755.35 shall be reallocated as follows:
 - USD 3,957.29 to be transferred to Training Activities (Item 61).
 - USD 8,798.06 to be transferred to International Travel Costs (Item 33).
3. Computer Equipment (Item 41)
The project identified savings under this category. These remaining funds shall be reallocated entirely to International Travel Costs (Item 33).
4. Training Activities (Item 61)
A total of USD 3,957 shall be sourced from the remaining balance of the Consumable Items Budget (Item 50). This reallocation will strengthen capacity-building initiatives and ensure delivery of the remaining training sessions.
5. Information, Media, Publications, and Contingencies (Item 64)
The remaining balance of USD 5,400 shall be transferred to support International Travel Costs (Item 33).

Justification

The proposed budget modification and one-month extension are necessary to ensure that:

- All technical deliverables (notably the teak supply chain report and policy guidelines) are finalized to the highest standard.
- Stakeholder recommendations gathered from consultation meetings are fully consolidated and integrated into the final outputs.

- Institutional collaboration is strengthened through the participation of RFD delegates in international knowledge exchange, particularly the study visits to Japan.
- Training activities are reinforced with adequate resources, thereby enhancing capacity-building outcomes.

These adjustments will be implemented without exceeding the original approved budget, reflecting cost efficiency and compliance with ITTO's financial management guidelines.

Financial Report

Project No.			PD 926/22 Rev.1 (M)	Period ending on:		Feb 23 – Apr 25							
Project Title.			Promotion of sustainable domestic consumption of wood products in Thailand										
Implementing Agency: Kasetsart University													
Component				Project budget overview (USD)				Total Expenditures		Allocatio n (2023- 2024)	Balance		% of total budget
				2023	2024	Budget total	Budget modify						
				USD	Baht	USD	USD	Baht					
10	Project Personal												
	11	11	Project Coordinator	24,000	24,000	48,000	48,000	48,000.00	1,630,520.00	48,000.00	-	-	100.00
		11	Secretary	6,000	6,000	12,000	12,000	12,000.00	406,174.50	12,000.00	-	-	100.00
		11	Finance	6,000	6,000	12,000	12,000	12,000.00	406,174.50	12,000.00	-	-	100.00
	14	14	Domestic consultant in studies on wood use promotion policy in Japan, SE Asia, US, EU	4,000	4,000	8,000	8,000	8,000.00	274,830.00	8,000.00	-	-	100.00
		14	Domestic consultant in studies on innovative wood and wood products Japan, SE Asia, US, EU	4,000	4,000	8,000	8,000	8,000.00	274,830.00	8,000.00	-	-	100.00
	19		Sub total	44,000	44,000	88,000	88,000	88,000.00	2,992,529.00	88,000.00	-	-	100.00
20	Sub contracts												
	21		Consultations with local staff and associations	3,100	1,600	4,700	4,666	4,665.84	160,306.00	4,665.84	- 0.00	- 0.04	100.00
	22		Consultations with universities and institutions	4,250	5,100	9,350	9,325	9,324.88	327,959.32	9,324.88	- 0.00	- 0.05	100.00
	29		Sub total	7,350	6,700	14,050	13,991	13,990.72	488,265.32	13,990.72	- 0.00	- 0.09	100.00

Financial Report

Project No.		PD 926/22 Rev.1 (M)		Period ending on:		Feb 23 – Apr 25							
Project Title.		Promotion of sustainable domestic consumption of wood products in Thailand											
30	Duty travel												
	31		Daily subsistence allowance					-	-	-	-	-	
		31	DSA National experts/ consultants	2,250	1,875	4,125	4,103	4,103.20	139,500.00	4,103.20	0.00	0.11	100.00
	32		Local transport costs	6,000	3,750	9,750	9,669	9,668.50	336,506.00	9,668.50	0.00	0.01	100.00
	33		International travel costs	2,000	17,089	19,089	34,511	34,511.31	1,194,611.21	34,511.30	- 0.01	- 0.29	100.00
	39		Sub total	10,250	22,714	32,964	48,283	48,283.00	1,670,617.21	48,283.00	- 0.00	- 0.17	100.00
40	Capital items												
	41		Computer equipment	1,000	1,000	2,000	943	943.40	31,085.00	943.40	0.00	0.03	100.00
	42		Maintenance and repairing and printing, etc	1,000	1,000	2,000	2,000	-	-	2,000.00	2,000.00	69,360.00	-
	49		Sub total	2,000	2,000	4,000	2,943	943.40	31,085.00	2,943.40	2,000.00	69,360.03	32.05
50	Consumable items												
	51		Materials	6,000	9,000	15,000	12,562	12,485.92	435,009.55	12,561.89	75.97	2,634.69	99.40
	52		Demonstration of out-door/in- door wooden structure/instruments/tools	-	25,000	25,000	17,394	17,394.01	600,415.02	17,394.02	0.01	0.34	100.00
	53		Office supplies	6,000	6,000	12,000	9,289	9,267.49	314,778.95	9,288.74	21.25	736.81	99.77
	54		Office space	9,600	9,600	19,200	19,200	-	-	19,200.00	19,200.00	665,856.00	-
	59	Sub total		21,600	49,600	71,200	58,445	39,147.42	1,350,203.52	58,444.65	19,297.23	669,227.83	66.98
60	Miscellaneous												
	61		Training	27,300	23,800	51,100	31,257	31,257.27	1,060,351.68	31,257.29	0.02	0.75	100.00
	62		PSC meeting	2,000	2,000	4,000	3,998	3,997.93	136,906.50	3,997.93	- 0.00	- 0.07	100.00
	64		Information, media, publications and other contingencies	5,800	6,600	12,400	6,997	6,613.12	229,405.00	6,997.28	384.16	13,322.75	94.51
	65		Auditing expense	4,000	4,000	8,000	8,000	-	-	8,000.00	8,000.00	277,440.00	-
	69		Sub total	39,100	36,400	75,500	50,253	41,868.32	1,426,663.18	50,252.5	8,384.18	290,763.4	83.32

Financial Report

Financial Report													
Project No.		PD 926/22 Rev.1 (M)		Period ending on:		Feb 23 – Apr 25							
Project Title.		Promotion of sustainable domestic consumption of wood products in Thailand											
										0		4	
				124,300	161,414	285,714	261,914	232,232.87	7,959,363.23	261,914.27	29,681.40	1,029,351.05	88.67
80	Project monitoring and administration												
	81		ITTO monitoring & review	7,500	7,500	15,000	15,000	-	-	15,000.00	15,000.00	520,200.00	-
	82		ITTO ex-post evaluation	-	10,000	10,000	10000	-	-	10,000.00	10,000.00	346,800.00	-
	83		ITTO program support costs @12% of project cost	14,916	19,370	34,286	34,286	-	-	34,286.00	34,286.00	1,189,038.48	-
	89		Subtotal	22,416	36,870	59,286	59,286	-	-	59,286.00	59,286.00	2,056,038.48	-
(B)100. GRAND TOTAL				146,716	198,284	345,000	321,200	232,232.87	7,959,363.23	321,200.27	88,967.40	3,085,389.53	72.30

PROJECT CASH FLOW STATEMENT							
Project No.			PD 926/22 Rev.1 (M)	Period ending on: 2023 - 2025			
Project Title.			Promotion of sustainable domestic consumption of wood products in Thailand				
Implementing Agency: Kasetsart University							
Component				Reference	Date	Amount	
						in USD	Local Currency (Baht)
A.		Funds received from ITTO:					
	1		1st Installment: 19 January 2023		19-Jan-23	75,030.00	2,472,250.00
	2		Second Installment		13-Mar-24	75,000.00	2,665,500.00
	3		Third installment		4-Sep-24	50,000.00	1,705,000.00
	4		Fourth installment		9-Apr-25	32,000.00	1,109,760.00
			interest		26-Jun-23	71.43	2,353.71
			interest		27-Dec-23	36.92	1,216.50
			interest		27-Jun-24	47.41	1,684.82
					27-Dec-24	46.87	1,598.20
			Total Funds Received:			232,232.63	7,959,363.23
B. Expenditures by Executing Agency:							
10	Project Personal						
	11	11.1	Project Coordinator			48,000.00	1,630,520.00
		11.2	Secretary			12,000.00	406,174.50
		11.3	Finance			12,000.00	406,174.50
	14	14.1	Domestic consultant in studies on wood use promotion policy in Japan, SE Asia, US, EU			8,000.00	274,830.00
		14.2	Domestic consultant in studies on innovative wood and wood products Japan, SE Asia, US, EU			8,000.00	274,830.00
	19		Sub total			88,000.00	2,992,529.00
20	Sub contracts						
	21		Consultations with local staff and associations			4,665.84	160,306.00

PROJECT CASH FLOW STATEMENT							
Project No.		PD 926/22 Rev.1 (M)		Period ending on: 2023 - 2025			
Project Title.		Promotion of sustainable domestic consumption of wood products in Thailand					
Implementing Agency: Kasetsart University							
	22		Consultations with universities and institutions			9,324.88	327,959.32
	29		Sub total			13,990.72	488,265.32
30	Duty travel						
	31		Daily subsistence allowance			-	-
		31.1	DSA National experts/ consultants			4,103.20	139,500.00
	32		Local transport costs			9,668.50	336,506.00
	33		International travel costs			34,511.31	1,194,611.21
	39		Sub total			48,283.00	1,670,617.21
40	Capital items						
	41		Computer equipment			943.40	31,085.00
	42		Maintenance and repairing and printing, etc			-	-
	49		Sub total			943.40	31,085.00
50	Consumable items						
	51		Materials			12,485.92	435,009.55
	52		Demonstration of out-door/in-door wooden structure/instruments/tools			17,394.01	600,415.02
	53		Office supplies			9,267.49	314,778.95
	54		Office space			-	-
	59		Sub total			39,147.42	1,350,203.52
60		Miscellaneous					
	61		Training			31,257.27	1,060,351.68
	62		PSC meeting			3,997.93	136,906.50
	64		Information, media, publications and other contingencies			6,613.12	229,405.00
	65		Auditing expense			-	-
	69		Sub total			41,868.32	1,426,663.18
Total project						232,232.87	7,959,363.23

PROJECT CASH FLOW STATEMENT							
Project No.			PD 926/22 Rev.1 (M)	Period ending on: 2023 - 2025			
Project Title.			Promotion of sustainable domestic consumption of wood products in Thailand				
Implementing Agency: Kasetsart University							
80	Project monitoring and administration						
	81		ITTO monitoring & review			-	-
	82		ITTO ex-post evaluation			-	-
	83		ITTO program support costs @12% of project cost			-	-
	89		Subtotal			-	-
100. GRAND TOTAL						232,232.87	7,959,363.23
Remaining Balance of Funds: (A - B)						- 0.24	

Installments received from ITTO:

Installment number	Amount (USD)	Note
#1	75,000.00	19-Jan-23
#2	75,000.00	13-Mar-24
#3	50,000.00	04-Sep-24
#4	32,000.00	09-Apr-25
Total	232,000.00	31-Apr-25

5. The Sustainability of the Project

5.1 Social Sustainability

The project actively engaged diverse stakeholders, from government agencies and the private sector to local communities and smallholders, in shaping the future of sustainable wood consumption in Thailand. The signing of a multi-stakeholder MoU with 20 organizations exemplified this inclusivity and commitment. Training workshops, stakeholder consultations, and field demonstrations provided smallholders with technical skills in silviculture, legality, and certification, while also introducing innovative practices such as intercropping teak with pumpkins. These activities not only improved farmer knowledge and productivity but also created diversified livelihood opportunities, enhancing community empowerment and resilience.

5.2 Environmental Sustainability

The project directly contributed to Thailand's national target of achieving 40% forest cover, with 15% allocated to commercial forestry. By promoting sustainable plantation management, responsible harvesting practices, and efficient timber utilization, it reduced environmental impacts while enhancing resource efficiency. The introduction of strengthened certification systems and improved legality verification further reinforced traceability, accountability, and compliance with international forestry standards. These measures fostered sustainable forest management, advanced biodiversity conservation, and reinforced long-term environmental stewardship.

5.3 Technical Sustainability

A strong foundation for technical sustainability was established through knowledge products, training, and dissemination of practical tools. Publications such as *Rubber Supply Chain in Thailand* and *Teak Supply Chain and Policy in Thailand* provided comprehensive data on supply sources, value chains, and legality frameworks, serving as essential references for policymakers and industry stakeholders. Technical workshops on product design and safe machine use advanced innovation capacity, while expert-led sessions by national and international consultants introduced participants to advanced forestry management practices. These outputs ensure continuity of knowledge transfer and provide a repository of expertise for future initiatives in Thailand and across the Mekong region.

5.4 Political and Institutional Sustainability

The project reinforced political and institutional sustainability by aligning activities with Thailand's Bio-Circular-Green (BCG) economic model and supporting regulatory reforms. Notable progress included consultations with the National Housing Authority and Siam Cement Group, paving the way for the integration of wood in urban construction. Amendments to Article 7 of the Forest Act and streamlined certification processes addressed long-standing legal and administrative barriers. The strengthened collaboration between Kasetsart University, the Royal Forest Department (RFD), and the Forest Industry Organization (FIO), as well as with private actors and international partners, established a durable institutional network that will sustain policy momentum beyond project completion.

5.5 Financial and Economic Sustainability

Financial sustainability was demonstrated through the establishment of direct market linkages. Events such as the Thailand International Woodworking & Furniture Exhibition (TIWF 2024)

showcased over 150 brands and connected more than 4,000 professionals, resulting in new contracts and stronger market visibility for domestic wood. Business-to-business matchmaking sessions linked more than 15 companies with community enterprises, facilitating long-term economic benefits. The partnerships formalized through MoUs created a robust foundation for future investment and trade in certified domestic wood products, ensuring economic viability in both domestic and international markets.

6. Critical Analysis and Project Progress

6.1 Strengths

1. Comprehensive policy recommendations

The project advanced major policy reforms, including proposed amendments to streamline Article 7 procedures and strengthen certification systems, thereby aligning Thailand frameworks with international market standards.

2. Effective stakeholder engagement

Broad participation from government agencies, private enterprises, smallholders, and communities generated wide support and ownership, which is vital for sustainability.

3. Capacity-building success

Training on silviculture, legality compliance, machine safety, and innovative design significantly improved local knowledge, empowering smallholders and fostering wood product innovation.

6.2 Areas for Improvement

1. Complexity and Implementation Challenges

Despite notable progress, certification and legalization processes faced delays due to regulatory complexity. Addressing administrative inefficiencies remains an important future priority.

2. Dependence on External Consultants

While consultants provided essential expertise, greater emphasis is needed on transferring knowledge to local institutions to ensure capacity retention after project closure.

3. Sustainability of Outcomes

While immediate outputs such as partnerships and market linkages are commendable, more concrete strategies are required to guarantee financial, institutional, and technical sustainability in the long term.

7. Conclusions

The ITTO project “*Promotion of Sustainable Domestic Consumption of Wood Products in Thailand*”, implemented by Kasetsart University in collaboration with the Royal Forest Department, made substantial progress in advancing Thailand’s forestry sector. By integrating policy reforms, market development, stakeholder capacity building, and consumer awareness campaigns, the project addressed both supply- and demand-side challenges to sustainable wood consumption.

Key achievements included the drafting of comprehensive policy recommendations, the establishment of streamlined legality and certification systems, the enhancement of smallholder and industry capacities through workshops and training, and the expansion of domestic market opportunities through exhibitions and matchmaking. Importantly, the project fostered strong partnerships across government, private sector, and community enterprises, culminating in a landmark multi-stakeholder MoU that committed to advancing sustainable wood value chains.

Taken together, these achievements demonstrate the project's contribution to Thailand national forestry objectives, its Bio-Circular-Green economic strategy, and ITTO global mission of promoting sustainable forest management. While challenges remain in addressing legal complexities and ensuring post-project sustainability, the foundation laid through this initiative provides a robust platform for scaling up sustainable domestic wood use in Thailand and sharing lessons across the Asia-Pacific region.

Responsible for the report

Assist. Prof. Dr. Wirongrong Duangjai

Project Coordinator

Date: 31 Apr 2025

Annex 1 NOL for recruitment of Project Coordinator (Assist. Prof. Dr. Wirongrong Duangjai)



International Tropical Timber Organization (ITTO)

INTERNATIONAL ORGANIZATIONS CENTER – 5F, PACIFICO-YOKOHAMA
1-1-1, MINATO-MIRAI, NISHI-KU, YOKOHAMA 220-0012, JAPAN

F A C S I M I L E

Page 1 of 31 page(s)

Fax: (81-45) 223-1111

Tel.: (81-45) 223-1110

E-mail: ti@itto.int

Date: 7 November 2023	Ref. No. F.23-0058	
To: Assistant Prof. Kobsak Wanthongchai, PhD Dean of Faculty of Forestry Kasetsart University 50 Ngamwongwan Rd. Chatuchak Bangkok 10900 Thailand E-mail: info.kuff@ku.ac.th Fax.: +66(0)25614246	From: Dr. Steven Johnson Director Division of Trade and Industry ITTO – Yokohama, Japan	

Dear Ass. Prof. Wanthongchai,

PD 926/22 Rev.1 (I)
**“PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF
WOOD PRODUCTS IN THAILAND”**

Thank you for your later dated 24 October 2023, regarding your proposal to replace the current project management team (approved under NOL Ref. No. F.23-0001 dated 16 January 2023) with a new management team, under the following terms:

Name	Position	Budget Component	Duration (month)	Starting date	Monthly Honorarium (USD)
Dr. Wirongrong Duangjai	Project Coordinator	11.1	15	1 Nov. 2023	2000
Ms. Ketsanee Tuaktatong	Project Secretary	11.2	15	1 Nov. 2023	500
Ms. Voratatta Sutthipak	Project Finance	11.3	15	1 Nov. 2023	500

I am pleased to inform you that I have no objection to your proposal to engage the above professionals, given that the terms of reference and related costs for the work assigned as shown in the above table are in accordance with the provisions specified in the project document and the approved budget modification under NOL Ref. No. F.23-0002 dated 16 January 2023 and given your confirmation that the change in project management less than 10 months after our approval of the previous team will not negatively impact project implementation.

Yours sincerely,

Dr. Steven Johnson
Director
Division of Trade and Industry

Annex 2 Recruit Mr. Kitipong Tangkit to Engage as the Consultant#1 Wood Use Promotion Policy



International Tropical Timber Organization (ITTO)

INTERNATIONAL ORGANIZATIONS CENTER – 5F, PACIFICO-YOKOHAMA
1-1-1, MINATO-MIRAI, NISHI-KU, YOKOHAMA 220-0012, JAPAN

F A C S I M I L E

Page 1 of 8 page(s)

Fax: (81-45) 223-1111

Tel.: (81-45) 223-1110

E-mail: ti@itto.int

Date: 8 May 2023	Ref. No. F.23-0023	
To: Prof. Yongyut Trisurat Project Coordinator Kasetsart University 50 Ngamwongwan Rd. Chatuchak Bangkok 10900 Thailand E-mail: fforyyt@ku.ac.th Fax.: +66(0)25614246	From: Dr. Steven Johnson Director Division of Trade and Industry ITTO – Yokohama Japan	

Dear Prof. Yongyut,

PD 926/22 Rev.1 (I)
**“PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF
WOOD PRODUCTS IN THAILAND”**

Thank you for your email dated 4 May 2023, regarding your proposal to replace Dr. Pasuta Sunthornhao, who had been approved under NOL F.23-0021 dated 7 April 2023, with Mr. Kitipong Tangkit as the Project consultant, under the following terms:

Name	Position	Budget Component	Available Budget	Duration	Honorarium (USD)
Mr. Kitipong Tangkit	Consultant #1 (wood use promotion policy)	14.1	US\$8,000	2 man months between 1 May 2023 to 31 Jan. 2025	US\$ 8,000 (US\$4,000/ man month)

I am pleased to inform you that I have no objection to your proposal to engage the above professional, given that the terms of reference and related costs for the work assigned as shown in the above table are in accordance with the provisions specified in the project document and the approved budget modification under NOL Ref. No. F.23-0002 dated 17 January 2023.

Yours sincerely,

Dr. Steven Johnson
Director
Division of Trade and Industry

Annex 3 Recruit Dr. Pisut Sripant to Engage as the Consultant#2 Innovative wood and products



International Tropical Timber Organization (ITTO)

INTERNATIONAL ORGANIZATIONS CENTER – 5F, PACIFICO-YOKOHAMA
1-1-1, MINATO-MIRAI, NISHI-KU, YOKOHAMA 220-0012, JAPAN

F A C S I M I L E

Page 1 of 19 page(s)

Fax: (81-45) 223-1111

Tel.: (81-45) 223-1110

E-mail: ti@itto.int

Date: 7 April 2023	Ref. No. F.23-0021	
To: Prof. Yongyut Trisurat Project Coordinator Kasetsart University 50 Ngamwongwan Rd. Chatuchak Bangkok 10900 Thailand E-mail: fforvyt@ku.ac.th Fax.: +66(0)25614246		From: Dr. Steven Johnson Director Division of Trade and Industry ITTO – Yokohama Japan

Dear Prof. Yongyut,

PD 926/22 Rev.1 (I)

“PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF WOOD PRODUCTS IN THAILAND”

Thank you for your email dated 6 April 2023, regarding your proposal to engage Dr. Pasuta Sunthornhao and Dr. Pisut Sripant as the Project consultants, under the following terms:

Name	Position	Budget Component	Available Budget	Duration	Honorarium (USD)
Dr. Pasuta Sunthornhao	Consultant #1 (wood use promotion policy)	14.1	US\$8,000	2 man months between 1 April 2023 to 31. Jan. 2025	US\$ 8,000 (US\$4,000/ man month)
Dr. Pisut Sripant	Consultant #2 (innovative wood and wood products)	14.2	US\$8,000	2 man months between 1 April 2023 to 31. Jan. 2025	US\$ 8,000 (US\$4,000/ man month)

I am pleased to inform you that I have no objection to your proposal to engage the above professionals, provided that the terms of reference and related costs for the work assigned are in accordance with the provisions specified in the project document and the approved budget modification under NOL Ref. No. F.23-0002 dated 17 January 2023.

Yours sincerely,

Dr. Steven Johnson
Director
Division of Trade and Industry

Annex 4 TORs of the Consultant#1 and Consultant#2

TORs of the Regional Activity Manager and Consultants that require non-objection letter (NOL) from ITTO are:

Consultant 1: Wood use promotion policy (international or domestic)

The Consultant#1 Wood use promotion policy should be an expert with in-depth knowledge and experience in the related fields. The consultant should have postgraduate qualification or as equivalent in forestry policy, wood industry, import/export and legality in Asia (Thailand is an advantage). Experience is required at least 10-year experiences in related field as policy maker or expert.

Location: International cities with field trips to pilot provinces of Thailand

Duration: 2 man-months, expanding within 2 years of the project period

Position, qualification	Functions, responsibilities
	2 months, at USD 4,500 per month
<ul style="list-style-type: none"> ▪ Experience in coordinating and leading the same kind of project ▪ Good knowledge of domestic and international wood and wood product trade ▪ Experience in capacity building and the implementation of training events ▪ Fluency in spoken and written English ▪ Familiar with ITTO project management is an advantage 	<ul style="list-style-type: none"> • Undertake a literature review, and compile relevant reports and information on policy and legality related to wood production and consumption • Study of policies/initiatives for the promotion of sustainable wood use • Formulate enabling policies and legal frameworks to support sustainable domestic wood and wood products used • Support the establishment of a chain-of-custody of controlled legal sources according to e.g. the FSC Controlled Wood Standard or the PEFC Controlled Sources Standard, if applicable. • Assist in the capacity building program for researchers, scientists and local communities, as and when required

Consultant 2: Innovative wood and wood products (domestic)

The Consultant#2 Innovative wood and wood products should be an expert with in-depth knowledge and experience in the related fields. The consultant should have postgraduate qualification or as equivalent in in architecture, wooden products design or wood technology. A minimum of 5 years of working experience in wood products and design.

Location: International cities with field trips to pilot provinces of Thailand

Duration: 2 man-months, expanding within 2 years of the project period

Position, qualification	Functions, responsibilities
	2 months, at USD 4,500 per month
<ul style="list-style-type: none">▪ Good understanding of wood manufacturing, knowledge of domestic wood use promoting policy is an advantage.▪ Good knowledge of domestic and international wood and wood product trade▪ Experience in capacity building and the implementation of training events▪ Fluency in spoken and written English▪ Familiar with ITTO project management is an advantage	<ul style="list-style-type: none">• Designing and marketing planted-wood products for the young generation• Work with the Project Manager to organize trade promotion, exhibition and linking business• Organize and host Japanese wood business firms for B2B workshop• Assist in the capacity building program for researchers, scientists and local communities, as and when required• Assist in other activities assigned by the Project Manager

Annex 5 ITTO Approval for Budget Modification



International Tropical Timber Organization (ITTO)

INTERNATIONAL ORGANIZATIONS CENTER – 5F, PACIFICO-YOKOHAMA
1-1-1, MINATO-MIRAI, NISHI-KU, YOKOHAMA 220-0012, JAPAN

F A C S I M I L E

Page 1 of 9 page(s)

Fax: (81-45) 223-1111

Tel.: (81-45) 223-1110

E-mail: ti@itto.int

Date: 16 January 2023	Ref. No. F.23-0002	
To: Assistant Prof. Kobsak Wanthongchai, PhD Dean of Faculty of Forestry Kasetsart University 50 Ngamwongwan Rd. Chatuchak Bangkok 10900 Thailand E-mail: info.kuff@ku.ac.th Fax.: +66(0)25614246	From: Dr. Steven Johnson Director Division of Trade and Industry ITTO – Yokohama Japan	

Dear Assistant Professor Wanthongchai,

PD 926/22 Rev.1 (I)
“PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF
WOOD PRODUCTS IN THAILAND”

Further to your request of 10 January 2023 seeking the approval of ITTO for the budget modifications of ITTO Project PD 926/22 Rev. 1 (I), I would like to inform you that I have no objection to your request. The said budget modification is aimed at accommodating an additional project staff responsible for financial matters. As for the salary of the new staff the budget is obtained by reducing the salary of project secretary from US\$750.00 to US\$500.00 per month and reducing man-month fee of consultant #1 (wood use promotion policy) from US\$6000.00 to US\$4000.00 and Consultant #2 (innovative wood and wood products) from US\$5000.00 to US\$4000.00. Approval for these modifications is granted on the understanding that these budget reallocations will in no way negatively impact attainment of all planned project outputs and objectives.

The approved project's budget modifications are attached and granted without additional ITTO funds, provided that the Rules and Procedures applying to ITTO Projects are observed by the Executing Agency.

Yours sincerely,

Dr. Steven Johnson
Director
Division of Trade and Industry

Annex 6 Transferred Fund from ITTO and Remaining Fund

เลขที่ประจำตัวผู้เสียภาษีอากร

0107536001079

เลขที่ 1

CREDIT NOTE

19JAN23

TO : ITTO DOMESTIC CONSUMPTION OF WOOD
A/C NO. : 374-1-75984-3
TO BRANCH : 00374 KASETSART UNIVERSITY BR

PLEASE NOTE THAT WE HAVE PASSED THE FOLLOWING ENTRY (IES) TO YOUR ACCOUNT WITH US.

IN CASE OF ANY IRREGULARITY ON PAYMENT ,THE BENEFICIARY (IES) WILL MAKE IMMEDIATE REFUND OF TOTAL AMOUNT TO BANK OF AYUDHYA. UPON THEIR NOTICE.

+-----+
| OUR REF NO. 00830-16-059553-5 |
| SWIFT FROM : MUFG BANK, LTD. 7-1 MARUNOUCHI 2-CHOME, |
| CHIYODA-KU |
| THEIR REF NO. 4803574457 |
| B/O : INTERNATIONAL TROPICAL TIMBER ORGANIZATION |
| DMS CODE 318052 เงินให้เปล่าภาคเอกชน |
+-----+

PARTICULARS	CURRENCY	AMOUNT	RATE & FC NO.
AMOUNT	USD	75,000.00	32.9500000
	THB	2,471,250.00	CR 8477026
TOTAL	THB	2,471,250.00	CR

THB : TWO MILLION FOUR HUNDRED SEVENTY ONE THOUSAND TWO HUNDRED FIFTY AND 00/100



=====

FOR BANK OF AYUDHYA PUBLIC COMPANY LIMITED.


.....
AUTHORIZED SIGNATURE (S)




Annex 7 The Project Account Balance

สำนักงาน Office	0374 สาขามหาวิทยาลัยเกษตรศาสตร์ โทร. 0-2561-3490	 krungsri กรุงศรี A member of MUFG, a global financial group	
ชื่อบัญชี Name of Account	ITTO DOMESTIC CONSUMPTION OF WOOD PRODUCTS PROJECT		
บัญชีเลขที่ Account No.	374-1-75984-3		
		001 บัญชีออมทรัพย์ มีสมุด	
ผู้รับมอบอำนาจ	สมุดคู่ฝากเลขที่ Serial No.	0035938124	

วันที่ Date	รายการ Transaction	ถอน Withdrawal	ฝาก Deposit	คงเหลือ Balance	หมายเลขผู้ทำรายการ Teller ID.
06/01/23	DB	*****1,000.00	*****1,000.00		ZJ21A0374 ¹
19/01/23	TN	*****2,471,250.00	*****2,472.250.00		0001F0700 ²
28/02/23	WB	*****185,090.00	*****2,287,160.00		ZGVZA0374 ³
28/03/23	WB	*****122,935.00	*****2,164,225.00		ZGVZA0374 ⁴
02/05/23	WB	*****404,551.00	*****1,759,674.00		ZJ21J0374 ⁵
30/05/23	WB	*****105,175.00	*****1,654,499.00		ZIREA0374 ⁶
27/06/23	WB	*****238,989.00	*****1,415,510.00		ZIREA0374 ⁷
29/06/23	IN	*****2,353.71	*****1,417,863.71		0003A ⁸
26/07/23	WB	*****314,307.00	*****1,103,556.71		ZJ21J0374 ⁹
03/08/23	WB	*****27,000.00	*****1,076,556.71		ZIREA0374 ⁰
30/08/23	WB	*****139,212.00	*****937,344.71		ZGVZA0374 ¹
26/09/23	WB	*****113,850.00	*****823,494.71		ZGVZA0374 ¹²
26/09/23	WB	*****200,000.00	*****623,494.71		ZGVZA0374 ¹³
26/10/23	WB	*****213,052.00	*****410,442.71		ZGVZA0374 ¹⁴
28/11/23	WB	*****118,324.00	*****292,118.71		ZGVZA0374 ¹⁵
28/11/23	ON	*****200,000.00	*****492,118.71		ZGVZA0374 ¹⁶
27/12/23	WB	*****331,018.00	*****161,100.71		ZGVZJ0374 ¹⁷
27/12/23	IN	*****1,216.50	*****162,317.21		0003A ¹⁸
30/01/24	WB	*****130,164.00	*****32,153.21		ZIREA0374 ⁹
01/03/24	WB	*****32,110.00	*****43.21		ZIREA0374 ⁰

 krungsri กรุงศรี A member of MUFG, a global financial group	สมุดคู่ฝากเลขที่ Serial No.	0035938124
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วันที่ Date	รายการ Transaction	ถอน Withdrawal	ฝาก Deposit	คงเหลือ Balance	หมายเลขผู้ทำรายการ Teller ID.
13/03/24	TN	*****2,665,500.00	*****2,665,543.21	0001F07001	
19/03/24	WB	*****356,255.00	*****2,309,288.21	WCTMA03742	
26/03/24	WB	*****127,406.00	*****2,181,882.21	ZIREA03743	
29/04/24	WB	*****365,025.00	*****1,816,857.21	ZIREJ03744	
29/05/24	WB	*****471,814.00	*****1,345,043.21	ZGVZJ03745	
14/06/24	WB	*****106,367.00	*****1,238,676.21	WCTMA0374	
27/06/24	IN	*****1,684.82	*****1,240,361.03	0003A	7
28/06/24	WB	*****135,033.00	*****1,105,328.03	ZRYMJ0424	
15/07/24	WB	*****230,700.00	*****874,628.03	ZIREA03749	
31/07/24	TW	*****174,015.00	*****700,613.03	ZGVZA0374	
29/08/24	TW	*****269,242.00	*****431,371.03	CAMDA03741	
04/09/24	TN	*****1,705,000.00	*****2,136,371.03	0001F070012	
30/09/24	WB	*****941,587.00	*****1,194,784.03	ZGVZJ03743	
04/11/24	TW	*****586,823.00	*****607,961.03	ZGVZJ03744	
14/11/24	TN	*****1,395,200.00	*****2,003,161.03	0001F070015	
28/11/24	TW	*****420,464.00	*****1,582,697.03	ZIREA03746	
29/11/24	TW	*****1,395,200.00	*****187,497.03	ZGVZJ03747	
26/12/24	WB	*****102,300.00	*****85,197.03	ZIREA03748	
27/12/24	IN	*****1,598.20	*****86,795.23	0003A	19
11/02/25	WB	*****70,107.00	*****16,688.23	WCTMA03749	
<div>  krungsri กรุงศรี </div> <div> A member of MUFG, a global financial group </div>					
<div> เลขคู่ฟ้าทูลเกล้า Serial No. </div> <div> 0035938124 </div>					

วันที่ Date	รายการ Transaction	ถอน Withdrawal	ฝาก Deposit	คงเหลือ Balance	หมายเลขผู้ทำรายการ Teller ID
09/04/25	TN	*****1,109,760.00	*****1,126,448.23	0001F0700	1
11/04/25	TW	*****517,564.00	*****608,884.23	ZGVZJ0374	2
24/04/25	WB	*****608,884.23	*****0.00	ZIREJ0374	3
					4
					5
					6
					7
					8
					9
					10

PROJECT CASH FLOW STATEMENT _2023-2025

Project No. PD 926/22 Rev.1 (M)

Period ending on:

Project Title. Promotion of sustainable domestic consumption of wood products in Thailand

Implementing Agency: Kasetsart University

Component			Reference	Date	Amount	
					in USD	Local Currency (Baht)
A.	Funds received from ITTO:					
1		1st Installment: 19 January 2023		19-Jan-23	75,030.00	2,472,250.00
2		Second Installment			75,000.00	2,665,500.00
3		Third installment			50,000.00	1,705,000.00
4		Fourth installment			32,000.00	1,109,760.00
		interest		26-Jun-23	71.43	2,353.71
		interest		27-Dec-23	36.92	1,216.50
		interest		27-Jun-24	47.41	1,684.82
				27-Dec-24	46.87	1,598.20
		ETC.		28-Nov-23	-	
		Total Funds Received:			232,232.63	7,959,363.23
B.	Expenditures by Executing Agency:					
10	Project Personal					
11	11.1	Project Coordinator			48,000.00	1,630,520.00
	11.2	Secretary			12,000.00	406,174.50
	11.3	Finance			12,000.00	406,174.50
14	14.1	Domestic consultant in studies on wood use promotion policy in Japan, SE Asia, US, EU			8,000.00	274,830.00
	14.2	Domestic consultant in studies on innovative wood and wood products Japan, SE Asia, US, EU			8,000.00	274,830.00
19		Sub total			88,000.00	2,992,529.00
20	Sub contracts					
21		Consultations with local staff and associations			4,665.84	160,306.00
22		Consultations with universities and institutions			9,324.88	327,959.32
29		Sub total			13,990.72	488,265.32
30	Duty travel					
31		Daily subsistence allowance			-	-
	31.1	DSA National experts/ consultants			4,103.20	139,500.00
32		Local transport costs			9,668.50	336,506.00
33		International travel costs			34,511.31	1,194,611.21
39		Sub total			48,283.00	1,670,617.21
40	Capital items					
41		Computer equipment			943.40	31,085.00
42		Maintenance and repairing and printing, etc			-	-
49		Sub total			943.40	31,085.00
50	Consumable items					
51		Materials			12,485.92	435,009.55
52		Demonstration of out-door/in-door wooden structure/instruments/tools			17,394.01	600,415.02
53		Office supplies			9,267.49	314,778.95
54		Office space			-	-
59		Sub total			39,147.42	1,350,203.52
60	Miscellaneous					
61		Training			31,257.27	1,060,351.68
62		PSC meeting			3,997.93	136,906.50
64		Information, media, publications and other contingencies			6,613.12	229,405.00
65		Auditing expense			-	-
69		Sub total			41,868.32	1,426,663.18
	Total Project				232,232.87	7,959,363.23
80	Project monitoring and administration					
81		ITTO monitoring & review			-	-
82		ITTO ex-post evaluation			-	-
83		ITTO program support costs @12% of project cost			-	-
89		Subtotal			-	-
100. GRAND TOTAL					232,232.87	7,959,363.23
Remaining Balance of Funds: (A - B)					-	0.24

Financial Report

Project No. PD 926/22 Rev.1 (M)

Period ending on: Apr-25

Project Title: Promotion of sustainable domestic consumption of wood products in Thailand

Implementing Agency: Kasetsart University

Component		Project budget overview (USD)				Expenditures (USD)_2023											
		2023	2024	Budget total	Budget modify	Jan			Feb (28/02/23)			27-Mar-23			April		
						USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht
เงินโครงการ Teak 2 คืบ																	
ตลอดปี																	
(A) Beginning Balance (ยอดคงค้าง)+ค่าเปิดบัญชี 1,000 บ.									75,030.35	32.95	2,472,250.00	69,413.05	32.95	2,287,160.00	65,682.09	32.95	2,164,225.00
10 Project Personal																	
11	11 Project Coordinator	24,000	24,000	48,000	48,000				2,000.00	32.95	65,900.00	2,000.00	32.95	65,900.00	2,000.00	32.95	65,900.00
11	11 Secretary	6,000	6,000	12,000	12,000				500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00
11	11 Finance	6,000	6,000	12,000	12,000				500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00
14	14 Domestic consultant in studies on wood use promotion policy in Japan, SE Asia, US, EU	4,000	4,000	8,000	8,000				-	-	-	-	-	-	3,000.00	32.95	98,850.00
14	14 Domestic consultant in studies on innovative wood and wood products Japan, SE Asia, US, EU	4,000	4,000	8,000	8,000				-	-	-	-	-	-	3,000.00	32.95	98,850.00
19	Sub total	44,000	44,000	88,000	88,000				3,000.00	32.95	98,850.00	3,000.00	32.95	98,850.00	9,000.00	32.95	296,550.00
20 Sub contracts																	
21	21 Consultations with local staff and associations	3,100	1,500	4,700	4,666				667.68	32.95	22,000.00	-	-	-	825.49	32.95	27,200.00
22	22 Consultations with universities and institutions	4,250	5,100	9,350	9,325				-	-	-	-	-	-	-	-	-
29	Sub total	7,350	6,700	14,050	13,991				667.68	32.95	22,000.00	-	-	-	825.49	32.95	27,200.00
30 Duty travel																	
31	31 Daily subsistence allowance	2,250	1,875	4,125	4,103				-	-	-	-	-	-	-	-	-
32	32 DSA National experts/ consultants	6,000	3,750	9,750	9,669				-	-	-	-	-	-	910.47	32.95	30,000.00
33	33 Local transport costs	2,000	17,089	19,089	34,511				-	-	-	-	-	-	1,289.83	32.95	42,500.00
39	Sub total	10,250	22,714	32,964	48,283				-	-	-	-	-	-	2,200.30	32.95	72,500.00
40 Capital items																	
41	41 Computer equipment	1,000	1,000	2,000	943				657.97	32.95	21,680.00	285.43	32.95	9,405.00	-	-	-
42	42 Maintenance and repairing and printing, etc	1,000	1,000	2,000	2,000				-	-	-	-	-	-	-	-	-
49	Sub total	2,000	2,000	4,000	2,943				657.97	32.95	21,680.00	285.43	32.95	9,405.00	-	-	-
50 Consumable items																	
51	51 Materials	6,000	9,000	15,000	12,562				-	-	-	-	-	-	-	-	-
52	52 Demonstration of out-door/in-door wooden structure/ instruments/tools	-	25,000	25,000	17,394				-	-	-	-	-	-	-	-	-
53	53 Office supplies	6,000	6,000	12,000	9,289				500.00	32.95	16,475.00	445.52	32.95	14,680.00	251.93	32.95	8,301.00
54	54 Office space	9,600	9,600	19,200	19,200				-	-	-	-	-	-	-	-	-
59	Sub total	21,600	49,600	71,200	58,445				500.00	32.95	16,475.00	445.52	32.95	14,680.00	251.93	32.95	8,301.00
60 Miscellaneous																	
61	61 Training	27,300	23,800	51,100	31,257				527.47	32.95	17,380.00	-	-	-	-	-	-
62	62 PSC meeting	2,000	2,000	4,000	3,998				-	-	-	-	-	-	-	-	-
64	64 Information, media, publications and other contingencies	5,800	6,600	12,400	6,997				264.19	32.95	8,705.00	-	-	-	-	-	-
65	65 Auditing expense	4,000	4,000	8,000	8,000				-	-	-	-	-	-	-	-	-
69	Sub total	39,100	36,400	75,500	50,253				791.65	32.95	26,085.00	-	-	-	-	-	-
Total Project		124,300	161,414	285,714	261,914				5,617.30	32.95	185,090.00	3,730.96	32.95	122,935.00	12,277.72	32.95	404,551.00
80 Project monitoring and administration																	
81	81 ITTO monitoring & review	7,500	7,500	15,000	15,000				-	-	-	-	-	-	-	-	-
82	82 ITTO ex-post evaluation	-	10,000	10,000	10,000				-	-	-	-	-	-	-	-	-
83	83 ITTO program support costs @12% of project cost	14,916	19,370	34,286	34,286				-	-	-	-	-	-	-	-	-
89	Subtotal	22,416	36,870	59,286	59,286				-	-	-	-	-	-	-	-	-
(B)100. GRAND TOTAL		146,716	198,284	345,000	321,200				5,617.30	32.95	185,090.00	3,730.96	32.95	122,935.00	12,277.72	32.95	404,551.00
Remaining Balance of Funds: (A - B)									69,413.05	32.95	2,287,160	65,682.09	32.95	2,164,225.00	53,404.37	32.95	1,759,674.00

May			Jun			Jul			Aug			Sep			Out			Nov		
USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht
																		6,069.80	32.95	200,000.00
						#	32.95	2,353.71												
53,404.37	32.95	1,759,674.00	50,212.41	32.95	1,654,499.00	42,959.33	32.95	1,417,863.71	32,672.43	32.95	1,076,556.71	28,447.49	32.95	937,344.71	18,922.45	32.95	623,494.71	18,526.33	32.95	610,442.71
2,000.00	32.95	65,900.00	2,000.00	32.95	65,900.00	2,000.00	32.95	65,900.00	2,000.00	32.95	65,900.00	2,000.00	32.95	65,900.00	2,000.00	32.95	65,900.00	2,000.00	32.95	65,900.00
500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00
500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00	500.00	32.95	16,475.00
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,000.00	32.95	98,850.00	3,000.00	32.95	98,850.00	3,000.00	32.95	98,850.00	3,000.00	32.95	98,850.00	3,000.00	32.95	98,850.00	3,000.00	32.95	98,850.00	3,000.00	32.95	98,850.00
-	-	-	-	-	-	637.33	32.95	21,000.00	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	500.76	32.95	16,500.00	60.70	32.95	2,000.00	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1,138.09	32.95	37,500.00	60.70	32.95	2,000.00	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	531.11	32.95	17,500.00	1,001.52	32.95	33,000.00	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1,456.30	32.95	47,985.00	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1,987.41	32.95	65,485.00	1,001.52	32.95	33,000.00	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	910.47	32.95	30,000.00	216.97	32.95	7,149.00	-	-	-	-	-	-	-	-	-
191.96	32.95	6,325.00	221.52	32.95	7,299.00	1,820.94	32.95	60,000.00	914.11	32.95	30,120.00	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	487.31	32.95	16,057.00	33.17	32.95	1,093.00	455.24	32.95	15,000.00	1,083.52	32.95	35,702.00	38.24	32.95	1,260.00
191.96	32.95	6,325.00	221.52	32.95	7,299.00	3,218.73	32.95	106,057.00	1,164.25	32.95	38,362.00	455.24	32.95	15,000.00	1,083.52	32.95	35,702.00	38.24	32.95	1,260.00
-	-	-	-	-	-	1,912.44	32.95	63,015.00	-	-	-	6,069.80	32.95	200,000.00	2,382.40	32.95	78,500.00	552.78	32.95	18,214.00
-	-	-	-	-	-	131.71	32.95	4,340.00	2,000.00	32.95	65,900.00	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	2,044.16	32.95	67,355.00	2,000.00	32.95	65,900.00	-	-	-	-	-	-	-	-	-
3,191.96	32.95	105,175.00	7,253.08	32.95	238,989.00	10,358.33	32.95	341,307.00	4,224.95	32.95	139,212.00	9,525.04	32.95	313,850.00	6,465.92	32.95	213,052.00	3,591.02	32.95	118,324.00
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,191.96	32.95	105,175.00	7,253.08	32.95	238,989.00	10,358.33	32.95	341,307.00	4,224.95	32.95	139,212.00	9,525.04	32.95	313,850.00	6,465.92	32.95	213,052.00	3,591.02	32.95	118,324.00
50,212	32.95	1,654,499	42,959.33	32.95	1,415,510	32,601.00	32.95	1,076,556.71	28,447	32.95	937,345	18,922	32.95	623,495	12,457	32.95	410,443	14,935	32.95	492,119

Dec			Jan			Feb (29/02/24)			Feb (14/03/24)			March			April			May			June		
USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht
									75,000.00	35.54	2,665,500.00	-	-	-	-	-	-	-	-	-	-	-	-
36.92	32.95	1,216.50							-	-	0	-	-	0	-	-	0	-	-	0	-	-	0
14,972.24	32.95	493,335.21	4926.16	32.95	162317	975.81	32.95	32,153	75,001.20	35.54	2,665,543	64,977.16	35.54	2,309,288	61,392.29	35.54	2,181,882	51,121.46	35.54	1,816,857	37,845.88	35.54	1,345,043
								#REF!	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
2,000.00	32.95	65,900.00	2,000	32.95	65,900				2,000	35.54	71,080	2,000	35.54	71,080	2,000	35.54	71,080	2,000	35.54	71,080	-	-	-
500.00	32.95	16,475.00	500	32.95	16,475	450	32.95	14,828	50	35.54	1,777	500	35.54	17,770	500	35.54	17,770	500	35.54	17,770	-	-	-
500.00	32.95	16,475.00	500	32.95	16,475	450	32.95	14,828	50	35.54	1,777	500	35.54	17,770	500	35.54	17,770	500	35.54	17,770	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000.00	35.54	106,620	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000.00	35.54	106,620	-	-	-	-	-	-
3,000.00	32.95	98,850.00	3,000	99	98,850	900	66	29,655	2,100	35.54	74,634	3,000	-	106,620	9,000	36	319,860	3,000	35	106,620	-	-	-
-	-	-	-	-	-	-	-	-	1,570.06	35.54	55,800	-	-	-	-	-	-	506.47	35.54	18,000	-	-	-
15.20	32.95	501.00	754	32.95	24,851	-	-	-	-	-	-	-	-	-	-	-	-	3,243.44	35.54	115,272	1,327.80	36	47,190
15.20	32.95	501.00	754	33	24,851	-	-	-	1,570	35.54	55,800	-	-	-	-	-	-	3,750	36	133,272	1,328	36	47,190
-	-	-	-	-	-	-	-	-	506	35.54	18,000	-	-	-	140.69	36	5,000	1,012.94	36	36,000	-	-	-
-	-	-	-	-	-	-	-	-	1,887	35.54	67,056	-	-	-	424.56	36	15,089	3,429.26	36	121,876	1,181.77	36	42,000
-	-	-	-	-	-	-	-	-	2,393	35.54	85,056	-	-	-	565	71	20,089	4,442	71	157,876	1,182	36	42,000
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	1,406.87	35.54	50,000	-	-	-	-	-	-	1,442.09	35.54	51,252	483.31	35.54	17,177
146.14	32.95	4,815.25	196	32.95	6,463	74.51	32.95	2,455	92.56	35.54	3,290	584.86	35.54	20,786	395.89	35.54	14,070	112.10	35.54	3,984	-	-	-
146.14	32.95	4,815.25	196	33	6,463	75	33	2,455	1,499	35.54	53,290	585	36	20,786	396	36	14,070	1,554	71	55,236	483	36	17,177
6,884.73	32.95	226,852.00	-	-	-	-	-	-	773	35.54	27,475	-	-	-	-	-	-	-	36	-	-	-	-
-	-	-	-	-	-	-	-	-	1,688	35.54	60,000	-	-	-	310	36	11,007	529	36	18,810	-	-	-
6,884.73	32.95	226,852.00	-	-	-	-	-	-	2,461.31	35.54	87,475	-	-	-	309.69	35.54	11,007	529.26	35.54	18,810	-	-	-
10,046.08	32.95	331,018.25	3,950	33	130,164	975	33	32,110	10,024	35.54	356,255	3,585	36	127,406	10,271	36	365,025	13,276	36	471,814	2,993	36	106,367
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10,046.08	32.95	331,018.25	3,950	33	130,164	975	33	32,110	10,024	35.54	356,255	3,585	36	127,406	10,271	36	365,025	13,276	36	471,814	2,993	36	106,367
4,926	33.95	162,317	976	34.95	32,153	1	32.95	40	64,977	35.54	2,309,288	61,392	35.54	2,181,882	51,121	35.54	1,816,857	37,846	35.54	1,345,043	34,853	35.54	1,228,676

Jun			15-Jul			July			August			September		
USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht
-	-	-				-	-	-	-	-	-	-	-	-
47.41	35.54	1,684.82				-	-	0	-	-	0	50,000.00	34.10	1,705,000.00
34,853.00	35.54	1,238,676	31,100.94	35.54	1,105,328	24,609.67	35.54	874,628	19,713.35	35.54	700,613	12,650.16	34.10	431,371
0	-	-	-	0	-	0	-	-	0	-	-	0	-	-
2,000	35.54	71,080	-	-	-	2,000	35.54	71,080	2,000	35.54	71,080	2,000	34.10	68,200
500	35.54	17,770	-	-	-	500	35.54	17,770	500	35.54	17,770	500	34.10	17,050
500	35.54	17,770	-	-	-	500	35.54	17,770	500	35.54	17,770	500	34.10	17,050
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,000	36	106,620	-	-	-	3,000	36	106,620	3,000	36	106,620	3,000	34	102,300
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	281	35.54	10,000	177.43	36	6,306	-	-	-	-	-	-
26.59	36	945	3,396	35.54	120,700	-	-	-	-	-	-	-	-	-
27	36	945	3,678	36	130,700	177	36	6,306	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	16,236.44	34	571,141
-	-	-	-	36	-	-	-	-	-	-	-	16,236	34	571,141
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	2,814	35.54	100,000.00	1,674.56	35.54	59,514	337.65	35.54	12,000	2,153.64	34.10	73,439
103	36	3,678	-	36	-	44.32	35.54	1,575	2,768.91	35.54	98,407	-	-	-
103	36	3,678	2,814	34	100,000	1,719	34	61,089	53.88	35.54	1,915	575.50	34.10	19,625
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	1,415	36	50,300	5,134	34	175,082
669	36	23,790	-	-	-	-	-	-	-	-	-	-	-	-
669.39	35.54	23,790	-	-	-	-	-	-	1,415.31	35.54	50,300	5,134.37	34.10	175,082
3,799	36	135,033	6,491	36	230,700	4,896	36	174,015	7,576	36	269,242	27,100	34	941,587
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,799	36	135,033	6,491	36	230,700	4,896	36	174,015	7,576	36	269,242	27,100	34	941,587
31,101	35.54	1,105,328	24,610	36.54	874,628	19,713.35	35.54	700,613	12,138	35.54	431,371	35,038	34.10	1,194,784

October			November			December			Jan			April			April			total expenditures		(2023-2024)
USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Forex	Baht	USD	Baht	USD
-	-	-	-	-	-	-	-	-	-	-	-	32,000.00	34.68	1,109,760.00	32,000.00	34.68	1,109,760.00			
-	-	0	-	-	0	46.87	34.10	1,598.20	-	-	0	-	-	0	-	-	0			
35,037.65	34.10	1,194,784	17,828.76	34.10	607,961	5,498.47	34.10	187,498	2,545.34	34.10	86,796	32,489.34	34.68	1,126,449	17,557.25	34.68	608,885			
0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-			
2,000	34.10	68,200	2,000	34.10	68,200	2,000	34.10	68,200	-	-	-	2,000	34.68	69,360	-	-	-	48,000.00	1,630,520.00	48,000.00
500	34.10	17,050	500	34.10	17,050	500	34.10	17,050	500	34.10	17,050	-	-	-	-	-	-	12,000.00	406,174.50	12,000.00
500	34.10	17,050	500	34.10	17,050	500	34.10	17,050	500	34.10	17,050	-	-	-	-	-	-	12,000.00	406,174.50	12,000.00
-	-	-	-	-	-	-	-	-	-	-	-	2,000.00	34.68	69,360	-	-	-	8,000.00	274,830.00	8,000.00
-	-	-	-	-	-	-	-	-	-	-	-	2,000.00	34.68	69,360	-	-	-	8,000.00	274,830.00	8,000.00
3,000	34	102,300	3,000	34	102,300	3,000	34	102,300	1,000	34	34,100	6,000	34.68	208,080	-	-	-	88,000.00	2,992,529.00	88,000.00
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,665.84	160,306.00	4,665.84
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,324.88	327,959.32	9,324.88
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,990.72	488,265.32	13,990.72
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,103.20	139,500.00	4,103.20
12,181.42	34	415,386	5,580.62	34	190,299	-	-	-	-	-	-	-	-	-	512.83	34.68	17,785	9,668.50	336,506.00	9,668.50
12,181	34	415,386	5,581	34	190,299	-	-	-	-	-	-	-	-	-	513	34.68	17,785	34,511.31	1,194,611.21	34,511.31
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48,283.00	1,670,617.21	48,283.00
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	943.40	31,085.00	943.40
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	943.40	31,085.00	2,943.40
91.35	34.10	3,115	-	-	-	-	-	-	958.70	34.10	32,692	1,363.32	34.68	47,280	40.13	34.68	1,392	12,485.92	435,009.55	12,561.89
-	-	-	2,677.21	34.10	98,113	-	-	-	-	-	-	-	-	-	7,605.97	34.68	263,775	17,394.01	600,415.02	17,394.02
418.42	34.10	14,268	71.26	34.10	2,430	-	-	-	97.21	34.10	3,315	2,592.81	34.68	89,919	-	-	-	9,267.49	314,778.95	9,288.74
510	34	17,383	2,948	34	100,543	-	-	-	1,056	34	36,007	3,956	34.68	137,199	7,646	34.68	265,167	39,147.42	1,350,203.52	58,444.65
1,518	34	51,754	801	34	27,321	-	-	-	-	-	-	4,391	34.68	152,285	4,965	34.68	172,174	31,257.27	1,060,351.68	31,257.29
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,997.93	136,906.50	3,997.93
-	-	-	-	-	-	-	-	-	-	-	-	585	34.68	20,000	4,434	34.68	153,760	6,613.12	229,405.00	6,997.28
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,000.00
1,517.71	34.10	51,754	801.20	34.10	27,321	-	-	-	-	-	-	4,976.03	34.68	172,285	9,398.32	34.68	325,934	41,868.32	1,426,663.18	50,252.50
17,209	34	586,823	12,330	34	420,463	3,000	34	102,300	2,056	34	70,107	14,932	34.68	517,564	17,557	34.68	608,885	232,232.87	7,959,363.23	261,914.27
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			15,000.00
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			10,000.00
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			34,286.00
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			59,286.00
17,209	34	586,823	12,330	34	420,463	3,000	34	102,300	2,056	34	70,107	14,932	34.68	517,564	17,557	34.68	608,885	232,232.87	7,959,363.23	321,200.27
17,829	34.10	607,961	5,498	34.10	187,498	2,545	34.10	86,796	489	34.10	16,689	17,557	34.68	608,885	-	0	34.68			

[illegible]

Note 5 Management system

Instruction

Please answer each inquiry.

No.	Inquiries	Answer
Expenditures		
1	Are the purposes of the expenditure occurred exclusively for the implementation of the project?	Yes
2	Are all goods and services for each funds provided by ITTO shall be procured in accordance with the "ITTO Guidelines for the Selection and Employment of Consultants, Procurements and Payments of Goods and Services"? (Section 4.03)	No
3	Are the amounts of expenditures occurred reasonable in terms of the market price for the goods or services?	Yes
4	Is there any suppliers related to any anti-social party or family related parties?	No
5	Please describe the payment procedures focusing on if a proper segregation of duty between a preparer and approver (or execution of payment) is properly established.	Summarize the expense details and prepare an official request for approval to be submitted to the Dean. Once approval is obtained, proceed with the withdrawal of funds.
Fund Balance(Cash and cash equivalents)		
6	Is the fund allocated by ITTO separately kept in a separate bank account and a ledger? (Section 5.01)	Yes, the funds are kept in a dedicated bank account under the project's name.
7	If cash in hand exists, please describe the stored conditions.	No
Capital items		
8	Are capital items exclusively used for the implementation of the projects? (Section 4.01)	Yes
9	Is there any abnormal condition is attached to Capital items? (ex. Pledge for loans or liability for others.)	No
General		
10	Is the access right to the accounting system is properly limited?	Yes
11	Please describe storage condition of supporting documents.	We keep all supporting documents in an organized manner, both in document and digital formats. The documents are categorized clearly by type of expense and by month for easy reference and retrieval.

CASH FLOW STATEMENT

(To be prepared separately for ITTO funding and for Counterpart Funding)

For the periods from [date of commencement of project] to 31 December [2024] Or to the date of Completion

Project No PD 926/22 REV.1

Period ending on 30-Apr-25

Project Title: promotion of sustainable domestic consumption of wood use in Thailand

(in US Dollars)

Funds received from ITTO	No.	Item	Date received	Amount
	1	First Installment	19/1/2023	75,030
	2	Second Installment	13/3/2024	75,000
	3	Third Installment	4/9/2024	50,000
	4	Fourth Installment	9/4/2025	32,000
	5	ETC.		203
Total Fund received				232,233

(in US Dollars)

Component		Budget (Note 1)	Previously accumulated expenses	Expenses for Current Period (Note 2)	Accumulated expenses To-date	Available Budget	
		A	B	C	D {B + C}	E {A - D}	
Expenditures by Executing Agency							
10	Project Personnel						
	11	National Experts (long term)					
		11.1 Project Coordinator	48,000.00	22,000.00	26,000.00	48,000.00	0.00
		11.2 Secretary	12,000.00	5,500.00	6,500.00	12,000.00	0.00
		11.3 Finance	12,000.00	5,500.00	6,500.00	12,000.00	0.00
	14	International Consultant(s)					
		14.1 Domestic consultant in studies on wood use promotion policy in Japan, SE Asia, US, EU	8,000.00	3,000.00	5,000.00	8,000.00	0.00
		14.2 Domestic consultant in studies on innovative wood and wood products Japan, SE Asia, US, EU	8,000.00	3,000.00	5,000.00	8,000.00	0.00
	19	Component Total:	88,000.00	39,000.00	49,000.00	88,000.00	0.00
	20	Sub-contracts					
21		Consultations with local staff and associations	4,665.84	2,130.50	2,535.34	4,665.84	0.00
22		Consultations with universities and institutions	9,324.88	576.66	8,748.22	9,324.88	0.00
29		Component Total:	13,990.72	2,707.16	11,283.56	13,990.72	0.00
30	Travel						
	31	Daily Subsistence Allowance					
		31.1 DSA National experts/ consultants	4,103.20	2,443.10	1,660.10	4,103.20	0.00
	32	National Expert(s)/ Consultant(s)	9,668.50	2,746.13	6,922.37	9,668.50	0.00
	33	International travel costs	34,511.30		34,511.31	34,511.31	-0.01
	39	Component Total:	48,283.00	5,189.23	43,093.78	48,283.01	-0.01
40	Capital Items						
	41	Computer equipment	943.40	943.40		943.40	0.00
	42	Maintenance and repairing and printing, etc	2,000.00	0.00		0.00	2,000.00
	49	Component Total:	2,943.40	943.40	0.00	943.40	2,000.00
50	Consumable Items						
	51	Materials	12,561.89	1,127.44	11,358.48	12,485.92	75.97
	52	Demonstration of out-door/in-door wooden structure/instruments/tools	17,394.02	2,735.05	14,658.96	17,394.01	0.01
	53	Office supplies	9,288.74	3,854.54	5,412.95	9,267.49	21.25
	54	Office space	19,200.00	0.00		0.00	19,200.00
	59	Component Total:	58,444.65	7,717.03	31,430.39	39,147.42	19,297.23
60	Miscellaneous						
	61	Training	31,257.29	12,259.82	18,997.45	31,257.27	0.02
	62	PSC meeting	3,997.93	2,000.00	1,997.93	3,997.93	0.00
	64	Information, media, publications and other contingencies	6,997.00	395.90	6,217.21	6,613.11	383.89
	65	Auditing expense	8,000.00	0.00			
	69	Component Total:	50,252.22	14,655.72	27,212.59	41,868.31	383.91
100	GRAND TOTAL:		261,913.99	70,212.54	162,020.32	232,232.86	21,681.13

Remaining balance of funds						0.12
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Notes

- 1 The amount should include ITTO budget on the project agreement only.
- 2 The amount should include expenditure for the audit period.

Annex 8 Letters of Requested Project Extension and Budget Modification



Ref.No. 6501.0801/1242
28th March 2025

Dr. Mohammed Nurudeen Iddrisu
Division of Trade and Industry
International Tropical Timber Organization (ITTO)
International Organization Center, 5th Floor pacific-Yokohama
I-I-I, Minato-Mirai, Nishi-KU, Yokohama, 220-0012 JAPAN

Subject: Request no cost extension for two months from the first NOL Ref. No. F.24-0082

Dear Dr. Mohammed Nurudeen Iddrisu,

Please refer to the previous No Objection Letter (NOL) Ref. No. F.24-0082, which granted a one-month no-cost extension for the SWU project in Thailand in Appendix 1. However, following consultations with Dr. Tetra Yanuariadi (ITTO Project Manager), additional time is required to complete the final technical report on the teak supply chain, incorporate feedback from the MOU stakeholder consultation meetings, finalize the paper submission, and prepare the wood certification guidelines for implementing agencies in Thailand.

To ensure these tasks are comprehensively completed, the SWU project in Thailand kindly requests an additional two-month no-cost extension.

Should you require further information or clarification, please contact Assist. Prof. Dr. Wirongrong Duangjai (SWU Project Manager in Thailand) via email at wirongrong.d@ku.th or mobile at +6686-364-1818.

Thank you for your consideration.
Yours sincerely,

Mr. Kitipong Tangkit
Deputy Dean for Executive Planning and Strategy
Acting Dean of the Faculty of Forestry
Kasetsart University

Cc: Dr. Tetra YANUARIADI <tetra@itto.int>; Dr. Preecha Ongprasert
<preecha_ong@yahoo.com>; Professor Yongyut Trisurat <fforyyt@ku.ac.th>



International Tropical Timber Organization (ITTO)

INTERNATIONAL ORGANIZATIONS CENTER – 5F, PACIFICO-YOKOHAMA
1-1-1, MINATO-MIRAI, NISHI-KU, YOKOHAMA 220-0012, JAPAN

F A C S I M I L E

Page 1 of 3 page(s)

Fax: (81-45) 223-1111

Tel.: (81-45) 223-1110

E-mail: ti@itto.int

Date: 4 April 2025	Ref. No. F.25-0023	
To: Mr. Kitipong Tangkit Deputy Dean for Executive Planning and Strategy Acting Dean of Faculty of Forestry Kasetsart University 50 Ngamwongwan Rd. Chatuchak Bangkok 10900 Thailand E-mail: info.kuff@ku.ac.th Fax.: +66(0)25614246	From: Dr. M. Nurudeen Iddrisu Director Division of Trade and Industry ITTO – Yokohama Japan	

Dear Mr. Tangkit,

PD 926/22 Rev.1 (I)
**“PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF
WOOD PRODUCTS IN THAILAND”**

Further to your request of 26 March 2025 (Ref.No. 6501.0801/1242) seeking approval for a 2-month extension of ITTO Project PD 926/22 Rev. 1 (I) until end of April 2025, I would like to inform you that I have no objection to your request.

The approved 2-month extension is granted without additional ITTO funds, provided that the Rules and Procedures applying to ITTO Projects are observed by the Executing Agency.

Yours sincerely,

Dr. M. Nurudeen Iddrisu
Director
Division of Trade and Industry



International Tropical Timber Organization (ITTO)

INTERNATIONAL ORGANIZATIONS CENTER – 5F, PACIFICO-YOKOHAMA

1-1-1, MINATO-MIRAI, NISHI-KU, YOKOHAMA 220-0012, JAPAN

F A C S I M I L E

Page 1 of 8 page(s)

Fax: (81-45) 223-1111

Tel.: (81-45) 223-1110

E-mail: ti@itto.int

Date: 9 December 2024	Ref. No. F.24-0080	
To: Associate Prof. Dr. Prateep Duengkae, PhD Dean of Faculty of Forestry Kasetsart University 50 Ngamwongwan Rd. Chatuchak Bangkok 10900 Thailand E-mail: info.kuff@ku.ac.th Fax.: +66(0)25614246	From: Dr. M Nurudeen Iddrisu Director, TI Division ITTO – Yokohama, Japan	

Dear Assoc. Prof. Dr. Duengkae,

PD 926/22 Rev.1 (I)
**“PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF WOOD PRODUCTS
IN THAILAND”**

Further to your request of 9 December 2024 seeking the approval of ITTO for the budget modifications of ITTO Project PD 926/22 Rev. 1 (I), I would like to inform you that I have no objection to your request. The said budget modification is aimed at accommodating an additional budget for the training activities and the official visit programme to Japan of the Thailand forestry authority, the executing agency and the project team. The details of the budget modification are presented in the attached cover letter to ITTO.

The approved project's budget modifications are attached and granted without additional ITTO funds, provided that the Rules and Procedures applying to ITTO Projects are observed by the Executing Agency.

Yours sincerely,

Dr. M. Nurudeen Iddrisu



คณะวนศาสตร์ มหาวิทยาลัยเกษตรศาสตร์

50 ถนนงามวงศ์วาน จตุจักร กรุงเทพฯ 10900
www.forest.ku.ac.th e-mail : info.kuff@ku.ac.th

โทร. 0 2579 0170 โทรสาร. 0 2561 4246

Faculty of Forestry Kasetsart University

50 Ngamwongwan Rd., Chatuchak, Bangkok 10900, Thailand
www.forest.ku.ac.th e-mail : info.kuff@ku.ac.th

Tel. +66(0) 2579 0170 Fax. +66(0) 2561 4246

Ref.No. 6501.0801/2201

27th June 2025

Ms. Sheam Satkuru

Executive Director

International Tropical Timber Organization (ITTO)

International Organization Center, 5th Floor Pacific-Yokohama

111, Minato-Mirai, Nishi-ku, Yokohama, 220-0012 JAPAN

Subject: Submission of the Final Report and the Financial Report for Thailand

Component under 'Promoting Sustainable Domestic Consumption of Wood Products in Thailand'

Dear Ms. Sheam Satkuru,

Please refer to ITTO letter Ref. L.22-0196 dated on 14th November 2022, the Project PD 926/22 REV.1(M) and the Memorandum of Understanding between ITTO and the Kasetsart University of Thailand on the implementation of **ITTO Project: Promoting Sustainable Domestic Consumption of Wood Products in Thailand.**

The Kasetsart University Faculty of Forestry on behalf of the Implementing Agency for Thailand Component would like to submit the Final Report and the Financial Report of the project to ITTO for information and consideration. This report is jointly prepared by the Royal Forest Department and Kasetsart University.

The equipment tools provided for demonstrating urban design wood products are listed as attached file below.

Should you have further information or clarification, please do not hesitate to contact, Dr. Preecha Ongprasert, Thailand National Coordinator <ongprasertpreecha@gmail.com> or Assist.Prof. Dr. Wirongrong Duangjai, Project Coordinator <wirongrong.d@ku.th>
Tel: +6686-3641818.

We look forward to hearing from you.

Yours sincerely,

Assoc.Prof.Prateep Duengkae
Dean of Faculty of Forestry

Cc: Dr.Preecha Ongprasert, Thailand National Coordinator <ongprasertpreecha@gmail.com>
Assist.Prof. Wirongrong Duangjai, Project Coordinator <wirongrong.d@ku.th>

List of Tools Provided by the Project to Department of Wood Products, Faculty of Forestry, Kasetsart University

Annex 9 Equipment and Tools Declarations

Specifications, Prices, and Intended Uses of Equipment Provided to the Department of Forest Products, Faculty of Forestry,

Kasetsart University

Account code	No	Item	Qty	Specification	Unit price (THB)	Total price (THB)	Total price (USD)	Purpose
50	Consumable items							
52	Demonstration of out-door/in-door wooden structure/instruments/tools							
.....	1.	FLUX Beamo	1	<ul style="list-style-type: none"> • Dimensions: 615 x 445 x 177 mm • Weight: 22 kg • Work area: 300 x 210 x 45 mm • Camera preview area: 300 x 195 mm • Voltage : AC 110 V / 220 V • Touch screen : 1024 x 600 LCD • Laser spec : 30 W CO₂ Laser • Laser moving speed : 0 ~ 300 mm/s • Laser cutting thickness : 0 - 5 mm (varies by material) 	55,140.19	55,140.19	1,589.97	Beamo is a powerful and compact 30 W CO ₂ desktop laser cutter that can cut and engrave a range of materials including metals. With its easy-to-use design, intuitive controls and features, you can create amazing things effortlessly. Beamo packs features found in professional industrial laser



Account code	No	Item	Qty	Specification	Unit price (THB)	Total price (THB)	Total price (USD)	Purpose
								cutters, including integrated safety
	2.	Asus Vivobook 16		<ul style="list-style-type: none"> CPU: Intel Core i5-13500H (2.6 GHz up to 4.7 GHz, 12C(4P+8E)/16T, 18MB Intel Smart Cache) Graphics: Intel UHD Graphics RAM: 16GB DDR4 on board SSD: 512GB NVMe PCIe 4.0 	28,788.00	28,788.00	830.10	Use with the software of laser machine. Design with familiar tools SVG / PNG / JPG / DXF / PDF / AI
	3.	Shipping Costs and Equipment Usage Training			4,000.00	4,000.00	115.34	
				Price		87,928.19	2,535.41	
				Vat 7%		6,154.97	177.48	
				Total		94,083.16	2,712.89	



Annex 10 All Activities of the Progress Reports

1. The Highlights of Output Achievements of The Project Implementation

With the approval of ITTO, the Project organized the Project Inception Meeting on 23 February 2023 at Maruay Garden Hotel in Bangkok. Thirty-three delegates were attending the meeting. The minutes of the Project Inception Meeting.



Figure A1 Ms. Nuntana Boonyananta, the representative of RFD on behalf of Chair of Project Steering Committee joined group photo with other PSC members at Maruay Garden Hotel, Bangkok on 23 February 2023
Photo credit: Kasetsart University

Key events and achievements are summarized below:

Dr. Kobsak Wanthongchai, Dean of the Faculty of Forestry, gave the welcome remarks. He noted that Kasetsart University and ITTO signed MoU on the implementation of the **Promotion of sustainable domestic consumption of wood products in Thailand PD 926/22 Rev.1 (I) or ITTO Sustainable Domestic Wood Consumption Project** funded by the Forestry Agency of Japan in November 2022. The project objective is highly relevant to the current wood industry situation in Thailand the need to transform the wood supply system from dependence on exports to the promotion of domestic wood use, as they face disruptions in supply chains during the timber trade during the COVID-19 pandemic. Furthermore, the project fits very well with the mission of the Faculty of Forestry to provide knowledge on sustainable forest resources management and biodiversity conservation, as well as enhance the livelihood of local people and smallholders involved in household wood production and industries.

Dr. Tetra YANUARIADI, ITTO Projects Manager, conveyed the regards of Mrs. Sheam Satkuru, Executive Director of ITTO. He noted that the project started in a timely manner, and

certainly for the appointment of a solid and strong Project Management Team. This project is part of the ITTO's efforts, strategic Action Plan 2022–2026 and relevant to the ITTO's long-running mission. The projects' outputs and outcomes support Sustainable Wood for Sustainable World Initiatives in strengthening sustainable wood value chains to enhance their social, economic and environmental benefits from production to consumption. To conclude his remarks, ITTO wishes to thank the Government of Japan for its continued support, advice and direction so that ITTO's existence remains stronger and credible.

Mr. Gen Akahane, Director of the Wood Products Trade Office, Forestry Agency of Japan) extended his appreciation to all delegates and the project team for attending the launching the project. He noted that Japan started most of forest plantations after the 2nd WW and they were mainly used for good products. Recently, domestic wood products are losing their markets. In this regard, the Forestry Agency of Japan has been implementing a national campaign for wood use promotion since 2005, named “Kizukai,” through the dissemination of significance of wood use to general public. The Government of Japan (GOJ) has been working with ITTO since 2021 to promote the “Sustainable Wood for Sustainable World” initiative that emphasizes that sustainable wood use contributes to sustainable development as well as the achievement of the UN Sustainable Development Goals (SDGs). In 2022, two projects implemented in Thailand and Indonesia were approved and start implementation in 2023. One more project in South-East Asia is expected in 2024. It is hoped that the project in Thailand and other countries will encourage urban consumer to use more wood and wood products and understand SFM, and contribute to global level.

Mrs. Nuntana Boonyananta, Director of Community Forest Management Office was assigned by the DG of the RFD to chair the Inception Meeting.

The RFD has become an official member of ITTO since 1985 and has obtained funding support from ITTO to implement several projects related to sustainable forest management. The RFD is pleased to support and jointly implement the **Sustainable Domestic Wood Consumption Project** with Kasetsart University. She noted that this project contributes to UN Sustainable Development Goals, Thailand's policy on BCG Model: bio-circular- green-economy, 20-year national strategy, national Forest Policy and the RFD Development Strategy (2016-2037) that aim to promote economic forest plantations, sustainable forest management and improve the livelihood of local people. She thanks ITTO and the Government of Japan for constant support the RFD. It is hoped that the Inception Meeting is fruitful and gains valuable suggestions from all delegates to guide the effective implementation of the project in the next 2 years.

Dr. Preecha Ongprasert, Director of Forestry Foreign Affairs Office, RFD and ITTO National Focal Point briefly presented the status of ITTO, its objectives. He also noted that the RFD on behalf of Thailand became one of 73 official members in 1985. In recent years, Thailand obtained technical and funding supports to implement several projects. ITTO Project PD 926/22 Rev.1 (I) “Promotion of Sustainable Domestic Consumption of Wood Products in Thailand” is one of three projects under the package of Sustainable wood use in domestic markets Project in which the Forestry Agency of Japan provides financial support to Vietnam, Indonesia and Thailand. This project package was approved at the 58th ITTO council meeting in Yokohama, Japan in November 2022.

Professor Dr. Yongyut Trisurat, Kasetsart University, Project Coordinator, presented the Inception Report and Yearly Plan Operations YPO and budget modification, which was approved by ITTO on 16 January 2023 (ITTO Ref No F.23-0002).

The development objective of the project aims at enhancing sustainable domestic wood consumption in Thailand. The specific objective is to promote sustainable domestic consumption of wood and wood products in Thailand through policy improvement on wood certification, stakeholder capacity building, and timber supply chains in pilot provinces

The target areas of this project are located in two provinces of Thailand: Nan and Trang. A lot of farmers in Nan province is involved in smallholder teak plantations and formed community enterprise, while Trang province is dominated by a large area of rubber plantations and a rubber wood industry, as well as centers/clusters for wooden furniture manufacturing.





Figure A2 University Welcome remarks by the Forestry Agency of Japan, ITTO (above) and Q&A on YPO by PSC members

Photo credit: Kasetsart

Project Coordinator invited each delegate to comment and provide suggestions for the project implementation. Several questions and comments were raised by the PSC members. Some responses were provided by Prof Yongyut Trisurat and **Dr. Preecha Ongprasert**. The pending issues were discussed. are shown below:

The PSC members acknowledged the Inception Report and observations raised by the members. Mrs. Nuntana Boonyananta congratulated the Inception Meeting achieved all the proposed meeting objectives and thank all delegates. The meeting adjourned at 3:00 pm (local time in Bangkok) with a vote of thanks to all participants, ITTO and the Forestry Agency of Japan.

2. The First Project Steering Committee Meeting (1st PSC) on 25 August 2023

The project "Promotion of Sustainable Domestic Consumption of Wood Products in Thailand," under the leadership of Professor Yongyut Trisurat from Kasetsart University's Faculty of Forestry as the Project Coordinator and Dr. Preecha Ongprasert, the Director of the Foreign Forestry Office of the Royal Forest Department, as the National Project Leader, convened its inaugural project management committee meeting for PD 926/22 Rev.1 (I) at the Rama Gardens Hotel. This significant meeting drew participation from a diverse array of organizations, including the Royal Forest Department, the Timber Industry Federation, the National Housing Authority, the Rubber Authority of Thailand, Kasetsart University, the Wood Business Association, and forestry experts. The meeting was graced by the presence of Dr. Tetra Yanuariadi, ITTO Projects Manager, and Ms. Akiko Tabata from the Forestry Agency of Japan, who extended a warm welcome to all attendees. Mr. Supoj Phuritnophakhun, the Deputy Director-General of the Royal Forest Department (acting on behalf of the Director-General), presided over the session, delivering insightful opening remarks to set the stage for fruitful discussions.



Figure A3 The Project Steering Committee

Key events and achievements:

Professor Yongyut Trisurat, at the time serving as the Project Coordinator at Kasetsart University, expressed his gratitude to the Forestry Agency of Japan for providing funding, with ITTO's approval at the 58th PSC meeting, to support the establishment of the SWU project. This initiative aims to pave the way for sustainable wood utilization. Because of the COVID-19 pandemic's impact on tropical wood production and trade, the project "Promotion of sustainable domestic consumption of wood products in Thailand" was approved in November 2022 in Yokohama, Japan. It is one of four projects (Vietnam, Indonesia, Thailand, and Malaysia) under the framework of promoting sustainable domestic wood use, financially supported by the Forestry Agency of Japan, and approved by ITTO.

The project "Promotion of sustainable domestic consumption of wood products in Thailand" is aligned with Thailand's national policies and strategies. The Royal Forest Department's objectives are in harmony with the project's goals, aiming to increase sustainable domestic wood consumption in Thailand. This will be achieved through policy improvements regarding wood certification, enhancing stakeholder capacities, and developing wood supply chains in pilot provinces.



Figure A4 The first meeting of Project Steering Committee in Thailand

The planned activities are proceeding as scheduled, and the new government is likely to support the BCG model for sustainable forest management. This approach aims to reduce damage and loss due to climate change through reforestation and restoration with local community involvement. The Thai government has pledged to support smallholder rubber farmers to comply with the Forest Stewardship Council (FSC) standards and to apply the BCG model during the APEC meetings in Thailand. Furthermore, Professor Yongyut Trisurat presented the planned activities from September 2023 to February 2024 and explained the remaining budget and expenses incurred in the project's operation.

3. The Second Project Steering Committee Meeting (2nd PSC) on 17 April 2024

As the project moved into its second year, the project team, led by Prof.Dr.Yongyut Trisurat, Regional Project Manager, and Asst. Prof. Dr. Wirongrong Duangjai, Project Coordinator, had organized the 2nd meeting of project steering committee (PSC) which aimed to review the outcomes of the past year, seek recommendations for the upcoming year, and present the plans for continued progress. The meeting was based on the following agendas.

Agenda 1: Opening remarks

Assistant Prof. Dr. Kobsak WANTHONGCHAI, Dean of Faculty of Forestry, Kasetsart University, Welcome Speech

He highlighted that the 2nd meeting of the Project Steering Committee (PSC) marks another milestone in our collaborative efforts to promote sustainable domestic consumption of wood products in Thailand. Reflecting on our achievements from the past year and planning for the future, we are committed to enhancing policy, capacity, and stakeholder engagement. With continued support from key organizations and experts, we aim to further our mission of sustainable forestry development. Thank you for your dedication and cooperation, and we look forward to a productive and successful year ahead.

Mr. Gen AKAHANE, the Director of Wood Products Trade Office, Forestry Agency of Japan

He expressed gratitude for being part of the 2nd project steering committee meeting on the project of Promotion of Sustainable Domestic Consumption of Wood Products in Thailand (SWU). He thanked key contributors, including Asst. Prof. Dr. Kobsak Wanthongchai, Prof. Dr. Yongyut Trisurat, Asst.Prof.Dr.Wirongrong Duangjai from Kasetsart University, Mr. Boonsuthee Jeravongpanich, Dr. Preecha Ongprasert, Dr. Suwan Tangmitcharoen from the Royal Forest Department, and Dr. Tetra Yanuariadi from ITTO. He appreciated the government of Thailand for hosting the ITTC59 in Pattaya, where valuable discussions and excursions took place. Although he couldn't attend, he mentioned that his colleagues, including Mr. Sugaya, participated and had fruitful discussions and excursions that provided insights into Thailand forestry and wood industry. He emphasized the importance of mutual understanding for global sustainable supply chains and highlighted the upcoming ITTC 60 in Yokohama, Japan. He finally expressed hope that the SWU project would support Thailand bio-circular-green economy model and looked forward to learning about its progress.

Dr. Tetra YANUARIADI, ITTO Project Manager, Speech Remark

Dr. Tetra delivered an opening speech at the 2nd Meeting of the Project Steering Committee (PSC) for the "Promotion of Sustainable Domestic Consumption of Wood Products in Thailand," held on April 17, 2024, in Bangkok. He extended warm greetings from Mrs. Sheam Satkuru, Executive Director of ITTO, and expressed sincere gratitude to the Royal Forestry Department, Kasetsart University, and key individuals including Ms. Akiko Tabata and her successor, Mr. Tomoyuki Honda, for their contributions to the project progress. The speech underscored the critical role of tropical forests in sustainable development, environmental health, and the achievement of the Sustainable Development Goals (SDGs), highlighting their contributions to national economies, livelihoods, and essential ecosystem services such as carbon sequestration and biodiversity preservation. Dr. Tetra emphasized that the project objectives—improving policies on wood certification, enhancing stakeholder capacity, and strengthening timber supply chains—are pivotal for promoting sustainable wood consumption in Thailand. He expressed confidence that the collaborative efforts and insights shared during the meeting would effectively advance the project implementation, leading to significant benefits for Thailand and serving as a model for sustainable wood use among other ITTO member countries.

Dr. Suwan TANGMITCHAROEN, Director of Forest Research and Development Office, Royal Forest Department, Speech Remark

Dr. Suwan Tangmitcharoen of the Royal Forest Department welcomes everyone to the 2nd Project Steering Committee Meeting for promoting sustainable domestic wood consumption in Thailand. He acknowledges key participants from Kasetsart University, the Forestry Industry Organization, the Forestry Agency of Japan, and the ITTO. Since the project, active since February 2023, aligns with Thailand Bio-Circular-Green economic model, focusing on policy enhancement and supply chain improvement in Nan and Trang provinces, he expresses gratitude for the support from Japan and the ITTO, highlighting their role in promoting sustainable practices and improving local livelihoods and looks forward to productive discussions and successful outcomes from their collaboration.

Agenda 2: Self-introduction of Participants

1. Dr. Suwan Tangmitcharoen

He has extensive experience in forest management and policy development. As the Acting Chair, he oversees the strategic direction and operations of the RFD, ensuring sustainable forest practices across the country.

2. Asst. Prof. Dr. Kobsak Wantongchai

He specializes in forestry with years of academic and practical experience, he plays a critical role in bridging academic research and valuable timber tree promotion by establishing hub of knowledge center for educating people to better understand technical term of growing valuable timber trees with collaboration of business sector.

3. Mr. Thanomsak Chiableam

He has a strong background in forest plantation and product management for commercial scale. At FIO, he works on promoting sustainable forest industry practices that balance economic growth with environmental stewardship.

4. Dr. Tetra Yanuariadi

He is an expert in international forest policy and tropical timber trade. His work with ITTO focuses on promoting the sustainable management and conservation of tropical forests

globally.

6. Mr. Suchat Kalayawongsa

He has years of experience in forestry research in valuable timber trees. His role at RFD includes implementing timber tree plantation research.

7. Mr. Sapol Boonsermsuk

He is an expert in forest law enforcement and governance international relations. His work involves ensuring compliance with national and international forestry regulations to combat illegal logging and forest degradation.

8. Ms. Sufeeya Samalee

She specializes in sustainable rubber production and its environmental impacts. At RAOT, she works on initiatives that integrate rubber cultivation with forest conservation strategies.

9. Ms. Thapanee Hokul

She is involved in projects aimed at promoting tree growing and promotion.

10. Mr. Boonsuthee Jeravongpanich

He is an experienced forest manager with a focus on forest economics at a small-scale level. He works closely with local communities to promote sustainable forest use and conservation.

11. Mr. Montri Intasen

He dedicated supports the development of data-driven policies for forest conservation and sustainable use at international level, Roya Forest Department.

12. Prof. Dr. Yongyut Trisurat

He is a key person who drive the ITTO project in relation to valuable timber tree, teak, in Thailand role in integrating scientific research with policy-making and implementation at small-scale level.

13. Asst. Prof. Dr. Wirongrong Duangjai

I have been a person in charge to manage the project of promotion since November 2023

14. Mr. Simon Kawaguchi

He works on international cooperation projects that promote sustainable forest management practices in tropical regions. He is involved in capacity-building programs and policy advocacy and financial issues.

15. Ms. Kyohei Sugaya

She plays a key role in policy formulation and international cooperation efforts of MAFF.

16. Mr. Kenji Izawa

He has a background in financial oversight and auditing, particularly in the context of environmental projects. He ensures transparency and accountability in project management and funding.

17. Ms. Nao Ishii

She specializes in auditing and financial management within the environmental and forestry sectors. Her work helps ensure that projects are conducted in accordance with best practices and financial regulations.

18. Mr. Kitipong Tangkit

He has extensive experience in land use policies consulting, with a focus on forestry and natural resource management. He provides expert advice on sustainable practices and wood policy development.

19. Mr. Pisut Sripant

He is an expert consultant in wood product design and educational workshop training on

wood product innovation

Agenda 3: Provisional agenda of project structure, progress, and budget by Asst. Prof. Dr. Wirongrong DUANGJAI

- (i) Overview of project objectives, outputs, work plan, and financials by Prof. Dr. Yongyut TRAISURAT, Faculty of Forestry, Kasetsart University, Regional Project Manager
- (ii) Annual progress report, outcomes, workplan, and financial report of the project by Assist. Prof. Dr. Wirongrong DUANGJAI, Faculty of Forestry, Kasetsart University, Project coordinator
 - Technical progress report by Mr. Kritipong TANGKIT #1
 - Technical progress report by Dr. Pisut SRIPANT, Project consultant#2

Agenda 4: Review of the 2nd year operational plan (YPO2) by the project coordinator (Assist. Prof. Dr. Wirongrong DUANGJAI)

The plan, depicted through a detailed flowchart (see figure 3), outlines key strategic areas for the project second year, emphasizing both wood design innovation and legal compliance in the wood industry. The plan includes advanced training in innovative wood design, aiming to align educational efforts with market demands. It also highlights the importance of understanding and meeting legal requirements, with workshops and compliance tools being central to this effort. Additionally, the plan underscores the value of fostering partnerships at both local and global levels to support the project objectives. Raising consumer awareness, particularly in urban areas, through campaigns, workshops, and public events, is another critical component. Finally, the plan addresses the need for strengthening certification processes to legalize domestic wood products, ensuring they meet both national and international standards. Each of these strategic areas is interlinked, contributing to the broader goals of the initiative.

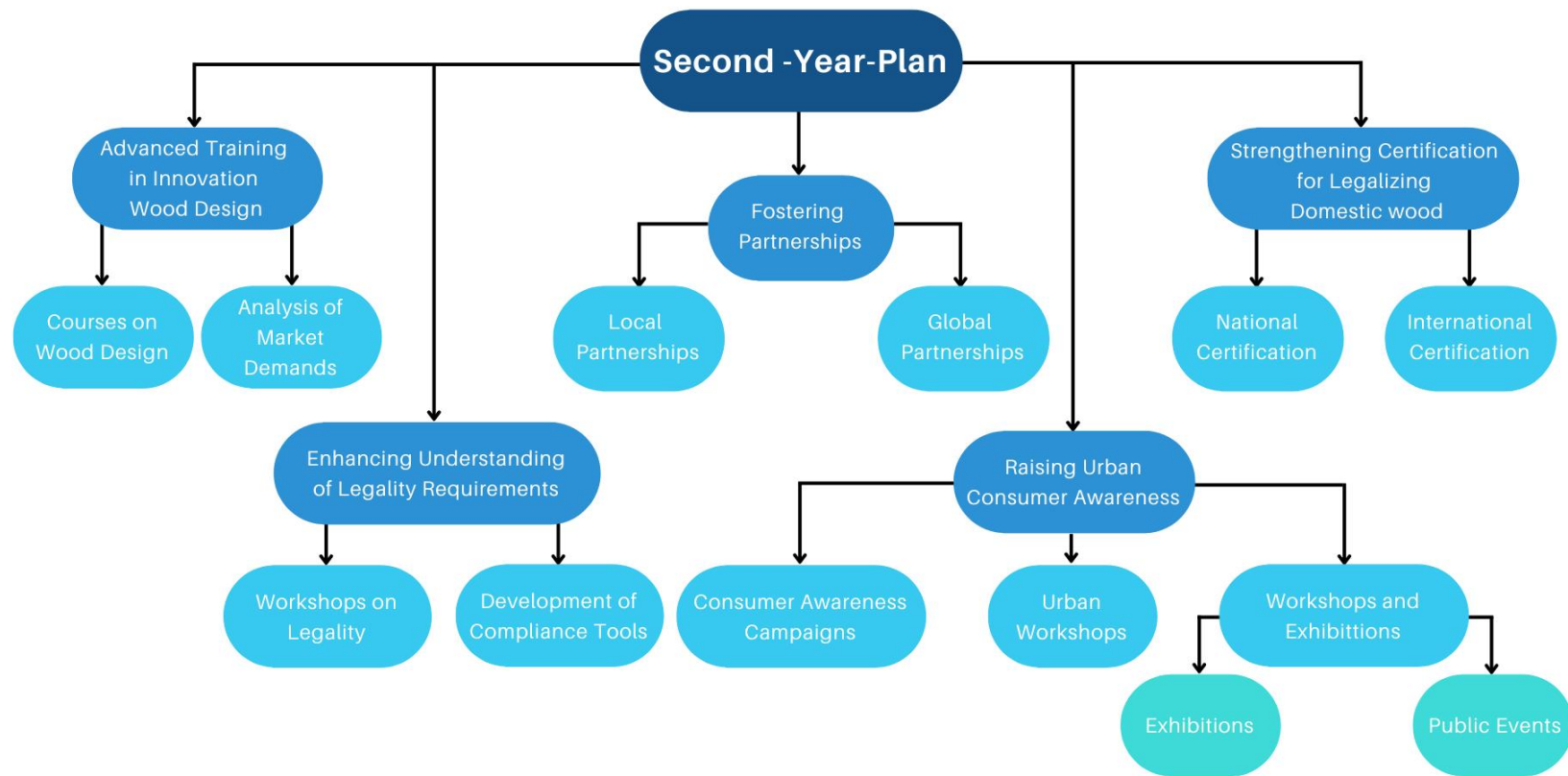


Figure A5 A diagram of second-year plan of the project

Agenda 5: Q&A and Recommendations

Dr. Tetra Yanuariadi highlighted that the SWU project focusing on wood policy is being implemented in parallel with similar initiatives in countries such as Vietnam, Indonesia, Malaysia, and India. This collaborative effort aims to support the global push for sustainable wood use in alignment with the United Nations Sustainable Development Goals (UN SDGs). He underscored the importance of reviewing and verifying the logical framework to ensure that it is directly derived from the project objectives. Additionally, he praised the practice of meticulously documenting all project activities, noting that thorough record-keeping is crucial for the project success and accountability.

Prof. Dr. Yongyut highlighted the project has been active collaboration with the Royal Forest Department (RFD) to promote forest plantations and its partnership with the Faculty of Forestry at Kasetsart University (KUFF) to encourage tree planting initiatives across various agencies. Mr. Kitipong is leading efforts to develop a comprehensive wood use policy and is preparing a Memorandum of Understanding (MOU) on wood utilization, which will be signed by 28 key stakeholders. In a noteworthy development, Mr. Chonlatid Suraswadee, the former Director-General of Royal Forest Department and now an advisor to the Prime Minister on land and natural resources, has invited Dr. Suwan to present the tree planting initiative to the Prime Minister's advisory group. Additionally, SCG is promoting the use of low-carbon emission construction materials, such as concrete, to support environmental sustainability goals. The Sri Trang Group is also contributing to these efforts by establishing large-scale teak plantations in Nan and other provinces. On the financial front, it is essential that the project financial management strictly adheres to ITTO's rules and regulations to ensure sound governance and compliance with international financial standards.

Agenda recommendations and comments

Asst.Prof. Dr. Kobsak emphasized the need to strengthen and support small wood enterprise holders, recognizing their vital role in the wood industry. He advocated for the organization of wood furniture exhibitions as a platform to showcase products and connect with potential markets. Additionally, he highlighted the importance of developing comprehensive business plans for wood utilization, particularly for valuable resources like teak. He also underscored the necessity of offering training courses to promote the effective and sustainable use of wood, ensuring that industry stakeholders are equipped with the skills and knowledge needed for success.

Dr. Suwan highlighted the significant amount of teak being planted in Nan province and raised the question of how to promote faster harvesting practices that enable local businesses to operate legally and sustainably. He noted that various activities are being undertaken to support wood plantations and economic forests, including the development of a "Wood City" in Thailand. He emphasized the importance of promoting kiln or air seasoning techniques to ensure high wood quality. Additionally, he mentioned that the government and responsible agencies are considering the establishment of special zones in five northern provinces to promote the wood industry across the entire supply chain.

Mr. Suchat emphasized the need to amend existing rules and regulations to streamline the process of wood use, from plantations through to industries and ultimately to the end users. He suggested that the Department of Public Works could become a key partner in the project, offering training and skill development programs to enhance the wood use capabilities of local communities and industry professionals.

Mr. Sapol suggested that the term "innovative design" should be revised to "innovative products" to ensure clearer understanding and better alignment with the project goals. This adjustment would help emphasize the tangible outcomes of the project focusing on creativity and innovation in the wood industry.

Mr. Boonsuthee suggested that the next meeting should include an invitation to key policy decision-makers, such as the Prime Minister, to participate in the workshop. This would provide them with an opportunity to gain a deeper understanding of wood use, particularly in relation to teak, and its potential benefits for industry and the economy.

Mr. Montri raised an important question regarding how to effectively engage all parties who have signed the Memorandum of Understanding (MOU) to actively participate in structuring and implementing the agreed-upon wood utilization strategies. He emphasized the need for a coordinated effort to ensure that each stakeholder fulfills their commitments under the MOU, thereby advancing the project goals of sustainable wood use.

Asst. Prof.Dr. Wirongrong summarized the second-year plan, focusing on several key initiatives that aims to enhance sustainable wood utilization, support local enterprises, and ensure effective policy implementation, ultimately fostering a thriving wood industry.

There are four main objectives:

1) Strengthening wood utilization policy

A comprehensive approach will be undertaken to review and update existing policies with a focus on promoting sustainable wood use. This process will involve close collaboration with government agencies and key stakeholders to ensure that these updated policies are effectively integrated into both national and local regulations. Additionally, the development of clear and actionable guidelines will be prioritized to ensure that the policies are applied consistently across various sectors, fostering a unified approach to sustainable wood utilization that benefits the environment, economy, and society.

2) Promoting and supporting local wood enterprises

A strategic plan will be implemented to provide both technical and tools assistance to small and medium-sized businesses in the wood industry. This support will include the launch of specialized training programs designed to enhance skills in wood processing and product design development, ensuring that these enterprises can produce market-ready products. Additionally, efforts will be made to establish partnerships between local wood enterprises, helping to expand their reach and increase profitability. This comprehensive approach aims to empower local businesses, fostering growth and sustainability within the wood industry.

3) Linking policy to implementation

This implementation will be suggested by the project consultant#1 wood policy which can be achieved by identifying and designating specific areas as "Economic Wood Zones," where sustainable wood harvesting and processing are given top priority. Within these zones, dedicated infrastructure will be developed to facilitate efficient wood production and distribution, ensuring that operations are both economically viable and environmentally responsible.

4) Promoting design and utilization of wood

A multifaceted approach will be adopted, starting with the encouragement of innovative wood design across architecture, furniture, and other industries. This will be achieved through competitions and showcases that highlight cutting-edge designs and their practical applications. Collaboration with educational institutions will also be a key focus, aiming to incorporate wood design into their curricula, thereby nurturing the next generation of designers and craftsmen. Additionally, public awareness campaigns will be launched to highlight the environmental and aesthetic benefits of using wood, fostering a greater appreciation for wood-based products and driving demand for sustainable wood utilization.



Figure A6 The meeting participants from various organizations



Figure A7 The meeting participants introduce themselves and sharing their opinion



Figure A8 The PSC meeting participants sharing information and opinions

Meeting Participants

No.	Name	Surname	Position	Affiliation	Remark
1	Dr. Suwan	Tangmitcharoen	Acting Chair	RFD	
2	Asst. Prof. Dr. Kobsak	Wantongchai	Deputy Chair	KU	
3	Mr. Thanomsak	Chiablam	Member	FIO	
4	Dr. Tetra	Yanuariadi	Member	ITTO	
5	Mr. Gen	Akahane	Member	MAFF	Online
6	Mr. Suchat	Kalayawongsa	Member	RFD	
7	Mr. Sapol	Boonsermsuk	Member	RFD	
8	Ms. Sufeeya	Samalee	Member	RAOT	
9	Ms. Thapanee	Hokul	Member	RFD	
10	Mr. Boonsuthee	Jeravongpanich	Member	RFD	
11	Mr. Montri	Intasen	Member	RFD	
12	Prof. Dr. Yongyut	Trisurat	Member and Secretary	KU	
13	Asst. Prof. Dr. Wirongrong	Duangjai	Member and Secretary	KU	
14	Ms. Simon	Kawaguchi	-	ITTO	
15	Mr. Tomoyuki	Honda	-	MAFF	Online
16	Ms. Kyohei	Sugaya	-	MAFF	Online
17	Mr. Kenji	Izawa	Auditor	-	
18	Ms. Nao	Ishii	Auditor	-	
19	Mr. Kitipong	Tangkit	Consultant#1	KU	
20	Mr. Pisut	Sripant	Consultant#2	KU	
21	Ms. Ketsanee	Tuaktatong	Project Secretary	KU	
22	Ms. Voratatta	Sutthipak	Project Finance	KU	

4. The 2nd Meeting of Project Technical Committee (PTC)

The second meeting of the Project Technical Committee (PTC) for the "Project to Promote Sustainable Domestic Consumption of Wood Products in Thailand" (PD 926/22 Rev.1 (I)) was held on 17 April 2024 at the Rama Garden Hotel in Bangkok. The meeting was chaired by Mr. Boonsuthee Jirawongphanich, Director of the Forest Economics Office, Royal Forest Department, with Asst. Prof. Dr. Kobsak Wanthongchai, Dean of the Faculty of Forestry, Kasetsart University, serving as Vice Chairman. Key participants included Assoc. Prof. Dr. Yongyuth Traisurat, the Regional Project Manager, and Asst. Prof. Dr. Wirongrong Duangjai, the Project Manager.

During the meeting, Asst. Prof. Dr. Wirongrong Duangjai provided a summary of the morning of Project Steering Committee (PSC) meeting for the committee's acknowledgment. Following this, Prof. Dr. Yongyuth Traisurat, in collaboration with Mr. Kitipong Tangkit (Consultant #1) and Dr. Pisut Sripant (Consultant #2), presented a review of the project previous operations and the operational plan for the second year. Additionally, they presented the academic (technical) report, which included the following topics: 1) Rubber supply chains in Thailand, 2) Wood use promotion policy, and 3) Innovations in wood and wood products.

The second meeting of the Project Technical Committee (PTC) for the "Project to Promote Sustainable Domestic Consumption of Wood Products in Thailand" (PD 926/22 Rev.1 (I)) convened on 17 April 2024 at the Rama Garden Hotel in Bangkok. Chaired by Mr. Boonsuthee

Jirawongphanich, Director of the Forest Economics Office, Royal Forest Department, with Asst. Prof. Dr. Kobsak Wanthonchai, Dean of the Faculty of Forestry, Kasetsart University, serving as Vice Chairman, the meeting brought together key stakeholders. Notable participants included Assoc. Prof. Dr. Yongyuth Traisurat, the Regional Project Manager, and Asst. Prof. Dr. Wirongrong Duangjai, the Project Manager.

The meeting commenced with Asst. Prof. Dr. Wirongrong Duangjai providing a comprehensive summary of the morning's Project Steering Committee (PSC) meeting, which was duly acknowledged by the PTC. This was followed by an in-depth review of the project previous operations and a detailed presentation of the operational plan for the second year by Prof. Dr. Yongyut Traisurat, in collaboration with Mr. Kitipong Tangkit (Consultant #1) and Dr. Pisut Sripant (Consultant #2). The committee endorsed the project progress and approved the strategic plan for the upcoming year, thereby ensuring continuity and alignment with the project objectives.

Furthermore, the PTC deliberated on the academic technical report presented during the meeting, which covered critical areas including the rubber supply chains in Thailand, policies promoting the sustainable use of wood products, and innovations in wood and wood products. The committee validated the findings of the report and formulated several recommendations aimed at enhancing the sustainability and marketability of wood products within Thailand. These recommendations were geared towards addressing challenges within the rubber supply chains and improving the efficacy of wood use promotion policies.

In addition to reviewing operational and technical aspects, the PTC provided strategic guidance on the implementation of the second-year operational plan, prioritizing resource allocation and identifying key areas of focus. The committee also recognized potential risks and challenges associated with the upcoming year's activities and proposed mitigation strategies to address them. This guidance is expected to play a crucial role in steering the project towards achieving its goals.

The meeting also underscored the importance of collaboration among academia, government, and industry stakeholders. It was agreed that a multi-disciplinary approach is essential for the successful promotion of sustainable wood consumption in Thailand. In this context, the PTC emphasized the need to enhance stakeholder engagement, particularly through policy advocacy and public awareness campaigns.

Finally, the meeting concluded with the establishment of a detailed list of action items, with specific tasks assigned to committee members and deadlines set for their completion. Plans for the next PTC meeting were also outlined, ensuring ongoing monitoring and evaluation of the project progress. These deliberations and outcomes are expected to contribute significantly to advancing the project objectives of promoting sustainable domestic consumption of wood products in Thailand.



Figure A9 The PTC meeting participants sharing information and opinions

In addition to the operational review, Asst. Prof. Dr. Wirongrong Duangjai elaborated on the second-year plan, which emphasizes key initiatives aimed at enhancing sustainable wood utilization, supporting local enterprises, and ensuring effective policy implementation to foster a thriving wood industry. This plan is structured around four main objectives. First, the plan aims to strengthen wood utilization policy by undertaking a comprehensive review and update of existing policies with a focus on promoting sustainable wood use. This objective involves close collaboration with government agencies and key stakeholders to ensure these updated policies are effectively integrated into national and local regulations. The development of clear and actionable guidelines will be prioritized to guarantee consistent application across various sectors, fostering a unified approach to sustainable wood utilization that benefits the environment, economy, and society.

The second objective focuses on promoting and supporting local wood enterprises. A strategic plan will be implemented to provide technical and tools assistance to small and medium-sized

businesses in the wood industry. This support will include the launch of specialized training programs designed to enhance skills in wood processing and product design development, ensuring that these enterprises can produce market-ready products. Additionally, efforts will be made to establish partnerships between local wood enterprises to expand their reach and increase profitability. This comprehensive approach aims to empower local businesses, fostering growth and sustainability within the wood industry.

The third objective is to link policy to implementation. The project consultant, Mr. Kitipong Tangkit, suggested the identification and designation of specific areas as "Economic Wood Zones," where sustainable wood harvesting and processing are given top priority. Within these zones, dedicated infrastructure will be developed to facilitate efficient wood production and distribution, ensuring that operations are both economically viable and environmentally responsible.

The fourth and final objective involves promoting the design and utilization of wood. A multifaceted approach will be adopted, starting with the encouragement of innovative wood design across architecture, furniture, and other industries. This will be achieved through competitions and showcases that highlight cutting-edge designs and their practical applications. Collaboration with educational institutions will also be a key focus, aiming to incorporate wood design into their curricula, thereby nurturing the next generation of designers and craftsmen. Additionally, public awareness campaigns will be launched to highlight the environmental and aesthetic benefits of using wood, fostering a greater appreciation for wood-based products and driving demand for sustainable wood utilization.

Furthermore, the PTC deliberated on the academic technical report presented during the meeting, which covered critical areas including the rubber supply chains in Thailand, policies promoting the sustainable use of wood products, and innovations in wood and wood products. The committee validated the findings of the report and formulated several recommendations aimed at enhancing the sustainability and marketability of wood products within Thailand. These recommendations were geared towards addressing challenges within the rubber supply chains and improving the efficacy of wood use promotion policies.

In addition to reviewing operational and technical aspects, the PTC provided strategic guidance on the implementation of the second-year operational plan, prioritizing resource allocation and identifying key areas of focus. The committee also recognized potential risks and challenges associated with the upcoming year's activities and proposed mitigation strategies to address them. This guidance is expected to play a crucial role in steering the project towards achieving its goals. The meeting also underscored the importance of collaboration among academia, government, and industry stakeholders. It was agreed that a multi-disciplinary approach is essential for the successful promotion of sustainable wood consumption in Thailand. In this context, the PTC emphasized the need to enhance stakeholder engagement, particularly through policy advocacy and public awareness campaigns.

Finally, the participants of meeting agreed to conclude plans for the next PTC meeting were also outlined, ensuring ongoing monitoring and evaluation of the project progress. These deliberations and outcomes are expected to contribute significantly to advancing the project objectives of promoting sustainable domestic consumption of wood products in Thailand.



Figure A10 The regional project manager and consultants present the annual project output



Figure A11 The project output and the group photo of the meeting participants

The PTC meeting participants

No.	Given name	Surname	Position	Affiliation
1	Asst. Prof. Dr. Kobsak	Wantongchai	Advisor	KU
2	Mr. Boonsuthee	Jeravongpanich	Chair	RFD
3	Mr. Montri	Intasen	Deputy Chair	RFD
4	Mr. Pissanu	Phoowadol	Member	FIO
5	Ms. Piyawadee	Buajongkol	Member	RFD
6	Mr. Kritsin	Songkroh	Member	RFD
7	Ms. Thanaporn	Trakuldit	Member	RFD
8	Mr. Rangsi	Phongsawang	Member	RFD
9	Prof. Dr. Yongyut	Trisurat	Member and Secretary	KU
10	Asst. Prof. Dr. Wirongrong	Duangjai	Member and Secretary	KU
11	Mr. Kitipong	Tangkit	Consultant#1	KU
12	Mr. Pisut	Sripant	Consultant#2	KU
13	Ms. Kaewkalaya	Luphakchi	Observer	RFD
14	Ms. Sopit	Wangkarn	Observer	RFD
15	Ms. Channikan	Udkhamthiang	Observer	RFD
16	Ms. Ketsanee	Tuaktatong	Project Secretary	KU
17	Ms. Voratatta	Sutthipak	Project Finance	KU

5. Financial Audition of the Project

The project had been financial audit which involves a systematic examination of the financial records, transactions, and procedures associated with the project. The purpose of the audit is to ensure that funds are used appropriately, in accordance with the terms and conditions set forth by ITTO, and that the financial management of the project adheres to generally accepted accounting principles and relevant legal requirements.

The key components and steps involved in the financial audit:

1. Objective of the audit

- 1.1) Compliance is to verify that the project adheres to the financial guidelines, contractual obligations, and legal requirements specified by ITTO.
- 1.2) Accuracy is to ensure that financial statements and reports accurately reflect the project financial activities, including income, expenditures, and financial position.
- 1.3) Transparency is to promote transparency in the management and use of funds, thereby enhancing the credibility and accountability of the project.

2. Scope of the audit**2.1) Review of Financial Statements**

The auditor examines the financial statements, including balance sheets, income statements, and cash flow statements, to ensure they are accurate and complete.

2.2) Verification of Transactions

All financial transactions, including receipts, disbursements, and transfers, are reviewed to confirm that they are properly documented, authorized, and recorded.

2.3) Assessment of Internal Controls

The audit evaluates the internal controls in place to safeguard the funds, prevent fraud, and ensure proper financial management. This includes assessing processes for budgeting,

financial reporting, and approval of expenditures.

2.4) Compliance with ITTO Guideline

The audit checks that the project complies with the financial management guidelines provided by ITTO, including the use of funds for intended purposes, adherence to budgetary limits, and timely reporting.

3. Key Audit Procedures

3.1) Document Review

The auditor reviews contracts, agreements, financial records, and other relevant documents to ensure compliance with ITTO's funding requirements.

3.2) Sampling

The auditor may use sampling techniques to select specific transactions or periods for detailed examination, ensuring a representative review of the project financial activities.

3.3) Interviews

Project staff and financial managers interviewed to gather insights into the financial processes and controls in place.

3.4) Reconciliation

The auditor reconciles financial records, such as bank statements and accounting ledgers, to identify discrepancies or errors.

4. Reporting

4.1) Audit Report

The auditor prepares a detailed audit report that summarizes the findings, including any discrepancies, non-compliance issues, or areas where financial management practices can be improved. The report also provides recommendations for corrective actions if necessary.

4.2) Management letter

In addition to the audit report, a management letter may be issued to highlight specific areas of concern or to suggest improvements in financial management practices.

4.3) Submission to ITTO

The final audit report is submitted to ITTO and relevant stakeholders, providing assurance that the funds have been managed appropriately and that the project is on track financially.

5. Follow-Up

5.1) Implementation of recommendations

The project management team is expected to address any issues identified in the audit report, implementing the recommended corrective actions to improve financial management practices.

5.2) Continuous monitoring

Ongoing monitoring of the project financial activities may be recommended to ensure that improvements are sustained and that any new issues are promptly addressed.

6. Importance of the Audit

6.1) Ensuring accountability

The audit ensures that the project team is accountable for the use of ITTO funds, building trust among donors, stakeholders, and beneficiaries.

6.2) Supporting future funding

A successful audit can enhance the project reputation and credibility, increasing the likelihood of securing future funding from ITTO or other international donors.

6.3) Identifying risks

The audit helps to identify financial risks, such as fraud or mismanagement, and provides

a framework for mitigating these risks through improved financial controls.

The financial audit for an ITTO-funded international project is a critical process that ensures the proper use of funds, compliance with regulations, and effective financial management. It not only helps in maintaining transparency and accountability but also supports the long-term sustainability and success of the project.



Figure 1 The financial audition of project on 17 April 2024 at Faculty of Forestry

6. Highlight of Achievements During 1 August 2024 – 31 April 2025

The project has made substantial progress in advancing policy reforms, industry capacity-building, consumer awareness, and sustainable market development. Through multi-sector collaboration, research-driven policy initiatives, and targeted outreach efforts, the project has strengthened the legal framework, plantation networks, and certification systems while enhancing market access and trade linkages. The following highlights the key outputs, achievements, and results attained during the project implementation.

6.1 Policy Reform and Legal Framework Enhancement

The project has played a crucial role in removing legal barriers and improving regulatory frameworks to facilitate sustainable domestic wood consumption. During the Stakeholder Meeting on November 6, 2024, key policymakers and forestry experts from Kasetsart University, the Royal Forest Department (RFD), and the Ministry of Natural Resources and Environment (MNRE) proposed significant reforms, including:

- Amendments to Thailand's National Forestry Policy (2019) to increase forest cover to 40% of national land, with 15% dedicated to commercial forestry.
- Streamlined regulations for tree harvesting, transportation, and processing, reducing administrative burdens for smallholder farmers and businesses.
- Enhanced certification systems, with 90 percent of efforts completed, ensuring traceability and market compliance for legal wood trade.
- Economic incentives for tree plantations, including carbon credit recognition, making timber plantations a valuable financial asset for rural communities.

Through these legislative improvements, the project has aligned Thailand's forestry policies with global sustainability standards, enhancing domestic and international trade opportunities.

6.2 Strengthening the Forest Plantation Network and Industry Development

A key success of the project has been the expansion of Thailand's National Forest Plantation Network, serving as a hub for knowledge exchange, technical training, and policy coordination. This initiative was reinforced through field visits, workshops, and corporate partnerships, which showcased best practices in teak plantation management and agroforestry.

Key achievements

- Demonstration of sustainable agroforestry models, such as pumpkin intercropping with teak, which optimizes land productivity, soil health, and farmer income diversification.
 - Capacity-building programs for smallholder farmers, equipping them with modern silvicultural techniques and sustainability certification requirements.
 - Collaborations with local wood processing firms, including Phrae Mai Thai Co., Ltd., and TF Taweesak Furniture, and Don Moon Woodwork Community Enterprise in Phrae Province, and the main pilot local community to strengthen Thailand's sustainable wood value chain.
- By fostering public-private cooperation, the project has enhanced efficiency in plantation management, supported rural livelihoods, and bolstered the domestic wood industry.

6.3 Enhancing Market Access and Business Development

A major milestone in the project was expanding market opportunities for sustainable wood producers through business matchmaking and exhibitions. The Thailand International Woodworking & Furniture Exhibition 2024 (TIWF 2024) facilitated as follows

- Showcasing of 150+ sustainable wood brands to domestic and international buyers.
- Engagement with over 4,000 industry professionals, fostering trade discussions and networking.
- Business contracts signed, ensuring a stronger and more transparent domestic wood market.

Additionally, the project's MOU agreements and trade partnerships have led to a 1,000% increase in industry collaboration, expanding the export potential of sustainably sourced Thai wood.

6.4 Capacity Building and Consumer Awareness

The project placed a strong emphasis on stakeholder education and public awareness to promote responsible wood consumption. Key accomplishments include:

- Completion of advanced training programs for wood product design and sustainable production, enhancing competitiveness in both domestic and international markets.
- Implementation of targeted awareness campaigns, educating urban consumers about the role of wood in sustainable development and climate resilience.
- A progress in legal compliance training, ensuring that wood producers and manufacturers meet sustainability standards under Forest Law Enforcement, Governance, and Trade (FLEGT).

These initiatives have empowered industry stakeholders, strengthened consumer trust in legal wood products, and boosted demand for sustainable alternatives.

6.5 Measurable Results and Impact

- A completion of national policy recommendations to promote sustainable wood consumption.
- Certification and legalization of domestic wood products are almost complete, ensuring improved traceability and market compliance.
- An increase in cross-sector collaboration, fostering stronger industry and government partnerships.
- Most stakeholders engaged through exhibitions, training programs, and policy dialogues.
- Agroforestry-based teak plantations expanded, demonstrating higher land productivity and economic viability.
- Urban consumer engagement successfully implemented, leading to increased demand for certified, legal wood products.

7. Outputs and Achievements of The Project

7.1 Output 1 Improved policies for promoting domestic uses of wood and wood products

7.1.1 Strengthen the national council/association and Forest Plantation Network and individuals for the promotion of sustainable wood use

1) The project Inception Meeting shared Japan's *Kizukai* wood-use campaign

At the Inception Meeting on 23 February 2023, Mr. Gen Akahane, Director of the Wood Products Trade Office, Forestry Agency of Japan) shared a successful experience of Japan to promote and implement a national campaign for wood use promotion since 2005, named “Kizukai,” through dissemination of significance of wood use to general public. In addition, the Government of Japan (GOJ) also introduced the “Act on Promotion of Wood Use in Public Buildings” in 2010. By implementing the above policies, domestic wood use in Japan increases double from 17 mill m3 in 2002 to 34 mill m3 in 2021.

FLG. OFF. Chairat Tongboriboon: Vice-governor of the National Housing Authority (NHA) and a PSC member, supports the project and the GOJ initiative. He mentioned that NHA has the mandate to support housing for low-income residents. NHA has a plan to build a wooden village comprising 30-50 units with attractive design and reasonable prices. *Mr. Jirawat Tangkijngamwong: President of Thai Timber Association*, also elaborated that he has a wooden house model in place.

In this connection, the Project staff and selected PSC members met Mr. Thaweewong Wichaidit, the Governor of NHA and senior staff to explore possibility to collaborate with the NHA (Figure 4). Unfortunately, the current regulation of NHA does not support this initiative unless the Government introduces a new policy to the NHA similar as the GOJ.



Figure A13 Meet the Governor of NHA to discuss the possibility to introduce sustainable wood use on 24 April 2023

2) Kasetsart University together with the Royal Thai Embassy to Stockholm and the Embassy of Sweden to Bangkok jointly organized the special event on “*The Transforming to a system of wood building and restored forests: the possibilities for research collaboration*” by experts in the field of timber industry from Sweden and Thailand. Sweden has implemented a comprehensive timber industry strategy to drive the country’s sustainability economy and promoted wood use in the city such as more utilization of wood materials in building construction. After the meeting, Kasetsart University assigns **Mr. Kitipong Tangkit** (Consultant#1) to collaborate with the Royal Thai Embassy to Stockholm and the Embassy of Sweden to Bangkok and Thai’s private sector to build 8-floor wooden building in Bangkok. The MOU is being drafted to guide this initiative.

3) Siam Cement Group Co., Ltd. (SCG) Consultation Meeting

Achievement:

The Activity aimed at strengthening the national council/association and Forest Plantation Network, alongside individuals for the promotion of sustainable wood, has seen substantial progress. the project of Promotion of Sustainable Domestic Consumption of Wood Products in Thailand, under the leadership of Professor Yongyut Trisurat and Assistant Professor Wirongrong Duangjai from Kasetsart University's Faculty of Forestry, provided a pivotal consultation session to the executive members of Siam Cement Group Co., Ltd. (SCG). This session, which took place on 20 November 2023, focused on Investment Strategies for Establishing Teak Forest Plantation

for Structural Wood/Furniture, leveraging the project's comprehensive research findings. This initiative not only aimed at enriching SCG's understanding of the teak supply chain but also at fostering informed investment decisions within the teak business sector.

The consultative engagement has facilitated the promotion of Teak Plantation establishment and scrutinized the business's feasibility. Noteworthy is the creation of two pivotal publications: "Good Harvesting Practices in Teak Forests" and "Teak in Mekong for a Sustainable Future." These publications, which are the fruits of the "Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region (Teak Project I)," have been instrumental in providing SCG with invaluable insights into sustainable teak plantation and management practices.



Figure A14 Consultation Meeting with Siam Cement Group Co., Ltd. (SCG)

Table 2 Logical framework matrix

Strategy of intervention	Measurable indicators (and 2019)	Means of verification	Achievements National Forest Policy 2019
Development objective To contribute to sustainable and efficient use of domestic wood resources	By end 2025 (3 years after project completion): - Annual growth rate of domestic wood consumption increases at least 2%; - Share of locally produced larger-size wood for value-added processing; - Number of signed contracts between plantation farmer co-ops and processors for supplying larger-size wood.	- Annual statistics report by the RFD - Surveys/interviews of the relevant wood industry and stakeholder groups;	- National policies and regulations have been amended to support smallholders in teak plantation and sustainable management. - Demonstration plots are established and recognized by forestry administrations in the participating countries. Technical staff are provided to support the project activities. - Demonstration plots will be maintained after the project termination. will provide and/or recruit
Specific Objective To promote sustainable domestic consumption of wood and wood products in Thailand	By the end of the project - The Government policy or other type of legal/bending document) related to domestic consumption of wood and wood products Capacity to produce wood and wood products to meet local market demands & promote local consumption strengthened.	- Government decree or RFD Notification; - Number of trainees and participants attending project events and newly designed products	
Output 1: Improved policies for promoting domestic uses of wood and wood products	- The Government (RFD) adopts domestic wood certification (C&I) or other types of legal/bending document) related to domestic consumption of wood and wood products by the termination of project	- RFD notification	- Nine from the total of 15 demonstration plots have been established (Laos 3; Cambodia 2; Thailand 2; Vietnam 2). - Eight existing seed productions are strengthened. In addition, over 500 mother trees in Thailand and

Strategy of intervention	Measurable indicators (and 2019)	Means of verification	Achievements National Forest Policy 2019
	<ul style="list-style-type: none"> - Experience and good practice in promoting wood use from selected countries compiled and transferred to RFD and relevant agencies for reference and possible application; Government policy to facilitate local consumption of wood products (e.g., tax) 		<p>approximately 450 mother trees in Laos from natural stands and plantations are geographically mapped.</p> <ul style="list-style-type: none"> - Policy briefs on good quality materials, silvicultural practices, sustainable teak management are prepared by consultants.
Output 2: Stakeholder capacity built to produce innovative wood and wood products needed by domestic markets	<ul style="list-style-type: none"> - At least, 15 companies attended B2B matching meetings with internal companies (e.g., Japan); - At least, 50 urban consumers and 50 rural consumers attended 1 exhibitions/communication campaigns on using planted-wood for housing construction and interior decoration; - 10 young designers and winners of contests on the best designs identified and recommended for further engagement; - At least, 5 partnerships between plantation farmer co-ops and lead companies established with contracts for the supply of larger-size wood; 	<ul style="list-style-type: none"> - Questionnaires/ interviews - Reactions/ acceptance of entrepreneurs <p>Data on the production and marketing of value-added and diversified domestic wood products.</p>	<ul style="list-style-type: none"> - Six training sessions related to silviculture and tree plantation were conducted in four countries (excluding Myanmar). The total number of trained participants exceeded 350 persons. Trained participants became instructors in Cambodia, Lao PDR and Vietnam. - Consultant#7 value chain analysis was recruited and will lead the study on sustainable supply chains of legal sources of teak wood in the Mekong basin. - Teak-based forest user groups in Myanmar and Thailand are potentially identifies and will be established in 2020. - Policy brief on forest policy and law enforcement to empower smallholders is documented and published in

Strategy of intervention	Measurable indicators (and 2019)	Means of verification	Achievements National Forest Policy 2019
			TEAKNET Bulletin.

4) Participation in training course of planting and managing forest plantation for small-scale farmers at Nan Province

The training workshop in Thailand was organized as part of the ITTO project Teak II in Thailand, with a focus on teak plantation and silviculture practices for smallholders. The workshop took place in Nan Province and was aimed at smallholders from Nan and Prachin provinces.

The project staff participated in the activities involved supporting smallholders and local communities in managing demonstration plots for teak and other valuable species, with field training on seed production, silvicultural practices, efficient harvesting, timber legality, and sustainability. In Thailand, the project organized a training workshop on teak plantation and silviculture practices for smallholders in Nan Province. Thirty-two participants attended, with expert instructors covering topics including economic tree plantation and the value of planted teak. Participants visited a commercial teak plantation using modern technology and an intercropping system. The project team also planned future training sessions on efficient wood transportation, disease management, and value chains.



Figure A15 Teak plantation and silviculture Training

Key persons and experts involved in the workshop included:

- 1) Prof. Yongyut Trisurat as a regional project manager
- 2) Dr. Suwan Tangmitcharoen as a representative from the Royal Forest Department (RFD) and chair of the project technical committee
- 3) Mr. Tosaporn Wacharangkul as an invited speaker
- 4) Mr. Boonlerd Srisuksai as an invited speaker

Additionally, the director of the Nan Provincial Forestry Office was invited to officially open the meeting. The workshop also covered topics related to national policy on economic tree plantations and the economic value of planted teak.

Achievements:

The project team were participated in training workshop organized under the ITTO Teak II project in Nan Province, Thailand, successfully advanced the National Forest Plantation Network by equipping small-scale farmers with essential knowledge and skills in forest plantation management, with a focus on teak and other valuable species.

The workshop remarkably contributed to the strengthening of the National Forest Plantation Network by empowering smallholders with the knowledge, skills, and connections necessary to manage their forest plantations effectively and sustainably. Key achievements of the training include:

1) Capacity building for smallholders

The workshop, attended by 32 smallholders from Nan and Prae Provinces, provided comprehensive training on teak plantation and silviculture practices. This included seed production, silvicultural techniques, efficient harvesting, timber legality, and sustainability practices. The training empowered local farmers with the skills necessary to manage their forest resources effectively.

2) Demonstration and practical learning

Participants engaged in hands-on field training at demonstration plots managed by the SWU project staff, where they learned about modern techniques in teak plantation, including the use of intercropping systems and modern technology in commercial plantations. These practical sessions reinforced the theoretical knowledge provided, ensuring that participants could apply these practices in their own plantations.

3) Expert-led sessions

The workshop featured expert instructors, including Prof.Dr.Yongyut Trisurat (Regional Project Manager), Dr. Suwan Tangmitcharoen (RFD Representative and Technical Committee Chair), Mr. Tosaporn Wacharangkul, and Mr. Boonlerd Srisuksai, who provided valuable insights into the economic value of planted teak and national policies on economic tree plantations. Their expertise ensured that participants received high-quality training aligned with national and regional forestry goals.

4) Enhanced understanding of economic value

The workshop highlighted the economic potential of teak and other valuable species, educating participants on how to maximize the economic returns from their plantations. This knowledge is crucial for encouraging the adoption of sustainable forestry practices among smallholders.

5) Future training plans

Building on the success of this workshop, the project team has planned additional training sessions focused on efficient wood transportation, disease management, and the value chain for teak and other valuable species. These future sessions will further strengthen the capacity of small-scale farmers to manage their plantations sustainably and profitably.

6) Collaborative efforts with local authorities

The participation of the director of the Nan Provincial Forestry Office, who officially opened the meeting, underscores the collaborative nature of the workshop, bridging the gap between local authorities and smallholders. This collaboration is essential for the long-term success of forest plantation initiatives in the region.



Figure A16 Practical training at teak plantation in Nan Province

5) Participation in training course of planting and managing forest plantation for small-scale farmers at Nan Province

The training workshop in Thailand was organized as part of the ITTO project Teak II in Thailand, with a focus on teak plantation and silviculture practices for smallholders. The workshop took place in Nan Province and was aimed at smallholders from Nan and Prachin Buri Provinces.

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Key persons and experts involved in the workshop included:

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- 3) Mr. Tosaporn Wacharankul as an invited speaker
- 4) Mr. Boonlerd Srisuksai as an invited speaker

Additionally, the director of the Nan Provincial Forestry Office was invited to officially open the meeting. The workshop also covered topics related to national policy on economic tree plantations and the economic value of planted teak.

Table 4 Logical framework matrix

Strategy of intervention	Measurable indicators (and 2019)	Means of verification	Achievements National Forest Policy 2019
Development objective To contribute to sustainable and efficient use of domestic wood resources	By end 2025 (3 years after project completion): - Annual growth rate of domestic wood consumption increases at least 2%; - Share of locally produced larger-size wood for value-added processing; - Number of signed contracts between plantation farmer co-ops and processors for supplying larger-size wood.	- Annual statistics report by the RFD - Surveys/interviews of the relevant wood industry and stakeholder groups;	- National policies and regulations have been amended to support smallholders in teak plantation and sustainable management. - Demonstration plots are established and recognized by forestry administrations in the participating countries. Technical staff are provided to support the project activities.

Strategy of intervention	Measurable indicators (and 2019)	Means of verification	Achievements National Forest Policy 2019
			- Demonstration plots will be maintained after the project termination. will provide and/or recruit
Specific Objective To promote sustainable domestic consumption of wood and wood products in Thailand	By the end of the project - The Government policy or other type of legal/bending document) related to domestic consumption of wood and wood products Capacity to produce wood and wood products to meet local market demands & promote local consumption strengthened.	- Government decree or RFD Notification; - Number of trainees and participants attending project events and newly designed products	
Output 1: Improved policies for promoting domestic uses of wood and wood products	- The Government (RFD) adopts domestic wood certification (C&I) or other types of legal/bending document) related to domestic consumption of wood and wood products by the termination of project - Experience and good practice in promoting wood use from selected countries compiled and transferred to RFD and relevant agencies for reference and possible application; Government policy to facilitate local consumption of wood products (e.g., tax)	- RFD notification	- Nine from the total of 15 demonstration plots have been established (Laos 3; Cambodia 2; Thailand 2; Vietnam 2). - Eight existing seed productions are strengthened. In addition, over 500 mother trees in Thailand and approximately 450 mother trees in Laos from natural stands and plantations are geographically mapped. - Policy briefs on good quality materials, silvicultural practices, sustainable teak management are prepared by consultants.

Strategy of intervention	Measurable indicators (and 2019)	Means of verification	Achievements National Forest Policy 2019
Output 2: Stakeholder capacity built to produce innovative wood and wood products needed by domestic markets	<ul style="list-style-type: none"> - At least, 15 companies attended B2B matching meetings with internal companies (e.g., Japan); - At least, 50 urban consumers and 50 rural consumers attended 1 exhibition/communication campaigns on using planted-wood for housing construction and interior decoration; - 10 young designers and winners of contests on the best designs identified and recommended for further engagement; - At least, 5 partnerships between plantation farmer co-ops and lead companies established with contracts for the supply of larger-size wood; 	<ul style="list-style-type: none"> - Questionnaires/ interviews - Reactions/ acceptance of entrepreneurs <p>Data on the production and marketing of value-added and diversified domestic wood products.</p>	<ul style="list-style-type: none"> - Six training sessions related to silviculture and tree plantation were conducted in four countries (excluding Myanmar). The total number of trained participants exceeded 350 persons. Trained participants became instructors in Cambodia, Lao PDR and Vietnam. - Consultant#7 value chain analysis was recruited and will lead the study on sustainable supply chains of legal sources of teak wood in the Mekong basin. - Teak-based forest user groups in Myanmar and Thailand are potentially identifies and will be established in 2020. - Policy brief on forest policy and law enforcement to empower smallholders is documented.

6) Consultant Meeting with Key stakeholders in Trang Province

The project team conducted a preliminary survey in Trang province on 28 June 2023. The project team included Professor Yongyut Trisurat (Project Coordinator), Mr. Suchat Kalayawongsa and Mr. Sapol Boonsermsuk (senior experts and PSC members), Dr Suwan Tangmitcharoen (Inspector of the RFD and a PSC member), Mr. Kitipong Tangkit (Consultant # 1 Wood Use Promotion Policy), and Dr. Pisut Sripan (Consultant #2 innovative wood and wood products). Key stakeholders in Trang Province included Director of Trang Province NRE Office, the Rubber Authority of Thailand and the owners or representatives of six rubber wood industries in Trang Province (4 wood sawing factories and 2 wood products companies).

Time	Activity
9.00-9.30	Registration
9.30-9.45	Opening session Director of Trang Province NRE Office (Mr Charuay Inchan)
9.45-10.10	Group photo and introduction
10.10-10:45	Background and objective of ITTO Sustainable Wood Use in Thailand Project Professor Yongyut Trisurat, Project Coordinator
	Current situations of rubber plantations and industries Mr. Waridh Kittuk, Director Natural Resources Division of the Trang NRE Office
10:45-11:10	Current and trends of rubber plantations and rubber industries Professor Yongyut Trisurat object Coordinator
11.10- 12.00	Q&A and Discussion 1 : Issues and challenges of rubber industries in Trang 2 : Needs and facilitating mechanisms for rubber industries
12.00-12.15	Conclusions
12.15-13.30	Lunch
13.30-17.00	Field visits <ul style="list-style-type: none"> • Inter Furniture Ltd. • Plan Toys Ltd

The consultation workshop was held at Thammrin Thana Hotel in the morning. Director of Trang Province NRE Office (Mr Charuay Inchan) gave welcome remarks to the project team and workshop participants, then Professor Yongyut Trisurat (Project Coordinator) introduced the background and objectives, outputs and activities of the project. He also introduced information on rubber wood plantation, production, the location of supply sources, value chains and demands & trends at global and national levels.

Mr. Waridh Kittuk, Director Natural Resources Division of the Trang NRE Office presented the current situations of rubber plantations and industries. He indicated that the rubber plantations in Trang Province is decreasing gradually in recent years although the Rubber Authority of Thailand still provides incentive for new plantations in old growth (>25 years).

This is due to rubber farmer gain lower income compared with durian plantations. The rubber tree is affected by leaf fall disease (attacked by *Phytophthora botryosa* Chee or *P. palmivora* (Butler) and results in low production. Other barriers include trade barriers from international markets, and long process of legal permission. Smallholders managing rubber plantations are facing challenges to sustainable management of rubber plantations and international market access etc. This is due to certification for sustainable forest management of rubber plantations such as FSC or PEFC is required, which costs a lot of money and detailed information. In addition, the transportation cost increases substantially.



Figure A17 Leaf fall disease for rubber trees

In the afternoon, the project team had opportunities to visit a rubber wood furniture (Inter Furnitech Ltd.) and the PlanToys Ltd. Inter Furnitech Ltd is 1 of 19 wood products companies. It bought sawn rubber wood from nearby wood manufacturing factories in the city (60 companies), reprocess and all furniture products are delivered to USA by cargo ships. Currently, the export volume of rubberwood furniture products decreases approximately 20% compared with prior COVID-19 pandemic.

Plan Toys Ltd; was established in 1981 under the mission “Better Kids, Better World through Sustainable Play“. The company develops wooden toys for kids from 0 to 5 years old and to nurture them with freedom of play and a closer relationship to nature. Meanwhile, the company develops the safest processes that cause minimal or no effects to our staff, consumers, the environment, and the world, and use materials that are eco-friendly and safe. With its excellent performance, the company has been awarded a lot of prizes such as Red Dot Award 2017, Good Toy Award, Japan. The toy products are sold worldwide and the volume of international markets contribute about 80% due to unaffordable price for domestic markets. The Play Toys company has 3 regional branches to distribute the products, and various partnerships with business companies (B to B), societies and communities (B to C).

As the result of COVID-19, the selling volumes significantly decreased from USD 14 million prior the pandemic to less than USD 7 million during 2021. Currently, the export volume is approximately USD 11 million and likely to return to the previous position in the next 4-5 years. The project team encourages the company to engage with primary school networks in Thailand and Ministry of Education (B to G). This scheme is not only to diversify and expand its markets but also provide opportunities for Thai school children to access high quality and eco-friendly wooden toys.





Figure A17 Site visit to Plan Toys Ltd and Para-rubber industrial sector, Trang Province

7) A special seminar on political party policies on forest sector towards BCG models

Thailand had a general election on 14 May 2023. Before the election, the Faculty of Forestry organized a special seminar on political party's policies on forest sector towards BCG models on 3 March 2023. The panelists for this seminar included Prof. Dr. Kanok Wingtrangan (Chat That Pattana Party), Dr. Plodprasop Surasawadee (Phue Thai Party), Dr. Pisit Leertham (Democrat Party), Thawee Sodsong (Prachachat Party), Mr. Chalong Thepwtakkit (Thai Sang Thai Party), and Dr. Dechrat Sukkhamnerd (Moving Forward Party). There were 242 participants (including the project staff) attended the seminar. In general, all parties support the BGC model. Specific policy guidelines of each party are shown below:

Phue Thai Party: promote sustainable forest landscape management to enhance local livelihood using people coexist with forest approach

Chat That Pattana Party: support neutral carbon strategy and carbon credit to increase local livelihood from forest sector

Democrat Party: provide incentive for forest restoration and plantations and encourage private sector to get involved in economic forest plantation

Thai Sang Thai Party: restructure agriculture-forestry sector and develop community enterprise for community forest and economic forest plantation

Moving Forward Party: enable local community and farmer to gain income from forest plantations

In conclusion, all parties have clear policies and support and ready to implement the BCG model. However, the success of this policy depends on the adoption of implementing agencies to modify mindsets from regulating agency to facilitation agency. See details in Newsletter Issue#1.



Figure A18 keynote speaker of the seminar on political party policies on forest sector towards BCG models

8) The Faculty of Forestry organized a special seminar on Opportunities and Challenges in Thailand's Wood Industry on 14 March 2023. Two PSC members, including Dr. Suwan Tangmitcharoen (RFD) and Mr. Chirawat Tangchitngamwong (President of Thai Timber Association) joined the panel discussion. The results of the seminar revealed that domestic wood demand is increasing. However, it faces three challenges, including price competition with imported wood, legal permission barrier for smallholder plantations, wrong perception of society in wood utilization, and trade barriers for international markets. See more information in Newsletter Issue#1.



Figure A19 Representatives from Royal Forest Department as a part of forest sector towards BCG models

9) Consultation Meeting with the Owners of Teak Wood Manufacturing and Wood Products on 25 May 2023.

Based on the results of activities 1.3.2 and 1.3.2, the Royal Forest Department and the Faculty of Forestry jointly organized a consultation with the Owners of Teak Wood Manufacturing and Wood Products in Phrae province. There were 80 participants mainly from Phrae Province and a few from Nan and Lampang Provinces. Mr. Chutidech Meechan, the Governor of Phrae Province welcome the participants and indicated that wood industries, especially teak have been a very important economic sector in Phrae Province for over hundreds years. He would like to maintain skills and know-how and encourage the young generation to get involved in this business. After the welcome remarks, there were three speakers as follows:

Dr. Suwan Tangmitcharoen (Inspector of the RFD and PSC member) presents the national policies, laws and regulations related to economic forest plantations, the situation of teak plantations in Thailand and other countries, challenges and opportunities.

Prof. Yongyut Trisurat (Project Coordinator) presents the previous achievements of the ITTO Teak Project and the objectives, outputs and activities of the ITTO Sustainable Wood Use Project, and how the project can support the wood industry in Phrae province.

Assoc. Prof. Songkrot Charuphat (Faculty of Forestry) presented innovative technology in wood industries, precise wood processing and minimizing loss. He also explained the role of wood utilization in carbon storage and carbon neutrality.

After the presentation, the workshop participants discussed and proposes suggestions to the RFD as follows:

1. Current situation of teak wood industry in Phrae Province
2. Legal barriers and complicated permission systems for wood industry. They cannot afford the cost if international certification.
3. Needs and support from the RFD such as simple or computerized CoC process and national certification

The RFD (Dr. Suwan Tangmitcharoen and the Director of Legal Division) obtained all comments and suggestions. In addition, Director of Legal Division promises to revise the existing Forest At of 2019 to facilitate wood industry and economic forest plantations, especially for smallholders to support the BCG model. The summary of this meeting was published in Newsletter Issue#1 and will be presented at the 25th Annual Forestry Conference on 23-24 August 2023 at the Faculty of Forestry, Kasetsart University.



Figure A20 Representatives of Consultation Meeting with the Owners of Teak Wood Manufacturing and Wood Products

Activity 1.2: Information and analysis on annual domestic wood production, the location of (legal) supply sources, value chains and demands & trends

1) **Rubber Supply Chain** analysis on annual domestic wood production, the location of (legal) supply sources, value chains and demands & trends by **Prof.Dr.Yongyut Trisurat**

Rubber tree (*Hevea brasiliensis*) is native to rainforests in the Amazon region of South America, including Brazil, Venezuela, Ecuador, Colombia, Peru, and Bolivia. These trees are generally found in low-altitude moist forests, wetlands, riparian zones, forest gaps, and disturbed areas. Today, commercially produced rubber can also be found in 28 countries throughout much of Southeast Asia and Western Africa. As of 2021, the total plantations cover approximately 12.7 million ha and rubber latex production has increased substantially from 6.8 million metric tons in 2000 to 13.8 million metric tons in 2021 (see Figure 6).

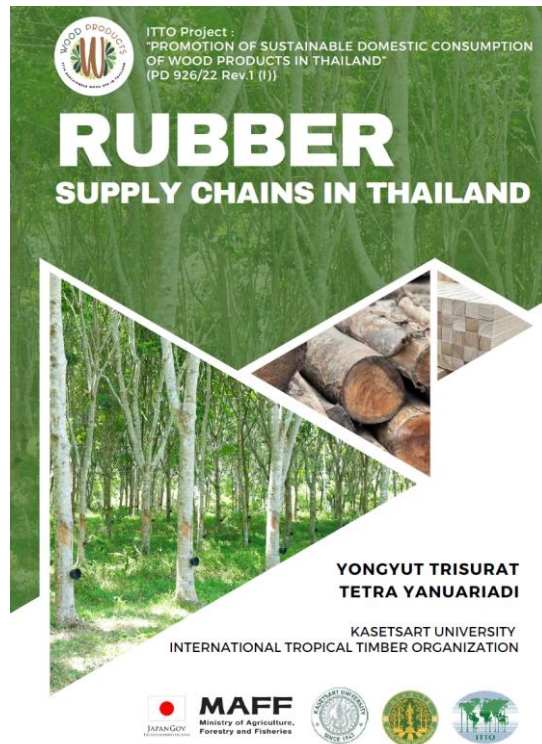


Figure A21 Rubber Supply Chain in Thailand

2. Teak Supply Chain and Policy in Thailand by Mr. Kitipong Tangkit, literaturating and compiled relevant reports and in-depth information on the national strategy in relation to supporting economic timber production.

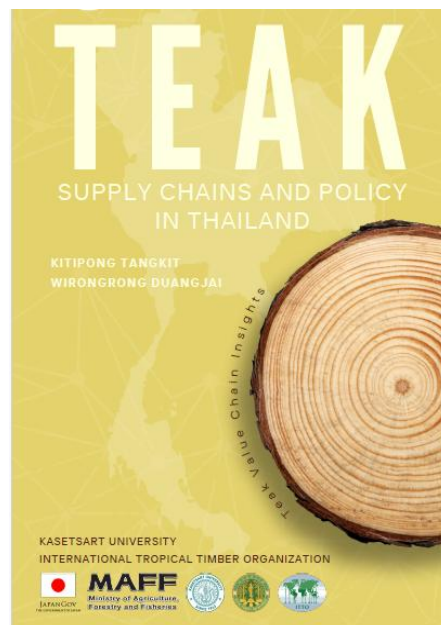


Figure A22 Teak Supply Chain and Policy in Thailand

Achievements

The project achievements in delineating the supply chains for rubber and teak provide invaluable insights. For rubber, the exploration into its historical context, current plantation coverage, production metrics, and economic significance underscores the crop's critical role in Thailand's economy. The analysis highlights the challenges and opportunities within the rubber industry, including the shift towards more sustainable practices and the potential for enhancing value addition among smallholder producers. The government's initiatives towards improving the rubber industry's sustainability and profitability are commendable, focusing on increasing latex production, promoting intercropping, and developing web-based systems for legal plantation management.

In contrast, the analysis of the teak industry reveals a nuanced understanding of the challenges facing teak production and utilization. The linkage of national strategies with the project's goals to promote sustainable economic forests is strategic and forward-thinking. The emphasis on creating a sustainable market for teak, improving the quality and marketability of teak products, and addressing the challenges of illegal logging and insufficient domestic wood production is critical for the sustainability of the teak industry.

Activity 1.3: Legalize and endorse domestic logs and sawn wood from planted forests on private own land or permitted public lands and their factories and mills through national& international certification

1.3.1 Public land management and limitations on wood use promoting at Provincial Office of Natural Resources and Environment, Nan Province

The activities: the project team visited Nan provincial office of Natural Resources and Environment to meet and discuss with Mr. Loy Jaijun, Director of the office. The objectives are to learn how do the provincial level operates public land management and the limitation on policy implementation to promote wood uses and wood products in Nan province.

The Nan provincial office faces a multifaceted challenge in managing and protecting the vast forest areas within its jurisdiction. The mission is not only to conserve these natural resources but also to harmonize this goal with the socioeconomic needs of local communities who depend on forest lands for their livelihoods. This balancing act is critical, as the sustainability of forest resources hinges on the ability to integrate conservation efforts with community welfare.

The office activities span a broad spectrum, each playing a vital role in achieving its mission. Legal enforcement is crucial for preventing illegal logging, encroachment, and other activities that threaten the integrity of forest ecosystems. Reforestation efforts are equally important, as they help restore degraded lands, improve biodiversity, and contribute to carbon sequestration. Community engagement and education are foundational to fostering a culture of sustainable resource use and stewardship among the local population. By involving communities in forest management, the Center not only gains valuable allies in conservation but also helps ensure that these efforts are socially and economically viable.

Challenges facing the Nan provincial office are:

- 1) the limited resources in which the office operates with a relatively small staff and limited

funding, which constrains its ability to effectively monitor and manage vast forest areas. This limitation impacts every aspect of its work, from conducting regular patrols and enforcing laws to implementing reforestation programs and engaging with local communities.

2) land tenure conflicts, since the land tenure issues are a persistent problem, with overlapping claims and disputes between the government, local communities, and private interests. These conflicts complicate the implementation of forest management policies and often lead to delays or disruptions in conservation efforts. Resolving these conflicts requires careful negotiation, clear legal frameworks, and often, the involvement of multiple stakeholders.

3) enforcement in remote areas as the geographic and logistical challenges of managing remote and extensive forest areas cannot be underestimated. The difficulty of accessing these regions makes it harder to detect and respond to illegal activities promptly. Moreover, the remoteness of these areas often leads to a lack of consistent oversight, allowing illegal practices to persist.

Thus, to overcome these challenges, the Nan office needs to explore several avenues including collaboration by stronger partnerships between government agencies, local communities, non-governmental organizations, and the private sector are essential. Collaborative efforts can lead to more effective land management solutions, shared resources, and a unified approach to conservation. Increasing highlight on the innovation by embracing new technologies and innovative practices can enhance the capacity of the officers to manage and protect forest areas. For example, the use of satellite monitoring, drones, and geographic information systems (GIS) can improve surveillance and data collection, making it easier to detect illegal activities and assess forest health. Moreover, the office requires additional financial and human resources to effectively fulfill its mission. Increased government funding, international aid, or private sector investments could provide the necessary support to expand staffing, improve infrastructure, and implement more comprehensive management plans.

Nevertheless, the Nan provincial office is at the forefront of forest conservation in a region that faces significant ecological and social pressures. While the challenges are considerable, they are not insurmountable. With enhanced collaboration, the adoption of innovative approaches, and increased support, the office can better balance conservation goals with the needs of local communities, ensuring the long-term sustainability of their resources.



Figure A23 the project team visited the Nan provincial office of Natural Resources and Environment

Achievements:

1) Enhanced legal enforcement

The project team is concerned about the issues on the support in bolstering legal enforcement led to a significant reduction in illegal logging and encroachment activities in key areas.

2) Reforestation impact

The project team has learnt about reforestation activities resulting in the successful restoration of several degraded areas within the Nan province. The planted areas are expected to contribute to long-term environmental benefits, including improved biodiversity and increased availability of sustainable wood resources.

3) Adoption of innovative technologies

The project team has learned that the initial introduction and training help to equip the office with the tools needed to enhance their monitoring and management capabilities.

4) Strengthened collaborative frameworks

The project team learned that efforts in fostering collaboration might have led to stronger partnerships that are crucial for addressing complex challenges like land tenure conflicts and resource limitations. These partnerships have enabled more coordinated and effective responses to forest management issues in the province.

Thus, this project activity has opened an opportunity for the project team to learn about the Nan Provincial Office ability in terms of public land management and limitation of promote sustainable wood use. The achievements may play important role on the reflects of a successful of the project in enhancing legal enforcement, community engagement, reforestation efforts, technological adoption, and collaboration, all of which are essential for the sustainable management of the province forest resources for creating a mechanism of sustainable wood use promotion in Nan contexts.

Participant lists

No.	Given name	Surname	Position	Affiliation
1	Dr. Tetra	Yanuariadi	Member	ITTO
2	Dr. Suwan	Tangmitcharoen	Acting Chair	RFD
3	Asst. Prof. Dr. Kobsak	Wantongchai	Deputy Chair	KU
4	Mr. Suchat	Kalayawongsa	Member	RFD
5	Mr. Sapol	Boonsermsuk	Member	RFD
6	Mr. Montri	Intasen	Member	RFD
7	Prof. Dr. Yongyut	Trisurat	Member and Secretary	KU
8	Asst. Prof. Dr. Wirongrong	Duangjai	Member and Secretary	KU
9	Ms. Simon	Kawaguchi	-	ITTO
10	Mr. Kenji	Izawa	Auditor	-
11	Ms. Nao	Ishii	Auditor	-
12	Mr. Kitipong	Tangkit	Consultant#1	KU
13	Mr. Pisut	Sripant	Consultant#2	KU
14	Ms. Ketsanee	Tuaktatong	Project Secretary	KU
15	Ms. Voratatta	Sutthipak	Project Finance	KU

1.3.2 The First Public hearing with multi-stakeholder meeting as partnerships in relation to wood use policy development

The meeting was arranged by the project team of the Faculty of Forestry, Kasetsart University and the Royal Forest Department with funding support from the International Tropical Timber Organization (ITTO), Japan. The aim was to consult to multi-stakeholders who play the key role on wood supply chain and policy improvement to drive the promotion of sustainable wood use in Thailand. The meeting was held on Wednesday, July 24, 2024, at The Sukosol Hotel, Bangkok, Thailand.

Activities:

Asst. Prof. Dr. Kobsak Wanthongchai, Dean of the Faculty of Forestry, Kasetsart University, welcomed the meeting participants (Figure 14). Mr. Kusol Chotirat, Deputy Permanent Secretary of the Ministry of Natural Resources and Environment (Figure 15)., gave an opening speech, and Prof. Dr. Yongyuth Traisurat, Regional Project Manager, gave a speech on the background and objectives of the project, which was attended by more than 70 participants from various sectors, including the government sector, state enterprises, associations, and the private sector.



Figure 2 Opening remark from Mr. Kusol Chotirat, Deputy Permanent Secretary of the Ministry of Natural Resources and Environment (left), and Asst. Prof. Dr. Kobsak Wanthongchai, Dean of the Faculty of Forestry, Kasetsart University



Figure A23 The project team and participants

The meeting summaries:

Regarding to The National Forest Policy 2019 of Thailand which aims to maintain a forest cover of 40%, with 25% dedicated to conservation and 15% to economic forestry. However, various challenges and opportunities were highlighted during a recent meeting on promoting sustainable timber use in Thailand, reflecting on the policy's framework.

1) Challenges in forest management and timber industry:

1.1) Legal and bureaucratic hurdles

The meeting emphasized significant challenges related to the bureaucratic processes in the timber industry. For instance, obtaining permits for logging and establishing sawmills is cumbersome, deterring small-scale operators from formalizing their businesses. The complexity and time-consuming nature of these processes increase costs and create barriers to market entry, leading to reduced participation in the timber industry.

1.2) Competition from other agricultural crops

There is also a noted competition between economic forestry and short-cycle agricultural crops like sugarcane and cassava, which are heavily promoted by government policies. These crops offer quicker returns compared to forestry, making them more attractive to farmers, which, in turn, reduces the incentive to plant and manage economic forests.

1.3) Aging population and succession issues

The industry is facing a demographic challenge, with most landowners being elderly. This has resulted in a lack of young people taking over forest-related businesses, which threatens the long-term sustainability of the sector.

2) Sustainable timber use and economic tree planting

The meeting reiterated the importance of promoting sustainable timber use and economic tree planting. However, the discussion pointed out the need for stronger incentives and support mechanisms, such as price guarantees and carbon credit schemes. The current efforts, including the distribution of 72 million tree seedlings, are a step in the right direction, but more comprehensive support is needed to make these initiatives attractive to farmers and businesses.

3) International collaboration and standards

The necessity of aligning with international forestry standards was also discussed. The meeting highlighted the experiences of countries like Sweden, which has successfully integrated large-scale timber processing industries with sustainability goals. Thailand can learn from such models, particularly in terms of developing policies that encourage the growth of the timber industry while ensuring environmental protection.

4) Innovation and market development:

There was a strong emphasis on the need for innovation in the forestry sector, particularly in developing high-value products and new market opportunities. The concept of "*Green Jobs*" and the potential for bioeconomy-based industries were discussed, stressing the importance of creating value-added products from timber. The meeting identified the lack of a clear market identity and the need for better marketing strategies as critical gaps that need to be addressed.

Suggestions for improving forest policy in Thailand:

There is based on the insights from the meeting, the following recommendations can be made to enhance the National Forest Policy of Thailand:

1) Streamlining Bureaucratic Processes

- Simplifying the legal and regulatory framework for timber-related activities could encourage more small-scale operators to enter the formal market. This could involve reducing the number of permits required and shortening approval times.

2) Providing Financial Incentives

- Introducing financial incentives, such as subsidies or guaranteed pricing for timber, can make economic tree planting more attractive. Expanding the carbon credit market and ensuring its accessibility to smallholders could provide additional income streams and encourage sustainable practices.

3) Encouraging Youth Participation

- To address the succession issue, policies that attract younger generations into the forestry sector are crucial. This could involve educational programs, apprenticeships, and financial support for young entrepreneurs in forestry.
- 4) Leveraging International Models:**
- Thailand can benefit from adopting best practices from countries like Sweden, particularly in integrating innovation and sustainability into forest management. Establishing large-scale processing facilities and promoting wood as a construction material could be part of a long-term strategy to boost the industry.
- 5) Enhancing Market Development and Innovation**
- Developing a strong market identity for Thai timber products, along with investment in research and development, can help position Thailand as a leader in sustainable forestry. Support for value-added industries and green technologies should be prioritized to increase the competitiveness of the sector.

While the National Forest Policy 2019 provides a solid foundation, these additional measures could address the current challenges and ensure the long-term sustainability and growth of Thailand forestry sector (Figure 16). The insights from the meeting provide valuable direction for refining the policy and its implementation.

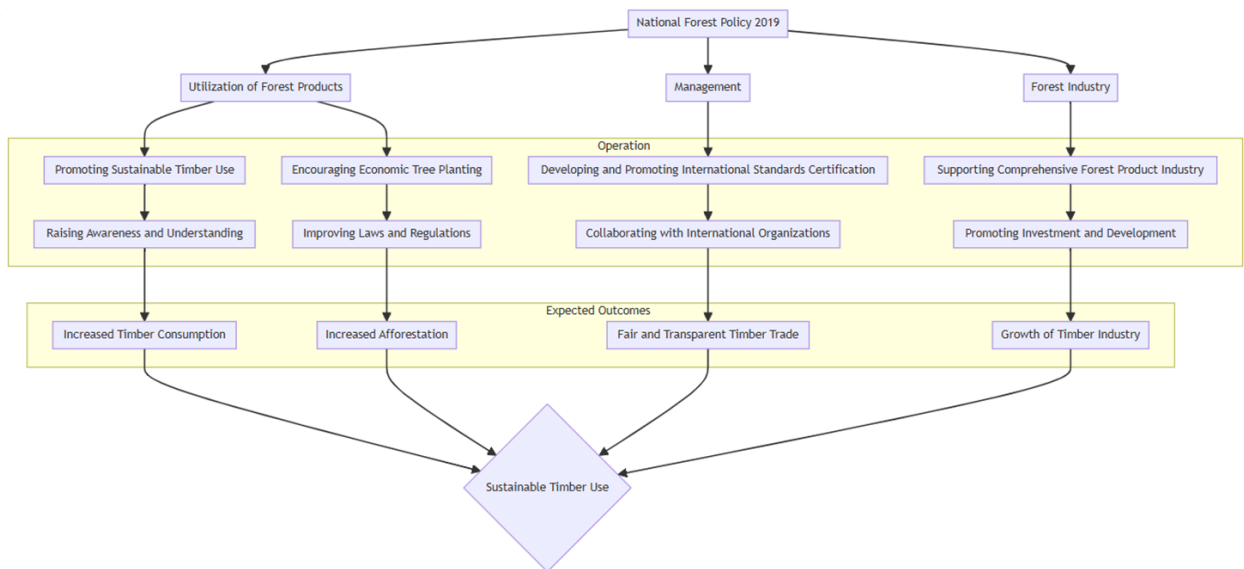


Figure A26 A diagram of a framework analysis for sustainable timber use in relating to the National Forest Policy in Thailand

The diagram (Figure 16) shows the analysis of the meeting raising issues which relate to sustainable timber uses and Thai domestic wood use promotion. The results of the analysis show related issues below:

1. Utilization of forest products

1.1) Promoting sustainable timber use

The meeting highlighted challenges such as bureaucratic hurdles, lack of price guarantees, and competition from other crops. These issues directly impact efforts to promote sustainable timber use. The framework suggests that raising awareness and understanding, coupled with improving laws and regulations, is essential to increase timber consumption. The meeting's focus on simplifying legal processes and improving incentives aligns with this part of the framework.

1.2) Encouraging economic tree planting

Economic tree planting is a crucial part of the framework for achieving increased afforestation. The meeting emphasized the need for more robust incentives and support mechanisms, such as carbon credits and guaranteed prices, which corresponds to the framework's suggestion to improve laws and regulations to encourage tree planting.

2. Operation

- **Developing and promoting international standards certification**
 - The framework emphasizes the importance of developing international standards, which the meeting addressed by discussing the need for Thailand to align with global standards like those used in Sweden. Collaboration with international organizations was also mentioned as crucial for promoting fair and transparent timber trade, aligning with the operational goals outlined in the framework.
- **Supporting comprehensive forest product industry**
 - Promoting investment and development within the forest product industry is necessary for the growth of the timber industry, as highlighted in the framework. The meeting identified the need for innovation, value addition, and market development to boost the industry. These recommendations directly support the framework's goal of growing the timber industry.

3. Expected outcomes

- **Increased timber consumption and afforestation**
 - The framework aims for increased timber consumption and afforestation as key outcomes of promoting sustainable timber use and economic tree planting. The meeting's discussion on the need for better market conditions, financial incentives, and a simplified legal framework supports these goals by addressing barriers to increased timber consumption and afforestation.
- **Fair and transparent timber trade**
 - The framework highlights fair and transparent timber trade as an expected outcome of international collaboration and standards development. The meeting emphasized the importance of adopting international standards and enhancing the legal framework to facilitate this, directly supporting the framework's goal.
- **Growth of timber industry**
 - The growth of the timber industry is the goal of supporting the comprehensive forest product industry. The meeting discussed the need for innovation, market development, and overcoming regulatory challenges, all of which are crucial for achieving this outcome as outlined in the framework.

The analysis framework provided in the diagram aligns well with the discussion from the meeting and the National Forest Policy 2019. The key issues raised, such as the need for improved legal frameworks, better financial incentives, and alignment with international standards, directly support the goals outlined in the framework. By addressing these issues, Thailand can achieve the expected outcomes of increased timber consumption, afforestation, fair trade, and industry growth, leading to sustainable timber use as the central objective.





Figure A27 The meeting participants shared their opinion and suggested for moving forward to enhance collaboration among multi-stakeholder for promotion of domestic wood use



Figure A4 Group photo of the meeting participants



ขอเชิญร่วมประชุม

ให้ความคิดเห็นและข้อเสนอแนะ

เพื่อขับเคลื่อนการส่งเสริมการใช้ไม้ในประเทศไทยอย่างยั่งยืน

วันที่ 24 กรกฎาคม 2567
เวลา 08.30 - 12.00 น.

ณ ห้องประชุม Kornkamon room
ชั้น 2 โรงแรม เดอะ สุโกศล
กรุงเทพมหานคร

ผู้ดำเนินรายการ



อาจารย์กิติพงษ์ ตั้งกิจ
ทีปรักษาโครงการฯ

SCAN ME



ลงทะเบียน

กำหนดการ

08.30 น.	ลงทะเบียน
09.00 น.	กล่าวเปิด
09.15 น.	เสนอแนะและรับฟังความคิดเห็น
10.15 น.	พักรับประทานอาหารว่าง
10.30 น.	อุปสรรคในขบวนการผลิต
11.00 น.	ข้อเสนอแนะจากหน่วยงานที่เกี่ยวข้อง
11.30 น.	เรื่องอื่น ๆ (ถ้ามี)
11.45 น.	กล่าวปิด
12.00 น.	รับประทานอาหารกลางวัน

หมายเหตุ: โปรดลงทะเบียนตอบรับเข้าร่วมการประชุม ภายในวันศุกร์ ที่ 19 กรกฎาคม 2567

สอบถามข้อมูลเพิ่มเติม:

อาจารย์กิติพงษ์ ตั้งกิจ (ทีปรักษาโครงการฯ)

ผศ. ดร.วีรกรรอง ดวงใจ (ผู้จัดการโครงการฯ)

☎ 081-828-9150

☎ 086-364-1818

✉ E-mail: kitipongman2014@gmail.com

✉ E-mail: wirongrong.d@ku.th

Figure A29 The poster for meeting application

The meeting participants

No.	Name	Organization
The Prime Minister's Office		
1	Dr. Wikrom Vajragupta	The Federation of Thai Industries
2	Ms. Piyaporn Miklieng	The Federation of Thai Industries
Ministry of Agriculture and Cooperatives		
3	Ms. Kannisa Saridsiri	Land Development Department
4	Mr. Monthep Utsintong	Department of Agricultural Extension
5	Ms. Natthida Haowhan	Department of Agricultural Extension
6	Mr. Photchara saenla	Agricultural Land Reform Office
7	Ms. Tunyanun Kuntawong	Office of Agricultural Economics
8	Mr. Kritsana Khemawanit	Office of Agricultural Economics
9	Mr. Prateep ArayaKitipong	National Bureau of Agricultural Commodity and Food Standards
10	Ms. Nantaprapa Nantiyakul	National Bureau of Agricultural Commodity and Food Standards
11	Ms. Arisarawan Tanasinsiri	National Bureau of Agricultural Commodity and Food Standards
12	Ms. Sufeeya Samalee	Rubber Authority of Thailand
Ministry of Finance		
13	Mrs. Laaiad Wongtong	The Customs Department
14	Ms. Worada Anurakpuwadon	The Customs Department
15	Mr. Kanit Rojprasert	Bank for Agriculture and Agricultural Cooperatives
Ministry of Social Development and Human Security		
16	Mr. Saree Suppaleak	National Housing Authority
17	Mr. Kittiwat Kantongdee	National Housing Authority
Ministry of Natural Resources and Environment		
18	Mr. Kusol Chotirat	Deputy Permanent Secretary of the Ministry of Natural Resources and Environment
19	Ms. Achiraya Wongkaew	Assistant officer for Deputy Permanent Secretary of Ministry of Natural Resources and Environment
20	Mr. Mongkol Lewviriyakun	Royal Forest Department
21	Ms. Preeyanan Muangsan	Royal Forest Department
22	Mr. Jutitep Bhodthipuks	Royal Forest Department
23	Mr. Montri Intasen	Royal Forest Department
24	Ms. Benchawann Manbua	Royal Forest Department
25	Dr. Suwan Tangmitcharone	Royal Forest Department
26	Mrs. Woraphun Himmaphan	Royal Forest Department
27	Ms. Nilobol Meesri	Royal Forest Department
28	Mrs Panida Roongrattanakul	Department of National Parks, Wildlife and Plant Conservation
29	Mr. Kittidet Intharaksa	Department of National Parks, Wildlife and Plant Conservation
30	Mr. Chate Puangjit	Provincial Office of Natural Resources and Environment, Trang Province

No.	Name	Organization
31	Mr. Chanchai Ngeanthong	Provincial Office of Natural Resources and Environment, Nan Province
32	Mr. Jetarin Promno	Provincial Office of Natural Resources and Environment, Nan Province
33	Mr. Punlop Intanil	Thailand Greenhouse Gas Management Organization (Public Organization)
Ministry of Commerce		
34	Ms. Phavinee Chapanon	Department of Foreign Trade
35	Ms. Chanya Chensiripattanakul	Department of Business Development
36	Mrs. Anthirat Choomchart	Department of Business Development
Ministry of Interior		
37	Mrs. Chutima Soonyakanit	Department of Lands
Ministry of Labour		
38	Mr. Sakdinath Sontisakyothin	Ministry of Labour
39	Ms. Benjawan Sumarat	Ministry of Labour
40	Mr. Natee Ratchawang	Department of Skill Development
41	Mr. Surachai Wiriyaiphat	Department of Skill Development
Ministry of Industry		
42	Mr. Buranasak Madmai	Department of Industrial Promotion
43	Mr. Peeranat Sukkum	Department of Industrial Promotion
44	Ms. Natcha Thuanthrap	Department of Industrial Promotion
45	Ms. Pathama Prasatkhetkan	Department of Industrial Works
46	Ms. Thidathip Jinakul	Department of Industrial Works
47	Mr. Natthaphan Chinpracha	Department of Industrial Works
48	Ms. Wicha Pichainarong	Thai Industrial Standards Institute
Faculty of Forestry, Kasetsart University		
49	Asst.Prof. Dr. Kobsak Wanthongchai	Faculty of Forestry, Kasetsart University
50	Prof. Dr. Yongyut Trisurat	Faculty of Forestry, Kasetsart University
51	Asst.Prof. Dr. Wirongrong Duangjai	Faculty of Forestry, Kasetsart University
52	Mr. Kitipong Tangkit	Faculty of Forestry, Kasetsart University
53	Dr. Pisut Sripanat	Faculty of Forestry, Kasetsart University
54	Ms. Ketsanee Tuaktatong	Faculty of Forestry, Kasetsart University
55	Ms. Voratatta Sutthipak	Faculty of Forestry, Kasetsart University
56	Ms. Pichyaphak Suriwong	Faculty of Forestry, Kasetsart University
57	Mrs. Saichon Mutarapat	Faculty of Forestry, Kasetsart University
58	Ms. Chawalak Deechaiyo	Faculty of Forestry, Kasetsart University
Project Experts and advisors		
59	Mr. Saphon Bunsemsuk	PSC
60	Mr. Suchat Kalyawongsa	PSC
Association		
61	Mr. Ekkaphong Siangphro	Furniture and Teak Products Trade Association of Phrae Province
62	Mr. Jirawat Tangkijngamwong	Thai Timber Association
63	Mr. Vanat Virapornsawan	The Thai Rubber Association
64	Mr. Nathawat Khlangsap	Director of Fast-Growing Tree Business Association

No.	Name	Organization
Private sector		
65	Mr. Mahasan Thieravarut	The Siam Forestry Co., Ltd.
66	Mr. Teeraphong Wanitchakorn	The Siam Forestry Co., Ltd.
67	Ms. Somruthai Leksriskul	Magnolia Quality Development Corporation Co., Ltd.
68	Ms. Onpailin chokwiriyaorn	Magnolia Quality Development Corporation Co., Ltd.
69	Ms. ChorNutchaphetpaisit	Magnolia Quality Development Corporation Co., Ltd.
70	Mr. Nattawin Phongsphetarat	TPS Garden Furniture Co., Ltd.
71	Dr. Sahathorn Naowaratphong	TPS Garden Furniture Co., Ltd.
72	Mr. Phisitphon Phongsphetarat	TPS Garden Furniture Co., Ltd.
73	Ms. Ratiros Thitianon	The Siam Cement Public Company Limited.
74	Ms. Ratchanit Hiriotappa	The Siam Cement Public Company Limited.
75	Mr. Wirote Kullertwattana	I kull Design Co., Ltd.

1.3.3 Participation in the exhibition during the opening ceremony of the Integrated Economic Timber Tree Species Learning Center

Activities:

The project staff joined an exhibition at the opening house of an integrated economic wood learning center at Faculty of Forestry, Kasetsart University on 21 June 2024. Mr. Thirawat Boonsom, Director of the Research and Innovation Promotion and Support Division, National Research Office, presiding over the opening ceremony and some keynote persons including Dr. Damrong Sripraram, Vice President for Administration, Kasetsart University, was honored to be the welcome speaker, and Asst. Prof. Dr. Kobsak Wanthongchai, Dean of the Faculty of Forestry, reported the learning center as hub of knowledge and collaboration of various sectors in relation to issues of wood products and valuable timber tree plantation and management in both small-scale and industrial sector.

Achievements:

This activity has likely led to several key achievements. Firstly, the exhibition provided a platform to raise awareness about the economic and environmental benefits of using domestically grown wood species, helping to shift preferences towards sustainable local resources. Secondly, the event facilitated networking and collaboration between various stakeholders, including academic experts, industry leaders, and government officials, which could lead to stronger partnerships and support for the project. Additionally, by showcasing research findings and practical applications related to sustainable forestry and wood product marketing, the exhibition likely contributed to the development of new strategies and innovations that can be integrated into the project efforts to promote domestic wood use. Finally, the learning center's role as a knowledge hub supports ongoing education and training initiatives, equipping stakeholders with the necessary skills and information to enhance the domestic wood industry, thereby strengthening the project overall impact.



Figure A30 The keynote speakers and academic experts on valuable timber tree and wood product marketing

The Figure 21 below show participants are engaged in viewing and discussing the exhibits, which include informational posters, project reports, and possibly prototypes or models related to the wood industry. The exhibition aims to showcase research findings, educational materials, and practical applications of sustainable practices in the cultivation and management of economic wood species.

The Integrated Economic Timber Trees Species Learning Center serves as a hub for learning and innovation, providing resources and knowledge to support sustainable forestry practices and the development of the timber industry. Participation in such exhibitions highlights the collaborative efforts among academia, industry, and government to promote the sustainable use of economic wood species and to enhance the economic viability of forestry in the region. The setting in what

appears to be an academic or research institution further underscores the center's role in fostering education and research in sustainable forestry.



Figure A31 The project team and consultants demonstrate the outputs of project implementation

1.3.4 The Second Public hearing with multi-stakeholder meeting as partnerships in relation to wood use policy development

A significant milestone in the project activity was the development of policy recommendations aimed at removing legal barriers to sustainable wood use. The Second Stakeholder Meeting, held on **November 6, 2024, at The Sukosol Hotel in Bangkok**, provided a platform for policymakers, industry experts, and researchers to propose policy improvements in areas as follows:

- 1) Simplification of regulations governing tree harvesting, transportation, and processing to streamline administrative procedures.
- 2) Enhancement of certification systems to ensure legality, sustainability, and traceability of domestic wood products, which is now completed on the *international certification* suggestion.
- 3) Promotion of sustainable urban wood use, particularly in public infrastructure projects and construction, aligning with climate change mitigation policies.
- 4) Integration of sustainable forestry into economic planning, with incentives for private-sector investment in tree plantations.

Through these efforts, the project positioned Thailand as a leader in sustainable forestry policy, promoting responsible wood sourcing and strengthening domestic and international trade compliance.

Key Achievement

The project achieved significant progress in legalizing and endorsing the utilization of domestic logs and sawn wood originating from planted forests on privately-owned land or permitted public lands in Thailand. Major accomplishments are included as follows:

- **Legal and regulatory reform**
Identified and revised restrictive regulations that previously hindered the legal recognition and utilization of domestic timber harvested from planted forests. Streamlined legal frameworks, facilitating easier permitting and compliance for timber harvesting, transportation, and processing operations.
- **Certification and endorsement**
Implemented national certification standards aligned with international criteria, enabling domestic logs and sawn wood from these certified sources to be recognized both locally and internationally. Facilitated certification processes for factories and mills associated with these domestic timber sources, enhancing their credibility and marketability.
- **Market access and trust building**
Improved domestic and international market acceptance by establishing clear traceability and legality standards for wood products. Increased consumer confidence in sustainable timber sourcing through transparent certification and endorsement processes.
- **Capacity building and awareness**
Provided training and resources to private landowners, community forest managers, and mill operators, ensuring compliance with certification and sustainable management standards. Conducted outreach campaigns and stakeholder engagement activities to promote understanding and support for legalized domestic timber use.

Collaboration and partnerships

The enhancing and strengthening cooperation between government agencies, private sector entities, certification bodies, and international organizations to reinforce sustainable practices and market penetration for this time led to the initiating network among stakeholder and this was established frameworks for continuous monitoring and improvement of certification processes, ensuring long-term sustainability and credibility.



Figure A32 The Stakeholder Meeting with key stakeholders' organization in Bangkok











โครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน
(Promotion of Sustainable Domestic Consumption of Wood Products in Thailand)

ขอเชิญร่วมประชุม

ให้ความคิดเห็นและข้อเสนอแนะ ครั้งที่ 2



ผู้ดำเนินรายการ

6

พฤศจิกายน

ณ ห้องประชุมกมลทิพย์ 1

โรงแรม เดอะสุโกศล พญาไท กรุงเทพมหานคร

เวลา 08.30 - 16.30 น.

วัตถุประสงค์

1. เพื่อนำเสนอข้อมูลแนวทางขับเคลื่อนส่งเสริมการใช้ไม้ภายในประเทศไทยอย่างยั่งยืน
2. เพื่อรับฟังความคิดเห็นและข้อเสนอแนะของหน่วยงานที่เกี่ยวข้องในขับเคลื่อนการส่งเสริมการใช้ไม้ในประเทศไทยอย่างยั่งยืน

ความคาดหวัง

การลงนามความร่วมมือร่วมกันขับเคลื่อนการส่งเสริมการใช้ไม้ในประเทศไทยอย่างยั่งยืน

กำหนดการประชุม

08.30 - 09.00 น.

ลงทะเบียน รับของที่ระลึก และถ่ายภาพหน้า Backdrop

09.00 - 09.10 น.

พิธีกรดำเนินรายการ

09.10 - 09.20 น.

กล่าวต้อนรับและแนะนำโครงการของ ITTO

Dr. Tetra Yanuariadi, ITTO Projects Manager of Trade and Industry

09.20 - 09.30 น.

กล่าวเปิดการประชุม

นายจิระพงษ์ คูหากาญจน์

ผู้ช่วยปลัดกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม

09.30 - 09.40 น. ทบทวนและสรุปการประชุมในครั้งที่ 1

09.40 - 09.55 น. สถานภาพและความท้าทายของอุตสาหกรรมไม้

เศรษฐกิจของประเทศไทย

ดร.สุวรงค์ ตั้งมิตเรเจริญ ผู้อำนวยการ

สำนักวิจัยและพัฒนาการป่าไม้

09.55 - 10.15 น. พักรับประทานอาหารว่าง

10.15 - 10.30 น. ก้าวต่อไปของอุตสาหกรรมก่อสร้าง

นายวิกรม วัชรกุลต์ กรรมการบริหาร

สภาอุตสาหกรรมแห่งประเทศไทย

10.30 - 10.45 น. การส่งเสริมการใช้ไม้ภายในประเทศไทยอย่างยั่งยืน

นายกิตติพงษ์ ตั้งกิจ ที่ปรึกษาโครงการฯ

10.45 - 12.00 น. เปิดตัวที่การรับฟังข้อคิดเห็นจากหน่วยงานที่เกี่ยวข้อง

วิทยาการ และ ผศ.ดร.วีรธรรณ ดวงใจ

ผู้จัดการโครงการฯ

12.00 - 13.00 น. รับประทานอาหารกลางวัน

13.00 - 14.00 น. หน่วยงานที่เกี่ยวข้องนำเสนอข้อมูลเชิงลึก แสดงความคิดเห็นและข้อเสนอแนะ

กลุ่มที่ 1 ต้นน้ำ (การปลูกและการจัดการ)

14.00 - 15.00 น. หน่วยงานที่เกี่ยวข้องนำเสนอข้อมูลเชิงลึก

แสดงความคิดเห็นและข้อเสนอแนะ

กลุ่มที่ 2 กลางน้ำ (แปรรูปผลิตภัณฑ์ไม้)

15.00 - 16.00 น. หน่วยงานที่เกี่ยวข้องนำเสนอข้อมูลเชิงลึก

แสดงความคิดเห็นและข้อเสนอแนะ

กลุ่มที่ 3 ปลายน้ำ (การตลาด)

16.00 - 16.20 น. สรุปการประชุม

16.20 - 16.30 น. กล่าวปิดการประชุม



Dr. Tetra Yanuariadi



ดร.สุวรงค์ ตั้งมิตเรเจริญ



อาจารย์กิตติพงษ์ ตั้งกิจ



นายจิระพงษ์ คูหากาญจน์



นายวิกรม วัชรกุลต์



ผศ.ดร.วีรธรรณ ดวงใจ

สแกน



ลงทะเบียนรับของที่ระลึก
มีจำนวนจำกัด !!!

☎ 097-313-7225

✉ ketsanee.tu@ku.th



MAFF
Ministry of Agriculture,
Forestry and Fisheries



Table 10 List of all participants and their affiliated agencies

No.	Name	Position	สังกัด
Ministry of Natural Resources and Environment			
1.	Mr. Chirapong Kuhakanchana	Assistant Permanent Secretary Ministry of Natural Resources and Environment	Ministry of Natural Resources and Environment
2.	Ms. Thawiranya Penprathum	Policy and Plan Analyst, Expert	Ministry of Natural Resources and Environment
3.	Ms. Supanee Niyomsilp	Forestry Technical Officer (Professional Level)	Forest Plantation Promotion Office, RFD
4.	Ms. Phalada Rukthanom	Forest Technical Officer	Forest Plantation Promotion Office, RFD
5.	Mr. Boonsuthee Jeravongpanich	Director of Forest Economic Office, Royal Forest Department	Forest Economics Office, RFD
6.	Ms. Chanisa Rojwisitkun	Economist, Professional Level	Forest Economics Office, RFD
7.	Ms. Kamolnate Junkaew	Forest Technical Officer, Practitioner Level	Forest Economics Office, RFD
8.	Ms. Chonikan Udkamtieng	Forest Technical Officer, Practitioner Level	Forest Economics Office, RFD
9.	Mr. Waranyoo Changpeng	Forestry Technical Officer	Forest Economics Office, RFD
10.	Mr. Montri Intasen	Forestry Technical Officer, Senior Professional Level	Forestry Foreign Affairs Office, RFD
11.	Ms. Benchawann Manbua	Forest Technical Officer, Practitioner Level	Forestry Foreign Affairs Office, RFD
12.	Ms. Kesinee Phornhan	Forest Technical Officer, Practitioner Level	Forestry Foreign Affairs Office, RFD
13.	Mrs. Saichon Mutarapat	Project Officer	Forestry Foreign Affairs Office, RFD
14.	Mr. Suwan Tangmitcharoen	Director of forest research and development office	Forest Research and Development Office, RFD
15.	Mr. Suthat Laosakul	Forest Research and management specialist (Expert Level)	Forest Research and Development Office, RFD
16.	Mrs. Woraphun Himmaphan	Forestry Technical Officer, Senior Professional Level	Forest Research and Development Office, RFD
17.	Mr. Thanundorn Petchdee	Forestry Technical Officer, Professional Level	Permission Division, RFD
18.	Mr. Kittidet Intharaksa	Scientist, Practitioner Level	Department of National Parks, Wildlife and Plant Conservation
19.	Ms. Kantima Onsap	Forestry Technical officer	Department of National Parks, Wildlife and Plant Conservation

No.	Name	Position	สังกัด
20.	Mr. Kwanchai Boonmuang	Forestry Officer (Senior Level)	Provincial Office of Natural Resources and Environment
21.	Mr. Prasit Charukamnerdkul	Head of Department (Level 8), Production Management and Wood Industry Division	Forest Industry Organization
22.	Ms. Piamporn Sripatai	Sub-Division Chief of Research and Development	Forest Industry Organization
The Prime Minister's Office			
23.	Mr. Chanapon Intiang	Project Manager Bureau of Competency Assessment and Certification	Thailand Professional Qualification Institute (Public Organization)
24.	Ms. Pitikarn Jhantakoon	Professional Qualifications and Occupational Standards Officer	Thailand Professional Qualification Institute (Public Organization)
25.	Mr. Wikrom Vajragupta	Board of Directors of the Federation of Thai Industries	The Federation of Thai Industries
26.	Mr. Mana Ngorkmai	Representatives of the Industrial Council of Phrae Province	Industrial Council of Phrae Province
Ministry of Agriculture and Cooperatives			
27.	Ms. Kannisa Saridsiri	Group director of land use planind and policy division	Land Development Department
28.	Ms. Natthida Howharn	Agricultural Extensionist Senior level	Department of Agricultural Extension
29.	Mrs. Saranya Churat	Subject Matter Specialist Senior Professional Level	Department of Agricultural Extension
30.	Mr. Nattapon Khanmad	Land Reform Technical Officer, Professional Level	Agricultural Land Reform Office
31.	Mr. Tinnagorn Petsungnoen	Economist	Office of agricultural economics
32.	Mr. Prateep Arayakittiphong	Senior Professional level	National Bureau of Agricultural Commodity and Food Standards
33.	Ms. Sufeeya Samalee	Agricultural extensionist	Rubber Authority of Thailand
Ministry of Finance			
34.	Mrs. Laaiad Wongthong	Chief of general administration unit	The Customs Department
35.	Mr. Thongchai Jitjaicham	Customer and Community Development Specialist	Bank for Agriculture and Agricultural Cooperatives
Ministry of Social Development and Human Security			
36.	Mr. Seri Sappalekha	Deputy Director of Academic Affairs and Housing Development	History of National Housing Authority
37.	Mr. Kittiwat Khanthongdee	Director of Housing Research and Development Division	History of National Housing Authority
38.	Mr. Sthaporn Somsak	Community Action Specialist	Community Organizations

No.	Name	Position	สังกัด
			Development Institute (CODI)
Ministry of Commerce			
39.	Ms. Benjamaporn Pugdeeyothin	Trade officer, professional level	Department of Foreign Trade
40.	Ms. Chanya Chuensiripattanakul	Director of Secured Transaction Registry Division	Department of Business Development
41.	Mrs. Anthirat Choomchart	Trade officer, Professional level	Department of Business Development
42.	Mrs. Nimit Trapsaman	Support Officer	Department of Business Development
Ministry of Interior			
43.	Mrs. Chutima Soonyakanit	Director of Land parcel center	Department of Lands
Ministry of Labour			
44.	Mr. Natee Ratchawang	Director of Curriculum Development and Training Technology Group	Department of Skill Development
Ministry of Industry			
45.	Mrs. Patama Prasatkhetkan	Engineer, Senior Professional Level	Department of Industrial Works
46.	Ms. Thidatip Jinakool	Engineer, Professional Level	Department of Industrial Works
47.	Mr. Natthaphan Chinpracha	Engineer, Practitioner Level	Department of Industrial Works
48.	Mr. Buranasak Madmai	Industrial Technical Officer, Senior Professional Level	Department of Industrial Promotion
49.	Mr. Peeranat sukum	Industrial analysis, Senior Professional Level	Department of Industrial Promotion
50.	Ms. Suntaree Aim-on-ta	Support Officer	Department of Industrial Promotion
51.	Ms. Nathathai Sangobpant	Standards officer	Thai Industrial Standards Institute
52.	Mrs. Nathcha Amphuch	Policy and Planning Analyst, Senior Professional Level	Phrae Provincial Industrial Office
Educational institutions			
53.	Ms. Pornpimon Boonkum	Researcher	Technology and Informatics Institute for Sustainability
54.	Dr. Thipjak Na Lampang	Researcher	Technology and Informatics Institute for Sustainability
55.	Dr. Setthawat Sucharitpawatsakul	Senior Engineer	Technology and Informatics Institute for Sustainability
56.	Mr. Thanusak Takham	Independent Researcher	-
57.	Dr. Sirin Kaew-Udom	Independent Researcher	-
58.	Ms. Jarin Thongrattanaksa	Senior Expert	-
59.	Dr. Teranetr Tienthavorn	Lecturer and Researcher	Faculty of Architecture, CU

No.	Name	Position	สังกัด
60.	Mr. Phongsathon Kanthawong	Lecturer	Phrae Community College
61.	Asst.Prof. Dr. Wirongrong Duangjai	Lecturer (Project Manager)	Faculty of Forestry, KU
62.	Mr. Kitipong Tangkit	Lecturer (Consultant)	Faculty of Forestry, KU
63.	Dr. Pisut Sripant	Lecturer (Consultant)	Faculty of Forestry, KU
64.	Ms. Ketsanee Tuaktatong	Project Secretary	Faculty of Forestry, KU
65.	Ms. Voratatta Sutthipak	Project Finance	Faculty of Forestry, KU
66.	Ms. Pichyaphak Suriwong	International Relations and Communications Officer	Faculty of Forestry, KU
67.	Ms. Chawalak Deechaiyo	Project Officer	Faculty of Forestry, KU
68.	Ms. Pronatcha Saichanaphan	Project Officer	Faculty of Forestry, KU
69.	Ms. Piyachanok T. Charoen	Project Officer	Faculty of Forestry, KU
Project Experts and advisors			
70.	Mr. Suchat Kalyawongsa	Forestry Expert and Project Consultant	PSC
71.	Mr. Saphon Bunsemsuk	Forestry Expert	PSC
สมาคม			
72.	Mr. Ekkaphong Siangphro	President of Furniture and Wood Products Trade Association, Phrae Province	Furniture and Wood Products Trade Association, Phrae Province
73.	Ms. Salinee Samthong	Consultant	Thai Timber Association
74.	Mr. Vanat Virapornsawan	President of Thai Hevea Wood Association	Thai Hevea Wood Association
75.	Mr. Amornpong Hirunwong	Executive board	Fast-Growing Tree Business Association
76.	Mr. Jirawat Tangkijngamwong	Chairman of the Lifestyle and Design Products Trade Association	The Thai Chamber of commerce and the Board of Trade of Thailand
77.	Mr. Adisorn Chaluey	Representatives of the Lanna Cart Wheel Community Enterprise, Ban Tha Lo	Lanna Cart Wheel Community Enterprise, Ban Tha Lo
Private sector			
78.	Mr. Mahasan Thieravarut	Managing Director	The Siam Forestry Co., Ltd.
79.	Mr. Teeraphong Wanitchakorn	Section manager	The Siam Forestry Co., Ltd.
80.	Ms. Somruthai leksrisakul	Vice president of city development /environmental management	Magnolia Quality Development Corporation Co., Ltd.
81.	Ms. Chor Nutch Phetpaisit	City development Manager	Magnolia Quality Development Corporation Co., Ltd.
82.	Mr. Nattawin Phongsphetarat	Managing Director	TPS Garden Furniture Co., Ltd.
83.	Mr. Sahatorn Naowaratphong	Advisor to MD	TPS Garden Furniture Co., Ltd.

No.	Name	Position	สังกัด
84.	Mr. Todsaphon Tumviriyant	Senior Business Technology Development	The Siam Cement Public Company Limited
85.	Ms. Ratchaneekorn Ruamthawee	Innovation Management and Incubation Manager	The Siam Cement Public Company Limited.
86.	Mr. Wirote Kullertwattana	Managing Director	I kull Design Co., Ltd.
87.	Ms. Thanyaporn Wongtitirote	Coordinator/ Content Creator	Thailand and Nordic Countries Innovation Unit, TNIU
88.	Ms. Surachana Phawaleethon	Project Manager	Thailand and Nordic Countries Innovation Unit, TNIU
Civil sector			
89.	Ms. Mukda Chachawan	People	-

1.4 Experiences/lessons on smallholder plantations in selected countries investigated and introduced (e.g., treebank, CSR, rubber plantation)

Achievements:

1.4.1 Professor Yongyut Trisurat (Project Coordinator) was invited by the RFD and ITTO to join the *UNITED NATIONS FORUM ON FORESTS-UNFF 18* held in New York, USA during 8-12 May 2023 with the financial support of Kasetsart University. Besides Project Coordinator, the delegates from Thailand included the Permanent Secretary of the Ministry of Environment, the Director-General of the RFD, Deputy Director-General of the Department of Marine and Coastal Resources, the Managing Director of Forest Industry Organization, and senior officials of the RFD.

In addition to the plenary session on THE UN STRATEGIC PLAN FOR FORESTS 2017-2030 of UNFF18, Kasetsart University and the RFD jointly organize a Side Event on “Forest of Thailand” Sustainable Teak Management” on 11 May 2023. The invited speakers for this event included Mr. Bivash Ranjan, Deputy Director General of India’s Forest Service, Ministry of Environment, Forest and Climate Change), Dr.Hwan-ok Ma (ITTO), Professor Yongyut Trisurat (Kasetsart University), Ms. Nuntana Boonyananta (Director of Community Forest Management Office, RFD). This session was moderated by Dr. Preecha Ongprasert (National Project Leader) and officially opened by Mr. Sukit Chanthong (Managing Director of the Forest Industry Organization). There were approximately 30 delegates from over 10 countries attending the side event.

The panelists shared experiences and lessons learned on smallholder plantations and commercial plantations. Global teak import and export. Previous achievements of the ITTO teak project and ongoing ITTO sustainable wood use project funded by the Forestry Agency of Japan were also highlighted. See more information in Newsletter#2.



Figure A33 Plenary Session of UNFF18





Figure A34 Teak Side Event

1.4.2 IUFRO will organize the XXVI IUFRO Congress in Stockholm, Sweden on 23-29 June 2024. In this connection, IUFRO, TEAKNET and ITTO will organize a technical session on “Strengthening Teak Forest Management for Sustainable Teakwood Supply Chains and Trade”



**Partner Event on
Teak at XXVI IUFRO World Congress 2024,
Stockholm, Sweden**

28 June 2024 | 08.30-10:30 am (CEST) | Room K21 |



Participants and speakers of the teak session

A 2 hour Teak Session, T2.29 entitled “***Strengthening Teak Forest Management for Sustainable Teakwood Supply Chains and Trade***” was successfully organised by IUFRO Teakwood Working Party (Div 5.06.02) on 28th June 2024, from 08:30-10:30 am (CEST) in Room K21 alongside 26th IUFRO World Congress 2024 at Stockholm Congress Centre, Sweden during 23-29 June. The event was co-sponsored by ITTO, Japan along with International Teak Information Network (TEAKNET) with the technical and financial support of the Food and Agriculture Organization of the United Nations, Rome. The session was attended over by around 50 participants across different countries. There were altogether 10 Oral presentations and two E-posters.

The session was opened by Dr. Michael Kleine, IUFRO Deputy Executive Director. Dr. Michael highlighted the long -standing collaboration of IUFRO’s Teakwood Working Party and IUFRO-SPDC with Teaknet for over a decade and to support participation of scientists in many international teak conferences /workshops and projects organised in collaboration with international organizations such as ITTO and FAO. He emphasized IUFRO’s network of scientific expertise spread across several research institutions and organisations in 120 countries worldwide have the capacity to pool and get data collected by eminent scientists at no extra cost and made such studies possible within a short span of time like the report on “Global Teak Resources and Market Assessment 2022” released as IUFRO Publication # 44 in the Innovation Stage during the IUFRO World Congress 2024 and is now

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Figure A35 A document of technical session on “Strengthening Teak Forest Management for Sustainable Teakwood Supply Chains and Trade

1.4.3 Study visits to Nan and Phrae provinces during 18-21 September 2024

A comparative study of teak plantation management revealed distinct differences between traditional teak farms and managed teak plantations operated by Sri Trang Agro-Industry. Traditional teak farms located in Nan province, Northern Thailand, often managed by smallholder farmers, exhibited minimal structured management, resulting in inconsistent tree growth, lower productivity, and suboptimal wood quality. In contrast, managed teak plantations, particularly those operated by Sri Trang Agro-Industry, followed sustainable forestry practices, incorporating systematic silvicultural techniques, species selection, and resource-efficient management strategies. This structured approach significantly improved tree health, productivity, and overall wood quality, ensuring higher economic returns for plantation owners and contributing to the long-term sustainability of the teak industry.



Figure A36 shows the unmanaged general farmer's teak plantation and the managed teak plantation of Sri Trang Agro-Industry



Figure A37 shows the unmanaged general farmer's teak plantation and the managed teak plantation of Sri Trang Agro-Industry

The introduction of agroforestry systems within managed teak plantations further enhanced land-use efficiency by integrating teak cultivation with intercropped species, thereby creating multi-functional landscapes. Unlike monoculture systems, agroforestry-based teak plantations offered multiple advantages, including income diversification for farmers, improved soil conservation, and optimized resource utilization. The integration of crops such as pumpkins provided short-term economic benefits, while the teak trees, as a long-term investment, contributed to carbon sequestration and ecosystem stability. Additionally, the ground cover provided by intercrops helped reduce soil erosion, enhance water retention, and suppress weed growth, leading to improved forest health and productivity. This comparative study underscores the significance of structured plantation management and agroforestry integration as effective strategies for enhancing the economic and ecological sustainability of teak plantations.

1.4.4 Lessons on smallholder plantations: Field Study Visit to the Rubberwood Processing Factory in Trang Province on August 21-22, 2023.

On August 21, 2023, The SWU project coordinator and the project team conducted a field study visit to the Bigger Wood Trang Co., Ltd., a rubberwood processing factory located in Thung Khai Subdistrict, Yan Ta Khao District, Trang Province. The factory engages in rubberwood processing, including chemical impregnation and kiln drying of rubberwood, for sale to furniture manufacturers both domestically and internationally. The company purchases rubberwood from rubber plantation farmers in Trang province and nearby areas. Currently, the export volume of rubberwood furniture products has decreased by approximately 20% compared to before the COVID-19 pandemic.

Participants are including Professor Yongyut Trisurat as the Project Coordinator, Dr. Tetra Yanuariadi, ITTO Projects Manager, Mr. Suchat Kalyawongsa, Mr. Saphon Boonsiri, members of the project management committee, Mr. Boonsuthee Jeerawongpanich, Director of the Economic Office, Royal Forest Department, Dr. Preecha Ongprasert, Director of the Foreign Forestry Office, and Ms. Supeeya Samalee from the Rubber Authority of Thailand.



Figure A38 The PlanToys Ltd., a company located in Thailand

Achievement:

The project arranged a trip to visit PlanToys Ltd., a company developing wooden toys for children aged 0 to 5 years. Established in 1981 under the mission "Better Kids, Better World through Sustainable Play," it ensures freedom in play and a closer relationship with nature. Simultaneously, the company develops the safest processes that have the least or no impact on employees, consumers,

the environment, and the world, using environmentally friendly and safe materials.



Figure A39 Rubber Wood product of PlanToys Ltd.

The rubber plantation covers an area of 10 Rai, located in Ban Pho Subdistrict, Mueang District, Trang Province. The plantation was established by a farmer, supported by the Rubber Authority of Thailand's policy to encourage rubber farmers to cut down and replant with a subsidy of 16,000 baht per Rai.



Figure A40 Rubber Plantation at Ban Pho Subdistrict, Mueang District, Trang Province

Achievements:

- **Innovative Product Development and Sustainability:** The visit to PlanToys Ltd. showcased an innovative approach to product development that is deeply rooted in sustainability and environmental consciousness. The company's focus on developing safe and environmentally friendly wooden toys from rubberwood is a prime example of how industries can contribute to a sustainable world while also engaging in profitable business practices.
- **Supportive Policies for Plantation Management:** The support provided by the Rubber Authority of Thailand to encourage rubber farmers to replant with a subsidy is an excellent example of how government policies can aid in the sustainable management of plantations. This policy not only supports the livelihood of smallholder farmers but also promotes sustainable agricultural practices.
- **Integration of Traditional and Modern Practices:** The activities undertaken during the visit illustrate the integration of traditional agricultural practices with modern sustainable and business practices. This integration is crucial for the evolution of smallholder plantations into sustainable and economically viable operations.

In conclusion, the field study visits to Bigger Wood Trang Co., Ltd. and PlanToys Ltd. provide valuable lessons on the importance of sustainable practices, community engagement, innovative product development, and supportive policies for the management of smallholder plantations. These insights can be instrumental in guiding similar initiatives in other countries to achieve sustainable development goals while also supporting the livelihoods of smallholder farmers.

1.4.5 The SWU project's collaboration with various governmental and educational organizations to organize a side event on "Sustaining Teakwood Supply Chains and Trade"

During the 25th Annual Forestry Academic Conference at Kasetsart University signifies a significant step towards promoting sustainable forestry practices, innovation, and trade within the teakwood sector. This event, held on August 24, 2023, brought together experts, academics, and students to discuss and share insights on various aspects of teakwood management, production, and trade,

highlighting the importance of sustainable and legal wood supply chains. Below are the key achievements and insights from this initiative:

Achievements and Insights

- Interdisciplinary collaboration: the collaboration among governmental departments, academia, and network partners to organize this event underscores the importance of interdisciplinary approaches in addressing the challenges and opportunities within the teakwood sector. Such collaboration is essential for integrating research, policy, and practical applications to enhance sustainability and value in the forestry industry.
- Focus on innovation and value addition: The competition on teak wood product design, organized as part of the side event, highlighted the critical role of innovation and design in adding value to teakwood products. Encouraging participation from students across universities fosters creativity and practical skills in future professionals, which is vital for the continuous development of the sector.
- Capacity building for local communities: the initiative to extend the project by organizing training for local communities to produce the winning products from the design competition is a commendable approach to capacity building. This not only supports community development but also promotes sustainable livelihoods by linking local production with global market demands.

Discussion Topics and Key Takeaways

- Sustainable management and future directions: insights from the ITTO Teak Project in the Mekong Basin Phase 1 provided valuable lessons on sustainable management practices and future directions for the teakwood sector. Emphasizing sustainable management ensures the long-term viability of teakwood resources and the ecological balance of forestry ecosystems.
- Innovations in teak seedling production: innovations in producing quality teak seedlings are crucial for enhancing the productivity and sustainability of Teak Plantation. Advanced techniques and technologies in seedling production can lead to improved growth rates and wood quality, contributing to the overall competitiveness of the Teak-wood industry.
- Legal wood supply chains: discussions on the challenges and opportunities of legal wood supply chains highlighted the importance of ensuring legality and sustainability in the forestry sector. This is critical for maintaining market access, particularly in regions with stringent regulations on timber legality.
- Global market perspectives: the global perspective on the situation and market for tropical wood provided insights into the challenges and opportunities facing the teakwood sector worldwide. Understanding global market dynamics is essential for developing strategies that enhance the competitiveness and sustainability of Teak-wood products.



Figure A41 The Side Event on Sustaining Teakwood Supply Chains and Trade



Figure A42 Meeting on Sustaining Teakwood Supply Chains and Trade

1.4.6 Study Tour on Sustainable Utilization of Wood and Wood Products in Japan

From October 14-17, 2024, a study tour was conducted with 19 participants from various government agencies, private sectors, and academic institutions in Thailand. The primary objective of this tour was to explore Japan's policies and approaches to promoting the use of wood and wood products and to apply this knowledge to Thailand. The study tour included visits to various organizations, factories, and research institutes to gain insights into sustainable wood utilization practices. Below is a detailed account of the itinerary and key findings.

The study tour began with visits to several companies that use wood as a primary material in their

production processes. The first stop was TSUYUKI WOODCRAFT, a company with over 200 years of expertise in producing intricate woodcraft using the traditional Yosegi technique. This technique, which involves the precise joining of multiple wood pieces, is a highly specialized skill passed down through generations. The next visit was to SONOBE SANGYO CO., LTD., a company that manufactures high-value wooden products such as plates and bowls made from Japanese Cherry wood. This visit provided insights into how high-quality wood resources are utilized to create functional yet aesthetically pleasing products. The morning concluded with a visit to La Luz Inc., a factory producing wood products primarily from Japanese Cypress (Hinoki). This company operates under the concept of promoting domestic wood utilization and sustainability in the wood industry. In the afternoon, the delegation visited Motion & Mokunavi, projects initiated by the Tokyo Metropolitan Government to encourage the use of wood in buildings. These projects provide financial support for wooden construction initiatives, reinforcing the importance of sustainable building practices. The discussions and observations at these sites highlighted Japan's proactive approach to integrating wood into modern infrastructure.

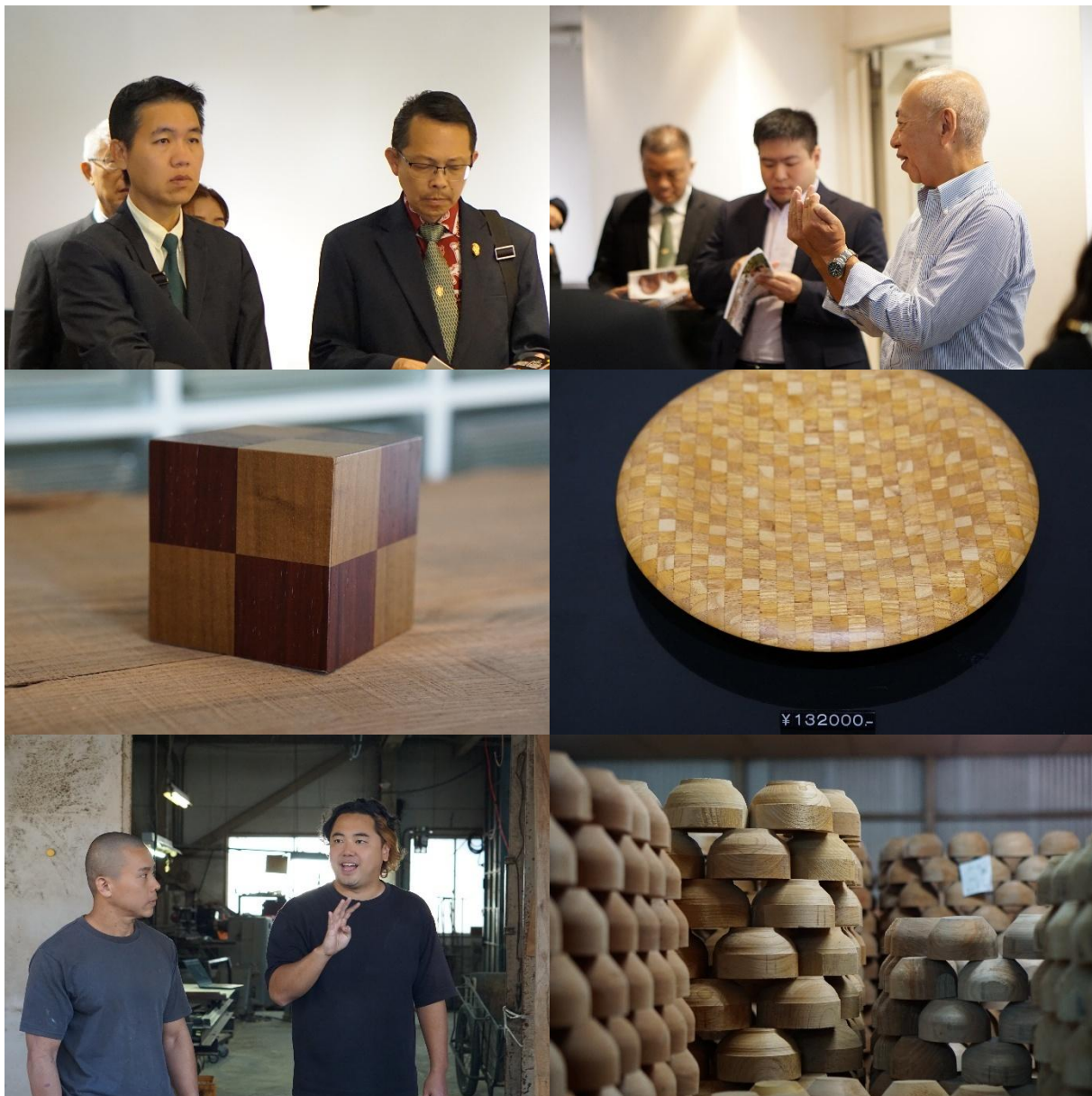




Figure A43 Thailand Wood Product Stakeholders and leaders visited Wood Products Trade at the Ministry of Agriculture, Forestry, and Fisheries of Japan and Sumitomo Forestry Tsukuba Research Institute in Japan

The second day of the study tour started with a meeting with Mr. Keiichi TAKAHATA, Director of Wood Products Trade at the Ministry of Agriculture, Forestry, and Fisheries of Japan. The discussion focused on policies for promoting wood usage within Japan, including incentives for using wood in construction and interior design. Additionally, Mr. Takahata emphasized the importance of afforestation projects and the use of plantation timber as a sustainable alternative to natural forest wood. The participants gained valuable knowledge on how Japan balances its wood industry with environmental conservation efforts.

In the afternoon, the delegation visited Sumitomo Forestry Tsukuba Research Institute, where they explored the development of a groundbreaking project—a 350-meter-tall wooden skyscraper. This ambitious initiative shows advancements in engineered wood materials and the potential of wood as a viable alternative to conventional construction materials. The visit provided inspiration for Thailand’s construction industry to consider similar sustainable approaches in urban development.

On the third day, the delegation visited the Forestry and Forest Products Research Institute (FFPRI) to learn about research focused on wooden buildings and the development of wood-based products. The research conducted at FFPRI plays a crucial role in enhancing the durability and efficiency of wood products, ensuring that they meet the highest industry standards.

In the afternoon, the group traveled to Sobokuya in Yamanashi, a company renowned for its traditional wooden architecture. Here, they observed the use of ancient Japanese construction techniques that allowed for the creation of sturdy wooden structures without the use of nails. This traditional craftsmanship, which relies on precise joinery methods, demonstrates how historical building techniques can still be relevant and applicable in modern-day sustainable construction.



Figure A44 Thailand Wood Product Stakeholders and leaders visited the Forestry and Forest Products Research Institute (FFPRI) in Japan

The final day of the study tour began with a meeting with Dr. Tetra YANUARIADI and executives

from the International Tropical Timber Organization (ITTO). The discussions focused on Thailand's wood industry, its challenges, and potential areas for development. The insights gained from this meeting provided a broader perspective on the global wood trade and sustainable forestry management practices.

In the afternoon, the delegation visited Mokuzai Kaikan in Tokyo, a model building designed to promote domestic wood usage. This visit showcased how wood can be effectively utilized in urban architecture to enhance sustainability and aesthetic appeal. The final stop was at The Wood & Plywood Museum, which houses an extensive collection of wood samples from around the world. The museum visit provided an opportunity to study innovations in engineered wood and how different wood species are used in various industries.



Figure A45 Thailand Wood Product Stakeholders and leaders visited the International Tropical Timber Organization (ITTO), main office in Japan

Key Takeaways and Applications for Thailand

Throughout the study tour, several key takeaways emerged that could be applied to Thailand's wood industry. These include:

- Encouraging the use of wood in the industrial and construction sectors by implementing policies that support wood-based construction projects and promoting public awareness of sustainable wood usage.
- Developing afforestation projects and efficiently utilizing plantation timber to ensure a sustainable supply of wood while preserving natural forests.
- Investing in engineered wood technology to enhance the value and durability of domestic wood, making it more competitive in the global market.
- Establishing collaboration efforts to create wood demonstration centers that can serve as educational hubs for industry professionals, researchers, and the general public.

Conclusion

This study tour provided participants with valuable insights into Japan's successful strategies for promoting sustainable wood utilization. The knowledge and experiences gained from the tour can be used to shape policies and initiatives that support Thailand's wood industry. By integrating sustainable practices, fostering innovation, and encouraging collaboration among stakeholders, Thailand can enhance its wood industry and improve its competitiveness on the international stage.



Figure A46 Thailand Wood Product Stakeholders and leaders visited Mokuzai Kaikan in Tokyo in Japan

ITTO Project: "PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF WOOD PRODUCTS IN THAILAND" (PD 026/22 Rev.1 (0))

การศึกษาดูงาน

การส่งเสริมการใช้ประโยชน์ไม้ในประเทศญี่ปุ่น

วันที่ 14 ตุลาคม 2567

Tsuyuki Woodcraft

Tsuyuki Woodcraft เป็นบริษัทที่ผลิตและจำหน่ายไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง

Sonobe Sangyo Co., Ltd.

บริษัท Sonobe Sangyo Co., Ltd. เป็นบริษัทที่ผลิตและจำหน่ายไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง

Motion & Mokunavi

Motion & Mokunavi เป็นบริษัทที่ผลิตและจำหน่ายไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง

La Luz Inc.

La Luz Inc. เป็นบริษัทที่ผลิตและจำหน่ายไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง



ITTO Project: "PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF WOOD PRODUCTS IN THAILAND" (PD 026/22 Rev.1 (0))

การศึกษาดูงาน

การส่งเสริมการใช้ประโยชน์ไม้ในประเทศญี่ปุ่น

วันที่ 15 ตุลาคม 2567

Forestry Agency of Japan

Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF)

วันที่ 15 ตุลาคม 2567 (ต่อจาก)

คณะศึกษาดูงานได้เดินทางเข้าชมโรงงานผลิตไม้ในประเทศญี่ปุ่นและเข้าชมป่าไม้ ณ จังหวัดฮกไกโด

สิ่งที่ได้จากการเรียนรู้

1. ประเทศญี่ปุ่นมีป่า 70% หรือ 2 ใน 3 ของพื้นที่ สอดคล้องกับเป้าหมาย SDG 15
2. ปี 1950 ญี่ปุ่นมีป่าประมาณ 1 ล้านไร่ แต่ปัจจุบันลดลงเหลือประมาณ 1 ล้านไร่
3. สินค้าไม้ที่ญี่ปุ่นมีชื่อเสียงมากที่สุด คือ ไม้แปรรูป (Wood) และ ไม้แปรรูป (Wood)
4. ไม้แปรรูป (Wood) ที่ญี่ปุ่นมีชื่อเสียงมากที่สุด คือ ไม้แปรรูป (Wood) และ ไม้แปรรูป (Wood)
5. ญี่ปุ่นมีโรงงานผลิตไม้แปรรูป (Wood) มากที่สุดประเทศหนึ่ง

Mr. KOSAKA Zentaro
Deputy Director General,
Forestry Agency

Mr. Keiichi TAKAHATA
Director of Wood Products
Trade Office, Forestry Agency
of Japan

Sumitomo Forestry Tsukuba Research Institute

วันที่ 15 ตุลาคม 2567 (ต่อจาก) คณะศึกษาดูงานได้เดินทางเข้าชมโรงงานผลิตไม้ในประเทศญี่ปุ่นและเข้าชมป่าไม้ ณ จังหวัดฮกไกโด

1. บริษัท Sumitomo Forestry Tsukuba Research Institute เป็นบริษัทที่ผลิตและจำหน่ายไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง
2. บริษัท Sumitomo Forestry Tsukuba Research Institute เป็นบริษัทที่ผลิตและจำหน่ายไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง
3. บริษัท Sumitomo Forestry Tsukuba Research Institute เป็นบริษัทที่ผลิตและจำหน่ายไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง

Mr. Nobutaka ISODA
Planning Group,
Tsukuba Research
Institute

ITTO Project: "PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF WOOD PRODUCTS IN THAILAND" (PD 026/22 Rev.1 (0))

การศึกษาดูงาน

การส่งเสริมการใช้ประโยชน์ไม้ในประเทศญี่ปุ่น

วันที่ 16 ตุลาคม 2567

Forestry and Forest Products Research Institute (FFPRI)

สิ่งที่ได้จากการเรียนรู้

1. สถานการณ์การใช้ประโยชน์ไม้ในประเทศญี่ปุ่น
2. สถานการณ์การใช้ประโยชน์ไม้ในประเทศญี่ปุ่น
3. สถานการณ์การใช้ประโยชน์ไม้ในประเทศญี่ปุ่น

Sobokuya (Yamanashi)

Sobokuya (Yamanashi) เป็นบริษัทที่ผลิตและจำหน่ายไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง

ITTO Project: "PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF WOOD PRODUCTS IN THAILAND" (PD 026/22 Rev.1 (0))

การศึกษาดูงาน

การส่งเสริมการใช้ประโยชน์ไม้ในประเทศญี่ปุ่น

วันที่ 17 ตุลาคม 2567

International Tropical Timber Organization (ITTO)

Makuzai Kaikan

Makuzai Kaikan เป็นบริษัทที่ผลิตและจำหน่ายไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง

The Wood & Plywood Museum

The Wood & Plywood Museum เป็นพิพิธภัณฑ์ที่จัดแสดงเกี่ยวกับไม้แปรรูป (Wood) โดยมีสินค้าหลักๆ 3 อย่าง คือ "Yak" ที่เรียกว่า "Yak" และ "Sugi" ที่เรียกว่า "Sugi" และ "Hinoki" ที่เรียกว่า "Hinoki" ซึ่งสินค้าเหล่านี้มีคุณภาพดีและมีความทนทานสูง

Figure A47 Newsletters of the Project as dissemination of knowledge on Study Tour on Sustainable Utilization of Wood and Wood Products in Japan

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2. Output 2 Stakeholder capacity built to produce innovative wood and wood products needed by domestic markets

2.1 Advanced skills to design and develop wood products to meet domestic market demands

Achievements:

2.1.1 Recruit **Dr. Pisut Sripant**, a Lecturer at the Department of Wood Products, to engage as Consultant # 2 Innovative wood and wood products from 01 April 2023 to 31 January 2025. See detailed in Annex 7.

2.1.2 The Project, coordinated by Dr. Pisut Sripant, invited undergraduate and graduate students from more than 10 universities offering courses on product designs, and wood technology to apply for valued-added furniture design competition. Interested students could register and submit applications by 31 July 2023. In addition, the project invited the students to attend the briefing competition award competition on 30 June 2023 (Figure 7).

ITTO Project:
"PROMOTION OF SUSTAINABLE DOMESTIC CONSUMPTION OF WOOD PRODUCTS IN THAILAND" (PD 926/22 Rev.1 (I))

ขอเชิญนิสิต นักศึกษาเข้าร่วม
**ประกวดออกแบบ
เฟอร์นิเจอร์ไม้ 2566**

Value-Added Wood
**Furniture
Design**

ชิงรางวัลรวมมูลค่า
60,000 บาท
ลงทะเบียนได้ตั้งแต่วันที่
26 มิถุนายน 2566

คุณสมบัติผู้สมัคร
นิสิต นักศึกษา

กติกา และ เงื่อนไขการประกวด
ผลงาน/ผลิตภัณฑ์ไม้(เครื่องเรือน)/นวัตกรรม
ที่ใช้แนวความคิดหรือการออกแบบเพื่อส่งเสริม
ก่อให้เกิดความสะอาดสวยงามใน การใช้งานคือเกิด
ผลงานที่ดีกับสมัยต้องคำนึงถึงการใช้วัสดุ
และทรัพยากรอย่างคุ้มค่าส่งเสริมคุณภาพชีวิตดีขึ้น
สร้างความประทับใจให้กับผู้บริโภคและสามารถ
ตอบสนองไลฟ์สไตล์ของผู้บริโภคได้ดี

สอบถามข้อมูลเพิ่มเติม:
097-1696515 อ. ดร. พิศุทธิ์ (ที่ปรึกษาโครงการฯ)
094-6156163 สุชนาภ (ผู้ประสานงานโครงการฯ)

ดาวน์โหลดใบสมัคร
และส่งผลงาน

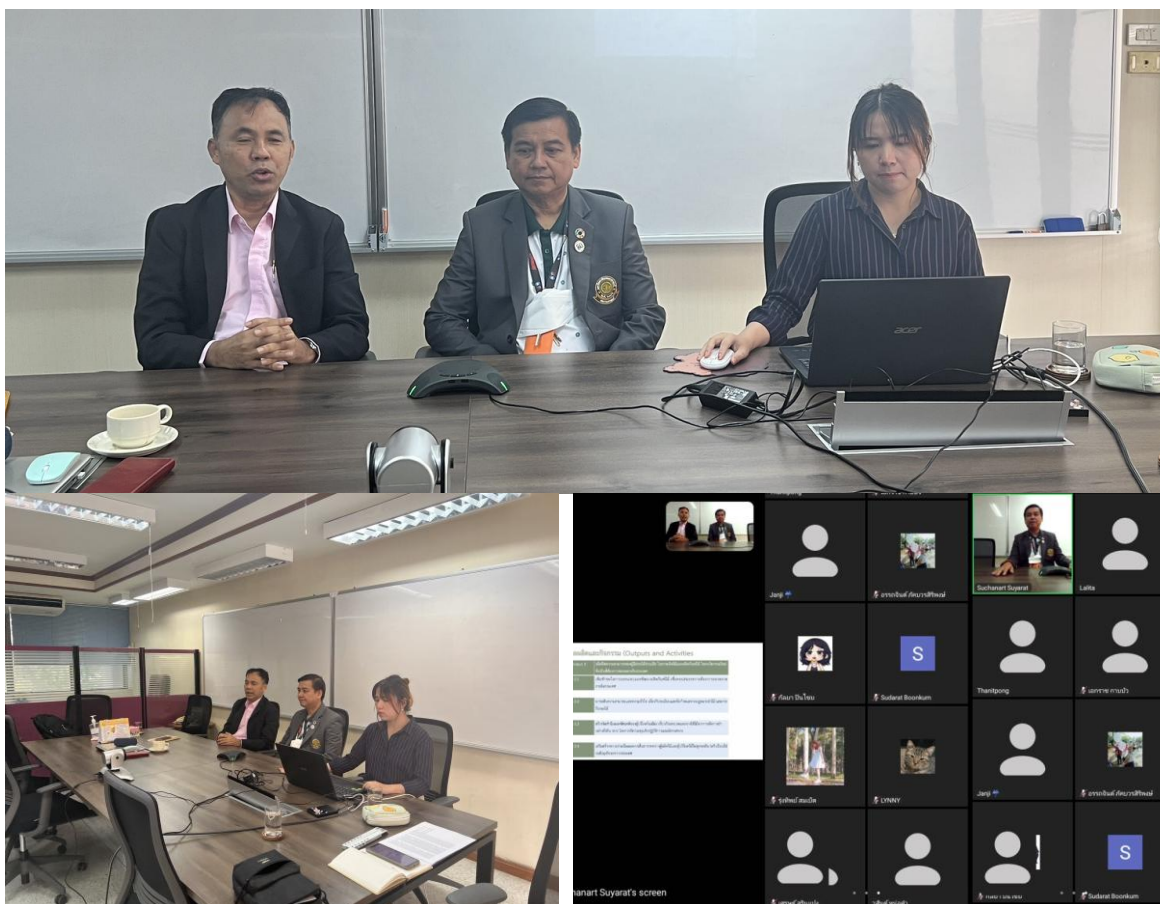


Figure A48 The briefing competition award competition on 30 June 2023 via zoom meeting

As of 31 July 2023, students from 8 universities submitted the prototype of wooden furniture for household uses, including

- 1) Faculty of Forestry, Kasetsart University
- 2) Faculty of Architecture, Kasetsart University
- 3) King Mongkut Institute of Technology Ladkrabang in Bangkok
- 4) Rajamongala University of Technology Lanna, Chiang Mai
- 5) Rajamongala University of Technology Phranakorn, Bangkok
- 6) Mahasarakham University, 7) Rajaphat Chiang Mai University
- 8) Ubon Ratchathani University.

Dean of the Faculty of Forestry issues official notification on 7 August 2023 to appoint the competition award committee as follows:

- | | |
|---|-----------|
| 1) Dr. KObsak Wanthongchai, Dean of the Faculty of Forestry | Advisor |
| 2) Dr. Pisut Siripant Faculty of Forestry | Committee |
| 3) Mr Bangrak Chadthasing RFD | Committee |
| 4) Mr. Sanguansak Kanchanaparangkun Hahn Products Co.,Ltd. | Committee |

5. Asst. Prof. Kamphon Saeng-Iam,
Faculty Architecture, Kasetsart University
- 6) Ms. Suchanart Suyarat, ITTO Project
- 7) Ms. Saichon Mutarapat, ITTO Project

Committee
Secretary
Assist. Secretary

Criteria and scoring of the competition are as follows:

Evaluation Topics
1. Innovation
Creativity (10 point)
Newness (10 point)
Economic Benefits (10 point)
Total (30 point)
2. Design
Concept Design (10 point)
Function (10 point)
Economic (10 point)
Process (10 point)
Total (40 point)
3. Cost-effectiveness of the use of resources
Function (10 point)
Economic (10 point)
Process (10 point)
Total (30 point)
All Total (100 point)

Figure A49 Criteria and scoring of the competition

2.1.5 The competition award committee met and considered all applications on 11 August 2023 and made a decision as follows:

First Prize Winner THB 30,000

Title: PAP PAH

Miss Sudarat Boonkum

Mr. Jakkaphat Olancharothai

Faculty of Arts and Architecture,



Figure A50 The first Winner Design

Second Prize Winner

THB 20,000

Title: EDGE OF THE HEX

Miss Sunisa Tibsansai

Miss Saranchana Isararungroj

Faculty of Arts and Architecture,
Rajamangala University of Technology Lanna Chaing-mai



Figure A51 The 2nd Winner Design

Third Prize Winner THB 10,000

Title: GOLDEN REC GOLD CHAIR

**Miss Phakjira Rachokarn
Mr. Nattawee Netchuangchot**

School of Industrial Education and Technology
King Mongkut's Institute of Technology Ladkrabang



Figure A52 The 3rd Winner Design

The project will present awards to the three winners at the Side Event Seminar of the 25th Annual Forestry Conference on 24th August 2023 at the Faculty of Forestry, Kasetsart University. The project will train the local community to produce these valued added design products.





Figure A53 valued-added furniture design competition

Activity 2.1: Advanced skills to design and develop wood products to meet domestic market demands

2.2.1 The workshop arrangement on wooden furniture design

The "Wooden Furniture Design 2024" workshop was held at Kasetsart University from June 4-5, 2024. This workshop aimed to engage students, educators, and other interested individuals from both government sector and private sector in a comprehensive training program that encompassed various aspects of furniture design, including concept development, hands-on workshops, technical drawing, prototyping, and fabrication. Participants were encouraged to integrate traditional local craftsmanship with modern design principles, emphasizing sustainability. The workshop was open to eligible participants, including students and professionals from fields such as architecture, industrial design, and environmental sciences. Information about the workshop was disseminated through various media channels, including a poster on the project Facebook page, as shown in Figure 33.



JAPAN GOV
THE GOVERNMENT OF JAPAN

MAFF
Ministry of Agriculture,
Forestry and Fisheries



MAHACHULALONGKORNAJAVIDYALAYA UNIVERSITY
SINCE 1943



MAHACHULALONGKORNAJAVIDYALAYA UNIVERSITY
SINCE 1943



ITTO



WOOD PRODUCT

ITTO Project: "Promotion of Sustainable Domestic Consumption of Wood Products in Thailand" (PD 926/22 Rev.1)



Design Concept

Design Workshop

Design Development

Technical Drawing

Design Prototyping

Design Fabrication

ขอเชิญนิสิต นักศึกษา และผู้ที่สนใจร่วม

การฝึกอบรมและออกแบบเฟอร์นิเจอร์ไม้ 2567

วันที่ 4-5 มิถุนายน 2567 เวลา 08.30 - 17.00 น.
ณ ห้อง 104 อาคารวนศาสตร์ 60 ปี
คณะวนศาสตร์ มหาวิทยาลัยเกษตรศาสตร์

“มรดกแห่งภูมิปัญญา”

สู่ “การสร้างสรรค์ผลงานชิ้นเอก”

MasterCraft to MasterPieces

ชิงเงินรางวัลรวมมูลค่า

30,000 บาท

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ลงทะเบียน

ลงทะเบียนได้ตั้งแต่วันที่
จนถึงวันที่ 31 พฤษภาคม 2567

คุณสมบัติผู้สมัคร

- นิสิต นักศึกษา หน่วยงานภาครัฐ รัฐวิสาหกิจ และผู้ที่สนใจ (กลุ่มละไม่เกิน 3 คน)
- สาขาที่เกี่ยวข้อง สาขาวิชาการออกแบบ สาขาวิชาสถาปัตยกรรม สาขาวิชาวิศวกรรม สาขาวิชาจิตวิทยา สาขาวิชาอื่น ๆ
- สามารถเข้าร่วมกิจกรรมตลอดจนดำเนินการออกแบบทุกขั้นตอน




สอบถามข้อมูลเพิ่มเติม:

อ. ดร.พิศุทธิ์ ศิริพันธุ์ (ที่ปรึกษาโครงการ) ☎ 097-1696515 ✉ E-mail: pisut2012siri@gmail.com

นางสาวเกศณีย์ เกื้อกตาทอง (เลขานุการโครงการ) ☎ 097-3137225 ✉ E-mail: ketsanee.tu@ku.th

Figure A54 Application workshop poster dissemination

Application of eligibilities was based on team 1- 3 people. This was encouraging innovation and creativity in wood product design, aiming to foster sustainable practices and support local industries. Interested participants are encouraged to register by May 31, 2024, via the provided contact information or by scanning the QR code on the event poster.

The training activities included lectures on the topics 1) Basic knowledge of teak and rubber wood, 2) Knowledge of product design principles (furniture), 3) Knowledge of human design, 4) Knowledge of wood joints techniques, and 5) Activities to learn wood joints techniques. The training project received interest from various agencies, both government agencies, state enterprises, students from various universities, totaling 16 teams, 46 people

The first day of training was based on educational session on the wooden product design (see Figure 35), where participants are actively engaged in learning about the principles of wooden furniture design, including both theoretical knowledge and practical applications. The workshop seems to be an interactive learning environment aimed at enhancing the participants' understanding and skills in this specialized area of design.



Figure A55 Opening session of the first day workshop training on the "Wooden Furniture Design 2024"



Figure 5 The wood product technology and design experts given lecture to the participants

The second day, June 5, 2024 was the practical wooden furniture design competition, which was divided into three main issues comprise: 1) design development process activities, 2) model creation activities, and 3) presentation of wooden product design to inform the judges of the origin, concept, and characteristics of the product.

The competition was structured around three main activities, each designed to assess different aspects of the design process.

1) Design development process activities

The first segment of the competition centered on the design development process. Participants were required to take their initial concepts and refine them through a series of activities. This stage emphasized the importance of iteration and problem-solving, encouraging participants to explore various design possibilities, consider functionality, aesthetics, and ergonomics, and make informed decisions on materials and construction methods. The goal was to move from a broad idea to a detailed and feasible design, showcasing their ability to think critically and creatively.

2) Model creation activities

Following the design development, participants engaged in model creation activities. This phase was hands-on, where competitors translated their designs into physical models or prototypes. The activity tested their craftsmanship, precision, and ability to work with materials. Creating a model also allowed participants to identify potential issues in their designs, such as structural weaknesses or practical difficulties, and make necessary adjustments. The models served as a tangible representation of their ideas, bringing their conceptual work into reality.

3) Presentation of wooden design products

The final component of the competition was the presentation of work. Participants were

required to present their designs and models to a panel of judges. This presentation included an explanation of the origin of their design, the underlying concept, and the characteristics of the final product. The ability to effectively communicate their design process and the rationale behind their choices was crucial. This part of the competition assessed not only the participants' design and technical skills but also their ability to articulate their vision and convince others of its value.

The structure of the competition was well-rounded, encompassing the entire design process from conceptualization to final presentation. The design development process ensured that participants were not merely executing a pre-determined plan but were actively engaged in refining and improving their ideas. The model creation activities added a layer of practicality, challenging participants to consider real-world constraints and solutions. Finally, the presentation allowed participants to showcase their communication skills, which are essential in the design industry where conveying ideas effectively can be as important as the design itself. By dividing the competition into these three distinct activities, the event provided a comprehensive assessment of each participant's capabilities. It highlighted not only their creativity and technical skills but also their ability to think critically, solve problems, and communicate effectively key attributes for success in the field of wooden furniture design



Figure 6 The Keynote speakers given idea of lecture on joinery design



Figure A58 The project consultant#2 demonstrated how to apply woodwork tools for product development



Figure A59 Design development process and the wooden model creation activities



Figure 7 The competition teams presented their wooden design products to the committee



Figure 8 The wood design experts and committee considered the finished product models of the competitor teams



Figure 9 The project committee announces the winners and gives awards



Figure 10 The winner awards and certification of the competition

Participants in the workshop

Team	Name	Organization
1	Pannawat Puyawanarak	Kasetsart University
	Pruekprom Kaewsongmueng	Kasetsart University
	Puthimeth Thamsuwan	King Mongkut's Institute of Technology Ladkrabang
2	Suphatcha Wongsamut	Kasetsart University
	Suangpassorn Duangmarn	Kasetsart University
	Prantawan Khumraksa	King Mongkut's Institute of Technology Ladkrabang
3	Kanthima Seesawai	Kasetsart University
	Korawit Khunyoosyotha	Kasetsart University
	Burasakorn Yampaka	Kasetsart University
4	Kaewkanlaya Lupakchee	Royal Forest Department
	Siriwan Kusuwan	Royal Forest Department
	Werapong Thakainet	Royal Forest Department
5	Phuwadol Phengphong	Kasetsart University
	Natthapat Srathongthian	Kasetsart University
	Nadta Makaew	Kasetsart University
6	Kraiphop Thetnariang	Kasem Bundit University
	Tinnakron Lekkamdee	Kasem Bundit University
	Tanachot Prasertsang	Kasem Bundit University
7	Phuncharat Chitsangchan	Kasetsart University
	Nattawara Chammuangpak	Kasetsart University
	Warumporn Pinwiset	Kasetsart University
8	Sithichai Worawong	King Mongkut's Institute of Technology Ladkrabang
	Karn Thainthaworn	King Mongkut's Institute of Technology Ladkrabang
	Naphat Ampapongchot	King Mongkut's Institute of Technology Ladkrabang
9	Kittaporn Sukauem	Kasetsart University
	Chutirat Liangsoonthornsit	Kasetsart University
	Napat Chatviriyakul	Kasetsart University
10	Theerayuth Malathong	Forest Industry Organization
	Pukpicha Suanchan	Forest Industry Organization
	Rosarinya Waenkaew	Forest Industry Organization
11	Pagonnon Phonjan	Kasetsart University
	Worarat Worasetsak	Kasetsart University
	Pimlapas Areerattanawech	Kasetsart University
12	Yuparat Mongkolkaensai	Kasetsart University
	Chutikan Teanjareunkul	Kasetsart University
	Praphaphon Wiangnon	Kasetsart University
13	Chanoknard Ruenggam	Kasetsart University
	Sipakarn Yomjinda	Kasetsart University
	Aitthiphon Lekdee	Kasetsart University
14	Naravich Changtor	Royal Forest Department
	Arucha Thatrattanasiri	Royal Forest Department
15	Jakaphan Boksuntia	Forest Industry Organization
	Thanut Promsupsin	Kasetsart University
16	Chayanid Iamlhek	Kasetsart University
	Yanisa Rattanasongsri	Kasetsart University
	Teeranad Duangkaew	King Mongkut's Institute of Technology Ladkrabang

Activity 2.2: Awareness of urban consumers on the role of wood used for SFM and domestic wood consumption via workshops and exhibitions

2.2.1 Field visit to Ban Sri Bun Rueang Teak Processing Community Enterprise, Santisuk District, Nan Province during 9-12 June 2024

After the completion of the wooden product design competition, the project teams, including the four teams who were winners of the 1st, 2nd, 3rd, and 4th places, visited to Ban Sri Bunruang Community Enterprise in Nan Province (Figure 43). Their visit was focused on bringing the prototypes of their award-winning wooden furniture designs to the local woodwork producers at Ban Sri Bun Rueang Teak Processing Community Enterprise.



Figure 11 The winners of four teams present the wooden product models and their inspiration

During this visit, the teams demonstrated their design prototypes, which were inspired by the need to create modern wooden furniture that caters to urban users, particularly those living in limited spaces. The designs showcased innovation and practicality, highlighting how traditional materials and craftsmanship could be adapted to meet contemporary demands.

Additionally, the winning teams actively engaged with the local producers by analyzing the existing products of the community enterprise. They provided insights into the strengths and weaknesses of these products, offering suggestions for development and improvement. This collaborative effort aimed to help the local producers modernize their offerings, making them more appealing to a broader market while preserving the community's unique craftsmanship and cultural heritage.

This initiative reflects a successful integration of contemporary design principles with traditional craftsmanship. By involving the winning teams in direct collaboration with local producers, the project not only fostered innovation but also facilitated knowledge exchange. The local producers benefited from fresh perspectives and expert feedback, enabling them to enhance their products' marketability while maintaining their cultural identity.

Moreover, this collaboration underscores the importance of community engagement in design projects. By aligning the needs of urban users with the skills and resources of local craftsmen, the project contributes to sustainable development, helping local enterprises thrive in a competitive market. The approach also demonstrates how design competitions can have a lasting impact beyond the initial event, fostering continuous improvement and adaptation in local industries.



Figure 12 The local woodwork produced wooden furniture followed by the winners' designs

Participant lists of Field visit to Ban Sri Bun Rueang Teak Processing Community Enterprise during 9-12 June 2024

No.	Name	Organization
1	Mr. Saphon Bunsemsuk	PSC
2	Mr. Suchat Kalyawongsa	PSC
3	Asst. Prof. Dr. Wirongrong Duangjai	Kasetsart University
4	Mr. Kitipong Tangkit	Kasetsart University
5	Dr. Pisut Sripant	Kasetsart University
6	Asst. Prof. Kampol Saeng-iem	Kasetsart University
7	Ms. Ketsanee Tuaktatong	Kasetsart University
8	Ms. Voratatta Sutthipak	Kasetsart University
9	Mrs. Saichon Mutarapat	Kasetsart University
10	Mr. Wirote Kullertwattana	I Kull Design Furniture
11	Mr. Som Udom	I Kull Design Furniture
12	Ms. Suphatcha Wongsamut	Kasetsart University
13	Ms. Suangpassorn Duangmarn	Kasetsart University
14	Ms. Prantawan Khumraksa	King Mongkut's Institute of Technology Ladkrabang
15	Ms. Chanoknard Ruenngam	Kasetsart University
16	Mr. Sipakarn Yomjinda	Kasetsart University
17	Mr. Aitthiphon Lekdee	Kasetsart University
18	Ms. Kanthima Seesawai	Kasetsart University
19	Mr. Korawit Khunyosyotha	Kasetsart University
20	Ms. Burasakorn Yampaka	Kasetsart University
21	Mr. Pannawat Puyawanarak	Kasetsart University
22	Mr. Pruekprom Kaewsongmueng	Kasetsart University
23	Mr. Puthimeth Thamsuwan	King Mongkut's Institute of Technology Ladkrabang
24	Mr. Yanyong Saensri	Ban Sriboonruang Teak Processing Community Enterprise
25	Mr. Eakachai Saensri	Ban Sriboonruang Teak Processing Community Enterprise
26	Ms. Thanyarat Kansen	Ban Sriboonruang Teak Processing Community Enterprise
27	Ms. Penphit Patdaeng	Ban Sriboonruang Teak Processing Community Enterprise
28	Ms. Napharee Techasena	Ban Sriboonruang Teak Processing Community Enterprise

2.2 Upgraded capacity and understanding to comply with legality requirements, forest law enforcement and certification

Achievements

2.2.1 The project team comprising Dr. Preecha Ongprasert (National Project Leader), Professor Yongyut Trisurat (Project Coordinator), Mr. Suchat Kalayawongsa and Mr. Sapol Boonsermsuk (senior experts and PSC members), Dr Suwan Tangmitcharoen (Inspector of the RFD and a PSC member), Mr. Kitipong Tangkit (Consultant # 1 Wood Use Promotion Policy), and Dr. Pisut Sripant (Consultant#2 innovative wood and wood products) visited Teak Processing Community Enterprise at Santisuk District in Nan Province on 19 May 2023. This smallholder teak plantation and community enterprise used to be a pilot site of the former ITTO teak project. The project team monitored the progress of community enterprises in terms of business achievement and discussed

their future needs.

The community proposes the need to upgrade their capacity and knowledge as follows:

- Additional tools for wood processing to improve the quality of wood products and produce modern products
- Understand and knowledge on legal permission and require documents to obtain permission from the RFD and other relevant agencies
- Basic computerized system or spreadsheet to document timber inputs, product outputs through legal supply chains and cash flow
- Marketing strategies and online advertising such as Facebook, Tik Tok, Line
- Knowledge and skills in value-added products and designs to meet the demand

In addition, the community indicated that although the article 7 of the newly amended forest act of 2019 changes the status of teak from a restricted species to a common economic species meaning teak owner is eligible to cut the planted teak, the transportation of teak log and processing still requires permission from the authorized agencies. The current system is very complicated and information demanding. In addition, the project team visited Nan Provincial Forest Management Office to discuss forest encroachment, illegal land occupation and government policies to solve these problems.





Figure A66 The project team visited Teak Processing Community Enterprise at Santisuk District in Nan Province on 19 May 2023

2.2.3 The 1st Training Workshop on Wood and Wood Products Promotion

Upon the consultation meeting with the members of Teak Processing Community Enterprise at Santisuk District in Nan Province and training need assessment on 19 May 2023, the project organized the 1st Training Workshop on Wood and Wood Products Promotion. The contents of the workshop include:

- 1) welcome and opening remarks by Director Nan Provincial NRE Office,
- 2) background and objectives of the project by the Project Coordinator,
- 3) laws and regulations related to wood processing by Mr. Chanchai Ngernthong, Nan Provincial NRE Office
- 4) national Policies to promote sustainable wood use, especially teak by Mr. Kittipong Tangkit (Consultant#1)
- 5) Value-added wood design by Dr. Pisut Sripant (Consultant#2)
- 6) Group works on documentation for wood manufacturing permission online advertising such as Facebook, Tik Tok, and Line applications.

There were 20 participants from local community wood processing factories/enterprises in Nan and Phrae provinces. After the training workshop, participants were satisfied the workshop arrangement and gained knowledge from the provided contents. They indicated that the development of online marketing platforms would enhance advertising mechanisms to broader customers. In addition, they clearly understand the legal and permission process and will share the knowledge with their colleagues.





Figure A67 The 1st Training Workshop on Wood and Wood Products Promotion in Nan Province on 19 May 2023

Activity 2.3: Awareness of urban consumers on the role of wood used for SFM and domestic wood consumption via workshops and exhibitions

Achievements:

2.3.1 The Royal Forest Department, Kasetsart University, FIO and Department of Marine and Coastal Resources jointly organize the 25 Annual Forestry Conference at Kasetsart University on 23-24 August 2023. In this connection, the organizing committee of the conference invites the project or arrange a Side Event. The project discussed with ITTO and proposed the side event on “*Sustaining Teakwood and other Valuable Tropical Timber Species Supply Chains and Trade*”, which is scheduled on 24 August 2023. The provisional agenda is shown below:

Side Event on Sustaining Teakwood and other Valuable Tropical Timber Species Supply Chains and Trade at the Thailand's Annual Forestry Conference



24 August 2023: 15.15 – 17.30

Side Event on Sustaining Teakwood and other Valuable Tropical Timber Species Supply Chains and Trade at the Thailand's Annual Forestry Conference

Moderator:	Mr. Sapol Boonsermsuk, ex-Senior Expert of the RFD
15:15 – 15:30	Awarding Value-added Wood Furniture Design (jointly present by Forest Agency of Japan, ITTO and the RFD) First winner 30,000 THB; Second Winner 20,000 THB; and Third Winner 10,000 THB
15:30 – 15:35	Welcome Remarks: Forest Agency of Japan or ITTO
15:35 – 15:50	Lesson learned from ITTO Teak project in Mekong Phase I and Way Forward: Prof. Yongyut Trisurat, Project Coordinator
15:50 – 16:05	Value Creation: Increasing the value of materials and products by design: Mr. Doonyapol Srichan - PDM Managing Director / Partner
16:05 – 16:20	Innovative Production of good quality teak seedling: Dr. Paiboolya Gavinlertvatana, President, Thai Orchids Lab Estates
16:20 – 16:35	Thailand's teak business: Mr. Sukit Chanthong, FIO Managing Director
16:35 – 16:50	Challenges and opportunities of legal wood supply chain: Perspective from wood retailers: Mr. Ekkaphong Siangphro, Phrae Wood Retailer
16:50 – 17:05	Global Tropical Timber Situation and Markets: Challenges and Opportunities: Dr. Tetra Yanuariadi, ITTO
17:05 – 17:30	Q&A and Wrap-up

During the side event, the Project invites Forest Agency of Japan, ITTO and the RFD to jointly present awards to the winners of value-added furniture design competition before starting the technical presentation.

2.3.2 The project produces a quarterly Thai-Wood Newsletters to disseminate outreach and project activities related to training material, sustainable management of teak forests and legal and sustainable supply chains. As of today, 2 issues were published:

issue 1 April:

<https://drive.google.com/file/d/1Ewc58urRAzVnZvLoRR10jgKWPKJTQEPy/view?fbclid=IwAR16TRRefHLQs6u-gc0bLh35L3WHPsdY7ZI2Gfr-rGMF8n5MV7Eel6rOhFU>

issue 2 June:

https://drive.google.com/file/d/1Cfvm_MWydjRhV9Qi_wLQAtymS8tGGz/view?fbclid=IwAR073Pih6Ee-ffSZN0mgerpQebz7dhif_wPj4phxUK2pzNZDl3WUhIXV2oI

The newsletters are available for freely downloaded.



Newsletter Issue 1 April 2023



Newsletter Issue 2 June 2023

2.3.3 The project produces a quarterly Thai-Wood Newsletters to disseminate outreach and project activities related to training material, sustainable management of teak forests and legal and sustainable supply chains. As of today, 2 issues were published:



Quarterly Issue

Thai-Wood Newsletter

กันยายน 2566 – ฉบับที่ 3
September 2023 – Volume 3

เนื้อหา

เรื่องที่ 1. การประชุมคณะกรรมการบริหารโครงการ ครั้งที่ 1 (1st PSC) p.1

เรื่องที่ 2. การจัดเสวนาเฉพาะเรื่อง (Side Event) “ห่วงโซ่อุปทานและการค้าไม้สักอย่างยั่งยืน” p.4

เรื่องที่ 3. การประชุมเชิงปฏิบัติการเรื่อง การส่งเสริมการใช้ไม้และผลิตภัณฑ์ไม้ ครั้งที่ 1 p.5

เรื่องที่ 4. การศึกษาฐานระบบโครงสร้างป่าไม้ยั่งยืน-สวีเดน p.6

จดหมายข่าว Thai Wood Newsletter จัดขึ้นเพื่อเผยแพร่ข้อมูลข่าวสารด้านการใช้ประโยชน์ไม้อย่างยั่งยืนและการดำเนินกิจกรรมของโครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้ภายใน ประเทศไทยอย่างยั่งยืน (Promotion of sustainable domestic consumption of wood products in Thailand PD 926/22 Rev.1) โดยได้รับการสนับสนุนงบประมาณจาก องค์การป่าไม้เขตร้อนนานาชาติ (ITTO) และ สหกรณ์ป่าไม้ประเทศญี่ปุ่น (The Forestry Agency of Japan)

Thai Wood Newsletter เป็นจดหมายข่าวรายไตรมาส (Quarterly Issue) จัดทำโดยคณะวนศาสตร์ มหาวิทยาลัยเกษตรศาสตร์ และกรมป่าไม้ ผู้สนใจสามารถ download ได้ที่ Facebook page : ITTO SUSTAINABLE WOOD USE IN THAILAND

รายละเอียดเพิ่มเติมติดต่อ

ดร. ปรีชา อังค์ประเสริฐ
(ongprasertpreecha@gmail.com)
ผอ. สำนักการป่าไม้ต่างประเทศ กรมป่าไม้
หรือ ศ.ดร. ยงยุทธ ใสสุรัตน์
(fforyyt@ku.ac.th) ผู้จัดการโครงการ

การประชุมคณะกรรมการบริหารโครงการ ครั้งที่ 1 (1st PSC)



การประชุมคณะกรรมการบริหารโครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน PD 926/22 Rev.1 (I) ครั้งที่ 1

วันที่ 25 สิงหาคม 2566 ณ โรงแรมราม่า การ์เดน กรุงเทพมหานคร

โครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน Promotion of sustainable domestic consumption of wood products in Thailand นำโดย ศ.ดร.ยงยุทธ ใสสุรัตน์ คณะวนศาสตร์ มหาวิทยาลัยเกษตรศาสตร์ทำหน้าที่เป็น Project Coordinator และ ดร. ปรีชา อังค์ประเสริฐ ผู้อำนวยการสำนักการป่าไม้ต่างประเทศ กรมป่าไม้ ทำหน้าที่เป็น National Project Leader ได้จัดการประชุมคณะกรรมการบริหารโครงการส่งเสริม การใช้ผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน PD 926/22 Rev.1 (I) ครั้งที่ 1 ณ โรงแรมราม่า การ์เดน โดยมีหน่วยงานเข้าร่วมประชุม ประกอบด้วย กรมป่าไม้ องค์การอุตสาหกรรมไม้ การเคหะแห่งชาติ การยางแห่งประเทศไทย มหาวิทยาลัยเกษตรศาสตร์ สมาคมธุรกิจไม้ และผู้ทรงคุณวุฒิทางด้านป่าไม้



page-1



Figure A68 Newsletter Issued on 3 September 2023:

The newsletters are available for freely downloaded.

<https://drive.google.com/file/d/13tY65wFGOK5TKuTY8GTJq1fNXy1XaLb9/view?usp=sharing>



Quarterly Issue

Thai-Wood Newsletter

ธันวาคม 2566 – ฉบับที่ 4
December 2023 – Volume 4

เนื้อหา

เรื่องที่ 1. การประชุมสภาองค์การไม้เขตร้อนระหว่างประเทศ ครั้งที่ 59 (The 59th International Tropical Timber Council-ITTC 59) p.1

เรื่องที่ 2. การประชุมหารือร่วมกับบริษัทปูนซีเมนต์ไทย จำกัด (มหาชน) เรื่อง แนวทางการปลูกสร้างสวนป่าสัก p.5

จดหมายข่าว Thai Wood Newsletter จัดขึ้นเพื่อเผยแพร่ข้อมูลข่าวสารด้านการใช้ประโยชน์ไม้อย่างยั่งยืนและการดำเนินการกิจกรรมของโครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน (Promotion of sustainable domestic consumption of wood products in Thailand PD 926/22 Rev.1) โดยได้รับการสนับสนุนงบประมาณจากองค์การป่าไม้เขตร้อนนานาชาติ (ITTO) และสถาบันป่าไม้ประเทศญี่ปุ่น (The Forestry Agency of Japan)

Thai Wood Newsletter เป็นจดหมายข่าวรายไตรมาส (Quarterly Issue) จัดทำโดยคณะวนศาสตร์ มหาวิทยาลัยเกษตรศาสตร์ และกรมป่าไม้ ผู้สนใจสามารถ download ได้ที่ Facebook page : ITTO SUSTAINABLE WOOD USE IN THAILAND

รายละเอียดเพิ่มเติมติดต่อ

ดร. ปรีชา องค์กรประเสริฐ
(ongprasertprecha@gmail.com)
ผอ. สำนักการป่าไม้ต่างประเทศ กรมป่าไม้
หรือ ผศ.ดร. วิรงรอง ดวงใจ
(wirongrong.d@ku.th) ผู้จัดการโครงการ

การประชุมสภาองค์การไม้เขตร้อนระหว่างประเทศ ครั้งที่ 59 (ITTC 59)



การประชุมสภาองค์การไม้เขตร้อนระหว่างประเทศ ครั้งที่ 59 (The 59th International Tropical Timber Council-ITTC 59) ระหว่างวันที่ 13 - 17 พฤศจิกายน 2566 ณ โรงแรมดุสิต พัทยา จังหวัดชลบุรี

โครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน (Promotion of sustainable domestic consumption of wood products in Thailand) นำโดย ศ.ดร.ยงยุทธ ไตรสุรรัตน์ ผศ.ดร.วิรงรอง ดวงใจ (Project Coordinator) ผศ.ดร.พฤกษ์ ราชรักษ์ คณะวนศาสตร์ มหาวิทยาลัยเกษตรศาสตร์ และ ดร.ปรีชา องค์กรประเสริฐ (National Project Leader) ผู้อำนวยความสะดวกสำนักการป่าไม้ต่างประเทศ กรมป่าไม้ ได้เข้าร่วมการประชุมสภาองค์การไม้เขตร้อนระหว่างประเทศ ครั้งที่ 59 (The 59th International Tropical Timber Council-ITTC 59) ระหว่างวันที่ 13-17 พฤศจิกายน 2566 ณ โรงแรมดุสิต พัทยา จังหวัดชลบุรี



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Figure 29 Newsletter Issued on 4 December 2023

The newsletters are available for freely downloaded.

https://drive.google.com/file/d/1oPiMMRylE15WVQEGb_8PVnhZ_vxQXeAb/view?usp=sharing



Figure A69 Newsletter Issued in August and December 2024:

The newsletters are available for freely downloaded.

Source: https://drive.google.com/drive/folders/1w55dmHWVvJEpvenGTuz181FAwce_iG4q

2.3.1 Outreach and project activities dissemination

The project produces a quarterly Thai-Wood Newsletters to disseminate outreach and project activities related to training material, sustainable management of teak forests and legal and sustainable supply chains.



Quarterly Issue Thai-Wood Newsletter

เมษายน 2567 - ฉบับที่ 5
April 2024 - Volume 5

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จดหมายข่าว Thai Wood Newsletter จัดขึ้นเพื่อเผยแพร่ข้อมูลข่าวสารด้านการใช้ประโยชน์ไม้ อย่างยั่งยืนและการดำเนินกิจกรรมของโครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้ภายในประเทศไทย อย่างยั่งยืน (Promotion of sustainable domestic consumption of wood products in Thailand PD 926/22 Rev.1) โดยได้รับการสนับสนุนงบประมาณจากองค์กรป่าไม้เขตร้อนนานาชาติ (ITTO) และสถาบันป่าไม้แห่งประเทศไทย (The Forestry Agency of Japan)

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รายละเอียดเพิ่มเติมติดต่อ

ดร. ปรีชา องค์กรประเสริฐ
(ongprasertprecha@gmail.com)
ผอ. สำนักการป่าไม้ต่างประเทศ กรมป่าไม้
หรือ ผศ.ดร. วรกรรอง ดวงใจ
(wirongrong.d@ku.th) ผู้จัดการโครงการฯ



การฝึกอบรมเชิงวิชาการเรื่อง “การส่งเสริมการใช้ไม้และผลิตภัณฑ์ไม้ ครั้งที่ 2”

ระหว่างวันที่ 10-11 มกราคม 2567
ณ ศูนย์ส่งเสริมฝีมือแรงงาน และวิสาหกิจชุมชนงานไม้บ้านดอนมูล จังหวัดแพร่

โครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน (Promotion of sustainable domestic consumption of wood products in Thailand) นำโดย ศ.ดร.ยงยุทธ โตรสรัตน์ ผศ.ดร.วรกรรอง ดวงใจ ผู้จัดการโครงการฯ นายสุชาติ กัลยาวงศา คณะกรรมการบริหารโครงการฯ พร้อมด้วย อาจารย์กิตติพงษ์ ตั้งกิจ และดร.พิศกฤต ศิริพันธุ์ ที่ปรึกษาโครงการฯ ได้ดำเนินการฝึกอบรมเชิงวิชาการ “การส่งเสริมการใช้ไม้และผลิตภัณฑ์ไม้ ครั้งที่ 2” ระหว่างวันที่ 10-11 มกราคม 2567 ณ ศูนย์ส่งเสริมฝีมือแรงงาน และวิสาหกิจชุมชน-งานไม้บ้านดอนมูล อำเภอสูงเม่น จังหวัดแพร่ โดยมีผู้เข้าร่วมจากโรงงานหรือสถานประกอบการแปรรูปไม้ชุมชนท้องถิ่นในจังหวัดแพร่ เชียงใหม่ จุฬารัตน์ และน่าน จำนวน 40 คน



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Figure 13 Newsletter Issued in April 2024:

The newsletters are available for freely downloaded.

Source: https://drive.google.com/drive/folders/1w55dmHWVvJEpvenGTuz181FAwce_iG4q

Activity 2.4: Strengthened partnerships and communication between wood producers and wood consumers at all levels (household to international business)

Activity 2.1: Advanced skills to design and develop wood products to meet domestic market demands

2.2.1 The 2nd workshop on Promoting the Use of Wood and Wood Products had been arranged by Dr.Pisut Sripant and the SWU project team on January 11th, 2023, at the Community Woodwork Enterprise Learning Center in Ban Don Mun Community.

The workshop, aimed at sustainable domestic use of wood products in Thailand, featured lectures on design approaches to meet the demands of modern users and practical sessions on the production process, including hands-on experience with disassembling and assembling equipment at the Community Woodwork Enterprise Learning Center in Phrae Province, with 40 participants from community enterprises, wood entrepreneurs in Phrae and Nan provinces.

The workshop focused on promoting the use of wood and wood products, offering lectures on designing appealing products to meet modern users' needs, and explaining the production process and the origins of various product ratios. Practical sessions included training on product making and the use of equipment for assembly and disassembly.



Figure A71 Introducing principles of product design to the participants



Figure A72 The participants are using scrap teak wood for producing a decoration model



Figure A73 The participants are inspiring the new teak wood product design



Figure A74 The SWU Project Certification Preparation for the Participants

This workshop was instrumental in advancing the domestic wood industry by focusing on sustainable practices and modern design approaches. Below are the key achievements and insights from this initiative:

Achievements and Insights:

- Enhancing design and production skills: the workshop successfully imparted advanced skills in designing and producing wood products that cater to the demands of modern consumers. By emphasizing design innovation and practical production techniques, participants were equipped with the necessary tools to create products that are both aesthetically pleasing and functional.
- Focus on sustainable use of wood products: a significant focus of the workshop was on promoting the sustainable use of wood and wood products. Lectures and practical sessions underscored the importance of sustainability in design and production processes, aligning with global trends towards environmental responsibility and conservation.
- Hands-on practical experience: participants gained valuable hands-on experience through practical sessions that included disassembling and assembling equipment. This hands-on approach not only enhanced their technical skills but also provided a deeper understanding of the entire production process, from design conception to finished product.
- Community and entrepreneurial engagement: by involving community enterprises and wood entrepreneurs from Phrae and Nan Provinces, the workshop fostered a sense of community and collaboration among participants. This engagement is crucial for the collective growth and innovation within the local wood industry, encouraging knowledge sharing and networking among peers.

Impact on Domestic Market Demands:

- The workshop's focus on designing products to meet the demands of modern users is particularly impactful for the domestic market. By equipping participants with the skills to innovate and adapt to changing consumer preferences, the initiative contributes to the development of a more dynamic and responsive wood industry in Thailand. Products that combine traditional craftsmanship with modern design can cater to a wider range of consumers, enhancing market competitiveness and fostering economic growth within the sector.

Activity 2.2: Upgraded capacity and understanding to comply legality requirements, forest law enforcement and certification

Achievements:

2.2.1 The Project aims at conducting two training workshops to increase capacity and understanding to comply with legality requirements, forest law enforcement and forest certification.

Mr. Kittipong Tangkit (Consultant # 1) Wood Use Promotion Policy had organized the first workshop training on the tilted policies and laws related to forest management, forest plantation and community forestry in Thailand this workshop will be lead implement to the 2nd Training Workshop on Wood and Wood Products Promotion as part of Dr. Pisut Sripant for contributing his professional career to guide the community on wood processing and new technologies for modern design. Upon the two workshops with the members of Teak Processing Community Enterprise at Sung Men District in Phare Province on 10 - 11 January 2024, the contents of the workshop include activities of stakeholders work collaboration:

- 1) Provincial policy implementation and process on local timber wood trading by The Former Director of the Research and Development Office, Royal Forest Department
- 2) Laws and regulations related to wood processing by the Phrae Provincial NRE Officer
- 3) National policies to promote sustainable wood use, especially teak by Mr. Kittipong Tangkit (Consultant#1)
- 4) Designing wood products to suit modern users by Dr. Pisut Sripant (Consultant#2)
- 5) Process of wood finishing practices by the head of timber wood company
- 6) Group works on timber wood product design.

There were 40 participants from local community wood processing factories/enterprises in Phrae, Chiang Mai, Uttaradit, and Nan provinces. After the training workshop, participants were satisfied with the workshop arrangement and gained knowledge from the provided contents. They indicated the development of wood finishing tips & techniques. In addition, they clearly understand the legal and permission process and will share the knowledge with their colleagues.

The operational activities and academic training on promoting the use of wood and wood products were conducted at the Phrae Province Labor Skills Development Center on January 10, 2024. The "Promotion of Sustainable Domestic Consumption of Wood Products in Thailand ITTO Domestic Consumption of Wood Products Project," led by Professor Yongyut Trisurat as the Project Coordinator, with Mr. Suchat Kalyawongsa from the project management committee, along with instructors Mr.Kitipong Tangkij and Dr. Pisut Siripant, project advisors, organized the second workshop on promoting the use of wood and wood products. The workshop featured lectures on designing appealing products that meet the needs of modern consumers.





Figure A75 Academic training session on promoting the use of wood and wood products at the Phrae Province Labor Skills Development Center

Key Achievements:

- Comprehensive training on legal compliance and sustainable practices: the workshops provided in-depth training on policies, laws related to forest management, plantation, community forestry, and sustainable wood use, particularly focusing on teak. This comprehensive approach ensured that participants received a holistic understanding of both legal and sustainable practices relevant to their operations.
- Engagement of expert knowledge: with contributions from experts like Mr. Kittipong Tangkit and Dr. Pisut Sripant, the workshops leveraged professional insights into national policies, design innovation, and wood processing technologies. This expert engagement was crucial for delivering high-quality, applicable content to the participants.
- Practical learning and collaboration: The workshops emphasized hands-on learning through group works on timber wood product design and wood finishing practices. This practical approach not only facilitated the application of theoretical knowledge but also encouraged collaboration among participants from different provinces, fostering a community of practice within the industry.
- Increased awareness and knowledge sharing: participants expressed satisfaction with the

workshop arrangements and the knowledge gained, particularly in areas like wood finishing techniques and legal compliance. The commitment to share this knowledge with their colleagues indicates a ripple effect, potentially leading to wider industry compliance and innovation.

Impact on Industry Compliance and Certification:

The workshops' focus on legality requirements, forest law enforcement, and certification is timely and critical, given the global emphasis on sustainable and legal wood sourcing. By equipping participants with the necessary knowledge and skills to comply with these requirements, the initiative directly contributes to enhancing the legal and sustainable credentials of Thailand's wood industry. This, in turn, is likely to improve market access for Thai wood products, especially in environmentally conscious markets.

Moreover, the emphasis on designing products to meet modern needs, while also adhering to sustainable practices, positions the Thai wood industry to capitalize on the growing demand for eco-friendly and legally sourced wood products. This alignment with global market trends not only benefits the environment but also offers a competitive edge to Thai wood enterprises.

Activity 2.3: Awareness of urban consumers on the role of wood used for SFM and domestic wood consumption via workshops and exhibitions

2.3.1 The 59th International Tropical Timber Council (ITTC 59) took place from November 13th to 17th, 2023, at the Dusit Hotel in Pattaya, Chonburi Province.

The participation of the project team in the 59th International Tropical Timber Council (ITTC 59) held in Pattaya, Chonburi Province, from November 13th to 17th, 2023, represents a strategic initiative towards raising awareness among urban consumers about the role of wood used for Sustainable Forest Management (SFM) and promoting domestic wood consumption. This event provided an excellent platform for the project, led by notable figures such as Prof Yongyut Trisurat, Assoc. Prof. Wirongrong Duangjai, Assoc. Prof. Dr. Phruet Racharak, and Dr. Preecha Ongprasert, to showcase Thailand's efforts and commitment towards sustainable forestry practices and the sustainable domestic consumption of wood products.



Figure A76 Participating in the International Tropical Timber Council (ITTC 59)



Figure A77 The project exhibition at ITTC 59th

Key Achievements:

- International exposure: the event brought together representatives from over 75 member countries of the International Tropical Timber Organization, offering an unparalleled opportunity to present Thailand's initiatives to an international audience. This exposure is crucial for sharing knowledge, experiences, and best practices in sustainable forest management and wood consumption.
- Showcasing projects: by presenting three significant projects funded by the ITTO, the team effectively highlighted Thailand's active role in enhancing conservation, sustainable management of forests, and the development of sustainable wood supply chains. These projects are:
 - 1) Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region (Teak Project I)
 - 2) Promotion of sustainable domestic consumption of wood products in Thailand (SWU project).
 - 3) Promoting Quality Timber Production in Smallholders and Community-based Teak and Other Valuable Species Plantations in the Tropics (Teak Project II)
- Raising awareness: the exhibition booth served as a focal point for disseminating information on the impact of teak and Siamese rosewood export, and the broader implications for sustainable forestry and wood consumption practices. This initiative was instrumental in educating urban consumers and international stakeholders about the significance of sustainable

wood use and its benefits for economic, social, and environmental well-being.

- Fostering international forestry cooperation: participating in ITTC 59th emphasized Thailand's commitment to international cooperation in forestry, aligning with ITTO's objectives to sustainably develop and trade tropical timber. This cooperation is vital for addressing global challenges in forestry management and promoting sustainable practices worldwide.

Impact on Urban Consumer Awareness and Sustainable Wood Consumption

The project's activities at ITTC 59th play a critical role in bridging the gap between sustainable forest management practices and urban consumer awareness. By engaging directly with an international audience and showcasing Thailand's initiatives, the project not only highlights the country's commitment to sustainability but also educates consumers on the importance of supporting sustainable wood products. This awareness is crucial for driving demand for sustainably sourced wood, thereby encouraging more responsible forestry practices and consumption patterns.

Moreover, the focus on urban consumers is particularly important as they represent a significant market segment whose choices can influence market trends and production practices. Educating these consumers about the environmental, social, and economic benefits of sustainably managed wood products can lead to increased demand for such products, ultimately supporting conservation efforts and sustainable forest management.

2.2.2 A session of the Joint Committees on Economics, Statistics and Markets and Forest Industry on day 3 of the 59th session of the International Tropical Timber Council.

Dr Hwan-ok Ma, Officer-in-Charge of Forest Management Division of ITTO, invited Prof. Yongyut Trisurat to present the Management of the Emerald Triangle Protected Forests Complex for Transboundary Biodiversity Conservation. This presentation was share at the side event on Enriching Biodiversity in Production Landscapes through Sustainable Forest Management in the Tropics of the 18th UNFF: held in New York in May 2023. Presented key achievements of the ITTO-BMEL Teak in Mekong. This project was funded by the Ministry of Food and Agriculture (BMEL), Germany. Reported the progress of the ITTO Project Promotion of sustainable domestic consumption of wood products in Thailand (PD 926 / 22 Rev.1 (I)). This project is funded by the Forestry Institute of Japan. And presented ITTO-BMEL Project Promoting Quality Timber Production in Smallholders and Community-based Teak and Other Valuable Species Plantations in the Tropics” (PP-A/54-331A) or the ITTO-BMEL Teak Phase II. The project arears cover 5 countries in the Asia-Pacific and Togo in West Africa. This project is aligned with the UN South-South Cooperation.





Figure A78 The Presentation of Work progress and The Project Implementation

In addition to the meetings, Thailand has also organized for member countries to study visits covering the wood supply chain, the system guaranteeing the legality of Thai wood, forest management, the Chain of Custody (CoC) system for wood product movement, forest checkpoints, and the import-export of wood and wood products. Through this, Thailand hopes that the ITTC59 meeting will demonstrate the country's intention towards sustainable forest resource management by fostering international forestry cooperation at a regional level. This aligns with the operational approach of the green economy, circular economy, and the bioeconomy, or BCG Model.

Key Highlights:

Transboundary Biodiversity Conservation: Prof. Yongyut Trisurat's presentation on the management of the Emerald Triangle Protected Forests Complex underscores the importance of transboundary efforts in biodiversity conservation. This case study, shared at the side event of the 18th UNFF in New York, exemplifies how SFM practices can be integrated with biodiversity conservation objectives, particularly in transboundary landscapes.

ITTO-BMEL Teak in Mekong: The achievements of the ITTO-BMEL Teak in Mekong project, funded by the Ministry of Food and Agriculture (BMEL), Germany, illustrate the potential of international collaboration in enhancing the conservation and sustainable management of teak forests in the Greater Mekong Sub-region. This project serves as a model for combining conservation efforts with sustainable wood production.

Sustainable Domestic Consumption of Wood Products: The progress of the ITTO Project on promoting sustainable domestic consumption of wood products in Thailand, funded by the Forestry Institute of Japan, highlights the ongoing efforts to encourage the use of sustainably sourced wood within Thailand. This project is crucial for fostering a domestic market that values and prioritizes sustainability.

ITTO-BMEL Teak Phase II: This project, covering five countries in the Asia-Pacific and Togo in West Africa, showcases the global scope of efforts to promote quality timber production among smallholders and community-based plantations. The alignment with the UN South-South Cooperation emphasizes the role of international partnerships in addressing the challenges of sustainable forestry and timber production.

Implications and Impact

Demonstration of Thailand's Commitment: The comprehensive presentation of these projects and the organization of study visits for member countries signify Thailand's dedication to sustainable forest resource management. By showcasing its systems for ensuring the legality of Thai wood, forest management practices, and the Chain of Custody (CoC) system, Thailand positions itself as a leader in integrating sustainable practices with economic development.

Fostering International Forestry Cooperation: These initiatives underscore the importance of international cooperation in advancing SFM and biodiversity conservation. By sharing its experiences and successes, Thailand contributes to a global exchange of knowledge and practices that can inspire similar actions in other countries.

Supporting the Green, Circular, and Bioeconomy (BCG Model): The alignment of these projects with the principles of the green economy, circular economy, and bioeconomy, or BCG Model, highlights the multifaceted approach required to achieve sustainability in the forestry sector. This approach not only addresses environmental concerns but also promotes economic development and social well-being.





Figure A79 Site visited to Teak Plantation of the private sector as smallholder in Thailand

Activity 2.4: Strengthened partnerships and communication between wood producers and wood consumers at all levels (household to international business)

Achievements: Strengthened partnerships

2.4.1 Brainstorming activity and sharing experiences among the Thai's experts on long rotation-timber species, Teak had been issued as priority timber species on the discussion. On 18 January 2024, with collaboration of The Knowledge Hub for Integrated Economic Trees: Plantations Establishment, Management, Utilization, and Industry (HUB-ET Project) from the Faculty of Forestry, Kasetsart University, and the project of promotion of sustainable domestic consumption of wood products (SWP), invited the delegates from different organizations involved in encouraging and promoting timber production and utilization from the private sector, government agencies, and academic institutions to share their knowledge and experiences.



Figure A80 Thai's experts and International academic staff for long rotation-timber species

Achievements: Strategies and next steps

For over 50 years of teak forest planting, maintenance, and management, the principal characteristics of teak were identified: light-demanding species, periodic growth, intolerance to flooding, and coppicing ability. Successful teak cultivation relies on site quality, management, and genetics, with site selection being paramount.

Strategies for Transforming the Timber Industry in Thailand

- Support a primary hosting agency for promoting economic timber and the timber industry comprehensively.
- Form a national committee for driving economic timber and timber industry advancements.
- Expedite the revision of regulations that hinder the timber industry's promotion.
- Implement incentives to boost economic timber planting and industry investments.
- Elevate industry standards to enhance international trade competitiveness.
- Allocate areas for economic timber planting and industry promotion.

- Increase investments in technology and innovation and promote their application.
- Develop and enhance skills of personnel and craftsmen.
- Create a large database for easy access and correct information utilization by stakeholders.
- Encourage the use of plantation timber and domestic timber products under the concept of *"Using plantation timber supports Thais and the global population."*

Limitations and Challenges

- Lack of policy and economic research related to teak.
- Discontinuity in teak research and knowledge development.
- Insufficient research funding and the need for new researchers.
- Difficulties in applying research findings to the public.
- Lack of integrated knowledge.
- Absence of research on changing global conditions and environments.

Opportunities and Recommendations

- Increase research funding and personnel.
- Collaborate with related research organizations, both domestic and international, such as JIRCAS, FFPRI, NRCT, NSTDA, IUFRO, related academic institutions (Faculty of Forestry, Kasetsart University), TeakNet, ITTO, etc.
- Implement systems to apply research and development findings to target groups such as small-scale farmers, large forest owners, community enterprises, and teak product users.
- Update policies, laws, and regulations to support teak planting, utilization, and related businesses domestically and internationally.
- Forestry planting and utilization can reduce/mitigate global warming issues.

For large private sectors interested in initiating forestry businesses, considering the return on investment and the value of selling and increasing teak planting is essential. The teak industry's direction requires pushing for export-friendly laws and increasing the use of small-sized teak domestically. Recommendations include creating a central teak market, promoting relationships between planting, utilization, and export, and focusing on ecosystem-based service planting for sustainability. Promoting a diverse mixed planting approach in teak areas using ecological data for management could respond to sustainable development goals, emphasizing ongoing public education on correct teak planting practices. In India, where extensive teak planting areas exist with over 50-year harvesting cycles, further management recommendations include spacing plants further apart to improve quality and reduce harvest frequency. Additionally, promoting other long-cycle timber types as new industry alternatives and studying target groups for economic timber planting for future promotion were discussed.

Future Consultation and next steps

1. Consider adding other timber species along the teak as alternatives for users.
2. Identify target groups for long rotation timber species planting, including large and small-scale farmers, and research their planting locations for future promotion efforts.
3. The project with support from ITTO can increase the capacity building in Thai's society for enhancing timber production with higher both quantity and quality.



Figure A81 the meeting of network of HUB-ET Project and ITTO members

Achievements and Strategies:

Collaborative efforts have yielded significant insights into the planting, management, and utilization of teak, identifying its principal characteristics and the critical factors for successful cultivation. The strategies proposed to transform the timber industry in Thailand include supporting a primary hosting agency, forming a national committee, revising regulations, implementing incentives, enhancing industry standards, and encouraging the use of plantation timber. These strategies are aimed at creating a more sustainable, competitive, and innovative timber industry.

Limitations, challenges, and opportunities: the acknowledgment of limitations and challenges such as lack of policy and economic research, discontinuity in research, insufficient funding, and the absence of integrated knowledge highlights the areas that need immediate attention. Addressing these challenges through increased research funding, collaboration with domestic and international research organizations, and updating policies and regulations can pave the way for a more robust and sustainable timber industry.

Recommendations and future steps: the recommendations for promoting a diverse mixed planting approach, focusing on ecosystem-based service planting, and considering other long-rotation timber species as new industry alternatives signify a forward-looking perspective that aligns with global sustainability goals. The emphasis on public education on correct teak planting practices, along with the recommendation to study target groups for economic timber planting, indicates a holistic approach to industry development.

Implications for Sustainable Development: The approach taken by Thai experts and stakeholders reflects a deep understanding of the need for sustainable development within the timber industry. By focusing on sustainable domestic consumption, enhancing partnerships at all levels, and fostering a competitive and innovative industry, Thailand is setting a precedent for integrating economic growth with environmental sustainability and social well-being. This initiative not only contributes to the country's green economy but also aligns with global efforts to mitigate climate change and promote sustainable land use.

2.4.2 Preparation in drafting of Memorandum of Understanding (MOU) Thai-Sweden partners to support Forest Industry Structure and sustainable forestry development of Thailand as part of the SWU project achievement.

Based the meeting of all relevant stakeholders involved in the development of Thailand's sustainable forest management system for the wood industry structure convened. The stakeholders comprised governmental agencies, private sector entities, educational institutions, qualified individuals, international organizations, both within Thailand and abroad.

The purpose of the meeting was to consult and deliberate on the modalities of promoting cooperation in the Thai-Swedish wood industry structure and the sustainable forest management system development in Thailand. Additionally, the meeting aimed to monitor progress and present necessary data for Thailand's wood industry structure development, including establishing and setting standards for wood structure products currently available and future demands. Furthermore, the meeting included assessing the readiness to transfer knowledge in forestry and wood industries from Sweden to Thailand, as well as exploring funding readiness for Thai-Swedish wood industry structure development.

Finally, participants collectively reviewed the draft project for establishing the wood industry in Thailand and developing Thailand's sustainable forest management system to its ideal state.

The fact-based perspective reveals that Sweden stands out for its diverse forestry practices and its notable advancements in the timber industry, as well as its efforts to expand forested areas and uphold environmental conservation through robust policies. For instance, Sweden boasts a remarkable increase, from 20% to 30%, in the construction rate of aesthetically designed large wooden buildings, reflecting a direction towards environmentally friendly construction materials. Wood, being a natural resource, aligns well with environmental sustainability as it can be reused. The sustainable urban trend of "Wood Cities" in Sweden and globally is gaining momentum. Building with wood structures incurs

lower costs compared to concrete, and the development of fire-resistant wood structure technologies meets standardized safety requirements. Consequently, Sweden places significant emphasis on forest development, afforestation, and the extensive utilization of wood resources, which are often innovatively leveraged to create added value.

Conversely, Thailand possesses a significantly greater diversity of wood species and experiences faster tree growth rates compared to Sweden, approximately 7-8 times faster. This presents a considerable advantage in maximizing the benefits derived from wood utilization. However, Thailand still lacks the requisite knowledge base and effective policy frameworks and practices for the sustainable management and utilization of wood resources to their fullest potential.

Therefore, the consensus reached at the meeting is to collectively undertake initiatives to promote cooperation in the Thai-Swedish wood industry structure and the continuous development of Thailand's sustainable forest management system. This aims to elevate the importance of expanding the country's green areas, fostering forestation for conservation and utilization purposes, maintaining environmental balance, enhancing sustainability in forest resource management and environmental conservation, and utilizing technology and innovative concepts to enhance motivation in building the wood industry while advancing the concept of "*Cutting Trees Responsibly: Sustainable Value.*"

Achievements:

The draft Memorandum of Understanding (MoU) is a comprehensive document aimed at fostering cooperation between Thai and Swedish partners to support the structure of the forest industry and sustainable forestry development in Thailand. This initiative, which emerged from the success of the Thailand and Sweden Sustainability Week project, underscores the commitment of both countries to sustainable development, particularly in the realm of forest management and wood industry structure (See details in Annex 11).

The MoU meticulously outlines objectives, operational strategies, scopes of cooperation, roles and responsibilities, duration of implementation, termination conditions, intellectual property rights, confidentiality, and public relations. It demonstrates a strategic approach to leveraging the comparative advantages of both Thailand and Sweden in forestry and wood industry development.

- *Objectives and Operational Strategies:* the MoU sets forth clear objectives and operational strategies, including the development of sustainable forestry, the establishment of a value chain in the modern wood building construction industry, and the promotion of sustainable cities utilizing wood as a primary material. This approach not only aims at environmental sustainability but also at economic growth and social development through reforestation efforts and the development of the wooden construction industry.
- *Scope of Cooperation and Roles and Responsibilities:* the scope of cooperation defined in the MOU ensures a multi-stakeholder approach, involving government agencies, the private sector, and educational institutions. This collaborative effort is crucial for the success of the project, ensuring that policies, research, and workforce development are integrated and mutually reinforced. The detailed roles and responsibilities for each stakeholder category underline the importance of a coordinated effort in achieving the MOU's objectives.
- *Duration, Termination, and Intellectual Property:* the MoU outlines a five-year duration with provisions for extension, indicating a long-term commitment to the goals set forth. The inclusion of detailed clauses on intellectual property and confidentiality underscores the importance of protecting the innovations and knowledge generated through this cooperation. This aspect is particularly relevant in fostering an environment of trust and mutual benefit

among the parties involved.

- *Confidentiality and Public Relations.* the provisions for confidentiality and public relations reflect an understanding of the importance of maintaining the integrity of sensitive information while also recognizing the need for transparency and public awareness of the collaborative efforts and achievements.

Output 2: Stakeholder capacity built to produce innovative wood and wood products needed by domestic markets

1) *Awareness of urban consumers on the role of wood used for SFM and domestic wood consumption via workshops and exhibitions*

The representatives of the project in Thailand participated in the exhibition on woodworking at the *"Thailand International Woodworking & Furniture Exhibition 2024"*

Date: September 18-20, 2024 **Time:** 10:00 AM – 6:00 PM

Venue: Hall 11, IMPACT Exhibition and Convention Center, Muang Thong Thani, Bangkok

The "Thailand International Woodworking & Furniture Exhibition 2024" (TIWF 2024) is an international trade fair and seminar focusing on technology, machinery, materials, and emerging trends in the woodworking and furniture industry. The event will feature cutting-edge innovations in the woodworking sector, along with expert-led seminars and hands-on workshops. It will also include a technology demonstration zone, a sustainable forestry initiative, and business networking opportunities. The event is supported by the Ministry of Natural Resources and Environment and is expected to host over 150 brands and welcome more than 4,000 visitors from across the ASEAN region.

The Promotion of Sustainable Domestic Consumption of Wood Products in Thailand Project, led by representatives from the Faculty of Forestry: Mr. Kitipong Tangkit and Dr. Pisut Siripant (Project Advisors), and Ms. Woratatha Suthipak (Project Financial Officer), and representative of Royal Forest Department – Mr. Boonsuthee Jirawongphanich, Director of the Forest Economics Office, Royal Forest Department, participated in organizing showcases of the designed wood products in the exhibition at TIWF 2024. This international trade fair and seminar for woodworking machinery, technology, and furniture manufacturing will be held from September 18-20, 2024, at Hall 11, IMPACT Exhibition and Convention Center, Muang Thong Thani.

Key highlights of The Thailand International Woodworking & Furniture Exhibition 2024 (TIWF 2024) featured a diverse range of activities designed to promote innovation, sustainability, and collaboration in the woodworking and furniture industry. A key component of the event was the Business Matching Program, which facilitated pre-arranged B2B meetings between buyers and exhibitors, creating valuable opportunities for industry stakeholders to establish new partnerships and explore market expansion.



Figure A82 Mr. Boonsuthee Jirawongphanich, Director of the Forest Economics Office, Royal Forest Department, Mr. Kitipong Tangkit and Dr. Pisut Siripan (SWU Project Advisors) participated in organizing showcases of the designed wood products in *Thailand International Woodworking & Furniture Exhibition 2024*

The event also hosted Industry Expert Seminars, bringing together specialists from Thailand and across the globe to discuss the latest trends, innovations, and advancements in woodworking. These sessions provided insights into emerging technologies, sustainable materials, and modern design approaches for woodworking, furniture, and architectural applications. Another major attraction was the Exhibition Pavilion, which showcased a wide array of products from both Thai and international exhibitors. Complementing this, the Technology Demonstration Zone highlighted cutting-edge innovations and newly developed materials within the wood industry, offering attendees a firsthand look at the future of woodworking technology. Sustainability was a core focus of the event, exemplified by the Sustainable Forest Restoration Project, organized under the theme “Greening the

Wood Industry.” This initiative underscored the importance of responsible forestry practices and their role in ensuring long-term environmental benefits.



Figure A83 The designed wood products of the SWU Project showcased in *International Woodworking & Furniture Exhibition 2024*

The event also served as a Knowledge and Innovation Exchange Platform, fostering collaboration between government agencies and private sector stakeholders. Through panel discussions and interactive sessions, participants were able to share best practices, explore policy frameworks, and identify new opportunities for sustainable industry growth. To further enhance engagement, a Business Networking Reception was held, providing professionals with a relaxed setting to connect, exchange ideas, and discuss future collaborations. This networking opportunity strengthened relationships within the industry and encouraged ongoing dialogue on sustainable and innovative woodworking solutions.

Key Achievements of the project

Regarding the raising awareness among urban consumers on sustainable forest management (SFM) and domestic wood consumption through workshops and exhibitions, one of the key achievements of the Promotion of Sustainable Domestic Consumption of Wood Products in Thailand Project has been the increased awareness among urban consumers regarding the importance of wood use in Sustainable Forest Management (SFM) and its role in domestic wood consumption.

1) This objective was successfully advanced through a series of targeted workshops and exhibitions that engaged multiple stakeholders, including industry professionals, government agencies, academia, and the general public as the educational workshops on SFM and responsible wood use have conducted a series of interactive workshops aimed at educating urban consumers, architects, and designers about the benefits of using sustainably sourced wood. The activities

provided technical knowledge on sustainable forestry practices, carbon sequestration benefits, and the role of wood in green building and low-carbon urban development, and facilitated expert discussions on legal and certified wood products, emphasizing their contribution to both environmental sustainability and economic development.

- 2) Participation in the "Thailand International Woodworking & Furniture Exhibition 2024" (TIWF 2024) has offering us an interactive wood product exhibition under the theme "Greening the Wood Industry", demonstrating innovative uses of sustainable wood in urban spaces, as this event was engaged over 4,000 attendees from across the ASEAN region, including business leaders, designers, policymakers, and environmentally conscious consumers, and we had opportunity to Showcase certified and sustainably sourced wood products, along with advancements in eco-friendly woodworking technology.
- 3) The project placed a strong emphasis on public engagement and awareness campaigns to educate urban consumers on the environmental benefits of domestic wood consumption. A key initiative involved the development of multimedia educational content, including videos, infographics, and digital campaigns, to highlight the role of wood in sustainable city development. In addition, the project actively promoted the importance of using legally sourced and certified wood in furniture, construction, and interior design. By emphasizing the environmental and economic benefits of responsible wood use, these efforts helped shape consumer preferences toward sustainably managed wood products. Furthermore, the campaign encouraged urban consumers to support local wood industries that adhere to sustainable forest management (SFM) practices. By raising awareness about the connection between responsible wood consumption and forest conservation, the project contributed to a growing demand for eco-friendly and ethically sourced wood products in Thailand's urban market.
- 4) The project successfully facilitated business networking and collaboration to promote sustainable wood use and strengthen the domestic wood market. One of the key initiatives was business-to-business (B2B) matchmaking, which connected urban wood product suppliers with responsible buyers, ensuring market access for sustainably sourced wood products. In addition to fostering trade relationships, the project played a crucial role in building multi-sector collaborations. It brought together government agencies, private enterprises, and sustainability advocates to support policy development that encourages sustainable forest management (SFM) and responsible wood consumption. These partnerships contributed to shaping a more sustainable and regulated wood industry in Thailand. Moreover, the project helped introduce urban consumers to innovative wood products that align with sustainable city development goals. By showcasing eco-friendly materials and certified wood alternatives, the initiative raised awareness about the role of sustainable wood in green architecture, interior design, and urban infrastructure. These efforts not only strengthened market demand for responsibly sourced wood but also encouraged a broader shift toward environmentally conscious consumer behavior.
- 5) The project has made a significant policy and market impact by raising industry and public awareness of the Thai government's commitment to sustainable wood policies. Through workshops, exhibitions, and stakeholder engagements, the initiative has contributed to shaping discussions on future urban wood procurement regulations, ensuring that sustainability remains a priority in policy frameworks. A key achievement of the project has been its role in encouraging investment in sustainable forestry initiatives. By linking urban demand for high-quality wood products with responsible sourcing, the project has facilitated stronger market incentives for businesses and investors to support certified, sustainable wood supply chains. This has helped reinforce the economic viability of sustainably managed forests while ensuring a consistent supply of legally sourced timber for domestic consumption. Additionally, the project has strengthened Thailand's positioning as a leader in sustainable wood innovation and circular economy practices. By promoting eco-friendly production methods, wood waste utilization, and carbon-conscious design approaches, the initiative has contributed to Thailand's reputation as a

forward-thinking hub for sustainable forestry and wood-based industries. These efforts lay the groundwork for future policy advancements and market-driven sustainability initiatives that align with global environmental and economic goals.

Impact and future directions

Through these activities, the project has successfully enhanced public perception of wood as a sustainable material, particularly in urban settings. By integrating education, market development, and policy advocacy, the initiative has laid the groundwork for increased adoption of sustainable wood products in Thailand's urban economy. Moving forward, the project aims to expand outreach efforts through digital engagement, industry collaborations, and continued participation in key trade events and exhibitions.



Figure A84 The woodworking products and activities in *International Woodworking & Furniture Exhibition 2024*

2) *Strengthened partnerships and communication between wood producers and wood consumers at all levels (see details in appendix 8)*

The strengthened partnerships and communication established through the Memorandum of Understanding (MoU) have effectively unified government bodies, private companies, associations, local communities, and educational and research institutions in Thailand to advance sustainable wood usage. Government agencies such as the Royal Forest Department, Forest Industry Organization, and Department of Agricultural Extension have intensified cooperation and policy clarity, promoting economic timber cultivation and sustainable forestry management practices. Private sector entities like SCG Cement-Building Materials, Siam Forestry, and Magnolia Quality Development Corporation Ltd. (MQDC) align their industrial and business practices with sustainability, focusing on innovative applications of timber, Net Zero initiatives, and mass timber construction. Associations such as the Furniture and Wood Products Trade Association of Phrae, alongside local community enterprises, actively participate in enhancing provincial and national sustainable timber cultivation models. Educational and research institutions, including Chulalongkorn University, Phrae Community College, and NSTDA, support these efforts through research, training, and developing timber-related technologies and standards. Collectively, these multi-sectoral collaborations significantly enhance communication, resource sharing, and strategic alignment to achieve Thailand's sustainable forestry and timber industry goals.



Figure A85 The partnerships agreed to strengthen efforts promoting domestic wood use in Thailand

Activity 2.1: Advanced skills to design and develop wood products to meet domestic market demands

Activity Workshop on *Basic Woodworking Machinery and Safety First*

As part of the project, the workshop training on *basic woodworking machinery and safety first* was arranged on **29 April 2025 (09:00 – 15:30 hrs.)** at Department of Forest Products, Faculty of Forestry, Kasetsart University. The project actively implements capacity-building initiatives to enhance safety standards within the woodworking industry. A core component of this effort is the comprehensive workshop on safety in woodworking machinery operation, designed to equip participants with essential knowledge and practical skills for safe machinery use.

This workshop emphasizes the paramount importance of safety protocols in preventing accidents and fostering a secure working environment, thereby contributing to the overall sustainability and professionalism of the wood products sector. The program includes theoretical lectures and hands-on training, ensuring participants understand both the principles and practical application of safety measures in woodworking. This commitment to safety is crucial, as woodworking machinery inherently carries risks of injury if not operated correctly. By instilling a *"safety first"* mindset, the project aims to reduce accidents, protect workers, and promote efficient, responsible production practices across Thailand's wood product industry. The workshop focus directly supports the project broader goal of promoting sustainable domestic consumption of wood products by ensuring that increased production is met with enhanced safety standards, benefiting both workers and the industry as a whole.

For the woodworking machinery operation, the workshop participants gained hands-on experience. A key activity in this segment was the production of teak wood storage baskets, allowing participants to apply their newly acquired knowledge in a practical setting. Participants were observed meticulously working with various woodworking machines. This included activities such as preparing and assembling wooden pieces, demonstrating attention to detail in their work. The process involved tasks like gluing wood components together and using power tools such as nail guns for assembly, ensuring the secure construction of the storage baskets. Safety remained a paramount concern throughout this operational phase, with participants seen wearing appropriate personal protective equipment, including hard hats, as they engaged with the machinery and handled the wood. The focus on producing a tangible item like teak wood storage baskets not only reinforced technical skills but also provided participants with a practical outcome of their training (Figure 41).



Figure A86 Inaugural Address by Mr. Suchart Klayawongsa (left), the workshop participants and organizers of the training program (right)

The process of Woodworking Machinery Assembly

This initiative is aligned with the project's objectives to strengthen knowledge, skills, and awareness in sustainable domestic wood utilization. One of the key barriers to effective utilization of legal domestic timber in Thailand is the lack of practical exposure to modern woodworking technologies among students, young professionals, and small-scale users. By introducing hands-on training in the safe use of basic woodworking machinery, the project seeks to bridge this gap and encourage wider, safer, and more sustainable practices in processing domestic wood.

Objectives of the training workshop was designed with the following

- 1) To build awareness of safety standards in the use of woodworking machinery, reducing risks of injury and improving occupational health practices.
- 2) To provide hands-on skills development for students and interested participants in operating basic woodworking equipment.
- 3) To strengthen institutional capacity at the Faculty of Forestry by equipping the Department of Forest Products with modern woodworking machinery for training and teaching.
- 4) To contribute to the ITTO project's broader goals, which include enhancing domestic timber value chains, supporting local communities, and promoting sustainable and legal wood use in Thailand.

The workshop was led by Dr. Pisut Siripant, the project consultant and Head of the Department of Forest Products, Faculty of Forestry, Kasetsart University. He has extensive expertise in wood processing technologies and provided both theoretical guidance and practical demonstrations to participants. The most participants were students and interested individuals registered at the venue and received workshop materials.

The schedule was followed as below:

- 09:15 – 09:45 hrs. Opening Ceremony

The session was officially opened with welcoming remarks and an introduction to the objectives of the workshop, highlighting its role within the ITTO project framework.

- 09:45 – 12:00 hrs. Session 1: Safety in the Use of Woodworking Machinery

A lecture and discussion session on safety guidelines, protective equipment, and preventive measures when working with machines. This session emphasized that safety is a prerequisite for efficiency and sustainable practices.

- 13:00 – 15:00 hrs. Session 2 and Session 3

Session 2: Practical Training on Basic Woodworking Machinery

Participants engaged in hands-on training with basic woodworking machines. Demonstrations were given on proper machine setup, handling, operation, and troubleshooting, with continuous guidance on safe practices.

Session 3: Continued Practical Training and Machine Handover

Further practical exercises were conducted in the afternoon session, followed by the official handover of woodworking machinery to the Department of Forest Products. This strengthened the long-term capacity of the faculty to deliver training in wood processing and sustainable utilization.

The outcomes of the training workshop

The training workshop on “*the use of basic woodworking machinery*” achieved several notable outcomes with both immediate and long-term significance. It enhanced the practical competence of participants, particularly forestry students, who gained valuable hands-on experience in operating woodworking machines. This exposure not only enriched their academic learning but also provided practical skills essential for their future professional development. Equally important was the increased awareness of safety, as the workshop emphasized rigorous safety protocols, equipping participants with the knowledge to minimize risks and adopt best practices when working with machinery.

At the institutional level, the Faculty of Forestry’s training capacity was strengthened through the formal handover of woodworking machines. This contribution ensures that future cohorts of students and external stakeholders can continue to benefit from structured training in safe and efficient wood processing.

Beyond individual and institutional benefits, the workshop also contributed to the advancement of sustainable domestic wood utilization by fostering practical skills and safe practices that reduce reliance on imported timber and enhance the value of locally sourced wood. Embedded within the broader ITTO project framework, this initiative reinforced Thailand’s national agenda on legal, sustainable, and safe timber use, while also aligning with regional and global commitments to sustainable forest management and responsible timber value chains.

This was a crucial step in the project, with staff meticulously setting up the equipment provided by the Project to the Department of Forest Products, Faculty of Forestry. This involved a detailed and hands-on approach to ensure proper functionality and integration of the new machinery. The assembly process required the use of various specialized tools, including wrenches and other metal components, which were carefully laid out on workbenches. Staff were observed engaged in the precise task of assembling machine parts, highlighting the attention to detail necessary for proper setup. In some instances, individuals closely examined machine components, underscoring the precision involved in getting the woodworking equipment ready for operation. The assembly was not just manual; there were instances where digital resources were utilized, with individuals referencing smartphones or laptops, suggesting the use of digital manuals or software installation as part of the setup. Ultimately, the various steps, from initial unboxing and component identification to final physical assembly, were captured, demonstrating the comprehensive nature of bringing these new woodworking machines to operational readiness.

Dr. Pisut Siripant delivered a comprehensive and critical lecture on Safety in Woodworking Machinery Operation to the training participants. His presentation underscored the paramount importance of safety, emphasizing that the use of woodworking machinery inherently carries risks of injury, such as being cut by saw blades, struck by rebounding wood, or developing respiratory illnesses from wood dust. Therefore, he stressed that learning and adhering to safety principles are the most crucial aspects before operating any machinery. He also detailed essential safety practices, covering a wide range of topics. He instructed participants on the proper use of protective equipment, including the mandatory wearing of safety glasses to prevent eye injuries from flying debris and dust masks when dust is prevalent. He also highlighted the necessity of hearing protection if noise levels exceed safe standards. Furthermore, the lecture covered critical pre-operation checks, such as ensuring all machine guards are correctly positioned and intact, verifying proper grounding of machinery, and confirming that all wrenches and tools are removed before starting operations. Participants were also advised to inspect workpieces for nails or other foreign objects before cutting and to ensure that machines have easily accessible on/off buttons (Figure 42).



Figure A87 Lecture on safety in woodworking machinery operation by Dr. Pisut Siripant

Beyond personal protective measures and pre-operation checks, his lecture delved into operational safety, emphasizing the importance of sharp and clean blades for efficient and safe cutting, proper adjustment of protective devices, and the necessity of shutting down machines before cleaning,

adjusting, or repairing any parts. He also advised on using push sticks to safely feed materials, especially in narrow spaces, to prevent hands from coming too close to cutting edges. The lecture also covered workplace environment safety, stressing the importance of maintaining a clean and well-lit work area with non-slip flooring. Finally, he outlined strict prohibitions, including avoiding distractions, refraining from wearing loose clothing or jewelry that could get caught in machinery, never clearing dust with bare hands while the machine is running, and always shutting down the machine before attempting any adjustments or blade changes. He further illustrated the dire consequences of neglecting safety by presenting examples of accidents, such as workers being crushed by machinery or suffering severe injuries from machine contact (Figure 43–45).



Figure A88 The training participants operated **woodworking machinery operation** to produce teak wood storage baskets



Figure A89 The workshop participants hand-on experience on the woodworking machinery assembly process



Figure A90 The workshop participants hand-on experience on the woodworking machinery assembly process (CONTD)

The culmination of the training program on woodworking machinery was marked by the certificate presentation and closing ceremony. This event celebrated the participants' successful completion of the workshop and reinforced the importance of the skills and knowledge they had acquired. As a representative of the organizing committee, Mr. Suchart Kalayawongsa graciously presided over this significant occasion. He was seen presenting certificates to the training participants,

a gesture that formally recognized their efforts and successful engagement throughout the program. The ceremony also included delivering the closing remarks, signaling the official end of the training program (Figure 46).



Figure A91 Certificate Presentation and Closing Ceremony

Achieved Outcomes

1) Enhanced individual competence

The workshop significantly enhanced the individual competence of forestry students and other participants by providing them with first-hand practical skills in operating basic woodworking machines. Through structured demonstrations and guided practice, participants became familiar with the safe setup, handling, and operation of different machines. A major highlight was the production of teak wood storage baskets, which not only served as a practical exercise but also as a tangible outcome of their learning. This hands-on component reinforced the application of newly acquired skills and deepened participants' understanding of wood processing techniques. In addition, the training instilled a strong awareness of safety protocols, with participants demonstrating improved knowledge of personal protective equipment, proper machinery handling, and effective strategies to minimize risks in workshop environments. These competencies are expected to contribute directly to their future professional development in forestry and related fields.

2) Strengthened institutional capacity

At the institutional level, the workshop left a lasting impact through the formal handover of modern woodworking machinery to the Department of Forest Products, Faculty of Forestry, Kasetsart University. This strategic investment ensures that training capacity is not limited to a one-time event but will remain available for future cohorts of students and external stakeholders. With the new

machinery, the Faculty of Forestry is now better equipped to integrate modern woodworking practices into its curriculum and training programs. This advancement strengthens the Faculty role as a hub for professional skill development in wood technology and supports its long-term mission to build expertise that meets the demands of Thailand's forestry and wood product sectors.

3) Advancement of sustainable wood utilization

The workshop also contributed directly to the promotion of sustainable domestic wood utilization. By equipping participants with technical expertise and a strong foundation in safety, the training supports Thailand's ongoing efforts to reduce dependence on imported timber while improving the value-added processing of locally available wood. This initiative aligns closely with Thailand's national agenda on legal and sustainable timber use, ensuring that domestic wood resources are utilized responsibly and efficiently. Furthermore, the outcomes of this training resonate with regional and global commitments—particularly those promoted under the frameworks of ITTO and FAO—towards sustainable forest management, responsible timber value chains, and enhanced livelihoods through the use of legal wood.

4) Safety culture and risk reduction

Perhaps the most critical outcome of the workshop was the cultivation of a “*safety first*” culture in woodworking practices. Participants were consistently trained to prioritize safety as an integral part of efficient wood processing. This emphasis is vital for reducing accidents not only in academic training environments but also in future industrial and community-level applications. Through detailed instruction on occupational health practices, machine handling, and workplace safety standards, participants acquired the tools needed to recognize risks and implement preventive measures effectively. This foundation will contribute to safer, more professional, and more efficient wood product industries in Thailand, ensuring that economic development in the sector is accompanied by strong safeguards for human health and well-being.

Annex 10 Summary of MoU Partners and Strategies for Promoting Sustainable Wood and Wood Products Usage in Thailand

1. Government Sector

The Royal Forest Department has continuously emphasized promoting economic timber and the utilization of wood. Although previous policies lacked clarity, significant improvements in recent years include amendments to regulations, such as Article 7, and clearer support for economic timber cultivation. The department aims to boost cooperation among the public, private sector, and related agencies to increase timber planting, ensuring sustainability in Thailand's timber industry. The department is committed to collaborating closely with all sectors to ensure the long-term success of this initiative.

The Forest Industry Organization (FIO) plays a central role in domestic economic timber cultivation, managing over 1 million rai of forest plantations. These include approximately 600,000 rai of teak plantations, around 100,000 rai of fast-growing timber for paper and pallet industries, rubber tree plantations for southern and northeastern communities, and high-value species such as rosewood, Siamese rosewood, padauk, and yangna. FIO prioritizes producing high-quality commercial timber such as teak and eucalyptus, with acacia emerging as a competitive species. Although rosewood is restricted from export in log form, FIO encourages cultivation of high-value species like padauk and Siamese rosewood. Currently, domestic timber supply remains insufficient, particularly teak, the only species permitted for export. Given sufficient private sector capacity for eucalyptus and acacia production, FIO is reducing its role in these areas, including rubber tree cultivation. FIO promotes teak cultivation with a current cutting rotation of 30 years, including thinning at 25 years due to high demand. However, unresolved issues around utilizing residual wood due to legal constraints hinder economic efficiency, highlighting the need for innovative waste management aligning with zero-waste principles.

The Department of Agricultural Extension emphasizes that today's cooperation marks the beginning of enhanced coordination. The department, with extensive networks covering every sub-district and over 200,000 agricultural volunteers nationwide, plays a critical role in disseminating information to farmers. It collaborates locally with the Ministry of Natural Resources and Environment on agriculture and natural resource conservation, facilitating effective public-private integration. The department also oversees approximately 2,000 wood-related community enterprises among 70,000–80,000 registered groups, serving as a crucial support mechanism for sector development.

The Department of Lands recognizes land's fundamental importance in timber cultivation initiatives, committing full support and expressing optimism about the project's beneficial outcomes.

The National Bureau of Agricultural Commodity and Food Standards (ACFS) supports the project by developing agricultural standards under relevant legislation, covering forestry products directly. ACFS plans to establish standards for quality seedling production within the next three years, significantly contributing to project success.

The Phrae Provincial Industrial Office consistently promotes wood usage, especially teak, through budget allocations and innovation support to maximize value from timber and processing residues. Additionally, the Department of Industrial Promotion supports emission-reducing product development, aligning with sustainable industrial strategies. The Department of Industrial Works also promotes appropriate business standards, reinforcing Phrae's identity as the "City of Teak."

2. Private Sector

The Federation of Thai Industries acknowledges wood's renewable value, advocating increased timber use. Current consumer trends in furniture highlight demand for fast-growing timber species. However, restrictive forestry laws impede efficient resource management. Today's agreement provides an opportunity to align wood usage policies with industrial needs and resource conservation, emphasizing reforestation and sustainable forestry practices critical for future development.

SCG Cement-Building Materials Co., Ltd. values today's cooperation as vital for promoting sustainable natural resource use, particularly through Net Zero initiatives. Recognizing wood's carbon sequestration potential, SCG commits to research and develop innovative construction materials utilizing timber effectively. Supported by agencies like FIO and the Royal Forest Department, SCG aims to align its business model with sustainability.

Siam Forestry Co., Ltd., a eucalyptus pulp industry producer, joins the project to maximize wood usage. Its ongoing research and development efforts focus on eucalyptus species, enhancing wood quality for pulp production and other sustainable applications.

TPS Garden Furniture Co., Ltd., specializing in teak export, views today's MOU as pivotal for increasing national forest coverage to 40%, fostering economic and sustainable growth. Cross-sector collaboration will strengthen Thailand's timber industry and sustainability goals.

Magnolia Quality Development Corporation Ltd. (MQDC), via its Research and Innovation Center for Sustainability, commits to pioneering sustainable urban development using wood, particularly mass timber construction. This significant shift addresses climate change concerns, reducing carbon emissions and improving environmental quality. MQDC is dedicated to collaborating with all sectors to realize this vision.

3. Associations and Local Communities

The Furniture and Wood Products Trade Association of Phrae celebrates today's MOU, noting it benefits not just Phrae but the entire country. It promotes sustainable economic timber cultivation through provincial-level committees and quality timber production on private lands.

Lanna Wagon Community Enterprise, Phrae Province, highlighted recent international dialogues positioning Phrae as a global sustainable timber city model, reinforcing its ambition as Southeast Asia's timber capital.

The Fast-Growing Timber Business Association appreciates collective efforts toward today's successful agreement, expanding its mission from eucalyptus to include bamboo and short-rotation thinning timber. It seeks expanded collaboration among public, private sectors, and farmers to ensure sustainable wood industries.

4. Educational and Research Institutions

The Faculty of Architecture, Chulalongkorn University, enthusiastically participates in promoting national sustainability through education and research, emphasizing:

- Revival of wood construction knowledge, leveraging modern technologies.
- Community training programs in woodworking, supporting local skills.

Applied research in timber usage innovations for residential buildings, adapting international knowledge locally.

Phrae Community College appreciates involvement in nationwide timber industry development, supporting lifelong learning initiatives. Its new associate degree in Forest and Environmental Management targets existing forestry professionals, aligning education with Sustainable Development Goals (SDGs), climate change mitigation, and human resource development.

National Science and Technology Development Agency (NSTDA) via National Metal and Materials Technology Center (MTEC) contributes significantly by developing new

timber products and commercial standards. It promotes domestic timber trading, carbon reduction, carbon credit systems, regulatory reform, and technological innovation for sustainable timber industry growth.

Faculty of Forestry, Kasetsart University implements sustainable forest management. Reflecting on international management practices, the faculty advocates responsible resource utilization for long-term economic and ecological sustainability.

The Memorandum of Understanding on cooperation to promote the sustainable use of wood and wood products in Thailand between government agencies, the private sector, associations, local communities, educational institutions, and research organizations.



-บันทึกความเข้าใจ (MOU)-

ว่าด้วยความร่วมมือในการส่งเสริมการใช้ไม้และผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน

ระหว่าง

หน่วยงานภาครัฐ ภาคเอกชน สมาคม ชุมชนท้องถิ่น สถาบันการศึกษาและหน่วยงานวิจัย



บทนำ

บันทึกความเข้าใจฉบับนี้จัดทำขึ้น ณ โรงแรมเซ็นทารา แกรนด์ แอท เซ็นทรัลพลาซ่า ลาดพร้าว เมื่อวันที่ 31 มกราคม พ.ศ. 2568 ระหว่างหน่วยงานภาครัฐ ภาคเอกชน สมาคม ชุมชนท้องถิ่น สถาบันการศึกษาและหน่วยงานวิจัย ซึ่งทุกฝ่ายได้เล็งเห็นถึงความสำคัญของโครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน ซึ่งจะนำไปสู่การยกระดับการสร้างเครือข่ายความร่วมมือในการขับเคลื่อนส่งเสริมการใช้ไม้และผลิตภัณฑ์ไม้ภายในประเทศไทยอย่างยั่งยืน สนับสนุนเป้าหมายการพัฒนาอย่างยั่งยืน (SDGs) ในประเทศไทย มุ่งเน้นให้เกิดกลไกสนับสนุนทางเศรษฐกิจ สังคม และสิ่งแวดล้อม

ดังนั้นหน่วยงานที่เกี่ยวข้องจึงเห็นพ้องในการจัดทำบันทึกความเข้าใจฉบับนี้ เพื่อเป็นแนวทางในการดำเนินงานร่วมกันอย่างมีประสิทธิภาพต่อไป ประกอบด้วยสาระสำคัญ ดังนี้

ข้อที่ 1 วัตถุประสงค์

1. ร่วมส่งเสริมและสนับสนุนการใช้ไม้และผลิตภัณฑ์ไม้ตลอดห่วงโซ่อุปทานไม้อย่างยั่งยืน
2. ร่วมส่งเสริมและสนับสนุนการปรับปรุงกฎระเบียบการใช้ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน
3. ร่วมส่งเสริมและสนับสนุนการพัฒนาทรัพยากรมนุษย์และเทคโนโลยีที่เกี่ยวข้องในการใช้ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน
4. ร่วมส่งเสริมและสนับสนุนการสร้างเครือข่ายความร่วมมือระหว่างหน่วยงานในระดับชาติและนานาชาติในการใช้ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน
5. ร่วมส่งเสริมและสนับสนุนการปลูกไม้เศรษฐกิจและใช้ประโยชน์ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน

ข้อที่ 2 ขอบเขตของความร่วมมือ

1. สนับสนุนงานวิจัยและเทคโนโลยีการใช้ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน
2. จัดกิจกรรมรณรงค์สร้างความตระหนักรู้เรื่องการใช้ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน
3. พัฒนาระบบตรวจสอบย้อนกลับสำหรับไม้และผลิตภัณฑ์ไม้
4. สนับสนุนโครงการยกระดับผลิตภัณฑ์ไม้ขั้นสูงด้วยเทคโนโลยีมาตรฐานกล้าไม้พันธุ์ดี เทคโนโลยีการปลูกดูแล เทคโนโลยีการแปรรูปไม้โครงสร้าง
5. การจัดทำแผนพัฒนาและบริหารจัดการทรัพยากรที่เกี่ยวข้องในการส่งเสริมการใช้ประโยชน์ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืนในระดับท้องถิ่นและระดับประเทศ

ข้อที่ 3 บทบาทและหน้าที่ของหน่วยงานที่เกี่ยวข้อง

1. หน่วยงานภาครัฐ ประกอบด้วย กรมป่าไม้ องค์การอุตสาหกรรมป่าไม้ กรมส่งเสริมการเกษตร กรมที่ดิน สำนักงานมาตรฐานสินค้าเกษตรและอาหารแห่งชาติ และสำนักงานอุตสาหกรรมจังหวัดแพร่
 - 1.1 กำหนดนโยบายและปรับปรุงกฎระเบียบเพื่อสนับสนุนการใช้ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน
 - 1.2 สนับสนุนสิทธิประโยชน์ด้านการเงินแก่ผู้ประกอบการรายย่อยที่มีการจัดการสวนอย่างยั่งยืนและมีการผลิตไม้มีคุณภาพ
 - 1.3 ให้ความรู้ความเข้าใจ ประชาสัมพันธ์ข้อมูลภาครัฐที่จำเป็นต่อการส่งเสริมการใช้ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน
2. หน่วยงานภาคเอกชน ประกอบด้วย สมาคมอุตสาหกรรมแห่งประเทศไทย บริษัท เอสซีจี ซิเมนต์-ผลิตภัณฑ์ก่อสร้าง จำกัด บริษัท สยามฟอเรสทรี จำกัด บริษัท ทีพีเอส การ์เด็น เพอร์นิเจอร์ จำกัด และบริษัท แมกโนเลีย ควอลิตี้ ดีเวล็อปเม้นต์ คอร์ปอเรชั่น จำกัด โดย ศูนย์วิจัยและนวัตกรรมเพื่อความยั่งยืน
 - 2.1 สนับสนุนการวิจัยและพัฒนาผลิตภัณฑ์ไม้

- 2.2 สนับสนุนการนำเทคโนโลยีใหม่มาใช้ในการผลิตผลิตภัณฑ์ไม้
- 2.3 สนับสนุนข้อมูลความต้องการ สภาพตลาด ราคาตลาด การใช้ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน
3. สมาคมและชุมชนท้องถิ่น ประกอบด้วย สมาคมการค้าผู้ประกอบการเฟอร์นิเจอร์และผลิตภัณฑ์ไม้ จังหวัดแพร่ สมาคมธุรกิจไม้โตเร็ว และวิสาหกิจชุมชนล่อเกวียนล้านนาบ้านท่าล้อ จังหวัดแพร่
 - 3.1 ร่วมดำเนินกิจกรรมปลูกและจัดการสวนป่าอย่างยั่งยืน
 - 3.2 สนับสนุนการผลิตไม้ที่มีคุณภาพและจำหน่ายผลิตภัณฑ์ไม้ที่ได้รับการรับรองมาตรฐาน
 - 3.3 ร่วมดำเนินการพัฒนาทักษะที่จำเป็นต่อการพัฒนาการใช้ไม้และผลิตภัณฑ์ไม้อย่างยั่งยืน
4. สถาบันการศึกษาและวิจัย ประกอบด้วย คณะวนศาสตร์ มหาวิทยาลัยเกษตรศาสตร์ คณะสถาปัตยกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย วิทยาลัยชุมชนแพร่ และสำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ โดย ศูนย์เทคโนโลยีโลหะและวัสดุแห่งชาติ
 - 4.1 พัฒนาหลักสูตรหรือจัดอบรมที่เกี่ยวข้องกับการส่งเสริมการใช้ไม้และผลิตภัณฑ์ไม้ภายในประเทศอย่างยั่งยืน
 - 4.2 สนับสนุนการรวบรวมและจัดการฐานข้อมูลแหล่งที่ปลูกไม้เศรษฐกิจและปริมาณการผลิตไม้
 - 4.3 สนับสนุน ส่งเสริม พัฒนาองค์ความรู้และเทคโนโลยีเพื่อการผลิตผลิตภัณฑ์ไม้ กระบวนการผลิตไม้ อย่างยั่งยืนและมีความคุ้มค่าทางเศรษฐศาสตร์

ข้อที่ 4 ระยะเวลา

บันทึกความเข้าใจฉบับนี้มีระยะเวลา 3 ปี มีผลนับตั้งแต่วันที่ลงนาม (31 มกราคม พ.ศ. 2568 ถึง 31 มกราคม พ.ศ. 2571) โดยมีการประเมินผลการดำเนินงานทุกปี และสามารถต่ออายุได้ด้วยความเห็นชอบจากทุกฝ่าย

ข้อที่ 5 เงื่อนไขเพิ่มเติม

1. การเปิดเผยข้อมูลและผลลัพธ์จากความร่วมมือจะต้องได้รับความยินยอมจากทุกฝ่าย
2. ทุกฝ่ายมีหน้าที่ส่งเสริมการประชาสัมพันธ์เพื่อสร้างความตระหนักรู้เกี่ยวกับการส่งเสริมการใช้ไม้ และผลิตภัณฑ์ไม้อย่างยั่งยืน

บันทึกข้อตกลงนี้ จัดทำขึ้น 18 ฉบับ มีข้อความถูกต้องตรงกัน ทุกฝ่ายได้อ่านทำความเข้าใจตามข้อตกลงโดยละเอียดแล้ว จึงได้ลงลายมือชื่อไว้เป็นสำคัญและทุกฝ่ายต่างยึดถือไว้ฝ่ายละ 1 ฉบับ

ลงนาม ณ โรงแรมเซ็นทารา แกรนด์ แอท เซ็นทรัลพลาซ่า ลาดพร้าว

วันที่ 31 มกราคม พ.ศ. 2568

หน่วยงานภาครัฐ

ลงนาม.....
(นายสุรัชย์ อังลบุญ)
อธิบดีกรมป่าไม้

ลงนาม.....
(นายประสิทธิ์ เกิดโต)
รองผู้อำนวยการองค์การอุตสาหกรรมป่าไม้
รักษาการแทนผู้อำนวยการองค์การอุตสาหกรรมป่าไม้

ลงนาม.....
(นายวีรศักดิ์ บุญเชิญ)
รองอธิบดีกรมส่งเสริมการเกษตร

ลงนาม.....
(นางชุดิมา ศูนย์ะคณิต)
ผู้อำนวยการศูนย์ข้อมูลแผนที่รูปแปลงที่ดิน กรมที่ดิน

ลงนาม.....
(นายมนัส ลาภผล)
ผู้เชี่ยวชาญด้านมาตรฐานสินค้าเกษตรและอาหาร
สำนักงานมาตรฐานสินค้าเกษตรและอาหารแห่งชาติ

ลงนาม.....
(นางณัฐชา อัมพพ)
นักวิเคราะห์นโยบายและแผนชำนาญการพิเศษ
สำนักงานอุตสาหกรรมจังหวัดแพร่

หน่วยงานภาคเอกชน

ลงนาม.....
(นายธนารักษ์ พงษ์เมตรา)
รองประธานสภาอุตสาหกรรมแห่งประเทศไทย

ลงนาม.....
(นายกฤษณ์ จินตวานิชสกุล)
Head of Innovation and Automation Management
บริษัท เอสซีจี ซีเมนต์-ผลิตภัณฑ์ก่อสร้าง

ลงนาม.....
(นายมหาศาล อีรวรุตม์)
กรรมการผู้จัดการบริษัท สยามฟอเรสทรี จำกัด

ลงนาม.....
(นายณัฐวิน พงษ์เมตรารัตน์)
กรรมการผู้จัดการบริษัท ทีพีเอส การ์เด็น เฟอร์นิเจอร์ จำกัด


ลงนาม.....
(รองศาสตราจารย์ ดร.สิงห์ อินทรชูโต)
ประธานเจ้าหน้าที่บริหารนวัตกรรมยั่งยืน
ศูนย์วิจัยและนวัตกรรมเพื่อความยั่งยืน
บริษัท แมกโนเลีย ควอลิตี้ ดีเวล็อปเม้นต์ คอร์ปอเรชั่น จำกัด

สมาคมและชุมชนท้องถิ่น

ลงนาม.....


(นายเอกพงศ์ เสียงเพราะ)

นายกสมาคมการค้าผู้ประกอบการเฟอร์นิเจอร์และผลิตภัณฑ์ไม้
จังหวัดแพร่

ลงนาม.....


(นายณัฐวัฒน์ คลังทรัพย์)

นายกสมาคมธุรกิจไม้โตเร็ว

ลงนาม.....


(นายอติศร ฉลวย)

ประธานวิสาหกิจชุมชนล่อเกวียนล้านนาบ้านท่าล้อ
จังหวัดแพร่

สถาบันการศึกษาและหน่วยงานวิจัย

ลงนาม.....
(รองศาสตราจารย์ ดร.ประทีป ดั่งวงศ์)
คณบดีคณะวนศาสตร์ มหาวิทยาลัยเกษตรศาสตร์
ปฏิบัติการแทนอธิการบดีมหาวิทยาลัยเกษตรศาสตร์

ลงนาม.....
(ผู้ช่วยศาสตราจารย์ สราวุธ ทรัพย์สุข)
คณบดีคณะสถาปัตยกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

ลงนาม.....
(นายมนัส จันทรพวง)
รักษาการแทนผู้อำนวยการวิทยาลัยชุมชนแพร่
ปฏิบัติราชการแทนผู้อำนวยการสถาบันวิทยาลัยชุมชน

ลงนาม.....
(นายเต็มศักดิ์ ศรีศรีรินทร์)
ผู้อำนวยการศูนย์เทคโนโลยีโลหะและวัสดุแห่งชาติ (เอ็มเทค)
ปฏิบัติการแทนผู้อำนวยการ
สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ

ลงนาม..... (พยาน)
(ผู้ช่วยศาสตราจารย์ ดร.วิรงรอง ดวงใจ)
ผู้จัดการโครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้
ภายในประเทศไทยอย่างยั่งยืน

ลงนาม..... (พยาน)
(นายกิตติพงศ์ ตั้งกิจ)
ที่ปรึกษาโครงการส่งเสริมการใช้ผลิตภัณฑ์ไม้
ภายในประเทศไทยอย่างยั่งยืน

This Memorandum of Understanding (MoU) is made at Centara Grand Hotel at Central Plaza Ladprao on January 31, 2025, between government agencies, private sectors, associations, local communities, academic institutions, and research organizations. All parties recognize the importance of the project to promote the sustainable use of wood products within Thailand. This initiative aims to enhance the creation of a cooperative network to drive and promote the use of wood and wood products in Thailand sustainably, supporting the Sustainable Development Goals (SDGs) in the country. The focus is to establish mechanisms that support economic, social, and environmental development.

The relevant organizations have agreed to establish this MoU as a guideline for effective collaborative action in the future. The key points of this agreement are as follows:

1. Objectives and Operational Strategies

1. To promote and support the sustainable use of wood and wood products throughout the wood supply chain.
2. To promote and support the improvement of regulations on the sustainable use of wood and wood products.
3. To promote and support the development of human resources and technology related to the sustainable use of wood and wood products.
4. To promote and support the establishment of cooperative networks between national and international organizations in the sustainable use of wood and wood products.
5. To promote and support the cultivation of economic trees and the sustainable utilization of wood and wood products.

2. Scope of Cooperation

1. Supporting research and technology for the sustainable use of wood and wood products.
2. Organizing awareness campaigns on the sustainable use of wood and wood products.
3. Developing a traceability system for wood and wood products.
4. Supporting projects that enhance high-value wood products through advanced technology, including quality tree breeding, planting and care technology, and structural wood processing technology.
5. Formulating development and management plans related to promoting the sustainable utilization of wood and wood products at the local and national levels.

3. Roles and Responsibilities of the Involved Organizations

1. Government Agencies, consisting of the Department of Forestry, the Forest Industry Organization, the Department of Agricultural Extension, the Department of Lands, the National Bureau of Agricultural Commodity and Food Standards, and the Phrae Provincial Industrial Office:
1.1 Establish policies and revise regulations to support the sustainable use of wood and wood products. 1.2 Provide financial benefits to small-scale operators who manage forests sustainably and produce quality wood. 1.3 Offer knowledge, understanding, and disseminate government information necessary for promoting the sustainable use of wood and wood products.

2. Private Sector Organizations, consisting of the Federation of Thai Industries, SCG Cement-Building Materials Co., Ltd., Siam Forestree Co., Ltd., TPS Garden Furniture Co., Ltd., and Magnolia Quality Development Corporation Limited, through the Research and Innovation Center for Sustainability:
2.1 Support research and development of wood products.
2.2 Support the adoption of new technologies in the production of wood products.
2.3 Provide information on market demand, market conditions, prices, and the sustainable use of wood and wood products.

3. Associations and Local Communities, consisting of the Phrae Furniture and Wood Products Business Association, the Fast-Growing Timber Business Association, and the Lanna Wheel Community Enterprise in Thalo Village, Phrae Province: 3.1 Participate in activities for planting and managing sustainable forest plantations.

3.2 Support the production of quality wood and the sale of certified wood products.

3.3 Collaborate in the development of necessary skills for the sustainable use of wood and wood products.

4. Academic and Research Institutions, consisting of the Faculty of Forestry, Kasetsart University, the Faculty of Architecture, Chulalongkorn University, Phrae Community College, and the National Science and Technology Development Agency, through the National Metal and Materials Technology Center: 4.1 Develop curricula or organize training related to promoting the sustainable use of wood and wood products domestically.

4.2 Support the collection and management of data on sources of economic tree plantations and wood production volumes.

4.3 Support, promote, and develop knowledge and technologies for the production of wood products and sustainable wood production processes that are economically viable.

4. Duration

This Memorandum of Understanding (MoU) is valid for 3 years, effective from the date of signing (January 31, 2025, to January 31, 2028). The performance will be evaluated annually, and the MoU can be extended with the agreement of all parties.

5. Additional Conditions

1. The disclosure of information and results from the collaboration must receive consent from all parties involved.

2. All parties are responsible for promoting public relations to raise awareness about the sustainable use of wood and wood products.

This agreement is made in 18 copies with identical content. All parties have read and fully understood the terms and conditions of the agreement, and have signed it accordingly. Each party retains one signed copy.

Signed at Centara Grand Hotel at Central Plaza Ladprao on January 31, 2025.

Summary of MoU Partners and Strategies for Promoting Sustainable Wood and Wood Products Usage in Thailand

5. Government Sector

The Royal Forest Department has continuously emphasized promoting economic timber and the utilization of wood. Although previous policies lacked clarity, significant improvements in recent years include amendments to regulations, such as Article 7, and clearer support for economic timber cultivation. The department aims to boost cooperation among the public, private sector, and related agencies to increase timber planting, ensuring sustainability in Thailand's timber industry. The department is committed to collaborating closely with all sectors to ensure the long-term success of this initiative.

The Forest Industry Organization (FIO) plays a central role in domestic economic timber cultivation, managing over 1 million rai of forest plantations. These include approximately 600,000 rai of teak plantations, around 100,000 rai of fast-growing timber for paper and pallet industries, rubber tree plantations for southern and northeastern communities, and high-value species such as rosewood, Siamese rosewood, padauk, and

yangna. FIO prioritizes producing high-quality commercial timber such as teak and eucalyptus, with acacia emerging as a competitive species. Although rosewood is restricted from export in log form, FIO encourages cultivation of high-value species like padauk and Siamese rosewood. Currently, domestic timber supply remains insufficient, particularly teak, the only species permitted for export. Given sufficient private sector capacity for eucalyptus and acacia production, FIO is reducing its role in these areas, including rubber tree cultivation. FIO promotes teak cultivation with a current cutting rotation of 30 years, including thinning at 25 years due to high demand. However, unresolved issues around utilizing residual wood due to legal constraints hinder economic efficiency, highlighting the need for innovative waste management aligning with zero-waste principles.

The Department of Agricultural Extension emphasizes that today's cooperation marks the beginning of enhanced coordination. The department, with extensive networks covering every sub-district and over 200,000 agricultural volunteers nationwide, plays a critical role in disseminating information to farmers. It collaborates locally with the Ministry of Natural Resources and Environment on agriculture and natural resource conservation, facilitating effective public-private integration. The department also oversees approximately 2,000 wood-related community enterprises among 70,000–80,000 registered groups, serving as a crucial support mechanism for sector development.

The Department of Lands recognizes land's fundamental importance in timber cultivation initiatives, committing full support and expressing optimism about the project's beneficial outcomes.

The National Bureau of Agricultural Commodity and Food Standards (ACFS) supports the project by developing agricultural standards under relevant legislation, covering forestry products directly. ACFS plans to establish standards for quality seedling production within the next three years, significantly contributing to project success.

The Phrae Provincial Industrial Office consistently promotes wood usage, especially teak, through budget allocations and innovation support to maximize value from timber and processing residues. Additionally, the Department of Industrial Promotion supports emission-reducing product development, aligning with sustainable industrial strategies. The Department of Industrial Works also promotes appropriate business standards, reinforcing Phrae's identity as the "City of Teak."

6. Private Sector

The Federation of Thai Industries acknowledges wood's renewable value, advocating increased timber use. Current consumer trends in furniture highlight demand for fast-growing timber species. However, restrictive forestry laws impede efficient resource management. Today's agreement provides an opportunity to align wood usage policies with industrial needs and resource conservation, emphasizing reforestation and sustainable forestry practices critical for future development.

SCG Cement-Building Materials Co., Ltd. values today's cooperation as vital for promoting sustainable natural resource use, particularly through Net Zero initiatives. Recognizing wood's carbon sequestration potential, SCG commits to research and develop innovative construction materials utilizing timber effectively. Supported by agencies like FIO and the Royal Forest Department, SCG aims to align its business model with sustainability.

Siam Forestry Co., Ltd., a eucalyptus pulp industry producer, joins the project to maximize wood usage. Its ongoing research and development efforts focus on eucalyptus species, enhancing wood quality for pulp production and other sustainable applications.

TPS Garden Furniture Co., Ltd., specializing in teak export, views today's MOU as pivotal for increasing national forest coverage to 40%, fostering economic and sustainable

growth. Cross-sector collaboration will strengthen Thailand's timber industry and sustainability goals.

Magnolia Quality Development Corporation Ltd. (MQDC), via its Research and Innovation Center for Sustainability, commits to pioneering sustainable urban development using wood, particularly mass timber construction. This significant shift addresses climate change concerns, reducing carbon emissions and improving environmental quality. MQDC is dedicated to collaborating with all sectors to realize this vision.

7. Associations and Local Communities

The Furniture and Wood Products Trade Association of Phrae celebrates today's MOU, noting it benefits not just Phrae but the entire country. It promotes sustainable economic timber cultivation through provincial-level committees and quality timber production on private lands.

Lanna Wagon Community Enterprise, Phrae Province, highlighted recent international dialogues positioning Phrae as a global sustainable timber city model, reinforcing its ambition as Southeast Asia's timber capital.

The Fast-Growing Timber Business Association appreciates collective efforts toward today's successful agreement, expanding its mission from eucalyptus to include bamboo and short-rotation thinning timber. It seeks expanded collaboration among public, private sectors, and farmers to ensure sustainable wood industries.

8. Educational and Research Institutions

The Faculty of Architecture, Chulalongkorn University, enthusiastically participates in promoting national sustainability through education and research, emphasizing:

- Revival of wood construction knowledge, leveraging modern technologies.
- Community training programs in woodworking, supporting local skills.

Applied research in timber usage innovations for residential buildings, adapting international knowledge locally.

Phrae Community College appreciates involvement in nationwide timber industry development, supporting lifelong learning initiatives. Its new associate degree in Forest and Environmental Management targets existing forestry professionals, aligning education with Sustainable Development Goals (SDGs), climate change mitigation, and human resource development.

National Science and Technology Development Agency (NSTDA) via National Metal and Materials Technology Center contributes significantly by developing new timber products and commercial standards. It promotes domestic timber trading, carbon reduction, carbon credit systems, regulatory reform, and technological innovation for sustainable timber industry growth.

Faculty of Forestry implements sustainable forest management through selective teak cutting (diameters above 120 cm.) every 30 years, ensuring resource regeneration. Reflecting on international management practices, the faculty advocates responsible resource utilization for long-term economic and ecological sustainability.











Figure A92 The Representative Wood Product Promotion for signing MoU



Prepared By:

Assist. Prof. Dr. Wirongrong Duangjai

Project Coordinator

Dr. Preecha Ongprasert

National Project Leader

Dr. Tetra Yanuariadi

ITTO Projects Manager

