ITTO-TEAK IN MEKONG

Bi-monthly online

Teak Mekong Newsletter

April 2020 - Volume 2(2)

Inside this issue

TEAK Mekong Newsletter support and facilitates teak networking in the Mekong sub-region through ITTO member countries and partners, and support sharing lessons of the project results through short news release, occasional papers, project related teak-based research and development information. The bi-monthly newsletter is released online through TEAKNET webpage www.teaknet.org and co-hosted by Kasetsart University, Thailand.

For more information please contact,

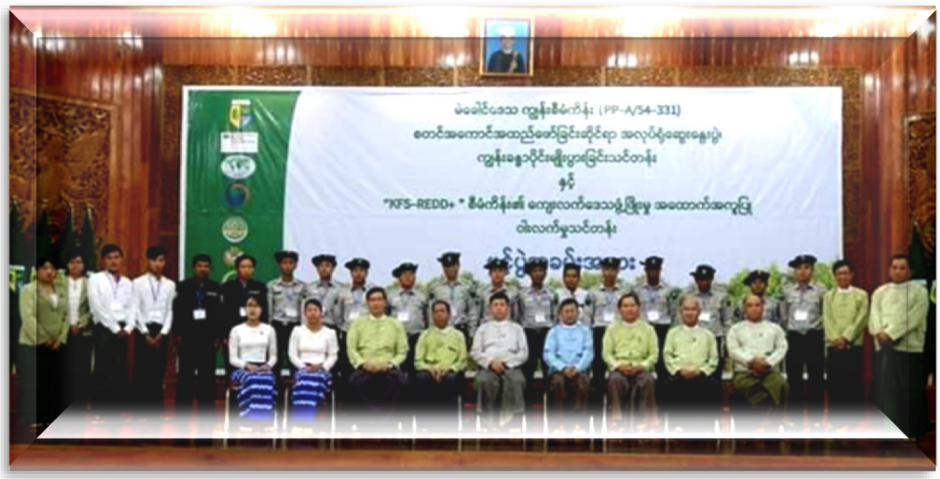
PK Thulasidas (thulasidas.teak@gmail.com)
or
Yongyut Trisurat (fforyyt@ku.ac.th)

Training Programme on

Teak Bud Grafting

3-7 March, 2020
Forest Research Institute, Yezin, Myanmar

"Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region" (PP-A/54-331) - Myanmar Component



The Senior Officials from Forest Department, Trainers and participants at the Opening Ceremony

Background and rationale

Myanmar plays a significant role in the global teak trade. It has the largest area of natural teak forests (almost 50 percent of 29 million ha globally) and is the number one producer of teak logs in the world. After India and Indonesia, the country has the third-largest planted teak area in the world (about 390,000 ha). Currently, the teak plantations are still young and produce only low-dimension logs from thinnings. In recent years substantial new policy regulations have been imposed to support the conservation and sustainable management of teak forests.

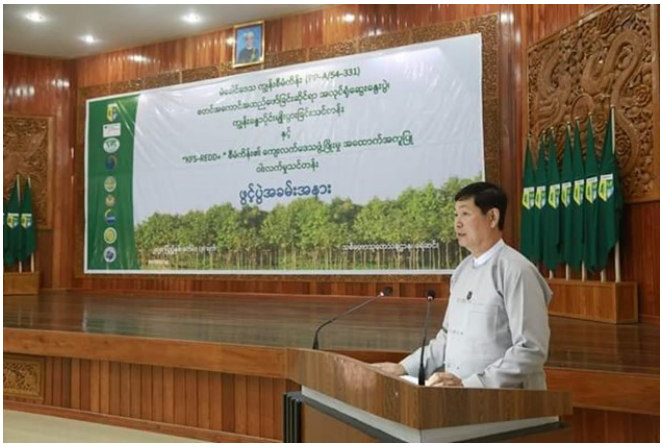
In April 2014, Myanmar has introduced a log export ban to promote local processing, which triggered a rapid increase in the global demand for high-quality logs. In 2016 the Myanmar Reforestation and Rehabilitation Programme (MRRP, 2017 to 2026) has stipulated a 10-year logging ban in the natural forests of the Bago Yomas mountain range ("the home of teak") that is accompanied by a comprehensive program of reforestation and enrichment planting to regenerate the forest and rehabilitate its growing stock.

ITTO is currently executing a comprehensive teak management programme entitled **"Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region" (PP-A/54-331)** to improve the management and marketing of both natural and planted teak forests in the Greater Mekong Sub-region covering five countries namely; Myanmar, Laos, Cambodia, Thailand and Vietnam**.** The project objective is to assist governments, local communities and smallholders to enhance natural teak forest management, production and marketing through establishment of legal and sustainable wood supply chains, improving local economy and local communities' livelihood in the Mekong Sub-region. As part of the ITTO Teak Mekong Project component **Output 2: Activity 2.1:** *'Community-based and smallholders teak forest management and agro-forestry systems have been strengthened with improved legal and sustainable supply chains'*, Myanmar Forest Department organized a training programme on "Teak Bud Grafting" during 3-7 March 2020 at Forest Research Institute, Yezin. The training programme included both theory and practical training on the following topics.

Basic course on:

* Plus tree selection, conservation and management
* Forest insect/pest management
* Forest diseases management
* Forest Soil properties
* Seed collection and storage methods
* Nursery establishment
* Theory and Practical on Tree improvement technique – collection of scions, buds, and grafting.

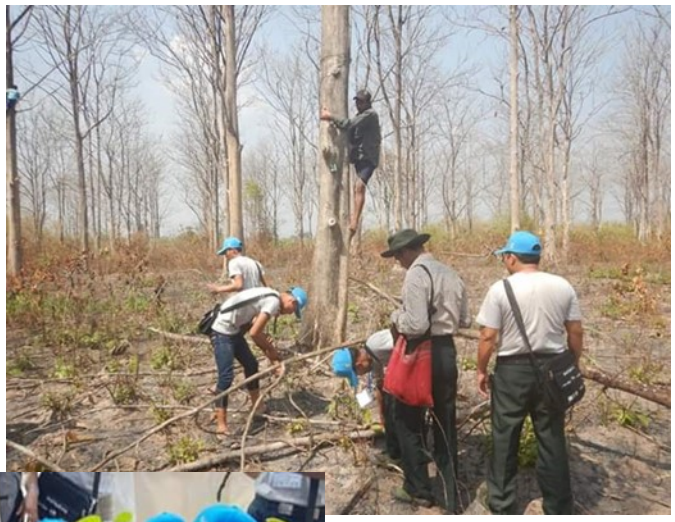
Dr. Nyi Nyi Kyaw, Director General of Forest Department delivered the opening speech and inaugurated the training programme. There were a total of 20 participants that includes field staffs (Forest rangers from Forest Department, Timber ranges from Myanma Timber Enterprise) and the local communities. The practical work was conducted at No.7 Research Station, Letpankhone, Oaktwin Township, Taungoo District, Bago Region. This Station is one of the Research Stations under the management of Forest Research Institute.

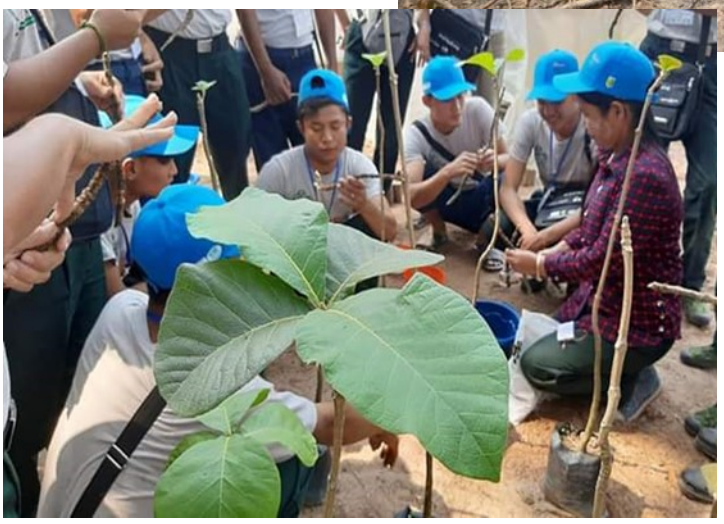


Inaugural speech by Dr. Nyi Nyi Kyaw, Director General of Forest Department, Myanmar

At the close of the training programme, trainees were well equipped and learned the methods and skills to produce quality planting stock through bud grafting. Attendance certificates was distributed to the participants at the end of the training.

Lecture classes on the different aspects of the training topics





Practical training on pruning and bud graftig at the No. 7 Research Station, Letpankhone

Participants at the No. 7 Research Station

Distribution of certificates by Dr. Thaung Naing Oo, Director and National Coordinator, Forest Research Institute

Trainers and participnts at the closing ceremony

Report by

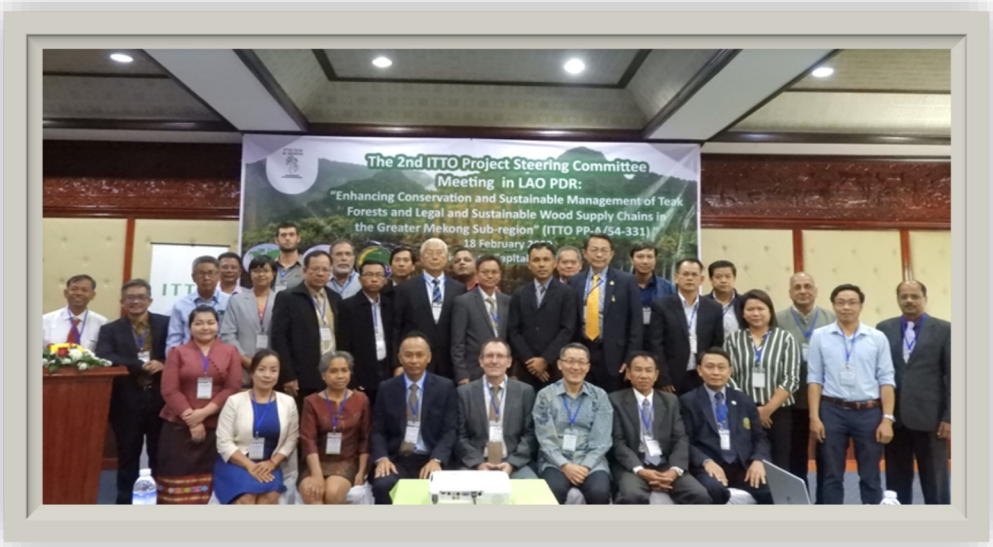
Dr. Thaung Naing Oo, National Coordinator and Director, FRI &
Dr. Zar Chi Hlaing, FRI

(Photo credit: Zar Chi Hlaing)

The 2nd ITTO Project Steering Committee Meeting

"Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-Region" (ITTO PP- A/54-331)

18 February 2020, Vientiane, Lao PDR



Participants of the 2nd PSC meeting at Vansana Riverside Hotel, Vientiane
(Photo: Lao PDR's National Agriculture and Forestry Research Institute)

As part of the ITTO Teak project activities now under implementation in the five participating countries of the Greater Mekong Sub-region, viz., Thailand, Myanmar, Cambodia, Vietnam and Lao PDR, the second Project Steering Committee (PSC) Meeting was convened on 18 February 2020 in Vansana Riverside Hotel, Vientiane. In a back to back to the National Teak Forum in Lao PDR: Sustainable Value Chains held on 19-20 February which include a discussion meeting in Vientiane on 19 February and a field excursion to Luang Prabang on 20 February. The teak management project is being executed by ITTO in collaboration with the above participating countries and coordinated by Kasetsart University, Thailand. The project is being funded by the Federal Republic of Germany through the Federal Ministry of Food and Agriculture.

The ITTO teak project was officially started off in March 2019 and the 1st PSC meeting was held in Bangkok during 23-25 April 2019. The 2nd PSC meeting and National Teak Forum was organised by the National Agricultural and Forestry Research Institute (NAFRI), Lao PDR.

The PSC meeting was aimed at reviewing the overall progress of the project implementation, including reviewing the responses of the project team to the recommendations of the 1st PSC meeting and providing directions and recommendations to the executing agency, national implementing agencies and project team in pursuing the project's targets. The Project Technical Committee meeting that followed further discussed the results and recommendations of the 2nd PSC meeting and formulated action plans on the ground to address the technical problems encountered.

Programme schedule

Tuesday,18 February 2020, Vansana Riverside Hotel, Vientiane, Lao PDR

9:00 – 12:30 hrs

	Subject
Item 1	**Opening of the Meeting**
	Welcome Remarks by Dr. Hwan-ok MA, ITTO Project Manager Mr. Stephan Wagner, German Federal Ministry of Food and Agriculture (BMEL) Dr. ChahnsmonePhongoudome, Deputy Director-General of National Agriculture and Forestry Research Institute (NAFRI), Lao PDR **Opening Remarks** Mr. JirasakChukwamdee, Deputy Director-General, Royal Forest Department, Thailand (Chair of PSC)
Item 2	**Self-introduction by the participants and Group Photo**
Item 3	**Review of the project structure and progress (including financial and inputs applied)**
	The project's overall objectives, outputs, work plan, and financial matters (Dr. Hwan-ok Ma, ITTO) Review of the implementation of the Minutes of the 1st PSC Meeting (Prof. YongyutTrisurat, Regional Project Leader) Report on the first-year project implementation (Prof. YongyutTrisurat, Regional Project Leader) Introduction on the 4thWorld Teak Conference (4thWTC 2020) and the Project's Contributions (Dr. Thulasidas, project's consultant&Dr. Tetra Yanuariadi, ITTO)
	Coffee/Tea Break
Item 4	**Consideration of the Second Yearly Plan of Operation (YPO)**
	Draft consolidated YPO (consisting of work plans and associated budgets of the five participating countries) for the second year of project implementation (Prof. Yongyut Trisurat, Regional Project Leader) and be discussed by the members of the PSC.
Item 5	**Recommendations**
	Project Steering Committee will: Review, evaluate, approve and adopt reports presented at the PSC meeting Discuss any issues arising from presentations, including possible modification/improvement to the project implementation and/or the budget Provide recommendations to contribute to effective implementation of the project The chairperson may summarize the main recommendations made during the meeting.
Item 6	**Other Business**
	Project Steering Committee will review: • Organization of next PSC meeting (time and location) Other business matters
Item 7	**Closing of the Meeting**

14:00-16:30 hrs

Item 8	**The 2nd Project Technical Meeting (including consultation with BMEL representative)**
	Review the recommendations from the 2nd PSC meeting and follow up actions Review the progress of work of the project's consultants Review the implementation of the ITTO Teak Project including review the implementation of the recommendations of the second Project Technical Committee Meeting held in September 2019 in Yangon, Myanmar Review of the work plans for the first half of the second year Discuss the project's inputs to the 4th WTC2020

Opening Remarks:

Dr. Hwan-ok Ma, ITTO Projects Manager, briefly provided background information about the project and highlighted the importance of establishing legal and sustainable supply chains during the implementation of this project during 2019-2022. Lessons and the achievements of this project will contribute to many Sustainable Development Goals (SDGs), particularly those related to responsible consumption and production and life on land.

Mr. Stephan Wagner, the representative of the German Federal Ministry of Food and Agriculture (BMEL) appreciated the arrangement of the PSC meeting, in particular the NAFRI, Kasetsart University and ITTO for executing the project in GMS region. He reiterated that teak is an important globally traded commodity and quality assurance has also become a key issue for Germany and European consumers in particular, to ensure that the products originated are from legal and sustainable sources. Therefore, Germany decided to support an up-scaling of efforts for ensuring a secure future for teak by financing ITTO's Teak project in the Mekong sub-region. It is hoped that ITTO by linking the project activities and lessons-learned with those of the global teak network, can promote capacity building and knowledge transfer even way beyond the project itself.

Dr. Chansamone Phongoudome, Deputy Director-General, on behalf of the NAFRI and the host country started his remarks by indicating the important role of forest resources to the livelihood of local people in the Mekong Sub-region (e.g., food and income). He then elaborated on the 70% forest cover target in Lao PDR and forest protection and sustainable management measures taken. Natural teak forests are found in Xaignabouri Province in north-western Laos and large scale plantations by private companies and rural communities in Luang Prabang province. He believes that this ITTO Teak project will bring benefits to smallholders and improve the teakwood quality.

Welcome remarks: Dr. Hwan-ok MA, ITTO; Mr. Stephan Wagner, BMEL

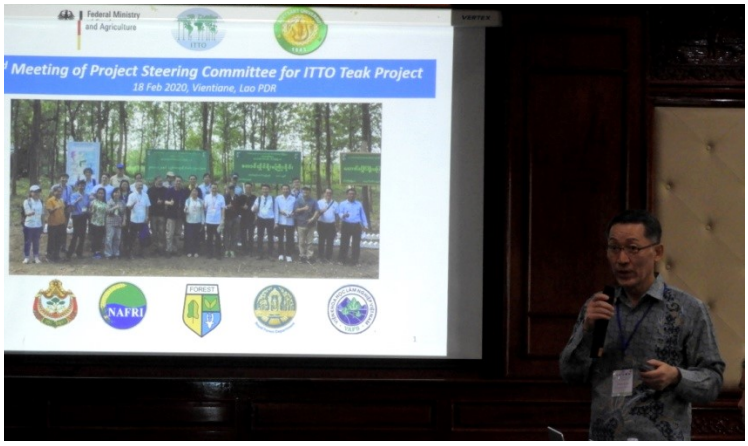
Dr. Chahnsamone Phongoudome, NAFRI

Opening remarks by Mr. Jirasak Chukwamdee, RFD

Mr. Jirasak Chukwamdee, Deputy Director-General of the Royal Forest Department, Thailand delivered opening remarks on behalf of Mr. Athapol Charoenshunsa (Director General, RFD) who is the Chairman of the PSC Committee. He underlined the importance of teak as a valuable hardwood in the world and its economic contribution to national development in Thailand and Myanmar. He said natural teak forests in the Greater Mekong Sub-region have faced many challenges including encroachment, and loss of genetic resources and the quality of planted teak have also been declined. Mr. Jirasak Chukwamdee appreciated all national coordinators for participating in this meeting; the Federal Republic of Germany, ITTO to execute the Teak Project in Mekong for funding and technical support; and NAFRI for hosting the meeting in Vientiane.

Project review and progress

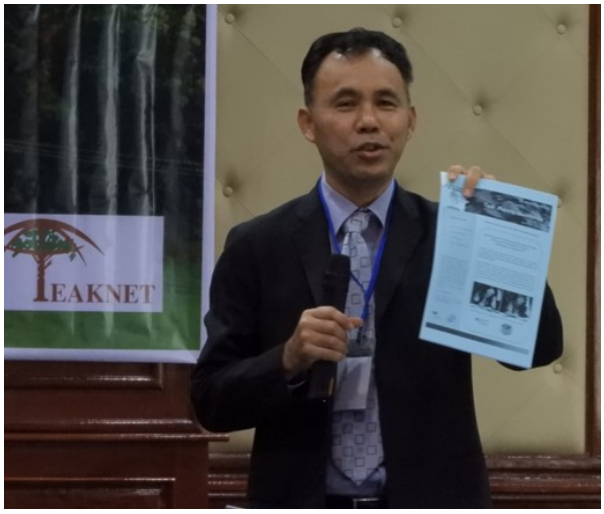
Following the self introduction of participants and group photo, review of the project activities was undertaken by the respective 5 participating countries including the financial and logical framework matrix and the goals achieved with bottlenecks, if any. Dr. Hwan-ok Ma highlighted the overall structure and project objectives, outputs and work plans. His respectful memories of Sir Dietrich Brandis, who is considered the Father of tropical forestry and worked with British Imperial Forest Service in colonial Burma and India and his dedicated work on sustainable teak management and 'Taungya' system was highlighted.



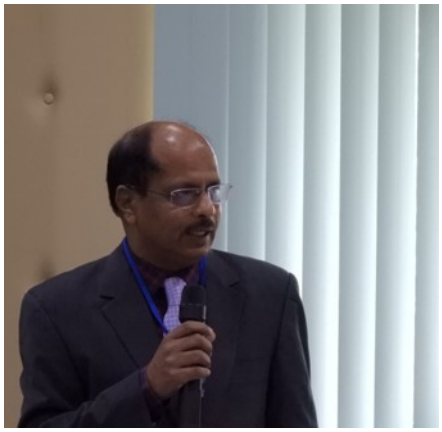
Project structure and overall objectives by Dr. Hwan-ok MA, ITTO


Project review in progress

Prof. Yongyut Trisurat, Regional Project Leader, Kasetsart University, presented the consolidated progress report of the three project outputs and its implementation and achievements in the five participating countries. He also presented the yearly plan of operation (YPO) consisting of work plans and associated budgets for the second year of project implementation in the five participating countries for the period 1st March 2020 to 28 February 2021.



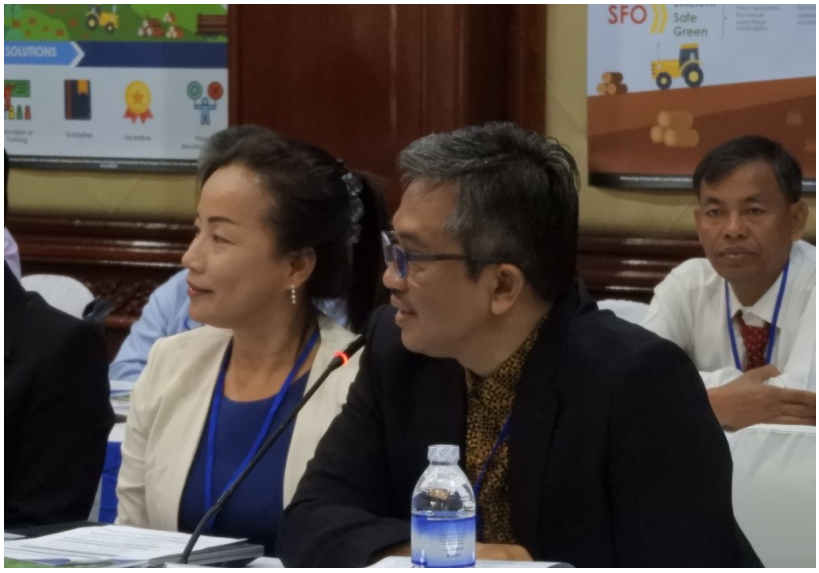
Project overall review by Prof. Yongyut Trisurat, Regional Project Leader, Kasetsart University



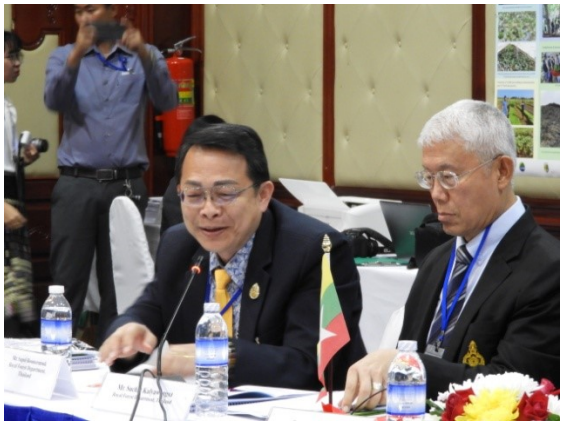
Dr. Thulasidas (Consultant #9) on 4th WTC updates

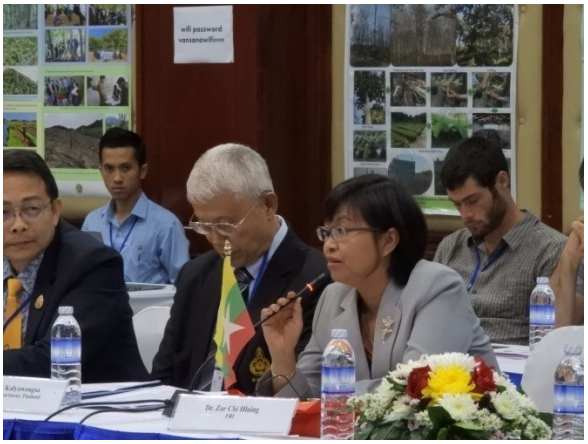
Dr. Thulasidas (Consultant #9) gave a briefing on the 4th World Teak Conference (WTC), which will take place in Accra, Ghana during August 24-27, 2020. A special ITTO Teak Mekong Session of 2 hrs duration is being planned during the WTC in which the leaders of the Teak Mekong Project team will be invited to present the project activities highlighted and the lessons learned shared among the participants at Ghana who are coming across different parts of the world.

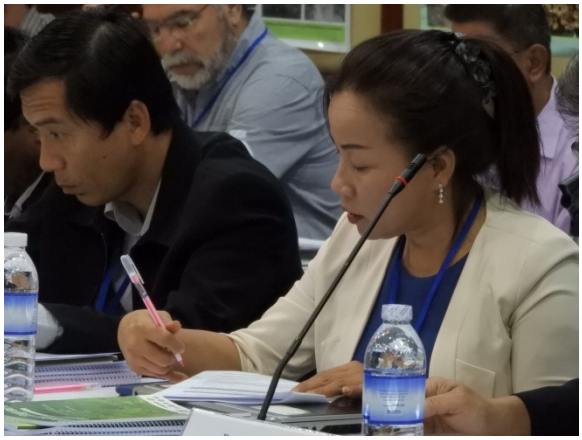
The PSC members considered organisation of the next 3rd PSC meeting at Cambodia in early December 2020 and endorsed the National Coordinator to make necessary planning for the same.

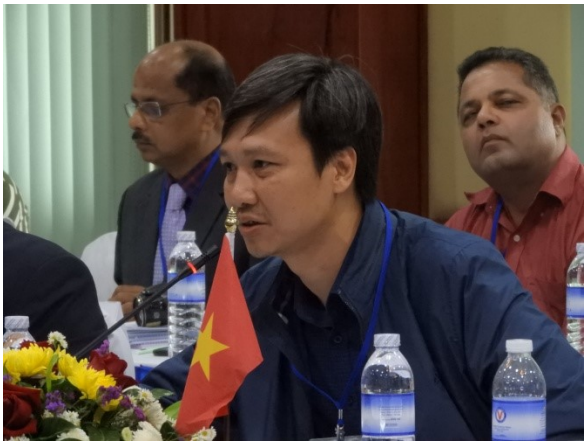


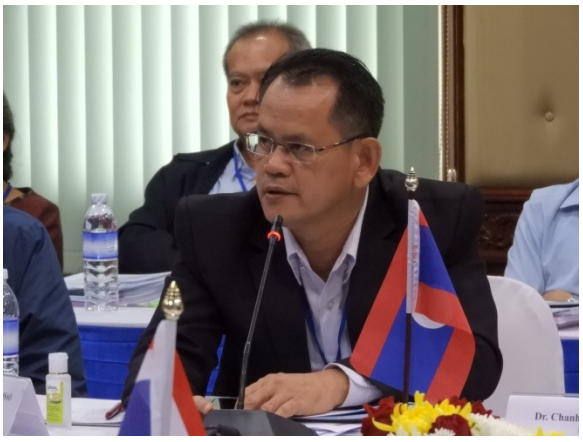
Intervention by Dr. Tetra from ITTO on the next venue of the 3rd PSC Meeting



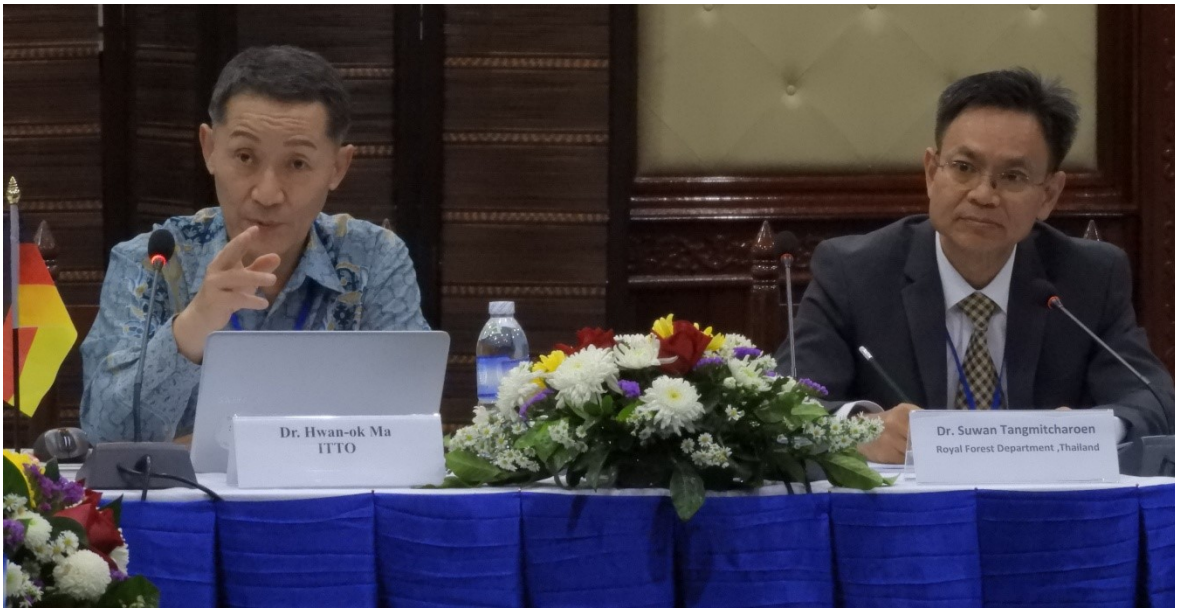








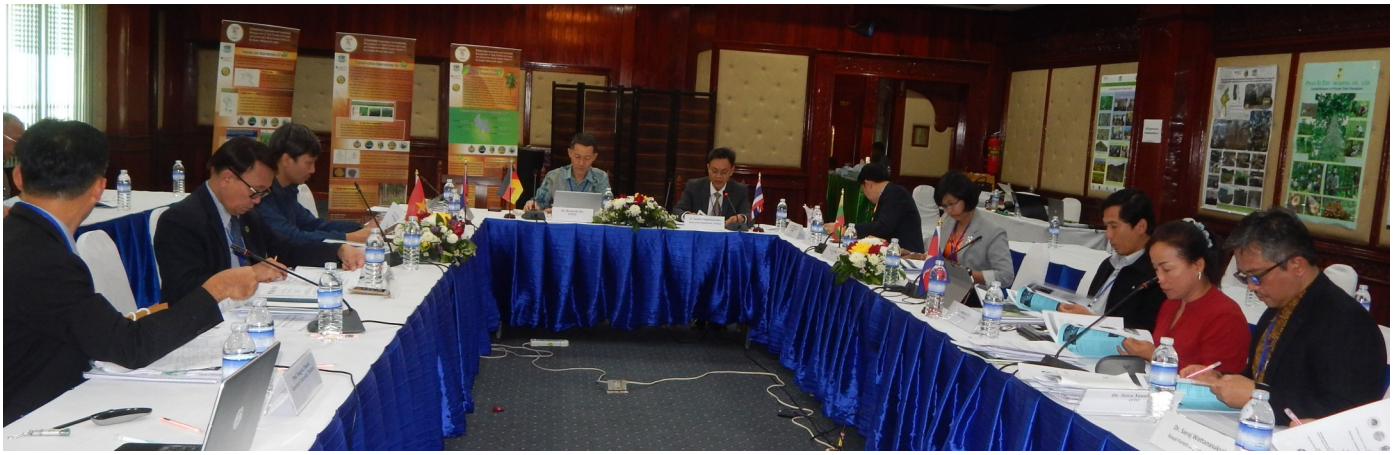
Review of project activities by participating countries: Top (L to R) Dr. Nikhom Laemsak, Thailand; Dr. Zar Chi Hlaing, Myanmar
Middle (L to R) Ms. Sopheap Lim, Cambodia; Dr. Tran Lam Dong, Vietnam;
Bottom Mr. Vongvilay Vongkhasao, Lao PDR.



Dr. Suwan Tangmitcharorn, RFD, Thailand (right) chairing the PTC meeting with Dr. Hwan-ok MA

The Project Technical Committee chaired by Dr, Suwan Tangmitcharorn, RFD approved the progress report presented by Prof. Yongyut Trisurat with recommendations of the changes suggested by the PSC.

The PTC meeting adjourned by 12.30 hrs with a vote of thanks to the Chairperson and all participants for various productive discussions towards the effective implementation of the project in the GMS region.



PTC meeting in progress

(Photo credit: Prof. Yongyut Trisurat & Dr. Thulasidas)

Lao Teak Forum: Sustainable Teak Value Chains for Sustainable Local Development

19-20 February 2020, Vientiane and Luang Prabang, Lao PDR

Participants in the National Teak Forum at Vientiane *(Photo: NAFRI)*

Introduction

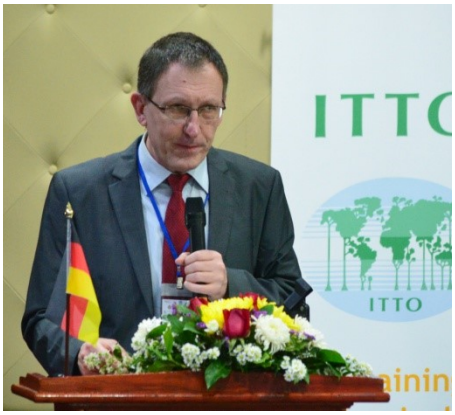
In Lao PDR, teak is a priority native species and the area of natural teak forests is estimated to approx. 68,500 ha in 2010. In addition, teak plantations have been established by private companies and rural communities. The country banned export of natural teak logs. The Department of Forestry has promoted community-based teak plantations. An estimated 36,000 ha of teak plantations are mainly located in northern provinces (Luang Prabang and Boeko). The goals of the Forest Strategy 2020 include increasing transparency of natural resource policy and disseminating information on forest cover, forestry revenues, harvesting levels, plantation establishment and management actions. Many rural peoples in the northern provinces of Lao PDR depend on planted teak forests for their livelihoods. They gain employment and income from teak forestry as a most economically viable land-use option particularly in remote and under developed areas. The multiplier effect on local employment at small-scale wood processing and service sector levels is significant when value-added activities are developed in the local economy and among the forest-dependent work force.

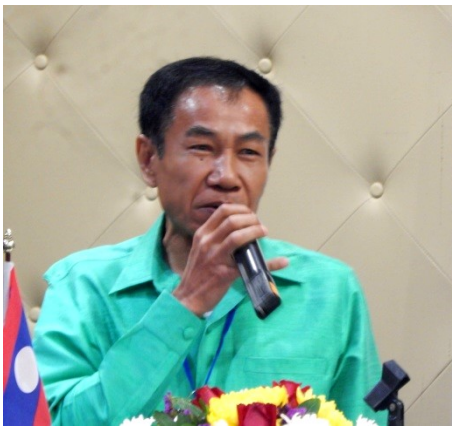
In view of the importance of developing value-added activities in the local economy in partnerships between the private timber sector and the local communities, the National Teak Forum aims at reviewing the opportunities and challenges of sustainable teak value chains in Lao PDR with a view to contributing to sustainable development of smallholders teak forestry in Lower Mekong region.

About 50 participants in the *Lao Teak Forum: Sustainable Teak Value Chains for Sustainable Local Development* reviewed opportunities and challenges for sustainable teak value chains in Lao PDR in the workshop organised at Vansana Riverside Hotel, Vientiane coinciding with 2nd PSC Meeting (see programme schedule below). The forum was co-organized by ITTO in cooperation with Lao PDR's National Agriculture and Forestry Research Institute (NAFRI) and with financial support from the German Federal Ministry of Food and Agriculture (BMEL). It was convened on 19–20 February 2020. A field excursion was also arranged by NAFRI to Luang Prabang province on 20th February after the Teak Forum in Vientiane.

Lao Teak Forum: Programme Schedule

Time	Wednesday, 19 February 2020
08.00- 09:00	Registration
09:00 - 10:00	**Opening ceremony**
	Welcome remarks by Dr. Hwan-ok MA, ITTO Project Manager Mr. Stephan Wagner, German Federal Ministry of Food and Agriculture (BMEL) Mr. Jirasak Chukwamdee, Deputy Director- General, Royal Forest Department, Thailand **Opening remarks by** Dr. Chahnsamone Phongoudome, Deputy Director General, National Agriculture and Forestry Research Institute (NAFRI), Lao PDR
10:00 – 10:30	Tea break and Press release
10:30 – 11.30	**Keynote presentations and discussion**
	Chairman: Dr. Chahnsamone Phongoudome • Sustainable Forest Management in Lao PDR, including Teak (Mr. Bounchanh Lattanavongkot, Deputy Head of Forestry Provincial Office, Luang Prabang, Lao PDR) • Teak value chains in Lao PDR: Challenges and Opportunities (Prof. Tek Maraseni, University of Southern Queensland, Australia and Mr. Vongvilay Vongkhamsao, NAFRI) • Teak product industry in Lao PDR (Mr. Thongsavanh, President of Lao furniture association a teak producer's organization/ teak company)
11.30-12.30	**Country presentations on sustainable supply and value chains of quality teak timber in Lower Mekong**
	Chairman: Prof. Tek Maraseni Speakers: Ms. Sopheap Lim , Forestry Administration, Cambodia Mr. Than Sint, Wood-based industry, Myanmar Dr. Nikhom Laemsak, Kasetsart Univeristy, Thailand Dr. Tran Lam Dong, Vietnamese Academy of Forest Science (VAFS), Vietnam
12.30-13.20	**Panel Discussion: Sustainable teak value chains in Lower Mekong Region**
	Chairman: Dr. Hwan-ok MA Panel members: Ms. Sopheap Lim , Forestry Administration, Cambodia Dr. Latsamy Boupha, National University of Laos Mr. Thongsavanh Soulingamarth, President of Lao National Wood Industry Association Mr. Than Sint, Wood-based industry, Myanmar Dr. Nikhom Laemsak, Kasetsart Univeristy, Thailand
13.20 – 14:00	Lunch at restaurant
14.30	Departure to Wattay International Airport (Participants for Filed Excursion)
17.00	Leave for Luang Prabang
	Stay overnight at E-outfitting Vang Thong Hotel, Luang Prabang
	Thursday, 20 February 2020
	Field Excursion
8.30-13.30 (Lunch included)	Teak Silvicultural Demonstration Plot Ban Xieng Lom Teak Plantation Management Group Ban Kok Ngiew Teak Farmers Group
13.30-17.00	Visit to War memorial Gate Luang Prabang National Museum/ Wat Xieng Thong temple City tour
	Stay overnight at E-outfitting Vang Thong Hotel, LuangPhabang
	Friday, 21 February 2020
	Departure of participants

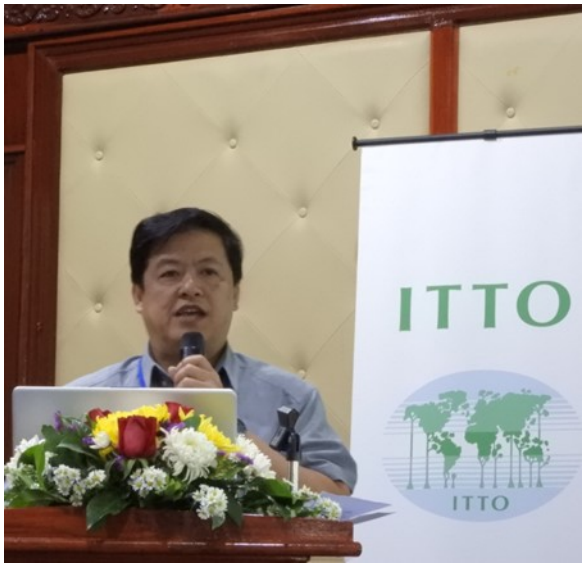




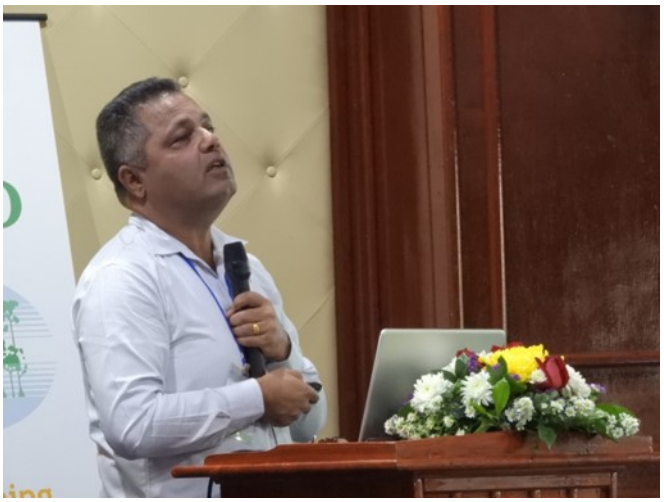
Opening remarks: Top (L to R) Dr. Hwan-ok MA, ITTO; Mr. Stephan Wagner, BMEL
Bottom (L to R) Mr. Jirasak Chukwamdee, RFD; Dr. Chahnsamone Phongoudome, NAFRI

Keynote presentations:

Keynote session was chaired by Dr. Chahnsamone, Deputy Director General of NAFRI. Mr. Bounchanh Lattanavonkot, Dy. Chief of Forestry Provincial Office, Lao PDR in his keynote address spoke extensively on the village forest management planning implemented in Luang Prabang province. Teak forest resources in LPB province almost belong to private smallholder growers which was poorly managed and unproductive, poor seed sources and lack of awareness about the proper thinning regime for profitable earnings. The Luang Prabang Teak Program (LPTP) was started in 2008 as a partnership initiative between farmers and LPB province with the support of Govt of Laos. The main objectives of LPTP was to improve the socio-economic benefit of smallholder teak farming, environmental responsibility including SFM goals and forest certification. Secured land tenure and user-rights are essential for teak plantations. Now, smallholders' are unable to accommodate the current international forest certification systems due to high transaction costs involved.

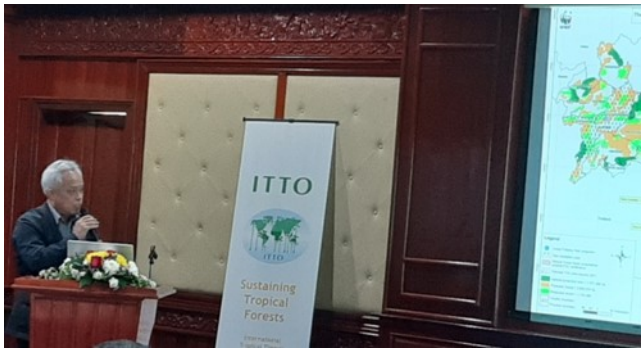


Mr. Bounchanh Lattanavonkot, Lao PDR



Prof. Tek Maraseni, Australia on value chain analysis

Prof. Tek Maraseni, University of Southern Queensland, Australia and Value Chain Consultant in his talk on value chain analysis (VCA) of teak in Lao PDR, emphasized that without the secured land tenure and user-rights on smallholders teak plantations, the industry cannot run profitably. Supportive policies for smallholders teak plantations can be effective by eliminating over-regulatory burdens to small-scale plantations, management and harvesting as well as local transportation of harvested teakwood. Upgrading of the processing standards and machinery may improve product standards and the farmers may be accessed to the market information and developing linkages with main chain actors will be mutually beneficial.



Mr. Thongsavanh Soulingamarth, President, National Wood Industry Association, Laos

Mr. Thongsavanh Soulingamarth, President of National Wood Industry Association touched upon the multifaceted problems faced by the smallholders in the teakwood industry sector. In Laos, over 30,000 ha of teak plantations are covered in the northern and southern provinces of Luang Prabang and Vientiane capital, mostly owned by the small farmer groups. Once planted, little management practices like thinning and pruning are undertaken for quality improvement of teak. Good silvicultural practices like pruning (regular after 3rd year plantation) and thinning (two or three times from 7 year plantation) are essential for quality production of teakwood. Regular training and extension are required for smallholders in these aspects. Creation of teak farmer groups to work together is useful for individual farmers for effective value chain development. Financial support is critically needed to smallholders in the initial years. Supports from agricultural soft loans and setting up of a tree bank program are encouraged to address the lack of investment resources. Returns from thinning are important to smallholders for their immediate livelihoods. Teak value addition is essential from local product development of thinning materials to value added product development of harvested teakwood.

Country presentations: Sustainable supply and value chains of quality teak timber in Lower Mekong

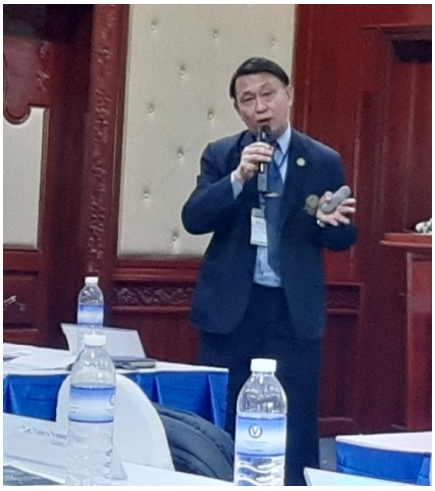
This session was chaired by Prof. Tek Maraseni, University of Southern Queensland, Ausralia. Ms. Sopheap Lim, Forestry Administration, Cambodia in her country report stated that teak plantations have been established on a very limited scale comprising only approx. 2,700 ha on national level, 80% of which have been planted by private investors in economic land concessions which is being promoted by the Ministry of Agriculture, Forestry and Fisheries. As part of the ITTO Teak Mekong project, demonstration plots have been established in Kampong Cham & Kampong Speu province and training programme on silvicultural practices and propagation techniques were conducted to the smallholders/ farmers/forest department field staff. Population and economic growth, real estate development, rapid housing construction development, progressive furniture industry, would be opportunities for the smallholders/ small-scale forests/teak plantations and management.

Mr. Than Sint who spoke on the wood-based industry in Myanmar elaborated the country's opportunities and challenges facing the wood industry. Teak from natural forests and products in Myanmar has not been internationally certified yet and FSC certified wood processing industries is not existing now. With low investments in wood-based industries, export of finished products are limited.

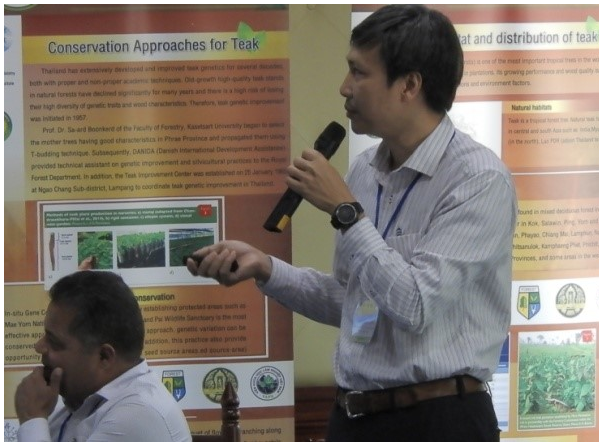
The 10-year Myanmar Rehabilitation and Reforestation Programme (MRRP) (2017-2027) is aimed to meet the increasing demand for timber, plantation forestry, with the involvement of the private sector. Community forestry is encouraged to meet the demand of local communities and relieve pressure on natural forests. Currently, FLEGT-VPA process and Myanmar Timber Legality Assurance System (MTLAS) is underway for acceptance of legal supply of timber products.

Ms. Sopheap Lim, Cambodia

Mr. Than Sint, Myanmar



Dr. Nikhom Laemsak, Thailand



Dr. Tran Lam Dong, Vietnam

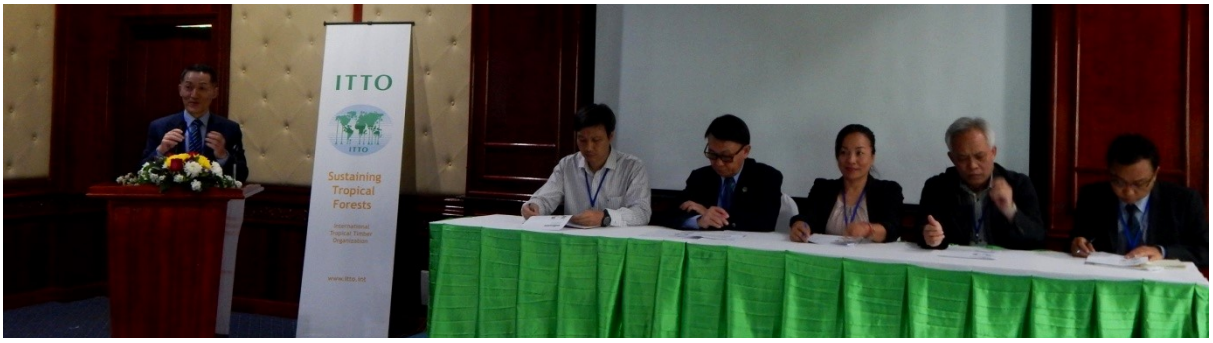
Dr. Nikhom Laemsak, Kasetsart University gave an overview of Thai timber production and trade and resource utilisation. Dr. Tran Lam Dong, Vietnamese Academy of Forest Science stated that teak plantation in Vietnam is very small (approx. 3,300 ha) and teak is imported to the country in about 40,000 m^3 annually and the finished furniture products are mainly export oriented.

Panel discussion: Sustainable teak value chains in Lower Mekong region

Chairman : **Dr. Hwan-ok Ma, ITTO, Japan**
Panel members : Ms. Sopheap Lim , Forestry Administration, Cambodia
Dr. Latsamy Boupha, National University of Laos
Mr. Thongsavanh Soulingamarth, President of Lao National Wood Industry Association
Mr. Than Sint, Wood-based industry, Myanmar
Dr. Nikhom Laemsak, Kasetsart Univeristy, Thailand
Dr. Tran Lam Dong, VAFS, Vietnam

Following the short country presentations about sustainable supply and value chains of quality teak timber in Lower Mekong, a panel discussion with experts and country representatives from ITTO teak Mekong project deliberated on the main topic of discussion. The Chairman introduced the topic and the panellists heard the audience on the main questions:

(1) Can smallholders increase teakwood production?
(2) What is the potential for smallholders, including women, to increase teak value addition activities?
(3) Based on experience, what is your key recommendation to increase value addition from teak plantations in tropical countries?



Chairman and panel members (L to R): Dr. Dong; Dr. Nikhom; Ms. Sopheap; Mr. Thongsavanh; Mr. Than Sint

Interventions from the audience

Audience in National Teak Forum

The Lao Teak Forum participants noted that smallholder teak plantations have the potential to be a driver of sustainable development in the lower Mekong by improving the livelihoods and landscapes of rural communities. If a smallholder receives technical support and a modest fund under secured land tenure and supportive policies, teak plantations can be well established for their sustainable livelihoods. The forum drawn up the following key recommendations.

1) Secured land tenure and user-rights are essential for teak plantations

- Supportive tenure policies for smallholders teak plantations can be effective by eliminating over-regulatory burdens to small-scale plantations, management and harvesting as well as local transportation of harvested teakwood products.

2) Promote innovative certification systems to smallholder teak plantations

- Forest certification is increasingly become important for timber with strong demand in international market, such as teak, however, smallholders are unable to bear the high transaction cost involved in the existing certification systems.
- The certification of smallholder teak plantations by local forestry authorities such as the scheme in operation under Luang Prabang Teak Program (LPTP), has facilitated the local development of smallholders teak wood products. This could help them in demonstrating the legal origin of planted teakwood.

3) Increase the productivity and quality of smallholder teak plantations by using quality teak genetic resources

- Quality teak planting stocks are essential for raising teak plantations with appropriate spacing, pruning and thinning and provision of training and extension for smallholders in good siliviculture practices could significantly improve the productivity of plantations and the quality of teakwood.

4) Formation of smallholder farmer groups for effective value chain development

- Farmers and traders have to work together to add value to teakwood and to set up community enterprises. Such smallholder farmer groups should be replicated elsewhere in the country with lower taxation systems for smallholders.
- Financial incentives in the form of agricultural soft loans and setting up of a tree bank program are encouraged to address the lack of investment resources.

5) Promote value addition from teak thinnings

- Product development from teak thinning materials will add value to the harvested teakwood for smallholders for their livelihoods.
- Local processing of harvested teak by farmers groups is giving more financial benefits than compared to selling teak logs to middlemen. However, training on wood processing technologies and its efficient use to minimize wastage and handcraftsmanship could improve the local manufacture of teak furniture and do-it-yourself furniture products while creating rural jobs.

6) Enhance networking between growers, processors and traders as well as public-private partnerships

- Facilitating communication and information sharing among the stakeholders including research and academic institutions will strengthen teakwood supply and value chains in the region.

The Lao Teak Forum was conducted as part of the ITTO project, "*Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region*" (ITTO PP-A/54-331), financed by the Government of Germany through BMEL. Project partners include Cambodia's Forestry Administration, Lao PDR's National Agriculture and Forestry Research Institute, Myanmar's Forest Department and Forest Research Institute, the Thai Royal Forest Department and Kasetsart University of Thailand and the Vietnamese Academy of Forest Sciences.

Nedler Wheel Experiment *(Image courtesy: Forest Ecol. Mgt Vol. 435:2019*

Field Excursion

After the Lao Teak Forum which concluded on 19 February at Vientiane, all the delegates and participants departed to Watty International airport in the evening to leave for Luang Prabang for field visit on 20th February and stayed overnight in the E-outfitting Vang Thong Hotel.

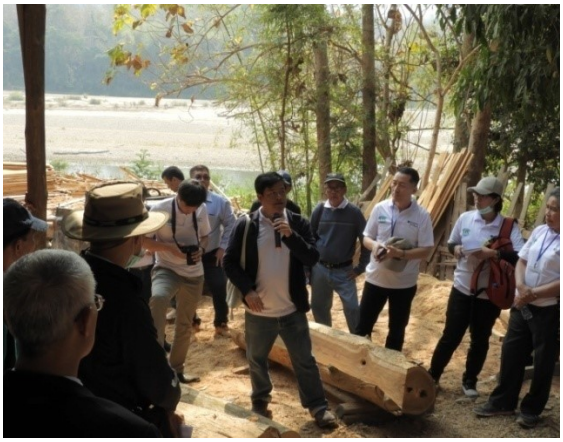
Nedler Wheel Experiment Station

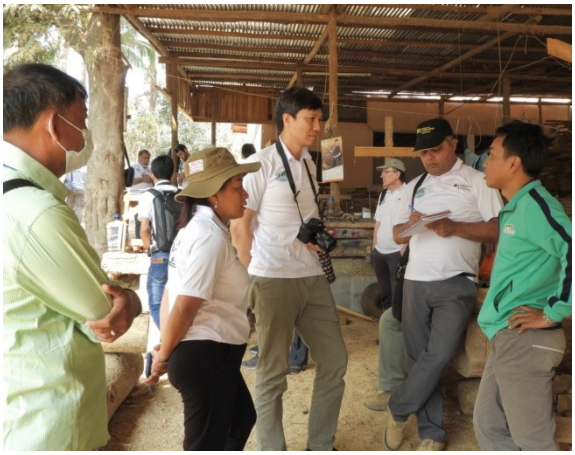
At 8.30 in the morning the participants left for field trip. The first stop was at Teak Silvicultural demonstration plot (Nelder Wheel Experiment station) established in 2008 with the support of ACIAR Agro-forestry Project. The objective of the experiment was to demonstrate the effect of teak planting in a circle at different spacing regime on its growth performance (for details of Nelder Wheel Experiment, please see the previous issue of Mekong Newsletter Vol. 2(1): 2020 and the published paper available in Teaknet website). The Nedler experiment occupied an area of 0.78 ha with a total of 240 trees, including the inner and outermost rings. One can visualise the growth changes in length and diameter of teak as we move away from the centre of Nedler wheel towards the periphery of the circle as seen in the below picture. The place is being visited regularly by the researchers and students alike. Teak trees are logged at 15-20 years time in shorter rotations in Laos.

Participants in demonstration plot

Ban XiengLom Teak Plantation Management Group

The next visit was to a farmer's plantation group established in 2013 as a cooperative venture of 32 families having owned 62 teak plantation plots of approx. 4,306 ha. The group started wood processing unit in 2015 by themselves and they procure teak logs from plantations directly without the involvement of middlemen and manufacture different furniture products and supplied to the domestic market. The domestic demand of teak is very high.





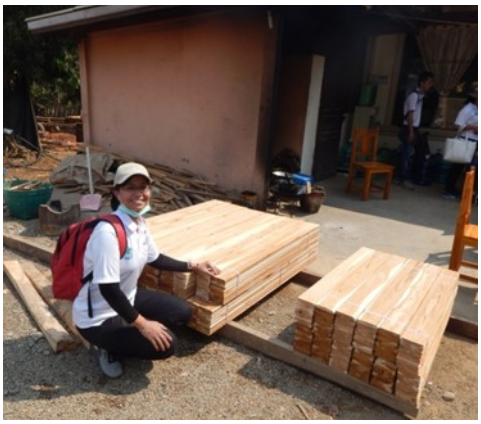
Interaction with farmer group

Ban Kok Ngiew (Teak Farmers Group)

This farmers group obtained FSC group certification in 2011, which is the first FSC certified smallholder plantation in Lao PDR. Over the past five years, Luang Prabang Teak Program (LPTP) has used FSC as a guideline to improve forest management. LPTP now do not follow FSC certification due to the lack of FSC markets in Luang Prabang and high transaction costs and bureaucratic hurdles and is not profitable for the smallholders. LPTP is confident that they can provide benefits to local farmers without being certified by FSC. Smallholders require extension and training on the advanced use of wood processing technologies to minimise wastage in the efficient utilisation of teakwood.

Conventional open drying of sawn teakwood by the smallholders

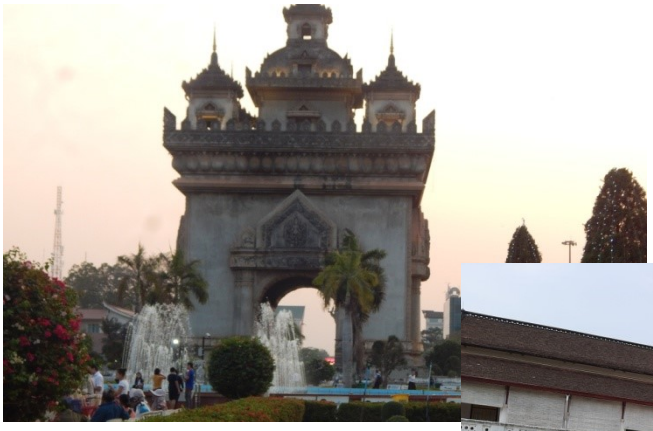
Teak squares from juvenile wood

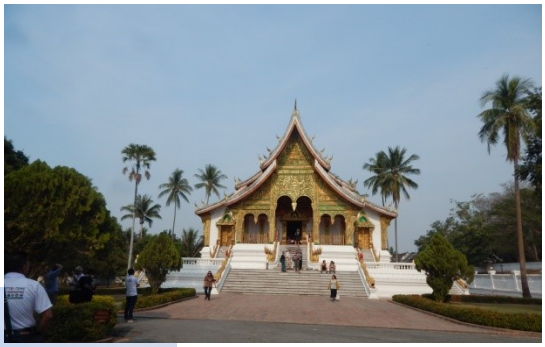


Teakwood Flooring material

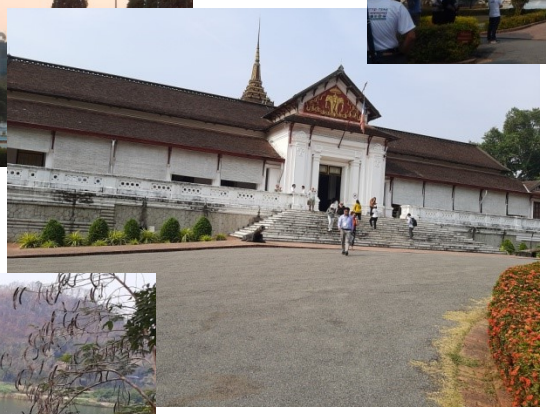
Delegates at Teak Farmers Group

A city tour was also arranged by the organisers to the World Heritage city of Luang Prabang and adjacent areas

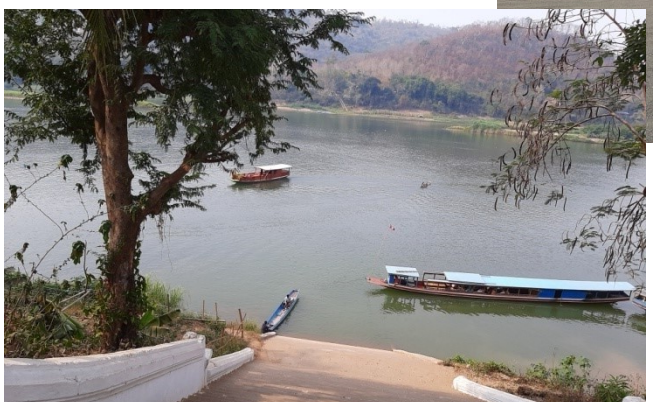




Wat Xieng Thong temple



Luang Prabang National Museum



Quite flow of the Mekong river

For the full report and presentations of the Lao Teak Forum to download, please visit TEAKNET website and FB page of ITTO Teak Mekong project .

Report by

Dr. PK Thulasidas / Prof. Yongyut Trisurat
ITTO Teak Mekong Project

(Photo credit: Dr. PK Thulasidas/Prof. Yongyut Trisurat)

Policy Brief

Thinning: an important management tool for smallholder teak plantations

Mr. Tosporn Vacharangkura
Consultant #5, Faculty of Forestry, Kasetsart University,
Bangkok 10900, Thailand
Email: vtosp@hotmail.com

Background

Teak (*Tectona grandis* L.f.) has been one of the most important and valuable tropical hardwood species in Thailand with a long history of plantation started in 1906. Planted teak forests need to be managed following a well-defined operational regime to achieve the desired production goals Most important are good site selection, use of genetically improved planting material, adequate soil preparation, and the timely execution of silvicultural practices. Protection against forest fire as well as pest and disease management must be effective to avoid losses in productivity.

Monitoring growth and yield dynamics is essential to facilitate adequate management responses (sustainability), social, environmental and economical (including the provision of environmental services) e.g. watershed protection, biodiversity conservation, carbon sequestration must be a key concern in the management of teak plantation. The implementation of appropriate practices at every stage of development can help to achieve this goal.

Teak is relatively simple to grow in comparison with other commercial hardwood species in Thailand. In teak plantation managed for timber production, thinning is probably the most important operation carried out between canopy closure and final harvesting. However, most smallholder teak plantations in Thailand never considered the potential benefits of planted teak through thinning operation on their private lands. Their lack of interest is explained mainly by four factors: (1) their need for maximum of short-term economic returns, therefore they needed to keep all of the planted trees, (2) Smallholders sell timber in the form of trees instead of logs.

They generally do not have knowledge, skills and capital to harvest and sell timber directly to wood markets or sawmills. In addition, smallholders' timber tends to be low quality, small in diameter, with knots and other defects and not straight. This is partly because most smallholders do not use appropriate silvicultural practice after plantation establishment, particularly thinning and pruning, (3) thinning operation is costly compared with other silviculture activities they ever did before, and they cannot sell logs from thinning and (4) forestry laws that severely restrict the harvest (thinning and final cuttings) and transport of protected indigenous species.

Why thinning?

In planted forests, after canopy closure, there is intense competition between trees for light, moisture and nutrients. The vigorous growth of trees with the largest crowns become dominant and the weaker trees with smaller crowns become overcrowded and suppressed. Eventually the weaker trees will die, and potential timber production is lost.

Thinning is normally conducted several times during rotation age and must be carefully carried out as the removal of too few trees will result in a greater proportion of smaller diameter trees of limited timber value. Removing too many trees allows the light to fall deep into the canopy resulting in growth of heavy branches and knots, which reduce the quality of the wood and limit its range of potential uses.

In Thailand, teak plantations were once managed on rotations of more than 30 years. The current rotation lengths have been shortened to 30 years or lower for commercial wood plantations.

Teakwood from plantations still has not been well accepted in traditional markets and log prices for plantation teak are much lower than those for old growth natural teak. A major challenge for teak plantations owners is to develop innovative markets for plantation teak and find uses for low value wood from thinning.

Benefits of thinning

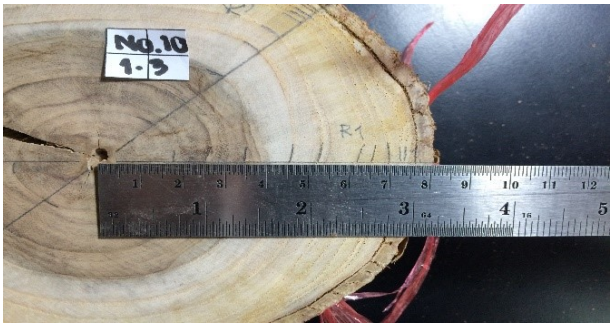
For most plantations of forest trees, thinning is very strongly associated with forest management. It is the practice of removing some trees in an immature stand to increase growth of the remaining trees and the total yield or value of usable wood. Thinning does impact stand growth, development and structure. It is usually implemented between regeneration and final harvest, in order to increase the economic productivity of stands. Thinning can be commercial or non-commercial, depending on objectives of the plantation owner and the local market for the material cut in the thinning operation.

The purpose of thinning is to increase economic benefits. The gain may be achieved by offsetting the expense of carrying establishment costs to rotation age, increasing the value of the product, and/or increasing stand utilization. Large trees are more valuable than small ones because they are cheaper to transport and the resulting products have a greater value than those from small trees, particularly the ones below saw-log size. The beneficial effects of thinning on wood production and utilization are as follows:

Increased growth

Thinning increases the size of individual trees through redistribution and concentration of a site's growth potential on fewer trees. The increased volume growth of individual trees normally occurs as diameter rather than height growth. With a wide range of tree density per unit area, height growth is relatively constant for a given species and site. The primary effect of thinning, therefore, is to increase diameter growth of the remaining trees (Figure 1). Effective thinning will stimulate this growth within a few years.

Thinned Stand



Un-thinned Stand

Fig. 1. Thinning increases diameter growth: cross-sections of a stem in thinned stand compared with un-thinned stand

Many studies have shown that properly managed plantation forests have both economic and ecological benefits. Regular thinning provides an improved environment for maximizing a site's growth potential, and this results in larger, healthier trees and more valuable timber. Silvicultural practice like thinning allows for the continued growth of the healthiest preferred trees in a stand while removing the suppressed, diseased and low-vigor trees that will impede the growth of the entire stand.

Many of the low-vigor trees in such stands continue to grow at a reduced rate until they die by severe competition or they are removed by thinning. Although stem quality and total utilizable yield may be increased, the effect of thinning may provide marginal economic returns and only limited growth response in the stand over the rotation. (Figure 2) Response to thinning is affected by most of the factors that influence tree and stand growth such as species, age, site index and stand density.

Thinned Stand

Un-thinned Stand

Improved utilization

While the economic benefits of regularly removing suppressed and dying trees are minimal, intermediate thinning do pay for themselves and provide the economic advantage of improving the health of the entire timber stand. Arranged thinning during growth cycles will yield wood that can be utilized for small pole, joint wood or pellet operations. Again, while the economic gain may be minimal in this case, the health of the overall stand is improved and thus, the value of the overall stand increases.

The other benefits of thinning are: (1) to reduce tree damage from disease and pests. (2) genetic enhancement can also be achieved through proper and regular thinning and (3) create the better environment of the planted forest. In addition, proper thinning and controlled burning are the most effective ways to minimize fire exposure.

Wood from thinning

Thinning operations provide timber throughout the rotation. Early thinning from teak plantations are normally sold for lower value end- uses due to their small dimensions. Uses include fence posts, wood joints, furniture house furnishings and souvenirs, while at early thinning any revenue generated usually goes into paying for the thinning operation itself. However, material from later thinning, which is larger and of better quality than that from earlier thinning, may yield a better profit (Figure 3).

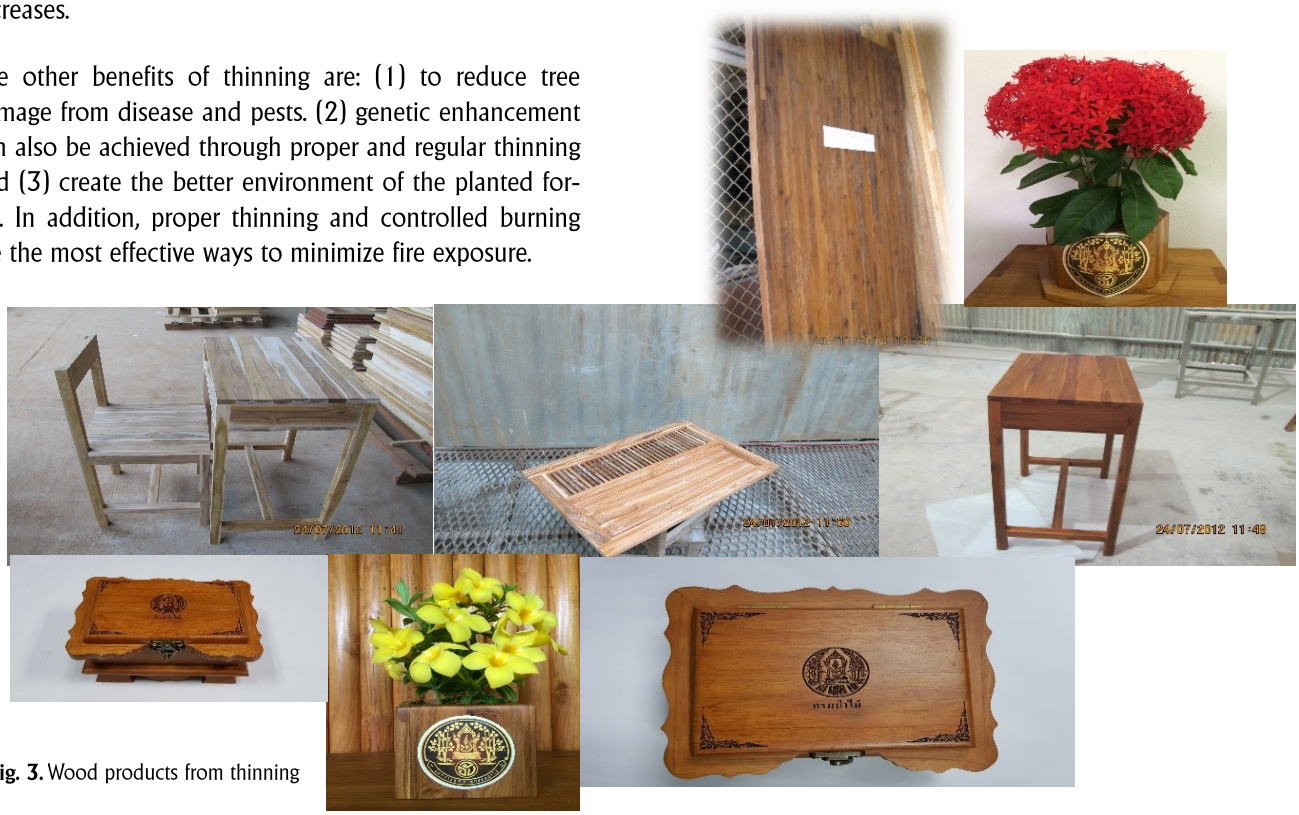


Fig. 3. Wood products from thinning

Relevant policies and strategies related to thinning

In Thailand, the National Forest Policy has been the important instrument to focus on the forest resources management. According to the National Forest Policy and the Twelth National Economic and Social Development Plan (12th plan), commercial forest is targeted at 15% of the country, therefore, planted teak forest in the private lands is part of the target area.

Nowadays, the Royal Forest Department (RFD) has made an effort to increase forest plantation in private areas to meet the National Forest Policy and the policy of the Ministry of Natural Resources and Environment (MoNRE) by (1) development of forest industry, and (2) promotion of planting of valuable tree species in ownership lands, that can be cut for sale, and encourage the private sector to invest in forest plantations. A specific strategic issue of the Royal Forest Department in a period of 20 years, 2017–2036, is related to the management of commercial plantation, (3) Promotion of Forest Business and Economic Forests in forest planting and community forestry in order to make urban / rural communities to be green areas with 2 purposes: (1) to increase green forest and economic forest outside the forests, and (2) to increase green cover in urban / rural communities. This consists of 6 strategies, but only 3 strategies are related to thinning operation;

Strategy 1: Promote and support the afforestation in economic forests as follows;

1) Survey and prepare economic forest planting database.
2) Encourage people to plant trees in their own lands, for forest management, legal regulation, tax deduction, wood purchasing, including innovation.
3) Provide and support funding both short-term and long-term financial sources to various types of economic forest.
4) Provide a number of quality seedlings to growers corresponding to the need and mechanisms of the market.
5) Encourage export industries to use wood as a raw material for domestic production and export.
6) Transfer technical knowledge to forest economic growers in order to increase productivity and income.

Strategy 2: Promote and support the integration and establishment of forest growers.

1) Promote and support the integration and the establishment of a strong forest growers network.
2) Survey and develop a database of growers.
3) Link forest growers and timber purchase sources for the benefit of forest management services and marketing promotion.

Strategy 3: Promote and support the planting of valuable trees.

1) Study and analyse valuable timber species, including knowledge of planting, maintenance, utilization and marketing.
2) Encourage to plant valuable trees in order to increase the volume of timber in the country.
3) Support to planting valuable trees under the theory of sufficiency economy or agro-forestry.
4) Develop techniques to utilize valuable timber.

According to the policies related to the forest strategies as stated above, the RFD has developed management methods for private companies, individual farmers and other sectors.

Recommendations

1) Technical assistance is needed because smallholders of teak plantations in Thailand usually do not have much experience or knowledge about silvicultural practices after plantation establishment, especially about thinning. They were not familiar with thinning activity, such as the application of thinning methods and the selection of trees to be felled. It is also well-known that buyers (middleman) set a low price upon trading of teak trees directly from farmers who own teak plantations. Therefore, not only technical assistance in terms of thinning practice, but also support and the provision of knowledge on socio-economic aspects are needed. The RFD should provide seminars about the management of teak plantations and also provide information on up-to-date prices of teak logs to the smallholders.

2) According to Forest Act B.E.2484 (1941) and subsequent amendment B.E. 2562 (2019) smallholders can harvest teak trees in their lands, but in practice they still have inconvenience to conduct thinning, therefore, the RFD in collaboration with relevant organizations should make an effort to improve subordinate legislations, regulations and reduce some of the authorization processes regarding thinning operations in order to facilitate and to raise confidence for smallholders who want to conduct commercial thinning.

3) In general, it takes time and money to reach a point where income can be obtained from planted teak forest. Although the efficiency and necessity of thinning gradually have started to be understood, the speed of implementation of thinning is rather slow. The RFD in collaboration with other relevant organizations should discuss the possibility of providing funds for smallholders to conduct thinning, and allow them to pay back the money later.

4) Aging and labor shortage are considered to be one of the reasons why smallholders, particularly farmer plantations owners could not conduct thinning. Therefore, there seems to be a potential demand for contract work instead of family labor. The RFD should encourage and support individual smallholders or farmers to form forest-related cooperatives or small-scale community enterprises in order to build group-strengths. Such small-scale community enterprises have more potential than individual smallholders to support harvesting and transportation of teak logs. In addition, they have the potential to promote fair trade between smallholder and buyers or middleman for selling teak logs.

Additional information

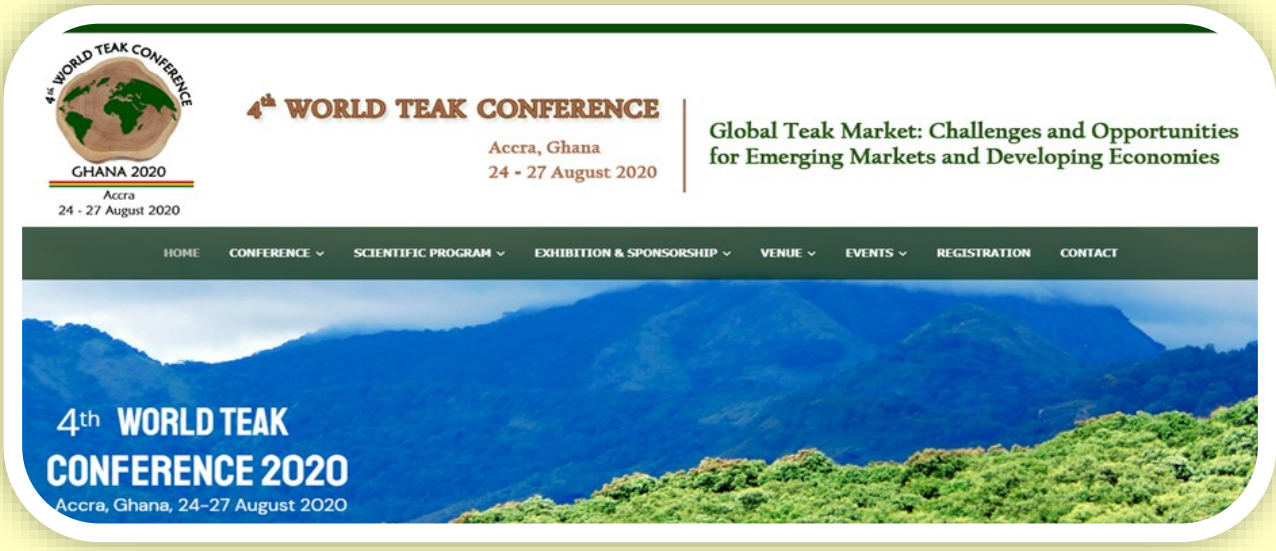
1) NESDB: Office of the National Economic and Social Development Board. 2017. The Twelth National Economic and Social Development Plans (Plan12th Plan 2017-2021), Development Strategy for Environmentally-Friendly Growth for Sustainable Development, Bangkok, Thailand.

2) The National Forest Policy B.E. 2562 (in Thai).

3) RFD. 2017. The Strategy of Royal Forest Department in period 20 years 2017 - 2036. Strategic Issue 3: Promote Forest Business and Economic Forests from forest planting and community promotion, urban / rural communities are green areas, Bangkok, Thailand (In Thai).

Important Announcement

4th World Teak Conference 2020 Postponed to August 23-26, 2021 !



Dear colleagues and friends,

In the light of the catastrophic effects of COVID-19 pandemic, the Organizers (TEAKNET, Forestry Commission of Ghana, ITTO, IUFRO, FAO) of the 4th World Teak Conference 2020 (WTC 2020) decided to postpone the conference to **August 23-26, 2021 in Accra, Ghana**. The event will still take place with the same programme in the same venue. The only change is the dates.

The Organizers and conference secretariat will be in touch with our speakers, sponsors, registrants, and all stakeholders involved for proper follow up arrangements. The revised schedule of activities will be announced soon.

Please follow the conference website for the updates www.worldteakconference2020.com and feel free to contact the WTC secretariat at infowtc2020@gmail.com

With warm regards,
Dr. S. Sandeep, TEAKNET Coordinator, India

Editorial Committee

ITTO Teak Mekong Newsletter is a bi-monthly electronic newsletter of the Project Team which is intended for circulation among the stakeholders of global teak sector. The views expressed in the newsletter are those of the authors and do not necessarily reflect the views of the organization. The readers are welcome to express their opinions or pass on information concerned with teak. However, we reserves the information on the project and publishing through this newsletter for our esteemed readers.

Address all communications to:
TEAKNET Secretariat
International Teak Information Network
Peechi-680 653, Thrissur, Kerala, India
Tel: +91 487 2690396; Fax: +91 487 2690111
Email: secretariat@teaknet.org