



# Teak Mekong Newsletter

December 2022 - Volume 4(6)

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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](http://www.teaknet.org) and co-hosted by Kasetsart University, Thailand.

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## Post - 4<sup>th</sup> World Teak Conference : What Next for Thailand?

Date: 27 September 2022

Time: 09:00 – 13:00 h

Venue: FORTROP Meeting Room, Faculty of Forestry, Kasetsart University, Bangkok

### Organized by

ITTO Teak Project in Mekong &  
Forestry Research Center of the Faculty of Forestry, Kasetsart University, Bangkok



Post-4<sup>th</sup> World Teak  
Conference, Ghana  
ประเทศไทยต้อง  
ทำอย่างไรต่อ

The 4<sup>th</sup> World Teak Conference which concluded in Ghana in early September 2022 calls for the national governments and the private sector to work together to conserve the existing gene pool of natural and planted teak resources, share knowledge, experience and ideas on the multiple economic, social and environmental benefits that teak resources can provide for the sustainable development of teak sector.

The objective of the present seminar is to share lessons learned from the 4<sup>th</sup> WTC in Ghana held during 5-8 September 2022 to the relevant agencies, private sectors, and individuals interested in teak in the country and what Thailand should do next as a follow up action. It is in this context, Thailand Component of ITTO teak project organized a Post - 4<sup>th</sup> WTC Seminar on 27 September 2022 at Bangkok.

## Program Schedule

27 September 2022; 09:00-13:00 h

Time	Program	Remarks
08:00-08:45	Registration	Room# FORTROP
09:00-09:10	<b>Background and objectives of the conference</b> <i>Prof. Yongyut Trisurat, Regional Project Manager</i>	Faculty of Forestry, Kasetsart University
	<b>Opening Remarks</b> <i>Dr. Kobsak Wanthonchai, Dean, Faculty of Forestry, Kasetsart University</i>	
09:10-09:20	<b>Introduction of the Speaker and Panelists</b>	
09:20-11:00	<b>Moderator:</b> Dr. Kobsak Wanthonchai	Dean, Faculty of Forestry
	<b>Speakers and Panelists</b>	
	Global Teak Market Landscape <i>Prof. Yongyut Trisurat, Regional Project Manager</i>	Faculty of Forestry, Kasetsart University
	Teak Genetic Improvement <i>Dr. Saroch Wattanasuksakul, Senior Expert in Teak Genetics</i>	Technical Advisor, ITTO Teak Project in Mekong
	Teak Plantations and Teak Products (Forest Industry Organization) <i>Mr. Thanomsak Chieblaem, Deputy Executive Director</i>	Forest Industry Organiza- tion
	Teak Plantations in Cambodia and Ghana <i>Dr. Suwan Tangmitcharoen, Senior Expert in Reforestation</i>	Royal Forest Department, Thailand
	Private Teak Plantations <i>Mr. Kraisor Sawangdecharak, CEO of Tha Sao Teak Ltd.</i>	TS-Teak Ltd., Uttaradit Province, Thailand
11:00-12:30	<b>Q&amp;A and Conclusions</b>	

The session was moderated by Dr. Kobsak, Dean, Faculty of Forestry. The main highlights of each presentation and panel discussion were as follows:

The four presentations delivered include

- ⇒ Global Teak Market landscape by Prof. Yongyut Trisurat
- ⇒ Teak Genetic Improvement in Mekong Region by Dr. Saroch Wattanasuksakul
- ⇒ Teak Plantations in Thailand by Mr. Thanomsak Chieblaem, Forest Industry Organisation (FIO)
- ⇒ Teak Plantations in Ghana by Dr. Suwan Tangmitcharoen and
- ⇒ Private Teak Plantation and Teak Furniture by Mr. Kraisor Sawangdecharak, CEO- Tha Sao Teak Ltd.

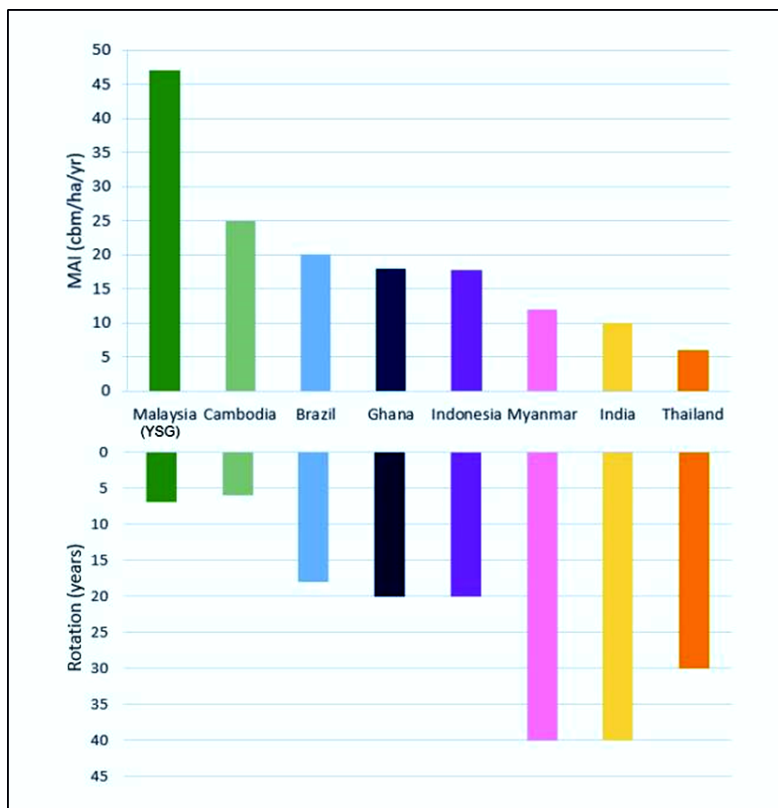
**Prof. Yongyut Trisurat** in his brief introduction highlighted the achievements of ITTO Teak Project in Mekong funded by BMEL, Germany. Natural teak forests is getting depleted substantially in its natural range every year. Utilization of teakwood in the future most likely relies on planted teak forests grown in over 70 countries in tropical Asia, Africa, Latin America and these are being planted by governments, private sectors and smallholders. The total plantation area is about 6-7 million ha globally producing teakwood approximately 4.0 million m<sup>3</sup> annually. Of this, about 1.0 million m<sup>3</sup> is from Latin America and 0.4 million m<sup>3</sup> from Africa. Asian continent contributes only a small quantity. Ghana and Benin contribute about 25% of the world teak supply that is likely to increase 30% in the near future. Ghana alone has about 200,000 ha and produces 280,000 cubic meters per year.



Moderator: Dr. Kobsak Wanthongchai, Dean (L); Prof. Yongyut Trisurat, Faculty of Forestry (R)

About 94% of the world teakwood produced are exported to India and the remaining 6% targeted to other countries such as Vietnam and China. Main uses of teak in India include doors and door frames (80%), furniture (15%) and others 5%. Among the private sectors, M/s Aron Global is the world's largest teak trader and operates business in 12 countries and is a strategic partner of Teak Resources Company (TRC)-World's largest teak plantation company based in Brazil or 50% of the total teak plantations in Brazil that accounts one-third of the total plantations in Latin America. Due to the higher investment costs incurred and better growth performance and rotation period, teak prices vary from US\$ 300-600 per m<sup>3</sup>. Teak logs in Thailand vary from US\$ 500-700 per m<sup>3</sup>, while in Brazil and Ghana, it varies US\$ 340-540 and US\$ 300-450, respectively.

Teak trading from Africa and Latin America will continue as round wood or in rough squares. In most of the countries, they lack the skills and capacity to reprocess wood in the field and design value-added products before shipping. It was expected that a significant part of the hardwoods from native species and natural teak forests will be replaced by planted teak wood if attractive designs and innovations are applied. In addition, teak market will be resumed with the growth at around 5 percent per year from year 2023 onwards after the decline of COVID-19 pandemic.



Graph showing the yield of teak (MAI) in different countries with respect to rotation ages



Mean annual increment (MAI) of teak plantations in Ghana is about 20-25 m<sup>3</sup>/ha/year in a rotation period (clear cutting system) of 18-20 years. The rotation period in Thailand is about 30-40 years with the MAI of 4-6 m<sup>3</sup>/ha/year. In Thailand, FIO reported that the total teak plantations cover 80,000 ha, and produces 50,000 m<sup>3</sup>/year, which are domestically used in the country. Thailand should focus on medium and high-end markets. R&D and innovations to seek shorten the rotation to less than 15 years, enhance wood quality by promoting timely silvicultural thinning and pruning practices, use of high quality seedlings from suitable clones are encouraged. In addition, attractive product design for new markets (young generations). Furthermore, both political and financial incentives support (legal supply chains/certification) should be included.

**Dr. Saroch Wattanasuksakul** informed that Teak Improvement Centre in Lampang province in northern Thailand was established in 1964. About 636 plus trees were identified; branches and buds were gathered for (1) seed orchards, (2) seed source production, and (3) provenance trails. Major challenges encountered for teak improvement was prohibition of thinning in teak plantations. This was due to the fact that most teak plantations were located in protected areas. In addition, seed production was quite low 0.5 – 1 kg/rai/year. Thus, the cost of high-quality seed was almost triple of seeds along the roadside. Therefore, most seedlings were produced from unknown and poor-quality seed sources. Besides the above attempts, the RFD and Thai's scientists have conducted lot research to improve teak production and growth performance such as Superior Teak Clonal test, tissue culture, budding, silvicultural practices, and assisted pollination etc.



Dr. Suwan Tangmitcharoen, RFD



Mr. Thanomsak Chieblaem, FIO



World's first seed orchard in Thailand

**Dr. Suwan Tangmitcharoen** reported about private teak plantations in Cambodia and in Ghana. The Teak Farm company in Cambodia owned by Israel applies innovative fertigation system (controlled irrigation and nutrient supply) for teak plantations in every 3 months throughout the year. According to the statistics and recent measurement of teak plantation with 4x4 m spacing, it is anticipated that the rotation period can be shortened to harvest at 6 years from 30 years as is practiced now in the region. In addition, the MAI expected is 20-35 m<sup>3</sup>/ha/year according to the company, but one should be cautious for the projection. At present, the plantation area covers 300 ha (1,900 rai) and will be increased to 600 ha (3,750 rai) in the coming years. Originally, the company imported 12 clones from YSG Bioscape, Malaysia and Solomon Islands, among them selected 5 clones which were found suitable for plantations in the area showing better growth performance. About 40% of the total plantations are FSC certified and the remaining 60% for trading in the region.





FORM Ghana plantation in Kumasi, Ghana

Teak plantations in Ghana are contributed by 3 big private companies (11%), government (64%), and smallholders (25%). Seedling materials were sourced from India, Malaysia and neighboring countries in the African region. FORM Ghana company applies 3x3 m spacing and practices regular pruning in 1, 3, 7, and 10 years before clear felling at 20 years. Clear bole height reaches about one-third of the total tree height. Besides, the company put lot of efforts for prevention of forest fire, and thinning is performed at 5, 10 and 14 years. At the time of final cut, average girth attains 150 cm in 20 years. In the public land, Ghana government applies the Modified Taungya System (MTS) and shared the benefits earned from teak plantations to the local community. Local people can do intercropping for the first three years and low thinning is applied.

**Mr. Thanomsak Chieblaem** presented teak plantations owned by Forest Industry Organisation (FIO). The total plantations cover 75,000 ha in 118 planted stations mainly located in the Northern Province. The common spacing is 4 x 4 m to facilitate the accessibility of farm tractor. The total wood volume is 2.3 million m<sup>3</sup>, but available for cutting (over 30 years old) is 1.7 cu.m. About 50% of plantations were FSC certified. FIO applies all steps of silvicultural practices in teak plantation and use both elephant and skidder to transport teak logs from plantation sites to log yard. Each year, FIO produces 50,000 – 60,000 m<sup>3</sup> of teakwood logs and aims to increase to 100,000 m<sup>3</sup>. FIO also conducts research on teak seedling propagation from good quality planting material and tissue culture methods. A major challenge is teak bee hole borer. But this pest is minimal in Ghana and Latin America which is an exotic species in those regions.



Elephant logging and skidding is a regular practice in FIO plantations

**Mr. Kraisorn Sawandecharak** has over 50 years in teak business starting from saw mill, sawnwood and teak furniture. His family owned a saw mill in Myanmar and is currently closed down after the logging ban. The furniture business has evolved from simple and traditional design to modern design and supplies teak furniture (door, door frame, ladder etc.) to big housing property companies in Bangkok and other provinces. With the shortage of raw materials, he applies zero waste approach and use all scantlings and sizes of solid wood, innovative technology to produce teakwood products. Besides, teak is planted in his own private land as a demonstration plots for interested people and allow scientists to conduct research. His business generates lot of job opportunities and economy in the Uttaradit Province. He recommends that Thailand should target medium and high-end customers with value added-product by adopting attractive designs and innovation. And also encourages the government to provide soft loans and by people getting engaged in planting trees not only earn direct benefits but also indirect benefits and other ecosystem services.



Kraisorn Sawandecharak, Tha Sao Teak Ltd.



Session in progress



Attractive design and innovation increase the market value of teak products



Speakers and panelists with organizers at the conference

Altogether 67 participants attended the conference onsite and 35 online. The recommendations of the seminar was submitted to the Royal Forest Department, Forest Industry Organisation and Ministry of Environment. The same is available online at

<https://anyflip.com/kkftz/nnib?fbclid=IwAR1IM06TVjH1-j8FQ-wLGXUaAtpCgenbzWwb3qYSDZCvISunilpN-9gHyw8>

**Report by**

Prof. Dr. Yongyut Trisurat  
Regional Project Manager  
Faculty of Forestry, Kasetsart University  
Bangkok, Thailand





## Teak Improvement (Hands-on) Technical Training Workshop

21 to 24 June, 2022  
Forest Research Station # 5 Moeswe  
Oattaratiri Township, Nay Pyi Taw

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



Trainees, trainers and Forest Department Officials at the opening ceremony

### Background

In accordance with the activity 2.1 of ITTO Teak Mekong project to promote conservation and sustainable management of teak forests and to support local communities and Forest Department’s staffs through establishment of demonstration plots and field trainings, a training course on **Teak improvement technical (hand-on) training** was organized from 21 to 24 June, 2022 at Forest Research Institute, Yezin and Forest Research Station No. (5) Moeswe, Oattarathiri Township in Nay Pyi Taw.

### Objectives

This training was organized to upgrade the skill/ quality of the field level forestry staffs (Forest guard and Foresters) and the communities to equip them understanding the theory and practical operations of teak tree improvement. A total of 20 trainees participated following the guidelines of the Ministry of Health and Sports (MOHS) on COVID-19 pandemic. The Opening ceremony witnessed the opening speech delivered by Mr. Htay Aung, Director General of Forest Department.



Opening speech by Mr. Htay Aung, Director General of Forest Department



Participants at the opening ceremony and training

The duration of the trainings last for 4 days in which the following subjects were taught in theory: Teak tree Improvement, Forest Soil Properties, Teak Seed collection and Storage, Nursery establishment, Grafting, establishment of Seed Production Area and Teak Plus Tree Selection, Plantation Growth and Volume Tables, and Practical training of Teak grafting. All the lectures were in Myanmar language.

### Practical training in the field

Practical lessons in the field for the maintenance of clonal seed orchard including measurement of tree growth (DBH and tree total height), forest soil sample collection and testing soil texture, the selection of plus trees and collection of buds for grafting were conducted.



Class room lecture during the training



Demonstration on collection of bud for grafting

### PHOTO GALLERY







Practical activities at # 5 Forest Research Station, Moe Swe



Practical training on hedge garden establishment at # 5 Forest Research Station, Moe Swe



Participants after training of teak plus tree selection at # 5 Forest Research Station, Moe Swe



# Hands-on Training on Plus Tree Selection and Hedge Garden Management

13 to 15 July, 2022  
Forest Research Station #7 Letpankhone,  
Oaktwin Township, Taungoo District, Bago Region



The Myanmar component of ITTO Teak project organized another Hands-on training workshop on **Plus tree selection and Hedge garden** from 13 to 15 July, 2022 at Forest Research Station # 7 Letpankhone, Oaktwin Township, Taungoo District, Bago Region. The objectives of the training was to upgrade the skill, sharing the knowledge of the tree improvement activities to the stakeholders who have profound interest in the forestry activities and through understanding the theory and practical operations at field level. A total of 21 trainees from the township forest staffs, neighborhood communities and people from the private sectors participated. The training programme was inaugurated by Mr. Moe Zaw, Director of Forest Research Institute who delivered the opening remarks.

The 3-days training module included theory and practice on Teak Improvement, Teak Seed collection and Storage, Grafting, Seed Production Area establishment and Selection of Teak Plus Trees. The same module of the June 2022 training workshop was followed for the hands-on training. The medium of lecture was in Myanmar language. Maintenance of clonal seed orchard including demonstration on tree growth measurements (DBH and tree total height), selection of teak plus trees and collection of buds for grafting form part of practical activities. Establishment of teak hedge garden was also demonstrated.



PHOTO GALLERY



Trainees during the lecture session



Scion collection (L) and the Host plant collection (R) during the practical session in the field at #7 forest research station, Letpankhone



Practical session on Grafting (L) and Shoot collection (R)



Hedge Garden Management





A project completion workshop for the Myanmar component of the ITTO Teak project for Mekong 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)*, was conducted by the implementing agency, the Forest Research Institute, Yezin with the supervision of the Forest Department on 27 September 2022 at Grand Hamara Hotel, Nay Pyi Taw. Eventhough the MoU between ITTO and Forest Department was signed on 28<sup>th</sup> October, 2019, the project activities started only in March, 2020. The project activities were implemented at Forest Research Station No. (5) Moe Swe, Ottarathiri Township, Ottara District, Nay Pyi Taw and at Forest Research Station No. (7) Letpankhone, Oaktwin Township, Taungoo District and Pyay Township, Pyay District of Bago Region. The activities and experiences were shared with all the stakeholders at the **Completion Workshop** that was organized on 27<sup>th</sup> September.

The Deputy Minister of the Ministry of Natural Resources and Environmental Conservation (MONREC) delivered the opening speech, and all the Director Generals and Managing Directors of the all departments and enterprises under the MONREC attended to the Opening ceremony and workshop.



Mr. Htun Ohn, Deputy Minister of MONREC delivering opening speech at the Completion Workshop

A total of 70 participants with representatives of Forest Department of the project implementing areas, representatives from the Myanma Timber Enterprise (MTE), private companies, communities, and researchers of Forest Research Institute attended the Completion Workshop. The project members presented the project activities implemented, the experiences and lessons learned. As part of it, there were 3 group discussions on the topic Teak tree improvement in Myanmar, Myanmar Certification System, and Seed Production Area establishment with the involvement of all the participants which are evident from the below photo gallery that are self-explanatory.



Participants at the Opening Ceremony of the Completion Workshop

## PHOTO GALLERY



Deputy Minister at the Completion Workshop



Presentations and Q & A session at the Completion Workshop







Group discussion on Myanmar Certification System / Teak tree improvement/ Seed Production Area



Closing remarks by Mr. Moe Zaw, Director, Forest Research Institute

**Report by**

Dr. Zar Chi Hlaing and Moe Zaw  
Forest Research Institute  
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