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**Online Newsletter of International Teak Information Network** 

# Teaknet Bulletin



networks and consolidate the gathered information as deliverable outputs during the conference. A brief of the IUFRO-TEAKNET-ITTO and FAO supported Teak Session (T2.29) titled 'Strengthening Teak Forest Management for Sustainable Teakwood Supply Chains and Trade' at XXVI IUFRO World Congress 2024, Stockholm, Sweden on 28 June 2024 is also provided for the benefit of the members who could not attend.

In this issue, we also bring you a brief report on the 'Global Teak Resources and Market Assessment 2022', represents a significant stride forward in our understanding and management of one of the world's most valuable hardwood resources. This comprehensive assessment, collaboratively undertaken by TEAKNET, IUFRO, and the FAO marks a pivotal assessment in the teak sector. The study, brought out as IUFRO World Series (Volume 44) publication encompasses 80 tropical countries with nearly a hundred contributors focused beyond the traditional resource assessment. In addition, market price of plantation teak imported to India and our regular column on teak prices are included for the benefit of our readers.

We invite your feedback on issues related to teak and enrich us with articles/ news items of interest/research papers etc. of non-technical nature for inclusion in the bulletin.

S. Sandeep TEAKNET Coordinator



#### Editorial

TEAKNET along with ITTO, IUFRO and FAO will be organizing the 5<sup>th</sup> World Teak Conference at Kochi, Kerala, India during 17-20 September 2025. The announcement of the global event titled 'Sustainable Development of the Global Teak Sector - Adapting to Future Markets and Environments' is brought out in this issue. The conference proposes to bring together various stakeholders on a single platform to deliberate, discuss and develop strategies for the sustainable development of the global teak sector and enable them to adapt to future markets and environments. The pre-conference program proposes to dwell in detail on the various challenges of the teak sector, initiate new research programs, develop regional



## **5th WORLD TEAK CONFERENCE**



KOCHI, KERALA, INDIA



Sustainable Development of the Global Teak Sector -Adapting to Future Markets and Environments

#### **About the Conference**

In 2025, Kerala will host the 5th World Teak Conference organized by the Kerala Forest Research Institute and coordinated by the International Teak Information Network (TEAKNET) India. This global event will take place in Grand Hyatt, Kochi, Kerala. The past four World Teak Conferences were held in Asian and Latin American countries; the first one in Costa Rica (2011), followed by Bangkok (2013) Ecuador (2015) and Ghana (2022).

Kerala holds special significance in the history of teak plantation, with Nilambur being home to the world's oldest teak plantation. With its extensive background in teak research, the Kerala Forest Research Institute seized the opportunity to host this international event at Grand Hyatt Cochin from September 17 to 19, 2025.

This Conference will be a great opportunity to exchange knowledge and experiences on technological innovations and stay up to date on the emerging trends in teak management and trade. It will provide a major meeting place for worldwide researchers, students, entrepreneurs and professionals in the forestry sector to come together, share their knowledge and establish networks.



#### **Themes of the Conference**

- Value addition, markets and legal supply chains
- Cost-benefit analysis on short rotation teak investments in different teak growing regions
- Recent advances in teak genetics and stand management
- Management models for small holder teak plantations in Asia, Africa and Latin America
- Socio-economics, Environmental protection, biodiversity conservation and Forest Landscape Restoration



For more details, please visit

www.worldteakconference2025.com

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Welcome to



Report of the IUFRO-TEAKNET-ITTO and FAO supported Teak Session (T2.29) at XXVI IUFRO World Congress 2024, Stockholm, Sweden





Participants and speakers of the teak session

The XXVI World Congress of the International Union of Forest Research Organizations IUFRO was successfully conducted in Stockholm during 23-29 June 2024 that brought together 4271 participants from 102 countries. This global event is conducted by IUFRO once in 5 years. It provided a global forum for the exchange of knowledge, perspectives, and visions between scientists across a broad spectrum of disciplines, and dialogue with youth, policy makers, forest managers, business representatives, and civil society organizations.

A 2 hr teak session T2.29 entitled "*Strengthening Teak Forest Management for Sustainable Teakwood Supply Chains and Trade*" was organised by IUFRO Teakwood Working Party (Div5.06.02) on 28<sup>th</sup> June 2024, from 08:30-10:30 am (CEST) in Room K21. The event was co-sponsored by International Teak Information Network (TEAKNET) along with ITTO, Japan and with the technical and financial support of the Food and Agriculture Organization of the United Nations, Rome.

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 in collaboration with international organizations such as ITTO and FAO. He emphasized that IUFRO's network of scientific expertise spread across several research institutions and organisations worldwide has 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 one report published on global teak resources and market assessment 2022 which was released as IUFRO Publication # 44 in the Innovation Stage during the IUFRO World Congress and is available for download at <u>IUFRO website</u>.



Opening remarks by Dr. Michael Kleine, IUFRO Dy. Executive Director

Teaknet Coordinator Dr. Sandeep S. presented the results of the "*Global Teak Resources and Market Assessment 2022*". The major highlights of the study revealed that teak is now growing in over 80 countries worldwide and the area of natural teak and planted teak forests has expanded, the harvest of teak roundwood has increased and teak's share of the global market is growing. India remains the dominant trading partner and imports 97 percent of the total trade volume.

ITTO Projects Manager, Dr. Tetra Yanuariadi gave the audience an overview of recent trends in international trade and market access for tropical timber and timber products. Dr. Yanuariadi outlined the case for sustainable forest management (SFM) and trade in legally and sustainably produced tropical timber and wood products, noting the ecosystem services and economic benefits provided by forests, and the need to value them properly. He underlined ITTO's mission to support member countries – with work including policy guidance, market information, capacity building, and field projects – to master the challenges of SFM and to expand and diversify trade in sustainable, legally harvested wood.

Describing recent market trends, Dr. Yanuariadi reminded the audience of how major crises had impacted the sector like the COVID-19 pandemic which severely affected supply chains, demand and prices for tropical timber and wood products, including teak. He further explained the critical issues surrounding market access and market requirements, including the new European Union Deforestation Regulation (EUDR). Dr Yanuariadi said it would be a challenge for producers to meet the requirements of the EUDR, which is to be implemented starting 30 December 2024.

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ITTO Consultant, Dr. Hwan-Ok Ma's presentation also touched upon the market access issues in his topic "*Promoting legal and sustainable supply chains for sustainable global teak markets*". Certification requirements for teak and other tropical timber products imposed high transaction costs for developing countries and small producers. Challenges include the development of monitoring systems to demonstrate legality and sustainability, where the digitalization of forest management activities and cost-effective verification tools play an increasingly important role. Dr. Ma also described ITTO-supported projects to improve teak silviculture, including in smallholder enterprises; conserve teak genetic resources; and promote value chains across the Greater Mekong Sub-region, as well as teak plantation development in countries including Brazil, Ghana and Indonesia.

Dr. Dong Lam Tran, Dy. Director General from Vietnamese Academy of Forest Sciences, Hanoi, who made a presentation on "*Development of Smallholder Teak Plantations in Vietnam*" mentioned that 70% of the total 14.8 million ha of forested area (42% of the total forest area) is managed by smallholder farmers of 1-3 ha /household and the total timber harvest is around 30 million m<sup>3</sup> annually. The current teak plantation area in Vietnam is approx. 7,650 ha only, spread mostly in Sona La Province, and 74% is managed by households and the rest by private entities. He elaborated that there exists high potential for development of smallholder teak plantation in Vietnam that requires:

Improvement of germplasm quality and seedling production; Technical capacity building to teak growers and stakeholders; Development of diverse silviculture options for diversifying income regime (teak-based agro-forestry, intensive planting for short rotation, trees-outside-forest planting); Improvement of the value chain and marketing by building partnerships among the chain actors; Micro-finance mechanism for long-term investment, are some of the promising solutions.

Dr. Simone Vongkhamho, Forest Research Centre, NAFRI, Lao's People Democratic Republic whose talk was on "*The Effect of Topographic Conditions on Teak Heartwood Quality in a Mountainous Area*" demonstrated that planted teak have been established in various site conditions across the country; mountainous land in northern part, flat land in central and southern part and southern plateau land of Bolaven. However, the northern part covers 64% of total area with planted teak. The main highlights of the study are:

- \* Heartwood content of basal area increases with tree size.
- \* Lower shrinkage with higher basic density indicates better wood properties. Therefore, basic density and tangential shrinkage has an increasing quality with tree age.
- \* The darker color (low L\*) is associated with the south-west facing gentle slope in lower elevation. Red color (high a\*) showed a relationship with south-east facing straight slope. Yellowish color(high b\*) has higher value at south-west facing slope in lower elevation and lower stand density.

Dr. Andrew Callister, from the United States of America spoke on the "*Genomic Selection of Superior Quality Teak Clone for Productivity Enhancement and Value*" asserted that genomic selection tools have improved tree improvement outcomes across species. Teak improvement programs could benefit enormously by :

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Correcting pedigree and identity errors; Pedigree reconstruction and population merging; Improved genetic value accuracy; Faster clone selection. Their study demonstrates pedigree reconstruction and genomic prediction for teak clone selection.

Prof. Yongyut Trisurat, from Faculty of Forestry, Kasetsart University, Thailand who presented a paper on "*Strengthening Smallholder Community-based Teak Plantations in Thailand*" touched upon the challenges and prospects of smallholder teak plantations in the country with emphasis on the outcome of the completed ITTO Teak project, Phase I (2019-2022) and the newly initiated ITTO-BMEL Teak project, Phase II (2023-2026) in which it was envisaged:

- $\Rightarrow$  to improve the production of high-quality timber from teak and other valuable species plantations established by smallholders and communities;
- $\Rightarrow$  to improve livelihoods and social and environmental outcomes through better silviculture practices, financial schemes (long rotations) and access to voluntary carbon markets, etc.

At the end of the project, it is anticipated that the legal supply chains of smallholder plantation improved with the production of high-quality timber making use of quality germplasm materials and adopting right silvicultural practices and micro-finance (land- and tree collateral schemes) available to smallholders. Thereby, the livelihood enhancement and social and environmental concerns are well addressed.

Prof. Mario Tomasiello Filho, from University of Sao Polo, Brazil who spoke on the comparative study on the wood quality of 22-year old fast-grown teak plantations in three different locations in Brazil, emphasized that:

- $\Rightarrow$  The heartwood production is proportional to the diameter growth.
- $\Rightarrow$  The growth ring width is constant from the 10th ring onwards.
- $\Rightarrow$  The average density ranged from 550 to 650 kg/m<sup>3</sup>
- $\Rightarrow$  Wood density is higher at the base and apex, and low near the pith, increasing radially towards the bark. However, growth is not directly associated with wood density.

He informed that 6% of the global teak plantations are in Latin America and Brazil with 76,000 ha mostly in Mato Grosso state.

Mr. Outhai Soukkhy from Lao PDR who presented the results on a Nelder wheel experiment in an agroforestry system in Luang Prabang province by reducing the initial stocking rates in smallholder teak woodlots for livelihood support to farmers in northern Lao PDR after 15 growing seasons. The results:

- \* the potential for teak to be grown under shorter rotations, by either planting at around 625 tress/ha or adopting early pre-commercial thinning to reduce stocking levels to 500-600 trees/ha. This approach can allow intercropping with the developing teak for longer periods, increase diameter, thereby reducing time to first commercial harvest with increased profitability.
- woodlots can be commercially thinned at 12-15 years of age, or potentially clear-cut at 15 years, and the coppice managed to regenerate, providing long-term, sustainable timber production, with limited management requirements.

#### **PHOTO GALLERY**



Dr. Tetra from ITTO, Japan on market assess of tropical timber products



Dr. MA on sustainable teak supply chains and markets



Dr. Simone Vongkhamho, NAFRI, Lao PDR on topographic conditions on teak heartwood quality



Mr. Outhai Soukkhy from Lao PDR on Nedler wheel experiment in an agroforestry system in Luang Prabang province



Dr. Sandeep from Teaknet of global teak resources and market assessment



Dr. Dong from VAFS, Hanoi, on smallholder teak plantations in Vietnam



Prof. Yongyut Trisurat, Kasetsart University, Bangkok on smallholder community plantations in Thailand



Dr. Andrew Callister, USA on teak genomics for quality germplasm selection

Report Source: ITTO BMEL Teak Newsletter Vol.6(4): 2024

## Global Teak Resources and Market Assessment 2022 (IUFRO World Series Vol. 44)

Global Teak Resources and Market Assessment 2022 (TRMA 2022), represents a significant stride forward in our understanding and management of one of the world's most valuable hardwood resources. This comprehensive assessment, collaboratively undertaken by TEAKNET, the International Union of Forest Research Organizations (IUFRO), and the Food and Agriculture Organization (FAO), marks a pivotal assessment in the teak sector. TRMA 2022 employed innovative



methods for data collection and analysis, leveraging technology and collaborative platforms to gather information from teak-producing countries globally.

The study brought out as IUFRO World Series (Volume 44) publication encompasses 80 tropical countries with nearly a hundred contributors that focused beyond the traditional resource assessment. The publication launched at the Innovation Stage of the 26<sup>th</sup> IUFRO World Congress explores factors impacting future teak supply lines and provides insights into emerging markets of this important hardwood timber. Further, the baseline data to track teak origin and potentials of these plantations in the carbon markets are novel insights for this planted forest. These innovative outlooks, hitherto absent in the teak sector can benefit policy makers to develop informed policies for sustainable teak management and trade, help commercial planters to optimize resource allocation and investments and enable consumers to make informed choices regarding the source and sustainability of teak products.

This publication is now available for download

### Prices of Plantation Teak Imported to India

Prices of recent shipments of plantation teak logs and sawn wood imported to India

| Sawnwood    | cu.m | US\$ C&F |
|-------------|------|----------|
| Benin       | 151  | 685      |
| Brazil      | 123  | 575      |
| Costa Rica  | 147  | 515      |
| Ghana       | 93   | 440      |
| Ivory Coast | 124  | 850      |
| Nigeria     | 145  | 450      |
| South Sudan | 193  | 575      |
| Tanzania    | 119  | 450      |
| Panama      | 121  | 490      |

| Teak Logs  | Hoppus cu.m | US\$ C&F |
|------------|-------------|----------|
| Brazil     | 167         | 425      |
| Colombia   | 143         | 380      |
| Costa Rica | 190         | 375      |
| Benin      | 172         | 570      |
| Tanzania   | 98          | 448      |
| Guatemala  | 124         | 400      |

Price range depends mainly on length and cross-sections

Courtesy: ITTO TTM Report 28:14 16-31 July 2024

#### **Editorial Committee**

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**Teaknet Bulletin** is a quarterly electronic newsletter of TEAKNET brought out through its website. It is intended for circulation among the members of TEAKNET and other 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 of value to teak growers, traders, researchers or others concerned with teak. However, TEAKNET reserves the right to choose the contributions for publishing and also to make necessary editorial modifications in the articles in consultation with the authors.

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