

Online Newsletter of International Teak Information Network

# Teaknet Bulletin

volume 17   Issue 1	
January 2024	
INSIDE THIS ISSUE	
Cost-benefit analysis of teak invest- ments and promoting responsible trade & markets of teakwood	
26 <sup>th</sup> IUFRO World Congress 2024 6	
Land owners to see gains from planting commercial tree species in India 6	
Prices of Plantation Teak Imported 7 to India	

TEAKNET Wishes a Very Happy & Prosperous New Year 2024 To All Our Readers !



#### Editorial

Greetings for the Year 2024!!

TEAKNET ushers in 2024 with new hopes and aspirations. Through the past 28 years, TEAKNET has successfully established a global network of teak cultivators, traders, private enterprises, plantation managers, researchers, students and other stakeholders. TEAKNET has been successful in disseminating relevant information on teak and providing custom made solutions to different stakeholders. The success of this network is the result of your valuable contribution and we seek your continued support in all our future endeavours.

In this Issue, we bring you an article on 'Cost-benefit analysis of teak investments and promoting responsible trade and markets of teakwood'. The article deals with the long term global trends in teak trade, profitability of teak investments and information on emerging traders in Africa and Latin America. This issue also provides glimpses of the forthcoming 26<sup>th</sup> IUFRO World Congress in Stockholm, Sweden during 23-29 June 2024. IUFRO Teakwood Working Party (Div5.06.02) together with TEAKNET and ITTO Japan is organizing a Teak Session titled "T2.29: Strengthening Teak Forest Management for Sustainable Teakwood Supply Chains and Trade" at the IUFRO World Congress. In addition, market price of plantation teak imported to India and our regular column on teak prices are provided for the benefit of our readers.

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

#### S.Sandeep TEAKNET Coordinator



# Cost-benefit analysis of teak investments and promoting responsible trade & markets of teakwood

Walter Kollert WaKa Forest Investment Services AG,Portugal *Email:* w.kollert@waka-fis.ch

#### Introduction

Teak (*Tectona grandis* Linn. f.) is one of the most valuable tropical hardwoods of the world. Together with other high-grade hardwoods such as mahogany and rosewood, teak is sought in the global markets for its beauty, strength and stability, natural resistance and wide array of applications ranging from heavy duty construction and railways, utility poles for transmission lines, ship building and yacht furnishing, quality furniture, interior joinery, veneers, flooring, to cultural uses (see Fig.1).

Natural teak forests cover an area of ca. 29 million hectares, nearly half of which grow in Myanmar (Kollert & Cherubini, 2012). Since 1980 the natural teak forest area has declined substantially in all native teak growing countries (India, Lao PDR, Myanmar, Thailand) mainly due to overexploitation (legal and illegal), agricultural expansion, shifting cultivation, population pressure, and grazing. In addition, the targeted removal of the best



**Fig.1:** The U Bein bridge (Amarapura, Mandalay, Myanmar) was built around 1850 and is believed to be the oldest and longest (1.2 km) teakwood bridge in the world. *Photo: W. Kollert* 

quality teak trees (creaming) from the natural populations has most likely resulted in the genetic impoverishment of residual stands. As a consequence, the survival and sustainable use of the remaining natural teak forests is highly endangered. Realizing the decline in natural teak resources, all native teak growing areas have shifted to more conservative approaches thereby halting the erosion of this precious resource from natural systems.

Nevertheless, teak is one of the few emerging valuable hardwood species that has been grown increasingly in planted forests in about 70 countries throughout tropical Asia, Africa, Latin America and Oceania. For most of these countries teak represents a good opportunity to produce quality timber and is a major asset for the forestry economy attracting large investments from the private sector (Kollert & Cherubini, 2012). Planted teak forests span 4.35 – 6.89 million ha worldwide and is considered the top ranked species in at least 20 countries as per the State of the World's Forest Genetic Resources (FAO, 2014). From an economic standpoint teak offers a multitude of products which include timber, pulp, food, wood energy, and non-wood forest products which facilitates its nomination as a priority species for conservation and management.

#### **Current situation and Observations**

**Profitability of teak investments.** Considering the declining supply from natural teak forests, the long-term prospects for plantation-grown teak appear promising, and demand is likely to increase. Much information on the profitability of teak investments, in particular from short-rotation plantations, is found in the literature and on the internet, but it is rather difficult to interpret due to a lack of background information and necessary detail.

#### Continued from page 4

Economic data and teak prices are mostly based on a case-by-case basis, and correspond to a mix of heterogeneous material from different countries due to a lack of systematic or consistent grading rules with corresponding values for particular products. Some of these data qualify as wishful thinking rather than a reflection of actual values. For this reason much controversy has been generated in several countries by the promotion of teak plantation investments based on fabulous growth and yield projections and unrealistic pricing scenarios, which have provided opportunities to exaggerate rates of return and deceive even cautious investors (Pandey and Brown, 2000).

Teak plantations under suitable site conditions with genetically superior planting material and good management practices can yield attractive and robust achieve internal return rates of more than 10% (eg. large scale private teak plantations in Ghana). This is mainly due to substantial economies of scale and cost-reducing management interventions such as intercropping with food crops by nearby farming communities which reduces maintenance costs (Kollert and Walotek, 2017).

Teak logs of large dimensions and high quality combined reduce the attractiveness of commercial investments as the longer rotation and capital commitment periods and the greater investment risks may only partially be compensated by higher timber prices. The long rotation coupled with an expected lower return on capital invested has made it difficult to interest private investors in high-quality teak production without supportive, secure and stable government policies. Hence, the widespread practice of establishing and managing teak plantations on short rotations, not exceeding 20 years, will continue to lead to a significant increase in the supply of small-dimension teak on the international market and continue to make the luxury items of former times a rare commodity. Logs from planted teak forests are typically smaller in size and will hardly ever reach the dimensions grown in old-growth natural forests. As a result they do not have the same technical characteristics of natural teak and do not reach such high prices.

Long-term price trends. Teak price indices have been developed from publicly available long-term time series published in ITTO's Tropical Timber Market Reports since 1998 (Walotek, and Glauner, 2017). These indices measured in US\$ per cubic meter indicate the superior status of natural teak timber as compared to plantation grown teak. In the Indian market the average cubic meter-related value of plantation grown teak is about half the value of natural teak from Myanmar. However, in recent years the market appears to have recognized a higher value for plantation grown teak, the price index of which has grown more rapidly than that of natural teak.

**Global trends in teakwood trade.** The major teak trade flows worldwide are directed towards India, which imports more than two thirds of global teak exports including shipments of plantation logs and sawn timber from Africa and Latin America, while its own considerable teak production is processed within the country. Thus, the global teak market will continue to be governed by trends in the Asian market that holds more than 90% of the world's teak resources. Since 2000, the global trade in teak logs of the major importing countries (India and China) has more than doubled in terms of volume and more than quadrupled in terms of value. Teak exports of Indonesia consist primarily of furniture exceeding an annual value of more than US\$ 100 million.

One increasingly important consideration influencing trade in plantation-grown teak are forest management certification and legality issues. The timber markets of North America and Europe have responded legislatively through the Lacey Act (USA) and the European Union Timber Regulations (EUTR). India, one of the major teak markets, has also called for buying products made from certified wood only for promoting sustainable forest management, under the 'Green Good Deeds movement'. Other markets will likely follow suit soon.

**Emerging traders in Africa and Latin America.** Myanmar remains the dominant supplier of teakwood, but the high international demand for general utility teak in India and China has broadened the traditional teak supply base from natural forests in Asia to include fast-grown, small-diameter plantation logs from Africa and Latin America. The emerging teak roundwood traders in Africa are Ghana, Côte d'Ivoire, Benin, Togo, Nigeria and

#### Continued from page 4

Tanzania (for sawnwood). In Latin America, Ecuador, Costa Rica, Panama, Colombia and Brazil (for sawnwood) have continuously expanded their trade volumes since 2000, reaching a peak in recent years, and this trend is likely to continue (see Fig.2).

Lack of uniform international log grading rules constitutes a serious market constraint. The major challenge for teak growers is to produce internationally recognized quality wood. Despite considerable international debate over many years the global teak trade is hampered by a lack of international standards and consistency in measuring and establishing volumes and qualities for teak logs, which results in widespread uncertainty and confusion around teak investments.

#### **Priority Actions and Recommendations**



**Fig. 2:** Teak plantation logs (scantlings) made in Ecuador for export to India. *Photo: W.* 

In view of the imminent threat of losing natural teak forests, it is imperative to organize and implement a global program for the conservation, improvement, development and sustainable use of teak resources. Towards this end, the International Tropical Timber Organization (ITTO), the International Union of Forest Research Organizations (IUFRO) and the Food and Agriculture Organization of the United Nations (FAO) over the past decades have been actively involved in research and development work for the conservation and sustainable management of natural and planted teak forests.

ITTO has been supporting teak related projects with a focus on genetic resources conservation, seed production as well as sustainable management of natural and planted teak forests in Africa, Asia and Latin America. Recently, ITTO has initiated the transnational project Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region including Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam. These countries of the Greater Mekong Sub-region are in various stages of introducing and implementing forest management and chain of custody certification schemes to facilitate and advance the legality of wood supply in view of the regulations put in place by industrialized countries to curb imports of timber of unknown origin onto their markets. Engaging further in the process of developing a timber legality program will serve as a formal commitment to address weaknesses in the current timber flow system, help address improvements in forest law enforcement and governance, create enabling conditions for forest investments and pave the way towards marketing legal timber.

Within its scientific structure, IUFRO maintains a special working party on the "utilization of planted teak" which aims at research and dissemination of scientific information on teak timber produced within the framework of socially and environmentally acceptable norms of sustainable forest management. IUFRO in cooperation with FAO and ITTO has published the Global Teak Study (Kollert and Kleine, 2017) addressing best practices and FAO has published two technical reports on teak that serve as a reference on global teak resources and markets in the aftermath of Myanmar's log export ban. FAO was instrumental in organizing three world teak conferences in Costa Rica (2011), Thailand (2013) and Ecuador (2015). The fourth world teak conference has been delayed due to the Covid 19 pandemic and took place in Ghana in 2022.

Further tasks and program outputs in the field of teak investments and the promotion of responsible trade and markets of teakwood, are listed below in the form of recommendations for all relevant national and international forestry institutions and other concerned stakeholders:

**Improve statistical database on teak forests.** The available information and estimates on the development of natural and planted teak forests and the removals of teak roundwood are mainly based on FAO's Teak Resources

#### Continued from page 4

and Market Assessment 2010 (Kollert and Cherubini, 2012). This database must be improved to provide more reliable information on the development of teak resources and wood removals. Teak growing countries may consider integrating teak together with other commercial tree genera into the national reporting mechanisms and/or forestry statistics including national forest inventories, in order to monitor on a regular basis the development of teak forest resources. International forestry organizations may consider organizing a remake of the 2010 survey on teak resources and markets.

**Improve the international marketability of teak.** An international forestry or timber trade organization should take the mandate to develop and adopt an agreed set of log grading rules in collaboration with global buyers to reduce market constraints and to improve the marketability of teak wood products taking into consideration the quality and dimensions of logs from plantations as well as from natural forests. By the same token, public and private teak producers and processors are encouraged to pursue voluntary certification schemes (management and chain-of-custody certification) if they wish to meet environmental, social and economic standards of responsible forest management and gain better access to North American and European markets.

**Provide impartial and unbiased cost-benefit analysis for potential investors.** To be profitable, teak plantations require stable and predictable market conditions as well as good forest management practices with the objective to increase yields and reduce costs through suitable operational measures. In order to support the application of such a management regime impartial and unbiased cost-benefit analyses on teak investments should be made available through publications, internet portals or information leaflets. TEAKNET could take a leading role in publishing such information on-line on its website.

**Improve statistical information on teak roundwood production and trade.** A formalized exchange of information on the production and trade of teak would be of mutual advantage to importing and exporting countries. Reliable information on the dimensions, quality, origin and price of teak roundwood and major wood products in internationally acknowledged measuring units should be made available on a regular basis. Towards this end, the international trade of teak roundwood and sawnwood was recorded as of January 1<sup>st</sup>, 2022 in the Harmonized System, or HS, Nomenclature 2022 Edition (HS 2022) under the new customs codes 4403.42 and 4407.23 respectively. Thereby, the assessment of the significance of the international teak trade will be considerably improved and will give policy- and decision-makers, investors and managers a better understanding of the important role that teak resources play in the provision of wood products for the national economies of many countries.

**Support small-scale teak production systems for smallholder farmers.** Teak-based small-scale production systems enable farmers to diversify farm production, support food security, generate income and reduce financial risk. Planted teak forests are an important alternative source of quality timber for wood industries. The potential of smallholder teak systems is hindered by limited access to good planting material, poor silvicultural management, difficult market access, and policy disincentives. These impediments must be addressed through improved market integration and policy support which will provide farmers with incentives to adopt better silvicultural and agroforestry management, e.g. intercropping with suitable crops.

#### References

FAO. 2014. The State of the World's Forest Genetic Resources. FAO, Rome

- Pandey, D. and Brown, C. 2000. Teak: a global overview. An overview of global teak resources and issues affecting their future outlook. Unasylva 201, Vol. 51, p. 3-13
- Walotek, P.J., Glauner, R. 2017. Long-term price trends of teak wood. In: The Global Teak Study. Analysis, Evaluation and Future Potential of Teak Resources. IUFRO World Series No 36, Vienna.
- Kollert, W. and Kleine, M. (eds.), 2017. The Global Teak Study. Analysis, Evaluation and Future Potential of Teak Resources. IUFRO World Series 36, Vienna.
- Kollert, W. and Cherubini, L. 2012. Teak resources and market assessment 2010. FAO Planted Forests and Trees Working Paper FP/47/E, Rome. Available at http://www.fao.org/forestry/plantedforests/67508@170537/en/

# 26<sup>th</sup> IUFRO WORLD CONGRESS 2024 Stockholm, Sweden; 23-29 June 2024



The XXVI IUFRO World Congress will be held in Stockholm, Sweden on June 23rd - 29th, 2024. IUFRO Teakwood Working Party (Div5.06.02) together with TEAKNET and ITTO is organizing a Teak Session titled **"T2.29:** *Strengthening Teak Forest Management for Sustainable Teakwood Supply Chains and Trade"* at XXVI IUFRO World Congress. In total, 12 abstracts have been selected for the Oral Session and 9 abstracts for the Poster session. In order to remain in the programme, the registration deadline for Presenting Authors of accepted abstracts is **15 January 2024**.

We look forward to your active participation in the successful conduct of this session in the IUFRO Congress in Stockholm.

Early Bird Registration deadline is 15 January 2024

For more details, please visit <u>www.iufro2024.com/</u>

## Land owners to see gains from planting commercial tree species in India

The new law on forest conservation exempts agroforestry and plantations from regulatory oversight which, it is anticipated, will encourage land owners to plant commercial tree species in India. As a follow up to the new law, the central government has published a fact sheet listing 36 species that it suggests for various climatic zones in the country.

The report released on the Indian ministry's website details cultivating 36 specific species, including timber species such as teak. Domestic production of teak in India is considered to be less than 3% of consumption and as demand increases this has driven up prices.

The preamble of the Forest Conservation (Amendment) Act 2023 focuses on achieving India's goal of net-zero greenhouse gas emissions by 2070. Environment Minister, Bhupender Yadav, indicated that the Act will create an opportunity for land owners, especially small land owners, to generate additional income.

Source: ITTO TTM Report: 27:23 1 - 15 December 2023

## Prices of Plantation Teak Imported to India

Prices for recent shipments of plantation teak logs and sawnwood imported to India. Teak log prices are in C&F US\$/Hoppus cu.m and Sawnwood prices are in C&F US\$/cu.m

Teak Logs	Hoppus cu.m	US\$ C&F
Brazil	148	285
Colombia	123	318
Costa Rica	147	225
Ecuador	133	230
Ghana	101	295
Nigeria	148	280
South Sudan	73	306
Tanzania	103	310

Sawnwood	cu.m	US\$ C&F
Benin	921	610
Brazil	100	360
Colombia	150	345
Costa Rica	123	305
Ecuador	156	545
Ghana	98	370
Nigeria	97	360
South Sudan	147	380
Тодо	101	322
Venezuela	120	420

Price range depends mainly on length and cross-sections

*Courtesy:* ITTO TTM Report 27:23 1 – 15 December 2023

#### **Editorial Committee**

Dr. S. Sandeep Dr. E. M. Muralidharan Dr. P.K. Thulasidas

**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.

Address all communications to:

TEAKNET Coordinator Kerala Forest Research Institute Peechi-680 653, Thrissur, Kerala, India Tel: +91 487 2690396; Fax: +91 487 2690111 Email: coordinator@teaknet.org

