Large-scale Target Planting Material (TPM) Production of Teak in Tanzania, Eastern Africa: A Success Story

4th World Teak Conference, Accra, Ghana during 23-26 August 2021

TEAKNET Webinar Series

Teak trade during Covid 19 pandemic

Editorial

We congratulate our Steering Committee member Mr. Hugh Brown, Director of Operations, Forestry Commission, Ghana on being selected for the prestigious Yale School of Environment Prospect Street Award.

In this issue, we bring you a success story on large-scale Target Planting Material (TPM) production of teak in Tanzania. Though teak plantation activities are not new to Tanzania, standardizing site-specific Quality Planting Material (QPM) production technology is a new venture in this region, which has been done successfully through experimentation.

Our readers are reminded of the rescheduled 4th World Teak Conference at Accra, Ghana during 23 - 26 August, 2021. The 4th World Teak Congress with the theme ‘Global Teak Market: Challenges and Opportunities for Emerging Markets and Developing Economies’ will address the most crucial issues of the global teak sector.

As part of 25th Anniversary, TEAKNET had conducted a series of WEBINARS on themes of broad topical interest to the teak community and invite all of you to take part in the upcoming webinars planned in the coming months. In this issue we bring you a brief report on the WEBINARS conducted by TEAKNET during June to October 2020.

We invite your continued support and 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.

With warm regards,

S. Sandeep
TEAKNET Coordinator

Congratulations to Mr. Hugh Brown !!

Hearty congrats to our Steering Committee Member Mr. Hugh Brown of Forestry Commission, Ghana who received the Yale School of Environment (YSE) 2020 Prospect Street Award on 10th October, 2020 in a virtual ceremony.

The Prospect Street Award, named after the street on which the Yale School of the Environment’s Kroon Hall and other buildings are located, recognizes one graduate of the last decade who embodies the spirit of YSE by having applied their education, energy and enthusiasm and demonstrated leadership, innovation and creativity to make a significant impact in their field.

Mr. Hugh Brown, Director of Operations of the Forestry Commission, Ghana, was awarded for his dedicated public service and accomplishments which have contributed to rehabilitating Ghana’s degraded and deforested landscapes, reduction in the wood supply deficits, enhancement of food security and economic opportunities for people living in rural areas, and aligning the country with the opportunities presented by emerging carbon and ecosystem services markets.
Large-scale Target Planting Material (TPM) Production of Teak (*Tectona grandis*) in Tanzania, Eastern Africa: A Success Story

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Introduction

In response to a policy decision of the Government of Tanzania to allot degraded forests on long-term lease to private entrepreneurs for sustainable management, Mr. Amin B Lakhani, a Charted Accountant and leading businessman of Dar es Salaam accepted a large chunk of degraded forest land near Ngulakula of Kibiti District in Eastern Tanzania as his ecological and social responsibility. This land is being sustainably managed by planting crops such as teak and other commercially and ecologically valuable species and the forest activities provide for livelihood to local people through employment. Over the last few years there is a visible improvement in quality of life of the local people dependent on Carbon Planet Ltd. (CPL) activities.

Teak growing as a plantation activity, although not new to Tanzania, is a new venture in this region, and therefore the challenge was to standardise a site-specific planting Quality Planting Material (QPM) Production technology, which the CPL has successfully done through experimentation.

An examination of the planting site gave the following insights that were applied during standardization of the nursery practices.

- The soil is sandy loam with very high porosity.
- The organic matter content of the soil was minimal.
- Aggressive termite attacks on weak plants.
- Top soil dries of quickly and therefore roots need to go deeper to survive.

These observations led to a customized production system based on a concept of Target Planting Material (TPM), which specifies production of Quality Planting Materials (QPMs) that meets the requirements of the target site conditions.

TPM Production protocol

a. *Seed procurement:* Good quality certified seeds were procured from Tanzanian Tree Seed Agency (TTSA), a government-owned reputed agency.
b. **Seed pretreatment**: The seeds were subjected to pre-sowing treatment where in the felty outer mesocarp was removed using a specially designed motorized scarifier.

c. **Seedling containers**: Large black polythene containers of 30 cm length x 15 cm width (flat size) holding about 1500 cc potting mixture was used considering the sandy loam condition of the soil.

d. **Potting mixture preparation and filling containers**: An organic matter-rich potting was prepared by mixing 2 part soil and 1 part weathered cow dung manure; cow dung being available plenty in the area. Sand was not added as the soil was rich in sand.

e. **Seed sowing and maintenance of polythene containers (1.5 months)**: The pretreated endocarp-exposed teak seeds were sown directly in polythene containers filled with potting mixture, at the rate of three seeds per container. The containers were irrigated three times a day and maintained under 50% shade. Seeds start germinating within 10 days. Only one good seedling was retained in a container, rest were culled out.

f. **Rapid growth phase (2.0 months)**: Powdered cow dung was applied at the rate of 10 to 15 grams at 10 days interval and maintained with two times irrigation. Culling out poor seedlings and re-arranging seedling beds were carried out.

*Read more on page 4*
g. **Hardening phase (1.5 months):** Seedlings were shifted to open (100% light), irrigation reduced from twice in a day to once in a day. Leaf blades were reduced to 50% by trimming using scissors.
h. **Preparation for out-planting:** Plants were shifted in hardening beds, roots protruding out were trimmed using sharp knife/blade before planting out.

The seedlings were planted out in the field at 1.9 m x 2.6 m spacing and have been showing promising growth characters.

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4th World Teak Conference
Accra, Ghana
23-26 August, 2021

The rescheduled 4th World Teak Conference with the theme – ‘Global teak market: Challenges and opportunities for emerging markets and developing economies’ will take place in Accra, Ghana during 23-26 August 2021. The conference address the most crucial issues of the global teak sector, including:

- Smallholder teak farming, marketing and livelihoods of rural communities
- Cost-benefit analysis on teak investments and promoting responsible trade & markets of teak wood
- Tree improvement, genetics, silviculture and stand management
- Management models for community forestry
- Environmental protection and biodiversity conservation

Conference Venue

The conference will be held at Hotel Kempinski Hotel Gold Coast City Accra, Ghana, the largest and most populous city in Ghana and the country’s main port.

Major themes of the Conference

Session I : Smallholder teak plantation, value addition and livelihood enhancement of rural communities
Session II : Cost-benefit analysis on teak investments and promoting responsible trade & markets of teakwood
Session III: Tree improvement, genetics, silviculture and stand management
Session IV : Management models for community forestry and Family farming
Session V : Environmental protection, biodiversity conservation and Forest Landscape Restoration

The conference will make strategic, conceptual and operational recommendations to support the sustainable development of the teak sector. We thank everyone for the immense support towards this conference so far.

The revised schedule of activities will be announced at the end of December. Please follow the conference website for the updates www.worldteakconference2020.com and feel free to contact the WTC secretariat at infowtc2020@gmail.com

We look forward to seeing you in Accra, Ghana in August next year.

Stay safe.
TEAKNET Webinar Series

TEAKNET on its 25th year of establishment has launched a webinar series covering topics of broad topical interest to the teak community. It is a great platform in the current situation of Covid 19 pandemic to exchange knowledge and experiences, including innovations and emerging trends.

The webinar series was inaugurated with opening remarks by Mr. Thomas Hofer, Senior Forestry Officer from FAO- RAP, Bangkok and the first webinar in the series was delivered on the topic "The future of Production and Trade of Teak: Emerging Scenarios in a Changing World" by Dr. CTS Nair who was the key architect for establishing the TEAKNET while serving in FAO-RAP. Watch Webinar Series 1

The second on this line was delivered by Dr. Sinan Sebastian Hagenah from University of Goettingen, Germany on the topic "Population genetic considerations or selection of plant reproductive material of teak (Tectona grandis)". He has extensive knowledge and experience in the dynamic in-situ and ex-situ conservation of teak genetic resources and the design and implementation of holistic breeding approaches. Watch Webinar Series 2

The third presentation was delivered by Mr. RT Somaiya, Former President of the Timber Importers Association of India on the topic "Teak Timber Markets in the Post Covid Era" wherein he shared his 70 years of experience in the teak wood trade. Watch Webinar Series 3
We invite all of you to make use of this opportunity and actively participate in the upcoming lectures of the TEAKNET WEBINAR series.

Dr. James Roshetko from World Agroforestry Centre, Indonesia talked on the topic “Smallholder Teak Systems – Value Addition and Management for Livelihood Enhancement in Southeast Asia”. Watch Webinar Series 4

The fifth presentation was given by Dr. Suwan Tangmitcharoen from the Royal Forest Department, Thailand on the topic “Conservation and Tree Improvement of Teak in South East Asia”. Watch Webinar Series 5

Dr. Ernest Foli, Principal Research Scientist from Forest Research Institute of Ghana talked on the topic "Management models for incorporation of trees in farming systems in Ghana”. Watch Webinar Series 6

We invite all of you to make use of this opportunity and actively participate in the upcoming lectures of the TEAKNET WEBINAR series.
Teak trade during Covid 19 Pandemic

Myanmar’s official border trade with China has completely ceased as China has closed the Ruili crossing (main border in Myanmar).

Indian importers have commented that freight rates have become more volatile as there is shortage of containers. They anticipate this situation will prevail for some more time. Under the present circumstances it is difficult to give a clear picture of C&F prices for imported teak.

Courtesy: ITTO TTM Report 24 (18): 16-30 September 2020

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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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