



Teak plantations and management of natural forests in Tanzania



©Kilombero Valley Teak Company (KVTC)

Planted teak forest

Teak as a plantation species

The continued destruction of natural forests, especially in the tropics, is reducing the supply of high-value hardwoods in global markets. The establishment of plantations is gaining momentum as a way of both increasing supply and reducing harvesting pressure in natural forests.

Teak (*Tectona grandis*), a high-value timber species, occurs naturally in India and Southeast Asia and has been planted in several countries. In the United Republic of Tanzania, the Kilombero Valley Teak Company (KVTC) has recognized the value of plantation teak. This fact sheet describes its operation.

Growing teak

Teak is difficult to grow, and little scientific knowledge exists to guide its silviculture. Tree-breeding programmes are advancing, however, and improved genetic material and clones are being used to produce high-quality products and increase resilience in the face of pests, diseases and extreme climatic conditions. Seed is harvested and sown or cuttings taken and planted. Young teak plants are reasonably tolerant of fire and competition from weeds, and the species also coppices with ease.

Multiple thinnings are required to obtain high-value end products from teak plantations. In addition, flowering results in stem forking, after which corrective pruning is required to obtain the single stems needed to produce high-value logs.

KVTC

KVTC is the only company in the United Republic of Tanzania growing teak on a large scale (in cooperation with its outgrowers). Established in 1992, KVTC is one of Africa's most innovative forest management projects. At its heart is the planting and sustainable harvesting of teak and the protection and management of over 20 000 hectares of natural forests and wetlands, which feature a wide range of wild fauna and flora.

KVTC has established an integrated processing plant for the production of timber and value-added products, bringing long-term social development to the region and directly employing 350 people. The company processes logs into lumber in its own sawmill and also supplies logs to other sawmills. Major shareholders include the Africa Sustainable Forestry Fund and Finnish Development funds.



KVTC workers



In the KVTC sawmill

KVTC's success factors

Establishing teak plantations in small patches over a large area of rural land carries considerable risk. The KVTC shareholders are focused on producing high-value, Forest Stewardship Council-certified timber. The company is very supportive of local managers, a high proportion of whom having risen through the ranks of KVTC and now play senior roles. The company has a very good relationship with the community. KVTC has not taken on debt to finance its operations, resulting in a business that has become financially sustainable well in advance of many similar plantation investments. The government has provided impressive support, including by upgrading roads and bridges to enable greater access and easier transport. Company stability has also been crucial, with low management turnover and good team dynamics.

KVTC and outgrowers

The establishment of company plantations has encouraged local farmers to plant teak. KVTC has helped them by establishing a formal outgrower scheme.

Outgrowers are located up to 100 km from the main plantation. Contracts between KVTC and the outgrowers specify that KVTC covers 50 percent of outgrower establishment costs and, in exchange, it has the first right of refusal to 25 percent of the timber harvest; outgrowers may choose to sell the remaining 75 percent of logs or process them themselves. Ultimately, it is envisaged that local outgrowing will help sustainably improve the economic and social conditions of participating communities.

The bigger teak picture

The isolated nature of the KVTC plantation and the pioneering of teak as a plantation species could have meant costly trial-and-error processes. KVTC minimizes this risk, however, by participating strongly in the wider teak industry, including in Brazil. KVTC has its own clonal programme and a stable research and development budget to enable continued improvement. The company participates in Teaknet, a grower network based in India designed to advance and support teak growers. Teaknet meets every two years to address areas of collective need.

Challenges

KVTC can be proud of its achievements, but the challenges are considerable, including the following:

- **Lack of infrastructure.** The area is remote and a long way from markets. The continued upgrading of infrastructure is crucial.
- **Outdated law.** The country's forest law was not designed for private companies active in forest management. Regulations need to be modified to facilitate commercial plantations, including by removing requirements for tree marking, which is designed for selective harvesting.
- **Marketing.** The strong promotion of wood as a "green" product would stimulate wood demand in the United Republic of Tanzania, as would government procurement policies stipulating the use of (certified) wood.
- **Fragmentation.** The fragmented nature of land use in the area, and the presence of large conservation areas, increases the difficulty of managing forest encroachment and fire.
- **Capacity.** Forest managers are needed who can both run the business and train personnel in commercial forest practices.

For further information, please contact:

Forest Products and Statistics Team

Forestry Policy and Resources Division (FOA)
Forestry Department
Food and Agriculture Organization of the United Nations

FPS@fao.org