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● *Lesser-known timber species are part of it too*

Worldwide, thousands of timber species, each with its own properties, characteristics and applications, have been identified. Nevertheless, only a relatively small part is used for commercial purposes. Through (certification of) sustainable forest management, an effort is made to balance the composition of species of the forest. This increasingly brings 'new' timber types to the market. An excellent development for the forest, but it appears that introducing these species to the market is not easy. A reason for Probos to ask Boris Bakker, an International Timber Trade student, to find answers to the following questions: how can timber traders and processors better respond to the use of lesser known species and which resources can help them?

Lesser-known timber species are part of it too

Background

Natural forests can consist of hundreds of different types of wood. In sustainable forest management, maintaining this diversity plays an important role and not only the few known species of wood are exploited. Using the wide range of species aligns with what the forest can sustainably (continue to) produce and prevents making (known) species scarce. In addition to opportunities for the forest, it also means opportunities for the market and trade. This way lesser known timber species (LKTS) can be an excellent and cheaper alternative to known species that are becoming scarcer. After all, LKTS can occur in concessions in large numbers and are often underused.

With LKTS, concessionaries can obtain a higher felling efficiency per hectare, and spread the cost of certification across multiple types of wood, which leads to leveling the surcharge for certified timber. The use of these species therefore contributes to the economic sustainability of responsible forest management and thus to sustainable forest management in general.

Study purpose

This study aimed to provide concession holders and timber trade insight into the factors that play a role in marketing and introducing LKTS. In addition, first steps were taken to develop a tool that can be used to relatively simply, quickly and inexpensively gain insight into the most relevant features of a 'new' species and thus get an impression of the species' potential.

To find answers, existing research on success and failure factors with respect to introduction of LKTS have been studied first, and many

experts were spoken to. Next, the tool is tested in practice on the basis of available concession data (see box).

Factors in success and failure

Past research and input from experts show certain success and failure factors in introduction and marketing of LKTS. The important factors contributing to success are:

- Performance-oriented sales (which features are required for the application) instead of specific species;
- A good sense, throughout the organization, of the usefulness and necessity of the use of LKTS (think of sellers!). This also means knowledge development in relevant trainings.
- Focus on species with enough (and future) supply;
- Focus on species that can provide new applications, such as design (vener), specific niche markets, etc;
- Focus on species with favorable properties for promising sectors (see below);
- Approach markets that are receptive to the message of sustainable forest management;
- High timber prices make it possible to introduce LKTS at attractive prices;
- Do not create unrealistic expectations of certain timber species;
- LKTS can increase the available volume for a specific application and reduce the average price; and
- Arrange reference projects in which LKTS are used.

The success factors already give an indication of where things can go wrong. In short, these are the main failure factors that the study has shown:

- Existing, for some applications necessary,

Box 1) Assessment in practice

To determine whether a particular species is of commercial interest, an attempt was made to develop a tool by which timber species can be tested. This concept tool was then used to assess the commercial potential of 91 species from an actual forest inventory of two concessions in the Congo Basin. After filtering species that were double listed, for example by local names, 61 species turned out to be in the concessions. Only 11 of them are currently considered to be commercial species. The other 50 species were assessed against criteria such as: 1) sufficient volume, 2) presence in www.houtdatabase.nl (and thus more known); 3) sources with (relevant) technical characteristics, and 4) opportunities for the species in the higher market segment. From the assessments four types with commercially interesting potential emerged:

- 1) Alep (*Desbordesia glaucescens*): a hard, heavy and very durable timber type. It's shipworm-resistant and could be used in places where traditionally Azobé is used.
- 2) Bodo (*Detarium senegalense*): a potential replacement for Walnut and Palissander (some of which are included on the CITES list of protected species) veneers. However, during drying it gives fewer problems than Walnut.
- 3) Koto (*Pterygota bequaertii*): a light-colored hardwood, similar to Abachi but harder and more stable. Has many applications, but especially opportunities for veneer and panel work for indoor use.
- 4) Movingui (*Distemonanthus benthamianus*): has many applications; from furniture and floors to construction timber.



Natural forests can consist of hundreds of different types of wood. In general only a few (known) ones are exploited. (photo: Mark van Benthem, Probos)



Guariuba (Clarisia racemosa) in new construction building Erica (photo: Wijma Kampen B.V.)

ring and are not too complicated (as compared to certain other applications), and can be tested relatively simply (inexpensively). In addition, the appearance generally plays no role. Retail is another promising sector. Here it concerns mostly garden timber and the customer, as a rule, does not buy a specific type of wood, but wood for a specific purpose and with a specific size. The species are not identified by name, so a new species which meets the technical requirements can easily be sold as 'garden wood' or 'hardwood'. Moreover, the service life of wood in these applications generally is short. Finally, we could state that the furniture and flooring industry are sectors of interest. Appearance and technical characteristics play an important role, but the use of the wood is relatively low and the requirements in terms of warranty are limited. This is clearly different in the carpentry industry. Here requirements for wood are usually very strict and the product must often be (KOMO) certified. Technical studies of timber and product certification processes, such as KOMO, are time-consuming and costly.

What is next?

It is encouraging to see that an interest is taken in the subject and that it is picked up by a number of organizations such as the Sustainable Trade Initiative (IDH), FSC Netherlands and Centrum Hout (part of the Royal Dutch Timber Trade Federation (VNH)). The timber trade, especially those parties with direct links with concessions already have been working on this subject matter. However, the current challenging economic times make investing in LKTS less attractive. On the other hand investing in LKTS also offers opportunities for better returns. The research has yielded some interesting clues that require follow-up:

product certificates (such as KOMO), guarantees and regulations;

- Often a lack of data on physico-mechanical properties (or not being able to find these);
- Insufficient stable supply and required qualities;
- A lack of practical experience with the species;
- Lack of knowledge, both in the country of origin and among sellers;
- Incomplete forest inventories;
- Conservative attitude in the sector and resistance among middlemen (such as agents);
- Lack of means for research and promotion; and

- Bad experience with LKTS in the past.

Promising sectors

Above factors play an important role in introduction and marketing of LKTS in general. However, from the study clear differences per sector (industry) emerge.

Some sectors seem to fairly easily accept LKTS, while in others this is a very long road. An approach per sector is therefore very important. Civil engineering is a promising sector for application of LKTS. Some prominent Dutch companies have already been successful here. The main reason is that the required physico-mechanical properties for use in civil enginee-



1) Sell properties, not species

It is not only important to write performance-based specifications in contracts (and obviously require a sound origin), but selling organizations would also need to do this more. Moreover, it is of great importance that everyone in the organization can explain why the use of LKTS is important.

2) Provide pilot projects

For the acceptance of LKTS it is important to gain practical experience with LKTS, thus increasing knowledge about processing possibilities, but also about how species perform in certain applications. Make sure that this information will be easily accessible, for example by reporting pilot projects on www.houtdatabase.nl.

3) Develop a practical tool to facilitate introduction LKTS

One of the study's selection criteria was determining whether a species has potential, and that there is a source that lists relevant technical characteristics (see box). But what if the source is missing? A new tool to be developed can provide information about what at least should be known about a certain type of wood to consider market introduction, tips to easily retrieve basic data (both highly practical tips and information) and by sector (civil engineering, retail, utility, etc) to work out which requirements are set for timber.

4) Develop an alternative quality system

As outlined earlier, product certifications constitute a barrier to the introduction of LKTS. However, it is certainly worthwhile to set up a quality system that allows LKTS grouping and comparing to known species. Such a quality system will be permanently in development because new experience

will continuously be gained, but it gives users (and vendors!) the best possible grip.

5) Install a new independent organization

It is advisable that the timber industry, concessionaries, certification systems, etc streamline the introduction and application of LKTS as much as possible. Several organizations are eligible to act as coordinator for the realization of points 1 through 4, and to serve as first point of contact for companies that deal with LKTS. This organization should engage in data management, knowledge sharing and transferring, jointly conducting tests (or having them conducted), funding promotion and gaining practical experience with species.

A mindset change is needed in (professional) timber users in the Netherlands to get LKTS applied easier. The average consumer at hardware stores accepts the specification 'garden wood', while a professional user often asks for specific species. This equation is obviously wrong when heavy demands (guarantees) are imposed on the timber, but some sectors could certainly learn from this. This can be stimulated by formulating frameworks performance-based, but the timber industry itself also needs to think and act (trade) performance-based. This does not happen overnight.

Probos gladly accepts the challenge and envisages a role for itself in encouraging the use of lesser-known species. After all, the forest benefits. Moreover, the Netherlands is a major wood consuming country, and thus able to influence demand. In recent years, Probos has already undertaken a number of activities, such as setting up houtdatabase.nl in such a



*Lesser-known species with exotic colors or distinctive designs offer opportunities for architects and designers, as in this case of veneer *Dracontomelon mangiferum* Blume (photo: Mark van Benthem, Probos)*

way that searching by application or by features is possible, instead of by timber species, and that as many pilot projects are included as possible. However, as outlined above, much remains to be done and it would be good if this were taken on and coordinated structurally. This International Year of the Forests, as proclaimed by the UN, seems an excellent moment!

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