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# The Wood production and products Value Chain and key issues – a focus on Uganda

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By



**Joseph Denis Walusimbi**  
*DS/SK/140507.017. Intake MSM/ESAMI/DBA2*

Submitted to;

**Professor Meine Pieter van Dijk**

**Dr. Robert Goedegebuure**

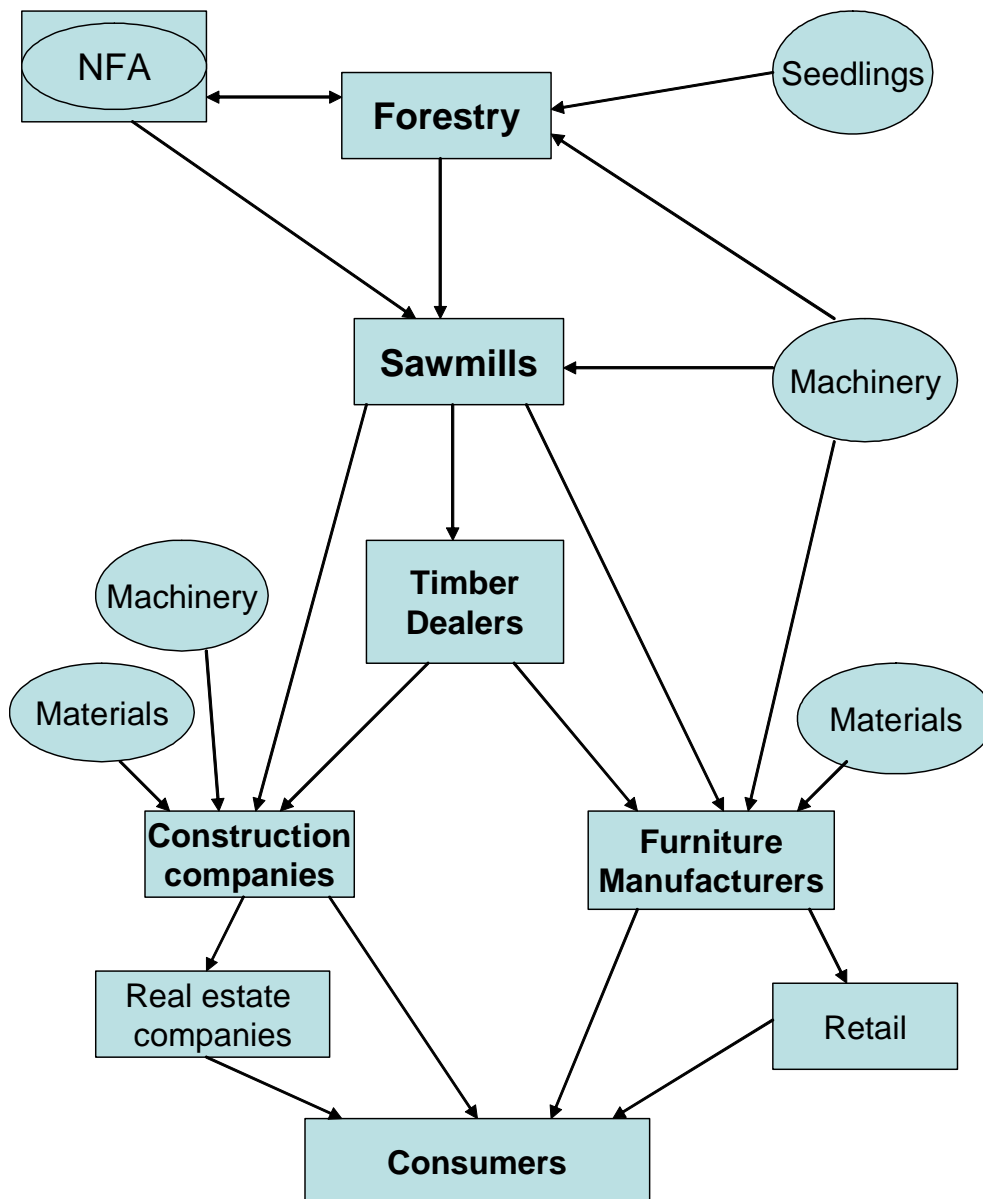
## **An Overview of the Wood Sector in Uganda**

- Forests and woodlands cover 4.9 million hectares which is 24% of the country's woodland area
- The protected areas of which 1.2 million hectares are forest reserves cover 30% and the other 70% is under private ownership
- Total marketable and non-marketable forest value is approximately Ushs.593 billion (USD \$ 348 million), roughly 5.2% in GDP terms (Source: Wildlife Conservation Society)
- The estimated average cost of establishing commercial plantations is Ushs.1.2 million per hectare (Source: SPGS – Saw Log Production Grant Scheme)
- The National Forestry Authority (NFA) was established in 2003 Act to protect and develop the 1.2 million hectares forest reserves. It's also an actor in the market by selling timber thus it influences market prices.
- The EU-funded Sawlog Production Grant Scheme (SPGS) was established in 2003 and offers a 50% planting subsidy, technical advice and training
- Main types of commercial woods grown are *Pinus caribaea* (sawlogs), *E. grandis* (fuel wood and poles), *Eucalyptus*, (poles, carpentry and furniture production), and the “classic” species mahogany and Mvule.
- Main investors are, New Forests Company (started in 2005/6 and already has 1,000 hectares), Busoga Forestry Co., Deutsche Forst Consult, Global Woods Limited and NilePly Limited.

## Major Players and Links in the Value Chain

The Wood value chain for Uganda is depicted in the figure below and shows the main links and players involved before to the point when the products reaches the customer;

**Figure 1 Value Chain for the Uganda Wood Industry**



The four major players are Forestry growers, Sawmilling, Timber dealers and Secondary processors (mainly furniture and construction);

- Forestry with 30% of the Ugandan forests being administered by the National Forestry Authority (NFA) while the remaining 70% are privately owned forests.
- Sawmilling, which is mainly done on site by private enterprises
- Timber Dealers, which are the main timber distributors in urban areas
- Secondary processors (mainly furniture and construction), which to a large extent also market the products to the consumers

## **The Dynamics**

To date, the supply chain is not sophisticated: support or extension services are very limited. Interaction with players external to the chain is limited to procurement of goods.

Vertical integration is commonly found along the chain, particularly sawmilling and timber dealing are often integrated. The majority of the businesses are small, producing for the low quality segment.

The primary sector is very fragmented, especially concerning the timber harvested in private forests. The majority of the private timber is harvested without informing the local authorities

Stationary saw mills are rare and the few existing ones with significant capacity are not operating or even dismantled; mobile saw mills and pit sawyers dominate the sector. Saw millers often own and operate a timber store/yard in the urban areas where the sawn timber is sold. Due to the fragmented structure and the high share of illegal or semi-legal

businesses, there are no commercial extension services supporting the sector. The NFA, and particularly the SPGS (Saw Log Production Grant scheme), are currently the only sources of professional advice in the forestry sector. The role of the NFA in the value chain is special; the NFA is mainly responsible for managing the Central Forest Reserves (CFR) and ensuring proper forest management practices while it is also an actor in the market by selling plantation timber. It both has a regulatory function external to the chain but also actively participates in the chain, influencing market prices.

The secondary sector consists of both industrial operations and traditional trades but the vast majority of businesses are small roadside workshops. The overall number was estimated to be around 2,500 (Auren & Krassowska 2004). Construction companies are generally bigger in size and often vertically integrated.

## **Constraints**

- Lack of information – Limited reliable information to assess the financial potential of investments in forestry is lacking
- Very low capacity and technical standards for processing sawlogs (cheap saw mills, lack of skilled personnel)
- Low transparency of the sector - lack of standards and control over utilization of the natural forests
- Growing resource shortage concerning timber from plantations and natural forests because of unsustainable harvesting rates leading to price increases and legal and illegal timber imports from southern Sudan and DR Congo
- Technical standards - Poor storage, lack of drying or treatment and no quality grading of the sawn timber by timber dealers and secondary processors resulting in low value products
- Poor tree planting practices by the private sector.
- Land encroachment - squatters on CFR leased land (No government support to NFA)
- Lack of direct contacts to potential export markets - No institutional support
- Poor state of the rural road network – high distribution costs

- High capital costs - interest rates as high as 17-20% for long term investments and 22-25% for short term
- Forestry tax anomaly – Long timescale between planting and harvesting (12-25 years or more) leads to plantation being taxed heavily more than other investments yielding a similar return
- Lack of R&D support and lack of skilled staff
- Funding and technical assistance uncertainty – Donor funding for NFA and SPGS activities to end in 2008
- Irregular supply of timber – Due to this difficulty, some processors are now shifting to wood-based panels which are imported from South Africa or China

## **Opportunities**

- Funding for large scale investors – Prospect of attracting carbon credits e.g. World Bank's Bio-Carbon fund.
- Funding for small scale investors – Through a clustered approach
- Availability of land - Huge areas of CFR land suitable (>100,000 ha) for commercial forestry (Source: National Forestry Authority). Same for private land (leasing options)
- Excellent growing conditions for trees and a fast growing demand (locally and regionally)
- Growing shortage of timber in the market – particularly quality timber
- Use of advanced technologies - In place of electricity shortages during processing, introduction of wood-gasification technologies thereby utilizing wastage like sawdust and production rejects
- Focus areas for investment - Upper quality furniture and forestry are the most promising areas for investment
- Integration - For current investors, integration of forestry, sawmilling and timber dealing to control quality thus increased value and ultimately the return on investment (and possibility of regional trading)

## Profitability in the Value Chain

To illustrate the values that accrue for the key players in the chain, below is a table showing the profit margins for the key players in the industry (Kallweit, 2005);

**Table 1 Profitability within the Wood Value Chain**

Key chain players	Profit Margin	Initial investment
Forestry (Plantation)	12 – 16%	Medium to High
Sawmilling	Highly variable, positive scenario 15-25%	Low
Timber dealers	Not determined	Low
Furniture	25-30%	High

As can be seen in the table, the upper quality segment of the furniture market including office and household furniture currently represents the most promising investment opportunities in the sector.

Whereas Sawmilling and Timber Dealing do not require high investment they also do not offer promising long term potential. The profit margin can still be attractive but with more mature markets and a shift towards higher quality the potential seems to be limited.

While forestry is not as profitable as upper quality furniture the growing need for timber in the market provides an attractive opportunity. Timber dealers can still incur significant profits because of semi-legal operations and low transparency. With an increasing demand for quality, however, and more trustful relations between the individual actors those profits are likely to erode and the sector is likely to consolidate. Saw milling was very attractive with ample resources in the natural forests but with limited access to resources there is increasing pressure to restructure. With growing importance of plantations it is likely that sawmilling and timber trade in the future will be integrated into forestry operations.

## Conclusion

Overall, the timber value chain is characterized as a **sellers market** and still dominated by price. Accordingly, the bargaining power of suppliers is high but buyers with significant processed volume start to influence standards. Competition is high in the low-quality segment but businesses in the upper quality segment do not feel competitive pressures due to strong growth of demand.

In summary, according to Kallweit (2005), the timber value chain in Uganda can be described as follows:

- Most trading relationships are rather short term
- The number of suppliers and customers is high in general
- Product quality has to be carefully controlled by the buyer
- There is hardly any sharing of information or technical assistance within the chain
- Communication between the different actors is – apart from personal relations – generally limited to price negotiations
- Price determination is adversarial and information is hidden
- Credits granted are rare and if granted mostly based on power relations (or personal relations), payments are often delayed without agreement or even informing the other party

## Data Sources

Below are the key sources of further Value Chain research data that I intend to engage in the course of the DBA research;

- National Forestry Authority
- Sawlog Production Grant Scheme (SPGS) – EU funded
- National Bureau of Standards
- National Environmental Management Authority
- New Forests Company – Largest private forestry planter in Uganda
- Ministry of Water and Environment
- Uganda Forestry Growers Association
- District Forest Service
- Uganda Wildlife Conservation Society
- African Development Bank (ADB)
- Forest Stewardship Council
- UNIQUE Forestry Consultants – Germany
- Royal Institute of Chartered Surveyors
- Food and Agricultural Organisation (FAO)
- UNCTAD
- National Bureau of Statistics
- Sustainable Development center – Makerere University
- Deutsche Forst Consult
- TRAFFIC East / Southern Africa – The Wild Life Trade Monitoring Network

## References

AUREN, R. and KRASSOWSKA, K. (2004): *Small and Medium Forestry Enterprises in Uganda; how can they be profitable, sustainable and poverty reducing*; IIED, London and Forest Sector Co-ordination Secretariat, Republic of Uganda

KALLWEIT, K. (2005): *Reducing the uncertainty for forest investors in Uganda; Value Chain assessment for timber and timber products*; Unique Forestry Consultants, Republic of Uganda.