MNYORORO WA THAMANI WA MAZAO YA MISITU

FORVAC

FORESTRY AND VALUE CHAINS DEVELOPMENT PROGRAMME

ANALYSIS OF THE DEMAND FOR MIOMBO TIMBER AND THE PRODUCTION CAPACITY OF THE LOCAL WOOD INDUSTRY FOR THE OPERATIONAL AREA OF FORVAC

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The United Republic of Tanzania
MINISTRY OF NATURAL RESOURCES
AND TOURISM

SUOMI
FINLAND

ANALYSIS OF THE DEMAND FOR MIOMBO TIMBER, MAPPING OF THE PRODUCTION CAPACITY OF THE LOCAL WOOD INDUSTRY FOR THE OPERATIONAL AREA OF FORVAC

FINAL REPORT

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EXECUTIVE SUMMARY

This report is meant to present consultancy services which were carried out in accordance with the TOR of the agreement. The overall objective of the consultancy was to analyze the demand for miombo timber, mapping of the production capacity of the local wood industry for the operational area of FORVAC. The consultancy service commenced on December, 2022. The consultants reviewed key documents of relevance to the study and conducted one-on-one interviews with key stakeholders, including rural communities, District Forest Officers, District Forest Conservators, timber buyers, sawmillers and timber exporters. Analysis of the responses reveals that key factors that influence timber demand include regulatory framework, quality, transport, policy, price and sales location. Currently, the sales approach of community miombo timber is reactive and not proactive, evidence gathered by the Consultants suggests that villages with access to mobile sawmills supported by FORVAC will harvest and process timber in response to a sale rather than in advance of a sale. This approach should change, the villages should stock sawn timber and logs to respond to the buyers when an order arises. This would allow FORVAC supported villages to meet demand of miombo timber buyers within the shortest time period. Thus, the assessment suggests that FORVAC supported CBFM villages can stand out in the timber markets in Tanzania and to export markets by offering dried timber that is ready for work; currently wet timber appears to be the most readily available option. A more active approach is needed to reach out to potential buyers and make them aware of the FORVAC supported village’s story, competitive pricing and ability to provide quality timber.

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ABBREVIATIONS AND ACRONYMS

CBFM	Community Based Forest Management
DC	District Council
DED	District Executive Director
DFO	District Forest Officer
EWP	Engineered Wood Product
FBD	Forest and Beekeeping Division
FSC	Forest Stewardship Council
GN	Government Notice
LKTS	Lesser-Known Tree Species
MCDI	Mpingo Conservation & Development Initiative
PFM	Participatory Forest Management
PPRA	Public Procurement Regulatory Authority
TRA	Tanzania Revenue Authority
UVIHIMIKI-	Umoja wa Vijiji vya Hifadhi ya Misitu Kilwa
VC	Village Council
VLFR	Village Land Forest Reserve
VNRC	Village Natural Resource Committee

1 INTRODUCTION

1.1 Background and justification

FORVAC seeks to support villages under its support to increase sales of timber products, which the communities offer in two categories: standing trees (which account for 90% of sales) and sawn timber. In theory, the value addition required to produce sawn timber will progress CBFM up the value chain and help villages capture more value for each tree. While increasing sales of community timber is clearly one of the targets of FORVAC Programme, a structured marketing strategy is lacking. This means that, neither the local government Authorities have a strategy to improve the sales of community timber nor do statistics of sales of community timber exist, and thus the present and future contribution of sales of community timber is difficult to assess.

While some communities supported by FORVAC produce sawn timber (and have the equipment needed to do so at scale), they have struggled to push more sales of sawn timber due to limited demand. To appreciate the reason for these sales challenges, FORVAC engaged Expert Consultants to undertake the analysis of the demand of miombo timber from FORVAC operation areas. The consultants interviewed selected timber users, forest officers, villagers, sawmillers and other key stakeholders to get an understanding of demand dynamics, and prepare a timber sales strategy to capture or drive more sales of community miombo timber.

1.1.2 Objectives

- Enhance forest-based income generation in the Programme area through CBFM value chain development by developing marketing of miombo timber.
- Improve knowledge of the demand for sustainably produced miombo timber.
- Set up a marketing strategy to support the trade.

1.1.3 Relevance and viability

Key policy documents that recognize the relevance of PFM have been approved recently by the Government. These documents include the National Five-Year Development Plan III (NFYDPIII), 2021; National Forest Policy – Implementation Strategy (NFP – IS), 2021; and Nationally Determined Contributions (NDC), 2021. However, regulations under the Forest Act, 2002, namely GN 417, have added requirements that applications for harvesting from VLFR by timber traders must be lodged and vetted by a District Harvesting Committee. This requirement is adding unnecessary bureaucracy because according to this regulation Committee shall meet at least once a year in its ordinary meeting an where circumstances allow, and after the approval of the Chief Executive, the District Committee may meet for extraordinary meetings. The timing of extra ordinary meetings normally do not coincide with emerging timber orders.

2. METHODOLOGY

To get a comprehensive understanding of miombo timber market demand dynamics, a broad cross-section of timber users was shortlisted, including 26 timber buyers, 6 processors, 2 construction companies, 5 furniture makers/interior designers and 1 hospitality industry players, both locally and at National level. A survey was created with a variety of questions to capture:

i. Buyers interest in sustainably sourced miombo timber.
ii. If they have purchased sustainable miombo timber in the past.
iii. What type of wood they buy, where they get it, and for what prices?
iv. What else they look for when buying miombo timber.

2.1. Data Sources

The assessment exercise began with the collection and review of key documents of relevance to the study. Further information collection was carried out in the manner described below.

2.1.2. Literature review

Key literature and materials provided critical information necessary to assess demand for miombo timber. Reviewed documents included previous timber marketing study, VLFRs Management & Harvesting Plans, policies, legislation and regulations. A list of documents that are referenced in this report is contained in the List of References at the end of this document.

2.1.3. Key Informant Interviews

One-on-one interviews were conducted with key stakeholders, including rural communities, District Forest Officers, District Forest Conservators, timber buyers, sawmillers and timber exporters. Checklists of questions were developed to guide the interviews (see appendix 1 for more details).

2.1.4. Focused Group Discussions

Focus group discussions were held in four selected CBFM villages in Liwale District. The villages were visited by the Consultants where discussions were held with VC and VNRC members.

2.1.5. Stakeholder Interviews with Timber Value Chain Actors

Data collection surveys were also sent to 10 potential buyers and processors located in Dar es Salaam and Arusha. The shortlisted buyers were considered likely hardwood users, given they were involved in furniture manufacturing, construction and hospitality. These potential buyers were called, emailed, and in some cases, even visited in person.

As people and traders are sensitive to their information, triangulation of information was done to enhance the validity and credibility.

2.2. Data analysis

Only simple data analysis tools were required for the assignment. Analysis was mainly in the form of simple arithmetic calculations, such as determining percent share or percent change by using Excel software. Additional analysis involved simple manipulations using Excel software, including sorting and filtering.

3. SUPPLY ANALYSIS

Supply of sawn timber from natural forests is hard to estimate since the officially licensed volumes are arguably too low compared to the real volumes traded in the market. This report come up with estimates of stock available from CBFM villages supported by FORVAC (Table 1). This estimate has been obtained from the VLFRs Harvesting Plans and interviews with the key informants. Linking this information, sawn timber supply for CBFM villages was obtained. To enable a better understanding of sawn timber supply dynamics, the roundwood volumes were converted to sawn timber equivalents (i.e., 0.45, the conversion represents averages 0.3 to 0.6). Note that conversion factors vary widely in function of species and processing technologies.

Table 1: Current supply of standing tree volume from FORVAC Clusters

Tanga cluster	
Districts	**Volume (m^3)**
Kiteto	42,926.00
Handeni	4,871.70
Kilindi	664.00
Total	**48,461.70**
Lindi cluster	
Districts	**Volume (m^3)**
Liwale	180,093.80
Nachingwea	56,236.56
Ruangwa	3,944.44
Total	**240,274.80**
Ruvuma cluster	
Districts	**Volume (m^3)**
Tunduru	19,022.00
Namtumbo	23,510.00
Songea	4,759.51
Total	**47,291.51**
Grand Total	**336,028.01**

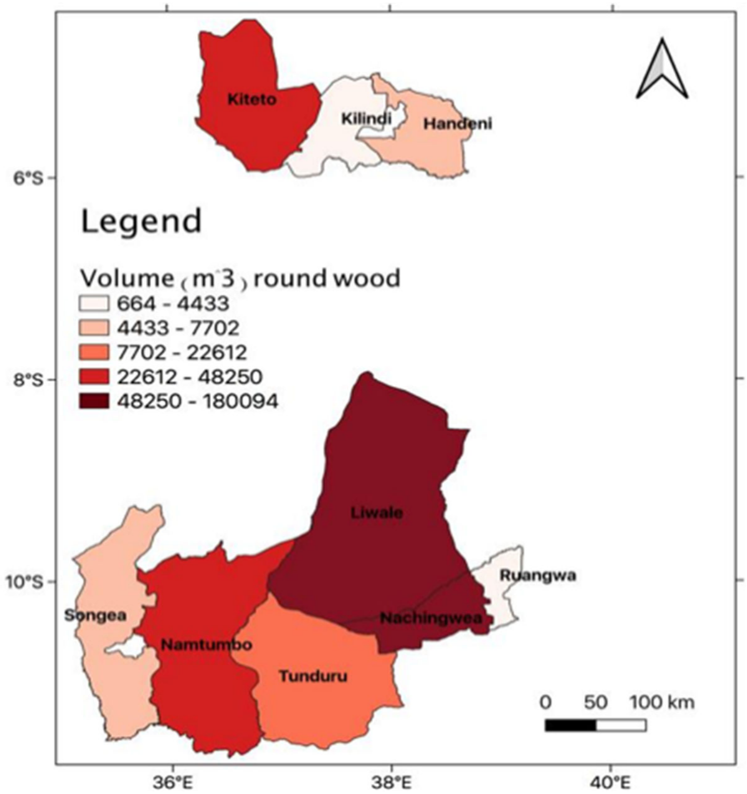


Figure 1: Stock of round wood available from CBFM villages supported by FORVAC

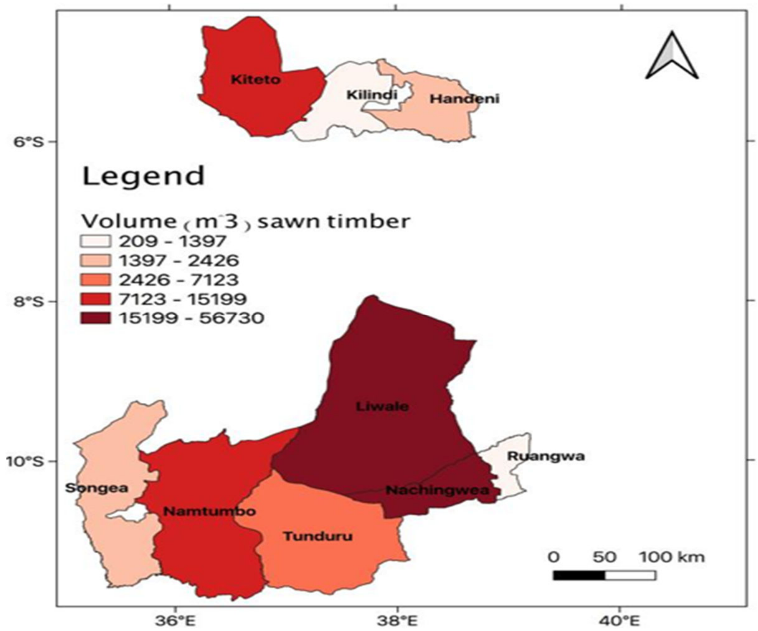
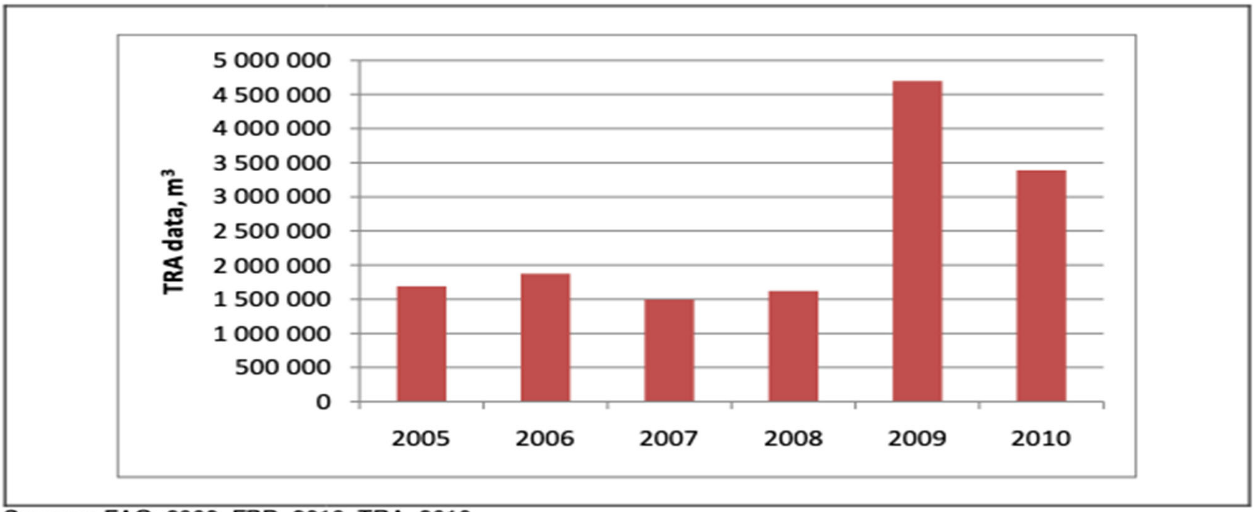


Figure 2: Stock of sawn timber available from CBFM villages supported by FORVAC

4. DEMAND ANALYSIS

Logs are predominantly consumed in most of primary processors of miombo wood. It was revealed that, logs for primary processing originate from CBFM villages, National Forest Reserves and/or General Land. The demand analysis establishes a sawn timber volume of 5,830m³ per year per 6 surveyed processors in Liwale, Ruangwa and Handeni districts. The volume of exported sawn timber per year is 18,456 m³. The consultant estimates, based on the limited field visit observations done mainly in the FORVAC clusters and TFS HQ. Main export destinations in recent years are China, Europe and Unites States.

Hardwood sawn timber export data is much more fragmented; thus, the statistics need to be treated with caution. Historically, the statistics (Figure 3) shows that the export of hardwood sawn timber is dynamic due to demand of sawn timber.



Sources: FAO, 2009, FBD, 2010, TRA, 2010.

Figure 3: Hardwood Sawn Timber Exports, TRA data, 2005-2010

5. SUPPLY-DEMAND ANALYSIS

The results of the supply and demand analysis are merged into the supply demand analysis (SDA). The overall SDA predicts sawn timber supply gap, which can be met by supply from the CBFM villages supported by FORVAC. Thus, the challenge will be to identify market options for the sawn timber volumes to enter the market in the future and match these volumes with the specifications required by the buyers. Figure 4 shows the volume of standing hardwood trees sold; the trend shows an increase from 3,755m³ in 2019 to 9,707 m³ in 2022.

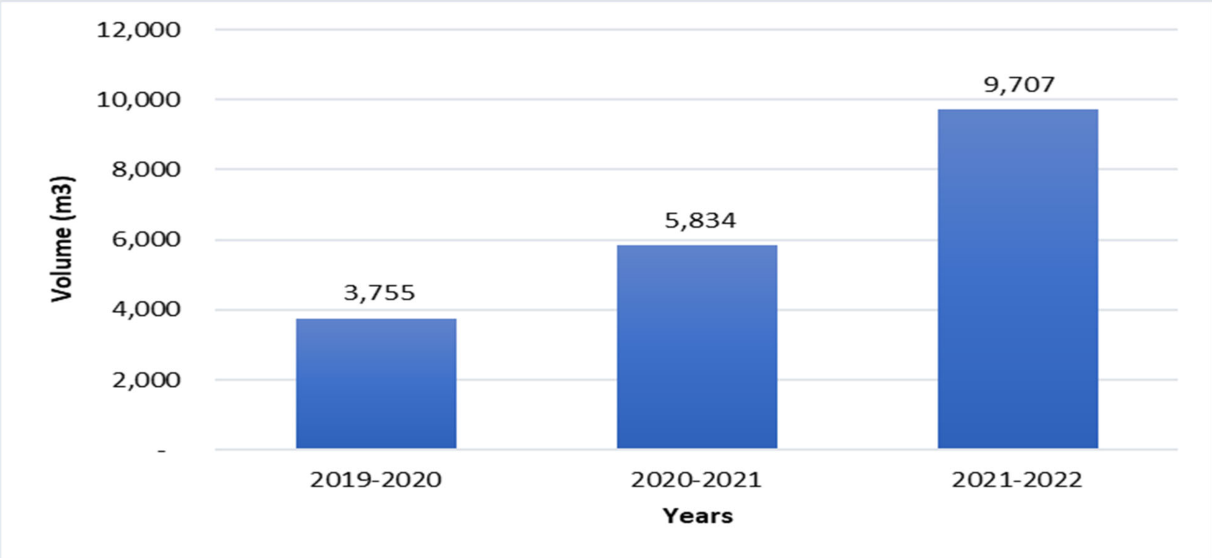


Figure 4: Standing hardwood tree Volume sold across the three Clusters

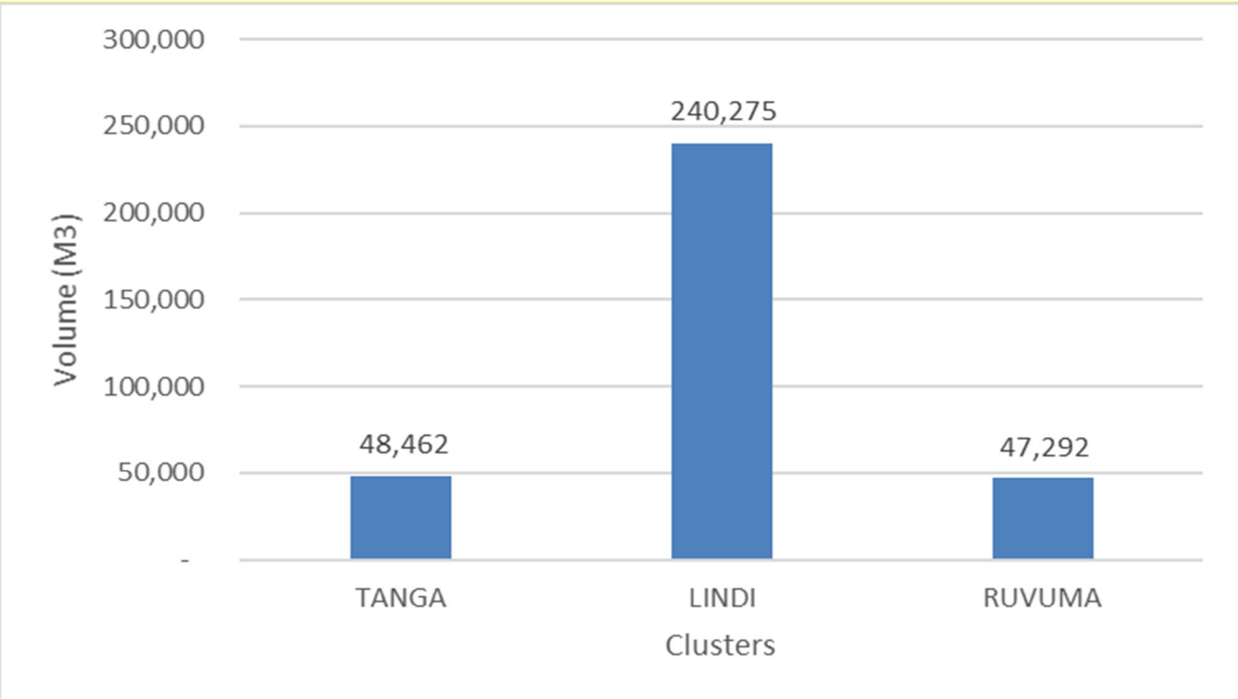


Figure 5: Current Miombo timber stock from VLFRs

6. DEMAND FORECASTS

The long-term projections presented here are intended to give insights into the likely developments of the demand and trade of miombo timber in FORVAC Programme area. These are based on a given different sets of assumptions. The assumptions applied are historical trend, current knowledge, the current trends in urbanization, economic growth and e-co-conscious tourism.

Based on the current and the previous sales data, it is predicted that the average forecast demand volume per annual for the next five years is 29,606 m^3 of roundwood.

Urbanization

Tanzania is urbanizing rapidly – Dar es Salaam is home to 5.4 million people (2022) and is projected to achieve "megacity" status (≥ 10 million) by 2030, according to the African Development Bank. In addition, the populations of other cities like Dodoma, Mwanza, and Arusha are anticipated to swell. These burgeoning urban centers will need, readily-accessible wood for construction materials. CBFM villages are well-placed to supply timber to meet the demand.

Tourism

Tourism is Tanzania's leading foreign currency earner and accounts for 25% of the country's revenues. The tourists typically stay at lodges and a significant portion of these lodges promote a "green" ethic. CBFM villages are well-placed to provide locally-sourced, sustainably harvested lumber for furniture, building materials and souvenirs. During the study, it was observed that through MCDI, Grumeti Eco lodge in Northern Tanzania placed an order of 5,600 planks (36.18m^3) worth **TZS 314,500,000** of FSC certified and kiln dried sawn timber from Nahoro village in Liwale District.

7. TIMBER MARKETS

Sawn timber consumption is not only a function of supply and demand, but is also subject to dynamics and trends of the market environment, which may speed up, slow down or even stop specific consumption trends. This report has identified a set of major discrepancies of relevance for the Tanzanian sawn timber markets between the national policies and their implementation.

An international megatrend

Positively influencing sawn timber consumption is the development of green growth strategies which incorporate the use of sustainably produced materials into development targets. **Tanzania National Engineered Wood Sector Development Framework (2021 – 2030)** Promote sawn timber value chains but not well-established link between rural development and sustainable urbanization.

7.1. Market segments

In the course of the demand analysis, two major market segments for sawn timber consumption were identified:

a) Construction.
b) Woodworking.

Strengths, weaknesses, opportunities and threats of CBFM villages

Strengths
i. Existing of facilities of value additions (Four mobile sawmills and two units of solar kilns). ii. Availability of good stock of miombo timber. iii. Policy and regulatory framework which supports community miombo timber trade. iv. Presence of community timber online market place.
Weaknesses
i. Discrete and unpredictable supply from CBFM villages results in high transaction costs and difficult business planning for timber buyers and processors. ii. Limited knowledge of timber grading. This is likely to cause economic losses for the CBFM villages and reduces value addition potential.

iii. The sales approach of community miombo timber is reactive and not proactive, villages with access to mobile sawmills harvest and process timber in response to a sale rather than in advance of a sale. iv. Poor Governance in some villages
Opportunities
i. Increasing demand for high quality sawn timber products. ii. Increasing demand of kiln dried miombo timber. Drying timber is one of the opportunities for CBFM villages to improve the timber quality and value addition. iii. Increasing demand for FSC certified timber with price premium of up to 100% **iv.** Presence of MCDI FSC Group Scheme. This means villages can join the scheme and benefit from the increasing demand of certified timber. At present only 2 villages under FORVAC support are FSC certified. **v.** The sawn timber market is expected to remain strong, with sawn timber remaining a key material for the construction sector regardless of the many materials available for substitutions.
Threats
i. Large quantities of low-quality sawn timber available in the market are likely to accelerate substitution of timber with other materials. ii. The global trend shows a shift away from sawn timber and towards panels and EWP. CBFM villages must maintain and upgrade their technology to stay competitive in the sawn timber market. iii. Illegal logging iv. Encroachment through shifting agriculture and livestock grazing

8. MARKET ANALYSIS

The study has observed a number of factors that affect different levels of marketing channels of miombo timber.

i. Decreased supply of miombo timber around major markets such as Dar Es salaam which has gradually increased logging distances and transportation costs.
ii. Poor quality of miombo timber caused by many factors including the quality of raw logs, sawing machines, storage and expertise. Most of stakeholders reported to have

no storage facilities and sell their timber without adequate drying.

iii. The timing of delivering sawn timber by CBFM villages which is also contributed by the small volume and inconsistent production in VLFRs
iv. Changes of regulation eg GN 417

8.1. Face-to-face

In-person engagement led to far more success in gathering information, and overall interest in sustainable miombo timber. Emailing and phone outreach yielded limited results.

Relevance to CBFM villages The takeaway here is clear- sales techniques such as targeted in-person sales visits are likely to be more successful.
Ability to Match Market Dynamic: Approximately 90% of the timber sales are standing trees, with the balance being sawn timber. There are no challenges in selling standing trees for high value species such as *Pterocarpus angolensis* (Mninga) and *Afzelia quanzensis* (Mkongo) as there are several traders and processors who are keen to buy these particular species and bring the product to market. However, when villages do further value addition in selling the LKTS, it is much more difficult to find buyers.

- **Significant Interests**: Of the 33 responses, 28 expressed an interest in miombo sustainable timber.

8.2 Pricing

Unsurprisingly, price is likely the main factor when local buyers make a purchasing decision. Given the highly informal nature of the timber market, prices are highly variable and subject to change. Pricing depends on:

i. Location
ii. Tree species
iii. Timber volume

iv. Royalty rates
v. Transport and
vi. Quality

But even when those align, there can be differences in prices across sellers. So, while there is significant variability, there seemed to be some consensus of interviewees paying TZS 70,000 - 80,000 for 2 x 8 x 10 of *Pterocarpus angolensis* (Mninga) and 2x8x10 of *Afzelia quanzensis* (Mkongo) selling for TZS 70,000 - 90,000 per board in Dar es Salaam.

All respondents who buy and transport timber from one destination to another raised their concerns about timber transport cost being high compared to when transporting other goods for the same distance. The Forest regulation requires timber to be transported not beyond 6pm while that restriction does not apply for transporting other goods. This means it takes more time transporting timber than anything else as the trucks must stop at 6pm until the next day. For example, during cashew and sesame harvesting seasons, truck owners prefer transporting cash crops than timber. If hired for transporting timber they charge more because extra time is spent on the way compared to transporting cash crops. Therefore, transport cost is a major factor affecting timber pricing.

Ability to Match Market Dynamic There is a perception that sustainable miombo timber is more expensive, but it is clear that, all else being equal, miombo timber can compete on the open market, and hopefully win over consumers.

8.3 Quality:

Several of the respondents indicated that quality was also important, with specific requests for "Supa, Grade A/One, good quality, and 95% usable" as key descriptors of the level of quality required. When selling, it is important for rural communities to get a clear understanding of the quality requirements and what the definitions/indicators of quality are, to ensure the buyers are getting what they want.

Relevance to CBFM villages It is essential that miombo timber can match buyer’s expectations on timber quality. If customers receive timber that they deem to be of low quality, it is unlikely that they will order from CBFM villages again.
Ability to Match Market Dynamic Achieving the right quality, is highly technical, therefore further capacity building is needed for the VNRC & VC members to enhance their ability to deliver various quality levels. Some feedback from buyers indicates there is still room for improvement. Outside of that, it is important that the sales and marketing function must not stop once the sale is made and timber is delivered. Villagers should be following up with all buyers to gather feedback on the quality of the timber, as well as the overall process, with suggestions on areas for improvement. This customer service is likely to not only help improve CBFM operationally but also create a relationship with customers that increases the likelihood of future sales.

8.4 Moisture Content

At harvest, timber holds significant amounts of moisture, and as the wood dries, it can twist, warp, and crack. This makes it essential that dry wood be used to produce finished products like furniture, doors, window frames, etc. Majority of the respondents indicated they wanted to buy dried timber that was ready to use. The moisture content required depends on species of timber, as some species are more prone to cracking and warping than others.

Relevance to CBFM villages Most miombo timber in the market is air dried, and is often still wet, and thus not ready to work at the time of sale. Timber buyers, they then either need to: i. Buy wet timber and dry it themselves, which is time consuming if left to air dry. ii. Try to source dry timber, which is not easy to do. iii. Use timber that is still wet, and risk issues down the road. With the presence of two solar kilns in Lindi Cluster, CBFM village’s ability to deliver dried timber is a key differentiator in the market.

Ability to Match Market Dynamic

Recently FORVAC has supported CBFM villages in Ruangwa and Liwale Districts with two units of solar kilns. This give CBFM villages the ability to deliver miombo timber dried exactly to the clients' specifications.

Therefore, these villages in Ruangwa and Liwale Districts should properly communicate that they can sell dry timber, or that they can deliver timber to a specific moisture content required by buyers.

Many of the buyers indicated that they only buy dried timber when they need it for specific order. The general market cannot offer kiln dried miombo timber. Therefore, CBFM villages can justify their prices not just on the basis of sustainability, but also on the timber being dry and ready to use.

8.5 Tree Species

Of the 6 companies that mentioned which species they are using, all used *Pterocarpus angolensis* (Mninga, 5 used *Afzelia quanzensis* (Mkongo). The problem of limited demand for lesser-known species has been known for years; this problem persists.

During the study, concerns were raised by some potential buyers about the use of the term 'Lesser-Known Species'. The term 'lesser' holds negative connotations, which can reduce the likelihood of the customer to make positive decisions (i.e., to buy the timber). 'Lesser' may give the impression that these species are in some way not as good as other species. Therefore, when marketing the Lesser-Known Species it is important to communicate properly about the properties of these species and that they can be used as substitutes of the famous commercial timbers.

Relevance to CBFM villages

Given the distribution of species throughout the Miombo woodland, CBFM villages needs to harvest a wide range of species, many of which have little to no demand in the market. Villages needs to develop sales channels for these lesser-known species, or else they risk being stuck holding timber stock.

8.6 Quantities and Suppliers

Most of the companies were purchasing wood as and when they needed it from local suppliers (Dar es Salaam-based companies purchased from suppliers in Manzese or Keko).

Relevance to CBFM villages VLFR's location in FORVAC Programme is a hurdle to attracting buyers of sawn timber, as it is not as easy or quick to access as other options (e.g., Keko & Manzese in Dar es Salaam).
Ability to Match Market Dynamic Timber buyers are unlikely to want to buy sight unseen, and will opt for purchasing from local suppliers, rather than from CBFM villages, which are far away from Dar es Salaam. While the buyers are generally sourcing significant volumes of 100+ boards, these quantities are not enough to justify logistics costs, which really need a truck load full of 400+ pieces.

8.7 Wood industries Current Capacity and Status

The forest-based industry in FORVAC Programme area is largely dominated by sawmilling, and furniture manufacturers. Most of the mills, however are small scale sawmills. The total processing capacity of 6 surveyed processors is 6,500 m^3 per year.

8.8 Public Procurement.

The current public procurement legal framework in Tanzania does not encourage sustainable utilization of forest-based resources.

9. FINDINGS

i. The recently published GN No. 255 does not address all the challenges from GN 417. The issue of District Harvesting Committee to happen at least once a year with option for extra ordinary meetings has not been taken care and continue to be a huge barrier for timber trade.

ii. These regulatory changes under GN417 are not business and conservation oriented. They do not provide an enabling environment for sustainable timber trade especially for CBFM villages. The changes have affected employment and revenues to CBFM villages from sustainable forest resources trade. Additionally, the changes pose risks for driving up deforestation and undermining efforts to enhance the value of the forestry sector. Timber orders are received any time of the year as and when timber trade opportunities emerge. These opportunities are missed when village quotas are not approved by the district harvesting Committees.

iii. The current timber export procedures allow only registered companies to export timber. Village governments though registered as timber traders can not export timber as they are not Companies, this means villagers do not benefit from timber export orders.

iv. Timber traders are very risk averse and will not generally buy a new timber species unless they have an order.

v. The findings suggest that public procurement can offer immediate and long-term market opportunities for miombo timber, if a number of crucial policy and regulatory reforms are implemented.

vi. There is good indication of strong demand for both logs and sawn timber in Lindi Cluster than in Ruvuma and Tanga. At the moment 50 - 60 timber traders are operating in Lindi Cluster.

vii. Miombo timber traders in FORVAC Programme area are selling timber to the wholesalers in Dar Es Salaam or directly to processing industry in the Cities. This is a common structure of sawn timber trade in Tanzania.

viii. There is weak demand for miombo timber from VLFRs in Ruvuma cluster due to various reasons, one being the illegal trade (with cheaper raw material) in timber and unavailability of preferred species.

ix. Some potential timber buyers consider sustainable miombo timber from VLFRs is more expensive compared from other sources.

x. Trees of the most demanded species are scarce in open land, creating demand from VLFRs.

xi. There inadequate capacity and knowledge of rural communities on timber grading system to characterize logs and sawn timber quality

xii. There is an average increase of 36% in revenues for the villages selling sawn timber, this has resulted to financial autonomy.

xiii. Financial autonomy allows the rural communities to continue managing their forests and subsequent timber harvesting without external financing.

10. RECOMMENDATIONS

Potential interventions

10.1. MNRT through FBD & TFS

i. Further regulatory amendments for GN417 are needed to get community forestry back on track. The District Harvesting Committee is not a bad idea in terms of checks and balances. The villages should submit their annual harvesting quotas based on their harvesting plans to the District Harvesting committees. Harvesting committees should issue annual allocation based on annual quota submitted, once approved the villages will trade timber at any time when there is a buyer without exceeding their approved quota allocations.

ii. Consider reviewing the forest regulation to allow timber to be transported 24 hours same as other goods. Checkpoints are good control measures.

iii. Consider reviewing timber export procedures to allow CBFM villages to export timber and benefits from the export trade

10.2. PPRA & MNRT

i. The national procurement policy, which has been in the draft stage for over five years, needs to be finalized. This will set the stage for building a strong marriage between forestry, local sourcing and public procurement. The development and finalization of the policy need to be conducted in close consultation with the forestry-based private sector, NGOs, development partners and community groups. These groups will offer first-hand practical experience on gaps and solutions that could guide the policy to fit local reality

ii. PPRA need to encourage and require suppliers (or the private sector) when tendering to source from well managed sources (miombo forests).
iii. Establish Government mechanisms to promote use of timber from VLFRs. This is because Government construction and building Projects offer market opportunities for sustainable miombo timber.

10.3. FBD, FORVAC, LGAs, CBFM villages & Conservations Organization partners

i. Strengthen the capacities of rural communities to grade their timber according to grading system.
ii. Miombo timber sales approach should be proactive rather than reactive. This means, villages with access to mobile sawmills, should stock sawn timber and logs to respond to the buyers when an order arises.
iii. It is important for rural communities to get a clear understanding of the quality requirements and what the definitions/indicators of quality are, to ensure the clients are getting what they want. **However:**
iv. Achieving the right quality, is highly technical, therefore further capacity building is needed for the VNRC & VC members to enhance their ability to deliver various quality levels.
v. Through Timber Business Planning, CBFM villages should be guided to incorporate of budget for timber marketing as it is key for the villages to reach financial autonomy.
vi. Sales and marketing function must not stop once the sale is made and timber is delivered. Villagers should be following up with all buyers to gather feedback on the quality of the timber, as well as the overall process, with suggestions on areas for improvement. This customer service is likely to not only help improve CBFM operationally but also create a relationship with customers that increases the likelihood of future sales
vii. Continued development of sawmilling proficiency, including specialized skills is key for sustainable community sawn timber production.
viii. Establish Government mechanisms to promote use of timber from VLFRs. This is

because Government construction and building Projects offer market opportunities for sustainable miombo timber.

ix. CBFM villages in each District should form their association (CBFM Village Association) which will be an Umbrella for timber trade, communication, marketing and advocacy. Lessons should be drawn from Kilwa District where by a CBFM village association-UVIHIMIKI has been formed.

11. LIST OF REFERENCE

United Republic of Tanzania – URT. (1998). National Forest Policy. Ministry of Natural Resources and Tourism.

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The National Five-Year Development Plan III (NFYDPIII) 2021

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Regulations under the Forest Act, 2002, GN 417

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Timber Market Dynamics in Tanzania and in Key export markets. - Ministry of Natural Natural Resources and Tourism. 2021

12. APENDICES

Appendix 1: Assessment questions

Local communities:

1. How do you solicit your timber buyers?
2. Do you receive several, fewer or no applications for harvesters or timber buyers? or processors from the village or outside the village, town centers, or city outside of your region or large markets in Dar?
3. If not do you have a mechanism to promote your miombo timber?
4. If YES, How?
5. What else is extracted from your VLFR? Non timber like tree barks, roots for carvings, including offcuts, etc.,
6. Do you have enough stock to supply for the next 5 years?
7. Do you have a marketing strategy for your timber business?
8. What objectives does the marketing strategy need to support?
9. What system of measurement determines success or failure?
10. What marketing strategies and tactics have been used in the past?
11. What does your competitive landscape look like?
12. How much should you spend on implementation?
13. What positioning and messaging work for your buyers?
14. Who is available to assist in implementing your marketing strategy?
15. Who is making the decisions in the implementation?

DFC & DFOs:

1. Do you receive several, fewer or no applications for harvesters or timber buyers? or processors from the village or outside the village, town centers, or city outside of your region or large markets in Dar?
2. How many harvesting permits did you issue for the past one year? What volume? For which species
3. If not do you have a mechanism to promote your miombo timber?
4. If yes how?
5. How is the demand of LKTS looks like now?

6. Which LKTS have high demand? What are the future demands looks like?
7. What should be done to promote LKTS?
8. What else is extracted from your forests? Non timber like tree barks, roots for carvings, including offcuts, etc.?
9. Do you have enough stock to supply for the next 5 years?

Buyers:

1. Where do you buy your timber? where are the sources of your timber?
2. Do you use middlemen or buy yourself from VLFRs or elsewhere?
3. If it is from VLFRs, – what is the process for harvesting or buying timber from the village?
4. Are the procedures relatively easy for you? compared to other procedures like harvesting/buying timber from TFS?
5. What kind of species do you prefer? and why – is it influenced by market or the only species available right now?
6. What volumes do you buy? in each species
7. Are the commonly traded species available in abundance?
8. Are the markets demanding these species or could they absorb other LKTS of similar properties?
9. Are your preferred species available in abundance from VLFRs or elsewhere?
10. What is the distance that you transport your timber?
11. Are the transport costs affordable and easily obtained?
12. Are government requirements like license, transit passes etc., easily acquired?
13. Do you export timber? – what kind of species and volumes do you export?
14. Where are you markets? – local, regional or international?
15. What are the challenges in your timber business?

Note: Documentation evidence will be sought to ascertain responses to the questions above

Processors:

Where do you get your raw materials? Timber or logs?

1. Who supplies you?
2. What kind of species do you process?
3. How much volumes do you process?
4. What type of processing machines/equipment do you use.
5. What are the maximum capacities of your processing sawmill machines or any other technology you have?
6. Do you make value additions? what kind of wood value additions do you undertake?
7. Do you get your timber from locals or from middle men suppliers?
8. Is the supply constant or intermittent and why?
9. Do you export your wood or value-added products? – what are they?
10. Are the timber prices better, medium, or high?
11. What else could be done to support you?

Value additions:

1. Do you have a wood value addition program?
2. What species do you use? Are they easily accessible? What about LKTS absorption?
3. What types of value additions do you provide?
4. What are the price margins, and do you break even on the price and marketing of your products?
5. Where are the markets for your products? Local towns, large cities, or for exports?
6. What type of equipment/machineries do you use?
7. What is the capacity of those machineries?

FBD (and some at TFS) Policy level questions:

1. What can be done to improve the CBFM timber markets?
2. How do you think of the current price schedule?
3. Have you thought of LKTS? inclusion in the Timber schedule

4. Have you ever involved stakeholders in setting price schedules?
5. When is the next timber regulation review? And would you consider recommendations from this study and other previous studies that might be beneficial to the next GNs

Additional questions to the local communities:

1. Do you have a marketing strategy for your timber business?
2. What objectives does the marketing strategy need to support?
3. What system of measurement determines success or failure?
4. What marketing strategies and tactics have been used in the past?
5. What does your competitive landscape look like?
6. How much should you spend on implementation?
7. What positioning and messaging work for your buyers?
8. Who is available to assist in implementing your marketing strategy?
9. Who is making the decisions in the implementation?

Appendix 2: List of persons interviewed

SN	Name	Category	Location
1	Zion Enterprices	Existing timber buyer	Dar Es Salaam
2	Mshamu saidi Mwango	Existing timber buyer	Liwale
3	Ally Benjamini Mkotima	Existing timber buyer	Liwale
4	Bakari Abdalah Mbonde	Existing timber buyer	Liwale
5	Halima A. Mwingila	Existing timber buyer	Liwale
6	Hassani Tengeneza	Processor (Existing)	Liwale
7	Fadhili Z. Mohammedi	Existing timber buyer	Ruangwa
8	Rashidi A. Nambanje	Existing timber buyer	Ruangwa
9	Ally I. Ally	Existing timber buyer	Ruangwa
10	Anthony Batazali	Existing timber buyer	Nachingwea
11	Zeno Fabian	Existing timber buyer	Nachingwea
12	Amri M. Kazimoto (Liwale Funitures)	Existing timber buyer	Liwale
13	Amanzi Rashidi (SIDO Funitures)	Existing timber buyer	Liwale
14	Mohammedi Z. Ligwala (IMOMU Funiture)	Existing timber buyer	Liwale
15	Yusuph H. Mpulumila	Existing timber buyer	Liwale
16	Mukhsini H. Milingo (Milingo Funitures)	Existing timber buyer	Liwale
17	Zuberi Y. Mapande (Mikukuyumbu Funiture)	Existing timber buyer	Liwale
18	Hemedi A. Kinyelite	Processor (Existing)	Liwale
19	Kassimu Mbonde (Makambo Business CO.)	Processor (Existing)	Liwale
20	Khalfani Mohammed (Monero Timber)	Processor (Existing)	Liwale
21	Selemani Kimbondile	Existing timber buyer	Liwale
22	Jaffry Manguli	Existing timber buyer	Liwale
23	Ismail Ruangwa	Existing timber buyer	Liwale
24	Fadhili A. Mohamedi	Existing timber buyer	Liwale
25	Rajabu Liongo	Existing timber buyer	Liwale
26	Andrew Erasto	Existing timber buyer	Liwale
27	Grumeti Eco Lodge	Potential timber buyer	Magu-Mara
28	Brontide Interiors	Potential timber buyer	Dar Es Salaam
29	Ananela	Potential timber buyer	Arusha
30	ORASCOM Construction & Eng. Company	Processor (Potential)	Ruangwa
31	James Nshale	MNRT-FBD	Dodoma
32	Desidit Bwoyo	Director FBD-MNRT	Dodoma

SN	Name	Category	Location
33	Lilian Kato	DFO	Liwale
34	Tarimo	DFC	Liwale
35	Emanuel Masangya	DNRO	Ruangwa
36	Paul Onesmo	Forest Officer	Tunduru
37	Denis Mwangama	DFC	Tunduru
38	Issa Mlela	DFC	Songea
39	Zakayo Kaunda	DFO	Songea
40	Africanus Chale	RNO-Ruvuma	Songea
41	Biaga Mkomwa	TFS HQ	Dar Es Salaam
42	Boke Masisi	TFS HQ	Dar Es Salaam
43	Pascal Thadel	Processor (Potential)	Mkata-Handeni
44	Msafiri Ngosha	DFO	Mkata-Handeni
45	Gravas Mwalyombo	DFO	Namtumbo
46	Shida Shiga	DFC	Namtumbo
47	ROHA 1728 LTD	Potential timber buyer	Austria
48	Patrick Phill International Trading Co., Ltd	Potential timber buyer	Taiwan

Appendix 3: Timber processors consulted & their processing capacity

SN	Name	Annual processing capacity (M3)	Location	Contacts	Type of Technology
1	Arizona Enterprises Sawmill	280	Mbagala-(DSM)	0715-94281	Vertical saw
2	Hassani Tengeneza	1,037	Liwale	0716-105485	Old, stationery mill with circulars
3	Hemedi A. Kinyelite	6,318	Liwale	0657-328888	Old, stationery with circular saws
4	Kassimu Mbonde (Makambo Business CO.)	4,500	Liwale	0754-849249	Modern. Band saws
5	Khalfani Mohammed (Monero Timber)	500	Liwale	0753-735017	Old, stationery with circular saws.
6	ORASCOM Construction & Engineering	5,000	Ruangwa	075-2260838	Modern. Band saws

Appendix 4: Existing and potential timber buyers

SN	Name	Category	Location	Contacts
1	Zion Enterprices	Existing	Dar Es Salaam	0754-788519
2	Mshamu saidi Mwango	Existing	Liwale	0785-657991
3	Ally Benjamini Mkotima	Existing	Liwale	0712-311420
4	Bakari Abdalah Mbonde	Existing	Liwale	0653-570732
5	Halima A. Mwingila	Existing	Liwale	0714-633521
6	Fadhili Z. Mohammedi	Existing	Ruangwa	0622-272816
7	Rashidi A. Nambanje	Existing	Ruangwa	0622-272816
8	Ally I. Ally	Existing	Ruangwa	0682-102208
9	Anthony Batazali	Existing	Nachingwea	0710-516002
10	Zeno Fabian	Existing	Nachingwea	0620-742761
11	Amri M. Kazimoto (Liwale Funitures)	Existing	Liwale	0625-434607
12	Amanzi Rashidi (SIDO Funitures)	Existing	Liwale	0716-907186
13	Mohammedi Z. Ligwala (IMOMU Funiture)	Existing	Liwale	0692-183007
14	Yusuph H. Mpulumila	Existing	Liwale	0712-247440
15	Mukhsini H. Milingo (Milingo Funitures)	Existing	Liwale	0718-855718
16	Zuberi Y. Mapande (Mikukuyumbu Funiture)	Existing	Liwale	0766-951788
17	Selemani Kimbondile	Existing	Liwale	0786-713239
18	Jaffry Manguli	Existing	Liwale	0683-214070

SN	Name	Category	Location	Contacts
19	Ismail Ruangwa	Existing	Liwale	0713-249124
20	Fadhili A. Mohamedi	Existing	Liwale	0719-495456
21	Rajabu Liongo	Existing	Liwale	0624-106512
22	Andrew Erasto	Existing	Liwale	0656-688027
23	Grumeti Eco Lodge	Potential	Magu-Mara	0784-964111
24	Brontide Interiors	Potential	Dar Es Salaam	0788-740486
25	Ananela	Potential	Arusha & Dar	0784-964111
26	ROHA 1728 LTD	Potential	Austria	r.oberwimmer@lieco.at
27	Patrick Phill International Trading Co., Ltd	Potential	Taiwan	:+886918568886

FCG