

**TREE PRODUCTS MARKET CHAINS AND TRADE
ARRANGEMENTS FOR TREE PRODUCTS PRODUCED
FROM FARMS IN EAST AND CENTRAL AFRICA:
COMPARATIVE CASE STUDIES FROM KENYA, UGANDA AND
TANZANIA**



SUPPORTED BY TREES ON FARM NETWORK (TOFNET) ICRAF/ASARECA

**JOSHUA K. CHEBOIWO¹, CONSOLATA KAPINGA² AND KATUMBA
BAKILITENDA³**

**¹KENYA FORESTRY RESEARCH INSTITUTE, ²TANZANIAN FORESTRY RESEARCH
INSTITUTE AND ³UGANDA FORESTRY RESOURCES RESEARCH INSTITUTE**

**KENYA FORESTRY RESEARCH INSTITUTE
LONDIANI REGIONAL RESEARCH CENTRE
JANUARY 2007**

TABLE OF CONTENTS

1.0 Introduction	4
1.1 Executive Summary	4
1.2. Background	6
1.3 Project Description	7
1.4 Problem Statement.....	7
1.4 Project Rationale and Justification	8
1.5 Results from Past Research.....	9
1.5.1 Incomes Generated by tree Products sales	9
1.6 Project Purpose and Objectives.....	10
3. Methodology and Approaches	10
3.1 Survey Methods.....	10
3.2 Implementation Procedures.....	11
3.3 Data analysis.....	13
2.0 Results	13
2.1 Study Sites.....	13
2.2 Sample Frame.....	13
2.3 Tree Products Market Chain and Trade Arrangements in the sample ECA countries	14
2.3.1 Result 1.1: Major markets segments for tradable tree products in ECA.....	14
2.3.2 Result 1.2: Priority tradable tree Products from Farms in the region	15
2.3.3 Result 1.3: Existing marketing arrangements / systems in the region	16
2.5 Main Source of traded tree products	18
2.6 Tree products Price Determination Approaches	18
2.7 Buyers of Tree Products from Farms.	19
2.8 Result 2.1: Analysis of Policies and Legislations Relevant to trade in tree products	20
2.8.1 Relevant policies and legislations in Tanzania.....	20
2.8.2 Relevant policies and legislations in Uganda	21
2.8.3 Relevant policies and legislations in Kenya.....	21
2.8.4 Relevant Key International conventions and Obligations	22
2.9. Result 2.1.1: Policy opportunities and constraints to tree products trade	23
2.1.2 Export trade in Tree products in the region	23
2.10 Result 2.2: Develop regional and national policy guidelines and recommendations for tree products marketing and trade systems.	25

2.11: Policy recommendation for tree products marketing and trade systems.....	27
2.12. Result 2.2: Carry out policy advocacy.	28
2.13. Result 3.1: The needs of stakeholders in production to consumption.....	28
3.13.1 Marketing and supply problems of tree products.	28
2.13.2 Trade in tree products in urban outlets.....	30
2.13.3 Access to Market Information	31
2.13.4 Other problems faced by the traders	31
2.15. Result3.3: Appropriate frameworks for effective partnership among the stakeholders at national and regional level.....	32
2.15.1 Pan Paper Mill Ltd (PPM) Out-grower scheme	33
2.15.2 Homaline Out-growers Scheme.....	33
2.15.3 Forest Action Network Partnership Model Trials	34
2.16. Result 4.1 Facilitation availability of information on competitive tree products and specific niche markets in the region	35
5.0 Conclusion and Recommendations	35
6.0 References.....	36

LIST OF TABLES

Table 1: Distribution of the interviewed people from each study site.....	13
Table 2: Market segment for tradable tree products in the region.....	15
Table 3: Priority tradable tree products in East Africa (% respondents).....	16
Table 4: The Major stakeholders in tree product market chain and trade arrangements.....	17
Table 4: The main source of traded tree products by surveyed traders(% respondents).....	18
Table 5: Selling price determination for tree products from farms (% respondents).....	19
Table 6: Buyers of tree products from farms and urban market outlets (% respondents).....	20
Table 7: The supply problems faced by the traders during delivery (%).....	29
Table 8: Perceptions on future supplies of tree products (%respondents).....	30
Table 9. Selling problems faced by outlet Traders (%respondents).....	30
Table 3.1. Stakeholders Partnerships in tree Product sector in western Kenya.....	34

LIST OF FIGURES

Figure 1: Typical tree product Market Chains.....	17
Figure 2: six-year trend of revenue generated from forest products export in Tanzania.....	24

1.0 Introduction

1.1 Executive Summary

Tree products market chain and trade arrangements project was conceptualized as a regional project to cover five countries Kenya, Ethiopia, Rwanda, Uganda and Tanzania. However, due to logistical and financial reasons four countries Kenya, Ethiopia, Uganda and Tanzania were selected to participate in the in 2005/2006. The study sites were western region in Kenya, Kampala-Jinja Lake Victoria shores in Uganda, Addis Ababa region in Ethiopia and Arusha and Kilimanjaro regions of Tanzania. The study sites are highly populated intensive agricultural zones with significant tree planting activities. The study was aimed at generating tree product market information useful for enhancing the contribution of agroforestry activities towards poverty alleviation within the agricultural landscapes. The activities involved were market chain surveys for tradable tree products, evaluation of key stakeholders in the production to consumption market chain, prioritization of tradable products, key market segments for tree product and potential partnerships in tree product trade and development. The study also evaluated opportunities and constraints of the existing policies and regulation that govern tree product trade. A simple structured questionnaire was mostly used in the survey. Others sources of data were focused discussions, direct observations, and review of secondary data. Package for Social Science (SPSS) and Microsoft Excel computer programmes were used in quantitative data analysis.

Results revealed indicated that up to 27 tree products from farms were traded in the region mostly sawn wood, charcoal, firewood, handicrafts and saw logs. Non wood tree products traded were limited and of small quantities. These products were largely produced in rural areas mostly from private farms and to smaller extend government plantations was reported in Tanzania. Tree products from farms were harvested and processed before transporting them to major urban stock yards by merchants using various modes of transport ranging from bicycle, pickups, tractors, and lorries depending on quantity and distances to be moved.

The study showed that there are vast market opportunities tree products from farms in the study countries that largely depended on the ability of the public forests to supply tree products to the competing markets. The studies reveal that trade in tree products from farms is multi-

million dollar sector in the region with potential to grow given the dwindling abilities of public forests to meet the growing demand from the various market niches. The financial benefits from the tree product trade were shared by various stakeholders participating in the market value chain mostly farmers, traders, transporters, local authorities and other institutions.

The market reforms carried out by the three countries have created opportunities to develop efficient private and competitive markets for trade products. However the efficiency of most markets has remained low due to deficient institutions and infrastructure, and partial policy reforms that created some policy barriers to development of competitive markets and marketing systems. Most sectoral policies tend to concentrate on controls and less emphasis on use of market instruments to foster market driven conservation efforts through commercialization of tree growing and trade in tree products.

The study revealed that there is need for building reliable and regular quantitative and qualitative information data base at the lowest cost possible. However, there is inadequate or fragmented information on the existing tree product market niches to enable smallholder tree growers to invest and supply products to the multi-billion sector business. Generally, market arrangement for the tradable tree products is lacking or at infancy stages in the study sites.

The study concluded that tree products trade is one of the most important economic activities providing employment and income to many inhabitants both in rural and urban areas. The high number of tradable products is a clear indication of the potential of tree products to the livelihood improvement. There is high dependency on government forest plantations and natural forests to obtain forest products traded in the study areas. Nevertheless, these sources are dwindling creating potential market for tree products from farms and private plantations. On the other hand, there is an increasing trend of tree products exportation especially rough sawn timber and transmission poles to Kenya. Therefore, the trade between Kenya and Tanzania is a classic example of how tree products from surplus can flow into deficit countries for the benefits of producers and consumers in the region. The fears expressed by Tanzanian traders on the threats from exports to Kenya on their domestic business are short term hitches that will be addressed by the market forces in the medium and longer term time frame.

1.2. Background

Many ECA countries as part of market liberalization have been implementing structural adjustment programmes that are aimed at development market driven land uses. Given the decreasing amount land available to land owners to meet their subsistence and financial objectives hence the need for increased productivity and marketed outputs. However, in the ECA countries farm and community forestry promotion and support has traditionally focused on the improvement of production activities mostly to meet farm household's needs (Hammel, 1998). Such strategies did not prepare farmers to address markets specification and demand niches in case of surplus production because product market development was not viewed as priority area and tree product entry into markets was more of default than design (Arnold, 1997). Cross country reviews indicate that more than 20 different tree species producing various tree products are grown by farmers in ECA countries. However, limited access to markets and bargaining leverage has ensured that farmers produce small amounts of low quality tree products that generate low incomes when sold. This has been so despite the fact that tree crops take longer time to be harvested and hence the issue of access to reliable markets became important decision determinant especially among smallholder farms with limited land for both tree and agricultural crops. Studies in Kenya found that planting and management of trees on farms among smallholder farms didn't reflect a deliberate management practices for production of standard market desired products (Cheboiwo, 2003). This is because market driven tree production behaviour is based on several assumptions that but not limited to farmers have clearly defined objectives, prior knowledge of markets and their raw material specifications, optimal rotations for different products, price and pricing procedures, efficient harvesting methods, processing, access to technology and skills and value adding methods. In the contrary, for decades ECA countries emphasis was on encouraging tree planting on farms as an end in itself with little consideration on exploiting its potential to improve and diversify incomes to poverty stricken farmers. However, with declining forest resources from public forests, trees planted on farms has emerged as an alternative supplier of roundwood to wood commodity markets and hence recent increased interest on market related information by private tree product producers.

Among the ECA countries at present there is limited information on the range of tree product niches that farmers can sell their tree products. Further, information on market chains for range of tree products produced on farms and marketing performance of existing market chains

and channels for specific products is scanty or unavailable. Efficient markets are assumed to contribute to improvement of rural smallholders livelihoods and likely to motivate them to expand land under trees and by extension flow of environmental goods and services. This calls for interventions to tap the power of the tree products markets and marketing infrastructure to enhance livelihoods and environmental conditions.

1.3 Project Description

The tree market and partnership development contribute to TOFNET Programme 1 Project: Tree product market chains and trade arrangements undertaken. The activities are envisaged to commence under the Work Programme for 2004 and continue in subsequent years. The project is designed on the understanding that there is already considerable amount of information tree product markets and trade arrangements though these still need further research to elaborate, refine and package them ready for uptake and scaling up. Similarly, the adoption and scaling up potential of those successful trade arrangements and partnerships have been constrained by a number of factors ranging from biophysical, technological, socio-economic/cultural, human resource capacity, policy and institutional framework, etc. Therefore, meaningful regional impact of agroforestry will not be realized unless effective networking and appropriate institutional and policy framework are put in place to enhance adoption and scaling of tree products marketing partnerships to enhance trade within and between member countries.

The project was conceived as a regional project being implemented initially in four countries, namely: Kenya, Uganda, Rwanda and Tanzania. The project aims at enhancing the supply of tree products and marketing partnerships for improvement welfare and environmental conservation in farmlands. Its current research priority is development of marketing systems for tree products in ECA region.

1.4 Problem Statement

Substantial agroforestry research work has been carried out in many sites across the region but little work has been done in areas of markets, market chains and trading arrangements that are important components in the promotion of agroforestry technologies. Agroforestry can only play its role in poverty alleviation and environmental conservation its significantly contributes to the on-farm income generation and diversification. However, wide-scale adoption is curtailed by among others lack of market integration, poor value-adding of Agroforestry products, low

markets penetration, poor linkage between farmers to major roundwood consumers and policy issues that limit commercialization of tree growing on farms and participation of farmers in lucrative markets

The project will not address all the causes of low market penetration of tree products produced on farms but will also facilitated wide dissemination of market related information to collaborating stakeholders for wider distribution to major players in the production to consumption chain. To date market related information is not only limited but rarely disseminated within the ECA countries and between them. The low dissemination is caused by many factors, including lack marketed related data, appropriately packaged dissemination and extension materials and overall low levels of networking among stakeholders in tree product trade.

1.4 Project Rationale and Justification

Poverty alleviation, food security, agricultural intensification, modernization and protection of the environment are the shared key issues in the national development policies of ECA. Examples include Kenya's Poverty Reduction Strategy Programme (PRSP) that aims to drastically reduce the incidence of poverty by 2015 and Uganda's Uganda's Poverty Eradication Action Plan (PEAP). All countries have food security goals that emphasize increased national production of key staple foods. This is to be achieved primarily by raising yields through intensification of agriculture. Considering the role of trees/tree crops in farming systems of eastern and central Africa, agroforestry has a significant contribution to the attainment of the proposed land development targets. The proposed project activities are in line with the respective national sectoral policies.

Increased productivity can make a short-term impact on income but building capacity for sustainable market driven land use systems and trade will enhance the livelihoods of smallholder farmers and hence contribute to the fight against poverty. Since the majority of poor reside in rural areas, all concerned countries and institutions treat improvement of rural livelihoods as a top priority and trade in tree products can contribute to the improvement and diversification of on-farm incomes within the ECA member countries.

1.5 Results from Past Research

Information received from Ethiopia and Kenya indicate agricultural land in medium and high potential zones account for 20% (16 million ha) and 25% (10 million ha) of the total land respectively. It is estimated that agricultural land in Kenya has an average growing stock biomass of 9.3 m³/ha that translates to over 9 million m³ per annum. Public industrial plantations are very small in size, 83,000 ha for Ethiopia and 170,000 ha in Kenya. The bulk of the land areas in the two countries are within the low potential ecozones that comprise woodlands/bushland/shrublands whose main products include charcoal, firewood and non wood resources. In Rwanda natural forests are estimated to measure 221,300 hectares whereas woodlands and parks occupy 321,600 hectares.

Incomes from tree products from farm as a proportion to the total on-farm household incomes in Ethiopia and Rwanda is reported to be insignificant but fairly significant in Kenya and thus points to the untapped market opportunities in trees grown on farms.

1.5.1 Incomes Generated by tree Products sales

Recent studies in western Kenya alone showed that there are vast market opportunities for farm forestry products. The market opportunities for farm produced products arose due largely to government moratorium on harvesting trees in public forests and emerging markets in tea processing sector, pulpwood and transmission utility firms. However, there was inadequate or fragmented information on the existing tree product market niches to enable smallholder tree growers to supply products to the multibillion-sector business. It revealed that short rotation industrial firewood, pulpwood, sawnwood transmission, and construction polewood had an aggregated demand value exceeding Ksh 1.6 billion (US\$ 21 million) that excludes non traded domestic and small scale enterprise consumptions. The demand value break down show that industrial firewood accounts for 40%, charcoal (20%), Sawlog (18%), transmission polewood (10%), pulpwood (9%), and construction polewood (3%). Similar patterns are likely to be experienced by other ECA member states especially forestry resources scarce states such as Ethiopia and Rwanda. Thus enhancing trade in tree products is likely to generate lot of money to poverty stricken farmers if policies that improve the marketing environment, improved skills of partners and farmers are put in place. The activities proposed in the project will thus provide an

avenue for replication of success cases of generation and use of market data information to enhance wide adoption of tree planting and welfare improvement.

1.6 Project Purpose and Objectives

The purpose of the project is to Support and promote penetration of farmers into lucrative forestry resource markets through use appropriate strategies and approaches for increased market access, share of consumer price, value adding and replication among many players and geographical regions. The project has the following three objectives:

- Generate information on markets, market chains and trade arrangements and make them available for replication and use in the ECA region
- Current regional and national trade policy opportunities and constraints in tree products trade documented and disseminated
- Regional and national capacity for production to consumption value chain for market access and trade in tree products enhanced.
- Built capacity in data collection, analysis and sharing of market and enterprise related information among key players in the forestry sector in the ECA

3. Methodology and Approaches

3.1 Survey Methods

The stated output was achieved through market, market chain and shareholders surveys using semi-structured questionnaires modified to specific member countries. The market chain and marketing systems surveys were done according to methods described variously by Mendoza(1995), Dijkstra (1997), FAO (1996), Kotler and Armstrong (1996) and Hammet, (1993). Available literature was consulted on forestry activities in the ECA countries. Development and establishment of partnerships involved building of data base for key stakeholders in the production to consumption chain for key tree products. Stakeholders' workshops were held in the respective sites in the selected ECA countries for key stakeholders to exchange views and explore areas of mutual interests, advantages of collaborations,

opportunities for collaborations and framework for collaboration. Additionally, piloting was done on the partnerships at various levels in the production to consumption chains.

The country surveys were done through guided questionnaires, informal interviews, field observations and measurements. Secondary data were used to develop country reports. The reports will be presented in a regional workshop where markets chain and trade arrangements results and replication strategies will be deliberated.

(i) Stakeholders analysis - It will comprise the following;

- Identifying major regional stakeholders in the production to consumption chain for key tree products ;
- Review of Secondary Literature and data on markets and marketing of trees products, e.g. statistical abstracts, reports and publications
- Undertake institutional capacity analysis of major players in the production to consumption chains.
- Evaluate the existing policy environment for trade in agroforestry products within the ECA Sub-region
- Determine marketing information and data management systems to support policy decisions on trade on tree products.

(ii) Develop relevant training and dissemination materials.

(iii) Facilitate capacity building of agroforestry stakeholders in the production to consumption chains (farmers, processing enterprises, marketers, extension agents, workers and other dissemination partners) in the utilization of market information, formation of partnerships and trade in tree products.

Development of training and dissemination materials will assume a survey and workshop approach like the one used for the second output. This will give the project a broad scope of knowledge and experience drawn from the various parts of the ECA region.

3.2 Implementation Procedures

The implementation of the proposed project started with commissioning a reconnaissance baseline surveys in the respective countries in 2004 to gauge the level tree product range from farms, surplus products for trade, policy and institutional structures in place. The baseline information will provided the necessary data base for development of research agenda that was aimed at addressing the needs of resource owners, processing enterprises and consumers of tree

products from farms. The project was implemented in partnership with NARS, national Extension Service, indigenous/local organizations, NGOs, civil society and the private sector. The development of plans for market surveys and partnerships for enhanced flow of tree products for improved income generation opportunities was done jointly by the project team, farmers, industries, and marketing agents.

To enable the ECA countries to promote market driven tree planting and management the project facilitated market surveys and identification of potential partnerships for promotion of trade in tree products. This was to enable extension agents, farmers, processing enterprises, marketing agents and consumers make informed decisions based on concrete data that can be further investigated by local, national, regional and international researchers and development agents. The Project will carried out market surveys and partnerships processes to problem identification within the member country site and across the trials in the region. Each project country identified markets for tree products and potential partnerships among various stakeholders in the production consumption chain with potential to promote market driven tree growing, improve and diversify farm income and hence improvement of overall livelihoods of resource owners and other stakeholders dependent tree products. The information formed the basis for comparative analysis of the potential regional, national and cross-country trade within the ECA region. Arising from the analysis, human and institutional capacities, products markets, marketing agents and stakeholder partnerships and temporal trade patterns were identified and prioritized for each country.

The project was implemented in five countries, namely Kenya, Uganda, Ethiopia, Rwanda and Tanzania. The project concentrated on all the following problem domains of TOFNET are outlined below:

Kenya - Western Kenya region

Ethiopia – Central Highlands: Addis Ababa Region

Uganda – Central Uganda neighborhood of Kampala

Tanzania –Kilimanjaro, Arusha and Moshi areas

Rwanda – Lake Kivu Region

3.3 Data analysis

Statistical Package for Social Science (SPSS) and Microsoft Excel computer programmes were used in data analysis. Quantitative data collected were summarized to ensure that they could be in the form suitable for addressing both the objectives and the method of analysis used. This was done while ensuring that original meaning of the statements made by respondents was maintained. The summarized data were then coded and used for subsequent statistical analysis whose results are presented in the subsequent chapters.

2.0 Results

2.1 Study Sites

In Kenya the studies in markets and trade in tree products covered major towns in 3 western Kenya provinces and farm surveys covered 3 major tree product producing districts of Kericho, Uasin Gishu and Maraket. In Uganda the study was carried out in the districts of Wakiso, Mukono, Kampala and Mpigi in the central part of the country. The central Uganda region is the main commercial area and hence major consumer of all types of tree products. In Tanzania the study covered Kilimanjaro and Arusha regions that are one of the major producers of traded tree products mostly from private farms or agroforestry plots and Public plantations.

2.2 Sample Frame

The study involved interviewing of major agents in the production to consumption continuum that include farmers, transfer merchants, wholesalers/retailers and consumers.

Table 1 shows that the stakeholder interviewed varied between countries, in Tanzania interviewed 135 stakeholders, Uganda 149 and Kenya 430. The difference may have been due to financial resources, timely financial disbursements; area covered and experience collaborative structures to support the work. In Kenya despite the survey work covering an area spanning 3 provinces and tens of districts a large number of stakeholders were interviewed because of the long experience in performing market surveys in the region and strong collaboration with Moi University that provided students for the work.

Table 1: Distribution of the interviewed people from each study site

Category	Tanzania	Kenya	Uganda
Producers	22	250	30
Merchants	88	120	90
Consumers/buyers	25	60	29
Total	135	430	149

2.3 Tree Products Market Chain and Trade Arrangements in the sample ECA countries

2.3.1 Result 1.1: Major markets segments for tradable tree products in ECA

The survey results show that western Kenya led in the number of industries that farm produced tree products have potential to enter. There were 8 textile and food processing, 19 tea processing factories, 96 saw mills, 2 pulp and paper industries and 6 transmission poles treatment plants. The combined demand for roundwood the above industries were estimated at 675,540 m³ and 312,000 pieces for semi-processed polewood. The large roundwood demands from hundreds of saw mills, power saw and bench saw crews, construction polewood yards and institutions among other consumer could not be determined.

In Uganda the major tree products market segments found in the study area include two sugar factories that require 302,000 MT of firewood. The timber industry consists of sawmills, a plywood factory, match factories, timber treatment plants, kiln dryers and carpentry and joinery workshops and a paper factory using imported pulp. The report indicate that on national basis in 2000 there were 122 registered saw millers operating in public forest plantations and 117 pit sawyers mostly operating in private farms. Due to poor sawing procedures the conversion rates of most saw mills is low between 25-30%.

In Tanzania there many institutions and construction pole stockists whose annual requirement was not presented. Two factories were located in the study site, one match factory and one fibre/particle board whose annual roundwood demand was not specified

The findings indicate that there are various tree products market segments in the three countries that farmers are already supplying various forms of roundwood or have potential to enter. There are greater opportunities in western Kenya than the study sites in Uganda and Tanzania hence farmers in western Kenya have greater choices on where to sell their products.

There is increased demand of tree products while the supplying sources are dwindling. The Government Forest Plantations (both within and outside the study regions) have the capacity of supplying less than 50% of the tree products demand: Kilimanjaro and Rongai Government Forest Plantations (40%), Meru/Usambara Government Forest Plantation (20%). However, A to Z textile industry in Arusha is now changing its energy systems from using electricity to firewood. This textile industry is willing to spend up to 16 millions TAS per year for purchasing firewood, thus creating potential market for firewood especially from farmlands trees.

Table 2: Market segment for tradable tree products in the region.

Number/Amount	Kenya	Uganda	Tanzania
Textile and food processing	8(58,540 m ³) ⁺	2 (302,000MT)	-
Tobacco	-	1 (150,000)	-
Tea Processors	19(360,000 m ³)	12(*)	-
Sawmills	96(*)	112(*)	
Pulp and Paper	2 (254,000MT)	1(*)	
Construction polewood	Many(*)	Many(*)	Many(*)
Transmission polewood plants	6(312,000)	-	-
Match making			1(*)
Fibre/particle boards	3 (*)	-	1(*)
Schools and institutions	Many(*)	Many(*)	Many(*)

+ The figures outside the bracket are the number of enterprise and inside the bracket the quantity demanded. * The quantity not provided.

2.3.2 Result 1.2: Priority tradable tree Products from Farms in the region

Table 3 shows the priority tradable tree products produced from farms in study countries. Overall, sawnwood was high rated by farmers in the three countries but much higher in Kenya (50%), Tanzania (49%) and Uganda (11%). In Kenya, the ban on harvesting in public forests led to severe roundwood shortages driving wood consumers to farms thus enabling farmers to penetrate major wood products markets mostly sawlog and sawnwood sector. Similarly in Tanzanian and Uganda high demand and dwindling supplies from public forests was reported to have enabled farmers enter into various local tree product market niches.

In Kenya and Uganda firewood was the second important tradable tree product and charcoal in Tanzania. Sell of poles and posts was ranked third in all the three countries.

The study revealed that in Uganda and Tanzania farmers traded in many tree products than western Kenya including wood carving, household wares, bamboos and rattan.

Table 3: Priority tradable tree products in East Africa (% respondents).

Product	Kenya (%)	Uganda (%)	Tanzania (%)	Average score %
Firewood	29	16	5	17
Sawnwood/Timber	50	11	49	37
Poles/posts	14	10	8	11
Charcoal	7	9	11	9
Wood carving	-	11	8	9
Bamboo	-	9	-	9
Others	-	34	17	25

2.3.3 Result 1.3: Existing marketing arrangements / systems in the region

2.3.3.1 Trade arrangements/systems

The study reveals that there is no robust marketing arrangement between most stakeholders in the market value chain in the region. This was found to be more revealed in Uganda and Tanzania. However, there is a pattern in the way tree products flowed from the farm to the market outlets. The products can be moved several stages from production site to the final consumer depending on several conditions such as product, transformation levels, number of players and distances it is moved. The typical stages for tree products from farms vary from two to five: Farmer-consumer: Farmer- merchants-consumer etc as shown in Figure 1. There are no contractual agreements between producers and merchants but producers are aware of tree products buyers and merchants do have information networks that on possible production areas and thus make arrangements to access, purchase and transport the products. In some

The most efficient markets are those allow greater share of consumer price to the producer and ensure that each player gets competitive share for its services all other things being equal.

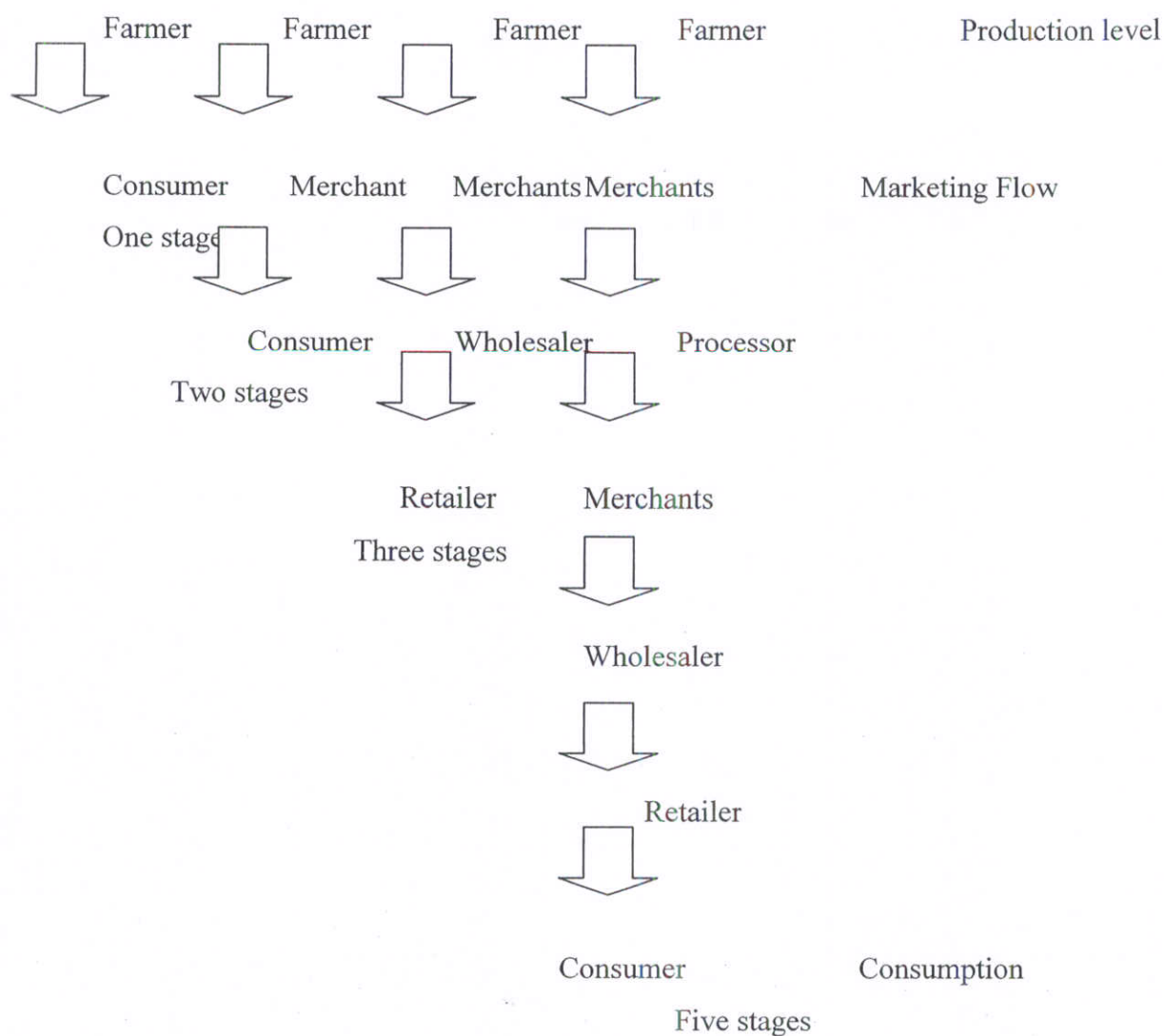


Figure 1: Typical tree product Market Chains

Table 4: The Major stakeholders in tree product market chain and trade arrangements.

Country	Producers	Marketing agents	Regulators	Facilitators	Buyers
Kenya	Farmers, companies and government	Merchants, farmers	FD, KWS, NEMA	FD, ICRAF, FAN, KEFRI, PPM, Homa lime	Households, merchants, saw mills and industries
Tanzania	Farmers, government and companies	Farmers, Merchants	FD, EMA	CCM, VEGO, IMPACT, UNDP DHL	Merchants, households
Uganda	Farmers, government	Merchants	FA	FA	Households, merchants, industries

2.5 Main Source of traded tree products

Table 4 shows that most of the products currently traded in Kenya and Uganda are sourced from farms but in contrast public forests supply most of the traded products in Tanzania. The Kilimanjaro and Arusha regions of Tanzania are reported to have several public plantation forests that provide of most of the wood requirements in the region. Significant amounts of traded tree products were imported from Lushoto and Iringa mainly from public plantations.

The difference between the countries is related to the current performance of the public forest sector and government interventions. The large plantation sector in Tanzania has not restricted harvesting of roundwood. Thus public plantation sector products dominate tree products markets providing stiff competition to products from farms. That contrasts with Kenya that despite having large plantation sector banned harvesting 6 years ago. Similarly, Uganda has small plantation sector and but has placed high restriction on harvesting in its extensive indigenous forests.

Table 4: The main source of traded tree products by surveyed traders(% respondents)

District/Source	Uganda (%)	Kenya (%)	Tanzania (%)
Forest Department	10	7	77
Farms	80	93	23
Total	100	100	100

2.6 Tree products Price Determination Approaches

In a classical competitive market conditions where there are many buyers and sellers and where markets clear commodity prices are set by forces of demand and supply. However, in farm forestry sector buyers and sellers are few and the amount of products available in time and space are always limited additionally regulations on harvesting and movement are stringent thus lending less than conducive environment for competitive market price setting. It is as well reported that many farmers ration the amount of the tree products to sale in order to spread their incomes across the years.

Table 5 shows that in Kenya farm level price determination was mostly through bargains, use of Forest Department set prices and use prevailing markets prices were used in the determination prices for tree products from farms. Bargaining is a process of determining price value for a specific tree or products that involve divergent start up prices between the farmer and the merchants until an agreed price is reached. It is critical that the farmer should be at least

aware of potential value of the tree or products and the merchant transaction costs and selling price in the destined market place or consumer. The price agreed will have to accommodate all costs that the merchants will incur in the marketing chain and a reasonable profit and the farmers are able to recoup its investments in the specific product.

The traders in the three countries use of local market price was dominant, use of own prices and mark up pricing were prevalent. The other dimension for price determination is the ability of the product to attract large pool of buyers and its specific quality and consumer preference attributes. Local market prices and others mentioned above are important in providing focal area for the more crucial bargaining process.

Table 5: Selling price determination for tree products from farms (% respondents)

Approach	Kenya-Farm	Kenya-Outlets	Uganda-outlets	Tanzania-outlets
Forest Department prices	32	-	-	-
Local selling price	23	41	7	27
Use own prices	-	12	26	8
Bargain	45	41	31	19
Depends on delivery price	-	4	32	42
Others	-	-	4	4

2.7 Buyers of Tree Products from Farms.

Table 6 shows that merchants were the dominants buyers in western Kenya because of the relaxation of harvesting and processing of trees on farms and banning of logging in public forests resulting in influx of merchants into farms to buy trees and tree products. The shortage of roundwood and emergence of firewood markets in the food and textile processing industries has let increased reliance of industry on trees and tree products from farms in Kenya.

In the urban market outlets the main buyers were individuals for use in construction, furniture making and biomass energy sources. Second were merchants mostly retailers that bought tree products for resale to final consumers elsewhere in the town or other smaller towns. Tanzania reported on institutions mostly schools, hospitals and prisons that also purchased tree products from market outlets

Table 6: Buyers of tree products from farms and urban market outlets (% respondents)

Buyers	Kenya-Farm	Kenya-outlets	Uganda-Outlets	Tanzania-outlets
Merchants	67	32	33	19
Institutions	-	-	-	12
Individuals	10	57	57	60
Industry	23	11	-	-
Others	-	-	10	9

2.8 Result 2.1: Analysis of Policies and Legislations Relevant to trade in tree products

2.8.1 Relevant policies and legislations in Tanzania

Most of the policies and legislation relevant to trade in forest and tree products in the study countries are new and product of Structural Adjustment Programmes (SAPs) fronted by World Bank since 1980s. The core of the SAPs was to reform macro economic and sectoral policies mostly towards liberalization of commodity markets.

In Tanzania some of the relevant policies include the following

- ❖ Forest Policy (1998) and the Forest Act (2002);
- ❖ The National Forest Programme (2001-2010);
- ❖ The National Beekeeping Policy (1998);
- ❖ The National Wildlife Policy (1998);
- ❖ The National Environmental Policy (1997) and Environment Act (2005);
- ❖ the Local Government Reform Policy (1998),
- ❖ The Tanzania Development Vision (2025); National Strategy for Growth and Reduction of Poverty commonly known as *MKUKUTA* in *Kisawhili* (2005);
- ❖ The Forest Regulations (2004) and the new Regulations for harvesting and trading forest products (2006).
- ❖ Others important policy instruments are the National Forestry Research Master Plan (2000-2009),
- ❖ the National Land Policy (1995) and Land Act (1999) and
- ❖ The Agricultural Sector Development Policy (1997).

2.8.2 Relevant policies and legislations in Uganda

- ❖ The Uganda Wildlife Policy (1995 & 1999),
- ❖ The Wildlife Statute (1996) ,
- ❖ The National Environmental Policy (1994) and Environment Statute (1995),
- ❖ The National Forestry and Tree Planting Act (2003) The Local Government Act,
- ❖ The National Policy for the Conservation and Management of Wetland Resources (1995),
- ❖ The National Forestry Policy, 2001,
- ❖ The National Forestry Plan, 2002,
- ❖ The Land Act (1998), and the Constitution of The Republic of Uganda (1995).

2.8.3 Relevant policies and legislations in Kenya

In Kenya some of the relevant policies and legislation are old and preparation a large number new generation of policies and legislation is in the pipeline. However, the following are relevant:

- ❖ Environments Management and Coordination Act (EMCA, 1999)
- ❖ Economic Structural Adjustment Programmes and Farm Forestry Development (SAPs)
- ❖ The Forest Act 2005
- ❖ the Economic Recovery strategy for wealth and employment creation paper (2003),
- ❖ The Forest Act (cap 385 of 1992)
- ❖ The Forest Policy Sessional Paper No. 9 of 2005:
- ❖ Draft National Wood Energy Policy of Kenya (May, 2003)
- ❖ The constitution of Kenya
- ❖ Government Lands Act
- ❖ The Registration of Documents Act
- ❖ The Land Titles Act,
- ❖ The Registration of Titles Act and the Registered Land Act (RLA).
- ❖ The Registration of Titles Act and the Land Titles Act
- ❖ The Transfer of Property Act,
- ❖ Agriculture Act Cap 318)
- ❖ Agriculture Act Cap 318)

In Tanzania and Uganda the legislative and policy framework for environment and natural resources management are fairly well developed, and there are legal provisions for decentralized and local management of natural resources.

The Forest Policy and Law 2005 are based on similar policy and legal framework

Key elements of recent forest policy changes was aimed at increasing economic contribution, employment and foreign exchange earnings through sustainable forest-based industry development and trade in forest products.

Tanzania is the only country with specific sectoral legislations that govern processing and trade in tree products. The Forest Regulations (2004) and Government Notice No 69 and 70 of 2006. Following this new regulation, harvesting of forest products are controlled by the District Harvesting Committee chaired by the District Commissioner. The district committee has the following tasks:

- a) To prepare good harvesting strategies in the district.
- b) To prepare regulations for applying and offering license.
- c) To prepare regulations for trees harvesting for charcoal preparation, transportation and selling.
- d) To prepare regulations for harvesting and trading logs from government plantations.

The new regulations established the Transit Pass (TP) to control transportation of forest products. However, the new regulations are not currently known to most of tree products traders due to poor dissemination strategies.

2.8.4 Relevant Key International conventions and Obligations

Key International Obligations which affect the trade in forest/tree products

1. The Ramsar Convention on Wetlands, 1971
2. The Convention for the Protection of World Cultural and Natural Heritage, 1972
3. The Convention on International Trade in Endangered Species, 1973
4. The Bonn Convention on Migratory Species, 1979
5. Agenda 21, 1992
6. The International Convention on Biological Diversity, 1992
7. The Convention to Combat Desertification, 1994
8. CITES

9. Millennium Development Goals (MDGs)

Among the MDGs policy actions and cluster strategies that are relevant to forests are

MDG 1 and 7: Forests have potential to help people rise out of poverty, for example forest-based employment and small-scale forest enterprises. The role of agroforestry and trees outside forests for poverty alleviation and food security needs further exploration.

2.9. Result 2.1.1: Policy opportunities and constraints to tree products trade

In Tanzania the study revealed that 66% of the traders indicated that government policies and regulations enhanced trade, 22% did not know its impacts and 16% reported to hinder trade in tree products.

Similar findings were presented in discussing problems affecting trade in tree products from farms in the other study countries where policy and regulations were listed as some of the key factors that hinder its development.

2.1.2 Export trade in Tree products in the region

The Tanzanian report shows that export of sawnwood to Kenya has caused its scarcity in the Kilimajoro and Arusha region that border Kenya and imports from other parts of Tanzania to meet the deficits have solved the problem. This is because traders exporting to Kenya buy large consignments and pay higher prices hence even imports from other regions ends up being exported to Kenya. Entry of many foreigner traders both from Kenya and others parts of Tanzania keen to participate in lucrative Kenya markets have has caused scrambling for trees resources mostly from public plantations thus making the purchase price to rise. As a result 76% of the sample traders and 80% of the saw mills in Tarakea, near the border to Kenya sold their sawnwood to exporters to Kenyan Market. The new Forest Harvesting and Trade Regulations (2006) do not allow export of sawn hardwood but most of the sawnwood exported to Kenya are from softwood species mostly pines and hence legal.

Export of tree products to Kenya is increasing rapidly and records at the border posts indicate that 100,000 trucks with transmission poles and 300 loaded with softwood sawnwood crossed Namanga and another 300 trucks mostly carrying sawnwood at Holili. However, this export of sawnwood is very lucrative it is estimated that between Tarakea and Holili there 300 illegal export and import routes (*panya* routes). Most of the tree products revealed to be

exported include sawn wood and transmission poles. Figure 2 show that exports from Tanzania increased rapidly after banning saw mills from harvesting in public forests in Kenya in 2002 that precipitated large deficit of sawnwood that was filled by imports from Tanzania.

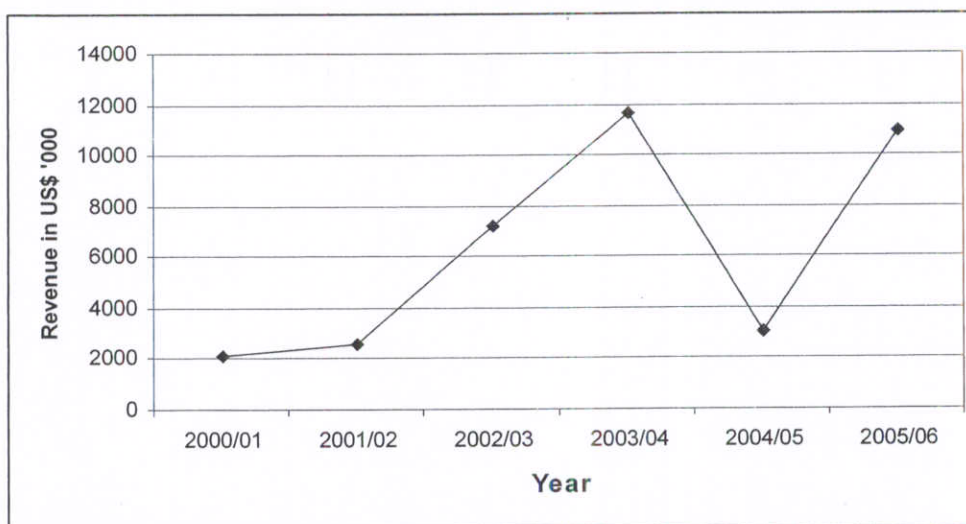


Figure 2: six-year trend of revenue generated from forest products export in Tanzania (Consolata and Msuya, 2006)

Report from Uganda indicate that the liberalization of domestic and export markets for major products in the country, under the economic recovery programme initiated in the late 1987/88 aimed at removal of market distortions has provided incentives to traders and exporters to enter into the trade product sector. The Timber Export Act Cap 247 provides for the control of timber and its inspection, grading, marking and handling in transit. It empowers the Minister to restrict the movement of any kind of timber from Uganda. The Act requires all timber exporters to acquire value certificates for export. This Act is however too commercial oriented and puts all emphasis on timber trade leaving out other forest products such as fuelwood and non-wood forest products.

Despite the new development regional markets involving bulk movements of tree products from Uganda to neighbouring countries remains uncertain because most transactions are informal or illegal.

However, there is low volume but continuous flows of tree products facilitated by small traders across regional borders of Kenya, Rwanda and Congo. There is no data available to gauge the magnitude of the trade to the informal nature of the trade almost bordering on illegality. Kenya has been traditional a net importer of tree products and allied products. The banning of

harvesting of tree roundwood in 2002 adversely affected the saw milling sector as most mills were closed because of shortage of roundwood. Imports from the region has registered an increase in the last 4 years mostly from Tanzania, Uganda and DRC

The market reforms carried out by the three countries have created opportunities to develop efficient private and competitive markets for trade products. However the efficiency of most markets has remained low due to deficient institutions and infrastructure, and partial policy reforms that created some policy barriers to development of competitive markets and marketing systems. This implies policy reforms that the governments have been implementing are necessary but not sufficient conditions for efficient markets at both national and regional levels.

2.10 Result 2.2: Develop regional and national policy guidelines and recommendations for tree products marketing and trade systems.

The country reports though differing on emphasis pointed for need for development of policy guidelines for tree products marketing and trade systems within countries and for the region to facilitate smooth movement of tree product and evolution of efficient tree product trade in the region.

Among the key issues to be included in policy guidelines suggested were:

2.10.1: Formation / and Strengthening of formal organizations and linkages to facilitate marketing

Actions:

- i) Identification of strategic organizations and linkages
- ii) Develop and train on group marketing ethics
- iii) Develop and sensitize on Collective profit sharing policy

2.10.2: Link Farmers to Finance lending institutions

Actions:

- i. Create a framework for recognizing of tree farmers to express the profitability /viability of the tree trade business.
- ii. Training in business documentation e.g. proposal writing, business planning, book keeping.
- iii. Changing the traditional mind set of farmers and lending institutions on investing in tree marketing and trading

2.10.3: Avail the farmers and chain entrepreneurs with information on Market prices and market requirements.

Note: Market requirement include:

- i. Quality issues i.e. Harvesting methods, post harvest handling, moisture content , Mature harvesting
- ii. Consistency i.e. Encourage large farm production, consortium production for small holder tree product entrepreneurs and Contract Farming
- iii. Sorting and Grading i.e. Straight poles, off-cuts

Actions:

- i. Designate a one stop center for information
- ii. Localize the information (local languages and illustrations)
- iii. Assign responsibility for collecting and disseminating information
- iv. Link the responsible persons and groups to the forestry framework at all levels national, district, and grassroots administrative structures.

2.10.4: Sensitization and Training on valuing of tree product; On-farm and at Market point

Actions:

- i. Developing and documenting variables / standards for tree values
- ii. Training private business service providers on tree product valuing especially On- farm

5: Streamline the tree product taxation system at all levels as stated in above.

Actions:

- i. Sensitization of farmers on the mandates of enforcement organs in taxation and management of forestry resources.
- ii. Sensitization on possible remedies in case of conflict with the tax authority
- iii. Harmonization of stakeholder roles at various levels i.e. NFA, DFS, and Local councils.

Key recommendations include the following

2.11. Development of policies to address key tree product harvesting, movement and trade

2.11.1 Policy recommendations outlined include the following:

- Enhancing capacity for market analysis and market intelligence.
 - Improving physical market infrastructure.
 - Promoting collective marketing and cooperative movements
 - National education for tree producers/farmers to enhance their ability to operate within a liberalized market.
 - Reducing marketing/transaction costs.
 - Improving access to credit for farming and trading.
 - Orienting forest research from production to a more market-oriented focus.
- Some newspapers and radio productions are planned

2.11.2 Policy recommendation for tree products marketing and trade systems

- Encourage and support value added tree products sale especially for International Markets
- Put in place a mechanism for grading all timber for both local and domestic market
- Explore possibility of developing a separate policy on trade and marketing of tree products
- Create conducive environment for cooperative marketing of tree best products by small scale tree farmers.
- Main stream tree product marketing and trade in livelihood improvement programmes both at national and local levels.
- Review the existing policies/laws on marketing and trade in tree products with a view to making them binding and avoid abuse by stakeholders so as to maintain a vibrant forest sector/industry.
- Identify and review weak policies and strengthen them to fit within the prevailing environmental conditions and politics notwithstanding.
- Develop/build a strategic partnership between public and private sector players to undertake capacity building and implementation of marketing and trade activities.
- Consider lifting of the ban on timber export in some member countries e.g. Uganda (Ministerial ban of 1992).
- Involve education/professional institutions into training in tree product marketing and trade.
- Empower farmers on quality control and a value of timber.
- Avail market information to the farmers so that they know the situation in both local and external markets

- Formulation uniform taxation system and procedures.
- Tree farmers should be sensitized and trained on book keeping and documentation.
- Sensitization and training of tree farmers on the importance of proper seasoning of timber.
- Export promotion board to avail tree farmers with the information pertaining to international markets requirements for forests/tree products export.
- Recognize the contribution of tree products to the development of the country and give more attention to improve their marketing and trade.
- Certification of products for trade from processors, producer, trader to user chain.
- Set standards for handling and storage for tree products, e.g. timber grading

2.12. Result 2.2: Carry out policy advocacy.

Since the advocacy work is scheduled for next year implementation period it was only in Kenya where some activity was reported. Three workshops were held in western Kenya that enabled stakeholders to discuss various policy opportunities and constraints in the tree product market chain and trade arrangements. Several recommendations and follow actions were outlined. The above information is contained in the workshop proceedings.

Other country have scheduled their advocacy activities in the next year implementation

The findings on tree products market opportunities and potentials trade arrangements were include on advertisements in a national daily in Kenya in May 2007.

2.13. Result 3.1: The needs of stakeholders in production to consumption

3.13.1 Marketing and supply problems of tree products.

Table 7 shows that it was western Kenya that reported farm level marketing problems. Highly ranked was the high transport costs prevented farmer from delivering their produce to more lucrative markets. Secondly, respondents reported on the market information asymmetry between farmers and more informed merchants that ensured that farmers received low gate prices Third was lack markets for producers located far away from major urban markets and wood based industries and those located in areas with poor road networks. Thus access to lucrative markets is influenced by a range of factors such as distances to major markets outlets, condition of infrastructure and number of merchants operating in the region.

On the problems faced by merchants that transport tree products from farms and those that retail tree products in urban areas were reported by Kenya and Tanzania. In Kenya the dominant problems faced by many traders were government regulations mostly harvesting and movement permit procedures, pricing procedures and transports costs were the second and third major problems reported. Merchants in Tanzania reported a host of problems ranging from product scarcity, poor pricing procedures lack of market information and government regulation in that order of importance to trade in tree products.

Tanzanian traders are alarmed by high exports of tree products to Kenya that has caused scarcity of high quality products in local markets. The scarcity in Kilimanjaro and Arusha area of Tanzania have severely affected operations saw mills, particle board and pulp and paper industries. This has made about 43% of the saw millers in Arusha and 33% in Kilimanjaro to stop their operations this year and one fibre board industry has reduced production by 60% and Kibo match Ltd has shifted most of its operations to Iringa Region.

Poor prices received by tree growers and government policies and regulations are key factors that have hindered trade in tree products from farms in the two countries. The government policies and regulations have resulted in a range of actions that adversely distort trade in tree products from farms. The outcomes include stringent and costly permits system in Kenya, government and local authority taxes and bribes to various government agencies to facilitate quick certifications. Tree producers located in areas with poor road network and mountainous terrains such as Marakwet District in western Kenya scare many transporters and the few that venture into the district charge exorbitant charges. Traders in western Kenya complained of high prices for sawlogs despite the fact that most of them were of low quality.

Table 7: The supply problems faced by the traders during delivery (%).

Problem	Kenya-Farm	Kenya-Outlets	Uganda-Outlets	TanzaniaOutlets
High transport costs	33	15	-	
Government policies and regulations	20	58	-	10
Lack of markets	17		-	16
Poor pricing arrangements	30	17	-	17
Lack of market information	11		-	12
Product scarcity	-	10	-	25
Alarming exports	-		-	16

All respondents were asked to predict the future supply of materials for their business and 53% of the respondents said it was fair while 28% said it was poor and only 18.8% were for good. A number of reasons were advanced for responses and supply problems investigated. The most important supply problems faced were the high transport costs (34.1%) and the strict government regulations (26.9%) of respondents. However, 14% recognize low supply and high purchase prices as the major supply problems.

Table 8: Perceptions on future supplies of tree products (%respondents).

Prediction	Kenya	Uganda	Tanzania
Good	19	18	
Fair	33	54	
Bad	48	28	
Total	100	100	

2.13.2 Trade in tree products in urban outlets

The traders faced myriad of problems in selling their tree products from outlets in major towns in the study regions of Kenya and Uganda the two countries that provided data. These problems were mostly low purchasing power of their customers due to low economic activities, high prices for the tree products due scarcity, poor quality products from farms and high taxes including value added taxes charged by the government.

In every business competition is an important factors that will enhance product, competitive pricing and service delivery. Thus competition from other traders was cited by higher proportion of the respondents. Others were low prices being asked by customers and thirdly lack of serious buyers. These may be due to the fact there are so many outlets within the region that reduce traders turnover hence low operating profits.

Table 9. Selling problems faced by outlet Traders (%respondents).

Problems	Kenya	Uganda	Tanzania
Competition	37	39	-
Low prices	32	15	-
Lack of buyers	17	25	-
Others`	-	21	-

2.13.3 Access to Market Information

Marketing is a largely information based. Efficient marketing requires relevant quantitative and qualitative information regularly, reliably and at the lowest cost possible. However, there is inadequate or fragmented information on the existing tree product market niches to enable smallholder tree growers to supply products to the multi-billion sector business. As indicated in Table 10, 70% of the respondents had no reliable market information; rather they depend on their customers to get market information.

Other developing countries face similar problem as exemplified by small-scale multipurpose tree products traders in the Philippines in which most of them depended on their customers (mostly wholesalers) as their source of market information (Raintree & Francisco, 1994). This affects tree products traders largely as they are left at the mercy of intermediaries as to the availability and accuracy of information on which they had to base their marketing decisions.

Table 10: Sources of market information in the study areas (%respondents).

Source of market information	Frequency	Percentage
Mass media	7	5
Customers	95	70
Ministry of Natural Resources and Tourism	23	17
Other tree products dealers	10	8
Total	135	100

2.13.4 Other problems faced by the traders

- ✓ Bad perception about eucalyptus growing and some farmers want to stop growing it
- ✓ Government officials sometimes confiscate their materials especially charcoal, firewood and timber especially for suppliers without permits
- ✓ Customers are scarce at times/ Few customers
- ✓ Materials get spoilt especially by rain during the rainy season and dust during the dry season because they lack storage facilities
- ✓ Poor quality materials supplied by farmers e.g. wet firewood
- ✓ High fuel prices hike the transport costs.

- ✓ High taxation imposed by Government
- ✓ Lack of enough capital
- ✓ Long distances to source of materials
- ✓ Mechanical break down of transport Vehicles e.g. Lorries
- ✓ Police patrol ask for bribes from the traders
- ✓ Poor road network
- ✓ Price fluctuation
- ✓ Trees are increasingly becoming scarce
- ✓ Some materials are seasonal and at times there is nothing to sell
- ✓ Suppliers sometimes take long to supply

2.14 Result 3.2: Strengthening of Stakeholders capacity in production to consumption value chain

Three workshops held in western Kenya to brought together 200 stakeholders in the tree product market chain in western Kenya. The stakeholders included farmers, public services personnel, university lecturers, private sector investors, wood based industry representatives, bilateral institutions, merchants, NGOs, CBOs, and financiers. The aim of the workshops was to discuss the results of the market chain surveys, tree product market opportunities and potential partnerships to link tree growers and major industrial enterprises in the region.

The stakeholders took the opportunity to exchange information among themselves and discuss a wide range of issues with other participants

Three workshop proceedings have been produced and circulated to stakeholders and regional partners in the participating countries.

2.15. Result3.3: *Appropriate frameworks for effective partnership among the stakeholders at national and regional level*

The partnership survey results from Kenya revealed that there were several partnerships evolving in western Kenya though most were at infancy but few were at advanced development stages.

The partnerships were grouped into the groups:

2.15.1 Pan Paper Mill Ltd (PPM) Out-grower scheme

PPM is the largest wood consumer in western Kenya and nationally that has faced dwindling supplies of roundwood from public forests. The objectives of its out-grower scheme is to enhance commercial tree growing in the region for production of various products on demand by PPM and as well improve environmental conditions.

The PPM out-growers schemes involve the following activities

1. Provision of extension staff in each of the 11 districts covered to recruit, offer technical services and coordinate tree planting and delivery of tree products to its factory
2. Supply subsidized seedlings to selected farms and schools
3. Provide market opportunities for firewood and pulpwood to tree growers.
4. Currently it receives only 8% of its wood supplies from its total demand of 500,000 tonnes from farmers
5. It expects to expand intake from farmers to 20% or more in the next 10 years

A large paper making enterprise PPM has started an out-growers scheme covering 11 districts in westerns that lie within 120 kilometres radius from its factory at Webuye.

2.15.2 Homalime Out-growers Scheme

Homalime Co. Ltd is lime mining and processing company and a key consumer of firewood in the region. Its forestry activities involve tree and bamboo planting within its farm and promotion of tree planting on neighbouring farms. To facilitate its extension activities it has developed partnership with farmers through formation of Nyando Valley Development Trust (NVDT) whose main objective is to promote tree planting among farmers mostly in Nyando District and the neighbouring districts of Kericho, and Nandi South.

1. Central nursery currently produces 100,000 seedlings for sale to farmers
2. It supports group and individual tree nurseries by providing quality seeds and potting tubes at subsidized prices.
3. A Joint-woodlots development project in partnership with farmers through co-financing that has realized planting of 40 hectares on farms.
4. Building tree grower's capacity through training on nursery management, establishment, harvesting and marketing in collaboration with KARI and KEFRI.

5. Market linkage through buying of from farmers and also assisting them to sell surplus to tea factories and other consumers.

2.15.3 Forest Action Network Partnership Model Trials

Forest Action Network is an NGO that is involved in tree planting and environmental development and advocacy. In its partnership trial schemes it is implementing the following activities:

1. Facilitated partnerships between Kenya Vegext (EPZ) Ltd and wattle tree (*A. mearnsii*) growers in North Rift through negotiated prices scheme.
2. Farmers were able to get better prices than before and Kenya Vegext (EPZ) was able to access larger bark volumes within a short period 60 ton
3. Commercial tree growing scheme on cost sharing with 18 farmers covering 20 hectares mostly fast growing Eucalyptus targeting PPM and tea factory markets.

Some of the partnerships that exist between tree producers and other stakeholders in the forestry sector are shown in Table 3

Table 3.1. Stakeholders Partnerships in tree Product sector in western Kenya.

Agents /services	Seedling subsidy	Credit support	Technical support	Marketing facilitation	Transport subsidy	Market guarantee	Lease land	Joint Deve.	Support FOA	Taxes licenses
Homalime	√	-	√	√	√	√		√	-	-
PPM	√	-	√	-	√	√		-	-	-
TTI	-	-	-	-	√	√		-	-	-
KTDA	√	-	√	-	√	√		-	-	-
Corn Pro	√	-	-	-	-	√		-	-	-
KENKN	-	-	-	-	-	√		-	-	-
FAN	√	√	√	√	-	-		√	√	-
KEFRI	√	-	√	√	-	-		-	-	-
FD	√	-	√	√	-	-		-	√	√
KVDA	√	-	√	-	-	-		-	-	-
LVEMP	√	-	√	√	-	-		-	-	-
MU	-	-	√	√	-	-		-	-	-
Councils										√

Note: PPM(Pan Paper Mills Ltd), KTDA(Kenya Tea Development Agency); Corn Pro(Corn Products Ltd); KenKn (KenKnit Ltd); FAN(Forest Action Network); KEFRI (Kenya Forestry Research Institute); KVDA (Kerio Valley Development Authority); FD (Forest Department); LVEMP (Lake Victoria Environmental Management Project); MU (Moi University), Councils (County Councils)

2.16. Result 4.1 Facilitation availability of information on competitive tree products and specific niche markets in the region

(Planned for 2007 period)

2.17. Result 4.2: Packaging and Dissemination of information on tradable tree products, market segments, and trade arrangements in the region

(Planned for 2007 period)

5.0 Conclusion and Recommendations

The study has demonstrated that tree products trade in ECA in is a very important economic activity providing employment and income to many inhabitants both in rural and urban areas. The high number of tradable products is a clear indication of the potential of tree products to the livelihood improvement. However, trade arrangements and marketing of tree products within and between the countries in the region is yet to developed to its potential capacity due to several reasons. Among them is the high dependency of major wood based industries on public forest plantations and natural forests to obtain forest products traded in the region and cumbersome policy and legislative structures that introduces inefficiencies in tree product market chain. Nevertheless, public forest resources are dwindling and population nd economic activities are on the increase thus creating potential markets for tree products from farms. On the other hand, there is increasing trend of tree products exportation especially rough sawn timber and transmission poles e.g. from Tanzania to Kenya.

The Tanzanian report indicates that export of tree products to Kenya has reduced flow of tree products to local markets and hence increased prices. However, the export has created room for tree growers to enter into local tree product markets

A critical look at the policy, institutional, and legal framework in the country shows that there is inadequate coordination among various sectors involved in forestry, natural resources management and environmental. Forestry and environmental issues has continued to be sectoral in nature where various sectors are implementing their policies that address particular concerns of the sector in an isolated manner. These disjointedly implemented policies can be a source of conflicting actions and confusion especially in managing the ecosystem that falls under the mandate of more than one institution. It is also recognized that laws have not been adequately

enforced by the authorized institutions due to a wide range of constraints including weak law enforcement capacity in range of various institutions, inadequate restriction and incentives and conflicting mandates.

The study countries have has rapidly expanding private sector, including large-scale commercial concerns as well as small-scale and community level groups. There is great potential for encouraging the private, community and non-governmental investment in forestry and tree related issues. This cannot only generate funds but also increase public participation in forest and tree related issues and transfer some of the cost burden away from government. The capacity of government to invest in forestry and tree issues has been very minimal and in-effective and the whole issue of forestry and tree planting has been reduced to mere appeals to conserve trees and conserve fragile ecosystems without consideration of the different needs, interests and potentials of different target groups. The needed vertical and horizontal linkages are either ad-hoc or non-existent.

6.0 References

- Arnold, J.E.M.(1997). Framing the Issues, J.E. Michael Arnold and Peter A. Dewees (eds), *Farms, Trees and Farmers: Responses to agricultural Intensification*, London, Earthscan Publication Ltd.
- Balikitenda, K. & Mujuni, D. 2006. Tree products market chains and trade arrangements in the ECA region. The case study from Uganda. Unpublished report. 49 pp.
- Cheboiwo, J. K. (2003). Economic and Non-Economic Determinants of Farm Forestry Development in Western Kenya: A case of Uasin Gishu and Vihiga Districts, D.Phil. Thesis, School of Environmental Studies, Moi University, Eldoret, Kenya.
- Consolata, K. and Msuya, T. (2006). Tree Products Market Chains and Trade Arrangements in the ECA Region: Case of Arusha and Kilimanjaro, Tanzania
- Dijkstra T. (1997). *TRADING THE FRUITS OF THE LAND: Horticultural Marketing Channels in Kenya*. African Studies Centre Leiden, The Netherlands.
- FAO (1996). Marketing in Forestry and Agroforestry by Rural People, Forest Department of FAO/UN, Bangkok, Thailand.
- Hammett, A.L. (1998). Improving Markets for Farm Forestry Products, Quick Guide to Multipurpose Trees from around the World, Centre for Forest Products Marketing and Management, 210 Cheatahan Hall, Virginia Tech., Virginia 20461-0323 US.
- Kotler, P. and Armstrong, G. (1996). Marketing: An introduction. New Jersey, USA. Prentice Hall, 585pp.
- Mendoza, G. (1995). A Primer on Marketing Channel Margins: Distributive Margins and the Profits of Market Enterprises, Gregory J. Scott (Eds), Prices, Products and People, Analyzing Agricultural Markets in Developing Countries, International Potato Centre, Lynne Rienner Publishers.