DIAGNOSTIC STUDY ON SMALL AND MEDIUM FOREST ENTERPRISES IN UGANDA

November 2009
TITLE:  DIAGNOSTIC STUDY ON SMALL AND MEDIUM FOREST ENTERPRISES (SMFES) IN UGANDA

AUTHOR:  NATURAL ENTERPRISE DEVELOPMENT LTD ON BEHALF OF ENVIRONMENTAL ALERT

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### Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ACODE</td>
<td>Advocates Coalition For Development And Environment</td>
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<tr>
<td>AGOA</td>
<td>African Growth and Opportunity Act</td>
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<tr>
<td>AFPEC</td>
<td>Association Of Fresh Producers And Exporting Companies</td>
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<td>BUCODO</td>
<td>Budongo Forests Community Development Organization</td>
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<tr>
<td>CFRs</td>
<td>Central Forest Reserves</td>
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<td>CSO</td>
<td>Civil Society Organization</td>
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<tr>
<td>CFM</td>
<td>Collaborative Forest Management</td>
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<tr>
<td>COMESA</td>
<td>Common Markets For East And Southern Africa</td>
</tr>
<tr>
<td>CBO</td>
<td>Community Based Organization</td>
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<tr>
<td>CICS</td>
<td>Competitiveness And Investment Climate Strategy</td>
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<td>DP</td>
<td>Development Partners</td>
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<td>EA</td>
<td>Environmental Alert</td>
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<tr>
<td>ENR</td>
<td>Environment And Natural Resources</td>
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<td>ECOTRUST</td>
<td>Environment Conservation Trust</td>
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<tr>
<td>EA</td>
<td>Environmental Alert</td>
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<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FIEFOC</td>
<td>Farm Income Enhancement And Forest Conservation</td>
</tr>
<tr>
<td>FAUJEX</td>
<td>Federation Of Associations Of Ugandan Exporters</td>
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<tr>
<td>FAO</td>
<td>Food and Agricultural Organization</td>
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<tr>
<td>FDIs</td>
<td>Foreign Direct Investments</td>
</tr>
<tr>
<td>FSSD</td>
<td>Forest Sector Support Department</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Development Product</td>
</tr>
<tr>
<td>HANDSEDS</td>
<td>Handicrafts Sector Export Development Strategy</td>
</tr>
<tr>
<td>HORTEXA</td>
<td>Horticulture Exporters Association</td>
</tr>
<tr>
<td>HPOU</td>
<td>Horticulture Promotion Organisation Uganda</td>
</tr>
<tr>
<td>JERA</td>
<td>Joint Ethno-Botanical Research And Advocacy</td>
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<tr>
<td>KYU</td>
<td>Kyambogo University</td>
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<tr>
<td>LKS</td>
<td>Lesser Known Species</td>
</tr>
<tr>
<td>LG</td>
<td>Local Government</td>
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<tr>
<td>MUK</td>
<td>Makerere University Kampala</td>
</tr>
<tr>
<td>MUST</td>
<td>Mbarara University Of Science And Technology</td>
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<tr>
<td>MTCS</td>
<td>Medium- Term Competitiveness Strategy</td>
</tr>
<tr>
<td>MSME</td>
<td>Micro, Small &amp; Medium Enterprises</td>
</tr>
<tr>
<td>MAAIF</td>
<td>Ministry Of Agriculture, Animal Industry And Fisheries</td>
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<tr>
<td>MFEPED,</td>
<td>Ministry Of Finance And Economic Planning</td>
</tr>
<tr>
<td>MoLG</td>
<td>Ministry Of Local Government</td>
</tr>
<tr>
<td>NAADS</td>
<td>National Agricultural Advisory Services</td>
</tr>
<tr>
<td>NARO</td>
<td>National Agricultural Research Organization</td>
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<tr>
<td>NACAU</td>
<td>National Arts And Crafts Association Of Uganda</td>
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<tr>
<td>NAFOSEP</td>
<td>National Association Of Forestry Service Providers</td>
</tr>
<tr>
<td>NBS</td>
<td>National Biomass Studies</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>NCRL</td>
<td>Natural Chemotherapeutics Research Laboratories</td>
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<tr>
<td>NACOTHA</td>
<td>National Council Of Traditional Healers And Herbalists Associations</td>
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<tr>
<td>NDP</td>
<td>National Development Plan</td>
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<tr>
<td>NES</td>
<td>National Export Strategy</td>
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<tr>
<td>NFA</td>
<td>National Forestry Authority</td>
</tr>
<tr>
<td>NaFORI</td>
<td>National Forestry Research Institute</td>
</tr>
<tr>
<td>NGAP</td>
<td>National General Accepted Practices</td>
</tr>
<tr>
<td>NOGAMU</td>
<td>National Organic Agriculture Movement Of Uganda</td>
</tr>
<tr>
<td>NTSG</td>
<td>National Tree Seed Centre</td>
</tr>
<tr>
<td>NED LTD</td>
<td>Natural Enterprises Development Limited</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>NSCG</td>
<td>Non-Sectoral Conditional Grant</td>
</tr>
<tr>
<td>NTFPs</td>
<td>Non-Timber Forest Products</td>
</tr>
<tr>
<td>NORAD</td>
<td>Norwegian Agency For Development Cooperation</td>
</tr>
<tr>
<td>PMA</td>
<td>Plan For Modernization Of Agriculture</td>
</tr>
<tr>
<td>PEAP</td>
<td>Poverty Eradication Action Plan</td>
</tr>
<tr>
<td>PRSP</td>
<td>Poverty Reduction Strategy Paper</td>
</tr>
<tr>
<td>PSFU</td>
<td>Private Sector Foundation Uganda</td>
</tr>
<tr>
<td>REED</td>
<td>Rural Economic Enterprise Development</td>
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<tr>
<td>SPGS</td>
<td>Saw Log Production Grant Scheme</td>
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<tr>
<td>SMEs</td>
<td>Small And Medium Enterprises</td>
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<tr>
<td>SMFEs</td>
<td>Small And Medium Forest Enterprises</td>
</tr>
<tr>
<td>TUNADO</td>
<td>The Uganda National Apiculture Development Organization</td>
</tr>
<tr>
<td>TM</td>
<td>Traditional Medicine</td>
</tr>
<tr>
<td>UCOTA</td>
<td>Uganda Community Tourism Association</td>
</tr>
<tr>
<td>UEPB</td>
<td>Uganda Export Promotion Board</td>
</tr>
<tr>
<td>UIRI</td>
<td>Uganda Industrial Research Institute</td>
</tr>
<tr>
<td>UIA</td>
<td>Uganda Investment Authority</td>
</tr>
<tr>
<td>UNBS</td>
<td>Uganda National Bureau Of Standards</td>
</tr>
<tr>
<td>UBOS</td>
<td>Uganda Bureau Of Statistics</td>
</tr>
<tr>
<td>UNIPA</td>
<td>Uganda Natural Ingredients Producers Association</td>
</tr>
<tr>
<td>URA</td>
<td>Uganda Revenue Authority</td>
</tr>
<tr>
<td>UGX</td>
<td>Uganda Shillings</td>
</tr>
<tr>
<td>USSIA</td>
<td>Uganda Small Scale Industries Association</td>
</tr>
<tr>
<td>UTGA</td>
<td>Uganda Timber Growers Association</td>
</tr>
<tr>
<td>UWA</td>
<td>Uganda Wildlife Authority</td>
</tr>
<tr>
<td>UWEAL</td>
<td>Uganda Women Entrepreneurs Limited</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>USA</td>
<td>United States Of America</td>
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</tbody>
</table>
Executive Summary

There is little information on non-timber Small and Medium Forest Enterprises (SMFEs) in terms of their value chain aspects such as production, processing, market syndicates, profitability, financing, policy and legal investment climate. Their role in supporting livelihoods is not fully understood and is probably greatly underestimated. As a result, the future of commercialization of the Non-timber resources in Uganda does not receive much attention from policy makers, development agencies, private sector and civil society advocates. This report attempts to consolidate existing knowledge on small and medium forest enterprises (SMFEs) and provides an overview of the sector based on literature reviews, fieldwork surveys and analyses.

Although SMFEs in Uganda are overwhelmingly informal and remain largely unregulated by any government authority, there are already considerable efforts by community groups and some individuals to invest in commercialization of SMFEs although there are also a few companies in the timber growing sub-sector. Most of the SMFEs groups have registered as non-profit making organizations, therefore not operating in a businesslike manner in terms of corporate governance, investment management and meeting tax obligations.

SMFEs are largely undocumented, with no reliable figures that estimate their scale and extent. This research indicates that non-timber SMFEs are commercially viable in the domestic market as indicated in the profitability analysis of medicinal plants and honey. The SMFEs can also contribute significantly to national income, for instance, honey exports earned USD 4.231 million in 2005.

Despite their commercial significance, SMFEs produce a limited range of low quality products which compete unfavourably with imported substitutes. However the saw log production presents as an exception that needs to be scaled up. In general non-timber SMFEs have limited investment, access to credit, training opportunities, business management and knowledge of the natural resource base.

Most Non-Timber SMFEs rely on natural forest for their production, with a few cases of on-farm raw material supply, yet the resources from the natural forests are faced with rapid deforestation and degradation. This has led to low productivity which is worsened by little investment by private investors in the Sector. While the formal timber growing is supported by development agencies (ELI and NORAD) and the trade is dominated by NFA a government agency, they are still unable to meet the market demand and this has led to the growth of illegal loggers and traders. The non-timber sector doesn’t receive any formal support by both the government and development agents apart from the small and distorted support from NGOs through CBOs. This has not translated into commercialization of the Non-timber SMFEs.

Greater integration is beginning to occur within the apiculture subsector with the emergence of entrepreneurs and service providers who have invested in improved production, processing and marketing techniques. However, the vast majority of honey continues to be produced using traditional hives and is still consumed locally.

In the horticulture sector, production is still on small scale although commercial investments in the processing and marketing aspects are emerging through private sector intervention. There is high demand for organic horticultural
products in the export markets especially in Europe.

The handicrafts sub-sector is still predominantly informal both at production and market despite considerable demand both at the domestic and export markets.

The general legal and policy environments allow for both corporate and community investors to operate in the SMFEs although they are tailored in favour of the large scale investors and more often the foreign ones in terms of financial incentives and land provision.

There is weak institutional support and linkages for providing meaningful commercialization of the SMFEs especially in areas of value addition, financing, technical services and markets.

The key areas which need to be addressed if these rural based SMFEs are to play their desired social-economic role in the country’s development include:

- Creating an enabling environment for SMFEs;
- Creating adequate mechanisms, processes, and structures which articulate local needs /local organisations, groups, and associations representing the poor;
- Promoting active private sector institutions and linkages;
- Creating effective and functioning infrastructure (both hard and soft);
- Promoting access to integrated and open markets;
- Promoting access to effective and efficient support services;
- Promoting management capacity of emergent entrepreneurs.

In general, the study shows that SMFEs have already demonstrated uncontested success, proving their worthiness to drive economic and social development.
1.0 INTRODUCTION

1.1: Extent of Forestry Resources in Uganda

Uganda has a total area of about 241,551 km², out of which farmland is the most extensive, followed by grasslands, woodlands, water bodies, bush land, tropical high forest (normally stocked), tropical high forest (degraded) and others in that order. The recommended level of national forest cover for Uganda to have a stable ecological system is 30%. The national forest cover as of 2005 was however at 18% having dropped from 24% by 1990. This decline which is estimated at 1.8% per annum is largely attributed to increasing demand for agricultural land and fuel wood by the rapidly growing population. The distribution of forest resources varies greatly by region, the northern region dominated by woodland whereas the majority of the tropical high forest in the western region. Forests are particularly important as they provide disproportionately high values of forest products, environmental services and bio-diversity. However, according to FAO (2000) the deforestation rate in Uganda is estimated to be 55,000 ha per year based on the change in the amount of bush land and woodlands from 1990 to 1995. Other official estimates of the rate of land clearance range from 70,000 to 200,000 ha. These figures imply deforestation rates of between 0.9% and 3.1.

1.2: The Role of Forestry Resources to the National Economy

According to the Poverty Eradication Action Plan (2004/5-2007/8), forests provide an annual economic value $360m (6% GDP) of which only $112m is captured in the official statistics. The sub-sector employs 100,000 people directly and 750,000 subsistence workers. Forestry resources are crucial to the lives of millions of Ugandans especially the poorest sections.

<table>
<thead>
<tr>
<th>Forest Type</th>
<th>Area 2005 (Ha.)</th>
<th>Area 1990 (Ha.)</th>
<th>Change (ha)</th>
<th>Annual change (ha)</th>
<th>% change</th>
<th>%annual change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad leaved</td>
<td>14,786</td>
<td>18,682</td>
<td>(3,896)</td>
<td>(260)</td>
<td>(21)</td>
<td>(1.4)</td>
</tr>
<tr>
<td>Conifer</td>
<td>18,741</td>
<td>16,384</td>
<td>2,357</td>
<td>157</td>
<td>14</td>
<td>1.0</td>
</tr>
<tr>
<td>TMF well stocked</td>
<td>600,957</td>
<td>651,110</td>
<td>(50,154)</td>
<td>(3,344)</td>
<td>(8)</td>
<td>(0.5)</td>
</tr>
<tr>
<td>TMF low stocked</td>
<td>191,694</td>
<td>273,061</td>
<td>(81,367)</td>
<td>(5,424)</td>
<td>(30)</td>
<td>(2.0)</td>
</tr>
<tr>
<td>Woodland</td>
<td>2,777,998</td>
<td>3,974,508</td>
<td>(1,196,510)</td>
<td>(79,767)</td>
<td>(30)</td>
<td>(2.0)</td>
</tr>
<tr>
<td>Total Forest cover</td>
<td>3,604,176</td>
<td>4,933,746</td>
<td>(1,329,570)</td>
<td>(88,638)</td>
<td>(27)</td>
<td>(1.8)</td>
</tr>
</tbody>
</table>

of the society. The proportion of the population living below the poverty line declined from 56% in 1992 to 38% in 2003 and are mostly rural and marginalized unemployed youth, women, elderly who depend heavily on access to natural resources for their survival (UBOS 2003).

Between 15 - 20% of the population neighbour Forest Reserves, which provide sources of many forest products and services. Another 6 million people live within access of many private forests in the country which make up to approximately 70% of the total forested area of Uganda. Farmers use trees on farm, for firewood, poles or as part of their farming systems. Over three-quarters of all villages in Uganda are involved in selling some tree and non-tree products, mainly poles, timber, fuel wood, charcoal, honey, herbal medicine and mainly marketed on farm and not in town markets. Current projections show that the contribution of the forestry sub-sector is substantial and is expected to increase significantly as more incentives for new investments in the industry are provided. This is indicated by the increases in the monetary value of environment and natural resource (ENR) products such as timber, honey, bush meat, and ENR-based enterprises which have become a common phenomenon during the last decade of PEAP implementation. The Uganda government believes that poverty alleviation and sustainable forest management lies with those stakeholder groups with SMFEs involved in production, utilisation and processing of NTFPs both on farm and from wild collections. The study in particular aims:

i. To map out the current status of small-micro forest enterprises (SMFEs), their importance and the impact and effectiveness of policies and institutions on SMFEs;

ii. To examine the problems that are peculiar to SMFEs in Uganda which need to be tackled if SMFEs are to realise their full potential;

iii. To identify the key opportunities and threats in the SMFEs sector and design strategies to address the constraints;

To answer the above question, this diagnostic study was conceived by Environmental Alert (EA) and contracted NED LTD to carry it out in Uganda between October and November 2009. The study builds from other previous work done in the SMFEs sector in Uganda such as (Auren & Krassowska, 2004) and labours to inventory the entire key issues that affect growth, performance and competitiveness of SMFEs with particular focus on those involved in production, processing and marketing of NTFPs both on farm and from wild collections. The study in particular aims:

1.3: Rationale for the study

Population has grown from 16.7 million in 1991 to 26.8 million in 2005) (UBOS, 2005). Urban population alone has grown from 1.9 million people in 1991 to 3 million in 2002. Farm land has expanded in some parts of the country. Demand for forest products has been rising even as forested land declines. The construction industry has been growing at an average of 10% over the last 5 years, leading to high demand of timber, poles, and furniture (UBOS, 2006).

Demand for biomass energy has grown by 60% between 1991 and 2005. The energy demand for domestic, hotel, school, small-scale industrial processing has been increasing as the sub-sectors expanded.

The reduction in the forestry cover has negatively affected the supply of forest products and services, resulting in social stress (e.g. hostilities between the people & law enforcement agencies). The hostilities were exacerbated by the poor governance (e.g. corruption, ethnic tensions, politicisation of technical matters) that has plagued the forestry sub-sector for a long time.

The livelihoods of Ugandans have also been affected. Growth in monetary agricultural food production declined from 1.7 in 2004/05 to 0.9 in 2005/06 largely due to nutrient depletion and unpredictable climate variations). In addition, the contribution of agriculture to GDP declined from 39.9% in 2001/02 to 34% in 2005/06.

Box 1. The drivers of deforestation in Uganda


UBS Forest Sector Coordination Secretariat, 2001
iv. To disseminate findings of the study among key stakeholders in the forestry sector

1.4: Methodology

This section introduces the specific techniques that were considered relevant and adopted by the study of this nature.

a) Literature reviews were conducted in order to establish the facts about policies, laws, institutions, trends in the SMFEs sector and state of the forest resources in the country. For example, a review of existing information helped the research team to establish the contribution of forestry resources to the national economy and the development trends of SMFE sector.

b) Key informants in various Government agencies, private actors and practitioners of SMFEs provided information through guided interviews. This was aimed at obtaining information about underlying policies, processes, values and power structures among others. In addition, such people provided more literature in form of Government publications, reports and other forms of internal communication.

c) Focus group discussions were mainly employed at the community level and helped to gather information about local level activities, challenges and aspirations surrounding SMFEs. The method also helped to understand effects of Government initiatives at the local level with regard to particular SMFEs.

d) Observation (site visits) was used to observe the status of SMFEs in terms activities and lifestyles. This was aimed at collecting more information as well as acting as a means of verifying information from other sources.

e) Photography helped to capture the current state of the SMFEs and activities for purposes of portraying visual evidence and better communication. Photographs were taken of bee keeping, medicinal plants among others which were deemed relevant to bring out SMFEs in the current perspective.
CURRENT STATUS OF SMFEs in Uganda

2.1: Definition of SMFEs

Small and Medium Forest Enterprises are an industry-specific type of Small and Medium Enterprise (SME) situated within the forest sector. Attempts of defining SMEs takes into consideration of employment turn over, revenues and ownership. European commission defines SMEs as companies with less than 250 employees. With respect to financial criteria, revenues cannot exceed 50 million Euros (measured as turnover) or 43 million Euros (measured on a balance sheet). In addition, the European Union specifies terms of ownership, stating that SMEs must be independent, with less than 25% being owned by outside interests (European Commission, 2007).

Specifically SMFEs, Mayers (2006) defines them as “business operations aimed at making a profit from forest-linked activity, employing 10–100 full-time employees, or with an annual turnover of US$10,000–US$30 million. Definitions of SMFEs are also confounded by the existence of several types of business and ownership structures, spanning both formal and informal sectors of the economy and producing a wide range of forest-based goods and services”. In Ugandan context therefore SMFEs can be seen as enterprises that can facilitate local people meet basic needs and accruing wealth locally as individuals, communities and as associations without jeopardizing local creativity and environmental accountability. According to Kazoora et al., 2006, there are estimated to be 2000 to 3000 forest-based associations in Uganda.

2.2: Overview of SMFEs in Uganda

Forests in Uganda are an important source of raw material for SMFEs such as handicrafts, natural ingredients and offer ecological services to activities like bee keeping. Significant increases in numbers of forest related SMEs has been reported and continues to boost up due to the demands for forest products. Looking at timber for example as one of the forest products and a raw material for a number of SMFEs such as the furniture industry among others, the current demand for it, is estimated at 750,000m³/year while the current sustainable harvesting levels of timber in the central forest reserves are 53,000m³/year. Comparing this with the current demand of 750,000m³/year, which is expected to be 1.5 million m³ year by 2025, it is clear that the available stock in natural forests will not be able to meet the demand in a sustainable manner.

To meet this demand, an average of 13,000 ha of mature tree-crop will be required annually. In order to meet the massive demand for timber, nearly 200,000 ha of industrial forest plantations are required. To this effect, industrial, small and medium commercial tree growers are coming up. These have had a multiplier effect to other forest related enterprises like commercial tree nurseries investments. On the other hand, there has been also an increase of individual and community engagement in the trade of non-timber forest products (NTFPs) as they provide forest-dependent people with income-generating opportunities with minimal environmental costs. Fruits, basketry/handicrafts, honey and natural ingredients are just a few examples of economically and socially valuable products that are produced from both on farm and sustainably managed natural forests. Generally forest dependent people do the production, wild collection...
and in some cases they also process the raw materials for some SMFEs while urban dwellers in most cases do the processing and marketing of products. To offer a long-term source of income, SMFEs still require careful planning, management and monitoring so to be able to balance profit making as well as protecting vulnerable forest ecosystems and their biodiversity.

2.3: Types of the SMFEs

With a basis of a number of studies carried on SMFEs in Uganda and elsewhere, SMFEs in this review have been categorised as below:

2.3.1: Production sector

Several SMFE subsectors are engaged in the production sector, and these include the following below;

1. Commercial Tree planting for Saw log production
2. Tree nurseries and inputs
3. Farm forestry

2.3.2: Non-timber forest products

The subsectors under the NTFPs include;

1. Horticulture which includes fruits e.g. mangoes, nuts, vegetables and seeds
2. Natural ingredients e.g. Dry bark powder from Prunus africana, Essential oils, Butter, Refined oil among others and medicinal plants
3. Handicraft products and eco tourism
4. Apiculture

2.3.3: Extraction and Processing (Wood and timber)

The subsectors under this category are;

1. Fuel wood (firewood and charcoal)
2. Sawn round wood for construction
3. Carpentry for furniture and parts (wooden chairs, office, kitchen or bedroom items etc)

For purposes of this study, a lot of emphasis has been put on the SMFEs subsectors within production and Non-timber forest products sectors.

2.4: Peculiarity of SMFEs in Uganda

In Uganda SMFEs face four peculiar challenges of complexity. First, the tenure and resource access is complex. SMFEs are often developed on land over which the tenure and resource rights are poorly defined or disputed yet long-term forest production depends very much on the security with which local enterprises can defend their resource rights in competition with other land users. Secondly the sustainability of SMFEs requires understanding of natural ecology and regeneration potentials, site indices and inventory, growth and yield modelling, extraction planning and reduced impact logging techniques and this is especially for commercial timber growing.

Another unique aspect of SMFEs is their informality whereby majority of them are owned by individuals and community groups with little participation of private corporate companies. This inevitably affects rights and responsibilities in form of taxation, financial incentives, production levels and market structures. Lastly, there are a number of problems associated with accessing finance in Uganda due to its relatively underdeveloped financial sector, and this particularly affects sustained investment in long-term ventures such as forestry.

2.5: Commercial timber growing Subsector

Official statistics show that forest plantations in Uganda cover a total of 33,000ha. This area is only 0.2% of the forested area. About 20,000 ha are located within central forest reserves managed by NFA and partly by private investors, 2,000ha are located within National parks and managed by UWA and 11,000ha are located on private land. Approximately 55% of the plantations area is Eucalyptus (broad leaved), and 45% is soft woods (coniferous), mainly (Pinus caribea and Pinus ocarpa) and cypress.

The above statistics are a clear indication that Commercial tree growing (both on farm as woodlots and large scale as plantations) has picked up as a Small and Medium Enterprise in the forest sector. This has been boosted especially through the grant support of SPGS to SMEs.

*The National Forest plan October 2000, Pp 48*
investors in tree growing. With support from SPGS, 35 community groups in 17 districts have planted 400ha whereas the members of Uganda Timber Growers Association (UTGA) have planted 10,300ha of timber plantations between 2004-20099 all with different objectives which include production of fuel wood, poles and saw logs. UTGA membership comprises of corporate groups and individual members.

Table 2: Location of Commercial plantations for UTGA members

<table>
<thead>
<tr>
<th>Name of investor</th>
<th>Location of plantation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Busoga Forestry</td>
<td>Mayuge</td>
</tr>
<tr>
<td>Dr. Peter Ngategize</td>
<td>Mukono</td>
</tr>
<tr>
<td>Forest Reserve Lwamunda</td>
<td>Mpigi</td>
</tr>
<tr>
<td>Felix Basigire</td>
<td>Kabale</td>
</tr>
<tr>
<td>Global Tree Growers (U) Ltd</td>
<td>Mubende</td>
</tr>
<tr>
<td>Mr. Robert Bariho</td>
<td>Mpigi</td>
</tr>
<tr>
<td>Kamusiime Memorial Rural Development Pilot Scheme</td>
<td>Busheyi</td>
</tr>
<tr>
<td>BASEPO (U) Ltd</td>
<td>Mubende</td>
</tr>
<tr>
<td>Precision Saw Mil</td>
<td>Mubende</td>
</tr>
<tr>
<td>Nile ply woods</td>
<td>Jinja</td>
</tr>
<tr>
<td>Keeya Hood and Moses</td>
<td>Masaka</td>
</tr>
<tr>
<td>Deusche Forest Consult</td>
<td>Mayuge</td>
</tr>
<tr>
<td>Norwegian Afforestation (U) Ltd</td>
<td>Lira</td>
</tr>
<tr>
<td>Global Woods/ Sustainable Use of Biomass Ltd.</td>
<td>Kiboga</td>
</tr>
<tr>
<td>Lord Timber Traders, Mafuga</td>
<td>Kabale</td>
</tr>
<tr>
<td>Bugingo Wilfred</td>
<td>Ibanda/Mubende</td>
</tr>
<tr>
<td>Lt. Gen Edward Katumba Wamala</td>
<td>Mubende</td>
</tr>
<tr>
<td>Core Woods Ltd</td>
<td>Hoima</td>
</tr>
<tr>
<td>Robert Nabanyumya</td>
<td>Nakasongola</td>
</tr>
<tr>
<td>Ruth Nankabiwira</td>
<td>Luweero</td>
</tr>
<tr>
<td>Nansega Forests</td>
<td>Mpigi/Luweero</td>
</tr>
<tr>
<td>New forests Company</td>
<td>Kiboga</td>
</tr>
</tbody>
</table>

Source: http://www.utga.net/members.htm

Most of the plantations are located on CFRs and a few on private lands although currently the President of Uganda imposed a ban on the allocation of land on the CFRs for plantation establishment and development until further notice. The community plantations are majorly located near the commercial tree growers.

Raw material requirements and markets for commercial tree growers

The plantations under SPGS are mostly Pine, Eucalyptus, Terminalia species and Tectona grandis (Indian teak) and raw materials requirements for these plantations are improved seeds imported from South Africa, Brazil, Fiji, Australia which are supplied on commercial basis through the National Tree Center located at Namave under NFA as well as glyphosate for chemical weed control which is imported and supplied by Balton (U) Ltd. Apart from the corporate plantation owners who establish their own tree nurseries, the rest of the individual tree planters buy seedlings from existing tree nurseries.

At the time of the study, harvesting of timber from plantations in Uganda is carried out in NFA plantations which were established 20-25 years ago. None of the investors in commercial tree growing listed above harvests timber since their plantations are still young. However some of them have started harvesting poles from thinnings which are sold to the house construction industry.

Scale and scope of operation

On average, most plantations range between 25-100ha apart from a few corporate foreign investors like Global Woods/ Sustainable Use of Biomass Ltd, Busoga forestry and New forests Company whose plantations are over 1000 ha. The corporate investors employ between 10-20 foresters as supervisors. However in most cases the investors contract services of individual foresters and a few service provision companies like Natural enterprises Development limited, heart of Gold Tree Company, James Contractors Limited who undertake establishment and management of plantations at a cost. These contractors employ an average of 100 casual workers per season.

Links to other forest enterprises

Tree seed and Commercial tree Nurseries

The main SMFEs to which commercial tree planting is linked in Uganda are tree seed and seedlings supply businesses which are done by The National Tree Seed Centre (for tree seed sourcing mostly importation and raising of seedlings), and commercial tree nurseries which supply tree growers with mainly seedlings.
2.6: Commercial Tree Nurseries

At present there is no independent national assessment of tree nurseries in Uganda. This means the exact number of tree nurseries established by SMEs in Uganda. The few private nurseries listed below have at least attained a level of management considered commercial and have benefited from significant improvements, mostly with the support of the EC-funded Forest Resources Management & Conservation Programme (the parent programme of the SPGS) since 2002.

- Busoga Forestry Co in Mayuge,
- Global Woods (U) Ltd in Hoima,
- Kamusiime Association in Bushenyi
- Gatsbay Uganda ltd in Masindi town and Mukono at kifu
- The National tree seed centre of NFA at Namanve and central commercial tree nurseries in each of the seven ranges

Most of the tree nurseries are small scale and are located along roadsides with high concentration in the central region of Uganda and in urban centres all over the country. Apart from the above listed commercial nurseries owned by corporate bodies, the rest are individually owned mostly buy women and youths. For pine and eucalyptus nurseries, the main source of seeds is from the National tree seed center which imports from abroad meanwhile for indigenous tree species like Musizi, Mahogany etc the seeds are harvested locally from local mother trees. These nurseries also use the polythene tubes and artificial fertilizers which are imported and supplied through local traders. Depending on size of the nursery, there is use of the green house nets and local materials for shed.

The major products from the nurseries are the seedlings whose markets are readily available from the investors in commercial nurseries who usually do not have the quality seedlings to meet the high demand. The small nurseries are between 10,000-50,000 seedlings per season whose turn over lies between USD 2,600 – 13,000 while the medium are between 50,000-200,000 seedlings per season whose turn over lies between USD13,000 – 50,000.

On average, commercial tree nurseries employ two foresters as site managers and supervisors. They employ a maximum of 50 casual workers most of whom are women. Meanwhile small nurseries are usually run by 5-10 family members.

---

**Box 2: Cash flow for commercial pine nursery for Umoja tree nursery in Mukono**

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Unit of measurement</th>
<th>Unit Cost</th>
<th>Qty</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seeds</td>
<td>Kg</td>
<td>2,500,000</td>
<td>5</td>
<td>12,500,000</td>
</tr>
<tr>
<td>2</td>
<td>Mycorrhiza</td>
<td>Trips</td>
<td>70,000</td>
<td>5</td>
<td>350,000</td>
</tr>
<tr>
<td>3</td>
<td>Forest soil</td>
<td>Trips</td>
<td>70,000</td>
<td>5</td>
<td>350,000</td>
</tr>
<tr>
<td>4</td>
<td>Coarse</td>
<td>Trips</td>
<td>150,000</td>
<td>5</td>
<td>750,000</td>
</tr>
<tr>
<td>5</td>
<td>Fertilizer</td>
<td>Bags</td>
<td>50,000</td>
<td>5</td>
<td>250,000</td>
</tr>
<tr>
<td>6</td>
<td>Post tubes (50kgs)</td>
<td>Bags</td>
<td>250,000</td>
<td>5</td>
<td>1,250,000</td>
</tr>
<tr>
<td>7</td>
<td>Wheelbarrow</td>
<td>Pc</td>
<td>60,000</td>
<td>5</td>
<td>300,000</td>
</tr>
<tr>
<td>8</td>
<td>Rake</td>
<td>Pc</td>
<td>7,500</td>
<td>5</td>
<td>37,500</td>
</tr>
<tr>
<td>9</td>
<td>Hoe</td>
<td>Pc</td>
<td>6,000</td>
<td>5</td>
<td>30,000</td>
</tr>
<tr>
<td>10</td>
<td>Watering can</td>
<td>Pc</td>
<td>6,000</td>
<td>5</td>
<td>30,000</td>
</tr>
<tr>
<td>11</td>
<td>Labour to construct poles, shades, fence.</td>
<td>Persons</td>
<td>500,000</td>
<td>5</td>
<td>2,500,000</td>
</tr>
<tr>
<td>12</td>
<td>Labour for three months</td>
<td>Monthly</td>
<td>300,000</td>
<td>5</td>
<td>1,500,000</td>
</tr>
<tr>
<td>13</td>
<td>Pesticides</td>
<td>Litres</td>
<td>12,000</td>
<td>5</td>
<td>60,000</td>
</tr>
<tr>
<td>14</td>
<td>Jerry can (2ltrs)</td>
<td>Ltrs</td>
<td>6,000</td>
<td>5</td>
<td>30,000</td>
</tr>
<tr>
<td>15</td>
<td>Spades</td>
<td>Pc</td>
<td>12,000</td>
<td>10</td>
<td>120,000</td>
</tr>
<tr>
<td>16</td>
<td>Spray pump</td>
<td>Pc</td>
<td>70,000</td>
<td>5</td>
<td>350,000</td>
</tr>
<tr>
<td>17</td>
<td>Land hire Acre 40,000 1,25 hire</td>
<td></td>
<td>50,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Technical advise</td>
<td>Month</td>
<td>200,000</td>
<td>5</td>
<td>1,000,000</td>
</tr>
<tr>
<td>19</td>
<td>Security</td>
<td>Month</td>
<td>60,000</td>
<td>5</td>
<td>300,000</td>
</tr>
<tr>
<td>20</td>
<td>Marketing commission</td>
<td>percentage</td>
<td>75,000,000</td>
<td>10%</td>
<td>7,500,000</td>
</tr>
<tr>
<td></td>
<td>Water cost</td>
<td>Monthly</td>
<td>75,000,000</td>
<td>10%</td>
<td>7,500,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total cost</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>36,785,000</strong></td>
</tr>
</tbody>
</table>

**Returns (Revenue)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Revenue from Seedlings</th>
<th>Each</th>
<th>Quantity</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross profit (revenue - cost )</td>
<td>Each</td>
<td>500</td>
<td>150,000</td>
<td>75,000,000</td>
</tr>
<tr>
<td>Net profit (Gross - Interest 24%)</td>
<td></td>
<td></td>
<td></td>
<td>38,235,000</td>
</tr>
</tbody>
</table>

N.B The 150,000 seedlings can plant 100 hectares
Box 3: Critical issues to consider for tree nurseries

In order to manage a commercial tree nursery in Uganda, the following issues are important:

a. Design a sound business plan with a well defined budget for implementing the planned activities and procurement of the required equipments.
b. Ensure the staff are trained well, closely supervised and understand the need for somebody to be present every day to water and protect the seedlings.
c. Prepare beds and fill pots well in advance of sowing, allowing time to water and settle the soil in the pots.
d. If local soil is heavy (i.e. with a high clay content), mix in river sand to improve drainage.
e. If growing pines, mix some organic matter from a mature pine plantation with the soil (this will contain the necessary mycorrhiza fungi that pines need to grow well).
f. The use of fertilizers is also recommended: when used properly, fertilisers encourage fast growth (less time in the nursery), strong root development and a healthy seedling.
g. Find out what species (and specific seed origins) are required or will sell.
h. Acquire improved seed in good time and ensure it is stored correctly (in dry, cool and dark conditions). NB. The huge demand for improved seed in Uganda over the last few years (especially for Pinus caribaea and E. grandis seed orchard seed) can lead to shortages at crucial times.
i. Find out from the supplier the expected germination of the seed and also calculate the numbers to be raised (the area to be planted or the seedling numbers expected to be sold).
j. Compensate for low expected germination by double sowing a proportion of the pots.
k. Carefully follow any pre-germination treatments recommended from the seed supplier (e.g. allowing time for acclimatization or soaking).
l. Time sowing so that the seedlings will be the right size (20 cm recommended) at the time when the main rainfall is expected and land preparation should be complete: 4 months is the usual time for Pinus caribaea and most tropical pine species, 3 months for Eucalyptus grandis.
m. Regular watering is vital and can be very time consuming if not available on site: where possible pump water to holding tank(s) near to the nursery and have stand-pipes in the nursery. Otherwise staff will spend most of their time lugging water around.

n. Ensure everyone knows what sort of quality and size of seedling is required (refer photos).o. Minimize the ‘pricking-out’ of seedlings as this is a common source of seedling root problems later on: for this reason, direct sowing is recommended especially for the larger seeded species, like pines.
o. Be prepared for diseases (especially damping-off fungi): copper oxychloride is the standard precautionary treatment but other fungicides should be available as a backup. Damping off can wipe out thousands of young seedlings extremely quickly.
p. Have a strict nursery hygiene policy (for discarding weeds and any dead or dying plant material) and also encourage good air circulation in the nursery: these measures reduce the risk of damping off.
q. Manipulation of shade is also important to protect the seedlings when very young and encourage maximum growth as they develop; also to protect the seedlings in bad weather (one bad hail storm can wipe out an entire nursery).
r. The seedlings must be regularly checked for their root growth: root pruning may be necessary if planting is delayed (this can be done by simply moving the pots sideways to break the emerging roots). NB. Do not plant seedlings earlier than 2-3 days after root pruning as they will be stressed and need time to recover.
s. Reduced watering can be used as a tool to ‘harden-off’ seedlings out: this produces a tougher seedling more able to withstand the stress of being planted out.
t. Allowances must be made for culling (i.e. rejecting poor seedlings) – at least 15% extra should be allowed. NB. Culls
must be discarded: they will never make strong seedlings and thus shouldn’t be sold by any professional nursery.

u. Never carry seedlings over from one season to the next: the roots become ‘pot-bound’ and when planted out cannot
respond quickly.

v. Overgrown seedlings will not grow well when planted and are frequently unstable.

w. Water seedlings well immediately before they are transported to the planting site.

x. Ensure the seedlings are transported in such a way that minimizes damage: appropriately sized boxes or trays are
recommended rather than piling them on the back of a vehicle.

y. If possible transport seedlings during the cooler parts of the day and cover them from the hot sun.

z. Keep records of all seed purchases, sowing dates, germination dates and %, seedling sales etc. Each nursery bed should
be clearly labelled and a separate record kept in the nursery office.

aa. Training one’s nursery staff well is essential if you want to produce good quality seedlings at the right
time.

Common problems faced by commercial tree nurseries and suggested solutions

According to SPGS, the commercial tree nursery owners face the listed problems to which they have
suggested solutions:

- **Variable quality and growth rates:** Only buy recommended improved seed; cull (sort) seedlings
  better & discard rejects; discard late germinants.

- **Seedling numbers less than expected:** Sowing seed too deep; poor storage of seed; follow any
  pre-germination treatment recommend-at-ions; double sow % to allow for low germination.

- **Seedlings are too large/too small when rains arrive:** Plan well; sow at correct time; stagger
  sowing; communicate better with field / customers.

- **High seedling deaths (stems appear to rot when very young):** Routinely drench with fungicide at
  sowing; keep systemic fungicide(s) in reserve.

- **Compacted soil in pots:** Mix sand with soil to improve drainage; check over-watering.

- **Poor root development:** Reduce pricking out (or supervise better); use fertilizers; routinely check
  root development.

- **Root coiling in pots:** Get them planted out (or sold); root prune older seedlings frequently.

- **Chlorosis (yellowing) of foliage:** Apply fertilizers (only after trials to determine dose); check watering.

- **Weak looking seedlings:** Reduce shade; fertilise seedlings.

- **No space to expand nursery:** Select site carefully before starting nursery.

- **Shortage of water at critical times:** Before starting the nursery, ensure water supply is adequate (10
  lts water per m2 nursery bed per day is a guide); have an emergency water supply available.

- **Customer does not pick seedlings:** Communicate regularly with customer/ field staff; insist on an
  advance for external orders.

*Source: SPGS Plantation Guideline No. 7 Tree Nurseries*
2.7: Apiculture Sub sector

Apiculture deals with issues related to beekeeping, bee forage, processing, packaging and marketing of bee products. Apiculture is one of the forest enterprises which contributes to livelihoods of the rural poor and supports conservation of natural resources. Beekeeping in particular can be done on a small piece of land and it involves planting and/or conserving plants as bee forage. Bee keeping can most successfully be done by communities around Natural forests due to the Natural vegetation which acts a bank of bee forage.

In 2001, it was estimated that there were over 80,000 beekeepers in Uganda, who owned about 200,000 beehives. Although no up-to-date data is currently available, these numbers may have tripled over the past 8 years owing to the many initiatives by the government, civil society and the private sector to promote apiculture as a commercial enterprise.

The production of bee products is mainly by small producers across the country, away from the traditional honey hunting and wild collections. The inputs for primary production of bee products are both local and modern hives (Top bar hives), protective gears, air tight buckets, hive tools and smoker. This equipment is available mostly in Kampala with organizations such as Uganda Honey Bee Keepers Association, East African Bee Equipment Limited, Golden Bees Limited, Api prodex Ltd, etc. For secondary processing of bee products like honey, honey wine and candle wax, the equipments are usually imported.

Bee products are supplied in raw form with minimal value addition if any from small scale producers majorly located in rural areas. The products move from the farm to the market through two channels; extensive channel and intensive channel.

Many dealers and processors source across agro-ecological zones aiming to find abundant and cheap honey where the harvest season is prime use the extensive strategy. This strategy employs transportation and long distance communication resources. The rapid diffusion of cell phones, the reduction of tariff barriers and open market policies makes this a more viable strategy as it reduces the search costs in locating supply from more distant sources.

A number of processors, bulkers, exporters use the intensive strategy. They source within a tightly linked producer network through some kind-of contract farming. This strategy is based on the belief that developing long term relationships built around good performance and trust is sustainable. This strategy employs group and interpersonal skills aimed at improving communication of market information and new beekeeping skills. In this strategy cooperation among farmers and between farmers and processors yields cost reductions and market-determined but mutually shared benefits. The intensive strategy favours a core competence in building long-term business relationships within the value chain. Processing is undertaken at two different levels, by small producers using cottage technologies and by large companies using modern technologies for extraction and packaging processes. The Ugandan honey standard is a very good guide to those who do cottage production and those companies who produce commercial volumes for domestic and export markets.

In terms of marketing, there is an increase in trade in bee products. The major products of this sector are honey and beeswax, with propolis being an up-coming low volume product not yet fully commercialised. Despite the rise in sales of packed honey in Uganda, it is important not to overlook the fact that the vast majority of honey is bought and sold within the informal sector, in various miscellaneous unlabelled containers. Ugandan honey is mostly consumed within Uganda, very little is exported as shown in table 4. A study conducted by Bees for Development and UEPB in 2008 shows that upto 24% of honey traded in Uganda is imported; it further showed that more honey is imported than it is exported. Whatever is exported mainly targets the regional markets, namely Kenya, Rwanda and Tanzania, with very insignificant volumes destined to Europe (particularly Switzerland) and United Arab Emirates.

It is important to note that outside Uganda, the international market for bee products is strong but highly competitive. Honey and beeswax are the largest volume, least specialized and most accessible markets. Markets for products such as royal jelly, propolis and bee venom are well supplied by specialist businesses that have already invested considerably in these enterprises. Uganda has no comparative advantage in these products. The 2008 global estimates for the honey market, stands at US$ 3 billion. The global honey market is highly differentiated. At one end of the market spectrum are massive volumes of inexpensive honey which is blended to produce a uniform product e.g. Chinese honey, and at the other end of the spectrum is the specialist market, unique,
special origin, low volume, high value e.g. manuka honey from New Zealand. A wide range of honeys also occupy the middle ground. It is not possible for Uganda to compete with the largest honey producing nations such as China and Argentina who are key players at the high volume, low value end of the spectrum. Uganda could and should aim to offer honey at the low volume, high value end of the spectrum. In other words, Uganda’s export opportunity lies in niche marketing.

Uganda has some notable strengths, on which it can draw as it enters the international market place. The main strength is the limited use of agrochemicals in production systems with the consequence that Ugandan bee products are clean from contamination. Uganda can offer organic honey free from chemical residues, produced in clean environments. Uganda can offer ethically traded, special honey of unique and interesting origins, linked with a cultural story.

The demands for organic, fair trade and ethically traded honeys, and other speciality honeys are rising in the EU market. There are premiums of between 10 to 30 percent on these honeys compared to the conventional honeys. This is where Ugandan processors and packers have chances of success.

However, despite the strengths mentioned above and despite achieving third country status Uganda is not exporting to the EU. Ugandan processors have struggled to supply the volumes required by EU importers (even within the low volume, high value markets); they have also struggled to comply with some quality standards and costs of freight. The challenge of supplying adequate volume is sometimes incorrectly interpreted as a production problem. The truth is the formal honey trade suffers from supply chain problems and beekeepers find it so difficult to access reliable markets that they have little incentive to increase their investments and yields – this has the consequence of making it harder for serious, reliable buyers to become established. This demonstrates a positive feedback loop with negative consequences. Honey for export is sold in bulk, in drums – with some notable exceptions such as that exported by East West Innovations (Leow 2009). The quality of Ugandan honey is high and of export quality. The challenge is not to damage the inherent qualities and cleanliness of the unharvested product through poor harvesting, handling and storage.

The Middle East may be a lucrative market, with no requirements for residue monitoring and having, few, if any regulatory barriers. However information about Middle East markets, and the supply chains which lead there, are limited and difficult to find. Uganda currently imports more honey than it exports.

**Table 3: Imports of honey for the period 2002-2007**

<table>
<thead>
<tr>
<th>Year</th>
<th>Formal Imports</th>
<th>Informal Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weight (Kg)</td>
<td>Value($)</td>
</tr>
<tr>
<td>2002</td>
<td>5,649</td>
<td>5656</td>
</tr>
<tr>
<td>2003</td>
<td>7,074</td>
<td>8834</td>
</tr>
<tr>
<td>2004</td>
<td>3,032</td>
<td>6067</td>
</tr>
<tr>
<td>2005</td>
<td>27,527</td>
<td>19,385</td>
</tr>
<tr>
<td>2006</td>
<td>4,821</td>
<td>4,798</td>
</tr>
<tr>
<td>2007</td>
<td>21,990</td>
<td>24,492</td>
</tr>
</tbody>
</table>

**Table 4: Exports of honey for the period 2002-2007.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Formal Exports</th>
<th>Informal Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weight (Kg)</td>
<td>Value($)</td>
</tr>
<tr>
<td>2002</td>
<td>92</td>
<td>100</td>
</tr>
<tr>
<td>2003</td>
<td>1,200</td>
<td>2,983</td>
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<td>2004</td>
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<td>2005</td>
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<td>104</td>
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<tr>
<td>2006</td>
<td>208</td>
<td>100</td>
</tr>
<tr>
<td>2007</td>
<td>1,317</td>
<td>897</td>
</tr>
</tbody>
</table>

*Source: UBOS 2007*
Table 3 shows overall honey imports from different countries for the period 2002 to 2007. Imports fall into two categories (i) raw honey coming across the border from neighbours, bought and sold by Ugandan traders, possibly even packed as Ugandan honey and (ii) packed high-end market honey from distant countries such as India, Austria, United Arab Emirates, United Kingdom and Germany. Statistics show that cross-border imports form the bulk of all honey imported into the country. The cross border trade is driven by a surplus of honey being produced by communities in Uganda’s neighbours and a high demand in Uganda’s urban centres where there are large populations of employed people. The high-end market is being driven by the fact that some of the top supermarkets and hotels consider imported honey superior to local honey and believe their customers require this product. In many cases, the way the honey is packaged and presented is superior to local products.

Beeswax has both advantages and disadvantages over honey. It is not a food and so the beeswax trade is not governed by the same strict regulations as the honey trade. It is inert, does not perish and quality does not reduce over time. Beeswax that is free from contamination of chemical residues, such as Ugandan beeswax, is on very high demand. However, the market is harder to access unless you are fortunate to be already connected to established beeswax traders, which is not the case in Kapchorwa. The product is used in local markets in only very small quantities therefore to make a good return one needs to access markets that are more distant. This requires networking and organisation to achieve. It is also only worth attempting to market beeswax outside the local area if a reasonable volume, for example two tonnes, is on offer. The way to sell beeswax is to accumulate it little by little over a long period of time and sell a reasonable volume, once a year or once every two years. Honey generates income on a more regular basis and is therefore a more attractive proposition to poor beekeepers, desperate for income. There are a number of strategies and enabling factors which have a particular impact on the apiculture sector.

2.8: Handicrafts sub-sector

Uganda has a wide array of handicraft products ranging from basketry, mats, ceramics, beads, pottery, hand textiles and woven products, toys, jewellery, bags, ornaments, leather products, batiks and wood craft among others. There is no study carried to establish the number of SMEs in the handicrafts sector. Handicrafts items are produced in almost all the Districts and Regions of Uganda using locally available raw materials some of which are dependent on forestry resources and Uganda’s diverse resources. Handicrafts production and product differentiation in Uganda is cultural, traditional and predominantly a cottage industry, engaged in by rural youth of both gender but largely by women folk, to supplement household incomes. The tradition has been to hand over craftsmanship and skills from generation to generation. This tradition has diminished considerably over time.

Even though master craftsmen can still be found, their numbers have declined significantly. Of late, however handicraft production has seen an upswing as the industry is perceived as a potential business enterprise for sustainable income generation, thus attracting more and more artisans, traders and exporters. The village producers sell their products in either the neighbourhoods or to domestic craft traders, or direct to tourists. The domestic craft traders serve as intermediaries, who sell on the local markets and to exporters or export the items themselves. However, in their zeal to earn quick money for a living, the artisans produce in a fragmented environment, with no appreciation of market requirements, quality, design, standards and systematic organization of markets. Innovations, design and product adaptations are limited, given the low skills and capacity of Uganda’s artisanal producers. Handicrafts export in Uganda is consequently insignificant.

Uganda’s handicraft sector development is severely inhibited by supply side (production) and marketing constraints summed up as follows10: -

**Production**
- Limited access to, and inadequate supply system of, raw materials
- Fragmented, unstructured and individualized production systems
- Low level equipment application
- Low production levels
- Nil or minimal access to capital
- Lack of specialization
- Inconsistent product standardization
- Low design and quality
- Inadequate design skills
- Inadequate production, vocational and business

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10UEPB: Uganda Handicraft Export Strategy 2005
diagnosis on small and medium forest enterprises (SMFEs) in Uganda

- Development training
- Inadequate model incubator projects along organised production systems

2.8.1: Global and Regional Markets and Trends for Handicrafts

The Global statistics for handicraft trade is hard to come by. However, the huge economic and social importance of the sector, be it at the national or the global level, is based on estimations and compilations of scattered, insufficient, often unreliable and unsystematic data or on data that are not even comparable across countries. In the world market, handicrafts are only a part of the range of artifacts. Thus, handcrafted, semi-handcrafted, machine-crafted goods vie with each other for customer attention in a broad market described as “gifts & decoratives.”

According to the U.S. Department of Commerce, the United States market for handicrafts is about $10 billion. This includes all types of handicrafts. That market has a strong desire for the unique, the interesting, and the product with a history. However, the US market is price-sensitive, and hence price per unit realised in this market tends to be lower than in other countries. However, this is traditionally a strong market, and continues to grow, mainly on the back of multi-ethnic immigration.

On the other hand, Japan is the world’s most sophisticated market with consumers willing to pay for quality and workmanship. Hence, this market fetches per unit values that are far higher than the western markets.

German consumers used to be quality conscious, with emphasis on natural, authentic and high value handicrafts. However, continued recession in the economy has depressed consumer aspirations and spending, forcing the market to source for cheap products. The size of UK and French markets are relatively smaller. However, they figure as prominent destinations especially for their former colonies.

Germany is the largest market in Europe for Giftware with a value of US$16 billion. Giftware imports in 2005 by the UK are estimated to be £6,480 million - a growth of 2.2% over the previous year’s estimates. USA, Germany, UK, France, Italy, Netherlands, Japan, Switzerland and Canada are the principal importers in the world, estimated to account for 80% or more of the trade values in “gifts & decoratives.” On the supply, exporting countries include China, S. Korea, Taiwan, Philippines, Malaysia, Indonesia, India, Sri Lanka, Pakistan, Iran, Turkey, Mexico, Bangladesh, Vietnam, Kenya, Ghana and South Africa.

Uganda’s export performance for the period 1998-2003 reveals a recovering sector from a record low of approximately US$401 Million in 2000 to US$522.5 Million in 2003 in export of goods. Between 2002 and 2003, export of goods, which continue to be predominantly agricultural, expanded by 11.7%. In 2002 agriculture contributed over 65%, manufactures 7%, minerals 14%, handicrafts less than 1% and “others” 10% to total export earnings. Uganda’s geographical markets since 1997 have shown dynamic changes, in terms of the take of exports from Uganda. Looking at the regional markets, since 2002, COMESA has overtaken the EU, which had hitherto been the leading destination for Uganda’s exports. Following the signing of the EAC Customs Union Protocol, Ugandan products started accessing the Kenya and Tanzania markets duty and quota free. Presently Uganda’s exports are being charged at 80% tariff reduction and currently Kenya is our lead trading partner in the sub-region. Uganda has also signed bilateral trade agreements with many countries including South Africa, Libya, Iran, India, China and Pakistan. By operationalising the concluded agreements, Uganda could negotiate for better market
access, in these countries in form of tariff reduction and
this therefore offers great opportunities for handicrafts
sector however, more work needs to be done in this
area, to effectively disseminate information on these
agreements to the private sector, the primary beneficiaries
and strategizing with them on the opportunities offered
by these agreements.

However despite the presence of all the above market
initiatives for Ugandan products in general, government
needs to reduce the tariff and non-tariff barriers imposed
on Ugandan exports. The Government needs also to
strengthen its capacity to engage in multilateral, regional
and bilateral trade negotiations to reduce market access
constraints to trade in goods and services. There is the
need for export infrastructure improvement; institutional
strengthening and resourcing of the export promotion
and support agencies, as well as export competence
development and financing of the private operatives
to enable them confront the export challenges in the
sector.

2.8.2: The handicraft market is segmented
into the following:

- Clothing and accessories
- Decoration-interior and exterior
- Household items
- Gifts
- Toys
- Stationery

Consumer behaviour to these segments is largely
influenced by their distinctive features, which can be
utilitarian, aesthetic, creative, cultural attachments,
decorative, functional, religiously and socially symbolic
and significant. Environmental concerns and trends tend
to influence colour lines just as special occasions such
as Christmas, dictate volume demands for giftware and
special packaging containers like baskets. Globalisation
and Tourism have resulted in increasing interest for a
broad variety of handicrafts. At the same time concern
for environmental preservation and protection has
forced developed countries to set legislations/voluntary
agreements between governments and producers.

Export Markets

Uganda’s handicraft products have preferential treatment
in the USA under AGOA, in the European Union under
the EBA, and in other markets established through
bilateral trade agreements. Unfortunately, efforts have
not been made to promote this trade. Successful
penetration of export and other markets will depend on
the ability of producers to form strong groups, develop
capacity to produce critical masses, upgrade the quality
to market standards as well as overcome the constraints
enumerated in Para 1.1. Government’s investment,
trade and industrial policies should seek to integrate
handicrafts in the areas of investments, Micro, Small
& Medium Enterprises (MSME) capacity development,
product development, adaptation and innovations, and
promotional support. There is need for an orientation
in attitude towards looking at Cultural industries for
exports.

Priority product analysis

Overview of product categories

The different regions and districts of the country produce
a large array of handicrafts, depending on the type of
available raw material and the indigenous skills of the
producers. In this regard, specific products have become
largely associated with specific districts. Each production
locality has its specific strengths and other attributes,
which developed and capitalised on could lead to district
or product specialisation, easy sourcing and marketing.

Basketry and Mats

Basketry and mats are the most popular craft products
in Uganda. The type, design and price of these depend
on type and source of materials used. Colours used are
diverse (vegetable dyes, mineral dyes, combination of the
two, natural colour of the materials themselves, among
others) but the most preferred colour by the markets is
the natural colours. Locally, these products are demanded
for traditional functions like marriages and externally in
markets like USA, Germany, Italy, Netherlands, Canada,
Japan, etc for table-top accessories such as table and
plate mats, fruit bowls, bread baskets, coasters, beach
mats, and floor mats etc. Each of these markets has
its own colour combination preferences, sizes and
offer different price ranges even for similar products. The most popular basket is the coiled basket, which is available in different colour-ways, shapes and sizes. In order to enrich this sub-group, introduce new styles, and innovative products, there is need to develop ‘cross-overs’ through materials combination and techniques of crafting. This calls for artisans with wider skills or those that could cluster with artisans in other sub-groups.

Embroidery and Woven products

Embroidery (both by hand or with the use of sewing machines), as a soft furnishing adornment on clothing, has been in use for a long time. The technique has largely remained under exploited – left only to casual dressing, table cloth, cushion covers and more recently on bags and purses. The bulk of embroidered and woven products with varying quality are consumed locally. Europe is by far the major market for these items – that are mainly sold through Alternative Trading Organizations. Wider application of embroidery methods could be introduced in minimal levels to hand loomed products and leather to create new looks.

Hand Textiles and Hand-loomed Products

Under this category, Uganda is producing a range from bed spreads, towels, cushion covers, wrappers, shawls, rugs, tie and dye materials, casual wear (dresses, shirts and children wear). The warping/construction, surface design and thread types/texture vary widely across the sub-groups. Tourist and foreign residents in Uganda form part of the local market with Europe (Italy, Germany) as the main export markets for this range of products.

Ceramics and Pottery

It is believed that the first pottery was pressed/formed in a basket to give them the shapes, which after drying were fired in an open kiln. By and large, Ugandan pottery is unglazed which could give us an advantage in the market where glazed pottery (ceramics) attracts higher tariffs and health consciousness in addition to big competition from suppliers from the Far East.

Leather and Leather Products

Green leather alone or in combination with other woven or plaited materials is increasingly employed by Ugandan artisans to make bags, purses, belts, and sandals, among others. Recent interventions in this sub-sector have seen new Uganda-made leather products replacing the previously sourced products from neighbouring countries.

Wood products

Wood as a raw material for making handicrafts in Uganda has not been at same levels with that of Tanzania or Kenya. Products in this category have remained very traditional with rationalised skills for example milk containers (Ebyanzi) from Western Uganda, and Karamajong headdress from North Eastern Uganda. The introduction of taxes on handicraft imports from neighbouring countries has created room for Uganda to develop her own style and range of wooden products. Notable products are top table accessories, animal and human figurines and the two-piece type chairs adopted from neighbouring DR Congo. Much potential in this category lies in developing better top table accessories such as bowls, napkin holders, chests of varying sizes and utilizing some of our better woods like ebony that could be sourced from Nebbi as opposed to the light Jacaranda which is commonly used. The weight of wood and natural streaks are some of the factors influencing quality and value of finished items. The Neem tree is also another wood that could offer qualities almost similar to Olive wood for which Kenya has become internationally known.

Jewellery and Jewellery Products

Humans have adorned themselves with jewellery as far back as history can tell. In Uganda, people have used jewellery derived from animal parts such as bone, horns, feathers, teeth, to stone, seeds, wood, clay and precious metals, etc to adorn themselves. However, in the commercial crafts sector jewellery is relatively new with imported beads as necklaces, bangles, waist beads, etc dominating the local market. Earrings and finger rings are the other items in the sub-group. Tribal inter-marriages afford Uganda the opportunity to introduce new products to the market.

Others

As more and more ‘cross-over’ combination of materials, techniques and functionality is employed, new product groups are likely to emerge. The “cross-overs” with their new looks, will not only extend the lifespan of products but will also enable compliance with trend changes. It could also lead to unique Ugandan styles and brands as established in other exporting countries e.g. the sisal bag (Kyondo/Kikuyu bag) from Kenya, ebony carvings from Tanzania, raffia bags from Madagascar, kente cloth from Ghana, etc.
The Priority Strategic Areas and action plan

The overall objective of Handicrafts Sector Export Development Strategy (HANDSEDS) is to develop the handicraft sector in Uganda as a substantial foreign exchange earner by building the capacity of handicraft producers and exporters to meet international standards and to penetrate international markets. Pursuant to this HANDSEDS focuses on 5 priority strategic areas as follows:

- To enhance the capacity of producers to increase the diversity, volumes and improve the quality of crafts to respond to market opportunities
- To build capacity of sector operatives at all levels for skills and competence enhancement
- To promote trade facilitation with particular emphasis on export financing in the sector
- To pursue aggressive market development programmes
- To establish effective stakeholder coordination mechanism for sector activities support

2.9: Conventional and organic fruits (horticulture) sub sector

Horticulture is one of the farm forestry enterprises whose production is done on small scale. Most of the horticultural produce are sold or consumed in unprocessed form without value addition and consequently giving low incomes to farmers. Besides, the existing fruit production, does not guarantee steady and continuous supply of raw materials to attract investors, fruit processors and international traders.

Fruits also present transportation and storage problems due to lack of appropriate handling facilities from farm level to markets. They are highly perishable thus necessitating preservation technologies to prolong their shelf life. In addition these crops are grown in various places in the country, making it difficult to have an impact in terms of zonal production. The major constraints that limit fruit production in Uganda are:

- Very small quantities of the quality fruits
- High perishability of fruits after harvest to around 30% crop loss
- Bulkiness of the produce which makes transport costly
- Lack of diversified uses of the fruits
- Lack of appropriate fruit processing technologies for value addition
- Lark of favourable markets to stimulate the growth of fruit sector
- Very low prices for the fruits especially in the rural area

There are numerous fruit crops grown mainly on subsistence system and consumed in Uganda. The horticultural crops mainly promoted under farm forestry are mangoes, pineapples, passion fruits, jackfruits, guava, lime and juice bananas.

Production, processing and marketing of the mentioned fruits are considered crucial in order to promote the growth of horticulture industry in Uganda. The fruits are produced, marketed and consumed widely in Uganda. However fruit processing and quality standards are still in their infancy stage. Fruits can be processed into; dried products, juices, concentrates, powder and alcohol.

Fruit processing saves on the wastage of excess fruits which cannot be utilized fresh. Processing also adds value to perishable produce by transforming them into products with long shelf-life which fetch high income than unprocessed ones.

The by-products such as essential oils can be used in food flavouring and cosmetics industries. The rejects and waste can be constituted into animal feeds.

The National Agricultural Research Organization (NARO) has already initiated research work on the mentioned fruits in the area of variety evaluation, generation of planting materials, and production requirements. However, cultivation of most of these crops has not expanded mainly due to lack of processing and marketing systems. This has kept farmers in a vicious cycle of poverty and hunger because of fear to invest and expand crop production. The current demand for fruit products both for internal market and for export in Uganda is enormous. MBS Fruit Agencies limited (producers of Romi wine, Black bull waragi, whisky and fruit wine) and Britannia (Producers of juices) are examples of fruit processing factories in Uganda. Britannia fruit processing factory which started by processing 50 tons of mangoes and pineapples per year has expanded to present processing capacity of 1,000 tons of fresh mangoes per year. The factory can also take up and promote the products
developed by research. However, since these crops are seasonal, the factory is still importing raw materials to fill the gap. This greatly justifies the need for Ugandan farmers to expand their fruit production in order to meet the demand of such produce.

Box 4: Conditions for growing various fruits in Uganda

**Mango (Mangifera indica)**
Mango originated in the Asian Indo-Burma region. It has been taken to all parts of the tropical world and has become naturalized in many areas. Mangoes are grown at elevations from sea level to 1200 m in the tropics, but they do best below 600m and in climates with strongly marked seasons of dry weather for flowering and fruiting. In the ever wet tropics, heavy rains during this period cause a marked reduction in pollination, fruit set and maturing of the fruits. The optimum temperature is 24-27 °C and annual rainfall of 250-2500mm provided there is an adequate dry season. The crop thrives on a wide variety of soils which are not too waterlogged, too alkaline or too rocky. Mangoes prefer pH of 5.5-7.5 and can even be grown on shallow, impervious soils. Very fertile soils with adequate supplies of water through out the year may result into a luxuriant vegetative growth and poor cropping. Mangoes have a tendency to biennial bearing which is usually influenced by climate and cultivar. A high C/N ratio is required for flower initiation and this may sometimes be influenced by fires.

Most mangoes produced in Uganda are consumed fresh in local markets although there a number of small and medium scale industries such as Britannia, Delight, Romi and Jacana who are using mangoes as raw material in the processing of fruit juices and fruit wines.

**Pineapples (Ananas comosus)**
Pineapple is a native to tropical regions of the South America and was grown in the new world for food, medicine and wine. The crop is grown in most tropical and sub-tropical countries where temperatures are moderate, between 16 - 32 °C and annual rainfall of around 1,300 mm is evenly distributed throughout the year.

The world’s major producers of pineapples are, as from the highest, Hawai, Brazil, China, Mexico, Malaysia and Philippines. The crop is mainly cultivated for local consumption, canning of the flesh or juice and extraction of leaf fibres.

In Uganda pineapples are grown widely throughout all regions of the country for domestic consumption and supplying local markets. However, of late many small and medium scale industries have established facilities for solar drying of pineapples chips for export to European countries like Germany and Denmark which opens up prime market for pineapples. Equally, juice making plants have generated abundant demand for pineapples.

**Jack fruit (Artocarpus heterophyllus)**
Jack fruit originated in India and spread throughout the tropics. In Uganda the crop is found mainly in the central region but the crop exists in almost all parts of the country. The crop is well adapted to tropical lowlands but it can also grow at high altitudes and prefers deep well drained alluvial soils.

Jack fruit can be eaten fresh as ripe fruits or in dried form. The seeds are boiled and roasted and have a chestnut flavour. The unripe fruits can be used as vegetable. The yellow heart wood is a valuable timber while the rind can be fed to animals. The trees can provide shade for coffee plants.
Guavas (Psidium guava)
Guava is native to tropical America and was spread throughout the world’s tropics. It grows well in a wide range of environments and soils in Uganda. Optimum production occurs in tropical regions below 1300m in elevations where the soil is fertile and rainfall is regular. Guavas can however tolerate drought low fertility soils waterlogged and pH values ranging from 4.5 – 8.2.

The major producing countries are India, Mexico and Brazil. In Uganda guava is mainly found in the hot and humid central region but it also occurs in other parts of the country in all types of climates. Guava can be eaten fresh and its rind is rich in vitamins C and A, minerals, Iron, calcium and phosphorous. The crop can be processed into products such as jam, jelly paste, juice and nectar.

Passion fruit (Passiflora edulis)
Passion fruit originated in Brazil and was spread to tropics and subtropics. There are different types of passion fruits in Uganda namely: small purple (Passiflora edulis f. edulis), yellow (P. edulis f. flavicarpa), hard shell (P. maliformis), giant passion fruit (P. quadrangularis), sweet granadilla (P. ligularis) and Kawanda hybrid (a cross between small purple with yellow type). The commonly grown passion fruits for food and income generation in Uganda are the small purple, yellow and Kawanda hybrid. The small purple does well in highlands while the yellow type prefers lowland areas. An average annual rainfall of 750-1,250 is suitable for the crop as too much rain can interfere with pollination. The crop does not grow well on heavy and poorly drained soils.

Currently the production of passion fruits in Uganda is declining due to a number of production constraints, the major ones being virus disease complex, collar rot, fruit spots, pests, low fertility and unpredictable rains. There is also lack of training of farmers on how to manage some of these problems. The crop is mainly eaten fresh, used for juice production, fruit salad, food recipes, jam and jellies.

Lime (Citrus aurantifolia)
Lime originated in India and spread to tropics. The crop can survive on poor soils. World producers of lime include Mexico, Dominica and Egypt. Lime is used for fresh juice and flavouring of food. It is also used to produce important commercial products such as limeade, lime juice, cordial and marmalade, citrus acid, lime oil.

Bananas (Musa spp)
Bananas originated in South–east Asia. The crop does well in tropical and sub tropical regions with temperatures between 5o – 42oC. The best production occurs where rainfall is abundant and is well distributed throughout the year. In areas with either a pronounced dry or cool season, yields are reduced and production tends to be seasonal. The best yields occur in soils, which are high in inorganic matter, retain moisture and contain abundant amounts of nitrogen and potassium. Soil pH of 6–7 favours crop growth although the crop can grow in a wide range of soils with good drainage. Uganda is largest producer and consumer of bananas in the world. Other countries producing bananas include Tanzania, Cameroon, Malaysia, Taiwan, Philippines, Honduras, Costa Rica and Panama. Bananas can be eaten ripe as desert, cooked or roasted. There are varieties which are used to produce juice which can be consumed fresh or made into beer. The leaves can be used as wrapping and mulching materials, and in making hand crafts. Bananas peelings can be fed to animals.

Source: Consultant discussions with NARO-Kawanda Officials 2009
Table 5: Cash flow for growing mangoes per hectare

<table>
<thead>
<tr>
<th>Cost Item/Activity</th>
<th>Physical</th>
<th>Financial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Unit cost (Ushs)</td>
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<tr>
<td><strong>A: Input</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbicides</td>
<td>15</td>
<td>12,000</td>
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<tr>
<td>Pesticides (l)</td>
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<td>6000</td>
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<td>Manure (tones)</td>
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<tr>
<td>Transportation</td>
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<td>1000</td>
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<tr>
<td><strong>Subtotal</strong></td>
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<td></td>
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<tr>
<td><strong>B: Labour</strong></td>
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<tr>
<td>Pruning/ thinning</td>
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<td>1,500</td>
</tr>
<tr>
<td>Fertilizer Application</td>
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<td>1,500</td>
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<td>Pesticide application</td>
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<td>Herbicide application</td>
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<td>Weeding</td>
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<td>Mulching</td>
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<td>Post-harvest operations</td>
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<td>Other Labour costs</td>
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<td><strong>Subtotal</strong></td>
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<td><strong>Total costs</strong></td>
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<td><strong>Yield (kg)</strong></td>
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<td>Farm gate prices</td>
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<td><strong>C: Profitability</strong></td>
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<td>Gross value of output (shs)</td>
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<tr>
<td>Net Profit</td>
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<td></td>
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<tr>
<td>Output: Input ratio</td>
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</tbody>
</table>

2.10: Natural ingredients Sub Sector

The natural ingredients sub sector is one of the least known and yet most active enterprises as reported in the National Pre-assessment Study 2003 by UEPB and UNCTAD.

A multiplicity of players is active in the sector including the public and private sector, development partners, and NGOs (community based, local and international). A number of initiatives are ongoing that directly support or compliment the trade in natural ingredients. Government and Development partners are involved in research and development, development financing, laboratory services, conservation and the enterprise support through programme and project approaches. It is however observed that the players in the sector act in oblivion of the existence of the others, and therefore no networks or coordination mechanisms are registered in the sector.

In regard to current policy frameworks, none explicitly supports the development of the natural ingredients but rather the sector is accommodated within the general development frameworks such as the PMA and PEAP policy that emphasize commercialization of agriculture and the sustainable use of natural resources for poverty alleviation.

Sourcing strategies

The production of natural ingredients is mainly by small producers across the country and wild collections also constitute a significant supply for the buyers. Commonly produced are Aloe (vera and ferox), Shea nut, Papain, Citronella, Lemon grass, Garlic, Prunus Africana, Warburgia, Pyrethrum, and Neem. The products are supplied in raw form with minimal value addition (drying). Out grower schemes are also a common practice for production where the buyer mobilises the small producers and buys off their supplies. Wild collections emanate from Protected Areas regulated by the Government. Enforcement of regulation is however very weak as
cases of unsustainable harvesting and the depletion of the resource base are still reported. Products such as Shea butter are sourced from the communal lands that constitute private and public land ownership.

Processing is undertaken at two different levels, by small producers using rudimentary technologies (galvanised grinders, locally fabricated distillers, mortar grinders, etc.) for powders and crude essential oils, and by large companies using modern technologies for extraction and distillation processes. No standards exist for the processing of natural ingredients in Uganda and the large companies tend to work along the buyers’ specifications. It is interesting to note at this level that even the large companies producing extracts and essential oils still produce crude products – not refined to the buyers’ specific requirements. It is therefore common to find companies contacting out the refining process to factories in Europe to complete the processing.

Marketing

In regard to trade in natural ingredients, no data is available in the country’s statistical database (domestic and export). Companies have however exported raw materials, ingredients and finished products to the regional and a few international markets. Countries cited in the regional market are Kenya, Tanzania, South Africa, Rwanda, etc.

The local market for ingredients and finished goods is very vibrant as demonstrated by the number of shops, kiosks, open markets, etc selling the products. A few industries produce herbal medicines and household and cosmetic products, but most of these use imported ingredients for the reason that the local suppliers did not meet their specifications.

At the enterprise level, the majority of companies active in the sector are micro and small in nature, with small volumes, semi processed products and tend to supply the local and the regional markets. The second category of companies are the medium sized companies, these have out grower producer schemes, with in house or collaborative arrangements for research and development, producing for export and with direct linkages to buyers on the international market.

The sub-sector largely relies on the exploitation of the country’s rich biodiversity and indigenous knowledge. But there is lack of an adequate coordination mechanism between the sub-sector and other authorities within which Uganda’s rich resources could be sustainably exploited for the benefit of her peoples. There is therefore need for an integrated, multi-sectoral framework to promote conservation of the local biodiversity and utilization of indigenous knowledge for the sustainable utilization and development of the sub-sector.

The potential of medicinal plants sub-sector to contribute to the national economy through industrialization and commercialization has not yet been fully exploited in Uganda; the low level of industrialization in the country is partly responsible for this. There is no comprehensive research on investments in this subsector and there establishment of the exact numbers of SMEs in the sub-sector. However practitioners in herbal medicine business are spread all over the country on small household levels. Of late there are few commercial cases like Samona herbal products limited and Uganda Alovera association among others who are all Kampala based.

It is estimated that over 80% of the Ugandan population relies on herbal Medicine practice for both health and economical needs (Bannerman, 2004). Medicinal plants for herbal medicine are widely utilised in Uganda, sometimes in isolation or to complement allopathic medicine due to cost effectiveness and local availability. The sub sector has contributed to poverty alleviation and national economy through trade in medicinal plants, products and other medicinal resources. The potential of TM to contribute meaningfully to the national economy through industrialization and commercialization has not yet been fully exploited in Uganda. The sub-sector mainly employs individuals who at the same time are the owners of the enterprises with indigenous knowledge of medicinal plants and the respective ailments they treat.
Table 6: Some of the medicinal plants in Uganda

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Scientific name</th>
<th>English name</th>
<th>Local names</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adansonia digitata</td>
<td>Boabab</td>
<td></td>
<td>Skin disease</td>
</tr>
<tr>
<td>2</td>
<td>Allium cepa</td>
<td>Onion</td>
<td>Kitunguu (S) Basala (Lg)</td>
<td>Fungal infection</td>
</tr>
<tr>
<td>3</td>
<td>Allium sativa</td>
<td>Garlic</td>
<td>Basala sumu</td>
<td>Scabies</td>
</tr>
<tr>
<td>4</td>
<td>Aloe ferox</td>
<td>Aloe</td>
<td>Nzo</td>
<td>Absscess closed</td>
</tr>
<tr>
<td>5</td>
<td>Amaranthus gracilis</td>
<td>Amaranth</td>
<td>Dodo</td>
<td>Absscess open</td>
</tr>
<tr>
<td>6</td>
<td>Ananas comosus</td>
<td>Pineapple</td>
<td>Nanasi</td>
<td>Herpes</td>
</tr>
<tr>
<td>7</td>
<td>Arachis hypogaea</td>
<td>Peanuts</td>
<td>Funyo</td>
<td>Insecticide</td>
</tr>
<tr>
<td>8</td>
<td>Artemisia annua</td>
<td>Annual wormwood</td>
<td></td>
<td>Insectifuge</td>
</tr>
<tr>
<td>9</td>
<td>Azadirachta indica</td>
<td>Neem</td>
<td>Neem</td>
<td>Hamorrhoids</td>
</tr>
<tr>
<td>10</td>
<td>Bixa orellana</td>
<td>Annato tree</td>
<td></td>
<td>Burns</td>
</tr>
<tr>
<td>11</td>
<td>Brassica oleracea</td>
<td>Cabbage</td>
<td>Kebeji</td>
<td>Wounds</td>
</tr>
<tr>
<td>12</td>
<td>Cajanus cajan</td>
<td>Pigeon pea</td>
<td>Burusu (Lg), Lapena (Luo)</td>
<td>Venomous stings</td>
</tr>
<tr>
<td>13</td>
<td>Canarium schweinfurthi</td>
<td>Elems</td>
<td></td>
<td>Oedema</td>
</tr>
<tr>
<td>14</td>
<td>Canabis sativa</td>
<td>Indian hemp</td>
<td>Bi nyiri</td>
<td>Pertussis</td>
</tr>
<tr>
<td>15</td>
<td>Capsicum frutescens</td>
<td>Chilli</td>
<td>Onzaia</td>
<td>Cough</td>
</tr>
<tr>
<td>16</td>
<td>Carica papaya</td>
<td>Pawpaw</td>
<td>Paipai</td>
<td>Bacillary dysentery</td>
</tr>
<tr>
<td>17</td>
<td>Cassia alata</td>
<td>Ringworm bushfever</td>
<td></td>
<td>Carries prevention</td>
</tr>
<tr>
<td>18</td>
<td>Cassia occidentalis</td>
<td>Coffee Senna</td>
<td>Kalijuku</td>
<td>Hepatitis</td>
</tr>
<tr>
<td>19</td>
<td>Cassia spectabilis</td>
<td>Cassia Spectabilis</td>
<td></td>
<td>Fever</td>
</tr>
<tr>
<td>20</td>
<td>Cinchona succirubra</td>
<td>Cinchona</td>
<td></td>
<td>Urinary infection</td>
</tr>
<tr>
<td>21</td>
<td>Citrus limon</td>
<td>Lemon tree</td>
<td>Ndima draza</td>
<td>Sore throat</td>
</tr>
<tr>
<td>22</td>
<td>Citrus sinensis</td>
<td>Orange tree</td>
<td>Ndima aluza</td>
<td>Intestinal worms</td>
</tr>
<tr>
<td>23</td>
<td>Coffea species</td>
<td>Coffee tree</td>
<td>Kawa</td>
<td>Amoebiasis</td>
</tr>
<tr>
<td>24</td>
<td>Cola acuminata</td>
<td>Cola</td>
<td></td>
<td>Malaria</td>
</tr>
</tbody>
</table>

Sources: Natural Chemotherapeutics Research Laboratories (Ministry of Health), Wandegeya

Table 7: Case study for production cost of Ocimum kilimandscuricum; mujaaja project of Natural Enterprises DEvelopment (NED) LTD

<table>
<thead>
<tr>
<th>No.</th>
<th>Activity</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Primary cultivation</td>
<td>1 acre</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>2</td>
<td>Secondary cultivation</td>
<td>1 acre</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>3</td>
<td>Seedlings</td>
<td>400</td>
<td>100</td>
<td>40,000</td>
</tr>
<tr>
<td>4</td>
<td>Transport of seedlings</td>
<td></td>
<td>15,000</td>
<td>15,000</td>
</tr>
<tr>
<td>5</td>
<td>Planting</td>
<td>2 man-days</td>
<td>2,000</td>
<td>4,000</td>
</tr>
<tr>
<td>6</td>
<td>First weeding</td>
<td>5 man-days</td>
<td>3,000</td>
<td>15,000</td>
</tr>
<tr>
<td>7</td>
<td>Second weeding</td>
<td>5 man-days</td>
<td>3,000</td>
<td>15,000</td>
</tr>
<tr>
<td>8</td>
<td>Harvesting</td>
<td>15 man-days</td>
<td>3,000</td>
<td>45,000</td>
</tr>
<tr>
<td>9</td>
<td>Drying shed construction</td>
<td>3 man-days</td>
<td>20,000</td>
<td>60,000</td>
</tr>
<tr>
<td>10</td>
<td>Drying labour</td>
<td>15 man-days</td>
<td>3,000</td>
<td>45,000</td>
</tr>
<tr>
<td>11</td>
<td>Bagging</td>
<td>10 bags</td>
<td>500</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>Total cost</td>
<td></td>
<td>344,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>1,000 kg</td>
<td>700</td>
<td>700,000</td>
</tr>
<tr>
<td></td>
<td>Income</td>
<td></td>
<td>356,000</td>
<td></td>
</tr>
</tbody>
</table>

N.B. The above cost estimates are for growing one (1) acre of the medicinal plant.
Box 5. PEAP priority government actions in the Forest Sector

- Enhance implementation of the National Forest Plan

- Promote private sector investment in privately owned forests, through provision of information and technical advice on the management of forests; providing permits to grow trees in central forests reserves with secure land and tree tenure; reviewing tax and other disincentives; through the continued operation of the Saw log Grant Scheme and establishing a Tree Fund in accordance with the National Forestry and Tree Planting Act.

- Promote the establishment of community woodlots through the launch of the DFS for extension and advisory services to private and community members interested in tree planting, and for promotion of tree planting.

- Further develop the National Tree Seed Centre; establish a framework for decentralized seed production. The establishment of a National Tree Fund may help communities’ access necessary resources.

- Investigate the possibility of benefiting from commercial markets for ecological services such as carbon trading in global markets, in line with the Kyoto Protocol.
3.1: Influence and effectiveness of policies on SMFEs in Uganda

3.1.1: The Ugandan Policy and legislation Context relevant to SMFEs

Uganda has a number of distinct policies and laws that influence the development of the SMFEs sub sector. The following review of the key policies and laws necessarily goes well beyond forest policy and legislation, as SMFEs are typically operating in a much broader development policy framework. Some of the relevant legal and policy framework which affect SMFEs in Uganda are discussed in this section.

3.1.1.1: Poverty Eradication Action Plan (PEAP)

The PEAP, the government Poverty Reduction Strategy Paper (PRSP) is the major strategy for the government to transform the Ugandan economy. It focuses on and is guided by the desire to eradicate poverty. The PEAP has five pillars and Pillar 1 and Pillar 2 are the relevant ones for this study. Pillar 1 deals with economic management while Pillar 2 deals with production, competitiveness and incomes. Both highlight the need for continued growth in private investment and trade in Uganda in order for it to meet the objective of rapid and sustained GDP growth. A very large part of the population is engaged in subsistence agriculture and SMFEs at its broadest context including crafts, fruits, commercial tree planting, medicinal plants and apiculture among others. These SMFEs can make a difference to the livelihoods of rural based subsistence farmers as well as urban dwellers.

Since the PEAP is a guide for other government policies and is implemented through various national policies, it is not possible to assess the impact of the PEAP on the SMFEs in terms of production and trade. Its influence should rather be seen in agricultural, sector specific and trade policies. It is also important to note that PEAP is due to expire and a new National Development Plan (NDP) will take effect from 2010/2011 Financial year. The focus is slowly shifting away from merely poverty eradication to development, and hence the name.

3.1.1.2: Plan for Modernisation of Agriculture (PMA)

Perhaps the most elaborate strategy for the transformation of subsistence production into commercial production is being pursued through the PMA. It is a multi-sectoral policy framework for government action to transform small-scale agriculture in Uganda that was launched in 2000. It seeks to contribute to Pillar 2 of the PEAP which is concerned with directly increasing the ability of the people to raise their incomes.

The PMA was established in response to perceived failure of macroeconomic strategies to reach the productive sectors and deliver on poverty eradication objectives. The economic growth generated in the mid-1990s was not reaching the majority of poor people who earn their livelihood from agriculture and natural resource based enterprises and thus PEAP proved inadequate to deal with poverty.

The Plan for Modernization of Agriculture includes forestry as one of the sub-sectors that will lead to improvement of rural livelihoods. PMA seeks to reduce poverty through the Non-sectoral Conditional grant (NSCG) which is money given to LGs to assist rural communities to carry out community projects (i.e. geared at solving common problems that keep their incomes low). This money should benefit the whole community including the poor forest dependent producers. While the use of NSCG is not restricted to agricultural production projects, the money to date only benefits agricultural production projects with no single forest related project. Under the
PMA, National Agricultural Advisory Services (NAADS) is designed and expected to assist natural resource users including those involved in SMFEs to obtain technical advisory service services. The SMFE groups would then use government funds (plus a small contribution of their own-2%) to contract in services from private sector providers. However NAADS annual reports indicate that it mainly focuses on agricultural production in the case of this study covering horticulture and Apiculture with so far no forest advisory services provided to commercial tree planting, handicrafts, medicinal plants and any other wood enterprises.

3.1.1.3: Competitiveness and Investment Climate Strategy (CICS)

Other policy interventions will be required to relax constraints and ensure supply response. The Competitiveness and Investment Climate Strategy is concerned with creating an environment in which business can thrive. In agriculture these include supply/provision of inputs, improved infrastructure and better institutional support. The reference to infrastructure would depend on financial and budgetary provision which fall under the ministry of Finance. Added to infrastructure is the funding or resources for implementation in each district. Again this is the responsibility of the ministry of Finance. In this regard, the Medium- term Competitiveness Strategy had the objective to reform infrastructure provision, financial system to better service the business sector’s requirements, the tax administration system and commercial judicial system. A follow up arrangement to the MTCS is the Competitiveness and Investment Climate Strategy (CICS) (2006-2010), which focuses on competitiveness and investment climate. It has a vision to increase export earnings to US$2 billion per annum. Since the CICS targets removing barriers to business operations and creating an environment conducive to business, its impact on trade in general and on fruits and vegetables trade in particular is difficult to measure. The barriers to production and trade which impact on fruit and vegetable trade are still very much in existence. CICS was launched in 2006 and appears not to have made much impact on removing the barriers to production and trade so far.

3.1.1.4: Forest policy

The stated goal of the National Forest Policy (2001) is to achieve: “An integrated forest sector that achieves sustainable increases in the economic, social and environmental benefits from forests and trees by all the people of Uganda, especially the poor and vulnerable”. The policy includes a number of policy statements and strategies on specific areas. For the purposes of this study, Table 8 below summaries the relevant policy statements, the SMFEs concerned and the impact of government interventions on SMFEs development.

Table 8: Relevant policy statements from the National Forestry Policy (2001) for SMFE development

<table>
<thead>
<tr>
<th>Relevant Policy Statement</th>
<th>SMFEs concerned</th>
<th>Government intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent forest estates on government land (Policy Statement 1) Forestry on private land (Policy Statement 2) and forest biodiversity conservation (Policy Statement 7)</td>
<td>Bee keeping for bee forage, Medicinal plants and handicraft material supply.</td>
<td>• For bee keeping, interventions have been done through NAADS, FIEFOC programme which offer advisory services on primary production.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• For medicinal plants and handicrafts apart from research and Export market linkage respectively</td>
</tr>
<tr>
<td>Commercial forest plantations (Policy Statement 3), supply of tree seed and planting material (Policy Statement 11) and Forest products processing industries (Policy Statement 4)</td>
<td>Commercial tree planting, commercial tree nursery and value addition to timber and timber products.</td>
<td>• Through SPGS programme, private tree planters and community groups have been supported through technical and input subsidies. However minimum support is provided in enterprise development for the planters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Further support has been provided to plantation contractors through training but without corresponding capital support. Support has been</td>
</tr>
</tbody>
</table>
Collaborative forest management (Policy Statement 5);

This policy statement enables access to forest resources by communities to undertake Enterprises both in Non-timber and timber sectors.

NFA and some CSO have supported forest-edge communities to undertake CFM initiatives around major CFRs like Budongo, Mabira, Kasyoha-Kitomi, Sango Bay and Bugoma among others. This has facilitated regulated access to non-timber products and land for tree planting. However, the question of revenue sharing has remained unresolved yet there is no specific funding for commercialization of SMFEs for CFM groups.

Farm forestry (Policy Statement 6);

This relevant for initiatives for horticulture and domesticated herbal plants.

Through NAADs and FIEFOC programme, support has been provided for SMFEs in horticulture in form of seedling and advisory service provision although additional support is needed in business development services, processing and marketing if commercialization is to be realized.

No support has been provided to SMFEs in medicinal plants.

However, reports from field visits suggest that most beneficiaries of commercial plantations support initiatives by NFA are financially capable individuals or companies. There are limited incentives for the poor to invest in commercial tree-planting. Yet, discussions with those who have invested in commercial tree-planting indicate that it costs approximately sh1m to clear the ground, procure seedlings, pesticides and hire workers.

It should not be a blow to NFA that forest degradation is on the increase because the wealthy individuals who have leased land in forest reserves are just interested in making money and are not bothered about maintaining the integrity of the natural resource base while the poor who leased land cannot afford the costs involved in commercial tree-planting. The poor also have immediate pressing needs that cannot wait for trees to mature. In fact evidence on the ground indicates that some of the poor, who leased the land instead of planting trees, have established rice and maize gardens in forest reserves. Therefore, while the Saw log Production Grant Scheme may create employment and provide incentives for a few who are rich to invest in commercial tree planting, its capacity to deliver on poverty eradication and sustainable forest management is highly doubted because it leaves out the poor. The assumption that large scale commercial plantations will boost economic development which will trickle down to the poor; that it will pay taxes and reinvest its profits productively and provide jobs and income is flawed.

In light of the above, in addition to focusing on commercial tree-planting, NFA, civil society and the private sector should also provide incentives to enable the poor to invest in forest conservation and meet their short term needs. Such incentives may take the form of forest-based enterprises and saving schemes that provide a secure place for the poor to save and borrow in modest amounts. However, for these forest-based enterprises to lead to conservation, they must be commercially viable, done on a large scale and capable of delivering significant benefits to the community. The development of local forest-based enterprises represents an opportunity for strengthening the livelihoods of the poor, forest dependent people, at the same time providing economic incentives to conserve forests through sustainable management.

3.1.1.5: Agriculture Policies

The lead institution in the formulation of agriculture
policies and supervision of production performance is the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). Agricultural policy is formulated in accordance with both the PEAP and PMA. The mission of MAAIF is to support efforts to commercialise the sector, while its specific mandate is to guide, support and promote the production of crops, livestock and fisheries through the provision of services primarily focussed on resource-poor farmers/fisher folk. In this regard, trade policies relating to agricultural production should come alive and encourage trade of produce through increased production. Fruit, vegetable and natural ingredients production fall under MAAIF’s department of Crop Production and Marketing; while apiculture falls under department of animal health and entomology.

3.1.1.5.1: Sectoral policies under Agriculture

a. Fruits and vegetables

There is no policy on fruits and vegetable production and trade per se but aspects of the policy can be traced by inference in various policies, strategies and institutions.

b. Draft Horticulture Production Policy

There is a draft horticulture policy and a draft strategy on fruit and vegetable production developed in 2006. Review of the current situation in the horticulture sector shows that the largest segment of horticultural production comprises an assortment of tropical fruits such pineapples, bananas, passion fruit, papaws, avocado pears, mangoes, citrus and jack fruit. A variety of vegetables including cabbage, tomatoes, onions, capsicum, chillies, eggplant, beans and other local/indigenous types are also grown. According to the draft policy, interventions mainly to transform subsistence agriculture to commercial sought to achieve the following:

- Multiplication and distribution of planting materials to raise fruit hectarage by 40,000 hectares;
- Streamlining standards for the export markets;
- Promotion of exports by way of production villages, collection centres and picking facilities;
- Rehabilitation of targeted irrigation schemes to increase exports and
- Promoting the formation of an apex horticultural development organisation.

The interventions achieved the establishment of mother gardens for mangoes, passion fruit, citrus and avocado pears as well as the training of nursery managers and production and distribution of 80,000 grafted plant materials. These developments are a basis upon which production could be increased leading to higher fruit exports. In addition, stakeholders were sensitised about export quality and standards; 6 collection centres with charcoal coolers were established in a number of districts. Further measures include trade promotion missions to France and Switzerland and the establishment of a tissue culture laboratory. All these can be noted as significant steps towards improving fruit production and exports. However, these developments could benefit from a coordinated policy for fruit production and export although it is also not clear how much more production and exports such a policy could achieve.

The department of Crop Production and Marketing developed strategies and guidelines for the selection of horticultural enterprises and the required research programme building on an FAO project carried out between 1989 and 1994. The strategy for popularisation of fruit production required fruit tree nurseries. The ministry together with NaCCRI established 2,600 m2 capacity nurseries. Moreover, there has been a wide acceptance and establishment of private nurseries country wide which have boosted fruit production and has established a basis for exports of fruits.

As a result of these initiatives but especially the horticulture programme, there has been improvement in large scale fruit farming especially for mangoes and citrus fruits. This is a critical part of the strategy for expanding fruit production to satisfy the Ugandan market with surplus for export. The ministry holds the view that quality can be improved if quantities increase stirring up competition in the market. However, not much has been done about vegetable research, development and production although Uganda produces a variety of vegetables including okra, cabbage, ginger, tomatoes, hot pepper and chillies. While the Ministry of Agriculture does not have a policy to stimulate production and export of fruits, interventions so far have created awareness of the business opportunities arising from growing fruits and the health implications for consumption in the home.

c. Apiculture

A number of strategies and plans have been put in place to promote apiculture in Uganda as a commercial activity as discussed below.

The National Export Strategy (NES, 2007) sets in place a framework for supporting export development of Uganda’s priority sectors which include, amongst
others, commercial crafts and natural ingredients (such as honey and beeswax). The Uganda Bio Trade Program as one component of this strategy ‘provides support to businesses that are interested in exporting to the EU markets. The support is provided by exposing enterprises in trade fairs, training on export readiness, help with finding buyers and assistance to meet quality standards.

The National Residue Monitoring Scheme – with reference to honey – was developed in 2005 and has been maintained since that time. Meeting this requirement enables Uganda to be listed among the EU’s list of ‘third countries’. Honey will only be accepted into the EU if it originates from a country on this list. Meeting the requirement allows Uganda’s exporters to access the EU’s 27-country-strong markets, ahead of many other African countries not on this list.

In 2004 The Uganda honey standard was developed to be a guide to practitioners in the industry, notably processors, packers and exporters. The standard is under the custodianship of Uganda National Bureau of Standard (UNBS), the competent authority for all national standards.

The Draft Apiculture Policy (2005) has been tabled before the Cabinet for approval. Once approved, the policy will be a key driver to boost investments in the sector and hence increase the volume of trade in bee products. It is also intended to protect producers from external negative forces.

In 2005, Uganda developed the Apiculture Export Strategy, championed by Uganda Export Promotion Board. The Strategy aimed at identifying and addressing critical issues relating to developing Uganda’s export capacity for honey and other bee products, and this included issues to do with supply chain development. To support the Strategy, the Ministry of Agriculture Animal Industries & Fisheries (MAAIF) has developed a mechanism with the customs authority (Uganda Revenue Authority) under which value addition equipment / materials imported into the country are exempted from taxes. This is a good incentive for the private sectors to invest in value addition of bee products.

There are also other national guidelines for the apiculture sector, especially Codes of Practice, and Standard Operating Procedures for producers, processors, packers and exporters.

d. Natural ingredients

In regard to current policy frameworks, none explicitly supports the development of the natural ingredients but rather the sector is accommodated within the general development frameworks such as the Plan for Modernisation of Agriculture (PMA) and Poverty Eradication Action Plan (PEAP) policy that emphasize commercialisation of agriculture and the sustainable use of natural resources for poverty alleviation.

The production of natural ingredients is mainly by small producers. Wild collections emanate from Protected Areas regulated by the Government. Enforcement of regulation is however very weak as cases of unsustainable harvesting and the depletion of the resource base are still reported. Products such as Shea butter are sourced from the communal lands that constitute private and public land ownership.

Standards: No local standards exist for the production and processing of natural ingredients. The companies are therefore faced with high operational costs attributed to efforts to comply to international standards or the buyer specifications. This ranges from certification, documentation to laboratory services, which services are limited and very expensive in Uganda.

By and large, the companies are faced with limited support from the public sector in regard to legislation, finances, standardisation, research, etc, elements that have to be streamlined at the macro level for their effective participation in the development of the sector.

3.1.1.6: Government Policy on Trade

The Government has over the last decade created a macro economic framework with the aim of stimulating and sustaining growth in the economy. Inflation has reduced to a single digit; the external sector has been liberalized with price deregulations and free transactions in foreign exchange. Government has also divested itself from economic activities thus ending State monopolies. However, the country still lacks a comprehensive trade policy, which specifies sector specific local and export market strategies. While some economic policies have been designed specifically to suit promotion needs of the export sector, they largely address the needs of large business and industries and ignore the needs of small scale and medium business units in rural and urban areas. Various government policies, programmes and interventions in the trade sector have largely disregarded
the importance of SMFEs in rural livelihood especially of women.

While the Poverty Eradication Action Plan (PEAP) and the Medium Term Competitiveness Strategy (MTCS), attempt to integrate export trade in their frameworks through macro level and infrastructure policy redress, the reality on the ground is that these measures have not impacted sufficiently at the enterprise level. The poverty eradication policy has paid little attention to the promotion of the SMFE sector as a way of improving rural incomes and diversifying the export sector in Uganda. The assumption that once the macro level fundamentals are fixed all other things shall fit into place has not worked. There is absolute need for micro level management and interventions. The producer units who are to make the difference in terms of local and export market earnings have to be involved in the policy formulation process. They need to be supported with clear-cut interventions to address supply and market entry and sustainability constraints.

3.1.1.7: Policy environment for Handicraft Industry in Uganda

The country has no Handcraft sub-sector specific policy. However, the Handicrafts Sector Export Development Strategy (HANDSEDS) has been developed as a response to the need to enhance the development and readiness of the sector for rapid export growth. Uganda Export Promotion Board (UEPB) in collaboration with sector stakeholders developed the strategy to orient the sector commercially with the vision: -"To develop the handicraft sector in Uganda as a substantial foreign exchange earner"

The development of the handicraft sector export strategy is driven by the overall strategic objective: -"to build the capacity of handicraft producers and exporters in order to meet international standards and to penetrate international markets". The specific purposes of the strategy include increasing the quantity and quality of crafts, skills and competency enhancement among sector operatives, facilitate trade with emphasis on export financing, and develop markets and effective stakeholder coordination.

According to the strategy, the implementation Pillars include the following:

i. Organization of producers into identifiable village groups to enable outreach services and input supplies.

ii. Reorganisation and strengthening of umbrella organisation(s) for the sector

iii. Producing required export quantities in terms of quality, design and standard for international markets based on regional/district specialisation determined by raw material availability and other competitive and enabling factors.

iv. Integrated enterprise development support through local centres for skill training, product adaptation, vocational training, entrepreneurship development

v. Provision of micro-credit facilities for producers and export financing for exporters.

vi. Support for exporters in promotion and market identification, entry and sustainability, through participation in marketing programmes such as trade fairs, exhibitions, contact promotion programmes among others. Organisation of District, Regional and National Handicrafts exhibitions to facilitate District ob Regional specialisation and establishment of production centres

vii. Upgrade infrastructure in production centres to facilitate timely production and deliveries

viii. Facilitate cooperation and programme coordination among handicraft business support organisations

ix. Disseminate and ensure implementation of government policy on Cultural industries.

However, not much has been done in the implementation of the above pillars of the handicraft export strategy due to low funding of Uganda Export Promotions Board.

3.1.1.8: Land policies and legislation

Lack of Land Policy

The Land Act of (1998) enables securing of tenure rights over trees and forest land by SMFEs. However, these are largely unknown to both the general populace and to many of the SMFEs whose supply of raw materials depends on forest resources. The lack of access to forest resources including for SMFEs is worsened by lack of land policy in Uganda which could have facilitated funding of government institutions concerned with provision of Land acquisition and access related services.
Lack of awareness of land rights

The absence of a land policy has resulted into general unawareness by the population on land rights and implementation of the land act. This has lead to evictions, abuse and destruction of people’s properties as the case was in south Busoga Forest reserve and kibaale by NFA. On the other hand, due to lack of knowledge on their obligation in conservation of forest resources, communities have also extensively encroached to forest Reserves. This has negatively impacted on the forest resources and thus lowering their capacity to sustainably supply forest goods in form of raw materials as well as services for SMFEs.

Corruption in registration of ownership of land

Case of corruption allegation by District land boards and central land registry has affected the process of registration of ownership of land by investors in plantation forestry both large and small. Even within NFA, the process of acquiring land planting involves bureaucracy, favouritism and bribery which made the President of the Republic of Uganda to suspend the leasing of such land to private investors in plantation forestry yet this is the mostly available land for such investments. Investments in SMFEs like commercial tree plantations have been highly put at risk and therefore only the rich are favoured.

3.1.1.9 Fiscal Policies

Government provides depreciation and investment allowances for investors and import duty exemptions for capital goods meant for production for exports. Uganda’s fiscal incentives do not clearly specify support for small-scale producers. Investor license in Uganda is limited to capital investment of US$50,000 for Ugandans and US$ 100,000 for foreigners. Such figures automatically exclude SMFEs producers who are mostly micro and small operatives and who are unable to raise such investment capital to benefit from any related incentive packages.

3.2: Institutional roles and influences on development of SMFEs

This study reviewed a number of institutions and organizations that are involved in various development aspects of SMFEs directly or indirectly in Uganda. These include both government (central and local) and non-government players such as Civil Society Organisations, community based organisations/associations, private sector agencies and donors. Some of the institutions provide an enabling environment through policy advocacy and formulation, monitoring, oversight, research and product development as well as regulation. Meanwhile others provided finances, markets and advisory services. Table 9; summarises the responsibilities of institutions at various levels with a stake on SMFEs in Uganda.

Table 9: Institutions with a stake on SMFEs in Uganda

<table>
<thead>
<tr>
<th>Institution</th>
<th>Core responsibilities for SMFEs</th>
<th>Current interventions</th>
<th>Influence on SMFEs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government institutions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministry of Water and Environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest Sector Support Department (FSSD)</td>
<td>▪ Formulating and overseeing policies, standards and legislation for the forest sector.</td>
<td>▪ Formulated guidelines for Private and Community forest management, and for CFM</td>
<td>▪ Poor implementation of the guidelines on community and private forests has led to increased deforestation</td>
</tr>
<tr>
<td></td>
<td>▪ Supporting advisory services to SMFEs</td>
<td>▪ Mobilised funding from African Development Bank and GoU to advisory services for farm forestry and beekeeping through FIEFCO programme</td>
<td>▪ Implementation of CFM guidelines has empowered SMFEs groups to access especially non-timber products</td>
</tr>
<tr>
<td></td>
<td>▪ Mobilisation of funds and other resources for the forest sector.</td>
<td></td>
<td>▪ FIEFCO has increased advisory services and inputs to micro and small forest enterprises particularly those involved in</td>
</tr>
</tbody>
</table>
## Diagnostic Study on Small and Medium Forest Enterprises (SMFEs) in Uganda

**National Forestry Authority (NFA)**
- Manage CFRs in partnership with private sector and local communities
- Advisory, research or commercial services on contract
- Seed supply from the National Tree Seed Center (NTSC)
- National forest inventory and other technical services through National Biomass Studies (NBS)
- Undertaken CFM initiatives around major CFRs
- Offered services to commercial investors in plantation establishment planning
- Provide tree seeds and seedlings to investors and local communities at a cost
- Conducted inventories for forest resources
- Improved regulated access to non-timber forest products and land for tree planting.
- Little influence on SMFEs since services are expensive
- Benefited from availability of quality seeds and seedlings for commercial tree planting

**Other central government institutions**

**Uganda Industrial Research Institute (UIRI)**
- To undertake applied industrial research for the development of optimal production processes.
- To develop appropriate technology for industrial sector.
- Support commercialization of innovation and development initiatives,
- To promote and encourage the use of good manufacturing practices in industry.
- Undertaken product development for SMFEs in bee products, herbal products, paper and fruits
- Incubated SMFEs in the sub sectors
- Can support innovation in value addition on timber and non-timber forest products
- Have successfully commercialised SMFEs through incubation support

**Uganda Revenue Authority (URA)**
- Taxes on forest business and trading.
- Developed tax incentives to investors
- Not beneficial to SMFEs since the incentives target large scale investors who mostly foreigners

**National Forestry Research Institute (NaFORI)**
- Research, with specific focus on agro forestry
- Improved varieties of treg clones and agro forestry species including fruits
- Minimal impact on SMFEs due to limited capacity to undertake applied on-farm research and dissemination of research findings to SMFE beneficiaries

**UIA(Uganda Investment Authority)**
- Investment promotion in plantation development and processing
- Developed investment incentives like tax holidays and provision of free land and capital to investors
- No registered benefits to SMFEs since the incentives target large scale investors
## Diagnostic Study on Small and Medium Forest Enterprises (SMFEs) in Uganda

### Natural Chemotherapeutics Research Laboratory (NCRL)
- **Research and study on the therapeutic potential of natural products**
- **Successfully conducted studies on therapeutic potential of variety of medicinal plants**
- **Have provided substantial support to most SMFEs in the natural ingredients sub sector**

### Uganda Export Promotion Board (UEPB)
- **Development of sector export strategy**
- **Provision of market information to sector operatives**
- **Export management competence development for exporters**
- **Market development**
- **Developed sector export strategies for natural ingredients, handcraft, apiculture products and horticultural products**
- **Established export market information centre**
- **Supported capacity building initiatives for exporters**
- **Have supported SMFEs to export products to regional, Asian, Middle East and EU markets especially handicrafts and horticulture products**

### Ministry of Local Government (MoLG)
- **Decentralized service through Local Government structures**
- **Delivery of advisory services to SMFEs**
- **Have provided advisory services through NAADs and FIEFCO programmes**

### MAAIF/PMA/NAADS
- **Management of the interface between Agriculture and forestry**
- **Delivery of advisory services**
- **Develop strategies for commercialisation of SMFEs and delivery of advisory services**
- **Not all SMFEs have benefited much from PMA/NAADS programmes apart from horticulture and apiculture**

### Private/Civil society institutions

#### Business Support Organisations e.g Private Sector Foundation of Uganda, Enterprise Uganda
- **Business Development Services for Production**
- **Marketing skills development support**
- **Logistics provision for EPVs (workstations, tools of trade, marketing infrastructure)**
- **Provided capacity building services to SMFEs through trainings and mentoring and business health assessment**
- **SMFEs involved in marketing and processing have benefited more than those in primary production**

#### Saw log production grant scheme (SPGS)
- **Support commercial plantation development**
- **Supported commercial tree planters through grants and technical assistance**
- **Commercial tree planting SMEs have been supported to establish plantations**

#### Development Partners (DP)
- **Technical Assistance in sector Production and marketing skills development**
- **Market development and penetration support for trade fairs, contact promotion, programmes, sector brochure development etc**
- **Support for study tours**
- **Funded Government and NGO programmes to support SMFEs e.g UCOTA, NAADS, FIEFOC, CARE etc**
- **SMFEs have benefit from innovation in product development and provision of technical services**
3.2.1: Implications of the above institutional framework on SMFEs

For SMFEs to develop and be organised it’s necessary to have very clear identification of relevant organisations and their stipulated roles as well as their linkages within the institutional framework. The importance of appropriate institutional framework for SMFEs can be seen in aspects of policy and programmes development, value chain analysis, market development and linkages, organisational development, research and product development as well as increased sustainable primary production and productivity. Therefore central government need to create conducive legal and policy environment for growth and development of SMFEs. Unfortunately, most of the SMFEs such as natural ingredients, handicrafts, apiculture and horticulture do not yet have sector policies developed. This affects the moral, confidence and motivation of citizens and foreign investor in SMFEs.

Government agencies, development partners and civil society organisations could collectively work through the institutional framework to develop programmes that fund and support SMFEs to initiate and expand their ventures to commercially viable enterprises. Although there are efforts in designing and implement programmes to support SMFEs such as NAADS, FIEFOC and export promotion initiatives, their impact on sustainable commercialisation of the SMFEs needs more collaboration, investments and lesson learning from good practices achieved.

There is some progress registered in terms of research and production development by organisation like UIRI, NaFORI, NARO, NCRL and science based universities like MUK, MUST and KYU. However, if substantive benefit is to be realised to SMFEs from these research and product development, research information dissemination initiatives need to prioritised and implemented.
Growth and development of the SMFEs sector is highly influenced by the twin factors of finance and market, which are strongly linked to other factors of production. This section identifies issues relating to markets and finance that facilitate or hinder the growth of SMFEs.

4.1: Access to, and Cost of, Finance

Affordable finance is an important input into economic activities underlining the competitive performance of SMFEs. Investors and producers need support through access to affordable finance. However, in Uganda the cost of finance is high and access to credit very low. There is over-reliance on bank loans and overdraft facilities which are suited to short term needs. However, there is a peculiar problem of finance and credit provision to SMFEs and agribusiness investors associated with the intrinsic risks involved. The problem is even bigger when banks and financial institutions consider financing SMFEs given that their informal operations increase risk. The security of lending is even more doubtful and the sectors involved in SMFEs primary production is not catered for in Ugandan financial markets. There are a number of micro-finance institutions but their reach and capacity is still limited. In any case, their charges are often higher than those charged by banks. Other arrangements such as contract farming would increase and improve input supply to SMFE sector with associated benefits of estimable supply and improved quality.

There is also the element of the cost of finance which undermines affordability. It has been observed that sometimes various financial instruments have been made available to the SMFEs sub-sector (APEX funds, ECGS, IDB etc), at competitive interest rates of 12-15%. However, the capacity of entrepreneurs to access these funds is still weak. This is because private consulting firms have little experience in the sector and therefore do not help the process of accessing such funds. A lack of understanding of the sector from the consultants as
well as from banks makes lending to the SMFEs sector a mystery. There is a need to develop appropriate lending/financing schemes particularly for horticulture, apiculture, handicrafts and natural ingredients production. These schemes could work like SPGS for tree planting where an investment cost is subsidised through both grants and loans. Obtaining loans has largely depended on foreign consultants or watertight guarantees. This problem is familiar to all banks and projects working with SMFEs. Feasibility studies, business planning and financial management are all areas which will continue to need intensive technical assistance for years to come.

The cost of finance cascades into other critical inputs in the production process with the effect that there is a multiplication through high costs of power and telecommunications, packaging, transport and marketing. Carbon credits could be an opportunity for financing SMFEs as piloted by ECOTRUST in south western Uganda.

Other sources for SMFEs financing include support programmes funded by donors like Gatsby, European Union, and NORAD through grant management agencies such as Kilimo-Trust and SPGS. Such funds are relevant for commercialisation of SMFEs especially at start-up phase.

The Uganda Investment Authority (UIA) provides first hand information on investment opportunities in Uganda: Issues Investment Licenses; Assistance in securing other licenses and secondary approvals for investors; Help investors to implement their project ideas through assistance in locating relevant project support services; Provide assistance in the acquisition of industrial land; Help to obtain work permits and special passes for investors and their expatriate staff; Arrange contacts for potential investors and organize itineraries for visiting foreign missions in the country; Assist investors in seeking joint venture partners and funding; Review and make policy recommendations to Government about investment. However, SMFEs have not benefited much from the above services with UIA since they target large scale investor who mostly comprise of foreigners.

Government provides depreciation and investment allowances for investors and import duty exemptions for capital goods meant for production for exports. Uganda’s fiscal incentives do not clearly specify support for small-scale producers. Investor license in Uganda is limited to capital investment of US $50,000 for Ugandans and US$ 100,000 for foreigners. Such figures automatically exclude SMFEs producers who are mostly micro and small operatives and who are unable to raise such investment capital to benefit from any related incentive packages. Its should also be realized that scrutiny and approval of investment proposals in Uganda is done with consent of presidents office which process becomes highly politicized and lends its self to corruption in form of Red-tape.

**Box 7: Funding mechanisms for SMFEs by Kilimo-Trust**

For kilimo-trust to fund an SMFE, it will commission strategic studies in the relevant sub-sector so as to provide:

- The necessary evidence and knowledge to support the formulation of policies and strategies that are supportive to market-led SMFE development
- The basis for design of calls for proposals for funding by the Trust.

The funding prospects by Kilimo-trust are:

1. **Prospecting Small and short term (1 -3 years) projects.** Developed through prescribed calls and restricted competition, these projects are designed to find solutions to issues identified by the Strategic studies and/or evaluations of on-going projects funded by the Trust or the African Agricultural Capital.

2. **Focused Medium-term (3 -5 years) projects.** To ensure value-for-money in funding medium sized projects, the Trust invests deepening funding on the most promising of the prospecting short-term projects, selected through rigorous and business-driven evaluation. The Trust also uses a pool of short-term projects funded by other organizations to select promising projects to take forward.

3. **Scaling-up (5 -15 years) projects.** On the basis of external evaluation and critical assessment of outcomes of the portfolio of medium-term projects, the Trust selects few of them for wider scaling-up through large and long-term projects. The Trust forms strong partnerships with governments, the private sector, and other donors in the implementation of such projects. Funds are raised from a multiple of sources including Foreign Direct Investments (FDIs).

*Source: Consultant discussion with Kilimo-Trust management, November, 2009*
Although Bank of Uganda runs an Export Credit Guarantee and other financing schemes, many SMFEs exporters such as handicraft exporters are not capable of meeting the conditionalities needed to access the schemes. For example, the pressing need for the handicraft sector export development is micro level policy redress to support investment in the sector, capacity building, trade promotion, market research and entry and trade facilitation.

Due to micro and small scale operations of most SMFEs in Uganda, insurance companies have not designed insurance products to cover them since they have low turnover and are highly risky. This is particularly true for commercial tree planting, apiculture, natural ingredients and horticulture.

Most foreign direct investments in Uganda are concentrated in services sector like telecommunication, transport, financing and banking, and large scale manufacturing. The few in the natural resources production sector like commercial tree planting don’t partner with SMFEs except in organic agriculture and handicraft where micro and small producers supply large scale exporters who usually insist on origin and certification of the products. There is a need for government, private sector, civil society and development partners to develop programmes using the public private partnership approach to forge productive relationships between foreign investors and local SMFEs.

4.2: Other factors which affect markets

Besides access and cost of finance, there are other factors which affect markets for SMFE products among which include:

4.2.1: Infrastructure

Physical infrastructure in Uganda is a major impediment to growth and development of the SMFEs sector. This covers transport infrastructure (road, rail and air) and production supportive infrastructure, mainly power, telecommunications and water. Transport infrastructure must be supportive of trade in general and export development in particular. The process must start with sourcing and gathering produce from the various production areas in Uganda. The district feeder roads and the state of national trunk roads do not facilitate swift transportation of produce to domestic markets in urban areas or out of Uganda. Uganda is a landlocked country which places the flow of goods into and out of Uganda’s control and subject to the control of countries through which its trade routes pass. The efficient flow of goods from a landlocked country requires good roads and railways infrastructure and efficient port handling facilities. Where these are absent, there is an escalation of costs occasioned by the distance to far away ports. For instance, Fruits, vegetables and natural ingredients are bulky, low value high volume goods with high transport cost implications. Others costs are added by trade facilitation charges in neighbouring countries as goods transit these territories. Delays are often a major cost on both imports and exports making them more expensive and thus less competitive. Mombasa Port handles 95% of Uganda’s external trade traffic and problems of congestion increase costs. The poor performance of railway transport necessitates intensive use of higher cost road services.

For fresh fruit and vegetable exports to reach markets in a fresh state, there is a need to improve handling along the way starting at the farm. Transit time must be short while the quality and fresh state need to be preserved along the way. Ugandan traders have had to resort to air freighting produce to European markets. Honey is also sensitive to high temperatures experienced on road transport; if not well managed, the Hydroxy Meth Furfural (HMF) of honey rises above the acceptable market levels. Air freight capacity has increased since 2001, due to impressive investment by the private sector, facilitated by the GOU. However, the air freight costs added to that of inefficient production eats away the profitability of the business. The cost implications restrict trade/export to very high value products that can support the cost of airfreight. Current freight rates which stand at US$2.50/ kg for freight to Europe undermine competitiveness.

Since 2006, Uganda has experienced shortages and unreliable supply of electricity due to limited generation capacity. The effect of this shortage is increased dependence on more expensive thermal power to supplement existing hydro electricity. Individual companies have had to invest in diesel generators adding costs that threaten viability and competitiveness. Telecommunications infrastructure has been provided by two fixed line operators and three mobile telephone operators. However, the opening up or expiry of the protection in the sector has seen entry of other service
providers with the opportunity for further reduction of costs.

High cost structure caused by poorly developed infrastructure especially roads, railway and airways affect the whole supply chains. This calls for investment in good roads, competitively-priced power and an efficient airport as these are all crucial factors affecting the level of private sector investment in horticulture. Private sector response would be expected in investment in commercial farms, irrigation systems, pack houses, refrigerated stores, pre-packing lines, packaging plants and other related facilities. Rural pack houses, cold stores, processing plants and vehicles are all necessary but are not suitable investments for the public sector. Most viable export companies now choose to buy their own trucks as a more reliable and cost-effective option than using transport firms.

However, most of these advantages are related to economies of scale or past experience, and are not permanent. Uganda, on the other hand, has important natural resource, climatic and geographical advantages which could lead to permanent competitive advantages for selected products.

There are also issues of infrastructure related to information flow between producers and market actors. In all SMFEs, producers are poorly organised. Where cooperatives exist, they are weak and do not function effectively as cooperatives in terms of giving value to members by marketing their products and lobbying for support. The flow of market information is also poor owing to the technical and financial constraints the producer groups experience. The private companies in the different SMFEs value chains are not very concerned about producers’ issues; government agencies that should support farmers also lack the necessary resources for proper interventions to address the challenges in these sectors.

4.2.2: Low Investment

Growth and development in any sector of an economy requires substantial investment which must be exploited to the full. Similar growth in the SMFEs would require private sector investments in modern production units; private and public investment in training and research and public sector investment in facilitatif services at the airport, roads, quality assurance, etc. More investments in these services and utilities will enhance the performance of the supply chain, raising the supply of the products to the market and hence improving the livelihoods of those in the value chain.

4.2.3: Poor codes of practice and their enforcement

Opportunistic trade between small holder farmers, traders and exporters bodes ill for systematic development of organised trade. There are unethical practices related to measurement and weights which sometimes affect the quality of product. People violate codes of practice where they exist but generally the absence of standards signifying benchmarks complicates performance of production and trade. Each individual producer in his/her own plot/garden will handle the whole process differently. Practices are non-standardised as a result. The lack of assurance of quality by producers has continuously led them to accept very poor prices or non-payment for delivered products.

**Box 8: Effect of other factors on Uganda’s Handicraft Sector Export Performance**

Uganda targets both domestic and international markets for its handicrafts. Domestic buyers are either tourists or local buyers who serve as market intermediaries and sell on the local markets in urban areas or export directly to the export market. Uganda’s handicrafts trade is largely informal marked with inconsistent and adhoc market access, entry and penetration approaches, and inadequate market distribution networks. Official handicraft export statistics for 2002 and 2003 reveal total export values of a paltry US$49,841 and US$ 63,535 respectively.

The vast majority of Uganda’s handicrafts are not adequately captured by product classification and/or trade codes (Harmonized System). Even when data on production and trade are recorded by UBOS, in national accounting systems and/or in international trade statistics, the majority of handicrafts is often grouped together with other products or included in the category “others” for lack of country specific HS classification.

*Source: UEPB report, 2007*
4.2.4: Poor post-harvest handling practices

Robinah Sonko, et. al. (2005) highlight poor post handling practices including sorting and packaging of fruits and vegetables which are not done in a proper manner among practitioners in Uganda. This has resulted into high incidence of post harvest losses, especially for the perishable commodities. The poor post handling practices also affect the final quality of product delivered to the markets and influences acceptance and price offered.

4.2.5: Sanitary, Phyto-sanitary (SPS) and Other Standards

Uganda faces challenges in compliance with SPS requirements and product standards for its products destined to developed markets especially Europe. Both fruits and vegetables are delicate in that they are exported fresh. Honey is even more delicate, in which case the EU market requires a special accreditation process for every third country. The third country must present a residue monitoring scheme yearly or be excluded from the market. There are issues of concerns related to policies and strategies to ensure that the products comply with SPS requirements. This challenge is further exacerbated by the fact that a large part of these products are produced by small holder and subsistence farmers whose understanding of the issues has to be raised to ensure continued acceptability of the products in international markets.
5.0 ENTERPRISE LINKS AND ASSOCIATIONS ISSUES

5.1: Apiculture

The apiculture sector in Uganda is organised under a private sector-led organisation The Uganda National Apiculture Development Organization (TUNADO). TUNADO was established in 2003 as an apex body mandated by the Government of Uganda under Ministry of Agriculture Animal Industries and Fisheries (MAAIF) to coordinate all stakeholders in apiculture sub-sector in Uganda. This was as result of government realization that private sector involvement in apiculture development was not given sufficient attention, partly due to the absence of an appropriate policy to guide apiculture activities in the country. TUNADO’s aim is to transform Uganda’s apiculture industry into a vibrant economic enterprise that will contribute to increased incomes for rural beekeepers and deliver economic development for the nation.

Its mission is to bring about the changes needed so that small-scale beekeepers can access the information and advice they need to develop sustainable beekeeping enterprises, can access fair and reliable markets for their honey and beeswax, and can operate within an enabling environment that is supportive with respect to issues such as policy, regulation, trade rules and national development priorities.

There are also many producer associations in the country-side some of which subscribe to TUNADO while others are independent and managed following cooperative principles.

At a regional level, ApiTrade Africa works to coordinate marketing activities of the African honey sector, directly or indirectly through its members and national umbrella bodies. ApiTrade Africa focuses on promoting African bee products by identifying and addressing market access issues at country and regional levels. Its partnership with local organisations, private companies, national organisations, regional organisations and international organisations enable ApiTrade Africa to influence issues at all levels while integrating concerns of stakeholders in the same way.

5.2: Natural ingredients

In the natural ingredients sector, Uganda Natural Ingredients Producers’ Association (UNIPA) was formed in 2007 to bring together commercial producers and processors of different products in this category. There are also other sector associations which specialise in producing specific products e.g. Uganda Commercial Aloe Producers’ Association (specialising in Aloe Vera), Uganda Vanilla Association (specialising in vanilla). Some members of the smaller association have joined UNIPA to enable them increase their networks and benefit from the better lobbying powers of the association.

There are many organizations engaged in handicraft promotion activities albeit in a very fragmented and disjointed manner. Such organisations include, Uganda Export Promotion Board, Uganda Women Entrepreneurs Limited (UWEAL), AGOA Office, Uganda Small Scale Industries Association (USSIA), National Organisation of Women Associations in Uganda (NAWOU), National Arts and Crafts Association of Uganda (NACAUI), Private Sector Foundation Uganda (PSFU), UNIDO and many others.

There are traditional healers and herbalists in Uganda who lack professionalism in the delivery of their services to general public. In their desire to streamline the operations of the various associations, the National Council of Traditional Healers and Herbalists Association in Uganda (NACOTHA) was formed as an umbrella body. It unites all traditional health practitioners and
contributes to improved community health as well as health promotion through strengthened collaboration of traditional health and herbalists, orthodox medical practitioners and the community. SMFEs in this sector need to associate with NACOTHA since it focuses on lobbying and seeking government and NGO support, builds organisational capacity and knowledge, emphasises conservation protection and propagation of medicinal plants, conducts functional research and increased public awareness and understanding about the value of traditional medicine in health care practice.

5.3: Commercial tree growing

Investors in commercial tree planting are mostly small and medium salary income earners with a few corporate bodies such as Busoga Forest Company, New Forests Company and global woods. The SMFEs in commercial tree planting face challenges in planning, costing, budgeting and in quality silvicultural practices among others. Therefore, in order to address these challenges, they formed a trade association known as Uganda Timber Growers Association (UTGA) with support from SPGS with a purpose of improving the status of profitable commercial plantations. UTGA enables the SMFEs in commercial forestry to advocate for conducive policy and legal environment, promote learning and sharing of experiences, seek additional funding for the private sector and lobbying financial services, tax exemptions and accessing inputs for the development of commercial plantation forestry.

5.4: Fruits and vegetables

There are sectoral associations formed by producers and other interested parties to promote and lobby for policy changes that cater for development of horticulture. They are: Horticulture Promotion Organisation Uganda (HPOU), Horticulture Exporters Association (HORTEXA) and the National Organic Agriculture Movement of Uganda (NOGAMU).

HORTEXA promotes commercial production and export of high quality fruits, vegetables and spices and seeks to strengthen horticultural sector competitiveness. The organisation was formed by traders who found it important to vertically integrate their activities and thus stepped back into production. The reasons for this are obvious and it makes sense that the trader who knows the market requirements works together with the producer. The association also provides training and market information.

The HPOU is an umbrella body that brings together associations of organizations involved in horticulture production and trade. Its members are HORTEXA, NOGAMU, Association of Fresh Producers and Exporting Companies (AFPEC) and the Federation of Associations of Ugandan Exporters (FAUEx). It was formed in 2006 after realizing that these associations faced common challenges and that they needed the weight of numbers to confront their common problems. The objectives are mainly to push for industry expansion in production and export. HPOU has identified four key areas for intervention, viz. training, lobbying for policies that are supportive of horticulture production and export, development of and compliance with standards and their implementation and marketing. In addition, the HPOU is working on the development of National General Accepted Practices (NGAP) and marketing standards.

The National Organic Agricultural Movement of Uganda (NOGAMU) is a non-governmental organisation established to unite producers, processors, marketers, trainers and other stakeholders with an interest in the promotion of organic farming. It seeks to increase incomes and improve livelihoods in Uganda through adoption of organic agriculture.
6.0 LABOUR ISSUES

As noted before, the production of SMFE products depends on out grower schemes, and individual producers who gather or cultivate and sell wherever they please. Labour issues in SMFEs are mostly considered in commercial scale operations mostly in tree planting in the case of SMFEs considered in this study.

In commercial SMFEs, labour provisions on occupational health and safety have to be followed. For example, in commercial tree planting, the service provider or investor provides to the workers personal protection equipment such as helmets, overalls, gum boots and gloves when executing operations like bush clearing and chemical weed control. In most cases, community groups and individuals involved in commercial tree planting do not use personal protective equipment for safety and health.

For those who work individually, the incentives to protect self comes from experience, safety consciousness and level of awareness. This compares sharply with those who work under out grower schemes, whereby the peers / members of the network influence each other to protect themselves by use of appropriate technologies. In apiculture for instance, during hive inspection and honey harvesting, farmers use protective gears to avoid bee stings. In many instances, the promoters of these projects acquire these protective and give to farmers.

Contractual arrangements between farmers and processors can be verbal or written, with each other accepting terms contained in the agreement. The agreement contains terms of transaction whether cash or credit, payment period if credit is extended, the price, etc. However, quite often, these contracts are not honoured. Experience shows that farmers are easily lured away by free-lance buyers (i.e. mostly traders who apply extensive strategy).
The general trend of SMFEs sector development has been affected and determined by agenda of government, development agencies and private sector in the overall forestry sector as elaborated in Table 10.

Table 10: Trends in forest sector development, 1960s to late 2000s

<table>
<thead>
<tr>
<th>Time</th>
<th>1960-1970s: Export-led growth</th>
<th>1980s: Reforestation and food security</th>
<th>1990s: Sustainable forest management</th>
<th>Early 2000s: SMFE development</th>
<th>Late 2000s to date Commercialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main development focus</td>
<td>Capital accumulation through large-scale forest exploitation</td>
<td>Technical skills development for community forestry, reforestation and natural forest management</td>
<td>Social, environmental and economic dimensions of forest management</td>
<td>Increased income through environmentally sound and economically viable management of community and other forests</td>
<td>Increased investment and profits through forestry based enterprises</td>
</tr>
<tr>
<td>Principal stakeholders</td>
<td>Export-oriented timber industries</td>
<td>Community-based and industrial re-forestation projects</td>
<td>Forest-based communities and timber concessionaires</td>
<td>Forest-based communities, community forest enterprises, and concessionaires</td>
<td>Private and community level investors</td>
</tr>
<tr>
<td>Product and/or service focus</td>
<td>Precious woods</td>
<td>Fast-growing plantation species</td>
<td>NTFPs, Lesser-known species (LKS) and precious woods</td>
<td>Precious woods, LKS, NTFPs, environmental services and tourism</td>
<td>Saw log Plantation and non-timber forest products/services</td>
</tr>
<tr>
<td>Key drivers</td>
<td>Governments and development agencies and NGOs</td>
<td>Development agencies and NGOs</td>
<td>Development agencies and NGOs</td>
<td>Businesses, NGOs and development agencies</td>
<td>Development agencies and private sector</td>
</tr>
<tr>
<td>Impact</td>
<td>Forest degradation due to over exploitation of precious wood</td>
<td>Increased plantation on government estates and farm forestry</td>
<td>Reforestations of Natural forests and CFM introduced</td>
<td>Increased community participation through CFM and Community forestry</td>
<td>Increased investment by private sector in plantation and NTFPs</td>
</tr>
</tbody>
</table>

Adopted from Donovan et al 2006
7.1: Trends in the commercial forestry development sector

Over the years production of timber by SMFEs from Natural forests has declined due to depletion of stock in these forests as shown in the availability of plantation stock decline in the Figure 2 below.

Figure 2: Shows the availability of plantation stock decline by age

Investment in commercial forestry plantation establishment has increased for example under SPGS phase I (2004-2009), a total of 10,300 Ha of timber plantations were supported along with over 400ha by community growers.

Commercialisation of plantation establishment and management has necessitated the provision of professional services in the sector. Accordingly an association of service providers known as “National association of forestry service providers- NAFOSEP” comprising of fifteen corporate service providers in plantation establishment and management has been formed to respond to the demand in the sector.

Due to increased investment in plantation there are corresponding investments in nursery enterprises all over the country.

Generally as a result of low timber harvests with in Ugandan forests, the contribution of the forest sector to the Ugandan economy has gone down as well as employment opportunities in timber enterprises has declined.

7.2: Trends in Non-timber SMFEs

There is increased involvement of community groups and individuals in Non-timber SMFEs such as bee keeping, natural ingredients, horticulture and handicrafts. This is due to increased demand both in the domestic and export markets for these products. There are innovations in terms of new product formulations, processing, branding & packaging. Research institutions like UIRI, MUK, JERA and others are conducting applied research in developing products for SMFEs. The upsurge of development in telecommunication and information systems like websites, telephones, electronic and print media have improved markets for the Non-timber products for SMFEs.
Box 7: A case study for bee keeping in Mubende (Bageeza Environmental Protection Unit (BEPU))

**Name of the CBO: Bageeza Environmental Protection Unit (BEPU) – Mubende District**

**Formation of CBO:**

Environmental Alert participated in the formation of this community based Organization (CBO). It mobilized members who selected their own leadership and they formed themselves into a CBO. This Community Based Organisation is registered with the District and has two groups doing two interventions; one specializes in Bee keeping and the other in tree nursery each with an average of 20 members. One of the criterions for selection of beneficiary members of this project was a member having at least two hectares of community forests. The CBO has no staffs employed and office is always open once a day when undertaking savings and credit activities of the CBO members. It does not get support from Government or any civil society apart from Environmental Alert and has an Account with Post Bank where SACCO money is kept.

The CBO has no management structures since they are financially constrained to employ staff. However they have committees that oversee the operations of the CBO activities. The only legal document the CBO has is the registration certificate at the District and does not have any governance document in place.

The CBO does not have capacity to influence policy but the Chairperson sometimes is given an opportunity to deliberate issues related to activities of the CBO during sub county meetings. The natural resource problem the CBO is solving is cutting down trees for charcoal and timber since they have alternative sources of income through Bee keeping and the tree nursery. However there has been a challenge of Bees dying after being intoxicated with juice they take from farmers who extract the local drink called (kaliga). Current production of Honey is also still very low since some Bee farmers (members) have just started harvesting and others have not yet benefit from the hive grant from Environmental Alert.

**Importance of Bee keeping**

- Bee keeping within the area has boosted individual household incomes
- Productivity of some crops has also increased since they help in pollination.
- Bee products like honey are being used as medicine for most households most especially among children with cough.

**Strengths of the CBO**

- All CBO members have skills in Bee rearing as they were trained by Environmental Alert
- All CBO members have community forests where hives can be hanged
- Availability of Bee forages
- CBO member are willing to undertake the enterprise
- Availability of the market

**Weaknesses of the CBO**

- No staff to overlook the operations of the CBO
- Offices are ill-equipped with no furniture.
- Some member have not yet received Bee hives
- Farmers planting Banana for juice production which have led to death of most Bees
- Poor processing methods and materials
- No specified market
- Low production capacity for commercial quantities
- Low supervision to other project beneficiaries
- Lack of business development skills
Opportunities for the CBO

- Donors to support the development of the enterprise (Environmental Alert)
- Government policy which supports the development of the enterprise
- Conducive environment suitable for the enterprise
- Availability of Bee forages for pollination

Threats for the CBO

- Low colonization of hives
- Termination of funding for the enterprise by Environmental Alert
- Poor attitude by members to undertake the initiative
- Death of Bees due to juice extractors.
- Climate change which may have negative effects on Bees

The CBO needs additional support in form of:

- Modern processing equipments,
- Training in business skills
- Queen rearing skills and multiplication initiatives
- They also need a motorcycle to facilitate communication to mobilize members
- For those undertaking tree nurseries had a challenge of spraying mature fruits most especially mangoes which were affected by insects but the pumps they were using could not spray the top most part of the trees. They therefore needed appropriate sprays
- New Bee traps were recommended
- Packaging materials for the processed honey with the CBO logo
- Training on organizational development
- More marketing skills
- More training in record keeping
- Staff to run the activities of the CBO

Relationship of Bee keeping with other enterprises

Bee keeping enterprises is linked to fruits in that they act as bee forages were they play a role pollinating fruits and the bees benefit by getting nectar which creates forward and backward linkages.
Like any other sector, SMFEs are faced with quite a number of opportunities and threats. Table 11 labour to summarise them as below.

Table 11: Summarising key opportunities and threats identified in each SMFE sub sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horticulture</td>
<td>• Growing regional markets within EAC and COMESA</td>
<td>• DDT spraying may lead to loss of export markets</td>
</tr>
<tr>
<td></td>
<td>• Growth of domestic markets due to increased disposable incomes</td>
<td>• Loss of markets to imported fruits and vegetables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Since production is rain-fed, climate change and draught affects yields</td>
</tr>
<tr>
<td>Apiculture</td>
<td>• Growth of regional markets: EAC and COMESA</td>
<td>• DDT spraying</td>
</tr>
<tr>
<td></td>
<td>• Emergence of regional trade support organisations, resulting into better</td>
<td>• Loss of market to imported products due to low perception of local brands</td>
</tr>
<tr>
<td></td>
<td>organisation</td>
<td>• Loss of bee forage due to deforestation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Poor budget allocation for residue monitoring may cause loss of EU market</td>
</tr>
<tr>
<td>Natural ingredients</td>
<td>• Growth of demand in export markets – owing to a rise of demand of natural</td>
<td>• Influence of foreign products since there is no local standard</td>
</tr>
<tr>
<td></td>
<td>products</td>
<td>• Loss of vegetation due to competing interests e.g. sugar plantations</td>
</tr>
<tr>
<td></td>
<td>• Abundant natural resources that support production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Better organisation in the sector</td>
<td></td>
</tr>
<tr>
<td>Tree planting</td>
<td>• Shortage of timber in Uganda</td>
<td>• Long payback periods and risks</td>
</tr>
<tr>
<td></td>
<td>• Availability of land for tree planting</td>
<td>• Poor land tenure and investment climate in the central forest reserve</td>
</tr>
<tr>
<td></td>
<td>• Availability of markets</td>
<td>• High initial investment cost</td>
</tr>
<tr>
<td></td>
<td>• Availability of funds</td>
<td>• Technical challenges (sivicultural)</td>
</tr>
<tr>
<td></td>
<td>• High expected returns on investment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Technical support services from SPGS</td>
<td></td>
</tr>
<tr>
<td>Commercial tree</td>
<td>• High demand for quality seedlings by clients of SPGS Programme who are</td>
<td>• High cost of establishing and managing commercial tree nursery</td>
</tr>
<tr>
<td>nurseries</td>
<td>expected to plant over 10,000 hectares of trees in the next four years</td>
<td>Lack of skilful management and a reliable workforce</td>
</tr>
<tr>
<td></td>
<td>(2009-2012). And the Farm Income Enhancement and Forest Conservation</td>
<td></td>
</tr>
</tbody>
</table>
Programme who will support planting at district level over 20,000 hectares at household level by 2011.

- Limited competitions from existing nurseries Most of the existing tree nurseries have poor quality seedlings since many nurseries are still not culling sufficiently (i.e. sorting and throwing out seedlings that do not make the grade). This is caused due to Seed of dubious origin which leads to deformed roots.

**Commercial Handicrafts**

- Availability of local and export markets
- Handicraft making considered as a cultural activity
- Availability of raw materials from wilderness and on-farm

**Lack Of Adequate Infrastructure**
- Middle persons in the distribution channel
- Market insensitivity
- Inadequate market information and dissemination
- Lack of a vibrant product and national exporters association
- Inadequate support for marketing and promotion

### 8.1: Opportunities

The above opportunities for SMFEs in Table 11 can be further elaborated on in terms of:

- **Availability of markets for the products**
  This is due to government trade policy (2007) which provides for liberalisation and privatisation of investment and business. Also governments emphasis on the participation of enterprises in the markets such as COMESA, EAC and SADC have increased market opportunities especially for natural ingredients, horticulture and bee products. In case of hand crafts products, government’s active promotion of Ugandan products in international markets like AGOA, EU, Middle and Far East has boosted demand for these products. The shortage of timber supply from natural forests and plantations in Uganda has increased opportunities for establishing commercial plantations by government agencies, private and community planters.

- **Availability of natural resources**
  The Forest Policy (2001) allows access by commercial investors in forest enterprises to land on CFRs to establish plantations and non-exploitative investments such as eco-tourism. But also under CFM arrangement, forest edge communities have access to forest resources such as land for tree planting, non-timber products like craft materials and medicinal plants. This has increased investments and productivity of SMFEs.

- **Availability of incentives**
  The national forest policy (2001) provided for establishment of incentives for investments in forest enterprises with a purpose of promoting sustainable use and conservation of forest resources. Accordingly the SPGS was established with funding from both government and development partners (EU & NORAD). This has promoted tree planting by private investors and community groups in commercial plantation.

- **High expected returns**
  Another key opportunity for SMFEs in the high expected returns on investments in this sub sector as elaborated in Table 12 below illustrating cash flow for bee keeping as well as Box 2 and table 7 for tree nurseries and medicinal plants respectively.
Table 12: Expected income from langstroth (100) and KTB (50) hives

<table>
<thead>
<tr>
<th></th>
<th>Low level</th>
<th>Net income</th>
<th>Medium level</th>
<th>Net income</th>
<th>High level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Langstroth 60 kg, KTB 30 Kg</td>
<td></td>
<td>Langstroth 80 kg, KTB 40 kg</td>
<td></td>
<td>Langstroth 90, KTB 50 Kg</td>
</tr>
<tr>
<td>Production from 100 hives per year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Langstroth honey 6000,8000,9000 kgs @8000/=per kg</td>
<td>48,000,000</td>
<td>64,000,000</td>
<td>72,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honey production from 50 KTB per year of 1500, 2000,2500 kgs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KTB Income at UGX 8,000 per Kg</td>
<td>12,000,000</td>
<td>16,000,000</td>
<td>20,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wax production from 50 KTB per year of 150, 200, 250 kgs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from wax at UGX 6,000 per Kg</td>
<td>900,000</td>
<td>1,200,000</td>
<td>1,500,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross income year 1</td>
<td>60,900,000</td>
<td>81,200,000</td>
<td>93,500,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less investment cost (Partial)</td>
<td>22,600,000</td>
<td>22,600,000</td>
<td>22,600,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less operational costs</td>
<td>25,400,000</td>
<td>25,400,000</td>
<td>25,400,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net income year 1</td>
<td>12,900,000</td>
<td>33,200,000</td>
<td>45,500,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross income year 2</td>
<td>60,900,000</td>
<td>81,200,000</td>
<td>93,500,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less operational costs</td>
<td>25,400,000</td>
<td>25,400,000</td>
<td>25,400,000</td>
<td>55,800,000</td>
<td></td>
</tr>
<tr>
<td>Net income year 2</td>
<td>35,500,000</td>
<td>35,500,000</td>
<td>35,500,000</td>
<td>68,100,000</td>
<td></td>
</tr>
<tr>
<td>Gross income year 3</td>
<td>60,900,000</td>
<td>81,200,000</td>
<td>93,500,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less operational costs</td>
<td>25,400,000</td>
<td>25,400,000</td>
<td>25,400,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net income year 3</td>
<td>35,500,000</td>
<td>35,500,000</td>
<td>35,500,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross income year 4</td>
<td>60,900,000</td>
<td>81,200,000</td>
<td>93,500,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less operational costs</td>
<td>25,400,000</td>
<td>25,400,000</td>
<td>25,400,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net income</td>
<td>35,500,000</td>
<td>35,500,000</td>
<td>35,500,000</td>
<td>55,800,000</td>
<td></td>
</tr>
</tbody>
</table>
8.2: Threats

The critical threats to SMFEs development in Uganda include:

- **Loss of market to imported products**
  As a result of trade liberalisation, many products are imported in Uganda majorly by foreign companies licensed to operate in the country. This has resulted into importation of substitutes or complimentary products produced by local SMFEs. This can be seen in bee products like honey, herbal medicine products, furniture, and fruits. Inevitably Ugandan products lose markets to the imported products since there are relatively of low quality to meet the expectations of the young-middle consumers.

- **Chemical pollution**
  The permission by government for communities and government agencies like Ministry of health and SPGS/ NFA to use chemicals like DDT and glyphosate for mosquito and chemical weed control respectively has affected markets for organic products from Uganda especially in horticulture and apiculture sectors.

- **Climate change**
  The rapid effects of climate change due to global warming have resulted in floods, drought, pests and diseases leading to low yields especially in horticulture sectors.

- **Low budgetary allocations to the SMFE sector**
  The consistent low budgetary allocations to the relevant government agencies and private sector that focus on promotion of SMFEs such as UIRI, NCRL, NFA, FSSD, LGs, UEPB has affected the growth and development of the sector.

- **Poor land tenure**
  Available and secure land for some SMFEs for instance commercial tree growing, natural ingredients, horticulture and bee keeping is an investment precondition. However Population growth puts pressure on land, which implies land scarcity in many areas. When land is a constraint, the value of production per unit of land has to be maximized which often favours agricultural production. Central forest reserves are set aside by the government for forestry and can play a crucial role in plantation establishment. While there is certainly adequate land available in the CFRs, the low marketing effort to attract the private sector, weak land contracts and political interference are all impediments to private investment. Examples of encroachment in private plantations promoted by politicians and the expropriation of established plantations without appropriate compensation are severe disincentives for private sector involvement.

- **Deforestation**
  The High rate of deforestation, expanded demand for farmland and forest products has affected the SMFEs in terms of climate change effects, loss of bee forage and handcraft materials as shortage of timber. Other factors that have lead to deforestation include; corruption, ethnic tensions, and politicisation of technical matters. These translate into low production and productivity of SMFEs in the country.

- **Infrastructure**
  The biggest internal constraint to this sector is infrastructure inadequacy, which is aggravated by the rural location of production bases. Delivery schedules are hampered by poor and often times inaccessible road networks, transport bottlenecks, lack of or unreliable power supply and lack of proper workshops and storage facilities.

- **Market insensitivity**
  Most producers are ignorant of the seasonality and trendiness of SMFEs such as handicrafts, as well as the socio-environmental requirements of the markets. There are a lot of middlemen in the marketing chain whose activities affect the profitability of producers.

- **Lack of venture capital**
  In Uganda there are no financial institutions which provide venture capital funds to SMFEs. Most of the financial institutions have working capital loans at high interest rates recoverable in short periods which is not suitable to SMFEs.
9.1 Conclusions

The findings in this study clearly point to the potential of plantation and NTFPs in improving incomes, revenues and livelihoods in communities involved in SMFEs.

The general legal and policy investment in Uganda supports investment in SMFEs as illustrated in the National Forest Policy, PEAP or NDP, PMA, trade policy, CICS among others. Whereas the PEAP, or NDP, and other government guiding strategies guide the entire action within the economy, there is general lack of sectoral policies. Sectoral policies are more effective because they address specific issues within each sector and also empower stakeholders to demand services where they lack or guide their actions so as not to compromise the future of the sector and to avoid negative effects.

Basically products of SMFEs have domestic and export markets which are being under supplied by the existing production levels which are small, inconsistent and below the required market quality specifications.

There are abundant natural resources such as bee forage, fertile land, and craft materials which act as an assured supply of raw materials for SMFEs sector. Furthermore, cost benefit analysis of the SMFEs studied indicates high economic returns for all of them although usually over a long period of pay back.

Nevertheless, the study found out some critical gaps that affect the sustainable growth of SMFEs. Despite the presence of advisory service provision agency like NAADs and FIEFOC, there is a general lack of tailor made advisory services that suit SMFEs thus leading to small scale production and low productivity. This negatively affects the motivation of investors in this sector.

There are little efforts by the SMFEs to add value through processing, branding, packaging in order to increase economic returns as well as offset competition from substitute products. Technology transfer for the development of SMFEs in terms of both hard and soft wares is inadequate to be able to stimulate commercialisation of these enterprises at competitive levels. This due to limited research in the sector, high cost of technology transfer from developed countries and inadequate local capacity for innovation and adaptation of technology among the SMFEs investors and communities in the country.

Lack of financial incentives for SMFEs such as venture capital funds, tax holiday, relieves and exemptions hinder progress and scale of investment in the sector since the available incentives target large scale and in most cases foreign investors.

There are a few competent and professional corporate service providers in the SMFE sector who could support the growth and development of the investment through appropriate tailor made production and business development services. This has affected the economic viability and productivity of these enterprises.

The linkages between SMFEs and other actors in the value chain such as processors, researcher, market syndicates, financial institutions and professional service providers is weak thus making them not to benefit from economies of scale and comparative advantages associated with specialisation phenomena.

9.2 Recommendations

9.2.1: Create an enabling environment

This addresses the basic regulatory and governance framework within which business operates. These are clearly long-term issues, which will require substantially
capacity building and organisational development for the SMFEs. Briefly, securing an enabling environment will require seven key interventions:

- **Securing good governance:** This includes the devolution of resources and decision-making to lower management level; the encouragement of local stakeholders to organise themselves into networks for information exchange and dialogue; and, support for the adoption of national laws and regulations.

- **Improved, reformed regulation:** This includes promoting competition (where there are monopolies or oligopolies) and creating regulations appropriate to local realities (e.g. avoid over-complexity and red tape).

- **Taxation:** This means developing a realistic taxation regime which suits SMFE realities and which monitors the impact of new fees and levies.

- **Licensing:** This includes increasing the capacity of local government to maintain an effective business registration and licensing system.

- **Tariff and non-tariff barriers:** This means addressing tariff constraints which prevent access to formal markets; reducing internal systemic obstacles and corruption; removing or reducing unnecessary fees and regulations which obstruct SMFE business activities.

- **Create a supportive legal framework:** This means reviewing and evaluating the country’s legal framework to promote a favourable business environment, and creating a secure property rights system.

- **Create incentives for private investment in SMFEs:** This means providing tax cuts, appropriate subsidies, public investment in infrastructure, and credit schemes.

9.2.2: **Create adequate mechanisms, processes, and structures which articulate local needs / local organisations, groups, and associations representing the poor**

These refer to the ability of the state and other decision makers to “hear” local entrepreneurs. Emerging young entrepreneurs in disadvantaged areas (such as rural areas, and townships in developing countries like Uganda) are often unable to articulate their needs. There is therefore a supportive environment needs to:

- Encourage the self-organisation of entrepreneurs
- Ensure sensitivity to local realities on the part of government departments and other institutions so that they can provide support in a demand-responsive way
- Understand existing organisational patterns and their strengths, weaknesses, and dynamics
- Articulate and incorporate local knowledge into local policies and programmes.
- Mobilise resources for SMFEs associations and organisations (including financial, human, technical, advisory, training, materials, and equipment).
- Create local discussion forums and representative organisation
- Ensure that organisations and networks graduate and evolve to higher levels of representation and formalisation
- Assist local governments to become effective local policy makers in partnership with national departments.

9.2.3: **Promote active private sector institutions and linkages**

This cornerstone promotes links between emergent entrepreneurs and private firms, because the latter are usually the main supply channel for inputs, goods, and services. It emphasises the importance of strong linkage between the trained young Entrepreneurs and business associations, professional associations, co-operatives, trade associations, and chambers of commerce, who can engage decision makers in a coordinated way. Such organisations can also provide support services (such as financial services or marketing). They network, build alliances, and facilitate access to inputs, markets, information, auditing, consultancy and advertising.

9.2.4 **Create effective and functioning infrastructure (both hard and soft)**

Infrastructure allows rural enterprises to be competitive and increase productivity in terms of access to inputs and markets for their outputs and this access should enable
SMFEs to minimize the costs of doing business. “Hard” infrastructure includes: bee hive technologies, electricity, production housing, marketplaces, offices and business premises, roads and haulage providers, sanitation, waste management, storage facilities, telecommunications, and water supply.

“Soft” infrastructure includes: investment planning services, technical advisory services provision, financial services, markets, and quality assurance certification and training providers.

According to the Rural Economic Enterprise Development (REED) approach, possible interventions are:
- Identifying infrastructure gaps, e.g. by conducting surveys of existing infrastructure and business needs;
- Providing required infrastructure, by encouraging public and private investment; promoting local, self-funded facilities (e.g. By cooperatives and microfinance institutions);
- Promoting infrastructure maintenance, by promoting schemes to share costs, promoting innovative management structures, and raising public awareness of the need to recover costs; and
- Fostering links with larger systems and networks, particularly through the integrated planning of infrastructure systems.

9.2.5 Promote access to integrated and open markets Emerging SMFEs need opportunities to compete in a wider range of markets.

The REED approach suggests the following interventions:
- Promote access to markets: Encourage diversification of SMFEs products and goods; promote collective action to gain economies of scale; provide information to consumers; promote participation in public tendering,
- Promote transparency in markets: Provide easy access to market information; enable enterprises to carry out their own market research; conduct participative analysis of markets.
- Create stable markets: Develop alternative marketing strategies; promote investment in storage and processing.
- Promote free and open markets: Remove barriers and distortions in markets (e.g. by lobbying governments and the private sector); improve competitiveness of enterprises.
- Promote market chain integration: Identify marketing links and new opportunities.
- Develop markets: Promote new product ranges; improve product quality.

9.2.6: Promote access to effective and efficient support services

SMFEs entrepreneurs need access to high-quality business development services in order to overcome human, capital, and information constraints and develop profitable activities. This needs to be provided in a timely and accessible manner.

9.2.7: Promote management capacity of emergent entrepreneurs

Successful SMFE entrepreneurs need to have the technical and managerial competence to find appropriate inputs, produce goods, market products, manage the enterprise finances, and network with other organisations. Possible interventions include:
- Promoting managerial competence with regard to record keeping, accounting, and budgeting by means of training and mentoring
- Developing SMFE entrepreneurs' ability to identify appropriate technologies and product innovations by disseminating information about successful cases
- Generating budgeting and cash flow by providing training in financial management
- Promoting marketing skills by creating marketing information systems and identifying new marketing channels; and
- Promoting networking by encouraging the joint use of facilities, the creation of associations, and the establishment of partnerships
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