Forestry Sector Profile



1) Background to the Forestry Sector

1.1 Structure

Forests and woodlands cover approximately 4.9 million hectares in Uganda, about 24% of the total land area. The vast majority of this is woodland (19%), while the rest is tropical moist forest (5%) and forest.

Table 1.1: Total Area under Forests by Region

Region	CFR (Hectares)	LFR (Hectares)	Total Forest Reserve Area
Central	303,358	1,576	304,934
Eastern	56,479	1,531	58,010
Northern	556,825	1,447	558,272
Western	356,037	431	356,468
Uganda	**1,272,699**	**4,985**	**1,277, 684**

plantations (0.2%). The total forest reserve area is estimated at 1,277,684 hectares, of which 99.6 % is under the Central Forest Reserves while 0.4% is on Local Forest Reserves as shown in Table 1.1. Uganda offers six (6) principal indigenous/natural forest reserves for harvesting with hard wood species such as Chlorophora excelsa, Celtis, Maesopsis eminii, Entandrophragma, Cynometra alexandrii, Lovoa brownii, and Newtonia buchanani.

Table 1.2: Principal Forest Reserves, Location and Sizes

Reserve	*Location*	*Area(Sq. km)*
Budongo	Masindi	**793**
Bugoma	Hoima	**365**
Kalinzu-Maramagambo	Bushenyi/Rukungiri	**580**
Kasyoha-Kitomi	Bushenyi/Mbarara	**399**
Mabira	Mukono	**306**
Sango Bay	**Rakai**	**151**

Source: *National Biomass Study Forestry Department*

1.2 Policy, Legal and Regulatory Framework

The governing law for the sector is the National Forestry and Tree Planting Act 2003. It subdivides the sector into five different forest managers namely; National Forest Authority (NFA) to manage the Central Forest Reserves, the District Forestry Services responsible for the Local Government Forests/Local Forest Reserves, Community Forests managed by the community and Forests on private land by the private land owners. The Act also established a Forest Inspection Division (Forestry Sector Support Department) to provide supportive back-up to both the NFA and District Forest Services.

In addition to managing CFRs, the NFA supplies forestry products and services to the public and private sectors as outlined below.

i) Licenses to harvest in Central Forest Reserves;
ii) First class milled timber in various sizes and species;
iii) Local seeds (sold in grams) in all quantities;
iv) Seedlings of pines, eucalyptus imported from Australia, Brazil and South Africa (sold in grams) for all quantities;
v) Local seedlings from local seeds such as agro forestry seeds, ornamental seedlings;
vi) Grafted fruit trees (varieties of mangoes and oranges);
vii) Land cover maps of 1990s series and the latest 2005 series;
viii) Digital elevation models ideal for hydrological studies and Planning for engineers, rural planners and landscape designers and tree farmers and;
ix) Consultancy services such as matching, tree planting, forest management and planning among others.

Other policies and laws that impact the forestry sector are summarized in Box 1 below.

2) Key Products in the sector

Uganda is endowed with various tree species that provide all the desired categories of timber. The common hard wood species include Chlorophora excelsa, Khaya anthotheca, Entandroprhagma cylindricum, Entandrophragma util, Feather sepele, E. angolense, Maesopsis emini, Olea welwitschii, Lovoa brownie, Cynometra alexandri and Newtonia buchanani. The other available species in the country are the exotic tree species. These species are currently grown for timber and pole production and these include Pinus patula, Pinus caribaea, Cupressus lustanica, Eucalyptus grandis and Eucalyptus globulus.

3) Sector Outlook

Forestry is an economically viable sector which has supported growth of several sectors and industries (small, medium and large). The sector is also an important source of energy, employment, livelihood and ecological integrity.

3.1 Annual Consumption of Wood and Other Wood uses

The annual consumption of wood in Uganda is estimated at 25 million tonnes approximately 1.1 tonnes per capita, with household fuel wood consumption constituting the biggest percentage of all the wood used asshown in Figure 3.1. The demand for wood for other uses has also registered apositive growth trend since 2003 with the highest percentage registered in 2007. The trend in the demand for wood is not likely to change for the foreseeable future thus investors can tap on the enormous opportunities for value addition activities in the sector.

Figure 3.1:% Fuel wood use and other Wood Uses



3.2 Annual Total Production of Round timber

The annual total production of the wood resource stood at an estimated 34.4 million tonnes in 2007 an increase from approximately 29.2 million tonnes in 2003. The growth is anticipated to augment given the thriving construction industry and insufficient supply of alternative sources of fuel.

Table 3.2: Total Production of round-wood timber, 2003-2007 ('000 tonnes)

Wood type	*2003*	*2004*	*2005*	*2006*	*2007*
Sawn timber	791	845	902	962	**1,027**
For Poles	747	777	808	847	**888**
Fuel wood-household	17,722	18,360	19,021	19,731	**20,468**
Fuelwood - commercial	2,762	2,827	2,895	2,993	**3,096**
Fuelwood-industrial	1,827	1,867	1,908	1,949	**1,992**
For charcoal	5,308	5,681	6,080	6,506	**6,963**
Total wood production	**29,157**	**30,357**	**31,614**	**32,988**	**34,434**

Source: (National Forestry Authority and Uganda Bureau of Statistics)

3.3 Value of Fuel wood Uses and Other Wood Uses

In general, the total value for all fuel wood uses and other wood uses in Uganda has grown dramatically with the highest value registered for fuel wood use at household level, followed by

sawn timber. Table 3.2 below shows 19.8% rise from an estimated 216 billion Uganda shillings in 2003 to 258 billion in 2007.

Table 3.3: Value of output of round-wood timber at current prices, 2003 - 2007 ('mill. shs)

Wood type	*2003*	*2004*	*2005*	*2006*	*2007*
Sawn timber	33,062	35,280	37,648	40,174	**42,870**
Poles	14,032	14,593	15,177	15,784	**16,549**
Fuel wood - household	103,557	107,256	111,117	115,117	**119,885**
Fuel wood - commercial	19,959	20,439	20,926	21,424	**22,416**
Fuel wood - industrial	13,205	13,494	13,789	14,091	**14,967**
For charcoal	31,908	34,148	36,545	39,111	**41,735**
Total Gross Output	**215,723**	**225,210**	**235,202**	**245,701**	**258,422**

Source: National Forestry Authority and Uganda Bureau of Statistics

3.4 Employment Trends

The forestry sector is one of the major sources of employment in the country. The sector offers employment in the formal and informal sectors. Employment trends for 2001/02 in Table 3.3 illustrate that 449 businesses engaged in Agriculture and Forestry had employed 14,783 people. By 2006/07, the number had almost doubled (92%) to 28,407 people. The dramatic increase is explained by the booming construction industry and insufficient supply of alternative sources of fuel which have driven the demand for wood products in the sector.

Table 3.4: Employment trends 2001/02 and 2006/07

Employment 2001/02			Employment 2006/07	
Sector	**No of Businesses**	**Total**	**No of Businesses**	Total
Agriculture & Forestry	**449**	**14,783**	**412**	**28,407**

Sources: *Uganda Bureau of Statistics*

Majority of the people employed in the sector are engaged in commercial fuel wood and charcoal production. NFA estimates the present employment of the forest-based activities in the formal sector at approximately 100,000 man years distributed by main activities as follows (Man-years are based on 260 working days per year)

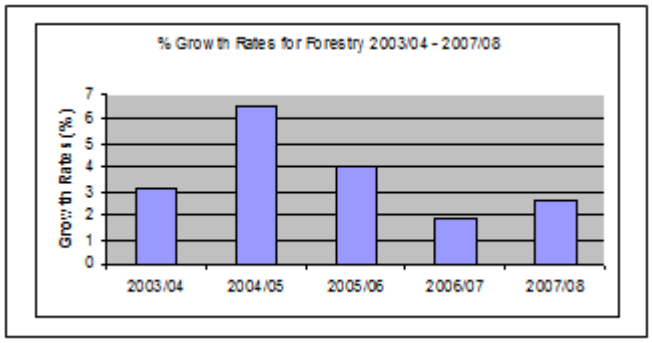
1) Fuel wood and charcoal production 89,150
2) Industrial Plantation establishment and management 10,000
3) Forest industry (including. harvesting) 1,800
4) Non-wood (Rattan, beekeeping) 200
5) Institutions 2,200
6) Consultancy services in the Sector 1,500

Employment estimates above are based on assumptions outlined below.

(i) Wood energy production it is assumed that 8 tonnes of charcoal and 70 tonnes of firewood can be produced per man-year. Of the total current employment more than 90% is assumed to be unskilled.
(ii) An average afforestation rate in the country of 5,000 ha/year requiring manpower of 2 man-years per ha for establishment and forest management activities.
(iii) There are about 500 saws operating throughout the country for pit-sawing. A saw is handled by 2 men summing up to a total of 1000 sawyers operating in the country.
(iv) A mobile sawmill is operated by about 20 to 25 people, there are about 20 mills operating currently employing 500 people and 300 are employed in plywood processing.
(v) The National Forestry Authority employs 350 people; the Ugandan Wildlife Authority about 1,400; Forestry College about 50, Makerere University Faculty of Nature Conservation about 50, Forestry Resources Research Institute about 50, The Forestry Sector Support Department about 20, District Forestry Services about 250.
(vi) 300 people are employed in NFA nursery operations.
(vii) 4,000 people employed in plantation establishment and maintenance of NFA plantations.
(viii) 17,000 people employed by private sector under tree growing license in CFRs.
(ix) 1,800 people employed in primary wood processing (harvesting and conversion) in NFA Plantations.
(x) 150 employed in forest protection activities by NFA contractors

3.5 Economic Contribution of the Forest Sector to Gross Domestic Product

3.5.1 Forestry Sector Growth Rates Figure 3.5.1: Forestry Growth rates 2003/04 -07/08

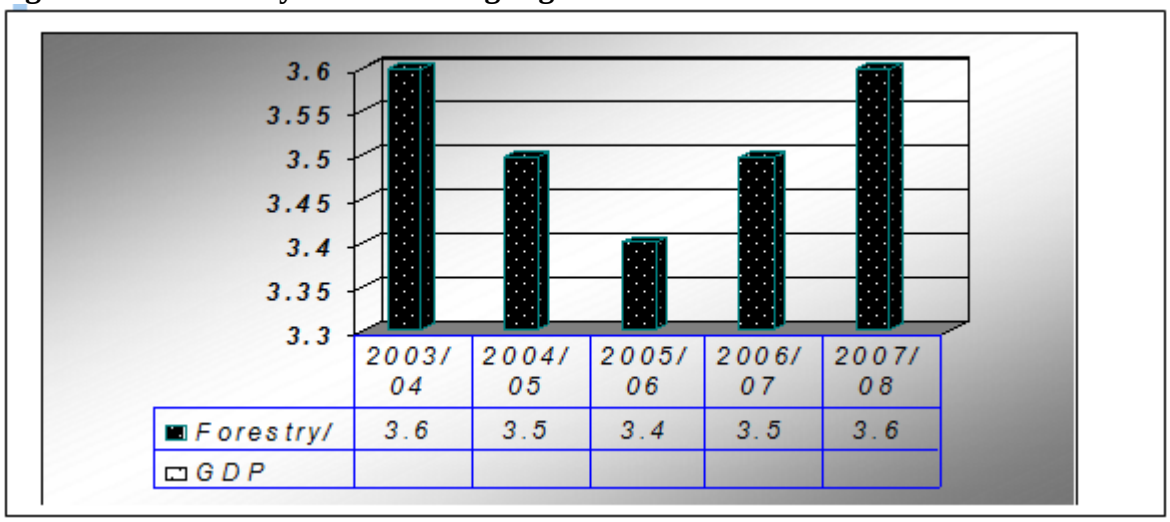


The forestry sector grew by 2.6% in 2007/08 an increase from 1.9% in 2006/07. Growth in the sector is driven by the increasing demand for forestry products particularly the booming Construction industry and inadequate supply of alternative sources of fuel in Uganda as well as the neighbouring countries.

3.5.2 Forestry Sector as a Percentage of GDP

The contribution of the forestry sector to GDP is small but has been progressively growing since the decline to 3.4% registered in 2005/06. In 2006/07 the sector registered growth of 3.5% and currently stands at 3.6% as shown in Figure 3.3 below.

Figure 3.5.2: Forestry as a Percentage og GDP 2003/04 – 2007/08



4) Competitive Strengths in the Forestry Sector

a) Yields (m^3/ha/yr): Yields from Ugandan plantations match and even exceed some of the best growth rates in the world. Uganda (20-35m^3/ha/yr for saw logs); Australia (15m^3/ha/yr for saw logs); South Africa (15m^3/ha/yr for saw logs), and Tanzania (14m^3/ha/yr for saw logs).

b) Returns: Timber plantations in Uganda offer more attractive rates of return on investment in the order of 15-18% (more with well grown Eucalyptus). This compares very favourably with many other countries as follows: Germany (0.5-1%); UK (3-5%); Brazil, Chile, Spain, Turkey (10-12%); and New Zealand and Australia (8 to 8.5%).

c) Human Resource Skills: There is abundant skilled manpower in the sector. Academic institutions such as Makerere University have a well established Faculty of Forestry and Nature Conservation. The institution has been the leading centre for forestry studies in East Africa for many years. It provides training and research at the Undergraduate, Masters and Ph.D. levels in areas such as forest ecosystems management and biodiversity conservation as well as community environmental. Nyabeya Forestry College also produces technical cadres in forestry management. There are a number of technical and vocational colleges, which produce artisans that add value to forestry products in the fields of carpentry, building and craft making. The National Forest Authority also trains human resource in the sector and provides consultancy in the tree planting, planning and management among others. In all, over 100,000 man-years are available for the sector.

d) Research: The National Agricultural Research Organisation (NARO), has a Forestry Research Institute (FORI), that develops technologies in forestry management and production. Other researches in the sector are undertaken by Makerere University Faculty of Forestry, Mbarara University of Science and the National Forestry Authority.

e) Cost of establishing Plantations: The costs of establishing a plantation are cheaper in Uganda

than elsewhere in the East African region. It is estimated that on average it costs about Uganda shillings1.2 million per hectare to establish a plantation in Uganda. This cost covers up to the first weeding of especially Pinus caribaea and Eucalyptus grandis.

f) Sizeable seed supply: The presence of a Tree Seed Centre in Uganda has guaranteed sufficient seed supply for the private and public sector: Annual production in the centres has grown from 60,000 seedlings in 2003/04 to currently over 1,600,000 seedlings. The main species raised include Pine and Eucalyptus, but emphasis is given to raising a wide range of indigenous species like Musizi, Mahogany, Mvule, Mutumba, Nsambya and Nongo. Other timber species include Teak, Terminalia and Melia volkensii.
g) Biodiversity: Uganda is the richest in biodiversity among the East African countries and is globally regarded as one of the important centres of biodiversity. The country is endowed with intrinsic diversity of natural habitats, species and genetic resources in its forests which make it globally competitive in Forest tourism. Uganda also has various ecological communities because of overlapping between the dry East African savanna and those of West African rain forest implying that a wide range of forest products can be developed at a lower cost and environmental risks.
h) Natural Resource base: Uganda is endowed with resources such as rainfall, soils and temperature suitable for the growth of indigenous and exotic tree species. The temperature ranges between 15-30oC, and rainfall range is 750- 2000 mm. The favourable climate gives Uganda a comparative advantage for forest production in the Eastern African region.
i) Substantial Land in Uganda: Uganda has substantial areas of land suitable for timber plantations as shown by the silvicultural map of Uganda. This land is either in CFRs or is privately owned land. Up to 150,000 ha of land is available for industrial plantation development within the CFR The licencing period granted by NFA depends on the rotation of the tree species.

5) Cost Base in the Sector

On average it costs about 1.2 million shillings to establish a plantation in Uganda. The cost includes most of the critical costs such as labour and seedlings among others etc.
Table 5.1 below gives a progressive trend of prices for Pinus caribaea var hondurensis purchased from Australia for the period 2004 – 2006. A similar trend is observed for Brazil seeds. On average, between 400 and 600 Kg of Pine seeds are imported valued at Ushs. 600 - 900 millions per annum. The cost prices of imported seeds from suppliers overseas have been on the upward trend and this is an important cost component of establishing a plantation.

Table 5.1: Cost of Imported Seeds from Australia 2004-2006

Date	F.O.B Cost per kg in Australian dollars	Equivalent cost in UGX
Nov 2004	430	643,000
April 2005	650	972,400
May 2006	1,345	2,012,120

Source: National Forestry Authority

6) Workforce Skills and availability

Workforce skills in the sector are available and the number is expected to grow. The National Forestry Authority has for instance trained over 500 persons and continues to do so in nursery management, tree seed collection and handling as well as plantation establishment techniques. The target groups include private seed suppliers, nursery owners and operators, tree growers and plantation managers.

7) Licenses required for operations

The National Forestry and Tree Planting Act, 2003 Section 41 requires that any operations undertaken in the Central Forest Reserves (CFR) must be licensed under conditions, rights and fees developed by the responsible body. The following licenses are required to operate in CFRs:

i) Eco-tourism business development.
ii) Timber harvesting (wood processors e.g. saw millers).
iii) Tree Farming License (for commercial private tree farming).
iv) License to Use or Work in a CFR (both small scale and large scale commercial producers and users).
v) License to Cut or Take Forest Produce.
vi) License to Undertake Research.

8) Sector Incentives

The following incentives are available for investors in the sector:

a) Availability /security of land and trees. The license validity depends on rotation of tree species.
b) Saw Log Production Grant Scheme (SPGS): The scheme provides a direct subsidy (grant) for private timber growers planting from 25 ha to 500 ha. The maximum amount paid is Uganda Shillings 600,000/= per ha. This amount is 50% of the total costs of establishing a plantation.
c) Negotiated license fee rates e.g. eco-tourism.
d) Open Competitive bidding for licenses.
e) Partnerships agreements and Collaborative Forest Management (CFM) arrangement including Memoranda of Understanding (MoUs).
f) Joint management ventures with the National Forestry Authority.
g) The Income Tax Act under section 21 (1) (u) exempts interest earned by a financial institution on a loan granted to any person for the purpose of forestry among others from withholding tax.

9) Key Markets (International and Local Trade)

9.1 Export Market

Projections of domestic demand for timber show a requirement of over 1million cubic meters of round wood by 2025. The market for timber products is mainly local. The export market for round wood timber is restricted in order to avoid depleting the indigenous forests. However, timber based products such as furniture can be exported. The destinations for sawn timber and round wood until the imposition of export restrictions were mainly Kenya, UK, Rwanda, Egypt, UAE and Saudi Arabia.

Globally, in terms of trade, Canada, USA, Sweden, Finland, and Germany in that order dominate export trade while the USA, Japan, Germany and the United Kingdom on the other hand dominate the list of importers. Global value of exports of forestry products particularly wood exports and paper products increased from $132 billion in 1996 to $204 billion in 2006 but Africa remains a minor player in global trade, with most exports in the form of primary products such as roundwood (FAO 2008).

9.2 Local/Internal Market

Within the country, timber is bought by traders ranging from pit sawyers and saw millers and traded in urban centres for construction and furniture. The main requirement in Uganda is general purpose timber for construction and furniture making among others. Pine is very suitable for these markets and could eventually replace much of the hardwood timber currently being used. There is a good market for veneer logs (Nileply Ltd. in Jinja is champion for this), which can be met from E. grandis and Araucaria species. There is also a good market for electricity poles (Eucalyptus), which are currently being imported into the country. Near urban centres there is a good market for E. grandis building poles. Current conversion efficiency rates for timber from E. grandis are yet to improve but it is expected that E. grandis will become a major timber source within 10 years.

10) Quality standards in the sector

The National Forestry Authority adheres to national and international standards for sustainable forest management. Currently the National Forestry Authority is domesticating the Forest Stewardship Council Criteria and Indicators for sustainable Forest Management.

Uganda is also a signatory to a number of international agreements and conventions relevant to the forest sector, covering conservation, access to genetic resources, trade in endangered species and cross border co-operation. These include; the Ramsar Convention on Wetlands, 1971, the Convention for the Protection of World, Cultural and Natural Heritage, 1972, the Convention on International Trade in Endangered Species, 1973, the Bonn Convention on Migratory Species, 1979, Agenda 21, 1992, the International Convention on Biological, Diversity, 1992 and the Convention to Combat Desertification, 1994

11) Investment trends in the sector

Investment in the sector have registered steady increase in both plantation and value addition activities. Some of the on-going forestry projects are:

a) Nanga Farms Ltd: Plans to establish 1,000 ha of quality industrial pine plantation by 2021.
b) Mt Elgon and Kibaale Afforestation Projects by the FACE (Forest Absorbing Carbon Emissions) Foundation of the Netherlands with the Uganda Wildlife Authority: Rehabilitation of 25,000ha of degraded forests in these National Parks.
c) New Forests Company Ltd: Is a sustainable modern forestry company with an established, growing plantation currently planted first phase of 6,500ha at Namasa Central Forest Reserves in Mubende District.
d) Nile Afforestation Project: Implemented by NFA in Rwoho Central Forest Reserve in South Western Uganda (about 2,000ha).
e) Busoga Forest Company Ltd: This is engaged in commercial forest plantation in Bukaleba Forest Reserve in Mayuge District.

f) Global Woods (U) Ltd: A reforestation project in Kikondwa forest Reserve in Kiboga District.
g) Bakojja New Wood County Project: This is a mixed soft/hard wood plantation forest in Buwekula County of Mubende District.

12) Investment Opportunities in Uganda

The favorable climate gives Uganda a comparative advantage in Forestry. The Sector offers numerous opportunities in areas such as timber and non timber processing for export, manufacture of high quality furniture/wood products, sawmilling, paper and printing as well as packaging. There are also opportunities in afforestration and reforestration especially of forest medicinal trees and craft material.
The specific opportunities include

a) Pinus caribaea var. hondurensis (PCH): PCH is a fast growing tropical species that is well suited to conditions throughout many parts of Uganda. It copes well with shallower soils on lower elevation sites and has proved to be very adaptable - performing well on fairly dry sites in Nakasongola, Masindi and Mayuge as well as cooler, wetter sites in Kyenjojo, Bushenyi and Mubende. PCH is easy to raise from seed though only improved seed should be used for commercial planting: such seed is available from breeding programmes in Australia, South Africa and Brazil and has been imported into Uganda since 2002. Growth rates of 15-25m3/ha/yr and rotations of 18-25 years are anticipated with good management practices and using improved seeds.

b) Eucalyptus grandis: E. grandis is commonly planted for fuelwood and poles but is increasingly being recognized as a valuable source of timber too. The timber is easily worked and can be used for heavy and light construction, furniture, boxes, veneer, plywood and pulp for paper. It is easy to raise from seed and coppices vigorously when cut. It is best suited to deep soils in the cooler, moist areas - particularly in the west - around Kabarole and Bushenyi, in the Central region and in the south-west (Kabale). Mean Annual Increments of over 50 m3/ha/yr can be achieved in such areas, though an average of 25-35 m3/ha/yr is more likely.

c) Maesopsis eminii (Musizi): Musizi is a fast growing indigenous species of considerable promise for timber production in Uganda. It produces a general purpose hardwood timber. Musizi must be thinned on time to produce straight timber. It is best suited towards Fort Portal and down the Albertine Rift (Masindi to Kabale). It is not suited to high and/or dry (<1200mm rainfall) areas.

d) Pinus patula: an evergreen tree up to 35m and good for growing in pure stands. The wood is easily worked, fairly light and soft. The ideal area for its growth is extreme South Western Uganda with high altitude ranges.

e) Cupressus lustanica: This is an evergreen tree up to 35m and good for growing in pure stands. The wood is easily worked, fairly light and soft. This does well in the humid low lands of West Nile and the South western region of Uganda.

f) Eucalyptus globulus: This is a tall tree to 55m. The wood is hard, heavy and strong. Best suitable for upland and high rainfall areas of Uganda.

g) Teak (Tectona grandis): This species is best suited for the low altitude sites in northern Uganda.

h) Other species: Araucaria (A. cunninghamii & A. hunsteinii) and Terminalia spp. (T. superba & T. ivorensis) have shown promise on very good sites, with high rainfall and deep soils. There are also other species that have shown promise in trials are Eucalyptus hybrid clones, Cedrela odorata and Pinus tecunumanii.

i) Planting of soft wood plantation for pulp: Most of the paper products in Uganda are imported. With the available investment climate in Uganda and the potential to produce timber for pulp at lower costs, investing in paper industry is an attractive investment.

j) Value added products from both hard and soft wood: Furniture: The demand for quality furniture in Uganda is high. Uganda imports a lot of furniture from Malaysia, South Africa, Italy, the United Kingdom, India and China, among others.

k) Flooring and paneling: The construction industry in Uganda has expanded over the years and the demand for good flooring is growing.

l) Veneer and plywood: Ply wood manufacture in Uganda needs to be expanded to meet the increasing demand.

m) Particle board mill from saw dust: The saw dust from most of the saw mills is wasted and is one cause of fires in forest reserves. A particle board mill will add value to the saw dust.

n) Pencil and Match factories: A pencil factory is also another investment opportunity that will trap the ever increasing demand from schools in line with the government policy on Universal Primary and Secondary Education. The same is for a match factory which will utilize the timber not suitable for construction.

o) Planting trees for medicinal purposes. Medicinal plants such as the Neem tree, Artemism have very high potential in Uganda

p) Seed Multiplication for sale: Such seeds include pine (Pinus caribaea, Pinus oocarpa) and Eucalyptus (Eucalyptus grandis). The prices for these species are currently very attractive if import prices are the basis as outlined Table .gives a progressive trend of prices for Pinus caribaea var hondurensis purchased from Australia for the period 2004 - 2006. A similar trend is observed for Brazil seeds. On average, between 400 and 600 Kg of Pine seeds are imported valued at Uganda shillings. 600 - 900 millions p.a. Appendix 3 lists the companies where seedlings are currently imported from by the National Forestry Authority (NFA)

Appendix 1: Useful Contacts for Agencies/Institutions

1. National Forestry Authority 10/20 Spring Road, Nakawa Tel:+256-312-264035/6; 414-230365/6 Fax: +256-414-230369 E-mail: info@nfa.org www.nfa.org.ug	6. Uganda Registration Services Bureau (URSB) Plot No. 5 George Street, 4th Floor, Amamu House General:+256 – 41 – 235915/233219 Fax:+256 – 41 – 250712 Official Receiver: 256 – 41 -345727 P.O. Box 6848, Kampala
2. Uganda Investment Authority P.O. Box 7418 Kampala, Uganda Tel +256-414-301000 Fax +256- 414-342903 E-mail: info@ugandainvest.com Url www.ugandainvest.com	7. Saw Log Grant Scheme Plot 92 Luthuli Avenue, Bugolobi, Kampala. Tel: +256 312 265 332/3 Email: info@sawlog.ug Web-Site: www.sawlog.ug
3. Uganda Manufacturers Association (UMA) Lugogo Show Grounds P.O. Box 6966 Kampala Tel: +256 41 220831/221034/287615/2 Fax: +256 41 220285 E-Mail: information@uma.co.ug Website: www.uma.co.ug	8. National Forestry Resources Research Institute P.O. Box 1752, Kampala, Tel: 256 -41-255164 Fax: 256-41-255165 Email: foridir@infocom.co.ug
4. Uganda Revenue Authority Headquarters: Nakawa Industrial Area, Postal Address: P.O. Box 7279, Kampala Uganda, General Lines: +256-41-334000/1 –10 Email: prte@ura.go.ug Email: pmukiibi@ura.go.ug Website: www.ugarevenue.com	9. National Research Organisation (NARO), Forestry Research Institute (FORI) P.O Box, 1752, Kampala Tel+256-414-255163/255164 Fax: +256-414-255165 Email : dgnaro@infocom.co.ugb Website : www.naro.go.ug
5. National Environment Management Authority Tel: 256 41 251064/5/8 Fax: 256 41 257521 Kampala - Uganda Email: info@nemaug.org Web site: www.nemag.org	10. Uganda Wildlife Authority Plot 7 Kira Road, Kamwokya PO BOX 3530 Kampala, UGANDA Telephone: +256-41-346287, 346288, 355000 Fax:+256-41-346291 Email: uwa@uwa.or.ug Website: www.uwa.or.ug

Appendix 2: Contacts of some of the investors/private sector

1. Moriz Vohrer Abteilung Marketing Global Woods AG Curiestrasse 2 70563 Suttgart, Germany Tel. +49 711 67 400 – 177 Fax +49 711 67 400 – 200 Mob. +49 178 3488 717 www.global-woods.com Nationality: German	2. Saw Log Grant Scheme Plot 92 Luthuli Avenue, Bugolobi, Kampala. Tel: +256 312 265 332/3 Email: info@sawlog.ug Web-Site: www.sawlog.ug Nationality: Project financed by Grants from the EU
3. The New Forests Company PO Box 71435, Kampala Uganda Tel:+256-414-268247 Fax: +256-414-268 271 info@newforestscompany.com website: www.newforestscompany.com Nationality: English	4. Uganda Tree Growers' Association Chairman, Mr. Jossy Byamah, Tel. +256-772-471164; Secretary, Ms. Sheila Kawamara-Mishambu, Tel. +256-77-2403120 Nationalities: Ugandans
5. Nile Plywoods (U) Limited Plot No.7-15 Factory Street P.O. Box 215, Jinja – Uganda Tel. +256-43-4121946/7/8 Fax +256-43-4123125 Email: nileply@source.co.ug Nationality Indian	6. Ama Ply Saw Mills 182, Kalitunsi Rd, Kampala Tel+256-41-4341099
7. Capital Saw mills Ltd 14/16, Muhumuza Rd, Kabale, Tel +256-486 – 423460	8. Associated Paper Industries Ltd 12, Madhvani Rd, Jinja, +256-43 – 420271/43 – 20078
9. Buwa Saw Mills 97A, seventh St, Kampala Tel +256-41 – 4230077	10. Erimu Company Limited Below Apex House Tel. +256-41-4285971/4270144
11 Busoga Forest Company Jinja Nationality Norwagian	

Appendix 3: National Forest Authority sources of imported tree seed

Organisation	Address	Species
1. Forestry Plantations Queensland, Tree Seed Centre	P. O. Box 53, Beerburrum Qld 4517, Australia Tel +617 5496 9830	Pine
2. Schuckar & CIA L TDA	Praca Das Cerejeiras, 1-50, 17.014 – 500 Bauru – SP Brasil; Tel/Fax 0055 14 3223 60 23	Pine
3. Mondi Business Paper, South Africa	P. O. Bag X518, Sabie, 1260, South Africa Tel: + 27(13) 7649297; Fax: +27 (13) 7641027	Pine and Eucalyptus
4. Komatiland Forests Research	P. O. Box 574, Sabie, 1260 South Africa; Tel +27 13 7643493; Fax +27 13 7641239	Eucalyptus
5. Tanzania Tree Seed Agency	S.L.P 373, Morogoro, Tanzania Tel: +255 23 260 3192 Fax: +.255 23 2603275	Various

Appendix 4: Progress of plantation development s by the NFA

Progress of Planting in CFRs by	Area planted 2004	Area planted 2005	Area planted 2006	Area planted 2007	Total Planted to date
Private sector	1,760	2,100	3,500	2,700	9,980
National Forestry Authority	1,060	2,050	990	220	4,320

Appendix 5: Forest Reserves in Uganda

