

# NET Uganda



# Beekeeping Project Proposal









Mission: To empower local people with skills in beekeeping, as a way of addressing rural poverty and general health issues.

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## 1.0 Executive Summary

Beekeeping is emerging as a very successful agricultural practice for local people in rural areas of less developed countries. Not only does the practice of beekeeping have intrinsic health benefits through providing a food source of great nutritional value which is lacking in rural areas, but beekeeping requires few inputs and capitalises on a ready supply of pollen. In rural areas there is almost an unlimited source of pollen and bees aid greatly in the natural cross pollination of local crops. Health benefits for local people reliant on small agriculture to provide food are centred around the enriching qualities of honey in a diet which is usually dependent upon staple foods such as bananas and maize.

The full establishment of one hive costs around 65,000Ug shillings (\$38US). Projected revenue from a single hive per year is 50,000-70,000Ug shillings. In a country where the average per capita income is \$324US beekeeping represents a viable microeconomic enterprise which pays for itself in the first year, provides health benefits and is a practical insurance against crop failure and local unemployment. There is major potential for grassroots poverty alleviation and empowerment of local people through the practice of beekeeping.

This project aims to establish 50 hives on the land of the Bisanje Community in the trading district of Masaka. These hives and the initial training of ten members of this local community will be used as a platform for the training and support of up to 100 local people who are interested in beekeeping per year. The major goals of this project are hence twofold: to provide a new stream of income for the work of the community and their partner organisation NET Uganda, and to alleviate poverty through the training and support of local people in the practice of beekeeping. Full costing, project dynamics, key personnel and critical risks are detailed in this proposal.

# 2.0 Project Description

Apiculture is a powerful way of tackling poverty at the grassroots level. NET Ministries in partnership with the Bisanje Community is looking to establish fifty hives as a platform for the training and adoption of beekeeping practice in southern Uganda. This project is primarily concerned with reducing poverty among rural people and providing ongoing resources for the work of NET in Uganda.

#### 2.1 Vision

Vision: Economic empowerment of people and support for ministry through the widespread introduction of beekeeping throughout Uganda.

#### 2 2 Mission

Mission: To empower local people with skills in beekeeping, as a way of addressing rural poverty and general health issues.

#### 2.3 Goals and Objectives

Phase 1 of this project is an establishment phase which will take place during 2005. Plans for further phases will be developed during the evaluation at the end of 2005.

#### Goals and Objectives:

- To establish 50 hives and train a core contingent of 10 local community members in the practice of beekeeping.
- To introduce a further 100 local people to beekeeping as a means of providing personal income and reducing local poverty with a targeted 40% adoption rate in the first year.
- Improvement of local health standards through the use of bee products such as honey and propolis.
- To provide financial resources for the work of NET Uganda in youth leadership training and formation.
- To establish an innovative model of microeconomic enterprise which can be replicated in other parts of Eastern Africa

## 3.0 Project Dynamics

#### 3.1 Environmental Climate

The social, cultural and economic climate of Uganda has great bearing on the dynamics of any project undertaken. Poverty has become a systemic problem in Uganda with low levels of literacy, high proliferation levels of AIDS and limited opportunities for employment. The demographics of Uganda are detailed in Appendix 1.

#### 3.2 Beekeeping

Apiculture is the deliberate rearing of honeybees for production of honey and other bee products. Previously the practice of bee keeping in Uganda was entirely rural based and practiced on a small scale by women, men and children. It was not until recently that the government made efforts towards improving the practice of beekeeping. The government has now recognized the practice as one of the economic activities that has potential for contributing to poverty reduction in the country. This sector falls under the mandate of the Department of Animal Health and Entomology in the Ministry of Agriculture Animal Industry and Fisheries.

The government through the National Strategy for Development of Apiculture in Uganda 2003-2004 is trying to address some of the problems affecting this sector through extension services, establishing processing centres and supporting and promoting large-scale producers and processors.

Physically Masaka Diocese has been greatly endowed with a xerophytic vegetation that favours beekeeping development. The major cash crops (coffee, bananas, sunflowers, and simsim) in the area provide an interdependence system in which the bees assist in carrying out cross pollination. This eventually leads to higher yields with farmers benefiting from richer crops. In turn the bees use these flowers as nectar and pollen sources, which will eventually provide honey with which the people will generate income to improve their living standards.

Similarly the xerophytic vegetation in this area biologically enhances the existence of a large population of bees. This area of Uganda has been greatly endowed with this resource and is one which has not been fully utilised thus far.





#### 3.2.1 Establishment of Project

Establishment of this project relies on the founding of 50 hives on community land as well as the training of key people in beekeeping skills. There is an initial establishment timeframe of 1 year. In the first year this project aims to meet the key goals and objectives before an evaluation looks at possible expansion of the initiative.

Establishment of 50 hives involves the following inputs:

Items	Unit Cost	Units Required	Total Costs (Ush)	Total Cost (US)
Bee hive	45000	50	2250000	1,324
Smokers	38000	4	152000	90
Overalls	55000	4	220000	130
Veils	40000	4	160000	94
Gloves	20000	5	100000	59
Wax (Cost/kg)	25000	10	250000	147
Wires/nails	30000	2	60000	35
Totals			3192000	1,879

Note: All costs in US dollars are based on 1,700 Ug Shs/US dollar.

#### **Training**

Training will be divided into 3 phases, which will be run over a period of five months, and will cover the content summarized in Appendix 2. The training will involve both theory and practical elements with each phase involving three days of theory and two days of practical application. The training will be done by an independent beekeeping expert who has worked in Apiculture in Eastern Africa for over 15 years.

Item	Cost	No. of days	Total (Ug Shs)	Total (US)
1. Transport for facilitator	10,000	3	30000	18
2. Stationery			150000	88
3. Consultancy fees	50,000	3	150000	88
4. Follow up for support supervision			300,000	176
Total cost for one phase of training			630000	370
Total cost for 3 phases of training			1890000	1110

(Assistance in Apiary site selection, establishment and hives installation

The total cost of establishing this project is Ug Shs 5,082,000/= (Us 2989).

#### 3.2.2 Projected Benefits

One beehive typically produces 10-14kg of honey per year with few inputs required after establishment. One kg of honey in Uganda sells for around Ug Shs 5,000/= (US \$3.00). 50 hives can generate between **Ug Shs 2,500,000 and 3,000,000**/= (US \$1,470-\$1,760) per year. In a country where the average per capita income is US \$325 beekeeping thus has enormous potential to galvanise the income of poverty stricken local people. Given the projected costs and benefits one beehive would pay 90% of its establishment costs in the first year. With very little maintenance and ongoing labour required after establishment of the hives, apiculture is an extremely cost effective agricultural activity.

#### 3.2.3 Pursuing Strategic Objectives

The fundamental objectives of this project are twofold:

- The alleviation of poverty in rural areas of Uganda; and
- The provision of an ongoing source of local income for the work of NET Uganda.

In pursuit of these objectives this project will be established on community land and a core group of ten local people will be fully trained in beekeeping. From this base of trained local people an additional 100 people will be trained and offered support in establishing the project on their own land. This will ensure that local people are given access to a system of support and mentoring throughout the establishment of their own hives. The establishment of a hive for a rural family will have benefits in augmented income, greater daily sustenance of family members and the ability to generate substantial savings in making wax based products needed for a subsistence lifestyle.

Revenue raised through the fifty hives that are initially established will be put towards the emerging work of NET. NET will provide staff who will oversee the establishment of the project and provide administrative support. The training of NET staff in the processes of beekeeping will also further augment their ability to provide practical skills for the young people with whom they work.

## 3.2.4 Evaluation and Forward Planning

In December of 2005 the Australian Project Manager will visit Uganda to assess the projects which are being established. Assessment of this project will look at the areas of:

- Financial benefits
- Social benefits
- Achievements against goals
- Financial reporting

In meeting with the project director and those involved in the training there will be an focus on forward planning for phase two of this project.

## 4.0 Management

#### 4.1 Key Personnel

#### **Project Manager**



Matthew Shakhovskoy is in the final stages of completing a dual Bachelor of Economics and Bachelor of Business Management degree at the University of Queensland (St Lucia Campus). Over the past three years Matthew has travelled extensively in America, Europe, Asia and most recently in central Africa. Matthew was involved in a three month mission trip to Uganda, Kenya and Tanzania in 2003 and was team leader of the 2004 NET Uganda team. He has committed to serving as

project manager for NET Uganda over the next two years. Matthew has a special interest in economic development in the third world and has made this a specialised area of study through his degrees.

#### **Project Director**



**Fred Mawanda** has a Bachelor of Science majoring in Agro forestry and a Masters in Agro Forestry. Fred has worked extensively in this industry for a number of national organisations. In his area of speciality Fred has been project manager and has championed the start of three successful cooperatives. Fred has been actively involved in many areas of

church life in Uganda since 1994, with a particular passion for evangelisation. He is also the leader of the Holy Trinity Community in Masaka. Fred has great skills in organisation, management and planning and speaks five languages with proficiency. Fred has three small children and along with his wife Pauline, directs NET Ministries in Uganda.

#### Administration



Mary Hellen has completed a Bachelors degree in Adult Communication Studies and Community Education, receiving second class honours. Mary Hellen has worked in a variety of different capacities in the public sector and has done extensive research in areas such as local household saturation, the effects of domestic violence and in reproductive health. At 24 years of age, Mary Helen is an accomplished speaker, loves movies and

has committed to serving with NET Ministries for the coming two years.

## 5.0 Critical Risks and Accountability

Critical risks associated with this project include:

- Poor adoption rate of participants and wasted teaching resources
- Wasted bee products in initial raids due to inexperience
- Vandalism to hives
- Longer lag time in establishment and production

The project director and staff under his leadership will be fully accountable to beneficiaries through NET Ministries Australia. Financial reporting mechanisms have been established and financial reports will initially be expected on a quarterly basis. In November of 2005 the Australian Project Manager will be making an inspection trip to Uganda to assess the progress of all projects undertaken. NET Australia takes seriously donor intentionality and the need for clear accountability mechanisms.

# Appendix 1

# **Demographics of Uganda**

From Wikipedia, the free encyclopedia.

Africans of three main ethnic groups--Bantu, Nilotic, and Nilo-Hamitic--constitute most of the population. The Bantu are the most numerous and include the Baganda, which, with 18% of the population, constitute the largest single ethnic group.

The people of the southwest comprise 30% of the population, divided into five major ethnic groups: the Banyankole and Bahima, 10%; the Bakiga, 8%; the Banyarwanda, 6%; the Bunyoro, 3%; and the Batoro, 3%. Residents of the north, largely Nilotic, are the next largest group, including the Langi, 6%, and the Acholi, 4%. In the northwest are the Lugbara, 4%. The Karamojong, 2%, occupy the considerably drier, largely pastoral territory in the northeast. Europeans, Asians, and Arabs make up about 1% of the population with other groups accounting for the remainder.

Uganda's population is predominately rural, and its density population highest in the southern regions. Until 1972, Asians constituted the largest nonindigenous ethnic group in Uganda. In that year, the Idi Amin regime expelled 50,000 Asians, who had been engaged in trade, industry, and various professions. In the years since Amin's overthrow in 1979, Asians have slowly returned. About 3,000 Arabs of various national origins and small numbers of Asians live in Uganda. Other nonindigenous people in Uganda include several hundred Western missionaries and a few diplomats and businesspeople.

Population: 24,699,073

note: estimates for this country explicitly take into account the effects of excess mortality due to AIDS; this can result in lower life expectancy, higher infant mortality and death rates, lower population and growth rates, and changes in the distribution of population by age and sex than would otherwise be expected (July 2002 est.)

#### Age structure:

0-14 years: 50.9% (male 6,314,371; female 6,265,681) 15-64 years: 47% (male 5,803,430; female 5,789,713)

65 years and over: 2.1% (male 247,798; female 278,080) (2002 est.)

Population growth rate: 2.94% (2002 est.)

Birth rate: 47.15 births/1,000 population (2002 est.)

Death rate: 17.53 deaths/1,000 population (2002 est.)

Net migration rate: -0.28 migrant(s)/1,000 population

note: according to the <u>UNHCR</u>, by the end of 2001, <u>Uganda</u> was host to 178,815 <u>refugees</u> from a number of neighboring countries, including: Sudan 155,996, Rwanda 14,375, and Democratic

Republic of the Congo 7,459 (2002 est.)

#### Sex ratio:

at birth: 1.03 male(s)/female under 15 years: 1.01 male(s)/female

#### Bee-Keeping Project – NET Ministries

15-64 years: 1 male(s)/female

65 years and over: 0.89 male(s)/female total population: 1 male(s)/female (2002 est.)

Infant mortality rate: 89.35 deaths/1,000 live births (2002 est.)

Life expectancy at birth: total population: 43.81 years

male: 42.97 years

female: 44.67 years (2002 est.)

Total fertility rate: 6.8 children born/woman (2002 est.)

HIV/AIDS:

adult prevalence rate: 6.1% (2001 est.)

people living with HIV/AIDS: 1.1 million (2001 est.)

deaths: 110,000 (1999 est.)

Nationality: noun: Ugandan(s) adjective: Ugandan

Ethnic groups: <u>Baganda</u> 17%, <u>Ankole</u> 8%, <u>Basoga</u> 8%, <u>Iteso</u> 8%, <u>Bakiga</u> 7%, <u>Langi</u> 6%, <u>Rwanda</u> 6%, <u>Bagisu</u> 5%, <u>Acholi</u> 4%, <u>Lugbara</u> 4%, <u>Batoro</u> 3%, <u>Bunyoro</u> 3%, <u>Alur</u> 2%, <u>Bagwere</u> 2%, <u>Bakonjo</u> 2%, <u>Jopadhola</u> 2%, <u>Karamojong</u> 2%, <u>Rundi</u> 2%, non-African (European, Asian, Arab) 1%, other 8%

Religions: Roman Catholic 33%, Protestant 33%, Muslim 16%, indigenous beliefs 18%

Languages: <a href="English"><u>English</u></a> (official national language, taught in grade schools, used in courts of law and by most newspapers and some radio broadcasts), <a href="Ganda"><u>Ganda</u></a> or <a href="Luganda"><u>Luganda</u></a> (most widely used of the <a href="Niger-Congo languages">Niger-Congo languages</a>, <a href="pred: pred: pred

Literacy:

definition: age 15 and over can read and write

total population: 62.7%

*male:* 74%

female: 54% (2000 est.)

This information from the CIA World Factbook 2002.

# Appendix 2

### **COURSE CONTENT FOR BEE KEEPING TRAINING**

Major topics	Sub-topics
Bee biology	✓ The colony
23	✓ Workers drones and the queens
	✓ Duties of the queen, workers and drones
	✓ Impregnating of the queen swarming
	✓ Queen less colony
	✓ The unfertilised queen
	✓ Bees calendar
Bee keeping technology and equipment	✓ Types of bee hives(brick hive, K.T.B, local woven,
bee keeping teenhology and equipment	long stroth)
	✓ Construction of different types of hive
	✓ Advantages and disadvantages of the above different
	bee hives
	✓ Smokers
	✓ Veils
	Bee hive tool
	✓ Swarm catcher
	✓ Over all
	✓ Bee gloves and boots
	✓ Advantages of bee equipment.
Bee keeping rural development	✓ Factors considered in starting a bee-keeping project.
	✓ Apiary site selection
	✓ Tree species that favours honey productions
	✓ Looking after bees
	✓ Feeding bees.
Hiving of colonies	✓ Use of baiting method
Triving of colonics	✓ Use of catches box
	✓ Use of clustered swarm
	✓ Transfer of wild colonies
	✓ Hiving by dividing an established colony(colony
	multiplication)
	✓ Uniting a swarm to a colony
D 4 1	✓ Use of honey combs and burning method
Bee pathology	✓ Broad disease
	✓ American foul brood
	European fowl brood
	✓ Other abnormal conditions include; the children
	brood, the starved brood, the bald brood, store brood
	✓ Nosema- like protozoa
	✓ Nosema (nosema apis)
	✓ Dysentery
	✓ Paralysis
Factors militating bee industry in Uganda	✓ Bee predators/natural enemies/pests
· -	✓ Natural climatic conditions
	✓ Human activities
	✓ Poor management of colonies
	<ul><li>✓ Poor management of colonies</li><li>✓ Absconding</li></ul>

#### $Bee-Keeping\ Project-NET\ Ministries$

Common practices in apiary management	✓ Controlling swarming to your advantages
	✓ Hive inspection
	✓ Brooding
	✓ Formation of a nucleus
	✓ Prevention of robbing
	✓ Feeding of bees
	✓ Watering of bees
	✓ Keeping of records
	✓ Colony record
	✓ Operational record.
Manipulation of bees, extraction of honey and other bee	✓ Honey harvesting and what to look for (quality)
products	✓ Extractions of honey (processing) traditional methods
	and modern methods of processing.
	✓ Bee wax extractions
	✓ Equipment needed
Bee keeping economy	✓ Government stand
	✓ National apicultural policy
	✓ Structure of bee keeping industry in Uganda
	✓ Market potential
	✓ Products from the industry.
Pollination and bee flora	✓ Foraging flowers for field bees
	✓ Shelter establishment
	✓ Trees that favours honey production eg acacia
	species, eucalyptus species.
	✓ Environmental issues put into consideration
	✓ Low frequency use of pesticide.

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Please make all checks payable to:  NET Ministries  110 Crusader Avenue W.	Address:	
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*All check and cash donations are 100% tax deductible.  *Receipts are posted.  *All donations over \$50 will receive NET Ministries quarterly newsletter	Ph: ( )	

# NET Uganda – Australia Form



Yes! I want to assist NET Ministries Australia in their valuable outreach to the people of Uganda!!			
My Gift Today: \$1,000 \$500 \$250 \$100 \$50 \$	Name:		
Method of payment:	Organization:		
Cash or Check (Please make cheques payable to "NET Ministries") OR please debit the above amount from my:	Address:		
Bankcard MasterCard VISA American Express Once only Monthly Quarterly Yearly			
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Expiry:/ Signature: Ph: ( ) *All donations over \$50 will receive NET Ministries bi-monthly newsletter			