



New Nature  
Foundation  
Annual Report  
2013

# Empowering Communities to Protect Declining Ecosystems: The Kibale Fuel Wood Project and Kibale Eco-Char Initiative

## 2013 Annual Report



**Primary Investigators:** Rebecca Goldstone and Michael Stern

**Organization Name:** New Nature Foundation

**Mailing Address:** 1632 Humboldt Street, Denver, Colorado, 80218

**Phone:** 610-256-0959

**Email:** [info@newnaturefoundation.org](mailto:info@newnaturefoundation.org)

**Website:** [www.NewNatureFoundation.org](http://www.NewNatureFoundation.org)



**The New Nature Foundation strives to conserve wild animals and wild places through education, empowerment, and an emphasis on creative solutions that promote people living in harmony with nature.**

**Kibale National Park** is home to countless quintessential African animals: chimpanzees, elephants, monkeys, cobras, antelopes, cranes, hornbills, butterflies and more. A recognized center of biodiversity, the park and her wildlife are acutely threatened by small-scale fuel wood collection by one of the world's fastest growing human populations.

**In 2013**, the New Nature Foundation continued its work of protecting Kibale from human encroachment and improving people-park relations by facilitating energy stability and promoting environmental sensitivity and sustainability. The projects accomplish these goals by introducing energy saving technologies, encouraging home-grown wood and providing comprehensive environmental education to local community members.

**Summary of Accomplishments, January – December 2013:**

- 72% of our constituents now grow trees at home (up from 51.5% at inception).
- 54.5% use efficient stoves (up from 4.5% at inception).
- In total, 2,120,662 kilograms (4,665,456 pounds) of wood was conserved this year through NNF's programs, much of which would have been cut inside Kibale National Park.
- Four conservation competitions were held, attended by 1,600 people.
- Eighteen video shows were presented, attended by 6,170 people.
- Science Center attendance increased to 17,172 people.
- Five workshops were conducted on building efficient stoves and cooking with briquettes in four target areas.

We hope you enjoy reading the following report. If you have any questions or comments, please feel free to contact us at any time. **Thank you very much** for the vital role you have played in achieving these accomplishments!

# CONTENTS

Eleven Page Report with Four Appendices

Eco-Briquettes	Page 4
Science Centers	Page 5
Efficient Stoves	Page 6
Trees	Page 7
Conservation Competitions	Page 7
Staff Training	Page 8
Publicity	Page 8
List of Donors	Pages 9-11
Appendix I	Survey Charts
Appendix II	Survey Graphs
Appendix III	Income & Expense Graphs
Appendix IV	Budget Detail



*Crowned Hornbill*



*Briquette staff, L-R: King, John, Annet, Liberty, Grace, Daisy, Mabel & Margaret*

## ECO-BRIQUETTES

In 2013, **136,445 biomass briquettes were produced** (88,299 at the Kaburala village production center and 48,146 at the Kiko tea estate's production center). This is more than double the production in 2012, thanks in large part to the addition of an electric food processor.

50 families in Kaburala are now trading their agricultural waste for briquettes that are used as a forest-friendly fuel source. The trading scheme is successfully motivating individuals who cannot afford to buy fuel to become involved with this initiative. The top three traders were honored at this year's cooking competition:

- Mrs. Musa traded 1,091 kgs (2,400lbs) of waste;
- Mrs. Zeeda traded 838 kgs (1,844 lbs) of waste;
- Mrs. Byaruhanga traded 807 kgs (1,776 lbs) of waste;
- Additionally, one partner, Happy Kabarakole, has continued to walk the 16 km round trip from his home to trade waste, bringing a total of 549 kgs (1,208 lbs).

At the Kiko Tea Estate, 103 families have been introduced to the briquettes and are using them to supplement their normal cooking fuel allowance. Looking ahead, we are very excited by the agreement reached with McLeod Russell Tea (the world's largest tea producer) late in the year: the estate now allows NNF staff access to electricity at their factory, which is helping increase the number of briquettes produced. A system of collecting waste from the estate's worker villages is also being refined. As production continues to rise, we look forward to selling the briquettes that are surplus of the trading program to the Estate, bringing this portion of the project closer to self-sufficiency. There will be some significant investments in 2014-15 to help the project reach a level of long-term sustainability. Thanks to the Arcus Foundation Great Apes Fund, a significant portion of this work is already funded for the next three years. We urge all our generous long-term partners to consider making an extended grant this year to help this vital project reach full funding.

Based on the average number of briquettes used by a family each day, **the briquettes produced in 2013 account for a savings of more than 34,797 kilograms (76,553 pounds) of wood**, an increase of 240% over last year's production and wood savings. **While much of this wood would have come from unsustainable sources, the briquettes are 100% carbon neutral, so in addition to protecting wildlife habitat the KECI is helping us all by mitigating carbon emissions and climate change.**



## SCIENCE CENTERS

The New Nature Foundation maintains four Science Centers in villages close to KNP. The Science Centers are natural history museums, demonstration areas, libraries and gathering places. They attract large audiences with animal artifacts, scientific experiments and tactile experiences, and utilize this opportunity to teach people about NNF's main goals of wildlife conservation and energy efficiency. The project's constituents encounter countless hardships on a daily basis – some inflicted by their animal neighbors. By providing opportunities to create personal connections, NNF helps forge positive relationships between Ugandans and their outstanding wildlife.

**Total attendance at all the Science Centers was 17,172 in 2013;** 56% children and 44% adults. This is over 1,000 more visitors than last year, with three locations showing a marked increase. The table on the next page shows a breakdown of attendance by location. Some of the Science Centers have been open for seven years now, and this increase in attendance provides clear evidence of their importance and popularity within the communities.

The budget for Science Centers remained quite reasonable in 2013 (under \$9,000 for all operations at four locations). NNF remains focused on infusing new artifacts, replicas, schoolbooks, educational graphics and toys to maintain the quality of education that has come to be expected, and these items do add to the cost of operation. Additionally, rent continues to increase at all locations, as landlords recognize the success of the centers and the importance of their locations. NNF hopes to continue investing what is needed to make the Science Centers as successful as possible as long as our generous donors continue to recognize the importance of this aspect of the project. An excerpt from a visitor book, to help make the point:

*A cool, windless place. Bones of different animals around. Books all around, arranged in shelves. Drawings of animals, some laughing, others angry, some loving, others hating, some sleeping, others awake. In short, it is a place where one cannot develop a thought of leaving once he has entered it. Can you predict the place that I am meaning? The Science Center, obviously. I really owe a great debt of thanks to you for having made a science center to develop our minds. Through the science center I am able to tell how different bones of animals look like. I am also able to tell how animals feed and play. During time of school, I would come and read textbooks in science center to increase my knowledge. Dear, you have brought a flash of a smile on my face thank you so much.*

--Atusasiire Tomas.



Artist Isaac with one of his murals at the Nabweya Science Center

Table 1: 2013 Science Center Attendance

Location	Children	Adults	Total
Isunga	1,403	1,485	2,888
Kaburala	2,739	1,911	4,650
Kaswa	2,709	1,966	4,675
Nabweya	2,706	2,253	4,959
<b>Total</b>	<b>9,577</b>	<b>7,615</b>	<b>17,172</b>

## EFFICIENT STOVES

**The latest surveys reveal that 54.5% of families in the target areas are now using efficient stoves, the fourth year in a row that more than half of our constituents have recognized the benefit of these stoves for their families and the nation's forests.**

Average wood usage for families with efficient stoves is currently 0.81 heaps per day, which is slightly higher than expected. (See graphs in Appendix II for a comparison to previous year's data.) A closer analysis reveals that one village in particular dramatically increases the overall average. Eliminating this outlier shows average wood use for efficient stove owners in the remaining target areas is **0.66 heaps, a sizable decrease from previous years.** Working with different tribes and different villages creates more variance in our overall results, but these differences are important to factor in when working in community conservation. Special attention will be paid to residents in Nabweya next year to attempt to reduce their overall wood usage.

**In 2013, community members built 64 stoves with assistance from KFWP staff.** This reflects a decrease in documented stove building, however survey responses reflect that the percentage of families using stoves has risen since last year. The total number of stoves reported above does not reflect stoves built without staff assistance. In a wonderful example of how the project's ideas continue to spread without financial investment from NNF, the Kasiisi Project and Camp Uganda, two fellow members of the Kibale Consortium for Conservation Education, have replicated a stove-building project utilizing the KFWP's techniques. It has been over two years since NNF has paid full time staff to assist in building stoves. In 2014, villagers will continue to see this reduced level of staffing as we maintain this principle of self-sufficiency and sustainability. In 2015, the organization may invest in a resurgence of on the ground staff in an attempt to bolster the different communities' independent work.



*L'Hoest's Monkey*



**In total, the KFWP has assisted in building 1,384 efficient stoves** since inception. Calculating with wood usage numbers from 2013's surveys and the 96% functional figure gleaned from the last full census, this accounts for a **savings of 5,715 kilograms (12,573 pounds) of wood daily, or nearly 2.1 million kilograms (4,588,904 million pounds) of wood each year**, much of which would have been cut within Kibale National Park. The stoves, which have been NNF's most popular program since 2006, reinforce the people-park relationship through tangible benefits clearly linked to KNP. Thus, everyone wins – people, wildlife, and the forest we are working so hard to protect.

## TREES

Across all target areas, **72% of people grow trees, 63.3% of whom grow *Sesbania***. This reflects an increase from last year in the number of people growing firewood. While the percentage of people growing *Sesbania* has dropped, we attribute this to our promotion of other indigenous trees such as *Calliandra* and the popularity of non-native species (that NNF does not recommend) such as *Eucalyptus*.

Unpredictable weather patterns have continued to make tree planting less appealing to some people, but we continue to promote this sensible solution to the fuel wood crisis. In a continued attempt to encourage more tree planting, competitions were held in all target areas again this year, with the winners receiving a bicycle. 2013 was the final year of these competitions, for the time being, as they have not continued to motivate large numbers of individuals to plant trees. Still, the winners of the competitions each year did great work: the highest number of trees planted this year was over 1,000, while the winners in other areas planted about 500 trees each.

## CONSERVATION COMPETITIONS

The fourth annual conservation competitions were held in December 2013 in four target areas with approximately 1,600 people attending. These day-long events were created to gather large audiences together to learn about Kibale. The venue allows Ugandans to teach Ugandans about their struggles with nature and how to address them, sharing the value in being a conservationist while making it entertaining.

Each event had a fantastic fuel-efficient bean cook-off where ten cooks with “rocket” stoves compete for prizes. The winner is the one who cooks the tastiest beans using **the least amount of wood**. Winners at all locations were able to cook a kilogram of beans with less than a kilogram of wood. This information is shared with audiences that averaged 400 per event so that people see first-hand the value and efficiency of NNF's stoves. The theme for this year's dancing and drama presentations was “Deforestation.” Seventeen groups taught about the perils of deforestation and realistic solutions through traditional dances, poetry and plays. Some of the poems were published in our Winter 2013 Update, which can be viewed on our website, here: <http://newnaturefoundation.org/wp-content/uploads/2009/05/Winter-2013-Update1.pdf>.





## STAFF TRAINING

NNF's annual training workshop sends staff and interns on an educational safari to one of Uganda's national parks. This year they went to Murchison Falls National Park, northeast of Kibale along the River Nile. Project management believes it is key to the development of the staff to show them the amazing biodiversity within their own country. No other opportunity like this is available to the average Ugandan. The experience of viewing wildlife and meeting educators and rangers who teach valuable skills truly expands the horizons of our staff, making them better at their current jobs and perhaps more competitive for other jobs in the future. Thanks to volunteer Randy Campbell for helping fund this year's trip. Some excerpts from the staff's reports:

*"I would like to share my wonderful moment I experienced during the trip I had to Murchison Falls National Park – It was real fantastic in my life, it has totally changed my attitude toward conservation and I am looking forward to change the people's attitude in my community to love and take part in conservation."*

*"It was my first time to have a trip, but when reached there I saw many things which excited my life."*

*"Warthog are very common in Murchison falls. They are everywhere! Uganda Kob are mostly found in national parks and you can easily observe the age of a male by the rings on its horns."*

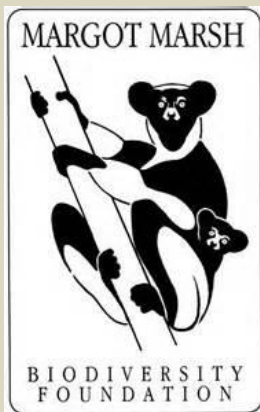
## PUBLICITY

In 2013, NNF's Directors lectured at SeaWorld Orlando, Busch Gardens Tampa, Fresno Chaffee Zoo, Sacramento Zoo, Zoo Boise, Denver Zoo, Oakland Zoo, Zoo New England, Roger Williams Park Zoo and the Community College of Denver. Directors also presented at the Zoos and Aquariums Committing to Conservation conference in Des Moines, Iowa, and set up an informational table at the Wildlife Conservation Network Expo in San Francisco. The Denver Zoo publicizes NNF's work to visitors through one of its "Change the World" walls, which accepts donations in the Great Ape Building, and NNF's work was also highlighted at Idea Wild's annual fundraiser in Fort Collins, Colorado. Thank you to all these amazing organizations for welcoming us into your conservation families! Stories about NNF's work in Uganda were published on Mongabay.com and in Frontiers Magazine, and a 30-minute interview was aired on the Pathways TV Show on Princeton Public Television early in the year. The staff was also honored to host visitors from the Arcus Foundation, long-time project supporters, in Uganda this year.



Uganda Kob, photo courtesy of Board Member Mark Vibbert

Thank you all!







Institutional Donors:

Chester Zoo  
Denver Zoo  
Disney Worldwide Conservation Fund  
Fresno Chaffee Zoo  
Idea Wild  
Little Rock Chapter, AAZK  
Margot Marsh Biodiversity Foundation  
Milwaukee County Zoo  
Natural Encounters Inc.  
Oakland Zoo  
Pittsburgh Zoo & PPG Aquarium PPG Conservation &  
Sustainability Fund  
Reid Park Zoo Teen Volunteers  
Roger Williams Park Zoo  
Sacramento Zoo  
SeaWorld Busch Gardens Conservation Fund  
Taronga Zoo  
Wild 4 Ever  
Zoo Boise Conservation Fund  
Zoo Miami

Individual Donors:

Bob Berghaier  
Barbara Bierney  
Chuck X. Block  
Janie Collins  
Jenny Hartshorne  
Toni Katz  
Michael & Barbara Perilstein  
Bette & Jon Perlman  
Daria & Tony Pori  
Steve & Connie Price  
Jan Robbins  
Beth Jo Schoeberl  
Herbert Jr. & Beverly Spannuth  
Sarah J. Welton  
Gary Woodward  
Janson Wu

Thank you all!



# Appendix I: Survey Charts

	Baseline Data All Areas (2006, Pilot areas; 2007, EPI areas; 2008, EPII areas)	Most Recent Data All Areas (2013)			
Is it a struggle to obtain firewood?	89% YES	93.8% YES			
How do you propose to lessen the struggle?	58% plant trees 7% efficient stove 7% cut wood in KNP	60.7% plant trees 11.7% efficient stove 4.5% cut wood in KNP			
Do you grow trees at home?	51.5% YES (10.5% of whom grew <i>S. sesban</i> )	72% YES (63.3% of whom grow <i>S. sesban</i> )			
Traditional or efficient stove?	4.5% used efficient stoves	54.5% use efficient stoves			
Average Wood Use	1.34 heaps per day	1.02 heaps per day Efficient stove uses 35% less wood than traditional <table><tr><td>.81 eff.</td><td>1.24 trad.</td></tr></table>		.81 eff.	1.24 trad.
.81 eff.	1.24 trad.				
Firewood collected in the park?	30.5% YES	13.2% YES			

	Baseline Data Pilot Year Areas (2006)	Most Recent Data Pilot Year Areas (2013)	
Is it a struggle to obtain firewood?	93.5% YES	93.5% YES	
How do you propose to lessen the struggle?	75% plant trees 0.5% efficient stove 12% cut wood in KNP	62% plant trees 6.5% efficient stove 4.5% cut wood in KNP 3% use briquettes	
Do you grow trees at home?	55% YES (8.5% of whom grew <i>S. sesban</i> )	73.5% YES (65% of whom grow <i>S. sesban</i> )	
Traditional or efficient stove?	3.5% used efficient stoves	54% use efficient stoves	
Average Wood Use	1.11 heaps per day	.82 heaps per day Efficient uses 35% less wood than traditional	
		.65 eff.	1.00 trad.
Firewood collected in the park?	37% YES	15.5% YES	

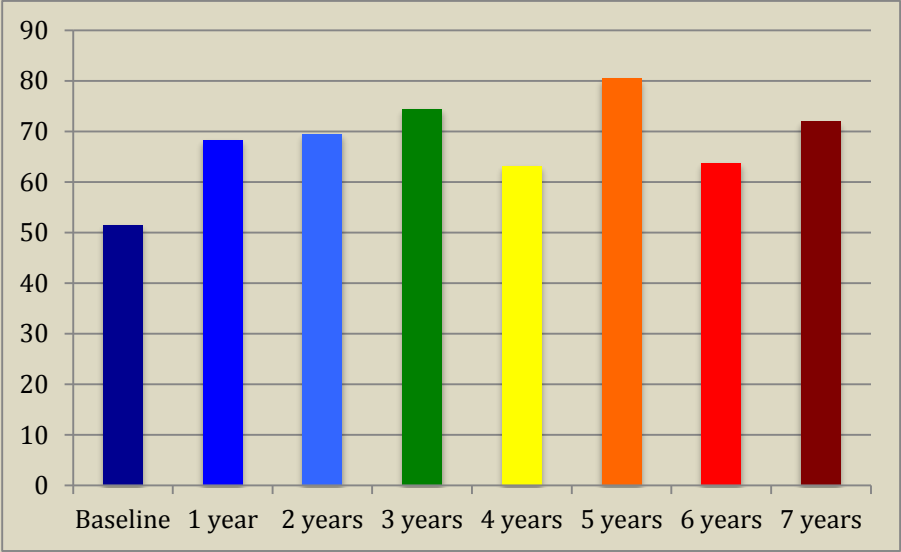
	Baseline Data Expansion I Areas (2007)	Most Recent Data Expansion I Areas (2013)	
Is it a struggle to obtain firewood?	92% YES	88% YES	
How do you propose to lessen the struggle?	49% plant trees 7.5% efficient stove 8% cut wood in KNP	46% plant trees 23.5% efficient stove 0% cut wood in KNP	
Do you grow trees at home?	56% yes (20% of whom grew <i>S. sesban</i> )	58.5% yes (65% of whom grow <i>S. sesban</i> )	
Traditional or efficient stove?	2.5% used efficient stoves	63.5% use efficient stoves	
Average Wood Use	1.43 heaps per day	.79 heaps per day Efficient uses 27% less wood than traditional	
		.67 eff.	.92 trad.
Firewood collected in the park?	23% YES	12% YES	

	Baseline Data Expansion II Areas (2008)	Most Recent Data Expansion II Areas (2013)	
Is it a struggle to obtain firewood?	81.5% YES	100% YES	
How do you propose to lessen the struggle?	49% plant trees 14% efficient stove 1.5% cut wood in KNP	74% plant trees 5% efficient stove 9% cut wood in KNP	
Do you grow trees at home?	43.5% YES (3% of whom grew <i>S. sesban</i> )	84% YES (60% of whom grow <i>S. sesban</i> )	
Traditional or efficient stove?	8% used efficient stoves	46% use efficient stoves	
Average Wood Use	1.48 heaps per day	1.45 heaps per day Efficient uses 38% less wood than traditional	
		1.11 eff.	1.8 trad.
Firewood collected in the park?	31.5% YES	8% YES	

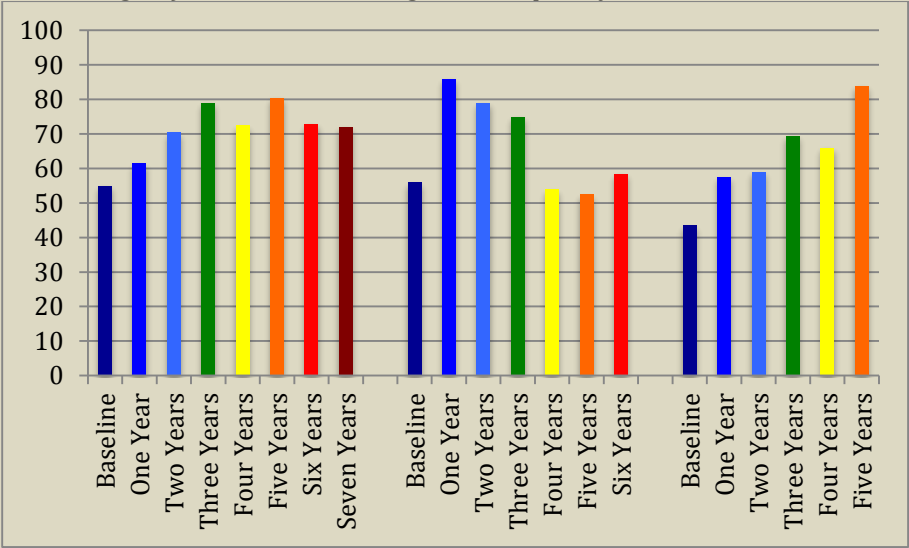


Appendix II: Survey Graphs

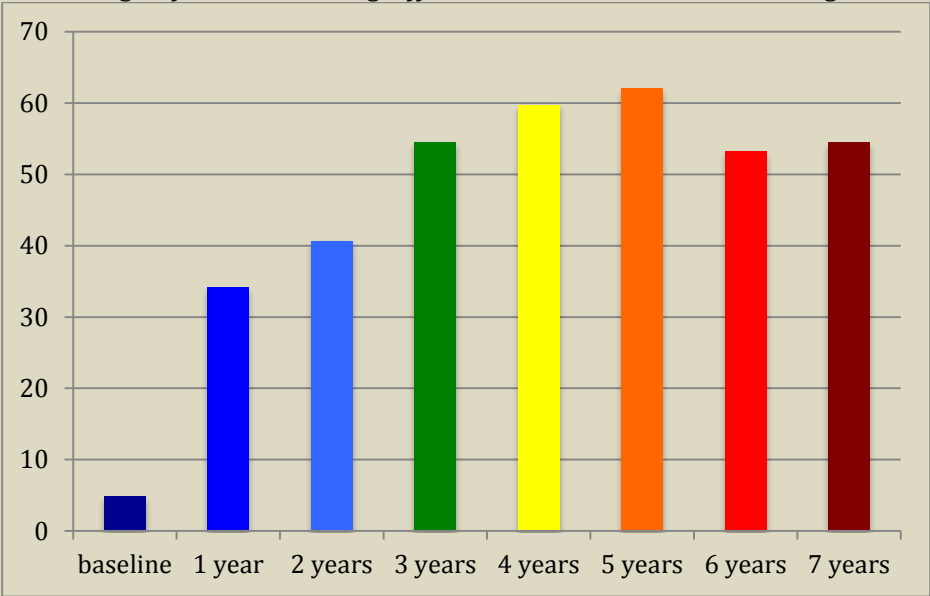
Percentage of Families Planting Trees, Combined Average



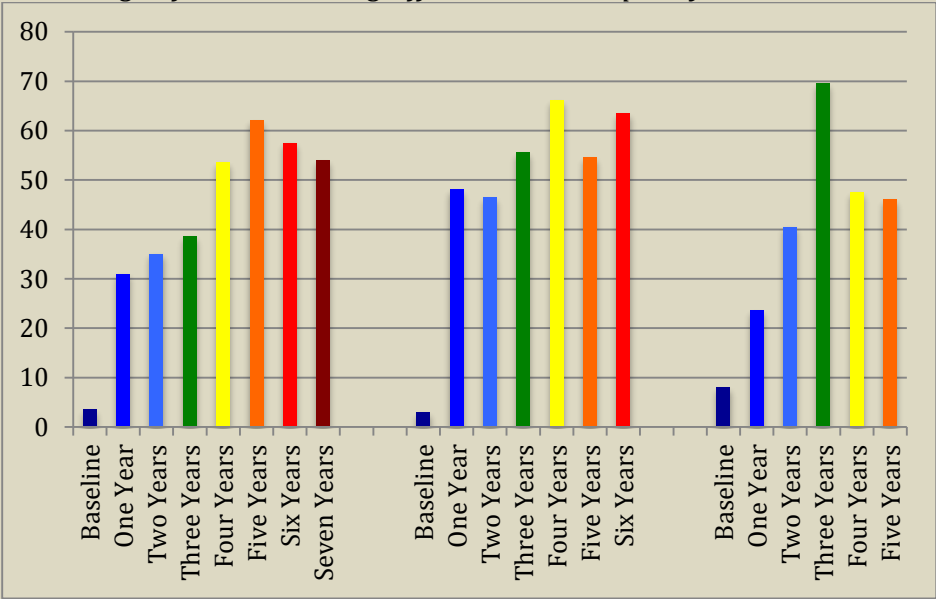
Percentage of Families Planting Trees, Split by Start Date



Percentage of Families Using Efficient Stoves, Combined Average

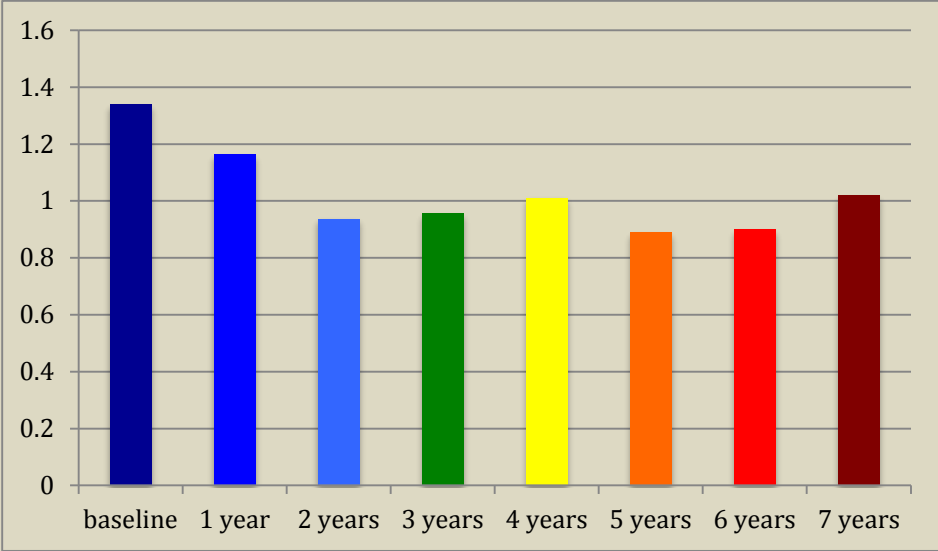


Percentage of Families Using Efficient Stoves, Split by Start Date

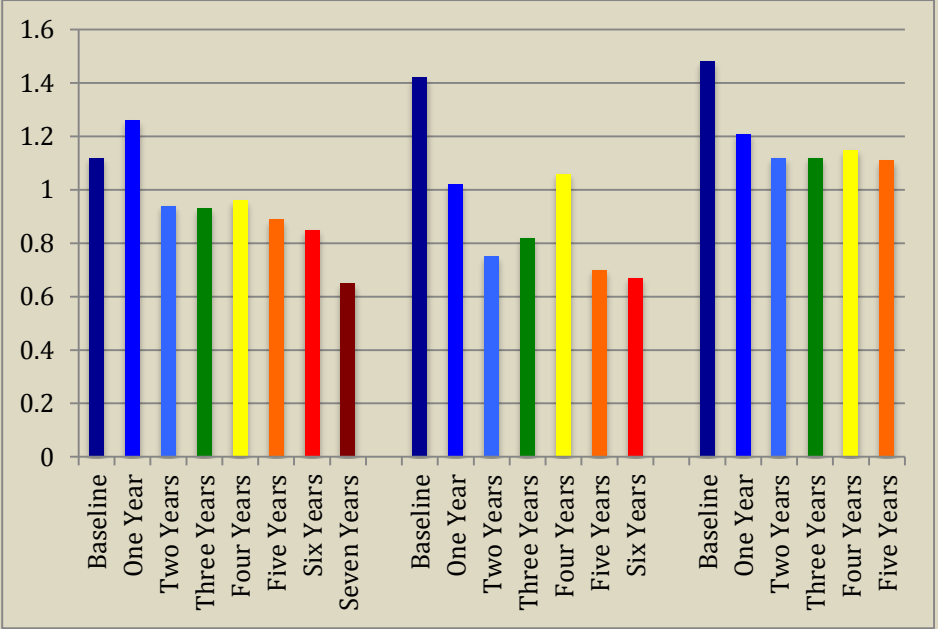




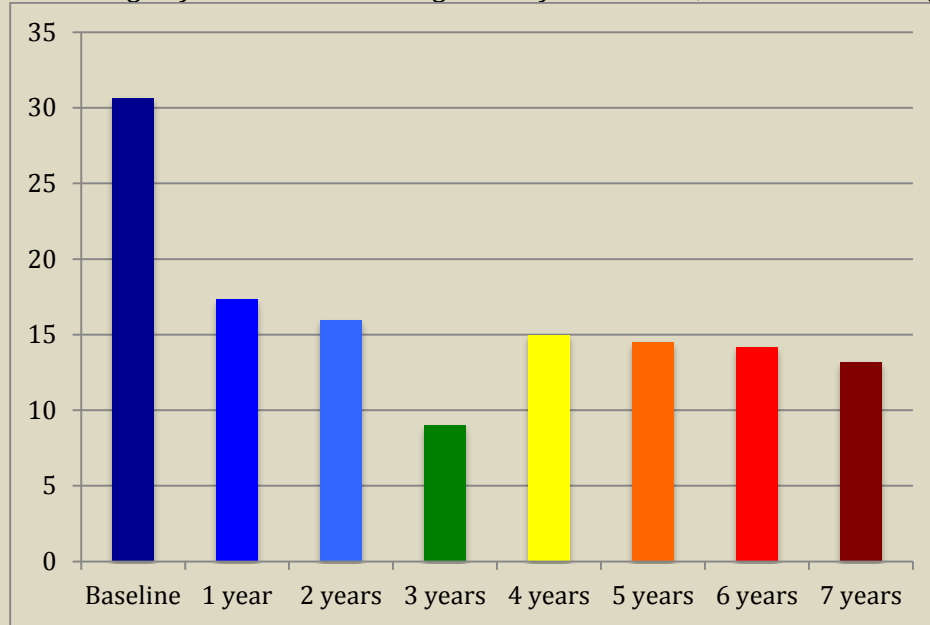
*Amount of Wood Used Per Family Daily (in Heaps), Combined Average*



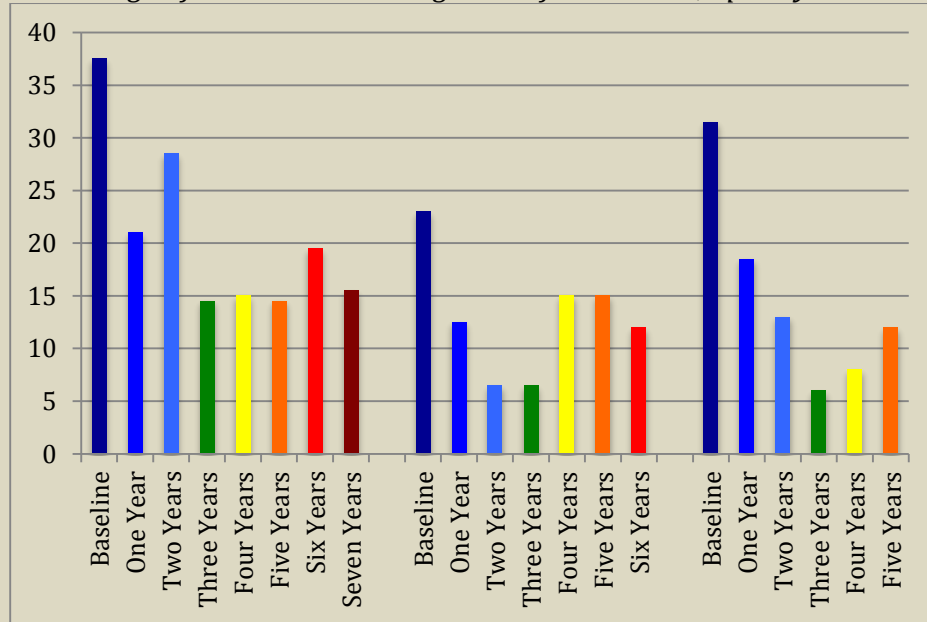
*Amount of Wood Used Per Family Daily (in Heaps), Split by Start Date*



*Percentage of Families Collecting Wood from Kibale, Combined Average*

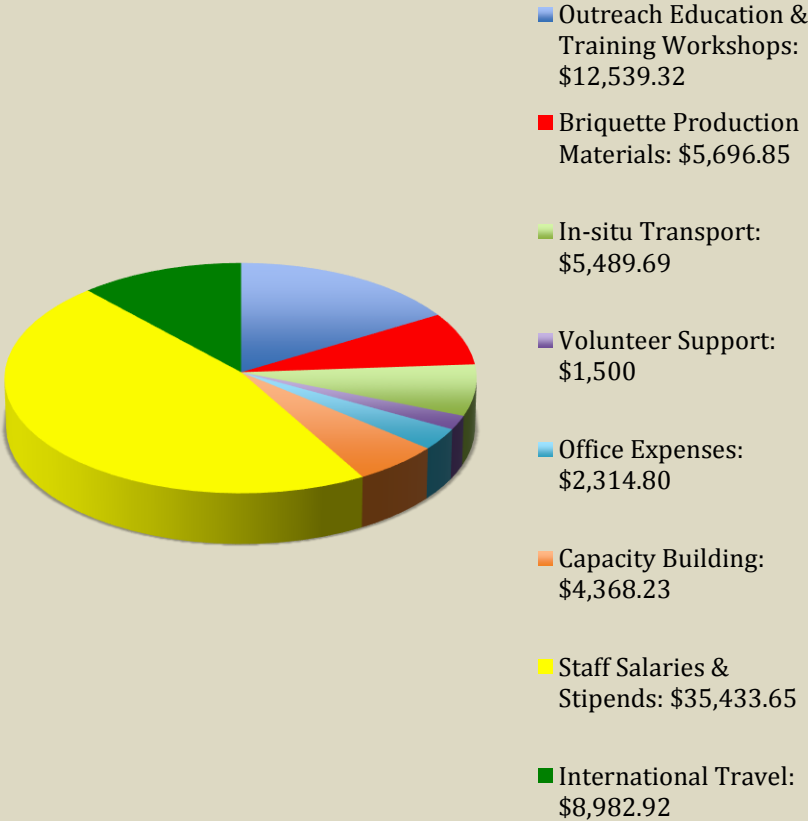
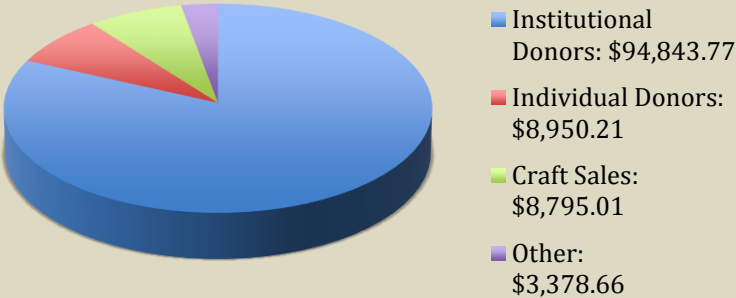


*Percentage of Families Collecting Wood from Kibale, Split by Start Date*





Appendix III: Income & Expense Graphs



#### Appendix IV: Budget Detail

CATEGORY	Budgeted, 2013	Spent, 2013
Outreach Education		
Film Shows	\$650	\$241.51
Science Centers (including staff)	\$7,990	\$8,793.28
Conservation competitions	\$2,750	\$2,200
Community training Workshops	\$600	\$500.90
Energy Efficiency materials	\$5,165	\$5,696.85
Training workshops (staff)	\$700	\$803.66
Ugandan salaries	\$24,660	\$16,266.51
Volunteer	\$5,322	\$1,500
In-Situ Transport	\$18,178	\$5,484.69
Office Expenses	\$3,997	\$2,314.80
Capacity Building	\$1,500	\$4,368.23
International Transport	\$9,650	\$8,987.89
Director's stipends (in-situ living expenses + salary)	\$19,945	\$19,167.14
TOTAL	\$101,107	\$76,325.46