

*New Nature Foundation*  
*Annual Report 2012*



**Project Title:** Kibale Fuel Wood Project, 2012 (KFWP)

**Location:** Communities surrounding Kibale National Park, Uganda (KNP)

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

**Organization Name:** New Nature Foundation (NNF)

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

**Phone:** USA: 610-256-0959

UGANDA: +256-77-577-8113

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

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

**The goals and objectives of the Kibale Fuel Wood Project are:** To protect Kibale National Park from human encroachment and improve people-park relations by facilitating energy stability and promoting environmental sensitivity and sustainability.

The project accomplishes these goals by introducing energy saving technologies, encouraging home-grown wood and providing comprehensive conservation education to local communities.

**These goals are being met thanks to your generosity and the cooperation, interest and goodwill of our community partners around Kibale National Park.**

**Summary of Accomplishments, January – December 2012:**

- 63.8% of our constituents now grow trees at home (up from 51.5% at inception). 69.9% of those growing trees plant *Sesbania sesban*, the highest level of *Sesbania* planting to date.
- 53.2% use efficient stoves (up from 4.5% at inception).
- Project stoves have led to a wood savings of 4,055 kilograms (12,756 pounds) of wood daily, or nearly 1.5 million kilograms (3.3 million pounds) of wood each year, much of which would have been cut within Kibale National Park.
- Overall average wood use is now a little less than one heap (heap ~10kg) per family per day (down from 1.34 heaps at inception), and families with efficient stoves use only .75 heaps daily, the lowest level of consumption to date.
- 159 stoves were built with assistance from KFWP staff.
- Four conservation competitions were held, attended by 1,600 people.
- 39 video shows were presented, attended by 10,650 people.
- A new Science center was opened in Nabweya Trading Center. Total attendance at all Science Centers was 16,000 people.

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

# *CONTENTS*

## 16 Page Report with Four Appendices

Fuel Efficient Stoves	Page 4
Eco-Briquettes	Page 6
Science Centers	Page 8
Trees	Page 10
Video Shows	Page 12
Conservation Competitions	Page 14
Target Areas	Page 15
Staff Training	Page 15
Publicity	Page 16
Appendix I	Survey Charts
Appendix II	Survey Graphs
Appendix III	Budget
Appendix IV	List of Supporters



## *FUEL EFFICIENT STOVES*



*Family cooking on an efficient wood stove (background) and briquette stove (foreground)*

The KFWP's adaptation of the classic "rocket stove" design is built with mud, bricks, cow dung and ash. It works as a mini-chimney, aiming hot gasses and fire directly at the cooking vessel, thereby increasing cooking temperatures, reducing smoke, and reducing the overall amount of wood needed. Each stove has one or two "burners," depending on a family's requirements. Rocket stoves cost little or nothing to build and maintain.

**The latest surveys reveal that 53.2% of families in the target areas are using efficient stoves and the average family with an efficient stove uses 30% less firewood than the average family using a traditional stove.** While this number seems to reflect a decrease in efficiency compared to last year, this is actually not the case. The average amount of wood used by families with efficient stoves has continued to drop each year, and at .75 heaps (~7.5kg) of wood, 2012 showed the highest level of fuel efficiency to date. However, extreme wood scarcity has forced even those with traditional stoves to be more frugal and use less wood when cooking. The comparison of KFWP stoves to traditional models changes each year, as both sets of users continue to do their best as fuel-wood conservationists.

Since project inception, wood usage on the KFWP rocket stove has hovered around the “1/3 less wood” figure. From a cultural and historic perspective, a large fire was “needed” for cooking, a major hurdle in NNF’s attempt to maximize fuel efficiency. Sitting by the fire at night sharing stories and eating was traditionally how the evening meal was taken. However, with modernization, most families now sit indoors to eat. The large fire remained, though, as an artifact of earlier times. In its sixth year, it appears that the KFWP may be helping precipitate a cultural shift in this practice. (Of course, the scarcity of wood has a lot to do with the shift, as well.) Families are truly identifying the need to conserve wood and the full potential of their rocket stoves. If this is the beginning of a new trend, we hope to see even more efficiency in the years to come.

**In 2012, 159 efficient stoves were built by community members with assistance from KFWP staff.** This is an increase from 2011 even though KFWP community liaisons worked fewer days than ever before – about two months in each target area, spread over four two-week shifts. While full time staffing would produce higher numbers of stoves built in the short-term, these spaced intervals are a more affordable and sustainable method for the long-term. With this methodology, none of the community members feel abandoned by the project but will hopefully be more likely to build their own stove, since staff are not as available as they once were. The project will continue to employ stove liaisons in 2013 to support the evolution of stove building in villages surrounding Kibale and maintain a relationship with community members as they continue to experiment with new adaptations of the rocket stove.

The total number of stoves reported above does not reflect stoves that have been built without staff assistance. The long-term success of the project relies on the community to spread the word and work independently. In 2013 we plan to conduct a census of the total number of stoves found within the target areas.

While more stoves were built in 2012, the overall percentage of those using stoves has decreased. It is not clear if this is a result of random sampling or a true trend, since every year until now the surveys indicated an increase in percentage of people using efficient stoves. These results could be cause for concern and highlight the importance of finding the perfect balance between staff availability and allowing the community to do things independently. NNF will continue to work on finding this balance. Potential changes to the methodology could include the time of year assistance is available or increasing the work period from the current 10 day shifts. Additionally, having a census conducted of total stoves and the conditions of those stoves will provide further information on how to proceed.

**In total, the KFWP has assisted in building 1,320 efficient stoves** since inception, with an unknown additional number built without project assistance. Almost all of these stoves are still in use. Using the 96% operational figure ascertained during a 2011 census and the fuel savings indicated by this year’s survey (detailed in Appendix I) **this equates to a savings of 4,055 kilograms (12,756 pounds) of wood daily, or nearly 1.5 million kilograms (3.3 million pounds) of wood each year, much of which would have been cut within Kibale National Park.**

## *ECO-BRIQUETTES*



*Grandmother Abooki and her family participating in the briquette trading program*

The Kibale Eco-Char Initiative (KECI) began in 2011 and had its first full year of operation in 2012. While it began as a separate project of the New Nature Foundation, (funded almost entirely by one donor), it blends easily into the current energy efficiency programs of the KFWP. Additionally, one of the two manufacturing sites is on the farm of the Kaburula Science Center, so visitors to each project can enjoy and learn from the other. For 2013, the budgets for the KFWP and the KECI have been combined, bringing our reporting and planning for the programs into the close proximity they deserve. Since many of you will be asked to help support the KECI in 2013, a summary of the programs 2012 accomplishments is included here.

In 2012, **63,328 biomass briquettes were produced by KECI staff.** Surveys and calculations show that an average family uses approximately 40 briquettes each day to cook tea and two meals. Based on the average amount of wood used daily, the total amount of briquettes accounts for a **savings of more than 14,247 kilograms (31,343 pounds) of wood.** 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.

The briquettes, reminiscent of a donut when complete, are made from waste materials such as peels from bananas, potatoes or yams, and peanut shells, avocado pits, recycled paper, saw dust, and whatever other suitable waste items become available seasonally. Eleven recipes have been

refined that produce the most efficient briquettes with varying waste products. Two of the recipes also contain seeds of the castor oil plant, which can be found in limited quantities within the village. Castor seeds are known as the “local kerosene” due to their high oil content, and they help the least flammable waste products burn nicely.

Like all other aspects of New Nature Foundation’s work, personal investment is required from our stakeholders. Briquettes are not given away to people but traded for the raw materials needed to make them<sup>1</sup>. For every 10 kilograms (22 pounds) of waste brought to the production facility, 40 briquettes are provided.

The Kaburala Factory is the main hub of the operation, with the staff of seven working four-five days each week deconstructing the waste materials and creating briquettes. Briquette production in the village (without electricity) is a labor-intensive task (as you can see for yourself in the videos on our website), and we hope to mechanize certain aspects of the work in 2013 to allow for greater production, which in turn will lead to more habitat protected.

The 2012 goals for KECI were:

- To refine a recipe for briquettes and develop stoves to burn them efficiently.
- To establish a system for trading waste for briquettes.
- To have at least 20 families participating at each of two locations.

All of these goals were met. The briquettes being produced can boil water in the same time as wood and **71 families are now cooking with briquettes** at our two production facilities. One family is cooking entirely with briquettes because neighbors are allowing them to collect waste from their land (their story can be found in the winter 2012 update). The KECI had a long-term volunteer through it’s pilot phase, Savannah Schulze, who was a tremendous help in getting this project off the ground and training staff in data collection.

Rather than expanding to new areas in 2013, NNF plans to continue to refine the production process and recruit more partners at the existing sites. Ideally, the project will continue to develop along two different paths: large-scale factory production using industrial waste to produce a product that might be sold in competition with charcoal in nearby urban centers and smaller-scale village production providing cooking fuel for the poorest of the poor through a trading scheme.

---

<sup>1</sup> Our partners at the Kiko Tea Estate, location of the second production facility, are taking a slightly different approach: Since waste products are readily available at their factory, briquettes are provided free of charge to their employees, in an effort to curtail theft of the estate’s eucalyptus wood (used for drying the tea) and help conserve the natural forest fragments that still remain around the plantation.



## SCIENCE CENTERS



*Excited children visiting the project's newest Science Center, in Nabweya village*

The New Nature Foundation maintains four Science Centers in villages close to Kibale National Park. The Science Centers are natural history museums, demonstration areas, libraries and community gathering places. They attract large audiences with animal artifacts, scientific experiments and tactile experiences, and then utilize this opportunity to teach people about the project's main goals of conservation and energy efficiency.

**Total attendance at all Science Centers was 16,000 in 2012, 55% of whom were children and 45% adults.** See the table below for a breakdown of attendance by location. This marks an increase from 2011's total attendance numbers, which is a very exciting result. Some of the Science Centers have been open for six years now and this increase in attendance provides clear evidence of their importance and popularity within the villages.

One major change was made in 2012 after careful thought and evaluation: The Bigodi Science Center was shut down after nearly four years of operation due to lack of attendance, and a new Science Center was opened in Nabweya. Bigodi was averaging under 100 visitors each month, while Kanyawara, the first center to be opened, still hosts four times that number. Adding new books and artifacts did not seem to have an effect on the numbers at Bigodi, and because it is the farthest from our manager's home and NNF's main hub of operations, management was not able to spend as much time there as other locations. NNF was hopeful that partnerships with other



NGOs would assist in the success of the Bigodi center, but unfortunately this was not the case. Partners had their own initiatives to work on and ultimately it seemed best to move the resources to an area where people were more interested in using the educational materials.

As a result, the Nabweya Science Center opened on May 27, 2012 to approximately 700 guests. The manager of this center has worked at another center (Isunga) and was a teacher for many years before joining NNF's staff. In the seven months that Nabweya has been open, it is already averaging 575 visitors per month.

The budget for Science Centers was bit higher in 2012 and may continue to increase as long-term staff members achieve seniority (with the accompanying raises in pay) and new artifacts and books are needed to maintain the high level of interest from the communities. Having four museums has drastically depleted the artifacts that the Uganda Wildlife Authority is able to loan out, so NNF now purchases replicas and other interesting displays. The price of goods has increased dramatically in Uganda, as much as 200% in some cases, so renovations and general repair costs for the Science Centers are much higher than they were even in the recent past. Additionally, rent has been increased at all locations, as landlords recognize the success of the centers and the importance of their locations and are also trying to make ends meet in the new financial climate. Though the centers could continue on a smaller budget, NNF will continue investing what is needed to make them as successful as possible as long as our generous donors continue to recognize the importance of this aspect of the project.

While the budget may be increasing, so is the capacity of the staff. In 2012, Science Center staff and interns have taken more initiative than ever before painting murals on walls, doors, and windows, and making educational posters with cut outs from National Geographic and similar magazines. Up to this year, only directors or foreign volunteers were doing this, but it seems the skill has been successfully transferred over the past several years - a wonderful development.

<b>Location</b>	<b>Children</b>	<b>Adults</b>	<b>Total</b>
Bigodi*	340	142	<b>482</b>
Isunga	1,377	1,354	<b>2,731</b>
Kaburala	2,846	1,948	<b>4,794</b>
Kaswa	2,339	1,629	<b>3,968</b>
Nabweya**	1,862	2,163	<b>4,025</b>
<b>Total</b>	<b>8,764</b>	<b>7,236</b>	<b>16,000</b>

\*Bigodi Science Center was open 5 months in 2012, from January through May

\*\*Nabweya Science Center was open 7 months in 2012, from June through December

## TREES



*A performer at the Isunga competition publicizes the importance of planting trees*

Across all target areas, **63.8% of people are growing trees at home, 69.9% of whom grow *Sesbania***. This reflects a slight drop in the percentage of people growing firewood at home, as was seen last year. The percentage of people growing *Sesbania*, however, has continued to rise, as it has each year since project inception. We attribute the drop in planting to the continued climate change around Kibale.

Similar to the temperature changes we are experiencing at home, climate change in Uganda has come quickly, and people are struggling to adapt. According to a 2010 paper by Colin Chapman, one of NNF's Advisory Board members, average monthly temperatures around Kibale have increased by more than 4 degrees in the past 40 years, and both rains and droughts have become less predictable. The effects of this on a subsistence farming community could be devastating, so it is lucky that most of NNF's constituents continue to be able to farm what they need for their families to survive. However, less certainty with the food crops also means there is less time for planting trees. Planting *Sesbania* at the wrong time of the rain cycle can also produce poor results, discouraging people from trying again. The fact that fewer people are planting is not surprising, then. However, the percentage of people growing *Sesbania* continues to rise – perhaps reflecting that those planting *Sesbania* have not stopped growing firewood even though climate change has discouraged others from growing other species.

In a continued attempt to encourage tree planting, competitions were held in all target areas again this year, with the winners receiving a bicycle. 2012 marked the first year that even this sizable prize did not encourage large numbers of people planting trees to enter the contest. NNF accepts

that community conservation efforts have ebbs and flows throughout their lifetimes. While tree planting may not be a popular aspect of the work at this time, the tree promoted and the methodology are successful. In 2013, NNF will suspend the tree planting competitions but continue to support those individuals who still hold interest in planting. In the future, weather permitting, NNF will perhaps re-instate the competition. Trees will continue to be promoted at each of the Science Centers, but NNF will start focusing more attention on the biomass briquettes that could replace wood entirely as a cooking fuel, as we have seen great success with this aspect of the work.



## ***VIDEO SHOWS***



*Chimpanzee feeding on figs in Kibale National Park*

**In 2012 the KFWP held 39 video shows, attended by 10,650 people**, an average of 273 men, women and children per show. This reflects a slight drop from last year's attendance, which was expected since many shows were rained out this year. Even the shows that were not rained out often were held under threatening skies, reducing the number of people who were willing to take the risk of getting rained on during the show or on the walk home. Indeed, as noted above, climate change has become readily apparent in Uganda, with one of the 2012 dry seasons entirely non-existent – it rained almost every day from June through December. Like many other aspects of NNF's work, the video shows are held deep in the villages, where roads are not maintained and often barely exist. The intense weather's effect on the roads, leading to increased wear and tear on the project vehicle, was a struggle. The project manager felt it necessary to cancel several events because the vehicle could no longer make it to the farthest villages.

Another possible reason for the decrease in attendance could be the greater availability of electricity in village trading centers. Almost every one of the target areas now has its own "movie theater" showing Hollywood and Kung-Fu style films on a TV to anyone able to pay a small entry fee. That the project's video shows are no longer the only source of electrified entertainment in the villages is not a bad thing, though! As Uganda continues to modernize, the fact that so many people continue to enjoy nature films even when other types of movies are available is very encouraging.

NNF is currently evaluating the frequency of future video shows. Now in the seventh year of presenting nature films around Kibale, the directors have been surprised and amazed by the continued high level of interest that all the communities demonstrate. There is clearly still a desire for these events. This is evidenced most notably when local children yell out “Video, video!” every time the project vehicle drives by. However, with attendance decreasing and the additional concern of leaving staff stranded in the dark with a broken vehicle on poorly maintained roads, it seems best to reduce the frequency of the events. In 2013, we anticipate only presenting film shows during dry season. The biggest concern will be promoting the events since currently the films are at a known time (every 6 weeks) at each venue. The project will rely on Science Center staff to promote the dates and times of video shows, and attendance will continue to be counted as data for future evaluation.

To assist with video shows and other aspects of the project, NNF was able to purchase a “new” vehicle this year. Though funds were not available for the vehicle that would have best suited all the project’s needs, a used (but spacious!) four-wheel drive Toyota Hi-Ace has been purchased. Ideally, in 2013 this car will be traded in for a stronger vehicle, but with the current high rate of inflation in Uganda, this may be financially prohibitive.

## ***CONSERVATION COMPETITIONS***



*A performer at the 2012 “Chimpanzee” conservation competition in Kyanyawara*

The third set of annual conservation competitions was held in December 2012 in four of the six target areas. In total, over 1,600 individuals attended these events. These day-long activities were created as way to gather large audiences to learn about the NNF project methodologies and current conservation issues. These venues allow Ugandan to teach Ugandans about what struggles have been alleviated by becoming conservationists, what problem solving methods they have learned, as well as new and interesting information about wildlife and Kibale.

Each event had a fuel-efficient bean cook-off where ten cooks who have efficient stoves compete. The winner is the one who cooks the tastiest beans using the least amount of wood. In one area, NNF was able to hold two bean cook-offs: one with fuel efficient wood stoves and one with fuel efficient briquettes! A wonderful highlight of this year’s competitions was in Isunga village, where the wining cook showed the most efficiency for the past two years. This year, many more of the entrants were able to cook with minute amounts of wood, several using less than one kilogram of wood to cook one kilogram of beans. The top three entries in each area received utilitarian prizes, cooking supplies and special treats. After the bean cook-off, different clubs and community groups presented songs, dances and plays to the assembled crowds.



The theme for this year's dancing and drama presentations was "Chimpanzee." Seventeen different groups performed traditional dances, poetry, plays, and interpretative numbers in an attempt to educate a greater audience about chimpanzees. The topics broached included crop raiding, primate social and family groups, similarities between humans and chimpanzees, ways to protect farms without harming apes, and much more. The top three winners in each location received a cash prize. The project manager also performed as a chimpanzee who was caught by a snare, dramatically demonstrating the pain and anguish snares cause. Margaret's performance was quite effective and certainly created a stir at each of the events.

## *Target Areas*

Beginning in 2013, NNF will be working with only five target areas around KNP. As mentioned above, the Science Center in Bigodi was shut down in May 2012. After analyzing results from Bigodi for stove building and tree planting it became clear that it was no longer the best use of resources to maintain staff and project activities in this area. Though it is unfortunate to stop the work in this area, it was not a surprise. Being so far away from the base of operations made visits from managers infrequent and costly. The partner NGOs that began working in Bigodi with us were busy enough with their own activities and so were not able to support the KFWP as hoped for. This is not a bad thing, since each is working on their own incarnation of community conservation in Bigodi. The KFWP was designed to grow toward self-sufficiency in all the target areas, and the community members who embraced the project's methods in Bigodi were in fact some of the most committed anywhere – those with efficient stoves used 38% less wood than those with traditional stoves, a truly remarkable achievement. Hopefully, this behavior will leave a lasting legacy in Bigodi, and we look forward to visiting in the future to conduct surveys and determine how NNF's limited engagement of the community fares in the long-term.

## *Staff Training*

The majority of staff training now occurs on a one-on-one basis. Monthly reports are submitted by all project staff, which enhances their writing and reporting skills, and helps maintain a more accurate record of all activities. Staff and interns at the Science Centers submit a report not only regarding what occurred during the month but also about a topic they choose to write a one page essay about. These are reviewed by the project manager and returned with comments. Project Manager Margaret Kemigisa also attended a workshop held by the Uganda Libraries Association intended to enhance collaboration among various institutions across Uganda.

NNF's big staff training workshop of the year focuses on the Science Center staff and interns and the project manager. This year they had the opportunity to take an educational safari to Queen Elizabeth National Park. 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, meeting educators and rangers who teach them 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. Due to bad weather, the trip happened at the very end of the year and NNF has yet to receive all the reports and stories from their experiences. We look forward to sharing them with you as soon as possible.

## **Publicity**

In 2012, NNF was invited to speak at a number of institutions, had small parties at private donor's homes, and held its first major fundraiser. Lectures were given at the Pueblo Zoo, Albuquerque Zoo, Albuquerque Rattlesnake Museum, and Denver Zoo. Small parties were hosted for the foundation in Denver and Stockton, New Jersey, and on Giving Tuesday, November 27<sup>th</sup>, a large event hosted by the Infinite Monkey Theorem winery and underwritten by the Arcus Foundation Great Apes Fund raised over \$11,000 for the Kibale Eco-Char Initiative. In 2013, more lectures have already been scheduled and NNF will be presenting a paper at the Zoos and Aquariums Committed to Conservation conference in July.

NNF was also honored to host the Directors of Idea Wild and Chimp-n-Sea, two long-time project supporters, in Uganda this year.

Lastly, NNF is thrilled to announce that Project Manager Margaret Kemigisa was awarded the Pakasa Award by the New Vision, Uganda's leading daily newspaper. This award is given to those who make a positive impact on society, and Margaret received a cash prize and a plaque in recognition of her service to the community. Margaret was also chosen by the Chinese Ambassador to Uganda to travel to China with a group of African representatives on a cultural exchange.

Including all project activities, NNF interacted with over 30,000 individuals in 2012. None of this could have been accomplished without your generosity and support.

**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 (2012)		
Is it a struggle to obtain firewood?	89% YES	82.8% YES		
How do you propose to lessen the struggle?	58% plant trees 7% efficient stove 7% cut wood in KNP	50.3% plant trees 10.2% efficient stove 2.8% cut wood in KNP		
Do you grow trees at home?	51.5% YES (10.5% of whom grew <i>S. sesban</i> )	63.8% YES (69.9% of whom grow <i>S. sesban</i> )		
Traditional or energy efficient stove?	4.5% used efficient stoves	53.2% use efficient stoves		
Average Wood Use	1.34 heaps per day	.9 heaps per day Efficient uses 30% less wood than traditional <table border="1" data-bbox="971 947 1336 993"> <tr> <td>.75 eff.</td> <td>1.07 trad.</td> </tr> </table>	.75 eff.	1.07 trad.
.75 eff.	1.07 trad.			
Firewood collected in the park?	30.5% YES	14.2% YES		

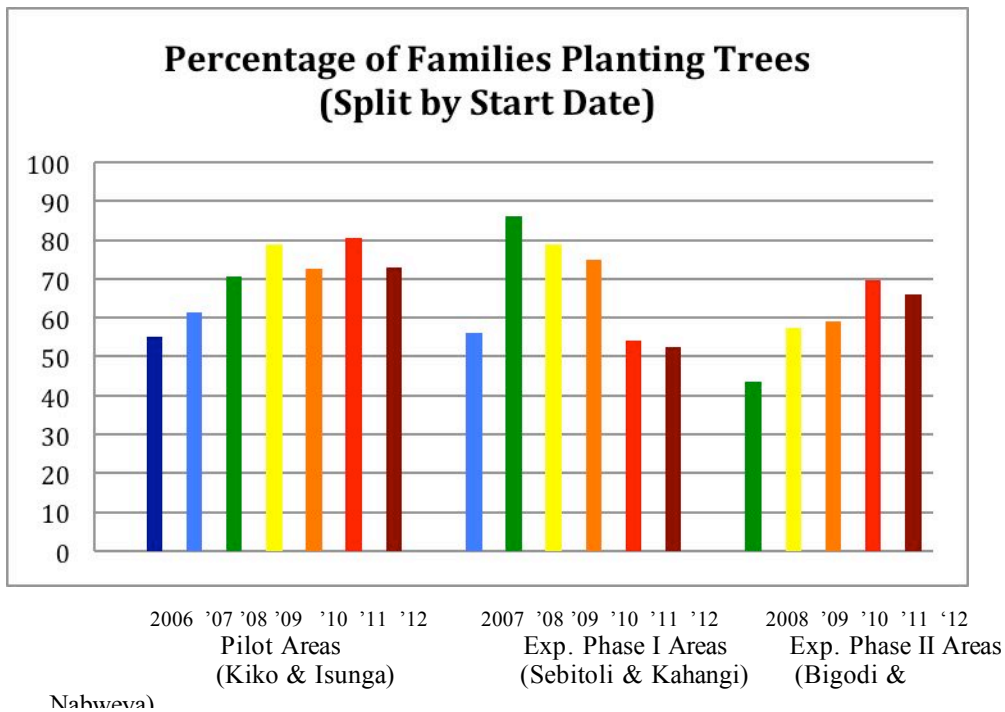
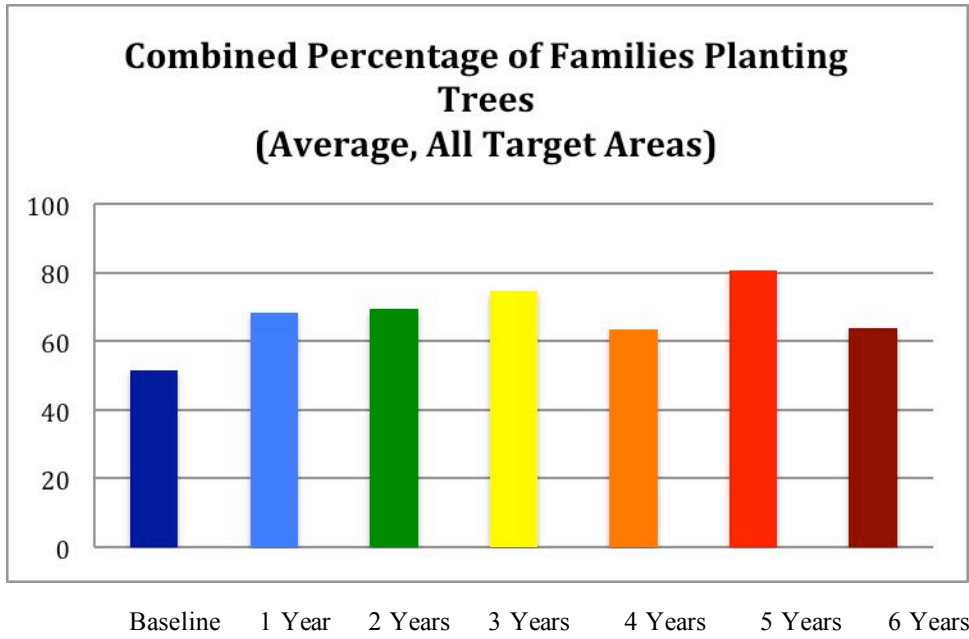
	Baseline Pilot year areas (2006)	Current, Pilot year areas (2012)		
Is it a struggle to obtain firewood?	93.5% YES	87% YES		
How do you propose to lessen the struggle?	75% plant trees 0.5% efficient stove 12% cut wood in KNP	58.5% plant trees 7.5% efficient stove 3% cut wood in KNP 2% use briquettes		
Do you grow trees at home?	55% YES (8.5% of whom grew <i>S. sesban</i> )	73% YES (67% of whom grow <i>S. sesban</i> )		
Traditional or efficient stove?	3.5% used efficient stoves	57.5% use efficient stoves		
Average Wood Use	1.11 heaps per day	.85 heaps per day Efficient uses 30% less wood than traditional <table border="1" data-bbox="971 1759 1336 1806"> <tr> <td>.72 eff.</td> <td>1.02 trad.</td> </tr> </table>	.72 eff.	1.02 trad.
.72 eff.	1.02 trad.			
Firewood collected in the park?	37% YES	19.5% YES		

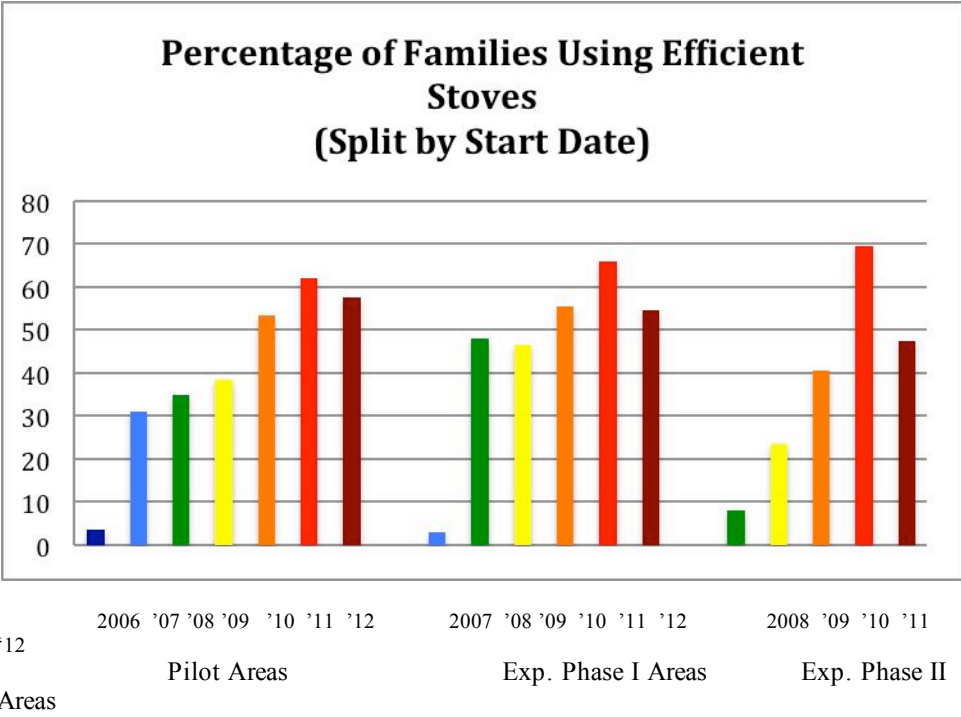
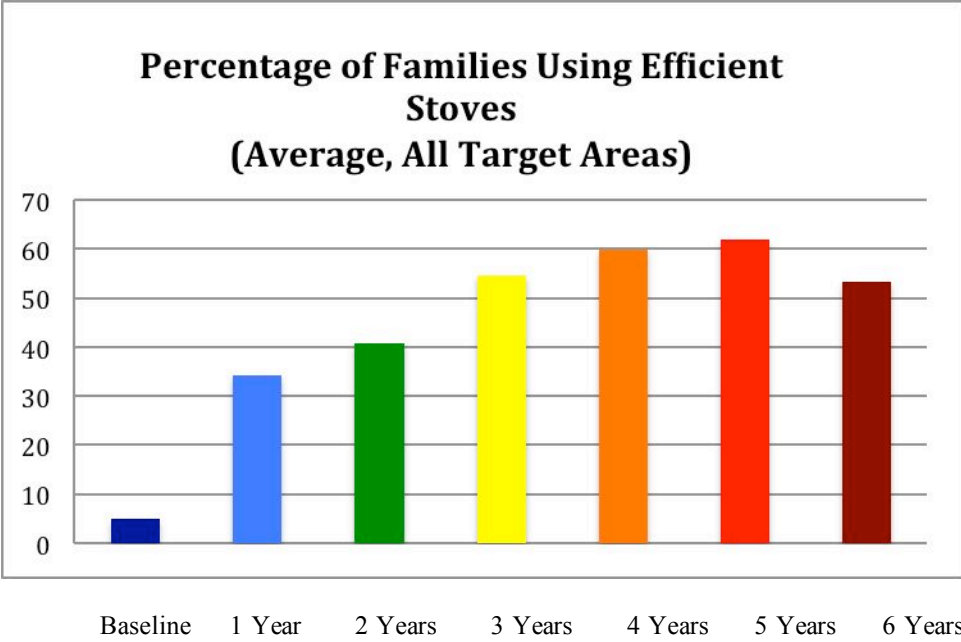


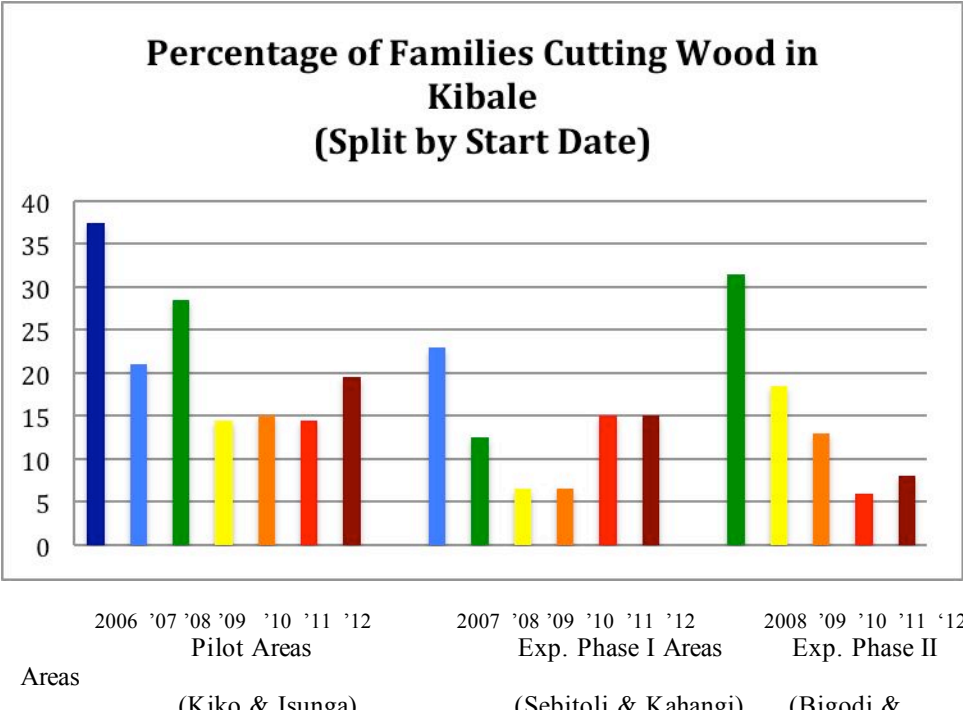
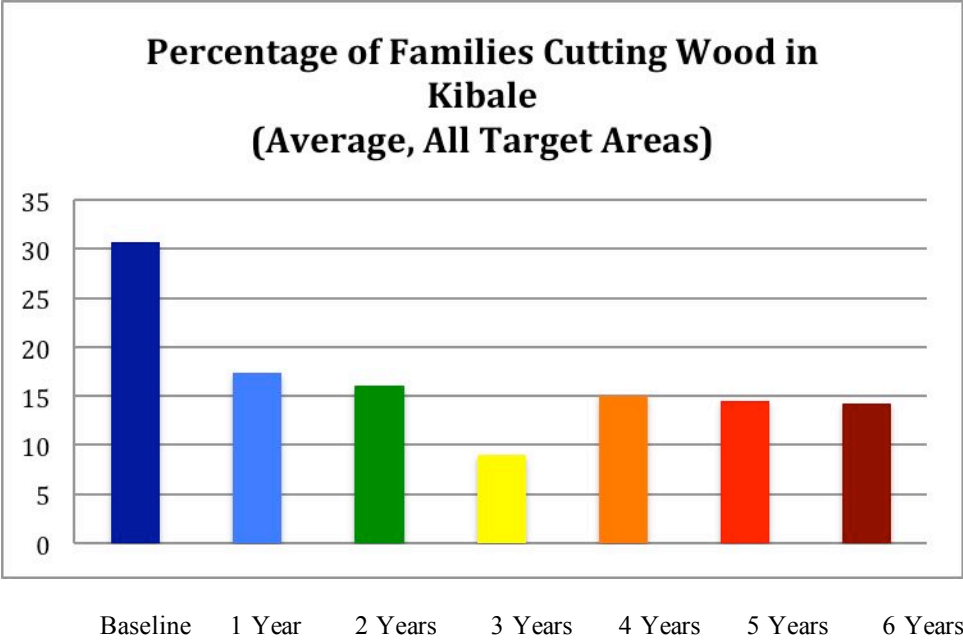
	Baseline Expansion I areas (2007)	Current Expansion I areas (2012)		
Is it a struggle to obtain firewood?	92% YES	87.5% YES		
How do you propose to lessen the struggle?	49% plant trees 7.5% efficient stove 8% cut wood in KNP	51% plant trees 21.5% efficient stove 1% cut wood in KNP		
Do you grow trees at home?	56% yes (20% of whom grew <i>S. sesban</i> )	52.5% yes (66.7% of whom grow <i>S. sesban</i> )		
Traditional or efficient stove?	2.5% used efficient stoves	54.5% use efficient stoves		
Average Wood Use	1.43 heaps per day	.7 heaps per day Efficient uses 17% less wood than traditional <table border="1" data-bbox="971 913 1339 955"> <tr> <td>.65 eff.</td> <td>.78 trad.</td> </tr> </table>	.65 eff.	.78 trad.
.65 eff.	.78 trad.			
Firewood collected in the park?	23% YES	15% YES		

	Baseline Expansion II areas (2008)	Current Expansion II areas (2012)		
Is it a struggle to obtain firewood?	81.5% YES	74% YES		
How do you propose to lessen the struggle?	49% plant trees 14% efficient stove 1.5% cut wood in KNP	41.5% plant trees 1.5% efficient stove 4.5% cut wood in KNP		
Do you grow trees at home?	43.5% YES (3% of whom grew <i>S. sesban</i> )	66% YES (76% of whom grow <i>S. sesban</i> )		
Traditional or efficient stove?	8% used efficient stoves	47.5% use efficient stoves		
Average Wood Use	1.48 heaps per day	1.15 heaps per day Efficient uses 38% less wood than traditional <table border="1" data-bbox="971 1759 1339 1801"> <tr> <td>.87 eff.</td> <td>1.4 trad.</td> </tr> </table>	.87 eff.	1.4 trad.
.87 eff.	1.4 trad.			
Firewood collected in the park?	31.5% YES	8% YES		

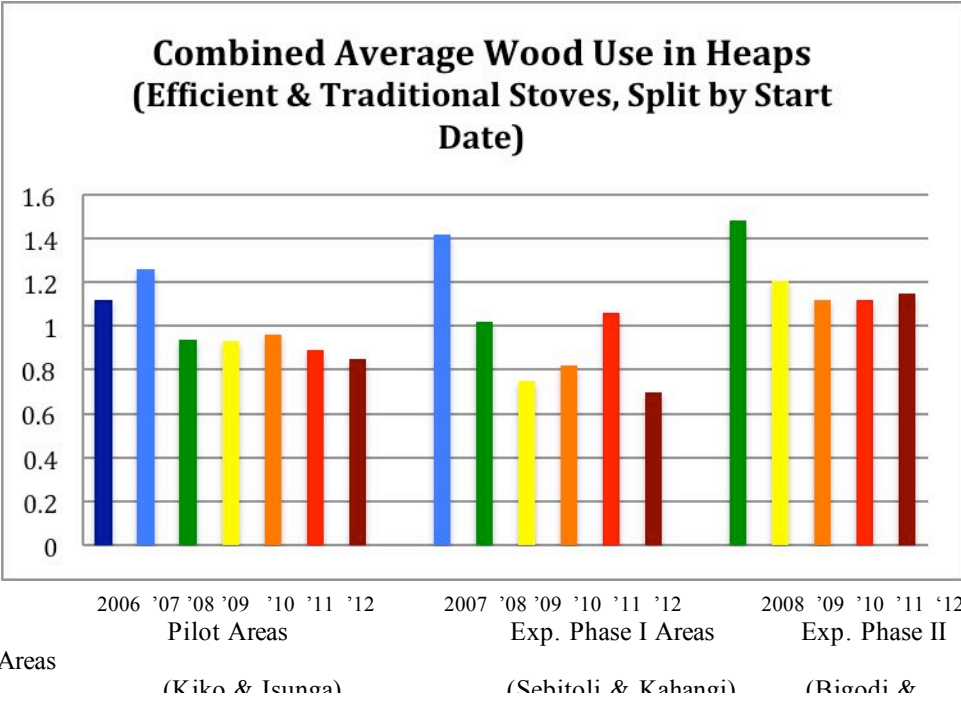
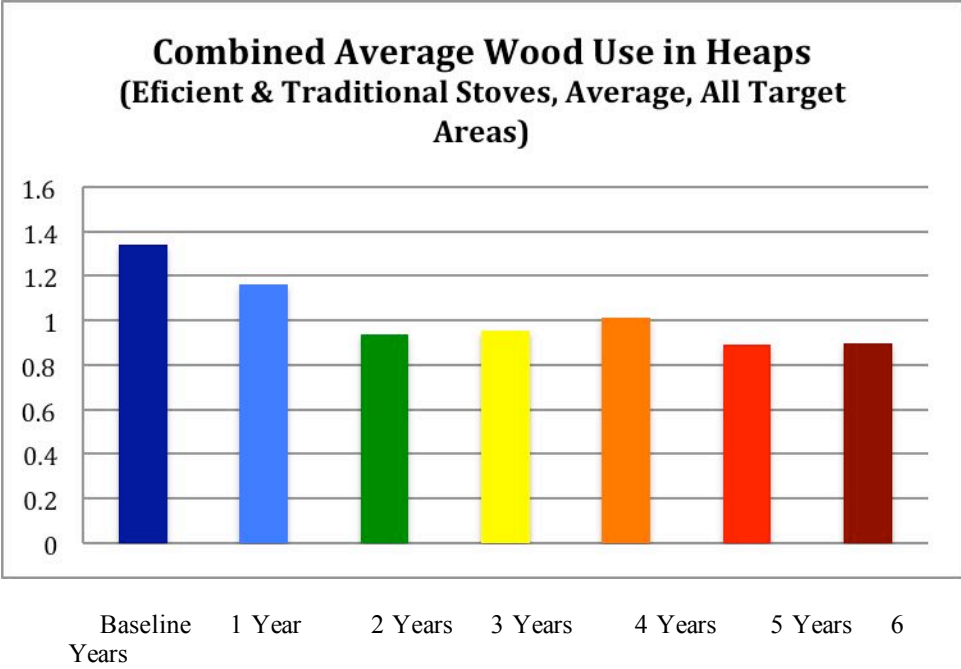
APPENDIX II: Survey Graphs











Appendix III: Budget

CATEGORY	Projected expenses	SPENT
<b>Outreach Education</b>		
Film Shows	\$500	<b>\$850</b>
Science Centers (including staff)	\$7,970	<b>\$9,855.69</b>
Conservation competitions	\$2,900	<b>\$3,093</b>
Community training Workshops	\$600	<b>\$901.41</b>
Energy Efficiency Demonstration materials and Tree planting materials	\$965	<b>\$2,568.64</b>
Training workshops (staff)	\$650	<b>\$1,289.10</b>
Ugandan Kibale Fuel Wood Project Educators salaries, (Manager, community liaisons, volunteer support & medical).	\$11,002	<b>\$7,060.29</b>
In-Situ Transport	\$6,700	<b>\$5,856.78</b>
<b>Office Expenses</b>	\$2,800	<b>\$1,596.35</b>
<b>Capacity Building</b>	\$1,500	<b>\$1,849.06</b>
<b>International Transport</b>	\$4,050	<b>\$4,396.52</b>
Director's stipends (in-situ living expenses + salary)	\$13,334	<b>\$12,000</b>
<b>TOTAL</b>	\$52,971	<b>\$51,317</b>

#### Appendix IV: List of Supporters

In addition to many private donors, the following institutions have supported the New Nature Foundation's work in Uganda in 2012. Thank you very much, one and all.

Albuquerque Zoo  
Arcus Foundation Great Apes Fund  
Chester Zoo  
Cleveland Zoological Society  
Columbus Zoological Park Association  
Denver Zoo  
Disney Wildlife Conservation Fund  
Edelman Community Grants  
Exxon Mobil (matching gift)  
Fresno Chaffee Zoo  
Genentech Giving Station (matching gift)  
Honolulu Zoo  
Idea Wild  
Infinite Monkey Theorem  
Little Rock AAZK  
Miami Zoo  
Milwaukee Zoo  
Oakland Zoo  
Pueblo Zoo  
Reid Park Zoo  
Rocky Mountain AAZK  
Roger Williams Park Zoo Sophie Danforth Fund  
Sacramento AAZK  
Sacramento Zoo  
SeaWorld Busch Gardens  
Taronga Zoo  
The International Foundation  
Zoo Boise