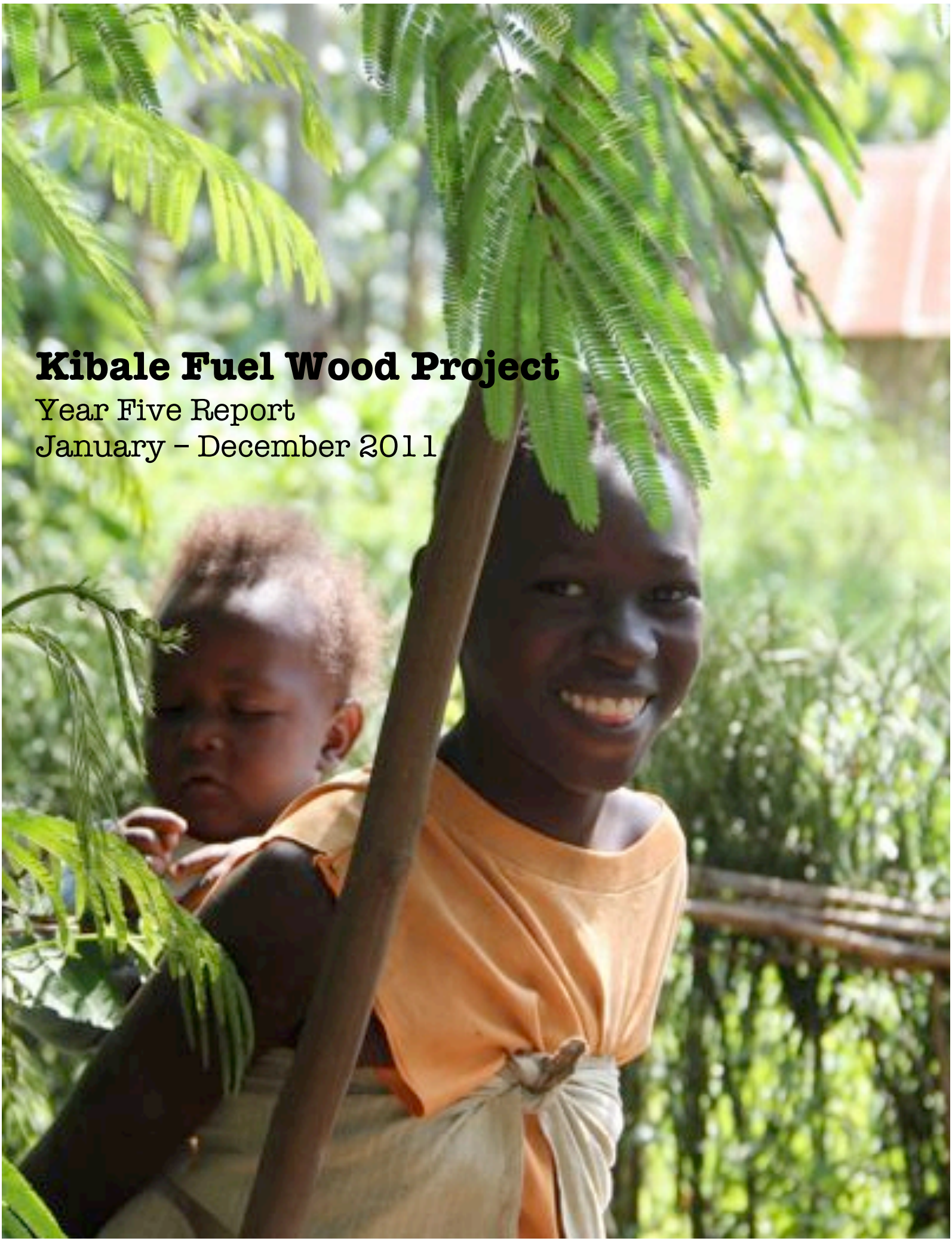

Kibale Fuel Wood Project

Year Five Report
January – December 2011

Project Title: Kibale Fuel Wood Project, Year Five
Project Location: Communities surrounding Kibale National Park, Uganda
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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 encouraging home-grown wood, introducing energy saving technologies, 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 for Year Five, January – December 2011:

- 68% of our constituents now grow trees at home and 55% use efficient stoves (up from 51.5% and 4.5%, respectively, at inception). 66% of those growing trees plant *Sesbania sesban,* the highest level of *Sesbania* planting to date.
- Project stoves have led to a wood savings of 5,798 kilograms (12,756 pounds) of wood daily, or over 2.1 million kilograms (4,655,794 pounds) of wood each year, much of which would have been cut within Kibale National Park.
- Average wood use remains around one heap (heap ~10kg) per family per day (down from 1.34 heaps) at inception.
- Tree contests were held in six target areas; the overall winner planted over 1,000 trees, with all winners averaging 475 trees each.
- 140 stoves were built by community members.
- Four conservation competitions were held, attended by 1,350 people.
- 39 video shows were presented, attended by 12,350 people.
- Total attendance at the four Science Centers was 13,468 people.

Please find detailed information about all the activities undertaken during Year Five on the following pages. 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

13 page Report & 4 Attachments:

The KFWP employs a methodology including tree planting, stove building, and education to maximize each individual's energy efficiency. Below are details of how the project's design is being realized.

More and more people have started growing *Sesbania sesban* and the other promoted species as firewood crops around their farms. **Across all target areas, 68% of families are planting trees at home, 66% of which are growing *Sesbania*.** While the percentage of families planting trees has dropped by 1% (most likely a reflection of our random sampling), the percentage of people growing *Sesbania* has risen significantly – up from 59% last year. The percentage of people growing *Sesbania* has risen continuously since project inception, and this year's figure reflects **the highest level of *Sesbania* cultivation yet.** (Please see tables and graphs in the appendices for more details on each target area.) The significance of this increase in *Sesbania* growing is further heightened by the fact that the KFWP now employs community liaisons for only eight weeks out of the year.

The indigenous agro-forestry species *Sesbania sesban* remains the star performer in terms of speedy production of firewood, and other native legumes (*Calliandra* and *Leucena*) have also been promoted for the past few years. Each of these fast-growing trees fertilizes neighboring crops with its nitrogen-fixing nodules without taking too much water from the soil. Never growing too tall or dense, they do not over-shade crops. The promoted methodology remains to plant closely spaced trees as a border around a farm, harvest after one year for firewood, and re-plant. (*Calliandra* and *Leucena* do not require re-planting, as they coppice and re-grow well after cutting.) The narrow, dense wood provided by all of these species burns well and is a highly efficient firewood crop, while leaves from the trees can be fed to livestock or used as green manure around the farm. The KFWP continues to see *Sesbania* growing up to six meters in its first year, with trunk diameters of 3-10 centimeters.

In addition to the legumes listed above, the project is now promoting castor trees, *Ricinus communis*. The tree is indigenous, fast growing and good for firewood. Traditionally, castor has been grown to provide support for banana plants, but it can also produce large amounts of firewood when grown in a dense border around the farm. Castor has the added benefit of providing the seeds that are a key ingredient in NNF's new biomass briquette project, the Kibale Eco-Char Initiative (see below for more details on the KECI). Interested parties are informed about the positive and negative aspects of each species, and can choose for themselves which trees best suit their needs.

Further demonstrating a change in attitudes about firewood, a survey response that first appeared last year has now become more prevalent: When asked the question "How do you propose to lessen

the struggle for firewood?" people responded with "I have already planted trees" (rather than the once common "we should plant trees"). While last year this answer was given only in our pilot area, we have now heard the sentiment expressed in four of the six target areas. Overall, 11% of those polled are now answering the question by proving that they are already taking action to address the fuel wood crisis.

As an added incentive for growing trees, tree-growing contests were held in all six areas. The overall winner planted over 1,000 *Sesbania* on his farm and has since been hired as our newest Community Liaison. During judging, all participants (and other interested parties) walk together to learn from one another's trials and errors growing firewood. The contest is announced at video shows and Science Centers throughout the best planting seasons, and one winner in each area is awarded a bicycle for having the best firewood crop of the year. This year, the contest winners averaged 475 trees each, a sufficient amount to provide all the firewood needed by the family!

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.

The latest surveys reveal that the average family with an efficient stove uses 40% less firewood than the average family using a traditional stove. This reflects an increase in efficiency compared to last year, though we continue to hover around the "1/3 less wood" figure that has been reported since project inception. Project experiments continue to indicate that the same design can be even more efficient when tended by a careful cook.

In 2011, 140 efficient stoves were built by community members. This number is only 2 stoves lower than 2010, which is extremely exciting as the project has dramatically reduced stove building staff this year. These numbers show that even without paid staff walking within a community each weekend the public are still quite interested in the stove. The KFWP is now fine-tuning the perfect balance of staff visits to ensure that community members continue promoting the idea on their own and making stoves with minimal support. Even with reduced assistance, the KFWP will, of course, still monitor stove building and walk within the communities occasionally to document the project's progress and help keep interest high. Currently, the project employs staff in each target area to help with building for only two weeks, four times each year (eight weeks total in each area). We will determine in 2012 if this small change in methodology will be enough to sustain (and hopefully increase) stove building by interested individuals.

With guidance reduced this year, two areas were assessed to determine if community members were still using and repairing their personal stoves. Community liaisons and our volunteer randomly visited kitchens within each village, and the results were very encouraging. Out of 67 kitchens, all but three stoves (96%) were found to be in good condition and being used properly. The stoves ranged in age from brand new to 4 years old and were clearly being used by the families on a regular basis.

In addition to the individuals who have built stoves, the KFWP has formed partnerships and conducted training workshops to further expand its reach. The Kitojo Integrated Development Association (a grassroots organization empowering Ugandans to prevent the spread of HIV) requested guidance from the KFWP to build stoves at a local hospital. There were 40 community members present who assisted with the work and gained skills in stove building. Additionally, the Kiko Women's Development Association has recently formed their own co-operative to help build stoves within the community. These partnerships help keep the KFWP methodology and activities alive with very little investment of funds or project staff.

Wood Conservation

In total, the KFWP has assisted in building 1,161 efficient stoves since its inception, with an unknown additional number having been built without project assistance. Almost all of these stoves are still in use. Using the 96% operational figure mentioned above and the fuel savings indicated by this year's survey (detailed below) **this equates to a savings of 5,798 kilograms (12,756 pounds) of wood daily, or over 2.1 million kilograms (4,655,794 pounds) of wood each year**, much of which would have been cut within Kibale National Park.

Cooking Competitions

Four cooking contests were held in December 2011. At each, up to ten cooks registered at their local Science Center and were briefed on the contest rules: One kilogram (2.2 pounds) of dry beans was supplied to each participant, along with money to purchase additional ingredients. All beans were to be cooked on rocket stoves. A weighed amount of wood was provided to each cook, and a volunteer supervisor witnessed the weighing as well as the entire cooking to ensure that only the supplied wood was used. On the scheduled day, contestants carried their beans and leftover wood to the event location where they were judged by a panel of locally respected community members. Scores were based on taste and the amount of wood used and the beans were enjoyed by an average of 337 onlookers at each location.

The average amount of wood used to cook one kilogram of beans by the best performers at all locations was 1.9 kilograms (lower than last year's average of 2.25 kg). This helps illustrate a couple points: First, that's not a lot of wood! One cook's wood use was actually recorded as 0; she used less than our scale could accurately measure[*]. Second, it shows that the cooks learned from one another last year and knew the level of efficiency needed to win. The winning cooks were given the chance to teach their technique to others and the audience was reminded how little wood is really needed when the cook is being as careful (and smart!) as possible. As this year's surveys

[*]At Isunga, where last year's winner used only 1.5 kilograms to cook her beans, competition was fierce. Two other cooks at this location also used less than 1 kilogram of wood, a truly remarkable feat. All the monitoring volunteers were questioned extensively and investigations revealed that the cooks were indeed being truthful in regard to the wood used.

revealed (detailed below), overall average efficiency has increased, perhaps thanks in part to these competitions where people can learn just how far fuel-efficiency can be pushed.

In all four locations audiences were amazed by the small amount of wood needed, and the demonstrations were fun as well as educational. Singing and dancing competitions occurred on the same day, and we feel this model remains an effective means of educating large audiences about the benefits of efficient cooking.

Biomass Briquettes

A new extension of NNF's work, the Kibale Eco-Char Initiative (KECI) began in June 2011. A complete report can be found on our website (www.newnaturefoundation.org), but here we share some highlights about the exciting new program that creates fuel from farm waste.

Using a methodology promoted by the Legacy Foundation, KECI staff turn avocado pits, yam/cassava/potato/banana peels, peanut shells, cow/goat dung, castor oil seeds, dead leaves, saw dust, and waste paper into ecologically friendly biomass briquettes. The briquettes are carbon neutral, as 100% of the carbon released when cooking is absorbed by the biomass as it grows. The wood saved by using briquettes also remains a carbon sink as living rainforest trees.

A system is now being implemented whereby community members can trade raw materials for finished briquettes. Within the Batooro tribe people are given an endearing nickname. Having been embraced by the culture, the briquettes have received one as well: "Kuchumbricks," originating from the Rutooro word kuchumba (meaning to cook) meshed together with the word brick.

Check out the Kibale Eco-Char video (and the project's other films) on YouTube, here:
http://www.youtube.com/watch?v=ALCUavDgl7g

Thanks to the Arcus Foundation for funding the Kibale Eco-Char Initiative.

The Kibale Science Centers were the first institutions of their kind in Uganda: natural history museums, science libraries, education and recreation centers with tree and stove demonstration areas, they were specifically designed for the benefit of local citizens. Providing education about Uganda's biodiversity while showcasing ways for people to meet daily struggles without adversely affecting wild areas, the Centers have continued to be integral parts of the KFWP. Each Center contains natural artifacts, confiscated poacher's items, posters and signs, a library, tree and stove demonstrations and other scientific equipment such as microscopes and binoculars. While the

libraries are all in English (Uganda's national language), signs are in both English and Rutooro, the local language. **Total attendance at all four Science Centers was 13,468 in 2011, 58% of whom were children and 42% adults.** See the table below for a breakdown of attendance by location.

Thanks in part to the best exchange rate we've ever experienced in Uganda, the Science Center budget was able to provide some wonderful things this year. Several boxes of books were brought from the US, bringing the total number of titles in the libraries to more than 1,000; a complete human skeleton (replica) and some amazing bird skull (replicas) were added to the displays; several hundred dollars worth of Ugandan school books were also added, updating the offerings in this well-used section of the library.

Staff and interns at each Center are required to submit monthly reports about natural science subjects they have studied to further their own education as well as that of the visitors. They also must produce an educational project with the support of international volunteers. This year the staff created educational displays of medicinal plants (dried plants were mounted on paper) and information was provided in both the vernacular and English. A bark cloth map of Uganda was also created with removable photos of animals and national parks found within the country. Visitors are then able to play a game of matching the park or animal to the appropriate place on the map.

Together, the four Science Centers form a solid infrastructure for the KFWP. Their operational costs are relatively low (see the budget detail, Attachment 4), and they have the potential to provide opportunities for education far into the future. As the project continues to evolve, the Science Centers will remain essential pieces of our overall conservation strategy.

Attendance at the Kibale Science Centers, by location, January – December 2011:

Location	Children	Adults	Total
Kaswa	2,485	2,117	**4,602**
Kaburala	2,888	1,488	**4,376**
Isunga	1,148	1,348	**2,496**
Bigodi	1,216	778	**1,994**
Total	**7,737**	**5,731**	**13,468**

Traveling outdoor movies continued to exceed our initial expectations. **In 2011 the KFWP held 39 video shows, attended by 12,350 people,** averaging 316 per show. The average attendance at video shows has increased from last year, which is quite encouraging after six years! An idea expanded on this year that helps attract large audiences is showing films starring community

members. These films show project partners performing songs, dances or poems about conservation, cooking on their stoves and showing off their trees. Highlighting the goals of the KFWP, these short films have certainly helped to maintain excitement. There are four community videos currently on rotation, and the feature presentations continue to be wildlife documentaries. (This year, thanks to the Disney Worldwide Conservation Fund, "The Lion King" was also shown, and received rave reviews!) As interest remains high, the videos will continue well into the foreseeable future.

Two challenges encountered with the video shows this year were related to weather. As mentioned in last year's report, climate change is very evident in Uganda. In 2011 there was no mid-year dry season around Kibale, a very unusual event that affected farmers much more drastically than it did our video shows. Rains continued from May straight through December. The increase of clouds and rain affected the readiness of batteries for the show, as they charge from a solar array. New solar panels were purchased this year to increase the size of the array and new batteries were purchased in hopes that they will perform better than the older ones. The unseasonable rains also meant that several shows needed to be cancelled. However, those that were shown were well attended and enthusiastically enjoyed.

The KFWP is invested in continuing to develop a productive and professional team that works well together. Part of this entails providing opportunities to the staff that they otherwise might not be afforded. This year, with the support of the Zoo Boise Conservation Fund, the KFWP staff went on a trip to the zoo in Entebbe, the Uganda Wildlife Education Center. For most, it was their first time more than 20 kilometers from their home, and for all but two, their first time visiting a zoo. The KFWP felt it would be a tremendous learning opportunity for all staff to view educational graphics, see the animals that they are working to protect, and interact with zoo educators to learn new techniques of engaging and educating the general public. Below are some excerpts from the staff's personal reflections on the experience:

The trip to the zoo!! The day I was informed about the trip to the Entebbe Zoo I was very amazed and full of happiness. This is because I admired going there and seeing the animals I only see in movies and in books, get close to them and see them by my eyes.
-Ronald Mugarura, Isunga Science Center Staff

My dream of looking at the shoebill stork, normally only seen among the swamps, was fulfilled. I could not imagine the oversized bill that is being supported by a fairly short and thick neck and long toes. Moving around I noticed that UWEC had a reach of biodiversity. Looking up in the trees, I found a large nest of hammerkop, made of grass, sticks and leaves. The common ostrich also took my interest – I was impressed by the sound made during the time of defecating! Looking at all of these species took me almost two and a half hours. Generally, the trip was awesome, valuable and enjoyable.
-James Katongole, Bigodi Science Center Staff

It was Friday, October 2011, when I got the information through the phone that as KFWP members we were to have a trip to Uganda Wildlife Education Center. Soon after receiving that very hot, boiled water information, I got so interested, joyful and happier than a king. Even for sure I reached a point of sweating the sweat of happiness. Oh my god, what a trip - a trip that I will never forget! Whatever I came across was amazing and superb. I was really indeed opening my eye very very wide (as a snake or a frog) to observe all that took place.
-Samuel Mutegeki, Kaburala Science Center Staff

In the first cage, the ostrich (Maya) was the one that welcomed us and opened our eyes to the zoo. Oh! It was so wonderful for me to see this largest flightless bird in the world. But my total desire was to see and study about Mr. Mzee [old man], King of Kings in the forest, the rich of beards all over the neck, the one that roars and the roar is heard more than five kilometers away, the one that feeds on the blood and flesh of other animals, the one that is feared and hated by 95% of forest natives, the one that commands and nobody replies. Oh! My total desire was fulfilled. I saw Mr. Lion under the shed with two wives. Blind are those whose minds are after destroying nature. Oh! I cry out with a loud voice, calling my brothers and sisters from all angled corners of the world to come up and join hands to protect and educate people about wildlife for the new generation. Long Live Kibale Fuel Wood Project!
-Asaba Exavious, Isunga Science Center Staff

Surveys were conducted of 100 random households in each of the six target areas, the combined results of which are shown and compared to the combined baseline data in the table below. Attachment 2 has a more detailed breakdown of the survey data, with tables for each target area individually. Attachment 3 displays these data as graphs, comparing the work across all areas and all years of operation.

Now in the sixth year of project operation, we have accumulated large data sets to compare the yearly survey to (n=2,418 households for all data previous to this year, n=600 households for the 2011 surveys), and the majority of data indicate the project is accomplishing its goals. Averaged across all six target areas, the number of people planting *Sesbania* at home and using efficient stoves continues to rise.

One negative trend that has become evident is the difficulty of growing trees along the Northern boundary of Kibale. The soils in this area contain more sand and clay, and generally the location is dryer. Both of the Expansion Phase I target areas, located in this Northern area, have shown a decrease in the number of people growing trees since the second year of project involvement (see graph in Attachment 3). The numbers have now fallen back to where they were at the baseline surveys. As tree planting has continued to increase in both the pilot and Expansion Phase II areas, we are convinced that the decrease in the North is caused by the soils and weather; while community members were ready to try planting when we first began, the results were not what they'd hoped for, and some have dropped out each year. This is not to say that it is impossible to grow trees in this location: the tree contest winners each year continue to do extremely well. These individuals seem to have a green thumb, which is not needed to grow *Sesbania* in our other target areas but seems to be in the North. While we will continue promoting trees in all areas, focus will turn more toward stoves in these Northern communities. Stove building has continued to rise each year in the North as it has in all other areas, so we remain confident in this aspect of the project continuing successfully.

A positive trend that continues this year is that fewer people are collecting firewood inside KNP. Because this can be a sensitive subject during a survey interview, we have never asked constituents directly whether or not they cut wood illegally in the park. Instead, the survey asks how far they walk to collect wood, and the staff member conducting the interview compares this to the home's distance from Kibale. Recognizing that this may not be the most accurate measurement of

encroachment, the budget for the Eco-Char Initiative included funds to begin data collection inside the park, documenting the actual amount of wood being removed. NNF has now expanded its partnership with McGill University and the Kibale Fish and Monkey Project, headed by NNF Advisory Board Members Drs. Colin and Lauren Chapman, to complete this research in a timely and scientifically accurate manner. We are excited by this development as it will be another good measurement of the impact both projects are having toward protecting wildlife habitat.

2011 Survey Data Compared to Baseline Values

	Baseline Data, All Areas (2006, Pilot Areas 2007, EPI Areas 2008, EPII Areas)	Most Recent Data, All Areas (2011)
Is it a struggle to obtain firewood?	89% YES	84% YES
How do you propose to lessen the struggle?	58% plant trees 7% efficient stove 7% cut wood in KNP	66% plant trees 11% I have planted trees 2% efficient stove 1% cut wood in KNP
Do you grow trees at home?	51.5% YES (10.5% of whom grew *S. sesban*)	68% YES (66% of whom grow *S. sesban*)
Traditional or energy efficient stove?	4.5% used efficient stoves	55% use efficient stoves
Average Wood Use	1.34 heaps per day	1.03 heaps per day .77 efficient | 1.29 traditional
Firewood collected in Kibale?	30.5% YES	11.8% YES

Finances

The total cost for Year Five of the Kibale Fuel Wood Project was $43,084.88. A full detail of how this money was spent is given in Attachment 4.

Our greatest appreciation to all the donors who supported the KFWP's activities in "Year Five":

Chester Zoo Conservation Fund
Cleveland Metroparks Zoo and Zoo Society Conservation Fund
Columbus Zoo Conservation Fund
Disney Worldwide Conservation Fund
Fresno Chaffee Zoo
Genentech Givingstation
Honolulu Zoo Society
Idea Wild
Jacksonville Zoo
Little Rock Chapter, American Association of Zoo Keepers
Oakland Zoo Conservation Fund
Reid Park Zoo Conservation Fund
Riverbanks Zoo Conservation Support Fund
Roger Williams Park Zoo Sophie Danforth Conservation Biology Fund
SeaWorld Busch Gardens Conservation Fund
The International Foundation
The Zoological Society of Milwaukee
Wild-4-Ever Conservation Foundation
Zoo Boise Conservation Fund
Zoo New England

Thanks to the Central Florida Zoo, Denver Zoo, Denver AAZK, Jacksonville Zoo, Zoo Miami, and Pueblo Zoo for welcoming the directors to give lectures about NNF's projects.

Thanks also to Denver Zoo for providing paid leave during the director's travel to Uganda.

Links to the above organizations, as well as those that supported the project's first four years, can be found on our website, www.NewNatureFoundation.org. We would be most appreciative if you would post a reciprocal link on your website if one does not already exist.

Thanks also to the hundreds of private donors who have given gifts both large and small.

Thank you for reading this report, and **thank you for your continued support!**

ATTACHMENT 1

Map of Kibale showing Kibale Fuel Wood Project Target Areas and Science Centers

Pilot Year Target Areas

Expansion Phase I Target Areas

Expansion Phase II Target Areas

1 – Kaburala Science Center
2 – Kaswa Science Center
3 – Isunga Science Center
4 – Bigodi Science Center

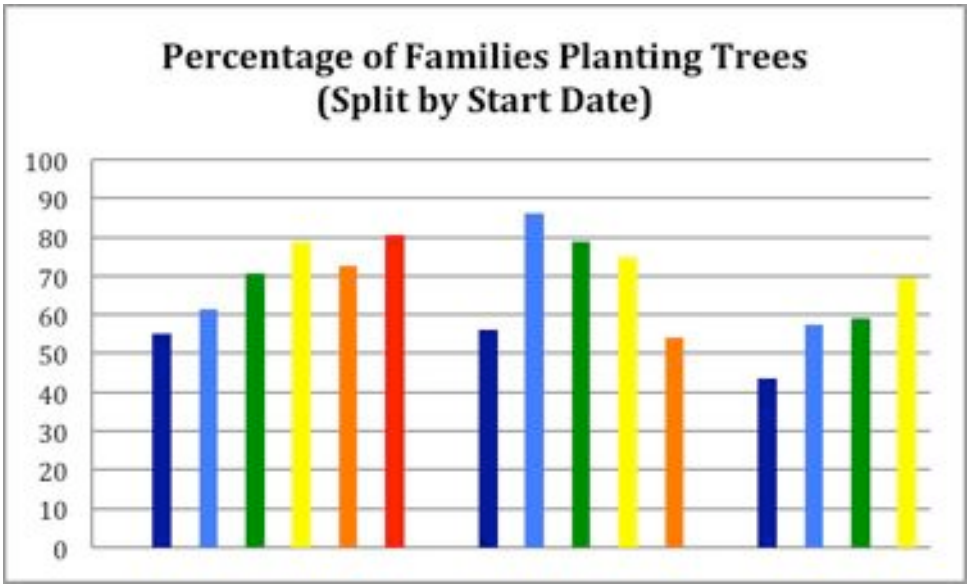
ATTACHMENT 2
Tables of Survey Data

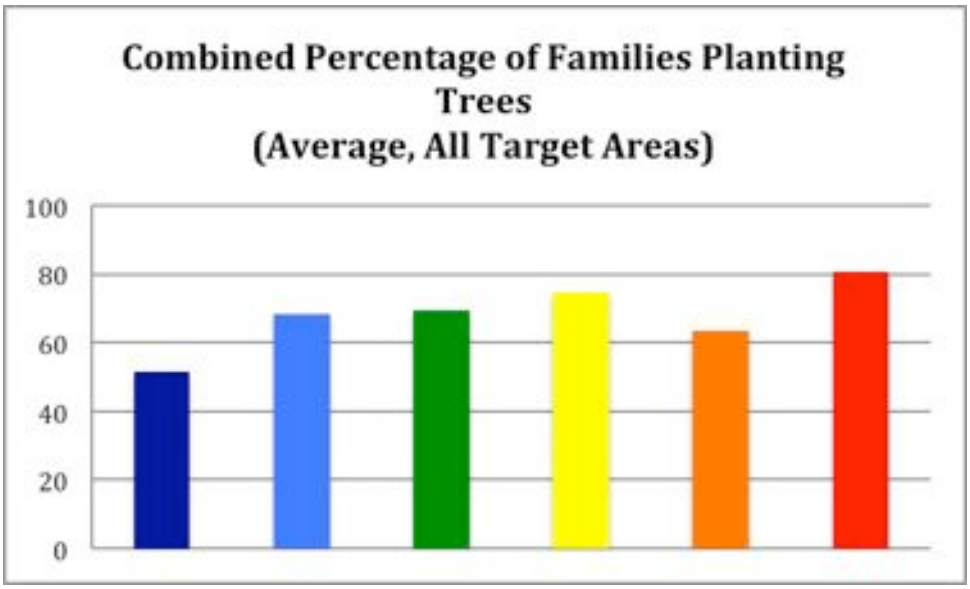
	Baseline Pilot Year Areas (2006)	Current, Pilot Year Areas (2011)
Is it a struggle to obtain firewood?	93.5% YES	92% YES
How do you propose to lessen the struggle?	75% plant trees 0.5% efficient stoves 12% cut wood in KNP	57% plant trees 12.5% I am planting trees 2.5% efficient stove 2.5% cut wood in KNP
Do you grow trees at home?	55% YES (8.5% of whom grew *S. sesban*)	80.5% YES (62.5% of whom grow *S. sesban*)
Traditional or efficient stove?	3.5% used efficient stoves	44.5% use efficient stoves
Average Wood Use	1.11 heaps per day	0.89 heaps per day 0.7 efficient | 1.09 traditional
Firewood collected in the park?	37% YES	14.5% YES

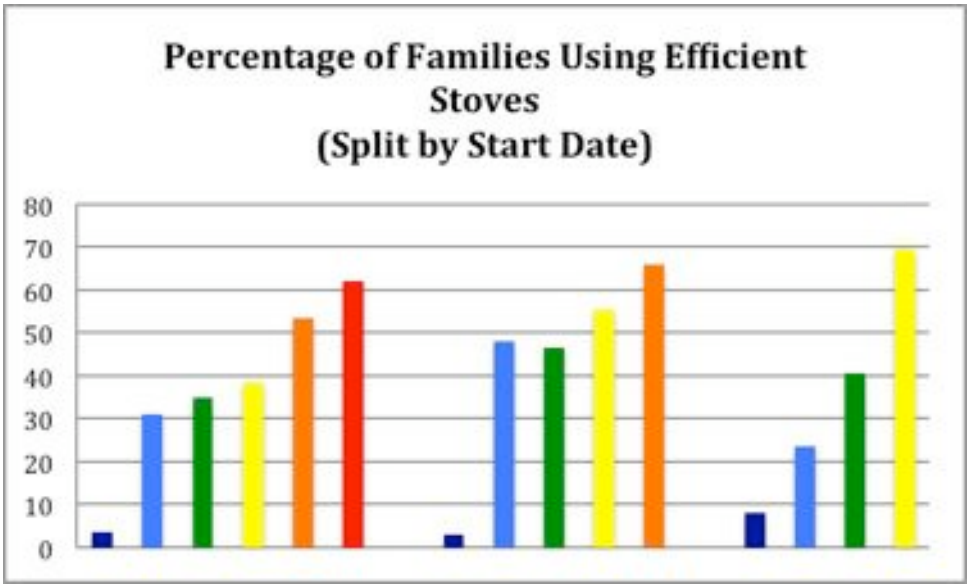
	Baseline Expansion I Areas (2007)	Current Expansion I Areas (2011)
Is it a struggle to obtain firewood?	92% YES	87% YES
How do you propose to lessen the struggle?	49% plant trees 7.5% efficient stove 8% cut wood in KNP	74% plant trees 6% I am planting trees 3% efficient stove 0% cut wood in KNP
Do you grow trees at home?	56% yes (20% of whom grew *S. sesban*)	54% yes (66.5% of whom grow *S. sesban*)
Traditional or efficient stove?	2.5% used efficient stoves	68% use efficient stoves
Average Wood Use	1.43 heaps per day	1.06 heaps per day 0.78 efficient | 1.35 traditional
Firewood collected in the park?	23% YES	15% YES

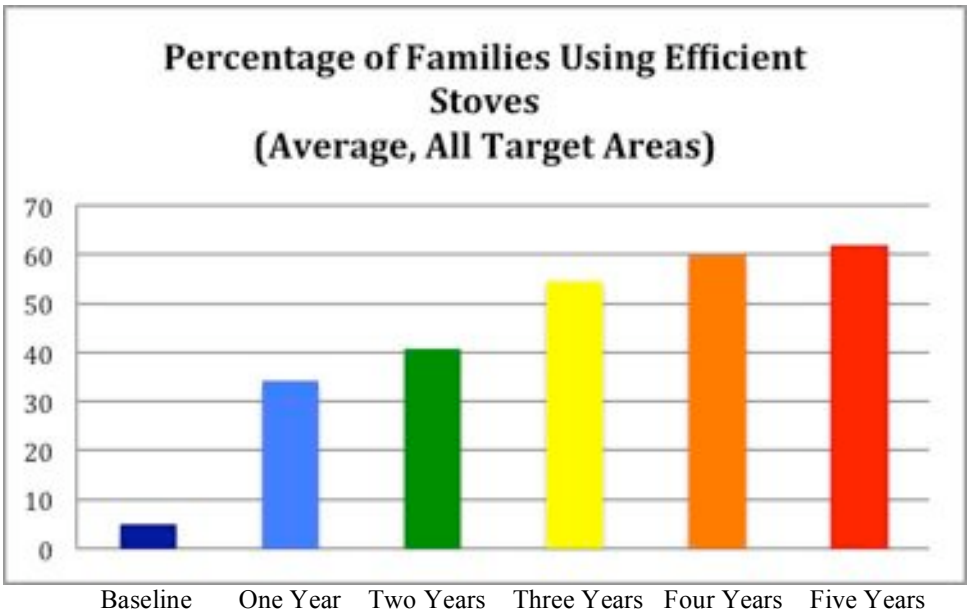
	Baseline Expansion II Areas (2008)	Current Expansion II Areas (2011)
Is it a struggle to obtain firewood?	81.5% YES	74.5% YES
How do you propose to lessen the struggle?	49% plant trees 14% efficient stove 1.5% cut wood in KNP	69% plant trees 2.5% I am planting trees 1% efficient stove 1% cut wood in KNP
Do you grow trees at home?	43.5% YES (3% of whom grew *S. sesban*)	69.5% YES (70% of whom grow *S. sesban*)
Traditional or efficient stove?	8% used efficient stoves	53.5% use efficient stoves
Average Wood Use	1.48 heaps per day	1.12 heaps per day .82 efficient | 1.42 traditional
Firewood collected in the park?	31.5% YES	6% YES

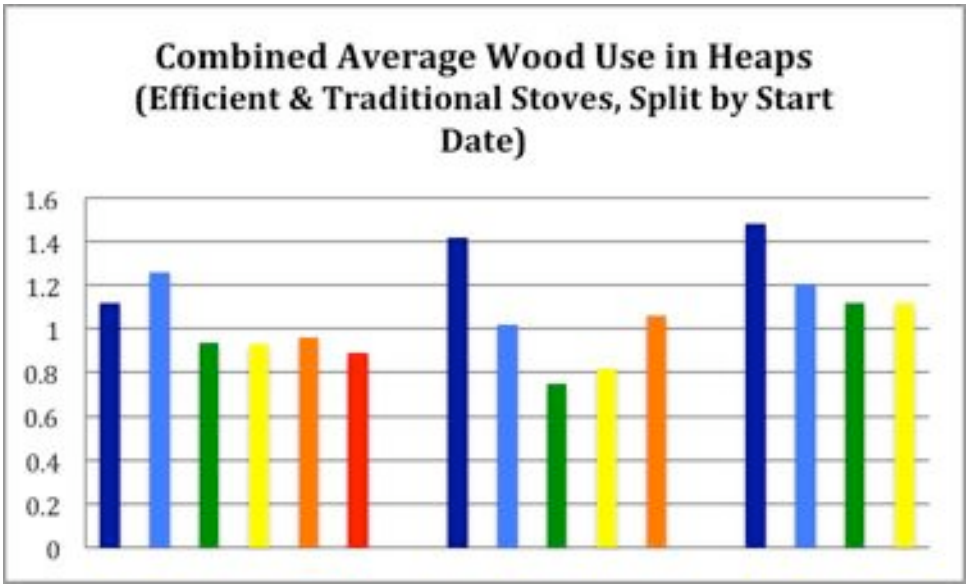
ATTACHMENT 3
Graphs of Survey Data

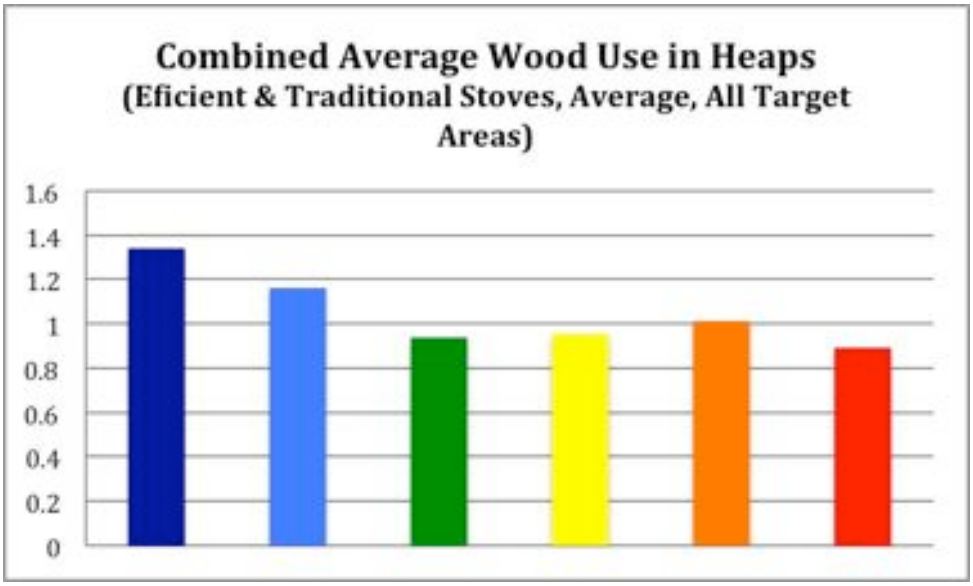


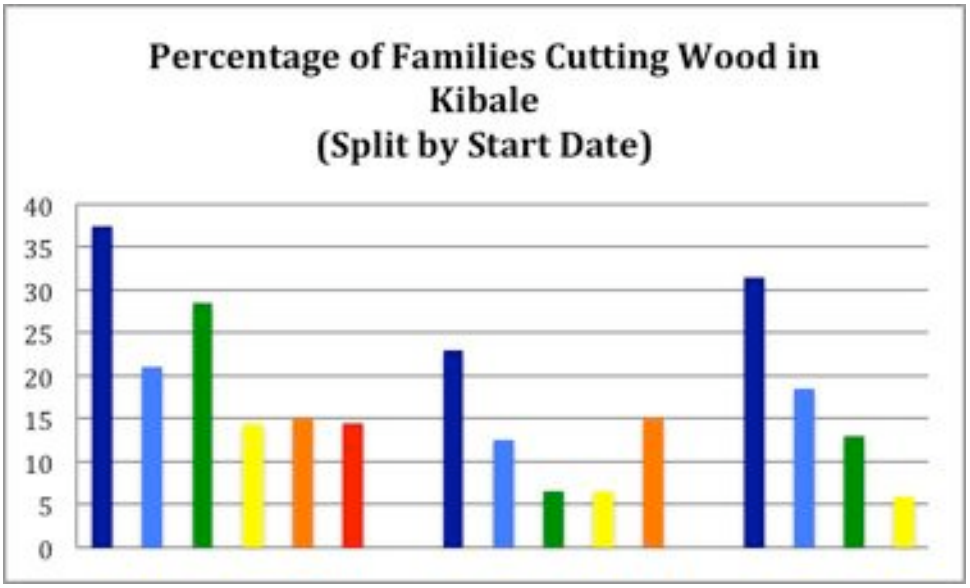


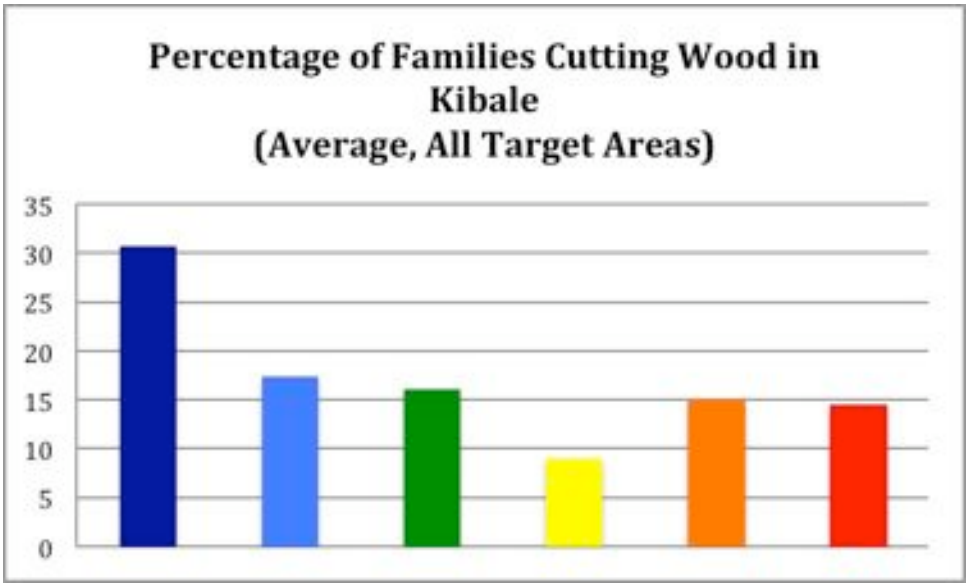

Percentage of Families Using Efficient Stoves
(Split by Start Date)
80
70
60
50
40
30
20
10
0
2006 '07 '08 '09 '10 '11
Pilot Areas
(Kiko & Isunga)
2007 '08 '09 '10 '11
Expansion I Areas
(Sebitoli & Kahangi)
2008 '09 '10 '11
Expansion II Areas
(Bigodi & Nabweya)


Percentage of Families Using Efficient Stoves
(Average, All Target Areas)
70
60
50
40
30
20
10
0
Baseline
One Year
Two Years
Three Years
Four Years
Five Years


Combined Average Wood Use in Heaps
(Efficient & Traditional Stoves, Split by Start Date)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2006 '07 '08 '09 '10 '11
Pilot Areas
(Kiko & Isunga)
2007 '08 '09 '10 '11
Expansion I Areas
(Sebitoli & Kahangi)
2008 '09 '10 '11
Expansion II Areas
(Bigodi & Nabweya)


Combined Average Wood Use in Heaps
(Eficient & Traditional Stoves, Average, All Target Areas)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Baseline
One Year
Two Years
Three Years
Four Years
Five Years


Percentage of Families Cutting Wood in Kibale
(Split by Start Date)
40
35
30
25
20
15
10
5
0
2006 '07 '08 '09 '10 '11
Pilot Areas
(Kiko & Isunga)
2007 '08 '09 '10 '11
Expansion I Areas
(Sebitoli & Kahangi)
2008 '09 '10 '11
Expansion II Areas
(Bigodi & Nabweya)


Percentage of Families Cutting Wood in Kibale
(Average, All Target Areas)
35
30
25
20
15
10
5
0
Baseline
One Year
Two Years
Three Years
Four Years
Five Years

ATTACHMENT 4
Budget Detail

January – December 2011

	BUDGETED	RECEIVED	SPENT
OUTREACH EDUCATION			
FILM SHOWS	$1,360.00	$1,895.34	1,895.34
SCIENCE CENTERS	$7,820.00	$7,704.66	$7,981.42
COMPETITIONS	$1,920.00	$1,500.00	$1,436.23
COMMUNITY TRAINING WORKSHOPS	$600.00	$313.00	$313.00
ENERGY EFFICIENCY/ DEMONSTRATION AREA SUPPORT	$575	$753	$754.21
TRAINING WORKSHOPS (STAFF)	$650	$500	$500
UGANDAN EDUCATORS SALARIES	$14,107.00	$5,856.44	6,256.44
IN-SITU TRANSPORT	$7,790.00	$5,169	$5,169
OFFICE EXPENSES	$2,800.00	$1,300	$1,300
CAPACITY BUILDING	$1,500	$1,156	$1,687.69
INTERNATIONAL TRANSPORT	$7,000.00	$4,300	$4,300
DIRECTORS STIPEND	$14,580.00	$10,300.00	$11,491.55
TOTALS	$60,702	$40,747.44	$43,084.88

The balance of funding not raised in institutional grants was met by unrestricted donations from private donors and craft sales at lectures.