



**New Nature Foundation**

**2015 Report**



# Partnering with Communities to Safeguard Wildlife Habitat

## 2015 Report



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**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.**

### **Summary of Accomplishments, January – December 2015:**

- 16,434 men, women and children visited the project's four Science Centers
  - 25 nature films were shown to audiences averaging 260 people
- 8 workshops were conducted focusing on fuel efficiency and family planning
  - Nearly 200,000 eco-briquettes were manufactured
  - 22,310.5 kilograms (49,083 lbs.) of waste was traded for briquettes
- Over 50% of people randomly sampled in NNF's target areas are using fuel efficient stoves
  - People with efficient stoves use 30% less wood than those with traditional stoves
    - 72% of people grow firewood at home

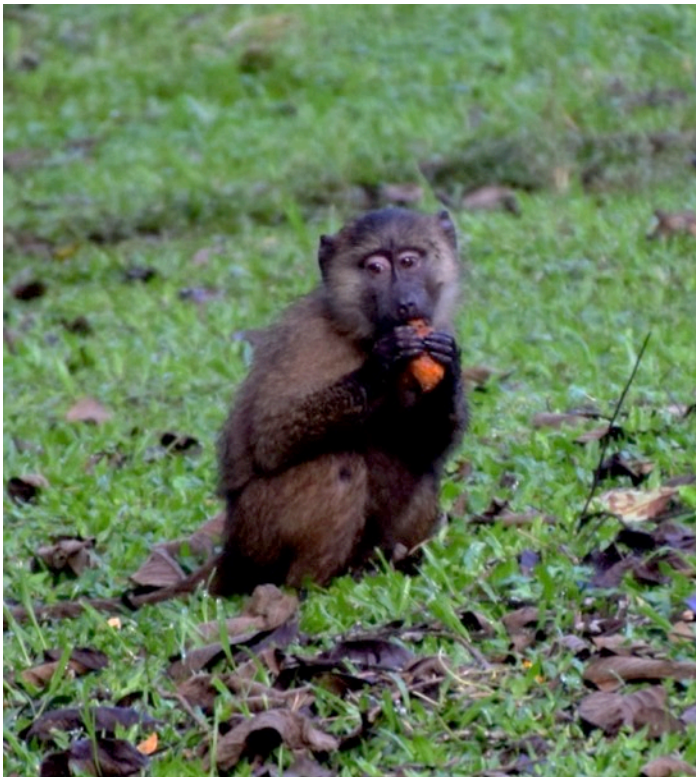
**Overall, NNF's programs engaged more than 25,000 citizens around Kibale and saved more than 4.6 million pounds of wood in 2015!**

We hope you enjoy reading this 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 are playing in saving wildlife habitat around the world!

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## ECO-BRIQUETTES

### Achievements:

- In 2015, **193,258 eco-briquettes were produced at the village factory**. This is a 22% increase from 2014.
- **123 families** are now using briquettes, 58 of whom are trading agricultural waste.
- **22,310.5 kilograms (49,083 lbs.) of waste was traded for briquettes**. This is a 20% increase from 2014.
  - The top family of the year traded 2,284 kilograms (5,025 lbs.) of waste for 9,136 briquettes, **enough to cook on briquettes instead of wood or charcoal ~63% of the time**.
- McLeod Russel Tea purchased \$730 worth of briquettes in 2015, a **1,089% increase in sales** over 2014. 45,000 briquettes were distributed to workers at their Kiko estate.
  - The income from MRT was enough to cover a full month's wages and operations for the Eco-Char Initiative. This met our goal of having a measurable portion of staff salaries met by sales, allowing a reduction in grant money spent.
- A viable recipe for carbonized briquettes has been realized. In late 2015, the village factory standardized production of briquettes made from carbonized farm waste. Acquiring a commercial briquette machine facilitated production of a final product more similar in appearance to charcoal, making it more marketable.
- Promotional sales were made in nearby Kiko trading center on four separate occasions. This did not lead to a sustainable market, due to complications with transport and time, but did inform our model for moving forward (see Science Centers).



### Challenges:

- Farm waste trading decreases during the dry season, when more waste goes to the animals and the land with no surplus for trading. Collection of waste from other locations would require more human capital and infrastructure to maximize efficiency, so production may experience ebbs and flows.
- Marketing carbonized briquettes:
  - Though the carbonized briquettes burn better than actual charcoal in our experiments, they do not hold together well in transport. We continue to fine-tune the recipe and distribution protocol.
  - A partnership with Mountains of the Moon University to train staff on business and marketing techniques was unsuccessful. NNF continues to explore other possibilities along these lines.

Based on the average amount of fuel used by a family on any given day, **the briquettes produced in 2015 account for a savings of more than 47,348 kilograms (104,166 lbs.) of wood**. While much of this wood would have come from unsustainable sources, the briquettes are carbon neutral, so in addition to protecting wildlife habitat the Eco-Char Initiative is helping us all by mitigating carbon emissions and climate change.

## EFFICIENT STOVES & TREE PLANTING

- **The latest surveys reveal that over 50% of families in the target areas are using efficient stoves.**
- Overall average wood use remains under 1 heap (~10 kg/22 lbs.) per day; families with efficient stoves use 30% less wood (see Appendix I).
  - In Makoby, where NNF has been active since 2006 and has its base of operations, people are exhibiting an even more marked change in behavior. Overall wood usage is dramatically lower than other target areas: An average family (combining those with efficient and traditional stoves) uses less than half a heap of wood per day, while those with efficient stoves use only a third of a heap per day.
- Surveys revealed that the number of people who suggested that the government allow them to collect wood from Kibale National Park has **reduced by 50%** since inception. (This decrease was dramatically lower in three of the four target areas). We have also seen a steady decline in actual encroachment into the park for wood, showing not just a change in attitude on how best to solve the fuel wood crises, but an actual behavior shift as well (see Appendix II).
- **In 2015, community members built 125 stoves with assistance from NNF staff.** In total, NNF has assisted in building **1,654** efficient stoves since inception.
- Across all target areas, **72% of people now grow trees at home, 69% of whom grow *Sesbania*** and other promoted species.
  - One family in Makoby was recognized at the Conservation Competition for outstanding planning and planting of indigenous leguminous trees around their farms, following the NNF methodology. Collectively, father and son planted over 1,000 trees around their homes over the past few years and manage a sustainable firewood harvest to this day.



The wood extraction research that began in 2013, funded by NNF and conducted by our partners in the Uganda Wildlife Authority, continued in 2015. This research will continue every-other year and contribute to a long-term data set detailing changes in human encroachment into Kibale.

Calculating with wood usage numbers from 2015's surveys and the 97% stove functionality figure gleaned from ongoing research, project stoves account for a **savings of 5,615 kilograms (12,353 lbs.) of wood daily**. This equates to **2,049,475 kilograms (4,508,845 lbs.) of wood in 2015**, much of which would have been cut within Kibale National Park.



## SCIENCE CENTERS & TRAINING WORKSHOPS

- Total attendance at all four Science Centers was **16,434 people in 2015**; 59% children and 41% adults.
- The annual staff training workshop was held in Queen Elizabeth National Park, just south of Kibale.
- Eight workshops were conducted focusing on fuel efficiency and family planning.

The Science Centers were created to disseminate all aspects of the project, and while they have been utilized to promote stoves and trees, the briquettes had not fully been integrated to date. Moving forward, each Science Center will serve as a sales point for briquettes, helping solve the transport issues noted above. Capitalizing on massive charcoal use in Fort Portal, a fifth Science Center will be opened in town, where the largest possible market for briquettes exists. Customers will not need to travel to a village production center, increasing the impact and likelihood of repeat sales. Thanks to all the long term partners who, in addition to funding, have given a plethora of in-kind donations for the science centers. Please share our [amazon wish list](http://www.amazon.com/gp/registry/wedding/1M88FJTAH8T5G) so that we can fill the new center with amazing things! <http://www.amazon.com/gp/registry/wedding/1M88FJTAH8T5G>

*“Dear Sir/Madam,*

*Re: Thanking Kibale Science Center For Its Service*

*I humbly write to appreciate for the service that has been rendered by Kibale Science Center. Generally, I have also gained much from this science center by passing science subjects well and becoming conscious to my environment. Dear Manager, it has not been easy for me to pass science subjects, but with the help of this center it has been done well in my UCE 2015 at St Paul's High School Nyabweya. This has helped me to take Science Combination in A Level. Dear, I say to you, to continue doing the same to other areas for our consciousness to the environment. Nothing I have to give you only I wish you a gay and amazing year of 2016. Yours Faithful, Bureieya John Bosco*

*What we have learnt on this tour empowers me to teach the community. My teaching will assist villagers to be eager to learn more about the environment. -Kabuleta John*

*With great excitement I learnt and saw so many new things which have increased me to know what environmental protection means. I saw a lake where animals go when they are sick which so excited me because I had never heard of that before. -Annet Katusabe*

*I take this precious time to express my happiness and gratitude for this trip. It helped expand my understanding. -Bashir Musabe*

*After an elongated search, at exactly 10:15 am we landed on two lion cubs in the short grass. We met with communities who live near the park who are facing a scandal of poverty due to animal raiding. The next day we saw a lot of skulls of animals, like the ones at Kibale Science Centers, and the information helped reform our teaching skills. My sincere thanks. Please may you love long and bear more fruitful branches! -Acleo Murungi.*



## CONSERVATION COMPETITIONS

- The theme for the sixth annual Kibale Conservation Competitions was “land use strategies to address crop raiding”. This was inspired by ongoing research from colleagues who work in and around Kibale.
- **Over 1,750 people attended four competitions** in NNF's four target areas, the highest competition attendance to date.
- 2014 saw the first entry of a male cook in the efficient bean cook-off; 2015 saw the first male winner!

Activities included:

- Guessing the weight of various animal bones.
- Guessing games for endangered animals and threats to their existence.
- Pledge to Protect the Forest, written on a leaf and attached to a “tree” that was hung at the Science Centers.
- Recycled Sculpture Challenge: Creating animals from plastic bags, bottles, newspapers, twine, leaves and twigs.
- Efficient Stove Build-off: Racing from one end of the field to another, carrying the twenty bricks needed for a stove and then building one.
- Cheetah Run: Distance run around the neighborhood.
- Primate Pull: Tug of war to see which team is stronger.
- Dance and Drama Performances.
- Fuel Efficient Bean Cook-off. The winners averaged just slightly more than 1 kg of wood to cook 1 kg of scrumptious beans –



truly an amazing demonstration of the capabilities of the rocket stove. (One winner used only half a kilo!)





## VIETNAM

Based on NNF's successes in Uganda, the Directors were invited to Ha Giang Province in Northern Vietnam as efficient stove consultants for the Denver Zoo's Tonkin Snub-nosed Monkey Conservation Program in 2014. One of the most critically endangered primates in the world, only ~250 Tonkin Snub-nosed Monkeys remain (photo below thanks to Le Khac Quyet). The collaboration blossomed in 2015, with NNF and Denver Zoo sharing funding and management responsibilities for this habitat protection and education initiative.

### Achievements:

- With assistance from the Vietnamese Community Patrol Group, we developed a stove mold so that all future stoves will be built with the same dimensions and will take less time to build. This design also **eliminates the need for bricks**, making the stove more cost efficient and easier to build. (Photo above of the new design in use, thanks to Luu Tuong Bach.) Rice husks can be added to the cement when filling the mold for the new stove design, further reducing labor (less heavy aggregate needed in the mix) and improving the insulative properties of the concrete.
- The new design has two burners, to address concerns over cooking rice. This was a cultural necessity not realized last year due to very limited staffing. Addressing this concern and attaining governmental permission to hire staff will increase stove numbers.
- In total, 17 stoves were built in 2015. This number is much lower than the earliest phases of the Ugandan programs; we are confident that once bureaucratic hurdles are cleared, it will be possible to hire staff as stove ambassadors.



- An alternative livelihood program, based on the success of our Ugandan partners, the Community Action Project, is also being initiated. Individuals and groups have been approached, and interest is high. Already, seven items bought as part of the pilot program have raised more than \$200 for NNF while also providing much needed funds to the families who created them. Honoring Vietnamese culture and creativity by buying sustainable handcrafts will ultimately help create a more stable environment for the Tonkin Snub-nosed Monkeys.

## *PUBLICITY & PARTNERSHIPS*

Dr. Jo Day (pictured, right) from the Taronga Zoo's conservation department visited the projects in May. We were thrilled to host this long-term funder and had many good conversations about possible new directions for the work.

NNF staff set up a display and had cooking demonstrations at the UNITE for the Environment Earth Day celebration on Kibale's south-west boundary.

Project Manager Margaret Kemigisa traveled to the USA for the Zoos and Aquariums Committing to Conservation conference in Denver, Colorado. Margaret presented about the collaboration between foreign non-profits, community based organizations and industry to safeguard wildlife habitat in Uganda. While in the States, Margaret also attended the Wildlife Conservation Expo in San Francisco



with the Project Directors and presented about the work at the Oakland Zoo, McGill University and at supporters' homes in Montreal and Des Moines.

The Infinite Monkey Theorem in Denver hosted NNF's second major fundraiser, which was a success. Attendees tasted some of the best wine in town while enjoying live music and a silent auction. The next event will be this April 15<sup>th</sup> in Stockton, New Jersey; tickets are available on our website - if you know anyone in the area, please help spread the word!

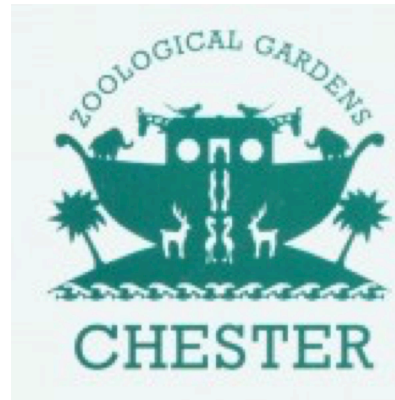
NNF initiated a partnership with Marie Stopes Uganda to further strengthen the family planning/women's health workshops. Workshops began in earnest in early 2016.

We are thrilled to continue supporting partnerships to fulfill our mission of empowering people to live in greater harmony with nature.



# Thank you all!









**Private Donors:**

Adam Levine & Janson Wu  
Amy Breau  
Amy Gotliffe  
Ann Marie & Jason Gage  
Annemarie Hasain  
Audrey Krenzel  
Avra & Jonathan Lorrimer  
B J Schoeberl  
Barbara & Jeffrey Katzman  
Barry Simon  
Barry Zackroff  
Bette & Jon Perlman  
Carol McCasland  
Chuck X. Block  
Cindy Reedy  
Claire & Herbert Sachs  
David Erhman  
Dawn Jacoby  
Deborah Pomeroy  
Donna Devine  
Donna L Cramer  
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Ellyn & Steven Stern  
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Stephanie Valdez  
Tiffany Barnhart  
Tigger & Michael Kainz  
Toni Katz  
Tony & Daria Pori  
Victoria Zavosky  
Walter Matthews

**Institutional Donors:**

Arcus Foundation Great Apes Fund  
Artemesia & Rue  
Birdsall & Co.  
Central Elementary, Fort Collins CO  
Chester Zoo  
Columbus Zoo and Aquarium  
Common Era

Crystal Galleries  
Denver Zoological Foundation  
Fresno Chaffee Zoo  
GoodShop  
Great Ape Film Initiative  
Infinite Monkey Theorem  
International Foundation  
Ironwood LLC  
Katie Adamson Conservation Fund  
Koller Law PC  
Little Rock AAZK  
Lush  
Mcleod Russel Tea  
Milwaukee County Zoo  
Mountain Gorilla Conservation Fund  
Natural Encounters Conservation Fund  
Nature's Own  
Oakland Zoo  
Octa  
Pepsi Center, Denver  
Reid Park Zoo Teen Volunteers  
Revampt  
River North Art District  
Rocky Mountain AAZK  
Roger Williams Park Zoo  
San Antonio Zoo  
Savory Spice  
SeaWorld Busch Gardens Conservation Fund  
Shumaker Family Foundation  
St. Mark's Coffeehouse  
Sweet Action  
Tagawa Gardens  
Taronga Zoo  
The Body Shop  
Your African Safari  
Walt Disney World Community Relations  
Zoo Infinity & Beyond  
Zoo New England

## Appendix I: Survey Charts

	Baseline Data All Areas (2006, Pilot areas; 2007, EPI areas; 2008, EPII areas)	Most Recent Data All Areas (2015)
Is it a struggle to obtain firewood?	89% YES	85.5% YES
How do you propose to lessen the struggle?	58% plant trees 7% efficient stove 7% cut wood in KNP	61% plant trees 7% efficient stove 3.5% cut wood in KNP
Do you grow trees at home?	51.5% YES (10.5% of whom grew <i>S. sesban</i> )	72.5% YES (49% of whom grow promoted leguminous species)
Traditional or efficient stove?	4.5% used efficient stoves	51% use efficient stoves
Average Wood Use	1.34 heaps per day	0.98 heaps per day Efficient stove uses 30% less than traditional 0.81eff. 1.16 trad.
Firewood collected in the park?	30.5% YES	11.2% YES

	Baseline Data Pilot Year Areas (2006)	Most Recent Data Pilot Year Areas (2015)
Is it a struggle to obtain firewood?	93.5% YES	89.5% YES
How do you propose to lessen the struggle?	75% plant trees 0.5% efficient stove 12% cut wood in KNP	61% plant trees 5.5% efficient stove 4% cut wood in KNP 1.5% use briquettes
Do you grow trees at home?	55% YES (8.5% of whom grew <i>S. sesban</i> )	79.5% YES (57.5% of whom grow promoted leguminous species)
Traditional or efficient stove?	3.5% used efficient stoves	52.5% use efficient stoves
Average Wood Use	1.11 heaps per day	0.85 heaps per day Efficient uses 38% less wood than traditional 0.66 eff. 1.06 trad.
Firewood collected in the park?	37% YES	11.5% YES

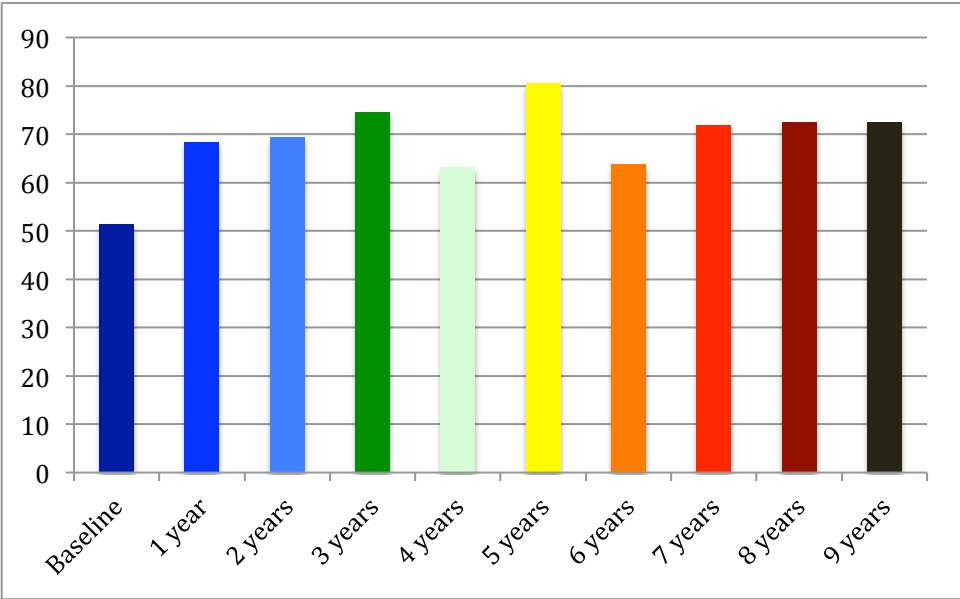


	Baseline Data Expansion I Areas (2007)	Most Recent Data Expansion I Areas* (2015)
Is it a struggle to obtain firewood?	92% YES	63% YES
How do you propose to lessen the struggle?	49% plant trees 7.5% efficient stove 8% cut wood in KNP	41% plant trees 5% efficient stove 0% cut wood in KNP
Do you grow trees at home?	56% yes (20% of whom grew <i>S. sesban</i> )	50% yes (32% of whom grow promoted leguminous species)
Traditional or efficient stove?	2.5% used efficient stoves	58% use efficient stoves
Average Wood Use	1.43 heaps per day	0.87 heaps per day Efficient uses 32% less wood than traditional 0.74 eff. 1.08 trad.
Firewood collected in the park?	23% YES	14% YES

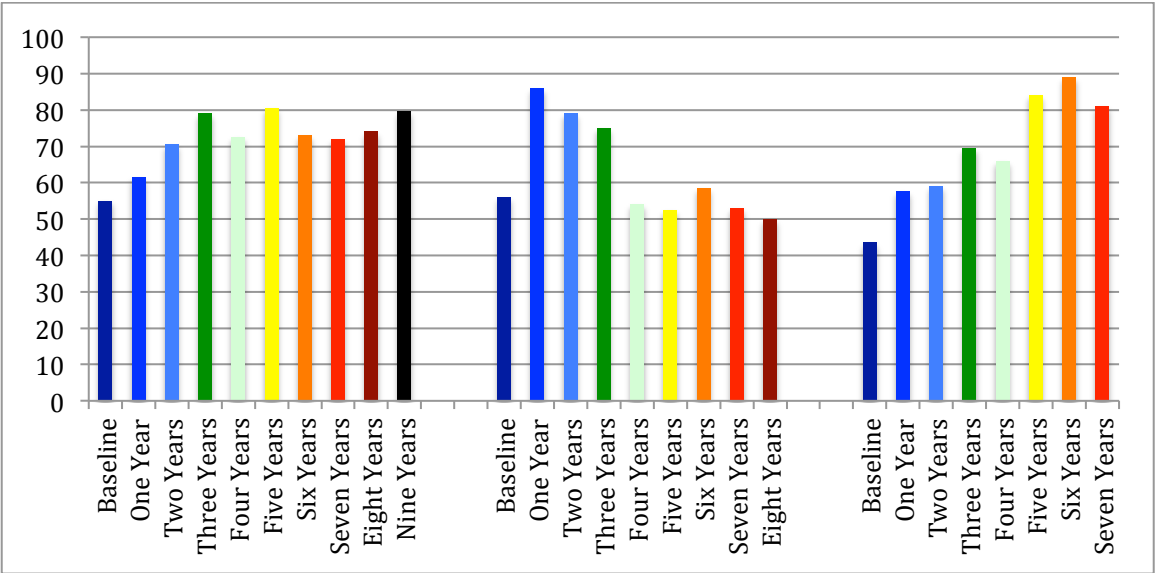
	Baseline Data Expansion II Areas (2008)	Most Recent Data Expansion II Areas* (2015)
Is it a struggle to obtain firewood?	81.5% YES	100% YES
How do you propose to lessen the struggle?	49% plant trees 14% efficient stove 1.5% cut wood in KNP	81% plant trees 11% efficient stove 6% cut wood in KNP
Do you grow trees at home?	43.5% YES (3% of whom grew <i>S. sesban</i> )	81% YES (48% of whom grow promoted leguminous species)
Traditional or efficient stove?	8% used efficient stoves	40% use efficient stoves
Average Wood Use	1.48 heaps per day	1.33 heaps per day Efficient uses 18% less wood than traditional 1.19 eff. 1.44 trad.
Firewood collected in the park?	31.5% YES	8% YES

\*One of the Expansion Phase I areas was phased out in 2014; one of the Expansion Phase II areas was phased out in 2013. These numbers reflect only target areas where NNF is still active. The phased out areas will be surveyed periodically in the future to determine how project activities remain ongoing after cessation of active work, but are not included in the current analysis. (The same is true on the graphs below.)

Appendix II: Survey Graphs

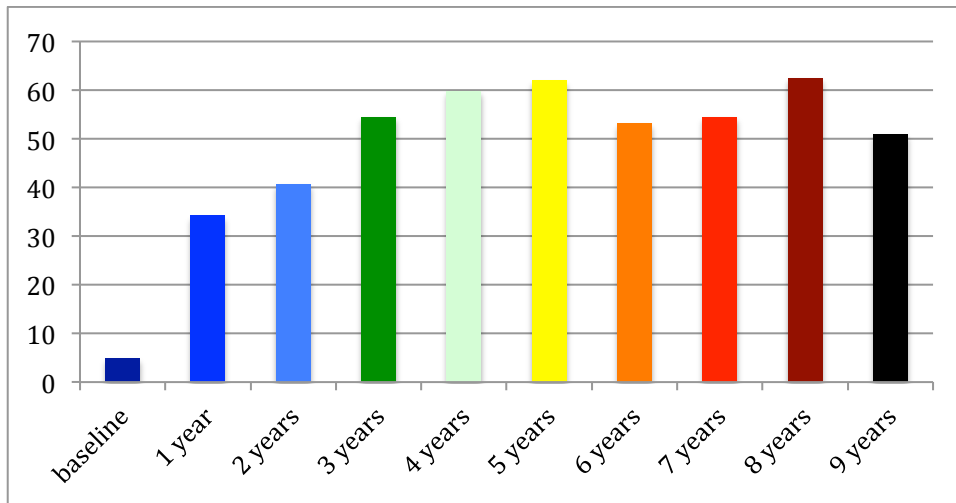


Percentage of Families Planting Trees, Combined Average

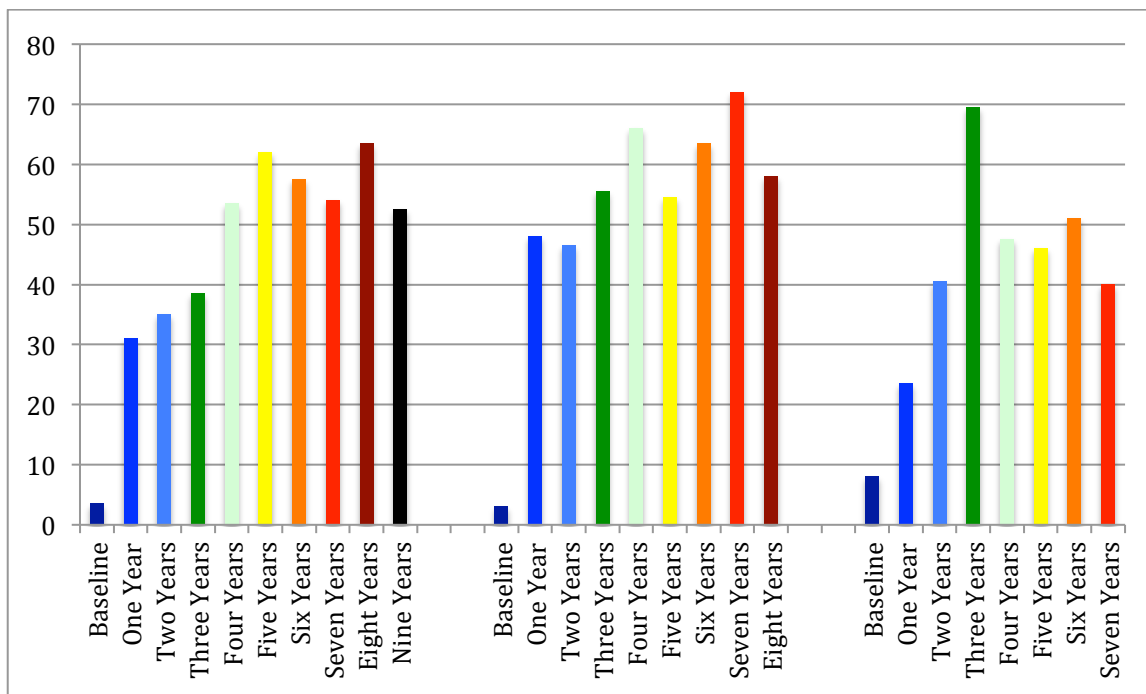


Makoby & Isunga Kaswa Nabweya  
Percentage of Families Planting Trees, Split by Start Date





*Percentage of Families Using Efficient Stoves, Combined Average*

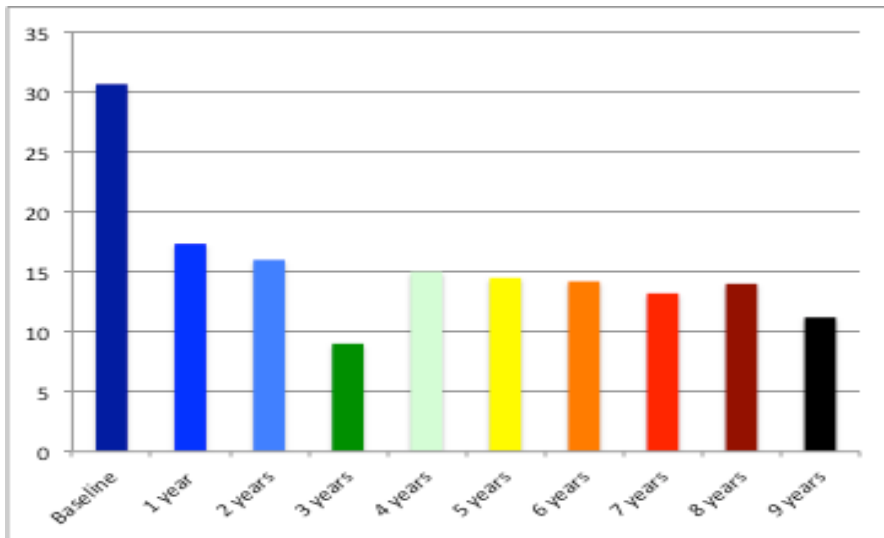


*Makobyo & Isunga*

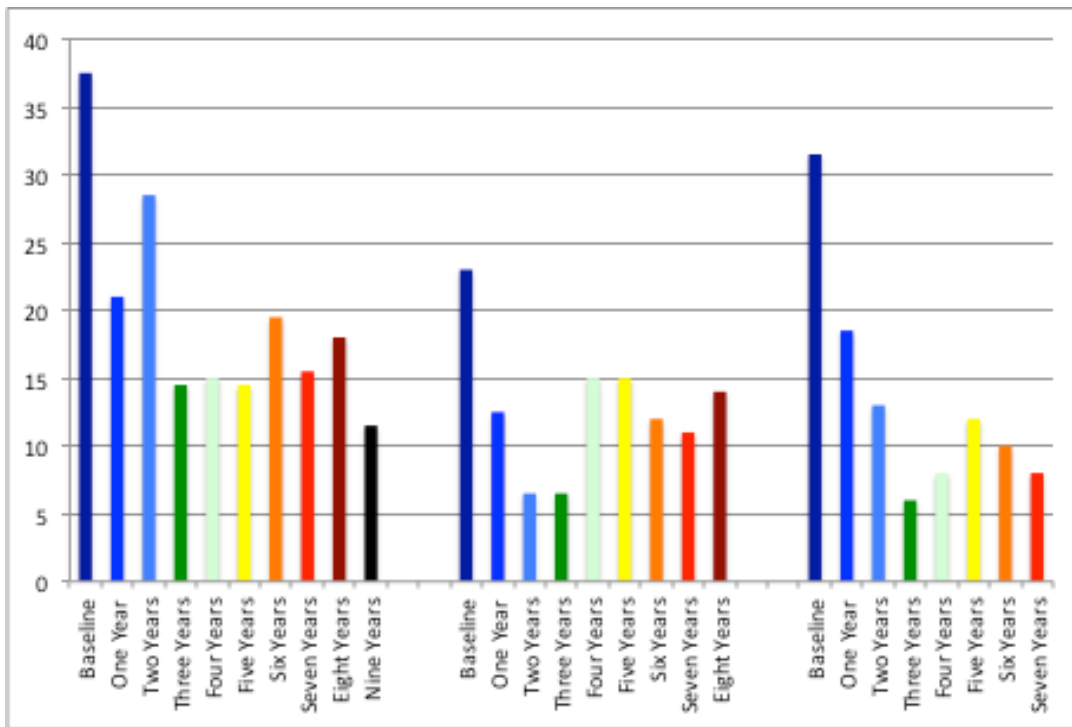
*Kaswa*

*Nabweya*

*Percentage of Families Using Efficient Stoves, Split by Start Date*



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



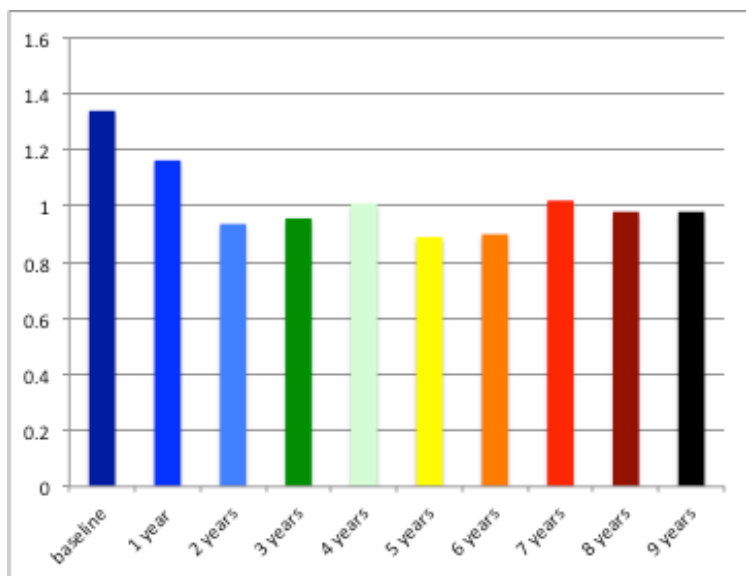
*Makoby & Isunga*

*Kaswa*

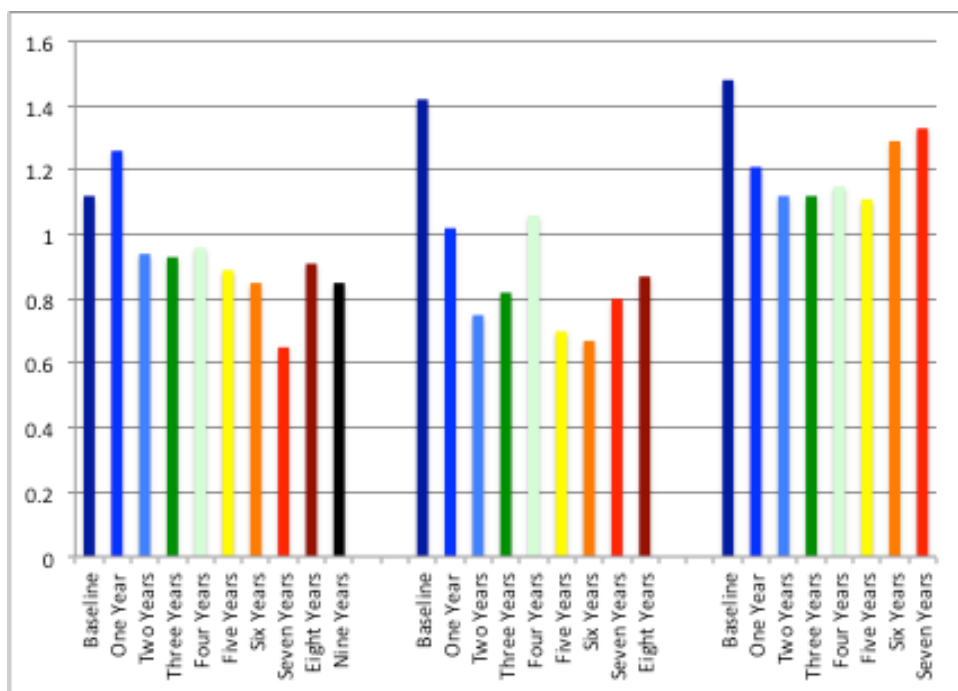
*Nabweya*

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





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



*Makoby & Isunga*

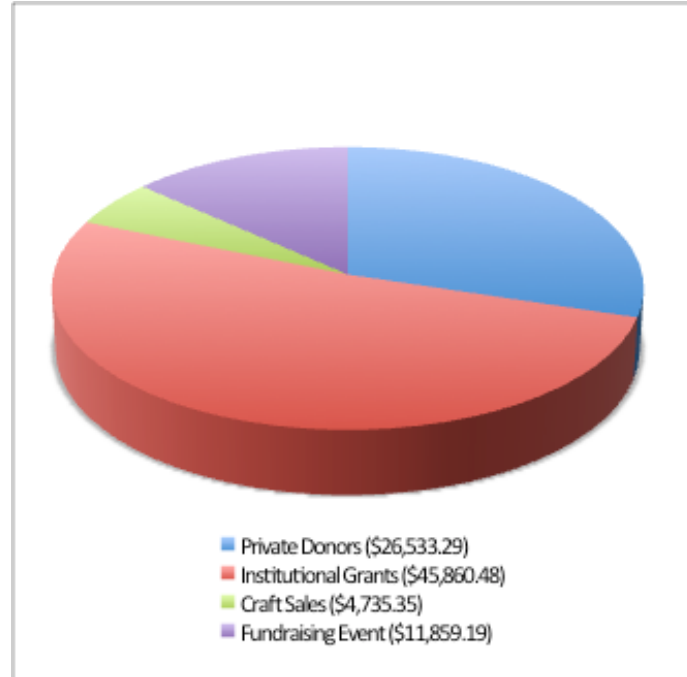
*Kaswa*

*Nabweya*

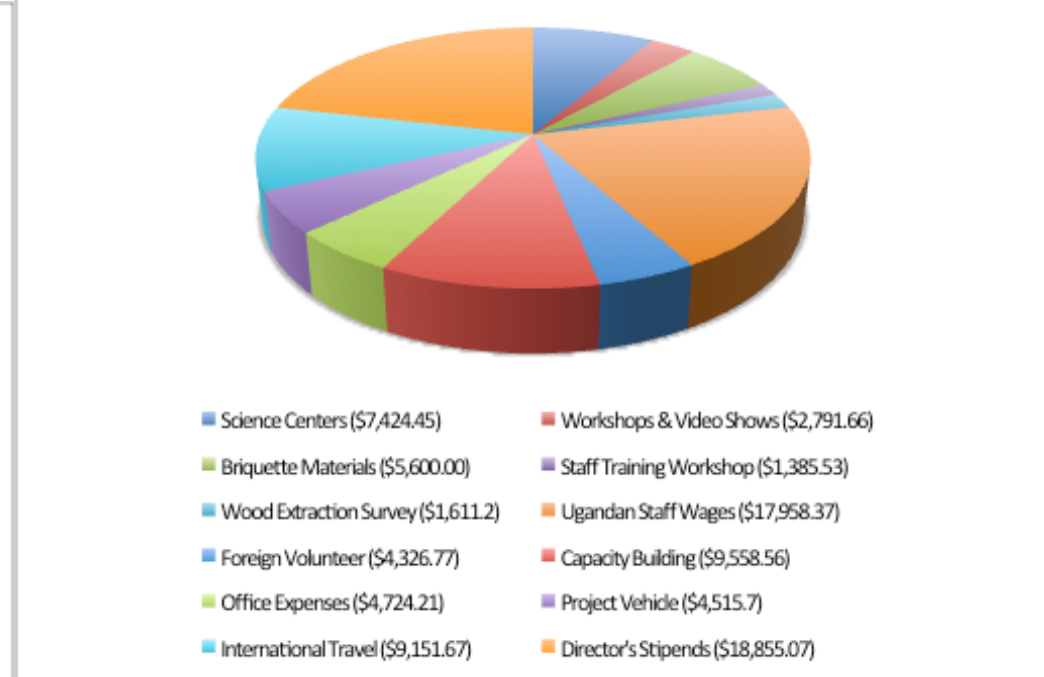
*Amount of Wood Used Daily Per Family Daily (in Heaps), Split by Start Date*

### Appendix III: Income & Expense Charts

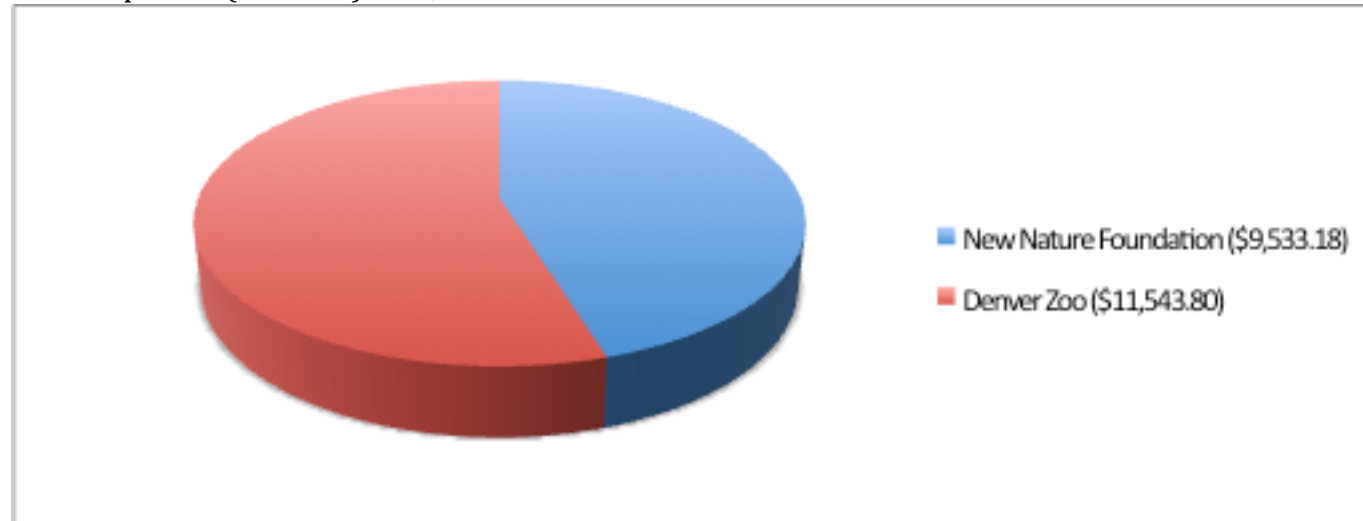
2015 Total Income: \$88,988.31



2015 Expenses (Uganda): \$87,903.19



2015 Expenses (Vietnam): \$21,076.98





Appendix IV: Budget Detail:

Budget Line Item	Total Spent
<b>Science Centers</b>	\$10,020.80
Maintenance and Upkeep	
Rent & security	
Educational Materials	
Museum Staff and Student interns	
Capacity/Meeting UWA	
<b>Training Workshops, Video shows</b>	\$2,791.66
<b>Capacity/training for communities</b>	
<b>Briquette Efficiency Materials</b>	\$5,600.00
Tents/Presses/PVC/Etc.	
Rent of farm land	
<b>Staff Training Workshops</b>	\$1,385.53
Transport, food & lodging	
Park Fees	
<b>Wood Extraction survey</b>	\$1,611.20
<b>Briquette Staff Wages</b>	\$10,009.98
Staff	
Security	
Food stipend	
Medical Insurance	
<b>Fuel Wood Staff Wages</b>	\$1,169.55
Security	
Stove Building Liaisons	
Medical Insurance	

<b>NNF Ugandan Manager</b>	\$4,182.29
<b>Foreign Volunteer Stipend</b>	\$4,326.77
Food, Rent, Transport & Stipend	
<b>Capacity Building</b>	\$9,558.56
International Conference	
Crafts	
Lectures in America	
Educational Materials/Publications	
<b>Office</b>	\$4,724.21
Phone & Internet	
Mailings	
Taxes	
<b>In-Situ Transportation</b>	<b>\$4,515.70</b>
Fuel	
Maintenance	
Car Rentals	
New bicycles	
<b>International Travel</b>	\$9,151.67
Tickets/Visas	
<b>Directors Stipend</b>	\$18,855.07
Wages	
Living stipend in Uganda	
<b>TOTAL ANNUAL BUDGET</b>	<b>\$87,902.99</b>