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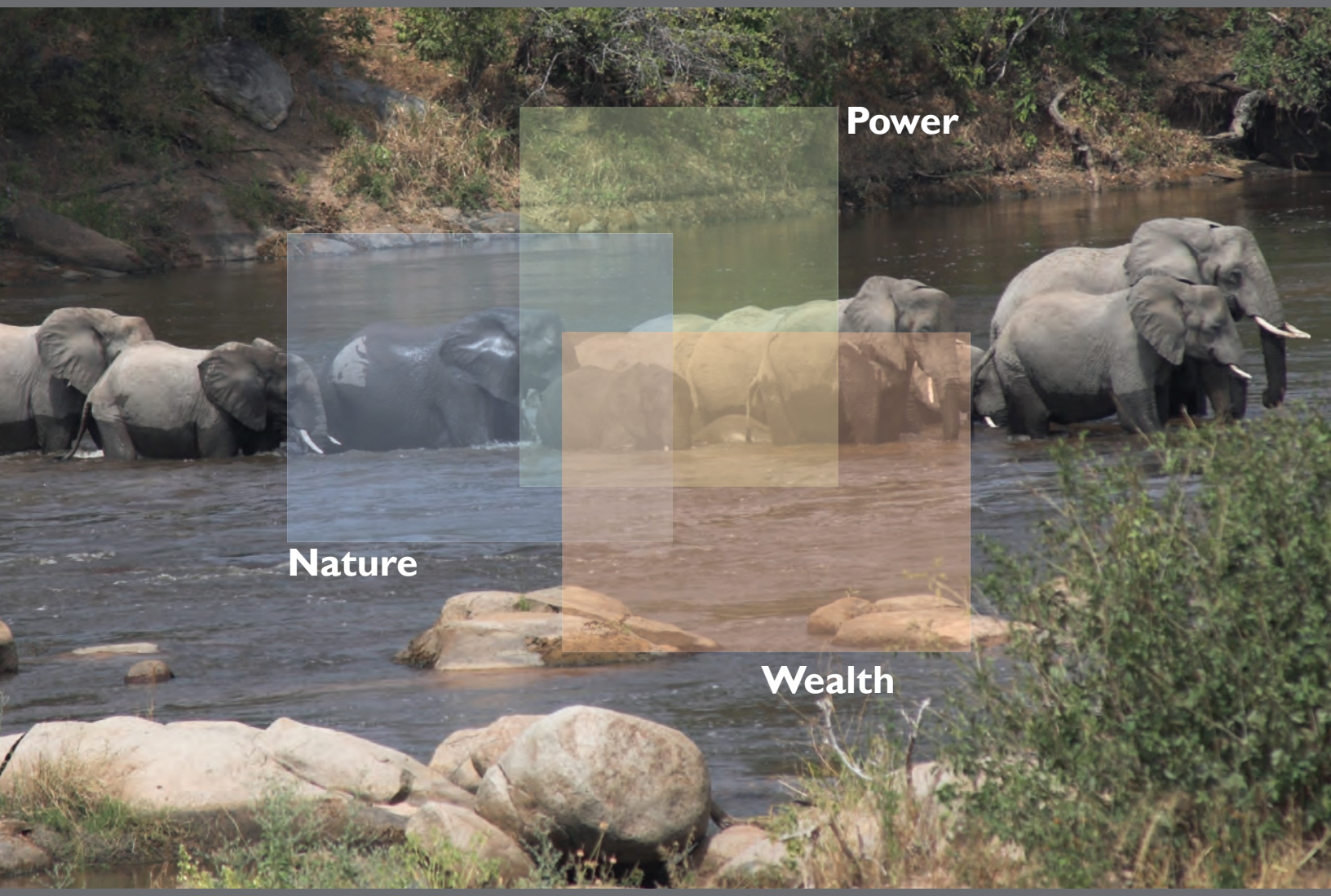

Case Study:

Elephant Pepper: Establishing Conservation-Focused Business

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Case Study

Elephant Pepper: Establishing Conservation-Focused Business

Report prepared for WCS TransLinks Program

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Elephant Pepper: Establishing Conservation-Focused Business

Table of Contents

Executive Summary 4

The Challenge 6

Structure of the Organization 6

Elephant Pepper Development Trust 8

Components of the Value Chain 12

Locations 14

Economic Impact 17

Conservation Impact 18

Key Challenges Along the Way 18

Summary of Lessons Learned 23

Conclusion 27

Appendix 1: Key Donors & Partners 30

Appendix 2: Timeline of Events 32

Appendix 3: Elephant Pepper Products and More Information 33

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Executive Summary

This case study examines the development of a commercial product at the intersection of biodiversity conservation, economic development and improvement in the livelihoods of poor African farmers. It shows how a market-based initiative can drive positive change.

The Elephant Pepper business has its origins in a research project established to identify methods to mitigate the conflicts between small-holder African farmers and elephants. The problem of elephant-human conflict is severe and arises from the fact that elephants eat farmers' crops and destroy their fields. As crops are often the only food available to these rural communities, conflict ensues as farmers protect their only food source and, consequently, there may be death and injury on both sides.

Dr. Loki Osborn, whose research was partly sponsored by the Wildlife Conservation Society (WCS) made a remarkable discovery: Elephants hate chillies. He discovered and proved the effectiveness of chillies in repelling and deterring elephants and showed how they could be used to keep elephants from fields, thereby protecting crops and reducing conflict. This was the genesis of the Community-based Conflict Mitigation (CBCM) methodology. Donor funding enabled the expansion of these conflict mitigation activities with training and provision of capital to several farmers around the Zambezi Valley. By 2001, the Mid Zambezi Elephant research project grew into something more robust – Elephant Pepper Development Trust (EPDT).

EPDT trained farmers in CBCM methods and chilli farming practices. EPDT then started purchasing the chilli peppers grown by those small scale farmers engaged in the conservation effort, creating an integral link between the challenge of solving human-elephant conflict and the opportunity to commercialize chilli peppers. Building this link proved attractive since the revenues earned from chillies can be up to ten times more than the other major alternative cash crop in the region– maize.

The program's objective became twofold: 1) to link the conservation of elephants to improved economic conditions for farmers in the region; and 2) to create a commercial product based on chilli. The Elephant Pepper project took a new entrepreneurial direction, one that could complement and reinforce the elephant conservation effort by incorporating a commercial component. EDPT ensured the conservation aspects of the project were maintained, while the focus moved to the establishment of a separate company called African Spices. This for-profit organization assured the purchase of chillies from farmers at an ethical trade price. A contract with McIlhenny Company to buy the chilli mash from African Spices put the project on the road to sustainability. Subsequently, a new business strategy underpinned the establishment of Elephant Pepper Pvt. Ltd, which

created the brand Elephant Pepper, and focused on the production of chilli sauces and pepper grinders. This broadened the market for the farmers' chillies while at the same time developed an attractive, conservation-based product with a story that helped garner a premium price for the chilli. The price premium was key, as it was the mechanism by which revenues returned to support the conservation work. Over the years Elephant Pepper, in all its iterations, has faced and overcome many challenges. With increasing sales, Elephant Pepper is now at the stage of launching products into new markets, while on the ground more farmers are engaging in the program and fewer elephants are being killed. Key to the success of the business and the ultimate success of the conservation objectives is leveraging the conservation story in order to generate the revenues that support each level of the value chain and, ultimately, the farmers themselves.

ELEPHANTPEPPER. PRODUCTOFFERINGS.

Sauces

BAOBAB GOLD
Tangy Pepper Sauce
The Baobab fruit is collected by the same rural communities who grow our chilies. This unique blend of Baobab fruit and spices is the perfect accompaniment to seafood dishes, savory pickles, chutneys, or casseroles.

ZAMBEZI RED
Hot Pepper Sauce
This passionate sauce is bound to add life to any meal. Spice up your pizza, your favorite pasta sauce, or add generous dash to seafood dishes.

Spice Grinders

BAOBAB GOLD
This tangy blend of spice is made with fiery chilies and fruit of the magnificent and ancient Baobab tree. Grind on a fish dish or garden salad and enjoy the rich and exciting flavors.

ZAMBEZI RED
As hot as the valley from whence it came and as rich in flavor and intensity as Africa itself. Grind on your morning eggs or spice up your chicken roast.

MOZAMBIQUE MASALA
Have a taste of island life when you sprinkle this zesty tropical seasoning of coriander, chili, lime and coconut on your favorite meal. Use to zip up a stir fry or add a new dimension to your pasta sauce.

ZANZIBAR SPICE
A tropical sensory spice experience that's great on lamb or chicken kebabs and adds depth to your curries. Add to couscous with dried apricots and fresh coriander for that exotic Zanzibar taste.

The Challenge

Human-wildlife conflict is a critical challenge to conservation and human well being as it creates intense animosity amongst the rural poor towards the wild animals that destroy their crops and threaten their livelihoods. Such negative interactions have the potential to undermine long-term biodiversity conservation and human development goals: poor rural farmers may lose their crops and livestock to wildlife and, in retaliation, express their anger towards wildlife through encroachment on protected areas, poaching, and revenge killing. The particular problem of human-elephant conflict is especially concerning as elephants eat and destroy farmer's crops, which often times are the only food source for these rural communities that are constantly vulnerable to food insecurity. When their crops are threatened by elephant destruction, farmers try to protect them, often leading to death and injury on both sides.

From 1993 to 1997, Dr. Osborn researched methods to mitigate human-elephant conflicts in the region around Zambezi Valley, Zimbabwe. His research showed that chilli pepper was a natural repellent and deterrent for elephants. Utilized in various ways it could keep the elephants away from crops, thereby preventing the conflict all together (Figure 1). Dr. Osborn's research had also shown that chilli peppers could be economically valuable to the farmer (Table 1). Chillies' drought resistant properties are particularly valuable given the climatic conditions and household vulnerability to famine in the drought-prone region.

To build upon this research, Dr. Osborn and Michael Gravina, an IT entrepreneur, created the Elephant Pepper Development Trust (EPDT). EPDT launched a Community-based program with the goal of conserving wildlife in the region through minimizing incidents of conflict between humans and elephants while providing alternative livelihood options for the poor rural communities of the Zambezi Valley. The chillies would be both a cash crop and an elephant deterrent.

EPDT developed a solution to one of the key issues in the region – human elephant conflict through its Community Based Conflict Mitigation (CBCM) techniques. The next enormous challenge was to establish a sustainable system of economic support for a growing number of farmers participating in the program.

Structure of the Organization

The Elephant Pepper organization has three separate, but related, entities. The non-profit organization called the Elephant Pepper Development Trust (EPDT) responsible for achieving conservation goals; the for-profit organization called the African Spices PTY Ltd that buys chillies from the farmers and processes it into pepper mash for exports; and the Elephant Pepper PTY Ltd. that makes and markets end products (e.g. sauces).

Elephant Pepper Development Trust (EPDT) is the entity in charge of promoting elephant conservation by training farmers in CBCM techniques. In addition EPDT ensures that farmers are trained in the most effective chilli cultivation methods. Today, EPDT has a presence in seven countries: Zambia, Zimbabwe, Botswana, Namibia, Ghana, Kenya, and Mozambique. Elephant Pepper Development Trust has 5 employees.

African Spices (AS) is the commercial branch of Elephant Pepper. It was setup in March 2004 as a for-profit entity that guarantees to purchase all of the chillies grown by the EPDT trained farmers. African Spices processes these chillies into mash to sell to its biggest customer – McIlkenny Company or to its other customer Elephant Pepper PTY Ltd. African Spices employs 24 full time and 150 casual and seasonal employees. Importantly, seasonal workers are paid around three times the average wage. African Spices sources chillies from 3 main suppliers: a select group of commercial growers, a growing network of small-scale farmers, and its own chilli farms.

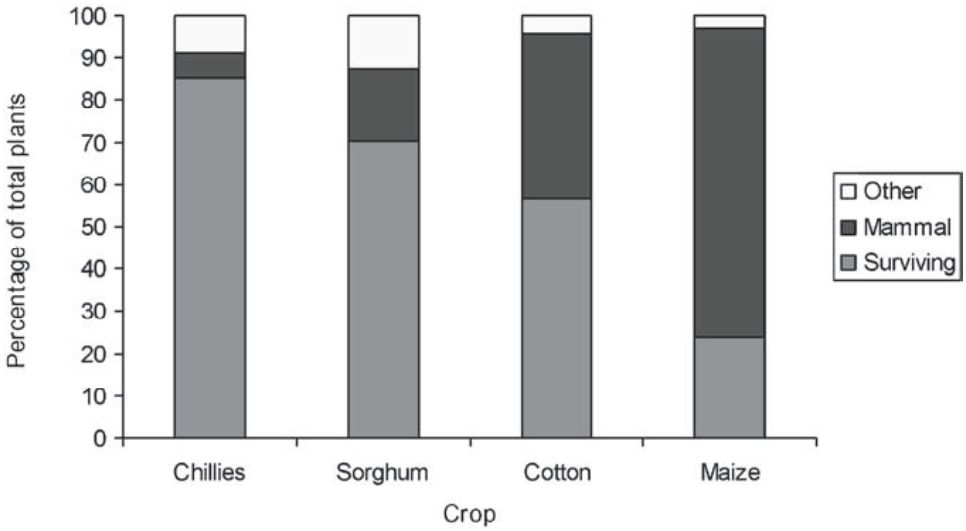

Figure 1. Percentage survival rates for each crop type. Cause of death is displayed as two factors: mammal, which includes herbivory by all large mammals, and other, which includes small mammals, birds, invertebrates, desiccation, disease and all other causes of death.

Table 1. Number of farmers (of a total number of 27) growing maize, cotton, chilli and/or sorghum in Mseruka village in 2001, showing the total weight of each crop harvested, mean weight of each crop harvested per farmer, price per kg for each crop, mean income per farmer for each crop, and mean income per ha of each crop.

Crop	No. Farmers	Total Harvest (kg)	Mean Harvest	Price per kg (USD)	Mean Income (per farmer)	Mean Income (per hectare)
Maize	18	8,092	449	0.20	89 .10	102.00
Cotton	20	6,795	339	0.45	152.89	102.10
Chilli	10	1,520	152	0.70	106.40	665.00
Sorghum	18	3,062	170	0.20	34.02	70.38

Elephant Pepper PTY Ltd., established in 2002, purchases chilli mash from African Spices and manufactures and sells the sauces and pepper grinders. Elephant Pepper PTY Ltd. is responsible for the design and creation of new products and is the trademark under which EP promotes its conservation efforts around the world. Elephant Pepper PTY Ltd. manages business relations with several of its suppliers, manufacturers, website, accounting services, ingredient suppliers and sales channels.

Elephant Pepper Development Trust

The major goal of EPDT is to improve the livelihoods of local farmers while conserving the elephants of the region. EPDT does this by: 1) helping the farmers develop CBCM methods to deter and repel elephants from their crops; and 2) supporting the farmers in the production of chillies.

Respond to Requests

The EPDT strategy is to wait for a community to request a discussion of their conflict issues. As this type of conflict can be highly political, the decision on whether to use EPDT's assistance or not is made

Box 1: The Chillies

The genus *Capsicum* is a very diverse grouping of plants brought to the old world by Columbus in the late 15th century. Capsaicin is the part of a chilli that makes it 'hot' and is derived from the dried fruits from the family Solanaceae, (e.g. *Capsicum frutescens* or *Capsicum annum*). These varieties are grown either as an annual or perennial and in tropical areas the plant can produce fruits for up to 3 years. Chillies grow best in temperatures between 18 – 30 deg Celsius. In areas where Elephant Pepper grows chillies, the estimated harvest season is 6 months per year and there is a thriving local market for the chillies. The chilli peppers that EPDT and African Spices grow are from the common *Capsicum frutescence* group which includes very hot, upward-pointing red fruits that are, in general, open-pollinated. In Africa, this variety is commonly known as African Birds Eye or piri piri. The seeds that EPDT now provides to farmers were collected in northern Mozambique during field trips in 2002 and they have been selected over the past five years to be particularly hot (Scoville levels of 30,000-50,000 SUV), very hearty and to have a fairly short growing cycle. Farmers in southern Africa have traditionally cultivated a few plants of piri piri at their homesteads and in countries like Malawi, Zambia, Zimbabwe and Mozambique a small commercial production has been sold, mostly to Europe, of about 200 mt per annum.

Elephants have an extremely acute sense of smell and are receptive to the molecule Capsaicin, which gives hot chilli the power to cause discomfort. Capsaicin binds with the mucus membrane which lines an elephant's trunk and eyes and gives a temporary burning sensation which deters elephants from entering into areas of human activity.

within and by the community and individual farmers. Those engaged are then trained using a phased approach for both conflict mitigation and crop farming. EPDT then helps them setup the operation for themselves and links them to the market. The incentives for participation are increased food security and increased income.

"We do not impose ourselves, unless invited," said EPDT's field officer Malvern Karidozo, "The decision to involve EPDT is entirely within the community."

Training Programs

The main strategy of EPDT's conservation initiative involves training farmers and wildlife officers in CBCM techniques. An effective training program is the key element in getting farmers interested and in maintaining high levels of participation. Farmers receive a solid theoretical and practical knowledge in setting-up and using CBCM techniques. In addition, demonstration sites set up within farmers' communities facilitate teaching of CBCM techniques. They also receive focused agricultural training that emphasizes chilli cultivation and harvesting techniques as well as successful cultivation of other food crops.

©WCS/Emma Stokes

A farmer who planted chillies at the edge of his field to guard against elephants

CBCM Techniques

There are several ways that elephants can be deterred and/or repelled from crop raiding, and farmers use combinations of the various methods. The tools and methods are developed from local materials and are designed to be simple, affordable and replicable by farmers.

- **Buffer Zone**: An area of 5m is cleared of vegetation at the edge of the fields. This defines the boundary between the fields and the bush and enables farmers to sight approaching elephants.
- **Fencing**: 3m long poles are cut and placed at 30m intervals along the buffer zone. Bailing twine strung between poles and squares of mutton cloth are tied at 5m intervals along the string. The Poles are cut from species that will re-grow to make 'live poles' for the fences.
- **Alarm Systems**: Alarm systems provide security by warning farmers of approaching animals and they reduce the need for farmers to stay awake all night to protect their crops. Simple alarm systems include: string and cowbells or tin cans tied along poles that make noise if an elephant approaches a field.
- **Grease and Hot Pepper Oil**: These are mixed in combination and applied to the string fences. The pepper oil is a concentrate made from hot chillies. The grease acts as a waterproof medium that holds the pepper oil in place. If elephants make contact with the string the pepper oil and grease will cause irritation.
- **Fires**: All night burning in areas where elephants are regular visitors. Where firewood is difficult to obtain, farmers use other available material that smolders.
- **Pepper Dung Bricks**: Elephant dung mixed with ground chillies, compacted into a brick mould, then dried in the sun. Bricks are burned in fires along the field boundaries to create a noxious smoke that lasts for 3-4 hours.
- **Noisemakers**: Noisemakers scare elephants. Farmers use commercially available products. Communities also make their own gunpowder.

Chilli Farming

In the first season of chilli production farmers are assisted by EPDT in acquiring materials to set up the human wildlife conflict mitigation techniques, which include dry chillies, cloth, grease, string, cowbells, fertilizers and irrigation. This is largely a one-off set up cost, which the farmers then maintain at a small recurrent cost.

In the second and subsequent seasons the farmers have their own chilli crop for use in the CBCM techniques. They also have revenues from the sale of chillies to then re-invest in the following years' chilli production.

Some of the agricultural techniques that farmers are trained in include: preparation of seed beds, preparation of land, transplantation of seedlings, harvesting and drying of chilli pepper fruits, and storage of dried chillies.

Monitoring & Evaluation

To assess the effectiveness of the CBCM programs and to provide baseline information on the nature and patterns of crop damage, EPDT provides monitoring and evaluation systems for the communities to use themselves and carries out monitoring of the project's progress. CBCM is monitored by a variety of different methods including pre and post assessments with farmers using 'participatory rural appraisal (PRA) techniques, crop-damage assessments during the season, number of attempted incursions by elephants and successful repulsions during a given night of raiding. There are also areas where CBCM is not being used and the crop raiding incidents there are monitored as a type of "control" to better understand the impact of CBCM methodology.

New Conflict Prevention Methods

EPDT continually invests in research and development of new conflict prevention methods. These investments may result in new methods and new product possibilities. For example, elephants appear to also dislike plants such as sesame, okra, and onions. In addition research in East Africa suggests they dislike bees. So, tests are being undertaken to examine these options and to explore their exploitation for profit by the farmers in a sustainable manner.

Dissemination

EPDT is focused in the Livingstone area of Zambia, but the success of the CBCM techniques has led to dissemination throughout the region. The techniques are easily replicated. EPDT leads trainings for trainers, farmers, government institutions and NGOs from other regions and countries. Many people have been searching for solutions to their conflict with elephants and other animals and EPDT offers an effective and affordable solution.

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Components of the Value Chain

There are multiple components to the elephant pepper value chain. The value chains required to get chillies from farm to market are shown below (Figure 2) and the various components of the chain are described in the following section.

Farming

Chillies are grown by local farmers but also in a small commercial farm owned by African Spices. The commercial farm was started to respond to new demand from the buyer McIlhenny Company and in that way bring the project to scale. This farm produced 13.5 tons of chillies in the 2008-09 season on 4.5 ha of farmland that it owns in Zambia.

The four community-based chilli growing clusters around Livingstone cover 10 hectares of land. As of May 2009, these farms produced 34 tons of chillies amounting to approximately 40% of total chilli production in the region. These are the chillies that go into the Elephant Pepper products.

Chillies must be ground into mash the same day they are picked to maintain freshness. So the day of picking is tightly coordinated with mashing. Each afternoon the chillies are transported to the African Spices grinding location in Livingstone.

Processing Chillies into Mash

No specialized equipment is required to harvest chillies. However, harvesting chillies is labor intensive and in a four hour shift, a picker can pick anywhere from 15 – 25kgs (depending on individual efficiency and

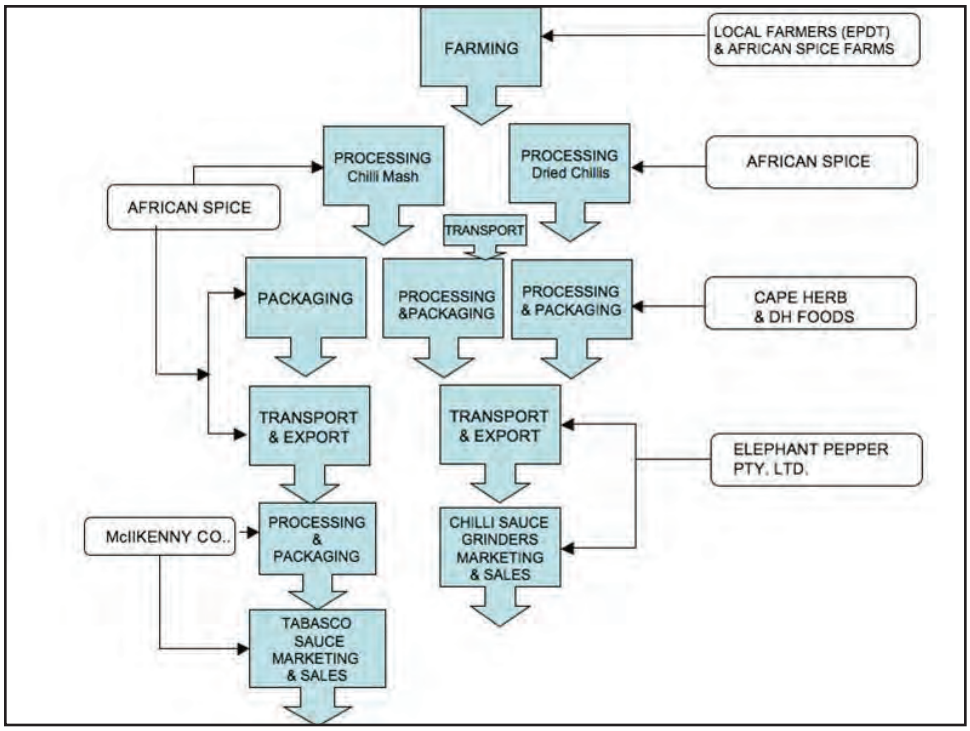

Figure 2. The Elephant Pepper value chain.

size of the chillies). The processing step involves grinding the chillies with small amounts of salt into chilli mash. This chilli mash is the key ingredient for sale to McIlkenny Company or for the sauces that Elephant Pepper Pty Ltd. makes. In a given year, 220 tons of chilli mash is produced. The mash is put into drums that can hold 180kg of chilli mash. The drum's low weight reduces the need for costly warehouse equipment such as forklifts, as they can be safely moved by hand. Mash is stored in drums for an 8-week period. This allows the most "gassy" stage of the fermentation process to conclude. The mash warehouse has a storage capacity of up to 400 drums. This is equal to 66,000 kilograms or three shipping containers of mash inventory.

For export to McIlhenny Company for the production of Tabasco Sauce and other chilli products, chilli mash is decanted from drums into "export bladders". A single bladder of 22,000 kilograms of mash is loaded into one 6-meter ocean freight container. The container is sealed and road transported to the port of Durban. The sealed container will not be opened until it arrives at McIlhenny Company at Avery Island, Louisiana in the USA. Shipping time is between 10 – 12 weeks, farm gate to warehouse. The mash is checked for color and weight and then payment is made.

In the 2008-09 season, African Spices produced four containers of mash from Zambia. African Spices oversees all processing of wet chilli mash, involving grinding, seasoning, and bulk packaging mash.

Processing Dried Chillies

In addition to production of chilli mash, African Spices produces dried chillies. Drying chillies simply requires apparatus for sun drying although it takes careful vigilance to ensure that the chillies do not over-dry or spoil. The average production of dried chillies is about 25 tons per year. Elephant Pepper PTY Ltd. purchases dried chillies and chilli mash from African Spices and outsources the manufacturing of Elephant Pepper sauces and spice grinders to Johannesburg-based Dickon Hall Foods (DH Foods), and the Cape Herb and Spice Company respectively. DH Foods is one of South Africa's leading food producers and has been registered with the US Federal Drug Administration (FDA), allowing for export to the US. DH Foods makes a finished product, which is shipped to EP's distributors internationally. Currently, Elephant Pepper produces two chilli-based sauce products through DH Foods and has its four chilli grinders manufactured through The Cape Herb and Spice Company. The outsourced manufacturing allows Elephant Pepper to focus on its core objective – marketing their chilli sauce.

Marketing & Sales

Taking an idea to market needs a well-rounded business approach that focuses equally on supply chain and marketing aspects. Marketing the elephant chilli products has proven to be a challenge as few resources have been available to do the necessary promotions.

Basically, EP has had to depend on news articles and other free opportunities to get the word out.

Elephant Pepper has been able to leverage positive publicity from *The New York Times*, *National Geographic News*, *The Food and Beverage Reporter*, *The Gourmet Retailer* and LiveScience.com. Elephant Pepper has also been recognized through the IFC's World Bank Development Marketplace Award in 2003 and the BiD Network Foundation's prize for Best Nature-Based Business in 2008.

Elephant Pepper promotes its sauce and spice grinder products in the United States at the Fancy Foods show in New York and is part of the African Pavilion in trade shows put on by the National Association for the Specialty Foods Trade. Elephant Pepper is now selling its products to a few retail outlets scattered throughout the United States including Whole Foods.

Elephant Pepper's strategic partnerships with the Wildlife Conservation Society, USAID, municipal zoos, and other member-based conservation and development organizations have been critical in supporting Elephant Pepper's distribution, marketing, and media efforts in the United States.

EP developed an informative and interactive website www.elephantpepper.com that allows people to learn about or donate to the conservation efforts of Elephant Pepper, to meet the farmers that grow the chillies for the products and to purchase Elephant Pepper sauces and spice grinders. EP products are relatively easy to ship and so there is a great deal of potential to sell these products over the web.

Locations

The elephant pepper business evolved from Dr. Osborn's doctoral research project carried out in the Zambezi Valley in Zimbabwe. As the program developed and became well known, demand for the EPDT methodology spread across several regions (Figure 3). The process of establishment has been unique in the regions where Elephant Pepper has expanded and this adoption process is described for selected locations in the following sections.

Livingstone, Zambia

There are two field projects EPDT is currently running in the Livingstone region:

Upper Zambezi, from Siandunda to Mandia Village (35km from Livingstone town). EPDT has been working in this region since February 2004, when chillies were introduced as a cash crop, as well as a means with which to control problem animals. A base line survey was carried out, and community meetings held to introduce the project concept. The idea of chilli as a cash crop was especially well

received in this area. EPDT conducted seedbed site training and continues to consult on agronomic issues. Farmers have produced a crop every year since then and have been paid over $25,000.

Linda Compound, east of Livingstone town. EPDT has identified this area as suffering from intense human elephant conflict. Crop raiding elephants have created much damage in this region, with no solution having been proposed for the past ten years. EPDT has introduced CBCM methods in this area, including the use of chilli fences and chilli dung briquettes. EPDT has distributed "CBCM Starter Kits" which enables the farmers to set up a trial plot for their own experimentation. The CBCM solutions presented by EPDT have been effective, and elephants are no longer bothering farmers who have implemented the program.

South Luangwa National Park, Zambia

EPDT ran a series of training courses in Mfuwe during 2004 and 2005. CBCM methods using chilli techniques and chilli cultivation training days were held by EPDT at Mnkanyana and Kakumbi Community Resource Boards. People were encouraged to grow chillies as a cash crop. EPDT committed to facilitate a trading relationship between the farmers and African Spices. African Spices has identified 2 potential depot sites for the delivery of the chillies, from where they will pay the farmers making it easier for the farmers to participate. This project is monitored by a locally based CBCM and anti-poaching organization.

Figure 3. Source locations for Elephant Pepper chilies.

Okavango Delta, Botswana

The EPDT was invited by the Okavango Delta Management Plan to develop a mitigation plan for conflict between elephants and people in the Delta. With the tremendous growth of Botswana's elephant population, conflict has risen to untenable levels. Trainings with Department of Wildlife and National Parks officials in Maun were conducted in November 2006 and a pilot mitigation plan was implemented during the 06/07 growing season. EPDT has been asked to return to conduct field trials during the 2009/10 season in Saronga and in the Chobe Enclave.

Zambezi Valley, Zimbabwe

In early 2006, Save the Children (UK) sent a number of field officers to a CBCM training course in Livingstone, Zambia. This is the first time EPDT trained a primarily development-focused organization. Save the Children was interested in protecting the livelihoods of farmers with whom they had been working by helping them to develop small food gardens. As Zimbabwe's elephant population has grown, so has their impact on subsistence farmers throughout the Zambezi Valley and conflict mitigation methods are an imperative.

Laikipia, Kenya

With the addition of new staff for the EPDT training, CBCM methods were implemented within a 0.5 x 0.5 km demonstration site selected from within Mutara settlement scheme, one of the worst sites for crop-raiding in the Laikipia district. This site has been monitored for crop-raiding incidents since early 2003, providing a database from which to gauge effectiveness of deterrents implemented in 2004. Another 0.5 x 0.5 km site was selected nearby as a control site to assess what impacts elephants have without CBCM methods in place. In May 2004, as part of a RRA rapid rural appraisal, a GPS survey of farms within the CBCM demonstration site was carried out to measure the total extent of cultivation. Shortly after this exercise, 17 willing farmers living within the designated demonstration site were provided with the materials and training to implement EPDT crop-raiding deterrent activities.

Caprivi Strip, Namibia

EPDT supported a CBCM effort in the Caprivi Strip area and various members of the conservancy movement there participated in training courses, and included the Wuparo, Chetto, West Caprivi, Kwando and Kasika conservancies. Chilli plots were established in four different locations in Caprivi, including the Bwabwata National Park where there are over 3,000 local people living in the park.

Table 2. Comparison of income generated from cultivating chillies and maize using 2005 prices.

Crop	Area cultivated (ha)	Yield (kg)	Price/kg paid to farmer (US$)	Income (US$)
Maize	0.75	1,500	0.12	180
Chilli (un-irrigated)	0.75	1,000	1.00	1000

Economic Impact

By 2004, EPDT's model for elephant conservation and economic development had shown success: demonstration sites indicated a reduction in number of conflict events (elephants trespassing crop lands) and farmers had shown commitment and enthusiasm with the commercial model.

EPDT has a commitment to work with the poorest farmers in regions where there is a real threat of human elephant conflict and where there is often no sustainable option for rural livelihoods.

The economic impacts of the EPDT work is evidenced by the 60% increase in participating farmer household incomes in remote regions (average income in the region can be as low as $380/year). Chilli peppers have proven to be up to 10 times more valuable than maize; require fewer natural resources than maize to produce; and they do not exhaust soil nutrients to the same extent as maize. An average small holder farmer can expect a yield equivalent to 6,000 kg per ha, generating revenue of $1,050 annually. In 2008, 40 tons of chilli mash were produced by local farmers in the Livingstone region; this resulted in around $35,000 returning to the farmers and their communities.

The yield of chilli peppers from an acre of land is very high and so with only a small plot of land a farmer can make significant revenue to supplement their income. More importantly, African Spices works with farmers from the most remote locations and offers these farmers livelihood opportunities that they could not otherwise have. As one of the farmers stated, "…we are now able to send our children to school."

Farmers own their land and can decide how and what to farm, but most are living a subsistence life and practice shifting cultivation. One of the major reasons for moving their fields is elephant conflict, which forces them to seek new areas in an effort to avoid elephants. The CBCM methods allow farmers to stay on their lands and invest more into new crops and soil enrichment. This inevitably leads to improved yields and improved land use management. Additionally, chillies' drought resistant properties are particularly valuable given the climatic conditions and household vulnerability to famine in the drought-prone region.

©A. Turkalo

Conservation Impact

EPDT has trained a significant number of farmers across 7 African countries (Table 4). The CBCM methods have been shown to reduce the number of human-elephant conflicts in conflict sites across all areas.

Data sourced from an official Zambian Wildlife Authority (ZWA) report has shown a 40% reduction in conflict incidents. This report only included "reported" incidents, while in reality, the incidents could be much higher as some level of incidents go unreported. While in Kenya, the number of incidents in the demonstration sites in 2003-2004 represented only 26% of all reported incidences, indicating the success of EPDT's approach to minimizing conflict.

The assessment of the effectiveness of the program also comes from the testimonies of the farmers. They vouch that the number of elephants destroying their farms has diminished significantly since their adoption of EPDT methods. In addition, more and more farmer communities started coming to EPDT to get help.

The introduction of the CBCM methods to communities had an interesting impact on farmer's relationship with the government. Before intervention, farmers saw the animals as the government's responsibility and complained to local authorities. When the government did nothing they would take their anger out on the animals and as a result animals, and sometimes farmers, died. However, once they saw the results from the chillies, farmers realized that they could help themselves and reduce their losses.

Key Challenges Along the Way

The genesis of Elephant Pepper was the challenge of mitigating the conflict between elephants and people. The solution lay in working with the local farmers to use chillies to keep the elephants away and creating a business that sustained both conservation and livelihoods. As the project evolved and became more complex there were significant challenges, particularly on the business side of the venture.

How to Fund the Project?

The business would not become sustainable for several years and the project needed capitalization for both the conservation and the business start up activities. EPDT received initial funding from donor partners. A Development Marketplace Award from the World Bank in 2002, which included a $50,000 grant was a tipping point in EPDT's history. Being recognized by such an important organization for its successes in wildlife conservation and economic development not only was a key factor in EPDT's expanding its program, but also gave it international exposure and access to a broad network of governmental and non-governmental agencies around the world.

Table 3. People employed by Elephant Pepper in Livingstone, Zambia.

Direct Employment - Core Farm	
Fulltime	
# people	8
beneficiaries	38
Seasonal employment	
# people	140
Direct Employment - Outgrowers	
Fulltime	
Livingstone Farm	17
Zimbabwe Out growers	5
EP Smallholder Networks	17
beneficiaries	85
Seasonal employment	
Total out grower seasonal jobs	78
Beneficiaries	390
Total Employment	
Fulltime jobs	25
Seasonal jobs	218
Total beneficiaries	1,213

Table 4. People trained, demonstration sites established and farms producing chilies for Elephant Pepper.

Country	Trained Persons	Established Demonstration Sites	Established Farmers
Zimbabwe	1250	8	50 + 1000 being implemented
Zambia	500	8	300
Botswana	50	2	being implemented
Namibia	170	4	40
Ghana	8	1	15
Kenya	8	8	30
Mozambique	10	2	30
TOTAL	2000	37	495

Finding the Right People

Developing a market for chilli products required partners with business experience and entrepreneurial vision. One of the challenges was to attract talent to a challenging region in which to work, and to retain it. EPDT was able to leverage its NGO partnerships to attract talent in the form of volunteers. As an example, from 2004-2006, the German Development Service (DED) provided one technical officer and, in 2005, Engineers Without Borders provided 2 volunteers to work with the farmers. WCS sponsored two Berkeley business school teams to help with the marketing efforts for Elephant Pepper in 2006 and 2009.

"Farmers have to see tangible benefits to continue adopting the conservation model."
-Malvern Karidozo

Although imported talent proved effective, getting specialized local talent on board was challenging. Both African Spices and Elephant Pepper Development Trust hired and inspired highly talented people. Local talent acquisition, development, and retention are as important as finding the right partner and making the right business decisions.

"From a commercial perspective, there was no value of driving 8 hours into the fields to get some 20kgs of chillies and then drive 8 hours back, but the development impact could not be abandoned. To make it worth the effort, we needed to increase the volume of the chillies." -Michael Gravina, Managing Director

Ensuring Markets for the Chillies

As the program evolved, it became clear that improved economic benefits for the farmers, and thereby sustainability of the program depended on the farmers having markets for their chillies. In 2001, Elephant Pepper had started buying sacks of chillies directly from a small number of farmers who were already carrying out CBCM work. To take this to scale, a commercial entity was needed to buy and sell chillies at a higher volume and ensure that farmers got fair prices for their product. African Spices (AS) was established in March 2004 as a for-profit entity that guarantees the purchase of all chillies grown by farmers trained by the EPDT. This gave farmers assurance that their product would be purchased at a fair trade value. African Spices then processes these chillies into mash to sell to its biggest customers – McIlhenny Company (for Tabasco Sauce) or to Elephant Pepper PTY Ltd. This strategy of finding a market and creating demand enabled an expansion of the program and put it on the road to sustainability.

Bringing to Scale

Buying chilli peppers at a small scale from multiple local farmers was not economically feasible. The challenge was to bring the project to scale by increasing both demand and supply. The demand assurance came from McIlhenny Company in 2004 when they contracted African Spices as one of its suppliers for chillies. McIlhenny Company is a private company and its trademarked Tabasco Sauce is the leading world brand of chilli sauce with annual sales of 80 million units. African Spices became the first supplier for Tabasco outside of South America. This contract gave African Spices a significant platform to grow. Tabasco was a guaranteed buyer with a high demand for chilli mash and, as such, drove the production of the product.

"It's not about giving them (farmers) money to adopt the techniques, which we had to do at some point, its about creating the right incentives so that they can get money from their own work and become self-sufficient and this is exactly the idea behind the 'Trade not Aid' message." -Michael Gravina

Paradoxically, during the initial years, Elephant Pepper found that its chilli mash sales to Tabasco were constrained by its capacity to supply the product. To expand chilli production, African Spices established its own farms and sought out commercial growers in addition to sourcing from farmers who were trained by the EPDT program. However, the objective was and still is, to increase the quantities sourced from the small-scale farmers and African Spices is committed to purchasing all their chillies from these small local farmers. Consequently, EPDT continued to expand the area and number of farmers engaged in CBCM. Small scale farmers currently account for 1/3 of African Spices production.

Funding Conservation Efforts

The EPDT program was working with more farmers and growing more chillies, while fewer elephants were being killed. The link between chilli production and conservation was clear. However, the work of EPDT was increasing with the success of the farmer engagement and chilli production. In addition, working with the generally isolated, poorest of the poor in elephant conflict areas meant the work was logistically difficult and expensive. In order to establish a sustainable mechanism for funding conservation, somewhere along the value chain there needed to be a return of revenues to EPDT. In fact the key was to have premium prices on products. This challenge led to the watershed decision for Elephant Pepper to develop its own brand.

"Now, we need to start earning premium for our brand to support the conservation program." -Loki Osborn

The business model showed that it was through manufacturing and marketing under EP's own brand that premium prices could be obtained. The Elephant Pepper Pvt Ltd. – or the Elephant Pepper brand – was formed in 2004. Its primary purpose was developing, manufacturing, and marketing Elephant Pepper branded products. The products were those manufactured from the African Spices chillies and mash and comprised two chilli sauces and four spice grinders. The Elephant Pepper Pvt Ltd. is essentially the for-profit 'arm' of EPDT with a commitment to investing a percentage of the profits into the work of EPDT for elephant conservation and rural African communities. Additional benefits of a new brand included a diversified market for the African Spices chillies that led to growth of the program.

"We felt we were only burning fuel but not taking off…one important piece was missing… we needed to achieve scale and sell with a brand." -Michael Gravina

The appearance of the Elephant Pepper brand in 2004 represented a significant inflection point in EP's history.

The goal then was to take the Elephant Pepper brand and leverage the strong conservation story in order to get consumers excited about buying the products.

©Elephant Pepper Trust

Zambian woman harvesting chillies to sell to African Spices

"It was not until we saw the EP logo on our sauce products that we began to realize the power of a brand." -Michael Gravina

Improving Efficiency

Despite marketing efforts and the effort to create buzz around the product, initial sales were low and profits non-existent. In response, EP sought ways of making product manufacturing more efficient. Upon recommendation of a business contact, Elephant Pepper changed their production method from cooking the sauces in their own kitchens to contracting a manufacturer to do so. This decision became a major milestone in the evolution of Elephant Pepper branded products.

In 2004, Elephant Pepper signed a contract with DH Foods for the manufacture of the Elephant Pepper line of sauces and grinders. At this point, it was clear that the advantages of this outsourcing strategy extended beyond manufacturing to packaging, quality control, and capacity for mass production.

Marketing Conservation

Initially, a major challenge for the Elephant Pepper brand was that the market would not accept pricing with a premium. The conservation and social impact story did not seem to be powerful enough. Although Elephant Pepper branded products started to be accepted by some retailers and small scale distributors in South Africa, the greatest challenge to achieve success was breaking into a larger market such as

Box 2: The Marketing Message from Elephant Pepper

The Problem: Elephants eat small-scale farmers' crops.

These crops are often the only food available to these rural communities. The conflict between farmers and elephants as farmers protect their only food source leads to conflict, with death and injury on both sides often occurring. Our objective is to reduce this conflict.

The Solution: Elephants Hate Chilli. They dislike its spicy smell and taste.

Our partner NGO, Elephant Pepper Development Trust, trains farmers to use non-harmful chilli deterrents rather than injuring or killing elephants. Farmers surround their food crops with a buffer of chilli plants, thereby using the chillies as a natural deterrent. Elephants soon learn that the smell of chilli means humans, spicy discomfort and a non-edible crop. This simple approach helps deter elephants from raiding crops, avoiding the conflict before it happens.

Poor Communities: Poor people cannot afford to be conservationists without some support.

Elephant Pepper PTY Ltd. provides a cash crop income to poor rural communities by producing chilli products using chillies grown by these farmers. Elephant Pepper PTY Ltd. purchases chillies from farmers that participate in our elephant friendly projects.

the US. Basically, Elephant Pepper needed to increase consumer's willingness to pay for the conservation efforts and only in this way could it be considered a success. It was critical to get the conservation message clear to consumers. Elephant Pepper took a series of actions to improve its marketing strategy by focusing on brand awareness and reaching out to corporate partners and end consumers.

Certification is one way that products can reinforce their social and environmental message and access more markets. Elephant Pepper is certified as a Wildlife Friendly™ product. This is a new certification scheme that highlights the conservation message of products and helps products get to market.

Getting the Elephant Pepper Message and Products into the Markets

Elephant Pepper's success hinges on the effective execution of its marketing strategy, which includes both branding and distribution. The story, as a means of selling the products, is only as strong as the number of people who are aware of the products and willing to buy them. Thus, it was critical to distribute the product and its message widely. To this end, "elephantpepper.com" was launched. Elephant Pepper invested in the development of a rich, high quality website that would not only tell the Elephant Pepper story, but provide a web storefront.

Elephant Pepper is reaching out to retailers, distributors, restaurants, online retailers, and zoo stores with a targeted message. A key part of the message is that it is best to help African countries through promoting trade and development rather than through aid, in other words "Trade Not Aid."

Summary of Lessons Learned

Elephant Pepper has faced many challenges and taken advantage of many opportunities as it has grown from a research project into the multi-country conservation initiative and business that it is today. Figure 4 outlines the critical junctures where decisions were made that led to the evolution of Elephant Pepper, from a purely research project into a partnership-hybrid of conservation and business. The lessons from the Elephant Pepper experience are invaluable for other similar conservation-focused entrepreneurial ventures.

The Importance of the Entire Value Chain

A successful conservation-minded business that is linked to on-the-ground conservation measures and monitoring is what can lead to the achievement of conservation and social benefits. A successful business depends on successful marketing and sales and this, in the case of EP, depends on promoting the conservation story behind the product. There were challenges at each level of the value chain and ultimately, Elephant Pepper had to understand and influence all levels. In order to grow, Elephant Pepper had to ensure that there

were no supply constraints in any part of the value chain, that quality could be assured, and that it could successfully bring product to the market. If there is no 'ownership' for the entire value chain, it is difficult to ensure that the entire chain is sustainable and is delivering benefits promised.

The Need to Build Partnerships

A successful business needs to build strong partnerships and alliances through effective and reliable business practices. Starting up African Spices and sustaining the project was possible because of the contract with McIlhenny Company. A partner like McIlhenny Co. is important so that the supply chain operation can gain scale and become operationally feasible.

Partnerships with other companies support the growth of the business and also help build distribution channels to appropriate markets. In the case of Elephant Pepper, these partnerships were targeted towards complimentary corporations like retail chains with whom the conservation and Africa story resonates most. Also, other corporate partners include chain restaurants, online storefronts, and gift shops at zoos.

The Need for Reliability and Compliance with Contracts

Corporate contracts and partnerships create a level of complexity and legal responsibility that can be tested when new ventures are launched or when constraints result in an inability to meet production requirements. As a supplier to a major corporation, and with a signed contract to deliver product, African Spices and Elephant Pepper assumed significant responsibility. An inability to fulfill orders could lead to a loss of market and the economic stimulus needed to achieve broad social and conservation goals. In 2004, a batch of chilli mash was tampered with on a farm and African Spices feared it might lose its contract with McIlhenny Company as a result of the mishap. Fortunately, in this case, a simple improvement in personnel training rectified the problem and African Spices could demonstrate that such problems would be avoided in the future. Providing the necessary quantity and quality of product is very difficult for a start-up company. Investing time and money in quality control has paid off for Elephant Pepper.

Follow-Up Training

Inadequate training may threaten the integrity of the system. If the CBCM techniques fail the desired conservation outcomes are compromised. One of the most important lessons is the importance of follow-up visits after training. EPDT has found that especially in trainings involving people from countries outside of Zambia the trainees often return back to their countries and start their own trainings themselves without having much field-level experience with the process and techniques. Learning from those lessons, EPDT developed an effective approach requiring each trainee in Zambia to work out an action plan

Box 3: Wildlife Friendly™ Enterprises

Getting specialty products to market and into the consumers' eye is a challenge. An innovative effort to meet this challenge and market wildlife friendly products is the "Wildlife Friendly Enterprise Network" (WFEN). WFEN arose from the Summit on Wildlife Friendly Enterprises held in March, 2007 at the White Oak Conservation Center in Yulee, Florida. Representatives of eight countries came together to discuss the value of promoting wildlife friendly products and the benefits of creating a Wildlife Friendly network. The Wildlife Friendly Enterprise Network has now become a dynamic consortium of conservation and private sector partners with the goal of developing and marketing of products that conserve threatened wildlife while contributing to the economic vitality of rural communities. One of the key ways that WFEN promotes the concept of wildlife friendly enterprises and products to the global community is through product certification.

After fulfilling a range of criteria, described at www.wildlifefriendly.org, products get certified as Wildlife Friendly™. This eco-label is unique and distinctive because it is the only certification label that identifies products that support wildlife conservation while contributing to the improved livelihoods of rural communities. This innovative approach is already gathering traction and is now part of the certification partnership, World of Good, which is part of eBay. Increasingly, consumers want "green" and natural products and there is a growing demand that these show a triple bottom line of environmental, social and financial benefits. Wildlife Friendly™ products are poised to provide all of these benefits.

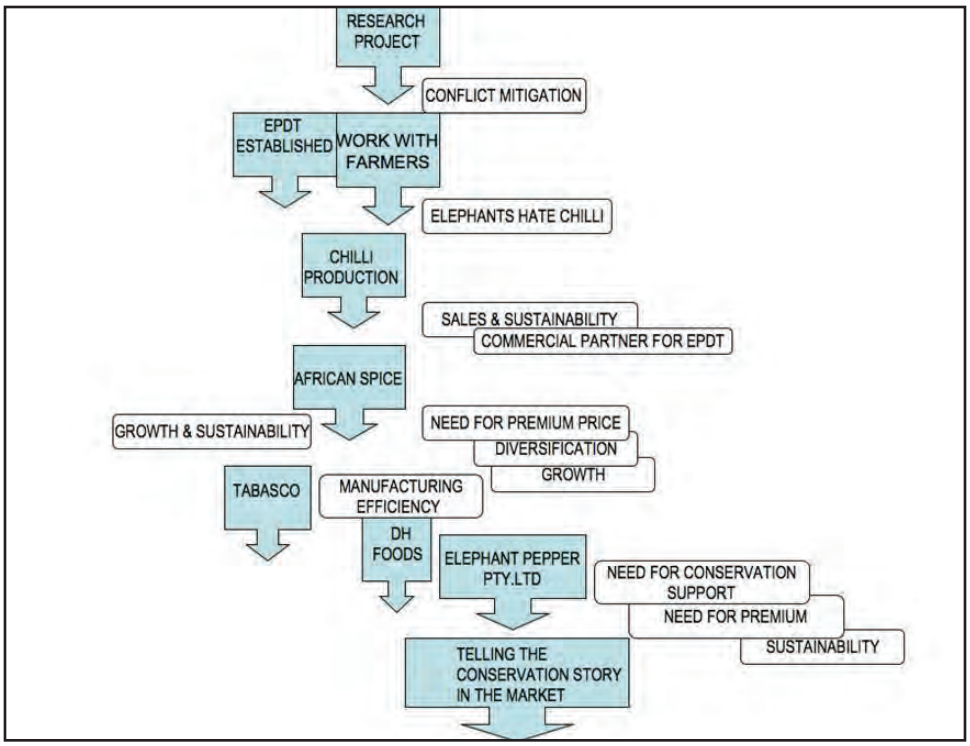

Figure 4. The evolution of Elephant Pepper from research project to international conservation and business project.

at the end of the training and agree to have at least three follow-up visits with a member of EPDT. Additionally, EPDT has also found it necessary to follow-up for a full farming season with all new Zambian farmers. This follow up process helps the farmers to become confident with every stage of chilli production and management and also allows the project to monitor each farmer and their commitment.

Start-Up Capital

Project success requires sufficient up-front capital to ensure buy in and participation from local producers. It is critical to provide the startup capital for new farmers to the project. Farmers involved in the project do not have the financial resources to purchase their own materials. Other projects currently operating within Zambia have shown that it is not effective to offer materials as loans to be paid back at the end of the season. In general, this is due to the fact that farmers take more than one year and, in extreme cases, up to 7 years to become self-sufficient. It is impossible for farmers to commit to repaying a loan until more basic needs are first fulfilled. A majority of loans do not get repaid and farmers generally do not care much for a crop, which they know is only going to produce enough to pay back the loan and not give them much benefit. Providing farmers with start-up capital, such as seeds and sisal strings, while the farmers provide the full labor and poles, allows the farmers to benefit fully from their first year crop and enables them to continue producing in following years sustained from the profit they have earned.

Create a Transparent and Powerful Marketing Message

Nature based-businesses operate in niche markets where the conservation, or human story helps sell the product. Success depends on building a recognizable brand that tells a story that resonates with the consumer. The message conveyed by the Elephant Pepper brand reflects the actions and results on the ground. The message needs to be clear and credible and presented in a way people can comprehend easily. “Elephants Hate Chillies” is a simple message that is backed up by details on the web and on the product itself.

Developing a Conservation Product Takes a Long Time

Building a nature-based or conservation product takes time. The combination of business goals and social purpose can allow the social entrepreneur to tap into distinct sources of capital, including donor funds. Payback has a long time horizon, while peoples’ needs are immediate. Balancing the business success with social needs represents a significant challenge. Elephant Pepper’s growth was slower than any entrepreneur would ideally expect, at least in a western world business context. During the early phases, when the enterprise is burning a lot of cash, realistic persistence is needed to cope with numerous challenges on the supply chain and marketing fronts. EP success so far has been a result of entrepreneurial endurance, but there is a long way to go before the Elephant Pepper brand sauces and spice grinders reach significant sales volumes. Fortunately by segmenting the

business into Elephant Pepper Products (the social venture) and agricultural product (chilli mash), EP has been able to generate revenue from commodity sales. This revenue contributes to the building of a successful social-conservation venture. Now, based on their experience, EP has developed criteria to decide on how to expand into new areas. Box 4 below shows the criteria that are "scored" to help evaluate the feasibility of new production sites.

Conclusion

In the United States, the chilli sauce (hot sauce) market is highly fragmented and competitive. The market is dominated by a few major brands, namely Tabasco and Tapatio. Many brands are associated with a chef (Dave's, Frank's, Wizard's, Trappey's, Nando's); few are associated with a place (Yucatan Sunshine, Ashanti Louisiana); and, although a few are labeled "organic," none have a social/environmental brand message. Elephant Pepper brand chilli sauce has developed a unique value proposition for consumers by offering a line of gourmet, all-natural chilli sauces, relishes, and jams that support sustainable economic development and wildlife conservation in Africa.

Initially, Elephant Pepper branded products were only available in retail locations across South Africa and through the Elephant Pepper website. Elephant Pepper PTY Ltd. has started to expand its Elephant Pepper brand chilli sauces to markets in the US and Europe. Although global data on chilli sauce consumption is not currently available, Elephant Pepper, Ltd. has estimated considerable demand in a key consumer market in the United States, where natural food products are witnessing an unprecedented growth in sales revenue and proliferation of brands.

Box 4: Criteria for Assessment of New Production Sites

Scoring from 1 to 5 (5 = highest score, 1 = lowest score):

- Commercial viability
- Poverty alleviation potential
- Environmental impact
- Operational Feasibility
  - Available Partnerships
  - Available Resources
  - Funding Arrangements
- Scalability
- Economies of scale and scope

In terms of cost structure, Elephant Pepper faces three factors that put them at a slight disadvantage. First, chillies only comprise a small proportion of the ingredients that go into their sauce so they are reliant on the procurement and price fluctuations of other ingredients. Secondly, they currently lack scale and, hence, outsource the manufacturing operation which may increase their per-unit cost. Lastly, they face a transportation cost disadvantage since they ship finished products from South Africa and have a limited number of distribution centers.

Despite the cost disadvantage, Elephant Pepper has strong brand uniqueness. The everyday actions of people at Elephant Pepper are furthering conservation efforts and bettering the lives of farmers in small communities where other organizations are not working. The purchase of each bottle directly contributes towards wildlife conservation projects and improves the livelihoods of poor African farmers. An Elephant Pepper product now carries the Wildlife Friendly certification, giving further credibility to efforts to conserve wildlife in Africa. This is what separates Elephant Pepper from its competitors and gives it a competitive advantage. Elephant Pepper is passionate about staying true to the strong brand values they have created. These values are what separate Elephant Pepper from their competition.

Elephant Pepper will target online sales to reach a broad spectrum of potential consumers and to increase brand awareness. Viral marketing methods allow producers to not only reach those who will purchase Elephant Pepper sauces and spice grinders, but also people who are interested in supporting the conservation efforts. Awareness created through these Web 2.0 methods would drive online sales as well as promote the brand for in-store purchasing.

Elephant Pepper will also grow by expanding the number of communities involved in this project and enabling more farmers to be able to grow chillies and support the demand for the chilli sauce and spice grinders. By moving in this direction, Elephant Pepper is carving a unique space as a classic triple bottom line business - one that delivers direct wildlife conservation, improved food security and rural incomes while empowering local people to take responsibility for the management of their resources.

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TRANSLINKS

Case Study

Elephant Pepper: Establishing a Conservation-Focused Business

Appendix 1: Key Donors & Partners

Appendix 2: Timeline of Events

Appendix 3: Elephant Pepper Products and More Information

Appendix 1: Key Donors & Partners

To achieve its mission, Elephant Pepper has established a number of partnerships with local and international organizations mainly to provide technical and financial support. These strategic partnerships reinforce Elephant Pepper's mission by integrating key aspects of its partners into the value chain, from financial and technical matters, all the way down to marketing and sales efforts. And they allow EPDT to expand its services.

Wildlife Conservation Society (WCS)

The Wildlife Conservation Society, based in New York City in the USA, is one of the oldest and largest non-governmental conservation organizations in the world. Through its work in over 60 countries, the WCS Global Conservation Program has developed creative approaches to conservation that combine a strong science focus with a conviction that alliances with national governments, local people and the private sector are essential to the long-term success of our endeavors. It is through such partnerships that WCS improves the livelihoods of people living in and around areas of high biodiversity value, at the same time as ensuring the conservation of wildlife species with which they share the landscapes. WCS partnerships with the private sector are currently contributing to the survival of species such as African elephants, Siberian tigers, as well as to the conservation of entire ecosystems including the forests of Madagascar and the dry woodland of Zambia. Specifically, many WCS projects support the development of markets and market opportunities that contribute to both conservation and improved livelihoods that contribute to poverty reduction.

WCS funded the initial research in the field of human-wildlife conflict reduction. WCS continued its support of Elephant Pepper ventures through grants. In addition to providing financial resources, WCS plays a major role in Elephant Pepper's conservation efforts by lending its brand to Elephant Pepper for sales in the United States. This symbiotic relationship gives credibility to Elephant Pepper's brand's conservation efforts and at the same time enables WCS to promote its strategy of supporting entrepreneurial projects that contribute to the conservation of wildlife and boost socio-economic development in some of the poorest regions of the world.

EPDT has also received support from different organizations including: the United States Fish and Wildlife Service (USFWS), World Wildlife Fund (WWF), African Elephant Specialist Group (IUCN), and Phytotrade Africa.

Engineers Without Borders have provided EPDT with human resources to assist in technical and business issues.

World Bank: EPDT was awarded the World Bank Development Marketplace Grant in 2002.

European Union: In villages such as Kapolata and Manbova near Livingstone, Elephant Pepper has been able to provide facilities like drip irrigation with funding from the EU, thereby allowing farmers to increase their production.

International Business Development Program, Haas School of Business, University of California at Berkeley: Consultants from the International Business Development Program worked with Elephant Pepper to develop a business plan in 2006 and to produce a marketing strategy and case study in 2009.

USAID, through the Southern African Trade Hub, helps support Elephant Pepper at the fancy food shows and for market development activities.

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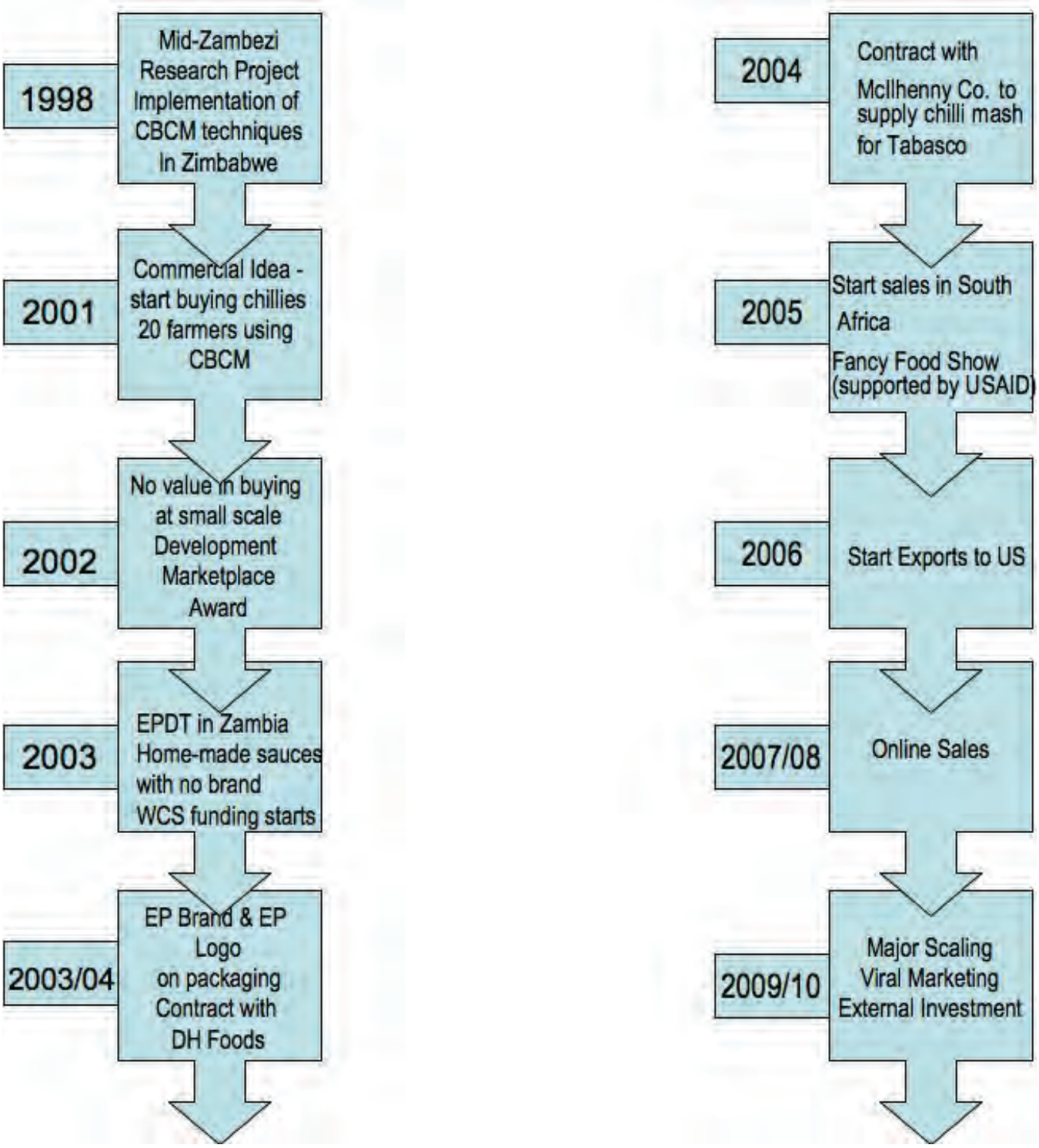
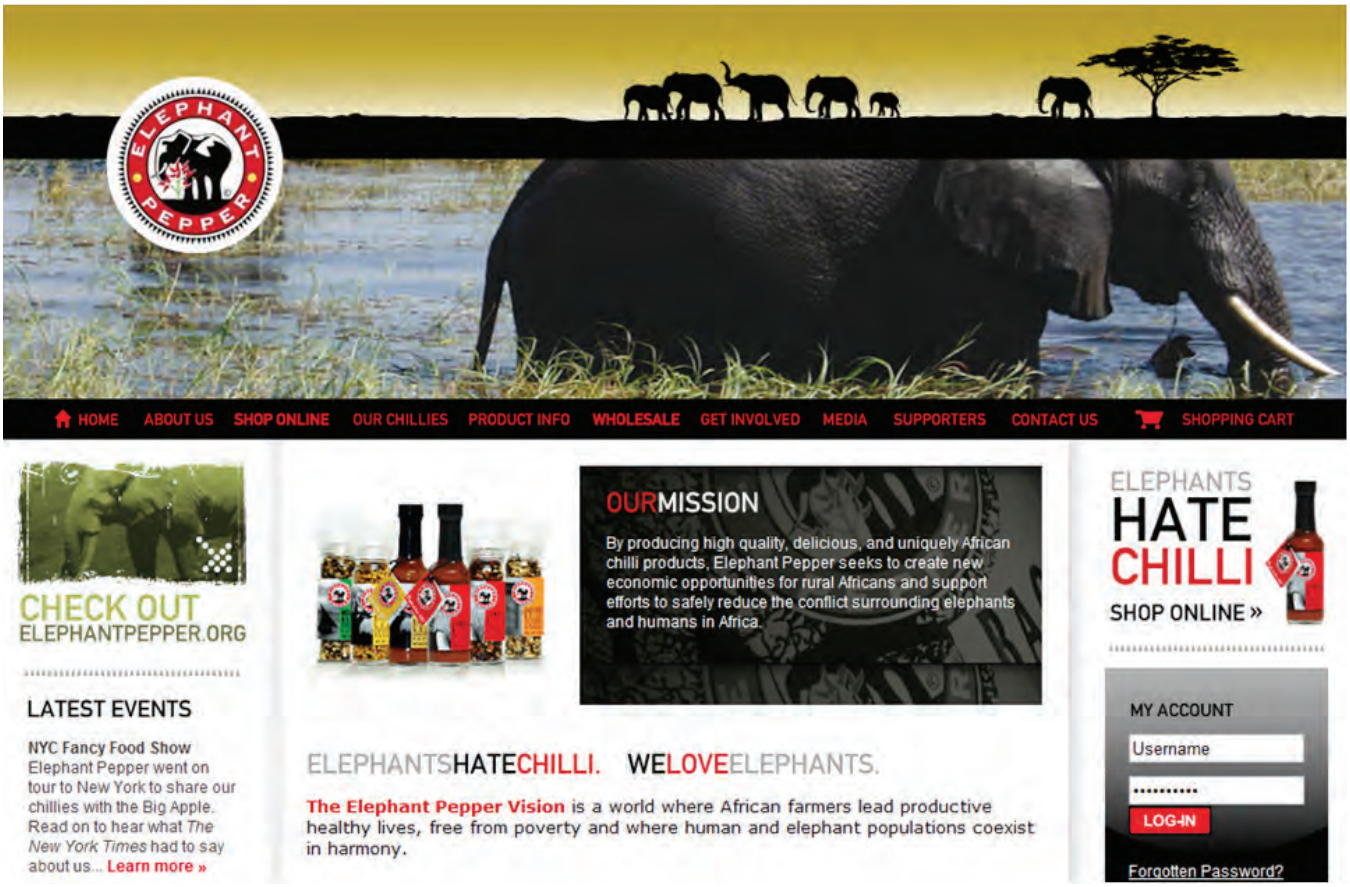
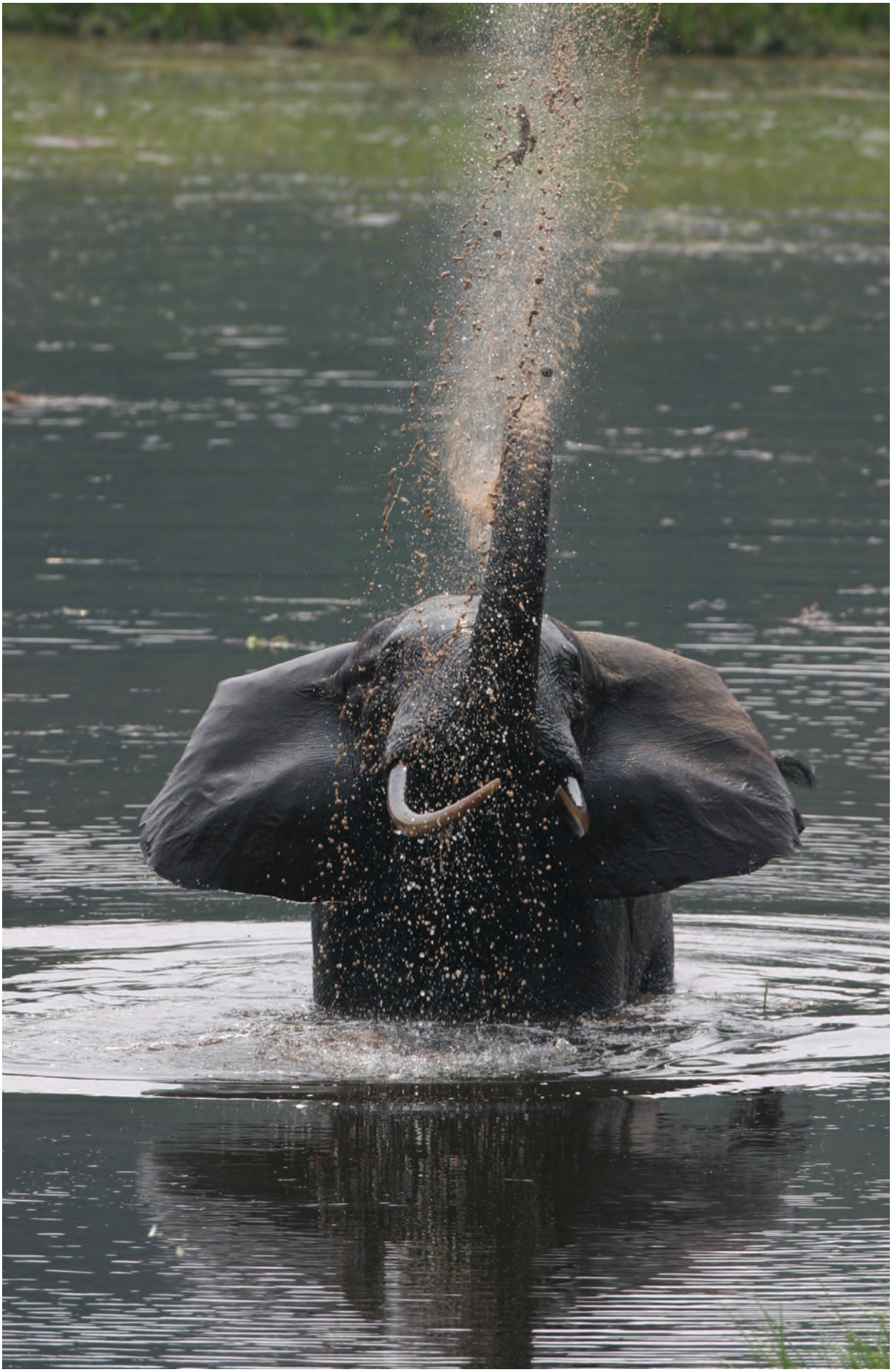
Appendix 2: Timeline of Events



Appendix 3: Elephant Pepper Products and More Information



You can visit Elephant Pepper at their website: http://www.elephantpepper.com



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TRANSLINKS

TransLinks is a 5-year Leader with Associates cooperative agreement that has been funded by the United States Agency for International Development (USAID) to further the objective of increasing social, economic and environmental benefits through sustainable natural resource management. This new partnership of the Wildlife Conservation Society (lead organization), the Earth Institute of Columbia University, Enterprise Works/VITA, Forest Trends, the Land Tenure Center of the University of Wisconsin, and USAID is designed to support income growth of the rural poor through conservation and sustainable use of the natural resource base upon which their livelihoods depend.

The program is organized around four core activities that will be implemented in overlapping phases over the life of the program. These are:

1. Knowledge building including an initial review, synthesis and dissemination of current knowledge, and applied comparative research in a number of different field locations to help fill gaps in our knowledge;
2. Identification and development of diagnostic and decision support tools that will help us better understand the positive, negative or neutral relationships among natural resource conservation, natural resource governance and alleviation of rural poverty;
3. Cross-partner skill exchange to better enable planning, implementing and adaptively managing projects and programs in ways that maximize synergies among good governance, conservation and wealth creation; and
4. Global dissemination of knowledge, tools and best practices for promoting wealth creation of the rural poor, environmental governance and resource conservation.

Over the 5-year life of the program, TransLinks aims to develop a coherent, compelling and, most importantly, useful corpus of information about the value of, and approaches to, integrating Nature, Wealth and Power. To do this, TransLinks is structuring the work around two core issues – 1) payments for ecosystem services and 2) property rights and resource tenure.

USAID | WILDLIFE CONSERVATION SOCIETY | THE EARTH INSTITUTE COLUMBIA UNIVERSITY | EnterpriseWorks VITA | FOREST TRENDS | Land Tenure Center

TRANSLINKS

A partnership of NGOs, Universities and USAID led by The Wildlife Conservation Society, dedicated to finding and sharing practical ways to generate benefits from conserving natural resources that are of global importance, and that serve as the supermarkets, bank accounts and insurance for many of the poorest people on earth.

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For more information please visit our website at www.translinks.org or contact Dr. David Wilkie, the program director, at dwilkie@wcs.org.

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