POSTER PRESENTED AT THE ALLIANCES WORKSHOP AT THE IUCN WORLD CONSERVATION CONGRESS ENTITLED:

"FOLLOWING THE NATURE, WEALTH AND POWER TRINITY TO HEALTHY ENVIRONMENTS AND HEALTHY PEOPLE"

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Posters Presented By:

1. Peter Coppolillo, Wildlife Conservation Society – Chickens, nutrition and bushmeat in Tanzania.

2. Charles Foley, Wildlife Conservation Society – Conservation easements in Tanzania.

3. David Meyers, Madagascar Bamboo – Bamboo and carbon offsets in Madagascar.

4. Sharon Gordon, Millennium Development Goals Centre, East & Southern Africa - Using incentives for energy and resource management in Kenya

Panelists:

1. Lisa Naughton, Land Tenure Center, University of Wisconsin

2. Ann Koontz, Enterprise Works/Vita

3. Alice Ruwheza, Forest Trends

4. David Wilkie, Wildlife Conservation Society

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TransLinks

Promoting Transformation by Linking Nature, Wealth and Power

Madagascar Bamboo
A Sustainable Business Model for Conservation

Project goal

When developing this project we wanted to show that a mid-sized business in Madagascar could have positive environmental and social impacts while earning good returns for its investors. We chose industrial bamboo transformation because bamboo can easily be harvested sustainably, sourcing of bamboo requires working with and direct purchases of bamboo from a poor rural population, and because we had excellent access to the technology that though developed in China was amenable to conditions in Madagascar.

Process and Key Steps in Business Development

- **Leadership**: We formed a group of founders and management staff crucial to company success which included specialists in ecology, business and corporate finance, and bamboo technology.
- **Feasibility studies**: We conducted surveys on the bamboo resources in the eastern part of Madagascar within a 150 km radius from the port town of Toamasina (Tamatave) to quantify the volume that could be harvested sustainably on an annual basis. A bamboo expert from INBAR (International Network for Bamboo and Rattan) evaluated our inventory work and annual allowable harvest plans and determined that there were twice as many plants as needed for sustainable harvest at maximum production levels.
- **Financing**: It was extremely difficult landing institutional financing from large international donors. We were successful with a subsidized loan agreement through the French Agence Français de Développement's ARIZ program in collaboration with a regional bank, the Mauritius Commercial Bank.
- **Technology development**: An investment from a Malagasy investment company supported the installation of machinery (from China) at the factory, testing of equipment and initial production.
- **Marketing**: Following quality testing in Europe, we started marketing our products.
- **Current status**: We are closing the second round of financing; purchasing and installing the remainder of equipment needed for producing pre-varnished flooring; and increasing marketing efforts in anticipation of production ramp up.

Caramel Natural Mixed
Fused bamboo flooring

Desired outcomes

- Increased rural revenues to local farmers as an alternative for slash and burn agriculture and illegal wood harvesting;
- Increased planting of bamboo to stabilize soils and protect against erosion;
- Production and sales of an alternative product that offset the unsustainable exploitation of tropical hardwoods from Madagascar.

Even in the small area from which we have been sourcing since 2007, we are beginning to reach these goals:

Conservation Outcomes

- The giant bamboo (*Dendrocallamus giganteus*) that we are focused on is a clumping species that helps to stabilize soils and is non-invasive.
- As bamboo is one of the fastest growing plants, it sequesters large amounts of carbon dioxide.

Livelihood Outcomes

- **Increased revenue to rural villages**: At full capacity we will be spending at least US$250,000 per year purchasing bamboo from local villagers. Individuals have begun preparing and planting their own plants in the areas where we have been purchasing bamboo. This is a positive sign that the economic incentives of bamboo planting are sufficient enough to encourage villagers to invest in a plant that requires 5 years to reach an age of exploitation.
- **Community led bamboo transport associations**: A group of young people have spontaneously formed an association to transport bamboo

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from greater distances than we had planned ourselves. Association members are paid for their work.

- **Commerce and market opportunities for rural populations**: The transport association provides transport services to bamboo owners located far from collection points who would not be able to organize transport themselves and would have been left out of the program. Instead, thanks to the association, these bamboo owners are now paid and the factory has access to additional resources.

Madagascar Bamboo's raw bamboo sourcing system has been developed with attention towards various aspects of nature, wealth and power and implemented gradually so that we could learn as we grew. Our initial objectives for our sourcing system were:

- To assure a steady flow of product;
- To assure that the product provided by the communities was of high quality;
- To assure sustainable harvesting methods;
- To assure that there were no purchasing of ownership-disputed bamboo clumps; and 5) to assure maximum participation by target villages, "fokontany" (local government), communes, and regional government structures.

Examples of how these goals are being reached include:

- **Working through local government**: We have developed a system of collection that involved harvesting from each target fokontany once per year. This creates an excitement around the harvest, facilitates harvesting logistics, allows our agents to choose individual bamboo poles (correct age), and allows us to assure harvesting sustainability.
- **Fostering community based conflict resolution over resource ownership**: The giant bamboo must be hand planted, which means that practically all plants are owned by individuals or families – those that were planted several generations previously could have multiple owners depending on the inheritance of the land. To deal with conflicts over contested bamboo ownership, we established a system that gives decision making responsibility to the village council (or Fokontany if the village cannot come to a conclusion). The final list of bamboo owners must be authorized by the local government prior to harvesting. We have a strict policy that if there is no resolution on ownership for a specific bamboo clump, we will not harvest it and the owners have lost out on that year's harvesting. This policy has encouraged individuals to reach a resolution prior to the harvesting deadline.
- **Reducing competition between sellers**: Another approach that we have applied in purchasing is to set the price per pole of bamboo for a harvest year and use that price throughout the entire harvest area. This minimizes negotiation between our agents and the growers and avoids conflicts between growing areas.

Key Lessons Learned:

- **Balancing economic success and profit-sharing**. There is constantly a tension between economic success and social responsibility, but less of a tension between economic success and conservation in this case. New or young companies face enormous financial risk, so, it is important to focus on economic success during the early years until the company becomes cash-flow positive. If a company fails in its basic economic objectives, there is no sustainability and no "profit sharing" will be possible.
- **Managing business risks in biodiverse rich, poor countries**. There is enormous business risk associated with starting green, socially responsible businesses in poor countries due to weak governance and undeveloped infrastructure. The provision of low cost business loans and high risk equity financing would encourage entrepreneurs to take more chances in developing new businesses that can provide environmentally and socially responsible alternatives to traditional unsustainable activities. Governance plays a critical role in creating a business environment that encourages such endeavors and, thereby, allows the creation of jobs and commerce between rural and urban areas.
- **Buy sustainable bamboo flooring from us.**

Selecting giant bamboo for harvest