

Conservation through Enterprise

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Natural Capital approaches to conservation are not useful in sites where financial and legal infrastructures are weak and they are not appropriate where local populations are chronically poor. The CPALI project (www.cpali.org) is exploring an innovative, entrepreneurial, approach to conservation for developing countries and initially in Madagascar. Exclusion from the Makira Protected Area (MPA) in Madagascar caused significant economic loss and health costs to local people. CPALI, with its partner, SEPALI Madagascar, is teaching farmers how to raise wild silkworms on native trees to enhance economic security, food security and environmental security in this fragile and unique region. The long-term goal of the CPALI program is to develop a "conservation industry" by replicating our program throughout Madagascar, with multiple species of silk producers, and in the border zones of diverse types of forest in need of protection and poverty alleviation. Because some silk producers extend across elevation gradients, they may even be pre-adapted to better withstand climate change.

Silk cocoons provide a new, sustainable, source of income; chrysalides provide an alternative protein source for human consumption or poultry; silk moth host trees build up a protective green zone around Makira. Farmers whose current median income is \$70/yr are able to earn \$30-\$80 (depending on number of cocoon produced) of added income/year. Artisans, who are likely to be other family members, earn an additional \$16-\$42 (1330 cocoons/ m²; \$8/m²) for sewing CPALI's innovative, non-spun textile. Because farmers need only 100 chrysalides to produce enough eggs to yield 10000 cocoons for the next season, 9900 chrysalides or approximately 10 kilograms of protein rich food will become available for consumption or poultry feed. To date, sixty farmers have planted over 12000 trees; CPALI's first women's group has produced over 200 baskets; and five farmers have begun rearing larvae.

Despite these positive effects, we have found that working with local populations is more difficult than designing an ecologically sustainable solution to habitat degradation. Our implementation problems seem to result from 30 years of unsuccessful interventions by ex-patriots and continuing extreme poverty. Some of these problems are: a lack of trust among individuals in and between communities; unwillingness to embark on silk production despite market and price guarantees; lack of understanding or honoring of contracts; fear of "land grabbing" and unwillingness of farmers to allow the SEPALI team to visit their farms.

In this topical lunch I would like to explore possible collaborations at Cornell to pursue the following issues:

- What are the best approaches to making social contracts across cultures and with isolated populations in the absence of financial and legal infrastructure;
- Does exploiting local enterprise reduce additional swidden agriculture;
- What are the ways to monitor and evaluate activities that combine social, enterprise, and environmental foci.