

## CPALI GOES WILD!



Cocoon raft packed for shipping

**Conservation through Poverty  
Alleviation, International  
Annual Report 2014**

## Dedication



**This report is dedicated to Denis Ramasy, our first farmer, loyal team member and who suffered a stroke while tending his rice field. We miss him and eagerly away his return to work.**

## CPALI Mission

**Conservation through Poverty Alleviation, International** (<http://www.CPALI.org>) is an international, non-profit organization that identifies, develops and implements new means of income generation for impoverished farmers living in areas of high biodiversity and conservation value. We were founded in 2002, incorporated in Massachusetts in 2003, and approved as a provisional 501(c)(3) by the US Internal Revenue Service in 2004. CPALI achieved permanent status in 2007.

CPALI is dedicated to a community-centered approach to conservation. Our mission is to help impoverished communities farm and transform endemic resources to create sustainable enterprises that benefit farm families and protect endangered ecosystems. The CPALI vision is to build and test the effectiveness of an innovative, environment-conserving enterprise. We have divided our efforts into four areas:

- piloting a silk gardening and textile production enterprise in northeastern Madagascar
- international marketing of the wild-silk products from Madagascar
- building recognition that endemic resource farming can be a success international conservation strategy
- building CPALI as an institution to fulfil its vision

**Resources and Products** The CPALI method begins with identifying native species near the borders of protected areas that can be developed for commercial products. In Madagascar, CPALI identified the native silk moth, *Antherina suraka*, as the producer of high-value cocoons. The larvae feed on the native, second growth, rainforest tree, *Polyscias bakeriana*. At our initial test site, we established best practices for cultivating the trees and cocoons. We developed a non-spun textile (US and Madagascar patent pending) using cocoons that can be produced in isolated areas where poverty is high and valuable plant and animal species need protection.

**Human organizations and incentive structure.** In Maroantsetra, we have helped establish an independent, local NGO, "[Sehatry ny Mpamokatra Landy Ifotoy](#), Madagascar" (Association of Wild Silk Producers) or [SEPALIM](#), which manages training, raw materials growth and distribution, textile production, cocoon purchases and develops additional income opportunities. From an initial base of 12 farmers in 2009, farmer networks have expanded to include roughly 300 farmers in 13 communities who have planted over 30,000 native trees. Complementing the networks are women's artisan groups who sew cocoons into the textile. SEPALIM now supports the immediate production process, including banking activities and communally organized purchase, subsidized educational materials for families and identification of new endemic resources to be farmed.

## Letter from the President

Dear Friends and Colleagues,

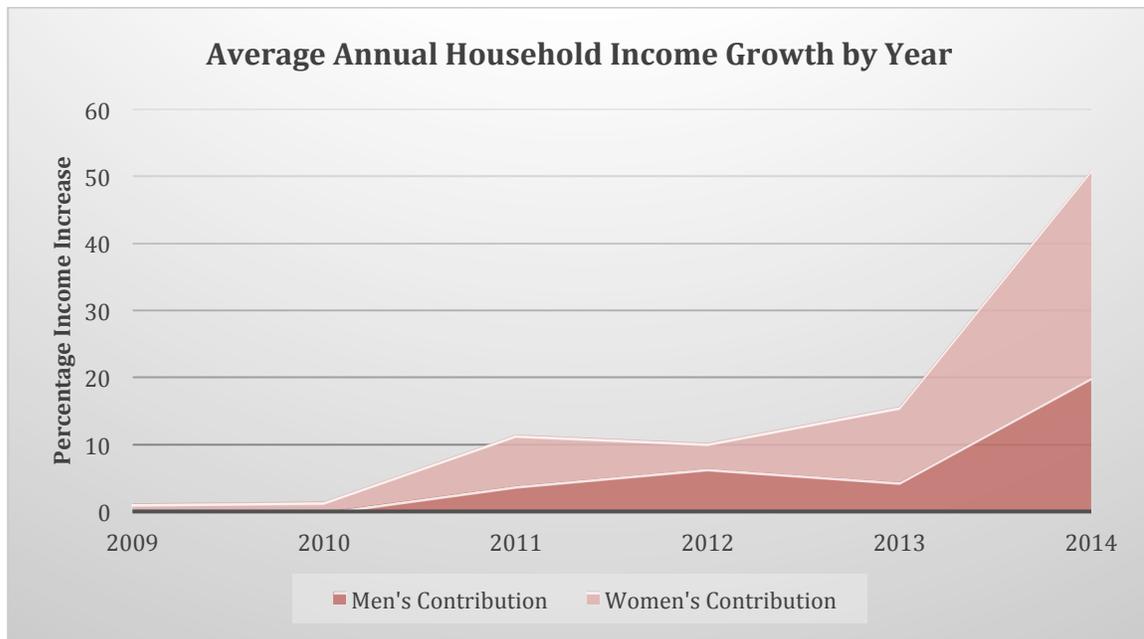
CPALI is celebrating its 11th anniversary this year and its partner SEPALI Madagascar is celebrating its fifth. By January 2015 SEPALI will have achieved a landmark in silk production – 300 m of non-spun textile (patent pending) up from 30m in 2013! That number includes three types of textile made from cocoons produced by two species of moth, *Antherina suraka* and *Ceranchia apollina*. Having a larger volume of material will allow us to sell the textile to companies and designers in addition to continuing our current sales to individuals and artists. CPALI is now giving priority attention to expanding the number of donors and partnerships needed to support the program. In particular, since August 2014 we have been selling textiles and other artisan products on line.

**Silk farming and textile production:** The farmers' earnings from textile and cocoon production are especially inspiring. As of December, 2014, we have 75 men and women that are benefitting from the program, and 200 more that are still in the tree-planting phase. Thanks to careful data collection by the SEPALI Madagascar team, we have been able to track earnings by farmer, household and community over the past six years. We share our results below.

Both men and women are growing talandoa trees and farming caterpillars. In 2011, farmers produced a total of 2597 cocoons and most of the textile was made from cocoons produced by the SEPALIM team. In 2014, as of early December, farmers had already produced 20,343 cocoons without supplementation by the SEPALIM team!

The increase in total production is due to an increase in the number of productive farmers and an increase in the number of cocoons that each farmer is able to produce. We have found that farmers are using the silk program just as we intended it to be used: to supplement income as needed, especially during the times that might otherwise have led to forest resource harvesting. Farmers often produce cocoons one year but not the next only to rejoin the program the following year.

In the beginning of 2014, Mamy Ratsimbazafy, SEPALI Madagascar's director, added a second species of silk producer, *Ceranchia apollina* to the mix. Currently, the *C. apollina* program is based in Mandritsara, a town five days walk from Maroantsetra. The site was found by one of our most industrious farmers, Manoely Denis, who was searching for *Ceranchia* on our behalf. In fact, Manoely Deni organized three communities to work with him collecting cocoons, removing pupae, and packing. In addition to collecting cocoons, he is teaching community members how to protect the pupae. In Mandritsara, half of our work was completed before we arrived -- *C. apollina* pupae are considered a snack – fried and salted - to have with beer and coke! Although the pupae have been harvested for a long time, the cocoons were traditionally discarded because farmers thought that they had no value. In fact, many of the pupae were thrown away as well because only those found within 1 day of spinning the cocoon are edible. Now, thanks to Mamy and Manoely Deni's work, the farmers are saving both cocoons for silk production and pupae for the next season's rearing.



\*Growth based on Makira average annual household income of \$140.50 (Golden, 2014)

Mandritsara is a high elevation site, ideal for raising *Ceranchia*. The low-lying Maroantsetra area will not be feasible for production. Nevertheless, *C. apollina* silk has become a form of subsidy to the silk production program in Maroantsetra. Manoely Deni's collections have allowed the team to hold an average of two workshops each month through the year of 2014. Five women are invited to attend each workshop and their yearly earnings are impressive. Our top cocoon farmer for 2014, Fenozara Justin and his wife Josephine, earned \$150 last year from *A. suraka* cocoon farming in addition to their normal income (average annual household income for the region is \$140.50 and the median is \$59). The mean increase in household earnings for SEPALI farmers is \$72.81. In some cases, the SEPALI program has doubled family earnings.

**Charity or Enterprise?:** Unfortunately, SEPALI Madagascar is still dependent on its donors because the costs of the program are high. Village women travel up to 6 hours to reach the workshop site and SEPALI Madagascar covers that cost. In addition, the women must be accommodated at the training center and SEPALI Madagascar provides five days of food for each workshop participant. As a result it costs \$45 in women's expenses and labor to make 1 meter of textile; \$8 is spent to pay the staff to finish the textile and insure high quality and an additional \$11 is needed to pay for equipment and electricity used during the workshop. Shipping within Madagascar, out of Madagascar and across the US brings the total cost to \$85 per meter. These high costs make it difficult to make a profit from this venture. We are exploring various options to try to get the production costs lower without affecting the earnings of the farmers and textile producers.

One approach would be to extend the textile project to Mandritsara communities where *C. apollina* are collected. It would be much cheaper to train workers there to make textiles and ship them directly to Tana then to transport the cocoons 5 days to Maroantsetra for processing. The ecological/conservation benefit would be to build a productive rural landscape in the Mandritsara area through endemic resource collection and product processing in contrast to the cultivation system we use in Maroantsetra. We do not yet know the biological value of the Mandritsara region (on the western side of the Makira Protected Area), but it does support an enormous volume of wild silk moths that previously were considered rare. Working in Mandritsara clearly fits with CPALI's mission and aligns with the SEPALI Madagascar vision.

Mamy believes that we have done all we can do in the Maroantsetra area in terms of awareness and silk program education. Farmers have learned the entire process of silk production and our first farmers are able to earn enough added income to advertise that the program is profitable. The program has been put in motion and now simply needs time to grow. Thanks to the team's hard work, 300 farmers are engaged with SEPALI. We will continue to support and encourage more farmers to participate.

Of course the biggest factor differentiating the program from a charity will be successful production and marketing of the silk – in volume. The coming year, 2015, is the first time we have had enough silk volume to make a dent in the money we need to raise to support the program. It is up CPALI US to find the partnerships we need to support the program.

**Is CPALI/SEPALIM making an economic difference?:** CPALI is making both an ecological difference (each participating farmer plants 250 native trees on existing farms that build up the Makira border forest) as well as an economic difference to farmers in the Makira area. According to international economic indices, farmers that live on less than \$1.00/day are severely poor, those earning \$3-\$5 are subsistence and those earning \$3-\$5 are low income. If the average income of the area is \$140/year, and the average farm household earned \$73, then CPALI and SEPALI Madagascar have increased the average annual household income of participating farmers by more than 50%!

**Is CPALI/SEPALIM making an ecological impact?:** The current ecological effect of the program is harder to measure than the economic impact. What we can track is that each time a farmer joins the program, they plant 250 host trees – 250 more endemic trees to support the border forest of the Makira protected area. We stopped physically counting total trees at 30,000 in 2012 due to expense, but we know that each farmer that joins the program continues to plant trees in order to raise silkworms. In addition to the 30,000 host trees, our farmers have planted hundreds of native vines, and over 100 slow-growing, primary rainforest trees to serve as host plants for three different species of endemic silkworms. The combined effect is already transforming farmer's lands into rich, mixed crop farms of both endemic plants and subsistence products.

Our current ecological goal is to diversify endemic plant and animal species that are farmed. The first two will be insects and mushrooms, natural by-products of the program. We have been able to convince our farmers that insects are a delicious food resource (they actually just owned-up to knowing that all along). Understandably, there is still more interest in earning money than enhanced nutrition, but we are making progress. SEPALI farmers have indicated that they will be interested in farming insects if we secure a local market.

Sincerely,



**Catherine L. Craig, PhD**  
**President, CPALI**

## CPALI TIMELINE

- 2003 Cay's first visit to Madagascar  
Initial meeting with potential stakeholders and partners in Madagascar  
CPALI established as 501(c)3
- 2004 Field surveys at Ranomafana National Park  
Rainforest silk cooperative established  
CPALI board writes strategic plan
- 2006 Field surveys in Makira/Masoala  
CPALI House established in Maroantsetra
- 2007 Experimental work at CPALI House; Mamy Ratsimbazafy, SEPALI's current director, identifies *A. suraka* host tree  
Field trials continue  
Permanent field team organized  
Demonstration sites established in Maroantsetra  
Three initial target species identified
- 2008 Second demonstration site and nursery is organized at Manambia  
Mamy completes CPALI training manual  
CPALI competes at the World Bank Development Marketplace  
CPALI achieves permanent 501(c)3 status  
Farmer nursery established in Ambodivoagany
- 2009 3 year contracts with first farmers  
7 additional farmers join the project  
First farmer in Ambodivoagany completes transplant of 1000 trees  
First crop of cocoons sold and exported to Thailand
- 2010 Sehatry ny Mpamokatra Landy Ifotony Madagascar (SEPALI Madagascar), is founded by Mamy Ratsimbazafy, CPALI local director  
SEPALI Madagascar introduces silk program in 3 new communities, Marovovonana, Ambinentelo, Amblalmahago  
Provisional Patent filed for non-spun textile  
Non-spun textile juried and accepted into Material ConneXion's Worldwide libraries
- 2011 CPALI skirt appears in Tara St. James Collection, Fashion Week, NYC  
SEPALI Madagascar begins publishing monthly newsletters for farmers  
Tom Corcoran's CPALI film wins \$10,000 prize to support SEPALI programs  
Patent pending for non-spun textile  
Peace Corps volunteer Kerry O'Neill joins SEPALI Madagascar  
Lalaina Raharindimby appointed to organize women's program  
45 farmers plant a minimum of 250 trees and are awarded SEPALI t-shirts  
10 breeders receive ponchos and rain-proof notebooks to keep records  
60 women participating in artisan groups are paid for making baskets and nets to support farmers  
Lead farmer and Lead artisan programs established  
First farmer's picnic and awards ceremony  
4 farmers produce cocoons  
SEPALI Madagascar receives SEED Award (UNEP, UNDP, UNESCO)  
SEPALI Madagascar Equator Initiative Finalist

- 2012 SEPALI purchases permanent demonstration site  
 15 famers produce cocoons  
 Partnership with Stanford dSchool; 4 students visit SEPALI for 2 weeks and discuss new products and more efficient ways to make them.  
 Farmer communities extend to Mahalevona and other sites that border Masoala National Park  
 First Global Giving project completed after reaching its \$50,000 target!  
 SEPALI bank accepts its first cocoon “deposits”  
 William Barclay joins the CPALI board  
 Cornell University partners with CPALI/SEPALI to sample soil from farmer sites and initiate a long-term monitoring program
- 2013 28 farmers produce cocoons (to date)  
 300 farmers join SEPALI Madagascar  
 SEPALIM welcomes second Peace Corp volunteer, Donald Quinn-Jacobs  
 CPALI expands its program mission to include the integrated production of natural resources for food and cash  
 SEPALI begins training and introduction of insects for protein  
 SEPALI initiates biological studies on *Ceranchia apollina*, a new species of silk-producing moth  
 SEPALI sells 25 m of non-spun textile to Habu Textile  
 James Toupin joins CPALI as Chairman of the Board  
 CPALI self-imposes an audit by Tonneson and Company  
 Kerry O’Neill joins CPALI as Assistant Director  
 Heidi Mac Clean joins the CPALI board  
 CPALI partners with dConstruct
- 2014 32 Farmers producing cocoons, plus 25 collecting cocoons  
 CPALI product debut at DWELL tradeshow in Los Angeles  
 dConstruct wins eco-choice award from New York Now for wild silk jewelry  
 Architects for Humanity partner with CPALI and design a training center for the Maroantsetra demonstration site  
 CPALI products are re-approved as a Fair Trade by the Fair Trade Federation  
 Repeat textile sales to HabuTextiles and dConstruct jewelry company  
 CPALI introduces Insects for Food program to farmers  
 Manoely Denis finds the previously rare *Ceranchia apollina* in abundance and organizes 3 communities to collect cocoons and raise pupae.  
 May Berenbaum, member of CPALI founders board, receives National Medal of Science from President Obama  
 First farmers double their average annual household income

## WHAT’S NEXT?

The coming year is looking to be as exciting and productive as the last year. SEPALI Madagascar plans to produce 500 m of textile in the coming year. In addition, the team’s creative juices are flowing and they plan to expand their product line to include jewelry. Despite the fact that they worked extremely hard last year, they are determined to continue the program at same breath-taking pace.

We are looking for new board members to contribute to our mission and help us extend the CPALI approach to new sites, especially in Africa, where farmers have been displaced from protected areas and national parks. We are also looking for board members with marketing experience who can help us build new products and expand our impact.

**NEW TRAINING CENTER:** SEPALI Madagascar recently purchased about 1 acre of land at the edge of Maronatsetra between the airport and the town's finest hotels. The site is being developed as a new demonstration site and we hope will soon include a training center. Architects for Humanity, Boston, have generously devoted their time to design a multi-use center where artisans will make textiles and eventually finished products will be sold. The center will also be used to enhance our educational programs. In addition, multiple species of caterpillar host plants and larvae as well as edible mushrooms will be grown in SEPALI experimental plots.

**NEW SITES:** CPALI's programs are most appropriate to border forests that edge protected areas because we make use of only native plants and animals (those adapted to local ecologies) for natural resource farming. Our approach inspires communities to nurture the resources that are immediately available to them and makes it possible for even the poorest to participate. Natural resource farming frees farmers from dependence on foreign seeds, foreign inputs and foreign technologies. Our social finance approaches build on farmer's immediate savings. In the long range, we hope that farmer cocoon banks will be able to make loans to depositing farmers that help them increase their financial security. We will, however, continue to develop new foreign niche markets for cash products.

## DONORS AND GRANTS 2014

We have been fortunate in obtaining funds from several extremely generous family donors, family foundations and individuals. Below we thank our donors from 2014.

### 30,000-60,000

Anonymous

### \$20,000-\$30,000

Barclay Family Trust

### \$1,000-9999

Elinor Farquhar

Judy Munzig

May Berenbaum

Henry and Sue Bass

Bob Weber

Catherine Craig

Heidi MacLean

Walter Simons

### \$500-\$999

Jane Pidduck

Priscilla Streator

Cathleen Belden

Sally Brown

Caroline and Edward Kenney

### \$10-\$499

Andrew and Barbara Moore

Ann Hanson

Anonymous

Anonymous

Anonymous

Brent Opell

Camille Hunter

Carole Levin

Catherine Caufield

Catherline Leslie

Claire Kreman

Daniel Rossman

Darlene Benson

Denise Robichau

Diane Berenbaum

Faye Speert

Frances Chew

Gary D Bernard

Gene Bruce

James Burns

Joan Shulman

JoAnn Pavletich

Judy Craig

Katherine Branch

Larry Wiberg

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Linda Harrar

Margery Craig

Margie Topf

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### **How You Can Help CPALI**

CPALI is reviewed on Guidestar and Great Nonprofits' websites, our financial data is posted on the [www.CPALI.org](http://www.CPALI.org) website. We appreciate any and all donations of volunteer assistance, money, equipment, stocks (please contact C. Craig for Merrill Lynch account details), frequent flyer miles, and Amtrak miles. All of your gifts and donations are tax deductible. Donations can be made by credit card through Global Giving, Network for Good, [PayPal](https://www.paypal.com) directed to [craig@cpali.org](mailto:craig@cpali.org), or by a check made out to CPALI and sent to:

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**Let the adventure continue!**