The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Campbell Plowden
Project title	Sustainable harvest and marketing of non-timber forest products (NTPFs) with indigenous communities in the northern Peruvian Amazon
RSG Reference	64.06.09
Reporting period	October 1, 2009 – September 30, 2010
Amount of grant	£ 6,000
Your email address	cplowden@comcast.net
Date of this report	October 10, 2010

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Design sustainable systems to harvest aromatic plants and plants used for making handicrafts.		XXX		Made good progress in assessing resource base for copal trees with its aromatic resin and conducting initial harvest using trial method for sustainable harvest. Efforts to assess sustainable harvest for palm fibre used in making handicrafts just beginning.
Build local capacity to produce essential oils from aromatic plants.		XXX		Local project manager and coordinator conducted several rounds of trial distillations of resin to make fragrant essential oil.
Create new handicrafts designs using local plants and traditional weaving techniques.			XXX	Artisans in pilot community made more than 20 new designs each of belts, guitar straps, bags, and hot pads woven with chambira palm fibre dyed primarily with natural plant dyes.
Develop plans to market these value-added products as alternatives to economic activities that damage natural forests.		XXX		All handicrafts made in the pilot community are now being test marketed at craft fairs in the U.S. Feedback on early models of guitar straps from musicians has been used to refine and generate new designs. Initial discussions held with merchant in city of Iquitos to market a select line of these crafts with community give-back.

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

a. Shortly after the project was approved, my 92 year old father became progressively incapacitated and passed away in November. I, therefore, needed to devote considerable time and attention to care for him, set his affairs in order, and create a support network for my mother. These activities delayed my ability to initiate major project activities until I went to Peru in January 2010.

b. The amount of resin that the project has been able to collect and work with has been lower than hoped for. While we found many copal trees in surveys around the pilot project village, relatively few of them had much resin. One survey was, therefore, conducted at a site farther upriver in late spring. This site had more abundant resin but the team was not able to return to it to collect resin and leaf samples because an extreme dry season low water conditions has made it impossible to reach this region by boat.

c. The other drought related impact on the project has been the reduced availability and higher cost of bottled gas. The city of Iquitos is facing the most severe and prolonged dry season it has experienced in many decades. This has lowered river levels to critical points where it has reduced the influx of many basic goods to the region. The scarcity of bottled gas (and the much higher price

for tanks which can sometimes be found) delayed our ability to dry leaf samples temporarily preserved in the field and distil resin samples in a timely manner. While leaf samples need to be prepared in the gas dryer, we are now consulting with the community about building a mud-brick oven that could heat the distillation pot using fuel wood.

d. The Bora people have used coca leaves as a traditional stimulant for many generations. We learned in July that members from a few communities in the Ampiyacu region were also unfortunately involved in growing and roughly processing coca for sale to illegal drug makers. We decided to focus the attention of our Iquitos-based field manager on processing plant and resin samples in the city until it was clear she could resume project work in the field without encountering people involved with these activities.

3. Briefly describe the three most important outcomes of your project.

a. Strengthening the capacity of local artisans to create and refine innovative handicrafts. At the beginning of this project, artisans from the Bora native village of Brillo Nuevo made and individually sold hammocks and standard design bags for local markets. In the past 9 months, the number of artisans that joined our monthly craft making project activities has grown from about 12 to 24. They have since created 20 to 30 new models of four different types of handicrafts (belts, guitar straps, hot pads, and net shopping bags) using traditional techniques for weaving chambira palm fibre dyed primarily with natural plant materials. These models have been the result of both their own creative efforts and interpretations of other designs based on customer reactions to initial models. Artisans have begun working together both to help new artisans learn the basics of making these new crafts, help each other complete detailed work, and exert an initial level of intra-community quality control. A culminating highlight was bringing four veteran artisans from Brillo Nuevo to the village of Nueva Esperanza where they led a workshop to teach the basics of the belt making to about 20 women representing three ethnic groups and four villages.

A growing group of socially conscious musicians in central Pennsylvania is particularly excited about developing this cross-continental partnership to make guitar straps that gives musicians a way to generate income for Amazon indigenous communities and visibly demonstrate their support for forest conservation through a unique Fair-Trade type item.

b. Developing a system for rapid assessment of low-density forest resources. Our project survey teams have mapped the location of copal trees with estimates of their harvestable resin in a variety of forest types near the pilot project village of Brillo Nuevo and beyond. The survey method is a hybrid between traditional plot-based inventories which are precise but are not practical for assessing low-density resources (generally less than 1 tree per ha) and undirected searches for target resources which are rapid but do not provide any estimate of resource density. Our surveys indicate approximate densities of diverse copal species and available resin according to forest type and major landscape characteristics. This survey method has involved extensive training for Bora woodsmen to learn to use new tools (diameter tape, compass, GPS, climbing spikes and harness, pole pruner, mapping software) and concepts to expand their traditional knowledge about their local forest resources and geography. This included bringing an experienced climber from the town of Jenaro Herrera to Brillo Nuevo to lead a four day workshop to train Bora woodsmen how to climb trees with curved spikes and harness and collect leaves with a telescopic pole pruner. We have built a dryer and trained one Bora leader how to prepare voucher specimens of study tree leaves for identification and deposit in a Peruvian herbarium. As distillation studies indicate which species produce the most marketable resin, this ecological information will help community members focus their search to areas most likely to contain preferred species.

c. Developing technique for distilling copal resin into essential oil. The basic techniques for extracting essential oils from plant materials through distillation are well-known, but producing top-quality fragrant oil from a new plant has no standard recipe. The initial distillations of resin collected from copal trees near Brillo Nuevo produced oil with an aroma that our project perfume consultant (and potential buyer) considered too "lemony." What we learned from this trial is that we needed to refine our distillation experiments along two sets of parameters: tree species and age of resin. We have now produced oil samples from several sets of known species from both fresh resin and material that has aged six months since harvest. All distillations now are being conducted with standard protocol using set amounts of resin and water. Data on oil yield, resin and water residual are being collected from each batch. Oil samples will be sent to the consultant for evaluation when we have processed all resin samples from the first round harvests and have obtained an export permit from the Peruvian government.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

Most of the activities of this project have been carried out in the Bora native village of Brillo Nuevo. About 15 different men have been involved to various degrees in planning and conducting surveys of copal resin trees and other natural resources in their area. Each month a group of five men usually received the local daily wage for 5 to 7 days for their participation in these survey – giving them an additional 100 to 140 soles (£24 to £33) per month extra income. The local coordinator received a monthly stipend for his role in organizing these activities. In addition to these contributions to the income of these men's families, they received training in a wide variety of forest resource assessment tools (described above) that they can apply to other situations beyond this immediate project. A survey conducted for 4 days in the village of Ancon Colonia gave the chance for three men from this neighbour village to receive some of these same benefits.

The other principle group of project participants and beneficiaries are artisans from the village. This began with about 12 in January and grew to about 24 in July. The regular members of this group were all women who helped design and make new handicrafts in consultation with the project supervisor and project manager. Each month they were paid a set agreed price for each item they produced that the Center deemed potentially saleable. Depending on the type and quantity of items, this generated an additional 10 to 200 soles (£2 to £48) per month in income for these women and in some cases for their husbands and/or children who helped make these crafts. The total amount invested in the community through these purchases during 2010 has been £545. Beyond the immediate income benefits to these women, they have learned to make a variety of new products and are learning to work together both within and between their villages to share their creative energies to improve the livelihood of all concerned. This is a huge benefit considering the fact that some of the best artisans closely guarded the fine points of their talents less than 6 months ago. The other group of beneficiaries in the village were people who supported outside project staff during their travel to and stay in the village. These have included payments for: house and boat rental, boat driving, providing and preparing food, and doing laundry.

As the Center sells the handicrafts purchased from artisans in these communities, it will return 20% of the earnings from these items to the community to fund needs chosen by them in the areas of health, education and/or conservation. Based on previous experience, these rebates will total somewhere between £436 and £545.

It is of course hoped that the project will eventually succeed in developing high-quality essential oil from the copal and/or other fragrant plants in the region. This would then provide the community

with an opportunity to sell a high-value non-timber forest product to fragrance makers. It is too soon, however, to predict what price such an oil could command or what level of profit this venture would generate for the community.

5. Are there any plans to continue this work?

Absolutely. The Center, project staff and communities are all anxious to continue building this project that is still in its developmental phase. The priorities for the coming year will be to: 1) continue searching for forest areas with abundant copal resin; 2) build the capacity to distil resin in the village; 3) continue working with fragrance making partners to identify the best ways to make a marketable essential oil; 4) assess the resource base for chambira palm fibre crafts and promote planting of this critical resource; 5) continue to refine designs and build the capacity for consistent production and quality for the most marketable chambira crafts; 6) continue to build skill-sharing between artisans within the Ampiyacu communities and strengthen the community based handicraft associations and the overall Ampiyacu handicraft association; 7) foster exchange of knowledge about dye plants between different communities of chambira craftspeople in the region; 8) make more connections within Iquitos and Lima to explore opportunities to market these handicrafts within Peru; and 9) develop tools using images, video and other medium to help market community crafts via the internet, craft fairs and other outlets in the U.S. and potentially other Fair Trade conscious markets. We interviewed almost every artisan in Brillo Nuevo on video in July 2010 about their craft work and lives. We look forward to editing these into short pieces with English subtitles that can be included in the webstore (amazonforeststore.com) and posted on You Tube to help tell the stories about these women, their community and this project.

6. How do you plan to share the results of your work with others?

This work is being shared and will continue to be shared via all of the available outreach channels of the Center. This includes our website (www.amazonecology.org), newsletter (*Amazon Connections*), videos on YouTube, brochures and public presentations. When crafts are displayed at craft fairs, informational placards explain the basic goals of the Center, our relationship to our partner communities (including the fact that 20% of craft sales revert to them to support health, education and conservation needs), and our major sources of funding.

A concise summary of the copal work being done in the Ampiyacu project is included in both English and Spanish versions of a poster produced to describe the Center's copal research project. These posters are being displayed at the Institute for Investigation of the Peruvian Amazon (IIAP) research station at Jenaro Herrera, the native federation (FECONA) office in Puca Urquillo and school at Brillo Nuevo. An updated version with a fuller description of the Ampiyacu work is being prepared for display at the upcoming meeting of the Entomological Society of Peru to be held in Iquitos. The Center Facebook page will become an additional vehicle for disseminating information about this project and our programs in general in the coming year.

7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

The grant was primarily used between December 2009 and September 2010. It was anticipated that the project would have begun in October 2009, but was delayed for reasons explained under "unforeseen difficulties."

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Communication	240	103	(-)137	Most communication has been accomplished with email with little cost.
Equipment and Fees	1,247	2,216	(+) 969	Main extra costs have been computer and related supplies for project manager, climbing and pruning gear, dryer and bottled gas.
Stipends	7,680	4,795	(-)2,885	Costs have been less since incurred for 9 instead of 12 months.
Travel	3,235	2,447	(-)788	Costs have been less since project manager has had 9 instead of 12 months of travel to field.
Total	**12,401**	**9,563**	**2,838**	Most costs have closely tracked budget projections. Overall costs have been less due to 3 month delay in implementing project in the field.

Note on project budget and costs:
These figures do not include an additional £545 that CACE spent purchasing handicrafts from artisans in the village and £405 spent on supplies (buckles and leather) and services (sewing leather pieces to guitar straps) to turn the woven items into finished products. It is expected that these costs will eventually be recouped when the crafts are sold.

9. Looking ahead, what do you feel are the important next steps?

The next important steps are to continue developing the ecological, production and marketing aspects of both the copal resin/essential oil and chambira palm fibre/handicraft enterprises as described in response to question 5 (plans to continue this work). Both men and women involved in this project in the community are learning a variety of new skills which will require on-going practice to master. There is keen interest in Brillo Nuevo to continue this work. FECONA (the federation that represents the 14 native communities in the Ampiyacu region) and many of its members are keen for us to share the lessons already learned in the pilot community with them. Doing this responsibly will require a balancing act that continues the work in progress and gradually assists other interested communities to build their capacity to sustainably harvest (or cultivate) predictable quantities of forest resources, make high-quality products from those resources, and cultivate market interest in those products at a pace that stimulates but doesn't overwhelm the resource base or the organizational abilities of the nascent community enterprise.

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

The Center has included written acknowledgements and thanks to RSGF for its support of the Ampiyacu project in its website, newsletter, poster describing the Center's copal research, and conclusion of every public presentation. The logo has been used in both the website and presentation.

11. Any other comments?

I would like to take the chance to thank other people and organizations that have assisted this project in many critical ways.

Yully Rojas – project manager, agronomist from Iquitos

Rolando Panduro – local project coordinator, Bora leader from Brillo Nuevo

Felicita Butuna and Marcelina Chichaco – have hosted project supervisor and project manager during all visits to Brillo Nuevo and helped organize local artisan meetings

Association of artisans of native communities of the Ampiyacu River – its members from Brillo Nuevo and Puca Urquillo are the core participants in the Center craft making activities in this project

FECONA (Federation of Native Communities of the Ampiyacu) – officially endorsed Center project

Instituto del Bien Comun – Peruvian NGO that supports the Ampiyacu native communities and co-sponsored the Center belt-making workshop in Nueva Esperanza

Italo Messones – field botanist from Iquitos, loaned climbing gear and pruning pole to the Center for leaf collection and helped identify copal plant specimens

Dr. Paul Fine – biologist from Univ. of California at Berkeley – he provided definitive identification of copal plant specimens and some support for project field assistants in the last three months of 2001.

His lab has conducted preliminary chemical analysis of copal resin samples and DNA analysis of resin weevils.

Haley van Oosten – President of the L'Oeil du Vert specialty fragrance company. Has consulted with the Center about resin distillation methods.

Marjorie Grant Whiting Center – provided a $US 4000 grant to the Center to support this project between March 2009 and February 2010.

National University of the Peruvian Amazon (UNAP) – the herbarium of this Iquitos-based university will serve as the Peruvian depository institution for project plant specimens
Institute for the Investigation of the Peruvian Amazon (IIAP) – the entomology collection of this Iquitos-based research institute will serve as the Peruvian depository institution for project insect specimens