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. 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. 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	Marina Londres
Project title	Ecology and management of andiroba in tidal floodplain forests of the Amazon estuary – participatory research of a community-identified priority timber and non-timber tree species
RSG reference	63.12.07
Reporting period	March 08 – March 09
Amount of grant	£5000
Your email address	mlondres@ufl.edu
Date of this report	March 28rd 2009

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
Participatory data collection on Andiroba fruit production by forest type			✓	Bi-weekly monitoring of andiroba fruit production through intensive and extensive samples (48 and 507 trees respectively, spread throughout the community landscape)
Participatory data collection on Andiroba population dynamics by forest type			✓	Baseline re-measurements of diameter growth for the 555 trees production sample; re- inventories on 18 1-ha permanent plots (where information on 1,111 trees was recorded)
Design and delivery of a capacity building program			✓	Training modules on forest ecology and management, through innovative learning approaches, where the local knowledge is validated to complement scientific knowledge and where local participants are encouraged to be critical, analytical and responsive
Development and implementation of a locally-based strategy for disseminating results			✓	The strategy was based on preparing and empowering community members to disseminate research results themselves. Through 8 workshops, this exercise not only honed their presentation skills, but it also fortified their knowledge of the subject matter. Training modules on disseminating results culminated in community-organized meetings that also included leaders from neighboring communities, in which community members independently presented research findings.

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

Fortunately, I did not have any unforeseen difficulties during the project development.

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

Through a collaborative research process that integrates scientific methods with traditional ecological knowledge, we are generating accurate ecological information, which is critical to assess sustainable harvest levels of resource extraction. So far, we have found that Andiroba population structures vary significantly across forest types and that average fruit production varies between 4 to 10 kilograms per tree, with significant differences in total population production among years. Preliminary models suggest that, at current harvest levels, the community is collecting less than 1%

of the Andiroba seed produced annually within its forest lands. In contrast, planned timber harvests of Andiroba, although within legal limits, are clearly not sustainable.

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

The São João do Jaburu community located within a Brazilian Sustainable Development Reserve in eastern Amazonia is increasingly demonstrating greater interest, skills and enthusiasm for conservation of their floodplain forests. With support from a Rufford Small Grant for Nature Conservation, I strengthened my partnership with this traditional community to understand the ecology of key forest species that sustain local livelihoods throughout the Amazon estuary region. Building on 3 years of previous work, we generated key ecological information necessary to elaborate guidelines on best forest management practices, integrating scientific research methods with insights of local people. To effectively incorporate local people and their knowledge, community members were engaged at all stages of the research and training program: setting research priorities, species selection (in which the seed-oil-producing species Andiroba topped their list), participatory mapping, data collection, and capacity building. Preliminary results demonstrated that many current management practices were far from sustainable, and that NTFP (non-timber forest product) resources were not being used efficiently. After assessing these results, community members organized meetings to discuss forest use strategies and take collective action. As a consequence, community members: (1) dramatically reduced high-impact harvesting of timber and palm heart, (2) initiated efforts to market a range of NTFP species through certified production, (3) experienced modest increases in income and welfare, and (4) became more interested in the ecological research process.

As direct consequences of this integrated investment in participatory research, capacity building and dissemination, I witnessed a transformation within the community in terms of resource management strategies and the formation of a solid group of 20 local researchers, including youth, women and community leaders. I believe that participatory research and resource use planning is an innovation that leads to real change in how communities think about resource management and NTFP marketing.

5. Are there any plans to continue this work?

I am currently working on my Master's thesis to be defended in early June of 2009, while preparing for the upcoming summer field season where I will conduct the fourth year of Andiroba fruit production and population monitoring, and continue the participatory process of jointly analyzing, interpreting, validating and disseminating results with local partners. I have been awarded a fellowship to start a PhD program in the fall 2009, at the University of Florida, which will be a perfect opportunity to continue the ongoing participatory ecological research.

In fact, I am actively seeking ways to continue advancing this approach and expanding the ecological study to other important forest species in addition to the prioritized NTFP, Andiroba. Using the results generated from the participatory ecological studies I also seek to collaboratively construct sustainable management models that are adapted to the local reality. Finally, I aim to establish locally-based strategies for scaling up results with a bottom-up plan to influence policy concerning multiple-use forest management systems.

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

At the local level, I have intensively invested on the assessment and interpretation of our research results. Even without my presence, the community developed a strategy to share these findings with other communities throughout the region who are also struggling to improve their forest-based livelihoods while sustaining their resource base. I will continue investing on the local and regional dissemination for at least the next four years.

Over the past year, I have also worked on two publications related to my research that are currently in press: (1) "**Fruit trees and useful plants of the Amazonian life**" (FAO publication), which I am co-author of the **Andiroba** chapter; and (2) a scholarly article at *Biotropica* journal: "**Graduate students and knowledge exchange with local stakeholders: possibilities and preparation**" in which I am one of the co-authors and my work is one of the three case studies presented.

A scientific paper that addresses ecology and management of Andiroba (*Carapa* guianensis) is currently being prepared as part of my Master's thesis and will be submitted to a scientific journal in a few months. Additionally, I am preparing, with key collaborators, a popular publication on both methods and results of participatory mapping of forest resources distributions and use patterns. Over the course of my PhD, I will produce additional scientific and popular publications based on research outcomes.

I also plan to develop recommendations for adapting Brazilian forest legislation to local realities and ecological constraints.

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

RSG was used on the course of the 12 months planned, although the biggest portion was invested during the 4 months I was coordinating field activities in Brazil (May – August 2008).

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
Travel	2054.41	2220	165.59	Costs of fuel increased during activities
Stipend	2244.91	1900	-344.91	Funding from another sources were used to complement stipend
Equipment and Supplies	547.82	560	12.18	The difference is due to shipping costs
Workshops	152.28	320	167.72	More workshops were conducted then originally planned (total of 8 full-day workshops and 2 community meetings)
TOTAL	4999.43	5000	0.58	
The total amounts asked was £4999.43, but the total amount received was £5000. Therefore, the final balance is zero.				

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

Over the upcoming years, I am committed to advance the action through a PhD program and through collaboration with key Brazilian research and development institutions. The main next steps are summarized below:

- Continuation of participatory ecological monitoring of tropical tree populations;
- Expand the ecological studies to other important tree species on top of Andiroba;
- Scale up results at regional scales through grassroots movements network;
- Influence policy to adapt legislation to explicitly integrate non-timber species and smallholder realities;
- Develop a model that effectively integrates local managers into research projects.

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?

Not yet.