

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	Anita Varghese
Project title	Community based ecological monitoring of wild harvested plants and its implications for conservation.
RSG reference	10186-1
Reporting period	March 2012-2013
Amount of grant	£6000
Your email address	anitavar@hawaii.edu
Date of this report	August 5 th 2013

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
Record the traditional knowledge of harvesters with regard to harvest of resin and other ecological factors.				Over 20 focus group discussions, with 85 men and 40 women in attendance totally, belonging to four distinct indigenous groups were conducted. Resin collection is done mostly by the men and most of the information has been collected. The discussion on ecological factors that are changing is currently in progress with more groups. This data are currently being sorted and prepared for analysis towards a thesis which will be submitted in 2014.
Assess the impacts of different harvest methods on the the biology of <i>Canarium strictum</i>			Yes	90 trees have been monitored regularly for the past 18 months. Records of phenology, resin harvest, seed predation and seed germination have been made. The trees are spread over five sites and the aim is to get 24 months of data. I expect to complete it by April 2014. This data is being analysed and will be presented as part of the thesis which will be submitted in 2014
Develop an ecological monitoring plan for the Nilgiri Biosphere Reserve area		Yes		During the interviews with harvester groups discussions were also taken up about the need and methods for an ecological monitoring approach. Over June and July 2013, with additional funding, a methodology has been devised and is currently being tested in four villages of the region. An ecological monitoring protocol is currently being worked upon. The document will be submitted to the funding agency as part of the quarterly report.

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

There were a number of challenges that arose during the project:

1. *Canarium strictum* trees that were to be monitored were located in five sites in which according to previous research harvest methods were distinct. In more recent times and

especially during the course of the monitoring it was noticed that the methods were almost similar in all locations. Fire was no longer being used since the authorities have become stricter about it and those harvesters who never used sharp edged tools before have taken to it in some trees.

2. In one of the locations the trees were situated within the sacred groves of the community and it was learnt through other sources that women were not allowed to enter those forests. Thankfully this was highlighted after I had set up the experiments and monitoring had started. Lingan who is from that region and also part of the community has since then helped a lot with the gathering of the data.
3. The germination experiments had to be set up at an elevation closer to my place of stay for closer monitoring; this meant at an elevation that was 1000 m higher than the location of the trees. The germination experiments were unsuccessful in the first year under such cold conditions in spite of a greenhouse. Later with improvement to the plastic tent suitable temperatures were achieved setting off germination in less than 20 days in some cases.

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

The three most important outcomes of my project-

- -The research was understood by the community and the monitoring was undertaken in participation with community people. The people have expressed their willingness to continue this monitoring beyond the project time period.
- -It is first time that continuous data on the phenology of *Canarium strictum* trees in the wild is being collected and their status being assessed. Forest departments have shown interest and have started to introduce this species in their nurseries and afforestation programs.
- -The framework to integrate traditional ecological knowledge with science for ecological monitoring which was a part of this project has been put into application and is being tried out in four sites within the region. Dialogue with the forest department will be organised with the results to discuss the feasibility of taking this up as a method in protected areas.

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

Local community people belonging to the Irula, Kurumba, and Kattunayakan and Soliga communities have been involved in the discussion and monitoring work. From Keystone Foundation two people who helped me with the co-ordination of the field work were from the indigenous community – B.Mahadesh (Soliga) and T.Ardaukuttan (Toda). In this way the project brought together the knowledge and skills of four distinct communities. Keystone Foundation (www.keystone-foundation.org) is the local NGO with whom I am affiliated. Keystone has an enterprise division that markets sustainably harvested forest produce and gives the community a competitive price. I have had a chance to inform the enterprise division-Last Forest Enterprises Pvt. Ltd (www.lastforest.in) of the standards for less destructive resin harvest methods and how to recognise a product of that method. These standards combine traditional knowledge and science and if the resin meets the standard it is valued at Rs. 225 as against Rs. 40 which is what the unorganised market offers.

5. Are there any plans to continue this work?

The actual on the ground monitoring of the trees will stop as of January 2014, since the data about phenology will have then be collected fully. The monitoring of resin harvest will continue through the monitoring protocol that is being followed up by the enterprise division.

The ecological monitoring work has taken off with a grant from the Critical Ecosystems Partnership Fund which supports work on conservation action in the Western Ghats. Ecological indicators that were identified as part of this project have been incorporated in the protocol for monitoring.

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

The results of this work will be shared with many groups.

Community of resin harvesters: Presentation will be made about the results to build a common understanding about the impacts of harvests and the status of these rare trees.

Civil society organisations: A protocol for ecological monitoring is currently under review and will be made available to CSOs who work with Keystone Foundation and are part of the NTFP-EP which is an exchange programme extending through the South and South East Asia region. A 2-day workshop was held for a group in Orissa to design a sustainable harvest management plan. This deliberation lead to the publication of a protocol for forest produce harvest which was translated into two regional languages.

Forest department: Several training programmes have already taken place for officers of the department to bring about an understanding on sustainable harvests. Once the protocol is finalised similar trainings will be organised for ecological monitoring with communities across the protected area network. This will be a unique venture because it will not only record ecological changes but also bring on board the rich knowledge that these communities have because they live in close proximity to biodiversity and it is a way of living with them.

Scientific community: This data is being analysed and presented as part of my dissertation for a PhD with the University of Hawaii. Additionally the data will be submitted for peer reviewed publication in scientific journals. The data will be shared with the India Biodiversity Portal and the Western Ghats Biodiversity portal, an open access site which is a relatively new initiative to bring biodiversity related information together. Efforts will be made to share the species data with the IUCN – Tree specialist group to see if the information on population status can be updated.

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

The RSG was used to cover the expenses of the monitoring programme from January 2012 to March 2013. This was as anticipated, while the monitoring took place for all the 12 months the interviews and group discussions were held from December 2012 to March 2013. This was a better time for the people to attend meetings since the forest produce gathering time was only from April onwards.

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.

1GBP = 79.4INR

Item	Budgeted Amount	Actual Amount	Difference	Comments
Interviews with harvesters -50 (men and women) (Travel to harvester villages+Honorarium to harvesters +Incidentals)	£500	466	34	The overall budget had to be readjusted since it was made at an exchange rate of 1GBP= 83 INR but the money was received at a slightly lower rate.
Monitoring phenology of <i>Canarium strictum</i> every 15 days in 6 sites of 3 regions -travel to sites+ payment to field guides+ board and lodge for distant sites	£2000	2247	-247	Logistics of monitoring five remote sites was challenging, especially with jeep costs being higher with rising fuel costs
Seed germination experiments-Shade houses in three sites + Materials and Maintenance costs	£500	516	-16	
Stipend for two field assistants	£3000	2771	229	This was made up by other projects
Total	£6000	£6000		

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

The Forest Rights Act (2006) has been implemented in India under which communities are given access to their ancestral domains inside forests in return they are expected to exercise responsible stewardship. There is a big role to play in explaining what this responsibility means and to involve communities in a discussion about conservation and the need for preservation of RET species. By setting up the monitoring programme in four villages I hope to undertake this process for the future in many more villages situated near protected areas. It will also be important to bring the forest department on board with this protocol so that conservation can be done in participation with communities.

Identifying species like *Canarium strictum* which face threats due to destructive harvest methods and changing environmental factors and having a restoration plan that is village based for each of these species. Keystone Foundation has been working for a number of years on *Cycas circinalis* and contributed to updating its status on the IUCN Red list. By setting up village conservation centres that focus on species we have been able to carry forward the conservation action on the ground. Getting village conservation centres to partner with civil society groups like the Nilgiri Natural History Society to upscale the conservation action and get it the recognition that is needed to make a case for community based conservation.

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?

RSGF will be acknowledged on future publications and at presentations of the results later in the year. The RSGF logo was not used to date.

