

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	Tabitha Price
Project title	Waste Management and Sustainable Employment Within and Around Parc National du Niokolo Koba (PNNK), Senegal
RSG reference	12463-2
Reporting period	Jan 2013-April 2014
Amount of grant	£6000
Your email address	Tabitha.k.price@gmail.com
Date of this report	20.05.2014

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
Install compost systems in the park			x	We now have compost systems installed within the park for waste food. Monkeys are not able to open the bins but we will need to fix them in place to stop the baboons from rolling them around.
Clear pre-existing rubbish from the park		x		We worked together with the Senegalese Parks Service to take out a lorry load of pre-existing rubbish; there is still a small amount left however which we plan to take out on a subsequent trip
Continue collection of rubbish from within Niokolo-Koba National Park			x	With support from the Senegalese Parks Service and CRP Simenti we continue to make a regular collection of rubbish from within the park
Expand rubbish collection in Tambacounda		x		We have formed a women's group in Sara Issa in Tambacounda and recycling of organic waste into compost is going well. The recycling of inorganic waste, especially plastics and tin cans, has been more difficult however due to the lack of recycling facilities in Tambacounda.
Initiate an organic garden			x	We have started two organic gardens, one working with a women's group in Tambacounda and one with the school of Dar Salam
Initiate a tree nursery		x		We have purchased and planted tree seedlings with school children in Dar Salam village but are waiting for the well to be finished before setting up the tree nursery on the school grounds
Initiate a poultry farm	x			We collaborated with Caritas for our work with the local school but became behind schedule waiting for

				them to complete the construction of the fencing and well. We still have the finances for this part of the project in the bank and should be starting work on this in the next few months.
Pedal powered cinema for conservation			x	The pedal-powered cinema has been a huge success in villages around Niokolo Koba National Park. We have shown nature documentaries, animal cartoons and a series of films made for children about great ape conservation in villages in the Tambacounda region and in the South of Senegal in an area where people live alongside populations of wild chimpanzees
Pedal powered environmental education			x	We collaborated with Purple Field Productions to produce Senegalese versions of two of their films into the local language of Mandink. One film speaks about the importance of trees, how to plant a tree nursery and how to build a brick stove, while the second film describes ways of changing agricultural practices to adapt with climate change. Using our mobile pedal powered cinema, these films have been a great tool to motivate and train local women's groups in these activities and the pedal powered cinema has additionally been used in an environmental education programme in Dar Salam school
Pedal powered charging station and other appliances		x		The pedal powered cinema is also able to charge mobile phones and computers, but for everyday use we preferred to charge these from solar panels to prolong the life of the cinema. We also constructed a pedal powered mixer which can be used to make fruit smoothies and to conserve chillies all year round by

				making them into a chilli sauce. We will be experimenting with other fruit conserves after the rainy season
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

In the first phase of the project we were able to sell waste cans as scrap metal in Tambacounda, the market for these dried up in the last year however and we are currently working with villagers in Dar Salam to see whether we can use old tin cans to build solar ovens to heat water in the village and/or to construct artisanal tea stoves to sell to tourists. Plastic recycling has also been an issue with the cost of transporting plastic to the nearest recycling facility in Thies outweighing the money recuperated from selling the material. Tambacounda town council have plans to develop plastic recycling facilities over the next few years, and as such we are currently using some old plastic containers in our gardening projects, looking into transforming soft plastics into artisanal objects for sale, and stocking the rest in anticipation of local plastic recycling facilities being constructed in the next few years.

On starting work in Dar Salam we found that the charity Caritas also had plans to work with the local school to develop a school garden and so we decided to collaborate, with Caritas organising and financing the construction of fencing and a well, and ourselves financing all other materials for the garden and tree nursery, as well as aiding and supervising the work. The money saved from this collaboration allowed us to start a second garden project in Tambacounda. Unfortunately the construction of fencing and the well was held up by technical and transport problems, so that our activities with Dar Salam school were delayed. Nevertheless, Caritas were very good at keeping us updated with their activities, so we were able to plan around these delays to some extent by planting tree and plant seedbeds elsewhere in the village to be transported once the school facilities were complete. The construction of the poultry farm will be carried out in the next few months.

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

The first important outcome of our project has been the production of Senegalese versions of two of Purple Field Production's films discussing how to use trees more sustainably and how to adapt farming methods with climate change, together with the construction of a mobile pedal-powered cinema. This mobile system allows us to travel to remote villages and to screen our films without the need of electricity. Together the system and films have been hugely successful in inspiring women to participate in subsequent activities, such as the building of brick stoves and the initiation of organic vegetable gardens, which reduces their use of natural resources from Niokolo Koba National Park.

The school environmental education programme has been another important outcome of our project. The pedal powered cinema enabled us to give PowerPoint presentations about

local fauna and flora, and the students were really enthusiastic in participating to start their school garden and tree nursery. Questionnaires show that they are now more knowledgeable about the flora and fauna living within Niokolo Koba National Park and more motivated to conserve their local environment.

A third important outcome has been the formation of a communal organic garden run by women in Sara Issa, one of the least developed quarters in Tambacounda without access to running water or mains electricity. We supported this highly motivated group of women in their request for a piece of land from the town council, and we are now working with them to transform this previously desert-like area into a productive organic vegetable garden.

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

An important part of this project was to work closely with local communities to develop sustainable livelihood activities that were congruent with local traditions. To achieve these aims we employed a local project manager from Dar Salam to assist in the running of the project and to help with communications in Mandink, and a small team involved in waste management and recycling; these employees benefitted from having a regular salary and training in relevant skills.

We also supported groups within local communities to start up their own small enterprises. Women's groups in villages around the park have been trained in how to build brick stoves from local resources, giving them the opportunity to sell this product to other village members and gain an income that can help them to feed their families and keep their children in school. The brick stove is also beneficial in that it produces less smoke and saves time by using less wood and cooking food more quickly. Similarly supporting the women's group in Sara Issa to start up an organic garden enables them to sell the fruit, salads and vegetables they produce at local markets, providing them with a sustainable income to help look after their families. By supporting Dar Salam primary school to start a school garden and tree nursery our aim is that the food and trees (and later poultry) produced can be used to supplement school lunches, either directly or by being sold to buy important staples such as rice which will no longer be provided through government initiatives in subsequent years. The leaves of moringa trees have been found to be especially nutritious for children and for pregnant women, and we hope to be harvesting these in the coming years. We will also be planting some of the trees as natural fencing, helping to fight against soil erosion in the area and to keep livestock out of the gardens.

Communication between villages in rural Senegal can pose a big problem because many of the villages are remote, lack access to internet and phone reception and because for women especially it is difficult to take time off from traditional work to travel to other villages. This means that villagers often do not profit from ideas, information and techniques to bring about more sustainable livelihoods that have been developed outside of their own village. By involving villagers in the content and production of our films, i.e. using a participatory

method, and using a mobile pedal-powered cinema system, our project has helped villagers to share their knowledge and experiences with people facing similar challenges in other villages around the periphery of the National Park, helping to form networks between women's groups and increase inter-village communication.

5. Are there any plans to continue this work?

Park Agent and technical director of the project Oumar Ndiaye and local manager Hamadi Dandio remain in the Tambacounda area surrounding Niokolo Koba National Park working on this project. Over the next few months they, and others, will continue to support gardening and tree nursery activities, initiate a school poultry project, and visit more villages to screen films and train women's groups how to build brick stoves. Waste management and recycling activities within and around the park will also continue, and we hope to increase recycling capacity and more sustainable agricultural practices in the area in the future.

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

I am currently compiling environmental educational materials used to teach in the local school to be shared with local teachers, Tambacounda Education Inspectors, The National Parks Service and other charities and organisations working in schools in the area. We will continue to send regular reports detailing our activities and progress to the Conservateur of Niokolo Koba National Park and the Director of National Parks in Senegal, as well as to our film programme collaborators- Purple Field Productions and BenQ Corporation. Our films are freely available on YouTube.

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

Our RSG grant has been used over a longer period than expected, in part because project activities started later due to a delay in completing my PhD and returning to Senegal and also as a result of project activities such as the school garden, tree nursery and poultry farm taking longer than expected to complete. Once the RSG is finished, we anticipate that the project will continue to run with the support of the National Parks Service, CRP Simenti, private donations and the possibility of future external grants.

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
Waste management within Niokolo Koba National	586	390	+196	Materials were less expensive than expected

Park				
Waste management in Dar Salam and Sara Issa	1896	1189	+707	Bins were less expensive than expected and we had to scale down recycling of inorganic waste due to lack of recycling facilities
Environmental education & sustainable agriculture in Dar Salam and Sara Issa	2094	1243	+841	We have not yet initiated the poultry farm, this will be done with RSG funds left over in the account
Pedal powered machines and film production and projection	1369	3295	-1926	Film became a more important part of the project than thought at the outset and we decided to invest in a more expensive cycle cinema system together with a high quality travel box
Administration	55	67	-12	Bank charges were slightly higher than expected
RSG funds left in project account		857		These funds together with remaining private donations will be used to complete unfinished activities
TOTAL	6000	7041		Additional expenses were covered by private donations to the project

The exchange rate when I wrote the grant proposal was £1 =813.703CFA and this was the rate I used for calculating the budget. However when our grant application was accepted the exchange rate had dropped to approximately £1 =766.26 CFA making things more expensive than expected.

When the £6,000 was paid into our Senegalese account this came to 4,489,501CFA. As such I have worked with the exchange rate of £1 =748.250 CFA

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

Waste management is still an enormous problem in the town of Tambacounda. Improving this situation will require wide-reaching educational programmes to raise awareness of the problems of bad waste management for the environment and the health of people and livestock, as well as an improvement in waste processing facilities. We have found participatory film to be a very efficient educational tool, and a possible next step would be the production of a short film or a series of episodes showing problems caused by the poor

management of rubbish and what people can do to dispose of their waste in a more responsible manner. These films/episodes could then be screened to large audiences using outdoor cinema, or shown on national television.

In rural Senegal, climate change and chemical-based farming practices are leading to increasingly dry and infertile soils. This is a major problem for villagers living around Niokolo-Koba National Park, who depend on subsistence agriculture for their livelihood. One of the films we produced together with Purple Field Productions describes ways in which farmers in Uganda produce organic pesticides to use on their crops and have started planting bamboo as a crop. A next step in our project could be to expand our village training programme, which currently focuses on the building of brick stoves, by incorporating this film and additional training in bamboo agriculture and the production of organic pesticides and fertilisers. An important next step is also to increase the impact of this programme by visiting more villages both around the park and in other regions of Senegal.

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 RSGF logo was included in all presentations and the support of The Rufford Foundation is acknowledged in all reports. We are currently painting and re-painting signs used within and around the National Park, and we will again incorporate the Rufford Foundation's logo into these. All further work will also acknowledge the contribution of RSGF in the initiation and expansion of this project.

11. Any other comments?

I would like to thank The Rufford Small Grants Foundation for their help in starting and expanding on this project, and Oumar Ndiaye my main collaborator, without whom the project would not have been possible. It has been a challenging, hot and dusty, but hugely rewarding time and we hope to continue our work in the area in years to come.

Many people contributed their time, experience and enthusiasm to help carry out project activities. I would like to thank Hamadi Dandio, Mansour Mbaye, Maoudo Kanté, Ibrahima Kouyatu, Conservateur Colonel Ousmane Kane and many other National Park Staff, and Julia Fischer, Matthis Drolet, Fede Del Pesco, Matze Klapproth and the rest of the CRP team for their help and support throughout. I would also like to thank Dar Salam school teachers Mr. Ousseynou Touré and Mr. Thierno Barry for their patience and sense of humour in the face of occasional chaos, Dar Salam students and Sara Issa's women's group for their inspiring enthusiasm, and Coly and the Caritas team for such a friendly and productive collaboration. Environmental education materials were put together with help and contributions from Dagmar Van Weeghel from Nature for Kids, The Pan African Conservation Education Project (PACE), Colin Tonks of Electric Pedals, BenQ Corporation and the filming expertise of the Purple Field Productions team - Chloe White, Paul Smethurst and Elspeth Waldie who helped us to produce our superb films.