

## 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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

#### Grant Recipient Details

<b>Your name</b>	Edem Kodzo Ekpe
<b>Project title</b>	Using local strategies for addressing crop-raiding by wildlife in the Afadjato-Agumatsa area
<b>RSG reference</b>	55.04.09
<b>Reporting period</b>	September 2009 to December 2010
<b>Amount of grant</b>	£5,995
<b>Your email address</b>	<a href="mailto:e_edem@yahoo.com">e_edem@yahoo.com</a>
<b>Date of this report</b>	May 4, 2011

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
Project launch			Fully achieved	Project was launched in a community meeting with local farmers and discussions. New strategies including the use of chimes and perfumes as deterrents were introduced.
Training			Fully achieved	15 Local farmers were trained in applying the various local strategies for reducing crop-raiding. 2 locals were trained to collect field data and they collected excellent scientific data.
Strategies for reducing crop-raiding: <i>i) Demonstration farms</i> <i>ii) Application of chilli on crops</i> <i>iii) Application of faecal solutions of wildlife on crops</i> <i>iv) Use of chimes</i> <i>v) Use of perfumes</i>		Partially achieved (~80%)		No farmer agreed to take up the demonstration farms. Therefore the number of the other strategies was increased in all cases.
Conservation education			Fully achieved	Community and focus group meetings were used for this.
Data collection and analysis			Fully achieved	Results were used to produce a poster for conference
Project exit			Fully achieved	Project results were shared with participants and the community. Cost of perfume may discourage the use. Producing local perfume for the purpose is planned.

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

Although during the 1st RSG, the farmers suggested demonstration farms with crops which recorded low raiding by wildlife, no farmer was ready to do the demonstration farm. Examples of these crops include plantain, coffee, avocado pear, cowpeas and yam. The reasons they gave included the fact that apart from cowpeas, new farms of the other crops could not have fruits within the 1 year period of the project. Therefore farmers did not change what their crops

This situation was tackled by agreeing with the farmers and increasing the number of trials of the other strategies. These include application of chilli on crops, application of faecal solutions of wildlife on crops, use of chimes, use of perfumes.

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

#### *3.1 The most effective local strategy for addressing crop-raiding was determined.*

The use of perfumes was identified as the most effective strategy for deterring wildlife from raiding crops of farmers. This was because it was effective in both rainy season and during the dry season. Other strategies were effective only partially. Chimes were initially effective against arboreal crop raiders such as monkeys but the monkeys get used to the chimes after a few weeks and continue raiding crops such as cocoa.

#### *3.2 It was realised that the seasons affect how effective a local crop-raiding deterrent is.*

Apart from the use of perfumes, two other strategies are effective too but only during either the rainy season or dry season. For example the results indicate that the faecal solutions and chilli solutions were effective only during the dry season because they were rained off or diluted during the rainy season.

#### *3.3 A new local way of installing the deterrents was developed.*

Initially, installation of the deterrents was either by spraying the chilli and faecal solutions on the leaves of the crops. However, after they were washed away by rains or dried up quickly and the smells vanishing quickly, a new local way of installing them was developed. This involved soaking the perfume or chilli solution or faecal solution in a cotton ball, putting the soaked cotton ball in a used milk can, which is perforated more at the sides than on top. This reduces the tendency for the deterrents not to be easily rained off or dried up quickly.

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

The local communities were involved in the project from the initial parts to the end. They recommended other crop-raiding deterrents in addition to those suggested in the project's proposal. Also, the most effective issues were locally developed. For this to be effective, members of the local conservation site support group were in charge of conservation education after they were trained by the project. The communities were therefore actively involved during the whole project period.

Benefits were in the form of new knowledge about how to reduce crop-raiding as well as capacity building in field data collection. The local farmers have learnt about the effectiveness of perfumes in reducing crop-raiding and how the other types of deterrents were effective during the dry season. In addition, two local conservation volunteers were trained to collect scientific data on the crop raiding. They collected the data efficiently in 37 farms over the project period.

### **5. Are there any plans to continue this work?**

Yes. There are plans to continue with an integrated conservation dimension in the project area. The following shall be part of this dimension.

5.1 Since the use perfume was the most effective, there is a large interest in it. However, the cost of buying the perfumes may be discouraging farmers. Therefore some farmers have started exploring how to develop perfumes from local plant sources. Future plans would want to support the farmers.

5.2 The main issue of the integrated conservation is climate change. The area has a history of suffering from the fires of 1983, which were due unusually dry weathers. Therefore there are future plans to continue this work through assessing local knowledge about climate change, developing local climate change preparedness

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

I have already shared the results with the farmers. The results have been developed into a poster which will be presented at the 2011 International Symposium on Society and Resource Management in Madison, Wisconsin, USA. I also plan to publish the results in a technical peer-reviewed journal.

## 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 from September 2009 to December 2010. This was about 3 months longer than the anticipated length of the project. This extension was needed in order to collect data in another dry season (in order to obtain data from two rainy seasons and two dry seasons).

## 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
Equipment costs	400	300	100	Expenditure reduced because I had some equipment such as camera for free
Staff Costs	600	800	-200	Expenditure increased because of project extension
Field running activities	3,530	3,600	-70	Increased slightly due to inflation
Travel costs	600	905	-305	Increased due to substantial increase in fuel costs in Ghana
Project promotion and dissemination	265	265	0	
Professional services	500	0	500	The proposed GIS was not used because I obtained it free and also used google tools.
Administrative costs	100	130	-30	Increase was due to
<b>Total</b>	<b>5,995</b>	<b>6,000</b>	<b>-5</b>	

Exchange rate used for budgeting is 1 £ Sterling = 2.11832 Ghanaian New Cedis.

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

To expand the project to involve climate change preparedness because dependence on the forests as well as adjoining natural resources is high. I plan seek grants towards that and to devote my first postdoctoral year to undertaking this project.

**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?**

Yes. The RSG logo was used on the poster developed for 2011 International Symposium on Society and Resource Management in Madison, Wisconsin, USA.

**11. Any other comments?**

Other conservation issues and concerns such as knowledge about and preparation for climate change have been highlighted.