

The Rufford Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford 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	Charles J. Kilawe
Project title	Conserving a Critically Endangered Gecko <i>Lygodactylus williamsi</i> Through Maximizing Ecotourism and Habitat Restoration of the Kimboza Forest Reserve, Tanzania
RSG reference	24138-2
Reporting period	February, 2018-February, 2019
Amount of grant	£4,970
Your email address	ckilawe@sua.ac.tz
Date of this report	14 February 2019

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
<p>Objective one Design and layout of Ecotourism trails and training of local guides</p>				<p>Three tourism trails were designed and marked out in Kimboza Forest Reserve. The trails are leading to various attractions:</p> <ul style="list-style-type: none"> • Striking endemic flora & fauna, • Cultural historic sites, and • Forest view points. <p>A map of Kimboza forest reserve showing the attractions and trails was developed and printed in A1&A2 formats. Copies of the map were shared with various stakeholders including local communities and the management of the reserve. The map is freely available online at: [https://www.researchgate.net/project/Conserving-a-Critically-Endangered-Gecko-Lygodactylus-williamsi-Through-Maximizing-Ecotourism-and-Habitat-Restoration-of-the-Kimboza-Forest-Reserve-Tanzania/update/5c657278cfe4a781a57fd5dd] Furthermore, two local guides were trained on how to lead tourists along the trails.</p>
<p>Objective two Establishment of firebreak along forest sections with the history of recurrent fire incidences</p>				<p>Fire lines reaching 5 km long and 6 m wide were established along the western side of the forest reserve. The process involved excavating and removing all fuels/vegetation along the line. Due to high rate of regrowth in the cleared areas, cleaning of the fire lines was done twice a year. Furthermore, a committee of seven persons was selected to patrol the forest and report on forest fires and other illegal activities in the reserve</p>
<p>Objective three Demonstration of</p>				<p>Butterfly farming was introduced to the communities living adjacent the reserve.</p>

butterfly farming as one of alternative income generation activities for local communities adjacent Kimboza Forest Reserve				The process was facilitated by experts from Amani butterfly project (http://www.amanibutterflyproject.org/). One demonstration farm was established and butterfly farming education transferred to a large section of the community. Up-scaling of butterfly farming was not successful due to large number of butterflies being killed and eaten by ants.
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

- i. It was very difficult to keep and raise butterflies in a farm due to attack by ants and diseases. Several approaches such as relocation of the farm and construction of a water shield around the farm were tried but with little success. In the end, the cost of protecting the butterflies was so high to a level that the communities could not afford. More research on butterfly predation and solution is required before large scale butterfly farming in Kimboza.
- ii. Regrowth of vegetation in the constructed fire lines was very fast. It took only 3 months for a fuel load to accumulate to a threatening level. This situation was tackled by cleaning the fire lines twice a year - one more than initially predicted.

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

Establishment of forest patrol team: A team of seven members was formed and implemented to regulate illegal activities in the reserve. The role of the team is to monitor forest fires, and illegal activities such as gecko trade and illegal logging. The team has been very efficient over the past year. There were no forest fires in 2018, illegal logging has declined and gecko trade has stopped. One of the ring leaders in illegal gecko trade was arrested and jailed for a year.

Identification of species endemic to Kimboza: Some endemic species of Kimboza which were only seen few times were identified. For example, we saw the fruit of endemic species *Cola kimbozensis* Cheek for the first time. The species is being monitored and its environment protected.

Increase in tourism activities: Generally the number of tourist visiting the Kimboza forest reserve has increased. Well documented trails + maps means tourist could visit specific places without getting lost or spending a lot of time in bushes.

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

Local communities were involved at various stages in the course of implementation of the project activities. Eight members from four villages were involved in fire line construction and maintenance, five members in tourist trail demarcation and eight in butterfly demonstration activities. Two village builders were involved in installing fire signs and concrete of butterfly farm.

Local communities were compensated for their time spent in project activities. Allowances were paid according to Tanzania standards.

We benefited from the services provided by local communities such as accommodation, food, drinks and transport.

5. Are there any plans to continue this work?

Yes.

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

- The tourist attraction maps have been shared in the main office in Morogoro and Kimboza reserve for anyone to use. The map has also been applauded online for any interested person to download and use.
- Publications-At least one paper is expected to be published.
- Participate in to the conference and workshops.
- Share the results with students and colleagues. Fire management has been mainstreamed in fire ecology and ecological restoration courses taught at Sokoine University of Agriculture.

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

Rufford Foundation grant was used for 10 months as anticipated.

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. The exchange rate is 1£=2,930 TZS

Item	Budgeted	Actual	Difference	Comments
Activity 1: Project inception & Planning				
Permits to implement the project in the forest reserve for at least 40	80	25	-55	The project leader and local researchers were exempted from payment for permits.

days@£2				Permit was only required for one foreigners who helped in designing the tourist trail for 5 days @£5
Bites and refreshments for actors and stakeholders during inception	168	168		
Materials and equipment for firebreak and trail constructions) (14-hoes, machete, axe, pair of gumboots)	202	250	+48	Additional materials were required: 5 cement bag(£ 25, 500 kg of water sands (£ 17 and 7 Mattocks (£5)
Transport to and from Dar es Salaam and Kimboza (Public bus round trip)	34	34		
Subsistence allowance for project leader for 5 days @40	200	200		
Five fire prevention posters@£33	99	325	+226	Fire posters were not used due to durability concerns. Instead five metal fire signs were developed and installed. The cost for 1 sign was £65
Shade nets (10 x 10m) and sweep nets, lump sum	200	200		
One First Aid Kit	150		-150	The first aid kit used in the first project was adequate. Also most of the activities were conducted very close to Kibungo Chini Mission Dispensary which is adequately equipped with first aid facilities
Activity 2: Firebreak construction				
Local facilitation in construction of firebreak 5 km long and 3 m wide@ 1km x 3m =202	1010	1500	+490	The actual fire line construction was wider(6m) than initially thought (3m)
Subsistence allowance for project leader for 5 days @40	200	200		
Transport to and from Kimboza (120km @£1.5)	180	180		
Installation of 3 fire prevention posters @£50	150	250	+100	Total fire signs installed were 5 instead of three proposed. The cost of installing each sign amounted to £50

Activity 3: Trails to tourist attractions				
Local facilitation in construction of line 20 km long and 0.5 m wide @ 1km x 0.5m = 34	673	673		
Transport to and from Kimboza	180	180		
Subsistence allowance for project leader for 5 days @40	200	200		
Subsistence allowance for Tourism and recreation expert for 5 days @40	200	200		
Activity 4: Demonstration of butterfly farming				
Subsistence allowance for expert in butterfly farming for 12 days @40	480	240	-240	The butterfly farming expert was at the site only in six days. Having seen the mortality of butterfly we decided not to continue investing more on this activity.
Local facilitation in construction of butterfly farm (hut)	150	150		
Transport to and from Dar es Salaam and Kimboza (Public bus round trip)	34		-34	The trip to Dar es Salaam was not done.
Activity 5: Design a website for Kimboza Forest Reserve				
Design and publishing the website	380		-380	This activity was not done due to advice received from the Rufford Foundation reviewers
Total	4,970	4,975	-5	

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

I feel that next steps should focus on mapping all endemic species of Kimboza and performing active restoration to increase their population. An additional of a trail leading to forests birds will increase the flow of tourists at Kimboza.

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

Yes. The logo was used in the fire signs, tourist attraction map, power point presentations and reports

11. Any other comments?

I would like to thank Rufford Foundation for funding our project.