

Final Project Evaluation Report

Your Details	
Full Name	Michael Ansong
Project Title	Threat of invasive species to biodiversity: contribution of motor vehicles in their introduction
Application ID	6dddbc-1
Grant Amount	£5000
Email Address	boatans@gmail.com
Date of this Report	7 th January 2019

1. 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
The proposed research will determine if vehicles arriving at Elubo border carry seeds				This objective was fully achieved as our study showed that soil samples taken from different parts of vehicles arriving at the Elubo border contain seeds. Some of the seeds were indeed visible.
Are the seeds viable?				Germination trial conducted indicated some of the seeds were viable. At the end of the study there were in total, 203 seedlings that germinated. The majority (61%) of the seedlings were from soil sample collected in the dry season. Seasons thus significantly influenced the amount of seeds carried by vehicles.
Are there common alien invasive species?				Although there were some difficulties encountered in the effort to achieve this objective, some progress was made. Among the seedlings were seedlings of naturalised and invasive species such as <i>Panicum laxum</i> , <i>Heliotropium indicum</i> , <i>Centrosema pubescens</i> , <i>Ageratum</i> sp., <i>Ipomoea</i> sp., <i>Mimosa pudica</i> and <i>Chromolaena odorata</i>
The research will also organise sensitisation meetings with stakeholders.				A copy of the report of the research has been handed to the authorities at the Elubo border. We also added stickers to post on notices boards and on vehicles to raise awareness. An informal stakeholder meeting with drivers and passengers was also organised, where stickers were distributed to raise the awareness about impact the impact of invasive species on biodiversity and the role of vehicles in their introduction.

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

The main unforeseen difficulty encountered was the identification of the seedlings. It was more difficult than expected, as it was difficult to obtain expert that could help

in identifying all the germinated species. There were also some difficulties in obtaining peoples' consent to participate in the study.

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

a). Provided a list of some common plant species with high potential of being introduced by motor vehicles.

b). Educated and raised the awareness of border authorities, drivers and passengers about impact the impact of invasive species on biodiversity and the role of vehicles in their introduction.

c). Capacity of the researcher has been built in field experimentation and providing results that draw attention to an international problem that has receive little attention in Ghana.

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

Stakeholders, which indirectly included the local communities, were helped to understand the reason why vehicles and goods moving across our borders need to be well inspected and cleaned before allowed entry into the country. Stickers with information on cleaning vehicles were distributed to all stakeholders.

5. Are there any plans to continue this work?

Yes, there is still a lot of work to be done to fully understand the process; particularly, which traits facilitate seeds that become attached to vehicles and which best practices could be used to reduce this phenomenon.

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

A report has already been submitted to the border authorities, stickers shared with stakeholders and a presentation in a seminar made to KNUST natural resources students. A paper that incorporated results of this study was presented in December 2018 at the 15th General Assembly of CODESRIA, in Dakar, Senegal. A full manuscript is being prepared for possible publication in a peer reviewed journal.

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

The funding for this project was approved on 31st October 2017 and started in November 2017. The fieldwork and analyses were expected to be implemented in 10 months and 2 months used for report writing. The grant has been used over the planned time period.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Report dissemination and sensitization programme	800	1000	-200	The cost for the organization of the, dissemination and sensitization workshop increased as more people needed to be reached
Hiring and Research Supplies	1,650	1900	-250	Fuel and hiring of vehicle cost more than expected. Prices of some of the supplies also increased.
Reconnaissance survey and Subsistence for team members	2,200	2000	+200	We were able cut down cost on the accommodation.
Laboratory analysis and germination	900	850	+50	We were able to slightly cut down cost
Total	5,550	5750	-200	The 5000 received was enough but external funding from KNUST research fund was used to support the project

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

1. There should more education about the problem to the public. Also international arriving airplanes and cargo ships also should be well screened to prevent introductions.
2. The government need to implement policies to help addressed the issue of invasive plant species.

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

Yes, the foundation's logo was used in all printed materials used and/or produced during the course of this project. The logo was also at the end of the power point presentations, with the foundation acknowledge and given publicity during the presentation.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Dr Michael Ansong- Project leader

He was the leader of the project and spearheaded all fieldwork.

Mr Ahoma Gabriel-Post graduate assistant

Supervised field assistants and helped in data analysis

Mr Forster Dankwa -Honour graduate assistant

Miss Dickson Nana Ekua Nuamah- Honour graduate assistant

Mr Kuseunuh Dorku Davis- Honour graduate assistant

These three honour-graduates were trained to help execute the project. They assisted in conducting field work and data collection.

12. Any other comments?

We are most grateful to the foundation for deciding to support this project. The project has been well received and has been an eye opener to authorities who have the past years not paid much attention to the problem addressed by the study.