

Final Project Evaluation Report

Your Details	
Full Name	Jackson Lyimo
Project Title	Assessment of determinants that influence illegal lion (<i>Panthera leo</i>) killings in dispersal areas in the Maasai Steppe Ecosystem
Application ID	25227-1
Grant Amount	£4,877
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Date of this Report	25 December 2018

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
Assessment of Maasai perception towards lion conservation in dispersal areas in the Maasai steppe ecosystem				<p>People's attitude towards lion conservation in dispersal areas was more negative in core area(lion killing zone) than in control area</p> <p>The negative attitude about lion conservation in the core area could have been brought about by long term history of livestock predations by lions, poor livestock compensation scheme, lions attacking people and the poor relationship between conservators and the local community members.</p>
Assessments of determinants that contribute to human-lion killings in the Maasai steppe ecosystem.				<p>The intent in defensive killing, livestock compensation scheme, the intent for social killing, and poor sharing of conservation benefits were the drivers/determinants that were contributing to the lion killings by humans in the Maasai steppe ecosystem</p>
Assessment of the spatial-temporal patterns of human-lion killings in dispersal areas in the Maasai steppe ecosystems for the past 14 years (2004-2018)				<p>More incidences of killing lions took place during the wet season from November to May (84.2%) than the dry season from June to October (15.8%).</p> <p>The high rate of lion killing may be due to a seasonal shift of prey species from the park to the village land during the wet season which exerts pressure on large carnivores to follow them to the village land and end up being killed once they attack livestock.</p> <p>Most of the killings (76%) took place during the night at the boma while fewer cases (24%) took place during the day event in the field site.</p> <p>Distance from the public roads, from the river and from human settlements</p>

				<p>and vegetation cover were the factors which contributing to the killings of lions by human.</p> <p>The lion killing incidences by humans were mostly concentrated at an area between Tarangire-Manyara National park.</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.

Actually there were no major problems encountered but accessibility of some boma/households were difficult since they were scattered and extremely hidden in the bush. Also, most of the respondents were not found in the boma during the day since they were in the field grazing animals and cultivating.

I managed to overcome the problem by hiring a powerful motorcycle and motorcyclist who was highly experienced and familiar with the study site. We also visited the boma early in the morning before the respondents' went in the field for their daily activities.

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

1. The project has explicitly explored community attitudes towards lion conservation in the communal land. It was found that people's attitude towards lion conservation in dispersal area were more negative in core area than in control area.
2. The project has clearly analysed and put down the drivers that motivate local people to kill lions in the ecosystem. It was found that intent in defensive killing, livestock compensation scheme, the intent for social killing, poor sharing of conservation benefits were the driver of lion killing by people in the Maasai steppe ecosystem
3. The project has also described the spatial and temporal distribution of the human lion killings (the lion killing hotspots in the Maasai steppe ecosystem).

The lion killing incidences by human mostly took place during the rainy season, it was also noticed that the killings mostly took place around the boma or people's home premises. Distance from the public roads, public settlement centres, water sources and NDVI were landscape variables that contributing to high rate of killings of lions by people in the Maasai steppe ecosystem.

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

- ✓ Seven field assistants were employed to report the lion human-lion killing incidences for the whole period of the project.
- ✓ Local motorcyclist was hired to do household survey within the study site.
- ✓ Motorcycle from local member was hired to do household survey within the study site
- ✓ We were also sleeping and eating on the local lodges during the household surveys
- ✓ Two local members was employed to translate the questionnaires to Maasai language
- ✓ Local elders were engaged during the assessment of cultural issues that associating with human lion killings.

5. Are there any plans to continue this work?

Yes, with the experience and findings of the project I and my team are planning to have a long term project for large carnivore conservation sensitisation programme especially in the lion killing hotspot villages.

We have also planned to do capacity building to local community members on large carnivore conservation and monitoring within the study site.

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

- a) Scientific community around the world will be having two publications in international scientific journals.
- b) Tanzania Wildlife Conservation Authority as well as the Tanzania Research Institute will be given a Powerpoint presentation, posters and project report during their annual conferences.

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

This project was done over 8 months.

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
Transports cost when looking for research permits	50	50	0	
Transport costs when doing familiarization and introductions to village government offices for 14 days	140	140	0	
Transport costs during Actual household surveys for 3 months	900	900	0	
Costs for visitation of illegal lion killing incidences in the field site	300	300	0	
Accommodation costs when looking for a research for 5 days	50	50	0	
Accommodation costs when doing familiarizations and introductions to village government offices for 14 days	140	140	0	
Accommodation during Actual household surveys costs for 3 months	900	900	0	
Focal group discussion for improving questionnaires, translation of questionnaires to Maasai language and pre-testing them plus Transport and accommodations costs for 30 days	900	900	0	
Stationary costs (photocopying, buying pens, pencils and three bags)	117	117	0	
Communication costs for me, two interviewers, and seven field assistants for six months	480	480	0	
Allowances for two assistant (interviewers) for 3 months and 7 field reporters for 6 months	900	900	0	

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

- Introducing and conducting lion conservation education extension programme to local community members especially for those in the lion killing hotspots villages.
- Lion conservation capacity building to local community members especially in the lion killing hotspots villages.
- Assessing factors that influencing the large carnivore (lion, leopard, cheetah and hyena) occupancies in the village lands in the Maasai steppe ecosystem.

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 I used the logo during my proposal and thesis defence presentations at university; I also acknowledged the Rufford Foundation in all papers that I expect to publish.

Logo will also be used in lion conservation education and awareness programs as well as during TAWIRI and TANAPA annual conferences.

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

Dr Geoffrey Soka	Academic supervisor
Dr Bernard Kissui	Field supervisor
Mr Jackson Lyimo	The principle investigator
Mr Sailepu Meijo	Field assistant - he was assisting in household surveys, he was also able to speak the Maasai language and ride the motorcycle
Mr lukau Molel	Field assistant - he was reporting on the lion killing incidences in zone 1
Mr Charse Meng'ataki	Field assistant - he was reporting on the lion killing incidences in zone 2
Mr Saitoti Kitiko	Field assistant - he was reporting on the lion killing incidences in zone 3
Mr Gorge Kirato	Field assistant - he was reporting on the lion killing incidences in zone 4
Mr Elius Levi	Field assistant - he was reporting on the lion killing incidences in zone 5
Mr Saikabu Loth	Field assistant - he was reporting on the lion killing incidences in zone 6
Mr lamoo Tukuyu	Field assistant - he was reporting on the lion killing incidences in zone 7
Mr Zakaria Talemu	Ground truthing on the lion killing incidences
Mr Noel Kitorok	Data entry and data cleaning
Miss Grace Alau	She was assisting in household surveys in the non-lion killing zone

12. Any other comments?

This project could not have been implemented without the support of The Rufford Foundation. We thank the foundation and its donor for such an opportunity. We would also be happy if we will be accompanied in the continuation of the large carnivore conservation sensitisation programme as well as capacity building on the large carnivore monitoring so as to enhance the coexistence. Kindly I would like to say thanks.



Illegal killing.

