

Project Update: January 2018

Introduction

The progress of my work on the spatial ecology of domestic dogs has had amazing outcomes (as shown in my first report, for my first grant). To add to this, the introduction of the rabies vaccination campaign at my study, supported by Rufford Foundation, has had far outreaching impacts with thousands of domestic dogs vaccinated against rabies. This initiative has seen a lot of ranches, scientists and other international organisations join the campaign while at the same time making promises of working together for long. This campaign aims at eradicating rabies in the country where a lot of people, livestock and wildlife die from this devastating disease.

Every year, about 2,000 people die of rabies in Kenya (World Health Organization (WHO), 2014). Over 98% of human rabies cases in developing countries are caused by a bite from an infected domestic dog (CITE). Particularly at risk of the disease are populations in remote rural areas, who may find it difficult to access or pay for rabies treatment, and children, who interact most closely with domestic animals. Children under 15 comprise over 70% of human rabies cases. Mass vaccination of domestic dogs is the most cost-effective intervention to control canine rabies and to prevent transmission of the virus to humans (WHO, 2014). The World Health Organization estimates that vaccinating 70% of domestic dogs for 3 consecutive years is sufficient to eliminate the disease from the domestic dog population and, by extension, humans.

The only way to measure the success of our already established campaign is:

1. Conducting a population analysis so as to be able to tell a story on our coverage at the end of the campaign. For any rabies campaign to be effective, at least 70% of the total population of dogs must be vaccinated for at least 3 consecutive years.
2. Carry out a rabies burden study with hopes of recording a decline in rabies cases which will be positive news in terms of the impacts of our campaign.

Above points forms the backbone of my work.

So far, the following progress has been made in this project:

i. Reconnaissance study

My advantage with this is that I had already established myself in my study sites where community members already knew about my work and same time I have a history of hiring local community members to help me with data collection.

All the same, I visited the locals again to introduce the new project while same time working to ensure that everyone is okay with the introduction of this work. Similarly, I hired the same assistants I have been working with and together, we identified the homesteads where the questionnaire will be administered. Within the first month, I made a visit to all local dispensaries and where data collection will be carried out as well, in a few days.

ii. Signing of Agreements and training of assistants

To establish a working environment with homestead owners (and similarly to what I had done in my first project), we came up with agreements to be signed by both parties, the project and the owner, in presence of the community leaders and the area chiefs. Only 50 bomas were selected per community for standardisation. The names of the homesteads and owners were given to the area chief for easy follow up. Being the first time to administer research questionnaires, I organised a short workshop for the assistants to take them through the data sheet, understand the essence of the study and also get to know on how they will be expected to do the interpretations. All the questionnaires are drafted in English hence then importance of this.

iii. Administration of questionnaires

So far, Over 400 questionnaires have been administered. This covers approximately 75% of the total that should be administered. Communities covered so far include Il motiok, Kojja, lekiji, Maramoja, Jua kali, Endana, Naibor.

NB: This project was initially funded to cover three communities of Kojja, Il Motiok and Lekiji but I have extended the coverage to ensure that most/all of the communities involved in the rabies vaccination campaign are covered as well. This will give us enough data to ensure that we can easily compute our coverages for consecutive campaigns.

iv. Laikipia Rabies Vaccination Campaign

The 2017 campaign aimed to more than double the county's vaccination coverage, to reach 10,000 dogs and cats across Laikipia. The campaign aimed to do this both by returning to areas where vaccination has previously taken place and expanding coverage there, and reaching out into new communities around the county. The ultimate goal of the Laikipia Rabies Vaccination Campaign is to eradicate rabies from domestic dog populations in Laikipia County as part of the national rabies eradication effort in Kenya. LRVC 2017 specifically aimed to increase the campaign's vaccination coverage to 10,000 domestic dogs and cats across Laikipia County.

Vaccination centres were chosen to include previous vaccination centres, to cluster around partner conservancy areas, and to target communities where demand for vaccination was particularly high. Centres were advertised to communities in advance by community organisers and signage, and during the vaccination weekend by the LWF public awareness (PA) vehicle. When turnout was low, teams would sometimes leave stations early, having



vaccinated all animals present, and adopt a “roaming” strategy, in which they drove through the communities and visited homes or bomas individually to offer vaccination.

Outcomes

Table 1: Vaccination Summary Table

	Dates	Cluster	Total vaccinated
1	Nov. 3-4	Naibunga Group Ranch	602
2	Nov. 10-11	Naibor and Jua Kali	1,738
3	Nov. 17-18	Il Polei; Jua Kali area	1,498
4	Nov. 24-25	Oi Pejeta	1,601
5	Dec. 1-2	Borana	1,664
6	Dec. 8-9	Rumuruti	2,210
		TOTAL	9,313

NB: Through LRVC, I have managed to hire at least four people per community and this has proven to be one of the strengths for this project.

Although the above mentioned has already been achieved, the following is still expected:

- **Visit to local dispensaries**

I expect to carry out this in the next 2 months. I have been working with my main assistants, Wangechi Kiongo, who has been really helpful and effective with data collection

- **Data analysis, entry and modelling**

This will be the last phase of the project and huge analysis work will be conducted to compare results from the LRVC and from this research.

Challenges so far

This work has not been without a few challenges.

During the vaccination campaign, some communities were a little bit hesitant to get their dogs vaccinated. There was a canine distemper outbreak last year which caused death of a lot of carnivore species including a lot of domestic dogs. Being so, people thought that the deaths were in a way connected with our vaccines. I am planning to conduct a study on this to help tell; if the outbreak was in any way connected with the recent land invasions in Laikipia Kenya

