Final Evaluation Report

Your Details	
Full Name	John Erasto Sanare
Project Title	*Elephants:* Moving from Conflicts to Coexistence with People in Enduimet Wildlife Management Area, West Kilimanjaro
Application ID	37601-2
Date of this Report	12 months

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
To examine the trend of HEC hotspots areas and elephant season home range in EWMA			■	The human-elephant hotspots areas have been identified and mapped; Tingatinga and Ngereyani villages were found to be statistically significant hotspots areas of HEC occurrences.
To assess the impact of HEC on crop			■	It was noted that maize was the most affected of all cultivated crops followed by beans and tomato.
To review the approaches used for HEC mitigation assessing local communities' perceptions towards mitigating HEC			■	Although, traditional methods on mitigating HECs are easy to use, have low costs and are more effective at low levels of conflict. With increasing conflict, more technical need to be used which carry higher costs.
To rise elephant's conservation awareness among local communities,			■	Local communities' mitigation approaches to minimise HEC and outreach programmes have been carried out. However, school outreach programmes were not conducted due to budget limitation resulting from increased fluctuation costs to some items.

2. Describe the three most important outcomes of your project.

a) For the first objective datasets on elephant crop raids analysed, we have been able to identify human-elephant conflict hotspots areas (*Figure 1*).

b) We have also identified that the communities need more conservation education to increase positive views and commitment towards elephant conservation and best approaches for mitigating HECs .

c) After elephant conservation and awareness workshops and seminars local community have a better relationship with the wildlife management authorities managing the EWMA and feel now their voices are being heard.

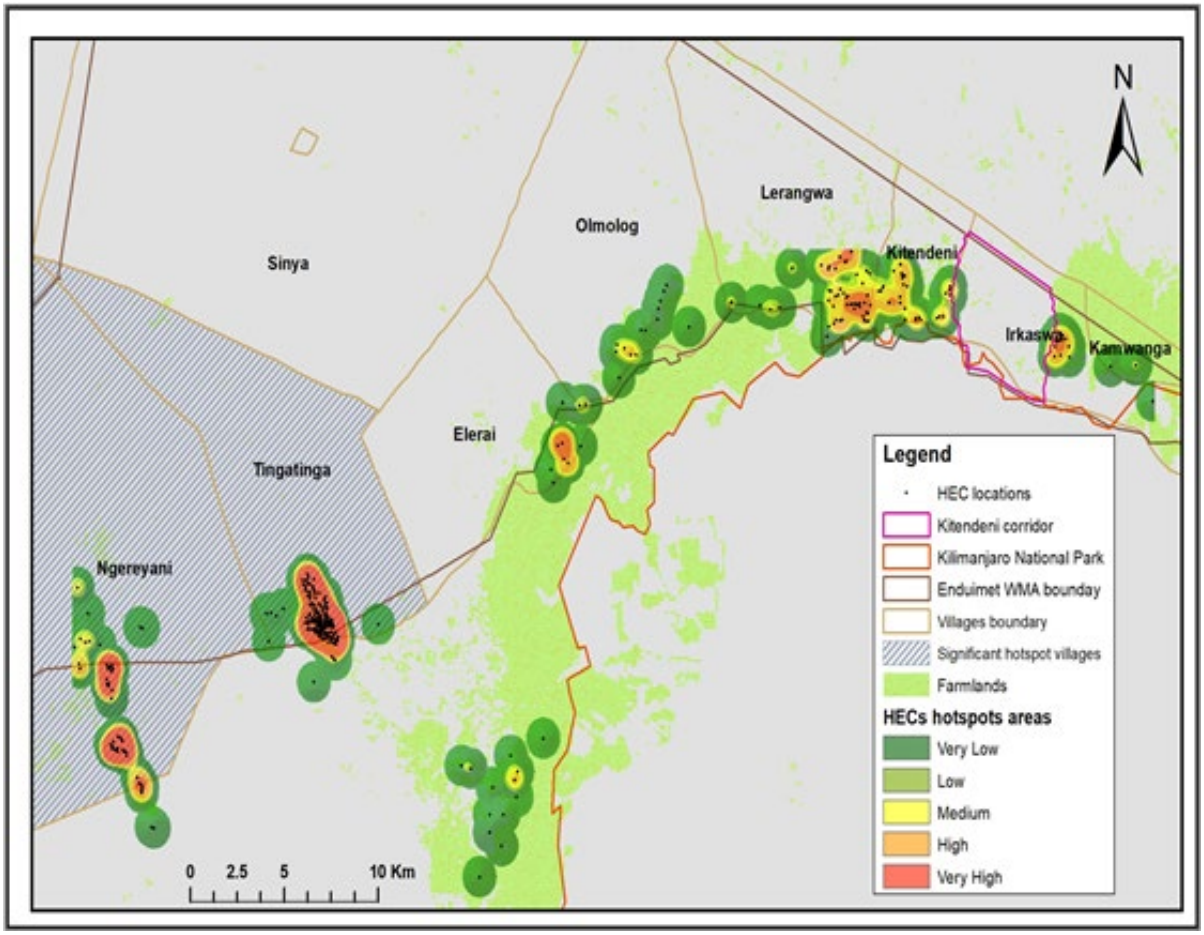

***Figure 1*:** Human elephants conflicts hotspots areas in the Enduimet Wildlife Management area.

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

On the field during data collection, problems associated to the conservation of elephants that were encountered are crop damage by elephants were faced during the period of the project. Regarding the project implementation, there were no major problems encountered. However, in most cases, the team was having to be flexible and changing schedules on workshops and training timetables due to other continuing programmes and other planned activities by the community.

4. Describe the involvement of local communities and how they have benefitted from the project.

Our research project was envisioned to be participatory research project, planned to include all groups by mobilising the community towards projected objectives focused on identifying the HEC hotspots areas, minimise HEC and then reviewing the efficiency of the methods that has been used by the community in reducing HEC. In this study different villagers have benefited via regular skills training. Also, the rangers that have attended a number of training workshops have developed new skills, thus, enhancing their curriculum vitae for future research projects and their daily route

activities. The rangers have developed HEC monitoring, ground-truthing and GPS skills. The study has been engaged with local farmers who have been victims of HEC in their farms. The farmers have appeared enthusiastic about my presence as it has allowed them to talk about the problems that they are facing, as often their voices are ignored.

Furthermore, the local communities were benefited by the provision of awareness towards elephant conservation, along with various methods that can be implemented and applied to reduce HEC in the EWMA.

5. Are there any plans to continue this work?

Yes. Based on the research finding we planning to continue with project, depending on availability of the funding, we are planning to continue monitoring HEC for one more year. This will provide more data for better understanding of spatial and temporal patterns of HEC as well as associated variables. Also, we would like to trial out early warning detection systems as a mitigation method for HEC by enhancing human and elephant co-existence through facilitation of community own projects that also diversify income generating. Example (establishing some bee fencing which approved to be effective way of reducing HEC will help to reduce human-elephant conflicts in our study area).

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

Our findings have been shared through seminars, conferences and meetings, we are also continuing to share our results through work presentations and social media. Moreover, we are planning to submit a scientific paper for publication in scientific journal to inform the community, decision makers and public in large on the best way to conserve elephant. Additionally, we are planning to present our results via a poster presentation *(Figure 2)* in the upcoming 15th Tanzania Wildlife Research Institute scientific conference which will involve prominent wildlife conservationist across the world from more than 30 countries.

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

From initial observations, analysis by comparing current situation of HEC and the elephant crop raids data from (2016-2020), it appears that HEC increased. Thus, additional year datasets on HEC monitoring are required for a better understanding pattern and provides a recommendation on where conflict management should be targeted and better alarming system to be established as well as educate the communities on ways on how to generate alterative income.

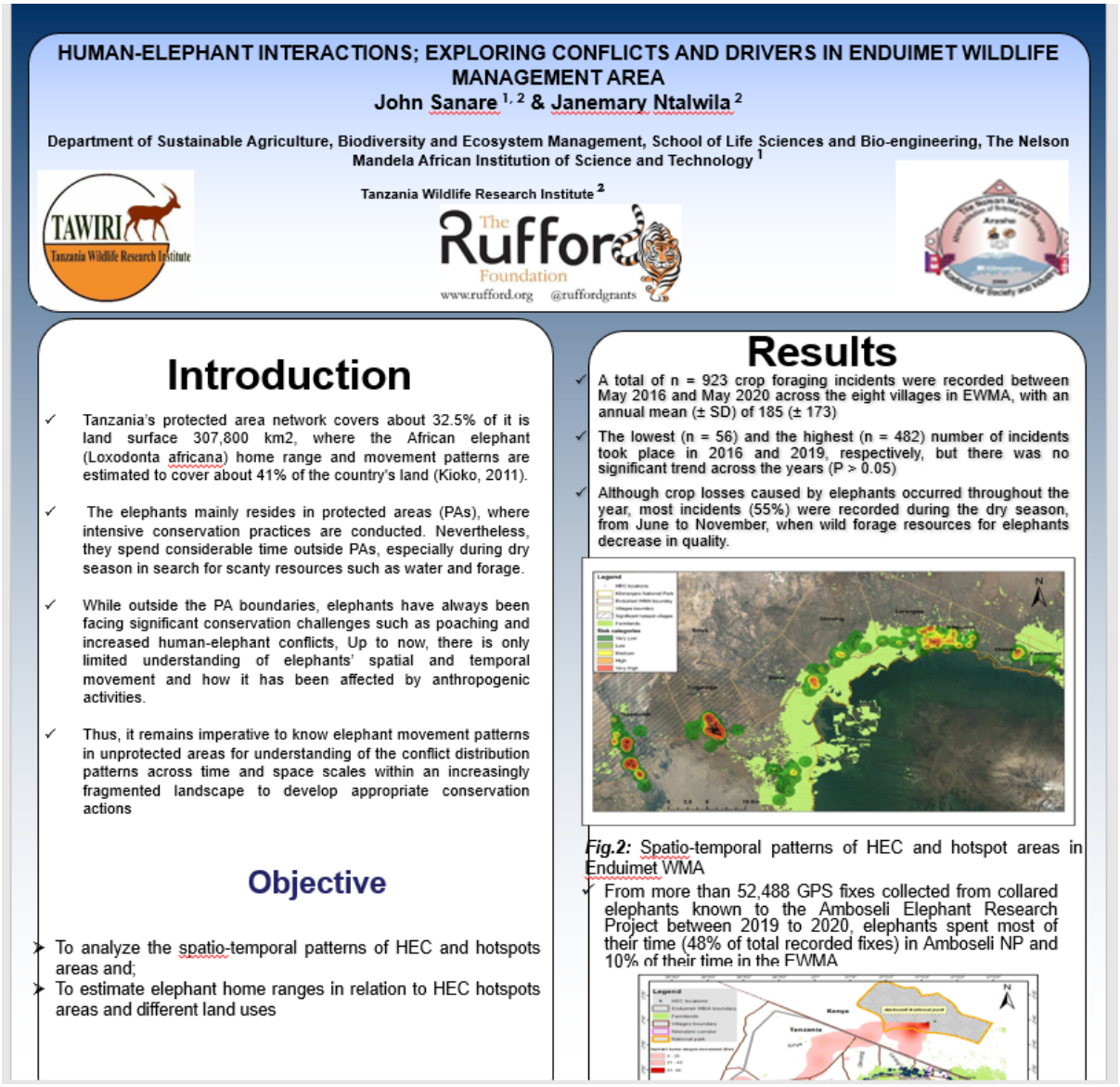

***Figure 2*:** Poster to be presented in upcoming Tanzania Wildlife Research Institute scientific conference in December 2023.

8. 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, all of our posters, fliers, brochures, posters, presentations had a Rufford logo as it increased the publicly of The Rufford Foundation. We will also acknowledge the financial support of Rufford Foundation in all our manuscripts to be published.

9. Provide a full list of all the members of your team and their role in the project.

John Erasto Sanare: conducted most of research activities including data collection, data analysis, presentations, results disseminating and outreach activities.

Joel Efraim: assisted in data analysis.

Kimani Saibulu: assisted as a ranger in field work data collection.

Kizito Paulo: reinforced the project as a field research assistant.

Rehema Maliaki: supported the project as a field research assistant.

10. Any other comments?

First and foremost, on behalf of team we worked on this project, I would like to take this opportunity to thank The Rufford Foundation for awarding me this grant. I am extremely grateful as, without this support, I would not have been able to carry out this project, with fund from Rufford I was able to accomplish our research project successfully, I feel that not only have the local communities benefited from this project, but we have too. This project has been a significant learning experience and has enabled me to grow as a conservation scientist as I have developed invaluable skills in project management, community engagement and analytical skills. Finally, HEC is growing and worsening in many areas. It is very imperative to understand the drivers of this conflict in order to appropriately manage it. I feel that the findings of this project, which The Rufford Foundation have made possible, will be of significant practical use in not only advancing the study of HEC, but in also helping to better manage the elephants in the EWMA.