

Progress Report on Research Project: ID: 46550-B

Title of the Project: Participatory Action Research in the Protection of Carnivores and Livestock for Sustaining Humans-Wildlife Coexistence around Gishwati-Mukura National Park



Funded by Rufford Foundation

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INTRODUCTION

Lack of adequate community participation and incentives for livestock producers might be one of the factors keeping local communities from fully becoming involved in the management of wildlife outside protected areas (Thomson, 2013).

Gishwati–Mukura National Park and Biosphere Reserve continues to experience human–wildlife conflicts, mainly due to carnivores preying on community livestock. Nevertheless, there is still a limited understanding/application of the essential roles, especially participatory actions, that local communities can play in addressing the issues related to carnivore-livestock or human-wildlife conflicts within this newly established park and biosphere reserve.

With the support from Rufford Small Grants, the research project titled “Participatory Action Research in the Protection of Carnivores and Livestock for Sustaining Humans-Wildlife Coexistence around Gishwati-Mukura National Park”, ID: 46550-B, was undertaken to investigate and improve the level of community interventions in carnivores-livestock management, and guide on protection techniques for livestock and carnivores/wildlife for sustainable coexistence of humans, livestock and wildlife through combining scientific monitoring tools with indigenous knowledge via participatory action techniques to support the community based practical mitigation measures for human-wildlife conflicts in and around Gishwati-Mukura National park and Biosphere Reserve.

KEY PROJECT OBJECTIVES

The main objectives of the project are:

1. To improve monitoring techniques of carnivores roaming nearby communities through collaboration between park management and local communities
2. To strengthen the protection of community livestock and reduce the damages caused by carnivores with their associated factors.

3. To improve the ways and initiatives of local community engagement towards human-wildlife coexistence around Gishwati-Mukura National Park and Biosphere Reserve

UPDATES ON THE IMPLEMENTATION OF PROJECT ACTIVITIES

1. Kick-off discussions and meetings held with local authorities, local communities and park management.

To know, 5 inception meetings and different discussions have been conducted with local communities, local authorities, park staff, and local cooperatives. The meetings came up with a consensus on the implementation of project objectives and the scope of activities. From these inception meetings and workshops, the participants agreed on the following main points:

- Increasing local ownership, commitment, and willingness to facilitate and participate in the implementation of project activities (especially use of traditional traps, camera traps, construction of local livestock pen shelters, community patrols, data collection, cluster meetings on specific topics, gathering to form conservation initiatives, and business) in their neighboring project implementation villages and expanding lessons learnt beyond project sites for sustainable conservation of Gishwati-Mukura National Park and Biosphere Reserve.
- Influencing the reduction of the human-wildlife potential conflicts around Gishwati-Mukura National Park by helping the project initiatives to address the project concerns early in the process of this project's lifespan.
- Improving collaboration and trust between park local communities, park management, community groups or cooperatives, and local authorities towards the strong protection of wildlife, carnivores, and livestock for the sustainable life of GMNP and local communities.

- Ensuring strong protection of carnivores and livestock while building community welfare and development.
- Finally, all encountered and gathered participants in the meetings, discussions and workshops have committed to ensuring high participation and facilitation in doing project field activities, and other conservation and management of the carnivores around Gishwati-Mukura National Park and wildlife in general, while ensuring also the care of livestock for having a well-shaped coexistence between human, wildlife, and livestock/other properties around the park.

2. Summary of baseline information

The baseline data were collected from 10 villages (both with and without interventions) to provide more information on the elaborated benchmark for our research project interventions. In general, 132 participants (61 females and 71 males) responded to the questionnaire. The following is the summary of key findings from the baseline information:

- When respondents were asked if they knew community participatory actions for the protection of carnivores/wildlife-livestock around GMNP, 84.1% of participants responded that there is no visible participatory action research, while 15.9% responded that local communities are occasionally participating in action research. The baseline study revealed that the low participation is due to the lack of action research in their communities or lack of clear notification to the local communities when conservation-related research projects occur in the villages. In case, those participatory action research activities are present and notified in their areas about the protection of carnivores/wildlife-livestock, 31.8% of respondents have given rates that it is poor, 29.5% of them reported that it is good, 2.3% as very good, and 0.8% as excellent.

- Once participants in the baseline study asked if they have information about locally built (traditional) live capture-release traps and if they have skills in using it, 55.3% of participants responded that they are aware of the traditional traps, but they do not know how to build and utilize it; 42.4% of surveyed participants have responded that they do not know those kind of live traps, and they have not any idea/skills on how to build or use those traps; whereas only 2.3% of respondents agreed that they know locally built traps and also have the skills to build and utilize them. Then, after having these, 99.2% of participants recommended that the local community should receive training/skills on how to use those traditional traps, while 0.8% of respondents suggested that there is no need to get training/ skills on the use of live traps because it should be reserved for the people who deal with conservation issues.
- About community feedback on their knowledge and skills on the use of camera traps for animal monitoring, 93.2% of respondents revealed that they do not know camera traps, and they have no skills on how to use them; while 6.8% of them have responded that they are aware of camera traps, but they do not know how to utilize them. However, 100% (all respondents) recommended that the local community should get enough skills on how to use camera traps for the monitoring of animals, especially outside the park.
- Concerning the livestock as incentives that can be given to the local communities, we wanted to know if the distribution of small to medium livestock to local communities can be a tool to help reduce livestock killing. 98.5% confirmed the idea, while 1.5 % were neutral about responding on the question and no one rejected the option. Respondents to the questionnaire were also asked if the distribution of small to medium livestock to the local community can reduce livestock killings; 99.2% of them confirmed the statement, while 0.8% were neutral, and none rejected

the statement. In that case, participants extended their views on whom they think should come first to receive livestock, and 50.0% of respondents suggested that low-income people who lost their livestock to carnivores should come at first level for receiving livestock; 43.2% of respondents suggested low-income people who pose a threat to the park to come at second level; while 6.8% of respondents proposed low-income households in general to come at third level, and no suggestions done about giving livestock to middle – high income households. Finally, about the type of small to medium livestock that would be preferred to be given to those chosen categories of local communities, 75.0% of respondents recommended sheep; 19.7% of participants recommended pigs, and 5.3% of participants chose goat.

- Basic information was also collected about strengthening the existing livestock shelters or the construction of pen shelters for the people who possess livestock, if can improve the protection of livestock from carnivores. 84.1% of respondents have totally confirmed the alternative and 15.9% of respondents have somehow confirmed, and none rejected the option. The respondents added that the personnel vigilance is very crucial to make sure that pen shelters are well helpfully to protect livestock. In the case of support for building pen shelters, all respondents to the questionnaire suggested that low-income households with livestock should be prioritized for support.
- When we wanted to know if the local communities have ever recorded regularly carnivore signs in their localities, 72% of respondents said that it does happen, while 28% of respondents agreed that locals collect that kind of information at their own use, but it is low often, and there is no coordination, and most time the information is not shared or used by others. On the other hand, once that certain number local communities are engaged in recording animal signs in the localities, only 52.3% of

respondents reported that the local community can differentiate carnivore/wildlife signs from the livestock signs, while 47.7% of respondents reported that communities can not differentiate those animal signs. As a result, all respondents (100%) to the baseline data suggested that collecting data/signs on livestock-carnivore interactions (direct or indirect) by local communities is very important for them to know the wild animal versus livestock movements.

- About conducting community patrols that aim to protect livestock and carnivores, 84.8% of respondents said that local communities do not conduct patrols, 14.4% confirmed that the patrols are done, and 0.8% was neutral in responding to the question. With immediate suggestions, 98.5% of respondents have recommended that local communities should be involved in collecting data/signs on livestock-carnivore interactions.
- When we want to document what local communities think about training related to the protection of carnivore-livestock and community conservation development, 97.7% of respondents have confirmed that community training in conservation-related topics can reduce carnivore-livestock conflicts and recommended that this kind of training is highly needed to help them be involved in conservation-related activities in their villages.

About training areas prioritization, 39.4% have preferred the training on best practices to avoid, reduce, and report HWC; 30.3% of participants preferred wildlife/conservation-based business; 24.2% of respondents have chosen the topic on carnivore behaviors; 5.3% of them suggested the course on livestock guarding; whereas 0.8% of them indicated the topic on the purpose of protected areas and biosphere reserves. On the side of suggesting the categories of local people to be trained in the above proposed subject matters, 31.1% % of respondents have

recommended that the people who pose a threat to the park should be the first ones to be trained; followed by youth as suggested by 29.5% of respondents; then women as 27.3% recommended this category; and finally vulnerable people which were recommended by 12.1% of respondents.

In conclusion, with the results obtained from the baseline study, we began the implementation of other project activities by considering and addressing both the findings and comments shown in the baseline data and the existing plan activities in the project document.

3. Training and field deployment for locally built live traps and camera traps, and proposed construction of local livestock pen shelters

The training sessions involved local farmers, village leaders, and park rangers. 23 people from local communities, village leaders, and field assistants were trained on making and using traditional live traps (locally built live capture-release traps). 8 local community members were trained in the use of camera traps. 11 local communities were trained on community patrols aimed at tracking animal paths, recording carnivore signs, and protecting livestock. A training workshop was conducted with 19 people on information sharing about the best techniques on the construction of livestock pen shelters to help protect livestock and prevent them from being attacked by carnivores. From this workshop, 10 low-income local communities (households) with livestock were selected from this workshop to receive assistance in building livestock shelters, while 17 local communities (households) have shown initiatives for constructing or repairing existing livestock shelters at their own costs.

So far, 10 locally constructed live capture-release traps have been set up in the field in order to identify and capture carnivores in conflict with livestock. In addition, 10 camera traps have been set up around mounted traditional live traps to perform field double confirmation of animal presence around mounted traditional live traps.

Up today, data gathering and other activities for all project components are currently proceeding well, and a preliminary report will be expanded upon in the upcoming few months.

CONCLUSION

The participatory action research project that is being conducted around Gishwati-Mukura National Park is demonstrating that effective human-wildlife coexistence can be achieved when communities are meaningfully involved in both research and management actions. The integration of community knowledge, local craftsmanship (including traditional live traps), and modern monitoring tools (including camera traps) enhances trust, ownership, and collective responsibility toward conservation goals for Gishwati-Mukura National Park and Biosphere Reserve.

However, the results from baseline information and recommendations from the inception meetings and workshops are helping to conduct project activities in accordance with community suggestions. The trainings on live and camera traps are helping the local community's capacity to monitor carnivore presence and behavior, while the communities voted that the proposed construction of livestock shelters, either from the project support or community initiatives, will contribute to the practical protection of domestic animals. Consequently, collaborative meetings and baseline assessments are showing the near future establishment of strong partnerships among park authorities, local leaders, and local communities, and ensuring a foundation for sustained dialogue and adaptive management for solving human-wildlife conflicts in and around Gishwati-Mukura National Park and Biosphere Reserve.

REFERENCES:

Thomson G. R., Penrith M. L., Atkinson M. W., Atkinson S. J., Cassidy D., and Osofsky S. A. (2013). Balancing Livestock Production and Wildlife Conservation in and around Southern Africa's Transfrontier Conservation Areas