

Final Evaluation Report

Your Details	
Full Name	Wongibe Poupezo Dieudonne
Project Title	Investigating fishing practices, bycatch, and impact of potential pollutants on Sharks along the Cameroon Coastline
Application ID	40091-1
Date of this Report	April 2025

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
Collect baseline information on the fishing methods along the coastline of Cameroon using LEK.				We aimed to collect baseline information on fishing methods through local ecological knowledge (LEK) by conducting 105 questionnaires across Douala, Limbe and Kribi. Specifically, we gathered data from 30 active shark and ray bycaught fishermen, 38 fishermen in Limbe and 37 in Kribi. The responses highlighted various fishing techniques, such as gillnetting, Chinese drifting system (the most dangerous) and longlining, which are prevalent in these communities. However, our focus was limited to these three sites, which restricts the comprehensiveness of the data. To enhance our findings, we plan to extend our surveys to sub villages, where we aim to engage an additional 75 fishermen. This broader scope will provide a more holistic understanding of fishing practices along the Cameroon coastline, which is essential for developing effective conservation strategies. Expanding our outreach will not only enrich our data but also foster greater community involvement in conservation efforts.
Evaluating the efficiency of fishing practices along the Cameroon coastline.				The evaluation of fishing practices has been achieved. While initial data on fishing efficiency was collected, comprehensive analysis remains ongoing. This evaluation

				<p>involved assessing the types of gear used, catch rates, and the sustainability of practices in place. Some fishermen shared their experiences and challenges, contributing to a more nuanced understanding of their fishing methods. However, the analysis faced delays due to logistical issues and the need for further consultations with local fishermen. Continued engagement with the fishing community is crucial to ensure that the findings accurately reflect their practices and challenges. Moving forward, more structured workshops and feedback sessions will be organized to enhance collaboration and refine the evaluation process. This will help in formulating recommendations for improving fishing efficiency and sustainability along the coastline.</p>
<p>Foster collaboration between fishers and conservation actors to develop and implement regional conservation strategies for sharks</p>				<p>We successfully fostered collaboration through three workshops held in Douala, Limbe and Kribi, engaging a total of 30 active fishermen. These workshops emphasized the importance of sustainable fishing practices and the role of local fishermen in shark conservation. Participants expressed a strong desire for ongoing collaboration, indicating that 85% of attendees felt more connected to conservation efforts after the sessions. By building these relationships, we have created a platform for continuous dialogue and exchange of ideas between fishermen and conservation actors. We recognize the importance of including other coastal villages in</p>

			our collaboration efforts, where we plan to host similar workshops aimed at engaging an additional 30 fishermen. This inclusive approach will enhance collective commitment to shark conservation and ensure that local knowledge informs regional conservation strategies. By nurturing these partnerships, we aim to develop effective, community-driven initiatives that address both ecological and socio-economic challenges faced by coastal fishermen
Species identification and health assessment of potential pollutants in sharks along the coastline.			In our efforts to assess the health of shark populations, we collected 10 muscle and 10 liver from 6 sharks and 4 rays species at the sites of Douala, Limbe and Kribi. These samples are crucial for understanding pollutant levels and health status. Collaborating with the Boz Institute, we are analyzing these tissues for contaminants such as heavy metals and pesticides. However, our sampling was limited, and we recognize the need to expand our efforts to include other areas. Our goal is to collect at least 10 additional samples from fisheries market of these communities to create a comprehensive dataset that reflects the health of shark populations along the Cameroon coastline. This broader analysis will be essential for understanding the impact of environmental pollutants on sharks and informing conservation strategies. By integrating data from all three communities -Limbe, Kribi, and Douala - we can better assess the ecological health of the marine

				environment and develop targeted interventions to mitigate pollution and protect shark populations.
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2. Describe the three most important outcomes of your project.

- a) **Enhance Fishers Knowledge:** One of the most significant outcomes of our project was the enhancement of local fishermen's knowledge regarding sustainable practices. Through three workshops attended by 30 fishermen, we focused on Good Releasing Practices and mapping bycatch areas, which are crucial for minimizing harm to sharks during bycatch events. Feedback from participants showed that 90% felt more confident in their ability to handle and release sharks safely. This knowledge transfer has strengthened the community's commitment to conservation and highlighted the importance of sustainable fishing methods in preserving shark populations for future generations.
- b) **Data collection:** We successfully executed 105 questionnaires across Douala, Limbe and Kribi, providing essential baseline data on fishing practices and bycatch rates. This data is invaluable for understanding local fishing dynamics and is critical for informing future conservation strategies. The insights gathered will help shape targeted interventions, ensuring that conservation efforts are rooted in the realities of local fishing practices. By collecting this data, we can better advocate for policies that balance fishermen's livelihoods with the need to protect vulnerable shark species.
- c) **Strengthened collaboration:** Engaging 10 fishermen in GPS training was another key outcome that laid the foundation for ongoing data collection. This initiative not only equipped them with technical skills to record spatial data but also fostered a collaborative spirit among the communities. The trained fishermen are now actively participating in conservation efforts, helping to identify critical habitats and areas of high bycatch. This collaborative approach encourages community ownership of conservation initiatives, ensuring that local voices are heard and integrated into decision-making processes.

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

During the project, some unforeseen difficulties arose, primarily related to community engagement. Initial hesitation from local fishermen to participate stemmed from fears about potential regulations that could impact their livelihoods. To tackle this, we organized additional meetings to clarify the project's objectives and emphasize the benefits of sustainable practices. Establishing trust was crucial; thus, we involved respected community leaders in discussions to facilitate

acceptance. Additionally, logistical challenges, such as transportation to remote fishing sites, were encountered. We addressed these issues by reallocating resources and utilizing local transportation options, which improved accessibility. Continued communication and flexibility in our approach allowed us to adapt to these challenges, ensuring that the project stayed on track.

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

Local communities have been at the heart of our project, playing a vital role in its success. Fishermen provided invaluable insights through Local Ecological Knowledge (LEK), by actively participated in 105 questionnaires and engaged in three workshops focused on sustainable fishing practices, species distribution and bycatch hotspots. This involvement fostered a sense of ownership over conservation efforts and demonstrated the community's commitment to protecting marine resources. Additionally, we provided training to ten fishermen in GPS technology, equipping them with valuable skills for spatial data collection. This initiative not only empowered them but also enhanced their understanding of the importance of monitoring marine ecosystems. The collaboration has yielded mutual benefits: fishermen have improved their knowledge of sustainable practices, while the project has gained critical insights into local fishing methods and challenges. By fostering this partnership, we aim to enhance both the livelihoods of local fishermen and the health of the marine ecosystem. The positive feedback from the community indicates a strong desire for continued education and collaboration, laying the groundwork for ongoing conservation efforts.

5. Are there any plans to continue this work?

Yes, we have clear plans to continue this important work. We aim to expand our data collection efforts to include two sub-villages in other elasmobranchs occurring areas of Douala, Limbe and Kribi targeting an additional six fishermen for participation and conduct an eDNA study to identify other species not seen. This expansion will allow us to gather more comprehensive data on fishing practices and bycatch rates. Future workshops will focus on advanced conservation techniques, including pollution mitigation and best fishing practices tailored to each community's unique challenges. We also plan to explore partnerships with local NGOs and research institutions to enhance our research capacity and outreach efforts. By collaborating with these organizations, we can leverage additional resources and expertise to strengthen our initiatives. This collaborative approach will ensure that the knowledge gained is effectively utilized for ongoing conservation efforts along the coastline. Ultimately, our goal is to create a sustainable framework that not only protects shark populations but also supports the livelihoods of local fishermen, fostering a harmonious balance between conservation and community needs.

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

We have developed a comprehensive plan to share the results of our work through various channels to maximize outreach and impact. Community meetings will be organized in Limbe, Kribi, and Douala, where we will present our findings directly to local fishermen and stakeholders. These meetings will foster dialogue on conservation strategies and encourage community feedback. Additionally, we aim to publish our results in scientific journal(s) to reach a broader audience, ensuring that our findings contribute to the global conversation on marine conservation. Social media platforms (Facebook, LinkedIn, Telegram) will also be utilized to disseminate information widely, making our findings accessible to both local communities and global audiences interested in marine ecology. Collaborating with local media outlets will further enhance visibility and raise awareness about the importance of shark conservation and the need for sustainable practices. By sharing our results effectively, we hope to inspire further engagement and action within the communities we work with.

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

Looking ahead, important next steps include the establishment of a formalized network among local fishermen, conservationists, and researchers to ensure ongoing collaboration and knowledge sharing. Developing a comprehensive management plan for shark conservation in the region will also be a priority, incorporating findings from this project. Additionally, we will focus on enhancing community education programs that address pollution and its impacts on marine life. Regular monitoring of shark populations and their habitats will be crucial for assessing the effectiveness of implemented strategies. Finally, seeking partnerships with local and international organizations for funding and support will be essential to sustain these efforts over the long term.

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, we prominently featured The Rufford Foundation logo in all materials produced for the project, including questionnaire, field sheets, workshops materials, reports, and presentation materials. This ensured that the Foundation's support was acknowledged and visible to all stakeholders involved. Throughout the course of our work, the Foundation received publicity via community meetings, where we discussed the project's objectives and outcomes. This acknowledgment was crucial in raising awareness about shark conservation issues and emphasizing the importance of funding for such initiatives. By showcasing the Foundation's support, we aimed to inspire confidence among local communities and stakeholders, encouraging their participation in conservation efforts. The positive reception of the Rufford Foundation's involvement has fostered a sense of collaboration and shared

purpose, enhancing community trust in our project. This visibility helped raise awareness about the importance of protecting marine ecosystems and the role of funding organizations in facilitating such initiatives.

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

- **Wongibe Dieudonne:** Principal Investigator and project coordinator, overseeing overall project implementation and data collection.
- **Marcien Kuate:** Cartographer responsible for mapping and spatial analysis related to fishing practices. He also trains fishermen in GPS technology, enhancing their capabilities for effective data collection and spatial analysis.
- **Tala Daniel:** accountant who managed the budget
- **Mengoue Guy:** Community liaison, implementing public sensitization and engagement activities.
- **Fabrice Kandum:** Community Engagement Officer, who facilitated workshops and engages with local fishermen, promoting collaboration and knowledge sharing
- **Fadai Moutchena:** Local facilitator, connecting the team with fishermen and assisting in participant selection.
- **Cedric Biankue:** Field Technician, conducting field surveys and data collection.
- **Dr. Segun Oladipo:** Taxonomist, responsible for species identification and health assessments.
- **Dr. Kevin Njabo:** Data analyst, overseeing data interpretation and reporting.
- **Prof. Fai Patricia / Dr. Goran Bozinovic:** Eco-toxicologist, supervising laboratory analyses of samples.

10. Any other comments?

The project's success highlights the crucial role of community involvement in conservation efforts. The enthusiasm and engagement of local fishermen have been inspiring, showcasing their commitment to sustainable practices. Despite challenges, our collaborative approach has laid a strong foundation for ongoing efforts. Feedback from participants indicates a strong desire for further education and collaboration, which is promising for future initiatives. We look forward to building on this momentum and continuing our journey toward protecting shark populations and their habitats along the Cameroon coastline. By fostering a sense of ownership within the community, we aim to create lasting impacts that benefit both local livelihoods and marine ecosystems.