

Final Evaluation Report

Your Details	
Full Name	Angwa Gwendoline
Project Title	Strengthening collaborative management for the conservation of Great Apes in the Deng Deng National Park, East Region Cameroon
Application ID	31124-1
Grant Amount	£5,992
Email Address	agwen1989@gmail.com
Date of this Report	May 2021

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
Sensitisation of 10 local communities on the role and benefit of conservation.				<p>All 10 villages selected were sensitised. Villages were selected based on their proximity and attachment to the forest. Villages selected were Deng Deng, Kambokassi, Hona, Mansa, Mbaki Nam, Satando, Mbaki 1, Mbaki 2, Goyoum and Lom 1. The sensitisation was done along with members of the Divisional Delegation of Forestry and Wildlife. During the sensitisation workshops, 500 brochures were distributed in all the communities. Issues regarding the role of communities in conservation were highly emphasised and after a series of question-and-answer sessions, the communities expressed their willingness to stop the unsustainable exploitation of wildlife resources. Four hundred and fifteen people attended the 10 workshops excluding children below the age of 14. The distribution was as follows: Lom1 (29 persons), Mbaki 1 (33), Deng Deng (73), Kambo cassi (31), Hona (42), Mansa (43), Mbaki Nnam (26), Mbaki 2 (49), Satando (45), and Goyoum (44). The total number of persons who attended the meetings was proportional to the number present in the respective villages at the time of the sensitisation. This objective was fully achieved though mind-set change is long-term and is a continuous process.</p>
Provide information on the state of black markets, supply chain and quantity of illegally harvested apes and other wildlife products				<p>Competent field assistants and community guides were purposefully selected (based on their ability to understand the concepts and purposed of the study) and trained on the collection of socio-economic data pertaining to bushmeat harvest and trade. The questionnaires were designed in two parts. Part one was designed to</p>

			<p>understand the markets, routes and supply chain of bushmeat in the area while part two was designed to evaluate the quantity of bushmeat harvested around the DDNP per season.</p> <p>For part one, 128 questionnaires were administered to target Farmers, hunters and bush meat traders in 12 communities around the park (Deng Deng (15), Kambocaci (10), Hona (12), Mansa (13), Mbaki-nam(9), Mbaki1(12), Mbaki 2 (15), Goyoum(10), Lom 1&2 (12), Ouami (two) and Bertoua (five).</p> <p>Base on the results obtain, there are specific days for bush meat sales and buyers from nearby town are contacted by phone for urgent and specific supplies. Sales are done on Saturdays, Sundays and Mondays house to house as each hunter already has a customer. A neutral buyer is very difficult to gain access to this network as their relationship are trust base. Hunters with similar buyers from the same village assemble their hunt and it is transported to urban town on bikes and cars. The customer presence is not required for purchase and sales to be made. Species have fixed prices depending on the species and size. The meats are package like fish in baskets and cartons and transported on bikes and cars to Belabo and Bertoua. Big villages like Ouami, Deng Deng and Goyoum has open markets for cook bush meat sales. Most of the customers for bush meat trade are from the nearby town of Bertoua, Belabo and Yaounde. The area is highly accessible either by water, roads and railways. This makes the transportation and smuggling of bush meat easy.</p> <p>The second part of the survey was to evaluate the quantity of bushmeat harvested around the DDNP per season. One hunter was randomly selected from each of the villages except for Deng Deng Village where two hunters were selected. The weight of the carcass was measured with a scale balance and the state and estimated price recorded. This</p>
--	--	--	---

			<p>was done following the hunting programmes of the selected hunters. For hunters who camp in the forest for a week, their data was collected once every month, which relates to their catch for a week. 11 hunters from 10 villages were sampled.</p> <p>One thousand three hundred and thirty carcasses were recorded - 728 in the rainy season and 602 in the dry season from 11 hunters. The fresh and dry weight of the carcass was approximately 9989.5 kg (5115 kg in the rainy season and 4874.5 kg in the dry season). 3 Gorillas were killed in the area within the period. The results shows that more species are hunted in the raining season than in the dry season.</p> <p>This objective was fully achieved and a new protocol for park monitoring based on the research finding is currently under development.</p>
<p>To build the capacity of 15 Ecoguards and 5 community field guides on the use of GPS, Cyber trackers and Camera Traps for effective monitoring and patrols</p>			<p>A brief workshop was organised in the conference hall of the park office to introduce the training and share the team for the practical field implementation of knowledge gain. We resulted in three teams and to stay within the context of the budget the number of training days was reduced to 5 with effectively 3 days in the forest. During the training, snare and hunting camp encountered were destroyed. Direct and indirect signs of ape presence were recorded. Lots of difficulties were encountered for this activity. The teams were transported to the project area on different occasions increasing the project cost. The concept of the training was understood but the secondary aim of achieving good quality photos of species in the park was partially achieved. The cameras were meant to be planted 1 km apart and due to the change of plan, the camera was planted 500 m apart and a lot of time lost in moving in and out of the forest. To avoid loss of knowledge, The community guides were the primary targets, and the training was simplified to their understanding. This objective was partially achieved due to</p>

			<p>time lost and a refresher training and long-term practical use of the GPS and camera traps will improve their confidence in handling these equipments. The camera traps planted were monitored 3 weeks after and footages of Duikers and Bongos were recorded.</p>
--	--	--	---

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.

It was difficult in most of the communities for the people to admit that they are hunters. In this case the questionnaires were administered in each village along with a guide from the community targeting farmers, hunters and bush meat traders. This led to an increase in the project budget.

It was difficult to quantify the bush meat harvest in the area per season and we resulted in working with a small group of one hunter per village

The change of plan during the training resulted in an increase in the number of trips from 9 to 11. This greatly led to an increase in the cost of transportation, and we resulted in reducing the number of training days to stay within the project budget.

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

1) Sensitisation and awareness raising.

Approximately 1000 persons were reach during the sensitisation workshops and are aware of conservation and it benefits for a sustainable living. Cases of bush meat sellers running away from the marketplace with the pot of bush meat on site of an ecoguards especially when is a delicacy of an endangered species were encountered showing a certain degree of consciousness.

2) Survey of the markets, routes, supply chain and quantity of Bush meat harvest per season.

The questionnaires were designed in two parts. Part 1 was designed to understand the markets, routes and supply chain of bush meat in the area while part two was designed to evaluate the quantity of bush meat harvested around the DDNP per season.

Based on the results obtain, there are specific days for bush meat sales and buyers from nearby towns are contacted by phone for urgent and specific supplies. Sales are done on Saturdays Sundays and Mondays and is done house to house, as each hunter already has a customer. It is very difficult or near impossible for a neutral buyer to gain access to this network, as their relationship (hunter- buyer) are trust base. Hunters with similar buyers from the same village assemble their hunt and is transported to urban town on bikes and cars. The customer or buyer presence is not required for purchase and sales to be made. Species has fixed prices depending on the species and sizes. The meats are package like fish in baskets and cartons and transported on bikes and cars to Belabo and Bertoua. Big villages like Ouami,

Deng Deng and Goyoum have open markets for cook bush meat sales. Most of the customers for bush meat trade are from the nearby town of Bertoua, Belabo and Yaounde. The area is highly accessible either by water, roads and railways. This makes the transportation and smuggling of bush meat easy. The second part of the survey was to evaluate the quantity of bushmeat harvested around the DDNP per season. One hunter was randomly selected from each of the villages except for Deng Deng Village where two hunters were selected. The weight of the carcass was measured with a scale balance and the state and estimated price recorded. This was done following the hunting programmes of the selected hunters. For hunters who camp in the forest for a week, their data was collected once every month, which relates to their catch for a week. 11 hunters from 10 villages were sampled. Based on the results, 1330 carcasses were recorded - 728 in the rainy season and 602 in the dry season from 11 hunters. The fresh and dry weight of the carcass was approximately 9989.5 kg (5115 kg in the rainy season and 4874.5 kg in the dry season). The amount of money generated from the sales of bush meat by 11 hunters within the space of 6 months is approximately 10,680,500FCFA. Three gorillas were killed in the area within the period. The results shows that more species are hunted in the raining season that in the dry season.

All of this information has provided a baseline data for which the sustainability of bush meat harvest in the area will be evaluated. Species such as blue duikers, red flank duikers, pangolin, red river hog, and monkeys of different species, apes, civet, porcupine, snakes and alligator are common species hunted in the area.

As a result of this research, a new strategic plan for effective wildlife surveillance and patrol in currently under development.

- 3) Training of Ecoguards on camera trapping and use of GPS is forest surveillance and Patrol.

Ecoguards and community field guides are apt with the skills required for effective patrols and forest surveillance. This research led to the exposure and arrest of a disguised hunter who was leaving in the park periphery zone as a fisherman. The camp was destroyed, and the fishing site closed down. Involving community guides in this study will retained the knowledge gained to the DDNP

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

The local communities were fully involved in the implementation of the project in all objectives.

The communities were involved in the sensitisation workshops. Five field guides were involved in the training. In each community, a community field guides were used in data collection. Two field guides were recruited and trained in the monthly data collection of bush meat in the different villages.

5. Are there any plans to continue this work?

Yes, with available funding, we plan to bridge the gap between numerical estimate by evaluating, the population density, distribution and movement pattern of apes and other primate species using a combination of line transect, guided recce and camera trapping in the Deng Deng National Park.

- 1) Strengthened and equipped the VFMCs (Village Forest Management Committees) for effective involvement of local population in decision-making and law enforcement. This will go a long way to reduce wildlife crimes.
- 2) There is also a need to investigate the human-wildlife conflict within the park areas and build sustainable livelihood opportunities for the local communities.
- 3) Development of a 15-year ecotourism strategic and funding plan to boost community engagement and generate income for conservation.

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

This report has been presented to the park management team and the finding has led to the arrest of an infamous hunter and the closure of a fishing area around the periphery of the park. Final report of the project will be shared with all stakeholders involve in the conservation of species in the DDNP, report will be published on national newspapers such as Green Vision newspaper and the report will be used for following up sensitisation within the communities. More also, the peer review article is currently under development for the International Journal of Biodiversity and Endangered species for reference by other researchers.

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 planned to run from May 2020 to February 2021. The planned period was longer than expected as a result of the Covid 19 pandemic and also because a longer time was used in data key in and analysis. The project to run from late June 2020 to April 2021.

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
Training of Ecoguards and community field guide	1600	1143	-457	This training was program to take place for 10 but the number of days were reduced enable the team stay within the cost of the project budget.
Sensitisation Workshops	667	667		
Printing	205	241	+36	Fluctuation of market prices.
Transportation	900	1179	+279	The cost of transportation increasing as a result of an increased number of trips from 9 to 11. Also, there was fluctuation in prices as a result of bad road
Lodging	560	467	-93	one of the team members was unavoidably absent during the project
Food	840	1285	+445	This took into account the team and field guide used in each village during the questionnaires administration.
Subsistence (salaries for 2 field assistants)	640	640		
Equipment	140	148	+8	Fluctuation of market prices.
M and E	267	267		
Communication credit	40	40		
Contingency	133		-133	
Total	5992	6077	+85	

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

The important next steps are as follows:

- 1) To evaluate the population density, distribution and movement patterns of apes and other primates of the Deng Deng National Park.
- 2) Strengthen and reorganise the Village Forest Management Committees to fully engage local communities in park management and decision making.
- 3) Develop a 15-year ecotourism strategic plan that will boost community engagement and generate income for local communities.
- 4) Reduce illegal hunting by engaging local communities in sustainable practices and support alternative means of livelihood.
- 5) Promote strategic research focus projects that will provide information necessary for the effective management of the entire Deng Deng Technical Operation units.

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. RF logo was use in all communication materials (t-shirts, brochures, and attendance list of all meetings in the villages and training). RF was and will be fully acknowledge in all reports presented to the park management and other stakeholders.

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

Angwa Gwendoline: Team Leader, involve in all the implementation stages of the project, data collection, workshops, training, questionnaires design data base creation and follow up of all other team members, Data analysis and reporting

Nchanji Roland: team member, production of brochures and other communication material, workshops facilitator, reporting

Meka Jean (Conservator DDNP) strategic planning and project orientation, trainer, and support with field equipments.

Docta Molar Stephane: field assistant: involved in the collection of monthly socioeconomic data of Bush meat and participated in training.

Ndo Boris Nfor: field assistant, involve in the collection of monthly data

Gue Gue Clement: field guide, involve in questionnaires administration

12. Any other comments?

I sincerely appreciate the Rufford Foundation for this great financial support. This did not only help in building my confidence in handling research of this magnitude but is

also gave me the opportunity to contribute towards the effective conservation of species in the DDNP. This research has served as a revelation to the number of species lost in the areas through hunting. This information will also serve as a baseline data for future projection. This information will also be used to evaluate the long-term trend of hunting.



Left: Training of field assistants. Right: Lead field assistant (Molar Stephane).

Training





Snare and empty cartridge remove from the forest during training.

Sensitisation workshops



