

Final Evaluation Report

Your Details	
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Project Title	Critically endangered Vulture Species in Northern Cameroon: population assessments and community engagement
Application ID	32501-1
Grant Amount	£5957
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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
Assess perceptions and attitudes of locals towards vulture's species				<p>From January to March 2021, we administered questionnaires in 26 villages bordering Benoue and Bouba Njida National Parks. 26 focus group discussions with a maximum of 10 persons per group were conducted in 26 villages. Focus groups were made of hunters, pastoralists and agriculturalists. Also, 10 structured interviews were held with key stakeholders and authorities of sites studies (MINFOF authorities, chiefs of abattoirs, hunters and pastoralists leaders). So, we exchanged with more than 220 local people. We noted a suspicious attitude and perception of communities towards vultures. According to focus group discussions with local communities, vulture species have drastically declined in northern Cameroon in the past 30 years. The decline of hooded vultures is more obvious. They noted mainly the presence of white-backed vulture (<i>Gyps africanus</i>) observed in bushes (hunting zones) and hooded vulture (<i>Necrosyrtes monachus</i>) observed only in abattoirs. Ruppell's vulture (<i>Gyps rueppelli</i>) and white-headed vultures (<i>Trigonoceps occipitalis</i>) were observed years ago according to locals. Conservation measures from locals were also proposed to ensure the protection of current vulture populations such as increased sensitisation of locals on vulture species, reduced access to poisonous drugs used to kill wild animals which comes from cotton firms, development of alternative activities amongst locals to reduce hunting pressure and illegal</p>

			<p>hunting on vulture populations, creating local vigilante committees in villages holding vultures species hotspots and led by religious and traditional authorities in order to alert or notify any illegal activities recorded in relationship with vultures or their habitat preference.</p> <p>Due to time constraints, we made a simple descriptive analysis from the sensitisation campaign. Data are currently being analysed in view of preparing a manuscript for submission to a peer-reviewed journal. I expect to complete the analysis by the end of May 2022 and submit the manuscript by July 2022.</p>
Provide detailed information on vulture species around Benoue and Bouba Njida National Parks			<p>A vulture survey was conducted from January to March 2020 and repeated from July-August 2020 using roost and feeding count points and road survey transect. For the roost and feeding count we targeted sites where local communities reported any vulture species presence and the abattoirs present in study villages. Existing trackways inside the hunting zone were used for road transect survey. Fifty counts point and an estimated cumulative distance of 1000 km for road transects were recorded. As results, two vulture species were identified: two hooded vultures (<i>Necrosyrtes monachus</i>) in abattoir and 100 white-backed vultures (<i>Gyps africanus</i>) observed in hunting zones of Benoue and Bouba Njida National Parks. We identified a fortnight of white-backed vulture hotspots in six different hunting zones. We noted the presence of three white-backed vulture nests near Benoue with no signs of breeding activity.</p> <p>Unfortunately, some hunting zones were not reachable, due to insecurity and hostility of few hunting zones authorities.</p>
Sensitise and educate local communities for			<p>From the end of March to April 2021 and from November to December</p>

<p>vulture's species conservation Through Educative and awareness campaign</p>			<p>2021, after field work and administration of questionnaires, education and awareness campaigns through workshops were organised in different surveyed communities, where we raised awareness for the necessity to protect current vulture populations. Mosques and chiefdoms were the strategic places targeted to conduct educative and awareness campaign based on importance of vulture conservation and behaviour to develop for vulture conservation. Education campaigns were mainly focus on hunters and pastoralists group as we noted during questionnaire survey that they represent indirect threats to vulture conservation. 100 t-shirts were printed as promotional materials and distributed to field assistants, group leaders and more enthusiastic locals.</p>
<p>Contribute to the update of Cameroon's National Biodiversity Strategy Action Plan (NBSAP) and the global biodiversity conservation priority areas.</p>			<p>This is still being prepared, as lists of vulture species hotspots in the vicinity of Benoue and Bouba Njida National Parks have been conducted through the administration in charge of forestry and wildlife, in order to include it in the upcoming version of the NBSAP document.</p>

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

Covid -19 was our expected main difficulty, but fortunately restriction measures were reduced before field work.

We expected to survey all observed points and road transect twice a year, but replication was not possible in some points (two hunting zones) during the rainy season due to flooding in some previously surveyed sites and the risks of armed poachers easily hiding in dense vegetation cover. Also, some predicted hotspots of vulture species by locals weren't observed due to prohibition of parks authorities to go there like the area was too insecure. But we did a representative sample of all hunting zones, and this was sufficient to come out with good results on vulture species diversity and distribution in the study sites.

We faced hostility from some hunting zone authorities during the field work, who were not favourable about the presence of researchers that they assumed to

perturb their economic activities. Fortunately, some of them were really hospitable in favour of our field work.

At the beginning of contact with local communities they were really suspicious about our research work because they thought we were there to identify poachers and send them to forest and wildlife authorities for legal sanctions. But with more explanation of our work objectives during first meetings and the presence of religious and traditional authorities to accompany us they became more open and confident to freely exchange with us.

During field work, field guides were requesting more than the budgeted amount for daily payment since most of them were engaged in newly gold extraction sites which was highly profitable than what we proposed. To solve this problem, we had a discussion between traditional authorities of concerned villages and guides with the support of administrative authorities. We came to an agreement but still with an increase in the per diem of local guides.

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

Detailed information on critically endangered vultures was provided in the vicinity of Benoue and Bouba Njida Protected areas. White-backed vulture hotspots were identified in hunting zones but also their estimate abundance and distribution. Critically endangered hooded vultures (*Necrosyrtes monachus*) were recorded only in an abattoir inside the Benue division (North region) far away of site study. No presence of Rüppell's vulture *Gyps rueppelli* and white-headed vultures *Trigonoceps occipitalis* were recorded. Such information will be used as a dataset for future monitoring and research works. Also, this work will be used as preliminary data for Irene Kenfack PhD degree in Dschang University.

The suspicious attitude and perception of communities towards vultures involved an inclusive and participative management, especially since vulture declines are closely linked to big mammal decline and health state of rivers. Educative and awareness campaigns reduced the negative perceptions of locals towards vultures, so locals make themselves recommendation measures to ensure the protection of current vulture populations, thus we could be confident on vulture conservation with their implementation.

We established a good collaboration with parks authorities and our results will serve as good support for their patrols with emphasis on vulture groups which have no particular attention currently. Also, we provided training and support to our six local guides; they could now serve as monitoring field assistance for future projects in the area.

4. What do you consider to be the most significant achievement of this work?

5. Briefly describe the involvement of local communities and how they have benefited from the project.

Before and during the field work we noted a real enthusiasm of local leaders (administrative, traditional and religious authorities) through the meeting on the project. They easily facilitated the appropriation of project by their communities.

In each hunting zone survey, we previously selected an interested local on our research work as field assistant. They were paid as field guides and received training on vulture species identification and their ecological monitoring. Six locals, Yaya, Aboubakar, Abdouraman, Youssef, Sarkii and Barbarey all from local communities were the main field guides dedicated and shared interest for vulture species conservation activities, so they will be useful for next conservation activities in the region.

Furthermore, this work funded by the Rufford Foundation is highly welcomed as it provided first local knowledge on vulture conservation issues.

We closely work with local authorities to whom we are extremely grateful. They were present during all the work steps and with field guides facilitated questionnaires administrations to focus group, field data collection and educative campaigns.

6. Are there any plans to continue this work?

This work was a preliminary survey made in the area; we are planning to extend this work around Faro National Park and in Adamawa region to generate a complete database of Cameroon vultures which will help for future monitoring and for the management of these sites. We plan to intensify nests research in the region and monitor breeding activity.

We will also examine association between critically endangered white-backed vultures with identified plant tree in which they were mainly observed during this research. The understanding of this relationship will improve vulture conservation strategic measures.

We will intensify educative and awareness campaign as we noted lack of knowledge on vultures' species value and misunderstanding about this bird group.

It will be also essential to develop amongst locals community alternative activities generating income through training and support in order to reduce vultures and others wild animals killing as illegal hunting is highly observed.

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

Results of this work will form a part of my thesis required for PhD degree enrolled in Applied Ecology and Wildlife Management in 2021 at the University of Dschang. A paper on perceptions of indigenous communities towards vulture's conservation in Cameroon is in preparation and will be submitted for publication by July 2022. Findings of the project will be presented this year at a national biological

conference: Biosciences. We will also share results of this study through the next international workshops and ornithological conservation conferences.

8. Timescale: Over what period was the grant used? How does this compare to the anticipated or actual length of the project?

The grant was used during a period of 12 months as planned.

9. 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
Contingency (3%)	173	45	-128	Costs for local fees communication.
Local transport (fuel for road transect survey) 120 days	1313	1440	+127	Cost for fuel and driver motivation per day was expensive than budgeted (£12 rather than £ 7.33 budgeted). So, we reduce time spend on road survey to 120 days.
100 Printed T-shirts (used as promotional material during educative campaign)	415	340	-75	Fortunately, we found a good deal for a reduction.
Develop 40 Posters and 175 flyers (laminated pictures of threatened vultures and poster on research results)	88		-88	Finally, we didn't develop these promotional materials in order to increase per diem of field guide as priority was given to field work activities. But messages on t-shirts with the picture of three main vultures expected in region were sufficient for educative session.
Refreshment for Workshops and educative awareness Campaign and questionnaires printing	200	200		
Transportations, for 5 trips (from Littoral region to north region)	330	330		
Per diem for local guides for 180 days (for field	1239	1650	+411	According to daily income of workers in the villages we were

work)				obligated to increase the per diem of field guides (£11 per day rather than £ 6.8 budgeted). So, we reduce spent time planned (150 days rather than 180 days than planned).
Feeding allowance, for researcher and assistant (x 180 days)	990	900	-90	The initial budget was for two people. But with the presence of driver in field study we have the necessity to take him in consideration. So, we just reduce feeding amount allocated to each one.
2 kits of tent, sleeping mat & sleeping bag, for camping during fields works	264	190	-74	Was cheaper than planned. But like it was not secure to sleep in some hunting zones, we took a room on main villages close to study sites.
Digital Camera (to capture all interesting and significant picture during field work surveys and workshops)	300	290	-10	We found a good deal
A Garmin GPS 65 (to take geographical coordinates of vulture's species assess)	235	200	-35	We found a good deal
A pair of Bushnell 10X50 waterproof (to observe and identify vulture's species)	190	190		
A waterproof HD spotting scope+ tripod	220	190	-30	We found a good deal
TOTAL	5957	5960	+3	

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

- Extend survey of vulture species populations to Adamawa region and inside national parks.
- Identify and understand factors influencing distribution pattern of vulture hotspots in the area.
- Intensify active nests sites research and monitor the breeding activity.
- Intensify educative and awareness campaign.

11. 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?

The Rufford Foundation logo was used in t-shirts promotional materials with vulture species pictures and messages for their protection during educative and awareness campaigns. During meetings with local's authorities, we also acknowledged The Rufford Foundation as the funder of our project activities. Furthermore, RF will be acknowledged in all future communications (talks, posters and articles).

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

Kenfack Irène Blondelle: Applicant and principal investigator.

Dr. Taku Awa II: Supervisor of the work.

Kamdoum Ngute Alain Senghor: PhD Student and advisor.

13. Any other comments?

We sincerely thank The Rufford Foundation for supporting this study around Benoue and Boubou Njida National parks. Funds of the project have helped to bring out preliminary information on critically endangered vulture species in northern Cameroon. Although we still in data process, it also permits to bring out indigenous attitude and perceptions towards this group of birds, for an effective conservation measures. This project helped to build a strong confident relationship with local communities, traditional and administrative authorities and field guides essential for further conservation activities in the region. Thank you very much for your support.



White-backed Vulture *Gyps africanus* identified in hunting zone during road survey transect





Different recording points of white-backed vultures' hotspots.



Inactive nests points record.



Administration of questionnaires to Focus group discussions in villages around Bouba Njida NP.





Questionnaire with Focus group discussion around Benoue NP.





Interviews with traditional authorities.







Irene Kenfack collecting data on vulture's species points count.



White backed Vulture faeces record during field work.







Field assistants during field work.





Educative Campaigns in different villages.





Awareness campaigns during project around Bouba Njida Nationals Park.





Awareness campaigns during project around Benoue National Park.





Educative sessions and promotional materials distribution.



