Final Evaluation Report

Your Details	
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Project Title	Conserving Critically Endangered Vultures in Nigeria: A Study on Vegetation Structure, Tree Species, and Community Engagement in the Hadejia Nguru Wetland Complex
Application ID	40237-2
Date of this Report	July 24, 2024

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 conduct an observational survey to gather comprehensive data on vulture species, focusing on sightings, identification, roosting and breeding sites, and breeding success.		■		During our survey, we located four breeding sites within the Chad Basin National Park and two in the surrounding villages, all occupied by hooded vultures. Only hooded vultures and Egyptian vultures were sighted soaring, and no roosting sites were discovered within or outside the reserve. Of the six breeding sites identified, only three were successful. The others failed due to egg predation, and one fledgling fell from the tree immediately after hatching. We used the drone to monitor three of the six nests that were in accessible areas. The drone proved highly successful for initial nest checks and for observing chick development without disturbing the breeding birds. However, for close-up monitoring of fledgling health and identifying the causes of predation, we relied more on camera traps and direct observation from a distance using spotting scopes.
To examine the characteristics of vegetation, specifically identifying the tree			■	Hooded vultures were found to be nesting on tall trees with strong, wide branches, on species of acacia and baobab.

species preferred by vultures for roosting and nesting				They favour trees in undisturbed areas with moderate to dense canopy cover, near open spaces. We successfully purchased and distributed **1,050** seedlings of native Acacia and Baobab trees, as well as other plant species. The planting was conducted as a community event during the early rainy season. We engaged over **350** community members, including farmers and students from the conservation clubs. The seedlings were planted in degraded areas around the perimeter of the park and near village farmlands to create future nesting and foraging habitats. We are currently monitoring their survival rate, which is approximately **65%** after the first season. We also distributed seedlings to individuals who were willing to plant them at their homes, as the area is already being affected by desertification.
To conduct social surveys to gather information on public perceptions of vultures and their awareness of the ecosystem services these birds provide.				Residents of the communities surrounding Chad Basin National Park often hold negative perceptions of vultures, viewing them as symbols of evil and bad luck. They lack awareness of the important ecosystem services that vultures provide to the environment. We conducted a social survey with **150** residents across **5**

				villages surrounding the Chad Basin National Park. This was supplemented by **4** focus group discussions with an average of **30** participants per group. These groups included key stakeholders such as local hunters, farmers, pastoralists, and community elders. The discussions were vital for understanding the deep-rooted cultural perceptions behind the negative views of vultures.
To provide conservation education to primary and secondary school students and teachers, and to engage surrounding communities in biodiversity conservation awareness and practices.				Through this aspect of the project, participants developed a greater understanding of the importance of conserving biodiversity and the environment, with a particular focus on vultures. As a result, seven primary and secondary schools around the wetland complex established conservation clubs. We visited all 7 of these schools, conducting multiple sessions at each. In total, we reached approximately 350 students directly through the club activities and school presentations. We designed and printed **500** educational pamphlets and **15** large posters in both English and Hausa. These were distributed to schools, village meeting halls, and the National Park office. The materials focused on the ecological role of vultures and the importance of wetland conservation.

				We held **3** public lectures in the largest communities, attended by over **200** people. We also secured a slot on a local radio station, Yobe State Radio, where we broadcast **5** educational programs in Hausa about the project and vulture conservation, which significantly expanded our reach beyond the immediate project area. We initiated a citizen science program by encouraging people to report vulture sightings to their local 'Vulture Guardian' or via a dedicated phone number. We also logged sightings in the Birdlasser app for those with Android phones and by taking pictures. We have received over **20** confirmed reports from community members, which has helped us identify two new potential foraging areas used by the vultures.

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

a). Six breeding sites of hooded vultures have been identified and monitored, with three of these sites successfully producing and fledging young. During the survey period, both hooded vultures and Egyptian vultures were observed soaring. The study site has proven to be a valuable stopover and foraging location for the Near Threatened pallid harrier and other Palearctic migrant species.

b). The perception and attitudes of community members towards vulture conservation have been positively transformed through a series of well organised education programmes. They now recognise the valuable ecosystem services vultures provide. Additionally, primary and secondary school students have become effective ambassadors for conservation.

c). Hooded vultures were found to be nesting on tall trees with strong, wide branches, on species of acacia and baobab trees

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

It was initially challenging for the community members to understand our motive for monitoring the breeding hooded vultures. Additionally, accessing the trees where the hooded vultures were breeding proved to be difficult.

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

At the onset of the project, a meeting was held with community leaders to introduce the project's first phase. The village heads and community leaders were very excited upon hearing about the initiative.

The local community, including students, farmers, and teachers, actively participated in the project and benefited through knowledge and skill acquisition, as well as material gains. For example, conservation club members among the students took part in observational surveys of vulture breeding sites and ecological studies.

Additionally, the involvement of two local field guides in the fieldwork provided some green income for the community. These guides were trained in field methods and now act as forest conservation guards.

5. Are there any plans to continue this work?

Yes, having identified the breeding sites for the six hooded vultures, which are endangered species within the Chad Basin National Park, we plan to continue monitoring these birds in the next season. Constant monitoring will help protect these breeding sites from human disturbance, as observed during the initial survey. This protection will enable the species to consistently use the site for breeding.

This monitoring will provide essential support for the juveniles. If a fledgling falls from the tree, it can be promptly retrieved and treated before being returned to the nest.

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

The knowledge and skills developed through this project can be applied to other areas facing similar challenges in vulture conservation. We will share our experiences

with other local communities, educational institutions, and conservation agencies in Nigeria.

We plan to achieve this through various channels, including poster development, seminars, workshops, and media outlets such as scientific journals, popular science articles, blog sites, and even the National Park Service Facebook page. Given the need to conserve wetlands in African countries, this project will inspire similar research efforts in Nigeria and potentially across Africa.

Update in August 2025: We have begun sharing the results. A preliminary findings workshop was held with the Chad Basin National Park management and local community leaders. We have also posted updates and photos on the National Park Service's Facebook page, which generated significant local engagement. The manuscript for a scientific publication has been submitted.

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

The project has highlighted the importance of Chad Basin National Park in Nigeria as a refuge for biodiversity and a critical conservation area in the degraded Sahel region of northeast Nigeria. The next steps will be:

Given the biodiversity potential of Chad Basin National Park, the most crucial step is to influence policy regarding biodiversity conservation in remnant habitats.

Establishing observational surveys of vulture breeding sites and monitoring avian species in Chad Basin National Park.

Patas monkeys (*Erythrocebus patas*) and olive baboons (*Papio anubis*) were observed during the survey. Although these species are of minor concern on the IUCN Red List of Threatened Species, they appear to be declining in this part of the country due to human activities and poaching. There is a need to conduct comprehensive surveys of primates in Chad Basin National Park and raise conservation awareness to prevent the hunting of these primates.

We will continue developing our manuscript for publication and prepare another proposal to The Rufford Foundation to continue our work on the breeding ecology and movement of the hooded vulture.

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 used the logo on the introduction letters and in all correspondence with district officials. The Rufford Foundation received publicity during the project period through seminars and school presentations.

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

Josiah Ibrahim, the project coordinator, is an expert in water bird monitoring and conservation education. He has been actively involved in every project activity and has led the team.

Israel Adedeji Bolade is a team member and wildlife ecology expert who has participated in all project activities.

Rahila Meribah Yilangai, a team member and wildlife ecology expert, serves as the team lead for vegetation measurement. She has been actively involved in every project activity

10. Any other comments?

We acknowledge The Rufford Foundation for providing the funds that made the execution of this crucial and timely project possible. Special thanks to the district authorities, local leaders, educators, and the entire Hadejia-Nguru community surrounding Chad Basin National Park for your excellent cooperation.