

Final Evaluation Report

| Your Details | |
|---------------------|---|
| Full Name | Suraj Upadhaya |
| Project Title | Cordyceps, Mountain, Market, and People: Understanding challenges in Conservation and Sustainable Trade of Cordyceps in Nepal |
| Application ID | 25805-2 |
| Grant Amount | £5990 |
| Email Address | Surajupadhaya99@gmail.com |
| Date of this Report | 12/20/2021 |

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 |
|--|--------------|--------------------|----------------|---|
| Understand the trade, status, and policies for Cordyceps in Nepal | | | | I conducted enough interviews with local leaders and traders and reviewed policies to understand the trade status and policies for Cordyceps management in Nepal. |
| Understand the trade flow of Cordyceps in Nepal | | | | I am writing a paper based on the data from interviews with traders at local, regional, and national levels to understand Cordyceps trade flow. |
| Understand the motivations and perceptions of harvesters and traders about the conservation of cordyceps and its habitat | | | | Two papers based on a Q-methodological survey are in preparation. One paper has recently been submitted to a peer-reviewed journal and is currently under review. |

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

During the project time, the COVID -19 outbreak hit the world. The area where we were conducting the proposed work was also highly affected. As a result, we have to modify our conservation awareness programme. Instead of in-person awareness activities, in addition to radio programs, we published different articles in collaboration with local media.

Please follow the links given below to get access to the articles:

<https://tinyurl.com/yxqm2red>
<https://nepalpostkhabar.com/2020/05/34904>
<https://ekantipur.com/opinion/2020/05/06/15887399185814664.html>
<https://tripurasanchar.com/9675/>
<https://www.nayapatrikadaily.com/news-details/41008/2020-04-11>
<https://tinyurl.com/yxwwblog>

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

- To date, no studies have attempted to determine and explore harvester and trader viewpoints on Cordyceps harvesting and its ecological impacts. We

explored both harvester and trader diverging viewpoints on *Cordyceps* harvesting and its ecological impacts.

- Local harvester and trader perceptions and attitudes towards different management practices and policies were identified.
- The trade flow of *Cordyceps* in Dolpa was assessed.

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

The community members actively participated throughout the activities conducted through this project. Without the active involvement of local communities, it would not have been possible to achieve the stated goals of this project. Local communities are concerned about the ecological impacts of the unsustainable harvesting of *Cordyceps*. We shared results from this and previous projects with the local communities through radio programmes. We also published multiple articles and blog posts about different economic, ecological, and current social issues related to *Cordyceps* on local media. The preliminary results were shared with the local leaders. Once we finish our data analysis and have the recommendations, we plan to share those with the local leaders, which can be further included in the *Cordyceps* Management Plan prepared at the local level.

5. Are there any plans to continue this work?

I am planning to continue this work in the future. I intend to conduct a similar survey on other pastures in Nepal. Also, I like to carry out the study to the landscape level and try to understand the overall impacts of harvesting on the biodiversity at landscapes. The overall landscape-level understanding of ecological and economic impacts will be very important to prescribe the sustainable management of this species and conservation of the fragile high-altitude ecosystem.

Due to the COVID-19, local government-imposed ban in harvesting *Cordyceps* in 2020 and 2021. As I have collected data before COVID-19, I am interested in understanding the socio-economic impact of COVID-19 on the livelihood of the local community dependent on *Cordyceps* harvesting.

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

The results of this work are shared through different means of communication such as YouTube. We have plans of publishing results in scientific journals too. I am preparing three manuscripts for publications in peer-reviewed journals from the data collected from this project. Although one paper was accepted for presentation at the American Association of Geographer Annual Meeting 2021, I could not present it due to the COVID-19 travel restrictions. We used a local radio station to air the research outputs. We published articles in national newspapers and media outlets. The links to these different articles and blog posts are organised [here](https://himalayanconservation.org/blog/). (<https://himalayanconservation.org/blog/>).

The interactive report prepared to show the impact of *Cordyceps* on the Nepalese economy is available here. <https://himalayanconservation.org/learning-hub/>

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

The project was approved in November 2019. However, due to COVID-19, we were not able to conduct different research and group activities as planned. Therefore, due to COVID-19 circumstances, we had to extend our activities until mid-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 |
|---|-----------------|---------------|------------|--|
| Personal | 1080 | 1400 | -320 | Due to COVID-19, we had to hire one more team member to the crew. |
| Travel (Airfare Kathmandu-Nepalgunj-Dolpa and return, Local Travel) | 1200 | 1100 | +100 | Due to the exchange rate, we were able to save the difference. |
| Radio Programs (5 episodes) | 700 | 1050 | -350 | We initially planned for four episodes, but due to COVID-19, we could not conduct other awareness programs, so we added two more episodes. |
| Focus Group Discussion/Meeting/Gatherings | 550 | 280 | +270 | Due to COVID-19, we reduced the number of gatherings. |
| Food | 1080 | 1080 | | |
| Lodging | 1200 | 900 | +300 | Due to the exchange rate, we were able to save the difference. |
| Consumables | 180 | 180 | | |
| Total | 5990 | 5990 | | |

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

The next steps are:

- Analysing the data on trade status, and policies and prepare a manuscript.
- Prepare the manuscript on traders' diverging views on economic and ecological impacts of *Cordyceps* harvesting/trading.
- Planning for future research on understanding value chain and socio-ecological systems of *Cordyceps* harvesting.

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, the name and logo of the Rufford Foundation were used in all communication and publication materials related to this project.

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

| Team Member | Description | Role |
|--------------------|------------------------|--|
| Suraj Upadhaya | Principal Investigator | Project design, implementation, analysis, and report writing |
| Suman Acharya | Co-Investigator | Questionnaire design |
| Beeju Poudyal | Co-Investigator | Data analysis, writing |
| Suman Thapa | Field Assistant | Data collection and management |
| Ananda Singh Rawal | Field Assistant | Data collection and management |
| Man Prasad Thapa | Field Assistant | Data collection and management |
| Ram Neupane | Media Personnel | Radio program development and broadcasting |

12. Any other comments?

The grant provided by The Rufford Foundation is very helpful for early-career scientists like me. I would like to thank the foundation for the grant opportunity. The flexibility on review and reporting progress is commendable. I would also like to thank you so much for understanding the COVID-19 circumstance and giving an extension for reporting.

I also like to thank the local communities, harvesters, traders for sharing their time and insights to make this study possible.

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www.himalayanconservation.org

<https://www.facebook.com/himalayanconservation/>



Different episodes of radio program are available here:
<https://tinyurl.com/HCRIRufford>