Project Update: March 2022

It gives me great pleasure to report the completion of data collection for our project titled "Assessing perception of the local community towards leopards in order to construct effective community-based conservation model". Through this document, I intend to provide a final update regarding the project, before submitting a final report. However, the engagement with the community pillars will continue.

First of all, I would like to express my sincere gratitude towards The Rufford Foundation for funding this research. This not only gave me a much needed financial strength to implement my plans but, more importantly, it gave the moral support that I was looking for. I hope that we can continue this partnership in future to bring the positive impact in the lives of the needful and thus attain the wildlife conservation through an optimal community-based conservation model.

The second half of the project went smoothly compared to the first which is where we faced a multitude of challenges such as climatic, pandemic, administrative and logistics related issues.

At the beginning, we set out to understand how these remote communities are coexisting with the leopards and other wildlife. Also, we strived to record the nature of this coexistence, whether it is harmonical or disintegrating. I am glad and proud to inform you that in addition to achieving our primary goals, we also discovered a vast scope and identified an urgent need for future work in this extremely important and rapidly degrading habitat. One of the most important outcomes from this project would be the decisive future plan through which we can reach closer to our goal of achieving true community-based environment conservation.

I am now in the process of understanding the data and transcribing it into analytical data sets to further answer the following research questions:

a. How do locals **perceive** the idea of coexistence with leopards and other wildlife?

b. What are the **factors** that affect the perceptive of local communities towards leopards and other wildlife?

c. What is the **impact** of this coexistence on the lives of the local community?

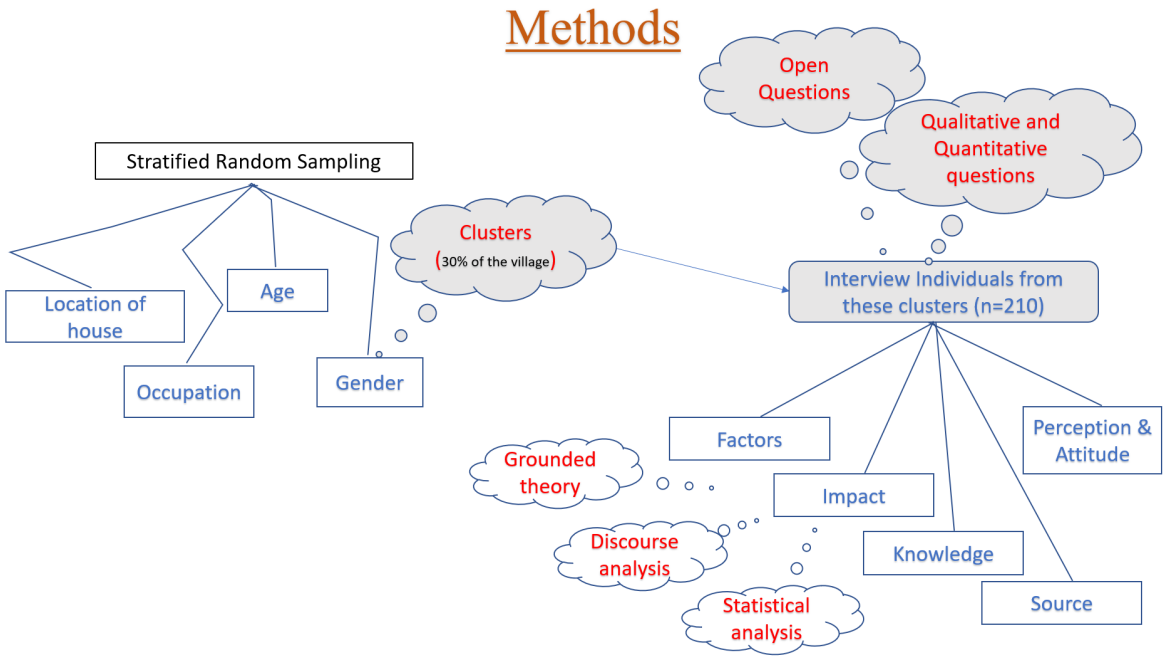
d. How much do the locals **know** about their wild neighbors (leopards among other wildlife)?

We have concluded our data collection after interviewing a total of 210 respondents from the four villages under our project scope over a period of c. 160 days (135 – 140 actual field days). In our sampling we ensured to cover at least 30 % of the households from each of the village within the project scope, depending on their respective sizes. By using stratified random sampling method, we emphasised equal representation of each of the different segments present in the community (as caste system is highly active in the community and even the concepts of untouchability, polygamy and polyandry are in practice). Because of the ethnographical differences and unique cultural values, it became essential for me to be acquainted with their native

language, which was unique to this particular region. This helped me greatly in earning their initial trust and love; however, to avoid any repercussions, the interviews, or the interactive group sessions, were always conducted in the presence of at least one of our local field assistants. Each of our local field assistant was the native of the region and once they were acquainted with our project objectives and trained in our methods, they proved to be a great addition to the team.

We further distributed the population of each of village into different "clusters", based on the distinguishable attributes present in respective settlement. Clusters, such as age (below 14, 15 to 25, 26 to 40, above 40), gender, occupation (farmer, shepherd, government employee, shopkeeper, tourism business, etc.), location of a house in a village (center, edge, outside), caste, etc., were formed.

The respondents were chosen from these clusters on a random basis. These clusters will also play a crucial role in identifying and assessing the factors which have a direct or indirect influence on the perception and attitude of the villagers towards wildlife.

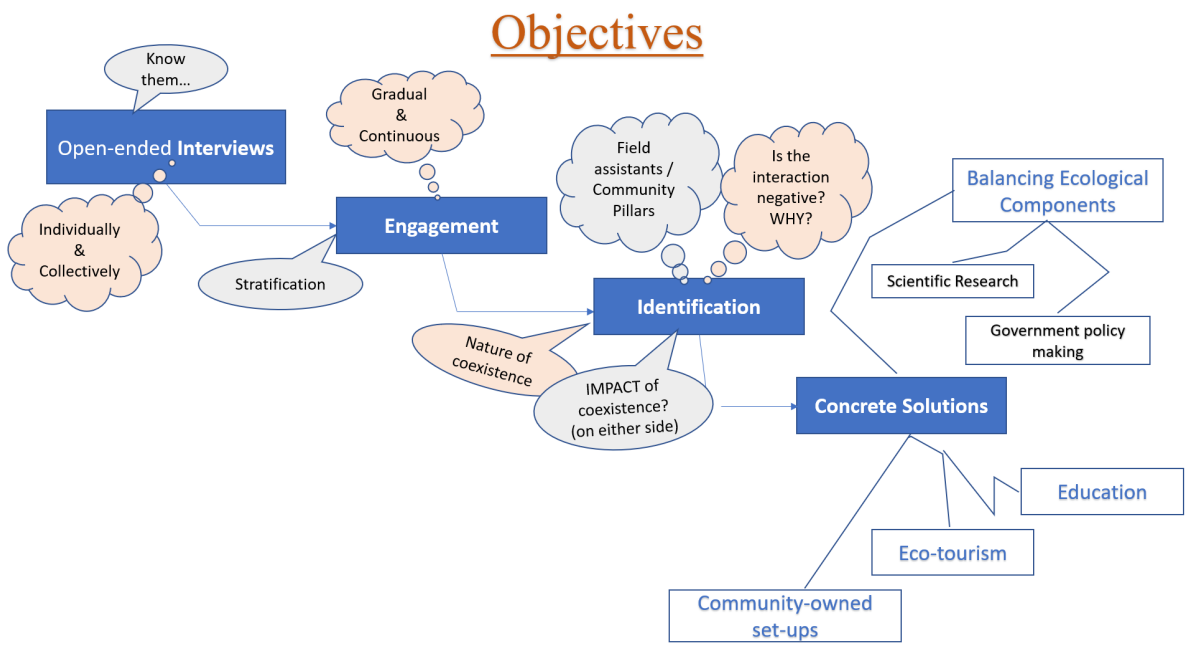


The interviews were conducted as open-ended conversations so that the respondents could speak with a free will and mind. This approach helped us greatly in improving our understanding of the community as a whole by engaging on an individual basis right from the start. Collective engagement became much easier after engaging the community at an individual level.

During the last month of our data collection, we successfully organised various events to engage the community on different cluster levels. Kids below 12 years of age were engaged through team building games and stationery items were distributed among them. We received great interest and engagement from this age group in our activities and we channelised our special attention on them. Animal story books were included in the stationary items which proved to be a highly valued offering for them. Elderly community members were involved through religious gatherings, which was found to be active and of great interest to them. At the end of these gatherings, we

organised some open dialogue interactive sessions with the older aged group. Religious quotes focusing on animal welfare were intentionally chosen to be discussed in these meetings. This had an immediate impact in this particular age group, and they showed signs of self-attention and eagerness to understand and relate to our point of concern, which was to improve the current negative perception of villagers towards wild animals and environment on a whole.

Our selected community pillars showed great promise and took various initiatives to tackle the problem in hand. Many of them not only showed sincere interest in our project goals but also came forward with innovative ideas to build a foundation for a successful community-based conservation model. For example, one of our field assistants, Vijaypal, helped us understand one of the negative interaction of villagers with the surrounding environment. The villagers have been using dwarf bamboo (*Chimnobabusa falcata)* in the irrigation of beans, as a support beam for the vine. With dependency on dwarf bamboo increasing every year, the villagers are even willing to walk longer distances than before to get the desired bamboo sticks for the irrigation. Vijaypal helped us relate to the reasons of rapidly decreasing dwarf bamboo, which is crucial for the native habitat as it supports wide variety of organisms, including the critically endangered western Tragopan (*Tragopan melanocephalus*), among others. So far, we have devised various mitigation controls and community engagement protocols, which will be discussed in our final project report.



I am now in the process of transcribing the data from audio interviews into word and excel files to start the extensive analysis as soon as possible. However, with the help of the ad lib observations, recorded in my field diary, corresponding to each of the interviews taken, and based on the first-hand experience, I was able to draw following conclusions, so far.

- Current perception of the majority of the respondents tends to be negative or even highly negative in some of the clusters. Some of the interesting interactions are quoted below:

- When asked about the compensation for livestock/crop predation, one respondent replied, agitated, "… *what compensations? We are living like bears here, no one (local government) has time to think about us*…"

- A snippet of conversation with a 12-year-old respondent:

  - Boy: "*What does a bear eat?*"
  - Interviewer: "*What do you think?*"
  - Boy: "*Sheep, goat and humans, I suppose*". After a fruitful and long conversation, I left the boy happy and content with new and correct information but found myself still stunned by his naivety.

- When asked if a leopard or any similar predators play any role in maintaining the forests, one respondent replies, "*I believe they (predators) are left in the forest, by the forest department to control us… so that we don't cut trees and hunt animals*…"

- Shepherds and farmers occupy the major subset of the respondents having negative perception towards leopards. This was aligned with our previous hypothesis as both of these clusters of respondents have higher number of interactions with wildlife, in general, compared to other community members. This also makes them one of the biggest stakeholders in our efforts to establish a community-based conservation model.

- There is a clear discrepancy between the compensations received (or lack of) with respect to the actual damages caused by the wildlife.

- There are various factors (some of them are mentioned below in Table 1) which are responsible for influencing the perception of the individuals, directly or indirectly, and in-turn of the community as a whole.

- Through these factors we can also understand the overall Impact of Coexistence on either side of the equation of human-wildlife coexistence. For example, lower literacy rate in a village has an indirect impact on their perception towards wildlife and medium impact on coexistence. Whereas a higher occurrence of livestock or human predation from wildlife (due to various anthropological reasons) has a direct impact on their perception and a high impact on the sustainable human coexistence with wildlife.

- Illegal wildlife hunting has been found to be active in the region but mostly because of traditional reasons. It is more active in some villages than others, depending on the remoteness of the respective village in question. Some respondents even admitted having a knowledge of illegal wildlife trade being active in the region as well.

- These factors also give us an opportunity to tackle the problem at a grassroot level. Education and awareness can help balance other factors such as, traditional hunting, social learning and crop raiding.

Table 1. Relationship between Factors, Impact and Perception of human-wildlife coexistence (Up and Down arrows denotes High and Low values of factors respectively.

Factors	Impact on Coexistence	Impact on Perception	Perception
Livestock Predation ⇑	High (Reparation issues)	Direct	Negative
Crop Raiding ⇑	High (No reparation)	Direct	Negative
Education ⇓	Medium	Indirect	Negative
Awareness ⇓	Medium	Indirect	Negative
Traditional Hunting ⇑	High	Direct	Negative
Heard Stories / Past Experiences/ Social Learning	Medium	Indirect	Negative

- 'Impact on Coexistence' can be understood in terms of how the human-wildlife coexistence affects their respective lives. Higher the value, lower the harmony in the coexistence.

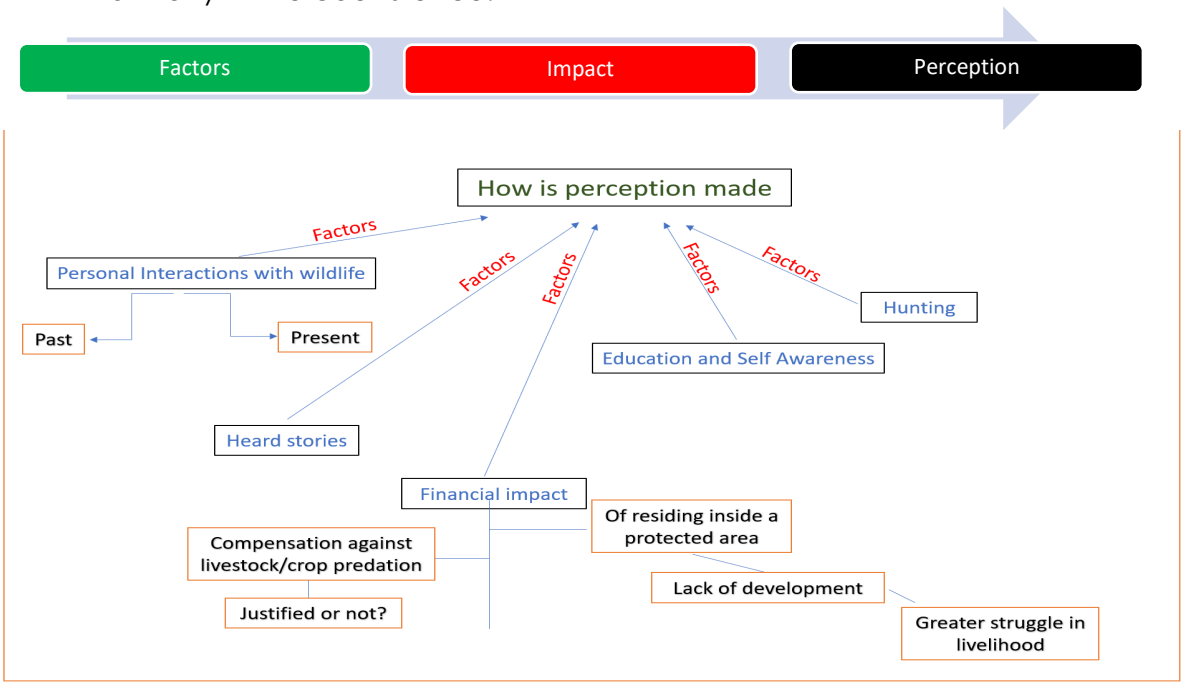


Figure 1. Direction in which a perception is made

I thank you again for giving me your support to embark on this wonderful journey where I got to meet these wonderful people and the community which needed this project as much as I needed them to achieve our long-term goals of community-based conservation.

Picture 1. Villagers of Dhatmeer bidding their gratitude. Translation of poster provided below

***Picture 1*. Poster Translation**:
"Every living being has an equal right to the beautiful offerings of nature. The thriving flora and fauna, birds and animals and this expansive forest estate is our own precious heritage.

Although the crucial knowledge of the natural bonds between various wildlife and expansive botany of this earth, are part of our culture and civilization by the time of our ancestors, like the branches attached to the trees but it is high time now to utilise the best of this knowledge to coexist with the forest and wildlife in harmony.

A big thanks to Gaurav Dixit and The Rufford Foundation for bringing the essence of wildlife in our lives and making us understand the real significance of the environment conservation."

Picture 2. Enjoying the festival community dance with my favourite lot.

Picture 3. Camping in the snow leopard habitat at 4350 m a.s.l.

Picture 4. Leopard captured in our camera trap in close proximity of Dhatmeer village

Timeline so far:

- 18 April 2021 onwards - Data collection and community engagement/outreach activities.
- 22 September 2021 – Completion of data collection.
- 20 October 2021 to 30 October 2021 – Revisited the field site to implement some community engagement initiatives.
- November 2021 onwards – Community engagement continues through community pillars.

Expected Outputs:

- Data analysis and manuscript write-up.
- Final report creation and publishing the results.
- Scientific and other ad hoc articles.
- Thesis submission for M.Sc. program at Czech University of Life Science before September 2023 (delayed due to pandemic).
- A documentary/short film.