



Enabling Human-Wildlife Co-existence through education and conflict mitigation

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Project Report:
Enabling Human-Wildlife Co-existence through education and conflict mitigation

Project Partners: Himalayan Brown Bear Trust and Serra Fine Chemicals Pvt.Ltd.

Project Lead: Kirti Chavan

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INTRODUCTION

The value of education and awareness-building programs for conservation is immense. This is one of the highly prescribed activities in community-targeted actions for conflict management, by the IUCN's bear specialist group's Human-bear Conflict Expert Team.

Focused education and outreach activities are one of the major proactive strategies for avoiding and mitigating human-wildlife conflicts. These activities help in sensitizing communities to know more about their surroundings, develop critical thinking by increasing knowledge, and may help in changing their attitudes and behaviour.

Children's storybooks are a proven cognitive tool used for facilitating learning and engaging the audience with identifiable characters, metaphors, and storytelling. They are also more appealing to children than other traditional education approaches. There have been a few case studies, where comics and animations were successfully used in the environmental education of children and raising awareness about particular species or conservation issues.

This project is part of a larger multi-year program that is envisioned with an overarching goal of long-term conservation of Himalayan brown bears in India by involving children from the local communities. Under this project, we have used the power of visual narratives with a focused objective to educate school children from villages in the Zaskar and Lahaul region.

Objectives:

- The primary objective of this project is to generate curiosity and awareness among schoolchildren about using bear-avoidance and bear-proofing techniques for human-bear conflict mitigation through story book.
- The second objective of the project is to put in immediate mitigation action to reduce the incidents of human-bear conflict in Zaskar.



PROJECT ACTIVITIES

The following activities have been undertaken up to September 2024 in the project areas:

Activity month: April

- 100 copies of 'Tenmo the clever bear' and 100 copies of 'Short tails from Zanskar' printed and transported to Zanskar and Lahaul.
- A consultation meeting at Bakersy village was conducted to bear-proof a Buddhist temple that had been a regular target of bears. The temple housed ancient artifacts that are of great importance to the people of Bakersy. Since the bears started targeting the temple, the villagers have been sleeping in it to ensure the artifacts are safe. This has impacted the quality of life of people who are sleeping in the temple even on cold nights. The villagers requested us to find a solution to keep the bears away so that they could live their lives normally. We promised the villagers to bear-proof the temple so the bears can be kept away and in turn, restore normalcy in people's lives as well as reduce the animosity towards the bears.

Activity month: May

- The Rainbow School in Padum, Zanskar has the highest intake of children at the primary level. We decided to approach the school to conduct the education program along with a book reading session. We distributed 100 copies of 'Tenmo the Clever Bear' and 100 copies of 'Short Tails from Zanskar' to the children at the school one week before the education program. We visited the school again a week later to conduct the education program. The program started with a book reading session of Tenmo the Clever Bear, followed by an interactive game on the role of bears in the mountain environment. The children actively participated in both activities.

Activity month: June

- The bear-proofing structure for Bakersy Village was completed by fabricators in Padum town. A local transport service was arranged to transport the structure to Bakersy village. The village is located across the Stod River at a fair distance from the main road head. The villagers arranged a tractor from the village to transfer and cross the structure across the river and then to the site. By the time the structure reached the village it was already night time. The entire village came together to participate in setting up the structure on windows and doors of the temple.

Rainbow School class 3 students received copies of story book. The students will be adapting the story into a play for the annual day celebration next year. The books were distributed to class 2 (35 students), class 3 (28 students) and class 4 (37 students).





A total of 7 large window frames were reinforced using iron grills with spikes on them. The wooden door and door frame were fitted with additional iron doors to ensure that they withstand the break-in attempts by bears. The total weight of iron used in this structure was 200 kilograms. The Goba (village head) shared video feedback on the bear-proofing work (the video can be emailed separately.) The temple building wall was repainted after the metal frames were fitted.

Activity month: July

- The Lahaul Forest Department in Himachal Pradesh noticed that the Human-brown bear conflict in and around villages has increased compared to the past years. The Divisional Forest Office contacted Kirti Chavan and requested him to assess the situation and recommend mitigation steps to avoid any further damage to people's livelihoods.
- Kirti conducted three community consultation meetings at the villages where the incidents of HBB presence and conflict were seemingly high. The objectives of the consultation meetings were as follows:
 - Assess the human-bear conflict situation in villages
 - Discuss possible mitigation action that can be put in place with the involvement of local communities
 - Explore new sustainable livelihood options to augment income sources of villagers who are facing losses
 - Form a primary response team consisting of local youth from the villages.

Activity month: August

- Village visit and consultation at Jobrang : Kirti along with the Lahaul forest range officers, block officers, and forest guards visited the village of Jobrang to assess the human-bear conflict situation. The village community members reported their losses and provided a rough activity pattern of the bears in and around the village of Jobrang. The department officials invited the community members to attend the workshop on bear-proofing and sustainable livelihood options through wildlife tourism, planned on 27-04-2024 in the village of Jhalma.
- Workshop on bear-proofing and sustainable livelihood options through wildlife tourism: Kirti Chavan was accompanied by the Lahaul forest range officers, block officers, and forest guards on his visit to the village of Jhalma to conduct a workshop. The community members of neighboring villages Jobrang, Rashil, and Jasrath also joined on the invitation. The village head of Jobrang was also present to attend the workshop. The workshop covered the following topics:
 - Case study of human-bear conflict in the neighboring region of Zaskar, Ladakh
 - Various bear-proofing techniques and their success with the communities in Zaskar
 - Formation of Primary Response Team (PRT)
 - Augmenting income through sustainable livelihood options
 - Setting of community-managed livestock/farm insurance scheme
 - Community-based smart patrolling to secure farms
 - By the end of the workshop, village community members showed enthusiasm for supporting the Forest Department's effort to reduce the human-bear conflict in the region. The villagers were interested in exploring sustainable livelihood options through wildlife tourism and handicraft skill development.

- Village visit and consultation at Goshal: A consultation meeting was warranted at the village of Goshal because of recent incidents of a bear entering the village and approaching many homes at night. Kirti Chavan along with the Forest department officials visited the village and met with two women Self-Help Groups (SHG). None of the members from this village were able to attend the workshop conducted in Jhalma, The department officials appraised the women SHG members on the topics discussed during the workshop. The women took the opportunity to explain the challenges they face due to bear presence and showed keen interest in adopting bear-proofing techniques. The SHG members were particularly keen on exploring sustainable livelihood options through wildlife tourism. The members also pointed out that their knitting and weaving skills could also be used to generate additional income per household.

Between August and September, farmers from the Lahaul region begin harvesting their main cash crop which is iceberg lettuce. Unfortunately during this period the incidents of crop depredation by brown bears also rise. The villagers from Kardang, Pyokar, and Gwazang contacted the forest department and asked them to take strong action to stop bears from destroying their crops. The Forest Department requested Kirti Chavan to meet with the villagers and provide a temporary solution that could prevent crop depredation till a long-term solution comes to light.

Kirti Chavan procured sound alarms that had worked very well in Zaskar. On 11th August 2024, Kirti along with the range officer Mr. Sanay Thakur visited all three villages and spoke at length about bear behaviour and how sound alarms can be used at night during patrolling.

Kirti urged the villagers to form a patrolling team for night patrols are regular intervals. Five sound alarms were provided to the patrolling team in each of the three villages.

- Education and awareness programs for school children in Lahaul: The future generation is the custodian of our natural heritage, It is important that we instill the value of wildlife conservation at an early age. Kirti along with the Forest Department conducted an interactive education and awareness program at a local school in Keylong. The program focused on spreading awareness of brown bears through games and question-answer sessions. 100 copies of 'Tenmo the clever bear' and 100 copies of 'Short tails from Zaskar' were distributed to the school children in Keylong.



The communities in Lahaul face greater financial losses compared to the communities in Zaskar. This is because they rely mainly on cash crops for livelihood unlike in Zaskar. This could also mean there could be a stronger negative attitude towards the bears in Lahaul. This could potentially be detrimental to bear conservation in the region.

Women are often disproportionately impacted by any kind of conflict be it human-human conflict or human-wildlife conflict. We would like to build the capacity of women in the remote villages so that they can generate alternate livelihoods for themselves and cope with the losses due to wildlife. After meeting with the women's self-help groups in Lahaul, we understand that there is scope for reviving traditional crafts that can generate a sustainable livelihood for many women in the Lahaul region..



This is the first time we have worked with a government department and we are hoping for a long-term association with the department. We are keen on capacity building of department staff in future.





A farmer from Gwazang village in Keylong range took us to the patch of land where his produce of the season was destroyed by bear. We would like to work on bear-proofing agriculture fields in future, however bear-proofing large areas will not be easy and will require more research.



During the first education program at school in Keylong, there was a lot of curiosity among the school children as well as the teaching staff about brown bears. The curiosity among the children could be foundation to future bear conservation programs in the region. 200 copies of the books were distributed at Keylong school and additional 100 copies are kept at the Lahaul forest department for future programs in the region.





UTILISATION OF FUNDS

The project 'Enabling Human-Wildlife Co-existence through education and conflict mitigation' is a new initiative that was launched in FY 2023-24 and is being supported by Serra Fine Chemicals Pvt.Ltd. The project budget is for Rs. 2,50,000 (Rupees Two Lakh Fifty Thousand only) and the details on utilization of funds is as follows:

Sr.no.	Project Head	Activity	Amount Spent (INR)
1	Education and Outreach	Printing and transportation of 500 copies of books	80000
		2 workshop at schools in Zanskar	5000
		2 workshops at schools in Keylong	7000
		Transport for community consultation meetings in Zanskar and Lahaul	7000
2	Human-bear conflict mitigation	Fabrication of metal structures for bear-proofing (7 large windows, one metal door, painitng of the temple)	140000
		Transportation of the structure from Padum to Bakersy	5000
Total Expense			244000
Balance in Hand			6000

The Lahaul Forest department and villages from Keylong and Udaipur range have been struggling to find some mitigation action to resolve the human-bear conflict. The villagers are demanding that the department capture bears and translocate them. The department understands that this is not a practical solution. While we understand the predicament that the department is in, we cannot ignore the losses faced by the villagers. There is a need to bring all stakeholders on one platform and work together so both the bears and people are safe.

Next Step

The Himalayan brown bear is an endangered subspecies of brown bear, and there are estimated to be <700 wild bears in Pakistan and India. Habitat loss and on-going conflict with humans are two serious threats to the Himalayan brown bears.

Based on seven years of experience working on bear conservation, we recommend continuing efforts to mitigate human-bear conflict. There have been a few cases of retaliatory action against the bears in both Zaskar and the Lahaul region. However, the negative attitude towards the bears is much more evident in the Lahaul region.

We strongly recommend more mitigation and community education work in the Lahaul region in the coming years. The focus of mitigation work should be as follows:

1. Reduce loss of livelihood due to crop depredation by bears
2. Generate alternative livelihood to compensate ongoing loss due to bears
3. Involve youth in conservation programs
4. Education and awareness programs for adults in the villages