

The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details

Your name	Bhupendra Prasad Yadav
Project title	Asiatic Black Bear-Human Conflicts and Participation of Local People Bear Conservation in Nepal
RSG reference	07-01-10
Reporting period	July, 2010- April, 2011
Amount of grant	£5949
Your email address	bhupendra_iof@yahoo.com
Date of this report	16 th November, 2011

1. Please 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
Assessment of Bear-Human conflicts			√	Agriculture loss, livestock loss and human loss were assessed in RNP & KNP.
Anthropogenic pressure			√	Livestock rearing and grazing pressure identified.
Crop raiding behaviour			√	Seasonal crops raiding behaviour identified.
Mapping the distribution of bears			√	Distribution maps were developed and effective areas were identified.
Conservation awareness activities		√		Conservation activities conducted but participation was not more than expectation.
Awareness camp for various age group			√	School students, Women groups, Youth groups, herder groups, buffer zone communities' members, park staffs and leading persons as well.
Art, Quiz, Essay competition		√		Target was 10 schools but it was completed only six schools.
Brochure publication and other materials			√	Banner, poster, brochure and fact sheet of bears were published and distributed in both Protected Areas.
Eco-club formation and orientations			√	Five Eco-clubs were formed and basic training was completed by park wardens.
Final workshop			√	Workshops were conducted in coordination with Park warden and buffer zone committee members.

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

Interviewing local people by questionnaire survey was taken longer time due to high terrain and ridge and no availabilities of fast transportation. People still hesitate to give detail interview and I have trained the local people how to questionnaire and used to collect data by the questionnaire survey from some disturb areas. There was problem to visit alone frequently in these regions. The effect of political instabilities disturbs to gather many people at one place. There was hard to convince people due to illiterate and poverty. The final workshop was completed after long time coordination with Buffer zone chairs and Park Wardens. But there were big challenges because they had more demand and expectation from the researcher. People have been losing agriculture crops, livestock and sometime human beings as well.

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

1. Understood of food preferences, causes of conflicts, cause of death of people, livestock and black bear.

A. Wild food items of black bear

The black bears used wild food during winter season and agriculture food in summer. The list of all these species are listed based on the local people interviewed (N=150 in RNP, N=150 in KNP). The responded reported the black bear food items as follows:

Wild food: Major wild foods used by black bear were *Prunus species*, *Berberis species*, *Rubus species*, *Quercus species*, *Himalayacalamus species*, *Mesa macrophylla*.

Agriculture food: millet, maize, wheat, buckwheat, barley, paddy, potato and soybeans.

B. Cause of conflicts

Agriculture loss

The major crops grown by local people in Rara National Park and their buffer zone area were millet (39.39%), barley (19.74%), wheat (18.47%), paddy (8.63%), maize (7.77%) and buckwheat (5.99%). The total production is the cumulative production and the overall losses by the wildlife were 11.34 percentages. The bear were responsible for 40.43% of overall loss followed by wild boar (31.49%), monkey (25.55%), and barking deer (2.53%). The potatoes were also the major agriculture crop and it was mainly lost by wild boar and porcupine. If it is included in total production and total loss, the wild boar became the major agent of agriculture loss in Rara National Park. The potatoes were excluded from the calculation.

Khaptand National Park

The major crops grown by local people were millet, maize, wheat, paddy, buckwheat, black lentil, potato, and soybean. The major crops produced by the local people were millet (34.48%), maize (18.22%), potato (12.77%), wheat (11.18%), paddy (9.38%), soybean (7.65%) and buckwheat (6.32%). The total production is the cumulative production and the overall losses by the wildlife were 14.72 percentage. The wild boar was major responsible for 46.25% of overall losses followed by black bear (34.65%), and monkey (19.10%).

Livestock losses

Rara National Park

Cow, ox, goat, sheep and buffalo were reared as major livestock. The percentage of production of these livestock was as goat and sheep (74.91%), cow (14.57%), ox (6.69%) and buffalo (4.72%). Out of these, the loss percentage of goat and sheep (31.58%) was highest followed by cow (31.58%), ox (21.05%) and buffalo (15.79%). Out of the total production of livestock, 7.48% livestock were depredated by wildlife. The black bear were the major responsible agent. The black bear were responsible for (40.21%) while the common leopard were responsible for (59.79%).

Khaptad National Park

The cow, buffalo, goat, sheep and pig were reared by farmers as a major livestock. The percentage of production of livestock was cow (41.78%), buffalo (16.1%), goat and sheep (36.42%), and horse (5.7%). Out of these, the loss percentage of goat and sheep (47.11%) was highest followed by cow (28.12%), buffalo (14.1%) and horse (10.67%). Out of the total production of livestock, 9.5% livestock were depredated by wildlife. The major agents for wildlife loss were common leopard, wolf and

black bear. The common leopard was responsible for (44%) followed by black bears (31%) and wolves (25%).

Human losses

Three persons were injured in different times since last 10 years. There were no more human loss records. The loss was reported in forest area and agriculture land in Rara National Park. Similarly, five persons were dead and injured during last 10 years in Khaptad National Park. Bears human conflict is high in Khaptad National Park than Rara National Park. The pressure on forest resources was high in Khaptad National Park than Rara National Park.

C. Causes of death: (people, livestock and black bear)

Death of people

The loss of human beings was reported occasional. Most of the attacked were occurred in forests. The most of the people were dependent on forest resources. The main problem faced by the park is that people exclusively dependent for grazing of animals inside the park. Pressure on resources inside the park generates conflict with the people. There is high dependency of local people on forest resources. The overall 65% people are illiterate and 87% women are illiterate. The main economic activity is farming and livestock farming, even though this profession is not able to produce sufficient food for the people. Local people and black bear encounter was faced in forest area during fuel wood, fodder, timber collection and as a herder of livestock grazing.

Bear killing

Retaliatory killing

The bears were killed due to agriculture loss, livestock loss and human loss. The main economic activities are farming and livestock rearing, even though this profession is not able to produce sufficient food for the people. Improvement of livelihoods of local people is difficult to achieve in such a resource poor situation and inaccessible places. Lack of marketing facilities and transportation is another hurdle for overall development. At that situation, Livestock depredation and crop damage by wildlife is common and it is a serious threat to local people. Livestock depredation and crop raiding by wildlife shows negative impact on local communities and bears were reported to kill as a retaliatory killing. There was no effective support by compensation after agriculture loss and livestock loss.

Illegal trade and poaching

People are suffering from poverty and there is difficult to improve their livelihoods due to lack of resources, inaccessible places and lack of transportation facilities. People are also not aware about wildlife conservation. This study found that some people were involved for trading of wildlife parts mostly for musk deer and black bears. The China has big market for wildlife trophy and for traditional medicinal uses. There is difficult to monitor and patrol against all these illegal trade due to harsh terrain and geophysical conditions. The border of china is accessible to across the ridge and mountain and they have good channel to supply wildlife trophies and NTFPs.

2. Understood long term and immediate threats

Major threats

- Overgrazing.
- Harvesting of forest resources.

- Encroachment.
- Poaching of black bear and other animals is a frequent.
- Illegal collection of forest resources, and deforestation.
- Wildlife-livestock competition.
- Population of wild boars is increased and agriculture loss is high, negative impact about wildlife on local people.
- Agriculture loss and livestock loss is the major issues in Rara and Khaptad National Park.

Status and distribution of black bear in Rara National Park and Khaptad National park

Status

The local people (N=150) were interviewed regarding the status of bears and they reported that bears status is high (60%) followed by medium (23.33%), low (6.67%) and rare (10%) in Rara National Park. The local people (N=150) were reported that the bears status were high (64%), medium (24%), low (7%) and rare (5%) in Khaptad National Park.

Distribution of bears in RNP:

There are 9 VDCs, out of them Seri, Pina, Rara was high distribution of black bear based on the sign evidences and interview of local people.

Distribution of Khaptad NP

There are 21 VDCs. Out of them Kadamandu, Gairagaun, Khaptad and Majhgaun was high distribution and mostly affected by bears as followed by Gadaraya, Jayabageshwori, Patlekot, Kalukheti, Duni and Kanda was medium and low distribution of black bear and mostly effected by bears.

3. People were partially aware through conservation education programmes.

There was difficult to gather people to conduct conservation education programme. This project aim was to aware different age group people. The targets were only success of 75 percentages. The local people (key persons) were trained and used to teach in different schools. Park staffs were also used to make people aware to provide different information about wildlife and their importance in ecosystem and human beings life. There was difficult to gather women groups at one place and we gathered few women groups. The youth and students were participated well but farmers and other groups were not participated more as we expected because they were victims of livestock loss and agriculture loss by wildlife. They did not receive the compensation for these losses. We convinced the Buffer zone council executive member and used to convince these people and finally we gathered most of these people in workshop. The workshop finally recommends how to conserve the bears and wildlife in RNP and KNP as well as how to increase the local people livelihoods and compensation mechanism effectives.

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

The local people were directly involved in conservation education programme. School students were educated about conservation of wildlife (especially bears) in RNP and KNP. Similarly, youth and women groups were also aware about conservation of black bears in Rara National Park and Khaptad National Park. The local people and park authorities were coordinated for this work and gathered at one places during conducting these programmes. They were also suggested for future work and local people were suggested to make sustainable compensation mechanism for effectiveness in both national parks. The government has published wildlife relief guideline (2009)

but most of the people were not aware about that provision. We were informed the local people about compensation scheme in detail and people committed to conserve the wildlife in these protected areas. The amount of compensation is not enough but it is something than nothing else. The buffer zone members were convinced to schedule some wildlife conservation activities through regular budget of buffer zone programme. Local people are expecting regular support from Government. The park authorities were committed to support for wildlife conservation activities through buffer zone programme in large scale.

5. Are there any plans to continue this work?

The first and most important steps are to make "Bear conservation action plan of Nepal". The proposed conservation action plan will recommend developing annual programme of each protected area to conserve the bears. This work will be the key work to continue the conservation of bears in Nepal. The conservation will start when all protected area will develop conservation action work for bears annually.

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

By soft and hard copies of reports will be shared and finally results will be shared by paper publication in national and international journals. The information about bears will be shared by different seminar and workshops. The hard copies report will be handed over to the DNPWC and both national parks and related line agencies.

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

The actual time to complete the RSG project was July 2010 to April 2011. But this project was taken 6 months more due to gathering of local people for final workshop. This programme was conducted in participation of KNP and RNP and we jointly invited the local people for final workshop for future programme and coordination between park authorities and local people. The major reason was to inaccessible terrain and no facilities of transportation. Therefore, people were not gathered at short time in these protected areas. Thus, I had to extend this project 6 months more to finalise it. The sharing of collected information to local people were important steps and collection of local people suggestions for future programme was also important to minimize the conflicts in these PA's.

8. Budget: Please 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.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Salaries for (Assistants & local guide)	1520	1600	-80	KNP supported 100 pounds to 2 field staffs for extra man days.
Communication	50	65	-15	In kind support from BRCN
Food	1800	1878	-78	Local food was expensive than proposed rate
Field equipment	879	700	+179	2 sleeping bags were supported from DNPWC

Travel fare	610	670	-60	Fair increased
Consumable	40	40	0	
Conservation activities costs	850	961	-111	Workshop costs was high than expectation
Report production costs	200	200	0	
TOTAL	5949.00	6114	-165	

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

To make “Conservation Action Plan of Asiatic black bear in Nepal” and continue the conservation education programme in some protected areas where illegal poaching and bear-human conflicts is maximum. The best and most effective way to make people aware about wildlife conservation is conservation education programme.

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

I have used RSG logo each and every product. RSGF have much publicity through brochure, poster and FM program. I will also use the logo and name in my presentation and publication as well.

11. Any other comments?

I would like to thanks my Referees and Department of National Parks and wildlife Conservation for necessary support. I would like to thanks to Khaptad National Park and Rara National Park for their necessary manpower support and few amounts as well. I would like to thank to Chief Warden of Rara National Parks and their staffs and Khaptad National Park warden and staffs. I would like to thank to the buffer zone council members and field staff. I would like to than to Bear Research and Conservation Nepal (BRCN) for equipment and necessary data and office uses. Finally, I would like to thanks to all of the research team to complete this project.