

# **The Rufford Foundation**

# **Final Report**

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

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. 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. Please note that the information may be edited for clarity. 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	Pratikshya Kandel
Project title	Managing Human Wildlife Conflicts in Community Forestry in Nepal
RSG reference	13998-1
Reporting period	Final
Amount of grant	£5900
Your email address	me.prakshee@gmail.com
Date of this report	18 December 2014



1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not	Partially	Fully	Comments			
	achieved	achieved	achieved				
Status, causes and trends on human wildlife conflicts (HWC) recorded in selected Community Forests (CFs) in study districts.			Fully achieved	Data on HWC conflicts were collected from study sites. Map of HWC in the districts was created. HWC can be recognised as conservation challenges especially in CFs. This issue needs immediate attention and responses at local to national level.			
Community perception on wildlife management and HWC			Fully achieved	Communities are positive towards wildlife conservation although they reacted negatively during the conflict period. CF needs more awareness on wildlife management as well as activities that generate benefits at local level.			
Wildlife management networking through joint management actions in a study site			Fully achieved	HWC mitigation committee at Village Development Committee (VDC) level was formed and registered at district administration office. It could be developed as a community networking forum to address HWC management.			
Operational framework to address HWC in CF			Fully achieved	Most of Community Forest User Groups (CFUGs) in the study area are ready to conserve the wildlife by keeping a provision of wildlife conservation and human wildlife conflict mitigation activities in their operational plan.			
Strategic inputs for national level HWC mitigation strategy		Partially achieved		Policy recommendations for the national level HWC mitigation strategy include incorporation of HWC management at CF guidelines, simple and quick compensation mechanism to HWC and management and rescue mechanisms established for problems animals			



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

Due to absence of community forest in the Mustang district, the study site was changed to Tanahun district.

The Tanahun district provided valuable insights and opportunities on the issue.

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

Three most important outcomes of the project are summarised below:

## 1. Status, causes and trend of human wildlife conflicts in community forests

HWC is the interaction between human and wild animals with its consequential negative impact on people, their resources, or wild animals. The conflict crops up when humans or wildlife are having an adverse impact upon the other. It has become a regular phenomenon. With the increasing populations of wild animals as well as of human and livestock combined with declined suitable habitats, the chance of human wildlife conflicts is in rise by many folds in the districts.

## Causes of HWC

Higher dependency of local communities on the forests for timber, fuelwood, fodder and other forest products; closer locations of settlements to the forests; increase in population of wild animals due to community conservation; lack of awareness; increase in problems animals; absence of rescue centre; fragmented habitat that forcing wildlife and people to share the same habitat and often compete for the same resources are identified as major causes of HWC in the study area. Study areas selected for the project are shown in figure 1.



Figure 1: Study are



## Status of HWC

Different wildlife species were found to be involved in conflicts with the community in the community forests of Kavre, Kathmandu, Tanahun, Chitwan and Kailali districts. Major wildlife species in conflicts in the study area are given in the table 1. Most of these species are threatened and are vulnerable to extinction from poaching and retaliatory killing.

Animals involved in conflict	Type of damage	IUCN status	CITES category	Location		
Tiger (Pathera tigris)	Human casualties and livestock depredation	Endangered	1	Chitwan, Kailali		
Rhino (Rhinoceros unicornis)	Human casualties and crop damage	Vulnerable	I	Chitwan		
Elephant (Elephas maximus)	Crop raiding and property damage	Endangered	I	Kailali		
Rhesus monkey ( <i>Rhesus macaque</i> )	Crop raiding	Least concern	11	Tanahun, Kathmandu		
Swamp deer ( <i>Cervus duvauceli</i> )	Crop raiding	Vulnerable	I	Kavre, Kathmandu, Kailai		
Wild boar (Sus scrofa)	Crop raiding	Least concern		Kavre, Chitwan, Kailali		
Leopard (Panthera pardus)	Human casualties and livestock depredation	Near threatened	1	Kavre, Kathmandu, Tanahun		

Table 1: Major wildlife species in conflict

A total of 21 humans were killed by leopard, tiger, rhino, elephant and wild boar during the 5-year period in the study districts (Table 2). Among them, leopards have killed highest number of humans (13 people) followed by rhinoceros (4 people) and tiger (2 persons). Elephants and wild boars have killed one each. Among those who are killed, twelve were female and nine were male. During the same period, 34 people were injured from leopard, rhinos, tigers and wild boars. Among wildlife species, leopards were found to be the most problematic animals in the community forests. A total of 36 dead and 41 live wild animals were rescued as a result of conflicts during the five-year period in the study sites (Table 2).

Table 2: HWC situation during the five-year periods (2009/10-2013/14)

Site/ District	Name of Wildlife	Human casualty		Crop raiding (kg)	Livestock depredation	Property damage	Status rescue animal	of d s
		Death	Injury				Died	Alive
Kavre	Leopard	13	-	-	-	-	2	-
	Wild boar	-	-		-	-	4	-
	Deer	-	-		-	-	3	2
Kathmandu	Leopard	-	8	-	-	-	2	9
	Deer	-	-	-	-	-	5	3
	Jungle cat	-	-	-	-	-	2	4
	Leopard	-	-	-	-	-	-	2



	cat							
	Pangolin	-	-	-	-	-	3	2
	Large	-	-	-	-	-	2	1
	Indian							
	civet							
	Himalayan	-	-	-	-	-	1	2
	palm civet							
	Others	-	-	-	-	-	-	13
Tanahun	Leopard	-	3	-	1 goat	-	10	-
	Monkey	-	-	4000	-	-		
				(maize,				
				vegetables)				
Chitwan	Tiger	2	1	-	-	-		
	Rhino	4	18					
	Wild boar	-	2	-	-	-		
Kailali	Wild boar	1	1	-	-	-		
	Elephant	1	-	- 15,275		36 small		
				(rice,		houses		
				maize,				
				millet etc.)				
				- 37.76 ha				
				(paddy,				
				millet field)				
	Tiger	-	1	-	-	-		
	Deer	-	-	-	-	-	2	2
	Blue bull	-	-	-	-	-		1
Total		21	34				36	41

# Trend of HWC

## Human deaths and injury

A total of 21 people were killed by leopard, tiger, rhino, elephant and wild boar during the 5-year period in the five districts (Table 3). Highest human deaths (eight) were occurred in fiscal year 2009/10 and lowest (two) in fiscal year 2013/14. Similarly, highest human injuries (16) occurred in fiscal year 2012/13 and lowest (three) in fiscal year 2010/11 and 2011/12. The overall human casualties are shown in figure 2. The trend of human deaths and injuries is shown in figure 3.





Figure 2: Overall human casualties (death and injury) in the study sites

Table 3: Number of human deaths and injuries in the last five fiscal years (2009/10-2013/14)	.)
--	----

Site	Species	2009/10	F.Y.		F.Y. 2010/11		F.Y. 2011/12		F.Y. 2012/13		F.Y. 2013/14
		Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury
Kavre	Leopard	4	-	3	-	3	-	2	-	1	-
Kathmandu	Leopard	-	-	-	-	-	-	-	7	-	1
Tanahun	Leopard	-	-	-	-	-	-	-	1	-	2
Chitwan	Rhino	2	3	1	-	-	4	-	6	1	3
	Tiger	1	-	-	-	-	-	1	1	-	-
	Wild boar	-	-	-	-	-	-	-	-	-	2
Kailali	Elephant	1	-	-	-	-	-	-	-	-	-
	Tiger	-	-	-	-	-	-	-	-	-	1
	Wild boar	-	-	-	-	-	-	1	1	-	-
Total		8	3	4	-	3	4	4	16	2	9





Figure 3: Trend of human deaths and injury

## Trend of crop raiding and property damage

Crop raiding and property damaged by elephant in Kailali district were found more serious than other sites. The last 5 years' data showed that the elephant is the most pervasive species in the case of crop and property damage. The data of last five years showed that property damage is the second most serious issues of HWC (Table 4).

#### **Rescue of Leopard**

From the 5-year data, leopard is found as the most problematic wild animals in mid-hill community forests. A total 14 leopards were killed by human in Kavre, Kathmandu and Tanahun. Similarly, nine alive leopards were rescued in Kathmandu valley (Figure 2 or 4?).



Figure 4: Rescue of Leopard



Table 4: Crop and property damage by wild animals the last five fiscal years (2009/10-2013/14)

Site	Species		F.Y. 2009/10		F.Y. 2010/11		F.Y. 2011/12		F.Y. 2012/13		F.Y. 2013/14
		crop Raiding (kg)	p. damage	crop raiding (kg)	p. damage	crop raiding (kg)	p. damage	crop raiding (kg)	p. damage	crop raiding (kg)	p. damage
Tanahun	Monkey	-	-	-	-	-	-	-	-	4000 (maize, veg.)	-
Kailali	Elephant	- 9975 (rice, millet, maize etc.) -7.76 ha (rice, millet field)	30 small houses	-400 (rice, millet, maize etc.) -0.4ha (rice, millet field)	1 small house	300 (rice, millet, maize etc.) -0.8ha (rice, millet field)	1 small house	-	-	-4600 (rice, millet, maize etc.) -28.8ha (rice, millet field)	4 small houses
Total		- 9975 (rice, millet, maize etc.) -7.76 ha (rice, millet field)	30 small houses	-400 (rice, millet, maize etc.) -0.4ha (rice, millet field)	1 small house	300 (rice, millet, maize etc.) -0.8ha (rice, millet field)	1 small house	-	-	-8600 (rice, millet, maize etc.) -28.8ha (rice, millet field)	4 small houses
p. damage	e = property	y damage									



# **2.** Wildlife management initiation through networking and Operational framework to address Human Wildlife Conflict in Community Forestry

Conservation of wildlife is beyond the control of one CFUG. There is an urgent need of collaboration between two or more CFs to address these issues. VDC level Human Wildlife Conflict Mitigation Committee (HWCMC) was formed at Tanahun district to address the issues of HWC and wildlife conservation. This committee is legally registered in district administration office, Tanahun. HWCMC has developed its own constitution to operate the institution. The project has supported HWC mitigation activities from project sources.



Community discussion for developing constitution of HWCMC at Tanahun district

After consultation with the community, they agreed to put a provision of wildlife conservation and HWC mitigation activities in operational plan of CFUGs and implement these activities according to their plan. They have also initiated to establish the community-based relief fund to address the immediate response.

#### 3. Strategic inputs for national policy

District level and community level consultation meetings were organised in five districts. The government line agencies and representatives from CFUGs participated in the meeting. They put forward many valuable suggestions and comments to national level policy of HWC mitigation strategy. These inputs are summarised below:

- 1. Provision of instant delivery of compensation or relief to the loss.
- 2. Establishment of community-based relief fund.
- 3. Implementation of awareness programme about the wildlife conservation.
- 4. Establishment of well managed rescue centres for rescued problematic and orphan wild animals.
- 5. Revision of wildlife damaged relief fund guideline.
- 6. Institutional arrangement to address the HWC.
- 7. Functional collaboration between two or more CFs to wildlife conservation.
- 8. Retain and maintenance of biological corridors.
- 9. Scale up and strengthen community-based networking and conflict mitigation committee





Left: Community level Interaction/consultation meeting at Tanahun district. Right: Community level Interaction/consultation meeting at Chitwan district

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

Since, this project is focussed on human wildlife conflicts in CFs of Nepal, it has adopted a participatory approach during its implementation. Local communities from various CFUGs were actively involved in selecting the potential CFs for the study, clustering boundary defining and collecting data. Representatives from CFUGs, local communities, government officials and teachers were involved during the district level and community level consultation and interaction meetings. Local communities were involved in amending the operational plan of their CFUGs and developing a common operational plan for wild management among the clustered CFUGs. Beyond provision of data, direct benefits for the local community is increased level of awareness regarding HWC and provision of mitigating measures to minimise the hostile interaction between them and wild animals. Also, they have amended operational plan which is expected to address their problem of conflicts and wildlife management.

#### 5. Are there any plans to continue this work?

Yes, I am planning to continue the conservation activities in selected CFs. I want to implement learning of this project to other vulnerable sites. Community based conservation and mitigation programmes will be organised in collaboration with district forest offices and other concerned line agencies.

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

Regular progress reports were submitted to Rufford Small Grant Foundation to keep in official website. I am planning to submit the final report to the district forest offices, department of forests, regional forest directorate, ministry of forests and soil conservation and other concerned agencies who are working in that area. The project results will further be shared with scientific communities through conferences and publications.



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

The Rufford Foundation grant has been used over a period of a year to successfully complete the project. The project has been successfully completed over an anticipated time i.e. 1 year from receiving grant.

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	Actual Amount	Difference	Comments
	Amount			
Material and Equipment	200	150	+50	
Travel costs	1000	1050	-50	
Orientation	300	250	+50	
Field costs	1000	1000	0	
CFUGs supports	400	500	-100	
Stationeries, printing, report preparation	300	300	0	
Consultations and interaction	1300	1300	0	
GIS and mapping	500	400	-100	
Photocopies, communication and other	300	400	+100	
logistics				
Networking and joint management	300	300	0	
planning				
Dissemination workshops	300	300	0	
Total	5900	5950	-50	

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

HWC has become a regular phenomenon. It is clear that HWC will not be eliminated in the near future, only be reduced. Therefore, there is an urgent need of continuation of conservation efforts to mitigate the HWC.

The followings are some important steps:

- Raise public awareness and educate local people to change their attitude towards wild animals.
- Establish community-based relief fund and clear fund management guidelines.
- Establish well managed rescue centres for rescued problematic and orphaned wild animals.
- Conserve, maintain and restore wildlife habitat by managing corridors, waterholes, grasslands and forest lands.



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

I constantly acknowledged RSG during the project work. The RSGF logo was used in all materials (leaflets/brochures, banner) produced during the project. I will use the logo in the final report which I will submit to District Forest Offices, Department of Forests, Department of National Parks and Wildlife Conservation, Ministry of Forests and Soil Conservation. I will acknowledge RSG in all the scientific publications as well as international and national conferences.

## 11. Any other comments?

I would like to thank RSGF for providing me an opportunity to work on this project, managing human wildlife conflicts in community forestry in Nepal. With this data, knowledge and experience, I will continue conservation actions/activities and hope to save the beautiful elements of our rich biodiversity. I am very much thankful to RSGF personally because I have got chance to hone my skills and knowledge and build career in the conservation field.