

## Final Evaluation Report

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Your Details	
Full Name	Saurav Lamichhane
Project Title	Human-leopard ( <i>Panthera pardus</i> ) Conflict Evaluation and conservation outreach in and around major conflicted districts of Annapurna Conservation Area, Nepal
Application ID	32618-1
Date of this Report	27 June, 2022

**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
Collect Information on spatial-temporal patterns of Human Leopard Conflict (HLC).				Human-leopard conflict (HLC) data from past 3 years (2017-2020) were compiled from division forest office compensation records and CAMC's records. Based on compiled records of HLC, field visits were carried out and detailed inquiries were done about the incidents. We did questionnaires; a total of 32 (eight deaths and 24 injury cases involving leopard from the project location). Similarly, we did a questionnaire survey of 274 households who lost their livestock from leopard attack. The whole project location was divided in to 4 x 4 km grid. A total of 12 landscape predictors were compiled (Table 2) and analysis was done using two methods: 1. GLMs with binomial distribution (presence of conflicts-1, absence of conflicts-0) and 2. with Poisson distribution (grid wise count of conflict incidences).
Map out HLC hotspots areas.				Leopard livestock predation risk map was prepared using the function Kernel density estimation (KDE) in Arc GIS 10.5.
Understanding perception of local people towards common leopard conservation and HLC.				The questionnaire survey was carried out regarding knowledge of leopard, human-leopard interactions, perception towards leopard conservation, time and month of the attack on humans and livestock and activity during attack with the victims and their family.
Aware local people and school children on leopard conservation and HLC mitigation measures				Students from selected 10 schools from three districts were sensitised and trained about leopard behaviour and leopard handling during encounter and motivated to raise the awareness

				among their families. Two signage hoarding boards were prepared and installed in two different HLC sensitive locations. 200 posters and 200 leaflets were prepared and distributed to the local people of the project area.
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## 2. Describe the three most important outcomes of your project.

### a). Community sensitization and awareness

Altogether, eight schools were selected from three districts covering more than 500 students. Students were sensitised and trained about leopard behaviour and leopard handling during encounter and motivated to raise the awareness among their families. They were also provided with information about dos and don'ts during the encounter and ecological importance of leopard. We also disseminate information about wildlife relief guidelines provided by the government to the students.

Similarly, two signage hoarding boards were prepared and installed in two different HLC sensitive locations (Kaski district, near Pokhara zoological society and Lamjung districts, near Bujhung Conservation offices). Also, we distributed hoarding boards in two different schools (Bidya Jyoti Secondary School, Sundarbajar, Lamjung and Shree Amarsidha Namuna Secondary School, Begnas, Pokhara, Nepal) so that they could install them on their school premise. In hoarding board, we included the information about dos and don'ts during the encounter, site-specific techniques and tips to escape leopard attack. We also provide the information on the hoarding board of relief guidelines that the government provides in case of leopard attacks on humans or livestock.

Beside this, we also distributed the awareness materials such as posters and leaflets on leopard conservation prepared in Nepali language to the local people and herders. Now, local people, including the herders, know about the compensation scheme provided by the governments in cases of leopard attack on humans or livestock.



Figure 1 (Left) Installation of Hoarding board at HLC sites, (Right) Distribution of hoarding board to school committee



Figure 2 Some glimpses of conservation awareness program to school children

**b). Information collected on spatial-temporal pattern of HLC and map out hotspot's areas:**

HLC is a widespread problem in most protected areas of Nepal. Limited research focused on conflict of single species and conducted a study that focused on livestock predation by common leopard.

To understand the nature and extent of HLC, data were compiled from division forest office compensation records and Conservation Area Management Committee (CAMC) records. Altogether, we visited three division forest offices (Myagdi, Kaski, and Lamjung) and four conservation unit offices (Lwang, Ghandruk, Sikles, and Bujhung) in the project location. Due to lack of proper documentation of the data in most of the offices, we could only manage to collect the data from past 3 years (2017-2020). The data was categorised into two types: a) attacks on humans (death and injury); and b) livestock depredation by leopards. Based on compiled records of HLC, field visits were carried out and detailed inquiries done about the incidents. We did investigate a total of 32 events (eight deaths and 24 injury cases by leopard from the project location). Similarly, we did a questionnaire survey of 274 households from three districts, who lost their livestock from leopard attack.





Figure 3 Glimpse of questionnaire Survey carried out in project location

Table 1 Characteristics of Victims attacks by common leopard between 2017-2020 in three districts (Myagdi, Lamjung, and Kaski)

Variables	Variables components	Death	Injury
Age	>15	4	5
	15-24	1	7
	25-44	0	5
	45-64	2	4
	64+	1	3

Education	Illiterate	4	8
	Literate	2	6
	Primary	1	4
	Secondary or above	1	6
Sex	Male	6	14
	Female	2	10
Caste/ethnicity	BCT (Brahmin, Chhetri, and Thakuri)	2	6
	Janjati (Ethnic communities of hills)	4	12
	Dalit (under-privileged cast)	2	6

Predation on livestock by common leopard is also a major problem in hilly areas of Nepal. In this project we analysed different habitat metrics to know the role of different landscape predictors for predicting livestock predation by leopards. We divided the whole project location in to 4 x 4 km grid. We compiled 12 landscape predictors (Table 2). We ran GLMs with binomial distribution (presence of conflicts-1, absence of conflicts-0) and also with Poisson distribution (grid wise count of conflict incidences). At the end, we also prepared leopard livestock predation risk map using the function Kernel density estimation (KDE) in Arc GIS 10.5.

Table 2 Major predictor variables considered for spatial analysis in the project sites

<b>Types of variables</b>	<b>Predictor variable</b>	<b>Abbreviation</b>	<b>Unit</b>	<b>Range</b>	<b>Source</b>
Habitat Variables	Area of agricultural land	AAL	m <sup>2</sup>	0-3177300	(ESRI, 2020)
	Area of bare ground	ABG	m <sup>2</sup>	0-12706300	
	Area of forests	AF	m <sup>2</sup>	0-15947900	
	Area of grassland	AGL	m <sup>2</sup>	0-2214600	
	Area of shrub land	ASL	m <sup>2</sup>	0-15072200	
	Distance to protected area	DPA	meter (m)	0-42554.9	
Water	Area of water bodies	AWB	m <sup>2</sup>	0-2974900	(DFRS Nepal, 2020)
	River length	RL	meter (m)	0-14483.10	
Human Influence and Infrastructure	Built-up Area	BA	m <sup>2</sup>	0-14301000	OCHA Nepal, 2017
	Length of road	LR	meter (m)	0-107248.5	
Topography	Slope		(°)	2.15-51.9	DFRS Nepal, 2020
	Elevation		meter (m)	415.1-7420.4	

Table 3 GLM model with binomial structure

Variables	Estimate	Std. Error	Z value	Pr(>  z )
(Intercept)	-2.162e+00	1.027e+00	-2.106	0.035242 *
LR	-1.006e-07	9.766e-06	-0.010	0.991783
RA	9.775e-05	5.523e-05	1.770	0.076765.
Slope	-6.446e-02	3.027e-02	-2.130	0.033181 *
DP	-3.669e-05	1.831e-05	-2.003	0.045170 *
Elevation	8.964e-05	2.133e-04	0.420	0.674329
AF	1.993e-07	5.697e-08	3.498	0.000468 ***
AGL	-9.500e-07	1.363e-06	-0.697	0.485675
AAL	7.143e-07	2.991e-07	2.389	0.016912 *
ASL	6.178e-08	6.898e-08	0.896	0.370471
BA	2.587e-07	1.107e-07	2.337	0.019440 *
ABG	-4.861e-07	4.898e-07	-0.992	0.320977
AWB	2.127e-07	6.359e-07	0.334	0.738021

Table 4 GLM model with Poisson structure

Variables	Estimate	Std. Error	Z value	Pr(>  z )
(Intercept)	-1.699e+00	6.071e-01	-2.799	0.005124 **
LR	7.461e-06	4.541e-06	1.643	0.100403
RA	4.223e-05	2.360e-05	1.789	0.073588.
Slope	-1.663e-02	1.364e-02	-1.219	0.222662
DP	-4.211e-05	1.034e-05	-4.071	4.68e-05 ***
Elevation	-4.158e-05	1.139e-04	-0.365	0.715113
AF	1.436e-07	3.056e-08	4.698	2.62e-06 ***
AGL	1.509e-07	5.067e-07	0.298	0.765896
AAL	3.446e-07	1.010e-07	3.413	0.000643 ***
ASL	3.324e-08	3.751e-08	0.886	0.375491
BA	1.229e-07	4.444e-08	2.766	0.005672 **
ABG	-6.164e-07	3.298e-07	-1.869	0.061647.
AWB	1.192e-07	1.894e-07	0.629	0.529195

This study is the first study from Annapurna Conservation Area where spatial extent of livestock predation by leopard is reported. Results shows that forest areas, agricultural lands and built-up areas areas are positively associated with livestock predation while slope and distance to protected areas are negatively associated with the livestock predation. Probability of livestock depredation by common leopard increased with the decrease in slope and distance from protected areas.



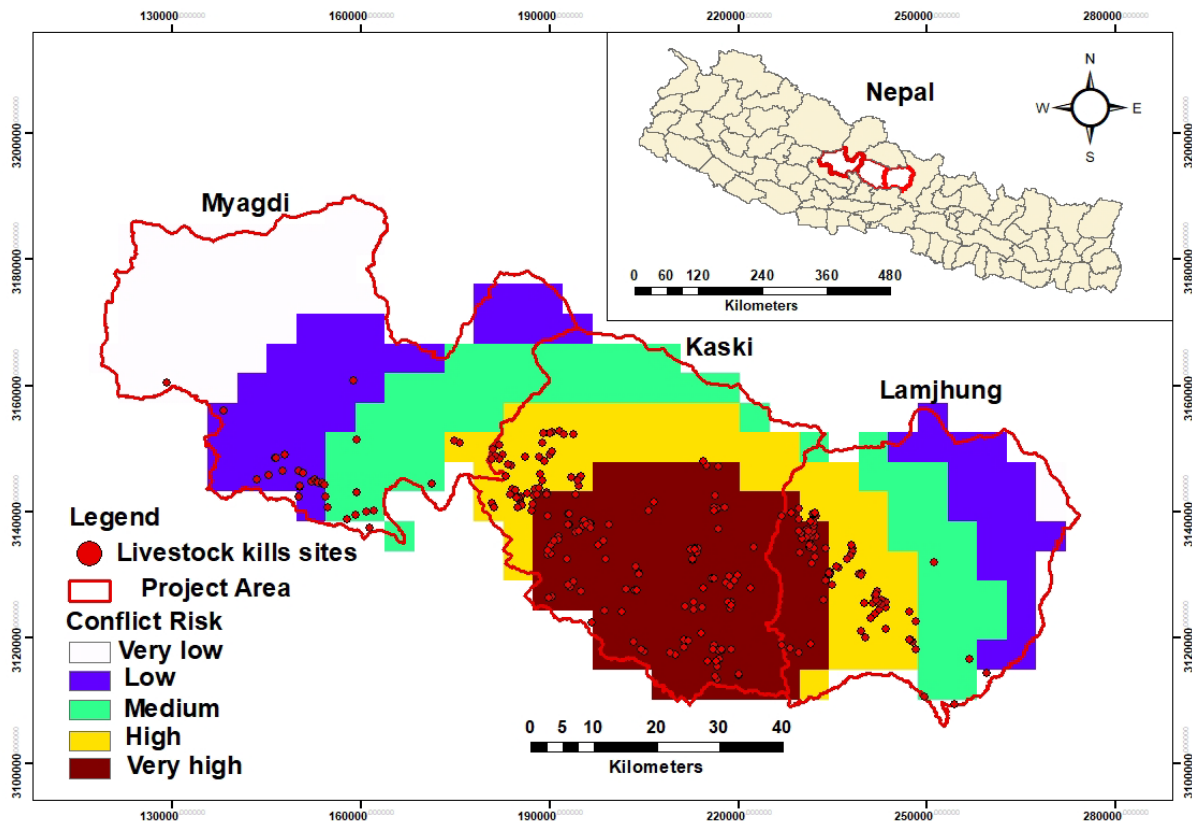


Figure 4 Leopard livestock predation risk map

**c). Finding dissemination workshop and final results of the project distribution to concerned offices:**

We conducted two workshops to disseminate the final results of the projects. Beside this, we also distributed the results of the project to division forest offices and conservation unit offices situated in three districts (Myagdi, Lamjung and Kaski). The first workshop was conducted in Kaski districts at the office of Pokhara Zoological Park and the second workshop was conducted at Bujhung conservation unit office.



Figure 5 (A) Meeting conducted at Kaski DFO, (B) Meeting with the staff of Bujhung conservation unit regarding the project findings.





Figure 6 Workshop to the local communities in collaboration with Pokhara Zoological Park

### 3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

Conflicts between humans and common leopard have been a major challenge, especially in mid-hills of Nepal. Every year, mass killing of livestock by leopard causes major economic losses to the local people and herders. One of the major activities of our project is to do questionnaire survey with the victims. During the questionnaire survey, some people reacted positively, and some people reacted indecently. Some victims also show us high level of aggression.

While finding out the reason for victim's aggression, we came to know that sometimes researchers went to their area for interview and they assured them that they would come again with monetary compensation, but never returned. Similarly, there were lots of visitors visiting their house and asking the same question about the incidents made them irritated as well as opened their forgotten memory again. These are some unforeseen difficulties for us to accomplish our study. They also told that the compensation process from the government to the victims is cumbersome. Victims are not able to get the amount on time due to administrative hurdles. Therefore, the accuracy and rapidness of verification of damages, transparent and swift payment mechanism from government body is necessary. Beside this, due to the project leader's knowledge of working in remote areas, no other unforeseen difficulties were faced.

**4. Describe the involvement of local communities and how they have benefitted from the project.**

We followed a participatory approach so that different local stakeholders were involved throughout the execution of the project. During the questionnaire survey, and finding the victims houses, we had help from field level forest officials. We also had help from local herders of the villages as a field guides during the questionnaire survey. They were provided with certain number of allowances for helping as a guide during questionnaire survey.

Similarly, about 500 students were sensitised and trained about leopard behaviour and leopard handling during the encounter. In the finding dissemination workshop, there is also participation of community forest user groups and conservation area management committee members. They were happy and made a positive response about the project work and also encourage us to bring more conservation awareness programme in the project area. We have been greatly thanked by the villagers that we visited.

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

Of course, I have planned to continue study regarding common leopard ecology (diet analysis and habitat occupancy) along with conservation awareness and conflict mitigation program specially focused to local herders of the Annapurna Conservation Area.

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

We already conducted two workshops to disseminate the final results of the projects. Beside this, we also distributed the results of the project to division forest offices and conservation unit offices situated in three districts (Myagdi, Lamjung and Kaski). Apart from this, hard copy of this report will also be distributed to Department of forest (DOF) and Department of National Parks and Wildlife Conservation (DNPWC).

We are also currently preparing manuscripts to be published in a peer reviewed journal mainly on the topic 'Understanding drivers of human-leopard conflicts in an around Annapurna Conservation Area.' Beside this, if there is any workshop meeting and conferences about HLC, we will be there to share our results with all the interested people.

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

Common leopards are highly opportunistic animals that commonly consume domestic prey when they are available. There is no comprehensive study on the status, habitat occupancy, diet composition from the project location. Moreover, strengthening the capacity of local herders (who are mostly affected groups due to human-leopard conflicts) through different conservation workshop, awareness education and incentives measures is necessary in the project area. So, the important next steps are as follows:

1. Completing the manuscript and submit it to the peer reviewed journal.
2. Plan and develop project proposal to conduct study on diet composition, habitat occupancy and awareness programme (specially focused to local herders) from the project location.
3. Discuss with government bodies in working towards development of HLC mitigation and management plan.

**8. 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 logo of The Rufford Foundation was used in most of the activities related to this project. In all the educational material (poster, leaflet, hoarding board, during the talks, workshop and results dissemination activities) produced during the project has the RF logo on the front.

**9. Provide a full list of all the members of your team and their role in the project.**

Below are the details of the people who directly involved in my project:

**Tank Rawal-** M.Sc. in natural resource management from Kathmandu Forestry College. Major role: Conflict data collection and questionnaire survey, conservation outreach program, helping in finding dissemination workshop and data analysis.

**Sandhya Dhakal:** Studying M.Sc. in General forestry at Agriculture and Forestry University. Major role: School education, questionnaire preparation and data analysis.

Including our team, Divya Bhattarai helped us in questionnaire preparation and school education; Binay Adhikari (Manager at Pokhara Zoological Society) helped us in conducting finding dissemination workshop; Bikram Gautam (Ranger at Myagdi districts helped us during questionnaire survey and conservation awareness program; Manoj Subedi helped us during questionnaire survey and school education activities at Lamjung districts; Hikmat Gurung, Nar bahadur Rai, Nigma lama, Gore Magar (Local herders) helped us during questionnaire survey and conservation awareness program at Sikles, Bujhung, Lwang and Ghandruk.

**10. Any other comments?**

I would like to thank The Rufford Foundation for all the support to conduct this project. Through this project, a new dimension for the common leopard conservation and HLC mitigation and conservation awareness programme has commenced. We will continue working on both ecological and conservation awareness of the common leopard, so that the species are kept safe in their habitats and co-existence between human and leopard can be promoted. I am also thankful to DNPWC and DOF for providing permission letter to conduct this research.



The project was affected by the COVID pandemic. Due to complete lockdown in the country, the project time increased by 6 months. However, the grants were actively utilised as per the proposed activities.

## वितुवाको आक्रमणबाट बच्ने उपायहरू

### आक्रमण गर्नुअघि

- जङ्गलमा हिंडदा वितुवाको बन्ध वा पाइलाको निशान याद गर्ने । वितुवाको पाइला देख्ने बित्तिकै वा गन्ध थाहा पाएपछि सर्तक हुने र त्यस दिशातिर नजाने ।
- अन्य जनावरको सङ्केत (चितल, रतुवा, लडगुर, बाँदर वा चराहरूको आवाज) याद गर्ने । वितुवा वा बाघा देख्दा यिनीहरू कराएर संकेत दिन्छन् ।
- जङ्गल छेउछाउमा बस्ने मान्छेले राति आफ्नो घरको झ्यालटोका राम्ररी बन्द गर्ने ।
- सोमकमा घर बाहिर नबस्ने साथै राति घरबाट बाहिर निस्किले । निस्किले परे हातमा लौरो अथवा कुनै साधारण हतियार लिएर सर्तक भएर होसियारी पूर्वक निस्किले । सकेसम्म साथी लिएर मात्र निस्किले ।
- आपना बालबालिकाहरूलाई सामाजिक अभियन्तामा बाहिर खेल्न नदिने ।
- जङ्गल छेउछाउका क्षेत्रमा बस्नेहरूले सामाजिक एवं हिंडुल नगर्ने । दिशा पिसाब गर्न जङ्गलमा नजाने ।
- जङ्गल छेउछाउका क्षेत्रमा बस्ने बासिन्दाले घर वरीपरी बास, काडीमा र बुट्यान नराख्ने । यस्तो काडी, बुट्यानमा वितुवा लुकेर बस्न सक्छ ।
- घरको एकदम नजिक सेती गदा पनि वितुवा लुकेर बस्न भिल्ले बाली जस्तै मकै उसु नलगाउने ।
- घर बाहिर आगो वा बत्ती बालेर उज्यालो राख्ने ।

### आक्रमण गर्ने अवस्थामा

- आत्मरक्षाको लागि आक्रमण गर्नुअघि नै वितुवाले बाघले जसरी गजले काभ लपकत सुत्ताउने, जमिनमा दबेर बस्ने र पुच्छर जोड्ने यताउता हल्लाउने गर्छ ।
- मध्यम आकारको हुने हुँदा यसले हतपत वयस्क मान्छेलाई आक्रमण गर्दैन तर आइहाल्छो भने हात माथि उठाएर । हातमा कभोला वा अन्य सामान भए अर्क प्रभावकारी हुन्छ । जोड-जोडले हल्ला गर्ने । यही गदा मान्छेको आकार अर्क ठूलो देखेर वितुवा डराएर भाग्न सक्छ ।
- वितुवाले आफुजति नै भारी शिकार बोकेर रुख सजिलै चढ्न सक्ने तथा रुखमा बाटो समात्न सक्छे जीव हो । त्यसकारण आक्रमण गर्न आउँदा रुख चढ्नु उपयुक्त हुँदैन । हातमा लौरो छ भने गुँडमा वा रुखमा बजाई जोड-जोडले हो-हल्ला गर्ने ।

### आक्रमण गरीसकेपछि

- साथमा लौरो छ भने जोडले वितुवाको नाकमा प्रहार गर्ने ।
- वितुवाले पछाडीको पञ्जाले पेटतिर चियोले सक्ने हुने हुँदा आफ्नो टाउको र घाटी जोगाउनुको साथै गुँडमा डल्नो परी खुट्टाले पेटलाई जोगाउने प्रयास गर्ने ।
- मान्छेले आक्रमण गरेको थाहा पाउने बित्तिकै यो खबर नजिकको गाउँहरूमा पनि यथाशिघ्र पठाउने साथै वडा कार्यालय, डिभिजन वन कार्यालय, निजुरज, आरक्ष, प्रहरी कार्यालय साथै वन उपनेक्ता समितिलाई खबर गर्ने ।

### घाइते भएमा प्राथमिक उपचार

- वितुवाको आक्रमणबाट शरीरको कुनै भागमा रगत बगेको छ भने रोकथाम गर्नुहोस् ।
- कुनै अंगभङ्ग भएको छ भने त्यस अंगलाई सुरक्षित राख्नुहोस् ।
- सकेसम्म सवारी साधनमा राखी प्राथमिक उपचार केन्द्र वा नजिकको अस्पताल पुर्याउनुहोस् ।






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अवधारणा : सौरभ लामिछाने, दिव्या भट्टराई

तस्विर सन्देश लामिछाने

Figure 4 Sample of Poster



## परिचय

नेपाली नाम : चितुवा  
अंग्रेजी नाम : Common leopard  
वैज्ञानिक नाम : *Panthera pardus (fusca)*  
शारीरिक बनावट : चैरो सुलीलो रंगको पृष्ठभूमिमा कालो धोप्लाहरू  
वजन : ५० – ८० किलोग्राम  
लम्बाइ : १.५ देखि २.२ मिटर  
उचाइ : ४५ देखि ८० सेन्टिमिटर  
उमेर : १२ देखि १६ वर्ष (गर्भ अवधि ९० देखि १०५ दिन सम्म)  
बच्चा : एक घटकमा २-४ डमरू  
आहार : रतुवा, चित्तल, बेंदेल, बौंदर, लुङ्गे, खरायो आदि  
बासस्थान : तराई देखि हिमाल सम्मका वन, भाडी तथा घाँसे मैदान  
विचरण क्षेत्र : १५-५० वर्ग किलोमिटर



### चितुवाले आक्रमण गर्न सक्ने अवस्था

- जम्काभेट भएमा र चितुवाले भान्ने ठाउँ वा जिस्काएको अवस्थामा ।
- आराम गरिरहेको बेला मानिस अचानक पुगेर होहल्ला गरेको वा जिस्काएको अवस्थामा ।
- शिकार खाईरहेको अवस्थामा ।
- सानो बच्चा साथमा भएको बेला र बच्चालाई खुवाइरहेको बेलामा अचानक मानिस पुगेमा ।
- अचानक बाटो बिराई गाउँ-सहर वा बस्तीमा परेको अवस्थामा चारैतिर मान्छेले घेरिएमा ।
- बुढो वा घाईते भई शिकार गर्न अशक्त भएको अवस्थामा ।
- माउबाट छुट्टिएको र राम्ररी शिकार गर्न नसकेको अवस्थामा पनि चितुवाले मान्छेलाई आक्रमण गर्न सक्छ ।

### चितुवाले आक्रमण गर्ने तरिका

चितुवाले आक्रमण गर्ने तरिका बाघले आक्रमण गर्ने तरिकासँग मिल्दोजुल्दो हुन्छ । चितुवा रुख चढ्न सक्ने भएकोले रुखबाट पनि आक्रमण गर्नसक्छ । प्रायः जसो सँगै परेपछि घर, गोठ र पैंधरा नजिक भाडीमा लुकेर बस्न सक्छ र मान्छे नजिक पुगेमा आक्रमण गर्नसक्छ । कहिले काँहि इयाल, ढोका वा धुरिबाट पनि घरभित्र छिरेको पाइन्छ । सँगै परेपछि जङ्गल नजिकैको बस्तीमा कुकुर, बाख्रा, भेडा,

सुँचुर वा अन्य घर पालुवा जनावरको शिकारको लागि गाउँ पस्छ । यस्तो अवस्थामा मान्छेले आक्रमण गर्दा अगाडिको पञ्जाले हान्ने, मुखले टोक्ने र पछाडिको पञ्जाले चिथेने गर्छ ।

### चितुवाको आक्रमणबाट बच्ने उपाय

#### क) आक्रमण गर्नुअघि

- जङ्गलमा हिँड्दा चितुवाको मन्थ वा पाइलाको निशान याद गर्ने ।
- चितुवाको पाइला देखे बित्तिकै वा मन्थ बाहिर पाएपछि सतर्क हुने र त्यस दिशतिर नजाने ।
- अन्य जनावरको सङ्केत (चितल, रतुवा, लहुर, बौंदर वा चराहरूको आवाज) याद गर्ने । चितुवा वा बाघ देखा दिनीहरू कराएर सकेत दिनुपर्छ ।
- जङ्गल छेउछाउमा बस्ने मान्छेले राति आफ्नो घरको इयालढोका राम्ररी बन्द गर्ने ।
- सोभामा घर बाहिर नबस्ने साथै राति घरबाट बाहिर निस्किके । निस्किके पछि हातमा लौरो अथवा कुनै साधारण हतियार लिएर सतर्क भएर होसियारी पूर्वक निस्किके । सकेसम्म साथी लिएर मात्र निस्किके ।
- आफ्ना बालबालिकाहरूलाई सोभ अवेरसम्म बाहिर खेल्न नदिने ।
- जङ्गल छेउछाउका क्षेत्रमा बस्नेहरूले सोभ एकै हिँडुल नगर्ने ।
- दिशा पिसाब गर्न जङ्गलमा नजाने ।
- जङ्गल छेउछाउका क्षेत्रमा बस्ने बासिन्दाले घर वरीपरी बाँस, भाडीमा र बुट्यान बराख्ने । यस्तो भाडी, बुट्यानमा चितुवा लुकेर बस्न सक्छ ।
- घरको एकदम नजिक छेती गर्दा पनि चितुवा लुकेर बस्न मिल्ने बाली जस्तै मकै, उखु नलगाउने ।
- घर बाहिर आगो वा बत्ती बालेर उज्यालो राख्ने ।



Figure 5 Sample of front side of leaflet

#### ख) आक्रमण गर्ने अवस्थामा

- आक्रमणको लागि आक्रमण गर्नु अघि नै चितुवाले बाघले जसरी गर्जने, कान लपक सुनाउने, जमिना दबेर बस्ने र पुच्छर जोड्ने बताउने हुन्छ ।
- मध्यम आकारको हुने हुँदा यसले हलपत व्यक्त मान्छेलाई आक्रमण गर्दैन तर आइहाल्छ भन्ने हात माथि उठाएर । हातमा भोला वा अन्य सामान भए आत्म प्रभावकारी हुन्छ । जोड-जोडले हल्ला गर्ने । यसो गर्दा मान्छेको आकार अझै ठूलो देखेर चितुवा डराएर भाग्ने सक्छ ।
- चितुवाले आफूजति नै भारी शिकार बोकेर रुख सजिलै चढ्न सक्ने तथा रुखमा बौंदर समान सक्ने जीव हो । त्यसकारण आक्रमण गर्न आउँदा रुख चढ्नु उपयुक्त हुँदैन ।
- हातमा लौरो छ भने भुँडमा वा रुखमा बजाई जोड-जोडले हो-हल्ला गर्ने ।

#### ग) आक्रमण गरीसकेपछि

- साथमा लौरो छ भने जोडले चितुवाको नाकमा प्रहार गर्ने ।
- चितुवाले पछाडीको पञ्जाले पेटतिर चिथेने सक्ने हुने हुँदा आफ्नो टाउको र घाँटी जोगाउनुको साथै भुँडमा डल्लो परी खुट्टाले पेटलाई जोगाउने प्रयास गर्ने ।
- मान्छेले आक्रमण गरेको बाहिर पाउने बित्तिकै यो खबर नजिकको गाउँहरूमा पनि वार्तापत्र पठाउने, साथै वडा कार्यालय, डिभिजनल वन कार्यालय, निकुञ्ज, आरएन, प्रहरी कार्यालय साथै वन उपभोक्ता समितिलाई खबर गर्ने ।

#### घ) घाइते भएमा प्राथमिक उपचार

- चितुवाको आक्रमणबाट शरीरको कुनै भागमा रगत बगेको छ भने रोकने काम गर्नुहोस् ।
- कुनै अंगभङ्ग भएको छ भने त्यस अंगलाई सुरक्षित राख्नुहोस् ।
- सकेसम्म सवारी साधनमा राखी प्राथमिक उपचार केन्द्र वा नजिकको अस्पताल पुर्याउनुहोस् ।



क्वचजन्तुबाट हुने क्षतिको राहत सद्योग निर्देशिका, २०६४  
(नेष्ट्रो संशोधन, २०७५) को प्रवधानहरू

क्वचजन्तुहरू जस्तै: हाती, भैँडा, बाघ, भालु, चितुवा, हिउँ चितुवा, धुवौं चितुवा, धुवौं, जंगली कुकुर, अर्ना, मगर गोही, अजिगर र गौरीगाईबाट देहायको क्षति भएको अवस्थामा निम्न बामोजिम राहत सद्योगको व्यवस्था रहेको छ । सोको लगी पिडित वा हकवालाको ३५ दिन भित्र सम्बन्धित निकायमा निवेदन दिनु पर्छ ।

#### मानवीय क्षति

- समान्य घाईतेलाई रु २०,००० सम्म औषधी उपचार खर्च दिने ।
- सल घाईतेलाई रु २,००,०००/- र सो भन्दा बढी खर्च लाग्ने भएमा सरकारी अस्पतालमा उपचार गराई सोही अस्पतालको सिफारिसमा सम्पूर्ण उपचार खर्च नेपाल सरकारले बहोने ।
- मानिसको मृत्यु भएमा मृतक को आश्रित परिवारलाई रु १०,००,०००/- राहत रकम दिने ।

#### पशुधनको क्षति (विमा रकम कटाएर)

- व्यस्क भैँसी, मोर, उन्नत गाई, सँढेको मृत्यु भएमा बढीमा रु ३०,००० सम्म राहत दिने ।
- अन्य पशुधनको मृत्यु भएमा प्रेषित कामजात र सिफारिसका आधारमा बढीमा रु १०,०००/- सम्म राहत दिने ।

#### घर, गोठ, र खाधान्त बाली क्षति

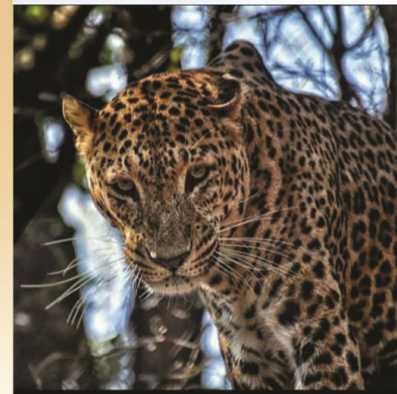
- प्रेषित कामजात र सिफारिसका आधारमा बढीमा रु १०,०००/- सम्म राहत दिने ।

#### राहत रकम प्राप्त गर्न चाहिने कागजातहरू

पिडित/हकवालाको निवेदन, सम्भव भएसम्म मृतक/पिडितको फोटो, मृत्यु दर्ताको प्रमाणपत्र, घटनास्थलको सर्जमिन मुद्राका, मृत्युको हकमा पोस्टमार्टम रिपोर्ट, प्रहरी प्रतिवेदन, घटना घटेको वन वा मध्यवर्ती उपभोक्ता समिति को सिफारिस, सम्बन्धित नगर/ गाउँ पालिकाको सिफारिस, नाता प्रमाणित (मृतक को हकमा), उपचार गरेको अस्पताल वा संस्थाको सिफारिस, पशु वा कृषि सेवा सम्बन्धित प्राविधिक को मृत्युद्वान र जमाधनी प्रमाण पुर्जा ।

सम्पर्क: डिभिजन वन कार्यालय, नवलपरासी  
राष्ट्रिय प्रकृति संरक्षण कोष, विनायक

## चितुवा बाट हुन सक्ने खतरा र जोगिने उपाय



अवधारणा :  
सौरभ लामिछाने  
टंक रावल  
दिप्या मण्डराई  
समस्या दवाला

समर्थक: विनायक, विनायक, विनायक



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Figure 6 Sample of back side of Leaflet



### Figure 7 Sample of hoarding board



Some photographs from the field





