



## Human-felid (*Panthera tigris*) conflict in Kosi Corridor Habitats: Implications for Tiger conservation in Corbett Landscape, India

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### Abstract

*Kosi corridor of Corbett Landscape is taken to examine the pattern of human-felid conflict and its consequence and implications for the long term persistence of tiger (*Panthera tigris*) Questionnaire survey and data collection of tiger pug mark and scats were collected from the area. Results revealed that tigris caused greater economic losses and indicate the livestock predation. While the pug marks sign and scats were indicate the frequent movement in human dominated area. But still tiger is so intelligent animal are very able to maintain a good balance between man and its survival. With Kosi corridor from Mohan to Ramnagar the great disturbance are blooming day by day regularly. It is an negative and anti ecological alarm for conservation point of view. Otherwise the remaining bit of connectivity for vital need of tiger (genetic viability) will vanish very soon for both the forest.*

**Keywords:** Human-felid conflict, economic loss, livestock predation, corridor.

### Introduction

Corridors are vital passage between two forests. Here Kosi Corridor had been selected for study with conflict dynamics, genetic viability<sup>1</sup> and other vital point of view. This is a very important corridor. From Mohan through Dhikuli till Ramnagar, Eastern boundary of Corbett is formed by Kosi River. Kosi plays a vital role for not only the tiger but whole faunal wildlife along with other domestic purpose between two important forests i.e. Corbett and Ramnagar forest division. In this patch from Mohan to Tedha, there is good movement of tiger in area, the village like Ringora, Tedha; Chukam etc are prone to livestock grazing. The people of village Ringora are going to Phooltaal in Corbett for grazing purpose along with their cattle and inviting the direct interaction with tiger which may serious dangerous situation and conflict for both the man and tiger<sup>2</sup>. Tiger is a flagship species for conservation having the importance of an umbrella species for a majority of the eco-regions in the Indian sub-continent. Its role as a top predator is vital in regulating and perpetuating ecological processes and systems<sup>3</sup>. Despite this the numbers have continued to decline across its range because of shrinking habitats, expanding human populations and poaching. Corridor included the Mohan, Chukam, Sunderkhal, Dhikuli, Tedha and Ramnagar and vulnerable to conflicts.

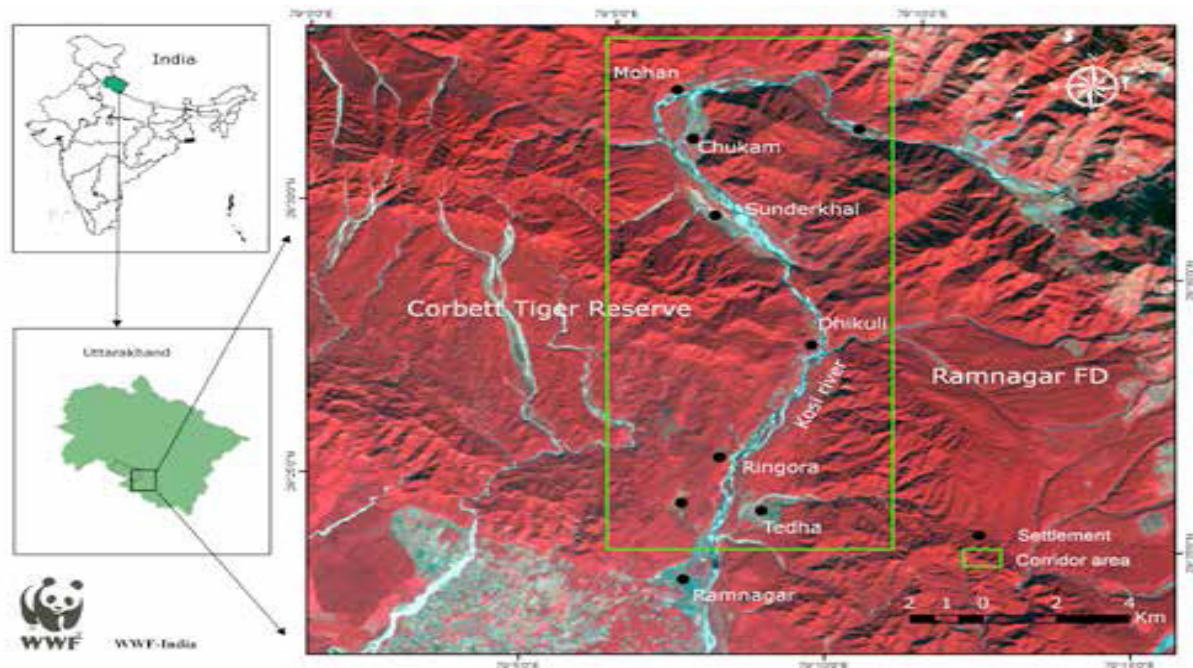
### Material and Methods

Main data collected from CTR office (Research range) and sign survey (scat collection, pug marks etc) from field work from July 2014 to March 2015. The Kosi corridor had taken from Mohan to Ramnagar as study point of view.

**Study Area:** The situation of Kosi Corridor is between Nainital and Almora district of Uttarakhand and connects the Corbett Tiger Reserve with Ramnagar forest division. Such type corridor plays a vital link between the source population of tiger in Corbett and the adjoining forest areas (Ramnagar forest division) and enables them to move across. But this vital activity is threatened by the rapid development of resort and infrastructure along the Ramnagar Ranikhet highway (NH121) beside the bank of Kosi River. These huge infrastructures bring isolation for tiger and other wildlife for both the forest area and blocking the genetic viability.

**Methodology:** I administered semi structured (open and closed ended question) questionnaire surveys and informal interviews in village Chukam, Mohan, Sunderkhal, Dhikuli, Tedha, and Ringora. These villages are selected for the sampling for sign survey, scat collection and questionnaire survey. These villages are located in Corridor in Corridor and prone to conflict. Total 185 people were interviewed for conflict and conservation. The survey include question about demography, socio-economic status of the house hold, livestock herding practice etc.

To determine the attitude towards big cat and their conservation, we asked a series of questions including: Do you think having tigers the forest are beneficial for you?, Are you afraid from tiger?, Do you feel that tigers are a threat to you psychologically or economically?, Are you aware of tigers and their conservation programs?, You have any information of poisoning case by villagers in relation to cattle predation. Interviewees (villagers) also were asked for their opinion on conflict-management approaches. Do you going for cattle grazing in Reserve area.



**Figure-1**  
**Image of Kosi Corridor, photograph taken from internet WWF**

On the other hand the scats were collected and were analyzed by Koppikar and Sabnis<sup>4</sup> method for determination of prey species. The result revealed that livestock predation (preyed on cattle and domestic animals).

### Results and Discussion

Results were shown that good sign of conflict and movement of tiger in human dominated<sup>5</sup> area. Table-2 indicates that presence of tiger movement (pug marks and scats) in these areas while Table 3 depicts the livestock predation (economic loss of villagers). On the other hand major finding is people want to relocate anywhere else from these areas. Regular movement of tiger in these areas is not good for both the tiger and people. Overall 72.9% people want to leave the place in these 6 villages. In case of Ringora people used to go Phooltaal region of Corbett for domestic grazing and inviting the tiger for easy prey which may lead the economic cum nature loss (tiger and human). Analysis of table 3 depicts 45% of livestock predation in these areas. So for ecological pressure<sup>6</sup> we have to think and take some serious step toward tiger conservation and socio-economic status<sup>7</sup> with every kind of natural safety of top most creation of nature i.e. human beings.

**Discussion:** This study provides a very serious point for conservation of tiger, nature and people need and livelihood in these areas. The corridor is near to vanish due to resorts and concrete construction. And tiger movement is rich in these areas which may leads conflicts and loss. The basic things the disturbance in genetic viability due to disturbance in Kosi

corridor, and in and fro movement of big cat between two forest (Corbett and Ramnagar forest division) is purely disturb<sup>8</sup>. In between these villages are located and tiger get easy prey (livestock predation) some time and on the other hand the regular movement of tiger<sup>9</sup> is not good for both the tiger and people.

**Table-1**  
**Percentage occurrence of respondents (villagers) willing to relocate any other places**

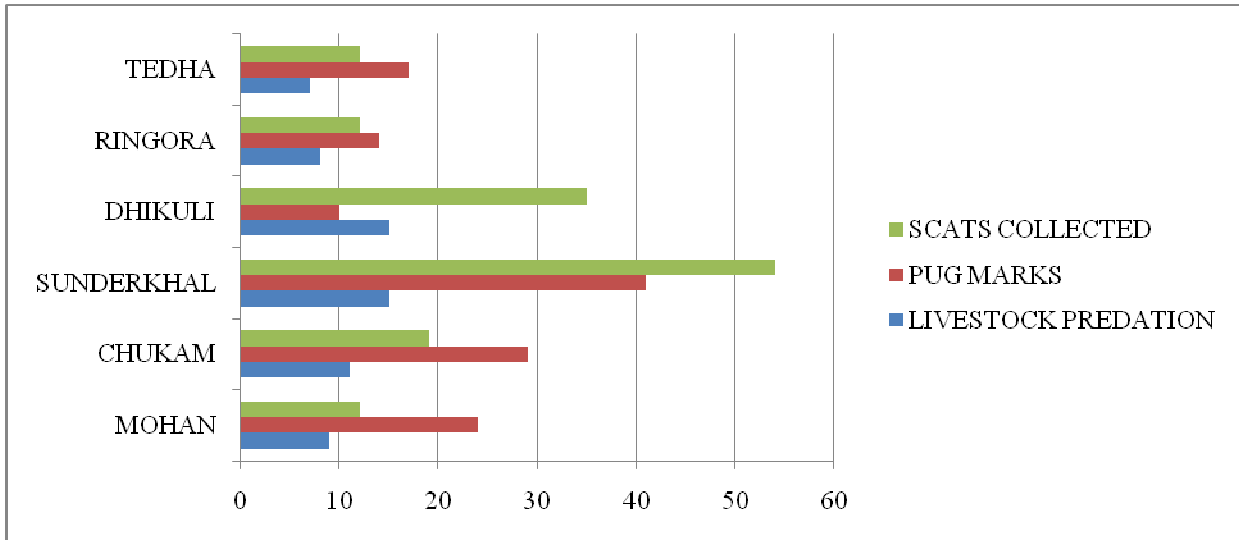
Village	No. of Respondents	Willing to Relocate	% Occurrence
Mohan	22	12	8.8%
Chukam	30	28	20.7%
Sunderkahal	54	51	37.7%
Dhikuli	35	11	8.14%
Ringora	20	15	11.11%
Tedha	24	18	13.3%
7 Villages	185	135	72.9% (overall)

**Table-2**  
**Collection of sign survey details**

Village	No. of Scats Collected	Pug mark	% occurrence
Mohan	12	24	17.7%
Chukam	19	29	21.48%
Sunderkhal	54	41	30.5%
Dhikuli	35	10	7.4%
Ringora	12	14	10.4%
Tedha	12	17	12.6%
Total	144	135	

**Table-3**  
**Results, Scat analysis for Livestock Predation (Occurrence)**

Village	No. of Scats	Findings of Domestic Remains			
		Cow	Dog	Goat	Gross
Mohan	12	7	NIL	2	9
Chukam	19	6	1	4	11
Sunderkhal	54	11	2	2	15
Dhikuli	35	9	3	3	15
Ringora	12	7	NIL	1	8
Tedha	12	5	2	NIL	7
Total	144	45	8	12	65



**Figure-2**  
 Detail of sign survey (pug mark and scats in villages) and Livestock predation



**Figure-3**  
 Map shows with Redline the formation of resorts vanishing Kosi corridor (Serious facts)

## Conclusion

Study shows that overall 79.9% of population wants to relocate; they want to leave the place for tiger. Government should take quick resolution to relocate the people or resettlement of these villages. On the other hand figure-2 shows that continuous construction of resorts and building etc depicts the great anthropogenic stress which not up to level of ecology and tiger conservation. A very serious action should be obliged ecological discussion for welfare and protection of tiger and people also.

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