

**AN ASSESSMENT OF CROP DEPREDATION  
AND HUMAN HARASSMENT BY THE WILD  
ANIMALS IN SHIVAPURI NATIONAL PARK  
(A Case Study of Sangla Village Development Committee)**



**A Dissertation Submitted**

**For the Partial Fulfillment of the Requirements of the  
Master's Degree in Environmental Science  
(Special paper Wildlife Management)**



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**Jan, 2007**

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## ACKNOWLEDGEMENTS

I wish to express my deepest gratitude to respected supervisor Mr. Pem Narayan Kandel, Ministry of Forest and Soil Conservation, Babarmahal, Kathmandu, Nepal, without whose continuous guidance and encouragement this dissertation work would have been a difficult task.

My heartfelt gratitude goes to Prof. Dr. Uma Kant Ray Yadav, former and present Head of the Central Department of Environmental Science, for providing me the opportunity to work on this dissertation. I am also grateful to my respected teachers Ek Raj Sigdel, Rajeshwor Shrestha for their support and encouragement. I would also like to thank all the staffs of the Central Department of Environmental Science for their help in completing my work.

My thanks also go to Department of National Park and Wildlife Conservation for providing with the work permission.

I would also like to thank Mr. Shyam Sunder Shrestha for his supervision, encouragement and support. I would like to give a special thanks to my friend Mr. Dev Raj Singh for his great support and guidance during my field visit.

My sincere thanks go to Mr. Man Bahadur Tamang and Mr. Birendra Thapa and with whom I enjoyed working in the field. I am thankful to Mr. Raju Kaphle and his family of Sangla VDC for their help and hospitality. Special thanks go to the local people of Sangla VDC and respective VDC staffs. I am extremely grateful to my friends Navalata Rijal, Bijesh Sharma, Deepesh Raj Sharma and Samira Shrestha

Finally, I wish to extend my gratitude to my family for love and encouragement I received in completing this work.

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## ABSTRACT

Shivapuri National Park is located on the northern fringes of Kathmandu Valley. It is the only national park in proximity to the capital. It is situated 12 km north of downtown Kathmandu. It covers an average of 144 sq. km that touched almost 23 VDCs of Kathmandu, Nuwakot and Sindhupalchowk districts. The park provides important habitat for many of Nepal's protected species. It is home to 177 species of birds, 102 species of butterflies and 21 species of mammals. There are 2122 species of flora 16 of them are endemic flowering plants.

The study was conducted in Sangla VDC of Kathmandu district, located to the western side of Shivapuri National Park. The questionnaire survey was done in 117 households of six wards to estimate the amount and annual monetary value of crop lost due to wild animals, to identify the most destructive wild animal, to document problems, need and views of local people in connection with natural resources management, including wildlife and to recommend possible measures to alleviate problems. Simple random sampling method was conducted to assess crop depredation by wild animals for one year from October 2005 to October 2006.

The study showed the total crop damage by wild animals to be 23235.50 Kg. The loss percentage of maize was found to be the highest with respect to the expected production. The estimated economic loss of crops is Rs. 6,28,138 of which 26.14% to maize, 23.51% to millet, 15.07% to paddy and 12.57% to wheat. The reported economic loss was Rs. 5368.70 per household on an average.

The **Wild Boar** (*Sus scrofa*) was found to be the major destructive wild animal followed by porcupines, birds and other animals. Crop damage was the most serious problem in the study area. Only 4.22% of the human harassment problem was reported. It was found that the traditional preventive measures including machan, fire and various types of scaring devices were partially successful to chase wild animals.

Based on the findings of this study, some measurements are proposed to resolve the problem and to formulate the future plans by recognizing the most destructive wild animal and its preferred crop.

# TABLE OF CONTENTS

	<b>Page No.</b>
Letter of Recommendation	i
Letter of Approval	ii
Acknowledgements	iii
Abstract	iv
Table of Contents	v
List of tables	vii
List of figures	viii
List of annexs	ix
List of plates	x
Abbreviations and Acronyms	xii
<b>1. INTRODUCTION</b>	<b>1</b>
1.1 Concept of National Park	1
1.2 Protected Areas of Nepal	2
1.3 Wild Boar	6
1.4 Park-People Conflict	8
1.5 Justification	9
1.6 Limitation of the Study	10
1.7 Statement of Problem	10
1.8 Objectives	10
<b>2. STUDY AREA</b>	<b>11</b>
2.1 Shivapuri National Park	11
2.1.1 Location	11
2.1.2 Access to the Area	11
2.1.3 Geology, Topography and Elevation	13
2.1.4 Climate of the Study Area	13
2.1.5 Biodiversity (Flora and Fauna)	14
2.1.6 Land Use Pattern	16
2.2 Research Site	17
<b>3. LITERATURE REVIEW</b>	<b>19</b>

<b>4. RESEARCH METHODOLOGY</b>	<b>23</b>
4.1 Criteria of Selection of study area	23
4.2 Selection of the study area	23
4.3 Research Framework	23
4.4 Sampling methods	25
4.4.1 Sampling Design	25
4.4.2 Sample Size	25
4.5 Data Collection Method	26
4.5.1 Primary data collection	26
4.5.2 Secondary data collection	26
4.6 Data analysis	27
<b>5. RESULTS</b>	<b>29</b>
5.1 Total Cultivated Land and Land Holding per Households	29
5.2 Crops Grown	29
5.3 Land Coverage by Major Crops	32
5.4 Types of Problem	34
5.5 Loss of Major Crops	35
5.6 Loss of Crops by Different Animals	37
5.7 Market Price and Monetary Value of Damaged Crops	38
5.8 Wild Animals Damaging Crops	39
5.9 Stages of Crop Damage by Wild animals	41
5.10 Techniques of Crop Protection	42
5.11 Livestock Reared	43
5.12 Wildlife Attack on Human	44
5.13 Fuel Wood and Fodder Collection	44
5.14 Hunting	45
5.15 People's Perception	45
<b>6. DISCUSSION</b>	<b>46</b>
<b>7. CONCLUSIONS AND RECOMMENDATIONS</b>	<b>50</b>
7.1 Conclusion	50
7.2 Recommendations	51
<b>REFERENCES</b>	<b>53</b>

## LIST OF TABLES

<b>Tables</b>		<b>Page No.</b>
Table 1	Faunal Diversity in ShNP.	15
Table 2	Forest Habitats and Altitudinal Distribution of Flora and Fauna	16
Table 3	Land use Pattern of ShNP	17
Table 4	Number of Sampled and Surveyed Households in Sangla VDC.	25
Table 5	Ward wise Distribution of Household and Population in Sangla VDC.	27
Table 6	Stages of Crop Damage	42



## LIST OF FIGURES

<b>Figures</b>	<b>Page No.</b>
Figure 1 Protected Areas of Nepal.	4
Figure 2 Protected Areas Coverage within Country.	5
Figure 3 Shivapuri National Park.	12
Figure 4 Monthly variations in mean maximum and mean minimum temperature for the year 1995-2005 recorded at Budhanilkantha Station.	14
Figure 5 Monthly variations in average monthly rainfall (mm) for the year 1995-2005 recorded at Budhanilkantha Station.	14
Figure 6 Road Networks and settlement in different wards in Sangla VDC	18
Figure 7 Land use Pattern in Sangla VDC	18
Figure 8 Research Framework Showing Different Steps and Activities	24
Figure 9 Ward wise Distribution of Total Cultivated Land.	29
Figure 10 Percentage of Households growing Paddy in Different Wards.	30
Figure 11 Percentage of Households growing Wheat in Different Wards.	30
Figure 12 Percentage of Households growing Maize in Different Wards.	31
Figure 13 Percentage of Households growing Millet in Different Wards.	31
Figure 14 Percentage of Households growing Other Crops in Different Wards.	32
Figure 15 Percentage of Land Coverage of Paddy in Different Wards.	32
Figure 16 Percentage of Land Coverage of Wheat in Different Wards	33
Figure 17 Percentage of Land Coverage of Maize in Different Wards	33
Figure 18 Percentage of Land Coverage of Millet in Different Wards.	34
Figure 19 Types of Problem in Percentage.	34
Figure 20 Percentage of Paddy Loss in Different Wards.	35
Figure 21 Percentage of Wheat Loss in Different Wards.	36
Figure 22 Percentage of Maize Loss in Different Wards.	36
Figure 23 Percentage of Millet Loss in Different Wards.	37
Figure 24 Percentage of Household affected by Wild animals.	38
Figure 25 Percentage of the Loosed Crops in the sampled Households	38
Figure 26 Monetary Value of the Loosed Crops	39
Figure 27 Percentage of Wild Animals Damaging Paddy	39
Figure 28 Percentage of Wild Animals Damaging Wheat	40
Figure 29 Percentage of Wild Animals Damaging Maize	40

Figure 30	Percentage of Wild Animals Damaging Millet	41
Figure 31	Percentage of Household Using Techniques	43
Figure 32	Percentage of Household Using Different Techniques	43
Figure 33	Percentage of Human Attacked by Wild Animals	44
Figure 34	People's Perception	45

## LIST OF ANNEXS

	Page No.
Annex-1: Questionnaire for the Local Villagers	58
Annex-2: Questionnaire for the Park Authorities	62
Annex-3: Protected Areas of Nepal	63
Annex-4: List of Mammals of ShNP	65
Annex-5: Meteorological Data	66
Annex-6: Tabular Representation of Data	68
Annex-7: Plates	77

## **LIST OF PLATES**

Plate 1: Questionnaire survey with respondent

Plate 2: Villager showing the depredated field

Plate 3: Raiding of millet by wild boar

Plate 4: Destroyed maize field by wild boar

Plate 5: Mass destruction of maize by wild boar

Plate 6: Maize eaten by wild boar

## ABBREVIATIONS AND ACRONYMS

API	: Animal Preventive Infrastructure
CBS	: Central Bureau of Statistics
CNPPA	: Commission on National Park and Protected Areas
DNPWC	: Department of National Park and Wildlife Conservation
EPI	: Erosion Preventive Infrastructure
ha	: Hectare
HMG	: His Majesty's Government
ICS	: Improved Cooking Stoves
IUCN	: International Union for Conservation of Nature and Natural Resources
KCA	: Kanchenjunga Conservation Area
kg	: Kilogram
km	: Kilometer
km <sup>2</sup>	: Square kilometer
KTWR	: Koshi Tappu Wildlife Reserve
m	: Meter
NBS	: Nepal Biodiversity Strategy
NDA	: Net Area Damage
NPWC	: National Park and Wildlife Conservation
NRs.	: Nepalese Rupees
NTFPs	: Non Timber Forest Products
OP	: Operational Plan
PPP	: Park People Programme
PWR	: Parsa Wildlife Reserve
RBNP	: Royal Bardia National Park
RCNP	: Royal Chitwan National Park
RSWR	: Royal Sukla Phanta Wildlife Reserve
ShNP	: Shivapuri National Park
SIWDP	: Shivapuri Integrated Watershed Development Project
SWWR	: Shivapuri Watershed and Wildlife Reserve
UNESCO	: United Nations Educational, Scientific and Cultural Organisation
VDC	: Village Development Committee
WCMC	: World Conservation Monitoring Centre