## PARK – PEOPLE CONFLICT AND ITS MANAGEMENT IN AND AROUND SHIVAPURI NATIONAL PARK: A Case Study of Sundarijal VDC

# A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE MASTER'S DEGREE IN ZOOLOGY (ECOLOGY) BY

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### ACRONYMS

°C	:	Degree Celsius
CBS	:	Central Bureau of Statistics
CITES	:	Convention on International Trade in Endangered Species of Wild
		Fauna and Flora
CNP	:	Chitwan National Park
DNPWC	:	Department of National Park and Wildlife Conservation
Fig.	:	Figure
ICIMOD	:	International Centre for Integrated Mountain Development
INGO	:	International Non-Governmental Organization
IUCN	:	International Union for Conservation of Nature and natural resources
Kg.	:	Kilogram
KTWR	:	Koshi Tappu Wildlife Reserve
Km	:	Kilometer
m	:	Meter
mm	:	Millimeter
MBCA	:	Makalu Barun Conservation Area
NGO	:	Non-Governmental Organization
NTFP	:	Non Timber Forest Product
Rs.	:	Rupees
ShNP	:	Shivapuri National Park
Sp.	:	Species
SWWR	:	Shivapuri Watershed and Wildlife Reserve
Tab.	:	Table
T.U.	:	Tribhuvan University
VDC	:	Village Development Committee

#### ABSTRACT

The study entitled "PARK – PEOPLE CONFLICT AND ITS MANAGEMENT IN AND AROUND SHIVAPURI NATIONAL PARK : A Case Study of Sundarijal VDC" was carried out in the year 2007 for the wild pest identification and the park-people interaction along with their impacts in and around the Park. Nine wards of the VDC were divided into three sites as Site A (1-3 wards), Site B (4-6 wards) inside the park and Site C (7-9 wards) lying outside the park. 10 households from each wards i.e. 90 households were selected. Research methodology was conducted in all the wards by field observation, questionnaire survey and other statistical methods.

Human-wildlife conflicts were observed in the park. Crop and livestock depredation were the major problems found during the study period. Eight types of wild pests in the study area were identified. Wild boar (*Sus scrofa*), monkey (*Macaca mulatta*), porcupine (*Hystrix indica*), rat (*Rattus sp.*), and birds were crop raiders while leopard (*Panthera pardus*), jungle cat (*Felis chaus*) and black kite (*Milvus migrans*) were livestock depredators. Wild boar, monkey, leopard, jungle cat were major and common while others were minor and rare trouble causing animals. Wild boar was frequently found in site A i.e. 1, 2, 3 wards and seldom in other two sites. Monkey was very frequent in every site but abundant at high percentage in Site B. Leopards generally lifted cattle, goats, buffalo, pig and rarely chickens. Jungle cat and black kites were found lifting chickens, pigeons and other type of birds.

The total economic loss estimated was Rs. 3, 51,618.74 per annum and Rs. 3,906.87 per household in crop depredation in the VDC. The total economic loss in maize, millet, wheat, paddy and rooted plants (potato, arum and sweet potato) were Rs. 1,40,144.6, Rs. 70,896.8, Rs. 54,310.74, Rs. 72,375, Rs.8,664, Rs.3,360 and Rs.1, 867.6 respectively. Among the crops, maize caused maximum % of loss (43.37%).  $\chi^2$ -test showed that there was association between the crop loss and the wild pest and the t-test accepted the null hypothesis i.e. crop loss (value) inside and outside the park area differed significantly in the study sites. The total economic loss of Rs. 2, 36,000 per annum and Rs. 2,622.22 per household was estimated in livestock depredation. Site B (wards 4, 5, 6) was highly affected whereas Site C (wards 7, 8, 9) was the least affected by the wild animals. During the study period, no any human harassment recorded due to wildlife.

Local people on the other hand, were benefited by the utilization of natural resources, income generating from tourism and other facilities like water pipe supply, sand, soil, stone quarries. Similarly, livestock grazing by the locals in the forest area, polluting the water resources, causing disturbances to wild habitat by using the foot trails regularly, cutting firewood, collecting fodder and grass inside the forest were also recorded.

Local people were found applying some traditional protective and effective methods to protect and reduce the damage in their crop fields.