

Socio Economic Impact of Shivapuri National Park on Local Community
(A Case Study of Budhanilkantha Area)

By

Laxmi Karki
T.U. Regd. No. 5-1-283-39-96

**A thesis submitted in Partial fulfillment of the Requirements for the
Degree of Masters of Arts in Rural Development**

**Central Department of Rural Development
Faculty of Humanities and Social Sciences
Tribhuvan University, Kirtipur
Kathmandu, Nepal.**

October 2006

RECOMMENDATION LETTER

This thesis entitled “Socio Economic Impact of Shivapuri National Park on Local Community: A Case Study of Budhanilkantha Area, Nepal,” has been prepared by Miss. Laxmi Karki, under my direct supervision, in partial fulfillment of the requirements for the Master’s of Arts in Rural Development. I, therefore, recommend for its evaluation and acceptance by the thesis evaluation committee.

.....

Dr. Ek Raj Ojha
Research Supervisor

APPROVAL LETTER

This is to certify that the thesis, submitted by Ms.Laxmi Karki, entitled “Socio Economic Impact of Shivapuri National Park on Local Community: A Case Study of Budhanilkantha Area, Nepal,” has been approved by the Department in prescribed format of the Faculty of Humanities and Social Sciences.

Evaluation Committee

.....

Prof. Dr. Pradeep Kumar Khadka
(Head of the Department)

.....

Dr. Ek Raj Ojha
Research Supervisor

.....

External Examiner

ACKNOWLEDGEMENT

I am grateful to my supervisor, Dr. Eka Raj Ojha a faculty member of Central Department of T.U. Kritipur, for his valuable advice, support and encouragement without which it could have been difficult for me to complete this Thesis.

I gratefully acknowledge my thanks to Prof. Dr. Pradeep Kumar Khadka, Head of the Central Department of Rural Development, Mr. Suman Baskota, Lecturer of Rural Development, and Mr. Tulasi Sharan Sigdel, Assistance Lecturer of Rural Development, T.U for their valuable guidance, suggestion and support.

I am very much indebted and would like to dedicate this work to my parents, who spent their whole life to nurture, prepare and support with their encouragement now, I am going to receive my Master's Degree.

I owe a debt of gratitude to my brother T.B. Karki, for being my source of encouragement and his invaluable support and as well as I am thankful to my Brother and Sister Rupesh Khadka and Anita Karki to complete this thesis.

My special thanks goes to all my friends Roshani Maharajan, Tejaswi Narayan Vaidya, Shree Krishna Shrestha, Shyam Thapa, Janak Raj Pathak, Sagar Shrestha, Sharmila Ranabhat, Govind Singh, Pallavi Dahal, Jubin Parajuli, Sanjay Acharya, Bikash Kandel, Ambir Balami, Durga Prasad Dhakal, Santosh Sharma for their valuable support and without their cooperation I could not be successful to complete my project work.

I am indebted to all the respondents who filled and gave answer of the questionnaire and all known and unknown authors whose works were used to get insight without which it could have been difficult to complete this task.

I would like to thanks the entire library and administrative staffs T.U for their continuous support to complete this work.

Last but not the least, Mr. Kumar Karki, MD of Landmark Educational Consultancy Center (P) Ltd. deserves thanks for his continuous support that he provides computing facility.

Laxmi Karki

October, 2006

ABSTRACT

Shivapuri National Park and was established in 2002. Earlier Shivapuri was the main source of fuelwood, fodder and timber for the local people. In 1975, HMG of Nepal tried to check the problems of deterioration of Shivapuri ecosystem and established development project on the guidance and supervision of Shivapuri Development Board. Again the area was gazette as Shivapuri Watershed and Wildlife Reserve (SWWR) in 1983. In Feb. 2002, the reserve was declared as National Park. Hence, the practices of local people for years and easy access to natural resources of Shivapuri have been undermined.

Keeping in mind the above mentioned situation Budhanilkantha area inside the Shivapuri National Park was selected for the study of socio economic impact of local community.

The general objective of the study is to assess the socio-economic impact of the Shivapuri National Park on the livelihoods of the people living nearby. The specific objectives of the study are to examine the socio-economic condition of the local people, to estimate the demand and supply of firewood in Budhanilkantha Area, to find out the components of conflicts between the local people and National park. The descriptive research design has been adopted. Primary and secondary data have been equally used. The total 103 sample populations have been abstracted through a purposive sampling under non-probability sampling design. The questionnaire have been constructed as closed and open ended type and administered in Nepali language.

It had been concluded that it had been concluded that the majority (93%) of the respondents are satisfied with the establishment of the Shivapuri National Park but the local people living in and around the Shivapuri National Park have no legal access in all available natural resources as their demand although quality is in good condition and has reasonable distance for resource collection.

Livestock rearing is one of the main sources of income of the local people. Although, fodder/grass and grazing have banded by Parks, 62% of the respondents are collect fodder/grass both from the farm land and park area. The demand of firewood of the people for the energy purpose did not fulfill by the Park. Sometimes, people steal the firewood and the fodder/grass from Park.

The better way could be the creation of buffer zone which will provide the resources to the local people and help to minimize the present conflict. Moreover, the local people should be involved in all level of conservation strategy.

Table Of Contents

	Pages
Letter of Recommendation	i
Approval Sheet	ii
Acknowledgement	iii
Abstract	iv
List of Tables	v
List of Figures and list of Box	vi
Acronyms	vii
1. Introduction	1-4
1.1 General Background	1
1.1.1 The Concept of National Park	1
1.2 Statement of Problem	2
1.3 Objectives of the Study	2
1.4 Significance of the Study	2
1.5 Conceptual Framework	3
1.6 Limitations of the Study	4
2. Literature Review	5-26
2.1 Terms and Concepts	5
2.2 Forests	6
2.2.1 National Forestry Plan	7
2.2.2 Community Forestry	8
2.2.3 Effective Afforestation	9
2.2.4 Forests in Kathmandu Valley	9
2.2.5 Distribution of Forests	10
2.3 Issue and Context	13
2.4 Status of wildlife Conservation in Nepal	15
2.5 Hindus Speculation of Wildlife in Pre-history	15
2.6 Conservation	16
2.7 Protected Areas and Sustainable Management	16
2.8 Declaration of Protected Areas and Sustainable Management	17
2.9 Sustainable Management Problem: Park and People Conflict	19
2.10 Concepts for Sustainable Protection against Natural Hazards	20
2.11 The Forestry Sector	21
2.12 Review of the Related Studies	24
3. Research Methodology	27-29
3.1 The Shivapuri National Park	27
3.2 Rationale of the Selection of Study Area	28

3.3 Research Design	28
3.4 Nature and Sources of Data	28
3.5 Sampling Procedure	28
3.6 Techniques and tools of data collection	28
3.6.1 Techniques	28
3.6.1.1 Household survey	28
3.6.1.2 Observation	28
3.6.1.3 Key Informant Interview	28
3.6.1.4 Focus Group Discussion	29
3.6.2 Tools	29
3.7 Data Processing and Analysis	30
4. Introduction of the Study Area	30-32
4.1 Short Profile of Budhanilkantha Area	30
4.2 Physical Features	30
4.3 Vegetation	30
4.4 Fauna and Flora	31
4.5 Water Resources	31
4.6 Culture and Religion	31
4.7 Tourist Attraction	31
4.8 Watershed	31
4.9 Watershed Management	32
4.10 Fuelwood Management	32
4.11 Park's Regulations	32
5. Data Presentation and Analysis	33-58
5.1 Demographic and Socio-economic Conditions	33
5.1.1 Sex Structure of the Respondents	33
5.1.2 Family Structure and Size	34
5.1.3 Religion of Respondents	35
5.1.4 Education	36
5.1.5 Occupation of the Respondents	36
5.1.6 Land Holding	38
5.1.7 Income Source	39
5.1.8 Livestock/ Animal Husbandr	40
5.2. Natural Resources Accessibility	41
5.2.1. Collection of Fodder\Grass	41
5.2.2. Local Forest before Establishment of National Park	42
5.2.3. Energy Sources	43
5.2.4 Wood Used For Cooking Purpose per Day	44
5.2.5 Collection of Firewood	45
5.2.6 Convenient to Get Firewood after Establishment of NP	46
5.2.7 Selling Firewood\Timber in the Market	47
5.3 Perception of Respondents about the National Park	48

LIST OF TABLES

LIST	PAGE
Table No. 2.1 Poverty, pollution and protected areas of some countries	9
Table No. 2.2 Total Revenue from Forest Products, F.Y. 2057\2058 to 2060\2061	10
Table No. 2.3 Protected Areas of Nepal's National Parks, Wildlife Reserves, Hunting Reserves, Conservation Areas and Buffer Zone	11
Table No.2.4 Forest user Group National Level Database,(Till 9 March, 2005)	12
Table No.2.5 Status of Protected Areas of Nepal	18
Table No. 2.6 Distribution of Nepal's Natural Forests (ha)	22
Table No. 5.1 Distribution of Respondents According to Sex	33
Table No. 5.2 Distribution of Respondents by Family Size	34
Table No. 5.3 Ethnic Composition of the Respondent	35
Table No. 5.4 Educational Attainment of Respondents	36
Table No. 5.5 Distribution of the Respondents by Occupation	37
Table No. 5.6 Distribution of Respondents According the Land Holding Size	38
Table No. 5.7 Distribution of Respondents by their Monthly Income (Rs)	39
Table No. 5.8 Distribution of Respondents by Livestock Keeping	40
Table No. 5.9 Distribution of Respondents by Collection of Fodder\Grass	41
Table No. 5.10 Situation of Local Forest	42
Table No. 5.11 Fuel Used for Energy Purpose	43
Table No. 5.12 Respondents Used Wood for Cooking Purpose	44
Table No. 5.13 Collection of Firewood per Day from Park	45
Table No. 5.14 Firewood after Establishment of NP	46
Table No. 5.15 Respondents Selling Firewood in the Market	47
Table No.5.16 Distribution of Respondents about the Living Condition	48
Table No. 5.17 Increased in Tourists Number after the Establishment of Park	49
Table No. 5.18 Respondents' Perception about the Local Economy	50
Table No. 5.19 Respondents' Income Level after Establishment of SNP	51
Table No. 5.20 Respondents Satisfied With Present Condition of SNP	52
Table No. 5.21 Firewood Fulfilled By the Park	53
Table No. 5.22 Respondents Know the Park's Rules.	54
Table No. 5.23 Crops Damaged by the Wild animals	54
Table No. 5.24 Problem Facing by the Respondents	56
Table No. 5.25 Respondents' Opinion to Close the National Park	56
Table No. 5.26 Respondents Disobey the Park's Rule	57

LIST OF FIGURES

List	Page
Fig 2.1 Ecological zones and protected areas of Nepal	19
Fig 2.2 Protection concepts must provide integrated protection against Natural hazards	21
Fig 5.1 Sample Size by Sex	34
Fig 5.2 Sample by Households Size	34
Fig 5.3 Sample by Ethnicity	35
Fig 5.4 Educational status of the respondents	36
Fig 5.5 Occupation Pattern of Sampled Households	37
Fig 5.6 Sample by Land Holding Size	38
Fig 5.7 Sample of Respondents by their Monthly Income (Rs)	39
Fig 5.8 Livestock Keeping Households	40
Fig 5.9 Sample of Respondents by Collection of Fodder\Grass	42
Fig 5.10 Situation of Local Forest before Establishment of NP	43
Fig 5.11 Fuel Used for Energy Purpose	44
Fig 5.12 Wood Used for Cooking Purpose per Day	45
Fig 5.13 Collection of Firewood per Day from Park	46
Fig 5.14 Convenient to get Firewood after Establishment of NP	47
.Fig 5.15 Selling Firewood/Timber in the Market	48
Fig 5.16 Improvement of the Living Condition after Establishment of SNP	49
Fig 5.17 Number of Tourists after the Establishment of Park	50
Fig 5.18 Change in Local Economy after the Establishment of SNP	51
Fig 5.19 Income Level after Establishment of SNP	51
Fig 5.20 Respondents Satisfied With Present Condition of SNP	52
Fig 5.21 Firewood Fulfilled By the Park	53
Fig 5.22 Respondents Know the Park's Rules.	54
Fig 5.23 Crops Damaged by the Wild animals	55
Fig 5.24 Sample of Respondents by Grazing Problem	56
Fig 5.25 Opinion of the Respondents regarding to close the National Park	57
Fig 5.26 Respondents Disobey the Park's Rule	58

LIST OF BOX

List		Page
Box. 5.1	Cause of the Conflict	55

ACRONYMS/ABBREVIATION

BZ	: Buffer Zone
BZUG	: Buffer zone users group
CBOs	: Community Based Organization
CBS	: Central Bureau of statistics
CFUG	: Community Based Forest users group
DFO	: District Forest Office
DNPWC	: Department of National Parks and Wildlife Conservation
FAO	: Food and Agricultural Organization
FSP	: Forest Sector Policy
HHs	: Households
HMG	: His Majesty's Government
ICIMOD	: International Centre for Integrated Mountain Development
INGOs	: International Non Governmental Organizations
LPG	: Liquid Petroleum Gas
IUCN	: International Union for Nature Conservation
MFSC/MoFSC	: Ministry of Forest and Soil Conservation
MPFS	: Master plan for the Forestry Sector
NGOs	: Non Government Organizations
NRS/ Rs	: Nepalese Rupees
NTFPs	: Non Timber Forest Products
NWFPs	: Non Wood Forest Products
RBNP	: Royal Bardia National Park
RCNP	: Royal Chitwan National Park
SNV	: Netherlands Development Project
SNP	: Shivapuri National Park
SP/SPP	: Species
SWWR	: Shivapuri Watershed Wildlife Reserve

T.U. : Tribhuvan University
UG : Users Group
UNDP : United Nation Development Programme
VDC : Village Development Committee
WWF : World Wildlife Fund