

CLIMATE CHANGE AND RURAL PEOPLE
Perception, Impacts and Adaptation

A Dissertation

Submitted To:

Central Department of Sociology/Anthropology

Tribhuvan University, Kathmandu, Nepal

**In Partial Fulfillment of Requirements for the Degree of Master in
Anthropology**

Submitted By

Indra Mani Khanal

December, 2011

RECOMMENDATION LETTER

A dissertation entitled **Climate Change and Rural People: Perception, Impacts and Adaptation** has been completed by Mr. Indra Mani Khanal under my guidance and supervision. I recommend this dissertation for final approval and acceptance.

.....

Dr. Ram Bahadur Chhetri

Professor, Anthropology

Central Department of Sociology/Anthropology

Tribhuvan University

Kathmandu, Nepal

ACCEPTANCE LETTER

Climate Change and Rural People: Perception, Impacts and Adaptation

Indra Mani Khanal

This dissertation has been accepted to be a partial fulfillment of the requirement for the Degree of Master of Arts in Anthropology.

Approved by

Prof. Dr. Ram Bahadur Chhetri
Supervisor

Dr. Binod Pokhrel
External Supervisor

Prof. Dr. Om Gurung
Head of Department

December, 2011

ACKNOWLEDGMENT

My acknowledgement goes to all persons, institutions and organizations that were authentic source of information. I would express my sincere gratitude to Prof. Dr. Ram Bahadur Chhetri for his guidance and supervision and Dr. Binod Pokhrel for valuable suggestions as external supervisor. I am thankful to people of Hansapur, Arghakhanchi for their cooperation and sharing essential information. My thanks go to Prof. Om Gurung, head of the Central Department of Sociology/Anthropology and department family. I am very grateful to Institute for Social and Environmental Transition-Nepal (ISET-N) and International Development Research Center (IDRC) for providing grant to make this study successful. I am very grateful to Mr. Ajaya Dixit, Executive Director of ISET-N, Mr. Dipak Gyawali, Mr. Kanchan Mani Dixit, Mrs. Suvechchha and Mrs. Sujan Ghimire and all staffs of ISET-N for their supports and valuable suggestions. At last I would like to express my gratitude all my friends, my parents, family and relatives who directly or indirectly supported, cooperated and encouraged me to conduct the study.

CONTENTS

	Page No.
RECOMMENDATION LETTER	i
ACCEPTANCE LETTER	ii
ACKNOWLEDGEMENTS	iii
CONTENTS	iv
LIST OF TABLE	vii
LIST OF FIGURES	viii
ACRONYMS	ix
CHAPTER: ONE	
INTRODUCTION	1-7
1.1 Context and Problem Statement	1
1.2 Objectives	4
1.3 Study - Rationale	4
1.4 Theoretical Perspective	6
1.5 Structure of the Study	7
1.6 Limitation of the Study	7
CHAPTER: TWO	
LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK	9-22
2.1 Most General Definitions of Climate Change, Climate, Weather and Seasons	9
2.2 Global Overview of Climate Change	9
2.3 Climate Change and Its Impacts in Nepalese Context	12
2.4 People, Culture and Climate Change	16

2.5 Anthropological Encounters to Actions	18
2.6 Conclusion	22

CHAPTER: THREE

METHODS FOLLOWED 23-26

3.1 Materials Collection, Study, Review and Site Selection	23
3.2 Pilot Survey of Selected Area	25
3.3 Study Unit and Respondents Selection	25
3.4 Data Collection and Analysis	25

CHAPTER: FOUR

SOCIO-ECONOMIC PROFILE OF THE STUDY AREA 27-30

CHAPTER: FIVE

CLIMATIC PERCEPTION 31-38

5.1 General Perception	31
5.2 Perception on Natural Disasters	35
5.2.1 Drought	37
5.2.2 Strom	37
5.2.3 Less Rainfall	37
5.2.4 Hailstorm	38

CHAPTER: SIX

IMPACT ON AGRICULTURE AND WATER RESOURCE 39-44

6.1 Impact on Agriculture	39
6.2 Impact on Water Resource	41

CHAPTER : SEVEN	
ADAPTATION STRATEGIES AND CONSTRAINTS IN REILIENT PATHWAYS	45-51
7.1 Adaptation Strategies	45
7.1.1 Commercialization of Local Products	46
7.1.2 Social Networks	46
7.1.3 Manpower Utilization	48
7.1.4 Storage of Rainy Water	48
7.1.5 Traditional Beliefs	48
7.2 Constraints in Resilient Pathways	49
7.2.1 Unsupportive Government-Bodies	49
7.2.2 Socially Constructed Restrictions	49
7.2.3 Inaccessible Infrastructures of Development	50
7.2.4 Local Topographical Factors	50
7.2.5 Unfamiliar with Induced Adaptation Strategies	51
 CHAPTER: EIGHT	
CONCLUSTION AND RECOMENDATION	52-54
REFERENCES	55-61
ANNEXES	62-69

LIST OF TABLES

		Page No.
Table 1	Food Sufficiency Status of Households	28
Table 2	Largely Affected Households due to Natural Disasters during Last Five Years	30
Table 3	Perception of Natural Disasters during Last Ten Years	36
Table 4	Respondents Involved Agricultural Groups and Animal Husbandry Groups	47

LIST OF FIGURES

		Page No.
Figure 1	Global Anthropogenic GHG Emissions	11
Figure 2	Location of Study Area	23
Figure 3	Drought Vulnerability Map of Nepal	24
Figure 4	Average Monthly Precipitation of Sitapur Station	32
Figure 5	Average Monthly Precipitation of Khanchikot Station	32

ACRONYMS

CBS	:	Central Bureau of Statistics
DHM	:	Department of Hydrology and Meteorology
FAO	:	Food and Agriculture Organization
GHG	:	Green House Gas
GON	:	Government of Nepal
ICIMOD	:	International centre for Integrated Mountain Development
IPCC	:	Intergovernmental Panel on Climate Change
ISET-N	:	Institute of Social and Economic Transition-Nepal
MOE	:	Ministry of Environment
NAPA	:	National Adaptation Programme of Action
NARC	:	Nepal Agricultural Research Council
NCVST	:	Nepal Country Vulnerability Study Team
UNDP	:	United Nations Development Programme
UNEP	:	United Nations Environment Programme
UNFCCC	:	United Nations Framework Convention for Climate Change
VDC	:	Village Development Committee
WMO	:	World Meteorological Organization