

**ASSESSING THE SUSTAINABILITY OF TOURISM
IN RURAL AREAS**

A case study of Tamang Heritage Trail, Rasuwa

SUBMITTED BY

Ram Chandra Sedai

KATHMANDU ACADEMY OF TOURISM AND HOSPITALITY

P.U. Registration No. 62-2-3-2353-2003

A DISSERTATION SUBMITTED TO

Office of the Dean

Faculty of Management

PURBANCHAL UNIVERSITY, BIRATNAGAR, NEPAL

**In partial fulfillment of the requirement for the degree of
Master of Tourism Studies**

Place: Kathmandu

Year: 2006 AD

**ASSESSING THE SUSTAINABILITY OF TOURISM
IN RURAL AREAS**

A case study of Tamang Heritage Trail, Rasuwa

SUBMITTED BY

Ram Chandra Sedai

KATHMANDU ACADEMY OF TOURISM AND HOSPITALITY

P.U. Registration No. 62-2-3-2353-2003

A DISSERTATION SUBMITTED TO

Office of the Dean

Faculty of Management

PURBANCHAL UNIVERSITY, BIRATNAGAR, NEPAL

**In partial fulfillment of the requirement for the degree of
Master of Tourism Studies**

Place: Kathmandu

Year: 2006 AD

PREFACE

This research study entitled "**Assessing the Sustainability of Tourism in Rural Areas- A case study of Tamang Heritage Trail, Rasuwa**" was carried out in the newly developed Tamang Heritage Trail in Rasuwa towards partial fulfillment for the requirements of the Master of Tourism Studies (MTS) degree. Tamang Heritage Trail passes through the beautiful landscape of northern-west part of Rasuwa district. The overall objective of this study is to assess the overall aspects of sustainability in the Tamang Heritage Trail. The research study aims to explore, analyze and assess the fundamental issues of tourism sustainability in the rural context of Nepal.

Chapter One of the reports presents the present context of tourism and sustainability status in global, Nepal, Langtang area and Tamang Heritage Trail context. It also describes study area, research problems, objective and justification.

Chapter Two describes about literature review. Various literatures, especially mountain tourism related, have been reviewed for this research.

Chapter Three demonstrates the research methodology employed for the study. Various primary and secondary information were gathered during the study. Visitor survey, household survey, business survey and institutions survey were carried out to collect the opinion and perception of those stakeholders. Likewise, direct field observation, focal group discussion and key person's interviews were also made as a methodology of the study.

Chapter Four describe about the research findings of the study. The strength of tourism attractions, institutional strength, management and control mechanism, social considerations, economic considerations and environmental considerations was critically analyzed and finally indicators of sustainability was set based on the findings.

Chapter Five presents the major conclusions and recommendations. The overall research finding shows that tourism in Tamang Heritage Trail has been developing with strong consideration of all sustainability issues. However, there are some gaps in implementation, for which suitable recommendations have been made.

KATHMANDU ACADEMY OF TOURISM AND HOSPITALITY
MASTER OF TOURISM STUDIES
PURBANCHAL UNIVERSITY
Biratnagar Nepal

CERTIFICATE

This is to certify that the dissertation work entitled "**Assessing the Sustainability of Tourism in Rural Areas- A case study of Tamang Heritage Trail, Rasuwa**" by Mr. Ram Chandra Sedai presented towards the requirements of the Master of Tourism Studies (MTS) degree has been completed under my supervision. I recommend the same for acceptance by the university.

Mr. Asheesh Sharma
Dissertation Supervisor, and
Senior Lecturer
Kathmandu Academy of Tourism and Hospitality

RECOMMENDATION

This is to certify that the dissertation submitted by Mr. Ram Chandra Sedai entitled "**Assessing the Sustainability of Tourism in Rural Areas- A case study of Tamang Heritage Trail, Rasuwa**" has been prepared as approved by the department in the prescribed format of Faculty of Management, Purbanchal University. This dissertation is forwarded for examination.

Supervisor

Name: Mr. Asheesh Sharma

Signature:.....

Date: 23 March 2006

Head of Department/Programme Coordinator

Name: Mr. Asheesh Sharma

Signature:.....

Date: 23 March 2006

Campus Chief/Principal

Name: Mr. Sudhir Adhikari

Signature:.....

Date: 23 March 2006

VIVA-VOCE SHEET

We have conducted the viva-voce examination of the dissertation prepared by

Ram Chandra Sedai

Entitled

"Assessing the Sustainability of Tourism in Rural Areas- A case study of Tamang Heritage Trail, Rasuwa"

and found it to be original work of the student and written according to the prescribed format. We recommend the dissertation to be accepted as partial fulfillment of the requirement of Master of Tourism Studies (MTS).

VIVA-VOCE COMMITTEE

Chairperson, Head of Department or Programme Coordinator: Mr. Asheesh Sharma

Member (Dissertation Supervisor): Mr. Asheesh Sharma

Member (External Expert): Mr. Rabi Jung Pandey

Date: 23 March 2006

DECLARATION

I declare that this dissertation work entitled "**Assessing the Sustainability of Tourism in Rural Areas- A case study of Tamang Heritage Trail, Rasuwa**" is entirely my work and wherever any material is used from other resources, it is fully cited and reference has been given with appropriate acknowledgement.

Ram Chandra Sedai
Student, Master of Tourism Studies

Date: 23 March 2007

ACKNOWLEDGEMENT

This research work was possible with the incredible support of many Teachers, Seniors and my colleagues at Kathmandu Academy of Tourism and Hospitality (KATH). First of all my sincere gratitude goes to Mr. Asheesh Sharma, Senior Lecturer /KATH who supervised me to conduct the research work in this form. Like wise I am grateful to Mr. Sudhir Adhikari Principal/KATH who guided me to carryout the field works.

The credit of this research work also goes to the entire TRPAP family for encouraging me to do research in this kind of creative topics. Also my sincere thanks go to the whole team of DDC: TRPAP Rasuwa. Special thank goes to Mr. Raj Kumar Bhatta and Mr. Lila Nepal for desktop support and Ms. Lhakpa Yanjen Tamang, Mr. Phurbu Singhi Tamang, Mr. Bamen Tamang, Mr. Dorje Tamang, Ms. Pema Buti Tamang and Mr. Tempa Tamang for their support in field work.

I am also indebt to members of District Development Committee, Rasuwa and Langtang National Park authority for providing kind information and valuable remarks. My special thanks go to Mr. Shiva Ram Pyakurel, Sustainable Tourism Development Section Chief/DDC Rasuwa for his technical input during the data analysis.

My sincere thanks goes to the people of Tamang Heritage Trail, members of STDCs and BZUCs as well as the business persons and visitors who supported me to generate the desired information in this form. Last but not least my sincere thanks go to the KATH library and NTB library for providing me the valuable literatures.

.....
Ram Chandra Sedai
sedairam@yahoo.com
Student, Master of Tourism Studies

TABLE OF CONTENTS

	Pages
PREFACE	i
Approval sheets	ii-v
Acknowledgement	vi
Table of contents	vii-viii
Lists of Tables	ix-xi
Lists of Charts	xii
Lists of Diagrams	xii
List of Figures	xii
Lists of Boxes	xii
Lists of Maps	xii
List of Annexes	xii
Abbreviations	xiii
1. INTRODUCTION	1
1.1 Background of the study	1
1.1.1 Tourism dynamism, growth and sustainability	1
1.1.2 Study area	7
1.2 Statement of the research problem	12
1.3 Objective of the study	14
1.4 Justification of the study	15
1.5 Hypothesis of the study	16
1.6 Limitations of the study	16
2. REVIEW OF LITERATURE	17
3. RESEARCH METHODOLOGY	24
3.1 Research design	24
3.2 Sampling design	24
3.3 Nature and sources of data	25
3.4 Data collection methods	25
3.5 Data analysis methods	27
4. ANALYSIS OF DATA	28
4.1 Respondents Characteristics	28
4.2 Strength of Tourism attractions in Tamang Heritage Trail	31
4.3 Institutional Strength in Tamang Heritage Trail	40
4.4 Management and Control	46
4.5 Social Considerations	49
4.6 Economic Considerations	55
4.7 Environmental Considerations	61
4.8 Setting Indicators of sustainability	67
	vii

5. RECOMMENDATION AND CONCLUSIONS	78
5.1 Major Conclusions	78
5.2 Major Recommendations	82
BIBLIOGRAPHY	87
ANNEXEX	90

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Pages</u>
Table 1:	Itinerary for Tamang Heritage Trail, Rasuwa	6
Table 2:	Distribution of population and literacy level of household members	7
Table 3:	Sampled household and interviewed household head by gender	28
Table 4:	Sampled business enterprises and entrepreneurs by gender	29
Table 5:	Sampled visitors by nationality	29
Table 6:	Age wise distribution of visitors	30
Table7:	Tourism Attractions of Tamang Heritage Trail	31
Table 8:	Tourism strength of THT as perceived by the visitors	33
Table 9:	Motivating factors for the visitors	33
Table 10:	Visitors' perception of the individual attractiveness in THT	34
Table 11:	Visitors; perception on the sufficiency of information	35
Table 12:	Visitors; perception on the sufficiency of infrastructure facilities in THT	37
Table 13:	Modes of accommodation used by visitors during the visit at THT	37
Table 14:	Visitors perception on the overall condition of accommodation facilities in THT	38
Table 15:	Perception of visitors on the hospitality offered by the community	38
Table 16:	Perception of Community on the hospitality offered to the guest	39
Table 17:	Visitors' overall experience of the visit in THT	39
Table 18:	Establishment of tourism related institutions at various levels	40
Table 19:	Legal status of the tourism related institutions at various levels	41
Table 20:	Saving and credit status of settlement level organizations in THT	42

Table 21:	Perception of STDC on the relationship established by STDC/BZUC for backward and forward linkages	44
Table 22:	Confidence level of Community towards the existing institutions (Group and committee) to continue the tourism development in THT	45
Table 23:	Confidence level of STDC on their own capacity to continue the tourism development in work THT	45
Table 24:	Seasonality of tourist business as opinioned by business owners	47
Table 25:	Linkage between tourism and other economic sector	28
Table 26:	Awareness level of Community about tourism in THT	49
		ix
Table 27:	Awareness level of Community about the possible consequences of tourism	49
Table 28:	Host-Guest ratio at THT (average and peak period/days)	50
Table 29:	Representation of women in tourism related organizations (in %)	51
Table 30:	The overall perception of community on the social benefit of tourism	31
Table 31:	Perception of community towards the benefit to community through tourism infrastructure	51
Table 32:	Perception of community towards the services created by tourism	52
Table 33:	Status and diversity of Skill in THT	52
Table 34:	Perception of visitors on the state of culture in THT	53
Table 35:	Perception of community on the state of culture in THT	54
Table 36:	Perception of community towards the economic benefits of tourism	55
Table 37:	Ratio of locally owned tourism enterprise to outsider	55
Table 38:	Status of local and imported materials	56
Table 39:	Involvement of women as Manager in the business	56
Table 40:	Ratio of annual tourism income and other income in %	57
Table 41:	Ratio of tourism employment to total employment	57
Table 42:	Multiplier effect of tourism in other sectors	58
Table 43:	Opinion by business owners on the benefit of tourism businesses to community	58
Table 44:	Use of wages in locals through tourism related business	59
Table 45:	Creation and distribution of tourism products	59

Table 46:	Average rates charged per tourist for various services and facilities	60
Table 47:	Perception of community on overall environmental impacts of tourism in THT	61
Table 48:	Perception of community on the impact of tourism on the state of forest	61
Table 49:	Perception of visitors on overall state of the environment in THT	62
Table 50:	Opinion of visitors on overall sanitation and waste management in THT	62
Table 51:	Perception of community on the state of garbage (paper, plastic etc) in THT	63
Table 52:	Number of Household using the energy saving devices and waste management.	63
Table 53:	Management of sewage by business owners in THT	64
Table 54:	Management of garbage by the business owners in THT	64
		x
Table 55:	Annual firewood consumption at Briddim and Langtang VDC	
Table 56:	Use of various form of energy by the hotels/lodge/Home-stays in THT	65
Table 57:	Baseline issues, indicators and tools for monitoring strength of tourism attractions	67
Table 58:	Baseline issues, indicators and tools for monitoring Institutional strength	69
Table 59:	Baseline issues, indicators and tools for monitoring management and control	70
Table 60:	Baseline issues, indicators and tools for monitoring Social consideration	71
Table 61:	Baseline issues, indicators and tools for monitoring Economic consideration	73
Table 62:	Baseline issues, indicators and tools for monitoring Environmental consideration	75

LIST OF CHARTS

<u>Chart</u>	<u>Title</u>	<u>Pages</u>
Chart 1:	Motivating factors for visitors	33
Chart 2:	Satisfaction level of visitors	39
Chart 3:	Linkage between tourism and other economic sector	48

LIST OF DIAGRAMS

<u>Diagram</u>	<u>Title</u>	<u>Pages</u>
Diagram 1:	Age wise distribution of visitors	30
Diagram 2:	Ratio of annual tourism income and other income (in %)	57

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>	<u>Pages</u>
Figure 1:	Visitors trend in successive years in THT	34
Figure 2:	Spatial distribution of visitors in THT	34

LIST OF BOXES

<u>Box</u>	<u>Title</u>	<u>Pages</u>
Boxe 1:	Mechanism of backward and forward linkages for tourism development	43

LIST OF MAPS

<u>Map</u>	<u>Title</u>	<u>Pages</u>
Map 1:	Location Map of Rasuwa District	8
Map 2:	Tourism Attraction Map of Rasuwa	32
Map 3:	Accommodation and Facilities Map of THT	36

LIST OF ANNEXEX

Annex 1:	Tourist Arrival (1962-2004) in Nepal	90
Annex 2:	Tourist Arrival (1978-2004) in Langtang Area	
Annex 3:	Flow of visitor in Tamang Heritage Trail	
Annex 4:	List of photographs	
Annex 5:	List of Questionnaires	
Annex 6:	List of Checklists	

ABBREVIATION

BZUG	: Buffer Zone User Groups
BZUC	: Buffer Zone User Committee
CCA	: Carrying Capacity Analysis
CBS	: Centre Bureau of Statistics
CFUGs	: Community Forest User Groups
COs	: Community Organizations
DDC	: District Development Committee
DPP	: District Periodic Plan
DFID	: Department for International Development
DNPWC	: The Department of National Park and Wildlife Conservation
EIA	: Environmental Impact Assessment
FGD	: Focal Group Discussion
FGs	: Functional Groups
FO	: Field Observation
HMG	: His Majesty' Government of Nepal
ICS	: Improved Cooking Stoves
KATH	: Kathmandu Academy of Tourism and Hospitality
KMTNC	: King Mahendra Trust for Nature Conservation
LAC	: Limits of Acceptable Change
LNP	: Langtang National Park
MoCTCA	: Ministry of Culture, Tourism and Civil Aviation
NTB	: Nepal Tourism Board
SNV	: Netherlands Development Agency
STDC	: Sustainable Tourism Development Committee
STG	: Special target Group
THT	: Tamang Heritage Trail
TRPAP	: Tourism for Rural Poverty Alleviation Programme
UNDP	: United Nation Development Programme
UNEP	: United Nation Environment Programme
VDC	: Village Development Committee
WTO	: World Tourism Organization
WTTC	: World Travel and Tourism Council

CHAPTER-ONE: INTRODUCTION

1.1 Background of the study

1.1.1 Tourism dynamism, growth and sustainability

1.1.1a. Global context

With 760 million international arrivals recorded in 2004, accounting for almost US\$622 billion of receipts, tourism is a major global activity that has grown by 25 per cent in the past 10 years (MTMS/WTO/UNEP 2005). More and more people have the desire and means to travel and the World Tourism Organization (WTO) is predicting over 1500 million international arrivals by 2020, more than double the current level. Forecasts to the year 2020 predict growth in tourism in all regions of the world, with the strongest relative growth occurring in parts of the developing world. International tourist arrivals to South Asia are forecasted to grow by more than 6 per cent, compared with a world average of just over 4 per cent. International travel is only one aspect of tourism. In many countries, domestic tourism outweighs international arrivals in terms of volume and income generated. Tourism is also a major source of employment, supporting 74 million jobs directly according to a World Travel and Tourism Council (WTTC) estimate, and 215 million (8.1 per cent of the world total) if all the indirect economic effects of the sector are taken into account. It represents US\$4 218 billion of GDP (10.4 percent of the world total), with travel and tourism making a particularly significant contribution to international trade, at over 12 per cent of total exports (MTMS/UNEP/WTO, 2005).

The WTO has given the full definition of sustainable tourism as ‘Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, and the environment and host communities.’

Despite several direct and indirect benefits, tourism also has major impacts on the natural and built environments and on the wellbeing and culture of host populations. Sustainable tourism is not a discrete or special form of tourism. Rather, all forms of tourism should strive to be more sustainable (WTO/UNEP 2005). Many tourist destinations are

becoming dead due to the lack of sustainability concerns. Popular tourist destinations such as Italy's Adriatic Sea Coast have been devastated by the adverse publicity associated with the growth of brown algae that made bathing nearly impossible. Some of East Africa's renowned Game Parks are being turned into dust bowls by tourists ferried around in four-wheel-drive vehicles. Greece's national treasure, the formerly white marble Parthenon in Athens, stands as a pollution-stained symbol of environmental neglect (Kotler, P. et al./Marketing for Hospitality and Tourism, 1996). Now various approaches of sustainability such as Carrying Capacity Analysis (CCA), Limit of Acceptable Change (LAC) approach, Environment Impact Assessment (EIA) have been practiced to ensure the sustainability. But more focus has been paid to coastal and island areas with due focus on infrastructure.

1.1.1b. Nepal context

Nepal's globally acclaimed and unique natural resources, coupled with a vibrant living cultural heritage and a friendly and hospitable people provide significant potential to use nature based tourism as a low cost, eco-friendly activity to spur socioeconomic growth and development. The development of tourism in Nepal started since 1950s, with adventurous activities and slowly diversified into more tourism activities such as pilgrimage, holiday activities, eco-tourism and other forms of adventure activities. Nepal's international visitor arrivals have fluctuated sharply over the past decade, registering an average annual growth rate of minus 1.5% from 1995 to 2003. The arrival peaked in 1999 at nearly half a million foreign visitors. However, significant drops in 2001 and 2002 brought arrivals down to 1991 levels (Annex 1). Recovery occurred in 2003, with growth of 23 % in air arrivals. The number of tourists visited Nepal during 2004 reached 3, 85,297 representing an increase of 13.9 % over the year 2003 (Nepal Tourism Statistics, 2004/MoCTCA).

By purpose, the 2004 tourist statistics shows the largest number of visitors visited Nepal for recreational purpose accounting 43% followed by trekking and mountaineering (18%), pilgrimage (12%), business purpose (4%), official visits (4%) and other miscellaneous purposes (Nepal Tourism Statistics, 2004). Of the 69442 trekkers

registered in 2004, 61% trekkers visited Annapurna area followed by 28.9% visited at Everest region and only 4.3% visited at Langtang region. Despite the remarkable contribution to the GDP (179.94m \$ in 2004) and huge indirect and multiplier effects, tourism has not been getting recognition by the people and the culture of tourism has not yet been developed within the organizations working for tourism.

The formal endeavors of tourism development in Nepal started since the first five-year plan. The development of first Tourism Master Plan 1972 laid the foundation in the development of tourism and put forward a comprehensive set of policies to promote tourism in the country. The output of the 1972 plan resulted in the systematic development of diversified tourist activities like cultural tour, soft trekking, rafting, and wildlife safari in more spatial areas outside Kathmandu and resulted the establishment of Ministry of Tourism in 1977. The Nepal Tourism Development Programme 1889 by Touche Ross Consultants on behalf of the Asian Development Bank has resulted in the identification of about fifty-tourism related projects and action plans designed to release the bottlenecks in Nepal's tourism industry (Sustainability in Mountain Tourism, Patricia E. et al 1998).

The development of tourism in Nepal is largely demand driven and no clear and specific policy on sustainable tourism has been developed and enforced at national and destination level. The Department of National Park and Wildlife Conservation (DNPWC) in protected areas has set some policy on conservation and ecotourism. Likewise, King Mahendra Trust for Nature Conservation (KMTNC) has come up with the best models of conservation and development in Annapurna Conservation Area (ACA). Institutions like ICIMOD, IUCN are working towards developing guidelines and framework for the sustainable development of tourism in Mountain areas. Ministry of Tourism itself and with the assistance of ILO, UNDP, and SNV Nepal has been working to establish policies and capacitate institutions for the development of tourism and regulating the tourism in a sustainable manner. The establishment of Nepal Tourism Board (NTB) in the form of public-private partnership has been instrumental in developing, promoting and marketing the tourism products of the country.

The tourism policy 2052 has tried to direct the tourism in a right track with the provision of liberal sky policy, public-private partnership, private sector investment, product diversification and nature and culture based tourism activities. Unequal distribution pattern, high economic leakage, under-resources marketing and promotion, weak infrastructure, pollution, environmental degradation, high level of illiteracy and poor quality of services has been the major constraints of tourism sector in Nepal.

Nepal's tenth plan (2001-2006), has also recognized the importance of sustainable development of tourism and set the objectives as stated below:

1. Effective promotion of tourism sector achieving sustainable development by enhancing public participation thus contributing to poverty alleviation
2. To increase peoples' participation in the conservation of historical, cultural, religious and archaeological heritage and enhance their practical utilization

The tenth five-year plan has aimed to achieve 7.2 % annual growth in tourist arrival to 516000 visitors by 2006 and to increase foreign exchange earning annually by 7.9% to \$205 million with making the length of visitor stay to 13 days. To help the poverty reduction goal of 10th five year plan of Government and to address the series of general problems, like poorly developed physical infrastructure, poorly developed local institutions, lack of access to information, market and service etc. in the context of rural communities, the Ministry of Culture, Tourism and Civil Aviation (MoCTCA) with the assistance of UNDP, DFID and SNV Nepal has been implementing Tourism for Rural Poverty Alleviation Programme (TRPAP) as a pilot programme in 6 district of the country.

1.1.1c. Langtang context

Langtang is the third most popular trekking destination after Annapurna and Everest region. Tourism in Langtang Area started formally after the establishment of Langtang National Park in 1976. The majority of the parkland falls in Rasuwa district constituting about 56% out of total 1710 sq.km. The tourist number recorded during 1978 was 883

and has reached a maximum of 13166 in 2001. Besides the foreign visitors, around 20000 pilgrims also visit Gosaikunda each year. Significant drop in 2003 and 2004 brought the arrivals down to 1987 levels (Annex 2). The trekking tourism in Langtang follows distinct seasonally and the busiest seasons are Oct-Nov and March-April (60%). The average per day tourist expenditure is about 1250 (DPP/DDC Rasuwa 2002). Tourism in Langtang area started with trekking tourism and slowly developing other tourism activities such as cultural tourism, rock climbing, pilgrimage and Anthro-botanical studies etc. The share of trekking tourist in Langtang to the total trekking figure has been sharply decreasing in present years. During past decades, the share was about 10% of the trekkers coming to Nepal but the number has decreased to about 4% in 2004.

The tourism product of Langtang is broadly classified into Biodiversity experience, Landscape experience and Cultural experience. The tourism resource can be broadly described under natural and cultural resources. Major natural resources include high level of biodiversity including 15 forest types, 3000 species of flowering plants, more than 10 species of Rhododendron, Orchids, Primulas etc as well as important faunal species including Musk Deer, Snow Leopard, Red Panda Himalayan Thar, Himalayan Langur, Asamese Monkey, 46 species of mammals and more than 250 species of identified birds etc. Likewise, the beautiful Mountain peaks including Langtang-Lirung (7245m) Sanjen and Ganesh Himal as well as the adventurous pass including Gonjala pass, Lauribina pass, Pangsang pass, Langmala pass are the prime attraction of adventurous tourism in Rasuwa. Likewise high altitude lakes including Gosaikunda, Parvatikunda, Riverkunda, Dudh kunda, Jageshwor kund etc are also the prominent tourism features of cultural and scenic importance.

Major cultural resources include Tamang culture, tradition, cultural sites and pilgrimage sites. Major areas of cultural attraction are Gosaikunda, Langtang valley (a fusion of Tibetan and Tamang culture), Gutlang-Goljung areas (living heritage of Tamang culture and architecture), Kanjin and Sing Gomba (oldest Buddhist monasteries).

1.1.1d. Tamang Heritage Trail (THT) context

The growth rate of tourism in newly promoted Tamang Heritage Trail is very low. The flow of tourist started since 2002. Before 2002, some very few numbers of tourists used to visit Gatlang and Chilime while making visit to Ganesh Himal area. After promoting the area as THT, the flow of international and domestic tourist is increasing particularly at Gatlang, Tatopani and Briddim areas. The number of foreign visitors was around 150 in 2005. The domestic visitors visited to Tatapani area was around 2500 in 2005 (Annex 3). As the basic tourism infrastructure and accommodation facilities is now prepared in THT, the number of visitors are expected to be increasing in coming years.

Table: 1 Itinerary for Tamang Heritage Trail, Rasuwa

Days	From	To	Time
1	Kathmandu	Dhunche/Syabrubesi	7-8 hours drive
2	Syabrubesi	Goljung-Gatlang	1hour and 45 minute drive or 4 hours walk
3	Gatlang	Tatopani	6 hours walk
4	Tatopani	Thuman	5 hours walk
5	Thuman	Timure	5 hours walk
6	Timure	Briddim	6 hours walk
7	Briddim	Syabrubesi	3 hours walk
8	Syabrubesi	Kathmandu	7-8 hours drive

The trail has been developed and promoted by Tourism for Rural Poverty Alleviation Programme (TRPAP) through the District Development Committee (DDC) Rasuwa since 2002. The trail starts from Syabrubesi, passes through Goljung, Gatlang, Chilime, Thuman, Timure and ends at Briddim (Table 1). In addition, a trek to Langtang route can be made after Briddim via Khanjim village of Briddim VDC. Efforts have been made to develop tourism in Tamang Heritage Trail THT based on four pros like Pro-Environment, Pro-Community, Pro-poor and Pro-women.

1.1.2 Study area

This research study aims to carry out in the newly developed tourism product, The **Tamang Heritage Trail** of Rasuwa district. Rasuwa district, situated at about 120-km north (32 nautical miles) of the capital city Kathmandu has a total area of 1544 sq.km. The altitudinal variation ranges from 845 (Betrabati) alms to 7245m (Langtang Lirung). The landscape of Rasuwa is extremely dissected and much of the area comprises glacio-fluvial, colluvial and moraine deposits. The Trishuli (Bhotekoshi) river is the principle outlet of the greater Langtang-Chilime watershed. The climatic conditions of the district range from sub tropical to arctic. The district is accessed with the 118 km long Pasang Lamu highway from Kathmandu. Rasuwa is the homeland of various ethnic groups and caste. The majority of the groups is dominated by Tamang (64%) followed by Brahmins/Chhetries (16%), Gurungs (7%), and so on. The district population is about 43906 with 8689 household (CBS 2001). Rasuwa is equally rich in natural and cultural resources. Tourism has been emerged as the second most viable economic sector after agriculture (DPP/DDC Rasuwa, 2002).

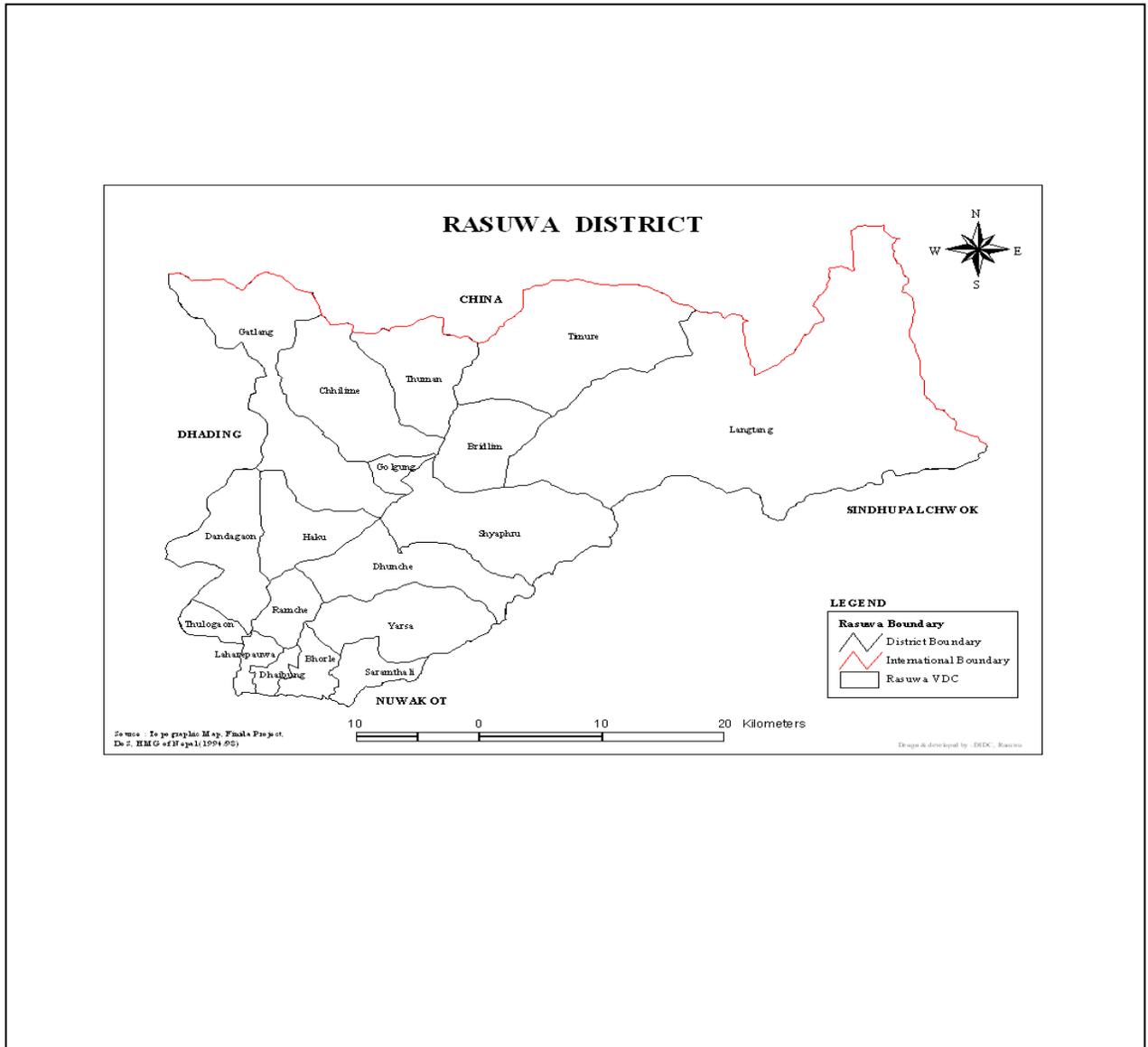
Table2: Distribution of population and literacy level of household members

VDC	HH Total	STG* HH	Women	Men	Total	STG Pop.	Literate (Women)	Literate (Men)
Goljung	234	192	552	618	1170	894	116	212
Gatlang	339	236	842	909	1751	1162	195	435
Chilime	325	213	721	835	1556	1059	111	190
Thuman	236	224	559	654	1213	1162	138	235
Timure	115	66	300	296	596	309	139	202
Briddim	163	145	369	387	756	630	119	210
Total	1412	1076 (76%)	3343 (47%)	3699 (53%)	7042	5216	818 (24%)	1484 (40%)

Source: Tourism Resource Mapping Profile/TRPAP/2005

*STG indicates those household who cannot live on their own food for not more than 9 month.

Map -1: Location Map of Rasuwa District



Tamang heritage Trail passes through the beautiful landscape of northern-west part of Rasuwa district. The 8 days Tamang Heritage Trail starts from Syabrubesi and cover Goljung, Gatlang, Chilime, Thuman, Timure and Briddim VDC. The study area comprises a total 1412 household and 7042 population (Table 2). About 76% household falls under the special target group (STG). The ratio of women and men is 47:53. The literacy rate of men (40%) is higher than that of women (24%) (TRPAP/TRMP, Rasuwa, 2005).

Major tourism areas

Tourism in Rasuwa can be broadly described in terms of three major routes i.e. Goshaikunda route, Langtang route and the newly developed Tamang Heritage Trail. THT is primarily rich in Tamang culture, tradition and architect supplemented with the hot spring water, historical war fort and natural attraction as ancillary products. The trail follows the row of Chhorten (small Monastery) from Gatlang to Timure along the old trade route to Tibet. Tamang Heritage Trail passes through the mountain villages where the traditional architecture, crafts and style of dress has remained unchanged. Culturally rich villages like Gatlang, Goljung, Thuman, natural spring hot water at Chilime, beautiful landscape of Nagthali, historical war fort at Rasuwa Gadhi and Home-stay village package at Briddim are the prime area of tourism attraction in THT.

Major stakeholders

Following institutions are actively involved in tourism development in THT:

Sustainable Tourism Development Committees/Buffer Zone user Committees

Sustainable Tourism Development Committees (STDCs) are directly involved in the planning, implementation and monitoring the tourism activities in the VDC. They are newly established institutions and have been supported by DDC: TRPAP to carryout tourism development activities. Buffer Zone User Committees (BZUCs) are undertaking the same task in buffer Zone areas.

Village Development Committees

Village Development Committees (VDCs) are indirectly supporting the tourism development efforts by developing infrastructure such as trails, bridge, drinking water, electrification etc in the route.

Langtang National Park

Langtang National Park is the pioneer institution to start tourism in Langtang. The formal efforts started since the establishment of Langtang National Park in 1976. Primary concern of the park is to protect the landscape and biodiversity. Focus has been paid to promote environment friendly Eco-tourism activities in the park areas. The scope of tourism development was further broadened with the declaration of Buffer Zone areas in 1998.

District Development Committee/Tourism for Rural Poverty Alleviation Programme

District Development Committee, Rasuwa has been unanimously supporting the efforts of tourism development especially by contributing the large-scale tourism infrastructure such as trails, bridge, culvert, monastery, spring water management, resting places, community shelters, drinking water, electrification etc in the area. Since 2002, DDC Rasuwa is formally carrying the tourism development activities by establishing Sustainable Tourism Development Section (STDS) within DDC and implementing TRPAP in 9 VDCs as pilot programme.

The development of tourism in a more planned and systematic basis was started with the implementation of Tourism for Rural Poverty Alleviation Programme (TRPAP) through DDC Rasuwa since 2002. The programme includes 9 potential VDCs in the northern belt of the district i.e. Dhunche, Syabru, Langtang, Briddim, Timure, Thuman, Chilime, Gutlang and Goljung. Out of 9 VDCs, only the 5 VDCs fall on the NP/Buffer Zone area. Of the 5 VDCs in NP area, 2 VDCs (Dhunche and Syabru) lie along the Goshaikunda route, 4 VDCs (Dhunche, Syabru, Langtang, Briddim) lie along the Langtang route and 2 VDCs (Briddim and Timure) lie along the Tamang Heritage Trail. Rest of four VDCs

outside the NP fall entirely on the newly developed Tamang Heritage Trail. The programme is implemented through the District Development Committee, Rasuwa in close coordination with the Langtang National Park. DDC: TRPAP Rasuwa is working to develop and refine the following tourism models in a pilot basis:

1. Institutional set up for rural tourism
2. Home-stay Tourism (Briddim, Brimdang)
3. Community Lodge and Cultural centre (Gatlang)
4. Pilgrimage Tourism at Goshaikunda (Syabru)
5. Community Managed Spring Hot Water (Chilime)
6. Red Panda Eco Trail (Syabru)

Major activities of TRPAP can be summarized as following:

1. Tourism and Environment Awareness Programme (TEAP)
2. Participatory bottom up planning for rural tourism
3. Waste management (rubbish bin, dumping site, incinerator)
4. Alternative energy development for conservation (ICS, Solar, Micro-hydro etc)
5. Tourism infrastructure development
6. Tourism product development (natural and cultural)
7. Promotion and marketing through NTB and private sector organizations (TAAN)
8. Capacity enhancement (community and stakeholders)
9. Skill development (existing and potential tourism entrepreneurs)
10. Institutional development for sustenance of tourism
12. Backward and forward linkages for continuity and sustainability.

This Tamang Heritage Trail has been developed and promoted by DDC: TRPAP.

Other Organizations

Besides these major institutions, other small institutions such as Tatopani Conservation Committee/Chilime, Paldor Peak Yuba Clud/Gatlang, Ganesh Himal Yuba Clud/Goljung, Rasuwa Gadhi Yuba Club/Timure and Briddim Homestay Tourism Management Committee/Briddim are also actively participating the conservation of cultural and natural resources and raising awareness in the area.

1.2 Statement of the research problem

Tourism can be both very positive as well as damaging for sustainable development. On the positive side, tourism can provide several benefits. Conversely, tourism can place direct pressure on fragile ecosystems causing degradation of the physical environment and disruption to wildlife, exert considerable pressure on host communities and lead to dislocation of traditional societies, compete for the use of scarce resources, notably forest and water and be a significant contributor to local and global pollution (UNEP/WTO 2005).

Despite the high potential of tourism to make a high contribution to the alleviation of poverty, the current structure delivers only limited benefits at the rural areas of Nepal. Like wise, there are poor tourism linkages with the rural communities. Similarly, there is no policy guidelines to support rural based and environmentally sound tourism initiatives. The Nepalese tourism industry is more sensitive as it is highly based on natural and cultural resources. The natural resources are either under the threats of degradation due to unplanned over used or under depletion due to improper use. The negligence on aspects of sustainability may result the sheer negative consequences of either the decreasing share by destination in terms of volume and value or the decreasing quality of destination by pollution and resource degradation.

Thus, the centre focus must be the thorough consideration of all 3 pillars of sustainable tourism i.e. social, economical and environmental aspects while developing the tourism in the rural areas. Achieving sustainable tourism requires constant monitoring of status and impacts and it demands a regular review of indicators. Indicators that relate to sustainability can help to monitor the condition, performance and impact of tourism. Monitoring against a baseline set of results enables planners to identify trends, to detect change and to track the anticipated progress. The present rural tourism in Nepal is experiencing the following characteristics:

1. Poor policy and strategic framework to addresses the 3 pillars of sustainable tourism i.e. social, economical and environmental aspects.

2. The destination level tourism activities are either carried out without a sound plan or with plan but no concern of long-term sustainability
3. Most of the tourism developments works have been conducted without or with poor baseline information. The lack of baseline information and the lack of set indicators of tourism has resulted poor monitoring of the progress as well as impacts at the destination.
4. Most of the tourism development activities are carried out either by too many stakeholders with no definite accountability or by a single temporary institution as a developmental project basis. The lack of specific and permanent institution at destination level creates practical difficulties in monitoring the impacts, correcting appropriate measures accordingly and continuing the efforts.
5. The destination communities are not much aware with the socio-cultural, economical and environmental implication of unplanned tourism development. The low consideration of these implications has resulted high economic leakage, resource degradation and marginalization of poor in the destination.

The research study aims to explore and analyze the following fundamental queries relating to the sustainability of tourism in the rural context of Nepal:

1. What are the essential issues and challenges that need to be addressed to make tourism sustainable in rural context of Nepal?
2. What sort of indicators could be developed to ensure the effective monitoring of all 3 pillars of sustainable tourism in the destination?
3. What sort of institutional mechanism and management control is required to ensure effective coordination, to address structural problems, to benefits women and poor and to preserve fragile biophysical environment?

1.3 Objectives of the study

The overall objective of this study is to assess the overall aspects of sustainability in the Tamang Heritage Trail followed by setting the framework of sustainable indicators for the tourism development in rural context.

The specific objectives of the study are:

- To assess the tourism strength of the area
- To assess the institutional and management strength of the area
- To study the socio-cultural and economic environment of tourism in THT
- To study the current state of environment in THT from tourism perspective.
- To set and recommend standard framework of sustainability indicators for rural tourism based on the research studies and findings

1.4 Justification of the study

Developed without concern for sustainability, tourism cannot only damage societies and the environment; it could also contain the seeds of its own destruction (MTMS/WTO/UNEP, 2005). Sound plan and proper monitoring mechanism is necessary to keep the tourism in the desired way. Indicators help to make it possible to monitor changes over time in a constant and consistent manner. Indicators can be used to show the current state, the impact, stresses on the system and the effect of management actions. Indicators also provide early warning of when a policy change or new action may be needed, as well as providing a basis for the long term planning and review of tourism.

The rural parts of Nepal have a great potentiality of tourism. Among the priority sectors of the government, tourism has tremendous potential for exchange earnings (US\$ 179.94 million in 2004) and thus has ability to help address the poverty problem. If planned well, tourism can create demand for locally produced goods and services and raise the living standards of rural people by creating off-farm employment and income generating opportunities in remote areas (TRPAP Project Document, 2001). There are hundreds and thousands of rural areas with tourism potentials waiting for the planned and systematic development of tourism in a sustainable manner. Sustainable rural tourism will not only benefit the rural poor community but also preserves the surrounding environments by the community themselves. Despite several decades of developing tourism in Nepal, a reliable framework of sustainability and the user-friendly indicators has yet to be developed. Thus, it is high time to assess the status and impacts of major tourism destination so that the success cases can be generalized and the reliable framework of sustainability and the user-friendly indicators can be recommended based on the learning of the study.

This research study aims not only to assess the sustainability status of pilot tourism project but will also help to establish a standard framework of sustainability indicators for the development of rural tourism in the country. The outcome of this report will provide the local community, tourism planners and the policy makers at various levels with the broader framework of sustainability indicators for rural destinations.

1.5 Hypothesis of the study

The sustainability of tourism depends on the sincere consideration of these three pillars of sustainability i.e. environmental, economic and socio-cultural aspects. This descriptive type of research study has tried to generalize the statement based on both qualitative and quantitative data on the three pillars of sustainability. The literature review and the general publicity has revealed that Tourism in Tamang Heritage Trail has been developed and promoted with the sincere consideration of 3 pillars of sustainability in the form of four pros i.e. pro-environment, pro-community, pro-poor and pro-women. In the context of the same, the hypothesis of the present study is “**Tourism in Tamang Heritage Trail is being developed in a sustainable manner.**”

1.6 Limitations of the study

The research was undertaken within the following limitations:

1. Lack of sufficient time for detail literature review and extensive field work
2. Limited references about indicators and sustainability assessment in rural context
3. Heavy reliance on secondary data
4. The study was carried out on a limited budget at personal expenses

CHAPTER-TWO: LITERATURE REVIEW

The practice of sustainable tourism is a new and vague discipline for Nepal. It is often argued that tourism may never be totally sustainable. The term is widely spoken but practiced lesser in real life. In fact, there is a dearth of literature relating to the practical guidelines of sustainability of tourism in rural context of Nepal. However, the literature review shows that some study on the socio-cultural, economic and environmental impacts of tourism as well as carrying capacity analysis of tourist destination have been undertaken by ICIMOD and some other institutions. Some literatures related to sustainability of tourism in global context have also studied as guidelines for this research work.

The broader understanding of the term sustainability is necessary to start works on sustainability assessment and sustainable indicators. The World Tourism Organization (WTO) has given the full definition of sustainable tourism as *'Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, and the environment and host communities.'* According to the WTO, Sustainable Tourism Development meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. The development of sustainable tourism meets the following requirements:

1. Tourist resources-natural, historical, cultural and others-are preserved in a way that allows them to be used in the future, whilst benefiting today's society
2. The planning and management of tourist development are conducted in a way that avoids triggering serious ecological or socio-cultural problems in the region concerned
3. The overall quality of the environment in the tourist region is preserved and if necessary, improved
4. The level of tourist satisfaction should be maintained to ensure that destinations continue to be attractive and retain their commercial potential
5. Tourism should largely benefit all members of society

A report entitled *'Tourism for mountain community Development: A Case study report on Annapurna and Gorkha region of Nepal'* by ICIMOD, 1995 has tried to assess and analyze the tourism impacts, implication and sustainability in the mountain areas. The report has addressed that all forms of development carried out in the Himalayas have to be within the carrying capacity of Himalayan Environment Resources (HER) for development to be sustainable. The following carrying capacity concepts have been discussed as the framework of carrying capacity:

1. Environmental/biophysical Carrying capacity
2. Social/behavioral carrying capacity
3. Economic carrying capacity
4. Infrastructural carrying capacity

The study has also tried to represent the carrying capacity by a range of limits rather than a single fixed value. In assessing the framework of carrying capacity, focus has been concentrated on investigating most relevant critical factors i.e. critical resources, Critical areas, Critical infrastructures and Critical institutions. The study has stressed the limit of acceptable change (LAC) as a management concept calling for a combination of zoning, standards, and monitoring to prevent degradation.

Impact and implication of tourism in the Annapurna area have been analyzed based on the impact perceived by host population-households and the visitors. The bases of them are state of environment, economy; impact on women and community development. Focusing on the mountain tourism development, the study has suggested following monitoring indicators to monitor the change and impacts in the destination..

1. Indicators related to the visitors
2. Indicators related to conservation of the environment
3. Indicators relating to off-farm employment
4. Indicators relating to the quality standard and price setting mechanism.
5. Indicators relating to the perceptions of visitors with the service standards, sanitation conditions and hospitality
6. Indicators relating to the linkage of tourism and the community

7. Indicators relating to the benefits that accrues to community for the tourism infrastructures
8. Indicators relating to the household perceptions of development impacts/economic impacts
9. Indicators relating to the special income generating programme for the poor
10. Indicators relating to the awareness level of community on sanitation

The proceeding report edited by Pitambar Sharma, entitled '*Tourism for local Community Development in Mountain Areas: Perspectives, Issues and Guidelines*, ICIMOD/NORAD/1995', has prescribed the following guidelines for establishing monitoring parameters for assessing the impacts of mountain tourism:

1. Parameters for monitoring environmental impacts (Forest and vegetation conditions, consumption of fuel wood and other forest products, usage of alternative energy, water quality, air quality, noise pollution, sanitary conditions, biophysical and environmental consciousness of the community).
2. Parameters for monitoring socio-cultural impacts (demographic changes, social mobility, social cohesion, attitudes and values, practice of cultural traditions and rituals and cultural heritage).
3. Parameters for monitoring Economic impacts (contribution to cash income and livelihood options, land ownership, asset formation, wage rates, prevalence of child labor, reinvestment of tourism earnings in the locality and qualitative perception of linkages within the productive sectors resulting from tourism).
4. Parameters for monitoring Gender impacts (Income and employment opportunities, overall work burden of women, women's status within households, participation of women in women's organizations, state of women's literacy etc).
5. Parameters for monitoring impact on development (State of accessibility to the area, availability and quality of basic services, general level of literacy, state and vitality of local institutions, extent of human resources development, relative change in the condition of the poorest households etc)

A Case study report of Upper Mustang by Dr Pitambar Sharma, 1995 has given some ideas in sustainable tourism relating with the carrying capacity. A number of critical factors describing the environmental, economic and socio-cultural dimensions of sustainability have been identified while assessing the tourism carrying capacity of the area. The present status of these broad factors and indicators, present impacts of tourism on the factors and the implications for future have been indicated in the study.

A technical article by Axel Schrand entitled '*Social Indicators of Sustainable Tourism*' in the book *Sustainability in Mountain Tourism* edited by Patricia East et al/1998 has defined the term social indicators and has given the framework of indicators. Within the heading of Socio-economic indicators, Socio-cultural indicators, Socio-spatial indicators and Socio-ecological indicators, the framework has simplified the task by dividing it as Area of concern and Performance indicators.

A detail study report by Paul Rogers and John Aitchison in the book '*Towards Sustainable Tourism in the Everest Region of Nepal*' by IUCN/ICPL, 1998 has critically analyzed the nature and impacts of tourism in the Sagarmatha area. The study has analyzed the impacts of tourism in 3 broad categories such as Environmental, Economic and Social-cultural impacts.

The report published by the WTO/UNEP, entitled '*Making Tourism More Sustainable: A Guide for policy Managers, 2005*', has intensively analyzed the best practices of sustainability assessment in various countries and has suggested a framework for sustainability indicators. As highlighted in the report, the focus of agenda for sustainable tourism needs to embrace following two, interrelated, elements of the sustainability of tourism

1. The ability of tourism to continue as an activity in the future, ensuring that the conditions are right for this; and
2. The ability of society and the environment to absorb and benefit from the impacts of tourism in a sustainable way.

Based on this, an agenda for sustainable tourism has been articulated as a set of twelve aims that address economic, social and environmental impacts. The articulated aims included are 1) Economic Viability, 2) Local Prosperity, 3) Employment Quality, 4) Social Equity, 5) Visitor Fulfillment, 6) Local Control, 7) Community Wellbeing, 8) Cultural Richness, 9) Physical Integrity, 10) Biological Diversity, 11) Resource Efficiency and 12) Environmental Purity.

The WTO study has identified many hundreds of different indicators that might be considered by destinations. However, 29 'baseline indicators' that correspond to following 12 baseline issues of sustainable tourism have been recommended by WTO:

1. Local Satisfaction with Tourism
2. Effects of Tourism on Communities
3. Sustaining Tourist Satisfaction
4. Tourism Seasonality
5. Economic Benefits of Tourism
6. Energy Management
7. Water Availability and Consumption
8. Drinking Water Quality
9. Sewage Treatment (Wastewater Management)
10. Solid Waste Management (Garbage)
11. Development Control
12. Controlling use Intensity

Victor TC Middleton, 1998, from marketing perspective, has addressed sustainability indicators as a major tool of sustainability. The sustainability indicators include waste, pollution, local production, access to basic human needs, access to facilities, freedom from violence and oppression, access to the decision making process, diversity of natural and cultural life

RN Batta, 2000, in his book *'Tourism and the Environment: A quest for sustainability'* has mentioned sustainable tourism as a compromise solution between economic benefit and

environmental degradation. As it states, "Tourism development can bring a lot of economic benefits to the country, yet it is not without negative effects. The policy options therefore can be either to develop tourism and tolerate environmental degradation or not to have tourism at all. Formulation of appropriate development strategy for achieving environmentally sustainable tourism obviously, is the right choice."

As David Weaver states in *Ecotourism, 2001*, Sustainable tourism is a compromise between bio-centric (nature centered) and anthropocentric (human centered) perspective on tourism development.

From the anthropological perspective, Dennison Nash in his book '*Anthropology of Tourism*' has quoted the Brundtland report (WCED1987) as "In order to meet the needs of present and future generation some kind of economic growth is necessary because millions of humans are in want, and, indeed, an increase in productivity may be necessary to prevent the poverty-stricken from pillaging their environment, but such growth cannot exceed the tolerance of factors on which human life depends."

Another critical study of socio-cultural, economical and environmental aspects of tourism from the anthropological perspective has been done by Dr. Ramesh Raj Kunwar in his popular book entitled '*Anthropology of Tourism-A case study of Chitwan Sauraha, 2002*'. The Sauraha based research has thoroughly studied the strong tourist attraction of Sauraha with its' spectacular landscape, giant faunas and the Tharu culture. The study has also analyzed the economic opportunities created and the impacts of tourism in the form of displacement, social modernization, social transformation, social changes such as xenocentrism, staged authenticity of Tharu culture and rituals, alleged thefts, erotic pleasure, trinketization etc. The writer has concluded the study by emphasizing that 'Now, Sauraha, without tourism is condemned, with tourism it will be destroyed – the solution: the doctrine of cultural tourism, which became the model in Bali, in Indonesia.'

The research findings by Dr. Surendra Bhakta Pradhanang entitled '*Village Tourism in Chitwan, 2002*' has also critically analyze the prospects and issues of village tourism in

Chitwan. The research findings has highlighted the major villages as prospective tourist hubs, major issues, tourism impact scenario, quest for sustainability, strategy, zoning for the sustainable village tourism development.

The Langtang National Park and Buffer Zone Management Council in its 5 year Management Plan (2002/03 to 2005/06) has tried to direct the activities in a sustainable way by allocating the resources in following 5 categories as the basis for the sustainable conservation and development in the Buffer Zone area:

1. Community development programee:30%
2. Conservation programme: 30%
3. Income generation and skill development programme:20%
4. Conservation education programme: 10%
5. Administrative expenses: 10%

However, no specific indicators have been set for monitoring the sustainability. Even the plan lacks specific indicators to ensure the effective implementation of the activities.



CHAPTER-THREE: RESEARCH METHODOLOGY

3.1 Research design

By nature, this research is a descriptive as well as explorative type of research. The research findings are based on the perception and opinion of community, entrepreneurs, the visitors and the stakeholders involved in the tourism development.

This research sought the opinion and perceptions of all respondents and by using the sampling methodology. Simple random sampling, purposive sampling, convenience sampling and quota sampling were employed to select the sample unit. Simple random sampling was done to select community household in the study area. As the research had to be completed within the short time, it was very difficult to find adequate visitors for the perception survey. Thus, the purposive sampling was used to carryout perception survey with those visitors who have already visited the area as a tourist or as promoters. Likewise, the convenience sampling was used to accommodate all possible visitors i.e. all possible age, nationality, purpose etc. during the data collection period. Finally, the quota sampling was employed to carryout opinion survey of the tourism related enterprises, as the distributions of those enterprises are not uniform through out the route.

3.2 Sampling design

To complete the research work primary information was collected by taking various sampling unit. For the household survey, 5% sample unit i.e. 72 Household was taken as respondent from among the 1412 household. The research was also based on the information from the opinion of tourism related business such as hotel/lodge, handicraft producers, home-stay owners, Guides/Porters and other indirect business operators. As the tourism in the area is new and the tourism businesses are smaller in number, at least 50% sample unit i.e. 38 business was chosen as respondents among the tourism related business for business opinion survey. Like wise 100%, respondents were taken from the VDC level tourism committee i.e. 4 STDCs and two BZUCs. Focal group discussions

were made with the tourism related Functional Groups, Committees and local cultural Groups.

3.3 Nature and sources of data

Both quantitative and qualitative types of data were used to complete the research work. All physical evidences, opinion, preferences and impacts was sought and observed during the research. The information was based both on primary as well as secondary source of information. The secondary information primarily focuses on the information on demography, geography, tourist statistics, institutional set up and others. Likewise the information regarding the strength of tourism, perception of visitors, community and tourism entrepreneurs on the tourism strength, local benefits, environmental and cultural state impacts imposed etc was taken from the primary source of information.

3.4 Data collection methods

Following methods was used to collect both primary and secondary data. Use of office records and literature review was conducted to collect secondary data. Interviews, questionnaire survey, focal group discussion and field observation methods were used to collect primary data.

A glimpse of field observation and focal group discussion and questionnaire survey is presented in the form of photographs in annex 4.

a. Use of office records

The information about the demography, geography, tourist statistics, institutional records, business records etc were taken from the concerned institutions such as District Development Committee (DDC), Langtang National Park (LNP) and Tourism for Rural Poverty Alleviation Programme (TRPAP) etc as the secondary information sources.

b. Use of library and literature review

Literature review and library reference was used to collect information regarding the methods and results of case studies and tourism sustainability indicators assessment.

Likewise, various published and unpublished reports, books, bulletins were used to gather secondary information.

c. Interview Method

Both structured and semi structured interviews was made with the followings:

- Key persons (Main Lamas, Women members, tourism promoters)
- Selected STDC/BZUC members
- VDC and DDC personnel
- Langtang National Park authority

d. Questionnaire Survey Method

Questionnaire survey was conducted to find the opinion and perception of the respondents regarding the tourism in the area. The structured questionnaire was prepared and the survey was carried out with the following respondents:

- Household surveys (72 households)
- Visitor survey (30 visitors)
- Survey of tourism enterprises (16 hotels/lodges, 17 home-stay and 4 others)
- Market opinion (e.g. through tour operators)
- Institutions survey

E-mail questionnaire was used with the purposively selected tour operators and visitors to find the perception of the area.

e. Focus Groups Discussion (FGD)

Focal group discussion was made to explore and complement the results in the following areas:

- Solid and sewage waste management practices and status
- Culture conservation practices and status
- Tourism planning approaches
- Continuity of efforts by the local institutions
- Overall state of the environment

- Overall perception of the community towards the impacts
- Others

f. Observation Method

Direct field observation was made to assess and verify the followings:

- To observe physical tourism attractions
- To assess the condition and level of tourism infrastructure of the area
- To observe the physical presence of tourism impacts in the destination
- To observe the state of the environment and cultural heritages
- To observe waste management status in the destination
- To observe and assess the facilities, services and hospitality offered in the destination
- To observe physically the satisfaction level of visitors.

3.5 Data analysis methods

The information collected from various methods was categorized based on the objective of the study. Various qualitative and quantitative analysis were carried out for the research. A simple statistical tool such as frequency, average, percentage etc was used during the data analysis. The outcomes of the analysis were presented by using various modes such as tabular form, bar diagrams, charts and graphs.



CHAPTER-FOUR: ANALYSIS OF DATA

4.1 Respondents Characteristics

The household survey, business survey, visitor survey and institutional survey was carried out during the study. The detail of the respondents employed during the research survey is described below.

a. Household survey:

Total 72 household heads were intervened from six VDCs to represent the opinion and perception of community about the tourism in Tamang Heritage Trail. All respondent interviewed were Tamang people and consist 38 women and 34 men (Table3).

Table 3: Sampled household and interviewed household head by gender

VDC	Total Population (Household)	Sample size (5%)	Interviewed Household Head by Gender	
		Sample HH Unit	Women	Men
Goljung	234	12	9	3
Gatlang	339	17	7	10
Chilime	325	16	5	11
Thuman	236	12	8	4
Timure	115	6	4	2
Briddim	163	9	5	4
Total	1412	72	38	34

Source: Tourism Resource Mapping Profile/TRPAP/2005 and field survey 2005

b. Business Survey

Total 38 tourism related enterprises were interviewed for the study. Among 38 enterprises, 17 were Home-stay owners, 16 were Hotel/Lodge owners, 2 were Handicraft producers, 2 Retail shop owners and 1 Guide. Among the respondents, 22 were women and 16 were men (Table 4). Structured format was used to collect various issues related to energy use, sanitation, import, leakages etc.

Table 4: Sampled business enterprises and entrepreneurs by gender

VDC	Home-stay	Hotel Lodge	Handicraft	Retail shop	Guide	Women	Men	Total
Goljung	1	1	1	1		2	2	4
Gatlang		2		1		2	1	3
Chilime	2	7				5	4	9
Thuman	2					1	1	2
Timure		1				1		1
Briddim	12	5	1		1	11	8	19
Total	17	16	2	2	1	22	16	38

c. **Visitor Survey:** Total 30 respondents with 16 female and 14 male were interviewed during October-December 2005 (Table 5). Of the total respondents interviewed, the majority was from Japan (23%) followed by Germany (16%), France (10%), UK (10%), Netherlands (10%), USA (10%), S. Korea (6%), Scotland (3%), Belgium (3%) and Switzerland (3%).

Table 5: Sampled visitors by nationality

Nationality	Number	Percentage	Nationality	Number	Percentage
Nepali	1	3	Germany	5	16
Japanese	7	23	USA	3	10
France	3	10	S. Korea	2	6
Scotland	1	3	Belgium	1	3
UK	3	10	Switzerland	1	3
Netherlands	3	10			
Total	30				

The age distribution of the respondent visitors (Table 6) indicates was from 30 to 40 years (30%) followed by the age range of 25 to 30 yrs. The minority age group constituted above 50 yrs. The more common age group visiting to THT was 40-50 yrs and below 25 yrs.

Table 6: Age wise distribution of visitors

Range	Number	Percentage
Below 25 years	6	20
25-30 years	7	23
30-40 years	9	30
40-50 years	6	20
Above 50 years	2	6
Total	30	100

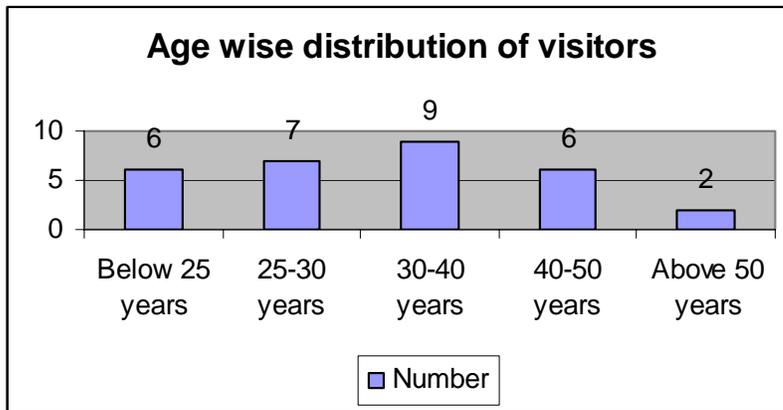


Diagram 1: Age wise distribution of visitors

d. Institution survey

Questionnaire survey and key person's informal interviews were made with the following institutions

Institutions	Number
Sustainable Tourism Development Committee (STDCs)	4
Buffer Zone User Committee (BZUCs)	2
District Development Committee (DDC), Rasuwa	1
Langtang National Park (LNP)	1

4.2 Strength of Tourism attractions in Tamang Heritage Trail

a. Tourism Attractions

Strong tourism attraction is a prerequisite for any destination to be sustainable. The study revealed Tamang culture as the core product of the Tamang Heritage Trail. The destination is enriched by the development of unique accommodation facilities, information and access trail as an ancillary products and Home-stay, community Lodge, spring hot water etc as augmented products. The visitors' perception as well as the field observation revealed that the area is rich in terms of all cultural, natural and historical perspectives. The Table 7 shows the major features of tourism attraction in THT.

Table 7. : Tourism Attractions of Tamang Heritage Trail

VDCs	Cultural Resources	Natural Resources	Historical Resources
Goljung	Tamang culture, Syabru Dance, Architecture, Craftsmanship, Gombas	Best view of Langtang, Sanjen, Goshaikunda range from Goljung view point,	Ghale Darbars, Meditation places
Gatlang	Tamang culture, Syabru Dance, Architecture, Craftsmanship, Gomba	Beautiful wetland (Parvatikund), Dense forest, Orchids and Rhododendron forest, Best view from Khurpu Danda	Ghale Darbars,
Chilime	Fusion of Tamang and Tibetan culture, Syabru Dance	Natural hot spring, Sanjen Himan, Sanjen Kharka, Sanjen valley	
Thuman	Tibetan culture, Tibetan Dance, Unique architecture, Craftsmanship, Gombas	Scenic landscape of Nagthali, Best view of Langtang, Kerung, Sanjen Himal range from Nagthali	
Timure	Tibetan culture, Tibetan Dance, Craftsmanship	Bhotekoshi river valley, Dudh Kund lake	Historical war Fort at borderland
Briddim	Tibetan culture, Tibetan Dance, Unique architecture, Craftsmanship, Gombas	Green forest, Musk Deer, Pheasants, Snow Leopard, Pangsang Himal, River Kund lake	

Source: Rasuwa Smarika, 2062 and Field Observation, 2005.

Map2: Tourism Attraction Map of Rasuwa

The visitors rated the THT as destination as strong tourist destination. As presented in Table 8, 33% tourist who visited the THT perceived the area having very strong tourism potentials followed by the 50% visitors who perceived it as strong and 17% visitors who also perceive the destinations' strength as medium.

Table 8: Tourism strength of THT as perceived by the visitors

Perception	Number	Percentage (%)
Very strong	10	33
Strong	15	50
Medium	5	17
Poor	0	0
Total	30	100

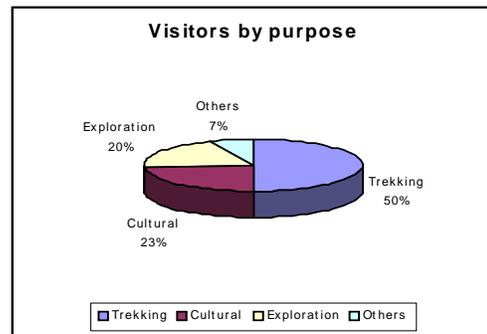
b. Visitors' Motivation for visiting the THT

The response of the respondents as presented in Table 9 revealed that the majority of the visitors come to THT for trekking followed by 23% for the culture related activities. It indicates that the blend of cultural package and nature trekking is the composite motivation factor for the visitors. In addition, exploration and study of new tourism area was the prime motivation factor for some 20% visitors followed by the 6% who visited the area for achieving miscellaneous motivation.

Table 9: Motivating factors for the visitors

Purpose	Number	Percentage
Trekking	15	50
Cultural	7	23
Exploration/study	6	20
Others	2	6
Total	30	100

Chart1: Motivating factors for visitors



c. Flow of visitors

The flow of visitors at THT seems low in number. The flow of visitors marked increased trend since 2004. The spatial distributions of visitor indicate the high flow in Chilime followed by Briddim, Goljung and Gatlang VDC. The maximum foreign visitor visited in 2005 was 187 in Chilime followed by 91 in Briddim, 40 in Gatlang and 35 in Goljung. Like wise, the maximum domestic visitors visited in 2005 was 4000 in Chilime followed by 187 in Briddim, 135 in Gatlang and 111 in Goljung. It would be unwise interpret the strength of area based on the volume of visitors as the area is very new and the overall inbound tourist number in the country is in decreasing rate.

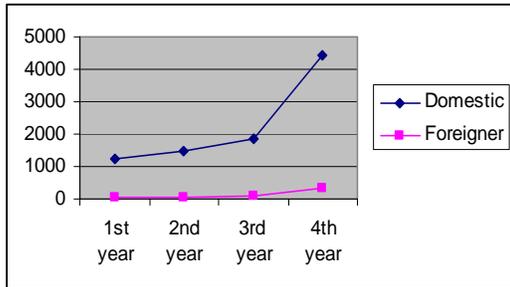


Figure 1: Visitors trend in successive years in THT

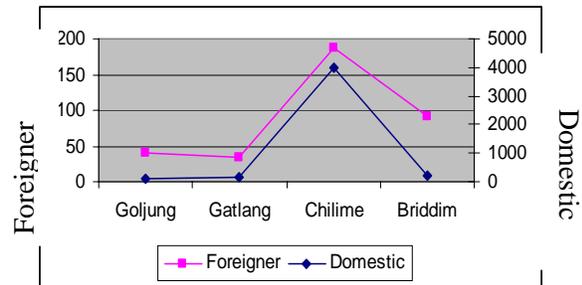


Figure 2: Spatial distribution of visitors in THT

To identify the attractiveness of individual tourism resources, visitors were requested to assign the value i.e. 3 for strong, 2 for medium and 1 for low for the individual attraction/resources.

Table 10: Visitors' perception of the individual attractiveness in THT

Perception	Strong (3)	Moderate (2)	Low (1)	Total weightage	Attractiveness Position
Tamang culture, tradition and customs	15	12	3	72	1st
Tamang settlements and architect	11	17	2	69	2nd
Surrounding Mountains and Landscape	13	12	5	68	3rd
Hot Spring	11	13	6	65	4th
Forest and Wildlife	9	11	10	59	5th

The research data indicates that Tamang culture, tradition and customs stands for the first position with the weightage value 72 followed by Tamang settlements and architect (69), surrounding mountains and landscape (68), hot spring (68) and the forest and wildlife (59) as second, third, fourth and fifth position respectively.

From above findings, the major tourism activities in the THT can be elaborated as cultural study, village walk, observation of live craftsmanship and old aged architectures, cultural performance, natural hot spring bath, ethno-botanical study, wilderness trekking etc.

d. Information condition at THT

The visitors' responses revealed that only 10% visitors perceived the infrastructure condition as sufficient in THT followed by 41% visitors who perceived the same as just fair. Even 33% respondents perceive the condition as poor followed by 10 % visitors who perceive it as very poor (Table 11).

Table 11: Visitors' perception on the sufficiency of information

Sufficiency of information	Number	Percentage (%)
Sufficient	5	16
Fair	12	41
Poor	10	33
Very poor	3	10
Total	30	100

e. Overall situation of infrastructure facilities in THT

The visitors' responses indicate that the overall condition of infrastructure in THT is moderate (Table 12). The condition of trails, bridges, resting places have been perceived as sufficient by the majority of the visitors. Likewise, infrastructure like road, drinking water, Telecommunication have been perceived as moderate by most of the visitors. Infrastructure like rescue services, electricity, telecommunications have been perceived as poor condition by rest of the visitors.

Map:3 Accommodation and Campsite Facilities in THT

Table 12: Visitors' perception on the sufficiency of infrastructure facilities in THT

Infrastructure	Sufficient	Moderate	Poor	Total
Telecommunication	5 (16)	12 (40)	13 (44)	30
Trails	25 (84)	3 (10)	2 (6)	30
Road	0(0)	28 (94)	2 (6)	30
Bridges	25 (84)	5 (16)	0(0)	30
Resting places	20 (66)	7 (24)	3 (10)	30
Drinking water	10 (33)	13 (44)	7 (23)	30
Electricity	10 (33)	9 (30)	11 (37)	30
Rescue/Emergency services	0(0)	5 (16)	25 (84)	30

Notes: figures in parentheses are percentages

f. Accommodation facilities in THT

A community lodge is offering accommodation facilities at Gatlang. Home stay houses are offering accommodation facilities at Brimdang (Chilime) and Briddim. A normal hotel, lodge and individual Home-stay are available in the remaining. Research finding revealed that majority of the trekkers (70%) use local hotel and Home-stay (Table 13). Some group trekker use (23%) tented camping. About 7% trekkers use a combination of these facilities.

Table 13: Modes of accommodation used by visitors during the visit at THT

Perception	Number (30)	Percentage
At local hotel, lodge, Home-stay	21	70
Tented camp	7	23
Both	2	7
Total	30	100

While asking the visitors for their perception on the condition of accommodation facilities, the Home-stay (87%) and community lodge (90%) was perceived as good and sufficient for accommodation (Table 14). Most of the visitors (67%) perceived

hotel/lodge facilities as fair. The tea house and camping site facilities was perceived as the poor and insufficient by the 77% and 74% respondents respectively.

Table 14: Visitors perception on the overall condition of accommodation facilities in THT

Infrastructure	Good and sufficient	Fair	Poor and insufficient
Hotel/Lodge	4 (13)	20 (67)	6 (20)
Tea House	0(0)	7 (23)	23 (77)
Home-stay	26 (87)	3 (10)	1 (3)
Community Lodge	27 (90)	3 (10)	0(0)
Camping sites	0(0)	8 (26)	22 (74)

Notes: figures in parentheses are percentages

g. Hospitality level of community at THT

The hospitality of host community to the guest was also studied through perception of visitors as well as the community. 57% visitors perceived that the host community are very hospitable followed by 36% community who perceived the hospitality as just hospitable and 7% community who perceived it as poorly hospitable (Table 15).

Table 15: Perception of visitors on the hospitality offered by the community

Perception	Number	Percentage
Very hospitable	17	57
Hospitable	11	36
Poorly hospitable	2	7
Total	30	100

39% community members perceive that the way local community and entrepreneurs behaving with the guest is very hospitable (Table 16). The 60% household perceive the hospitality level as just hospitable followed by 1% household perceives the hospitality level as poor.

Table 16: Perception of Community on the hospitality offered to the guest

Perception	Number	Percentage
Very hospitable	28	39
Hospitable	43	60
Poorly hospitable	1	1
Total	72	100

g. Visitors' overall experience of the visit in THT

The overall experiences of the visitors stand the THT as a potential tourist destination (Table 17). Of the total visitors, 37% concluded the visits as very satisfactory followed by 63% visitors who concluded the visit as satisfactory.

Table 17: Visitors' overall experience of the visit in THT

Perception	Number	Percentage
Very satisfactory	11	37
Satisfactory	19	63
Not satisfactory	0	0
Total	30	100



Chart2: Satisfaction level of visitors

4.3 Institutional Strength in Tamang Heritage Trail

a. Establishment of Institutions

Permanent institutional set up is necessary for ensuring the sustainability of tourism in any destination. The institutional setup for tourism is developed at various levels in THT (Table 18). Community Organizations (COs) formed at settlement level have been capacitated to carry out all tourism development related activities such as sanitation, waste management, infrastructure development, promotional activities etc at the settlement level. Sustainable Tourism Development Committees (STDCs) established at VDC level are responsible for the overall planning, development and management of tourism in the VDC. Like wise Functional Groups (such as hotel/lodge committee, home-stay committee, craft producers etc) formed at functional level are committed to develop and promote local resource based tourism enterprises and improving its quality. Sustainable Tourism Development Section (STDS) formed within the District Development Committee is responsible for the overall tourism development in the district. STDS is becoming the pool for maintaining the backward and forward linkages for tourism development.

Table 18: Establishment of tourism related institutions at various levels in THT

Level	Institutions	Total Number	Total members		
			Total	Women	Men
Settlement level	CO/BZUG	60	1141	534 (47)	607 (53)
Functional level	FG	14	205	128	77
VDC level	STDC/BZUC	6	84	30	54
District level	STDS/DTCC	1	18	2	16

Source: Annual Progress Report, DDC: TRPAP Rasuwa, 2005

Notes: figures in parentheses are percentages

CO : Community Organizations, BZUG : Buffer Zone User Groups

FG : Functional Groups, STDC : Sustainable Tourism Development Committee

BZUC : Buffer Zone user Committee, STDS: Sustainable Tourism Development Section,

DTCC : District Tourism Coordination Committee

The District Tourism Coordination Committee (DTCC) comprised of all related stakeholders, public and private sectors technically backs up the STDS. Altogether 60 COs, 14 BZUGs, 14 FGs, 4 STDC, 2 BZUC, one STDS and one DTCC are operating for sustaining the tourism in THT. In Buffer Zone VDCs the separate parallel set of institutions are working for tourism. In buffer zone areas, BZUG are working in the settlement level, BZSC are working as functional Groups and BZUC are working as STDC.

b. Legal status of the institutions

Equal attention has been given to sustain and strengthen those institutions with the strong legal status. New regulations and bylaws have been formulated to legalize the STDC, STDS and DTCC. 44 COs, 4 STDC and 14 FG are formed and operated under the Sustainable Tourism Village Fund (STVF) bylaw 2062 (Table 19). Likewise 14 BZUG, 2 BZUC and 4 BZSC are running under the Buffer Zone Management Regulation 2056. The Sustainable Tourism Development Fund (STDF) Bylaw 2062 operates STDS.

Table 19: Legal status of the tourism related institutions at various levels

Institutions	Governing Laws	Remarks
COs	Sustainable Tourism Village Fund Bylaw 2062	Endorsed by respective VDC
BZUGs	Buffer Zone Management Regulation 2056	Guided by National Park and Wild Life Conservation Act 2029
FGs	Buffer Zone Management Regulation 2056	Depends on the nature and location of the group
	Sustainable Tourism Village Fund Bylaw 2062	
	Agency Registration Act	
STDC	Sustainable Tourism Village Fund Bylaw 2062	Endorsed by respective VDC
BZUC	Buffer Zone Management Regulation 2056	
DTCC	Sustainable Tourism Development Fund Bylaw 2062	Endorsed by respective VDC

Source: DDC:TRPAP Rasuwa/Langtang NP 2005

c. Local capital formation by the institutions at community level

Local capital is an important strength of any institution for its continuity and sustainability. A total of 60 settlement level community Organizations are involved in regular saving. It involves 89% of the total members and accounts NRs. 261448. Of the saving amount, NRs. 236928 has been used as credit capital by the 166 members for operating small-scale enterprises and household welfare (Table 20).

Table 20: Saving and credit status of settlement level organizations in THT

VDC	CO/BZUG No.	Total member	Members involved in saving	Saving (NRs.)	Credit (NRs.)	Members involved in credit	
						Total	Women
Goljung	9	156	156	49100	43500	21	11
Gatlang	10	273	260	96175	96175	48	28
Chilime	16	293	191	35910	33045	64	28
Thuman	9	168	168	22935	22935	16	6
Timure	6	104	101	32853	32753	10	5
Briddim	10	147	143	24475	8520	7	5
Total		1141	1024 (89)	261448	236928	166	83

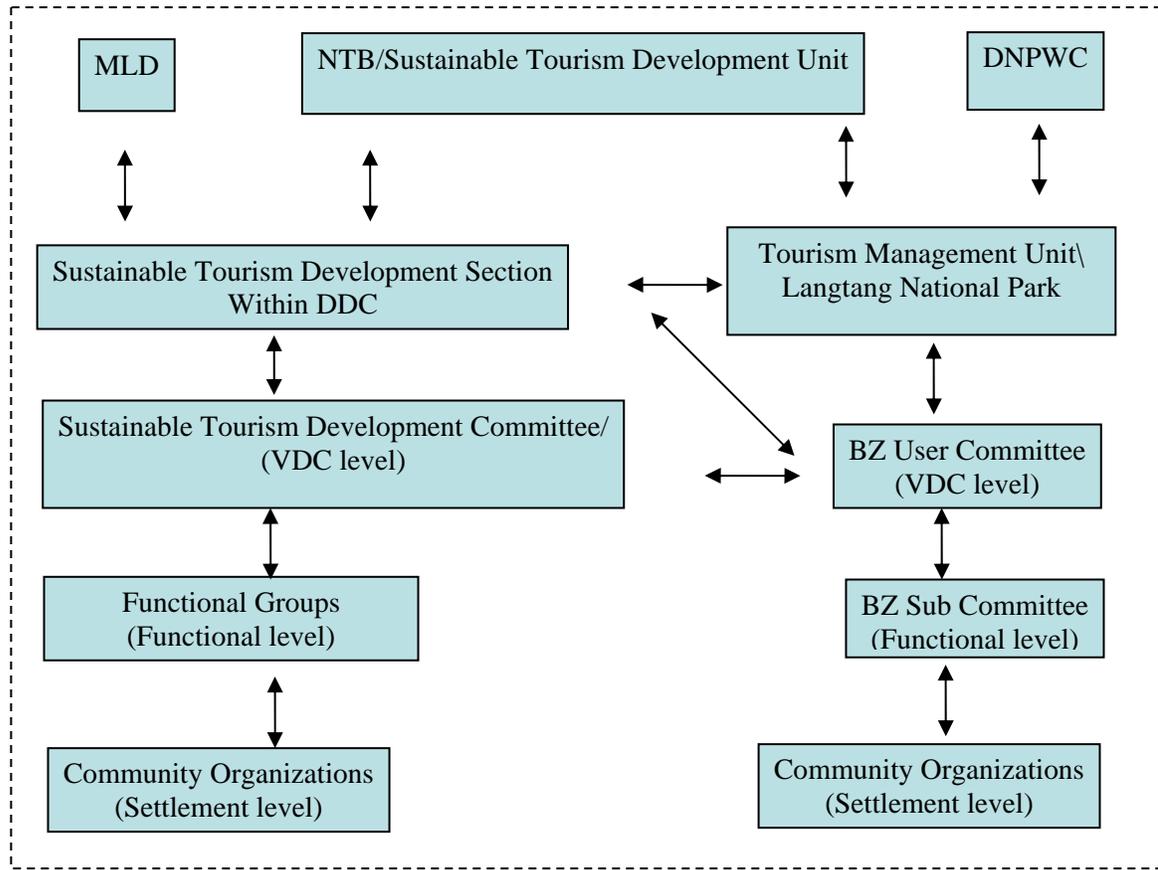
Source: Annual Progress Report, DDC: TRPAP Rasuwa, 2005

Notes: figures in parentheses are percentages

d. Backward forward linkage establishment

Backward and forward linkages are very important for tourism industry. Backward linkage is important for destination development, management, conservation and community development while forward linkage is important for product branding, promotion and marketing. A systematic mechanism of linkages has been established in THT. The linkages established in THT from the settlement level organizations (micro level) to the capital based policy level organization as well as promotion/marketing organization (Macro level) are shown in box 1.

Box 1: Mechanism of backward and forward linkages for tourism development



To ensure the coordination and partnership through effective linkages, the role of STDS at district level and the role of STDC at VDC level have been found to be very crucial.

The opinion survey (Table 21) with the STDC indicates the strong backward linkages up to the CO level was perceived by the 67% STDCs followed by 33% STDCs who perceived it just normal. Likewise, the forward linkages of STDC with the VDC are also perceived as strong by 50% and normal by 50%. The research data indicates a strong forward linkages with of STDC with the DDC/STDS as 83% perceive the relation as strong followed by 17% who perceive it just normal. Four VDCs lies outside the National Park, had poor relation and linkages with the Langtang National Park. The forward linkage of STDC with the NTB seems less strong as the mechanism has envisioned the relation of NTB to be at STDS level.

Table-21: Perception of STDC on the relationship established by STDC/BZUC for backward and forward linkages

Level of relation	Institutions				
	COs	VDCs	DDC	NP	NTB
Strong	4 (67)	3 (50)	5 (83)	2 (33)	1 (17)
Normal	2 (33)	3 (50)	1 (17)	0(0)	2 (33)
Poor	0(0)	0(0)	0(0)	4 (67)	3 (50)

Notes: figures in parentheses are percentages

e. Continuity of tourism development efforts

Tourism development efforts in THT have been carried out by the District Development Committee with the technical and financial support of TRPAP. The respective COs and STDCs, with the support of TRPAP, are actively involving to carry out the following tourism development activities:

- Tourism planning
- Tourism infrastructure development
- Sanitation and waste management
- Awareness raising
- Environment conservation
- Culture conservation
- Tourism product development
- Publicity and extension
- Linkage and partnership development

Making tourism more sustainable needs keeping these activities continuous for the long term. The research findings (Table 22) indicates only 10% household believe that the effort will be continued in the same spirit as has been done now by TRPAP followed by 62% household who believe that the efforts will be carried out only in a moderate way. About 28% household showed their unawareness with the same.

Table 22: Confidence level of Community towards the existing institutions (Group and committee) to continue the tourism development in THT

Perception	Number (30)	Percentage
Can continue in a same way	7	10
Can keep in normal way	45	62
Will be deteriorating	0	0
Don't know	20	28
Total		

The survey finding (Table 23) regarding the perception of STDC on the capacity of STDC for the continuity of present efforts even after the completion of TRPAP shows the mixed indication. None of them believes that the efforts will be continuous at the same spirit with their own resource and capacity. However, 83% of those expect the support for some time to carry out the efforts followed by 17% who expects continuous outside support to carry out the efforts.

Table 23: Confidence level of STDC on their own capacity to continue the tourism development in THT

Perception	Number	Percentage
Continue on their own capacity	0	0
Need support for some time	5	83
Need continuous support	1	17
Total	6	100

4.4. Management and Control

Making tourism more sustainable is not just about controlling and managing the negative impacts of the industry. It requires taking these impacts and needs into account in the planning, development and operation of tourism. The research finding shows the following efforts of management and control in THT:

a. Land Use Planning and Zonation

Eleven VDCs of Rasuwa district has already been declared and managed as National Park and Buffer Zone category by the Government. Briddim and Timure VDC also fall under this management category. Visitors are required to have protected area entry permit by paying NRs. 1000 for this area. The area is managed under the National Park and Wild Life Conservation Act 2029 and focus has been given to promote eco-tourism in those two VDCs.

b. Special Protection Zone

Timure and Thuman VDC fall under the controlled trekking area category. Visitors must get special permit from the Department of Immigration by paying 10 \$ per week in the number of at least two trekkers. The control is enforced for the preservation of unique culture and lifestyle at the borderland to Tibet.

c. Carrying Capacity Analysis

No formal system of carrying capacity analysis has been observed in the area. However, the physical capacity of the tourist beds automatically limits the number of free individual trekkers in the trail. The minimum bed no i.e. 12 tourist bed/day at Thuman can be considered as the maximum capacity of visitors in THT.

The field observation as well as the business survey also revealed that the specific management system has been introduced at Briddim Home-stay village, Briddim. The survey indicates that there are 23 household having at least 2 tourist beds are operating the home-stays and managed by the committee on a rotational basis. In addition, a

provision of NRs. 100 has been charged as an entry fee for the conservation and management of the village and the system.

d. Involvement of women and poor

To insure meaningful involvement of women in tourism related institutions, the Sustainable Tourism Village Fund Bylaw 2062 has mandatory provisioned the ration of men and women in the settlement level CO to be within the 40% to 60%. This provision will create favorable environment for participating in the STDC and DTCC too.

e. Seasonality Management

Seasonality management is the very important management tool for the development of tourism in any destination. The business survey findings (Table 24) indicate a very high seasonality in THT. Only a less number i.e. 3% hotel/lodge and Home-stay are operating through out the year. Even the stated operation through out the year is assumed to be for the non-tourist purpose. 27% businesses are operating more than 9 month followed by 52% business operating for 6 to 9 month. Like wise 15 businesses were reported to be running for 3 to 6 month and 3% for less than 3 month.

Table 24: Seasonality of tourist business as opinioned by business owners

Time period	Hotel-Lodge/ Home-stays numbers	Percentage
Through out the year	1	3
More than 9 month	9	27
6 to 9 month	17	52
3 to 6 month	5	15
Less than 3 month	1	3
Total	33	100

The high level of seasonality may be due to the initial stage of the tourism cycle. However, various efforts were observed that were carried out in THT to reduce seasonality and the effects of seasonality. To reduce seasonality, focus has been paid on increasing product diversity and promotion. To minimize effect of seasonality, focus was

paid to reduce the dependency on tourism by integrating the tourism as a integral part of rural livelihood system. Focus has been given to develop agriculture and culture based tourism products with high level of local resources and low investment. The survey findings (Table 25) indicate that only 3% businesspersons are totally dependent on tourism business in THT. The majority of them i.e. 74 business owner are running both the tourism business with their agriculture. Like wise 18% owner who operate tourism business are also running other business i.e. retail shop, construction work etc apart from the agriculture. Only some few owners i.e. 5% are operating the tourism and other business.

Table 25: Linkage between tourism and other economic sector

Activities	Number	Percentage
Tourism alone	1	3
Tourism and Agriculture	28	74
Tourism, Agriculture and other business	7	18
Tourism and other business	2	5
Total	38	100

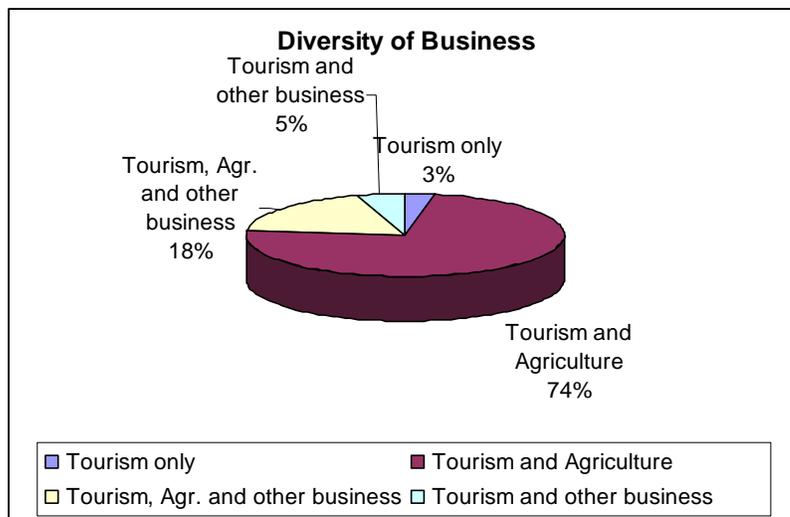


Chart3: Linkage between tourism and other economic sector

4.5. Social Considerations

Social consideration is very much important factor to continue the efforts, to participate the locals in tourism and to preserve the socio-cultural assets of the destination. The awareness level, involvement level, community, benefit sharing mechanism play important role in social consideration.

a. Awareness level and impacts on local socio-culture

The awareness level of household about the tourism in THT is very strong. The majority of the respondents i.e. 47% household responded having enough awareness about THT followed by 47% household who reported having basic awareness and only 6% household remains unaware with the THT (Table 26).

Table 26: Awareness level of Community about tourism in THT

Perception	Number	Percentage
Enough awareness	34	47
Basic awareness	34	47
No awareness	4	6
Total	72	100

The possibility of psychological effects due to crowd ness and degrading the local culture due to demonstration effect in THT seems very low. This can be concluded from the high level awareness about the consequences as well as the lowest Host-Guest ratio in THT.

Table 27: Awareness level of Community about the possible consequences of tourism

Perception	Number	Percentage
Have enough knowledge about consequences	63	87
Have poor knowledge about consequences	4	6
Don't know	5	7
Total	72	100

The awareness level of the community on the possible consequences of tourism in the society was seemed very high in THT. The majority of community i.e. 87% household

was reported having enough knowledge about consequences (Table 27). Only a small portion of them i.e. 6% were reported having poor knowledge about consequences followed by 7% household who are unknown about consequences.

The ratio of foreign visitors to the host community is very low in THT. The overall ratio found to be .05 (Table 28). The maximum ratio is reported to be .12 at Chilime and Briddim against the minimum ratio .019 at Goljung followed by .034 at Goljung. Where as the overall ratio of domestic visitors to the host community was found to be .63. The maximum ratio of domestic visitors to the host community was marked 2.57 against the minimum ratio .07 at Gatlang. Community believed that the impacts on culture due to domestic visitors would be negligible as the domestic visitors pose nearly same culture and tradition to that of host community.

Table 28: Host-Guest ratio at THT (average and peak period/days)

VDC	Total Population	Domestic visitors	Host-Guest ratio (Domestic)	Foreign visitors	Host-Guest ratio (Foreigner)
Goljung	1170	111	.09	40	.034
Gatlang	1751	135	.07	35	.019
Chilime	1556	4000	2.57	187	.12
Thuman	1213	-	-	-	-
Timure	596	-	-	-	-
Briddim	756	187	.24	91	.12
Total	7042	4433	.63	353	.05

Source: Annual Progress Report/DDC: TRPAP, 2005 and field survey 2005

b. Participation of Women

The effectiveness of those institutions has been increasing by the active involvement of women. In the community Organizations, the representation of women in the post of Chairperson and Secretary is 40% and 30 % respectively (Table 19). Like wise, the representation of women in the post of Chairperson, Vice Chairperson and Secretary of the STDC/BZUC is 0%, 33% and 16% respectively (Table 29).

Table 29: Representation of women in tourism related organizations (in %)

Institutions	Chairperson		Vice Chair person		Secretary	
	Women	Men	Women	Men	Women	Men
COs/BZUG	40	60	0(0)	0(0)	30	70
STDC/BZUC	0(0)	100	33	33	16	0(0)

Source: Annual Progress Report, DDC: TRPAP Rasuwa, 2005

c. Tourism and Community development

The overall perception of community towards the social impacts of tourism in THT is very positive. About 22% respondents perceived the social impacts as very positive to the society followed by 78% who perceive it as normal (Table 30). Non of them responded the negative social impacts of tourism in THT.

Table 30: The overall perception of community on the social benefit of tourism

Impact Area	Impact Level			
	Very positive	Normal	None	Negative
Social Impact	16 (22)	56 (78)	0	0

Notes: figures in parentheses are percentages

Tourism in THT has been the means of benefiting rural poor community through the infrastructure (Table 31). The majority of the community i.e. 64% household perceived that tourism has helped bringing community infrastructure.

Table 31: Perception of community towards the benefit to community through tourism infrastructure

Perception	Number	Percentage
Tourism has helped bring much on community infrastructure	16	22
Tourism has helped bring normal on community infrastructure	46	64
No help to bring on community infrastructure	10	14
Total	72	100

Likewise, 22% household perceived tourism much helpful for bringing community infrastructure against the 14% household who perceived no benefits to community from the tourism infrastructure.

Local community perceives that developing tourism also supports services to the community (Table 32). The majority of the community i.e. 96% household perceived benefits of improved trail from tourism followed by others such as resting places (by 68%), portable drinking water (by 65%), bridges (by 39%), Telephone services (by 36%).

Table 32: Perception of community towards the services created by tourism

Perception	Number (72)	Percentage
Portable drinking water	47	65
Trails	69	96
Telephone	26	36
Resting places	49	68
Bridges	28	39

d. Capacity enhancement and employment opportunities

The office records (DDC:TRPAP Rasuwa) indicate that tourism related various types of capacity development and skill development trainings have been provided.

Table 33: Status and diversity of trained Manpower on tourism related Skills in THT

VDC	Trained #	Employed	Creating new business	Upgrading own business	Household use	None
Goljung	28		3	7	10	8
Gatlang	47	9	3	7	22	6
Chilime	44		5	33		6
Thuman	12		2	1	5	4
Timure	4			1	3	
Briddim	60	10	23	3	2	22
Total	195	21	36	52	42	46

Source: Annual Progress Report/DDC: TRPAP, 2005 and field survey 2005

Table 33 shows the remarkable number of trained personnel on tourism related skill training such as cookery, bakery, hotel/lodge management, trekking guide, craft production, fresh vegetable production etc. The records indicate the local use of trained resources as well as the potentials of skilled workers at the destination. The data revealed that 195 locals have been provided with the tourism related skill trainings. Of the total trained personnel, 21 are engaged in employment, 36 are creating new business, 52 are upgrading their old business, 42 are using the skill in their household use and rest 46 are waiting for favorable working opportunities.

e. Culture Conservation

The research finding has shown a positive development in cultural conservation in THT. 50% visitors opinioned that the culture in THT is in very improving state followed by 27% who opinioned the state as improving and 23% visitors who opinioned the state as normal (Table 34).

Table 34: Perception of visitors on the state of culture in THT

Perception	Number	Percentage
Very improving state	15	50
Improving state	8	27
Normal state	7	23
Degrading state	0	0
Total	30	100

Culture conservation efforts have been undertaken in THT. The focal group discussion and the office records indicate that Paldor Cultural Group (Gatlang), Thuman Cultural Group (Thuman) and Goljung Tamang Cultural Group (Goljung) have been formed and operational. They are involved in collecting the old artifacts, dresses, providing training on ancient Tamang songs, performing cultural performance on a regular basis and transforming the assets to the new generation.

The findings of household survey indicate that 90% community perceived the increased conservation efforts in culture followed by 10% who perceived the culture of in THT as normal as it was in before (Table 35).

Table 35: Perception of community on the state of culture in THT

Perception	Number	Percentage
Deteriorating state	0	0
Was the same as before	7	10
Increased conservation	65	90
Total	72	100

4.6 Economic Considerations

a. Overall economic benefits

Tourism has been the additional source of income for the community at THT. Despite the newly developed destination and minimal flow of visitors, the perception and expectation of community towards the benefits of tourism is very positive and high. About 14 % household perceived economic benefits of tourism in THT to be very positive followed by 82% household who perceived economic impacts to be moderately beneficial. Only 4% households were reported getting no benefits from the tourism. Nobody reported negative impacts of tourism in THT (Table 36).

Table 36: Perception of community towards the economic benefits of tourism

Impact Area	Impact Level			
	Very positive	Moderate	None	Negative
Economic Impact	10 (14)	59 (82)	3 (4)	0

b. Economic leakage and benefit to local community

The creation and ownership of tourism related business by the outsider is very low in THT. The survey finding indicates that 95% tourism related hotel/lodge are owned and operated by the local community followed by 5% business operated and owned by the outsider (Table 37). The finding shows all home-stays owned and operated by the community. The high local business ownership indicates the low economic leakage.

Table 37: Ratio of locally owned tourism enterprise to outsider

VDC	Hotel/Lodge		Home-stays	
	Local	Outsider	Local	Outsider
Goljung	1	0	2	
Gatlang	3	0		
Chilime	7	1	3	
Thuman			2	
Timure	1		1	
Briddim	6		23	
Total	18 (95)	1 (5)	31 (100)	0 (0)

However, the leakages still occur due to the import of some materials by the local owners. The research findings (Table 38) indicates the high leakage in purchasing of materials such as salt, sugar and noodles/biscuits (100%) followed by food grains (61%), branded whisky (52%), milk products (36%) and vegetables (18%). The low leakage was seen in manpower (0%), Food grains (61%), meat products (15%), fruits (21%), and local alcohol (0%).

Table 38: Status of local and imported materials for business

Products and Services	Local	Imported	Both
Human resources	37 (100)		
Food grains	13 (39)	20 (61)	13 (39)
Vegetables	19 (58)	6 (18)	8 (8)
Fruits	12 (36)	7 (21)	14 (42)
Meat products	28 (85)	5 (15)	0(0)
Milk products	8 (24)	12 (36)	0(0)
Alcohol	33 (100)	0 (0)	0(0)
Branded Whisky	0(0)	17 (52)	16 (48)
Ghee, oil	0(0)	31 (94)	2 (6)
Salt, sugar	0(0)	33 (100)	0(0)
Noodles/buicuits	0(0)	33 (100)	0(0)

c. Involvement of poor and women

The participation of women in the tourism business is very positive and strong in THT. Of the 33 business manager (informally), 24 (73%) were women (Table 39). This reflects the improved competency of women as well as the engagement of women in economic activities too.

Table 39: Involvement of women as Manager in the business

Home-stay (16)		Hotel lodge (17)		Total		
Women	Men	Women	Men	Women	Men	Total
14	3	10	6	24 (73)	9 (27)	33 (100)

The contribution of tourism to the local rural economy seems positive and remarkable in THT. An impact assessment report of SNV 2005 indicates the maximum share of annual tourism income i.e. 29% to the total annual other income at Briddim. Like wise, the share was 24% in Chilime followed by 10% share in Gatlang VDC (Table 40).

Table 40: Ratio of annual tourism income and other income (in %)

VDC	Annual Other Income	Annual Tourism Income
Briddim	71	29
Chilime	86	24
Gatlang	90	10

Source: Extracted from the 'Field assessment report on impact of tourism development models on the livelihoods of the local people of Briddim, Gatlang and Tatopani villages of Rasuwa district, by SNV Nepal/Dec 2005.

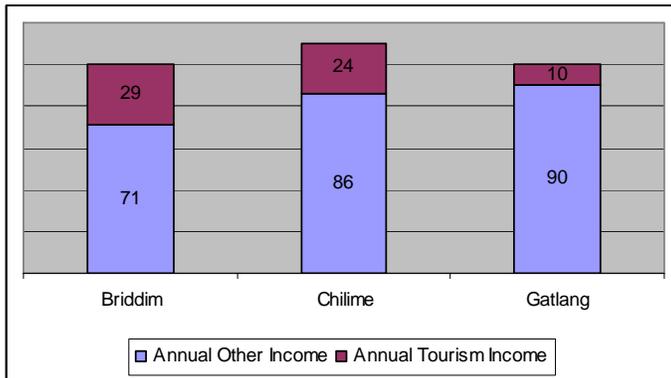


Diagram 2: Ratio of annual tourism income and other income (in %)

The contribution of tourism to the local employment in THT is also positive and remarkable (Table 41). The overall ratio of employment from tourism to the total employment is .47. The share of employment of women (.57) is higher than that of men (.37) in THT. The ratio is highest in Briddim (.82), Gatlang VDC (.60) followed by Thuman (.50), Chilime(.37), Timure (.17) and Goljung (.14).

Table 41: Ratio of tourism employment to total employment

VDC	Total Employment			Employment in tourism			Ratio		
	Total	Women	Men	Total	Women	Men	Total	Women	Men
Goljung	35	10	25	5	2	3	.14	.2	.12
Gatlang	28	15	13	17	11	6	.60	.73	.46
Chilime	49	20	29	18	10	8	.37	.5	.28
Thuman	14	7	7	5	2	3	.50	1	.29
Timure	24	11	13	4	3	1	.17	.27	.076
Briddim	60	31	29	49	26	23	.82	.84	.79
Total	210	94	116	98	54	44	.47	.57	.37

Source: DDC: TRPAP Rasuwa 2006

Tourism in THT has strong multiplier effect to the rural livelihood of the community. The survey findings (Table 42) indicate that 31% respondents perceived the benefit of tourism for education sector. Likewise, 57% respondents perceived the benefits for agriculture sector, 31% for livestock and 78% for other general business.

Table 42: Multiplier effect of tourism in other sectors

Perception	Number (72)	Percentage
Education sector	22	31
Agriculture sector	41	57
Livestock	31	43
General business	56	78

The research finding revealed that the communities are also getting benefits from the tourism related business done by other members. Majority of those (97%) opinioned that community are getting benefits in a very little amount followed by 3% who opinioned that community are also getting normal benefit from the tourism business (Table 43).

Table 43: Opinion by business owners on the benefit of tourism businesses to community

Perception	Number (33)	Percentage
Very beneficial	0	0
Normal	1	3
Very little	32	97
None	0	0
Total	33	100

The formal group discussion indicates that community are getting indirect benefits by selling vegetables, meat products, milk products, porter, food grains and alcohol etc to the hotel/lodge and the visitors.

The research findings indicate the maximum retentions of wages within the owners' household (85%) followed by 15% distributed to the own village (Table 44). No wages was found to be distributed outside the community.

Table 44: Use of wages in locals through tourism related business

Perception	Number	Percentage
Within own household	28	85
Within local community	5	15
Outside the community	0	0
Total	33	100

d. Creation of new tourism products

Nine various tourism products were found in THT (Table 45). The maximum product diversity was found in Gatlang (5 different products) followed by Briddim (4), Chilime (4), Thuman (4) and Goljung (4). The least diversity was found in Timure (2).

Table 45: Creation and distribution of tourism products

VDC	View point	Village walk	Home-stay	Cultural performance	Hot spring	Com. Lodge	Nature walk	Pilgrimage	Historical sites	Total
Goljung	*	*	*	*						4
Gatlang		*		*		*	*	*		5
Chilime	*		*		*		*			4
Thuman	*	*	*				*			4
Timure		*							*	2
Briddim		*	*	*			*			4
Total	3	5	4	3	1	1	4	1	1	

Source: DDC:TRPAP records and Field Observation 2005

e. Per day average expenditure

Daily average expenditure was found in the range of NRs 670 to 1170. The additional expenses on Guides, local handicrafts and tips/donation depend on the individual interest and paying capacity of the guest (Table 46).

Table46: Average rates charged per tourist for various services and facilities

Services/Facilities	Average per day expenditure (NRs)					
	Goljung	Gatlang	Tatopani	Thuman	Timure	Briddim
Room					100	
Bed	50	100	50	50	50	100
Breakfast	60	60	50	60	60	80
Tea	10	10	10	10	10	10
Coffee	20	20	20	20	20	20
Dal Bhat	60	80	80	80	70	90
Dal Bhat with meat	110	130	130	130	120	140
Alcohol/bottle	30	30	30	30	30	30
Cultural performance	400	400				400
Porter/Guides	300	300	300	300	300	300
Average daily Total	1040	1130	670	680	660	1170
Guides	350					
Local handicrafts	Average Lumpsum 700					
Tips/Donation	Lumpsum 300					

The findings on average daily expenditure shows the chiefest expenditure at Timure (NRs. 660) followed by Tatopani (670), Thuman (680), Goljung (1040) and Gatlang (1130). The highest expenditure was reported in Briddim (NRs. 1170).

4.7. Environmental Considerations

Well and live environment is the prerequisite as well as beauty of any tourism destination. Well-planned tourism can contribute the preservation of destination environment where as the failure to recognize it may degrade the destination attractiveness. Thus, a sincere consideration of environment is necessary to ensure the sustainability of tourism by increasing positive impacts. Following environmental considerations was found in THT.

a. Overall Environmental state

The findings of household survey revealed that overall environmental impacts of tourism in THT are of mixed results (Table 47). Only a few majority of community i.e. 10% perceived that tourism has exerted positive impact on the destination environment followed by 78% who perceived the impact as moderate and 12% who perceived the impact as negative.

Table 47: Perception of community on overall environmental impacts of tourism in THT

Impact Area	Impact Level			
	Positive	Moderate	None	Negative
Environmental Impact	7 (10)	56 (78)	0 (0)	9 (12)

The opinion of community also complement that negative impact are seen in terms of deforestation especially at Chilime (Table 48). About 38% household perceived that the condition of forest is in degrading state after the development of tourism. However, the majority i.e. 54% perceived the situation as normal followed by 8% household who perceive that the state of forest is in increasing state.

Table 48: Perception of community on the impact of tourism on the state of forest

Perception	Number	Percentage
Degrading state	28	38
Normal state	38	54
Increasing state	6	8
Total	72	100

The field observation supports the fact that deforestation is especially critical at Chilime (Tatopani area) and Thuman.

The same results was perceived by the visitors as only very few visitors i.e. 17% opinioned the destinations' environment as very balanced state followed by 43% who opinioned the situation as balanced state (Table 49). Further more 27% visitors opinioned the state as deteriorating followed by 13% who opinioned the state as very deteriorating state.

Table 49: Perception of visitors on overall state of the environment in THT

Perception	Number	Percentage
Very balanced state	5	17
Balanced state	13	43
Deteriorating state	8	27
Very deteriorating state	4	13
Total	30	100

b. Sanitation and Waste Management

Though not toxic, the waste management and sanitation condition in THT found to be un-pleasure (Table 50). The perception of only few visitors i.e. 10% indicates that overall sanitation and waste management condition is well managed followed by 40 % who perceive the situation as just managed. 43% visitors perceive the condition as poorly managed followed by 7% who perceive it as very poorly managed.

Table 50: Opinion of visitors on overall sanitation and waste management in THT

Perception	Number	Percentage
Well managed	3	10
Managed	12	40
Poorly managed	13	43
Very poorly managed	2	7
Total	72	100

The findings however indicate that the amount and frequency of visible garbage condition in THT is decreasing after tourism development in the area. No body remarked that the garbage is increasing, however, 50% community conclude that the state is static. Even 46% community concludes that the garbage condition is decreasing through management after the tourism development in THT. 4% of them shown their unawareness regarding the garbage condition (Table 51).

Table 51: Perception of community on the state of garbage (paper, plastic etc) in THT

Perception	Number	Percentage
Increasing state	0	0
Was the same as before	36	50
Decreasing through management	33	46
Don't know	3	4
Total	72	100

The frequency of garbage was observed at Health post site at Goljung, Thambuchet, Gongang, Tatopani and Thuman.

The research findings indicates that the improve awareness has resulted the increased use of energy technology and sanitation activities in the destination. The findings (Table 52) indicate that 47% household use the toilet, 39% household use improved cooking stove (ICS), 60% household use electricity, 32% household use solar light system and 42% household keep kitchen garden in their house.

Table 52: Number of Household using the energy saving devices and waste management.

Perception	Number (72)	Percentage
Toilets	34	47
ICS	28	39
Electricity	43	60
Solar lighting	23	32
Kitchen garden	31	42

The sewage management system by the hotel/lodge and home-stays shows that 34% use sewage at their kitchen garden followed by 6% who drain the sewage at community drainage and 39% drain the sewage at pit and 21% of those do nothing (Table 53).

Table 53: Management of sewage by business owners in THT

Perception	Number (33)	Percentage
Kitchen garden	11	34
Community drainage	2	6
Drain in pit	13	39
None	7	21
Total	33	100

The garbage management system by the hotel/lodge and home-stays shows that 24% manage the garbage as composting followed by 39% who manage it at rubbish bin/incinerator. Likewise, 36% dump the garbage at secured site and 24% bury/dump the garbage at their farmland (Table 54).

Table 54: Management of garbage by the business owners in THT

Perception	Number (33)	Percentage
Composting	8	24
Rubbish bin/Incinerator	13	39
Dumping in secured area	12	36
Using in farmland	8	24
None	0	0

The provision of separating garbage in to three decomposable, degradable, non-degradable by business was observed only in the Community Lodge, Gatlang.

c. Use of energy for the business

A study report at Briddim and Langtang VDC by TRPAP/2005 (Table 55) indicates the glimpse of annual energy consumption in Langtang area. The consumption rate at Briddim may be the representation of THT where as the consumption at Langtang could

be the future expected state of energy consumption at THT. The report findings revealed that the firewood consumption rate in Langtang is higher than that of Briddim VDC. However, the increase in firewood is not increasing reciprocally to that of tourism business. The un-reciprocal increment could be due to the result of the use of other alternative energy technology such as electricity, solar light system, solar hot shower, improved cooking system as well as the modified living pattern such as imported use of alcohol from neighboring villages and use of imported food materials.

Table 55: Annual firewood consumption at Briddim and Langtang VDC

Uses	Energy consumption at Briddim			Energy consumption at Langtang		
	Unit	Energy in kg	Energy in kcal	Unit	Energy in kg	Energy in kcal
Teashops	18	348,413.4	1571971578	19	368915.4	1664472502
Lodges	32	549936	2481201245	63	873747	3942171715
Ordinary houses	113	1710288.9	7716481459	61	1000497.6	4524045072
Total	163	2608638.3	11769654281.9	143	2418539	10911964260
Per capita energy con./ HH		16004 kg			16913	

Source: A study on Firewood consumption by local...in Langtang valley/TRPAP, 2005

The research finding shows firewood as the major source of energy consumed by the tourism related business in THT.

Table 56: Use of various form of energy by the hotels/lodge/Home-stays in THT

Perception	Number (33)	Percentage
Firewood	33	100
Kerosene	14	42
LP Gas	1	3
Electricity	10	30
Solar light system	20	61
Solar shower	1	3
Cow Dung	1	3
Bio Gas	0	0

Table 56 indicates that all respondents responded used firewood for their business. Like wise 42% of them use kerosene, 3% using LP gas, 30% using electricity, 61% using solar light system, 3% using solar hot shower and 3% using cow dung as source of energy. No business owner in THT was found to be using biogas.

4.8 Setting Indicators of sustainability

The standard indicator is very much important to perform a real monitoring of sustainability. The context based and user-friendly indicators could be the important instrument for the planner as well as the destination communities. Based on the findings of the assessment in Tamang Heritage Trail and the literature, following sets of sustainability issues and indicators have been found and presented:

4.7.1. Strength of tourism attraction

Strength of tourism is the most important and prerequisite for the development of tourism and its sustainability. The strength can be reflected in terms of attractions, accessibility and amenities. Following sets of issues and indicators have been formulated to assess the strength of tourism attraction in rural areas.

Table 57: Baseline issues, indicators and tools for monitoring strength of tourism attractions

Baseline Issue	Suggested Baseline Indicator(s)	Tools
Strength of tourism	Current visitor flows in destination by season	DDC/Protected area offices
	Length of stay	Visitor/Agency perception survey
	Destination attractiveness, market opportunities.	Visitor/Agency perception survey
	Level of satisfaction by visitors	Visitor/Agency perception survey
	Percentage of return visitors	Not feasible currently
	Level of seasonality management (Tourist arrivals by month or quarter -distribution throughout the year)	DDC/VDC/STDC
	% of business establishments open all year	Business survey/DDC
	Number and % of tourist industry jobs which are permanent or full-year (compared to temporary jobs)	Business survey/DDC
	Number of visitors to major destinations by season	

	Number of lodges along major circuits and at destinations	
	Capacity (Beds and rooms) of lodges along major circuits and at destinations	
	Total visitor days and occupancy rates of lodges along major circuits and at destinations by season	
	Quality of meals, accommodation	
	Quality of service provided by lodges, tour operators	
	Quality of campgrounds, Quality of trails, Quality of bridges	

2. Institutional Strength

Strong Institutional set up is also the important issues for making the tourism more sustainable. The strength of institutional set up can be reflected in terms of institutional coverage, dynamism, legal provision and backward forward linkages, capital formation. Following sets of indicators have been formulated to assess the strength of tourism institutions for assessing the sustainability of tourism in rural areas.

Table 58: Baseline issues, indicators and tools for monitoring Institutional strength

Baseline Issue	Suggested Baseline Indicator(s)	Tools
Institutional Strength	Layers of institutions established	Office records/VDC/DDC
	Number of institutions operated by legal provision	STDC/DDC
	% of women and man involving in those institutions	Office records/DDC:TRPAP
	Effectiveness of the institutions (% of meeting conducted as per plan)	Institution records
	% of members participating in decision making	Institution survey
	Women Managers in Tourism enterprises number	Business survey/official records
	% of settlement level organizations involved in regular saving and credit	Office records
	Number of institutions aware with tourism development	Institution survey/FGD
	Backward forward linkages	Institution survey/FGD/DDC/VDC

3. Management and control

Management and control is another important issue for making the tourism more sustainable. Appropriate management system and control is required to ensure the sustainability. The well management and control system is reflected by the appropriate land use planning system, carrying capacity analysis, control management and financial control. Following sets of indicators have been formulated to assess the management and control system for tourism development in rural areas.

Table 59: Baseline issues, indicators and tools for monitoring management and control

Baseline Issue	Suggested Baseline Indicator(s)	Tools
Management and control	Existence of a land use or development planning process, including tourism	Field observation, Planning /Plan
	% of area subject to control (density, design, etc.)	Field observation, Planning /Plan
	Number of tourists per square meter/kilometer of the site (e.g. at attractions), mean number/peak period average	Field observation, Planning /Plan and policy

4 .Social considerations

Social consideration is the very important and neglected issues of sustainability. It includes the broad based consideration. All other issues of sustainability are also inter-related with social issues. It is one of the three pillars of sustainable tourism and is reflected by the awareness level of tourism, the interest and participation of local community on tourism development, involvement of locals in tourism planning, development and conservation, the level of hospitality, mode of interaction with the visitors and the overall wellbeing of the community in the destination. The level of social consideration can be assessed with the following indicators:

Table 60: Baseline issues, indicators and tools for monitoring Social consideration

Baseline Issue	Suggested Baseline Indicator(s)	Tools
Social consideration	Ratio of tourists to locals (average and peak period/days)	DDC
	Local Satisfaction with Tourism	Household survey
	Level of awareness on the impacts of tourism	Household survey
	Level of peoples participation	Focal group discussion
	Pattern of tourist participation	FGD, Institution survey
	Level of hospitality offered to the visitors	FGD, Household survey
	Tourism infrastructure	Field observation, Household survey
	Tourism support services, including transport, water supply	Field observation, Household survey
	% who believes that tourism has helped bring infrastructure. (questionnaire-based)	Field observation, Household survey
	Number and capacity of social services available to the community (% attributable to tourism)	Field observation, Household survey
	Number of community who are trained and involved in tourism job locally	DDC/TRPAP
	Number of community trained for jobs that are available in the local economy	DDC/TRPAP
	Number of institutions formed for cultural conservations	STDC/DDC/TRPAP

	Number of cultural group formed/VDC	FGD/Official record
	Level of efforts made to renovate cultural assets	FGD/Official record
	Percentage of households indicating less time for water collection, traveling to markets	
	Percentage of households indicating less time for traveling to schools, health posts	
	Literacy rate by sex and age	
	Percentage of households reporting food deficits	
	Cultural heritage (preservation and maintenance of cultural assets, artifacts, state of traditional crafts, traditional architectural styles, specific food and dress habits etc)	

5. Economic Consideration

Economic consideration is the very important, visible and desirable issues of sustainability. It is the centre of all types of issues of sustainable tourism development. It is one of the 3 pillars of sustainable tourism and is reflected by the revenue at the destination, benefits at local level, involvement of locals, poor and women, use of local renewable resources etc. The level of economic consideration can be assessed with the following indicators:

Table 61: Baseline issues, indicators and tools for monitoring Economic consideration

Baseline Issue	Suggested Baseline Indicator(s)	Tools
Economic Benefits	Economic effects of Tourism on Communities	Business survey/ Household survey, FGD
	Ratio of locally owned tourism enterprise to outsider owned tourism enterprises	Business survey/Office record
	Number of local people (and ratio of men to women) employed in tourism	Business survey/Office records
	ratio of tourism employment to total employment	Household survey/record
	Revenues generated by tourism as % of total revenues generated in the community	Not feasible currently
	Contribution of tourism alongside other economic sectors.	Household survey
	Revenue distribution system in each village	FGD, Institution surveys
	Diversity and vitality of job base	Business survey/office records
	New products created in each village	Field Onservation, Institution surveys
	Number and variability in size of business	Business survey/office records
	Number and variability of industry types	Business survey/office records
	Variability of skill levels required for job	Business survey/office records
	Wages paid in the local economy	Business survey/office records
	% of local economy based on renewal local	Business survey/office records

	resources	
	Diversity and vitality of local jobs	Business survey/office records
	Number and variability of business types	Business survey/office records
	Variability of skills level required for job	Business survey/office records
	Money spend for local wages	Business survey/Visitor survey
	Money spend for local goods and products	Business survey/Visitor survey
	Per capita income and share distribution of income	
	Percentage of households reporting more off-farm employment opportunities (by gender)	
	Percentage of households reporting food deficits	

6. Environmental Consideration

Environmental consideration is the very important and neglected issues of sustainability. It is often related with the destination attraction. The consequences of negative environmental consideration not only affect the overall livelihood of the destination but also destroy the tourism itself. It is one of the 3 pillars of sustainable tourism and is reflected by the overall state of resource preservation, richness of bio-diversity, state of cultural richness, energy consumption pattern, sanitation and hygiene etc. The level of environmental consideration can be assessed with the following indicators:

Table 61: Baseline issues, indicators and tools for monitoring Environmental consideration

Baseline Issue	Suggested Baseline Indicator(s)	Tools
Environmental conservation	State of the environment, including water and air quality, etc.	Field observation, visitor survey and Focal Group discussion
	Visitor's attitudes to environment and other issues.	Visitor/Agency survey
	Presence of relevant environmental management processes	Visitor survey/Institutions survey
	Per capita consumption of energy from all sources (overall, and by tourist sector, per person day)	DDC/LNP/Secondary data
	Percentage of businesses participating in energy conservation programmes or applying energy saving policy and techniques	Business survey
	% of energy consumption from renewable resources (at destinations, establishments)	Institutions survey
	Percentage of tourism establishments with water treated to international potable standards.	Not feasible currently
	Frequency of water-borne diseases: number/percentage of visitors reporting water-	Visitor survey, Household

	borne illnesses during their stay	survey/Hospital/Health post records
	Current state of preservation,	Institutions survey/FGD
	% of business using toilet	Business survey
	% of business connecting toilet with septic tank	Business survey
	% of business using sewage water for kitchen garden	Business survey/FO
	% of business connecting sewage water to the drainage	Business survey/FO
	Percentage of sewage from site receiving treatment (to primary, secondary, tertiary levels)	Not feasible currently
	Percentage of tourism establishments (or accommodation) on treatment system(s)	Not feasible currently
	% of business separating garbage in to 3 decomposable, degradable, non-degradable	Business survey
	% of business using incinerator	Business survey
	Waste volume produced by the destination (tones by month)	Not feasible currently
	Volume of waste recycled (m3) / Total volume of waste (m3) (specify by different types)	Not feasible currently
	Quantity of waste strewn in public areas (garbage counts)	Field observation
	Use and generation of toxic materials	Not feasible currently
	% of products produced which are durable, repairable, or readily recyclable or compostable	Business survey, Household survey
	Total energy used from all sources	Household survey, Business survey, secondary data
	Ratio of renewable energy used at renewable rate compared to nonrenewable energy	FO/Business survey/Household survey
	% of household using ICS	Household survey
	Percentage of lodges using firewood, kerosene,	

	and electricity for lighting and cooking by season	
	Biophysical environment (number and frequency of landslides, the re-ceding of the tree lines, the re-ceding of glaciers, eutro-phication, drying up of springs and lake, changes in micro-climatic conditions)	

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Major Conclusions

Based on the research findings, following conclusion have been drawn regarding the sustainability of tourism in tamang Heritage Trail, Rasuwa

1. Strength of Tourism attraction

- The strength of tourism attraction in Tamang heritage Trail was found very strong.
- Tamang Culture was found as the prime tourism product complimented by the natural and historical attraction as an ancillary products.
- The research findings indicated the blend of cultural experiences and nature trekking as the composite motivation factor for the visitors.
- Majority of the visitors have rated THT as strongly potential destination. Tamang culture, tradition and customs have been rated as the prime attraction in THT.
- The presence of flora and fauna, an important motivation for the general trekkers in Nepal, seems relatively poor in THT.
- Besides strong tourism resources and hospitable people, the demands for THT was constrained by the insufficient information, accommodation and infrastructure, rescue/emergency facilities complimented by the poor security situation of the country.

2. Institutional strength

- Tourism in Tamang heritage Trail has been developed with the sound institutional set up from at micro-meso and macro level backed by legal provision.
- The awareness level of those institutions was also found very high. The local level capital generated by the institutions has become additional strength in THT.
- Though guided by STVF and STDF bylaws, the legal status of Community Organizations and Functional groups was found poor.
- The effectiveness and networking of Functional Groups was found relatively insufficient.

- The tourism related institutions in THT has been fully activated to perform backward and forward linkage. However, the forward linkage with NTB and private sectors such as travel agency, TAAN, NMA etc seems relatively poor in THT.
- Local tourism institutions have been involving in the planning and development of tourism activities through participatory approach. Still, the present resources and confidence level of those institutions seems relatively lower to continue the efforts.

3. Management and Control mechanism

- Management and control mechanism was found relatively very poor in THT.
- Nevertheless, it deserves high level of control mechanism for the participation of women and poor and participatory decision making.
- The social incentive in the form of grant for tourism infrastructure development, skill development training, flow of soft interest loan as venture capital fund (VCF), promotional support are found very strong in THT.
- It lacks proper zonation of area and analysis of carrying capacity for the sustainable use of resources and greater satisfaction of the visitors
- THT lacks the financial control on tourism business in THT
- Seasonality is very severe in THT. Short term strategy was not observed to reduce seasonality.

4. Social Considerations

- Tourism in THT has strongly addressed the socio-cultural aspects of tourism.
- The major strength lies on the improved awareness of community on the benefits and possible consequences tourism.
- The impact on socio-cultural assets seems very positive due to the increased awareness and the low ratio of host and guest. The state of culture is improving due to tourism in THT.
- The involvement of poor and women in tourism related works is very high.
- Tourism in THT has been the means to develop community infrastructure and

- Tourism has thrown multiplier effects especially on community education and agricultural activities.
- However the impacts on personal hygiene and sanitation seems still unsatisfactory.

5. Economic Considerations

- The overall consideration of economic aspects of tourism in THT was found very proactive and pro-community.
- Despite low volume of visitors and little economic benefits of tourism, the community people are very much optimistic with the future benefits of tourism in THT.
- The involvement of women and poor in tourism related economic activities was found very encouraging.
- Tourism has supported the livelihood of the rural community by creating some business and employment opportunities at local level;
- The leakage of tourism is comparatively very low with the maximum involvement of local people and use of local products.
- However, the average per day expenditure of visitor seems relatively very lower. Full exploitation of resources at THT is yet to be tapped to increase the stay and expenditure of the visitors.

6. Environmental Considerations

- The intervention of environment friendly energy devices and technology such as ICS, solar, micro hydro etc is in very positive trend.
- However, the use of improved sanitation, toilet and improved energy devices by general people (besides tourist business people) is very lower.
- The forest degradation in Chilime and Thuman has become critical environmental consideration in THT.
- The dependency on firewood for tourism related business by the businesspersons is very high. It could be the serious threat in the future.

- The practice of code of conducts for the visitors, businesspersons and the community is lacking I THT.

7. Setting Indicators of sustainability

THT was found as the best model of rural tourism development to establish and set indicators of sustainability for tourism development in rural context of Nepal. Various suitable and context based issues and indicators of sustainable tourism have been concluded and established from the study.

Overall conclusion of the research

Basen on the above-mentioned individual conclusion, the overall conclusion of the research is concluded as **‘Tourism in Tamang Heritage Trail has been initiated with the thorough consideration of all sustainability issues. However, more efforts have to be made to optimize the efficiency and to ensure the long-term sustainability’**

5.2 Major Recommendations

Following recommendations have been made based on the findings of the research and the conclusion made for the sustainability of tourism in Tamang Heritage Trail, Rasuwa.

1. Improving the strength of Tourism attraction

Following recommendations are made To make Tamang Heritage Trail a perfect destination:

- Accommodation facilities and services should be increased and improved especially at Goljung, Gatlang, Thuman and Dahalpedi.
- Information facilities should be improved through the destination. It includes telecommunication at Tatopani and Thuman, web site on THT, enough display of information at Information centre and adequate signpost and arrow post on the route.
- Cultural tourism package should be more refined and local guide should be more capable in interpreting the Tamang history, culture and lifestyle. Some local guidebook comprising all places and subjects of tourist attractions should be developed in local Tamang and English language.
- Local community centre should be managed as mini information centre cum museum.
- Private sectors and target market should be explored, encouraged and encouraged to experience the rich potentials and marketing
- Tamang cultural dance should be more refined, short, different (by places), fully interpreted and easily affordable (time and price).
- Sanjen area could be developed as wilderness trekking area to add the flavor of nature trekking for the interested visitors.

2. Improving the institutional strength

Following recommendations are made for the effective operation of tourism related institutions in THT:

- The legal status of COs and FGs should be improved. It could be registered as an independent institution under the Agency Registration Act.

- Functional Groups should be coached and trained to make more functional and professional in tourism promotion and marketing.
- More forward linkages with the private sectors such as travel agencies, TAAN, NMA etc for the effective marketing of the area.
- The managerial capacity of the local level institutions should be improved with sufficient training and exposures visits in success areas.
- District Development Committee through its wing i.e. District Tourism Coordination Committee and Sustainable Tourism Development Section should be more functional to tap and generate the resources for the continuity of the efforts.

3. Ensuring effective management and control mechanism

Following recommendation are made for adopting the best management and control mechanism at THT:

- Proper zonation should be carried out to optimize the long-term sustainability while satisfying the visitors. The suitable zone could be the following.
 - ❖ Special Anthropological zone for Gatlang, Goljung, Thuman, Briddim village
 - ❖ Special protection zone for Tatopani area
 - ❖ Wilderness area for Sanjen valley (Chilime), Dudh Kunda (Timure)
- The restriction on free trekking to Thuman and Timure area should be released as the infrastructure condition and awareness level of the area is improved now.
- The social incentive in the form of grant for tourism infrastructure development, skill development training, flow of soft interest loan as venture capital fund, promotional support should be continue by the DDC.
- Proper financial control on tourism business should be developed. It could be in the form of followings:
 - ❖ Hotel/lodge tax should be started by STDC at VDC level
 - ❖ Permit system should be started in Hot spring water for its long term management and conservation
 - ❖ Minimum standard of services and facilities should be set by the FGs and STDCs
 - ❖ Uniform and standard price/menu system should be developed and available.

- Code of conducts should be developed and imposed for Social, cultural and environmental consideration.

4. Ensuring the strong social considerations

Following recommendation are made for the socio-cultural consideration in THT:

- More emphasis should be given to improve sanitation, personal health and hygienic condition through awareness and coordinated efforts with District health Office.
- Still, emphasis should be given to improve education level of the community

5. Ensuring the viable economic considerations

Following recommendation are made for the economic consideration in THT

- Efforts should be initiated to reduced seasonality by increased tourist product and publicity/promotion
- Attention should be paid for maintaining uniformity in price and standard especially at Briddim Homestay
- Community should be mobilized to keep kitchen gardening, Mushroom, local foods
- Local culture and agriculture based rural tourism should be developed to minimize leakage
- The capital generated by the institutions at the local level should be utilized to operate small-scale tourism business.
- Appropriate short-term strategy should be adopted to reduce seasonality in THT. It could be the followings:
 - ❖ Promoting area as cultural learning spot for tourism and anthropology related colleges
 - ❖ Focusing winter season promotion while other trekking areas are covered with snow
 - ❖ Providing special cultural package as discount and free offer for some initial years
 - ❖ Promoting small scale meeting/convention tourism at Briddim and Gatlang
 - ❖ Promote aggressively the Hot spring water among the domestic markets

- ❖ Package and promote Gatlang, Tatopani and Briddim separately as very short holiday trek for Kathmandu based Diplomats and officials.

6. Ensuring the acceptable environmental considerations

Following recommendations are made for the best management environmental aspects in THT

- Community should be encouraged and facilitated to keep personal toilets and kitchen garden
- Efforts should be made to use more and new forms of alternative energy devices and technology such as low watt cooking stove, Solar Hot shower, ICS, Brigitte, back boiler, euro-guard, high altitude biogas etc to save environment and improve health while satisfying the visitors
- Attention should be paid to carry out plantation in Tatopani and Thuman area
- Community should be mobilized and facilitated to carry out sanitation programme on a regular basis
- Code of conducts should be developed for the visitors, business persons and the community

7. Setting user-friendly indicators for sustainability

Following recommendations are made for the setting and using user-friendly indicators of sustainability in THT:

- Following 6 basic issues of sustainability are recommended based on the study findings and the literature review:
 1. Strength of Tourism attraction
 2. Institutional strength
 3. Management and control mechanism
 4. Socio-cultural considerations
 5. Economic considerations
 6. Environmental considerations

- Recommendation is also made to keep and establish baseline information while designing the tourism project in any destination
- Recommendation is made to carryout regular and periodic record keeping for the followings
 - Tourist entry number
 - Firewood consumption pattern
 - Time taken to perform tasks by women and man
 - Investment in business and infrastructure
 - Profit made from the business
 - Number of trained manpower on particular subjects
 - Employment records
 - Information related to Human Development Index.

BIBLIOGRAPHY

1. Banskota K.; Upadhyaya M, 1989, *A Survey of Trekking Tourists in Langtang National Park*, Kathmandu, Nepal.
2. Banskota K.; Sharma B. 2000, *Village Tourism in Sirubari, Implication for Sustainability*, CREST/ ICIMOD, August 2000.
3. Banskota K.; Sharma B. 1995, *Tourism for Mountain Community Development: Case Study Report on the Annapurna and Gorkha Regions of Nepal*, 1995, MEI Discussion paper 95/11 -ICIMOD
4. Collier A., 1989, *Principle of Tourism*, New Zealand: Pitman Publishing/Longman Paul Limited.
5. DDC:TRPAP, Rasuwa, 2005, *Annual Progress Report 2005*, DDC:TRPAP Rasuwa, 2006
6. East, P., Luger, K., Inmann, K (eds.), *Sustainability in Mountain Tourism, Perspectives for the Himalayan Countries*, 1998, An Oeko Himal Publication
7. INDEL VII, 1978, *Tourism and Development in Nepal: Impact of trekking Tourism in Hill - Areas 1977*, Zurich: Swiss Federal Institute of Technology
8. SNV 2003, *Sustainable Tourism Development in Nepal, Vietnam and Lao PDR: Experiences of SNV and Partner Organizations*, SNV, 2003.
9. Kuwar, R. R. Phd, *Anthropology of Tourism- A Case study of Chitwan Sauraha*, 2002, Delhi: ADROIT PUBLISHRS.
10. Langtang National Park, 2001, *Langtang National Park Buffer Zone Management Plan, Rasuwa*: Langtang National Park/DNPWC 2001.
11. Leeland, N. *SNV and Sustainable Tourism Development Economic Benefits for Local Poor; Preceeding of a world –wide SNV tourism advisors workshop and field-visit, October 4-14, 1999*, Kathmandu, SNV Nepal 2000.
12. Mowfoth M. and Munt L., 1998, *Tourism and Sustainability: New Tourism in the Third World*, London: ROUTLEDGE.
13. IUCN/CDE 1999, *Mountain of the world: Tourism and Sustainable Mountain Development*, Mountain Agenda, Centre for Development and Environment (CDE), 1999, -IUCN Berne, Switzerland,

14. *Mountain Tourism for Local Community Development in Nepal, A Case Study of Syabrubesi, Langtang National Park, 1998*, MEI Discussion Paper 98/3 -ICIMOD
15. Nunez T. with epilogue by James L., 1989, "Touristic Studies in Anthropological Perspective" in Smith Valen L. (ed.) *Host and Guests, The Anthropology of Tourism, Second Edition*, Philadelphia: University of Pennsylvania Press.
16. Pokharel Nawaraj, 2006, *A Study on Firewood Consumption by Local Lodges, Teashops and Ordinary Households for Subsistence Living and Tourism Activities in Langtang Valley of Rasuwa District*, Kathmandu: TRPAP 2006.
17. Parker Tracey, 1993, "Nature Tourism in Nepal" in Lindberg K. and Hawkins D. E (eds.) *Ecotourism: A Guide for Planners and Managers*, North Bennington/Vermont: The Eco Tourism Society.
18. Pradhanang S.B.; *Tourists' Consumption pattern and Its economic Impact in Nepal*, Delhi: Adroit publishers, 2000.
19. Richards G. and Hall D., 2000, *Tourism and Sustainable Community development*, London: ROUTLEDGE.
20. Robinson, D.W. *Socio-cultural impacts of mountain tourism on Nepal's Sagarmatha (Everest) World heritage Site: Implications for sustainable tourism*, Switzerland; IUCN, 1992.-IUCN
21. Sedai, R. C., *Tourism Attractions of Rasuwa*, 2005, *Rasuwa Smarika*, Karmachari Milan Kendra, Rasuwa 2005.
22. Sharma P. (Ed.), 2000, *Tourism as Development, Case Studies from the Himalaya*, Himal Books.
23. Sharma P. *A Framework for Tourism carrying capacity Analysis*, 1995, Mountain Enterprise and Infrastructure (MEI) Discussion paper 95/1 –ICIMOD
24. Sharma, P. *Environment, Culture, Economy and Tourism,: Dilemas in the Hindu Kush Himalayas*, 1998, IMD 98/3-ICIMOD (www.icimod.org.sg)
25. Tourism Resource Consultants Ltd. New Zealand in association with the METCON Consultants Pvt. Ltd, Nepal, 2004, *South Asia Sub-Regional Economic Cooperation :Tourism Development Plan, Final report*, Asian Development Bank and South Asia Sub Regional Economic Cooperation (SASEC) Tourism Working Group.

26. Touch Ross Management Consultants in association with Environmental Resources Limited, The University of Sydney, METCON Consultants and New Era, 1989, *Nepal Tourism Development Programme: Draft final report*, main volume, 1989, Nepal: Asian Development Bank/Ministry of Tourism
27. Tourism for Rural Poverty Alleviation Programme, *Project Document*, UNDP/HMG/N, 2001.
28. TRPAP, 2005, *Tourism Resource Mapping Profile, Rasuwa district*, Kathmandu, TRPAP, 2005.
29. UNEP and ICLEI, 2003, *Tourism and Local Agenda 21: The role of Local Authorities in Sustainable Tourism*, UNEP.
30. UNEP/WTO, 2005, *Making Tourism More Sustainable: A Guide for Policy Managers*, Paris: UNEP/Division of Technology, Industry and Economics, and Madrid: WTO, 2005.

ANNEXES

ANNEX: 1
TOURIST ARRIVAL IN NEPAL (1962 TO 2004)

Year	Number	Growth rate	Index	Average length of stay
1962	6179	.....	100	.....
1970	45970	.....	744	.....
1974	89838	.....	1454	13.20
1978	156,123	.....	2527	11.84
1982	175,448	.....	2839	13.33
1986	223,331	.....	3614	11.16
1990	254,885	.....	4125	12.00
1991	292,995	15.0	4742	9.25
1992	334,353	14.1	5411	10.14
1993	293,567	-12.2	4751	11.94
1994	326,531	11.2	5285	10.00
1995	363,395	11.3	5881	11.27
1996	393,613	8.3	6370	13.50
1997	421,857	7.2	6827	10.49
1998	463,684	9.9	7504	10.76
1999	491504	6.0	7954	12.28
2000	463,646	-5.7	7504	11.88
2001	361,237	-22.1	5846	11.93
2002	275,468	-23.7	4458	7.92
2003	338,132	22.7	5472	9.60
2004	385,297	13.9	6236	13.51

Source: Nepal Tourism Statistics, MoCTCA/2004

ANNEX: 2

TOURIST ARRIVAL IN LANGTANG AREA (1978 – 2004)

Year	Number of visitors	Year	Number of visitors
1978	863	1992	9457
1980	4113	1993	9187
1981	4488	1994	8167
1982	4535	1995	8427
1983	4030	1996	7687
1984	4792	1997	8201
1985	4610	1998	10952
1986	5250	1999	10889
1987	6107	2000	12754
1988	8423	2001	13116
1989	8563	2002	8880
1990	7826	2003	6660
1991	9603	2004	6215

Source: PDTDMP/2002 and Langtang NP/2005

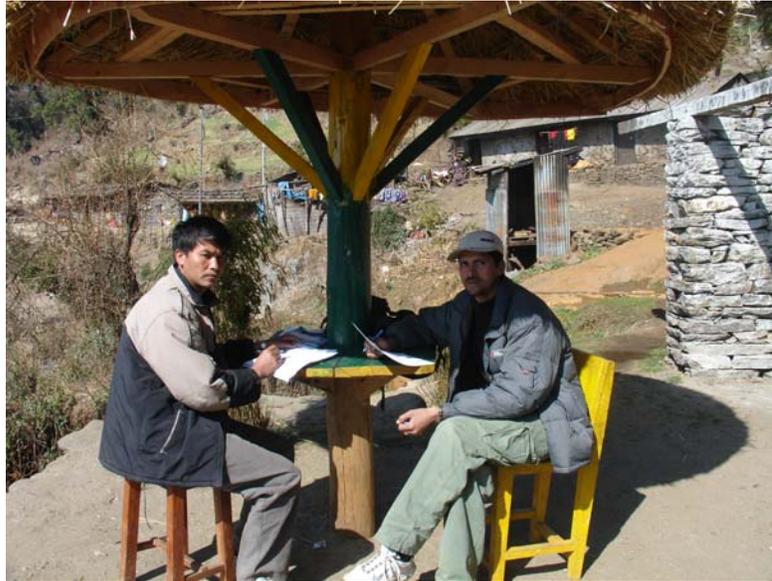
ANNEX: 3

FLOW OF VISITORS IN TAMANG HERITAGE TRAIL

Area	Tourist Category	Numbers of tourist in successive years				Total
		1 st year (2002)	2 nd year (2003)	3 rd year (2004)	4 th year (2005)	
District Level	Domestic	21000	22000	19000	30000	92000
	International	8880	6660	6215	5100+	26855
Briddim	Domestic	0	10	68	187	265
	International	5	15	35	91	146
Goljung	Domestic	25	45	75	111	256
	International	0	3	9	40	52
Gatlang	Domestic	10	35	68	135	248
	International	3	13	17	35	68
Tatopani	Domestic	1200	1400	1650	4000	8250
	International	20	35	55	187	297

Source: Annual Progress Report/DDC: TRPAP, 2005

ANNEX: 4
PHOTOGRAPHS DURING THE STUDY



Researcher carrying the Household survey at THT



Researcher participating at the Focal Group Discussion



Sanjen Himal as seen from Tatopani



Langtang as seen from Gatlang



Wilderness trek at the THT



Cultural Dance at Goljung



Rich Tamang Women at THT



Natural spring hot water at Chilime

ANNEX: 5

LISTS OF QUESTIONNAIRE

ANNEX: 5a
QUESTIONNAIRE FOR VISITORS SURVEY

A Research on
Assessing the Sustainability of Tourism in Rural Areas, A case study of Tamang
Heritage Trail, Rasuwa

Please kindly fill the blanks, tick the sign (✓) or assign the weightage accordingly on the followings:

1. Would you please kindly provide the information regarding you and your travel to Tamang Heritage Trail (THT):

- a. Your Name :
- b. Nationality :
- c. Age :
- d. Starting date of visit :
- e. Ending date of visit :
- f. Starting point of visit :
- g. Ending point of visit :
- h. Purpose of visit : 1.
2
3.....
4

2. How did you manage your accommodation during the visit at THT?

- a) At local hotel/lodge and Home-stay ()
- b) Organized camping trek ()
- c) Both ()

3. How do you rank the potentials of tourism in Tamang Heritage Trail?

- a) Very strong ()
- b) Strong ()
- c) Medium ()
- d) Poor ()

4. How do you assign the weightage for each of the following? Please assign the highest mark i.e. 5 for the strongest and 4, 3, 2 and 1 etc for respective:

- a) Tamang settlements and architect ()
- b) Tamang culture, tradition and customs ()
- d) Surrounding Mountain and landscape ()
- e) Natural resources (Forest and wildlife) ()
- g) Hot springs ()

5. How do you rate the information condition at Tamang Heritage Trail (THT)? Please kindly tick at the appropriate choices.

- a) Sufficient ()
- b) Fair ()
- c) Poor ()
- d) Very poor ()

6. How do you rate the following infrastructure facilities in THT? Please kindly tick at the appropriate choices.

Facilities	Sufficient	Moderate	Poor
a) Telecommunication	()	()	()
b) Trails	()	()	()
c) Road	()	()	()
d) Bridges	()	()	()
e) Resting places	()	()	()
f) Drinking water	()	()	()
g) Electricity	()	()	()
h) Rescue/Emergency	()	()	()

7. How do you rate the following infrastructure facilities in THT? Please kindly tick at the appropriate choices.

Facilities	Good and Sufficient	Fair	Poor and insufficient
a) Hotel/Lodge	()	()	()
b) Tea House	()	()	()
c) Home-Stay	()	()	()
d) Community Lodge	()	()	()
e) Camping sites	()	()	()

8. Would you mind mentioning the per day average expenditure on the followings during your visit at THT? (US\$1=Nepalese Rupees 70). Please kindly allocate your expenditure for the particular places as far as possible.

<u>Services/Facilities</u>	<u>Average expenditure (NRs)</u>					
	Goljung	Gatlang	Tatopani	Thuman	Timure	Briddim
Room	()	()	()	()	()	()
Bed	()	()	()	()	()	()
Breakfast	()	()	()	()	()	()
Tea	()	()	()	()	()	()
Coffee	()	()	()	()	()	()
Dal Bhat	()	()	()	()	()	()
Dal Bhat with meat	()	()	()	()	()	()
Alcohol/bottle	()	()	()	()	()	()
Cultural performance	()	()	()	()	()	()
Porter/Guides	()	()	()	()	()	()
Guides					
Local handicrafts					
Tips/Donation					

9. How do you rank the overall state of the environment in THT?

- a) Very balanced state ()
- b) Balanced state ()
- c) Deteriorating state ()
- d) Very deteriorative state ()

10. How do you judge the overall sanitation and waste management condition of THT?

- a) Well managed ()
- b) Managed ()
- c) Poorly managed ()
- d) Very poorly managed ()

11. How do you rank the overall state of culture conservation efforts in THT?

- a) Very improving state ()
- b) Improving state ()
- c) Normal state ()
- d) Degrading state ()

12. How do you rank the overall hospitality level of community at THT?

- a) Very hospitable ()
- b) Hospitable ()
- c) Poor hospitality ()

13. How do you express the overall experience of the visit in THT?

- a) Very satisfactory ()
- b) Satisfactory ()
- c) Not satisfactory ()

Thank You Very Much!!!

ANNEX: 5b

QUESTIONNAIRE FOR HOUSEHOLD SURVEY

ग्रामीण क्षेत्रमा पर्यटनको दिगोपना मुल्याङ्कन सम्बन्धी सोधपत्र
तामाङ सम्पदा मार्ग , रसुवा
घरधुरी सर्वेक्षण प्रश्नावली

गा.वि.स. : वडा नं. : टोल :
मिति :
सोधकर्ताको नाम :

१) घरमुलीको नामथर :

२) उमेर : वर्ष

३) लिङ्ग : महिला (), पुरुष ()

४) शिक्षा : साक्षर (), निरक्षर ()

५) तामाङ सम्पदा मार्गको बारेमा कततिको जानकारी छ ?

क) राम्रै जानकारी छ ()

ख) ठिक्क जानकारी छ ()

ग) जानकारी छैन ()

६) पर्यटनबाट हुने सम्भावित राम्रो र नराम्रो फाइदा बारे कततिको ज्ञान छ ?

क) ज्ञान छ ()

ख) ज्ञान छैन ()

ग) थाहा छैन ()

i

७) पर्यटन विकासको माध्यमबाट स्थानीय समुदायका लागि चाहिने पूर्वाधार (बाटो, घाटो, खानेपानी,...) विकासमा सघाउ पुऱ्याएको भन्नु हुन्छ ?

क) धेरै सहयोग पुऱ्याएको छ ()

ख) ठिक्क सहयोग पुऱ्याएको छ ()

ग) सहयोग पुऱ्याएको छैन ()

ढ) पर्यटन विकासका लागि तयार गरिएको तलका कुनकुन सेवाहरुले समुदायमा सहयोग पुऱ्याएको छ ?

क) खानेपानी ()

ख) बाटो ()

ग) टेलिफोन ()

घ) विश्रामस्थल ()

ङ) पुल ()

९) पर्यटन विकासबाट तलका ३ वटा पक्षमा कस्तो प्रभाव परेको छ ?

	राम्रो	ठिक्क	केहि पनि छैन	थाहा छैन
क) आर्थिक	()	()	()	()
ख) सामाजिक	()	()	()	()
ग) वातावरणमा	()	()	()	()

१०) तपाईंको घरमा रोजगारीको अवस्था कस्तो छ ?

	जम्मा	महिला	पुरुष
जम्मा रोजगारी	()	()	()
पर्यटनमा मात्र रोजगारी	()	()	()

११) तपाईंले पर्यटन विकासबाट तलका कुन कुन क्षेत्रमा फाइदा पाउनु भएको छ ?

क) शिक्षा क्षेत्रमा ()

- ख) कृषि क्षेत्रमा ()
- ग) पशुपालनमा ()
- घ) व्यापार व्यवसायमा ()
- १२) तपाईंले आफ्नो घरमा निम्न प्रविधि/ सेवासुविधाको प्रयोग गर्नुभएको छ ?
- क) शौचालय ()
- ख) सुधारिएको चुलो ()
- ग) विजुली वत्ती ()
- घ) सौर्य उर्जा ()
- ड) किचेन गार्डेन ()
- १३) पर्यटन शुरु भए पश्चात पाहुनालाई स्वागत सत्कार गर्ने कुरामा कस्तो परिवर्तन आएको छ ?
- क) राम्रो स्वागत सत्कार ()
- ख) ठिक्क ()
- ग) नराम्रो ()
- घ) थाहा छैन ()
- १४) पर्यटन शुरु भए पश्चात गाउँमा कागज, प्लाष्टिकजन्य फोहरको मात्रा कुन रूपमा बढेको छ ?
- क) बढिरहेको छ ()
- ख) पहिले जस्तै छ ()
- ग) उचित व्यवस्थापनबाट घटेको छ ()
- घ) थाहा छैन ()
- १५) पर्यटन विकासबाट तपाईंको गाउँ वरिपरिको जंगलमा कस्तो प्रभाव परेको छ ?
- क) जंगल नासिंदै ()

- ख) ठिकै छ ()
- ग) जंगल बढिरहेको छ ()
- १६) पर्यटकको विकास पश्चात स्थानीय कला, संस्कृति र सांस्कृतिक स्थलमा कस्तो प्रभाव परेको छ ?
- क) विकृती फैलिएको छ ()
- ख) केहि परिवर्तन आएको छैन ()
- ग) संरक्षणमा बृद्धि भएको छ ()
- १७) टिआरपिएपी समाप्ती पश्चात यस क्षेत्रको पर्यटक विकास स्थानीय समूह, समितिहरुले निरन्तर अगाडी बढाउने कुराम यहाँको विश्वास कस्तो छ ?
- क) निरन्तर रुपमा अगाडि बढ्नेछ ()
- ख) ठिकै रुपमा अगाडि बढ्नेछ ()
- ग) पर्यटन विकासमा विकृती आउनेछ ()
- घ) थाहा छैन ()

ANNEX: 5c

QUESTIONNAIRE FOR BUSINESS SURVEY

ग्रामीण क्षेत्रमा पर्यटनको दिगोपना मुल्याङ्कन सम्बन्धी सोधपत्र
तामाङ सम्पदा मार्ग , रसुवा
व्यवसायी सर्वेक्षणका लागि प्रश्नावली

गा.वि.स. : वडा नं. : टोल :
मिति :
सोधकर्ताको नाम :

-
- १) व्यवसायको नाम :.....
- २) व्यवसायी मुलीको नाम :.....
- ३) व्यवसायका मेनेजेरको नाम : श्री/श्रीमती/सुश्री
- ४) व्यवसायको स्थापना : २०६२/ /
- ५) व्यवसायको क्षमता
रुम संख्या :.....
बेड संख्या :
अन्यको हकमा :
- ६) कुल रोजगारी
जम्मा
महिला
पुरुष

७) व्यवसायको सञ्चालन अवधि कस्तो छ ? उपयुक्त समयमा ठिक चिन्ह (✓) लगाउनु होस ।

- क) वषैभरी ()
- ख) ९ महिना भन्दा बढि ()
- ग) ६ देखि ९ महिना मात्र ()
- घ) ३ देखि ६ महिना मात्र ()
- ङ) ३ महिना भन्दा कम ()
- ८) पर्यटकनबाट समुदायमा समेत फाइदा पुगेको छ कि छैन ?
- क) छैन ()
- ख) थोरै मात्रमा छ ()
- ग) ठिकक छ ()
- घ) धेरै राम्रो फाइदा पुगेको छ ()
- ९) व्यवसायमा कामको विविधता कस्तो छ ?
- क) एउटै मानिसले सबै काम गर्नुपर्छ ()
- ख) छुट्टाछुट्टै मानिसद्वारा छुट्टैछुट्टै काम गरिन्छ ()
- १०) पर्यटकलाई यस व्यवसायबाट दिइने सेवाहरु बताउनुहोस ।
- १)
- २)
- ३)
- ४)
- ११) व्यवसाय संचालनका लागि स्थानीय नविकरणीय स्रोतमा आधारित वस्तु तथा सेवाहरु के के हुन ?
- १२) व्यवसाय संचालनमा प्रयोगहुने मानव संशाधनका ज्याला कुन कुन स्तरमा पुग्छ ?
- क) आफ्नै घरपरिवारमा ()

ख) स्थानीय समुदायमा ()

ग) वाहिर ()

१३) तपाईंले संचालन गर्नु भएको व्यवसायको प्रकृति र अर्न्तसम्बन्ध कस्तो छ ?

क) पर्यटन व्यवसायमा मात्र आश्रित ()

ख) पर्यटन व्यवसायमा तथा खेतीपाति ()

ग) पर्यटन व्यवसाय, खेतीपाति तथा अन्य व्यवसाय ()

घ) पर्यटन व्यवसाय अन्य व्यवसाय ()

१४) व्यवसाय संचालनका लागि तलका वस्तु तथा सेवाहरुको आपूर्ति कसरी गर्नुहुन्छ ?

वस्तु तथा सेवा	स्थानीय	वाह्य बजार	दुवै
क) मानव संशाधन	()	()	()
ख) खाद्य पदार्थ (चामल, दाल,)	()	()	()
ग) तरकारी	()	()	()
घ) फलफुल	()	()	()
ङ) माछा मासु	()	()	()
च) दुध	()	()	()
छ) तेल घ्यू	()	()	()
ज) रक्सी	()	()	()
झ) वियर / ब्राण्डेड रक्सी	()	()	()
ञ) नुन / चिनी	()	()	()
ट) नुडल्स, विस्कुट	()	()	()

iii

१५) तपाईंको व्यवसायमा निम्न उर्जाहरुको प्रयोग हुन्छ कि हुँदैन ?

क) दाउरा ()

ख) मट्टितेल ()

- ग) ग्याँस ()
- घ) विजुली वत्ती ()
- ङ) सोलार घरायसी वत्ती ()
- च) सोलार हटसावर ()
- छ) गोवर गुइठा आदि ()
- ज) गोवर ग्यास ()
- १६) तपाईको घरमा निस्कने फोहरपानीको व्यवस्था कसरी गर्नु भएको छ ?
- क) किचेन गार्डेनमा प्रयोग गरिएको छ ()
- ख) सामुदायिक ढलमा जोडिएको छ ()
- ग) खाल्डोमा पठाइएको छ ()
- घ) केहि पनि छैन ()
- १७) घरमा उत्पादन भएको फोहरको व्यवस्थापन कसरी गर्ने गर्नुभएको छ ?
- क) कम्पोष्ट खाडल तयार गरी सडाउने ()
- ख) रविस विन/इन्सिनेरेटरमा जलाउने ()
- ग) सुरक्षित ठाउँमा एकै ठाउँमा जम्मा गर्ने ()
- घ) खेतवारीमा मलको रूपमा प्रयोग गर्ने ()
- ङ) केहि पनि नगर्ने ()

ANNEX: 5d

QUESTIONNAIRE FOR TOURISM RELATED INSTITUTIONS

ग्रामीण क्षेत्रमा पर्यटनको दिगोपना मुल्याङ्कन सम्बन्धी सोधपत्र

तामाङ सम्पदा मार्ग , रसुवा

सम्बद्ध संस्थाहरूका लागि प्रश्नावली

जिल्ला विकास समिति / लाङटाङ राष्ट्रिय निकुञ्ज

मिति :

सोधकर्ताको नाम :

-
- १) पर्यटन विकासको संस्थागत विकासका लागि कुन कुन तहमा कस्ता कस्ता संस्थागत संरचनाहरू तयार गरिएका छन् ?
 - २) दिगोपनाको सुनिश्चितताको लागि स्थापना गरिएका संस्थाहरूको कानूनी हैसियत कसरी स्थापित गरिएको छ ?
 - ३) पर्यटनको दिगो विकासका लागि आवश्यक पर्ने अग्रगामी तथा पृष्ठगामी सम्बन्ध (Backward forward linkage) का लागि के कस्ता पहलहरू भएका छन् ?
 - ४) भूमिको प्रकृति अनुसार प्रयोग गर्ने भू-उपयोग प्रणालीको सिद्धान्त पर्यटन विकासमा कतिको समावेश गरिएको छ ?

- ५) पर्यटन गन्तव्य र क्षेत्रको क्षमता (Carrying capacity) अनुसार पर्यटकको संख्या नियन्त्रित गर्ने कुनै योजनाहरु बनाइएका छन् ?
- ६) संस्कृति संरक्षणका लागि कुनै संस्थागत पहलहरु भएका छन् ? छन भने के के हुन् ।
- ७) वातावरण संरक्षणका लागि उर्जाको खपत तथा अन्य प्रविधिहरुका बारेमा के कस्ता प्रयासहरु भएका छन् ?
- ८) सांस्कृतिक सम्पदाको संरक्षण र जिर्णोद्धारका लागि के कस्ता प्रयासहरु भएका छन् ?
- ९) व्यापक पर्यटकीय सन्तुष्टी प्राप्त गर्न तथा समुदायका बहुसंख्यक सदस्यलाई फाइदा पुऱ्याउन पर्यटकलाई स्थानीय समुदायमा सहभागी गराउने के कस्ता उपायहरु अवलम्बन गरिएका छन् ?
१०. पर्यटकबाट प्राप्त भएको आम्दानीलाई समुदायका बहुसंख्याक सदस्यमाभू पुऱ्याउन के कस्ता वाँडफाँडका उपायहरु अवलम्बन गरिएका छन् ?
- ११) पर्यटकिय वसाई लम्ब्याउन, सन्तुष्टी बढाउन तथा स्थानीय पर्यटकीय वस्तुको उच्चतम उत्पादनका लागि के कस्ता नयाँ पर्यटकीय वस्तुहरु तयार गरिएका छन् ?

ANNEX: 5e

QUESTIONNAIRE FOR STDCs/BZUCs MEMBERS

ग्रामीण क्षेत्रमा पर्यटनको दिगोपना मुल्याङ्कन सम्बन्धी सोधपत्र
तामाङ सम्पदा मार्ग , रसुवा
गाविस स्तरिय समितिहरुको लागि प्रश्नावली

समितिको नाम :

गा.वि.स. स्थापना मिति

मिति :

सोधकर्ताको नाम :

१) निम्न कार्यहरु मध्ये समितिले कुन कुन कार्यहरु अगाडि बढाईरहेको छ ?

- | | |
|------------------------|-----|
| क) योजना तर्जुमा | () |
| ख) पूर्वाधार विकास | () |
| ग) सरसफाई | () |
| घ) जनचेतना जगाउने | () |
| ङ) वातावरण संरक्षण | () |
| च) संस्कृति संरक्षण | () |
| छ) पर्यटन सम्पदा विकास | () |
| ज) प्रचार प्रसार | () |

२) हालकै गतिमा पर्यटन सम्पदाको विकास गर्न विद्यमान स्रोत साधन र क्षमताको स्थिती कस्तो छ ?

- क) आफै सक्षम हुनेछौं ()
 ख) केहि समय अझै वाह्य सहयोग चाहिन्छ ()
 ग) निरन्तर वाहिरी सहयोग चाहिन्छ ()

३) निम्न बमोजिमका पर्यटन संग सम्बन्धित कार्यालय, सघसंस्थाहरु संगको सम्बन्धको स्थिती कस्तो छ । उपयुक्त ठाउँमा ठिक चिन्ह लगाउनु होस ।

कार्यालय /संघ-संस्था

सम्बन्ध

	बलियो सम्बन्ध स्थापित छ	सामान्य सम्बन्ध छ	सम्बन्ध स्थापित छैन
सामूदायिक संस्थाहरु	()	()	()
गा.वि.स	()	()	()
जिविस/दिगो पर्यटन शाखा	()	()	()
लाइटाइड राष्ट्रिय निकुञ्ज	()	()	()
नेपाल पर्यटन बोर्ड	()	()	()

४) वातावरण संरक्षणका लागि उर्जाको खपत तथा अन्य प्रविधिहरुका बारेमा के कस्ता प्रयासहरु भएका छन् ?

५) सांस्कृतिक सम्पदाको संरक्षण र जिर्णोद्धारका लागि के कस्ता प्रयासहरु भएका छन् ?

- ६) व्यापक पर्यटकीय सन्तुष्टी प्राप्त गर्न तथा समुदायका बहुसंख्यक सदस्यलाई फाइदा पुऱ्याउन पर्यटकलाई स्थानीय समुदायमा सहभागी गराउने के कस्ता उपायहरु अवलम्बन गरिएका छन् ?
- ७) पर्यटकबाट प्राप्त भएको आम्दानीलाई समुदायका बहुसंख्याक सदस्यमाभ पुऱ्याउन के कस्ता बाँडफाँडका उपायहरु अवलम्बन गरिएका छन् ?
- ८) पर्यटकिय वसाई लम्ब्याउन, सन्तुष्टी बढाउन तथा स्थानीय पर्यटकीय वस्तुको उच्चतम उत्पादनका लागि के कस्ता नयाँ पर्यटकीय वस्तुहरु तयार गरिएका छन् ?

ANNEX: 6

LISTS OF CHECKLISTS

ANNEX: 6a

CHECKLIST FOR FIELD OBSERVATION

1. Major religious sites
2. Major natural areas
3. Major mountain peaks
4. Major garbage conditions/counts
5. Infrastructure condition (trail, bridge, telecommunication, drinking water, resting places etc)
6. Tourism services (transportation)
7. Number and capacity of social services available to community
8. Land use and development planning
9. State of environment including water and air quality
10. The household and business that are using toilet
11. The household using Sewage for kitchen garden
12. The household connecting sewage water to drainage
13. Garbage count
14. New products created in each village

ANNEX: 6b
CHICKLISTS FOR FOCAL GROUP DISCUSSION

1. Level of people's participation
2. Current state of environment preservation
3. Culture preservation activities carried out by community
4. Awareness level of the community
5. Economic effects of tourism to community
6. Institutional strength
7. Level of hospitality offered to the visitors
8. Backward forward linkages
9. Level of efforts made to renovate cultural assets
10. Pattern of tourist participation
11. Revenue distribution system in each village

ANNEX: 6c
RECORDS TO BE TAKEN FROM THE OFFICES
(STDC/BZUC, DDC/TRPAP, LANGTANG NP)

1. Current visitor flows (number of visitor)
2. Tourist arrivals by month or quarter -distribution throughout the year)
3. Business establishments open all year
4. Tourist industry jobs which are permanent or full-year (compared to temporary jobs)
5. Number of institutions operated by legal provision
6. Number of women and man involving in those institutions
7. Effectiveness of the institutions (% of meeting conducted as per plan)
8. Number of members participating in decision making
9. Number of community who are trained and involved in tourism job locally
10. Number of community trained for jobs that are available in the local economy
11. Number of institutions formed for cultural conservations
12. Number of local people (and ratio of men to women) employed in tourism
13. Ratio of locally owned tourism enterprise to outsider owned tourism enterprises
14. Per capita consumption of energy from all sources (overall, and by tourist sector, per person day)
15. Current state of preservation,
16. Number of cultural group formed/VDC
17. Women Managers in Tourism enterprises number
18. New products created in each village
19. Number of settlement level organizations involved in regular meeting and community works
20. Number of settlement level organizations involved in regular saving and credit